

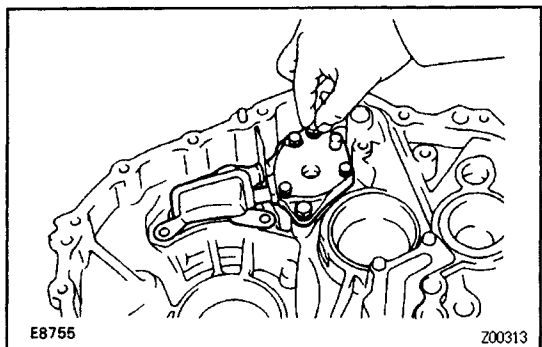
COMPONENT PARTS INSTALLATION

BASIC SUBASSEMBLY REASSEMBLY

(See pages **MX2-20** to **MX2-22**)

HINT: Coat all of the sliding and rotating surface with gear oil before assembly.

1. INSTALL MAGNET TO TRANSAXLE CASE

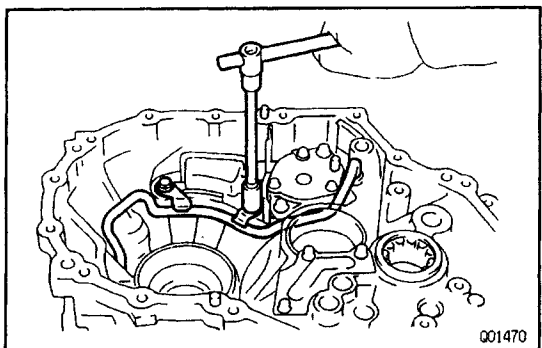


2. INSTALL OIL PUMP ASSEMBLY AND OIL PIPE

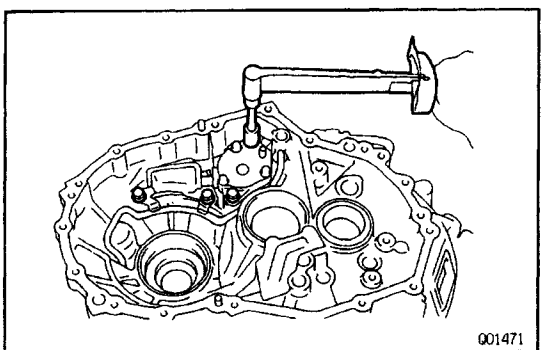
(a) Install the oil pump assembly.

(b) Install the two bolts.

HINT: Be careful not to drop the oil pump gasket.

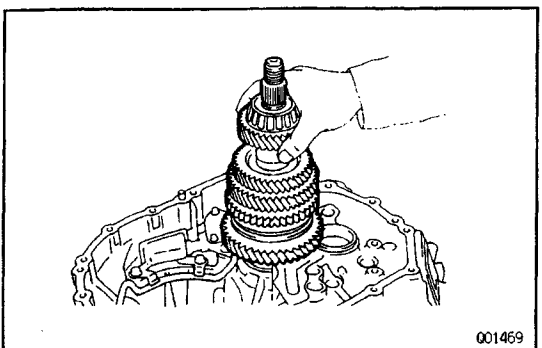


(c) Install the oil pipe and two bolts.



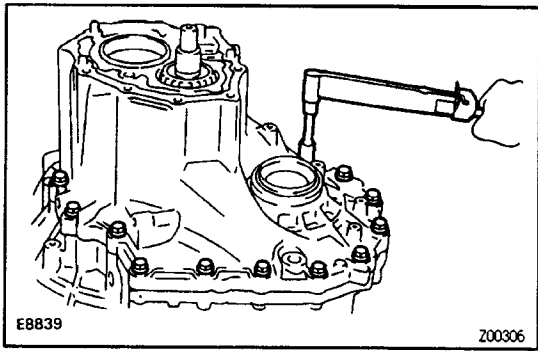
(d) Torque the four bolts.

Torque: 17 N-m (175 kgf-cm, 13 ft-lbf)

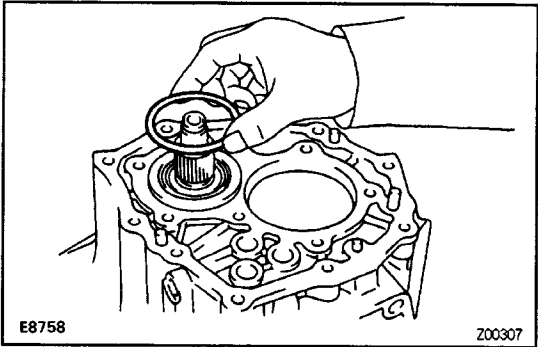


3. ADJUST OUTPUT SHAFT PRELOAD

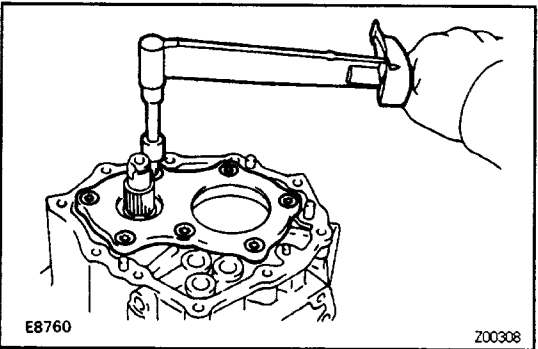
(a) Install the output shaft assembly.



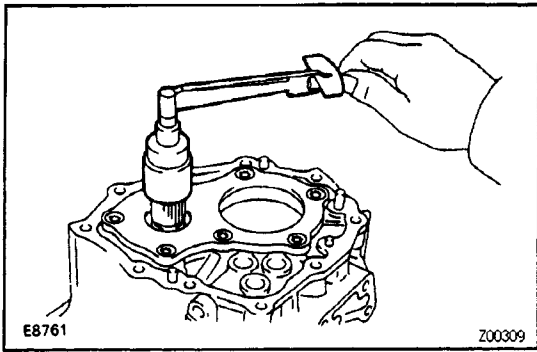
- (b) Install the transmission case.
HINT: If necessary, tap on the case with a plastic hammer.
- (c) Install and torque the seventeen bolts.
Torque: 29 N-m (300 kgf-cm, 22 ft-lbf)
- (d) Install the output shaft rear taper roller bearing outer race.



- (e) Install the adjust shim.
HINT: When re-using the output shaft bearing, first install a shim of the same thickness as before. If installing a new tapered roller bearing, first select and install a shim of lesser thickness than before.



