

INSTALLATION OF COMPONENT PARTS

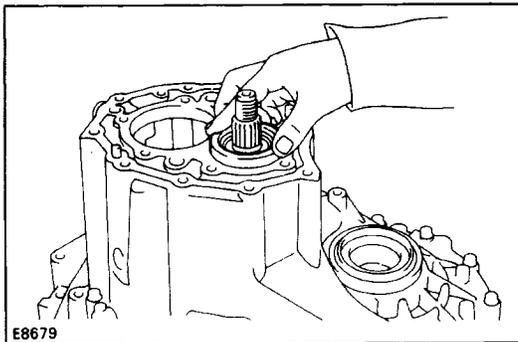
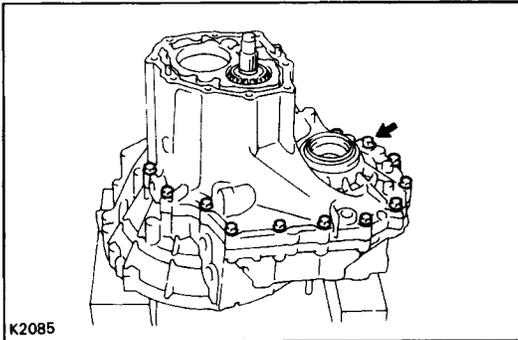
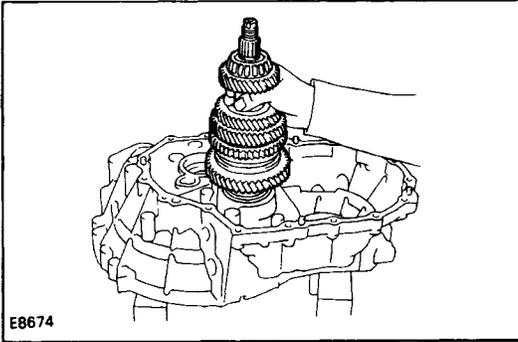
(See page [MT-135](#) to [MT-137](#))

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

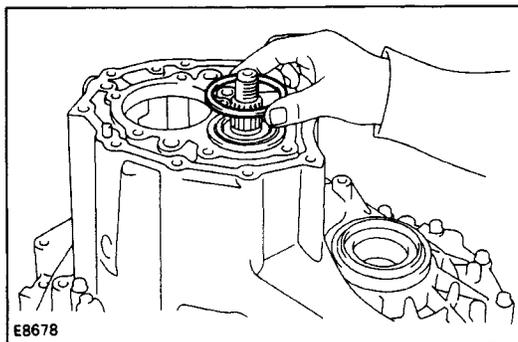
1. ADJUST OUTPUT SHAFT PRELOAD

- (a) Install the output shaft assembly to the transaxle case.
- (b) Install the transmission case to the transaxle case.
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)

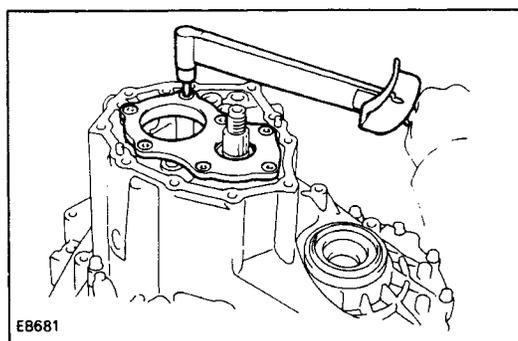


- (d) Install the output shaft rear bearing outer race.



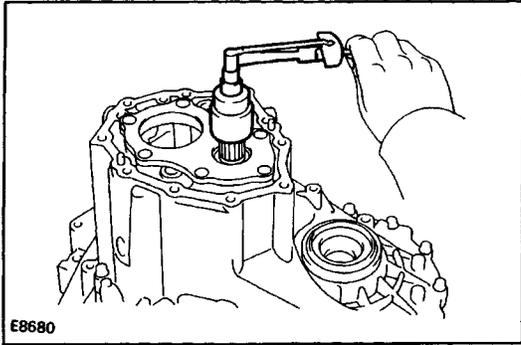
- (e) Install the adjust shim.

HINT: When reusing 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) Using a torque wrench, install and torque the seven torx screws.

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



- (g) Install the new lock nut to the output shaft.
- (h) Turn the output shaft counterclockwise and clockwise several times.
- (i) Using a torque meter, measure the preload of the output shaft.

Preload (at starting)

New bearing

0.78–1.57 N-m

(8.0–16.0 kgf-cm, 6.9–13.9 in.-lbf)

Reused bearing

0.49–0.98 N-m

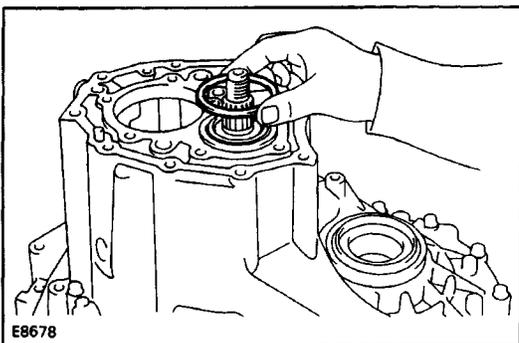
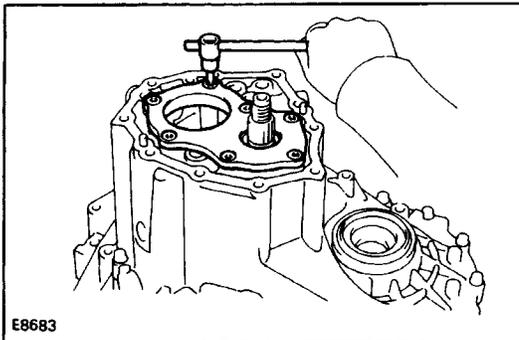
(5.0–10.0 kgf-cm, 4.3–8.7 in.-lbf)

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

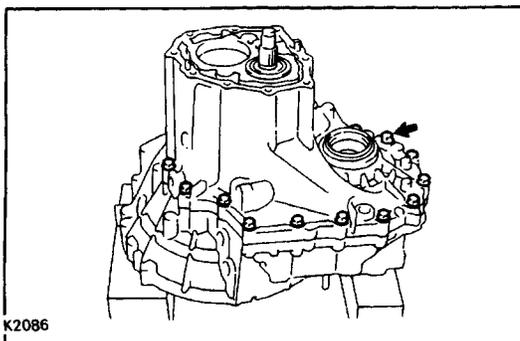
HINT: The preload will be changed about 0.4–0.5 N-m

(4–5 kgf-cm, 3.5–4.3 in.-lbf) with each shim thickness.

