

# MANLEY

*Powers the Winners*

2018



**DOMESTIC**  
***High Performance Engine Components***

8:00AM  
1/November/2017

**Car #:** Fifty-two years and still counting, our team at Manley Performance enters 2018 filled with passion, energy and excitement. Our mission has not altered. We remain focused on manufacturing the finest quality internal engine components at competitive prices while offering unparalleled customer service. This dedication, combined with our customers' thirst for speed, continues to motivate us each and every day. I'm extremely proud of the role Manley Performance plays in the automotive and marine aftermarket.

**Dial :** We relish the opportunity to serve the needs of our customers and I thank the fraternity of racers, engine builders, tuners and enthusiasts around the world for your past business and support of our products. I've witnessed significant changes in our industry during my career and despite today's arduous environment, Manley is constantly re-inventing itself and we are poised to tackle any challenges encountered.

**330 :**

**1/8 :** For the first time, we made the decision to separate our "domestic" components catalog from our "sport compact" book in an effort to keep the page count at a reasonable number. The goal is to provide our customers with the most "user-friendly" and easy to read catalog possible so that they can quickly and efficiently navigate through while choosing the correct products for their engine.

**1000:**

**1/4 :**

**MPH:** A few new highlights include:

- Chevy LS and LT1 spring kits
- Ford 2.3L Ecoboost valves
- 7mm and 5/16" stem shelf stock titanium valves for Sprint Car applications
- 5.3L Chevy LS, Ford Shelby GT500 and our new line of Turbo Tuff designed pistons
- Ford 4.6L stock stroke and stroker cranks and rotating assemblies

Enjoy!  
TRIP MANLEY

ALS SUNOCO



# MANLEY®

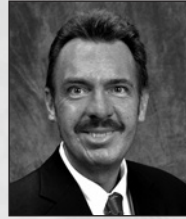
## MANAGEMENT TEAM



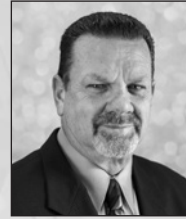
**Hank Manley**  
President



**Trip Manley**  
Vice President



**Michael Tokarchik**  
General Manager



**Pete Coleman**  
Manufacturing Manager



**Gil Morejon**  
Chief Financial Officer

## OFFICE & SALES STAFF



**Kari McNair**  
Purchasing Manager



**Randy Longstreet**  
Product Manager



**Frank TenBroeck**  
Project Manager



**Ryan Sammond**  
Project Manager



**Julie Morejon**  
Accounts Receivable



**Erin Simons**  
Accounts Receivable



**Paul Sorli**  
Sales Representative  
Drag Race Coordinator



**Pride Conner**  
Sales / Tech  
Representative



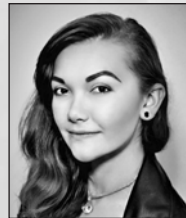
**Jesse Vazquez**  
Sales / Tech  
Representative



**Kiara Tuminelli**  
Sales / Tech  
Representative



**Johnny Cilia**  
Sales / Tech  
Representative



**Sarajane Sheare**  
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**Pat Jackson**  
Manager  
Manley West



**Kevin Lorentzen**  
Sales / Tech  
Manley West

## REGIONAL SALES MANAGERS



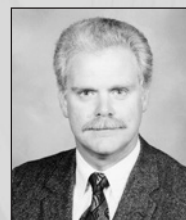
**Tom Razzano**  
East Coast



**Lee Hamilton**  
Mid-Central



**Cory Riley**  
Northwest



**Bob Schmalz**  
North Central



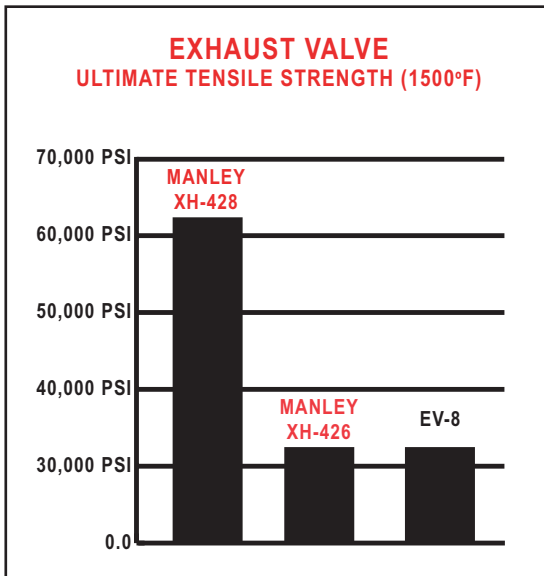
**Gary Mecklenburg**  
Southwest

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# STAINLESS VALVES

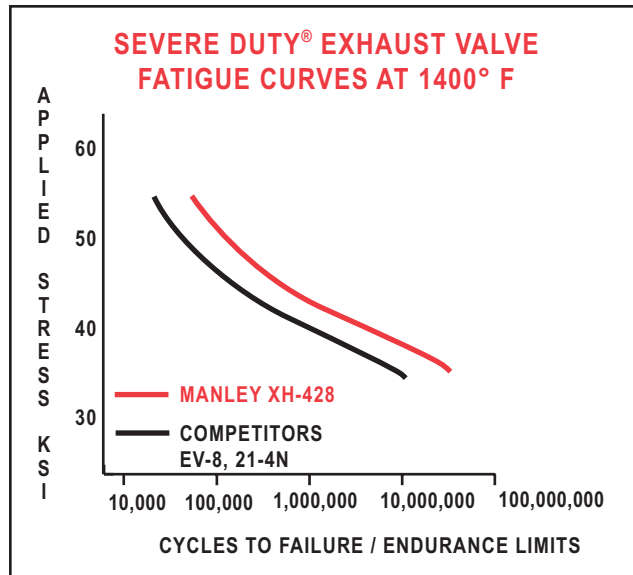
Manley Performance is universally acknowledged as the leading manufacturer of performance and racing valves in the world.

The reason for Manley's overwhelming success is simple: **QUALITY**. We offer the best materials in the industry - exclusive materials our competitors do not possess. Our stems are hard coated with .0002" thick chrome rather than a few millionths of flash. Our hard tips are superior to competitors' puddled stellite which can crack and erode off the stem. Our valve head and underhead shapes have been in the forefront of the quest for improved flow since the late 1960's. And always each Manley valve has been price targeted to specific markets to ensure the best possible value to the customer.



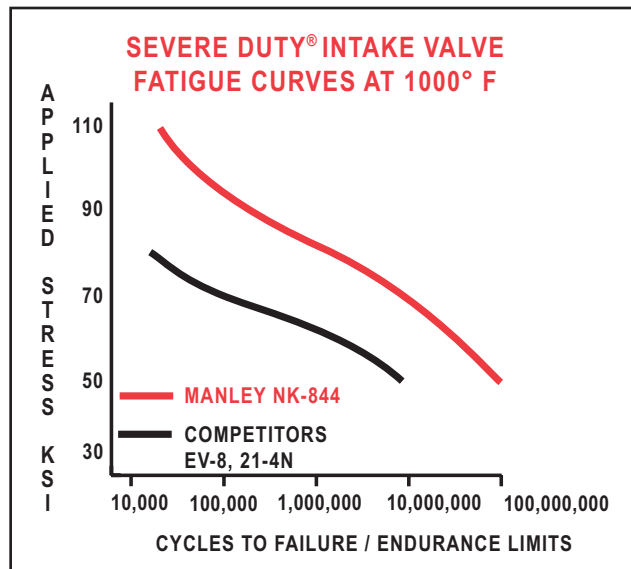
## PERFORMANCE & STREET SERIES VALVES

Designed for the enthusiast preparing a stock or mildly modified street engine, or a bracket racer seeking maximum value for his dollar, the Performance or Street Series valves are the perfect choice. These dependable valves are also offered in Street Flo versions providing significant flow gains without head porting. All valves in both these series feature chrome stems, hard tips, swirl polished underhead areas, and fully machined combustion faces.



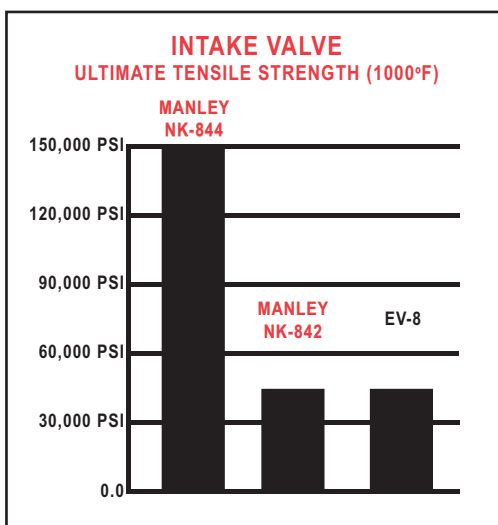
## RACE MASTER VALVES

Race Master, and the Pro Flo versions identified as Race Flo valves, are manufactured of XH-426 material for the exhausts and NK-842 for the intakes. This series of valves is targeted at the bracket, drag and oval track racers operating below 8000 rpm - above which engine speed titanium valves are generally required. Any engine builder successfully using EV-8 alloy ( 21-4N ) valves will find in this series of Manley valves a superior piece at a most attractive price. The Ultimate Tensile Strength charts on this page and the next, show the Manley Race Series to be equal to the best that the competitors have to offer.



## SEVERE DUTY® VALVES

The Severe Duty® series of valves is the Manley signature in the performance and racing industry. Exhaust material XH-428 and intake material NK-844 is offered by no competitor in the world. And no pair of materials show such clear dominance over all others. Ultimate tensile strength of XH-428 at 1500°F is nearly double the competitors' EV-8. At 1000°F the Manley NK-844 displays more than four times the ultimate tensile of the competition's best intake material.

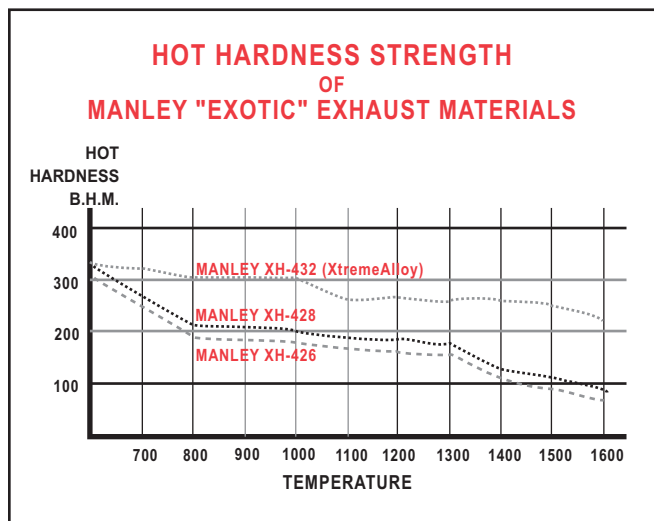


Further proof of the superiority of the Manley Severe Duty® valves is evident in our comprehensive fatigue tests. In normal operation where valve float is non-existent, a valve will experience 20,000 to 25,000 lbs of applied stress. However, when valves bounce on the seat the stress immediately soars to 40,000 to 60,000 lbs. Manley exhaust valves (at 40,000 psi and 1400°F) ran to 100,000,000 (one hundred million) cycles while competitors' offerings failed at 100,000 cycles. That's 1000 times better fatigue life.

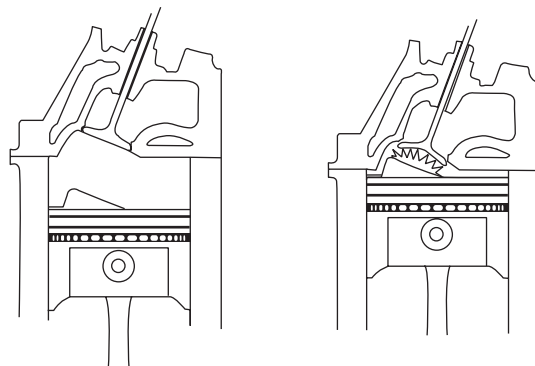
## EXTREME DUTY VALVES

Top Fuel and Funny Car drag racers, Big Block Chevy marine enthusiasts, and Small Block Chevy restricted carburetor circle track competitors will all benefit by the use of XtremeAlloy exhaust valves. Exotic steel is required simply because of the enormous heat imposed on the exhaust valves in these applications.

The accompanying graph illustrates the complete superiority of our "exotic" steels over our own XH-428 as well as competitor's EV-8.



In addition to the vastly superior strength and fatigue characteristics of Manley NK-844, our exclusive intake material exhibits an uncanny ability to resist chordal fractures. In an excellent sealing combustion chamber, the intake valve is actually deformed by the fuel explosion and pushed up into the port. The effect of this continuous deformation on competitors' material eventually is a chordal fracture propagating from the circumference of the valve and quickly becoming a missing pie-shaped piece. Manley NK-844 is the absolute best choice of material to combat disastrous chordal fractures.



The illustration above shows an intake valve seated in the head with normal shape. The right illustration shows the valve being deformed under high combustion pressure.

# STAINLESS VALVES

VALVES

## A Manley Valve For Every Application

Choose from one of five series of stainless valves

### PERFORMANCE SERIES

- ▶ Stainless Steel (XH-422 Exhaust and NK-840 Intake)
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Stock and .100" Longer Lengths Available



### STREET SERIES

- ▶ Stainless Steel (XH-424 Exhaust and NK-841 Intake)
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Street Master (Straight Stem) and Street Flo Shapes Available



### RACE SERIES

- ▶ Stainless Steel (XH-426 Exhaust and NK-842 Intake)
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Race Master (Straight Stem) and Race Flo Shapes Available
- ▶ Recommended Exhaust Valves for Alcohol Engines



### SEVERE DUTY® SERIES

- ▶ Superior Stainless for High Temperature Gasoline Engines
- ▶ Exhaust Material XH-428 with Double the Ultimate Tensile Strength (at 1500°F) over the competition
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Intake Material NK-844 with 1000 Times Better Fatigue Strength than competitors' offerings

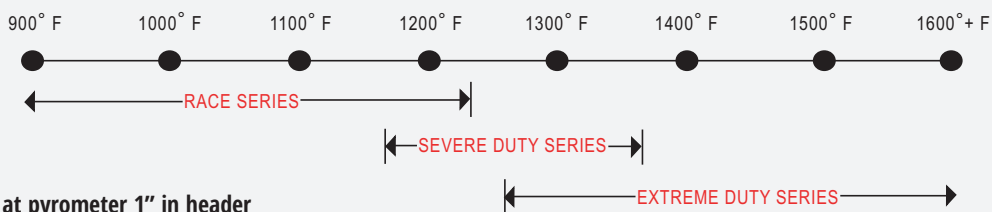


### EXTREME DUTY SERIES

- ▶ Top Fuel, Funny Car and Marine Engine Exhaust Valves
- ▶ More Hot Hardness and High Temperature Strength than any competitive offerings
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ XH-432 XtremeAlloy



### EXHAUST VALVE TEMPERATURE RANGE CHART



## The "Pro Flo" Shape

A Manley Original

- ▶ Up to 40% flow increase in small port OE style cylinder heads
- ▶ Proven performance improvement on the flow bench

Test for: Hot Rod Magazine  
 Tests performed by: Edelbrock  
 Type of cylinder head: 1969 Camaro

AMOUNT OF NET VALVE LIFT	INTAKE IMPROVEMENT IN FLOW	EXHAUST IMPROVEMENT IN FLOW
.150"	42%	93%
.200"	37%	27%
.250"	25%	23%
.300"	12%	22%
.350"	7%	19%
.400"	5%	14%



Available in Three Series of Valves

Series	"Pro Flo" Designation
Street	Street Flo
Race	Race Flo
Severe Duty	Pro Flo

## Stainless Steel & Titanium Valve Buyers Guide

Valve Type	Replacement and Mild Street Performance	Engine Builders Using EV-8 High Perf Street Bracket Racers Oval Track Sportsman Racers	Naturally Aspirated Alcohol Burning Engines	Drag Racing Over 8000 RPM	Offshore Powerboat and Hi Performance Marine	Sprint Car Dirt Late Model
Performance Series	Acceptable					
Street Series	Preferred					
Race Series	Extra Insurance	Acceptable	Preferred Exhaust When Titanium is Not Allowed		Not Recommended	
Severe Duty®		Preferred	Preferred Intake When Titanium is Not Allowed		Required Intake	
Extreme Duty		Preferred with Restricted Carburetor		Top Fuel Funny Car Exhaust Only	Required Exhaust	
Titanium			Preferred	Required Other Than Top Fuel or Funny Car	Race Only	Required



# STAINLESS VALVES

VALVES

## LS-1 / LS-2 (LS-6 Head) Small Block Chevy

### Race Flo / Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Intakes are "Pro Flo" for Improved Flow
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished and Machined
- ▶ O.E. Style Radius Keeper Grooves



Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11361-8	Exh.	1.550	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	87
11363-8	Exh.	1.575	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	89
11365-8	Exh.	1.600	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	91
11360-8	Int.	2.000	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	103
11360H-8	Int.	2.000	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	91
			Hollow Stem								
11362-8	Int.	2.020	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	105
11362H-8	Int.	2.020	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	93
			Hollow Stem								
11390-8	Int.	2.055	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	106
11390H-8	Int.	2.055	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	94
			Hollow Stem								
11398-8	Int.	2.080	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	107
11398H-8	Int.	2.080	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	95
			Hollow Stem								
11350-8	Int.	2.100	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	109
11350H-8	Int.	2.100	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	97
			Hollow Stem								

### Severe Duty / Pro Flo Valves

- ▶ XH-428 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Intakes are "Pro Flo" for Improved Flow
- ▶ NK-844 Stainless Intake Material
- ▶ Swirl Polished and Machined
- ▶ O.E. Style Radius Keeper Grooves

Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11673-8	Exh.	1.550	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	88
11675-8	Exh.	1.575	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	90
11677-8	Exh.	1.600	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	92
11680-8	Int.	2.055	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	107
11680H-8	Int.	2.055	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	95
			Hollow Stem								
11682-8	Int.	2.080	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	108
11682H-8	Int.	2.080	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	96
			Hollow Stem								
11684-8	Int.	2.100	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	110
11684H-8	Int.	2.100	.3133	Stock	4.874	.175	Pro Flo: 12° x 3/8"	.050	.095	7° Dish	98
			Hollow Stem								

### Extreme Duty Exhaust Valves

- ▶ XH-432 XtremeAlloy Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Machined
- ▶ O.E. Style Radius Keeper Grooves

Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11681-8	Exh.	1.575	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	95
11683-8	Exh.	1.600	.3136	Stock	4.923	.175	25° x 7/16"	.065	.115	18° Dish	97

## LS-3 / L-99 (L-92 Head) Small Block Chevy

### Race Flo / Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Intakes are "Pro Flo" for Improved Flow
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished and Machined
- ▶ O.E. Style Radius Keeper Grooves



Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>11621-8</b>	Exh.	1.590	.3136	Stock	4.923	.160	25° x 7/16"	.070	.115	18° Dish	93
<b>12353-8</b>	Exh.	1.600	.3136	.300 Longer	5.215	.160	25° x 7/16"	.065	.115	18° Dish	95
<b>11620-8</b>	Int.	2.165	.3133	Stock	4.900	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	117
<b>11620H-8</b>	Int.	2.165	.3133	Stock	4.900	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	108
			Hollow Stem								
<b>12350-8</b>	Int.	2.165	.3133	.300 Longer	5.200	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	119
<b>12350H-8</b>	Int.	2.165	.3133	.300 Longer	5.200	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	110
			Hollow Stem								

### Severe Duty / Pro Flo Valves

- ▶ XH-428 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Intakes are "Pro Flo" for Improved Flow
- ▶ NK-844 Stainless Intake Material
- ▶ Swirl Polished and Machined
- ▶ O.E. Style Radius Keeper Grooves

Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>11661-8</b>	Exh.	1.590	.3136	Stock	4.923	.160	25° x 7/16"	.070	.115	18° Dish	94
<b>12355-8</b>	Exh.	1.600	.3136	.300 Longer	5.215	.160	25° x 7/16"	.065	.115	18° Dish	96
<b>11686-8</b>	Int.	2.165	.3133	Stock	4.900	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	118
<b>11686H-8</b>	Int.	2.165	.3133	Stock	4.900	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	109
			Hollow Stem								
<b>12354-8</b>	Int.	2.165	.3133	.300 Longer	5.200	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	120
<b>12354H-8</b>	Int.	2.165	.3133	.300 Longer	5.200	.160	Pro Flo: 12° x 3/8"	.055	.100	7° Dish	111
			Hollow Stem								

### Extreme Duty Exhaust Valves

- ▶ XH-432 XtremeAlloy Material
- ▶ Swirl Polished and Machined
- ▶ Chrome Stems and Hard Tips
- ▶ O.E. Style Radius Keeper Grooves

Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>11685-8</b>	Exh.	1.590	.3136	Stock	4.923	.160	25° x 7/16"	.070	.115	18° Dish	94
<b>12357-8</b>	Exh.	1.600	.3136	.300 Longer	5.215	.160	25° x 7/16"	.065	.115	18° Dish	96

Note: New part numbers are **BOLD & ITALICIZED**

# STAINLESS VALVES

VALVES

## LS-7 Small Block Chevy

### Severe Duty / Pro Flo / Race Master Valves

- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Machined
- ▶ Intakes are "Pro Flo" for Improved Flow
- ▶ O.E. Style Radius Keeper Grooves



Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>RACE MASTER</b>											
11689-8	Exh.	1.615	.3136	Stock	5.230	.290	25° x 7/16"	.075	.100	18° Dish	98
<b>SEVERE DUTY / PRO FLO VALVES</b>											
11679-8	Exh.	1.615	.3136	Stock	5.230	.290	25° x 7/16"	.075	.100	18° Dish	103
11688-8	Int.	2.205	.3133	Stock	5.200	.300	Pro Flo: 12° x 3/8"	.050	.100	7° Dish	120
11688H-8	Int.	2.205	.3133	Stock	5.200	.300	Pro Flo: 12° x 3/8"	.050	.100	7° Dish	110
Hollow Stem											

### Extreme Duty Exhaust Valves

- ▶ XH-432 XtremeAlloy Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Machined
- ▶ O.E. Style Radius Keeper Grooves

Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11687-8	Exh.	1.615	.3136	Stock	5.230	.290	25° x 7/16"	.075	.100	18° Dish	103

## Trick Flow Specialties (TFS) Chevy LS Cylinder Heads and Valve Application Chart

TFS Head	Int. Head Diam.	Manley Intake P/N's		Exh Head Diam.	Manley Exhaust P/N's		
		Race Series	Severe Duty		Race Series	Severe Duty	Xtreme Duty
LS1 205	2.000"	11360, 11360H	-----	1.575"	11363	11675	11681
LS1 215, 220	2.040"	Custom from Gen II	Custom from Gen II	1.575"	11363	11675	11681
LS 225, LS2 220	2.055"	11390, 11390H	11680, 11680H	1.575"	11363	11675	11681
LS 235	2.080"	11398, 11398H	11682, 11682H	1.600"	11365	11677	11683
LS 245	2.100"	11350, 11350H	11684, 11684H	1.600"	11365	11677	11683
LS3	2.165"	12350, 12350H	12354, 12354H	1.600"	12353	12355	12357
LS7	2.200"	-----	11688, 11688H	1.600"	12353	12355	12357

In the case where multiple part numbers options exist, choose from either our Race Series, Severe Duty or Xtreme Duty material depending on your application.

Note: "H" suffix indicates hollow stem

## LT1 6.2L Small Block Chevy 2014-Up

### Race Flo / Race Master & Pro Flo / Severe Duty Valves

- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Machined
- ▶ Intakes are "Pro Flo" for Improved Flow
- ▶ O.E. Style Radius Keeper Grooves



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>RACE FLO / RACE MASTER VALVES</b>											
12345-8	Exh.	1.590	.3136	Stock	5.205	.160	25° x 7/16"	.075	.100	18° Dish	97
12348-8*	Int.	2.120	.3133	Stock	5.253	.170	Pro Flo 12° x 3/8"	.050	.070	7° Dish	124
<b>PRO FLO / SEVERE DUTY</b>											
12347-8	Exh.	1.590	.3136	Stock	5.205	.160	25° x 7/16"	.075	.100	18° Dish	97
12352-8*	Int.	2.120	.3133	Stock	5.253	.170	Pro Flo 12° x 3/8"	.050	.070	7° Dish	124

\* Valves 12348 and 12352 have a back cut of .075" x 30°

### Extreme Duty Exhaust Valves

- ▶ XH-432 XtremeAlloy Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Machined
- ▶ O.E. Style Radius Keeper Grooves

Part No.	Type	Head Diam.	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
12349-8	Exh.	1.590	.3136	Stock	5.205	.160	25° x 7/16"	.075	.100	18° Dish	102

## Small Block Chevrolet

### Budget Replacement Valves

- ▶ XH-422 Stainless Exhaust Material
- ▶ NK-840 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Original Underhead Shapes and Finishes



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
10077-8	Exh.	1.500	.3415	Stock	4.920	.290	0° x 11/32"	.100	.150	Dimple	106
10649-8	Exh.	1.600	.3415	Stock	4.910	.290	0° x 1/2"	.070	.150	Dimple	105
10476-8	Int.	1.940	.3415	Stock	4.880	.250	10° x 3/8"	.065	.125	Dimple	116
10650-8	Int.	2.020	.3415	Stock	4.880	.260	10° x 3/8"	.060	.120	Flat Face	117

### Budget Performance Valves

- ▶ XH-422 Stainless Exhaust Material
- ▶ NK-840 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
10577-8	Exh.	1.500	.3415	Stock	4.911	.250	15° x 1/2"	.060	.100	10° Dish	96
10549-8	Exh.	1.600	.3415	Stock	4.911	.250	15° x 1/2"	.060	.100	10° Dish	101
10551-8	Exh.	1.600	.3415	.100 Longer	5.011	.250	15° x 1/2"	.060	.100	10° Dish	103
10548-8	Int.	1.900	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	105
10576-8	Int.	1.940	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	105
10550-8	Int.	2.020	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	109
10552-8	Int.	2.020	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	6° Dish	111
10554-8	Int.	2.055	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	110
10556-8	Int.	2.055	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	6° Dish	112

# STAINLESS VALVES

VALVES

## Small Block Chevrolet

### Street Flo Valves

- ▶ XH-424 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Increased Flow with "Pro Flo" Underhead
- ▶ NK-841 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
10721-8	Exh.	1.500	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	89
10705-8	Exh.	1.500	.3415	.100 Longer	5.035	.290	Pro Flo: 15° x 1/2"	.060	.100	9° Dish	93
10765-8	Exh.	1.600	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	94
10745-8	Exh.	1.600	.3415	.100 Longer	5.065	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	95
10755-8	Exh.	1.600	.3415	.200 Longer	5.165	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	96
10797-8	Exh.	1.625	.3415	.100 Longer	5.065	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	98
10722-8	Int.	1.940	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	107
10724-8	Int.	1.940	.3415	.100 Longer	5.025	.290	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	108
10764-8	Int.	2.000	.3415	Stock	4.911	.250	Pro Flo: 10° x 3/8"	.050	.080	6° Dish	108
10766-8	Int.	2.020	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	109
10796-8	Int.	2.020	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	115
10798-8	Int.	2.020	.3415	.200 Longer	5.125	.290	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	116
10768-8	Int.	2.055	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	115
10746-8	Int.	2.055	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	116
10760-8	Int.	2.080	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	117
10762-8	Int.	2.080	.3415	.200 Longer	5.140	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	118
10770-8	Int.	2.100	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	118

The 10764 will work on the new Chevy Vortec Bowtie cylinder head casting numbers 25534351C and 25534371C.

## Small Block Chevrolet

### Street Master Valves

- ▶ XH-424 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Straight Stems
- ▶ NK-841 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
10777-8	Exh.	1.500	.3415	Stock	4.911	.250	15° x 1/2"	.060	.100	10° Dish	96
10747-8	Exh.	1.560	.3415	Stock	4.911	.250	15° x 1/2"	.060	.100	10° Dish	99
10749-8	Exh.	1.600	.3415	Stock	4.911	.250	15° x 1/2"	.060	.100	10° Dish	101
10751-8	Exh.	1.600	.3415	.100 Longer	5.011	.250	15° x 1/2"	.060	.100	10° Dish	103
10776-8	Int.	1.940	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	105
10750-8	Int.	2.020	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	109
10752-8	Int.	2.020	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	6° Dish	111
10754-8	Int.	2.055	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	110
10756-8	Int.	2.055	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	6° Dish	112

The 10747 will work on the new Chevy Vortec Bowtie cylinder head casting numbers 25534351C and 25534371C.

## Small Block Chevrolet

AFR 180cc, 190cc, 195cc, 210cc, 220cc, 227cc,  
235cc, 245cc Series Cylinder Heads

Race Flo / Race Master & Pro Flo / Severe Duty Valves

▶ Lightweight 8mm stems

▶ LS (.060" single radius) style keeper grooves

Use Manley valve lock P/N 13098-16 (7°) or 13153-16 (10°) depending on your spring/retainer choice.

Manley stem sizes are .3136" (exh.) and .3133" (int.) respectively. AFR heads have guides sized to .3147" (nominal). Manley strongly recommends that all guides be checked and correctly sized (machine work required) for the Manley valve stem sizes listed to achieve the proper clearances.

We can also build any of these exhaust valves from our Extreme Duty valve P/N 11275, found on page 40.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>RACE FLO / RACE MASTER VALVES</b>											
12301-8	Exh.	1.600	.3136	Stock	4.950	.260	25° x 7/16"	.070	.100	18° Dish	94
12303-8	Exh.	1.600	.3136	.100 Longer	5.050	.260	25° x 7/16"	.070	.100	18° Dish	95
12300-8	Int.	2.020	.3133	Stock	4.935	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	108
12302-8	Int.	2.020	.3133	.100 Longer	5.035	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	110
12304-8	Int.	2.050	.3133	Stock	4.935	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	112
12306-8	Int.	2.050	.3133	.100 Longer	5.035	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	112
12308-8	Int.	2.080	.3133	Stock	4.935	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	113
12310-8	Int.	2.080	.3133	.100 Longer	5.035	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	114
12312-8	Int.	2.100	.3133	.100 Longer	5.035	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	115
<b>PRO FLO / SEVERE DUTY VALVES</b>											
12335-8	Exh.	1.600	.3136	Stock	4.950	.260	25° x 7/16"	.070	.100	18° Dish	94
12337-8	Exh.	1.600	.3136	.100 Longer	5.050	.260	25° x 7/16"	.070	.100	18° Dish	95
12334-8	Int.	2.080	.3133	Stock	4.935	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	113
12336-8	Int.	2.080	.3133	.100 Longer	5.035	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	114
12338-8	Int.	2.100	.3133	.100 Longer	5.035	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	115
12346-8	Int.	2.125	.3133	.100 Longer	5.035	.260	Pro Flo 12° x 3/8"	.055	.100	7° Dish	117

## Small Block Chevrolet

Race Master Valves 5/16" (.311") Stem

▶ No Need for Inserted Tips or Wear Caps

▶ Chrome Stems and Hard Tips

▶ Swirl Polished and Fully Machined

▶ Thin Stem for Increased Flow and Light Weight

These .311" stem valves are ONLY available with Bead Loc® keeper grooves. Bead Loc® valve locks are REQUIRED.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11305-8	Exh.	1.600	.3110	.100 Longer	5.040	.290	15° x 1/2"	.080	.100	9° Dish	94
11319-8	Exh.	1.600	.3110	.200 Longer	5.140	.290	15° x 1/2"	.080	.100	9° Dish	95
11335-8	Exh.	1.600	.3110	.300 Longer	5.240	.290	15° x 1/2"	.080	.100	9° Dish	96
11341-8	Exh.	1.600	.3110	.600 Longer	5.540	.290	15° x 1/2"	.080	.100	9° Dish	99
11343-8	Exh.	1.600	.3110	.700 Longer	5.640	.290	15° x 1/2"	.080	.100	9° Dish	100
11303-8	Exh.	1.625	.3110	.100 Longer	5.040	.290	15° x 1/2"	.080	.100	9° Dish	97
11345-8	Exh.	1.625	.3110	.300 Longer	5.240	.290	15° x 1/2"	.080	.100	9° Dish	99
11347-8	Exh.	1.625	.3110	.600 Longer	5.540	.290	15° x 1/2"	.080	.100	9° Dish	102
11349-8	Exh.	1.625	.3110	.700 Longer	5.640	.290	15° x 1/2"	.080	.100	9° Dish	103
11302-8	Int.	1.940	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	105
11304-8	Int.	2.020	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	108
11306-8	Int.	2.055	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	110
11704-8	Int.	2.055	.3110	.200 Longer	5.110	.290	10° x 3/8"	.050	.080	5° Dish	112
11706-8	Int.	2.080	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	112
11708-8	Int.	2.080	.3110	.200 Longer	5.110	.290	10° x 3/8"	.050	.080	5° Dish	113
12314-8	Int.	2.100	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	114
12316-8	Int.	2.100	.3110	.200 Longer	5.110	.290	10° x 3/8"	.050	.080	5° Dish	115
12318-8	Int.	2.125	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	116
12320-8	Int.	2.125	.3110	.200 Longer	5.110	.290	10° x 3/8"	.050	.080	5° Dish	117
12322-8	Int.	2.180	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	119
12324-8	Int.	2.180	.3110	.200 Longer	5.110	.290	10° x 3/8"	.050	.080	5° Dish	120
12326-8	Int.	2.200	.3110	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	121
12328-8	Int.	2.200	.3110	.200 Longer	5.110	.290	10° x 3/8"	.050	.080	5° Dish	122

# STAINLESS VALVES

VALVES

## Small Block Chevrolet

### Race Flo Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Increased Flow with "Pro Flo" Underhead



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11521-8	Exh.	1.500	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	89
11505-8	Exh.	1.500	.3415	.100 Longer	5.035	.290	Pro Flo: 15° x 1/2"	.060	.100	9° Dish	93
11501-8	Exh.	1.560	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	91
11565-8	Exh.	1.600	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	94
11545-8	Exh.	1.600	.3415	.100 Longer	5.065	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	95
11555-8	Exh.	1.600	.3415	.200 Longer	5.165	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	96
11559-8	Exh.	1.600	.3415	.300 Longer	5.265	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	97
11797-8	Exh.	1.625	.3415	.100 Longer	5.065	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	98
11799-8	Exh.	1.625	.3415	.200 Longer	5.165	.290	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	99
11506-8	Int.	1.840	.3415	Stock	4.911	.250	Pro Flo: 10° x 3/8"	.060	.080	5° Dish	104
11522-8	Int.	1.940	.3415	Stock	4.911	.250	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	107
11356-8	Int.	1.940	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.050	.100	7° Dish	108
11500-8	Int.	2.000	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	109
11566-8	Int.	2.020	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	113
11796-8	Int.	2.020	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	115
11798-8	Int.	2.020	.3415	.200 Longer	5.125	.290	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	116
11568-8	Int.	2.055	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	115
11546-8	Int.	2.055	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	116
11552-8	Int.	2.055	.3415	.200 Longer	5.140	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	117
11556-8	Int.	2.055	.3415	.300 Longer	5.240	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	118
11558-8	Int.	2.080	.3415	Stock	4.940	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	115
11560-8	Int.	2.080	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	117
11564-8	Int.	2.080	.3415	.200 Longer	5.140	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	118
11574-8	Int.	2.080	.3415	.300 Longer	5.240	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	119
11576-8	Int.	2.100	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	118
11584-8	Int.	2.100	.3415	.200 Longer	5.140	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	119
11594-8	Int.	2.100	.3415	.300 Longer	5.240	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	120
11774-8	Int.	2.125	.3415	.100 Longer	5.040	.290	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	119
11776-8	Int.	2.125	.3415	.200 Longer	5.140	.290	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	120
11778-8	Int.	2.125	.3415	.300 Longer	5.240	.290	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	121

Exhaust valve P/N's 11501, 11521, 11565, and intake valve P/N's 11500, 11522, 11566, and 11568 have a Pro Flo start of 1.400" from the head. All others have a Pro Flo start of 1.600" from the head.

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

## Small Block Chevrolet

### Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Straight Stems



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11861-8	Exh.	1.500	.3415	Stock	4.951	.290	15° x 1/2"	.060	.100	9° Dish	96
11301-8	Exh.	1.500	.3415	.100 Longer	5.065	.290	15° x 1/2"	.090	.100	9° Dish	103
11863-8	Exh.	1.600	.3415	Stock	4.951	.290	15° x 1/2"	.060	.100	9° Dish	102
11877-8	Exh.	1.600	.3415	.100 Longer	5.065	.290	15° x 1/2"	.090	.100	9° Dish	109
11321-8	Exh.	1.600	.3415	.200 Longer	5.165	.290	15° x 1/2"	.090	.100	9° Dish	110
11323-8	Exh.	1.600	.3415	.300 Longer	5.265	.290	15° x 1/2"	.090	.100	9° Dish	111
11325-8	Exh.	1.600	.3415	.400 Longer	5.365	.290	15° x 1/2"	.090	.100	9° Dish	112
11327-8	Exh.	1.600	.3415	.500 Longer	5.465	.290	15° x 1/2"	.090	.100	9° Dish	113
11329-8	Exh.	1.625	.3415	Stock	4.965	.290	15° x 1/2"	.090	.100	9° Dish	103
11879-8	Exh.	1.625	.3415	.100 Longer	5.065	.290	15° x 1/2"	.090	.100	9° Dish	110
11331-8	Exh.	1.625	.3415	.200 Longer	5.165	.290	15° x 1/2"	.090	.100	9° Dish	112
11333-8	Exh.	1.625	.3415	.300 Longer	5.265	.290	15° x 1/2"	.090	.100	9° Dish	114
11860-8	Int.	1.940	.3415	Stock	4.951	.290	10° x 3/8"	.050	.080	5° Dish	109
11300-8	Int.	1.940	.3415	.100 Longer	5.040	.290	10° x 3/8"	.050	.080	5° Dish	111
11864-8	Int.	2.020	.3415	Stock	4.951	.290	10° x 3/8"	.050	.080	5° Dish	114
11318-8	Int.	2.020	.3415	.100 Longer	5.040	.290	10° x 3/8"	.050	.080	5° Dish	116
11316-8	Int.	2.020	.3415	.200 Longer	5.140	.290	12° x 3/8"	.065	.080	7° Dish	122
11806-8	Int.	2.055	.3415	Stock	4.940	.290	12° x 3/8"	.065	.080	7° Dish	118
11810-8	Int.	2.055	.3415	.100 Longer	5.040	.290	12° x 3/8"	.065	.080	7° Dish	120
11808-8	Int.	2.080	.3415	Stock	4.940	.290	12° x 3/8"	.065	.080	7° Dish	124
11812-8	Int.	2.080	.3415	.100 Longer	5.040	.290	12° x 3/8"	.065	.080	7° Dish	126
11320-8	Int.	2.080	.3415	.200 Longer	5.140	.290	12° x 3/8"	.065	.080	7° Dish	127
11322-8	Int.	2.080	.3415	.300 Longer	5.240	.290	12° x 3/8"	.065	.080	7° Dish	129
11324-8	Int.	2.080	.3415	.400 Longer	5.340	.290	12° x 3/8"	.065	.080	7° Dish	131
11326-8	Int.	2.080	.3415	.500 Longer	5.440	.290	12° x 3/8"	.065	.080	7° Dish	133
11328-8	Int.	2.100	.3415	.100 Longer	5.040	.290	12° x 3/8"	.065	.080	7° Dish	127
11330-8	Int.	2.100	.3415	.200 Longer	5.140	.290	12° x 3/8"	.065	.080	7° Dish	128
11332-8	Int.	2.100	.3415	.300 Longer	5.240	.290	12° x 3/8"	.065	.080	7° Dish	129
11334-8	Int.	2.100	.3415	.400 Longer	5.340	.290	12° x 3/8"	.065	.080	7° Dish	132
11336-8	Int.	2.100	.3415	.500 Longer	5.440	.290	12° x 3/8"	.065	.080	7° Dish	134
11340-8	Int.	2.125	.3415	.100 Longer	5.040	.290	12° x 3/8"	.065	.080	7° Dish	130
11342-8	Int.	2.125	.3415	.200 Longer	5.140	.290	12° x 3/8"	.065	.080	7° Dish	132
11344-8	Int.	2.125	.3415	.300 Longer	5.240	.290	12° x 3/8"	.065	.080	7° Dish	134
11346-8	Int.	2.125	.3415	.400 Longer	5.340	.290	12° x 3/8"	.065	.080	7° Dish	136
11348-8	Int.	2.125	.3415	.500 Longer	5.440	.290	12° x 3/8"	.065	.080	7° Dish	138

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.



# STAINLESS VALVES

VALVES

## Small Block Chevrolet

### Severe Duty® Exhaust Valves

- ▶ XH-428 Stainless Material
- ▶ Chrome Stems
- ▶ Hard Tips
- ▶ Swirl Polished
- ▶ Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11567-8	Exh.	1.500	.3415	Stock	4.911	.250	10° x 3/8"	.060	.100	7° Dish	92
11887-8	Exh.	1.500	.3415	.100 Longer	5.036	.250	15° x 1/2"	.085	.085	10° Dish	94
11747-8	Exh.	1.500	.3415	.200 Longer	5.140	.290	15° x 1/2"	.085	.100	9° Dish	101
11543-8	Exh.	1.600	.3415	Stock	4.911	.250	10° x 3/8"	.060	.100	7° Dish	95
11595-8	Exh.	1.600	.3415	Stock	4.936	.250	10° x 3/8"	.085	.085	Flat Face	100
11539-8	Exh.	1.600	.3415	.100 Longer	5.036	.250	10° x 3/8"	.085	.085	7° Dish	102
11865-8	Exh.	1.600	.3415	.200 Longer	5.121	.250	15° x 1/2"	.070	.100	9° Dish	105
11551-8	Exh.	1.600	.3415	Stock	4.921	.250	30° x 1/2"	.070	.100	25° Dish	106
11869-8	Exh.	1.600	.3415	.100 Longer	5.021	.250	30° x 1/2"	.070	.100	25° Dish	109
11771-8	Exh.	1.600	.3415	.200 Longer	5.121	.250	30° x 1/2"	.070	.100	25° Dish	111
11785-8	Exh.	1.600	.3415	.300 Longer	5.221	.250	30° x 1/2"	.070	.100	25° Dish	113
11573-8	Exh.	1.600	.3415	Stock	4.965	.290	15° x 1/2"	.090	.100	9° Dish	107
11749-8	Exh.	1.600	.3415	.100 Longer	5.065	.290	15° x 1/2"	.090	.100	9° Dish	108
11751-8	Exh.	1.600	.3415	.200 Longer	5.165	.290	15° x 1/2"	.090	.100	9° Dish	110
11753-8	Exh.	1.600	.3415	.300 Longer	5.265	.290	15° x 1/2"	.090	.100	9° Dish	111
11755-8	Exh.	1.600	.3415	.400 Longer	5.365	.290	15° x 1/2"	.090	.100	9° Dish	112
11513-8	Exh.	1.600	.3415	.500 Longer	5.465	.290	15° x 1/2"	.090	.100	9° Dish	113
11767-8	Exh.	1.600	.3415	.600 Longer	5.565	.290	15° x 1/2"	.090	.100	9° Dish	114
11541-8	Exh.	1.625	.3415	Stock	4.911	.250	15° x 1/2"	.060	.100	9° Dish	95
11585-8	Exh.	1.625	.3415	Stock	4.936	.250	15° x 1/2"	.085	.100	9° Dish	106
11537-8	Exh.	1.625	.3415	.100 Longer	5.036	.250	15° x 1/2"	.085	.100	9° Dish	102
11871-8	Exh.	1.625	.3415	.200 Longer	5.121	.250	15° x 1/2"	.070	.100	9° Dish	105
11557-8	Exh.	1.625	.3415	Stock	4.921	.250	30° x 1/2"	.070	.100	25° Dish	109
11569-8	Exh.	1.625	.3415	.100 Longer	5.021	.250	30° x 1/2"	.070	.100	25° Dish	111
11571-8	Exh.	1.625	.3415	.200 Longer	5.121	.250	30° x 1/2"	.070	.100	25° Dish	113
11579-8	Exh.	1.625	.3415	.300 Longer	5.221	.250	30° x 1/2"	.070	.100	25° Dish	115
11851-8	Exh.	1.625	.3415	.100 Longer	5.065	.290	15° x 1/2"	.090	.100	9° Dish	109
11577-8	Exh.	1.625	.3415	.200 Longer	5.165	.290	15° x 1/2"	.090	.100	9° Dish	115
11757-8	Exh.	1.625	.3415	.300 Longer	5.265	.290	15° x 1/2"	.090	.100	9° Dish	116
11759-8	Exh.	1.625	.3415	.400 Longer	5.365	.290	15° x 1/2"	.090	.100	9° Dish	117
11511-8	Exh.	1.625	.3415	.500 Longer	5.465	.290	15° x 1/2"	.090	.100	9° Dish	118
11763-8	Exh.	1.625	.3415	.600 Longer	5.565	.290	15° x 1/2"	.090	.100	9° Dish	122

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

## Small Block Chevrolet Severe Duty® Intake Valves

- ▶ NK-844 Stainless Material
- ▶ Hard Tips
- ▶ Fully Machined
- ▶ Chrome Stems
- ▶ Swirl Polished



Want a hollow stem Severe Duty® intake? It's as easy as 1-2-3. Refer to Gen II blank P/N 11254H on page 40 to support your custom requirements.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
12342-8	Int.	1.720	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	5° Dish	97
11540-8	Int.	1.720	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	5° Dish	99
11716-8	Int.	1.720	.3415	.200 Longer	5.140	.290	10° x 3/8"	.050	.100	5° Dish	103
11542-8	Int.	1.840	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	5° Dish	106
11820-8	Int.	1.840	.3415	.200 Longer	5.140	.290	10° x 3/8"	.050	.100	5° Dish	110
11592-8	Int.	1.937	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	5° Dish	109
11886-8	Int.	1.940	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.100	5° Dish	111
11748-8	Int.	1.940	.3415	.200 Longer	5.140	.290	10° x 3/8"	.050	.100	5° Dish	115
11596-8	Int.	2.020	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	7° Dish	111
11826-8	Int.	2.020	.3415	.100 Longer	5.026	.250	10° x 3/8"	.065	.080	5° Dish	113
11544-8	Int.	2.020	.3415	.200 Longer	5.140	.290	10° x 3/8"	.065	.080	5° Dish	125
11598-8	Int.	2.055	.3415	Stock	4.911	.250	12° x 3/8"	.050	.080	7° Dish	113
11828-8	Int.	2.055	.3415	Stock	4.926	.250	12° x 3/8"	.065	.080	Flat Face	128
11846-8	Int.	2.055	.3415	.100 Longer	5.026	.250	12° x 3/8"	.065	.080	7° Dish	125
11700-8	Int.	2.055	.3415	.200 Longer	5.140	.290	12° x 3/8"	.065	.080	7° Dish	127
11818-8	Int.	2.080	.3415	Stock	4.926	.250	12° x 3/8"	.065	.080	Flat Face	131
11844-8	Int.	2.080	.3415	.100 Longer	5.026	.250	12° x 3/8"	.065	.080	7° Dish	126
11858-8	Int.	2.080	.3415	.200 Longer	5.140	.290	12° x 3/8"	.065	.080	7° Dish	129
11762-8	Int.	2.080	.3415	.300 Longer	5.240	.290	12° x 3/8"	.065	.080	7° Dish	131
11764-8	Int.	2.080	.3415	.400 Longer	5.340	.290	12° x 3/8"	.065	.080	7° Dish	132
11512-8	Int.	2.080	.3415	.500 Longer	5.440	.290	12° x 3/8"	.065	.080	7° Dish	134
11852-8	Int.	2.100	.3415	.100 Longer	5.026	.250	12° x 3/8"	.065	.080	7° Dish	128
11862-8	Int.	2.100	.3415	.200 Longer	5.140	.290	12° x 3/8"	.065	.080	7° Dish	131
11750-8	Int.	2.100	.3415	.300 Longer	5.240	.290	12° x 3/8"	.065	.080	7° Dish	132
11752-8	Int.	2.100	.3415	.400 Longer	5.340	.290	12° x 3/8"	.065	.080	7° Dish	133
11510-8	Int.	2.100	.3415	.500 Longer	5.440	.290	12° x 3/8"	.065	.080	7° Dish	135
11770-8	Int.	2.100	.3415	.600 Longer	5.540	.290	12° x 3/8"	.065	.080	7° Dish	137
11848-8	Int.	2.125	.3415	.100 Longer	5.026	.250	12° x 3/8"	.065	.080	7° Dish	131
11866-8	Int.	2.125	.3415	.200 Longer	5.125	.250	12° x 3/8"	.065	.080	7° Dish	132
11754-8	Int.	2.125	.3415	.300 Longer	5.240	.290	12° x 3/8"	.065	.080	7° Dish	133
11756-8	Int.	2.125	.3415	.400 Longer	5.340	.290	12° x 3/8"	.065	.080	7° Dish	134
11508-8	Int.	2.125	.3415	.500 Longer	5.440	.290	12° x 3/8"	.065	.080	7° Dish	135
11768-8	Int.	2.125	.3415	.600 Longer	5.540	.290	12° x 3/8"	.065	.080	7° Dish	137
11758-8	Int.	2.150	.3415	.400 Longer	5.340	.290	12° x 3/8"	.065	.080	7° Dish	133
11760-8	Int.	2.150	.3415	.500 Longer	5.440	.290	12° x 3/8"	.065	.080	7° Dish	135
11766-8	Int.	2.150	.3415	.600 Longer	5.540	.290	12° x 3/8"	.065	.080	7° Dish	137

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

## Small Block Chevrolet

### Severe Duty® "Pro Flo" Valves

- ▶ XH-428 Stainless Exhaust Material
- ▶ NK-844 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Improved Flow with "Pro Flo" Underhead



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11827-8	Exh.	1.600	.3415	Stock	4.936	.250	Pro Flo: 12° x 3/8"	.085	.080	7° Dish	98
11823-8	Exh.	1.600	.3415	.100 Longer	5.036	.250	Pro Flo: 12° x 3/8"	.085	.080	7° Dish	100
11840-8	Int.	1.937	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	111
11830-8	Int.	2.020	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	114
11882-8	Int.	2.020	.3415	.100 Longer	5.011	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	115
11732-8	Int.	2.055	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	115
11824-8	Int.	2.055	.3415	.100 Longer	5.011	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	116
11734-8	Int.	2.055	.3415	.200 Longer	5.111	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	117
11736-8	Int.	2.080	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	117
11772-8	Int.	2.080	.3415	.100 Longer	5.011	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	118
11738-8	Int.	2.080	.3415	.200 Longer	5.111	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	119
11740-8	Int.	2.080	.3415	.300 Longer	5.211	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	120
11742-8	Int.	2.100	.3415	.100 Longer	5.011	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	119
11744-8	Int.	2.100	.3415	.200 Longer	5.111	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	120
11746-8	Int.	2.100	.3415	.300 Longer	5.211	.250	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	121

## Small Block Chevrolet

### Extreme Duty Exhaust Valves

- ▶ XH-432 XtremeAlloy Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11599-8	Exh.	1.600	.3415	.050 Longer	5.015	.290	15° x 1/2"	.080	.100	9° Dish	106
11701-8	Exh.	1.600	.3415	.100 Longer	5.065	.290	15° x 1/2"	.080	.100	9° Dish	108
11705-8	Exh.	1.600	.3415	.200 Longer	5.165	.290	15° x 1/2"	.080	.100	9° Dish	110
11709-8	Exh.	1.600	.3415	.300 Longer	5.265	.290	15° x 1/2"	.080	.100	9° Dish	111
11711-8	Exh.	1.600	.3415	.400 Longer	5.365	.290	15° x 1/2"	.080	.100	9° Dish	112
11713-8	Exh.	1.625	.3415	.100 Longer	5.065	.290	15° x 1/2"	.080	.100	9° Dish	110
11715-8	Exh.	1.625	.3415	.200 Longer	5.165	.290	15° x 1/2"	.080	.100	9° Dish	111
11721-8	Exh.	1.625	.3415	.300 Longer	5.265	.290	15° x 1/2"	.080	.100	9° Dish	112
11725-8	Exh.	1.625	.3415	.400 Longer	5.365	.290	15° x 1/2"	.080	.100	9° Dish	113

## Small Block Chevrolet

### Severe Duty® Valves

#### 7mm (.274") Stem

- ▶ No Need for Inserted Tips or Wear Caps
- ▶ NK-844 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined
- ▶ XH-428 Stainless Material
- ▶ Chrome Stems and Hard Tips
- ▶ Thin Stem for Increased Flow and Light Weight

These .274" stem valves are ONLY available with Bead Loc® keeper grooves. Bead Loc® valve locks are REQUIRED.

See page 57 for guides, seals and cutters required for installation of these valves.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11235-8	Exh.	1.600	.2740	.100 Longer	5.040	.290	15° x 1/2"	.080	.100	9° Dish	84
11236-8	Int.	1.940	.2740	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	95
11238-8	Int.	2.020	.2740	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	98
11240-8	Int.	2.055	.2740	.100 Longer	5.010	.290	10° x 3/8"	.050	.080	5° Dish	100

## Small Block Chevrolet

### Severe Duty® Valves

#### 5/16" (.311") Stem

- ▶ No Need for Inserted Tips or Wear Caps
- ▶ NK-844 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined
- ▶ XH-428 Stainless Material
- ▶ Chrome Stems and Hard Tips
- ▶ Thin Stem for Increased Flow and Light Weight

Hollow .311" stem Gen II blank P/N 11224H can be found on page 40 to support your custom requirements.

These .311" stem valves are ONLY available with Bead Loc® keeper grooves. Bead Loc® valve locks are REQUIRED.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11231-8	Exh.	1.600	.3110	.100 Longer	5.040	.290	15° x 1/2"	.080	.100	9° Dish	94
11351-8	Exh.	1.600	.3110	.200 Longer	5.140	.290	15° x 1/2"	.080	.100	9° Dish	95
11357-8	Exh.	1.600	.3110	.300 Longer	5.240	.290	15° x 1/2"	.080	.100	9° Dish	96
11359-8	Exh.	1.600	.3110	.600 Longer	5.540	.290	15° x 1/2"	.080	.100	9° Dish	99
11387-8	Exh.	1.600	.3110	.700 Longer	5.640	.290	15° x 1/2"	.080	.100	9° Dish	100
11389-8	Exh.	1.625	.3110	.300 Longer	5.240	.290	15° x 1/2"	.080	.100	9° Dish	99
11397-8	Exh.	1.625	.3110	.600 Longer	5.540	.290	15° x 1/2"	.080	.100	9° Dish	102
11399-8	Exh.	1.625	.3110	.700 Longer	5.640	.290	15° x 1/2"	.080	.100	9° Dish	103
11230-8	Int.	1.940	.3110	.100 Longer	5.010	.290	12° x 3/8"	.050	.080	7° Dish	105
11232-8	Int.	2.020	.3110	.100 Longer	5.010	.290	12° x 3/8"	.050	.080	7° Dish	108
11234-8	Int.	2.055	.3110	.100 Longer	5.010	.290	12° x 3/8"	.050	.080	7° Dish	110
11234H-8	Int.	2.055	.3110	.100 Longer	5.010	.290	12° x 3/8"	.050	.080	7° Dish	98
			Hollow Stem								
11710-8	Int.	2.055	.3110	.200 Longer	5.110	.290	12° x 3/8"	.050	.080	7° Dish	112
11710H-8	Int.	2.055	.3110	.200 Longer	5.110	.290	12° x 3/8"	.050	.080	7° Dish	100
			Hollow Stem								
11712-8	Int.	2.080	.3110	.100 Longer	5.010	.290	12° x 3/8"	.050	.080	7° Dish	112
11712H-8	Int.	2.080	.3110	.100 Longer	5.010	.290	12° x 3/8"	.050	.080	7° Dish	100
			Hollow Stem								
11714-8	Int.	2.080	.3110	.200 Longer	5.110	.290	12° x 3/8"	.050	.080	7° Dish	113
11714H-8	Int.	2.080	.3110	.200 Longer	5.110	.290	12° x 3/8"	.050	.080	7° Dish	101
			Hollow Stem								

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

# STAINLESS VALVES

VALVES

## Small Block Chevrolet

Severe Duty® Valves  
NHRA Legal Super Stock



- ▶ XH-428 Stainless Exhaust Material
- ▶ NK-844 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11567-8	Exh.	1.500	.3415	Stock	4.911	.250	10° x 3/8"	.060	.100	7° Dish	92
11887-8	Exh.	1.500	.3415	.100 Longer	5.036	.250	15° x 1/2"	.085	.100	10° Dish	94
11747-8	Exh.	1.500	.3415	.200 Longer	5.140	.290	15° x 1/2"	.085	.100	9° Dish	101
11540-8	Int.	1.720	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	5° Dish	99
11542-8	Int.	1.840	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.080	5° Dish	106
11886-8	Int.	1.940	.3415	.100 Longer	5.011	.250	10° x 3/8"	.050	.100	5° Dish	111
11748-8	Int.	1.940	.3415	.200 Longer	5.140	.290	10° x 3/8"	.050	.100	5° Dish	115

## 409 Chevrolet

Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Straight Stems



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11311-8	Exh.	1.735	.3715	Stock	5.105	.225	15° x 1/2"	.080	.100	9° Dish	115
11313-8	Exh.	1.750	.3715	Stock	5.105	.225	15° x 1/2"	.080	.100	9° Dish	117
11310-8	Int.	2.200	.3715	Stock	5.105	.225	12° x 3/8"	.065	.080	7° Dish	139
11312-8	Int.	2.250	.3715	Stock	5.105	.225	12° x 3/8"	.065	.080	7° Dish	141

## GM Duramax 6.6L Diesel 4 Valve

Extreme Duty & Race Flo Valves

- ▶ XH-432 XtremeAlloy Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Single Radius Groove for Factory Locks



These Manley valves are boxed in sets of 8 pieces. Please order two boxes of both intakes and exhausts to fit your engine.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>EXTREME DUTY VALVES</b>											
11609-8	Exh.	1.300	.2735	Stock	4.985	.480	30° x 13/32"	.060	.110	Flat Face	74
<b>RACE FLO VALVES</b>											
11608-8*	Int.	1.338	.2740	Stock	4.985	.480	25° x 9/32"	.050	.085	Flat Face	67

\* Intakes have backcut - .090" x 30°

## Buick V-6

Stage 1 and Production Cast Iron Heads  
Severe Duty® Valves

- ▶ XH-428 Exhaust Material
- ▶ NK-844 Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Machined
- ▶ Intakes are "Pro Flo" for Improved Flow



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11503-6	Exh.	1.500	.3415	Stock	4.725	.270	30° x 7/16"	.075	.090	20° Dish	98
11502-6	Int.	1.710	.3415	Stock	4.730	.270	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	95
11504-6	Int.	1.775	.3415	Stock	4.730	.270	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	97

## Oldsmobile 330 - 455

Severe Duty® Valves

- ▶ XH-428 Stainless Exhaust Material
- ▶ NK-844 Stainless Intake Material
- ▶ Hard Tips
- ▶ Swirl Polished
- ▶ Chrome Stems
- ▶ Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11547-8	Exh.	1.710	.3415	Stock	4.668	.260	10° x 3/8"	.060	.100	5° Dish	101
11548-8	Int.	2.072	.3415	Stock	4.713	.260	10° x 3/8"	.050	.080	5° Dish	117

Valve P/N's 11547 and 11548 are manufactured with .3415" stem diameters. We recommend that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Factory sizes may vary depending on the specific motor.

## Pontiac 400 - 428 - 455

Race Master & Race Flo Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11353-8	Exh.	1.660	.3415	Stock	5.230	.250	25° x 3/8"	.080	.100	20° Dish	115
11355-8	Exh.	1.770	.3415	Stock	5.100	.250	25° x 3/8"	.080	.100	20° Dish	117
11337-8	Exh.	1.770	.3415	Stock	5.230	.250	25° x 3/8"	.080	.100	20° Dish	123
11364-8	Int.	2.110	.3415	Stock	5.100	.250	Pro Flo 12° x 3/8"	.050	.100	7° Dish	114
11352-8	Int.	2.110	.3415	Stock	5.215	.250	Pro Flo 12° x 3/8"	.050	.100	7° Dish	118

Valve P/N's 11352 and 11353 fit Edelbrock 72cc cylinder heads. Both intakes have 30° seats.

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

# STAINLESS VALVES

VALVES

## Big Block Chevrolet

### Street Flo Valves

#### Stock 3/8" Stem Diameters

- ▶ XH-424 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Improved Flow with "Pro Flo" Underhead
- ▶ NK-841 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
10717-8	Exh.	1.725	.3715	Stock	5.350	.220	Pro Flo: 10° x 3/8"	.060	.100	5° Dish	120
10727-8	Exh.	1.880	.3715	Stock	5.350	.220	Pro Flo: 10° x 3/8"	.060	.100	5° Dish	131
10714-8	Int.	2.065	.3715	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	130
10728-8	Int.	2.190	.3715	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	135
10726-8	Int.	2.250	.3715	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	138

## Big Block Chevrolet

### Race Flo Valves

#### Stock 3/8" Stem Diameters

- ▶ XH-426 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Improved Flow with "Pro Flo" Underhead
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11517-8	Exh.	1.725	.3715	Stock	5.350	.220	Pro Flo: 10° x 3/8"	.060	.100	5° Dish	120
11527-8	Exh.	1.880	.3715	Stock	5.350	.220	Pro Flo: 10° x 3/8"	.060	.100	5° Dish	131
11514-8	Int.	2.065	.3715	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	130
11528-8	Int.	2.190	.3715	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	135
11526-8	Int.	2.250	.3715	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	138

## Big Block Chevrolet

### Race Master Valves

#### Stock 3/8" Stem Diameters

- ▶ XH-426 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Improved Flow with "Pro Flo" Underhead
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11509-8	Exh.	1.880	.3715	Stock	5.422	.250	15° x 1/2"	.075	.100	9° Dish	139
11515-8	Exh.	1.880	.3715	.100 Longer	5.522	.250	15° x 1/2"	.075	.100	9° Dish	141
11707-8	Exh.	1.900	.3715	Stock	5.422	.250	15° x 1/2"	.075	.100	9° Dish	141
11723-8	Exh.	1.900	.3715	.100 Longer	5.522	.250	15° x 1/2"	.075	.100	9° Dish	143
11849-8	Exh.	1.940	.3715	Stock	5.422	.250	15° x 1/2"	.075	.100	9° Dish	144
11893-8	Exh.	1.940	.3715	.100 Longer	5.522	.250	15° x 1/2"	.075	.100	9° Dish	146
11718-8	Int.	2.190	.3715	Stock	5.244	.250	12° x 3/8"	.050	.080	7° Dish	150
11720-8	Int.	2.190	.3715	.100 Longer	5.344	.250	12° x 3/8"	.050	.080	7° Dish	152
11722-8	Int.	2.250	.3715	Stock	5.244	.250	12° x 3/8"	.050	.080	7° Dish	153
11724-8	Int.	2.250	.3715	.100 Longer	5.344	.250	12° x 3/8"	.050	.080	7° Dish	155
11726-8	Int.	2.300	.3715	Stock	5.244	.250	12° x 3/8"	.050	.080	7° Dish	156
11728-8	Int.	2.300	.3715	.100 Longer	5.344	.250	12° x 3/8"	.050	.080	7° Dish	158

## Big Block Chevrolet

Severe Duty® Valves

Stock 3/8" Stem Diameters

- ▶ XH-428 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips

- ▶ NK-844 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined

Want a hollow stem Severe Duty® intake? It's as easy as 1-2-3. Refer to Gen II blank P/N 11252H on page 40 to support your custom requirements.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11553-8	Exh.	1.720	.3715	Stock	5.354	.220	10° x 3/8"	.065	.100	6° Dish	122
11519-8	Exh.	1.725	.3715	.100 Longer	5.464	.220	12° x 3/8"	.075	.100	7° Dish	125
11563-8	Exh.	1.880	.3715	Stock	5.354	.220	10° x 3/8"	.065	.100	6° Dish	134
11525-8	Exh.	1.880	.3715	.100 Longer	5.464	.220	12° x 3/8"	.075	.100	7° Dish	138
11593-8	Exh.	1.900	.3715	Stock	5.364	.220	12° x 3/8"	.075	.100	7° Dish	140
11535-8	Exh.	1.900	.3715	.100 Longer	5.464	.220	12° x 3/8"	.075	.100	7° Dish	142
11561-8	Exh.	1.940	.3715	Stock	5.364	.220	12° x 3/8"	.075	.100	7° Dish	143
11533-8	Exh.	1.940	.3715	.100 Longer	5.464	.220	12° x 3/8"	.075	.100	7° Dish	145
11836-8	Int.	2.065	.3720	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	131
11554-8	Int.	2.065	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	138
11520-8	Int.	2.190	.3720	Stock	5.218	.220	10° x 3/8"	.050	.080	7° Dish	145
11832-8	Int.	2.190	.3720	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	138
11538-8	Int.	2.190	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	146
11562-8	Int.	2.250	.3720	Stock	5.218	.220	10° x 3/8"	.050	.080	7° Dish	149
11524-8	Int.	2.250	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	153
11534-8	Int.	2.250	.3720	.200 Longer	5.433	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	156
11530-8	Int.	2.300	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	160
11536-8	Int.	2.300	.3720	.200 Longer	5.433	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	168
11570-8	Int.	2.300	.3720	.250 Longer	5.513	.250	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	171

## Big Block Chevrolet

Severe Duty® "Pro Flo" Valves

Stock 3/8" Stem Diameters

- ▶ XH-428 Stainless Exhaust Material
- ▶ Improved Flow with "Pro Flo" Underhead
- ▶ Swirl Polished and Fully Machined

- ▶ NK-844 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips

Want a hollow stem Severe Duty® intake? It's as easy as 1-2-3. Refer to Gen II blank P/N 11252H on page 40 to support your custom requirements.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11835-8	Exh.	1.725	.3715	Stock	5.374	.220	Pro Flo: 10° x 3/8"	.085	.100	5° Dish	121
11831-8	Exh.	1.880	.3715	Stock	5.374	.220	Pro Flo: 10° x 3/8"	.085	.100	5° Dish	132
11836-8	Int.	2.065	.3720	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	131
11554-8	Int.	2.065	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	138
11832-8	Int.	2.190	.3720	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	138
11538-8	Int.	2.190	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	146
11524-8	Int.	2.250	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	153
11534-8	Int.	2.250	.3720	.200 Longer	5.433	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	156
11530-8	Int.	2.300	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	160
11536-8	Int.	2.300	.3720	.200 Longer	5.433	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	168
11570-8	Int.	2.300	.3720	.250 Longer	5.513	.250	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	171



# STAINLESS VALVES

VALVES

## Big Block Chevrolet

Extreme Duty & Marine Valves

Stock 3/8" Stem Diameters

- ▶ XH-432 XtremeAlloy Exhaust Material
- ▶ Swirl Polished and Fully Machined

- ▶ NK-844 Intake Material
- ▶ Chrome Stems and Hard Tips



Want a hollow stem Severe Duty® intake? It's as easy as 1-2-3. Refer to Gen II blank P/N 11252H on page 40 to support your custom requirements.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11587-8	Exh.	1.880	.3715	Stock	5.354	.220	10° x 3/8"	.065	.100	6° Dish	139
11731-8	Exh.	1.880	.3715	.100 Longer	5.454	.220	10° x 3/8"	.065	.100	6° Dish	142
11507-8	Exh.	1.900	.3715	Stock	5.354	.220	10° x 3/8"	.065	.100	6° Dish	140
11733-8	Exh.	1.900	.3715	.100 Longer	5.454	.220	10° x 3/8"	.075	.100	6° Dish	143
11735-8	Exh.	1.940	.3715	.100 Longer	5.454	.220	10° x 3/8"	.065	.100	6° Dish	144
11836-8	Int.	2.065	.3720	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	131
11554-8	Int.	2.065	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	138
11520-8	Int.	2.190	.3720	Stock	5.218	.220	10° x 3/8"	.050	.080	7° Dish	145
11832-8	Int.	2.190	.3720	Stock	5.218	.220	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	138
11538-8	Int.	2.190	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	146
11562-8	Int.	2.250	.3720	Stock	5.218	.220	10° x 3/8"	.050	.080	7° Dish	149
11524-8	Int.	2.250	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	153
11534-8	Int.	2.250	.3720	.200 Longer	5.433	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	156
11530-8	Int.	2.300	.3720	.100 Longer	5.325	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	160
11536-8	Int.	2.300	.3720	.200 Longer	5.433	.220	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	168
11570-8	Int.	2.300	.3720	.250 Longer	5.513	.250	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	171

## Big Block Chevrolet

Street Master Valves

1 1/32" Stem Diameters

- ▶ XH-424 Stainless Exhaust Material
- ▶ Swirl Polished and Fully Machined
- ▶ 1 1/32" Stems for Improved Flow, Lighter Weight

- ▶ NK-841 Intake Material
- ▶ Chrome Stems and Hard Tips



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
10881-8	Exh.	1.880	.3415	Stock	5.422	.250	10° x 3/8"	.075	.100	6° Dish	122
10761-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	10° x 3/8"	.075	.100	6° Dish	124
10883-8	Exh.	1.900	.3415	Stock	5.422	.250	10° x 3/8"	.075	.100	5° Dish	124
10769-8	Exh.	1.900	.3415	.100 Longer	5.522	.250	10° x 3/8"	.075	.100	5° Dish	125
10872-8	Int.	2.190	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	129
10894-8	Int.	2.190	.3415	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	130
10874-8	Int.	2.250	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	130
10814-8	Int.	2.250	.3415	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	132
10868-8	Int.	2.250	.3415	.250 Longer	5.494	.250	10° x 3/8"	.050	.080	5° Dish	135

## Big Block Chevrolet

### Race Master Valves 11/32" Stem Diameters

- ▶ XH-426 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ 11/32" Stems for Improved Flow, Lighter Weight
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11881-8	Exh.	1.880	.3415	Stock	5.422	.250	10° x 3/8"	.075	.100	6° Dish	122
11717-8	Exh.	1.880	.3415	Stock	5.422	.250	25° x 3/8"	.075	.100	20° Dish	127
11761-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	10° x 3/8"	.075	.100	6° Dish	124
11719-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	25° x 3/8"	.075	.100	20° Dish	129
11883-8	Exh.	1.900	.3415	Stock	5.422	.250	10° x 3/8"	.075	.100	5° Dish	124
11765-8	Exh.	1.900	.3415	Stock	5.422	.250	25° x 3/8"	.075	.100	20° Dish	128
11769-8	Exh.	1.900	.3415	.100 Longer	5.522	.250	10° x 3/8"	.075	.100	5° Dish	125
11775-8	Exh.	1.900	.3415	.100 Longer	5.522	.250	25° x 3/8"	.075	.100	20° Dish	130
11885-8	Exh.	1.940	.3415	Stock	5.422	.250	10° x 3/8"	.075	.100	5° Dish	124
11777-8	Exh.	1.940	.3415	.100 Longer	5.522	.250	10° x 3/8"	.075	.100	5° Dish	126
11872-8	Int.	2.190	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	129
11894-8	Int.	2.190	.3415	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	130
11874-8	Int.	2.250	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	130
11814-8	Int.	2.250	.3415	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	132
11868-8	Int.	2.250	.3415	.250 Longer	5.494	.250	10° x 3/8"	.050	.080	5° Dish	135
11730-8	Int.	2.300	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	133
11816-8	Int.	2.300	.3415	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	136
11870-8	Int.	2.300	.3415	.250 Longer	5.494	.250	10° x 3/8"	.050	.080	5° Dish	137

## Big Block Chevrolet

### Severe Duty® Valves 11/32" Stem Diameters

- ▶ XH-428 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ NK-844 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11843-8	Exh.	1.880	.3415	Stock	5.422	.250	10° x 3/8"	.075	.085	6° Dish	122
11815-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	10° x 3/8"	.075	.085	6° Dish	125
11845-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	25° x 3/8"	.075	.100	20° Dish	130
11817-8	Exh.	1.900	.3415	Stock	5.422	.250	12° x 3/8"	.075	.085	7° Dish	122
11811-8*	Exh.	1.900	.3415	.100 Longer	5.522	.250	12° x 3/8"	.075	.085	7° Dish	126
11847-8	Exh.	1.900	.3415	.100 Longer	5.522	.250	25° x 3/8"	.075	.100	20° Dish	132
11803-8	Exh.	1.940	.3415	Stock	5.422	.250	12° x 3/8"	.075	.085	7° Dish	123
11809-8	Exh.	1.940	.3415	.100 Longer	5.522	.250	12° x 3/8"	.075	.085	7° Dish	127
11800-8	Int.	2.190	.3415	Stock	5.244	.250	12° x 3/8"	.050	.080	7° Dish	139
11822-8	Int.	2.190	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.080	7° Dish	140
11896-8	Int.	2.190	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	146
11802-8	Int.	2.250	.3415	Stock	5.244	.250	12° x 3/8"	.050	.100	7° Dish	139
11850-8	Int.	2.250	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.100	7° Dish	142
11856-8	Int.	2.250	.3415	.250 Longer	5.494	.250	12° x 3/8"	.050	.100	7° Dish	145
11898-8	Int.	2.250	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	150
11780-8	Int.	2.300	.3415	Stock	5.244	.250	12° x 3/8"	.050	.100	7° Dish	143
11842-8	Int.	2.300	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.100	7° Dish	146
11784-8	Int.	2.300	.3415	.200 Longer	5.444	.250	12° x 3/8"	.050	.100	7° Dish	147
11854-8	Int.	2.300	.3415	.250 Longer	5.494	.250	12° x 3/8"	.050	.100	7° Dish	148
11878-8	Int.	2.300	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	149
11838-8	Int.	2.325	.3415	.250 Longer	5.509	.250	12° x 3/8"	.065	.100	7° Dish	150
11880-8	Int.	2.350	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	152

\* Also available with Bead Loc® keeper grooves. Please order P/N 11811B-8

# STAINLESS VALVES

## Big Block Chevrolet

### Extreme Duty & Marine Valves 11/32" Stem Diameters

- ▶ XH-432 XtremeAlloy Exhaust Material
- ▶ NK-844 Stainless Intake Material
- ▶ Greater Flow and Less Weight
- ▶ Reduced Stem Diameter
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>EXTREME DUTY VALVES</b>											
11743-8	Exh.	1.880	.3415	Stock	5.422	.250	15° x 1/2"	.075	.085	9° Dish	133
12743-8	Exh.	1.880	.3415	Stock	5.422	.250	18° x 1/2"	.075	.085	12° Dish	133
11737-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	15° x 1/2"	.075	.085	9° Dish	133
12737-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	18° x 1/2"	.075	.085	12° Dish	133
11745-8	Exh.	1.900	.3415	Stock	5.422	.250	15° x 1/2"	.075	.085	9° Dish	136
12745-8	Exh.	1.900	.3415	Stock	5.422	.250	18° x 1/2"	.075	.085	12° Dish	136
11739-8	Exh.	1.900	.3415	.100 Longer	5.522	.250	15° x 1/2"	.075	.085	9° Dish	136
12739-8	Exh.	1.900	.3415	.100 Longer	5.522	.250	18° x 1/2"	.075	.085	12° Dish	136
11773-8	Exh.	1.940	.3415	Stock	5.422	.250	15° x 1/2"	.075	.085	9° Dish	140
12773-8	Exh.	1.940	.3415	Stock	5.422	.250	18° x 1/2"	.075	.085	12° Dish	140
11741-8	Exh.	1.940	.3415	.100 Longer	5.522	.250	15° x 1/2"	.075	.085	9° Dish	140
12741-8	Exh.	1.940	.3415	.100 Longer	5.522	.250	18° x 1/2"	.075	.085	12° Dish	140

Gen II blank P/N 11277 is also available with an 18° back angle, flat face (no dish). Refer to page 42.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>SEVERE DUTY VALVES</b>											
11800-8	Int.	2.190	.3415	Stock	5.244	.250	12° x 3/8"	.050	.080	7° Dish	139
11822-8	Int.	2.190	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.080	7° Dish	140
11896-8	Int.	2.190	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	146
11802-8	Int.	2.250	.3415	Stock	5.244	.250	12° x 3/8"	.050	.100	7° Dish	139
11850-8	Int.	2.250	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.100	7° Dish	142
11856-8	Int.	2.250	.3415	.250 Longer	5.494	.250	12° x 3/8"	.050	.100	7° Dish	145
11898-8	Int.	2.250	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	150
11780-8	Int.	2.300	.3415	Stock	5.244	.250	12° x 3/8"	.050	.100	7° Dish	143
11842-8	Int.	2.300	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.100	7° Dish	146
11784-8	Int.	2.300	.3415	.200 Longer	5.444	.250	12° x 3/8"	.050	.100	7° Dish	147
11854-8	Int.	2.300	.3415	.250 Longer	5.494	.250	12° x 3/8"	.050	.100	7° Dish	148
11878-8	Int.	2.300	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	149
11838-8	Int.	2.325	.3415	.250 Longer	5.509	.250	12° x 3/8"	.065	.100	7° Dish	150
11880-8	Int.	2.350	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100	7° Dish	152

### Brodis 383 Head Hunter™, BB-4/SAR, SR20, Edelbrock Victor #12363425 Heads 11/32" Stem Diameters

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width/Angle	Top of Head	Wgt/ Grams
<b>RACE MASTER VALVES</b>											
12341-8**	Exh.	1.800	.3415	.500 Longer	5.930	.250	25° x 3/8"	.080	.060/55°	20° Dish	135
<b>SEVERE DUTY VALVES</b>											
12343-8**	Exh.	1.800	.3415	.500 Longer	5.930	.250	25° x 3/8"	.080	.060/55°	20° Dish	135
12339-8*	Exh.	1.850	.3415	.100 Longer	5.500	.250	12° x 3/8"	.075	.075/55°	7° Dish	125
11845-8	Exh.	1.880	.3415	.100 Longer	5.522	.250	25° x 3/8"	.075	.100/45°	20° Dish	130
11847-8	Exh.	1.900	.3415	.100 Longer	5.522	.250	25° x 3/8"	.075	.100/45°	20° Dish	132
11896-8	Int.	2.190	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100/45°	7° Dish	146
11898-8	Int.	2.250	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100/45°	7° Dish	148
11878-8	Int.	2.300	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100/45°	7° Dish	148
11880-8	Int.	2.350	.3415	.350 Longer	5.610	.250	12° x 3/8"	.065	.100/45°	7° Dish	150
12340-8*	Int.	2.375	.3415	.350 Longer	5.600	.250	12° x 3/8"	.060	.080/52°	7° Dish	152
12344-8**	Int.	2.400	.3415	.780 Longer	6.030	.250	10° x 3/8"	.055	.060/50°	5° Dish	164
<b>EXTREME DUTY VALVES</b>											
12351-8**	Exh.	1.800	.3415	.500 Longer	5.930	.250	15° x 1/2"	.080	.060/55°	9° Dish	142

\* These valves are specifically produced for the Brodis 383 Head Hunter™ cylinder heads. Brodis equivalents: Manley P/N 12339 = BR81185, Manley P/N 12340 = BR81375

\*\* These valves are specifically produced for the Brodis SR20 cylinder heads. The exhaust valves include a .050" x .45° back cut and the intake includes a .035" x 33° back cut. Brodis equivalents: Manley P/N's 12341 and 12343 = BR81080, Manley P/N 12344 = BR81403

## Dart Big Block Pro 1® & 320 / 360 Heads

Severe Duty® Valves 11/32" Stem Diameters

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11843-8	Exh.	1.880	.3415	Stock	5.422	.250	10° x 3/8"	.075	.085	6° Dish	122
11817-8	Exh.	1.900	.3415	Stock	5.422	.250	12° x 3/8"	.075	.085	7° Dish	122
11856-8	Int.	2.250	.3415	.250 Longer	5.494	.250	12° x 3/8"	.050	.100	7° Dish	145
11854-8	Int.	2.300	.3415	.250 Longer	5.494	.250	12° x 3/8"	.050	.100	7° Dish	147

## Big Block Chevrolet

Pontiac "Pro Stock" & Dart "Big Chief"

Extreme Duty & Severe Duty® Valves 11/32" Stems

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11597-8	Exh.	1.900	.3415	Stock	6.450	.290	15° x 1/2"	.085	.080	9° Dish	143
<b>EXTREME DUTY VALVES</b>											
11581-8	Exh.	1.900	.3415	Stock	6.380	.250	25° x 3/8"	.085	.100	20° Dish	144
11583-8	Exh.	1.940	.3415	Stock	6.400	.250	25° x 3/8"	.085	.100	20° Dish	150
<b>SEVERE DUTY® VALVES</b>											
11580-8	Int.	2.325	.3415	Stock	6.590	.250	10° x 3/8"	.050	.075	5° Dish	165
11582-8	Int.	2.400	.3415	Stock	6.600	.250	10° x 3/8"	.050	.075	5° Dish	168

## Big Block Chevrolet

Severe Duty® Valves 5/16" (.311") Stem Diameters

These .311" stem valves are ONLY available with Bead Loc® keeper grooves. Bead Loc® valve locks are REQUIRED.

Want a hollow stem Severe Duty® intake? It's as easy as 1-2-3. Refer to Gen II blank P/N 11264H on page 40 to support your custom requirements.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams	
12843-8	Exh.	1.880	.3110	Stock	5.422	.250	12° x 3/8"	.075	.100	7° Dish	107	
12815-8	Exh.	1.880	.3110	.100 Longer	5.522	.250	12° x 3/8"	.075	.100	7° Dish	110	
12817-8	Exh.	1.900	.3110	Stock	5.422	.250	12° x 3/8"	.075	.100	7° Dish	108	
12811-8	Exh.	1.900	.3110	.100 Longer	5.522	.250	12° x 3/8"	.075	.100	7° Dish	111	
12803-8	Exh.	1.940	.3110	Stock	5.422	.250	12° x 3/8"	.075	.100	7° Dish	109	
12809-8	Exh.	1.940	.3110	.100 Longer	5.522	.250	12° x 3/8"	.075	.100	7° Dish	112	
12802-8	Int.	2.250	.3110	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	122	
12850-8	Int.	2.250	.3110	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	125	
12850H-8	Int.	2.250	.3110	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	113	
			Hollow Stem									
12856-8	Int.	2.250	.3110	.250 Longer	5.494	.250	10° x 3/8"	.050	.080	5° Dish	128	
12856H-8	Int.	2.250	.3110	.250 Longer	5.494	.250	10° x 3/8"	.050	.080	5° Dish	116	
			Hollow Stem									
12898-8	Int.	2.250	.3110	.350 Longer	5.594	.250	10° x 3/8"	.050	.080	5° Dish	132	
12780-8	Int.	2.300	.3110	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	126	
12842-8	Int.	2.300	.3110	.100 Longer	5.344	.250	10° x 3/8"	.050	.080	5° Dish	128	
12784-8	Int.	2.300	.3110	.200 Longer	5.444	.250	10° x 3/8"	.050	.080	5° Dish	129	
12854-8	Int.	2.300	.3110	.250 Longer	5.494	.250	10° x 3/8"	.050	.080	5° Dish	130	
12878-8	Int.	2.300	.3110	.350 Longer	5.594	.250	10° x 3/8"	.050	.080	5° Dish	133	
12838-8	Int.	2.325	.3110	.250 Longer	5.494	.250	10° x 3/8"	.050	.080	5° Dish	134	
12880-8	Int.	2.350	.3110	.350 Longer	5.594	.250	10° x 3/8"	.050	.080	5° Dish	135	

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

# STAINLESS VALVES

VALVES

## Chrysler / Dodge 5.7L & 6.1L Hemi Race Flo & Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished & Fully Machined
- ▶ Improved Flow with "Pro Flo" Underhead



Must use factory locks with triple grooves and use Manley's Bead Loc® P/N 13093-16 with the Bead Loc® single radius groove.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>Chrysler HEMI 5.7L (Thru 2008) w/ TRIPLE GROOVE</b>											
11665-8	Exh.	1.555"	.3125"	Stock	4.845"	.120	25° x 1/2"	.065	.100	20° Dish	88
11667-8	Exh.	1.575"	.3125"	Stock	4.845"	.120	25° x 1/2"	.065	.100	20° Dish	90
11664-8	Int.	2.000"	.3125"	Stock	4.955"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	103
11666-8	Int.	2.020"	.3125"	Stock	4.955"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	104
11666H-8	Int.	2.020"	.3125"	Stock	4.955"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	92
Hollow Stem											
<b>Chrysler HEMI 5.7L (Thru 2008) w/ BEAD LOC® GROOVE</b>											
11665B-8	Exh.	1.555"	.3125"	Stock	4.845"	.135	25° x 1/2"	.065	.100	20° Dish	88
11667B-8	Exh.	1.575"	.3125"	Stock	4.845"	.135	25° x 1/2"	.065	.100	20° Dish	90
11664B-8	Int.	2.000"	.3125"	Stock	4.955"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	103
11666B-8	Int.	2.020"	.3125"	Stock	4.955"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	104
11666HB-8	Int.	2.020"	.3125"	Stock	4.955"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	92
Hollow Stem											
<b>Chrysler HEMI 5.7L (2009 - Up) w/ TRIPLE GROOVE</b>											
11695-8	Exh.	1.555"	.3125"	Stock	5.125"	.120	25° x 1/2"	.065	.100	20° Dish	95
11697-8	Exh.	1.575"	.3125"	Stock	5.125"	.120	25° x 1/2"	.065	.100	20° Dish	97
11694-8	Int.	2.050"	.3125"	Stock	5.176"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	111
11696-8	Int.	2.080"	.3125"	Stock	5.176"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	113
11696H-8	Int.	2.080"	.3125"	Stock	5.176"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	101
Hollow Stem											
<b>Chrysler HEMI 5.7L (2009 - Up) w/ BEAD LOC® GROOVE</b>											
11695B-8	Exh.	1.555"	.3125"	Stock	5.125"	.135	25° x 1/2"	.065	.100	20° Dish	95
11697B-8	Exh.	1.575"	.3125"	Stock	5.125"	.135	25° x 1/2"	.065	.100	20° Dish	97
11694B-8	Int.	2.050"	.3125"	Stock	5.176"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	111
11696B-8	Int.	2.080"	.3125"	Stock	5.176"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	113
11696HB-8	Int.	2.080"	.3125"	Stock	5.176"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	101
Hollow Stem											
<b>Chrysler HEMI 6.1L w/ TRIPLE GROOVE</b>											
11669-8	Exh.	1.595"	.3125"	Stock	4.925"	.120	25° x 1/2"	.065	.100	20° Dish	91
11671-8	Exh.	1.625"	.3125"	Stock	4.925"	.120	25° x 1/2"	.065	.100	20° Dish	93
11668-8	Int.	2.080"	.3125"	Stock	4.990"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	108
11670-8	Int.	2.100"	.3125"	Stock	4.990"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	111
11670H-8	Int.	2.100"	.3125"	Stock	4.990"	.120	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	99
Hollow Stem											
<b>Chrysler HEMI 6.1L w/ BEAD LOC® GROOVE</b>											
11669B-8	Exh.	1.595"	.3125"	Stock	4.925"	.135	25° x 1/2"	.065	.100	20° Dish	91
11671B-8	Exh.	1.625"	.3125"	Stock	4.925"	.135	25° x 1/2"	.065	.100	20° Dish	93
11668B-8	Int.	2.080"	.3125"	Stock	4.990"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	108
11670B-8	Int.	2.100"	.3125"	Stock	4.990"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	111
11670HB-8	Int.	2.100"	.3125"	Stock	4.990"	.135	Pro Flo: 10° x 5/16"	.050	.085	5° Dish	99
Hollow Stem											

For the 5.7L exhaust valves, Manley Performance recommends that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Guides may need to be honed when replacing valves.

## Chrysler / Dodge 6.4L Hemi

### Race Flo & Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished & Fully Machined
- ▶ Improved Flow with "Pro Flo" Underhead



Must use factory locks with triple grooves and use Manley's Bead Loc® P/N 13093-16 with the Bead Loc® single radius groove.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>CHRYSLER HEMI 6.4L (2011 - Up) w/ TRIPLE GROOVE</b>											
12331-8	Exh.	1.654"	.3125"	Stock	5.100"	.120	25° x 1/2"	.080	.100	20° Dish	103
12333-8	Exh.	1.675"	.3125"	Stock	5.100"	.120	25° x 1/2"	.080	.100	20° Dish	104
12330-8*	Int.	2.140"	.3125"	Stock	5.135"	.120	Pro Flo: 10° x 5/16"	.050	.080	5° Dish	127
12332-8*	Int.	2.180"	.3125"	Stock	5.135"	.120	Pro Flo: 10° x 5/16"	.050	.080	5° Dish	129
12332H-8*	Int.	2.180"	.3125"	Stock	5.135"	.120	Pro Flo: 10° x 5/16" Hollow Stem	.050	.080	5° Dish	116

<b>CHRYSLER HEMI 6.4L (2011 - Up) w/ BEAD LOC® GROOVE</b>											
12331B-8	Exh.	1.654"	.3125"	Stock	5.100"	.135	25° x 1/2"	.080	.100	20° Dish	103
12333B-8	Exh.	1.675"	.3125"	Stock	5.100"	.135	25° x 1/2"	.080	.100	20° Dish	104
12330B-8*	Int.	2.140"	.3125"	Stock	5.135"	.135	Pro Flo: 10° x 5/16"	.050	.080	5° Dish	127
12332B-8*	Int.	2.180"	.3125"	Stock	5.135"	.135	Pro Flo: 10° x 5/16"	.050	.080	5° Dish	129
12332HB-8*	Int.	2.180"	.3125"	Stock	5.135"	.135	Pro Flo: 10° x 5/16" Hollow Stem	.050	.080	5° Dish	116

\* Intakes have backcut - .055" x 30°

## Dodge Viper V-10 Up To 2010

### Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ Swirl Polished
- ▶ Chrome Stems
- ▶ Bead Loc® keeper grooves for use with the factory valve locks or Manley .3110" stem Bead Loc® valve locks.
- ▶ NK-842 Stainless Intake Material
- ▶ Fully Machined
- ▶ Hard Tips



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11641-10	Exh.	1.580	.3110	Stock	5.770	.110	18° x 1/2"	.075	.100	12° Dish	101
11643-10	Exh.	1.600	.3110	Stock	5.770	.110	18° x 1/2"	.075	.100	12° Dish	102
11645-10	Exh.	1.600	.3110	.100 Longer	5.870	.110	18° x 1/2"	.075	.100	12° Dish	103
11647-10	Exh.	1.600	.3110	.200 Longer	5.970	.110	18° x 1/2"	.075	.100	12° Dish	104
11642-10	Int.	1.920	.3110	Stock	5.728	.110	12° x 3/8"	.050	.080	7° Dish	105
11644-10	Int.	2.020	.3110	Stock	5.728	.110	12° x 3/8"	.050	.080	7° Dish	112
11646-10	Int.	2.020	.3110	.100 Longer	5.828	.110	12° x 3/8"	.050	.080	7° Dish	113
11648-10	Int.	2.020	.3110	.200 Longer	5.928	.110	12° x 3/8"	.050	.080	7° Dish	114
11660-10	Int.	2.055	.3110	.100 Longer	5.828	.110	12° x 3/8"	.050	.080	7° Dish	114

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

# STAINLESS VALVES

VALVES

## Chrysler 340 - 360

### Race Series Valves & Severe Duty® "Pro Flo" Valves

- ▶ Chrome Stems and Hard Tips
- ▶ W-2 Valves are "Pro Flo" Underhead
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>W-2 LATE MODEL STOCK P/N P5249769 CYLINDER HEAD</b>											
11703-8	Exh.	1.600	.3415	Stock	5.255	.290	Pro Flo: 22° x 1/2"	.095	.080	17° Dish	111
11702-8	Int.	2.020	.3415	Stock	5.240	.290	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	125
P/N 11703-8 exhaust is a Race-Flo. P/N 11702-8 intake is a Severe Duty Pro-Flo.											

<b>W-2 CYLINDER HEAD SEVERE DUTY® "PRO FLO" VALVES</b>											
11549-8	Exh.	1.600	.3715	.150 Longer	5.075	.220	Pro Flo: 12° x 3/8"	.085	.100	7° Dish	107
11550-8	Int.	2.020	.3720	.150 Longer	5.050	.220	Pro Flo: 12° x 7/16"	.050	.080	7° Dish	123

<b>STOCK CYLINDER HEAD RACE MASTER VALVES</b>											
11781-8	Exh.	1.600	.3715	Stock	4.970	.225	15° x 1/2"	.080	.100	9° Dish	104
11783-8	Exh.	1.625	.3715	Stock	4.970	.225	15° x 1/2"	.080	.100	9° Dish	105
11782-8	Int.	2.020	.3715	Stock	4.980	.225	12° x 3/8"	.050	.080	7° Dish	118

## Chrysler 361 - 383 - 426 Wedge - 440

### Race Flo & Race Master Valves



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11859-8	Exh.	1.740	.3720	Stock	4.908	.275	Pro Flo: 10° x 3/8"	.085	.100	5° Dish	116
11307-8	Exh.	1.740	.3715	.100 Longer	5.010	.275	15° x 1/2"	.080	.100	9° Dish	121
11891-8	Exh.	1.810	.3720	Stock	4.908	.275	Pro Flo: 10° x 3/8"	.085	.100	5° Dish	121
11309-8	Exh.	1.810	.3715	.100 Longer	5.010	.275	15° x 1/2"	.080	.100	9° Dish	126
11892-8	Int.	2.080	.3720	Stock	4.873	.275	Pro Flo: 10° x 3/8"	.050	.085	5° Dish	122
11308-8	Int.	2.080	.3715	.100 Longer	5.000	.275	12° x 3/8"	.060	.080	7° Dish	125
11890-8	Int.	2.140	.3720	Stock	4.873	.275	Pro Flo: 10° x 3/8"	.050	.085	5° Dish	126
11314-8	Int.	2.140	.3715	.100 Longer	5.000	.275	12° x 3/8"	.060	.080	7° Dish	131
11388-8	Int.	2.180	.3715	.100 Longer	5.000	.275	12° x 3/8"	.060	.080	7° Dish	134

### Severe Duty® "Pro Flo" Valves

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11841-8	Exh.	1.740	.3720	Stock	4.908	.275	Pro Flo: 10° x 3/8"	.085	.100	5° Dish	116
11839-8	Exh.	1.810	.3720	Stock	4.908	.275	Pro Flo: 10° x 3/8"	.085	.100	5° Dish	121
11833-8	Exh.	1.880	.3720	Stock	4.908	.275	Pro Flo: 10° x 3/8"	.085	.100	5° Dish	126
11876-8	Int.	2.080	.3720	Stock	4.873	.275	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	122
11834-8	Int.	2.140	.3720	Stock	4.873	.275	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	126

## Chrysler 440-1

"Indy Cylinder Heads"

Race Master Valves & Severe Duty® Valves

- ▶ Swirl Polished
- ▶ Fully Machined
- ▶ Chrome Stems
- ▶ Hard Tips

Manufactured specifically for Indy Cylinder Head's own 440-1 aluminum or cast iron head.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>RACE MASTER VALVES</b>											
11381-8	Exh.	1.810	.3415	Stock	5.400	.250	10° x 3/8"	.075	.100	6° Dish	118
11380-8	Int.	2.190	.3415	Stock	5.344	.250	10° x 3/8"	.050	.080	5° Dish	134
11382-8	Int.	2.250	.3415	Stock	5.344	.250	10° x 3/8"	.050	.080	5° Dish	136
<b>SEVERE DUTY VALVES</b>											
11813-8	Exh.	1.810	.3415	Stock	5.369	.250	12° x 3/8"	.075	.085	7° Dish	115
11822-8	Int.	2.190	.3415	Stock	5.344	.250	12° x 3/8"	.050	.080	7° Dish	140
11850-8	Int.	2.250	.3415	Stock	5.344	.250	12° x 3/8"	.050	.100	7° Dish	142

## Chrysler 426 Hemi

Race Master & Severe Duty® Valves

- ▶ XH-426 Race Master Stainless Exhaust Material
- ▶ NK-842 Race Master Stainless Intake Material
- ▶ Swirl Polished and Fully Machined
- ▶ NK-844 Severe Duty® Stainless Intake Material
- ▶ Chrome Stems and Hard Tips

"B" suffix indicates a Bead Loc® keeper groove. Bead Loc® valve locks are required.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>RACE MASTER VALVES</b>											
11315-8	Exh.	1.900	.3075	Stock	4.855	.200	22° x 3/8"	.070	.100	18° Dish	104
11315B-8	Exh.	1.900	.3075	Stock	4.855	.200	22° x 3/8"	.070	.100	18° Dish	104
11317-8	Exh.	1.940	.3075	Stock	4.865	.200	22° x 3/8"	.070	.100	18° Dish	107
11317B-8	Exh.	1.940	.3075	Stock	4.865	.200	22° x 3/8"	.070	.100	18° Dish	107
11901-8	Exh.	1.900	.3100	Stock	4.915	.250	22° x 1/4"	.075	.100	17° Dish	132
11905-8	Exh.	1.940	.3100	Stock	4.915	.250	22° x 1/4"	.075	.100	17° Dish	133
11516-8	Int.	2.200	.3100	Stock	5.490	.250	24° x 3/4"	.060	.080	19° Dish	128
11518-8	Int.	2.250	.3100	Stock	5.490	.250	24° x 3/4"	.060	.080	19° Dish	131
<b>SEVERE DUTY VALVES</b>											
11902-8	Int.	2.200	.3085	Stock	5.405	.200	24° x 3/4"	.060	.095	20° Dish	133
11902B-8	Int.	2.200	.3085	Stock	5.405	.200	24° x 3/4"	.060	.095	20° Dish	133
11904-8	Int.	2.250	.3085	Stock	5.424	.200	24° x 3/4"	.060	.095	20° Dish	136
11904B-8	Int.	2.250	.3085	Stock	5.424	.200	24° x 3/4"	.060	.095	20° Dish	136
11906-8	Int.	2.250	.3085	.050 Longer	5.474	.200	24° x 3/4"	.060	.095	20° Dish	137
11906B-8	Int.	2.250	.3085	.050 Longer	5.474	.200	24° x 3/4"	.060	.095	20° Dish	137
11908-8	Int.	2.250	.3085	.100 Longer	5.524	.200	24° x 3/4"	.060	.095	20° Dish	138
11908B-8	Int.	2.250	.3085	.100 Longer	5.524	.200	24° x 3/4"	.060	.095	20° Dish	138

## Top Fuel & Funny Car

Extreme Duty Exhaust Valves

- ▶ XH-432 XtremeAlloy Material
- ▶ Chrome Stems and Swirl Polished
- ▶ Hard Tips

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
11837-8	Exh.	1.950	.3715	.100 Longer	5.020	.250	22° x 1/2"	.100	.100	15° Dish	166
11729B-8**	Exh.	1.950	.3715	.200 Longer	5.120	.250	22° x 1/2"	.100	.100	15° Dish	169
11855-8	Exh.	2.000	.3715	.100 Longer	5.020	.250	22° x 1/2"	.080	.125	15° Dish	165
11895-8*	Exh.	2.000	.3715	*	5.315	*	22° x 1/2"	.118	.110	13° Dish	169

\* Valve 11895 is stocked at the O/A length listed above with no keeper grooves.

All valves above except 11855 have a 55° seat angle.

Please specify the overall length and groove location you require. There is no charge for these machining operations.

\*\* Valve 11729B has a Bead Loc® keeper groove. Bead Loc® valve locks are required.



# STAINLESS VALVES

VALVES

## Ford 2.3L EcoBoost Race Flo Valves & Extreme Duty Valves

- ▶ XH-432 XtremeAlloy Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined
- ▶ Improved Flow with "Pro Flo" Underhead
- ▶ Factory single radius keeper grooves



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head
<b>EXTREME DUTY VALVES</b>										
<b>11197-8</b>	Exh.	30.0mm	5.46mm / .2150"	Stock	104.75mm	3.75mm	25° x 11/32"	.050"	.100"	Flat Face
<b>11199-8</b>	Exh.	30.5mm	5.46mm / .2150"	Stock	104.75mm	3.75mm	25° x 11/32"	.050"	.100"	Flat Face
<b>RACE MASTER VALVES</b>										
<b>11196-8</b>	Int.	32.5mm	5.48mm / .2157"	Stock	103.55mm	4.00mm	Pro Flo: 22° x 5/16"	.050"	.100"	17° Dish
<b>11198-8</b>	Int.	33.0mm	5.48mm / .2157"	Stock	103.55mm	4.00mm	Pro Flo: 22° x 5/16"	.050"	.100"	17° Dish



**EcoBoost Powered Ford Mustang**

Note: New part numbers are **BOLD & ITALICIZED**

## Ford 4.6L & 5.4L SOHC 2 Valve

### Race Master Valves

Must use factory locks for triple grooves and use Manley's Bead Loc® P/N 13089-16 with the Bead Loc® single radius groove. We can also custom build Extreme Duty exhaust valves from our P/N 11281 GEN II blank stainless valve on page 40.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>1999 AND LATER w/ TRIPLE GROOVE</b>											
11637-8	Exh.	36.0mm	.2740	Stock	4.650	.470	15° x 1/2"	.060	.080	9° Dish	66
11639-8	Exh.	37.0mm	.2740	Stock	4.650	.470	15° x 1/2"	.060	.080	9° Dish	68
11636-8	Int.	44.5mm	.2750	Stock	4.705	.470	10° x 3/8"	.050	.080	5° Dish	76
11640-8	Int.	45.5mm	.2750	Stock	4.705	.470	10° x 3/8"	.050	.080	5° Dish	78
<b>1999 AND LATER w/ BEAD LOC® GROOVE</b>											
11637B-8	Exh.	36.0mm	.2740	Stock	4.650	.485	15° x 1/2"	.060	.080	9° Dish	66
11639B-8	Exh.	37.0mm	.2740	Stock	4.650	.485	15° x 1/2"	.060	.080	9° Dish	68
11636B-8	Int.	44.5mm	.2750	Stock	4.705	.485	10° x 3/8"	.050	.080	5° Dish	76
11640B-8	Int.	45.5mm	.2750	Stock	4.705	.485	10° x 3/8"	.050	.080	5° Dish	78
<b>1996 - 1998 w/ TRIPLE GROOVE</b>											
11635-8	Exh.	34.0mm	.2740	Stock	4.650	.470	15° x 1/2"	.060	.080	9° Dish	62
11637-8*	Exh.	36.0mm	.2740	Stock	4.650	.470	15° x 1/2"	.060	.080	9° Dish	66
11634-8	Int.	44.5mm	.2750	Stock	4.630	.470	10° x 3/8"	.050	.080	5° Dish	77
11638-8*	Int.	46.83mm	.2750	Stock	4.630	.470	10° x 3/8"	.050	.080	5° Dish	82
<b>1996 - 1998 w/ BEAD LOC® GROOVE</b>											
11635B-8	Exh.	34.0mm	.2740	Stock	4.650	.485	15° x 1/2"	.060	.080	9° Dish	62
11637B-8*	Exh.	36.0mm	.2740	Stock	4.650	.485	15° x 1/2"	.060	.080	9° Dish	66
11634B-8	Int.	44.5mm	.2750	Stock	4.630	.485	10° x 3/8"	.050	.080	5° Dish	77
11638B-8*	Int.	46.83mm	.2750	Stock	4.630	.485	10° x 3/8"	.050	.080	5° Dish	82

\* Part numbers 11637-8, 11637B-8, 11638-8 and 11638B-8 are for the Ford Racing M-6049-D46 cylinder head.

