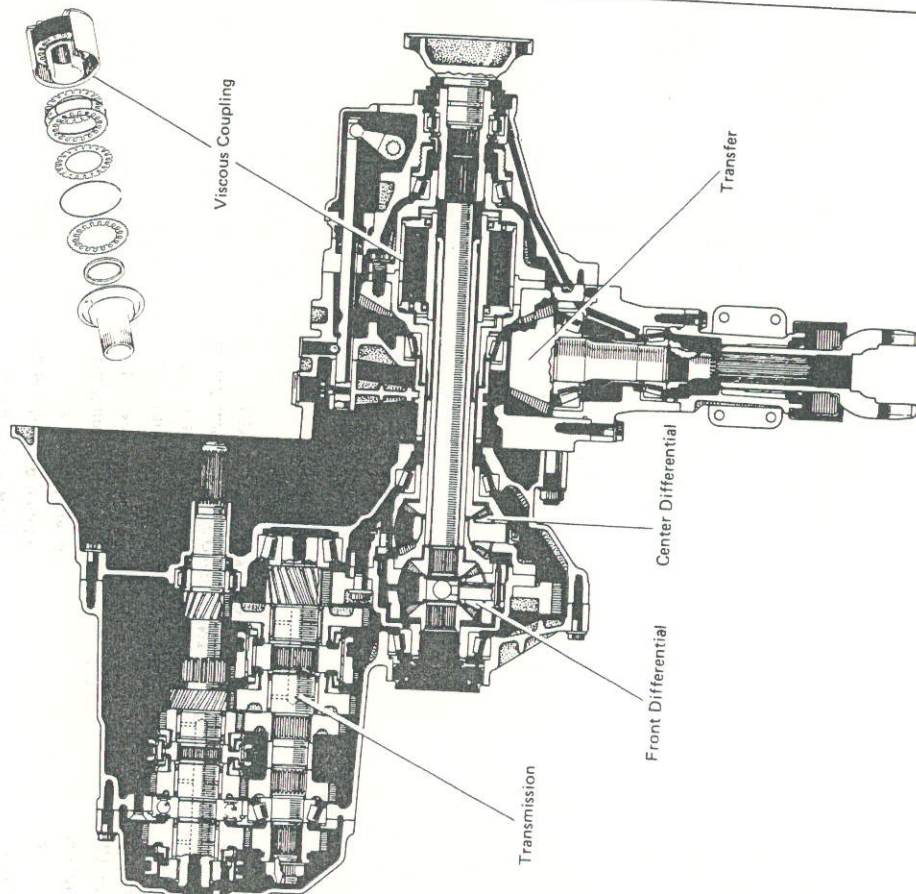


DESCRIPTION

GENERAL

- The E50F2 transaxle has been compactly designed by arranging the transmission, the center differential, the front differential and the transfer on the same quadruple case axle.
- The center differential, which compensates the difference in rotation speed between the front and rear wheels, utilizes bevel gear to provide durability and reliability by distributing the engine power from the transmission 50/50 to both front and rear propeller shafts. This center differential has been equipped with a viscous coupling which functions as a LSD.



MT0340
K2045

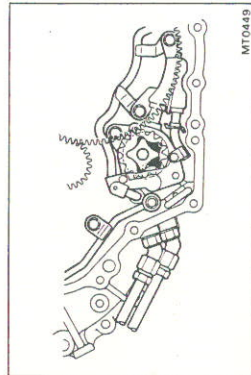
Transaxle type	E50F2	
Operation method	Floor shift vehicles are provided with push-pull type remote control	
Transmission type	Forward :	Constant mesh
	Reverse :	Sliding mesh
Reduction side (Gear type)	Helical gear	
Differential side (Gear type)	Bevel gear	
Type of differential center mechanism	Viscous coupling	
Gear type	Hypoid gear	

- The oil used in each transaxle is as follows:

Transaxle oil E50 (08885-80206) or equivalent
 (Recommended oil)
 Oil grade: API GL-5
 Viscosity: Above -18°C (0°F) SAE90, 75W-90 or 80W-90
 Below -18°C (0°F) SAE80W, 75W-90 or 80W-90

- The oil capacity: 5.2 Liters (5.5 US qts, 4.6 Imp. qts)

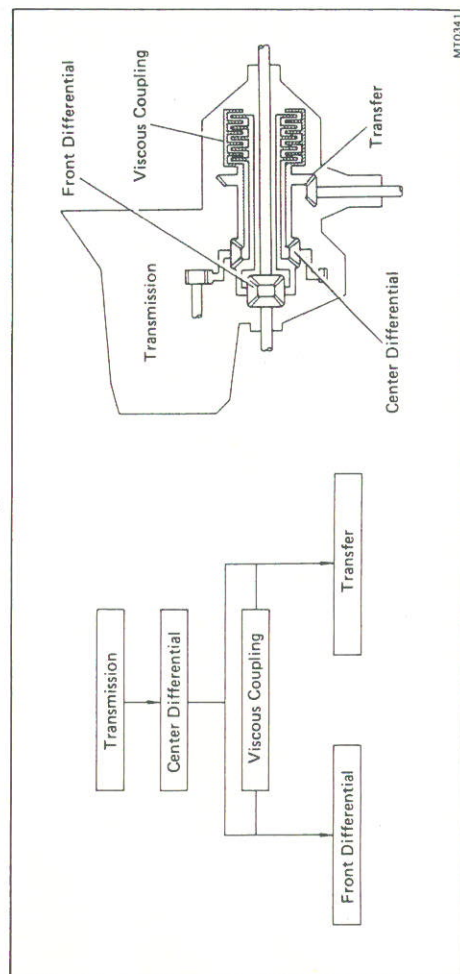
OIL PUMP



- The oil pump is of the trochoid type, and is driven by the differential ring gear and the pump drive gear. It is located at the bottom of the transaxle case.

POWER TRANSMISSION

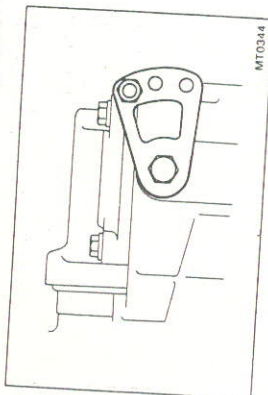
- Power from the transmission is transmitted along the route shown below:



MT0341J

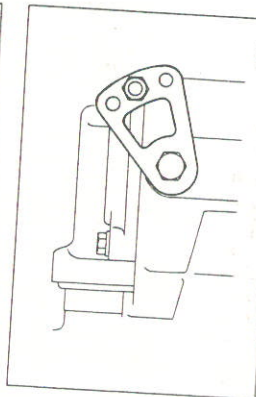
MODE SELECT LEVER FOR SERVICING

- Ordinarily, there is no need for the ordinary customer to operate anything.
- However, to operate 2 wheels out of the four, the following switches have been installed.



VISCOUS MODE

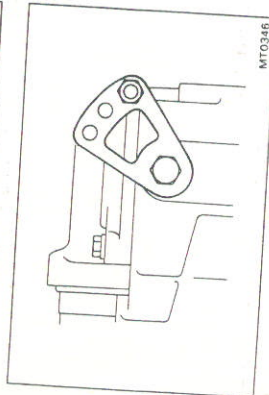
This is the mode for use during normal driving. After finishing inspection, be sure to return the lever to this mode and attach the lock bolt.



VISCOUS FREE MODE

This mode cuts off the driving force transmitted from the center differential to the viscous coupling, and makes the center differential free.

CAUTION: Never use this during normal driving.



FF MODE

This mode cuts off the driving force transmitted from the center differential to the transfer, and locks the center differential. However, when the lever is shifted to this mode, the driving force is transmitted only to the front wheels.

CAUTION: Never use this during normal driving. It will have a bad effect on the transaxle.

PRECAUTIONS

When working with FIPG material, you must be observe the following.

- Using a razor blade and gasket scraper, remove all the old packing (FIPG) material from the gasket surfaces.
- Thoroughly clean all components to remove all the loose material.
- Clean both sealing surfaces with a non-residue solvent.
- Apply the seal packing in approx. 1 mm (0.04 in.) bead along the sealing surface.
- Parts must be assembled within 10 minutes of application. Otherwise, the packing (FIPG) material must be removed and reapplied.

TROUBLESHOOTING

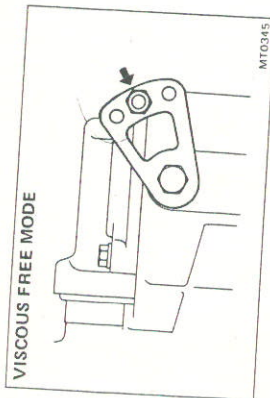
Problem	Possible cause	Remedy	Page
Noise	Transmission, differential or transfer faulty Wrong oil grade Oil level low	Disassemble and inspect transmission, differential or transfer Replace oil Add oil	MT-15
Oil leakage	Oil level too high Oil seal, O-ring or gasket worn or damaged	Drain oil Replace oil seal, O-ring or gasket	FA-10 MT-15
Hard to shift or will not shift	Control cable faulty Transmission faulty	Replace control cable Disassemble and inspect transmission	MT-104 MT-15
Tight corner braking phenomenon	Differential, center differential or transfer faulty	Replace differential, center differential or transfer	MT-50 MT-66

ON-VEHICLE INSPECTION OF VISCIOUS COUPLING

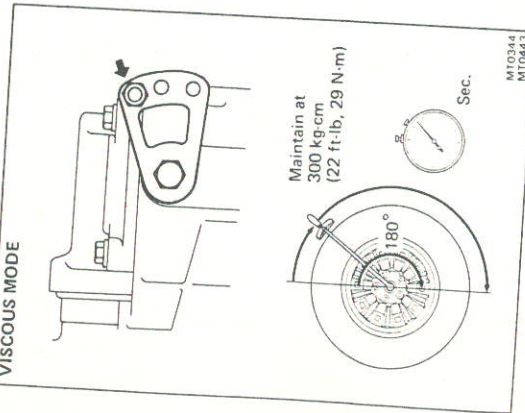
CAUTION: Perform inspection of viscous coupling when the gear oil temperature is 20°C (68°F).

INSPECT VISCIOUS COUPLING

- (a) Confirm that the transmission is in neutral.
- (b) Jack up one front wheel only.
- (c) Change the mode select lever to VISCIOUS FREE MODE position. (See page IN-8)
- (d) Check that the wheel rotates smoothly. If the wheel does not rotate smoothly, inspect the brakes drag.



VISCIOUS MODE



- (e) Change the mode select lever to VISCIOUS MODE position. (See page IN-8)

- (f) Measure the time taken to revolve the wheel through 180° while maintaining a torque of 300 kg-cm (22 ft-lb, 29 N-m) with a torque wrench.

Specified time: 7 — 15 secs.

If it takes more than 15 secs., remove the brake pads and measure the time again.

If the time is less than 7 secs., or is not within the specified time even when the brake pads have been removed, replace the viscous coupling.

REMOVAL AND INSTALLATION OF TRANSAXLE

REMOVAL OF ENGINE WITH TRANSAXLE

1. REMOVE BATTERY
2. DRAIN ENGINE COOLANT
3. DRAIN INTERCOOLER COOLANT
4. REMOVE HOOD
5. DISCONNECT ACCELERATOR CABLE FROM THROTTLE BODY
6. REMOVE ENGINE RADIATOR
7. DISCONNECT INTERCOOLER WATER HOSES
8. DISCONNECT HEATER HOSES
9. DISCONNECT FUEL HOSES
 - (a) Disconnect the inlet hose from the fuel filter.
 - (b) Disconnect the return hose from the fuel return pipe.

CAUTION: Catch leaking fuel in a container.

10. REMOVE AIR CLEANER ASSEMBLY

- (a) Disconnect the air flow meter connector.
- (b) Disconnect the two air hoses.
- (c) Disconnect the four clips of the air cleaner cap.
- (d) Loosen the hose clamp and disconnect the air cleaner hose from the turbocharger, and remove the air cleaner cap together with the air cleaner hoses, air connector pipe and air flow meter.
- (e) Remove the air cleaner element.
- (f) Remove the three bolts and air cleaner case.

11. REMOVE CLUTCH RELEASE CYLINDER AND HOSE BRACKET WITHOUT DISCONNECTING TUBE AND HOSE

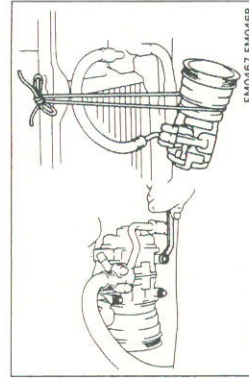
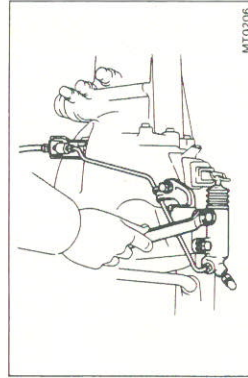
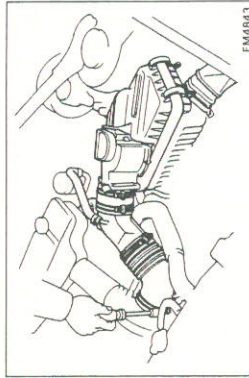
12. DISCONNECT SPEEDOMETER CABLE

13. DISCONNECT TRANSAXLE CONTROL CABLES

14. REMOVE ALTERNATOR

15. REMOVE A/C COMPRESSOR WITHOUT DISCONNECTING HOSES

- (a) Disconnect the two connectors.
- (b) Loosen the adjusting bolt for alternator drive belt, and remove the drive belt.
- (c) Remove the three compressor mounting bolts.
- (d) Put aside the compressor, and suspend it to the radiator support with string.



16. DISCONNECT WIRE, CONNECTORS AND VACUUM HOSES:

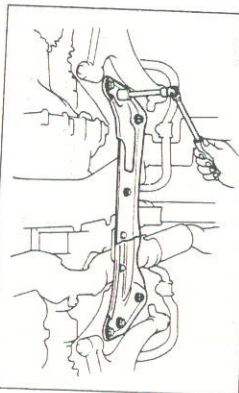
- (a) Check connector
- (b) Ground straps from LH fender apron
- (c) Connectors from No.2 junction block
- (d) Ignition coil connector and high-tension cord
- (e) Solenoid resistor connector
- (f) Fuel pump relay connector
- (g) Fuel pump resistor connector
- (h) Brake booster vacuum hose
- (i) A/C idle-up vacuum hoses
- (j) Charcoal canister vacuum hose

17. RAISE VEHICLE

CAUTION: Be sure the vehicle is securely supported.

18. DRAIN ENGINE OIL

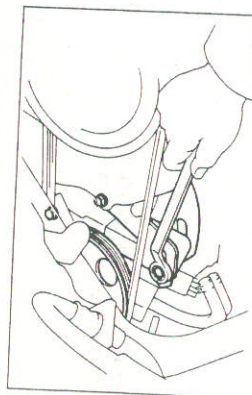
19. REMOVE ENGINE UNDER COVERS



20. REMOVE SUSPENSION LOWER CROSSMEMBER

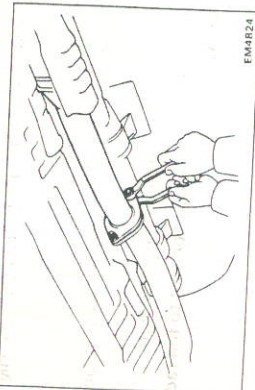
21. REMOVE FRONT DRIVE SHAFTS (See page FA-8)

22. REMOVE PROPELLER SHAFT (See page PR-4)



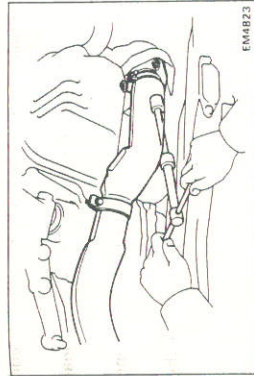
23. REMOVE POWER STEERING PUMP FROM BRACKET WITHOUT DISCONNECTING HOSES

- (a) Disconnect the two vacuum hoses.
- (b) Remove the drive belt.
- (c) Remove the three bolts and PS pump.
- (d) Put aside the pump and suspend it to the cowl with the string.



24. REMOVE FRONT EXHAUST PIPE

- (a) Remove the two bolts, and disconnect the front exhaust pipe from the rear exhaust pipe.

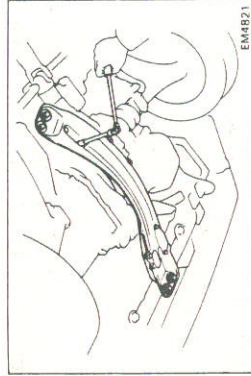


25. REMOVE ENGINE MOUNTING CENTER MEMBER

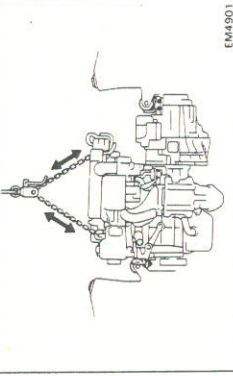
26. LOWER VEHICLE

27. PULL OUT TCCS ECU CONNECTORS AT ENGINE COMPARTMENT

- (a) Disconnect the three connectors from the TCCS ECU.
- (b) Remove the two screws and pull out the TCCS ECU connectors from cowl panel.

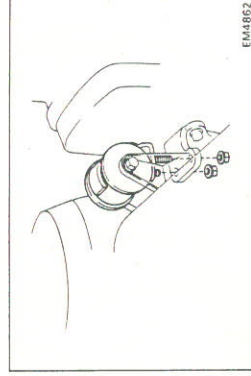


28. REMOVE POWER STEERING PUMP RESERVOIR TANK MOUNTING BOLTS

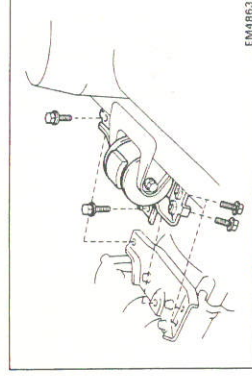


29. REMOVE ENGINE AND TRANSAXLE ASSEMBLY FROM VEHICLE

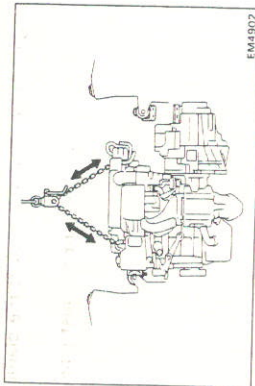
- (a) Attach the engine hoist chain to the lift brackets on the engine.



- (b) Remove the two nuts holding the RH mounting insulator to the mounting bracket.

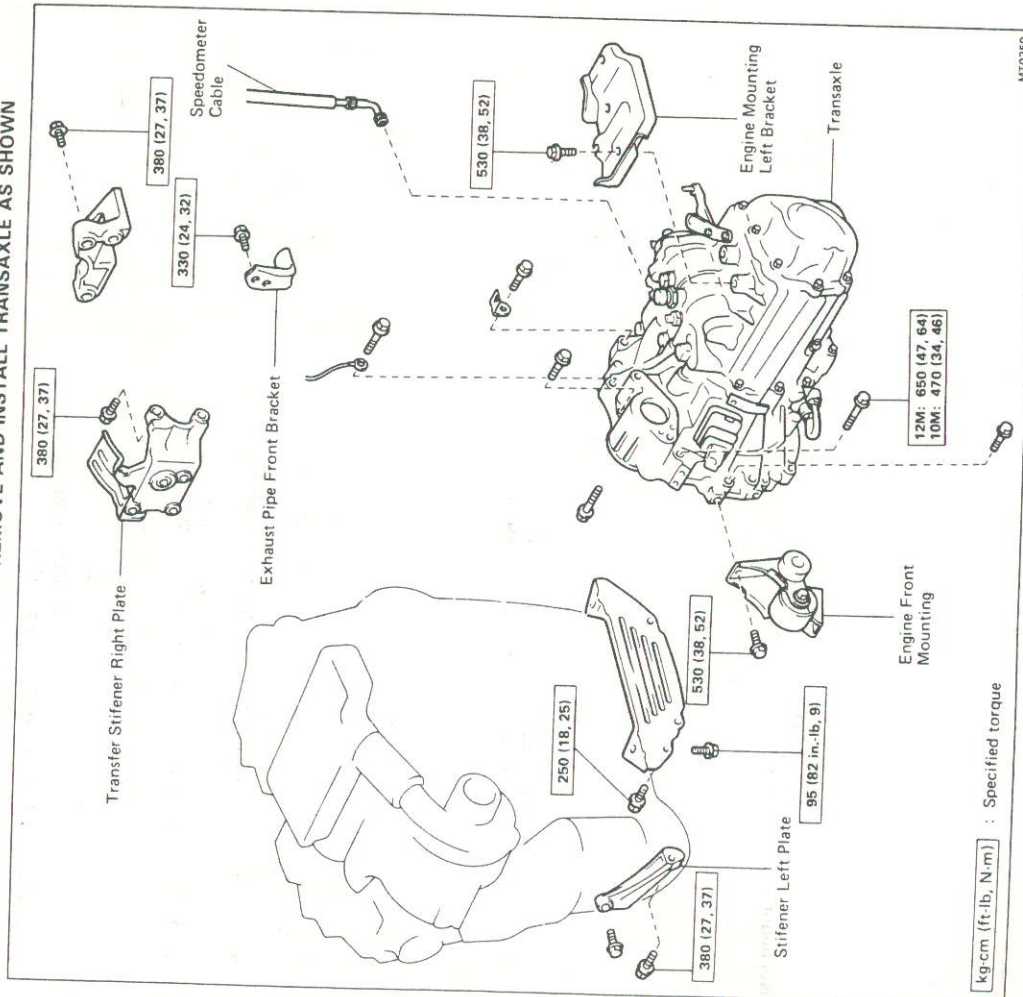


- (c) Remove the four bolt holding the LH mounting insulator to the mounting bracket.



- (d) Lower the engine out of the vehicle slowly and carefully.
- CAUTION: Be careful not to hit the power steering gear housing.**
- (e) Make sure the engine is clear of all wiring, hoses and cables.
- (f) Place the engine and transaxle assembly onto the stand.

REMOVAL AND INSTALLATION OF TRANSAXLE
REMOVE AND INSTALL TRANSAXLE AS SHOWN



kg-cm (ft.-lb, N-m) : Specified torque

(MAIN POINT OF REMOVAL AND INSTALLATION)

1. REMOVE TRANSAXLE ASSEMBLY

NOTE: When removing transaxle from engine, remove as the following procedure since cylinder block rib contacts transfer case.

- (a) Pull straight until there are space of 60 — 80 mm (2 — 3 in.) between engine and transaxle case.



- (b) Move the transmission case cover to the arrow in the illustration.

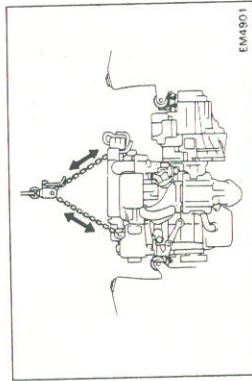


- (c) While holding transfer output slightly, pull out whole transaxle.

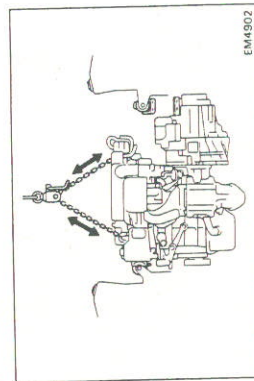
2. INSTALL TRANSAXLE ASSEMBLY FOLLOWING REMOVAL SEQUENCE IN REVERSE

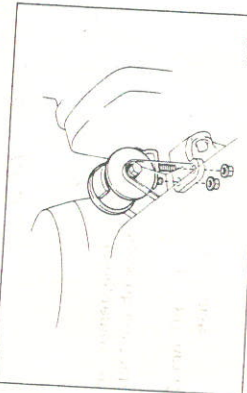
INSTALLATION OF ENGINE WITH TRANSAXLE
1. INSTALL ENGINE AND TRANSAXLE ASSEMBLY IN VEHICLE

- (a) Attach the engine hoist chain to the lifting brackets on the engine.
 - (b) Raise the engine into the engine compartment.
- CAUTION: Be careful not to hit the power steering gear housing.**

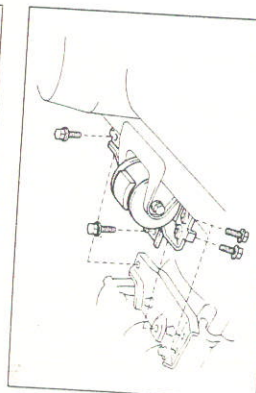


- (c) Keep the engine level, and align each mounting with the bracket.





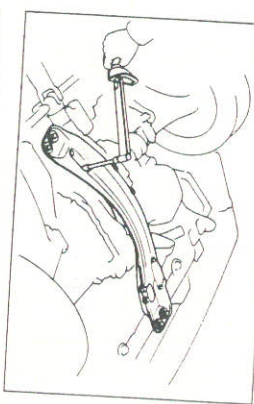
(d) Attach the RH mounting bracket to the mounting insulator, and temporarily install the two nuts.



(e) Attach the LH mounting bracket to the mounting insulator, and temporarily install the four bolts.
 (f) Torque the RH and LH mounting bracket bolts and nuts.

Torque: 530 kg-cm (38 ft-lb, 52 N·m)

(g) Remove the hoist chain from the engine.



2. **INSTALL POWER STEERING PUMP RESERVOIR TANK MOUNTING BOLTS**

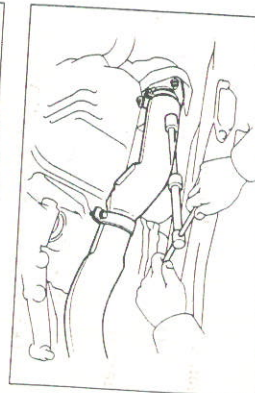
3. **CONNECT TCCS ECU CONNECTORS**

4. **RAISE VEHICLE**

CAUTION: Be sure the vehicle is securely supported.

5. **INSTALL ENGINE MOUNTING CENTER MEMBER**

Torque:
 To body 400 kg-cm (29 ft-lb, 39 N·m)
 Others 530 kg-cm (38 ft-lb, 52 N·m)

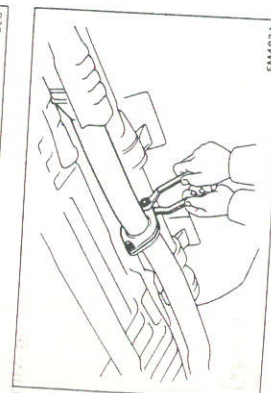


6. **INSTALL FRONT EXHAUST PIPE**

(a) Place new gaskets on the exhaust pipe.

(b) Connect the exhaust pipe with new three nuts.

Torque: 630 kg-cm (46 ft-lb, 62 N·m)



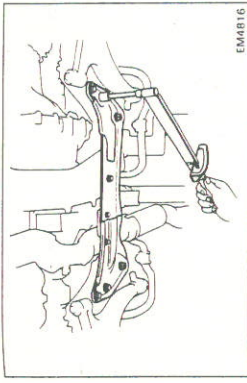
7. (c) Install the clamp with the bolt and nut.

INSTALL POWER STEERING PUMP TO BRACKET

Install the pump onto the bracket with the adjusting stay at the lower position.

8. **INSTALL PROPELLER SHAFT (See page PR-16)**

9. **INSTALL FRONT DRIVE SHAFTS (See page FA-15)**



10. **INSTALL SUSPENSION LOWER CROSSMEMBER**

Torque:

To body 2,125 kg-cm (154 ft-lb, 208 N·m)
 Others 400 kg-cm (29 ft-lb, 39 N·m)

11. **INSTALL ENGINE UNDER COVERS**

12. **LOWER VEHICLE**

13. **CONNECT VACUUM HOSES, WIRE AND CONNECTOR**

- (a) Check connector
- (b) Ground straps to the LH fender apron
- (c) Connectors to No.2 junction block
- (d) Ignition coil connector and high-tension cord
- (e) Solenoid resistor connector
- (f) Fuel pump relay connector
- (g) Fuel pump resistor connector
- (h) Brake booster vacuum hose
- (i) A/C idle-up vacuum hoses
- (j) Charcoal canister vacuum hose

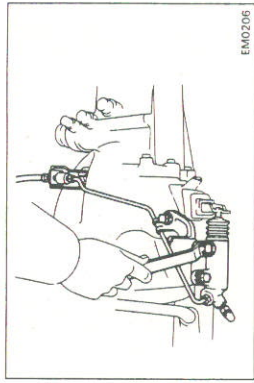
14. **INSTALL A/C COMPRESSOR**

- (a) Install the compressor with the three bolts.
- (b) Install the drive belt.

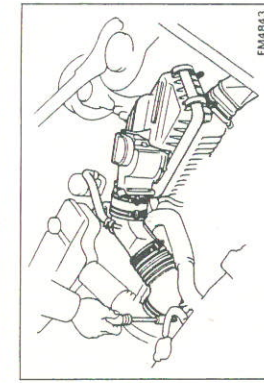
15. **INSTALL ALTERNATOR**

16. **CONNECT TRANSAXLE CONTROL CABLE**

17. **CONNECT SPEEDOMETER CABLE**



18. **INSTALL CLUTCH RELEASE CYLINDER AND HOSE BRACKET**



19. **INSTALL AIR CLEANER ASSEMBLY**

- (a) Install the air cleaner case with the three bolts.
- (b) Install air cleaner element.
- (c) Install the air cleaner cap, air flow meter, air connector pipe and air cleaner hoses.
- (d) Connect the air flow meter connector.

20. **CONNECT FUEL HOSES**

- (a) Fuel inlet hose
- (b) Fuel return hose

21. CONNECT HEATER WATER HOSES
22. CONNECT INTERCOOLER WATER HOSES
23. INSTALL ENGINE RADIATOR
24. INSTALL ACCELERATOR CABLE AND ADJUST IT
25. INSTALL BATTERY

26. FILL ENGINE WITH COOLANT

Capacity: 8.0 liters (8.5 US qts, 7.0 Imp. qts)

27. FILL INTERCOOLER WITH COOLANT

Capacity: 1.7 liters (1.8 US qts, 1.5 Imp. qts)

28. FILL WITH ENGINE OIL

Capacity:
 Drain and refill
 w/ Oil filter change
 3.6 liters (3.8 US qts, 3.2 Imp. qts)
 w/o Oil filter change
 3.3 liters (3.6 US qts, 2.9 Imp. qts)
 Dry fill
 4.6 liters (4.9 US qts, 4.0 Imp. qts)

29. START ENGINE AND CHECK FOR LEAKS

30. PERFORM ENGINE ADJUSTMENT

(a) Adjust the drive belt.

Drive belt tension:
 Alternator

	w/ Air con.	New belt	9 – 11 mm (0.35 – 0.43 in.)
		Used belt	13 – 16 mm (0.51 – 0.63 in.)
	w/o Air con.	New belt	11 – 14 mm (0.43 – 0.55 in.)
		Used belt	12 – 18 mm (0.47 – 0.71 in.)
PS pump		New belt	8 – 10 mm (0.31 – 0.39 in.)
		Used belt	10 – 13 mm (0.39 – 0.51 in.)

