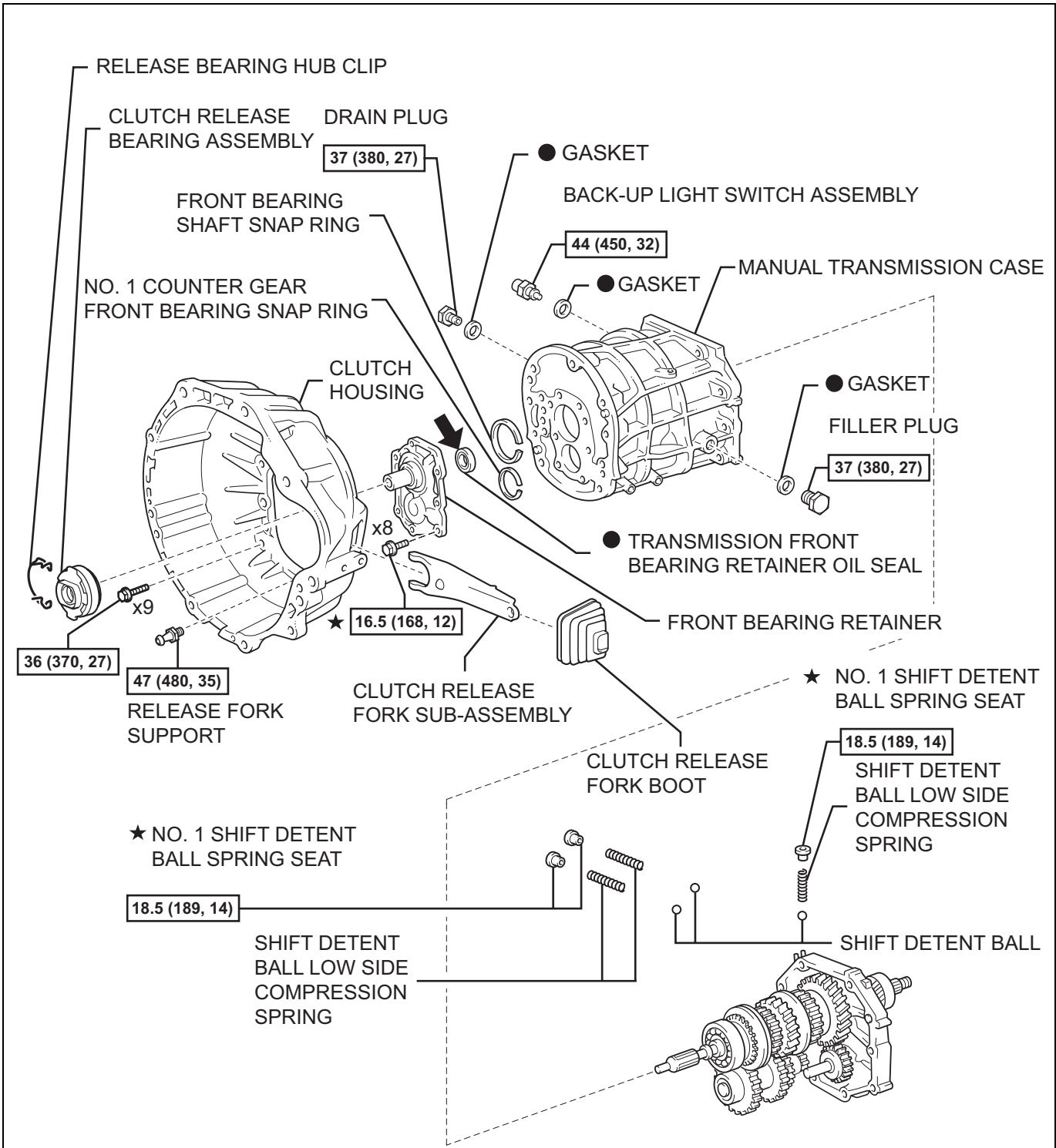


MANUAL TRANSMISSION UNIT

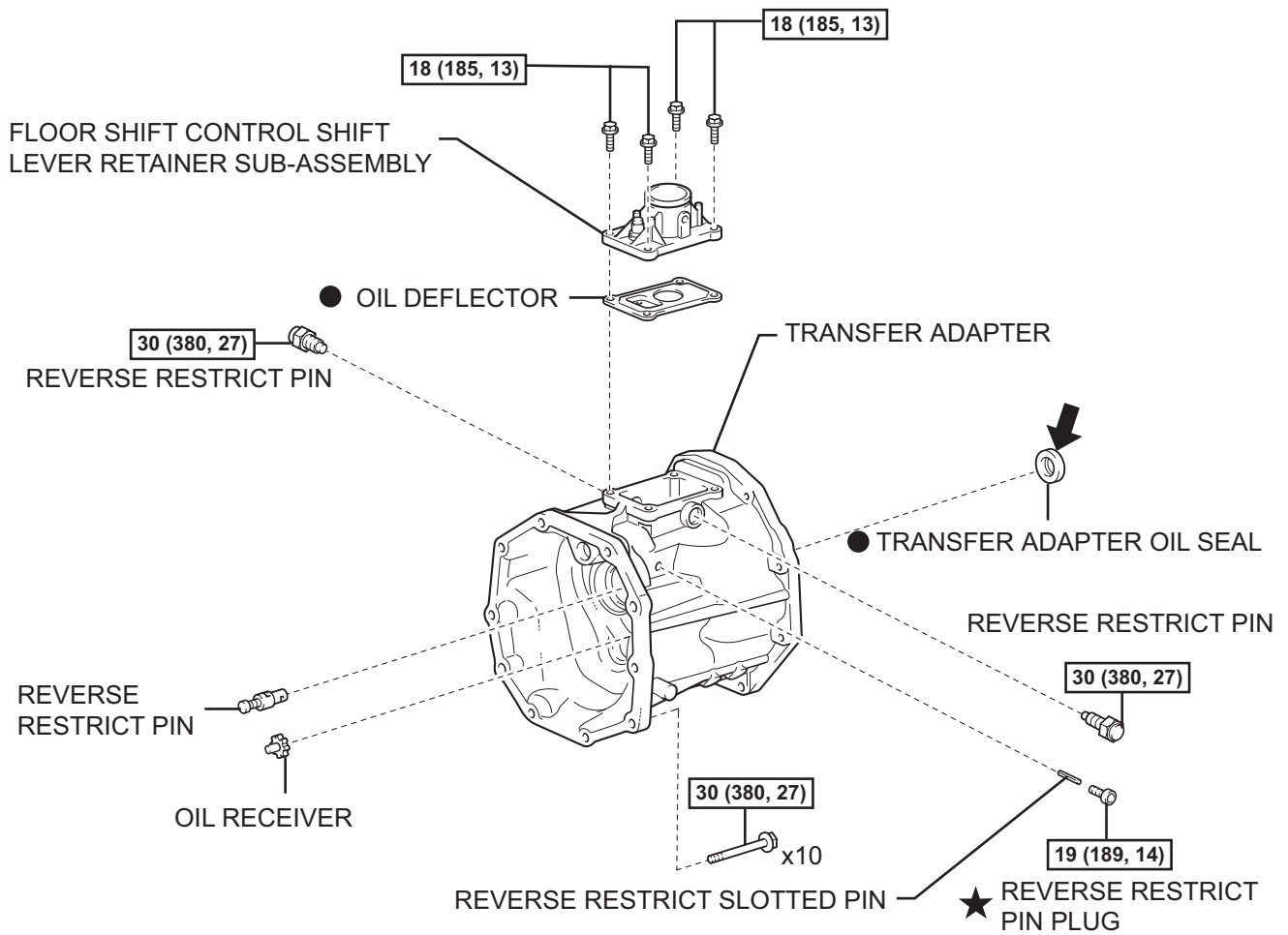
COMPONENTS

MT



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

● Non-reusable part ← Apply MP grease ★ Precoated part



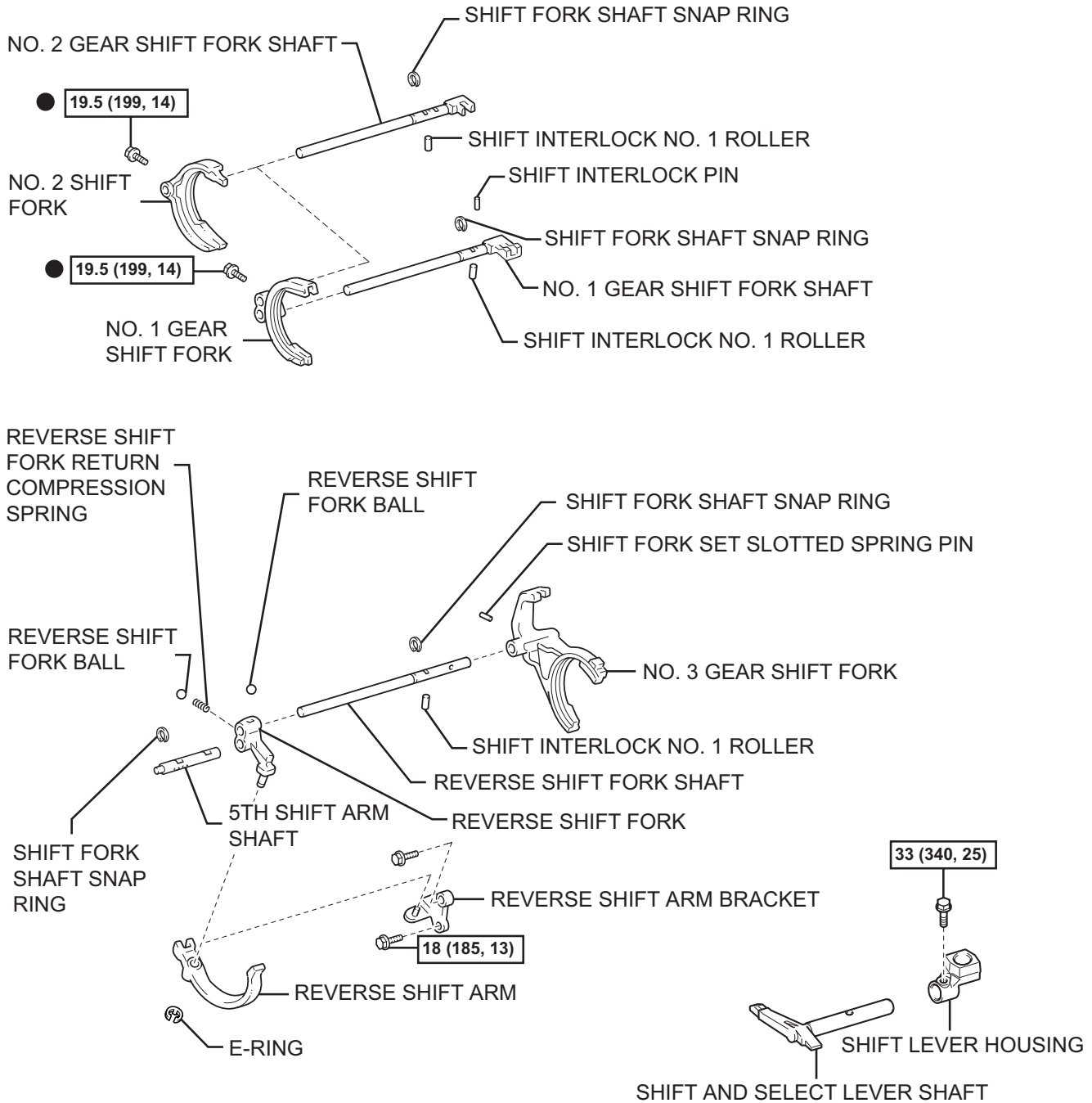
$\boxed{\text{N*m (kgf*cm, ft*lb)}} : \text{Specified torque}$

● Non-reusable part

★ Precoated part

← Apply MP grease

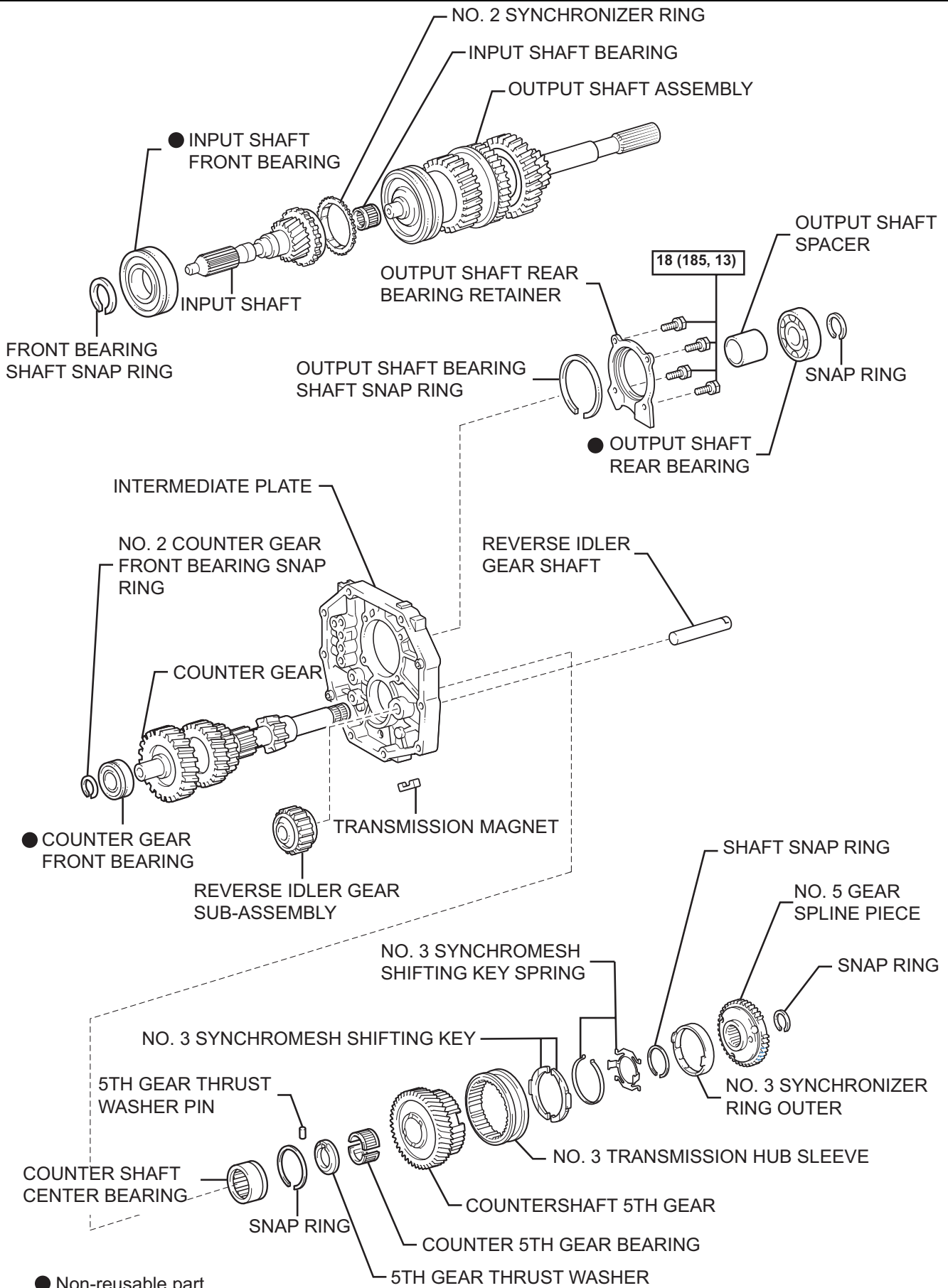
MT