- (f) Install the bearing retainer.
- (g) Using a torx wrench, install and torque the seven bolts.
Torx wrench T45 09042-00050
Torque: 42 N-m (430 kgf-cm, 31 ft-lbf)
- (h) Install a new lock nut to the output shaft.
- (i) Turn the output shaft right and left two or three times to allow the bearings to settle.



(j) Using a small torque wrench, measure the preload.

Preload (at starting):

New bearing

0.8–1.6 N-m (8–16 kgf-cm, 6.9–13.9 in.-lb)

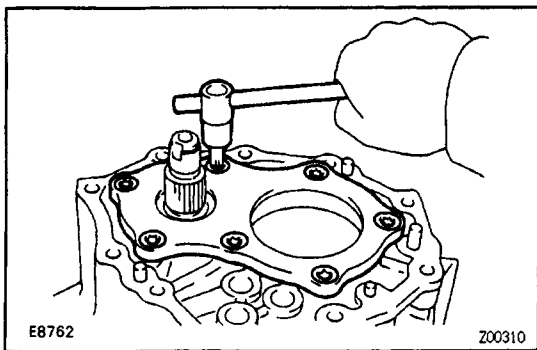
Reused bearing

0.6–1.0 N-m (5–10 kgf-cm, 4.3–8.7 in.-lbf)

If the preload is not within specification, select the thrust washers.

HINT: The preload will change about 0.4–0.5 N-m (4–5 kgf-cm, 3.5–4.3 in.lbf) with each shim thickness.

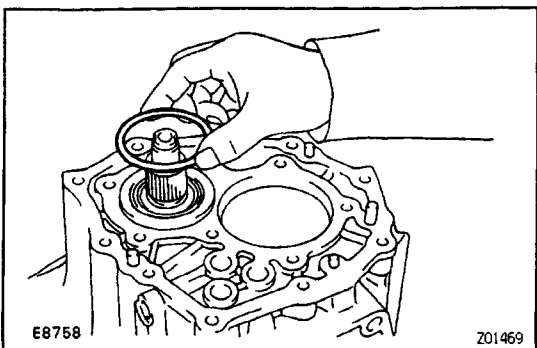
Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
0	1.30 (0.0512)	D	1.95 (0.0768)
1	1.35 (0.0531)	E	2.00 (0.0787)
2	1.40 (0.0551)	F	2.05 (0.0807)
3	1.45 (0.0571)	G	2.10 (0.0827)
4	1.50 (0.0591)	H	2.15 (0.0846)
5	1.55 (0.0610)	J	2.20 (0.0866)
6	1.60 (0.0630)	K	2.25 (0.0886)
7	1.65 (0.0650)	L	2.30 (0.0906)
8	1.70 (0.0669)	M	2.35 (0.0925)
9	1.75 (0.0689)	N	2.40 (0.0945)
A	1.80 (0.0709)	P	2.45 (0.0965)
B	1.85 (0.0728)	Q	2.50 (0.0984)
C	1.90 (0.0748)		



(k) Remove the lock nut.

(l) Using a torx wrench, remove the seven torx screws and rear bearing retainer.

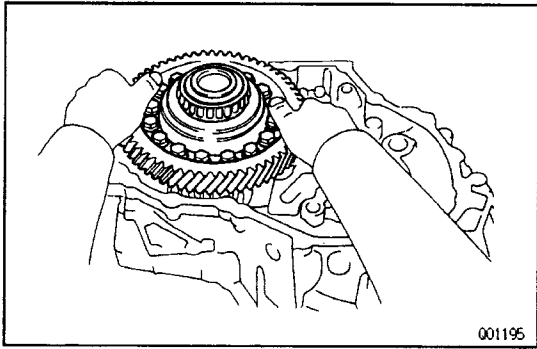
Torx wrench T45 09042-00050



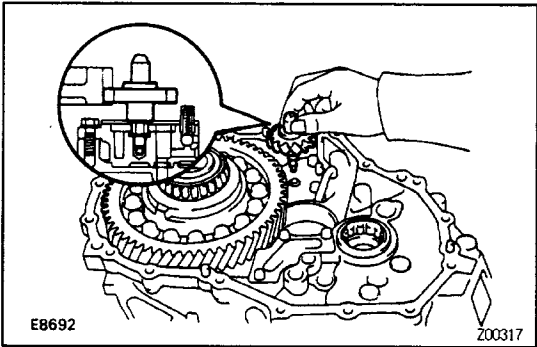
(m) Remove the shim.

(n) Remove the seventeen bolts and transmission case.

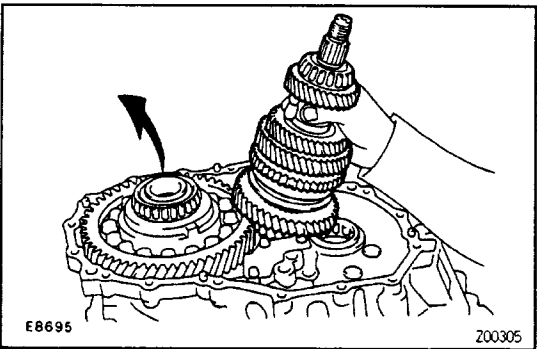
(o) Remove the output shaft assembly.



4. INSTALL DIFFERENTIAL CASE ASSEMBLY

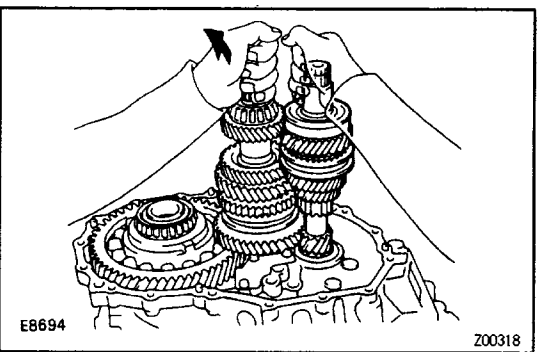


5. INSTALL OIL PUMP DRIVE GEAR

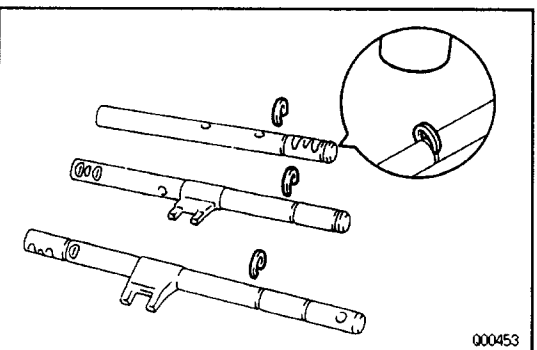


6. INSTALL OUTPUT SHAFT ASSEMBLY

(a) Lift up the differential case, install the output shaft assembly.

