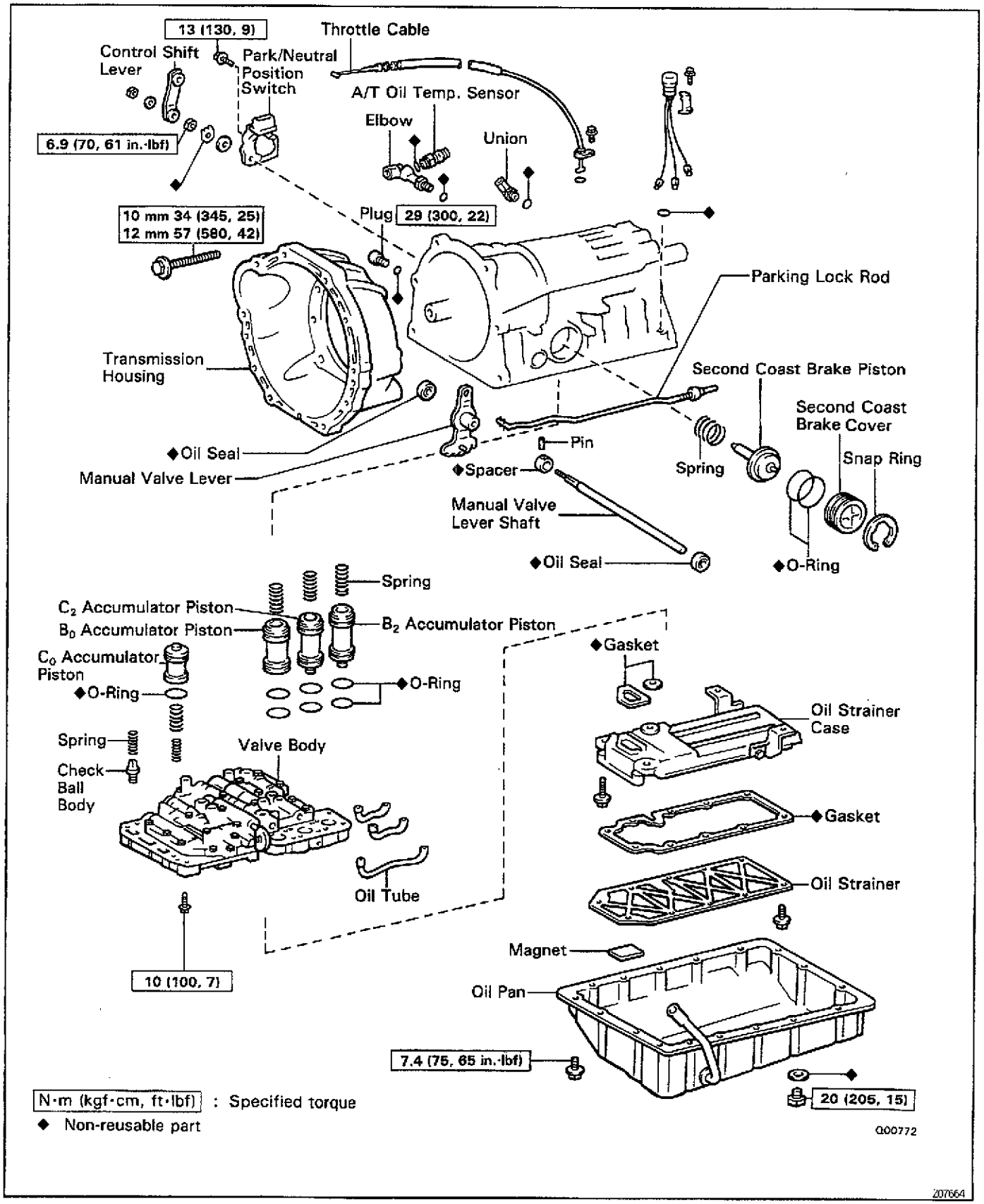
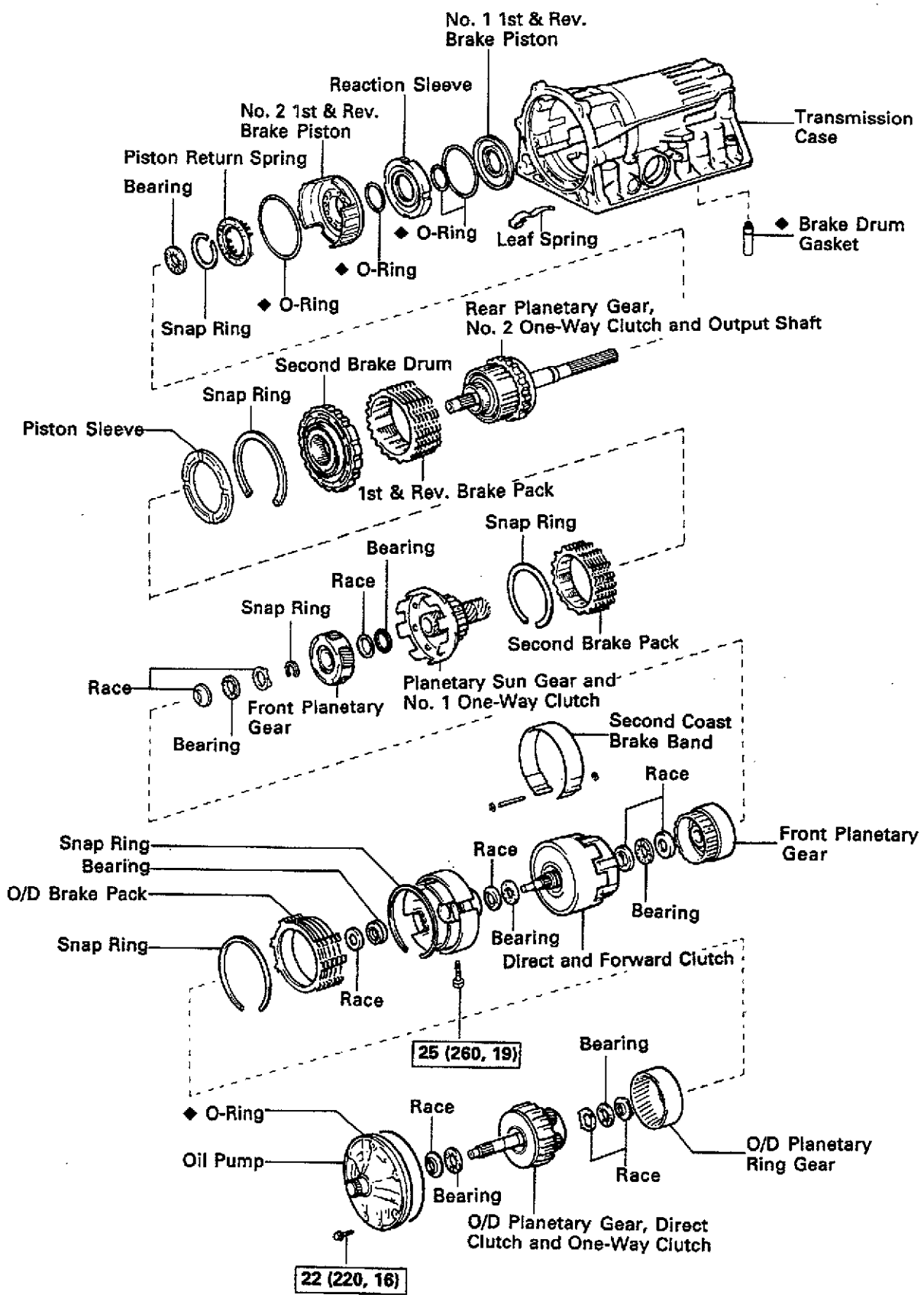
COMPONENT PARTS REMOVAL

COMPONENTS

AT0G5-01



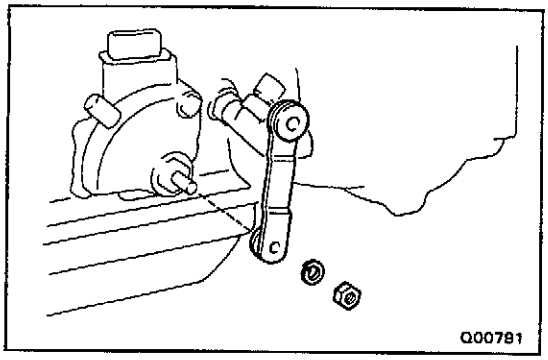
207664



N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

AT5654

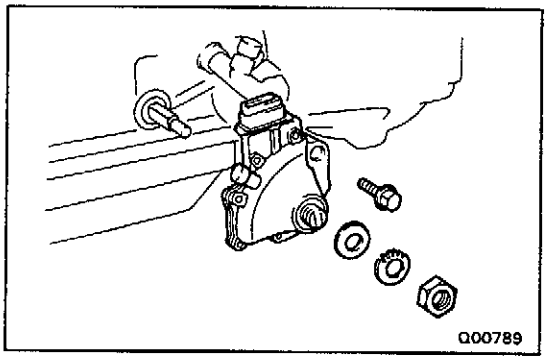


TRANSMISSION DISASSEMBLY

AT0GT-02

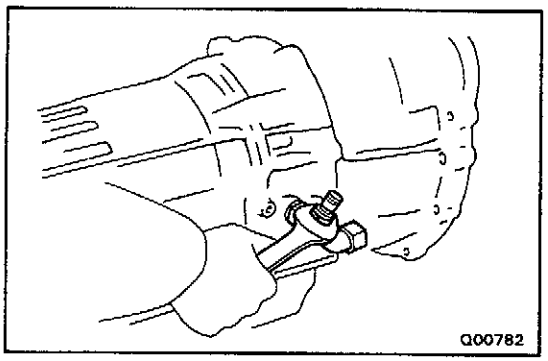
1. REMOVE TRANSMISSION CONTROL SHAFT LEVER

