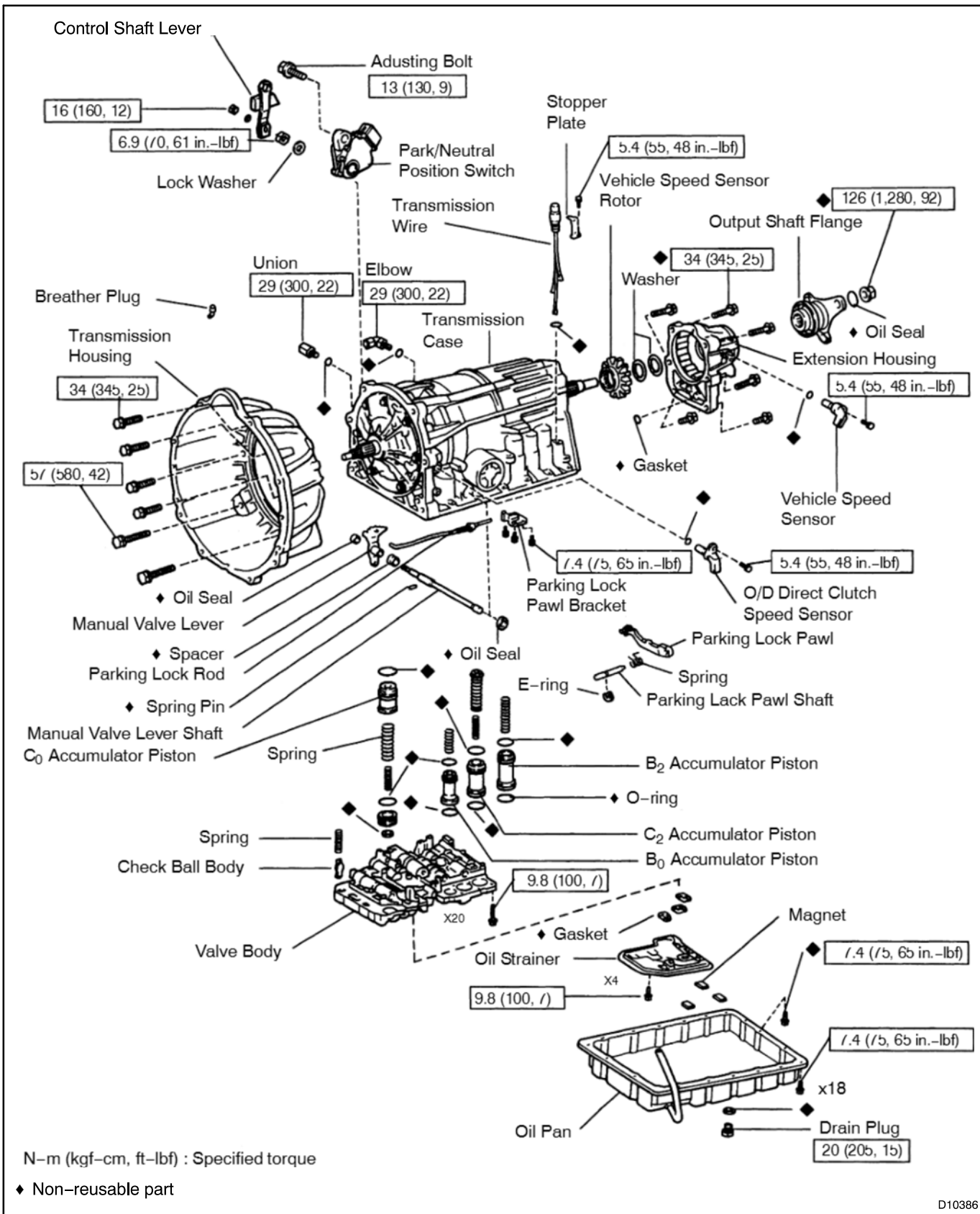
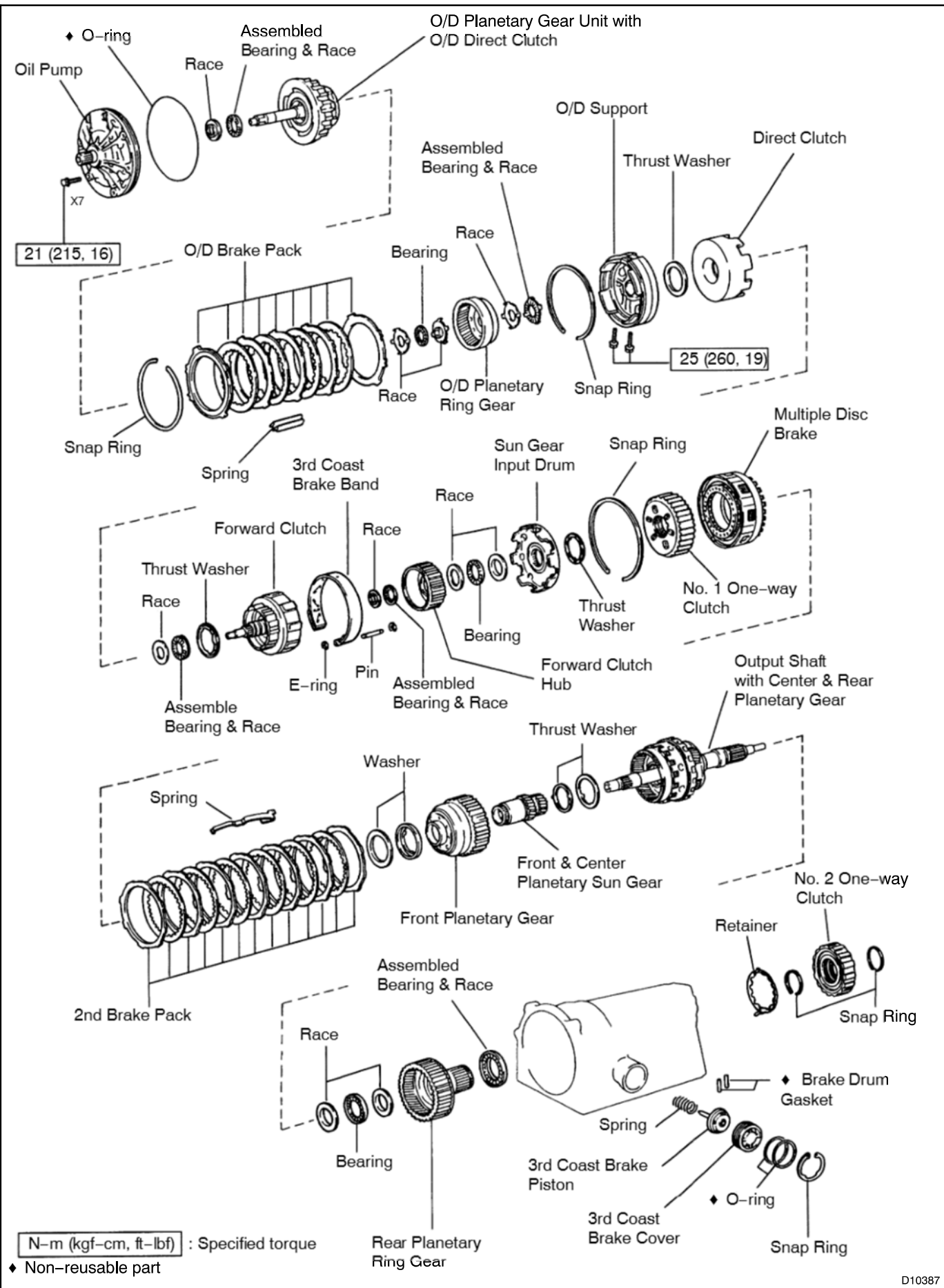
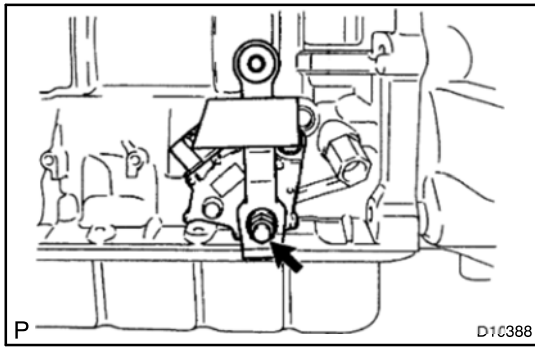