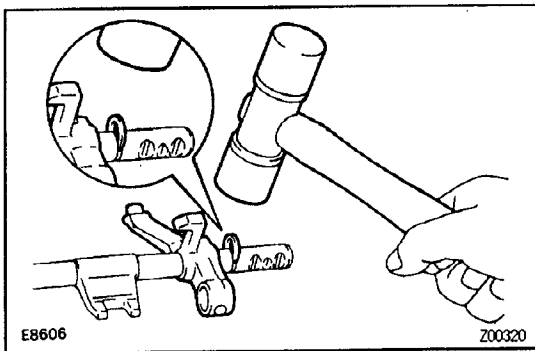


(b) Leaning the output shaft to the differential side, install the input shaft assembly.

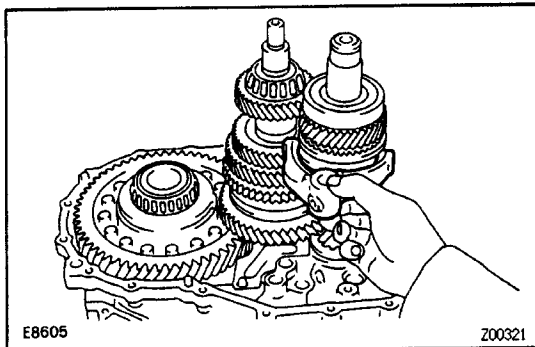


7. INSTALL SNAP RINGS

(a) Using a plastic hammer, install the snap rings to the No.1, No.2 and No.3 shift fork shafts.

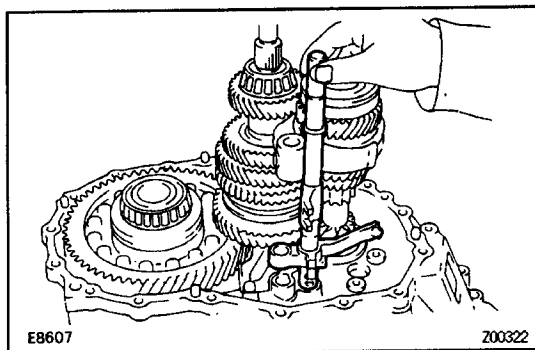


- (b) Using a plastic hammer, the reverse shift fork and snap ring to the No.3 shift fork shaft.

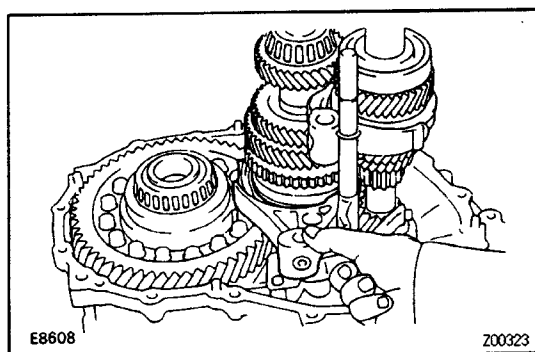


8. INSTALL NO.2 SHIFT FORK AND NO.3 SHIFT FORK SHAFT WITH REVERSE SHIFT FORK

- (a) Install the No.2 shift fork to the No.2 hub sleeve.

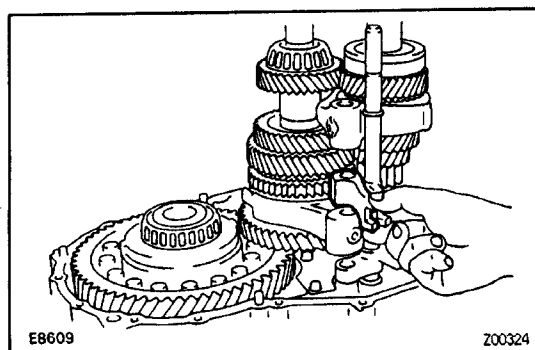


- (b) Install the No.3 shift fork shaft with reverse shift fork.

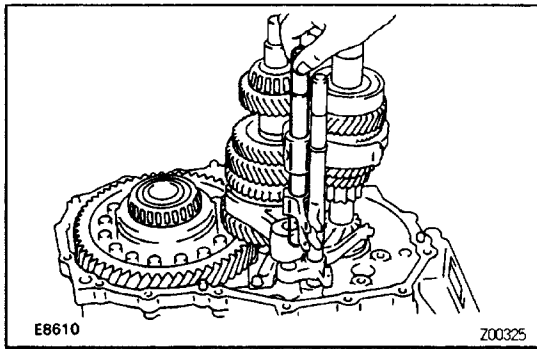


9. INSTALL NO.1 SHIFT FORK, SHIFT HEAD AND NO.2 SHIFT FORK SHAFT

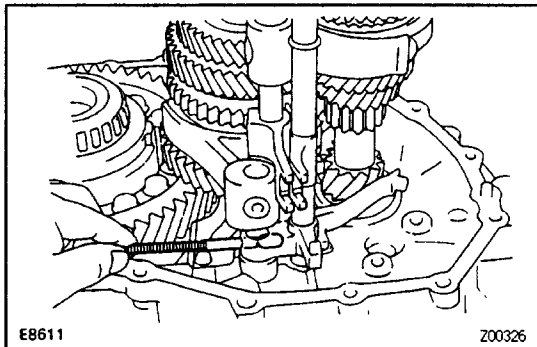
- (a) Install the No. 1 shift fork to the No. 1 hub sleeve.



- (b) Put shift head onto the No.1 shift fork.

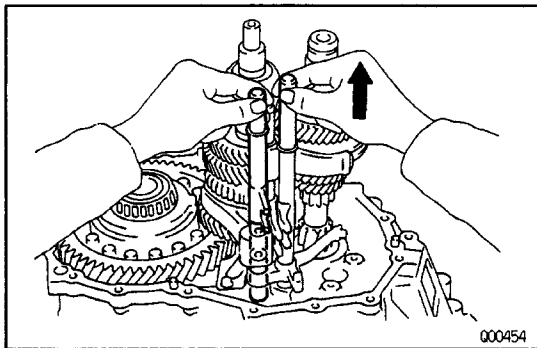


- (c) Install the No.2 shift fork shaft to the transaxle case, through the shift head and No.1 shift fork.