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

● Non-reusable part

MT

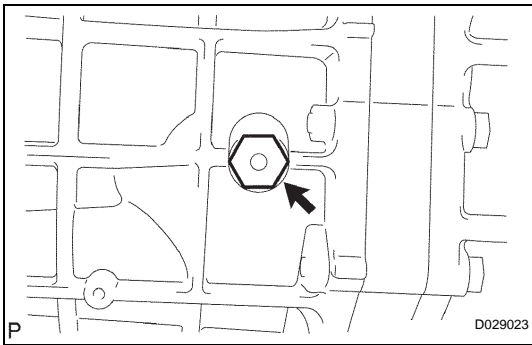


● Non-reusable part

DISASSEMBLY

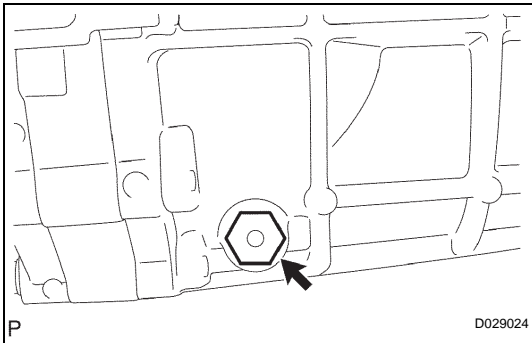
1. REMOVE MANUAL TRANSMISSION FILLER PLUG

- (a) Remove the transmission filler plug and gasket from the transmission case.



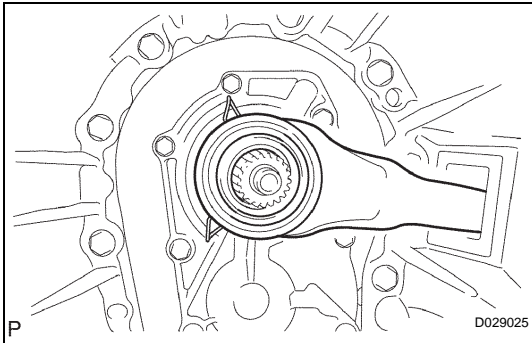
2. REMOVE DRAIN PLUG SUB-ASSEMBLY

- (a) Remove the transmission drain plug and gasket from the transmission case.



