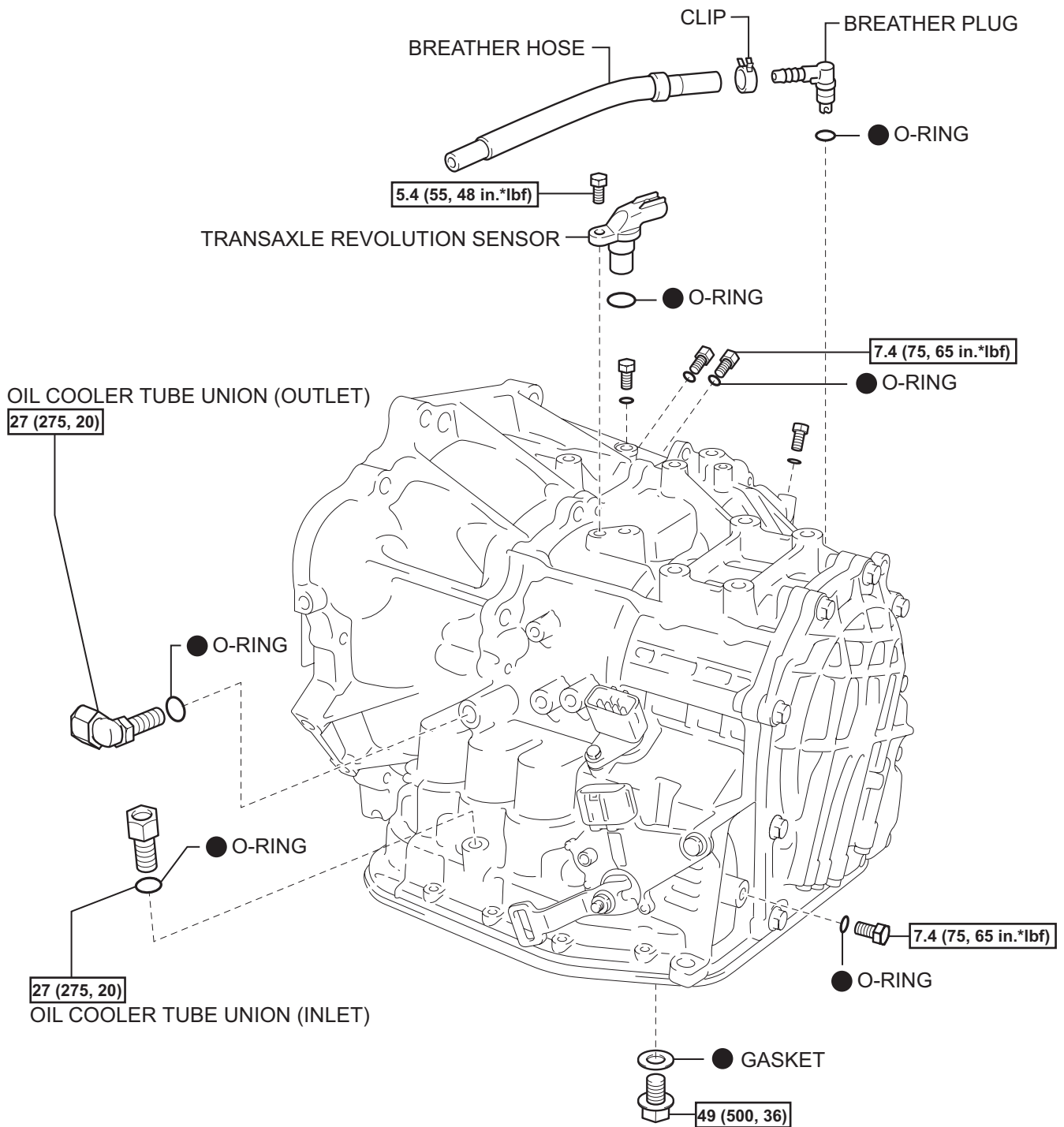


AUTOMATIC TRANSAXLE UNIT

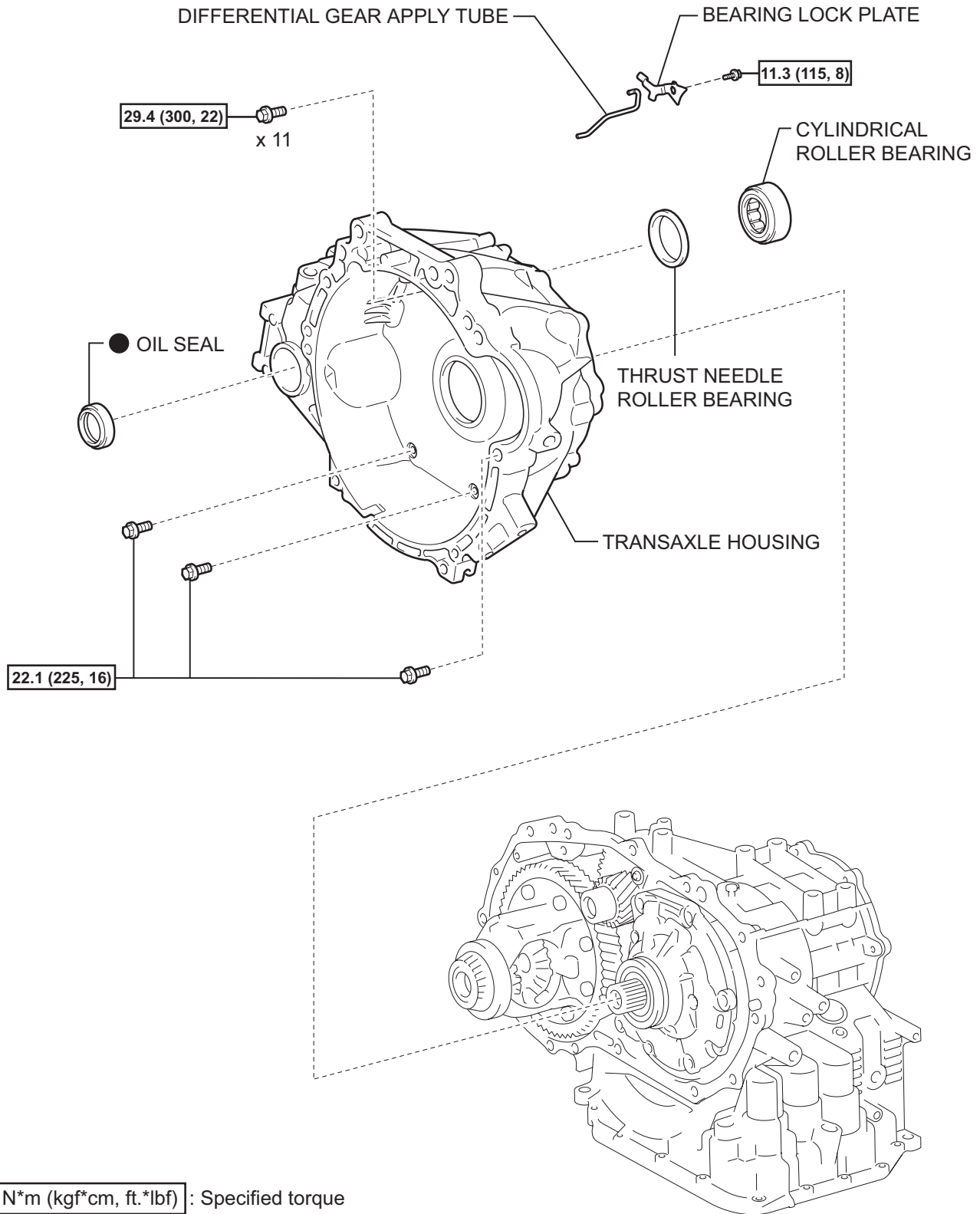
COMPONENTS

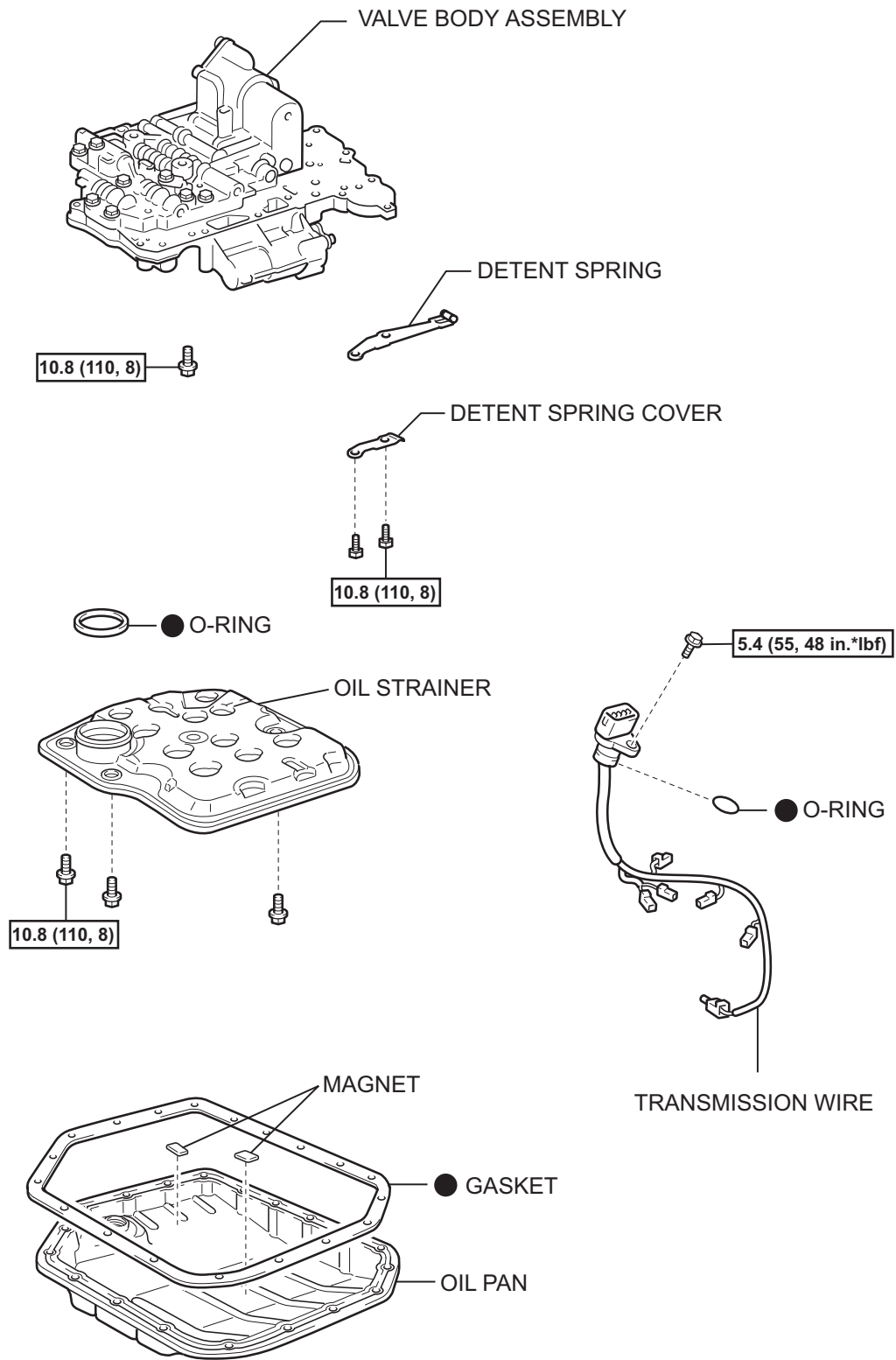


N*m (kgf*cm, ft.*lbf) : Specified torque

● Non-reusable part

AX



