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Instruction Sheet

Part Number APG-T2103, Powerglide Air Test Kit

Contents:

- 1- Air Regulator
- 1- Air Pressure Ga.
- 2- Male Quick Disconnect Ends
- 1- Female Quick Connect
- 1- ¼ npt close nipple
- 1/4" npt to 1/8" npt adapter
- Direct Drum Adapter
- 2- Iron Pump Sealing Rings
- Reverse Test Plate
- 1- 5/16-18 Stainless Allen Bolt
- Metal Storage Box
- Instruction Sheet

Note: Before use, read these instructions carefully. If you do not understand any part of these instructions please call our tech line at the number listed above.

Before the initial use, assemble the various fitting and connectors with Teflon tape or pipe dope.

Safety Warning!!

If you are unfamiliar with transmission repair and modifications, do not install this part. Instead, have it installed by a competent transmission technician who is familiar with such devices.

Failure to follow these directions and follow all safety procedures can result in serious injury or death!

Note

The purpose of this kit is to allow the transmission builder to air check the integrity of the clutch seals before the transmission is installed in the vehicle.

It is often helpful to use a small amount of transmission fluid in the apply circuit you are testing to improve your results. “Dry” testing the circuit is often misleading; a “wet” test will better simulate actual working conditions.

Testing the High Clutch Drum

Step 1:

Install the high piston (with lip seals) in the drum. Install return springs, retainer and snap ring.

Step 2:

Temporarily install the high clutch pack *without* the clutch hub. Install the low sun flange gear and secure with the large snap ring.

Step 3:

Lubricate the sealing rings on the hub tool with assembly lube and insert into the drum. Put several “squirts” of transmission fluid into the male connector of the hub tool. Connect the regulator to the hub tool and apply 25-30 psi of air pressure.

The clutch pack should apply immediately and firmly. There should be no leakage around the lip seals or through the check ball in the drum. A small amount of air escaping past the bushing should not be considered a problem.

The most common problem areas are wear around the sealing rings and twisted or torn lip seals. You must find the cause before proceeding with final assembly.

Testing the Reverse Clutch

Step 1:

Install the reverse piston (with seals) in the case. Install return springs, retainer and snap ring.

Step 2:

Install the governor support with a gasket or block-off plate as required by the valve body you are using. Make sure that the reverse tap plug is in place on the passenger’s side of the case (not all cases have this tap).

Step 3:

Install the reverse clutch pack into the case. Install the pressure plate and secure with the large snap ring.

Step 4:

Install the reverse test plate to the bottom of the case. Use the supplied socket-head bolt next to the male quick connector on the plate. Put several “squirts” of transmission fluid into the male connector of the test plate. Connect the regulator to the plate and apply 25-30 psi of air pressure.

The clutch pack should apply immediately and firmly. There should be no leakage around the seals. A small amount of air escaping past edges of the plate should not be considered a problem.

The most common problem is twisted or torn seals. You may also get a leak part the governor support gasket. A heavy duty governor support gasket is available for race valve bodies. You must find the cause before proceeding with final assembly.

Testing the Low Servo

Step 1:

Install the servo piston and servo rod assembly into the case. Be sure to lubricate the servo rings with assembly lube.

Step 2:

Install the servo cover with the gasket and “O” Ring. Be sure the servo pressure tap plug is in place in the servo cover.

Step 3:

Put several “squirts” of transmission fluid into the servo tube hole. Using the supplied air regulator and a rubber tipped blow gun (not supplied in this kit), apply air pressure to the servo tube hole in the bottom of the case. The piston should apply firmly. When using iron or aluminum rings there may be some minimal leakage of air past the rings.

It is also possible for the servo bore or pin bore in the case to be worn causing a leak.