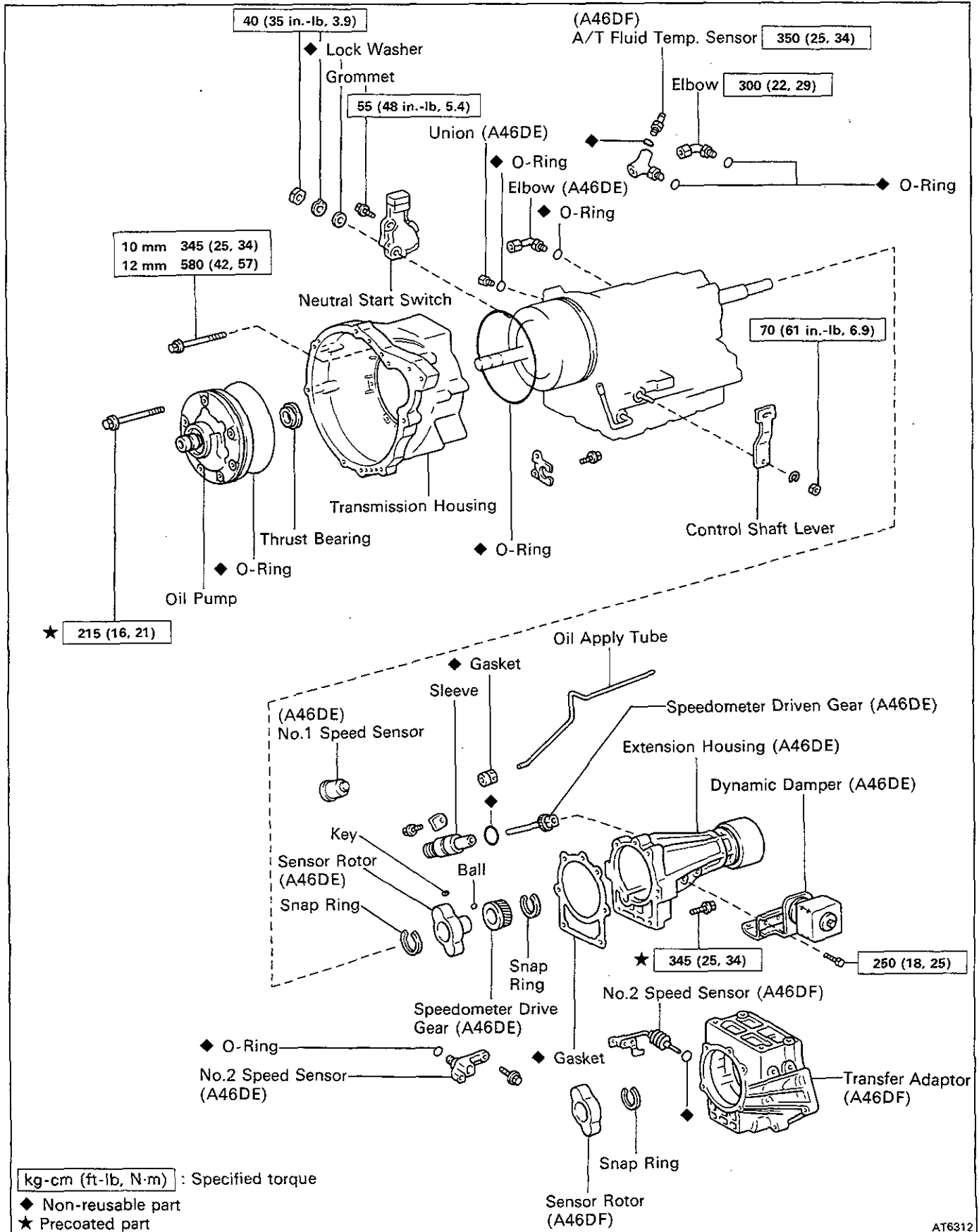
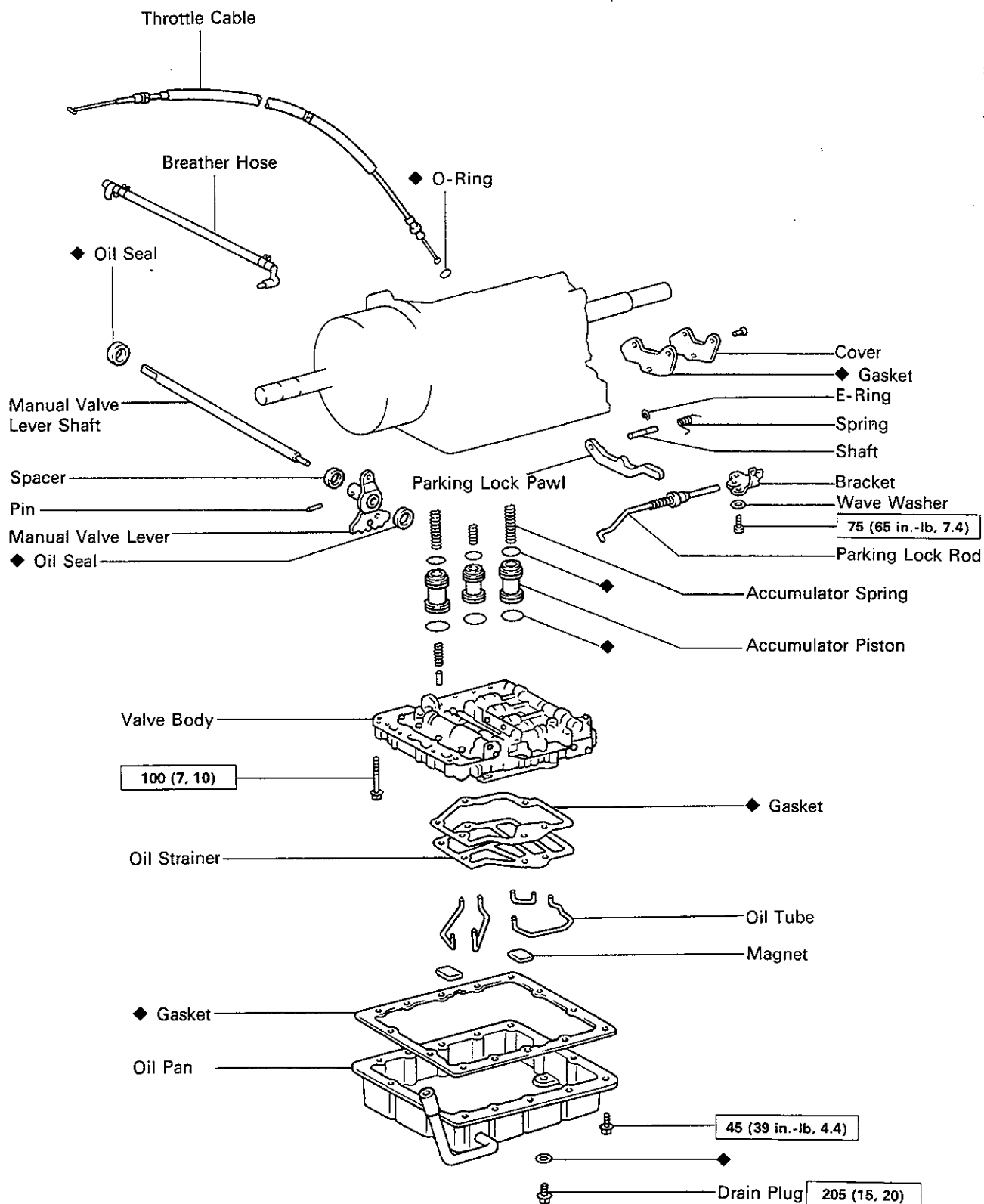


REMOVAL OF COMPONENT PARTS (A46DE, A46DF)

