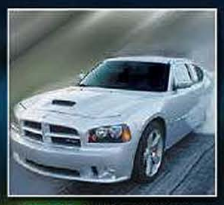
Since 1970

BOSS HOG

Torque Converters



Street Performance

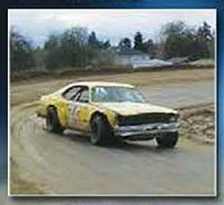
Street Strip

Restoration

Racing

Rock Crawling

Trucks



Dirt Track

NOS/Trans Brake

ACC PERFORMANCE

U.S. VETERAN OWNED BUSINESS

MADE IN AMERICA

PERFORMANCE WAREHOUSE ASSOCIATION MEMBER

SEMA Specialty Equipment Market Association — Serving the Motor Vehicle Aftermarket

ENGINE PROFESSIONAL

GOODGUYS Rod & Custom Association

A Message from Nelson, *President, CEO & Boss Hog*

Dennis Landry


Lou Santiago & Louis Lee

At ACC Performance, the only thing we do is Torque Converters. I'd like to think we are really good at building Torque Converters. Picking a stall for your ACC Performance converter can be something close to Voodoo Magic. I encourage you to call us for a little help in picking that magical stall number. You know the one that actually works the way you wanted it to? See page 23 in this catalog and fill out the vehicle questionnaire. This will have the information that we will need to pick your stall.

If you have put fluid in your ACC converter, it's yours!!!! A miss picked stall is not warranty. However, you can still send the converter back to us and we will re-stall it for you. I want you to know that we stand behind what we build. We want to help you in any way we can. We will need the information about your vehicle from page 23 in this catalog or go to our website.

Should you make changes to the vehicle, we can modify your original converter to match your new setup. Non ACC converters are welcome too, see below for rates.

Best Regards,

Nelson W. Gill

All major credit cards are accepted!

ACC Performance Products Plus, Inc.
RESTALL / REFRESH PRICE GUIDE

CONTENTS

We at ACC Performance are proud to offer a complete line of high performance and specialty converters. Whether you are looking for heavy duty, street or racing, we have a converter to fit your specific needs. All of our torque converters are carefully inspected to insure you the best quality product available. Various warehouses and dealers sell ACC's products throughout the United States and Canada.

What makes ACC Performance torque converters better than the rest?

Selling the highest quality Torque Converters since 1971 because we care.

As of October 2005 ACC Performance took on a new owner who brings Aircraft Engineering and Quality to the High Performance Torque Converter Industry. ACC Performance uses **"World Class Manufacturing",** combined with **"Just in Time Manufacturing",** to get you the highest quality parts available combined with impeccable delivery times.

The Automotive industry now has a new Torque Converter Leader. ACC Performance Products has emerged as an out-right leader in this industry and here's why:

- **The Original BOSS HOG is Welded, not Furnace Brazed (unless requested)** Contrary to popular belief, furnace brazing is not the best way to adhere torque converter components together. Just like a Teflon coated cooking pan, after some time the furnace brazing will erode away and ruin the stators and all other rotating parts in your transmission. All BOSS HOG Torque Converters are welded at the fins, not brazed, to eliminate the erosion after time.

- **We use Industrial Torrington Type Bearings - No Light Duty Bearings** Needle bearings are good, but not great. Industrial bearings give these converters the ability to handle not hundreds, but thousands of pounds of torque.

- **Aircraft Aluminum Washers** ACC Performance Products Torque Converters utilize an aircraft quality aluminum washer instead of those old fiber washers that other companies use. This will put more horsepower and torque directly to the ground.

- **Every BOSS HOG is Hand Built** All ACC Converters are hand built and tested to ensure that you are getting the best converter money can buy! No automated process can ensure that kind of quality.

- **Returns Are Almost 0** With our returns being below 1%, you are assured that you have the highest quality parts that are available on the market.

FREIGHT NOT INCLUDED

The mysteries behind the Torque Converter is not some voodoo science. It's simply Physics. There are questions that I get asked daily about torque converters and how they work. Many factors come into play when matching a stall speed with an application. In fact, for every application there are over 7,300 variables in matching up a stall converter to a set up. The Torque Converters stall or out-put is simply a Physics equation of the Fluid Pressure VS. Resistance. First thing that you need to know is that the torque converter must reach a certain amount of fluid pressure to begin to move the vehicle. Once that fluid Pressure has been met inside the torque converter, the resistance in moving the vehicle is where we get the actual stall or slip from. Once the fluid pressure overcomes the resistance in moving the vehicle, torque multiplication begins and successful transference of power from Mechanical through the transmission fluid and back through a mechanical out-put is complete. The fluid pressure overcomes the resistance, as the Stator Locks up and applies back pressure on the turbine. This back pressure is what begins to move and drive the vehicle. The Fluid Pressure can be controlled by the manipulation of the fins inside the torque converter to some extent and even more drastically by the diameter of the torque converter. Because we are talking about a mechanical output of energy known as twisting force, transmitting that energy through the transmission fluid and finally back to mechanical energy again. This calculation is a physics equation. Remember for every action there is a re-action.

In order to build up the fluid pressure inside the torque converter, it will use the centrifugal force by spinning with the crank shaft connected directly via the flex-plate. The impeller is what pumps the fluid through-out the torque converter. Building up pressure inside the torque converter is like standing on the outside of a Merry-go-round. The impeller pushes the fluid through its self, using this centrifugal force. The larger the diameter torque converters will be effected more so by the increase and decreases of resistance. Keep in mind we are looking at how well or easy the motor breathes from 600 to 1,200 RPM. So lets say that you are standing on the outside of a Merry-go-round and it is turning at a fixed RPM. The least amount of changes in rotation or RPM will directly affect your ability to hold on or not to the Merry-go-round as it turns. However, when you take one step in towards the center of the Merry-go-round, the pressure pulling you outwards drastically drops. The changes in the rotational speed is NOT as effected nearly as much with the smaller diameter. In order to reach the same pressure pulling you outwards while standing closer to the center of the Merry-go-round or using the smaller diameter torque converter. In this case you must spin or increase the RPM's to meet that same pressure you had while standing on the out side edge. This will give you the pressure needed to begin to move the vehicle. Once that pressure is met then you must overcome the resistances against moving that vehicle.

In order to match a stall converter to the vehicle's set up there must be 3 complete components to this equation. (Engines set up Vs. Weight of the Vehicle Vs. Gear Ratio with the Run Out of the Tire) The first of this is the engine's set up. Number of cylinders effect the RPM stall, so for this explanation we are going to use a V8 like in our test vehicle. The engine's set up does not have to be a racing set up to need a stall converter. There are several mild modifications that can be made that directly affect how the stall works. If a couple of these changes are made, then you will need to add a stall converter to realize all of the power and torque that has now been applied. You can make several mild changes and not be

able to use a factory 12 inch converter any more. You may even have to change the diameter in order for the engine to idle correctly. From a building stand point the 12 inch converter is much harder to get additional stall out of, because the diameter is larger and going to try to engage the transmission at a lower RPM. As modifications are made to make more power or allow the engine to breathe easier, this will engage the stall at an earlier RPM. (YES, STALL IS NOT FIXED & CAN VARY) generally when we are adding stall to a 12 inch converters you will see approximately 300 to 500 RPM over stock and the next level up would be 500 to 800 over a stock stall. If your converter is effecting Idle once you put it in gear, this means that you have made enough mild modifications to the set up to warrant a smaller diameter converter. NOT necessarily to race, but to get the car to idle and run correctly in the lower RPM levels.

CJ

Crab Who

This set up that I am about to explain is a mild built engine. (using the words "Mild Build" is subjective depending on whom you talk with, so I will give more detail.) Take a 350 cubic inch motor with a 9:1 compression. Starting with the carburetor. We will use the standard 750 CFM carburetor that is still on pump gas. This is bolted up to a 1inch wide open spacer plate that is then bolted up to the intake. The 1 inch open spacer plate will give you several Hundred more RPM at the top of the RPM range. The intake we will use is an Edelbrock Performer RPM Dual Plane. (The dual plane means that the intake will have a divider from left to right banks of cylinders. In some cases the divider is not all the way to the top of the intake.) This intake that we are using is advertised as a 1,500 to 6,500 RPM operating rage. It is just over 4 inches tall from mounting on the engine. This is taller than most factory intakes and will allow more air in. Just like a cam or ignition system, even the intake has a power band as well, known as a flow bench. The power band of each component is what we are interested in. You must match all of these throughout the build of the car to have really the best possible performance. This intake has taller and longer intake runners than the factory one. This is a key factor in how it changes torque throughout the power band range for our discussion.