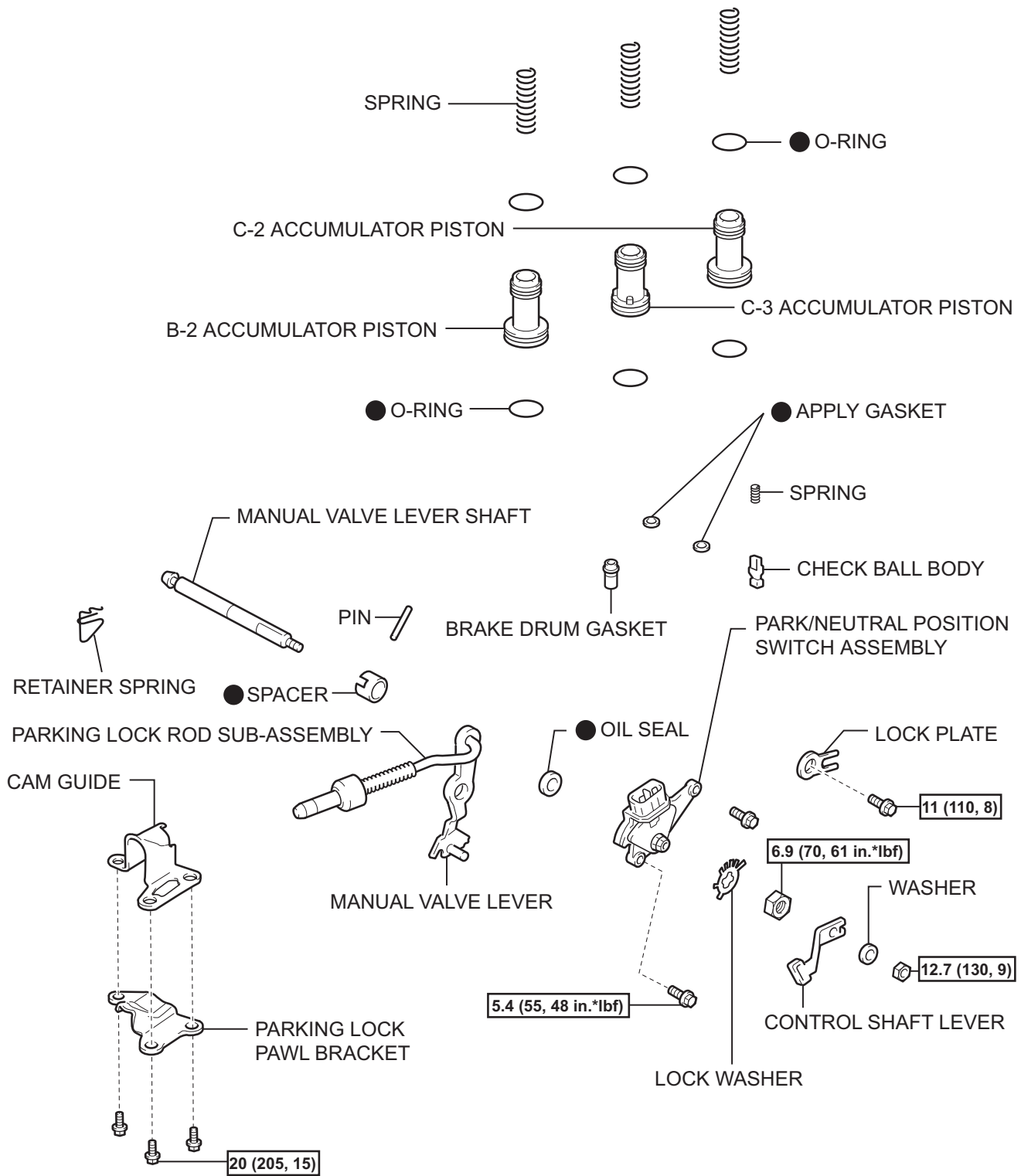


N*m (kgf*cm, ft.*lbf) : Specified torque

7.8 (80, 71 in.*lbf)
x 19

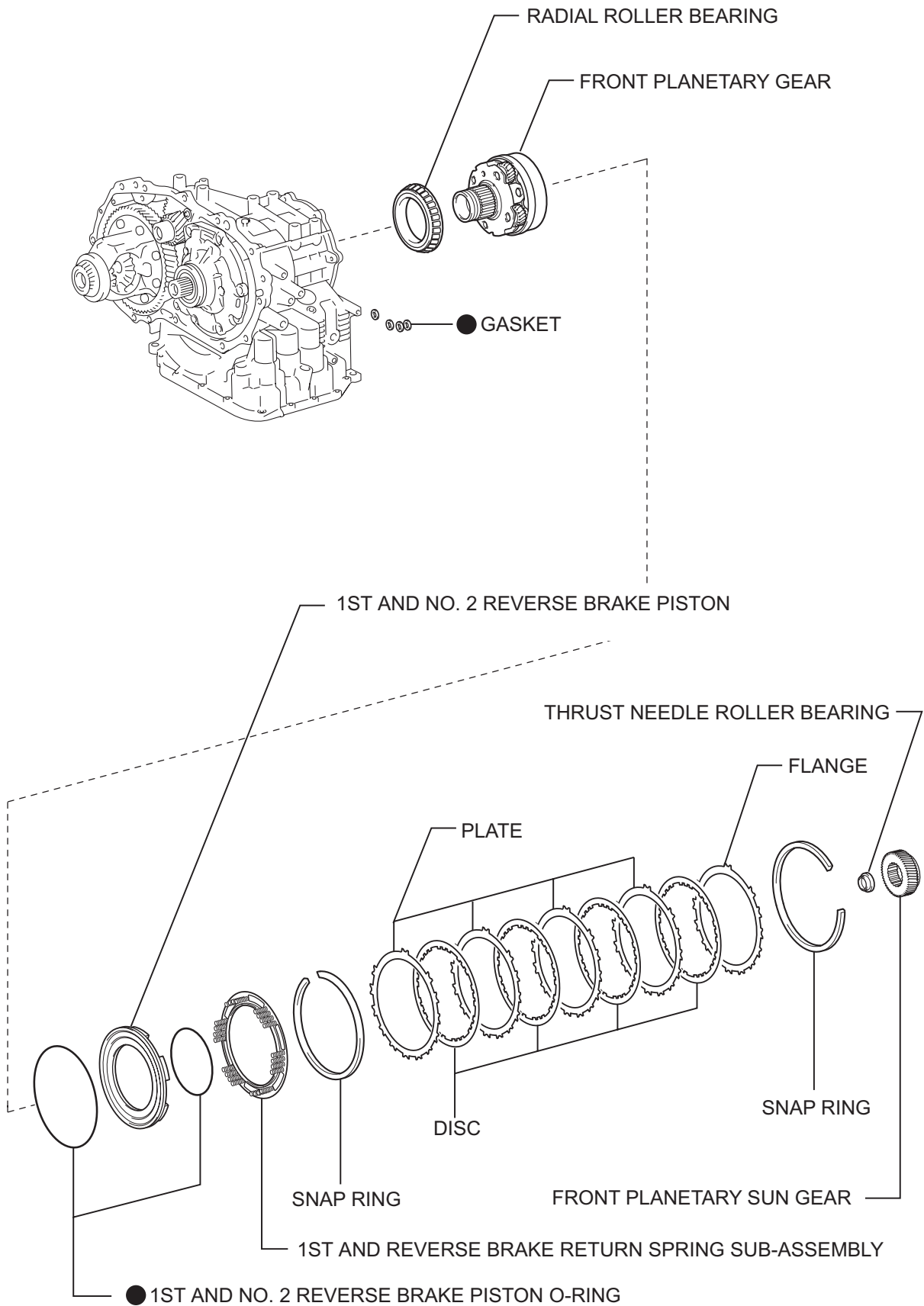
● Non-reusable part

AX



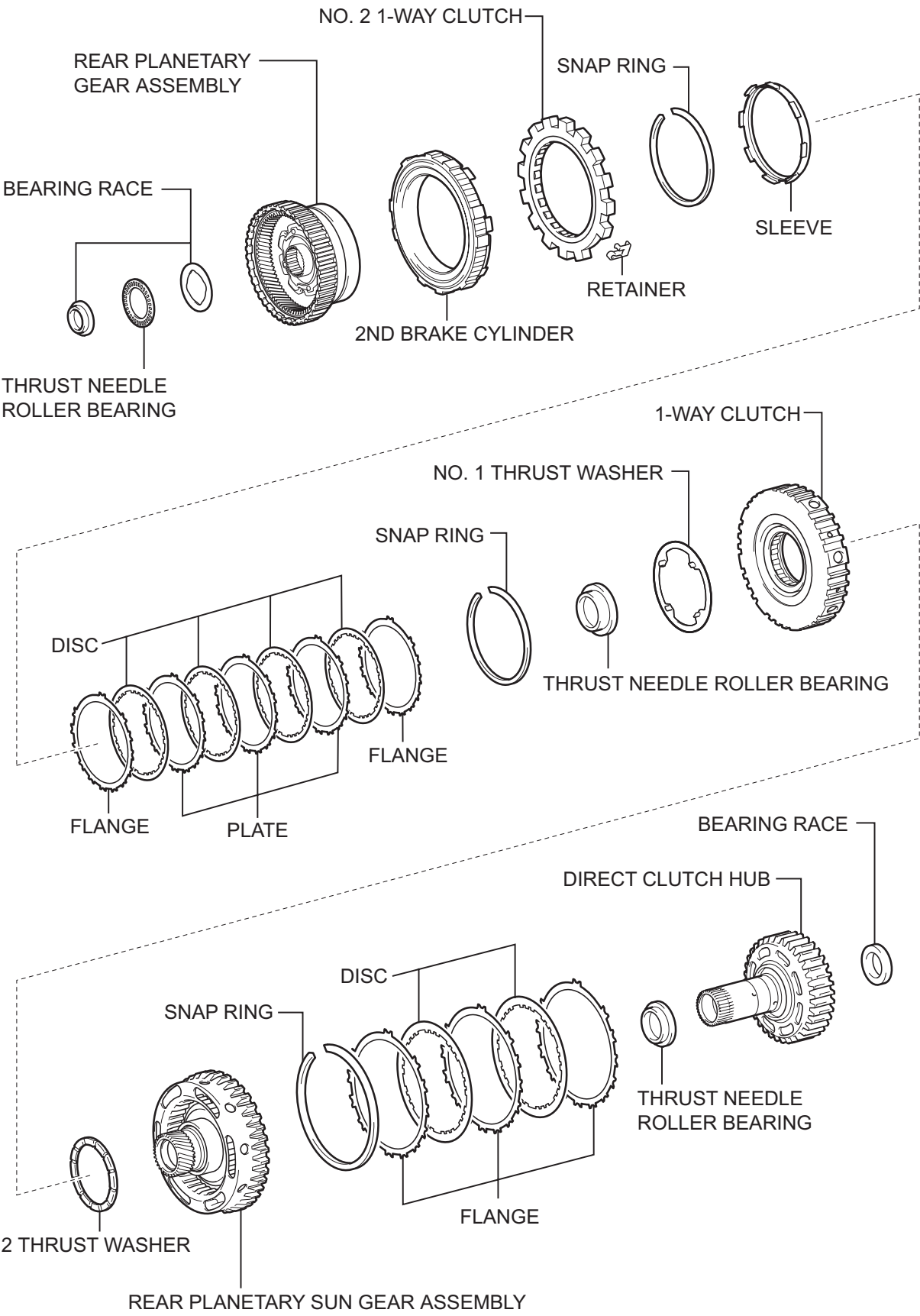
N*m (kgf*cm, ft.*lbf) : Specified torque