10. INSTALL INTERLOCK ROLLER

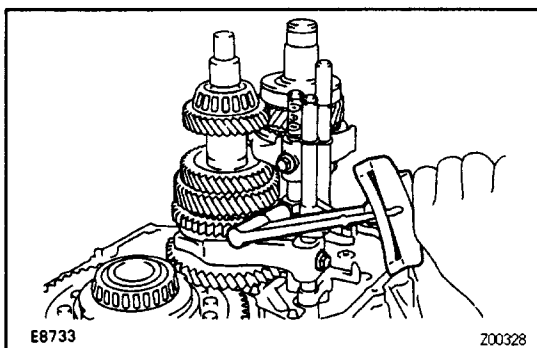
Using a magnetic finger, install the interlock roller to the reverse shift fork.



11. INSTALL NO.1 SHIFT FORK SHAFT

Install the No.1 shift fork shaft to the case, through the No.1 shift fork and reverse shift fork.

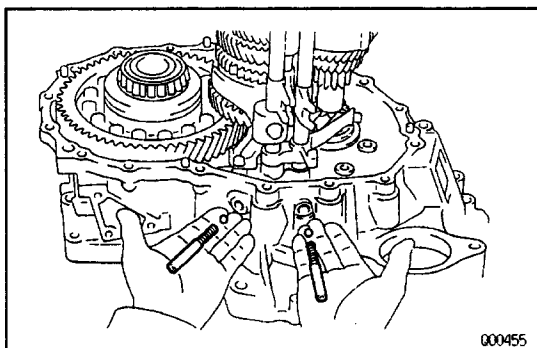
HINT: When it is difficult to the fork shaft through the reverse shift fork, pull up the No.3 shift fork shaft.



12. INSTALL SET BOLTS

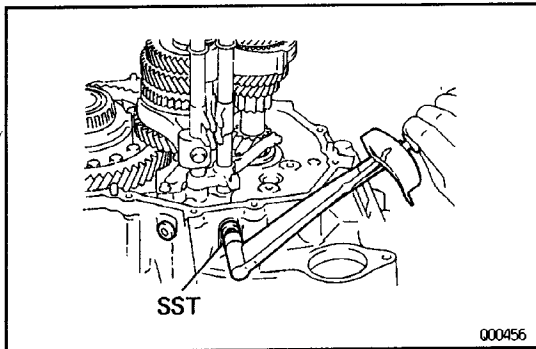
Install and torque the three set bolts.

Torque: 24 N-m (240 kgf-cm, 17 ft-lbf)



13. INSTALL TWO LOCKING BALLS, SPRINGS, SEATS AND PLUGS

- (a) Install the two locking balls, springs and seats.



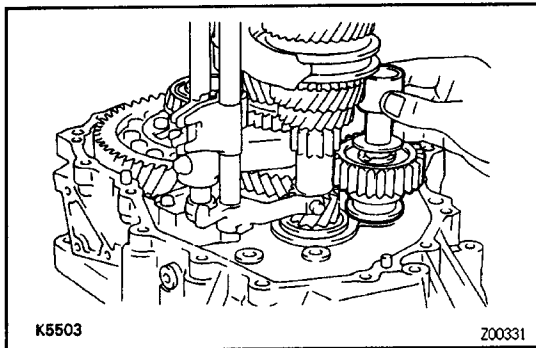
- (b) Apply sealant to the two plugs.

Sealant:

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

- (c) Using a hexagon wrench (6 mm), install and torque two plugs.

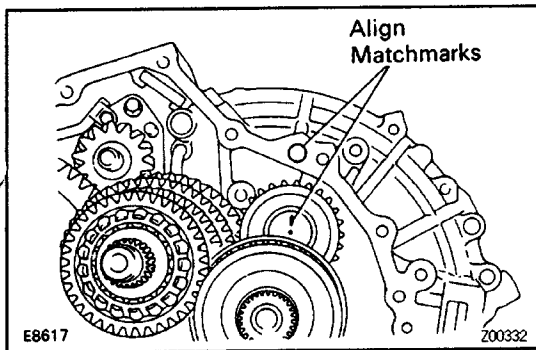
Torque: 25 N-m (250 kgf-cm, 18 ft-lbf)



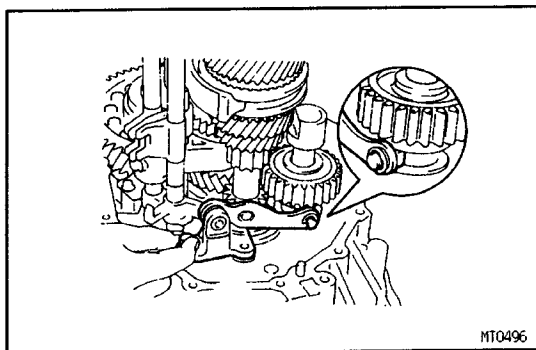
14. INSTALL REVERSE IDLER GEAR AND SHAFT

- (a) Install the reverse idler gear shaft and thrust washer to the shaft.

- (b) Install the reverse idler gear shaft into the case hole.



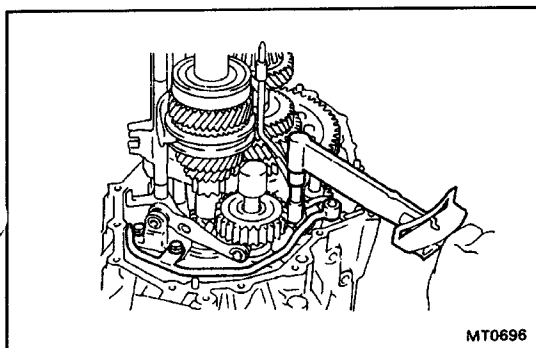
- (c) Align matchmarks as shown.



15. INSTALL REVERSE SHIFT ARM BRACKET AND NO.2 OIL PIPE

- (a) Put the reverse shift fork pivot into the reverse shift arm install the reverse shift arm bracket to the transaxle case.