COMPONENTS



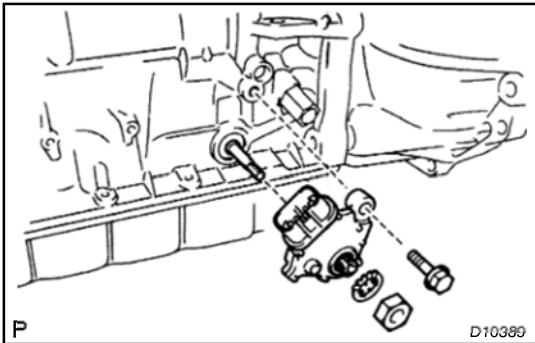




DISASSEMBLY

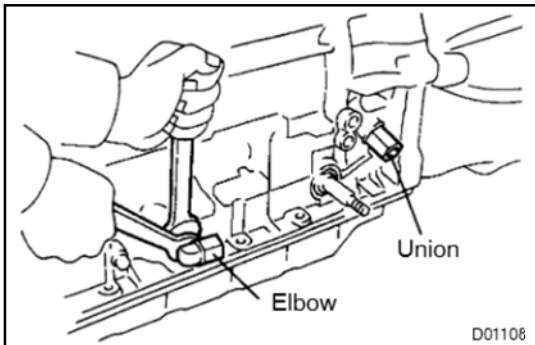
1. REMOVE CONTROL SHAFT LEVER

Remove the nut, washer and control shaft lever.



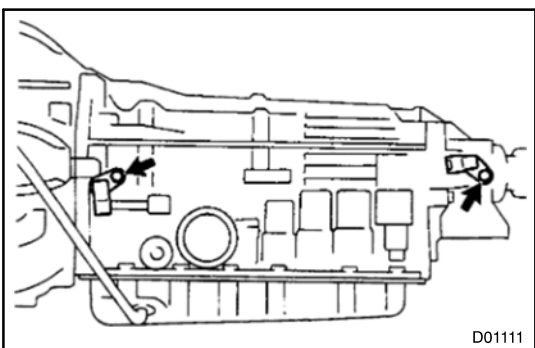
2. REMOVE PARK/NEUTRAL POSITION SWITCH

- (a) Using a screwdriver, unstick the lock washer.
- (b) Remove the lock washer, nut and bolt.
- (c) Remove the park/neutral position switch.



3. REMOVE UNION AND ELBOW

- (a) Remove the union and elbow.
- (b) Remove the 2 O-rings from the union and elbow.



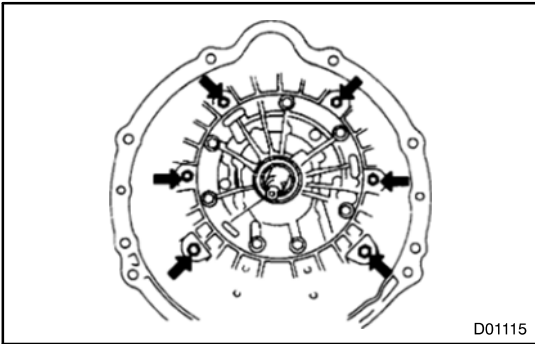
4. REMOVE SPEED SENSOR

- (a) Remove the 2 bolts and 2 speed sensors.
- (b) Remove the O-ring from each one.

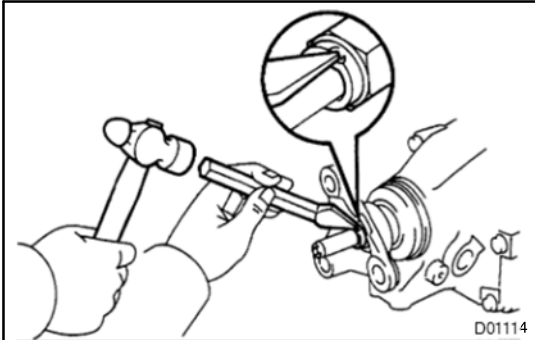


5. REMOVE TRANSMISSION HOUSING

- (a) Remove the breather plug.



- (b) Remove the 6 bolts.
- (c) Remove the transmission housing.

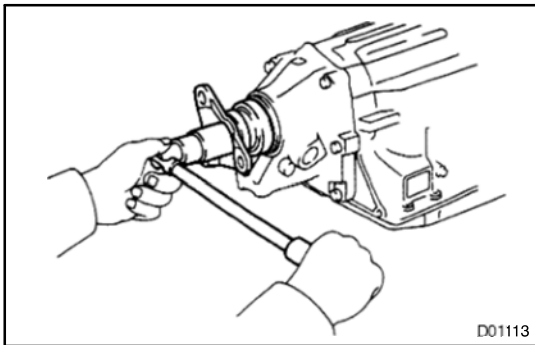


6. REMOVE TRANSMISSION OUTPUT FLANGE

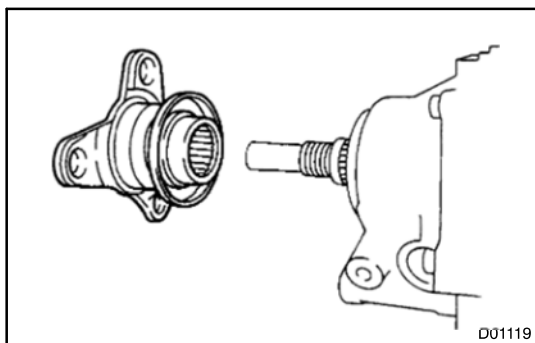
- (a) Using a hammer and chisel, loosen the staked part of the nut.

HINT:

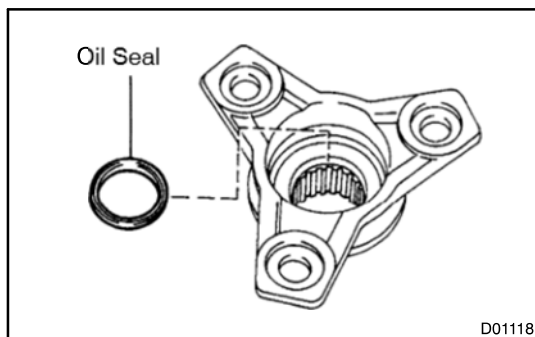
Shift the manual valve lever to the P position.



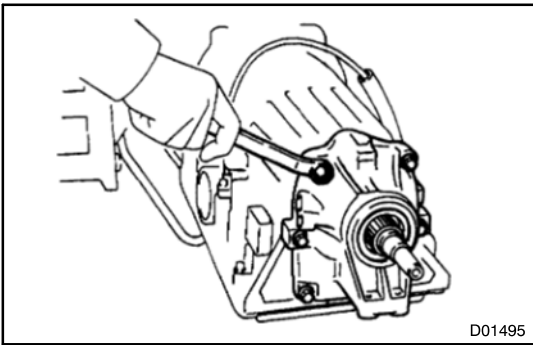
- (b) Using a deeper socket wrench of 30 mm, remove the nut.



- (c) Remove the output flange.

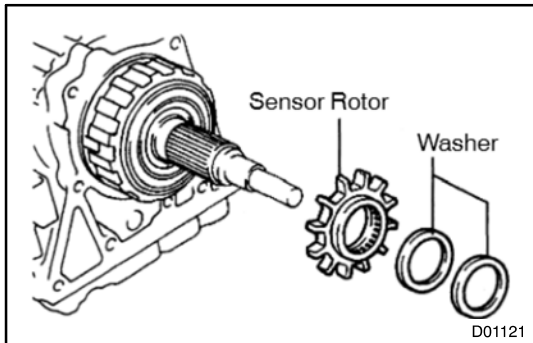


- (d) Remove the oil seal from the output flange.



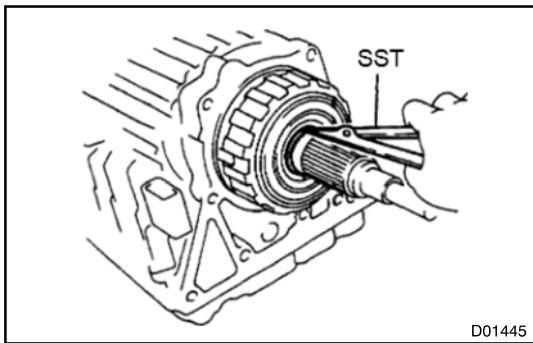
7. REMOVE EXTENSION HOUSING

- (a) Remove the 6 bolts.
 - (b) Remove the extension housing.
- HINT:
Using a brass bar and hammer.
- (c) Remove the gasket from the extension housing.