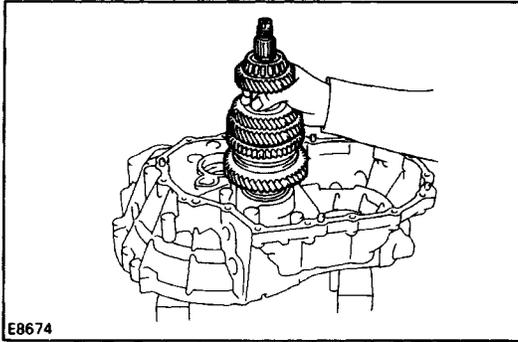
Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
0	0.40 (0.0157)	E	1.10 (0.0433)
1	0.45 (0.0177)	F	1.15 (0.0453)
2	0.50 (0.0197)	G	1.20 (0.0472)
3	0.55 (0.0217)	H	1.25 (0.0492)
4	0.60 (0.0236)	J	1.30 (0.0512)
5	0.65 (0.0256)	K	1.35 (0.0531)
6	0.70 (0.0276)	L	1.40 (0.0551)
7	0.75 (0.0295)	M	1.45 (0.0571)
8	0.80 (0.0315)	N	1.50 (0.0591)
9	0.85 (0.0335)	P	1.55 (0.0610)
A	0.90 (0.0354)	Q	1.60 (0.0630)
B	0.95 (0.0374)		
C	1.00 (0.0394)		
D	1.05 (0.0413)		



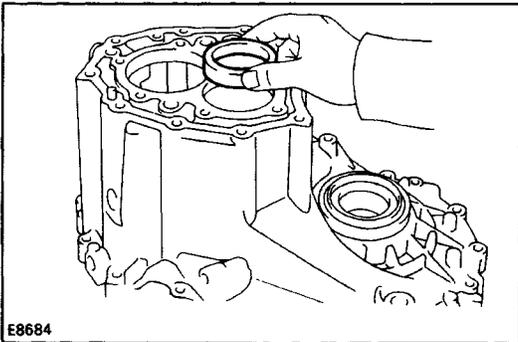
- (j) Remove the lock nut.
- (k) Using a torx wrench, remove the seven torx screws.
- (l) Remove the adjusting shim.



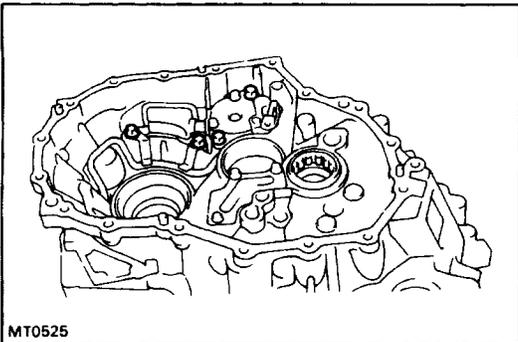
- (m) Remove the seventeen bolts and tap off the case with a plastic hammer.



(n) Remove the output shaft rear bearing outer race.



(o) Remove the output shaft assembly.



2. INSTALL OIL PUMP ASSEMBLY WITH OIL PIPE

(a) Install the oil pump assembly with oil pipe.

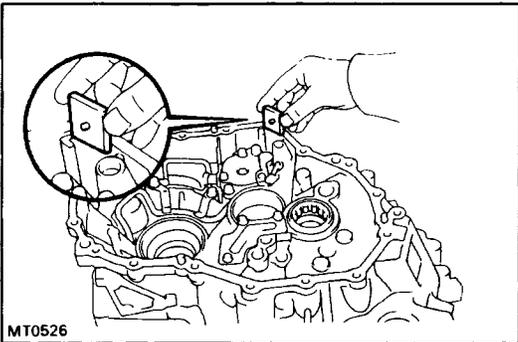
HINT: Do not drop the oil pump gasket.

(b) Install and torque the four bolts.

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

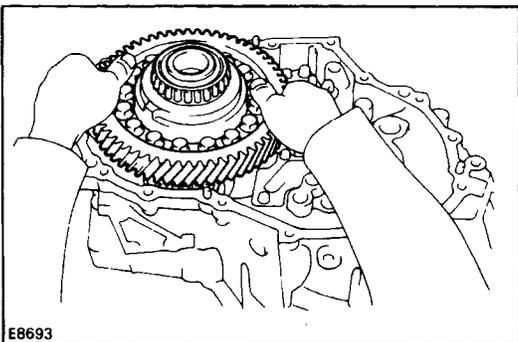
MT0525

3. INSTALL MAGNET TO TRANSAXLE CASE

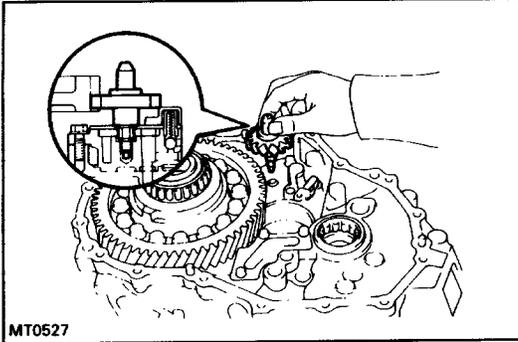


MT0526

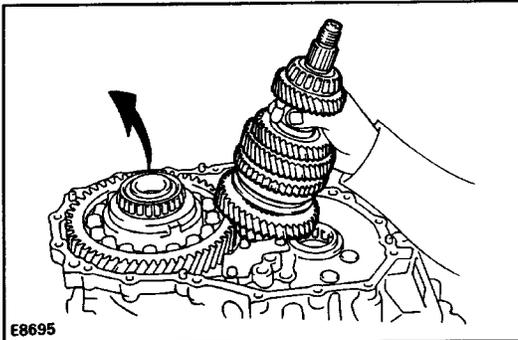
4. INSTALL DIFFERENTIAL CASE ASSEMBLY



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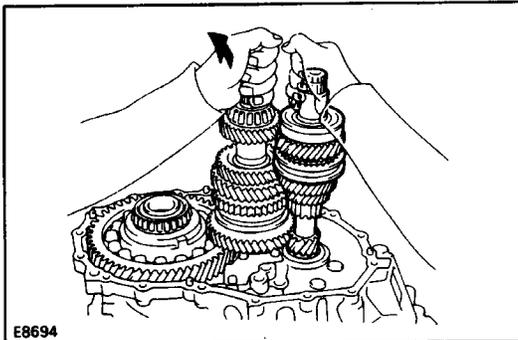