(b) Adjust ignition timing.

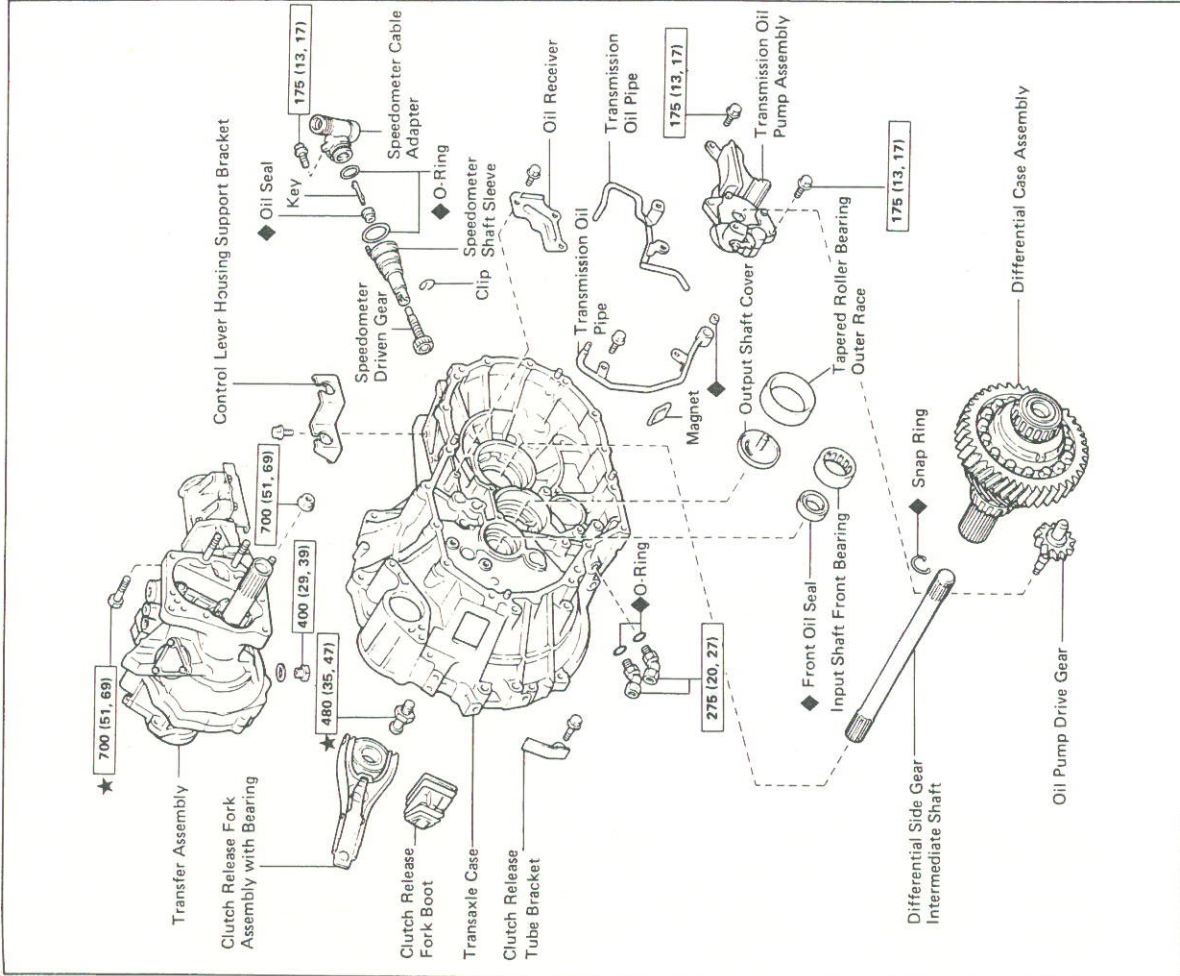
Ignition timing:

10° BTDC @ idle
 (w/ Terminals T and E1 short-circuited)

31. INSTALL HOOD
32. CHECK TOE-IN
33. PERFORM ROAD TEST
 Check for abnormal noise, shock, slippage, correct shift points and smooth operation.
34. RECHECK ENGINE, INTERCOOLER COOLANT AND ENGINE OIL LEVELS

REMOVAL OF COMPONENT PARTS

COMPONENTS

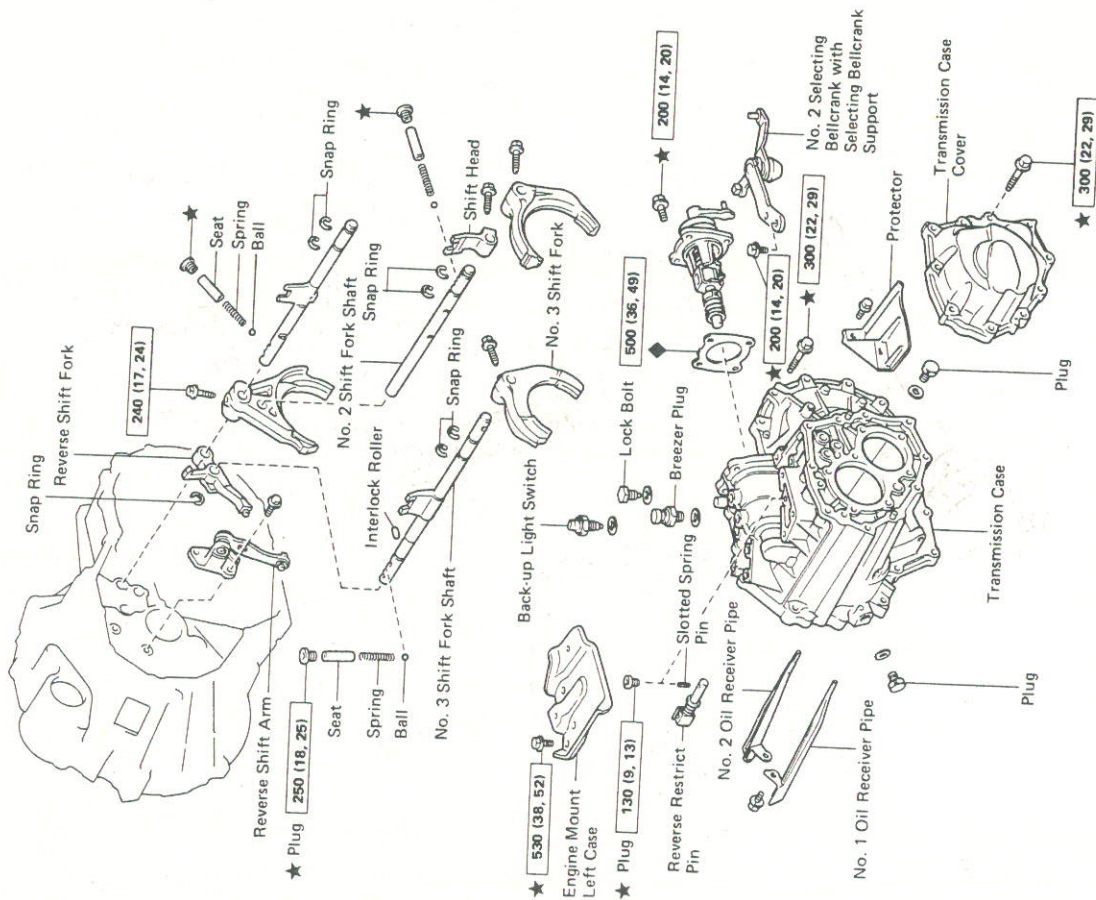


kg-cm (ft-lb, N-m) : Specified torque

◆ Non-reusable part

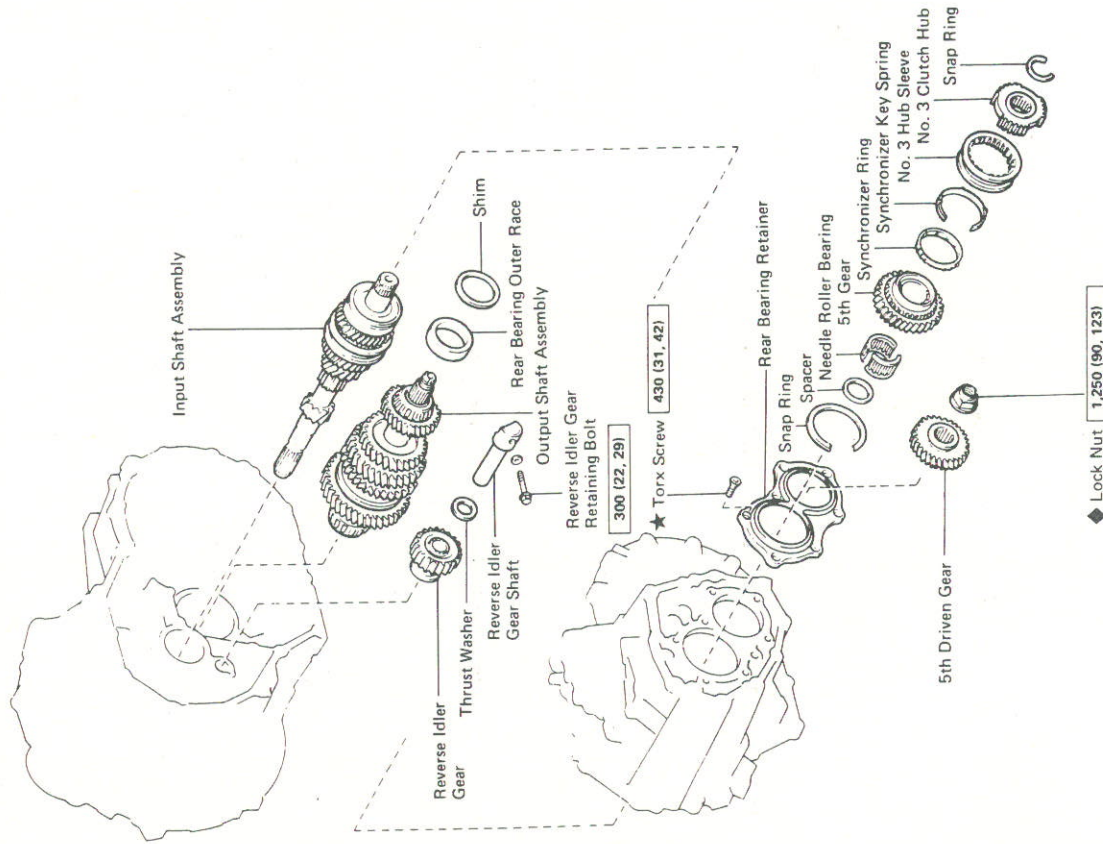
★ Precoated part

COMPONENTS (Cont'd)



kg·cm (ft·lb, N·m) : Specified torque
 ◆ Non-reusable part
 ★ Precoated part

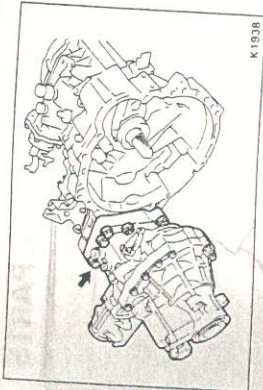
COMPONENTS (Cont'd)



kg·cm (ft·lb, N·m) : Specified torque
 ◆ Non-reusable part
 ★ Precoated part

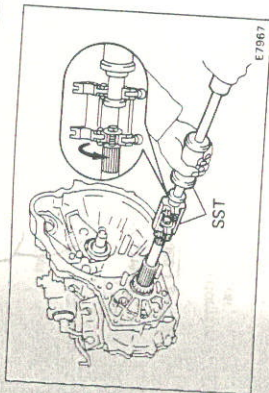
1. REMOVE TRANSFER ASSEMBLY

- (a) Remove the three bolts and five nuts.
- (b) Using a plastic hammer, remove the transfer assembly from the transaxle.

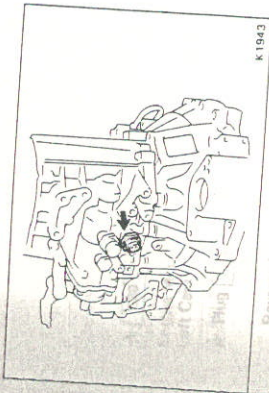


2. REMOVE DIFFERENTIAL SIDE GEAR INTERMEDIATE SHAFT

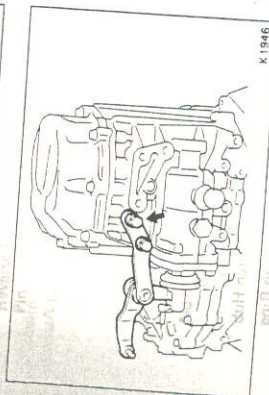
- (a) Screw in a suitable bolt with washer into the side gear intermediate shaft.
- (b) Using SST, remove the side gear intermediate shaft.



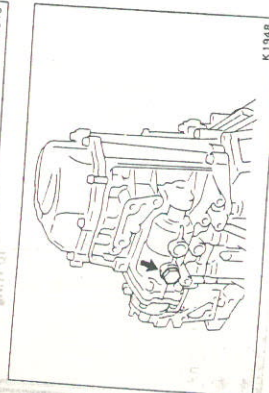
- 3. REMOVE RELEASE FORK AND BEARING**
- 4. REMOVE BACK-UP LIGHT SWITCH**



- 5. REMOVE SPEEDOMETER DRIVEN GEAR**
- 6. REMOVE NO.2 SELECTING BELLCRANK WITH SELECTING BELLCRANK SUPPORT**



- 7. REMOVE SHIFT AND SELECT LEVER SHAFT LOCK BOLT**



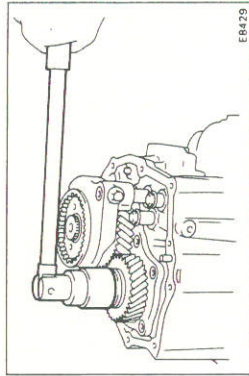
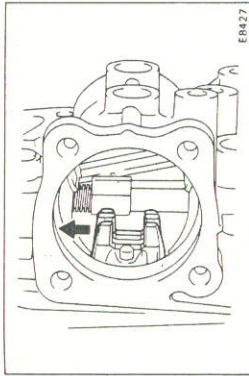
8. REMOVE SHIFT AND SELECTING LEVER ASSEMBLY



9. REMOVE TRANSMISSION CASE COVER

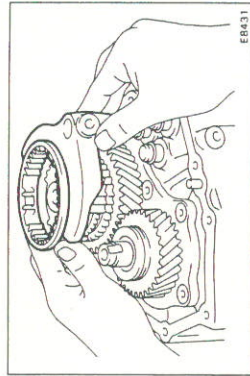
10. REMOVE OUTPUT SHAFT LOCK NUT

- (a) Unstake the lock nut.
- (b) Engage the gear double meshing.
- (c) Remove the lock nut.
- (d) Disengage the gear double meshing.



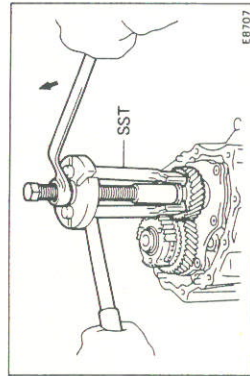
11. REMOVE NO.3 HUB SLEEVE AND NO.3 SHIFT FORK

- (a) Remove the No.3 shift fork set bolt.
- (b) Remove the No.3 hub sleeve and No.3 shift fork.



12. REMOVE FIFTH DRIVEN GEAR

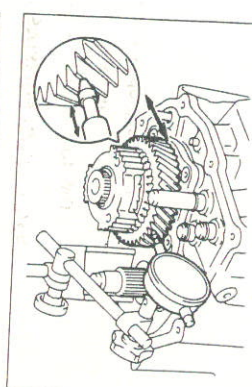
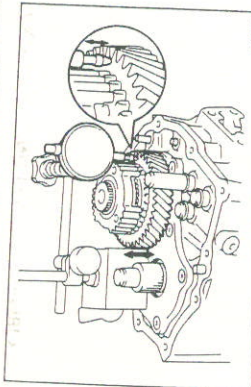
- Using SST, remove the 5th driven gear.
- SST 09310-17010 (09310-07010, 09310-07020, 09310-07040, 09310-07050)



13. MEASURE FIFTH GEAR THRUST CLEARANCE

- (a) Using a dial indicator, measure the thrust clearance.

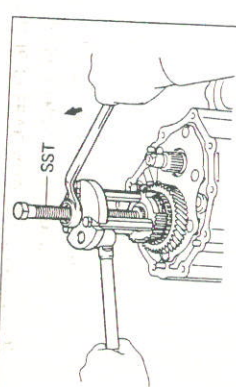
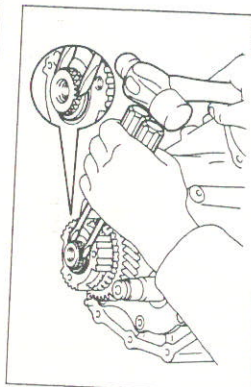
Standard clearance: 0.10 – 0.57 mm
(0.0039 – 0.0224 in.)
Maximum clearance: 0.65 mm (0.0256 in.)



- (b) Using a dial indicator, measure the oil clearance.
- Standard clearance:** 0.009 – 0.050 mm
(0.0004 – 0.0020 in.)
Maximum clearance: 0.070 mm (0.0028 in.)

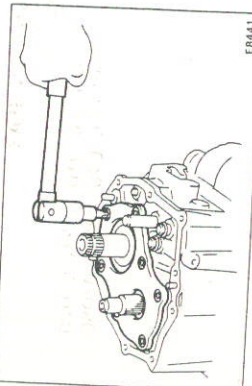
14. REMOVE NO.3 CLUTCH HUB AND FIFTH GEAR

- (a) Using two screwdrivers and a hammer, tap out the snap ring.



- (b) Using SST, remove the No.3 clutch hub with syn-chronizer ring and 5th gear.
- SST 09310-17010 (09310-07010, 09310-07020, 09310-07030)

15. REMOVE NEEDLE ROLLER BEARING AND SPACER

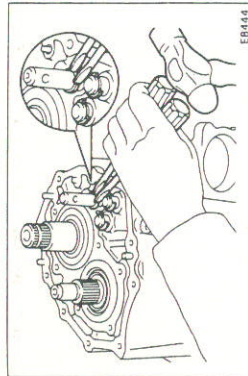
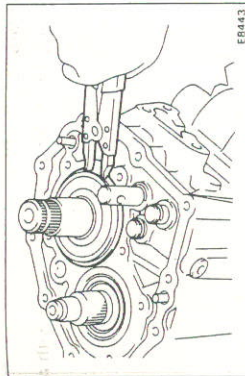


16. REMOVE REAR BEARING RETAINER

- (a) Using a torx wrench, remove the seven torx screws and bearing retainer.
- (b) Remove the adjust shim.

17. REMOVE SNAP RING

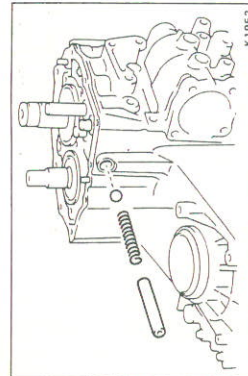
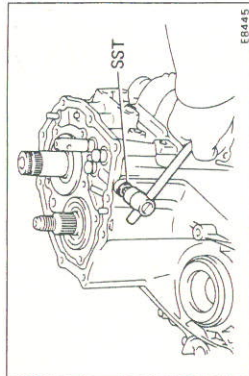
- (a) Using snap ring pliers, remove the snap ring.



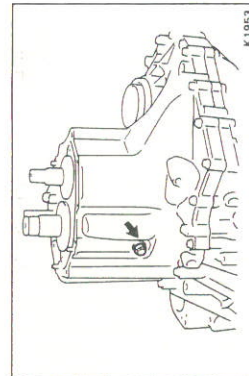
- (b) Using two screwdrivers and a hammer, remove the three snap rings.

18. REMOVE PLUG, SEAT, SPRING AND LOCKING BALL

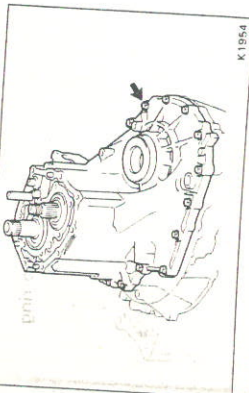
- (a) Using SST, remove the plug.
- SST 09313-30021



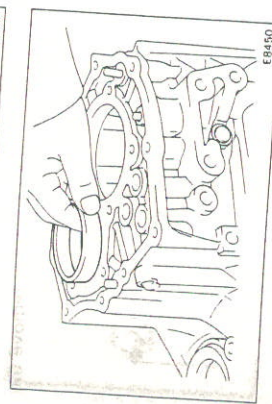
- (b) Using a magnetic finger, remove the seat, spring and ball.



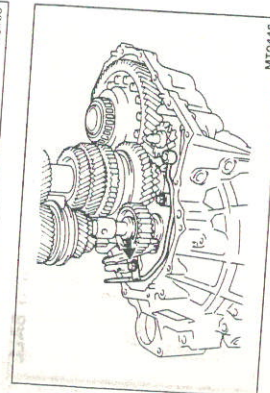
19. REMOVE REVERSE IDLER GEAR SHAFT RETAINING BOLT



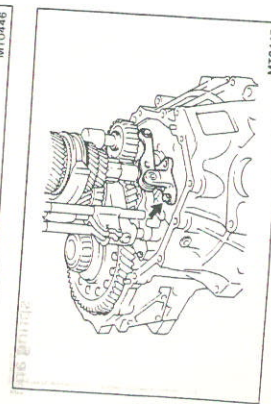
20. REMOVE TRANSMISSION CASE
Remove the seventeen bolts and tap off the case with a plastic hammer.



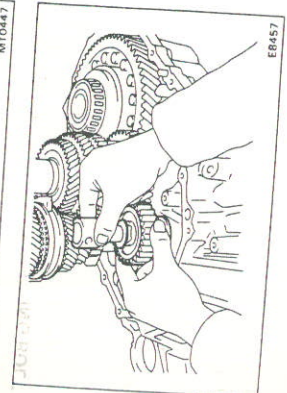
21. REMOVE OUTPUT SHAFT REAR TAPERED ROLLER BEARING OUTER RACE



22. REMOVE NO.2 OIL PIPE
(a) Remove the gasket.
(b) Remove the two bolts and oil pipe.

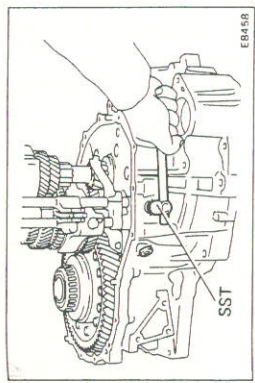


23. REMOVE REVERSE SHIFT ARM
Remove the bolt and pull off the bracket.

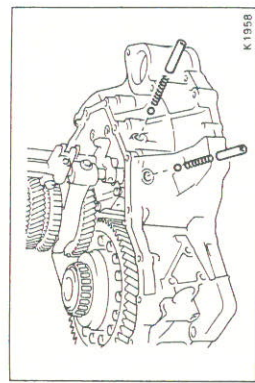


24. REMOVE REVERSE IDLER GEAR AND SHAFT
Pull out the shaft, remove the reverse idler gear and thrust washer.

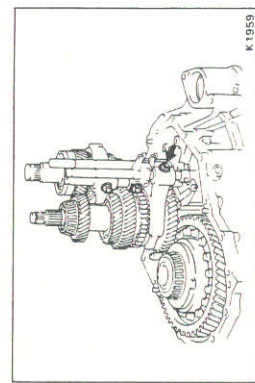
25. REMOVE PLUGS, SEATS, SPRINGS AND BALLS
(a) Using SST, remove the two plugs.
SST 09313-30021



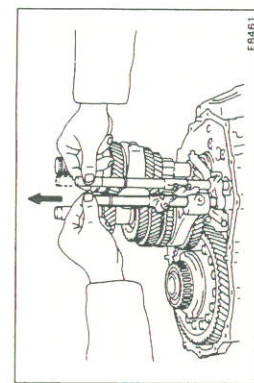
(b) Using a magnetic finger, remove the two seats, springs and balls.



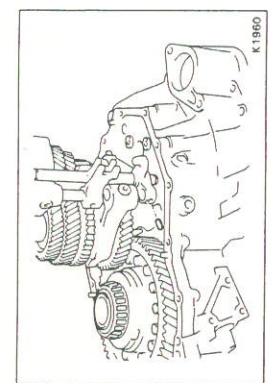
26. REMOVE SET BOLTS



27. REMOVE NO.1 SHIFT FORK SHAFT
Pull up No.3 shift fork shaft, remove the No.1 shift fork shaft.

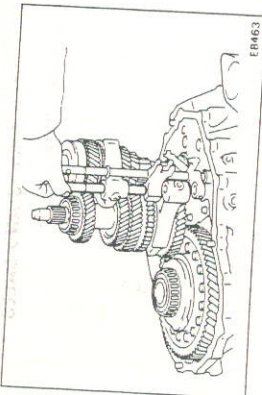


28. REMOVE INTERLOCK ROLLER
Using a magnetic finger, remove the interlock roller from the reverse shift fork.



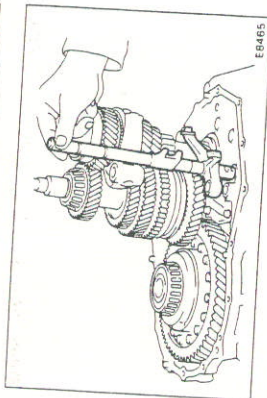
29. REMOVE NO.2 SHIFT FORK SHAFT, SHIFT HEAD AND NO.1 SHIFT FORK

- (a) Pull out the No.2 shift fork shaft.
- (b) Remove the shift head and No.1 shift fork.



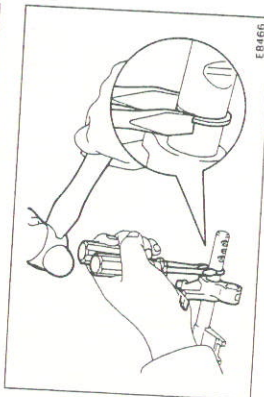
30. REMOVE NO.3 SHIFT FORK SHAFT WITH REVERSE SHIFT FORK AND NO.2 SHIFT FORK

- (a) Pull out the No.3 shift fork shaft with reverse shift fork.
- (b) Remove the No.2 shift fork.



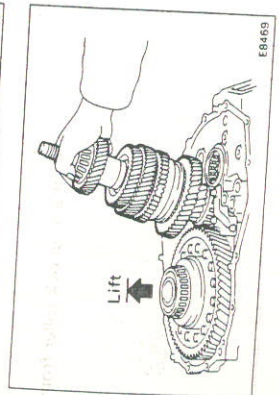
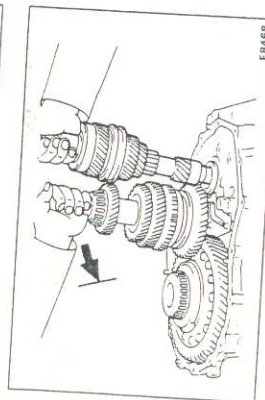
31. REMOVE SNAP RINGS

Using two screwdrivers and a hammer, remove the snap ring and reverse shift fork from the No.3 shift fork shaft.



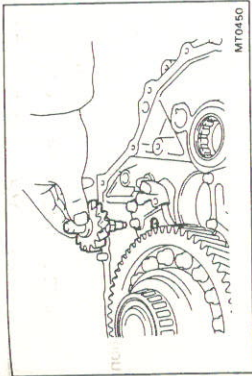
32. REMOVE INPUT AND OUTPUT SHAFT ASSEMBLY

- (a) Leaning the output shaft to the differential side, remove the input shaft assembly.
- (b) Lift up the differential case assembly, remove the output shaft assembly.

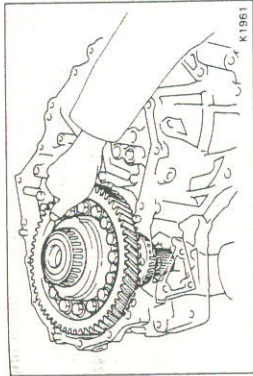


33. REMOVE DIFFERENTIAL ASSEMBLY

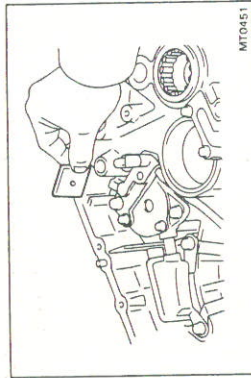
- (a) Remove the oil pump drive gear.



- (b) Remove the differential case assembly.

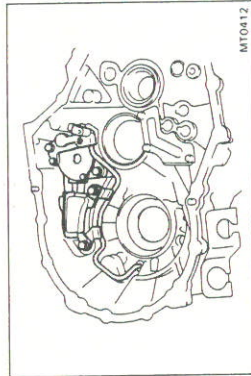


34. REMOVE MAGNET FROM TRANSAXLE CASE

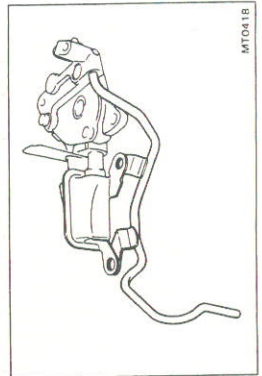


35. REMOVE OIL PUMP

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



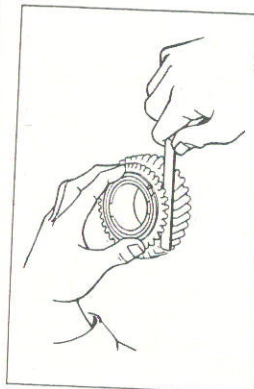
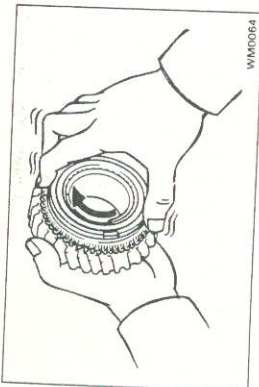
- (b) Remove the oil pipe from the oil pump.



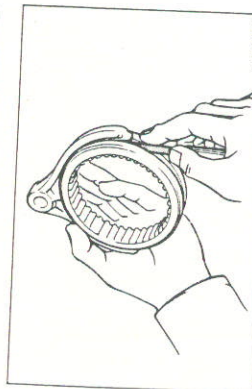
INSPECTION OF COMPONENT PARTS

1. INSPECT SYNCHRONIZER RING OF FIFTH GEAR

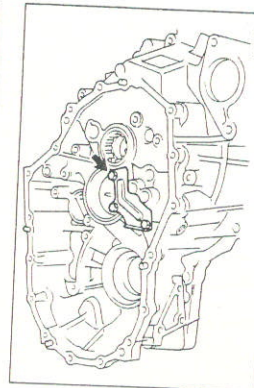
- (a) Check for wear or damage.
- (b) Turn the ring and push it in to check the braking action.