● Non-reusable part

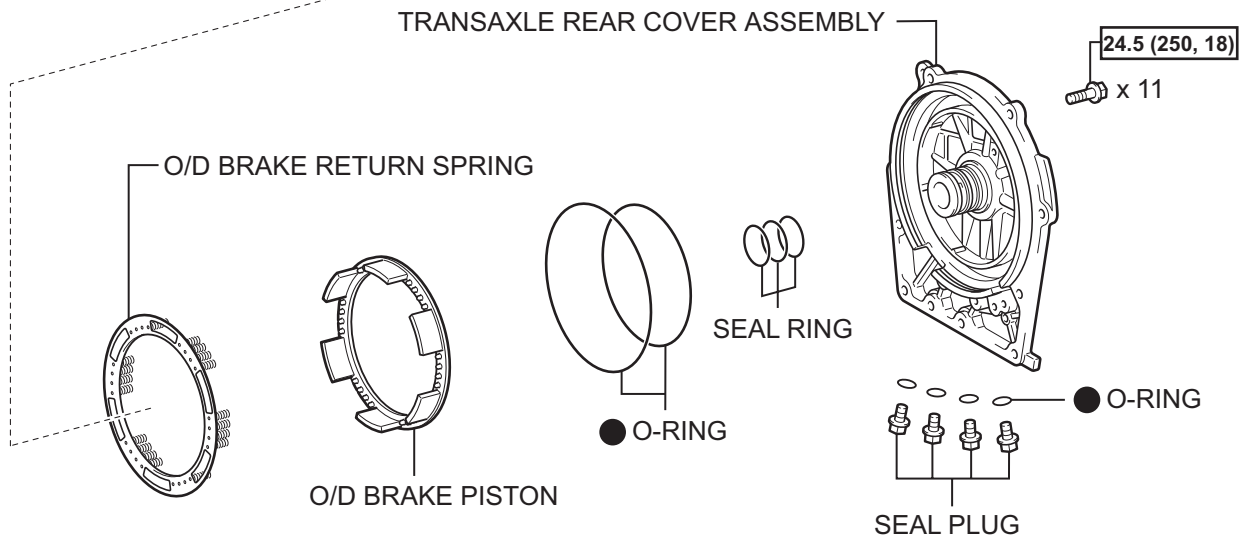
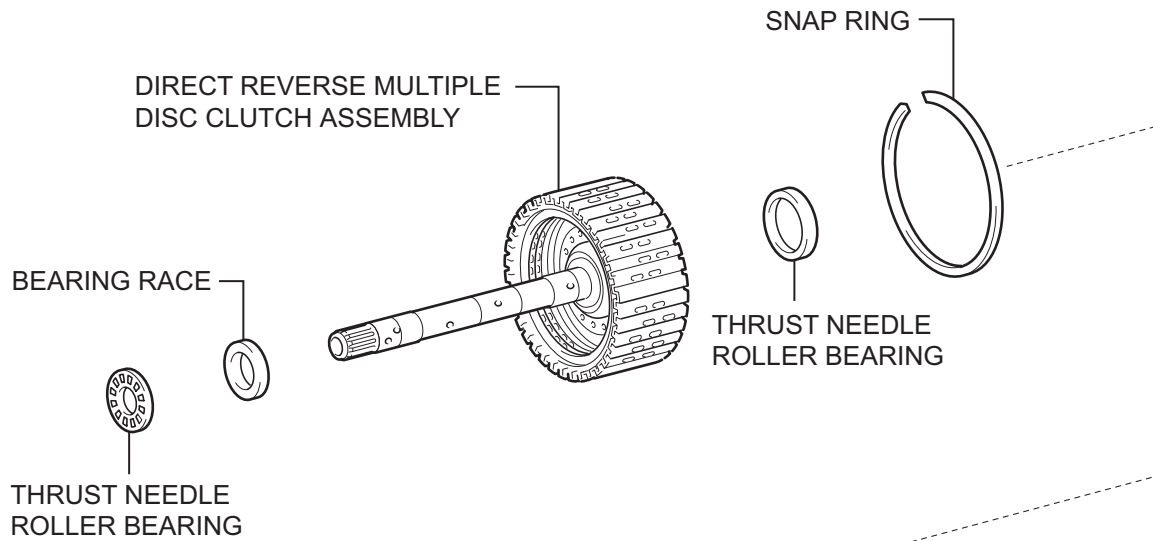


● Non-reusable part

AX



AX

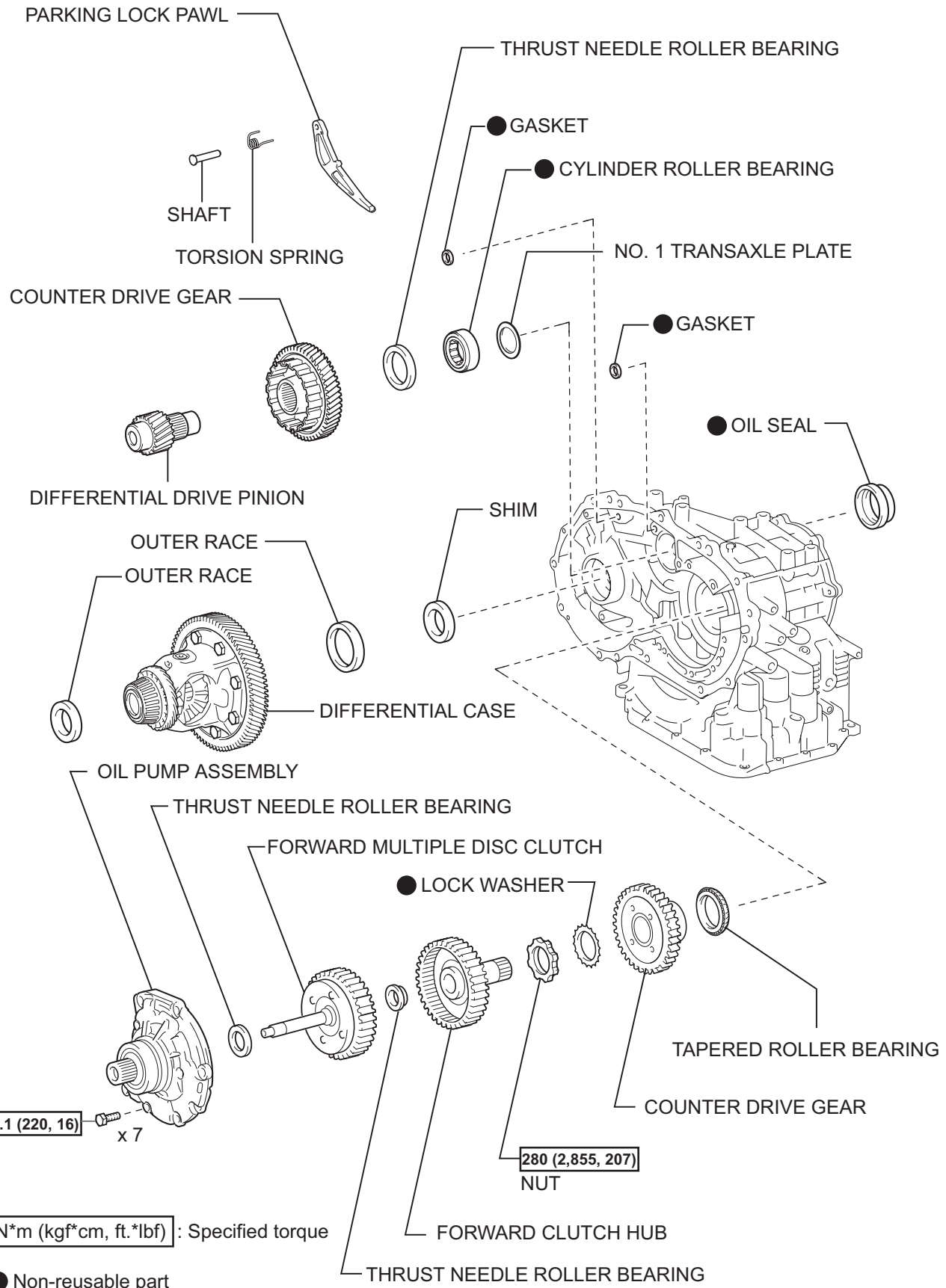


N*m (kgf*cm, ft.*lbf) : Specified torque

● Non-reusable part

P

AX

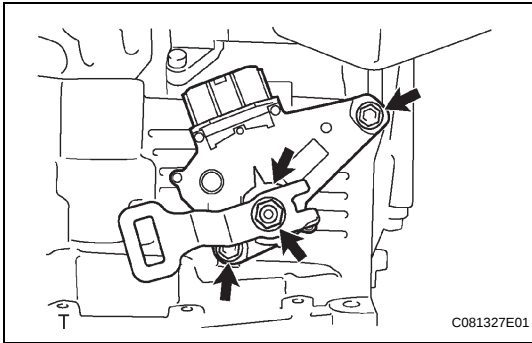


AX

DISASSEMBLY

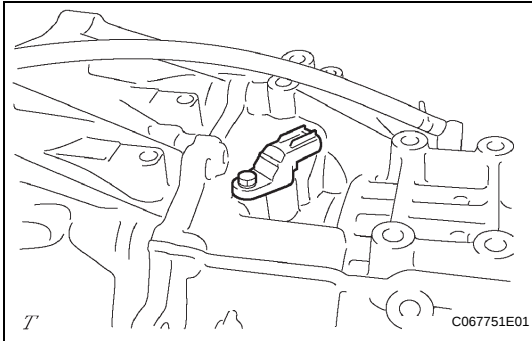
1. REMOVE PARK/NEUTRAL POSITION SWITCH ASSEMBLY

- Remove the nut, washer and control shaft lever.
- Using a screwdriver, unstake the lock nut and remove the lock washer and lock nut.
- Remove the 2 bolts and pull out the position switch.



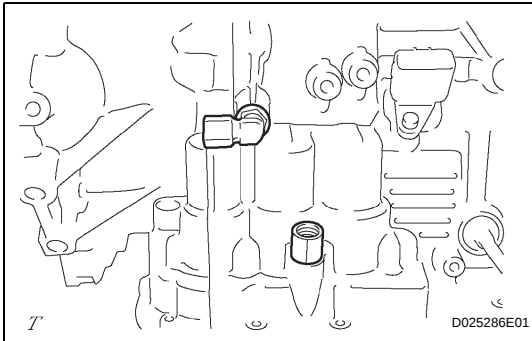
2. REMOVE TRANSMISSION REVOLUTION SENSOR

- Remove the bolt and transmission revolution sensor.



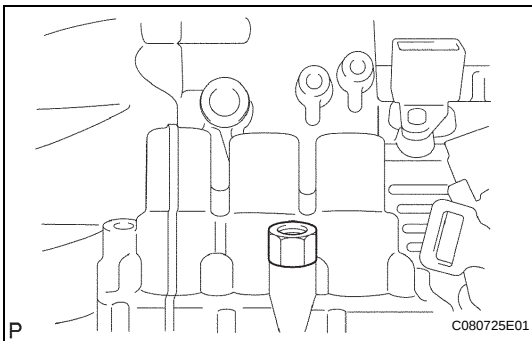
3. REMOVE OIL COOLER TUBE UNION (OUTLET)

- Remove the oil cooler tube union.
- Remove the O-ring from the oil cooler tube union.



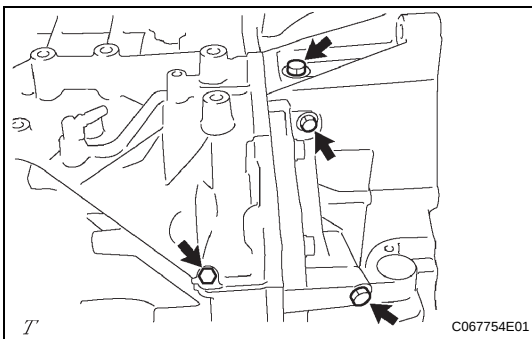
4. REMOVE OIL COOLER TUBE UNION (INLET)

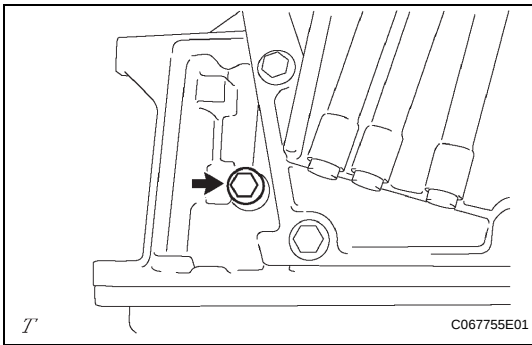
- Remove the oil cooler tube union.
- Remove the O-ring from the oil cooler tube union.



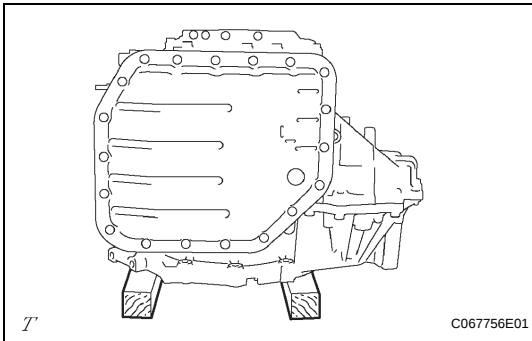
5. REMOVE NO. 1 TRANSAXLE CASE PLUG

- Remove the 4 case plugs from the transaxle housing and transaxle case.





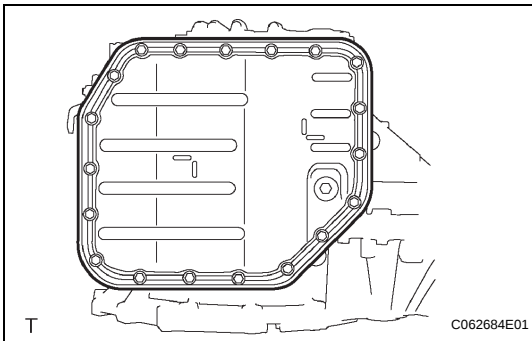
- (b) Remove the case plug from the transaxle case.
- (c) Remove the 5 O-rings from the case plugs.



