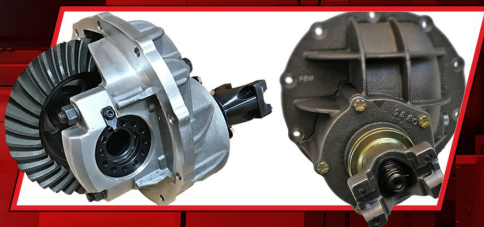


PEM RACING GEARS AND DRIVETRAIN

# PEM

THIRD EDITION



AXLES  
DRIVE SHAFTS  
QUICK CHANGES  
REAR END GEARS  
REAR END HOUSINGS  
REAR END TOOLS  
REM® ISF FINISHED BEARINGS

## TABLE OF CONTENTS

<i>Quick Change Rear Ends, Gears and Ratio Chart</i>	3-5
<i>Quick Change Ring &amp; Pinions, Spools and Replacement Parts</i>	6-8
<i>Assembled Center Sections</i>	9
<i>Ring &amp; Pinions, Spools, Mini Spools and Spindles</i>	10-11
<i>Trac Locs, Bearings and Installation Kits</i>	12-13
<i>Ford 9 inch Cases and Pinion Supports</i>	14
<i>Rear End Yokes, Transmission Slip Yokes and U Joints</i>	15-16
<i>Drive Shafts</i>	17-18
<i>9 inch Ford Floater Rear Ends, GN Hubs and W5 Axles</i>	19-20
<i>New Center Housing and Flange Housing Ends</i>	21
<i>Flange Axles, Parts and Flanged Housing Kits</i>	22-23
<i>PEM Econo Rear Brake Kits</i>	24
<i>Center Section Build Options</i>	25
<i>Rear End Tools and Standard Wheel Bearings &amp; Races</i>	26
<i>Xtreme Gear</i>	27
<i>REM Finishing, REM Parts and Cryo Treatment</i>	28-30
<i>PEM Street Kits</i>	31-32
<i>PEM JK Replacement, Offroad and CV Style Drive Shafts</i>	33-34
<i>Quick Change Schematic</i>	35
<i>Quick Change, Drive Shaft, Rear End &amp; Axle Build Sheets</i>	36-38
<i>Rear End Technical Information and Set Up Specifications</i>	39



WARNING: Cancer And Reproductive Harm

## PEM Quick Change Rear End



All of our quick changes are manufactured with permanent mold magnesium/aluminum alloy castings, heat treated lower shaft, roller pinion nose bearing, and pinion posi nut.

PEM GN complete assembly uses PEM 5 x 5" 2.5" GN hubs, .810 brake rotors and PEM solid wide 5 axles.

- QCNT quick change assembly / no tubes
- QCSTGN quick change assembly with steel .188" centerless ground 2.5" GN tubes
- QCKSTGN5 quick change assembly with 5 x 5" hubs, rotors and solid axles
- QCSTW5 quick change assembly with wide 5 steel tubes
- QCATW5 quick change assembly with wide 5 aluminum tubes

*Please specify on above assemblies; 4:11 or 4:86, width of rear end and either centered pinion or offset requested.*

- QCNT-Max quick change assembly / no tubes
- QCSTGN-Max quick change assembly with steel .188" centerless ground 2.5" GN tubes
- QCKSTGN5-Max quick change assembly with 5 x 5" hubs, rotors and **gun drilled axles**
- QCSTW5-Max quick change assembly with wide 5 steel tubes
- QCATW5-Max quick change assembly with wide 5 aluminum tubes

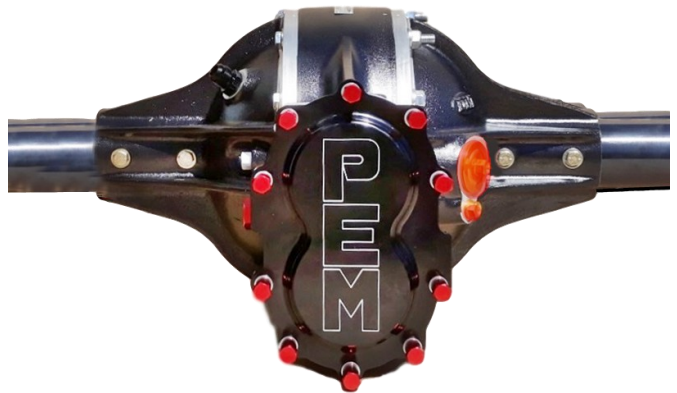
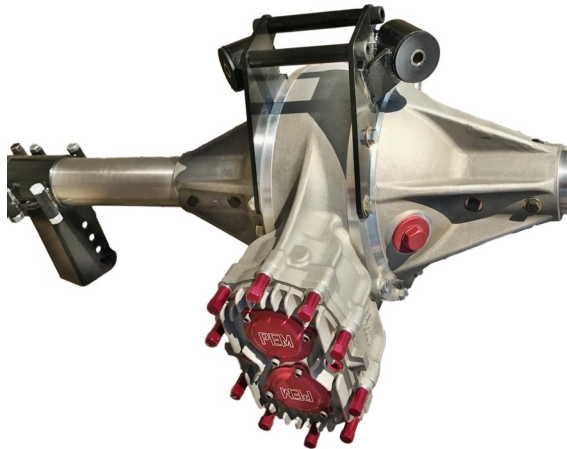
**MAX Option quick change rears** have black thermal coating, billet rear cover, all REM internals for low drag, lightened spool, drilled lower shaft, gun drilled axles and breather kit.

*Please specify on above assemblies; 4:11 or 4:86 ratio, width of rear end at hubs and either centered pinion or pinion offset requested.*

*On wide 5 tubes we will have you send the B Measurement from the chart on page 36.*



## PEM Quick Change Rear End Options



### INSTALLED OPTION PART NUMBERS:

- QCO1000** Lightened Spool
- QCO1100** 9.5" outside diameter ring gear
- QCO1200** 9.0" outside diameter ring gear (crate)
- QCO1300** Black thermal coating
- QCO1400** REM finish ring & pinion
- QCO1500** REM finish all bearings and races
- QCO1600B** Gun drilled Black Axle Option Pair
- QCO1700** .125" wall chrome moly tubes
- QCO1750** .188" wall chrome moly tubes
- QCO1800** Black anodized billet rear cover
- QCO1900** Wilwood 1" wide spec 37 brake rotors
- QCO2000** Drilled lower shaft
- QCO2100** Assembled Center & Bells in Box - does not include the truck freight
- QCO2250** Upcharge to install 5/8th steel tube on left rear wide 5 late model rear end
- QCO2300** Upcharge to prep for breather kit
- QCO2400-1** Upcharge for GM mounts metric single hole
- QCO2450-1** Upcharge for GM mounts metric multi hole

- QCO2500** Upcharge to Fully assemble for pick up
- QCO2600-1** Locking GN 2.5" Snout Nuts

- QCO2700** Upcharge for 6 bolt rear billet cover

- QCO2800** Upcharge for 8 rib bells (pair)

- QCO2900** Upcharge for one ton aluminum tube (per side)

- QCO3000** Upcharge for Polishing QC Rearend Street Kit

- QCO3100** Upcharge for Powder Coating QC Rear End Street Kit

- QCO3200** Upcharge for Fully Assembling QC Rear End Street Kit

- QCO3300** Upcharge for longer forged rear end Yoke

- QCO3400** Upcharge for GN Scalloped Drive Flange



# PEM Quick Change Gears and Ratio Chart

## PEM Premium LW Quick Change Gears



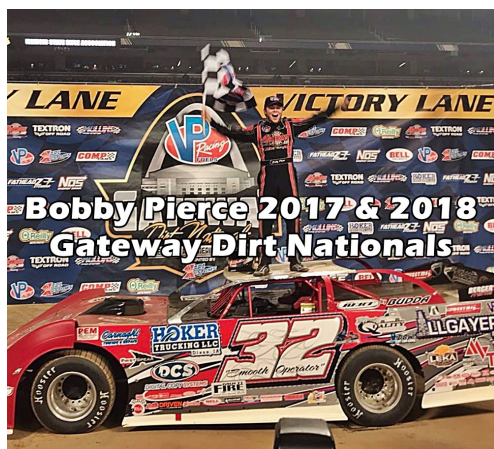
High strength alloy steel with REM® ISF Microfinished surface treatment to run cooler. Reduces your rotating weight.





## PEM Standard Quick Change Gears



High grade gear steel, hobbled and fully heat treated.

PEM Standard Quick Change Gears can be REM® ISF Microfinished at an additional charge.



Premium Part #	Standard Part #	No. Teeth	411		486	
						
<b>65001</b>	<b>61001</b>	<b>21/21</b>	<b>4.11</b>	<b>4.11</b>	<b>4.86</b>	<b>4.86</b>
65001A	<b>61001Q</b>	35/36	4.23	4.00	5.00	4.72
<b>65002</b>	<b>61002</b>	<b>27/28</b>	<b>4.26</b>	<b>3.96</b>	<b>5.04</b>	<b>4.68</b>
65015	61015	19/20	4.33	3.91	5.10	4.63
n.a.	<b>61015Q</b>	<b>15/16</b>	<b>4.38</b>	<b>3.85</b>	<b>5.18</b>	<b>4.56</b>
65026	61026	27/29	4.41	3.83	5.22	4.52
<b>65006</b>	<b>61006</b>	<b>23/25</b>	<b>4.47</b>	<b>3.78</b>	<b>5.28</b>	<b>4.47</b>
65025	61025	20/22	4.52	3.74	5.34	4.42
<b>65012</b>	<b>61012</b>	<b>26/29</b>	<b>4.58</b>	<b>3.68</b>	<b>5.42</b>	<b>4.36</b>
65007	61007	23/26	4.65	3.63	5.49	4.30
<b>65007A</b>	<b>61007Q</b>	<b>21/24</b>	<b>4.70</b>	<b>3.60</b>	<b>5.55</b>	<b>4.25</b>
65017	61017	19/22	4.77	3.54	5.63	4.19
<b>65008A</b>	<b>61008Q</b>	<b>23/27</b>	<b>4.84</b>	<b>3.51</b>	<b>5.70</b>	<b>4.14</b>
65008	61008	22/26	4.86	3.48	5.74	4.11
<b>65019</b>	<b>61019</b>	<b>21/25</b>	<b>4.89</b>	<b>3.45</b>	<b>5.78</b>	<b>4.08</b>
65009A	61009Q	25/30	4.93	3.42	5.83	4.05
<b>65009</b>	<b>61009</b>	<b>19/23</b>	<b>4.98</b>	<b>3.39</b>	<b>5.88</b>	<b>4.01</b>
65011	61011	22/27	5.04	3.35	5.96	3.96
<b>65003</b>	<b>61003</b>	<b>25/31</b>	<b>5.10</b>	<b>3.31</b>	<b>6.02</b>	<b>3.92</b>
65013	61013	20/25	5.14	3.29	6.07	3.89
<b>65018</b>	<b>61018</b>	<b>19/24</b>	<b>5.18</b>	<b>3.26</b>	<b>6.12</b>	<b>3.85</b>
65018A	61018Q	22/28	5.23	3.23	6.18	3.82
<b>65004A</b>	<b>61004Q</b>	<b>18/23</b>	<b>5.25</b>	<b>3.22</b>	<b>6.21</b>	<b>3.80</b>
65004	61004	24/31	5.31	3.18	6.27	3.76
<b>65020</b>	<b>61020</b>	<b>20/26</b>	<b>5.34</b>	<b>3.16</b>	<b>6.31</b>	<b>3.74</b>
65022	61022	19/25	5.41	3.12	6.39	3.69
<b>65016</b>	<b>61016</b>	<b>24/32</b>	<b>5.48</b>	<b>3.08</b>	<b>6.48</b>	<b>3.64</b>
65010	61010	20/27	5.56	3.04	6.57	3.59
<b>65010A</b>	<b>61010Q</b>	<b>22/30</b>	<b>5.62</b>	<b>3.02</b>	<b>6.62</b>	<b>3.56</b>
65034	61034	16/22	5.65	2.99	6.68	3.53
<b>65014</b>	<b>61014</b>	<b>23/32</b>	<b>5.72</b>	<b>2.95</b>	<b>6.76</b>	<b>3.49</b>
65014A	<b>61014Q</b>	<b>20/28</b>	<b>5.75</b>	<b>2.94</b>	<b>6.80</b>	<b>3.47</b>
<b>65035</b>	<b>61035</b>	<b>17/24</b>	<b>5.80</b>	<b>2.91</b>	<b>6.86</b>	<b>3.44</b>
65032	61032	19/27	5.84	2.89	6.90	3.42
<b>65032A</b>	<b>61032Q</b>	<b>23/33</b>	<b>5.90</b>	<b>2.86</b>	<b>6.97</b>	<b>3.39</b>
65024	61024	20/29	5.96	2.83	7.04	3.35
<b>65036</b>	<b>61036</b>	<b>17/25</b>	<b>6.05</b>	<b>2.79</b>	<b>7.14</b>	<b>3.30</b>
65023	61023	18/27	6.16	2.74	7.29	3.24
<b>65021</b>	<b>61021</b>	<b>17/26</b>	<b>6.28</b>	<b>2.69</b>	<b>7.43</b>	<b>3.18</b>
65027	61027	22/34	6.35	2.66	7.51	3.15
<b>65043</b>	<b>61043</b>	<b>16/25</b>	<b>6.42</b>	<b>2.63</b>	<b>7.59</b>	<b>3.11</b>
65028	61028	19/30	6.49	2.60	7.67	3.08
<b>65029</b>	<b>61029</b>	<b>15/24</b>	<b>6.58</b>	<b>2.57</b>	<b>7.77</b>	<b>3.04</b>
65030	61030	16/26	6.68	2.53	7.91	2.99
<b>65041</b>	<b>61041</b>	<b>17/28</b>	<b>6.77</b>	<b>2.50</b>	<b>8.00</b>	<b>2.95</b>
65031	61031	21/35	6.85	2.47	8.10	2.92
<b>65033A</b>	<b>61033Q</b>	<b>16/27</b>	<b>6.94</b>	<b>2.44</b>	<b>8.20</b>	<b>2.88</b>
65031A	61031Q	14/24	7.05	2.39	8.33	2.83
<b>65050</b>	<b>61050</b>	<b>20/35</b>	<b>7.19</b>	<b>2.35</b>	<b>8.50</b>	<b>2.77</b>
<b>65052</b>	<b>61052</b>	<b>18/32</b>	<b>7.32</b>	<b>2.32</b>	<b>8.64</b>	<b>2.73</b>
<b>65054</b>	<b>61054</b>	<b>15/27</b>	<b>7.42</b>	<b>2.29</b>	<b>8.74</b>	<b>2.70</b>
<b>65056</b>	<b>61056</b>	<b>17/31</b>	<b>7.51</b>	<b>2.26</b>	<b>8.86</b>	<b>2.67</b>

New Ratios for Fall of 2020 denoted in **RED**.

# PEM QUICK CHANGE RING & PINIONS AND SPOOLS

## PEM Quick Change Ring & Pinions



Standard OD of ring gear is 10" OD

- QC411R&P** 4.11 Ring & Pinion Bare
- QC486R&P** 4.86 Ring & Pinion Bare
- QC411R&PLW** 4.11 Ring & Pinion 9.5" OD LW Bare
- QC486R&PLW** 4.86 Ring & Pinion 9.5" OD LW Bare
- QCR&P411LOAD** 4.11 Ring & Pinion Loaded
- QCR&P486LOAD** 4.86 Ring & Pinion Loaded
- QCR&P411LWLOAD** 4.11 Ring & Pinion 9.5" Loaded
- QCR&P486LWLOAD** 4.86 Ring & Pinion 9.5" Loaded

*All loaded ring & pinions have an aluminum posi nut installed and also come with the roller nose bearing.*

**REM® ISF Finishing available at additional charge.**

## PEM QC Aluminum Spools



- QCFS31** aluminum spool 2.032" journal
- QCFS31L** lightened aluminum spool

### SPOOL Bearings, Races and Shim Kit

- P368S** 2.032" spool bearing
- P368A** 2.000" spool bearing
- P362A** race for P368S and P368
- QCC0133** spool Shim Kit - 12 piece kit

REM is a registered trademark of REM Chemicals Inc. registered in the U.S. Patent and Trademark Office.