COMPONENTS



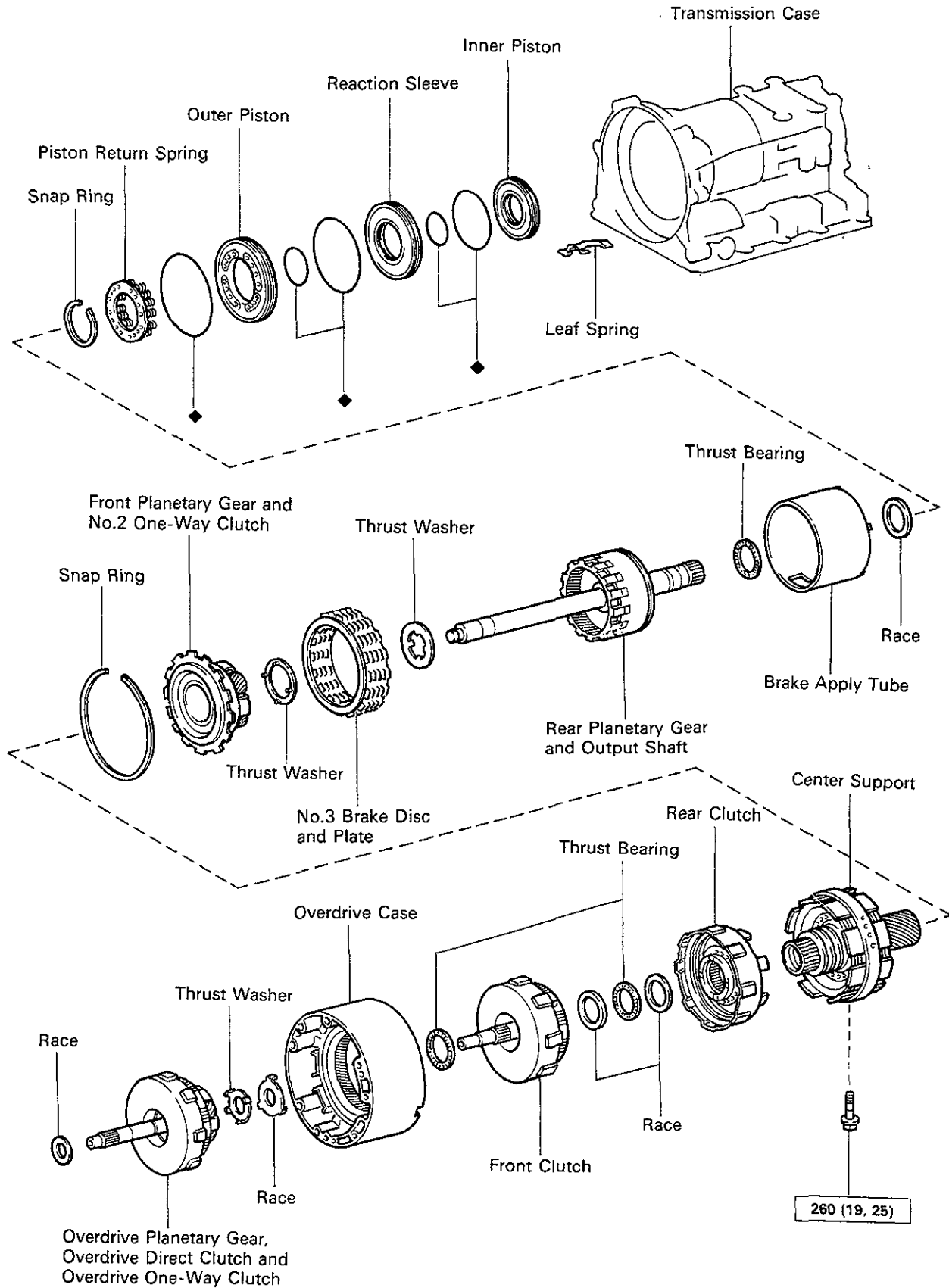
COMPONENTS (Cont'd)



kg-cm (ft-lb, N-m) : Specified torque

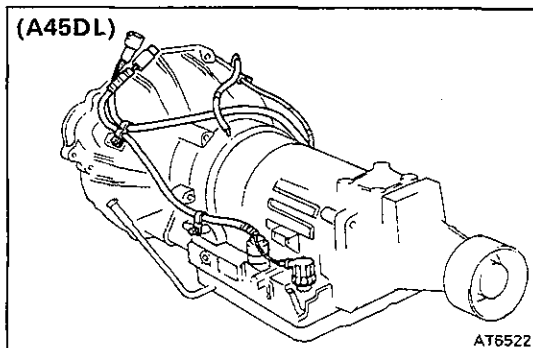
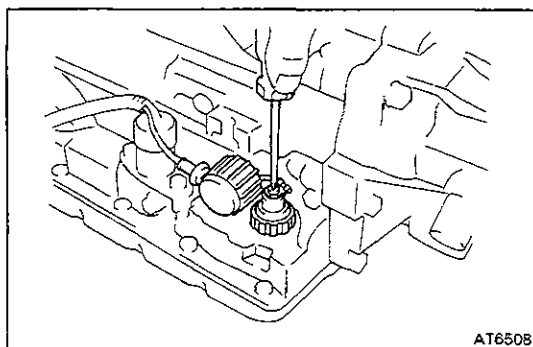
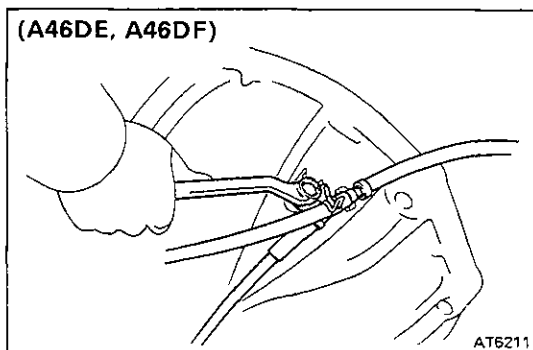
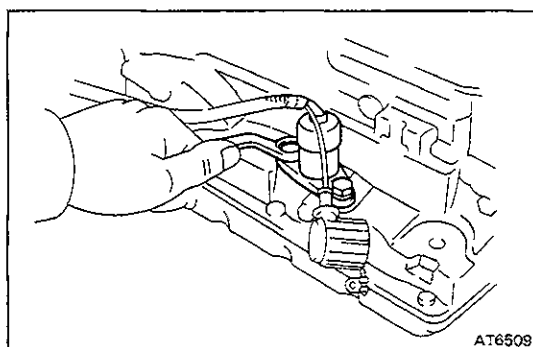
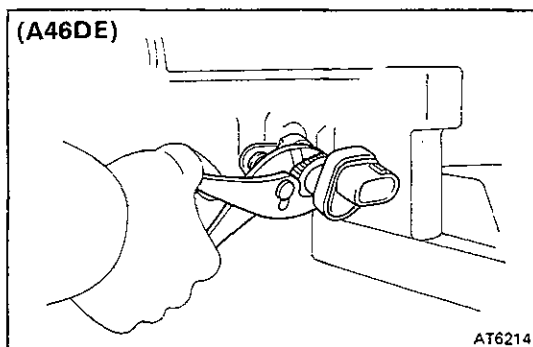
◆ Non-reusable part

COMPONENTS (Cont'd)