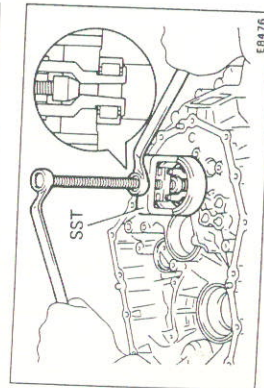
- (c) Measure the clearance between the synchronizer ring back and the gear spline end.
Minimum clearance: 0.6 mm (0.024 in.)
If the clearance is less than the limit, replace the synchronizer ring.



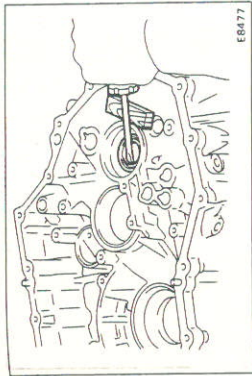
- 2. MEASURE CLEARANCE OF SHIFT FORK AND HUB SLEEVE**
Using a feeler gauge, measure the clearance between the hub sleeve and shift fork.
Maximum clearance: 1.0 mm (0.039 in.)
If the clearance exceeds the limit, replace the shift fork or hub sleeve.



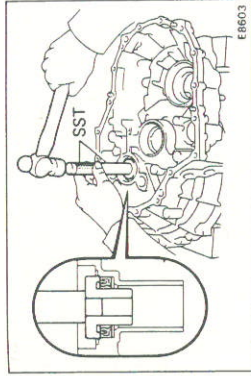
- 3. REMOVE TRANSAXLE CASE RECEIVER**



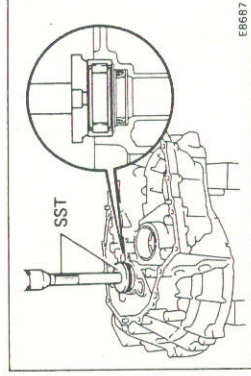
- 4. IF NECESSARY, REPLACE INPUT SHAFT BEARING AND OIL SEAL**
(a) Using SST, pull out the bearing.
SST 09612-65014



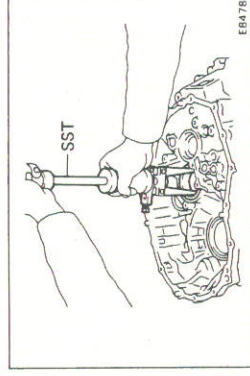
- (b) Using a screwdriver, remove the oil seal.



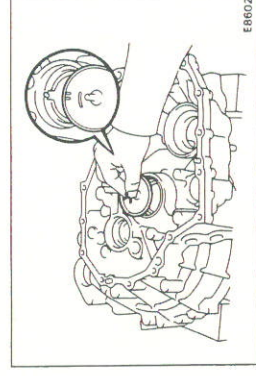
- (c) Using SST, drive in a new oil seal.
SST 09608-12010 (09608-00020, 09608-00080)
- (d) Coat the lip of oil seal with MP grease.



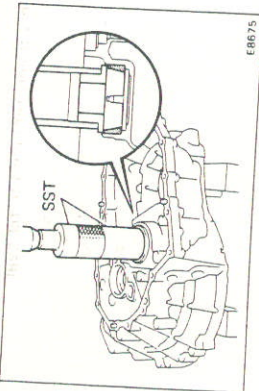
- (e) Using SST, drive in a new bearing.
SST 09608-12010 (09608-00020, 09608-00060)



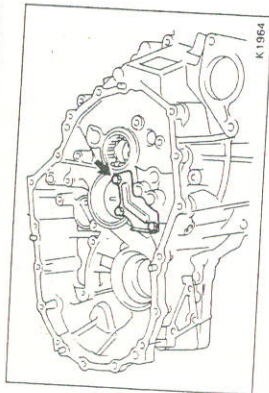
- 5. IF NECESSARY, REPLACE OUTPUT SHAFT FRONT OUTER RACE AND OUTPUT SHAFT COVER**
(a) Using SST, pull out the outer race.
SST 09308-00010
- (b) Remove the output shaft front cover.



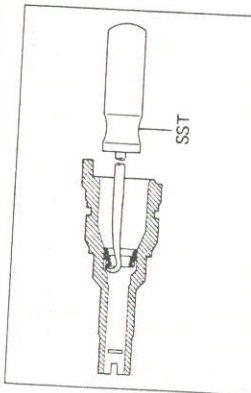
- (c) Install the output shaft front cover.
NOTE: Install the output shaft cover projection into the case side groove.



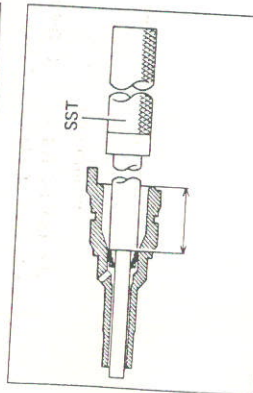
- (d) Using SST, press in a new outer race.
SST 09316-60010 (09316-00010, 09316-00020)



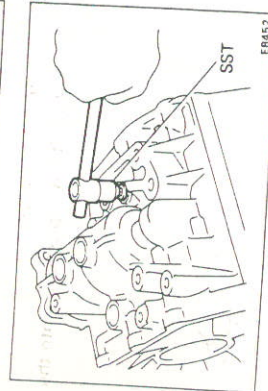
6. **INSTALL AND TORQUE TRANSAXLE CASE RECEIVER**
Torque: 75 kg-cm (65 in.-lb., 7.4 N·m)



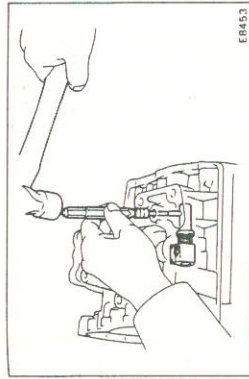
7. **IF NECESSARY, REPLACE SPEEDOMETER DRIVEN GEAR OIL SEAL**
(a) Using SST, pull out the oil seal.
SST 09921-00010



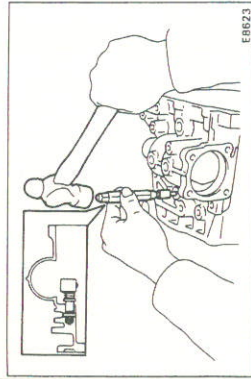
- (b) Using SST, drive in a new oil seal.
SST 09201-60011
Drive in depth: 33 mm (1.30 in.)
(c) Coat the lip of oil seal with MP grease.



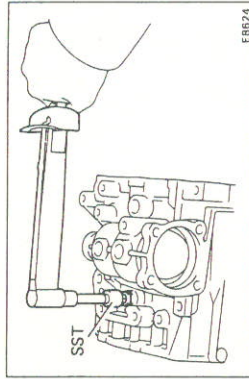
8. **IF NECESSARY, REPLACE REVERSE RESTRICT PIN**
(a) Using SST, remove the screw plug.
SST 09313-30021



- (b) Using a pin punch and hammer, drive out the slotted spring pin.

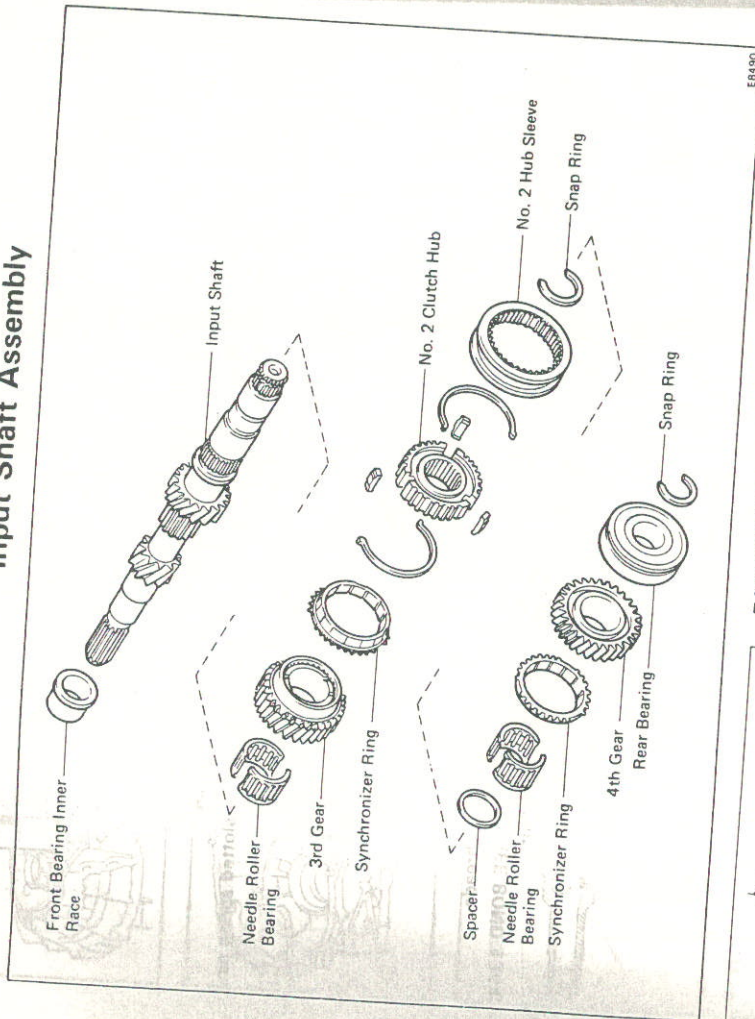


- (c) Replace the reverse restrict pin.
(d) Using a pin punch, drive in the slotted spring pin.



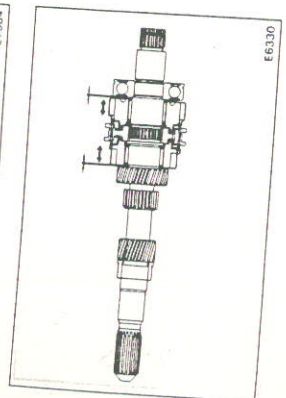
- (e) Apply liquid sealant to the plug threads.
Sealant: Part No. 08833-00080, THREE BOND 1344,
LOCTITE 242 or equivalent
(f) Using SST, install the screw plug.
SST 09313-30021

COMPONENT PARTS Input Shaft Assembly

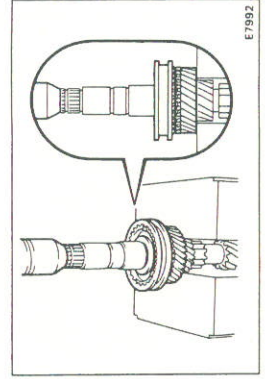
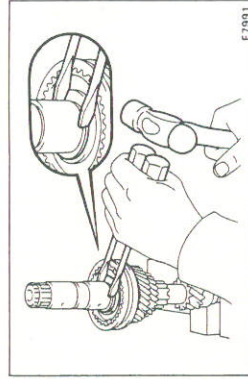
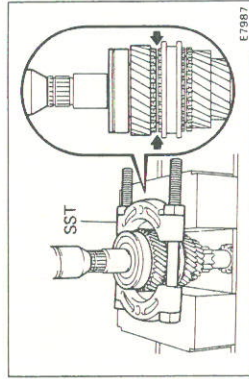
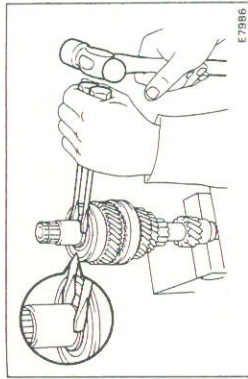
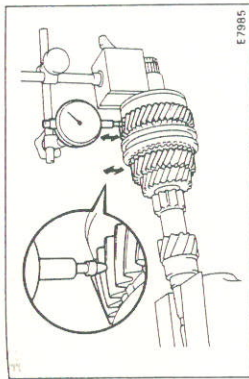


DISASSEMBLY OF INPUT SHAFT ASSEMBLY

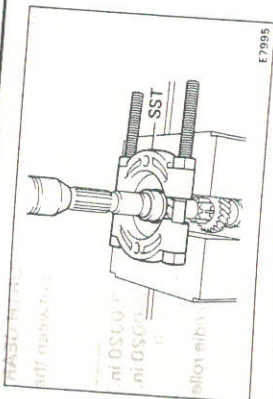
- MEASURE THIRD AND FOURTH GEAR THRUST CLEARANCE**
Using a feeler gauge, measure the thrust clearance.
Standard clearance:
3rd gear 0.10 — 0.35 mm
(0.0039 — 0.0138 in.)
4th gear 0.10 — 0.55 mm
(0.0039 — 0.0217 in.)
Maximum clearance:
3rd gear 0.40 mm (0.0157 in.)
4th gear 0.60 mm (0.0236 in.)



- CHECK OIL CLEARANCE OF THIRD AND FOURTH GEAR**
Using dial indicator, measure the oil clearance between the gear and shaft.
Standard clearance:
3rd gear 0.009 — 0.053 mm (0.0004 — 0.0020 in.)
4th gear 0.009 — 0.051 mm (0.0004 — 0.0020 in.)
Maximum clearance: 0.080 mm (0.003 in.)
If clearance exceeds the limit, replace the gear, needle roller bearing or shaft.
- REMOVE SNAP RING**
Using two screwdrivers and a hammer, tap out the snap ring.
- REMOVE INPUT SHAFT REAR BEARING AND FOURTH GEAR**
Using SST and a press, remove the input shaft rear bearing.
SST 09950-00020
- REMOVE NEEDLE ROLLER BEARINGS, SPACER AND SYNCHRONIZER RING**
- REMOVE SNAP RING**
Using two screwdrivers and a hammer, tap out the snap ring.
- REMOVE NO.2 CLUTCH HUB ASSEMBLY, SYNCHRONIZER RING AND THIRD GEAR**
Using a press, remove No.2 hub sleeve, 3rd gear, synchronizer ring and needle roller bearings.
- REMOVE NEEDLE ROLLER BEARING**

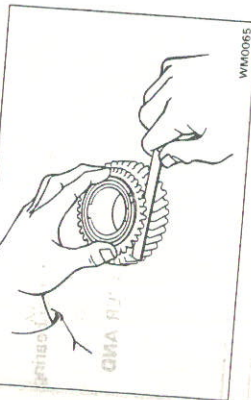
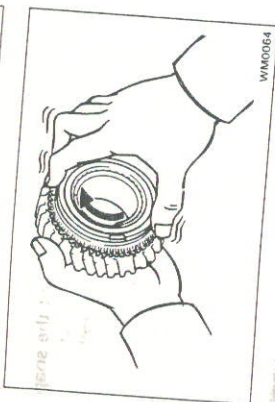


9. **REMOVE INPUT SHAFT FRONT BEARING INNER RACE**
Using SST and a press, remove the inner race.
SST 09950-00020



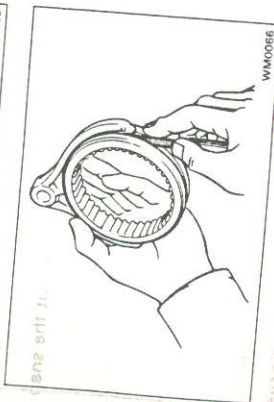
INSPECTION OF INPUT SHAFT COMPONENT PARTS

1. **INSPECT SYNCHRONIZER RINGS**
(a) Check for wear or damage.
(b) Turn the ring and push it in to check the breaking action.
(c) Measure the clearance between the synchronizer ring back and gear spline end.
Minimum clearance: 0.6 mm (0.024 in.)
If the clearance is less than the limit, replace the synchronizer ring.

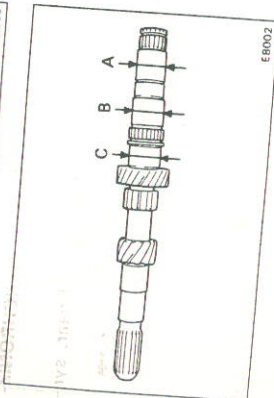


2. **MEASURE CLEARANCE OF NO.2 SHIFT FORK AND HUB SLEEVE**

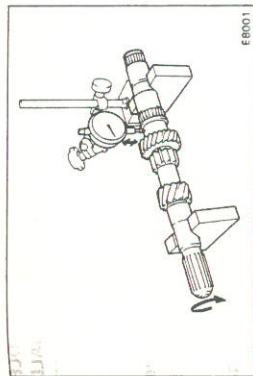
Using a feeler gauge, measure the clearance between the hub sleeve and shift fork.
Maximum clearance: 1.0 mm (0.039 in.)
If the clearance exceeds the limit, replace the shift fork or hub sleeve.



3. **INSPECT INPUT SHAFT**
(a) Check the input shaft for wear or damage.
(b) Using a micrometer, measure the outer diameter of the input shaft journal surface.
Minimum outer diameter:
Part A 32.930 mm (1.2964 in.)
B and C 35.950 mm (1.4154 in.)



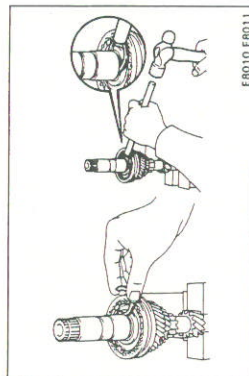
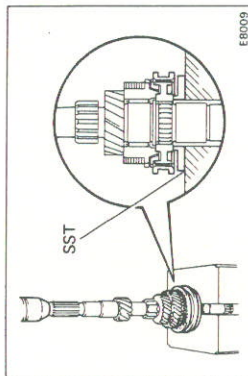
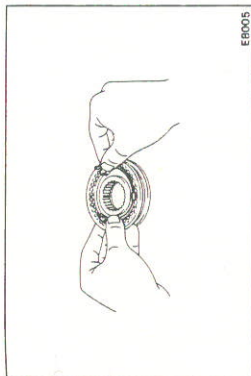
- (c) Using a dial indicator, check the shaft runout.
Maximum runout: 0.060 mm (0.0024 in.)



ASSEMBLY OF INPUT SHAFT ASSEMBLY
(See page MT-30)

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

1. **INSERT NO.2 CLUTCH HUB SLEEVE**
(a) Install the clutch hub and shifting keys to the hub sleeve.
NOTE: When installing the No.2 clutch hub to the input shaft either end may be inserted.
(b) Install the shifting key springs under the shifting keys.
CAUTION: Install the key springs positioned so that their end gaps are not in line.
2. **INSTALL NEEDLE ROLLER BEARING, THIRD GEAR, SYNCHRONIZER RING AND NO.2 HUB SLEEVE ASSEMBLY TO INPUT SHAFT**
(a) Apply MP grease to the needle roller bearings.
(b) Install the 3rd gear.
(c) Place the synchronizer ring on the gear and align the ring slots with the shifting keys.
(d) Using SST and a press, install the 3rd gear and No.2 hub sleeve.
SST 09506-35010



3. **INSTALL SNAP RING**

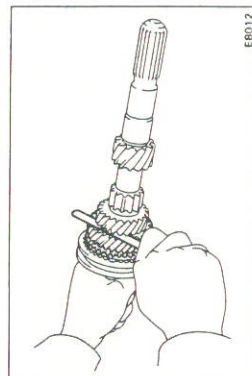
Select a snap ring that will allow minimum axial play and install it on the shaft.

Mark	Thickness mm (in.)
H	2.30 — 2.35 (0.0906 — 0.0925)
J	2.35 — 2.40 (0.0925 — 0.0945)
K	2.40 — 2.45 (0.0945 — 0.0965)
L	2.45 — 2.50 (0.0965 — 0.0984)
M	2.50 — 2.55 (0.0984 — 0.1004)
N	2.55 — 2.60 (0.1004 — 0.1024)
P	2.60 — 2.65 (0.1024 — 0.1043)

4. **MEASURE THIRD GEAR THRUST CLEARANCE**

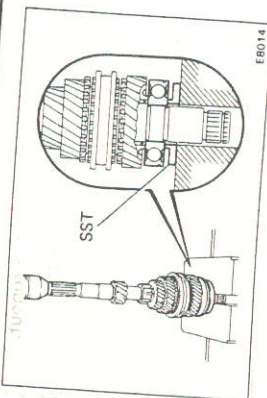
Using a feeler gauge, measure the 3rd gear thrust clearance.

Standard clearance: 0.10 — 0.35 mm (0.0039 — 0.0138 in.)



5. **INSTALL SPACER, SYNCHRONIZER RING, NEEDLE ROLLER BEARING, FOURTH GEAR AND RADIAL BALL BEARING**

- (a) Install the spacer.
- (b) Apply MP grease to the needle roller bearings.
- (c) Place the synchronizer ring on the gear and align the ring slots with the shifting keys.
- (d) Install the 4th gear.
- (e) Using SST and a press, install the radial ball bearing.



E8014

6. **INSTALL SNAP RING**

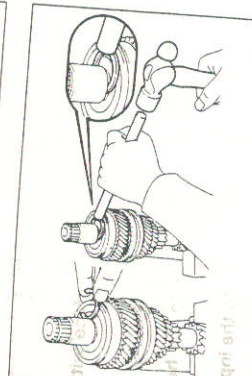
Select a snap ring that will allow minimum axial play and install it on the shaft.

Mark	Thickness mm (in.)
1	2.35 — 2.40 (0.0925 — 0.0945)
2	2.40 — 2.45 (0.0945 — 0.0965)
3	2.45 — 2.50 (0.0965 — 0.0984)
4	2.50 — 2.55 (0.0984 — 0.1004)
5	2.55 — 2.60 (0.1004 — 0.1024)
6	2.60 — 2.65 (0.1024 — 0.1043)
7	2.65 — 2.70 (0.1043 — 0.1063)
8	2.70 — 2.75 (0.1063 — 0.1083)

7. **MEASURE FOURTH GEAR THRUST CLEARANCE**

Using a feeler gauge, measure the 4th gear thrust clearance.

Standard clearance: 0.10 — 0.55 mm
(0.0039 — 0.0217 in.)



E8016

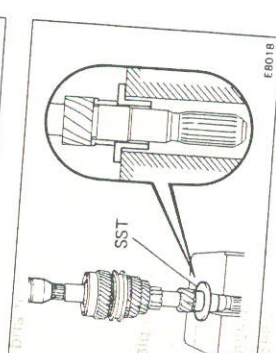


E8017

8. **INSTALL INPUT SHAFT FRONT BEARING INNER RACE**

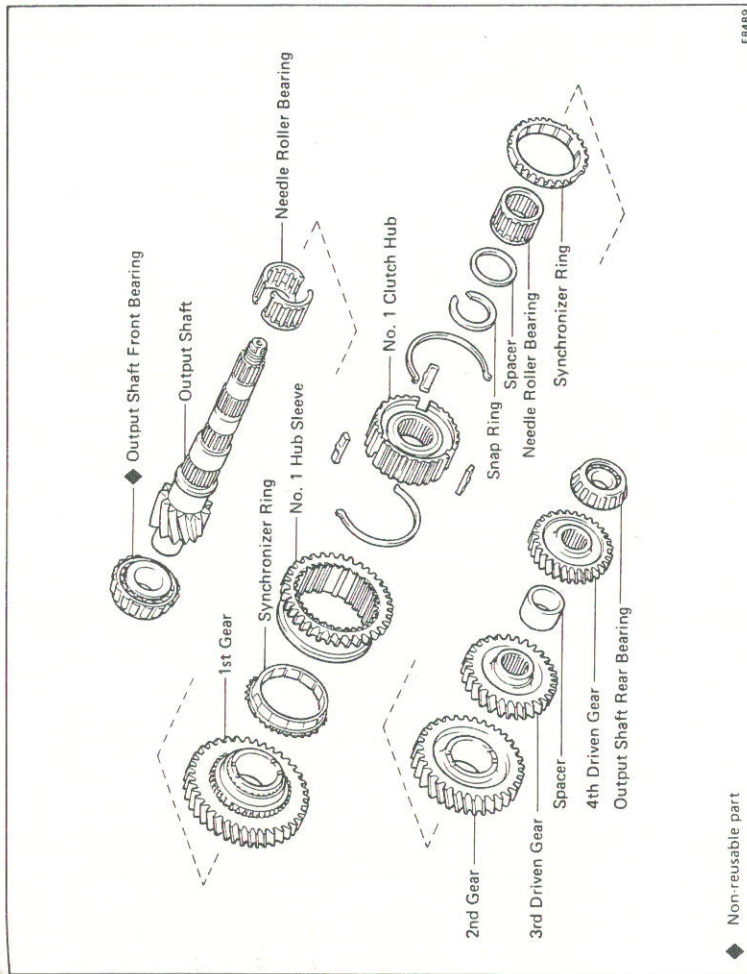
Using SST and a press, install the input shaft front bearing inner race.

SST 09316-60010 (09316-00020)



E8018

Output Shaft Assembly



◆ Non-reusable part

E8489

DISASSEMBLY OF OUTPUT SHAFT ASSEMBLY

1. **MEASURE FIRST AND SECOND GEAR THRUST CLEARANCE**

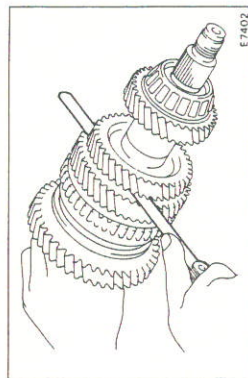
Using a feeler gauge, measure the thrust clearance.

Standard clearance:

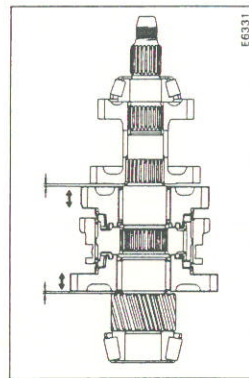
- 1st gear 0.10 — 0.35 mm (0.0039 — 0.0138 in.)
- 2nd gear 0.10 — 0.45 mm (0.0039 — 0.0177 in.)

Maximum clearance:

- 1st gear 0.40 mm (0.0157 in.)
- 2nd gear 0.50 mm (0.0197 in.)



E7402



E6331

2. **CHECK OIL CLEARANCE OF FIRST AND SECOND GEAR**
Using dial indicator, measure the oil clearance between the gear and shaft.

Standard clearance:

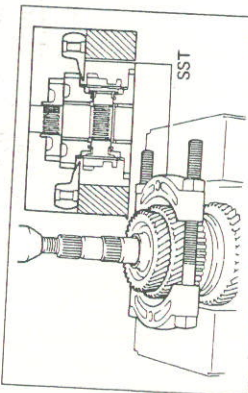
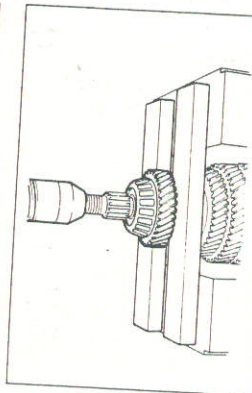
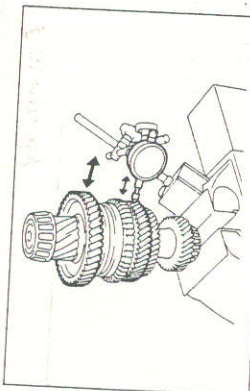
1st gear 0.009 — 0.051 mm
(0.0004 — 0.0020 in.)
2nd gear 0.009 — 0.053 mm
(0.0004 — 0.0021 in.)

Maximum clearance: 0.080 mm (0.003 in.)

If the clearance exceeds the limit, replace the gear, needle roller bearing or shaft.

3. **REMOVE OUTPUT SHAFT REAR BEARING, FOURTH DRIVEN GEAR AND SPACER**

- (a) Using a press, remove the bearing and 4th driven gear.
(b) Remove the spacer.



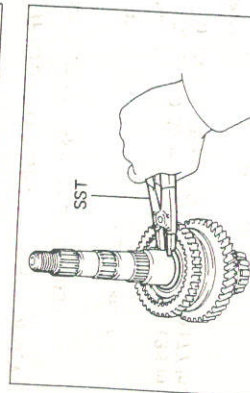
4. **REMOVE THIRD DRIVEN GEAR AND SECOND GEAR**
Using SST and a press, remove the 3rd driven gear and 2nd gear.

SST 09950-00020

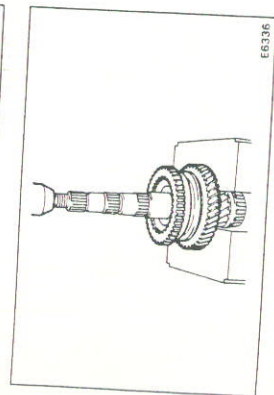
5. **REMOVE NEEDLE ROLLER BEARINGS, SPACER AND SYNCHRONIZER RING**

6. **REMOVE SNAP RING**

Using snap ring pliers, remove the snap ring.

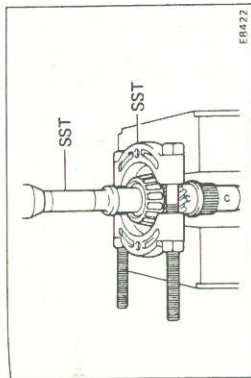


7. **REMOVE NO.1 HUB SLEEVE ASSEMBLY AND FIRST GEAR**
Using a press, remove No.1 hub sleeve and 1st gear.
8. **REMOVE SYNCHRONIZER RING AND NEEDLE ROLLER BEARING**

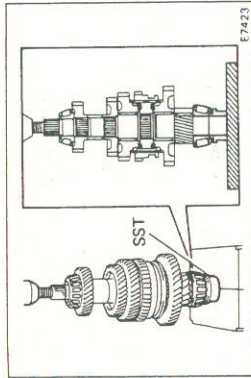


9. **IF NECESSARY, REPLACE OUTPUT SHAFT FRONT BEARING**

- (a) Using SST and a press, remove the bearing.
SST 09307-12010, 09950-00020



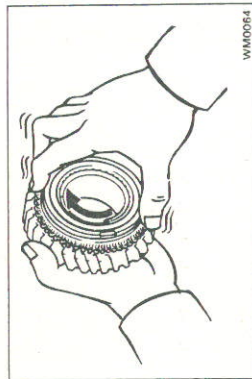
- (b) Using SST and a press, install the new bearing.
SST 09316-60010 (09316-00070)



INSPECTION OF OUTPUT SHAFT COMPONENT PARTS

1. **INSPECT SYNCHRONIZER RINGS**

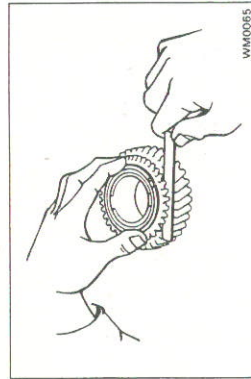
- (a) Check for wear or damage.
(b) Turn the ring and push it in to check the braking action.



- (c) Measure the clearance between the synchronizer ring back and the gear spline end.

Minimum clearance: 0.6 mm (0.024 in.)

If the clearance is less than the limit, replace the synchronizer ring.

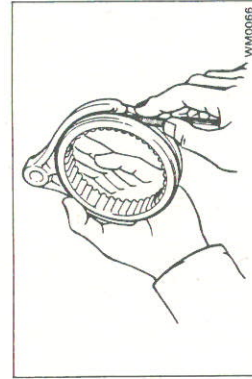


2. **MEASURE CLEARANCE OF NO.1 SHIFT FORK AND HUB SLEEVE**

Using a feeler gauge, measure the clearance between the hub sleeve and shift fork.

Maximum clearance: 1.0 mm (0.039 in.)