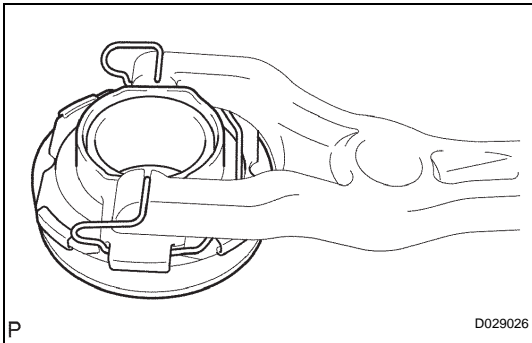
3. REMOVE CLUTCH RELEASE FORK SUB-ASSEMBLY

- (a) Remove the clutch release fork and clutch release bearing from the clutch housing.



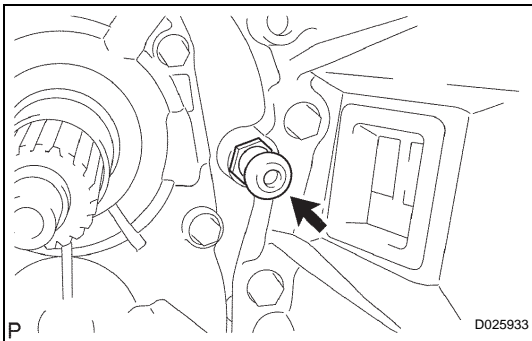
4. REMOVE CLUTCH RELEASE BEARING ASSEMBLY

- (a) Remove the release bearing hub clip, and then remove the clutch release bearing from the clutch release fork.

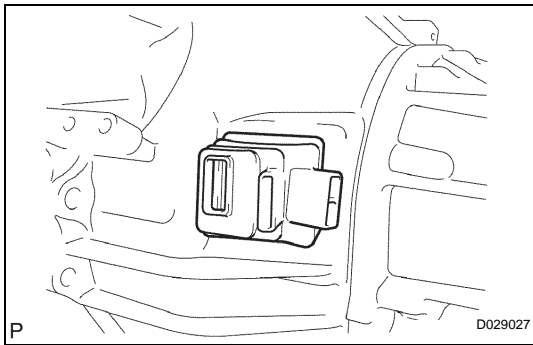


5. REMOVE RELEASE FORK SUPPORT

- (a) Remove the release fork support from the clutch housing.

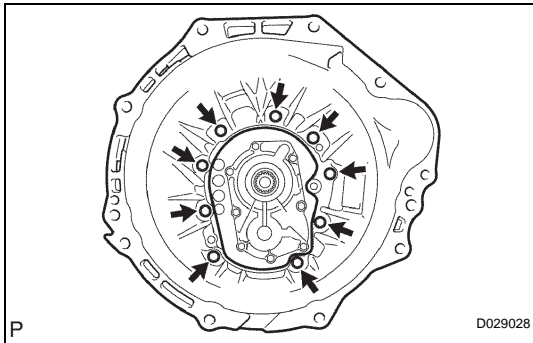


MT



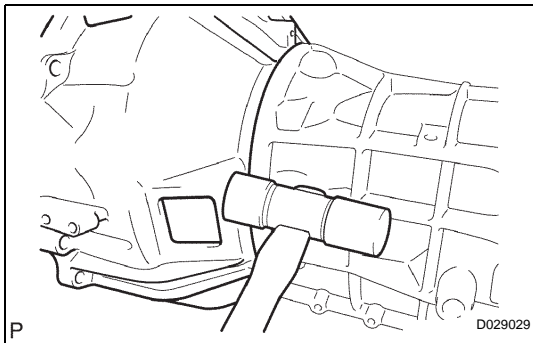
6. REMOVE CLUTCH RELEASE FORK BOOT

- (a) Remove the clutch release fork boot from the clutch housing.

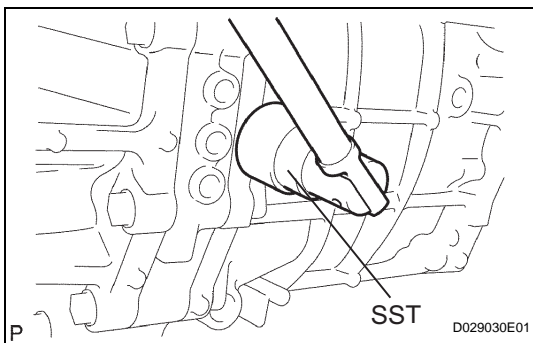


7. REMOVE CLUTCH HOUSING

- (a) Remove the 9 bolts.



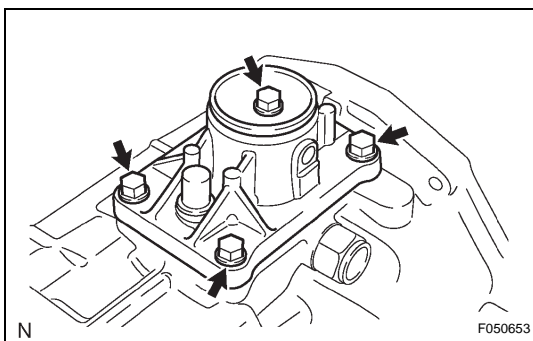
- (b) Using a plastic hammer, remove the clutch housing from the transmission case.



8. REMOVE BACK-UP LIGHT SWITCH ASSEMBLY

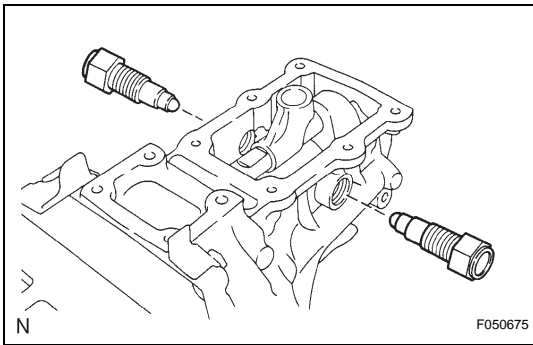
- (a) Using SST, remove the back-up light switch assembly and the gasket from the transmission case.

SST 09817-16011

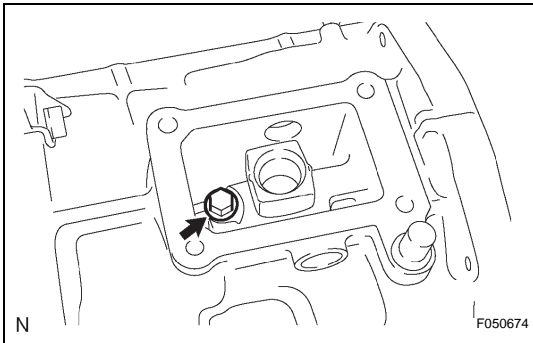


9. REMOVE FLOOR SHIFT CONTROL SHIFT LEVER RETAINER SUB-ASSEMBLY

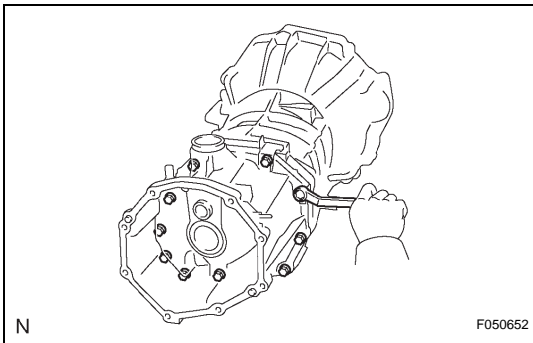
- (a) Remove the 4 bolts.
- (b) Remove the floor shift control shift lever retainer from the transfer adapter.
- (c) Remove the oil deflector from the transfer adapter.

**10. REMOVE REVERSE RESTRICT PIN**

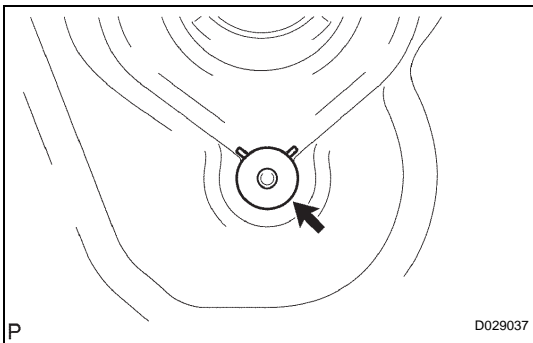
- (a) Remove the 2 reverse restrict pins from the extension housing or transfer adapter.

**11. REMOVE TRANSFER ADAPTER**

- (a) Remove the shift lever housing set bolt.



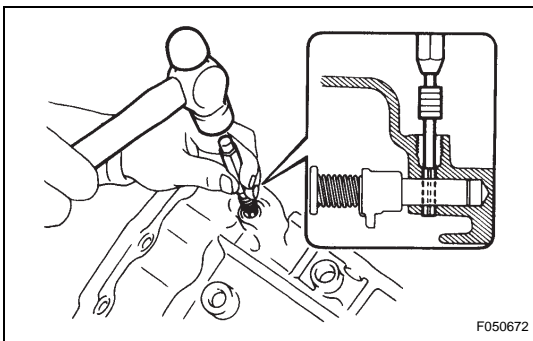
- (b) Remove the 10 bolts.
 (c) Using a plastic hammer, remove the adapter, shift lever housing and shift and select lever from the transmission case.