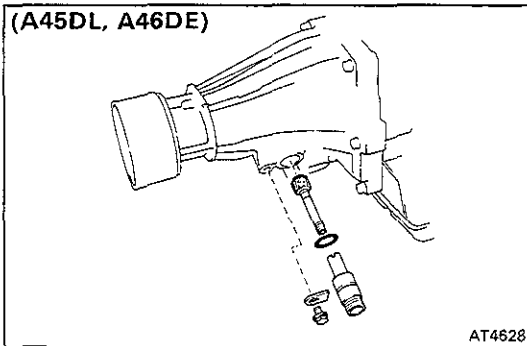
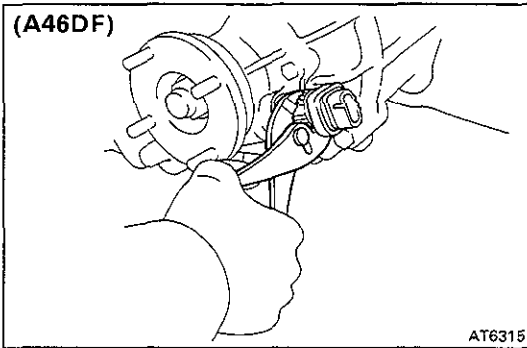


kg-cm (ft-lb, N·m) : Specified torque

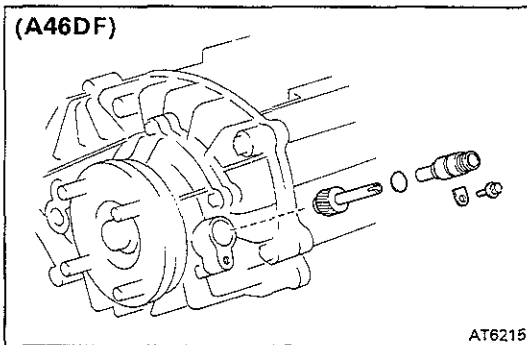
◆ Non-reusable part

**SEPARATE BASIC SUBASSEMBLY****1. REMOVE THROTTLE CABLE CLAMP****2. (A45DL)
REMOVE KICK-DOWN SWITCH****3. (A45DL)
REMOVE O/D SOLENOID****4. (A46DE, A46DF)
REMOVE NO.1 SPEED SENSOR**

- (a) Remove the bolt and the wire harness clamp.
- (b) Using pliers, remove the No.1 speed sensor.

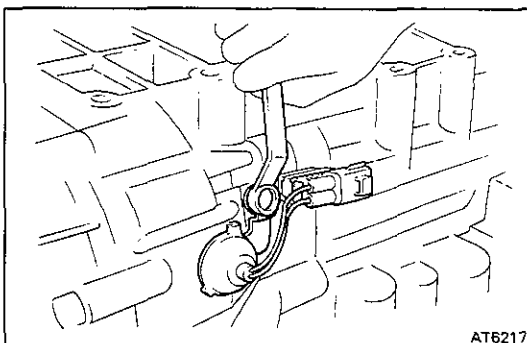
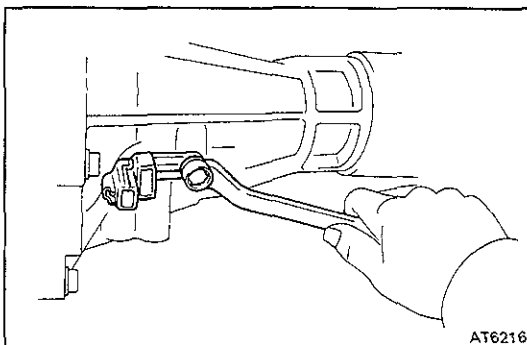


5. **REMOVE SPEEDOMETER DRIVEN GEAR**
Remove the bolt and the driven gear.

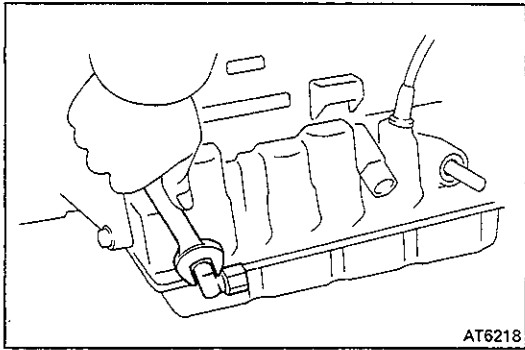


6. **REMOVE NO.2 SPEED SENSOR**
(A46DE)

- (a) Remove four bolts and the dynamic damper.
(b) Remove the bolt and the No.2 speed sensor.

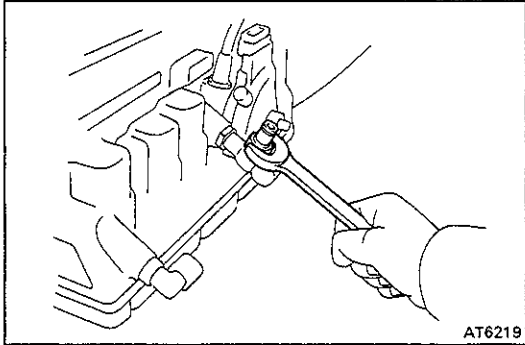


- Remove the bolt and the No.2 speed sensor.



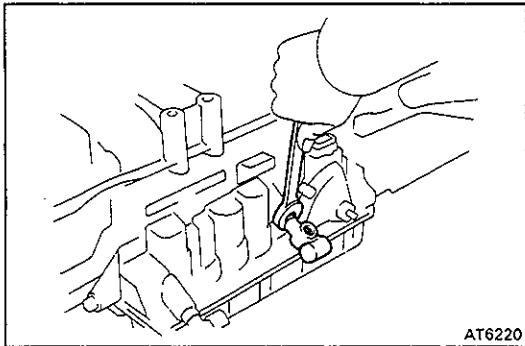
**7. REMOVE UNION AND ELBOW
(A45DL, A46DE)**

- (a) Remove the union and elbow.
- (b) Remove the O-rings from them.

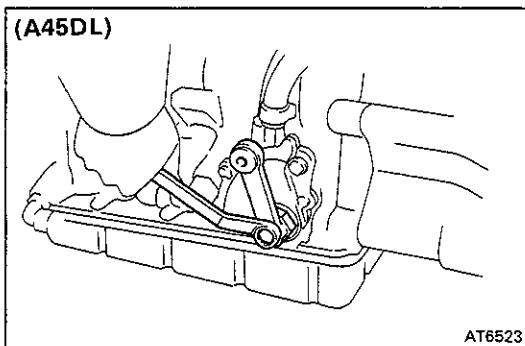


(A46DF)

- (a) Remove the A/T fluid temperature sensor.
- (b) Remove the O-ring from it.

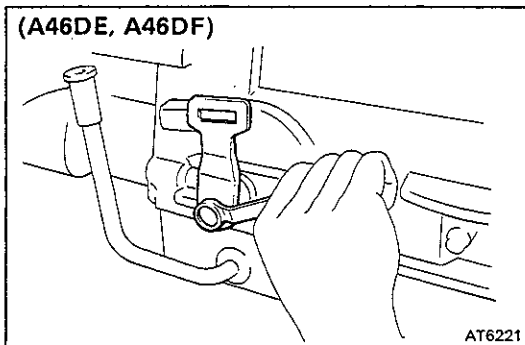


- (c) Remove the two elbows.
- (d) Remove the O-ring from them.