AT



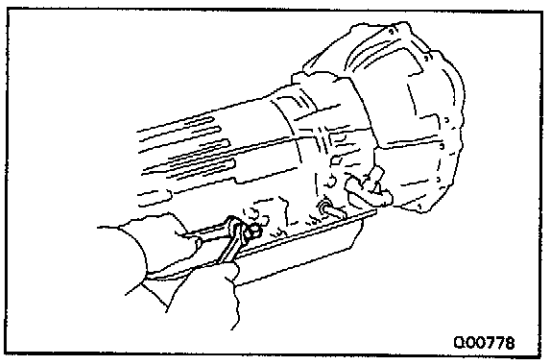
2. REMOVE PARK/NEUTRAL POSITION SWITCH

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



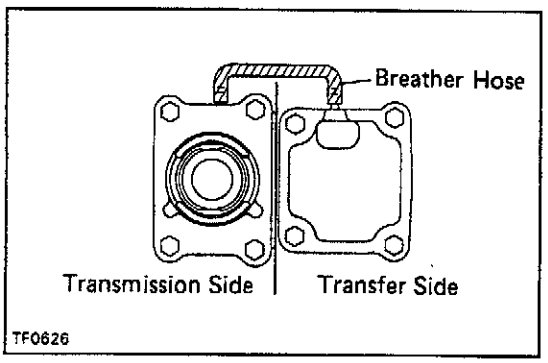
3. REMOVE A/T OIL TEMPERATURE SENSOR

(a) Remove the temperature sensor.
(b) Remove the O–ring from the sensor.



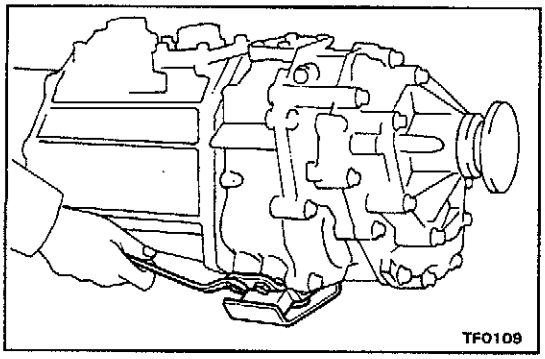
4. REMOVE TRANSMISSION SIDE UNION AND ELBOW

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

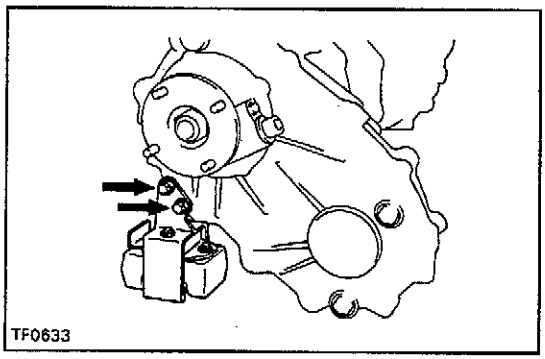


5. REMOVE BREATHER HOSE

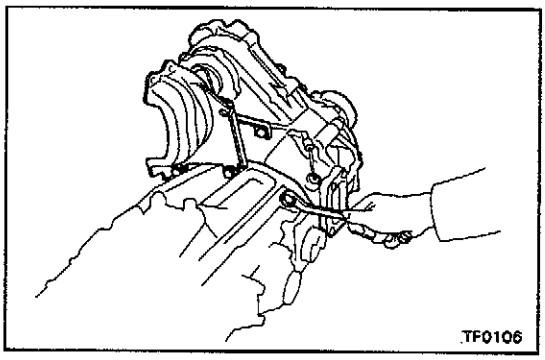
Disconnect the breather hose from transfer upper cover and transmission control retainer.



6. REMOVE ENGINE REAR MOUNTING

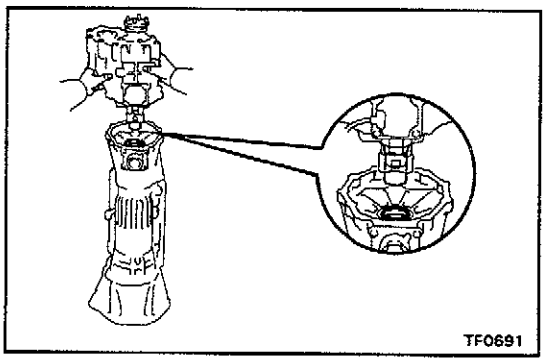


7. REMOVE DYNAMIC DAMPER

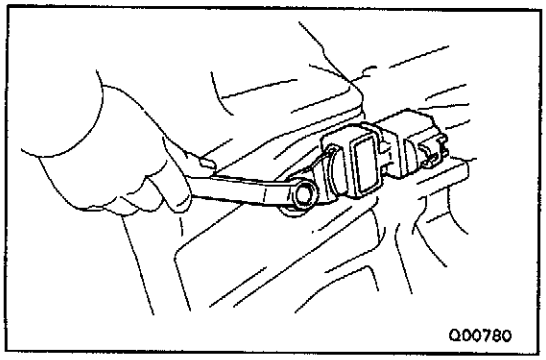


8. REMOVE PROPELLER SHAFT UPPER DUST COVER AND TRANSFER FROM TRANSMISSION

(a) Remove the dust cover bolt from the bracket.
(b) Remove the transfer adaptor rear mounting bolts.

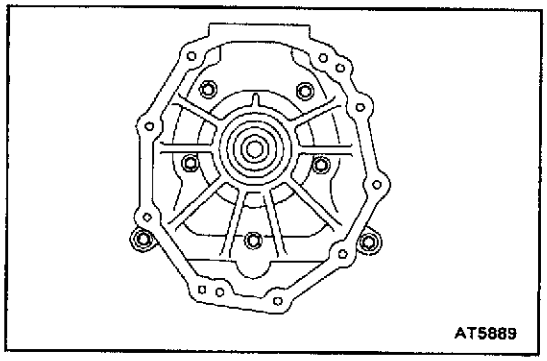


(c) Pull the transfer straight up and remove it from the transmission.



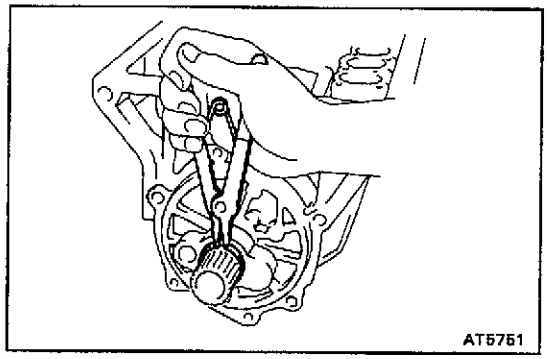
9. REMOVE VEHICLE SPEED SENSOR

(a) Remove the vehicle speed sensor and stopper plate.
(b) Remove the O–ring from sensor.



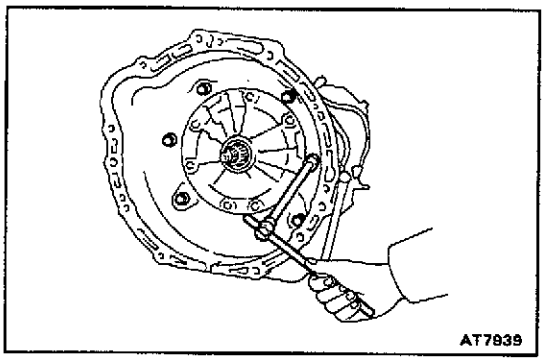
10. REMOVE TRANSFER CASE

Remove the 7 bolts and the case.



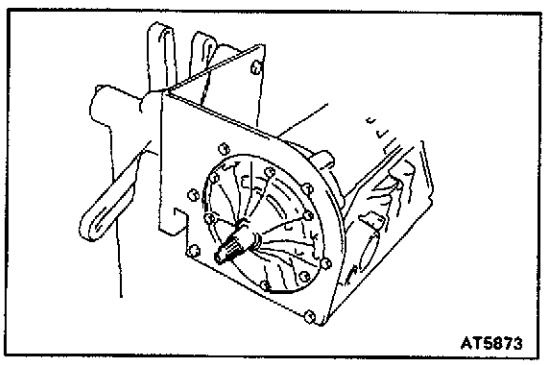
11. REMOVE SPEED SENSOR ROTOR AND KEY

(a) Using snap ring pliers, remove the snap ring.
(b) Remove sensro rotor and key.