6. PLACE AUTOMATIC TRANSAXLE ASSEMBLY

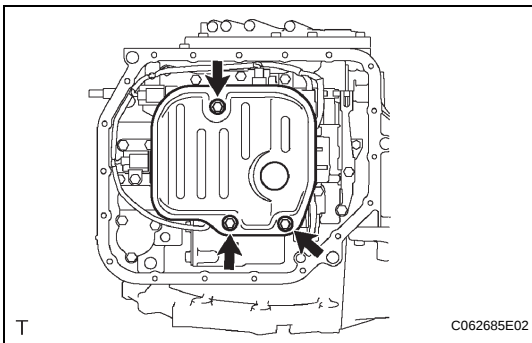
NOTICE:

Be careful not to damage the oil seal.



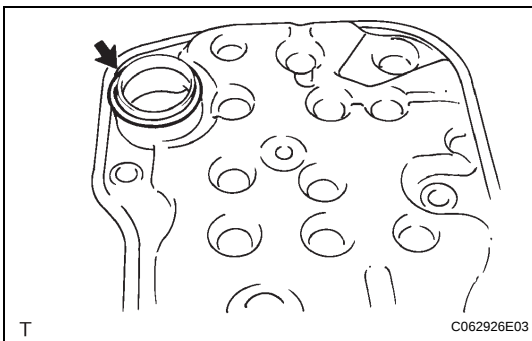
7. REMOVE AUTOMATIC TRANSAXLE OIL PAN SUB-ASSEMBLY

- (a) Remove the drain plug and gasket from the oil pan.
- (b) Remove the 19 bolts.
- (c) Remove the oil pan and gasket.

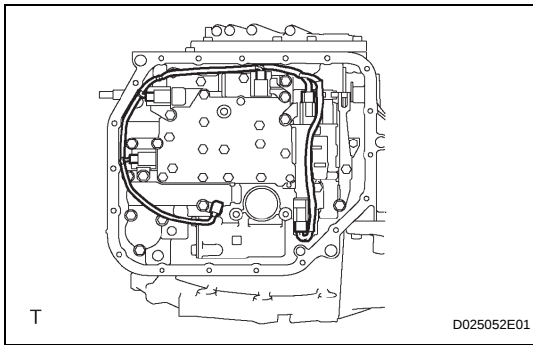


8. REMOVE VALVE BODY OIL STRAINER ASSEMBLY

- (a) Remove the 3 bolts and oil strainer.

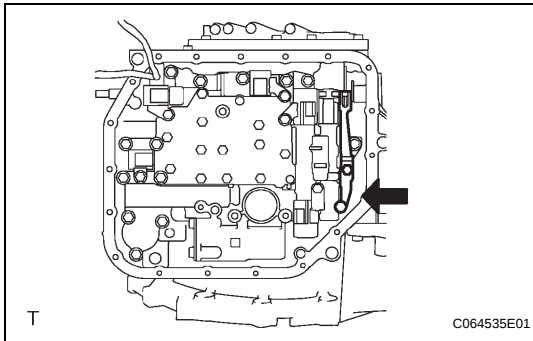


- (b) Remove the O-ring from the oil strainer.

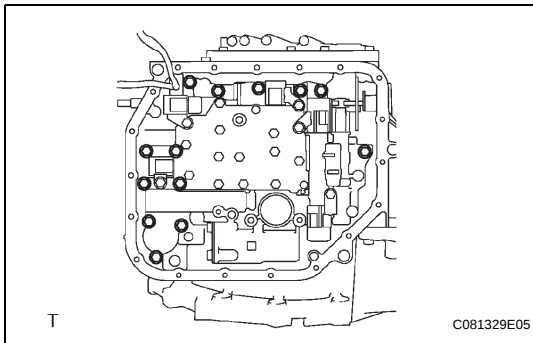


9. REMOVE TRANSMISSION VALVE BODY ASSEMBLY

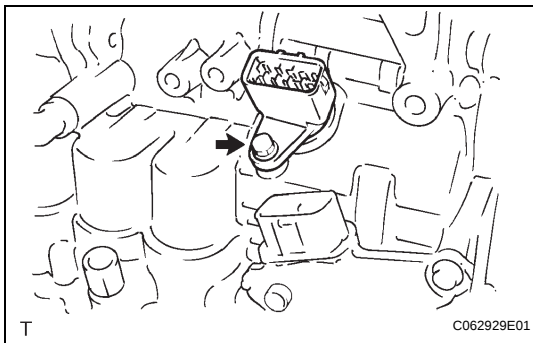
- Disconnect the 5 solenoid connectors.
- Remove the bolt, lock plate and ATF temperature sensor.
- Remove the O-ring from the ATF temperature sensor.



- Remove the 2 bolts, detent spring cover and detent spring.

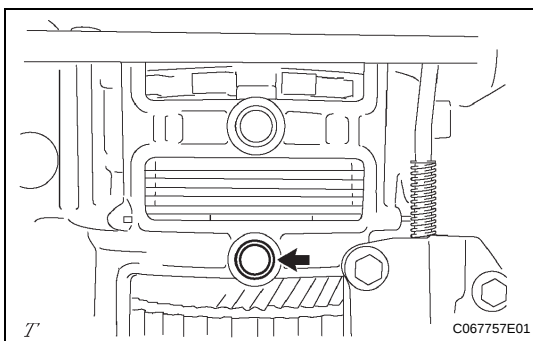


- Remove 13 bolts and valve body.

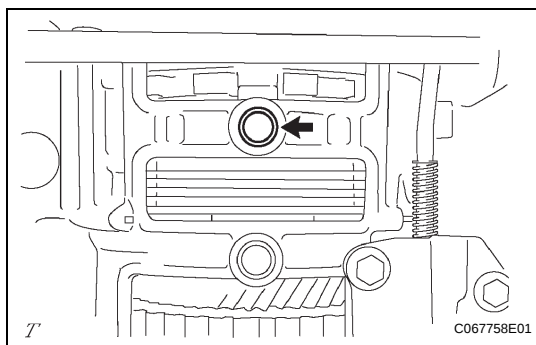


10. REMOVE TRANSMISSION WIRE

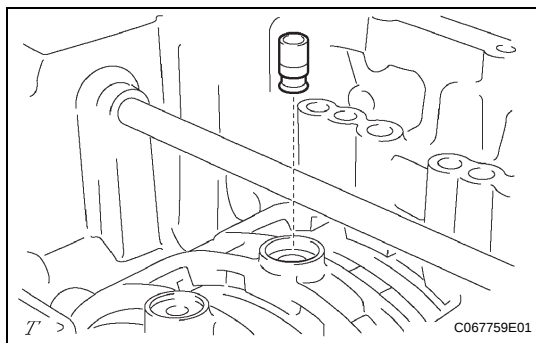
- Remove the bolt.
- Remove the transmission wire from the transaxle case.
- Remove the O-ring from the transmission wire.



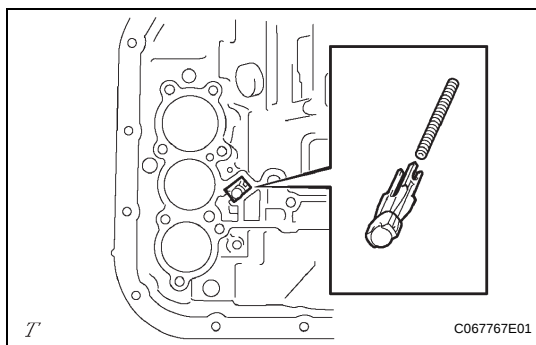
11. REMOVE TRANSAXLE CASE 2ND BRAKE GASKET



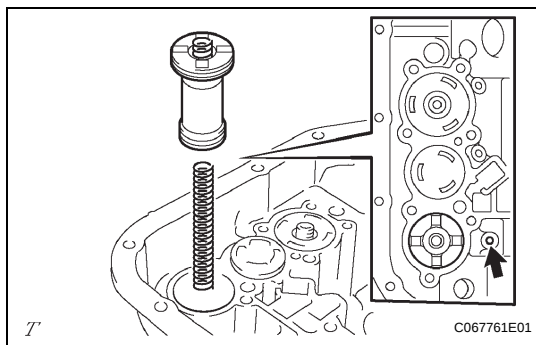
12. REMOVE TRANSAXLE CASE GASKET



13. REMOVE BRAKE DRUM GASKET



14. REMOVE CHECK BALL BODY



15. REMOVE B-2 ACCUMULATOR PISTON

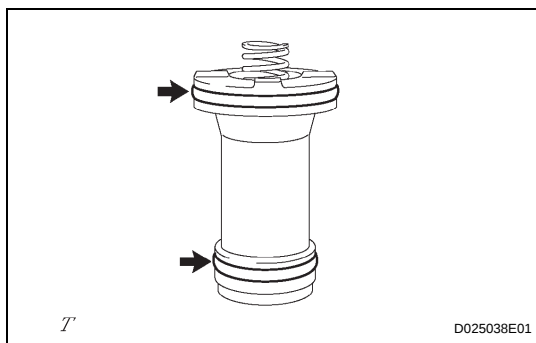
- (a) Apply compressed air (392 kPa, 4.0 kgf/cm², 57 psi) to the oil hole and remove the B-2 accumulator piston and spring.

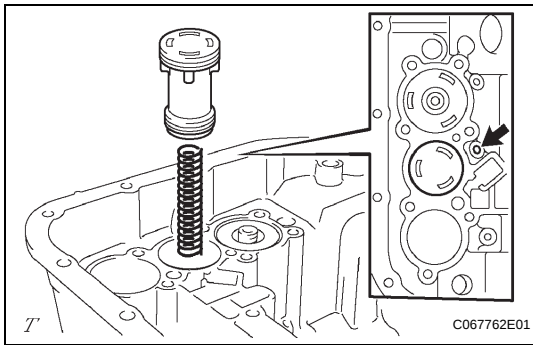
Remove the spring.

NOTICE:

- Blowing air may cause the piston to jump out. When removing the piston, hold it with your hand using a waste cloth.
- Take care not to splash ATF when blowing air.

- (b) Remove the 2 O-rings from the B-2 accumulator piston.



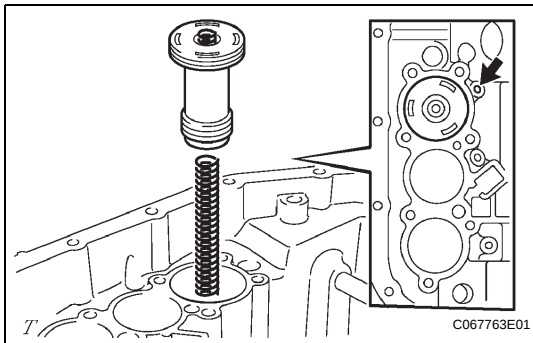
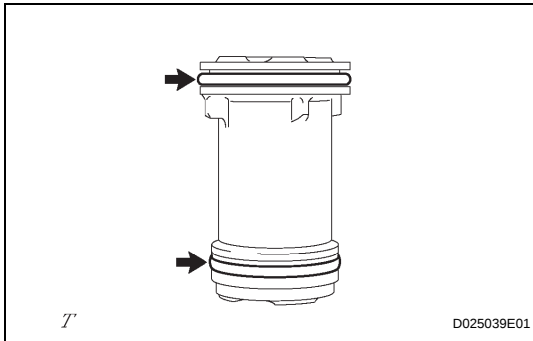
**16. REMOVE C-3 ACCUMULATOR PISTON**

- (a) Apply compressed air (392 kPa, 4.0 kgf/cm², 57 psi) to the oil hole and remove the C-3 accumulator piston and spring. Remove the spring.

NOTICE:

- Blowing air may cause the piston to jump out. When removing the piston, hold it with your hand using a waste cloth.
- Take care not to splash ATF when blowing air.

- (b) Remove the 2 O-rings from the C-3 accumulator piston.