**12. REMOVE OIL RECEIVER**

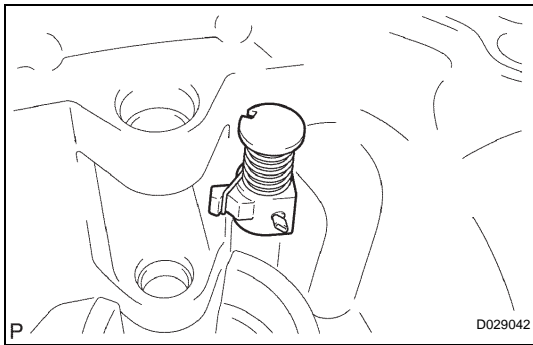
- (a) Remove the oil receiver from the transfer adapter.

13. REMOVE REVERSE RESTRICT PIN ASSEMBLY

- (a) Using a "Torx" socket wrench T40, remove the reverse restrict pin plug from the transfer adapter.



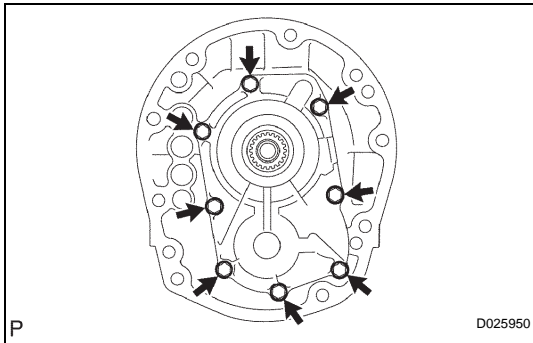
- (b) Using a pin punch (5 mm) and a hammer, remove the reverse restrict pin slotted from the transfer adapter or extension housing.



- (c) Remove the reverse restrict pin from the transfer adapter or extension housing.

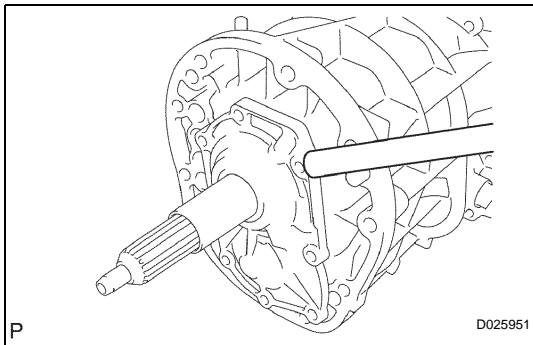
14. REMOVE TRANSFER ADAPTER OIL SEAL

- (a) Using a screwdriver, remove the transfer adapter oil seal from the transfer adapter.

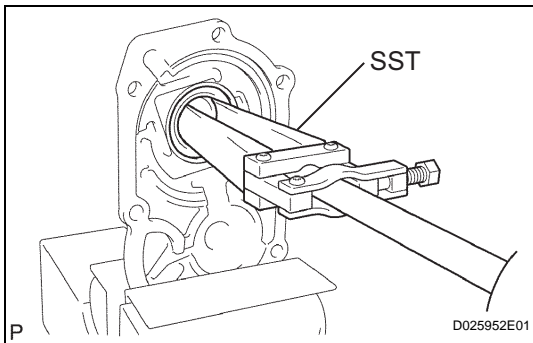


15. REMOVE FRONT BEARING RETAINER

- (a) Remove the 8 bolts.



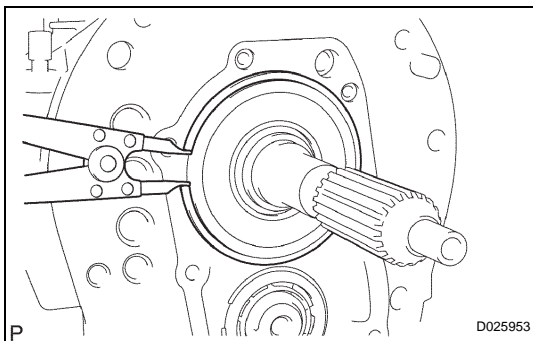
- (b) Using a brass bar and a hammer, remove the front bearing retainer from the transmission case.



16. REMOVE TRANSMISSION FRONT BEARING RETAINER OIL SEAL

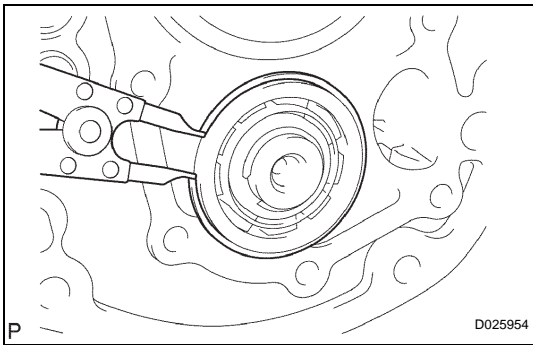
- (a) Fix the front bearing retainer in a vise, between aluminum plate.
- (b) Using SST, remove the transmission front bearing retainer oil seal.

SST 09308-00010



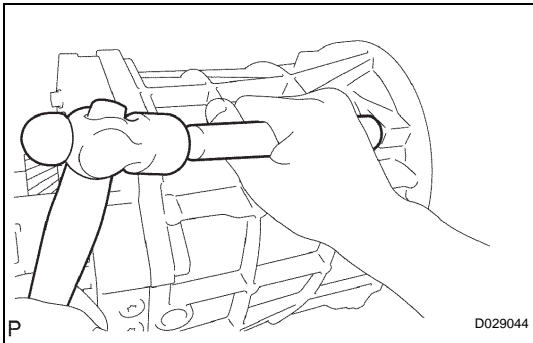
17. REMOVE FRONT BEARING SHAFT SNAP RING

- (a) Using a snap ring expander, remove the front bearing shaft snap ring from the transmission case.



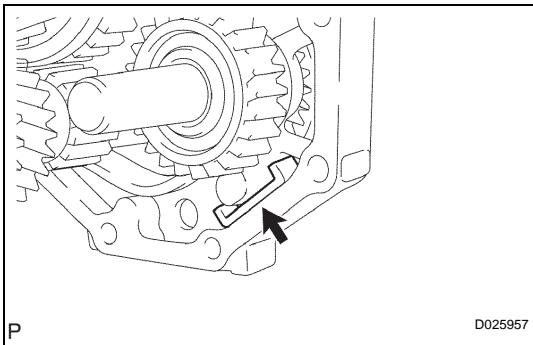
18. REMOVE NO. 1 COUNTER GEAR FRONT BEARING SNAP RING

- (a) Using a snap ring expander, remove the counter gear front bearing snap ring No. 1 from the transmission case.



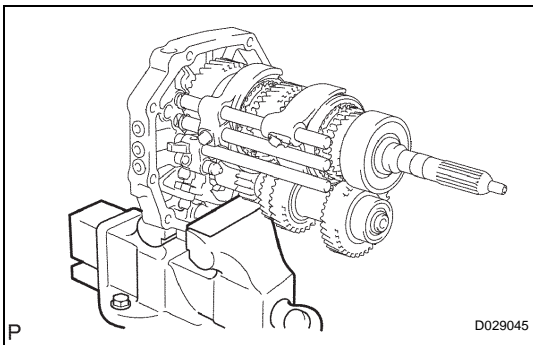
19. REMOVE MANUAL TRANSMISSION CASE

- (a) Using a brass bar and a hammer, remove the transmission case from the intermediate plate.



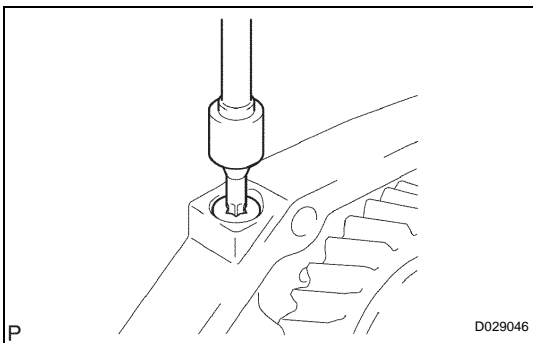
20. REMOVE TRANSMISSION MAGNET

- (a) Remove the transmission magnet from the intermediate plate.



21. FIX INTERMEDIATE PLATE

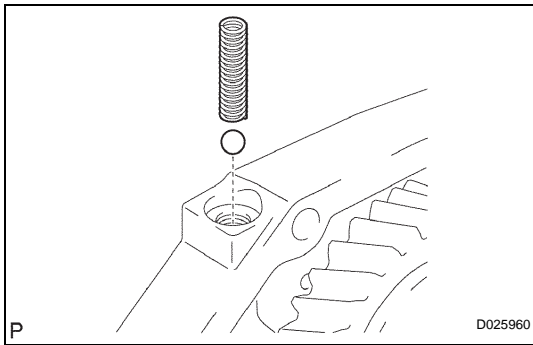
- (a) Fix the intermediate plate in a vice between aluminum plates.