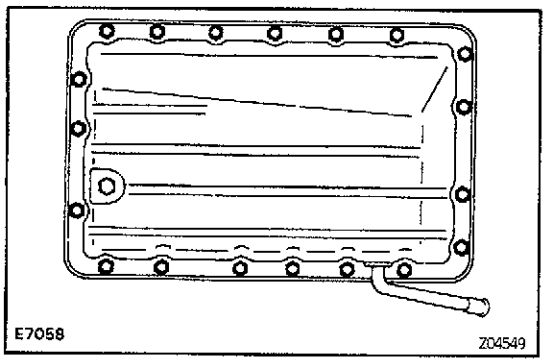
12. REMOVE TRANSMISSION HOUSING

(a) Remove the 6 bolts.
(b) Remove the transmission housing.



13. INSTALL TRANSMISSION CASE

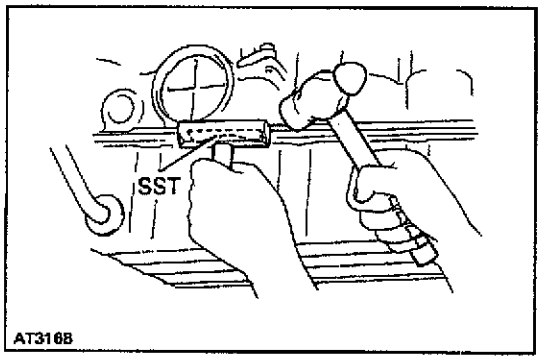
Install the transmission case on the overhaul attachment.



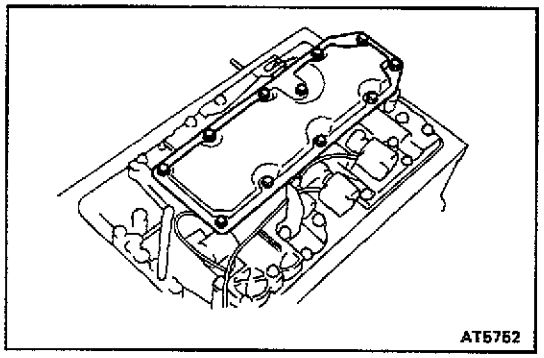
14. REMOVE OIL PAN

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

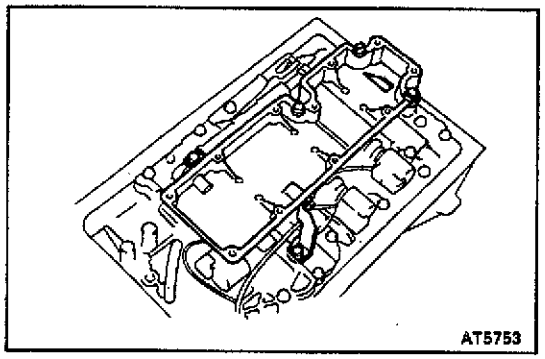
(a) Remove the 19 bolts.



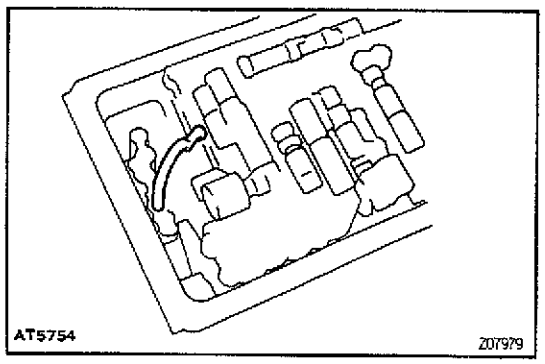
(b) Install the blade of SST between the transmission case and oil pan, cut off applied sealer.
SST 09032–00100
NOTICE: Be careful not to damage the oil pan flange.
(c) Remove the pan by lifting the transmission case.



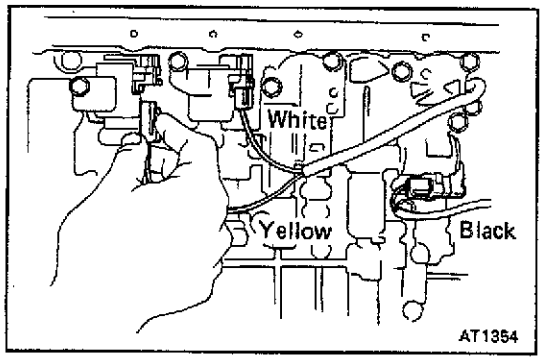
15. REMOVE OIL STRAINER AND GASKETS
(a) Remove the 11 bolts holding the oil strainer to the oil strainer case.
(b) Remove the oil strainer and gasket.



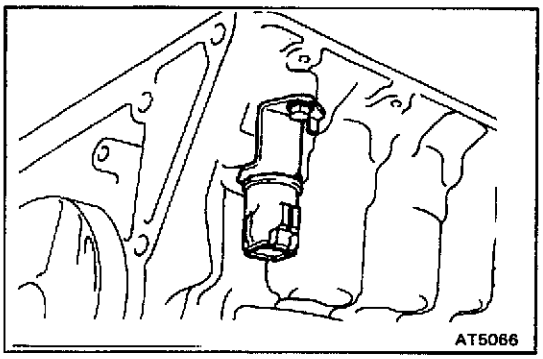
(c) Remove the 5 bolts and oil strainer case.
(d) Remove the 2 gaskets from the case.



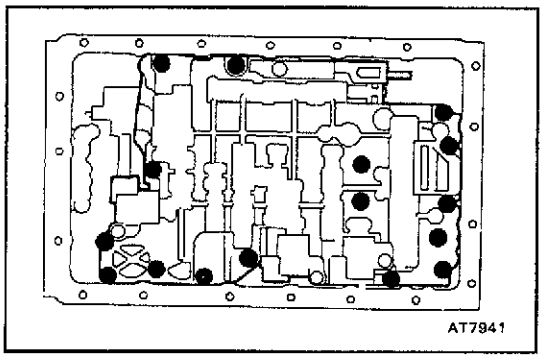
16. REMOVE OIL TUBES
Pry up tube ends with a large screwdriver and remove the tube.



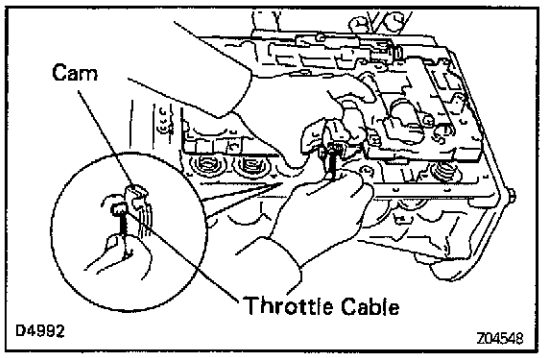
17. REMOVE SOLENOID WIRING
(a) Disconnect the 3 connectors from No.1, No.2 and lock–up solenoids.



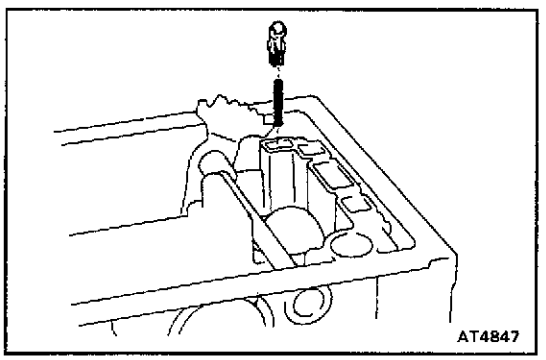
(b) Remove the stopper plate from the case.
(c) Pull out the solenoid wiring form the transmission case.
(d) Remove the O–ring from the grommet.



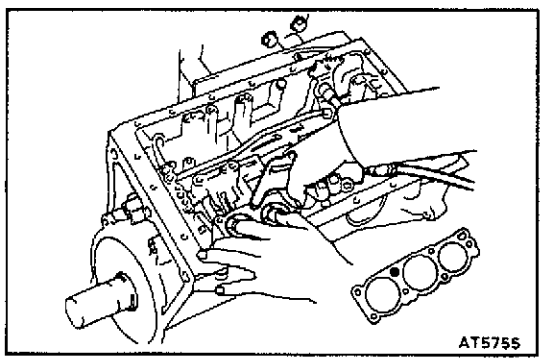
18. REMOVE VALVE BODY
(a) Remove the 16 bolts.



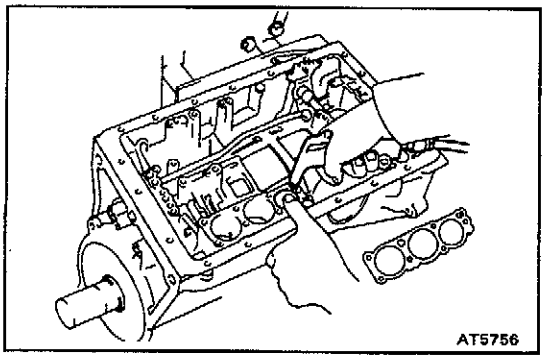
(b) Disconnect the throttle cable from the cam and remove the valve body.



