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HP1491 Adapter Kit 6 Hole Crankshaft HP1491-8 Adapter Kit 8 Hole Crankshaft rev.a 9-16

For over 45 years our goal has been to provide racers and enthusiasts with reliably engineered, U.S. manufactured, torque converters and drive train components for your high performance application. *Before you start your build, please take a few moments to review the important Product Safety Information and installation steps set out within this instruction manual.* If you still have questions; Hughes Performance® technical team is here to help: (1-800-274-RACE).

Important Product Safety Information

Throughout these instructions important safety information is generally preceded by one of three signal words indicating the relative risk of injury. The signal words mean:

! WARNING a hazardous situation which if not avoided could result in death or serious injury. **You CAN be Killed or Seriously Injured if you do not follow instructions.**

! CAUTION a hazardous situation which if not avoided could result in minor or moderate injury. **You CAN be moderately INJURED and also may suffer property damage if you don't follow instructions.**

NOTICE careful attention is required to follow this installation instruction or operation but does generally not relate to personal injury. Damage to your product or other property may result if you do not follow instructions.

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! WARNING: Improper selection of Hughes Performance® products, failure to follow installation instructions and/or misuse increases the risk of injury or accident. For your safety and the safety of others:

- Assure the Hughes Performance® product selected is intended for your application with an additional safety margin above your expected horsepower, torque, and intended usage of product and vehicle.
- These instructions are not intended to address all risks related to modification of your vehicle or use. Remember: *you are the builder and chief safety engineer for your modified vehicle.* Consult and follow all OEM warnings and operating limitations.

! WARNING: Use protective eyewear and gloves. If dusty, use face mask, wet and wipe clean working surfaces. Transmission fluids and cleaning products are highly flammable! Avoid open flame, welding sparks, smoking, or other sources of ignition. Flexplate, torque converter, and transmission assembly involves heavy parts and pinch points. Use support jacks and review installation steps before attempting.

Our specially designed adapter kits allow you to use any standard GM bolt pattern transmission (Powerglide, TH400, 700R4, Etc) with your 318-360 based Chrysler engine. These instructions cover our HP1491 (6-bolt crankshaft) and our HP1491-8 (8-bolt crankshaft).

Both Kits Contain:

Qty. Description

- (3) 7/16" - 20 x 1 1/2" Hex Bolts & Nuts
- (5) 3/8 Nylon Lock Nuts
- (2) 7/16"- 14 Nylon Lock Nuts
- (3) Converter Spacers (.385")
- (1) 1/4" Aluminum Adapter Plate

Qty. Description

- (3) 7/16" Nuts
- (2) 7/16" - 1/4 x 2" Flat Head Socket Cap Screws
- (4) 3/8" - 16 x 3/4" Flat Head Socket Cap Screws

HP1491 (6 Hole Crank) Contains:

- (1) Flywheel (6 hole) with Ring Gear
- (1) 6 Hole Aluminum Adapter
- (6) 7/16" x 20 x 1" Long Flat Head Socket Cap Screws

HP1491-8 (6 Hole Crank) Contains:

- (1) Flywheel (8 hole) with Ring Gear
- (1) 8 Hole Aluminum Adapter
- (8) 1/2" x 20 x1" Flat Head Socket Cap Screws

Installation Instructions

Note: Read instructions completely before attempting installation. Improper installation may result in property damage, personal injury or death. If you are not familiar with this type of installation, you may want to consult a Service manual. The manual will also provide you a complete listing of torque specifications.

Your Chrysler starter will bolt into place without any modifications. You will need to modify the transmission bellhousing to gain needed clearance for the starter nose.

Step 1 Bolt adaptor plate to engine using bolts provided with kit (Four 3/8" x 15 x 3/4" Flat Head Socket Cap Screws, Two 7/16" - 14 x 2" Flat Head Socket Cap Screws and Two 7/16" x 14 Nylon Lock Nuts).

Step 2 Install flywheel and aluminum crank adapter:

HP1492: Use six 7/16" - 20 socket cap screws, use thread sealer and torque to 55 foot pounds

HP1492-8: Use eight 1/2" - 20 socket cap screws, use thread sealer and torque to 70 foot pounds

Step 3 Install Starter using the studs and nuts on adapter plate. Check starter for proper alignment with the Flywheel teeth.

Step 4 Transmission Bellhousing Modification:

NOTICE The transmission will need to be modified for starter clearance. Fit the transmission (without the converter installed) to the adaptor plate. Mark the area to be cleared then use a saw or grinder to remove material. **Note:** Remove only the amount necessary for clearance. Deburr, smooth and radius all corners and clean thoroughly after you have obtained proper clearance.

Step 5 Torque Converter installation: If you are using a new torque converter, you need to fill the converter with Automatic Transmission Fluid. After modifications are complete, install a General Motors type of torque converter with a standard three-hole (small bolt pattern) bolt circle into transmission.