5. INSTALL OIL PUMP DRIVE GEAR



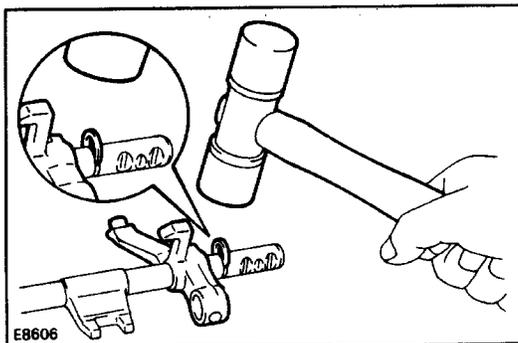
6. INSTALL OUTPUT SHAFT ASSEMBLY

Lift the differential case assembly, install the output shaft assembly.



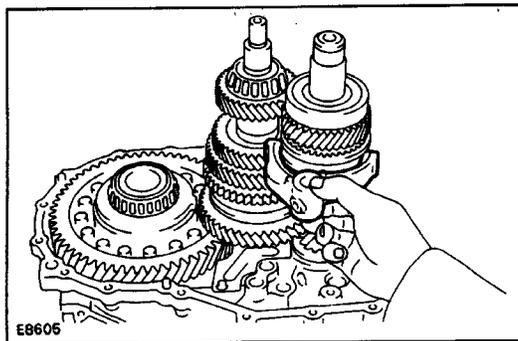
7. INSTALL INPUT SHAFT ASSEMBLY

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



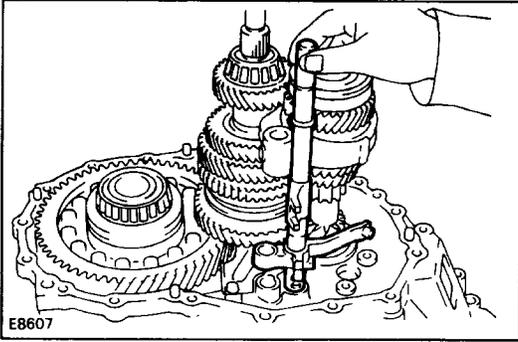
8. INSTALL SNAP RING

- (a) Install the reverse shift fork to the No.3 shift fork.
- (b) Using a hammer, install the snap ring.

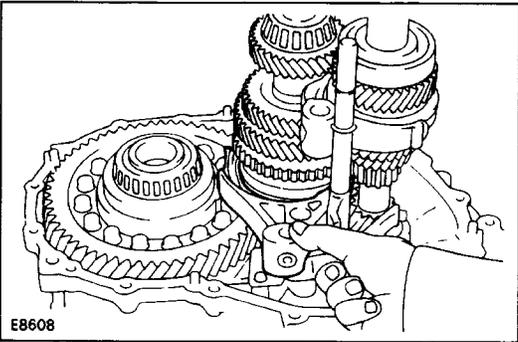


9. INSTALL NO.2 SHIFT FORK AND NO.3 SHIFT FORK SHAFT WITH REVERSE SHIFT FORK

- (a) Place No-2 shift fork into the groove of No.2 hub sleeve.

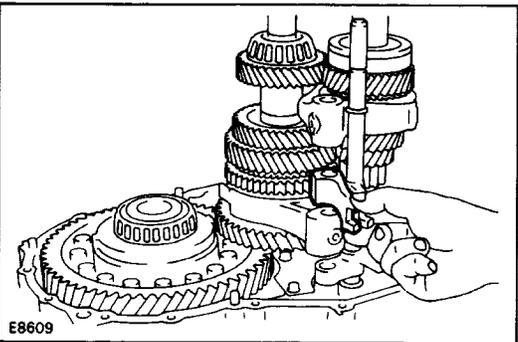


- (b) install the No-3 shift fork shaft with reverse shift fork to the case.

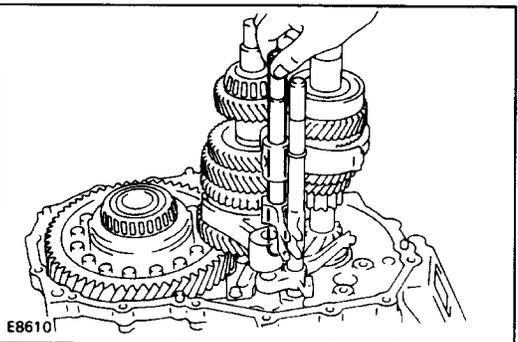


10. INSTALL NO.1 SHIFT FORK, SHIFT HEAD AND NO.2 SHIFT FORK SHAFT

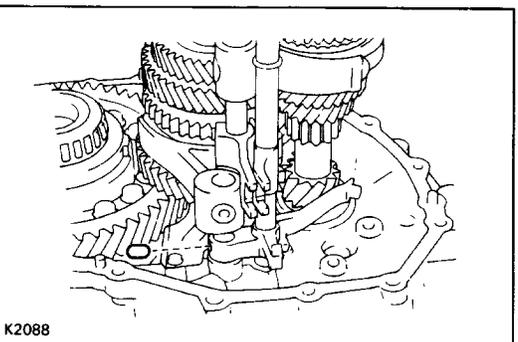
- (a) Place No.1 shift fork into the groove of No.1 hub sleeve.



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

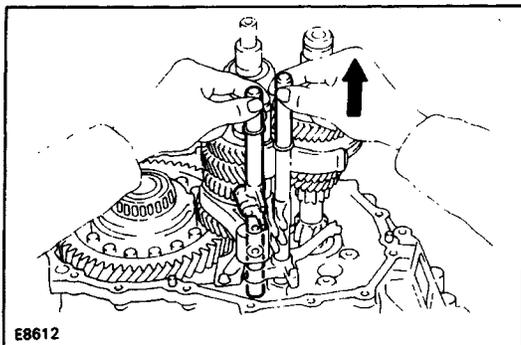


- (c) Install the No.2 shift fork shaft to the case, through the No.2 shift fork, the shift head and the No.1 shift fork.