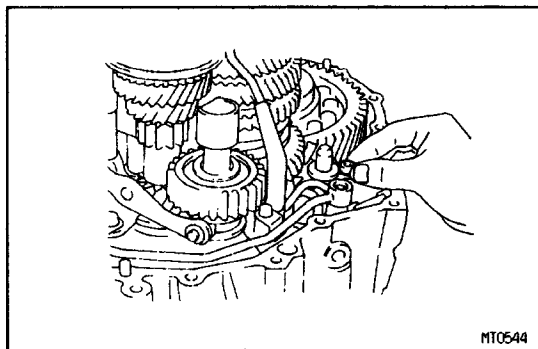
- (b) Install the bolt.



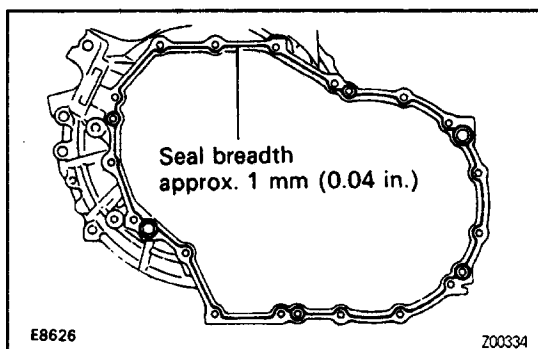
- (c) Install the No.2 oil pipe and two bolts.

- (d) Torque the reverse shift arm and oil pump bolts.

Torque: 17 N-m (175 kgf-cm, 13 ft-lbf)



- (e) Install a new gasket to the No.2 oil pipe.



16. INSTALL TRANSMISSION CASE

- (a) Remove the any packing material and be careful not to drop oil on the contacting surfaces of the transmission case or transaxle case.
- (b) Apply seal packing to the transmission case as shown in the figure.

Seal packing:

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

HINT: Install the transmission case as shown as the seal packing is applied.

- (c) Install and torque the fourteen bolts to the transmission case side.
- Torque: 28 N-m (300 kgf-cm, 22 ft-lbf)**
- (d) Install and torque the three bolts to the transaxle case side.

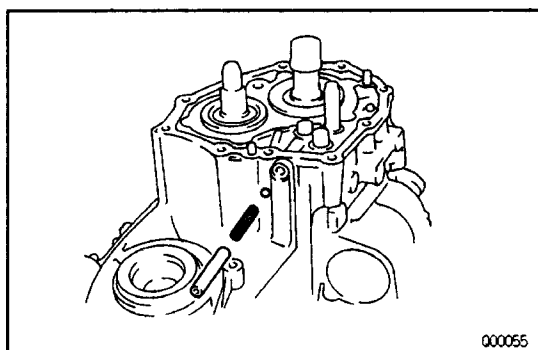
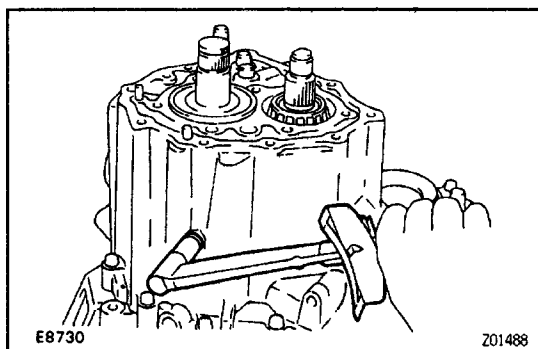
Torque: 29 N-m (300 kgf-cm, 22 ft-lbf)

17. INSTALL AND TORQUE REVERSE IDLER GEAR SHAFT RETAINING BOLT

Torque: 29 N-m (300 kgf-cm, 22 ft-lbf)

18. INSTALL LOCKING BALL, SPRING, SEAT AND PLUG

- (a) Install the locking ball, spring and seat.



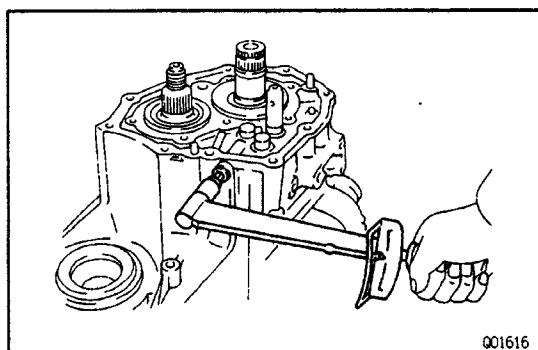
- (b) Apply sealant to the plug.

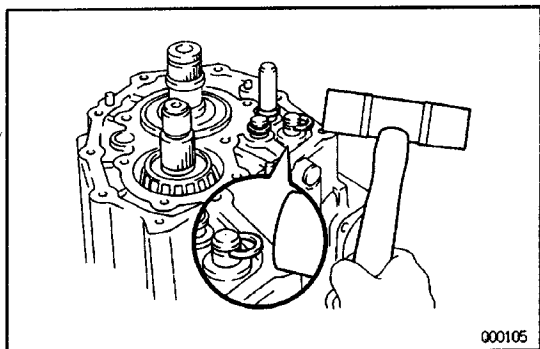
Sealant:

Part No. 08833-00080, THREE BOND 7344, LOCTITE 242 or equivalent

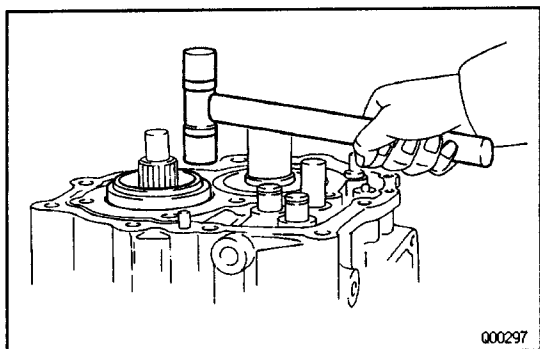
- (c) Using a hexagon wrench (6 mm), install and torque the plug.