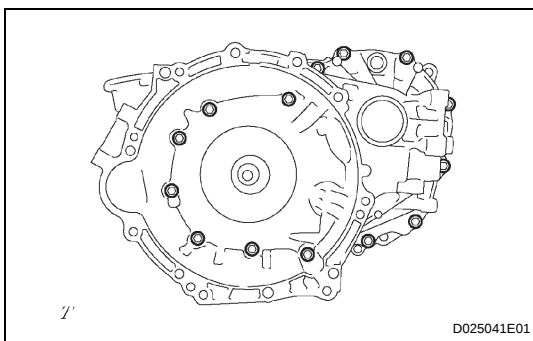
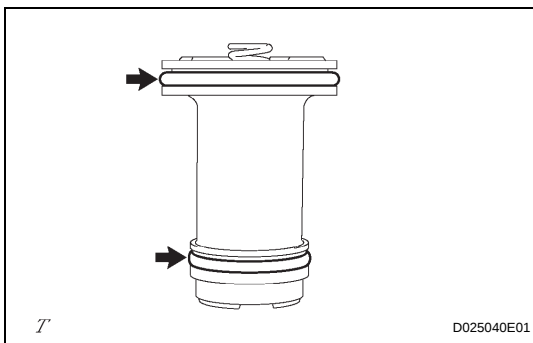
**17. REMOVE C-2 ACCUMULATOR PISTON**

- (a) Apply compressed air (392 kPa, 4.0 kgf/cm², 57 psi) to the oil hole and remove the C-2 accumulator piston and spring. Remove the spring.

NOTICE:

- Blowing air may cause the piston to jump out. When removing the piston, hold it with your hand using a waste cloth.
- Take care not to splash ATF when blowing air.

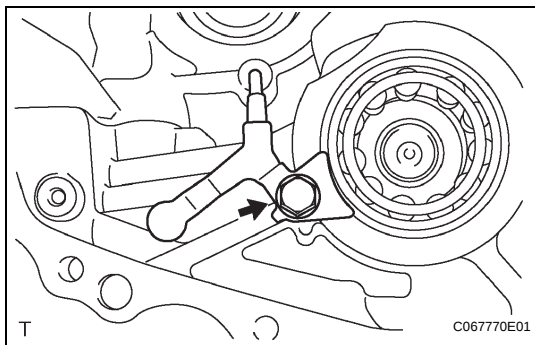
- (b) Remove the 2 O-rings from the C-2 accumulator piston.

**18. REMOVE TRANSAXLE HOUSING**

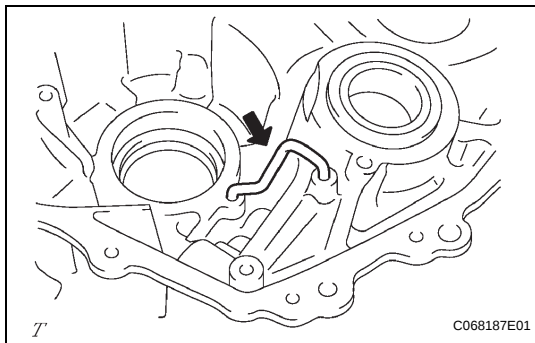
- (a) Remove the 14 bolts.
- (b) Tap on the circumference of the transaxle housing with a plastic-faced hammer to remove the transaxle housing from the transaxle case.

NOTICE:

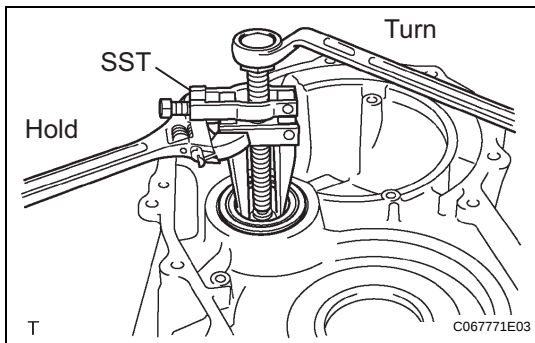
When removing the transaxle housing, do not accidentally remove the differential gear assembly.

**19. REMOVE BEARING LOCK PLATE**

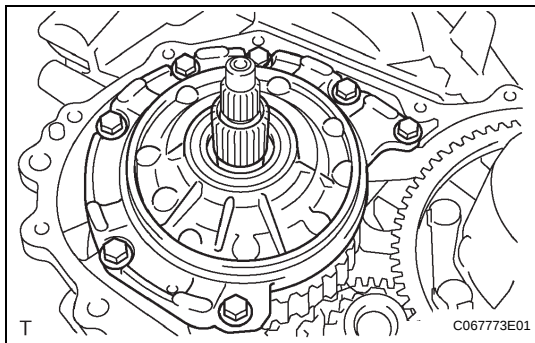
- (a) Remove the bolt.
- (b) Remove the bearing lock plate.

**20. REMOVE DIFFERENTIAL GEAR LUBE APPLY TUBE**

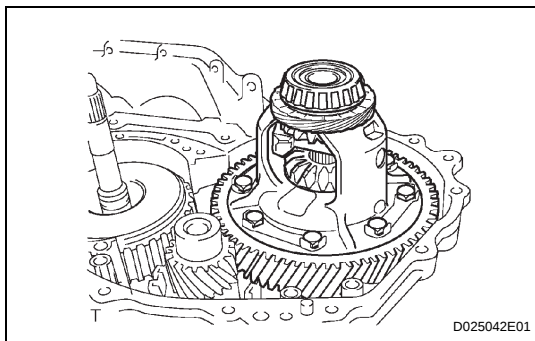
- (a) Remove the bolt and differential gear lube apply tube from the transaxle housing.

**21. REMOVE FRONT DRIVE PINION FRONT TAPERED ROLLER BEARING (RH Side)**

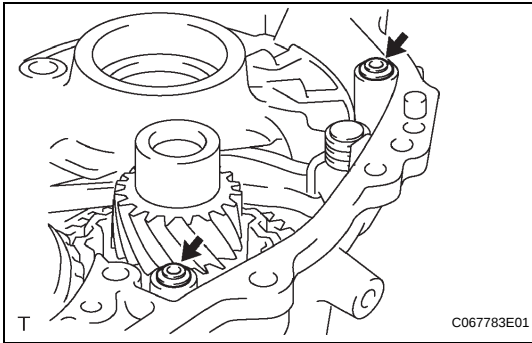
- (a) Using SST, remove the RH cylindrical roller bearing from the transaxle housing.

SST 09308-10010**22. INSPECT INPUT SHAFT END PLAY (See page [AX-174](#))****23. REMOVE OIL PUMP ASSEMBLY**

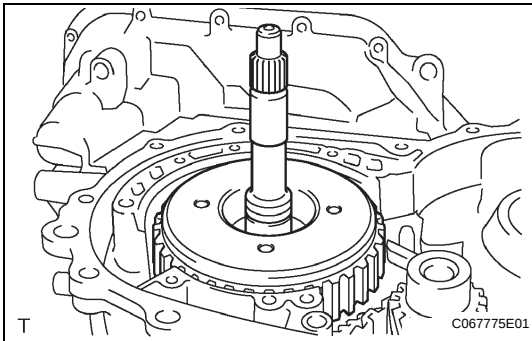
- (a) Remove the 7 bolts and oil pump.

**24. REMOVE DIFFERENTIAL GEAR ASSEMBLY**

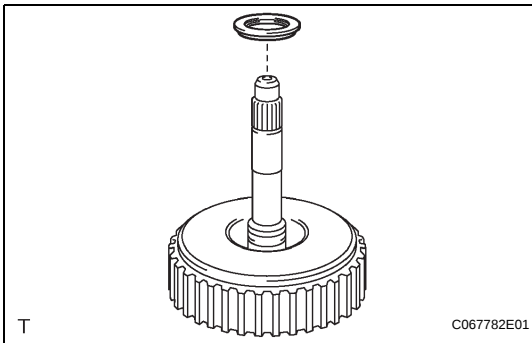
- (a) Remove the differential gear.

**25. REMOVE OVERDRIVE BRAKE GASKET**

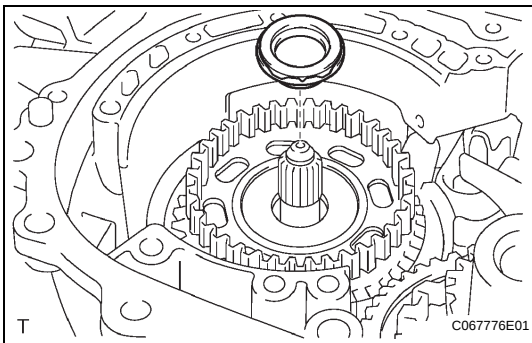
- (a) Using a screwdriver, remove the 2 overdrive brake gaskets from the transaxle case.

**26. REMOVE INPUT SHAFT ASSEMBLY**

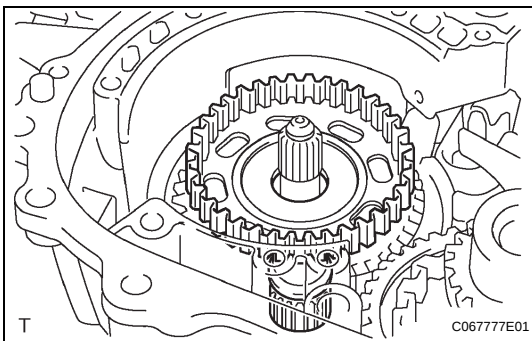
- (a) Remove the input shaft from the transaxle case.

**27. REMOVE STATOR SHAFT THRUST NEEDLE ROLLER BEARING**

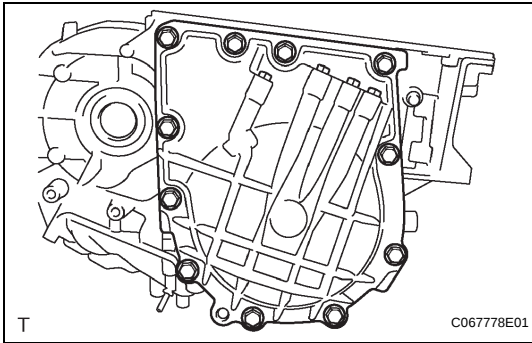
- (a) Remove the thrust needle roller bearing from the input shaft.

**28. REMOVE FORWARD CLUTCH HUB THRUST NEEDLE ROLLER BEARING**

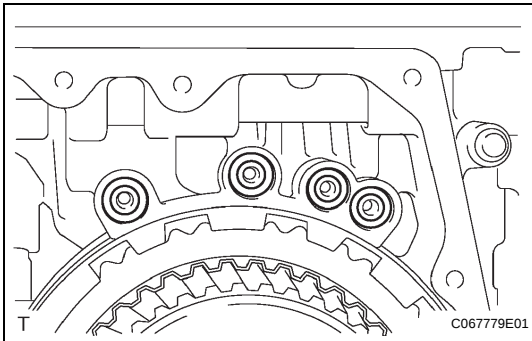
- (a) Remove the thrust needle roller bearing from the forward clutch hub.

29. INSPECT INTERMEDIATE SHAFT ASSEMBLY (See page [AX-174](#))**30. REMOVE FORWARD CLUTCH HUB SUB-ASSEMBLY**

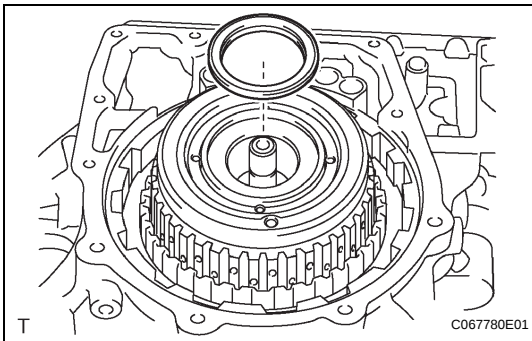
- (a) Remove the forward clutch hub from the transaxle case.

**31. REMOVE TRANSAXLE REAR COVER ASSEMBLY**

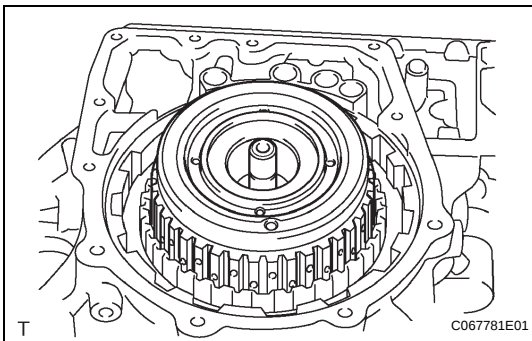
- (a) Remove the 11 bolts.
- (b) Tap on the circumference of the transaxle rear cover with a plastic-faced hammer to remove the transaxle rear cover from the transaxle case.

**32. REMOVE TRANSAXLE CASE GASKET**

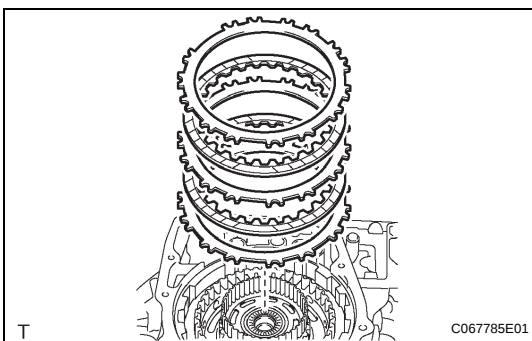
- (a) Remove the 4 transaxle case gaskets.