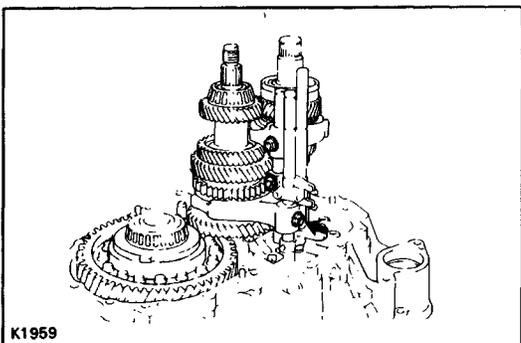
11. INSTALL NO.1 SHIFT FORK SHAFT

- (a) Using a magnetic finger, install the interlock roller into the reverse shift fork.



(b) Install the No-1 shift fork shaft to the case, through the NO shift fork and reverse shift fork.

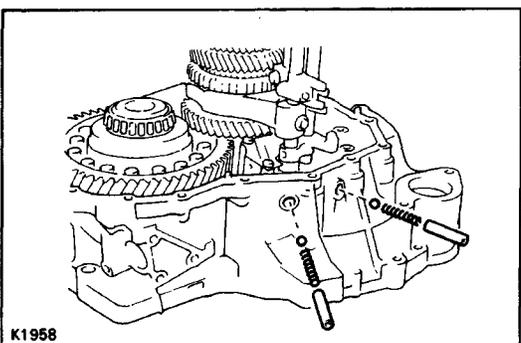
HINT: If it is difficult to put the fork shaft through the reverse shift fork, pull up the No.3 shift fork shaft.



12. INSTALL SET BOLTS

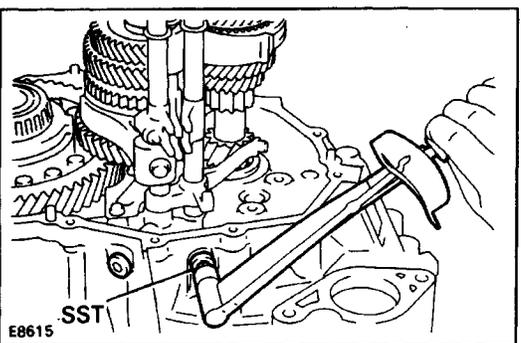
Install and torque the three bolts.

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



13. INSTALL LOCKING BALLS, SPRINGS, SPRING SEATS AND SCREW PLUGS

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



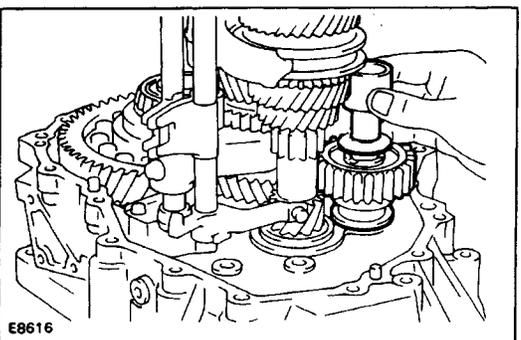
(b) Apply sealant to the screw plugs.

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

(c) Using SST, torque the screw plugs.

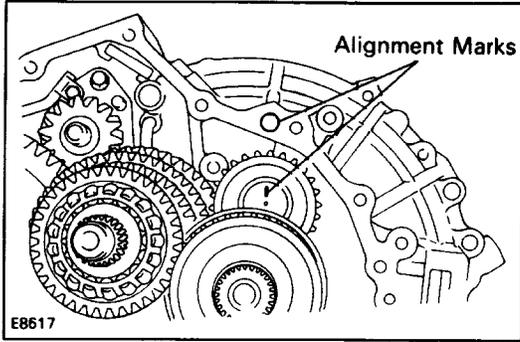
SST 09313-30021

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

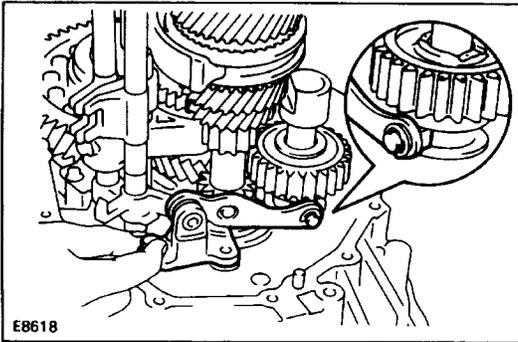


14. INSTALL REVERSE IDLER GEAR SHAFT AND GEAR

(a) Install the reverse idler gear shaft with gear to the case.

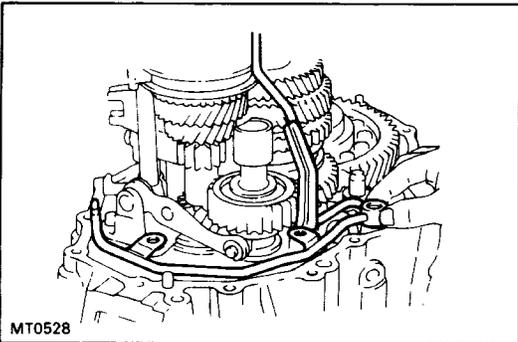


(b) Align the Alignment marks as shown.

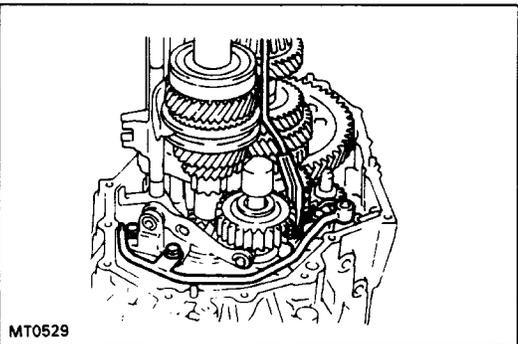


15. INSTALL REVERSE SHIFT ARM BRACKET ASSEMBLY AND NO.2 OIL PIPE

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

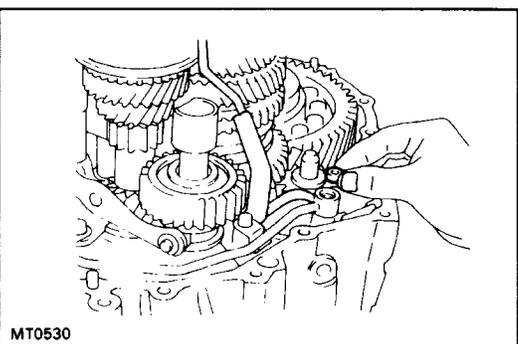


(c) Install the No.2 oil pipe.

