

REASSEMBLY

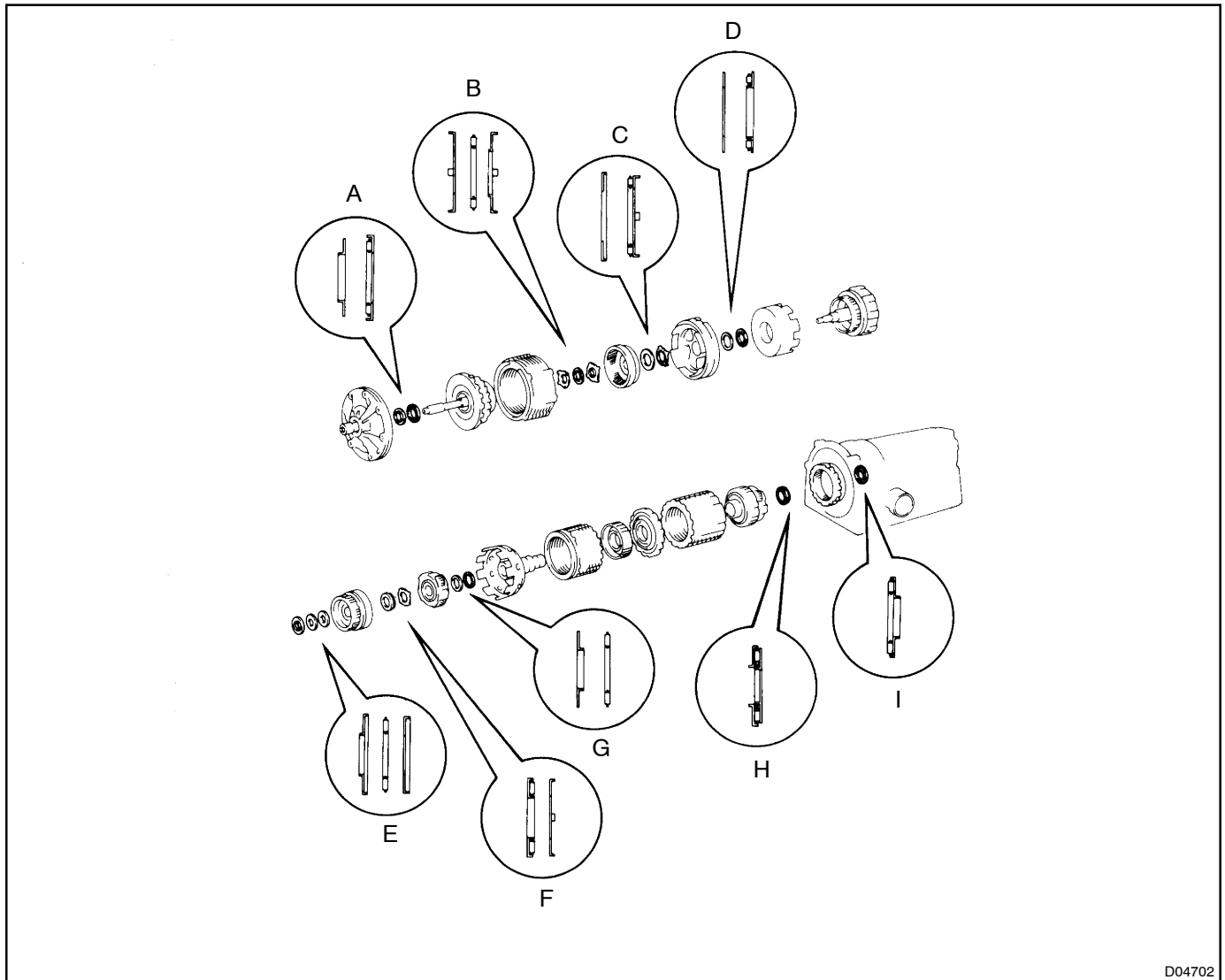
NOTICE:

- The automatic transaxle is composed of highly precision-finished parts, necessitating careful inspection before reassembly because even a small nick could cause fluid leakage or affect the performance. The instructions here are organized so that you work on only one component group at a time. This will help avoid confusion from similar-looking parts of different sub-assemblies being on your workbench at the same time. The component groups are inspected and repaired from the converter housing side. As much as possible, complete the inspection, repair and reassembly before proceeding to the next component group. If a defect is found in a certain component group during reassembly, inspect and repair this group immediately. If a component group cannot be assembled because parts are being ordered, be sure to keep all parts of the group in a separate container while proceeding with disassembly, inspection, repair and reassembly of other component groups.

Recommended ATF: Type T-IV or equivalent

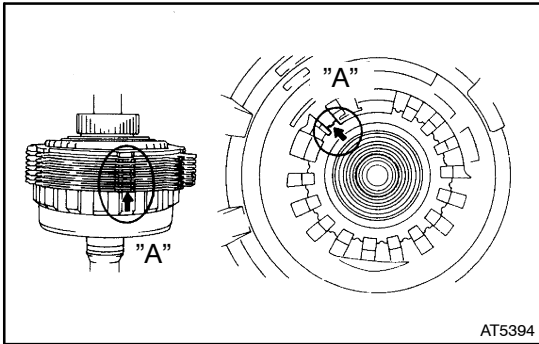
- All disassembled parts should be washed clean and any fluid passages and holes should be blown through with compressed air.
- Dry all parts with compressed air—never use shop rags.
- When using compressed air, always aim away from yourself to prevent accidentally spraying ATF or kerosene on your face.
- The recommended automatic transaxle fluid or kerosene should be used for cleaning.
- After cleaning, the parts should be arranged in the correct order for efficient inspection, repairs, and reassembly.
- When disassembling a valve body, be sure to match each valve together with the corresponding spring.
- New discs for the brakes and clutches that are to be used for replacement must be soaked in ATF for at least 15 minutes before reassembly.
- All oil seal rings, clutch discs, clutch plates, rotating parts, and sliding surfaces should be coated with ATF prior to reassembly.
- All gaskets and rubber O-rings should be replaced.
- Do not apply adhesive cements to gaskets and similar parts.
- Make sure that the ends of a snap ring are not aligned with one of the cutouts and are installed in the groove correctly.
- If a worn bushing is to be replaced, the sub-assembly containing the bushing must also be replaced.
- Check thrust bearings and races for wear or damage. Replace if necessary.
- Use petroleum jelly to keep parts in place.
- When working with FIPG material, you must observe the following.
Using a razor blade and a gasket scraper, remove all the old packing (FIPG) material from the gasket surface.
Thoroughly clean all components to remove all the loose material.
Clean both sealing surfaces with a non-residue solvent.
Parts must be reassembled within 10 minutes of application. Otherwise, the packing (FIPG) material must be removed and reapplied.

BEARINGS AND RACES INSTALLATION POSITION AND DIRECTION

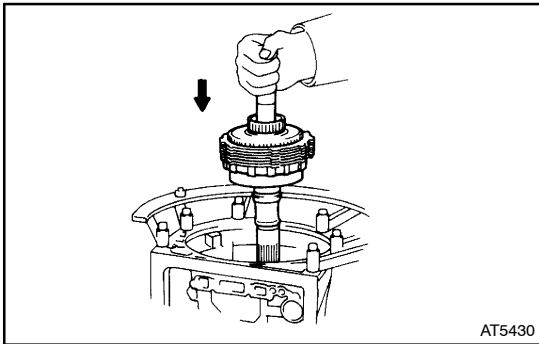


D04702

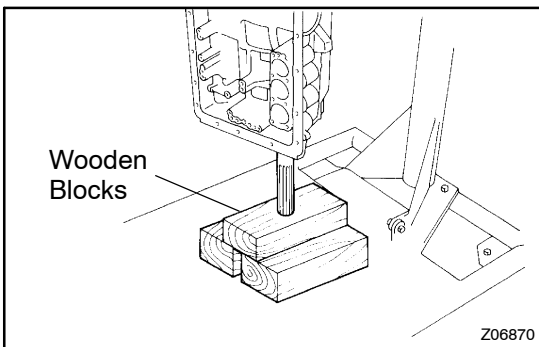
Mark	Front Race Diameter Inside / Outside mm (in.)	Thrust Bearing Diameter Inside / Outside mm (in.)	Rear Race Diameter Inside / Outside mm (in.)
A	28.1 (1.106) / 47.5 (1.870)	28.8 (1.134) / 50.4 (1.984)	-
B	27.2 (1.070) / 42.0 (1.654)	25.9 (1.020) / 47.0 (1.850)	24.0 (0.945) / 48.0 (1.890)
C	37.1 (1.461) / 59.0 (2.323)	33.6 (1.323) / 50.3 (1.980)	-
D	37.0 (1.457) / 51.0 (2.008)	33.5 (1.319) / 47.8 (1.882)	-
E	26.0 (1.024) / 48.9 (1.925)	25.9 (1.020) / 47.0 (1.850)	26.5 (1.043) / 47.0 (1.850)
F	-	35.0 (1.378) / 53.8 (2.118)	34.0 (1.339) / 48.0 (1.890)
G	33.5 (1.319) / 47.8 (1.882)	35.4 (1.394) / 48.0 (1.890)	-
H	-	27.6 (1.087) / 54.5 (2.146)	-
I	-	39.0 (1.535) / 57.7 (2.272)	-



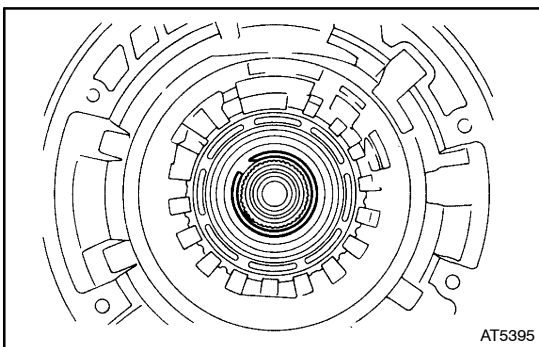
- (d) Align the splines of the transmission case and assembled rear planetary gear, 1st & reverse brake pack and output shaft, indicated by "A".



- (e) Install the assembled rear planetary gear, 1st & reverse brake pack and output shaft.



- (f) Rest the output shaft on wooden blocks.

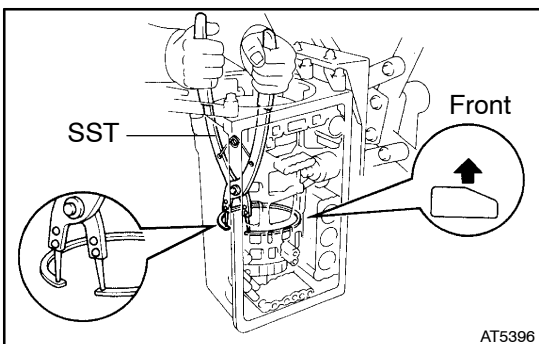


5. INSTALL 2ND BRAKE

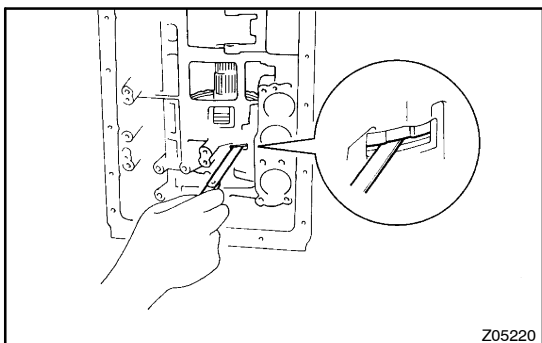
- (a) Face the snap ring upward (front side) and install the 2nd brake to the planetary gear.