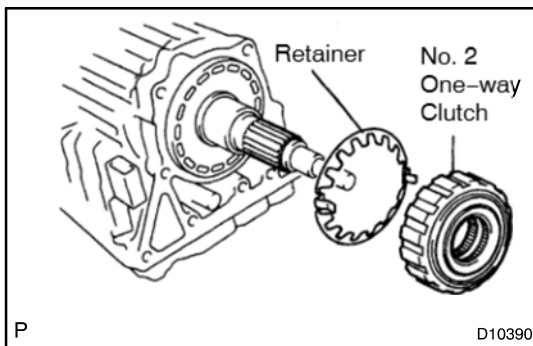
8. REMOVE VEHICLE SPEED SENSOR ROTOR

Remove the 2 washers and vehicle speed sensor rotor from the output shaft.

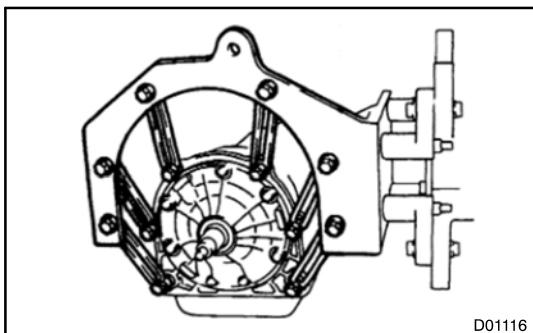


9. REMOVE ONE-WAY CLUTCH

- (a) Using SST, remove the snap ring.
SST 09350-30020 (09350-07070)



- (b) Remove the No. 2 one-way clutch and the retainer.

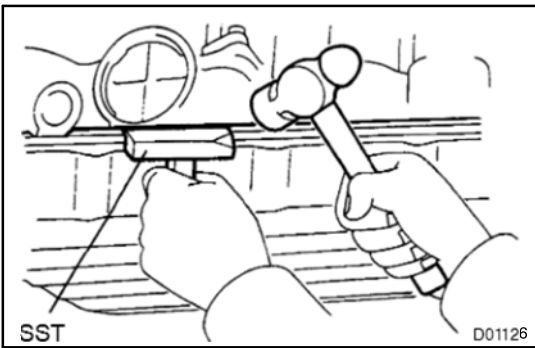


10. INSTALL TRANSMISSION CASE ON OVERHAUL ATTACHMENT

11. REMOVE OIL PAN

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

- (a) Remove the 19 bolts.

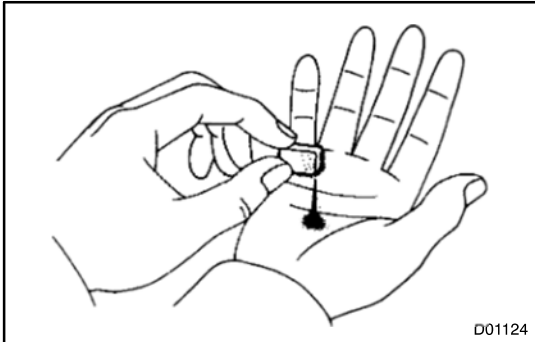


- (b) Insert the blade of SST between the transmission case and oil pan, cut off applied sealer.

SST 09032-00100

NOTICE:

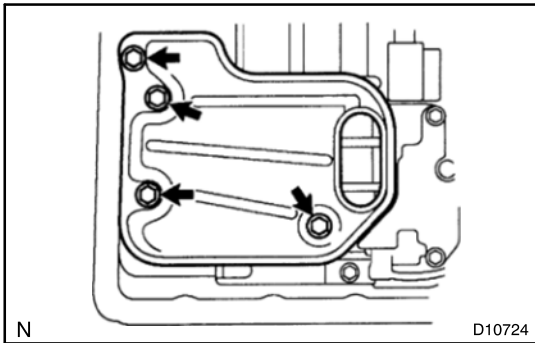
Be careful not to damage the oil pan flange.



12. EXAMINE PARTICLES IN PAN

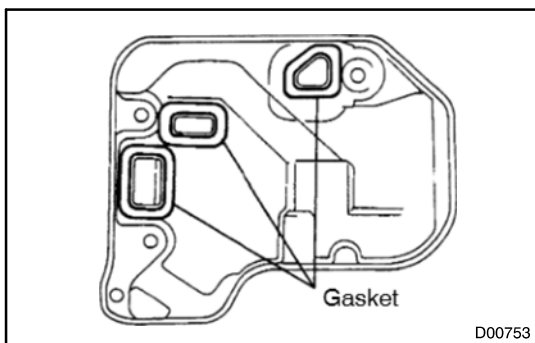
Remove the magnets and use them to collect steel particles. Carefully look at the foreign matter and particles in the pan and on the magnets to anticipate the type of wear you will find in the transmission.

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

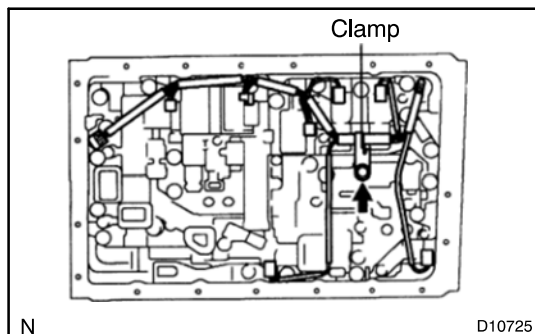


13. REMOVE OIL STRAINER

- (a) Turn over the transmission.
- (b) Remove the 4 bolts holding the oil strainer to the valve body.

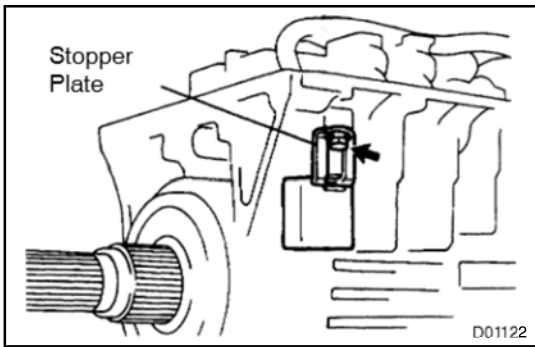


- (c) Remove the 3 gaskets from the oil strainer.

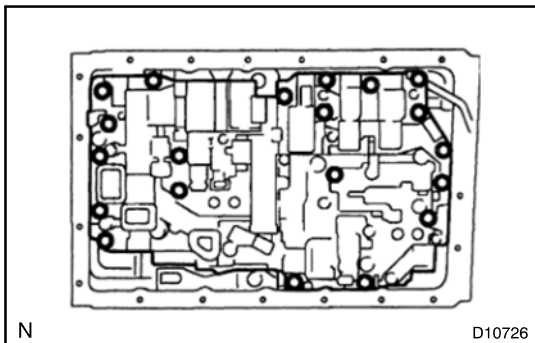


14. REMOVE TRANSMISSION WIRE

- (a) Remove the ATF temperature sensor.
- (b) Remove the bolt and clamp.
- (c) Disconnect the 7 connectors from the shift solenoid valves.

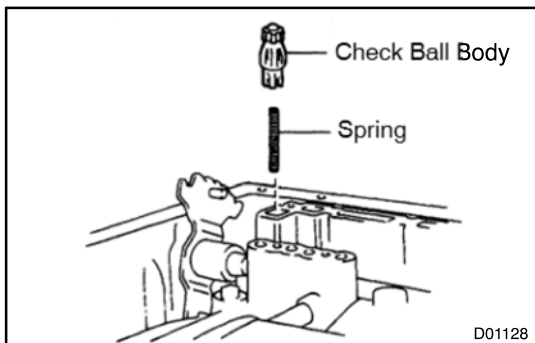


- (d) Remove the bolt and stopper plate from the case.
- (e) Pull the transmission wire out of the transmission case.
- (f) Remove the O-ring from the grommet.



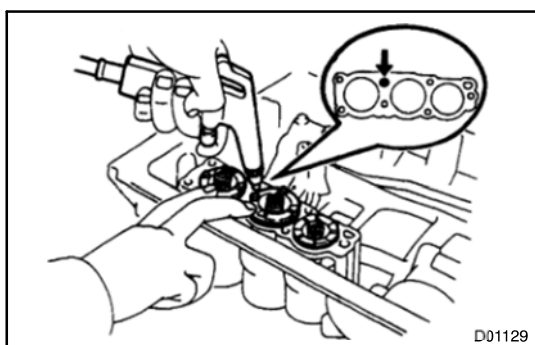
15. REMOVE VALVE BODY

- (a) Remove the 20 bolts.
- (b) Remove the valve body.