REM® ISF Finished BEARINGS on pages 29-30

## Replacement Parts for Quick Change Rear Ends

QCC0010	center section case only -bare	QCC0119K	back cover tall nuts -10 piece kit
QCC0020	drivers 6 rib side bell only - bare	QCC0120	lower shaft bearing retainer - snap ring
QCC0030	passenger 6 rib side bell only - bare	QCC0121o	rear yoke plate o-ring
QCC0020K	drivers 6 rib side bell kit, plugs and race	QCC0122	back cover bearing retainer bolts
QCC0030K	passenger 6 rib side bell kit, plugs and race	QCC0123	back cover bearing retainer - aluminum
QCC0040	back cover plate - bare	QCC0125	3/8" allen head pipe plug, aluminum
QCC0040K	back cover assembly with bearings and retainers	QCC0126	yoke seal
QCC0050	wide 5 aluminum tube up to 30 3/16"	QCC0128K	passenger side inspection/fill plug with o-ring
QCC0060	lower solid thru shaft	QCC0129K	tube bolt & washer kit 6 piece kit
QCC0080	yoke seal plate - bare	QCC0131/2K	ring gear bolt and washer kit 12 pcs each
QCC0080o	yoke seal plate o-ring	QCC0135	thrust jam nut - aluminum
QCC0090	forged yoke -1310 series	QCC0136	thrust flat washer - aluminum
QCC0100	rear pinion retainer plate	QCC0137	thrust block
QCC0101	pinion retainer lock washer	QCC0137K	thrust block assembly kit
QCC0102	spacer under pinion retainer	QCC0139K	breather kit
QCC0103	posi lock nut alum. for pinion RH thread	QCC0140K	thru bolt kit with short bolts 12 piece kit
QCC0104	rear cover gasket heavy duty, steel core	QCC0145	pinion thrust washer
QCC0105	rear cover gasket	QCC0146	lower bearing retainer
QCC0106K	yoke support bolt kit 6 piece kit	QCC0147	big bearing for only BB Billet back cover 6405R
QCC0107	carrier seal	QCC0149	filler fitting, 12an-10an reducer with o-ring
QCC0108	back cover bearing standard - 6305NR	QCC0231	wide 5 alum snout nut with locking system
QCC0111	pinion retainer bolt and washer kit	P27880	pinion tapered roller bearing
QCC0112o	o-ring for back cover bearing retainer	P27880Kit	pinion bearing kit - 2 bearings, race and spacer
QCC0113	back cover stud	P27820OD	pinion race - holds 2 bearings
QCC0113K	back cover stud kit - 10 piece kit	PMU1205	pinion support bearing
QCC0114K	aluminum plug with o-ring	P7339	rear lower shaft bearing 6207ZZ
QCC0115K	spur gear inspection plug with o-ring	P7390	front lower shaft bearing 6307ZZ
QCC0116	yoke bolt only	K7339	Koyo rear lower shaft bearing 6207ZZ
QCC0116K	yoke bolt and washer kit	K7390	Koyo front lower shaft bearing 6307ZZ
QCC0117	washer for yoke	QCCRBK-2.032	rebuild kit with all bearings/races/seals/o-rings for a PEM or Winters Sprint center unit
QCC0118	side bell o-ring - thin square	QCCRBK BBC-2.032	rebuild kit with all bearings/races/seals/o-rings for a PEM QC with big bearing cover
QCC0119	back cover tall nut - red aluminum		

# PEM Double Spline Axles and Rear End Tubes

## Wide 5 HIGH TEST Gun-drilled Axle

High strength alloy steel. Black Oxide coated. Backed by extensive testing. Axle includes aluminum plug for spacer bolt. Fits 31 spline spool and 24 spline outer drive flanges.



**GDW5###31-B** Available lengths: 27.5, 28.5, 29.5, 30.5, 31.5, 32, 32.5, 33, 33.5, 34, 35 and 36"

## Wide 5 Polished Gun-drilled Axle

Axle includes aluminum plug for spacer bolt. Fits 31 spline spool and 24 spline outer drive flanges.



Limited Sizes and Quantities.

**GDW5###31-A** Available lengths; 31.5, 32, 33, 33.5, 34, 34.5, and 35"

## 5/8" HEAVY WALL TUBES for GN 2.5" and wide 5 Snouts



Centerless Ground Tubing Tubes weigh from 16-22 lbs. heavier than a .188" wall steel tube (depending on length of tube)

## Centerless Ground Rear End Tubes

### TWSnout##QCB

.125, .188, .250, .625, and .750" wall steel tubing centerless ground to 2.999"-3.0" OD. Available lengths; 22, 23, 24, 25, 26, 29, and 32". These tubes are measured total length. For example, a 60" centered pinion GN quick change takes two 24" tubes. Retainer bolt holes must be drilled and tapped after installation. Plug welded snout.

**2" Howe/Vogel Snouts now available in Rear End Tubes**



## Conversion Kit for Quick Change to GN Steel Tubes

Change an aluminum tube quick change over to a 2.5" GN steel tube quick change. You must specify the track width and pinion placement you want.



**QCCK** conversion kit with tubes, hub nuts, axles and axle snout seals

**QCCK5** conversion kit with 5x5" GN 2.5" hub assemblies and .810" rotors, tubes, hub nuts and axle snout seals

**QCCK4** conversion kit with 5x4 3/4" GN 2.5" hub assemblies and .810" rotors, tubes, hub nuts and axle snout seals

## Wide 5 Steel Tube

Available in centerless ground .188, .250, .625, .750" wall DOM Steel. Specify B measurement - length from bearing step to end of tube. Plug welded snout. **TwsW5 ##QCB**



**QCC0231** wide 5 aluminum locking hub nut kit

## Wide 5 Aluminum Tube

T6061 Aluminum black anodized

**B measurement-** Measure from bearing step to end of tube



**QCC0050-32** for 32" axle - B measurement 20.5"

**QCC0050-33** for 33" axle - B measurement 21.5"

**QCC0050-34** for 34" axle - B measurement 22.5"

**QCC0050-35** for 35" axle - B measurement 23.5"

**QCC0050-36** for 36" axle - B measurement 24.5"

**QCC0050-CTL** we cut to your B measurement

# Replacement Parts for Quick Change Rear Ends

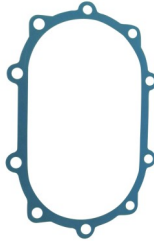


**9" OD Quick Change Ring & Pinion** (only for crate motors)  
 Reduce rotating weight without converting to a weaker 8" OD quick change. Installs in your standard 10" rear. Specify Ratio.  
**QC4##R&PLW9**  
**QC4##R&PLW9LOAD**

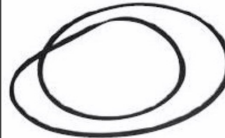


**Forged 1310 Quick Change Yoke** 10 spline, use with u-bolts. Does not use spacer. Forged to be stronger than cast.  
**QCC0090** QC yoke  
**QCC0090** QC yoke LONG  
**QCC0116K** yoke bolt and washer  
**N1-0089L** 1310 u-bolts, pair

**Rear Cover Stud**  
**QCC0113** one piece  
**QCC0113K** 10 piece



**RearCover Gasket** for 10 bolt quick change flat cover, sprint style.  
**QCC0104** HD with steel core  
**QCC0105** paper composite



**Side Bell O-Ring**  
 Thin square fits PEM, DMI and Winters Sprint Center.  
**QCC0118**



**Plugs with O-Ring**  
**QCC0114K** back cover (2 needed) and passenger side fill level plug  
**QCC0115K** center section plug  
**QCC0128K** passenger side bell inspection plug



**Heat Treated Lower Shaft** fits PEM, Winters and DMI quick change, 10 spline.

**QCC0060** heat treated solid lower shaft, 10 spline  
**QCC0061** gundrilled heat treated lower shaft, 10 spline  
**QCC0120** snap ring for lower shaft

**QCC0103**  
**Posi Lock Pinion Nut** right hand thread.



Aluminum Locking Nut for Pinion with RH thread. Fits full size 10" rear end.

**QCC0139K**  
 quick change breather kit, fitting and hose



**QCC0131/0132K Threaded Ring Gear Bolt and Washer Kit** with 3/8-24 thread, 1-1/8" long, Grade 8 hex head steel bolts, 12 bolts and 12 Belleville washers.



**Quick Change Rebuild Kit** with all bearings and seals for PEM and Winters Sprint Center Rear.



Fits standard pinion (not spread pinion). Choose standard or big bearing cover.

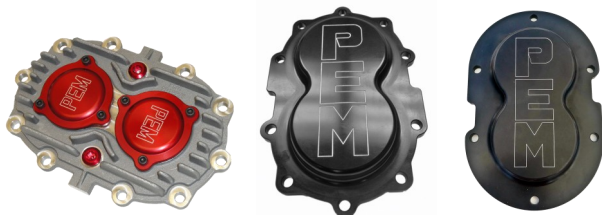
**QCCRBK 2.032"**  
**QCCRBK BBC 2.032"**



**QCC0232K** Top GM Metric Bolt on Mount for Quick Change Rear End

- 1979-1987 GM Midsize Chassis
- 4 degrees down pinion angle

**Rear Cover Assembly with bearings installed**  
**QCC0040K** cast with caps and standard bearings  
**QCC0040B BBK** black billet big bearing cover  
**QCC0040B BB6B-K** 6 bolt billet big bearing cover



**Aluminum Tall High Nuts** for Sprint Style Flat Rear Cover.  
**QCC0119** one piece  
**QCC0119K** 10 piece kit



**Aluminum Short Nuts** for Sprint Style Flat Rear Cover.  
**QCC0150** one piece  
**QCC0150K** 10 piece kit





## Assembled Center Sections



**CSMS** 9 inch Ford with mini spool. New PEM nodular iron case, pinion support, yoke and competition ring & pinion with steel mini spool (28 or 31 spline).



**CSFS** 9 inch Ford with full steel spool. All New with PEM nodular iron case, pinion support, yoke and competition ring & pinion with steel lite full spool (28 or 31 spline). All new assembly.



**CSFSXLW** 9 inch Ford Xtreme Gear with full steel spool and PEM nodular iron case and pinion support. Xtreme Gear offset ring & pinion, steel spool (28 or 31 spline). All new assembly.

**CSTL** 9 inch Ford street with trac loc and PEM nodular iron case and pinion support, US Gear ring & pinion, trac loc clutch style differential (28 or 31 spline) and premium bearings. All new assembly.



**Ratios available:** 3:25 thru 5:29.

**Specify:** 1310 short narrow, 1330 short wide or 1330 long wide.

**Open differential available.**

### “Brute” Nodular Iron Center

**Section** with steel spool, nodular iron case and Daytona support 8620 ring & pinion, steel spool in 28, 31, 33, 35 or 40 spline. All new assembly.

**Ratios Available:** 3.25 thru 7.33.

Optional Aluminum Daytona Support



### “Brute” Nodular Iron Drag Race

**Center Section** with steel spool (28, 31, 35 or 40 spline), 9310 PRO ring & pinion, nodular iron case and Daytona support. All new assembly.

**Ratios Available:** 3.50 thru 4.88.

Optional Aluminum Daytona Support

### Drag Race Yukon Gear Aluminum Bolt Thru 3.25” Carrier Bearing Case

with 10 bolt pinion support, steel spool (35 or 40 spline) and 9310 PRO 35 spline ring & pinion, billet chrome moly yoke and premium bearings. All new assembly.

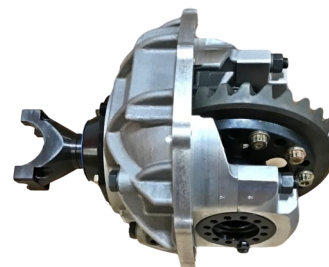
**Ratios Available:** 3.50 thru 4.57.



### Yukon Gear Aluminum Bolt Thru 3.25” Carrier Bearing Case

with 5 bolt aluminum Daytona pinion support. Standard 8620 28 spline ring & pinion, steel spool (28, 31, 33, 35 or 40 spline), billet chrome moly yoke and premium bearings. All new assembly.

**Ratios Available:** 3.25 thru 7.33.



#### Options:

- CSO1000** REM Finish ring & pinion
- CSO1100** REM Finish bearings and races for center section
- CSO1200** Additional lightening of ring gear
- CSO1300** Upcharge for 35 spline spool FS35SB for 2.89 carrier bearing
- CSO1400** Upcharge for drag spools (28 or 31 spline)
- CSO1450** Upcharge for scalloped LW Spools (28 or 31 spline)

- CSO1500** Upcharge for Ford 9” cast Daytona pinion support
- CSO1600** Upcharge for aluminum Daytona pinion support
- CSO1700** Upcharge to install 1330 long wide yoke
- CSO1800** Upcharge to install 1350 forged yoke
- CSO1900** Upcharge - US Gear 8620 ring & pinion – ratios 3.25 thru 5.29

# Ring & Pinions



## Xtreme Gear 9 inch Ford Ring & Pinion

8620 steel

**Ratios Available:** 4.11, 4.30, 4.56, 4.64, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 5.67, 5.83, 6.20, 6.33 and 6.50.



## Xtreme Gear 9310 PRO 35 Spline Pinion

9" Ford Ring & Pinion Ratio Available:

4.29

Spools in 35 and 40 spline.

**Xtreme Gear Requires matching offset pool**



## STG.... US Gear 9 inch Ring & Pinion 8620 steel

**Ratios Available:** 3.25, 3.50, 3.70, 3.89, 4.11, 4.30, 4.56, 4.71, 4.86 and 5.14.

## US Gear 9 inch 9310 Pro 35 spline Ring & Pinion

**Ratios Available:** 3.40, 3.50, 3.60, 3.70, 3.89, 4.11, 4.29, 4.57 and 4.86.

## US Gear 9 inch 9310 Pro 28 spline Ring & Pinion

**Ratios Available:** 5.14, 5.29, 6.00, 6.20, and 6.50.



US Gear sets the standard for high-quality gear sets. Racing professionals and performance enthusiasts have trusted US Gear products for more than 40 years. These gear sets are manufactured in the United States to the highest material and process standards. They are all made with pride in America's heartland!



## 9 inch Ford Ring & Pinion

8620 steel

**Ratios Available:** 3.50, 3.70, 3.89, 4.11, 4.30, 4.56, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 5.67, 5.83, 6.00, 6.20, 6.33 and 6.50.

## 9 inch Ford Ring & Pinion New Ratios Available:

**5.37, 5.50 and 6.14**

## Lightweight 9 inch Ford Ring & Pinion

New Ratios Available:

**5.37, 5.50 and 6.14**

## Lightweight 9 inch Ford Ring & Pinion

8620 steel

**Ratios Available:** 3.50, 3.70, 3.89, 4.11, 4.30, 4.56, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 5.67, 5.83, 6.00, 6.20, 6.33, 6.50, 6.66, 6.83 and 7.00.



## GM 7.5 inch Ring & Pinions

**Ratios Available:** 3.42, 3.73, 4.10 and 4.56.

## GMRGSK 7.5" Ring Gear Spacer Kit with bolts.



## GM 8.5 inch Ring & Pinions

**Ratios Available:** 3.08, 3.42, 3.73, 4.10 and 4.56.

## Ford 8.8" inch Ring & Pinions

**Ratios Available:** 3.55, 3.73 and 4.10.



All GM ring & pinions we stock are for cars and have the narrow ring gear.

# Spools, Mini Spools and Spindles



**Lite 9 inch Ford Spool**  
The industry standard for dirt track racing.  
1.78" journal size  
**FS28** 6.25 lbs. 28 spline  
**FS31** 6.05 lbs. 31 spline



**Drag Spool 9 inch Ford**  
strong tapered body.  
1.78" journal size  
**FS28DS** 8.55 lbs. 28 spline  
**FS31DS** 8.30 lbs. 31 spline



**Scalloped LW 9 inch Ford Spool**  
9 inch Lightened in the ring gear bolt pattern.  
1.78" journal size  
**FS28LW** 6.00 lbs. 28 spline  
**FS31LW** 5.85 lbs. 31 spline



**Drag Spools 9 inch Ford**  
1.78" journal size  
**FS933LW** 33 spline  
**FS35SB** 35 spline  
2.00" journal size  
**FS35LB** 35 spline  
**FS940LW** 40 spline



**Ford 8.8 inch Spool**  
**FS8831** Ford 8.8" 31 spline spool for upgrading your 8.8" to 31 spline.



**GM Spools**  
**FS1230** 30 Spline 12 Bolt GM Spool 8.5" 10 bolt GM  
**FS8530** 8.5" 10 bolt 30 Spline  
\* All our GM spools fit Car rear ends, not trucks.



**Chrysler Spool**  
**FS87530** 8.75" Chrysler Full Spool 30 spline.



**9 inch Ford Mini Spool**  
**MS928** 28 spline  
**MS931** 31 spline  
**MSCP** cross pin .750" OD



**Dana Spools**  
**FSD4430** Dana 44 Full Spool 30 spline. Ratio 3.92 and higher ratios.  
**FSD6035** Dana 60 Full Spool 35 spline. Ratio 4.56 and higher ratios.



