

COMPONENT PARTS INSTALLATION

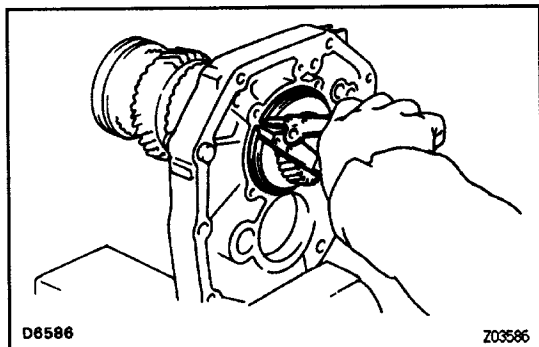
BASIC SUBASSEMBLY REASSEMBLY

(See pages [MT2-16](#) and [MT2-17](#))

1. INSTALL OUTPUT SHAFT TO INTERMEDIATE PLATE

(a) Install the output shaft into the intermediate plate by pushing on the output shaft and tapping on the intermediate plate.

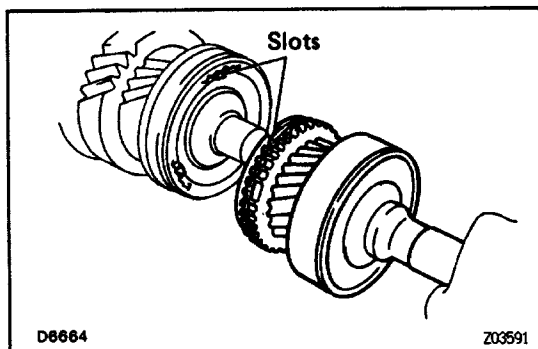
(b) Using a snap ring expander, install the snap ring.



2. INSTALL INPUT SHAFT

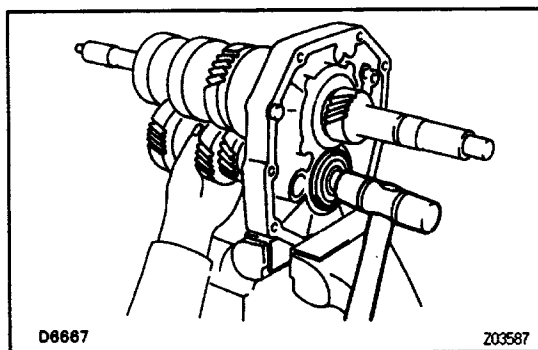
(a) Apply gear oil to the needle roller bearing and install it into the input shaft.

(b) Install the input shaft to the output shaft with the synchronizer ring slots aligned with the shifting keys.



3. INSTALL COUNTER GEAR

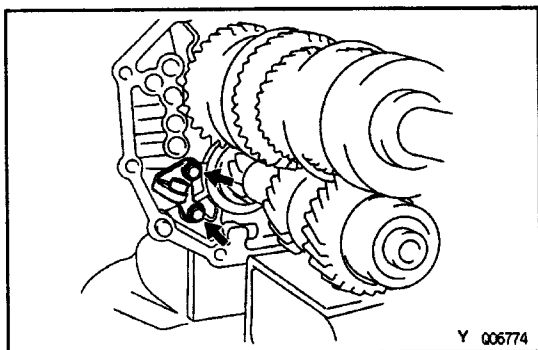
Install the counter gear into the intermediate plate while holding the counter gear, and install a new counter rear bearing with a plastic hammer.

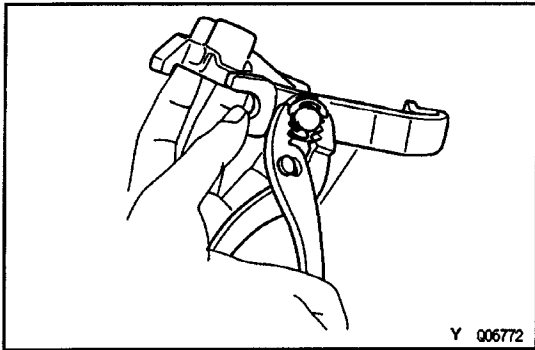


4. INSTALL REVERSE SHIFT ARM BRACKET

Install the reverse shift arm bracket and torque the 2 bolts.