NOTICE:

Face the oil hole in the 2nd brake drum towards the lower side of the transmission case (the side the valve body is installed to).



- (b) Using SST, install the snap ring.
SST 09350-30020 (09350-07060)



Z05220

6. CHECK PACK CLEARANCE OF 1ST & REVERSE BRAKE

Using a feeler gauge, measure the clearance between the plate and 2nd brake drum, as shown.

Clearance: 0.7 – 1.0 mm (0.028 – 0.039 in.)

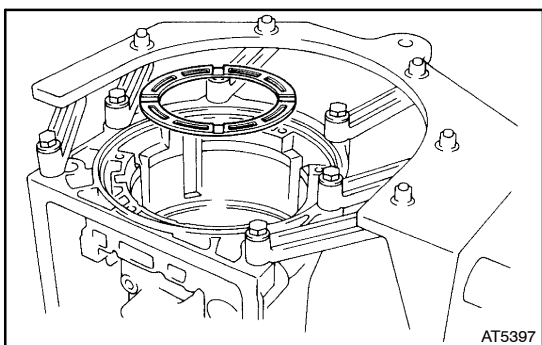
If the clearance is non-standard, select another flange.

HINT:

There are 8 different thickness for the flange.

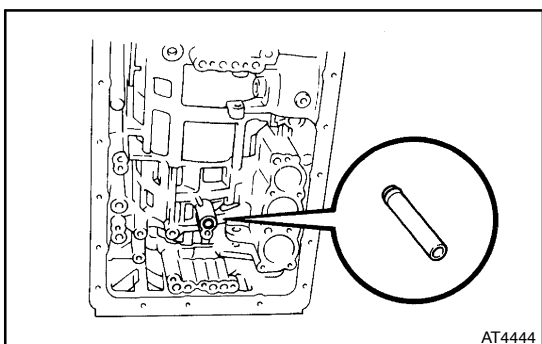
Flange thickness:

No.	Thickness mm (in.)	No.	Thickness mm (in.)
68	5.4 (0.213)	52	4.6 (0.181)
67	5.2 (0.205)	53	4.4 (0.173)
50	5.0 (0.197)	54	4.2 (0.165)
51	4.8 (0.189)	55	4.0 (0.157)



AT5397

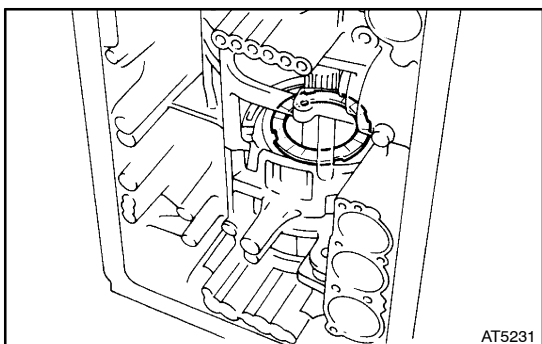
7. INSTALL 2ND BRAKE PISTON SLEEVE



AT4444

8. INSTALL BRAKE DRUM GASKET

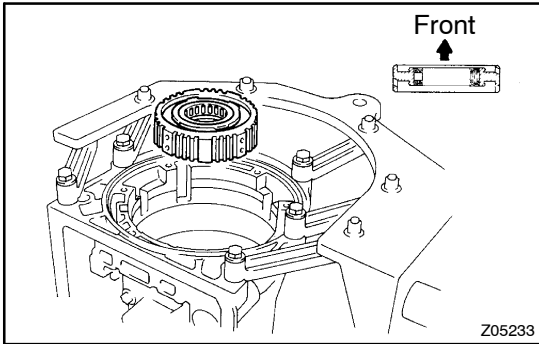
- (a) Coat a new gasket with ATF.
- (b) Install the brake drum gasket.



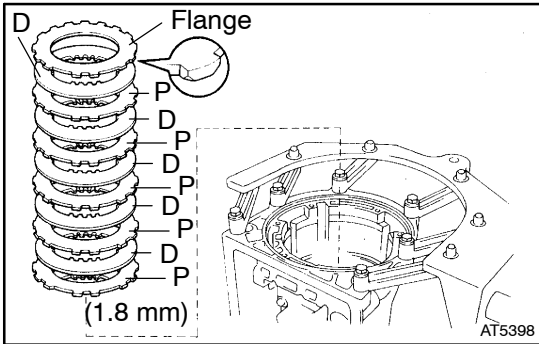
AT5231

9. INSTALL NO.1 ONE-WAY CLUTCH

- (a) Install the thrust washer onto the 2nd brake.

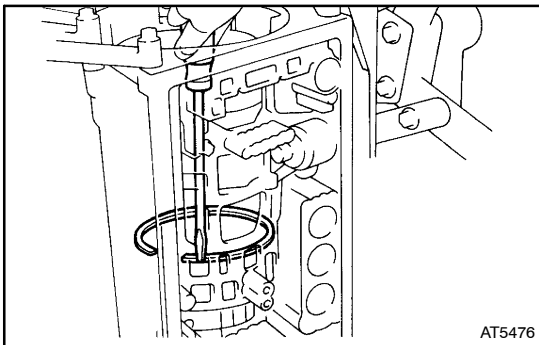


(b) Install the No.1 one-way clutch.

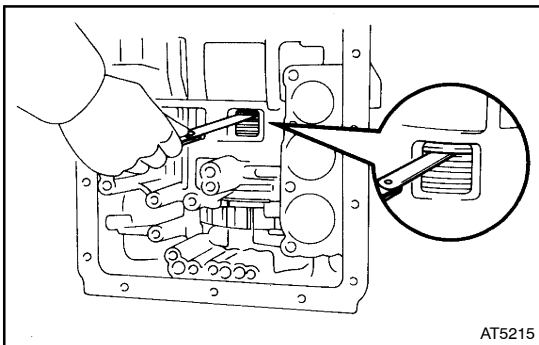


10. INSTALL FLANGE, PLATE AND DISC OF 2ND BRAKE

- (a) Install the 1.8 mm (0.071 in.) thick plate with the rounded-edge side of the plate facing the disc.
- (b) Install the 5 plates and discs.
Install in order: P = Plate, D = Disc
D - P - D - P - D - P - D - P - D - P
- (c) Install the flange with the rounded edge of the flange facing the disc.



(d) Using a screwdriver, install the snap ring.

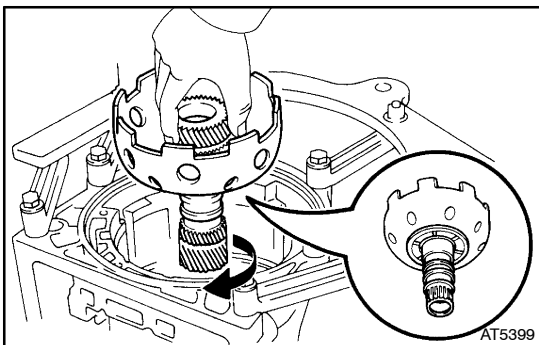


11. CHECK PACK CLEARANCE OF 2ND BRAKE

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

Clearance: 0.62 - 1.98 mm (0.0244 - 0.0780 in.)

If the clearance is non-standard, check for improper installation.

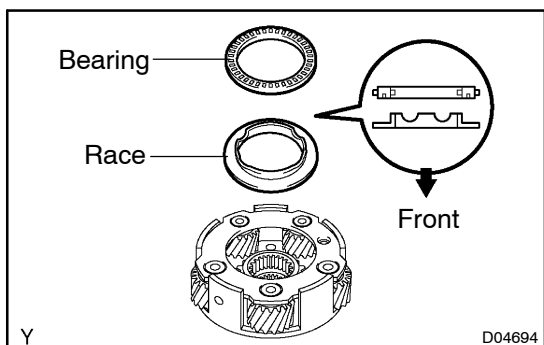


12. INSTALL PLANETARY SUN GEAR

While turning the planetary sun gear clockwise, install it into the No.1 one-way clutch.

HINT:

Confirm the thrust washer is installed correctly.

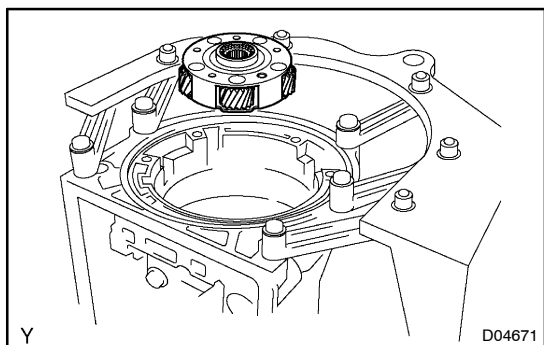


13. INSTALL FRONT PLANETARY GEAR

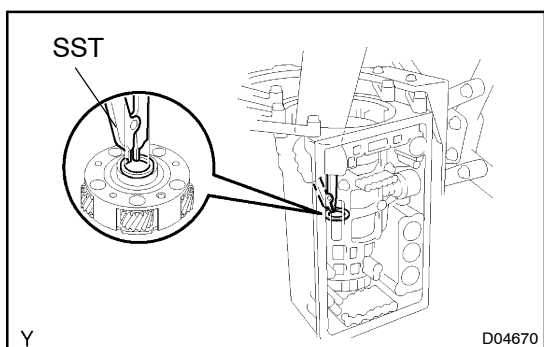
- (a) Coat the bearing and race with petroleum jelly and install them onto the front planetary gear.

Bearing and race diameter:

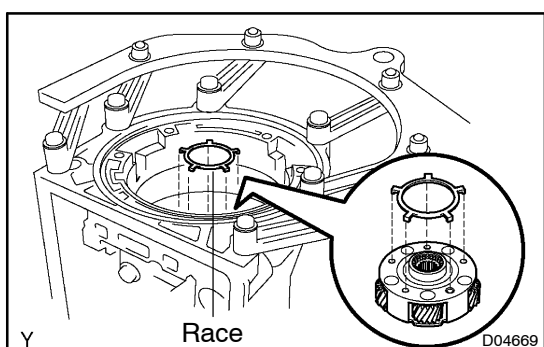
	Inside mm (in.)	Outside mm (in.)
Bearing	35.4 (1.394)	48.0 (1.890)
Race	33.5 (1.319)	47.8 (1.882)



- (b) Install the front planetary gear to the planetary sun gear input drum.