**4 piece Mini Spools**  
**MS1230** 12 bolt GM 30 spline  
**MS7526** 7.5 GM 26 spline  
**MS7528** 7.5 GM/Ford 28 spline  
**MS8528** 8.5 GM 28 spline  
**MSD44-30** Dana 44 30 spline

## Dana 44/60 Front Spindles

**SpD4473-76.5** Dana 44 Large Bearing 73-76.5 Chevy and GMC 1/2 ton, K10 pick up, K5 Blazer, Jimmy and Suburban, 74-76 Jeep Wagoneer and Cherokee, 66-77 Ford Bronco

**SpD44L77-87** Dana 44 Late 77-87 Chevy and GMC 1/2 ton K10 pick up, K5 Blazer, Jimmy and Suburban, Corporate 8 1/2", 88-91 Chevy Blazer, Suburban, and GMC Jimmy

**SpD60** Dana 60 GM/Dodge 1 ton truck



## Dana60DF

Front Drive Flange Kit with 35 spline drive slugs

- Replace Locking Hubs
- Fits Dana 60 Front Axles (not super duty)



## Ford Trac Loc and Trac Loc Rebuild Parts



### Ford Trac Loc Unit

OEM style with a stronger forged steel hat. Complete new unit assembled at our plant with USA manufactured clutch friction materials. 1.78" journal size.

Available in 8 inch Ford and 9 inch Ford.

- F8TracLoc 28 spline** 8 inch Ford
- F8TracLoc 31 spline** 8 inch Ford
- F9TracLoc 28 spline** 9 inch Ford
- F9TracLoc 31 spline** 9 inch Ford

*These units require a bottle of friction modifier in the lube.*

### TL Rebuild Kits fit both 8" & 9" Ford

**F9TracLoccset** 9 piece clutch set

**F9TracLocReBKit** basic rebuild kit includes; clutch set, springs, guides, housing gasket and friction modifier

**F9TracLocRK28** complete internal kit 28 spl.

**F9TracLocRK31** complete internal kit 31 spl.

**F9TracLocHAT** forged hat only, replaces OEM cast hat on a stock Ford unit



## 9 inch Ford Rear End Bearing and Installation Kits



### 9 inch Ford Install Kit

with ring & pinion bolts, 5 hole support shims, o-ring, seal, pinion nut and housing gasket.

**F9IK** with crush sleeve

**F9IK SS** with solid pinion

### 9 inch Ford Deluxe Install Kit

with pinion bearings and races, seal, pilot bearing, ring & pinion bolts, 5 hole support shims, o-ring, pinion nut and housing gasket.

**F9DIK** with crush sleeve



### 9 inch Ford Bearing Kit

with pinion bearings and races, carrier bearings and races, pinion seal and pilot bearing.



**F9BK1625ID2891ODPremium**

1.625 ID 2.891 OD premium bearings

**F9BK1781ID2891OD** 1.781 ID 2.891 OD neutral bearings

**F9BK1781ID2891ODPremium** 1.781 ID 2.891 OD premium bearings

### Ring & Pinion Kit

with 5 hole support shims, o-ring, pinion nut and housing gasket.



**F9RPKCS** with crush sleeve

**F9RPKSS** with solid spacer



**HH7162034G8K**

3/4" ring gear bolt, 10 pc kit

### 9 inch Ford Solid Pinion Spacer Kit with shims

**F9SPSK** solid spacer with 5 shims

**F9SPSKL** longer spacer for Daytona Support with 5 shims

**F9SPSK35** adjustable 2 piece spacer for large 35 spline pinion with 6 shims



### Daytona Pinion Support Kits



**F9PSSBRK** Daytona pinion bearings, races, seal, o-ring and solid spacer kit

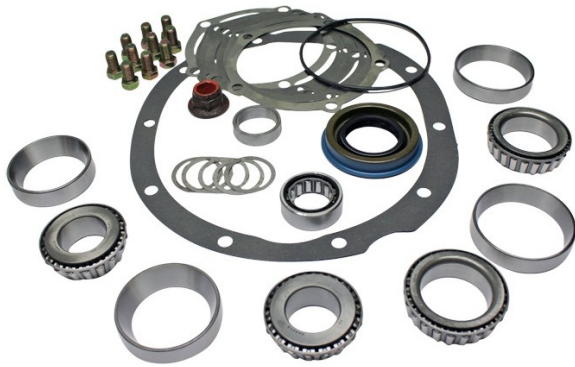
**F9PSLBRK** large pinion bearings, races, seal, o-ring and adjustable 2 piece spacer kit for large 35 spline pinion



# Bearings and Complete Install Kits

## 9 inch Complete Install Kits Neutral Brand

All kits include; bearings, races, ring gear bolts, pinion seal, pilot bearings, o-ring, pinion nut, housing gasket and support shim pack.



**PEM1** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM2** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM3** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

**PEM4** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

## 9 inch Premium Complete Install Kits

Premium Koyo or Timken bearings and races (depending on the size). All kits include; bearings, races, ring gear bolts, pinion seal, pilot bearings, o-ring, pinion nut, housing gasket and support shim pack.

**PEM1 Premium** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM2 Premium** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with crush sleeve

**PEM3 Premium** F9BK1781ID2891OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

**PEM4 Premium** F9BK1781ID306OD, F9RPKCS, HH7162034G8K with solid pinion spacer kit

**PEM5 Premium** F9BK1781ID3060OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support

**PEM6 Premium** F9BK2001ID3250OD, F9SPSP35, HH7162034G8K fits large 35 spline Pinion Support

**PEM7 Premium** F9BK200ID3250OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support

**PEM8 Premium** F9BK1781ID2891OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support

**PEM9 Premium** Complete Bearing Install Kit for 3.25" case, 2.89" carrier bearings, 31 spline & Daytona support with PRace adaptor races

**PEM10 Premium** F95BK2.25ID3250OD, F9SPSP35, HH7162034G8K fits D 3.812, 35 spline pinion support

**PEM11 Premium** Complete Bearing Install Kit for 3.25" case, 2.89" carrier bearings, stock pinion support with

## Premium Bearings and Races

**KHM89410** Daytona pinion support rear race

**KHM89443** Daytona pinion support rear bearing

**KLM102910** 1.781" ID x 2.891" OD carrier race

**KLM102949** 1.781" ID x 2.891" OD carrier bearing

**KLM104911** 2.00" ID x 3.250" OD race

**KLM104949** 2.00" ID x 3.250" OD bearing

**KLM603011** 1.781" ID 3.062" OD race

**KLM603049** 1.781" ID 3.062" OD bearing

**KM88010** stock pinion race

**KM88048** stock pinion bearing

**T2729** 35 spline pinion front race

**T2788** 35 spline pinion front bearing

**T2790** conversion for 35 spline to 28 spline pinion bearing

Brand Indicator: K- Koyo, T- Timken, P- Neutral

## Premium Bearings and Races Continued

**KHM804810** 35 spline pinion rear race

**THM804846** 35 spline pinion rear bearing

**TLM501310** 1.625" ID x 2.891" OD carrier race

**TLM501349** 1.625" ID x 2.891" OD carrier bearing

## Neutral Brand Bearings and Races

**PHM89410** Daytona pinion support race rear

**PHM89443** Daytona pinion support bearing rear

**PLM102910** 1.781" ID x 2.891" OD carrier race

**PLM102949** 1.781" ID x 2.891" OD carrier bearing

**PM88010** stock pinion race

**PM88048** stock pinion bearing

**BA1535TAV** pilot bearing

**PRace** adaptor race for carrier bearing (3.250" to 2.891")



# 9 inch Ford Aftermarket Cases and Pinion Supports

## PEM BRUTE 3.25" Nodular Iron 9 inch Ford Case

36 lbs. for extreme duty drag racing and off road applications.



**DHNI3250** 3.250" carrier bearing size

## PEM Nodular Iron 9 inch Ford Case

29 lbs. standard weight case for street performance and circle track racing.

### DHNI3250

3.250" carrier bearing size

### DHNI3250

3.062" carrier bearing size



## 3.25" Aluminum Bolt Thru 9 inch Ford Case

Yukon 3.250" carrier bearing size bolt thru aluminum case for drag racing and other heavy duty applications.

### DHA3250BTCY

3.250" carrier bearing size



## PEM Aluminum 9 inch Ford Case

Aluminum case for limited applications.

**DHA3250** 3.250" carrier bearing size

**PRace** adaptor race carrier bearing (3.250" to 2.891")



## PEM Stock Style Pinion Support

**F9PSCStock** new nodular iron pinion support for stock size bearings



## 9 inch Daytona 5 bolt Pinion Supports

Aluminum or Iron for 28 spline pinions.

**F9PSSB** aluminum Daytona pinion support

**F9PSSBR** above with races installed

**F9PSLB** aluminum large bearing support

**F9PSLBR** above with races installed

**F9PSCD** nodular iron Daytona pinion support

**F9PSCDR** above with races installed



## Aluminum 10 Bolt 35 spline Pinion Support

Fits PEM, Moser and Yukon Cases with 10 bolts; for PRO large pinion shaft.

**F9PS3510** bare support

**F9PS3510SP** 6 pc shim pack only

**F9PS35 Stud Kit** 10 pc kit includes; 10 studs with washers and nuts, (5 of 7/16" & 5 of 3/8")

**F9PS3510Kit** Ford 9 inch alum. 10 bolt pinion support (no races) with 6 pc shim pack and stud kit



# Rear End Yokes

## Ford 9 inch Yokes



**YF91310-2** cast steel 1310 28 spline series 4" tall with dust shield

**YF91330** cast 1330 Cleveland series (3 5/8" wide x 1 1/8" cap) 4" tall with dust shield

**YF91330Long** cast 1330 Cleveland series (3 5/8" wide x 1 1/8" cap) 5" tall with dust shield

## Ford 9 inch Forged Yokes



**YF91310S** forged 1310 series 4" tall (shown)

**YF91310S Day** forged 1310 series 4" tall, cut for Daytona support

**YF91330S** forged (3 5/8" wide x 1 1/8" cap) 1330 Cleveland series 4" tall with dust shield

## 1350 9 inch Ford Forged Yokes



**YF9135028** 28 spline 1350 series (3 5/8" wide x 1 3/16" cap) with dust shield

**YF9135035** large pinion 35 spline 1350 series (3 5/8" wide x 1 3/16" cap)



## 1350 9 inch Ford Billet Yokes



**YF9135028B** 28 spline 1350 series (3 5/8" wide x 1 3/16" cap)

**YF9135035B** large pinion 35 spline 1350 series (3 5/8" wide x 1 3/16" cap)

*Machined from 4140 Chrome-Moly*

## Chrysler 8.75 inch Yokes



**Y875-7290** 29 spline 7290 series (3 5/8" wide x 1 1/8" cap)

**Y875-1350** 29 spline 1350 series (3 5/8" wide x 1 3/16" cap)

## Dana 60 Yoke

**YD601350** 29 spline 1350 series (3 5/8" wide x 1 3/16" cap)



**All rear end yokes on this page use u-bolts, not straps for u joint retention.**

## Ford 8.8 inch Yokes



**YF881330** 1330 Cleveland series (3 5/8" wide x 1 1/8" cap) with dust shield

**YF881350** 1350 series (3 5/8" wide x 1 3/16" cap) with dust shield



## GM Forged Yokes



**YC121350** 1350 series 30 spline GM 12 bolt (3 5/8" wide x 1 3/16" cap)

**YGM1350** 1350 series GM 8.5 inch 10 bolt (3 5/8" wide x 1 3/16" cap)

## Aluminum Rear Yoke Girdles

**G1310K** 1310 series with aluminum caps and hardware

**G1350K** 1350 series with aluminum caps and hardware



## U Bolts for Rear End Yokes

**N1-0089L** 1310 series 1 1/16" cap

**S3-94-18X** 1350/1410 series 1 3/16" cap

**N1-0189** 1330 Cleveland series 1 1/8" cap



## Ford 9 inch Yoke Repair Sleeve

**YF9SS** presses on 28 spline 9 inch Ford yoke and repairs worn seal area



# Transmission Slip Yokes and U Joints

## Quick Release 1350 Slip Yokes

CNC machined and heat treated 4140 steel forgings for greater strength. They feature a "Quick Release" cap design and the seal surface is specially ground to a 16 micro finish for a perfect fit.



Manufactured in the USA.

- INSY-350-1350Q** fits TH350, PG, 700R, 4L60E GM
- INSY-400-1350Q** fits TH400, 4L80E GM 32 spline
- INSY-727-1350Q** fits NP833, 727, Liberty, Doug Nash and Richmond 5 Speed Chrysler
- INSY-904-1350Q** fits A904, Small NP833, 4SPD Chrysler
- INSY-AOD-1350Q** fits 4R70LW and Ford AOD 28 spline
- INSY-C4-1350Q** fits C4 & T5 Ford 28 spline
- INSY-C6-1350Q** fits C6 & Tremec Ford 31 spline

## OEM Style Cast Slip Yokes

- S2-3-6081X** 1310 GM Slip Yoke 5.50" 27 spline
- S3-3-4281X** 1350 GM Slip Yoke 6.938" 27 spline
- N2-3-10431X** 1310 GM Slip Yoke 5.50" 32 spline
- N3-3-2431X** 1350 GM Slip Yoke TH400 x 5.50"
- N2-3-4871** 1310 Ford Slip Yoke 6.03" 28 spline
- N2-3-15631X** 1310 Ford Slip Yoke 7.00" 31 spline

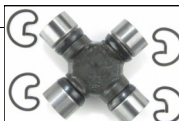


- INSY1330-351** 1330 GM Slip Yoke 6.8" 27 spline
- S2-3-5981X** Ford 1330 Slip Yoke 28 spline fits AOD, C4 and T5 5.97" Long x 1.497" Seal Diameter
- S2-3-6041X** Ford C6/T45 Slip Yoke 6.03" 31 spline

## NEAPCO Conversion U Joints

- N1-5349** 1310/1330 Cleveland greaseable conversion 3 7/32" x 1 1/16" to 3 5/8" x 1 1/8" cap
- N3-3130** 1310/3R GM Metric conversion
- N2-4900** 1330/1330 Cleveland conversion(1 1/8" cap)
- N2-3050** 1330/1350 greaseable conversion 3 5/8" x 1 1/16" to 3 5/8" x 1 3/16" cap
- N2-4953** 1350/Cleveland greaseable conversion 3 5/8" x 1 3/16" to 3 5/8" x 1 1/8" cap
- N2-1569** 1330/3R greaseable conversion
- N2-1153** 1350/3R greaseable conversion
- N2-1435** 1350/1410 solid cross conversion
- N3-3140** 1310/1350 greaseable conversion

**S5-134X** 1310/1330 solid cross 3 7/32" x 1 1/16" to 3 5/8" x 1 1/16" cap



## NT Series Black Chrome Moly Forged Yokes

Manufactured in the USA.



- N T2-3-6081HP** 1310 - PG TH350 5.5" 27 spline
- N T2-3-10431HP** 1310 - TH400 5.5" 32 spline
- N T2-3-13131HP** 1310 - TH400 4.88" 32 spline
- N T2-3-4871HP** 1310 - C4 and T5 6.0" 28 spline
- N T2-3-8251HP** 1310 - C4 and T5 6.5" 28 spline
- N T2-3-5981HP** 1330 - C4 and T5 5.91" 28 spline
- N T2-3-6041HP** 1330 - C6 6.0" 31 spline
- N T2-3-10831HP** 1330 - TH400 6.76" 32 spline
- N T3-3-2491HP** 1350 - C6 & Tremec 6.44" 31spline
- N T3-3-14061HP** 1350 - 4R70W 6.63" 28spline
- N T3-3-8251HP** 1350 - C4 6.5" 28 spline
- N T3-3-4281HP** 1350 - PG TH350 6.94" 27 spline
- N T3-3-6081HP** 1350 - PG TH350 5.5" 27spline
- N T3-3-5551HP** 1350 - TH400 7.94" 32spline
- N T3-3-2431HP** 1350 - TH400 5.5" 32 spline
- N T3-3-6081H** 1350 - PG TH350 27 spline for roller bearing tail housing
- N T2-3-6081HP8XL** 1310- for circle track dirt racing—extra clearance 8" center to end

## YSYXL8F

Forged 8 inch Extra Travel Transmission Slip Yoke for Dirt Track Racing. 1310 series with 27 spline for Bert, Brinn, and Falcon racing transmission.