## Ford 4.6L & 5.4L DOHC 3 Valve

### Race Master Valves & Extreme Duty Valves

Must use factory locks for triple grooves and use Manley's Bead Loc® P/N 13088-24 with the Bead Loc® single radius groove. These Manley valves are boxed in sets of 8 pieces. Please order two boxes of intakes and one box of exhausts to fit your engine.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>EXTREME DUTY VALVES w/ TRIPLE GROOVE</b>											
11631-8	Exh.	37.5mm	.2345	Stock	4.585	.380	25° x 11/32"	.080	.100	20° Dish	68
11633-8	Exh.	38.5mm	.2345	Stock	4.585	.380	25° x 11/32"	.080	.100	20° Dish	70
<b>EXTREME DUTY VALVES w/ BEAD LOC® GROOVE</b>											
11631B-8	Exh.	37.5mm	.2345	Stock	4.585	.395	25° x 11/32"	.080	.100	20° Dish	68
11633B-8	Exh.	38.5mm	.2345	Stock	4.585	.395	25° x 11/32"	.080	.100	20° Dish	70
<b>RACE MASTER VALVES w/ TRIPLE GROOVE</b>											
11630-8	Int.	34mm	.2355	Stock	4.620	.315	12° x 5/16"	.065	.100	8° Dish	53
11632-8	Int.	35mm	.2355	Stock	4.620	.315	12° x 5/16"	.065	.100	8° Dish	54
<b>RACE MASTER VALVES w/ BEAD LOC® GROOVE</b>											
11630B-8	Int.	34mm	.2355	Stock	4.620	.330	12° x 5/16"	.065	.100	8° Dish	53
11632B-8	Int.	35mm	.2355	Stock	4.620	.330	12° x 5/16"	.065	.100	8° Dish	54

# STAINLESS VALVES

VALVES

## Ford 4.6L & 5.4L DOHC 4 Valve Race Master Valves

Must use factory locks for triple grooves and use Manley's Bead Loc® P/N 13089-32 with the Bead Loc® single radius groove.

These Manley valves are boxed in sets of 8 pieces. Please order two boxes of both intakes and exhausts to fit your engine.

We can also custom build Extreme Duty exhaust valves from our P/N 11281 GEN II blank stainless valve on page 40.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>TRIPLE GROOVE</b>											
11615-8	Exh.	30mm	.2740	Stock	4.587	.425	15° x 1/2"	.050	.080	9° Dish	53
11617-8	Exh.	31mm	.2740	Stock	4.587	.425	15° x 1/2"	.050	.080	9° Dish	55
11616-8	Int.	37mm	.2750	Stock	5.339	.620	10° x 3/8"	.045	.080	5° Dish	68
11618-8	Int.	38mm	.2750	Stock	5.339	.620	10° x 3/8"	.045	.080	5° Dish	70
<b>BEAD LOC® GROOVE</b>											
11615B-8	Exh.	30mm	.2740	Stock	4.587	.440	15° x 1/2"	.050	.080	9° Dish	53
11617B-8	Exh.	31mm	.2740	Stock	4.587	.440	15° x 1/2"	.050	.080	9° Dish	55
11616B-8	Int.	37mm	.2750	Stock	5.339	.635	10° x 3/8"	.045	.080	5° Dish	68
11618B-8	Int.	38mm	.2750	Stock	5.339	.635	10° x 3/8"	.045	.080	5° Dish	70

## Ford "Coyote" 5.0L DOHC 4 Valve Race Master & Extreme Duty Valves

Must use factory locks for triple grooves and use Manley's Bead Loc® P/N 13086-32 with the Bead Loc® single radius groove.

These Manley valves are boxed in sets of 8 pieces. Please order two boxes of both intakes and exhausts to fit your engine.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>RACE MASTER VALVES w/ TRIPLE GROOVE</b>											
11623-8	Exh.	31mm	.2345	Stock	4.274	.305	30° x 11/32"	.050	.080	25° Dish	44
11625-8	Exh.	31.5mm	.2345	Stock	4.274	.305	30° x 11/32"	.050	.080	25° Dish	45
11627-8	Exh.	32mm	.2345	Stock	4.274	.305	30° x 11/32"	.050	.080	25° Dish	46
<b>EXTREME DUTY VALVES w/ TRIPLE GROOVE</b>											
12623-8	Exh.	31mm	.2345	Stock	4.274	.305	25° x 11/32"	.050	.080	20° Dish	46
12625-8	Exh.	31.5mm	.2345	Stock	4.274	.305	25° x 11/32"	.050	.080	20° Dish	47
12627-8	Exh.	32mm	.2345	Stock	4.274	.305	25° x 11/32"	.050	.080	20° Dish	48
<b>RACE MASTER VALVES w/ TRIPLE GROOVE</b>											
11622-8*	Int.	37mm	.2355	Stock	4.722	.365	10° x 5/16"	.045	.080	5° Dish	54
11624-8*	Int.	37.5mm	.2355	Stock	4.722	.365	10° x 5/16"	.045	.080	5° Dish	55
11626-8*	Int.	38mm	.2355	Stock	4.722	.365	10° x 5/16"	.045	.080	5° Dish	56
<b>RACE MASTER VALVES w/ BEAD LOC® GROOVE</b>											
11623B-8	Exh.	31mm	.2345	Stock	4.274	.320	30° x 11/32"	.050	.080	25° Dish	44
11625B-8	Exh.	31.5mm	.2345	Stock	4.274	.320	30° x 11/32"	.050	.080	25° Dish	45
11627B-8	Exh.	32mm	.2345	Stock	4.274	.320	30° x 11/32"	.050	.080	25° Dish	46
<b>EXTREME DUTY VALVES w/ BEAD LOC® GROOVE</b>											
12623B-8	Exh.	31mm	.2345	Stock	4.274	.320	25° x 11/32"	.050	.080	20° Dish	46
12625B-8	Exh.	31.5mm	.2345	Stock	4.274	.320	25° x 11/32"	.050	.080	20° Dish	47
12627B-8	Exh.	32mm	.2345	Stock	4.274	.320	25° x 11/32"	.050	.080	20° Dish	48
<b>RACE MASTER VALVES w/ BEAD LOC® GROOVE</b>											
11622B-8*	Int.	37mm	.2355	Stock	4.722	.380	10° x 5/16"	.045	.080	5° Dish	54
11624B-8*	Int.	37.5mm	.2355	Stock	4.722	.380	10° x 5/16"	.045	.080	5° Dish	55
11626B-8*	Int.	38mm	.2355	Stock	4.722	.380	10° x 5/16"	.045	.080	5° Dish	56

\* Intakes have backcut - .050" x 30°

## Ford "Raptor" 6.2L SOHC 2 Valve Race Master Valves

Must use factory locks for triple grooves and use Manley's Bead Loc® P/N 13087-16 with the Bead Loc® single radius groove.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>TRIPLE GROOVE</b>											
11611-8	Exh.	42mm	.3120	Stock	5.356	.110	25° x 7/16"	.060	.100	20° Dish	99
11613-8	Exh.	43mm	.3120	Stock	5.356	.110	25° x 7/16"	.060	.100	20° Dish	100
11610-8*	Int.	53.5mm	.3122	Stock	5.424	.110	12° x 5/16"	.050	.080	7° Dish	120
11612-8*	Int.	54.5mm	.3122	Stock	5.424	.110	12° x 5/16"	.050	.080	7° Dish	123
11612H-8*	Int.	54.5mm	.3122 Hollow Stem	Stock	5.424	.110	12° x 5/16"	.050	.080	7° Dish	109
<b>BEAD LOC® GROOVE</b>											
11611B-8	Exh.	42mm	.3120	Stock	5.356	.125	25° x 7/16"	.060	.100	20° Dish	99
11613B-8	Exh.	43mm	.3120	Stock	5.356	.125	25° x 7/16"	.060	.100	20° Dish	100
11610B-8*	Int.	53.5mm	.3122	Stock	5.424	.125	12° x 5/16"	.050	.080	7° Dish	120
11612B-8*	Int.	54.5mm	.3122	Stock	5.424	.125	12° x 5/16"	.050	.080	7° Dish	123
11612HB-8*	Int.	54.5mm	.3122 Hollow Stem	Stock	5.424	.125	12° x 5/16"	.050	.080	7° Dish	109

\* Intakes have backcut - .050" x 30°

## Ford 289 - 302 - 351W Budget Performance, Street Flo, & Race Flo Valves

- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>BUDGET PERFORMANCE VALVES FOR USE WITH NON-RAIL OR ROLLER ROCKERS</b>											
10549-8*	Exh.	1.600	.3415	Stock	4.911	.250	15° x 1/2"	.060	.100	10° Dish	101
10548-8*	Int.	1.900	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	105
10576-8*	Int.	1.940	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	116
10550-8*	Int.	2.020	.3415	Stock	4.911	.250	10° x 3/8"	.050	.080	6° Dish	109
<b>RACE FLO VALVES FOR USE WITH NON RAIL OR ROLLER ROCKERS</b>											
11531-8*	Exh.	1.600	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	94
11532-8*	Int.	1.940	.3415	Stock	4.911	.250	Pro Flo: 10° x 3/8"	.050	.080	5° Dish	107
11566-8*	Int.	2.020	.3415	Stock	4.911	.250	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	113
<b>STREET FLO VALVES FOR USE WITH RAIL TYPE ROCKERS</b>											
10723-8	Exh.	1.465	.3415	Stock	5.080	.395	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	93
10775-8	Exh.	1.550	.3415	Stock	5.080	.395	Pro Flo: 12° x 3/8"	.060	.100	7° Dish	94
10778-8	Int.	1.850	.3420	Stock	5.075	.395	Pro Flo: 12° x 3/8"	.050	.080	7° Dish	105
<b>RACE FLO VALVES FOR USE WITH RAIL TYPE ROCKERS</b>											
11523-8	Exh.	1.465	.3415	Stock	5.080	.395	Pro Flo: 12° x 3/8"	.060	.100	5° Dish	93
11575-8	Exh.	1.550	.3415	Stock	5.080	.395	Pro Flo: 12° x 3/8"	.060	.100	5° Dish	94
11889-8	Exh.	1.600	.3415	Stock	5.080	.395	Pro Flo: 15° x 1/2"	.060	.100	9° Dish	96
11572-8	Int.	1.785	.3420	Stock	5.075	.395	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	104
11578-8	Int.	1.850	.3420	Stock	5.075	.395	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	105
11888-8	Int.	1.940	.3420	Stock	5.075	.395	Pro Flo: 12° x 3/8"	.050	.080	5° Dish	110

\* Ford valves with .250" tips must use non-rail type rockers or roller rockers.

Ford S.V.O. straight stem equivalents: P/N 11575 = M-6505-G302 P/N 11578 = M-6507-G302

# STAINLESS VALVES

VALVES

## Ford 351C

### Race Master Valves & Severe Duty® Valves

- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>RACE MASTER VALVES</b>											
11873-8	Exh.	1.710	.3415	Stock	5.042	.250	12° x 3/8"	.060	.100	7° Dish	104
11872-8	Int.	2.190	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	129
11874-8	Int.	2.250	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	130
<b>SEVERE DUTY® VALVES</b>											
11807-8	Exh.	1.655	.3415	Stock	5.067	.220	12° x 3/8"	.085	.085	7° Dish	102
11853-8	Exh.	1.655	.3415	.100 Longer	5.167	.250	12° x 3/8"	.085	.085	7° Dish	105
11805-8	Exh.	1.710	.3415	Stock	5.067	.220	12° x 3/8"	.085	.085	7° Dish	108
11857-8	Exh.	1.710	.3415	.100 Longer	5.167	.250	12° x 3/8"	.085	.085	7° Dish	111
11800-8	Int.	2.190	.3415	Stock	5.244	.250	12° x 3/8"	.050	.080	7° Dish	139
11822-8	Int.	2.190	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.080	7° Dish	140
11802-8	Int.	2.250	.3415	Stock	5.244	.250	12° x 3/8"	.050	.100	7° Dish	139
11850-8	Int.	2.250	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.100	7° Dish	142

## Ford SV0 "Sportsman"

### N-351 Cylinder Head

### Race Master Valves & Severe Duty® Valves

- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>RACE MASTER VALVES</b>											
11321-8	Exh.	1.600	.3415	Stock	5.165	.290	15° x 1/2"	.090	.100	9° Dish	112
11316-8	Int.	2.020	.3415	Stock	5.140	.290	12° x 3/8"	.065	.080	7° Dish	127
<b>SEVERE DUTY® VALVES</b>											
11865-8	Exh.	1.600	.3415	Stock	5.121	.250	15° x 1/2"	.070	.100	9° Dish	105
11751-8	Exh.	1.600	.3415	Stock	5.165	.290	15° x 1/2"	.090	.100	9° Dish	110
11544-8	Int.	2.020	.3415	Stock	5.140	.290	10° x 3/8"	.065	.080	5° Dish	125

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

## Ford 2300

### "Esslinger" Race Master Valves



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head	Wgt/ Grams
<b>SEMI-FINISHED VALVES FOR "ESSLINGER" HEADS</b>											
11791-4	Exh.	1.590	.3415	*	4.800	*	15° x 1/2"	.060	.100	9° Dish	105
11790-4	Int.	1.890	.3415	*	4.800	*	10° x 3/8"	.050	.080	5° Dish	110
<b>FINISHED VALVES FOR "ESSLINGER" FLAT TAPPET APPLICATIONS</b>											
11793-4	Exh.	1.590	.3415	Stock	4.800	.550	15° x 1/2"	.060	.100	9° Dish	104
11792-4	Int.	1.890	.3415	Stock	4.800	.550	10° x 3/8"	.050	.080	5° Dish	109
<b>FINISHED VALVES FOR "ESSLINGER" ROLLER TAPPET APPLICATIONS</b>											
11795-4	Exh.	1.590	.3415	Stock	4.800	.400	15° x 1/2"	.060	.100	9° Dish	104
11794-4	Int.	1.890	.3415	Stock	4.800	.400	10° x 3/8"	.050	.080	5° Dish	109

Valves 11790 and 11791 have hard tips but no grooves. Use P/N 04008 to order custom grooved valves.

## Ford 429 - 460

### Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11875-8	Exh.	1.760	.3415	Stock	5.042	.250	12° x 3/8"	.060	.100	7° Dish	110
11872-8	Int.	2.190	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	129
11874-8	Int.	2.250	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	130
<b>BLUE THUNDER HEADS</b>											
11829-8	Exh.	1.880	.3415	Stock	5.070	.250	25° x 3/8"	.090	.100	20° Dish	118
11899-8	Exh.	1.880	.3415	.100 Longer	5.170	.250	25° x 3/8"	.090	.100	20° Dish	120
11874-8	Int.	2.250	.3415	Stock	5.244	.250	10° x 3/8"	.050	.080	5° Dish	130

## Ford 429 - 460

### Severe Duty® Valves

- ▶ XH-428 Stainless Exhaust Material
- ▶ NK-844 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11529-8	Exh.	1.760	.3415	Stock	5.067	.250	12° x 3/8"	.085	.085	7° Dish	113
11801-8	Exh.	1.760	.3415	.100 Longer	5.167	.250	12° x 3/8"	.085	.085	7° Dish	116
11800-8	Int.	2.190	.3415	Stock	5.244	.250	12° x 3/8"	.050	.080	7° Dish	139
11822-8	Int.	2.190	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.080	7° Dish	140
11802-8	Int.	2.250	.3415	Stock	5.244	.250	12° x 3/8"	.050	.100	7° Dish	139
11850-8	Int.	2.250	.3415	.100 Longer	5.344	.250	12° x 3/8"	.050	.100	7° Dish	142

The size of the Super Cobra Jet valves are 2.245" Int. ( 30° seat ) and 1.750" Exh. Other 429 - 460 cylinder heads have smaller valve diameters. Our valves can be easily cut or the seats enlarged.

Need a different length? Head diameter not listed? Prefer a BeadLoc® groove?  
See pages 40 & 41 for Gen II blanks to construct a valve to your exact specifications.

# STAINLESS VALVES

VALVES

## Ford 429 - 460

Aluminum Aftermarket Heads

Race Master & Severe Duty® Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-844 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
<b>RACE MASTER VALVES</b>											
11591-8	Exh.	1.880	.3415	Stock	5.655	.260	25° x 3/8"	.075	.100	20° Dish	129
<b>SEVERE DUTY® VALVES</b>											
11586-8	Int.	2.250	.3415	Stock	5.725	.260	10° x 13/32"	.065	.075	5° Dish	153
11588-8	Int.	2.300	.3415	Stock	5.725	.260	10° x 13/32"	.065	.075	5° Dish	166
11590-8	Int.	2.400	.3415	Stock	5.725	.260	10° x 13/32"	.065	.075	5° Dish	170

(11588 = M-6507-A460; 11586 = M-6507-B460; 11591 = M-6505-A460; 11590 = M-6507-E460)

## Ford 427

Medium, Hi Riser, Tunnel Port

Severe Duty® Solid Stem Valves

- ▶ XH-428 Stainless Exhaust Material
- ▶ NK-844 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11825-8	Exh.	1.750	.3705	Stock	5.426	.320	20° x 3/8"	.060	.100	15° Dish	124
11884-8	Int.	2.190	.3715	Stock	5.446	.320	23° x 5/16"	.070	.120	20° Dish	143
11804-8	Int.	2.250	.3715	Stock	5.454	.320	23° x 5/16"	.065	.090	20° Dish	145

The above valves can be cut down to 1.656" for the 428 exhaust and 2.090" for the 428 intake. The lengths of the 427 and 428 valves are the same. Valves 11804 and 11884 have a 30° seat.

## Ford Boss 429

Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips
- ▶ Swirl Polished and Fully Machined



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11787-8	Exh.	1.900	.3715	Stock	5.650	.350	15° x 1/2"	.080	.100	9° Dish	122
11786-8*	Int.	2.280	.3715	Stock	5.625	.350	12° x 3/8"	.060	.100	7° Dish	141
11788-8*	Int.	2.400	.3715	Stock	5.570	.350	12° x 3/8"	.060	.100	7° Dish	143

\* P/N 11786-8 & P/N 11788-8 have a 30° seat

5.570" is the length of the NASCAR intake valve. It is short because it is sunk in the head. If you do not wish to sink the valve, order a GEN II intake at your desired length.

## Volkswagen Rabbit

### Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems, Swirl Polished and Fully Machined
- ▶ Special Hard Tips and Hardened Keeper Grooves



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11657-4	Exh.	34.0mm	.3130	Stock	3.976	.130	15° x 3/8"	.075	.075	10° Dish	63
11656-4	Int.	40.5mm	.3130	Stock	3.976	.130	10° x 11/32"	.075	.075	5° Dish	76

## Volkswagen 1200 - 1600

### Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems, Swirl Polished and Fully Machined
- ▶ Special Hard Tips and Hardened Keeper Grooves
- ▶ Available with factory triple or Chevy LS single radius keeper grooves. See pages 66 and 67 for compatible valve springs and retainers when using the Chevy LS keeper groove.



Triple Groove Part No.	Single Groove Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11649-4	11649B-4	Exh.	32.0mm	.3130	Stock	4.405	.170	15° x 3/8"	.070	.090	10° Dish	65
11651-4	11651B-4	Exh.	33.0mm	.3130	Stock	4.405	.170	15° x 3/8"	.070	.090	10° Dish	67
11653-4	11653B-4	Exh.	35.5mm	.3130	Stock	4.405	.170	15° x 3/8"	.070	.090	10° Dish	69
11655-4	11655B-4	Exh.	37.5mm	.3130	Stock	4.405	.170	15° x 3/8"	.070	.090	10° Dish	73
11650-4	11650B-4	Int.	40.0mm	.3130	Stock	4.405	.170	10° x 11/32"	.070	.090	6° Dish	79
11652-4	11652B-4	Int.	42.0mm	.3130	Stock	4.405	.170	10° x 11/32"	.070	.090	6° Dish	79
11654-4	11654B-4	Int.	43.7mm	.3130	Stock	4.405	.170	10° x 11/32"	.070	.090	6° Dish	83

## Volkswagen Type IV

### Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems, Swirl Polished and Fully Machined
- ▶ Special Hard Tips and Hardened Keeper Grooves
- ▶ Available with factory triple or Chevy LS single radius keeper grooves. See pages 66 and 67 for compatible valve springs and retainers when using the Chevy LS keeper groove.



Triple Groove Part No.	Single Groove Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Wgt / Grams
11629-4*	-----	Exh.	36mm	.3130	Stock	4.606	.170	15° x 1/2"	.060	.075	9° Dish	77
11659-4	11659B-4	Exh.	38mm	.3130	Stock	4.606	.170	15° x 1/2"	.060	.075	9° Dish	78
11663-4	11663B-4	Exh.	40mm	.3130	Stock	4.606	.170	15° x 1/2"	.060	.100	9° Dish	88
11628-4*	-----	Int.	42mm	.3130	Stock	4.606	.170	10° x 3/8"	.060	.075	5° Dish	84
11602-4	-----	Int.	44mm	.3130	Stock	4.606	.170	10° x 3/8"	.060	.075	5° Dish	89
11604-4	-----	Int.	46mm	.3130	Stock	4.606	.170	10° x 3/8"	.060	.075	5° Dish	94
11658-4	11658B-4	Int.	48mm	.3130	Stock	4.606	.170	10° x 3/8"	.060	.075	5° Dish	100
11662-4	11662B-4	Int.	50mm	.3130	Stock	4.606	.170	10° x 3/8"	.060	.075	5° Dish	101

\* Replacement valves for the Porche 914 2.0L



# CUSTOM STAINLESS VALVES

## Gen II Valve Blanks

### Extreme Duty & Severe Duty® Series

- ▶ Hard Tips and Hardened Grooves
- ▶ No Need for Inserted Tips or Wear Caps

The procedure for ordering a custom valve is as simple as 1-2-3!

1. Select the blank appropriate for your finished piece based first on stem diameter.
2. Give us your final head diameter along with the seat and margin widths.
3. Specify the length of the valve you want, along with groove type and location.

\* Part numbers with asterisks can be reduced 1.500" or 38mm, except P/N's 11223/11277 which can be reduced 1.800".

All others .800" or 20.32mm.

All Gen II custom stainless valve part numbers are priced to include all machining to render a finished valve provided that no more than .250" of material needs to be removed from the head diameter. If more than .250" of material is to be removed from the head diameter, then an additional machining charge P/N 04007 must be added to the price of the valve.



Part No.	Type	Maximum Head Diameter	Stem Diameter	Maximum Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Material
<b>XTREMEALLOY GEN II CUSTOM EXHAUST VALVES</b>									
<b>11225-8*</b>	Exh.	41.3mm / 1.625	.3415	142.2mm / 5.600	15° x 1/2"	.080	.100	9° Dish	XtremeAlloy
<b>11223-8*</b>	Exh.	52.3mm / 2.060	.3415	170.2mm / 6.700	15° x 1/2"	.080	.100	9° Dish	XtremeAlloy
<b>11277-8*</b>	Exh.	52.3mm / 2.060	.3415	170.2mm / 6.700	18° x 1/2"	.080	.100	Flat Face	XtremeAlloy
<b>11275-8*</b>	Exh.	42.0mm / 1.654	8.0mm / .3136	142.2mm / 5.600	25° x 7/16"	.065	.100	18° Dish	XtremeAlloy
<b>11257-8</b>	Exh.	44.5mm / 1.750	.3095	137.2mm / 5.400	25° x 3/8"	.060	.100	20° Dish	XtremeAlloy
<b>11281-8*</b>	Exh.	38.0mm / 1.496	6.96mm / .2740	127.0mm / 5.000	15° x 1/2"	.080	.100	9° Dish	XtremeAlloy
<b>11265-8*</b>	Exh.	39.0mm / 1.535	5.96mm / .2345	121.9mm / 4.800	25° x 11/32"	.080	.100	20° Dish	XtremeAlloy
<b>11283-8*</b>	Exh.	33.0mm / 1.299	5.46mm / .2150	121.0mm / 4.764	25° x 11/32"	.065	.080	Flat Face	XtremeAlloy
<b>SEVERE DUTY® GEN II CUSTOM VALVES</b>									
<b>11251-8</b>	Exh.	49.3mm / 1.940	.3715	143.5mm / 5.650	12° x 3/8"	.085	.100	7° Dish	XH-428
<b>11252-8*</b>	Int.	58.4mm / 2.300	.3720	142.2mm / 5.600	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	NK-844
<b>11252H-8*</b>	Int.	58.4mm / 2.300	.3720 Hollow Stem	142.2mm / 5.600	Pro Flo: 12° x 7/16"	.065	.080	7° Dish	NK-844
Pro Flo start is 1.600" from the top of the head.									
<b>11245-8</b>	Exh.	41.3mm / 1.625	.3415	143.3mm / 5.640	15° x 1/2"	.090	.100	9° Dish	XH-428
<b>11255-8</b>	Exh.	41.3mm / 1.625	.3415	143.3mm / 5.640	30° x 1/2"	.070	.100	25° Dish	XH-428
<b>11253-8</b>	Exh.	49.3mm / 1.940	.3415	143.5mm / 5.650	12° x 3/8"	.075	.080	7° Dish	XH-428
<b>11221-8</b>	Exh.	50.8mm / 2.000	.3415	170.2mm / 6.700	25° x 3/8"	.080	.100	20° Dish	XH-428
<b>11219-8</b>	Exh.	52.3mm / 2.060	.3415	170.2mm / 6.700	15° x 1/2"	.080	.100	9° Dish	XH-428
<b>11256-8*</b>	Int.	52.8mm / 2.080	.3415	143.3mm / 5.640	10° x 3/8"	.065	.080	5° Dish	NK-844
<b>11254-8*</b>	Int.	54.6mm / 2.150	.3415	143.3mm / 5.640	12° x 3/8"	.065	.080	7° Dish	NK-844
<b>11254H-8*</b>	Int.	54.6mm / 2.150	.3415 Hollow Stem	143.3mm / 5.640	12° x 3/8"	.065	.080	7° Dish	NK-844
<b>11242-8*</b>	Int.	54.6mm / 2.150	.3415	143.6mm / 5.655	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	NK-844
Pro Flo start is 1.600" from the top of the head.									
<b>11258-8*</b>	Int.	61.6mm / 2.425	.3415	144.8mm / 5.700	12° x 3/8"	.065	.080	7° Dish	NK-844
<b>11220-8*</b>	Int.	63.5mm / 2.500	.3415	172.7mm / 6.800	10° x 3/8"	.050	.080	5° Dish	NK-844
<b>11222-8*</b>	Int.	61.6mm / 2.425	.3415	170.2mm / 6.700	20° x 3/8"	.050	.080	15° Dish	NK-844
<b>11279-8*</b>	Exh.	42.0mm / 1.654	8.0mm / .3136	142.2mm / 5.600	25° x 7/16"	.065	.100	18° Dish	XH-428
<b>11274-8*</b>	Int.	57.2mm / 2.250	8.0mm / .3133	142.2mm / 5.600	Pro Flo: 12° x 3/8"	.060	.095	7° Dish	NK-844
<b>11274H-8*</b>	Int.	57.2mm / 2.250	8.0mm / .3133 Hollow Stem	142.2mm / 5.600	Pro Flo: 12° x 3/8"	.060	.095	7° Dish	NK-844
Pro Flo start is 1.300" from the top of the head.									
<b>11227-8</b>	Exh.	41.3mm / 1.625	.3110	146.1mm / 5.750	15° x 1/2"	.080	.100	9° Dish	XH-428
<b>11263-8</b>	Exh.	49.3mm / 1.940	.3110	154.9mm / 6.100	12° x 3/8"	.085	.100	7° Dish	XH-428
<b>11224-8*</b>	Int.	55.9mm / 2.200	.3110	146.1mm / 5.750	12° x 3/8"	.050	.080	7° Dish	NK-844
<b>11224H-8*</b>	Int.	55.9mm / 2.200	.3110 Hollow Stem	146.1mm / 5.750	12° x 3/8"	.050	.080	7° Dish	NK-844
<b>11264-8*</b>	Int.	61.0mm / 2.400	.3110	160.0mm / 6.300	10° x 3/8"	.065	.080	5° Dish	NK-844
<b>11264H-8*</b>	Int.	61.0mm / 2.400	.3110 Hollow Stem	160.0mm / 6.300	10° x 3/8"	.065	.080	5° Dish	NK-844
<b>11229-8</b>	Exh.	41.3mm / 1.625	6.96mm / .2740	142.2mm / 5.600	15° x 1/2"	.080	.100	9° Dish	XH-428
<b>11226-8*</b>	Int.	55.9mm / 2.200	6.96mm / .2740	142.2mm / 5.600	10° x 3/8"	.050	.080	5° Dish	NK-844

Part numbers 11274 and 11274H have a 50° seat angle, all others are 45°.

Note: New part numbers are **BOLD & ITALICIZED**

# CUSTOM STAINLESS VALVES

## Gen II Valve Blanks

### Race Series

- ▶ Hard Tips and Hardened Grooves
- ▶ No Need for Inserted Tips or Wear Caps

The procedure for ordering a custom valve is as simple as 1-2-3 !

1. Select the blank appropriate for your finished piece based first on stem diameter.
2. Give us your final head diameter along with the seat and margin widths.
3. Specify the length of the valve you want, along with groove type and location.

\* Part numbers with asterisks can be reduced 1.500" or 38mm. All others .800" or 20.32mm.

All Gen II custom stainless valve part numbers are priced to include all machining to render a finished valve provided that no more than .250" of material needs to be removed from the head diameter. If more than .250" of material is to be removed from the head diameter, then an additional machining charge P/N 04007 must be added to the price of the valve.



VALVES

Part No.	Type	Maximum Head Diameter	Stem Diameter	Maximum Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Material
11215-8	Exh.	49.3mm / 1.940	.3715	143.5mm / 5.650	15° x 1/2"	.080	.100	9° Dish	XH-426
11214-8	Int.	61.6mm / 2.425	.3715	143.5mm / 5.650	12° x 3/8"	.050	.080	7° Dish	NK-842
11203-8	Exh.	41.3mm / 1.625	.3415	139.7mm / 5.500	15° x 1/2"	.090	.100	9° Dish	XH-426
11217-8	Exh.	41.9mm / 1.650	.3415	143.3mm / 5.640	Pro Flo: 15° x 1/2"	.090	.100	9° Dish	XH-426
					Pro Flo start is 1.600" from the top of the head.				
11243-8	Exh.	48.3mm / 1.900	.3415	144.8mm / 5.700	25° x 3/8"	.080	.100	20° Dish	XH-426
11201-8	Exh.	49.3mm / 1.940	.3415	162.9mm / 6.415	25° x 3/8"	.080	.100	20° Dish	XH-426
11241-8	Exh.	49.3mm / 1.940	.3415	152.4mm / 6.000	10° x 3/8"	.075	.100	5° Dish	XH-426
11218-8	Int.	54.0mm / 2.125	.3415	140.7mm / 5.540	12° x 3/8"	.065	.080	7° Dish	NK-842
11216-8	Int.	54.6mm / 2.150	.3415	143.6mm / 5.655	Pro Flo: 12° x 3/8"	.065	.080	7° Dish	NK-842
					Pro Flo start is 1.600" from the top of the head.				
11200-8	Int.	60.3mm / 2.375	.3415	144.8mm / 5.700	10° x 3/8"	.050	.080	5° Dish	NK-842
11244-8	Int.	61.6mm / 2.425	.3415	167.6mm / 6.600	10° x 3/8"	.050	.080	5° Dish	NK-842
11211-4	Exh.	38.5mm / 1.516	8.0mm / .3130	114.3mm / 4.500	15° x 3/8"	.060	.090	10° Dish	XH-426
11205-4	Exh.	40.0mm / 1.575	8.0mm / .3130	127.0mm / 5.000	15° x 1/2"	.080	.100	9° Dish	XH-426
11210-4	Int.	48.5mm / 1.909	8.0mm / .3130	114.3mm / 4.500	10° x 11/32"	.060	.080	5° Dish	NK-842
11204-4	Int.	52.0mm / 2.047	8.0mm / .3130	127.0mm / 5.000	10° x 3/8"	.050	.080	5° Dish	NK-842
11269-8*	Exh.	42.0mm / 1.654	8.0mm / .3136	142.2mm / 5.600	25° x 7/16"	.065	.100	18° Dish	XH-426
11270-8*	Int.	56.5mm / 2.225	8.0mm / .3133	142.2mm / 5.600	Pro Flo: 12° x 3/8"	.060	.095	7° Dish	NK-842
11270H-8*	Int.	56.5mm / 2.225	8.0mm / .3133	142.2mm / 5.600	Pro Flo: 12° x 3/8"	.060	.095	7° Dish	NK-842
					Hollow Stem Pro Flo start is 1.300" from the top of the head.				
11271-8	Exh.	42.6mm / 1.675	.3125	134.6mm / 5.300	25° x 1/2"	.080	.100	20° Dish	XH-426
11272-8	Int.	56.5mm / 2.225	.3125	134.6mm / 5.300	Pro Flo: 10° x 5/16"	.065	.095	5° Dish	NK-842
11272H-8	Int.	56.5mm / 2.225	.3125 Hollow Stem	134.6mm / 5.300	Pro Flo: 10° x 5/16"	.065	.095	5° Dish	NK-842
					Pro Flo start is 1.300" from the top of the head.				
11207-8	Exh.	41.3mm / 1.625	.3110	144.8mm / 5.700	15° x 1/2"	.080	.100	9° Dish	XH-426
11261-8	Exh.	41.3mm / 1.625	.3110	162.6mm / 6.400	18° x 1/2"	.080	.100	12° Dish	XH-426
11206-8	Int.	55.9mm / 2.200	.3110	144.8mm / 5.700	10° x 3/8"	.050	.080	5° Dish	NK-842
11262-8	Int.	53.3mm / 2.100	.3110	162.6mm / 6.400	12° x 3/8"	.050	.080	7° Dish	NK-842
11249-8	Exh.	53.3mm / 2.100	.3100	137.2mm / 5.400	22° x 1/4"	.050	.100	17° Dish	XH-426
11248-8*	Int.	58.4mm / 2.300	.3100	149.9mm / 5.900	24° x 3/4"	.060	.080	19° Dish	NK-842
11247-8	Exh.	37.0mm / 1.457	6.96mm / .2740	121.9mm / 4.800	15° x 1/2"	.080	.100	9° Dish	XH-426
11246-8	Int.	48.0mm / 1.890	6.96mm / .2740	121.9mm / 4.800	10° x 3/8"	.050	.080	5° Dish	NK-842
11267-8	Exh.	41.9mm / 1.650	7.0mm / .2755	119.4mm / 4.700	30° x 1/2"	.060	.100	24° Dish	XH-426
11250-8*	Int.	48.0mm / 1.890	7.0mm / .2750	137.9mm / 5.430	10° x 3/8"	.065	.080	5° Dish	NK-842
11268-8	Int.	50.8mm / 2.000	7.0mm / .2755	116.8mm / 4.600	28° x 7/16"	.050	.100	22° Dish	NK-842
11213-8	Exh.	33.0mm / 1.299	6.0mm / .2362	113.5mm / 4.469	25° x 11/32"	.065	.080	20° Dish	XH-426
11212-8	Int.	39.0mm / 1.535	6.0mm / .2362	113.5mm / 4.469	Pro Flo: 22° x 5/16"	.065	.080	17° Dish	NK-842
11266-8*	Int.	35.0mm / 1.378	5.98mm / .2355	121.9mm / 4.800	12° x 5/16"	.065	.100	7° Dish	NK-842
11276-4	Int.	40.0mm / 1.575	5.97mm / .2350	113.0mm / 4.449	25° x 11/32"	.065	.100	Flat Face	NK-842
11209-8	Exh.	32.0mm / 1.260	5.46mm / .2150	121.0mm / 4.764	25° x 11/32"	.065	.080	Flat Face	XH-426
11208-8	Int.	37.0mm / 1.457	5.48mm / .2157	121.0mm / 4.764	Pro Flo: 22° x 5/16"	.065	.080	Flat Face	NK-842

# Gen II CUSTOM VALVE FORM

PLEASE SEE GEN II CUSTOM VALVE SPECIFICATIONS PAGES 40 & 41

PLEASE FILL IN ALL DIMENSIONS AND ORDER INFORMATION

USE BLANK P/N \_\_\_\_\_

CYLINDER HEAD \_\_\_\_\_

A WEAR CAP IS NOT NECESSARY WITH GEN II\*

TIP LENGTH \_\_\_\_\_

STEM DIAM. \_\_\_\_\_

GROOVE TYPE

- CONVENTIONAL (CHEVY)
- BEAD LOC® ( STD. R.055" )
- CHEVY LS (R.060")
- OTHER - SPECIFY \_\_\_\_\_

ROOT DIAMETER \_\_\_\_\_

RADIUS \_\_\_\_\_

GROOVE WIDTH \_\_\_\_\_

1ST BACK CUT

WIDTH \_\_\_\_\_

ANGLE \_\_\_\_\_

EDGE

- SHARP
- BREAK
- CORNER RADIUS \_\_\_\_\_

DISH

ANGLE \_\_\_\_\_

RIM WIDTH \_\_\_\_\_

MARGIN \_\_\_\_\_

SEAT

WIDTH \_\_\_\_\_

ANGLE \_\_\_\_\_

OVERALL LENGTH \_\_\_\_\_

HEAD DIAM. \_\_\_\_\_

ORDER INFORMATION

CUST. #: \_\_\_\_\_

CUST. NAME: \_\_\_\_\_

DATE: \_\_\_\_\_


P.O.#: \_\_\_\_\_

W.O.#: \_\_\_\_\_

QTY.: \_\_\_\_\_

DUE DATE: \_\_\_\_\_

SHIP VIA: \_\_\_\_\_



\* Provided that the overall length is within the minimum length parameter of the Gen II blank that is machined.

CUSTOMER NAME

CUSTOMER SIGNATURE

DATE

/ /

By signing this form I accept the goods are nonreturnable for credit and that Manley takes no responsibility for incorrectly ordered items.

# Titanium CUSTOM VALVE FORM

WITH HARD TIP P/N \_\_\_\_\_  
 WITHOUT HARD TIP \_\_\_\_\_

USE BLANK P/N \_\_\_\_\_  
 CYLINDER HEAD \_\_\_\_\_

CONVENTIONAL (CHEVY)  
 BEAD LOC@ (STD. R.055")  
 CHEVY LS (R.060")  
 OTHER - SPECIFY \_\_\_\_\_

TIP LENGTH \_\_\_\_\_  
 STEM DIAM. \_\_\_\_\_  
 GROOVE TYPE \_\_\_\_\_  
 RADIUS \_\_\_\_\_  
 GROOVE WIDTH \_\_\_\_\_

1ST BACK CUT  
 WIDTH \_\_\_\_\_  
 ANGLE \_\_\_\_\_  
 2ND BACK CUT  
 WIDTH \_\_\_\_\_  
 ANGLE \_\_\_\_\_

SHARP  
 BREAK \_\_\_\_\_  
 CORNER RADIUS \_\_\_\_\_

DISH  
 ANGLE \_\_\_\_\_  
 RIM WIDTH \_\_\_\_\_  
 BLEND RADIUS & WIDTH \_\_\_\_\_  
 CENTER RADIUS \_\_\_\_\_

SEAT FACE  
 TIP  
 FULL VALVE (CN Slick STEM)

BACKANGLE & RADIUS \_\_\_\_\_  
 SEAT \_\_\_\_\_  
 WIDTH \_\_\_\_\_  
 ANGLE \_\_\_\_\_  
 MARGIN \_\_\_\_\_

STRAIGHT LENGTH  
 TAPER ANGLE \_\_\_\_\_  
 UNDERCUT LEN. \_\_\_\_\_  
 BLEND RADIUS \_\_\_\_\_  
 UNDERCUT DIAM. \_\_\_\_\_

OVERALL LENGTH \_\_\_\_\_  
 MOLY LENGTH \_\_\_\_\_  
 MOLY START \_\_\_\_\_  
 HEAD DIAM. \_\_\_\_\_

PROFILE \_\_\_\_\_

**MANLEY**

**ORDER INFORMATION**  
 CUST. #: \_\_\_\_\_  
 CUST. NAME: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 P.O.#: \_\_\_\_\_  
 W.O.#: \_\_\_\_\_  
 QTY.: \_\_\_\_\_  
 DUE DATE: \_\_\_\_\_  
 SHIP VIA: \_\_\_\_\_

PLEASE FILL IN ALL DIMENSIONS AND ORDER INFORMATION

By signing this form I accept the goods are nonreturnable for credit and that Manley takes no responsibility for incorrectly ordered items.

CUSTOMER NAME

CUSTOMER SIGNATURE

DATE / /

# TITANIUM VALVES

VALVES

## Small Block GM, Ford & Chrysler

### Titanium Exhaust Valves

- ▶ All valves have inserted hard tips
- ▶ "HT" suffix indicates high temperature material
- ▶ Available with conventional square or Manley's Bead Loc® single radius keeper grooves



Square Groove Part No.	Bead Loc® Groove Part No.	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width/Angle	Wgt / Grams
11401T-8	11401TB-8	1.600	.3415	.100 Longer	5.060	.290	15° x 1/2"	.100	.100/45°	73
11403T-8	11403TB-8	1.600	.3415	.200 Longer	5.160	.290	15° x 1/2"	.100	.100/45°	74
11405T-8	11405TB-8	1.600	.3415	.300 Longer	5.260	.290	15° x 1/2"	.100	.100/45°	75
11407T-8	11407TB-8	1.600	.3415	.400 Longer	5.360	.290	15° x 1/2"	.100	.100/45°	76
11409T-8	11409TB-8	1.600	.3415	.500 Longer	5.460	.290	15° x 1/2"	.100	.100/45°	77
11451T-8	11451TB-8	1.600	.3415	.600 Longer	5.560	.290	15° x 1/2"	.100	.100/45°	78
11463T-8	11463TB-8	1.600	.3415	Stock	4.960	.290	20° x 7/16"	.100	.100/45°	74
11425T-8	11425TB-8	1.600	.3415	.100 Longer	5.060	.290	20° x 7/16"	.100	.100/45°	75
-----	11421TB-8	1.600	.3110	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	68
11467HT-8*	11467HTB-8*	1.600	.3415	.200 Longer	5.140	.290	20° x 7/16"	.080	.085/45°	73
11427T-8	11427TB-8	1.600	.3415	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	74
11427HT-8	11427HTB-8	1.600	.3415	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	74
11429T-8	11429TB-8	1.600	.3415	.300 Longer	5.260	.290	20° x 7/16"	.100	.100/45°	77
11431T-8	11431TB-8	1.600	.3415	.400 Longer	5.360	.290	20° x 7/16"	.100	.100/45°	78
11433T-8	11433TB-8	1.600	.3415	.500 Longer	5.460	.290	20° x 7/16"	.100	.100/45°	79
11471HT-8	11471HTB-8	1.600	.3415	.600 Longer	5.560	.290	20° x 7/16"	.100	.100/45°	80
-----	11487TB-8	1.600	.3415	.800 Longer	5.740	.290	20° x 7/16"	.080	.100/45°	82
11469HT-8	11469HTB-8	1.600	.3415	.600 Longer	5.560	.290	25° x 3/4"	.100	.100 /45°	83
11411T-8	11411TB-8	1.625	.3415	.100 Longer	5.060	.290	15° x 1/2"	.100	.100/45°	74
11413T-8	11413TB-8	1.625	.3415	.200 Longer	5.160	.290	15° x 1/2"	.100	.100/45°	75
11417T-8	11417TB-8	1.625	.3415	.400 Longer	5.360	.290	15° x 1/2"	.100	.100/45°	77
11419T-8	11419TB-8	1.625	.3415	.500 Longer	5.460	.290	15° x 1/2"	.100	.100/45°	78
11447T-8	11447TB-8	1.625	.3415	.600 Longer	5.560	.290	15° x 1/2"	.100	.100/45°	79
11435T-8	11435TB-8	1.625	.3415	.100 Longer	5.060	.290	20° x 7/16"	.100	.100/45°	75
11437T-8	11437TB-8	1.625	.3415	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	74
11439T-8	11439TB-8	1.625	.3415	.300 Longer	5.260	.290	20° x 7/16"	.100	.100/45°	77
11441T-8	11441TB-8	1.625	.3415	.400 Longer	5.360	.290	20° x 7/16"	.100	.100/45°	78
11443T-8	11443TB-8	1.625	.3415	.500 Longer	5.460	.290	20° x 7/16"	.100	.100/45°	79
11453T-8	11453TB-8	1.625	.3415	.600 Longer	5.560	.290	20° x 7/16"	.100	.100/45°	80
11453HT-8	11453HTB-8	1.625	.3415	.600 Longer	5.560	.290	20° x 7/16"	.100	.100/45°	80
-----	11475HTB-8	1.625	.3415	.700 Longer	5.660	.290	20° x 7/16"	.100	.100/45°	81
-----	11489TB-8	1.625	.3415	.800 Longer	5.740	.290	20° x 7/16"	.080	.100/45°	83
11455HT-8	11455HTB-8	1.625	.3415	.500 Longer	5.460	.290	25° x 3/4"	.100	.100/45°	85
11457T-8	11457TB-8	1.625	.3415	.600 Longer	5.560	.290	25° x 3/4"	.100	.100/45°	86
11457HT-8	11457HTB-8	1.625	.3415	.600 Longer	5.560	.290	25° x 3/4"	.100	.100/45°	86
11473T-8	11473TB-8	1.625	.3415	.700 Longer	5.660	.290	25° x 3/4"	.100	.100/45°	87
-----	11477TB-8	1.625	.3415	.700 Longer	5.640	.290	25° x 1/2"	.080	.100/55°	85
11445T-8	11445TB-8	1.650	.3415	.500 Longer	5.460	.290	20° x 7/16"	.100	.100/45°	81

\*Valve P/N's 11467HT and 11467HTB have a back cut of .055" x 30°.

## Small Block GM, Ford & Chrysler Up To 2.150" Head Diameters

### Titanium Intake Valves

2.180" and 2.200" head diameter offerings continued on next page

- ▶ All valves have inserted hard tips
- ▶ "HT" suffix indicates higher hardness material
- ▶ Available with conventional square or Manley's Bead Loc® single radius keeper grooves
- ▶ "C" suffix indicates CrN seat coating (See page 51 for more details)



Square Groove Part No.	Bead Loc® Groove Part No.	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width/Angle	Back Cut Width/Angle	Wgt / Grams
11948T-8	11948TB-8	2.020	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	86
11452T-8	11452TB-8	2.055	.3415	Stock	4.940	.290	10° x 3/8"	.080	.100/45°	-----	85
11474T-8	11474TB-8	2.055	.3415	.100 Longer	5.040	.290	10° x 3/8"	.080	.100/45°	-----	86
11950T-8	11950TB-8	2.055	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	87
11454T-8	11454TB-8	2.080	.3415	Stock	4.940	.290	10° x 3/8"	.080	.100/45°	-----	86
-----	11440HTBC-8	2.080	.3110	.100 Longer	5.040	.290	10° x 3/8"	.080	.060/45°	.080/30°	80
11400T-8	11400TB-8	2.080	.3415	.100 Longer	5.040	.290	10° x 3/8"	.080	.100/45°	-----	87
-----	11400HTBC-8	2.080	.3415	.100 Longer	5.040	.290	10° x 3/8"	.080	.060/45°	.080/30°	87
-----	11472HTB-8	2.080	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	81
-----	11472HTBC-8	2.080	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	81
11402T-8	11402TB-8	2.080	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	88
-----	11402HTB-8	2.080	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	88
-----	11402HTBC-8	2.080	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	88
11404T-8	11404TB-8	2.080	.3415	.300 Longer	5.240	.290	10° x 3/8"	.080	.100/45°	-----	89
11408T-8	11408TB-8	2.100	.3415	.100 Longer	5.040	.290	10° x 3/8"	.080	.100/45°	-----	89
-----	11478HTB-8	2.100	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	82
-----	11478HTBC-8	2.100	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	82
11410T-8	11410TB-8	2.100	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	90
-----	11410HTB-8	2.100	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	90
-----	11410HTBC-8	2.100	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	90
11412T-8	11412TB-8	2.100	.3415	.300 Longer	5.240	.290	10° x 3/8"	.080	.100/45°	-----	91
11456T-8	11456TB-8	2.100	.3415	.300 Longer	5.240	.290	12° x 7/16"	.080	.100/45°	-----	93
11462T-8	11462TB-8	2.100	.3415	.345 Longer	5.285	.290	12° x 3/8"	.080	.090/45°	.090/30°	94
11462HT-8	11462HTB-8	2.100	.3415	.345 Longer	5.285	.290	12° x 3/8"	.080	.090/45°	.090/30°	94
11414T-8	11414TB-8	2.100	.3415	.400 Longer	5.340	.290	10° x 3/8"	.080	.100/45°	-----	94
11416T-8	11416TB-8	2.100	.3415	.500 Longer	5.440	.290	10° x 3/8"	.080	.100/45°	-----	95
11446T-8	11446TB-8	2.100	.3415	.500 Longer	5.440	.290	12° x 7/16"	.080	.100/45°	-----	96
11434T-8	11434TB-8	2.100	.3415	.600 Longer	5.540	.290	10° x 3/8"	.080	.100/45°	-----	96
11442T-8	11442TB-8	2.125	.3415	.100 Longer	5.040	.290	10° x 3/8"	.080	.100/45°	-----	90
-----	11406HTB-8	2.125	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	83
-----	11406HTBC-8	2.125	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	83
11418T-8	11418TB-8	2.125	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	91
11420T-8	11420TB-8	2.125	.3415	.300 Longer	5.240	.290	10° x 3/8"	.080	.100/45°	-----	92
11422T-8	11422TB-8	2.125	.3415	.400 Longer	5.340	.290	10° x 3/8"	.080	.100/45°	-----	93
11424T-8	11424TB-8	2.125	.3415	.500 Longer	5.440	.290	10° x 3/8"	.080	.100/45°	-----	94
11448T-8	11448TB-8	2.125	.3415	.500 Longer	5.440	.290	12° x 7/16"	.080	.100/45°	-----	95
11436T-8	11436TB-8	2.125	.3415	.600 Longer	5.540	.290	10° x 3/8"	.080	.100/45°	-----	95
11470T-8	11470TB-8	2.125	.3415	.600 Longer	5.540	.290	12° x 7/16"	.080	.100/45°	-----	96
11428T-8	11428TB-8	2.150	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	94
11430T-8	11430TB-8	2.150	.3415	.300 Longer	5.240	.290	10° x 3/8"	.080	.100/45°	-----	95
11432T-8	11432TB-8	2.150	.3415	.400 Longer	5.340	.290	10° x 3/8"	.080	.100/45°	-----	96
11458T-8	11458TB-8	2.150	.3415	.400 Longer	5.340	.290	12° x 7/16"	.080	.100/45°	-----	97
11426T-8	11426TB-8	2.150	.3415	.500 Longer	5.440	.290	10° x 3/8"	.080	.100/45°	-----	97
11450T-8	11450TB-8	2.150	.3415	.500 Longer	5.440	.290	12° x 7/16"	.080	.100/45°	-----	98
-----	11496HTB-8	2.150	.3110	.600 Longer	5.540	.290	12° x 3/8"	.080	.100/45°	-----	91
11438T-8	11438TB-8	2.150	.3415	.600 Longer	5.540	.290	10° x 3/8"	.080	.100/45°	-----	99
11460T-8	11460TB-8	2.150	.3415	.600 Longer	5.540	.290	12° x 7/16"	.080	.100/45°	-----	100
-----	11460HTB-8	2.150	.3415	.600 Longer	5.540	.290	12° x 7/16"	.080	.100/45°	-----	100
-----	11498HTB-8	2.150	.3110	.700 Longer	5.640	.290	12° x 3/8"	.080	.100/45°	-----	92
11476HT-8	11476HTB-8	2.150	.3415	.700 Longer	5.640	.290	12° x 3/8"	.080	.100/45°	-----	101

2.180" and 2.200" head diameter offerings continued on next page

# TITANIUM VALVES

Continued from page 45

VALVES

## Small Block GM, Ford & Chrysler Titanium Intake Valves

- ▶ All valves have inserted hard tips
- ▶ "HT" suffix indicates higher hardness material
- ▶ Available with conventional square or Manley's Bead Loc® single radius keeper grooves
- ▶ "C" suffix indicates CrN seat coating (See page 51 for more details)



Square Groove Part No.	Bead Loc® Groove Part No.	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width/Angle	Wgt / Grams
11466T-8	11466TB-8	2.180	.3415	.500 Longer	5.440	.290	12° x 3/8"	.080	.100/45°	99
-----	11494HTB-8	2.180	.3110	.600 Longer	5.540	.290	12° x 3/8"	.080	.100/45°	92
-----	11444HTBC-8*	2.180	.3110	.600 Longer	5.540	.290	12° x 3/8"	.065	.060/45°	92
11468T-8	11468TB-8	2.180	.3415	.600 Longer	5.540	.290	12° x 3/8"	.080	.100/45°	100
-----	11468HTB-8	2.180	.3415	.600 Longer	5.540	.290	12° x 3/8"	.080	.100/45°	100
-----	11488HTB-8	2.180	.3110	.700 Longer	5.640	.290	12° x 3/8"	.080	.100/45°	93
11486HT-8	11486HTB-8	2.180	.3415	.700 Longer	5.640	.290	12° x 3/8"	.080	.100/45°	101
-----	11942HTB-8	2.180	.3110	.800 Longer	5.740	.290	12° x 3/8"	.080	.080/52°	94
11464T-8	11464TB-8	2.200	.3415	.600 Longer	5.540	.290	10° x 3/8"	.080	.100/45°	100

\* Valve P/N 11444HTBC has a 7° dish and a back cut of .075" x 33°.

## LS-7 Small Block Chevy Titanium Intake Valves

- ▶ These valves have an inserted hard tip
- ▶ These valves have an O.E. style single radius keeper groove.
- ▶ "C" suffix indicates CrN seat coating (See page 51 for more details)

Use Manley valve lock P/N 13098-16 (7°) or 13153-16 (10°) depending on your spring/retainer choice.



Part No.	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width/Angle	Back Cut Width/Angle	Wgt / Grams
11958TB-8	2.205	.3135	Stock	5.205	.290	12° x 3/8"	.065	.080/45°	.080/30°	78
11958TBC-8	2.205	.3135	Stock	5.190	.290	10° x 3/8"	.050	.090/45°	.090/30°	78
11978TB-8	2.250	.3135	Stock	5.205	.290	12° x 3/8"	.065	.080/45°	.080/30°	80
11978TBC-8	2.250	.3135	Stock	5.190	.290	12° x 3/8"	.050	.090/45°	.090/30°	80

Note: Above LS-7 titanium intake valves have a 5° dish

## Small Block Chevrolet

AFR 210cc, 220cc, 227cc  
Eliminator Racing Heads

### Titanium Valves

- ▶ All valves have inserted hard tips
- ▶ All valves feature Chevy LS (.060" single radius) style keeper grooves

Use Manley valve lock P/N 13098-16 (7°) or 13153-16 (10°) depending on your spring/retainer choice.

Manley stem size is .3135". AFR heads have guides sized to .3147" (nominal). Manley strongly recommends that all guides be checked and correctly sized for the Manley valve stem sizes listed to achieve the proper clearances.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Wgt / Grams
11967TB-8	Exh.	1.600"	.3135"	Stock	5.090"	.290"	25° x 7/16"	.080	.100	75
11968TB-8	Int.	2.080"	.3135"	Stock	5.080"	.290"	12° x 3/8"	.070	.100	88
11970TB-8	Int.	2.100"	.3135"	Stock	5.080"	.290"	12° x 3/8"	.070	.100	90

## All Pro, Brodix ASCS & GB Heads

- ▶ All valves (except P/N 12218HBC-8) have inserted hard tips and Manley's Bead Loc® single radius keeper groove
- ▶ All exhaust valves are "HT" high temperature material (except P/N's 11421TB, 11427TB and 11437TB)
- ▶ All intake valves are "HT" higher hardness material
- ▶ "C" suffix indicates CrN seat coating (See page 51 for more details)



VALVES

Part No.	Type	Head Diam.	Stem Diam.	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width/Angle	Back Cut Width/Angle	Wgt / Grams
<b>EXHAUST VALVES</b>											
11421TB-8	ASCS	1.600	.3110	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	-----	68
11427TB-8	ASCS	1.600	.3415	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	-----	74
11427HTB-8	ASCS	1.600	.3415	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	-----	74
11437TB-8	ASCS	1.625	.3415	.200 Longer	5.140	.290	20° x 7/16"	.080	.100/45°	-----	74
11969HTB-8	ALL PRO	1.600	.3110	Stock	5.950	.300	20° x 3/4"	.080	.065/45°	-----	71
11971HTB-8	ALL PRO	1.625	.3110	Stock	5.950	.300	20° x 3/4"	.080	.065/45°	-----	72
11991HTB-8	ALL PRO	1.600	.3110	Stock	5.950	.300	20° x 3/4"	.080	.065/55°	-----	71
11993HTB-8	ALL PRO	1.625	.3110	Stock	5.950	.300	20° x 3/4"	.080	.065/55°	-----	72
11961HTB-8	ALL PRO	1.600	.3415	Stock	5.950	.300	20° x 3/4"	.080	.065/45°	-----	77
11973HTB-8	ALL PRO	1.625	.3415	Stock	5.950	.300	20° x 3/4"	.080	.065/45°	-----	78
12215HTBC-8	ALL PRO	1.600	.3110	Stock	6.090	.300	20° x 3/4"	.080	.065/55°	-----	75
11975HTB-8	GB 2000	1.600	.3110	Stock	6.090	.300	25° x 3/4"	.080	.065/45°	-----	73
11963HTB-8	GB 2000	1.600	.3415	Stock	6.090	.300	25° x 3/4"	.080	.065/45°	-----	80
11977HTB-8	GB 2300	1.600	.3110	Stock	6.250	.300	25° x 3/4"	.080	.065/45°	-----	78
11965HTB-8	GB 2300	1.600	.3415	Stock	6.250	.300	25° x 3/4"	.080	.065/45°	-----	85
<b>INTAKE VALVES</b>											
11472HTB-8	ASCS	2.080	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	81
11472HTBC-8	ASCS	2.080	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	81
11478HTB-8	ASCS	2.100	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	82
11478HTBC-8	ASCS	2.100	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	82
11402HTB-8	ASCS	2.080	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	88
11402HTBC-8	ASCS	2.080	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	88
11410HTB-8	ASCS	2.100	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	90
11410HTBC-8	ASCS	2.100	.3415	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	90
11406HTB-8	ASCS	2.125	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.100/45°	-----	83
11406HTBC-8	ASCS	2.125	.3110	.200 Longer	5.140	.290	10° x 3/8"	.080	.060/45°	.080/30°	83
11972HTB-8	ALL PRO	2.180	.3110	Stock	5.950	.300	10° x 3/8"	.080	.050/45°	.080/33°	88
11972HTBC-8	ALL PRO	2.180	.3110	Stock	5.950	.300	10° x 3/8"	.080	.050/45°	.080/33°	88
11974HTB-8	ALL PRO	2.180	.3110	Stock	5.950	.300	12° x 3/8"	.080	.050/52°	.080/35°	90
11974HTBC-8	ALL PRO	2.180	.3110	Stock	5.950	.300	12° x 3/8"	.080	.050/52°	.080/35°	90
11960HTB-8	ALL PRO	2.200	.3110	Stock	5.950	.300	10° x 3/8"	.080	.050/45°	.080/33°	90
11960HTBC-8	ALL PRO	2.200	.3110	Stock	5.950	.300	10° x 3/8"	.080	.050/45°	.080/33°	90
11960HTBCH-8	ALL PRO	2.200	.3110	Stock	5.950	.300	10° x 3/8"	.080	.050/45°	.080/33°	76
				Hollow Stem with Fluted Dish							
11976HTB-8	ALL PRO	2.200	.3110	Stock	5.950	.300	12° x 3/8"	.080	.050/52°	.080/35°	92
11976HTBC-8	ALL PRO	2.200	.3110	Stock	5.950	.300	12° x 3/8"	.080	.050/52°	.080/35°	92
11976HTBCH-8	ALL PRO	2.200	.3110	Stock	5.950	.300	12° x 3/8"	.080	.050/52°	.080/35°	78
				Hollow Stem with Fluted Dish							
11980HTBC-8	ALL PRO	2.230	.3110	Stock	5.950	.300	12° x 3/8"	.080	.050/52°	.080/35°	93
12218HBC-8	ALL PRO	2.200	.2754	Stock	6.030	.230	12° x 3/8"	.060	.055/52°	.080/35°	87
12220HTBC-8	ALL PRO	2.200	.3110	Stock	6.090	.300	12° x 3/8"	.060	.055/52°	.080/35°	94
11962HTB-8	GB 2000	2.200	.3110	Stock	6.090	.300	12° x 3/8"	.080	.050/45°	.080/33°	91
11962HTBC-8	GB 2000	2.200	.3110	Stock	6.090	.300	12° x 3/8"	.080	.050/45°	.080/33°	91
11964HTB-8	GB 2300	2.200	.3110	Stock	6.250	.300	12° x 3/8"	.080	.050/45°	.080/33°	92
11964HTBC-8	GB 2300	2.200	.3110	Stock	6.250	.300	12° x 3/8"	.080	.050/45°	.080/33°	92
11966HTB-8	GB 2300	2.200	.3110	Stock	6.250	.300	12° x 3/8"	.080	.050/52°	.080/35°	92
11966HTBC-8	GB 2300	2.200	.3110	Stock	6.250	.300	12° x 3/8"	.080	.050/52°	.080/35°	92
11988HTBC-8	GB 2300	2.230	.3110	Stock	6.250	.300	12° x 3/8"	.080	.050/52°	.080/35°	93

Note: New part numbers are **BOLD & ITALICIZED**



# TITANIUM VALVES

VALVES

## M&M Revolution

▶ These valves feature Manley's Bead Loc® single radius keeper grooves

These valves do not come with a hardened tip. Tip protection is required – Manley wear cap P/N 42139 or 42139TM



Part No.	Type	Head Diam.	Stem Diam.	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width/Angle	Back Cut Width/Angle	Wgt / Grams
11995B-8	Exh.	1.600	.3110	Stock	6.070	.250	25° x 3/8"	.075	.090/55°	.050/42°	72
11996B-8	Int.	2.250	.3110	Stock	6.170	.250	12° x 3/8"	.070	.050/50°	.100/35°	99

## Big Block General Motors

▶ "H" suffix indicates higher hardness material

▶ Available with conventional square or Manley's Bead Loc® single radius keeper grooves

All part numbers without a "T" suffix do not include a hard tip. Tip protection is required. Manley wear cap P/N 42104 or 42104TM.



Square Groove Part No.	Bead Loc® Groove Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Wgt / Grams
11485-8	11485B-8	Exh.	1.840	.3415	Stock	5.440	.250	30° x 5/8"	.090	.075	98
11479-8	11479B-8	Exh.	1.880	.3415	Stock	5.440	.250	30° x 5/8"	.090	.075	100
11481-8	11481B-8	Exh.	1.900	.3415	Stock	5.440	.250	30° x 5/8"	.090	.075	101
11483-8	11483B-8	Exh.	1.900	.3415	.100 Longer	5.540	.250	30° x 5/8"	.090	.075	102
11480-8	11480B-8	Int.	2.250	.3415	Stock	5.250	.250	10° x 3/8"	.065	.075	89
11490-8	11490B-8	Int.	2.250	.3415	.100 Longer	5.350	.250	10° x 3/8"	.065	.075	90
11490T-8	11490TB-8	Int.	2.250	.3415	.100 Longer	5.350	.290	10° x 3/8"	.065	.075	90
11492-8	11492B-8	Int.	2.250	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	91
11492T-8	11492TB-8	Int.	2.250	.3415	.250 Longer	5.540	.290	10° x 3/8"	.065	.075	92
11952-8	11952B-8	Int.	2.250	.3415	.350 Longer	5.600	.250	10° x 3/8"	.065	.075	93
11944T-8	11944TB-8	Int.	2.300	.3415	.100 Longer	5.350	.290	10° x 3/8"	.065	.075	94
11482-8	11482B-8	Int.	2.300	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	95
11482H-8	11482HB-8	Int.	2.300	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	95
11482T-8	11482TB-8	Int.	2.300	.3415	.250 Longer	5.540	.290	10° x 3/8"	.065	.075	96
11940-8	11940B-8	Int.	2.325	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	96
11940H-8	11940HB-8	Int.	2.325	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	96
11484-8	11484B-8	Int.	2.350	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	97
11954-8	11954B-8	Int.	2.350	.3415	.350 Longer	5.600	.250	10° x 3/8"	.065	.075	99
11954H-8	11954HB-8	Int.	2.350	.3415	.350 Longer	5.600	.250	10° x 3/8"	.065	.075	99
-----	11946HB-8*	Int.	2.350	.3415	.400 Longer	5.650	.250	10° x 3/8"	.065	.050	100

\* Valve P/N 11946HB has a 50° seat and a back cut of .080" x 32°.

## Brodix Big Block SR20 / Dart 20° Heads

▶ "H" suffix indicates higher hardness material

▶ All valves have Manley's Bead Loc® single radius keeper groove

All P/N's without a "T" suffix do not include a hard tip. Tip protection is required.



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width/Angle	Back Cut Width/Angle	Wgt / Grams
12209TB-8	Exh.	1.800	.3415	Stock	5.930	.290	30° x 5/8"	.080	.075/55°	-----	93
12213B-8	Exh.	1.800	.3415	.100 Longer	6.010	.250	25° x 3/4"	.085	.060/50°	-----	92
12208HTB-8*	Int.	2.400	.3415	Stock	6.040	.290	12° x 7/16"	.065	.060/50°	.060/45°	123
12210HTB-8*	Int.	2.400	.3415	Stock	6.035	.290	12° x 7/16"	.060	.060/55°	.060/45°	121
12216HB-8	Int.	2.400	.3415	.100 Longer	6.125	.250	12° x 3/8"	.050	.080/50°	.090/33°	112

\* Valve P/N's 12208HTB and 12210HTB have a second back cut of .100" x 35°

## Dart Big Block Pro 1® & 320 / 360 Heads

- ▶ "H" suffix indicates higher hardness material
- ▶ Available with conventional square or Manley's Bead Loc® single radius keeper grooves

All part numbers without a "T" suffix do not include a hard tip. Tip protection is required. Manley wear cap P/N 42104 or 42104TM.



VALVES

Square Groove Part No.	Bead Loc® Groove Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Wgt / Grams
11479-8	11479B-8	Exh.	1.880	.3415	Stock	5.440	.250	30° x 5/8"	.090	.075	100
11481-8	11481B-8	Exh.	1.900	.3415	Stock	5.440	.250	30° x 5/8"	.090	.075	101
11492-8	11492B-8	Int.	2.250	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	91
11492T-8	11492TB-8	Int.	2.250	.3415	.250 Longer	5.540	.290	10° x 3/8"	.065	.075	92
11482-8	11482B-8	Int.	2.300	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	95
11482H-8	11482HB-8	Int.	2.300	.3415	.250 Longer	5.500	.250	10° x 3/8"	.065	.075	95
11482T-8	11482TB-8	Int.	2.300	.3415	.250 Longer	5.540	.290	10° x 3/8"	.065	.075	96

## Pontiac Pro Stock & Dart Big Chief

- ▶ "H" suffix indicates higher hardness material
- ▶ Available with conventional square or Manley's Bead Loc® single radius keeper grooves

All part numbers without a "T" suffix do not include a hard tip. Tip protection is required. Manley wear cap P/N 42104 or 42104TM.



Square Groove Part No.	Bead Loc® Groove Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Wgt / Grams
11925-8*	-----	Exh.	1.840	.3415	.100 Longer	6.550	.250	30° x 5/8"	.125	.075	110
11921-8	11921B-8	Exh.	1.900	.3415	Stock	6.450	.250	30° x 5/8"	.125	.075	116
11923T-8	11923TB-8	Exh.	1.900	.3415	Stock	6.490	.290	30° x 5/8"	.125	.075	117
11920-8	11920B-8	Int.	2.400	.3415	Stock	6.600	.250	12° x 3/8"	.065	.075	112
11920H-8	11920HB-8	Int.	2.400	.3415	Stock	6.600	.250	12° x 3/8"	.065	.075	112
11922T-8	11922TB-8	Int.	2.400	.3415	Stock	6.640	.290	12° x 3/8"	.065	.075	113
11924-8	11924B-8	Int.	2.450	.3415	Stock	6.600	.250	12° x 3/8"	.065	.075	114
11926H-8*	-----	Int.	2.470	.3415	.100 Longer	6.700	.250	12° x 3/8"	.065	.075	118

\*Valve P/N's 11925 and 11926H have a 55° seat angle.

## Briggs & Stratton

\*Dimensions are per customer specifications.

Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Wgt / Grams
98031-1	Exh.	1.500 Max	.2475	*	4.800 Max	.235	5° x 5/16" Max.	*	*	
98030-1	Int.	2.000 Max	.2475	*	4.800 Max	.235	5° x 5/16" Max.	*	*	

Note: Manley Performance can custom build valves for any possible combination with a very short lead time. Please call your sales representative.



## TFD, TFFC & Nostaglia

- ▶ "B" suffix indicates a Bead Loc® keeper groove

These valves do not come with a hardened tip. Tip protection is required - Manley wear cap P/N 42104, 42104TM or Manley LocCap System

Part No.	Type	Head Diam.	Stem Diam.	Installed Height	O / A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width/Angle	Back Cut Width/Angle	Wgt / Grams
<b>EXHAUST VALVES</b>											
11989-8	AJPE 4/5	2.000	.3415	.100 Longer	5.020	.250	25° x 3/8"	.085	.075/45°	-----	100
<b>INTAKE VALVES</b>											
11956-8	AJPE 4/5	2.375	.3415	.100 Longer	5.600	.250	25° x 5/8"	.065	.075/45°	-----	139
11994B-8	AJPE 4/5	2.400	.3415	.100 Longer	5.600	.250	25° x 5/8"	.070	.125/45°	-----	141
11998B-8	AJPE 4/5	2.400	.3415	.200 Longer	5.700	.250	25° x 5/8"	.080	.125/45°	-----	142
11992-8	AJPE 6	2.450	.3415	.100 Longer	5.600	.250	19° x 7/16"	.070	.155/45°	.075/32°	138
11992B-8	AJPE 6	2.450	.3415	.100 Longer	5.600	.250	19° x 7/16"	.070	.155/45°	.075/32°	138

Note: Manley Performance can custom build valves for any possible combination with a very short lead time. Please call your sales representative.

# TITANIUM VALVES

VALVES



## TAD, TAFC & Pro Mod

- ▶ "H" suffix indicates higher hardness material
- ▶ "B" suffix indicates a Bead Loc® keeper groove
- ▶ "C" suffix indicates Premium CrN seat coating (See page 51 for more details)

These valves do not come with a hardened tip. Tip protection is required - Manley wear cap P/N 42104, 42104TM or Manley LocCap System when using a .250" tip length

Part No.	Type	Head Diam.	Stem Diam.	Installed Height	O / A Length	Tip Length	Underhead Angle/Radius	Margin	Seat	Back Cut	Dish	Wgt / Grams
<b>EXHAUST VALVES</b>												
12111-8	BAE 4	1.950	.3415	Stock	5.845	.250	30° x 5/8"	.095	.100/45°	-----	Flat	107
12113-8	BAE 5	1.950	.3415	Stock	6.032	.250	30° x 5/8"	.085	.130/45°	-----	17°	96
12113B-8	BAE 5	1.950	.3415	Stock	6.032	.250	30° x 5/8"	.085	.130/45°	-----	17°	96
12117-8	BAE 6/8/8X	1.900	.3415	Stock	6.100	.250	30° x 5/8"	.110	.080/50°	-----	17°	96
12117B-8	BAE 6/8/8X	1.900	.3415	Stock	6.100	.250	30° x 5/8"	.110	.080/50°	-----	17°	96
12161C-8	BAE TA1	1.925	.3415	Stock	6.100	.250	30° x 5/8"	.110	.085/55°	-----	19°	100
12161BC-8	BAE TA1	1.925	.3415	Stock	6.100	.250	30° x 5/8"	.110	.085/55°	-----	19°	100
12165C-8	BAE TA1	1.925	.3415	Stock	6.100	.250	30° x 5/8"	.110	.085/55°	-----	Flat	112
12167C-8	TA1 NHRA	1.900	.3415	.100 Longer	6.200	.250	30° x 5/8"	.110	.080/55°	-----	17°	100
12167BC-8	TA1 NHRA	1.900	.3415	.100 Longer	6.200	.250	30° x 5/8"	.110	.080/55°	-----	17°	100
12163C-8	BAE TA1	1.925	.3415	.100 Longer	6.200	.250	30° x 5/8"	.110	.085/55°	-----	19°	101
12163BC-8	BAE TA1	1.925	.3415	.100 Longer	6.200	.250	30° x 5/8"	.110	.085/55°	-----	19°	101
<b>INTAKE VALVES</b>												
12110-8	BAE 4/5	2.425	.3415	Stock	6.400	.400	12° x 3/8"	.070	.070/45°	.130/32°	Flat	122
12110B-8	BAE 4/5	2.425	.3415	Stock	6.400	.400	12° x 3/8"	.070	.070/45°	.130/32°	Flat	122
12114HC-8*	TA1 NHRA	2.400	.3415	Stock	6.400	.250	12° x 7/16"	.085	.075/55°	.060/45°	7°	127
12114HBC-8*	TA1 NHRA	2.400	.3415	Stock	6.400	.250	12° x 7/16"	.085	.075/55°	.060/45°	7°	127
12116HB-8*	BAE 6	2.400	.3415	Stock	6.400	.250	12° x 7/16"	.085	.075/50°	.060/45°	Flat	133
12118H-8*	BAE 8/8X	2.450	.3415	Stock	6.400	.250	12° x 7/16"	.085	.075/50°	.060/45°	Flat	137
12118HB-8*	BAE 8/8X	2.450	.3415	Stock	6.400	.250	12° x 7/16"	.085	.075/50°	.060/45°	Flat	137
12160H-8*	BAE TA1	2.500	.3415	Stock	6.400	.250	12° x 7/16"	.060	.060/50°	.045/45°	7°	125
12160HB-8*	BAE TA1	2.500	.3415	Stock	6.400	.250	12° x 7/16"	.060	.060/50°	.045/45°	7°	125
12164H-8*	BAE TA1	2.500	.3415	Stock	6.400	.250	12° x 7/16"	.060	.060/50°	.045/45°	Flat	131
12162H-8*	BAE TA1	2.500	.3415	.075 Longer	6.475	.250	12° x 7/16"	.060	.060/50°	.045/45°	7°	126
12162HB-8*	BAE TA1	2.500	.3415	.075 Longer	6.475	.250	12° x 7/16"	.060	.060/50°	.045/45°	7°	126

\* Valve P/N's 12114HC, 12114HBC, 12116HB, 12118H, 12118HB, 12160H, 12160HB, 12162H, 12162HB, and 12164H have a second back cut of .075" x 32°



## TAD, TAFC & Pro Mod

- ▶ "H" suffix indicates higher hardness material
- ▶ "B" suffix indicates a Bead Loc® keeper groove
- ▶ "C" suffix indicates Premium CrN seat coating (See page 51 for more details)

These valves do not come with a hardened tip. Tip protection is required - Manley wear cap P/N 42104, 42104TM or Manley LocCap System

Part No.	Type	Head Diam.	Stem Diam.	Installed Height	O / A Length	Tip Length	Underhead Angle/Radius	Margin	Seat	Back Cut	Dish	Wgt / Grams
<b>EXHAUST VALVES</b>												
12201B-8	X1/Super 6	1.950	.3415	Stock	6.200	.250	30° x 5/8"	.110	.080/55°	-----	18.66°	99
12201BC-8	X1/Super 6	1.950	.3415	Stock	6.200	.250	30° x 5/8"	.110	.080/55°	-----	18.66°	99
12203B-8	X1 Pro Mod	1.900	.3415	Stock	6.200	.250	30° x 5/8"	.110	.080/55°	-----	18.66°	95
<b>INTAKE VALVES</b>												
12200HBC-8*	X1/Super 6	2.480	.3415	Stock	6.400	.250	12° x 7/16"	.070	.060/55°	.050/44°	6.73°	120
12212HBC-8*	X1/Super 6	2.550	.3415	Stock	6.400	.250	12° x 7/16"	.070	.060/55°	.050/44°	6.73°	126
12202HBC-8*	X1 Pro Mod	2.400	.3415	Stock	6.400	.250	12° x 7/16"	.070	.060/55°	.050/44°	6.73°	115

\* Valve P/N's 12200HBC, 12202HBC and 12212HBC have a second back cut of .060" x 32°

Note: New part numbers are **BOLD & ITALICIZED**

# CUSTOM TITANIUM VALVES

**Manley Performance** can manufacture titanium valves for just about any application imaginable. Servicing your custom requirements is our specialty; we do it every single day and typically 8 pieces at a time.

We inventory an extensive selection of blanks in varying stem sizes with the stem coating correctly positioned to properly fit the multitude of aftermarket cylinder heads available. This allows us to maintain reliable and very reasonable turnaround times (typically 10 working days) throughout the year. If by chance we don't have a blank in stock to match your particular application, then don't worry. We'll simply make it! This will lengthen the lead-time to 6 weeks.

For any stem size, groove type, machined (dished) combustion face or special head shape or seat cut, we're here to service your needs. Our customers' prints are proprietary and confidential.



Fluted Dish

## Ordering Manley Custom Titanium Valves is as easy as 1-2-3!

1. Refer to the blank valve print on page 43 of this catalog or on our website under the custom valve tab and fill in your desired specifications.
2. Please contact your inside or outside Manley salesperson to review your order.
3. Fax or email your approved prints to the factory for processing, specifying your account number, a purchase order number and quantity.

## Custom Hollow Stem Titanium Intake Valves

- ▶ Precision gun drilling
- ▶ Smooth surface finish
- ▶ Full radius at end of bore, no stress raisers
- ▶ Able to utilize a hard tool steel tip on 5/16" and larger stem diameter valves
- ▶ Extremely lightweight - 10-12% weight reduction

## Titanium Valve CrN Seat Face Coating

- ▶ High hardness and lubricity prevents valve seat face wear
- ▶ Prevents "trenching" of the seat face which maintains combustion seal
- ▶ Provides greater resistance to wear typically seen when valve float or dirt is present in the engine
- ▶ Better seal between the valve seat face and the seat in the cylinder head equals more horsepower

Manley Performance offers a premium (Calico) CrN seat coating option which incorporates an advanced superpolish process rendering a jewel-like surface finish



We offer certain shelf stock part numbers with CrN seat coating; look for the "C" suffix

Titanium valve "tip" coating is also available for applications not utilizing a "press in" hard tip (prevents tip wear from lash cap)

Custom titanium valves with a premium CrN slick stem coating (in lieu of moly) are also available

## Manley Valve Locks... *simply the best!*

### Conventional vs. Bead Loc® Valve Stem Grooves

The groove in a valve stem, seemingly unimportant, in reality is vital to the success of a valve's performance. Imperfectly formed grooves, inferior or mismatched locks, and improper retainers can lead to catastrophic failure.

The so called "conventional" or square groove design has enjoyed enormous success. But the success of a "conventional" groove is dependent upon precise machining. First, the surface finish of the groove must be outstanding to guarantee against failure due to residual machining marks.

Next, the groove must have a precise .013" radius in the upper corner. Too small a radius leaves the groove subject to the dangers of a sharp fillet. Too large a radius leaves open the possibility of the groove being abraded in this area by the upper inside edge of the tang of the lock. Also, an oversized radius leaves a reduced horizontal shelf in the groove which is, or should be, the only contact point with the tang of the lock. Contact by the lock in the root of the groove is a disaster waiting to happen.

Perfectly formed "conventional" grooves with proper locks and retainers will deliver good service. However, there are sub-standard components on the market that can conspire to destroy a correctly machined groove.

The essence of the Bead Loc® groove is its simplicity and forgiveness. The groove itself is a straightforward .110" full radius. The contact points with a Bead Loc® radius lock are approximately 2:00 and 10:00 o'clock, not at the root of the groove. This system affords minimal vertical movement, especially when valve float is present, which means reduced erosion of the valve for enhanced service life.

Manley Performance supports both the "conventional" groove system and the Bead Loc® system with the most extensive line-up of the highest quality locks in the industry.

## 7° Stamped Valve Locks

▶ Stamped locks are recommended ONLY for mild performance engines

Part No.	Quantity	Valve Stem	Groove Type	Wgt./Pr.
13238-16	16 pr.	5/16"	Conventional	2.9 gms
13127-16	16 pr.	11/32"	Conventional	3.2 gms



## 7° Machined Valve Locks

▶ Highest quality steel alloy  
▶ Heat treated and black oxide finished

Part No.	Quantity	Valve Stem	Groove Type	Wgt./Pr.
13086-32	32 pr.	.2345"	Bead Loc® Ford 5.0L "Coyote" (4 Valve)	1.3 gms
13088-24	24 pr.	.2345"-.2355"	Bead Loc® Ford Modular 4.6L (3 Valve)	1.3 gms
13089-16	16 pr.	.2740"-.2750"	Bead Loc® Ford Modular 4.6L/5.4L (2 Valve)	1.9 gms
13089-32	32 pr.	.2740"-.2750"	Bead Loc® Ford Modular 4.6L/5.4L (4 Valve)	1.9 gms
13087-16	16 pr.	5/16" (.3120")	Bead Loc® Ford 6.2L "Raptor" (2 Valve)	2.2 gms
13093-16	16 pr.	5/16" (.3125")	Bead Loc® Chrysler Hemi 5.7L, 6.1L and 6.4L	2.2 gms
13094-16	16 pr.	8mm (.3135")	Single Radius Chevy LS, LT1 (.050" less)	2.6 gms
13098-16	16 pr.	8mm (.3135")	Single Radius Chevy LS, LT1 (Std.)	2.6 gms
13095-16	16 pr.	8mm (.3135")	Single Radius Chevy LS, LT1 (.050" more)	2.6 gms
13090-16	16 pr.	5/16" (.3100")	Conventional	3.2 gms
13091-16	16 pr.	11/32"	Conventional	3.0 gms
13092-16	16 pr.	3/8"	Conventional	3.5 gms



## Super 7° Valve Locks

### Steel Material

- ▶ Heat treated and black oxide finished
- ▶ Highest quality steel alloy
- ▶ Thicker for greater strength

Part No.	Quantity	Valve Stem	Installed Height	Groove Type	Wgt. / Pr.
13050-8	8 pr.	.3110"	.050" less	Bead Loc®	8.2 gms
13051-8	8 pr.	.3110"	Standard	Bead Loc®	8.2 gms
13052-8	8 pr.	.3110"	.050" more	Bead Loc®	8.2 gms
13080-16	16 pr.	.3110"	Standard	Conventional	8.3 gms
13085-16	16 pr.	.3110"	.050" more	Conventional	8.2 gms
13060-8	8 pr.	.3415"	.050" less	Bead Loc®	7.4 gms
13061-8	8 pr.	.3415"	Standard	Bead Loc®	7.4 gms
13062-8	8 pr.	.3415"	.050" more	Bead Loc®	7.4 gms
13081-16	16 pr.	.3415"	.050" less	Conventional	9.9 gms
13083-16	16 pr.	.3415"	Standard	Conventional	7.5 gms
13084-16	16 pr.	.3415"	.050" more	Conventional	7.6 gms



CYL HEAD COMPONENTS

## Super 7° Valve Locks

### Titanium Material

- ▶ Lightweight titanium material
- ▶ PVD coated locks for easier disassembly in high spring pressure/high RPM applications

Uncoated Titanium	PVD Coated Titanium	Quantity	Valve Stem	Installed Height	Groove Type	Wgt. / Pr.
13030T-8	-----	8 pr.	7mm / .2740"	.050" less	Bead Loc®	5.6 gms
13037T-8	-----	8 pr.	7mm / .2740"	Standard	Bead Loc®	4.9 gms
13038T-8	-----	8 pr.	7mm / .2740"	.050" more	Bead Loc®	4.6 gms
13050T-8	-----	8 pr.	.3110"	.050" less	Bead Loc®	4.5 gms
13051T-8	13051TC-8	8 pr.	.3110"	Standard	Bead Loc®	4.5 gms
13052T-8	-----	8 pr.	.3110"	.050" more	Bead Loc®	4.5 gms
13061T-8	-----	8 pr.	.3415"	Standard	Bead Loc®	4.1 gms
13062T-8	-----	8 pr.	.3415"	.050" more	Bead Loc®	4.1 gms
13081T-16	-----	16 pr.	.3415"	.050" less	Conventional	5.5 gms
13083T-16	-----	16 pr.	.3415"	Standard	Conventional	4.2 gms
13084T-16	-----	16 pr.	.3415"	.050" more	Conventional	4.1 gms



## Super 7° "Captiv-Loc" Valve Locks

- ▶ Developed by Keith Dorton
- ▶ Encapsulates hard tip in titanium valve if it comes loose
- ▶ Use with valves with .290" to .330" tip lengths
- ▶ Available in steel and titanium material
- ▶ PVD coated locks for easier disassembly in high spring pressure/high RPM applications

Steel	Uncoated Titanium	PVD Coated Titanium	Quantity	Valve Stem	Installed Height	Groove Type	Wgt. / Pr.
-----	13039T-8	13039TC-8	8 pr.	.3110"	.050" less	Bead Loc®	5.7 gms
13033-8	13033T-8	13033TC-8	8 pr.	.3110"	Standard	Bead Loc®	9.5 / 5.6 gms
13034-8	13034T-8	13034TC-8	8 pr.	.3110"	.050" more	Bead Loc®	9.4 / 5.3 gms
-----	13040T-8	13040TC-8	8 pr.	.3415"	.050" less	Bead Loc®	5.0 gms
13035-8	13035T-8	13035TC-8	8 pr.	.3415"	Standard	Bead Loc®	8.6 / 4.9 gms
13036-8	13036T-8	13036TC-8	8 pr.	.3415"	.050" more	Bead Loc®	8.5 / 4.7 gms
13031-16	13031T-16	-----	16 pr.	.3415"	Standard	Conventional	9.2 / 5.3 gms
13032-16	13032T-16	-----	16 pr.	.3415"	.050" more	Conventional	9.3 / 5.0 gms



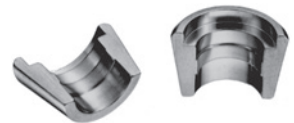
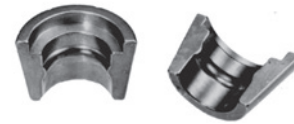
# VALVE LOCKS

## Precision Crafted 10° Machined Valve Locks

### Steel Material

▶ Highest quality steel alloy ▶ Heat treated and black oxide finished

Part No.	Quantity	Valve Stem	Installed Height	Groove Type	Wgt. / Pr.
13171-8	8 pr.	7mm /.2740"	.050" less	Bead Loc®	7.4 gms
13170-8	8 pr.	7mm /.2740"	Standard	Bead Loc®	6.7 gms
13172-8	8 pr.	7mm /.2740"	.050" more	Bead Loc®	6.5 gms
13190-8	8 pr.	.3075"	Standard	Bead Loc®	6.7 gms
13191-8	8 pr.	.3085"	Standard	Bead Loc®	6.7 gms
13193-16	16 pr.	.3085"	Standard	Conventional	6.7 gms
13150-8	8 pr.	.3110"	.050" less	Bead Loc®	7.4 gms
13151-8	8 pr.	.3110"	Standard	Bead Loc®	7.0 gms
13152-8	8 pr.	.3110"	.050" more	Bead Loc®	6.4 gms
13096-16	16 pr.	.3110"	Standard	Conventional	6.7 gms
13196-16	16 pr.	.3110"	.050" more	Conventional	6.0 gms
13153-16	16 pr.	8mm (.3135")	Standard	Single Radius Chevy LS	6.6 gms
13160-8	8 pr.	.3415"	.050" less	Bead Loc®	6.8 gms
13161-8	8 pr.	.3415"	Standard	Bead Loc®	6.3 gms
13162-8	8 pr.	.3415"	.050" more	Bead Loc®	6.3 gms
13097-16	16 pr.	.3415"	Standard	Conventional	6.8 gms
13194-16	16 pr.	.3415"	Standard	Conventional	6.1 gms
13198-16	16 pr.	.3415"	.050" more	Conventional	5.6 gms
13192-8	8 pr.	.3715"	Standard	Bead Loc®	5.0 gms
13195-16	16 pr.	.3715"	Standard	Conventional	5.0 gms



P/N 13097 is NOT recessed to accept a wear cap

## Precision Crafted 10° Machined Valve Locks

### Titanium Material

▶ Durable and lightweight  
▶ PVD coated locks for easier disassembly in high spring pressure/high RPM applications

Uncoated Titanium	PVD Coated Titanium	Quantity	Valve Stem	Installed Height	Groove Type	Wgt. / Pr.
13171T-8	-----	8 pr.	7mm /.2740"	.050" less	Bead Loc®	4.3 gms
13151T-8	13151TC-8	8 pr.	.3110"	Standard	Bead Loc®	3.9 gms
13152T-8	13152TC-8	8 pr.	.3110"	.050" more	Bead Loc®	3.6 gms
13096T-16	-----	16 pr.	.3110"	Standard	Conventional	3.8 gms
13196T-16	-----	16 pr.	.3110"	.050" more	Conventional	3.8 gms
13153T-16	-----	16 pr.	8mm (.3135")	Standard	Single Radius Chevy LS	3.8 gms
13161T-8	13161TC-8	8 pr.	.3415"	Standard	Bead Loc®	3.6 gms
13162T-8	13162TC-8	8 pr.	.3415"	.050" more	Bead Loc®	3.6 gms
13194T-16	13194TC-16	16 pr.	.3415"	Standard	Conventional	3.5 gms
13198T-16	-----	16 pr.	.3415"	.050" more	Conventional	3.5 gms
13195T-16	-----	16 pr.	.3715"	Standard	Conventional	3.5 gms



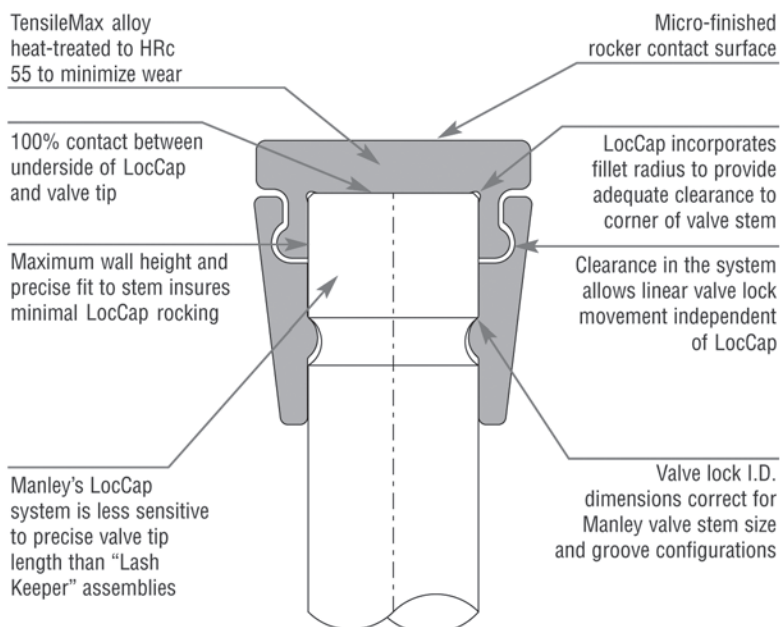
## Manley Performance LocCap System

► The **ULTIMATE** valve lock/wear cap assembly ► Designed specifically for Fuel, Alcohol and Pro Mod Racers

First developed by our engineering team in the late 1990s for NASCAR applications, Manley's LocCap system is designed to retain the wear cap on the tip of the valve by employing an external bead on the wear cap that —when the system is assembled— resides within an internal "retention channel" located on the I.D. of the valve locks. Manley's valve train components group, headed by Manley GM Michael Tokarchik, refined the original designs combining a state-of-the-art steel alloy and ultra precise manufacturing techniques to achieve the goal of delivering a no compromises valve lock/wear cap assembly for the supercharged classes.

Manley's LocCap systems are available in true 7° as well as 10° and Super 7° assemblies for 3/8", 11/32" and 5/16" stem valves in both Manley Bead Loc® and conventional square groove configurations. In addition, Manley's LocCap system retrofits to competitors' "Lash Keeper" assemblies, maintaining original valve spring installed height, valve overall length, valve tip length (0.250") and retainer designs.

Both the LocCap valve locks and wear caps are precision machined using Manley's TensileMax UHSS (ultra high strength steel). The wear caps are thru-hardened to HRC 55 (harder than typical tool steel) to minimize wear due to aggressive rocker contact. Manley's proprietary heat treatment processes minimize distortion, thereby improving the fit of the wear cap and valve locks to the valve stem.



### Valve Locks

Valve Stem Size	7° Bead Loc	7° Square Groove	10° Bead Loc	10° Square Groove	Super 7° Bead Loc
5/16" (.3100")	-----	-----	13441-8	-----	-----
5/16" (.3110")	-----	-----	-----	-----	13551-8
11/32" (.3415")	13361-8	13394-8	13461-8	13494-8	13561-8
3/8" (.3715")	13392-8	13395-8	13492-8	13495-8	-----

Note: -8 indicates one set of 8 pairs.

Valve Lock Weights (per pair): 13361 (5.0 gms), 13392 (4.4 gms), 13394 (5.0 gms), 13395 (4.2 gms), 13441 (6.9 gms), 13461 (6.5 gms), 13492 (5.7 gms), 13494 (6.4 gms), 13495 (5.6 gms), 13551 (10.1 gms), 13561 (9.3 gms)

### LocCaps

Valve Stem Size	Part No.	Weight
5/16" (.3100")	42441-8	4.4 gms
5/16" (.3110")	42439-8	4.3 gms
11/32" (.3415")	42404-8	4.1 gms
3/8" (.3715")	42408-8	3.4 gms

### Titanium Retainers

Valve Spring Type	Valve Spring Part No.	7° +.100" Part No.	7° +.100" Tensile Max Part No.	10° Std. Part No.	10° +.100" Part No.	10° +.100" Tensile Max Part No.	10° +.170" Part No.	Super 7° Part No.
Steel Double Springs	221420, 1455, 1456, 1457, 1460, 1461	23675-16 23677-16*	23675TM-16	23684-16	23676-16 23679-16*	23676TM-16	23683-16*	23701-16*
Steel Triple Springs	221447, 1448, 1449, 1450	23673-16	-----	-----	23653-16 23753-16*	-----	-----	23708L-16*
Titanium Double Spring	-----	-----	-----	-----	23668-16*	-----	-----	-----

Note: -16 indicates 16 pieces.

\* Lightweight design high strength Ti-17 titanium material

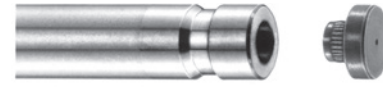
See pages 77-81 for retainer gram weights



# WEAR CAPS

## Inserted Tips

- ▶ Wear resistant thru-hardened H-13 tool steel alloy
- ▶ Ideal titanium valve tip protection

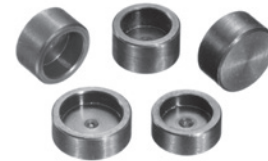
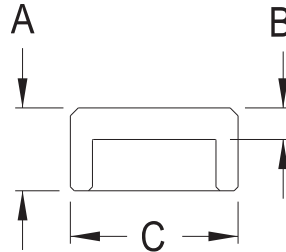


Part No.	Quantity	Material	Description	Knurl Diameter	Post Length	O.D.
42311-8	8 pcs.	H-13	Fits .3085"-.3130" valves	.183"	.120"	.316"
42105-8	8 pcs.	H-13	Fits 11/32" valves	.193"	.120"	.346"

CYL HEAD COMPONENTS

## Wear Caps

- ▶ Thru-hardened 4140 alloy steel
- ▶ Special heat treatment to HRC 50-54
- ▶ Non rotating caps afford less valve tip erosion



Part No.	Quantity	Description	Minimum Tip	Type	A	B	C	Weight
42263-8	8 pcs.	.2165" stem valves (5.5mm)	.095"	Standard	.090"	.040"	.300"	0.6 gms
42254-8	8 pcs.	.2360" stem valves (6mm)	.275"	Non Rotating	.235"	.060"	.385"	2.5 gms
42264-8	8 pcs.	.2360" stem valves (6mm)	.095"	Standard	.090"	.040"	.320"	0.6 gms
42100-8	8 pcs.	.2740" stem valves (7mm)	.250"	Standard	.225"	.085"	.425"	2.9 gms
42118-8	8 pcs.	.2740" stem valves (7mm)	.290"	Non Rotating	.270"	.080"	.385"	2.5 gms
42110-8	8 pcs.	.2754" stem valves (7mm)	.250"	Standard	.225"	.085"	.425"	2.9 gms
42101-16	16 pcs.	.3085" stem valves (5/16")	.250"	Standard	.225"	.080"	.425"	2.6 gms
42139-8	8 pcs.	.3110" stem valves (5/16")	.250"	Standard	.210"	.080"	.425"	2.4 gms
42300-8	8 pcs.	.3110" stem valves (5/16")	.250"	Non Rotating	.210"	.080"	.425"	2.3 gms
42125-8	8 pcs.	.3130" stem valves (8mm)	.130"	Standard	.170"	.080"	.425"	2.1 gms
42104-16	16 pcs.	.3415" stem valves (11/32")	.250"	Standard	.210"	.080"	.455"	2.7 gms
42301-8	8 pcs.	.3415" stem valves (11/32")	.250"	Non Rotating	.210"	.080"	.455"	2.6 gms
42108-16	16 pcs.	.3715" stem valves (3/8")	.220"	Standard	.175"	.080"	.485"	2.7 gms

## TensileMax Wear Caps

- ▶ Precision machined from TensileMax UHSS (Ultra High Strength Steel)
- ▶ Thru-hardened to HRC55 to minimize wear due to aggressive rocker contact
- ▶ Proprietary heat treatment processes minimize distortion



Part No.	Quantity	Description	Minimum Tip	Type	A	B	C	Weight
42100TM-8	8 pcs.	.2740" stem valves (7mm)	.250"	Standard	.225"	.085"	.425"	3.0 gms
42139TM-8	8 pcs.	.3110" stem valves (5/16")	.250"	Standard	.210"	.080"	.425"	2.6 gms
42104TM-16	16 pcs.	.3415" stem valves (11/32")	.250"	Standard	.210"	.080"	.455"	2.9 gms

# VALVE STEM SEALS, GUIDES & CUTTERS

## Viton Material Valve Stem Seals

- ▶ A necessity when using NexTek® triple valve springs.
- ▶ Special design allows clearance inside small I.D. springs.

Part No.	Quantity	Description	Guide O.D.	Installed Seal O.D.	Use Cutter No.
24041-8	8 pcs.	.274" / 7mm valves	.431"	.566"	41410
24040-8	8 pcs.	5/16" / 8mm valves	.420"	.566"	41510
24042-8	8 pcs.	5/16" / 8mm valves	.500"	.608"	41610
24047-8	8 pcs.	5/16" / 8mm valves	.530"	.677"	41710
24043-8	8 pcs.	11/32" valves	.500"	.620"	41611
24045-8	8 pcs.	11/32" valves	.530"	.674"	41711
24044-8	8 pcs.	3/8" valves	.500"	.623"	41612
24046-8	8 pcs.	3/8" valves	.530"	.677"	41712



CYL HEAD COMPONENTS

## All Teflon Valve Stem Seals

- ▶ Spring loaded wiper to remove excess oil

Part No.	Quantity	Description	Guide O.D.	Use Cutter No
24029-16	16 pcs.	5/16" valves	.500"	41610
24034-16	16 pcs.	5/16" valves	.530"	41710
24037-16	16 pcs.	11/32" valves	.500"	41611
24035-16	16 pcs.	11/32" valves	.530"	41711
24039-16	16 pcs.	3/8" valves	.500"	41612
24036-16	16 pcs.	3/8" valves	.530"	41712



## Valve Guide Seal Cutters

- ▶ Carbide tipped cutters ▶ Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

Part No.	Quantity	Pilot Size	Seal No.	Guide O.D.
41410	1	.274" / 7mm	24041	.431"
41510	1	5/16" / 8mm valves	24040	.420"
41610	1	5/16" / 8mm valves	24029 / 24042	.500"
41710	1	5/16" / 8mm valves	24034 / 24047	.530"
41611	1	11/32"	24037 / 24043	.500"
41711	1	11/32"	24035 / 24045	.530"
41612	1	3/8"	24039 / 24044	.500"
41712	1	3/8"	24036 / 24046	.530"



## Valve Guide Seal Cutter Pilot

- ▶ For use with any spring seat or seal cutter

Part No.	Quantity	Description
41274	1	7mm cutter pilot
41516	1	5/16" cutter pilot
41132	1	11/32" cutter pilot
41138	1	3/8" cutter pilot



## Bronze Valve Guides

- ▶ .502" O.D. ▶ 1.625" length under flange ▶ Threaded seal area above flange

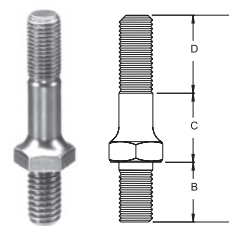
Part No.	Quantity	Description
12081-8	8 pcs.	Bronze insert guide - .274" I.D.
12084-8	8 pcs.	Bronze insert guide - .311" I.D.



# ROCKER STUDS

## Professional Rocker Arm Screw-In Studs

- ▶ 8740 material with 190,000 psi tensile strength
- ▶ Rolled threads
- ▶ Large radii
- ▶ Flat poly lock surface

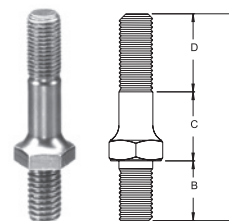


CYL HEAD COMPONENTS

Part No.	Quantity	Application	Roller Rockers	Stud Girdles	Upper Threads	A	Dimensions B	C	D
42276-16	16 pcs.	SB Chevy & Ford	Yes	No	3/8"	2.425"	.670"	.945"	.810"
42277-16	16 pcs.	SB Chevy & Ford	Yes	No	7/16"	2.440"	.660"	.890"	.890"
42287-16	16 pcs.	SB Chevy w/ 18° head	Yes	Yes	7/16"	2.850"	.750"	1.300"	.800"
42288-16	16 pcs.	SB & BB Chevy	Yes	Yes	7/16"	2.810"	.740"	1.020"	1.050"
42290-8	8 pcs.	SB & BB Chevy	Yes	Yes	7/16"	2.810"	.740"	1.020"	1.050"
42287-16	16 pcs.	BB Chevy	Yes	Yes	7/16"	2.850"	.750"	1.300"	.800"
42278-16	16 pcs.	BB Chevy	No	No	7/16"	2.580"	.820"	.900"	.860"
42256-16	16 pcs.	BB Chevy w/ tall springs	Yes	Yes	7/16"	3.200"	.850"	1.550"	.800"
42266-16	16 pcs.	BB Chevy Mark V w/ 3/8" lower threads converting to Mark IV heads	Yes	No	7/16"	2.600"	.775"	.885"	1.000"
42293-8	8 pcs.	BB Chevy w/ Dart aluminum	Yes	Yes	7/16"	3.300"	1.300"	1.000"	1.000"

## Street Master Rocker Arm Screw-In Studs

- ▶ Special maxalloy steel
- ▶ Rolled threads



Part No.	Quantity	Description	Upper Threads	A	Dimensions B	C	D
42106-16	16 pcs.	SB Chevy & Ford	3/8"	2.560"	.690"	.840"	1.030"
42147-16	16 pcs.	SB Chevy & Ford with poly locks	3/8"	2.420"	.690"	.920"	.810"
42103-16	16 pcs.	SB Chevy, BB Chevy & Ford	7/16"	2.550"	.790"	.890"	.870"

## Professional Rocker Arm Adjusting Nuts

- ▶ Special chrome moly hex material
- ▶ Heat treated and black oxide
- ▶ Set screws and allen wrench included

Part No.	Quantity	Description
42107-16	16 pcs.	All 3/8" stud Chevys, Fords, Pontiacs
42112-16	16 pcs.	All 7/16" stud Chevys and Fords (.580" Body Diameter)



## Small Block Chevrolet Stamped Steel Rocker Arm Kits

- ▶ Highest quality steel
- ▶ Heat treated
- ▶ Long slots to avoid stud interference
- ▶ Kits include oil grooved rocker balls and nuts

These rockers are the non "self-aligning" type used from 1955 to 1989.