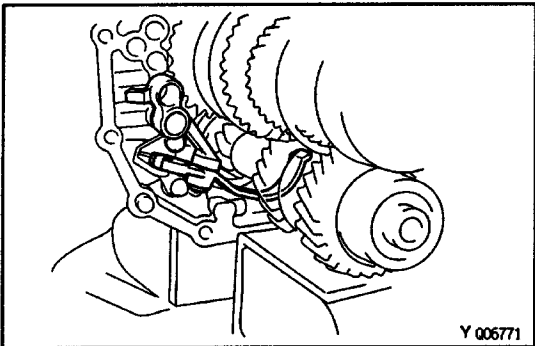
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)



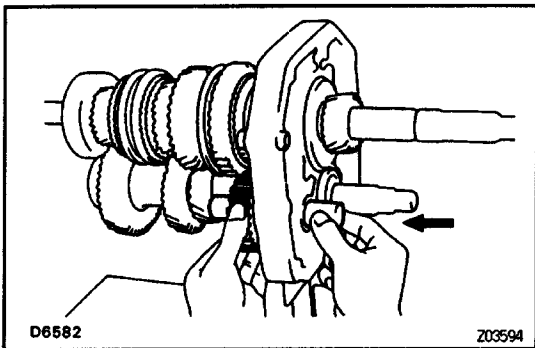


5. INSTALL REVERSE SHIFT FORK AND ARM

- (a) Connect the reverse shift fork and arm with the E-ring.

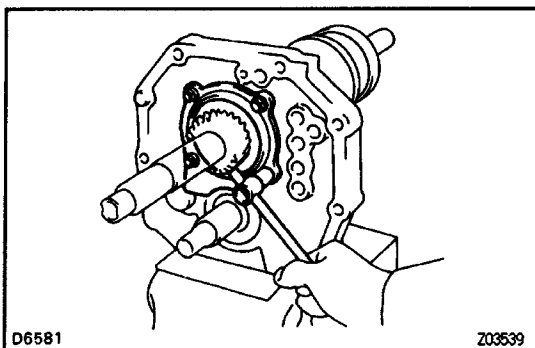


- (b) Install the reverse shift arm to the pivot of the reverse shift arm bracket.



6. INSTALL REVERSE IDLER GEAR AND SHAFT

- Align the reverse shift arm to the reverse idler gear groove and install the reverse idler gear shaft to the intermediate plate.

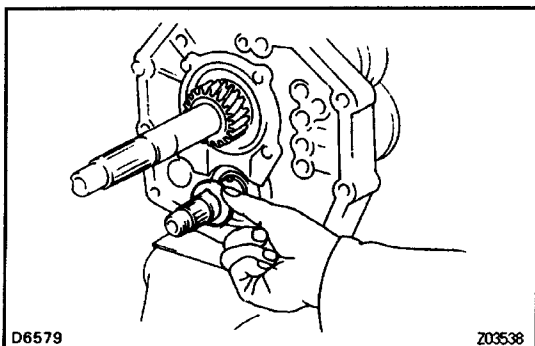


7. INSTALL REAR BEARING RETAINER

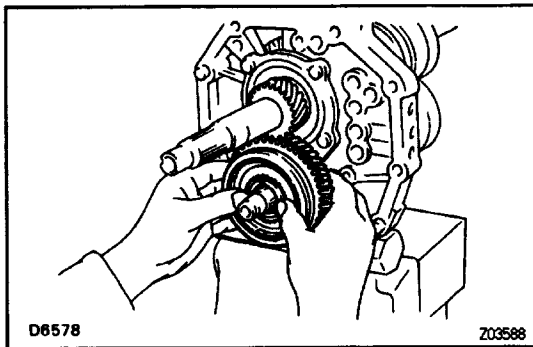
- (a) Align the rear bearing retainer to the reverse idler gear shaft groove.

- (b) Install and torque the 4 bolts.

Torque: 18 N-m (185 kgf-cm, 13 ft-lbf)

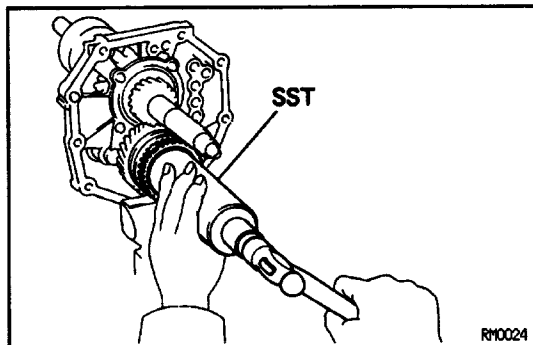


8. INSTALL STRAIGHT PIN AND THRUST WASHER



9. INSTALL COUNTER 5TH GEAR WITH HUB SLEEVE NO.3 ASSEMBLY AND NEEDLE ROLLER BEARINGS

- Apply gear oil to the needle roller bearings.
- Install the counter 5th gear with the hub sleeve No.3 and needle roller bearings.