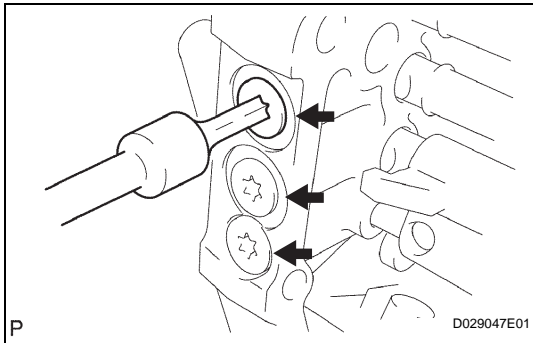
22. REMOVE NO. 1 SHIFT DETENT BALL SPRING SEAT

- (a) Using a "Torx" socket wrench T40, remove the shift detent ball spring seat No. 1 from the intermediate plate.

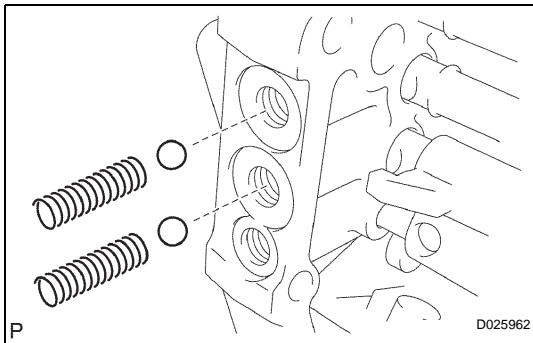
MT



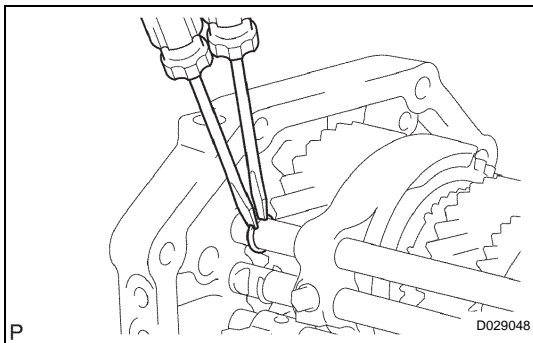
- (b) Using a magnetic finger, remove the shift detent ball low side compression spring and the shift detent ball from the intermediate plate.



- (c) Using a "Torx" socket wrench T40, remove the 3 shift detent ball spring seats No. 1 from the intermediate plate.



- (d) Using a magnetic finger, remove the 2 shift detent ball low side compression springs and the 2 shift detent balls from the intermediate plate.

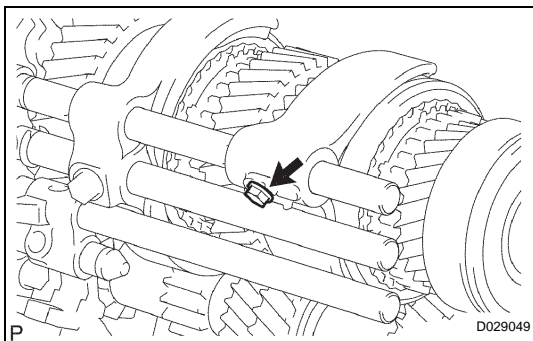


23. REMOVE NO. 2 GEAR SHIFT FORK SHAFT

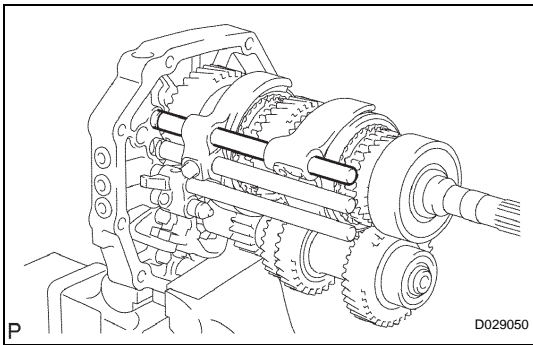
- (a) Using 2 screwdrivers and a hammer, remove the shift fork shaft snap ring from the gear shift fork shaft No. 2.

NOTICE:

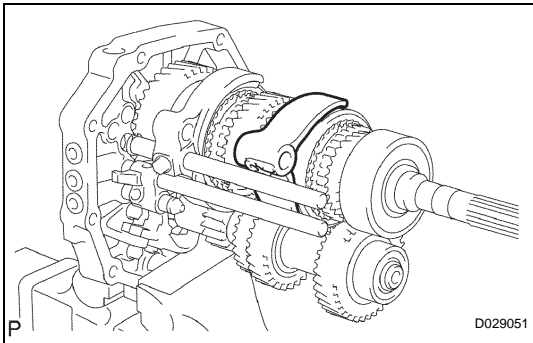
Use a shop rag to prevent the snap ring from flying off.



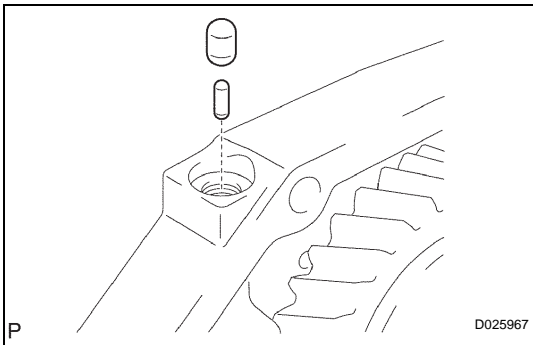
- (b) Remove the shift fork set bolt from the gear shift fork No. 2.



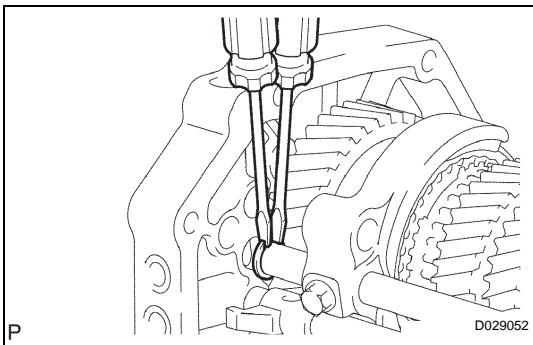
- (c) Remove the gear shift fork shaft No. 2 from the intermediate plate.



- (d) Remove the gear shift fork No. 2 from the transmission hub sleeve No. 2.



- (e) Using a magnetic finger, remove the shift interlock No. 1 roller and the shift interlock pin (ball) from the intermediate plate.

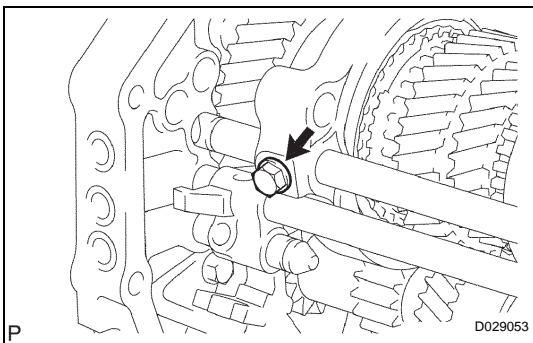


24. REMOVE NO. 1 GEAR SHIFT FORK SHAFT

- (a) Using 2 screwdrivers and a hammer, remove the shift fork shaft snap ring from the gear shift fork shaft No. 1.

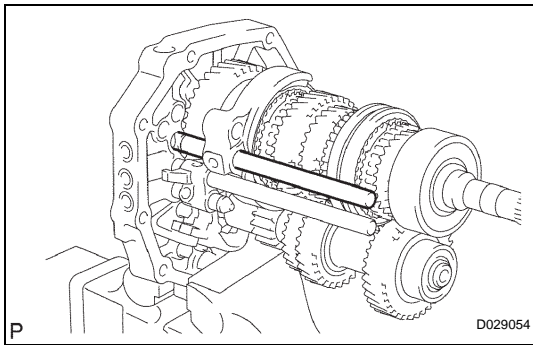
NOTICE:

Use a shop rag to prevent the snap ring from flying off.

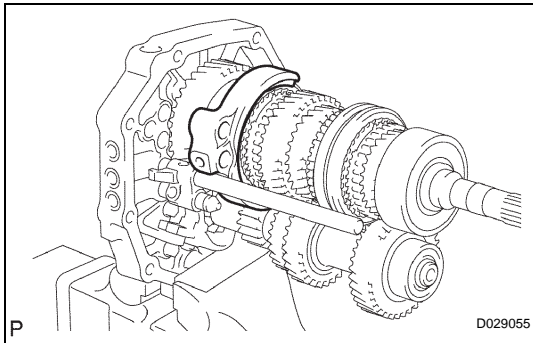


- (b) Remove the shift fork set bolt from the gear shift fork No. 1.