If you were to take a circle and draw a "V" in it (or take 2 picese of pizza) to show a power band as if it was on a circular Tachometer. When you add the intakes power band and the 1 inch open spacer plate the air flow begins to flow good about 2,600 RPM. This set-up will go to a red line of 6,700 to 6,800 RPM. As the original operating range of the intake shows us above it starts to die out at 6,400 RPM. The 1 inch spacer gives it that extra couple of hundred RPM. Now move the V in the circle tachometer to match the new set-up with-out distorting the V. What you see is the lower end of the Power Band or "V" moves up in the RPM range making the bottom end (from 600 to 1,100 RPM or idle RPM) becomes weaker. This produces less resistance against the fluid pressure in order to move the car at idle. In fact, that means that it actually lowers the stall range in the converter.
Now in part 1 of this explanation we also learned about the centrifugal force. So with that in mind we know that these small changes will effect a larger diameter torque converter more so than it would the smaller diameter torque converter. The drop in actual stall will be greater in the larger diameter converter due to its pressures are much greater.

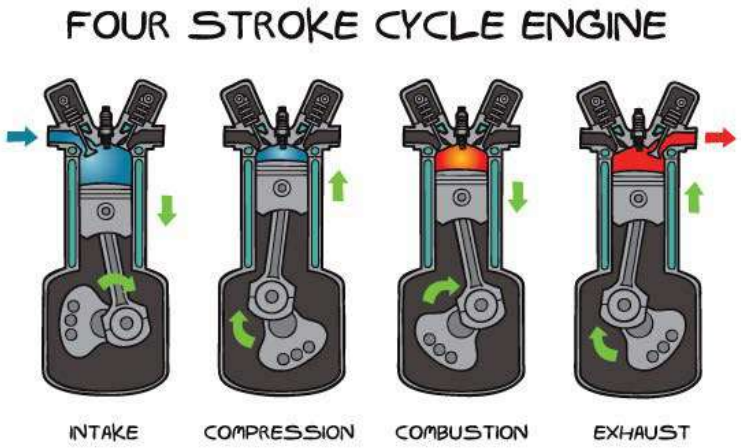
NOTE: In some cases, you may find that the converter is stalling very low or you can

feel the transmission engage once the transmission has been put in gear. If you let your foot off of the break and the car begins to move, then it is most likely you will have to upgrade the torque converter. (if the vehicle creeps forward with little effort to stop the vehicle after it has warmed up that is OK.) If you have to fight the breaks at a red light or stop sign you will need to upgrade the torque converter and Transmission cooler. If you have idling problems with the AC on or have to fight the breaks again this is a stall issue that comes from not matching the torque converter to the (engines set-up Vs. Weight of the vehicle Vs. Rear gear with the run out of the tire) All stall ranges set-up in the torque converter are variable (they are not fixed) You are taking a mechanical out-put and transmitting that energy through a liquid and then back to a mechanical out-put. Which is Physics.

Again, knowing the above allows you to figure out that stall range is variable and will directly depend on the entire set-up of the vehicle. All of the information about the vehicle is needed in order to match the set-up. The torque converter is by far the most complicated component you can purchase for a vehicle. (Engine's set-up Vs. Weight of the vehicle Vs. Rear gear with the run out of the tire) Air flow, both in and out of the engine, has a direct effect on choosing the size and stall speed for our application. To dial this part in, we need to know how the engine breathes and how much back pressure is generated by the exhaust system configuration. The first thing we need to determine is which type of metal that the heads are made of, whether cast iron or aluminum. Cast iron heads, which are common on older vehicles, are very dense and hold in a great deal of heat. Aluminum heads, on the other hand, will dissipate heat at a much faster rate. The aluminum heads will generate more power due to having a lower temperature, which translates into more power. Now that we have determined our head material, it's time to get into the details. Starting off, you will need to know the combustion chamber size (Ex:64cc chamber) of the head in order to find out how fast the fuel is burning. Next, the valve size has a lot to do with how a 4-stroke engine works as well. A larger intake valve will allow for more fuel and air intake leading to a greater response to combustion. With a larger intake valve, you also need a larger exhaust valve in order to exhaust the spent gases. Smaller valves, by contrast, may increase resistance in how the engine breathes. There also needs to be some vacuum with this particular set up. If there is more resistance, then you will get more stall. Less resistance lowers the stall. Large diameter torque converters will be effected by this more than the smaller diameter torque converters. Knowing these factors, we then follow the air flow path to the exhaust system, starting with the manifold/headers. Depending on the air flow volume, we now turn our attention to the type and size of the exhaust system. These two factors contribute to back pressure within the exhaust system. All of these factors interact with the stall in the torque converter. Remember the torque converter works off of Fluid Pressure Vs. Resistance. Ultimately, we are trying to find the resistance that is preventing the vehicle from moving. With less resistance, the torque converter will lock up at a lower RPM, because it will overcome the resistance against it more quickly.

TIP

A lot of people will advance their ignition timing to help aim the strength of the fire or power band down at a lower RPM so they may launch harder or idle better and in some cases just to get the vehicle to idle. Without an aftermarket ignition box that drastically increases the power band you will make the top part of the RPM band range (at the Higher RPMs) weaker. With the correct torque converter you would need to retard or lower the ignition timing back between 4 to 6 degrees from where it is like you would back off the timing for NOS. This does depend on how far advance it is from where it originally started at. The stall in the torque converter will allow for the car to perform much better at an idle and to the desired RPM for the application.

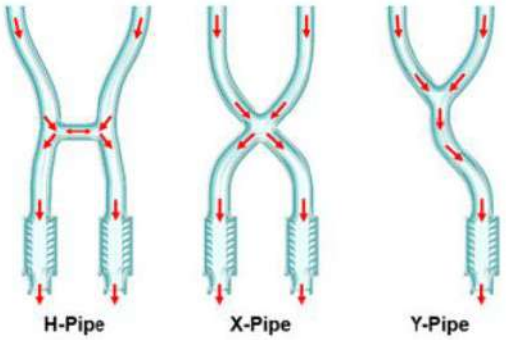


CASE STUDY

To put this into practice, we will use the following example. Our set up will include aluminum heads with 2.02 intake valves and 1.60 exhaust valves. This head will have a 64cc combustion chamber that burns fuel quickly. We will bolt on a set of 1-5/8" headers with a 2.50" collector pipe. From here we continue with 2.50" exhaust pips, dual chamber mufflers and a cross-over pipe, also known as an "H-pipe" exhaust system. This exhaust system will go all the way back to the rear bumper. With these parameters, there is less back pressure on the motor at low RPM and it will need to increase RPM to apply the back pressure needed to help overcome that resistance.

To understand the complexity of this calculation, consider that there are numerous types of exhaust systems that can affect the ultimate outcome:

1. Factory manifolds, Y pipe to a single pipe, single muffler, back to duals & out the back of the vehicle. This will have the most back pressure.
2. Factory manifolds, True dual exhaust, two mufflers, out the back. This is the second most restrictive system.
3. Headers, true dual exhaust, two mufflers, X-pipe configuration, then out the back is the 3rd most restrictive system.
4. Headers, true dual exhaust, two mufflers, H-pipe or cross-over pipe, then out the back is the 4th most restrictive system.
5. Headers, true dual exhaust, two mufflers, then out the back is the 5th most restrictive exhaust system.
6. Headers, no pipe or open headers is the least restrictive of these systems. Special Note: With a 2.50" collector and a .500" lift cam that peaks at 6500 RPM, it will take nearly 5,000 RPM to get the proper back pressure with open headers. This means that if you put an exhaust system on this application you could see more low-end torque and be faster.



The curb weight or as the vehicle sits is what we will be using. Many times, people will mistake curb weight for gross vehicle weight rating. The gross vehicle weight is the weight of that vehicle plus the additional weight that it is designed to carry, such as passengers, luggage and fuel. These all combine with the weight of the car to equal the gross vehicle weight. We must also remember that the torque converter's output comes from Fluid Pressure Vs. Resistance. The heavier the vehicle weight is, the more resistance that there is in moving it. Conversely, a lighter

2018 SEMA Feature Vehicle

vehicle takes less resistance to move. This brings us to the resistance against the pressure that tries to move the vehicle. The more resistance (weight) against the torque converter, the higher the stall speed to move that weight. The less resistance against moving the vehicle, the lower the stall will be in the torque converter. To understand this principal, we will use a vehicle with a curb weight of 3550 lbs. that will tie all of these posts together.