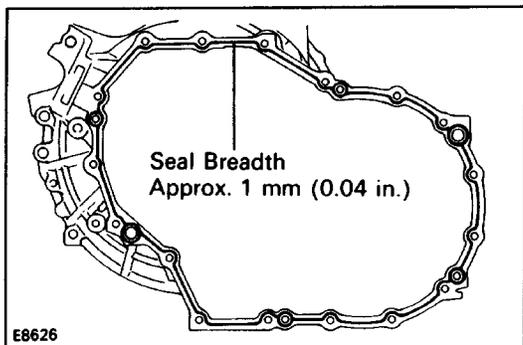


(d) Torque the two oil pipe bolts and shift arm bracket bolt.

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



(e) Install a new gasket to the oil pipe.



16. INSTALL TRANSMISSION CASE

(a) Remove any packing material and be careful not to drop oil on the contacting surfaces of the 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

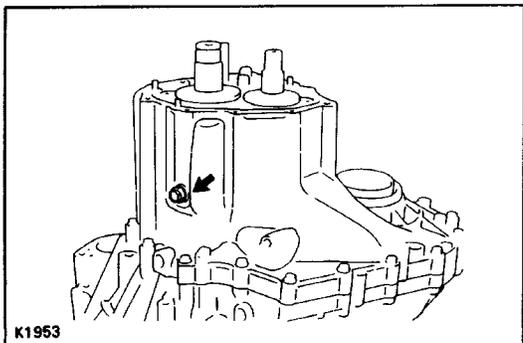
HINT: Install the transmission case as soon as the seal packing is applied.

(c) Install and torque the seventeen bolts.

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

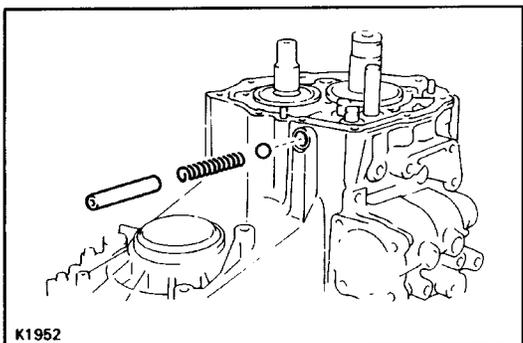
17. INSTALL AND TORQUE REVERSE IDLER GEAR SHAFT BOLT WITH GASKET

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



18. INSTALL LOCKING BALL, SPRING, SPRING SEAT AND SCREW PLUG

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



(b) Apply sealant to the screw plug.

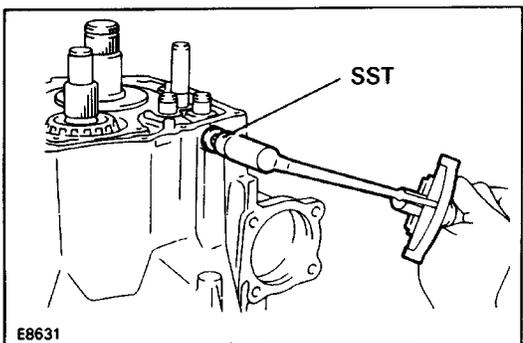
Sealant: Part No. 08833-00080, THREE BOND 1344,

LOCTITE 242 or equivalent

(c) Using SST, torque the screw plug.

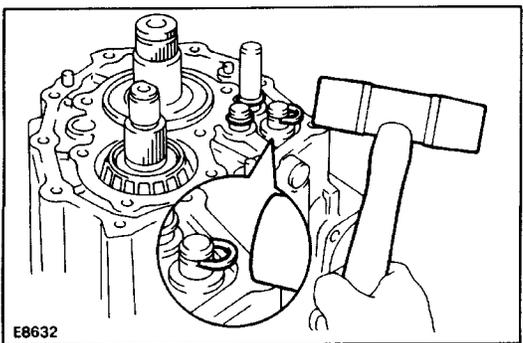
SST 09313-30021

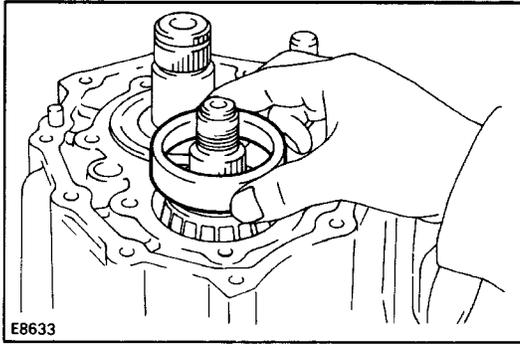
Torque: 25 N-m (250 kgf-cm, 18 ft-lbf)



19. INSTALL SNAP RING

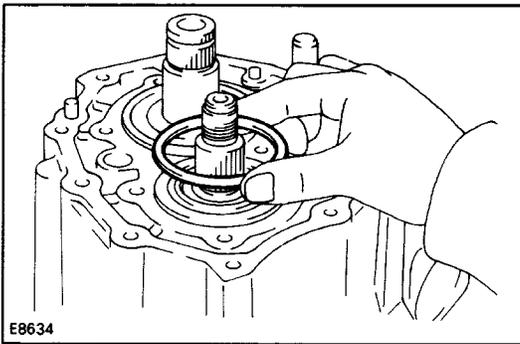
Using a plastic hammer, install the three snap rings.



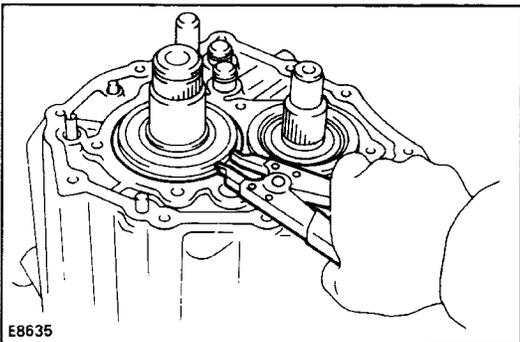


20. INSTALL REAR BEARING RETAINER

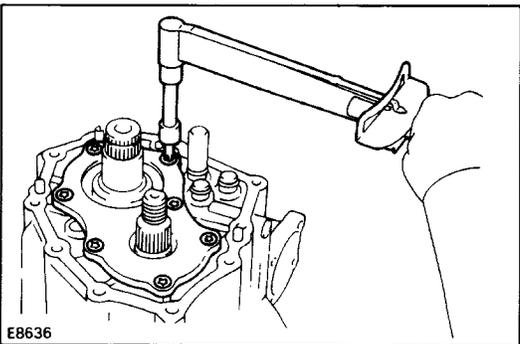
(a) Install the output shaft rear bearing outer race.