**33. REMOVE REAR CLUTCH DRUM THRUST NEEDLE ROLLER BEARING**

- (a) Using a magnetic finger, remove the thrust needle roller bearing.

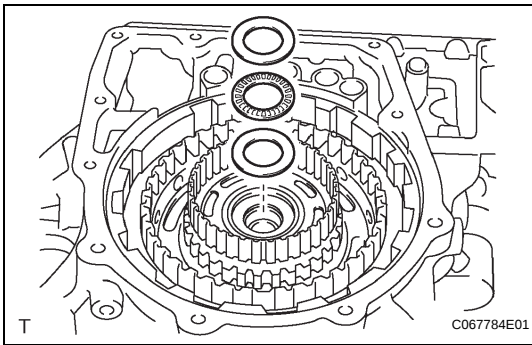
**34. REMOVE INTERMEDIATE SHAFT ASSEMBLY**

- (a) Remove the intermediate shaft from the transaxle case.

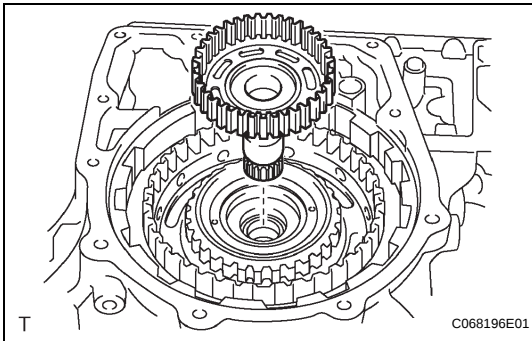
**35. REMOVE 2ND COAST AND OVERDRIVE BRAKE DISC**

- (a) Remove the 2 flanges, 2 discs and 2 plates from the transaxle case.

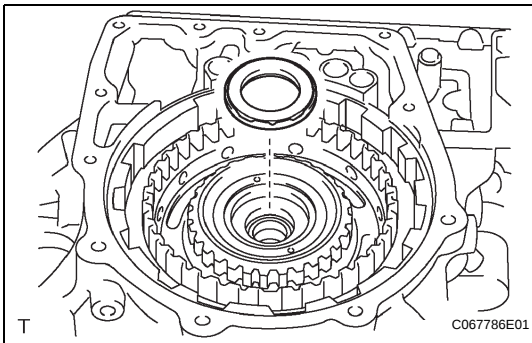
36. INSPECT 2ND COAST AND OVERDRIVE BRAKE DISC (See page [AX-174](#))

**37. REMOVE THRUST NEEDLE ROLLER BEARING**

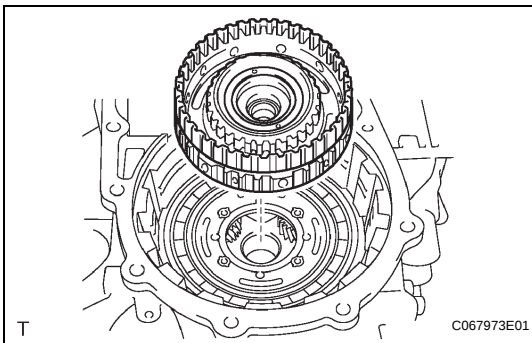
- (a) Using a magnetic finger, remove the C-2 hub thrust bearing race, thrust needle roller bearing and No. 3 thrust bearing race from the direct clutch hub.

**38. REMOVE DIRECT CLUTCH HUB**

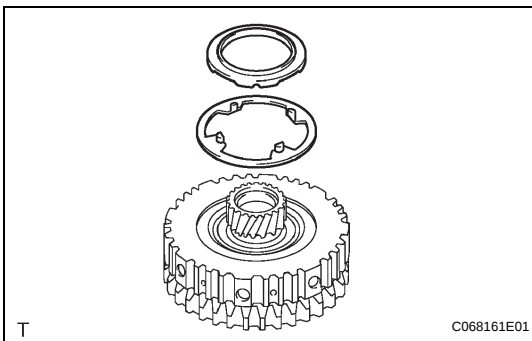
- (a) Remove the direct clutch hub from the transaxle case.

**39. REMOVE REAR PLANETARY SUN GEAR, NO. 2 THRUST NEEDLE BEARING**

- (a) Using a magnetic finger, remove the thrust bearing from the rear thrust needle bearing.

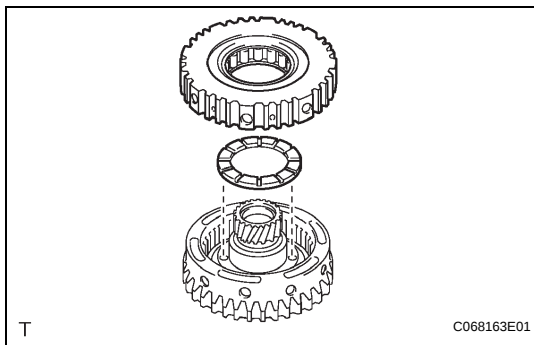
**40. REMOVE REAR PLANETARY SUN GEAR ASSEMBLY**

- (a) Remove the rear planetary sun gear from the transaxle case.

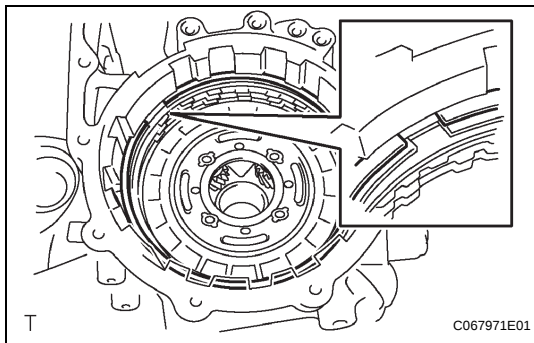
**41. REMOVE REAR PLANETARY SUN GEAR THRUST NEEDLE ROLLER BEARING**

- (a) Remove the rear planetary sun gear thrust needle roller bearing and No. 1 thrust washer from the rear planetary sun gear.

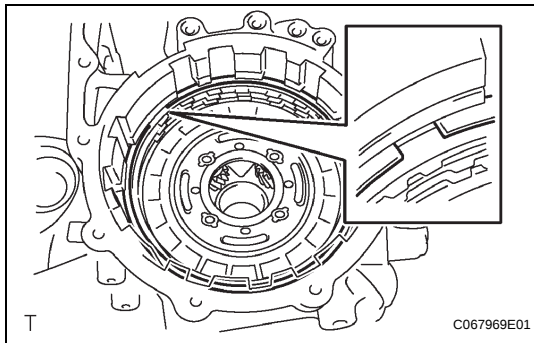
42. INSPECT 1-WAY CLUTCH ASSEMBLY (See page [AX-174](#))

**43. REMOVE 1-WAY CLUTCH ASSEMBLY**

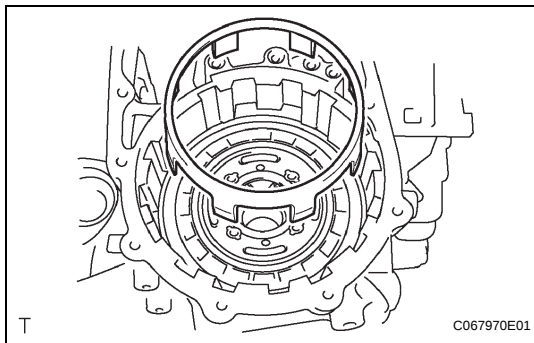
- (a) Remove the 1-way clutch and planetary carrier No. 2 thrust washer from the rear planetary sun gear.

**44. REMOVE 2ND COAST AND OVERDRIVE BRAKE FLANGE HOLE SNAP RING**

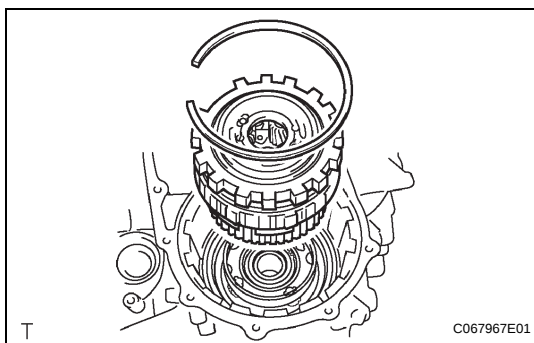
- (a) Using a screwdriver, remove the snap ring from the transaxle case.

**45. REMOVE 2ND BRAKE DISC**

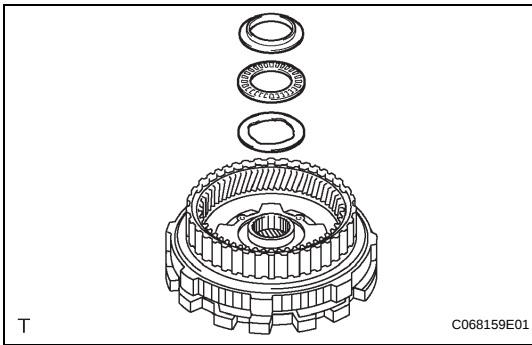
- (a) Using a screwdriver, remove the snap ring.
(b) Remove the flange, 3 discs and 3 plates from the transaxle.

46. INSPECT 2ND BRAKE DISC (See page [AX-174](#))**47. REMOVE 2ND BRAKE PISTON SLEEVE**

- (a) Remove the 2nd brake piston sleeve from the transaxle case.

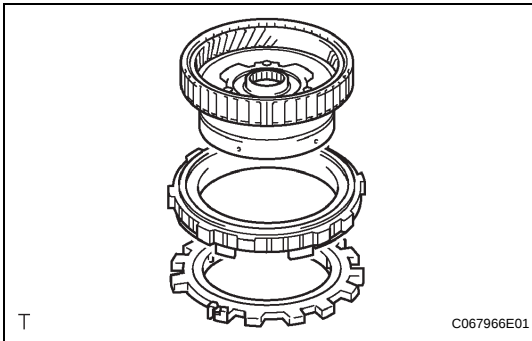
48. INSPECT NO. 2 1-WAY CLUTCH (See page [AX-175](#))**49. REMOVE REAR PLANETARY GEAR ASSEMBLY**

- (a) Using a screwdriver, remove the snap ring.
(b) Remove the rear planetary gear from the transaxle case.



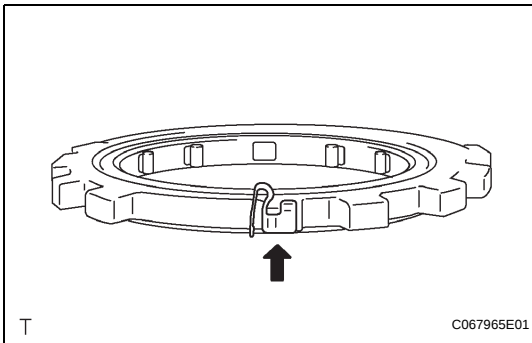
50. REMOVE PLANETARY GEAR REAR THRUST NEEDLE ROLLER BEARING

- (a) Remove the thrust needle roller bearing and 2 bearing races from the rear planetary gear.



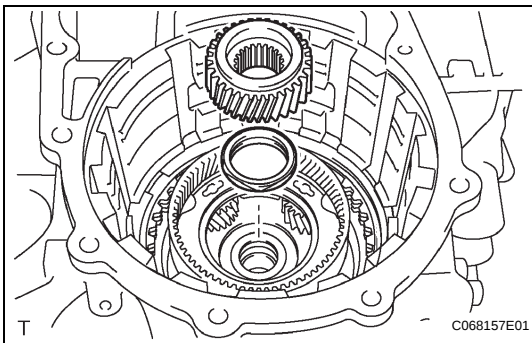
51. REMOVE NO. 2 1-WAY CLUTCH

- (a) Separate the 2nd brake piston assembly, No. 2 1-way clutch and rear planetary gear.



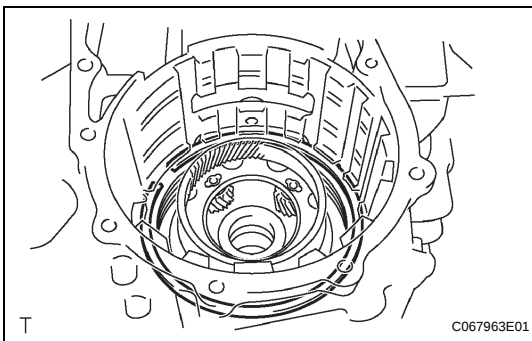
52. REMOVE OUTER RACE RETAINER

- (a) Remove the retainer from the No. 2 1-way clutch.