Part No.	Quantity	Description	Stud Diameter
43140	1 set for 1 head	Small Block - Long Slot 1.5 Ratio	3/8"
43150	1 set for 1 head	Small Block - Long Slot 1.6 Ratio	3/8"



### ROCKER ARM KIT COMPONENTS

Note: Individual rockers only are sold as -8, and rocker balls and rocker nuts are sold as -16. Kits include only 8 pieces of each part.

Kit	Rocker	Ball	Nut
43140	43141-8	43142-16	43143-16
43150	43151-8	43142-16	43143-16

## Steel Guide Plates

- ▶ Meticulously crafted stamping
- ▶ Heat treated and black oxide finished



### Small Block Chevrolet

#### Raised Guide Plate

Part No.	Quantity	Description	Slots	Pushrods
42151-8	8 pcs.	Small Block Chevy	On-Center	5/16"
42150-8	8 pcs.	Small Block Chevy	On-Center	3/8"



### Small Block Chevrolet

#### Flat Guide Plate

Part No.	Quantity	Description	Slots	Pushrods
42355-8	8 pcs.	Small Block Chevy	On-Center	5/16"
42356-8	8 pcs.	Small Block Chevy	On-Center	3/8"



### Big Block Chevrolet

Part No.	Quantity	Description	Pushrods
42164-8	8 pcs.	Big Block Chevy	3/8"
42149-8	8 pcs.	Big Block Chevy	7/16"



### Ford 289 - 302 - 351W

#### Pre 1977 Heads

Part No.	Quantity	Description	Pushrods
42152-8	8 pcs.	289, 302 W, 351 W Ford	5/16"



### Ford 302 Boss - 351C

#### With Modified Heads

Part No.	Quantity	Description	Pushrods
42163-8	8 pcs.	302 Boss, 351 C Modified	5/16"
42156-8	8 pcs.	302 Boss, 351 C Modified	3/8"



To convert Ford 351C engines to adjustable rocker arms and pushrod guide plates, machine the old rocker stanchions down to a height of .550" as measured from the adjacent head bolt spot face with cutter 41860. Drill and tap the old screw hole to accept stud 42277.

### Ford 429 - 460

Part No.	Quantity	Description	Pushrods
42166-8	8 pcs.	429, 460 Ford	5/16"
42160-8	8 pcs.	429, 460 Ford	3/8"



## Superior Head Bolts

- ▶ 180,000 psi tensile strength
- ▶ Longer than stock for use with washers
- ▶ Improved wrenchability with 1/2" hex head

Part No.	Quantity	Description
42193	1 set for 1 head	Chevrolet V-6
42171	1 set for 1 head	SB Chevy V-8
42312	1 set for 1 head	SB Chevy, Brodix - 12 and Pontiac 10093328 castings
42313	1 set for 1 head	SB Chevy, Brodix aluminum and Pontiac 10033867
42170	1 set for 1 head	BB Chevy
42180	1 set for 1 head	BB Chevy with Dart Pro 1 heads
42192	1 set for 1 head	BB Chevy with Brodix heads, Merlin II Aluminum
42322	1 set for 1 head	BB Chevy with Chevy Bow Tie, Dart Aluminum and Merlin heads
42178	1 set for 1 head	Chrysler 383-440
42198	1 set for 1 head	Indy Cylinder Head 440-1 BB Chrysler head



## Hardened Head Bolt Washers

- ▶ Special heat treatment to prevent galling

Part No.	Quantity	Description
42102	34 pcs.	All Chevys, 289-351 Fords, .760" O.D., 7/16" I.D., .125" thick
42127	20 pcs.	All Chryslers, Pontiacs, 390-427 Fords, .875" O.D., 1/2" I.D., .105" thick
42136	34 pcs.	Ideal washers for aluminum heads. 7/16" I.D. but larger .935" O.D. for better fit in aftermarket aluminum heads, .125" thick



## Cylinder Head Stud Kits

- ▶ Premium grade 8740 chrome moly alloy
- ▶ 200,000 psi tensile strength
- ▶ Kit includes studs, washers and nuts

Part No.	Quantity	Description
42190	1 set for 1 engine	SB Chevy OEM cast iron and aluminum Brodix -8, -10, -11, Track 1, Dart Sportsman and Dart II
42283	1 set for 1 engine	BB Chevy with Dart and Chevy Bow Tie heads flat milled
42284	1 set for 1 engine	BB Chevy with Brodix heads flat milled
42191	1 set for 1 engine	BB Chevy with non Bow Tie heads flat milled
42197	1 set for 1 engine	Ford 4.6L 2 valve and 4 valve heads



## 7/16" Cylinder Head Stud Nuts

Part No.	Quantity	Description
42279-4	4 pcs.	Hex head stud nut for all Chevrolets and 4.6L Fords
42289-4	4 pcs.	12 point stud nut for all Chevrolets and 4.6L Fords



## Hex Head Intake Manifold Bolts

- ▶ P/N 42175 and 42176 have gold irridite finished bolts and hardened washers
- ▶ P/N 42177 has black oxide finished bolts and hardened washers



Part No.	Quantity	Description	Underhead Length
42176	1 set	Small Block Chevrolet	1.250"
42177	1 set	Small Block Chevrolet using thin casting hi-rise manifolds	1.000"
42175	1 set	Big Block Chevrolet	1.250"
42294-16	16 pcs.	Hardened washers for 42175 & 42176 bolts. .100" thick. Gold Irridite	
42299-16	16 pcs.	Hardened washers for 42177 bolts. .125" thick. Black oxide	

## 12 Point Head Intake Manifold Bolts

- ▶ Bolts and washers with gold irridite finish
- ▶ Shipped with hardened washers



Part No.	Quantity	Description	Underhead Length
42292	1 set	Small Block Chevrolet, Chrysler "A" and "B" engines	1.125"
42291	1 set	Big Block Chevrolet using thin casting hi-rise manifolds	1.125"
42294-16	16 pcs.	Hardened washers for above bolts. .100" thick. Gold Irridite	

## Hard To Find "AN" Washers

- ▶ .060" thick

Part No.	Quantity	I.D.	O.D.
42194	12 pcs.	5/16"	9/16"
42195	12 pcs.	3/8"	5/8"
42196	12 pcs.	7/16"	3/4"



## Front Timing Cover Bolts

- ▶ Special flange for greater "wrenchability"
- ▶ Integral lock washer

Part No.	Quantity	Description
42174	1 set	Small and Big Block Chevys-black oxide
42179	1 set	Small and Big Block Chevys-gold irridite



## Oil Pan Bolts

- ▶ Special flange for greater "wrenchability"
- ▶ Integral lock washer

Part No.	Quantity	Description
42173	1 set	Small Block Chevrolet - black oxide
42189	1 set	Small Block Chevrolet - gold irridite
42172	1 set	Big Block Chevrolet - black oxide
42188	1 set	Big Block Chevrolet - gold irridite



# VALVE SPRINGS

## NexTek® Series Valve Springs

...Better By Design

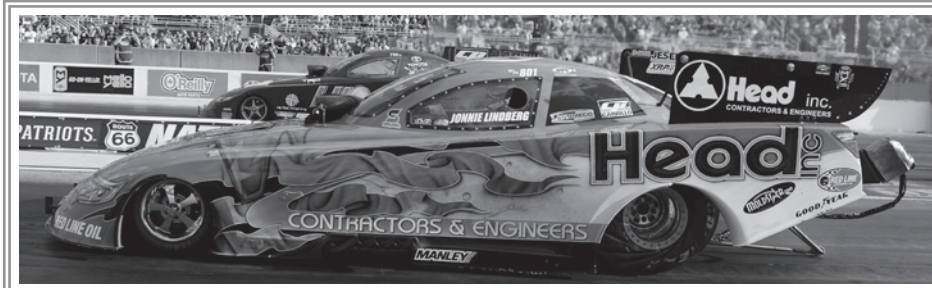
Manufactured from "super clean" Hi-Tensile Chrome Silicon steel

Tip thickness designed to eliminate overload breakage

Many part numbers available fully polished or Super Finished

Shot-peened to MIL spec for maximum fatigue life

Computer-aided modeling or designs minimizes valve bounce and valve gear separation



Nitro F/C Driver:  
**Jonnie Lindberg**

Tightly controlled open end flatness reduces valve stem side loading

Proprietary multi-step heat treating minimizes load loss

Optimized "Select Size Fitting" between outer and inner springs to maximize harmonic dampening and reduce heat generated during operation

Many offerings are a damperless design which eliminates unnecessary damper weight and reduces retainer wear

## NexTek® Series

### Lightweight Dual Drag Race Valve Springs

- ▶ Higher natural frequency and lower active mass provides improved valvetrain control and higher RPM potential
- ▶ Dual spring design reduces friction, which generates less heat and translates into greatly reduced load loss
- ▶ Extensively tested on the Spintron, dyno and race track (including blown nitro engines) and proven highly effective
- ▶ Smaller diameter, lightweight dual design allows engine to rev higher with improved valve train control
- ▶ Accepts smaller, lighter retainers which also promotes higher revs
- ▶ Ultra clean, high tensile strength chrome silicon material
- ▶ Super Finished multi-step surface enhancement significantly improves fatigue strength
- ▶ Ideal loads for multiple applications with minimal load loss



Part No.	Description	Maximum Valve Lift	O.D.	I.D.	Installed / Open Pressure	Rate ( lbs. / in. )	Coil Bind	Weight (grams)	Component Code
221420-16	Super Stock Competition Eliminator	.850	1.500	.710	275 @ 2.050 940 @ 1.200	780	1.130	136	A
221455-16	Competition Eliminator Alcohol & Fuel Classes	1.000	1.500	.710	450 @ 2.175 1250 @ 1.175	797	1.130	143	A
221456-16	Super Stock Competition Eliminator	.900	1.500	.710	330 @ 2.100 1050 @ 1.200	800	1.130	139	A
221457-16	Super Stock Competition Eliminator	.950	1.500	.710	405 @ 2.150 1165 @ 1.200	800	1.130	150	A
221460-16	Alcohol & Fuel Classes, Pro Mod	.950	1.522	.710	440 @ 2.250 1340 @ 1.300	948	1.255	154	A
221461-16	Alcohol & Fuel Classes, Pro Mod	1.000	1.540	.710	425 @ 2.300 1389 @ 1.300	964	1.215	154	A

See pages 72-73 for comprehensive load charts

Component Code	Titanium Retainers	Description	TensileMax Retainers	I.D. Spring Locators	O.D.	I.D.	Thickness	Seat Cutter	
A	23675-16	7° ( +.100 for 7° LocCap )	23675TM-16	7° ( +.100 )	42347-16	1.535	.570	.062	41856
	23677-16	7° ( +.100 for 7° LocCap ) Ti-17 Alloy			42318-16	1.610	.570	.062	41857
	23684-16	10° Std. Installed			42344-16	1.535	.635	.035	41835
	23676-16	10° ( +.100 )	23676TM-16	10° ( +.100 )	42335-16	1.535	.635	.062	41835
	23679-16	10° ( +.100 ) Lightweight Ti-17 Alloy			42120-16	1.610	.635	.062	41855
	23683-16	10° ( +.170 ) Lightweight Ti-17 Alloy							
	23701-16	Super 7° Lightweight Ti-17 Alloy							

## NexTek® Series Drag Race Valve Springs

- ▶ Unequaled performance
- ▶ All springs are triple except 221424, 221425 & 221454 which are double w/o damper
- ▶ Better valve train stability and component life
- ▶ Ideally suited for Sportsman Drag Racing applications



All Manley NexTek® valve springs listed below are available in Polished versions to reduce friction, improve fatigue life and minimize load loss. For example 221449P-16.

Part No.	Polished Part No.	Description	Maximum Valve Lift	O.D.	I.D.	Installed / Open Pressure	Rate (lbs. / in.)	Coil Bind	Weight (grams)	Component Code
221424-16	221424P-16	Sportsman and Bracket Classes	.880	1.640	.860	250 @ 2.000 800 @ 1.150	647	1.070	149	A
221454-16	221454P-16	Sportsman and Bracket Classes	.850	1.650	.855	290 @ 2.000 825 @ 1.150	635	1.105	155	A
221425-16	221425P-16	Sportsman and Bracket Classes	.900	1.640	.860	280 @ 2.100 795 @ 1.250	604	1.150	160	A
221447-16*	221447P-16*	Sportsman and Bracket Classes	.800	1.677	.635	350 @ 2.000 895 @ 1.270	746	1.160	195	B
221448-16*	221448P-16*	Sportsman and Bracket Classes	.900	1.677	.635	350 @ 2.100 1010 @ 1.200	733	1.142	196	B
221449-16*	221449P-16*	Sportsman and Bracket Classes	1.000	1.677	.632	350 @ 2.200 1070 @ 1.200	720	1.142	195	B
221450-16*	221450P-16*	Sportsman and Bracket Classes	1.000	1.677	.632	370 @ 2.200 1140 @ 1.200	770	1.142	193	B

\* Advertised pressures are achieved after springs have been pressed solid three times

See pages 72-73 for comprehensive load charts

Component Code	Super 7° & 10° Titanium Retainers	Super 7° Tensile Max Retainers	Description	Spring Cups & Locators	Type	Cup O.D.	Cup I.D.	Seat Cutter	
A	23649-16	23685TM-16	10° Standard Installed	42121-16	OD	1.740	.635	41851	
	23640-16		10° (+.100)	42128-16*	OD	1.740	.635	41851	
	23540-16		10° (+.100) Lightweight	42379-16*	OD	1.740	.570	41859	
			Super 7°	* 42128 & 42379 have a wall height of .250 instead of .150					
					42337-16	ID	1.570	.570	41857
B	23673-16		7° (+.100)	42437-16*	ID	1.570	.567	41857	
	23708L-16		Super 7°						
	23663-16		10° Standard Installed	42371-16	OD	1.740	.635	41851	
	23653-16		10° (+.100)	42372-16	OD	1.740	.570	41859	
	23553-16		10° (+.100) Lightweight	42364-16	ID	1.660	.570	41858	
	23553I-16		10° (+.100) Lightweight Impinged						
	23753-16		10° (+.100) Lightweight TI-17 Alloy						

## Valve Spring & Titanium Retainer Kits

- ▶ Large savings over purchasing items separately

Kit No.	Quantity	Application	NexTek® Spring No.	10° Titanium Retainer No.
261424	1 kit	Super Gas, Super Comp., Big Block Bracket Engines	221424-16	23640-16
261424L	1 kit	Same, except lightweight titanium retainers	221424-16	23540-16
261454	1 kit	Super Gas, Super Comp., Big Block Bracket Engines	221454-16	23640-16
261454L	1 kit	Same, except lightweight titanium retainers	221454-16	23540-16
261425	1 kit	Super Gas, Super Comp., Big Block Bracket Engines	221425-16	23640-16
261425L	1 kit	Same, except lightweight titanium retainers	221425-16	23540-16



# VALVE SPRINGS

## NexTek® Series

### Drag Race, Oval Track & Endurance Valve Springs

- ▶ No degradation of spring pressure in the later stages of a race
- ▶ Specially processed premium-grade chrome silicon that is virtually free of impurities or surface irregularities
- ▶ NexTek® Series valve springs have been tested by leading engine builders and are confirmed to be the best performing valve springs on the market today

CYL HEAD COMPONENTS

Part No.	Polished Part No.	Super Finished Part No.	Description	Maximum Valve Lift	O.D.	I.D.	Installed / Open Pressure	Rate (lbs. / in.)	Coil Bind	Weight (grams)	Component Code
221432-16	-----	-----	Late Model Stock w/ Flat Tappet	.630 Double With Damper	1.530	.750	150 @ 1.900 425 @ 1.270	435	1.170	152	A
-----	221440P-16	-----	Solid Roller	.700 Double With Damper	1.570	.760	255 @ 2.000 630 @ 1.300	534	1.190	165	B
-----	221441P-16	-----	Solid Roller	.730 Double With Damper	1.570	.750	280 @ 2.030 700 @ 1.300	575	1.215	170	C
-----	221442-16	-----	Solid Roller	.750 Double Without Damper	1.560	.812	260 @ 2.000 660 @ 1.250	533	1.200	155	D
221443-16	221443P-16	-----	Solid Roller	.730 Double Without Damper	1.580	.832	235 @ 1.950 610 @ 1.250	535	1.170	150	E
221444-16	221444P-16	-----	Solid Roller	.750 Double Without Damper	1.610	.842	235 @ 2.050 645 @ 1.300	546	1.220	161	F
-----	221445P-16	-----	Solid Roller	.800 Double Without Damper	1.620	.852	280 @ 2.050 680 @ 1.250	500	1.200	168	G
-----	-----	221446SF-16	Solid Roller	.800 Double Without Damper	1.400	.700	240 @ 2.050 700 @ 1.250	575	1.150	125	H
-----	-----	221452SF-16	Solid Roller	.825 Double Without Damper	1.550	.800	250 @ 2.025 750 @ 1.200	618	1.150	144	I

See page 72-73 for comprehensive load charts



Please refer to opposite page 65 for the appropriate fitting retainers and spring cups. Match the component codes listed to select the correct parts.

## Ancillary Components For Springs On Page 64

Component Code	Super 7° & 10° Titanium Retainers	Super 7° Lightweight Titanium Retainers	Super 7° +.050 Titanium Retainers	Super 7° TensileMax Retainers	H-13 Tool Steel Retainers	Spring Cups & Locators	Type	Cup O.D.	Cup I.D.	Cup Thickness	Seat Cutter
A	23707-16 (Super 7°)			23707TM-16	23650TS-16	42330-16	ID	1.535	.635	.062	41835
	23644-16 (10° Ti Std.)				(10° +.100)	42326-16	ID	1.535	.570	.062	41856
	23650-16 (10° Ti +.100)					42426-16*	ID	1.535	.567	.062	41856
						42466-16*	ID	1.535	.567	.045	41856
B		23705L-16	23706L-16	23705TM-16	23650TS-16	42331-16	ID	1.530	.570	.062	41856
		23705LI-16	23706LI-16	23705LTM-16	(10° +.100)						
	23644-16 (10° Ti Std.)										
	23650-16 (10° Ti +.100)										
C	23672-16 (Super 7°)	23672L-16		23672TM-16	23647TS-16	42330-16	ID	1.535	.635	.062	41835
	23672I-16 (Super 7°)				(10° +.100)	42326-16	ID	1.535	.570	.062	41856
					23672TS-16	42426-16*	ID	1.535	.567	.062	41856
	23647-16 (10° Ti +.100)				(Super 7°)	42466-16*	ID	1.535	.567	.045	41856
D	23682-16 (Super 7°)	23682L-16		23682TM-16	23643TS-16	42343-16	ID	1.550	.570	.062	41856
	23682I-16 (Super 7°)	23682LI-16			(10° +.100)	42443-16*	ID	1.550	.567	.062	41856
	23643-16 (10° Ti +.100)				23682TS-16						
					(Super 7°)						
E	23681-16 (Super 7°)	23681L-16	23691-16		23648TS-16	42370-16	OD	1.687	.570	.062	41858
	23681I-16 (Super 7°)	23681LI-16			(10° +.100)	42369-16	ID	1.570	.635	.062	41856
					23681TS-16	42373-16	ID	1.570	.570	.062	41856
	23648-16 (10° Ti +.100)				(Super 7°)	42573-16*	ID	1.570	.567	.062	41856
					42438-16*	ID	1.570	.567	.045	41856	
F	23681-16 (Super 7°)	23681L-16	23691-16		23648TS-16	42365-16	OD	1.740	.570	.062	41859
	23681I-16 (Super 7°)	23681LI-16			(10° +.100)	42367-16	ID	1.610	.570	.062	41857
	23648-16 (10° Ti +.100)				23681TS-16	42368-16	ID	1.610	.635	.062	41855
					(Super 7°)						
G	23685-16 (Super 7°)	23685L-16		23685TM-16		42342-16	ID	1.610	.570	.062	41857
	23685I-16 (Super 7°)	23685LI-16									
H		23746L-16		23746TM-16	23746TS-16	42446-16*	ID	1.410	.567	.062	41850
					(Super 7°)						
					23747TS-16						
					(10° +.100)						
I		23702L-16		23702LTM-16	23702TS-16	42402-16*	ID	1.540	.567	.062	41856
					(Super 7°)						

SUFFIX CODE: I : Impinged L : Lightweight LI : Lightweight and Impinged LTM : Lightweight TensileMax TM: TensileMax TS: Tool Steel

\* Pro Series Locators



# VALVE SPRINGS

## NexTek® Series High Performance Valve Springs • Chevy LS/LT1



CYL HEAD COMPONENTS

Part No.	Description	Maximum Valve Lift	O.D.	I.D.	Installed / Open Pressure	Rate (lbs. / in.)	Coil Bind	Weight (grams)	Component Code
221428-16	SBC LS-Series, LT-1 & Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller	.600	1.076 Top 1.311 Bottom	.650 Top .885 Bottom	150 @ 1.800 355 @ 1.200	341	1.085	79	A
221438-16	SBC LS-Series, LT-1 & Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller	.650	1.076 Top 1.311 Bottom	.650 Top .885 Bottom	150 @ 1.800 380 @ 1.150	353	1.100	73	A
221436-16	SBC LS-Series, LT-1 & Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller	.660	1.295	.676	155 @ 1.810 405 @ 1.150	379	1.100	93	B
221435-16	SBC LS-Series, LT-1 & Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller	.700	1.340	.726	170 @ 1.810 450 @ 1.110	394	1.050	94	C
221421-16	SBC LS-Series, LT-1 High Performance Hydraulic Roller	.800	1.324	.676	165 @ 1.800 515 @ 1.000	435	.900	90	D
221422-16	SBC LS-Series, LT-1 High Performance Solid Roller	.780	1.335	.622	270 @ 1.800 870 @ 1.020	780	.960	109	E

See page 74 for comprehensive load charts

### Factory OEM Installed Heights

Application	Installed Hgt.
LS-1	1.750"
LS-3	1.800"
LT1	1.870"

### LS/LT1 7° Valve Locks for 8mm Stem Valves

Part No.	Description
13094-16	.050" less installed hgt.
13098-16	Standard installed hgt.
13095-16	.050" more installed hgt.

Manley manufactures standard and +.050" retainers as well as standard, +.050" and -.050" valve locks enabling engine builders to achieve proper installed heights for the Manley NexTek® Springs above depending upon the chosen LS or LT1 cylinder head. If required, spring shims may also need to be utilized to achieve the proper installed height.

Please refer to opposite page 67 for the appropriate fitting retainers and spring cups. Match the component codes listed to select the correct parts.

## Ancillary Components For Springs On Page 66

Component Code	Retainer Part No.	Description	Spring Cup Part No.	Type	Cup O.D.	Cup I.D.	Cup Thickness	Seat Cutter
<b>A</b>	<b>23620-16</b>	7° Steel for Manley 13098 or factory LS valve lock and factory spring seat						
	<b>23606TS-16</b>	10° H-13 Tool Steel Standard Height for Manley 13153 valve lock						
	<b>23622-16</b>	7° Titanium for Manley 13098 or factory LS valve lock and factory spring seat						
	<b>23625-16</b>	7° Titanium +.050 for Manley 13098 or factory LS valve lock and factory spring seat						
	<b>23626-16</b>	7° Titanium +.050 for early model LT-1 and standard type valve lock						
			<b>42338-16</b>	ID	1.290	.505	.035	None
			<b>42336-16</b>	ID	1.290	.505	.062	None
			<b>42349-16</b>	ID	1.290	.570	.062	<b>41850</b>
<b>B</b>	<b>23621-16</b>	7° Steel +.050 for Manley 13098 or factory LS valve lock						
	<b>23616TS-16</b>	10° H-13 Tool Steel +.050 for Manley 13153 valve lock						
	<b>23617-16</b>	7° Titanium for Manley 13098 or factory LS valve lock						
	<b>23623-16</b>	7° Titanium +.050 for Manley 13098 or factory LS valve lock						
	<b>23624-16</b>	7° Titanium +.050 for early model LT-1 and standard type valve lock						
			<b>42334-16</b>	ID	1.270	.505	.035	None
			<b>42124-16</b>	ID	1.270	.570	.062	<b>41850</b>
			<b>42138-16</b>	ID	1.270	.505	.062	None
<b>C</b>	<b>23610-16</b>	7° Steel +.050 for Manley 13098 or factory LS valve lock						
	<b>23611-16</b>	7° Titanium +.050 for Manley 13098 or factory LS valve lock						
	<b>23615TS-16</b>	10° H-13 Tool Steel Standard Height for early model LT-1						
			<b>42348-16</b>	ID	1.320	.505	.035	None
			<b>42135-16</b>	ID	1.320	.567	.035	None
<b>D</b>	<b>23618-16</b>	7° Titanium + .050 for Manley 13098 or factory LS valve lock						
			<b>42117-16</b>	ID	1.300	.505	.035	None
			<b>42130-16</b>	ID	1.300	.567	.035	None
<b>E</b>	<b>23619-16</b>	10° Titanium + .050 for Manley 13153 valve lock						
			<b>42129-16</b>	ID	1.310	.505	.035	None
			<b>42131-16</b>	ID	1.310	.567	.035	None

See page 74 for comprehensive load charts

## LS/LT1 Valve Spring Kits

► Large savings over purchasing items separately

Kit No.	Application / Max. Lift	NexTek® Spring No.	7° Steel Retainer No.	I.D. Valve Spring Locator No.	7° Machined Valve Lock No.	Viton Valve Stem Seals No.
<b>26382038KS</b>	LS / .600"	221438-16	23620-16	42338-16	13098-16	24042-16
<b>26362134KS</b>	LS / .660"	221436-16	23621-16	42334-16	13098-16	24042-16

Kit No.	Application / Max. Lift	NexTek® Spring No.	7° Titanium Retainer No.	I.D. Valve Spring Locator No.	7° Machined Valve Lock No.	Viton Valve Stem Seals No.
<b>26382538KS</b>	LS / .650"	221438-16	23625-16	42338-16	13098-16	24042-16
<b>26361734KLS</b>	LS / .560" - LT1 / .660"	221436-16	23617-16	42334-16	13094-16	24042-16
<b>26362334KS</b>	LS / .660"	221436-16	23623-16	42334-16	13098-16	24042-16

Kit No.	Application / Max. Lift	NexTek® Spring No.	10° Tool Steel Retainer No.	I.D. Valve Spring Locator No.	10° Machined Valve Lock No.	Viton Valve Stem Seals No.
<b>26380638KS</b>	LS / .600"	221438-16	23606TS-16	42338-16	13153-16	24042-16
<b>26361634KS</b>	LS / .660"	221436-16	23616TS-16	42334-16	13153-16	24042-16

Note: Max. lift figures above may vary depending upon the cylinder head and installed height.

Note: New part numbers are **BOLD & ITALICIZED**

# VALVE SPRINGS

## NexTek® Series

### High Performance Valve Springs

#### • Chrysler Hemi



Part No.	Description	Maximum Valve Lift	O.D.	I.D.	Installed / Open Pressure	Rate (lbs. / in.)	Coil Bind	Weight (grams)	Component Code
221431-16*	Chrysler Hemi 5.7L, 6.1L High Performance Hydraulic Roller	.650	1.076 Top 1.311 Bottom	.650 Top .885 Bottom	145 @ 1.811 370 @ 1.161	353	1.100	72	A
			Super Finished Single Conical Ovate Wire						
221439-16	Chrysler Hemi 6.4L High Performance Hydraulic Roller	.650	1.076 Top 1.311 Bottom	.650 Top .885 Bottom	145 @ 1.811 380 @ 1.150	353	1.100	72	A
			Super Finished Single Conical Ovate Wire						

\* These Chrysler Hemi springs come with shims which are ONLY needed for 6.1L applications on the intake side in order to achieve the correct installed height. Each set also includes a set of piloting rings that install over the factory "Top Hat" integral valve seal to properly locate the ID of the spring on early 5.7L (thru 2008) and 6.1L applications. P/N 221431X-16 which does not include any shims or piloting rings is also available for the Hemi Drag Pak engines.

## NexTek® Series

### High Performance Valve Springs

#### • Ford Modular/Coyote



Part No.	Description	Maximum Valve Lift	O.D.	I.D.	Installed / Open Pressure	Rate (lbs. / in.)	Coil Bind	Weight (grams)	Component Code
221427-16	Ford 4.6L, 5.4L SOHC 2 Valves per Cylinder Stock Diameter Hydraulic Roller	.580	1.020 Top 1.125 Bottom	.642 Top .748 Bottom	95 @ 1.680 240 @ 1.130	264	1.080	52	B
			Single Conical Ovate Wire						
221437-16	Ford 4.6L, 5.4L SOHC 2 Valves per Cylinder Stock Diameter Ideal for Boosted Applications	.580	1.030 Top 1.175 Bottom	.642 Top .787 Bottom	125 @ 1.680 265 @ 1.130	255	1.080	56	B
			Single Conical Ovate Wire						
221433-24	Ford 4.6L, 5.4L 3 Valve 3 Valves per Cylinder High Performance Hydraulic Roller	.580	1.013 Top 1.101 Bottom	.650 Top .738 Bottom	110 @ 1.670 260 @ 1.090	258	1.020	49	C
			Single Conical Ovate Wire						
221434-32	Ford 4.6L, 5.4L DOHC 4 Valves per Cylinder Stock Diameter High Performance Hydraulic Roller	.525	1.016 Top 1.126 Bottom	.640 Top .750 Bottom	95 @ 1.420 270 @ .895	330	.860	45	D
			Single Conical Ovate Wire						
221418-32	Ford 5.0L DOHC Coyote 4 Valves per Cylinder Stock Diameter Hydraulic Roller	.570	.841 Top 1.014 Bottom	.533 Top .706 Bottom	90 @ 1.570 225 @ 1.000	236	.904	36	E
			Super Finished Single Conical Ovate Wire						
221419-32	Ford 5.0L DOHC Coyote 4 Valves per Cylinder High Performance Hydraulic Roller Ideal for Boosted Applications	.600	1.013 Top 1.101 Bottom	.650 Top .738 Bottom	120 @ 1.640 275 @ 1.040	258	.970	49	F
			Single Conical Ovate Wire						

See page 74 for comprehensive load charts

Please refer to opposite page 69 for the appropriate fitting retainers and spring cups. Match the component codes listed to select the correct parts.

## Ancillary Components For Springs On Page 68

Component Code	Retainer Part No.	Description	Spring Cup Part No.	Type	Cup O.D.	Cup I.D.	Cup Thickness	Seat Cutter
A	23612-16	7° Steel for Manley 13093 or factory valve lock						
	23613-16	7° Titanium for Manley 13093 or factory valve lock						
Must use ID locator P/N 42324-16 for the 2009 and up Hemi 5.7L and all 6.4L								
			42324-16	ID	1.300	.812	.205	None
B	23627-16	7° Titanium for Manley 13089 or factory valve lock						
	23667-16	7° Titanium + .060 for Manley 13089 or factory valve lock						
C	23614-24	7° Titanium for Manley 13088 or factory valve lock						
D	23627-32	7° Titanium for Manley 13089 or factory valve lock						
	23667-32	7° Titanium + .060 for Manley 13089 or factory valve lock						
E	23604-32	7° Steel for Manley 13086 or factory valve lock and factory spring seat						
F	23605-32	7° Titanium +.070 for Manley 13086 or factory valve lock						
	23605TS-32	7° H-13 Tool Steel +.070 for Manley 13086 or factory valve lock						
			42153-32	ID	1.080	.440	.045	None

See page 74 for comprehensive load charts



# VALVE SPRINGS

## Street Master Valve Springs

- ▶ Chrome silicon material
- ▶ Designed for low stress and long service life



Part No.	Type	Application	Size OD/ID	Pressures	Rate (lbs./in.)	Weight (grams)	7° Steel Retainer	10° Steel Retainer	Titanium Retainer
22409-16	Outer w/ damper	SB Chevy Street Use	1.250" .865"	110 @ 1.700" 285 @ 1.210" Coil Bind: 1.180"	357	87	23651-16 (Std.) 23652-16 (+.050") 23652TS-16 (+.050" H-13)		23642-16 (7° x 11/32" +.050")
22408-16	Double w/ damper	SB Chevy, LS-1 Chevy, Ford, Chrysler	1.437" .720"	115 @ 1.800" 330 @ 1.250" 350 @ 1.200" Coil Bind: 1.100"	392	117	23645-16 (11/32") 23646-16 (11/32" +.100") 23666-16 (3/8")	23635-16 (+.060") 23635TS-16 (+.060" H-13)	23630-16 (10 Degree) 23638-16 (7° x 5/16" LS-1) 23639-16 (7° x 5/16" +.050" LS-1)
22407-16	Double w/ damper	SB & BB Chevy	1.437" .720"	135 @ 1.800" 365 @ 1.250" 385 @ 1.200" Coil Bind: 1.085"	418	121	23645-16 (11/32") 23646-16 (11/32" +.100") 23666-16 (3/8")	23635-16 (+.060") 23635TS-16 (+.060" H-13)	23630-16 (10 Degree)
22406-16	Outer w/ damper	BB Chevy, Chrysler	1.550" 1.080"	125 @ 1.875" 355 @ 1.375" Coil Bind: 1.190"	460	121	23645-16 (11/32") 23646-16 (11/32" +.100") 23666-16 (3/8")	23635-16 (+.060") 23635TS-16 (+.060" H-13)	23630-16 (10 Degree)

See page 71 for comprehensive load charts

## Professional Valve Springs

- ▶ Chrome silicon material for oval track and drag racing



Part No.	Type	Application	Size OD/ID	Pressures	Rate (lbs./in.)	Weight Grams	Super 7° Retainer	7°x11/32" Retainer	10° Steel Retainer	10° Titanium Retainer
22410-16	Outer w/ damper	Oval track Stock Class Chrome Silicon	1.260" .876"	130 @ 1.750" 335 @ 1.200" 1.095" Coil Bind	370	82		23651-16 (Std. Steel) 23652-16 (+.050" Steel) 23652TS-16 (+.050" H-13) 23642-16 (+.050" Titanium)		
22411-16	Outer w/ damper	SB Chevy Stock Diameter Chrome Silicon	1.255" .870"	115 @ 1.750" 390 @ 1.175" 1.100" Coil Bind	470	81		23651-16 (Std. Steel) 23652-16 (+.050" Steel) 23652TS-16 (+.050" H-13) 23642-16 (+.050" Titanium)		
22441-16	Double w/ damper	Oval Track Chrome Silicon	1.550" .740"	170 @ 1.900" 500 @ 1.200" 1.150" Coil Bind	471	152	23670-16 (Titanium) 23670TM-16 (Tensile Max) 23670TS-16 (H-13)	23659-16 (+.100") 23660TS-16 (+.100" H-13)	23658-16 (Std.) 23660-16 (+.100")	
22429-16	Double w/ damper	Oval Track Chrome Silicon	1.550" .740"	150 @ 1.880" 425 @ 1.280" 1.180" Coil Bind	458	109	23672-16 (Titanium) 23672TM-16 (Tensile Max) 23672TS-16 (H-13)	23656-16 (+.100") 23647TS-16 (+.100" H-13)	23657-16 (Std.) 23661-16 (+.100")	
22430-16	Double w/ damper	Oval Track Chrome Silicon	1.550" .735"	210 @ 1.900" 525 @ 1.250" 1.200" Coil Bind	484	156	23672-16 (Titanium) 23672TM-16 (Tensile Max) 23672TS-16 (H-13)	23656-16 (+.100") 23647TS-16 (+.100" H-13)	23657-16 (Std.) 23661-16 (+.100")	
22431-16	Double w/ damper	Oval / Drag Chrome Silicon	1.550" .725"	225 @ 1.950" 580 @ 1.250" 1.190" Coil Bind	507	159	23670-16 (Titanium) 23670TM-16 (Tensile Max) 23670TS-16 (H-13)	23659-16 (+.100") 23660TS-16 (+.100" H-13)	23658-16 (Std.) 23660-16 (+.100")	
22440-16	Double w/ damper	Drag Race Chrome Silicon	1.550" .720"	250 @ 1.850" 680 @ 1.150" 1.090" Coil Bind	614	147	23670-16 (Titanium) 23670TM-16 (Tensile Max) 23670TS-16 (H-13)	23659-16 (+.100") 23660TS-16 (+.100" H-13)	23658-16 (Std.) 23660-16 (+.100")	

See page 71 for comprehensive load charts

CYL HEAD COMPONENTS

## Street Master / Professional Series

Street/Strip, Oval Track & Drag Race Valve Springs

Load Chart

P/N Type of Spring	22406 Single	22407 Double	22408 Double	22409 Single	22410 Single	22411 Single	22429 Double	22430 Double	22431 Double	22440 Double	22441 Double
Installed Ht. Inst. Pressure	1.875 125	1.800 135	1.800 115	1.700 110	1.750 130	1.750 115	1.880 150	1.900 210	1.950 225	1.850 250	1.900 170
Open Ht. Open Pressure	1.375 355	1.250 350	1.200 350	1.210 285	1.200 335	1.175 390	1.280 425	1.250 525	1.250 580	1.150 680	1.200 500
Spring Rate	460	418	392	357	370	470	458	484	507	614	471
O.D. of Outer I.D. of Outer I.D. of Inner	1.550 1.080 N/A	1.437 1.060 0.720	1.437 1.060 0.720	1.250 0.865 N/A	1.260 0.876 N/A	1.255 0.870 N/A	1.550 1.130 0.740	1.550 1.130 0.735	1.550 1.115 0.725	1.550 1.115 0.720	1.550 1.115 0.740
Coil Bind Ht.	1.190	1.085	1.100	1.180	1.095	1.100	1.180	1.200	1.190	1.090	1.100
Damper	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
S P R I N G H E I G H T	Inches								124		
	2.150							113	149		76
	2.100							72	137	127	99
	2.050	45					95	162	200	158	123
	2.000	68	51	37			118	186	225	189	146
	1.950	91	72	56		56	21	141	210	250	219
	1.900	114	93	76	39	75	45	164	234	276	250
	1.850	137	114	95	56	93	68	187	258	301	281
	1.800	160	135	115	74	112	92	210	283	326	311
	1.750	183	156	135	92	130	115	233	307	352	342
	1.700	206	177	154	110	149	139	256	331	377	373
	1.650	229	198	174	128	167	162	279	355	402	404
	1.600	252	219	193	146	186	186	301	379	428	434
	1.550	275	240	213	164	204	209	324	404	453	465
	1.500	298	260	233	181	223	233	347	428	479	496
	1.450	321	281	252	199	241	256	370	452	504	526
1.400	344	302	272	217	260	280	393	476	529	557	
1.350	367	323	291	235	278	303	416	500	555	588	
1.300	390	344	311	253	297	327	439	525	580	618	
1.250	413	365	331	271	315	350	462			649	
1.200		386	350	289	335	374				680	
1.150		407	370		352	397				523	
	LOAD (LBS.)										

CYL HEAD COMPONENTS



# VALVE SPRINGS

## NexTek® Series

Drag Race, Oval Track & Endurance Valve Springs

Load Chart

CYL HEAD COMPONENTS

P/N Type of Spring Color Code	221420 Double Super Finished	221424/P Double Blue/ Polished	221425/P Double Green/ Polished	221432 Double Silver	221440P Double Polished	221441P Double Polished	221442 Double Polished	221443/P Double White/ Polished	221444/P Double Yellow/ Polished	221445P Double Polished	221446SF Double Super Finished
Installed Ht. Inst. Pressure	2.050 275	2.000 250	2.100 280	1.900 150	2.000 255	2.030 280	2.000 260	1.950 235	2.050 235	2.050 280	2.050 240
Open Ht. Open Pressure	1.200 940	1.150 800	1.250 795	1.270 425	1.300 630	1.300 700	1.250 660	1.250 610	1.300 645	1.250 680	1.250 700
Spring Rate	780	647	604	435	534	575	533	535	546	500	575
O.D. of Outer	1.500	1.640	1.640	1.530	1.570	1.570	1.560	1.580	1.610	1.620	1.400
I.D. of Outer	1.050	1.185	1.185	1.141	1.137	1.121	1.127	1.147	1.161	1.187	0.990
I.D. of Inner	0.710	0.860	0.860	0.750	0.760	0.750	0.812	0.832	0.842	0.852	0.700
Coil Bind Ht.	1.130	1.070	1.150	1.170	1.190	1.215	1.200	1.170	1.220	1.200	1.150
Damper	No	No	No	Yes	Yes	Yes	No	No	No	No	No
Inches											
2.350	41										
2.300	80		159								
2.250	119		189						126	180	125
2.200	158	121	220		148	182	153		153	205	154
2.150	197	153	250		175	211	180	128	180	230	183
2.100	236	185	<b>280</b>	63	202	240	207	155	208	255	211
2.050	<b>275</b>	218	310	85	228	268	233	182	<b>235</b>	<b>280</b>	<b>240</b>
2.000	314	<b>250</b>	340	107	<b>255</b>	<b>297</b>	<b>260</b>	208	262	305	269
1.950	353	282	371	128	282	326	287	<b>235</b>	290	330	298
1.900	392	315	401	<b>150</b>	308	355	313	262	317	355	326
1.850	431	347	431	172	335	383	340	289	344	380	355
1.800	470	379	461	194	362	412	367	315	372	405	384
1.750	509	412	491	215	389	441	393	342	399	430	413
1.700	548	444	522	237	415	470	420	369	426	455	441
1.650	587	476	552	259	442	498	447	396	453	480	470
1.600	626	509	582	281	469	527	473	422	481	505	499
1.550	665	541	612	302	495	556	500	449	508	530	528
1.500	704	574	642	324	522	585	527	476	535	555	556
1.450	743	606	673	346	549	613	553	503	563	580	585
1.400	782	638	703	368	575	642	580	529	590	605	614
1.350	821	671	733	389	602	671	606	556	617	630	643
1.300	860	703	763	411	<b>630</b>	<b>700</b>	633	583	<b>645</b>	655	671
1.250	899	735	<b>795</b>	<b>433</b>	656	728	<b>660</b>	<b>610</b>	672	<b>680</b>	<b>700</b>
1.200	<b>940</b>	768	824	455				636			729
1.150	977	<b>800</b>									
1.100		832									
	LOAD (LBS.)										

Note: **BOLD** loads correspond to installed and open pressures.

## NexTek® Series

Drag Race, Oval Track & Endurance Valve Springs

Load Chart

P/N Type of Spring Color Code	221447/P Triple Pink/ Polished	221448/P Triple Orange/ Polished	221449/P Triple Red/ Polished	221450/P Triple Purple/ Polished	221452SF Double Super Finished	221454/P Double Orange/ Polished	221455 Double Super Finished	221456 Double Super Finished	221457 Double Super Finished	221460 Double Super Finished	221461 Double Super Finished	
Installed Ht. Inst. Pressure	2.000 350	2.100 350	2.200 350	2.200 370	2.025 250	2.000 290	2.175 450	2.100 330	2.150 405	2.250 440	2.300 425	
Open Ht. Open Pressure	1.270 895	1.200 1010	1.200 1070	1.200 1140	1.200 750	1.150 825	1.175 1250	1.200 1050	1.200 1165	1.300 1340	1.300 1389	
Spring Rate	746	733	720	770	618	635	797	800	800	948	964	
O.D. of Outer	1.677	1.677	1.677	1.677	1.550	1.650	1.500	1.500	1.500	1.522	1.540	
I.D. of Outer	1.203	1.203	1.203	1.203	1.130	1.185	1.050	1.050	1.050	1.050	1.050	
I.D. of Middle	0.874	0.874	0.874	0.874	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
I.D. of Inner	0.635	0.635	0.632	0.632	0.800	0.860	0.710	0.710	0.710	0.710	0.710	
Coil Bind Ht.	1.160	1.142	1.142	1.142	1.150	1.105	1.130	1.130	1.130	1.255	1.215	
Damper	No	No	No	No	No	No	No	No	No	No	No	
S P R I N G  H E I G H T	Inches											
	2.500										233	
	2.450										281	
	2.400			206	216						298	
	2.350			242	255						329	
	2.300		203	278	293			311	245	345	377	
	2.250		240	314	332	111	390	210	325	440	473	
	2.200	201	277	<b>350</b>	<b>370</b>	142	161	430	250	365	487	521
	2.150	238	313	386	409	173	193	<b>470</b>	290	<b>405</b>	535	570
	2.100	275	<b>350</b>	422	447	204	225	510	<b>330</b>	445	582	618
	2.050	313	387	458	486	235	256	550	370	485	630	666
	2.000	<b>350</b>	423	494	524	<b>266</b>	<b>290</b>	590	410	525	677	714
	1.950	387	460	530	563	297	320	629	450	565	724	762
	1.900	425	497	566	601	328	352	669	490	605	772	811
	1.850	462	533	602	640	359	383	709	530	645	819	859
	1.800	499	570	638	678	390	415	749	570	685	867	907
	1.750	537	607	674	717	420	447	789	610	725	914	955
	1.700	574	643	710	755	451	479	829	650	765	961	1003
	1.650	611	680	746	794	482	510	869	690	805	1009	1052
1.600	648	717	782	832	513	542	908	730	845	1056	1100	
1.550	686	753	818	871	544	574	948	770	885	1104	1148	
1.500	723	790	854	909	575	606	988	810	925	1151	1196	
1.450	760	826	890	948	606	637	1028	850	965	1198	1244	
1.400	798	863	926	986	637	669	1068	890	1005	1246	1293	
1.350	835	900	962	1025	668	701	1108	930	1045	1293	1341	
1.300	872	936	998	1063	699	733	1147	970	1085	<b>1340</b>	<b>1389</b>	
1.250	<b>910</b>	973	1034	1102	719	764	1187	1010	1125		1437	
1.200	947	<b>1010</b>	<b>1070</b>	<b>1140</b>	<b>750</b>	796	1227	<b>1050</b>	<b>1165</b>			
1.150						<b>828</b>	<b>1267</b>	1090	1205			
	LOAD (LBS.)											

Note: **BOLD** loads correspond to installed and open pressures.

# VALVE SPRINGS

## NexTek® Series

High Performance Valve Springs

- Chevy LS/LT1
- Late Model Chrysler Hemi
- Ford Modular
- Ford Coyote

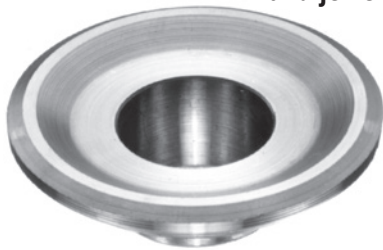
CYL HEAD COMPONENTS

### Load Chart

P/N Type of Spring Color Code	221418 Conical Super Finished	221419 Conical Plain	221421 Double Polished Finished	221422 Double Super	221427 Conical Gold	221428 Conical Salmon	221431 221439 Conical Super Finished	221433 Conical Super Finished	221434 Conical Plain	221435 Double Polished	221436 Double Polished	221437 Conical Plain	221438 Conical Super Finished	
Installed Ht. Inst. Pressure	1.570 90	1.640 120	1.800 165	1.800 270	1.680 95	1.800 150	1.811 145	1.670 110	1.420 95	1.810 170	1.810 155	1.680 125	1.800 150	
Open Ht. Open Pressure	1.000 225	1.040 275	1.000 515	1.020 870	1.130 240	1.200 355	1.161 370	1.090 260	0.895 270	1.110 450	1.150 405	1.130 265	1.150 375	
Spring Rate	236	258	435	780	264	341	353	258	330	394	379	255	353	
O.D. of Outer I.D. of Outer I.D. of Inner	1.014 .533 N/A	1.101 .650 N/A	1.324 0.920 0.676	1.335 0.907 0.622	1.125 0.642 N/A	1.311 0.650 N/A	1.311 0.650 N/A	1.101 0.650 N/A	1.126 0.640 N/A	1.340 0.994 0.726	1.295 0.949 0.676	1.175 0.642 N/A	1.311 0.650 N/A	
Coil Bind Ht.	.904	.970	0.900	0.960	1.080	1.085	1.100	1.020	0.860	1.050	1.100	1.080	1.100	
Damper	No	No	No	No	No	No	No	No	No	No	No	No	No	
S P R I N G H E I G H T	Inches													
	2.000					82	79			95	83		79	
	1.950					99	97			115	102		97	
	1.900					37	116	115		135	121	69	115	
	1.850		63	143	231	50	133	132	63	154	140	82	132	
	1.800		76	165	270	64	150	150	76	174	159	95	150	
	1.750	48	89	187	309	77	167	168	89	194	178	107	168	
	1.700	59	102	209	348	90	184	185	102	213	197	120	185	
	1.650	71	115	230	387	103	201	203	115	233	216	133	203	
	1.600	83	128	252	426	116	218	221	128	36	253	235	146	221
	1.550	95	141	274	465	130	235	238	141	53	273	254	158	238
	1.500	107	154	296	504	143	252	256	154	69	292	273	171	256
	1.450	118	167	317	543	156	269	274	167	86	312	292	184	274
	1.400	130	180	339	582	169	286	291	180	102	332	311	197	291
	1.350	142	192	361	621	182	303	309	192	119	351	330	209	309
	1.300	154	205	383	660	196	321	327	205	135	371	349	222	327
	1.250	166	218	404	699	209	338	344	218	152	391	367	235	344
1.200	177	231	426	738	222	355	362	231	168	410	386	248	362	
1.150	189	244	448	777	235	372	379	244	185	430	405	260	379	
1.100	201	257	470	816	248	389		257	201	450		273		
1.050	213	270	491	855				270	218					
1.000	225	283	513	894					234					
0.950	236		535						251					
0.900									267					
	LOAD (LBS.)													

## Manley Retainers ...simply the best!

- ▶ Engineered using finite element analysis
  - ▶ Specially heat treated titanium material
- ▶ Exclusive "impingement" finishing process
  - ▶ TensileMax steel and H-13 tool steel alloys
- ▶ CNC machined to exacting tolerances and jewel-like surface finishes



Lightweight Titanium



TensileMax Steel



7° & 10° Titanium

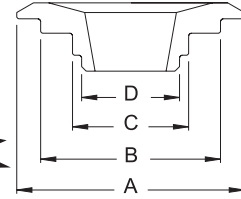


H-13 Tool Steel

# SPRING RETAINERS

## Super 7° Titanium Retainers

- ▶ Super 7° angle is actually 8°
- ▶ Heat treated titanium material for maximum strength
- ▶ Available with or without our exclusive impingement surface enhancement process
- ▶ Impingement results in a 20% improvement in resistance to abrasion, a 30% improvement in fatigue strength, and an overall improvement in surface finish
- ▶ "L" Suffix indicates Lightweight version which is 3-4 grams lighter than standard part number



CYL HEAD COMPONENTS

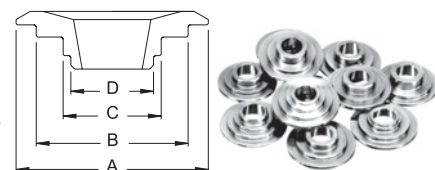
Part No.	Part No. w/ Impinge	Quantity	Spring Type	Spring	Spring O.D.	A	Dimensions B	C	D	Wgt/ Grams
23746L-16	-----	16 pcs.	Double	Manley 221446SF	1.400"	1.260"	.980"	.690"	---	12
23701-16	-----	16 pcs.	Double	Manley 221420, 1455, 1456, 1457, 1460, 1461	1.500"	1.325"	1.035"	.705"	---	14
23700L-16	23700LI-16	16 pcs.	Double	PSI CT1040	1.500"	1.450"	1.080"	.785"	---	16
23707-16	-----	16 pcs.	Double	Manley 221432	1.530" / 1.575"	1.500"	1.125"	.740"	---	20
23670-16	-----	16 pcs.	Double	Manley 22431, 22440, 22441	1.550"	1.500"	1.105"	.710"	---	19
23702L-16	-----	16 pcs.	Double	Manley 221452SF	1.550"	1.450"	1.120"	.790"	---	17
23672-16	23672I-16	16 pcs.	Double	Manley 221441P, 22429, 22430	1.550"	1.500"	1.125"	.730"	---	18
23672L-16	-----	16 pcs.	Double	20% lighter than 23672	1.550"	1.450"	1.125"	.730"	---	14
23674L-16	23674LI-16	16 pcs.	Double	Comp. 927	1.550"	1.450"	1.140"	.730"	---	17
23669-16	-----	16 pcs.	Double	Comp 26099	1.550"/1.625"	1.500"	1.175"	.765"	---	21
23705L-16	23705LI-16	16 pcs.	Double	Manley 221440P	1.560"	1.450"	1.140"	.745"	---	16
23706L-16	23706LI-16	16 pcs.	Double	.050" more installed than 23705L	1.560"	1.450"	1.140"	.745"	---	16
23682-16	-----	16 pcs.	Double	Manley 221442	1.560"	1.500"	1.120"	.805"	---	21
23682L-16	-----	16 pcs.	Double	16% lighter than 23682	1.560"	1.450"	1.120"	.805"	---	17
23681-16	-----	16 pcs.	Double	Manley 221443, 221444	1.580" / 1.610"	1.500"	1.150"	.825"	---	21
23681L-16	23681LI-16	16 pcs.	Double	17% lighter than 23681	1.580" / 1.610"	1.450"	1.150"	.825"	---	18
23691-16	-----	16 pcs.	Double	.050" more installed than 23681	1.580" / 1.610"	1.500"	1.150"	.825"	---	20
23685-16	23685I-16	16 pcs.	Double	Manley 221445P	1.620"	1.500"	1.175"	.840"	---	20
23685L-16	23685LI-16	16 pcs.	Double	16% lighter than 23685	1.620"	1.460"	1.175"	.840"	---	17
23708L-16	-----	16 pcs.	Triple	Manley 221447, 221448, 221449, 221450	1.660"	1.450"	1.185"	.870"	.635"	17

Please call with your custom retainer requirements

# SPRING RETAINERS

## 10° Titanium Retainers

- ▶ Special 6AL-4V titanium for maximum strength
- ▶ Excellent value for all forms of racing



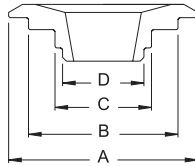
Part No.	Quantity	Spring Type	Spring	Height	Spring O.D.	Dimensions				Wgt/ Grams
						A	B	C	D	
23630-16	16 pcs.	Outer-Inner	22406, 22407, 22408	Std.	1.437"/1.550"	1.440"	1.050"	.700"	---	15
23684-16	16 pcs.	Double	Manley 221420, 1455, 1456, 1457, 1460, 1461	Std.	1.500"	1.325"	1.035"	.705"	---	14
23644-16	16 pcs.	Double	Manley 221432, Manley 221440P, Comp. 927	Std.	1.550"	1.500"	1.140"	.740"	---	17
23658-16	16 pcs.	Double	Manley 22431, 22440, 22441	Std.	1.550"	1.500"	1.105"	.710"	---	16
23657-16	16 pcs.	Double	Manley 22429, 22430	Std.	1.550"	1.500"	1.120"	.705"	---	18
23649-16	16 pcs.	Double	Manley 221424, 221425, 221454	Std.	1.625"	1.500"	1.175"	.850"	---	19
23654-16	16 pcs.	Double	Comp. 26099	Std.	1.625"	1.500"	1.175"	.765"	---	17
23663-16	16 pcs.	Triple	Manley 221447, 221448, 221449, 221450	Std.	1.660"	1.500"	1.185"	.860"	.620"	21
23619-16	16 pcs.	Double	Manley 221422	+ .050"	1.335"	1.235"	.900"	.615"	---	11
23676-16	16 pcs.	Double	Manley 221420, 1455, 1456, 1457, 1460, 1461	+ .100"	1.500"	1.325"	1.035"	.705"	---	13
23641-16	16 pcs.	Triple	Crane 99882	+ .100"	1.550"	1.500"	1.130"	.735"	.640"	17
23650-16	16 pcs.	Double	Manley 221432, Manley 221440P, Comp. 927	+ .100"	1.530"/1.570"	1.500"	1.140"	.740"	---	18
23660-16	16 pcs.	Double	Manley 22431, 22440, 22441	+ .100"	1.550"	1.500"	1.105"	.710"	---	17
23661-16	16 pcs.	Double	Manley 22429, 22430	+ .100"	1.550"	1.500"	1.120"	.705"	---	17
23647-16	16 pcs.	Double	Manley 221441P, Comp. 938, K-950	+ .100"	1.550"	1.500"	1.120"	.730"	---	18
23643-16	16 pcs.	Double	Manley 221442	+ .100"	1.560"	1.500"	1.120"	.805"	---	19
23648-16	16 pcs.	Double	Manley 221443, 221444 Comp. 951	+ .100"	1.580"/1.610"	1.500"	1.150"	.825"	---	20
23655-16	16 pcs.	Double	Comp. 26099	+ .100"	1.625"	1.500"	1.175"	.750"	---	17
23640-16	16 pcs.	Double	Manley 221424, 221425, 221454	+ .100"	1.625"	1.500"	1.175"	.850"	---	20
23662-16	16 pcs.	Triple	Comp. 948	+ .100"	1.625"	1.500"	1.190"	.875"	.640"	19
23665-16	16 pcs.	Triple	K-1400	+ .100"	1.625"	1.500"	1.185"	.765"	.645"	18
23653-16	16 pcs.	Triple	Manley 221447, 221448, 221449, 221450	+ .100"	1.660"	1.500"	1.185"	.860"	.620"	19

See page 78 for Lightweight 10° Titanium Retainers

# SPRING RETAINERS

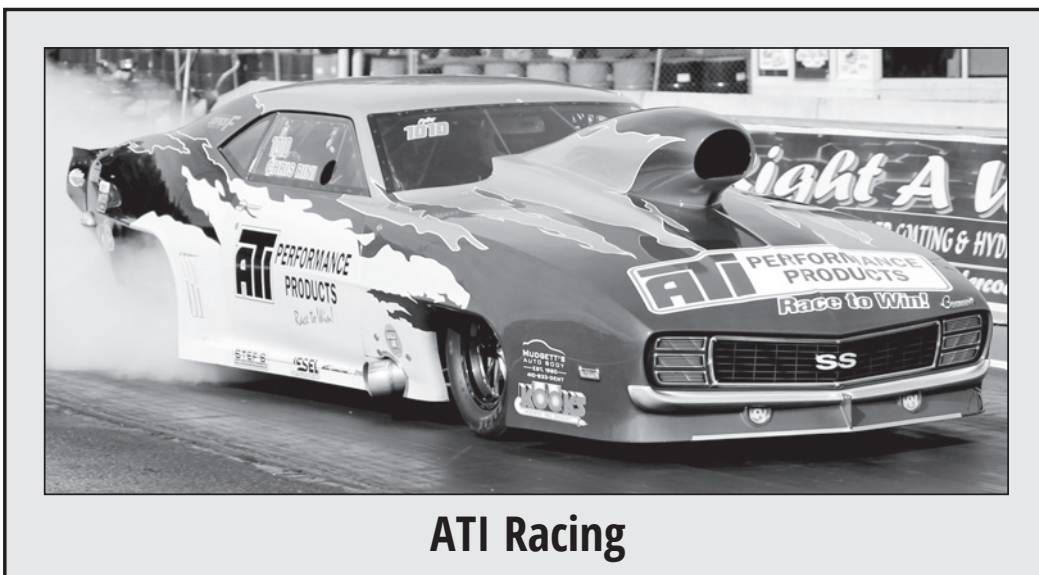
## Lightweight 10° Titanium Retainers

- ▶ Squeeze more RPM's out of your engine
- ▶ Avoid valve float
- ▶ Lightweight retainer does not sacrifice reliability
- ▶ 16 grams - compared to normal 19 to 21 grams
- ▶ Special heat treated titanium for maximum strength
- ▶ Must use 10° valve locks



CYL HEAD COMPONENTS

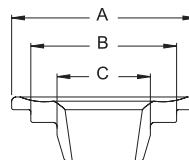
Part No.	Quantity	Spring Type	Spring	Spring Height	Spring O.D.	Dimensions				Wgt/ Grams
						A	B	C	D	
23540-16	16 pcs.	Double	Manley 221424, 221425, 221454	+ .100"	1.625"	1.430"	1.175"	.850"	- - -	17
23562-16	16 pcs.	Triple	Pacaloy Comp 946, 947, 948	+ .100"	1.625" / 1.650"	1.430"	1.190"	.875"	.640"	16
23553-16	16 pcs.	Triple	Manley 221447, 221448, 221449, 221450	+ .100"	1.660"	1.430"	1.185"	.860"	.620"	16
23553I-16	16 pcs.	Triple	Manley 221447, 221448, 221449, 221450	+ .100"	1.660"	1.430"	1.185"	.860"	.620"	16
23553 I retainer is impinged.										
23679-16*	16 pcs.	Double	Manley 221420, 1455, 1456, 1457, 1460, 1461	+ .100"	1.500"	1.325"	1.035"	.705"	- - -	14
23683-16*	16 pcs.	Double	Manley 221420, 1455, 1456, 1457, 1460, 1461	+ .170"	1.500"	1.325"	1.035"	.705"	- - -	14
23753-16*	16 pcs.	Triple	Manley 221447, 221448, 221449, 221450	+ .100"	1.660"	1.430"	1.185"	.860"	.620"	17
* Made from our high strength TI-17 Titanium Material										



ATI Racing

## 7° Titanium Retainers

- ▶ Special 6AL-4V titanium for maximum strength
- ▶ CAD designed for ultimate reduction in mass without sacrificing strength
- ▶ Must use 7° valve locks



Part No.	Quantity	Spring	Height	Spring O.D.	Dimensions			Keeper Degree	Valve Stem X	Wgt/ Grams
					A	B	C			
23614-24	24 pcs.	Manley 221433	Std.	1.013"	.875"	.640"	.440"	7° x	6mm	5
23605-32	32 pcs.	Manley 221419	+.070"	1.013"	.875"	.640"	.440"	7° x	6mm	5
23627-16	16 pcs.	Manley 221427/221437	Std.	1.020"/1.030"	.875"	.627"	.465"	7° x	7mm	5
23667-16	16 pcs.	Manley 221427/221437	+.060"	1.020"/1.030"	.875"	.627"	.465"	7° x	7mm	5
23629-16	16 pcs.	PSI 1511ML	Std.	1.056"	.915"	.620"	.540"	7° x	5/16"	5
23613-16	16 pcs.	Manley 221431, 221439	Std.	1.076"	.935"	.640"	.570"	7° x	5/16"	6
23622-16	16 pcs.	Manley 221428/221438	Std.	1.076"	.935"	.640"	.570"	7° x	8mm	5
23625-16	16 pcs.	Manley 221428/221438	+.050"	1.076"	.935"	.640"	.570"	7° x	8mm	5
23626-16	16 pcs.	Manley 221428/221438	+.050"	1.076"	.935"	.640"	.575"	7° x	11/32"	6
23642-16	16 pcs.	Manley 22409, 22410, 22411	+.050"	1.250"	1.150"	.865"	.620"	7° x	11/32"	9
23617-16	16 pcs.	Manley 221436	Std.	1.295"	1.155"	.950"	.675"	7° x	8mm	10
23623-16	16 pcs.	Manley 221436	+.050"	1.295"	1.155"	.950"	.675"	7° x	8mm	10
23624-16	16 pcs.	Manley 221436	+.050"	1.295"	1.155"	.950"	.675"	7° x	11/32"	10
23618-16	16 pcs.	Manley 221421	+.050"	1.324"	1.200"	.910"	.666"	7° x	8mm	11
23611-16	16 pcs.	Manley 221435	+.050"	1.340"	1.200"	.985"	.715"	7° x	8mm	11
23638-16	16 pcs.	Manley 22408	Std.	1.437"	1.340"	1.050"	.700"	7° x	8mm	14
23639-16	16 pcs.	Manley 22408	+.050"	1.437"	1.340"	1.050"	.700"	7° x	8mm	14
23675-16	16 pcs.	Manley 221420, 1455, 1456, 1457, 1460, 1461	+.100"	1.500"	1.325"	1.035"	.705"	7° x	11/32", 3/8"	14
23677-16*	16 pcs.	Manley 221420, 1455, 1456, 1457, 1460, 1461	+.100"	1.500"	1.325"	1.035"	.705"	7° x	11/32", 3/8"	15
23673-16	16 pcs.	Manley 221447, 221448, 221449, 221450	+.100"	1.660"	1.500"	1.185"	.860"	7° x	11/32", 3/8"	20

\* Made from our high strength TI-17 Titanium Material

P/N's 23611, 23617, 23618, 23622, 23623, 23625, 23638, and 23639 must use Manley P/N 13098 or factory Chevrolet LS valve locks

P/N's 23624, 23626, and 23642 are for the following engine models: LT-1 / LT-4 / L-98 and must use Manley P/N 13091

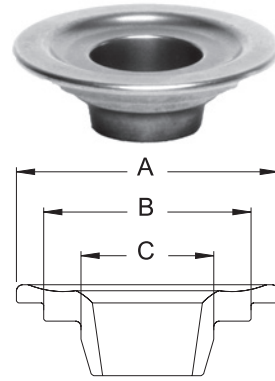


# SPRING RETAINERS

## TensileMax Steel Retainers

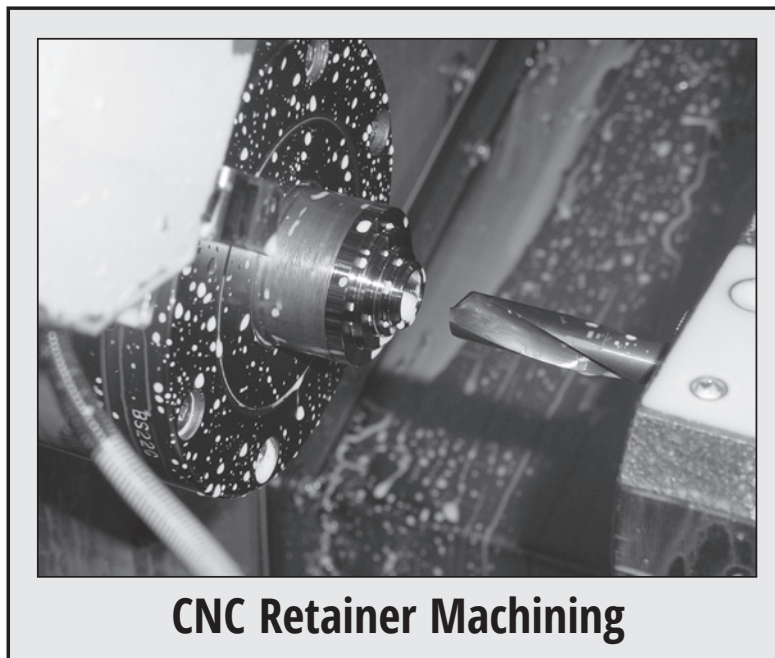
These are serious retainers for serious engine builders who *DEMAND THE VERY BEST...*

- ▶ Manufactured from our incredibly tough TensileMax alloy
- ▶ Designed to be as light as standard titanium retainers and very close in weight to lightweight titanium versions (within 2-4 grams)
- ▶ Specially heat treated to provide a hardness of Rc 52-54 and prevent retainer wear
- ▶ Exclusive process yields a part that provides the optimum balance between ultimate strength, fatigue strength, hardness and ductility
- ▶ Unique impingement process developed specifically for our TensileMax alloy and hardness range to improve fatigue strength and promote better oiling between the spring and retainer



CYL HEAD COMPONENTS

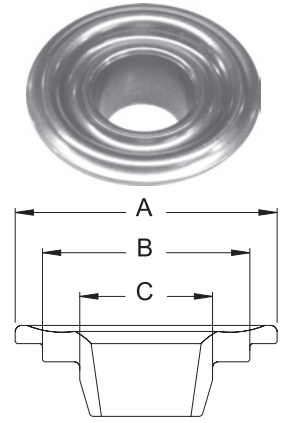
Part No.	Quantity	Spring Type	Spring	Spring O.D.	Keeper Degree	Dimensions			Wgt/ Grams
						A	B	C	
23746TM-16	16 pcs.	Double	Manley 221446SF	1.400"	Super 7°	1.260"	.980"	.690"	16
23675TM-16	16 pcs.	Double	Manley 221420, 1455, 1456, 1457, 1460, 1461	1.500"	7° (+.100")	1.325"	1.035"	.705"	18
23676TM-16	16 pcs.	Double	Manley 221420, 1455, 1456, 1457, 1460, 1461	1.500"	10° (+.100")	1.325"	1.035"	.705"	17
23707TM-16	16 pcs.	Double	Manley 221432	1.530"	Super 7°	1.420"	1.125"	.740"	21
23670TM-16	16 pcs.	Double	Manley 22431, 22440, 22441	1.550"	Super 7°	1.420"	1.105"	.710"	20
23702LTM-16	16 pcs.	Double	Manley 221452SF	1.550"	Super 7°	1.440"	1.120"	.790"	20
23674TM-16	16 pcs.	Double	Comp. 927	1.550"	Super 7°	1.440"	1.140"	.730"	22
23682TM-16	16 pcs.	Double	Manley 221442	1.560"	Super 7°	1.440"	1.120"	.805"	23
23672TM-16	16 pcs.	Double	Manley 221441P, 22429, 22430	1.570"	Super 7°	1.440"	1.125"	.730"	20
23705TM-16	16 pcs.	Double	Manley 221440P	1.570"	Super 7°	1.440"	1.140"	.745"	22
23705LTM-16	16 pcs.	Double	14% lighter than 23705TM	1.570"	Super 7°	1.440"	1.140"	.745"	19
23685TM-16	16 pcs.	Double	Manley 221445P	1.620"	Super 7°	1.460"	1.175"	.840"	23



## Lightweight H-13 Tool Steel Retainers

For those searching for a slightly more economical alternative to titanium retainers, either to help solve a “wear problem” or because of “class rules,” Manley lightweight H-13 Tool Steel retainers are your solution! H-13 tool steel allows for better processing than “other” tool steels typically utilized; thus yielding a stronger, more durable product.

- ▶ Up to 33% lighter than standard 10° steel retainers
- ▶ Only 2-4 grams heavier than titanium versions
- ▶ Heat treated to provide a hardness of Rc 56



CYL HEAD COMPONENTS

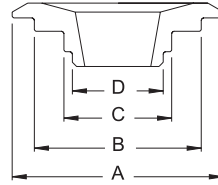
Part No.	Quantity	Spring Type	Spring	Spring O.D.	Keeper Degree	Dimensions			Wgt/ Grams
						A	B	C	
23605TS-32	32 pcs.	Single	Manley 221419	1.013"	7° x 6mm	.875"	.640"	.440"	8
23606TS-16	16 pcs.	Single	Manley 221428, 221438	1.076"	10° (Std.)	.935"	.640"	----	8
23652TS-16	16 pcs.	Single	Manley 22409, 22410, 22411	1.255"	7° x 11/32" (+.050")	1.120"	.865"	.538"	13
23616TS-16	16 pcs.	Double	Manley 221436	1.290"	10° (+.050")	1.155"	.950"	.675"	15
23615TS-16	16 pcs.	Double	Manley 221435	1.340"	10° (Std.)	1.190"	.985"	.715"	16
23746TS-16	16 pcs.	Double	Manley 221446SF	1.400"	Super 7°	1.245"	.980"	.690"	17
23747TS-16	16 pcs.	Double	Manley 221446SF	1.400"	10° (+.100")	1.245"	.980"	.690"	18
23635TS-16	16 pcs.	Single/Double	Manley 22406, 22407, 22408	1.437"/1.550"	10° (+.060")	1.420"	1.050"	.700"	20
23650TS-16	16 pcs.	Double	Manley 221432, 221440P	1.530"/1.570"	10° (+.100")	1.440"	1.140"	.740"	23
23660TS-16	16 pcs.	Double	Manley 22431, 22440, 22441	1.550"	10° (+.100")	1.440"	1.105"	.710"	21
23670TS-16	16 pcs.	Double	Manley 22431, 22440, 22441	1.550"	Super 7°	1.440"	1.105"	.710"	22
23702TS-16	16 pcs.	Double	Manley 221452SF	1.550"	Super 7°	1.440"	1.120"	.790"	23
23643TS-16	16 pcs.	Double	Manley 221442	1.560"	10° (+.100")	1.440"	1.120"	.805"	23
23682TS-16	16 pcs.	Double	Manley 221442	1.560"	Super 7°	1.440"	1.120"	.805"	23
23647TS-16	16 pcs.	Double	Manley 221441P, 22429, 22430	1.570"	10° (+.100")	1.440"	1.120"	.730"	22
23672TS-16	16 pcs.	Double	Manley 221441P, 22429, 22430	1.570"	Super 7°	1.440"	1.125"	.730"	20
23648TS-16	16 pcs.	Double	Manley 221443, 221444	1.580"/1.610"	10° (+.100")	1.440"	1.150"	.825"	24
23681TS-16	16 pcs.	Double	Manley 221443, 221444	1.580"/1.610"	Super 7°	1.440"	1.150"	.825"	24

Call your Manley salesman to inquire about custom H-13 tool steel retainers

# SPRING RETAINERS

## Street Master Steel Valve Spring Retainers

- ▶ CNC machined to exacting tolerances
- ▶ Thru-hardened 4140 chrome moly



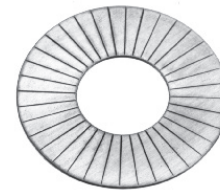
CYL HEAD COMPONENTS

Part No.	Quantity	Spring	Spring Height	Spring O.D.	Keeper Degree X Valve Stem	A	Dimensions			Wgt/ Grams
							B	C	D	
23604-32	32 pcs.	221418	Std.	.841"	7° x 6mm	.795"	.525"	---	---	7
23612-16	16 pcs.	221431, 221439	Std.	1.076"	7° x 5/16"	.935"	.640"	---	---	10
23620-16	16 pcs.	221428, 221438	Std.	1.076"	7° x 8mm	.935"	.640"	---	---	10
23651-16	16 pcs.	22409, 22410, 22411	Std.	1.250"	7° x 11/32"	1.245"	.865"	.680"	---	21
23652-16	16 pcs.	22409, 22410, 22411	+.050"	1.250"	7° x 11/32"	1.245"	.865"	.680"	---	21
23621-16	16 pcs.	221436	+.050"	1.290"	7° x 8mm	1.155"	.950"	.675"	---	17
23610-16	16 pcs.	221435	+.050"	1.340"	7° x 8mm	1.200"	.985"	.715"	---	19
23645-16	16 pcs.	22406, 22407, 22408	Std.	1.437"/1.550"	7° x 11/32"	1.440"	1.050"	.700"	---	28
23635-16	16 pcs.	22406, 22407, 22408	+.060"	1.437"/1.550"	10° x All	1.440"	1.050"	.700"	---	31
23666-16	16 pcs.	22406, 22407, 22408	Std.	1.437"/1.550"	7° x 3/8"	1.440"	1.050"	.700"	---	31
23646-16	16 pcs.	22406, 22407, 22408	+.100"	1.437"/1.550"	7° x 11/32"	1.440"	1.050"	.700"	---	30
23636-16	16 pcs.	Crane 99882	Std.	1.550"	10° x All	1.500"	1.130"	.735"	.640"	29
23659-16	16 pcs.	Manley 22431, 22440, 22441	+.100"	1.550"	10° x All	1.500"	1.105"	.710"	---	31
23656-16	16 pcs.	Manley 22429, 22430	+.100"	1.550"	10° x All	1.500"	1.120"	.705"	---	31

P/N 23610, 23620 and 23621 must use Manley 13098 or factory Chevrolet LS valve locks

## Valve Spring Shims

- ▶ Available in .060", .030" and .015" thickness
- ▶ Heat treated to resist wear



.060"	Part Numbers		Quantity	O.D.	I.D.	Type	Description
	.030"	.015"					
02236-50	02233-50	02231-50	50 pcs.	1.250"	.812"	Hard	SB Chevy-stock size springs
03236-50	03233-50	03231-50	50 pcs.	1.480"	.703"	Hard	BB Chevrolet
03256-50	03253-50	03251-50	50 pcs.	1.437"	.785"	Hard	SB Chevrolet w/ larger springs
03266-50	03263-50	03261-50	50 pcs.	1.500"	.645"	Hard	Chevrolet - Chrysler
03276-50	03273-50	03271-50	50 pcs.	1.625"	.645"	Hard	Chevrolet - Chrysler -Ford

# SPRING CUPS & I.D. LOCATORS

## O.D. Valve Spring Cups

- ▶ CNC machined
- ▶ Accurate and durable .062" thick
- ▶ Heat treated and black oxide finished



Part No.	Quantity	Fits Spring O.D.	Cup O.D.	Cup I.D.	Wall Shoulder Height	Manley Spring	Use Cutter Number
42142-16	16 pcs.	1.250"	1.390"	.570"	.150"	22409, 22410, 22411	41850
42126-16	16 pcs.	1.437"	1.550"	.687"	.150"	22407, 22408	41835
42122-16	16 pcs.	1.550"	1.680"	.635"	.150"	22429, 22430, 22431, 22440, 22441	41852
42377-16	16 pcs.	1.550"	1.680"	.577"	.150"	22429, 22430, 22431, 22440, 22441	41858
42370-16	16 pcs.	1.580"	1.687"	.570"	.140"	221443	41858
42365-16	16 pcs.	1.610"	1.740"	.570"	.140"	221444	41859
42121-16	16 pcs.	1.625"	1.740"	.635"	.150"	221424, 221425, 221454	41851
42128-16	16 pcs.	1.625"	1.740"	.635"	.250"	221424, 221425, 221454	41851
42379-16	16 pcs.	1.650"	1.740"	.570"	.250"	221424, 221425, 221454	41859
42371-16	16 pcs.	1.677"	1.740"	.635"	.140"	221447, 221448, 221449 221450	41851
42372-16	16 pcs.	1.677"	1.740"	.570"	.140"	221447, 221448, 221449	41859

## Pro Series I.D. Valve Spring Locators

- ▶ CNC machined to tolerances  $\pm .002"$
- ▶ Excellent surface finish
- ▶ 8620 material heat treated and black oxide finished



Part No.	Quantity	Fits Spring O.D.	Locator O.D.	Locator I.D.	Locator Thickness	Wall Shoulder Height	Shoulder Diameter	Manley Spring	Use Cutter Number
42446-16	16 pcs.	1.400"	1.410"	.567"	.062"	.163"	.690"	221446SF	41850
42426-16	16 pcs.	1.550"	1.535"	.567"	.062"	.163"	.740"	221432, 221441P	41856
42466-16	16 pcs.	1.550"	1.535"	.567"	.045"	.163"	.740"	221432, 221441P	41856
42402-16	16 pcs.	1.550"	1.540"	.567"	.062"	.163"	.795"	221452SF	41856
42443-16	16 pcs.	1.560"	1.550"	.567"	.062"	.163"	.802"	221442	41856
42573-16	16 pcs.	1.580"	1.570"	.567"	.062"	.163"	.828"	221443	41856
42438-16	16 pcs.	1.580"	1.570"	.567"	.045"	.163"	.828"	221443	41856
42437-16	16 pcs.	1.625"	1.570"	.567"	.062"	.163"	.850"	221424, 221425, 221454	41857

Please call with your custom spring locator requirements

# SPRING LOCATORS

## I.D. Valve Spring Locators

- ▶ CNC machined
- ▶ Accurate and durable
- ▶ Heat treated and black oxide finished



CYL HEAD COMPONENTS

Part No.	Quantity	Fits Spring O.D.	Locator O.D.	Locator I.D.	Locator Thickness	Wall Shoulder Height	Shoulder Diameter	Spring	Use Cutter Number
42460-16	16 pcs.	.870"	.845"	.555"	.057"	.100"	.600"	Manley 22160 Inner Spring	None
42153-32	32 pcs.	1.013"	1.080"	.440"	.045"	.100"	.725"	Manley 221419	None
42115-16	16 pcs.	1.160"	1.100"	.500"	.095"	.200"	.610"	Manley 22115	None
42141-16	16 pcs.	1.255"	1.240"	.577"	.035"	.145"	.865"	Manley 22411	41850
42143-16	16 pcs.	1.255"	1.240"	.577"	.180"	.145"	.865"	Manley 22411	41850
42123-16	16 pcs.	1.255"	1.250"	.780"	.180"	.090"	.880"	Manley 22411	None
42334-16	16 pcs.	1.290"	1.270"	.505"	.035"	.145"	.675"	Manley 221436	None
42138-16	16 pcs.	1.290"	1.270"	.505"	.062"	.145"	.675"	Manley 221436	None
42124-16	16 pcs.	1.290"	1.270"	.570"	.062"	.145"	.675"	Manley 221436	41850
42338-16	16 pcs.	1.311"	1.290"	.505"	.035"	.145"	.875"	Manley 221428, 221438	None
42336-16	16 pcs.	1.311"	1.290"	.505"	.062"	.145"	.875"	Manley 221428, 221438	None
42349-16	16 pcs.	1.311"	1.290"	.570"	.062"	.145"	.875"	Manley 221428, 221438	41850
42324-16	16 pcs.	1.311"	1.300"	.812"	.205"	.145"	.875"	Manley 221431	None
42117-16	16 pcs.	1.324"	1.300"	.505"	.035"	.145"	.665"	Manley 221421	None
42130-16	16 pcs.	1.324"	1.300"	.567"	.035"	.145"	.665"	Manley 221421	None
42129-16	16 pcs.	1.335"	1.310"	.505"	.035"	.145"	.615"	Manley 221422	None
42131-16	16 pcs.	1.335"	1.310"	.567"	.035"	.145"	.615"	Manley 221422	None
42348-16	16 pcs.	1.340"	1.320"	.505"	.035"	.145"	.715"	Manley 221435	None
42135-16	16 pcs.	1.340"	1.320"	.567"	.035"	.145"	.715"	Manley 221435	None
42344-16	16 pcs.	1.550"	1.535"	.635"	.035"	.140"	.705"	Manley 221420, 1455, 1456, 1457, 1460, 1461	41835
42335-16	16 pcs.	1.550"	1.535"	.635"	.062"	.140"	.705"	Manley 221420, 1455, 1456, 1457, 1460, 1461	41835
42347-16	16 pcs.	1.550"	1.535"	.570"	.062"	.140"	.705"	Manley 221420, 1455, 1456, 1457, 1460, 1461	41856
42119-16	16 pcs.	1.550"	1.535"	.635"	.062"	.140"	.720"	Manley 22430, 22431, 22440, Isky 9385	41835
42317-16	16 pcs.	1.550"	1.535"	.570"	.062"	.140"	.720"	Manley 22430, 22431, 22440	41856
42330-16	16 pcs.	1.550"	1.535"	.635"	.062"	.140"	.740"	Manley 221432, 221441P	41835
42326-16	16 pcs.	1.550"	1.535"	.570"	.062"	.140"	.740"	Manley 221432, 221441P	41856
42378-16	16 pcs.	1.550"	1.535"	.570"	.062"	.140"	.765"	Isky 9685	41856
42331-16	16 pcs.	1.550"	1.530"	.570"	.062"	.140"	.750"	Manley 221440P	41856
42332-16	16 pcs.	1.550"	1.535"	.570"	.062"	.140"	.810"	Comp 943	41856
42333-16	16 pcs.	1.550"	1.535"	.635"	.062"	.140"	.810"	Comp 943	41835

Please call with your custom spring locator requirements

## I.D. Valve Spring Locators (Continued)

- ▶ CNC machined
- ▶ Accurate and durable
- ▶ Heat treated and black oxide finished



Part No.	Quantity	Fits Spring O.D.	Locator O.D.	Locator I.D.	Cup Thickness	Wall Shoulder Height	Shoulder Diameter	Spring	Use Cutter Number
42343-16	16 pcs.	1.560"	1.550"	.567"	.062"	.163"	.802"	Manley 221442	41856
42373-16	16 pcs.	1.580"	1.570"	.570"	.062"	.140"	.825"	Manley 221443	41856
42369-16	16 pcs.	1.580"	1.570"	.635"	.062"	.140"	.825"	Manley 221443	41856
42367-16	16 pcs.	1.610"	1.610"	.570"	.062"	.140"	.825"	Manley 221444	41857
42368-16	16 pcs.	1.610"	1.610"	.635"	.062"	.140"	.825"	Manley 221444	41855
42342-16	16 pcs.	1.620"	1.610"	.570"	.062"	.140"	.840"	Manley 221445P	41857
42337-16	16 pcs.	1.625"	1.570"	.570"	.062"	.140"	.850"	Manley 221424, 221425, 221454	41857
42120-16	16 pcs.	1.625"	1.610"	.635"	.062"	.140"	.705"	Manley 221420, 1455, 1456, 1457, 1460, 1461 K Motion K1000, K1000H	41855
42318-16	16 pcs.	1.625"	1.610"	.570"	.062"	.140"	.705"	Manley 221420, 1455, 1456, 1457, 1460, 1461 K Motion K1000, K1000H	41857
42374-16	16 pcs.	1.625"	1.610"	.570"	.062"	.140"	.765"	Comp 26099	41857
42376-16	16 pcs.	1.625"	1.615"	.570"	.062"	.140"	.675"	Crane 99877	41857
42375-16	16 pcs.	1.625"	1.625"	.635"	.062"	.140"	.760"	Isky 9685	41855
42364-16	16 pcs.	1.677"	1.660"	.570"	.062"	.140"	.630"	Manley 221447, 221448, 221449, 221450	41858

Please call with your custom spring locator requirements



Double Spindle CNC Turning

## Rocker Stud Boss Cutters

- ▶ Extra large diameter cutter to completely clean stud bosses while reducing height
- ▶ Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

Part No.	Quantity	Description
41860	1	Use for Fords and Small Block Chevys



## Cylinder Head Spring Seat Cutters

- ▶ Extra strength carbide cutters
- ▶ Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

Replacement pilots: 7mm/.274" - 41274, 5/16" - 41516, 11/32" - 41132, 3/8" - 41138

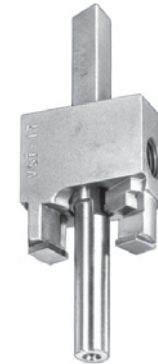
Part No.	Quantity	Description
41824	1	Cuts 1.260" O.D., .742" I.D. with 11/32" pilot
41850	1	Cuts 1.445" O.D., .565" I.D. with 11/32" pilot
41835	1	Cuts 1.565" O.D., .625" I.D. with 11/32" pilot
41856	1	Cuts 1.585" O.D., .562" I.D. with 11/32" pilot
41857	1	Cuts 1.635" O.D., .570" I.D. with 11/32" pilot
41855	1	Cuts 1.635" O.D., .625" I.D. with 11/32" pilot
41858	1	Cuts 1.690" O.D., .570" I.D. with 11/32" pilot
41852	1	Cuts 1.690" O.D., .625" I.D. with 11/32" pilot
41859	1	Cuts 1.755" O.D., .570" I.D. with 11/32" pilot
41851	1	Cuts 1.755" O.D., .625" I.D. with 11/32" pilot



## Valve Guide Seal Cutters

- ▶ Extra strength carbide cutters
- ▶ Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

Part No.	Quantity	Pilot Size	Seal No.	Guide O.D.
41410	1	7mm ( .274" )	24041	.431"
41510	1	5/16"	24040	.420"
41610	1	5/16"	24029	.500"
41710	1	5/16"	24034	.530"
41611	1	11/32"	24037	.500"
41711	1	11/32"	24035	.530"
41612	1	3/8"	24039	.500"
41712	1	3/8"	24036	.530"



## Valve Guide Seal Cutter Pilot

- ▶ For use with any spring seat or seal cutter

Part No.	Quantity	Description
41274	1	7mm cutter pilot
41516	1	5/16" cutter pilot
41132	1	11/32" cutter pilot
41138	1	3/8" cutter pilot



## Small Block Chevrolet

### Swedged End Pushrods

.080" Wall 1010 Steel

- ▶ Heat treated and black oxide finish
- ▶ For use in hydraulic lifter applications with less than 400 lbs. open spring pressure and under 7500 rpm



Part No.	Quantity	Description	Diameter	Length
25785-16	16 pcs.	SB Chevy - Stock Length	5/16"	7.794"
25786-16	16 pcs.	SB Chevy - .100" Longer	5/16"	7.894"
25717-16	16 pcs.	Late model 350 - Stock Length	5/16"	7.170"
25719-16	16 pcs.	Late model 350 - .050" Longer	5/16"	7.220"

P/N's 25717 and 25719 are for late model OEM hydraulic roller lifters. Hardened guide plates P/N 42355 are required with aluminum heads.

## Small Block Chevrolet

### Ball End Pushrods

.080" Wall 1010 Steel

- ▶ Excellent pushrods for mildly modified engines with open spring pressure under 300 lbs



Part No.	Quantity	Description	Diameter	Length
25737-16	16 pcs.	SB Chevy - Stock Length	5/16"	7.794"
25777-16	16 pcs.	SB Chevy - .100" Longer	5/16"	7.894"
25790-16	16 pcs.	SB Chevy - .150" Longer	5/16"	7.944"

## Ford 5.0L

### Swedged End Pushrods

.080" Wall 1010 Steel & 4130 Chrome Moly

- ▶ Stock length pushrod for use with stock Ford valve ( 5.080" O/A )
- ▶ Use of Chevy valves ( O/A 4.911" ) in Ford heads requires .172" shorter pushrods



Part No.	Quantity	Description	Material	Diameter	Length
25723-16	16 pcs.	Stock Length	1010	5/16"	6.272"
25725-16	16 pcs.	.172" Shorter	1010	5/16"	6.100"
25627-16	16 pcs.	Stock Length	4130	5/16"	6.272"
25610-16	16 pcs.	.172" Shorter	4130	5/16"	6.100"



# PUSHRODS

## 4130 Chrome Moly Swedged End Pushrods

- ▶ Meticulously formed ends with exact radii
- ▶ Excellent concentricity, closely controlled length
- ▶ Heat treated and black oxide finished
- ▶ Private label programs available



5/16" .080" WALL



5/16" .120" WALL

PUSHRODS, DRIVE & OIL PUMPS

Length	5/16" Dia. .080" Wall Part No.	5/16" Dia. .120" Wall Part No.	3/8" Dia. .080" Wall Part No.	3/8" Dia. .135" Wall Part No.	7/16" Dia. .165" Wall Part No.
6.050	25605-16				
6.100	25610-16				
6.150	25615-16				
6.200	25620-16				
6.250	25625-16				
6.272	25627-16				
6.300	25630-16	25205-16		25305-8	
6.350	25635-16	25206-16		25306-8	
6.400	25640-16	25207-16		25307-8	
6.450	25645-16			25308-8	
6.500	25650-16		25843-8	25309-8	
6.550	25655-16		25844-8		
6.600	25660-16	25211-16	25846-8		
6.650	25665-16	25212-16	25837-8		
6.700	25670-16	25213-16	25838-8		
6.750	25675-16	25214-16	25839-8		
6.800	25680-16	25215-16	25817-8		
6.850	25685-16	25216-16	25819-8	25316-8	
6.875	25688-16				
6.900	25690-16	25217-16	25853-8	25317-8	
6.950	25695-16	25218-16	25857-8	25318-8	
7.000	25700-16	25219-16	25862-8	25319-8	
7.050	25727-16	25220-16	25827-8		
7.100	25729-16	25221-16	25829-8		
7.150	25741-16	25222-16	25841-8		
7.200	25733-16	25223-16	25872-8		
7.250	25734-16	25224-16	25873-8		
7.275	<b>25720-16</b>				
7.300	25730-16	25225-16	25874-8		
7.325	25731-16				
7.350	25751-16	25226-16	25851-8		
7.375	25732-16				
7.400	25735-16	25227-16	25822-8		
7.425	25759-16				
7.450	25736-16	25228-16	25836-8	25328-8	
7.475	25760-16				
7.500	25754-16	25229-16	25854-8	25329-8	
7.525	25761-16				
7.550	25755-16	25230-16	25818-8	25330-8	
7.575	25778-16				
7.600	25767-16	25231-16	25876-8	25331-8	25174-8
7.625	25775-16		25824-8		
7.650	25768-16	25232-16	25877-8	25332-8	25129-8
7.675			25834-8		
7.700	25772-16	25233-16	25828-8	25333-8	25130-8
7.725			25831-8		
7.750	25707-16	25234-16	25832-8	25334-8	25131-8
7.775			25833-8		
7.800	25709-16	25235-16	25787-8	25335-8	25132-8
7.825	25781-16	25281-16	25808-8		
7.850	25711-16	25236-16	25878-8	25336-8	25133-8
7.875			25879-8		
7.900	25712-16	25237-16	25788-8	25337-8	25134-8
7.925			25813-8		
7.950	25715-16	25238-16	25814-8	25338-8	25135-8
7.975			25809-8		
8.000	25716-16	25239-16	25816-8	25339-8	25136-8
8.025			25802-8		
8.050	25721-16	25240-16	25821-8	25340-8	25137-8
8.075			25807-8		

Length	5/16" Dia. .080" Wall Part No.	5/16" Dia. .120" Wall Part No.	3/8" Dia. .080" Wall Part No.	3/8" Dia. .135" Wall Part No.	7/16" Dia. .165" Wall Part No.
8.100	25722-16	25241-16	25810-8	25341-8	25138-8
8.125			25811-8		
8.150	25744-16	25242-16	25815-8	25342-8	25139-8
8.175			25812-8		
8.200	25745-16		25820-8	25343-8	25140-8
8.225			25823-8		
8.250	25701-16		25825-8	25344-8	25141-8
8.275	25753-16			25300-8	
8.280			25795-8		25142-8
8.300	25702-16		25830-8	25345-8	25143-8
8.325	25762-16		25826-8		
8.350	25703-16		25835-8	25346-8	25144-8
8.375	25763-16				
8.380			25769-8		
8.400	25706-16		25840-8	25347-8	25145-8
8.425	25764-16		25842-8		
8.450	25708-16		25845-8	25348-8	25146-8
8.475			25847-8		
8.500	25774-16		25850-8	25349-8	25147-8
8.525			25856-8		
8.550	25710-16		25855-8	25350-8	25148-8
8.575			25858-8		
8.600	25718-16		25860-8	25351-8	25149-8
8.625			25863-8		
8.650	25724-16		25865-8	25352-8	25150-8
8.680			25797-8		25151-8
8.700	25799-16		25870-8	25353-8	25152-8
8.725			25867-8		
8.750	25738-16		25875-8	25354-8	25153-8
8.775			25868-8		
8.800	25742-16		25880-8	25355-8	25154-8
8.825			25882-8		
8.850	25746-16		25885-8	25356-8	25155-8
8.875			25887-8		
8.900	25758-16		25890-8	25357-8	25156-8
8.925			25892-8		
8.950	25757-16		25895-8	25358-8	25157-8
8.975			25897-8		
9.000	25765-16		25900-8	25359-8	25158-8
9.025			25926-8		
9.050	25766-16		25905-8	25360-8	25159-8
9.075			25927-8		
9.100	25776-16		25910-8	25361-8	25160-8
9.125			25928-8		
9.150	25791-16		25915-8	25362-8	25161-8
9.175			25929-8		
9.200	25792-16		25920-8	25363-8	25162-8
9.250	25800-16		25796-8	25364-8	25163-8
9.300	25801-16		25930-8	25365-8	25164-8
9.350	25803-16		25770-8	25366-8	25165-8
9.400	25804-16		25940-8	25367-8	25166-8
9.450	25805-16		25945-8	25368-8	25167-8
9.500	25806-16		25950-8	25369-8	25168-8
9.550	25848-16		25955-8	25370-8	25169-8
9.600	25849-16		25960-8	25371-8	25170-8
9.650			25798-8	25372-8	25171-8
9.700	25859-16		25970-8	25373-8	25172-8
9.750			25975-8	25374-8	25173-8
9.800	25864-16		25980-8	25375-8	25175-8

Note: New part numbers are **BOLD & ITALICIZED**

## 4130 Chrome Moly Swedged End Pushrods

- ▶ Meticulously formed ends with exact radii
- ▶ Excellent concentricity, closely controlled length
- ▶ Heat treated and black oxide finished
- ▶ Private label programs available



3/8" .080" WALL 3/8" .135" WALL 7/16" .165" WALL

Length	5/16" Dia. .080" Wall Part No.	5/16" Dia. .120" Wall Part No.	3/8" Dia. .080" Wall Part No.	3/8" Dia. .135" Wall Part No.	7/16" Dia. .165" Wall Part No.
9.850			25985-8	25376-8	25176-8
9.900	25869-16		25990-8	25377-8	25177-8
9.950			25995-8	25378-8	25178-8
10.000			25906-8	25379-8	25179-8
10.050			25907-8	25380-8	25100-8
10.075					25101-8
10.100			25901-8	25381-8	25102-8
10.125					25103-8
10.150			25908-8	25382-8	25104-8
10.200			25909-8	25383-8	25123-8
10.250			25911-8	25384-8	25124-8
10.300			25912-8	25385-8	25105-8
10.325					25106-8
10.350			25913-8	25386-8	25125-8
10.400			25902-8	25387-8	25126-8
10.450			25914-8	25388-8	25107-8
10.475					25108-8
10.500			25903-8	25389-8	25109-8
10.525					25110-8
10.550			25916-8	25390-8	25111-8
10.575					25112-8
10.600			25917-8	25391-8	25113-8
10.625					25114-8
10.650			25918-8	25392-8	25119-8
10.700			25919-8	25393-8	25120-8
10.750			25921-8	25394-8	25121-8
10.800			25922-8	25395-8	25127-8
10.850			25923-8	25396-8	25115-8
10.875					25116-8
10.900			25924-8	25397-8	25117-8
10.925					25118-8
10.950			25925-8	25398-8	25122-8
11.000			25904-8	25399-8	25128-8
11.050					25180-8
11.100					25181-8
11.150					25182-8
11.200					25183-8
11.250					25184-8
11.300					25185-8
11.350					25186-8
11.400					25187-8
11.450					25188-8
11.500					25189-8
11.550					25190-8
11.600					25191-8
11.650					25192-8
11.700					25193-8
11.750					25194-8
11.800					25195-8
11.850					25196-8
11.900					25197-8
11.950					25198-8
12.000					25199-8
12.050					25200-8
12.100					25201-8
12.150					25202-8

### Common 5/16" Pushrod Length Applications

.080" Wall Part No.	.120" Wall Part No.	Description	Length
<b>SMALL BLOCK CHEVY</b>			
25709-16	25235-16	265-350 Stock	7.800"
25711-16	25236-16	.050" Longer	7.850"
25712-16	25237-16	.100" Longer	7.900"
25733-16	25223-16	Late Model 350	7.200"
25735-16	25227-16	LS Stock	7.400"
25711-16	25236-16	LT1 (2014-Up) Stock	7.850"
<b>CHRYSLER / DODGE 5.7L HEMI (Thru 2008)</b>			
26570	26571	5.7L HEMI Includes 8 Intakes and 8 Exhausts	Stock Length Int. 6.600" Exh. 7.825"
<b>CHRYSLER / DODGE SRT-8 6.1L HEMI</b>			
26610	26611	SRT-8 6.1L HEMI Includes 8 Intakes and 8 Exhausts	Stock Length Int. 6.650" Exh. 7.850"
<b>CHRYSLER / DODGE 5.7L HEMI (2009-Up) &amp; 6.4L HEMI</b>			
26640	26641	5.7L/6.4L HEMI Includes 8 Intakes and 8 Exhausts +.025" lengths for smaller base circle aftermarket cams	Length Int. 6.800" Exh. 8.100"
<b>SMALL BLOCK FORD</b>			
25627-16	-----	Stock 5.0 L	6.272"
25744-16	25242-16	Stock 351 W	8.150"
25706-16	-----	Stock 351 C	8.400"
25710-16	-----	Yates +.150"	8.550"

### Common 3/8" Pushrod Length Applications

.080" Wall Part No.	.135" Wall Part No.	Description	Length
<b>SMALL BLOCK CHEVY</b>			
25787-8*	25335-8*	Stock & Stock LS-7	7.800"
25788-8*	25337-8*	.100" Longer	7.900"
<b>BIG BLOCK CHEVY</b>			
25795-8	-----	Stock Intake	8.280"
25796-8	25364-8	Stock Exhaust	9.250"
25797-8	-----	.400" Longer Int.	8.680"
25798-8	25372-8	.400" Longer Exh.	9.650"
<b>SMALL BLOCK FORD</b>			
25815-8*	25342-8*	Stock 351 W	8.150"
25840-8*	25347-8*	Stock 351 C	8.400"
25855-8*	25350-8*	Yates +.150"	8.550"

\* You must order 2 sets of 8 pieces for a complete engine.

PUSHRODS, DRIVE & OIL PUMPS

# PUSHRODS

## Chrysler - Ford - Pontiac - Holden

### Pushrods

- ▶ Cup and tip pushrods and ball end pushrods manufactured of 1010 steel
- ▶ Swedged end pushrods manufactured of 4130 chrome moly
- ▶ All pushrods are heat treated and black oxide finished



.080" Wall Part No.	.120" Wall Part No.	Description	Type	Diam.	Length
<b>CHRYSLER / DODGE ENGINES</b>					
26570	26571	5.7 L HEMI (Thru 2008) Includes 8 Intakes and 8 Exhausts	Swedged	5/16"	Stock Int. 6.600" Exh. 7.825"
26610	26611	SRT-8 6.1 L HEMI Includes 8 Intakes and 8 Exhausts	Swedged	5/16"	Stock Int. 6.650" Exh. 7.850"
26640	26641	5.7 L HEMI (2009-Up) & 6.4 L HEMI Includes 8 Intakes and 8 Exhausts +.025" lengths for smaller base circle aftermarket cams	Swedged	5/16"	Int. 6.800" Exh. 8.100"
25743-16	-----	440 Chrysler w/ adjustable rockers and solid lifters	Cup & Tip	3/8"	9.295"
25756-16	-----	440 Chrysler w/ adjustable rockers and hydraulic lifters	Cup & Tip	3/8"	8.995"
<b>FORD ENGINES</b>					
25704-16	-----	260-289-302 Ford	Ball End	5/16"	6.776"
25728-16	25333-8* (.135" Wall)	302 Boss Ford converted to use 42156 guide plates	Swedged	3/8"	7.700"
25748-16	-----	302W Ford - all engines after 10-21-68	Ball End	5/16"	6.886"
25705-16	-----	332-428 Ford with adjustable rocker arms	Cup & Tip	11/32"	9.157"
25747-16	-----	351W Ford	Ball End	5/16"	8.150"
25744-16	25242-16	351W Ford	Swedged	5/16"	8.150"
25750-16	-----	351C Ford - not Boss	Ball End	5/16"	8.408"
25752-16	25347-8* (.135" Wall)	351C Ford - not Boss	Swedged	3/8"	8.408"
25779-16	25369-8* (.135" Wall)	351M-400 Ford	Swedged	3/8"	9.500"
25789-16	-----	429-460 Ford	Ball End	5/16"	8.550"
25782-16	25350-8* (.135" Wall)	429-460 Ford	Swedged	3/8"	8.550"
<b>PONTIAC ENGINES</b>					
25726-16	-----	400-428-455 Pontiac	Ball End	5/16"	9.130"
<b>HOLDEN ENGINES</b>					
25773-16	-----	Holden V-8	Ball End	5/16"	8.670"



PUSHRODS, DRIVE & OIL PUMPS

\* You must order 2 sets of 8 pieces for a complete engine.