(b) Install the adjusting shim.



(c) Using snap ring pliers, install the snap ring to the input shaft rear bearing.

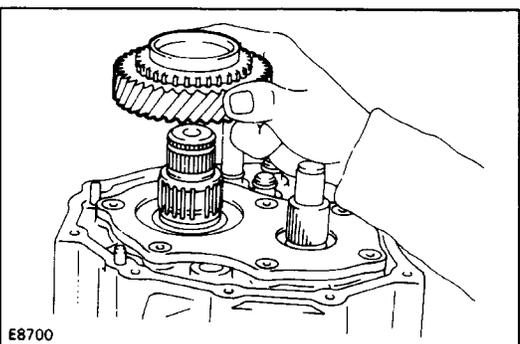


(d) Apply sealant to the screw plug.

Sealant: Part No. 08833-00070, THREE BOND 1324

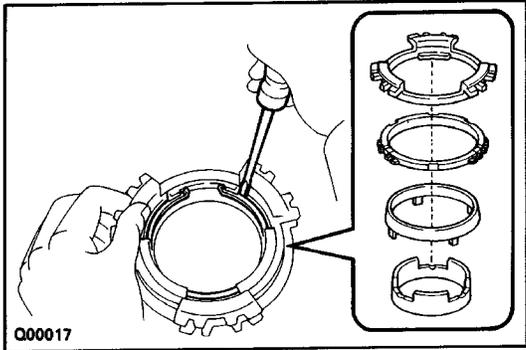
(e) Using a torx wrench, torque the seven screw plugs.

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



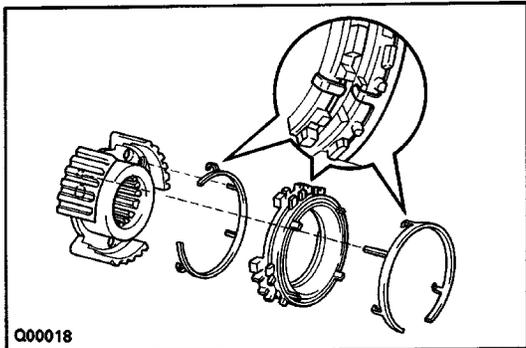
21. INSTALL FIFTH GEAR

Install the spacer, needle roller bearing and 5th gear.

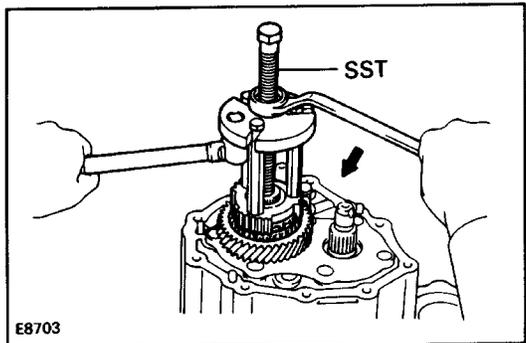


22. INSTALL NO. 5 SYNCHRONIZER RINGS WITH KEY SPRING TO NO. 3 CLUTCH HUB

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

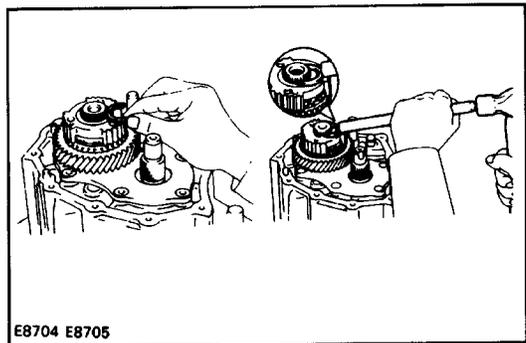


- (c) Install the No. 5 synchronizer rings with key springs to the No. 3 clutch hub.
HINT: Align the holes of the clutch hub with key spring.



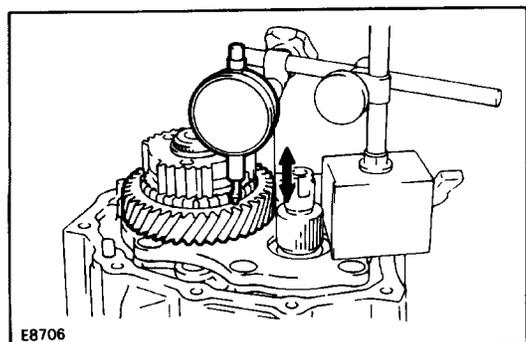
23. INSTALL NO. 3 CLUTCH HUB

- (a) Using SST, install the No. 3 clutch hub with synchronizer ring and key spring.
SST 09310-17010 (09310-07010, 09310-07020, 09310-07030)



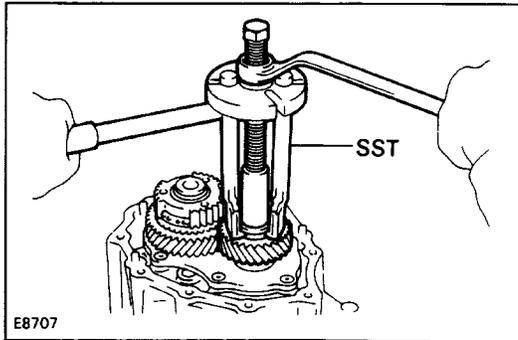
- (b) Select a snap ring that will allow minimum axial play and install it on the shaft.