## YSYXL8-2

Forged 8 inch Extra Travel Transmission Slip Yoke for Dirt Track Racing. 1310 series with 27 spline for Bert and Brinn racing transmission.

## SPICER U Joints



- S5-1310X** 1310 solid cross 3 7/32" x 1 1/16" cap
- S5-1330X** 1330 solid cross 3 5/8" x 1 1/16" cap
- S5-1350X** 1350 solid cross 3 5/8" x 1 3/16" cap
- S5-1410X** 1410 solid cross 4 3/16" x 1 3/16" cap
- S5-811X** 7290 solid cross 2 5/8" ID x 1 1/8" cap
- S5-153X** 1310 greaseable 3 7/32" x 1 1/16" cap
- S5-213X** 1330 greaseable 3 5/8" x 1 1/16" cap
- S5-178X** 1350 greaseable 3 5/8" x 1 3/16" cap
- S5-160X** 1410 greaseable 4 3/16" x 1 3/16" cap

## Strap Kits for Rear End Yokes



- N1-0022** 1 1/16" cap 1310/1330 with 5/8" bolts
- N1-0024** 1 1/16" cap 1310 with 1 1/2" bolts
- N1-0019** 1 3/16" cap 1350/1410 with 3/4" bolts



## Steel Drive Shafts

### 2.0" Steel Drive Shaft with Greaseable Spicer U Joints

2.0" OD x .065" wall CHROME MOLY Drive Shafts

- Great for crate engine racers
- 2.0" OD x .065" wall
- Up to 33" length

DS-2-###-065MJ with 1310 series u joints

DS-2-###-065M-800 with 8.0" extra clearance yoke with 1310 series u- joints, balanced assembly

Specify center to center u joint length in inches, up to 33" c to c.



These lightweight chrome moly shafts are only to be run with limited HP engines.

2.0" OD x .083" wall DOM Drive Shaft

Available with 5.5" or

8" long extra clearance transmission slip yoke

DS-2-###-083J with 1310 series u joints

DS-2-###-083-550 5.5" yoke with 1310 series u joints

DS-2-###-083-800 8.0" yoke with 1310 series u joints

Specify center to center u joint length in inches.

Econo 2.0" OD x .120" wall DOM Drive Shaft

Available with 5.5" or

8" long extra clearance transmission slip yoke

DS-2-###-120J 1310 series u joints

DS-2-###-120-550 5.5" yoke with 1310 series u joints

DS-2-###-120-800 8.0" yoke with 1310 series u joints

Specify center to center u joint length in inches.

**All Drive Shafts Manufactured in house at PEM.**

2.5" OD x .083" wall DOM Drive Shaft

DS-25-515-083J 1310 series u joints

DS-25-515-083-550 1310 series with 5.5" 27 spline slip yoke

DS-25-525-083J 1310 series u joints

DS-25-525-083-550 1310 series with 5.5" 27 spline slip yoke

Other lengths available.



**CUSTOM Steel Drive Shafts Available**

- Specify tubing 1 3/4" to 5.00" OD
- Specify length
- Specify u joint size: 1310, 1330, 1350, 1410, or 1480
- Specify slip yoke

Custom Order Form on page 37



**REMEMBER TO ORDER YOUR DRIVE SHAFT WITH A SLIP YOKE SO YOU GET A BALANCED ASSEMBLY!**

Chrome Moly 1350 series Drive Shaft for Drag Racing and Exteme Loads

- 3.0" OD x .083" wall Chrome Moly
- 3.5" OD x .083" wall Chrome Moly
  - Tig welded
  - Chrome moly weld yokes
  - Specify length
  - Specify outside diameter
  - Specify slip yoke
  - 1350 Spicer solid u joints



Custom Order Form on page 37

Chrome Moly with Spicer Ends

- 3.0" OD x .083" wall Chrome Moly
- 3.5" OD x .083" wall Chrome Moly
  - Tig welded
  - Spicer cast weld yokes
  - Specify Length
  - Specify outside diameter
  - Specify slip yoke
  - 1350 Spicer solid u joints

# Aluminum Drive Shafts

## 3.0" OD X .125" wall Aluminum Drive Shaft 6061 T6

Available with No slip yoke OR choose 5.5" or 8" long transmission slip yoke.

- DSA-3-###-125J** 1310 series greaseable Spicer u joints
- DSA-3-###-125-550** 5.5" 27 spl yoke with 1310 series u joints
- DSA-3-###-125-800** 8.0" 27 spl yoke with 1310 series u joints



Great for  
Dirt Late Models

**Specify center to center u joint length in inches up to 54" c to c.**

## Extreme Duty .125" wall Aluminum Drive Shafts - Drag Racing and Extreme Loads

- 3.5" x .125 wall 6061 T6 Aluminum Tubing up to 72" c to c
- 4.0" x .125 wall 6061 T6 Aluminum Tubing up to 72" c to c
- 5.0" x .125 wall 6061 T6 Aluminum Tubing up to 84" c to c



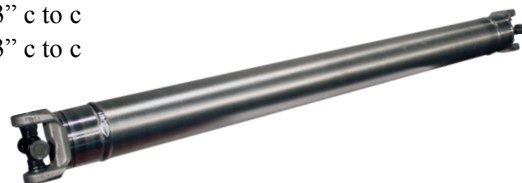
**Custom Order Form on Catalog page 37**

## 3.5" and 4.0" OD Aluminum Drive Shafts - Street Performance and Trucks

- DSA-35-1330J** 3.5" OD x .114" wall with 1330 u joints up to 60" c to c
- DSA-35-1350J** 3.5" OD x .114" wall with 1350 u joints up to 60" c to c
- DSA-40-1350J** 4.0" OD x .087" wall with 1350 u joints up to 73" c to c
- DSA-40-1410J** 4.0" OD x .087" wall with 1410 u joints up to 73" c to c

**Purchase or send your transmission slip yoke and we will build as a balanced assembly.**

**Specify center to center u joint length in inches.**



## Mustang OEM Replacement Aluminum Drive Shafts

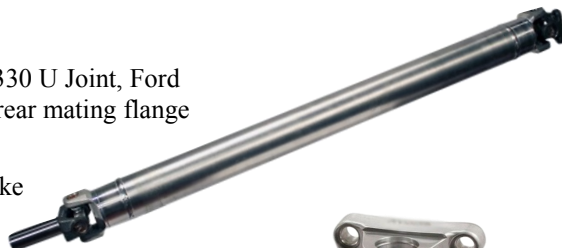
3.5" OD x .114" wall 6061 T6  
1979-1995 Mustang

**DSA-FMS-4602G-28** 45.5" c to c Aluminum Driveshaft, 1330 U Joint, Ford Mustang with 28 spline C4/T5 transmission slip yoke and 8.8" rear mating flange

**DSA-FMS-4602J-31** 45.5" c to c Aluminum Driveshaft, 1330 U Joint, Ford Mustang with 31 spline transmission slip yoke for C6/T45 Tremec and 8.8" rear mating flange

### Upgrades available for Aluminum Mustang Drive Shafts

- N T2-2-949A** 1330 Flange Yoke Aluminum 2" pilot 3 1/2" B.C.
- N T3-2-949A** 1350 Flange Yoke Aluminum 2" pilot 3 1/2" B.C.
- N T3-2-1579A** 1350 Flange Yoke Aluminum 2" pilot 4.25 B.C.



## Camaro and Firebird Aluminum OEM Replacement Drive Shafts

3.0" OD x .125" wall Aluminum 6061 T6

**DSA-6769-400** DS Alum 1967-69 Camaro/Firebird 400, 49 1/2" c to c with 32 spline transmission slip yoke

**DSA-6769-350** DS Alum 1967-69 Camaro/Firebird 350, 49 7/8" c to c with 27 spline transmission slip yoke

**DSA-8200** DS Alum 1982-2000 Camaro/Firebird 00, 41 5/8" c to c with 32 spline transmission slip yoke (specify differential u joint)



## 2.5 inch GN 9 inch Ford Floater Rear Ends



### 9 inch Ford GN Floater Kits

**Housing Kit with New stamped HNF9 center**, solid wide 5 axles, GN LW hubs kits with .810" wide rotors. Specify 28 or 31 spline axles and specify width and offset.

**HN300300** 60" new centered, housing only

**HNK3003004** 60" centered housing kit with 5x4 3/4 hubs

**HNK3003005** 60" centered housing kit with 5x5 hubs

Options for floater housing kits:

- Gundrilled axles
- Installed GM Metric brake brackets (welded)



### 79-87 GM Midsize Metric 9 inch Ford Floater Kit

**Housing kit with NEW stamped HNF9 center**, radius rod mounts installed, solid wide 5 axles, GN hub kits with .810" wide rotors. Specify 28 or 31 spline axles and specify width and offset.

**Now with our standard 4 degrees down.**

**HNM300300** 60" new centered housing only

**HNMK3003004** 60" centered with 5x4 3/4 hubs

**HNMK3003005** 60" centered with 5x5 hubs

Options for GM Metric floater housing:

- Multiple Hole Lower Mounts
- Installed GM Metric brake brackets (welded)

**GN 9 inch Ford and GM Metric Floater Housings are available from 58" to 62".**

**\*\*GM 58" may require grinding for clearance. Custom build form on catalog page 38.**

### Bolt On GM Metric Radius Lower Mounts - pair

#### HMBL B-On

Pair of single hole Bolt-On mounts  
- 3.25" from bottom of tube

#### HMBL Multi B-on

Pair of Bolt-On multi hole mount  
with radiused holes

- Bolt on 3" OD tube
- 2.75" Nesmith measurement available on single hole
- 2.5" measurement available on single hole
- Mounts available separately for repairs



## FLOATER HOUSING AND KIT OPTIONS

**HKO1000** Upcharge for DOM Tubes .250 wall (both sides)

**HKO1100** Centerless Ground Tubes for Floater Housings, Tubing turned to 2.999" to 3.000" OD

**HKO1200-1** Welded On GM Metric Brake Brackets added to any housing installed- includes brackets and labor

**HKO1300** Chrome Moly Tubes 3" OD x .125" wall

**HKO1400** Chrome Moly Tubes 3" OD x .188" wall

**HKO1500-1** Housing New Back Brace for HNF9 includes back brace and labor to install

**HKO1600** Gundrilled Hi Test Axle Option for pair of axles

**HKO1700** Wilwood Spec 37 Rotors upgrade

**HKO1800** REM finish hub bearings & races

**HKO1900** Upcharge to install 5/8th Heavy Tube on left rear

**HKO2000** Upcharge for Multi Hole Brackets - Installed

**HKO2100** Change single hole measurement to Nesmith 2.75"

**HKO2105** Change single hole measurement to 2.5"

**HKO22005** Specify if more than 4 degrees down pinion angle on Metric Housing for dirt racing

**HKO2300** Upcharge for a Round Back Housing

**HKO2401** Upcharge for Cambered Snout, one side, 1 degree, specify Driver or Passenger Side and Pinion Angle

**HKO24015** Upcharge for Cambered Snout, one side, 1.5 degree, specify Driver or Passenger Side and Pinion Angle

**HKO2402** Upcharge for Cambered Snout - one side, 2 degree, specify Driver or Passenger Side and Pinion Angle

**HKO2500** Install Jack ring on bottom of housing

**HKO2600** Upcharge for Locking Nuts- pair

**HKO2800** Upcharge for GN 5x5 Scalloped Drive Flange

# PEM 2.5 inch GN Hubs and W5 Axles

## Grand National 2.5 inch Hub Assembly

### GNHub 5 on 4 75 Kit

5 x 4 3/4" bolt circle with 3.75" long 5/8" coarse screw in studs



### GNHub 5 on 5 Kit

5 x 5" bolt circle with 3.75" long 5/8" press in coarse studs

### GNHub 5 on 5 Kit SS

5 x 5" bolt circle with short 5/8" press in coarse studs

PEM GN 2.5 inch Hub Assemblies have bearings, races installed, lug nuts, long 5/8" coarse wheel studs, rotor bolts, hub seal, lock washer and hardware included. (no hub nut). Short wheel studs available as a special order.



## Wide 5 Double Spline Solid Floater Axle

24 spline outer for drive flange 1541 alloy Induction Hardened for strength

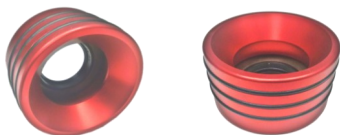
**W5###31** 31 spline axle lengths; 27.5, 28.5, 29.5, 30.5, 31.5, 32.5, 33, 33.5, 34.5, 35 and 36".

*4 inches of inner spline allow these axles to be cut off for other lengths.*

**W5###28** 28 spline axle lengths; 28.5, 29.5, 30.5, 31.5, 32.5, 33.5, 35 and 36"

### F9AXTS3KIT

**Axle Housing Seal Kit** keeps your lube in the center housing instead of the axle tube.



- Ford 9 inch Inner Axle Tube Seal
- Fits 3.0" OD x 3/16" wall rear end tubes
- Seals 28 and 31 spline axles
- Remove spring on seal for 31 spline axles

## 2.5 inch Grand National Hub Parts

**ZGNBL610549** 2.5" GN hub bearing

**ZGNRL610510** 2.5" GN hub race

**GNDFK5x43/4** drive flange kit 5 x 4 3/4 bolt circle

**GNDFK5x5** drive flange kit 5 x 5 bolt circle

**GNDFK5x43/4S** scalloped drive flange kit 5 x 4 3/4 bolt circle

**GNDFK5x5S** scalloped drive flange kit 5 x 5 bolt circle

*All Drive flange kits come with dust cap, o-rings and screws.*

**FHCSD5161812UC** drive flange bolt

**FHCSD5161812UCKit** drive flange bolt 2 piece kit

**GNHBAK** GN hub install kit with bearings, seal, o-ring and lock washer

**GNHSPLE** GN hub double lip seal

**GNSSGN** GN snout seal for GN stepped axle

**GNSSW5** GN snout seal for wide 5 axle

**GNSRH** GN snout RH thread for .188" wall x 3.0" OD tubing

### Cambered GN 2.5" Snouts

**GNSRH-C-1** 1.0 degree

**GNSRH-C-1.5** 1.5 degree

**GNSRH-C-2** 2.0 degree

All Right Hand Thread.

### 2.0" GN Snouts Howe/Vogel Style

**GN Snout HV-1** 1.0 degree

**GN Snout HV-1.5** 1.5 degree

**GN Snout HV-2** 2.0 degree

All Right Hand Thread.



**Tubes and Housings are also available with 2.5" GN Cambered and Howe/Vogel style snouts**

**GNSNRH** GN snout nut RH thread

**GNSNRH-Lock** 2.5" GN locking nut kit. RH thread

**GNLW** GN lock washer

**WSSK** screw in 3.75" long, 5/8" coarse wheel stud, 5 piece kit

**WSS ARPK** screw in 2.5" long, 5/8" coarse wheel stud, 5 piece kit

**WSPK** press in wheel stud 5/8" coarse with flat ground head, 5 piece kit 3.75" long

**WSP LHDK** press in wheel stud 5/8" coarse .690 knurl, 5 piece kit 3.25" overall length



## HNF9 Rear End Center Housing and Weld Parts

### HNF9 9 inch Ford Stamped Center Housing

Designed to be built with 3.0" OD axle tubes (grinding may be required). Fits 9 inch Ford stock case plus 3.062" and 3.25" carriers. It weighs 18 lbs. and is manufactured from .160" mild steel. Manufactured in the **USA**.