# CAMSHAFT SPACERS & MORE

## Roller Thrust Buttons

- ▶ Prevents camshaft from walking forward in the block
- ▶ Some Small Block Chevys require the center hole in the cam sprocket to be enlarged to .875" diameter

Part No.	Quantity	Description
42111	1	Small Block Chevrolet w/ early ( up to 1978 ) timing cover. Length .850"
42113	1	Small Block Chevrolet w/ late "short style" ( 1979/up ) timing cover. Length .690"
42145	1	Big Block Chevrolet. Length .950"



## Aluminum Camshaft Spacers

- ▶ An excellent economical answer to the problem of camshaft "walk"
- ▶ Some Small Block Chevys require the center hole in the cam sprocket to be enlarged to .875" diameter

Part No.	Quantity	Description
42146	1	Small Block Chevrolet w/ early ( up to 1978 ) timing cover. Length .830"
42144	1	Small Block Chevrolet w/ late "short style" ( 1979/up ) timing cover. Length .690"
42116	1	Big Block Chevrolet. Length .950"



## Camshaft Lock Plate

- ▶ Positively secures sprocket bolts in place
- ▶ Bendable tabs. Grade 8 camshaft bolts

Part No.	Quantity	Description
42114	1 kit	SB and BB Chevrolet



## Oil Pump Stud & "Drive" Shafts

- ▶ An oil pump stud is the professional way to secure your oil pump to the rear main cap
- ▶ Precision manufactured pump drive shafts

Part No.	Quantity	Description	Application
42339	1	Oil pump stud	Fits all Chevys
42328	1	Oil pump drive shaft	SB Chevy and 90° V-6
42329	1	Oil pump drive shaft	BB Chevy



## Chevrolet Lightweight Fuel Pump Pushrod

A stock Chevrolet fuel pump can "float" at high engine speeds just like a heavy intake valve. A lightweight fuel pump pushrod helps a mechanical fuel pump do its job when the tach climbs past 6000 rpm. Made from 4130 chrome moly steel tubing.

Part No.	Quantity	Description
42236	1	Fits Small and Big Block Chevrolet



## Oil Restrictor Kit

- ▶ Carefully machined for exact fit
- ▶ The .060" orifice precisely meters oil flow to the engine
- ▶ Spare "O" rings included

Part No.	Quantity	Material	Description
42237-2	Set of 2	Aluminum	Fits non Bow Tie Chevys. Hex Head
42238-2	Set of 2	Stainless	Fits all Chevys including Bow Tie and Rocket Block. Recessed Allen head



## Lifter Valley Breather Tubes

- ▶ Eliminates excessive oil drain back while maintaining proper ventilation
- ▶ 1/4" NPT Thread Size

Part No.	Quantity	Description
42235-8	8 pcs.	Fits all Chevrolets



PUSHRODS, DRIVE & OIL PUMPS

# TIMING CHAIN KITS

## Small Block & Big Block Chevrolet

### Billet Steel Sprockets & Double Roller Chain

- ▶ Fully machined billet steel camshaft and crankshaft sprockets
- ▶ Roller chain designed with .250" diameter rollers
- ▶ Crank sprocket includes three keyways enabling either 0°, or +/- 4° of timing
- ▶ Camshaft sprockets are machined for and include a brass wear shim or a captive Torrington thrust bearing



Stock Length Part No.	.005" Shorter Part No.	Description	Chain	Shim/Torrington
73111	73311	SB Chevy w/ Brass Shim	76161	42140
73121	73321	SB Chevy w/ Torrington Bearing	76161	42420
73201	73211	SB Chevy w/ BB Chevy Snout & Brass Shim	76161	42140
73221	73231	SB Chevy w/ BB Chevy Snout & Torrington Bearing	76161	42420
73242	-----	BB Chevy w/ Torrington Bearing and Cam Lock Plate w/ Roller Thrust Button	76162	42420

### Cast Cam Sprocket Kits With Torrington Bearings, Roller Thrust Buttons & Locks

- ▶ Fully machined steel crankshaft sprocket with three keyways enabling either 0°, or +/- 4° of timing
- ▶ Cast camshaft sprocket machined for Torrington thrust bearing
- ▶ Roller chain designed with .250" diameter rollers
- ▶ Kit includes captive Torrington bearing, roller thrust button, and Manley camshaft lock



Part No.	Description	Center-to-Center	Chain	Torrington Bearing	Thrust Button	Cam Lock
73141	SB Chevy `55-`78	Stock	76161	42420	42111	42114
73151	SB Chevy `79/up	Stock	76161	42420	42113	42114
73142	BB Chevy	Stock	76162	42420	42145	42114

### Race Roller Timing Kits with Torrington Bearings or Brass Wear Shims

- ▶ Fully machined steel crankshaft sprocket with three keyways enabling either 0°, or +/- 4° of timing
- ▶ Cast camshaft sprocket
- ▶ Roller chain designed with .250" diameter rollers
- ▶ Chevrolet kits include a brass wear shim or a captive Torrington thrust bearing



Stock Length Part No.	.005" Shorter Part No.	Description	Chain	Shim/Torrington
73161	73171	SB Chevy w/ Brass Shim	76161	42140
73181	73191	SB Chevy w/ Torrington Bearing	76161	42420
73162	73172	BB Chevy w/ Brass Shim	76162	42140
73182	73192	BB Chevy w/ Torrington Bearing	76162	42420
73174	-----	Ford 255-302-351W (Late 1972-88 with 2 piece fuel pump eccentric)	76174	None
73146	-----	Ford 429-460	76146	None

### Street Master Roller Chain Kits

- ▶ Standard style roller chains
- ▶ Three keyway steel crankshaft sprocket and cast cam sprocket enabling either 0°, or +/- 4° of timing
- ▶ Excellent value kit for mild performance engines



Part No.	Description	Center -to -Center	Chain
73163	Small Block Chevrolet	Stock	76163
73168	Big Block Chevrolet	Stock	76168
73164	Ford 255-302-351W (Late 1972-88 with 2 piece fuel pump eccentric)	Stock	76163

## Small Block Chevrolet LS-1/LS-6 1997-2004, LS-2 & LS-3

### Billet Steel Sprockets & Single Roller Chain

- ▶ Fully machined billet steel camshaft and crankshaft sprockets
- ▶ Roller chain designed with .250" diameter rollers
- ▶ Nine keyway crankshaft sprocket enabling either 0°, or +/- 2°, +/- 4°, +/- 6°, +/- 8° of timing
- ▶ Camshaft sprockets are machined for and include a captive Torrington thrust bearing
- ▶ No grinding/modifying of timing cover required  
(Not recommended for valve spring pressures exceeding 450 lbs.)



Stock Length Part No.	Description	Center-to-Center	Chain	Torrington
<b>73434</b>	SB Chevy LS-1/LS-6 & LS-2 w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	Stock	76434	42419
<b>73435</b>	SB Chevy LS-3 Single Bolt Cam w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	Stock	76434	42419
<b>73436</b>	SB Chevy LS-3 Three Bolt Cam w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	Stock	76434	42419

## Small Block Chevrolet LS-1/LS-6 1997-2004, LS-2 & LS-3

### Billet Steel Sprockets & Double Roller Chain

- ▶ Fully machined billet steel camshaft and crankshaft sprockets
- ▶ Roller chain designed with .250" diameter rollers
- ▶ Nine keyway crankshaft sprocket enabling either 0°, or +/- 2°, +/- 4°, +/- 6°, +/- 8° of timing
- ▶ Camshaft sprockets are machined for and include a captive Torrington thrust bearing



Stock Length Part No.	.005" Shorter Part No.	Description	Chain	Torrington
<b>73233</b>	<b>73333</b>	SB Chevy LS-1/LS-6 w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	76233	42419
<b>73234</b>	<b>73334</b>	SB Chevy LS-2 w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	76233	42419
<b>73235</b>	-----	SB Chevy LS-3 Single Bolt Cam w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	76233	42419
<b>73236</b>	-----	SB Chevy LS-3 Three Bolt Cam w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	76233	42419

## Chrysler/Dodge Hemi 5.7L/6.1L

### Billet Steel Sprockets & Double Roller Chain

- ▶ Fully machined billet steel camshaft & crankshaft sprockets
- ▶ Nine keyway crankshaft sprocket enabling either 0°, or +/- 2°, 4°, 6°, 8° of timing
- ▶ Also includes offset cam bushings for 0°, or +/- 2°, 4°, 6° of timing when using the factory ECM computers
- ▶ Roller chain designed with .250" diameter rollers
- ▶ Available with or without a captive Torrington thrust bearing

Part numbers 73205 and 73206 are compatible with the following engines: Chrysler 5.7L 2004-08, Chrysler 6.1L 2006-10, Dodge 5.7L 2005-08, Dodge 6.1L 2006-10, and Dodge Truck 5.7L 2003-08.



Part No.	Description	Center-to-Center	Chain	Torrington
<b>73205</b>	Chrysler/Dodge Hemi 5.7L/6.1L w/ 9 Keyway Crankshaft Sprocket	Stock	76205	-----
<b>73206</b>	Chrysler/Dodge Hemi 5.7L/6.1L w/ Torrington Bearing and 9 Keyway Crankshaft Sprocket	Stock	76205	42419

Note: New part numbers are **BOLD & ITALICIZED**

# PRO-FLO OIL PUMPS

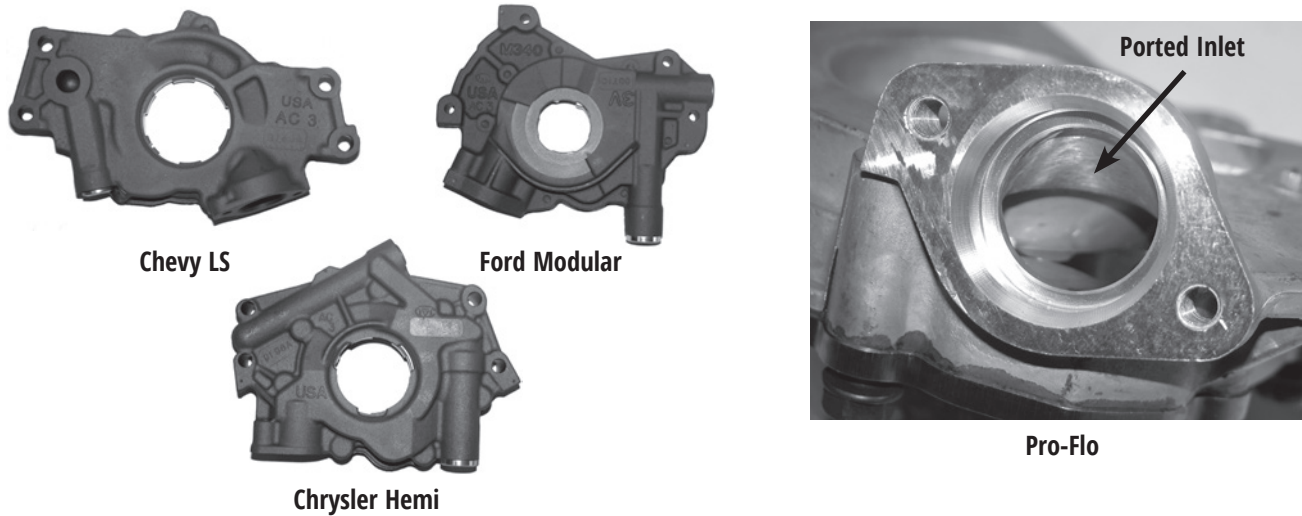
## Pro-Flo Oil Pumps

- ▶ Chevrolet LS Series
- ▶ Ford Modular 4.6L
- ▶ Chrysler Hemi 5.7L / 6.1L

Manley oil pumps are engineered to provide optimum performance and reliability. Utilizing Melling's "Select Performance" series of oil pumps, Manley disassembles, hand ports and blueprints each pump for optimum performance. Hi-Performance engines require Hi-Performance oil pumps and these deliver the proper oil volume and pressure with minimum parasitic horsepower loss, cavitation and oil aeration.

Part No.	Engine Application	Features
<b>CHEVY LS SERIES</b>		
71295	Standard volume	Hard-coat anodized CNC machined aluminum housing with a phosphate coated CNC machined cast iron cover for improved oil pump performance and durability. Pump is supplied with a high pressure by-pass spring already installed providing a 10% increase in pressure over stock. Additional o-rings are also provided.
71296	18% increased volume over stock	Hard-coat anodized CNC machined aluminum housing with a phosphate coated CNC machined cast iron cover for improved oil pump performance and durability. Pump is supplied with a high pressure by-pass spring already installed and also includes a stock pressure spring. Additional o-rings are also provided.
NOTE: Both LS oil pumps are modified to provide adequate clearance when installed on engines utilizing double row timing chain kits.		
<b>FORD MODULAR 4.6L (4 Valve)</b>		
71227	8% increased volume over stock	4.6L 1996-2004 DOHC, Hard-Coat Anodized Aluminum Body; Cast iron cover; Chrome Moly Billet Rotors. Uses stock 15/16" bolt on screen.
<b>CHRYSLER HEMI 5.7L / 6.1L</b>		
71342	Standard 6.1L volume	Hard-Coat anodized aluminum body with a cast iron phosphate coated cover for improved oil pump performance and durability. Adjustable by-pass pressure of 50 PSI, 60 PSI and 65 PSI with supplied pressure springs.

PUSHRODS, DRIVE & OIL PUMPS




## Manley Performance

# ...Platinum Series Pistons

## "Powers The Winners"

The secret is out...

Professional engine builders and elite tuners around the world are running Manley pistons for some very good reasons.



Wrist pin upgrades (9310 and Turbo Tuff/DLC alloys) available  
9310 alloy standard in Extreme Duty Series

Domestic 2618 alloy forgings

Better ring seal = More power

Offset wrist pin designs on many applications where appropriate

Total Seal piston rings used exclusively

Cam and barrel (skirt) profiles that make big power yet are friendly to the cylinder walls

Skirt coatings on many applications

Unique (to Manley) fixturing allowing skirt turning & ring groove machining to be performed in one single operation to ensure the ultimate ring groove to skirt squareness

PISTONS, RINGS, & PINS

- **QUALITY**
- **PERFORMANCE**
- **VALUE**

The best of the best  
choose Manley pistons



### CBM Motorsports relies on Manley pistons



# PLATINUM SERIES PISTONS

## Small Block Chevrolet

### 2 Barrel Class

4" Bore Flat Top 23° Head



- ▶ 2618 high strength material
- ▶ Perfect ring groove to skirt squareness
- ▶ Round wire locks included
- ▶ Pressure balance groove
- ▶ Semi-banded skirt for improved skirt stability
- ▶ 2.300" x .095" wall Premium Chrome Moly pin
- ▶ .130" wall pin upgrade also available P/N 42242

Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Piston Wt / Gms	Piston & Pin Wt / Gms	Piston Ring Sets	
							Ductile Iron Top Rings	Gapless® Top Rings
<b>1/16" x 1/16" x 3/16" RINGS</b>								
590030-8	4.030"	5.700"	3.480"-3.500"	1.550"	438	510	46353-8	46353GT-8
590035-8	4.035"	5.700"	3.480"-3.500"	1.550"	441	513	46355-8	46355GT-8
590040-8	4.040"	5.700"	3.480"-3.500"	1.550"	443	515	46354-8	46354GT-8
590130-8	4.030"	6.000"	3.480"-3.500"	1.250"	399	471	46353-8	46353GT-8
590135-8	4.035"	6.000"	3.480"-3.500"	1.250"	400	472	46355-8	46355GT-8
590140-8	4.040"	6.000"	3.480"-3.500"	1.250"	401	473	46354-8	46354GT-8
<small>The following pistons will include groove lock spacer 462482</small>								
590230-8	4.030"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	369	441	46353-8	46353GT-8
590235-8	4.035"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	370	442	46355-8	46355GT-8
590240-8	4.040"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	371	443	46354-8	46354GT-8
<b>Gas Ported .043" x .043" x 3mm RINGS</b>								
591030-8	4.030"	5.700"	3.480"-3.500"	1.550"	438	510	46213-8	46213GT-8
591035-8	4.035"	5.700"	3.480"-3.500"	1.550"	440	512	46215-8	46215GT-8
591040-8	4.040"	5.700"	3.480"-3.500"	1.550"	442	514	46214-8	46214GT-8
591130-8	4.030"	6.000"	3.480"-3.500"	1.250"	400	472	46213-8	46213GT-8
591135-8	4.035"	6.000"	3.480"-3.500"	1.250"	401	473	46215-8	46215GT-8
591140-8	4.040"	6.000"	3.480"-3.500"	1.250"	402	474	46214-8	46214GT-8
591230-8	4.030"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	380	452	46213-8	46213GT-8
591235-8	4.035"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	382	454	46215-8	46215GT-8
591240-8	4.040"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	384	456	46214-8	46214GT-8
<small>The following pistons will include groove lock spacer 462483</small>								
591330-8	4.030"	6.200"	3.480"-3.500"	1.050"	367	439	46213-8	46213GT-8
591335-8	4.035"	6.200"	3.480"-3.500"	1.050"	368	440	46215-8	46215GT-8
591340-8	4.040"	6.200"	3.480"-3.500"	1.050"	369	441	46214-8	46214GT-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 1/16" x 3/16" Top: .183" 2nd: .183" Oil: .183" .043" x 3mm Top: .160" 2nd: .165" Oil: .145"



### Common Features

- Dome Volume: -2.5cc
- Crown Thickness: .155"
- Compression Ratio: 10.6:1 w/ 64cc & 3.48" Stroke
- Top Ring: 1/16" or .043" Gas Ported, .155" down
- Second Ring: 1/16" or .043"
- Oil Ring: 3/16" or 3mm
- Valve Notches: .210" Int., .150" Exh.
- Maximum Fly Cut: .270" Int., .170" Exh.
- Max. Valve Sizes: 2.125" Int., 1.650" Exh.
- Valve Angle: 22°
- Pin Included: Premium Chrome Moly P/N 42241 ( .095" wall, 72 grams, 2.300" long, .927" dia. )
- Round Wire Locks: P/N 42262 - .061" wide
- Recommended
- Piston Clearance: .005" measured 1.100" from bottom of the oil ring



Note: Compression ratios are calculated at .005" deck clearance, a 4.060" head gasket ID with a .040" compressed thickness

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

# PLATINUM SERIES PISTONS

## Small Block Chevrolet

### 4 Barrel Class

4" Bore Flat Top 23° Head

- ▶ 2618 high strength material
- ▶ Lightweight design
- ▶ Slightly thicker deck (.185") for higher horsepower applications
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ Round wire locks included
- ▶ Modified full banded skirt design for increased skirt stability
- ▶ 2.300" x .130" wall Premium Chrome Moly pin
- ▶ .150" wall pin upgrade also available P/N 42442



Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Piston Wt / Gms	Piston & Pin Wt / Gms	Piston Ring Sets	
							Ductile Iron Top Rings	Gapless® Top Rings
<b>1/16" x 1/16" x 3/16" RINGS</b>								
590500-8	4.000"	5.700"	3.480"-3.500"	1.550"	458	553	46350-8	46350GT-8
590530-8*	4.030"	5.700"	3.480"-3.500"	1.550"	458	553	46353-8	46353GT-8
590535-8*	4.035"	5.700"	3.480"-3.500"	1.550"	459	554	46355-8	46355GT-8
590540-8*	4.040"	5.700"	3.480"-3.500"	1.550"	460	555	46354-8	46354GT-8
590545-8*	4.045"	5.700"	3.480"-3.500"	1.550"	465	560	46354-8	46354GT-8
590560-8*	4.060"	5.700"	3.480"-3.500"	1.550"	470	565	46356-8	46356GT-8
590730-8	4.030"	5.700"	3.750"	1.425"	438	533	46353-8	46353GT-8
590630-8	4.030"	6.000"	3.480"-3.500"	1.250"	415	510	46353-8	46353GT-8
590635-8	4.035"	6.000"	3.480"-3.500"	1.250"	416	511	46355-8	46355GT-8
590640-8	4.040"	6.000"	3.480"-3.500"	1.250"	418	513	46354-8	46354GT-8
590660-8	4.060"	6.000"	3.480"-3.500"	1.250"	427	522	46356-8	46356GT-8
The following pistons will include groove lock spacer 462482								
590830-8	4.030"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	399	494	46353-8	46353GT-8
590835-8	4.035"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	400	495	46355-8	46355GT-8
590840-8	4.040"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	401	496	46354-8	46354GT-8
590860-8	4.060"	6.000"/6.125"	3.750"/3.480"-3.500"	1.125"	411	506	46356-8	46356GT-8
<b>Gas Ported .043" x .043" x 3mm RINGS</b>								
591530-8*	4.030"	5.700"	3.480"-3.500"	1.550"	457	552	46213-8	46213GT-8
591535-8*	4.035"	5.700"	3.480"-3.500"	1.550"	459	554	46215-8	46215GT-8
591540-8*	4.040"	5.700"	3.480"-3.500"	1.550"	460	555	46214-8	46214GT-8
591545-8*	4.045"	5.700"	3.480"-3.500"	1.550"	463	558	46214-8	46214GT-8
591560-8*	4.060"	5.700"	3.480"-3.500"	1.550"	470	565	46216-8	46216GT-8
591565-8*	4.065"	5.700"	3.480"-3.500"	1.550"	472	567	46216-8	46216GT-8
591630-8	4.030"	6.000"	3.480"-3.500"	1.250"	415	510	46213-8	46213GT-8
591635-8	4.035"	6.000"	3.480"-3.500"	1.250"	416	511	46215-8	46215GT-8
591640-8	4.040"	6.000"	3.480"-3.500"	1.250"	418	513	46214-8	46214GT-8
591660-8	4.060"	6.000"	3.480"-3.500"	1.250"	426	521	46216-8	46216GT-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 1/16" x 3/16" Top: .183" 2nd: .183" Oil: .183" .043" x 3mm Top: .160" 2nd: .165" Oil: .145"



\*Approved for Stafford Motor Speedway, add SMS after the piston part number.

### Common Features

- Dome Volume: -4.0cc
- Crown Thickness: .185"
- Compression Ratio: 10.4:1 w/ 64cc & 3.48" Stroke
- Top Ring: 1/16" or .043" Gas Ported, .185" down
- Second Ring: 1/16" or .043"
- Oil Ring: 3/16" or 3mm
- Valve Notches: .300" Int., .190" Exh.
- Maximum Fly Cut: .360" Int., .260" Exh.
- Max. Valve Sizes: 2.125" Int., 1.650" Exh.
- Valve Angle: 22°
- Pin Included: Premium Chrome Moly P/N 42242 (.130" wall, 95 grams, 2.300" long, .927" dia.)
- Round Wire Locks: P/N 42262 - .061" wide
- Recommended Piston Clearance: .005" measured 1.100" from bottom of the oil ring

Note: Compression ratios are calculated at .005" deck clearance, a 4.060" head gasket ID with a .040" compressed thickness

SEE PAGE 122 & 123 FOR CUSTOM PISTONS



PISTONS, RINGS, & PINS

# PLATINUM SERIES PISTONS

## Small Block Chevrolet

### 4" Bore Dome

For All 23° Cylinder Heads

- ▶ 2618 high strength material lightweight design
- ▶ Thick deck for high horsepower applications
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ .043", .043", 3.0mm ring package
- ▶ Lateral Gas Ports
- ▶ Modified full banded skirt design for increased skirt stability
- ▶ 2.300" x .150" wall Premium Chrome Moly pin included



Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Dome Volume	Piston Wt / Gms	Piston & Pin Wt / Gms	Piston Ring Sets	
								Ductile Iron Top Rings	Premium Steel Top Rings
<b>591930-8</b>	4.030"	6.000"	3.750"	1.125"	11cc	TBA	TBA	46223-8	46223ST-8
<b>591935-8</b>	4.035"	6.000"	3.750"	1.125"	11cc	TBA	TBA	46225-8	46225ST-8
<b>591940-8</b>	4.040"	6.000"	3.750"	1.125"	11cc	TBA	TBA	46224-8	46224ST-8
<b>591960-8</b>	4.060"	6.000"	3.750"	1.125"	11cc	TBA	TBA	46226-8	46226ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 Top: .160" 2nd: .165" Oil: .145"

### Common Features

Crown Thickness: .200"  
 Compression Ratio: 14.9:1 w/58cc, 13.5:1 w/64cc & 11.5:1 w/76cc  
 Top Ring: .043" Gas Ported .225" down  
 Second Ring: .043" taper face  
 Oil Ring: 3mm  
 Valve Notches: .300" Int., .190" Exh.  
 Maximum Fly Cut: .360" Int., .260" Exh.

Max Valve Sizes: 2.125" Int., 1.650" Exh.  
 Valve Angle: 22°  
 Pin Included: Premium Chrome Moly P/N 42442 (.150" wall, 110 grams, 2.300" long, .927" dia.)  
 Round Wire Locks: P/N 42262 - .061" wide  
 Recommended  
 Piston Clearance: .005" measured 1.100" from bottom of the oil ring

Note: Compression ratios are calculated at .005" deck clearance, a 4.060" head gasket ID with a .040" compressed thickness

## Small Block Chevrolet

### 4.125" Bore +4cc Dome & -20cc Dish

For All 23° Cylinder Heads

- ▶ 2618 high strength material lightweight design
- ▶ Thick deck for high horsepower applications
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ Modified full banded skirt design for increased skirt stability
- ▶ 2.450" x .150" wall Premium Chrome Moly pin included



Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Dome Volume	Piston Wt / Gms	Piston & Pin Wt / Gms	Piston Ring Sets	
								Ductile Iron Top Rings	Gapless® Top Rings
<b>1/16" x 1/16" x 3/16" RINGS</b>									
<b>593900-8</b>	4.125"	6.000"/6.125"	4.000"/3.750"	1.000"	-20cc	399	516	46160-8	46160GT-8
<b>593930-8</b>	4.155"	6.000"/6.125"	4.000"/3.750"	1.000"	-20cc	401	518	46163-8	46163GT-8
<b>Gas Ported .043" x .043" x 3mm RINGS</b>									
<b>593800-8</b>	4.125"	6.000"/6.125"	4.000"/3.750"	1.000"	4cc	440	557	46260-8	46260GT-8
<b>593830-8</b>	4.155"	6.000"/6.125"	4.000"/3.750"	1.000"	4cc	442	559	46263-8	46263GT-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 1/16" x 3/16" Top: .183" 2nd: .183" Oil: .183" .043" x 3mm Top: .160" 2nd: .165" Oil: .145"

### Common Features

Crown Thickness: .200"  
 Compression Ratio: 13.5:1 w/64cc & 4" Stroke +4cc Dome; 10.3:1 w/64cc & 4" Stroke -20cc Dish  
 Top Ring: 1/16" .175 down -20cc Dish; .043" Gas Ported .200" down +4cc Dome  
 Second Ring: 1/16" or .043"  
 Oil Ring: 3/16" or 3mm  
 Maximum Fly Cut: .360" Int., .260" Exh.

Max. Valve Sizes: 2.125" Int., 1.650" Exh.  
 Valve Notches: 300" Int., .230" Exh., -20cc Dish; .310" Int., .200" Exh. +4cc Dome  
 Valve Angle: 22°  
 Pin Included: Premium Chrome Moly P/N 42229 (.150" wall, 117 grams, 2.450" long, .927" dia.)  
 Round Wire Locks: P/N 42262 - .061" wide  
 Recommended  
 Piston Clearance: .005" measured 1.100" from bottom of the oil ring

Note: Compression ratios are calculated at .005" deck clearance, a

Note: New part numbers are **BOLD & ITALICIZED**

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

# PLATINUM SERIES PISTONS

## Small Block Chevrolet LS Series

LS-1/LS-2/LS-6, LS-3/L-92

Stock 3.622" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Machined for reductor wheel clearance
- ▶ Round wire locks
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Forced pin oiling, pressure balance groove and precision pin fitting
- ▶ Premium Chrome Moly wrist pins (Standard Series) included
- ▶ 9310 alloy .170" wall pin (Extreme Duty Series) included P/N 42542



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Pin Diam	Piston Wt / Gms	Valve Pocket Type	Valve Pocket Depth Int. / Exh.	Piston Ring Sets Ductile Iron Top Rings Premium Steel Top Rings	
<b>-4cc FLAT TOP</b>											
592007C-8	-----	3.905"	6.098"	3.622"	1.340"	24mm/.945"	428	LS-1,2,6	.175"/.150"	46107-8	46107ST-8
592107C-8	592107CE-8	3.905"	6.125"	3.622"	1.313"	.927"	425	LS-1,2,6	.175"/.150"	46107-8	46107ST-8
592110C-8	592110CE-8	3.910"	6.125"	3.622"	1.313"	.927"	427	LS-1,2,6	.175"/.150"	46107-8	46107ST-8
592501C-8	592501CE-8	4.001"	6.125"	3.622"	1.304"	.927"	438	LS-1,2,3,6,92	.185"/.130"	46110-8	46110ST-8
592510C-8	592510CE-8	4.010"	6.125"	3.622"	1.304"	.927"	442	LS-1,2,3,6,92	.185"/.130"	46111-8	46111ST-8
592530C-8	592530CE-8	4.030"	6.125"	3.622"	1.304"	.927"	449	LS-1,2,3,6,92	.185"/.130"	46113-8	46113ST-8
592565C-8	592565CE-8	4.065"	6.125"	3.622"	1.304"	.927"	453	LS-1,2,3,6,92	.185"/.130"	46116-8	46116ST-8
592570C-8	592570CE-8	4.070"	6.125"	3.622"	1.304"	.927"	455	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
592575C-8	592575CE-8	4.075"	6.125"	3.622"	1.304"	.927"	457	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
592580C-8	592580CE-8	4.080"	6.125"	3.622"	1.304"	.927"	459	LS-1,2,3,6,92	.185"/.130"	46118-8	46118ST-8
<b>-10cc DISH</b>											
596107C-8	596107CE-8	3.905"	6.125"	3.622"	1.304"	.927"	425	LS-1,2,3,6,92	.185"/.130"	46107-8	46107ST-8
596101C-8	596101CE-8	4.001"	6.125"	3.622"	1.304"	.927"	439	LS-1,2,3,6,92	.185"/.130"	46110-8	46110ST-8
596110C-8	596110CE-8	4.010"	6.125"	3.622"	1.304"	.927"	442	LS-1,2,3,6,92	.185"/.130"	46111-8	46111ST-8
596130C-8	596130CE-8	4.030"	6.125"	3.622"	1.304"	.927"	449	LS-1,2,3,6,92	.185"/.130"	46113-8	46113ST-8
596165C-8	596165CE-8	4.065"	6.125"	3.622"	1.304"	.927"	453	LS-1,2,3,6,92	.185"/.130"	46116-8	46116ST-8
596170C-8	596170CE-8	4.070"	6.125"	3.622"	1.304"	.927"	455	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
596175C-8	596175CE-8	4.075"	6.125"	3.622"	1.304"	.927"	457	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
596180C-8	596180CE-8	4.080"	6.125"	3.622"	1.304"	.927"	459	LS-1,2,3,6,92	.185"/.130"	46118-8	46118ST-8
<b>-18cc DISH</b>											
596907C-8	596907CE-8	3.905"	6.125"	3.622"	1.304"	.927"	415	LS-1,2,3,6,92	.175" Trough	46107-8	46107ST-8
596901C-8	596901CE-8	4.001"	6.125"	3.622"	1.304"	.927"	430	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8
596965C-8	596965CE-8	4.065"	6.125"	3.622"	1.304"	.927"	445	LS-1,2,3,6,92	.175" Trough	46116-8	46116ST-8
596970C-8	596970CE-8	4.070"	6.125"	3.622"	1.304"	.927"	447	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8
596975C-8	596975CE-8	4.075"	6.125"	3.622"	1.304"	.927"	449	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8
596980C-8	596980CE-8	4.080"	6.125"	3.622"	1.304"	.927"	451	LS-1,2,3,6,92	.175" Trough	46118-8	46118ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness: Top: .151" 2nd: .165" Oil: .145" Note: Gapless® Top Ring Sets are also available See page 124

### Common Features

- Crown Thickness: .200"
- Top Ring: 1.5mm .225" down 3.905"-3.910" bore Flat Top  
1.5mm .250" down for all others
- Second Ring: 1.5mm
- Oil Ring: 3mm
- Pin Included: Standard Series: Premium Chrome Moly P/N 42218 included with 24mm/.945" Pin Diameter (2.300" x .120" wall, 24mm/.945" dia., 90 grams)  
Standard Series: Premium Chrome Moly P/N 42442 included with the .927" Pin Diameter (2.300" x .150" wall, .927" dia., 110 grams)  
Extreme Duty Series: 9310 Alloy P/N 42542 (2.300" x .170" wall, .927" dia., 118 grams)

- Round Wire Locks: P/N 42262 - .061" wide
- Recommended Piston Clearance: .0045" measured 1.100" from bottom of the oil ring

### Chevy LS 3.622" Stroke Compression Ratio Charts

Bore	Stroke	Cylinder Head (cc)			
		64	66	70	72
<b>-4cc FLAT TOP</b>					
3.905	3.622	10.2	10.0	9.5	9.3
3.910	3.622	10.3	10.1	9.7	9.5
4.001	3.622	10.6	10.4	9.8	9.6
4.010	3.622	10.7	10.5	9.9	9.7
4.030	3.622	10.8	10.6	10.1	9.9
4.065	3.622	11.0	10.7	10.2	10.0
4.070	3.622	11.1	10.8	10.3	10.1
4.075	3.622	11.2	10.9	10.4	10.2
4.080	3.622	11.3	11.0	10.5	10.3
<b>-10cc DISH</b>					
3.905	3.622	9.6	9.4	9.0	8.8
4.001	3.622	10.0	9.8	9.4	9.2
4.010	3.622	10.1	9.9	9.5	9.3
4.030	3.622	10.2	9.9	9.5	9.3
4.065	3.622	10.3	10.1	9.7	9.5
4.070	3.622	10.3	10.1	9.7	9.5
4.075	3.622	10.4	10.2	9.8	9.6
4.080	3.622	10.5	10.3	9.9	9.6
<b>-18cc DISH</b>					
3.905	3.622	8.8	8.7	8.3	8.2
4.001	3.622	9.2	9.0	8.7	8.5
4.065	3.622	9.5	9.3	9.0	8.8
4.070	3.622	9.6	9.4	9.1	8.9
4.075	3.622	9.7	9.5	9.2	9.0
4.080	3.622	9.8	9.6	9.3	9.1

Compression ratios are calculated at 0.00" deck clearance, a 9.240" deck height, and a .042" thick compressed head gasket

SEE PAGE 122 & 123 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Small Block Chevrolet LS Series

LS-1/LS-2/LS-6, LS-3/L-92, LS-7, LSX, Dart LS Next  
4.000" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Machined for reluctor wheel clearance
- ▶ Round wire locks
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Forced pin oiling, pressure balance groove and precision pin fitting
- ▶ Premium Chrome Moly wrist pins (Standard Series) included
- ▶ 9310 alloy pin (Extreme Duty Series) included: P/N 42542 2.300" x .170" wall (3.905"-4.080" bores) and P/N 42528 2.500" x .180" wall (4.125"-4.185" bores)



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Pin Diam	Piston Wt / Gms	Valve Pocket Type	Valve Pocket Depth Int. / Exh.	Piston Ring Sets Ductile Iron Top Rings	Piston Ring Sets Premium Steel Top Rings
<b>-4cc FLAT TOP</b>											
592207C-8	592207CE-8	3.905"	6.125"	4.000"	1.115"	.927"	391	LS-1,2,6	.175"/.150"	46107-8	46107ST-8
592605C-8	592605CE-8	4.005"	6.125"	4.000"	1.115"	.927"	407	LS-1,2,3,6,92	.185"/.130"	46110-8	46110ST-8
592610C-8	592610CE-8	4.010"	6.125"	4.000"	1.115"	.927"	409	LS-1,2,3,6,92	.185"/.130"	46111-8	46111ST-8
592630C-8	592630CE-8	4.030"	6.125"	4.000"	1.115"	.927"	418	LS-1,2,3,6,92	.185"/.130"	46113-8	46113ST-8
592665C-8	592665CE-8	4.065"	6.125"	4.000"	1.115"	.927"	420	LS-1,2,3,6,92	.185"/.130"	46116-8	46116ST-8
592670C-8	592670CE-8	4.070"	6.125"	4.000"	1.115"	.927"	423	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
592675C-8	592675CE-8	4.075"	6.125"	4.000"	1.115"	.927"	425	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
592680C-8	592680CE-8	4.080"	6.125"	4.000"	1.115"	.927"	427	LS-1,2,3,6,92	.185"/.130"	46118-8	46118ST-8
<b>-5cc FLAT TOP</b>											
592300C-8	592300CE-8	4.125"	6.125"	4.000"	1.115"	.927"	432	LS-1,2,3,6,7,92	.225" Trough	46360-8	46360ST-8
592305C-8	592305CE-8	4.130"	6.125"	4.000"	1.115"	.927"	434	LS-1,2,3,6,7,92	.225" Trough	46361-8	46361ST-8
592310C-8	592310CE-8	4.135"	6.125"	4.000"	1.115"	.927"	436	LS-1,2,3,6,7,92	.225" Trough	46362-8	46362ST-8
<b>-10cc DISH</b>											
592701C-8	592701CE-8	4.001"	6.125"	4.000"	1.115"	.927"	403	LS-1,2,3,6,92	.185"/.130"	46110-8	46110ST-8
592705C-8	592705CE-8	4.005"	6.125"	4.000"	1.115"	.927"	406	LS-1,2,3,6,92	.185"/.130"	46110-8	46110ST-8
592730C-8	592730CE-8	4.030"	6.125"	4.000"	1.115"	.927"	412	LS-1,2,3,6,92	.185"/.130"	46113-8	46113ST-8
592765C-8	592765CE-8	4.065"	6.125"	4.000"	1.115"	.927"	418	LS-1,2,3,6,92	.185"/.130"	46116-8	46116ST-8
592770C-8	592770CE-8	4.070"	6.125"	4.000"	1.115"	.927"	420	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
592775C-8	592775CE-8	4.075"	6.125"	4.000"	1.115"	.927"	422	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8
592780C-8	592780CE-8	4.080"	6.125"	4.000"	1.115"	.927"	424	LS-1,2,3,6,92	.185"/.130"	46118-8	46118ST-8
<b>-11cc DISH</b>											
592400C-8	592400CE-8	4.125"	6.125"	4.000"	1.115"	.927"	432	LS-1,2,3,6,7,92	.225" Trough	46360-8	46360ST-8
592405C-8	592405CE-8	4.130"	6.125"	4.000"	1.115"	.927"	434	LS-1,2,3,6,7,92	.225" Trough	46361-8	46361ST-8
592410C-8	592410CE-8	4.135"	6.125"	4.000"	1.115"	.927"	436	LS-1,2,3,6,7,92	.225" Trough	46362-8	46362ST-8
592440C-8*	592440CE-8*	4.165"	6.125"	4.000"	1.115"	.927"	453	LS-1,2,3,6,7,92	.225" Trough	46364-8	46364ST-8
592460C-8*	592460CE-8*	4.185"	6.125"	4.000"	1.115"	.927"	461	LS-1,2,3,6,7,92	.225" Trough	46366-8	46366ST-8

\* These large bore pistons are only for the LSX and Dart LS Next

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness Note: Gapless® Top Ring Sets are also available  
Top: .151" 2nd: .165" Oil: .145" See pages 124 and 125

### Common Features

for All Pistons on Page 100 & 101

Crown Thickness: .200"  
Top Ring: 1.5mm .225" down, Flat Top & -10cc/-11cc Dishes  
.250" down, -18cc & -29cc Dishes  
Second Ring: 1.5mm  
Oil Ring: 3mm  
Round Wire Locks: P/N 42262 - .061" wide  
Recommended  
Piston Clearance: .0045" measured 1.100" from bottom of the oil ring

Pin Included: Standard Series: Premium Chrome Moly P/N 42442 included with the 3.905"-4.080" bores (2.300" x .150" wall, .927" dia., 110 grams)  
Standard Series: Premium Chrome Moly P/N 42428 included with the 4.125"-4.185" bores (2.500" x .150" wall, .927" dia., 118 grams)  
Extreme Duty Series: 9310 Alloy P/N 42542 included with the 3.905"-4.080" bores (2.300" x .170" wall, .927" dia., 118 grams)  
Extreme Duty Series: 9310 Alloy P/N 42528 included with the 4.125"-4.185" bores (2.500" x .180" wall, .927" dia., 139 grams)

Intake valve maximum head diameter for the 4.125" - 4.185" bore is 2.205"

Note: New part numbers are **BOLD & ITALICIZED**

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

SEE PAGE 101 FOR COMPRESSION RATIO CHARTS

# PLATINUM SERIES PISTONS

## Small Block Chevrolet LS Series

LS-1/LS-2/LS-6, LS-3/L-92, LS-7, LSX, Dart LS Next

4.000" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Machined for reluctor wheel clearance
- ▶ Round wire locks
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Forced pin oiling, pressure balance groove and precision pin fitting
- ▶ Premium Chrome Moly wrist pins (Standard Series) included
- ▶ 9310 alloy pin (Extreme Duty Series) included: P/N 42542 2.300" x .170" wall (3.905"-4.080" bores) and P/N 42528 2.500" x .180" wall (4.125"-4.185" bores)



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Pin Diam	Piston Wt / Gms	Valve Pocket Type	Valve Pocket Depth Int. / Exh.	Piston Ring Sets Ductile Iron Premium Steel Top Rings Top Rings	
<b>-18cc DISH</b>											
596207C-8	596207CE-8	3.905"	6.125"	4.000"	1.115"	.927"	379	LS-1,2,3,6,92	.175" Trough	46107-8	46107ST-8
596205C-8	596205CE-8	4.005"	6.125"	4.000"	1.115"	.927"	399	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8
596230C-8	596230CE-8	4.030"	6.125"	4.000"	1.115"	.927"	408	LS-1,2,3,6,92	.175" Trough	46113-8	46113ST-8
596265C-8	596265CE-8	4.065"	6.125"	4.000"	1.115"	.927"	414	LS-1,2,3,6,92	.175" Trough	46116-8	46116ST-8
596270C-8	596270CE-8	4.070"	6.125"	4.000"	1.115"	.927"	415	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8
596275C-8	596275CE-8	4.075"	6.125"	4.000"	1.115"	.927"	417	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8
596280C-8	596280CE-8	4.080"	6.125"	4.000"	1.115"	.927"	419	LS-1,2,3,6,92	.175" Trough	46118-8	46118ST-8
596300C-8	596300CE-8	4.125"	6.125"	4.000"	1.115"	.927"	437	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8
596305C-8	596305CE-8	4.130"	6.125"	4.000"	1.115"	.927"	439	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8
<b>596310C-8</b>	<b>596310CE-8</b>	4.135"	6.125"	4.000"	1.115"	.927"	441	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8
596340C-8*	596340CE-8*	4.165"	6.125"	4.000"	1.115"	.927"	460	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8
596360C-8*	596360CE-8*	4.185"	6.125"	4.000"	1.115"	.927"	468	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8
<b>-29cc DISH</b>											
592807C-8	592807CE-8	3.905"	6.125"	4.000"	1.115"	.927"	379	LS-1,2,3,6,92	.175" Trough	46107-8	46107ST-8
<b>592801C-8</b>	<b>592801CE-8</b>	4.001"	6.125"	4.000"	1.115"	.927"	395	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8
592805C-8	592805CE-8	4.005"	6.125"	4.000"	1.115"	.927"	397	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8
592830C-8	592830CE-8	4.030"	6.125"	4.000"	1.115"	.927"	405	LS-1,2,3,6,92	.175" Trough	46113-8	46113ST-8
592865C-8	592865CE-8	4.065"	6.125"	4.000"	1.115"	.927"	411	LS-1,2,3,6,92	.175" Trough	46116-8	46116ST-8
592870C-8	592870CE-8	4.070"	6.125"	4.000"	1.115"	.927"	413	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8
592875C-8	592875CE-8	4.075"	6.125"	4.000"	1.115"	.927"	415	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8
592880C-8	592880CE-8	4.080"	6.125"	4.000"	1.115"	.927"	417	LS-1,2,3,6,92	.175" Trough	46118-8	46118ST-8
592900C-8	592900CE-8	4.125"	6.125"	4.000"	1.115"	.927"	430	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8
592905C-8	592905CE-8	4.130"	6.125"	4.000"	1.115"	.927"	434	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8
<b>592910C-8</b>	<b>592910CE-8</b>	4.135"	6.125"	4.000"	1.115"	.927"	436	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8
592940C-8*	592940CE-8*	4.165"	6.125"	4.000"	1.115"	.927"	457	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8
592960C-8*	592960CE-8*	4.185"	6.125"	4.000"	1.115"	.927"	463	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8

\* These large bore pistons are only for the LSX and Dart LS Next

### Chevy LS 4.000" Stroke Compression Ratio Chart

Bore	Stroke	Cylinder Head (cc)				Bore	Stroke	Cylinder Head (cc)			
		64	66	70	72			64	66	70	72
<b>-4cc &amp; -5cc FLAT TOP</b>											
3.905	4.000	11.2	11.0	10.4	10.2	3.905	4.000	9.7	9.5	9.2	9.0
4.005	4.000	11.7	11.4	10.9	10.7	4.005	4.000	10.1	9.9	9.5	9.4
4.010	4.000	11.7	11.5	11.0	10.7	4.030	4.000	10.2	10.0	9.6	9.5
4.030	4.000	11.9	11.6	11.1	10.9	4.065	4.000	10.4	10.2	9.8	9.6
4.065	4.000	12.1	11.8	11.3	11.0	4.070	4.000	10.4	10.2	9.8	9.6
4.070	4.000	12.1	11.8	11.3	11.1	4.075	4.000	10.5	10.3	9.9	9.7
4.075	4.000	12.2	11.9	11.4	11.2	4.080	4.000	10.6	10.4	10.0	9.8
4.080	4.000	12.3	12.0	11.5	11.3	4.125	4.000	10.6	10.4	10.0	9.8
4.125	4.000	12.3	12.0	11.5	11.3	4.130	4.000	10.6	10.4	10.0	9.9
4.130	4.000	12.4	12.1	11.6	11.4	4.135	4.000	10.7	10.5	10.1	10.0
4.135	4.000	12.5	12.2	11.7	11.5	4.165	4.000	10.8	10.6	10.2	10.0
<b>-10cc &amp; -11cc DISH</b>											
4.001	4.000	10.8	10.6	10.1	9.9	3.905	4.000	8.7	8.5	8.2	8.1
4.005	4.000	10.9	10.7	10.2	10.0	4.001	4.000	9.0	8.8	8.5	8.4
4.030	4.000	11.1	10.8	10.3	10.1	4.005	4.000	9.1	8.9	8.6	8.5
4.065	4.000	11.3	11.0	10.5	10.3	4.030	4.000	9.2	9.0	8.7	8.6
4.070	4.000	11.4	11.1	10.6	10.4	4.065	4.000	9.3	9.1	8.8	8.7
4.075	4.000	11.5	11.2	10.7	10.5	4.070	4.000	9.4	9.2	8.9	8.8
4.080	4.000	11.6	11.3	10.8	10.6	4.075	4.000	9.5	9.3	9.0	8.9
4.125	4.000	11.5	11.3	10.8	10.6	4.080	4.000	9.6	9.4	9.1	9.0
4.130	4.000	11.6	11.4	10.9	10.5	4.125	4.000	9.6	9.4	9.1	9.0
4.135	4.000	11.7	11.5	11.0	10.6	4.130	4.000	9.7	9.5	9.2	9.1
4.165	4.000	11.6	11.3	10.9	10.7	4.135	4.000	9.8	9.6	9.3	9.2
4.185	4.000	11.7	11.4	11.0	10.8	4.165	4.000	9.7	9.6	9.2	9.1
						4.185	4.000	9.8	9.6	9.3	9.2

Compression ratios are calculated at 0.00" deck clearance, a 9.240" deck height, and a .042" thick compressed head gasket

Note: New part numbers are **BOLD & ITALICIZED**



# PLATINUM SERIES PISTONS

## Small Block Chevrolet LS Series

LS-1/LS-2/LS-6, LS-3/L-92, LS-7

4.100" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ Machined for reluctor wheel clearance
- ▶ Round wire locks
- ▶ Forced pin oiling, pressure balance groove and precision pin fitting
- ▶ Premium Chrome Moly wrist pins (Standard Series) included
- ▶ 9310 alloy pin (Extreme Duty Series) included: P/N 42542 2.300" x .170" wall (4.005"-4.080" bores) and P/N 42528 2.500" x .180" wall (4.125"-4.130" bores)
- ▶ Offset wrist pin design
- ▶ 1.5, 1.5, 3mm ring package



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Pin Diam	Piston Wt / Gms	Valve Pocket Type	Valve Pocket Depth Int. / Exh.	Piston Ring Sets		
										Ductile Top Rings	Iron Premium Top Rings	Steel Top Rings
<b>-10cc DISH</b>												
596505C-8	596505CE-8	4.005"	6.125"	4.100"	1.065"	.927"	395	LS-1,2,3,6,92	.185"/.130"	46110-8	46110ST-8	
596565C-8	596565CE-8	4.065"	6.125"	4.100"	1.065"	.927"	411	LS-1,2,3,6,92	.185"/.130"	46116-8	46116ST-8	
596570C-8	596570CE-8	4.070"	6.125"	4.100"	1.065"	.927"	413	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8	
596575C-8	596575CE-8	4.075"	6.125"	4.100"	1.065"	.927"	415	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8	
596580C-8	596580CE-8	4.080"	6.125"	4.100"	1.065"	.927"	417	LS-1,2,3,6,92	.185"/.130"	46118-8	46118ST-8	
<b>-11cc DISH</b>												
596600C-8	596600CE-8	4.125"	6.125"	4.100"	1.065"	.927"	422	LS-1,2,3,6,7,92	.225" Trough	46360-8	46360ST-8	
596605C-8	596605CE-8	4.130"	6.125"	4.100"	1.065"	.927"	424	LS-1,2,3,6,7,92	.225" Trough	46361-8	46361ST-8	
<b>596610C-8</b>	<b>596610CE-8</b>	4.135"	6.125"	4.100"	1.065"	.927"	426	LS-1,2,3,6,7,92	.225" Trough	46362-8	46362ST-8	
<b>-20cc DISH</b>												
596005C-8	596005CE-8	4.005"	6.125"	4.100"	1.065"	.927"	389	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8	
596065C-8	596065CE-8	4.065"	6.125"	4.100"	1.065"	.927"	406	LS-1,2,3,6,92	.175" Trough	46116-8	46116ST-8	
596070C-8	596070CE-8	4.070"	6.125"	4.100"	1.065"	.927"	409	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8	
596075C-8	596075CE-8	4.075"	6.125"	4.100"	1.065"	.927"	411	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8	
596080C-8	596080CE-8	4.080"	6.125"	4.100"	1.065"	.927"	413	LS-1,2,3,6,92	.175" Trough	46118-8	46118ST-8	
596400C-8	596400CE-8	4.125"	6.125"	4.100"	1.065"	.927"	435	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8	
596405C-8	596405CE-8	4.130"	6.125"	4.100"	1.065"	.927"	437	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8	
<b>596410C-8</b>	<b>596410CE-8</b>	4.135"	6.125"	4.100"	1.065"	.927"	439	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8	
<b>-31cc DISH</b>												
596705C-8	596705CE-8	4.005"	6.125"	4.100"	1.065"	.927"	398	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8	
596765C-8	596765CE-8	4.065"	6.125"	4.100"	1.065"	.927"	413	LS-1,2,3,6,92	.175" Trough	46116-8	46116ST-8	
596770C-8	596770CE-8	4.070"	6.125"	4.100"	1.065"	.927"	416	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8	
596775C-8	596775CE-8	4.075"	6.125"	4.100"	1.065"	.927"	418	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8	
596780C-8	596780CE-8	4.080"	6.125"	4.100"	1.065"	.927"	420	LS-1,2,3,6,92	.175" Trough	46118-8	46118ST-8	
596800C-8	596800CE-8	4.125"	6.125"	4.100"	1.065"	.927"	428	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8	
596805C-8	596805CE-8	4.130"	6.125"	4.100"	1.065"	.927"	430	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8	
<b>596810C-8</b>	<b>596810CE-8</b>	4.135"	6.125"	4.100"	1.065"	.927"	432	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8	

### Common Features

Crown Thickness: .200"  
 Top Ring: 1.5mm .225" down, -10cc/-11cc Dishes  
 .250" down, 20cc/-31cc Dishes  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42262 - .061" wide  
 Recommended

Piston Clearance: .0045" measured 1.100" from bottom of the oil ring  
 Pin Included: Standard Series: Premium Chrome Moly P/N 42442 included with the 4.005"-4.080" bores (2.300" x .150" wall, .927" dia., 110 grams)  
 Standard Series: Premium Chrome Moly P/N 42428 included with the 4.125"-4.130" bores (2.500" x .150" wall, .927" dia., 118 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42542 included with the 4.005"-4.080" bores (2.300" x .170" wall, .927" dia., 118 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42528 included with the 4.125"-4.130" bores (2.500" x .180" wall, .927" dia., 139 grams)

### Chevy LS 4.100" Stroke Compression Ratio Chart

Bore	Stroke	Cylinder Head (cc)			
		64	66	70	72
<b>-10cc &amp; -11cc DISH</b>					
4.005	4.100	11.1	10.9	10.5	10.3
4.065	4.100	11.4	11.2	10.7	10.5
4.070	4.100	11.5	11.3	10.8	10.6
4.075	4.100	11.6	11.4	10.9	10.7
4.080	4.100	11.7	11.5	11.0	10.8
4.125	4.100	11.6	11.4	10.9	10.7
4.130	4.100	11.7	11.5	11.0	10.8
<b>-20cc DISH</b>					
4.005	4.100	10.1	9.9	9.6	9.4
4.065	4.100	10.4	10.2	9.8	9.6
4.070	4.100	10.4	10.2	9.8	9.7
4.075	4.100	10.5	10.3	9.9	9.8
4.080	4.100	10.6	10.4	10.0	9.9
4.125	4.100	10.6	10.4	10.1	9.9
4.130	4.100	10.7	10.5	10.1	9.9

Compression ratios are calculated at 0.00" deck clearance, a 9.240" deck height, and a .042" thick compressed head gasket

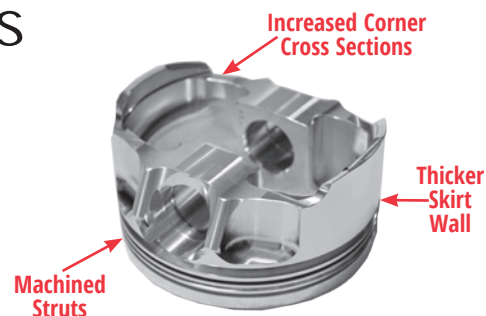
Note: New part numbers are **BOLD & ITALICIZED**

# PLATINUM SERIES PISTONS

## Small Block Chevrolet LS Series

Turbo Tuff® Design for 3.622", 4.000" & 4.100" Strokes

- ▶ 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Machined for reluctor wheel clearance
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Round wire locks
- ▶ Forced pin oiling, pressure balance groove and precision pin fitting
- ▶ Premium Chrome Moly wrist pins (Standard Series) included
- ▶ 9310 alloy pin (Extreme Duty Series) included: P/N 42542 2.300" x .170" wall (4.005"-4.070" bores) and P/N 42528 2.500" x .180" wall (4.125"-4.185" bores)



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Pin Diam	Piston Wt / Gms	Valve Pocket Type	Valve Pocket Depth Int. / Exh.	Piston Ring Sets		
										Ductile Iron Top Rings	Premium Steel Top Rings	
<b>3.622" STROKE -4cc FLAT TOP</b>												
562510C-8	<b>562510CE-8</b>	4.010"	6.125"	3.622"	1.304"	.927"	TBA	LS-1,2,3,6,92	.185"/.130"	46111-8	46111ST-8	
562565C-8	<b>562565CE-8</b>	4.065"	6.125"	3.622"	1.304"	.927"	TBA	LS-1,2,3,6,92	.185"/.130"	46116-8	46116ST-8	
562570C-8	<b>562570CE-8</b>	4.070"	6.125"	3.622"	1.304"	.927"	TBA	LS-1,2,3,6,92	.185"/.130"	46117-8	46117ST-8	
<b>4.000" STROKE -18cc DISH</b>												
566205C-8	<b>566205CE-8</b>	4.005"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8	
566265C-8	<b>566265CE-8</b>	4.065"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,92	.175" Trough	46116-8	46116ST-8	
566270C-8	<b>566270CE-8</b>	4.070"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8	
566300C-8	<b>566300CE-8</b>	4.125"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8	
566305C-8	<b>566305CE-8</b>	4.130"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8	
<b>566310C-8</b>	<b>566310CE-8</b>	4.135"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8	
566340C-8	<b>566340CE-8</b>	4.165"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8	
566360C-8	<b>566360CE-8</b>	4.185"	6.125"	4.000"	1.115"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8	
<b>4.100" STROKE -20cc DISH</b>												
566005C-8	<b>566005CE-8</b>	4.005"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,92	.175" Trough	46110-8	46110ST-8	
566065C-8	<b>566065CE-8</b>	4.065"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,92	.175" Trough	46116-8	46116ST-8	
566070C-8	<b>566070CE-8</b>	4.070"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,92	.175" Trough	46117-8	46117ST-8	
566400C-8	<b>566400CE-8</b>	4.125"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8	
566405C-8	<b>566405CE-8</b>	4.130"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8	
<b>566410C-8</b>	<b>566410CE-8</b>	4.135"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8	
566440C-8	<b>566440CE-8</b>	4.165"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8	
566460C-8	<b>566460CE-8</b>	4.185"	6.125"	4.100"	1.065"	.927"	TBA	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8	

### Common Features

Crown Thickness: .225"  
 Top Ring: 1.5mm, .250" down  
 Second Ring: 1.5mm  
 Oil Ring: 3.0mm  
 Round Wire Locks: P/N 42262 - .061" wide  
 Recommended  
 Piston Clearance: .0045" measured 1.100" from the bottom of the oil ring

Pin Included:

Standard Series: Premium Chrome Moly P/N 42442 included with the 4.005"-4.070" bores (2.300" x .150" wall, .927" dia., 110 grams)  
 Standard Series: Premium Chrome Moly P/N 42428 included with the 4.125"-4.185" bores (2.500" x .150" wall, .927" dia., 118 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42542 included with the 4.005"-4.070" bores (2.300" x .170" wall, .927" dia., 118 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42528 included with the 4.125"-4.185" bores (2.500" x .180" wall, .927" dia., 139 grams)

### Chevy LS 3.622", 4.000" & 4.100" Stroke Compression Ratio Chart

Bore	Stroke	Cylinder Head (cc)			
		64	66	70	72
<b>-4cc FLAT TOP</b>					
4.010	3.622	10.7	10.5	9.9	9.7
4.065	3.622	11.0	10.7	10.2	10.0
4.070	3.622	11.1	10.8	10.3	10.1
<b>-18cc DISH</b>					
4.005	4.000	10.1	9.9	9.5	9.4
4.065	4.000	10.4	10.2	9.8	9.6
4.070	4.000	10.4	10.2	9.8	9.6
4.125	4.000	10.6	10.4	10.0	9.8
4.130	4.000	10.6	10.4	10.0	9.9
4.135	4.000	10.7	10.5	10.1	10.0
4.165	4.000	10.8	10.6	10.2	10.0
4.185	4.000	10.9	10.6	10.3	10.1
<b>-20cc DISH</b>					
4.005	4.100	10.1	9.9	9.6	9.4
4.065	4.100	10.4	10.2	9.8	9.6
4.070	4.100	10.4	10.2	9.8	9.7
4.125	4.100	10.6	10.4	10.1	9.9
4.130	4.100	10.7	10.5	10.1	9.9
4.135	4.100	10.8	10.6	10.2	10.0
4.165	4.100	10.7	10.5	10.1	9.9
4.185	4.100	10.8	10.6	10.2	10.0

Compression ratios are calculated at 0.00" deck clearance, a 9.240" deck height, and a .042" thick compressed head gasket

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

Note: New part numbers are **BOLD & ITALICIZED**





# PLATINUM SERIES PISTONS

## Small Block Chevrolet LS Series

LSX, RHS, & World Warhawk Blocks  
4.250" Stroke Pistons

Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Pin Diam	Piston Wt / Gms	Valve Pocket Type	Valve Pocket Depth Int. / Exh.	Piston Ring Sets Ductile Iron Top Rings	Piston Ring Sets Premium Steel Top Rings
<b>-11cc DISH for LSX</b>											
592400C-8	592400CE-8	4.125"	6.460"	4.250"	1.115"	.927"	432	LS-1,2,3,6,7,92	.225" Trough	46360-8	46360ST-8
592405C-8	592405CE-8	4.130"	6.460"	4.250"	1.115"	.927"	434	LS-1,2,3,6,7,92	.225" Trough	46361-8	46361ST-8
592410C-8	592410CE-8	4.135"	6.460"	4.250"	1.115"	.927"	436	LS-1,2,3,6,7,92	.225" Trough	46362-8	46362ST-8
592440C-8	592440CE-8	4.165"	6.460"	4.250"	1.115"	.927"	453	LS-1,2,3,6,7,92	.225" Trough	46364-8	46364ST-8
592460C-8	592460CE-8	4.185"	6.460"	4.250"	1.115"	.927"	461	LS-1,2,3,6,7,92	.225" Trough	46366-8	46366ST-8
<b>-18cc DISH for LSX</b>											
596300C-8	596300CE-8	4.125"	6.460"	4.250"	1.115"	.927"	437	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8
596305C-8	596305CE-8	4.130"	6.460"	4.250"	1.115"	.927"	439	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8
596310C-8	596310CE-8	4.135"	6.460"	4.250"	1.115"	.927"	441	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8
596340C-8	596340CE-8	4.165"	6.460"	4.250"	1.115"	.927"	460	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8
596360C-8	596360CE-8	4.185"	6.460"	4.250"	1.115"	.927"	468	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8
<b>-29cc DISH for LSX</b>											
592900C-8	592900CE-8	4.125"	6.460"	4.250"	1.115"	.927"	430	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8
592905C-8	592905CE-8	4.130"	6.460"	4.250"	1.115"	.927"	434	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8
592910C-8	592910CE-8	4.135"	6.460"	4.250"	1.115"	.927"	436	LS-1,2,3,6,7,92	.175" Trough	46362-8	46362ST-8
592940C-8	592940CE-8	4.165"	6.460"	4.250"	1.115"	.927"	457	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8
592960C-8	592960CE-8	4.185"	6.460"	4.250"	1.115"	.927"	463	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8
<b>-11cc DISH for RHS/WARHAWK</b>											
599000C-8	599000CE-8	4.125"	See Note	4.250"	1.315"	.927"	487	LS-1,2,3,6,7,92	.225" Trough	46360-8	46360ST-8
599005C-8	599005CE-8	4.130"	See Note	4.250"	1.315"	.927"	489	LS-1,2,3,6,7,92	.225" Trough	46361-8	46361ST-8
599040C-8	599040CE-8	4.165"	See Note	4.250"	1.315"	.927"	497	LS-1,2,3,6,7,92	.225" Trough	46364-8	46364ST-8
599060C-8	599060CE-8	4.185"	See Note	4.250"	1.315"	.927"	505	LS-1,2,3,6,7,92	.225" Trough	46366-8	46366ST-8
<b>-20cc DISH for RHS/WARHAWK</b>											
599100C-8	599100CE-8	4.125"	See Note	4.250"	1.315"	.927"	486	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8
599105C-8	599105CE-8	4.130"	See Note	4.250"	1.315"	.927"	488	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8
599140C-8	599140CE-8	4.165"	See Note	4.250"	1.315"	.927"	494	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8
599160C-8	599160CE-8	4.185"	See Note	4.250"	1.315"	.927"	502	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8
<b>-31cc DISH for RHS/WARHAWK</b>											
599200C-8	599200CE-8	4.125"	See Note	4.250"	1.315"	.927"	482	LS-1,2,3,6,7,92	.175" Trough	46360-8	46360ST-8
599205C-8	599205CE-8	4.130"	See Note	4.250"	1.315"	.927"	484	LS-1,2,3,6,7,92	.175" Trough	46361-8	46361ST-8
599240C-8	599240CE-8	4.165"	See Note	4.250"	1.315"	.927"	493	LS-1,2,3,6,7,92	.175" Trough	46364-8	46364ST-8
599260C-8	599260CE-8	4.185"	See Note	4.250"	1.315"	.927"	501	LS-1,2,3,6,7,92	.175" Trough	46366-8	46366ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness: Top: .151" 2nd: .165" Oil: .145" Note: Gapless® Top Ring Sets are also available See page 125

ROD LENGTH Note: Above pistons are intended to be used with a 6.300" rod length in the RHS block and with a 6.350" rod length in the Warhawk block

### Common Features

Crown Thickness: .200"  
 Top Ring: 1.5mm .225" down, -11cc Dishes  
 .250" down, -18cc, 20cc, -29cc & -31cc Dishes  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42262 - .061" wide  
 Intake valve maximum head diameter is 2.205"

**Recommended**  
 Piston Clearance: .0045" measured 1.100" from bottom of the oil ring  
 Pin Included: Standard Series: Premium Chrome Moly P/N 42428  
 (2.500" x .150" wall, .927" dia., 118 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42528  
 (2.500" x .180" wall, .927" dia., 139 grams)  
**Block Deck Heights:**  
 LSX 9.700"  
 RHS 9.750"  
 World 9.800"

### Chevy LS 4.250" Stroke Compression Ratio Chart

Bore	Cylinder Head (cc)					Bore	Cylinder Head (cc)				
	64	66	70	72	78		64	66	70	72	78
<b>-11cc DISH</b>											
4.125	11.7	11.5	11.0	10.8	10.2	4.125	9.9	9.7	9.4	9.2	8.8
4.130	11.7	11.5	11.0	10.8	10.2	4.130	9.9	9.7	9.4	9.2	8.8
4.135	11.8	11.4	11.1	10.9	10.3	4.135	10.0	9.8	9.5	9.3	8.9
4.165	11.9	11.7	11.2	11.0	10.4	4.165	10.0	9.9	9.5	9.4	9.0
4.185	12.0	11.8	11.3	11.1	10.5	4.185	10.1	10.0	9.6	9.5	9.1
<b>-18cc DISH</b>											
4.125	10.9	10.7	10.3	10.1	9.6	4.125	9.7	9.6	9.2	9.1	8.7
4.130	10.9	10.7	10.3	10.1	9.6	4.130	9.7	9.6	9.2	9.1	8.7
4.135	11.0	10.8	10.4	10.2	9.7	4.165	9.9	9.7	9.4	9.2	8.8
4.165	11.1	10.9	10.5	10.3	9.8	4.185	10.0	9.8	9.5	9.3	8.9
4.185	11.2	11.0	10.6	10.4	9.9						
<b>-20cc DISH</b>											
4.125	10.7	10.5	10.1	10.0	9.5						
4.130	10.7	10.5	10.2	10.0	9.5						
4.165	10.9	10.7	10.3	10.1	9.6						
4.185	11.0	10.8	10.4	10.2	9.7						

Compression ratios are calculated at 0.00" deck clearance with a .053" thick compressed head gasket

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

Note: New part numbers are **BOLD & ITALICIZED**

# PLATINUM SERIES PISTONS

## Small Block Chevrolet LT1

Direct Injected LT1 for 3.622" & 4.000" Strokes

- ▶ 2618 high strength material; Lightweight design
- ▶ Offset wrist pin design
- ▶ Machined for reductor wheel clearance
- ▶ Round wire locks
- ▶ 1.2, 1.2, 3mm ring package
- ▶ Forced pin oiling, pressure balance groove and precision pin fitting
- ▶ Premium Chrome Moly wrist pins (Standard Series) included
- ▶ 9310 alloy pin (Extreme Duty Series) included: P/N 42542 2.300" x .170" wall (4.065"-4.080" bores) and P/N 42528 2.500" x .180" wall (4.125"-4.130" bores)



Note: These pistons are designed for connecting rods with .927" diameter floating wrist pins

Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Comp Ratio	Piston Wt/Gms	Piston Ring Sets	
									Ductile Iron Premium Steel Top Rings	Steel Top Rings
<b>STOCK STROKE -2cc DOME</b>										
560065C-8	560065CE-8	4.065"	STD	6.125"	3.622"	1.304"	11.7	498	46016-8	46016ST-8
560070C-8	560070CE-8	4.070"	+.005"	6.125"	3.622"	1.304"	11.7	500	46017-8	46017ST-8
560075C-8	560075CE-8	4.075"	+.010"	6.125"	3.622"	1.304"	11.8	502	46017-8	46017ST-8
560080C-8	560080CE-8	4.080"	+.015"	6.125"	3.622"	1.304"	11.8	504	46018-8	46018ST-8
<b>STOCK STROKE -12cc DISH</b>										
560165C-8	560165CE-8	4.065"	STD	6.125"	3.622"	1.304"	10.5	469	46016-8	46016ST-8
560170C-8	560170CE-8	4.070"	+.005"	6.125"	3.622"	1.304"	10.5	471	46017-8	46017ST-8
560175C-8	560175CE-8	4.075"	+.010"	6.125"	3.622"	1.304"	10.6	472	46017-8	46017ST-8
560180C-8	560180CE-8	4.080"	+.015"	6.125"	3.622"	1.304"	10.6	473	46018-8	46018ST-8
<b>STROKER SERIES -10cc DISH</b>										
560265C-8	560265CE-8	4.065"	STD	6.125"	4.000"	1.115"	11.7	439	46016-8	46016ST-8
560270C-8	560270CE-8	4.070"	+.005"	6.125"	4.000"	1.115"	11.7	442	46017-8	46017ST-8
560275C-8	560275CE-8	4.075"	+.010"	6.125"	4.000"	1.115"	11.8	445	46017-8	46017ST-8
560280C-8	560280CE-8	4.080"	+.015"	6.125"	4.000"	1.115"	11.8	446	46018-8	46018ST-8
560300C-8	560300CE-8	4.125"	+.060"	6.125"	4.000"	1.115"	12.0	471	46060-8	46060ST-8
560305C-8	560305CE-8	4.130"	+.065"	6.125"	4.000"	1.115"	12.0	473	46061-8	46061ST-8
<b>560310C-8</b>	<b>560310CE-8</b>	4.135"	+.070"	6.125"	4.000"	1.115"	12.1	475	46062-8	46062ST-8
<b>STROKER SERIES -20cc DISH</b>										
560465C-8	560465CE-8	4.065"	STD	6.125"	4.000"	1.115"	10.5	414	46016-8	46016ST-8
560470C-8	560470CE-8	4.070"	+.005"	6.125"	4.000"	1.115"	10.5	415	46017-8	46017ST-8
560475C-8	560475CE-8	4.075"	+.010"	6.125"	4.000"	1.115"	10.6	418	46017-8	46017ST-8
560480C-8	560480CE-8	4.080"	+.015"	6.125"	4.000"	1.115"	10.6	419	46018-8	46018ST-8
560500C-8	560500CE-8	4.125"	+.060"	6.125"	4.000"	1.115"	10.8	445	46060-8	46060ST-8
560505C-8	560505CE-8	4.130"	+.065"	6.125"	4.000"	1.115"	10.8	447	46061-8	46061ST-8
<b>560510C-8</b>	<b>560510CE-8</b>	4.135"	+.070"	6.125"	4.000"	1.115"	10.9	449	46062-8	46062ST-8

Compression are calculated at 0.00" deck clearance, a 9.240" deck height, with a 60cc combustion chamber, and a .051" thick compressed head gasket

### Common Features

Crown Thickness:	.225"	Pin Included:	Standard Series: Premium Chrome Moly P/N 42442 included with the 4.065"-4.080" bores (2.300" x .150" wall, .927" dia., 110 grams)
Top Ring:	1.2mm .300" down (1.304") .290" down (1.115")		Standard Series: Premium Chrome Moly P/N 42428 included with the 4.125"-4.130" bores (2.500" x .150" wall, .927" dia., 118 grams)
Second Ring:	1.2mm		Extreme Duty Series: 9310 Alloy P/N 42542 included with the 4.065"-4.080" bores (2.300" x .170" wall, .927" dia., 118 grams)
Oil Ring:	3.0mm		Extreme Duty Series: 9310 Alloy P/N 42528 included with the 4.125"-4.130" bores (2.500" x .180" wall, .927" dia., 139 grams)
Valve Notches:	.180" Int., .200" Exh.		
Round Wire Locks:	P/N 42262 - .061" wide		
Recommended			
Piston Clearance:	.0045" measured 1.100" from the bottom of the oil ring		

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

Note: New part numbers are **BOLD & ITALICIZED**



# PLATINUM SERIES PISTONS

## Chevy 5.3L LS / L83

- ▶ 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Machined for reluctor wheel clearance
- ▶ Round wire locks
- ▶ 1.2, 1.2, 3.0mm ring package
- ▶ Forced pin oiling, pressure balance groove and precision pin fitting
- ▶ Premium Chrome Moly wrist pins (Standard Series) included
- ▶ 9310 alloy .170" wall pin (Extreme Duty Series) included P/N 42542



### Gen III/IV for 3.622" & 4.000" Strokes

Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gms	Piston Ring Sets	
								Ductile Iron Top Rings	Premium Steel Top Rings
<b>STOCK STROKE -2cc FLAT TOP</b>									
<b>561005C-8</b>	<b>561005CE-8</b>	3.785"	+ .005"	6.125"	3.622"	1.304"	TBA	46500-8	46500ST-8
<b>561010C-8</b>	<b>561010CE-8</b>	3.790"	+ .010"	6.125"	3.622"	1.304"	TBA	46510-8	46510ST-8
<b>561020C-8</b>	<b>561020CE-8</b>	3.800"	+ .020"	6.125"	3.622"	1.304"	TBA	46520-8	46520ST-8
<b>STROKER SERIES -7cc DISH</b>									
<b>561105C-8</b>	<b>561105CE-8</b>	3.785"	+ .005"	6.125"	4.000"	1.115"	TBA	46500-8	46500ST-8
<b>561110C-8</b>	<b>561110CE-8</b>	3.790"	+ .010"	6.125"	4.000"	1.115"	TBA	46510-8	46510ST-8
<b>561120C-8</b>	<b>561120CE-8</b>	3.800"	+ .020"	6.125"	4.000"	1.115"	TBA	46520-8	46520ST-8

### Gen V Direct Injected for 3.622" & 4.000" Strokes

Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gms	Piston Ring Sets	
								Ductile Iron Top Rings	Premium Steel Top Rings
<b>STOCK STROKE -2cc DOME</b>									
<b>561200C-8</b>	<b>561200CE-8</b>	3.780"	STD	6.125"	3.622"	1.304"	TBA	46500-8	46500ST-8
<b>561210C-8</b>	<b>561210CE-8</b>	3.790"	+ .010"	6.125"	3.622"	1.304"	TBA	46510-8	46510ST-8
<b>561220C-8</b>	<b>561220CE-8</b>	3.800"	+ .020"	6.125"	3.622"	1.304"	TBA	46520-8	46520ST-8
<b>STROKER SERIES -10cc DISH</b>									
<b>561300C-8</b>	<b>561300CE-8</b>	3.780"	STD	6.125"	4.000"	1.115"	TBA	46500-8	46500ST-8
<b>561310C-8</b>	<b>561310CE-8</b>	3.790"	+ .010"	6.125"	4.000"	1.115"	TBA	46510-8	46510ST-8
<b>561320C-8</b>	<b>561320CE-8</b>	3.800"	+ .020"	6.125"	4.000"	1.115"	TBA	46520-8	46520ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 Top: .134"      2nd: .143"      Oil: .145"

### Common Features

Crown Thickness:	.225"	Pin Included:	Standard Series: Premium Chrome Moly P/N 42442 (2.300" x .150" wall, .927" dia., 110 grams)
Top Ring:	1.2mm .300" down (1.304") .290" down (1.115")	Round Wire Locks:	Extreme Duty Series: 9310 Alloy P/N 42542 (2.300" x .170" wall, .927" dia., 118 grams)
Second Ring:	1.2mm	Recommended	P/N 42262 - .061" wide
Oil Ring:	3.0mm	Piston Clearance:	.0045" measured 1.100" from the bottom of the oil ring
Valve Notches:	.175" Int., .150" Exh. (Gen III/IV) .180" Int., .200" Exh. (Gen V)		

### Chevy LS 5.3L Gen III/IV Comp. Ratio Chart

Bore	Stroke	58cc	62cc	66cc	70cc
<b>FLAT TOP</b>					
3.780	3.622	10.50	9.99	9.53	9.11
3.790	3.622	10.55	10.03	9.57	9.15
3.800	3.622	10.60	10.08	9.62	9.20
<b>-7cc DISH</b>					
3.780	4.000	10.82	10.32	9.87	9.46
3.790	4.000	10.87	10.37	9.92	9.51
3.800	4.000	10.92	10.42	9.96	9.55

### Chevy LS 5.3L Gen V Comp. Ratio Chart

Bore	Stroke	60cc
<b>DOME</b>		
3.780	3.622	10.26
3.790	3.622	10.31
3.800	3.622	10.36
<b>-10cc DISH</b>		
3.780	4.000	10.20
3.790	4.000	10.25
3.800	4.000	10.30

Compression ratios are calculated at 0.00" deck clearance with a .051" thick compressed gasket

Note: New part numbers are **BOLD & ITALICIZED**

PISTONS, RINGS, & PINS

# PLATINUM SERIES PISTONS

## Big Block Chevrolet

### 4.500" Bore Flat Top & Mini Dome

- ▶ 2618 high strength material, lightweight design
- ▶ Perfect ring groove to skirt squareness and pressure balance groove
- ▶ Premium Chrome Moly pin and spiral locks included
- ▶ Pin fitting included
- ▶ Suitable for superchargers, turbos, nitrous



Flat Top



Mini Dome

Part No.	Bore Size	STD Deck Block Rod Length / Crank Stroke	CID	Tall Deck Block Rod Length / Crank Stroke	CID	Compression Distance	Piston Wt / Gms	Dome Volume	Piston Ring Set
<b>FLAT TOP</b>									
696000-8	4.500"	6.135" / 4.000"	509	6.535" / 4.000"	509	1.645"	713	- 3cc	46450-8
696030-8	4.530"	6.135" / 4.000"	516	6.535" / 4.000"	516	1.645"	721	- 3cc	46453-8
696060-8	4.560"	6.135" / 4.000"	523	6.535" / 4.000"	523	1.645"	729	- 3cc	46456-8
696080-8	4.600"	6.135" / 4.000"	532	6.535" / 4.000"	532	1.645"	755	- 3cc	46458-8
696100-8	4.500"	6.385" / 4.000"	509	6.535" / 4.500"	573	1.395"	650	- 3cc	46450-8
696130-8	4.530"	6.385" / 4.000"	516	6.535" / 4.500"	580	1.395"	660	- 3cc	46453-8
696160-8	4.560"	6.385" / 4.000"	523	6.535" / 4.500"	588	1.395"	670	- 3cc	46456-8
696180-8	4.600"	6.385" / 4.000"	532	6.535" / 4.500"	598	1.395"	695	- 3cc	46458-8
696200-8	4.500"	6.135" / 4.250"	541	6.535" / 4.250"	541	1.520"	676	- 3cc	46450-8
696230-8	4.530"	6.135" / 4.250"	548	6.535" / 4.250"	548	1.520"	692	- 3cc	46453-8
696260-8	4.560"	6.135" / 4.250"	555	6.535" / 4.250"	555	1.520"	705	- 3cc	46456-8
696280-8	4.600"	6.135" / 4.250"	565	6.535" / 4.250"	565	1.520"	732	- 3cc	46458-8
696300-8	4.500"	6.385" / 4.250"	541	6.535" / 4.750"	604	1.270"	615	- 3cc	46450-8
696330-8	4.530"	6.385" / 4.250"	548	6.535" / 4.750"	613	1.270"	632	- 3cc	46453-8
696360-8	4.560"	6.385" / 4.250"	555	6.535" / 4.750"	621	1.270"	637	- 3cc	46456-8
696380-8	4.600"	6.385" / 4.250"	565	6.535" / 4.750"	632	1.270"	665	- 3cc	46458-8
696390-8	4.625"	6.385" / 4.250"	572	6.535" / 4.750"	639	1.270"	TBA	- 3cc	46459-8
698080-8	4.600"	6.535" / 4.000"	532	6.700" / 4.500"	598	1.245"	654	- 3cc	46458-8
698480-8	4.600"	6.535" / 4.125"	548	6.700" / 4.625"	615	1.185"	636	- 3cc	46458-8
698180-8	4.600"	6.535" / 4.250"	565	6.700" / 4.750"	632	1.120"	612	- 3cc	46458-8
<b>MINI DOME</b>									
696800-8	4.500"	6.135" / 4.000"	509	6.535" / 4.000"	509	1.645"	690	2cc	46450-8
696830-8	4.530"	6.135" / 4.000"	516	6.535" / 4.000"	516	1.645"	694	2cc	46453-8
698330-8	4.530"	6.385" / 4.000"	516	6.535" / 4.500"	580	1.395"	644	2cc	46453-8

Note: Gapless® Top Ring Sets are also available. See page 125

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .200"      2nd: .200"      Oil: .170"

### Common Features

- Crown Thickness: .250"
- Top Ring: 1/16", .350" down Flat Top except on 1.245" and 1.185" CD is .325" down and 1.120" CD is .250" down, .305" down Mini Dome
- Second Ring: 1/16"
- Oil Ring: 3/16"
- Intake Valve Notch: .315"
- Exhaust Valve: +.090"
- Pin Included: Flat Top: Premium Chrome Moly P/N 42220 (.180" wall, 170 grams, 2.930" long, .990" dia.)  
Mini Dome: Premium Chrome Moly P/N 42219 (.150" wall, 147 grams, 2.930" long, .990" dia.)
- Spiral Locks: P/N 42271 - .042" wide (4 per piston)
- Recommended
- Piston Clearance: .006" measured 1.100" from bottom of the oil ring

Pistons with 1.395" and shorter compression distances REQUIRE, and are shipped with, groove lock spacers (Except P/N 698330)

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

### Compression Ratio Chart

Bore	Stroke	112cc	118cc	124cc
<b>-3cc FLAT TOP</b>				
4.500"	4.000"	9.0:1	8.7:1	8.4:1
4.530"	4.000"	9.1:1	8.8:1	8.5:1
4.560"	4.000"	9.3:1	8.9:1	8.6:1
4.600"	4.000"	9.4:1	9.0:1	8.7:1
4.600"	4.125"	9.7:1	9.3:1	9.0:1
4.500"	4.250"	9.6:1	9.2:1	8.8:1
4.530"	4.250"	9.7:1	9.3:1	8.9:1
4.560"	4.250"	9.8:1	9.4:1	9.0:1
4.600"	4.250"	9.9:1	9.5:1	9.1:1
4.625"	4.250"	10.0:1	9.6:1	9.3:1
4.500"	4.500"	10.1:1	9.7:1	9.3:1
4.530"	4.500"	10.2:1	9.8:1	9.4:1
4.560"	4.500"	10.3:1	9.9:1	9.5:1
4.600"	4.500"	10.5:1	10.0:1	9.7:1
4.600"	4.625"	10.8:1	10.3:1	9.9:1
4.500"	4.750"	10.6:1	10.1:1	9.8:1
4.530"	4.750"	10.7:1	10.3:1	9.9:1
4.560"	4.750"	10.8:1	10.4:1	10.0:1
4.600"	4.750"	11.0:1	10.5:1	10.1:1
4.625"	4.750"	11.1:1	10.6:1	10.2:1
<b>2cc MINI DOME</b>				
4.500"	4.000"	9.4:1	9.0:1	8.7:1
4.530"	4.000"	9.5:1	9.1:1	8.8:1
4.530"	4.500"	10.6:1	10.1:1	9.7:1

All compression ratios are calculated at .010" deck clearance, a 4.600" head gasket ID with a .042" compressed thickness

# PLATINUM SERIES PISTONS

## Big Block Chevrolet

### 4.500" Inverted Dome

- ▶ 2618 high strength material
- ▶ Lightweight design
- ▶ Full banded skirt for increased skirt stability
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ Premium Chrome Moly pin included
- ▶ Spiral locks included
- ▶ Pin fitting included
- ▶ Suitable for superchargers, turbos, nitrous



Part No.	Bore Size	STD Deck Block Rod / Crank Length / Stroke	CID	Tall Deck Block Rod / Crank Length / Stroke	CID	Compression Distance	Piston Wt / Gms	Dome Volume	Piston Ring Set
696400-8	4.500"	6.135" / 4.000"	509	6.535" / 4.000"	509	1.645"	706	- 10cc	46450-8
696430-8	4.530"	6.135" / 4.000"	516	6.535" / 4.000"	516	1.645"	724	- 10cc	46453-8
696460-8	4.560"	6.135" / 4.000"	523	6.535" / 4.000"	523	1.645"	736	- 10cc	46456-8
696480-8	4.600"	6.135" / 4.000"	532	6.535" / 4.000"	532	1.645"	757	- 10cc	46458-8
696500-8	4.500"	6.385" / 4.000"	509	6.535" / 4.500"	573	1.395"	647	- 10cc	46450-8
696530-8	4.530"	6.385" / 4.000"	516	6.535" / 4.500"	580	1.395"	660	- 10cc	46453-8
696560-8	4.560"	6.385" / 4.000"	523	6.535" / 4.500"	588	1.395"	671	- 10cc	46456-8
696580-8	4.600"	6.385" / 4.000"	532	6.535" / 4.500"	598	1.395"	695	- 10cc	46458-8
696600-8	4.500"	6.135" / 4.250"	541	6.535" / 4.250"	541	1.520"	680	- 20cc	46450-8
696630-8	4.530"	6.135" / 4.250"	548	6.535" / 4.250"	548	1.520"	700	- 20cc	46453-8
696660-8	4.560"	6.135" / 4.250"	555	6.535" / 4.250"	555	1.520"	710	- 20cc	46456-8
696680-8	4.600"	6.135" / 4.250"	565	6.535" / 4.250"	565	1.520"	724	- 20cc	46458-8
696700-8	4.500"	6.385" / 4.250"	541	6.535" / 4.750"	604	1.270"	621	- 20cc	46450-8
696730-8	4.530"	6.385" / 4.250"	548	6.535" / 4.750"	613	1.270"	634	- 20cc	46453-8
696760-8	4.560"	6.385" / 4.250"	555	6.535" / 4.750"	621	1.270"	645	- 20cc	46456-8
696780-8	4.600"	6.385" / 4.250"	565	6.535" / 4.750"	632	1.270"	668	- 20cc	46458-8

Note: Gapless® Top Ring Sets are also available. See page 125

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 Top: .200"      2nd: .200"      Oil: .170"



### Common Features

- Crown Thickness: .250"
- Top Ring: 1/16", .350" down
- Second Ring: 1/16"
- Oil Ring: 3/16"
- Intake Valve Notch: .315"
- Exhaust Valve: +.090"
- Pin Included: Premium Chrome Moly P/N 42220  
(.180" wall, 170 grams, 2.930" long, .990" dia.)
- Spiral Locks: P/N 42271 - .042" wide (4 per piston)
- Recommended Piston Clearance: .006" measured 1.100" from bottom of the oil ring

Pistons with 1.395" and 1.270" compression distances REQUIRE, and are shipped with, groove lock spacers

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

### Compression Ratio Chart

Bore	Stroke	112cc	118cc	124cc
4.500"	4.000"	8.6:1	8.3:1	8.0:1
4.530"	4.000"	8.7:1	8.4:1	8.1:1
4.560"	4.000"	8.8:1	8.5:1	8.2:1
4.600"	4.000"	8.9:1	8.6:1	8.3:1
4.500"	4.250"	8.6:1	8.3:1	8.0:1
4.530"	4.250"	8.7:1	8.4:1	8.1:1
4.560"	4.250"	8.8:1	8.5:1	8.2:1
4.600"	4.250"	8.9:1	8.6:1	8.3:1
4.500"	4.500"	9.6:1	9.2:1	8.9:1
4.530"	4.500"	9.7:1	9.3:1	9.0:1
4.560"	4.500"	9.8:1	9.4:1	9.1:1
4.600"	4.500"	10.0:1	9.6:1	9.2:1
4.500"	4.750"	9.5:1	9.1:1	8.8:1
4.530"	4.750"	9.6:1	9.2:1	8.9:1
4.560"	4.750"	9.7:1	9.3:1	9.0:1
4.600"	4.750"	9.8:1	9.5:1	9.2:1

All compression ratios are calculated at .010" deck clearance, a 4.600" head gasket ID with a .042" compressed thickness

# PLATINUM SERIES PISTONS

## Big Block Chevrolet

4.500" Bore 43cc Hollow Dome

- ▶ 2618 high strength material
- ▶ Lightweight design
- ▶ **Lateral gas ports included**
- ▶ Perfect for drag race applications
- ▶ Exact ring groove to skirt squareness
- ▶ Full banded skirt design for increased skirt stability
- ▶ .043" x .043" x 3/16" ring package
- ▶ 2.930" x .150" wall Premium Chrome Moly pin
- ▶ .180" wall pin upgrade also available P/N 42220



Part No.	Bore Size	STD Deck Block		CID	Tall Deck Block		Compression Distance	Piston Wt / Gms	Dome Volume	Piston Ring Sets	
		Rod Length	Crank Stroke		Rod Length	Crank Stroke				Ductile Iron Top Rings	Premium Steel Top Rings
697500-8	4.500"	6.385"	4.000"	509	6.535"	4.500"	1.395"	699	43cc	46550-8	46550ST-8
697530-8	4.530"	6.385"	4.000"	516	6.535"	4.500"	1.395"	717	43cc	-----	46553ST-8
697560-8	4.560"	6.385"	4.000"	523	6.535"	4.500"	1.395"	722	43cc	46556-8	46556ST-8
697580-8	4.600"	6.385"	4.000"	532	6.535"	4.500"	1.395"	736	43cc	46558-8	46558ST-8
697600-8	4.500"	6.535"	4.000"	509	6.700"	4.500"	1.245"	658	43cc	46550-8	46550ST-8
697630-8	4.530"	6.535"	4.000"	516	6.700"	4.500"	1.245"	671	43cc	-----	46553ST-8
697660-8	4.560"	6.535"	4.000"	523	6.700"	4.500"	1.245"	681	43cc	46556-8	46556ST-8
697680-8	4.600"	6.535"	4.000"	532	6.700"	4.500"	1.245"	693	43cc	46558-8	46558ST-8
697700-8	4.500"	6.135"	4.250"	541	6.535"	4.250"	1.520"	723	43cc	46550-8	46550ST-8
697730-8	4.530"	6.135"	4.250"	548	6.535"	4.250"	1.520"	743	43cc	-----	46553ST-8
697760-8	4.560"	6.135"	4.250"	555	6.535"	4.250"	1.520"	749	43cc	46556-8	46556ST-8
697780-8	4.600"	6.135"	4.250"	565	6.535"	4.250"	1.520"	763	43cc	46558-8	46558ST-8
697800-8	4.500"	6.385"	4.250"	541	6.535"	4.750"	1.270"	668	43cc	46550-8	46550ST-8
697830-8	4.530"	6.385"	4.250"	548	6.535"	4.750"	1.270"	681	43cc	-----	46553ST-8
697860-8	4.560"	6.385"	4.250"	555	6.535"	4.750"	1.270"	689	43cc	46556-8	46556ST-8
697880-8	4.600"	6.385"	4.250"	565	6.535"	4.750"	1.270"	704	43cc	46558-8	46558ST-8
697890-8	4.625"	6.385"	4.250"	572	6.535"	4.750"	1.270"	714	43cc	46559-8	46559ST-8
698580-8	4.600"	6.535"	4.125"	548	6.700"	4.625"	1.185"	681	43cc	46558-8	46558ST-8
697900-8	4.500"	6.535"	4.250"	541	6.700"	4.750"	1.120"	602	43cc	46550-8	46550ST-8
697930-8	4.530"	6.535"	4.250"	548	6.700"	4.750"	1.120"	616	43cc	-----	46553ST-8
697960-8	4.560"	6.535"	4.250"	555	6.700"	4.750"	1.120"	647	43cc	46556-8	46556ST-8
697980-8	4.600"	6.535"	4.250"	565	6.700"	4.750"	1.120"	660	43cc	46558-8	46558ST-8
698280-8	4.600"	6.535"	4.375"	582	-----	---	1.058"	641	43cc	46558-8	46558ST-8

Note: Gapless® Top Ring Sets are also available. See page 125

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .175"      2nd: .170" 4.500"/4.530"      Oil: .200"  
.205" 4.560"/4.600"

### Common Features

Crown Thickness: .180" min. dome / .160" deck  
 Top Ring: .043, .320" down except on 1.120" CD is .290" down and 1.058" CD is .240" down  
 Second Ring: .043  
 Oil Ring: 3/16"  
 Intake Valve Notch: .315"  
 Exhaust Valve: +.090"  
 Pin Included: Premium Chrome Moly P/N 42219 (.150" wall, 147 grams, 2.930" long, .990" dia.) P/N 42271 - .042" wide (4 per piston)  
 Spiral Locks: Recommended  
 Piston Clearance: .006" measured 1.100" from bottom of the oil ring

Pistons with 1.270" and shorter compression distances REQUIRE, and are shipped with, groove lock spacers

\*Note: All Dome +43cc pistons are lateral gas ported  
 Dome fits Pro 1 and BB-3 heads @ 118cc with no additional modifications needed  
 Also fits Edelbrock Victor heads  
 Other applications or smaller combustion chambers must be checked

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

### Compression Ratio Chart

Bore	Stroke	112cc	118cc	124cc
4.500"	4.000"	13.6:1	12.7:1	12.0:1
4.530"	4.000"	13.7:1	12.9:1	12.1:1
4.560"	4.000"	13.9:1	13.0:1	12.3:1
4.600"	4.000"	14.1:1	13.2:1	12.5:1
4.600"	4.125"	14.5:1	13.6:1	12.8:1
4.500"	4.250"	14.3:1	13.4:1	12.7:1
4.530"	4.250"	14.5:1	13.6:1	12.8:1
4.560"	4.250"	14.7:1	13.8:1	13.0:1
4.600"	4.250"	14.9:1	14.0:1	13.2:1
4.625"	4.250"	15.1:1	14.1:1	13.3:1
4.600"	4.375"	15.3:1	14.4:1	13.5:1
4.500"	4.500"	15.1:1	14.2:1	13.3:1
4.530"	4.500"	15.3:1	14.3:1	13.5:1
4.560"	4.500"	15.5:1	14.5:1	13.7:1
4.600"	4.500"	15.7:1	14.7:1	13.9:1
4.600"	4.625"	16.2:1	15.1:1	14.2:1
4.500"	4.750"	15.9:1	14.9:1	14.0:1
4.530"	4.750"	16.1:1	15.1:1	14.2:1
4.560"	4.750"	16.3:1	15.3:1	14.4:1
4.600"	4.750"	16.6:1	15.5:1	14.6:1
4.625"	4.750"	16.7:1	15.6:1	14.7:1

All compression ratios are calculated at .010" deck clearance, a 4.600" head gasket ID with a .042" compressed thickness

# PLATINUM SERIES PISTONS

## Chrysler 5.7L Hemi Dome, Flat Top & Dish

- ▶ Forged 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Round wire locks
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Other features include forced pin oiling and pressure balance groove
- ▶ 2.300" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .170" wall pin (Extreme Duty Series) included P/N 42542



Note: These pistons are designed for connecting rods with .927" diameter floating wrist pins

Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gms	Piston Ring Sets	
								Ductile Iron Top Rings	Premium Steel Top Rings
<b>STOCK STROKE 9.3cc DOME</b>									
597400C-8	597400CE-8	3.917"	STD	6.240"	3.579"	1.220"	427	46120-8	46120ST-8
597405C-8	597405CE-8	3.922"	+ .005"	6.240"	3.579"	1.220"	428	46121-8	46121ST-8
597420C-8	597420CE-8	3.937"	+ .020"	6.240"	3.579"	1.220"	434	46122-8	46122ST-8
<b>STOCK STROKE -1.5cc FLAT TOP</b>									
597500C-8	597500CE-8	3.917"	STD	6.240"	3.579"	1.220"	400	46120-8	46120ST-8
597505C-8	597505CE-8	3.922"	+ .005"	6.240"	3.579"	1.220"	402	46121-8	46121ST-8
597520C-8	597520CE-8	3.937"	+ .020"	6.240"	3.579"	1.220"	408	46122-8	46122ST-8
<b>STOCK STROKE -12cc DISH</b>									
597100C-8	597100CE-8	3.917"	STD	6.240"	3.579"	1.220"	393	46120-8	46120ST-8
597105C-8	597105CE-8	3.922"	+ .005"	6.240"	3.579"	1.220"	395	46121-8	46121ST-8
597120C-8	597120CE-8	3.937"	+ .020"	6.240"	3.579"	1.220"	401	46122-8	46122ST-8
<b>STROKER SERIES -1.5cc FLAT TOP</b>									
597200C-8	597200CE-8	3.917"	STD	6.125"	4.050"	1.085"	362	46120-8	46120ST-8
597205C-8	597205CE-8	3.922"	+ .005"	6.125"	4.050"	1.085"	364	46121-8	46121ST-8
597220C-8	597220CE-8	3.937"	+ .020"	6.125"	4.050"	1.085"	369	46122-8	46122ST-8
<b>STROKER SERIES -14cc DISH</b>									
597300C-8	597300CE-8	3.917"	STD	6.125"	4.050"	1.085"	351	46120-8	46120ST-8
597305C-8	597305CE-8	3.922"	+ .005"	6.125"	4.050"	1.085"	354	46121-8	46121ST-8
597320C-8	597320CE-8	3.937"	+ .020"	6.125"	4.050"	1.085"	359	46122-8	46122ST-8
<b>STROKER SERIES -23cc DISH</b>									
598500C-8	598500CE-8	3.917"	STD	6.125"	4.050"	1.085"	346	46120-8	46120ST-8
598505C-8	598505CE-8	3.922"	+ .005"	6.125"	4.050"	1.085"	348	46121-8	46121ST-8
598520C-8	598520CE-8	3.937"	+ .020"	6.125"	4.050"	1.085"	352	46122-8	46122ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 Top: .155"      2nd: .160"      Oil: .145"      Note: Gapless® Top Ring Sets are also available  
 See page 125

### Common Features

#### for All Pistons on Page 110 & 111

- Crown Thickness: 9.3cc Dome .180" / 5cc Dome .200" / Flat Top .200" / Dish .200"  
 Top Ring: 1.5mm, .250" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Valve Notches: .100" Int., .080" Exh. (5.7L), .120" Int., .085" Exh. (6.1L)  
 Pin Included: Standard Series: Premium Chrome Moly P/N 42442 (.150" wall, 110 grams, 2.300" long, .927" dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42542 (.170" wall, 118 grams, 2.300" long, .927" dia.)  
 Round Wire Locks: P/N 42262 - .061" wide  
 Recommended  
 Piston Clearance: .0045" measured 1.100" from bottom of the oil ring

SEE PAGE 111 FOR COMPRESSION RATIOS  
 SEE PAGE 122 & 123 FOR CUSTOM PISTONS

PISTONS, RINGS, & PINS

# PLATINUM SERIES PISTONS

## Chrysler 6.1L Hemi & 6.1L Hemi with 6.4L Cylinder Heads

### Dome, Flat Top & Dish

- ▶ Forged 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Round wire locks
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Other features include forced pin oiling and pressure balance groove
- ▶ 2.300" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .170" wall pin (Extreme Duty Series) included P/N 42542



Note: These pistons are designed for connecting rods with .927" diameter floating wrist pins

Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gms	Piston Ring Sets	
								Ductile Iron Top Rings	Premium Steel Top Rings
<b>STOCK STROKE 5cc DOME</b>									
597660C-8	597660CE-8	4.060"	+ .005"	6.240"	3.579"	1.220"	453	46116-8	46116ST-8
597665C-8	597665CE-8	4.065"	+ .010"	6.240"	3.579"	1.220"	455	46116-8	46116ST-8
597680C-8	597680CE-8	4.080"	+ .025"	6.240"	3.579"	1.220"	461	46118-8	46118ST-8
<b>STOCK STROKE -11.5cc DISH</b>									
597060C-8	597060CE-8	4.060"	+ .005"	6.240"	3.579"	1.220"	427	46116-8	46116ST-8
597065C-8	597065CE-8	4.065"	+ .010"	6.240"	3.579"	1.220"	429	46116-8	46116ST-8
597080C-8	597080CE-8	4.080"	+ .025"	6.240"	3.579"	1.220"	435	46118-8	46118ST-8
<b>STROKER SERIES -1.5cc FLAT TOP</b>									
597860C-8	597860CE-8	4.060"	+ .005"	6.125"	4.050"	1.085"	392	46116-8	46116ST-8
597865C-8	597865CE-8	4.065"	+ .010"	6.125"	4.050"	1.085"	394	46116-8	46116ST-8
597880C-8	597880CE-8	4.080"	+ .025"	6.125"	4.050"	1.085"	398	46118-8	46118ST-8
<b>STROKER SERIES -11.5cc DISH</b>									
598660C-8	598660CE-8	4.060"	+ .005"	6.125"	4.050"	1.085"	386	46116-8	46116ST-8
598665C-8	598665CE-8	4.065"	+ .010"	6.125"	4.050"	1.085"	388	46116-8	46116ST-8
598680C-8	598680CE-8	4.080"	+ .025"	6.125"	4.050"	1.085"	393	46118-8	46118ST-8
<b>STROKER SERIES -24cc DISH</b>									
598760C-8	598760CE-8	4.060"	+ .005"	6.125"	4.050"	1.085"	381	46116-8	46116ST-8
598765C-8	598765CE-8	4.065"	+ .010"	6.125"	4.050"	1.085"	383	46116-8	46116ST-8
598780C-8	598780CE-8	4.080"	+ .025"	6.125"	4.050"	1.085"	388	46118-8	46118ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness: Top: .151" 2nd: .168" Oil: .145" Note: Gapless® Top Ring Sets are also available See page 124

### Compression Ratio Chart 5.7L Hemi

Bore	Stroke	5.7L		6.1L Head
		Thru 2008 85cc	2009-Up 65cc	
<b>9.3cc DOME</b>				
3.917" / 99.5mm	3.579" / 90.9mm	9.63:1	12.42:1	10.97:1
3.922" / 99.63mm	3.579" / 90.9mm	9.65:1	12.45:1	10.99:1
3.937" / 100mm	3.579" / 90.9mm	9.72:1	12.53:1	11.07:1
<b>-1.5cc FLAT TOP</b>				
3.917" / 99.5mm	3.579" / 90.9mm	8.62:1	10.72:1	9.65:1
3.922" / 99.63mm	3.579" / 90.9mm	8.64:1	10.75:1	9.67:1
3.937" / 100mm	3.579" / 90.9mm	8.70:1	10.82:1	9.74:1
3.917" / 99.5mm	4.050"	9.63:1	12.00:1	10.79:1
3.922" / 99.63mm	4.050"	9.65:1	12.03:1	10.81:1
3.937" / 100mm	4.050"	9.72:1	12.11:1	10.89:1
<b>-12cc DISH</b>				
3.917" / 99.5mm	3.579" / 90.9mm	7.85:1	9.49:1	8.67:1
3.922" / 99.63mm	3.579" / 90.9mm	7.87:1	9.52:1	8.69:1
3.937" / 100mm	3.579" / 90.9mm	7.92:1	9.58:1	8.74:1

Compression ratios are calculated at .003" deck clearance, a 3.941" head gasket ID with a .028" compressed thickness

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

### Compression Ratio Chart 5.7L Hemi

Bore	Stroke	5.7L		6.1L Head
		Thru 2008 85cc	2009-Up 65cc	
<b>-14cc DISH</b>				
3.917" / 99.5mm	4.050"	8.60:1	10.39:1	9.49:1
3.922" / 99.63mm	4.050"	8.62:1	10.41:1	9.51:1
3.937" / 100mm	4.050"	8.68:1	10.48:1	9.58:1
<b>-23cc DISH</b>				
3.917" / 99.5mm	4.050"	8.00:1	9.49:1	8.75:1
3.922" / 99.63mm	4.050"	8.02:1	9.51:1	8.77:1
3.937" / 100mm	4.050"	8.07:1	9.58:1	8.83:1

### Compression Ratio Chart 6.1L Hemi

Bore	Stroke	Compression Ratio			
		5cc Dome	Flat Top	-11.5cc Dish	-24cc Dish
4.060"	3.579"	10.70:1	-----	9.01:1	-----
4.065"	3.579"	10.72:1	-----	9.03:1	-----
4.080"	3.579"	10.79:1	-----	9.09:1	-----
4.060"	4.050"	-----	11.13:1	10.06:1	9.01:1
4.065"	4.050"	-----	11.16:1	10.09:1	9.03:1
4.080"	4.050"	-----	11.23:1	10.15:1	9.09:1

Compression ratios are calculated at .003" deck clearance, a 4.100" head gasket ID with a .040" compressed thickness and a 74cc combustion chamber



# PLATINUM SERIES PISTONS

## Chrysler 6.4L Hemi

### Dome & Dish

- ▶ Forged 2618 high strength material lightweight design
- ▶ Offset wrist pin design
- ▶ Round wire locks
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Other features include forced pin oiling and pressure balance groove
- ▶ 2.300" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .170" wall pin (Extreme Duty Series) included P/N 42542



Note: These pistons are designed for connecting rods with .927" diameter floating wrist pins

Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gms	Piston Ring Sets Premium Steel Top Rings
<b>STOCK STROKE 1.75cc DOME</b>								
598800C-8	598800CE-8	4.090"	STD	6.200"	3.724"	1.210"	430	46129ST-8
598805C-8	598805CE-8	4.095"	+ .005"	6.200"	3.724"	1.210"	432	46130ST-8
598810C-8	598810CE-8	4.100"	+ .010"	6.200"	3.724"	1.210"	434	46131ST-8
<b>STOCK STROKE -12.5cc DISH</b>								
598900C-8	598900CE-8	4.090"	STD	6.200"	3.724"	1.210"	411	46129ST-8
598905C-8	598905CE-8	4.095"	+ .005"	6.200"	3.724"	1.210"	413	46130ST-8
598910C-8	598910CE-8	4.100"	+ .010"	6.200"	3.724"	1.210"	415	46131ST-8
<b>STROKER SERIES -5.0cc DISH</b>								
599800C-8	599800CE-8	4.090"	STD	6.125"	4.050"	1.120"	402	46129ST-8
599805C-8	599805CE-8	4.095"	+ .005"	6.125"	4.050"	1.120"	404	46130ST-8
599810C-8	599810CE-8	4.100"	+ .010"	6.125"	4.050"	1.120"	406	46131ST-8
<b>STROKER SERIES -20.5cc DISH</b>								
599900C-8	599900CE-8	4.090"	STD	6.125"	4.050"	1.120"	394	46129ST-8
599905C-8	599905CE-8	4.095"	+ .005"	6.125"	4.050"	1.120"	396	46130ST-8
599910C-8	599910CE-8	4.100"	+ .010"	6.125"	4.050"	1.120"	398	46131ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 Top: .150"      2nd: .170"      Oil: .145"

### Common Features

- Crown Thickness: .200"
- Top Ring: 1.5mm, .250" down
- Second Ring: 1.5mm
- Oil Ring: 3.0mm
- Valve Notches: .120" Int., .085" Exh
- Pin Included: Standard Series: Premium Chrome Moly P/N 42442 (.150" wall, 110 grams, 2.300" long, .927" dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42542 (.170" wall, 118 grams, 2.300" long, .927" dia.)