Torque: 25 N-m (250 kgf-cm, 18 ft-lbf)

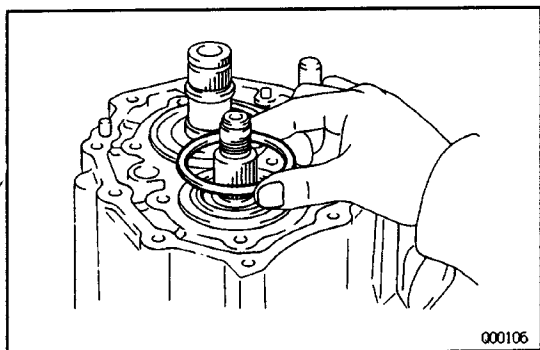


**19. INSTALL SNAP RINGS**

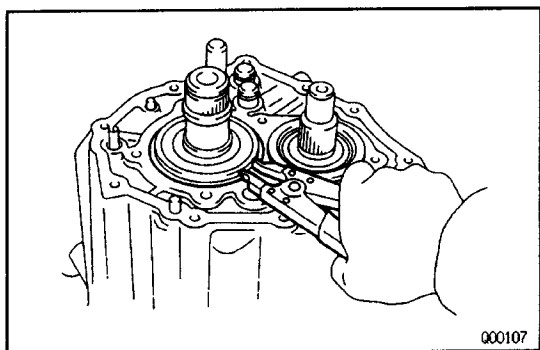
Using a plastic hammer, install the three snap rings.

**20. INSTALL OUTPUT SHAFT REAR TAPER ROLLER BEARING OUTER RACE**

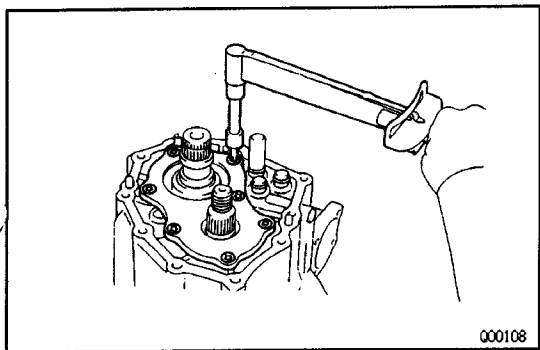
Using a plastic hammer, tap in the outer race.

**21. INSTALL SHIM**

HINT: Install the previously selected.

**22. INSTALL SNAP RING**

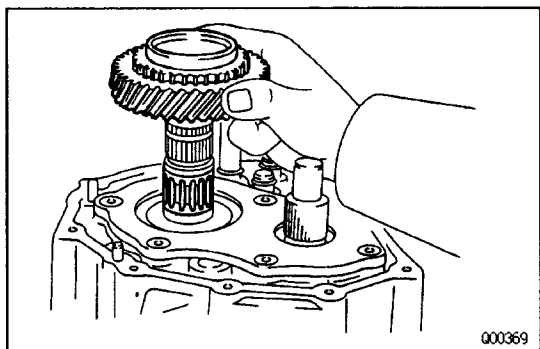
Using a snap ring expander, install the snap ring to the input shaft rear bearing.

**23. INSTALL REAR BEARING RETAINER**

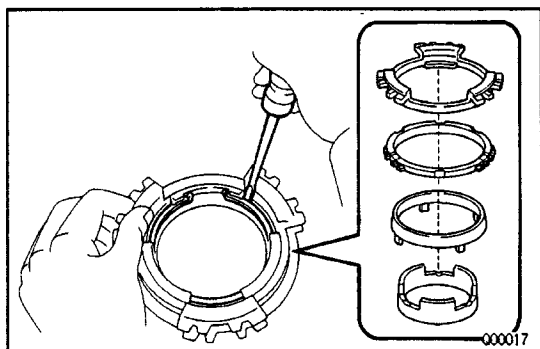
- (a) Clean the threads of the torx screws.
- (b) Using a torx wrench, install and torque the seven torx screws.

Torx wrench T45 09042-00050

Torque: 42 N-m (430 kgf-cm, 31 ft-lbf)

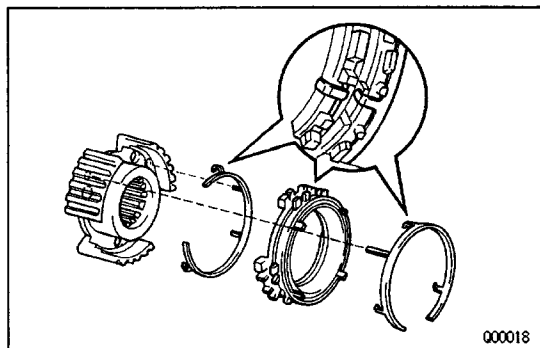


24. INSTALL NEEDLE ROLLER BEARING AND FIFTH GEAR



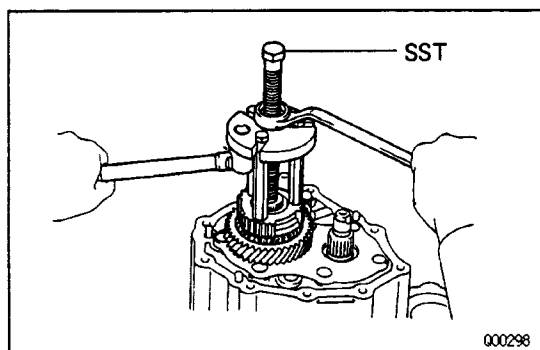
25. INSTALL NO.5 SYNCHRONIZER RINGS WITH KEY SPRING TO NO.3 CLUTCH HUB

- Assemble the No.5 synchronizer rings.
- Using a screwdriver, install the snap ring.
HINT: Wrap vinyl tape on the screwdriver to prevent damaging the synchronizer ring.



- Install the No.5 synchronizer rings with key springs to the No.3 clutch hub.

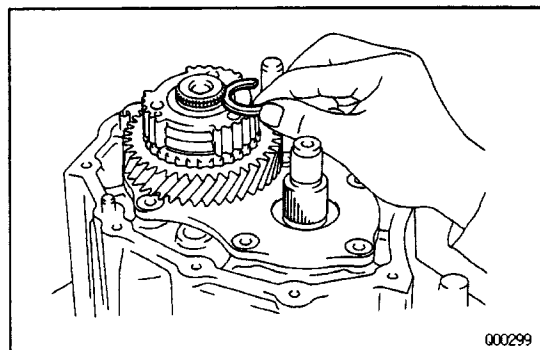
HINT: Align the holes of the clutch hub with key spring.



26. INSTALL No.3 CLUTCH HUB

Using SST, install the No.3 clutch hub with synchronizer ring and key spring.