Mark	Thickness	
	mm	(in.)
Q	2.25-2.30	(0.0886-0.0906)
R	2.30-2.35	(0.0906-0.0925)
S	2.35-2.40	(0.0925-0.0945)
T	2.40-2.45	(0.0945-0.0965)
U	2.45-2.50	(0.0965-0.0984)
V	2.50-2.55	(0.0984-0.1004)
W	2.55-2.60	(0.1004-0.1024)
X	2.60-2.65	(0.1024-0.1043)
Y	2.65-2.70	(0.1043-0.1063)



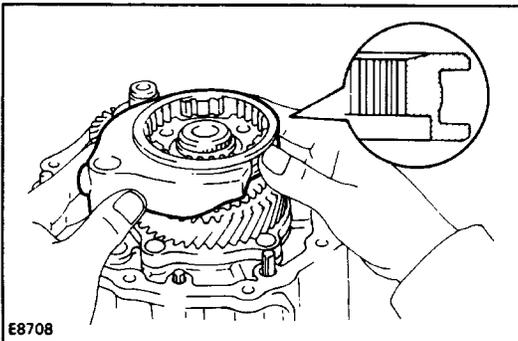
- (c) Using a dial indicator, measure the 5th gear thrust clearance.

**Standard clearance: 0.10-0.57 mm
(0.004-0.022 in.)**



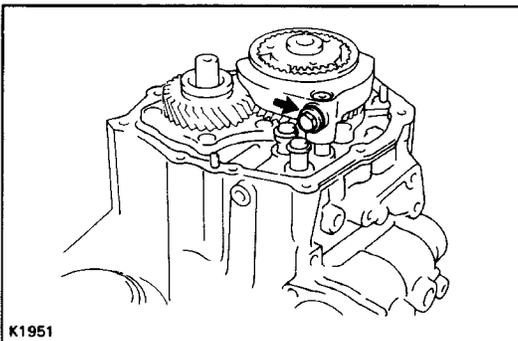
24. INSTALL FIFTH DRIVEN GEAR

Using SST, install the 5th driven gear.
 SST 09310-17010 (09310-07010, 09310-07020
 09310-07040,09310-07050)



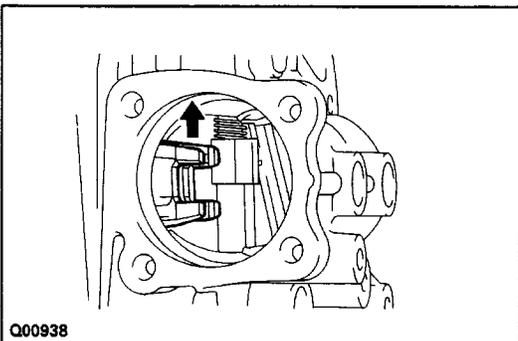
25. INSTALL NO.3 HUB SLEEVE AND FIFTH SHIFT FORK

(a) install the No.3 hub sleeve and 5th shift fork.



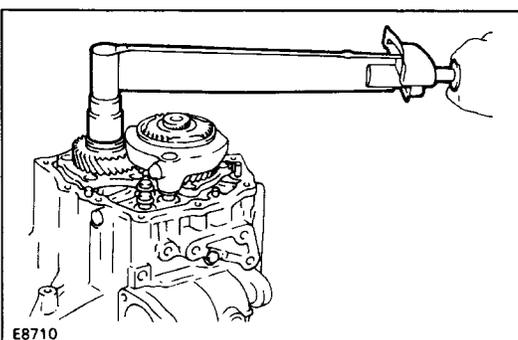
(b) Install and torque the set bolt.

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



26. INSTALL LOCK NUT

(a) Engage the gear double meshing.

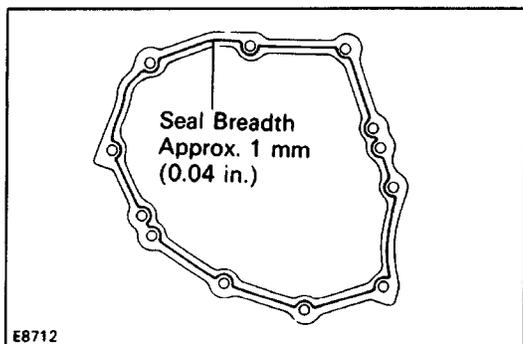


(b) Install and torque the nut.

Torque: 123 N-m (1,250 kgf-cm, 90 ft-lbf)

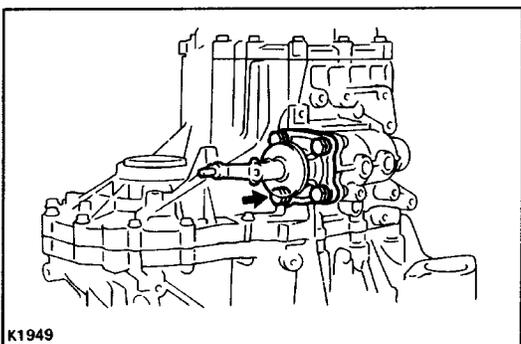
(e) Disengage the gear double meshing.

(d) Stake the lock nut.



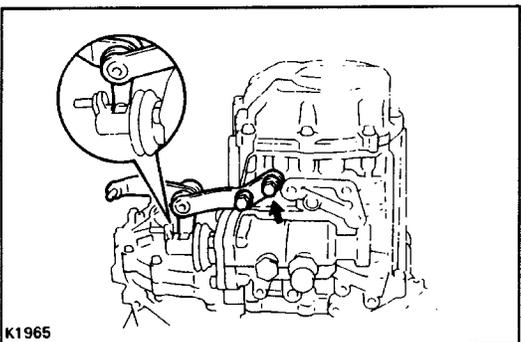
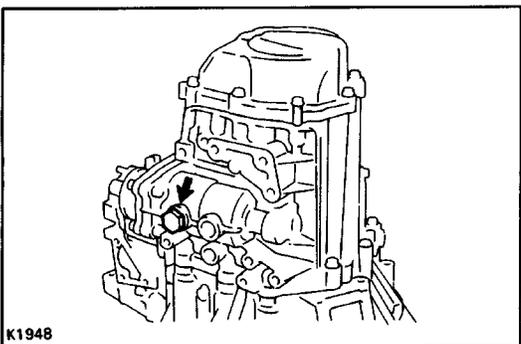
27. INSTALL TRANSMISSION CASE COVER

- Remove any packing material and be careful not to drop oil on the contacting surfaces of the transmission case cover.
- 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 cover as soon as the seal packing is applied.
- Install and torque the ten bolts.
Torque: 29 N-m (300 kgf-cm, 22 ft-lbf)