There are many different choices when it comes to gear ratios. As the ratio gets larger, the engine has to turn more RPM to make the axle rotate the same number of revolutions. A 3.08:1 rear gear ratio would be considered a road gear for cruising or top end speed, as the engine turns the driveshaft 3.08 revolutions for every one revolution of the axle. Therefore, a 4.11:1 would be considered a pulling gear for 4x4 vehicles to gain low-end torque. It is also a usable gear ratio to compensate for tall tires, commonly used for drag racing.

The height of the tire makes a big difference on actual output & the performance of the vehicle. Most ring and pinion gears are designed for a 26" overall diameter (OD) tire. That means for every 1.48xxx inches over 26" OD, you can take 1 whole gear set out (less) in order to get the final drive ratio. For our calculations and easier math, we round it up and use 1.5 inches over the 26" OD tire. As you can see in the picture below, the taller tire will travel further than the smaller tire with only one revolution.

Benji & Angie Martinez, Deuce's Garage

If our test vehicle has a 3.73 rear gear ratio with a 26"OD tire, then the gear ratio will run true because of the tire height.

1. If we had changed the 3.73 gear to a 4.56 gear ratio, the torque converter would in fact stall less due to the lower resistance needed to move the vehicle.

2. With the 3.73 ratio, if we went from a 26inch tall tire to a 27.5"OD tire, the roll out of the tire will give us 3.55 rear gear output & performance. (that is 1 whole gear ratio less)

Note: NOS and Superchargers/turbos like the longer or lower gears to give them the time needed to load up.

3. The same is true for the opposite, if you went to a 24.5" OD tire from the 26" OD tire, then your ratio will increase (that is 1 whole gear set more) to 3.90 output & Performance.

Terry, Kenny & Nelson

When considering gears & tire combinations, there is another factor that comes into play. That factor is Rolling Resistance. You can have too much tire. An oversized tire or even tires with not enough air in them can hinder the performance and speed of the vehicle, not to mention that the actual weight of the oversized tire is higher. This is known as "unsprung" weight, which also includes the weight of the wheel, rotors and other rotating parts. This increased rotating mass robs horsepower. With the gear ratio and the rollout of the tire, you can better see how much resistance there is against moving the vehicle. That resistance & the diameter of the torque converter directly dictates how the torque converter stalls.

Now we are moving into a complicated part that ties the engine torque curves and horse power together. Unlike most things you can't just turn it on and off. You have to match the cam with **the rest of the vehicle's setup and how you want to use it.** An engine is a machine that has fixed parameters and is controlled by its components with the amount of fuel you give it. In order to have the best output all of the components must match or complement each other. All of the parts power bands or operating ranges must match each other. Just one thing can throw the entire setup out of whack. This can cause a ruff idle, the car bogging down, not enough vacuum to operate the vehicle.

First you have to understand that a cam tells the valves in the heads when to open and when to close via the lobes.

The cam has several lobes all the way down the shaft. These lobes raise and lower the intake & exhaust valves. The 4 cycle engine works as follows;

1. The intake valve opens as the piston moves down and sucks the air & fuel into the cylinder.
2. The intake valve closes then piston begins to move up, it then squishes or compresses the air & fuel mixture.
3. As the piston rounds the top again, the spark plug fires and combusts the fuel / air mixture forcing the piston down.
4. The piston then rounds the bottom again as the exhaust valve begins to open to release the combusted fuel out the exhaust valve.

Each cam comes with an ID card call a "cam card". This will have all of the cam specifications on it. The specs will show the distance or how far into the cylinder will push into the cylinder. Like .520 thousandths of one inch. There is also something called split lift where the intake is .520 the exhaust

Maya Pyskaty

Ed Golden

valve could be .528. There is also 2 different kinds of "duration" on a cam card. The first is advertised duration and the second is the duration at .050 thousandths of one inch.(also known as "at 50") They are both informative, however the at 50 measurement is more descriptive on when the cam is going to begin its power band range. Then you come to the "Lobe Separation" & "Center Line" of the cam. This will tell you how choppy the cam is and its ability to idle. The lower the numbers go, it will diminish the vacuum and the engines ability to idle. The need for a higher stall increases as those numbers decrease. This just shows some cams are designed with the same lift and exhaust depths into the cylinder. (Like .509 lift on the intake valve and .488 on the exhaust lift.) The greater the lift on these profiles or lobes will increase the distance the valve travels into the cylinder. This will allow a larger volume of air & fuel mixture in the cylinder for more power. The duration of the cam is dealing with how long the valves stay open and defines the power band. It also defines how the cam acts in this range we are calling the power band of the cam. Such as 1,600 RPM to 5,800 RPM operating range. This cam will begin to make power from 1,600 RPM and the power will begin to fade out at 5,800 RPM. So it is very important that you match the cam with the rest of the components of the setup.

Like an intake manifold that performs from 1,500 RPM and flows good until 6,500 RPM would not match a 1,600 to 5,800 RPM cam. This miss match does affect the stall because in the case above the torque at idle is weaker. So the need for more stall increases depending on how far off you miss match the components for this setup. There are hundreds of cams for all types of vehicles and how they want to be driven. There are also flat tappet or hydraulic roller cams. Please consult the manufacturer of your choice anytime you are going to buy a cam. For our case study will use a specific cam and study how and why the cam can affect the actual stall RPM in the torque converter.

We are going to use a cam that has good street manners for drivability. At the same time we are adding more power through a longer RPM range than factory. This would be a .488 Intake & 510 Exhaust lift. The duration at .050 is .234 for the intake and .244 for the exhaust. The lobe separation is a .112. The operating range for this cam is 1,500 to 6,500 RPM. This cam is talked about as a mild cam or "a couple of steps over stock". This cam will directly affect the stall in the torque converter by its duration and lobe separation. In this case it will draw down the stall 200 RPM from the duration at 50 starting at the .230 range. The lobe separation will further weaken the torque at idle dropping the stall an additional 200 RPM. A diameter change will be more than likely depending on the rest of the setup.

OUR TEST VEHICLE

Our test vehicle is a 1987 G body Oldsmobile 442

- Actual curb or shipping test weight of 3,599 Lbs.
- Transmission; It had been replaced with a TH350
- 350 cubic inches
- 650 cfm carburetor
- No spacer plate between the carb & intake
- Stock intake
- Cast Iron heads
- 1.94 intake valve
- 1.50 exhaust valve
- Manifolds
- Y pipe to a single muffler, split back to 2 pipes out the rear of the car
- 3.42 gears
- 215/65/15 tires that measures out to be 26.00 inches tall in diameter
- .403 intake / .415 exhaust
- .202 intake duration / .206 exhaust duration @ .050 lift
- .115 lobe separation

With this car, we had run several "Foot Break" tests. This is where we held the brake pedal while pressing the gas pedal to see how high the RPM will go while forcing the car to stand still with the factory torque converter. The first test that we performed was a test on back pressure. We had heard that the exhaust was very restrictive on this car. We unbolted the exhaust at the manifolds. This means there was no back pressure or restrictive mufflers / catalytic converters. The only back pressure was the size on the exhaust port diameters from the cast manifolds and size of the collector where the exhaust manifold meets the exhaust pipes. In this Foot Brake test with the factory torque converter we were only able to achieve 1,450 RPM. When we tested the car with the exhaust system bolted up and in place, we were able to get the RPM's just over 1,800 RPM. (Remember the torque converter's stall comes from the Fluid pressure Vs. the Resistance against moving the vehicle). There is a difference of 350 RPM less than what it was from the factory set up. This is because there is less back pressure. That lack back pressure is less resistance against the motor and will begin to move the car at an earlier RPM. All of these different types of exhaust systems will offer an array of outputs in combination with the rest of the engine's set-up & weight of the vehicle. Open headers will need the most amount of RPM stall to properly support the lack of back pressure and so on.