Step 6 With the torque converter installed, bolt transmission onto the adaptor plate. Slide transmission over the adaptor plate. Use the five 3/8" nuts provided with kit to bolt transmission to plate. Use thread sealer and Torque Bolts 30 to 35 Foot pounds.

Step 7 Using the three 7/16" - 20 x 1 1/2" Hex head converter bolts and the three spacers, torque converter to the flywheel. Use one spacer per bolt. Install the spacer next to the flywheel then bolt converter to the flywheel. Use thread sealer and torque bolts to 35 foot pounds.

Step 8 After you have completed the adaptor kit installation, check all fluid levels and add fluid if needed. **NOTICE** Always maintain proper fluid levels for proper operation. **Do not overfill transmission.**

NOTICE Below is a chart that shows how to measure for proper depth clearances. Please check for proper clearances. Failure to do so can and will cause damage to the transmission and/or torque converter. Take measurement "A" shown in Figure 1. The correct method of measuring "A" is shown in Figure 2. Now take measurement "B" on the engine as shown in Figure 1. This is the distance between the engine block mating surface and the converter mount mating surface on the flywheel or flexplate. Compare the two measurements that you have taken. "A" must be greater than "B". If "A" is not greater than "B", converter is not installed properly. Pull converter off slightly, then push it on again, rotating it at the same time. Continue to do this until you feel the converter move inward and stop at proper engagement. Repeat measurement "A" and compare it again with "B". "A" must be greater than "B". Do not proceed further until you have installed the converter properly. If you have any questions, please us at 1-602-257-9591, or consult a trained mechanic for assistance.

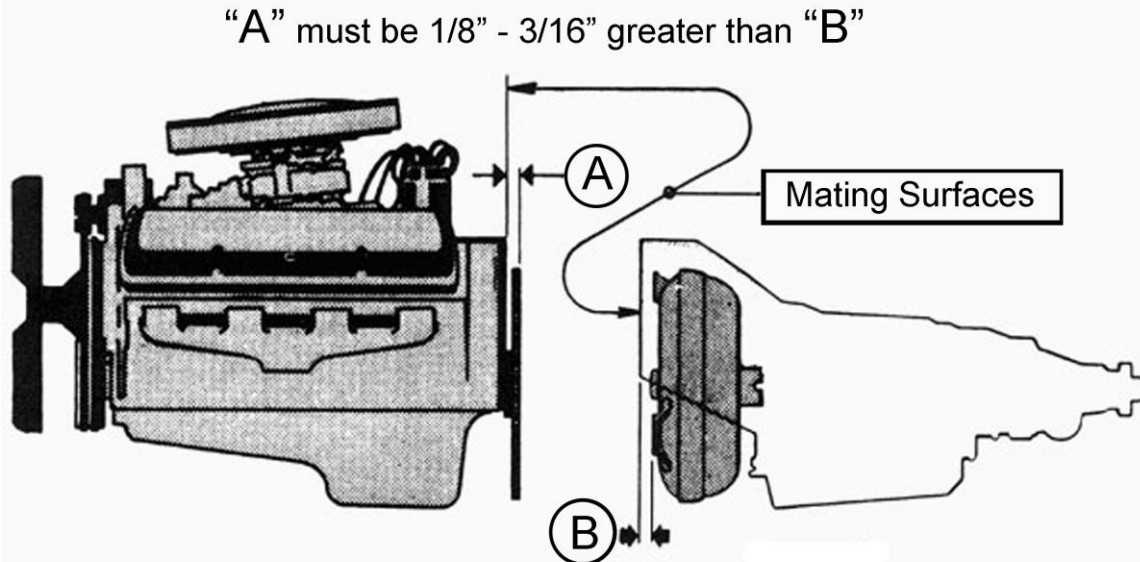


Figure 1

Measure the depth of mounting pad face (A) from the mounting flange face. Notice that the right hand that is holding the straight edge is also pushing the converter in toward the transmission.

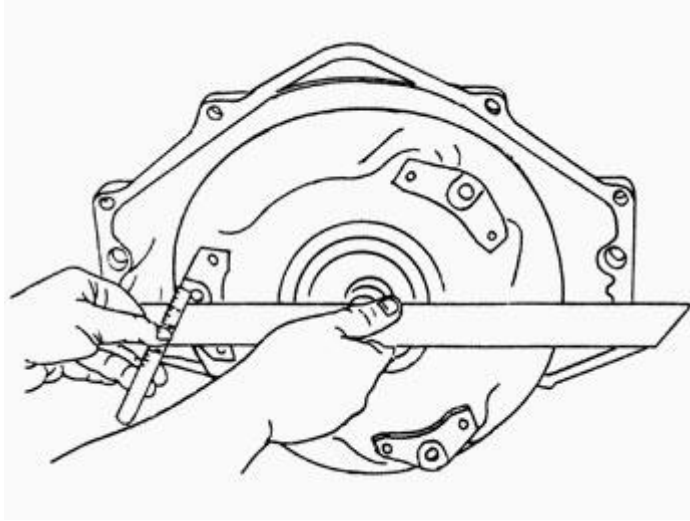


Figure 2