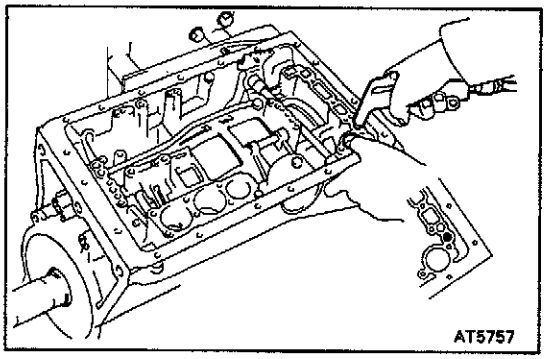
19. REMOVE CHECK BALL BODY
Remove the check ball body and spring.



20. REMOVE ACCUMULATOR PISTONS AND SPRINGS
(e) Applying compressed air to the oil hole, remove the B_0 and C_0 accumulator pistons and 3 springs.
(b) Remove the O–rings from each piston.

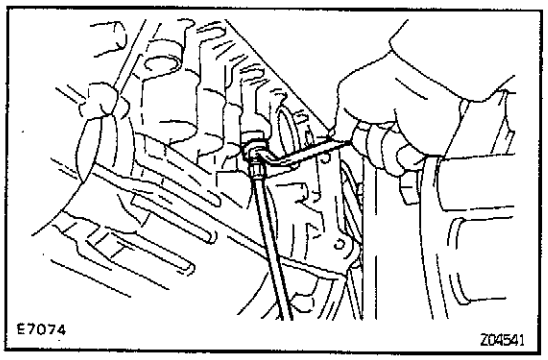


(c) Applying compressed air to the oil hole, remove the B_0 accumulator piston and spring.



(d) Applying compressed air to the oil hole, remove the C_0 accumulator piston and spring.

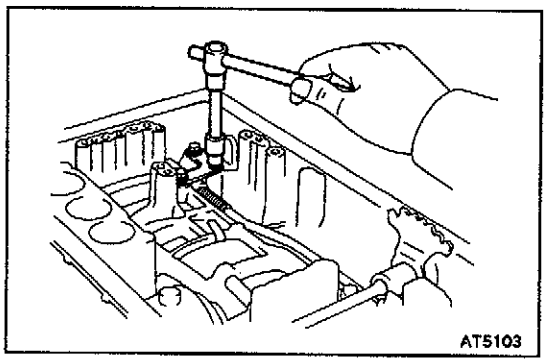
(e) Remove the O—ring from the piston.



21. REMOVE THROTTLE CABLE

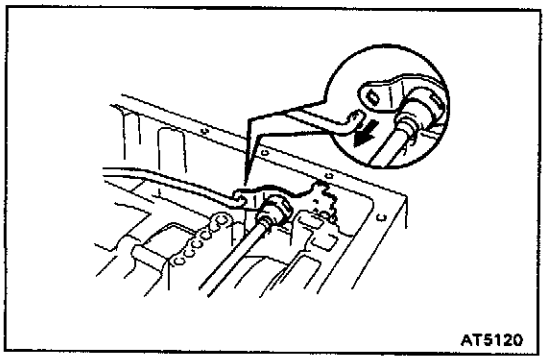
(a) Remove the retaining bolt and pull out the throttle cable.

(b) Remove the O—ring from the cable.

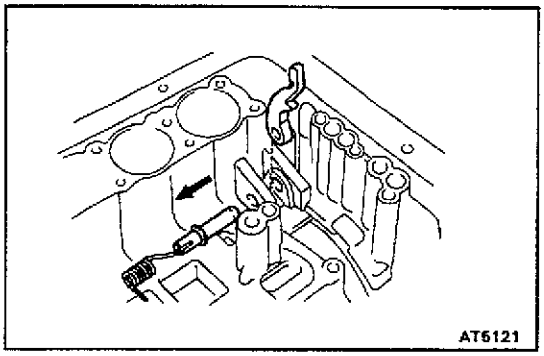


22. REMOVE PARKING LOCK ROD AND PAWL

(a) Remove the parking lock pawl bracket.

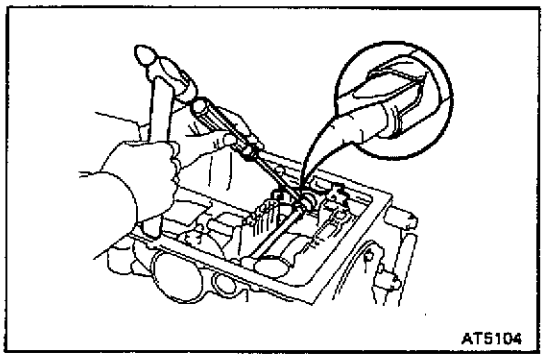


(b) Disconnect the parking lock rod from the manual valve lever.

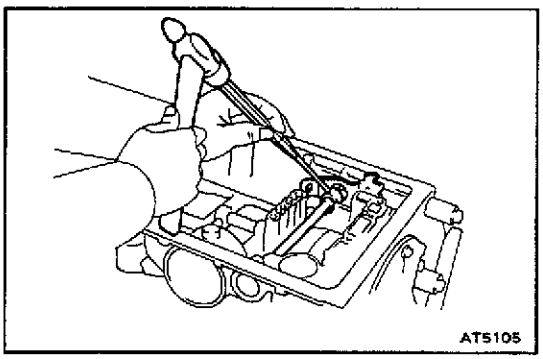


(c) Remove the E–ring from the shaft.
(d) Pull the parking lock pawl shaft out from the front side, then remove the pawl and spring.

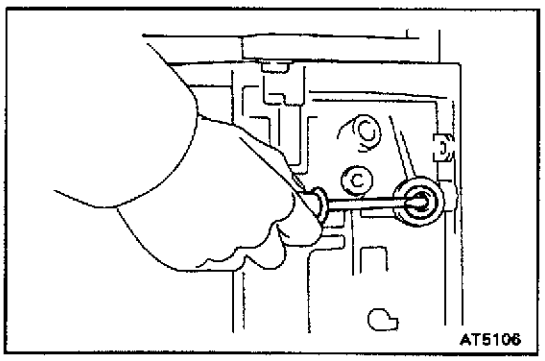
AT



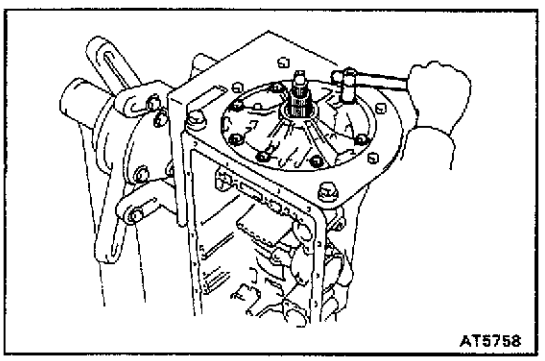
23. REMOVE MANUAL VALVE LEVER SHAFT
(a) Using a hammer and screwdriver, cut off the spacer and remove it from the shaft.



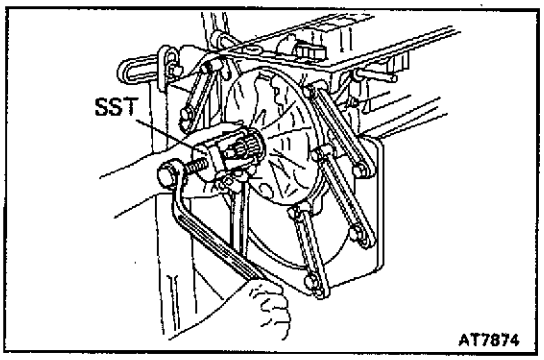
(b) Using a pin punch, drive out the spring pin.
HINT: Slowly drive out the spring pin so it does not fall into the transmission case.
(c) Pull the manual valve lever shaft out through the case and remove the manual valve lever.



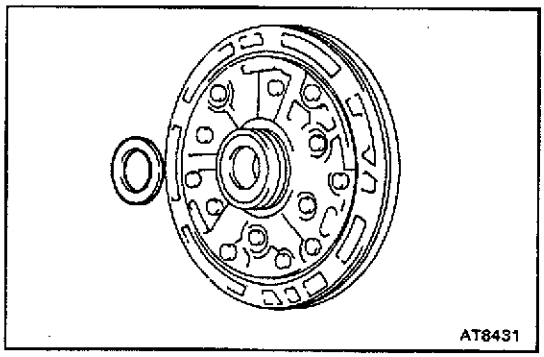
(d) Using a screwdriver, remove the 2 oil seals.