Another test that we performed on this vehicle was an intake swap out. We had a GM performance intake that was designed to operate between Idle to 5,300 RPM & went to a 1,500 to 6,500 RPM Dual Plane type intake for this test. When we did the foot brake test with this one change to the vehicle, we were only able to get just under 1,350 RPM. The taller / longer runners on the intake changes the torque curves to that extent. The taller intake from 600 to 1,100 RPM the torque output from the motor is less than factory. From

2018 SEMA
RATical Rod Build Off/Drive Off

1,100 to 1,600 RPM it is about the same as factory output. You can see the torque begin to increase above 1,600 RPM. The weaker torque at idle is what causes the lower effect in the factory 12 inch torque converter. (Remember that the larger 12 inch diameter torque converter will be affected the most by each change made to the set-up because the fluid pressure is higher) Each step up in RPM operating range of the intake will require more stall to help overcome the bottom end of the RPM range and support the higher RPM rev. The higher the RPM the intake can reach, will also weaken the bottom end of the RPM range or have less torque to support that stall.

Like the exhaust, you can also use spacer plates for slight adjustments for where the torque curve begins with the air flow. A 4 hole spacer plate is also known as a restricter plate. It will limit the amount of air coming into the intake. Whereas the open spacer plate can add on to the higher RMP as much as an additional 400 RPM at the top end of the RPM Range. Be careful of this because it will also make the bottom end of the RPM range weaker and may require more stall.

We kept the intake and put 1 & 5/8ths inch headers on the car with the 2.5 inch collector. We did run 2.5 inch exhaust pipe with true duals. We had some kind of short generic turbo muffler. At this time the stall in the torque converter affecting the idle when we put the car in gear. We also now had noticed a bog in the takeoff or launch of the car. The car began to pick up momentum when the motor's RPM revs got to 2,000 RPM. In order to fix this problem the torque converter needs to be changed. This does not have to be a high stall torque converter. By going to an 11 inch torque converter at this stage, would fix these issues and allow the stall to get back between 1,800 to 2,000 RPM. But, we wanted more take off in this car so we added a 3.73 rear gear ratio. The ability to move this car became much easier with a lower gear ratio. With a 215 / 65 / 15 size tire which is 26 inches in height. Which gives us a true runout with the gear. For every 1.49 inches over 26 inches you can take 1 whole gear set out for your final drive output. If went with a 27.5 in tall tire, this would give us a final output equal to a 3.55 gear ratio. The opposite is true also, if you have a 24.5 inch tall tire with that same 3.73 rear gear the run out will give you a 3.90 gear output. The set-up we have will tighten or lower the stall in the torque converter again due to less resistance in moving the car. With the gear change however, the 11 inch diameter converter will have to have a lot of work done to it to keep the stall in that same 1,800 to 2,000 RPM range. If the converter is stalled too high for its diameter the torque converter become inefficient and sloppy. This is known as slipping because the torque multiplication drops. It will also create more heat. You will lose the pull or feel of torque the car does not pull as good. That is another reason it is so

important to get the correct torque converter to match your set-up. Even if a step over stock cam is introduced in to this set-up then a 10 inch converter will be needed to have a decent idle and take off. This is not a racing style or set-up. This can be driven everyday on the street with good performance. You also must have enough gear ratio to support the stall at the same time. For example; with the set-up above, if we were traveling at 60 mph our RPM revs will be at 3,000. I could match this with a higher stall 10 inch converter. That would actually foot-break at 2,600 RPM. Flash is to quickly mash the gas pedal to the floor from a stand still. The engine's RPM will get ahead of the amount of fluid being pumped into the torque converter. This will give anywhere from 300 to 600 more RPM at launch. This is not a subjective method of picking a stall. We must have all of the information and it must be correct. If we just guess or assume, we may as well throw darts in the dark. (I did have a guy tell me that he had a step over stock cam. After talking with them I then found out that the cam had a .714 lift on the intake. That is a very large lift for any car)

NOTE: There are low stall 10 inch torque converters that would match up with this set-up. We do build a low stall 10 inch converter that has an advertised stall of 2,400 to 2,800 RPM that can actually stall about 2,000 RPM with the right set-up. With the set-up before a cam is added, this torque converter will stall 2,400 to 2,600 RPM in the car. The most important question to ask is how the vehicle is going to be used or driven. You CANNOT assume anything!

WARNING: Keep your Transmission Cool!

Even OEM cars are under cooled in order to maximize gas mileage.

- **14 million+ transmissions fail every year.**
- **9 out of 10 transmissions fail because of heat!**
- **Heat causes the fluid to break down prematurely and wears out internal components, Bearings, Clutches, & the Seals.**
- **Every 20˚ drop in transmission temperature can double the life of the transmission!**
- **More power equals even more stress & heat in the transmission.**
- **Must use the fluids designed for that transmission or failure is imminent. Shift kits are better for the life of the transmission. The slower shifts in an OEM set-up makes the transmission slip which creates heat. Improving the quickness of the shift can extend the life of the transmission. (With a stall converter the transmission can be shifting faster and you not feel it. The slip in the stall will absorb the shock of the shift.)**
- **Transmission cooler built into the radiator warms the transmission fluid up fast so that you will get better fuel mileage. There has to be a 47.9 degree temperature difference for good cooling properties to be there. In some cases, I suggest removal from the radiator and use external transmission coolers in front of the radiator.**

Using the combined knowledge will help you to understand that actual stall range **is variable** and **will directly depend on the entire setup of the vehicle.** All of the information about the vehicle is needed in order to match the set-up. The torque converter is by far the most complicated component you can purchase for a vehicle **(Engine set-up Vs. Weight of the vehicle Vs. Rear gear with the rollout of the tire.)**

If you do not give ALL of the information or you are asked ALL of the info, there is a good chance that you might not get the correct torque converter for your application.

Do not forget the most important piece of the puzzle. How YOU want to drive or use the car.

Important: Make sure that all RPM ranges match up to how you want to drive the car. The intake & the cams RPM should be the same or real close. (like 1500 to 6500 RPM for the intake & 2000 to 6500 RPM for the cam) There are thousands of different set-ups that can be achieved so do your homework on what it is you are looking to get out of it.

We have a method of matching up stalls that will pinpoint the stall range of your application with an accuracy of 99%. Let us help you pick the correct stall for your application and most importantly for how you want to drive your vehicle.

When is it time to change the transmission Fluid?
There are a lot of beliefs and guesses about when you need to change your transmission fluid. Your Original equipment maintenance books will have that information in them to guide you. These questions come to us on a regular basis with older style transmissions. They also ask what types of fluids they can use with their transmission.

First let's talk about when is it ok to change your transmission fluid in the older 2 speed and 3 speed transmissions. Transmission fluids are incased and not exposed to the combustion like the engine oils are. So, this means that the fluids are going to stay cleaner for a longer period. Fluids are designed to do a lot of things for the transmission. It obviously lubricates the system. It also conditions the clutches and O-rings in the valve body. It also acts as a coolant for the transmission with the flow of the fluid through the transmission's system. We highly recommend that you do use OE fluids and or direct replacements because they are designed for that application or transmission. 40,000 miles is a great time to start thinking about changing the transmission fluids for these types of transmissions. If you exceed 60,000 miles depending on how the vehicle is used as to the condition of fluid and clutches you might want to think twice before making modifications or changing too much. By changing the fluids far beyond what is recommended you can do more harm than good. You would be better off rebuilding the whole transmission and going with all new fluids to prevent potentially fatal damage to the transmission and torque converter. If it has been too long in between fluid & filter changes, then let it go. DO NOT change the fluid. The question is WHY? The answer to this is that the new fluids have fresh detergents and additives that condition the parts in it that will try to do its job and clean everything TOO good. This can quickly clog the filter and break up or should I say free up trapped contaminants throughout the transmission & torque converter system and allow them to cause damage to the transmission. I would suggest 4 years or 40,000 miles whichever comes first. Yes, even if the vehicle does not get more than a few hundred miles a year on it. Change the fluid. These fluids are designed to go.

PRK Performance, Racing & Kustoms

ABOUT OUR QUALITY

Hello,

I have been involved in the competitive sport of sportsman drag racing since the early 1980's During this time I have tried several different brands of torque converters! I want to tell you that my opinion is that ACC Boss Hog torque converters are simply the BEST torque converters on the market today.

Superior Quality Control combined with state of the art manufacturing techniques, ensure you receive a high quality piece!

These are not your typical "cookie cutter" converters sold by the competition, Fact is that they are basically hand crafted, and can be designed specifically to the parameters of your race car or street machine. ACC Performance does this to ensure that your new torque converter will work properly with your the very first time!

Now lets talk durability. Personally I have had the same torque converter installed in my race car for OVER 5 seasons. I race several nights per week, for 6 months at a time. I have not had one single mechanical issue from the converter. and during that entire time frame, My 60 foot time never varied,and it didn't matter if I was racing at my home track, or if i am competing out of state.