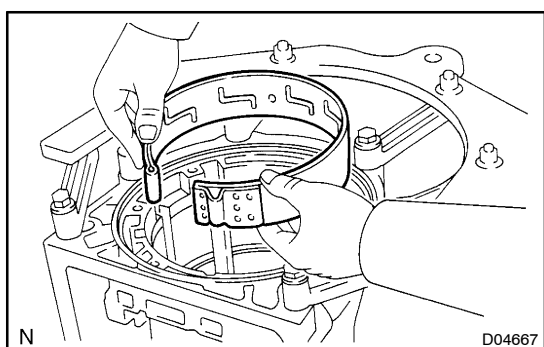
- (c) Using SST, install the snap ring.
SST 09350-30020 (09350-07070)
- (d) Remove the wooden blocks under the output shaft.



- (e) Coat the race with petroleum jelly and install it onto the front planetary gear.

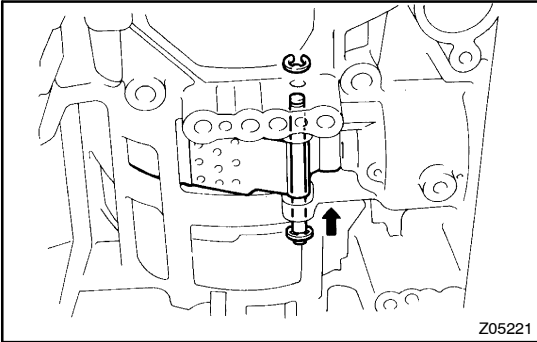
Race diameter:

	Inside mm (in.)	Outside mm (in.)
Race	34.0 (1.339)	48.0 (1.890)

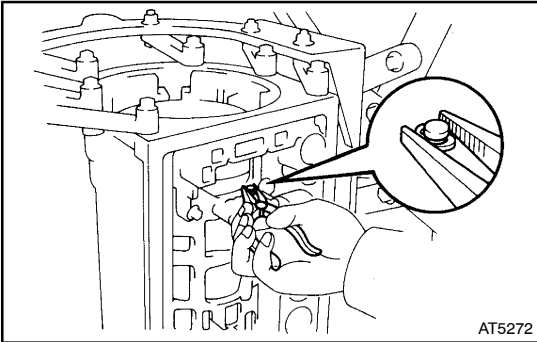


14. INSTALL 2ND COAST BRAKE BAND

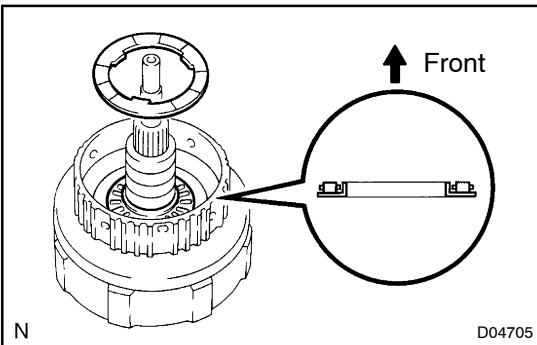
- (a) Install the 2nd coast brake band to the transmission case.



- (b) Install the E-ring to the pin.
- (c) Install the pin through the 2nd coast brake band.



- (d) Using needle nose pliers, install the E-ring to the pin.



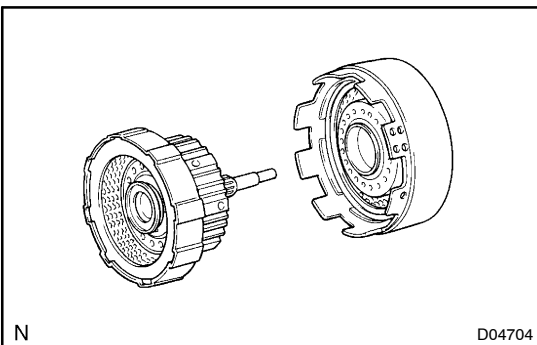
15. INSTALL DIRECT CLUTCH TO FORWARD CLUTCH

- (a) Coat the assembled bearing & race with petroleum jelly and install it onto the forward clutch.

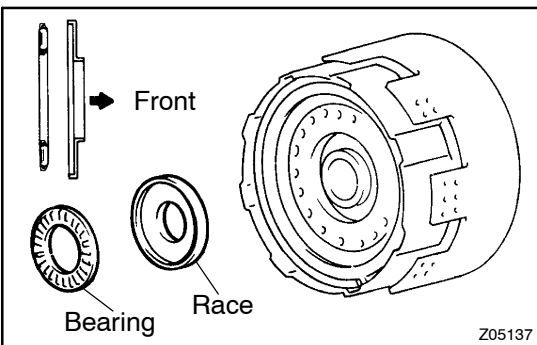
Assembled bearing & race diameter:

	Inside mm (in.)	Outside mm (in.)
Assembled bearing & race	33.5 (1.319)	47.8 (1.882)

- (b) Install the thrust washer to the forward clutch.



- (c) Install the direct clutch to the forward clutch.

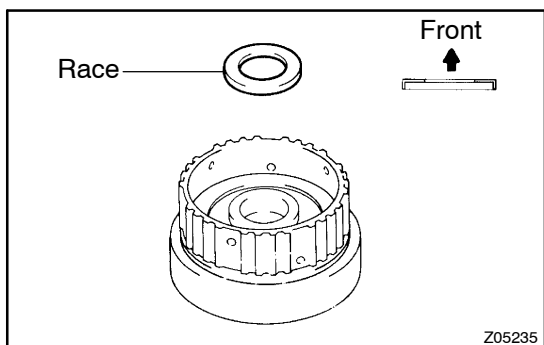


16. INSTALL FRONT PLANETARY RING GEAR TO FORWARD AND DIRECT CLUTCH

- (a) Coat the bearing and race with petroleum jelly and install them onto the forward clutch.

Bearing and race diameter:

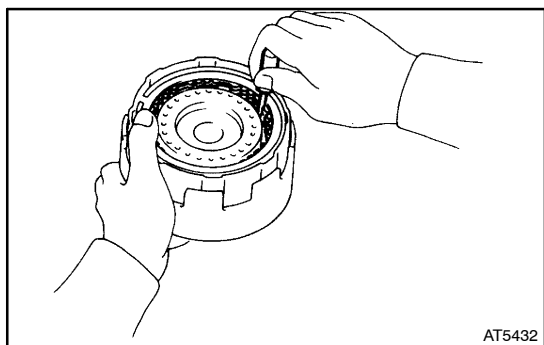
	Inside mm (in.)	Outside mm (in.)
Bearing	25.9 (1.020)	47.0 (1.850)
Race	26.0 (1.024)	48.9 (1.925)



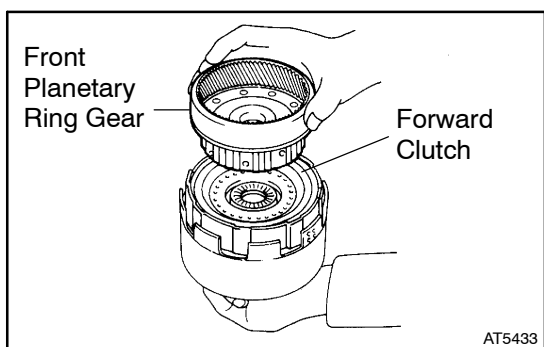
(b) Coat the race with petroleum jelly and install it onto the front planetary ring gear.

Race diameter:

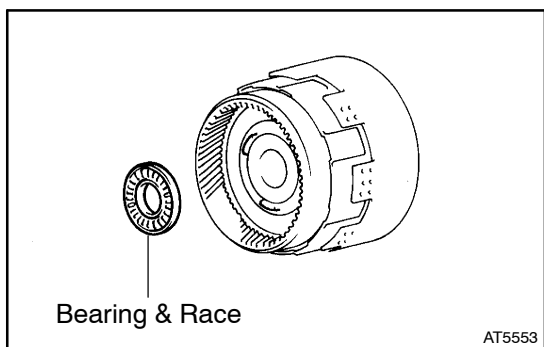
	Inside mm (in.)	Outside mm (in.)
Race	26.5 (1.043)	47.0 (1.850)



(c) Align the flukes of the discs in the forward clutch.



(d) Align the splines of the front planetary ring gear with the flukes of the discs and install the front planetary ring gear to the forward clutch.

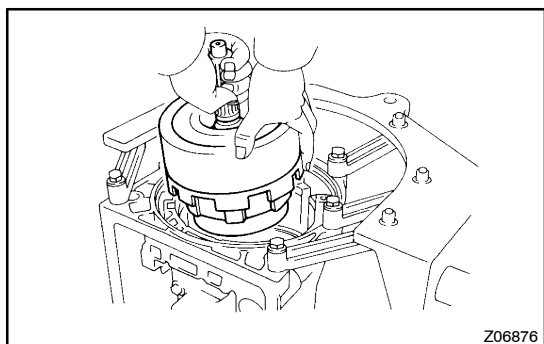


17. INSTALL ASSEMBLED DIRECT CLUTCH, FORWARD CLUTCH AND FRONT PLANETARY RING GEAR INTO TRANSMISSION CASE

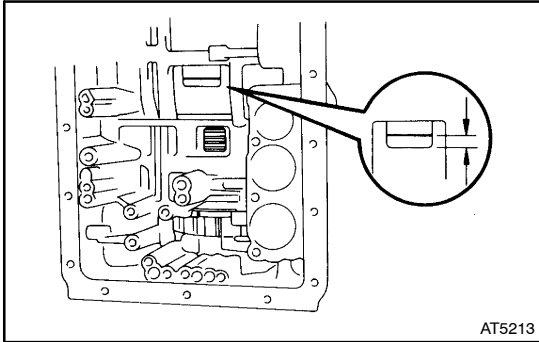
(a) Coat the bearing & race with petroleum jelly and install it onto the ring gear.

Bearing & race diameter:

	Inside mm (in.)	Outside mm (in.)
Bearing & race	35.0 (1.378)	53.8 (2.118)



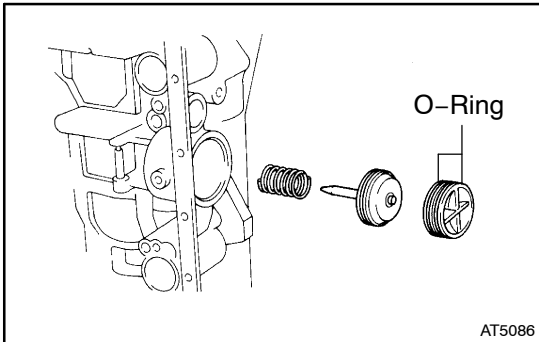
(b) Install the assembled direct clutch, forward clutch and front planetary ring gear into the transmission case.



- (c) With the transmission case set upright, using vernier calipers, measure the distance between the sun gear input drum and direct clutch drum.