24. REMOVE OIL PUMP
(a) Stand up the transmission.
(b) Remove the 7 bolts holding the oil pump to the transmission case.

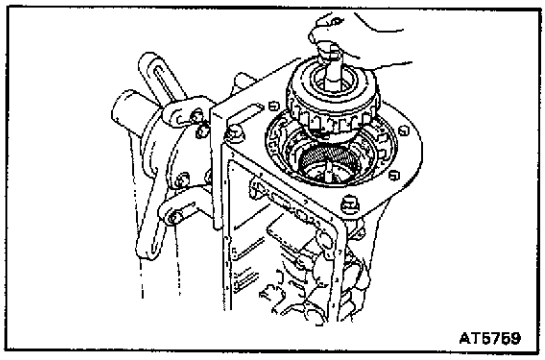


(c) Using SST, remove the oil pump.
SST 09610–20012



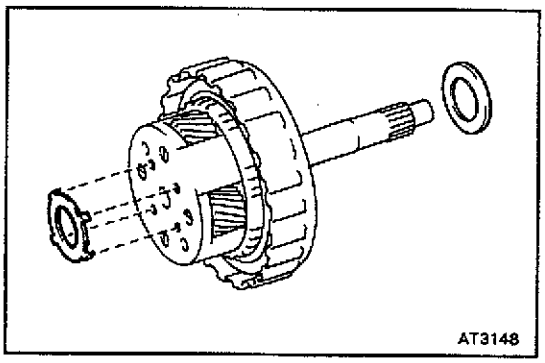
(d) Remove the race from the oil pump.
(e) Remove the O–ring from the oil pump.

AT

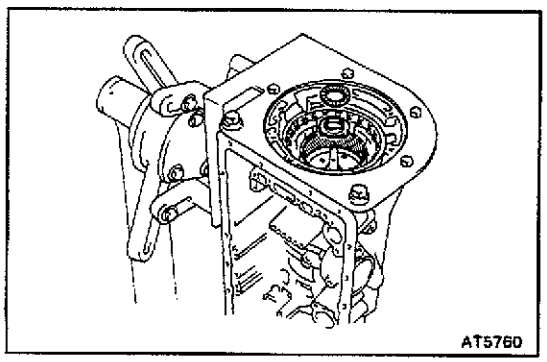


25. REMOVE OVERDRIVE PLANETARY GEAR WITH OVERDRIVE DIRECT CLUTCH AND ONE – WAY CLUTCH

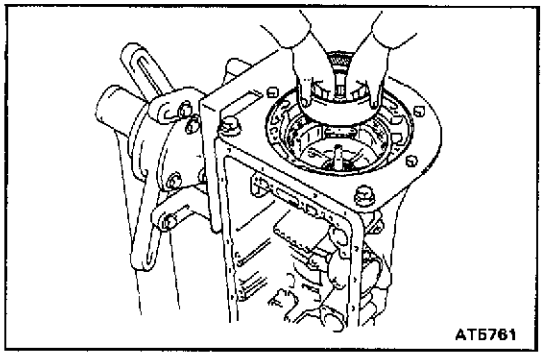
(a) Remove the overdrive planetary gear with the overdirve direct clutch and one–way clutch from the transmission case.



(b) Remove the race and assembled bearing and race.

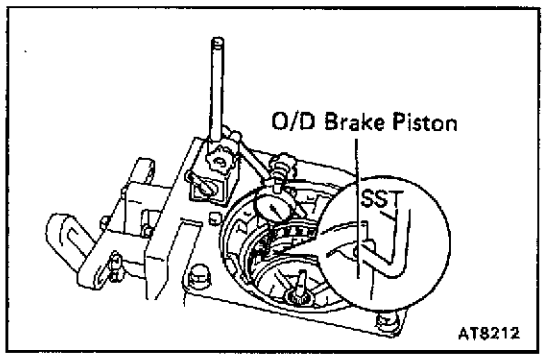


(c) Remove the bearing and race.



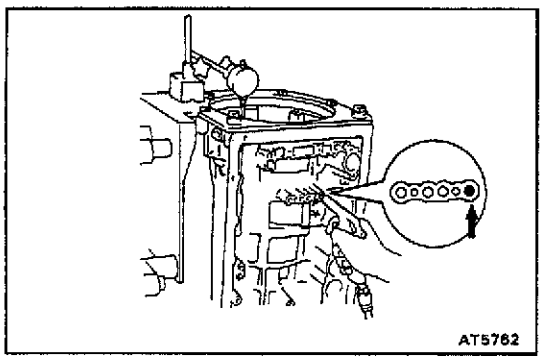
(d) Remove the overdrive planetary ring gear from the transmission case.

AT

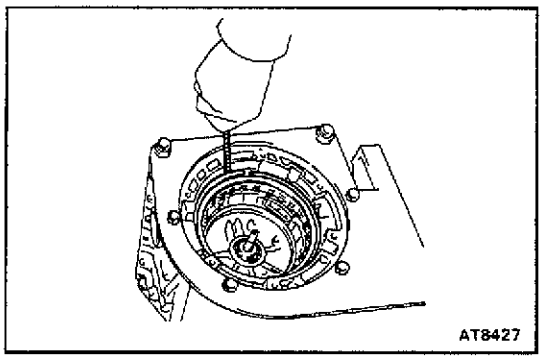


26. CHECK PISTON STROKE OF OVERDRIVE BRAKE

(a) Place SST and a dial indicator onto the overdrive brake piston.
SST 09350–30020 (09350–06120)

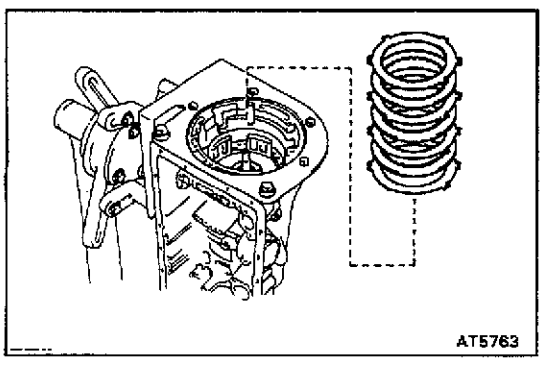


(b) Measure the stroke while applying and releasing compressed air (392–785 kPa, 4–8 kgf/cm², 57–114 psi).
Piston stroke:
1.32 – 1.62 mm (0.0520 – 0.0638 in.)
If the values are non–standard, inspect the disc.

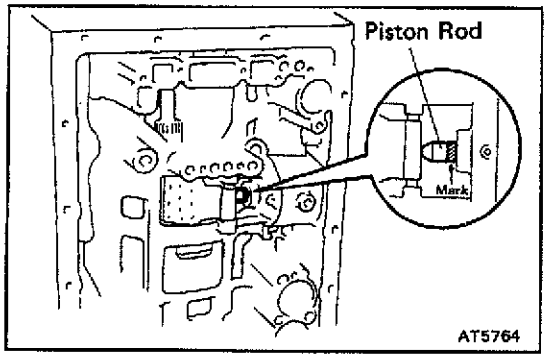


27. REMOVE FLANGES, PLATES AND DISCS OF OVERDRIVE BRAKE

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

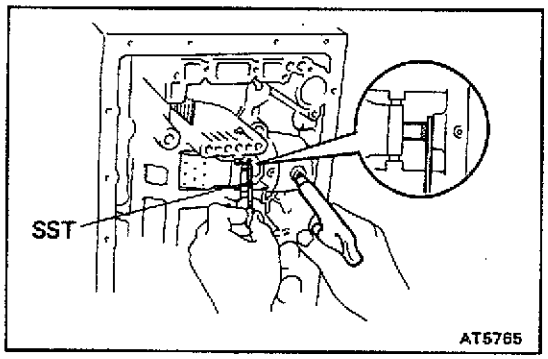


(b) Remove the flanges, plates and discs as a set.

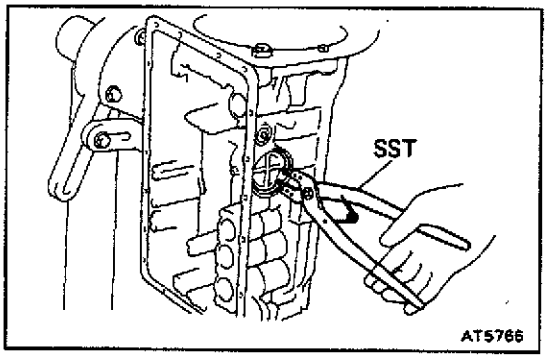


28. CHECK PISTON ROD STROKE OF SECOND COAST BRAKE

(a) Place a mark on the second coast brake piston rod.

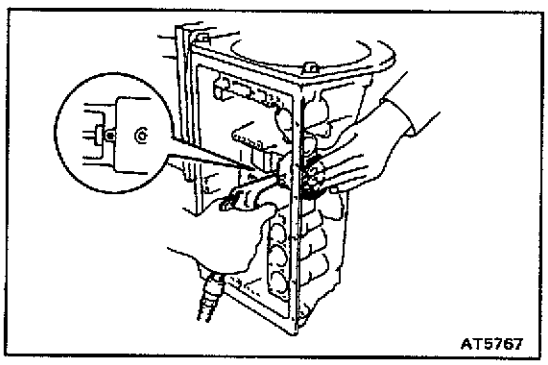


(b) Using SST, measure the stroke while applying compressed air (392–785 kPa, 4–8 kgf/cm², 57–114 psi).
SST 09350–30020 (09350–00020)
Piston stroke:
1.5 – 3.0 mm (0.059 – 0.118 in.)
If the values are non–standard, inspect the brake band.

