



TORQUE CONVERTER INSTALLATION INSTRUCTIONS

Installation of the torque converter is not always as easy as it looks. We have found that over time that as much as 85% of the warranties have been traced directly to improper installation and miss picking the stall versus the car's complete setup. Therefore, we strongly suggest that you read these instructions and follow them carefully to avoid any unnecessary problems due to improper installation.

1. Once you have removed the converter from the box, take a minute to make sure that it is the correct application. To do this, hold the converter onto the flywheel to check that the converter pilot fits properly into the rear of the crankshaft with no excess clearance. Check to make sure that the bolt holes or studs on the converter line up with the bolt pattern of the flywheel.
2. After checking the converter for fit to the flywheel and crankshaft, check the flywheel itself for cracks or excessive wear on the flywheel starter teeth. It would be a shame to go through the trouble of removing the transmission and not replacing the flywheel if necessary. We strongly recommend that you replace your stock flywheel with a heavy duty flywheel. They are available for almost all applications.
3. When installing the converter onto the transmission, please pour approximately one quart of ATF (automatic transmission fluid) into the converter before installing into the transmission. Using a light grease, coat the transmission seal, front pump bushing, and converter neck.
4. Install converter into the transmission carefully trying not to damage the front seal and bushing. Once you are into the pump, hold the pilot of the converter with one hand to center the converter the best that you can. Rotate the front mounting pads in a clockwise direction. This will allow the spines and hub slots (or flats in the case of Ford type) to engage into the pump properly. You should experience two distinct drops of the converter into the transmission before it is all of the way in. At this point, use a light lithium grease (white) or equivalent and grease the torque converter pilot and crankshaft pilot so the converter slides into the crank without binding up.
5. Before installing the transmission into the engine, make sure that the engine dowel pins are free of rust and that the dowel holes in the trans are free of dirt or corrosion. Grease both lightly to avoid any type of bind up. NOTE: If you are using a motor plate, make sure that your dowel pins are long enough. In the case of a 0.090 mid-plate, you can get away with using stock engine dowel pins. Anything thicker than 0.090, please purchase and install longer dowel pins.
6. Locate the transmission onto the engine dowel pins and install the transmission mounting bolts. The transmission housing should contact the engine block squarely. If it does not, LOOK FOR THE REASON! DO NOT attempt to draw the transmission against the block with the bolts. The converter is probably not all of the way into the transmission.
7. After the transmission housing bolts are tight, check to see if the converter can turn freely (except Ford applications with studs). Push the converter into the transmission as far as possible. Using a ruler or scale, check the distance between the converter pad and the flywheel as shown in **Figure 1**. Pull converter forward a minimum of 1/8 of an inch, maximum 3/16 of an inch. Using flat washers, remove any additional space between the converter and the flywheel. NOTE: In case of Ford applications with studs, measure from end of stud to flywheel. Tighten converter nuts and measure again. The difference should be within the tolerance.
8. Finish the installation of the transmission. When finished, install four quarts of ATF in the transmission. Start the engine and immediately add two more quarts. Now, you can add additional fluid to fill the transmission. At this point, please read our section on filling the transmission.

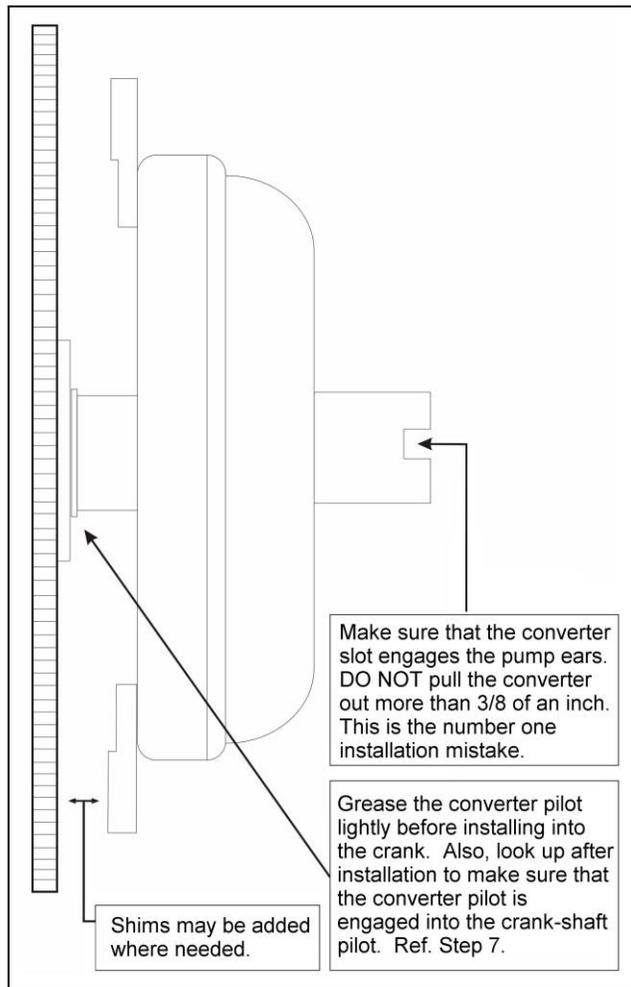


Figure 1

FILLING THE TRANSMISSION:

What You Should Know About ATF

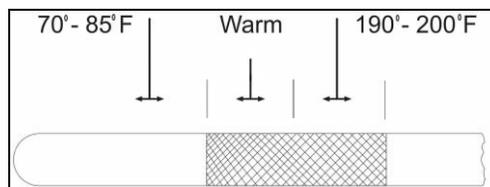
When filling the transmission with ATF, keep in mind these little known facts listed below. We are sure that you will find this section informative and helpful to you.

While checking the fluid level in the transmission, keep in mind that the level will change directly with the temperature. If the fluid feels cool, about room temperature, the level should be between the two (2) dimples or cross-hair marks. Note that the levels can read different with different size converters.

If the fluid reads warm, then the level should be towards the ADD mark.

If the fluid is hot, the level should be between ADD mark and the FULL mark. If fluid is added, recheck the fluid after one to three minutes with the engine running.

As the fluid temperature increases, a level change of over 3/4 will occur as fluid temperature rises from 60 to 180 degrees.



Hays Technical Support

Technical Service: 1-866-464-6553 or 270-781-9741.

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Date: 6-6-17