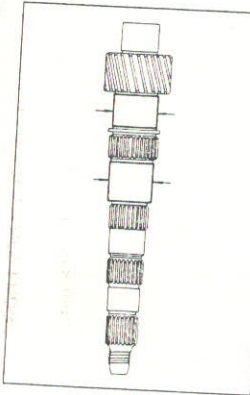
If the clearance exceeds the limit, replace the shift fork or hub sleeve.



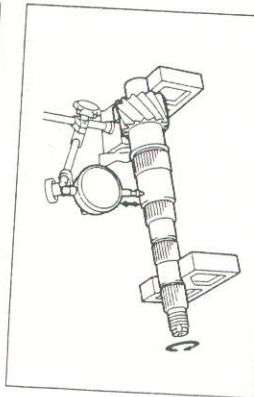
3. INSPECT OUTPUT SHAFT

- (a) Check the output shaft for wear or damage.
- (b) Using a micrometer, measure the outer diameter of the output shaft journal surface.

Minimum outer diameter: 38.950 mm (1.5335 in.)



- (c) Using a dial indicator, check the shaft runout.
- Maximum clearance: 0.060 mm (0.0024 in.)



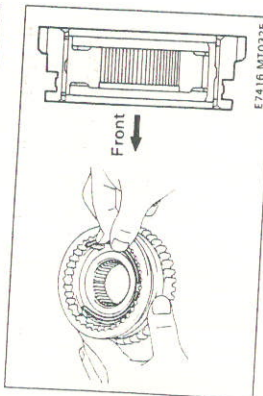
ASSEMBLY OF OUTPUT SHAFT ASSEMBLY
(See page MT-35)

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

1. INSERT NO. 1 CLUTCH HUB INTO HUB SLEEVE

- (a) Install the clutch hub and shifting keys to the hub sleeve.
- (b) Install the shifting key springs under the shifting keys.

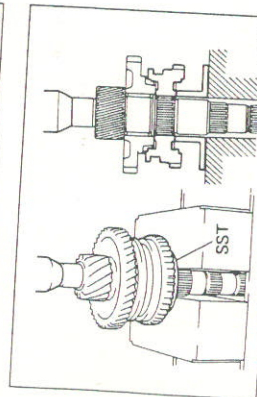
CAUTION: Install the key springs positioned so that their end gaps are not in line.



2. INSTALL NEEDLE ROLLER BEARINGS, FIRST GEAR, SYNCHRONIZER RING AND NO. 1 HUB SLEEVE TO OUTPUT SHAFT

- (a) Apply MP grease to the needle roller bearings.
- (b) Install the 1st gear.
- (c) Place the synchronizer ring on the gear and align the ring slots with the shifting keys.
- (d) Using SST and a press, install the 1st gear and No. 1 hub sleeve.

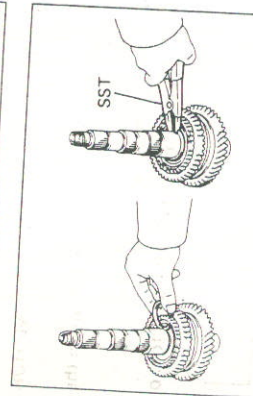
SST 09316-60010 (09316-00040)



3. INSTALL SNAP RING

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

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)



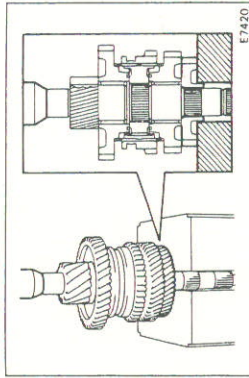
4. MEASURE FIRST GEAR THRUST CLEARANCE

Using a feeler gauge, measure the 1st gear thrust clearance.
Standard clearance: 0.10 — 0.35 mm
(0.0039 — 0.0138 in.)



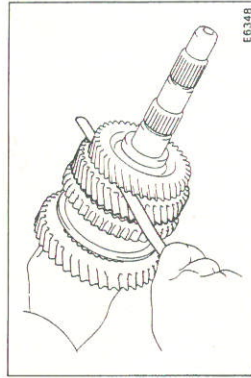
5. INSTALL SPACER, NEEDLE ROLLER BEARING, SYNCHRONIZER RING, SECOND GEAR AND THIRD DRIVEN GEAR

- (a) Install the spacer.
- (b) Apply MP grease to the needle roller bearing.
- (c) Place the synchronizer ring on the gear and align the ring slots with the shifting keys.
- (d) Install the 2nd gear.
- (e) Using a press, install the 3rd driven gear.



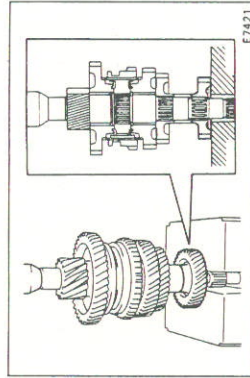
6. MEASURE SECOND GEAR THRUST CLEARANCE

Using a feeler gauge, measure the 2nd gear thrust clearance.
Standard clearance: 0.10 — 0.45 mm
(0.0039 — 0.0177 in.)



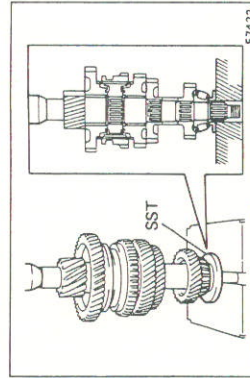
7. INSTALL SPACER AND FOURTH DRIVEN GEAR

- (a) Install the spacer.
- (b) Using a press, install the 4th driven gear.

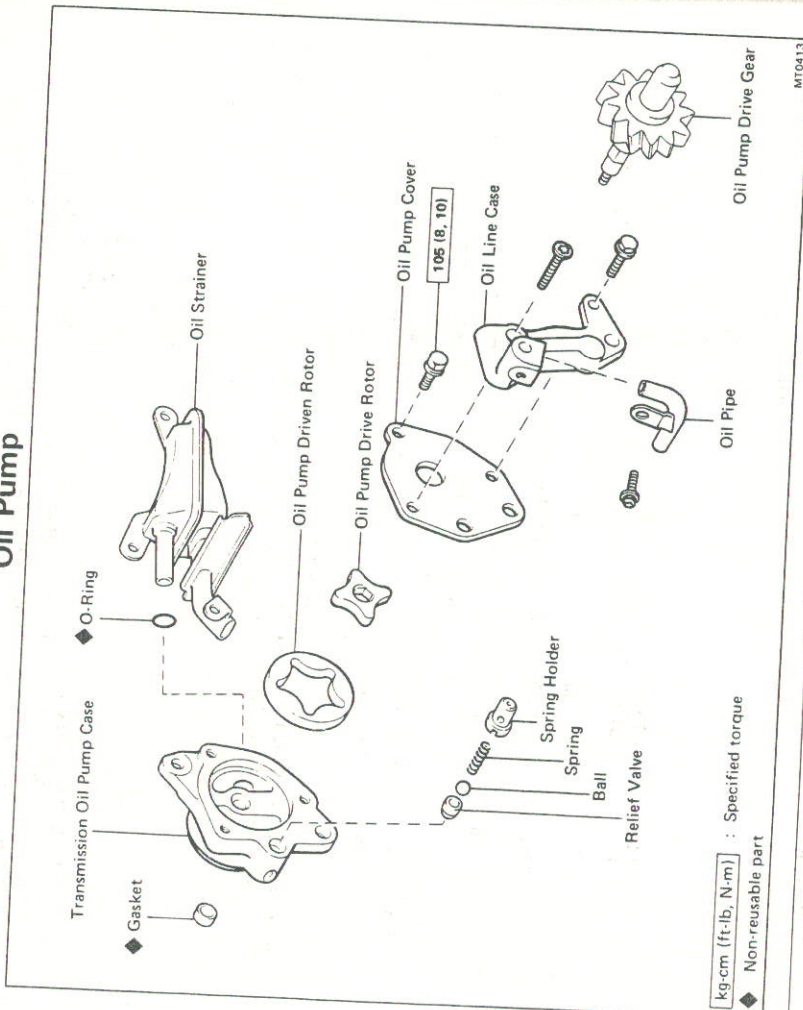


8. INSTALL OUTPUT SHAFT REAR BEARING

Using SST and a press, install the output shaft rear taper roller bearing.
SST 09506-30012

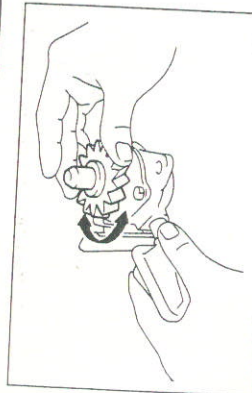


Oil Pump



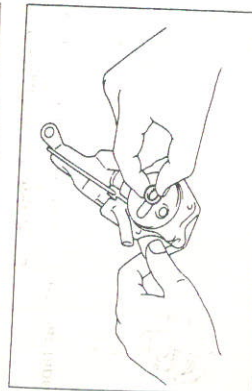
DISASSEMBLY OF OIL PUMP

1. CHECK OPERATION OF OIL PUMP
Install the oil pump drive gear to the drive rotor, check that the drive rotor turns smoothly.



E6920

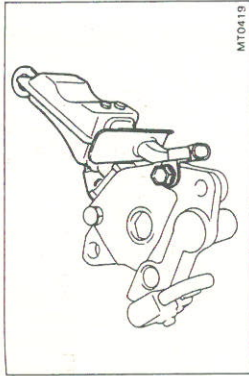
2. REMOVE GASKET FROM OIL PUMP CASE



E6921

3. REMOVE OIL STRAINER

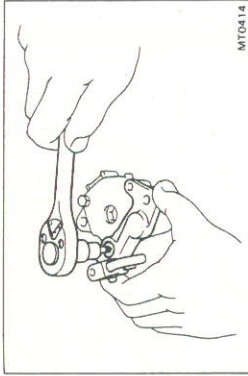
Remove the bolt and pull out the oil strainer.



MT0419

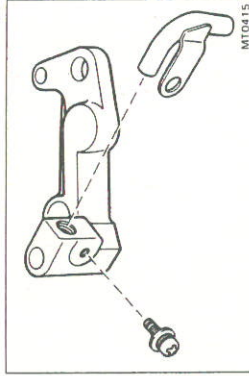
4. REMOVE OIL LINE CASE AND OIL PIPE

(a) Using a torx wrench, remove the torx screw and oil line case.



MT0414

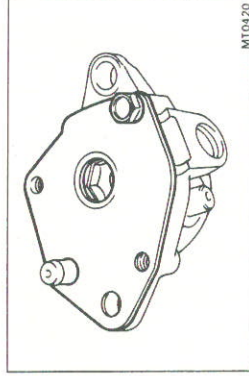
(b) Remove the No.3 oil pipe from the oil line case.



MT0415

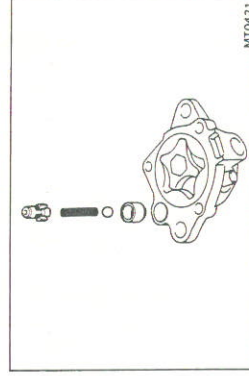
5. REMOVE OIL PUMP COVER

Remove the bolt and the oil pump cover.



MT0420

6. REMOVE NO.1 RELIEF VALVE ASSEMBLY

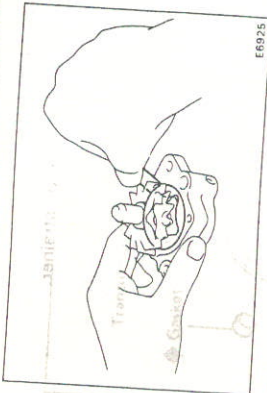


MT0421

7. CHECK ROTOR BODY CLEARANCE

- (a) Install the oil pump drive gear to the drive rotor.
- (b) Using a feeler gauge, measure the body clearance between the driven rotor and oil pump case.

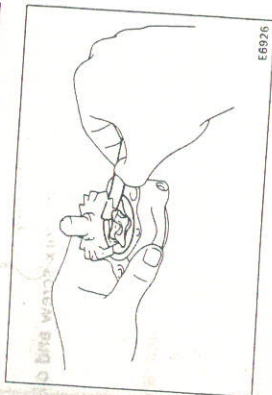
Standard clearance: 0.10 — 0.16 mm
(0.0039 — 0.0063 in.)
Maximum clearance: 0.30 mm (0.0118 in.)



8. CHECK ROTOR TIP CLEARANCE

- (a) Install the oil pump drive gear to the drive rotor.
- (b) Using a feeler gauge, measure the tip clearance between the drive and driven rotors.

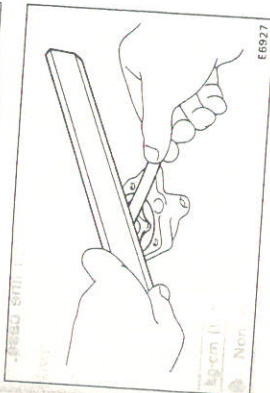
Standard clearance: 0.08 — 0.15 mm
(0.0031 — 0.0059 in.)
Maximum clearance: 0.30 mm (0.0118 in.)



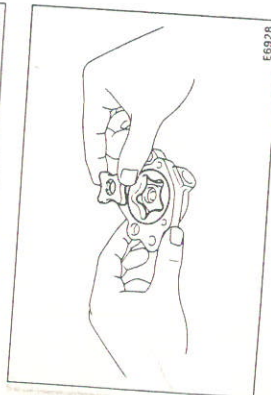
9. CHECK SIDE CLEARANCE

- Using a precision straight edge and feeler gauge, measure the side clearance of both rotors.

Standard clearance: 0.03 — 0.08 mm
(0.0012 — 0.0031 in.)
Maximum clearance: 0.15 mm (0.0059 in.)

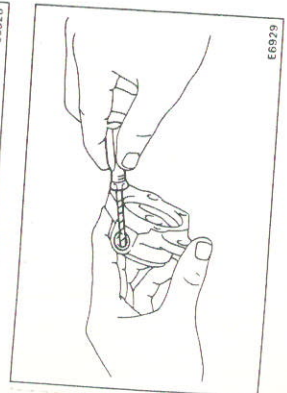


10. REMOVE OIL PUMP DRIVE ROTOR AND DRIVEN ROTOR



11. REMOVE O-RING

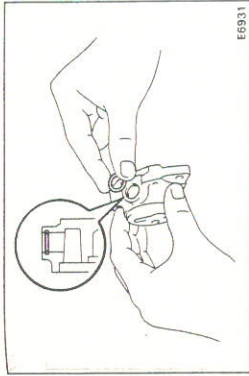
- Using a screwdriver, remove the O-ring from the oil pump case.



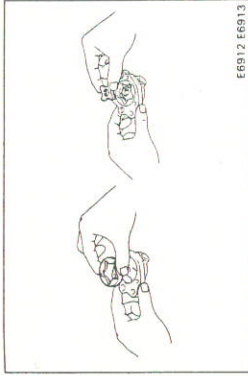
ASSEMBLY OF OIL PUMP
(See page MT-40)

1. INSTALL NEW O-RING

- (a) Apply the gear oil to a new O-ring.
- (b) Install a new O-ring to the oil pump case.

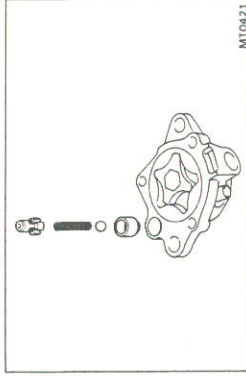


2. INSTALL DRIVEN ROTOR AND DRIVE ROTOR



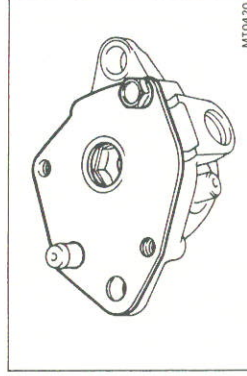
3. INSTALL NO. 1 RELIEF VALVE ASSEMBLY

- Install the relief valve seat, ball, spring and spring holder to the oil pump case.



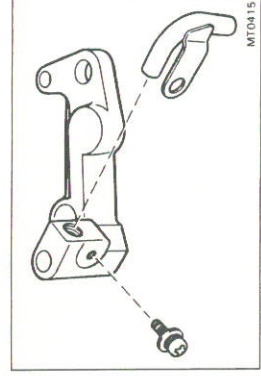
4. INSTALL OIL PUMP COVER

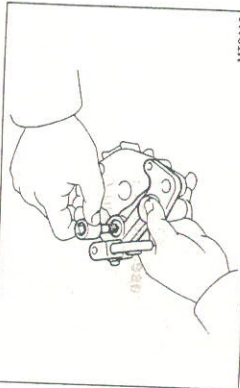
- Temporarily install the bolt.



5. INSTALL OIL LINE CASE

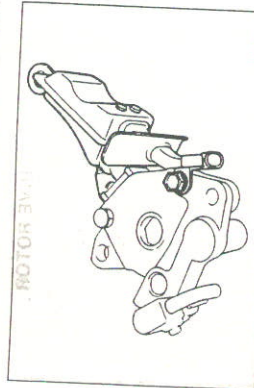
- (a) Install the No. 3 oil pipe to the oil line case.





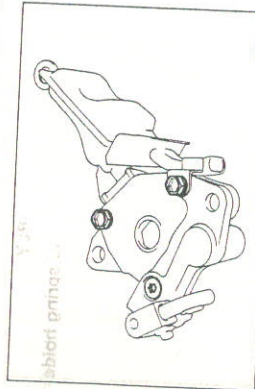
(b) Using a torx wrench, temporarily install the torx screw.

MT0416



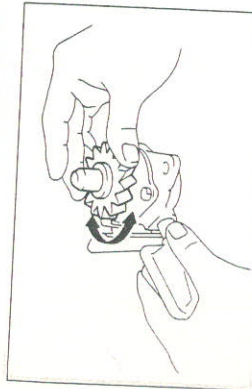
6. INSTALL OIL STRAINER
Install the oil strainer to the oil pump case, temporarily install the bolt.

MT0419



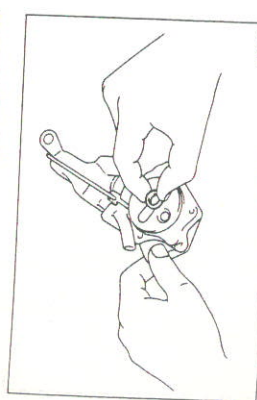
7. TORQUE OIL PUMP COVER BOLTS AND OIL LINE CASE TORX SCREW
Torque: 105 kg-cm (8 ft.-lb, 10 N·m)

MT0417



8. CHECK OPERATION OF OIL PUMP
Insert the oil pump drive gear to the drive rotor, check that the drive rotor turns smoothly.

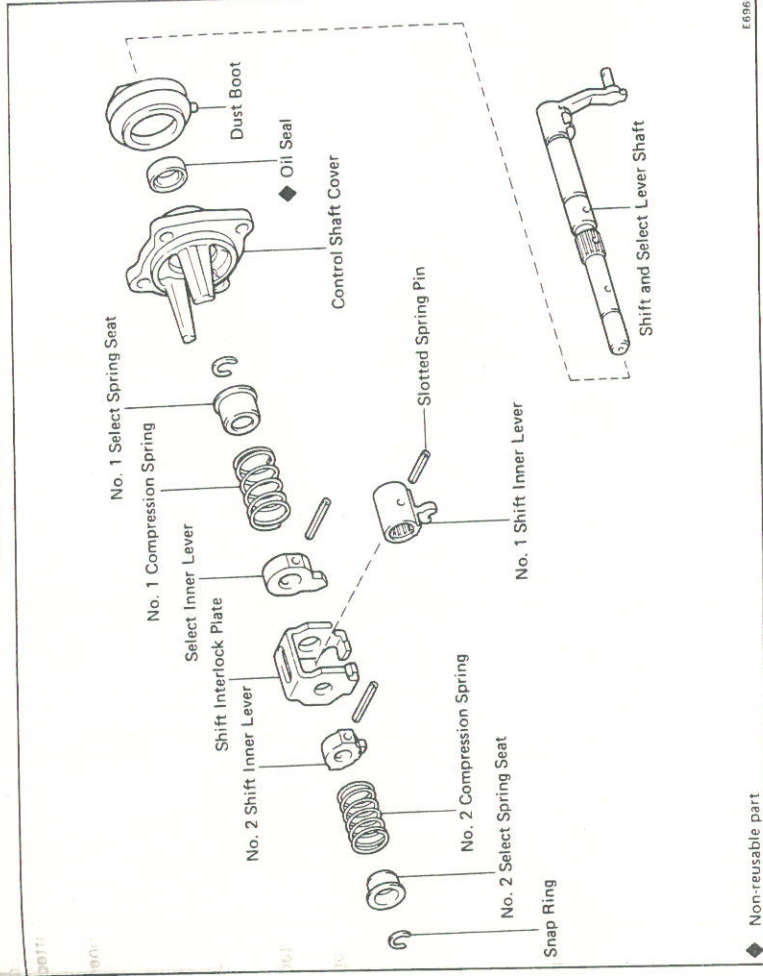
E6926



9. INSTALL GASKET
Install the new gasket to the oil pump case.

E6921

Shift and Select Lever Shaft



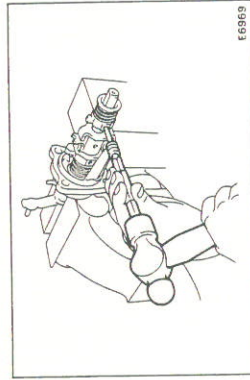
◆ Non-reusable part

E6968

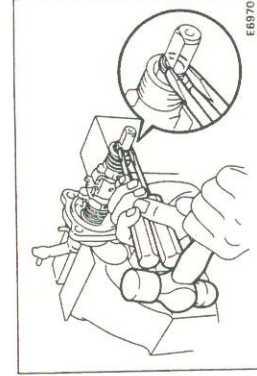
DISASSEMBLY OF SHIFT AND SELECT LEVER SHAFT

1. REMOVE NO.2 SHIFT INNER LEVER

(a) Using a pin punch and a hammer, drive out the slotted spring pin from No.2 shift inner lever.



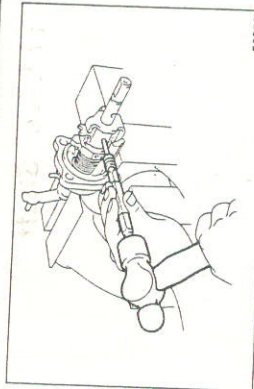
E6969



E6970

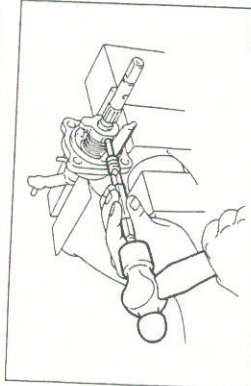
(b) Using two screwdrivers and a hammer, remove the snap ring.

(c) Remove No.2 select spring seat, No.2 compression spring and No.2 shift inner lever.



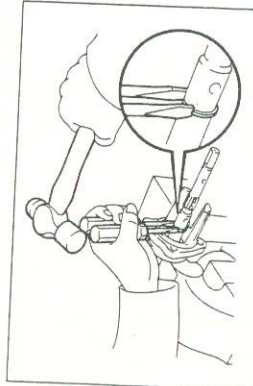
2. **REMOVE SHIFT INTERLOCK PLATE AND NO. 1 SHIFT INNER LEVER**
 - (a) Using a pin punch and hammer, drive out the slotted spring pin.
 - (b) Remove the shift interlock plate and No. 1 shift inner lever.

E6972



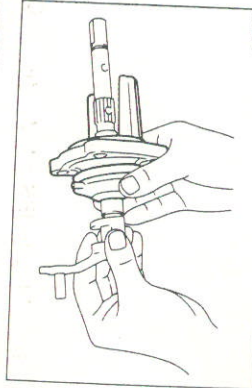
3. **REMOVE SELECT INNER LEVER**
 - (a) Using a pin punch and hammer, drive out the slotted spring pin.
 - (b) Remove the select inner lever, No. 1 compression spring and No. 1 select spring seat.

E6974



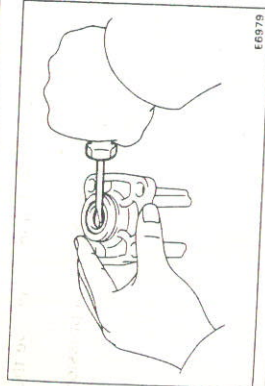
4. **REMOVE SNAP RING**
Using two screwdrivers and a hammer, remove the snap ring.

E6976



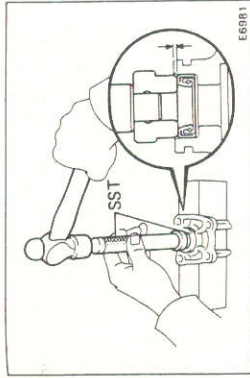
5. **REMOVE CONTROL SHAFT COVER AND DUST BOOT**

E6977



6. **IF NECESSARY, REPLACE CONTROL SHAFT COVER OIL SEAL**
 - (a) Using a screwdriver, remove oil seal.

E6979

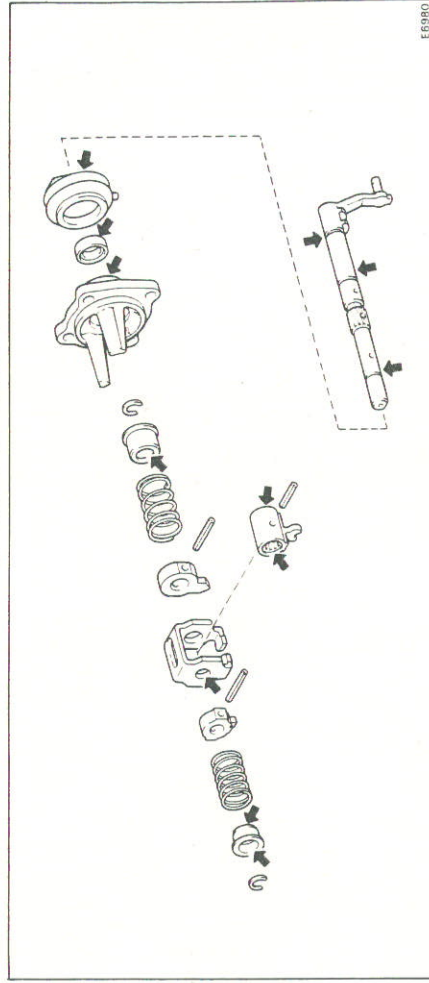


- (b) Using SST and a hammer, drive in the new oil seal. SST 09620-30010 (09627-30010 and 09631-00020)
Oil seal depth: 0 — 1.0 mm (0 — 0.039 in.)
- (c) Apply MP grease to the oil seal.

E6981

ASSEMBLY OF SHIFT AND SELECT LEVER SHAFT

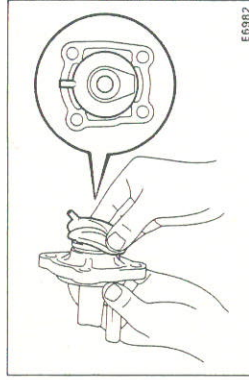
1. **APPLY MP GREASE TO PARTS, AS SHOWN**



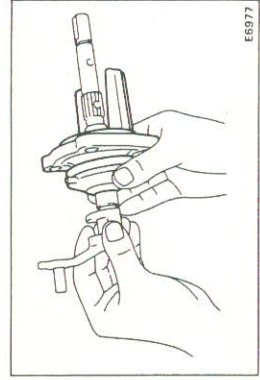
E6980

2. **INSTALL SHIFT AND SELECT LEVER SHAFT**

- (a) Install the boot to the control shaft cover, as shown.

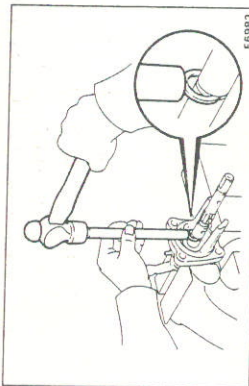


E6982



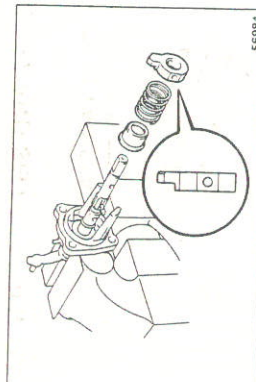
E6977

- (b) Install the shift and select lever shaft to the control shaft cover.



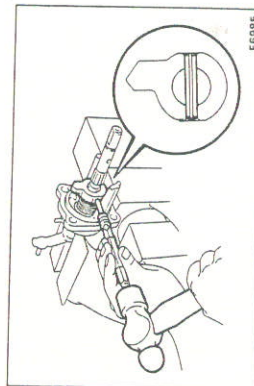
3. INSTALL SNAP RING

Using a brass bar and hammer, install the snap ring and spring seat.

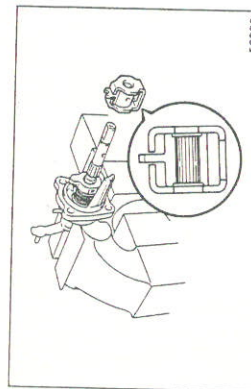


4. INSTALL SELECT INNER LEVER

(a) Install the No.1 spring seat, No.1 select spring and select inner lever, as shown.

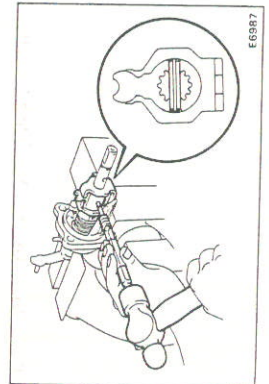


(b) Using a pin punch and hammer, drive in the slotted spring pin.



5. INSTALL SHIFT INTERLOCK PLATE AND NO.1 SHIFT INNER LEVER

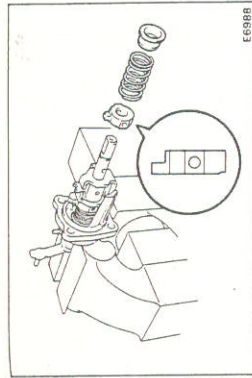
(a) Install the shift interlock plate and No.1 shift inner lever.



(b) Using a pin punch and hammer, drive in the slotted spring pin.
 (c) Check that the shift interlock plate turns smoothly.

6. INSTALL NO.2 SHIFT INNER LEVER

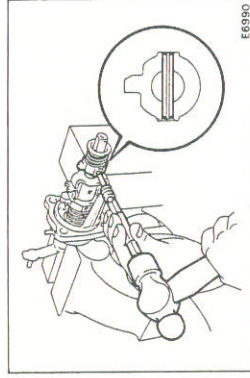
(a) Install the No.2 shift inner lever, No.2 compression spring and No.2 select spring seat, as shown.