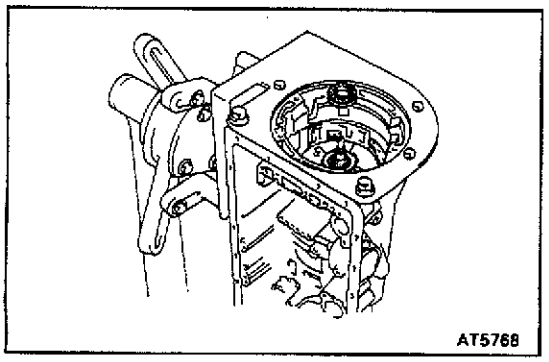


29. REMOVE SECOND COAST BRAKE COVER, PISTON ASSEMBLY AND SPRING

(a) Using SST, remove the snap ring.
SST 09350–30020 (09350–07060)

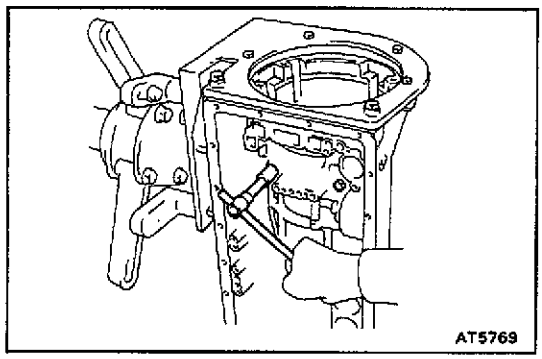


(b) Applying compressed air to the oil hole, remove the second coast brake cover, piston assembly and spring.
(c) Remove the 2 O–rings from the cover.

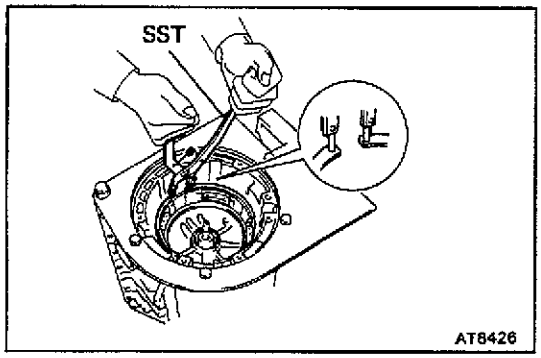


30. REMOVE OVERDRIVE SUPPORT ASSEMBLY

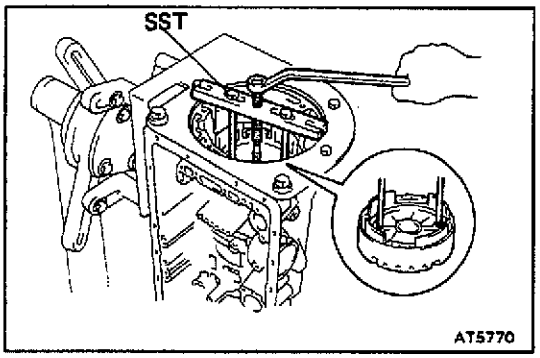
(a) Remove the assembled bearing.



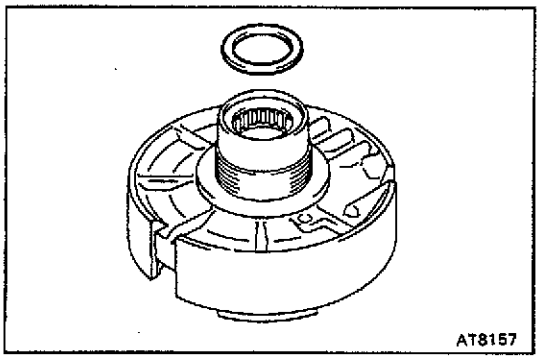
(b) Remove the 2 bolts holding the overdrive support assembly to the case.



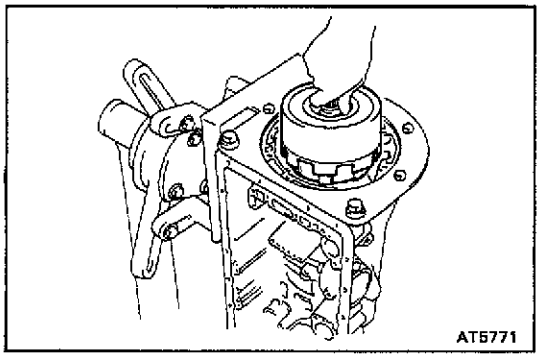
(c) Using SST, remove the snap ring.
SST 09350–30020 (09350–07060)



(d) Using SST, remove the overdrive support assembly.
SST 09350–30020 (09350–07020)

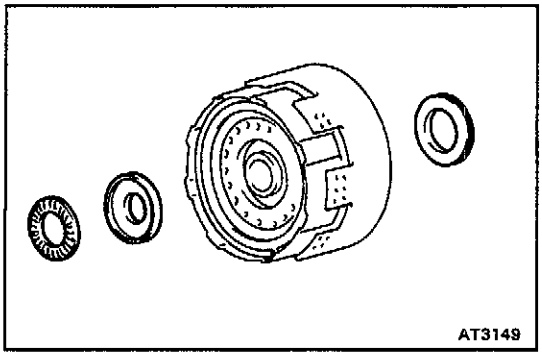


(e) Remove the race.

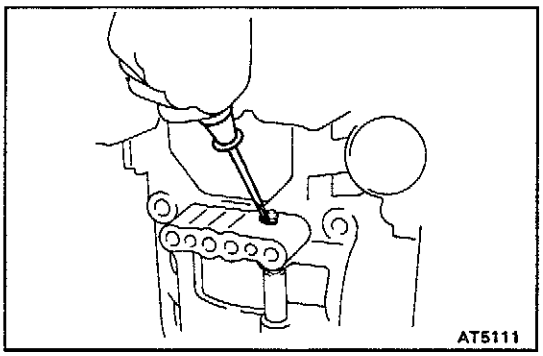


31. REMOVE DIRECT CLUTCH WITH FORWARD CLUTCH

(a) Remove the direct clutch with the forward clutch from the case.



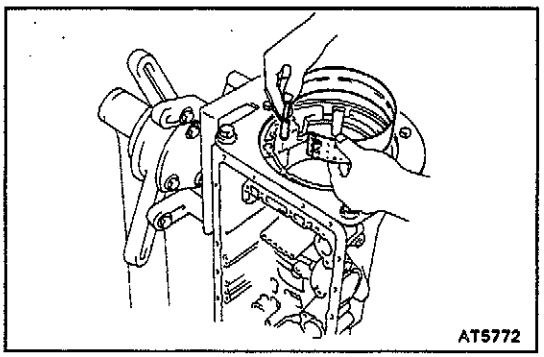
(b) Remove the 2 bearings and races.



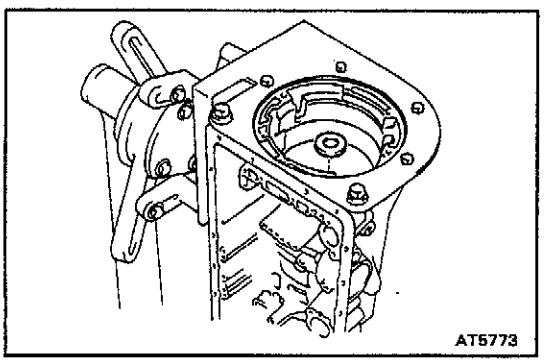
32. REMOVE SECOND COAST BRAKE BAND

(a) Remove the E–ring from the pin.

(b) Remove the pin from the brake band.

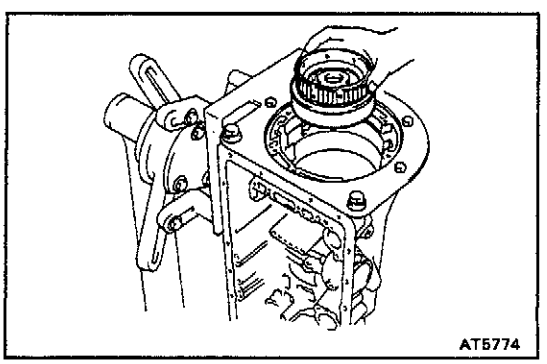


(c) Remove the second coast brake from the case.