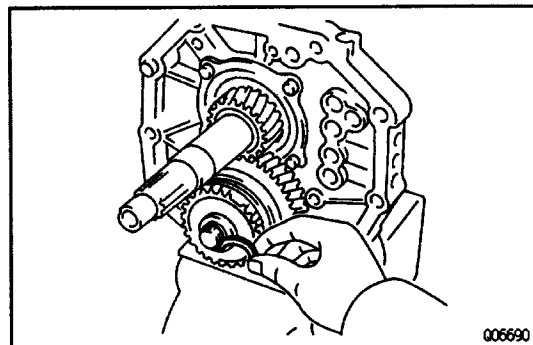


10. INSTALL SYNCHRONIZER RING AND GEAR SPLINE PIECE NO-5

- Install the synchronizer ring on the gear spline piece No.5.
- Using SST and a hammer, drive in the gear spline piece No.5 with the synchronizer ring slots aligned with the shifting keys.

SST 09316 -60010 (09316 -00010)

HINT: When installing the gear spline piece No.5, support the counter gear in front with a 3–5 lb hammer or equivalent.

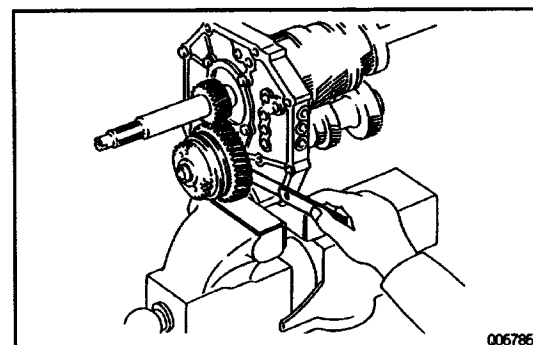
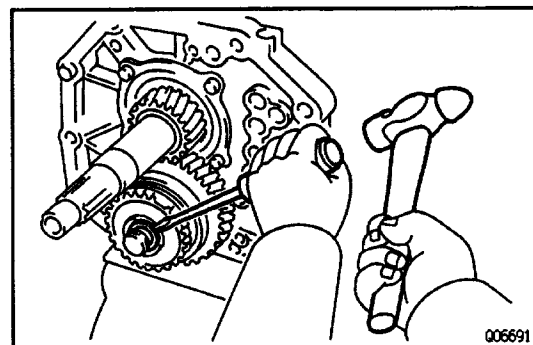


11. INSTALL SNAP RING

- Select a snap ring that will allow minimum axial play.

Mark	Thickness mm (in.)
A	2.80 – 2.85 (0.1102 – 0.1122)
B	2.85 – 2.90 (0.1122 – 0.1142)
C	2.90 – 2.95 (0.1142 – 0.1161)
D	2.95 – 3.00 (0.1161 – 0.1181)
E	3.00 – 3.05 (0.1181 – 0.1201)
F	3.05 – 3.10 (0.1201 – 0.1220)
G	3.10 – 3.15 (0.1220 – 0.1240)

- Using a screwdriver and hammer, install the snap ring.



12. INSPECT COUNTER 5TH GEAR THRUST CLEARANCE

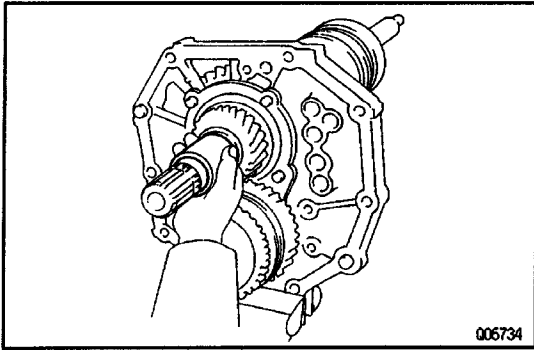
Using a feeler gauge, measure the counter 5th gear thrust clearance.

Standard clearance:

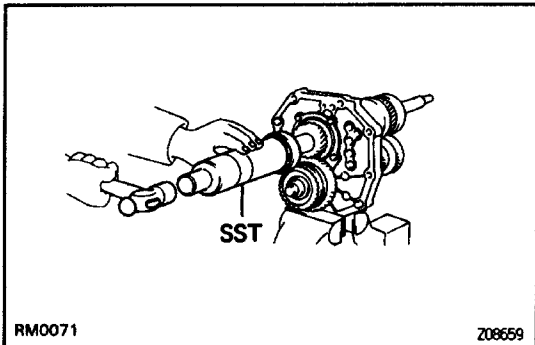
0.10 – 0.35 mm (0.0039 – 0.0138 in.)

Maximum clearance:

0.40 mm (0.0157 in.)



13. INSTALL SPACER



14. INSTALL OUTPUT SHAFT REAR BEARING

Using SST and a hammer, drive in, a new rear bearing.