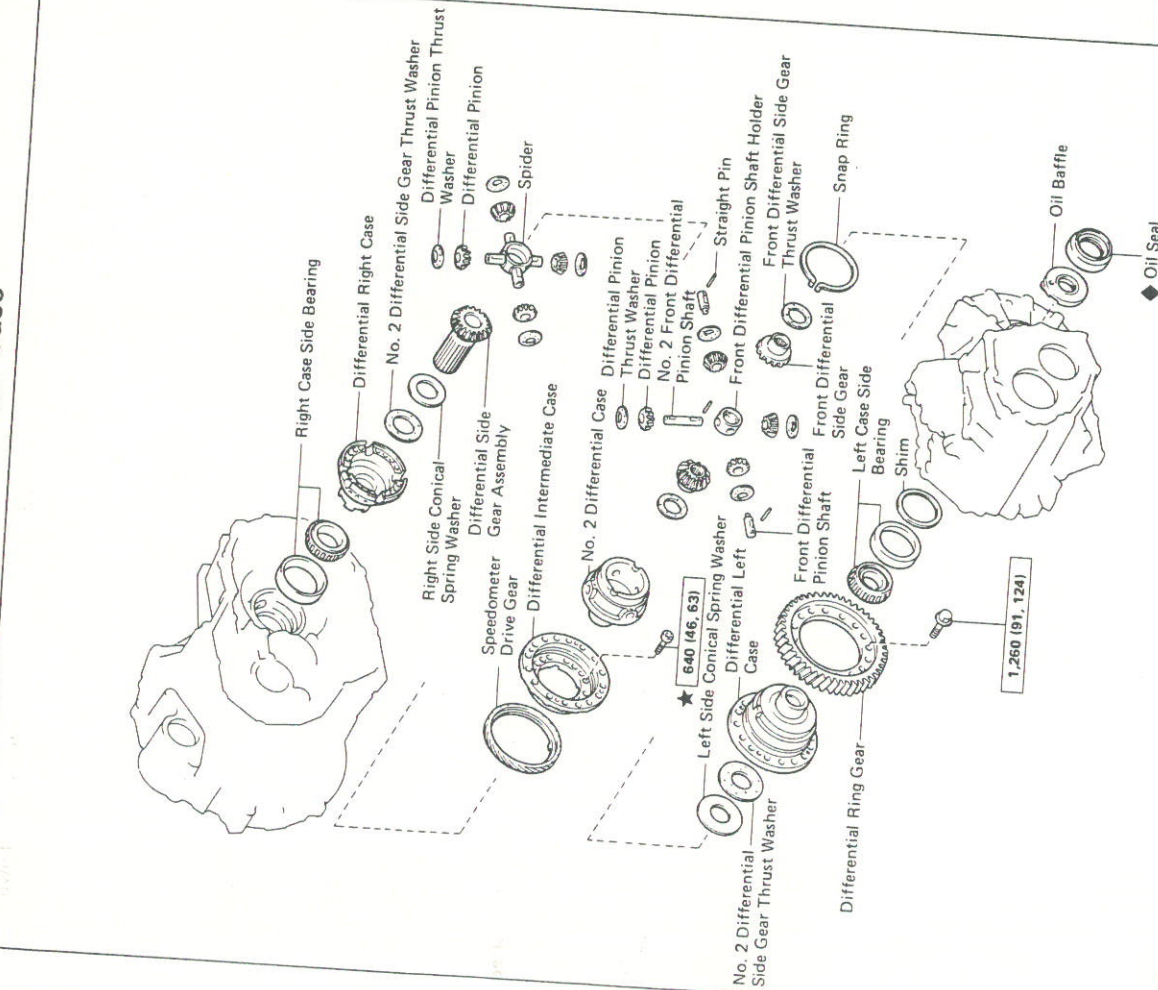
(b) Install the snap ring.



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



Differential Case

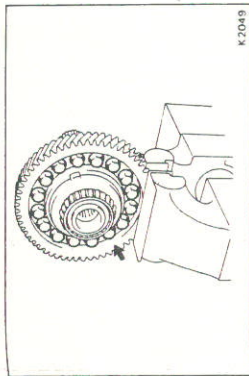


[kg·cm (ft·lb, N·m)] : Specified torque
◆ Non-reusable part
★ Precoated part

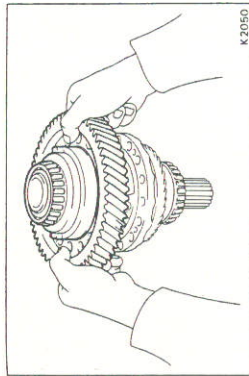
DISASSEMBLY OF DIFFERENTIAL CASE

1. REMOVE DIFFERENTIAL LEFT CASE

(a) Remove the sixteen bolts.

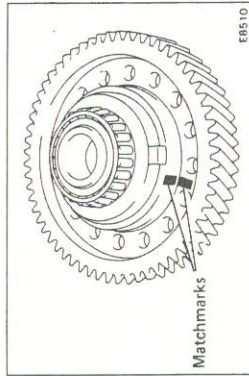


(b) Remove the differential left case up ward.

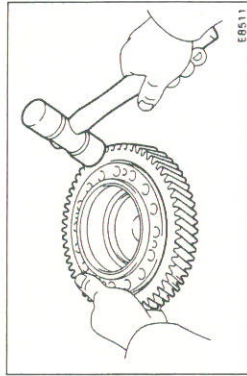


2. REMOVE RING GEAR

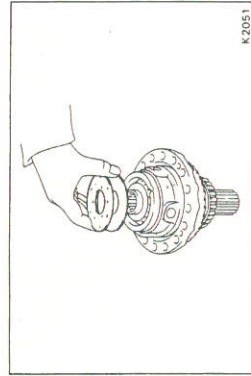
(a) Place the matchmarks on both the differential left case and ring gear.



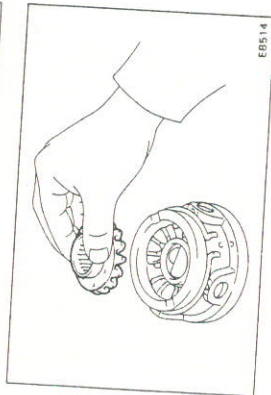
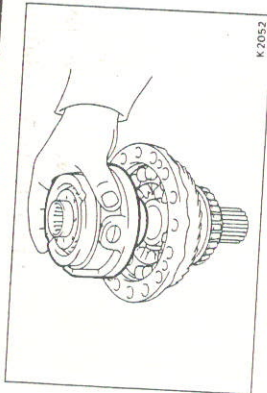
(b) Using a plastic hammer, tap out the ring gear.



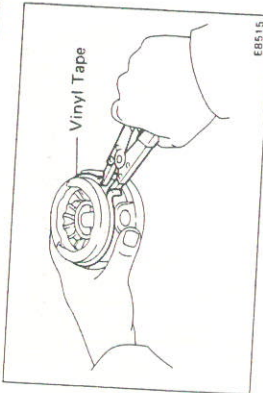
3. REMOVE NO.2 DIFFERENTIAL SIDE GEAR THRUST WASHER AND CONICAL SPRING WASHER



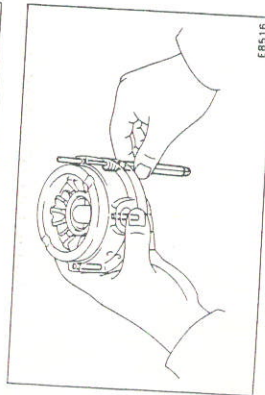
4. REMOVE DIFFERENTIAL NO.2 CASE ASSEMBLY



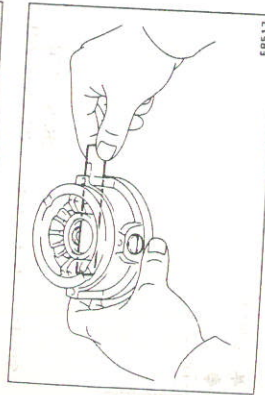
5. DISASSEMBLE DIFFERENTIAL NO.2 CASE
- (a) Remove the front differential side gear together with thrust washer.
 - (b) Remove the front differential side gear thrust washer from the side gear.



- (c) Using snap ring pliers, remove the snap ring.
- NOTE: Before removing the shaft snap ring, wrap vinyl tape around the case prevent from damage.

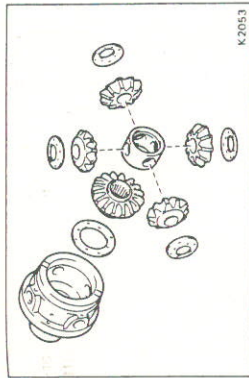


- (d) Using a pin punch, push out the three straight pins.



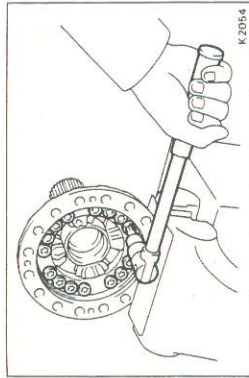
- (e) Remove the two front differential pinion shafts and No.2 front differential pinion shaft.

- (f) Remove the pinion shaft holder, four differential pinions, pinion thrust washers, front side gear and thrust washer from the differential No.2 case.



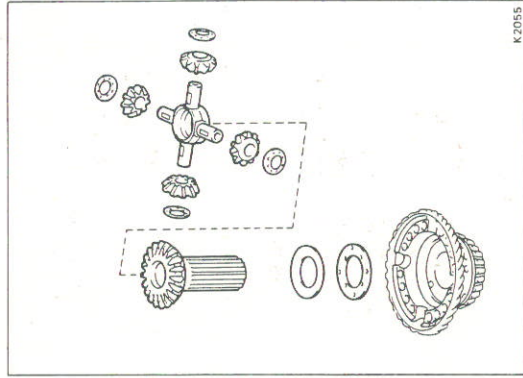
6. REMOVE DIFFERENTIAL INTERMEDIATE CASE

- Using a torx wrench, remove the sixteen torx screws and differential intermediate case.

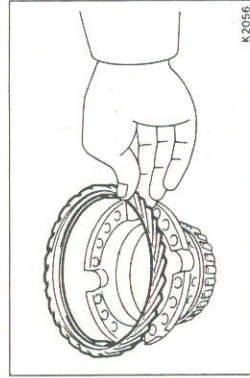


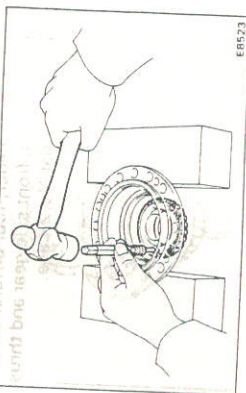
7. DISASSEMBLY DIFFERENTIAL RIGHT CASE

- Remove the differential spider, four pinions, pinion thrust washers, side gear subassembly, conical spring washer and No.2 side gear thrust washer.



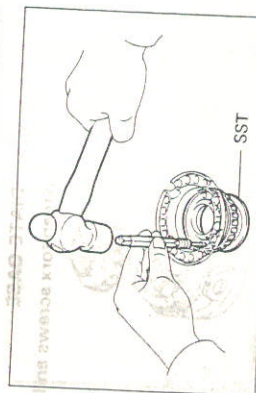
8. REMOVE SPEEDOMETER DRIVE GEAR





9. REMOVE SIDE BEARING

- (a) Using a pin punch and hammer, drive out the side bearing evenly through two holes in the differential left case.



- (b) Using a pin punch and hammer, drive out the side bearing evenly through four holes in the differential right case.

SST 09316-60010 (09316-00020)

INSPECTION OF DIFFERENTIAL CASE

1. MEASURE DIFFERENTIAL LEFT CASE

Using a cylinder gauge, measure the inner diameter of the differential left case bushing.

Standard diameter: A 111.000 — 111.035 mm (4.3701 — 4.3714 in.)
 B 90.500 — 90.535 mm (3.5630 — 3.5644 in.)

Maximum diameter: A 111.060 mm (4.3331 in.)
 B 90.560 mm (3.5653 in.)

2. MEASURE DIFFERENTIAL NO.2 CASE

Using a micrometer, measure the outer diameter of differential No. 2 case.

Standard diameter: A 110.929 — 110.964 mm (4.3673 — 4.3686 in.)
 B 90.429 — 90.464 mm (3.5606 — 3.5615 in.)
 C 35.000 — 35.025 mm (1.3778 — 1.3789 in.)

Minimum diameter: A 110.850 mm (4.3642 in.)
 Minimum diameter: B 90.350 mm (3.5571 in.)
 Maximum diameter: C 35.030 mm (1.3791 in.)

3. MEASURE CONICAL SPRING WASHER

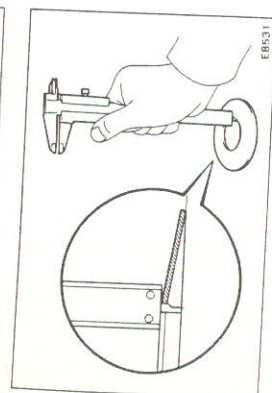
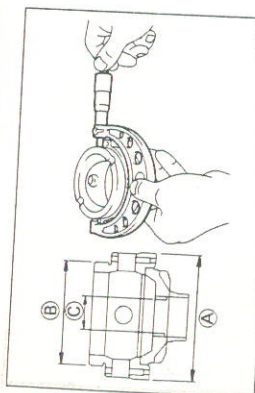
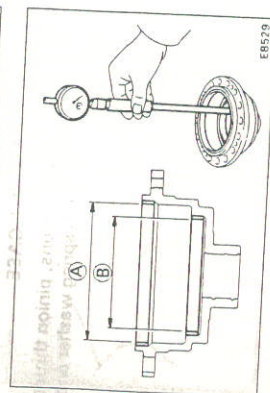
Using a caliper, measure the height of the conical spring washer.

Standard height:

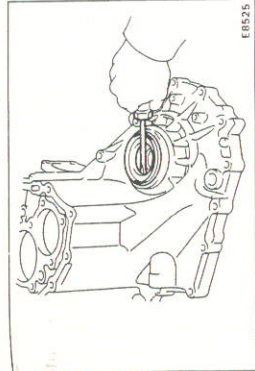
Left conical spring washer 2.60 — 2.80 mm (0.1024 — 0.1102 in.)
 Right conical spring washer 1.70 — 1.90 mm (0.0669 — 0.0748 in.)

Minimum height:

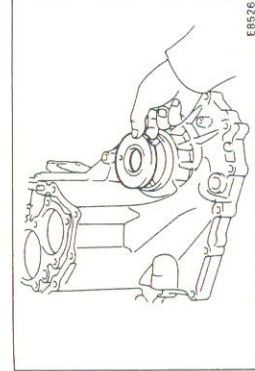
Left conical spring washer 2.50 mm (0.0984 in.)
 Right conical spring washer 1.60 mm (0.0630 in.)



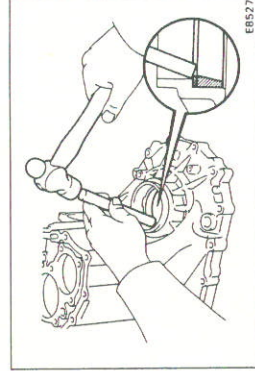
4. (Transmission Case Side) IF NECESSARY, REPLACE OIL SEAL AND TAPERED ROLLER BEARING OUTER RACE



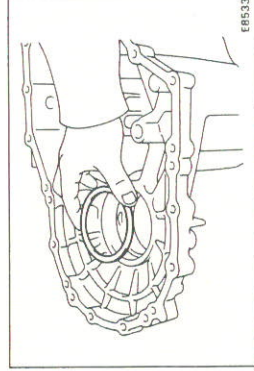
- (a) Using a screwdriver, remove the oil seal.



- (b) Remove the transmission oil baffle.

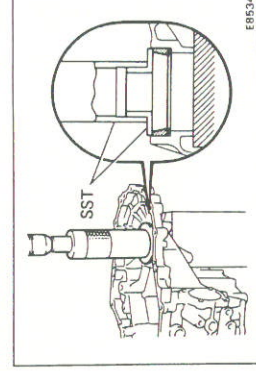


- (c) Using a brass bar and hammer, drive out the bearing outer race lightly and evenly.
- (d) Remove the adjust shim.



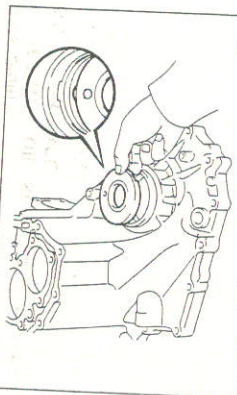
- (e) Install the adjust shim. (See page MT-64)

NOTE: First select and install a shim of lesser thickness than before.

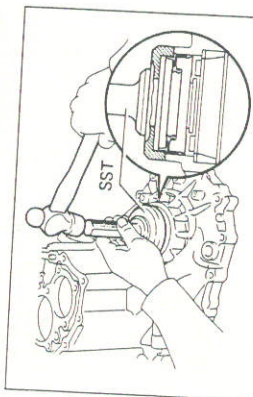


- (f) Using SST and a press, install the tapered roller bearing outer race.

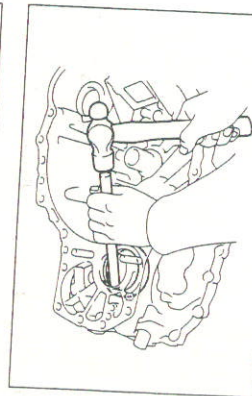
SST 09316-60010 (09316-00010, 09316-00040)



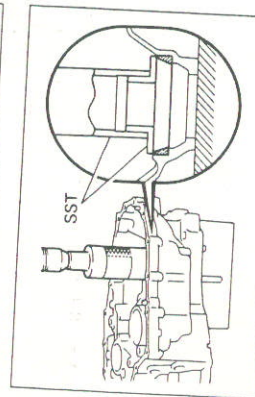
- (g) Install the transmission oil baffle.
 NOTE: Install the transmission oil baffle projection into the case side cutout.



- (h) Using SST, drive in a new oil seal.
 SST 09223-15010
 (i) Coat the lip of the oil seal with MP grease.



5. (Transaxle Case Side)
IF NECESSARY, REPLACE TAPERED ROLLER BEARING OUTER RACE
 (a) Using a brass bar and hammer, drive out the bearing outer race lightly and evenly through the cutout portion on the transaxle case.



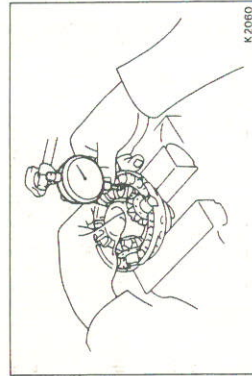
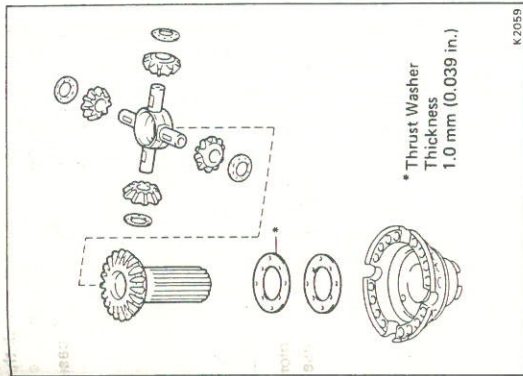
- (b) Using SST and a press, install the tapered roller bearing outer race.
 SST 09316-60010 (09316-00010, 09316-00040)

ASSEMBLY OF DIFFERENTIAL CASE

NOTE: Coat all of the sliding surface with gear oil before assembly.

1. **CHECK AND ADJUST CENTER DIFFERENTIAL SIDE GEAR BACKLASH (Differential Side Gear Sub Assembly)**

- (a) Install the No.2 side gear thrust washer, (temporarily install) 1.0 mm (0.039 in.) size thrust washer, differential side gear subassembly, spider, four pinions and pinion thrust washers to the differential right case.
 NOTE: Thrust washer 1.0 mm (0.039 in.) size is for check of backlash.



- (b) Using a dial indicator, measure the backlash of one pinion gear while holding the differential side gear subassembly toward the case.

Standard clearance: 0.05 — 0.20 mm (0.0020 — 0.0079 in.)

NOTE: Push the pinion gear of the right side of the differential case.

Referring to the table below, select the No.2 thrust washer which will ensure that the backlash is within specification. Try to select a washer of the same size.

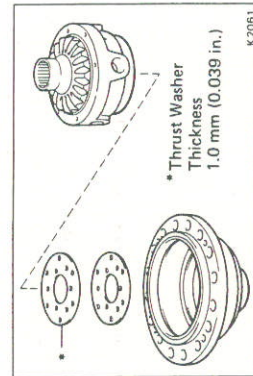
Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
—	0.80 (0.0315)	—	1.15 (0.0453)
—	0.85 (0.0335)	—	1.20 (0.0472)
—	0.90 (0.0354)	—	1.25 (0.0492)
—	0.95 (0.0374)	—	1.30 (0.0512)
—	1.00 (0.0394)	—	1.35 (0.0531)
—	1.05 (0.0413)	—	1.40 (0.0551)
—	1.10 (0.0433)	—	—

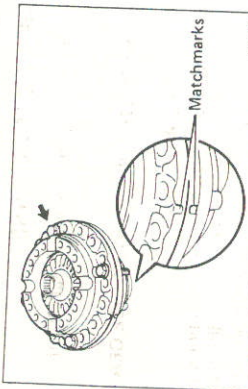
- (c) Remove the differential right case.

(No.2 Differential Case)

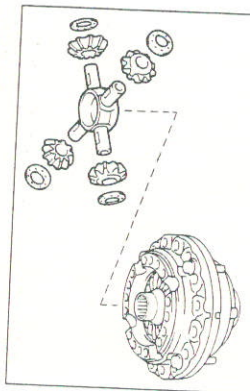
- (a) Install the No.2 side gear thrust washer, (temporarily install) 1.0 mm (0.039 in.) size thrust washer and differential No.2 case to the differential left case.

NOTE: Thrust washer 1.0 mm (0.039 in.) size is for check of backlash.

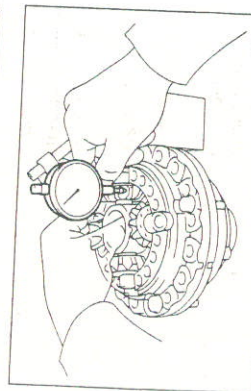




- (b) Using four transmission case cover bolts, install the differential intermediate case to the left case.
 NOTE: Align the matchmarks on the differential left case and connect the intermediate case.



- (c) Install the differential spider, four pinions and pinion thrust washers to the differential intermediate case.

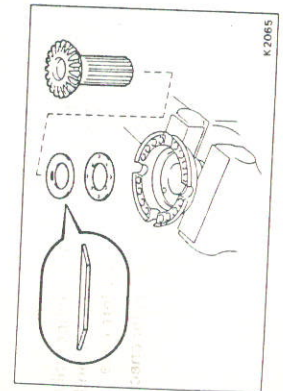


- (d) Using a dial indicator, measure the backlash of one pinion gear while holding the No. 2 differential case.
Standard backlash: 0.05 — 0.20 mm (0.0020 — 0.0079 in.)
 NOTE: Push the pinion gear of the differential intermediate case.

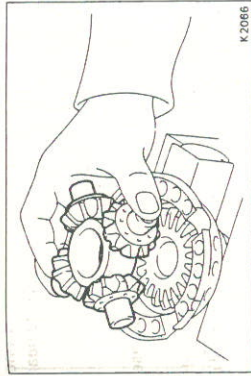
Referring to the table below, select the thrust washer which will ensure that the backlash is within specification. Try to select a washer of the same size.

Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
—	0.80 (0.0315)	—	1.15 (0.0453)
—	0.85 (0.0335)	—	1.20 (0.0472)
—	0.90 (0.0354)	—	1.25 (0.0492)
—	0.95 (0.0374)	—	1.30 (0.0512)
—	1.00 (0.0394)	—	1.35 (0.0531)
—	1.05 (0.0413)	—	1.40 (0.0551)
—	1.10 (0.0433)	—	

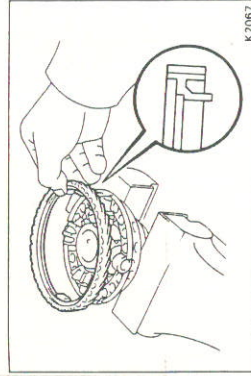
- (e) Remove the differential left case.



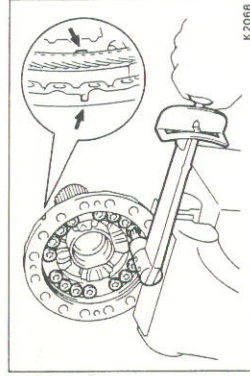
2. **ASSEMBLY DIFFERENTIAL RIGHT CASE**
 (a) Install the No. 2 side gear thrust washer (previously selected), conical spring washer and differential side gear subassembly to the right case.
 NOTE: Be careful not to mistake the direction of conical spring washer.



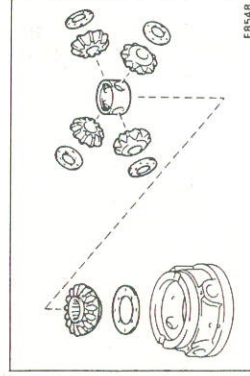
- (b) Install the differential spider, four pinion and pinion thrust washers to the differential right case.



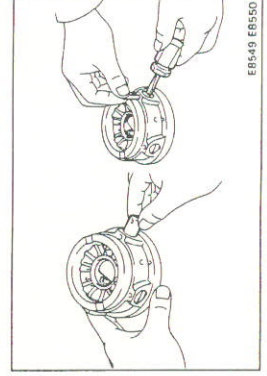
3. **INSTALL SPEEDOMETER DRIVE GEAR**
 Install the speedometer drive gear to the differential right case.



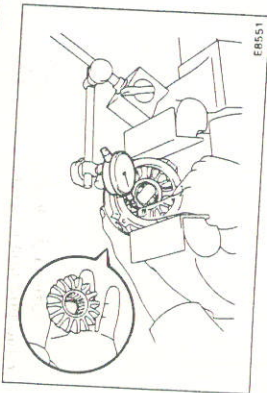
4. **INSTALL DIFFERENTIAL INTERMEDIATE CASE**
 (a) Align the matchmarks on the right case and connect the intermediate case.
 (b) Install the sixteen torx screws. Using a torx wrench, tighten the screws uniformly and a little at a time in succession. Torque the screws.
 Torque: 640 kg-cm (46 ft-lb, 63 N·m)



5. **CHECK AND ADJUST FRONT SIDE GEAR BACKLASH (Differential No. 2 Case)**
 (a) Install the front differential side gear thrust washer, side gear, pinion shaft holder, four pinions and thrust washers.



- (b) Fit No. 2 case pin hole and pinion shaft pin hole, install the No. 2 pinion shaft and two pinion shafts to the No. 2 case.
 (c) Install the three straight pins.

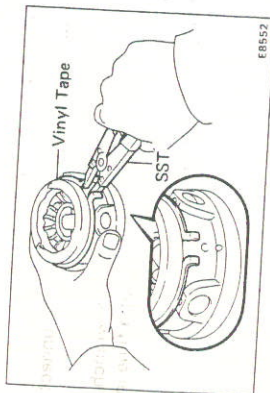


- (d) Using a dial indicator, measure the backlash of one pinion gear while holding the front differential side gear toward the case.

Standard backlash: 0.05 — 0.20 mm
(0.0020 — 0.0079 in.)

NOTE: Do not mount the surface of No.2 differential case which contacts with bushing in a vise. Referring to the table below, select the thrust washer which will ensure that the backlash is within specification. Try to select a washer of the same size.

Mark	Thickness mm (in.)
B	1.00 (0.0394)
C	1.05 (0.0413)
D	1.10 (0.0433)
E	1.15 (0.0453)
F	1.20 (0.0472)
G	1.25 (0.0492)



6. INSTALL SNAP RING

Using snap ring pliers, install the shaft snap ring toward as shown.

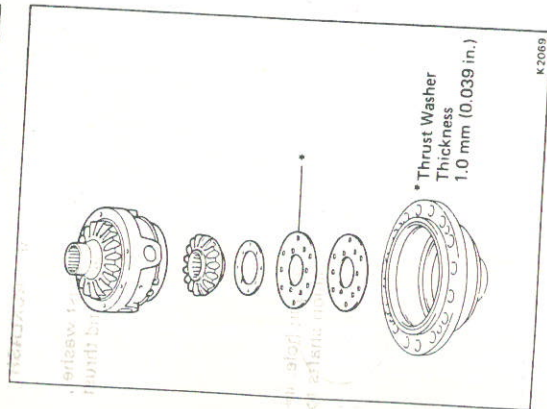
NOTE: Before installing the shaft snap ring, wrap vinyl tape around the case prevent from damage.

7.

CHECK AND ADJUST FRONT DIFFERENTIAL SIDE GEAR THRUST CLEARANCE (Differential Left Case)

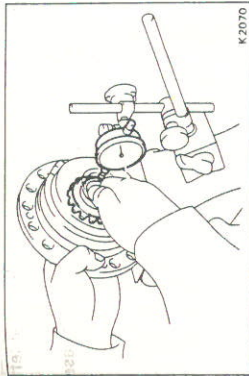
- (a) Install the No. 2 side gear thrust washer, (temporarily install) 1.0 mm (0.039 in.) size No.2 side gear thrust washer, front differential side gear thrust washer, side gear and No.2 case assembly.

NOTE: Engage the front differential side gear and pinion gear of No.2 case.



• Thrust Washer Thickness 1.0 mm (0.039 in.)

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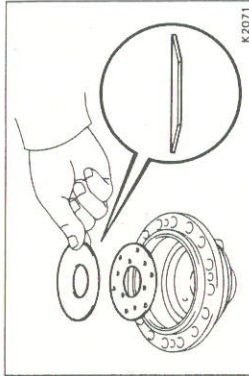
- (b) Using a dial indicator, measure the thrust clearance of front differential side gear while holding the No.2 case on the left side.

Standard clearance: 0.14 — 0.21 mm
(0.0055 — 0.0083 in.)

NOTE: Turning the side gear a bit, check the maximum value of thrust clearance. Referring to the table below, select the thrust washer which will ensure that the thrust clearance within specification. Try to select a washer of the same size.

Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
A	0.95 (0.0374)	F	1.20 (0.0472)
B	1.00 (0.0394)	G	1.25 (0.0492)
C	1.05 (0.0413)	H	1.30 (0.0512)
D	1.10 (0.0433)	J	1.35 (0.0531)
E	1.15 (0.0453)	K	1.40 (0.0551)

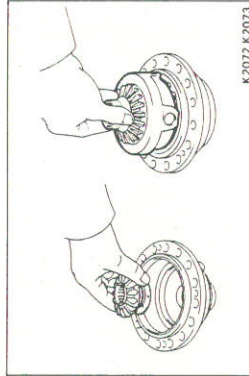
- (c) Remove the differential left case.



8. ASSEMBLY DIFFERENTIAL LEFT CASE

- (a) Install the No.2 side gear thrust washer (previously selected) and conical spring washer to the left case.

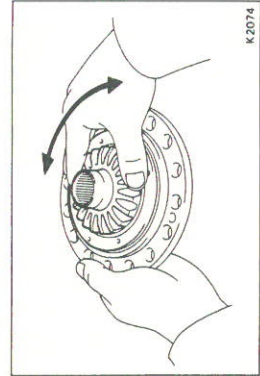
NOTE: Be careful not to mistake the direction of conical spring washer.