16. REMOVE CHECK BALL BODY

Remove the check ball body and spring.

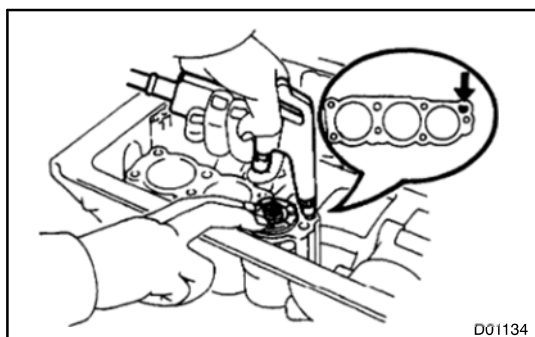


17. REMOVE ACCUMULATOR SPRING AND PISTON

- (a) Applying compressed air to the oil hole, remove the B₂ and C₂ accumulator pistons and springs.
- (b) Remove the O-rings from each pistons.

NOTICE:

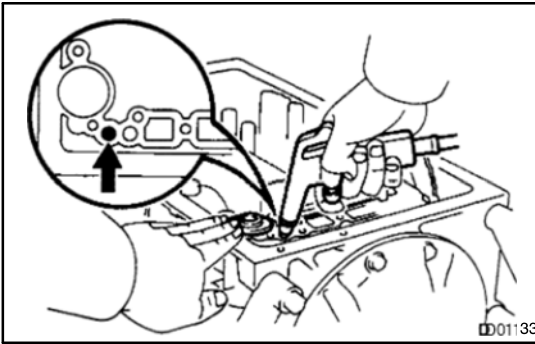
Take care as the B₀ and C₀ accumulator piston may jump out.



- (c) Applying compressed air to the oil hole, remove the B₀ accumulator piston and spring.
- (d) Remove the O-rings from the piston.

NOTICE:

Take care as the C₀ accumulator piston may jump out.



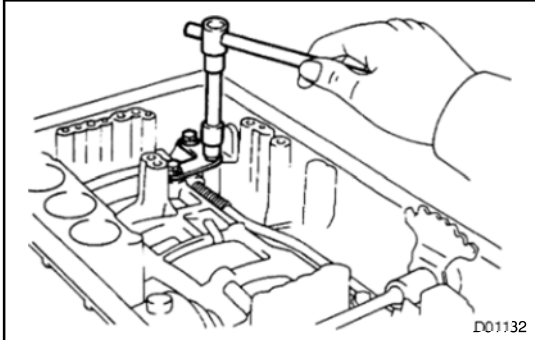
- (e) Applying compressed air to the oil hole, remove the C₀ accumulator piston and spring.

HINT:

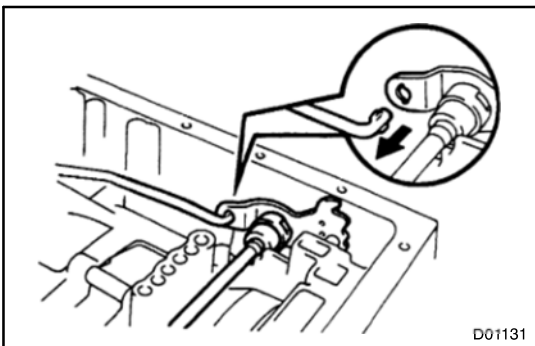
The C₀ accumulator piston is deviated in 2 parts, so if only the top part is removed, after removing the spring reapply compressed air to remove the bottom part.

- (f) Remove the O-rings from the piston.

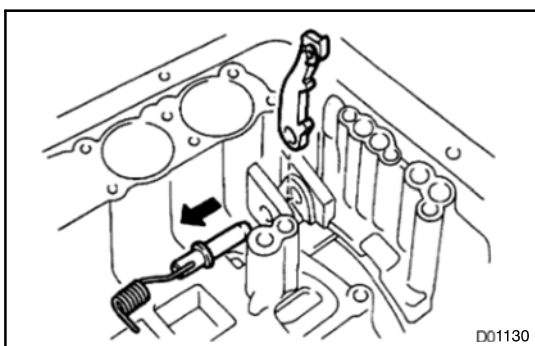
18. REMOVE PARKING LOCK ROD AND PAWL



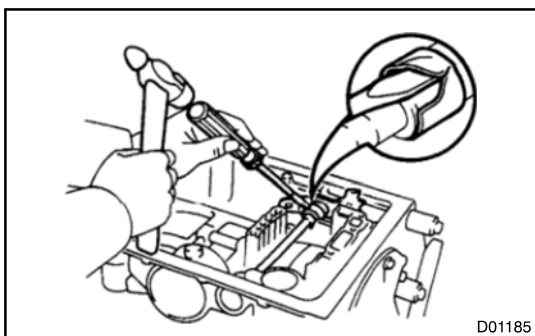
- (a) Remove the 3 bolts and parking lock pawl bracket.



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

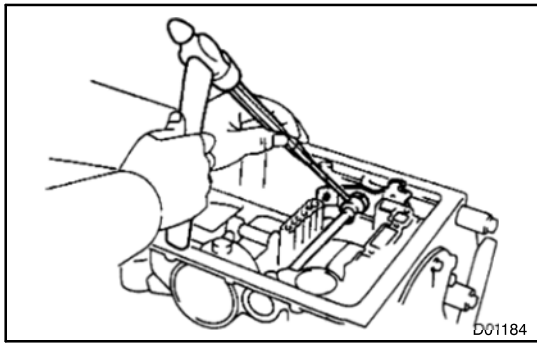


- (c) Pull out the parking lock pawl shaft from the front side, then remove the lock pawl and spring.
 (d) Remove the E-ring from the shaft.



19. REMOVE MANUAL VALVE LEVER SHAFT

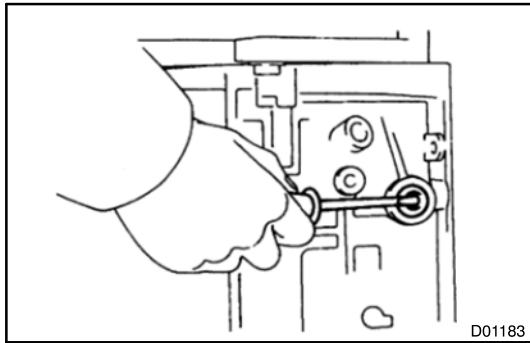
- (a) Using a hammer and screwdriver, cut off the spacer and remove it from the shaft.



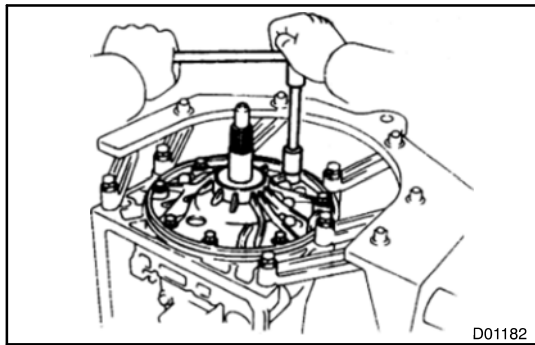
- (b) Using a pin punch and hammer, drive out the spring pin.

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.

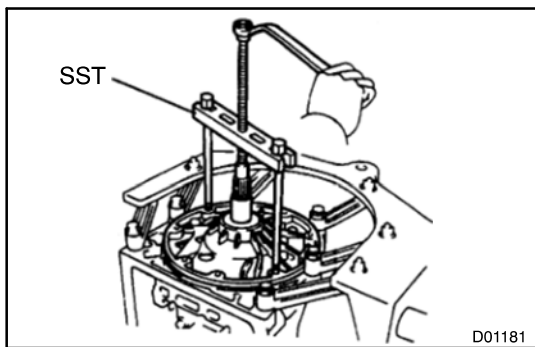


- (d) Using a screwdriver, remove the 2 oil seals.