**HNBBF9** back brace for HNF9 center housing (has to be modified to fit a stock housing)

**HSF9K** 9 inch Ford housing studs, 10 piece kit



**HNF9RB** smooth back 9 inch Ford stamped center housing. Great for street rods that want the smooth back look!

### 79-87 GM Metric Housing Mounts and Bungs

**HMBUSet** Metric Upper Trailing Arm Mounts without bushings, pair

**HMBUSHSet** metric housing top bushings, pair

**BBMSleeveSSK** Metric Upper Trailing Arm Sleeve with Set Screws(2), pair

**HMBLSET** Standard 3.25" lower 1 hole mounts notched for 3.0" tube, pair

**HMBLSET2.5** 2.5" lower 1 hole mounts notched for 3.0" tube, pair

**HMBLSET2.75** 2.75" Nesmith lower 1 hole mounts notched for 3.0" tube, pair

*These are measured from the bottom of the tube to the center of the single hole. 2.0006, 3.1277, 4.2547 and 5.3635"*

**HMBLMulti** multi hole lower metric brackets, pair

### Housing Fill, Drain Bungs and Plugs

**HDB12** weld bung for 1/2" npt

**HDB34** weld bung for 3/4" npt

**HPP12** pipe plug for 1/2" npt

**HPP34** pipe plug for 3/4" npt



**HFCKit** Housing Fill with aluminum plug, steel bung and oring. 1.625" OD



### Rear End Tube with Snout

- This tube welds in a used or new center housing to make your own floater rear housing.
- 3.0" OD x 188" wall DOM steel tubing
- Custom lengths available

**TwsnoutXX** 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, and 32"



## Flanged 9 inch Ford Housing Ends

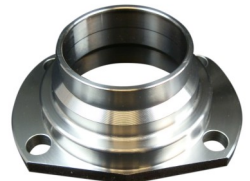
### Big Bearing 9 inch Ford Forged Housing Ends

Manufactured for 3.15" OD Big Ford axle bearing. Made for 3.0" OD x .188" wall tubing

**FlangeAxHE1/2** housing end 1/2" large, older Ford

**FlangeAxHE3/8LM** housing end 3/8" late model Torion

*Dimensions for the housing ends are on the Rear End Custom Order Build Sheet on page 38.*

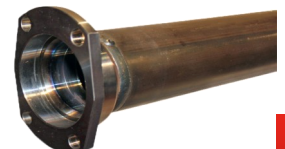


### Rear End Tube with Flange Housing End

- This tube welds in a used or new center housing to make your own rear housing.
- 3.0" OD x 188" wall DOM steel tubing
- 26" measurement end to end total length
- Custom lengths available

**TWFlange26 3/8** 26" long 3.0" OD tube with flange, 3/8" Housing End

**TWFlange26 1/2** 26" long 3.0" OD tube with flange, 1/2" Housing End



# Flanged Axles and Parts

## Cut to Length Flanged 9 inch Ford Big Bearing Axle



**BBL Axle  
Combo Kit  
Shown**

- 1541 Induction Hardened Axle
- 1.565" Bearing journal for Big Bearing
- 5x4.5", 5x4.75" and 5x5" bolt patterns
- .685" drilled holes for press in wheel studs
- 2.5" or 2.375" brake offset
- .500" flange thickness for strength
- 5.94" flange OD
- 3.06" hub register OD (2.78" and 2.875" available)
- Easily cut to length

**FlangeAx28BBL** bare 33.0" long with 9.25" of inner 28 spline (minimum length 26").

**FlangeAx28BBS** bare 29.5" long with 10.0" of inner 28 spline (minimum length 21.5").

**FlangeAx31BBL** bare 33.0" long with 9.25" of inner 31 spline (minimum length 26").

**FlangeAx31BBS** bare 29.5" long with 10.0" of inner 31 spline (minimum length 21.5").

**FlangeAx31BBL Blank** bare 33.0" long with 9.25" of inner 31 spline (minimum length 26"). NO bolt pattern, must be drilled. Blank axle flange 7.0" OD.

**Order as a COMBO KIT with the PA20SET Bearing Installed and Axle Retainer-must specify brake offset and axle retainer required.**



## 35 spline Flanged 9 inch Ford Big Bearing Axle

- 1541 induction hardened axle
- 1.565" bearing journal for Big Bearing
- .685" drilled holes for press in wheel studs
- 8 inches of inner spline
- 2.5" brake offset
- 2.78" hub register OD



**FlangeAx35BBL** bare 31.75" long with 8.0" of inner 35 spline (minimum length 25.75").

**FlangeAx35BBS** bare 29.5" long with 8.0" of inner 35 spline (minimum length 23.5").

**Axle Shown with  
PA20set Bearing  
Installed**

## Flanged Axle Parts

**PA20Set** tapered bearing with race, seal and press on sleeve, 3.15" OD x 1.565" ID

**FlangeAxSpacer BB** flanged axle spacer Big Bearing - spaces offset from 2.375" to 2.5"

**P9134** radial bearing Big Ford with o-ring 3.15" OD x 1.56" ID Drag Racing

**P9132** radial bearing Small Ford with o-ring 2.83" OD x 1.56" ID

**FlangeAR500** flanged axle retainer 1/2" big old style Ford

**FlangeAR375 BB** Flanged Axle Retainer 3/8" Big Bearing Torino

**FlangeAR375 Sm Ford** Flanged Axle Retainer 3/8" Small Bearing 2.81" OD Ford

**T-bolt 1/2Kit** t-bolt 1/2" kit with lock nuts 4 pieces each

**T-bolt 3/8Kit** t-bolt 3/8" kit with lock nuts 4 pieces each



## Press In Wheel Studs - .685" knurl size unless listed

**FlangeAxStud1/2"K BB S** press in short wheel stud 1/2" fine, 5 piece kit 1.875" long

**FlangeAxStud1/2"K BB L** press in long wheel stud 1/2" fine, 5 piece kit 3.0" long 46190

**FlangeAxStud5/8"K Fine2 3/4"** press in wheel stud 5/8" fine, 5 piece kit 2.75" long

**FlangeAxStud GM** press in wheel stud GM 7/16" fine .487 knurl, 5 piece kit 2.125" long (only works with a PEM Blank Axle, which must be drilled)

**FlangeAxStud1/2"-20 x 3.0"** screw in wheel stud 1/2" fine, 5 piece kit includes loc washers, 3.0" long



# Flanged Housing Kits



## 9 inch Ford Flanged Housing Kits

**Flanged Housing Kit with New stamped HNF9 center.** Includes cut to length flanged axles with bearing installed, axle retainers, t-bolt kits and wheel studs.

### Specify;

- Housing end style
- Brake offset needed
- Wheel stud size and length

**FHnk300300-28** 60" centered with 28 spline axles

**FHnk300300-31** 60" centered with 31 spline axles

**FHN300300 new 60" centered, housing only**

Flanged Housings and kits available from 49" to 62" wheel to wheel with standard part numbers.

We do build custom offset housings. Custom Build Form on catalog page 38.

Options for the Flange Housing kits include: cut to length axles, turning the hub register to match your brake rotor

Please note: 60" width on part number is wheel flange to wheel flange with the rear end assembled.



**79-87 GM Midsize Metric Flanged Housing 9 inch Ford housing with NEW stamped HNF9 and radius rod mounts installed.**

**FHNM300300\*** NEW flanged housing 60" centered for metric mounts(27.5"- 27.5") 3/8" housing ends

### Options:

- Multiple radiuses hole lower mounts
- Added pinion angle for Dirt Track Racing

\*Add K to Part Number for Kit with Axles

GM Metric Flanged Housings are available from 58" to 62" with centered pinion.

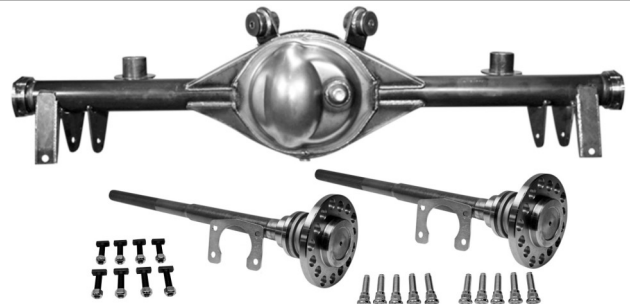
## GM A Body 9 inch Ford Flanged Housing

new stamped HNF9 center housing will all suspension radius arm, spring and shock mounts.

**FHNAB302302SL\*** GM A-Body new flanged housing 60.5" stock location with 3/8" housing ends (28.5-27.5) 1964-67 Chevelle

**FHNAB312312SL\*** GM A-Body new flanged housing 62.5" stock location with 3/8" housing ends (28.5-27.5) 1968-72 Chevelle

\*Add K to Part Number for Kit with Axles



We can build a narrower A-Body housing for wider wheels and tires.

## OPTIONS FOR A FLANGED REAR END HOUSING OR KIT:

**HKO1000** Upcharge for DOM Tubes .250 wall (both sides)

**HKO1400** Upcharge for Chrome Moly Tubes 3" OD x .188" wall

**HKO1500-1** Upcharge for Housing New Back Brace for HNF9 includes back brace and labor to install

**HKO2000** Upcharge for Multi Hole Brackets - Installed

**HKO2200** Add 4 degrees down pinion angle on Metric Housing for dirt racing

**HKO2300** Upcharge for a Round Back Housing

**HKO2700** Upcharge to Fully Assemble a Street Kit

**HKO2800** Upcharge for GN 5x5 Scalloped Drive Flange

# PEM Econo Rear Brake Kits

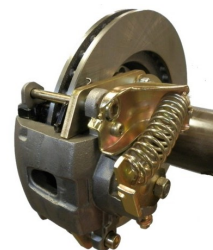


## B-ON DBK-with E

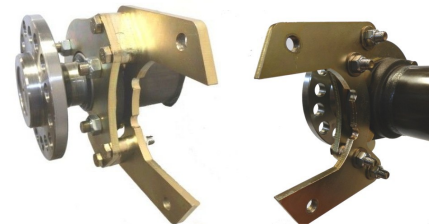
bolt on 9 inch Ford disc brake kit with GM metric emergency brake calipers, pads, mounting bolts and fitting bolts.

### Two sizes available:

- Big Ford fits both sizes of housing ends for a 3.15" OD bearing
- Small bearing fits small Ford housing end for a 2.83" OD bearing



**BCalsp1** GM metric caliper spacer for .810 rotor. Fits 2.045" ID piston.



## B-ON DBK

bolt on 9 inch Ford disc brake kit with standard GM metric brake calipers, pads, mounting bolts and fitting bolts.

### Two sizes available:

- Big Ford fits both sizes of housing ends for a 3.15" OD bearing
- Small bearing fits small Ford housing end for a 2.83" OD bearing

**R810x11750**  
11.75" x .810 vented rotor  
8 bolt x 7" bolt circle for GN hubs



## W-ON DBK with E

weld on 9 inch Ford disc brake kit with GM metric emergency brake calipers.

- Fits up to 3.25" OD axle tube

GM metric emergency brake calipers with D154 disc brake pads, mounting bolts and fitting bolts.

## W-ON DBK

weld on 9 inch Ford disc brake kit with standard GM metric brake calipers.

- Welds on 3" OD axle tube for GN Hubs

GM metric brake calipers with D154 disc brake pads, mounting bolts and fitting bolts.



## Rear Bolt-On Rear Bracket Set

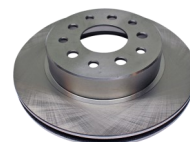
**B-On BracketKit** fits both sizes of big Ford housing ends for a 3.15" OD bearing.

**B-On BracketKit Small Ford** fits small Ford housing end for a 2.83" OD bearing.

*These brackets must be used with a rotor similar to PEM econo rotor on right.*

## R960x11250 Street Rod Rear Brake Rotor

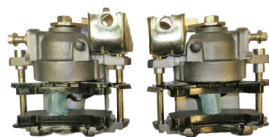
- .960" wide x 11.25" OD
- Dual bolt circle 5 x 4 1/2" and 5 x 4 3/4"
- Brake hat back spacing is 2.25"
- Hub register is 2.78" ID
- 6.25" ID for axle flange
- Rotor hat thickness .250"
- Wheel stud hole size in rotor 5 x 4.5" is 1/2" and 5 x 4 3/4" is 7/16"



*This is the rotor for our PEM econo brake kits.*

## BrakeSet with E

two GM metric emergency brake calipers with D154 disc brake pads, mounting bolts and fitting bolt.



## Drum Brake Kit PEM 9 inch Ford Drum Brake Kit

- 11" ID x 2.75"
- Drum OD is 12.625"
- 2.88" hub register size
- Brake shoes are 2.25" wide
- All new drums, backing plates, brake shoes and hardware



**W-On BMB3125Set** pair of weld on brake brackets for weld on Econo Street Kit, 3.25" tube

**W-On BBMSet** pair of weld on brake brackets for 11.75" x .810" GN racing rotor, 3" tube

### Specify;

- Housing end pattern New Style Big Ford 3/8" Torino
- Wheel bolt pattern 5 x 4 1/2, 5 x 4 3/4, 5 x 5, or 5 x 5 1/2



## Center Section Build Options for Custom Orders



### 9 inch Ford Nodular Iron Center Section

**8620 Ratios Available:** 3.25 thru 7.33.

**9310 PRO Ratios Available:** 3.40 thru 6.50.

- Nodular Iron Case carrier size 2.891", 3.062" or 3.250" BRUTE
- Aluminum Case carrier size 3.062" or 3.250"
- Daytona Pinion Support ( Nodular Iron or Aluminum)
- 1310, 1330 or 1350 series yoke
- Large Aluminum 35 spline pinion support with 1350 series yoke
- Steel Spools in 28, 31, 33, 35 or 40 spline
- Trac Loc available in 28 or 31 spline
- Detroit Lockers available in 31 or 35 spline
- True Trac available in 31 or 35 spline

Set up with street, competition or drag race backlash.

- Option: REM® ISF Microfinishing of ring & pinion, bearings and races
- Option: Lighten Ring Gear

### 9 inch Ford Center Section with 3.25" carrier Aluminum Bolt Thru Case



**8620 Ratios Available:** 3.25 thru 7.33.

**9310 PRO 35 spline Ratios Available:**

Xtreme Gear: 4.29

US Pro Gear large pinion: 3.40, 3.50, 3.60, 3.70, 3.89, 4.11, 4.29, 4.57 and 4.71

US Pro Gear small pinion: 4.86, 5.00, 5.14, 5.29, 5.43 and above

- Yukon Gear 3.25" carrier size aluminum bolt thru case
- Steel Spools in 28, 31, 33, 35 or 40 spline
- Detroit Locker in 35 spline
- True Trac in 35 spline
- Aluminum Pinion support available in 5 bolt for 28 spline pinion or 10 bolt for 35spline pinion
- Option: REM® ISF Microfinishing of ring & pinion, bearing and races
- Option: Cryo Treatment of ring & pinion

**These center sections are custom built to meet your needs. Contact PEM for information and ordering.**

### 9.5 inch Ford Center Section with 3.81" carrier Aluminum Bolt Thru Case

9310 PRO 9.5 inch ring & pinion with 35 spline pinion shaft.

Moser Engineering 3.81" aluminum bolt thru case

10 bolt aluminum pinion support

40 spline spool only

1350 Billet Yoke

Premium Bearings

**Gear Ratios Available**

**Xtreme Gear: 4.11 and 4.29**

**US Gear PRO: 3.40, 3.50, 3.60, 3.70, 3.89, 4.11, 4.29, 4.57 and 4.86**



- Option: REM® ISF Microfinishing of ring & pinion, bearings and races
- Option: Cryo Treatment of ring & pinion

## Rear End Tools

### CLAMSHELL BEARING PULLER KIT

Clamshell carrier bearing puller tool works on most standard size carrier bearings and pinion bearings on differentials including, Dana and Ford rear ends.

Carrier & pinion bearing puller kit for Dana 30, 35, 44, 60, 70, Ford 10.25" & 10.5". **Please note:** will NOT pull pinion bearing on a Dana 80.

- Kit includes: three different size hardened steel clamshells, retaining rings, adjusting collars and handy bench top rack.



**The Clamshell bearing puller is the tool to use if you're setting up ring & pinions or doing general differential repairs. This tool works with an impact gun to quickly and safely remove your bearings while minimizing the risk of damage.**

### CASE SPREADER for DANA and Integral Housing Axles

- **Safely and easily set carrier bearing pre-loads**
- **Works on Dana 30 up thru Dana 80 Housings Please note: does not work on Dana 35 with dowel holes under the cover.**
- **Spreader is NOT compatible with Corvette Housings**



### YOKE HOLDING WRENCH

Helpful wrench used to hold pinion yoke while setting torque. Fits 1210 to 1550 u joint series.



### Axle Bearing Puller Extension

#### Plate Style

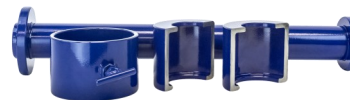
BPAE-PS (Toyota style)



#### Clamshell Style

BPAE-CSS (Ford style)

Use with clamshell bearing puller kit.



### REAR END and TRANSMISSION BENCH YOKE

When assembling differentials, being able to securely position the assembly is essential. The heavy duty steel construction

of the PEM Bench Yoke makes it the perfect tool for assembling and rebuilding center sections. The Bench Yoke rotates so you can work on any side.

Holds a rear center section or a transmission to your bench so you can rotate for service. This is strong and the exact unit we use in our assembly area daily.