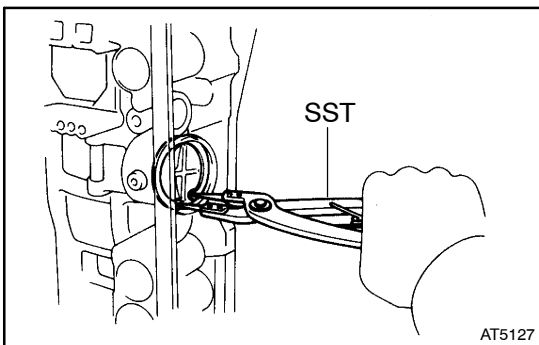
Height: 9.8 – 11.8 mm (0.386 – 0.465 in.)

If the height is non-standard, check for improper installation.

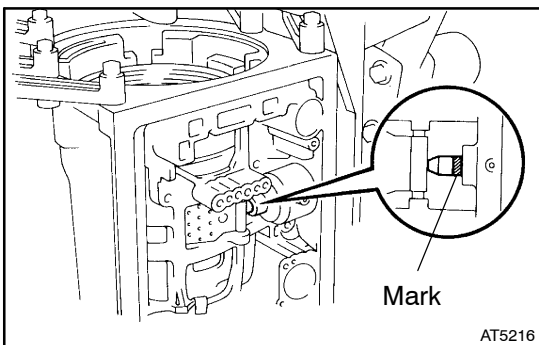


18. INSTALL SPRING, PISTON ASSEMBLY AND 2ND COAST BRAKE COVER

- (a) Coat 2 new O-rings with ATF and install them to the 2nd coast brake cover.
 (b) Install the spring, 2nd coast brake piston assembly and cover to the transmission case.

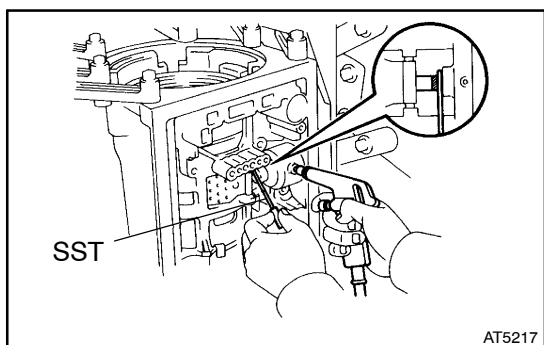


- (c) Using SST, install the snap ring.
 SST 09350-30020 (09350-07060)



19. CHECK PISTON ROD STROKE OF 2ND COAST BRAKE

- (a) Using a water proof pen, place a mark on the 2nd coast brake piston rod.



- (b) Using SST, measure the stroke while applying and releasing compressed air (392 – 785 kPa, 4 – 8 kgf/cm², 57 – 114 psi).

SST 09240-00020

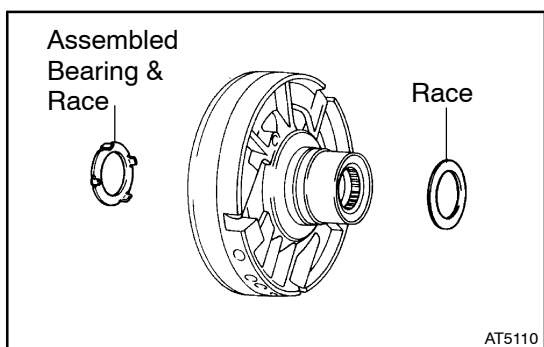
Piston rod stroke: 2.0 – 3.0 mm (0.079 – 0.118 in.)

If the stroke is more than specified, replace the piston rod with a longer one.

Piston rod length:

70.7 mm (2.783 in.)	72.2 mm (2.843 in.)
71.4 mm (2.811 in.)	72.9 mm (2.870 in.)

If it is still more than standard value, replace the brake band with a new one.

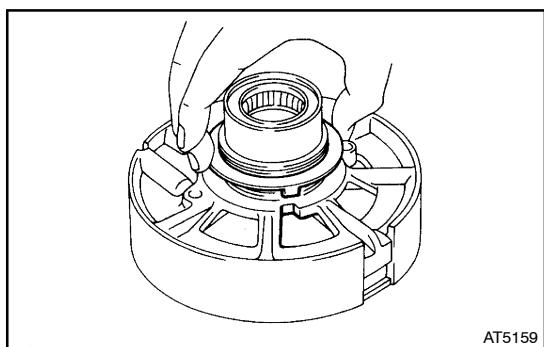


20. INSTALL O/D SUPPORT

- (a) Coat the assembled bearing & race and race with petroleum jelly and install them onto the O/D support.

Assembled bearing & race and race diameter:

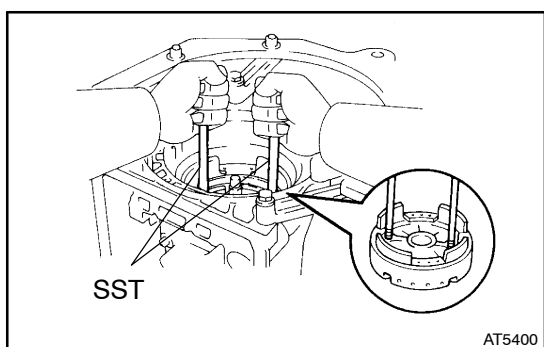
	Inside mm (in.)	Outside mm (in.)
Assembled bearing & race	33.6 (1.323)	50.3 (1.980)
Race	37.0 (1.457)	51.0 (2.008)



- (b) Confirm the thrust washer is installed correctly.

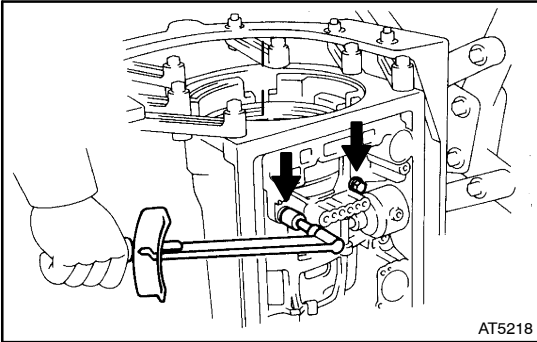
HINT:

Make sure that the lug shape matches the hole on the O/D support.

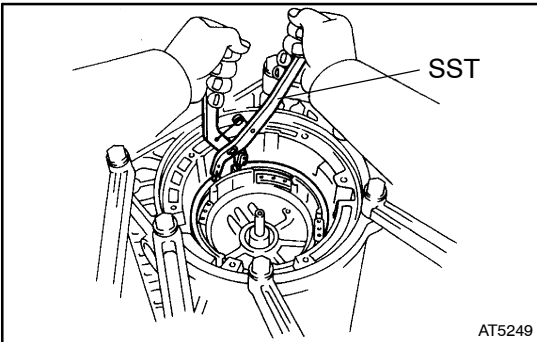


- (c) Using 2 bolts of SST, face the bolt and oil holes of the O/D support toward the valve body side, align them with the bolt holes of the transmission case and install the bolts.

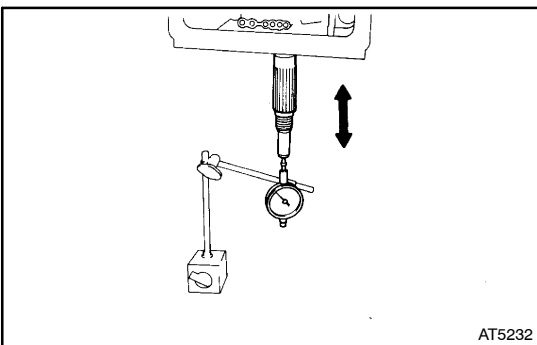
SST 09350-30020 (09350-07020)



- (d) Install the 2 bolts.
Torque: 25 N·m (260 kgf·cm, 19 ft·lbf)

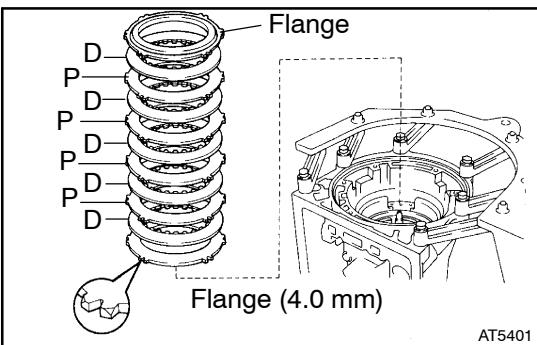


- (e) Using SST, install the snap ring.
 SST 09350-30020 (09350-07060)



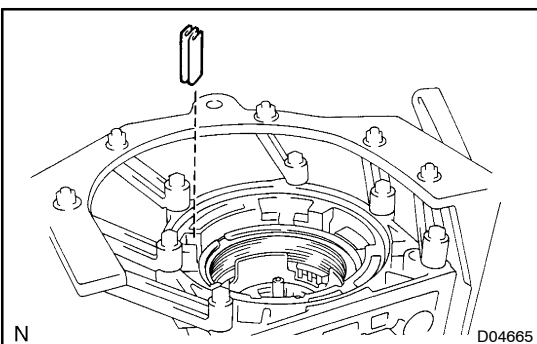
21. CHECK OUTPUT SHAFT

- (a) Using a dial indicator, measure the end play of the output shaft by hand.
End play: 1.63 – 2.89 mm (0.0642 – 0.1138 in.)
 If the values are non-standard, check for improper installation.
- (b) Check to see that the output shaft rotates smoothly.

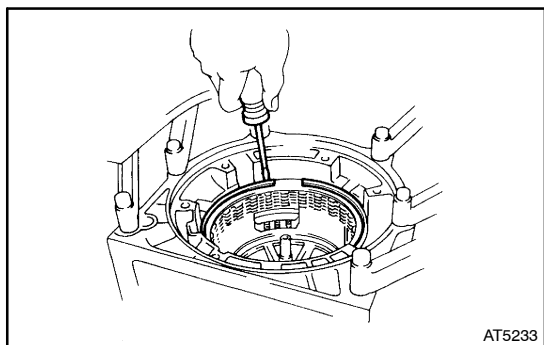


22. INSTALL FLANGE, PLATE AND DISC OF O/D BRAKE

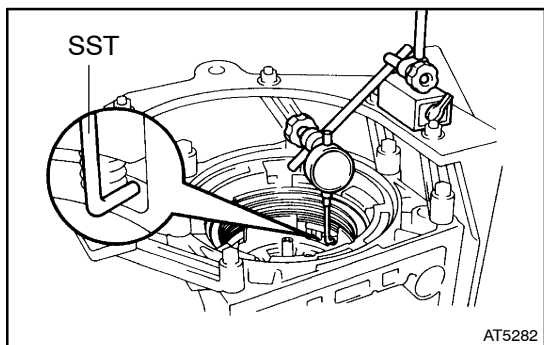
- (a) Install the 4.0 mm (0.157 in.) thick flange (flat ring) with the rounded-edge side of the flange facing the disc.
- (b) Install the 4 plates and 5 discs.
Install in order: P = Plate, D = Disc
D - P - D - P - D - P - D - P - D
- (c) Install the flange (stepped ring) with the flat side of the flange facing the disc.