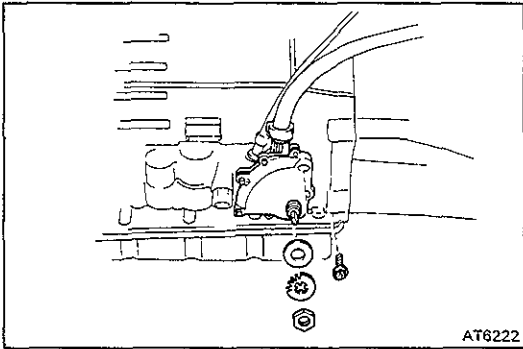


(A45DL)

8. REMOVE TRANSMISSION CONTROL SHIFT LEVER

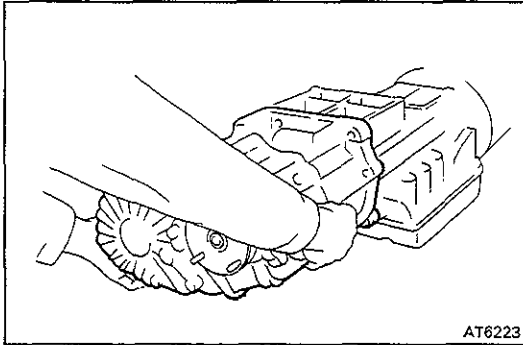


(A46DE, A46DF)



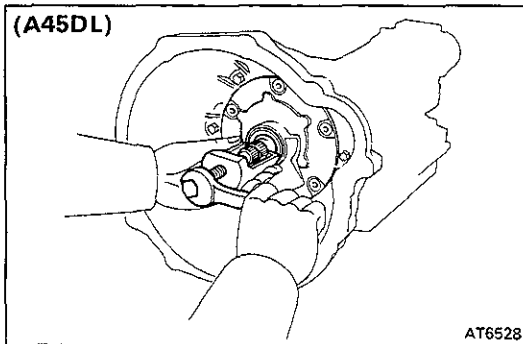
9. REMOVE NEUTRAL START SWITCH

- (a) Unstake the lock washer.
- (b) Remove the nut and bolt, and then remove the neutral start switch.
- (c) Remove the lock washer and grommet.



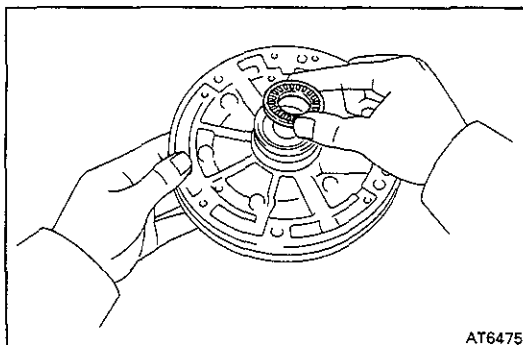
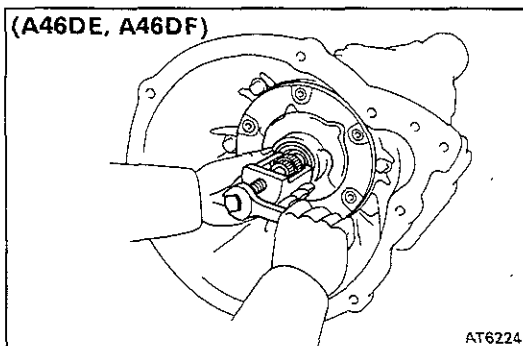
**10. (A46DF)
REMOVE TRANSFER**

Remove the eight bolts and the transfer.

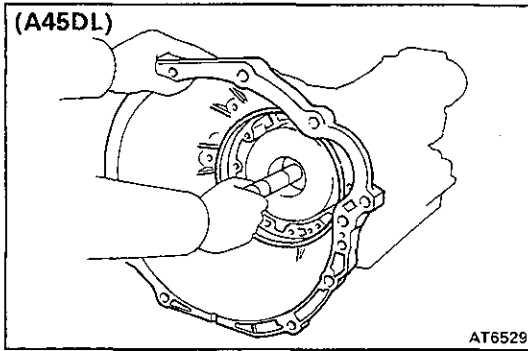


11. REMOVE OIL PUMP

- (a) Remove the seven bolts.
 - (b) Position SST on the shaft in back of the spline.
SST 09610-20012
- NOTICE:** Do not damage the shaft bushing surface.
Turn the end bolt of SST to free the pump.
- (c) Grasp the front pump stator shaft and pull the pump from the case.

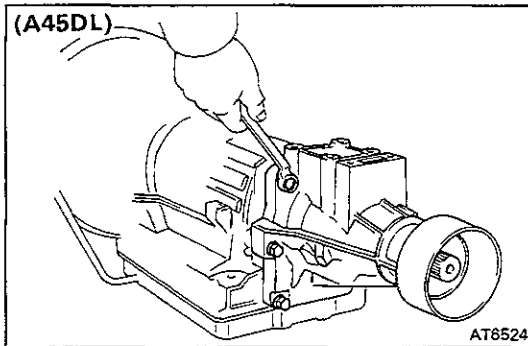
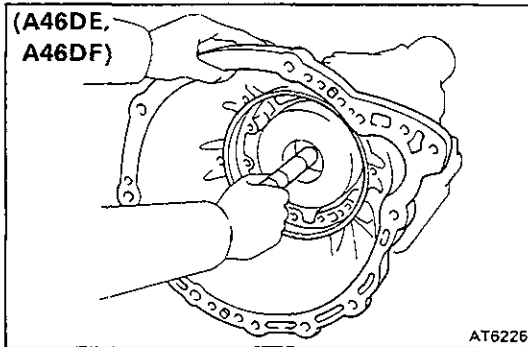


12. WATCH FOR THRUST BEARING BEHIND OIL PUMP



13. REMOVE TRANSMISSION HOUSING

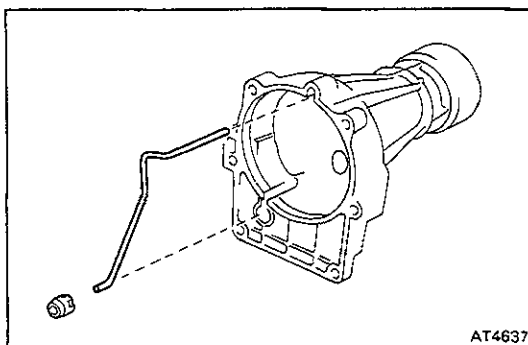
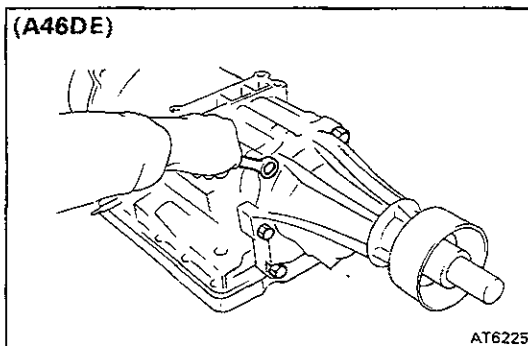
- (a) Remove the two 12 mm (0.472 in.) and four 10 mm (0.394 in.) bolts.
- (b) Hold the input shaft while removing the transmission housing.



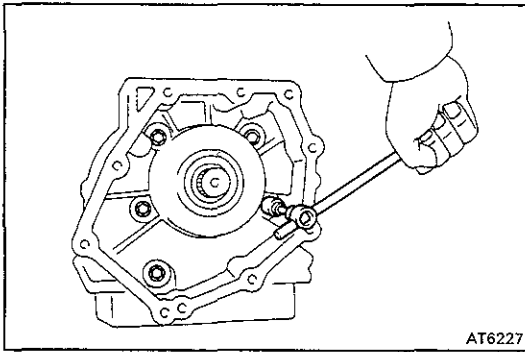
14. (A45DL, A46DE)

REMOVE EXTENSION HOUSING AND GASKET

- (a) Remove the six bolts and the extension housing.
- (b) Remove the gasket from the extension housing.

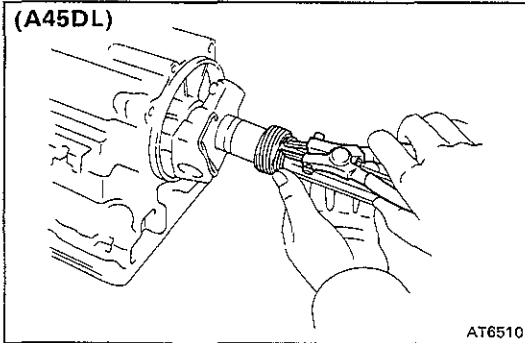


- (c) Remove the oil apply tube from the extension housing.