All I can say is, if you are looking great performance at a affordable price, Look no further than ACC Performance!

John Hummel
Owner of Hummel Motorsports NHRA Drag Racer

We are very focused on what we do to ensure the best product you can get.

Attention to detail with each component.

Digitally balance with the best equipment for your best fitment and run out.

Quality controls are at every step of the process.

Our parts are some of the cleanest inside the converter in the market.

We spray weld for 6 to 8 times the strength. We also use Pulse Welding for greater control of the converters durability.

Precision calibrated New equipment to insure repeatability and hold extremely tight tolerances.

Our quality is beyond reproach.

We have excellent training.

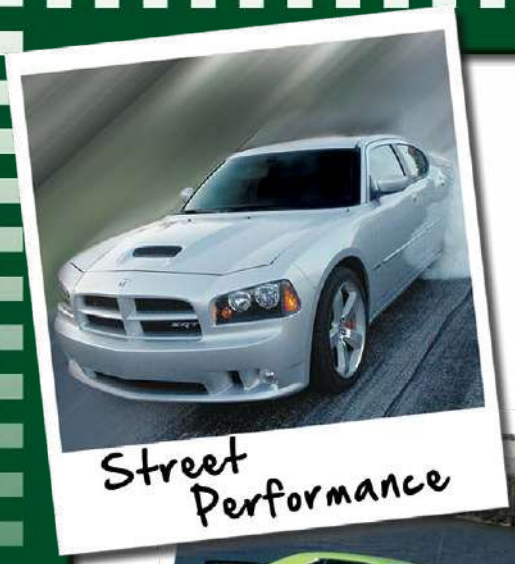
We work very hard so you can play harder!

The Torque Converter is considered to be the most mysterious mechanical component in today's vehicle. It functions like a clutch, which keeps the motor running even when the vehicle comes to a halt. By designing the stall speeds to match both the engine and desired stall speed, an ACC Performance converter will help low-end idle speeds, improve performance and acceleration. We can drastically change the output of the vehicle. ACC Performance can even improve your gas mileage by modifying your torque converter. ACC Performance Torque Converters feature several uses in different industries like industrial power transmissions, automatic transmissions, trucks, buses, and many other applications that include everything from race vehicles to rock crawlers. Proper installation, maintenance, and protection are needed for the torque converter to obtain the longest life possible. A default in the maintenance or heat protection of the torque converter can result in damage such as overheating, stator clutch breakage, fin damage, ballooning, and stator clutch seizure. It is imperative that a transmission cooler be added with any torque converter that is rated over a stock stall.

In a high performance application the so called "transmission cooler" that runs through the radiator is in all actuality a transmission fluid heater. The internal radiator transmission cooler will raise the temperature to normal operating temperature much faster. This make the transmission fluid flow much easier throughout the transmission giving you better fuel mileage. However, the temperatures that the radiator hits does not allow for the proper cooling properties that are needed

with today's high performance transmissions. Most radiators have an operating temperature of about 200 degrees. There must be a 34.7 degree variance in temperature before an acceptable amount of cooling can occur. The proper way to insure that the correct amount of cooling is taking place would be to by-pass the radiator and go through an external transmission cooler. ACC Performance suggests a minimum of a 3/4" X 10" X 12" size cooler. The addition of an external transmission cooler can drop the transmission fluid temperature more than 10 degrees which can more than double the life of your transmission.

All torque converters operate off of the twisting force of the engine and fluid pressure versus the weight of the vehicle. Do you remember back when you put dual exhaust on a truck and it got a little better gas mileage and engine performance? Well, the reason is: It freed up the exhaust to a point that it would expand the RPM range with the better exhaust flow. It would even give you better midrange and upper RPM power. It also lowered the torque between idle and 2,400 RPM. This change in the pressure on the transmission fluid would lock up the sprag in the stator earlier. You would have to say that the converter locking up earlier allowed the vehicle to move with less RPM. This in turn will give the vehicle better mileage and upper RPM performance.



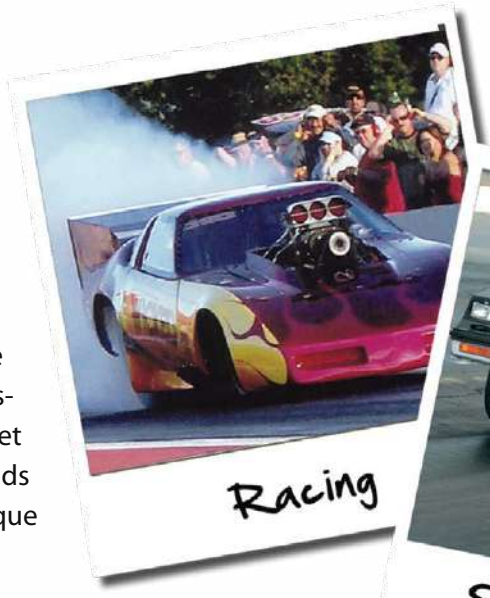
Restoration and Street Torque Converters

Picking the stall range for your Restoration or Street Vehicle can be a little tricky. Cataloged stall ranges are picked by the vehicle's basic set-up (i.e. horse power, engine torque, vehicle weight, etc.). The stall range will vary from car to car. This means, the converter must be matched up to fit your specific vehicle's set up.

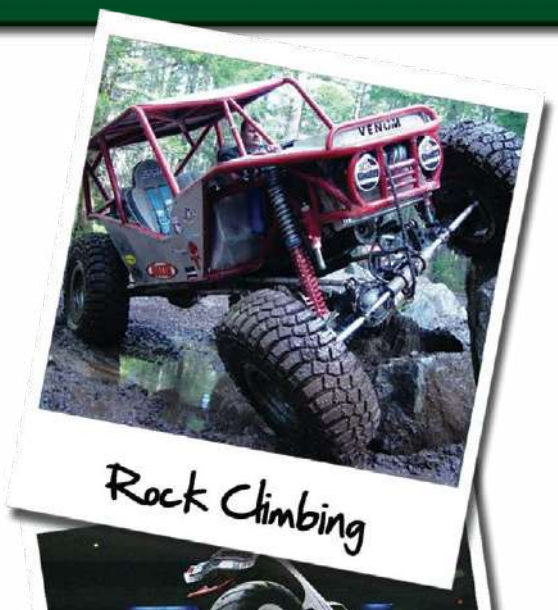
A built engine with all the goodies will need more stall in order for the engine to idle correctly. We would suggest you consider either one of our Night Stalker or Street Bandit style converters. See pages 20 and 21.

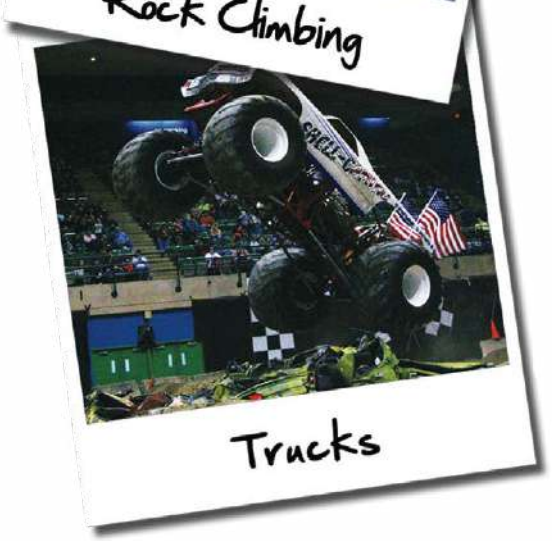
Street Strip and Racing Converters up to 1,000+HP

The Street Bandit and Outlaw converters are engineered for a much more aggressive set-up. Vehicles with a cam, intake, and heads etc. will generally have between 350 to 1,000+ horse power. They may also have a Trans-Break and/or a Nitrous Oxide set up. ACC Performance recommends a Street Bandit or Outlaw Torque Converter for these vehicles.



The Street Bandit and Outlaw series are excellent for vehicles that have been modified from the factory. Larger than OEM intakes, bigger fuel injectors, carburetors and exhaust systems will make a difference in how the torque converter will stall. This is the point where you need to change the torque converter in order to realize the power that you have bolted on.





Rock Crawlers and Truck Torque Converters

Rock Crawlers and Truck Torque Converters are designed to handle a lot of power with a lower stall range. Modifications to the engine and chassis can make it increasingly difficult to choose the correct stall range.