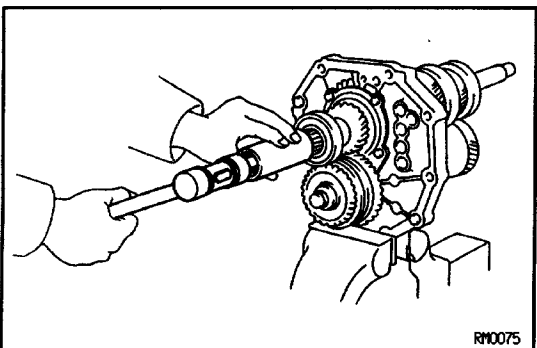
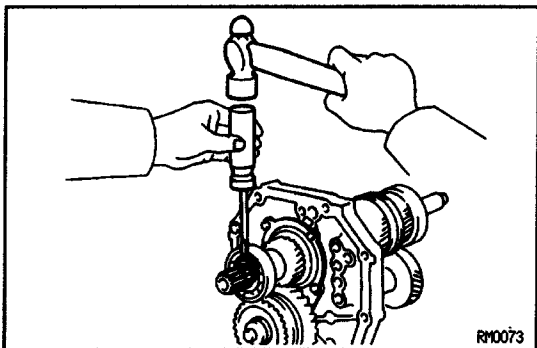
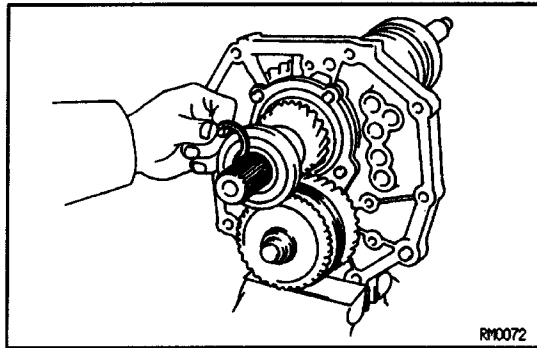
SST 09316-60010 (09316-00010, 09316-00070)

15. INSTALL SNAP RING

(a) Select a snap ring that will allow minimum axial play.

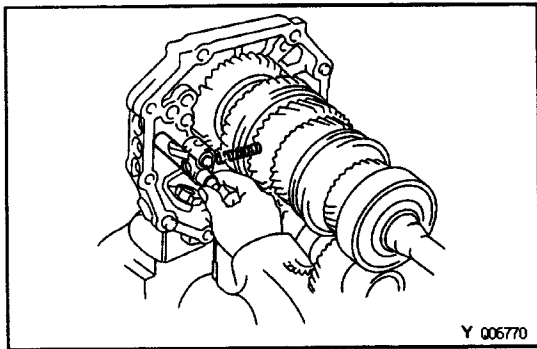
Mark	Thickness mm (in.)
A	2.65 – 2.70 (0.1043 – 0.1063)
B	2.70 – 2.75 (0.1063 – 0.1083)
C	2.75 – 2.80 (0.1083 – 0.1102)
D	2.80 – 2.85 (0.1102 – 0.1122)
E	2.85 – 2.90 (0.1122 – 0.1142)
F	2.90 – 2.95 (0.1142 – 0.1161)
G	2.95 – 3.00 (0.1161 – 0.1181)
H	3.00 – 3.05 (0.1181 – 0.1201)
J	3.05 – 3.10 (0.1201 – 0.1220)
K	3.10 – 3.15 (0.1220 – 0.1240)
L	3.15 – 3.20 (0.1240 – 0.1260)
M	3.20 – 3.25 (0.1260 – 0.1280)
N	3.25 – 3.30 (0.1280 – 0.1299)
P	3.30 – 3.35 (0.1299 – 0.1319)
Q	3.35 – 3.40 (0.1319 – 0.1339)
R	3.40 – 3.45 (0.1339 – 0.1358)
S	3.45 – 3.50 (0.1358 – 0.1378)

(b) Using a screwdriver and hammer, install the snap ring.



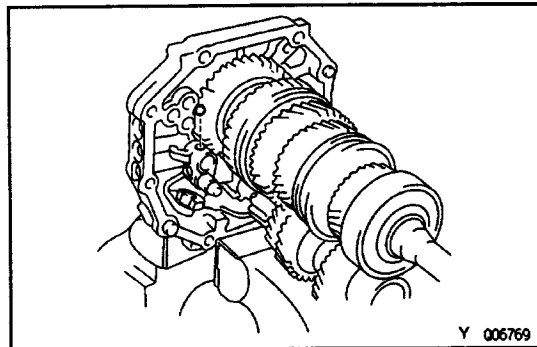
16. INSTALL SLEEVE TO OUTPUT SHAFT

Using a plastic hammer, drive in the sleeve onto the output shaft.