- (d) Install the spring to the transmission case.

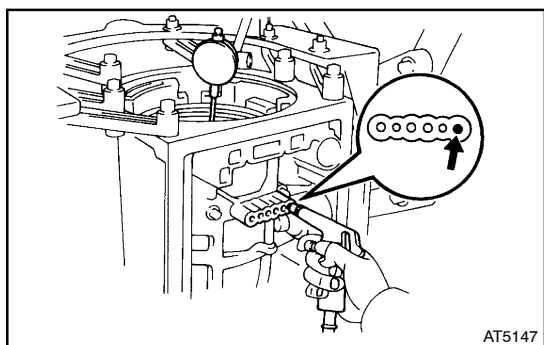


(e) Using a screwdriver, install the snap ring.



23. CHECK PISTON STROKE OF O/D BRAKE

(a) Place SST and a dial indicator onto the O/D 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: 1.75 - 2.05 mm (0.0689 - 0.0807 in.)

If the piston stroke is less than the limit, parts may have been assembled incorrectly, so check and reassemble again.

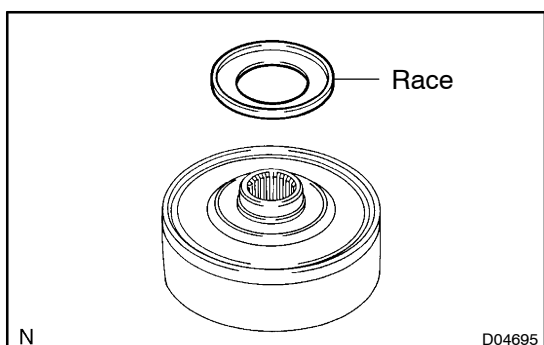
If the piston stroke is non-standard, select another flange.

HINT:

There are 7 different thickness for the flange.

Flange thickness:

No.	Thickness mm (in.)	No.	Thickness mm (in.)
26	3.3 (0.130)	11	3.8 (0.150)
25	3.5 (0.138)	23	3.9 (0.154)
12	3.6 (0.142)	None	4.0 (0.157)
24	3.7 (0.146)	-	-

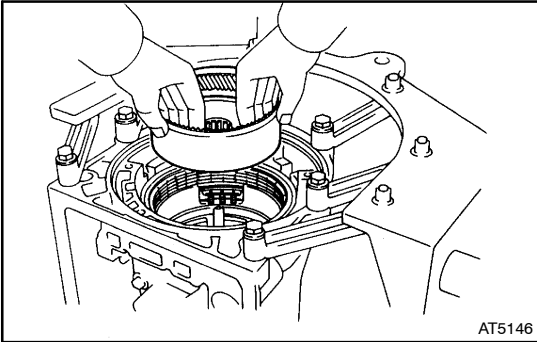


24. INSTALL O/D PLANETARY GEAR UNIT WITH O/D DIRECT CLUTCH AND ONE-WAY CLUTCH

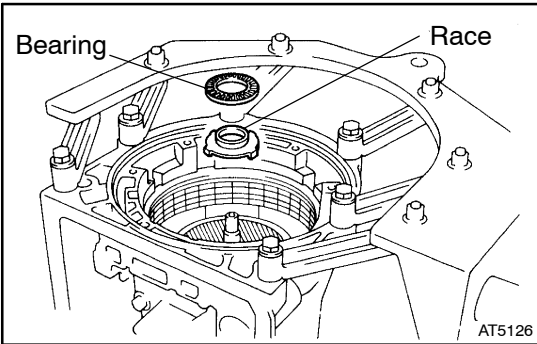
(a) Coat the race with petroleum jelly and install it onto the O/D planetary ring gear.

Race diameter:

	Inside mm (in.)	Outside mm (in.)
Race	37.1 (1.461)	59.0 (2.323)



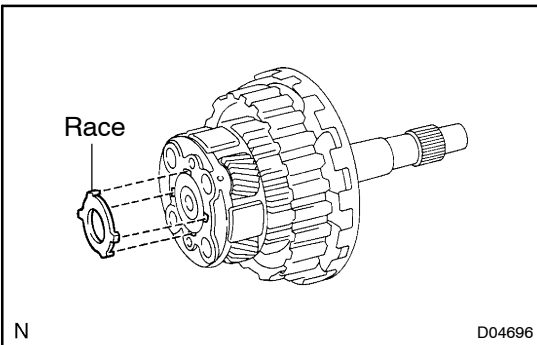
(b) Install the O/D planetary ring gear.



(c) Coat the bearing and race with petroleum jelly and install them onto the planetary ring gear.

Bearing and race diameter:

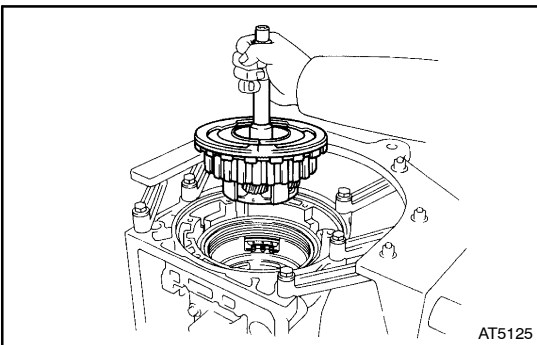
	Inside mm (in.)	Outside mm (in.)
Bearing	25.9 (1.020)	47.0 (1.850)
Race	24.0 (0.945)	48.0 (1.890)



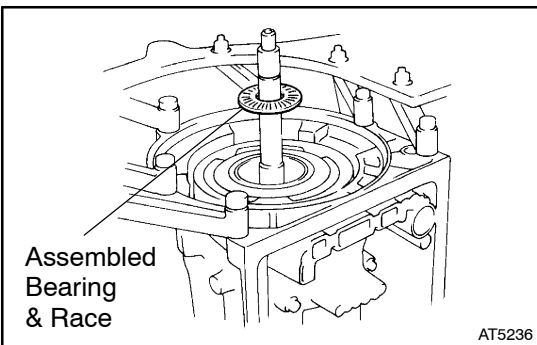
(d) Coat the race with petroleum jelly and install it onto the O/D planetary gear.

Race diameter:

	Inside mm (in.)	Outside mm (in.)
Race	27.2 (1.071)	42.0 (1.654)



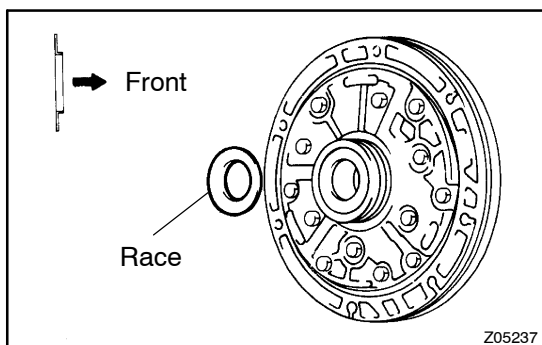
(e) Install the O/D planetary gear with the O/D direct clutch and one-way clutch.



(f) Coat the assembled bearing & race with petroleum jelly and install it onto the O/D direct clutch.

Assembled bearing & race diameter:

	Inside mm (in.)	Outside mm (in.)
Assembled bearing & race	28.8 (1.134)	50.4 (1.984)

**25. INSTALL OIL PUMP INTO CASE**

- (a) Coat the race with petroleum jelly and install it onto the oil pump.

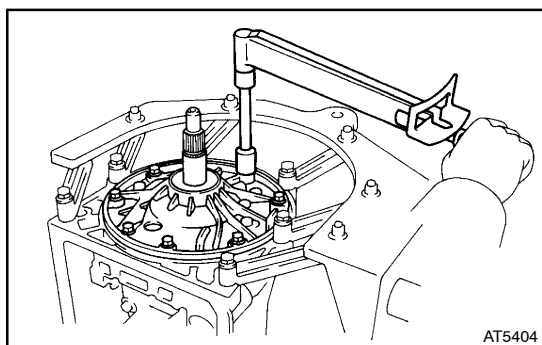
Race diameter:

	Inside mm (in.)	Outside mm (in.)
Race	28.1 (1.106)	47.5 (1.870)

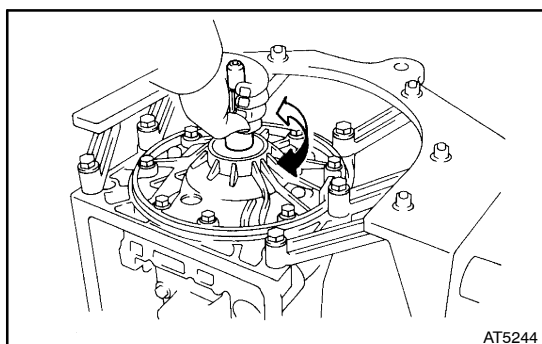
- (b) Coat a new O-ring with ATF and install it around the oil pump body.
- (c) Place the oil pump through the input shaft, and align the bolt holes of the pump body with the transmission case.
- (d) Hold the input shaft, and lightly press the oil pump body to slide the oil seal rings into the O/D direct clutch drum.

NOTICE:

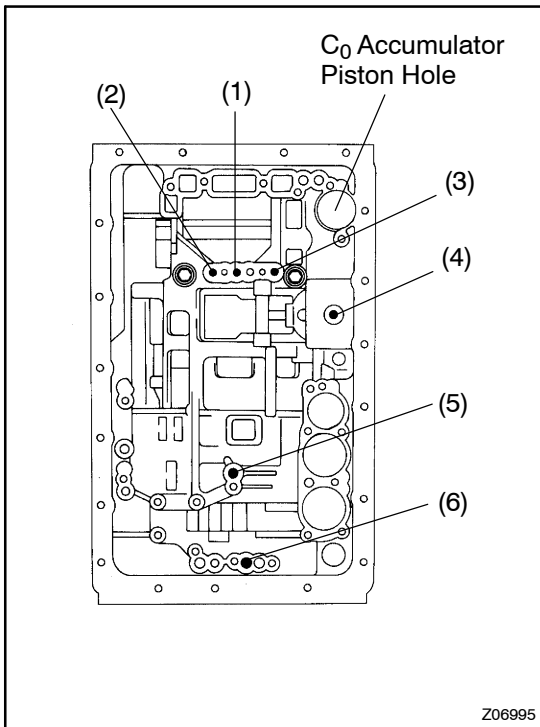
Do not push on the oil pump strongly, or the oil seal ring will stick to the direct clutch drum.



- (e) Install the 7 bolts.
Torque: 21 N·m (215 kgf·cm, 16 ft·lbf)

**26. CHECK INPUT SHAFT ROTATION**

Make sure the input shaft rotates smoothly.