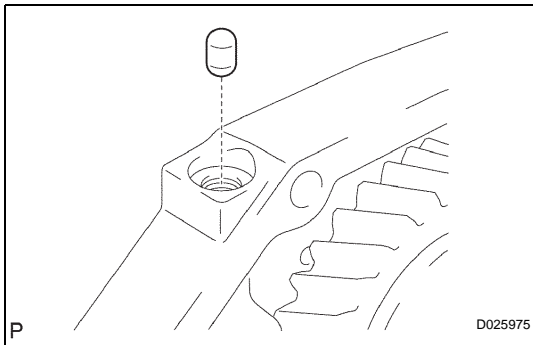
MT



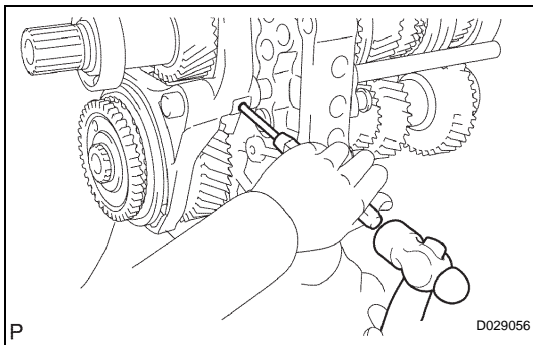
- (c) Remove the gear shift fork shaft No. 1 from the intermediate plate.



- (d) Remove the gear shift fork No. 1 from the reverse gear.

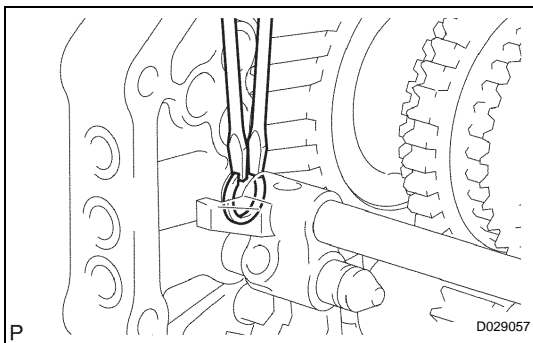


- (e) Using a magnetic finger, remove the shift interlock No. 1 roller from the intermediate plate.



25. REMOVE REVERSE SHIFT FORK SHAFT

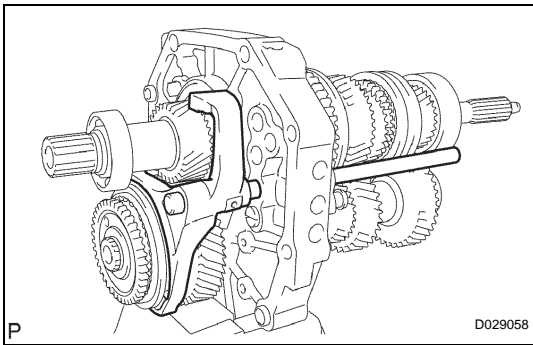
- (a) Using a pin punch (5 mm) and a hammer, remove the shift fork set slotted spring pin from the gear shift fork No. 3.



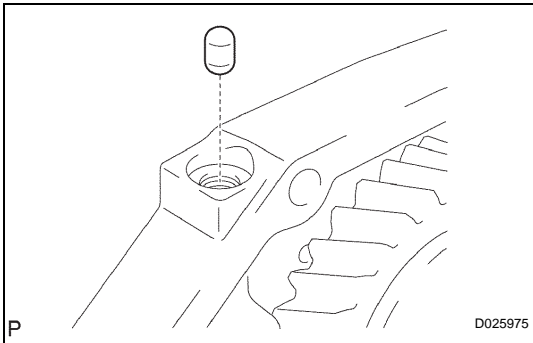
- (b) Using 2 screwdrivers and a hammer, remove the shift fork shaft snap ring from the reverse shift fork shaft.

NOTICE:

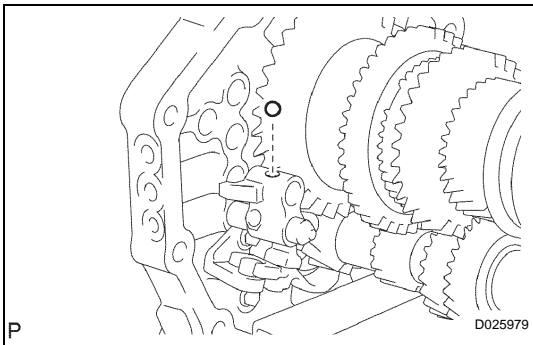
Use a shop rag to prevent the snap ring from flying off.



- (c) Remove the gear shift fork No. 3 and reverse shift fork shaft from the intermediate plate.

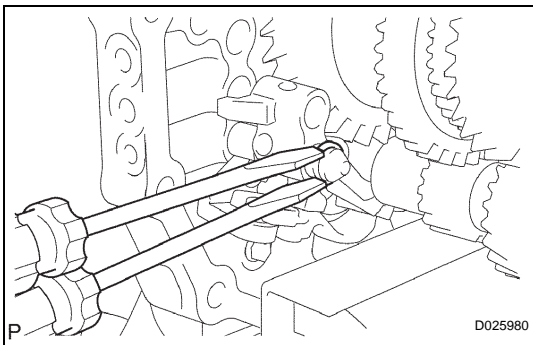


- (d) Using a magnetic finger, remove the shift interlock No. 1 roller from the intermediate plate.

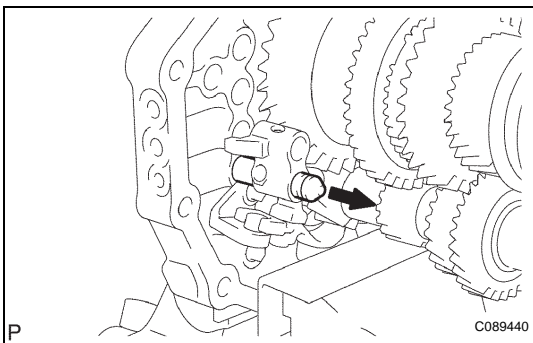


- (e) Using a magnetic finger, remove the reverse shift fork ball from the reverse shift fork.

26. REMOVE 5TH SHIFT ARM SHAFT

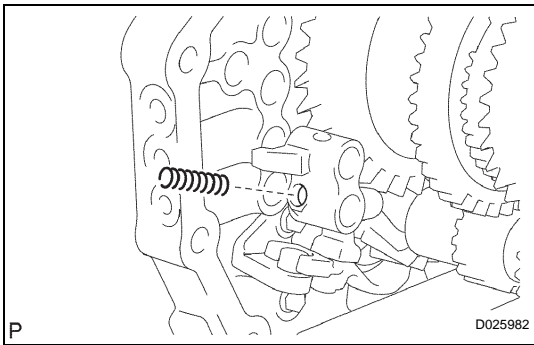


- (a) Using 2 screwdrivers and a hammer, remove the shift fork shaft snap ring from the 5th shift arm shaft.
NOTICE:
Use a shop rag to prevent the snap ring from flying off.

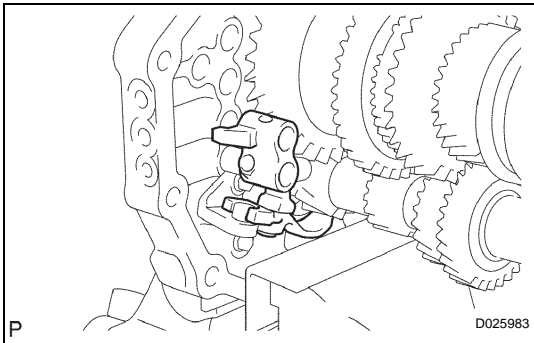


- (b) Remove the 5th shift arm shaft from the intermediate plate.
NOTICE:
Cover the hole with a shop rag to prevent the reverse shift fork ball from popping out.

MT

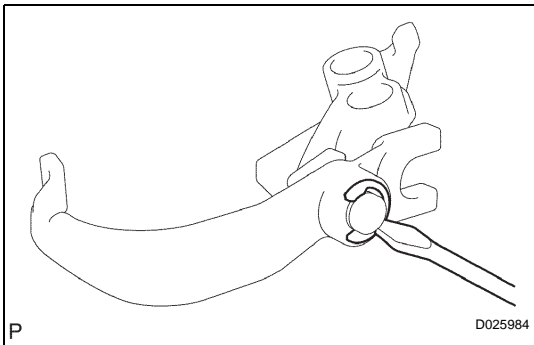


- (c) Using a magnetic finger, remove the reverse shift fork return compression spring from the reverse shift fork.

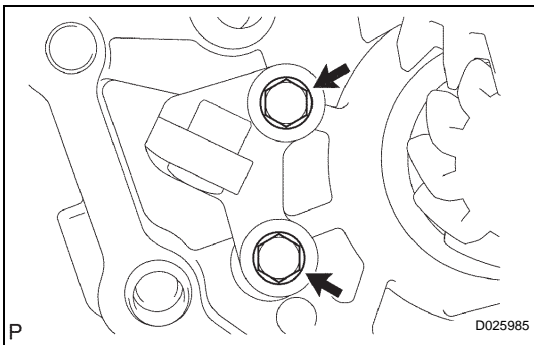


27. REMOVE REVERSE SHIFT FORK

- (a) Remove the reverse shift fork together with the reverse shift arm from the intermediate plate.