17. INSTALL SHIFT FORK SHAFT NO.4

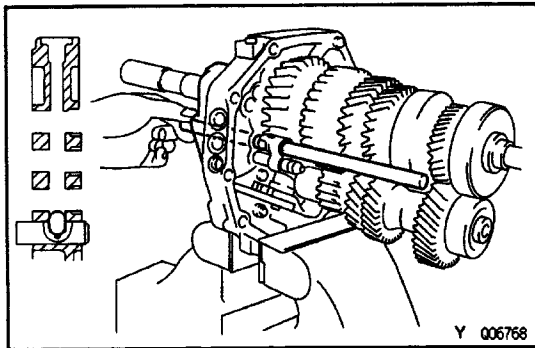
- (a) Using a magnetic finger, install the spring to the reverse shift fork.
- (b) While pushing the ball to the spring side, install the shift fork shaft No.4 to the reverse shift fork through the intermediate plate.



- (c) Using a magnetic finger, install the ball.

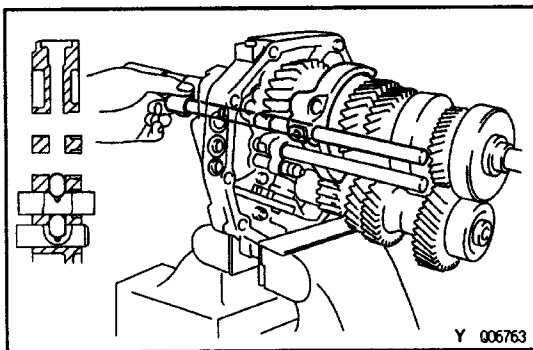
18. INSTALL SHIFT FORK SHAFT NO.3 AND SHIFT FORK NO.3

- (a) Using a magnetic finger and screwdriver, install the interlock pin into the intermediate plate.
- (b) Place the shift fork No.3 into the groove of hub sleeve No.3.
- (c) Install the shift fork shaft No.3 to the shift fork No.3 and reverse shift fork through the intermediate plate.



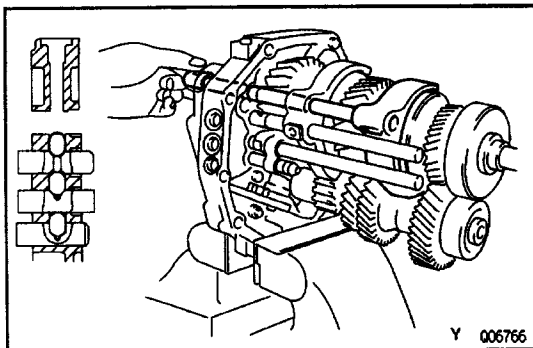
19. INSTALL SHIFT FORK SHAFT NO.1 AND SHIFT FORK NO.1

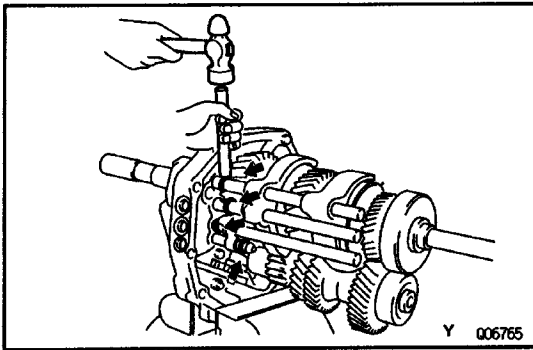
- (a) Using a magnetic finger and screwdriver, install the interlock pin into the intermediate plate.
- (b) Place the shift fork No.1 into the groove of reverse gear.
- (c) Install the straight pin into the shift fork shaft No.1 hole.
- (d) Install the shift fork shaft No.1 to the shift fork No.1 through the intermediate plate.



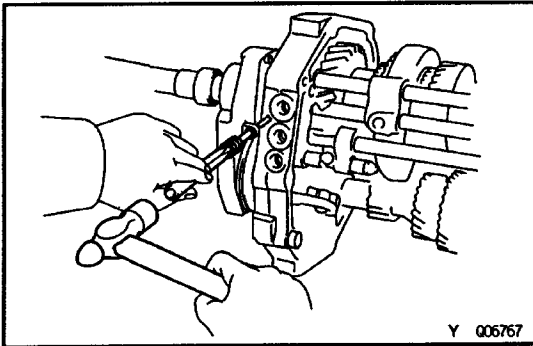
20. INSTALL SHIFT FORK SHAFT NO.2 AND SHIFT FORK NO.2

- (a) Using a magnetic finger and screwdriver, install the interlock pin into the intermediate plate.
- (b) Place the shift fork No.2 into the groove of hub sleeve No.2.
- (c) Install the shift fork shaft No.2 to the shift fork No.2, and No.1 through the intermediate plate.

