



# **ATF TH-400 TRANSBRAKE VALVEBODY 3-Speed 2<sup>nd</sup> Gear Leaver**

**!!!! PLEASE READ ALL INSRTUCTIONS BEFORE PROCEEDING!!!!**

## **CAUTION**

This trans-brake valve-body should only be installed by a qualified race transmission technician. Not following these instructions may cause property or physical damage.

**DO NOT NEUTRAL THIS TRANSMISSION !!! IT WILL EXPLODE!!!**

**Shift Pattern: Park—Reverse—Neutral—1st—2nd—3rd**

### **Your trans-brake should include the following parts:**

1. 1 ATF TH-400 Valve body (2<sup>nd</sup> Gear Trans brake Leaver)
2. 1 ATF Trans brake Solenoid (Draw .8 amps)
3. 1 ATF Separator Plate (**Street or Race**)
4. 2 Valve body Gaskets
5. 1 ATF Transbrake Valve
6. 1 ATF Transbrake Valve Return Spring (Small Silver)
7. 1 Pressure Regulator Spring (Orange)
8. 16 Silver Direct Return Springs
9. 1 Rear Servo Return Spring (Large Silver)
10. TH400/Allison Type Filter
11. 1 Set of Instructions
12. Set of ATF Decals

### **TO ENGAGE REVERSE ON "RACE ONLY" VALVE BODIES**

Move the shifter into the reverse position and push the trans-brake button to apply the transmission into Reverse.

## INSTRUCTIONS FOR INSTALLATION OF TH-400 TRANSBRAKE VALVEBODY

1. Disassemble and clean transmission (Discard governor and tubes)
2. Disassemble direct drum
3. Drill a 1/16 bleed hole in direct drum **(FIGURE 1)**
4. Replace piston lip seals; Discard center seal in drum **(FIGURE 1)**
5. Install piston into drum; Install 8 New Direct clutch return springs. Replacing every other one. Install new clutches (Clutch Pack Clearance should be .060" to .080")
6. Discard Intermediate brake band and apply servo
7. Replace the pressure regulator spring with the large spring supplied. **(FIGURE 2)**
8. Remove second sealing ring from top of center support (Use Teflon Rings Only) **(FIGURE 3)**
9. Remove low and reverse servo piston assembly
10. Discard inner aluminum piston
11. Reinstall servo piston with Heavy Duty (large) return spring. (Air check to insure proper apply) Band clearance should be .125 to .170
12. Flat file or wet stone the entire channel passage area of the case; absolutely no high spots or burrs allowed.
13. Replace modulator valve with ATF Modulator Valve
14. Install small trans-brake return spring onto valve and install into case.
15. Install O-ring onto trans-brake solenoid and install into case.
16. Check Proper valve phasing when solenoid is applied and released. **(FIGURE 4)**
17. Install valve body using one gasket on each side of separator plate using the marked case gasket against the case.
18. Install new filter; the Allison type is preferred.
19. Install pan.