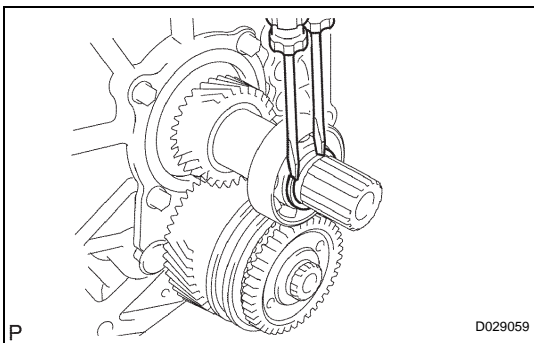


- (b) Using a screwdriver, remove the reverse shift arm end shaft ring and the reverse shift fork from the reverse shift arm.



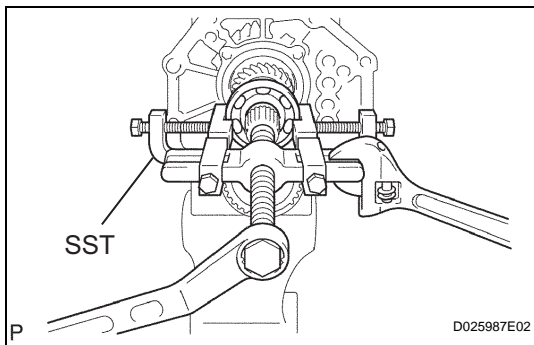
28. REMOVE REVERSE SHIFT ARM BRACKET

- (a) Remove the 2 bolts and reverse shift arm bracket from the intermediate plate.



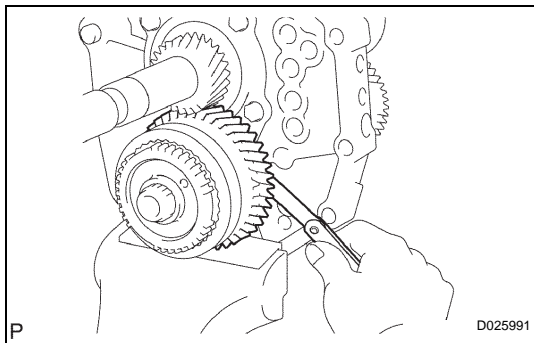
29. REMOVE OUTPUT SHAFT BEARING SHAFT SNAP RING

- (a) Using 2 screwdrivers and a hammer, remove the output shaft bearing shaft snap ring from the output shaft.

**30. REMOVE OUTPUT SHAFT REAR BEARING**

- (a) Using SST, remove the output shaft rear bearing and output shaft spacer from the output shaft.

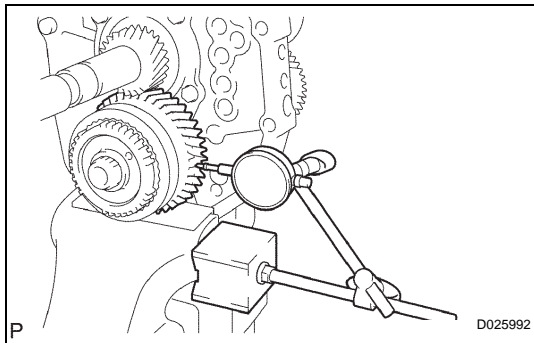
SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04051, 09957-04010, 09958-04011)

**31. INSPECT COUNTER SHAFT 5TH GEAR THRUST CLEARANCE**

- (a) Using a feeler gauge, measure the counter shaft 5th gear thrust clearance.

Standard clearance:

0.10 to 0.35 mm (0.0039 to 0.0138 in.)

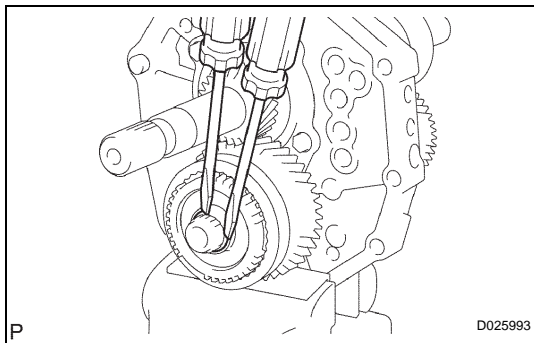
**32. INSPECT COUNTER SHAFT 5TH GEAR RADIAL CLEARANCE**

- (a) Using a dial indicator, measure the radial clearance of the counter shaft 5th gear.

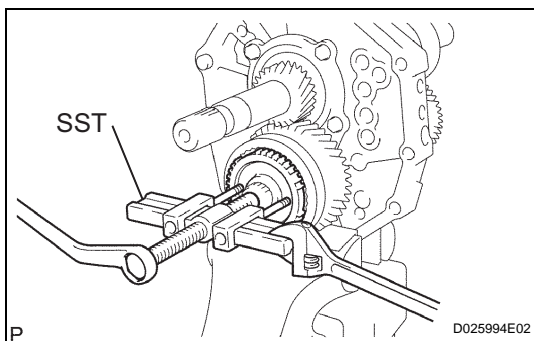
Standard clearance:

0.015 to 0.068 mm (0.0059 to 0.0027 in.)

If the clearance is not within the specified values, replace the counter 5th gear bearing with a new one.

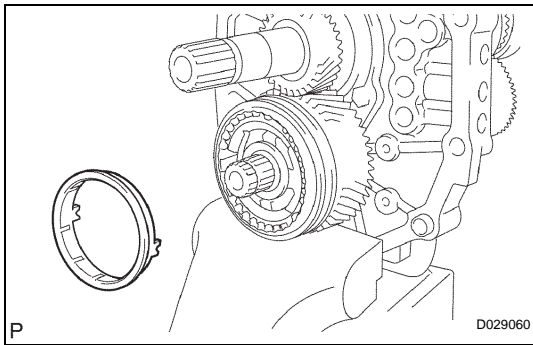
**33. REMOVE COUNTER GEAR REAR SHAFT SNAP RING**

- (a) Using 2 screwdrivers and a hammer, remove the counter gear rear shaft snap ring from the counter gear.

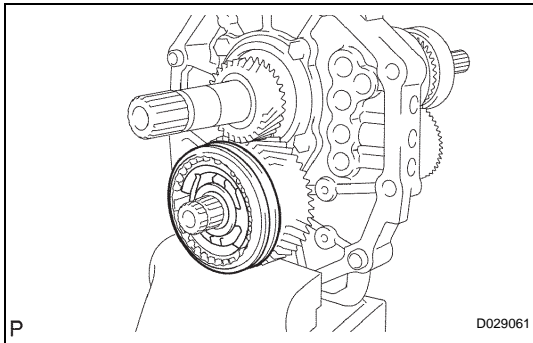
**34. REMOVE NO. 5 GEAR SPLINE PIECE**

- (a) Using SST, remove the gear spline piece No. 5 from the counter gear.

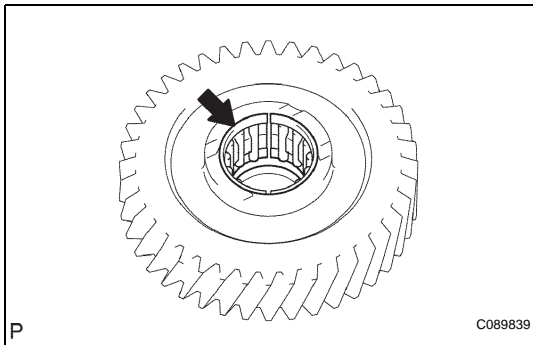
SST 09950-50013 (09951-05010, 09952-05010, 09953-05020, 09954-05021, 09957-04010)

**35. REMOVE NO. 3 SYNCHRONIZER RING OUTER**

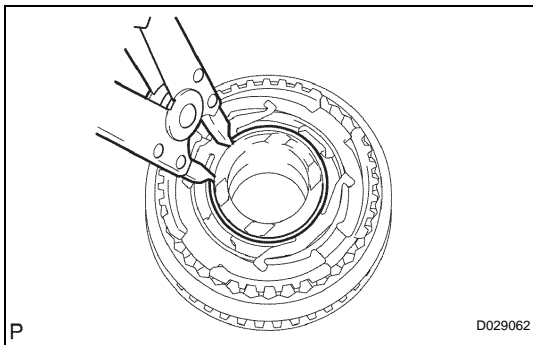
- (a) Remove the synchronizer ring outer No. 3 from the counter gear.