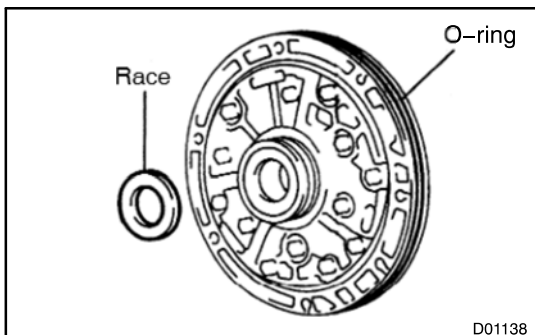


20. REMOVE OIL PUMP

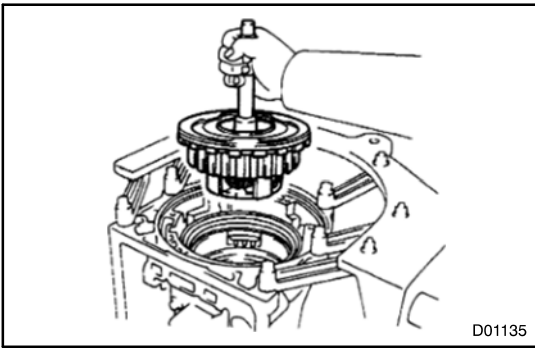
- (a) Remove the 7 bolts holding the oil pump to the transmission case.



- (b) Using SST, remove the oil pump.
SST 09350-30020 (09350-07020)

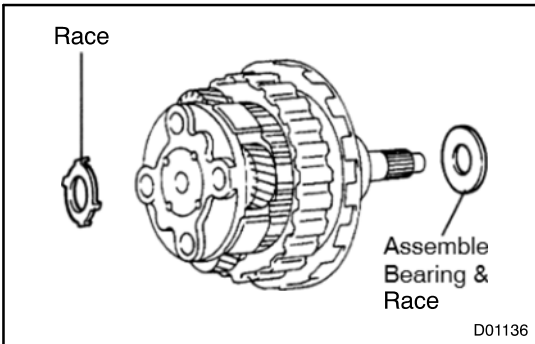


- (c) Remove the race from the oil pump.
- (d) Remove the O-ring from the oil pump.

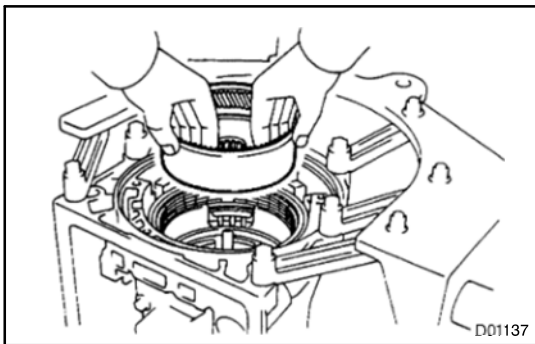


21. REMOVE O/D PLANETARY GEAR UNIT WITH O/D DIRECT CLUTCH

- (a) Remove the O/D planetary gear with the O/D direct clutch from the transmission case.

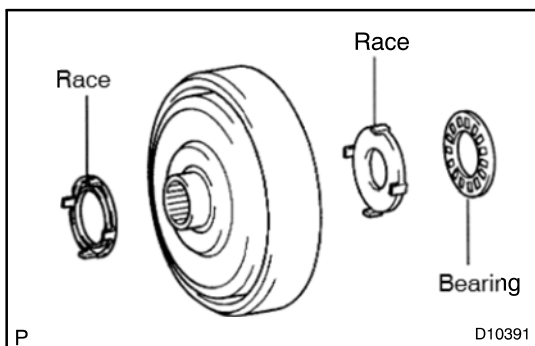


- (b) Remove the race and assembled bearing & race.

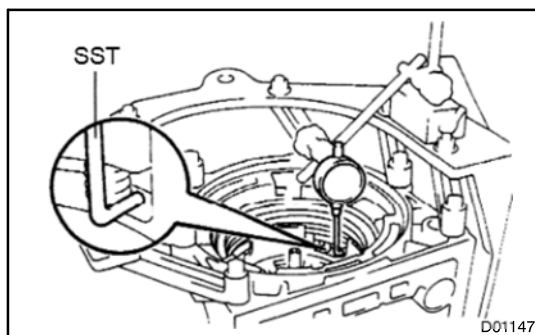


22. REMOVE O/D PLANETARY RING GEAR

- (a) Remove the O/D planetary ring gear from the transmission case.



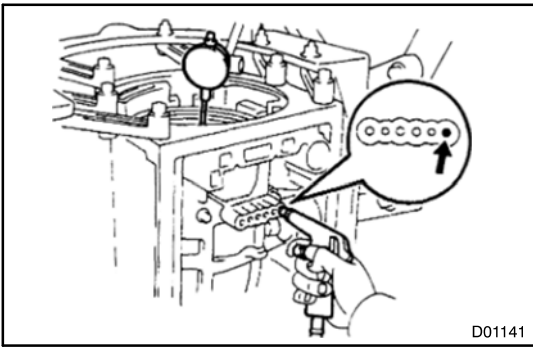
- (b) Remove the bearing and races assembled bearing & race from the planetary ring gear.



23. CHECK PISTON STROKE OF O/D BRAKE

- (a) Place SST and dial indicator onto the O/D brake piston.

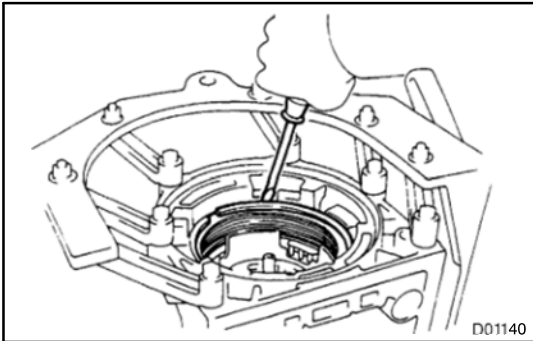
SST 09350-30020 (09350-06120)



- (b) Measure the stroke while applying and releasing compressed air (392 kPa, 4 kgf/cm², 57 psi).

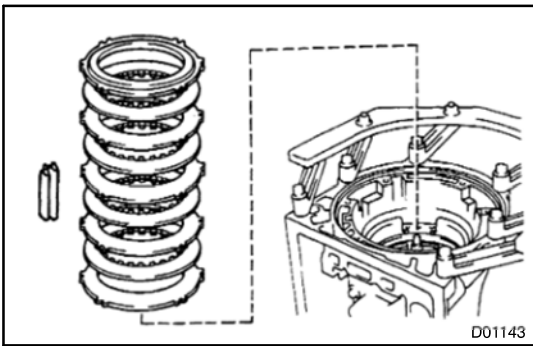
Piston stroke: 1.40 – 1.70 mm (0.055 – 0.067 in.)

If the stroke is non-standard, inspect the discs.



24. REMOVE FLANGE, PLATE AND DISC OF O/D BRAKE

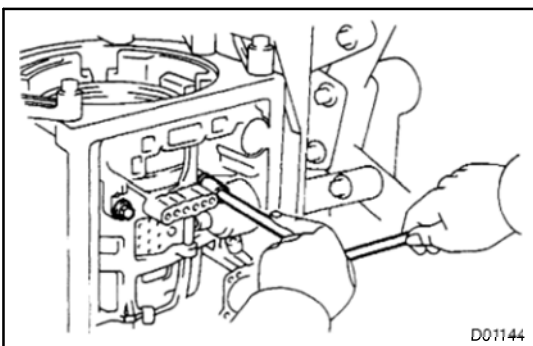
- (a) Using a screwdriver, remove the snap ring.



- (b) Remove the O/D brake pack (2 flanges, 4 discs and 3 plates).

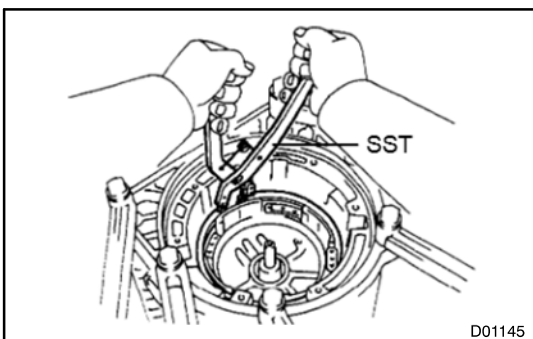
HINT:

- (c) Remove the spring from the case.



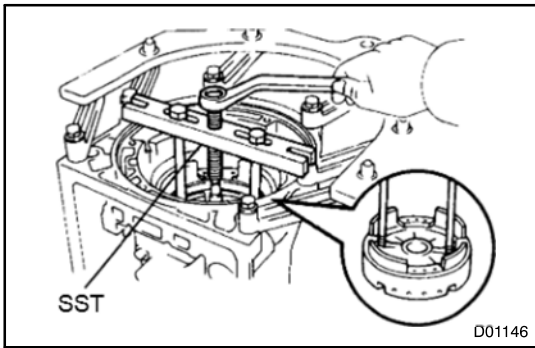
25. REMOVE O/D SUPPORT ASSEMBLY

- (a) Remove the 2 bolts holding the O/D support assembly from the case.

