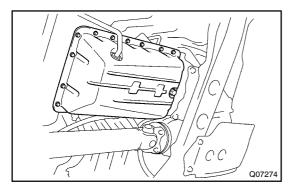
VALVE BODY ASSEMBLY ON-VEHICLE REPAIR

AT08X-0

CAUTION:

- When working with FIPG material, you must observe the followings.
- Using a razor blade and a gasket scraper, remove all old FIPG material from the gasket surfaces.
- Thoroughly clean all components to remove all loose material. Clean both sealing surfaces with a non –residue solvent.
- Apply FIPG in an approx. 1 mm (0.04 in.) wide bead along the sealing surface. Parts must be assembled within 10 minutes of application. Otherwise, the FIPG material must be removed and reapplied.
- 1. REMOVE ENGINE NO.2 UNDER COVER



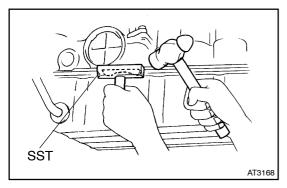
2. DRAIN ATF

3. REMOVE OIL PAN

NOTICE:

Some fluid will remain in the oil pan.

(a) Remove the 19 bolts.

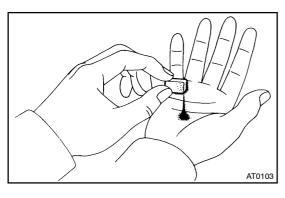


(b) Install the blade of SST between the transmission case and oil pan, cut off applied sealer and then remove the oil pan.

SST09032 -00100

NOTICE:

When removing the oil pan, be careful not to damage the oil pan flange.

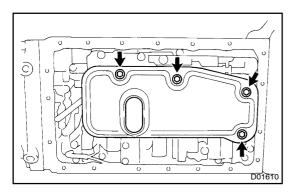


4. EXAMINE PARTICLES IN PAN

Remove the magnets and use them to collect steel particles. Carefully look at the foreign matter and particles in the pan and on the magnets to anticipate the type of wear you will find in the transmission.

Steel (magnetic) ... bearing, gear and clutch plate wear Brass (non -magnetic) ... bushing wear

LAND CRUISER (W/G) (RM6 16E)

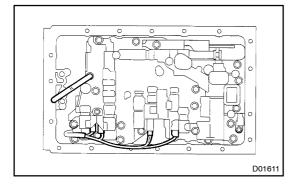


5. REMOVE OIL STRAINER

Remove the 4 bolts, and oil strainer and 3 gaskets.

NOTICE:

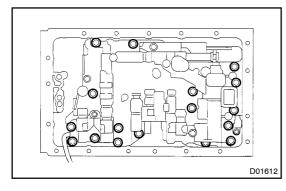
Be careful as same fluid will come out with the oil strainer.



6. REMOVE OIL PIPE

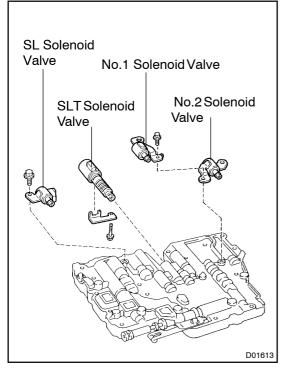
Pry up both pipe ends with a large screwdriver and remove the pipe.

7. DISCONNECT CONNECTOR FROM SOLENOID VALVE



8. REMOVE VALVE BODY

Remove the 17 bolts and valve body.



9. REMOVE SOLENOID VALVE

- (a) Remove the 2 bolts and 3 solenoid valves.
- (b) Turn the valve body, remove the bolt, lock plate and solenoid valve.
- (c) Remove the 3O -rings from the 3 solenoid valves.
- 10. REMOVE DETENT SPRING
- 11. REMOVE MANUAL VALVE
- 12. INSTALL MANUAL VALVE
- 13. INSTALL DETENT SPRING

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

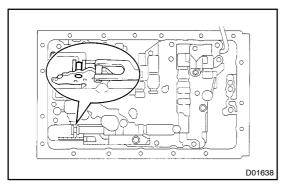
14. INSTALL SOLENOID VALVE

- (a) Install 3 new O -rings with the 3 solenoid valves.
- (b) Install the solenoid valve, lock plate with the bolt.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

(c) Install the 3 solenoid valves with the 3 bolts.

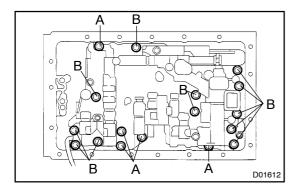
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)



15. INSTALL VALVE BODY

HINT:

Align the groove of the manual valve to the pin of the lever.

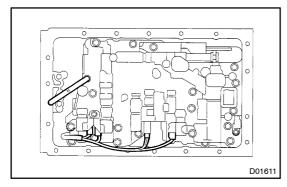


Install the 17 bolts and valve body.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

Bolt length:

Bolt A: 23 mm (0.9 1 in.) Bolt B: 32 mm (1.26 in.)

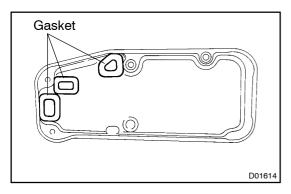


16. INSTALL OIL PIPE

NOTICE:

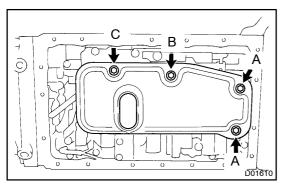
Make sure that the oil pipe or the magnet do not interfere with the oil pan.

17. INSTALL CONNECTOR TO SOLENOID VALVE



18. INSTALL OIL STRAINER

(a) Install 3 new gaskets.

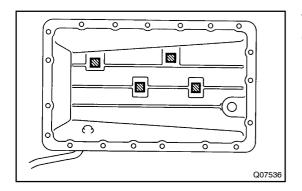


(b) Install the oil strainer and 4 bolts.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

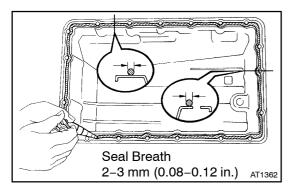
Bolt length:

Bolt A: 16 mm (0.63 in.) Bolt B: 20 mm (0.79 in.) Bolt C: 28 mm (1.10 in.)



19. INSTALL OIL PAN

(a) Install the 4 magnets.



- (b) Remove any packing material and be careful not to drop oil on the contacting surfaces of the transmission case and oil pan.
- (c) Apply FIPG to the oil pan.

FIPG: Part No. 08826-00090, THREE BOND 1281 or equivalent

(d) Install the 19 bolts and oil pan.

Torque: 7.4 N·m (75 kgf·cm, 65 in·lbf)

- 20. INSTALL NO.2 ENGINE UNDER COVER
- 21. FILL ATF AND CHECK ATF LEVEL
- (a) Install a new gasket and drain plug.

Torque: 20 N·m (205 kgf·cm, 15 ft·lbf)

(b) Fill new fluid through the filler pipe. (See page DI-4)