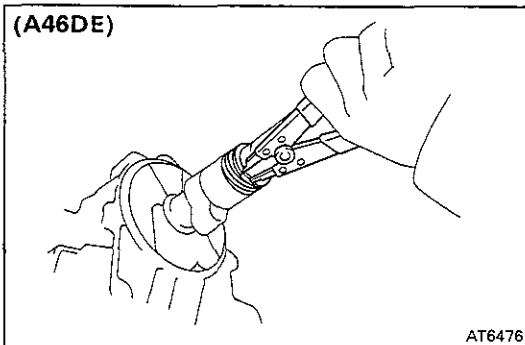
(A46DF)
REMOVE TRANSFER ADAPTOR

Remove the six bolts and the adaptor. If necessary, tap the transfer adaptor with a plastic hammer or equivalent to loosen it.



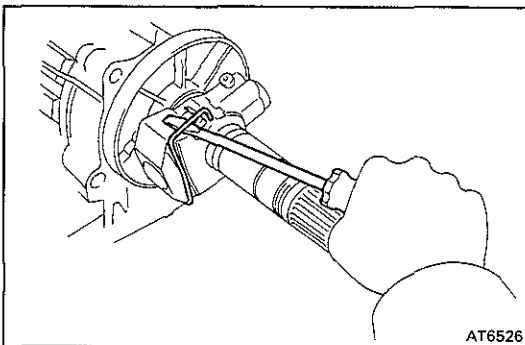
15. (A45DL, A46DE)
REMOVE SPEEDOMETER DRIVE GEAR

- (a) Using snap ring pliers, remove the snap ring.
- (b) Remove the drive gear and the steel ball.



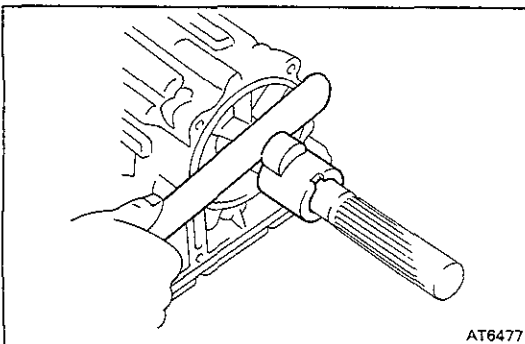
16. (A45DL)
REMOVE GOVERNOR BODY

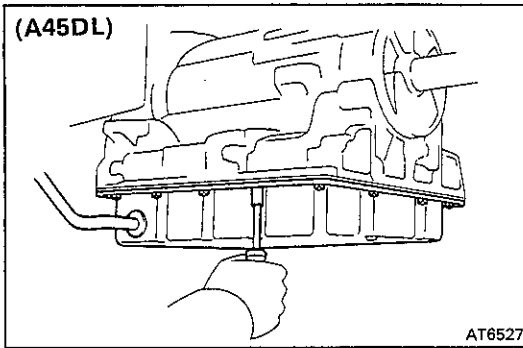
- (a) Loosen the staked part of the lock plate.
- (b) Remove the governor body lock plate.
- (c) While lifting the retaining clip with a screwdriver, slide off the governor body.



17. (A46DE, A46DF)
REMOVE SENSOR ROTOR

- (a) Using snap ring pliers, remove the snap ring from the output shaft.
- (b) Remove the key and the sensor rotor.

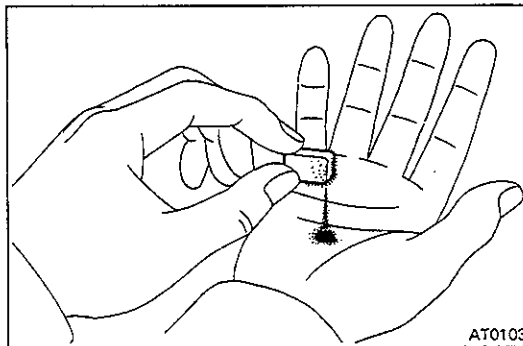
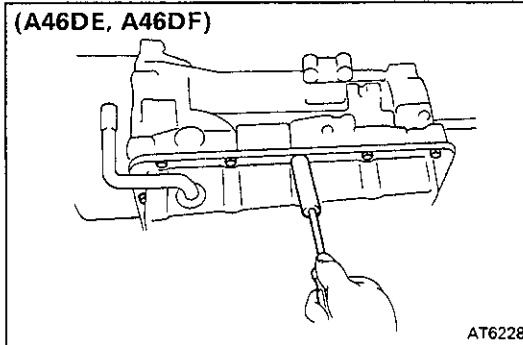




18. REMOVE OIL PAN

NOTICE: Do not turn the transmission over as this will contaminate the valve body with any foreign matter at the bottom on the pan.

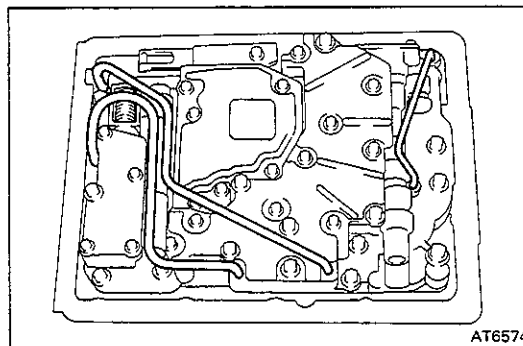
- (a) Remove the fourteen bolts.
- (b) Remove the pan by lifting the transmission case.



19. EXAMINE PARTICLES IN PAN

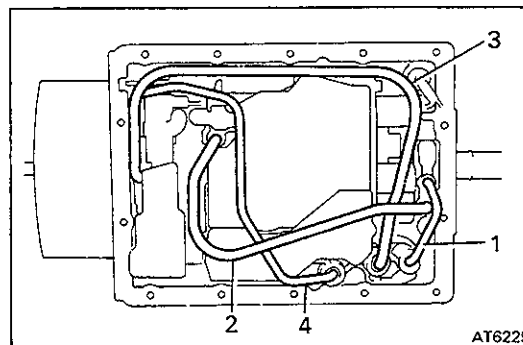
Remove the two magnets and use it to collect any steel chips. Look carefully at the chips and particles in the pan and on the magnet to anticipate what type of wear you will find in the transmission.

Steel (magnetic) bearing, gear and clutch plate
Brass (nonmagnetic) bushing wear



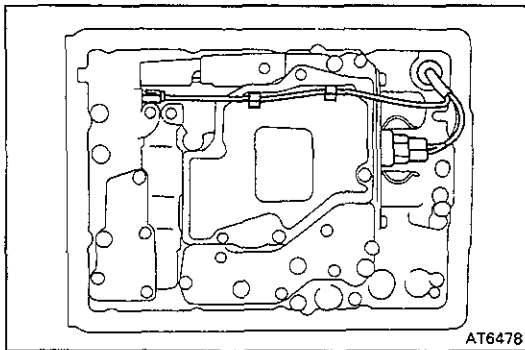
20. TURN TRANSMISSION OVER AND REMOVE OIL TUBES (A45DL)

Pry up both oil tube ends with a large screwdriver and remove the three oil tubes.



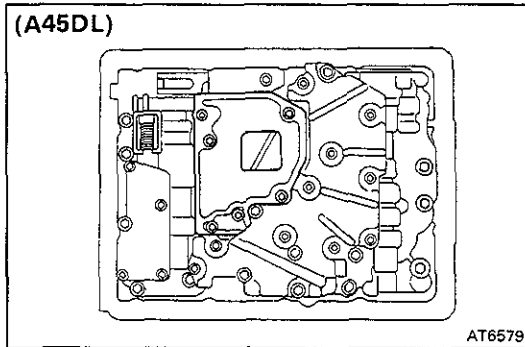
(A46DE, A46DF)

Pry up both oil tube ends with a large screwdriver and remove the four oil tubes.