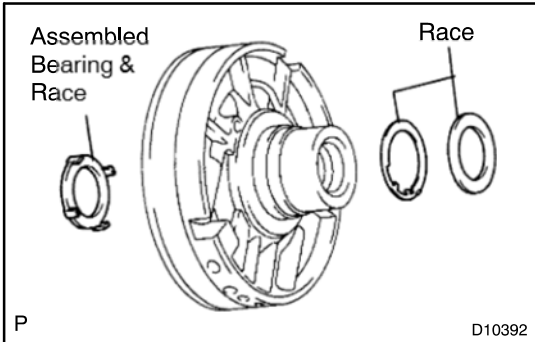


- (b) Using SST, remove the snap ring.

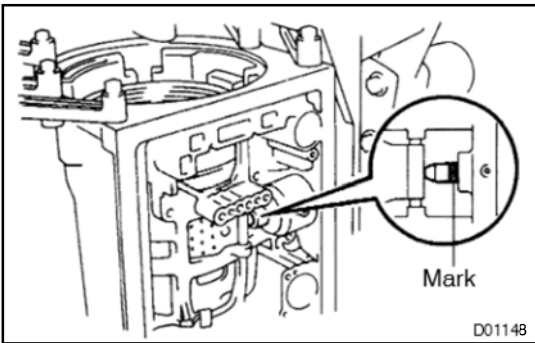
SST 09350-30020 (09350-07060)



- (c) Using SST, remove the O/D support assembly.
SST 09350-30020 (09350-07020)

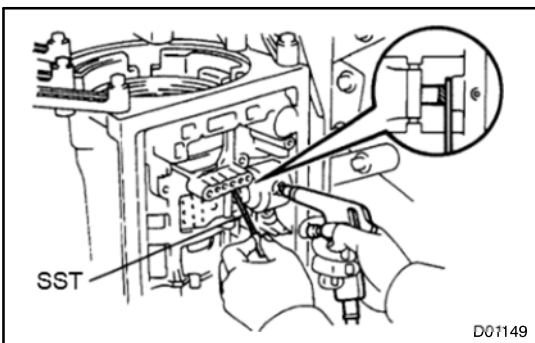


- (d) Remove the assembled bearing & race and race from the O/D support.



26. CHECK PISTON ROD STROKE OF 3RD COAST BRAKE

- (a) Using a water proof pen, place a mark in the 3rd coast brake piston rod, as shown in the illustration.

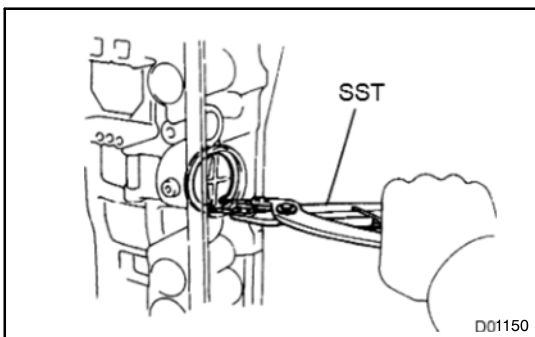


- (b) Using SST, measure the stroke while applying compressed air (392 kPa, 4 kgf/cm², 57 psi).

SST 09240-00020

Piston rod stroke: 2.0 - 3.0 mm (0.079 - 0.118 in.)

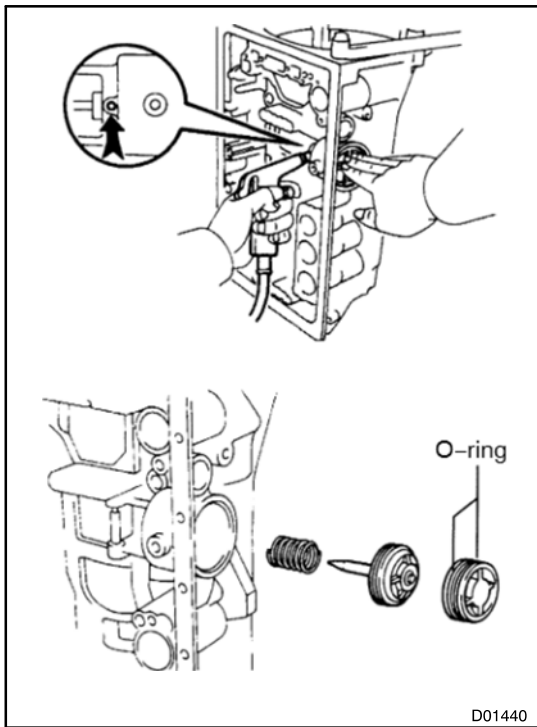
If the stroke is non-standard, inspect the brake band.



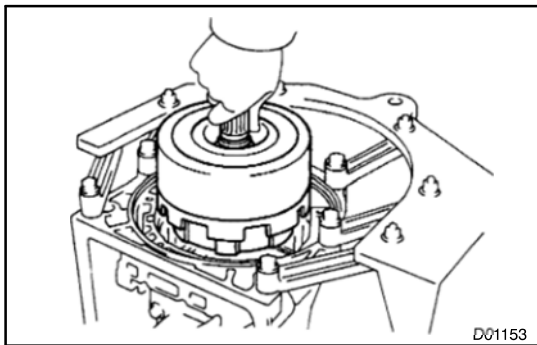
27. REMOVE 3RD COAST BRAKE COVER, PISTON ASSEMBLY AND SPRING

- (a) Using SST, remove the snap ring.

SST 09350-30020 (09350-07060)

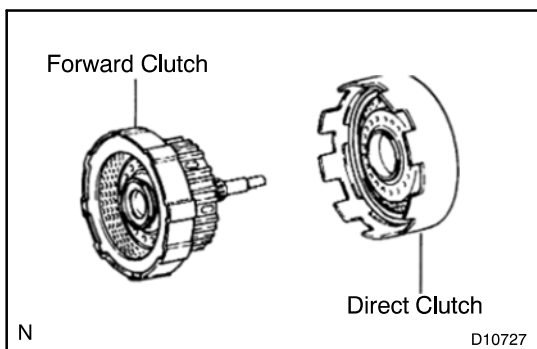


- (b) Applying compressed air to the oil hole, remove the 3rd coast brake cover, piston assembly and spring.
- (c) Remove the 2 O-rings from the cover.

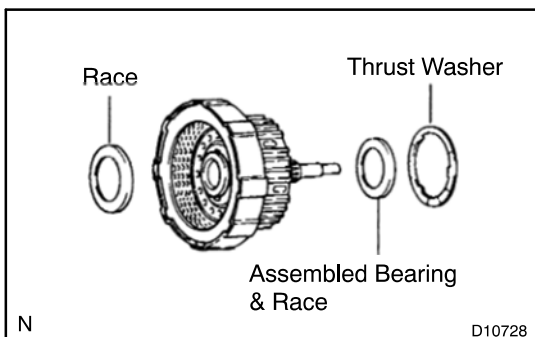


28. REMOVE DIRECT CLUTCH WITH FORWARD CLUTCH

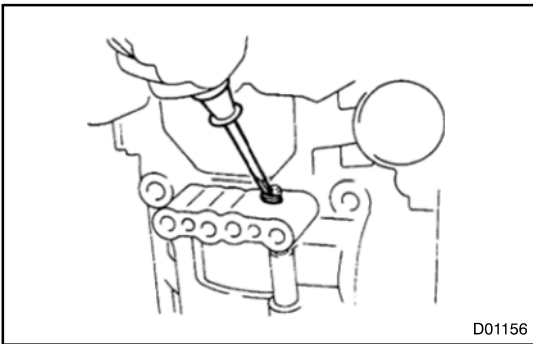
- (a) Remove the direct clutch with forward clutch from the case.



- (b) Remove the direct clutch from the forward clutch.



- (c) Remove the assembled bearing & race, thrust washer and race from the forward clutch.



