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HP6282 – Powerglide Trans-Brake Kit^{10/2/16}

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.

(For Calif. Residents-Prop. 65):

! WARNING

This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

(for more information on Prop. 65 see www.P65Warnings.ca.gov/product)

To reduce risks: work with gloves, safety glasses, wash hands before eating, and dispose of any fluids properly.

! 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.

! WARNING: Cooler fittings should never be plugged. If a cooler is not used, connect lines together with a loop of hard line or appropriate flexible hose that is compatible with automatic transmission fluid and that carries a minimum 500 PSI rating.

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This valve body has been designed in a competition application only and is not intended for use on the street. Please read and follow these instructions carefully. **! CAUTION** *Installation should be performed by qualified personnel. Improper installation may cause personal injury, property damage or death.*

Follow these directions carefully! 95% of all our warranty problems are due to improper installation. If you need any help or assistance, please feel free to call. Please do not proceed if you are unsure or do not understand the installation procedures.

Enclosed in your package will be the following parts. Please check to make sure that you have everything you need.

17 reverse piston release springs (gold)
1 trans-brake release valve and return spring
1 solenoid (large for trans-brake release valve)
1 trans-brake valve body assembly

If you are installing this product into a race transmission that is already finished, we recommend that you secure the services of an experienced transmission rebuilder in your area. If you are installing this product yourself, and you are not experienced at working with powerglide transmissions, please obtain a factory repair manual such as a Chilton Manual to assist you with the transmission assembly.

This guide is written to assist you in the installation of this product. It is not intended to be a transmission rebuilding guide.

Step 1. *For best results, the transmission should be completely disassembled, cleaned and freshened.*

Step 2. *NOTICE* With the transmission disassembled and reverse piston removed, locate the reverse apply /release fluid passage in the case. You will either have an early (62-66 has rear pump) or late (67-on has no rear pump) case. Early models will have a hole at the 1 o'clock position, looking from reverse piston side. This model case will require drilling a guidance hole from the back side of the case (see Fig. 1). Viewing from the back side of the case, locate hole at the 7 o'clock position that intersects with reverse apply / release passage (viewing from valve body side). Use a 1/4" drill bit from the back side of case all the way through to the reverse piston area (see Fig. 1).

Step 3. *NOTICE* Select drill bit size to be used. A 7/16" drill bit can be used for maximum tire shock or 5/16" for softer tire shock or anything in between.

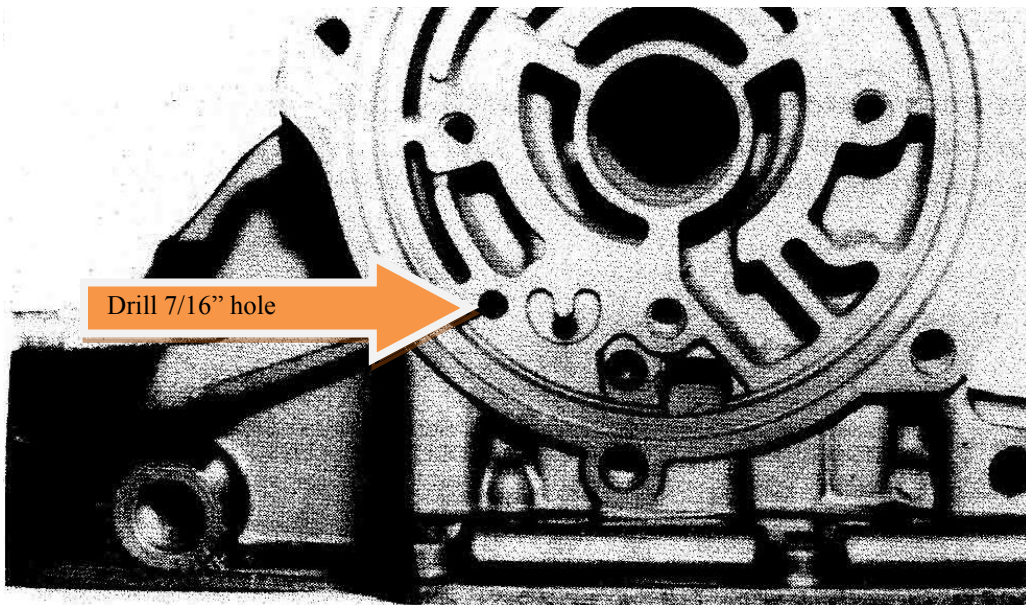


Fig. 1

Step 4. Use the drill size you have selected to enlarge the original reverse fluid passage on late model cases, it is located in the 5 o'clock position (reverse piston side). Drill the hole approximately 1/2" deep then go to the valve body side passage and drill a hole to intersect with the hole started on the piston side. Drill from both directions to create a nice "L" shaped passage. (On early cases do the same with the guidance hole previously drilled.)

NOTICE If you drill with a 7/16" bit **DO NOT** drill through the back of the case or you will ruin the transmission case.

Step 5. Before installing internal components be sure the case surface is perfectly flat, where the valve body bolts up.

Step 6. Install new reverse piston springs supplied in the kit. Make sure all springs are installed straight up and down or you will not have reverse or brake action.

Step 7. *NOTICE* Reassemble transmission using .045 to .050 for reverse clutch clearance and about .080 for high clutches. Band adjustment bolt should be tightened down with a short allen wrench, and backed off 3 and ½ turns. Hold adjustment bolt and tighten lock nut. Do not use waved plates in clutch packs and at least 5 frictions in high and reverse clutch packs.

Step 8. Before installing valve body, install servo tube, brake valve, and spring into valve body. Install manual valve making sure to hook up manual valve to the rooster comb on linkage. Hook up detent spring. Bolt on valve body.

Step 9. Install filter and pan.

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UPDATE

Hughes Performance will no longer be supplying the shift detent arm with our HP6282 Powerglide Trans-Brake Kits. This must be removed from your existing valve body and transferred to the new unit. Locate the shift detent arm on your valve body, remove the circlip from the shaft and remove shift detent arm (Figure 1). Reinstall shift detent arm on new valve body and secure with circlip.