53. REMOVE FRONT PLANETARY SUN GEAR

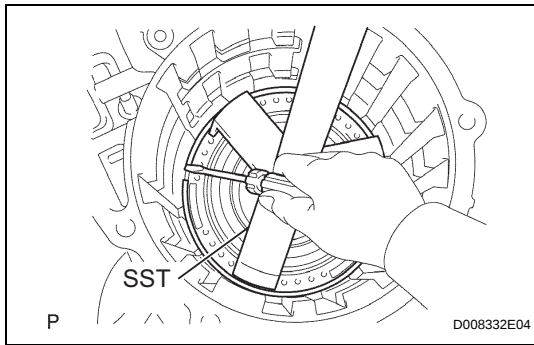
- (a) Remove the front planetary sun gear and thrust needle roller bearing from the transaxle case.



54. REMOVE 1ST AND REVERSE BRAKE DISC

- (a) Using a screwdriver, remove the snap ring.
(b) Remove the flange, 4 discs and 4 plates from the transaxle case.

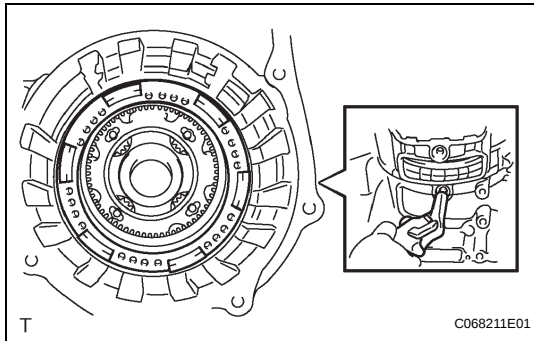
55. INSPECT 1ST AND REVERSE BRAKE DISC (See page [AX-175](#))



56. REMOVE 1ST AND REVERSE BRAKE RETURN SPRING SUB-ASSEMBLY

- Using SST, a press and screwdriver, remove the snap ring.
SST 09387-00070
- Remove the 1st and reverse brake return spring sub-assembly.

57. INSPECT 1ST AND REVERSE BRAKE RETURN SPRING SUB-ASSEMBLY (See page [AX-175](#))

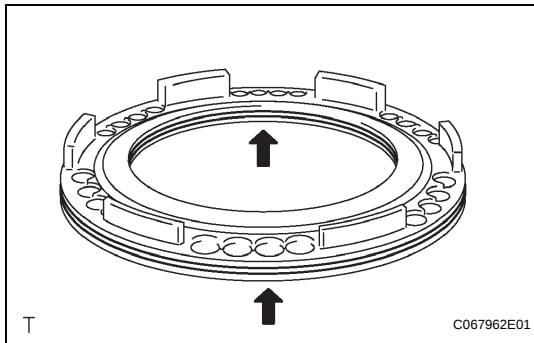


58. REMOVE 1ST AND NO. 2 REVERSE BRAKE PISTON

- Apply compressed air (392 kPa, 4.0 kgf/cm², 57 psi) to the transaxle case to remove the 1st and reverse brake piston.

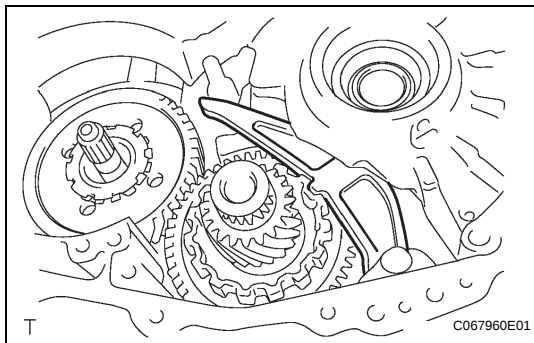
NOTICE:

- Blowing air may cause the piston to jump out. When removing the piston, hold it with your hand using a waste cloth.
- Take care not to splash ATF when blowing air.



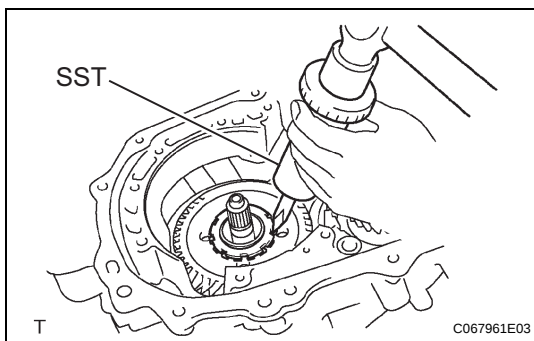
59. REMOVE 1ST AND NO. 2 REVERSE BRAKE PISTON O-RING

- Remove the 2 O-rings from the 1st and No. 2 reverse brake piston.

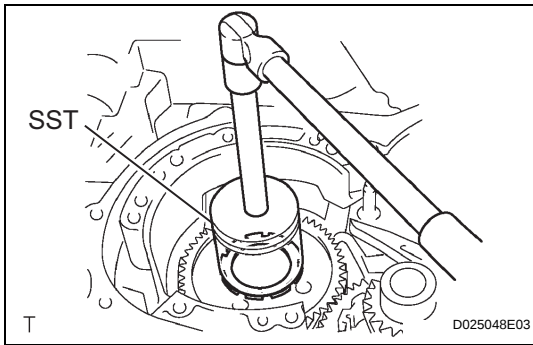


60. REMOVE COUNTER DRIVE GEAR NUT

- Fix the counter driven gear with the parking lock pawl.



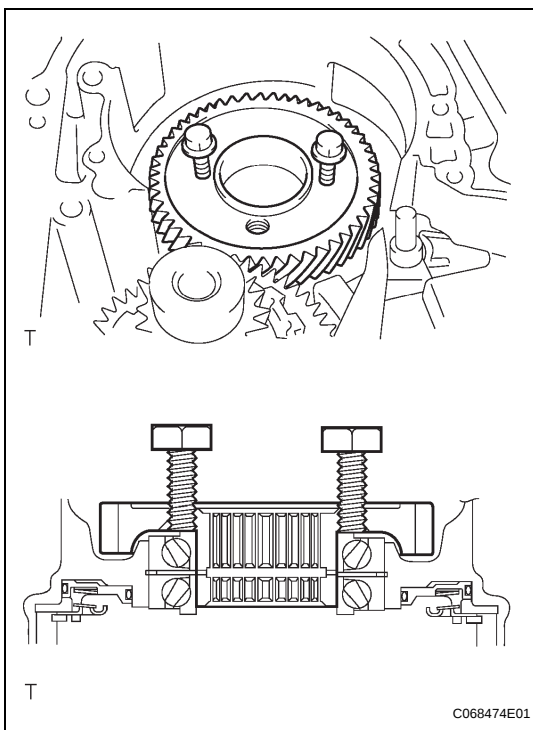
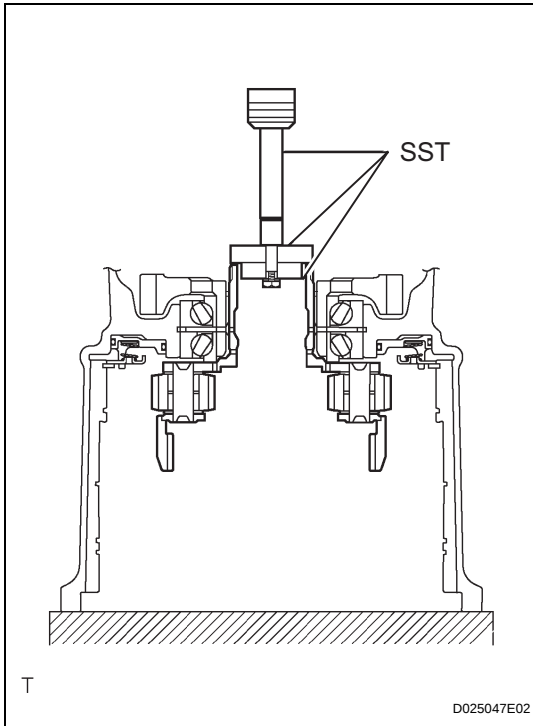
- Using SST and a hammer, unstake the lock washer.
SST 09930-00010



- (c) Using SST, remove the nut and lock washer.
SST 09387-00120

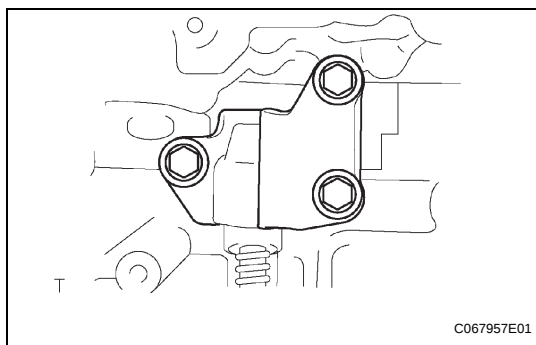
61. REMOVE PLANETARY GEAR ASSEMBLY

- (a) Using SST and a press, press out the planetary gear from the transaxle case.
SST 09950-60010 (09951-00400, 09951-00320, 09952-06010), 09950-70010 (09951-07100)

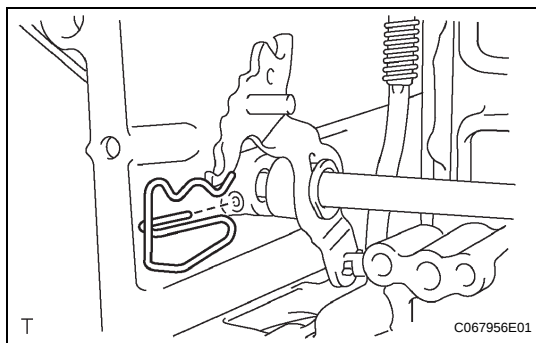


62. REMOVE COUNTER DRIVE GEAR

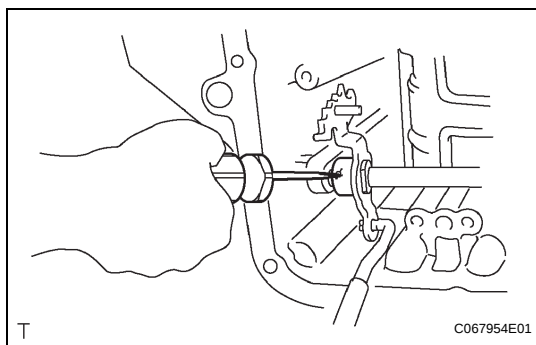
- (a) Install the 2 bolts to the counter drive gear.
Bolt (M6):
Length = 40 to 80 mm
Pitch = 1.0 mm
 (b) Rotate the 2 bolts in order and remove the counter drive gear and front planetary sun gear.
 (c) Remove the 2 radial ball bearings from the counter drive gear and front planetary sun gear.

**63. REMOVE PARKING LOCK PAWL BRACKET**

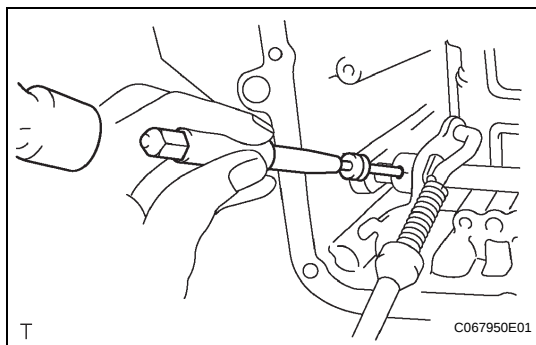
- (a) Remove the 3 bolts, cam guide and bracket.

**64. REMOVE MANUAL VALVE LEVER SHAFT RETAINER SPRING**

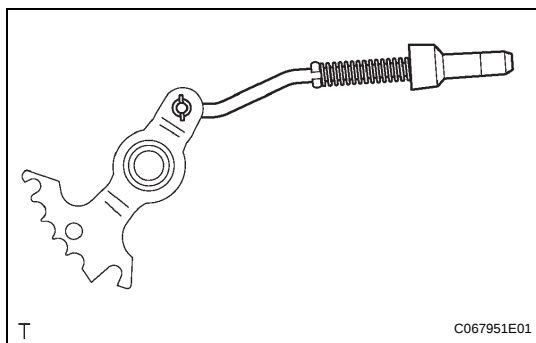
- (a) Remove the retainer spring.