27. INDIVIDUAL PISTON OPERATION INSPECTION

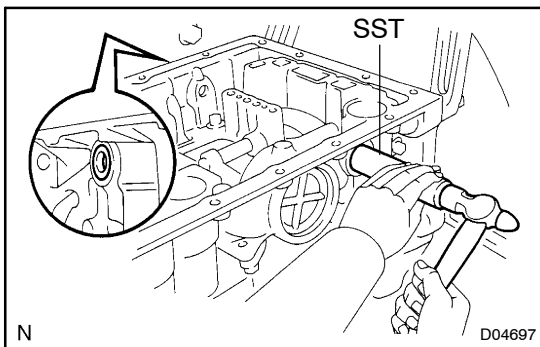
Check for the sound of operation while applying compressed air (392 – 785 kPa, 4 – 8 kgf/cm², 57 – 114 psi) into the oil holes indicated in the illustration.

HINT:

When inspecting the O/D direct clutch, check with the C₀ accumulator piston hole closed.

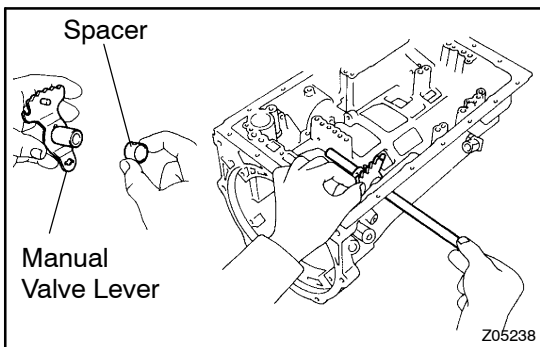
If there is no noise, disassemble and check the installation condition of the parts.

- (1) Direct clutch
- (2) Forward clutch
- (3) O/D brake
- (4) 2nd coast brake
- (5) 2nd brake
- (6) 1st & reverse brake

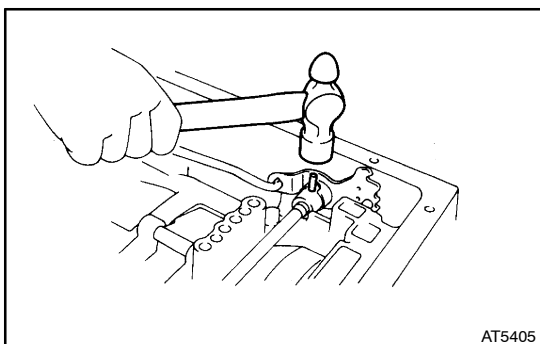


28. INSTALL MANUAL VALVE LEVER SHAFT

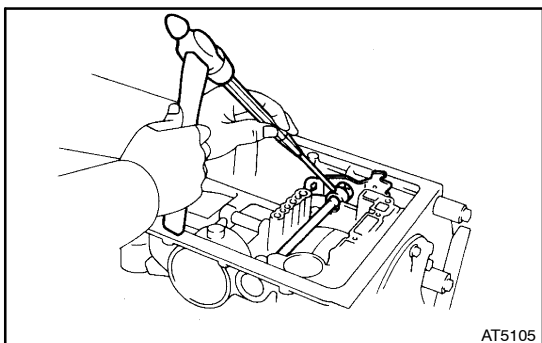
- (a) Using SST, drive in 2 new oil seals.
SST 09350-30020 (09350-07110)
- (b) Coat the oil seal lip with MP grease.



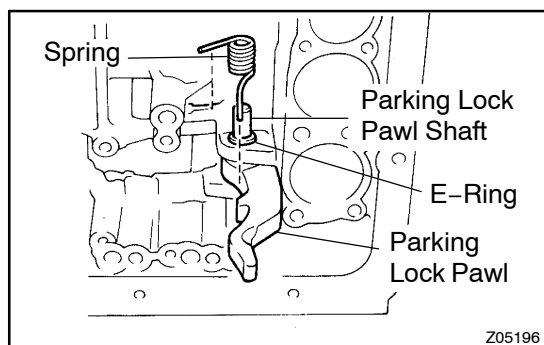
- (c) Install a new spacer to the manual valve lever.
- (d) Install the manual valve lever shaft to the transmission case through the manual valve lever.



- (e) Using a hammer, drive in a new spring pin.

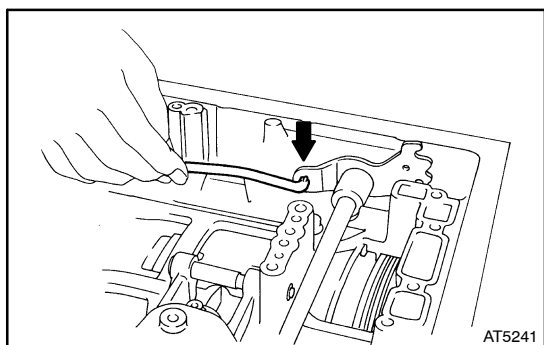


- (f) Match the manual valve lever indentation with the spacer hole and calk them together with a pin punch and hammer.
- (g) Make sure the manual valve lever shaft rotates smoothly.

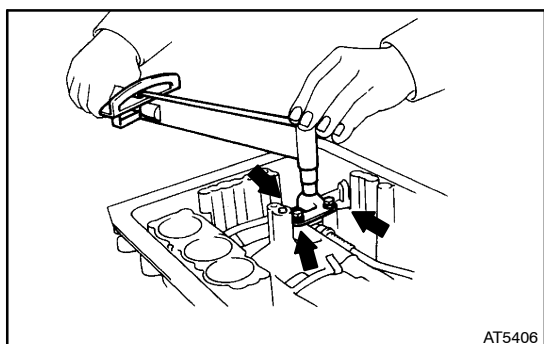


29. INSTALL PARKING LOCK ROD AND PAWL

- (a) Install the E-ring to the shaft.
- (b) Install the parking lock pawl, shaft and spring.

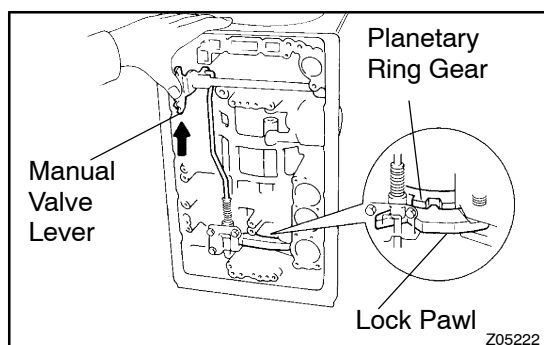


- (c) Connect the parking lock rod to the manual valve lever.

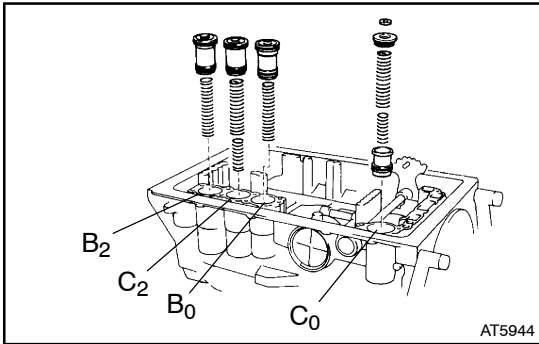


- (d) Place the parking lock pawl bracket onto the transmission case and install the 3 bolts.

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



- (e) Shift the manual valve lever to the P range, and confirm the planetary ring gear is correctly locked up by the lock pawl.

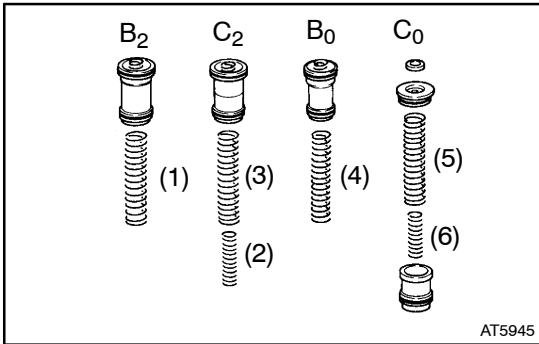


30. INSTALL ACCUMULATOR PISTON AND SPRING

- (a) Coat new O-rings with ATF and install them to the pistons.
- (b) Install the 6 springs and 4 accumulator pistons to the holes.

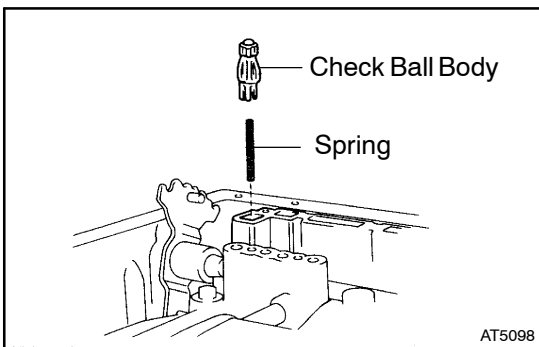
HINT:

The pistons are marked in relief with either C₀, B₀, C₂ or B₂ to distinguish each other.

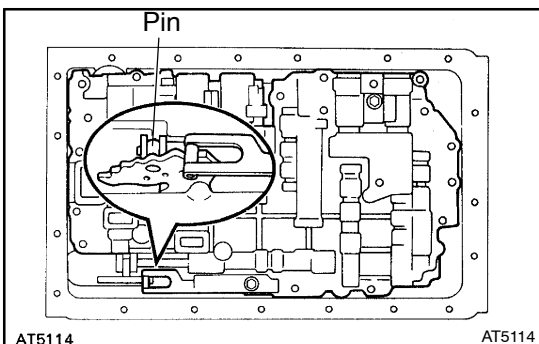


Accumulator spring:

Spring	Free length mm (in.)	Color
	Outer diameter mm (in.)	
(1) B ₂	75.25 (2.963) 19.97 (0.786)	White & Red
(2) C ₂ (Inner)	40.00 (1.575) 14.11 (0.556)	White & Dark blue
(3) C ₂ (Outer)	77.51 (3.052) 20.10 (0.791)	Light Blue
(4) B ₀	66.97 (2.637) 16.24 (0.639)	White & Blue
(5) C ₀ (Outer)	63.35 (2.494) 20.59 (0.811)	White & Orange
(6) C ₀ (Inner)	38.42 (1.513) 14.03 (0.552)	White

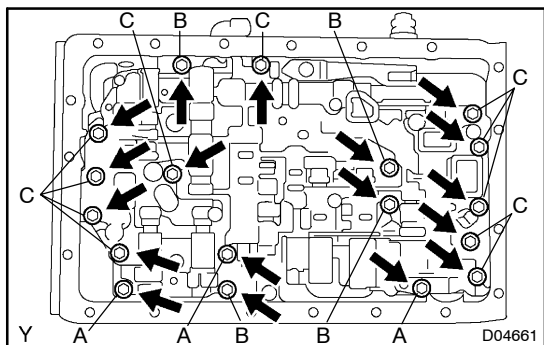


31. INSTALL SPRING AND CHECK BALL BODY



32. INSTALL VALVE BODY

- (a) Place the valve body.
- (b) Align the groove of the manual valve with the pin of the lever.