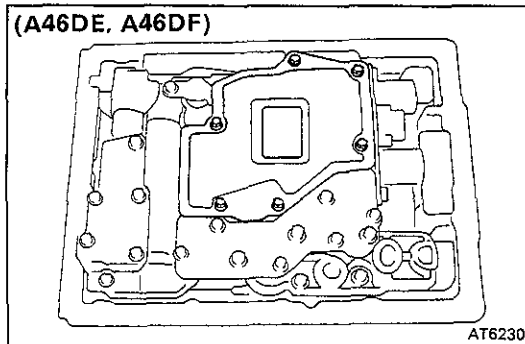
**21. (A46DE, A46DF)
REMOVE SOLENOID WIRING**

- (a) Disconnect the connector from the No.1 and No.2 solenoid and the No.3 solenoid.
- (b) Remove the bolt, lock plate and the grommet from the transmission case.
- (c) Pull the wiring out of the transmission case.



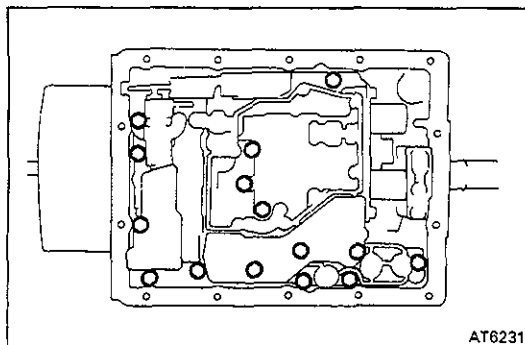
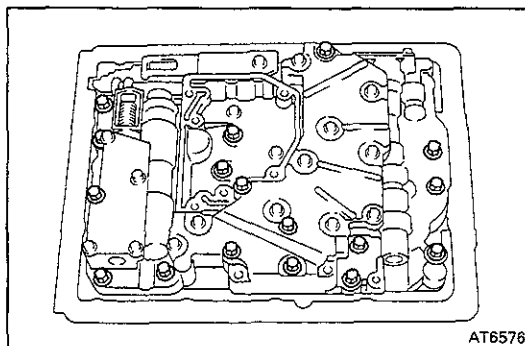
22. REMOVE OIL STRAINER

Remove the six bolts and the strainer.

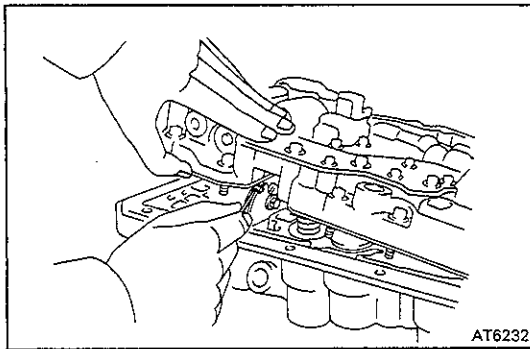


**23. REMOVE VALVE BODY
(A45DL)**

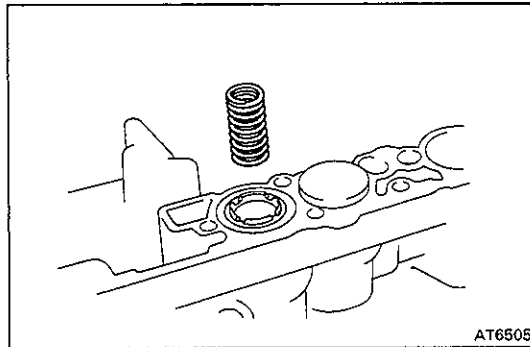
- (a) Remove the seventeen bolts.



- (a) Remove the fifteen bolts.

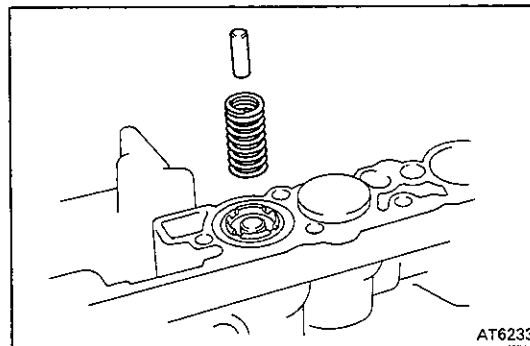


- (b) Disconnect the throttle cable from the cam and remove the valve body.



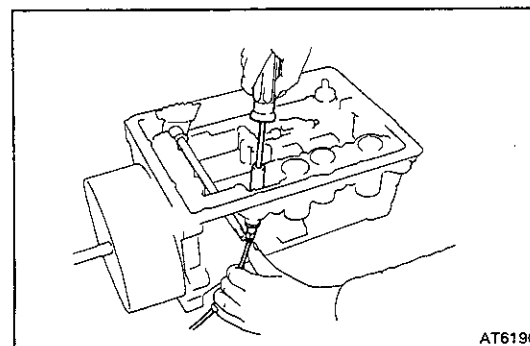
(A45DL: 1RZ, 2RZ Engine)

- (c) Remove the B₂ accumulator piston spring.



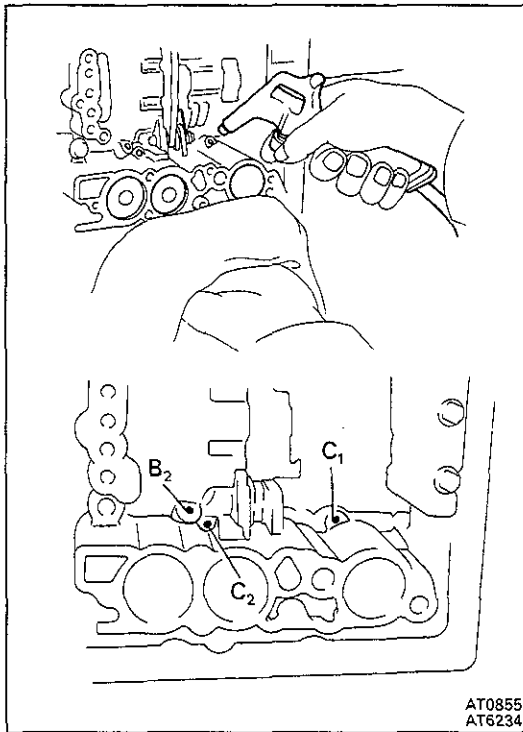
(A46DE, A46DF)

- (c) Remove the B₂ accumulator piston spring and pin.



24. REMOVE THROTTLE CABLE

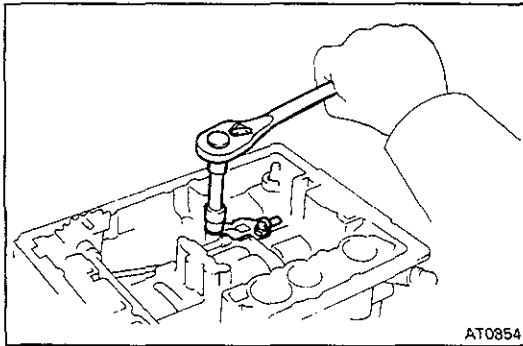
Using a 10 mm socket, push the throttle cable out of the transmission case.