Round Wire Locks: P/N 42262 - .061" wide

Recommended

Piston Clearance: .0045" measured 1.100" from the bottom of the oil ring

### Compression Ratio Chart 6.4L HEMI

Bore	Stroke	1.75cc Dome	-5.0cc Dish	-12.5cc Dish	-20.5cc Dish
4.090"	3.724"	11.01:1	-----	9.50:1	-----
4.095"	3.724"	11.02:1	-----	9.51:1	-----
4.100"	3.724"	11.03:1	-----	9.52:1	-----
4.090"	4.050"	-----	11.00:1	-----	9.50:1
4.095"	4.050"	-----	11.01:1	-----	9.51:1
4.100"	4.050"	-----	11.02:1	-----	9.52:1

Compression ratios are calculated at .012" deck clearance, a 4.090" head gasket ID with a .027" compressed thickness and a 72cc combustion chamber

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

# PLATINUM SERIES PISTONS

## Ford "EcoBoost" 2.3L DOHC 4 Valve

### -8.2cc Dish

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" x 2.250" wall Premium Chrome Moly pin (Standard Series) included P/N 42248
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42548
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance: .0030" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Ford Focus RS 2016-Up, Mustang 2015-Up (.886"/22.5mm x 2.250" Pin)											
637000C-4	637000CE-4	87.5	STD	5.875"	94	1.291"	-8.2	9.5	Dish	382	46875-4
637001C-4	637001CE-4	87.6	+.1mm	5.875"	94	1.291"	-8.2	9.5	Dish	384	46876-4

## Ford "EcoBoost" 3.5L DOHC 4 Valve

### -8.5cc Dish & -0.5cc Dome Pistons

- ▶ 2618 high strength material; Lightweight design
- ▶ Offset wrist pin design for quiet start-ups
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ Round wire locks
- ▶ 1.2, 1.2, 2.5mm ring package
- ▶ Will accommodate +1mm valve sizes
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546



Note: These pistons are designed for connecting rods with .9055"/23mm diameter floating wrist pins

Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Piston Wt / Gms	Piston Ring Sets Premium Steel Top Rings
<b>-8.5cc DISH (9.0:1)</b>							
594800C-6	594800CE-6	3.642"	6.011"	3.413"	1.239"	407	46642ST-6
594810C-6	594810CE-6	3.652"	6.011"	3.413"	1.239"	411	46652ST-6
594820C-6	594820CE-6	3.662"	6.011"	3.413"	1.239"	415	46662ST-6
<b>-0.5cc DOME (10.0:1)</b>							
594900C-6	594900CE-6	3.642"	6.011"	3.413"	1.239"	419	46642ST-6
594910C-6	594910CE-6	3.652"	6.011"	3.413"	1.239"	423	46652ST-6
594920C-6	594920CE-6	3.662"	6.011"	3.413"	1.239"	427	46662ST-6

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .134"    2nd: .143"    Oil: .115"

Piston Clearance: .003" measured .850" from bottom of the oil ring

PISTONS, RINGS, & PINS

SEE PAGE 122 & 123 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Ford "Cyclone" 3.7L DOHC 4 Valve

### -5cc Dish & +2.0cc Dome Pistons

- ▶ 2618 high strength material; Lightweight design
- ▶ Offset wrist pin design for quiet start-ups
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ Round wire locks
- ▶ 1.2, 1.5, 2.5mm ring package
- ▶ Will accommodate +1mm valve sizes
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546



Note: These pistons are designed for connecting rods with .9055"/23mm diameter floating wrist pins

Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Piston Wt / Gms	Piston Ring Sets Premium Steel Top Rings
<b>-5cc DISH (9.5:1)</b>							
599500C-6	599500CE-6	3.760"	6.011"	3.413"	1.239"	420	46760ST-6
599510C-6	599510CE-6	3.770"	6.011"	3.413"	1.239"	424	46770ST-6
599520C-6	599520CE-6	3.780"	6.011"	3.413"	1.239"	428	46780ST-6
<b>+2.0cc DOME (10.5:1)</b>							
599600C-6	599600CE-6	3.760"	6.011"	3.413"	1.239"	426	46760ST-6
599610C-6	599610CE-6	3.770"	6.011"	3.413"	1.239"	430	46770ST-6
599620C-6	599620CE-6	3.780"	6.011"	3.413"	1.239"	434	46780ST-6

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .134" 2nd: .152" Oil: .120"

Piston Clearance: .003" measured .850" from bottom of the oil ring

## Ford 4.6L & 5.4L SOHC/DOHC 2 & 4 Valve and 5.4L 3 Valve

### "Street Master" Series Forged Aluminum 18cc Spherical Dish Piston

- ▶ Perfect blend of economy and high performance
- ▶ 1.2mm offset wrist pin location for quiet start-ups. Mimics OEM design
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 2.500" length Premium Chrome Moly pin included with round wire locks
- ▶ Full banded skirt design for increased skirt stability



Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Piston Wt / Gms	Piston & Pin Wt / Gms	Piston Ring Set
494200-8	3.552"	5.933" / 6.657"	3.543" / 4.165"	1.220"	369	475	46600-8
494220-8	3.572"	5.933" / 6.657"	3.543" / 4.165"	1.220"	376	482	46620-8
494230-8	3.582"	5.933" / 6.657"	3.543" / 4.165"	1.220"	379	485	46630-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .156" 2nd: .152" Oil: .145"

The pistons above will also work for the 6.8L V10 modular

### Common Features

Dome Volume: -18cc  
 Crown Thickness: .200"  
 Compression Ratio: 8.53:1 w/ 51cc & 3.543" Stroke  
 Top Ring: 1.5mm, .220" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm

Pin Included: Premium Chrome Moly P/N 42207  
 (.150" wall, 106 grams, 2.500" long )  
 Round Wire Locks: Recommended  
 Piston Clearance: .0035" measured .850" from bottom of the oil ring

SEE PAGE 116 & 120 FOR COMPRESSION RATIOS  
 SEE PAGE 122 & 123 FOR CUSTOM PISTONS

# PLATINUM SERIES PISTONS

## Ford 4.6L DOHC 3 Valve (2004-up)

- ▶ 2618 high strength material lightweight design
- ▶ 1.2mm offset wrist pin design for quiet start-ups. Mimics OEM design
- ▶ Round wire locks
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 1.5, 1.5, 3.0mm ring package
- ▶ 2.500" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .180" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Full banded skirt design for increased skirt stability



### Stock 3.543" Stroke Pistons

Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets		
							Ductile Iron Top Rings	Premium Steel Top Rings	Gapless® Top Rings
				-6.5cc DISH					
594300C-8	594300CE-8	3.552"	5.933"	3.543"	1.220"	352	46600-8	46600ST-8	46600GT-8
594320C-8	594320CE-8	3.572"	5.933"	3.543"	1.220"	362	46620-8	46620ST-8	46620GT-8
594330C-8	594330CE-8	3.582"	5.933"	3.543"	1.220"	367	46630-8	46630ST-8	46630GT-8
				-14cc DISH					
594500C-8	594500CE-8	3.552"	5.933"	3.543"	1.220"	360	46600-8	46600ST-8	46600GT-8
594520C-8	594520CE-8	3.572"	5.933"	3.543"	1.220"	370	46620-8	46620ST-8	46620GT-8
594530C-8	594530CE-8	3.582"	5.933"	3.543"	1.220"	375	46630-8	46630ST-8	46630GT-8
594570C-8	594570CE-8	3.700"	5.933"	3.543"	1.220"	413	46670-8	46670ST-8	46670GT-8

### 3.750" Stroke Pistons

Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets		
							Ductile Iron Top Rings	Premium Steel Top Rings	Gapless® Top Rings
				-14cc DISH					
595500C-8	595500CE-8	3.552"	5.850"	3.750"	1.200"	375	46600-8	46600ST-8	46600GT-8
595520C-8	595520CE-8	3.572"	5.850"	3.750"	1.200"	382	46620-8	46620ST-8	46620GT-8
595530C-8	595530CE-8	3.582"	5.850"	3.750"	1.200"	385	46630-8	46630ST-8	46630GT-8
				-18cc DISH					
595570C-8	595570CE-8	3.700"	5.850"	3.750"	1.200"	421	46670-8	46670ST-8	46670GT-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness  
 Top: .156"      2nd: .152"      Oil: .145"

### Common Features

Crown Thickness: .185"  
 Top Ring: 1.5mm, .220" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42270 - .061" wide

Pin Included: Standard Series: Premium Chrome Moly P/N 42207 (2.500" x .150" wall, 22mm/.866" dia., 106 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42507 (2.500" x .180" wall, 22mm/.866" dia., 124 grams)

Recommended Piston Clearance: .003" measured .850" from bottom of the oil ring

### Ford 4.6L 3V Compression Ratio Charts

Bore	Stroke	51cc	Bore	Stroke	51cc
		-6.5cc DISH			
3.552"	3.543	9.86	3.552"	3.750	9.41
3.572"	3.543	9.95	3.572"	3.750	9.51
3.582"	3.543	10.00	3.582"	3.750	9.55
		-14cc DISH			
3.552"	3.543	8.94	3.700"	3.750	9.64
3.572"	3.543	9.03			
3.582"	3.543	9.07			
3.700"	3.543	9.58			

Head Gasket Bore 3.620 (3.552-3.582)  
 Head Gasket Bore 3.700 (3.700)  
 Compressed Gasket Thickness .036  
 Deck Clearance .008

SEE PAGE 122 & 123 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Ford 4.6L SOHC/DOHC 2 & 4 Valve (1991-up)

### Stock 3.543" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ 1.2mm offset wrist pin design for quiet start-ups. Mimics OEM design
- ▶ Round wire locks
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 1.5, 1.5, 3.0mm ring package
- ▶ 2.500" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .180" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Full banded skirt design for increased skirt stability



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets		
							Ductile Iron Top Rings	Premium Steel Top Rings	Gapless® Top Rings
<b>FLAT TOP</b>									
594000C-8	594000CE-8	3.552"	5.933"	3.543"	1.220"	335	46600-8	46600ST-8	46600GT-8
594020C-8	594020CE-8	3.572"	5.933"	3.543"	1.220"	345	46620-8	46620ST-8	46620GT-8
594030C-8	594030CE-8	3.582"	5.933"	3.543"	1.220"	350	46630-8	46630ST-8	46630GT-8
594070C-8	594070CE-8	3.700"	5.933"	3.543"	1.220"	388	46670-8	46670ST-8	46670GT-8
<b>-11cc DISH</b>									
594100C-8	594100CE-8	3.552"	5.933"	3.543"	1.220"	350	46600-8	46600ST-8	46600GT-8
594120C-8	594120CE-8	3.572"	5.933"	3.543"	1.220"	355	46620-8	46620ST-8	46620GT-8
594130C-8	594130CE-8	3.582"	5.933"	3.543"	1.220"	362	46630-8	46630ST-8	46630GT-8
594170C-8	594170CE-8	3.700"	5.933"	3.543"	1.220"	401	46670-8	46670ST-8	46670GT-8
<b>-18cc SPHERICAL DISH</b>									
594200C-8	594200CE-8	3.552"	5.933"	3.543"	1.220"	384	46600-8	46600ST-8	46600GT-8
594220C-8	594220CE-8	3.572"	5.933"	3.543"	1.220"	390	46620-8	46620ST-8	46620GT-8
594230C-8	594230CE-8	3.582"	5.933"	3.543"	1.220"	393	46630-8	46630ST-8	46630GT-8
594270C-8	594270CE-8	3.700"	5.933"	3.543"	1.220"	431	46670-8	46670ST-8	46670GT-8
<b>-23cc DISH</b>									
594400C-8	594400CE-8	3.552"	5.933"	3.543"	1.220"	351	46600-8	46600ST-8	46600GT-8
594420C-8	594420CE-8	3.572"	5.933"	3.543"	1.220"	359	46620-8	46620ST-8	46620GT-8
594430C-8	594430CE-8	3.582"	5.933"	3.543"	1.220"	363	46630-8	46630ST-8	46630GT-8
594470C-8	594470CE-8	3.700"	5.933"	3.543"	1.220"	401	46670-8	46670ST-8	46670GT-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .156" 2nd: .152" Oil: .145"

### Common Features

Crown Thickness: .185"  
 Top Ring: 1.5mm, .220" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42270 - .061" wide

Pin Included: Standard Series: Premium Chrome Moly P/N 42207 (2.500" x .150" wall, 22mm/.866" dia., 106 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42507 (2.500" x .180" wall, 22mm/.866" dia., 124 grams)

Recommended Piston Clearance: .003" measured .850" from bottom of the oil ring

### Ford 4.6L 2V & 4V Compression Ratio Charts

Bore	Stroke	42cc	51cc	52cc	Bore	Stroke	42cc	51cc	52cc
<b>FLAT TOP</b>					<b>-18 SPHERICAL DISH</b>				
3.552	3.543	12.65	10.86	10.69	3.552	3.543	9.54	8.53	8.44
3.572	3.543	12.78	10.97	10.80	3.572	3.543	9.63	8.63	8.52
3.582	3.543	12.85	11.02	10.85	3.582	3.543	9.68	8.66	8.56
3.700	3.543	13.55	11.63	11.45	3.700	3.543	10.21	9.13	9.03
<b>-11cc DISH</b>					<b>-23cc DISH</b>				
3.552	3.543	10.53	9.29	9.18	3.552	3.543	8.95	8.07	7.98
3.572	3.543	10.64	9.39	9.27	3.572	3.543	9.04	8.15	8.06
3.582	3.543	10.69	9.43	9.31	3.582	3.543	9.08	8.19	8.10
3.700	3.543	11.33	9.99	9.86	3.700	3.543	9.58	8.64	8.54

Head Gasket Bore 3.620 (3.552-3.582)

Head Gasket Bore 3.700 (3.700)

Compressed Gasket Thickness .036

Deck Clearance .008

42cc Combustion Chamber is 99-up PI 2V

51cc Combustion Chamber is 91-98 2V

52cc Combustion Chamber is 93-up 4V

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

# PLATINUM SERIES PISTONS

## Ford 4.6L SOHC/DOHC 2 & 4 Valve (1991-up)

### 3.750" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ 1.2mm offset wrist pin design for quiet start-ups. Mimics OEM design
- ▶ Round wire locks
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 1.5, 1.5, 3.0mm ring package
- ▶ 2.500" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .180" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Full banded skirt design for increased skirt stability



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets		
							Ductile Iron Top Rings	Premium Steel Top Rings	Gapless® Top Rings
<b>FLAT TOP</b>									
595000C-8	595000CE-8	3.552"	5.850"	3.750"	1.200"	350	46600-8	46600ST-8	46600GT-8
595020C-8	595020CE-8	3.572"	5.850"	3.750"	1.200"	357	46620-8	46620ST-8	46620GT-8
595030C-8	595030CE-8	3.582"	5.850"	3.750"	1.200"	360	46630-8	46630ST-8	46630GT-8
<b>-11cc DISH</b>									
595100C-8	595100CE-8	3.552"	5.850"	3.750"	1.200"	346	46600-8	46600ST-8	46600GT-8
595120C-8	595120CE-8	3.572"	5.850"	3.750"	1.200"	353	46620-8	46620ST-8	46620GT-8
595130C-8	595130CE-8	3.582"	5.850"	3.750"	1.200"	358	46630-8	46630ST-8	46630GT-8
<b>-18cc SPHERICAL DISH</b>									
595200C-8	595200CE-8	3.552"	5.850"	3.750"	1.200"	372	46600-8	46600ST-8	46600GT-8
595220C-8	595220CE-8	3.572"	5.850"	3.750"	1.200"	380	46620-8	46620ST-8	46620GT-8
595230C-8	595230CE-8	3.582"	5.850"	3.750"	1.200"	383	46630-8	46630ST-8	46630GT-8
595270C-8	595270CE-8	3.700"	5.850"	3.750"	1.200"	421	46670-8	46670ST-8	46670GT-8
<b>-23cc DISH</b>									
595400C-8	595400CE-8	3.552"	5.850"	3.750"	1.200"	336	46600-8	46600ST-8	46600GT-8
595420C-8	595420CE-8	3.572"	5.850"	3.750"	1.200"	342	46620-8	46620ST-8	46620GT-8
595430C-8	595430CE-8	3.582"	5.850"	3.750"	1.200"	346	46630-8	46630ST-8	46630GT-8
595470C-8	595470CE-8	3.700"	5.850"	3.750"	1.200"	384	46670-8	46670ST-8	46670GT-8
<b>-28cc DISH</b>									
595600C-8	595600CE-8	3.552"	5.850"	3.750"	1.200"	341	46600-8	46600ST-8	46600GT-8
595620C-8	595620CE-8	3.572"	5.850"	3.750"	1.200"	347	46620-8	46620ST-8	46620GT-8
595630C-8	595630CE-8	3.582"	5.850"	3.750"	1.200"	351	46630-8	46630ST-8	46630GT-8
595670C-8	595670CE-8	3.700"	5.850"	3.750"	1.200"	389	46670-8	46670ST-8	46670GT-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .156" 2nd: .152" Oil: .145"

### Common Features

Crown Thickness: .185"  
 Top Ring: 1.5mm, .220" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42270 - .061" wide

Pin Included: Standard Series: Premium Chrome Moly P/N 42207 (2.500" x .150" wall, 22mm/.866" dia., 106 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42507 (2.500" x .180" wall, 22mm/.866" dia., 124 grams)

Recommended  
 Piston Clearance: .003" measured .850" from bottom of the oil ring

### Ford 4.6L 2V & 4V Compression Ratio Charts

Bore	Stroke	42cc	51cc	52cc	Bore	Stroke	42cc	51cc	52cc
<b>FLAT TOP</b>									
3.552	3.750	13.33	11.43	11.26	3.552	3.750	9.41	8.48	8.39
3.572	3.750	13.47	11.55	11.37	3.572	3.750	9.51	8.57	8.47
3.582	3.750	13.54	11.61	11.43	3.582	3.750	9.55	8.61	8.52
					3.700	3.750	10.08	9.08	8.98
<b>-11cc DISH</b>									
3.552	3.750	11.09	9.78	9.65	3.552	3.750	8.87	8.05	7.97
3.572	3.750	11.20	9.88	9.75	3.572	3.750	8.96	8.13	8.05
3.582	3.750	11.25	9.92	9.80	3.582	3.750	9.00	8.17	8.09
					3.700	3.750	9.50	8.62	8.53
<b>-18cc SPHERICAL DISH</b>									
3.552	3.750	10.04	8.97	8.87					
3.572	3.750	10.14	9.06	8.96					
3.582	3.750	10.19	9.11	9.00					
3.700	3.750	10.75	9.61	9.50					

Head Gasket Bore 3.620 (3.552-3.582) 42cc Combustion Chamber is 99-up PI 2V  
 Head Gasket Bore 3.700 (3.700) 51cc Combustion Chamber is 91-98 2V  
 Compressed Gasket Thickness .036 52cc Combustion Chamber is 93-up 4V  
 Deck Clearance .008

SEE PAGE 122 & 123 FOR CUSTOM PISTONS



# PLATINUM SERIES PISTONS

## Ford 4.6L SOHC/DOHC 2 & 4 Valve (1991-up)

Turbo Tuff® Design

3.543" & 3.750" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ 1.2mm offset wrist pin design for quiet start-ups. Mimics OEM design
- ▶ Round wire locks
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 1.5, 1.5, 3.0mm ring package
- ▶ Vertical Gas Ports designed for high HP Race Engines
- ▶ 9310 alloy .180" wall pin included P/N 42507
- ▶ Full banded skirt design for increased skirt stability



### 2 & 4 Valve Pistons

Standard Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets	
						Premium Steel Top Rings	Gapless® Top Rings
<b>-11cc DISH 3.543" STROKE</b>							
<b><i>567000CE-8</i></b>	3.552"	5.933"	3.543"	1.220"	TBA	<b><i>46600ST-8</i></b>	<b><i>46600GT-8</i></b>
<b><i>567020CE-8</i></b>	3.572"	5.933"	3.543"	1.220"	TBA	<b><i>46620ST-8</i></b>	<b><i>46620GT-8</i></b>
<b><i>567030CE-8</i></b>	3.582"	5.933"	3.543"	1.220"	TBA	<b><i>46630ST-8</i></b>	<b><i>46630GT-8</i></b>
<b><i>567070CE-8</i></b>	3.700"	5.933"	3.543"	1.220"	TBA	<b><i>46670ST-8</i></b>	<b><i>46670GT-8</i></b>
<b>-11cc DISH 3.750" STROKE</b>							
<b><i>567100CE-8</i></b>	3.552"	5.850"	3.750"	1.200"	TBA	<b><i>46600ST-8</i></b>	<b><i>46600GT-8</i></b>
<b><i>567120CE-8</i></b>	3.572"	5.850"	3.750"	1.200"	TBA	<b><i>46620ST-8</i></b>	<b><i>46620GT-8</i></b>
<b><i>567130CE-8</i></b>	3.582"	5.850"	3.750"	1.200"	TBA	<b><i>46630ST-8</i></b>	<b><i>46630GT-8</i></b>
<b>-18cc DISH 3.750" STROKE</b>							
<b><i>567170CE-8</i></b>	3.700"	5.850"	3.750"	1.200"	TBA	<b><i>46600ST-8</i></b>	<b><i>46600GT-8</i></b>

### 3 Valve Pistons

Standard Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets	
						Premium Steel Top Rings	Gapless® Top Rings
<b>-14cc DISH 3.543" STROKE</b>							
<b><i>567200CE-8</i></b>	3.552"	5.933"	3.543"	1.220"	TBA	<b><i>46600ST-8</i></b>	<b><i>46600GT-8</i></b>
<b><i>567220CE-8</i></b>	3.572"	5.933"	3.543"	1.220"	TBA	<b><i>46620ST-8</i></b>	<b><i>46620GT-8</i></b>
<b><i>567230CE-8</i></b>	3.582"	5.933"	3.543"	1.220"	TBA	<b><i>46630ST-8</i></b>	<b><i>46630GT-8</i></b>
<b><i>567270CE-8</i></b>	3.700"	5.933"	3.543"	1.220"	TBA	<b><i>46670ST-8</i></b>	<b><i>46670GT-8</i></b>
<b>-14cc DISH 3.750" STROKE</b>							
<b><i>567300CE-8</i></b>	3.552"	5.850"	3.750"	1.200"	TBA	<b><i>46600ST-8</i></b>	<b><i>46600GT-8</i></b>
<b><i>567320CE-8</i></b>	3.572"	5.850"	3.750"	1.200"	TBA	<b><i>46620ST-8</i></b>	<b><i>46620GT-8</i></b>
<b><i>567330CE-8</i></b>	3.582"	5.850"	3.750"	1.200"	TBA	<b><i>46630ST-8</i></b>	<b><i>46630GT-8</i></b>
<b>-18cc DISH 3.750" STROKE</b>							
<b><i>567370CE-8</i></b>	3.700"	5.850"	3.750"	1.200"	TBA	<b><i>46700ST-8</i></b>	<b><i>46700GT-8</i></b>

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .156" 2nd: .152" Oil: .145"

### Common Features

Crown Thickness: .250"  
 Top Ring: 1.5mm, .270" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42270 - .061" wide

Pin Included: 9310 Alloy P/N 42507  
 (2.500" x .180" wall, 22mm/.866" dia., 124 grams)

Recommended  
 Piston Clearance: .0035" measured .850" from bottom of the oil ring

### Ford 4.6L 2V, 3V & 4V Compression Ratio Charts

Bore	Stroke	42cc	51cc	52cc	Bore	Stroke	51cc
<b>-11cc DISH</b>							
3.552	3.543	10.53	9.29	9.18	3.552	3.543	8.94
3.572	3.543	10.64	9.39	9.27	3.572	3.543	9.03
3.582	3.543	10.69	9.43	9.31	3.582	3.543	9.07
3.700	3.543	11.33	9.99	9.86	3.700	3.543	9.58
<b>-11cc DISH</b>							
3.552	3.750	11.09	9.78	9.65	3.552	3.750	9.41
3.572	3.750	11.20	9.88	9.75	3.572	3.750	9.51
3.582	3.750	11.25	9.92	9.80	3.582	3.750	9.55
<b>-18cc DISH</b>							
3.700	3.750	10.79	9.64	9.53	3.700	3.750	9.64

Head Gasket Bore 3.620 (3.552-3.582)

Head Gasket Bore 3.700 (3.700)

Compressed Gasket Thickness .036

Deck Clearance .008

42cc Combustion Chamber is 99-up PI 2V

51cc Combustion Chamber is 91-98 2V & 04-up 3V

52cc Combustion Chamber is 93-up 4V

Note: New part numbers are **BOLD & ITALICIZED**

# PLATINUM SERIES PISTONS

## Ford "Coyote" 5.0L DOHC 4 Valve



### Stock 3.650" Stroke Pistons

- ▶ 2618 high strength material; Lightweight design
- ▶ Perfect ring groove to skirt squareness
- ▶ Round wire locks
- ▶ Will accommodate +1mm valve sizes
- ▶ 2.500" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .180" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Offset wrist pin design for quiet start-ups
- ▶ Pressure balance groove
- ▶ 1.2, 1.2, 3mm ring package
- ▶ .200" deck thickness, .225" down top ring



Note: These pistons are designed for connecting rods with .866" / 22mm diameter floating wrist pins

Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Piston Wt / Gms	Piston Ring Sets Premium Steel Top Rings
<b>-12cc DISH (9.0:1)</b>							
598100C-8	598100CE-8	3.630"	5.933"	3.650"	1.165"	361	46700ST-8
598105C-8	598105CE-8	3.635"	5.933"	3.650"	1.165"	365	46710ST-8
598110C-8	598110CE-8	3.640"	5.933"	3.650"	1.165"	366	46710ST-8
598170C-8	598170CE-8	3.700"	5.933"	3.650"	1.165"	TBA	46771ST-8
<b>-2.5cc FLAT TOP (10.0:1)</b>							
598400C-8	598400CE-8	3.630"	5.933"	3.650"	1.165"	365	46700ST-8
598405C-8	598405CE-8	3.635"	5.933"	3.650"	1.165"	368	46710ST-8
598410C-8	598410CE-8	3.640"	5.933"	3.650"	1.165"	370	46710ST-8
598470C-8	598470CE-8	3.700"	5.933"	3.650"	1.165"	TBA	46771ST-8
<b>+3.75cc DOME (11.0:1)</b>							
598000C-8	598000CE-8	3.630"	5.933"	3.650"	1.165"	391	46700ST-8
598005C-8	598005CE-8	3.635"	5.933"	3.650"	1.165"	393	46710ST-8
598010C-8	598010CE-8	3.640"	5.933"	3.650"	1.165"	395	46710ST-8
598070C-8	598070CE-8	3.700"	5.933"	3.650"	1.165"	TBA	46771ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .141" 2nd: .143" Oil: .145"

Piston Clearance: .003" measured .850" from bottom of the oil ring

**MMR Coyote 600whp N/A**  
**Manley pistons, rods, valves, springs & retainers**

PISTONS, RINGS, & PINS



# PLATINUM SERIES PISTONS

## Ford 5.4L SOHC/DOHC 2, 3 & 4 Valve (1991-up)

### Stock 4.165" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ 1.2mm offset wrist pin design for quiet start-ups. Mimics OEM design
- ▶ Round wire locks
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 1.5, 1.5, 3.0mm ring package
- ▶ 2.500" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .180" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Full banded skirt design for increased skirt stability



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets		
							Ductile Iron Top Rings	Premium Steel Top Rings	Gapless® Top Rings
<b>FLAT TOP</b>									
594000C-8	594000CE-8	3.552"	6.657"	4.165"	1.220"	335	46600-8	46600ST-8	46600GT-8
594020C-8	594020CE-8	3.572"	6.657"	4.165"	1.220"	345	46620-8	46620ST-8	46620GT-8
594030C-8	594030CE-8	3.582"	6.657"	4.165"	1.220"	350	46630-8	46630ST-8	46630GT-8
594070C-8	594070CE-8	3.700"	6.657"	4.165"	1.220"	388	46670-8	46670ST-8	46670GT-8
<b>-11cc DISH</b>									
594100C-8	594100CE-8	3.552"	6.657"	4.165"	1.220"	350	46600-8	46600ST-8	46600GT-8
594120C-8	594120CE-8	3.572"	6.657"	4.165"	1.220"	355	46620-8	46620ST-8	46620GT-8
594130C-8	594130CE-8	3.582"	6.657"	4.165"	1.220"	362	46630-8	46630ST-8	46630GT-8
594170C-8	594170CE-8	3.700"	6.657"	4.165"	1.220"	401	46670-8	46670ST-8	46670GT-8
<b>-18cc SPHERICAL DISH</b>									
594200C-8	594200CE-8	3.552"	6.657"	4.165"	1.220"	384	46600-8	46600ST-8	46600GT-8
594220C-8	594220CE-8	3.572"	6.657"	4.165"	1.220"	390	46620-8	46620ST-8	46620GT-8
594230C-8	594230CE-8	3.582"	6.657"	4.165"	1.220"	393	46630-8	46630ST-8	46630GT-8
594270C-8	594270CE-8	3.700"	6.657"	4.165"	1.220"	431	46670-8	46670ST-8	46670GT-8
<b>-23cc DISH</b>									
594400C-8	594400CE-8	3.552"	6.657"	4.165"	1.220"	351	46600-8	46600ST-8	46600GT-8
594420C-8	594420CE-8	3.572"	6.657"	4.165"	1.220"	359	46620-8	46620ST-8	46620GT-8
594430C-8	594430CE-8	3.582"	6.657"	4.165"	1.220"	363	46630-8	46630ST-8	46630GT-8
594470C-8	594470CE-8	3.700"	6.657"	4.165"	1.220"	401	46670-8	46670ST-8	46670GT-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .156" 2nd: .152" Oil: .145"

### Common Features

Crown Thickness: .185"  
 Top Ring: 1.5mm, .220" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42270 - .061" wide

Pin Included: Standard Series: Premium Chrome Moly P/N 42207 (2.500" x .150" wall, 22mm/.866" dia., 106 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42507 (2.500" x .180" wall, 22mm/.866" dia., 124 grams)

Recommended Piston Clearance: .003" measured .850" from bottom of the oil ring

### Ford 5.4L 2V, 3V & 4V Compression Ratio Charts

Bore	Stroke	42cc	51cc	52cc
<b>FLAT TOP</b>				
3.552	4.165	11.01	9.83	9.72
3.572	4.165	11.09	9.91	9.79
3.582	4.165	11.13	9.95	9.83
3.700	4.165	11.56	10.35	10.23
<b>-11cc DISH</b>				
3.552	4.165	9.61	8.72	8.64
3.572	4.165	9.68	8.79	8.70
3.582	4.165	9.72	8.83	8.74
3.700	4.165	10.15	9.23	9.14
<b>-18cc SPHERICAL DISH</b>				
3.552	4.165	8.91	8.15	8.08
3.572	4.165	8.97	8.22	8.14
3.582	4.165	9.01	8.25	8.17
3.700	4.165	9.39	8.61	8.53
<b>-23cc DISH</b>				
3.552	4.165	8.47	7.79	7.73
3.572	4.165	8.53	7.85	7.79
3.582	4.165	8.57	7.89	7.82
3.700	4.165	8.93	8.23	8.16

Head Gasket Bore 3.620 (3.552-3.582)  
 Head Gasket Bore 3.700 (3.700)  
 Compressed Gasket Thickness .036  
 Deck Clearance .120

42cc Combustion Chamber is 99-up PI 2V  
 51cc Combustion Chamber is 91-98 2V & 04-up 3V  
 52cc Combustion Chamber is 93-up 4V

SEE PAGE 122 & 123 FOR CUSTOM PISTONS

# PLATINUM SERIES PISTONS

## Ford 5.8L DOHC 4 Valve Shelby GT500 (2013-2014)

### Stock 4.165" Stroke Pistons

- ▶ 2618 high strength material lightweight design
- ▶ 1.2mm offset wrist pin design for quiet start-ups. Mimics OEM design
- ▶ Round wire locks
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 1.5, 1.5, 3.0mm ring package
- ▶ 2.500" x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .180" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Full banded skirt design for increased skirt stability



Standard Part No.	Extreme Duty Part No.	Bore Size	Rod Length	Stroke	Comp Distance	Piston Wt / Gm	Piston Ring Sets Premium Steel Top Rings
<b>594600C-8</b>	<b>594600CE-8</b>	3.681"	6.657"	4.165"	1.220"	TBA	46668ST-8

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .150" 2nd: .156" Oil: .150"

### Common Features

Crown Thickness: .200"  
 Top Ring: 1.5mm, .225" down  
 Second Ring: 1.5mm  
 Oil Ring: 3mm  
 Round Wire Locks: P/N 42270 - .061" wide

Pin Included: Standard Series: Premium Chrome Moly P/N 42207 (2.500" x .150" wall, 22mm/.866" dia., 106 grams)  
 Extreme Duty Series: 9310 Alloy P/N 42507 (2.500" x .180" wall, 22mm/.866" dia., 124 grams)

Recommended Piston Clearance: .003" measured .850" from bottom of the oil ring

### Ford 5.8L 4V Compression Ratio Chart

Bore	Stroke	53cc
3.681	4.165	9.30

Head Gasket Bore 3.700 (3.700)  
 Compressed Gasket Thickness .036  
 Deck Clearance .100

## Ford "Raptor" 6.2L SOHC 2 Valve

### Stock 3.740" Stroke Pistons

- ▶ 2618 high strength material; Lightweight design
- ▶ Offset wrist pin design for quiet start-ups
- ▶ Perfect ring groove to skirt squareness
- ▶ Pressure balance groove
- ▶ 1.5, 1.5, 3mm ring package
- ▶ Will accommodate +1mm valve sizes
- ▶ .200" deck thickness, .300" down top ring
- ▶ 2.300" length .150" Wall Premium Chrome Moly pin P/N 42442 included with round wire locks
- ▶ 9310 alloy pin upgrade is also available: P/N 42542 2.300" x .170" wall

Note: These pistons are designed for connecting rods with .927" diameter floating wrist pins



Part No.	Bore Size	Rod Length	Stroke	Compression Distance	Piston Wt / Gms	Piston & Pin Wt / Gms	Piston Ring Sets Ductile Top Rings	Piston Ring Sets Premium Steel Top Rings
<b>-12cc DISH (9.0:1)</b>								
<b>598300C-8</b>	4.0169"	6.200"	3.740"	1.315"	443	553	<b>46111-8</b>	<b>46111ST-8</b>
<b>598305C-8</b>	4.0200"	6.200"	3.740"	1.315"	445	555	<b>46112-8</b>	<b>46112ST-8</b>
<b>+7.5cc DOME (11.0:1)</b>								
<b>598200C-8</b>	4.0169"	6.200"	3.740"	1.315"	480	590	<b>46111-8</b>	<b>46111ST-8</b>
<b>598205C-8</b>	4.0200"	6.200"	3.740"	1.315"	482	592	<b>46112-8</b>	<b>46112ST-8</b>

The root diameter of the ring grooves accommodates Manley rings and others which have the following radial thickness

Top: .155" 2nd: .170" Oil: .145"

Piston Clearance: .0045" measured 1.100" from bottom of the oil ring

Note: New part numbers are **BOLD & ITALICIZED**



# CUSTOM PLATINUM SERIES PISTONS

## Platinum Pistons Incremental Sizes

Manley Performance will manufacture incremental bore sizes of any listed catalog piston with reasonably short lead times. The minimum quantity is one set.

**The ordering process is as simple as 1 - 2 - 3 !**

1. Select the catalog part number you wish manufactured with the singular exception of the final bore size.
2. Tell us the bore size of your block. We will manufacture the exact piston number you have selected with proper clearance for your stated block dimension.
3. You will be billed by our forging number, not the catalog part number with only a 10% increase in cost over the catalog part number.
4. Moly Skirt Coating is optional where available. Additional charge applies.

## Custom Platinum Series Pistons

Manley Performance inventories the piston forgings listed below to manufacture custom pistons for original equipment engine producers, private label engine part suppliers and volume performance engine builders.

## Custom Blank Billing Numbers

Part No.	Bore Range	Application	Type	Wrist Pin Length
581200-4 or 581200-6	80.5mm - 90mm	Ford, Honda/Acura, Hyundai, Mazda, Mitsubishi, Subaru, Toyota	Dish, Flat Top, Dome	2.250" - 2.500"
581700-4 or 581700-6	84mm - 90mm	Ford, Honda/Acura, Hyundai, Mazda, Mitsubishi, Subaru, Toyota	Dish, Flat Top, Dome	2.250" - 2.300"
588000SC-4 or 588000SC-6	87.5mm - 103mm	Ford, Nissan, Subaru	Dish, Flat Top, Dome	2.250" - 2.500"
582000-4 or 582000-6	87.5mm - 103mm	Nissan	Dish, Flat Top, Dome	2.250" - 2.500"
581600-4	98.5mm - 104mm	Subaru	Dish, Flat Top	2.300" - 2.500"
581400SC-4 or 581400SC-6	98.5mm - 108mm	Subaru	Dish, Flat Top	2.250" - 2.500"
581800SC-4 or 581800SC-6	98.5mm - 108mm	Nissan, Subaru, Toyota	Dish, Flat Top	2.250" - 2.500"
488000-8	3.550" - 3.700"	Ford 4.6L, 5.0L, 5.4L and 5.8L	Dish, Flat Top	2.500"
588000-8	3.430" - 4.050"	Ford 4.6L, 5.0L, 5.4L and 5.8L	Dish, Flat Top, Dome	2.250" - 2.750"
581400-8	3.875" - 4.250"	Small Block Chevy LS and Chrysler Hemi 5.7L, 6.1L and 6.4L	Dish, Flat Top, Dome	2.250" - 2.950"
581800-8	3.875" - 4.250"	Small Block Chevy LS	Dish, Flat Top	2.250" - 2.500"
581000-8	4.000" - 4.155"	Small Block Chevy Early Model LT-1 / 2 and 4 Barrel Design	Dish, Flat Top	2.250" - 2.750"
586000-8	4.470" - 4.675"	Big Block Chevy	Dish, Flat Top, Dome	2.750" - 2.950"
581100-8	4.500" - 4.700"	Big Block Chevy High Comp.	Hollow Dome	2.750" - 2.950"

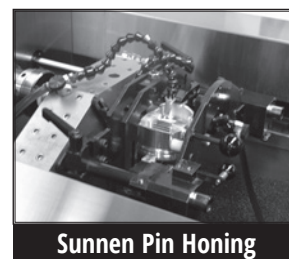
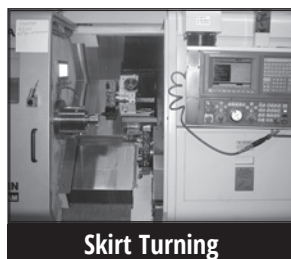
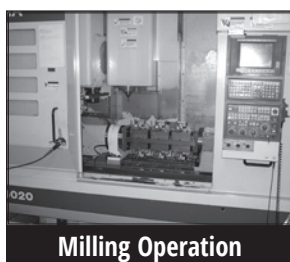
## Optional Additional Cost Machining Operations

Part No.	Operation
04003-1	Fly Cut Shelf Stock Piston
04011-1	Internal Mill - Max. Lightening
04012-1	Gas Port - Vertical (Up to 12)
04013-1	Gas Port - Lateral (Up to 12)
04014-1	Anodize Top Ring Groove
04015-1	Ceramic Coat Top of Piston
04016-1	Moly Skirt Coating
04016-4	Moly Skirt Coating (4 cyl.)
04017-6	Moly Skirt Coating (6 cyl.)
04018-8	Moly Skirt Coating (8 cyl.)
04058	2 Week Rush Charge
04059	3 Week Rush Charge



## Minimum Quantities For Custom Pistons

Minimum quantities depend on the variance from pistons we have previously produced, but in general, reasonably small numbers can be manufactured on a one time order basis. Please contact your Manley representative for more details.

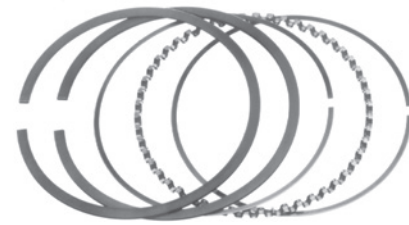


# PISTON RINGS

## Manley / Total Seal® Piston Rings

Manley Performance Products, Inc., proudly and exclusively, offers Total Seal® High Performance Piston Rings to compliment our line of Platinum Series Pistons.

Total Seal® is the leader in piston ring innovation and technology. Their quality control is unsurpassed. Total Seal® rings have superior sealing and produce maximum horsepower.



Manley stocks conventional style piston ring sets in both "Classic Race" and "AP Premium Steel top ring" versions. The Classic Race sets feature high performance ductile iron (with plasma moly in-lay) top rings, reverse twist cast iron taper face or Napier style second rings (where noted \*) and 3 piece oil rings. The AP Premium Steel top ring sets incorporate Total Seal® unique and proprietary Advanced Profiling™ manufacturing capability. These Premium Steel top ring sets are ideal for high horsepower and forced induction/nitrous applications. Manley also offers Total Seal® famed Gapless® top ring packages for many of our piston applications.

All AP Premium Steel ring sets and Gapless® top ring sets utilize Napier style second rings standard.

Ductile Iron Part No.	Premium Steel Part No.	Gapless® Part No.	Bore Size	File Fit / Drop In	Ring Widths	Oil Ring Tension
<b>5.3L CHEVROLET LS/L83</b>						
46500-8	46500ST-8	-----	3.780" / 3.785"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
46510-8	46510ST-8	-----	3.790"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
46520-8	46520ST-8	-----	3.800"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
<b>3.905" CHEVROLET LS-1</b>						
46107-8	46107ST-8	46107GT-8	3.905" / 3.910"	File Fit / Drop In	1.5mm x 1.5mm x 3mm	9-13 lbs.
<b>4" CHEVROLET &amp; 6.2L FORD RAPTOR</b>						
46350-8	-----	46350GT-8	4.000"	File Fit	1/16" x 1/16" x 3/16"	18-22 lbs.
46352-8	-----	46352GT-8	4.020"	File Fit	1/16" x 1/16" x 3/16"	18-22 lbs.
46353-8	-----	46353GT-8	4.030"	File Fit	1/16" x 1/16" x 3/16"	18-22 lbs.
46355-8	-----	46355GT-8	4.035"	File Fit	1/16" x 1/16" x 3/16"	18-22 lbs.
46354-8	-----	46354GT-8	4.040" / 4.045"	File Fit / Drop In	1/16" x 1/16" x 3/16"	18-22 lbs.
46356-8	-----	46356GT-8	4.060"	File Fit	1/16" x 1/16" x 3/16"	18-22 lbs.
46110-8	46110ST-8	46110GT-8	4.001" / 4.005"	File Fit / Drop In	1.5mm x 1.5mm x 3mm	9-13 lbs.
46111-8	46111ST-8	46111GT-8	4.010" / 4.015"	File Fit / File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46112-8	46112ST-8	46112GT-8	4.020"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46113-8	46113ST-8	46113GT-8	4.030"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46115-8	46115ST-8	46115GT-8	4.035"	Drop In	1.5mm x 1.5mm x 3mm	9-13 lbs.
46114-8	46114ST-8	46114GT-8	4.040"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46116-8	46116ST-8	46116GT-8	4.060" / 4.065"	File Fit / Drop In	1.5mm x 1.5mm x 3mm	9-13 lbs.
46117-8	46117ST-8	46117GT-8	4.070" / 4.075"	File Fit / Drop In	1.5mm x 1.5mm x 3mm	9-13 lbs.
46118-8	46118ST-8	46118GT-8	4.080"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46123-8*	46123ST-8	-----	4.030"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.
46125-8*	46125ST-8	-----	4.035"	Drop In	1.5mm x 1.5mm x 3mm	12-16 lbs.
46124-8*	46124ST-8	-----	4.040"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.
46126-8*	46126ST-8	-----	4.060"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.
46213-8	-----	46213GT-8	4.030"	File Fit	.043" x .043" x 3mm	9-13 lbs.
46215-8	-----	46215GT-8	4.035"	Drop In	.043" x .043" x 3mm	9-13 lbs.
46214-8	-----	46214GT-8	4.040" / 4.045"	File Fit / Drop In	.043" x .043" x 3mm	9-13 lbs.
46216-8	-----	46216GT-8	4.060" / 4.065"	File Fit / Drop In	.043" x .043" x 3mm	9-13 lbs.
46223-8	46223ST-8	-----	4.030"	File Fit	.043" x .043" x 3mm	12-16 lbs.
46225-8	46225ST-8	-----	4.035"	Drop In	.043" x .043" x 3mm	12-16 lbs.
46224-8	46224ST-8	-----	4.040"	File Fit	.043" x .043" x 3mm	12-16 lbs.
46226-8	46226ST-8	-----	4.060" / 4.065"	File Fit / Drop In	.043" x .043" x 3mm	12-16 lbs.

\* Napier style second ring

Total Seal® and Gapless® are registered trademarks of Total Seal, Inc.

## Manley / Total Seal<sup>®</sup> Piston Rings

Ductile Iron Part No.	Premium Steel Part No.	Gapless <sup>®</sup> Part No.	Bore Size	File Fit / Drop In	Ring Widths	Oil Ring Tension
<b>4" CHEVROLET LT1</b>						
46016-8	46016ST-8	-----	4.065"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
46017-8	46017ST-8	-----	4.070" / 4.075"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
46018-8	46018ST-8	-----	4.080"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
<b>4 1/8" CHEVROLET</b>						
46160-8	-----	46160GT-8	4.125"	File Fit	1/16" x 1/16" x 3/16"	18-22 lbs.
46163-8	-----	46163GT-8	4.155"	File Fit	1/16" x 1/16" x 3/16"	18-22 lbs.
46360-8	46360ST-8	46360GT-8	4.125"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46361-8	46361ST-8	46361GT-8	4.130"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
<b>46362-8</b>	<b>46362ST-8</b>	<b>46362GT-8</b>	4.135"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46363-8	46363ST-8	46363GT-8	4.155"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46364-8	46364ST-8	46364GT-8	4.165"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46366-8	46366ST-8	46366GT-8	4.185"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46260-8	-----	46260GT-8	4.125"	File Fit	.043" x .043" x 3mm	9-13 lbs.
46263-8	-----	46263GT-8	4.155"	File Fit	.043" x .043" x 3mm	9-13 lbs.
<b>4 1/8" CHEVROLET LT1</b>						
46060-8	46060ST-8	-----	4.125"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
46061-8	46061ST-8	-----	4.130"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
<b>46062-8</b>	<b>46062ST-8</b>	-----	4.135"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
<b>4.500" CHEVROLET</b>						
46450-8	-----	46450GT-8	4.500"	File Fit	1/16" x 1/16" x 3/16"	21-25 lbs.
46453-8	-----	46453GT-8	4.530"	File Fit	1/16" x 1/16" x 3/16"	21-25 lbs.
46456-8	-----	46456GT-8	4.560"	File Fit	1/16" x 1/16" x 3/16"	21-25 lbs.
46458-8	-----	46458GT-8	4.600"	File Fit	1/16" x 1/16" x 3/16"	21-25 lbs.
46459-8	-----	46459GT-8	4.625"	File Fit	1/16" x 1/16" x 3/16"	21-25 lbs.
46550-8	46550ST-8	46550GT-8	4.500"	File Fit	.043" x .043" x 3/16"	16-20 lbs.
-----	46553ST-8	46553GT-8	4.530"	File Fit	.043" x .043" x 3/16"	16-20 lbs.
46556-8	46556ST-8	46556GT-8	4.560"	File Fit	.043" x .043" x 3/16"	16-20 lbs.
46558-8	46558ST-8	46558GT-8	4.600"	File Fit	.043" x .043" x 3/16"	16-20 lbs.
46559-8	46559ST-8	46559GT-8	4.625"	File Fit	.043" x .043" x 3/16"	16-20 lbs.
<b>5.7L CHRYSLER HEMI</b>						
46120-8	46120ST-8	46120GT-8	99.5mm / 3.917"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.
46121-8	46121ST-8	46121GT-8	99.6mm / 3.922"	Drop In	1.5mm x 1.5mm x 3mm	12-16 lbs.
46122-8	46122ST-8	46122GT-8	100.0mm / 3.937"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.
<b>6.1L CHRYSLER HEMI</b>						
46116-8	46116ST-8	46116GT-8	4.060" / 4.065"	File Fit / Drop In	1.5mm x 1.5mm x 3mm	9-13 lbs.
46118-8	46118ST-8	46118GT-8	4.080"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
<b>6.4L CHRYSLER HEMI</b>						
-----	46129ST-8	-----	4.090"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.
-----	46130ST-8	-----	4.095"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.
-----	46131ST-8	-----	4.100"	File Fit	1.5mm x 1.5mm x 3mm	12-16 lbs.

Note: New part numbers are **BOLD & ITALICIZED**

# PISTON RINGS

## Manley / Total Seal® Piston Rings

Ductile Iron Part No.	Premium Steel Part No.	Gapless® Part No.	Bore Size	File Fit / Drop In	Ring Widths	Oil Ring Tension
<b>2.3L FORD ECOBOOST</b>						
-----	46875-4	-----	87.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
-----	46876-4	-----	87.6mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
<b>3.5L FORD ECOBOOST</b>						
-----	46642ST-6	-----	3.642"	File Fit	1.2mm x 1.2mm x 2.5mm	9-13 lbs.
-----	46652ST-6	-----	3.652"	File Fit	1.2mm x 1.2mm x 2.5mm	9-13 lbs.
-----	46662ST-6	-----	3.662"	File Fit	1.2mm x 1.2mm x 2.5mm	9-13 lbs.
<b>3.7L FORD CYCLONE</b>						
-----	46760ST-6	-----	3.760"	File Fit	1.2mm x 1.5mm x 2.5mm	12-16 lbs.
-----	46770ST-6	-----	3.770"	File Fit	1.2mm x 1.5mm x 2.5mm	12-16 lbs.
-----	46780ST-6	-----	3.780"	File Fit	1.2mm x 1.5mm x 2.5mm	12-16 lbs.
<b>4.6L &amp; 5.4L FORD</b>						
46600-8	46600ST-8	46600GT-8	3.552"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
-----	46605ST-8	46605GT-8	3.557"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46620-8	46620ST-8	46620GT-8	3.572"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46630-8	46630ST-8	46630GT-8	3.582"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
46670-8	46670ST-8	46670GT-8	3.700"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.
<b>5.0L FORD COYOTE</b>						
-----	46700ST-8	-----	3.630"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
-----	46710ST-8	-----	3.635" / 3.640"	File Fit / File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
-----	46771ST-8	-----	3.700"	File Fit	1.2mm x 1.2mm x 3mm	9-13 lbs.
<b>5.8L FORD GT500</b>						
-----	46668ST-8	-----	3.681"	File Fit	1.5mm x 1.5mm x 3mm	9-13 lbs.

## Wrist Pin Locks

Part No.	Quantity	Type	Pin Diameter	Description	Weight / Grams Per Lock
42262-16	16 pcs.	.061" Round Wire	.927"	SB Chevy, Chevy LS, Late Model Hemi	1.0
42271-32	32 pcs.	.042" Spiral	.990"	Big Block Chevrolet	1.2
42245-16	16 pcs.	.061" Round Wire	.990"	Big Block Chevrolet	1.0
42212-8	8 pcs.	.054" Round Wire	23mm / .9055"	Factory Style Subaru	1.0
42270-16	16 pcs.	.061" Round Wire	21mm / .827", 22mm / .866"	Ford 4.6L / 5.4L, Sport Compact	0.8
42255-12	12 pcs.	.050" Round Wire	20mm / .7869"	Sport Compact	0.6

Part number 42270 is also available for 6 cylinder applications by changing the part number from a (-8) to a (-12)

Part number 42255 is also available for 10 cylinder applications by changing the part number from a (-12) to a (-20)

## Groove Lock Spacers

Should your custom Platinum Piston requirements necessitate the wrist pin hole break into the oil ring groove, we can widen the oil ring groove and incorporate a groove lock spacer in one of the following sizes listed below. Manley radial tension design ("RTD") groove lock spacers have replaced the old-school, dimpled style pieces. Our pistons requiring G/L spacers are manufactured with a "receiver groove" within the oil ring groove where the RTD G/L spacers snap into place. The radial tension prevents rotation.

Part No.	Quantity	Bore Size	Oil Ring Width	Gram Weight Per Spacer	Part No.	Quantity	Bore Size	Oil Ring Width	Gram Weight Per Spacer
462458-4	4 pcs.	85mm to 85.5mm	2.8mm	5.4	462482-8	8 pcs.	4.030" to 4.060"	3/16"	9.3
462459-4	4 pcs.	86mm to 86.75mm	2.8mm	5.5	462484-8	8 pcs.	4.060" to 4.080"	3mm	7.4
462460-4	4 pcs.	87mm	2.8mm	5.2	462490-8	8 pcs.	4.090" to 4.100"	3mm	7.4
462248-6	6 pcs.	95.5mm	3mm	6.9	462485-8	8 pcs.	4.125" to 4.155"	3mm	7.6
461874-6	6 pcs.	98mm	3mm	7.1	462509-8	8 pcs.	4.125" to 4.155"	3/16"	9.5
461873-6	6 pcs.	99mm	3mm	7.1	462486-8	8 pcs.	4.165" to 4.185"	3mm	7.6
462481-8	8 pcs.	3.905" to 3.937"	3mm	7.1	462487-8	8 pcs.	4.500" to 4.530"	3/16"	10.4
461872-6	6 pcs.	100mm	3mm	6.0	462489-8	8 pcs.	4.560"	3/16"	10.7
462483-8	8 pcs.	4.001" to 4.040"	3mm	7.3	462488-8	8 pcs.	4.600" to 4.625"	3/16"	10.7

# WRIST PIN & LOCKS

## Wrist Pins

- ▶ Straight and taper wall construction
- ▶ Large O.D. chamfer pins requiring round wire locks
- ▶ Exact size control and perfect concentricity
- ▶ Inside of each pin is totally free of tooling marks



Part No.	Quantity	Description	Diameter	Wall Type	Material	Length	Wall Thickness	Lock Rings	Wgt / Grams
42241-8	8 pcs.	SB Chevy	.927"	Straight	Premium Chrome Moly	2.300"	.095"	Round Wire	72
42242-8	8 pcs.	SB Chevy/Hemi	.927"	Straight	Premium Chrome Moly	2.300"	.130"	Round Wire	95
42442-8	8 pcs.	SB Chevy/Hemi	.927"	Straight	Premium Chrome Moly	2.300"	.150"	Round Wire	110
42542-8	8 pcs.	SB Chevy/Hemi	.927"	Straight	9310	2.300"	.170"	Round Wire	118
42229-8	8 pcs.	SB Chevy	.927"	Straight	Standard	2.450"	.150"	Round Wire	117
42200-8	8 pcs.	SB Chevy	.927"	Straight	Premium Chrome Moly	2.500"	.125"	Spiral	100
42228-8	8 pcs.	SB Chevy	.927"	Straight	Premium Chrome Moly	2.500"	.125"	Round Wire	96
42428-8	8 pcs.	SB Chevy	.927"	Straight	Premium Chrome Moly	2.500"	.150"	Round Wire	118
42528-8	8 pcs.	SB Chevy	.927"	Straight	9310	2.500"	.180"	Round Wire	139
42210-8	8 pcs.	SB Chevy	.927"	Straight	Premium Chrome Moly	2.750"	.125"	Spiral	110
42231-8	8 pcs.	SB Chevy	.927"	Straight	Premium Chrome Moly	2.750"	.125"	Round Wire	109
42213-8	8 pcs.	SB Chevy	.927"	Straight	Premium Chrome Moly	2.950"	.125"	Spiral	117
42218-8	8 pcs.	SB Chevy LS	24mm / .945"	Straight	Premium Chrome Moly	2.300"	.120"	Round Wire	90
42219-8	8 pcs.	BB Chevy	.990"	Straight	Premium Chrome Moly	2.930"	.150"	Spiral	147
42220-8	8 pcs.	BB Chevy	.990"	Straight	Premium Chrome Moly	2.930"	.180"	Spiral	170
42201-8	8 pcs.	BB Chevy	.990"	Straight	Premium Chrome Moly	2.930"	.150"	Round Wire	146
42202-8	8 pcs.	BB Chevy	.990"	Straight	Premium Chrome Moly	2.930"	.180"	Round Wire	169
<b>42747-6</b>	6 pcs.	Sport Compact	.990"	Taper	Turbo Tuff/DLC	2.500"	.200"-.250"	Round Wire	188
42346-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.500"	.180"	Tru Arc/Subaru Rnd Wire	132
42546-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.500"	.210"	Tru Arc/Subaru Rnd Wire	147
42646-6	6 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.500"	.210"	Tru Arc/Subaru Rnd Wire	147
42745-6	6 pcs.	Sport Compact	23mm / .9055"	Straight	Turbo Tuff/DLC	2.500"	.250"	Tru Arc/Subaru Rnd Wire	170
42746-6	6 pcs.	Sport Compact	23mm / .9055"	Straight	Turbo Tuff/DLC	2.500"	.300"	Tru Arc/Subaru Rnd Wire	188
42359-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.300"	.180"	Tru Arc/Subaru Rnd Wire	121
42353-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.250"	.180"	Round Wire	119
42553-4	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.250"	.210"	Round Wire	132
42248-4	4 pcs.	Sport Compact	22.5mm / .8858"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	100
42548-4	4 pcs.	Sport Compact	22.5mm / .8858"	Straight	9310	2.250"	.210"	Round Wire	128
42225-4	4 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.250"	.120"	Round Wire	79
42251-4	4 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	96
42551-4	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.210"	Round Wire	125
42552-4	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.250"	Round Wire	TBA
42651-4	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.300"	Round Wire	153
42230-8	8 pcs.	Ford 4.6, 5.4L	22mm / .866"	Straight	Premium Chrome Moly	2.500"	.150"	Spiral	107
42203-8	8 pcs.	Ford 4.6, 5.4L	22mm / .866"	Straight	Premium Chrome Moly	2.500"	.120"	Round Wire	88
42207-8	8 pcs.	Ford 4.6, 5.4L	22mm / .866"	Straight	Premium Chrome Moly	2.500"	.150"	Round Wire	106
42507-8	8 pcs.	Ford 4.6, 5.4L	22mm / .866"	Straight	9310	2.500"	.180"	Round Wire	124
42607-6	6 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.500"	.300"	Round Wire	170
42243-4	4 pcs.	Sport Compact	21mm / .827"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	91
42543-4	4 pcs.	Sport Compact	21mm / .827"	Straight	9310	2.250"	.210"	Round Wire	117
42232-6	6 pcs.	Sport Compact	20mm / .787"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	87
42532-6	6 pcs.	Sport Compact	20mm / .787"	Straight	9310	2.250"	.210"	Round Wire	109

Part numbers 42207, 42507 and 42607 are also available for 4 cylinder applications by changing the part number from a (-6) to a (-4)  
 Part numbers 42646, 42745 and 42746 are also available for 4 cylinder applications by changing the part number from a (-6) to a (-4)  
 Part numbers 42251, 42551, 42552 and 42651 are also available for 6 cylinder applications by changing the part number from a (-4) to a (-6)  
 Part number 42532 is also available for 10 cylinder applications by changing the part number from a (-6) to a (-10)

Note: New part numbers are **BOLD & ITALICIZED**

## Manley Performance Steel Connecting Rods

...Often Copied, But Never Duplicated!!!



### Sportsmaster® Series

The perfect rod for stock replacement, mild performance applications; particularly where class rules require a “stock appearing” rod. Aircraft quality 4340 alloy forgings, machined cap and outer beam and ARP cap screws make this Manley rod an ideal choice for many budget conscious racers. Lightweight and affordable.



### H-Beam Series

Don't be fooled; not all H-Beams are created equal. Manley H-Beams are not only very “economically” priced, but they are finished to the same exacting tolerances and high quality standards as our Sportsmaster® and Pro Series rods. Final hone size, thread detail, bend and twist - these are attributes we take very seriously. You will find the Manley H-Beam rods superior to others on the market. Available with both ARP 8740 and ARP 2000 bolts.



### Pro Series I-Beam

The Manley Pro Series I-Beam rod has become the benchmark for fully machined/billet style high end connecting rods in the performance industry. Multiple weight designs targeting specific markets combined with our finely tuned manufacturing process renders a truly outstanding product.

- ▶ *“NHRA Legal” for Stock and Super Stock*
- ▶ *Tour Lites®, Lightweights, Standard Weights and Heavy Weights*
- ▶ *GM Duramax and Ford Powerstroke Diesel*

#### A WORD ABOUT HORSEPOWER RATINGS...

You will see that we list “horsepower ratings” for each different series/application of Manley connecting rods. However, it is very important to understand that these “ratings” are somewhat subjective. The critical factors that significantly influence the fatigue life of connecting rods (and the horsepower rating) are RPM, stroke, piston weight and power adders. In certain cases, our horsepower ratings may be conservative. Call our tech line if you are unsure based on your specific application.



# STEEL CONNECTING RODS

## Small Block Chevrolet

### H-Beam Rods

#### Standard Weight Series

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are premium 7/16" ARP 8740 or optional ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods: 725 HP (ARP 8740), 775 HP (ARP 2000) - Oval Track  
750 HP (ARP 8740), 900 HP (ARP 2000) - Drag Race



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 8740 Part No.	ARP 2000 Part No.	Length	Journal Size	Center-to Center	Big End Bore	Pin Bore	Avg. Gram Weight
14050-8	14050R-8	Stock	Large	5.700"	2.225"	.9281"	635
14054-8	14054R-8	.300" Longer	Large	6.000"	2.225"	.9281"	640
14056-8	14056R-8	.425" Longer	Small	6.125"	2.125"	.9281"	650
14067-8	14067R-8	.550" Longer	Large	6.250"	2.225"	.9281"	660
14051-8	14051R-8	.025" Longer LS / LT1	Large No Offset	6.125"	2.225"	.9281"	655
14053-8	14053R-8	.025" Longer LS / LT1	Large No Offset	6.125"	2.225"	.9457"	655

P/N 14051 and 14053 are for Small Block Chevy LS / LT1 engines with pistons ready to accept 6.125" length rods. Stock LS / LT1 rods are 6.100" long. Note the pin bore on the 14051-8 is .9281". Stock LS / LT1 pins are .945" diameter. These rods are also provided with "Low Profile" cap screws enabling extra block and oil pan clearance on stroker applications.



P/Ns 14050-8 and 14050R-8 are NHRA Legal for Stock & Super Stock



P/Ns 14054-8 and 14054R-8 are NHRA Legal for Olds 307, 350, 403

### H-Lite Series

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are premium 3/8" ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods is 600+ HP



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Part No.	Length	Journal Size	Center-to Center	Big End Bore	Pin Bore	Avg. Gram Weight
14034-8	.300" Longer	Large	6.000"	2.225"	.9281"	595
14036-8	.300" Longer	Small	6.000"	2.125"	.9281"	630
14031-8	.025" Longer LS / LT1	Large No Offset	6.125"	2.225"	.9281"	615
14033-8	.025" Longer LS / LT1	Large No Offset	6.125"	2.225"	.9457"	615

P/N 14031-8 and 14033-8 are for Small Block Chevy LS / LT1 engines with pistons ready to accept 6.125" length rods. Stock LS / LT1 rods are 6.100" long. Note: The pin bore on the 14031-8 is .9281". Stock LS / LT1 pins are .945" diameter.

### Common Features

Attribute	Dimension
Crankpin Small Journal	2.000"
Crankpin Large Journal	2.100"
Big End Width	.941"
Pin End Width	1.060"

Private brand identification available



P/N 14031-8 is NHRA Legal for Stock & Super Stock

### Replacement Parts

Part No.	Quantity	Description
42350-4	4 pcs.	3/8" ARP 2000 Cap Screws 1.500" UHL
42354-4	4 pcs.	7/16" ARP 8740 Cap Screws 1.450" UHL
42361-4	4 pcs.	7/16" ARP 8740 Cap Screws 1.600" UHL
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws 1.450" UHL
42249-4	4 pcs.	7/16" ARP 2000 Cap Screws 1.600" UHL
42384-4	4 pcs.	7/16" ARP 2000 Cap Screws 1.650" UHL
42315-8	8 pcs.	Ampco Pin Bushings
42395L-8	8 pcs.	Ampco Pin Bushings (14031, 14051)
42274-16	16 pcs.	Dowel Bushings 3/8"
42316-16	16 pcs.	Dowel Bushings 7/16"

# STEEL CONNECTING RODS

## Small Block Chevrolet

### Sportsmaster® Rods

- ▶ Forged from aircraft quality 4340 material
- ▶ Entire beam and cap area is profiled to remove stress raisers and render the lightest possible rod
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 3/8" ARP 8740 cap screw
- ▶ Premium Ampco pin bushings
- ▶ Flywheel horsepower range for these rods is 550 HP at 8000 rpm

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



Part No.	Length	Journal Size	Center-to Center	Big End Bore	Pin Bore	Avg. Gram Weight
14101-8	Stock	Large	5.700"	2.225"	.9281"	565
14101ACHA-8	Stock	Large	5.700"	2.225"	.9281"	600
14104-8	Stock	Large	5.700"	2.225"	.8758"	565
14112-8	Stock	Large	5.700"	2.225"	Press	555
14116-8	.150" Longer	Large	5.850"	2.225"	.9281"	580
14103-8	.300" Longer	Large	6.000"	2.225"	.9281"	570
14106-8	Stock LS / LT1	Large, No Offset	6.100"	2.225"	.9281"	575
14114-8	Stock LS / LT1	Large, No Offset	6.100"	2.225"	.9457"	580
with stock 24mm LS / LT1 wrist pin must use pistons with floating pins						
14113-8	.425" Longer	Large	6.125"	2.225"	.9281"	585
14109-8	Stock	Small	5.700"	2.125"	Press	575
14109A-8	Stock	Small	5.700"	2.125"	Press	575
14105-8	Stock	Small	5.700"	2.125"	.9281"	570
14108-8	Stock	Small	5.700"	2.125"	.8758"	575
14107-8	.300" Longer	Small	6.000"	2.125"	.9281"	580

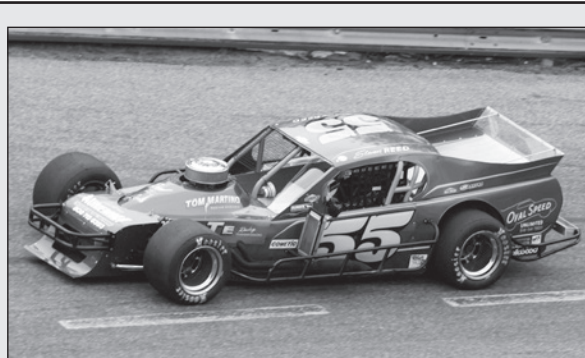
P/N 14106-8 and 14114-8 have no offset on the crank journal, same as the stock LS / LT1 connecting rods

### Common Features

Attribute	Dimension
Crankpin Sm. Jnl.	2.000"
Crankpin Lg. Jnl.	2.100"
Big End Width	.940"
Pin End Width	.980"

### Replacement Parts

Part No.	Quantity	Description
42383-4	4 pcs.	3/8" ARP 8740 Cap Screws
42310-8	8 pcs.	.927" Ampco Pin Bushings ( .990" O.D. )
42366-8	8 pcs.	.927" Ampco Pin Bushings ( .997" O.D. )
42308-8	8 pcs.	.875" Ampco Pin Bushings
42385-16	16 pcs.	Dowel Bushings 3/8"



**Steven Reed** – Tom Martino Racing Engines  
2015 & 2016 Modified Champion  
Wall Stadium Speedway



P/Ns 14101-8, 14104-8, 14112-8, 14105-8, 14106-8, 14108-8, 14109-8 and 14114-8 are NHRA Legal for Stock & Super Stock



P/Ns 14101-8, and 14104-8 are legal for Chevy 4.3 V-6  
P/N 14103-8 is legal for Olds 307, 350, & 403



P/Ns 14106-8 and 14114-8 are NHRA Legal for Small Block Chevy LS  
P/N 14116-8 is NHRA Legal for AMC 390 - 401



P/N 14109A-8 is APBA Legal



P/N 14101ACHA-8 is ACHA Legal

# STEEL CONNECTING RODS

## Small Block Chevrolet

### NHRA Legal Super Stock



- ▶ Manufactured from 4340 aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 3/8" ARP 2000 cap screws (14359 has 7/16" ARP 2000)
- ▶ Flywheel horsepower range for these rods is 700+ HP

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Part No.	Length	Journal Size	Center-to Center	Big End Bore	Pin Bore	Avg. Gram Weight
<b>350 CHEVROLET</b>						
14340-8	Stock 350	Honda/IRL	5.700"	2.008"/2.015"	.8671" to .9281"	540
14440-8	Stock 350	Small	5.700"	2.125"	.8761" to .9281"	560
14441-8	Stock 350	Large	5.700"	2.225"	.8761" to .9281"	555
<b>400 CHEVROLET</b>						
14438-8	Stock 400	Honda/IRL	5.565"	2.008"/2.015"	.8671" to .9281"	590
14439-8	Stock 400	Large	5.565"	2.225"	.8761" to .9281"	590
<b>LS CHEVROLET</b>						
14443-8	Stock LS	Honda/IRL	6.100"	2.008"/2.015"	.8671" to .9281"	585
14442-8	Stock LS	Large	6.100"	2.225"	.8761" to .9281"	610
14359-8	.025" Longer LS	Large	6.125"	2.225"	.9281"	615

P/N 14359-8 is for Small Block Chevy LS engines with pistons ready to accept 6.125" length rods. Stock LS rods are 6.100" long. Note the pin bore is .9281". Stock LS pins are .945" diameter. The 14359-8 has no offset on the crank journal, same as the stock LS connecting rods.

P/N's 14340, 14438 and 14443 REQUIRE use of one of the connecting rod bearings listed below. To order rods finished to the exact size for Federal Mogul bearings, affix an "F" after the rod part number. For rods finished to exact size for Clevite® bearings, affix a "C" after the rod part number. In addition, you MUST specify which Clevite® bearing will be used.

You must specify the exact final size pin bore desired

### Bearing Chart

Bearing Type	Part No.	Big End Bore	Crank Pin
Federal Mogul	7195CH	2.008"	1.8885" Honda
Clevite®	CB1456P	2.008"	1.8885" Honda
Clevite®	CB1663	2.015"	1.8885" Honda
Clevite®	CB1664	2.008"	1.8500" IRL

### Common Features

Attribute	Dimension
Crankpin Honda/IRL	1.8885"/1.8500"
Crankpin Sm. Jnl.	2.000"
Crankpin Lg. Jnl.	2.100"
Big End Width	1.940"
Pin End Width	1.000"

### Replacement Parts

Part No.	Quantity	Description
42350-4	4 pcs.	3/8" ARP 2000 Cap Screws (1.500 UHL)
42351-4	4 pcs.	3/8" ARP 2000 Cap Screws (1.600 UHL)
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws (14359)
42345-8	8 pcs.	Ampco Pin Bushings for .875" pin
42393-8	8 pcs.	Ampco Pin Bushings for .927" pin
42307-8	8 pcs.	Ampco Pin Bushings for 14359
42380-16	16 pcs.	Dowel Bushings 3/8" (14340)
42385-16	16 pcs.	Dowel Bushings 3/8"
42392-16	16 pcs.	Dowel Bushings 7/16" (14359)
40172	1 pc.	Rod Bolt Assembly Lube



Jeff Taylor Racing Engines

# STEEL CONNECTING RODS

## Small Block Chevrolet

### Tour Lite® I-Beam Rods

#### 4340 Material

- ▶ Forged from 4340 aircraft quality material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ 3/8" ARP 2000, ARP 625+ or 3/8" ARP 3.5 cap screws
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Flywheel horsepower range is 600+ HP

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



Part No.	Length	Journal Size	Center-to Center	Big End Bore	Avg. Gram Weight
14340-8	Stock Length	Honda / IRL	5.700"	2.008" / 2.015"	540 / 550
14344-8	.300" Longer	Honda / IRL	6.000"	2.008" / 2.015"	540 / 550
14345-8	.425" Longer	Honda / IRL	6.125"	2.008" / 2.015"	545 / 555

Above rods REQUIRE use of one of the connecting rod bearings listed below. To order rods finished to the exact size for Federal Mogul bearings, affix an "F" after the rod part number. For rods finished to exact size for Clevite® bearings, affix a "C" after the rod part number. In addition, you MUST specify which Clevite® bearing will be used.

Above rods are supplied with 1.600" under head length 3/8" ARP 2000 cap screw fasteners P/N 42351. Upgraded 3/8" ARP Custom Age 625+ cap screws P/N 42321 or 3/8" ARP 3.5 cap screws P/N 42358 are available. To order upgraded fasteners, affix an "R6" for the ARP Custom Age 625+, "RA" for the ARP 3.5 after the rod part number.

Part No.	Length	Journal Size	Center-to Center	Big End Bore	Avg. Gram Weight
14240-8	Stock Length	Small	5.700"	2.125"	525
14242-8	.150" Longer	Small	5.850"	2.125"	525
14244-8	.300" Longer	Small	6.000"	2.125"	535
14245-8	.425" Longer	Small	6.125"	2.125"	530
14140-8	Stock Length	Large	5.700"	2.225"	520
14142-8	.150" Longer	Large	5.850"	2.225"	530
14144-8	.300" Longer	Large	6.000"	2.225"	530
14145-8	.425" Longer	Large	6.125"	2.225"	535

Above rods are supplied with 1.600" under head length 3/8" ARP 2000 cap screw fasteners P/N 42351. Upgraded 3/8" ARP Custom Age 625+ cap screws P/N 42321 or 3/8" ARP 3.5 cap screws P/N 42358 are available. To order upgraded fasteners, affix an "R6" for the ARP Custom Age 625+, "RA" for the ARP 3.5 after the rod part number.

Lengths other than these typical sizes may become popular after publication of this catalog. Please inquire about lengths not listed as we may have subsequently added applications. Also, we can manufacture 40 pieces of these rods at special lengths for no additional charge.

### Replacement Parts

Part No.	Quantity	Description
42351-4	4 pcs.	3/8" ARP 2000 Cap Screws
42321-4	4 pcs.	3/8" ARP Custom Age 625+ Cap Screws
42358-4	4 pcs.	3/8" ARP 3.5 Cap Screws
42310-8	8 pcs.	Ampco Pin Bushings .975" long
42393-8	8 pcs.	Ampco Pin Bushings .995" long
42380-16	16 pcs.	Dowel Bushings 3/8" .900" long
42398-16	16 pcs.	Dowel Bushings 3/8" .960" long
40172	1 pc.	Rod Bolt Assembly Lube



P/N 14340 is NHRA Legal for Stock & Super Stock

# STEEL CONNECTING RODS

## Small Block Chevrolet

### Pro Series I-Beam Rods

- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 or optional 7/16" ARP Custom Age 625+ cap screws
- ▶ Flywheel horsepower range for the Lightweight rods is 750+ HP - Oval Track, 800+ HP - Drag Race and for the Standard Weight rods is 850+ HP - Oval Track, 1000+ HP - Drag Race, 1500 + HP (14554)



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

### Lightweight

Part No.	Length	Journal Size	Center-to Center	Big End Bore	Avg. Gram Weight
<b>14324-8</b>	.300" Longer	Honda / IRL	6.000"	2.008" / 2.015"	TBA
<b>14450-8</b>	Stock	Small	5.700"	2.125"	610
<b>14452-8</b>	.150" Longer	Small	5.850"	2.125"	615
<b>14454-8</b>	.300" Longer	Small	6.000"	2.125"	620
<b>14455-8</b>	.425" Longer	Small	6.125"	2.125"	625
<b>14350-8</b>	Stock	Large	5.700"	2.225"	600
<b>14352-8</b>	.150" Longer	Large	5.850"	2.225"	600
<b>14354-8</b>	.300" Longer	Large	6.000"	2.225"	600
<b>14355-8</b>	.425" Longer	Large	6.125"	2.225"	645
<b>14359-8</b>	.025" Longer LS / LT1	Large No Offset	6.125"	2.225"	615

P/N 14324-8 above REQUIRES the use of one of the connecting rod bearings listed below. To order rods finished to the exact size for Federal Mogul bearings, affix an "F" after the rod part number. For rods finished to exact size for Clevite® bearings, affix a "C" after the rod part number. In addition, you MUST specify which Clevite® bearing will be used.

P/N 14359-8 is for Small Block Chevy LS / LT1 engines with pistons ready to accept 6.125" length rods. Stock LS / LT1 rods are 6.100" long. Note the pin bore is .9281". Stock LS / LT1 pins are .945" diameter. The 14359-8 has no offset on the crank journal, same as the stock LS / LT1 connecting rods.

### Standard Weight

Part No.	Length	Journal Size	Center-to Center	Big End Bore	Avg. Gram Weight
<b>14254-8</b>	.300" Longer	Small	6.000"	2.125"	670
<b>14255-8</b>	.425" Longer	Small	6.125"	2.125"	675
<b>14152-8</b>	.150" Longer	Large	5.850"	2.225"	670
<b>14154-8</b>	.300" Longer	Large	6.000"	2.225"	665
<b>14554-8</b>	.300" Longer	Large	6.000"	2.225"	700
	<b>Heavier beam for forced induction applications</b>				
<b>14155-8</b>	.425" Longer	Large	6.125"	2.225"	670
<b>14157-8</b>	.550" Longer	Large	6.250"	2.225"	685

All connecting rods on this page are supplied with 1.450" under head length 7/16" ARP cap screw fasteners P/N 42390. Upgraded 7/16" ARP Custom Age 625+ cap screws P/N 42252 are available. To order upgraded fasteners, affix "R6" after the rod part number.

### Bearing Chart

Bearing Type	Part No.	Big End Bore	Crank Pin
Federal Mogul	7195CH	2.008"	1.8885" Honda
Clevite®	CB1456P	2.008"	1.8885" Honda
Clevite®	CB1663	2.015"	1.8885" Honda
Clevite®	CB1664	2.008"	1.8500" IRL

### Common Features

Attribute	Honda / IRL	Small Journal	Large Journal
Crankpin	1.8885" / 1.8500"	2.000"	2.100"
Pin Bore	.9281"	.9281"	.9281"
Big End Width	.940"	.940"	.940"
Pin End Width	1.000"	1.000"	1.000"

### Replacement Parts

Part No.	Quantity	Description
<b>42390-4</b>	4 pcs.	7/16" ARP 2000 Cap Screws
<b>42252-4</b>	4 pcs.	7/16" ARP Custom Age 625+ Cap Screws
<b>42393-8</b>	8 pcs.	Ampco Pin Bushings (Except 14355, 14359)
<b>42307-8</b>	8 pcs.	Ampco Pin Bushings (14355, 14359)
<b>42392-16</b>	16 pcs.	Dowel Bushings 7/16"
<b>40172</b>	1 pc.	Rod Bolt Assembly Lube



P/Ns 14350, 14359 and 14450-8 are NHRA Legal for Stock & Super Stock  
P/N 14354-8 is NHRA Legal for Olds 307, 350 and 403  
P/Ns 14152, 14352 and 14452 are NHRA Legal for AMC 343 - 390

Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## Small Block Chevrolet LS / LT1 Series

### H-Beam & H-Lite Series Rods



- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are premium 7/16" ARP 8740 or optional ARP 2000 cap screws supplied with the H-Beams and 3/8" ARP 2000 come standard with the H-Lite
- ▶ Flywheel horsepower range for these rods: 600+ HP (3/8" ARP 2000), 725 HP (7/16" ARP 8740), 775 HP (7/16" ARP 2000) - Oval Track  
750 HP (7/16" ARP 8740), 900 HP (7/16" ARP 2000) - Drag Race

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
<b>H-LITE</b>								
-----	<b>14031-8</b>	LS / LT1 .025" Longer	6.125"	2.225"	.941"	1.060"	.9281"	615
-----	<b>14033-8</b>	LS / LT1 .025" Longer	6.125"	2.225"	.941"	1.060"	.9457"	615
<b>H-BEAM</b>								
<b>14051-8</b>	<b>14051R-8</b>	LS / LT1 .025" Longer	6.125"	2.225"	.941"	1.060"	.9281"	655
<b>14053-8</b>	<b>14053R-8</b>	LS / LT1 .025" Longer	6.125"	2.225"	.941"	1.060"	.9457"	655
<b>14064-8</b>	<b>14064R-8</b>	RHS Tall Deck	6.300"	2.225"	.941"	1.060"	.9281"	690
<b>14065-8</b>	<b>14065R-8</b>	World Warhawk Tall Deck	6.350"	2.225"	.941"	1.060"	.9281"	695
<b>14069-8</b>	<b>14069R-8</b>	GM LSX Tall Deck	6.460"	2.225"	.941"	1.060"	.9281"	700

P/Ns 14031, 14033, 14051 and 14053 are for Small Block Chevy LS / LT1 engines with pistons ready to accept 6.125" length rods. Stock LS / LT1 rods are 6.100" long. Note the pin bore on the 14031 and 14051-8 is .9281". Stock LS / LT1 pins are .945" diameter. These rods are also provided with "Low Profile" cap screws enabling extra block and oil pan clearance on stroker applications.



**CBM Motorsports**

# STEEL CONNECTING RODS

## Small Block Chevrolet LS / LT1 Series

### Pro Series I-Beam Rods

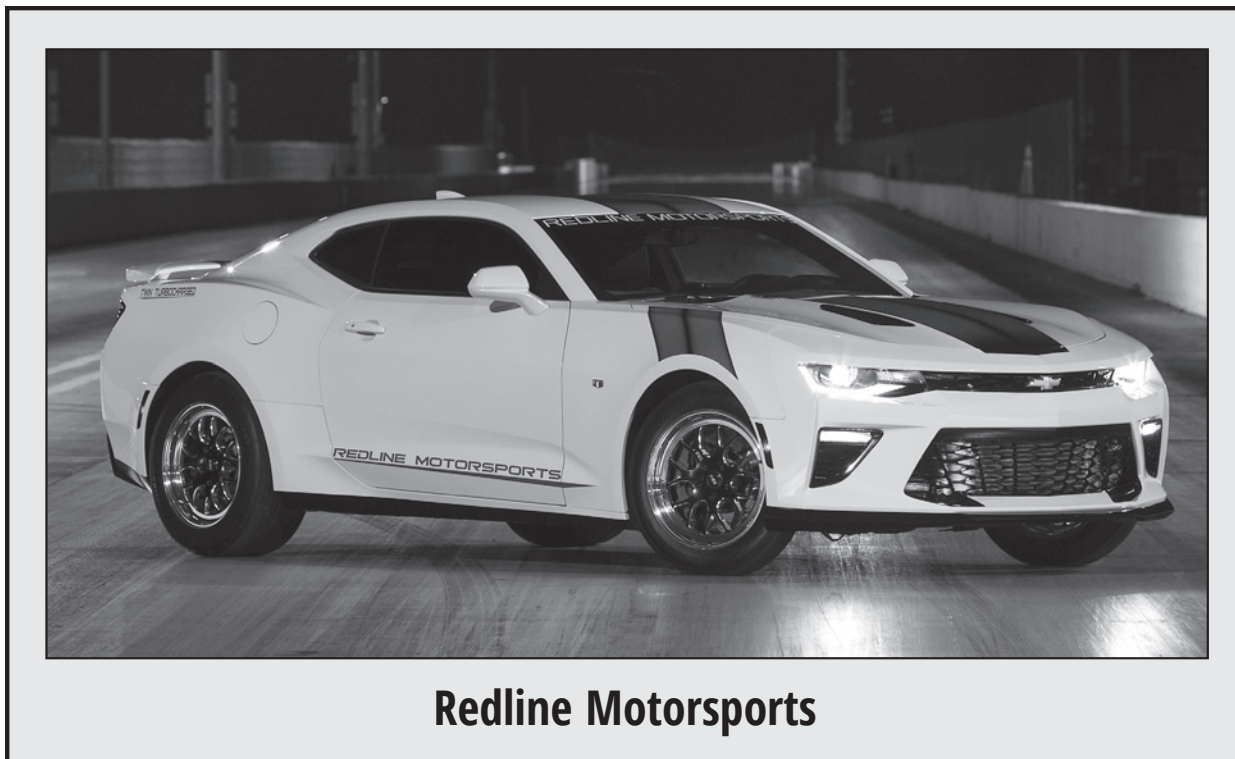
- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods: 750+ HP Oval Track and 800+ HP Drag Race (14359 only)  
850+ HP Oval Track and 1,200+ HP Drag Race (14364, 14365 and 14369 only), 1,500 + HP (14559 only)



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
<b>LIGHTWEIGHT</b>							
14359-8	LS / LT1 .025" Longer	6.125"	2.225"	.940"	1.000"	.9281"	615
<b>STANDARD WEIGHT</b>							
14559-8	LS / LT1 .025" Longer Heavier beam for forced induction applications	6.125"	2.225"	.940"	1.000"	.9281"	705
14364-8	RHS Tall Deck	6.300"	2.225"	.940"	1.000"	.9281"	680
14365-8	World Warhawk Tall Deck	6.350"	2.225"	.940"	1.000"	.9281"	685
14369-8	GM LSX Tall Deck	6.460"	2.225"	.940"	1.000"	.9281"	690

All Pro Series connecting rods are supplied with 7/16" ARP 2000 cap screw fasteners P/N 42390. Upgraded 7/16" ARP Custom Age 625+ cap screws P/N 42252 are available. To order upgraded fasteners, affix an "R6" after the rod part number.



**Redline Motorsports**



P/N 14365 is NHRA Legal for 2014-2017 350 COPO engines  
P/N 14359 is NHRA Legal for Stock & Super Stock

# STEEL CONNECTING RODS

## Big Block Chevrolet

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% individually magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are premium 7/16" ARP 8740 or optional ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods: 900 HP (ARP 8740), 1200 HP (ARP 2000)



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Crank Pin	Pin Bore	Avg. Gram Weight
14060-8	14060R-8	Stock	6.135"	2.325"	2.200"	.9911"	800
14062-8	14062R-8	.250" Longer	6.385"	2.325"	2.200"	.9911"	810
14066-8	14066R-8	.400" Longer	6.535"	2.325"	2.200"	.9911"	810
14072-8	14072R-8	.565" Longer	6.700"	2.325"	2.200"	.9911"	820

### Common Features

Attribute	Dimension
Big End Width	.991"
Pin End Width	1.125"

### Replacement Parts

Part No.	Quantity	Description
42361-4	4 pcs.	7/16" ARP 8740 Cap Screws
42249-4	4 pcs.	7/16" ARP 2000 Cap Screws
42327-8	8 pcs.	Pin Bushings
42316-16	16 pcs.	Dowel Bushings



P/N 14060-8 is NHRA Legal for Stock & Super Stock



*"I have used Manley H-Beam rods for years and they have proven to be a reliable choice."*

*- David Reher*

*We've been so impressed with the strength and durability that Manley rods provide we made them standard in our "Pro Series" engine lineup. I recommend Manley "M-Power" cranks and rods to anyone looking for additional strength at an exceptional value!!*

*- Scott Shafiroff*





# STEEL CONNECTING RODS

## Big Block Chevrolet

### Pro Series I-Beam Rods

- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods is listed in the box below

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 2000 Part No.	ARP L19 Part No.	Description	Center-to-Center	Big End Bore	Crank Pin	Pin Bore	Avg. Gram Weight	Horsepower Oval Track	Horsepower Drag Race
<b>14160-8</b>	<b>14160L-8</b>	Stock Length	6.135"	2.325"	2.200"	.9911"	810	1,000	1,600+
<b>14162-8</b>	<b>14162L-8</b>	.250" Longer	6.385"	2.325"	2.200"	.9911"	825	1,000	1,600+
<b>14166-8</b>	<b>14166L-8</b>	.400" Longer	6.535"	2.325"	2.200"	.9911"	835	1,000	1,600+
<b>14167-8</b>	<b>14167L-8</b>	.400" Longer Marine Duty	6.535"	2.325"	2.200"	.9911"	875	1,000	1,600+

<b>14168-8</b>	<b>14168L-8</b>	.500" Longer	6.635"	2.325"	2.200"	.9911"	840	1,000	1,600+
<b>14170-8</b>	<b>14170L-8</b>	.525" Longer	6.660"	2.325"	2.200"	.9911"	845	1,000	1,600+
<b>14172-8</b>	<b>14172L-8</b>	.565" Longer	6.700"	2.325"	2.200"	.9911"	845	1,000	1,600+
<b>14175-8</b>	<b>14175L-8</b>	.615" Longer	6.750"	2.325"	2.200"	.9911"	850	1,000	1,600+
<b>14173-8</b>	<b>14173L-8</b>	.665" Longer	6.800"	2.325"	2.200"	.9911"	860	1,000	1,600+

ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Crank Pin	Pin Bore	Avg. Gram Weight	Horsepower Oval Track	Horsepower Drag Race
<b>14266-8</b>	<b>14266R6-8</b>	.400" Longer w/ SBC Lg. Jnl. Big End	6.535"	2.225"	2.100"	.9911"	745	850	1,000



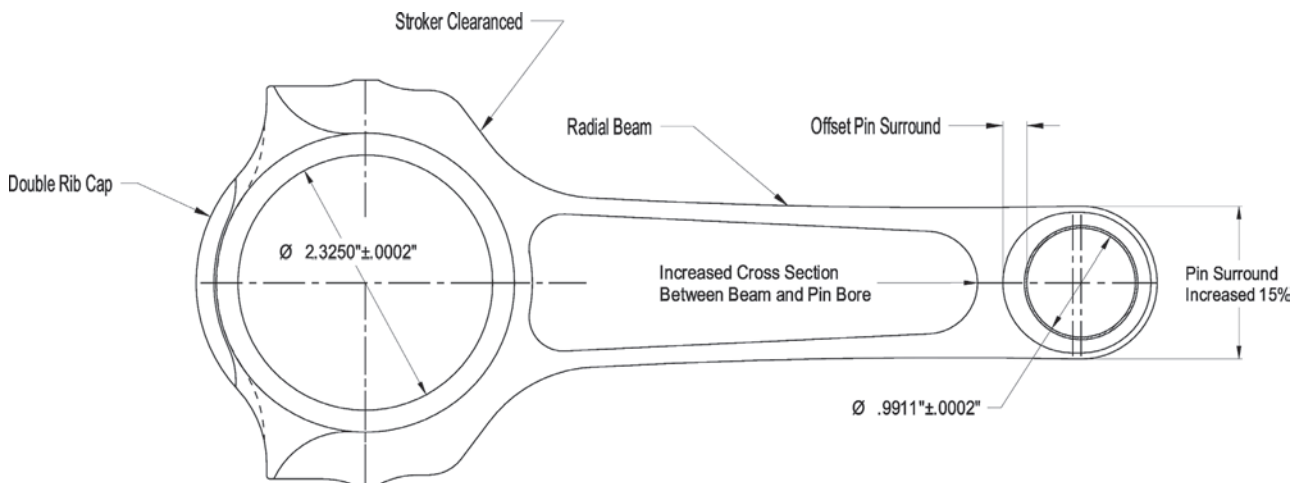
P/N 14160-8 is NHRA Legal for Stock & Super Stock  
 P/N 14168-8 is NHRA Legal for Ford 429, 460  
 P/N 14168-8 is NHRA Legal for Pontiac 350-455

### Common Features

Attribute	Dimension
Big End Width	.990"
Pin End Width	1.125"

### Replacement Parts

Part No.	Quantity	Description
<b>42384-4</b>	4 pcs.	7/16" ARP 2000 Cap Screws (All except 14266)
<b>42296-4</b>	4 pcs.	7/16" ARP L19 Cap Screws (All except 14266)
<b>42390-4</b>	4 pcs.	7/16" ARP 2000 Cap Screws (14266)
<b>42252-4</b>	4 pcs.	7/16" ARP Custom Age 625+ Cap Screws (14266R6)
<b>42327-8</b>	8 pcs.	Ampco Pin Bushings
<b>42392-16</b>	16 pcs.	Dowel Bushings
<b>40172</b>	1 pc.	Rod Bolt Assembly Lube



Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## Chrysler 5.7L /6.1L /6.4L Hemi

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are premium 7/16" ARP 8740 or optional ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods: 725 HP (ARP 8740), 775 HP (ARP 2000) - Oval Track  
750 HP (ARP 8740), 900 HP (ARP 2000) - Drag Race



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14085-8	14085R-8	5.7/6.1L Stock Length w/ SB Chevy .927" pin	6.240"	2.252"	.933"	1.000"	.9281"	670
14086-8	14086R-8	5.7L Stock Length w/ 24mm pin	6.240"	2.252"	.933"	1.000"	.9457"	675
14087-8	14087R-8	6.1L Stock Length w/ 25mm pin	6.240"	2.252"	.933"	1.000"	.9848"	665
14088-8	14088R-8	6.4L Stock Length w/ SB Chevy .927" pin	6.200"	2.252"	.933"	1.000"	.9281"	665
14089-8	14089R-8	6.4L Stock Length w/ 24mm pin	6.200"	2.252"	.933"	1.000"	.9457"	670
14056-8	14056R-8	5.7/6.1L/6.4L Stroker w/ SB Chevy 2.000" crank journal and .927" pin	6.125"	2.125"	.941"	1.060"	.9281"	650
14057-8	14057R-8	5.7/6.1L/6.4L Stroker w/ SB Chevy 2.000" crank journal and .866" pin	6.125"	2.125"	.941"	.930"	.8671"	620

### Replacement Parts

Part No.	Quantity	Description
42354-4	4 pcs.	7/16" ARP 8740 Cap Screws (H-Beams)
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws (H-Beams)
42244-8	8 pcs.	Ampco Pin Bushings (14057)
42393-8	8 pcs.	Ampco Pin Bushings (H-Beams with .927" and 24mm pins)



ProCharger® Supercharged Hemi Ram

# STEEL CONNECTING RODS

## Chrysler 5.7L /6.1L /6.4L Hemi

### Pro Series I-Beam Rods

- ▶ Forged from 4340 or 300M aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 or optional 7/16" ARP Custom Age 625+ cap screws
- ▶ Flywheel horsepower range for the Lightweight rods is 750+ HP - Oval Track, 800+ HP - Drag Race, for the Standard Weight rod is 900+ HP - Oval Track, 1200+ HP - Drag Race, and for the 300M rod is 1000+ HP - Oval track, 1300+ HP - Drag Race



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Note: For part numbers 14460-8 and 14560-8 please specify the wrist pin diameter you intend to run when placing your order. The stock 5.7 HEMI uses a 24mm/.945" wrist pin and the 6.1 HEMI uses a 25mm/.984" wrist pin from the factory. The pistons you are using must have floating pins with a diameter of .927", 24mm/.945", or 25mm/.984".

Part No.	Description	Center-to-Center	Big End Bore	Crank Pin	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
<b>LIGHTWEIGHT</b>								
14460-8	5.7/6.1L Stock Length	6.240"	2.252"	2.126"	.933"	1.000"	.9281", .9457" or .9848"	595
14455-8	5.7/6.1L/6.4L Stroker w/ SB Chevy 2.000" crank journal and .927" pin	6.125"	2.125"	2.000"	.940"	1.000"	.9281"	625
14461-8	392 Hemi Drag Pak Crate Engine w/ SB Chevy 2.100" crank journal and .927" pin	6.200"	2.225"	2.100"	.940"	1.000"	.9281"	610
14354-8	426 Hemi Drag Pak Crate Engine w/ SB Chevy 2.100" crank journal and .927" pin	6.000"	2.225"	2.100"	.940"	1.000"	.9281"	600
<b>STANDARD WEIGHT</b>								
14560-8	5.7/6.1L Stock Length <b>Heavier beam for forced induction applications</b>	6.240"	2.252"	2.126"	.933"	1.000"	.9281", .9457" or .9848"	700
14255-8	5.7/6.1L/6.4L Stroker w/ SB Chevy 2.000" crank journal and .927" pin	6.125"	2.125"	2.000"	.940"	1.000"	.9281"	675
<b>300M ALLOY</b>								
15555-8	5.7/6.1L/6.4L Stroker w/ SB Chevy 2.000" crank journal and .927" pin	6.125"	2.125"	2.000"	.940"	.950"	.9281"	660

The above connecting rods are supplied with 1.450" under head length 7/16" ARP 2000 cap screw fasteners P/N 42390. Upgraded 7/16" ARP Custom Age 625+ cap screws P/N 42252 are available. To order upgraded fasteners, affix "R6" after the rod part number.



P/Ns 14354-8, 14460-8, & 14461-8 are NHRA Legal for Stock & Super Truck

### Replacement Parts

Part No.	Quantity	Description
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws
42252-4	4 pcs.	7/16" ARP Custom Age 625+ Cap Screws
42307-8	8 pcs.	Ampco Pin Bushings (14460, 14560)
42393-8	8 pcs.	Ampco Pin Bushings (14255, 14354, 14455, 14460, 14461, 14560)
42395-8	8 pcs.	Ampco Pin Bushings (15555)
42352-16	16 pcs.	Dowel Bushings 7/16" (14354, 14455)
42392-16	16 pcs.	Dowel Bushings 7/16" (14255, 14460, 14461, 14560, 15555)
40172	1 pc.	Rod Bolt Assembly Lube



Arrington Performance

# STEEL CONNECTING RODS

## Dodge 8.3L / 8.4L Viper V10

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are premium 7/16" ARP 8740 or optional ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods: 725 HP (ARP 8740), 775 HP (ARP 2000) - Oval Track  
750 HP (ARP 8740), 900 HP (ARP 2000) - Drag Race



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14083-10	14083R-10	8.3/8.4L Viper V10 Stock Length (Must use Clevite CB1808P rod bearing)	6.240"	2.252"	.933"	1.000"	.9281", .9457" or .9848"	TBA

For P/N 14083 please specify the wrist pin diameter you intend to run when placing your order.

### Replacement Parts

Part No.	Quantity	Description
42354-4	4 pcs.	7/16" ARP 8740 Cap Screws
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws
42393-8	8 pcs.	Ampco Pin Bushings

### Pro Series I-Beam Rods

- ▶ Flywheel horsepower range for the Lightweight rods is 950+ - Oval Track, 1000+ HP Drag Race and for the Standard Weight rod is 1100+ HP - Oval Track, 1400+ HP - Drag Race

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Note: For part numbers 14463-10 and 14563-10 please specify the wrist pin diameter you intend to run when placing your order.

Part No.	Description	Center-to-Center	Big End Bore	Crank Pin	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14463-10	8.3/8.4L Stock Length (Must use Clevite CB1808P rod bearing)	6.240"	<b>LIGHTWEIGHT</b> 2.252"	2.126"	.933"	1.000"	.9281", .9457" or .9848"	595
14563-10	8.3/8.4L Stock Length <b>Heavier beam for forced induction applications</b> (Must use Clevite CB1808P rod bearing)	6.240"	<b>STANDARD WEIGHT</b> 2.252"	2.126"	.933"	1.000"	.9281", .9457" or .9848"	700

The above connecting rods are supplied with 1.450" under head length 7/16" ARP 2000 cap screw fasteners P/N 42390. Upgraded 7/16" ARP Custom AGE 625+ cap screws P/N 42252 are available. To order upgraded fasteners, affix "R6" after the rod part number.