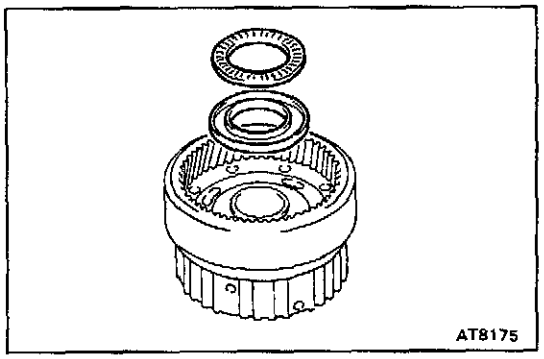


33. REMOVE FRONT PLANETARY GEAR UNIT

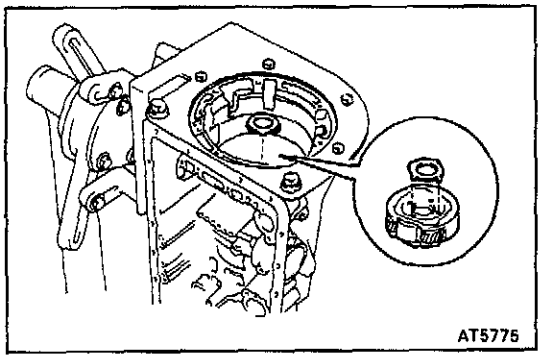
(a) Remove the race.



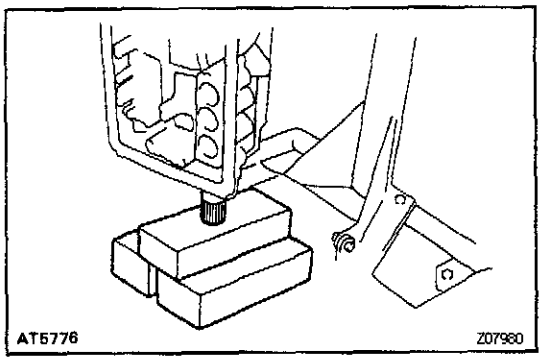
(b) Remove the front planetary ring gear from the case.



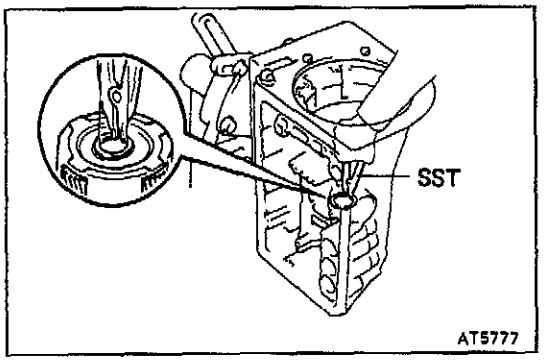
(c) Remove the bearing and race.



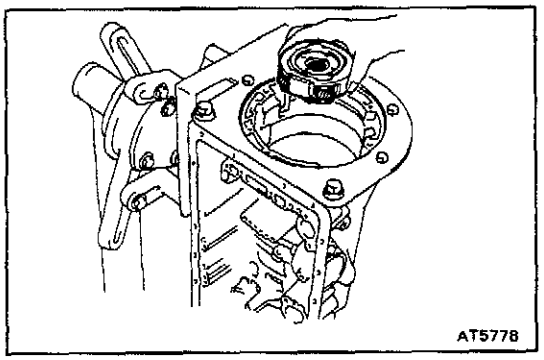
(d) Remove the race.



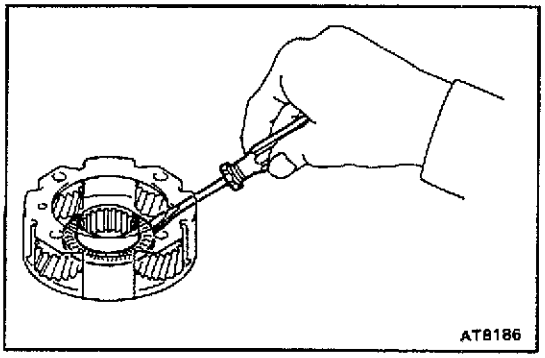
(e) With wooden blocks or equivalent under the output shaft, stand the transmission on the output shaft.



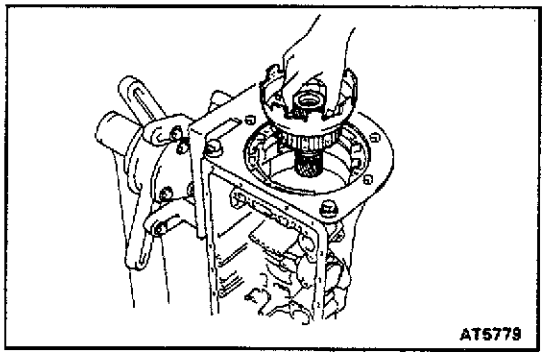
(f) Using SST, remove the snap ring.
SST 09350–30020 (09350–07070)



(g) Remove the front planetary gear from the case.

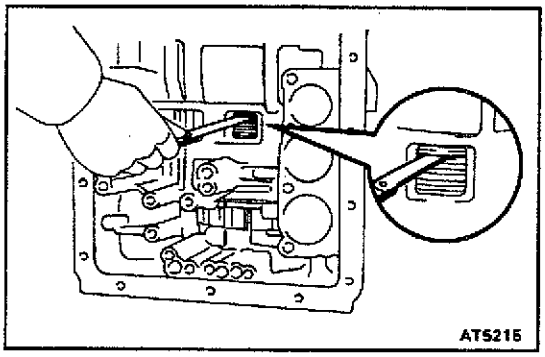


(h) Using a screwdriver, remove the bearing and rece from the front planetary gear.



34. REMOVE PLANETARY SUN GEAR WITH NO.1 ONE –WAY CLUTCH

A1



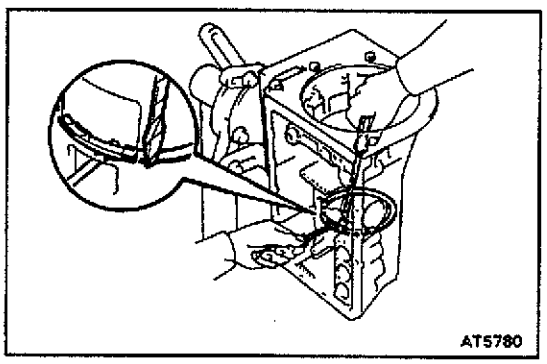
35. CHECK PACK CLEARANCE OF SECOND BRAKE

Using a feeler gauge, measure the clearance between the snap ring and flange.

Clearance:

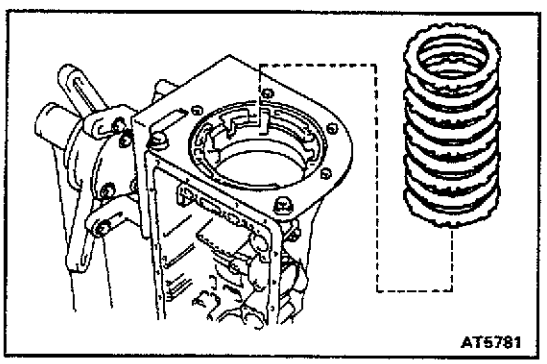
0.50 – 1.76 mm (0.0197 – 0.0693 in.)

If the values are non–standard, inspect the disc.

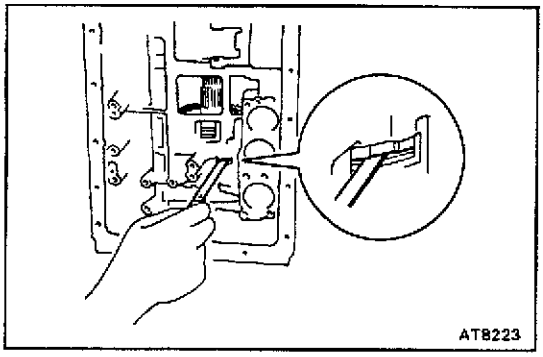


36. REMOVE FLANGE, PLATES AND DISCS OF SECOND BRAKE

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



(b) Remove the flange, plates and discs as a set.



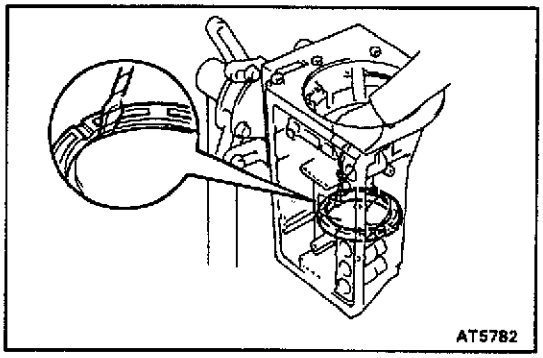
37. CHECK PACK CLEARANCE OF FIRST AND REVERSE BRAKE

Using a feeler gauge, measure the clearance between the plate and second brake drum.

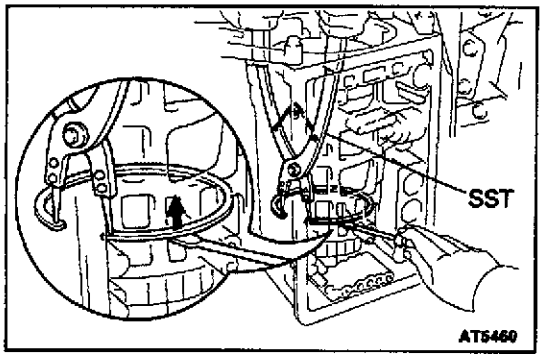
Clearance:

0.50 – 1.02 mm (0.0197 – 0.0402 in.)