## STANDARD WHEEL BEARINGS & RACES

**P18690** W5 outer wheel bearing

**P18620** W5 outer wheel race

**P18790** W5 inner wheel bearing

**P18720** W5 inner wheel race

**P23756** W5 hub seal

**Pwide5Kit** W5 bearing and race kit with seal - for one wheel

**Pwide5KitLocking** W5 bearing and race kit with seal - for one wheel with locking wide 5 aluminum nut

**PL68149** modified hybrid outer wheel bearing

**PL68110** modified hybrid outer wheel race

**PLM12749** modified hybrid inner wheel bearing

**PLM12710** modified hybrid inner wheel race

**P10573-340210** modified hybrid front hub seal

**PLHybrid Kit** modified hybrid bearing and race kit with seal - for one wheel

**PLM12649** GM metric outer wheel bearing for hub with large outer bearing

**PLM12610** GM metric outer race

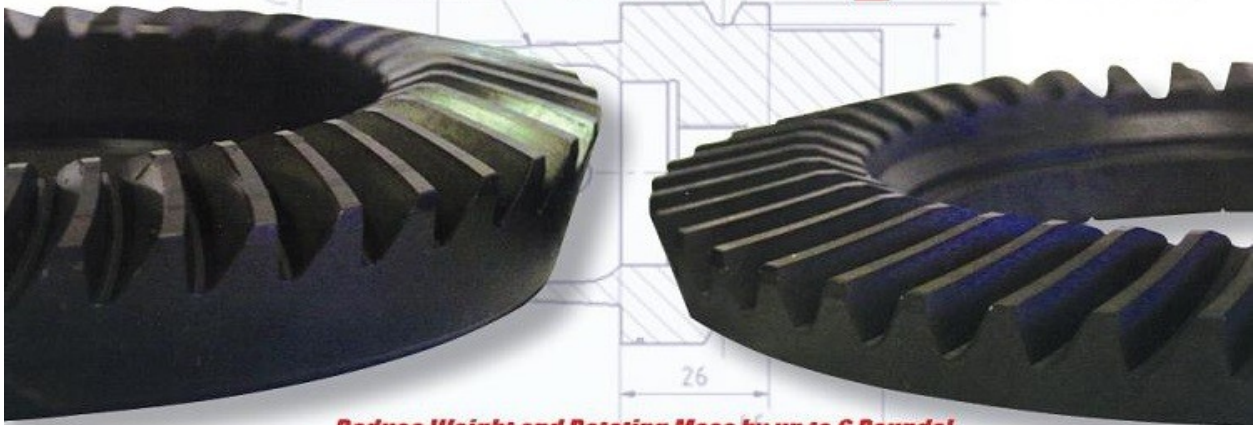
**PLM67048** GM metric inner wheel bearing

**PLM67010** GM metric inner race

**P8871** GM metric front hub seal

**PLMetricKit** GM metric bearing and race kit with seal - for one wheel

# Dare To Compare!



**Reduce Weight and Rotating Mass by up to 6 Pounds!  
Standard Gear Set -vs- Xtreme Gear Set**



## **Xtreme Series from Performance Engineering**

Want to lose up to 6 pounds of rotating weight? Then you need to switch to Performance Engineering's (PEM) **Xtreme Gear** Ford 9" & 9½" ring and pinion sets, lockers and spools. Designed for ultimate strength and durability, PEM's ring and pinion sets provide 3 to 4 times the weight reduction of "chopped" gears without sacrificing durability.

### **Xtreme Gear 8620 Ford 9 inch Ring and Pinion**

**F9/###LW** 8620 9 inch Ford Xtreme series, 28 spline standard size pinion  
**### Ratios available:** 4.11, 4.30, 4.57, 4.63, 4.71, 4.86, 5.00, 5.14, 5.29, 5.43, 5.67, 5.83, 6.20, 6.33 and 6.50.

### **Xtreme Gear 9310 Ford 9 inch Ring and Pinion Sets**

**F9/429BPLW** 4.29 ratio Big Pinion (35 spline)

### **Xtreme Gear 9.5 inch Ford 9310 Ring & Pinion Sets**

**F95/411BPLW** 4.11 ratio Big Pinion (35 spline)

**F95/429BPLW** 4.29 ratio Big Pinion (35 spline)

**F95/SPL40LW** 40 Spline Spool 2.25" journal for 3.812" carrier aftermarket case

### **Xtreme Gear Ford 9 inch Steel Spools**

**F9/SPL28LW** Ford 9 inch 28 Spline 1.78" journal

**F9/SPL31LW** Ford 9 inch 31 Spline 1.78" journal

**F9/SPL35LW** Ford 9 inch 35 Spline 2.0" journal

**F9/SPL40LW** Ford 9 inch 40 Spline 2.0" journal

### **Xtreme Gear Ford 9 inch Locker 31 spline only**

**187N/178AL** Circle Track No Spin Locker Assembly 2.0" journal size for aftermarket 3.25" carrier case

### **Xtreme Gear 9 inch Ford Center Section Lightest rotating weight available**

**CSFSXLW** 9 inch Ford Xtreme Gear with full steel spool and PEM nodular iron case and pinion support. Xtreme Gear 8620 offset ring & pinion, steel spool (28 or 31 spline) and 1310 forged yoke.

Check ratios available.

**All new assembly.**

#### **Options:**

- REM® ISF Microfinishing
- Additional Ring Gear Lightening
- Daytona Pinion Support
- Other Yokes available



# REM® ISF Microfinish

**All REM® ISF Microfinish completed in house at PEM.**

Any time two metal parts come into contact with each other, the resulting friction causes heat build up. These high temperatures cause wear and over time reduce efficiency and eventually create the need for replacement. By creating a smooth and shiny finish, the ISF® Process improves the life and efficiency of moving metal parts. Increased life translates into lower operating costs as well as better performance.

The ISF® Process removes the asperities that are inherent in the manufacturing process. By safely removing these microscopic peaks, the ISF® Process leaves a much more uniform surface that reduces friction and allows for increased lubrication capability. While the dimensional integrity of the part remains intact, the result is an improved component that will operate at lower temperatures, have increased durability, quieter operation and increased time between maintenance.

Please contact PEM for a CN Authorization Number prior to shipping customer owned parts to be REM® ISF Microfinished.

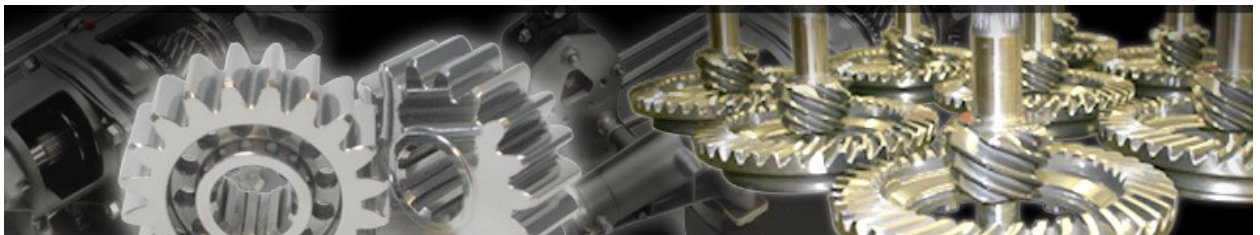
## REM® ISF Microfinishing available on all Ring & Pinions

Up to 10" diameter ring gear. Larger sizes quoted.

- Quick Change Gears for
- Transmission Input or Output Shaft
- Transmission Cluster
- Transmission Gear
- Driveshaft Slip Yoke
- Motorcycle Transmission Internals
- Internal Engine Components
- We will quote Polishing on other parts not listed.
- Quick Turnaround time!



In extreme environments, such as automobile or motorcycle racing, every component must work in harmony at 100% capacity. Races are won and lost by fractions of a second, so it all comes down to getting the most power output possible. With the ISF® Process, the energy normally lost to friction is now available in the form of increased power output. Once friction is reduced, the parts will run cooler allowing for longer durability of parts and fewer failures. To the high performance racing market, Smooth and Shiny means faster and cooler.



REM is a registered trademark of REM Chemicals, Inc. registered in the U.S. Patent and Trademark Office. The ISF®-Process is a chemically accelerated vibratory mass finishing process patented worldwide by REM Chemicals, Inc USA.

# REM ® ISF Microfinished Bearings and Races

## REM ® ISF Microfinished 9 inch Ford Center Section Bearings and Races

REM KHM89410	Daytona pinion support race rear-KOYO
REM KHM89443	Daytona pinion support bearing rear-KOYO
REM KLM102910	1.781" ID x 2.891" OD carrier race
REM KLM102949	1.781" ID x 2.891" OD carrier bearing
REM KLM 104911	2.00" ID x 3.250" OD race
REM KLM104949	2.00" ID x 3.250" OD bearing
REM KLM603011	1.781" ID 3.062" OD race
REM KLM603049	1.781" ID 3.062" OD bearing
REM KM88010	stock pinion race
REM KM88048	stock pinion bearing
REM BA1535TAV	pilot bearing
REM PRace	adaptor race carrier bearing (3.250" to 2.891")
REM T2729	35 spline pinion front race
REM T2788	35 spline pinion front bearing
REM THM804810	35 spline pinion race rear
REM THM804846	35 spline pinion race bearing rear



## REM ® ISF Microfinished GRAND NATIONAL 2.5" HUB BEARINGS & RACES

REM GNHBAK	GN hub install kit with bearings, seal, o-ring and lock washer
REM ZGNBL610549	GN hub race only
REM ZGNRL610510	GN hub bearing only
REM ZGNBRKit	GN Bearing and Race Kit 2 pieces each



## REM ® ISF Microfinished Wide 5 Hub Bearings and Races

REM P18690	W5 outer wheel bearing
REM P18620	W5 outer wheel race
REM P18790	W5 inner wheel bearing
REM P18720	W5 inner wheel race
P23756LD	W5 seal hub LOW DRAG
REM PLMW5KLD	W5 bearing and race kit with Low Drag seal - one wheel
REM PW5KLDLN	W5 bearing and race kit with Low Drag seal - one wheel with locking W5 aluminum nut

## REM ® ISF Microfinished Modified hybrid front Hub Bearings and Races

REM PL68149	modified hybrid inner wheel bearing
REM PL68110	modified hybrid inner wheel race
REM PLM12749	modified hybrid outer wheel bearing
REM PL12710	modified hybrid outer wheel race
REM PLHK	modified hybrid bearing and race kit with seal- one wheel

## REM ® ISF Microfinished GM Metric front wheel Bearings and Races

REM PLM12649	GM metric outer wheel bearing
REM PLM12610	GM metric outer wheel race
REM PLM67048	GM metric inner wheel bearing
REM PLM67010	GM metric inner wheel race
REM PLMK	GM metric bearing and race kit with seal- one wheel

## DAYlube Nano Ceramic Lubricating Grease is a must for REM ISF Finished Wheel Bearings

1 ounce syringe  
16 ounce tube



DAYlube™ is a high performance, highly stable lubricant that delivers unmatched performance, durability and wear resistance. Nano Ceramic particles – the Key component – act as submicroscopic ball bearings that have an affinity for steel, providing continuous lubrication at the surface. These are fabricated over a calcium sulfonate thickener and offer a lower Coefficient of Friction at all temperatures.

# REM ® ISF Microfinished Bearings and Races

## REM ® ISF Microfinished 9 inch Ford Installation Kits



<b>REM PEM1 PREMIUM</b>	F9BK1781ID2891OD, F9RPKCS, HH7162034G8K
<b>REM PEM2 PREMIUM</b>	F9BK1781ID3060OD, F9RPKCS, HH7162034G8K
<b>REM PEM3 PREMIUM</b>	F9BK1781ID2891OD, F9SPSP, F9SPS, HH7162034G8K
<b>REM PEM4 PREMIUM</b>	F9BK1781ID3060OD, F9SPSP, F9SPS, HH7162034G8K for stock pinion support
<b>REM PEM5 PREMIUM</b>	F9BK1781ID3060OD, F9SPSPL, F9SPS, HH7162034G8K fits Daytona support
<b>REM PEM6 PREMIUM</b>	F9BK2001ID3250OD, F9SPSP35, HH7162034G8K fits D 3.250", 35 spline pinion support
<b>REM PEM7 PREMIUM</b>	F9BK2001ID3250OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona pinion support
<b>REM PEM8 PREMIUM</b>	F9BK1781ID2891OD, F9SPSPL, F9SPS, HH7162034G8K fits small Daytona support
<b>REM PEM9 PREMIUM</b>	complete Bearing Install Kit for 3.25" case, 2.891" carrier bearings, 31 spline, small Daytona support and adaptor races
<b>REM PEM10 PREMIUM</b>	F95BK225ID3250OD, F9SPSP35, HH7162034G8K fits D 3.812", 35 spline pinion support
<b>REM PEM11 PREMIUM</b>	complete Bearing Install Kit for 3.25" case, 2.89" carrier bearings, stock support with PRace adaptor races

## REM ® ISF Microfinished Quick Change Rear Ends Bearings and Races

<b>REM P27820OD</b>	quick change pinion race - holds 2 bearings
<b>REM P27880</b>	quick change pinion tapered roller bearing
<b>REM P27880Kit</b>	quick change pinion bearing kit - 2 bearings, race and spacer
<b>REM P362A</b>	quick change race for P368S and P368
<b>REM P368A</b>	quick change 2.000" spool bearing
<b>REM P368S</b>	quick change 2.032" spool bearing
<b>REM PMU1205</b>	quick change pinion support bearing



## REM ® ISF Microfinished 8 " TRANSMISSION SLIP YOKE WITH EXTRA CLEARANCE

<b>REM YSYXLF</b>	extra clearance FORGED 8" slip yoke 27 spline for Bert, Brinn and Falcon transmissions
<b>REM YSYXL8-2</b>	extra clearance 8" slip yoke 27 spline for Bert and Brinn transmissions



## Cryogenic Treatment

Cryogenic Treatment is the process of treating work pieces to cryogenic temperatures (i.e. below -190 °C (-310 °F)) in order to remove residual stresses and improve wear resistance on steels. This is an option when you purchase a ring & pinion or an assembled center section from PEM. Cryogenic Treatment will add approximately 10-14 days to your order.

- Ring and Pinion up to 10" OD
- Quick Change Gear Set
- Valve Springs Set
- We will quote Cryo on other parts not listed.



## PEM Street Kits



### Quick Change Street Kit with a TrueTrac Differential

**STKit QC** Base kit includes Housing and 31 Spline Axles

**STKit QC B** Complete kit includes Housing, 31 spline

axles, Disc Brake Kit and Standard QC gear set

**STKit QC B with E** Complete kit includes Housing, 31

spline axles, Disc Brake Kit with E and Standard QC gear set

**QCCO3000** Upcharge for Polishing

**QCCO3100** Upcharge for Powder Coating

**QCCO3200** Upcharge for Full Assembly



### Hot Rod Ford 9 inch Street Kit

**STKit HR OD** Hot Rod Ford 9 inch New Smooth 49-64" wide Rear End Housing Kit with an Open Differential, 31 spline axles and Disc Brake Kit with E Brake.

**STKit HR TL** Hot Rod Ford 9 inch New Smooth 49-64" wide Rear End Housing Kit with a Trac Loc, 31 spline axles and Disc Brake Kit with E Brake.

**STKit HR TT** Hot Rod Ford 9 inch New Smooth 49-64" wide Rear End Housing Kit with a True Trac, 31 spline axles and Disc Brake Kit with E Brake.



### Muscle Ford 9 inch Street Kit

**STKit M OD** Muscle Ford 9 inch New HNF9 Stamped 49-64" wide Rear End Housing Kit with an Open Differential, 31 spline axles and Disc Brake Kit with E Brake.

**STKit M TL** Muscle Ford 9 inch New HNF9 Stamped 49-64" wide Rear End Housing Kit with a Trac Loc, 31 spline axles and Disc Brake Kit with E Brake.

**STKit M TT** Muscle Ford 9 inch New HNF9 Stamped 49-64" wide Rear End Housing Kit with a True Trac, 31 spline axles and Disc Brake Kit with E Brake.



# PEM Street Kits

## GM G-Body 9 inch Street Kits

**STKit GM G-Body OD** 1978-1987 New HNF9 Stamped 49-64" wide Rear End Housing with an Open Differential, 31 spline axles and Disc Brake Kit with E Brake.

**STKit GM G-Body TL** 1978-1987 New HNF9 Stamped 49-64" wide Rear End Housing with a Trac Loc, 31 spline axles and Disc Brake Kit with E Brake.

**STKit GM G-Body TT** 1978-1987 New HNF9 Stamped 49-64" wide Rear End Housing with a True Trac, 31 spline axles and Disc Brake Kit with E Brake.