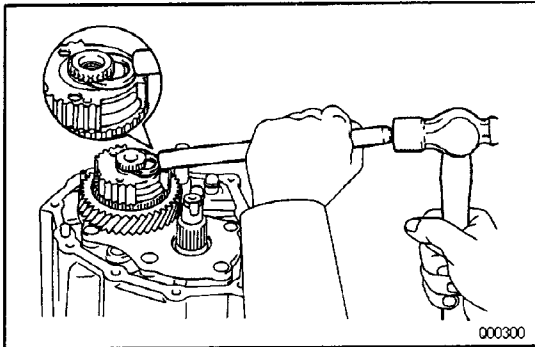
SST 09310-17010 (09310-07010, 09310-07020, 09310-07030)



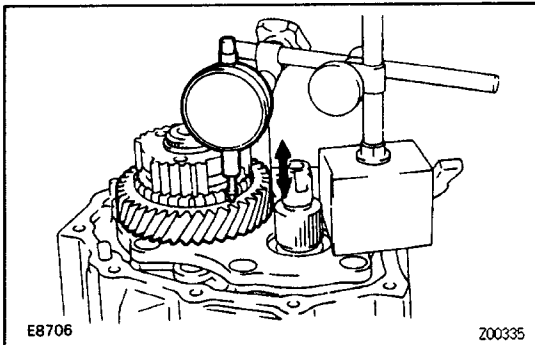
27. INSTALL SNAP RING

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

Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
Q	2.25 (0.0886)	V	2.50 (0.0984)
R	2.30 (0.0906)	W	2.55 (0.1004)
S	2.35 (0.0925)	X	2.60 (0.1024)
T	2.40 (0.0945)	Y	2.65 (0.1043)
U	2.45 (0.0965)		



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

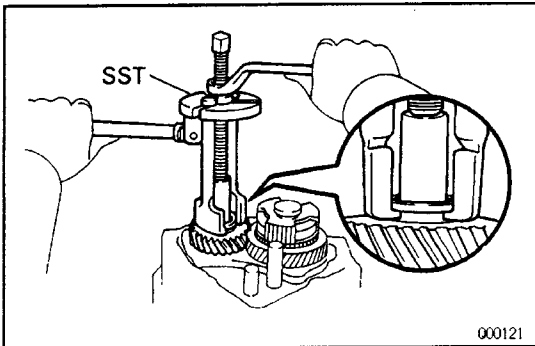


28. INSPECT FIFTH GEAR THRUST CLEARANCE

Using a dial indicator measure the 5th gear thrust clearance.

Standard clearance:

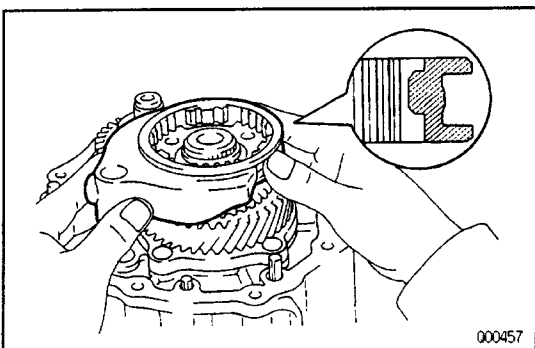
0.10–0.57 mm (0.0039–0.0224 in.)



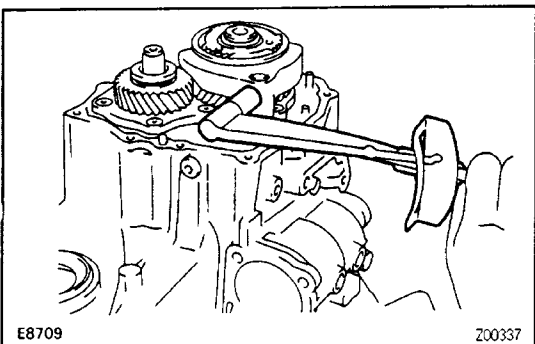
29. INSTALL FIFTH DRIVEN GEAR

Using SST, install the 5th driven gear.

SST 09310-17010 (09310-07010, 09310-07020, 09310-07040, 09310-07050)



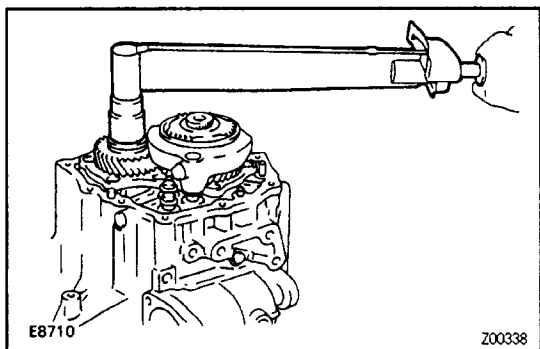
30. INSTALL NO. 3 HUB SLEEVE WITH NO.3 SHIFT FORK



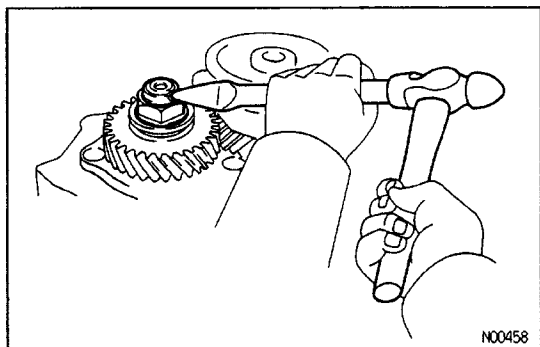
31. INSTALL SET BOLT

Install and torque the set bolt.

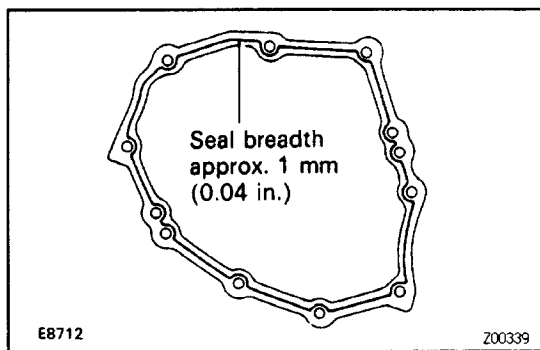
Torque: 24 N·m (240 kgf·cm, 17 ft·lbf)

**32. INSTALL LOCK NUT**

- (a) Engage the gear double meshing.
- (b) Install and torque the lock nut.
Torque: 123 N-m (1,250 kgf-cm, 90 ft-lbf)
- (c) Disengage the gear double meshing.