If the values are non–standard, inspect the discs.

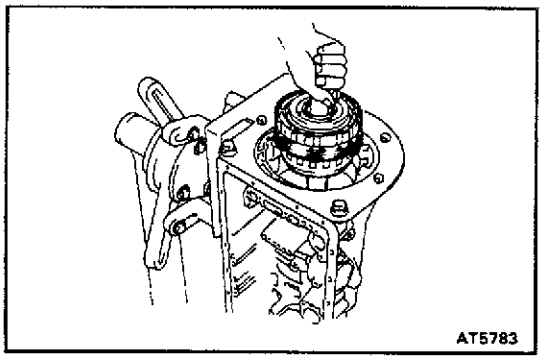


38. REMOVE SECOND BRAKE PISTON SLEEVE

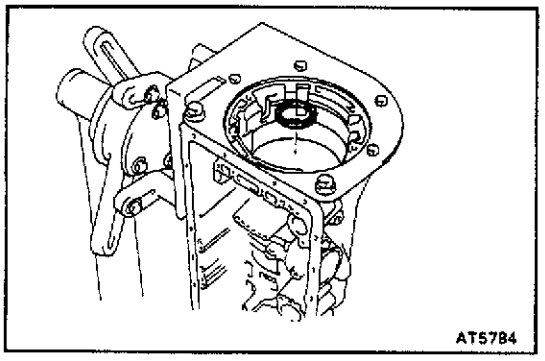


39. REMOVE REAR PLANETARY GEAR WITH SECOND BRAKE DRUM, FIRST AND REVERSE BRAKE PACK AND OUTPUT SHAFT

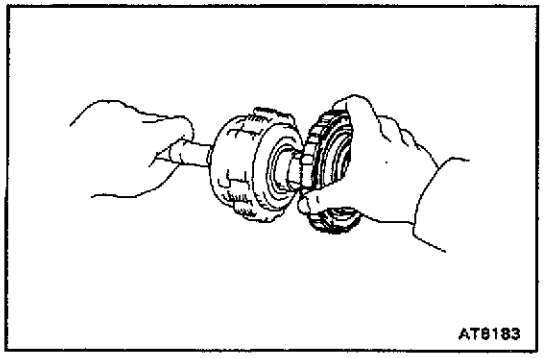
(a) Using SST and 2 screwdrivers, remove the snap ring.
SST 09350–30020 (09350–07060)



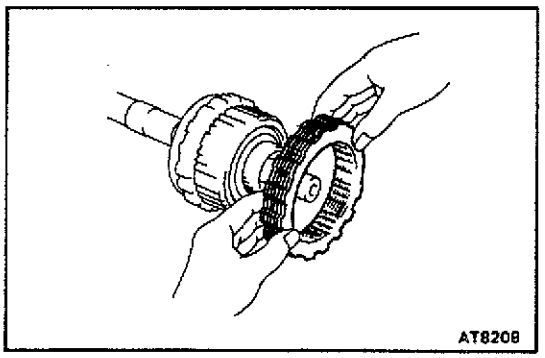
(b) Remove the rear planetary gear, second brake drum, first and reverse brake pack and output shaft as an assembly.



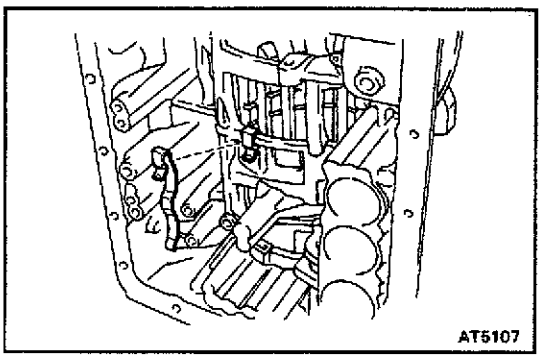
(c) Remove the assembled thrust bearing and race from the case.



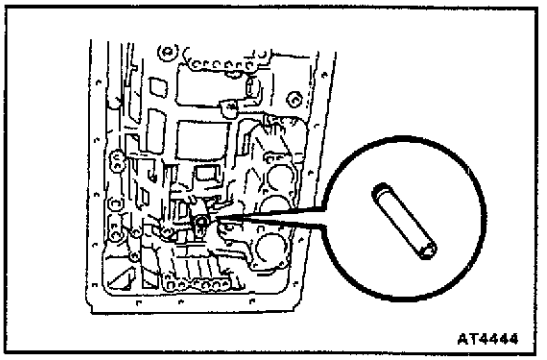
(d) Remove the second brake drum assembly.



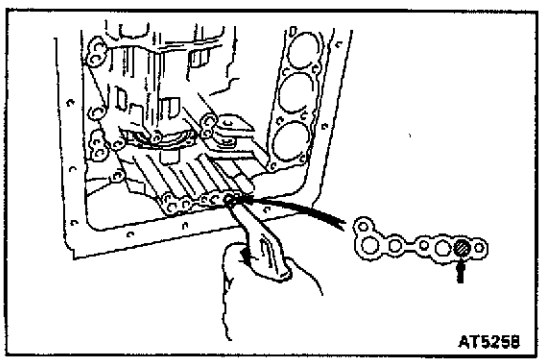
(e) Remove the cushion plate, flange, plates and discs of the first and reverse brake.



40. REMOVE LEAF SPRING

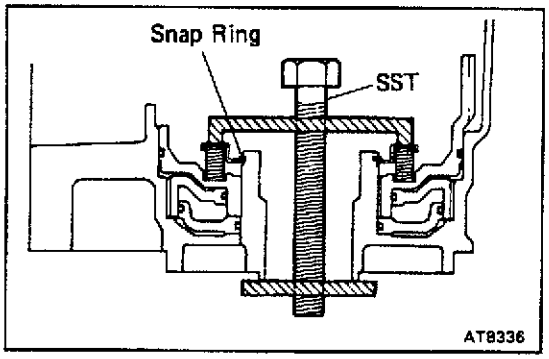


41. REMOVE BRAKE DRUM GASKET



42. CHECK PISTON STROKE OF FIRST AND REVERSE BRAKE

Make sure the first and reverse brake pistons move smoothly when applying and releasing the compressed air into the transmission case.



43. REMOVE COMPONENTS OF FIRST AND REVERSE BRAKE PISTON

(a) Set SST on the spring retainer, and compress the return spring.
SST 09350–30020 (09350–07050)

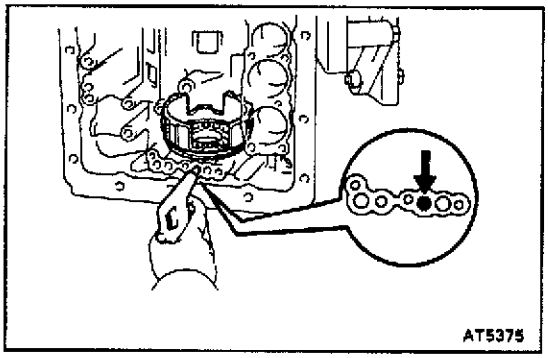
(b) Remove the snap ring with snap ring pliers.

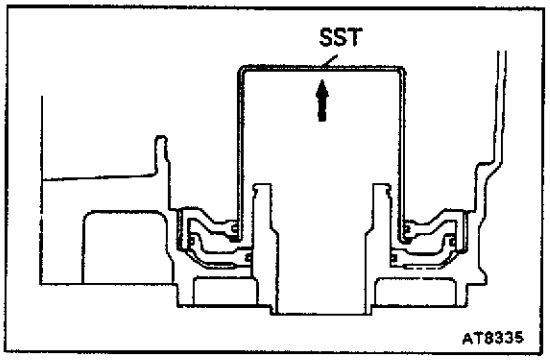
(c) Remove the piston return spring.

(d) Hold the No.2 first and reverse brake piston with hand, apply compressed air to the transmission case to remove the No.2 first and reverse brake piston.

(e) Remove the No.2 first and reverse brake piston.
If the piston does not pop out with compressed air, lift the position out with needle–nose pliers.

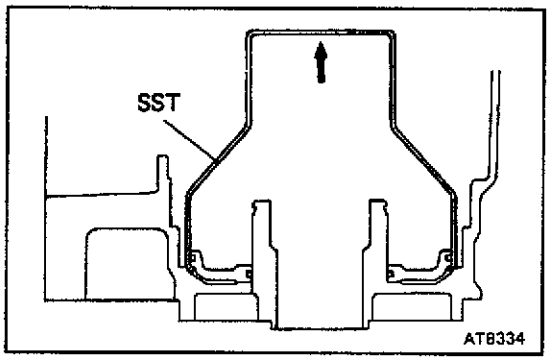
(f) Remove the O–ring from the No.2 piston.





(g) Install SST behind the reaction sleeve and gradually lift it out on the transmission case.
SST 09350–30020 (09350–07080)

(h) Remove the O–ring from the reaction sleeve.



(i) Install SST behind the No.1 brake piston and gradually lift it out of the transmission case.
SST 09350–30020 (09350–07090)

(j) Remove the 2 O–rings from the No.1 piston.