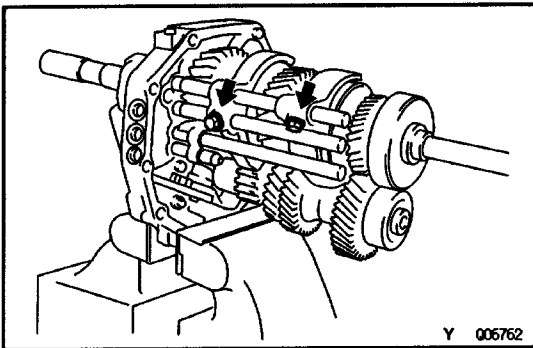


**21. INSTALL SNAP RINGS**

Using a brass bar and hammer, drive in the 4 snap rings.

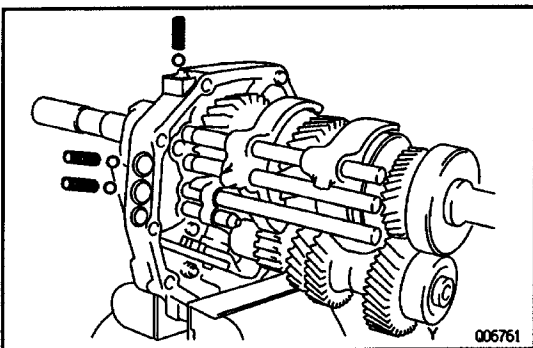
**22. INSTALL SLOTTED SPRING PIN**

Using a pin punch and hammer, drive in the slotted spring pin.

**23. INSTALL SHIFT FORKS SET BOLTS**

Install and torque the 2 bolts.

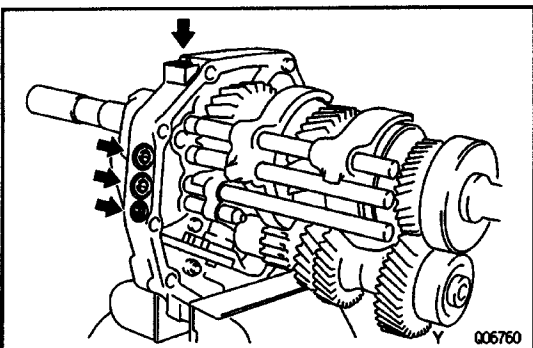
Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)

**24. INSTALL LOCKING BALLS, SPRINGS AND STRAIGHT SCREW PLUGS**

(a) Apply sealant to the plug threads.

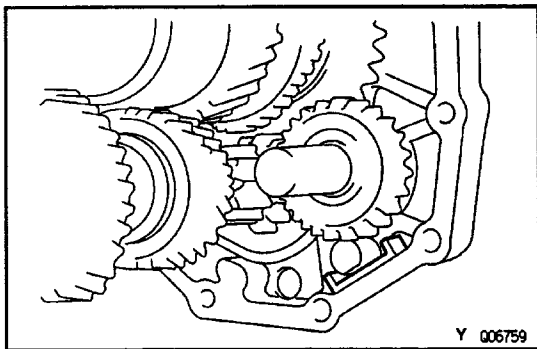
Sealant: Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

(b) Using a magnetic finger, install the 3 locking balls and springs.



(c) Using a hexagon wrench, torque the 4 screw plugs.

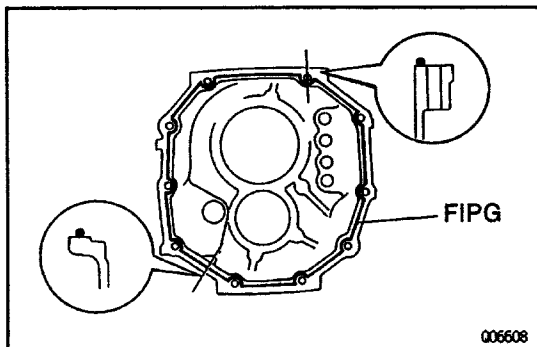
Torque: 19 N·m (190 kgf·cm, 14 ft·lbf)



26. INSTALL MAGNET TO INTERMEDIATE PLATE

26. DISMOUNT INTERMEDIATE PLATE FROM VISE

- (a) Dismount the intermediate plate from the vise.
- (b) Remove the bolts, nuts and plate washers.