**STFHNM290290** 58" GM G-Body Housing Only  
**STFHNM295295** 59" GM G-Body Housing Only  
**STFHNM300300** 60" GM G-Body Housing Only



## GM A-Body 9 inch Street Kits

**STKit GM A-Body OD** 1964-1967 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 60.5" and 1968-1972 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 62.5" wide Rear End Housing with an Open Differential, 31 spline axles and Disc Brake Kit with E Brake.

**STKit GM A-Body TL** 1964-1967 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 60.5" and 1968-1972 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 62.5" wide Rear End Housing with a Trac Loc, 31 spline axles and Disc Brake Kit with E Brake.

**STKit GM A-Body TT** 1964-1967 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 60.5" and 1968-1972 Chevelle, Cutlass, Regal, Lemans, GTO, etc. 62.5" wide Rear End Housing with a True Trac, 31 spline axles and Disc Brake Kit with E Brake.



## Ford 9 inch New Small Web Street Kits

**STKit SmW OD** 49-64" wide Rear End Housing Kit with an Open Differential, 31 spline axles and Disc Brake Kit with E Brake.

**STKit SmW TL** 49-64" wide Rear End Housing Kit with a Trac Loc, 31 spline axles and Disc Brake Kit with E Brake.

**STKit SmW TT** 49-64" wide Rear End Housing Kit with a True Trac, 31 spline axles and Disc Brake Kit with E Brake.



## Drag Ford 9 inch Kits

**STKit Drag Brute** New HNF9 Stamped with Back Brace Rear End Housing 53"-60" wide Kit with a Brute 3.250" Case, 35 spline axles and Disc Brake Kit with E Brake.

**STKit Drag BTC** New HNF9 Stamped with Back Brace Rear End Housing 53"-60" wide Kit with a Yukon BTC 3.250", 35 spline axles and Disc Brake Kit with E Brake.

**SMK-2**

Weld On Main Shock Bracket

**SMK-3**

Weld On Main Bracket for square Back Brace





## PEM JK Replacement, Offroad and CV Style Drive Shafts

- **DS-JK1310F** **Stock** replacement JK/ JKU 07-17 front 1310 greaseable
- **DS-JK1310FK** **Stock** Front JK driveshaft replacement kit includes: transfer case, yoke and greaseable 1310 u joints
- **DS-JK1310R** **Stock** replacement JK rear 1310 greaseable driveshaft
- **DS-JK1310RK** **Stock** Rear JK drive shaft replacement Kit includes: transfer case yoke, differential yokes, hardware and greaseable 1310 u joints
- **DS-JK1310SFK** Front JK driveshaft replacement kit includes: transfer case and differential yokes, with solid 1310 u joints and full spline stub shaft
- **DS-JK1310SRK** Rear JK drive shaft replacement kit includes: transfer case, differential yokes, solid 1310 u joints and full spline stub shaft
- **DS-JK1350F** Front JK driveshaft only, solid 1350 u joints and full spline stub shaft
- **DS-JK1350FK** Front JK driveshaft only includes: transfer case flange, differential yoke, solid 1350 u joints and full spline stub shaft
- **DS-JK1350R** Rear JK drive shaft only includes: solid 1350 u joints and full spline stub shaft
- **DS-JK1350RK** Complete Rear JK driveshaft includes: transfer case flange, differential yoke, solid 1350 u joints, hardware and full spline stub shaft
- **N909365-2600** 1310 CV DS 2" x .120 Tube size ,1.375-16 spline slip and stub max length



## PEM Gear Sets, Spools and Spindles

### Dana Ring & Pinions

**FULL RANGE OF SPICER  
AFTERMARKET GEARS...**

- S2020425** D-44 Ring and Pinion 4.11  
Standard Rotation SVL
- S2020594** D-44 Ring and Pinion 4.56  
Standard Rotation SVL For 1997-2005 TJ

### Spools & Mini Spools

- FSD6030-1** Dana 60 Full Spool 4.56 & Up 30 spline
- FSD6035-6** Dana 60 Full Spool 4.10 and down ratio 35 spline
- FSD6035** Dana 60 Full Spool 35 spline Ratio 4.56 & up
- MSD44-30** 30 Spline Mini Spool for Dana 44
- FSD4430** Dana 44 Full Spool 30 spline 3.92 thru 5.89 ratios
- Full line** of Ford 31/ 35/ 40 spline spools
- FSGM14BTruck** GM14 Bolt Truck 89-67 Full Spool 4.10 & Down, 10.5" 30 Spline

### Dana 44-60 Front Spindles

- SpD44L77-87** Dana Late 77-87 Chevy & GMC 1/2ton K10 Pickup, K5 Blazer, Jimmy & Suburban, Dana 44 or Corporate 8 1/2", 88-91 Chevy Blazer, Suburban, GMC Jimmy
- SpD4473-76.5** Dana 44, 73-76.5 Chevy & GMC 1/2 ton K10 pick up, K5 Blazer, Jimmy, & Suburban, 74-76 Jeep Wagoneer & Cherokee, 66-77 Ford Bronco
- SpD60** Dana 60 Spindle for GM and Dodge 1 ton trucks



## DANA SPICER/ NEAPCO / AAM / RCV / ROCKWELL

### Drive Shaft Components

CV Heads, Flange Yokes, Companion Flanges, Slip Yokes, End Yokes, Tube Yokes, Stub Shafts, Yoke Shaft, Carrier Bearings, CV Components, Universal Joints and Tube sizes ranging from 1.25 - 5" OD with wall thickness up to .250" thick. From DOM Steel, Chrome Moly or Aluminum



## Transfer Case, Flange and Differential Yokes

- SY1310-3520** 1310-27 Spline High Angle 22 Degree Non CV Slip Yoke  
**SY1310-3505** 1310-27 Spline CV Slip Yoke, Uses Double Cardan CV Standard Components  
**EY1410-1026** 1410 10.25 U-Bolt Early 83-92  
**EY1410-1029** 1410 10.5 U-Bolt Late 93+  
**EY1410-6050** 1410 DANA 60-61-70 U-Bolt Style Differential Yoke  
**N2-4-JK01** 1310 T-Case Yoke U-Bolt Style JK 07-Newer  
**N2-4-JK02** 1310 Diff Yoke (Rear) U-Bolt Style JK 07-Newer  
**N2-4-JK03** 1310 T-Case Yoke CV Style JK 7-Newer  
**N3-4-JK04** 1350 Jeep JK Differential Yoke (Rear)  
**N3-1-JK05** JK07-17 T-Case Rear 1350 Flange  
**N3-1-JK07** 1350 Companion Flange Front Transfer Case JK07-Newer  
**N3-4-JK08** 1350 pinion yoke  
**YD601350** 1350 Dana 60 1350 Forged Yoke  
**N2-4-8091X** 1310 End Yoke Dana 44 1.146-26 Spline  
**AAM 40055527** 1415 Flange Yoke- RAM  
**AAM 40019801** 1344/3R Serrated Flange Yoke-Dodge  
**AAM 40055528** 1485/1480 Flange Yoke  
**N3-2-1579** 1350 Flange Yoke 4.25" B.C. 2.00" pilot  
**YF881330** 1330 Ford 8.8" Yoke Forged  
**YF881350** 1350 Ford 8.8" Yoke Forged  
**YC12B1350** 1350 Chevy 12 Bolt Forged Yoke  
**YGMC10B1350** 1350 GM 10 Bolt Forged Yoke

## Axles, Side by Side and UTV Parts



### CV JOINT KITS

ATV & UTV CV Joint Kits



### CAGES AND INNER RACES



### HALF-SHAFTS

ATV & UTV Half-Shafts



### CV REBUILD KITS

ATV & UTV CV Joint Rebuild Kits



### U JOINTS

ATV & UTV U Joints



### AXLES AND ULTIMATE BALL JOINTS



### RCV Performance Ultimate CV Axles

Simply replace your weak u joint axle shafts with a high-strength constant velocity design. Tests prove Ultimate CV Axles to be twice as strong as OEM axle shafts, and they are just as tough at a straight angle as they are at extreme angles - where u joints are the weakest. Ultimate CV Axles also eliminate u joint binding to allow smooth transfer of power to the ground. Ultimate CV Axles are low maintenance and operate with a smoothness you can feel - whether off road or on the street.



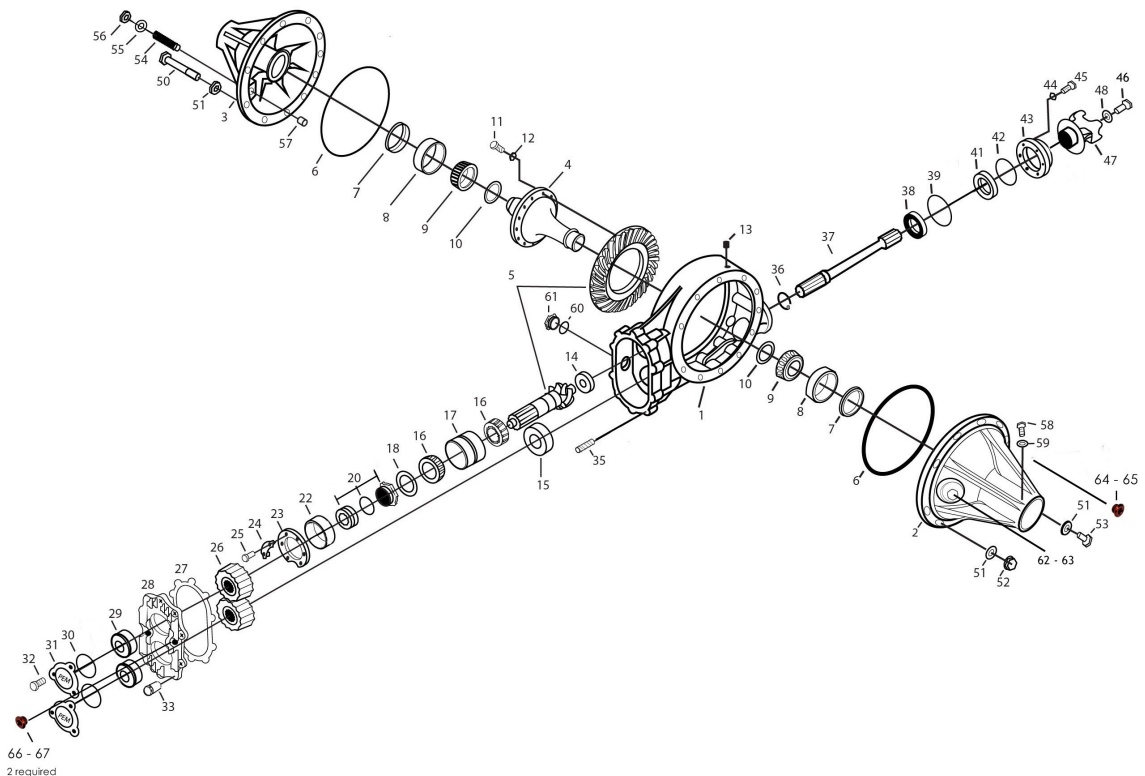
### DANA 30, 44 and 60 axles

CHROME MOLY and 1541

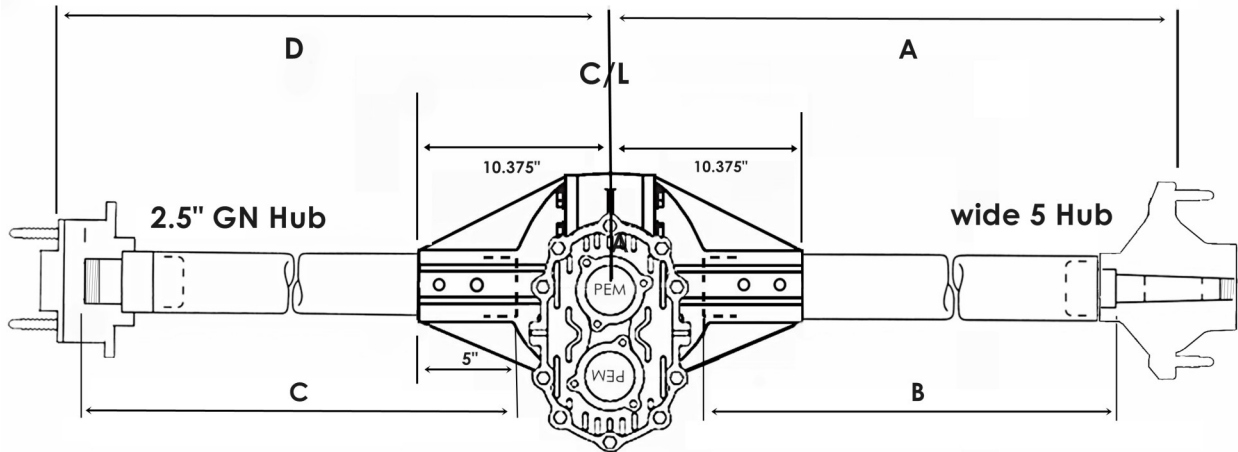


# PEM Quick Change Standard Rear Schematic

#	Part Number	Description	Qty	#	Part Number	Description	Qty
1	QCC0010	center section	1	35	QCC0113	back cover stud	10
2	QCC0020	passenger 6 rib side bell	1	36	QCC0120	lower shaft bearing retainer snap ring	1
3	QCC0030	driver 6 rib side bell	1	37	QCC0060	lower solid thru shaft	1
4	QCFSA31	aluminum spool 2.032" journal	1	38	P7390	front lower shaft bearing 6307ZZ	1
5	QC###R&P	ring & pinion	1	39	QCC0121o	rear yoke plate o-ring	1
6	QCC0118	side bell o-ring- thin square	2	41	QCC0126	yoke seal	1
7	QCC0107	carrier seal	2	42	QCC0080o	yoke seal plate o-ring	1
8	P362A	race for P368S and P368	2	43	QCC0080	yoke seal plate-bare	1
9	P368S	2.032" spool bearing	2	44	QCC0109	yoke plate washer	6
10	QCC0133	spool shim Kit- 12 piece kit	1	45	QCC0106	yoke seal plate bolt	6
11	QCC0131	ring gear bolt	12	46	QCC0116	yoke retainer bolt only	1
12	QCC0132	ring gear washer	12	47	QCC0090	forged yoke-1310 series	1
13	QCC0125	3/8" allen head pipe plug, aluminum	2	48	QCC0117	washer for yoke	1
14	PMU1205	pinion support bearing	1	50	QCC0141	thru bolt	10
15	P7339	rear lower shaft bearing 6207ZZ	1	51	QCC0143	thru bolt washer	22
16	P27880	pinion tapered roller bearing	2	52	QCC0144	thru bolt 2 way flange loc nut	10
17	P27820OD	pinion race- holds 2 bearings	1	53	QCC0142	bolt	2
18	QCC0145	pinion thrust washer	1	54	QCC0110	thrust bolt	1
20	QCC0103	posi lock nut alum. for pinion RH Thread	1	55	QCC0136	thrust flat washer-aluminum	1
22	QCC0102	spacer under pinion retainer	1	56	QCC0135	thrust jam nut-aluminum	1
23	QCC0100	rear pinion retainer plate	1	57	QCC0137	thrust block	1
24	QCC0101	pinion retainer lock	3	58	QCC0129	tube bell bolt	12
25	QCC0106	pinion retainer bolt	6	59	QCC0109	tube bell washer	12
26	6####	quick change gears (not included)		60	QCC0115o	center section fill plug o-ring	1
27	QCC0105	rear cover gasket	1	61	QCC0115	center section fill plug	1
28	QCC0040	back cover plate- bare	1	62	QCC0128o	passenger side inspection/fill plug o-ring	1
29	QCC0108	back cover bearing standard	2	63	QCC0128	passenger side inspection/fill plug	1
30	QCC0112o	o-ring for back cover retainer	2	64	QCC0114o	passenger side fill level plug o-ring	1
31	QCC0123	back cover bearing retainer- aluminum	2	65	QCC0114	passenger side fill level plug	1
32	QCC0122	back cover bearing retainer- bolts	6	66	QCC0114o	back cover plug o-ring	2
33	QCC0119	back cover tall nut- aluminum	10	67	QCC0114	back cover plug	2



# Quick Change Rear End Custom Order Build Sheet



## GN 2.5" Rear End

**C** \_\_\_\_\_ driver side tube with snout measurement (total length)  
 \_\_\_\_\_ passenger side tube with snout measurement (total length)