- (c) Install the 18 bolts.
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

HINT:

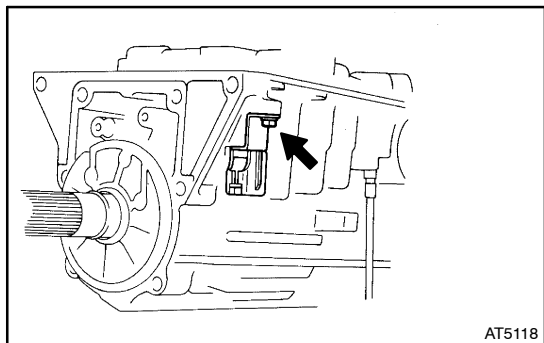
Each bolt length is indicated below.

Bolt length:

Bolt A: 29 mm (1.14 in.)

Bolt B: 34 mm (1.34 in.)

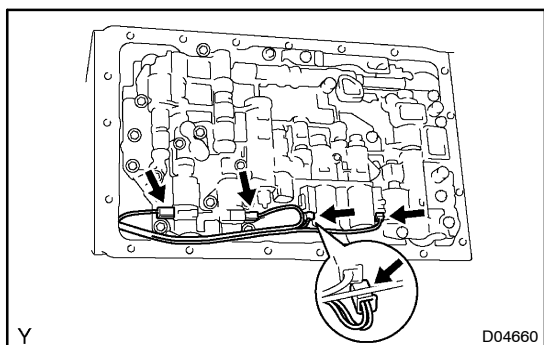
Bolt C: 42 mm (1.65 in.)



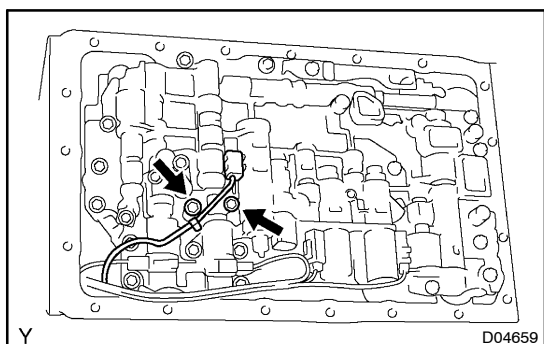
33. INSTALL SOLENOID WIRING

- (a) Coat a new O-ring with ATF and install it to the solenoid wiring.
 (b) Insert the solenoid wiring to the transmission case with the bolt.

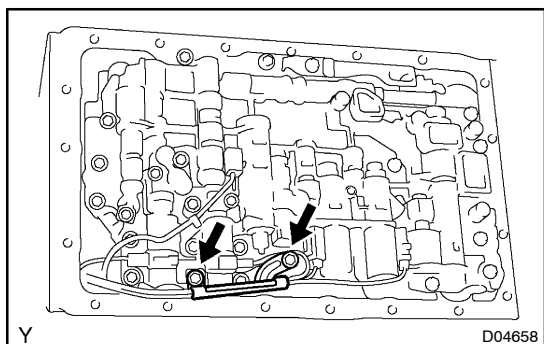
Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)



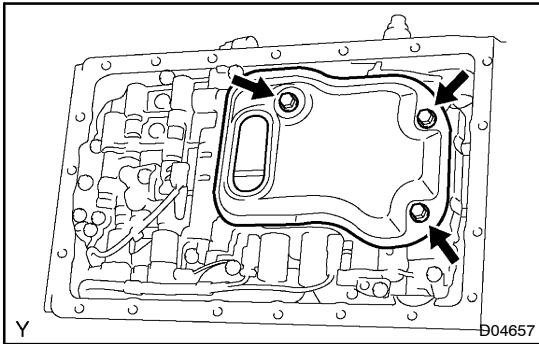
- (c) Connect the 5 connectors to the solenoid valves.



- (d) Set the ATF Temp. sensor.
 (e) Install the 2 set bolts of the clamp.
Torque: 6.6 N·m (68 kgf·cm, 58 in·lbf)

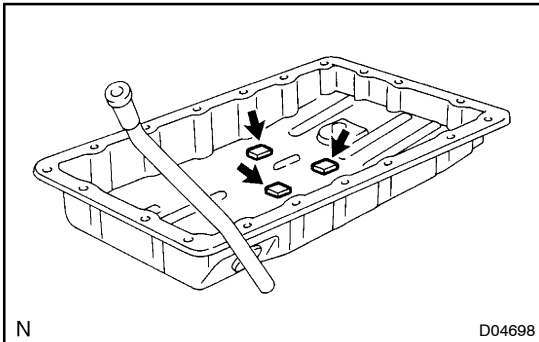


- (f) Install the solenoid wiring clamp.
 (g) Install the 2 bolts.
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

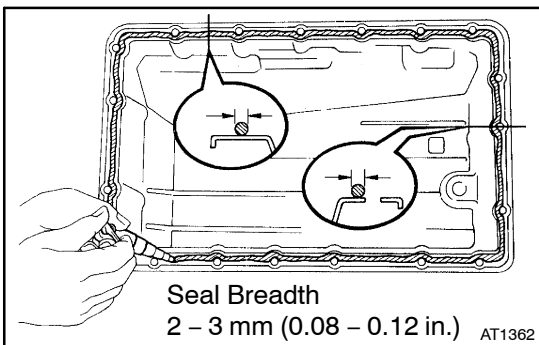
**34. INSTALL OIL STRAINER**

Install the oil strainer with the 3 bolts.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

**35. INSTALL OIL PAN**

(a) Install the 3 magnets in the oil pan.

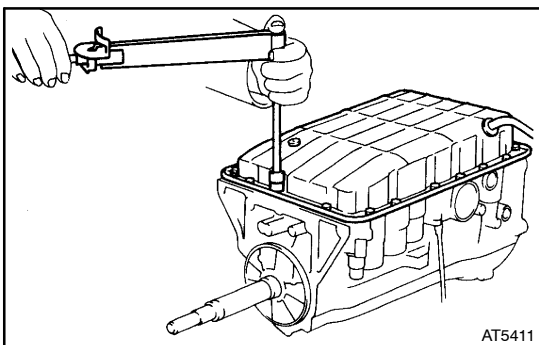


(b) Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the transmission case and oil pan.

(c) Apply FIPG to the oil pan.

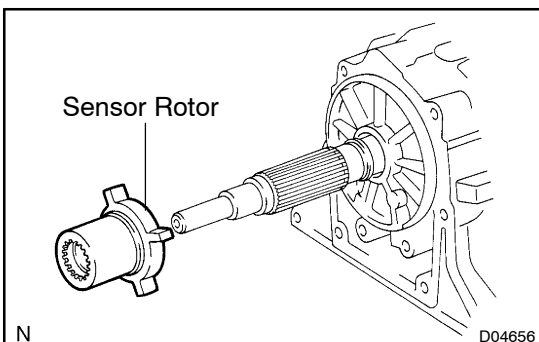
FIPG:

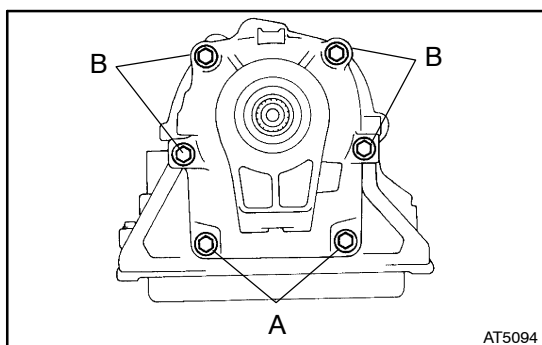
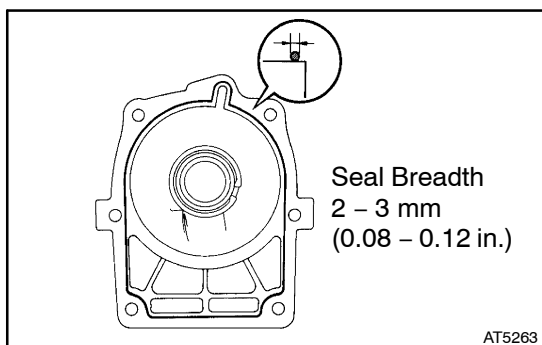
Part No. 08826 - 00090, THREE BOND 1281 or equivalent



(d) Install the 19 bolts.

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

**36. INSTALL SENSOR ROTOR TO OUTPUT SHAFT**

**37. INSTALL EXTENSION HOUSING**

(a) Remove any FIPG material and be careful no to drop oil on the contacting surfaces of the transmission case and extension housing.

(b) Apply FIPG to the extension housing.

FIPG:

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

(c) Clean the threads of the bolts and transmission case with white gasoline.

(d) Apply sealant to the bolt threads.

Sealant:

Part No. 08833 - 00080, THREE BOND 1344, LOCTITE 242 or equivalent

(e) Install the extension housing with the 6 bolts.

Torque: 34 N·m (345 kgf·cm, 25 ft·lbf)

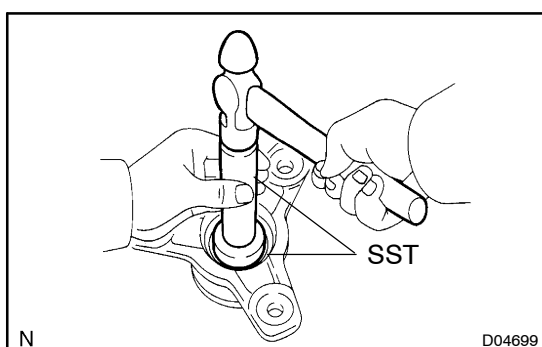
HINT:

Each bolt length is indicated below.

Bolt length:

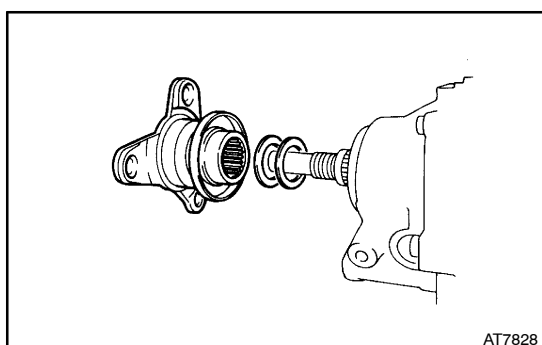
Bolt A: 35 mm (1.378 in.)

Bolt B: 45 mm (1.772 in.)