25. COVER PISTON WITH A SHOP RAG AND REMOVE ACCUMULATOR PISTONS AND SPRINGS

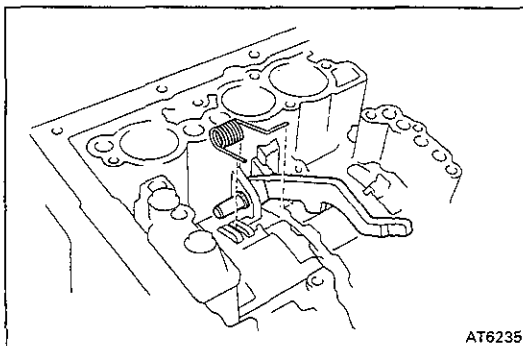
CAUTION: Keep face away to avoid injury.

Position a shop rag to catch each position. Applying compressed air to the oil hole, pop each piston into the shop rag. Force air into the holes shown, and remove the accumulator pistons and springs.

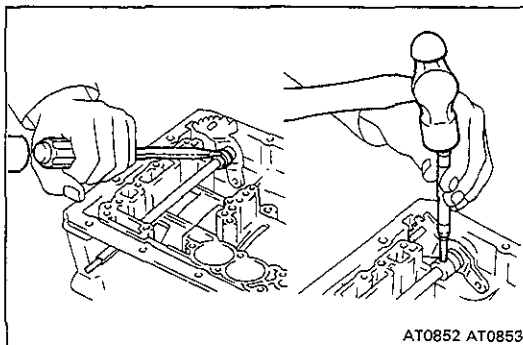


26. REMOVE PARKING LOCK ROD

- (a) Remove two bolts and the bracket.
- (b) Remove the parking lock rod.

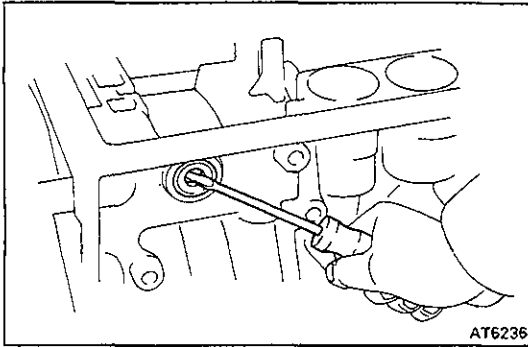


27. REMOVE SPRING, PIVOT PIN AND PARKING LOCK PAWL

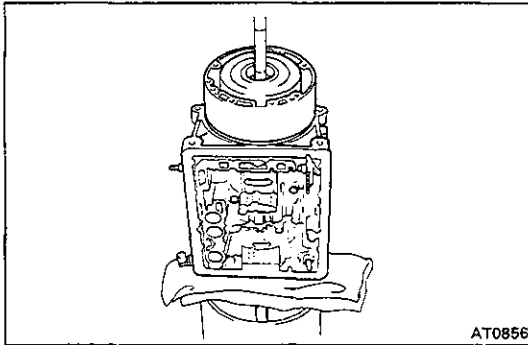


28. IF NECESSARY, REMOVE MANUAL VALVE LEVER SHAFT

- (a) Using a hammer and screwdriver, pry and shift the spacer.
- (b) Using a hammer and punch, drive out the pin.
- (c) Slide the manual valve lever shaft out case and remove the manual valve lever and spacer.



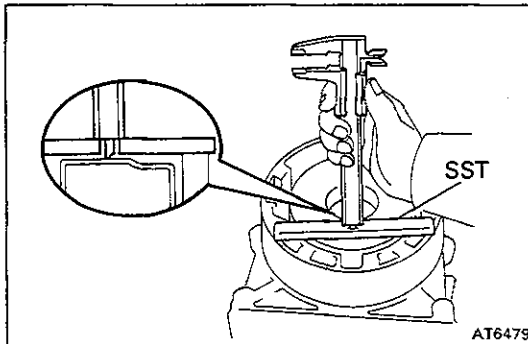
(d) Using a screwdriver, remove two oil seals.



29. PLACE TRANSMISSION CASE ON CYLINDER

Place the transmission on a cylinder stand for more efficient work.

NOTICE: Place shop rags between the case and stand to avoid damaging the case.

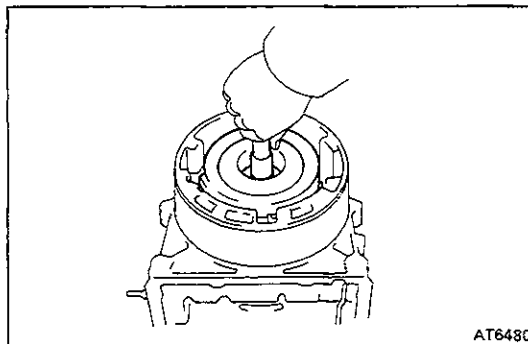


30. MEASURE DISTANCE BETWEEN TOP OF CASE AND CLUTCH DRUM

Set SST on the case as shown in the figure.

SST 09350-20015 (09370-12010)

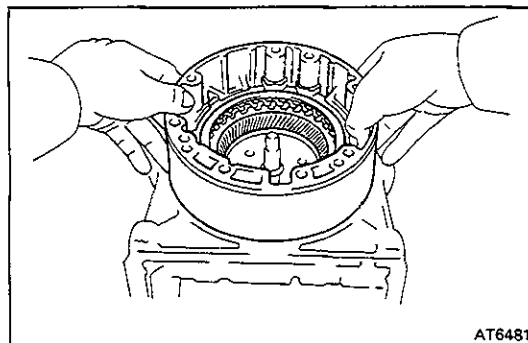
Mark a note of the finding for reassembly.



31. REMOVE OVERDRIVE CLUTCH

Remove the overdrive clutch assembly.

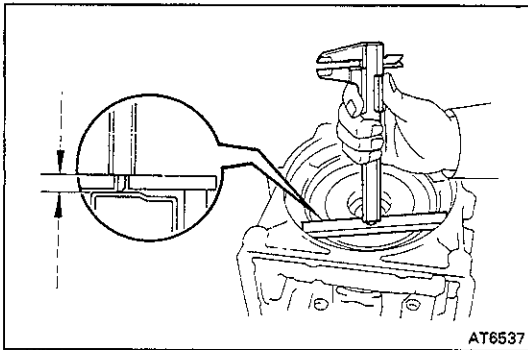
Watch for the thrust washer and races on both side of the assembly.



32. REMOVE OVERDRIVE CASE

Remove the overdrive case from the transmission case.

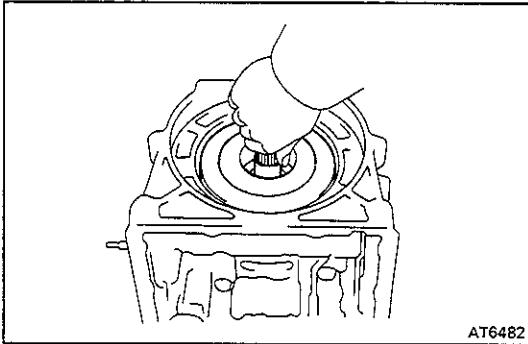
Watch for the bearings, thrust washer and races on both sides of the assembly.

**33. MEASURE DISTANCE BETWEEN TOP OF CASE AND CLUTCH DRUM**

Set SST on the case as shown in the figure.

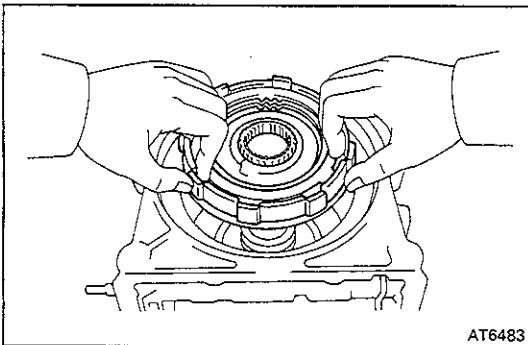
SST 09350-20015 (09370-12010)

Mark a note of the finding for reassembly.