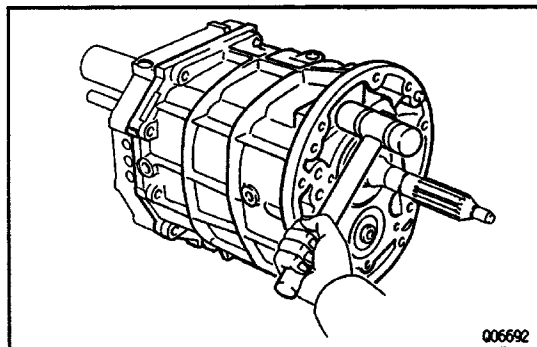


27. INSTALL TRANSMISSION CASE

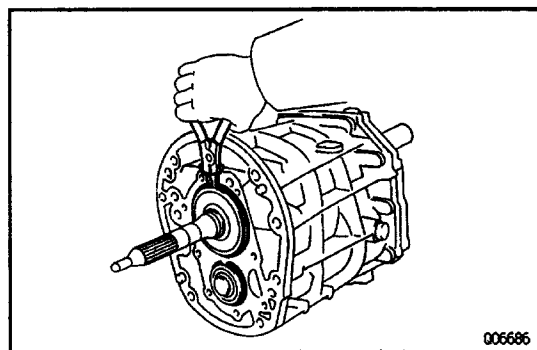
- (a) Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the intermediate plate or transmission case.
- (b) Apply FIPG to the transmission case, as shown.

FIPG:

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

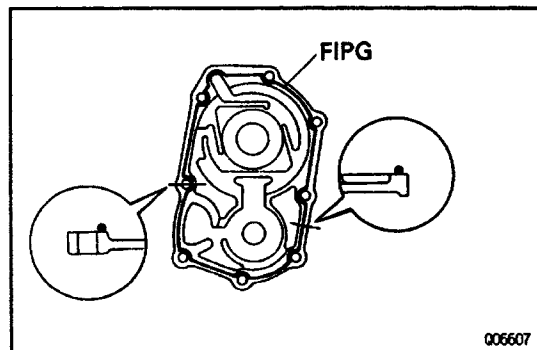


- (c) Align the 2 bearing outer race, 3 fork shaft end and reverse idler gear shaft end with the case installation holes, and install the case.
- If necessary, tap on the case with a plastic hammer.



28. INSTALL BEARING SNAP RINGS

Using a snap ring expander, install the 2 snap rings to the input shaft bearing and counter gear front bearing.

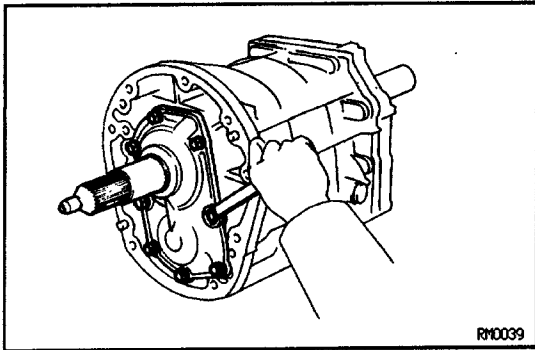


29. INSTALL FRONT BEARING RETAINER

- (a) Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the front bearing retainer or transmission case.
- (b) Apply FIPG to the retainer, as shown.

FIPG:

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

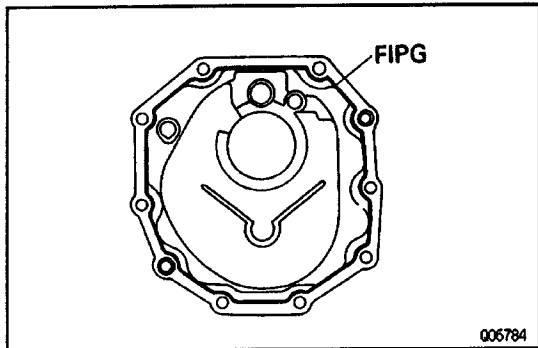


(c) Apply sealant to the bolt threads.

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

(d) Install and torque the 8 bolts.

Torque: 17 N-m (170 kgf-cm, 12 ft-lbf)



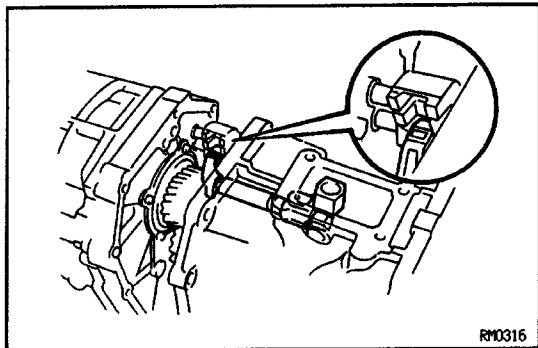
30. INSTALL TRANSFER ADAPTOR, SHIFT LEVER SHAFT AND SHIFT LEVER HOUSING

(a) Remove the any FIPG material and be careful not to drop oil on the contacting surfaces of the transfer adaptor or transmission case.

(b) Apply FIPG to the transfer adaptor, as shown.

