

SECTION 07-03B Transaxle, Manual—Turbo Engine

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VEHICLE APPLICATION

Capri.

DESCRIPTION

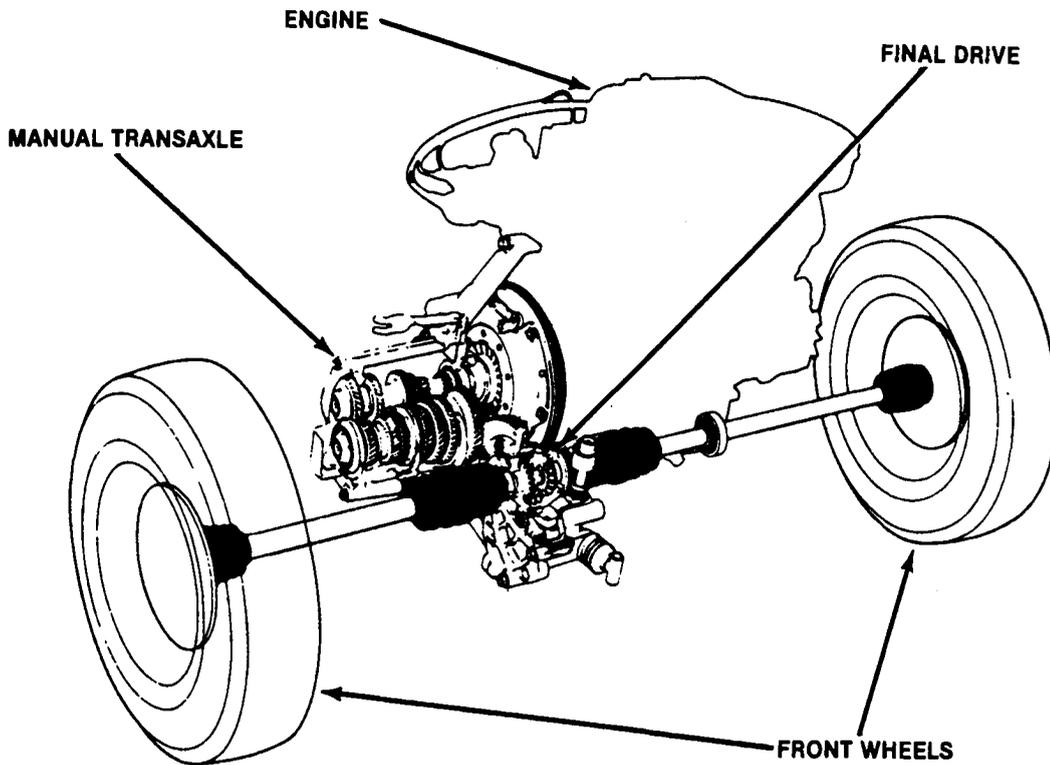
This vehicle has a front-wheel drive, type G transaxle. With this arrangement, the engine, transmission, and final drive form a transversely mounted assembly.

The transaxle and differential assembly are both located in an aluminum alloy housing. This transaxle unit is bolted to the back of the engine and is mounted transversely in the vehicle.

Helical cut gears are used in all forward gear ranges for quiet operation. All forward gears are synchronized for ease of shifting.

DESCRIPTION (Continued)

Transaxle oil used is Motorcraft MERCON® or equivalent. It is used to ensure low shift operation efforts and to maintain ease of gear shifting, and also improved fuel economy. The same fluid is used in the transaxle and the differential.