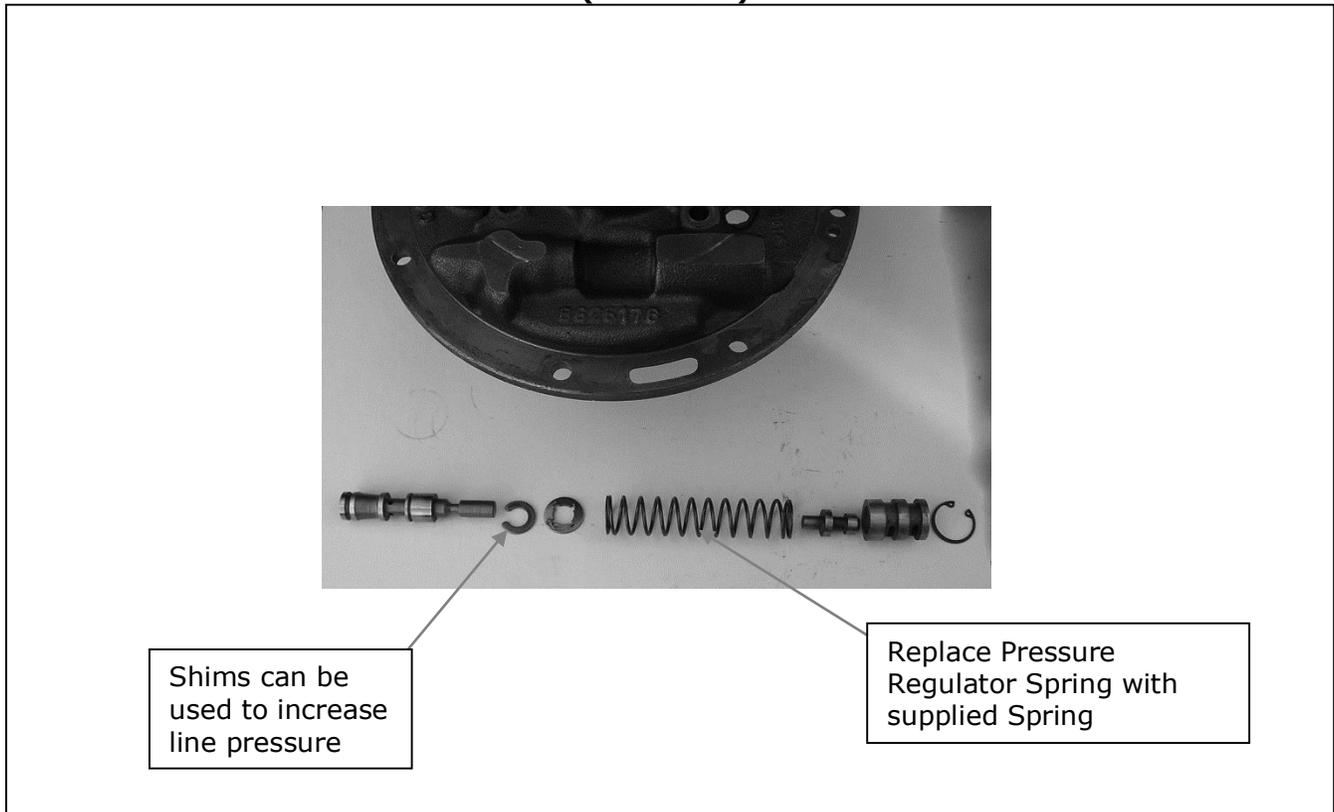
### NOTES

- Use Teflon rings throughout transmission
- Use your hand to push in the solenoid plunger. Make sure the plunger bottoms out on solenoid back when applied.
- If you want a faster Trans brake release refer to **(FIGURE 4)**. Case must be empty. Drill case in 2 spots marked with an **X** with a 7/32" drill bit. This is to be used for **RACE Valve Bodies ONLY!!!**