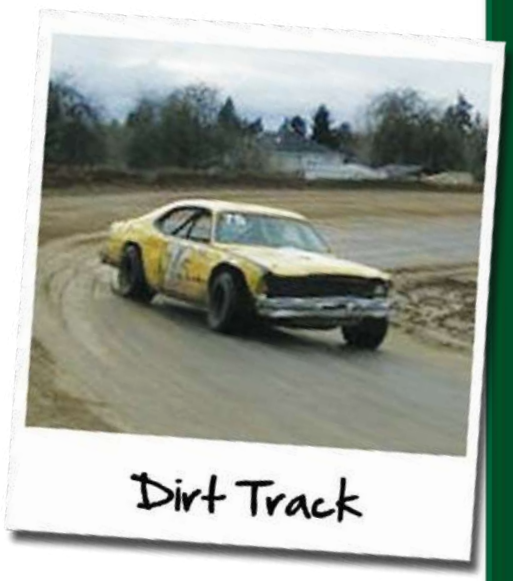
Most of these cars will be in our Night Stalker and Street Bandit series of Torque Converters. Built engines with all the goodies will need more stall in order for the engine to idle correctly.

Light weight vehicles will require more than a typical advertised stall. This means it will not stall, as advertised, due to the chassis weight or engine build. ACC Performance converters are built to handle the extreme abuse of the Crawlers and Trucks.

Heavy trucks put a lot of pressure on the drive line. The lower stall is needed because of the weight. ACC converters are designed to tow heavy loads for long distances.

CIRCLE TRACK & DIRECT DRIVE "DUMMY" CONVERTERS. 10" & 11"

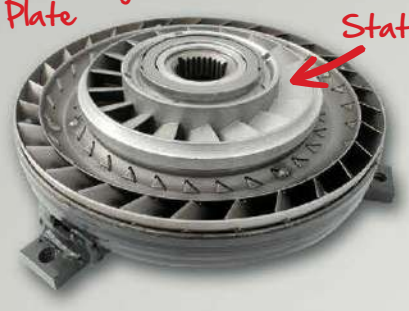
ACC Performance has built for you the "Ultimate" Low Stall circle track converters with hard in & out to the corner performance. ACC Circle track converters are built track tuff with the finest heavy duty materials available. From oversized Torrington Bearings and welded fins for added accuracy and extended track life.



ACC PERFORMANCE

ANTI-BALLOONING PLATES

We custom design and build our own precision anti-ballooning plates that will withstand severe and extreme duty applications for nitrous and trans-brake applications. Unlike many of our competitors, we do not use the chromemoly anti-ballooning plates that are available because chromemoly turns almost brittle when welded. Our anti-ballooning plate is a little smaller to fit the top, which gives it more strength.

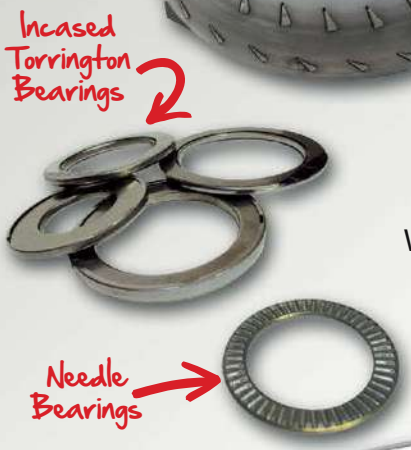


STATORS

Our stators are precision fitted and tested along with the best materials on the market for your pleasure and abuse.

CUSTOM TURBINE HUBS

Our custom turbine hubs are not made of chromemoly and are designed for optimum performance. These also act as an anti-ballooning plate for the turbine, giving you less flex on the turbine and more strength to hold up under severe pressures. This makes our converter deadly accurate against the tree.



TORRINGTON BEARINGS

We use industrial Torrington type bearings on all of our converters, including street/strip. The Torrington Bearings will give you a longer life span for the converter and prolonged use.

BOSS HOG
Torque Converters
The Original
ACC
PERFORMANCE PRODUCTS PLUS

SPRAG REPLACEMENT

We offer spragless converters for those extreme duty applications.

WELDED FINS

We weld up the fins inside the impellers and turbines for added accuracy, strength and durability. This process hardens the fins which helps it maintain its stall under extreme duty situations.

EXTREME DUTY LOCK-UP MATERIAL

We only use the highest quality liners for our lock up converters, from a carbon fiber blend to a woven Kevlar blend.

DIESEL CONVERTERS

Our Diesel Converters have the same tough features and benefits as the Heavy Duty series and are also engineered to meet the extreme demands of the Diesel engines. We use only the extreme duty materials for our lock-ups, in order to give you a longer lasting and dependable performance time after time.

TORQUE CONVERTER BOLTS

Boss Hog Torque Converter Racing Bolts are available. Call NOW to get a part number.

The Original Boss Hog Torque Converter

We Custom Build & Design Converters

Night Stalker Series

The **Night Stalker Series** is designed to handle as much as 500 horsepower. Comparable lines will only handle up to 300 horse power.

ACC Performance puts the much larger Torrington type incased bearings throughout the converter where needed. These bearings will handle more raw power and abuse that the higher horsepower engines produce. Some of the competition uses a smaller needle type bearing. Needle bearings are not incased, which makes them susceptible to picking up trash or debris from the transmission fluid, which can lead up to heat build up and failure.

We also weld up and four-corner tack-weld our turbine and impeller fins in order to maintain the highest strength and quality. ACC Performance has custom engineered our turbine hubs. Many competitors use a chromemoly steel hub that does not weld very well. If improperly welded, the hub could cause converter failure and or damage to your transmission.

The stators are built with high flow vents and channels for greater cooling in order to handle the greater power and heat ranges. ACC Performance converters are engineered with a single bolt

pattern for the rotating mass. This makes ACC Performance Torque Converters surprisingly light, keeping the weight of the converter off of the rotating mass of the motor. This will free up your motor and allow it to rev-up through the RPM range quicker, helping your engine put more power to the ground. Some of the competitors use a dual bolt pattern converter to eliminate multiple part numbers, i.e./ th350 & 400's. These transmissions using the same converter with a dual bolt pattern, will add 3 to 4 pounds of weight to the converter. This adds weight to the rotating mass of the engine, costing you nothing but horsepower & torque. We at ACC are in the performance business and try to maximize horsepower at every level. We think you do too!

NOTE: The Night Stalker series converters are OEM factory sized in order to maintain a lower level of operating temperatures and for the best torque multiplication. These converters are ideal for just over stock applications and heavy vehicles and trucks.

Street Bandit Series

Street Bandit Series Converters handle up to 650hp

The **Street Bandit Series** Converters are designed to handle as much as 650 horse power. Some of the comparable models will only handle up to 350 horse power.

ACC Performance puts the much larger Torrington type incased bearings through out the converter where they are needed. The Torrington bearings will handle a lot more raw power and abuse that the higher horsepower engines and transmissions of today produce. Some of the competition uses a smaller needle type bearing. Needle bearings are not incased, which makes them susceptible to picking up trash in transmission fluid, which can lead up to heat build up and failure.

We also weld-up and four corner tack-weld our turbine and impeller fins in order to maintain the highest strength. This will stop fin degradation or deformity. We also have custom engineered our turbine hubs in order to maintain the highest quality, strength, and durability. Some of the competitors use a chromemoly steel turbine hub that does not weld very well. If improperly welded, it can cause converter failure and or damage to your transmission.

The stators are built with high flow vents and channels for greater cooling in order to handle the much greater power and heat ranges.

Some of the competitors use a dual bolt pattern on their converter in order for one converter to fit more applications.

ACC Performance converters are engineered with a single bolt pattern for the rotating mass. This makes ACC Performance Torque Converters surprisingly light, keeping the weight of the converter off of the rotating mass of the motor. This will free up your motor and allow it to rev-up through the RPM range quicker, helping your engine put more power to the ground. Some of the competitors use a dual bolt pattern converter to eliminate multiple part numbers, i.e./ th350 & 400's. These transmissions using the same converter with a dual bolt pattern, will add 3 to 4 pounds of weight to the converter. This adds weight to the rotating mass of the engine, costing you nothing but

horsepower & torque. We at ACC are in the performance business and try to maximize horsepower at every level. We think you do too!

NOTE: The Street Bandit series converters are NOT designed to handle the extreme shock and abuse of Nitrous Oxide or Trans-Breaks. Call ACC Performance for more information.