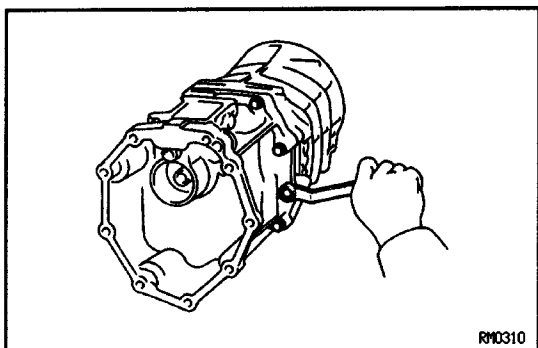
FIPG:

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



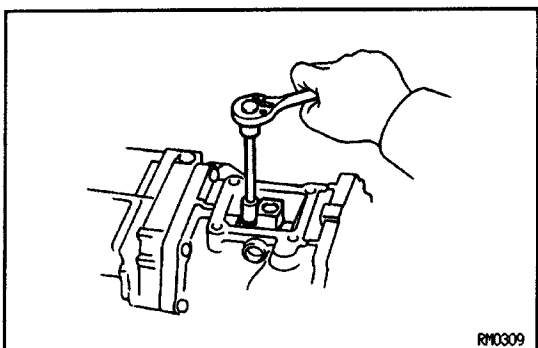
(c) Install the shift and select lever into the transfer adaptor

(d) Connect the shift and select lever to the fork shaft and put in the shift lever housing.



(e) Install and torque the 10 bolts.

Torque: 37 N-m (380 kgf-cm, 27 ft-lbf)



(f) Install and torque the shift lever housing set bolt.

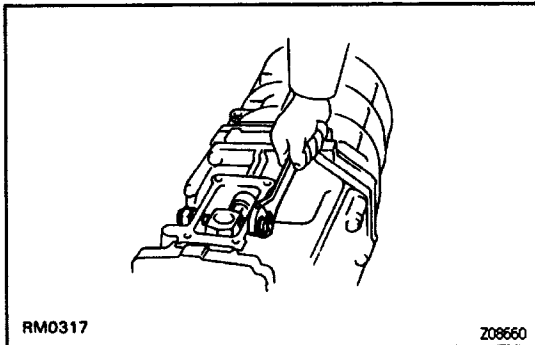
Torque: 38 N-m (390 kgf-cm, 28 ft-lbf)

(g) Apply sealant to the plug threads.

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

31. AFTER INSTALLING TRANSFER ADAPTOR CHECK FOLLOWING ITEMS

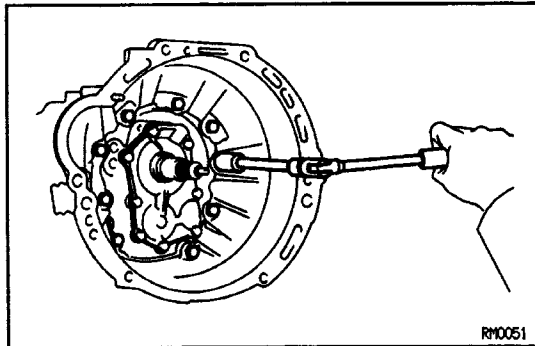
- (a) Check to see that the input and output shafts rotate smoothly.
- (b) Check to see that shifting can be made smoothly to all positions.



32. INSTALL RESTRICT PINS

- (a) Install the black pin on the reverse gear/5th gear side.
- (b) Install another pin and torque the pins.

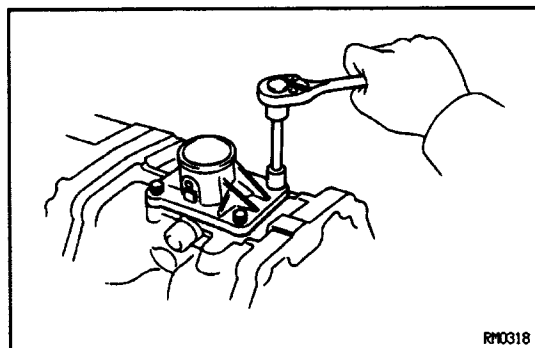
Torque: 37 N-m (380 kgf-cm, 27 ft-lbf)



33. INSTALL CLUTCH HOUSING

- (a) Install the clutch housing.
- (b) Install and torque the 9 bolts.

Torque: 36 N-m (370 kgf-cm, 27 ft-lbf)



34. INSTALL SHIFT LEVER RETAINER

- (a) Apply sealant to the bolt threads.

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

- (b) Install the shift lever retainer with the oil deflector and torque the 4 bolts.

Torque: 18 N-m (185 kgf-cm, 13 ft-lbf)

35. INSTALL BACK-UP LIGHT SWITCH

Torque: 44 N-m (450 kgf-cm, 32 ft-lbf)

36. INSTALL RELEASE FORK AND BEARING

Apply molybdenum disulphide lithium base grease (See page [CL-18](#)).