**65. REMOVE MANUAL VALVE LEVER SUB-ASSEMBLY**

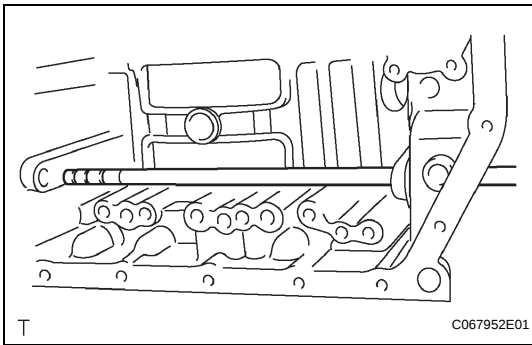
- (a) Using a screwdriver, unstake and remove the spacer.



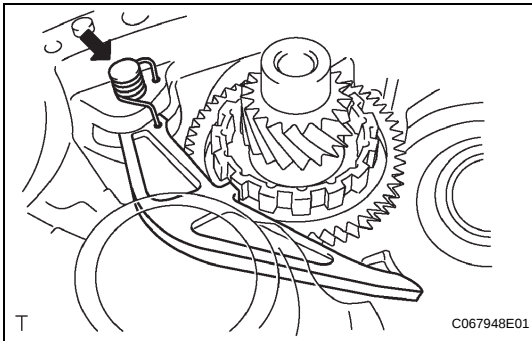
- (b) Using a pin punch and hammer, tap out the pin.
(c) Remove the manual valve lever shaft and manual valve lever.

**66. REMOVE PARKING LOCK ROD SUB-ASSEMBLY**

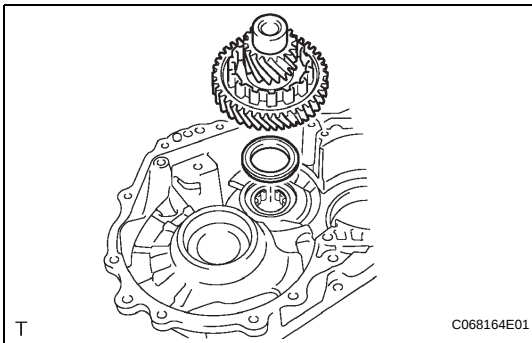
- (a) Remove the parking lock rod from the manual valve lever.

**67. REMOVE MANUAL VALVE LEVER SHAFT**

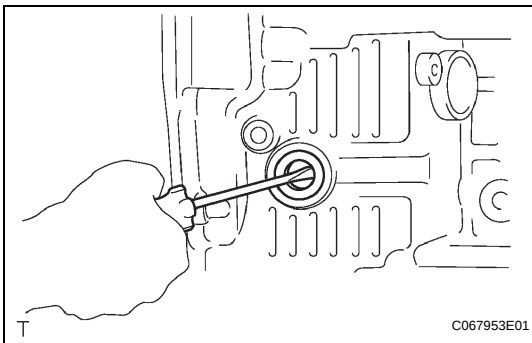
- (a) Remove the manual valve lever shaft from the transaxle case.

**68. REMOVE PARKING LOCK PAWL**

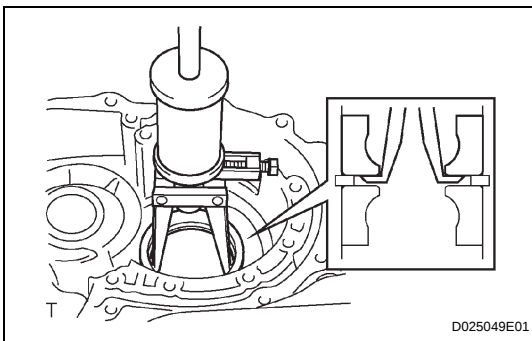
- (a) Using a screwdriver, remove the parking lock pawl shaft.
- (b) Remove the torsion spring and parking lock pawl.

**69. REMOVE COUNTER DRIVEN GEAR**

- (a) Remove the counter driven gear, drive pinion and thrust needle roller bearing from the transaxle case.

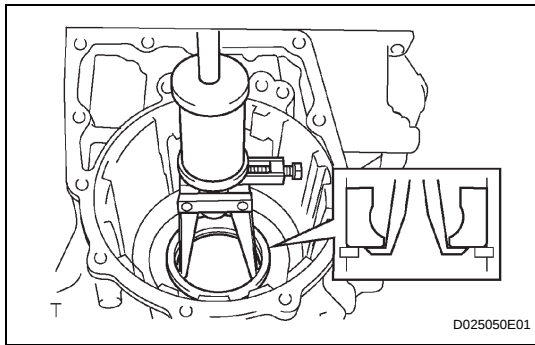
**70. REMOVE MANUAL VALVE LEVER SHAFT OIL SEAL**

- (a) Using a screwdriver, pry out the oil seal.

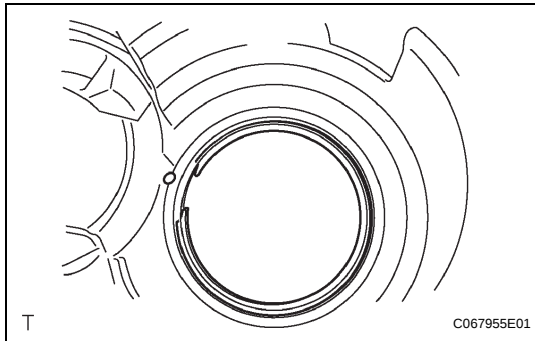
**71. REMOVE COUNTER DRIVE GEAR BEARING**

- (a) Remove the 2 counter drive gear bearing inner races RH from the transaxle case.
- (b) Using SST, remove the counter drive gear bearing LH outer race from the transaxle case.

SST 09308-00010

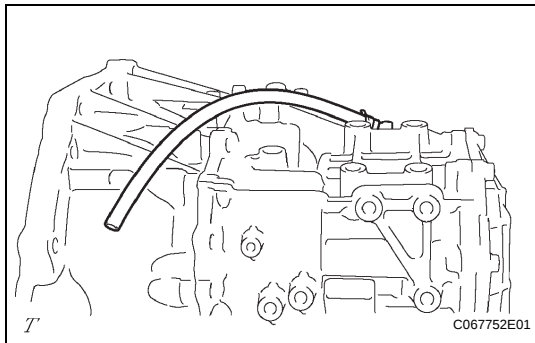


- (c) Using SST, remove the counter drive gear bearing RH outer race from the transaxle case.
SST 09308-00010

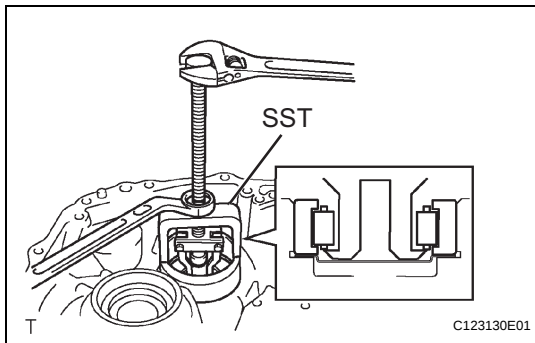


72. REMOVE COUNTER DRIVE GEAR HOLE SNAP RING

- (a) Using a screwdriver, remove the counter drive gear hole snap ring from the transaxle case.

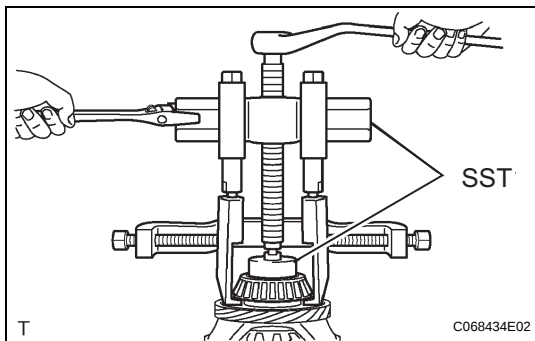


73. REMOVE BREATHER PLUG HOSE



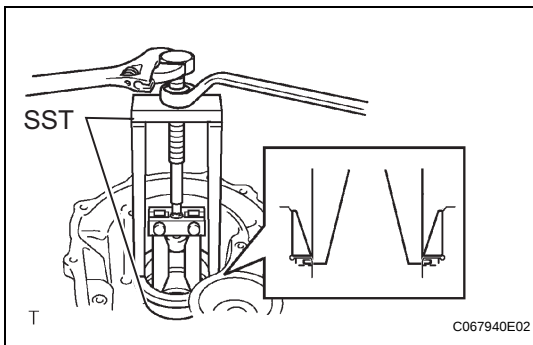
74. REMOVE FRONT DRIVE PINION REAR TAPERED ROLLER BEARING (for LH Side)

- (a) Using SST, remove the drive pinion roller bearing from the transaxle case.
SST 09612-65014 (09612-01040)
 (b) Remove the No. 1 transaxle case plate.



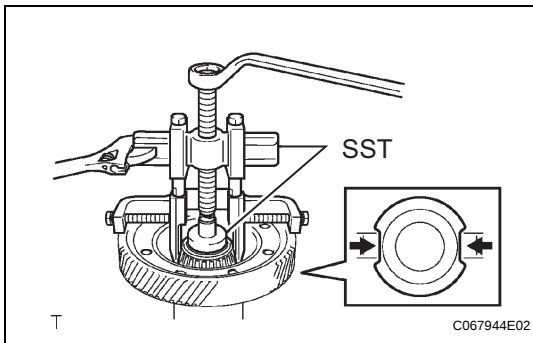
75. REMOVE FRONT DIFFERENTIAL CASE FRONT TAPERED ROLLER BEARING

- (a) Using SST, remove the front differential case front tapered roller bearing from the differential case.
SST 09950-40011 (09951-04010, 09952-04010, 09953-04030, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00390)



- (b) Using SST, remove the front differential case tapered roller bearing outer race from the transaxle housing.

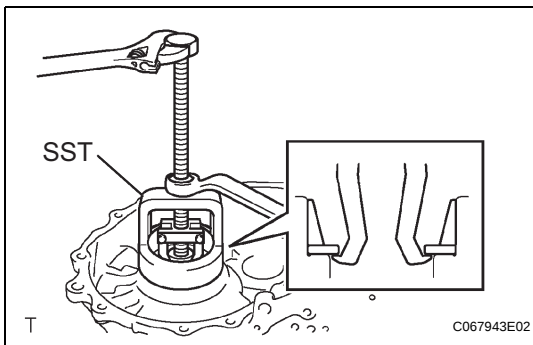
SST 09387-00041 (09387-02020, 09387-02010)



76. REMOVE FRONT DIFFERENTIAL CASE REAR TAPERED ROLLER BEARING

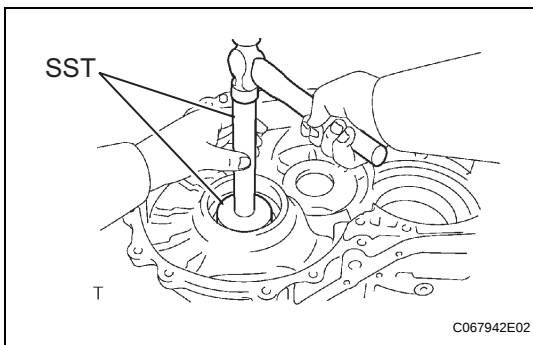
- (a) Using SST, remove the front differential case rear tapered roller bearing from the differential case.

SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00430)



- (b) Using SST, remove the front differential case tapered roller bearing outer race from the transaxle housing.

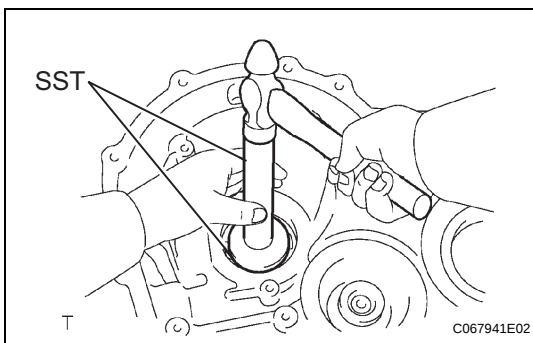
SST 09612-65014 (09612-01010)



77. REMOVE FRONT TRANSAXLE CASE OIL SEAL

- (a) Using SST and a hammer, tap out the oil seal from the transaxle case.

SST 09950-60010 (09951-00550), 09950-70010 (09951-07100)



78. REMOVE TRANSAXLE CASE OIL SEAL

- (a) Using SST and a hammer, tap out the transaxle case oil seal from the transaxle housing.

SST 09950-60010 (09951-00530), 09950-70010 (09951-07100)