**D** \_\_\_\_\_ Driver side dimension D

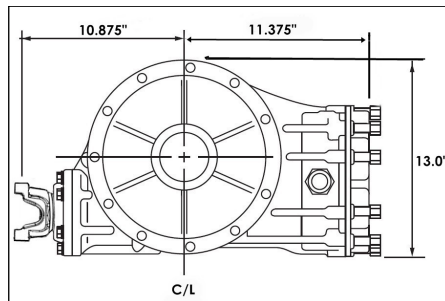
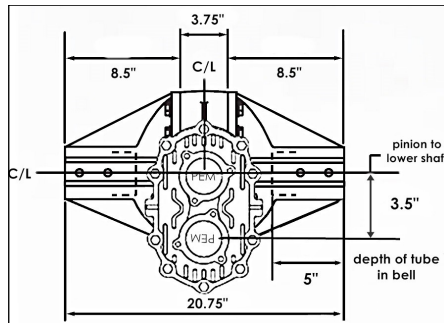
### Tube Options:

- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .125" wall Chrome Moly
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel
- \_\_\_\_\_ .750" wall Steel

\_\_\_\_\_ Passenger side dimension A

### Tube Options:

- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .125" wall Chrome Moly
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel
- \_\_\_\_\_ .750" wall Steel



## Wide 5 Rear End

**A** \_\_\_\_\_ Driver side dimension D

### Tube Options:

- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel
- \_\_\_\_\_ .750" wall Steel
- \_\_\_\_\_ .250" wall Aluminum

\_\_\_\_\_ Passenger side dimension A

### Tube Options:

- \_\_\_\_\_ .188" wall DOM Steel
- \_\_\_\_\_ .188" wall Chrome Moly
- \_\_\_\_\_ .625" wall DOM Steel
- \_\_\_\_\_ .750" wall Steel
- \_\_\_\_\_ .250" wall Aluminum

**B** \_\_\_\_\_ driver side bearing step to end of tubing  
 \_\_\_\_\_ passenger side bearing step to end of tubing

## Rear End Options:

- |                |   |                |   |
|----------------|---|----------------|---|
| _____ QCO1000  | lightened spool   | _____ QCO2250  | upcharge to install 5/8th steel tube on left rear wide 5 model rear end |
| _____ QCO1100  | 9.5" outside diameter ring gear                               | _____ QCO2300  | upcharge to prep for breather kit                                       |
| _____ QCO1200  | 9.0" outside diameter ring gear (crate)                       | _____ QCO2400  | upcharge for GM mounts metric with single hole lower                    |
| _____ QCO1300  | black thermal coating   | _____ QCO2450  | upcharge for GM mounts metric with multi hole lower                     |
| _____ QCO1400  | REM finish ring & pinion                                      | _____ QCO2700  | Upcharge for 6 bolt rear billet cover                                   |
| _____ QCO1500  | REM finish all bearings and races                             | _____ QCO2800  | Upcharge for 8 rib bells (pair)   |
| _____ QCO1600B | gundrilled axle option pair                                   | _____ QCO2900  | Upcharge for one ton aluminum tube (per side)                           |
| _____ QCO1700  | .125" wall chrome moly tubes                                  | _____ QCO3300  | Upcharge for longer forged rear End Yoke                                |
| _____ QCO1750  | .188" wall chrome moly tubes                                  | _____ QCCO104  | rear cover gasket heavy duty, steel core                                |
| _____ QCO1900  | Wilwood spec 37 brake rotors                                  | _____ QCC0040B | BB back cover billet big bearing  |
| _____ QCO2000  | gundrilled lower shaft  | _____ QCC0139K | breather kit  |
| _____ QCO2100  | assembled box- does not include truck freight                 |                |   |
| _____ QCO2200  | upcharge to install 5/8th steel tube on left rear GN rear end |                |   |

# Drive Shaft Custom Build Order Form

All measurements must be taken at vehicle ride height.

Figure 1

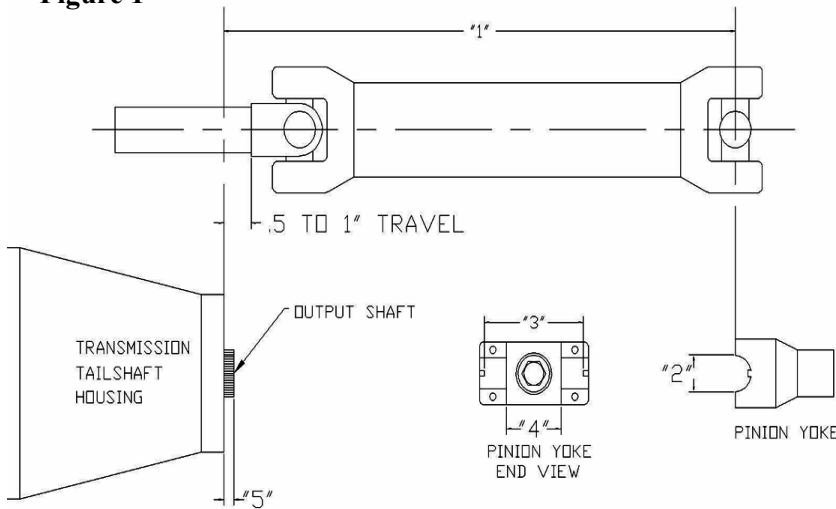


Figure 2

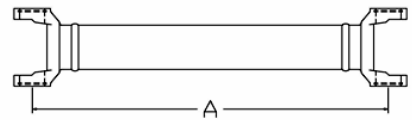
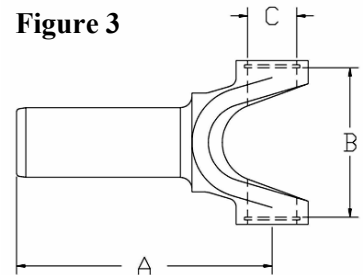


Figure 3



Slip Yoke (refer to figure 3)

1. Length-1 (refer to figure 1) \_\_\_ or Length-A (refer to figure 2) \_\_\_
2. Circle One: 1 1/16" or 1 1/8" or 1 3/16"
3. Outside Retaining u joints (circle one): 3 7/32" or 3 5/8"
4. Inside Retaining u joints \_\_\_\_\_
5. Length of extending output shaft \_\_\_\_\_
6. Additional Information: \_\_\_\_\_

(A) \_\_\_\_\_

(B) \_\_\_\_\_

(C) \_\_\_\_\_

Spline \_\_\_\_\_

Options:

**DOM Steel x Wall thickness**

- 2" OD x .083" wall \_\_\_\_\_
- 2" OD x .120" wall \_\_\_\_\_
- 2.5" OD x .083" wall \_\_\_\_\_
- 3" OD x .083" wall \_\_\_\_\_
- 3.5" OD x .083" wall \_\_\_\_\_
- 4" OD x .083" wall \_\_\_\_\_

**Chrome Moly Steel x Wall thickness**

- 2" OD x .065" wall \_\_\_\_\_
- 2" OD x .083" wall \_\_\_\_\_
- 3" OD x .083" wall \_\_\_\_\_
- 3.5" OD x .083" wall \_\_\_\_\_
- Option: Chrome Moly Weld Yokes, available in:  
3" or 3.5" \_\_\_\_\_

**Aluminum x Wall thickness**

- 3" OD x .125" wall \_\_\_\_\_
- 3.5" OD x .114" wall \_\_\_\_\_
- 3.5" OD x .125" wall \_\_\_\_\_
- 4" OD x .087" wall \_\_\_\_\_
- 4.0" OD x .125" wall \_\_\_\_\_
- 5" OD x .125" wall \_\_\_\_\_

**TIPS:** The vehicle must be measured as it is to operate; DO NOT measure with the suspension hanging. Fill out all dimensions on the order to get the correct drive shaft with the correct yokes. Grease u joints after you install the drive-shaft.

Do not over tighten u-bolts. **Torque Specs:** Cap Size  
1 1/16" and 1 1/8" 15-17 ft/lbs.  
1 3/16" 15-25 ft/lbs.  
1 3/8" 33-37 ft/lbs.



# Rear End and Axle Custom Order Build Sheet

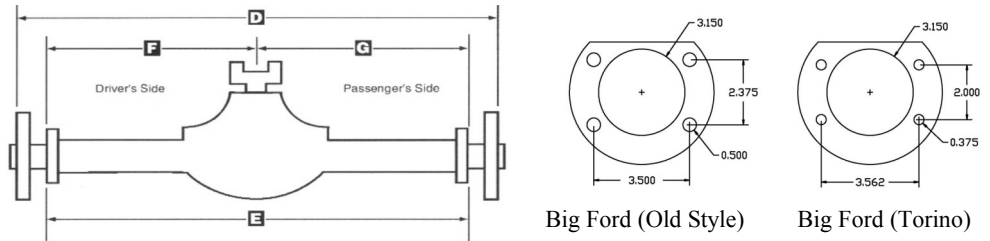
## Flanged Housing Custom Build Sheet

You must fill this build sheet out if you are having us build any housing that is not a stocking number.

- Type of application:
- Housing Center Style (circle one): HNF9 New Stamped Center, HNF9RB New Stamped Center Round Back or HNF9SmWeb New Stamped Small Web Center
- Axle Brake Offset (circle one): 2 3/8" or 2 1/2"
- Housing End (circle one): Big Ford Old Style, 1/2" bolt or Big Ford New Style Torino 3/8" bolt
- Tubing size (circle one): 3" OD x .188" wall or 3" x .250" wall

Please provide additional information:

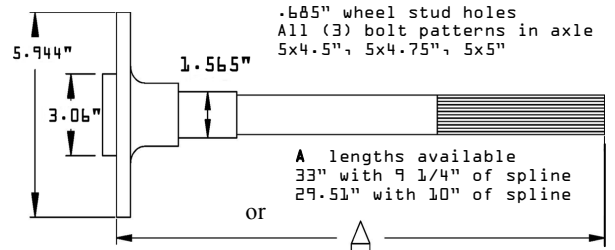
- (D) \_\_\_\_\_  
 (E) \_\_\_\_\_  
 (F) \_\_\_\_\_  
 (G) \_\_\_\_\_



## Flanged Axle Custom Build Sheet

You must fill this build sheet out if you are going to have us cut the flanged axles to length. Maximum axle length is 33.0" and Minimum length is 21.5".

- Type of application:
- Number of Spline (circle one): 28 spline or 31 spline
- Axle offset (circle one): 2 1/2" or 2 3/8"
- Turn Flange OD (max 5.944") \_\_\_\_\_
- Turn Hub Register (max 3.06") \_\_\_\_\_
- Housing End (circle one): Big Ford Old Style, 1/2" bolt  
Big Ford New Style Torino 3/8" bolt
- Drive Side Dimension (A) \_\_\_\_\_
- Passenger Side Dimension (A) \_\_\_\_\_
- Bolt Pattern for Wheel (circle one): 5 x 4.5" Small or 5 x 4.75" GM or 5 x 5" Big Ford
- Size of Wheel Studs— Press In Only (circle one): 1/2" Fine Short or 1/2" Fine 3" Long or 5/8" Coarse 2 3/4" or 5/8" Coarse XL 3 3/4"
- Access Hole (circle one): YES or NO If yes, it renders the other 2 bolt patterns unusable.



Please provide additional information (refer to top center diagram):

- (D) \_\_\_\_\_  
 (E) \_\_\_\_\_  
 (F) \_\_\_\_\_  
 (G) \_\_\_\_\_

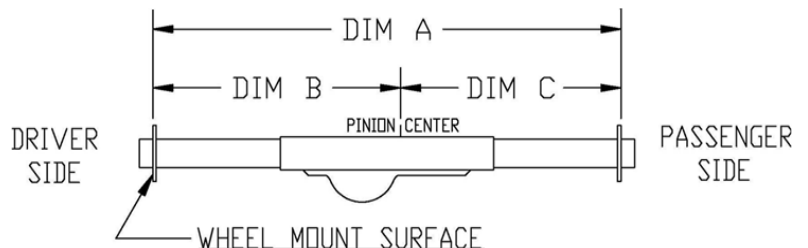
## Floater Housing Custom Build Sheet

You must fill this build sheet out if you are having us build any housing that is not a stocking number. Note: PEM Housings come with 2.5 inch Grand National style snouts.

- Dimension A: \_\_\_\_\_ Overall Length; Hub Face to Hub Face
- Dimension B: \_\_\_\_\_ Driver side; Hub Face (Driver side) to Pinion Centerline
- Dimension C: \_\_\_\_\_ Passenger side; Hub Face (Passenger side) to Pinion Centerline
- Housing Center Style (circle one): Reconditioned Center or HNF9 New Stamped Center

- Snout End:
  - \_\_\_ 2.5" GN Snout      \_\_\_ 2.5" GN Snout - 1 degree camber
  - \_\_\_ Wide 5 LM Snout    \_\_\_ 2.0" GN Snout - HV (Howe/Vogel)
  - \_\_\_ Mini 5 Snout (Coleman)

- Axle Tube Material:
  - \_\_\_ .188" wall DOM
  - \_\_\_ .188" wall Chrome Moly,
  - \_\_\_ .188" wall DOM Centerless Ground
  - \_\_\_ .125" wall Chrome Moly
  - \_\_\_ .250" wall DOM Steel Tube
  - \_\_\_ .625" wall DOM Steel Tube



## REAR END TECHNICAL INFORMATION and SET UP SPECIFICATIONS

**Technical Information for Ford 9 inch 6:66, 6:83, and 7:00 ring & pinions:** PEM recommends using a Daytona style support, solid pinion spacer, and an inner seal in the outer axle tube. Without these 3 things, your gears and bearing will get too hot and will cause the gears to anneal. Annealing will destroy the heat treatment applied to the gears at the factory making them soft. This is why gears will appear to have MELTED to some degree. **PEM highly recommends** a high pressure synthetic or synthetic blend and a rear end oil cooler in all three of these gear applications for the best results!

### Ford 9" CENTER SECTION BREAK IN PROCEDURES

**Carrier Assembly Torque** Carrier assembly to housing stud nuts 25-40 ft. lbs.

**Lube** Recommended Lube is a quality name brake mineral based 80/90w, 85/140w or GL5 synthetic lube.

**Note: for oval track racing minimum of 1 gallon is required.**

**Ring & Pinion Break In Procedure** Proper break in of your new ring and pinion is extremely important. When the following procedures are followed, you will realize the performance gains expected.

#### Circle Track Break In

1. Drive the car at slow speed for around 6 laps (1/2 mile oval).
2. Let the ring & pinion cool 30 minutes.
3. Drive the car again at slow speed for around 6 laps.
4. Drive the car at full speed 2-3 laps.
5. Let the ring & pinion cool 30 minutes.

#### Street Vehicle Break In

1. Operate the car at normal street driving speed for around 10 miles (25-45 mph).
2. Let the ring & pinion cool 30 minutes.
3. Friction modifier additive must be used in addition to the lube in all Trac-Loc applications.

#### Drag Race Break In

Drive the car around the pits or on the return road for approximately 10 minutes. NOTE: When the proper lube is used and backlash set properly excessive heat buildup should not occur.

#### Towing Vehicle Break In

Operate the towing vehicle at normal street driving speed for around 250 miles (25-45 mph).

## PEM QUICK CHANGE ASSEMBLY INSTRUCTIONS

#### Install Side Bells on Center Section

- The best way we have found to do this is to install your hub on the left side tube and stand straight up with the wheel mounted on the hub.
- Before you set on the ring gear/carrier group make sure to loosen the Thrust Block Adjustor Screw.
- Lube the ends of the spool so they will not tear the carrier seal.
- Install spool and ring gear with flat side of ring gear facing down.
- Sit the center assembly on the side bell. There are stamped numbers at the top of the bell and center section to line the bolts up correctly.
- The bells should almost sit flush with the center section and install thru bolts. Torque side bell bolts to 35 foot lbs.– criss cross pattern.
- Lightly lube on the side bell o-ring and install in groove on bell. Set on the Right Side Bell.
- If you choose to aid in sealing of your housing, a thin coat of RTV can be used on the side bell o-rings.

#### Thrust Block on Left Side Bell

Adjust screw on left side bell till the thrust block touches the back of the ring gear and then back off 1/4 turn and lock in place with lock nut. Check video on our web site.

**Torque Settings on Bolts** Side bell thru bolts & short bolts 35 foot lbs. Yoke seal plate bolts (6) 25 foot lbs.  
Rear Cover Aluminum High Nuts 25 foot lbs. Yoke retainer bolt (1) 32 foot lbs.

#### Lubrication and Fill Level

- Recommended Lube is a quality name brake mineral based 80/90w, 85/140w or GL5 synthetic lube.
- Fill through Large Pinion Inspection Plug on Right Side Bell.
- Oil Level Plug is Small Button Plug on the front side of the Right Side Bell. Make sure rear end is level when you are filling to the small oil level plug. Recommended oil level is 2" below axle center line (approximately 3 1/4 to 3 1/2 quart). Too much lube causes overheating.