### Replacement Parts

Part No.	Quantity	Description
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws
42252-4	4 pcs.	7/16" ARP Custom Age 625+ Cap Screws
42307-8	8 pcs.	Ampco Pin Bushings (25mm pin)
42393-8	8 pcs.	Ampco Pin Bushings (.927", 24mm pin)
42392-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube

# STEEL CONNECTING RODS

## Chrysler 360

Sportsmaster® Rods &  
NHRA Legal Stock & Super Stock  
Pro Series I-Beam Rods



Sportsmaster®

Pro Series I-Beam

- ▶ Forged from aircraft quality 4340 material
- ▶ Entire Sportsmaster® beam is profiled to remove stress risers and render the lightest possible rod
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners for 14139C-8 are 3/8" ARP 8740 cap screws
- ▶ Cap fasteners for 14445-8 are 3/8" ARP 2000 cap screws
- ▶ Premium Ampco pin bushings
- ▶ Flywheel horsepower range for 14139C-8 rods is 550 HP
- ▶ Flywheel horsepower range for 14445-8 rods is 700+ HP

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Part No.	Center-to-Center	Big End Bore	Big End Width	Crank Pin	Pin End Width	Pin Bore	Avg. Gram Weight
<b>SPORTSMASTER® RODS</b>							
<b>14139C-8</b>	6.125"	2.250"	.933"	2.125"	1.000"	.9848"	555
<b>PRO SERIES I-BEAM RODS</b>							
<b>14445-8</b>	6.125"	2.250"	.933"	2.125"	1.000"	.8761" to .9848"	670

You must specify the exact final size pin bore desired



P/N 14445-8 is NHRA Legal for Stock & Super Stock

## Chrysler 426

Pro Series I-Beam Rods



- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods is 1000+ HP

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Part No.	Description	Center-to-Center	Big End Bore	Pin Bore	Avg. Gram Weight
<b>14177-8</b>	Stock Length w/ 1.031" pin	6.865"	2.500"	1.0321"	915
<b>14185-8</b>	.235" Longer w/ .990" pin	7.100"	2.500"	.9911"	955
<b>14187-8</b>	.235" Longer w/ .990" pin and BB Chevy rod journal	7.100"	2.325"	.9911"	955

The Big Block Chrysler I-Beam rods listed above can be fitted with ARP Custom Age 625+ bolts P/N 42397. To order these rods with upgraded bolts, affix an "R6" to the part number.

### Common Features

Attribute	Dimension
Big End Width	1.015"
Pin End Width	1.180"



P/N 14177-8 is NHRA Legal for Stock & Super Stock

### Replacement Parts

Part No.	Quantity	Description
<b>42383-4</b>	4 pcs.	3/8" ARP 8740 Cap Screws (14139C)
<b>42350-4</b>	4 pcs.	3/8" ARP 2000 Cap Screws (14445)
<b>42391-4</b>	4 pcs.	7/16" ARP 2000 Cap Screws
<b>42397-4</b>	4 pcs.	7/16" ARP Custom Age 625+ Cap Screws
<b>42307-8</b>	8 pcs.	Ampco Pin Bushings (14139C)
<b>42268-8</b>	8 pcs.	Ampco Pin Bushings (14445)
<b>42305-8</b>	8 pcs.	Ampco Pin Bushings for .990" pin
<b>42388-8</b>	8 pcs.	Ampco Pin Bushings for 1.031" pin
<b>42385-16</b>	16 pcs.	Dowel Bushings 3/8" (14139C, 14445)
<b>42387-16</b>	16 pcs.	Dowel Bushings 7/16" (14177, 14185)
<b>42392-16</b>	16 pcs.	Dowel Bushings 7/16" (14187)
<b>40172</b>	1 pc.	Rod Bolt Assembly Lube

# STEEL CONNECTING RODS

## Ford 2.3L (non-EcoBoost)

Sportsmaster® Rods  
Esslinger Type



Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14117-4	Modified Ford 2.3L Esslinger type w/ .927" pin	5.700"	2.172"	.990"	.980"	.9281"	600

### Replacement Parts

Part No.	Quantity	Description
42383-4	4 pcs.	3/8" ARP 8740 Cap Screws
42310-8	8 pcs.	Ampco Pin Bushings
42385-16	16 pcs.	Dowel Bushings 3/8"

## Ford 351W

Pro Series I-Beam Rods



Part No.	Description	Center-to-Center	Big End Bore	Crank Pin	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14354C-8	351W Ford Pro Series I-Beam - Lightweight with standard width SB Chevy bearing	6.000"	2.225"	2.100"	.940"	1.000"	.9131"	605

### Replacement Parts

Part No.	Quantity	Description
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws
42345-8	8 pcs.	Ampco Pin Bushings
42392-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube

## Ford 429

Pro Series I-Beam Rods  
6.800" Center-To-Center



Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14173-8	Ford 429	6.800"	2.325"	.990"	1.125"	.9911"	860

### Replacement Parts

Part No.	Quantity	Description
42391-4	4 pcs.	7/16" ARP 2000 Cap Screws
42327-8	8 pcs.	Ampco Pin Bushings
42387-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube

# STEEL CONNECTING RODS

Ford 2.3L DOHC "EcoBoost"  
 Ford 3.5L DOHC "EcoBoost" V-6  
 Ford 3.7L DOHC "Cyclone" V-6



## H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm$  1.5 grams
- ▶ Cap fasteners are 3/8" ARP 2000 (2.3L) and 7/16" ARP 8740 or optional ARP 2000 (3.5/3.7L) cap screws
- ▶ Horsepower range for these rods is 600+ HP (2.3L) and 700+ HP (ARP 8740), 750+ HP (ARP 2000) for 3.5L and 3.7L

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
-----	<b>14081-4</b>	Stock Length w/ 22.5mm pin	<b>FORD 2.3L ECOBOOST</b> 5.875"	2.167"	.860"	.859"	.8868"	585
<b>14082-6</b>	<b>14082R-6</b>	Stock Length w/ 23mm pin	<b>FORD 3.5L ECOBOOST/3.7L CYCLONE</b> 6.011"	2.357"	.855"	.855"	.9063"	690

## Replacement Parts

Part No.	Quantity	Description
<b>42350-4</b>	4 pcs.	3/8" ARP 2000 Cap Screws (14081)
<b>42354-4</b>	4 pcs.	7/16" ARP 8740 Cap Screws (14082)
<b>42390-4</b>	4 pcs.	7/16" ARP 2000 Cap Screws (14082R)
<b>42052-4</b>	4 pcs.	Ampco Pin Bushings (14081)
<b>42053-6</b>	6 pcs.	Ampco Pin Bushings (14082/14082R)
<b>42048-8</b>	8 pcs.	Dowel Bushings 3/8" (14081)
<b>42049-12</b>	12 pcs.	Dowel Bushings 7/16" (14082/14082R)

## Pro Series I-Beam Rods

### Standard Weight

- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% magnafluxed
- ▶ Cap fasteners are 3/8" ARP 2000 (2.3L) and 7/16" ARP 2000 (3.5/3.7L) or optional ARP 625+ cap screws
- ▶ Horsepower range for these 2.3L rods is 1,000+ HP (ARP 2000), 1,200+ HP (ARP 625+) and for the 3.5/3.7L is 1,200+ (ARP 2000), 1,400+ (ARP 625+)



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
<b>14434-4</b>	<b>14434R6-6</b>	Stock Length w/ 22.5mm pin <b>Heavier beam for forced induction applications</b>	<b>FORD 2.3L ECOBOOST</b> 5.875"	2.167"	.860"	.860"	.8868"	605
<b>14523-6</b>	<b>14523R6-6</b>	Stock Length w/ 23mm pin <b>Heavier beam for forced induction applications</b>	<b>FORD 3.5L ECOBOOST/3.7L CYCLONE</b> 6.011"	2.357"	.855"	.855"	.9063"	620

## Replacement Parts

Part No.	Quantity	Description
<b>42350-4</b>	4 pcs.	3/8" ARP 2000 Cap Screws (14434)
<b>42320-4</b>	4 pcs.	3/8" ARP 625+ Cap Screws (14434R6)
<b>42390-4</b>	4 pcs.	7/16" ARP 2000 Cap Screws (14523)
<b>42252-4</b>	4 pcs.	7/16" ARP 625+ Cap Screws (14523R6)
<b>42052-4</b>	4 pcs.	Ampco Pin Bushings (14434/14434R6)
<b>42053-6</b>	6 pcs.	Ampco Pin Bushings (14523/14523R6)
<b>42382-12</b>	12 pcs.	Dowel Bushings 3/8" (14434/14434R6)
<b>42352-12</b>	12 pcs.	Dowel Bushings 7/16" (14523/14523R6)
<b>40172</b>	1 pc.	Rod Bolt Assembly Lube

# STEEL CONNECTING RODS

## Ford 4.6L Modular V-8

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm$  1.5 grams
- ▶ Cap fasteners are 3/8" ARP 8740 or optional ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods is 700 HP (ARP 8740), 750+ HP (ARP 2000)

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14042-8	14042R-8	4.6 L Stock Length w/ 22mm pin	5.933"	2.239"	.940"	.940"	.8671"	615
14044-8	14044R-8	4.6 L Stroker w/ 22mm pin and a 2.000" crank journal	5.850"	2.125"	.940"	.940"	.8671"	605

Private brand identification available

### Replacement Parts

Part No.	Quantity	Description
42383-4	4 pcs.	3/8" ARP 8740 Cap Screws
42350-4	4 pcs.	3/8" ARP 2000 Cap Screws
42302-8	8 pcs.	Ampco Pin Bushings
42260-8	8 pcs.	Ampco Pin Bushings (14044)
42274-16	16 pcs.	Dowel Bushings 3/8"

P/Ns 14042-8 and 14042R-8 are NHRA Legal for Stock & Super Stock



Manley Performance was the exclusive connecting rod supplier for the 2003 / 2004 Ford SVT Mustang Cobra

### Pro Series I-Beam Rods

- ▶ Forged from 4340 or 300M aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 or optional ARP 625+ cap screws
- ▶ Flywheel horsepower range for the Lightweight rods is 750+ HP - Oval Track, 800+ HP - Drag Race, for the Standard Weight rod is 900+ HP - Oval Track, 1200+ HP - Drag Race, and for the 300M rod is 900+ HP - Oval track, 1200+ HP - Drag Race

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
<b>LIGHTWEIGHT</b>								
14318-8	-----	Stock Length w/ 22mm pin	5.933"	2.239"	.940"	.940"	.8671"	595
14320-8	-----	4.6 L Stroker w/ 22mm pin and a 2.000" crank journal	5.850"	2.125"	.940"	.940"	.8671"	605
<b>STANDARD WEIGHT</b>								
14518-8	<b>14518R6-8</b>	Stock Length w/ 22mm pin <b>Heavier beam for forced induction applications</b>	5.933"	2.239"	.940"	.940"	.8671"	675
14520-8	<b>14520R6-8</b>	4.6 L Stroker w/ 22mm pin and a 2.000" crank journal <b>Heavier beam for forced induction applications</b>	5.850"	2.125"	.940"	.940"	.8671"	690
<b>300M ALLOY</b>								
15318-8	<b>15318R6-8</b>	Stock Length w/ 22mm pin	5.933"	2.239"	.940"	.940"	.8671"	695
15320-8	<b>15320R6-8</b>	4.6 L Stroker w/ 22mm pin and a 2.000" crank journal	5.850"	2.125"	.940"	.940"	.8671"	TBA

### Replacement Parts

Part No.	Quantity	Description
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws
42252-4	4 pcs.	7/16" ARP 625+ Cap Screws
42302-8	8 pcs.	Ampco Pin Bushings
42392-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube

P/N 14318-8 is NHRA Legal for Stock & Super Stock

Note: New part numbers are **BOLD & ITALICIZED**



Modular Mustang Racing



# STEEL CONNECTING RODS

## Ford 5.4L Modular V-8

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm$  1.5 grams
- ▶ Cap fasteners are 3/8" ARP 8740 or optional ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods is 700 HP (ARP 8740), 750+ HP (ARP 2000)

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Bore	Avg. Gram Weight
14040-8	14040R-8	5.4 L Stock Length w/ 22mm pin	6.657"	2.239"	.940"	.8671"	645

P/N 14040 will also work for the 6.8L V10 modular

Private brand identification available

### Replacement Parts

Part No.	Quantity	Description
42383-4	4 pcs.	3/8" ARP 8740 Cap Screws
42350-4	4 pcs.	3/8" ARP 2000 Cap Screws
42302-8	8 pcs.	Ampco Pin Bushings
42274-16	16 pcs.	Dowel Bushings 3/8"



P/Ns 14040-8 and 14040R-8 are NHRA Legal for Stock & Super Stock



Ford GT Powered by 5.4L Supercharged Modular Engine with Manley H-Beam Steel Connecting Rods

### Pro Series I-Beam Rods

- ▶ Forged from 4340 or 300M aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 or optional ARP 625+ cap screws
- ▶ Flywheel horsepower range for the Lightweight rods is 750+ HP - Oval Track, 800+ HP - Drag Race, for the Standard Weight rod is 900+ HP - Oval Track, 1200+ HP - Drag Race, and for the 300M rod is 1200+ HP - Oval track, 1500+ HP - Drag Race

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14319-8	-----	Stock Length w/ 22mm pin	6.657"	2.239"	.940"	.940"	.8671"	620
14321-8	<b>14321R6-8</b>	Stock Length w/ 22mm pin Heavier beam for forced induction applications	6.657"	2.239"	.940"	.940"	.8671"	725
15321-8	<b>15321R6-8</b>	Stock Length w/ 22mm pin Heavier beam for forced induction applications	6.657"	2.239"	.940"	.940"	.8671"	TBA

P/N 14319, 14321, and 15321 will also work for the 6.8L V10 modular

### Replacement Parts

Part No.	Quantity	Description
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws
42252-4	4 pcs.	7/16" ARP 625+ Cap Screws
42302-8	8 pcs.	Ampco Pin Bushings
42392-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube



P/N 14319-8 is NHRA Legal for Stock & Super Stock



John Mihovetz

Note: New part numbers are **BOLD & ITALICIZED**



# STEEL CONNECTING RODS

## Ford 5.0L DOHC "Coyote" V-8

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets  $\pm$  1.5 grams
- ▶ Cap fasteners are 3/8" ARP 8740 or optional ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods is 700 HP (ARP 8740), 750+ HP (ARP 2000)

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14042-8	14042R-8	Stock Length w/ 22mm pin	5.933"	2.239"	.940"	.940"	.8671"	615



P/Ns 14042-8 and 14042R-8 are NHRA Legal for Stock & Super Stock

### Replacement Parts

Part No.	Quantity	Description
42383-4	4 pcs.	3/8" ARP 8740 Cap Screws
42350-4	4 pcs.	3/8" ARP 2000 Cap Screws
42302-8	8 pcs.	Ampco Pin Bushings
42274-16	16 pcs.	Dowel Bushings 3/8"



P/N 14318 is NHRA Legal for Stock & Super Stock

### Pro Series I-Beam Rods

- ▶ Forged from 4340 or 300M aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 or optional ARP 625+ cap screws
- ▶ Flywheel horsepower range for the Lightweight rods is 750+ HP - Oval Track, 800+ HP - Drag Race, for the Standard Weight rod is 900+ HP - Oval Track, 1200+ HP - Drag Race, and for the 300M rod is 900+ HP - Oval track, 1200+ HP - Drag Race

Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders



ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14318-8	-----	Stock Length w/ 22mm pin	5.933"	2.239"	.940"	.940"	.8671"	595
			<b>LIGHTWEIGHT</b>					
14518-8	<b>14518R6-8</b>	Stock Length w/ 22mm pin	5.933"	2.239"	.940"	.940"	.8671"	675
			<b>STANDARD WEIGHT</b>					
			Heavier beam for forced induction applications					
15318-8	<b>15318R6-8</b>	Stock Length w/ 22mm pin	5.933"	2.239"	.940"	.940"	.8671"	695
			<b>300M ALLOY</b>					

### Replacement Parts

Part No.	Quantity	Description
42390-4	4 pcs.	7/16" ARP 2000 Cap Screws
42252-4	4 pcs.	7/16" ARP 625+ Cap Screws
42302-8	8 pcs.	Ampco Pin Bushings
42392-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube

Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## Ford 5.2L DOHC "Voodoo/Aluminator XS" V-8

Shelby GT350/GT350R Mustang (2015-up) & Aluminator XS Crate Engine

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Weight matched sets ± 1.5 grams
- ▶ Cap fasteners are 3/8" ARP 8740 or optional ARP 2000 cap screws
- ▶ Horsepower range for these rods is 700 HP (ARP 8740), 750+ HP (ARP 2000)



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

ARP 8740 Part No.	ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
<b>14043-8</b>	<b>14043R-8</b>	Stock Length w/ 21mm pin	5.933"	2.239"	.940"	.471" Top .940" Bottom Trapezoidal Profile	.8281"	605

### Replacement Parts

Part No.	Quantity	Description
<b>42383-4</b>	4 pcs.	3/8" ARP 8740 Cap Screws
<b>42350-4</b>	4 pcs.	3/8" ARP 2000 Cap Screws
<b>42056-8</b>	8 pcs.	Ampco Pin Bushings
<b>42274-16</b>	16 pcs.	Dowel Bushings 3/8"

## Ford 6.2L SOHC "Raptor" V-8

### Pro Series I-Beam Rods

#### Lightweight

- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Fully machined to produce the lightest and strongest rod possible
- ▶ Shot peened after machining to MIL spec and 100% magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000 cap screws
- ▶ Flywheel horsepower range for these rods is 800+ HP



Horsepower range could be exceeded depending upon rpm, stroke, piston weight and power adders

Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
<b>14322-8</b>	Stock Length w/ .927" pin	6.200"	2.239"	.978"	.978"	.9281"	640

### Replacement Parts

Part No.	Quantity	Description
<b>42390-4</b>	4 pcs.	7/16" ARP 2000 Cap Screws
<b>42307-8</b>	8 pcs.	Ampco Pin Bushings
<b>42392-16</b>	16 pcs.	Dowel Bushings 7/16"
<b>40172</b>	1 pc.	Rod Bolt Assembly Lube

Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## Ford 7.3L Powerstroke Diesel

### Pro Series I-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Fully machined to provide the correct balance of strength and weight
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000
- ▶ AMPCO 45 wrist pin bushings resist deformation at high cylinder pressures



ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14161-8	Stock Length w/ Stock pin	7.128"	2.691"	1.231"	1.172"	1.309"	1420

### Replacement Parts

Part No.	Quantity	Description
42391-4	4 pcs.	7/16" ARP 2000 Cap Screws
42233-4	4 pcs.	Ampco Pin Bushings
42387-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube

## GM 6.6L Duramax Diesel

### Pro Series I-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Fully machined to provide the correct balance of strength and weight
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Cap fasteners are 7/16" ARP 2000
- ▶ AMPCO 45 wrist pin bushings resist deformation at high cylinder pressures



ARP 2000 Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin End Width	Pin Bore	Avg. Gram Weight
14163-8*	Stock Length w/ Stock pin	6.417"	2.6374"	1.117"	1.280" Top 1.535" Bottom Trapezoidal Profile	1.359"	1130

\* Must use Clevite® CB1805 rod bearings or equivalent

### Replacement Parts

Part No.	Quantity	Description
42384-4	4 pcs.	7/16" ARP 2000 Cap Screws
42234-4	4 pcs.	Ampco Pin Bushings
42392-16	16 pcs.	Dowel Bushings 7/16"
40172	1 pc.	Rod Bolt Assembly Lube

# STEEL CONNECTING RODS

## H-Beam Rods

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ 30wt. Oil	Recommended Bolt Stretch w/ 30wt. Oil	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ 30wt. Oil	Recommended Bolt Stretch w/ 30wt. Oil
14031-8	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14033-8	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14034-8	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14036-8	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14040-8	42383-1	55 ft./lbs.	.0047"-.0052"	14040R-8	42350-1	60 ft./lbs.	.0058"-.0062"
14042-8	42383-1	55 ft./lbs.	.0047"-.0052"	14042R-8	42350-1	60 ft./lbs.	.0058"-.0062"
14043-8	42383-1	55 ft./lbs.	.0047"-.0052"	14043R-8	42350-1	60 ft./lbs.	.0058"-.0062"
14044-8	42383-1	55 ft./lbs.	.0047"-.0052"	14044R-8	42350-1	60 ft./lbs.	.0058"-.0062"
14050-8	42354-1	95 ft./lbs.	.0050"-.0054"	14050R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14051-8	42354-1	95 ft./lbs.	.0050"-.0054"	14051R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14053-8	42354-1	95 ft./lbs.	.0050"-.0054"	14053R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14054-8	42354-1	95 ft./lbs.	.0050"-.0054"	14054R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14055-8	42354-1	95 ft./lbs.	.0050"-.0054"	14055R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14056-8	42354-1	95 ft./lbs.	.0050"-.0054"	14056R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14057-8	42354-1	95 ft./lbs.	.0050"-.0054"	14057R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14060-8	42361-1	80 ft./lbs.	.0052"-.0056"	14060R-8	42249-1	95 ft./lbs.	.0060"-.0065"
14062-8	42361-1	80 ft./lbs.	.0052"-.0056"	14062R-8	42249-1	95 ft./lbs.	.0060"-.0065"
14064-8	42354-1	95 ft./lbs.	.0050"-.0054"	14064R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14065-8	42354-1	95 ft./lbs.	.0050"-.0054"	14065R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14066-8	42361-1	80 ft./lbs.	.0052"-.0056"	14066R-8	42249-1	95 ft./lbs.	.0060"-.0065"
14067-8	42354-1	95 ft./lbs.	.0050"-.0054"	14067R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14069-8	42354-1	95 ft./lbs.	.0050"-.0054"	14069R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14072-8	42361-1	80 ft./lbs.	.0052"-.0056"	14072R-8	42249-1	95 ft./lbs.	.0060"-.0065"
14081-4	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14082-6	42361-1	80 ft./lbs.	.0052"-.0056"	14082R-6	42249-1	95 ft./lbs.	.0060"-.0065"
14083-10	42354-1	95 ft./lbs.	.0050"-.0054"	14083R-10	42390-1	90 ft./lbs.	.0050"-.0060"
14085-8	42354-1	95 ft./lbs.	.0050"-.0054"	14085R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14086-8	42354-1	95 ft./lbs.	.0050"-.0054"	14086R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14087-8	42354-1	95 ft./lbs.	.0050"-.0054"	14087R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14088-8	42354-1	95 ft./lbs.	.0050"-.0054"	14088R-8	42390-1	90 ft./lbs.	.0050"-.0060"
14089-8	42354-1	95 ft./lbs.	.0050"-.0054"	14089R-8	42390-1	90 ft./lbs.	.0050"-.0060"

## Sportsmaster Rods

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ 30wt. Oil	Recommended Bolt Stretch w/ 30wt. Oil	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ 30wt. Oil	Recommended Bolt Stretch w/ 30wt. Oil
14101-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14101ACHA-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14101SMS-8	42383-1	55 ft./lbs.	.0047"-.0052"	14101MSR-8	42350-1	60 ft./lbs.	.0058"-.0062"
14103-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14104-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14105-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14106-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14107-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14108-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14109-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14109A-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14112-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14112A-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14113-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14114-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14116-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14117-4	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----
14139C-8	42383-1	55 ft./lbs.	.0047"-.0052"	-----	-----	-----	-----

Important excerpt from the ARP catalog regarding proper fastener installation:

"The importance of tightening fasteners to their required preload cannot be emphasized enough. If a fastener is not tightened properly, the fastener will not apply the required preload on the application it is being used for and may become susceptible to failure. Conversely, if a fastener is over tightened and stretched too much, it becomes susceptible to failure by exceeding it's maximum yield point."



Manley Performance uses ARP connecting rod bolts exclusively and is proud to be an ARP "Performance Partner."

# STEEL CONNECTING RODS

## Pro Series I-Beam Rods

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ Manley Lube	Recommended Bolt Stretch w/ Manley Lube	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ Manley Lube	Recommended Bolt Stretch w/ Manley Lube
14140-8	42351-1	50 ft./lbs.	.0058"-.0062"	14140R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14142-8	42351-1	50 ft./lbs.	.0058"-.0062"	14142R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14144-8	42351-1	50 ft./lbs.	.0058"-.0062"	14144R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14145-8	42351-1	50 ft./lbs.	.0058"-.0062"	14145R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14152-8	42390-1	75 ft./lbs.	.0050"-.0060"	14152R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14154-8	42390-1	75 ft./lbs.	.0050"-.0060"	14154R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14155-8	42390-1	75 ft./lbs.	.0050"-.0060"	14155R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14157-8	42390-1	75 ft./lbs.	.0050"-.0060"	14157R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14160-8	42384-1	95 ft./lbs.	.0064"-.0068"	14160L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14161-8	42391-1	90 ft./lbs.	.0069"-.0073"	-----	-----	-----	-----
14162-8	42384-1	95 ft./lbs.	.0064"-.0068"	14162L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14163-8	42384-1	95 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
14166-8	42384-1	95 ft./lbs.	.0064"-.0068"	14166L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14167-8	42384-1	95 ft./lbs.	.0064"-.0068"	14167L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14168-8	42384-1	95 ft./lbs.	.0064"-.0068"	14168L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14170-8	42384-1	95 ft./lbs.	.0064"-.0068"	14170L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14172-8	42384-1	95 ft./lbs.	.0064"-.0068"	14172L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14173-8	42384-1	95 ft./lbs.	.0064"-.0068"	14173L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14175-8	42384-1	95 ft./lbs.	.0064"-.0068"	14175L-8	42296-1	95 ft./lbs.	.0065"-.0070"
14177-8	42391-1	90 ft./lbs.	.0069"-.0073"	14177R6-8	42397-1	90 ft./lbs.	.0068"-.0072"
14185-8	42391-1	90 ft./lbs.	.0069"-.0073"	14185R6-8	42397-1	90 ft./lbs.	.0068"-.0072"
14187-8	42391-1	90 ft./lbs.	.0069"-.0073"	14187R6-8	42397-1	90 ft./lbs.	.0068"-.0072"
14240-8	42351-1	50 ft./lbs.	.0058"-.0062"	14240R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14242-8	42351-1	50 ft./lbs.	.0058"-.0062"	14242R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14244-8	42351-1	50 ft./lbs.	.0058"-.0062"	14244R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14245-8	42351-1	50 ft./lbs.	.0058"-.0062"	14245R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14254-8	42390-1	75 ft./lbs.	.0050"-.0060"	14254R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14255-8	42390-1	75 ft./lbs.	.0050"-.0060"	14255R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14266-8	42390-1	75 ft./lbs.	.0050"-.0060"	14266R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14318-8	42390-1	75 ft./lbs.	.0050"-.0060"	14318R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14319-8	42390-1	75 ft./lbs.	.0050"-.0060"	14319R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14320-8	42390-1	75 ft./lbs.	.0050"-.0060"	14320R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14321-8	42390-1	75 ft./lbs.	.0050"-.0060"	14321R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14322-8	42390-1	75 ft./lbs.	.0050"-.0060"	14322R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14340-8	42351-1	50 ft./lbs.	.0058"-.0062"	14340R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14344-8	42351-1	50 ft./lbs.	.0058"-.0062"	14344R6-8	42321-1	55 ft./lbs.	.0065"-.0075"
14345-8	42351-1	50 ft./lbs.	.0058"-.0062"	14345R6-8	42321-1	55 ft./lbs.	.0065"-.0075"

Manley Lube Part No.	Quantity	Description
40172	1 oz.	Manley Rod Bolt Assembly Lube

Important excerpt from the ARP catalog regarding proper fastener installation:

"The importance of tightening fasteners to their required preload cannot be emphasized enough. If a fastener is not tightened properly, the fastener will not apply the required preload on the application it is being used for and may become susceptible to failure. Conversely, if a fastener is over tightened and stretched too much, it becomes susceptible to failure by exceeding it's maximum yield point."



Manley Performance uses ARP connecting rod bolts exclusively and is proud to be an ARP "Performance Partner."

CONNECTING RODS

# STEEL CONNECTING RODS

## Pro Series I-Beam Rods

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ Manley Lube	Recommended Bolt Stretch w/ Manley Lube	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ Manley Lube	Recommended Bolt Stretch w/ Manley Lube
14350-8	42390-1	75 ft./lbs.	.0050"-.0060"	14350R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14352-8	42390-1	75 ft./lbs.	.0050"-.0060"	14352R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14354-8	42390-1	75 ft./lbs.	.0050"-.0060"	14354R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14355-8	42390-1	75 ft./lbs.	.0050"-.0060"	14355R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14359-8	42390-1	75 ft./lbs.	.0050"-.0060"	14359R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14364-8	42390-1	75 ft./lbs.	.0050"-.0060"	14364R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14365-8	42390-1	75 ft./lbs.	.0050"-.0060"	14365R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14369-8	42390-1	75 ft./lbs.	.0050"-.0060"	14369R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14438-8	42351-1	50 ft./lbs.	.0058"-.0062"				
14439-8	42350-1	50 ft./lbs.	.0058"-.0062"				
14440-8	42350-1	50 ft./lbs.	.0058"-.0062"				
14441-8	42350-1	50 ft./lbs.	.0058"-.0062"				
14442-8	42350-1	50 ft./lbs.	.0058"-.0062"				
14443-8	42351-1	50 ft./lbs.	.0058"-.0062"				
14445-8	42350-1	50 ft./lbs.	.0058"-.0062"				
14450-8	42390-1	75 ft./lbs.	.0050"-.0060"	14450R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14452-8	42390-1	75 ft./lbs.	.0050"-.0060"	14452R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14454-8	42390-1	75 ft./lbs.	.0050"-.0060"	14454R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14455-8	42390-1	75 ft./lbs.	.0050"-.0060"	14455R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14460-8	42390-1	75 ft./lbs.	.0050"-.0060"	14460R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14461-8	42390-1	75 ft./lbs.	.0050"-.0060"	14461R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14463-10	42390-1	75 ft./lbs.	.0050"-.0060"	14463R6-10	42252-1	95 ft./lbs.	.0060"-.0065"
14518-8	42390-1	75 ft./lbs.	.0050"-.0060"	14518R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14520-8	42390-1	75 ft./lbs.	.0050"-.0060"	14520R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
15321-8	42390-1	75 ft./lbs.	.0050"-.0060"	15321R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
15359-8	42390-1	75 ft./lbs.	.0050"-.0060"	15359R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14523-6	42390-1	75 ft./lbs.	.0050"-.0060"	14523R6-6	42252-1	95 ft./lbs.	.0060"-.0065"
14554-8	42390-1	75 ft./lbs.	.0050"-.0060"	14554R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14559-8	42390-1	75 ft./lbs.	.0050"-.0060"	14559R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14560-8	42390-1	75 ft./lbs.	.0050"-.0060"	14560R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
14563-10	42390-1	75 ft./lbs.	.0050"-.0060"	14563R6-10	42252-1	95 ft./lbs.	.0060"-.0065"
15318-8	42390-1	75 ft./lbs.	.0050"-.0060"	15318R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
15320-8	42390-1	75 ft./lbs.	.0050"-.0060"	15320R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
15321-8	42390-1	75 ft./lbs.	.0050"-.0060"	15321R6-8	42252-1	95 ft./lbs.	.0060"-.0065"
15359-8	42390-1	75 ft./lbs.	.0050"-.0060"	15359R6-8	42252-1	95 ft./lbs.	.0060"-.0065"

Manley Lube Part No.	Quantity	Description
40172	1 oz.	Manley Rod Bolt Assembly Lube

Important excerpt from the ARP catalog regarding proper fastener installation:

“The importance of tightening fasteners to their required preload cannot be emphasized enough. If a fastener is not tightened properly, the fastener will not apply the required preload on the application it is being used for and may become susceptible to failure. Conversely, if a fastener is over tightened and stretched too much, it becomes susceptible to failure by exceeding it’s maximum yield point.”



Manley Performance uses ARP connecting rod bolts exclusively and is proud to be an ARP “Performance Partner.”

# STEEL CONNECTING RODS

## Pin Bushings

► Premium AMPCO 18 material

Part No.	O.D.	I.D.	O/A Length	Part No.	O.D.	I.D.	O/A Length
42273S-1	.904"	.735"	.780"	42399-1	.990"	.866"	.970"
42286S-1	.904"	.735"	.845"	42308S-1	.990"	.866"	.975"
42273-1	.904"	.744"	.780"	42345-1	.990"	.866"	.995"
42286-1	.904"	.744"	.845"	42268S-1	1.019"	.866"	.995"
42187S-1	.850"	.775"	.795"	42260-1	.952"	.867"	.935"
42054S-1	.850"	.775"	1.015"	42302-1	.990"	.867"	.935"
42267S-1	.860"	.775"	.795"	42308-1	.990"	.877"	.975"
42221S-1	.860"	.775"	.975"	42268-1	1.019"	.877"	.995"
42282S-1	.904"	.775"	.780"	42055S-1	.967"	.895"	.835"
42041S-1	.910"	.775"	.975"	42314S-1	.979"	.896"	.995"
42187-1	.850"	.784"	.795"	42309S-1	.964"	.900"	.835"
42054-1	.850"	.784"	1.015"	42051S-1	.964"	.900"	.855"
42267-1	.860"	.784"	.795"	42053S-1	.990"	.900"	.850"
42221-1	.860"	.784"	.975"	42314-1	.979"	.906"	.995"
42282-1	.904"	.784"	.780"	42309-1	.964"	.908"	.835"
42041-1	.910"	.784"	.975"	42051-1	.964"	.908"	.855"
42186S-1	.930"	.815"	.965"	42055-1	.967"	.908"	.835"
42040S-1	.870"	.820"	.850"	42053-1	.990"	.908"	.850"
42258S-1	.894"	.820"	1.015"	42315S-1	.973"	.920"	1.050"
42285S-1	.904"	.820"	.845"	42045S-1	.975"	.920"	.975"
42181S-1	.910"	.820"	.845"	42395S-1	.990"	.920"	.945"
42185S-1	.910"	.820"	.950"	42310S-1	.990"	.920"	.975"
42303S-1	.910"	.820"	1.015"	42393S-1	.990"	.920"	.995"
42042S-1	.910"	.820"	1.025"	42304S-1	.990"	.920"	1.120"
42040-1	.870"	.828"	.850"	42366S-1	.997"	.920"	.975"
42258-1	.894"	.828"	1.015"	42307S-1	1.019"	.920"	.995"
42285-1	.904"	.828"	.845"	42306S-1	1.037"	.920"	.955"
42181-1	.910"	.828"	.845"	42315-1	.973"	.929"	1.050"
42185-1	.910"	.828"	.950"	42045-1	.975"	.929"	.975"
42303-1	.910"	.828"	1.015"	42395-1	.990"	.929"	.945"
42042-1	.910"	.828"	1.025"	42310-1	.990"	.929"	.975"
42186-1	.930"	.828"	.965"	42393-1	.990"	.929"	.995"
42261S-1	.924"	.850"	.845"	42304-1	.990"	.929"	1.120"
42244S-1	.910"	.855"	.925"	42366-1	.997"	.929"	.975"
42056S-1	.929"	.855"	.795"	42307-1	1.019"	.929"	.995"
42052S-1	.930"	.855"	.840"	42306-1	1.037"	.929"	.955"
42050S-1	.930"	.855"	1.010"	42046S-1	1.051"	.980"	1.125"
42043S-1	.930"	.855"	1.050"	42259S-1	1.054"	.980"	.995"
42044S-1	.973"	.855"	.935"	42047S-1	1.160"	.980"	1.245"
42182S-1	.910"	.856"	.845"	42250S-1	1.041"	.982"	.985"
42183S-1	.910"	.856"	.950"	42394S-1	1.041"	.982"	1.055"
42319S-1	.930"	.856"	.775"	42298S-1	1.041"	.982"	1.075"
42184S-1	.930"	.856"	.815"	42327S-1	1.041"	.982"	1.125"
42399S-1	.990"	.856"	.970"	42305S-1	1.100"	.982"	1.175"
42345S-1	.990"	.856"	.995"	42381S-1	1.158"	.982"	1.245"
42325S-1	.910"	.860"	.795"	42250-1	1.041"	.992"	.985"
42323S-1	.910"	.860"	1.010"	42394-1	1.041"	.992"	1.055"
42261-1	.924"	.860"	.845"	42298-1	1.041"	.992"	1.075"
42260S-1	.952"	.860"	.935"	42327-1	1.041"	.992"	1.125"
42302S-1	.990"	.860"	.935"	42046-1	1.051"	.992"	1.125"
42325-1	.910"	.866"	.795"	42259-1	1.054"	.992"	.995"
42182-1	.910"	.866"	.845"	42305-1	1.100"	.992"	1.175"
42244-1	.910"	.866"	.925"	42381-1	1.158"	.992"	1.245"
42183-1	.910"	.866"	.950"	42047-1	1.160"	.992"	1.245"
42323-1	.910"	.866"	1.010"	42388S-1	1.100"	1.022"	1.175"
42056-1	.929"	.866"	.795"	42388-1	1.100"	1.033"	1.175"
42319-1	.930"	.866"	.775"	42233S-1	1.424"	1.299"	1.167"
42184-1	.930"	.866"	.815"	42233-1	1.424"	1.309"	1.167"
42052-1	.930"	.866"	.840"	42234S-1	1.424"	1.350"	1.530"
42050-1	.930"	.866"	1.010"	42234-1	1.424"	1.359"	1.530"
42043-1	.930"	.866"	1.050"				
42044-1	.973"	.866"	.935"				

CONNECTING RODS



# STEEL CONNECTING RODS

## Connecting Rod Bolts

Part No.	Diameter	Under Head Length	Material
42281-1	5/16"	1.500"	ARP 2000
42383-1	3/8"	1.500"	ARP 8740
42350-1	3/8"	1.500"	ARP 2000
42320-1	3/8"	1.500"	ARP 625+
42351-1	3/8"	1.600"	ARP 2000
42321-1	3/8"	1.600"	ARP 625+
42354-1	7/16"	1.450"	ARP 8740
42390-1	7/16"	1.450"	ARP 2000
42252-1	7/16"	1.450"	ARP 625+
42361-1	7/16"	1.600"	ARP 8740
42249-1	7/16"	1.600"	ARP 2000
42386-1	7/16"	1.650"	ARP 8740
42384-1	7/16"	1.650"	ARP 2000
42296-1	7/16"	1.650"	ARP L19
42396-1	7/16"	1.700"	ARP 2000
42397-1	7/16"	1.750"	ARP 625+
42239-1	7/16"	1.800"	ARP 8740
42391-1	7/16"	1.850"	ARP 2000

## Dowel Bushings

Part No.	O.D.	I.D.	O/A Length
42280-1	.3710"	.3190"	.943"
42048-1	.4250"	.3860"	.536"
42274-1	.4380"	.3860"	.530"
42385-1	.4380"	.3860"	.815"
42382-1	.4380"	.3860"	.860"
42380-1	.4380"	.3860"	.900"
42398-1	.4380"	.3860"	.960"
42049-1	.5000"	.4440"	.536"
42352-1	.5000"	.4485"	.820"
42392-1	.5000"	.4485"	.855"
42387-1	.5000"	.4485"	1.015"

## Manufacturing Processes



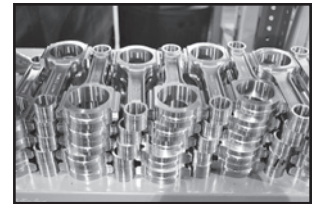
Bore & Profile



Bore & Profile



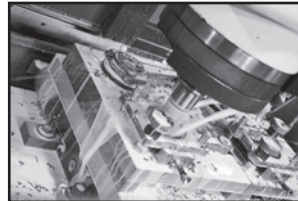
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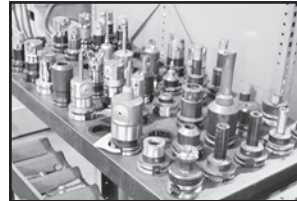
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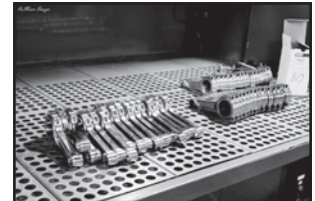
Drill & Tap



Final Bore



CNC Tooling



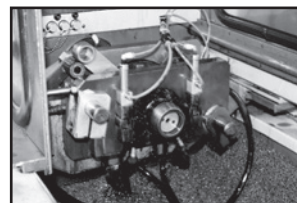
Rod Detailing



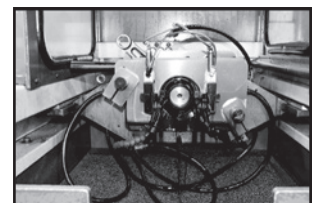
Shot Peen



Magnaflux



Sunnen® H-Beam Cross Grinding



Sunnen® I-Beam Cross Grinding



Post Cross Grind



Sunnen® Pin Honing



Bushing Chamfering



Sunnen® Precision Gauging

## Small Block Chevrolet Crankshafts

4340 Non-Twist Forgings

Lightweight Design for Internal Balance

2 Piece Rear Seal

- ▶ Heat treated, stress relieved, shot peened, nitrided and 100% magnafluxed
- ▶ Micro polished large radius journals (narrowed rod bearings required)

Part No.	Stroke	Minimum Rod Length	Main Journal Diameter	Rod Journal Diameter	Bobweight (grams)	Total Weight (lbs.)
<b>350 MAIN JOURNAL DIAMETER</b>						
190190	3.480"	5.700"	2.450"	2.100"	1750	44-46
190310*	3.480"	5.700"	2.450"	2.100"	1800	48-50
190310NB*	3.480"	5.700"	2.450"	2.100"	See Note**	48-50
190150	3.750"	5.700"	2.450"	2.100"	1800	49-51
190130	4.000"	6.000"	2.450"	2.100"	1800	49-51

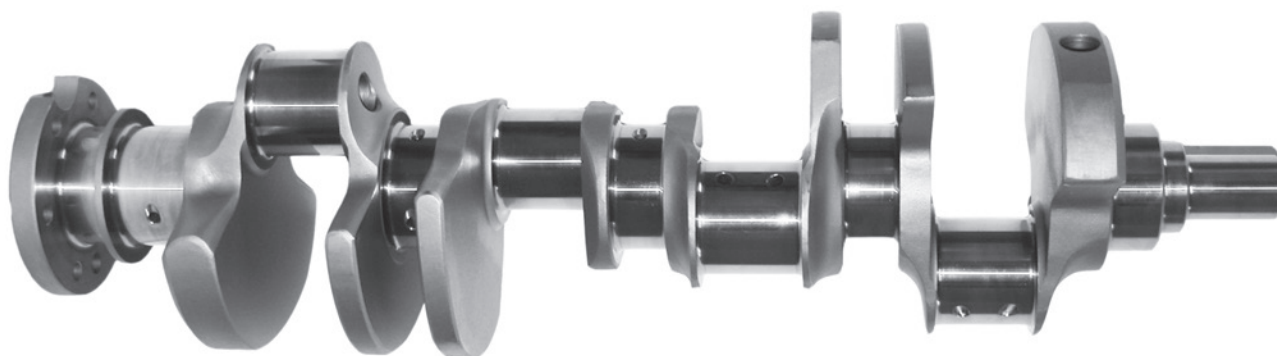
\* The two center rod journals are not gun drilled

\*\* These cranks are not balanced and have non-drilled counterweights

Note: Manley crankshafts are not intended for use with highly boosted roots style cog belt superchargers

### Precision Balancing Information

Part No.	Bobweight Modification
04004	Precision balancing the crankshaft from -200 to -71 grams from the published bobweight
04000	Precision balancing the crankshaft from -70 to +20 grams from the published bobweight
04005	Precision balancing the crankshaft from +21 to +80 grams from the published bobweight
04006	Precision balancing the crankshaft from +81 to +160 grams from the published bobweight



## Small Block Chevrolet

### Rotating Assemblies

- ▶ Lightweight 4340 forged steel crankshaft
- ▶ 4340 Forged steel H-Beam connecting rods with 7/16" ARP 8740 or optional ARP 2000 cap screws\*
- ▶ 2618 Forged aluminum Platinum Series pistons with Premium Chrome Moly wrist pins
- ▶ Total Seal® piston rings & high performance Clevite® "H" Series rod bearings (narrowed) and "P" or "H" Series main bearings
- ▶ Horsepower range is 750 with the ARP 8740 and 1,500 with the optional ARP 2000 cap screws

Note: The 350 and 400 Small Block rotating assemblies listed below are unbalanced. For a precision balanced assembly please also order part number 04000

Part No.	Stroke	CID @ .030	Crank Number	Rod Length	Rod Number	Piston Type	STD. Bore	Piston Number	Bore Sizes Available	Compression Ratio			Piston Ring Numbers	Piston Ring Package
										58cc	64cc	76cc		
<b>350 BLOCK WITH 350 MAIN JOURNAL DIAMETER</b>														
2907_	3.480"	355	190190	6.000"	14054	Flat -4cc	4.000"	5906	30 35 40 60	11.2	10.4	9.1	4635 3 5 4 6	1/16", 3/16"
2908_*	3.480"	355	190190	6.000"	14354	Flat -4cc	4.000"	5906	30 35 40 60	11.2	10.4	9.1	4635 3 5 4 6	1/16", 3/16"
2900_	3.750"	383	190150	6.000"	14054	Dish -15cc	4.000"	5909	30 35 40	10.5	9.8	8.8	4635 3 5 4	1/16", 3/16"
2901_	3.750"	383	190150	6.000"	14054	Flat -4cc	4.000"	5908	30 35 40	11.9	11.0	9.7	4635 3 5 4	1/16", 3/16"
2909_	3.750"	383	190150	6.000"	14054	Dome +11cc (Gas Ported)	4.000"	5919	30 35 40 60	14.9	13.5	11.5	4622 3 5 4	.043", 3mm
<b>400 BLOCK WITH 350 MAIN JOURNAL DIAMETER</b>														
2902_	4.000"	434	190130	6.000"	14054	Dish -20cc	4.125"	5939	00 30	11.0	10.3	9.3	4616 0 3	1/16", 3/16"
2903_	4.000"	434	190130	6.000"	14054	Dome +4cc (Gas Ported)	4.125"	5938	00 30	14.7	13.5	11.7	4626 0 3	.043", 3mm

\* Kit number 2908 is supplied with our Pro Series Lightweight I-Beam connecting rods with 7/16" ARP 2000 cap screws

Note: Specify desired bore size to complete the six digit part number, i.e. P/N 290735

Add an "R" to the assembly part number to order the optional ARP 2000 rod bolt upgrade

Add an "H" to the assembly part number to order the optional "H" Series main bearings

### Bearing Chart

Clevite® "H" Series Rod Bearings	Clevite® "P" Series Main Bearings	Clevite® "H" Series Main Bearings
30010	33010	33010H



# CRANKSHAFTS

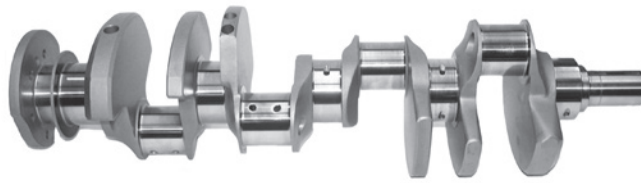
## Big Block Chevrolet Crankshafts

4340 Non-Twist Forgings Designed for Internal Balance

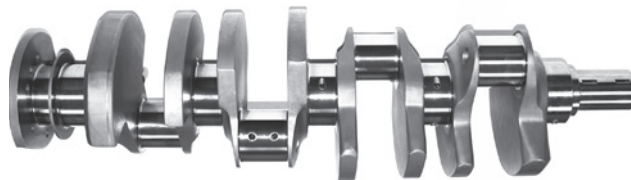
2 Piece Rear Seal

- ▶ Heat treated, stress relieved, shot peened, nitrided and 100% magnafluxed
- ▶ Micro polished large radius journals (narrowed rod bearings required)

Part No.	Stroke	Minimum Rod Length	Main Journal Diameter	Rod Journal Diameter	Bobweight (grams)	Total Weight (lbs.)
<b>454 MAIN JOURNAL DIAMETER WITHOUT CENTER COUNTERWEIGHTS</b>						
190170	4.000"	6.385"	2.750"	2.200"	2350	64-66
190140	4.250"	6.385"	2.750"	2.200"	2350	64-66
190250	4.375"	6.535"	2.750"	2.200"	2350	64-66



<b>454 MAIN JOURNAL DIAMETER WITH CENTER COUNTERWEIGHTS</b>						
190290	4.250"	6.385"	2.750"	2.200"	2350	74-76
190320	4.375"	6.535"	2.750"	2.200"	2350	74-76
190220	4.500"	6.700"	2.750"	2.200"	2425	74-76
190400	4.625"	6.700"	2.750"	2.200"	2425	74-76
190280	4.750"	6.700"	2.750"	2.200"	2425	74-76



Note: Manley crankshafts are not intended for use with highly boosted roots style cog belt superchargers

### Precision Balancing Information

Part No.	Bobweight Modification
04004	Precision balancing the crankshaft from -200 to -71 grams from the published bobweight
04000	Precision balancing the crankshaft from -70 to +20 grams from the published bobweight
04005	Precision balancing the crankshaft from +21 to +80 grams from the published bobweight
04006	Precision balancing the crankshaft from +81 to +160 grams from the published bobweight

See Page 157  
For Big Block  
Rotating Assemblies



# ROTATING ASSEMBLIES

## Big Block Chevrolet

### Rotating Assemblies

- ▶ 4340 Forged steel crankshaft
- ▶ 4340 Forged steel H-Beam connecting rods with 7/16" ARP 8740 or optional ARP 2000 cap screws
- ▶ 2618 Forged aluminum Platinum Series pistons with Premium Chrome Moly wrist pins
- ▶ Total Seal® piston rings & high performance Clevite® "H" Series rod (narrowed) and "P" or "H" Series main engine bearings
- ▶ Horsepower range is 900 with the ARP 8740 and 1,500 with the optional ARP 2000 cap screws

Note: All 4.000" to 4.375" stroke kits are for standard deck blocks and all 4.500" to 4.750" stroke kits are for tall deck blocks

Part No.	Stroke	CID	Crank P/N	Rod Length	Rod P/N	Bore Size	Piston P/N	Piston Type	Compression Ratio			Piston Ring Package	Piston Ring P/N
									112cc	118cc	124cc		
<b>WITHOUT CENTER COUNTERWEIGHTS</b>													
29516	4.000"	516	190170	6.385"	14062	4.530"	698330	Dome +2cc	9.4	9.0	8.7	1/16", 3/16"	46453
28548**	4.250"	548	190140	6.385"	14062	4.530"	696730	Dish -20cc	8.7	8.4	8.1	1/16", 3/16"	46453
28555**	4.250"	555	190140	6.385"	14062	4.560"	696360	Flat -3cc	9.8	9.4	9.0	1/16", 3/16"	46456
29555	4.250"	555	190140	6.385"	14062	4.560"	697860*	Dome +43cc	14.7	13.8	13.0	.043", 3/16"	46556
28565	4.250"	565	190140	6.385"	14062	4.600"	696380	Flat -3cc	9.9	9.5	9.1	1/16", 3/16"	46458
29565	4.250"	565	190140	6.385"	14062	4.600"	697880*	Dome +43cc	14.9	14.0	13.2	.043", 3/16"	46558
28572	4.250"	572	190140	6.385"	14062	4.625"	696390	Flat -3cc	10.0	9.6	9.2	1/16", 3/16"	46459
29572	4.250"	572	190140	6.385"	14062	4.625"	697890*	Dome +43cc	15.1	14.1	13.3	.043", 3/16"	46559
29582**	4.375"	582	190250	6.535"	14066	4.600"	698280*	Dome +43cc	15.3	14.4	13.5	.043", 3/16"	46558
<b>WITH CENTER COUNTERWEIGHTS</b>													
38548**	4.250"	548	190290	6.385"	14062	4.530"	696730	Dish -20cc	8.7	8.4	8.1	1/16", 3/16"	46453
38555**	4.250"	555	190290	6.385"	14062	4.560"	696360	Flat -3cc	9.8	9.4	9.0	1/16", 3/16"	46456
39555	4.250"	555	190290	6.385"	14062	4.560"	697860*	Dome +43cc	14.7	13.8	13.0	.043", 3/16"	46556
38565	4.250"	565	190290	6.385"	14062	4.600"	696380	Flat -3cc	9.9	9.5	9.1	1/16", 3/16"	46458
39565**	4.250"	565	190290	6.385"	14062	4.600"	697880*	Dome +43cc	14.9	14.0	13.2	.043", 3/16"	46558
38572	4.250"	572	190290	6.385"	14062	4.625"	696390	Flat -3cc	10.0	9.6	9.2	1/16", 3/16"	46459
39572	4.250"	572	190290	6.385"	14062	4.625"	697890*	Dome +43cc	15.1	14.1	13.3	.043", 3/16"	46559
39582**	4.375"	582	190320	6.535"	14066	4.600"	698280*	Dome +43cc	15.3	14.4	13.5	.043", 3/16"	46558
28598	4.500"	598	190220	6.700"	14072	4.600"	698080	Flat -3cc	10.5	10.0	9.7	1/16", 3/16"	46458
29598	4.500"	598	190220	6.700"	14072	4.600"	697680*	Dome +43cc	15.7	14.7	13.9	.043", 3/16"	46558
38615	4.625"	615	190400	6.700"	14072	4.600"	698480	Flat -3cc	10.8	10.3	9.9	1/16", 3/16"	46458
39615	4.625"	615	190400	6.700"	14072	4.600"	698580*	Dome +43cc	16.2	15.1	14.2	.043", 3/16"	46558
28632	4.750"	632	190280	6.700"	14072	4.600"	698180	Flat -3cc	11.0	10.5	10.1	1/16", 3/16"	46458
29632	4.750"	632	190280	6.700"	14072	4.600"	697980*	Dome +43cc	16.6	15.5	14.6	.043", 3/16"	46558

\*\*Note: These BB Chevy rotating assemblies listed above are factory balanced to within +/- 1% of bobweight. Order part number 04000 for precision balancing to within 5 grams

Add an "R" to the assembly part number to order the optional ARP 2000 rod bolt upgrade

Add an "H" to the assembly part number to order the optional "H" Series main bearings

Add an "X" to the assembly part number to order the optional "X" Series rod bearings with .001" extra clearance

Add an "HX" to the assembly part number to order the optional "HX" Series main bearings with .001" extra clearance

\*Note: All Dome +43cc pistons are lateral gas ported  
Dome fits Pro 1 and BB-3 heads @ 118cc with no additional modifications needed  
Also fits Edelbrock Victor heads  
Other applications or smaller combustion chambers must be checked

### Bearing Chart

Clevite® "H" Series Rod Bearings	Clevite® "HX" Series Rod Bearings	Clevite® "P" Series Main Bearings	Clevite® "H" Series Main Bearings	Clevite® "HX" Series Main Bearings
30040	30040X	33040	33040H	33040HX

# CRANKSHAFTS & ROTATING ASSEMBLIES

## Chevrolet LS Crankshafts

- ▶ Lightweight (LW) and Super Lightweight (SLW) designs
- ▶ 4340 material forgings
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals (narrowed bearings required)
- ▶ Gun drilled mains and lightened rod journals for weight reduction
- ▶ Counterweights fully profiled



Part No.	Design LW or SLW	Reluctor Wheel 24 or 58 Tooth	Stroke	Minimum Rod Length	Main Journal Diameter	Rod Journal Diameter	Bobweight (grams)	Total Weight (lbs.)
<b>LIGHTWEIGHT</b>								
<b>193924</b>	LW	24	3.622"	6.098"	2.559"	2.100"	1800	51-53
<b>193958</b>	LW	58	3.622"	6.098"	2.559"	2.100"	1800	51-53
<b>190024</b>	LW	24	4.000"	6.125"	2.559"	2.100"	1755	50-52
<b>190058</b>	LW	58	4.000"	6.125"	2.559"	2.100"	1755	50-52
<b>192124</b>	LW	24	4.000"	6.125"	2.559"	2.100"	1800	51-53
<b>192158</b>	LW	58	4.000"	6.125"	2.559"	2.100"	1800	51-53
<b>190124</b>	LW	24	4.100"	6.125"	2.559"	2.100"	1755	50-52
<b>190158</b>	LW	58	4.100"	6.125"	2.559"	2.100"	1755	50-52
<b>194524</b>	LW	24	4.100"	6.125"	2.559"	2.100"	1800	50-52
<b>194558</b>	LW	58	4.100"	6.125"	2.559"	2.100"	1800	50-52
<b>LIGHTWEIGHT WITH LONG SNOOT (LS-7)</b>								
<b>192658</b>	LW	58	4.000"	6.125"	2.559"	2.100"	1800	51-53
<b>192758</b>	LW	58	4.100"	6.125"	2.559"	2.100"	1800	51-53
<b>SUPER LIGHTWEIGHT</b>								
<b>190324</b>	SLW	24	4.000"	6.125"	2.559"	2.100"	1686	46-48
<b>190358</b>	SLW	58	4.000"	6.125"	2.559"	2.100"	1686	46-48

Note: Manley crankshafts are not intended for use with highly boosted roots style cog belt superchargers

### Precision Balancing Information

Part No.	Bobweight Modification
<b>04004</b>	Precision balancing the crankshaft from -200 to -71 grams from the published bobweight
<b>04000</b>	Precision balancing the crankshaft from -70 to +20 grams from the published bobweight
<b>04005</b>	Precision balancing the crankshaft from +21 to +80 grams from the published bobweight
<b>04006</b>	Precision balancing the crankshaft from +81 to +160 grams from the published bobweight

## LS "Ready To Run" Rotating Assemblies

- ▶ Lightweight 4340 forged steel crankshaft
- ▶ 4340 Forged steel H-Beam connecting rods with 7/16" ARP 8740 cap screws or optional ARP 2000 cap screws
- ▶ 2618 Forged aluminum Platinum Series pistons with Premium Chrome Moly wrist pins
- ▶ Total Seal® piston rings & high performance Clevite® "H" Series rod bearings (narrowed) and "P" Series main bearings

Part No.	Stroke	CID	Crank P/N Reluctor Wheel	Rod Length	Rod P/N	Bore Size	Piston P/N	Piston Type	Compression Ratio				Piston Ring Package	Piston Ring P/N
									64cc	66cc	70cc	72cc		
<b>28402</b>	4.000"	402	190058 58 Tooth	6.125"	14051	4.005"	596205C	Dish -18cc	10.1	9.9	9.5	9.4	1.5mm, 3mm	46110
<b>29402</b>	4.000"	402	190058 58 Tooth	6.125"	14051	4.005"	592605C	Flat -4cc	11.7	11.4	10.9	10.7	1.5mm, 3mm	46110
<b>28415</b>	4.000"	415	190058 58 Tooth	6.125"	14051	4.070"	596270C	Dish -18cc	10.4	10.2	9.8	9.6	1.5mm, 3mm	46117
<b>29415</b>	4.000"	415	190058	6.125"	14051	4.070"	592670C	Flat -4cc 58 Tooth	12.1	11.8	11.3	11.1	1.5mm, 3mm	46117

Factory balanced to +/- 1% of bobweight

Add an "R" to the assembly part number to order the optional ARP 2000 rod bolt upgrade

Note: New part numbers are **BOLD & ITALICIZED**

CRANKS & KITS

# CUSTOM ROTATING ASSEMBLIES

## Chevrolet LS Rotating Assemblies

Ordering a Manley LS rotating assembly is as easy as 1-2-3.....

1. Choose your crankshaft part number based on stroke, weight, and reluctor wheel and then order the corresponding rod and main bearing part numbers shown
2. Choose your connecting rod part number
3. Choose your piston part number based on bore size and desired compression ratio along with the corresponding piston ring part number

Ordering all of the required components for your LS rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details

Order P/N **04000** for precision balancing within 5 grams

### CRANKS

- ▶ Super Lightweight and Lightweight 4340 material forgings
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals
- ▶ Available with either 24 or 58 tooth reluctor wheels
- ▶ Gun drilled mains and lightened rod journals for weight reduction
- ▶ Counterweights fully profiled

### RODS

- ▶ Lightweight design 4340 material forgings
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of  $\pm .0002"$
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Lite comes standard with 3/8" ARP 2000 bolts
- ▶ H-Beam comes standard with low profile 7/16" ARP 8740 bolts providing additional block and oil pan clearance (affix an R suffix for ARP 2000 bolt upgrade)
- ▶ I-Beam comes standard with 7/16" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

### PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exacting ring groove squareness to cylinder wall provides maximum horsepower.
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty Series
- ▶ Moly coated skirts

### RINGS

- ▶ 1.5 x 1.5 x 3mm Total Seal (moly in-lay tops standard)
- ▶ Premium steel top rings are optional (affix ST suffix)
- ▶ Total Seal Gapless® steel top ring sets also available (affix GT suffix)

### BEARINGS

- ▶ Premium Clevite® "H" Series narrowed rod bearings and "P" Series or "H" Series main bearings

## Small Block Chevrolet LS Series

Lightweight 1800gm. Bobweight 3.622" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					64cc	66cc	70cc	72cc	14051-8	14359-8	14559-8
193924 24 Tooth	592107C-8	592107CE-8	3.905/-4cc F/T	46107-8	10.2	10.0	9.5	9.3	Y	Y	Y
	592110C-8	592110CE-8	3.910/-4cc F/T	46107-8	10.3	10.1	9.7	9.5	Y	Y	Y
or 193958 58 Tooth	592501C-8	592501CE-8	4.001/-4cc F/T	46110-8	10.6	10.4	9.8	9.6	N*	Y	Y
	592510C-8	592510CE-8	4.010/-4cc F/T	46111-8	10.7	10.5	9.9	9.7	N*	Y	Y
6.125" Rod P/N Description	592530C-8	592530CE-8	4.030/-4cc F/T	46113-8	10.8	10.6	10.1	9.9	N*	Y	Y
	592565C-8	592565CE-8	4.065/-4cc F/T	46116-8	11.0	10.7	10.2	10.0	N*	Y	Y
	592570C-8	592570CE-8	4.070/-4cc F/T	46117-8	11.1	10.8	10.3	10.1	N*	Y	Y
	592575C-8	592575CE-8	4.075/-4cc F/T	46117-8	11.2	10.9	10.4	10.2	N*	Y	Y
	592580C-8	592580CE-8	4.080/-4cc F/T	46118-8	11.3	11.0	10.5	10.3	N*	Y	Y
	14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	596107C-8	596107CE-8	3.905/-10cc Dish	46107-8	9.6	9.4	9.0	8.8	Y	Y
Bearing P/N Description	596101C-8	596101CE-8	4.001/-10cc Dish	46110-8	10.0	9.8	9.4	9.2	N*	Y	Y
	596110C-8	596110CE-8	4.010/-10cc Dish	46111-8	10.1	9.9	9.5	9.3	N*	Y	Y
	596130C-8	596130CE-8	4.030/-10cc Dish	46113-8	10.2	9.9	9.5	9.3	N*	Y	Y
	596165C-8	596165CE-8	4.065/-10cc Dish	46116-8	10.3	10.1	9.7	9.5	N*	Y	Y
	596170C-8	596170CE-8	4.070/-10cc Dish	46117-8	10.3	10.1	9.7	9.5	N*	Y	Y
	596175C-8	596175CE-8	4.075/-10cc Dish	46117-8	10.4	10.2	9.8	9.6	N*	Y	Y
30010 Rod & 33030 or 33030H Main	596180C-8	596180CE-8	4.080/-10cc Dish	46118-8	10.5	10.3	9.9	9.6	N*	Y	Y
	596907C-8	596907CE-8	3.905/-18cc Dish	46107-8	8.8	8.7	8.3	8.2	Y	Y	Y
	596901C-8	596901CE-8	4.001/-18cc Dish	46110-8	9.2	9.0	8.7	8.5	Y	Y	Y
	596965C-8	596965CE-8	4.065/-18cc Dish	46116-8	9.5	9.3	9.0	8.8	N*	Y	Y
	596970C-8	596970CE-8	4.070/-18cc Dish	46117-8	9.6	9.4	9.1	8.9	N*	Y	Y
	596975C-8	596975CE-8	4.075/-18cc Dish	46117-8	9.7	9.5	9.2	9.0	N*	Y	Y
596980C-8	596980CE-8	4.080/-18cc Dish	46118-8	9.8	9.6	9.3	9.1	N*	Y	Y	

\*N = Factory balanced to +/- 1% of bobweight

Order part number **04000** for precision balancing to within 5 grams

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

# CUSTOM ROTATING ASSEMBLIES

## Small Block Chevrolet LS Series

Super Lightweight 1686gm. Bobweight 4.000" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)
					64cc	66cc	70cc	72cc	
<b>190324</b> 24 Tooth or <b>190358</b> 58 Tooth	<b>592207C-8</b>	<b>592207CE-8</b>	3.905/-4cc F/T	<b>46107-8</b>	11.2	11.0	10.4	10.2	Y
	<b>592605C-8</b>	<b>592605CE-8</b>	4.005/-4cc F/T	<b>46110-8</b>	11.7	11.4	10.9	10.7	Y
	<b>592610C-8</b>	<b>592610CE-8</b>	4.010/-4cc F/T	<b>46111-8</b>	11.7	11.5	11.0	10.7	Y
	<b>592630C-8</b>	<b>592630CE-8</b>	4.030/-4cc F/T	<b>46113-8</b>	11.9	11.6	11.1	10.9	N*
	<b>592665C-8</b>	<b>592665CE-8</b>	4.065/-4cc F/T	<b>46116-8</b>	12.1	11.8	11.3	11.1	N*
	<b>592670C-8</b>	<b>592670CE-8</b>	4.070/-4cc F/T	<b>46117-8</b>	12.1	11.8	11.3	11.1	N*
6.125" Rod P/N Description	<b>592675C-8</b>	<b>592675CE-8</b>	4.075/-4cc F/T	<b>46117-8</b>	12.2	11.9	11.4	11.2	N*
	<b>592680C-8</b>	<b>592680CE-8</b>	4.080/-4cc F/T	<b>46118-8</b>	12.3	12.0	11.5	11.3	N*
<b>14031-8</b> H-Lite	<b>592701C-8</b>	<b>592701CE-8</b>	4.001/-10cc Dish	<b>46110-8</b>	10.8	10.6	10.1	9.9	Y
	<b>592705C-8</b>	<b>592705CE-8</b>	4.005/-10cc Dish	<b>46110-8</b>	10.9	10.7	10.2	10.0	Y
	<b>592730C-8</b>	<b>592730CE-8</b>	4.030/-10cc Dish	<b>46113-8</b>	11.1	10.8	10.3	10.1	N*
	<b>592765C-8</b>	<b>592765CE-8</b>	4.065/-10cc Dish	<b>46116-8</b>	11.3	11.0	10.5	10.3	N*
Bearing P/N Description	<b>592770C-8</b>	<b>592770CE-8</b>	4.070/-10cc Dish	<b>46117-8</b>	11.4	11.1	10.6	10.4	N*
	<b>592775C-8</b>	<b>592775CE-8</b>	4.075/-10cc Dish	<b>46117-8</b>	11.5	11.2	10.7	10.5	N*
	<b>592780C-8</b>	<b>592780CE-8</b>	4.080/-10cc Dish	<b>46118-8</b>	11.6	11.3	10.8	10.6	N*
<b>30010</b> Rod & <b>33030</b> or <b>33030H</b> Main	<b>596207C-8</b>	<b>596207CE-8</b>	3.905/-18cc Dish	<b>46107-8</b>	9.7	9.5	9.2	9.0	Y
	<b>596205C-8</b>	<b>596205CE-8</b>	4.005/-18cc Dish	<b>46110-8</b>	10.1	9.9	9.5	9.4	N*
	<b>596230C-8</b>	<b>596230CE-8</b>	4.030/-18cc Dish	<b>46113-8</b>	10.2	10.0	9.6	9.5	N*
	<b>596265C-8</b>	<b>596265CE-8</b>	4.065/-18cc Dish	<b>46116-8</b>	10.4	10.2	9.8	9.6	N*
	<b>596270C-8</b>	<b>596270CE-8</b>	4.070/-18cc Dish	<b>46117-8</b>	10.4	10.2	9.8	9.6	N*
	<b>596275C-8</b>	<b>596275CE-8</b>	4.075/-18cc Dish	<b>46117-8</b>	10.5	10.3	9.9	9.7	N*
	<b>596280C-8</b>	<b>596280CE-8</b>	4.080/-18cc Dish	<b>46118-8</b>	10.6	10.4	10.0	9.8	N*

## Small Block Chevrolet LS Series

Lightweight 1755gm. Bobweight 4.000" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					64cc	66cc	70cc	72cc	14051-8	14359-8	14559-8
<b>190024</b> 24 Tooth or <b>190058</b> 58 Tooth	<b>592207C-8</b>	<b>592207CE-8</b>	3.905/-4cc F/T	<b>46107-8</b>	11.2	11.0	10.4	10.2	Y	Y	Y
	<b>592605C-8</b>	<b>592605CE-8</b>	4.005/-4cc F/T	<b>46110-8</b>	11.7	11.4	10.9	10.7	N*	Y	Y
	<b>592610C-8</b>	<b>592610CE-8</b>	4.010/-4cc F/T	<b>46111-8</b>	11.7	11.5	11.0	10.7	N*	Y	Y
	<b>592630C-8</b>	<b>592630CE-8</b>	4.030/-4cc F/T	<b>46113-8</b>	11.9	11.6	11.1	10.9	N*	Y	Y
	<b>592665C-8</b>	<b>592665CE-8</b>	4.065/-4cc F/T	<b>46116-8</b>	12.1	11.8	11.3	11.1	N*	Y	Y
	<b>592670C-8</b>	<b>592670CE-8</b>	4.070/-4cc F/T	<b>46117-8</b>	12.1	11.8	11.3	11.1	N*	Y	Y
6.125" Rod P/N Description	<b>592675C-8</b>	<b>592675CE-8</b>	4.075/-4cc F/T	<b>46117-8</b>	12.2	11.9	11.4	11.2	N*	Y	Y
	<b>592680C-8</b>	<b>592680CE-8</b>	4.080/-4cc F/T	<b>46118-8</b>	12.3	12.0	11.5	11.3	N*	Y	Y
<b>14051-8</b> H-Beam or <b>14359-8</b> LW I-Beam or <b>14559-8</b> SW I-Beam	<b>592701C-8</b>	<b>592701CE-8</b>	4.001/-10cc Dish	<b>46110-8</b>	10.8	10.6	10.1	9.9	N*	Y	Y
	<b>592705C-8</b>	<b>592705CE-8</b>	4.005/-10cc Dish	<b>46110-8</b>	10.9	10.7	10.2	10.0	N*	Y	Y
	<b>592730C-8</b>	<b>592730CE-8</b>	4.030/-10cc Dish	<b>46113-8</b>	11.1	10.8	10.3	10.1	N*	Y	Y
	<b>592765C-8</b>	<b>592765CE-8</b>	4.065/-10cc Dish	<b>46116-8</b>	11.3	11.0	10.5	10.3	N*	Y	Y
	<b>592770C-8</b>	<b>592770CE-8</b>	4.070/-10cc Dish	<b>46117-8</b>	11.4	11.1	10.6	10.4	N*	Y	Y
	<b>592775C-8</b>	<b>592775CE-8</b>	4.075/-10cc Dish	<b>46117-8</b>	11.5	11.2	10.7	10.5	N*	Y	Y
	<b>592780C-8</b>	<b>592780CE-8</b>	4.080/-10cc Dish	<b>46118-8</b>	11.6	11.3	10.8	10.6	N*	Y	Y
Bearing P/N Description	<b>596207C-8</b>	<b>596207CE-8</b>	3.905/-18cc Dish	<b>46107-8</b>	9.7	9.5	9.2	9.0	Y	Y	Y
	<b>596205C-8</b>	<b>596205CE-8</b>	4.005/-18cc Dish	<b>46110-8</b>	10.1	9.9	9.5	9.4	N*	Y	Y
	<b>596230C-8</b>	<b>596230CE-8</b>	4.030/-18cc Dish	<b>46113-8</b>	10.2	10.0	9.6	9.5	N*	Y	Y
<b>30010</b> Rod & <b>33030</b> or <b>33030H</b> Main	<b>596265C-8</b>	<b>596265CE-8</b>	4.065/-18cc Dish	<b>46116-8</b>	10.4	10.2	9.8	9.6	N*	Y	Y
	<b>596270C-8</b>	<b>596270CE-8</b>	4.070/-18cc Dish	<b>46117-8</b>	10.4	10.2	9.8	9.6	N*	Y	Y
	<b>596275C-8</b>	<b>596275CE-8</b>	4.075/-18cc Dish	<b>46117-8</b>	10.5	10.3	9.9	9.7	N*	Y	Y
	<b>596280C-8</b>	<b>596280CE-8</b>	4.080/-18cc Dish	<b>46118-8</b>	10.6	10.4	10.0	9.8	N*	Y	Y
	<b>592807C-8</b>	<b>592807CE-8</b>	3.905/-29cc Dish	<b>46107-8</b>	8.7	8.5	8.2	8.1	Y	Y	Y
	<b>592801C-8</b>	<b>592801CE-8</b>	4.001/-29cc Dish	<b>46110-8</b>	9.0	8.8	8.5	8.4	N*	Y	Y
	<b>592805C-8</b>	<b>592805CE-8</b>	4.005/-29cc Dish	<b>46110-8</b>	9.1	8.9	8.6	8.5	N*	Y	Y
	<b>592830C-8</b>	<b>592830CE-8</b>	4.030/-29cc Dish	<b>46113-8</b>	9.2	9.0	8.7	8.6	N*	Y	Y
	<b>592865C-8</b>	<b>592865CE-8</b>	4.065/-29cc Dish	<b>46116-8</b>	9.3	9.1	8.8	8.7	N*	Y	Y
	<b>592870C-8</b>	<b>592870CE-8</b>	4.070/-29cc Dish	<b>46117-8</b>	9.4	9.2	8.9	8.8	N*	Y	Y
<b>592875C-8</b>	<b>592875CE-8</b>	4.075/-29cc Dish	<b>46117-8</b>	9.5	9.3	9.0	8.9	N*	Y	Y	
<b>592880C-8</b>	<b>592880CE-8</b>	4.080/-29cc Dish	<b>46118-8</b>	9.6	9.4	9.1	9.0	N*	Y	Y	

\*N = Factory balanced to +/- 1% of bobweight  
Order part number **04000** for precision balancing to within 5 grams

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

Note: New part numbers are **BOLD & ITALICIZED**



# CUSTOM ROTATING ASSEMBLIES

## Small Block Chevrolet LS Series

Lightweight 1800gm. Bobweight 4.000" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					64cc	66cc	70cc	72cc	14051-8	14359-8	14559-8
192124 24 Tooth or 192158 58 Tooth	592300C-8	592300CE-8	4.125/-5cc F/T	46360-8	12.3	12.0	11.5	11.3	N*	Y	Y
	592305C-8	592305CE-8	4.130/-5cc F/T	46361-8	12.4	12.1	11.6	11.4	N*	Y	Y
	<b>592310C-8</b>	<b>592310CE-8</b>	4.135/-5cc F/T	<b>46362-8</b>	12.5	12.2	11.7	11.5	N*	Y	Y
6.125" Rod P/N Description	592400C-8	592400CE-8	4.125/-11cc Dish	46360-8	11.5	11.3	10.8	10.6	N*	Y	Y
	592405C-8	592405CE-8	4.130/-11cc Dish	46361-8	11.6	11.4	10.9	10.5	N*	Y	Y
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	592410C-8	592410CE-8	4.135/-11cc Dish	46362-8	11.7	11.5	11.0	10.6	N*	Y	Y
	596300C-8	596300CE-8	4.125/-18cc Dish	46360-8	10.6	10.4	10.0	9.8	N*	Y	Y
	596305C-8	596305CE-8	4.130/-18cc Dish	46361-8	10.6	10.4	10.0	9.9	N*	Y	Y
Bearing P/N Description	596310C-8	596310CE-8	4.135/-18cc Dish	46362-8	10.7	10.5	10.1	10.0	N*	Y	Y
	592900C-8	592900CE-8	4.125/-29cc Dish	46360-8	9.6	9.4	9.1	9.0	N*	Y	Y
30010 Rod 33030 or 33030H Main	592905C-8	592905CE-8	4.130/-29cc Dish	46361-8	9.7	9.5	9.2	9.1	N*	Y	Y
	<b>592910C-8</b>	<b>592910CE-8</b>	4.135/-29cc Dish	<b>46362-8</b>	9.8	9.6	9.3	9.2	N*	Y	Y

## Small Block Chevrolet LS Series

Lightweight 1755gm. Bobweight 4.100" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					64cc	66cc	70cc	72cc	14051-8	14359-8	14559-8
190124 24 Tooth or 190158 58 Tooth	596505C-8	596505CE-8	4.005/-10cc Dish	46110-8	11.1	10.9	10.5	10.3	N*	Y	Y
	596565C-8	596565CE-8	4.065/-10cc Dish	46116-8	11.4	11.2	10.7	10.5	N*	Y	Y
	596570C-8	596570CE-8	4.070/-10cc Dish	46117-8	11.5	11.3	10.8	10.6	N*	Y	Y
	596575C-8	596575CE-8	4.075/-10cc Dish	46117-8	11.6	11.4	10.9	10.7	N*	Y	Y
	596580C-8	596580CE-8	4.080/-10cc Dish	46118-8	11.7	11.5	11.0	10.8	N*	Y	Y
	596600C-8	596600CE-8	4.125/-11cc Dish	46360-8	11.6	11.4	10.9	10.7	Y	N*	Y
6.125" Rod P/N Description	596605C-8	596605CE-8	4.130/-11cc Dish	46361-8	11.7	11.5	11.0	10.8	Y	N*	Y
	<b>596610C-8</b>	<b>596610CE-8</b>	4.135/-11cc Dish	<b>46362-8</b>	11.8	11.6	11.1	10.9	Y	N*	Y
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	596005C-8	596005CE-8	4.005/-20cc Dish	46110-8	10.1	9.9	9.6	9.4	N*	Y	Y
	596065C-8	596065CE-8	4.065/-20cc Dish	46116-8	10.4	10.2	9.8	9.6	N*	N*	Y
	596070C-8	596070CE-8	4.070/-20cc Dish	46117-8	10.4	10.2	9.8	9.7	N*	N*	Y
	596075C-8	596075CE-8	4.075/-20cc Dish	46117-8	10.5	10.3	9.9	9.8	N*	N*	Y
	596080C-8	596080CE-8	4.080/-20cc Dish	46118-8	10.6	10.4	10.0	9.9	N*	N*	Y
Bearing P/N Description	596400C-8	596400CE-8	4.125/-20cc Dish	46360-8	10.6	10.4	10.1	9.9	Y	N*	Y
	596405C-8	596405CE-8	4.130/-20cc Dish	46361-8	10.7	10.5	10.1	9.9	Y	N*	Y
	<b>596410C-8</b>	<b>596410CE-8</b>	4.135/-20cc Dish	<b>46362-8</b>	10.8	10.6	10.2	10.0	Y	N*	Y
30010 Rod & 33030 or 33030H Main	596705C-8	596705CE-8	4.005/-31cc Dish	46110-8	9.1	9.0	8.7	8.5	N*	Y	Y
	596765C-8	596765CE-8	4.065/-31cc Dish	46116-8	9.3	9.2	8.9	8.7	N*	Y	Y
	596770C-8	596770CE-8	4.070/-31cc Dish	46117-8	9.4	9.3	9.0	8.8	N*	N*	Y
	596775C-8	596775CE-8	4.075/-31cc Dish	46117-8	9.5	9.4	9.1	8.9	N*	N*	Y
	596780C-8	596780CE-8	4.080/-31cc Dish	46118-8	9.6	9.5	9.2	9.0	N*	N*	Y
	596800C-8	596800CE-8	4.125/-31cc Dish	46360-8	9.6	9.4	9.1	9.0	Y	N*	Y
596805C-8	596805CE-8	4.130/-31cc Dish	46361-8	9.7	9.5	9.2	9.1	Y	N*	Y	
	<b>596810C-8</b>	<b>596810CE-8</b>	4.135/-31cc Dish	<b>46362-8</b>	9.8	9.6	9.3	9.2	Y	N*	Y

\*N = Factory balanced to +/- 1% of bobweight  
Order part number 04000 for precision balancing to within 5 grams

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

Note: New part numbers are **BOLD & ITALICIZED**

# CUSTOM ROTATING ASSEMBLIES

## Small Block Chevrolet LS Series

Lightweight 1800gm. Bobweight 4.100" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					64cc	66cc	70cc	72cc	14051-8	14359-8	14559-8
<b>194524</b> 24 Tooth or <b>194558</b> 58 Tooth	<b>596600C-8</b>	<b>596600CE-8</b>	4.125/-11cc Dish	<b>46360-8</b>	11.6	11.4	10.9	10.7	N*	Y	Y
	<b>596605C-8</b>	<b>596605CE-8</b>	4.130/-11cc Dish	<b>46361-8</b>	11.7	11.5	11.0	10.8	N*	Y	Y
	<b>596610C-8</b>	<b>596610CE-8</b>	4.135/-11cc Dish	<b>46362-8</b>	11.8	11.6	11.5	10.9	N*	Y	Y
6.125" Rod P/N Description	<b>596400C-8</b>	<b>596400CE-8</b>	4.125/-20cc Dish	<b>46360-8</b>	10.6	10.4	10.1	9.9	N*	Y	Y
	<b>596405C-8</b>	<b>596405CE-8</b>	4.130/-20cc Dish	<b>46361-8</b>	10.7	10.5	10.1	9.9	N*	Y	Y
	<b>596410C-8</b>	<b>596410CE-8</b>	4.135/-20cc Dish	<b>46362-8</b>	10.8	10.6	10.2	10.0	N*	Y	Y
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	<b>596800C-8</b>	<b>596800CE-8</b>	4.125/-31cc Dish	<b>46360-8</b>	9.6	9.4	9.1	9.0	N*	Y	Y
	<b>596805C-8</b>	<b>596805CE-8</b>	4.130/-31cc Dish	<b>46361-8</b>	9.7	9.5	9.2	9.1	N*	Y	Y
	<b>596810C-8</b>	<b>596810CE-8</b>	4.135/-31cc Dish	<b>46362-8</b>	9.8	9.6	9.3	9.2	N*	Y	Y
Bearing P/N Description											
	<b>30010</b> Rod <b>33030</b> or <b>33030H</b> Main										

## Small Block Chevrolet LS-7 (Long Snout)

Lightweight 1800gm. Bobweight 4.000" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					64cc	66cc	70cc	72cc	14051-8	14359-8	14559-8
<b>192658</b> 58 Tooth	<b>592300C-8</b>	<b>592300CE-8</b>	4.125/-5cc F/T	<b>46360-8</b>	12.3	12.0	11.5	11.3	N*	Y	Y
	<b>592305C-8</b>	<b>592305CE-8</b>	4.130/-5cc F/T	<b>46361-8</b>	12.4	12.1	11.6	11.4	N*	Y	Y
	<b>592310C-8</b>	<b>592310CE-8</b>	4.135/-5cc F/T	<b>46362-8</b>	12.5	12.2	11.7	11.5	N*	Y	Y
6.125" Rod P/N Description	<b>592400C-8</b>	<b>592400CE-8</b>	4.125/-11cc Dish	<b>46360-8</b>	11.5	11.3	10.8	10.6	N*	Y	Y
	<b>592405C-8</b>	<b>592405CE-8</b>	4.130/-11cc Dish	<b>46361-8</b>	11.6	11.4	10.9	10.5	N*	Y	Y
	<b>592410C-8</b>	<b>592410CE-8</b>	4.135/-11cc Dish	<b>46362-8</b>	11.7	11.5	11.0	10.6	N*	Y	Y
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	<b>596300C-8</b>	<b>596300CE-8</b>	4.125/-18cc Dish	<b>46360-8</b>	10.6	10.4	10.0	9.8	N*	Y	Y
	<b>596305C-8</b>	<b>596305CE-8</b>	4.130/-18cc Dish	<b>46361-8</b>	10.6	10.4	10.0	9.9	N*	Y	Y
	<b>596310C-8</b>	<b>596310CE-8</b>	4.135/-18cc Dish	<b>46362-8</b>	10.7	10.5	10.1	10.0	N*	Y	Y
Bearing P/N Description											
	<b>30010</b> Rod <b>33030</b> or <b>33030H</b> Main										

## Small Block Chevrolet LS-7 (Long Snout)

Lightweight 1800gm. Bobweight 4.100" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					64cc	66cc	70cc	72cc	14051-8	14359-8	14559-8
<b>192758</b> 58 Tooth	<b>596600C-8</b>	<b>596600CE-8</b>	4.125/-11cc Dish	<b>46360-8</b>	11.6	11.4	10.9	10.7	N*	Y	Y
	<b>596605C-8</b>	<b>596605CE-8</b>	4.130/-11cc Dish	<b>46361-8</b>	11.7	11.5	11.0	10.8	N*	Y	Y
	<b>596610C-8</b>	<b>596610CE-8</b>	4.135/-11cc Dish	<b>46362-8</b>	11.8	11.6	11.1	10.9	N*	Y	Y
6.125" Rod P/N Description	<b>596400C-8</b>	<b>596400CE-8</b>	4.125/-20cc Dish	<b>46360-8</b>	10.6	10.4	10.1	9.9	N*	Y	Y
	<b>596405C-8</b>	<b>596405CE-8</b>	4.130/-20cc Dish	<b>46361-8</b>	10.7	10.5	10.1	9.9	N*	Y	Y
	<b>596410C-8</b>	<b>596410CE-8</b>	4.135/-20cc Dish	<b>46362-8</b>	10.8	10.6	10.2	10.0	N*	Y	Y
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	<b>596800C-8</b>	<b>596800CE-8</b>	4.125/-31cc Dish	<b>46360-8</b>	9.6	9.4	9.1	9.0	N*	Y	Y
	<b>596805C-8</b>	<b>596805CE-8</b>	4.130/-31cc Dish	<b>46361-8</b>	9.7	9.5	9.2	9.1	N*	Y	Y
	<b>596810C-8</b>	<b>596810CE-8</b>	4.135/-31cc Dish	<b>46362-8</b>	9.8	9.6	9.3	9.2	N*	Y	Y
Bearing P/N Description											
	<b>30010</b> Rod <b>33030</b> or <b>33030H</b> Main										

\*N = Factory balanced to +/- 1% of bobweight

Order part number **04000** for precision balancing to within 5 grams

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

Note: New part numbers are **BOLD & ITALICIZED**

# CUSTOM ROTATING ASSEMBLIES

## Chevrolet 5.3L LS / L83 Rotating Assemblies

Small Block Chevrolet 5.3L LS Gen III/IV

Lightweight 1800gm. Bobweight 3.622" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					58cc	62cc	66cc	70cc	14051-8	14359-8	14559-8
193924 24 Tooth or 193958 58 Tooth	<b>56100C-8</b>	<b>56100CE-8</b>	3.780/-2cc Flat Top	<b>46500ST-8</b>	10.50	9.99	9.53	9.11	Y	Y	Y
	<b>561010C-8</b>	<b>561010CE-8</b>	3.790/-2cc Flat Top	<b>46510ST-8</b>	10.55	10.03	9.57	9.15	Y	Y	Y
	<b>561020C-8</b>	<b>561020CE-8</b>	3.800/-2cc Flat Top	<b>46520ST-8</b>	10.60	10.08	9.62	9.20	Y	Y	Y
6.125" Rod P/N Description		Bearing P/N Description									
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam		30010 Rod & 33030 or 33030H Main									

Lightweight 1800gm. Bobweight 4.000" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio				Balance Req. (Y/N)		
					58cc	62cc	66cc	70cc	14051-8	14359-8	14559-8
192124 24 Tooth or 192158 58 Tooth	<b>561100C-8</b>	<b>561100CE-8</b>	3.780/-7cc Dish	<b>46500ST-8</b>	10.82	10.32	9.87	9.46	Y	Y	Y
	<b>561110C-8</b>	<b>561110CE-8</b>	3.790/-7cc Dish	<b>46510ST-8</b>	10.87	10.37	9.92	9.51	Y	Y	Y
	<b>561120C-8</b>	<b>561120CE-8</b>	3.800/-7cc Dish	<b>46520ST-8</b>	10.92	10.42	9.96	9.55	Y	Y	Y
6.125" Rod P/N Description		Bearing P/N Description									
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam		30010 Rod & 33030 or 33030H Main									

## Small Block Chevrolet 5.3L L83 Gen V Direct Injected

Lightweight 1850gm. Bobweight 3.622" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio	Balance Req. (Y/N)					
					60cc	14051-8	14359-8	14559-8			
194158 194358 (Long Snout) 58 Tooth	<b>561200C-8</b>	<b>561200CE-8</b>	3.780/-2cc Dome	<b>46500ST-8</b>	10.26	Y	Y	Y			
	<b>561210C-8</b>	<b>561210CE-8</b>	3.790/-2cc Dome	<b>46510ST-8</b>	10.31	Y	Y	Y			
	<b>561220C-8</b>	<b>561220CE-8</b>	3.800/-2cc Dome	<b>46520ST-8</b>	10.36	Y	Y	Y			
6.125" Rod P/N Description		Bearing P/N Description									
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam		30010 Rod 33110H Main									

Lightweight 1820gm. Bobweight 4.000" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio	Balance Req. (Y/N)					
					60cc	14051-8	14359-8	14559-8			
194258 194458 (Long Snout) 58 Tooth	<b>561300C-8</b>	<b>561300CE-8</b>	3.780/-10cc Dish	<b>46500ST-8</b>	10.20	Y	Y	Y			
	<b>561310C-8</b>	<b>561310CE-8</b>	3.790/-10cc Dish	<b>46510ST-8</b>	10.25	Y	Y	Y			
	<b>561320C-8</b>	<b>561320CE-8</b>	3.800/-10cc Dish	<b>46520ST-8</b>	10.30	Y	Y	Y			
6.125" Rod P/N Description		Bearing P/N Description									
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam		30010 Rod 33110H Main									

Order part number 04000 for precision balancing to within 5 grams

"LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

Note: New part numbers are **BOLD & ITALICIZED**

# CRANKSHAFTS

## Chevrolet LT1 Crankshafts

### Direct Injected LT1 4340 Forged Crankshafts

**Manley Performance "PRO SERIES" crankshafts designed for the Small Block direct injected LT1 engine...** Manufactured from a premium 4340 steel forging, these cranks feature a stock 3.622" stroke or an increased 4.000" stroke which can turn your 6.2L into 6.8-7.0L depending on your bore. All crankshafts are shipped with a 58 tooth reluctor wheel installed.

- ▶ 4340 material forgings
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals (narrowed rod bearings required)
- ▶ Gun drilled mains and lightened rod journals for weight reduction
- ▶ Counterweights fully profiled

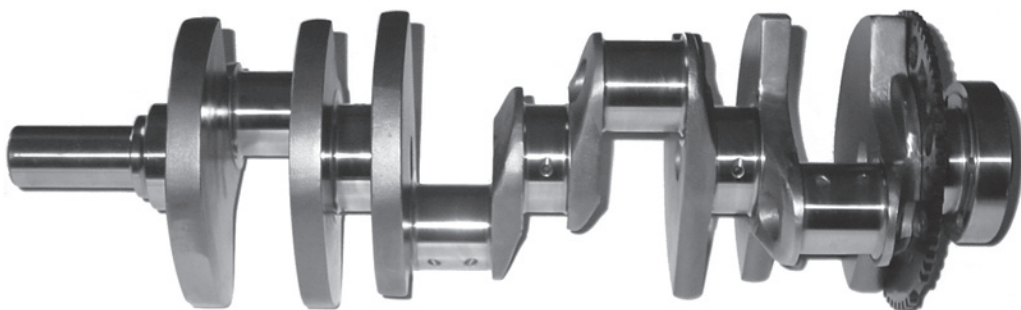
Part No.	Stroke	Minimum Rod Length	Main Journal Diameter	Rod Journal Diameter	Bobweight (grams)	Total Weight (lbs.)
<b>LIGHTWEIGHT</b>						
194158	3.622"	6.098"	2.559"	2.100"	1850	51-53
194258	4.000"	6.125"	2.559"	2.100"	1820	51-53
<b>LIGHTWEIGHT WITH LONG SNOOT (Dry Sump Oiling Systems)</b>						
194358	3.622"	6.098"	2.559"	2.100"	1850	51-53
194458	4.000"	6.125"	2.559"	2.100"	1820	51-53

The stock timing crank gear may need to be chamfered to clear the larger radius on the snout of the crankshaft

Note: Manley crankshafts are not intended for use with highly boosted roots style cog belt superchargers

### Precision Balancing Information

Part No.	Bobweight Modification
04004	Precision balancing the crankshaft from -200 to -71 grams from the published bobweight
04000	Precision balancing the crankshaft from -70 to +20 grams from the published bobweight
04005	Precision balancing the crankshaft from +21 to +80 grams from the published bobweight
04006	Precision balancing the crankshaft from +81 to +160 grams from the published bobweight



Create your own "Bullet-Proof" Chevy LT1 Rotating Assemblies with Manley H-Beam or Pro Series I-Beam Connecting Rods and Manley Platinum Series Pistons on Page 165.

# CUSTOM ROTATING ASSEMBLIES

## Chevrolet LT1 Rotating Assemblies



Ordering a Manley LT1 rotating assembly is as easy as 1-2-3...

1. Choose your crankshaft part number based on stroke and then order the corresponding rod and main bearing part numbers shown
2. Choose your connecting rod part number
3. Choose your piston part number based on bore size and desired compression ratio along with the corresponding piston ring part number

Ordering all of the required components for your LT1 rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details.

Order part number **04000** for precision balancing to within 5 grams

### CRANKS

- ▶ Lightweight 4340 material forgings
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals
- ▶ Gun drilled mains and lightened rod journals for weight reduction
- ▶ Counterweights fully profiled

### RODS

- ▶ Lightweight design 4340 material forgings
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of  $\pm .0002''$
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to  $\pm 1.5$  grams
- ▶ H-Beam comes standard with low profile 7/16" ARP 8740 bolts providing additional block and oil pan clearance (affix an R suffix for ARP 2000 bolt upgrade)
- ▶ I-Beam comes standard with 7/16" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

### PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exact ring groove squareness to cylinder wall provides maximum horsepower.
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty Series
- ▶ Moly coated skirts

### RINGS

- ▶ 1.2 x 1.2 x 3mm
- ▶ Premium steel top rings are optional (affix ST suffix)

### BEARINGS

- ▶ Premium Clevite® "H" Series narrowed rod bearings and "H" Series main bearings

## Small Block Chevrolet Direct Injected LT1

Lightweight 1850gm. Bobweight 3.622" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Comp. Ratio 60cc	Balance Req. (Y/N)		
						14051-8	14359-8	14559-8
<b>194158</b>	<b>560065C-8</b>	<b>560065CE-8</b>	4.065/-2cc Dome	<b>46016-8</b>	11.7	N*	Y	Y
<b>194358</b> (Long Snout) 58 Tooth	<b>560070C-8</b>	<b>560070CE-8</b>	4.070/-2cc Dome	<b>46017-8</b>	11.7	N*	Y	Y
	<b>560075C-8</b>	<b>560075CE-8</b>	4.075/-2cc Dome	<b>46017-8</b>	11.8	N*	Y	Y
	<b>560080C-8</b>	<b>560080CE-8</b>	4.080/-2cc Dome	<b>46018-8</b>	11.8	N*	Y	Y
	<b>560165C-8</b>	<b>560165CE-8</b>	4.065/-12cc Dish	<b>46016-8</b>	10.5	N*	Y	Y
6.125" Rod P/N Description	<b>560170C-8</b>	<b>560170CE-8</b>	4.070/-12cc Dish	<b>46017-8</b>	10.5	N*	Y	Y
	<b>560175C-8</b>	<b>560175CE-8</b>	4.075/-12cc Dish	<b>46017-8</b>	10.6	N*	Y	Y
	<b>560180C-8</b>	<b>560180CE-8</b>	4.080/-12cc Dish	<b>46018-8</b>	10.6	N*	Y	Y
	<b>560180C-8</b>	<b>560180CE-8</b>	4.080/-12cc Dish	<b>46018-8</b>	10.6	N*	Y	Y
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	<b>560165C-8</b>	<b>560165CE-8</b>	4.065/-12cc Dish	<b>46016-8</b>	10.5	N*	Y	Y
	<b>560170C-8</b>	<b>560170CE-8</b>	4.070/-12cc Dish	<b>46017-8</b>	10.5	N*	Y	Y
	<b>560175C-8</b>	<b>560175CE-8</b>	4.075/-12cc Dish	<b>46017-8</b>	10.6	N*	Y	Y
Bearing P/N Description	<b>30010</b> Rod							
	<b>33110H</b> Main							

Lightweight 1820gm. Bobweight 4.000" Stroke Cranks

Crank P/N Reluctor Wheel	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Comp. Ratio 60cc	Balance Req. (Y/N)		
						14051-8	14359-8	14559-8
<b>194258</b>	<b>560265C-8</b>	<b>560265CE-8</b>	4.065/-10cc Dish	<b>46016-8</b>	11.7	N*	Y	Y
<b>194458</b> (Long Snout) 58 Tooth	<b>560270C-8</b>	<b>560270CE-8</b>	4.070/-10cc Dish	<b>46017-8</b>	11.7	N*	Y	Y
	<b>560275C-8</b>	<b>560275CE-8</b>	4.075/-10cc Dish	<b>46017-8</b>	11.8	N*	Y	Y
	<b>560280C-8</b>	<b>560280CE-8</b>	4.080/-10cc Dish	<b>46018-8</b>	11.8	N*	Y	Y
	<b>560300C-8</b>	<b>560300CE-8</b>	4.125/-10cc Dish	<b>46060-8</b>	12.0	N*	Y	Y
6.125" Rod P/N Description	<b>560305C-8</b>	<b>560305CE-8</b>	4.130/-10cc Dish	<b>46061-8</b>	12.0	N*	Y	Y
	<b>560310C-8</b>	<b>560310CE-8</b>	4.135/-10cc Dish	<b>46062-8</b>	12.1	N*	Y	Y
	<b>560465C-8</b>	<b>560465CE-8</b>	4.065/-20cc Dish	<b>46016-8</b>	10.5	N*	Y	Y
	<b>560470C-8</b>	<b>560470CE-8</b>	4.070/-20cc Dish	<b>46017-8</b>	10.5	N*	Y	Y
14051-8 H-Beam or 14359-8 LW I-Beam or 14559-8 SW I-Beam	<b>560475C-8</b>	<b>560475CE-8</b>	4.075/-20cc Dish	<b>46017-8</b>	10.6	N*	Y	Y
	<b>560480C-8</b>	<b>560480CE-8</b>	4.080/-20cc Dish	<b>46018-8</b>	10.6	N*	Y	Y
	<b>560500C-8</b>	<b>560500CE-8</b>	4.125/-20cc Dish	<b>46060-8</b>	10.8	N*	Y	Y
	<b>560505C-8</b>	<b>560505CE-8</b>	4.130/-20cc Dish	<b>46061-8</b>	10.8	N*	Y	Y
Bearing P/N Description	<b>560510C-8</b>	<b>560510CE-8</b>	4.135/-20cc Dish	<b>46062-8</b>	10.9	N*	Y	Y
	<b>30010</b> Rod							
<b>33110H</b> Main								

\*N = Factory balanced to +/- 1% of bobweight

Order part number **04000** for precision balancing to within 5 grams

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

Note: New part numbers are **BOLD & ITALICIZED**



CRANKS & KITS

# CRANKSHAFTS

## Chrysler 5.7L/6.1L/6.4L Hemi

### 4340 Forged Crankshafts

**Manley Performance "PRO SERIES" stroker crankshaft designed for the small block HEMI engine...** Manufactured from a premium 4340 steel forging, these cranks feature a 4.050" stroke which can turn your 5.7L into a 392 c.i. engine and your 6.1L/6.4L into a 426 c.i. engine. The Manley 4.050" stroke HEMI crankshaft features small block Chevy small journal (2.000") crank pin diameters and widths. This provides taller "side walls" on the crankshaft rod journals for better oil control and reduced windage. The counterweights are profiled for 6.125" length connecting rods. All crankshafts are shipped with either a 32 tooth or 58 tooth reluctor wheel installed.

- ▶ 4340 material forging
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals (narrowed rod bearings required)
- ▶ Dual keyed post for supercharger drive pulleys
- ▶ Gun drilled mains and lightened rod journals for weight reduction
- ▶ Counterweights fully profiled



Part No.	Application	Reluctor Wheel	Stroke	Bobweight (grams)	Total Weight (lbs.)
191832	5.7L Up to 2008 6.1L	32	4.050"	1730	49-51
191858*	5.7L 2009-2012 6.4L 2011-2012	58	4.050"	1730	49-51
191958*	5.7L/6.4L 2013 - Up	58	4.050"	1730	49-51

The stock timing crank gear may need to be chamfered to clear the larger radius on the snout of the crankshaft

Note: All 2012 and earlier 58 tooth reluctor wheels have a tooth width of .170"

All 2013 and later 58 tooth reluctor wheels have a tooth width of .130", along with a dimple in the rear face of the wheel.

All reluctor wheels are attached with 4 fasteners.

Note: Manley crankshafts are not intended for use with highly boosted roots style cog belt superchargers

\*Note: When installing these crankshafts in a VVT engine, you also need to order a crankshaft gear spacer part number 42000.

### Precision Balancing Information

Part No.	Bobweight Modification
04004	Precision balancing the crankshaft from -200 to -71 grams from the published bobweight
04000	Precision balancing the crankshaft from -70 to +20 grams from the published bobweight
04005	Precision balancing the crankshaft from +21 to +80 grams from the published bobweight
04006	Precision balancing the crankshaft from +81 to +160 grams from the published bobweight

With our "PRO SERIES" 4.050" stroke small block HEMI crankshafts, we have the ability to offer our customers complete rotating assemblies utilizing Manley Platinum Series pistons and Manley H-Beam or Pro Series I-Beam connecting rods. See Pages 167-168.

# CUSTOM ROTATING ASSEMBLIES

## Chrysler 5.7L/6.1L/6.4L Rotating Assemblies

Ordering a Manley SB HEMI rotating assembly is as easy as 1-2-3...

1. Choose your crankshaft part number based on required reluctor wheel for your vehicle and order the corresponding rod and main bearing part numbers shown
2. Choose your connecting rod part number
3. Choose your piston part number based on bore size and desired compression ratio and the corresponding piston ring part number

Ordering all of the required components for your SB HEMI rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details.