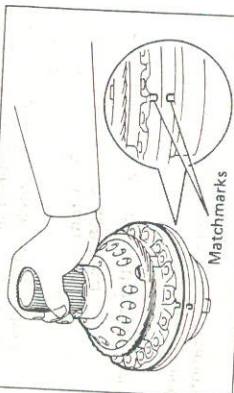
- (b) Install the front differential side gear thrust washer and side gear to the left case.

- (c) Install the differential No.2 case assembly.

NOTE: Engage the front differential side gear and pinion gear of No.2 case.

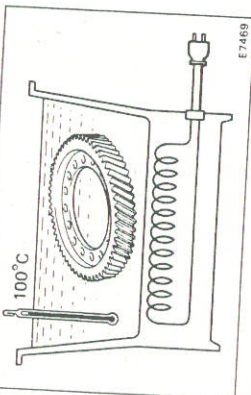


- (d) Turning the differential No.2 case, check the turns smoothly.



- (e) Install the intermediate case to the differential left case.

NOTE: Align the matchmarks on the differential left case and connect the intermediate case.

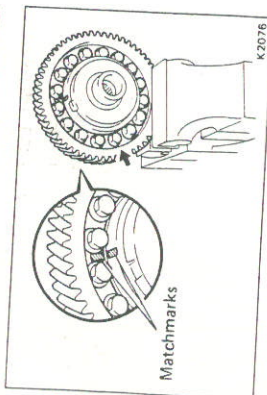


9. INSTALL RING GEAR

- (a) Clean the contact surface of the differential left case.
 (b) Heat the ring gear to about 100°C (212°F) in an oil bath.

CAUTION: Do not heat the ring gear above 110°C (230°F).

- (c) Clean the contact surface of the ring gear with cleaning solvent.



- (d) Then quickly install the ring gear on the differential case.

NOTE: Align the matchmarks on the differential left case and connect the ring gear.

- (e) Install the sixteen set bolts. Tighten the set bolts uniformly and a little at a time in succession. Torque the bolts.

Torque: 1,260 kg-cm (91 ft-lb, 124 N·m)

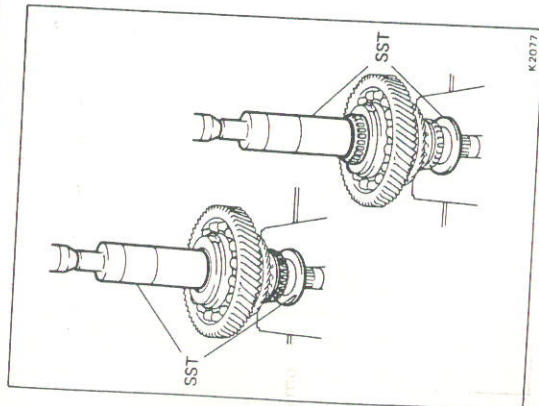
10. INSTALL SIDE BEARING

Using SST and a press, install the side bearing to the differential case.

SST 09316-20011 and 09316-60010 (09316-00010)

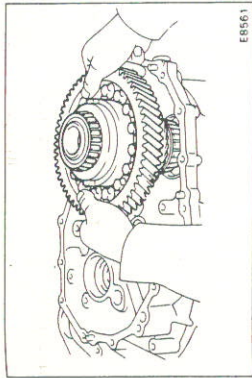
11. ADJUST OUTPUT SHAFT PRELOAD

(See page MT-90)



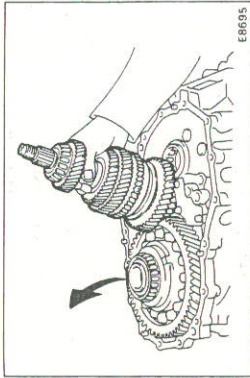
12. INSTALL DIFFERENTIAL CASE ASSEMBLY

Install the differential case assembly to the transaxle case.



13. INSTALL OUTPUT SHAFT ASSEMBLY

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



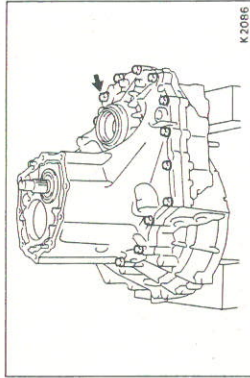
14. INSTALL TRANSMISSION CASE

- (a) Install the transmission case.

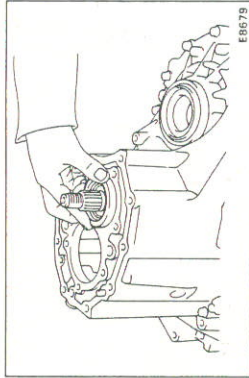
NOTE: If necessary, tap on the case with a plastic hammer.

- (b) Install and torque the seventeen bolts.

Torque: 300 kg-cm (22 ft-lb, 29 N·m)



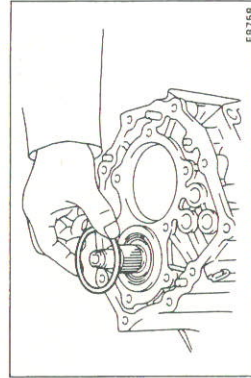
15. INSTALL OUTPUT SHAFT REAR TAPERED ROLLER BEARING OUTER RACE

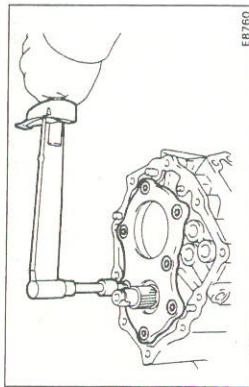


16. INSTALL ADJUST SHIM

(See page MT-90)

NOTE: Install the previously selected shim.

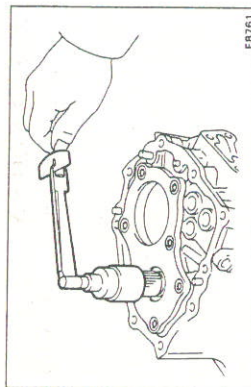




17. INSTALL REAR BEARING RETAINER

Using a torx wrench, install and torque the seven torx screws.

Torque: 430 kg-cm (31ft.-lb, 42 N·m)



18. ADJUST DIFFERENTIAL CASE PRELOAD

- (a) Install the new lock nut to the output shaft.
- (b) Turn the output shaft right and left two or three times to allow the bearings to settle.
- (c) Using a torque wrench, measure the preload.

Preload (at starting):

New bearing

Add output shaft preload

2.0 — 4.1 kg-cm

(1.7 — 3.5 in.-lb, 0.2 — 0.4 N·m)

Reused bearing

Add output shaft preload

1.3 — 2.5 kg-cm

(1.1 — 2.1 in.-lb, 0.1 — 0.2 N·m)

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

NOTE: The preload will change about 1.3 kg-cm (1.13 in.-lb, 0.13 N·m) with each shim thickness.

Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
0	2.00 (0.0787)	9	2.45 (0.0965)
1	2.05 (0.0807)	A	2.50 (0.0984)
2	2.10 (0.0827)	B	2.55 (0.1004)
3	2.15 (0.0846)	C	2.60 (0.1024)
4	2.20 (0.0866)	D	2.65 (0.1043)
5	2.25 (0.0886)	E	2.70 (0.1063)
6	2.30 (0.0906)	F	2.75 (0.1083)
7	2.35 (0.0925)	G	2.80 (0.1102)
8	2.40 (0.0945)	H	2.85 (0.1122)

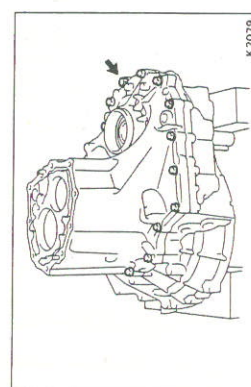
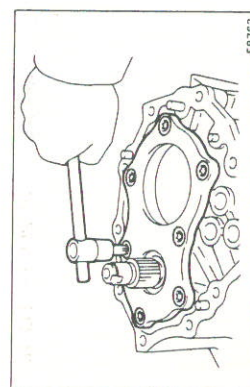
19. REMOVE REAR BEARING RETAINER

Using torx wrench, remove the seven torx screws and rear bearing retainer.

20. REMOVE ADJUST SHIM

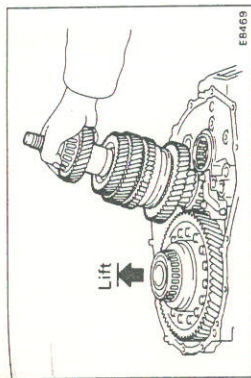
21. REMOVE TRANSMISSION CASE

Remove the seventeen bolts and tap off the case with a plastic hammer.

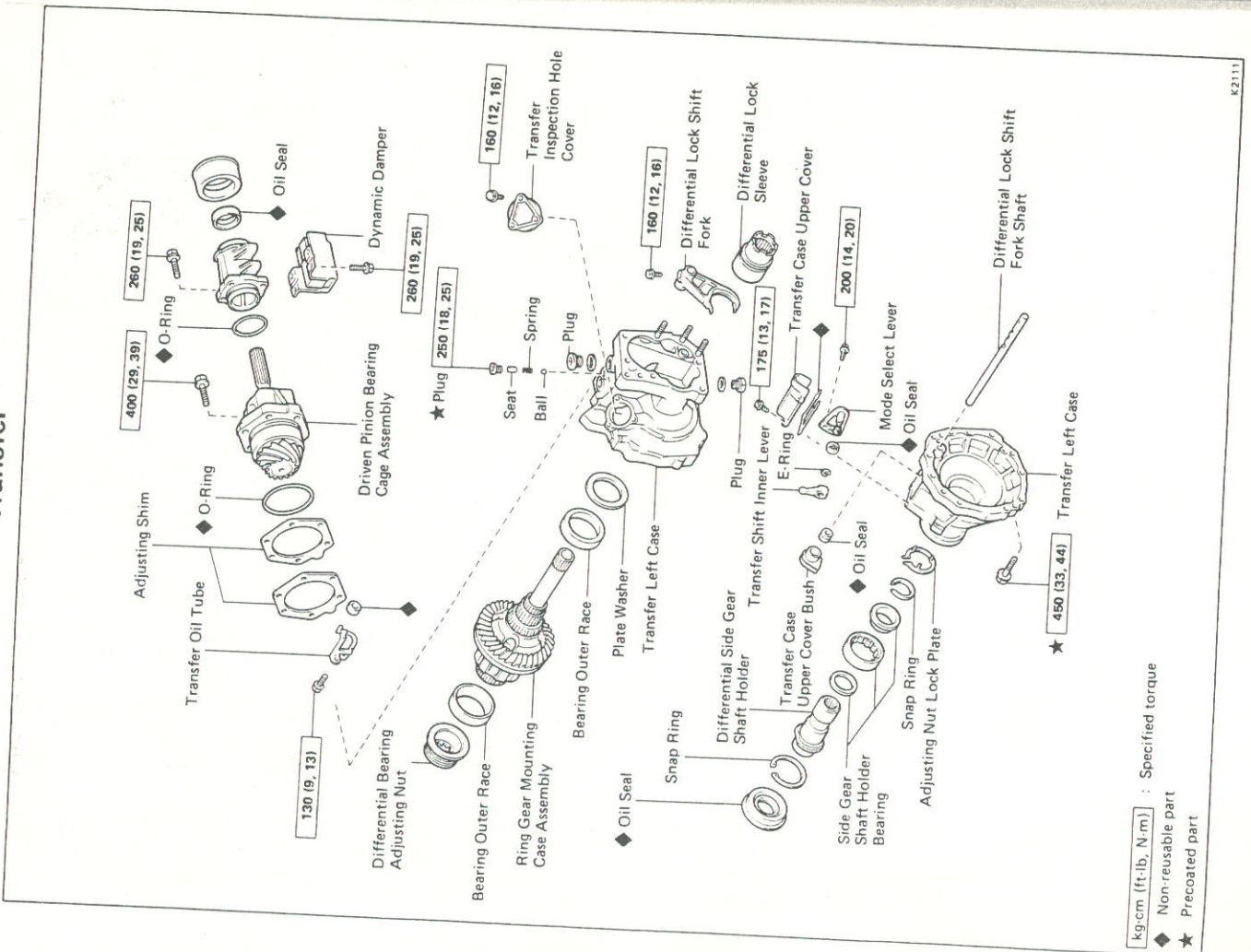


22. REMOVE OUTPUT SHAFT ASSEMBLY

23. REMOVE DIFFERENTIAL CASE ASSEMBLY



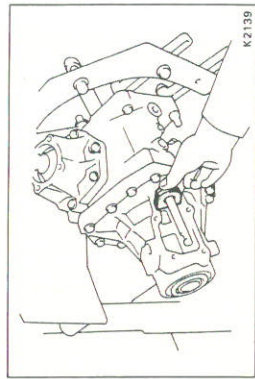
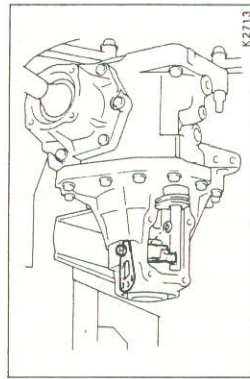
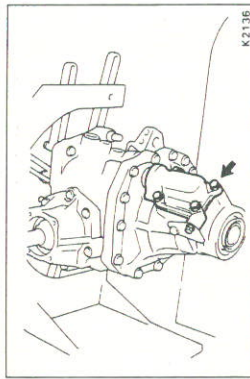
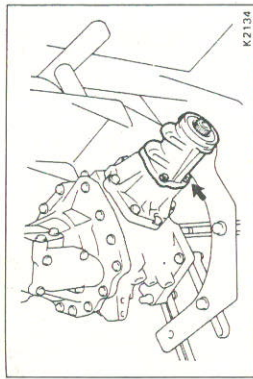
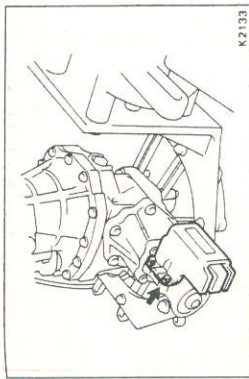
Transfer

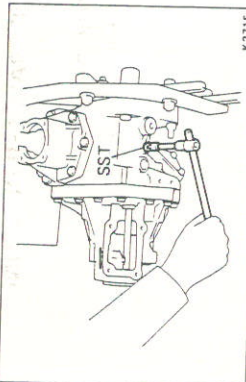


K2111

DISASSEMBLY OF TRANSFER COMPONENT PARTS

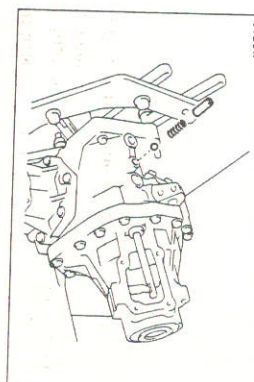
1. REMOVE DYNAMIC DAMPER
Remove the four bolts and dynamic damper.
2. REMOVE EXTENSION HOUSING
(a) Remove the four bolts and tap off the housing with a plastic hammer.
(b) Remove the O-ring from the extension housing.
3. REMOVE TRANSFER CASE COVER
(a) Remove the five bolts.
(b) Remove the case cover and gasket.
4. REMOVE MODE SELECT LEVER AND INNER LEVER
(a) Remove the E-ring.
(b) Remove the mode select lever and inner lever.
5. REMOVE TRANSFER CASE UPPER COVER BUSHING



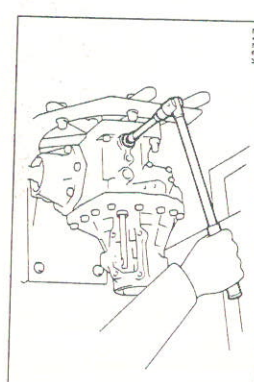


6. REMOVE PLUG, SEAT, SPRING AND LOCKING BALL

- (a) Using SST, remove the plug.
SST 09313-30021

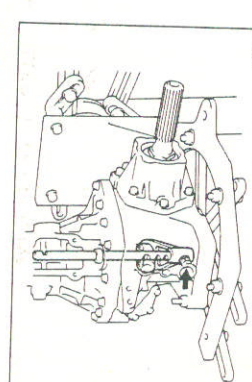


- (b) Using a magnetic finger, remove the seat, spring and ball.

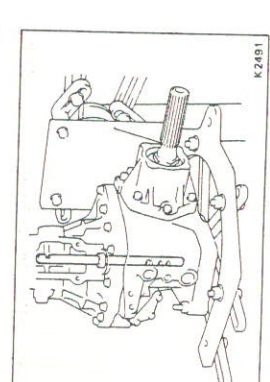


7. REMOVE DIFFERENTIAL LOCK SHIFT FORK AND SHIFT FORK SHAFT

- (a) Using SST, remove the plug.
SST 09043-38100



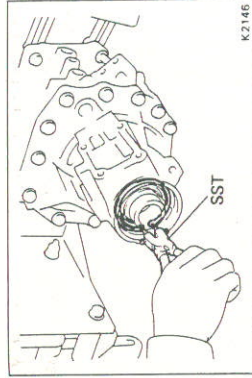
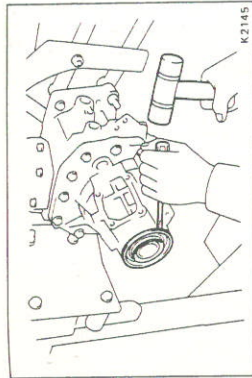
- (b) Remove the set bolt.
- (c) Remove the differential lock sleeve and shift fork.



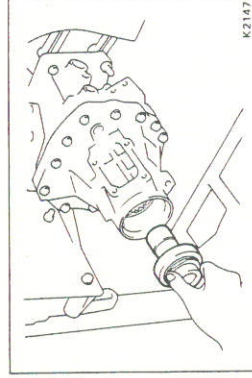
- (d) Pull out the shift fork shaft.

8. REMOVE SIDE GEAR SHAFT HOLDER

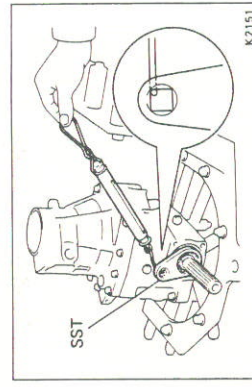
- (a) Using a screwdriver and hammer, remove the oil seal.



- (b) Using snap ring pliers, remove the snap ring.



- (c) Remove the shaft holder.



9. CHECK PRELOAD

- (a) Using SST and a spring tension gauge, measure the driven pinion preload of the backlash between the driven pinion and ring gear.
SST 09326-20011

Preload (at starting): 0.9 — 1.4 kg
(2.0 — 3.1 lb, 8.8 — 13.7 N)

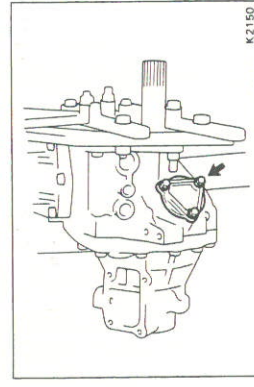
- (b) Using SST and a spring tension gauge, measure the total preload.
SST 09326-20011

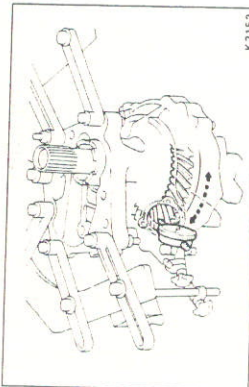
Total preload (at starting):

Add driven pinion preload
0.5 — 0.9 kg (1.1 — 2.0 lb, 4.9 — 8.8 N)

10. REMOVE TRANSFER INSPECTION HOLE COVER

- Remove the three bolts and a cover.

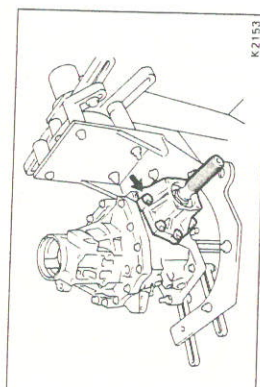




11. CHECK RING GEAR BACKLASH

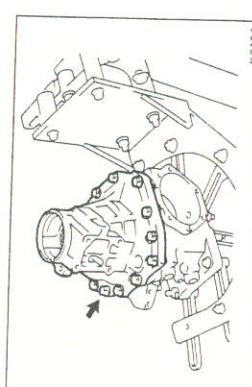
Using a dial indicator, measure the ring gear backlash.
Backlash: 0.13 — 0.18 mm (0.0051 — 0.0071 in.)

12. CHECK TOOTH CONTACT (See page MT-84)



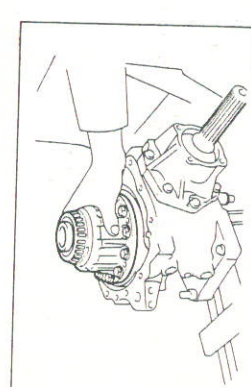
13. REMOVE DRIVEN PINION BEARING CAGE ASSEMBLY

- (a) Remove the six bolts and tap off the bearing cage assembly with a plastic hammer.
- (b) Remove the O-ring from the driven pinion bearing cage.

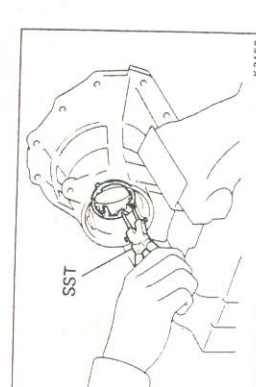


14. REMOVE TRANSFER RIGHT CASE

Remove the twelve bolts and tap off the case with a plastic hammer.



15. REMOVE RING GEAR MOUNTING CASE ASSEMBLY

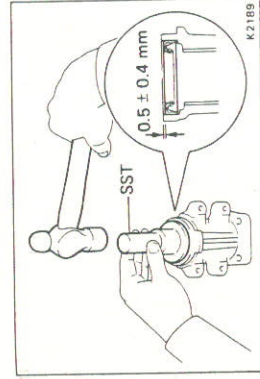
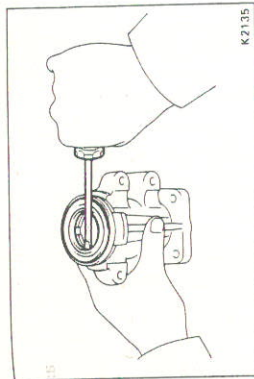


16. REMOVE ADJUSTING NUT LOCK PLATE

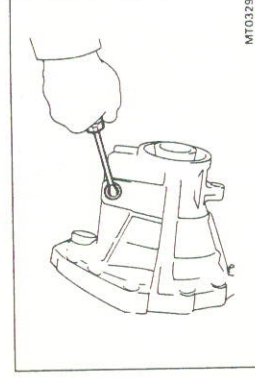
Using snap ring pliers, remove the lock plate from the transfer right case.

17. IF NECESSARY, REPLACE EXTENSION HOUSING OIL SEAL

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

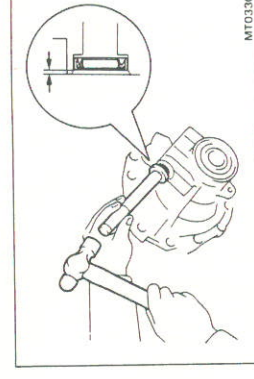


- (b) Using SST and a hammer, drive in a new oil seal.
SST 09325-20010
Oil seal depth: 0.1 — 0.9 mm (0.004 — 0.035 in.)
- (c) Coat the lip of oil seal with MP grease.

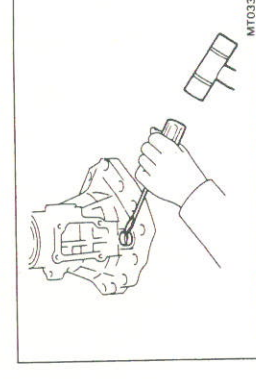


18. IF NECESSARY, REPLACE DIFFERENTIAL LOCK SHIFT LEVER SHAFT OIL SEAL

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

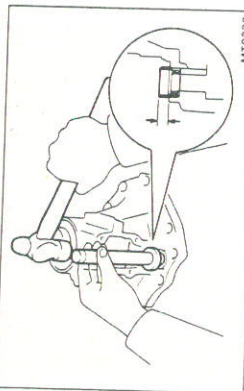


- (b) Coat the lip seal with MP grease.
- (c) Using SST and a hammer, drive in a new oil seal.
SST 09620-30010 (09625-30010, 09631-00020)
Oil seal depth: 1.0 — 2.0 mm (0.039 — 0.079 in.)



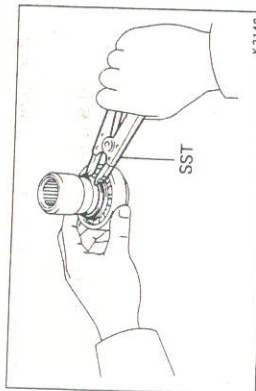
19. IF NECESSARY, REPLACE SHIFT FORK SHAFT OIL SEAL

- (a) Using a screwdriver and hammer, remove the oil seal.



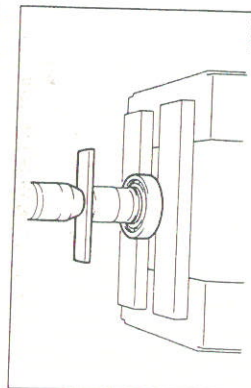
- (b) Coat the lip of the oil seal with MP grease.
- (c) Using SST and a hammer, drive in a new oil seal as shown.

SST 09620-30010 (09625-30010, 09631-00020)
 Oil seal height: 8.5 — 9.5 mm (0.335 — 0.374 in.)

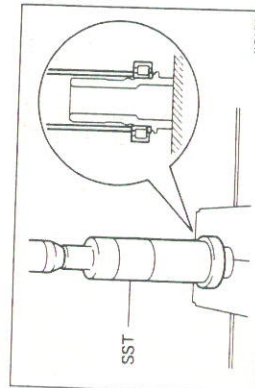


20. IF NECESSARY, REPLACE SIDE GEAR SHAFT HOLDER BEARING

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

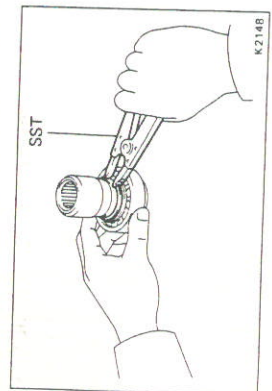


- (b) Using a press, remove the bearing from the side gear shaft holder.



- (c) Using SST and a press, install the new bearing as shown.

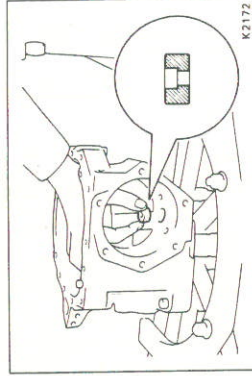
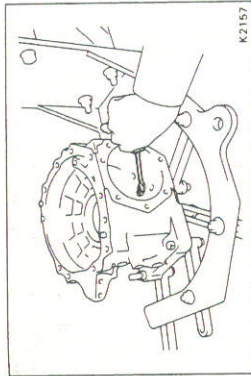
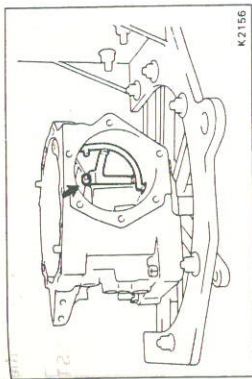
SST 09316-60010 (09316-00010)



- (d) Using snap ring pliers, install the snap ring.

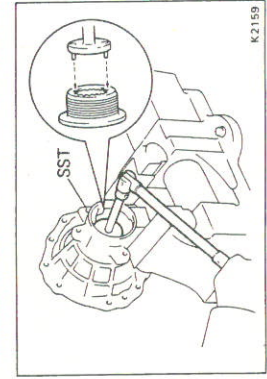
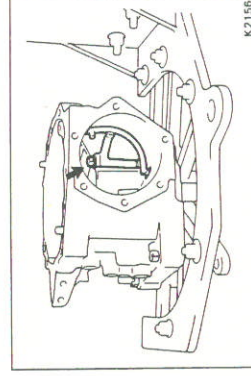
21. IF NECESSARY, REPLACE TRANSFER OIL TUBE

- (a) Remove the bolt and oil tube.
- (b) Using a screwdriver, remove the cushion.
- (c) Install the new cushion.



- (d) Install the oil tube.
- (e) Install and torque the bolt.

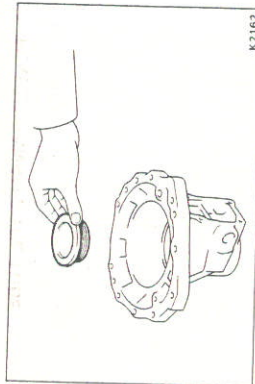
Torque: 130 kg-cm (9 ft-lb, 13 N·m)



22. IF NECESSARY, REPLACE RING GEAR MOUNTING CASE SIDE BEARING OUTER RACE (Transfer Right Case)

- (a) Using SST, turn the bearing adjusting nut, remove the outer race and bearing adjusting nut.

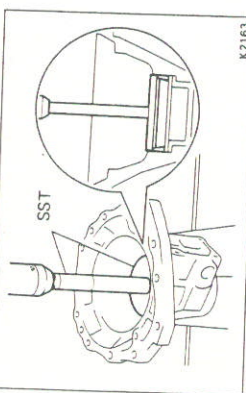
SST 09318-20010



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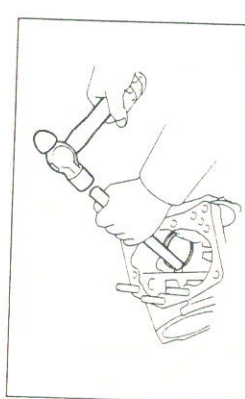
- (b) Install the bearing adjusting nut until it touches the lip of the case.

NOTE: If the nut is difficult to turn, use SST (09318-20010).



K2163

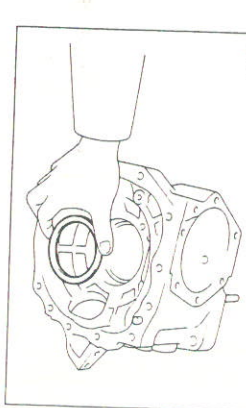
- (c) Using SST and a press, install the bearing outer race until it is almost touching the bearing adjusting nut. SST 09608-35014 (09608-06020, 09608-06180)



ER800

(Transfer Left Case)

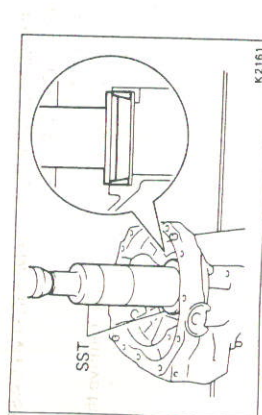
- (a) Using a brass bar and hammer, drive out the bearing outer race lightly and evenly.
- (b) Remove the plate washer.



K2160

- (c) Install the plate washer.