Outlaw Series

Outlaw Series Converters handle up to 1,000+ hp

Note: Made for Nitrous Oxide and Transbreaks

The **Outlaw Series** Converters will handle as much as 1,000+ horse power. The Outlaw Torque Converter is the toughest ACC Performance Torque Converter built. All of the Outlaw series Torque Converters come with a custom Anti-ballooning plate that is designed to hold back any potential ballooning of the Torque Converter. These special designed plates keep the extra weight off of the rotating mass. The Outlaw series converters are designed to handle the extreme shock and abuse of excessive horse power, Nitrous Oxide and or Trans-Break.

ACC Performance puts the much larger Torrington type incased bearings through out the converter where the weaker points are. The Torrington bearings will handle a lot more raw power and abuse that the higher horse power engines and transmissions of today produce. Some of the competition uses a smaller needle type bearing. Needle bearings are not incased, which makes them susceptible to picking up trash in transmission fluid, which can lead up to heat build up and failure.

We also weld-up and tack-weld our turbine and impeller fins all the way around in order to maintain the highest strength. This will stop fin degradation or deformity. We also have custom engineered turbine hubs in order to maintain the highest quality, strength, and durability. Some of the competitors use a chromemoly steel turbine hub that does not weld very well. If improperly welded, it can cause converter failure and or damage to your transmission.

The ACC Performance stators are built to handle more power and heat ranges The stators are built with high flow vents and channels for greater cooling in order to handle the much greater power and heat ranges.

ACC Performance converters are engineered with a single bolt pattern for the rotating mass. This makes ACC Performance Torque Converters surprisingly light, keeping the weight of the converter off of the rotating mass of the motor. This will free up your motor and allow it to rev-up through the RPM range quicker, helping your engine put more power to the ground. Some of the competitors use a dual bolt pattern converter to eliminate multiple part numbers, i.e./ th350 & 400's. These transmissions using the same converter with a dual bolt pattern, will add 3 to 4 pounds of weight to the converter. This adds weight to the rotating mass of the engine, costing you nothing but horsepower & torque. We at ACC are in the performance business and try to maximize horsepower at every level. We think you do too!

YOUR ENGINE'S AND VEHICLE'S SETUP

Customer Name_____ City &State_____

Phone_____Alt Phone_____What Trans._____

What kind of car is this for?_____Year_____Make _____Model

Is it a full body car? YES / NO How much Does the car weigh?_____Lbs.

What size engine do you have?_____

Is your car carbureted / Fuel injected →

What size carburetor do you have?_____cfm /

Do you have a spacer plate? YES / NO

What size Spacer?_____" For NOS? YES / NO

What size fuel inductors?_____Lbs.

Cold Air intake? YES / NO

Bigger Throttle Body?_____mm

Bigger Mass Air Sensor?_____mm

What kind of intake is it?_____ Dual Plane / Single Plane

What kind of heads do you have?_____

What is the CC chamber rating for your heads?_____cc

Valve size?_____int _____exh What is your COMPRESSION RATIO? _____:1

What size Headers do you have?_____(diamiter size at the Head)

Are you running open Headers? YES / NO

What kind of mufflers are you running?_____

Are you running- True Dual exhaust / H-pipe / X-pipe

What Size Exhaust pipes are you running?_____inch pipe

What is the lift of your cam as advertised?_____int _____exh

What is the Duration of your cam?_____int _____exh Lobe separation _____

What is the RPM RANGE for that cam?_____-_____RPM

What is the REAR GEAR RATIO? _____

How Tall is the rear tire?_____inches

Are you running NOS_____Shot / TRANS-BREAK / TURBO -_____Lbs of Boost

BOSS HOG	"NIGHTSTALKER"				"STREET BANDIT"					"OUT LAW"				
CONVERTER APPLICATION CHART	BOSS HOG Stock Converter	BOSS HOG Ultra Tow	BOSS HOG 16-2200 level 1	BOSS HOG 22-2800 level 2	BOSS HOG 24-2800 level 1	BOSS HOG 28-3200 level 2	BOSS HOG 32-3600 level 3	BOSS HOG 36-4200 level 4	BOSS HOG 42-5000 level 5	WILD BOAR 24-2800 level 1	WILD BOAR 28-3200 level 2	WILD BOAR 32-3500 level 3	WILD BOAR 35-4200 level 4	WILD BOAR 42-5000 level 5
WARNING : All Stall ranges will vary Depending on Engines set-up Vs. Weight of the vehicle Vs. Gear Ratio														
MOPAR TORQUE CONVERTERS														
CHRYSLER 67-Up TF-727 24 Spline 1.810 CP Non Lock Up 11" Core	* Hemi Requires 10" Bolt Pattern			11" Core	54093	54053								
CHRYSLER 67-Up TF-727 24 Spline 1.810 CP Non Lock Up 10" Core	* Hemi Requires 10" Bolt Pattern			10" Core	54062	54094	54095	54096	54097	54793	54753	54743	54794	54795
CHRYSLER 67-Up 1.810 CP TF-727 24 Spline 11" Core With Weights, Non Lock-Up	* Hemi Requires 10" Bolt Pattern			11" Core	54083	54073								
CHRYSLER 67-Up 1.810 CP TF-727 24 Spline 10" Core With Weights, Non Lock-Up	*Requires 10" Bolt Pattern			10" Core	54072	54084	54085	54086	54087	54783	54773	54763	54784	54785
CHRYSLER 67-Up TF-904 1.810 CP 11" Core Non Lock Up	53020		53022	53023		53053								
CHRYSLER 67-Up TF-904 1.810 CP 10" Core Non Lock - Up					53032	53024	53025	53026	53027	53723	53753	53743	53724	53725
CHRYSLER 67-Up 1.810 CP TF-904 Non Lock - Up With Weights 12" Core	53080		53082	53083		53073								
CHRYSLER 67-Up 1.810 CP TF-904 Non Lock - Up With Weights 10" Core					53072	53084	53085	53086	53087	53783	53773	53763	53784	53785
DODGE CHARGER 07-UP 48RE , Lock Up	66400	6640HD		66402		66403								
CHRYSLER 670A 22-24 Spline	55400			55402		55403								
CHRYSLER 1993-1995 A-518 Lock Up, 23 Spline	51800	5180HD		51802		51803								
CHRYSLER 1996 - Up A-518 Lock Up, 23 Spline 90 Degree Bolt Pattern	51900	5190HD		51902		51903								

TORQUE CONVERTER BOLTS	
10012	Torque Converter to Flex Plate Bolts, 3/8 in - 16 x 0.75 in, 4pc, Ford
10014	Torque Converter to Flex Plate Bolts, 3/8 in - 16 x 0.75 in, 3pc, GM
10015	Torque Converter to Flex Plate Bolts, 3/8 in - 16 x 0.5 in, 3pc, GM TH400
10016	Torque Converter to Flex Plate Bolts, 3/8 in - 24 x 5/8 in, w/Nuts, 3pc, GM TH350 / Powerglide
10017	Torque Converter to Flex Plate Bolts, 3/8 in - 24 x 0.5, w/Flanged Lock Nuts Only, 4pc Ford
10018	Torque Converter to Flex Plate Bolts, 5/16 in - 24 x 7/16 in, 4pc, Chrysler Exc. Hemi
10019	Torque Converter to Flex Plate Bolts, 7/16 in - 20 x 1.25 in, w/Nuts, 3pc, GM 10" Race Converter
BC = Bolt Circle / CP = Crank Pilot	**** Stall Speed will vary depending on your Engine / Weight of the Vehical / Gear Ratio

WARNING: All stall ranges will vary depending on engine's set-up vs. weight of the vehicle vs. gear ratio.