29. REMOVE 3RD COAST BRAKE BAND

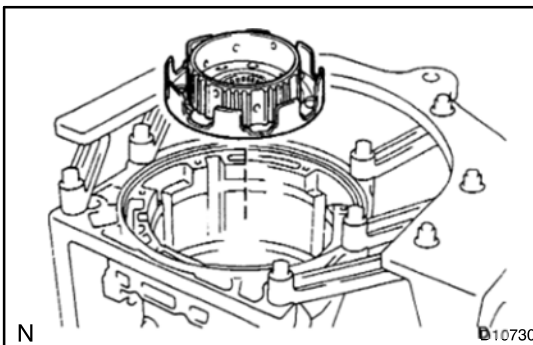
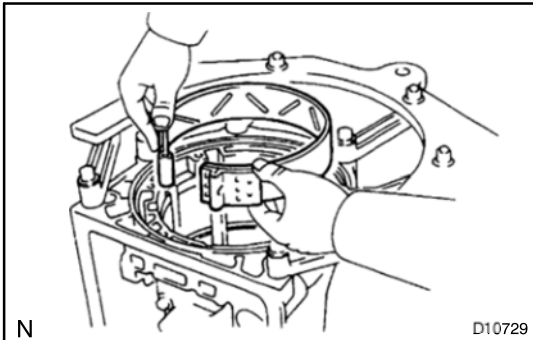
- (a) Using a screwdriver, remove the E-ring from the pin.

HINT:

Apply the grease to the E-ring and pin before the work so that the ring does not fly out.

- (b) Remove the pin from the brake band.
 (c) Remove the E-ring from the pin.

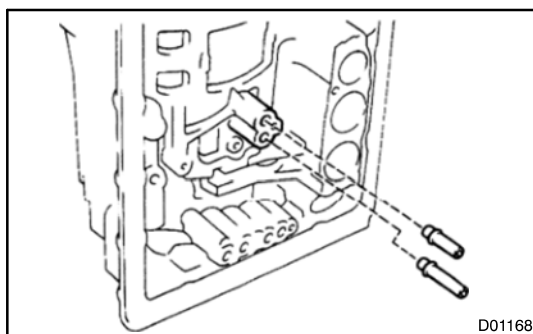
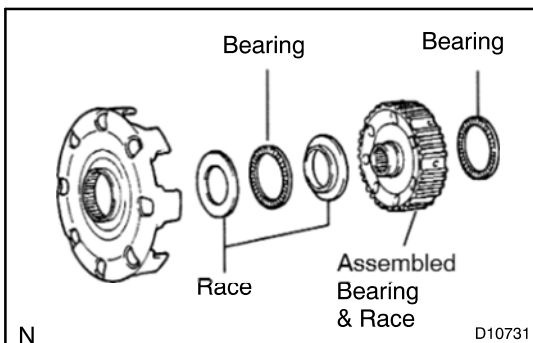
- (d) Remove the 3rd coast brake band from the case.



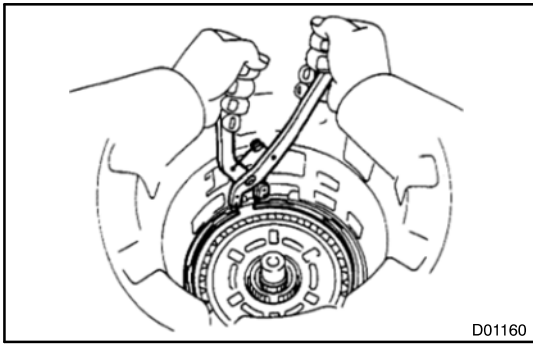
30. REMOVE FORWARD CLUTCH HUB AND SUN GEAR INPUT DRUM

- (a) Remove the forward clutch hub and the sun gear input drum.

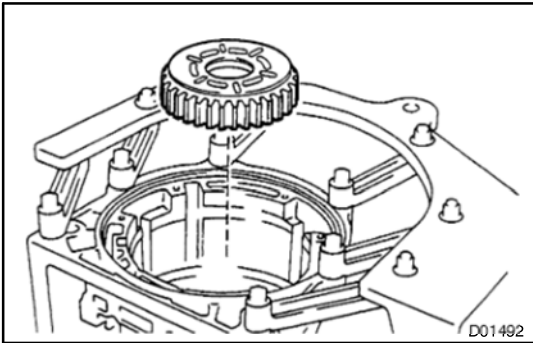
- (b) Remove the assembled bearing & race, 2 races, bearing and sun gear input drum, from forward clutch hub.



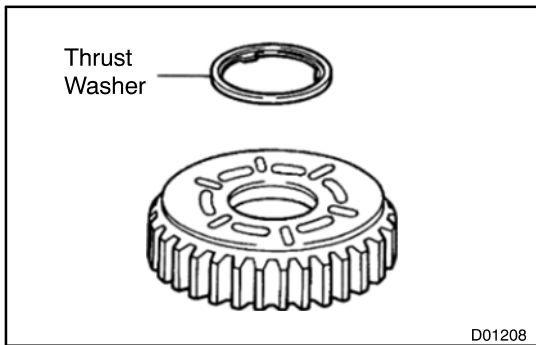
31. REMOVE 2 BRAKE DRUM GASKETS

**32. REMOVE NO. 1 ONE-WAY CLUTCH MULTIPLE DISC BRAKE AND FRONT PLANETARY GEAR**

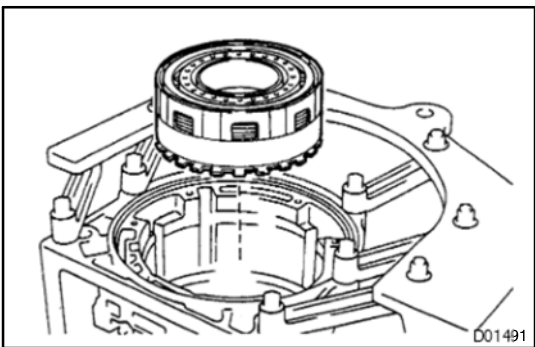
- (a) Using SST, remove the snap ring.
SST 09350-30020 (09350-07060)



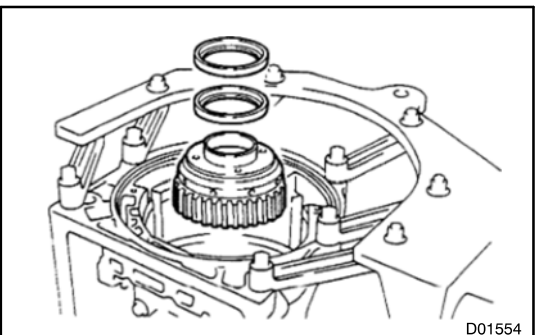
- (b) Remove the No. 1 one-way clutch from the case.



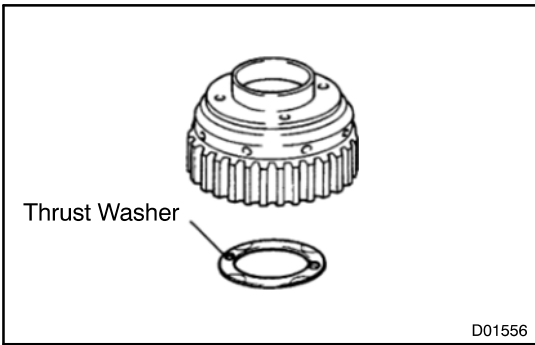
- (c) Remove the thrust washer from the No. 1 one-way clutch.



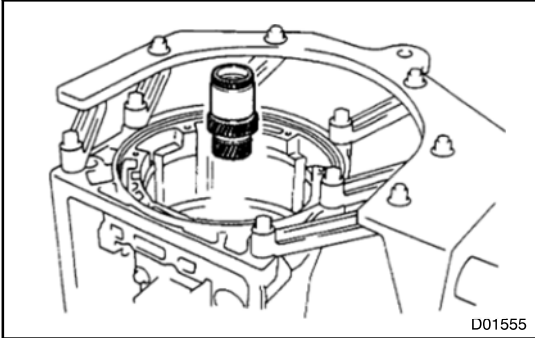
- (d) Remove the multiple disc brake from the case.



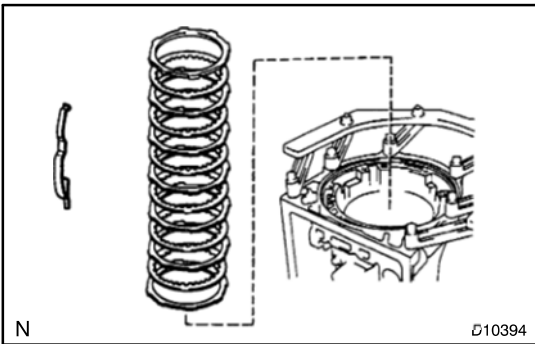
- (e) Remove the 2 washers and front planetary gear from the case.



- (f) Remove the thrust washer from the front planetary gear.