Order part number **04000** for precision balancing to within 5 grams

### CRANKS

- ▶ Lightweight 4340 material forging
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals
- ▶ Available with either 32 or 58 tooth reluctor wheels
- ▶ Gun drilled mains and lightened rod journals for weight reduction
- ▶ Counterweights fully profiled

### RODS

- ▶ Lightweight design 4340 material forgings
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of  $\pm .0002"$
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Beam comes standard with 7/16" ARP 8740 bolts (affix an R suffix for ARP 2000 bolt upgrade)
- ▶ I-Beam comes standard with 7/16" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

### PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exacting ring groove squareness to cylinder wall provides maximum horsepower.
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty Series
- ▶ Moly coated skirts

### RINGS

- ▶ 1.5 x 1.5 x 3mm Total Seal (moly in-lay tops standard)
- ▶ Premium steel top rings are optional (affix ST suffix)
- ▶ Total Seal Gapless® steel top ring sets also available (affix GT suffix)

### BEARINGS

- ▶ Premium Clevite® "H" Series narrowed rod bearings and "P" Series or "H" Series main bearings

## Small Block Chrysler 5.7L Hemi Series

Lightweight 1730gm. Bobweight 4.050" Stroke Cranks

Crank P/N Reluctor Wheel	Piston Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio			Balance Req. (Y/N)		
					85cc	65cc	74cc	14056-8	14455-8	14255-8
191832 32 Tooth Up to 2008 or 191858 58 Tooth 2009-2012 or 191958 58 Tooth 2013 - Up	597200C-8	597200CE-8	3.917/-1.5cc F/T	46120-8	9.63	12.00	10.79	N*	N*	Y
	597205C-8	597205CE-8	3.922/-1.5cc F/T	46121-8	9.65	12.03	10.81	N*	N*	Y
	597220C-8	597220CE-8	3.937/-1.5cc F/T	46122-8	9.72	12.11	10.89	N*	N*	Y
6.125" Rod P/N Description	597300C-8	597300CE-8	3.917/-14cc Dish	46120-8	8.60	10.39	9.49	N*	Y	Y
	597305C-8	597305CE-8	3.922/-14cc Dish	46121-8	8.62	10.41	9.51	N*	Y	Y
	597320C-8	597320CE-8	3.937/-14cc Dish	46122-8	8.68	10.48	9.58	N*	Y	Y
14056-8 H-Beam or 14455-8 LW I-Beam or 14255-8 SW I-Beam	598500C-8	598500CE-8	3.917/-23cc Dish	46120-8	8.00	9.49	8.75	N*	Y	Y
	598505C-8	598505CE-8	3.922/-23cc Dish	46121-8	8.02	9.51	8.77	N*	Y	Y
	598520C-8	598520CE-8	3.937/-23cc Dish	46122-8	8.07	9.58	8.83	N*	Y	Y
Bearing P/N Description										
30020 Rod										
33050 or 33050H Main										

\*N = Factory balanced to +/- 1% of bobweight

Order part number **04000** for precision balancing to within 5 grams

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

# CUSTOM ROTATING ASSEMBLIES

## Small Block Chrysler 6.1L Hemi Series

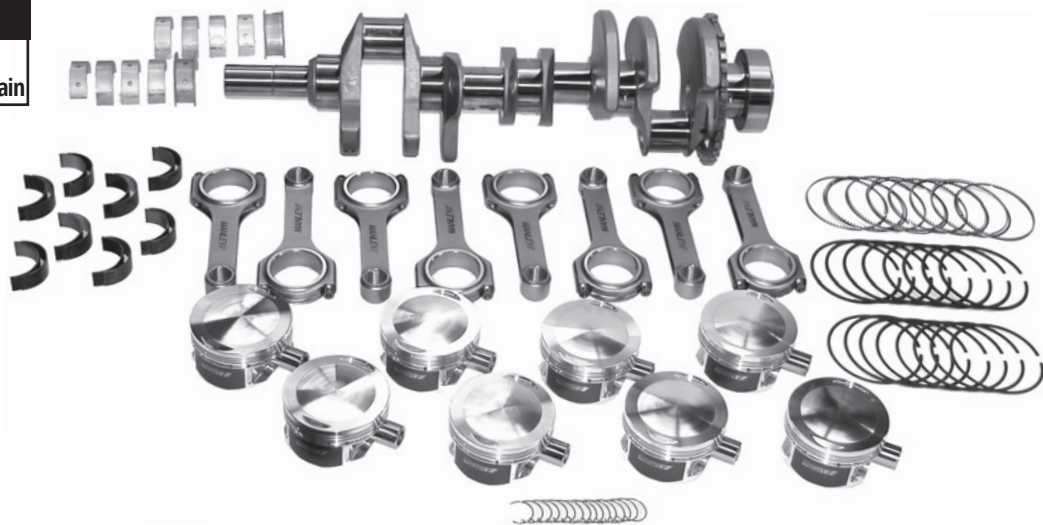
Lightweight 1730gm. Bobweight 4.050" Stroke Cranks

Crank P/N Reluctor Wheel	Piston Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio 74cc	Balance Req. (Y/N)			
						14056-8	14455-8	14255-8	
191832 32 Tooth	597860C-8	597860CE-8	4.060/-1.5cc F/T	46116-8	11.13	Y	N*	Y	
	597865C-8	597865CE-8	4.065/-1.5cc F/T	46116-8	11.16	Y	N*	Y	
	597880C-8	597880CE-8	4.080/-1.5cc F/T	46118-8	11.23	Y	Y	Y	
6.125" Rod P/N Description	598660C-8	598660CE-8	4.060/-11.5cc Dish	46116-8	10.06	Y	N*	Y	
	14056-8 H-Beam or 14455-8 LW I-Beam or 14255-8 SW I-Beam	598665C-8 598680C-8	598665CE-8 598680CE-8	4.065/-11.5cc Dish 4.080/-11.5cc Dish	46116-8 46118-8	10.09 10.15	Y Y	N* N*	Y Y
	598760C-8	598760CE-8	4.060/-24cc Dish	46116-8	9.01	N*	N*	Y	
Bearing P/N Description	598765C-8	598765CE-8	4.065/-24cc Dish	46116-8	9.03	N*	N*	Y	
	598780C-8	598780CE-8	4.080/-24cc Dish	46118-8	9.09	Y	N*	Y	
30020 Rod 33050 or 33050H Main									

## Small Block Chrysler 6.4L Hemi Series

Lightweight 1730gm. Bobweight 4.050" Stroke Cranks

Crank P/N Reluctor Wheel	Piston Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Compression Ratio 72cc	Balance Req. (Y/N)			
						14056-8	14455-8	14255-8	
191858 58 Tooth 2011-2012 or 191958 58 Tooth 2013 - Up	599800C-8	599800CE-8	4.090/-5cc Dish	46129ST-8	11.00	Y	N*	Y	
	599805C-8	599805CE-8	4.095/-5cc Dish	46130ST-8	11.01	Y	N*	Y	
	599810C-8	599810CE-8	4.100/-5cc Dish	46131ST-8	11.02	Y	N*	Y	
6.125" Rod P/N Description	599900C-8	599900CE-8	4.090/-20.5cc Dish	46129ST-8	9.50	Y	N*	Y	
	14056-8 H-Beam or 14455-8 LW I-Beam or 14255-8 SW I-Beam	599905C-8 599910C-8	599905CE-8 599910CE-8	4.095/-20.5cc Dish 4.100/-20.5cc Dish	46130ST-8 46131ST-8	9.51 9.52	Y Y	N* N*	Y Y
	Bearing P/N Description	30020 Rod 33050 or 33050H Main							



\*N = Factory balanced to +/- 1% of bobweight

Order part number 04000 for precision balancing to within 5 grams

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod



# CRANKSHAFTS & ROTATING ASSEMBLIES

## Ford 351C & Windsor (2.750" Main) Crankshafts

- ▶ 4340 material forgings
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals (narrowed rod bearings required)
- ▶ Lightened rod journals for weight reduction
- ▶ Counterweights fully profiled

Part No.	Stroke	Minimum Rod Length	Main Journal Diameter	Rod Journal Diameter	Bobweight (grams)	Total Weight (lbs.)
190330*	3.850"	6.125"	2.750"	2.100"	1800	58-60
190340**	4.100"	6.200"	2.750"	2.100"	1860	58-60

\* 3.850" stroke crank intended for use with Cleveland 9.200" deck blocks with 2.750" mains

\*\* 4.100" stroke crank intended for use with Windsor 9.500" deck aftermarket blocks with 2.750" mains

Note: Manley crankshafts are not intended for use with highly boosted roots style cog belt superchargers

### Precision Balancing Information

Part No.	Bobweight Modification
04004	Precision balancing the crankshaft from -200 to -71 grams from the published bobweight
04000	Precision balancing the crankshaft from -70 to +20 grams from the published bobweight
04005	Precision balancing the crankshaft from +21 to +80 grams from the published bobweight
04006	Precision balancing the crankshaft from +81 to +160 grams from the published bobweight

## Ford 351C & Windsor (2.750" Main) w/ Cleveland Heads

### Rotating Assemblies

- ▶ 4340 Forged steel crankshaft
- ▶ 4340 Forged steel H-Beam connecting rods with 7/16" ARP 8740 or optional ARP 2000 cap screws
- ▶ 2618 Forged aluminum Platinum Series pistons with Premium Chrome Moly wrist pins
- ▶ Total Seal® piston rings & high performance Clevite® "H" Series rod bearings (narrowed) and "P" or "H" Series main bearings

Note: All rotating assemblies listed below are factory balanced to within +/- 1% of bobweight. Order part number 04000 for precision balancing to within 5 grams

Part No.	Stroke	CID	Crank P/N	Rod Length	Rod P/N	Bore Size	Piston P/N	Piston Type	Compression Ratio				Piston Ring Package	Piston Ring P/N
									62cc	64cc	72cc	80cc		
29393*	3.850"	393	190330	6.125"	14055	4.030"	599330-8	Flat -3.5cc	11.7	11.4	10.4	9.6	1.5mm, 3mm	46113
29395*	3.850"	395	190330	6.125"	14055	4.040"	599340-8	Flat -3.5cc	11.7	11.5	10.5	9.7	1.5mm, 3mm	46114
28438**	4.100"	438	190340	6.250"	14067	4.125"	599400-8	Dish -11cc	11.9	11.7	10.7	10.0	1.5mm, 3mm	46360
28445**	4.100"	445	190340	6.250"	14067	4.155"	599430-8	Dish -11cc	12.1	11.8	10.9	10.1	1.5mm, 3mm	46363

\* 3.850" stroke crank intended for use with Cleveland 9.200" deck blocks with 2.750" mains

\*\* 4.100" stroke crank intended for use with Windsor 9.500" deck aftermarket blocks with 2.750" mains

Add an "R" to the assembly part number to order the optional ARP 2000 rod bolt upgrade

Add an "H" to the assembly part number to order the optional "H" Series main bearings

### Bearing Chart

Clevite® "H" Series Rod Bearings	Clevite® "P" Series Main Bearings	Clevite® "H" Series Main Bearings
30010	33100	33100H

CRANKS & KITS

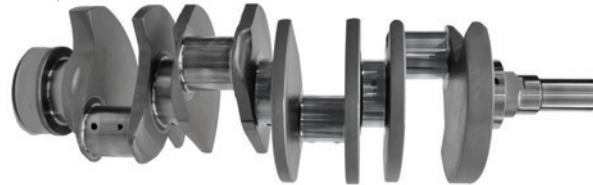
# CRANKSHAFTS & ROTATING ASSEMBLIES

## Ford 4.6L Modular

**Manley Performance "PRO SERIES" crankshafts designed for the Ford 4.6L Modular engine...** Manufactured from a premium 4340 steel forging, these cranks feature either the stock 3.543" stroke or an increased stroke of 3.750", turning your 4.6L into a 5.0L or larger depending on your bore.



- ▶ 4340 material forgings
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals (narrowed rod bearings required)
- ▶ Lightened rod journals for weight reduction
- ▶ Counterweights fully profiled



Part No.	Stroke	Minimum Rod Length	Main Journal Diameter	Rod Journal Diameter	Bobweight (grams)	Total Weight (lbs.)
<b>190350</b>	3.543"	5.933"	2.6572"	2.0863"	unbalanced	51-53
<b>190360</b>	3.750"	5.850"	2.6572"	2.0000"	unbalanced	51-53

The stock timing crank gear may need to be chamfered to clear the larger radius on the snout of the crankshaft

Note: Manley crankshafts are not intended for use with highly boosted roots style cog belt superchargers

### Precision Balancing Information

Part No.	Bobweight Modification
<b>04004</b>	Precision balancing the crankshaft from -200 to -71 grams from the published bobweight
<b>04000</b>	Precision balancing the crankshaft from -70 to +20 grams from the published bobweight
<b>04005</b>	Precision balancing the crankshaft from +21 to +80 grams from the published bobweight
<b>04006</b>	Precision balancing the crankshaft from +81 to +160 grams from the published bobweight

## Ford Mod "Ready To Run" Rotating Assemblies

- ▶ Lightweight 4340 forged steel crankshaft
- ▶ 4340 Forged steel H-Beam connecting rods with 3/8" ARP 8740 cap screws or optional ARP 2000 cap screws
- ▶ 2618 Forged aluminum Platinum Series pistons with Premium Chrome Moly wrist pins
- ▶ Total Seal® piston rings & high performance Clevite® "H" Series rod bearings (narrowed)
- ▶ Available as an Unbalanced (NOT Ready To Run) or a Precision Balanced (Ready To Run) assembly



Unbalanced Part No.	Precision Balanced Part No.	Stroke	CID	Crank P/N	Rod Length	Rod P/N	Bore Size	Piston P/N	Piston Type	Compression Ratio			Piston Ring Package	Piston Ring P/N
										42cc	51cc	52cc		
<b>2 &amp; 4 VALVE CYLINDER HEAD</b>														
<b>28120UB*</b>	<b>28120PB*</b>	3.543"	284	190350	5.933"	14042	3.572"	594120C	Dish -11cc	10.64	9.39	9.27	1.5mm, 3mm	46620
<b>29220UB*</b>	<b>29220PB*</b>	3.750"	300	190360	5.850"	14044	3.572"	595220C	Dish -18cc	10.14	9.06	8.96	1.5mm, 3mm	46620
<b>3 VALVE CYLINDER HEAD</b>														
<b>28320UB*</b>	<b>28320PB*</b>	3.543"	284	190350	5.933"	14042	3.572"	594320C	Dish -6.5cc	-	9.95	-	1.5mm, 3mm	46620
<b>29520UB*</b>	<b>29520PB*</b>	3.750"	300	190360	5.850"	14044	3.572"	595520C	Dish -14cc	-	9.51	-	1.5mm, 3mm	46620

\*Main bearings not included with kit. Order part number **33120** (Romeo Iron), **33130** (Windsor Iron) or **33140** (Windsor Aluminum).

Add an "R" to the assembly part number to order the optional ARP 2000 rod bolt upgrade

Note: New part numbers are **BOLD & ITALICIZED**

CRANKS & KITS

# CUSTOM ROTATING ASSEMBLIES

## Ford Modular 4.6L Rotating Assemblies

Ordering a Manley Ford Mod rotating assembly is as easy as 1-2-3.....

1. Choose your crankshaft part number based on stroke and order the corresponding rod and main bearing part numbers shown
2. Choose your connecting rod part number
3. Choose your piston part number based on bore size and desired compression ratio along with the corresponding piston ring part number

Ordering all of the required components for your Ford Mod rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details.

### CRANKS

- ▶ Lightweight 4340 material forgings
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Micro polished large radius journals
- ▶ Lightened rod journals for weight reduction
- ▶ Counterweights fully profiled

### RODS

- ▶ Lightweight design 4340 material forgings
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of +/- .0002"
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Beam comes standard with 3/8" ARP 8740 bolts (affix an R suffix for ARP 2000 bolt upgrade)
- ▶ I-Beam comes standard with 7/16" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

### PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exacting ring groove squareness to cylinder wall provides maximum horsepower.
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty Series
- ▶ Moly coated skirts

### RINGS

- ▶ 1.5 x 1.5 x 3mm Total Seal (moly in-lay tops standard)
- ▶ Premium steel top rings are optional (affix ST suffix)
- ▶ Total Seal Gapless® steel top ring sets also available (affix GT suffix)

### BEARINGS

- ▶ Premium Clevite® "H" Series narrowed rod bearings and "P" Series or "H" Series main bearings

## FORD 4.6L DOHC 3 VALVE (2004-up)

### Lightweight unbalanced 3.543" Stroke Crank

Crank P/N	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Comp. Ratio 51cc	Balance Req. (Y/N)		
						H-Beam	LW I-Beam	SW I-Beam
<b>190350</b>	<b>594300C-8</b>	<b>594300CE-8</b>	3.552/-6.5cc Dish	<b>46600-8</b>	9.86	Y	Y	Y
Rod P/N Description	<b>594320C-8</b>	<b>594320CE-8</b>	3.572/-6.5cc Dish	<b>46620-8</b>	9.95	Y	Y	Y
	<b>594330C-8</b>	<b>594330CE-8</b>	3.582/-6.5cc Dish	<b>46630-8</b>	10.00	Y	Y	Y
H-Beam or LW I-Beam or SW I-Beam	<b>594500C-8</b>	<b>594500CE-8</b>	3.552/-14cc Dish	<b>46600-8</b>	8.94	Y	Y	Y
	<b>594520C-8</b>	<b>594520CE-8</b>	3.572/-14cc Dish	<b>46620-8</b>	9.03	Y	Y	Y
	<b>594530C-8</b>	<b>594530CE-8</b>	3.582/-14cc Dish	<b>46630-8</b>	9.07	Y	Y	Y
	<b>594570C-8</b>	<b>594570CE-8</b>	3.700/-14cc Dish	<b>46670-8</b>	9.58	Y	Y	Y
Bearing P/N Description Block Type		<b>30120</b> Rod All	<b>33120</b> or <b>33120H</b> Main Romeo Iron	<b>33130</b> or <b>33130H</b> Main Windsor Iron	<b>33140</b> or <b>33140H</b> Main Windsor Aluminum			

### Lightweight unbalanced 3.750" Stroke Crank

Crank P/N	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Comp. Ratio 51cc	Balance Req. (Y/N)		
						H-Beam	LW I-Beam	SW I-Beam
<b>190360</b>	<b>595500C-8</b>	<b>595500CE-8</b>	3.552/-14cc Dish	<b>46600-8</b>	9.41	Y	Y	Y
Rod P/N Description	<b>595520C-8</b>	<b>595520CE-8</b>	3.572/-14cc Dish	<b>46620-8</b>	9.51	Y	Y	Y
	<b>595530C-8</b>	<b>595530CE-8</b>	3.582/-14cc Dish	<b>46630-8</b>	9.55	Y	Y	Y
H-Beam or LW I-Beam or SW I-Beam	<b>595570C-8</b>	<b>595570CE-8</b>	3.700/-18cc Dish	<b>46670-8</b>	9.64	Y	Y	Y
	Bearing P/N Description Block Type		<b>30020</b> Rod All	<b>33120</b> or <b>33120H</b> Main Romeo Iron	<b>33130</b> or <b>33130H</b> Main Windsor Iron	<b>33140</b> or <b>33140H</b> Main Windsor Aluminum		

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

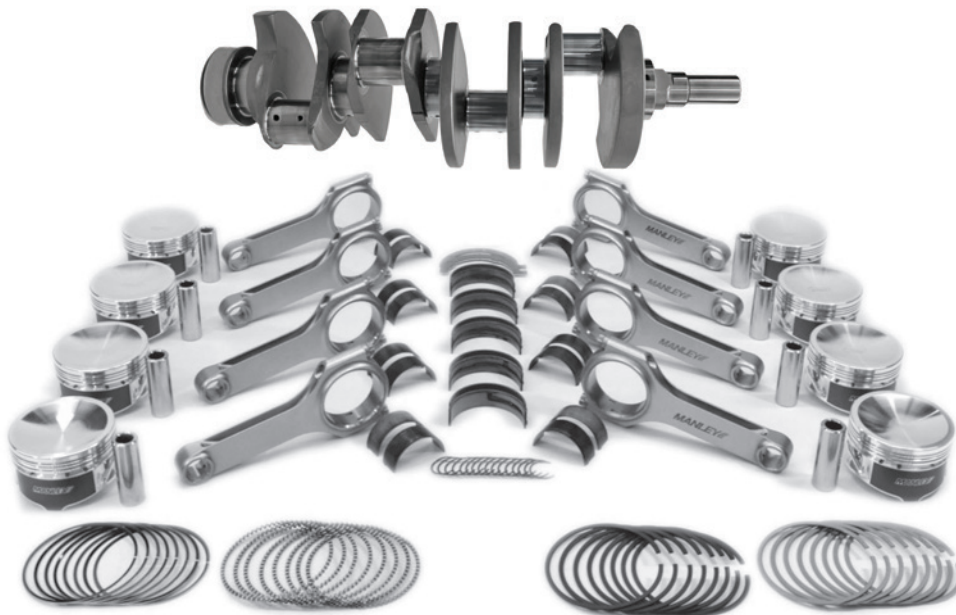
Note: New part numbers are **BOLD & ITALICIZED**

# CUSTOM ROTATING ASSEMBLIES

## FORD 4.6L SOHC/DOHC 2 & 4 VALVE (1991-up)

Lightweight unbalanced 3.543" Stroke Crank

Crank P/N	Standard Part No.	Extreme Duty Part No.	Piston Description	Ring Part No.	Comp. Ratio			Balance Req. (Y/N)		
					42cc	51cc	52cc	H-Beam	LW I-Beam	SW I-Beam
<b>190350</b>	594000C-8	594000CE-8	3.552/Flat Top	46600-8	12.65	10.86	10.69	Y	Y	Y
Rod P/N Description	594020C-8	594020CE-8	3.572/Flat Top	46620-8	12.78	10.97	10.80	Y	Y	Y
	594030C-8	594030CE-8	3.582/Flat Top	46630-8	12.85	11.02	10.85	Y	Y	Y
14042-8 H-Beam or 14318-8 LW I-Beam or 14518-8 SW I-Beam	594070C-8	594070CE-8	3.700/Flat Top	46670-8	13.55	11.63	11.45	Y	Y	Y
	594100C-8	594100CE-8	3.552/-11cc Dish	46600-8	10.53	9.29	9.18	Y	Y	Y
	594120C-8	594120CE-8	3.572/-11cc Dish	46620-8	10.64	9.39	9.27	Y	Y	Y
	594130C-8	594130CE-8	3.582/-11cc Dish	46630-8	10.69	9.43	9.31	Y	Y	Y
	594170C-8	594170CE-8	3.700/-11cc Dish	46670-8	11.33	9.99	9.86	Y	Y	Y
	594200C-8	594200CE-8	3.552/-18cc Dish	46600-8	9.54	8.53	8.44	Y	Y	Y
	594220C-8	594220CE-8	3.572/-18cc Dish	46620-8	9.63	8.63	8.52	Y	Y	Y
	594230C-8	594230CE-8	3.582/-18cc Dish	46630-8	9.68	8.66	8.56	Y	Y	Y
	594270C-8	594270CE-8	3.700/-18cc Dish	46670-8	10.21	9.13	9.03	Y	Y	Y
	594400C-8	594400CE-8	3.552/-23cc Dish	46600-8	8.95	8.07	7.98	Y	Y	Y
	594420C-8	594420CE-8	3.572/-23cc Dish	46620-8	9.04	8.15	8.06	Y	Y	Y
	594430C-8	594430CE-8	3.582/-23cc Dish	46630-8	9.08	8.19	8.10	Y	Y	Y
	594470C-8	594470CE-8	3.700/-23cc Dish	46670-8	9.58	8.64	8.54	Y	Y	Y
Bearing P/N Description Block Type		<b>30120</b> Rod All	<b>33120</b> or <b>33120H</b> Main Romeo Iron	<b>33130</b> or <b>33130H</b> Main Windsor Iron	<b>33140</b> or <b>33140H</b> Main Windsor Aluminum					



Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

Note: New part numbers are **BOLD & ITALICIZED**

# CUSTOM ROTATING ASSEMBLIES

## FORD 4.6L SOHC/DOHC 2 & 4 VALVE (1991-up)

Lightweight unbalanced 3.750" Stroke Crank

Crank P/N	Standard	Extreme Duty	Piston Description	Ring Part No.	Comp. Ratio			Balance Req. (Y/N)		
	Part No.	Part No.			42cc	51cc	52cc	H-Beam	LW I-Beam	SW I-Beam
<b>190360</b>	<b>595000C-8</b>	<b>595000CE-8</b>	3.552/Flat Top	<b>46600-8</b>	13.33	11.43	11.26	Y	Y	Y
Rod P/N Description	<b>595020C-8</b>	<b>595020CE-8</b>	3.572/Flat Top	<b>46620-8</b>	13.47	11.55	11.37	Y	Y	Y
	<b>595030C-8</b>	<b>595030CE-8</b>	3.582/Flat Top	<b>46630-8</b>	13.54	11.61	11.43	Y	Y	Y
<b>14044-8</b> H-Beam or <b>14320-8</b>	<b>595100C-8</b>	<b>595100CE-8</b>	3.552/-11cc Dish	<b>46600-8</b>	11.09	9.78	9.65	Y	Y	Y
	<b>595120C-8</b>	<b>595120CE-8</b>	3.572/-11cc Dish	<b>46620-8</b>	11.20	9.88	9.75	Y	Y	Y
LW I-Beam or <b>14520-8</b> SW I-Beam	<b>595130C-8</b>	<b>595130CE-8</b>	3.582/-11cc Dish	<b>46630-8</b>	11.25	9.92	9.80	Y	Y	Y
	<b>595200C-8</b>	<b>595200CE-8</b>	3.552/-18cc Dish	<b>46600-8</b>	10.04	8.97	8.87	Y	Y	Y
	<b>595220C-8</b>	<b>595220CE-8</b>	3.572/-18cc Dish	<b>46620-8</b>	10.14	9.06	8.96	Y	Y	Y
	<b>595230C-8</b>	<b>595230CE-8</b>	3.582/-18cc Dish	<b>46630-8</b>	10.19	9.11	9.00	Y	Y	Y
	<b>595270C-8</b>	<b>595270CE-8</b>	3.700/-18cc Dish	<b>46670-8</b>	10.75	9.61	9.50	Y	Y	Y
	<b>595400C-8</b>	<b>595400CE-8</b>	3.552/-23cc Dish	<b>46600-8</b>	9.41	8.48	8.39	Y	Y	Y
	<b>595420C-8</b>	<b>595420CE-8</b>	3.572/-23cc Dish	<b>46620-8</b>	9.51	8.57	8.47	Y	Y	Y
	<b>595430C-8</b>	<b>595430CE-8</b>	3.582/-23cc Dish	<b>46630-8</b>	9.55	8.61	8.52	Y	Y	Y
	<b>595470C-8</b>	<b>595470CE-8</b>	3.700/-23cc Dish	<b>46670-8</b>	10.08	9.08	8.98	Y	Y	Y
	<b>595600C-8</b>	<b>595600CE-8</b>	3.552/-28cc Dish	<b>46600-8</b>	8.87	8.05	7.97	Y	Y	Y
	<b>595620C-8</b>	<b>595620CE-8</b>	3.572/-28cc Dish	<b>46620-8</b>	8.96	8.13	8.05	Y	Y	Y
	<b>595630C-8</b>	<b>595630CE-8</b>	3.582/-28cc Dish	<b>46630-8</b>	9.00	8.17	8.09	Y	Y	Y
	<b>595670C-8</b>	<b>595670CE-8</b>	3.700/-28cc Dish	<b>46670-8</b>	9.50	8.62	8.53	Y	Y	Y
Bearing P/N Description Block Type	<b>30020</b> Rod All	<b>33120</b> or <b>33120H</b> Main Romeo Iron	<b>33130</b> or <b>33130H</b> Main Windsor Iron	<b>33140</b> or <b>33140H</b> Main Windsor Aluminum						



**MPR Racing Engines**

Note: "LW" = "Lightweight" design rod and "SW" = "Standard Weight" design rod

Note: New part numbers are **BOLD & ITALICIZED**

## 4 oz. Extreme Pressure Lube #3

- ▶ The assembly lubricant preferred by top engine builders
- ▶ Can be used as a rod bolt lubricant

Part No.	Quantity	Description
40177	1	Extreme Pressure Lube #3



## Manley Lube

### For Connecting Rod Bolts

- ▶ Provides superior lubrication for rod bolt assembly

Part No.	Quantity	Description
40171	1/2 oz.	Manley Rod Bolt Assembly Lube
40172	1 oz.	Manley Rod Bolt Assembly Lube



## 2 oz. Moly Lube

- ▶ Molybdenum disulfide is excellent as a break in coating for camshafts, lifters, pushrod ends and rocker balls.

Part No.	Quantity	Description
40199	1	Moly lube



## Magic Seal Epoxy

- ▶ Use for intake ports and manifolds where there is lower temperature present
- ▶ Consistency of silly putty for easy shaping

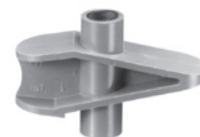
Part No.	Quantity	Description
40187	"A" - 1/2 lb. "B" - 1/2 lb.	Magic Seal epoxy



## Pushrod Length Checker

- ▶ Long valves, milled heads, cut blocks, small base circle camshafts all move rocker geometry far from optimum
- ▶ Correct length pushrods keep rockers centered on the valve tip and reduce stem and guide wear
- ▶ Checker tells the engine builder instantly what length pushrod is required

Part No.	Quantity	Description
42137	1	Small Block Chevys w/ 3/8" studs
42132	1	Small Block Chevys w/ 7/16" studs
42133	1	Big Block Chevys ( intakes and exhausts )



## Valve Spring Chamfering Tool

- ▶ Detailing valve springs is crucial to preserving retainer life
- ▶ ID chamfering of springs provides clearance and distributes stress along flat surface of retainer step rather than the corner radii

Part No.	Quantity	Description
40174	1	Chamfering tool w/ 4 abrasive cones
40175	12 pcs.	Replacement abrasive cones
40176	25 pcs.	Replacement abrasive cones



## Valve Spring Compressor Tool

- ▶ Sturdy black oxide tools for changing valve springs
- ▶ Rated for 350 lbs. maximum open spring pressure

Part No.	Quantity	Description
41870	1	Compressor tool for all Chryslers and Fords with rocker shafts



## Short Sleeve T-Shirts

- ▶ Made with a 60% cotton/40% polyester blend, the Manley logo is shown vertically on the front with a piston/connecting rod design on the back that is made up of the Manley logo.

Size	Black Part No.	Gray Part No.
Small	<b>00005</b>	<b>00035</b>
Medium	<b>00004</b>	<b>00034</b>
Large	<b>00003</b>	<b>00033</b>
X Large	<b>00002</b>	<b>00032</b>
XX Large	<b>00001</b>	<b>00031</b>



Gray T-Shirt Front



Black T-Shirt Back

## Black Ladies Fit Tops

- ▶ Same 60% cotton/40% polyester blend and printed design as our t-shirts except in a comfortable ladies fit top.

Size	Part No.
Small	<b>00065</b>
Medium	<b>00064</b>
Large	<b>00063</b>
X Large	<b>00062</b>
XX Large	<b>00061</b>



Ladies Fit Front



Ladies Fit Back

## Black Pullover Hoodies

- ▶ Pullover style made with a 50% cotton/50% polyester blend with a full front pocket.

Size	Hoodie Part No.
Small	<b>00205</b>
Medium	<b>00204</b>
Large	<b>00203</b>
X Large	<b>00202</b>
XX Large	<b>00201</b>



Hoodie Front



Hoodie Back Design

## FLEXFIT® Brand Fitted Hats

- ▶ Available in two sizes; S-M and L-XL, these black 98% cotton hats feature the Manley logo embroidered in black and gray on the front left.

Size	Part No.
S-M	<b>00010</b>
L-XL	<b>00012</b>



## Embroidered Mechanics Apron

- ▶ Attractive black cotton/polyester with embroidered Manley logo in red and white
- ▶ Large twin front pockets

Size	Part No.
Fits All	<b>42014</b>



## Vinyl Printed Banner

- ▶ Made from durable 13-oz. vinyl material with 10 grommets around the border for easy hanging

Size	Part No.
96" x 30"	<b>00008TS</b>



Note: New part numbers are **BOLD & ITALICIZED**

## Did You Know...

... in 1929 you could purchase a Manley 25 ton hydraulic press for \$115.00 or a 2 1/2 ton hydraulic jack for \$48.00. Both products were invented by Robert E. Manley then operating the Manley Manufacturing Company of Bridgeport, Connecticut.

... in 1931 the Eastern Valve Company of Hanover, Pennsylvania was purchased by Robert E. Manley, moved to York, Pennsylvania and renamed the Manley Products Corporation.

... in 1934 you could purchase Manley replacement Model T engine valves for \$8.00 - per 100 pieces.

... in 1940 the price of Model T valves had actually dropped to \$7.55 per 100 pieces. Depression!

... in 1950 Model T valves were sold for about \$16.00 per 100 pieces. Post war inflation!

... in 1966 Manley Performance Products, Inc. was founded by Henry D. Manley III. Forged pistons were sold for \$50.72 per set.

... in 1968 the Manley line included stainless valves, camshafts, lifters, vanadium valve springs, push rods and timing chain kits.

... in 1969 the race cars of Don Garlits, Bo Laws, and Joe Mondello appeared on the cover of the Manley Performance catalog.

... in 1971 Bill Jenkins' Grumpy's Toy made the first of ten appearances on the cover of the Manley Performance catalog.

... in 1983 Manley introduced its line of aluminum connecting rods. The jobber price was \$394.56 per set.

... in 1986, Manley's 20th year, "H" beam steel connecting rods were introduced at \$788.00 per set jobber price.

... in 1988 Manley Performance moved the factory from 13 Race Street in Bloomfield, NJ, to its present location in Lakewood, NJ.

... in 1997 Manley Performance introduced its Platinum Series of pistons.

... in 1998 an expansion of the factory doubled the manufacturing floor-space.

... in 2000 The Manley Performance "Gen II" custom stainless steel valve program is born and revolutionizes the custom valve market.

... in 2001 Manley Performance celebrated its 35th year of serving the racing and performance industry. Thank you to all our customers and especially the racers who trusted our products!

... in 2002 Manley entered the high performance passenger car market as an OEM supplier of connecting rods for the 2003 / 2004 Ford SVT Mustang Cobra.

... in 2004 Manley continued its presence in the OEM market as a connecting rod supplier for the Ford GT. In addition, Manley also sold the first set of their popular "Turbo Tuff®" connecting rods for the Mitsubishi 4G63 engine. The first of many to come!

... in 2005 Manley adds Platinum Series Mitsubishi pistons to the line.

... in 2006 Manley introduces "Turbo Tuff" connecting rods for the Subaru WRX/STi. Manley also celebrates its 40th anniversary in the performance aftermarket.

194      *JOBBER TOPICS*      *December, 1934*

## Robert E. Manley

ANNOUNCES

### A Real Jobber Line



**R**OBERT E. MANLEY, for many years President of the Manley Manufacturing Company and now President of Manley Products Corporation, announces "The Royal Quality Line" of motor valves to be sold through Automotive jobbers. A line of quality valves with which the jobber can profitably meet all competition on Ford, Chevrolet and Plymouth business.

"The Royal Quality Line" is destined to be the sales feature of 1935 among Automotive jobbers.

Write immediately for details.

**MANLEY PRODUCTS CORP.**  
York, Pa.

... in 2008 Manley significantly expands its Platinum Series piston line for Chevy LS engine applications to compliment their connecting rod, valve and valve train offerings for this market segment.

... in 2010 Manley introduces a line of superior crankshafts and rotating assemblies for traditional SB, BB, and LS Series Chevrolets, Chrysler Hemis and Sport Compacts.

... in 2011, our 45th year in business, Manley develops a host of new products for the Ford 5.0L "Coyote" and 6.2L "Raptor" engines, adds Mitsubishi EVO X crankshafts and introduces connecting rods for diesel applications.

... in 2012, Manley **DOUBLES** their sport compact H-Beam offerings, develops unique, "drop-in" pistons for the venerable Nissan GT-R and expands the line of Chevy LS Crankshafts.

... in 2013, a second expansion of the factory increases the manufacturing floor space by over 40%.

... in 2015, the Manley West expansion is completed; doubling the size of our distribution facility in Orange, CA.

... in 2016, Manley celebrates its Golden Anniversary..... 50 years of manufacturing excellence and quality service for the performance aftermarket



**PERFORMANCE IS NOT ONLY OUR BUSINESS, IT'S OUR PASSION!**



Hank Manley (President), 2010 Chevy Corvette ZR1



Manley Equipped 4.100" Stroke Pro Series Rotating Assembly, Titanium Intake Valves, Inconel Exhaust Valves, NexTek Dual Springs, with Titanium Retainers, I.D. Locators and CNC Machined Valve Locks



From Left to Right: *Jesse Vasquez* (Sales/Tech. Rep.) 1986 Monte Carlo, *Steve Devlin* (Valve Dept.) 1966 Chevy Chevelle, *Mike Roy* (Night Shift Manager) 1987 Ford Mustang, *Tom Razzano* (Eastern Reg. Manager) 1968 Chevy Camaro, *Pete Coleman* (Manufacturing Manager) 1989 Chevy S10, *Trip Manley* (Vice President) 2011 Lexus ISF, *Chris Calcara* (Connecting Rod Dept.) 2009 Harley Davidson, *Sharon Roberts* (Connecting Rod Dept.) 1998 Harley Davidson, *Michael Tokarchik* (General Manager) 2002 Chevy Corvette, *Anthony Golgano* (Warehouse Manager) 1984 Chevy Monte Carlo, *Ryan Sammond* (Project Manager) 1969 Chevy Camaro, *Anthony D'Agostino* (Turned Products Dept.) 2005 Subaru WRX STi, *Neil Vernarelli* (Pushrod Dept.) 1957 Chevy Corvette, *Randy Longstreet* (Product Manager) 2004 Dodge Ram

## Decimal Conversion Chart

$\frac{1}{64}$ _____ .0156	$\frac{23}{64}$ _____ .3593	$\frac{45}{64}$ _____ .7031
$\frac{1}{32}$ _____ .0312	$\frac{3}{8}$ _____ .375	$\frac{23}{32}$ _____ .7187
$\frac{3}{64}$ _____ .0468	$\frac{25}{64}$ _____ .3906	$\frac{47}{64}$ _____ .7343
$\frac{1}{16}$ _____ .0625	$\frac{13}{32}$ _____ .4062	$\frac{3}{4}$ _____ .750
$\frac{5}{64}$ _____ .0781	$\frac{27}{64}$ _____ .4218	$\frac{49}{64}$ _____ .7656
$\frac{3}{32}$ _____ .0937	$\frac{7}{16}$ _____ .4375	$\frac{25}{32}$ _____ .7812
$\frac{7}{64}$ _____ .1093	$\frac{29}{64}$ _____ .4531	$\frac{51}{64}$ _____ .7968
$\frac{1}{8}$ _____ .125	$\frac{15}{32}$ _____ .4687	$\frac{13}{16}$ _____ .8125
$\frac{9}{64}$ _____ .1406	$\frac{31}{64}$ _____ .4843	$\frac{53}{64}$ _____ .8281
$\frac{5}{32}$ _____ .1562	$\frac{1}{2}$ _____ .500	$\frac{27}{32}$ _____ .8437
$\frac{11}{64}$ _____ .1718	$\frac{33}{64}$ _____ .5156	$\frac{55}{64}$ _____ .8593
$\frac{3}{16}$ _____ .1875	$\frac{17}{32}$ _____ .5312	$\frac{7}{8}$ _____ .875
$\frac{13}{64}$ _____ .2031	$\frac{35}{64}$ _____ .5468	$\frac{57}{64}$ _____ .8906
$\frac{7}{32}$ _____ .2187	$\frac{37}{64}$ _____ .5781	$\frac{29}{32}$ _____ .9062
$\frac{15}{64}$ _____ .2343	$\frac{19}{32}$ _____ .5937	$\frac{59}{64}$ _____ .9218
$\frac{1}{4}$ _____ .250	$\frac{39}{64}$ _____ .6093	$\frac{15}{16}$ _____ .9375
$\frac{17}{64}$ _____ .2656	$\frac{41}{64}$ _____ .6406	$\frac{61}{64}$ _____ .9531
$\frac{9}{32}$ _____ .2812	$\frac{5}{8}$ _____ .625	$\frac{31}{32}$ _____ .9687
$\frac{19}{64}$ _____ .2968	$\frac{43}{64}$ _____ .6718	$\frac{63}{64}$ _____ .9843
$\frac{5}{16}$ _____ .3125	$\frac{21}{32}$ _____ .6562	$1$ _____ 1.000
$\frac{21}{64}$ _____ .3281	$\frac{43}{64}$ _____ .6718	
$\frac{11}{32}$ _____ .3437	$\frac{11}{16}$ _____ .6875	

## Metric Conversion Chart

<b>0.1mm = 0.00394"</b>	<b>1mm = 0.03937"</b>	<b>30mm = 1.18110"</b>
<b>0.2mm = 0.00787"</b>	<b>2mm = 0.07874"</b>	<b>40mm = 1.57480"</b>
<b>0.3mm = 0.01181"</b>	<b>3mm = 0.11811"</b>	<b>50mm = 1.96850"</b>
<b>0.4mm = 0.01575"</b>	<b>4mm = 0.15748"</b>	<b>60mm = 2.36220"</b>
<b>0.5mm = 0.01969"</b>	<b>5mm = 0.19685"</b>	<b>70mm = 2.75590"</b>
<b>0.6mm = 0.02362"</b>	<b>6mm = 0.23622"</b>	<b>80mm = 3.14960"</b>
<b>0.7mm = 0.02756"</b>	<b>7mm = 0.27559"</b>	<b>90mm = 3.54330"</b>
<b>0.8mm = 0.03150"</b>	<b>8mm = 0.31496"</b>	<b>100mm = 3.93700"</b>
<b>0.9mm = 0.03543"</b>	<b>9mm = 0.35433"</b>	
	<b>10mm = 0.39370"</b>	
	<b>20mm = 0.78740"</b>	

# MANLEY

*Powers the Winners*

2018



**SPORT COMPACT**  
*High Performance Engine Components*

8:00AM  
1/November/2017

**Car #:** Fifty-two years and still counting, our team at Manley Performance enters 2018 filled with passion, energy and excitement. Our mission has not altered. We remain focused on manufacturing the finest quality internal engine components at competitive prices while offering unparalleled customer service. This dedication, combined with our customers' thirst for speed, continues to motivate us each and every day. I'm extremely proud of the role Manley Performance plays in the automotive aftermarket; specifically the plethora of superb products we've designed and manufactured for the sport compact segment. We relish the opportunity to serve the needs of our customers and I thank the fraternity of racers, engine builders, tuners and enthusiasts around the world for your past business and support of our products. I've witnessed significant changes in our industry during my career and despite today's arduous environment, Manley is constantly re-inventing itself and we are poised to tackle any challenges encountered.

**1/8 :**

**MPH:** I'm excited to report on a few of the highlighted products that are featured in this new catalog. First, regarding our top of the line Turbo Tuff rods, we have incorporated the key design characteristics of our highly successful Tri-Beams, essentially folding these truly beneficial characteristics into the Turbo Tuff lineup. The best just got even better; and our customers will be the happy recipients when they order Manley connecting rods! Second, we've expanded our range of Turbo Tuff pistons beyond the Subaru EJ25 platform and will now be offering for the Toyota 2JZ, Mitsu 4G63 and 4B11 engines. If you are searching for the ultimate piston to handle maximum boost levels, look no further than the piston section of this catalog. Third, we have added H-Tuff connecting rods for the FA20 motor; to complement our Turbo Tuff version for the same application. Lastly, for the blue oval crowd, we've introduced stainless intake and extreme duty exhaust valves for the 2.3L EcoBoost engine.

Enjoy!  
TRIP MANLEY



**MANAGEMENT TEAM**



**Hank Manley**  
President



**Trip Manley**  
Vice President



**Michael Tokarchik**  
General Manager



**Pete Coleman**  
Manufacturing Manager



**Gil Morejon**  
Chief Financial Officer

**OFFICE & SALES STAFF**



**Kari McNair**  
Purchasing Manager



**Randy Longstreet**  
Product Manager



**Frank TenBroeck**  
Project Manager



**Ryan Sammond**  
Project Manager



**Julie Morejon**  
Accounts Receivable



**Erin Simons**  
Accounts Receivable



**Paul Sorli**  
Sales Representative  
Drag Race Coordinator



**Pride Conner**  
Sales / Tech  
Representative



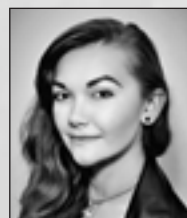
**Jesse Vazquez**  
Sales / Tech  
Representative



**Kiara Tuminelli**  
Sales / Tech  
Representative



**Johnny Cilia**  
Sales / Tech  
Representative



**Sarajane Sheare**  
Customer Service  
Representative



**Pat Jackson**  
Manager  
Manley West



**Kevin Lorentzen**  
Sales / Tech  
Manley West

**REGIONAL SALES MANAGERS**



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East Coast



**Lee Hamilton**  
Mid-Central



**Cory Riley**  
Northwest



**Bob Schmalz**  
North Central



**Gary Mecklenburg**  
Southwest

# STAINLESS VALVES

VALVES

## Honda / Acura

### Race Flo / Race Master Valves



Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>ACURA INTEGRA GSR 1.7L - DOHC V-TEC 16 VALVE ( B17A1 ) - 1992 - 1993</b>									
<b>ACURA INTEGRA GSR 1.8L - DOHC V-TEC 16 VALVE ( B18C1-C3 ) - 1994 - 2000</b>									
<b>HONDA DEL SOL 1.6L - DOHC V-TEC 16 VALVE ( B16A1 ) - 1994 - 1997</b>									
<b>HONDA CIVIC SI 1.6L - DOHC V-TEC 16 VALVE ( B16A3 ) - 1999 - 2000</b>									
11373-8	Exh.	28.0mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	20° Dish
11691-8	Exh.	28.0mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	Flat Face
11375-8	Exh.	28.5mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	20° Dish
11693-8	Exh.	28.5mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	Flat Face
11377-8	Exh.	29.0mm	5.46mm / .2150"	102.70mm	2.5mm	25° x 11/32"	.065"	.080"	20° Dish
<b>ACURA RSX Type S 2.0L - DOHC i-VTEC 16 VALVE ( K20A2 ) - 2001 - Up</b>									
11127-8	Exh.	30.0mm	5.46mm / .2150"	109.04mm	2.08mm	25° x 11/32"	.065"	.080"	20° Dish
11129-8	Exh.	30.5mm	5.46mm / .2150"	109.04mm	2.08mm	25° x 11/32"	.065"	.080"	20° Dish
11131-8	Exh.	31.0mm	5.46mm / .2150"	109.04mm	2.08mm	25° x 11/32"	.065"	.080"	20° Dish
11128-8	Int.	35.0mm	5.48mm / .2157"	109.22mm	2.08mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11130-8	Int.	35.5mm	5.48mm / .2157"	109.22mm	2.08mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11132-8	Int.	36.0mm	5.48mm / .2157"	109.22mm	2.08mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA ACCORD 2.2L - SOHC V-TEC 16 VALVE ( F22B1 ) - 1994 - 1997</b>									
11371-8	Exh.	29mm	5.46mm / .2150"	114.25mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11379-8	Exh.	30mm	5.46mm / .2150"	114.25mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11370-8	Int.	34mm	5.48mm / .2157"	116.00mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11378-8	Int.	35mm	5.48mm / .2157"	116.00mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA CIVIC 1.6L - SOHC 16 VALVE ( D16Z6-Y5-Y7-Y8 ) - 1992 - 2000</b>									
11367-8	Exh.	26mm	5.46mm / .2150"	115.95mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11369-8	Exh.	27mm	5.46mm / .2150"	115.95mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11366-8	Int.	30mm	5.48mm / .2157"	118.60mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11368-8	Int.	31mm	5.48mm / .2157"	118.60mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA CIVIC CRX SI 1.6L - SOHC 16 VALVE ( D16A6 ) - 1988 - 1991</b>									
11383-8	Exh.	25mm	5.46mm / .2150"	118.75mm	4.35mm	25° x 11/32"	.065"	.080"	17° Dish
11385-8	Exh.	26mm	5.46mm / .2150"	118.75mm	4.35mm	25° x 11/32"	.065"	.080"	17° Dish
11384-8	Int.	29mm	5.48mm / .2157"	115.00mm	4.1mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11386-8	Int.	30mm	5.48mm / .2157"	115.00mm	4.1mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>HONDA PRELUDE 2.2L - DOHC V-TEC 16 VALVE ( H22A1-A4 ) - 1993 - 2000</b>									
11393-8	Exh.	30.0mm	5.46mm / .2150"	106.90mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11339-8	Exh.	30.5mm	5.46mm / .2150"	106.90mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11395-8	Exh.	31.0mm	5.46mm / .2150"	106.90mm	1.9mm	25° x 11/32"	.065"	.080"	20° Dish
11394-8	Int.	35.0mm	5.48mm / .2157"	106.65mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11338-8	Int.	35.5mm	5.48mm / .2157"	106.65mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11396-8	Int.	36.0mm	5.48mm / .2157"	106.65mm	1.9mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish

We recommend that customers check their valve guide size in order to achieve the proper valve stem to guide clearance

## Ford 2.3L EcoBoost Race Flo / Extreme Duty Valves



Part No.	Type	Head Diameter	Stem Diameter	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head
<b>EXTREME DUTY VALVES</b>									
<b>11197-8</b>	Exh.	30.0mm	5.46mm / .2150"	104.75mm	3.75mm	25° x 11/32"	.050"	.100"	Flat Face
<b>11199-8</b>	Exh.	30.5mm	5.46mm / .2150"	104.75mm	3.75mm	25° x 11/32"	.050"	.100"	Flat Face
<b>RACE MASTER VALVES</b>									
<b>11196-8</b>	Int.	32.5mm	5.48mm / .2157"	103.55mm	4.00mm	Pro Flo: 22° x 5/16"	.050"	.100"	17° Dish
<b>11198-8</b>	Int.	33.0mm	5.48mm / .2157"	103.55mm	4.00mm	Pro Flo: 22° x 5/16"	.050"	.100"	17° Dish

## Mazda Race Flo / Race Master Valves



Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>MAZDA MIATA 1.8L - DOHC 16 VALVE ( BP056 ) - 1990 - 1999</b>									
<b>11101-8</b>	Exh.	28mm	6mm / .2362"	101.52mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
<b>11103-8</b>	Exh.	29mm	6mm / .2362"	101.52mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
<b>11102-8</b>	Int.	33mm	6mm / .2362"	101.35mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>11104-8</b>	Int.	34mm	6mm / .2362"	101.35mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish

All Manley Performance aftermarket intake valves and exhaust valves for the Mazda engines are manufactured with a 6mm stem diameter. We recommend that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Guides may need to be honed when replacing valves. Factory sizes may vary depending on the specific motor.

## Mitsubishi Race Flo Valves



Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>MITSUBISHI ECLIPSE GS, GST 2.0L - DOHC 16 VALVE ( 4G63-4G63T ) 1990 - 2000</b>									
<b>11133-8</b>	Exh.	30.5mm	6.54mm / .2575"	109.7mm	3.8mm	Pro Flo: 22° x 7/16"	.065"	.080"	17° Dish
<b>11161-8</b>	Exh.	31.0mm	6.54mm / .2575"	109.7mm	3.8mm	Pro Flo: 22° x 7/16"	.065"	.080"	17° Dish
<b>11135-8</b>	Exh.	31.5mm	6.54mm / .2575"	109.7mm	3.8mm	Pro Flo: 22° x 7/16"	.065"	.080"	17° Dish
<b>11134-8</b>	Int.	34mm	6.57mm / .2587"	109.7mm	3.8mm	Pro Flo: 20° x 11/32"	.050"	.075"	15° Dish
<b>11160-8</b>	Int.	34.5mm	6.57mm / .2587"	109.7mm	3.8mm	Pro Flo: 20° x 11/32"	.050"	.075"	15° Dish
<b>11136-8</b>	Int.	35mm	6.57mm / .2587"	109.7mm	3.8mm	Pro Flo: 20° x 11/32"	.050"	.075"	15° Dish

## Nissan GT-R 3.8L-DOHC 24 Valve VR38DETT Race Master / Extreme Duty Valves



Part No.	Type	Head Diameter	Stem Diameter	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head
<b>EXTREME DUTY VALVES</b>									
<b>11193-12</b>	Exh.	32.15mm	5.96mm / .2345"	92mm	2.16mm	25° x 11/32"	.060"	.100"	Dimple
<b>11195-12</b>	Exh.	33.15mm	5.96mm / .2345"	92mm	2.16mm	25° x 11/32"	.060"	.100"	Dimple
<b>RACE MASTER VALVES</b>									
<b>11190-12</b>	Int.	37.15mm	5.97mm / .2350"	95mm	4.95mm	25° x 11/32"	.050"	.100"	Flat Face
<b>11192-12</b>	Int.	38.15mm	5.97mm / .2350"	95mm	4.95mm	25° x 11/32"	.050"	.100"	Flat Face

Note: Tip area is reduced in diameter on both intake and exhaust to 5.46mm for compatibility with factory locks and retainers.

Note: New part numbers are **BOLD & ITALICIZED**

# STAINLESS VALVES

VALVES

## Nissan

### Race Flo / Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ Chrome Stems and Hard Tips
- ▶ Improved flow with "Pro Flo" Intakes
- ▶ NK-842 Stainless Intake Material
- ▶ Swirl Polished and Fully Machined



We can also custom build 6.96mm/.2740" stem Extreme Duty exhaust valves from our 11281 GEN II blank stainless valve on page 8

Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head
<b>NISSAN 300 ZX 3.0L - DOHC 24 VALVE ( VG30D - TURBO VG30DTT ) - 1990 - 1996</b>									
11105-12	Exh.	29.5mm	6mm / .2362"	103.65mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11107-12	Exh.	30.5mm	6mm / .2362"	103.65mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11106-12	Int.	34.0mm	6mm / .2362"	103.13mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11108-12	Int.	35.0mm	6mm / .2362"	103.13mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>NISSAN 3.5L V6 - DOHC 24 VALVE ( VQ35DE, VQ35DET )</b>									
11149-12	Exh.	31.5mm	6mm / .2362"	94mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11151-12	Exh.	32.0mm	6mm / .2362"	94mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11153-12	Exh.	32.5mm	6mm / .2362"	94mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11148-12	Int.	37.0mm	6mm / .2362"	96.5mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11150-12	Int.	37.5mm	6mm / .2362"	96.5mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11152-12	Int.	38.0mm	6mm / .2362"	96.5mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>NISSAN PATROL St-S, St-L, Ti 4.8L - DOHC 24 VALVE ( VTC )</b>									
11141-12	Exh.	33.5mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11143-12	Exh.	34.7mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11177-12	Exh.	35.0mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11179-12	Exh.	35.0mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	20° Dish
11181-12	Exh.	35.5mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	Flat Face
11183-12	Exh.	35.5mm	6.96mm / .2740"	98.3mm	3.56mm	25° x 3/8"	.050"	.100"	20° Dish
11142-12	Int.	38.5mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11144-12	Int.	39.7mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11174-12	Int.	40.0mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11176-12	Int.	40.0mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	7° Dish
11178-12	Int.	40.5mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	Flat Face
11180-12	Int.	40.5mm	6.96mm / .2740"	100.21mm	3.56mm	Pro Flo: 12° x 3/8"	.045"	.100"	7° Dish
<b>NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE ( SR20DE ) - 1991 - 1998</b>									
11109-8	Exh.	30.15mm	6mm / .2362"	102.4mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
11111-8	Exh.	31.15mm	6mm / .2362"	102.4mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish
<b>NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE ( SR20DET ) - 1991 - 1998</b>									
11145-8*	Exh.	30.15mm	6.96mm / .2740"	102.4mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
11147-8*	Exh.	31.15mm	6.96mm / .2740"	102.4mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
<b>NISSAN SENTRA SE-R 2.0L - DOHC 16 VALVE ( SR20DE, SR20DET ) - 1991 - 1998</b>									
11110-8	Int.	34.15mm	6mm / .2362"	101.4mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
11112-8	Int.	35.15mm	6mm / .2362"	101.4mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish
<b>NISSAN 2.6L INLINE 6-24 VALVE ( RB26DET/T )</b>									
11163-12*	Exh.	30.15mm	6.96mm / .2740"	101.52mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
11165-12*	Exh.	31.15mm	6.96mm / .2740"	101.52mm	3.5mm	15° x 1/2"	.065"	.080"	9° Dish
<b>NISSAN 3.0L INLINE 6 - SOHC 12 VALVE ( RB30E/T )</b>									
11185-6	Exh.	35.1mm	8mm / .3136"	124.59mm	4.45mm	25° x 7/16"	.065"	.100"	19° Dish
11187-6	Exh.	36.1mm	8mm / .3136"	124.59mm	4.45mm	25° x 7/16"	.065"	.100"	19° Dish
11182-6	Int.	42.1mm	7mm / .2750"	125.68mm	4.45mm	10° x 3/8"	.050"	.080"	5° Dish
11184-6	Int.	43.1mm	7mm / .2750"	125.68mm	4.45mm	10° x 3/8"	.050"	.080"	5° Dish

Manley Performance recommends that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Guides may need to be honed when replacing valves.



## Subaru WRX EJ205 / STi EJ257

### Race Series Valves & Extreme Duty Valves

- ▶ XtremeAlloy and XH-426 Stainless Exhaust Material
- ▶ Swirl Polished and Fully Machined

- ▶ NK-842 Stainless Intake Material
- ▶ Chrome Stems and Hard Tips



Part No.	Type	Head Diameter	Stem Diameter	Installed Height	O/A Length	Tip Length	Underhead Angle/Radius	Margin	Seat Width	Top of Head
<b>RACE MASTER VALVES</b>										
11155-8	Exh.	32mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.080	20° Dish
11171-8	Exh.	33mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.080	20° Dish
<b>EXTREME DUTY VALVES</b>										
11137-8	Exh.	32mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.100	20° Dish
11139-8	Exh.	33mm	5.96mm/.2345"	Stock	104.75mm	3.5mm	25° x 11/32"	.060	.100	20° Dish
<b>RACE FLO VALVES</b>										
11138-8	Int.	36mm	5.97mm/.2350"	Stock	104.6mm	3.5mm	Pro Flo: 19° x 5/16"	.050	.080	14° Dish
11140-8	Int.	37mm	5.97mm/.2350"	Stock	104.6mm	3.5mm	Pro Flo: 19° x 5/16"	.050	.080	14° Dish

## Toyota Race Flo / Race Master Valves

- ▶ XH-426 Stainless Exhaust Material
- ▶ NK-842 Stainless Intake Material

- ▶ Improved flow with "Pro Flo" Intake Underhead
- ▶ Chrome Stems, Swirl Polished and Fully Machined

We can also custom build 6.96mm/.2740" stem Extreme Duty exhaust valves from our 11281 GEN II blank stainless valve on page 8.

Part No.	Type	Head Diameter	Stem Diameter	O / A Length	Tip Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	
<b>TOYOTA 4AG ( ATLANTIC )</b>										
11113-8	Exh.	27.5mm	6mm / .2362"	99.75mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11114-8	Int.	32.0mm	6mm / .2362"	99.6mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
<b>TOYOTA LAND CRUISER 4.5L - DOHC 24 VALVE ( 1FZ-FE ) - 1993 - 1998</b>										
11167-12	Exh.	32.0mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11169-12	Exh.	33.2mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11189-12	Exh.	33.5mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11191-12	Exh.	33.5mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	9° Dish	
11173-12	Exh.	34.0mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	Flat Face	
11175-12	Exh.	34.0mm	6.96mm / .2740"	99mm	3.8mm	15° x 1/2"	.065"	.080"	9° Dish	
11166-12	Int.	38.0mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11168-12	Int.	39.2mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11186-12	Int.	39.5mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11188-12	Int.	39.5mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	5° Dish	
11170-12	Int.	40.0mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	Flat Face	
11172-12	Int.	40.0mm	6.96mm / .2740"	100mm	3.8mm	Pro Flo: 10° x 3/8"	.050"	.075"	5° Dish	
<b>TOYOTA MR2 2.0L - DOHC 16 VALVE ( TURBO 3SGTE ) - 1990 - 1995</b>										
11115-8	Exh.	29.0mm	6mm / .2362"	99.5mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11117-8	Exh.	30.0mm	6mm / .2362"	99.5mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11116-8	Int.	33.5mm	6mm / .2362"	100.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
11118-8	Int.	34.5mm	6mm / .2362"	100.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
<b>TOYOTA SCION tC 2.4L - DOHC 16 VALVE ( 2AZFE )</b>										
11157-8	Exh.	29.5mm	5.46mm / .2150"	101.65mm	2.49mm	25° x 11/32"	.065"	.080"	Flat Face	
11159-8	Exh.	30.5mm	5.46mm / .2150"	101.65mm	2.49mm	25° x 11/32"	.065"	.080"	Flat Face	
11156-8	Int.	34.0mm	5.48mm / .2157"	101.96mm	2.49mm	Pro Flo: 22° x 5/16"	.050"	.075"	Flat Face	
11158-8	Int.	35.0mm	5.48mm / .2157"	101.96mm	2.49mm	Pro Flo: 22° x 5/16"	.050"	.075"	Flat Face	
<b>TOYOTA SUPRA 3.0L - DOHC 24 VALVE ( 7MGE - TURBO 7MGT ) - 1986 - 1992</b>										
11119-12	Exh.	27.5mm	6mm / .2362"	98.05mm	4.0mm	25° x 11/32"	.065"	.080"	20° Dish	
11121-12	Exh.	28.5mm	6mm / .2362"	98.05mm	4.0mm	25° x 11/32"	.065"	.080"	20° Dish	
11120-12	Int.	32.0mm	6mm / .2362"	98.05mm	4.0mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
11122-12	Int.	33.0mm	6mm / .2362"	98.05mm	4.0mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
<b>TOYOTA SUPRA 3.0L I/L 6 CYL - DOHC 24 VALVE ( 2JZGE - 2JZGTE ) - 1994 - 1998</b>										
11123-12	Exh.	29.0mm	6mm / .2362"	99.1mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11125-12	Exh.	30.0mm	6mm / .2362"	99.1mm	3.5mm	25° x 11/32"	.065"	.080"	20° Dish	
11124-12	Int.	33.6mm	6mm / .2362"	98.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	
11126-12	Int.	34.6mm	6mm / .2362"	98.55mm	3.5mm	Pro Flo: 22° x 5/16"	.050"	.075"	17° Dish	

Manley Performance recommends that customers check their valve guide size in order to achieve the proper valve stem to guide clearance. Guides may need to be honed when replacing valves.

# STAINLESS VALVES

VALVES

## Gen II Valve Blanks

### Extreme Duty & Race Series

- ▶ Hard Tips and Hardened Grooves
- ▶ No Need for Inserted Tips or Wear Caps

The procedure for ordering a custom valve is as simple as 1-2-3 !

1. Select the blank appropriate for your finished piece based first on stem diameter.
2. Give us your final head diameter along with the seat and margin widths.
3. Specify the length of the valve you want, along with groove type and location.

\* Part numbers with asterisks can be reduced 1.500" or 38mm. All others .800" or 20.32mm.



All Gen II custom stainless valve part numbers are priced to include all machining to render a finished valve provided that no more than .250" of material needs to be removed from the head diameter. If more than .250" of material is to be removed from the head diameter, then an additional machining charge P/N 04007 must be added to the price of the valve.

Part No.	Type	Maximum Head Diameter	Stem Diameter	Maximum Length	Underhead Angle / Radius	Margin	Seat Width	Top of Head	Material
<b>XTREMEALLOY GEN II CUSTOM EXHAUST VALVES</b>									
<b>11281-8*</b>	Exh.	38.0mm / 1.496	6.96mm / .2740	127.0mm / 5.000	15° x 1/2"	.080	.100	9° Dish	XtremeAlloy
<b>11265-8*</b>	Exh.	39.0mm / 1.535	5.96mm / .2345	121.9mm / 4.800	25° x 11/32"	.080	.100	20° Dish	XtremeAlloy
<b>11283-8*</b>	Exh.	33.0mm / 1.299	5.46mm / .2150	121.0mm / 4.764	25° x 11/32"	.065	.080	Flat Face	XtremeAlloy
<b>RACE SERIES GEN II CUSTOM VALVES</b>									
<b>11247-8</b>	Exh.	37.0mm / 1.457	6.96mm / .2740	121.9mm / 4.800	15° x 1/2"	.080	.100	9° Dish	XH-426
<b>11246-8</b>	Int.	48.0mm / 1.890	6.96mm / .2740	121.9mm / 4.800	10° x 3/8"	.050	.080	5° Dish	NK-842
<b>11267-8</b>	Exh.	41.9mm / 1.650	7.0mm / .2755	119.4mm / 4.700	30° x 1/2"	.060	.100	24° Dish	XH-426
<b>11250-8*</b>	Int.	48.0mm / 1.890	7.0mm / .2750	137.9mm / 5.430	10° x 3/8"	.065	.080	5° Dish	NK-842
<b>11268-8</b>	Int.	50.8mm / 2.000	7.0mm / .2755	116.8mm / 4.600	28° x 7/16"	.050	.100	22° Dish	NK-842
<b>11213-8</b>	Exh.	33.0mm / 1.299	6.0mm / .2362	113.5mm / 4.469	25° x 11/32"	.065	.080	20° Dish	XH-426
<b>11212-8</b>	Int.	39.0mm / 1.535	6.0mm / .2362	113.5mm / 4.469	Pro Flo: 22° x 5/16"	.065	.080	17° Dish	NK-842
<b>11266-8*</b>	Int.	35.0mm / 1.378	5.98mm / .2355	121.9mm / 4.800	12° x 5/16"	.065	.100	7° Dish	NK-842
<b>11276-4</b>	Int.	40.0mm / 1.575	5.97mm / .2350	113.0mm / 4.449	25° x 11/32"	.065	.100	Flat Face	NK-842
<b>11209-8</b>	Exh.	32.0mm / 1.260	5.46mm / .2150	121.0mm / 4.764	25° x 11/32"	.065	.080	Flat Face	XH-426
<b>11208-8</b>	Int.	37.0mm / 1.457	5.48mm / .2157	121.0mm / 4.764	Pro Flo: 22° x 5/16"	.065	.080	Flat Face	NK-842

Note: New part numbers are **BOLD & ITALICIZED**



# VALVE LOCKS & WEAR CAPS

## Valve Locks

- ▶ Manufactured from premium quality heat treated steel
- ▶ Machined to exacting tolerances



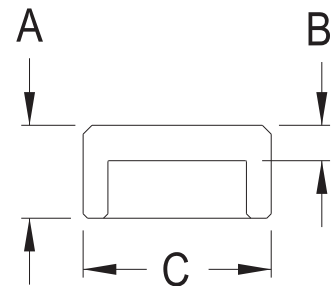
Part No.	Quantity	Description	Valve Stem	Groove Type	Angle	Wgt. / Pr.
13010-8	8 pr.	Honda / Acura	5.47mm / .2150"	OEM Radius	7°	1.5 gms
13012-8	8 pr.	Nissan	6.0mm / .2362"	OEM Radius	6°	1.4 gms
13014-8	8 pr.	Toyota	6.0mm / .2362"	OEM Radius	6°	1.4 gms
13016-8	8 pr.	Mitsubishi	6.56mm / .2581"	OEM Radius	6°	1.3 gms



CYL HEAD COMPONENTS

## Wear Caps

- ▶ Thru-hardened 4140 alloy steel
- ▶ Special heat treatment to HRc 50-54
- ▶ Non rotating caps afford less valve tip erosion



Part No.	Quantity	Description	Minimum Tip	Type	A	B	C	Weight
42263-8	8 pcs.	.2165" stem valves (5.5mm)	.095"	Standard	.090"	.040"	.300"	0.6 gms
42254-8	8 pcs.	.2360" stem valves (6mm)	.275"	Non Rotating	.235"	.060"	.385"	2.5 gms
42264-8	8 pcs.	.2360" stem valves (6mm)	.095"	Standard	.090"	.040"	.320"	0.6 gms
42100-8	8 pcs.	.2740" stem valves (7mm)	.250"	Standard	.225"	.085"	.425"	2.9 gms
42118-8	8 pcs.	.2740" stem valves (7mm)	.290"	Non Rotating	.270"	.080"	.385"	2.5 gms
42110-8	8 pcs.	.2754" stem valves (7mm)	.250"	Standard	.225"	.085"	.425"	2.9 gms



# VALVE SPRINGS

## Acura/Honda, Dodge, Mitsubishi, Nissan, Subaru & Toyota

### Valve Springs

▶ Wound from super clean alloy

▶ Designed to handle aftermarket camshafts

▶ Revs up to 10,000 RPM with Manley titanium retainers



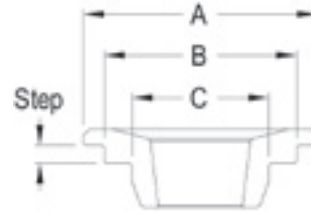
CYL HEAD COMPONENTS

Part No.	Quantity	Application	O.D. / I.D. Outer Inner	Pressures	Stock / Maximum Net Lift	Coil Bind	Rate ( lbs. / in. )	Titanium Retainer
22105-16	16 pcs.	Acura B Series V-Tec High Performance Race	1.180" / .870" .865" / .660"	82 @ 1.350" 206 @ .950" 248 @ .815"	.400" .535"	.765"	310	23100-16
22110-16	16 pcs.	Honda H22 V-Tec	1.160" / .870" .865" / .660"	88 @ 1.400" 200 @ .950" 232 @ .840"	.450" .560"	.790"	227	23100-16
22120-16	16 pcs.	Honda B Series Non V-Tec <small>Stock installed height on B Series Non V-Tec spring is: Intake - 1.320" / Exhaust - 1.425".</small>	1.105" / .820" .800" / .630"	54 @ 1.375" 143 @ .990" 195 @ .760"	.385" .615"	.710"	230	23120-16
22140-16	16 pcs.	Honda K20A/K20Z	1.160" / .870" .865" / .660"	80 @ 1.590" 249 @ 1.140" 283 @ 1.050"	.450" .540"	1.000"	375	23140-16
22145-16	16 pcs.	Honda K20A3/K24A	1.106" / .787"	79 @ 1.565" 182 @ 1.185" 226 @ 1.025"	.380" .545"	.975"	274	23145-16
22150-16	16 pcs.	Honda F20C/F22C	1.160" / .870" .865" / .660"	84 @ 1.580" 264 @ 1.100" 283 @ 1.050"	.480" .530"	1.000"	375	23150-16
22190-16	16 pcs.	Dodge SRT-4	1.100" / .775"	92 @ 1.500" 188 @ 1.175" 237 @ 1.000"	.325" .500"	.950"	294	23190-16
22115-16	16 pcs.	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-1999) DSM	1.160" / .870" .865" / .660"	104 @ 1.580" 237 @ 1.210" 269 @ 1.120"	.370" .460"	1.070"	359	23115-16
22125-16	16 pcs.	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-2006) DSM / EVO	1.100" / .775"	66 @ 1.580" 175 @ 1.210" 237 @ 1.000"	.370" .580"	.950"	294	23125-16
22195-16	16 pcs.	Mitsubishi EVO X 4B11T DOHC 16 Valve (2008-Up)	.990" / .710"	86 @ 1.400" 180 @ 1.030" 198 @ .970"	.370" .430"	.920"	253	23195-16
22155-24	24 pcs.	Nissan Patrol TB48	1.100" / .775"	75 @ 1.550" 191 @ 1.165" 237 @ 1.100"	.385" .550"	.950"	294	23155-24
22160-16	16 pcs.	Nissan KA24DE	1.180" / .870" .865" / .660"	73 @ 1.400" 191 @ 1.050" 228 @ .900"	.350" .500"	.850"	310	23160-16
22165-16	16 pcs.	Nissan SR20DE/SR20DET	1.160" / .835"	90 @ 1.550" 185 @ 1.170" 225 @ 1.010"	.380" .540"	.960"	248	23165-16
22170-24	24 pcs.	Nissan VQ35DET	.990" / .710"	80 @ 1.425" 175 @ 1.050" 195 @ .970"	.375" .455"	.920"	253	23170-24
22175-24	24 pcs.	Nissan RB26DET	1.100" / .775"	80 @ 1.535" 197 @ 1.140" 237 @ 1.000"	.395" .535"	.950"	294	23175-24
22180-16	16 pcs.	Subaru WRX/Sti	1.050" / .755"	60 @ 1.420" 151 @ 1.050" 187 @ .895"	.370" .525"	.845"	245	23180-16
22185-16	16 pcs.	Subaru WRX/Sti Single Conical Ovate Wire	1.126" / .640"	95 @ 1.420" 217 @ 1.050" 264 @ .910"	.370" .510"	.860"	330	23185-16
22130-24	24 pcs.	Toyota Supra 2JZGT/2JZGTE 6 cyl.	1.050" / .755"	82 @ 1.325" 165 @ .985" 187 @ .895"	.340" .430"	.845"	245	23130-24

# SPRING RETAINERS & KITS

## Titanium Retainers

- ▶ Heat treated aerospace grade titanium
- ▶ CNC machined to exacting tolerances
- ▶ Lightweight and extremely durable
- ▶ A must for your high revving sport compact engine



Part No.	Application	Spring	Valve Stem Diameter	Valve Lock Degree	Dimensions			Step	Wgt/ Grams
					A	B	C		
23000-16	Acura B18C / B16A / H22	Stock Spring	5.5mm	7°	1.100"	.830"	.600"	.080"	6
23100-16	Acura B16A / B18C / B17A Honda H22 V-Tec	Manley 22105, 22110	5.5mm	7°	1.150"	.850"	.650"	.080"	7
23120-16	Honda B18A / B ( Non V-Tec )	Manley 22120	6.5mm	7°	1.100"	.805"	.610"	.080"	6
23140-16	Honda K20A/K20Z	Manley 22140	5.5mm	7°	1.050"	.850"	.610"	.080"	7
23145-16	Honda K20A3/K24A	Manley 22145	5.5mm	7°	1.050"	.775"	.610"	.045"	8
23150-16	Honda F20C/F22C	Manley 22150	5.5mm	7°	1.050"	.850"	.610"	.080"	7
23190-16	Dodge SRT-4	Manley 22190	6.0mm	7°	1.050"	.760"	-----	.100"	6
23115-16	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-1999)	Manley 22115	6.6mm	6°	1.050"	.850"	.610"	.040"	8
23125-16	Mitsubishi 4G63-4G63T DOHC 16 Valve (1990-2006)	Manley 22125	6.6mm	6°	1.050"	.760"	-----	.140"	9
23195-16	Mitsubishi EVO X 4B11T	Manley 22195	5.5mm	7.5°	.960"	.690"	-----	.100"	7
23155-24	Nissan Patrol TB48	Manley 22155	6.0mm	6°	1.050"	.760"	-----	.080"	7
23160-16	Nissan KA24DE	Manley 22160	7.0mm	7°	1.150"	.850"	.650"	.080"	9
23165-16	Nissan SR20DE/SR20DET	Manley 22165	6.0mm	6°	1.150"	.825"	-----	.080"	10
23170-24	Nissan VQ35DET	Manley 22170	5.5mm	6°	.960"	.690"	-----	.140"	8
23175-24	Nissan RB26DETT	Manley 22175	6.0mm	6°	1.050"	.760"	-----	.080"	8
23180-16	Subaru WRX/Sti	Manley 22180	6.0mm	6°	1.050"	.745"	.515"	.100"	6
23185-16	Subaru WRX/Sti	Manley 22185	6.0mm	6°	0.875"	.627"	.465"	.095"	5
23130-24	Toyota Supra 2JZGT/2JZGTE 6 cyl.	Manley 22130	6.0mm	6°	1.050"	.745"	.515"	.100"	6

## Valve Spring & Retainer Kits

- ▶ Wound from super clean alloy
- ▶ Designed to handle aftermarket camshafts



Part No. Without Valve Locks	Part No. With Valve Locks	Application	Max Net Lift	Spring No.	Titanium Retainer No.	Valve Locks
26105	26105K	Acura B Series, V-Tec	.535"	22105-16	23100-16	13010-8
26110	26110K	Honda H22, V-Tec	.560"	22110-16	23100-16	13010-8
26120	-----	Honda B Series, Non V-Tec	.615"	22120-16	23120-16	-----
26140	26140K	Honda K20A/K20Z	.540"	22140-16	23140-16	13010-8
26145	26145K	Honda K20A3/K24A	.545"	22145-16	23145-16	13010-8
26150	26150K	Honda F20C/F22C	.530"	22150-16	23150-16	13010-8
26190	-----	Dodge SRT-4	.500"	22190-16	23190-16	-----
26115*	26115K*	Mitsubishi 4G63-4G63T DSM DOHC 16 Valve (1990-1999)	.460"	22115-16	23115-16	13016-8
26125	26125K	Mitsubishi 4G63-4G63T DSM / EVO DOHC 16 Valve (1990-2006)	.580"	22125-16	23125-16	13016-8
26195	-----	Mitsubishi EVO X 4B11T	.430"	22195-16	23195-16	-----
26155	-----	Nissan Patrol TB48	.550"	22155-24	23155-24	-----
26160*	-----	Nissan KA24DE	.500"	22160-16	23160-16	-----
26165	26165K	Nissan SR20DE/SR20DET	.540"	22165-16	23165-16	13012-8
26170	-----	Nissan VQ35DET	.455"	22170-24	23170-24	-----
26175	26175K	Nissan RB26DETT	.535"	22175-24	23175-24	13012-8
26180	-----	Subaru WRX/Sti	.525"	22180-16	23180-16	-----
26185	-----	Subaru WRX/Sti	.510"	22185-16	23185-16	-----
26130	26130K	Toyota Supra, 2JZGT/2JZGTE 6 cyl.	.430"	22130-24	23130-24	13014-8

\* These kits also include spring locators



CYL HEAD COMPONENTS

# PLATINUM SERIES PISTONS

## Acura / Honda

- B18C • K24A w/ K20A Head
- K20A • B16A
- B20B w/ B16A Head



- ▶ 2618 high strength material; lightweight design
- ▶ Offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin
- ▶ 9310 alloy .210" wall pin upgrades available (except 22mm x 2.500" applications where 9310 alloy .180" wall is available) see page 29

- ▶ Pressure balance groove
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .004" measured 1.100" from the bottom of the oil ring

Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume(cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>Acura Integra GSR 94-01 - B18C1 DOHC V-Tec (.827"/21mm x 2.250" Pin)</b>										
600000-4	81	STD	5.433"	87.2	1.181"	-9.3	9.0	Dish	290	46810-4
600005-4	81.5	+5mm	5.433"	87.2	1.181"	-9.3	9.0	Dish	294	46815-4
600100-4	81	STD	5.433"	87.2	1.181"	1.2	11.0	Dome	293	46810-4
600105-4	81.5	+5mm	5.433"	87.2	1.181"	1.2	11.0	Dome	297	46815-4
600200-4	81	STD	5.433"	87.2	1.195"	6.7	12.5	Dome	295	46810-4
600205-4	81.5	+5mm	5.433"	87.2	1.195"	6.7	12.5	Dome	299	46815-4
<b>Acura Integra Type R 97-00 - B18C5 DOHC V-Tec (.827"/21mm x 2.250" Pin)</b>										
601005-4	81.5	+5mm	5.433"	87.2	1.195"	3.4	11.5	Dome	315	46815-4
601105-4	81.5	+5mm	5.433"	87.2	1.195"	-9.8	9.0	Dish	294	46815-4
<b>Acura RSX 02-Up - K20A-A2-A3 DOHC V-Tec (.866"/22mm x 2.500" Pin)</b>										
610000-4	86	STD	5.472"	86.0	1.181"	-6.5	9.0	Dish	319	46860-4
610100-4	86	STD	5.472"	86.0	1.181"	8.4	11.5	Dome	324	46860-4
610200-4	86	STD	5.472"	86.0	1.181"	12.5	12.5	Dome	329	46860-4
<b>Honda Del Sol 93-97/Civic SI 99-00 - B16A1-A2-A3 DOHC V-Tec (.827"/21mm x 2.250" Pin)</b>										
603000-4	81	STD	5.290"	77.4	1.181"	8.0	11.0	Dome	310	46810-4
603005-4	81.5	+5mm	5.290"	77.4	1.181"	8.0	11.0	Dome	316	46815-4
603100-4	81	STD	5.290"	77.4	1.181"	-2.2	9.8	Flat Top	291	46810-4
603105-4	81.5	+5mm	5.290"	77.4	1.181"	-2.2	9.8	Flat Top	297	46815-4
<b>Honda CRV 97-00 - B20B4 w/ B16A1-A2-A3 Head (.827"/21mm x 2.250" Pin)</b>										
602000-4	84	STD	5.394"	89.0	1.181"	-11.9	9.0	Dish	299	46840-4
602005-4	84.5	+5mm	5.394"	89.0	1.181"	-11.9	9.0	Dish	312	46845-4
602010-4	85	+1.0mm	5.394"	89.0	1.181"	-11.9	9.0	Dish	325	46850-4
602100-4	84	STD	5.394"	89.0	1.181"	4.8	12.5	Dome	318	46840-4
602105-4	84.5	+5mm	5.394"	89.0	1.181"	4.8	12.5	Dome	331	46845-4
602110-4	85	+1.0mm	5.394"	89.0	1.181"	4.8	12.5	Dome	344	46850-4
<b>Honda CRV 02-Up - K24A w/ K20A-A2-A3 Head DOHC V-Tec (.866"/22mm x 2.500" Pin)</b>										
611000-4	87	STD	5.984"	99.0	1.181"	-17.9	9.0	Dish	334	46870-4
611100-4	87	STD	5.984"	99.0	1.181"	-1.0	11.5	Flat Top	339	46870-4
611200-4	87	STD	5.984"	99.0	1.181"	4.5	12.5	Dome	344	46870-4

# PLATINUM SERIES PISTONS

## Audi / Lamborghini

- 5.0L FSI V10
- 5.2L FSI V10

- ▶ 2618 high strength material; lightweight design
- ▶ Offset wrist pin for quiet start-ups
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ .210" wall 9310 alloy pin included P/N 42532



- ▶ Pressure balance groove
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring

Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume(cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
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### Lamborghini Gallardo V10 5.0L FSI 2003-2008 (.787"/20mm x 2.250" Pin)

639000CE-10 *	82.5	STD	6.063"	92.8	1.087"	-3.5	10.0	Dish	TBA	46826-10
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### Audi R8/Lamborghini Gallardo V10 5.2L FSI 2009-Present (.787"/20mm x 2.250" Pin)

640000CE-10 *	84.5	STD	6.063"	92.8	1.087"	-6.5	10.0	Dish	323	46846-10
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\*Designed for use in sleeved blocks with iron cylinder walls

## Hyundai

### • THETA I4 Genesis

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin included P/N 42251
- ▶ 9310 alloy .210" wall pin upgrades available P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
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### Hyundai Genesis Coupe 2.0L Turbo Theta I4 (.866"/22mm x 2.250" Pin)

616000C-4	86	STD	5.753"	86	1.181"	-2.5	9.3	Dish	325	46860-4
616005C-4	86.5	+5mm	5.753"	86	1.181"	-2.5	9.3	Dish	332	46865-4

## Ford XR-6

### Turbo 4.0L BA Falcon

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ 2.500 x .150" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .180" wall pin (Extreme Duty Series) included P/N 42507
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0030" measured .850" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size	Over Size	Rod Length	Stroke	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
628000C-6	628000CE-6	3.633"	STD	6.058"	3.910"	1.215"	-16	66	8.5:1	Dish	382	46923-6
628004C-6	628004CE-6	3.637"	+.004"	6.058"	3.910"	1.215"	-16	66	8.5:1	Dish	385	46924-6
628014C-6	628014CE-6	3.647"	+.014"	6.058"	3.910"	1.215"	-16	66	8.5:1	Dish	389	46926-6
628100C-6	628100CE-6	3.633"	STD	6.058"	3.910"	1.215"	-10	66	9.0:1	Dish	384	46923-6
628104C-6	628104CE-6	3.637"	+.004"	6.058"	3.910"	1.215"	-10	66	9.0:1	Dish	388	46924-6
628114C-6	628114CE-6	3.647"	+.014"	6.058"	3.910"	1.215"	-10	66	9.0:1	Dish	393	46926-6

# PLATINUM SERIES PISTONS

## Ford

### • 2.0L EcoBoost

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42248
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42548
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0030" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Ford Focus ST 2012-Up (.886"/22.5mm x 2.250" Pin)											
636000C-4	636000CE-4	87.5	STD	6.136"	83	1.291"	-7.3	9.3	Dish	379	46875-4
636005C-4	636005CE-4	88	+5mm	6.136"	83	1.291"	-7.3	9.3	Dish	387	46880-4

## Ford

### • 2.3L EcoBoost

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42248
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42548
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance: .0030" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Ford Focus RS 2016-Up, Mustang 2015-Up (.886"/22.5mm x 2.250" Pin)											
637000C-4	637000CE-4	87.5	STD	5.875"	94	1.291"	-8.2	9.5	Dish	382	46875-4
637001C-4	637001CE-4	87.6	+1mm	5.875"	94	1.291"	-8.2	9.5	Dish	384	46876-4

## Mazda

### • SPEED 3 MZR

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42248
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42548
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0030" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
Mazda Speed 3 MZR 2.3L DISI Turbo (.886"/22.5mm x 2.250" Pin)												
630000C-4	630000CE-4	87.5	STD	5.927"	94	1.270"	-13.3	42	9.5	Dish	372	46875-4
630005C-4	630005CE-4	88	+5mm	5.927"	94	1.270"	-13.3	42	9.5	Dish	379	46880-4



# PLATINUM SERIES PISTONS

## Mitsubishi

- 4G63/4G63T 1st Gen 6 Bolt
- 4G63/4G63T 2nd Gen 7 Bolt / EVO VIII, IX
- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall x 2.250" length Premium Chrome Moly pin (Standard Series) included  
.827"/21mm 6 bolt & .866"/22mm 7 bolt
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
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### Mitsubishi Eclipse GST/GSX-Eagle Talon TSi 90-93.5 (6 Bolt) - 4G63/4G63T

#### 88mm STD STROKE (2.0L)

DSM

DSM

605000C-4	605000CE-4	85	STD	150	88	1.375"	-12	47	8.5	Dish	340	46850-4
605005C-4	605005CE-4	85.5	+.5mm	150	88	1.375"	-12	47	8.5	Dish	344	46855-4
605010C-4	605010CE-4	86	+1.0mm	150	88	1.375"	-12	47	8.5	Dish	348	46860-4
605100C-4	605100CE-4	85	STD	150	88	1.375"	-8	47	9.0	Dish	349	46850-4
605105C-4	605105CE-4	85.5	+.5mm	150	88	1.375"	-8	47	9.0	Dish	356	46855-4
605110C-4	605110CE-4	86	+1.0mm	150	88	1.375"	-8	47	9.0	Dish	365	46860-4

#### 100mm STROKER (2.3L)

607005C-4	607005CE-4	85.5	+.5mm	150	100	1.130"	-22	47	8.5	Dish	300	46855-4
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### Mitsubishi Eclipse GST/GSX-Eagle Talon TSi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

#### 88mm STD STROKE (2.0L)

DSM/EVO

DSM/EVO

606000C-4	606000CE-4	85	STD	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	337	46850-4
606005C-4	606005CE-4	85.5	+.5mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	341	46855-4
606010C-4	606010CE-4	86	+1.0mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	345	46860-4
606015C-4	606015CE-4	86.5	+1.5mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	349	46865-4
606020C-4	606020CE-4	87	+2.0mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	354	46870-4
606100C-4	606100CE-4	85	STD	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	342	46850-4
606105C-4	606105CE-4	85.5	+.5mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	350	46855-4
606110C-4	606110CE-4	86	+1.0mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	358	46860-4
606115C-4	606115CE-4	86.5	+1.5mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	350	46865-4
606120C-4	606120CE-4	87	+2.0mm	150	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	359	46870-4
606200C-4	606200CE-4	85	STD	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	339	46850-4
606205C-4	606205CE-4	85.5	+.5mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	347	46855-4
606210C-4	606210CE-4	86	+1.0mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	355	46860-4
606215C-4	606215CE-4	86.5	+1.5mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	352	46865-4
606220C-4	606220CE-4	87	+2.0mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	360	46870-4
617000C-4	617000CE-4	85	STD	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	298	46850-4
617005C-4	617005CE-4	85.5	+.5mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	305	46855-4
617010C-4	617010CE-4	86	+1.0mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	313	46860-4
617015C-4	617015CE-4	86.5	+1.5mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	312	46865-4
617020C-4	617020CE-4	87	+2.0mm	156	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	320	46870-4

# PLATINUM SERIES PISTONS

## Mitsubishi

### · 4G63/4G63T 2nd GEN 7 Bolt / EVO VIII, IX



- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall x 2.250" length Premium Chrome Moly pin (Standard Series) included .866"/22mm
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring

Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
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#### Mitsubishi Eclipse GST/GSX-Eagle Talon Tsi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

##### 94mm STROKER (2.1L)

##### DSM/EVO DSM/EVO

618000C-4	618000CE-4	85	STD	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	311	46850-4
618005C-4	618005CE-4	85.5	+5mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	319	46855-4
618010C-4	618010CE-4	86	+1.0mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	327	46860-4
618015C-4	618015CE-4	86.5	+1.5mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	327	46865-4
618020C-4	618020CE-4	87	+2.0mm	150	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	334	46870-4
618200C-4	618200CE-4	85	STD	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	322	46850-4
618205C-4	618205CE-4	85.5	+5mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	328	46855-4
618210C-4	618210CE-4	86	+1.0mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	337	46860-4
618215C-4	618215CE-4	86.5	+1.5mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	335	46865-4
618220C-4	618220CE-4	87	+2.0mm	150	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	344	46870-4
619000C-4	619000CE-4	85	STD	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	272	46850-4
619005C-4	619005CE-4	85.5	+5mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	277	46855-4
619010C-4	619010CE-4	86	+1.0mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	287	46860-4
619015C-4	619015CE-4	86.5	+1.5mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	289	46865-4
619020C-4	619020CE-4	87	+2.0mm	156	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	296	46870-4
619200C-4	619200CE-4	85	STD	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	283	46850-4
619205C-4	619205CE-4	85.5	+5mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	290	46855-4
619210C-4	619210CE-4	86	+1.0mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	293	46860-4
619215C-4	619215CE-4	86.5	+1.5mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	295	46865-4
619220C-4	619220CE-4	87	+2.0mm	156	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	302	46870-4

#### Mitsubishi Eclipse GST/GSX-Eagle Talon Tsi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T

##### 100mm STROKER (2.3L)

##### DSM/EVO DSM/EVO

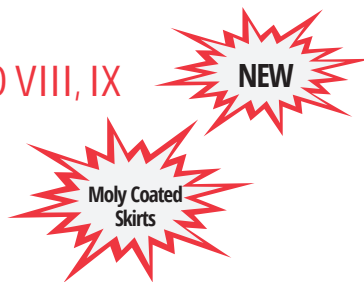
608000C-4	608000CE-4	85	STD	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	291	46850-4
608005C-4	608005CE-4	85.5	+5mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	295	46855-4
608010C-4	608010CE-4	86	+1.0mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	299	46860-4
608015C-4	608015CE-4	86.5	+1.5mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	300	46865-4
608020C-4	608020CE-4	87	+2.0mm	150	100	1.130"	-22	47 / 43	8.5 / 9.0	Dish	307	46870-4
617000C-4	617000CE-4	85	STD	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	298	46850-4
617005C-4	617005CE-4	85.5	+5mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	305	46855-4
617010C-4	617010CE-4	86	+1.0mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	313	46860-4
617015C-4	617015CE-4	86.5	+1.5mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	312	46865-4
617020C-4	617020CE-4	87	+2.0mm	150	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	320	46870-4

# PLATINUM SERIES PISTONS

## Mitsubishi

• 4G63/4G63T 2nd GEN 7 Bolt / EVO VIII, IX  
Turbo Tuff® Design

- ▶ 2618 high strength material
- ▶ 2.250" x .250" wall 9310 alloy pin included P/N 42552
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Vertical Gas Ports designed for high HP Race Engines
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included RingSet
Mitsubishi Eclipse GST/GSX-Eagle Talon Tsi 93.5-99 (7 Bolt) - 4G63/4G63T Evo VIII, IX 03-06 4G63T											
<b>88mm STD STROKE (2.0L)</b>						DSM/EVO		DSM/EVO			
<b>606300CE-4</b>	85	STD	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	363	<b>46850-4</b>
<b>606305CE-4</b>	85.5	+.5mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	369	<b>46855-4</b>
<b>606310CE-4</b>	86	+1.0mm	150	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	375	<b>46860-4</b>
<b>606400CE-4</b>	85	STD	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	372	<b>46850-4</b>
<b>606405CE-4</b>	85.5	+.5mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	376	<b>46855-4</b>
<b>606410CE-4</b>	86	+1.0mm	150	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	380	<b>46860-4</b>

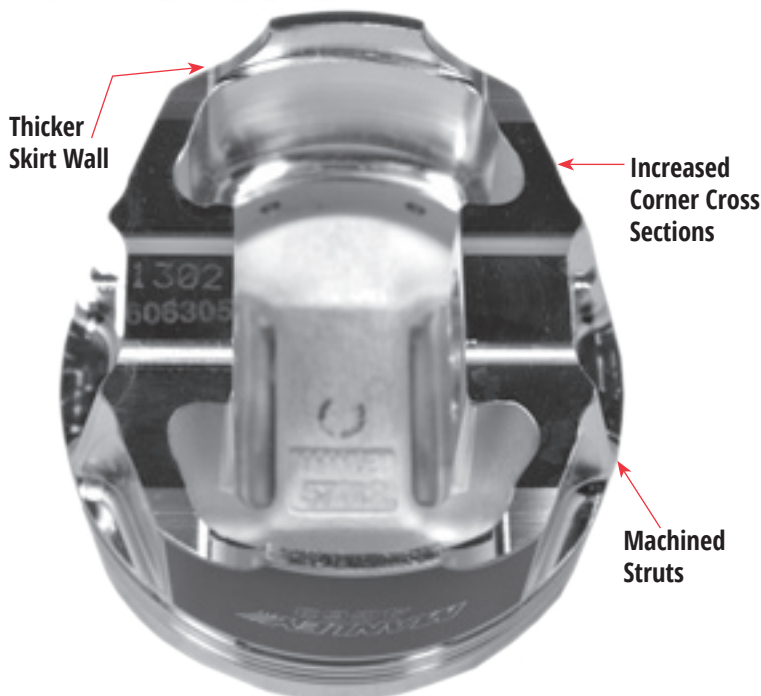
### Common Features

Crown Thickness: .320"  
Top Ring: 1.2mm, .350" down  
Second Ring: 1.2mm  
Oil Ring: 2.8mm

Valve Notches: .205" Int., .205" Exh.  
Pin Included: 9310 Alloy P/N 42552  
(.250" wall, 139 grams, 2.250" long, 22mm dia.)  
Round Wire Locks: P/N 42270

## Turbo Tuff® Pistons NEW FOR 2018

Also available for Mitsubishi 4B11  
(page 19) and Toyota 2JZ (page 25)  
applications



- **Increased Deck Thickness**
- **Vertical Gas Ports**
- **Increased Thickness Below Pin**
- **Pin Piers Machined To Accept Aluminum or Steel Rods**

Note: New part numbers are **BOLD & ITALICIZED**

# PLATINUM SERIES PISTONS

## Mitsubishi

### · 4G64 w/ 4G63 Cylinder Head

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall x 2.250" length Premium Chrome Moly pin (Standard Series) included .866"/22mm
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>Mitsubishi 4G64 w/ 4G63 Head 95-99</b>												
<b>88mm DE-STROKED (2.1L) DSM/EVO DSM/EVO</b>												
606015C-4	606015CE-4	86.5	STD	156	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	349	46865-4
606020C-4	606020CE-4	87	+5mm	156	88	1.375"	-12	47 / 43	8.5 / 9.0	Dish	354	46870-4
606115C-4	606115CE-4	86.5	STD	156	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	350	46865-4
606120C-4	606120CE-4	87	+5mm	156	88	1.375"	-8	47 / 43	9.0 / 9.5	Dish	359	46870-4
606215C-4	606215CE-4	86.5	STD	156	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	352	46865-4
606220C-4	606220CE-4	87	+5mm	156	88	1.375"	-2.5	47 / 43	10.0 / 10.5	Flat Top	360	46870-4
617015C-4	617015CE-4	86.5	STD	162	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	312	46865-4
617020C-4	617020CE-4	87	+5mm	162	88	1.130"	-12	47 / 43	8.5 / 9.0	Dish	320	46870-4
<b>94mm DE-STROKED (2.2L)</b>												
618015C-4	618015CE-4	86.5	STD	156	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	327	46865-4
618020C-4	618020CE-4	87	+5mm	156	94	1.248"	-17	47 / 43	8.5 / 9.0	Dish	334	46870-4
618215C-4	618215CE-4	86.5	STD	156	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	335	46865-4
618220C-4	618220CE-4	87	+5mm	156	94	1.248"	-8	47 / 43	10.0 / 10.5	Dish	344	46870-4
619015C-4	619015CE-4	86.5	STD	162	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	289	46865-4
619020C-4	619020CE-4	87	+5mm	162	94	1.012"	-17	47 / 43	8.5 / 9.0	Dish	296	46870-4
619215C-4	619215CE-4	86.5	STD	162	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	295	46865-4
619220C-4	619220CE-4	87	+5mm	162	94	1.012"	-8	47 / 43	10.0 / 10.5	Dish	302	46870-4
<b>100mm STD STROKE (2.4L)</b>												
613000C-4	613000CE-4	86.5	STD	150	100	1.375"	-23.5	47 / 43	8.5 / 9.0	Dish	338	46865-4
613005C-4	613005CE-4	87	+5mm	150	100	1.375"	-23.5	47 / 43	8.5 / 9.0	Dish	346	46870-4
606015C-4	606015CE-4	86.5	STD	150	100	1.375"	-12	47 / 43	10.0 / 10.5	Dish	349	46865-4
606020C-4	606020CE-4	87	+5mm	150	100	1.375"	-12	47 / 43	10.0 / 10.5	Dish	354	46870-4
608015C-4	608015CE-4	86.5	STD	156	100	1.130"	-22	47 / 43	8.6 / 9.1	Dish	300	46865-4
608020C-4	608020CE-4	87	+5mm	156	100	1.130"	-22	47 / 43	8.6 / 9.1	Dish	307	46870-4
617015C-4	617015CE-4	86.5	STD	156	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	312	46865-4
617020C-4	617020CE-4	87	+5mm	156	100	1.130"	-12	47 / 43	10.0 / 10.5	Dish	320	46870-4

PISTONS, RINGS, & PINS

# PLATINUM SERIES PISTONS

## Mitsubishi

### · 4B11T EVO X

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .180" wall x 2.250" length Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .210" wall pin (Included with Extreme Duty Series)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes



- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring

Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
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#### Mitsubishi EVO X 08-Up - 4B11T

##### 86mm STD STROKE (2.0L)

<b>614000C-4</b>	<b>614000CE-4</b>	86	STD	143.66	86	1.313"	-5	49	9.0	Dish	337	<b>46860-4</b>
<b>614005C-4</b>	<b>614005CE-4</b>	86.5	+.5mm	143.66	86	1.313"	-5	49	9.0	Dish	343	<b>46865-4</b>
<b>614100C-4</b>	<b>614100CE-4</b>	86	STD	143.66	86	1.313"	+2	49	10.0	Dome	TBA	<b>46860-4</b>
<b>614105C-4</b>	<b>614105CE-4</b>	86.5	+.5mm	143.66	86	1.313"	+2	49	10.0	Dome	TBA	<b>46865-4</b>

##### 94mm STROKER (2.2L)

<b>624000C-4</b>	<b>624000CE-4</b>	86	STD	143.66	94	1.155"	-11	49	9.0	Dish	308	<b>46860-4</b>
<b>624005C-4</b>	<b>624005CE-4</b>	86.5	+.5mm	143.66	94	1.155"	-11	49	9.0	Dish	315	<b>46865-4</b>
<b>624100C-4</b>	<b>624100CE-4</b>	86	STD	143.66	94	1.155"	-3.5	49	10.0	Dish	TBA	<b>46860-4</b>
<b>624105C-4</b>	<b>624105CE-4</b>	86.5	+.5mm	143.66	94	1.155"	-3.5	49	10.0	Dish	TBA	<b>46865-4</b>

## Mitsubishi

### · 4B11T EVO X

#### Turbo Tuff® Design

- ▶ 2618 high strength material
- ▶ 2.250 x .210" wall 9310 alloy pin included P/N 42553
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Vertical Gas Ports designed for high HP Race Engines
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length mm	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included RingSet
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#### Mitsubishi Evo X 08-Up - 4B11T

##### 86mm STD STROKE (2.0L)

<b>614200CE-4</b>	86	STD	143.66	86	1.313"	-5	49	9.0	Dish	TBA	<b>46860-4</b>
<b>614205CE-4</b>	86.5	+.5mm	143.66	86	1.313"	-5	49	9.0	Dish	TBA	<b>46865-4</b>
<b>614300CE-4</b>	86	STD	143.66	86	1.313"	+2	49	10.0	Dome	TBA	<b>46860-4</b>
<b>614305CE-4</b>	86.5	+.5mm	143.66	86	1.313"	+2	49	10.0	Dome	TBA	<b>46865-4</b>

##### 94mm STD STROKER (2.2L)

<b>624200CE-4</b>	86	STD	143.66	94	1.155"	-11	49	9.0	Dish	TBA	<b>46860-4</b>
<b>624205CE-4</b>	86.5	+.5mm	143.66	94	1.155"	-11	49	9.0	Dish	TBA	<b>46865-4</b>
<b>624300CE-4</b>	86	STD	143.66	94	1.155"	-3.5	49	10.0	Dish	TBA	<b>46860-4</b>
<b>624305CE-4</b>	86.5	+.5mm	143.66	94	1.155"	-3.5	49	10.0	Dish	TBA	<b>46865-4</b>

#### Common Features

Crown Thickness: .320"  
 Top Ring: 1.2mm, .350" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Valve Notches: .175" Int., .175" Exh.  
 Pin Included: 9310 Alloy P/N 42553  
 (.210" wall, 132 grams, 2.250" long, 23mm dia.)  
 Round Wire Locks: P/N 42262

Note: New part numbers are **BOLD & ITALICIZED**



# PLATINUM SERIES PISTONS

## Nissan

### • SR20DE/DET

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42251
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance: .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
Nissan 180SX/200SX/Sentra 2.0L SR20DE/DET 16V (.866"/22mm x 2.250" Pin)											
638000C-4	638000CE-4	86	STD	5.365"	86	1.260"	-12	9.0	Dish	335	46860-4
638002C-4	638002CE-4	86.25	+.25mm	5.365"	86	1.260"	-12	9.0	Dish	340	46862-4
638005C-4	638005CE-4	86.5	+.5mm	5.365"	86	1.260"	-12	9.0	Dish	345	46865-4
638010C-4	638010CE-4	87	+1.0mm	5.365"	86	1.260"	-12	9.0	Dish	350	46870-4

## Nissan

### • VQ35DE

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin included P/N 42207
- ▶ 9310 alloy .180" wall pin upgrades available P/N 42507
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring sets and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Compression Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
Nissan 350Z, Maxima, Altima and Infiniti G35 2003-2007 (.866"/22mm x 2.500" Pin)											
623000C-6	95.50	STD	5.680"	81.4	1.167"	-12	57	8.5	Dish	386	46955-6
623002C-6	95.75	+.25mm	5.680"	81.4	1.167"	-12	57	8.5	Dish	389	46957-6
623005C-6	96.00	+.5mm	5.680"	81.4	1.167"	-12	57	8.5	Dish	393	46960-6
623010C-6	96.50	+1.0mm	5.680"	81.4	1.167"	-12	57	8.5	Dish	400	46965-6
623100C-6	95.50	STD	5.680"	81.4	1.167"	+7	57	11.0	Dome	418	46955-6
623102C-6	95.75	+.25mm	5.680"	81.4	1.167"	+7	57	11.0	Dome	421	46957-6
623105C-6	96.00	+.5mm	5.680"	81.4	1.167"	+7	57	11.0	Dome	425	46960-6
623110C-6	96.50	+1.0mm	5.680"	81.4	1.167"	+7	57	11.0	Dome	432	46965-6

## Nissan GT-R VR38DETT 88.4mm Stock Stroke

### Turbo Tuff Design for .990" Diameter Pins

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .200"-.250" tapered wall .990" diam. Turbo Tuff/DLC pin included
- ▶ Asymmetrical skirt design
- ▶ Lateral gas ports (12 places)
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring set with Napier second ring and 9-13 lb. tension oil ring included
- ▶ Round wire locks included



Part No.	Bore Size mm	Rod Length	Stroke mm	Displacement	Comp Distance	Dome Vol (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
641000CE-6*	98.0	6.500"	88.4	4.08L	1.350"	-2	9.8	Flat Top	TBA	46980-6
641010CE-6*	99.0	6.500"	88.4	4.12L	1.350"	-2	9.9	Flat Top	TBA	46990-6

\* These pistons are designed for use with Manley connecting rod P/N 15444-6 that are made for a .990" wrist pin size

### Common Features

Crown Thickness: .240"  
 Top Ring: 1.2mm, .280" down  
 Second Ring: 1.5mm Napier profile  
 Oil Ring: 3.0mm  
 Intake Valve Notch: .105" / 2.67mm

Round Wire Locks: P/N 42245  
 Pin Included: Turbo Tuff/DLC P/N 42747  
 (.200"-.250" wall, 188 grams, 2.500" long, .990" dia.)  
 Recommended Piston Clearance: .0035" measured 1.100" from bottom of oil ring

Note: New part numbers are **BOLD & ITALICIZED**



# PLATINUM SERIES PISTONS

## Nissan GT-R 3.8L VR38DETT 88.4mm Stock Stroke

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .180" wall Premium Chrome Moly pin (Standard 625 Series) included
- ▶ .210" wall Premium Chrome Moly pin (Standard 634 Series) included
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546
- ▶ Turbo Tuff/DLC .250" wall P/N 42745 and .300" wall P/N 42746 upgrades available
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring set with Napier second ring and 9-13 lb. tension oil ring included
- ▶ Round wire locks included



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Rod Length	Displacement	Comp Distance	Dome Vol (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
625GR1-1*	625EGR1-1*	95.5 Grade 1	6.500"	3.8L	1.350"	-1.5	9.25	Flat Top	449	46956-1
625GR2-1*	625EGR2-1*	95.5 Grade 2	6.500"	3.8L	1.350"	-1.5	9.25	Flat Top	449	46956-1
625GR3-1*	625EGR3-1*	95.5 Grade 3	6.500"	3.8L	1.350"	-1.5	9.25	Flat Top	449	46956-1
634010C-6	634010CE-6	99.0	6.500"	4.08L	1.350"	-2	9.8	Flat Top	488	46990-6
634015C-6	634015CE-6	99.5	6.500"	4.12L	1.350"	-2	9.9	Flat Top	493	46996-6

\* These pistons feature skirt diameters that correspond to the OEM Grade 1, 2 or 3 bores resulting in a piston to wall clearance range of .0032" - .0039". Check the bore grades on the back of your block and order the appropriate quantities of Grade 1, 2 or 3 pistons. (Sold as -1 individual pieces, not sets.)