ACCPERFORMANCE.com

BOSS HOG	"NIGHTSTALKER"				"STREET BANDIT"					"OUT LAW"				
CONVERTER APPLICATION CHART	BOSS HOG Stock Converter	BOSS HOG Ultra Tow	BOSS HOG 16-2200 level 1	BOSS HOG 22-2800 level 2	BOSS HOG 24-2800 level 1	BOSS HOG 28-3200 level 2	BOSS HOG 32-3600 level 3	BOSS HOG 36-4200 level 4	BOSS HOG 42-5000 level 5	WILD BOAR 24-2800 level 1	WILD BOAR 28-3200 level 2	WILD BOAR 32-3500 level 3	WILD BOAR 35-4200 level 4	WILD BOAR 42-5000 level 5
WARNING : All Stall ranges will vary Depending on Engines set-up Vs. Weight of the vehicle Vs. Gear Ratio														
NEW FORD TORQUE CONVERTERS														
FORD **C-4 24 spline 10.5 BC** Small Bellhousing - 1.375 CP 5 5/8 inch tall **10" Core**					25052	25013	25053	25014	25015	25613	25653	25623	25614	25615
FORD **C-4** 24 spline 11 7/16 BC Big Bellhousing - 1.375 CP 5 7/8 inch tall **12" Core**	25040	2504HD	25041	25042										
FORD **C-4** 24 spline 11 7/16 BC Big Bellhousing - 1.375 CP 5 7/8 inch tall **10" Core**					25032	25043	25033	25044	25045	25632	25633	25643	25644	25645
FORD **C-4 26 spline 10.5 BC** Small Bellhousing-1.375 CP 5 5/8 inch tall **10" Core**					25132	25113	25133	25114	25115	25732	25733	25723	25714	25715
FORD **C-4** 26 spline 11 7/16 BC Big Bellhousing - 1.375 CP 5 7/8 inch tall **12" Core**	25140	2514HD	25141	25142										
FORD **C-4** 26 spline 11 7/16 BC Big Bellhousing - 1.375 CP 5 7/8 inch tall **10" Core**					25152	25143	25153	25144	25145	25742	25753	25743	25744	25745
FORD **C-6, 5 7/8 tall, FE Motors** 11 7/16"BC,1.848 CP,**12" Core** **(332, 360, 390, 406, 427, 429)**	26,010	2601HD	26011	26012										
FORD **C-6, 5 7/8 tall, FE Motors** 11 7/16"BC,1.848 CP,10" Core **(332, 360, 390, 406, 427, 429)**					26032	26013	26033	26014	26015	26632	26633	26623	26614	26615
FORD **C-6, 5 7/8 tall,** 1.375 CP 11 7/16"BC **12" Core** **(289, 302, 351, 400, 429, 460)**	26060	2606HD	26061	26062										
FORD **C-6, 5 7/8 tall,** 1.375 CP 11 7/16"BC **10" Core** **(289, 302, 351, 400, 429, 460)**					26052	26063	26053	26064	26065	26662	26653	26663	26664	26665
FORD late **F M X 1.375 CP** 29 Spline, 5 7/8 tall, **12" Core**	21100		21192	21193										
FORD late F M X 1.375 CP 29 Spline, 5 7/8 tall, **10" Core**					21172	21194	21195	21196	21197	21732	21794	21795	21796	21797
FORD **AODE / 4R70W** 96-03 11"BC **11" Core**	26550			26512		26513	**Must specify bolt circle size			Call for Aplications				
FORD **AODE** 94-95 12"BC **12" Core**	26555	2650HD	26500	26501		26502	**Must specify bolt circle size							
FORD **AOD** 80-Up, 11 1/2"BC 1.375 CP, **12" Core**	26400			26401		26402				26732	26733			
FORD **AOD** 80-Up, 11 1/2"BC 1.375 CP, **10" Core**					26422	26403	26404	26405		26722	26743	26753	26744	
FORD **5R55** 05-Up Mustang GT 8 Pad	27400			27402		27403								
FORD **4R100/E40D** 1.375 CP 4 Lug Only	24401	2440HD		24402		24403								
FORD **4R100/E40D** 1.375 CP 6 Lug Only	24461	2446HD		24462		24463								

WARNING: All stall ranges will vary depending on engine's set-up vs. weight of the vehicle vs. gear ratio.

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BOSS HOG CONVERTER APPLICATION CHART	"NIGHTSTALKER"				"STREET BANDIT"					"OUT LAW"				
	BOSS HOG Stock Converter	BOSS HOG Ultra Tow	BOSS HOG 16-2200 level 1	BOSS HOG 22-2800 level 2	BOSS HOG 24-2800 level 1	BOSS HOG 28-3200 level 2	BOSS HOG 32-3600 level 3	BOSS HOG 36-4200 level 4	BOSS HOG 42-5000 level 5	WILD BOAR 24-2800 level 1	WILD BOAR 28-3200 level 2	WILD BOAR 32-3500 level 3	WILD BOAR 36-4200 level 4	WILD BOAR 42-5000 level 5
WARNING : All Stall ranges will vary Depending on Engines set-up Vs. Weight of the vehicle Vs. Gear Ratio														
GENERAL MOTORS TORQUE CONVERTERS														
GM 1968-81 **TH350** 10 1/2 BC, **12" Core**	47000	4701HD	47011	47012										
GM 1968-81 **TH350** 10 1/2 BC, **9.6" Core**					47022	47013	47033	47014	47015	47732	47713	47733	47714	47715
GM 1965-91 **TH400** 11 1/2 BC, **12" Core**	46000	4601HD	46011	46012										
GM 1965-91 **TH400** 11 1/2 BC, **9.6" Core**					46022	46013	46033	46014	46015	46732	46713	46733	46714	46715
GM 1962-73,**POWERGLIDE** **17 spline** **12"** Core	34000	3404HD	34041	34042										
GM 1962-73,**POWERGLIDE** **17 splines** 9.6" Core					34032	34043	34053	34044	34045	34752	34743	34753	34744	34745
GM 1984-UP **4L60E, Lock Up** 30 Spline, 298mm, **12" Core**	49440	4944HD	49441	49442		49443								
GM 1984-UP **4L60E, Lock Up** 30 Spline, 298mm **9.6" Core**					49432	49433	49444	49445		49742	49744	49734	49745	
GM 1984-UP **4L60E,** **Non-Lock Up**, 30 Spline **298mm** **9.6"** Core					49022	49023	49024	49025		49722	49724	49714	49725	
GM 1992-UP **4L60E/4L65E** **300mm, LS Motor, Lock Up** 30 Spline, **12" Core**	49450	4945HD	49451	49452		49453								
GM 1992-UP **4L60E/4L65E** **300mm, LS Motor, Lock Up** 30 Spline, **9.6" Core**					49462	49463	49454	49455		49752	49754	49764	49755	
GM 1992-UP **4L60E/4L65E** **300mm LS, Non Lock-Up** 30 Spline, **9.6" Core**					49072	49073	49074	49075		49772	49774	49784	49775	
6L80E 35 spline Turbine 2006 up 36 Spline Stator Lock Up Out Law Series Only										*NEW* 45702	*NEW* 45703	*NEW* 45704	*NEW* 45705	
GM **4L80E** **1992-UP** 35 Spline **2" Impeller Hub**	49480	4948HD	49481	49482						*NEW* 49702	*NEW* 49703	*NEW* 49704	*NEW* 49705	
GM **4L80E** **1992-UP** 35 Spline **2.5" Impeller Hub**	49490	4949HD	49491	49492										
GM 1982-Up **700R4 / 200R4** **12" core** ***27 Spline Input**, Lock Up	48400	4840HD	48401	48402						*The Input shaft is the smaller, center shaft that sticks out the farthest from the transmission. If you have any questions - Call (888) 267-7464				
GM 1982-Up **700R4 / 200R4** **9.6" core** ***27 Spline Input**, Lock Up					48432	48403	48404	48405		48752	48754	48764	48755	
GM 1984-91 **700R4** **Lock Up** **30 Spline,** **12" Core**	48440	4844HD	48441	48442		48443								
GM 1984-91 **700R4** **Lock Up** 30 Spline, **9.6" Core**					48452	48453	48444	48445		48742	48744	48734	48745	
GM 1984-91 **700R4** **Non - Lock Up** 30 Spline, **9.6" Core**					48072	48073	48074	48075		48772	48774	48784	48775	
GM 1977-UP **12" Core** TH350C **Lock - Up**	47400	4740HD	47401	47402										
GM 1977-UP **9.6" Core** TH350C Lock - Up					47432	47403	47404	47405		47642	47643	47653	47644	

GM DIRECT DRIVE CONVERTERS							GM DIRT TRACK CONVERTERS						
	12" 18 lbs		9.6" 12 lbs			9.6"-1/4" Midplate	16-1800 stall	12"	11"		10"		9.6"-1/4" Midplate
TH350	47001		47002			47202	TH350	47112	47101		47111		47211
TH400	46001		46002			46202	TH400	46112	46101		46111		46211
POWERGLIDE	34001		34002			34202	POWERGLIDE	34140	34101		34141		34241

WARNING: Dirt Track Racers : Some of these parts may or may not be legal at your track.
This product looks stock but runs fast & is super light. Use at your own risk!!!

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