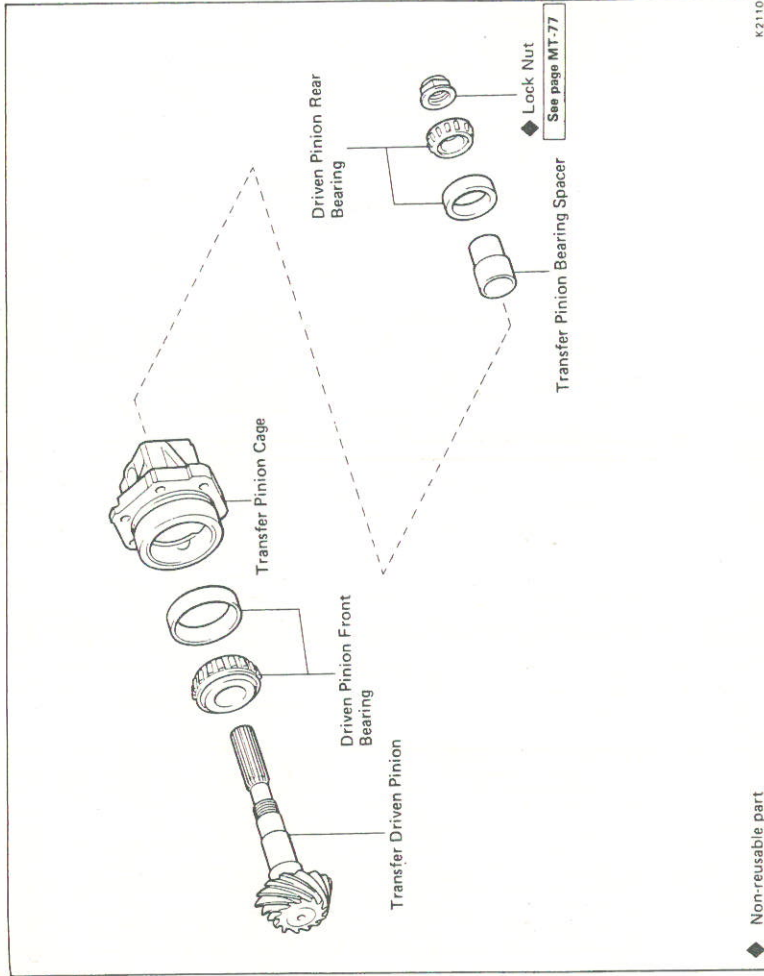
NOTE: First install a washer of the same thickness as before.



K2161

- (d) Using SST and a press, install the outer race. SST 09316-60010 (09316-00010, 09316-00060)

DRIVEN PINION BEARING CAGE ASSEMBLY

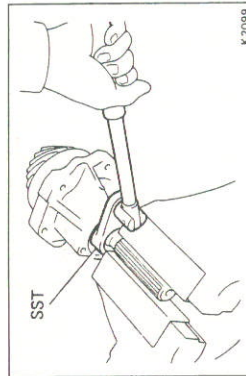


◆ Non-reusable part

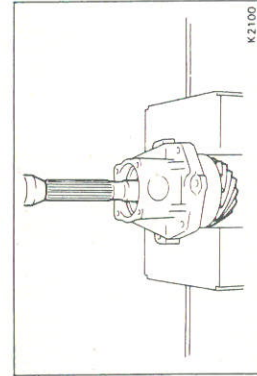
K2110

DISASSEMBLY OF DRIVEN PINION BEARING CAGE

- 1. REMOVE LOCK NUT**
 - (a) Unstake the lock nut.
 - (b) Using SST, remove the lock nut. SST 09326-20011



K2099

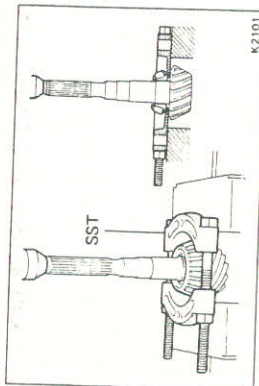


K2100

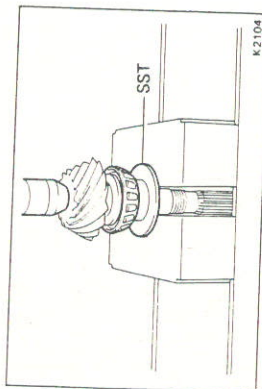
- 2. REMOVE DRIVEN PINION**
 - Using a press, remove the driven pinion, rear bearing and spacer.

3. IF NECESSARY, REPLACE DRIVEN PINION FRONT BEARING

(a) Using SST and a press, remove the front bearing.
SST 09950-00020

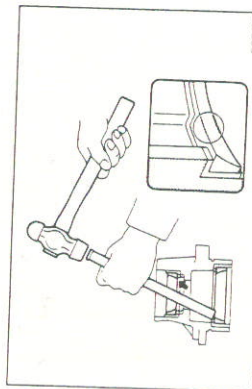


(b) Using SST and a press, install the front bearing.
SST 09316-60010 (09316-00050)



4. IF NECESSARY, REPLACE FRONT AND REAR BEARING OUTER RACE

(a) Using a brass bar and hammer, drive out the bearing outer race lightly and evenly.

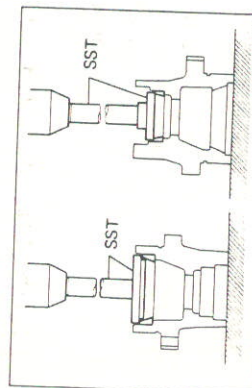


(b) Using SST and a press, install the front bearing outer race.

SST 09608-35014 (09608-06020, 09608-06210)

(c) Using SST and a press, install the rear bearing outer race.

SST 09550-10012 (09252-10010, 09555-10010)



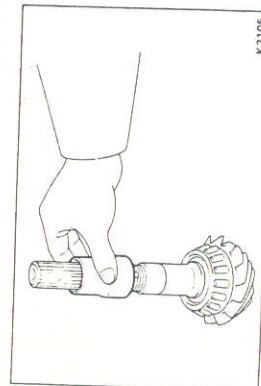
ASSEMBLY OF DRIVEN PINION BEARING CAGE
(See page MT-75)

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

1. INSTALL DRIVEN PINION BEARING CAGE

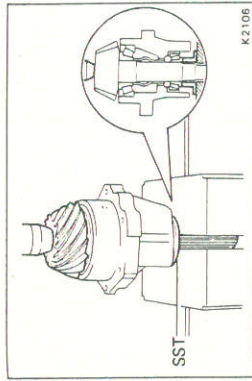
(a) Install the new bearing spacer.

NOTE: Insert the spacer with the smaller facing upwards.



(b) Using SST and a press, install the rear bearing.

NOTE: Press down until the pinion can just move slightly up and down.

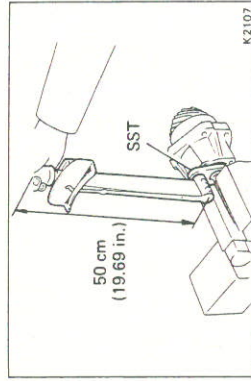


2. ADJUST DRIVEN PINION PRELOAD

(a) Using SST, install and torque the new lock nut.
SST 09326-20011

Torque: 1,000 kg-cm (72 ft-lb, 98 N·m)

NOTE: Use a torque wrench with a fulcrum length of 50 cm (19.69 in.).



(b) Using SST and a spring tension gauge, measure the driven pinion preload.

NOTE: Turn the driven pinion right and left two or three times to allow the bearings to settle.

Preload (at starting):

New bearing 1.8 — 2.9 kg

(4.0 — 6.4 lb, 17.7 — 28.4 N)

Reused bearing 0.9 — 1.4 kg

(2.0 — 3.1 lb, 8.8 — 13.7 N)

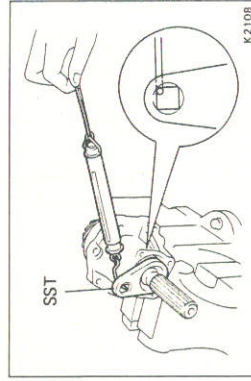
• If preload is greater than specification, replace the bearing spacer.

• If preload is less than specification, retighten the nut 5° — 10° at a time until the specified preload is reached.

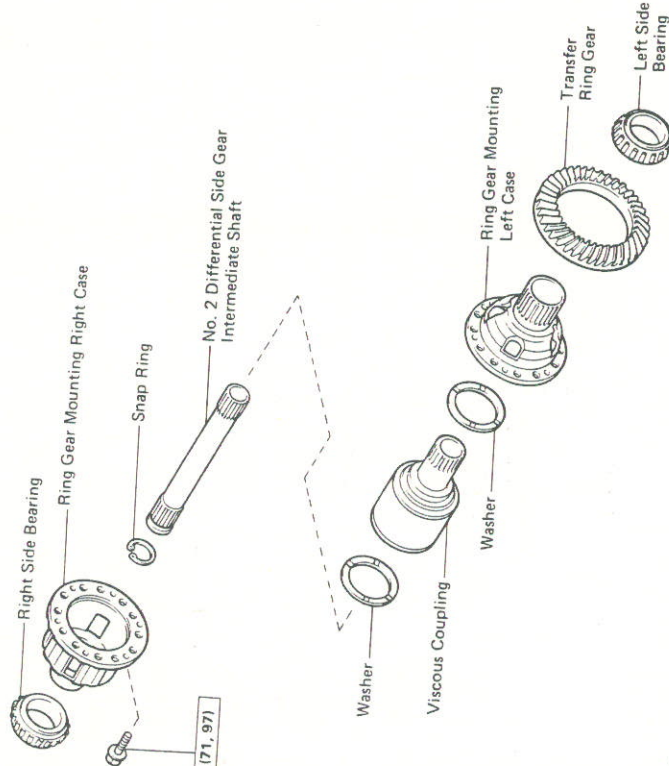
If the maximum torque is exceed while retightening the nut, replace the bearing spacer and repeat the preload procedure. Do not back off the pinion nut to reduce the preload.

Maximum torque: 2,200 kg-cm (159 ft-lb, 216 N·m)

3. STAKE LOCK NUT



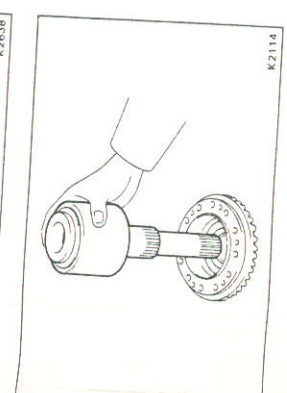
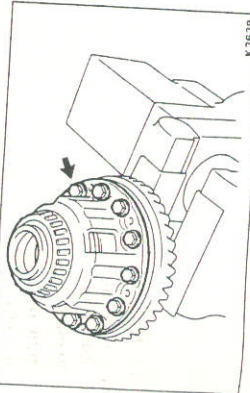
RING GEAR MOUNTING CASE ASSEMBLY



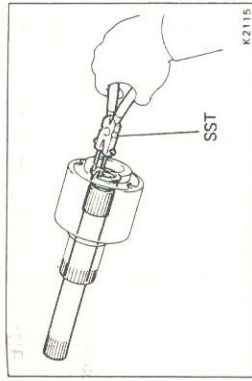
kg-cm (ft.-lb., N.m) : Specified torque

DISASSEMBLY OF RING GEAR MOUNTING CASE

- 1. REMOVE RING GEAR MOUNTING RIGHT CASE**
Remove twelve bolts and right case.
- 2. REMOVE VISCOUS COUPLING**
(a) Remove the viscous coupling from the left case.
(b) Remove the two washers from the viscous coupling.

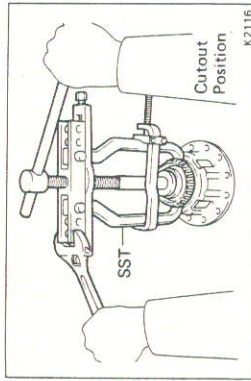


- (c) Using a snap ring pliers, remove the snap ring and No.2 intermediate shaft.



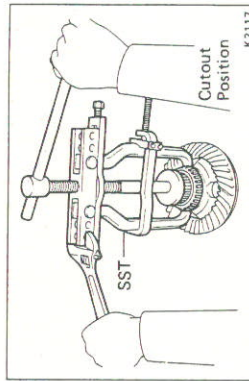
3. REMOVE MOUNTING CASE SIDE BEARING (Right Case Side)

- Using SST, remove the side bearing.
SST 09950-20017



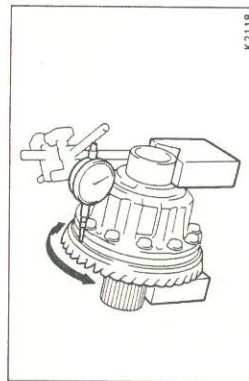
(Left Case Side)

- Using SST, remove the side bearing.
SST 09950-20017



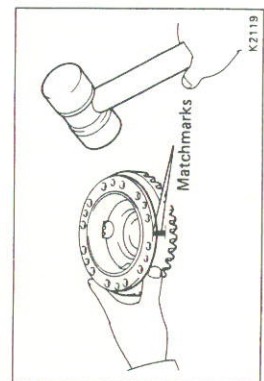
4. CHECK RING GEAR RUNOUT

- (a) Install the mounting right case to the left case.
- (b) Using a dial indicator, check the ring gear runout.
Maximum runout: 0.1 mm (0.004 in.)
- (c) Remove the mounting right case from the left case.



5. REMOVE RING GEAR

- (a) Place the matchmarks on both the mounting left case and ring gear.
- (b) Using a plastic hammer, tap out the ring gear.



INSPECTION OF RING GEAR MOUNTING CASE

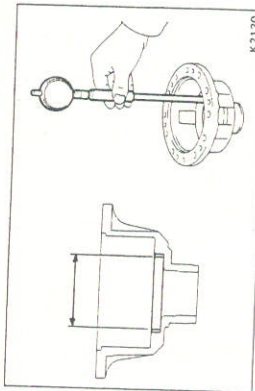
1. MEASURE RING GEAR MOUNTING CASE

(a) Using a cylinder gauge, measure the inner diameter of the mounting right case bushing.

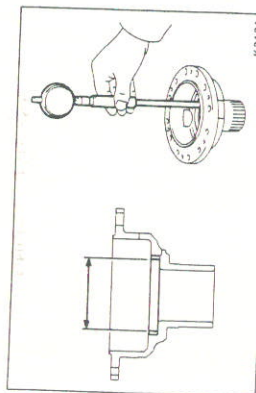
Standard diameter: 69.000 — 69.035 mm
(2.7165 — 2.7179 in.)
Maximum diameter: 69.060 mm (2.7189 in.)

(b) Using a cylinder gauge, measure the inner diameter of the mounting left case bushing.

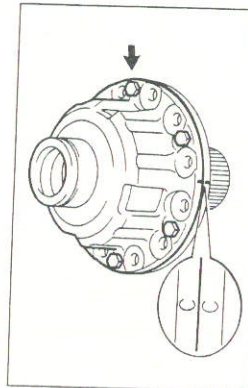
Standard diameter: 69.000 — 69.035 mm
(2.7165 — 2.7179 in.)
Maximum diameter: 69.060 mm (2.7189 in.)



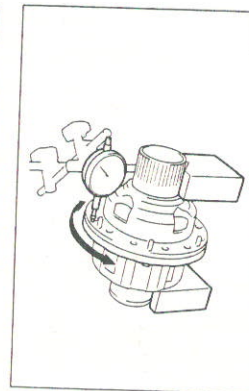
K2120



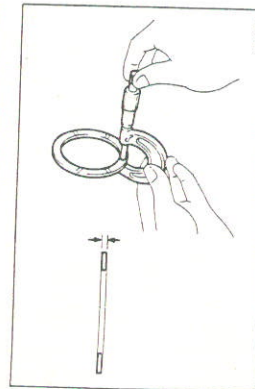
K2121



K2639



K2123



K2124

2. CHECK RING GEAR MOUNTING CASE RUNOUT

NOTE: Perform only when the limit is exceeded in the ring gear runout inspection.

(a) Using six bolts (Diameter 8 mm, Pitch 1.25 mm), install the mounting right case to the left case.

NOTE: Align the matchmarks on the right case and connect the left case.

(b) Using a dial indicator, check the mounting case runout.

Maximum runout: 0.1 mm (0.004 in.)

(c) Remove the six bolts.

(d) Remove the mounting right case from the left case.

3. MEASURE WASHER

Using a micrometer, measure the two washers thickness.

Standard thickness: 1.49 — 1.51 mm
(0.0587 — 0.0594 in.)

Minimum thickness: 1.45 mm (0.0571 in.)

ASSEMBLY OF RING GEAR MOUNTING CASE

1. INSTALL RING GEAR

(a) Clean the contact surface of the mounting left case.
(b) Heat the ring gear to about 100°C (212°F) in an oil bath.

CAUTION: Do not heat the ring gear above 110°C (230°F).

(c) Clean the contact surface of the ring gear with cleaning solvent.
(d) Turn quickly install the ring gear on the mounting left case.

NOTE: Align the matchmarks on the mounting left case and connect the ring gear.

2. CHECK RING GEAR RUNOUT
(See page MT-79)

3. INSTALL MOUNTING CASE SIDE BEARING
(Right Case Side)

Using SST and a press, install the side bearing.
SST 09309-36010, 09316-20011
(Left Case Side)

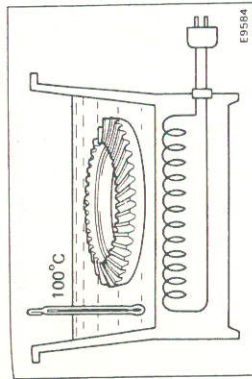
Using SST and a press, install the side bearing.
SST 09309-36010, 09316-20011

4. INSTALL VISCOUS COUPLING

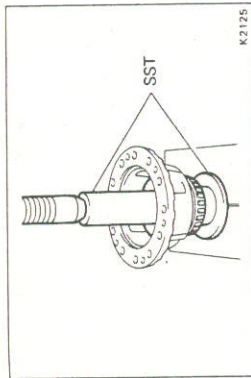
(a) Insert the No.2 intermediate shaft to the viscous coupling.

(b) Using snap ring pliers, install the snap ring.

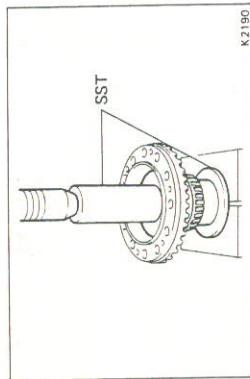
(c) Install the two washers to the viscous coupling.



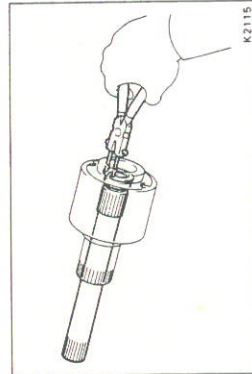
E9564



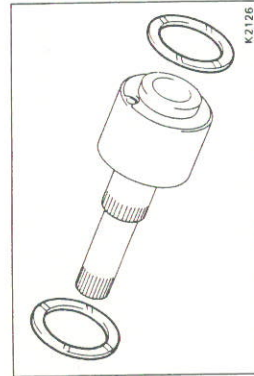
K2125



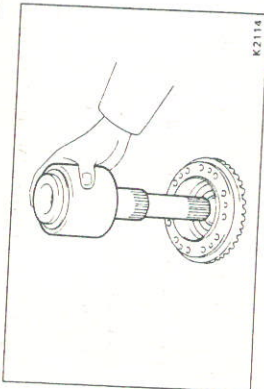
K2190



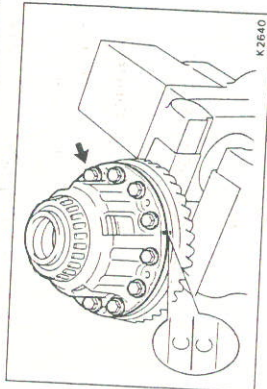
K2115



K2126



- (d) Install the viscous coupling to the left case.
NOTE: Do not drop the washer.

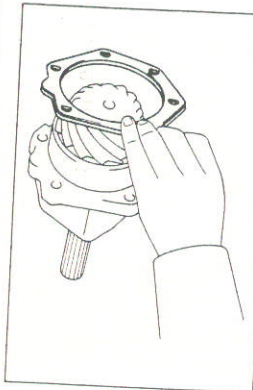


5. INSTALL RING GEAR MOUNTING RIGHT CASE

- (a) Install the right case to the left case.
(b) Install and torque the twelve bolts.

Torque: 985 kg-cm (71 ft-lb, 97 N-m)

NOTE: Align the matchmarks on the left case and connect the right case.



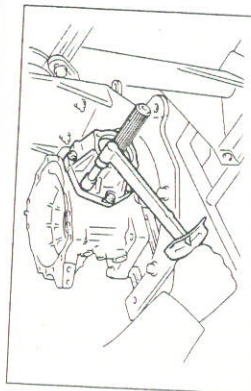
ASSEMBLY OF TRANSFER COMPONENT PARTS
(See page MT-66)

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

1. ADJUST RING GEAR BACKLASH

- (a) Install the adjusting shim to the driven pinion bearing cage assembly.

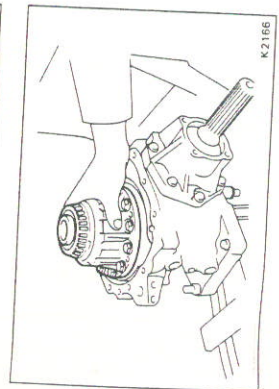
NOTE: First install a shim of the same thickness as before.



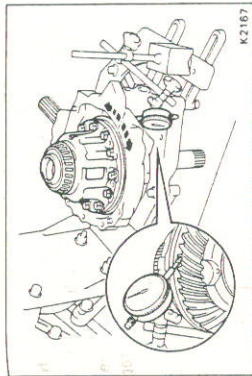
- (b) Install the driven pinion bearing cage assembly to the transfer left case.
(c) Install and torque the six bolts.

Torque: 400 kg-cm (29 ft-lb, 39 N-m)

NOTE: Do not install the O-ring.



- (d) Install the ring gear mounting case assembly to the transfer left case.



- (e) Using a dial indicator, measure the ring gear backlash.

Backlash: 0.13 — 0.18 mm (0.0051 — 0.0071 in.)

- (f) Referring to the table below, select the plate washer which will ensure that the backlash is within specification. Try to select a washer of the same size.

NOTE: The backlash will change about 0.02 mm (0.0008 in.) with each shim thickness.

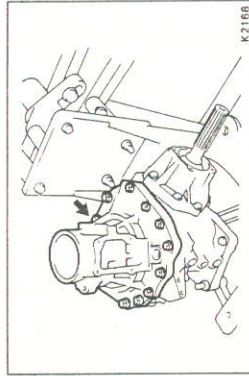
Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
1	2.13 (0.0839)	13	2.49 (0.0980)
2	2.16 (0.0850)	14	2.52 (0.0992)
3	2.19 (0.0862)	15	2.55 (0.1004)
4	2.22 (0.0874)	16	2.58 (0.1016)
5	2.25 (0.0886)	17	2.61 (0.1028)
6	2.28 (0.0898)	18	2.64 (0.1039)
7	2.31 (0.0909)	19	2.67 (0.1051)
8	2.34 (0.0921)	20	2.70 (0.1063)
9	2.37 (0.0933)	21	2.73 (0.1075)
10	2.40 (0.0945)	22	2.76 (0.1087)
11	2.43 (0.0957)	23	2.79 (0.1098)
12	2.46 (0.0968)	24	2.82 (0.1110)

2. ADJUST TOTAL PRELOAD

- (a) Install the transfer right case.

- (b) Install and torque the twelve bolts.

Torque: 450 kg-cm (33 ft-lb, 44 N-m)



- (c) Adjust the total preload by tightening the bearing adjusting nut.

Using SST, tightening the adjusting nut.

SST 09318-20010

NOTE: Measure the preload while tightening the adjusting nut a little at a time.

- (d) Using SST and a spring tension gauge, measure the total preload.

SST 09326-20011

Preload (at starting):

New bearing

Add driven pinion preload

1.3 — 1.4 kg (2.9 — 3.1 lb, 13 — 14 N)

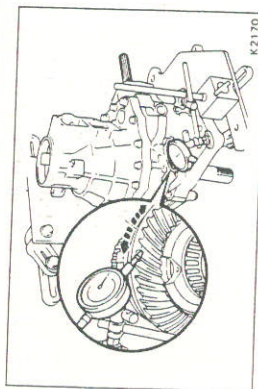
Reused bearing

Add driven pinion preload

0.5 — 0.9 kg (1.1 — 2.0 lb, 4.9 — 8.8 N)

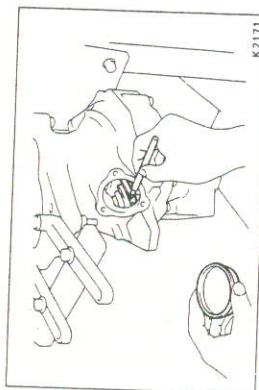
NOTE: Turn the output shaft counterclockwise and clockwise several times.

- (e) When the standard value for total preload is exceeded, remove the transfer right case, push in the adjusting nut and outer race. Again adjust the total preload.



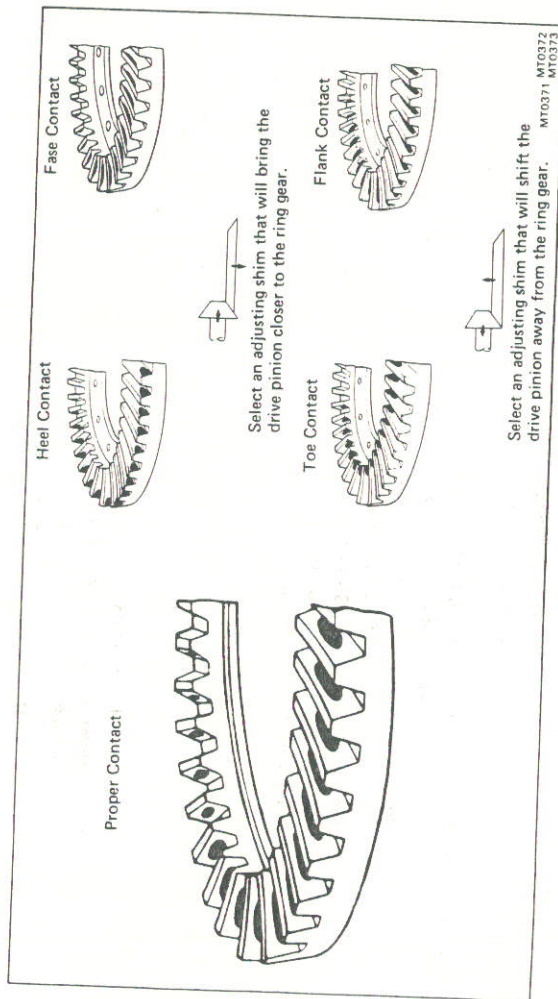
3. CHECK RING GEAR BACKLASH

- (a) Using a dial indicator, measure the ring gear backlash. Backlash: 0.13 — 0.18 mm (0.0051 — 0.0071 in.)
- (b) When the backlash is outside the standard value, select a different plate washer to the one selected step 2. Again adjust the backlash and total preload.



4. CHECK TOOTH CONTACT

- (a) Coat 3 or 4 teeth at four different positions on the ring gear with red lead.
- (b) Rotate the ring gear, inspect the teeth pattern.

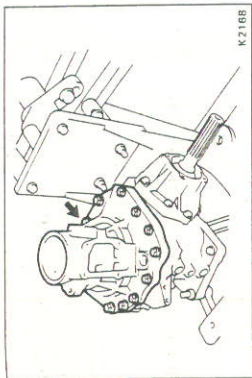


- (c) If the teeth are not contacting properly, again select the proper shim and plate.

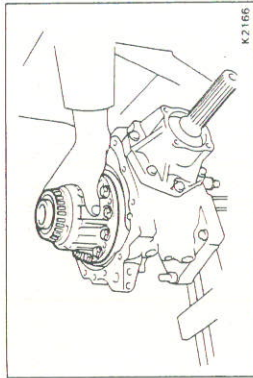
Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
A	0.30 (0.0118)	F	0.45 (0.0177)
B	0.33 (0.0130)	G	0.48 (0.0189)
C	0.36 (0.0142)	H	0.51 (0.0201)
D	0.39 (0.0154)	J	0.54 (0.0213)
E	0.42 (0.0165)	K	0.57 (0.0224)

5. REMOVE RING GEAR MOUNTING CASE ASSEMBLY

- (a) Remove the twelve bolts and transfer right case.

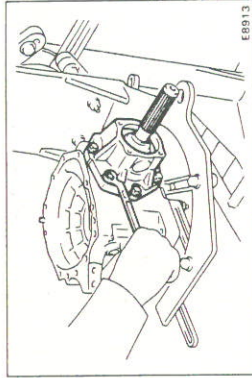


- (b) Remove the ring gear mounting case assembly.



6. REMOVE DRIVEN PINION BEARING CAGE ASSEMBLY

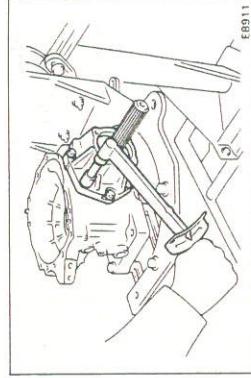
- Remove the six bolts and bearing cage assembly.



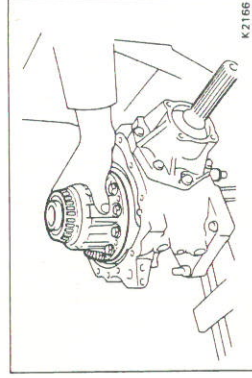
7. INSTALL DRIVEN PINION BEARING CAGE ASSEMBLY

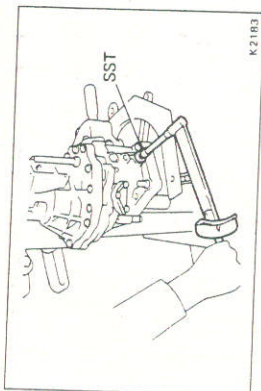
- (a) Coat the O-ring with gear oil.
- (b) Install the O-ring to the driven pinion bearing cage.
- (c) Install the driven pinion bearing cage with the adjusting shim (previously selected) to the transfer left case.
- (d) Install and torque the six bolts.

Torque: 400 kg-cm (29 ft-lb, 39 N·m)

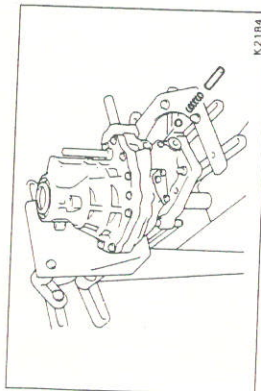


8. INSTALL RING GEAR MOUNTING CASE ASSEMBLY

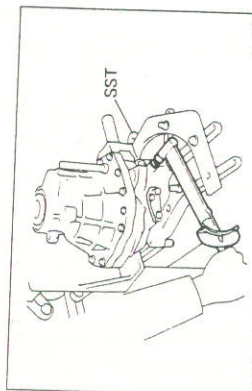




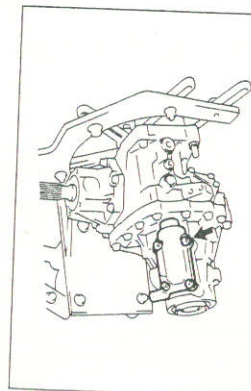
- (f) Using SST, install and torque the plug.
 SST 09043-38100
 Torque: 400 kg-cm (29 ft-lb, 39 N·m)



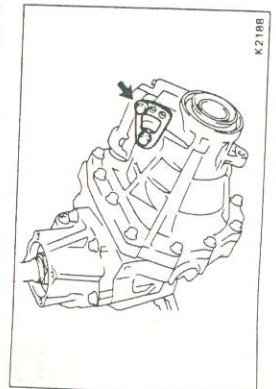
16. **INSTALL LOCKING BALL, SPRING, SEAT AND PLUG**
 (a) Using magnetic finger, install the locking ball, spring and seat.