### Common Features

Crown Thickness: .260"  
 Top Ring: 1.2mm, .260" down  
 Second Ring: 1.2mm Napier profile  
 Oil Ring: 3.0mm  
 Intake Valve Notch: .065" / 1.65mm (625 Series)  
 .105" / 2.67mm (634 Series)  
 Round Wire Locks: P/N 42212

Pin Included: Standard 625 Series: Premium Chrome Moly P/N 42346 (.180" wall, 132 grams, 2.500" long, 23mm dia.)  
 Standard 634 Series: Premium Chrome Moly P/N 42646 (.210" wall, 147 grams, 2.500" long, 23mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42546 (.210" wall, 147 grams, 2.500" long, 23mm dia.)  
 Recommended Piston Clearance: (625 Series) Grade Range 1, 2 or 3 Drop-In measured 1.100" from bottom of oil ring (634 Series) .0035" measured 1.100" from bottom of oil ring

## Nissan GT-R VR38DETT 94.4mm Stroker

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .210" wall Premium Chrome Moly pin (Standard Series) included
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546
- ▶ Turbo Tuff/DLC .250" wall P/N 42745 and .300" wall P/N 42746 upgrades available
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top ring set with Napier second ring and 9-13 lb. tension oil ring included
- ▶ Round wire locks included



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Rod Length	Displacement	Comp Distance	Dome Vol (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
633GR1-1*	633EGR1-1*	95.5 Grade 1	6.500"	4.06L	1.232"	-1.5	9.8	Flat Top	423	46956-1
633GR2-1*	633EGR2-1*	95.5 Grade 2	6.500"	4.06L	1.232"	-1.5	9.8	Flat Top	423	46956-1
633GR3-1*	633EGR3-1*	95.5 Grade 3	6.500"	4.06L	1.232"	-1.5	9.8	Flat Top	423	46956-1
635010C-6	635010CE-6	99.0	6.500"	4.36L	1.232"	-7	9.8	Dish	460	46990-6
635015C-6	635015CE-6	99.5	6.500"	4.40L	1.232"	-7	9.9	Dish	465	46996-6

\* These pistons feature skirt diameters that correspond to the OEM Grade 1, 2 or 3 bores resulting in a piston to wall clearance range of .0032" - .0039". Check the bore grades on the back of your block and order the appropriate quantities of Grade 1, 2 or 3 pistons. (Sold as -1 individual pieces, not sets.)

### Common Features

Crown Thickness: .260"  
 Top Ring: 1.2mm, .260" down  
 Second Ring: 1.2mm Napier profile  
 Oil Ring: 3.0mm  
 Intake Valve Notch: .065" / 1.65mm (633 Series)  
 .105" / 2.67mm (635 Series)  
 Round Wire Locks: P/N 42212

Pin Included: Standard Series: Premium Chrome Moly P/N 42646 (.210" wall, 147 grams, 2.500" long, 23mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42546 (.210" wall, 147 grams, 2.500" long, 23mm dia.)  
 Recommended Piston Clearance: (633 Series) Grade Range 1, 2 or 3 Drop-In measured 1.100" from bottom of oil ring (635 Series) .0035" measured 1.100" from bottom of oil ring

# PLATINUM SERIES PISTONS

## Subaru

### FA20 BRZ 2013-Up / FA20 WRX 2015-Up

- ▶ 2618 high strength material; Lightweight design
- ▶ 2.250" x .150" wall Premium Chrome Moly pin (Standard Series) included P/N 42251
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42551
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" from the bottom of the oil ring



Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>SUBARU BRZ 2013-UP</b>											
632600CA-1*	632600CEA-1*	86.00	STD	5.090"	86	1.285"	-11.4	10.0	Dish	329	46861DT-1
632600CB-1*	632600CEB-1*	86.00	STD	5.090"	86	1.285"	-11.4	10.0	Dish	329	46861DT-1
632601C-4	632601CE-4	86.10	+.1mm	5.090"	86	1.285"	-11.4	10.0	Dish	330	46861DT-4
<b>632602C-4</b>	<b>632602CE-4</b>	86.25	+.25mm	5.090"	86	1.285"	-11.4	10.0	Dish	331	<b>46863DT-4</b>
<b>632605C-4</b>	<b>632605CE-4</b>	86.50	+.5mm	5.090"	86	1.285"	-11.4	10.0	Dish	334	<b>46866DT-4</b>
<b>SUBARU WRX 2015-Up</b>											
632700CA-1*	632700CEA-1*	86.00	STD	5.090"	86	1.285"	-13	10.0	Dish	340	46861DT-1
632700CB-1*	632700CEB-1*	86.00	STD	5.090"	86	1.285"	-13	10.0	Dish	340	46861DT-1
632701C-4	632701CE-4	86.10	+.1mm	5.090"	86	1.285"	-13	10.0	Dish	341	46861DT-4
<b>632702C-4</b>	<b>632702CE-4</b>	86.25	+.25mm	5.090"	86	1.285"	-13	10.0	Dish	350	<b>46863DT-4</b>
<b>632705C-4</b>	<b>632705CE-4</b>	86.50	+.5mm	5.090"	86	1.285"	-13	10.0	Dish	353	<b>46866DT-4</b>

\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores resulting in a piston to wall clearance range of .0023" - .0031". Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

## Subaru

### EJ205 WRX

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included P/N 42346
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" (79mm stroke) and 1.100" (75mm stroke) from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>Subaru WRX 1998-2005 - EJ205</b>											
<b>75mm STD STROKE (2.0L)</b>											
615000C-4	615000CE-4	92.00	STD	5.137"	1.285"	-12	48	8.5	Dish	369	46920DT-4
615005C-4	615005CE-4	92.50	+.5mm	5.137"	1.285"	-12	48	8.5	Dish	375	46925DT-4
615010C-4	615010CE-4	93.00	+1.0mm	5.137"	1.285"	-12	48	8.5	Dish	383	46930DT-4
<b>79mm STROKER (2.3L)</b>											
620000C-4	620000CE-4	92.00	STD	5.137"	1.209"	-16	48	8.5	Dish	355	46920DT-4
620005C-4	620005CE-4	92.50	+.5mm	5.137"	1.209"	-16	48	8.5	Dish	361	46925DT-4
620010C-4	620010CE-4	93.00	+1.0mm	5.137"	1.209"	-16	48	8.5	Dish	370	46930DT-4

Note: New part numbers are **BOLD & ITALICIZED**





# PLATINUM SERIES PISTONS

## Subaru

### · EJ257 WRX STI

- ▶ 2618 high strength material; Lightweight design with offset wrist pin for quiet start-ups
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included P/N 42346
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" (79/83mm stroke) and 1.100" (75mm stroke) from the bottom of the oil ring



Standard Part No.	Bore Size mm	Over Size	Rod Length	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
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Subaru WRX Sti 2004-up/WRX 2006-up - EJ257

#### 75mm DE-STROKED (2.35L)

621000C-4	99.50	STD	5.137"	1.285"	-18	51	8.5	Dish	429	<b>46995DT-4</b>
621002C-4	99.75	+.25mm	5.137"	1.285"	-18	51	8.5	Dish	434	<b>46997DT-4</b>
621005C-4	100.00	+.5mm	5.137"	1.285"	-18	51	8.5	Dish	438	<b>461000DT-4</b>
621100C-4	99.50	STD	5.137"	1.285"	-6	51	9.8	Flat Top	462	<b>46995DT-4</b>
621102C-4	99.75	+.25mm	5.137"	1.285"	-6	51	9.8	Flat Top	465	<b>46997DT-4</b>
621105C-4	100.00	+.5mm	5.137"	1.285"	-6	51	9.8	Flat Top	469	<b>461000DT-4</b>

#### 79mm STD STROKE (2.5L)

612000CA-1*	99.50	Grade A	STD	5.137"	1.209"	-22	51	8.5	Dish	395	<b>46995DT-1</b>
612000CB-1*	99.50	Grade B	STD	5.137"	1.209"	-22	51	8.5	Dish	395	<b>46995DT-1</b>
612000C-4	99.50	STD	5.137"	1.209"	-22	51	8.5	Dish	395	<b>46995DT-4</b>	
612001C-4	99.55	+.05mm	5.137"	1.209"	-22	51	8.5	Dish	395	<b>46995DT-4</b>	
612002C-4	99.75	+.25mm	5.137"	1.209"	-22	51	8.5	Dish	398	<b>46997DT-4</b>	
612005C-4	100.00	+.5mm	5.137"	1.209"	-22	51	8.5	Dish	402	<b>461000DT-4</b>	
612007C-4	100.25	+.75mm	5.137"	1.209"	-22	51	8.5	Dish	405	<b>461002DT-4</b>	
612200CA-1*	99.50	Grade A	STD	5.137"	1.209"	-17	57	8.5	Dish	TBA	<b>46995DT-1</b>
612200CB-1*	99.50	Grade B	STD	5.137"	1.209"	-17	57	8.5	Dish	TBA	<b>46995DT-1</b>
612200C-4	99.50	STD	5.137"	1.209"	-17	57	8.5	Dish	TBA	<b>46995DT-4</b>	
612201C-4	99.55	+.05mm	5.137"	1.209"	-17	57	8.5	Dish	TBA	<b>46995DT-4</b>	
612202C-4	99.75	+.25mm	5.137"	1.209"	-17	57	8.5	Dish	TBA	<b>46997DT-4</b>	
612205C-4	100.00	+.5mm	5.137"	1.209"	-17	57	8.5	Dish	TBA	<b>461000DT-4</b>	
612207C-4	100.25	+.75mm	5.137"	1.209"	-17	57	8.5	Dish	TBA	<b>461002DT-4</b>	
612100C-4	99.50	STD	5.137"	1.209"	-10	51	9.8	Dish	419	<b>46995DT-4</b>	
612102C-4	99.75	+.25mm	5.137"	1.209"	-10	51	9.8	Dish	423	<b>46997DT-4</b>	
612105C-4	100.00	+.5mm	5.137"	1.209"	-10	51	9.8	Dish	426	<b>461000DT-4</b>	

#### 83mm STROKER (2.7L)

622000C-4	99.50	STD	5.137"	1.130"	-26	51	8.5	Dish	379	<b>46995DT-4</b>
622002C-4	99.75	+.25mm	5.137"	1.130"	-26	51	8.5	Dish	383	<b>46997DT-4</b>
622005C-4	100.00	+.5mm	5.137"	1.130"	-26	51	8.5	Dish	386	<b>461000DT-4</b>
622100C-4	99.50	STD	5.137"	1.130"	-14	51	9.8	Dish	414	<b>46995DT-4</b>
622102C-4	99.75	+.25mm	5.137"	1.130"	-14	51	9.8	Dish	415	<b>46997DT-4</b>
622105C-4	100.00	+.5mm	5.137"	1.130"	-14	51	9.8	Dish	418	<b>461000DT-4</b>

All pistons on this page include Napier style second rings and higher tension oil rings for improved oil control

\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores resulting in a piston to wall clearance range of .0023" - .0031". Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

Note: New part numbers are **BOLD & ITALICIZED**

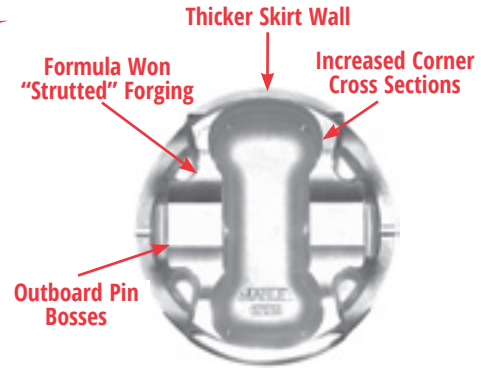
# PLATINUM SERIES PISTONS

## Subaru

• EJ257 WRX STi 2004-Up

Turbo Tuff® Design

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ 2.500" x .180" wall Premium Chrome Moly pin (Standard Series) included P/N 42346
- ▶ 9310 alloy .210" wall pin (Extreme Duty Series) included P/N 42546
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance: .003" for mildly boosted and .0035" for highly boosted measured .850" (79/83mm stroke) and 1.100" (75mm stroke) from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>75mm DE-STROKED (2.35L)</b>											
632000C-4	632000CE-4	99.50	STD	5.137"	1.285"	-18	51	8.5	Dish	439	46995DT-4
632002C-4	632002CE-4	99.75	+.25mm	5.137"	1.285"	-18	51	8.5	Dish	444	46997DT-4
632005C-4	632005CE-4	100.00	+.5mm	5.137"	1.285"	-18	51	8.5	Dish	448	461000DT-4
632100C-4	632100CE-4	99.50	STD	5.137"	1.285"	-6	51	9.8	Flat Top	472	46995DT-4
632102C-4	632102CE-4	99.75	+.25mm	5.137"	1.285"	-6	51	9.8	Flat Top	475	46997DT-4
632105C-4	632105CE-4	100.00	+.5mm	5.137"	1.285"	-6	51	9.8	Flat Top	479	461000DT-4
<b>79mm STD STROKE (2.5L)</b>											
632200CA-1*	632200CEA-1*	99.50 Grade A	STD	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-1
632200CB-1*	632200CEB-1*	99.50 Grade B	STD	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-1
632200C-4	632200CE-4	99.50	STD	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-4
632201C-4	632201CE-4	99.55	+.05mm	5.137"	1.209"	-22	51	8.5	Dish	405	46995DT-4
632202C-4	632202CE-4	99.75	+.25mm	5.137"	1.209"	-22	51	8.5	Dish	408	46997DT-4
632205C-4	632205CE-4	100.00	+.5mm	5.137"	1.209"	-22	51	8.5	Dish	412	461000DT-4
632800CA-1*	632800CEA-1*	99.50 Grade A	STD	5.137"	1.209"	-17	57	8.5	Dish	TBA	46995DT-1
632800CB-1*	632800CEB-1*	99.50 Grade B	STD	5.137"	1.209"	-17	57	8.5	Dish	TBA	46995DT-1
632800C-4	632800CE-4	99.50	STD	5.137"	1.209"	-17	57	8.5	Dish	TBA	46995DT-4
632801C-4	632801CE-4	99.55	+.05mm	5.137"	1.209"	-17	57	8.5	Dish	TBA	46995DT-4
632802C-4	632802CE-4	99.75	+.25mm	5.137"	1.209"	-17	57	8.5	Dish	TBA	46997DT-4
632805C-4	632805CE-4	100.00	+.5mm	5.137"	1.209"	-17	57	8.5	Dish	TBA	461000DT-4
632300C-4	632300CE-4	99.50	STD	5.137"	1.209"	-10	51	9.8	Dish	429	46995DT-4
632302C-4	632302CE-4	99.75	+.25mm	5.137"	1.209"	-10	51	9.8	Dish	433	46997DT-4
632305C-4	632305CE-4	100.00	+.5mm	5.137"	1.209"	-10	51	9.8	Dish	436	461000DT-4
<b>83mm STROKER (2.7L)</b>											
632400C-4	632400CE-4	99.50	STD	5.137"	1.130"	-26	51	8.5	Dish	389	46995DT-4
632402C-4	632402CE-4	99.75	+.25mm	5.137"	1.130"	-26	51	8.5	Dish	393	46997DT-4
632405C-4	632405CE-4	100.00	+.5mm	5.137"	1.130"	-26	51	8.5	Dish	396	461000DT-4
632500C-4	632500CE-4	99.50	STD	5.137"	1.130"	-14	51	9.8	Dish	424	46995DT-4
632502C-4	632502CE-4	99.75	+.25mm	5.137"	1.130"	-14	51	9.8	Dish	425	46997DT-4
632505C-4	632505CE-4	100.00	+.5mm	5.137"	1.130"	-14	51	9.8	Dish	428	461000DT-4

All pistons on this page include Napier style second rings and higher tension oil rings for improved oil control

\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores resulting in a piston to wall clearance range of .0023" - .0031". Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

Note: New part numbers are **BOLD & ITALICIZED**



# PLATINUM SERIES PISTONS

## Toyota

### • 2JZGTE

- ▶ 2618 high strength material
- ▶ Offset wrist pin for quiet start-ups
- ▶ .150" wall Premium Chrome Moly pin (Standard Series) or 9310 alloy .210" wall pin (Extreme Duty Series) included
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured 1.100" from the bottom of the oil ring



Standard Part No.	Extreme Duty Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt / Gms	Included Ring Set
<b>86mm STD STROKE (3.0L)</b>												
609000C-6	609000CE-6	86.0	STD	5.590"	86	1.338"	-10	45	9.0	Dish	347	46861-6
609005C-6	609005CE-6	86.5	+ .5mm	5.590"	86	1.338"	-10	45	9.0	Dish	353	46866-6
609015C-6	609015CE-6	87.0	+1.0mm	5.590"	86	1.338"	-10	45	9.0	Dish	359	46871-6
609100C-6	609100CE-6	86.0	STD	5.590"	86	1.338"	-2.5	45	10.0	Flat Top	347	46861-6
609105C-6	609105CE-6	86.5	+ .5mm	5.590"	86	1.338"	-2.5	45	10.0	Flat Top	354	46866-6
609115C-6	609115CE-6	87.0	+1.0mm	5.590"	86	1.338"	-2.5	45	10.0	Flat Top	360	46871-6

<b>94mm STROKER (3.4L)</b>												
629100C-6	629100CE-6	86.0	STD	5.590"	94	1.180"	-16	45	9.0	Dish	315	46861-6
629105C-6	629105CE-6	86.5	+ .5mm	5.590"	94	1.180"	-16	45	9.0	Dish	322	46866-6
629115C-6	629115CE-6	87.0	+1.0mm	5.590"	94	1.180"	-16	45	9.0	Dish	329	46871-6
629000C-6	629000CE-6	86.0	STD	5.590"	94	1.180"	-8	45	10.0	Dish	315	46861-6
629005C-6	629005CE-6	86.5	+ .5mm	5.590"	94	1.180"	-8	45	10.0	Dish	322	46866-6
629015C-6	629015CE-6	87.0	+1.0mm	5.590"	94	1.180"	-8	45	10.0	Dish	328	46871-6

### Common Features

Crown Thickness: .225"  
 Top Ring: 1.2mm, .275" down Std. Stroke, .265" Stroker  
 Second Ring: 1.5mm  
 Oil Ring: 3.0mm  
 Valve Notches: .240" Int., .225" Exh.

Pin Included: Standard Series: Premium Chrome Moly P/N 42251 (.150" wall, 96 grams, 2.250" long, 22mm dia.)  
 Extreme Duty Series: 9310 Alloy P/N 42551 (.210" wall, 125 grams, 2.250" long, 22mm dia.)  
 Round Wire Locks: P/N 42270 - .061" wide

## Toyota

### • 2JZGTE Turbo Tuff®

- ▶ 2618 high strength material
- ▶ 2.250 x .250" wall 9310 alloy pin included P/N 42552
- ▶ Pressure balance groove
- ▶ Will accommodate +1mm valve sizes
- ▶ Vertical Gas Ports designed for high HP Race Engines
- ▶ Premium Steel top rings with Napier seconds and round wire locks included
- ▶ Recommended piston clearance .0035" measured .850" from the bottom of the oil ring



Part No.	Bore Size mm	Over Size	Rod Length	Stroke mm	Comp Distance	Dome Volume (cc)	Cylinder Head (cc)	Comp Ratio	Piston Type	Piston Wt/Gms	Included Ring Set
<b>86mm STD STROKE (3.0L)</b>											
609202CE-6	86.25	+ .25mm	5.590"	86	1.328"	-8	45	9.0	Dish	368	47862-6
609205CE-6	86.50	+ .5mm	5.590"	86	1.328"	-8	45	9.0	Dish	371	47865-6
609207CE-6	86.75	+ .75mm	5.590"	86	1.328"	-8	45	9.0	Dish	374	47867-6
609210CE-6	87.00	+1.0mm	5.590"	86	1.328"	-8	45	9.0	Dish	377	47870-6
609302CE-6	86.25	+ .25mm	5.590"	86	1.328"	-1	45	10.0	Dome	377	47862-6
609305CE-6	86.50	+ .5mm	5.590"	86	1.328"	-1	45	10.0	Dome	380	47865-6
609307CE-6	86.75	+ .75mm	5.590"	86	1.328"	-1	45	10.0	Dome	383	47867-6
609310CE-6	87.00	+1.0mm	5.590"	86	1.328"	-1	45	10.0	Dome	386	47870-6

<b>94mm STROKER (3.4L)</b>											
629202CE-6	86.25	+ .25mm	5.590"	94	1.170"	-14	45	9.0	Dish	340	47862-6
629205CE-6	86.50	+ .5mm	5.590"	94	1.170"	-14	45	9.0	Dish	343	47865-6
629207CE-6	86.75	+ .75mm	5.590"	94	1.170"	-14	45	9.0	Dish	346	47867-6
629210CE-6	87.00	+1.0mm	5.590"	94	1.170"	-14	45	9.0	Dish	349	47870-6
629302CE-6	86.25	+ .25mm	5.590"	94	1.170"	-6	45	10.0	Dish	344	47862-6
629305CE-6	86.50	+ .5mm	5.590"	94	1.170"	-6	45	10.0	Dish	347	47865-6
629307CE-6	86.75	+ .75mm	5.590"	94	1.170"	-6	45	10.0	Dish	350	47867-6
629310CE-6	87.00	+1.0mm	5.590"	94	1.170"	-6	45	10.0	Dish	353	47870-6

### Common Features

Crown Thickness: .320"  
 Top Ring: 1.0mm, .315" down  
 Second Ring: 1.2mm  
 Oil Ring: 2.8mm

Valve Notches: .240" Int., .225" Exh.  
 Pin Included: 9310 Alloy P/N 42552 (.250" wall, 139 grams, 2.250" long, 22mm dia.)  
 Round Wire Locks: P/N 42270

Note: New part numbers are **BOLD & ITALICIZED**



# PLATINUM SERIES PISTONS

## Platinum Pistons Incremental Sizes

Manley Performance will manufacture incremental bore sizes of any listed catalog piston with reasonably short lead times. The minimum quantity is one set.

### The ordering process is as simple as 1 - 2 - 3 !

1. Select the catalog part number you wish manufactured with the singular exception of the final bore size.
2. Tell us the bore size of your block. We will manufacture the exact piston number you have selected with proper clearance for your stated block dimension.
3. You will be billed by our forging number, not the catalog part number.
4. Moly Skirt Coating is optional where available. Additional charge applies.

## Custom Platinum Series Pistons

Manley Performance inventories the piston forgings listed below to manufacture custom pistons for original equipment engine producers, private label engine part suppliers and volume performance engine builders.

## Custom Blank Billing Numbers

Part No.	Bore Range	Application	Type	Wrist Pin Length
581200-4 or 581200-6	80.5mm - 90mm	Ford, Honda/Acura, Hyundai, Mazda, Mitsubishi, Subaru, Toyota	Dish, Flat Top, Dome	2.250" - 2.500"
581700-4 or 581700-6	84mm - 90mm	Ford, Honda/Acura, Hyundai, Mazda, Mitsubishi, Subaru, Toyota	Dish, Flat Top, Dome	2.250" - 2.300"
588000SC-4 or 588000SC-6	87.5mm - 103mm	Ford, Nissan, Subaru	Dish, Flat Top, Dome	2.250" - 2.500"
582000-4 or 582000-6	87.5mm - 103mm	Nissan	Dish, Flat Top, Dome	2.250" - 2.500"
581600-4	98.5mm - 104mm	Subaru	Dish, Flat Top	2.300" - 2.500"
581400SC-4 or 581400SC-6	98.5mm - 108mm	Subaru	Dish, Flat Top	2.250" - 2.500"
581800SC-4 or 581800SC-6	98.5mm - 108mm	Nissan, Subaru, Toyota	Dish, Flat Top	2.250" - 2.500"

## Optional Additional Cost Machining Operations

Part No.	Operation
04003-1	Fly Cut Shelf Stock Piston
04011-1	Internal Mill - Max. Lightening
04012-1	Gas Port - Vertical (Up to 12)
04013-1	Gas Port - Lateral (Up to 12)
04014-1	Anodize Top Ring Groove
04015-1	Ceramic Coat Top of Piston
04016-4	Moly Skirt Coating (4 cyl.)
04017-6	Moly Skirt Coating (6 cyl.)
04058	2 Week Rush Charge
04059	3 Week Rush Charge

## Minimum Quantities For Custom Pistons

Minimum quantities depend on the variance from pistons we have previously produced, but in general, reasonably small numbers can be manufactured on a one time order basis. Please contact your Manley representative for more details.



# PISTON RINGS

## Manley / Total Seal<sup>®</sup> Piston Rings



Premium Steel Part No.	Bore Size	File Fit / Drop In	Ring Widths	Oil Ring Tension
46810-4	81.0mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-11 lbs.
46815-4	81.5mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-11 lbs.
46826-10*	82.5mm	File Fit	1.0mm x 1.2mm x 2.0mm	9-13 lbs.
46840-4	84.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46845-4	84.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46846-10*	84.5mm	File Fit	1.0mm x 1.2mm x 2.0mm	9-13 lbs.
46850-4*	85.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46855-4*	85.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46860-4*	86.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46861-6*	86.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46861DT-4**	86.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
47862-6***	86.25mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
46862-4	86.25mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46863-6*	86.25mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46863DT-4**	86.25mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
47865-6***	86.5mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
46865-4*	86.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46866-6*	86.5mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46866DT-4**	86.5mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
47867-6***	86.75mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
46867-6*	86.75mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
47870-6***	87.0mm	File Fit	1.0mm x 1.2mm x 2.8mm	7-10 lbs.
46870-4*	87.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46871-6*	87.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46875-4	87.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46876-4	87.6mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46880-4	88.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46920-4*	92.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46920DT-4**	92.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46923-6	92.3mm/3.633"	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46924-6	92.4mm/3.637"	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46925-4*	92.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46925DT-4**	92.5mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46926-6	92.6mm/3.647"	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46930-4*	93.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46930DT-4**	93.0mm	File Fit	1.2mm x 1.2mm x 2.8mm	7-11 lbs.
46955-6	95.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46956-6*	95.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	9-13 lbs.
46957-6	95.7mm	Drop In Top / File Fit 2nd	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46960-6	96.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46965-6	96.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	7-11 lbs.
46980-6*	98.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46990-6*	99.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46995-4**	99.5mm/99.55mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
46995DT-4**	99.5mm/99.55mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
46996-6*	99.5mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
46997-4**	99.75mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
46997DT-4**	99.75mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461000-4**	100.0mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461000DT-4**	100.0mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461002DT-4**	100.25mm	File Fit	1.2mm x 1.2mm x 2.0mm	9-13 lbs.
461001-6	100.0mm	File Fit	1.2mm x 1.5mm x 3.0mm	9-13 lbs.
461010-6*	101.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461015-6*	101.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461017-6*	101.75mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461020-6*	102.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461025-6*	102.5mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.
461030-6*	103.0mm	File Fit	1.2mm x 1.2mm x 3.0mm	11-15 lbs.

\* Napier style second rings

\*\* Napier style second rings and tabbed oil rails

\*\*\* NPR rings with Napier style second rings

Note: New part numbers are **BOLD & ITALICIZED**



# WRIST PIN & LOCKS

## Wrist Pins

- ▶ Straight and taper wall construction
- ▶ Large O.D. chamfer pins requiring round wire locks
- ▶ Exacting size control and perfect concentricity
- ▶ Inside of each pin is totally free of tooling marks



Part No.	Quantity	Description	Diameter	Wall Type	Material	Length	Wall Thickness	Lock Rings	Wgt / Grams
<b>42747-6</b>	6 pcs.	Sport Compact	.990"	Taper	Turbo Tuff/DLC	2.500"	.200"-.250"	Round Wire	188
<b>42346-4</b>	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.500"	.180"	Tru Arc/Subaru Rnd Wire	132
<b>42546-4</b>	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.500"	.210"	Tru Arc/Subaru Rnd Wire	147
<b>42646-6</b>	6 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.500"	.210"	Tru Arc/Subaru Rnd Wire	147
<b>42745-6</b>	6 pcs.	Sport Compact	23mm / .9055"	Straight	Turbo Tuff/DLC	2.500"	.250"	Tru Arc/Subaru Rnd Wire	170
<b>42746-6</b>	6 pcs.	Sport Compact	23mm / .9055"	Straight	Turbo Tuff/DLC	2.500"	.300"	Tru Arc/Subaru Rnd Wire	188
<b>42359-4</b>	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.300"	.180"	Tru Arc/Subaru Rnd Wire	121
<b>42353-4</b>	4 pcs.	Sport Compact	23mm / .9055"	Straight	Premium Chrome Moly	2.250"	.180"	Round Wire	119
<b>42553-4</b>	4 pcs.	Sport Compact	23mm / .9055"	Straight	9310	2.250"	.210"	Round Wire	132
<b>42248-4</b>	4 pcs.	Sport Compact	22.5mm / .8858"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	100
<b>42548-4</b>	4 pcs.	Sport Compact	22.5mm / .8858"	Straight	9310	2.250"	.210"	Round Wire	128
<b>42225-4</b>	4 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.250"	.120"	Round Wire	79
<b>42251-4</b>	4 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	96
<b>42551-4</b>	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.210"	Round Wire	125
<b>42552-4</b>	6 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.250"	Round Wire	139
<b>42651-4</b>	4 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.250"	.300"	Round Wire	153
<b>42207-6</b>	6 pcs.	Sport Compact	22mm / .866"	Straight	Premium Chrome Moly	2.500"	.150"	Round Wire	106
<b>42507-6</b>	6 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.500"	.180"	Round Wire	124
<b>42607-6</b>	6 pcs.	Sport Compact	22mm / .866"	Straight	9310	2.500"	.300"	Round Wire	170
<b>42243-4</b>	4 pcs.	Sport Compact	21mm / .827"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	91
<b>42543-4</b>	4 pcs.	Sport Compact	21mm / .827"	Straight	9310	2.250"	.210"	Round Wire	117
<b>42232-6</b>	6 pcs.	Sport Compact	20mm / .787"	Straight	Premium Chrome Moly	2.250"	.150"	Round Wire	87
<b>42532-6</b>	6 pcs.	Sport Compact	20mm / .787"	Straight	9310	2.250"	.210"	Round Wire	109

Part numbers 42207, 42507 and 42607 are also available for 4 cylinder applications by changing the part number from a (-6) to a (-4)  
 Part numbers 42646, 42745 and 42746 are also available for 4 cylinder applications by changing the part number from a (-6) to a (-4)  
 Part numbers 42251, 42551, 42552 and 42651 are also available for 6 cylinder applications by changing the part number from a (-4) to a (-6)  
 Part number 42532 is also available for 10 cylinder applications by changing the part number from a (-6) to a (-10)

## Wrist Pin Locks

Part No.	Quantity	Type	Pin Diameter	Description	Weight / Grams Per Lock
<b>42245-12</b>	12 pcs.	.061" Round Wire	.990"	Nissan GT-R w/ .990" pin	1.0
<b>42212-8</b>	8 pcs.	.054" Round Wire	23mm / .9055"	Factory Style Subaru	1.0
<b>42262-8</b>	8 pcs.	.061" Round Wire	23mm / .9055"	Mitsubishi EVO X	1.0
<b>42270-8</b>	8 pcs.	.061" Round Wire	21mm / .827", 22mm / .866"	Sport Compact	0.8
<b>42255-12</b>	12 pcs.	.050" Round Wire	20mm / .7869"	Sport Compact	0.6

Part number 42270 is also available for 6 cylinder applications by changing the part number from a (-8) to a (-12)  
 Part number 42255 is also available for 10 cylinder applications by changing the part number from a (-12) to a (-20)

## Groove Lock Spacers

Should your custom Platinum Piston requirements necessitate the wrist pin hole break into the oil ring groove, we can widen the oil ring groove and incorporate a groove lock spacer in one of the following sizes listed below. Manley radial tension design ("RTD") groove lock spacers have replaced the old-school, dimpled style pieces. Our pistons requiring G/L spacers are manufactured with a "receiver groove" within the oil ring groove where the RTD G/L spacers snap into place. The radial tension prevents rotation.

Part No.	Quantity	Bore Size	Oil Ring Width	Gram Weight Per Spacer
<b>462458-4</b>	4 pcs.	85mm to 85.5mm	2.8mm	5.4
<b>462459-4</b>	4 pcs.	86mm to 86.75mm	2.8mm	5.5
<b>462460-4</b>	4 pcs.	87mm	2.8mm	5.2
<b>462248-6</b>	6 pcs.	95.5mm	3mm	6.9
<b>461874-6</b>	6 pcs.	98mm	3mm	7.1
<b>461873-6</b>	6 pcs.	99mm	3mm	7.1
<b>461872-6</b>	6 pcs.	100mm	3mm	6.0

Note: New part numbers are **BOLD & ITALICIZED**



# STEEL CONNECTING RODS

## Acura / Audi / Dodge / Ford / Honda / Mazda

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% individually magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are 3/8" ARP 2000 except part number 14017 which is supplied with 7/16" ARP 874
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 600+ and for a 6 cylinder application the range is 800+



Note: Part number 14017 is also available with 7/16" ARP 2000 cap screws yielding a 1100+ horsepower rating. Affix "R" after the rod part number (14017R-6)

Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>ACURA</b>							
14014-4	RSX 2.0L V-Tec DOHC K20 2002-up	5.472"	2.008"	.780"	.866" (22mm)	.8671"	525
14025-4	Integra LS 1.8 non V-Tec DOHC ( B18A, B18B, B20B, B20Z 1990-up )	5.394"	1.890"	.935"	.827" (21mm)	.8281"	515
14026-4	Integra GSR 1.8 V-Tec DOHC ( B18C 1994-up )	5.433"	1.890"	.858"	.827" (21mm)	.8281"	500
14013-4*	D16 (all) & ZC	5.394"	1.890"	.898"	.748" (19mm)	.7491"	525
<b>AUDI</b>							
14007-4	1.8L Turbo	5.669"	1.992"	.980"	.787" (20mm)	.7881"	580
<b>DODGE</b>							
14004-4	Neon SOHC/DOHC 2.0L 420A	5.472"	2.008"	1.031"	.827" (21mm)	.8281"	570
14010-4	Neon SRT-4 2.4L I4 DOHC	5.945"	2.087"	1.015"	.866" (22mm)	.8671"	595
<b>FORD</b>							
14001-4	Duratec 2.0L DOHC	5.758"	1.970"	.859"	.827" (21mm)	.8281"	550
14080-4	EcoBoost 2.0L	6.136"	2.167"	.860"	.886" (22.5mm)	.8868"	590
14081-4	EcoBoost 2.3L	5.875"	2.167"	.860"	.886" (22.5mm)	.8868"	585
14017-6	BA Falcon XR6 Turbo 4.0L	6.058"	2.239"	.990"	.866" (22mm)	.8671"	645
<b>HONDA</b>							
14012-4	1.6L V-Tec DOHC B16A 1992-up	5.290"	1.890"	.935"	.827" (21mm)	.8281"	535
14013-4*	D16 (all) & ZC	5.394"	1.890"	.898"	.748" (19mm)	.7491"	525
14025-4	CR-V 2.0L DOHC ( B20B/B20Z 1996-2001 )	5.394"	1.890"	.935"	.827" (21mm)	.8281"	515
14015-4	CR-V 2.4L V-Tec DOHC K24 2002-up	5.984"	2.008"	.780"	.866" (22mm)	.8671"	545
14016-4	Prelude 2.2L V-Tec DOHC H22 1992-up	5.636"	2.008"	.935"	.866" (22mm)	.8671"	550
<b>MAZDA</b>							
14011-4	Miata B6/BP 1.6 & 1.8L	5.233"	1.890"	.860"	.787" (20mm)	.7881"	535
14030-4	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.866" (22mm)	.8671"	610
14032-4**	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.886" (22.5mm)	.8868"	610

\* Honda D16 may require some minor clearancing at the base of the cylinder walls. This is more common with older ZC, D16A and D16Z6 blocks.

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Private brand identification available

\*\*Also available in H-Tuff/H-Tuff Plus design, see page 32

# STEEL CONNECTING RODS

## Mitsubishi / Nissan / Subaru Toyota / Volkswagen

### H-Beam Rods

- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% individually magnafluxed
- ▶ Weight matched sets  $\pm$  1.5 grams
- ▶ Cap fasteners are 3/8" ARP 2000 except P/N 14018 which is supplied with 7/16" ARP 8740
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 600+ and for a 6 cylinder application the range is 800+



Note: Part number 14018 is also available with 7/16" ARP 2000 cap screws yielding a 1100+ horsepower rating. Affix "R" after the rod part number (14018R-6)

Part No.	Description	Center-to Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>mitsubishi</b>							
<b>14004-4</b>	Eagle Talon SOHC to DOHC 2.0L 420A	5.472"	2.008"	1.031"	.827" (21mm)	.8281"	570
<b>14021-4</b>	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5) Recommended bearings to be used: ACL 4B1146/H or Clevite® CB-1120AL	5.905"	1.890"	1.115"	.827" (21mm)	.8281"	550
<b>14002-4</b>	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5) Recommended bearings to be used: ACL 4B1146/H or Clevite® CB-1120AL	5.905"	1.890"	1.115"	.866" (22mm)	.8671"	550
<b>14022-4*</b>	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006) Recommended bearings to be used: ACL 4B1185/H or Clevite® CB-1643P	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	580
<b>14020-4*</b>	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006)	6.142" .237" / 6mm Longer	1.890"	1.038"	.866" (22mm)	.8671"	545
<b>14029-4*</b>	EVO X 4B11T (2008-Up)	5.656"	2.165"	.860"	.9055" (23mm)	.9063"	535
<b>NISSAN</b>							
<b>14023-4</b>	2.0 SR20DE, SR20DET (1991-2002)	5.365"	2.008"	.900"	.866" (22mm)	.8671"	505
<b>14006-4</b>	KA24E (1989-1990), KA24DE (1991-1998), 240SX	6.495"	2.086"	.973"	.827" (21mm)	.8281"	615
<b>14000-6</b>	Patrol 4.8 TB48	6.435"	2.362"	1.290"	.9055" (23mm)	.9063"	820
<b>14028-6</b>	RB25DE(T), RB26DETT (Stock 21mm pin)	4.783"	2.008"	.857"	.827" (21mm)	.8281"	490
<b>14018-6</b>	RB30E/T	5.995"	2.087"	.856"	.827" (21mm)	.8281"	610
<b>14019-6</b>	VQ35DE(T) (2002-Up Altima/Maxima and 2003-Up 350Z)	5.680"	2.165"	.820"	.866" (22mm)	.8671"	525
<b>SUBARU</b>							
<b>14024-4*</b>	WRX EJ205/STi EJ257	5.137"	2.165"	.840"	.9055" (23mm)	.9063"	525
<b>TOYOTA</b>							
<b>14008-4</b>	Celica 1986-1999, MR2 1990-1999 3S-GTE DOHC	5.428"	2.008"	1.055"	.866" (22mm)	.8671"	565
<b>14005-6</b>	Land Cruiser 4.5 1FZ-FE (1993-1998)	6.061"	2.384"	1.096"	1.0236" (26mm)	1.0245"	800
<b>14027-6*</b>	Supra 3.0 2JZG (1993-1998)	5.590"	2.167"	1.015"	.866" (22mm)	.8671"	575
<b>VOLKSWAGEN</b>							
<b>14007-4</b>	1.8L Turbo	5.669"	1.992"	.980"	.787" (20mm)	.7881"	580

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Private brand identification available

\*Also available in H-Tuff/H-Tuff Plus design, see page 32

Note: New part numbers are **BOLD & ITALICIZED**



# STEEL CONNECTING RODS

## Mazda / Mitsubishi / Subaru / Toyota

### H-Tuff & H-Tuff Plus Rods



- ▶ Manufactured from 4340 forgings
- ▶ Heat treated, stress relieved, shot peened and 100% individually magnafluxed
- ▶ Weight matched sets  $\pm 1.5$  grams
- ▶ Cap fasteners are 3/8" ARP 2000 for the H-Tuff and 3/8" ARP Custom Age 625+ for the H-Tuff Plus
- ▶ Flywheel horsepower range for the these rods in a 4 cylinder application is 750 with the ARP 2000 bolts and 950 with ARP 625+ bolts. In a 6 cylinder application the horsepower range is 1000 with the ARP 2000 bolts and 1200 with the ARP 625+ bolts.

H-Tuff Part No.	H-Tuff Plus Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>MAZDA</b>								
<b>15032-4</b>	<b>15032R6-4</b>	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.886" (22.5mm)	.8868"	640
<b>MITSUBISHI</b>								
<b>15022-4</b>	<b>15022R6-4</b>	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006) Recommended bearings to be used: ACL 4B1185/H or Clevite® CB-1643P	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	635
<b>15020-4</b>	<b>15020R6-4</b>	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006)	6.142" .237" / 6mm Longer	1.890"	1.038"	.866" (22mm)	.8671"	635
<b>15029-4</b>	<b>15029R6-4</b>	EVO X 4B11T (2008-Up)	5.656"	2.165"	.860"	.9055" (23mm)	.9063"	620
<b>SUBARU</b>								
<b>15024-4</b>	<b>15024R6-4</b>	WRX EJ205/STi EJ257	5.137"	2.165"	.840"	.9055" (23mm)	.9063"	575
<b>15084-4</b>	<b>15084R6-4</b>	FA20 BRZ 2.0L 2013-Up/WRX 2015-Up	5.090"	2.087"	.843"	.866" (22mm)	.8671"	TBA
<b>TOYOTA</b>								
<b>15084-4</b>	<b>15084R6-4</b>	Scion FR-S 2.0L	5.090"	2.087"	.843"	.866" (22mm)	.8671"	TBA
<b>15027-6</b>	<b>15027R6-6</b>	Supra 3.0 2JZG (1993-1998)	5.590"	2.167"	1.015"	.866" (22mm)	.8671"	645

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Private brand identification available



• Bridges the gap between our standard, proven H-Beams and top of the line, best of the best Turbo Tuff® Series rods

- H-Tuff delivers a stronger rod with greater safety margin to handle elevated boost and higher power levels for a modest price premium over standard H-Beams
- H-Tuff design incorporates wider beam and increased cross-sectional thickness in critical areas

Note: New part numbers are **BOLD & ITALICIZED**



# STEEL CONNECTING RODS

Acura / Audi / Dodge / Ford / Honda  
Hyundai / Lamborghini / Mazda

## Pro Series I-Beam Turbo Tuff® Rods

- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Specifically designed to handle high horsepower applications when using turbos and/or nitrous
- ▶ Fasteners are 3/8" except P/N 14427 which is supplied with 7/16" fasteners
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 1,000+, for a 6 cylinder application the range is 1,250+ and for a 10 cylinder application the range is 1,500+



ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
			<b>ACURA</b>					
14404-4	<b>14404R6-4</b>	RSX 2.0 V-Tec DOHC (K20 2002-up)	5.472"	2.008"	.780"	.866" (22mm)	.8671"	560
14412-4	<b>14412R6-4</b>	Integra LS 1.8 non V-Tec DOHC (B18A, B18B, B20B, B20Z 1990-up)	5.394"	1.890"	.935"	.827" (21mm)	.8281"	555
14414-4	<b>14414R6-4</b>	Integra GSR 1.8 V-Tec DOHC ( B18C 1994-up )	5.433"	1.890"	.858"	.827" (21mm)	.8281"	540
			<b>AUDI</b>					
<b>14435-10</b>	<b>14435R6-10</b>	Audi R8 5.2L FSI (2009-up)	6.063"	2.236"	.764"	.787" (20mm)	.7881"	610
			<b>DODGE</b>					
14420-4	<b>14420R6-4</b>	Neon SRT-4 2.4 I4 DOHC	5.945"	2.087"	1.015"	.866" (22mm)	.8671"	695
			<b>FORD</b>					
14433-4	<b>14433R6-4</b>	EcoBoost 2.0L	6.136"	2.167"	.860"	.886" (22.5mm)	.8868"	615
14434-4	<b>14434R6-4</b>	EcoBoost 2.3L	5.875"	2.167"	.860"	.886" (22.5mm)	.8868"	605
14427-6	<b>14427R6-6</b>	BA Falcon XR6 Turbo 4.0L	6.058"	2.239"	.990"	.866" (22mm)	.8671"	695
			<b>HONDA</b>					
14415-4	<b>14415R6-4</b>	1.6 V-Tec DOHC (B16A 1992-up)	5.290"	1.890"	.935"	.827" (21mm)	.8281"	550
14412-4	<b>14412R6-4</b>	CR-V 2.0L DOHC (B20B/B20Z 1996-2001)	5.394"	1.890"	.935"	.827" (21mm)	.8281"	555
14405-4	<b>14405R6-4</b>	CR-V 2.4 V-Tec DOHC ( K24 2002-up )	5.984"	2.008"	.780"	.866" (22mm)	.8671"	585
14417-4	<b>14417R6-4</b>	Prelude 2.2 V-Tec DOHC (H22 1992-up)	5.636"	2.008"	.935"	.866" (22mm)	.8671"	615
			<b>HYUNDAI</b>					
14410-4	<b>14410R6-4</b>	Genesis Coupe 2.0L Turbo Theta I4	5.753"	2.008"	.860"	.866" (22mm)	.8671"	635
			<b>LAMBORGHINI</b>					
<b>14435-10</b>	<b>14435R6-10</b>	Lamborghini Gallardo/Huracán 5.2L FSI (2008-up)	6.063"	2.236"	.764"	.787" (20mm)	.7881"	610
			<b>MAZDA</b>					
14430-4	<b>14430R6-4</b>	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.866" (22mm)	.8671"	605
14432-4	<b>14432R6-4</b>	Mazda Speed 3 MZR 2.3L DISI Turbo	5.927"	2.166"	.859"	.886" (22.5mm)	.8868"	605

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Turbo Tuff® Connecting Rods  
NEW FOR 2018 • TRI-BEAM DESIGN  
**THE BEST JUST GOT BETTER!**

Note: New part numbers are **BOLD & ITALICIZED**

# STEEL CONNECTING RODS

## Mitsubishi / Nissan

### Pro Series I-Beam Turbo Tuff® Rods



- ▶ Forged from 4340 aircraft quality vacuum degassed material (P/N's 15403, 15424, 15444 and 15524 are made from 300M alloy)
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Specifically designed to handle high horsepower applications when using turbos and/or nitrous
- ▶ Fasteners are 3/8" except P/N's 14424, 14428, 15424, 15444 and 15524 are supplied with 7/16" fasteners
- ▶ Flywheel horsepower range for these 4340 rods in a 4 cylinder application is 1,000+ and for a 6 cylinder application the range is 1,250+
- ▶ Flywheel horsepower range for these 300M rods in a 4 cylinder application is 1,400+ and for a 6 cylinder application the range is 1,600+ (15424) and 2,000+ (15444/15524)

ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>MITSUBISHI</b>								
14413-4	14413R6-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5)	5.905"	1.890"	1.115"	.827" (21mm)	.8281"	695
14407-4	14407R6-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5)	5.905"	1.890"	1.115"	.866" (22mm)	.8671"	685
14426-4	14426R6-4	Eclipse GS, GST, GSX & Eagle Talon TSi 2.0 (6 Bolt 4G63, 4G63T 1990-1993.5)	6.142" .237" / 6mm Longer	1.890"	1.115"	.866" (22mm)	.8671"	700
14403-4	14403R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006)	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	675
15403-4	15403R6-4	Same as the 14403 except made from 300M alloy	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	675
14400-4	14400R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006) Stroker, lighter weight straight beam design.	5.905"	1.890"	1.038"	.866" (22mm)	.8671"	630
14421-4	14421R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006)	6.142" .237" / 6mm Longer	1.890"	1.038"	.866" (22mm)	.8671"	685
14422-4	14422R6-4	Eclipse GST, GSX & Eagle Talon TSi 2.0 (7 Bolt 4G63, 4G63T 1993.5-1999) Evolution VIII, IX (4G63T 2003-2006)	6.378" .473" / 12mm Longer	1.890"	1.038"	.866" (22mm)	.8671"	700
14409-4	14409R6-4	EVO X 4B11T (2008-Up)	5.656"	2.165"	.860"	.9055" (23mm)	.9063"	645
<b>NISSAN</b>								
14408-4	14408R6-4	2.0 SR20DE, SR20DET (1991-2002)	5.365"	2.008"	.900"	.866" (22mm)	.8671"	575
14401-4	14401R6-4	KA24E (1989-1990), KA24DE (1991-1998), 240SX	6.495"	2.086"	.973"	.827" (21mm)	.8281"	655
14411-6	14411R6-6	RB25DE(T), RB26DETT (Stock 21mm pin)	4.783"	2.008"	.857"	.827" (21mm)	.8281"	605
14418-6	14418R6-6	RB25DE(T), RB26DETT (22mm pin)	4.783"	2.008"	.857"	.866" (22mm)	.8671"	605
14428-6	14428R6-6	RB30E/T	5.995"	2.087"	.856"	.827" (21mm)	.8281"	625
14406-6	14406R6-6	VQ35DE(T) (2002-Up Altima/Maxima and 2003-Up 350Z)	5.680"	2.165"	.820"	.866" (22mm)	.8671"	585
14437-6	-----	VR30DDTT (2016-Up)	5.975"	2.244"	.818"	.9055" (23mm)	.9063"	TBA
14424-6	-----	GT-R 3.8 VR38DETT*	6.500"	2.323"	.897"	.9055" (23mm)	.9063"	730
15424-6	-----	GT-R 3.8 VR38DETT 300M alloy Lightweight design*	6.500"	2.323"	.897"	.9055" (23mm)	.9063"	730
15524-6	-----	GT-R 3.8 VR38DETT 300M alloy Heavyweight design	6.500"	2.323"	.897"	.9055" (23mm)	.9063"	805
15444-6	-----	GT-R 3.8 VR38DETT 300M alloy (.990" pin)	6.500"	2.323"	.897"	.990"	.9911"	775

\* 14424 and 15424 are drop in designs - no balancing required when using stock crank/piston

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

Turbo Tuff® Connecting Rods  
**NEW FOR 2018 • TRI-BEAM DESIGN**  
**THE BEST JUST GOT BETTER!**

SEE PAGE 35 FOR DETAILS

Note: New part numbers are **BOLD & ITALICIZED**



# STEEL CONNECTING RODS

## Renault / Subaru / Toyota

### Pro Series I-Beam Turbo Tuff® Rods

- ▶ Forged from 4340 aircraft quality vacuum degassed material
- ▶ Shot peened after machining to MIL spec and 100% individually magnafluxed
- ▶ Specifically designed to handle high horsepower applications when using turbos and/or nitrous
- ▶ Fasteners are 3/8"
- ▶ Flywheel horsepower range for these rods in a 4 cylinder application is 1,000+ and for a 6 cylinder application the range is 1,250+

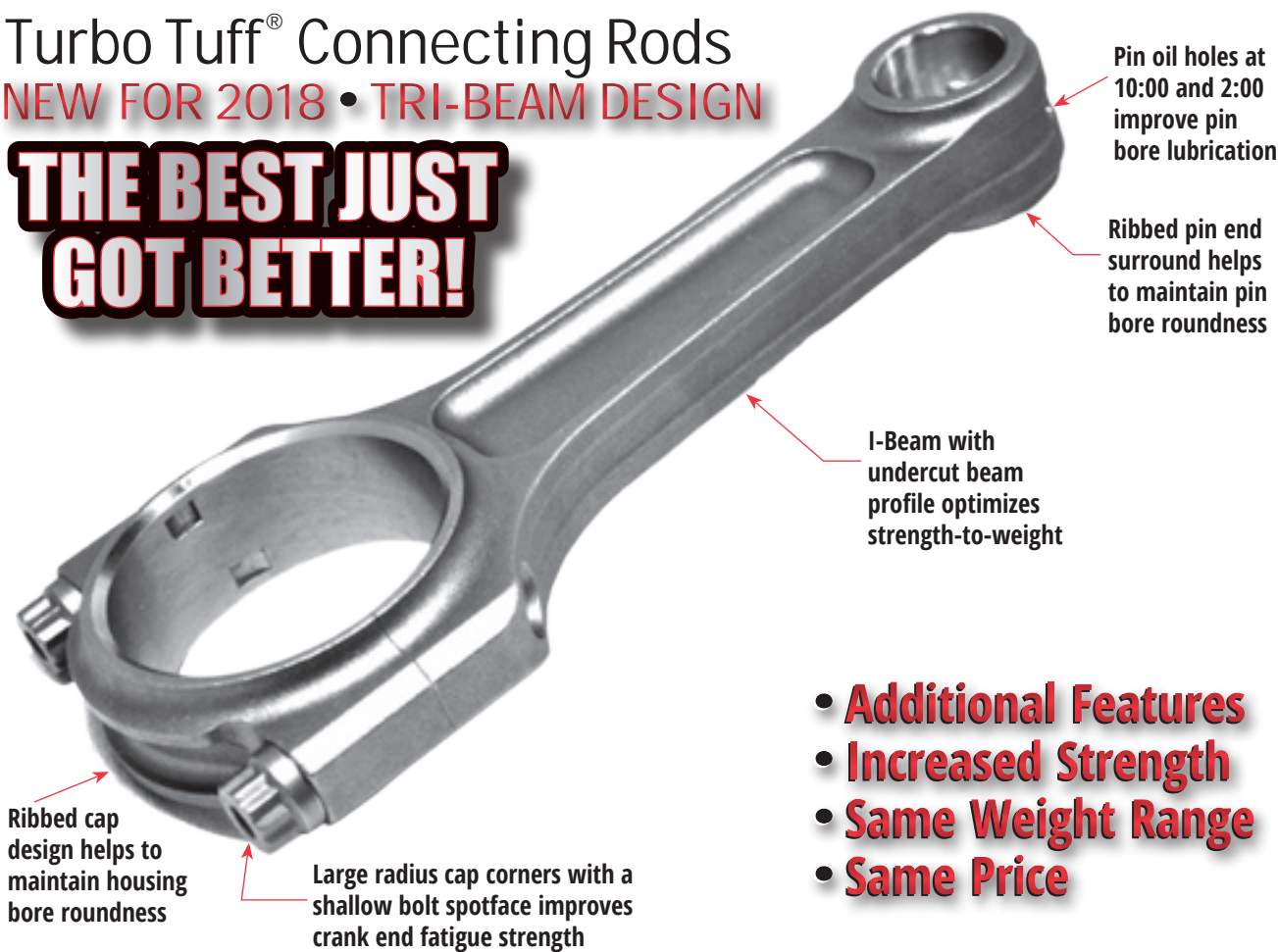


ARP 2000 Part No.	ARP 625+ Part No.	Description	Center-to-Center	Big End Bore	Big End Width	Pin Diameter	Pin Bore	Avg. Gram Weight
<b>RENAULT</b>								
14423-4	14423R6-4	Megane, Clio	5.669"	2.031"	.984"	.827" (21mm)	.8278"	615
<b>SUBARU</b>								
14431-4	14431R6-4	FA20 BRZ 2.0L 2013-Up/WRX 2015-Up	5.090"	2.087"	.843"	.866" (22mm)	.8671"	575
14416-4	14416R6-4	WRX EJ205/STi EJ257	5.137"	2.165"	.840"	.9055" (23mm)	.9063"	590
14436-4	14436R6-4	WRX EJ205/STi EJ257	5.216"	2.165"	.840"	.9055" (23mm)	.9063"	605
.079" / 2mm Longer								
<b>TOYOTA</b>								
14431-4	14431R6-4	Scion FR-S 2.0L	5.090"	2.087"	.843"	.866" (22mm)	.8671"	575
14419-4	14419R6-4	Scion 2.4 2AZFE	5.886"	2.008"	.784"	.866" (22mm)	.8671"	565
14402-6	14402R6-6	Supra 3.0 2JZG (1993-1998)	5.590"	2.167"	1.015"	.866" (22mm)	.8671"	645

Note: Single replacement connecting rod pieces are also available. Simply order your part number with a -1 suffix.

## Turbo Tuff® Connecting Rods NEW FOR 2018 • TRI-BEAM DESIGN

# THE BEST JUST GOT BETTER!



Pin oil holes at 10:00 and 2:00 improve pin bore lubrication

Ribbed pin end surround helps to maintain pin bore roundness

I-Beam with undercut beam profile optimizes strength-to-weight

Ribbed cap design helps to maintain housing bore roundness

Large radius cap corners with a shallow bolt spotface improves crank end fatigue strength

- **Additional Features**
- **Increased Strength**
- **Same Weight Range**
- **Same Price**

# STEEL CONNECTING RODS

## H-Beam, H-Tuff & H-Tuff Plus Rods

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ 30wt. Oil	Recommended Bolt Stretch w/ 30wt. Oil	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ Manley Lube	Recommended Bolt Stretch w/ Manley Lube
14000	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14001	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14002	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14003	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14004	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14005	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14006	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14007	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14008	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14009	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14010	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14011	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14012	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14013	42351-1	65 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14014	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14015	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14016	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14017	42354-1	95 ft./lbs.	.0050"-.0054"	-----	-----	-----	-----
14017R	42390-1	90 ft./lbs.	.0050"-.0060"	-----	-----	-----	-----
14018	42354-1	95 ft./lbs.	.0050"-.0054"	-----	-----	-----	-----
14018R	42390-1	90 ft./lbs.	.0050"-.0060"	-----	-----	-----	-----
14019	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14020	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14021	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14022	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14023	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14024	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14025	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14026	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14027	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14028	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14029	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14030	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14032	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
14080	42350-1	60 ft./lbs.	.0058"-.0062"	-----	-----	-----	-----
15020	42350-1	60 ft./lbs.	.0058"-.0062"	15020R6	42320-1	55 ft./lbs.	.0063"-.0067"
15020	42350-1	60 ft./lbs.	.0058"-.0062"	15020R6	42320-1	55 ft./lbs.	.0063"-.0067"
15022	42350-1	60 ft./lbs.	.0058"-.0062"	15022R6	42320-1	55 ft./lbs.	.0063"-.0067"
15024	42350-1	60 ft./lbs.	.0058"-.0062"	15024R6	42320-1	55 ft./lbs.	.0063"-.0067"
15027	42350-1	60 ft./lbs.	.0058"-.0062"	15027R6	42320-1	55 ft./lbs.	.0063"-.0067"
15029	42350-1	60 ft./lbs.	.0058"-.0062"	15029R6	42320-1	55 ft./lbs.	.0063"-.0067"
15032	42350-1	60 ft./lbs.	.0058"-.0062"	15032R6	42320-1	55 ft./lbs.	.0063"-.0067"
15084	42350-1	60 ft./lbs.	.0058"-.0062"	15084R6	42320-1	55 ft./lbs.	.0063"-.0067"

CONNECTING RODS

Manley Lube Part No.	Quantity	Description
40172	1 oz.	Manley Rod Bolt Assembly Lube

Important excerpt from the ARP catalog regarding proper fastener installation:

**"The importance of tightening fasteners to their required preload cannot be emphasized enough. If a fastener is not tightened properly, the fastener will not apply the required preload on the application it is being used for and may become susceptible to failure. Conversely, if a fastener is over tightened and stretched too much, it becomes susceptible to failure by exceeding it's maximum yield point."**



Manley Performance uses ARP connecting rod bolts exclusively and is proud to be an ARP "Performance Partner."

# STEEL CONNECTING RODS

## Pro Series Turbo Tuff® I-Beam

### Replacement Bolts and Specifications

Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ Manley Lube	Recommended Bolt Stretch w/ Manley Lube	Connecting Rod Part No.	Bolt Part No.	Recommended Torque w/ Manley Lube	Recommended Bolt Stretch w/ Manley Lube
14400	42351-1	50 ft./lbs.	.0058"-.0062"	14400R6	42321-1	55 ft./lbs.	.0065"-.0075"
14401	42351-1	50 ft./lbs.	.0058"-.0062"	14401R6	42321-1	55 ft./lbs.	.0065"-.0075"
14402	42351-1	50 ft./lbs.	.0058"-.0062"	14402R6	42321-1	55 ft./lbs.	.0065"-.0075"
14402	42351-1	50 ft./lbs.	.0058"-.0062"	14402R6	42321-1	55 ft./lbs.	.0065"-.0075"
14403	42351-1	50 ft./lbs.	.0058"-.0062"	14403R6	42321-1	55 ft./lbs.	.0065"-.0075"
14404	42351-1	50 ft./lbs.	.0058"-.0062"	14404R6	42321-1	55 ft./lbs.	.0065"-.0075"
14405	42351-1	50 ft./lbs.	.0058"-.0062"	14405R6	42321-1	55 ft./lbs.	.0065"-.0075"
14406	42350-1	50 ft./lbs.	.0058"-.0062"	14406R6	42320-1	55 ft./lbs.	.0063"-.0067"
14407	42351-1	50 ft./lbs.	.0058"-.0062"	14407R6	42321-1	55 ft./lbs.	.0065"-.0075"
14408	42351-1	50 ft./lbs.	.0058"-.0062"	14408R6	42321-1	55 ft./lbs.	.0065"-.0075"
14409	42351-1	50 ft./lbs.	.0058"-.0062"	14409R6	42321-1	55 ft./lbs.	.0065"-.0075"
14410	42350-1	50 ft./lbs.	.0058"-.0062"	14410R6	42320-1	55 ft./lbs.	.0063"-.0067"
14411	42351-1	50 ft./lbs.	.0058"-.0062"	14411R6	42321-1	55 ft./lbs.	.0065"-.0075"
14412	42351-1	50 ft./lbs.	.0058"-.0062"	14412R6	42321-1	55 ft./lbs.	.0065"-.0075"
14413	42351-1	50 ft./lbs.	.0058"-.0062"	14413R6	42321-1	55 ft./lbs.	.0065"-.0075"
14414	42351-1	50 ft./lbs.	.0058"-.0062"	14414R6	42321-1	55 ft./lbs.	.0065"-.0075"
14415	42351-1	50 ft./lbs.	.0058"-.0062"	14415R6	42321-1	55 ft./lbs.	.0065"-.0075"
14416	42351-1	50 ft./lbs.	.0058"-.0062"	14416R6	42321-1	55 ft./lbs.	.0065"-.0075"
14417	42351-1	50 ft./lbs.	.0058"-.0062"	14417R6	42321-1	55 ft./lbs.	.0065"-.0075"
14418	42351-1	50 ft./lbs.	.0058"-.0062"	14418R6	42321-1	55 ft./lbs.	.0065"-.0075"
14419	42351-1	50 ft./lbs.	.0058"-.0062"	14419R6	42321-1	55 ft./lbs.	.0065"-.0075"
14420	42351-1	50 ft./lbs.	.0058"-.0062"	14420R6	42321-1	55 ft./lbs.	.0065"-.0075"
14421	42351-1	50 ft./lbs.	.0058"-.0062"	14421R6	42321-1	55 ft./lbs.	.0065"-.0075"
14422	42351-1	50 ft./lbs.	.0058"-.0062"	14422R6	42321-1	55 ft./lbs.	.0065"-.0075"
14423	42350-1	50 ft./lbs.	.0058"-.0062"	14423R6	42320-1	55 ft./lbs.	.0063"-.0067"
14424	42384-1	95 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
14426	42351-1	50 ft./lbs.	.0058"-.0062"	14426R6	42321-1	55 ft./lbs.	.0065"-.0075"
14427	42390-1	75 ft./lbs.	.0050"-.0060"	14427R6	42252-1	95 ft./lbs.	.0060"-.0065"
14428	42390-1	75 ft./lbs.	.0050"-.0060"	14428R6	42252-1	95 ft./lbs.	.0060"-.0065"
14430	42350-1	50 ft./lbs.	.0058"-.0062"	14430R6	42320-1	55 ft./lbs.	.0063"-.0067"
14431	42350-1	50 ft./lbs.	.0058"-.0062"	14431R6	42320-1	55 ft./lbs.	.0063"-.0067"
14432	42350-1	50 ft./lbs.	.0058"-.0062"	14432R6	42320-1	55 ft./lbs.	.0063"-.0067"
14433	42350-1	50 ft./lbs.	.0058"-.0062"	14433R6	42320-1	55 ft./lbs.	.0063"-.0067"
14434	42350-1	50 ft./lbs.	.0058"-.0062"	14434R6	42320-1	55 ft./lbs.	.0063"-.0067"
14435	42351-1	50 ft./lbs.	.0058"-.0062"	14435R6	42321-1	55 ft./lbs.	.0065"-.0075"
14436	42351-1	50 ft./lbs.	.0058"-.0062"	14436R6	42321-1	55 ft./lbs.	.0065"-.0075"
14437	42351-1	50 ft./lbs.	.0058"-.0062"	14437R6	42321-1	55 ft./lbs.	.0065"-.0075"
15403	42351-1	50 ft./lbs.	.0058"-.0062"	15403R6	42321-1	55 ft./lbs.	.0065"-.0075"
15424	42384-1	95 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
15444	42384-1	95 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----
15524	42384-1	95 ft./lbs.	.0064"-.0068"	-----	-----	-----	-----

CONNECTING RODS

Manley Lube Part No.	Quantity	Description
40172	1 oz.	Manley Rod Bolt Assembly Lube



# CRANKSHAFTS

## Mitsubishi 4G63/4G64 7 Bolt Crankshafts

Forged "Race Series"  
For Street / Strip

- ▶ Premium heat treated forgings
- ▶ Special teardrop, diagonal oiling features not found on OEM cranks
- ▶ Better performance at high RPM
- ▶ Stress relieved & shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed

Fully Machined "Turbo Tuff"® Series"  
Billet For High Horsepower /  
High Boosted Applications

- ▶ 4340 Billet
- ▶ Multi-step heat treatment process
- ▶ Stress relieved and shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed
- ▶ Special teardrop diagonal oiling
- ▶ Knife-edged counterweights



Forged Part No.	Stroke	Weight
190100	88mm	33.5 lbs
190120	100mm	37 lbs

Billet Part No.	Stroke	Weight
190100B	88mm	32 lbs
190110B	94mm	32.5 lbs
190120B	100mm	33.5 lbs
190120BSLW	100mm	29.5 lbs

## Mitsubishi 4B11T Evo X Stroker Crankshafts

Fully Machined "Turbo Tuff"® Series" Billet  
For High Horsepower / High Boosted Applications

- ▶ 4340 Billet
- ▶ Multi-step heat treatment process
- ▶ Stress relieved and shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed
- ▶ Special teardrop diagonal oiling
- ▶ Knife-edged counterweights

Billet Part No.	Stroke	Weight
190230B	94mm	37 lbs



# CUSTOM ROTATING ASSEMBLIES

Ordering a Manley Mitsubishi Rotating Assembly is as easy as 1-2-3....

1. Choose your crankshaft part number based on stroke and style either Forged Race Series or Turbo Tuff® Billet and order the corresponding rod and main bearing part numbers shown.
2. Choose your connecting rod part number.
3. Choose your piston part number based on desired bore size and compression ratio (piston pins, locks and rings are included).

Ordering all of the required components for your rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details.

## CRANKS

- ▶ Premium heat treated forgings or lightweight 4340 billet
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Fully profiled knife-edged counterweights on the billet forgings

## RODS

- ▶ 4340 material forgings or aircraft quality 300M alloy for extreme boost
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of ± .0002"
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Beam/H-Tuff comes standard with 3/8" ARP 2000 bolts
- ▶ H-Tuff Plus comes standard with 3/8" ARP 625+ bolts
- ▶ I-Beam and 300M comes standard with 3/8" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

## PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exacting ring groove squareness to cylinder wall provides maximum horsepower
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty/Turbo Tuff® Series
- ▶ Moly coated skirts

## RINGS

- ▶ 1.2 x 1.2 x 2.8mm
- ▶ Total Seal steel tops and Napier 2nds standard
- ▶ Rings included in piston kits

## BEARINGS

- ▶ Premium ACL Race Series with narrowed rod bearings

## Mitsubishi 4G63 7 Bolt Std Stroke Series 2.0L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/150mm Rods

Crank P/N Type	Rod P/N Description	Standard Piston P/N	Extreme Duty P/N	Turbo Tuff® P/N	Piston Description	Compression Ratio	
						47cc DSM	43cc EVO
190100 Forged or 190100B Billet	14022-4 150mm H-Beam or	606000C-4	606000CE-4	<b>606300CE-4</b>	85mm/-12cc Dish	8.5	9.0
		606005C-4	606005CE-4	<b>606305CE-4</b>	85.5mm/-12cc Dish	8.5	9.0
190100B Billet	15022-4 150mm H-Tuff or	606010C-4	606010CE-4	<b>606310CE-4</b>	86mm/-12cc Dish	8.5	9.0
		606015C-4	606015CE-4	-----	86.5mm/-12cc Dish	8.5	9.0
Bearing P/N Description	15022R6-4 150mm H-Tuff Plus or	606020C-4	606020CE-4	-----	87mm/-12cc Dish	8.5	9.0
		606100C-4	606100CE-4	-----	85mm/-8cc Dish	9.0	9.5
30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	14400-4 150mm LW I-Beam or	606105C-4	606105CE-4	-----	85.5mm/-8cc Dish	9.0	9.5
		606110C-4	606110CE-4	-----	86mm/-8cc Dish	9.0	9.5
	14403-4 150mm TT I-Beam or	606115C-4	606115CE-4	-----	86.5mm/-8cc Dish	9.0	9.5
		606120C-4	606120CE-4	-----	87mm/-8cc Dish	9.0	9.5
	14403-4 150mm TT I-Beam or	606200C-4	606200CE-4	<b>606400CE-4</b>	85mm/-2.5cc Flat Top	10.0	10.5
		606205C-4	606205CE-4	<b>606405CE-4</b>	85.5mm/-2.5cc Flat Top	10.0	10.5
	15403-4 150mm 300M I-Beam	606210C-4	606210CE-4	<b>606410CE-4</b>	86mm/-2.5cc Flat Top	10.0	10.5
		606215C-4	606215CE-4	-----	86.5mm/-2.5cc Flat Top	10.0	10.5
		606220C-4	606220CE-4	-----	87mm/-2.5cc Flat Top	10.0	10.5

## Mitsubishi 4G63 7 Bolt Std Stroke Series 2.0L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio	
						47cc DSM	43cc EVO
190100 Forged or 190100B Billet	14020-4 156mm H-Beam or	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	617000C-4	617000CE-4	85mm/-12cc Dish	8.5	9.0
			617005C-4	617005CE-4	85.5mm/-12cc Dish	8.5	9.0
	15020-4 156mm H-Tuff or		617010C-4	617010CE-4	86mm/-12cc Dish	8.5	9.0
			617015C-4	617015CE-4	86.5mm/-12cc Dish	8.5	9.0
	15020R6-4 156mm H-Tuff Plus or		617020C-4	617020CE-4	87mm/-12cc Dish	8.5	9.0
	14421-4 156mm TT I-Beam						

Note: "LW" = "Lightweight" design rod and "TT" = "Turbo Tuff®" design rod

Note: New part numbers are **BOLD & ITALICIZED**





# CUSTOM ROTATING ASSEMBLIES

## Mitsubishi 4G63 7 Bolt Stroker Series 2.1L

"Turbo Tuff" Billet 94mm Stroke Cranks w/ 150mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio	
						47cc DSM	43cc EVO
190110B Billet	14022-4 150mm H-Beam or	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	618000C-4	618000CE-4	85mm/-17cc Dish	8.5	9.0
	15022-4 150mm H-Tuff or		618005C-4	618005CE-4	85.5mm/-17cc Dish	8.5	9.0
	15022R6-4 150mm H-Tuff Plus or		618010C-4	618010CE-4	86mm/-17cc Dish	8.5	9.0
	14400-4 150mm LW I-Beam or		618015C-4	618015CE-4	86.5mm/-17cc Dish	8.5	9.0
	14403-4 150mm TT I-Beam or		618020C-4	618020CE-4	87mm/-17cc Dish	8.5	9.0
	15403-4 150mm 300M I-Beam		618200C-4	618200CE-4	85mm/-8cc Dish	10.0	10.5
		618205C-4	618205CE-4	85.5mm/-8cc Dish	10.0	10.5	
		618210C-4	618210CE-4	86mm/-8cc Dish	10.0	10.5	
		618215C-4	618215CE-4	86.5mm/-8cc Dish	10.0	10.5	
		618220C-4	618220CE-4	87mm/-8cc Dish	10.0	10.5	

## Mitsubishi 4G63 7 Bolt Stroker Series 2.1L

"Turbo Tuff" Billet 94mm Stroke Cranks w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio	
						47cc DSM	43cc EVO
190110B Billet	14020-4 156mm H-Beam or	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	619000C-4	619000CE-4	85mm/-17cc Dish	8.5	9.0
	15020-4 156mm H-Tuff or		619005C-4	619005CE-4	85.5mm/-17cc Dish	8.5	9.0
	15020R6-4 156mm H-Tuff Plus or		619010C-4	619010CE-4	86mm/-17cc Dish	8.5	9.0
	14421-4 156mm TT I-Beam		619015C-4	619015CE-4	86.5mm/-17cc Dish	8.5	9.0
			619020C-4	619020CE-4	87mm/-17cc Dish	8.5	9.0
			619200C-4	619200CE-4	85mm/-8cc Dish	10.0	10.5
		619205C-4	619205CE-4	85.5mm/-8cc Dish	10.0	10.5	
		619210C-4	619210CE-4	86mm/-8cc Dish	10.0	10.5	
		619215C-4	619215CE-4	86.5mm/-8cc Dish	10.0	10.5	
		619220C-4	619220CE-4	87mm/-8cc Dish	10.0	10.5	

## Mitsubishi 4G63 7 Bolt Stroker Series 2.3L

Forged "Race Series" & "Turbo Tuff" Billet 100mm Stroke Cranks w/ 150mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio	
						47cc DSM	43cc EVO
190120 Forged or 190120B Billet or 190120BSLW Billet Super Lightweight	14022-4 150mm H-Beam or	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	608000C-4	608000CE-4	85mm/-22cc Dish	8.5	9.0
	15022-4 150mm H-Tuff or		608005C-4	608005CE-4	85.5mm/-22cc Dish	8.5	9.0
	15022R6-4 150mm H-Tuff Plus or		608010C-4	608010CE-4	86mm/-22cc Dish	8.5	9.0
	14400-4 150mm LW I-Beam or		608015C-4	608015CE-4	86.5mm/-22cc Dish	8.5	9.0
	14403-4 150mm TT I-Beam or		608020C-4	608020CE-4	87mm/-22cc Dish	8.5	9.0
	15403-4 150mm 300M I-Beam		617000C-4	617000CE-4	85mm/-12cc Dish	10.0	10.5
		617005C-4	617005CE-4	85.5mm/-12cc Dish	10.0	10.5	
		617010C-4	617010CE-4	86mm/-12cc Dish	10.0	10.5	
		617015C-4	617015CE-4	86.5mm/-12cc Dish	10.0	10.5	
		617020C-4	617020CE-4	87mm/-12cc Dish	10.0	10.5	

Note: "LW" = "Lightweight" design rod and "TT" = "Turbo Tuff" design rod

# CUSTOM ROTATING ASSEMBLIES

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.1L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Compression Ratio		
			Standard P/N	Extreme Duty P/N	Description	47cc DSM	43cc EVO
190100 Forged or 190100B Billet	14020-4 156mm H-Beam or 15020-4 156mm H-Tuff	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	606015C-4	606015CE-4	86.5mm/-12cc Dish	8.5	9.0
			606020C-4	606020CE-4	87mm/-12cc Dish	8.5	9.0
	606115C-4		606115CE-4	86.5mm/-8cc Dish	9.0	9.5	
	606120C-4		606120CE-4	87mm/-8cc Dish	9.0	9.5	
	15020R6-4 156mm H-Tuff Plus or 14421-4 156mm TT I-Beam		606215C-4	606215CE-4	86.5mm/-2.5cc Flat Top	10.0	10.5
			606220C-4	606220CE-4	87mm/-2.5cc Flat Top	10.0	10.5

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.1L

Forged "Race Series" & "Turbo Tuff®" Billet 88mm Stroke Crank w/ 162mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Compression Ratio		
			Standard P/N	Extreme Duty P/N	Description	47cc DSM	43cc EVO
190100 Forged or 190100B Billet	14422-4 162mm TT I-Beam	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	617015C-4	617015CE-4	86.5mm/-12cc Dish	8.5	9.0
			617020C-4	617020CE-4	87mm/-12cc Dish	8.5	9.0

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.2L

"Turbo Tuff®" Billet 94mm Stroke Crank w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Compression Ratio		
			Standard P/N	Extreme Duty P/N	Description	47cc DSM	43cc EVO
190110B Billet	14020-4 156mm H-Beam or 15020-4 156mm H-Tuff	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	618015C-4	618015CE-4	86.5mm/-17cc Dish	8.5	9.0
			618020C-4	618020CE-4	87mm/-17cc Dish	8.5	9.0
	618215C-4		618215CE-4	86.5mm/-8cc Dish	10.0	10.5	
	618220C-4		618220CE-4	87mm/-8cc Dish	10.0	10.5	
	15020R6-4 156mm H-Tuff Plus or 14421-4 156mm TT I-Beam						

## Mitsubishi 4G64 7 Bolt De-Stroke Series 2.2L

"Turbo Tuff®" Billet 94mm Stroke Crank w/ 162mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Piston		Compression Ratio		
			Standard P/N	Extreme Duty P/N	Description	47cc DSM	43cc EVO
190110B Billet	14422-4 162mm TT I-Beam	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	619015C-4	619015CE-4	86.5mm/-17cc Dish	8.5	9.0
			619020C-4	619020CE-4	87mm/-17cc Dish	8.5	9.0
	619215C-4		619215CE-4	86.5mm/-8cc Dish	10.0	10.5	
	619220C-4		619220CE-4	87mm/-8cc Dish	10.0	10.5	

Note: "TT" = "Turbo Tuff®" design rod

# CUSTOM ROTATING ASSEMBLIES

## Mitsubishi 4G64 7 Bolt Std Stroke Series 2.4L

Forged "Race Series" & "Turbo Tuff®" Billet 100mm Stroke Cranks w/ 150mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N		Piston Description	Compression Ratio	
			Standard Piston P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190120 Forged or 190120B Billet or 190120BSLW Billet Super Lightweight	14022-4 150mm H-Beam	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	613000C-4	613000CE-4	86.5mm/-23.5cc Dish	8.5	9.0
	or 15022-4 150mm H-Tuff		613005C-4	613005CE-4	87mm/-23.5cc Dish	8.5	9.0
	or 15022R6-4 150mm H-Tuff Plus		606015C-4	606015CE-4	86.5mm/-12cc Dish	10.0	10.5
	or 14400-4 150mm LW I-Beam		606020C-4	606020CE-4	87mm/-12cc Dish	10.0	10.5
	or 14403-4 150mm TT I-Beam						
or 15403-4 150mm 300M I-Beam							

## Mitsubishi 4G64 7 Bolt Std Stroke Series 2.4L

Forged "Race Series" & "Turbo Tuff®" Billet 100mm Stroke Cranks w/ 156mm Rods

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N		Piston Description	Compression Ratio	
			Standard Piston P/N	Extreme Duty P/N		47cc DSM	43cc EVO
190120 Forged or 190120B Billet or 190120BSLW Billet Super Lightweight	14020-4 156mm H-Beam	30060 Rod & 33060 Mains Only or 33060T Mains w/ Thrusts	608015C-4	608015CE-4	86.5mm/-22cc Dish	8.6	9.1
	or 15020-4 156mm H-Tuff		608020C-4	608020CE-4	87mm/-22cc Dish	8.6	9.1
	or 15020R6-4 156mm H-Tuff Plus		617015C-4	617015CE-4	86.5mm/-12cc Dish	10.0	10.5
	or 14421-4 156mm TT I-Beam		617020C-4	617020CE-4	87mm/-12cc Dish	10.0	10.5

## Mitsubishi 4B11T Evo X Stroker Series 2.2L

"Turbo Tuff®" Billet 94mm Stroke Cranks w/ 143.66mm Rods

Crank P/N Type	Rod P/N Description	Standard Piston P/N	Extreme Duty P/N	Turbo Tuff® P/N	Piston Description	Comp Ratio 49cc
190230B Billet	14029-4 143.66mm H-Beam	624000C-4	624000CE-4	624200CE-4	86mm/-11cc Dish	9.0
		624005C-4	624005CE-4	624205CE-4	86.5mm/-11cc Dish	9.0
30090 Rod & 33090 Mains Only or 33090T Mains w/ Thrusts	15029-4 143.66mm H-Tuff	624100C-4	624100CE-4	624300CE-4	86mm/-3.5cc Dish	10.0
		624105C-4	624105CE-4	624305CE-4	86.5mm/-3.5cc Dish	10.0
		15029R6-4 143.66mm H-Tuff Plus				
	14409-4 143.66mm TT I-Beam					

Note: "LW" = "Lightweight" design rod and "TT" = "Turbo Tuff®" design rod

Note: It is NOT necessary to remove factory oil squirters with Manley Evo X stroker kit

Note: New part numbers are **BOLD & ITALICIZED**

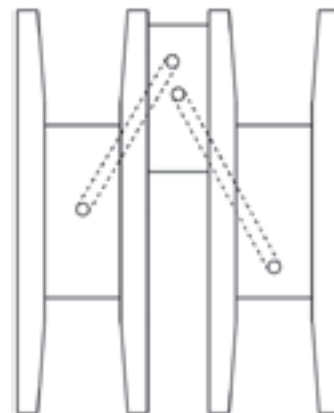


## Subaru EJ20/EJ25 Crankshafts

Fully Machined "Turbo Tuff"® Series"  
Billet For High Horsepower/High Boosted Applications

- ▶ 4340 Billet
- ▶ Multi-step heat treatment process
- ▶ Stress relieved and shot peened
- ▶ Nitrided
- ▶ 100% Magnafluxed
- ▶ "Direct Shot" dual main priority rod journal oiling
- ▶ Gun drilled crank pin and counterweights

Part No.	Stroke	Weight
190160B	75mm	18 lbs
190040B	79mm	18 lbs
190060B	83mm	18 lbs



"Direct Shot" dual main priority rod journal oiling



Create your own "Bullet-Proof" Subaru Rotating Assemblies with Manley H-Beam, H-Tuff or Turbo Tuff® Connecting Rods and Manley Platinum Series Pistons on pages 44-46.

# CUSTOM ROTATING ASSEMBLIES

## Subaru EJ20/EJ25

Ordering a Manley Subaru Rotating Assembly is as easy as 1-2-3....

1. Choose your crankshaft part number based on stroke and order the corresponding rod and main bearing part numbers shown
2. Choose your connecting rod part number
3. Choose your piston part number based on desired bore size and compression ratio (piston pins, locks and rings are included)



Ordering all of the required components for your rotating assembly from Manley will result in extra \$ savings. Please contact your Manley representative for more details.

### CRANKS

- ▶ Premium heat treated lightweight 4340 billet
- ▶ Multi-step heat treatment process and nitrided for added strength
- ▶ Stress relieved, shot-peened and 100% magnafluxed
- ▶ Fully profiled counterweights on the billet forgings

### RODS

- ▶ 4340 material forgings for extreme boost
- ▶ Fully machined, heat treated, stress relieved, shot peened and 100% magnafluxed
- ▶ Big and small end bores are final honed to a tolerance of  $\pm .0002$ "
- ▶ Bend and twist is tightly controlled
- ▶ Weight matched to +/- 1.5 grams
- ▶ H-Beam/H-Tuff comes standard with 3/8" ARP 2000 bolts
- ▶ H-Tuff Plus comes standard with 3/8" ARP 625+ bolts
- ▶ I-Beam comes standard with 3/8" ARP 2000 bolts (affix an R6 suffix for ARP 625+ bolt upgrade)

### PISTONS

- ▶ High strength 2618 alloy forgings
- ▶ Exacting ring groove squareness to cylinder wall provides maximum horsepower
- ▶ Offset wrist pin design
- ▶ Premium Chrome Moly pin included with Standard Series
- ▶ 9310 Alloy pin included with Extreme Duty Series
- ▶ Moly coated skirts

### RINGS

- ▶ 1.2 x 1.2 x 2.8mm EJ20
- ▶ 1.2 x 1.2 x 2.0mm EJ25
- ▶ Total Seal steel tops and Napier 2nds standard
- ▶ Rings included in piston kits

### BEARINGS

- ▶ Premium ACL Race Series with narrowed rod bearings
- ▶ Standard and "HX" clearance bearings are both available



IAG Global Time Attack

# CUSTOM ROTATING ASSEMBLIES

## Subaru EJ20 Std Stroke Series 2.0L

"Turbo Tuff®" Billet 75mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio 48cc
190160B Billet	14024-4 130.5mm H-Beam	30070 or 30070X* Rod & 33070 or 33070X* Mains w/ #5 Thrust or 33080 Mains w/ #3 Thrust	615000C-4	615000CE-4	92mm/-12cc Dish	8.5
	or 15024-4 130.5mm H-Tuff		615005C-4	615005CE-4	92.5mm/-12cc Dish	8.5
	or 15024R6-4 130.5mm H-Tuff Plus or 14416-4 130.5mm TT I-Beam		615010C-4	615010CE-4	93mm/-12cc Dish	8.5

## Subaru EJ20 Stroker Series 2.1L

"Turbo Tuff®" Billet 79mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio 48cc
190040B Billet	14024-4 130.5mm H-Beam	30070 or 30070X* Rod & 33070 or 33070X* Mains w/ #5 Thrust or 33080 Mains w/ #3 Thrust	620000C-4	620000CE-4	92mm/-16cc Dish	8.5
	or 15024-4 130.5mm H-Tuff		620005C-4	620005CE-4	92.5mm/-16cc Dish	8.5
	or 15024R6-4 130.5mm H-Tuff Plus or 14416-4 130.5mm TT I-Beam		620010C-4	620010CE-4	93mm/-16cc Dish	8.5

## Subaru EJ25 De-Stroke Series 2.35L

"Turbo Tuff®" Billet 75mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Compression Ratio 51cc
190160B Billet	14024-4 130.5mm H-Beam or 15024-4 130.5mm H-Tuff or 15024R6-4 130.5mm H-Tuff Plus or 14416-4 130.5mm TT I-Beam	30070 or 30070X* Rod & 33070 or 33070X* Mains	621000C-4	-----	<b>PLATINUM SERIES</b> 99.50mm/-18cc Dish	8.5
			621002C-4	-----	99.75mm/-18cc Dish	8.5
			621005C-4	-----	100.00mm/-18cc Dish	8.5
	621100C-4	-----	99.50mm/-6cc Dish	9.8		
	621102C-4	-----	99.75mm/-6cc Dish	9.8		
	621105C-4	-----	100.00mm/-6cc Dish	9.8		
	632000C-4	632000CE-4	<b>TURBO TUFF® DESIGN</b> 99.50mm/-18cc Dish	8.5		
	632002C-4	632002CE-4	99.75mm/-18cc Dish	8.5		
	632005C-4	632005CE-4	100.00mm/-18cc Dish	8.5		
	632100C-4	632100CE-4	99.50mm/-6cc Dish	9.8		
	632102C-4	632102CE-4	99.75mm/-6cc Dish	9.8		
	632105C-4	632105CE-4	100.00mm/-6cc Dish	9.8		

Note: "TT" = "Turbo Tuff®" design rod  
\* HX Series Bearings

# CUSTOM ROTATING ASSEMBLIES

## Subaru EJ25 Std Stroke Series 2.5L

"Turbo Tuff"® Billet 79mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio			
						51cc	57cc		
<b>190040B</b> Billet	<b>14024-4</b> 130.5mm H-Beam or <b>15024-4</b> 130.5mm H-Tuff or <b>15024R6-4</b> 130.5mm H-Tuff Plus or <b>14416-4</b> 130.5mm TT I-Beam	<b>30070</b> or <b>30070X*</b> Rod & <b>33070</b> or <b>33070X*</b> Mains	<b>PLATINUM SERIES</b>						
			<b>612000CA-1**</b>	-----	99.50mm Grade A/-22cc Dish	8.5	-		
			<b>612000CB-1**</b>	-----	99.50mm Grade B/-22cc Dish	8.5	-		
			<b>612000C-4</b>	-----	99.50mm/-22cc Dish	8.5	-		
			<b>612001C-4</b>	-----	99.55mm/-22cc Dish	8.5	-		
			<b>612002C-4</b>	-----	99.75mm/-22cc Dish	8.5	-		
			<b>612005C-4</b>	-----	100.00mm/-22cc Dish	8.5	-		
			<b>612007C-4</b>	-----	100.25mm/-22cc Dish	8.5	-		
			<b>612200CA-1**</b>	-----	99.50mm Grade A/-17cc Dish	9.0	8.5		
			<b>612200CB-1**</b>	-----	99.50mm Grade B/-17cc Dish	9.0	8.5		
			<b>612200C-4</b>	-----	99.50mm/-17cc Dish	9.0	8.5		
			<b>612201C-4</b>	-----	99.55mm/-17cc Dish	9.0	8.5		
			<b>612202C-4</b>	-----	99.75mm/-17cc Dish	9.0	8.5		
			<b>612205C-4</b>	-----	100.00mm/-17cc Dish	9.0	8.5		
			<b>612207C-8</b>	-----	100.25mm/-17cc Dish	9.0	8.5		
			<b>612100C-4</b>	-----	99.50mm/-10cc Dish	9.8	9.2		
			<b>612102C-4</b>	-----	99.75mm/-10cc Dish	9.8	9.2		
			<b>612105C-4</b>	-----	100.00mm/-10cc Dish	9.8	9.2		
			<b>TURBO TUFF® DESIGN</b>						
			<b>632200CA-1**</b>	<b>632200CEA-1**</b>	99.50mm Grade A/-22cc Dish	8.5	-		
			<b>632200CB-1**</b>	<b>632200CEB-1**</b>	99.50mm Grade B/-22cc Dish	8.5	-		
			<b>632200C-4</b>	<b>632200CE-4</b>	99.50mm/-22cc Dish	8.5	-		
			<b>632201C-4</b>	<b>632201CE-4</b>	99.55mm/-22cc Dish	8.5	-		
			<b>632202C-4</b>	<b>632202CE-4</b>	99.75mm/-22cc Dish	8.5	-		
			<b>632205C-4</b>	<b>632205CE-4</b>	100.00mm/-22cc Dish	8.5	-		
			<b>632800CA-1**</b>	<b>632800CEA-1**</b>	99.50mm Grade A/-17cc Dish	9.0	8.5		
			<b>632800CB-1**</b>	<b>632800CEB-1**</b>	99.50mm Grade B/-17cc Dish	9.0	8.5		
			<b>632800C-4</b>	<b>632800CE-4</b>	99.50mm/-17cc Dish	9.0	8.5		
			<b>632801C-4</b>	<b>632801CE-4</b>	99.55mm/-17cc Dish	9.0	8.5		
			<b>632802C-4</b>	<b>632802CE-4</b>	99.75mm/-17cc Dish	9.0	8.5		
<b>632805C-4</b>	<b>632805CE-4</b>	100.00mm/-17cc Dish	9.0	8.5					
<b>632300C-4</b>	<b>632300CE-4</b>	99.50mm/-10cc Dish	9.8	9.2					
<b>632302C-4</b>	<b>632302CE-4</b>	99.75mm/-10cc Dish	9.8	9.2					
<b>632305C-4</b>	<b>632305CE-4</b>	100.00mm/-10cc Dish	9.8	9.2					

## Subaru EJ25 Stroker Series 2.6L

"Turbo Tuff"® Billet 83mm Stroke Crank

Crank P/N Type	Rod P/N Description	Bearing P/N Description	Standard Piston P/N	Extreme Duty P/N	Piston Description	Comp Ratio			
						51cc			
<b>190060B</b> Billet	<b>14024-4</b> 130.5mm H-Beam or <b>15024-4</b> 130.5mm H-Tuff or <b>15024R6-4</b> 130.5mm H-Tuff Plus or <b>14416-4</b> 130.5mm TT I-Beam	<b>30070</b> or <b>30070X*</b> Rod & <b>33070</b> or <b>33070X*</b> Mains	<b>PLATINUM SERIES</b>						
			<b>622000C-4</b>	-----	99.50mm/-26cc Dish	8.5			
			<b>622002C-4</b>	-----	99.75mm/-26cc Dish	8.5			
			<b>622005C-4</b>	-----	100.00mm/-26cc Dish	8.5			
			<b>622100C-4</b>	-----	99.50mm/-14cc Dish	9.8			
			<b>622102C-4</b>	-----	99.75mm/-14cc Dish	9.8			
			<b>622105C-4</b>	-----	100.00mm/-14cc Dish	9.8			
			<b>TURBO TUFF® DESIGN</b>						
			<b>632400C-4</b>	<b>632400CE-4</b>	99.50mm/-26cc Dish	8.5			
			<b>632402C-4</b>	<b>632402CE-4</b>	99.75mm/-26cc Dish	8.5			
			<b>632405C-4</b>	<b>632405CE-4</b>	100.00mm/-26cc Dish	8.5			
			<b>632500C-4</b>	<b>632500CE-4</b>	99.50mm/-14cc Dish	9.8			
			<b>632502C-4</b>	<b>632502CE-4</b>	99.75mm/-14cc Dish	9.8			
			<b>632505C-4</b>	<b>632505CE-4</b>	100.00mm/-14cc Dish	9.8			

Note: "TT" = "Turbo Tuff" design rod \*\*These pistons feature skirt diameters that correspond to the OEM Grade A or B bores. Check the bore grades on the top of your block and order the appropriate quantities of Grade A or B pistons. (Sold as -1 individual pieces, not sets.)

\* HX Series Bearings  
Note: New part numbers are **BOLD & ITALICIZED**

## 4 oz. Extreme Pressure Lube #3

- ▶ The assembly lubricant preferred by top engine builders
- ▶ Can be used as a rod bolt lubricant

Part No.	Quantity	Description
40177	1	Extreme Pressure Lube #3



## Manley Lube For Connecting Rod Bolts

- ▶ Provides superior lubrication for rod bolt assembly

Part No.	Quantity	Description
40171	1/2 oz.	Manley Rod Bolt Assembly Lube
40172	1 oz.	Manley Rod Bolt Assembly Lube



## 2 oz. Moly Lube

- ▶ Molybdenum disulfide is excellent as a break in coating for camshafts, lifters, pushrod ends and rocker balls.

Part No.	Quantity	Description
40199	1	Moly lube



## Magic Seal Epoxy

- ▶ Use for intake ports and manifolds where there is lower temperature present
- ▶ Consistency of silly putty for easy shaping

Part No.	Quantity	Description
40187	"A" - 1/2 lb. "B" - 1/2 lb.	Magic Seal epoxy





# APPAREL

## Short Sleeve T-Shirts

▶ Made with a 60% cotton/40% polyester blend, the Manley logo is shown vertically on the front with a piston/connecting rod design on the back that is made up of the Manley logo.

Size	Black Part No.	Gray Part No.
Small	<b>00005</b>	<b>00035</b>
Medium	<b>00004</b>	<b>00034</b>
Large	<b>00003</b>	<b>00033</b>
X Large	<b>00002</b>	<b>00032</b>
XX Large	<b>00001</b>	<b>00031</b>



Gray T-Shirt Front



Black T-Shirt Back

## Black Ladies Fit Tops

▶ Same 60% cotton/40% polyester blend and printed design as our t-shirts except in a comfortable ladies fit top.

Size	Part No.
Small	<b>00065</b>
Medium	<b>00064</b>
Large	<b>00063</b>
X Large	<b>00062</b>
XX Large	<b>00061</b>



Ladies Fit Front



Ladies Fit Back

## Black Pullover Hoodies

▶ Pullover style made with a 50% cotton/50% polyester blend with a full front pocket.

Size	Hoodie Part No.
Small	<b>00205</b>
Medium	<b>00204</b>
Large	<b>00203</b>
X Large	<b>00202</b>
XX Large	<b>00201</b>



Hoodie Front



Hoodie Back Design

## FLEXFIT® Brand Fitted Hats

▶ Available in two sizes; S-M and L-XL, these black 98% cotton hats feature the Manley logo embroidered in black and gray on the front left.

Size	Part No.
S-M	<b>00010</b>
L-XL	<b>00012</b>



## Embroidered Mechanics Apron

▶ Attractive black cotton/polyester with embroidered Manley logo in red and white  
▶ Large twin front pockets

Size	Part No.
Fits All	<b>42014</b>



## Vinyl Printed Banner

▶ Made from durable 13-oz. vinyl material with 10 grommets around the border for easy hanging

Size	Part No.
96" x 30"	<b>00008TS</b>



Note: New part numbers are **BOLD & ITALICIZED**

## Decimal Conversion Chart

$\frac{1}{64}$ _____	.0156	$\frac{23}{64}$ _____	.3593	$\frac{45}{64}$ _____	.7031
$\frac{1}{32}$ _____	.0312	$\frac{25}{64}$ _____	.3906	$\frac{23}{32}$ _____	.7187
$\frac{3}{64}$ _____	.0468	$\frac{13}{32}$ _____	.4062	$\frac{47}{64}$ _____	.7343
$\frac{1}{16}$ _____	.0625	$\frac{27}{64}$ _____	.4218	$\frac{3}{4}$ _____	.750
$\frac{5}{64}$ _____	.0781	$\frac{7}{16}$ _____	.4375	$\frac{49}{64}$ _____	.7656
$\frac{3}{32}$ _____	.0937	$\frac{29}{64}$ _____	.4531	$\frac{25}{32}$ _____	.7812
$\frac{7}{64}$ _____	.1093	$\frac{15}{32}$ _____	.4687	$\frac{51}{64}$ _____	.7968
$\frac{1}{8}$ _____	.125	$\frac{31}{64}$ _____	.4843	$\frac{13}{16}$ _____	.8125
$\frac{9}{64}$ _____	.1406	$\frac{1}{2}$ _____	.500	$\frac{53}{64}$ _____	.8281
$\frac{5}{32}$ _____	.1562	$\frac{33}{64}$ _____	.5156	$\frac{27}{32}$ _____	.8437
$\frac{11}{64}$ _____	.1718	$\frac{17}{32}$ _____	.5312	$\frac{55}{64}$ _____	.8593
$\frac{3}{16}$ _____	.1875	$\frac{35}{64}$ _____	.5468	$\frac{7}{8}$ _____	.875
$\frac{13}{64}$ _____	.2031	$\frac{9}{16}$ _____	.5625	$\frac{57}{64}$ _____	.8906
$\frac{7}{32}$ _____	.2187	$\frac{37}{64}$ _____	.5781	$\frac{29}{32}$ _____	.9062
$\frac{15}{64}$ _____	.2343	$\frac{19}{32}$ _____	.5937	$\frac{59}{64}$ _____	.9218
$\frac{1}{4}$ _____	.250	$\frac{39}{64}$ _____	.6093	$\frac{15}{16}$ _____	.9375
$\frac{17}{64}$ _____	.2656	$\frac{41}{64}$ _____	.6406	$\frac{61}{64}$ _____	.9531
$\frac{9}{32}$ _____	.2812	$\frac{21}{32}$ _____	.6562	$\frac{31}{32}$ _____	.9687
$\frac{19}{64}$ _____	.2968	$\frac{43}{64}$ _____	.6718	$1$ _____	1.000
$\frac{5}{16}$ _____	.3125	$\frac{11}{16}$ _____	.6875		
$\frac{21}{64}$ _____	.3281				
$\frac{11}{32}$ _____	.3437				

## Metric Conversion Chart

<b>0.1mm = 0.00394"</b>	<b>1mm = 0.03937"</b>	<b>30mm = 1.18110"</b>
<b>0.2mm = 0.00787"</b>	<b>2mm = 0.07874"</b>	<b>40mm = 1.57480"</b>
<b>0.3mm = 0.01181"</b>	<b>3mm = 0.11811"</b>	<b>50mm = 1.96850"</b>
<b>0.4mm = 0.01575"</b>	<b>4mm = 0.15748"</b>	<b>60mm = 2.36220"</b>
<b>0.5mm = 0.01969"</b>	<b>5mm = 0.19685"</b>	<b>70mm = 2.75590"</b>
<b>0.6mm = 0.02362"</b>	<b>6mm = 0.23622"</b>	<b>80mm = 3.14960"</b>
<b>0.7mm = 0.02756"</b>	<b>7mm = 0.27559"</b>	<b>90mm = 3.54330"</b>
<b>0.8mm = 0.03150"</b>	<b>8mm = 0.31496"</b>	<b>100mm = 3.93700"</b>
<b>0.9mm = 0.03543"</b>	<b>9mm = 0.35433"</b>	
	<b>10mm = 0.39370"</b>	
	<b>20mm = 0.78740"</b>	