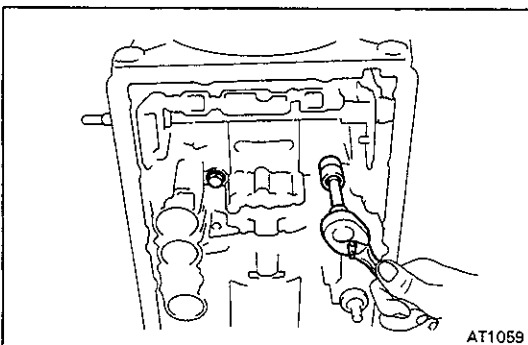
**34. REMOVE FRONT CLUTCH AND THRUST BEARINGS**

Remove the front clutch assembly.

Watch for the bearings and races on both sides of the assembly.

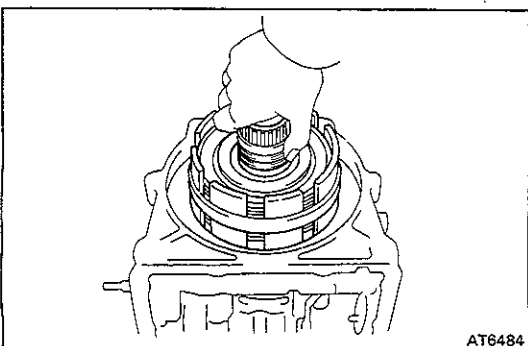
**35. REMOVE REAR CLUTCH**

Remove the rear clutch hub and pull it out from the case.

**36. REMOVE CENTER SUPPORT BOLTS**

Remove the two center support bolts.

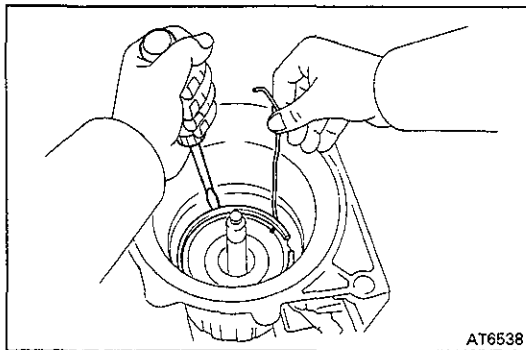
HINT: After removing one bolt, the other one will be loose.

**37. REMOVE CENTER SUPPORT AND SUN GEAR ASSEMBLY**

(a) Using snap ring pliers, remove the snap ring.

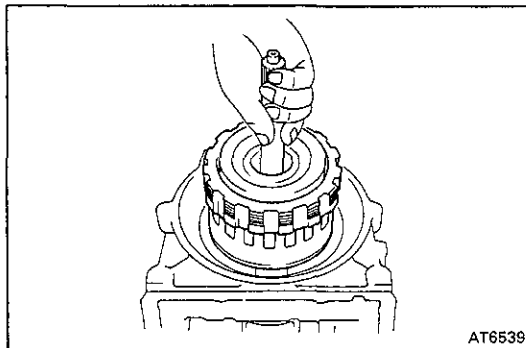
(b) Remove the center support and sun gear assembly from the case front opening.

Watch for the bearing race on the end of the sun gear.



38. REMOVE REAR PLANETARY GEAR AND OUTPUT SHAFT ASSEMBLY

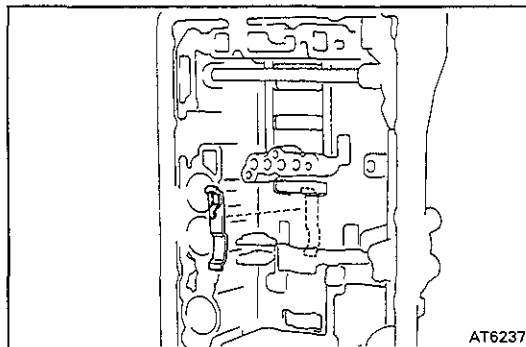
- (a) Using a long screwdriver, compress the snap ring and lift it above the groove with a wire hook.



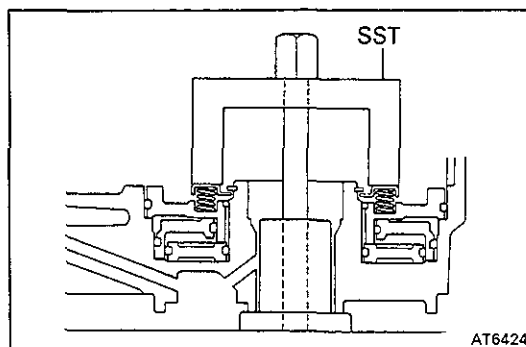
- (b) Using snap ring pliers, remove the snap ring from the output shaft.
 (c) Grasp the intermediate shaft and pull out the rear parts.

If the brake apply tube and rear thrust bearing and races do not come out with the assembly, remove them from the case.

Watch for the bearing and race in the transmission case.



39. REMOVE LEAF SPRING

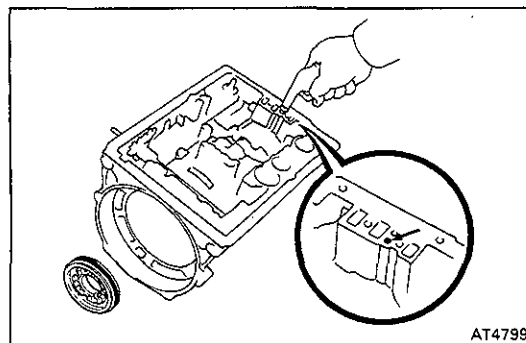


40. REMOVE COMPONENTS OF FIRST AND REVERSE BRAKE

- (a) Set SST on the spring retainer, and compress the return spring.

SST 09350-20015 (09369-20040)

- (b) Using snap ring pliers, remove the snap ring.
 (c) Remove the piston return spring.

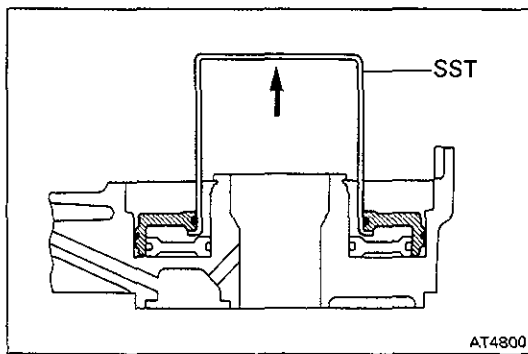


- (d) Hold first and reverse brake outer piston with hand, apply compressed air to the transmission case to remove first and reverse brake outer piston.

- (e) Remove first and reverse brake outer piston.

If the piston does not pop out with compressed air, lift the piston out with needle-nose pliers.

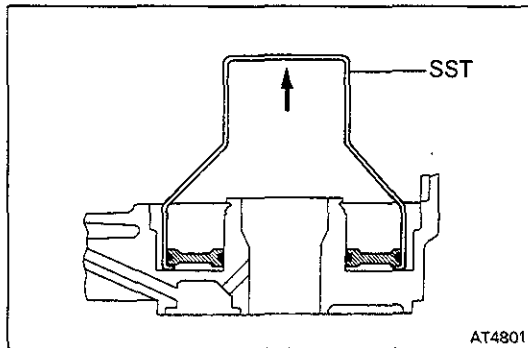
- (f) Remove the O-ring from outer piston.



- (g) Insert SST behind the reaction sleeve and gradually lift it out of the transmission case.

SST 09350-30020 (09350-07080)

- (h) Remove the two O-rings from the reaction sleeve.



- (i) Insert SST behind the inner piston and gradually lift it out of the transmission case.

SST 09350-30020 (09350-07090)

- (j) Remove the two O-rings from the inner piston.

41. BASIC DISASSEMBLY IS COMPLETE

The transmission is now in basic component subassemblies. Next, disassemble, clean, inspect, repair and assemble each of these component parts.