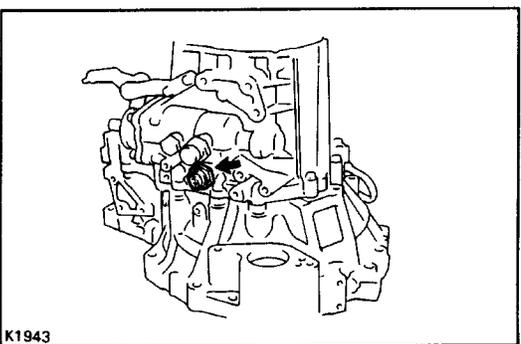
28. INSTALL SHIFT AND SELECT LEVER SHAFT ASSEMBLY

- Install the shift and select lever shaft assembly and new gasket.
- Apply sealant to the bolt threads.
Sealant: Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent
- Install and torque the four bolts.
Torque: 20 N-m (200 kgf-cm, 14 ft-lbf)
- Install and torque the lock bolt with gasket.
Torque: 49 N-m (500 kgf-cm, 36 ft-lbf)



29. INSTALL NO.2 SELECTING BELLCRANK WITH SELECTING BELLCRANK SUPPORT

- Apply sealant to the bolt threads.
Sealant: Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent
- Install and torque the two bolts.
Torque: 20 N-m (200 kgf-cm, 14 ft-lbf)

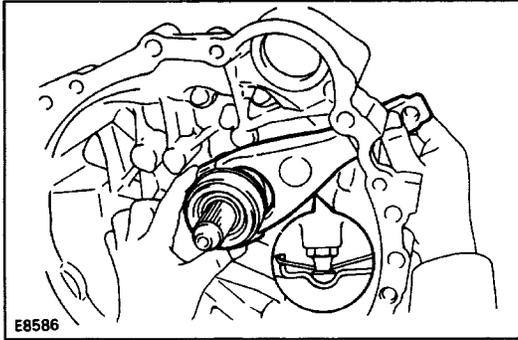


30. INSTALL BACK-UP LIGHT SWITCH

Install and torque the back-up light switch.

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

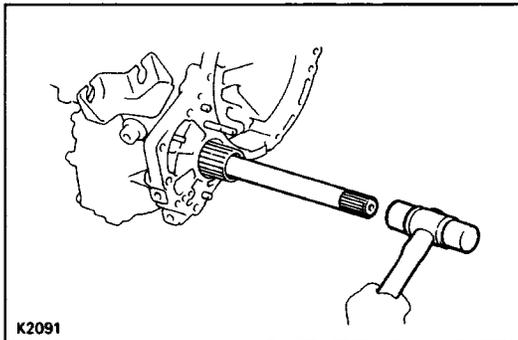
31. INSTALL SPEEDOMETER DRIVEN GEAR



32. INSTALL RELEASE FORK AND BEARING

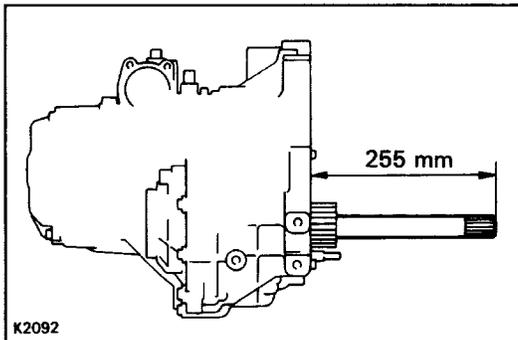
Apply molybdenum disulphide lithium base grease to the following part:

- Release bearing hub inside groove
- Input shaft spline
- Release fork contact surface

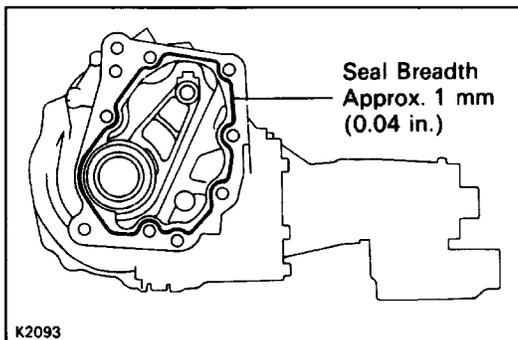


33. INSTALL DIFFERENTIAL SIDE GEAR INTERMEDIATE SHAFT

- Coat the MP grease to the intermediate shaft.
- Using a plastic hammer, correctly drive the intermediate shaft straight until the top of it touches the differential pinion shaft.



HINT: Keeping the intermediate shaft on the pinion shaft of differential, measure the point in the illustration. Protrusion length: 255 mm (10.04 in.)



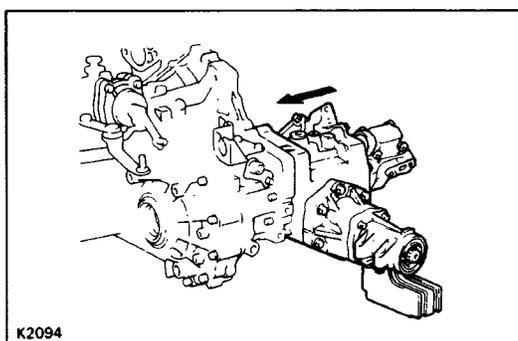
34. INSTALL TRANSFER ASSEMBLY

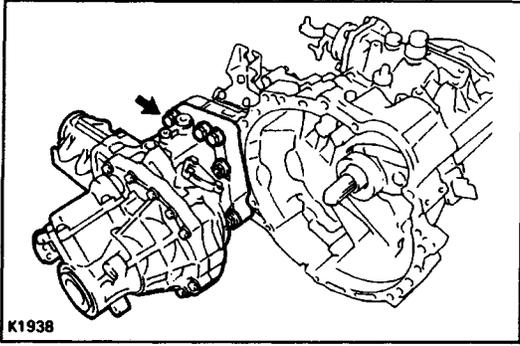
- Remove any packing material and be careful not to drop oil on the contacting surfaces of the transfer or transaxle.
- Apply seal packing to the transfer as shown in the figure.
Seal packing: Part No. 08826-00090, THREE BOND 1281 or equivalent

HINT: Install the transfer as soon as the seal packing is applied.

- Install the transfer assembly to the transaxle assembly.

HINT: Shift into 4th gear, install the transfer assembly while turning the input shaft of the transaxle.





(d) Apply sealant to the bolt threads.

Sealant: Part No. 08833-80, THREE BOND 1344, LOCTITE 242 or equivalent

(e) Install and torque the three bolts and five nuts.

Torque: 69 N-m (700 kgf-cm, 51 ft-lbf)