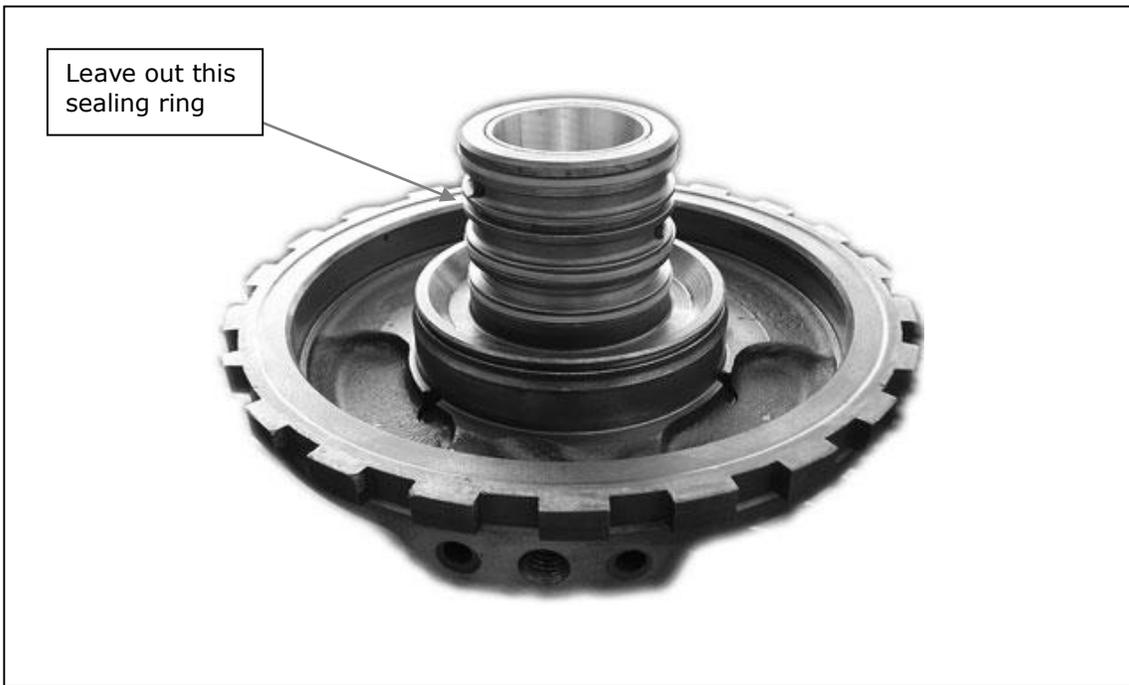
**(FIGURE 1)**



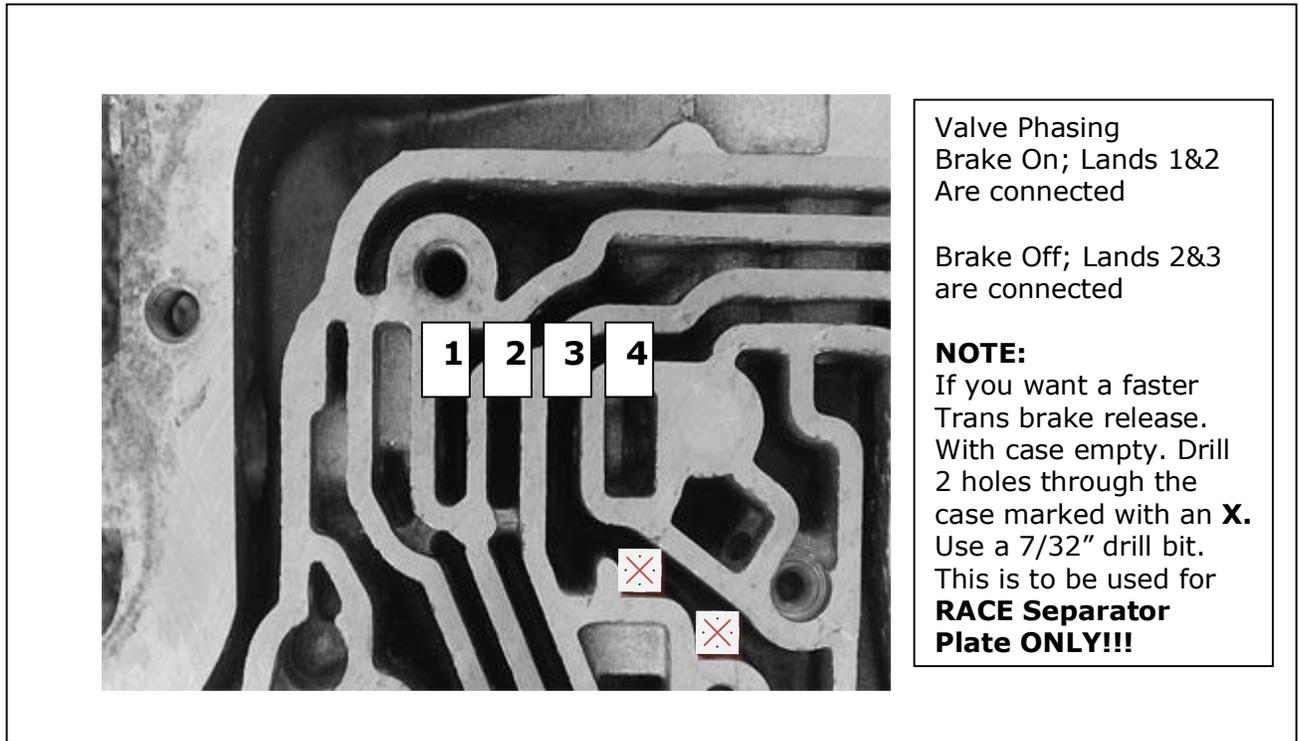
**(FIGURE 2)**



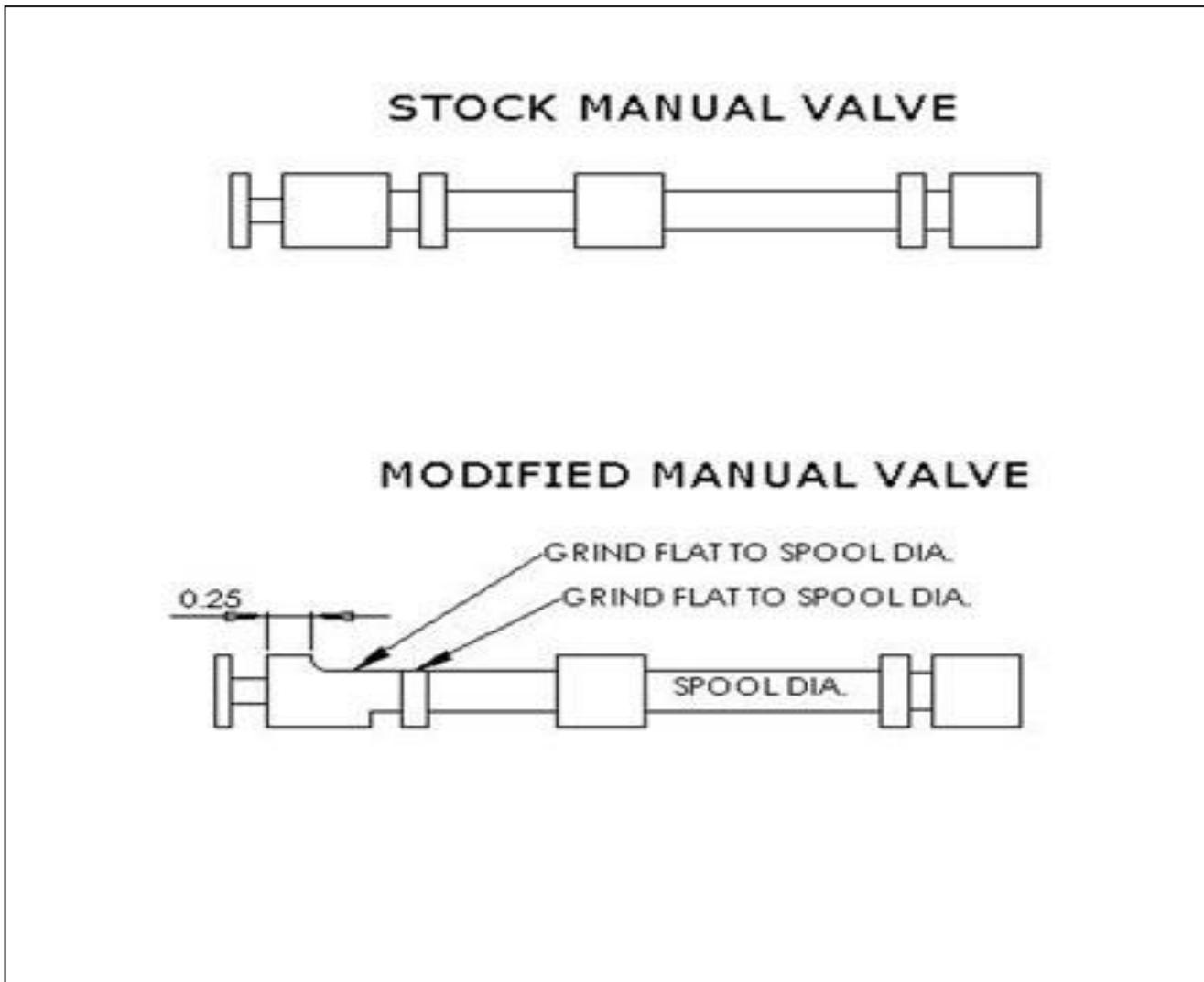
(FIGURE 3)



(FIGURE 4)



(FIGURE 7)



**WARRANTY**

This product is warranted for 12 months from date of purchase against defects in material and workmanship. This warranty does not cover damaged caused by negligence misuse or alteration. Under no circumstances will ATF be responsible for special, incidental or consequential damages or costs arising from or in conjunction with the installation or use of any product of the manufacturer.