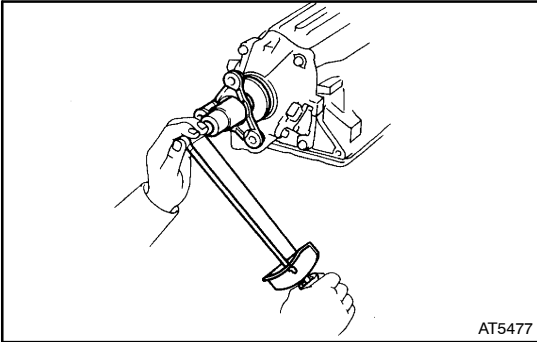
**38. INSTALL TRANSMISSION OUTPUT FLANGE**

(a) Using SST and a hammer, drive in a new oil seal to the transmission output flange.

SST 09950-60010 (09951-00350), 09950-70010 (09951-07100)



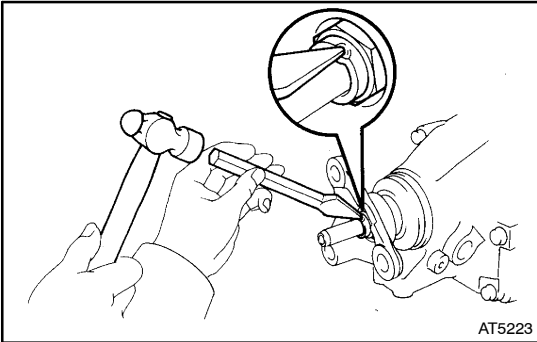
(b) Install the transmission output flange and 2 washers.



- (c) Using a deep socket wrench of 30 mm, install a new nut.
Torque: 123 N·m (1,250 kgf·cm, 90 ft·lbf)

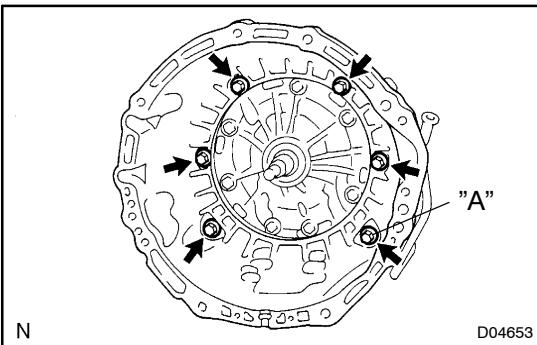
HINT:

Shift the manual valve lever to the P range.



- (d) Using a chisel and hammer, stake the nut.

39. REMOVE TRANSMISSION CASE FROM OVERHAUL ATTACHMENT



40. INSTALL TRANSMISSION HOUSING

- (a) Clean the threads of the "A" bolt and transmission case with white gasoline.

- (b) Apply sealant to the "A" bolt threads.

Sealant:

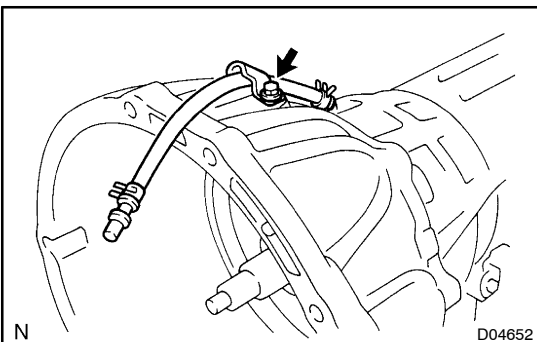
Part No. 08833 - 00080, THREE BOND 1344, LOCTITE 242 or equivalent

- (c) Install the transmission housing with the 6 bolts.

Torque:

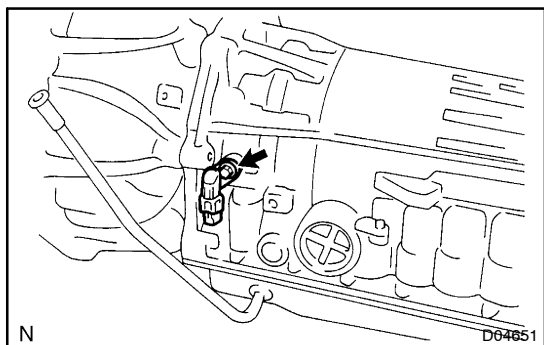
14 mm bolt: 34 N·m (345 kgf·cm, 25 ft·lbf)

17 mm bolt: 57 N·m (580 kgf·cm, 42 ft·lbf)

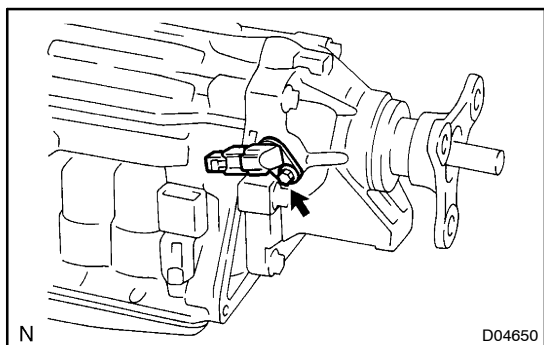


- (d) Install the breather hose to the transmission case with the bolt.

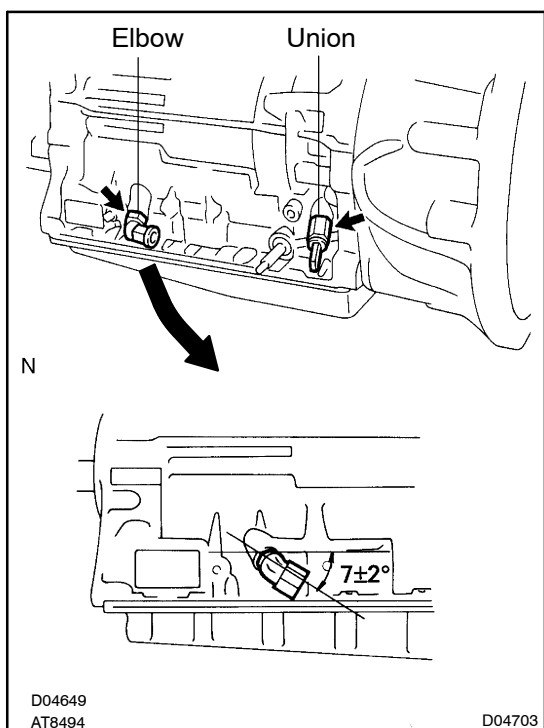
Torque: 7.4 N·m (75 kgf·cm, 65 in·lbf)

**41. INSTALL O/D DIRECT CLUTCH SPEED SENSOR**

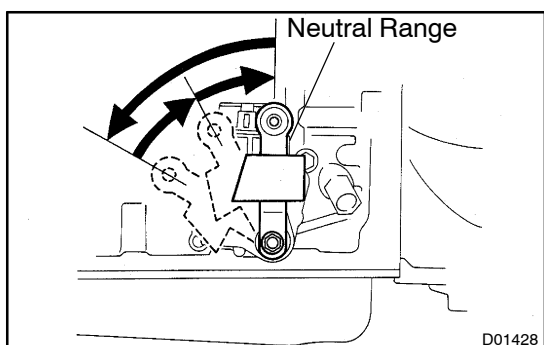
- (a) Coat a new O-ring with ATF and install it to the O/D direct clutch speed sensor.
- (b) Install the O/D direct clutch speed sensor with the bolt.
Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)

**42. INSTALL SPEED SENSOR**

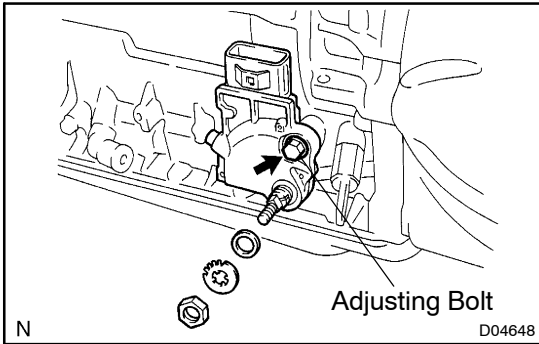
- (a) Coat a new O-ring with ATF and install it to the speed sensor.
- (b) Install the speed sensor with the bolt.
Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)

**43. INSTALL UNION AND ELBOW**

- (a) Coat 2 new O-rings with ATF, install them to the union and elbow.
- (b) Install the union.
Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)
- (c) Install the elbow, as shown.
Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)

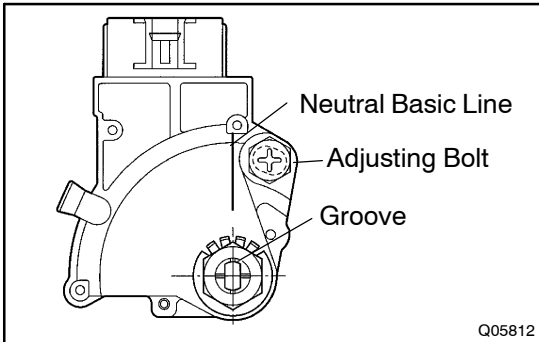
**44. INSTALL NEUTRAL START SWITCH**

- (a) Using the control shaft lever, fully turn the manual lever shaft back and return 2 notches. It is now in neutral.



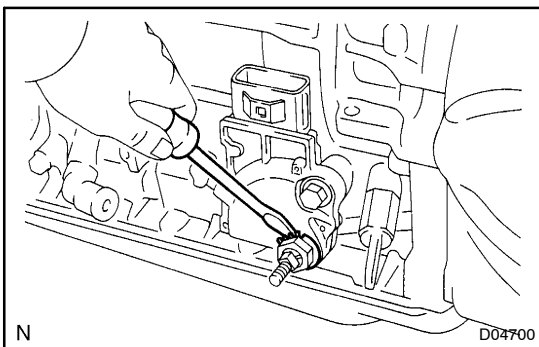
- (b) Insert the neutral start switch onto the manual valve lever shaft and temporarily tighten the adjusting bolt.
- (c) Install the grommet and a new lock washer.
- (d) Install the nut.

Torque: 6.9 N·m (70 kgf·cm, 61 in·lbf)



- (e) Align the neutral basic line and switch groove, and tighten the adjusting bolt.

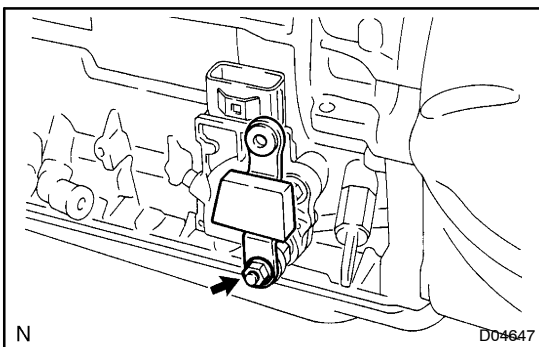
Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)



- (f) Using a screwdriver, bend the tabs of the lock washer.

HINT:

Bend at least 2 of the lock washer tabs.



45. INSTALL CONTROL SHAFT LEVER

Install the control shaft lever with the washer and nut.

Torque: 16 N·m (160 kgf·cm, 12 ft·lbf)