- (d) Stake the lock nut.

**33. INSTALL TRANSMISSION CASE COVER**

- (a) Remove the any packing material and be careful not to drop oil on the contacting surfaces of the transmission case cover.
- (b) Apply seal packing to the transmission case as shown in the figure.

Seal packing:

Part No. 08826-00080, THREE BOND 1281 or equivalent

HINT: Install the transmission case cover as soon as the seal packing is applied.

- (c) Install and torque the ten bolts.
Torque: 29 N-m (300 kgf-cm, 22 ft-lbf)

34. INSTALL SHIFT AND SELECT LEVER SHAFT ASSEMBLY

- (a) Place a new gasket in position on the control shaft cover.
- (b) Install the control shaft cover.
- (c) Apply sealant to the bolt threads.

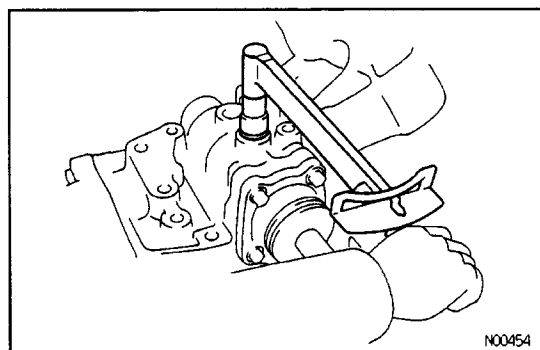
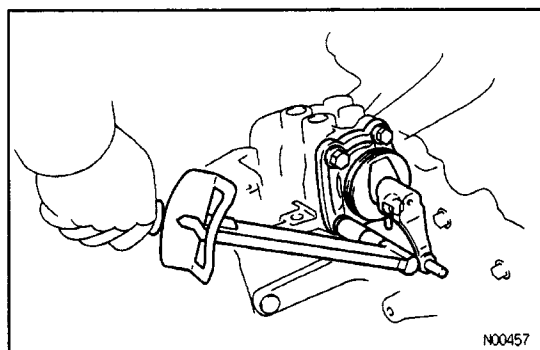
Sealant:

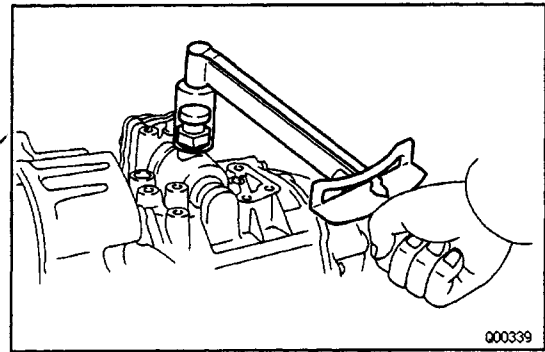
Part No. 08833-00080, THREE BOND 1344, LOC-TITE 242 or equivalent

- (d) Install and torque the four bolts.
Torque: 20 N-m (200 kgf-cm, 14 ft-lbf)

35. INSTALL AND TORQUE LOCK BOLT

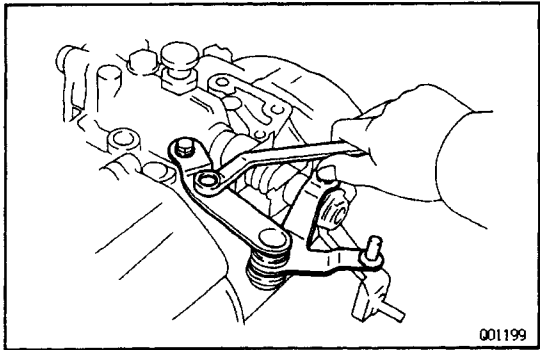
Torque: 49 N-m (500 kgf-cm, 36 ft-lbf)





36. INSTALL BREATHER PLUG

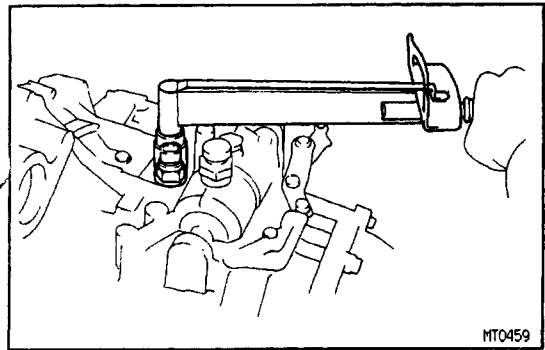
Torque: 49 N-m (500 kgf-cm, 36 ft-lbf)



37. INSTALL SELECTING BELLCRANK ASSEMBLY

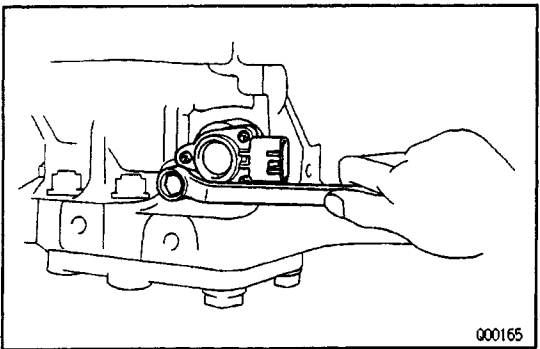
Install the selecting bellcrank assembly with two bolts.

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



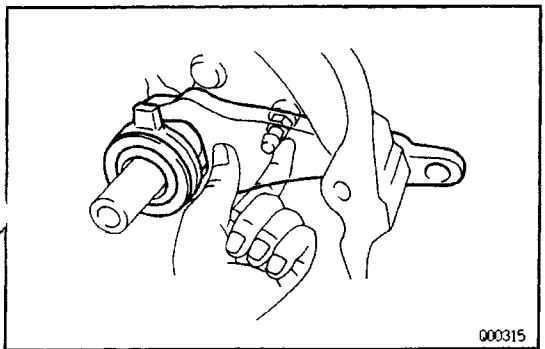
38. INSTALL BACK-UP LIGHT SWITCH

Torque: 40 N-m (410 kgf-cm, 30 ft-lbf)



39. INSTALL VEHICLE SPEED PULSE GENERATOR

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



40. INSTALL RELEASE FORK AND BEARING

Apply molybdenum disulphide lithium base grease to the following parts:

- Input shaft spline
- Release fork contact surface