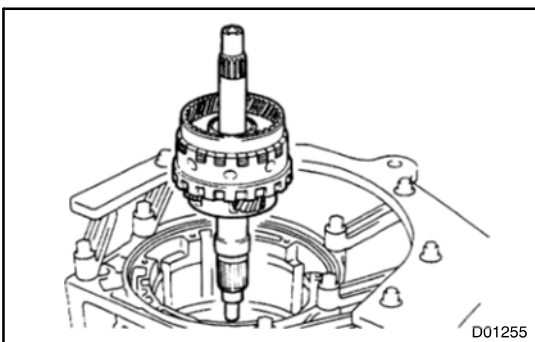


- (g) Remove the front & center planetary sun gear from the case.

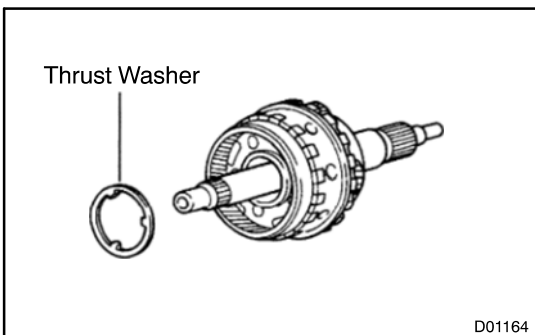


33. REMOVE OUTPUT SHAFT WITH CENTER & REAR PLANETARY GEAR

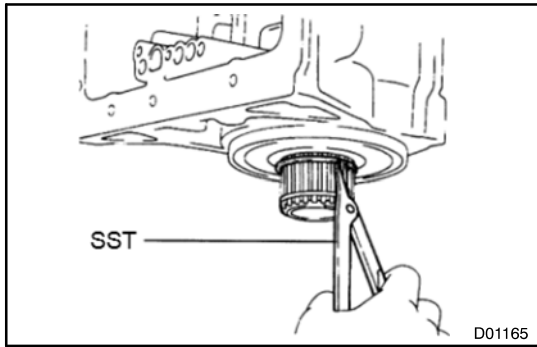
- (a) Remove the 2nd brake pack (flange, 6 discs and 6 plates) from the case.
- (b) Remove the spring from the case.



- (c) Remove the output shaft with center & rear planetary gear from the case.

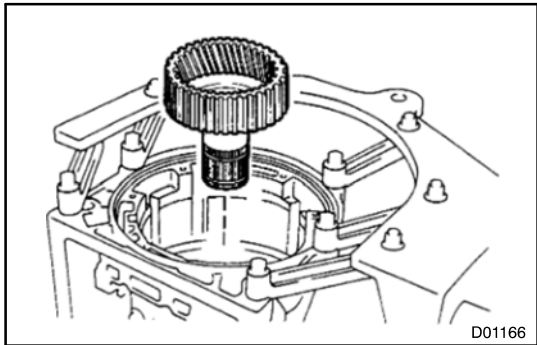


- (d) Remove the thrust washer from the output shaft with center & rear planetary gear.

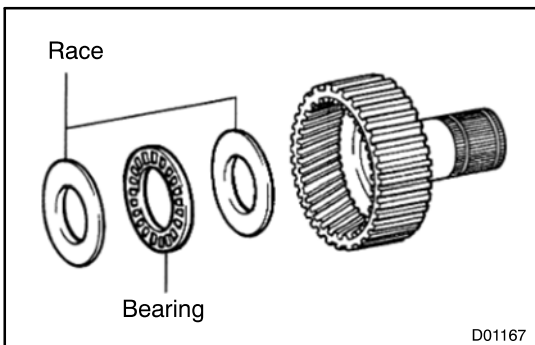


34. REMOVE REAR PLANETARY RING GEAR

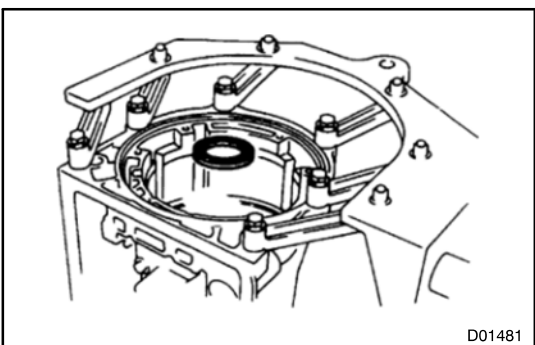
- (a) Using SST, remove the snap ring.
SST 09350-30020 (09350-07070)



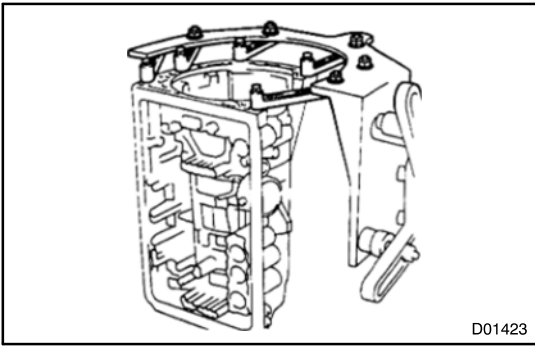
- (b) Remove the rear planetary ring gear from the case.



- (c) Remove the assembled bearing & race and 2 races from the rear planetary ring gear.

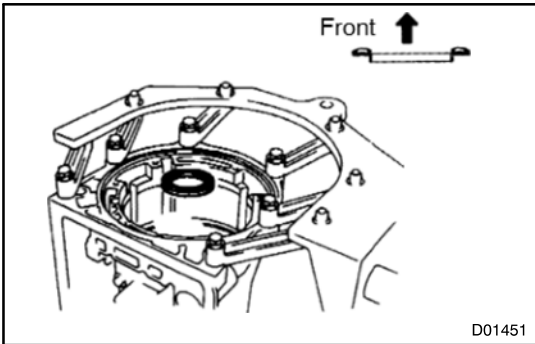


- (d) Remove the assembled bearing & race from the case.



REASSEMBLY

1. INSTALL TRANSMISSION CASE ON OVERHAUL ATTACHMENT

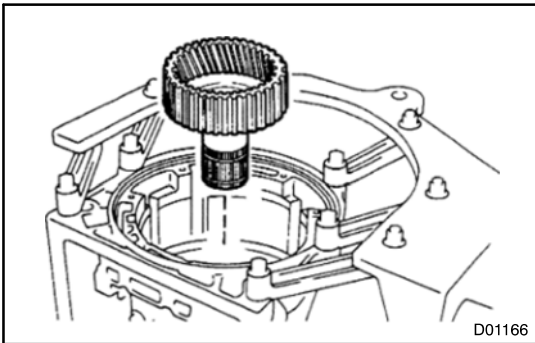


2. INSTALL REAR PLANETARY RING GEAR

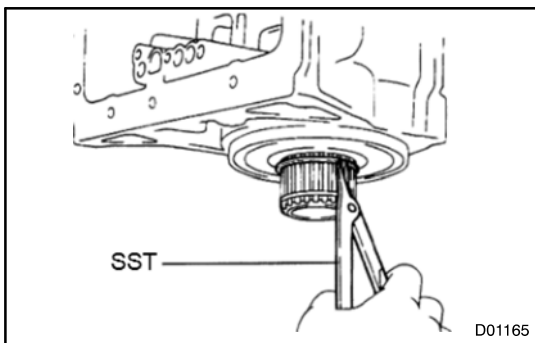
(a) Install the assembled bearing & race.

Assembled bearing & race diameter: mm (in.)

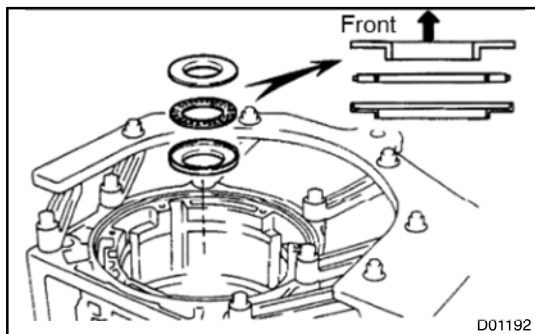
	Inside	Outside
Assembled bearing & race	52.9 (2.083)	70.6 (2.780)



(b) Install the rear planetary ring gear.



(c) Using SST, install the snap ring.
SST 09350-03002 (09350-07070)



3. INSTALL OUTPUT SHAFT WITH CENTER AND REAR PLANETARY GEAR

(a) Install the 2 races and bearing onto the rear planetary ring gear.

Bearing and race diameter: mm (in.)

	Inside	Outside
Race	39.2 (1.543)	56.8 (2.236)
Bearing	40.7 (1.602)	57.0 (2.244)
Race	41.2 (1.620)	59.8 (2.354)