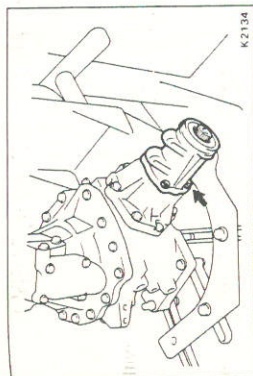
- (b) Apply sealant to the plug threads.
Sealant: Part No.08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent
 (c) Using SST, install and torque the plug.
 SST 09313-30021
 Torque: 250 kg-cm (18 ft-lb, 25 N·m)



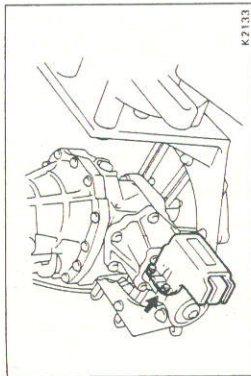
17. **INSTALL TRANSFER CASE COVER**
 (a) Install the new gasket and case cover.
 (b) Install and torque the four bolts.
 Torque: 175 kg-cm (13 ft-lb, 17 N·m)



- (c) Install the bolt to the mode select lever as shown.
 Torque: 200 kg-cm (14 ft-lb, 20 N·m)



18. **INSTALL EXTENSION HOUSING**
 (a) Coat the O-ring with gear oil.
 (b) Install the O-ring to the extension housing.
 (c) Install the extension housing to the driven pinion bearing cage.
 (d) Install and torque the four bolts.
 Torque: 260 kg-cm (19 ft-lb, 25 N·m)



19. **INSTALL DYNAMIC DAMPER**
 Install and torque the four bolts.
 Torque: 260 kg-cm (19 ft-lb, 25 N·m)

INSTALLATION OF COMPONENT PARTS

(See pages MT-15 to MT-17)

NOTE: 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: 300 kg-cm (22 ft-lb, 29 N·m)

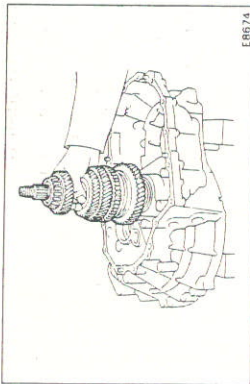
- (d) Install the output shaft rear bearing outer race.

- (e) Install the adjust shim.

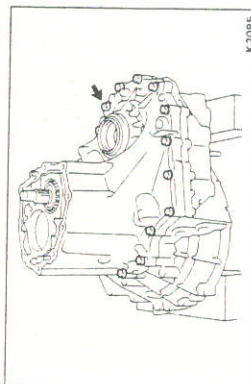
NOTE: When reusing the output shaft bearing, first install a shim of the same thickness as before. If installing a new tapered roller bearing, first select and install a shim of lesser thickness than before.

- (f) Using a torx wrench, install and torque the seven torx screws.

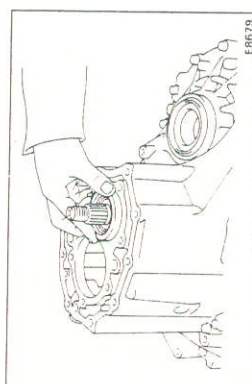
Torque: 430 kg-cm (31 ft-lb, 42 N·m)



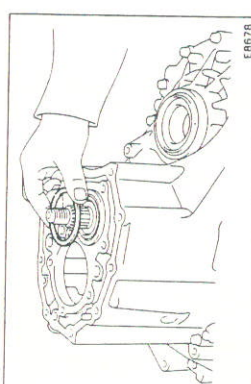
EB674



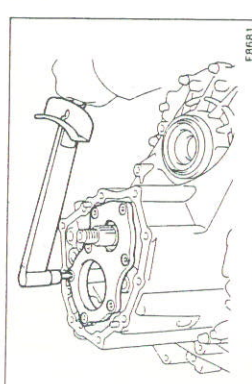
K 2085



EB679



EB678



EB681

- (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

8.0 — 16.0 kg-cm
(6.9 — 13.9 in.-lb, 0.8 — 1.6 N·m)

Reused bearing

5.0 — 10.0 kg-cm
(4.3 — 8.7 in.-lb, 0.5 — 1.0 N·m)

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

NOTE: The preload will change about 4 — 5 kg-cm (3.5 — 4.3 in.-lb, 0.4 — 0.5 N·m) with each shim thickness.

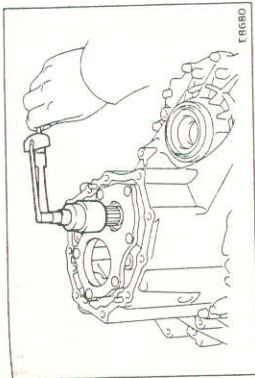
Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
0	1.30 (0.0512)	D	1.95 (0.0768)
1	1.35 (0.0531)	E	2.00 (0.0787)
2	1.40 (0.0551)	F	2.05 (0.0807)
3	1.45 (0.0571)	G	2.10 (0.0827)
4	1.50 (0.0591)	H	2.15 (0.0846)
5	1.55 (0.0610)	J	2.20 (0.0866)
6	1.60 (0.0630)	K	2.25 (0.0886)
7	1.65 (0.0650)	L	2.30 (0.0906)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

- (j) Remove the lock nut.

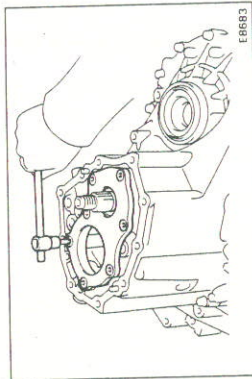
- (k) Using a torx wrench, remove the seven torx screws.

- (l) Remove the adjusting shim.

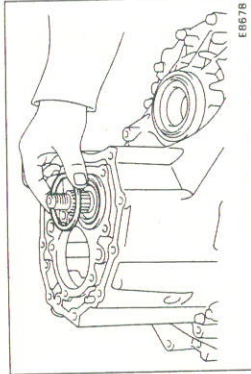
- (m) Remove the seventeen bolts and tap off the case with a plastic hammer.



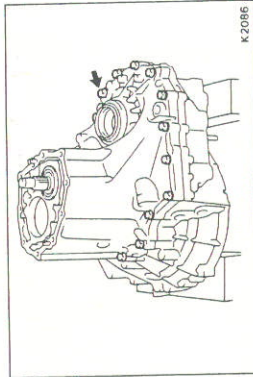
EB680



EB683

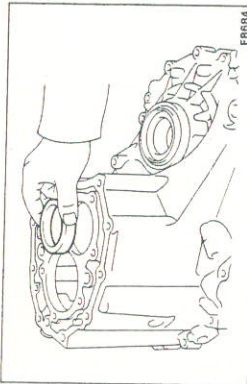


EB678

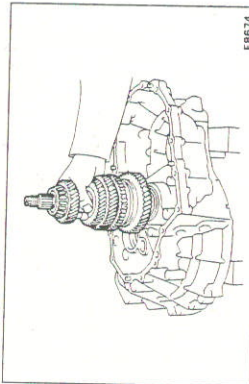


K 2086

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

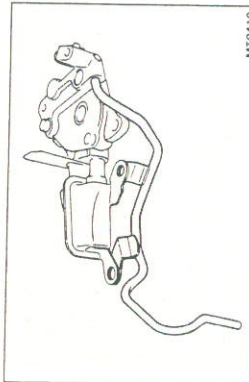


(o) Remove the output shaft assembly.



2. INSTALL OIL PUMP ASSEMBLY AND OIL PIPE

(a) Install the oil pipe to oil pump.

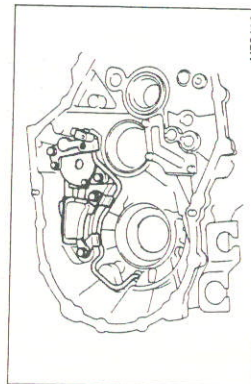


(b) Install the oil pump.

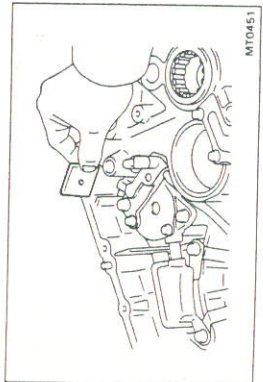
NOTE: Do not drop the oil pump gasket.

(c) Torque the four bolts.

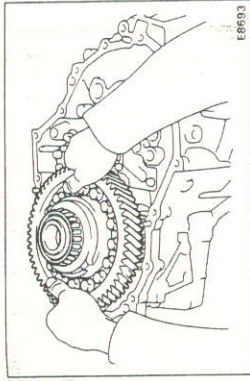
Torque: 175 kg-cm (13 ft-lb, 17 N·m)



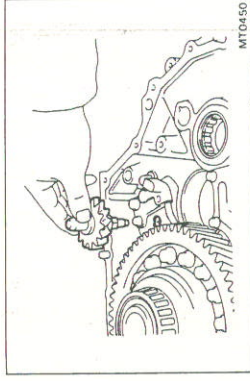
3. INSTALL MAGNET TO TRANSAXLE CASE



4. INSTALL DIFFERENTIAL CASE ASSEMBLY

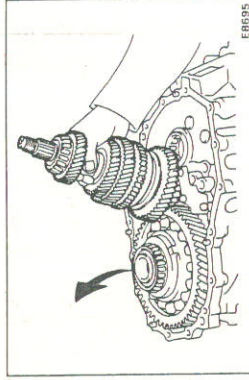


5. INSTALL OIL PUMP DRIVE GEAR



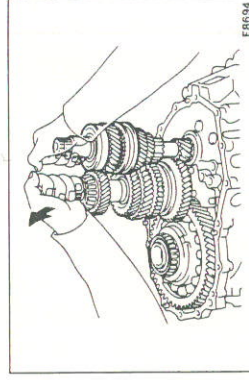
6. INSTALL OUTPUT SHAFT ASSEMBLY

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



7. INSTALL INPUT SHAFT ASSEMBLY

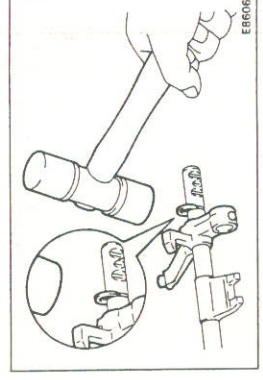
Leaning the output shaft to the differential side, install the input shaft assembly.



8. INSTALL SNAP RING

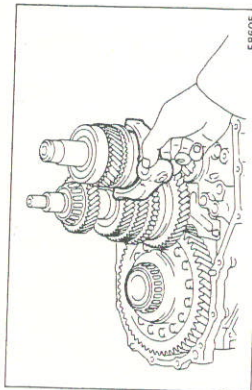
(a) Install the reverse shift fork to the No.3 shift fork.

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



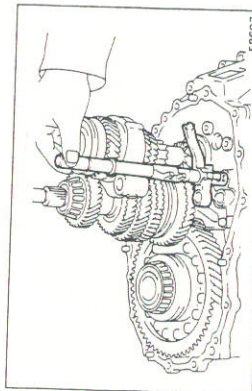
9. INSTALL NO.2 SHIFT FORK AND NO.3 SHIFT FORK SHAFT WITH REVERSE SHIFT FORK

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



ER605

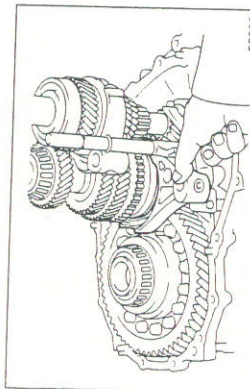
(b) Install the No.3 shift fork shaft with reverse shift fork to the case.



ER607

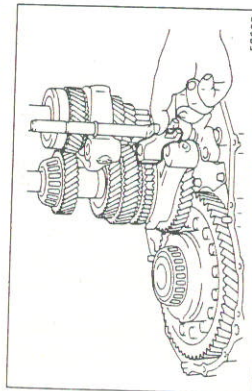
10. INSTALL NO.1 SHIFT FORK, SHIFT HEAD AND NO.2 SHIFT FORK SHAFT

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



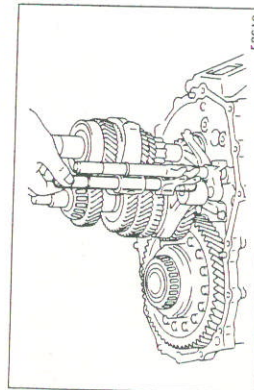
ER608

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



ER609

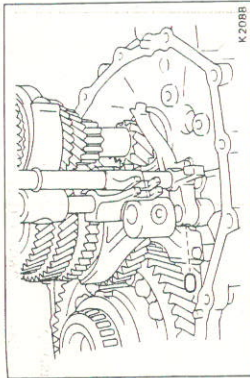
(c) Install the No.2 shift fork shaft to the case, through the No.2 shift fork, the shift head and the No.1 shift fork.



ER610

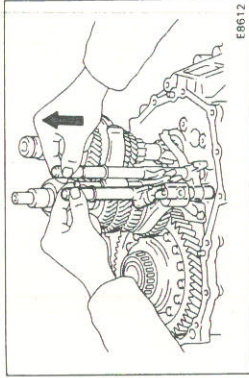
11. INSTALL NO.1 SHIFT FORK SHAFT

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



K208E

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



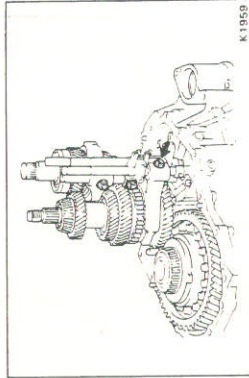
ER612

NOTE: 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.

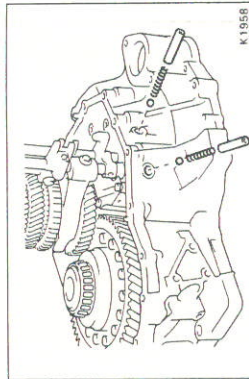
Torque: 240 kg-cm (17 ft-lb, 24 N·m)



K1959

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

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



K1956

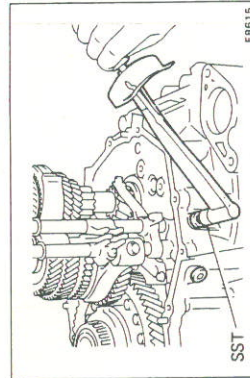
(b) Apply sealant to the screw plugs.

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

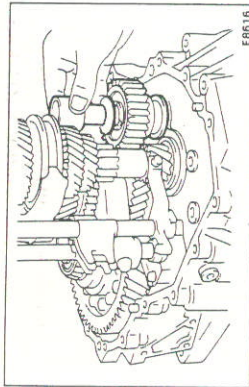
(c) Using SST, torque the screw plugs.

SST 09313-30021

Torque: 250 kg-cm (18 ft-lb, 25 N·m)

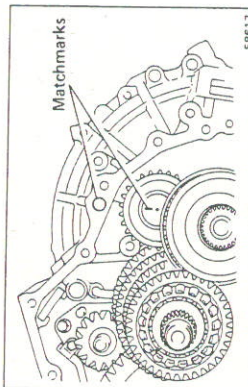


SST
ER615

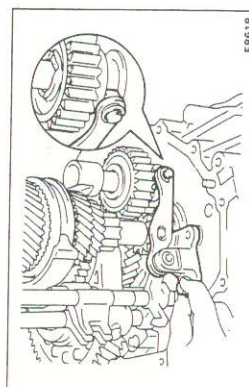


14. INSTALL REVERSE IDLER GEAR SHAFT AND GEAR

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

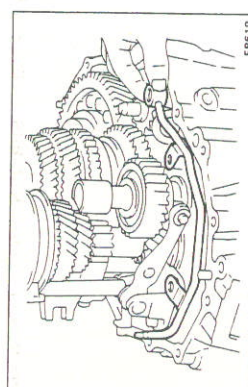


- (b) Align the matchmarks, as shown.

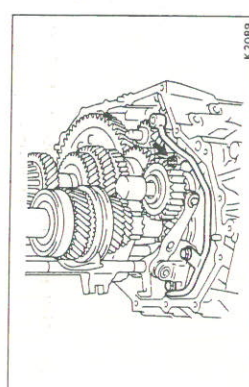


15. INSTALL REVERSE SHIFT ARM BRACKET ASSEMBLY AND NO. 2 OIL PIPE

- (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.

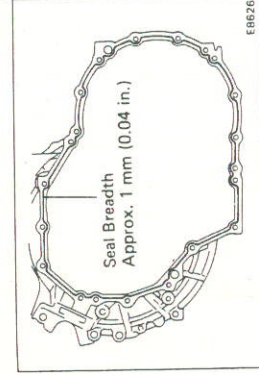
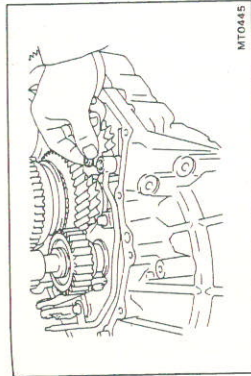


- (c) Install the No. 2 oil pipe.



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

Torque: 175 kg-cm (13 ft-lb, 17 N·m)



16. INSTALL TRANSMISSION CASE

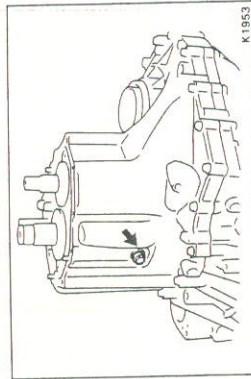
- (a) Remove any packing material and be careful not to drop oil on the contacting surfaces of the transaxle case.
- (b) Apply seal packing to the transmission case as shown in the figure.

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

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

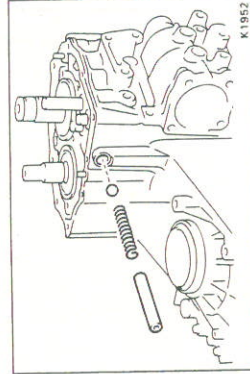
- (c) Install and torque the seventeen bolts.

Torque: 300 kg-cm (22 ft-lb, 29 N·m)



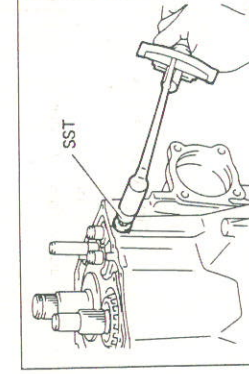
17. INSTALL AND TORQUE REVERSE IDLER GEAR SHAFT BOLT WITH GASKET

Torque: 300 kg-cm (22 ft-lb, 29 N·m)



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

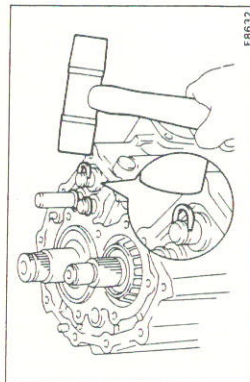
- (c) Using SST, torque the screw plug.

SST 09313-30021

Torque: 250 kg-cm (18 ft-lb, 25 N·m)

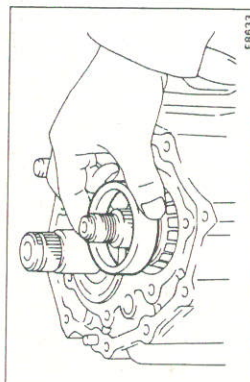
19. INSTALL SNAP RINGS

Using a plastic hammer, install the three snap rings.

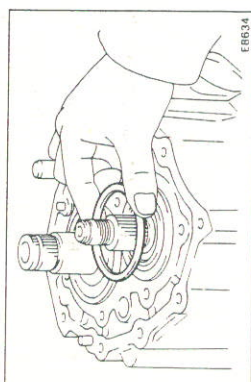


20. INSTALL REAR BEARING RETAINER

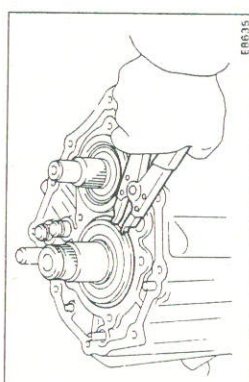
(a) Install the output shaft rear bearing outer race.



(b) Install the adjusting shim.



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

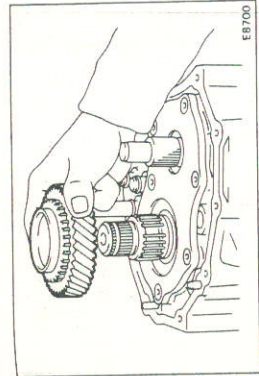
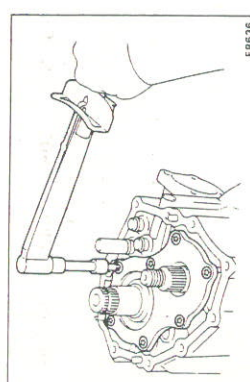


(d) Apply sealant to the screw plugs.

Sealant: Part No.08833-00070, **THREE BOND 1324**, **LOCTITE 242** or equivalent

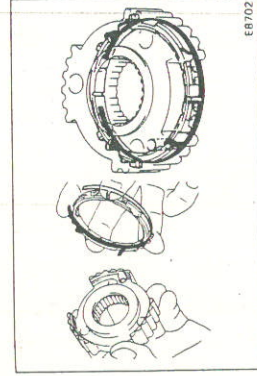
(e) Using a torx wrench, torque the screw plug.

Torque: 430 kg-cm (31 ft-lb, 42 N·m)

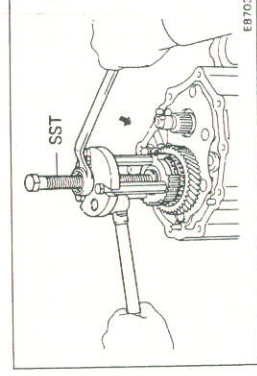


21. INSTALL FIFTH GEAR AND NO.3 CLUTCH HUB

(a) Install the spacer, needle roller bearings and 5th gear.

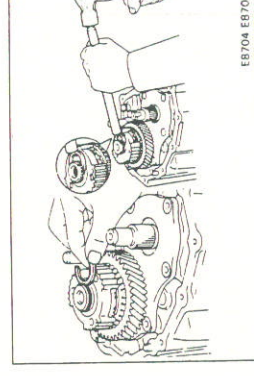


(b) Install the synchronizer ring and key spring to the No.3 clutch hub.



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

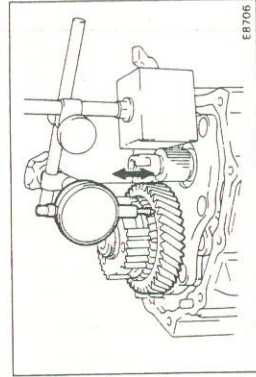
(d) Select a snap ring that will allow minimum axial play and install it on the shaft.

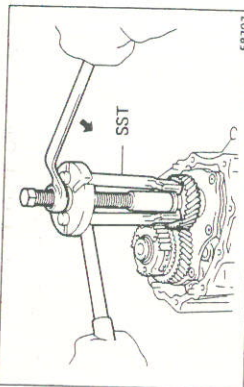


Mark	Thickness	mm (in.)
Q	2.25 - 2.30	(0.0886 - 0.0906)
R	2.30 - 2.35	(0.0906 - 0.0925)
S	2.35 - 2.40	(0.0925 - 0.0945)
T	2.40 - 2.45	(0.0945 - 0.0965)
U	2.45 - 2.50	(0.0965 - 0.0984)
V	2.50 - 2.55	(0.0984 - 0.1004)
W	2.55 - 2.60	(0.1004 - 0.1024)
X	2.60 - 2.65	(0.1024 - 0.1043)
Y	2.65 - 2.70	(0.1043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

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

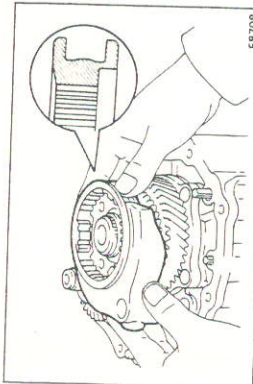
Standard clearance: 0.10 - 0.57 mm (0.0039 - 0.0224 in.)





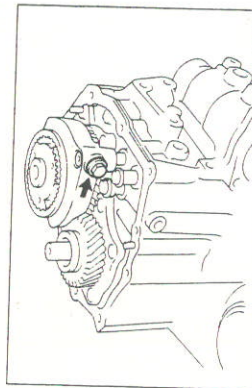
22. INSTALL FIFTH DRIVEN GEAR

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



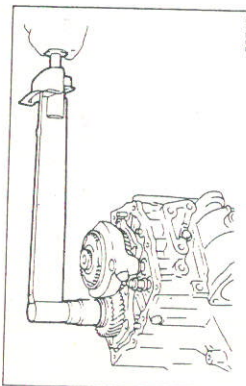
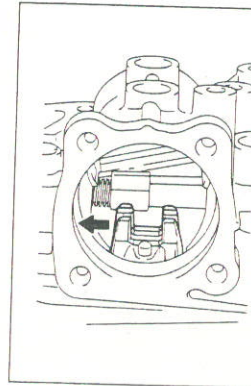
23. INSTALL NO.3 HUB SLEEVE AND FIFTH SHIFT FORK

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



24. INSTALL LOCK NUT

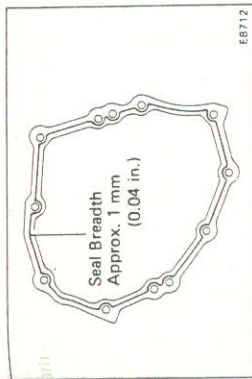
(a) Engage the gear double meshing.



(b) Install and torque the nut.
Torque: 1,250 kg-cm (90 ft-lb, 123 N·m)
 (c) Disengage the gear double meshing.
 (d) Stake the lock nut.

25. INSTALL TRANSMISSION CASE COVER

- (a) Remove 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.08826-00090, THREE BOND 1281 or equivalent

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

- (c) Install and torque the ten bolts.

Torque: 300 kg-cm (22 ft-lb, 29 N·m)

26. INSTALL SHIFT AND SELECT LEVER SHAFT ASSEMBLY

- (a) Install the shift and select lever shaft assembly and new gasket.

(b) Apply sealant to the bolt threads.

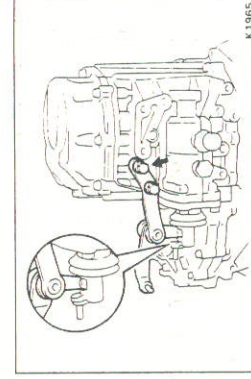
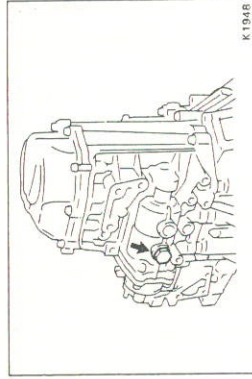
Sealant: Part No.08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

- (c) Install and torque the four bolts.

Torque: 200 kg-cm (14 ft-lb, 20 N·m)

- (d) Install and torque the lock bolt with gasket.

Torque: 500 kg-cm (36 ft-lb, 49 N·m)



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

- (a) Apply sealant to the bolt threads.

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

- (b) Install and torque the two bolts.

Torque: 200 kg-cm (14 ft-lb, 20 N·m)

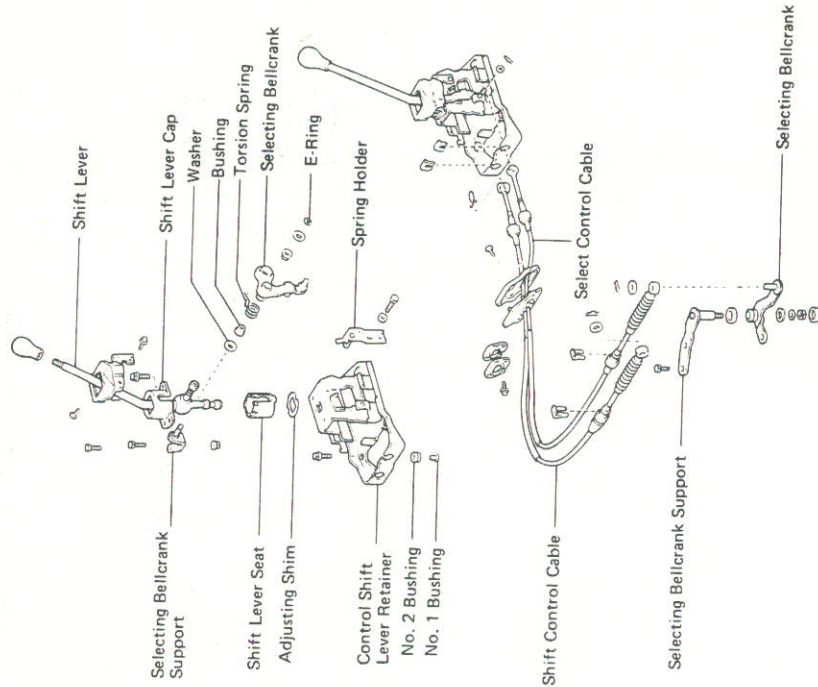
28. INSTALL BACK-UP LIGHT SWITCH

Using SST, install and torque the back-up light switch.

Torque: 410 kg-cm (30 ft-lb, 40 N·m)

29. INSTALL SPEEDOMETER DRIVEN GEAR

SHIFT LEVER AND CONTROL CABLE COMPONENTS



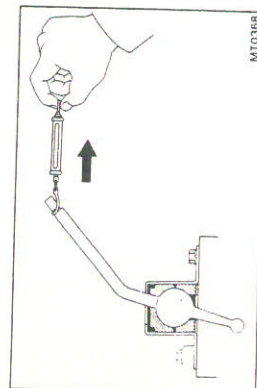
MT0339

ADJUSTMENT OF SHIFT LEVER SEAT CLEARANCE ADJUST SHIFT LEVER SEAT CLEARANCE

Select a shim of a thickness that allow a preload of 50 — 100 g (0.1 — 0.2 lb, 0.5 — 1.0 N) at the top of lever and install it in the shift lever seat.

Shim thickness

Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
C or 5	0.5 (0.020)	G or 9	0.9 (0.035)
D or 6	0.6 (0.024)	H or 10	1.0 (0.039)
E or 7	0.7 (0.028)	K or 11	1.1 (0.043)
F or 8	0.8 (0.031)	L or 12	1.2 (0.047)



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PROPELLER SHAFT

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PRECAUTION
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