**36. REMOVE COUNTER SHAFT 5TH GEAR**

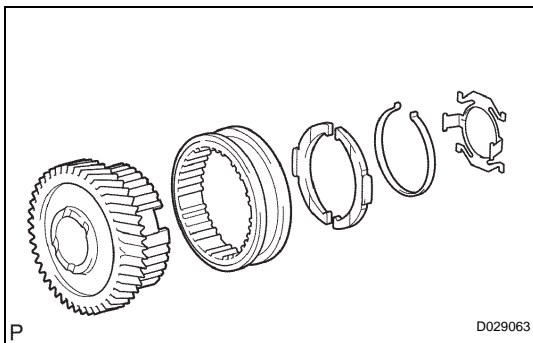
- (a) Remove the counter shaft 5th gear and transmission hub sleeve No. 3 assembly from the counter gear.

**37. REMOVE COUNTER 5TH GEAR BEARING**

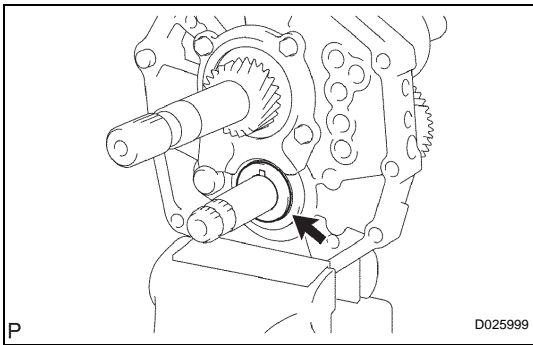
- (a) Remove the counter 5th gear bearing from the counter 5th gear.

**38. REMOVE NO. 3 TRANSMISSION HUB SLEEVE**

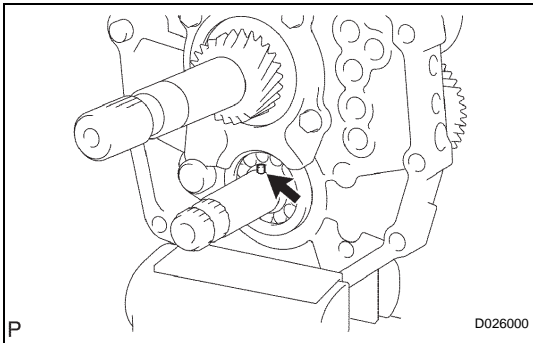
- (a) Using a snap ring expander, remove the snap ring.



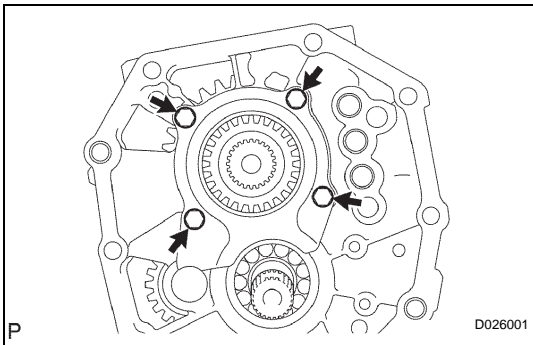
- (b) Remove the transmission hub sleeve No. 3, 2 synchromesh shifting keys No. 3 and 2 synchromesh shifting key springs No. 3 from the counter shaft 5th gear.

**39. REMOVE 5TH GEAR THRUST WASHER**

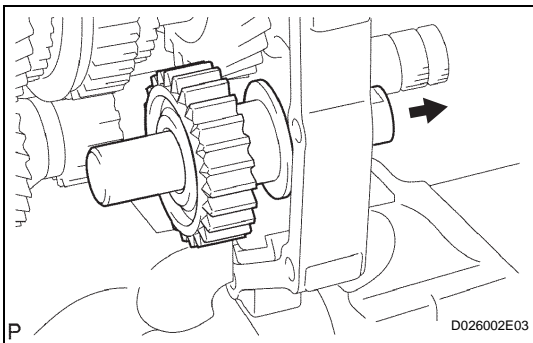
- (a) Remove the 5th gear thrust washer from the counter gear.

**40. REMOVE 5TH GEAR THRUST WASHER PIN**

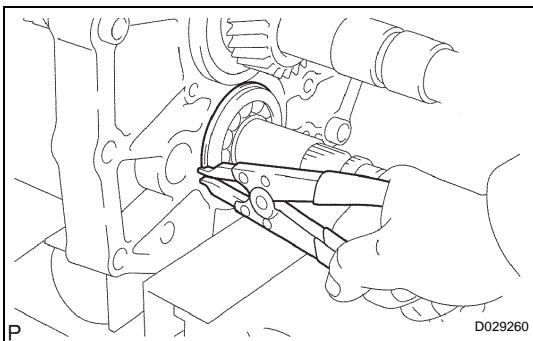
- (a) Remove the 5th gear thrust washer pin from the counter gear.

**41. REMOVE OUTPUT SHAFT REAR BEARING RETAINER**

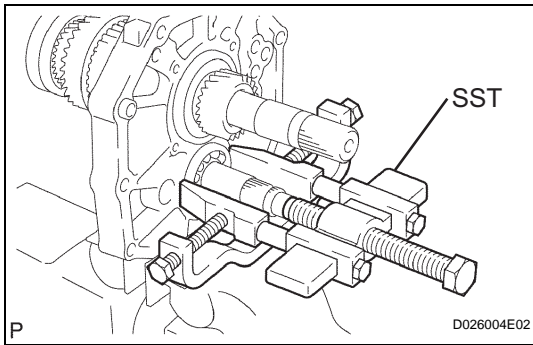
- (a) Remove the 4 bolts and output shaft rear bearing retainer from the intermediate plate.

**42. REMOVE REVERSE IDLER GEAR SUB-ASSEMBLY**

- (a) Pull out the reverse idler gear shaft to the rear side and remove the reverse idler gear from the intermediate plate.

**43. REMOVE COUNTER SHAFT CENTER BEARING**

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



- (b) Using SST, remove the counter shaft center bearing from the intermediate plate.

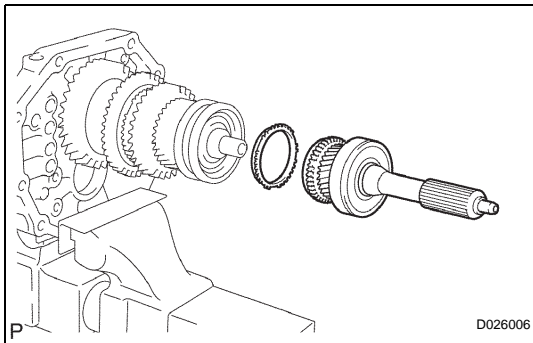
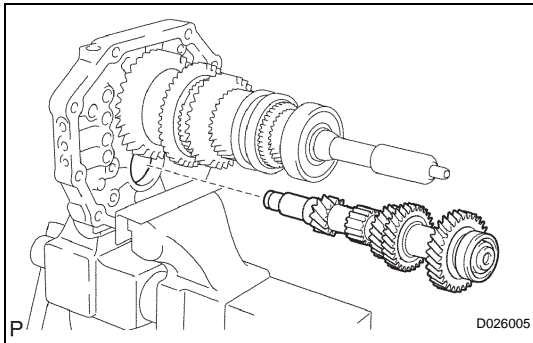
SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04011, 09957-04010, 09958-04011)

HINT:

Remove the bearing while tapping the tip of the counter gear so that the counter gear assembly is not pushed forward into the side wall of the output shaft gear.

44. REMOVE COUNTER GEAR

- (a) Remove the counter gear assembly from the intermediate plate.

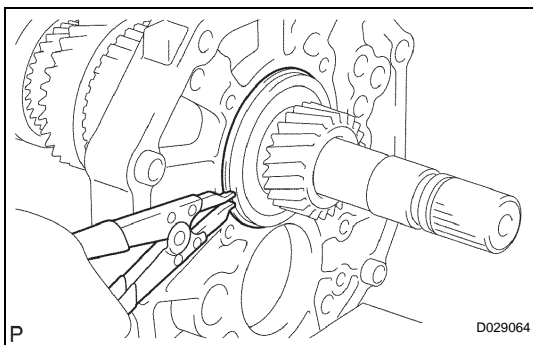


45. REMOVE INPUT SHAFT ASSEMBLY

- (a) Remove the input shaft assembly and synchronizer ring No. 2 from the output shaft.

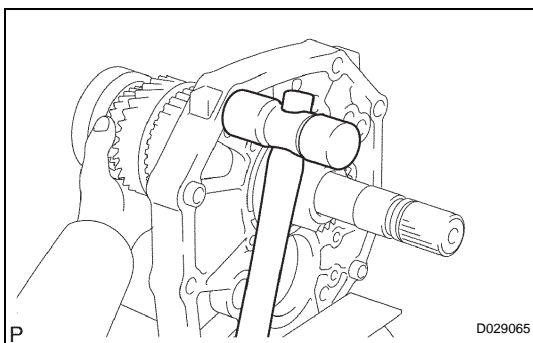
NOTICE:

Do not drop the input shaft bearing and synchronizer ring No. 2.



46. REMOVE OUTPUT SHAFT BEARING SHAFT SNAP RING

- (a) Using a snap ring expander, remove the output shaft bearing shaft snap ring from the output shaft.



47. REMOVE OUTPUT SHAFT ASSEMBLY

- (a) Using a plastic hammer, remove the output shaft assembly by tapping the intermediate plate.