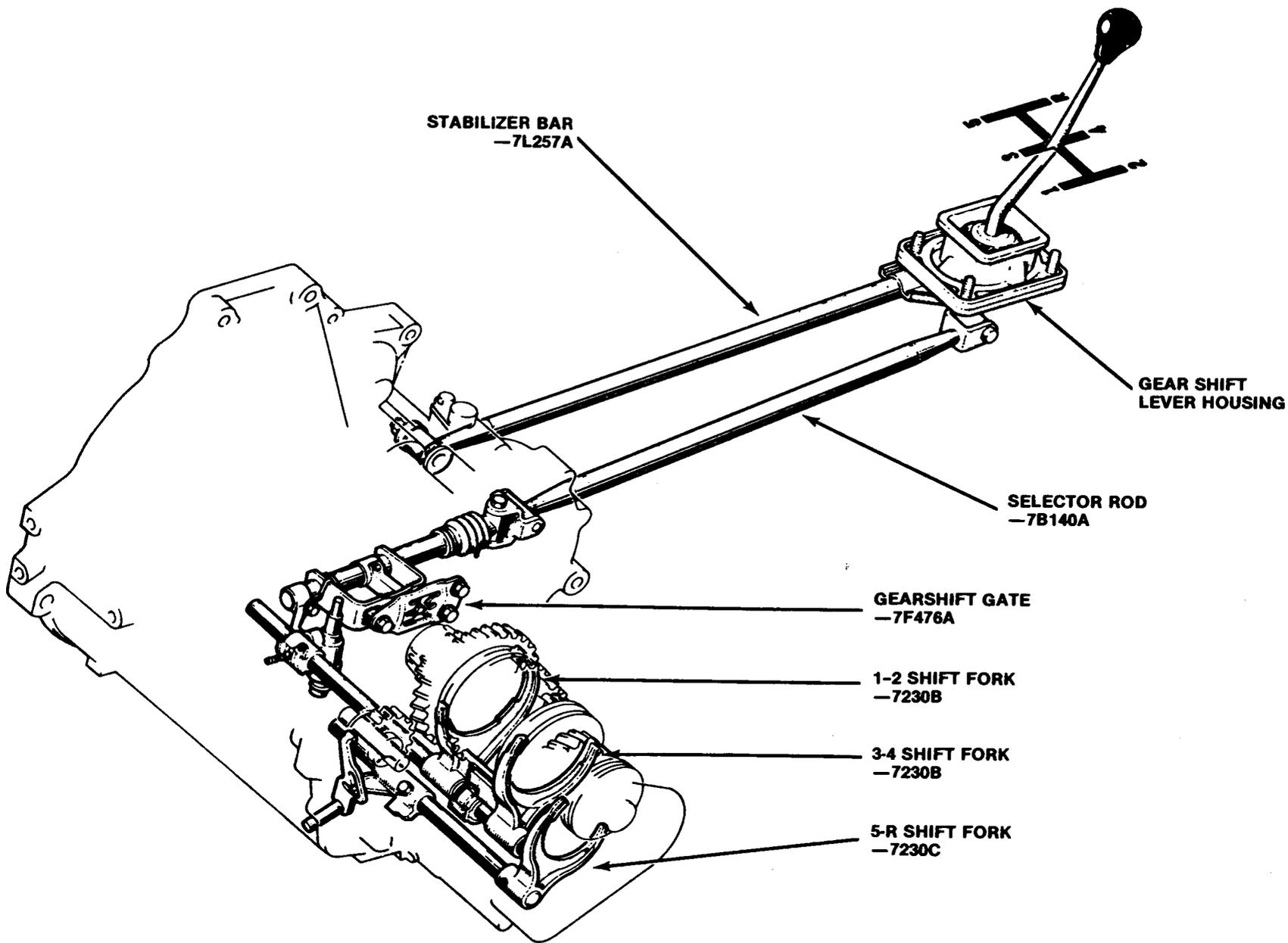


C7490-A

To prevent vibration and gear jump out, the gearshift lever is stabilized by the extension bar. The extension bar is mounted to the transaxle and the gearshift lever ball joint housing secured to the vehicle floor using rubber insulators. A protective dust boot is also used and contains an air bleed hole to improve ease of movement and gear shifting.

A gearshift gate in the transaxle housing is used to control the gearshift lever movement and prevent inadvertent selection of reverse gear.

DESCRIPTION (Continued)



STABILIZER BAR
—7L257A

GEAR SHIFT
LEVER HOUSING

SELECTOR ROD
—7B140A

GEARSHIFT GATE
—7F476A

1-2 SHIFT FORK
—7230B

3-4 SHIFT FORK
—7230B

5-R SHIFT FORK
—7230C

C7491-A

OPERATION

Engine torque is transferred from the clutch disc to the input gear shaft.

The forward gears on the input gear shaft are in constant mesh with a matching gear on the main shaft.

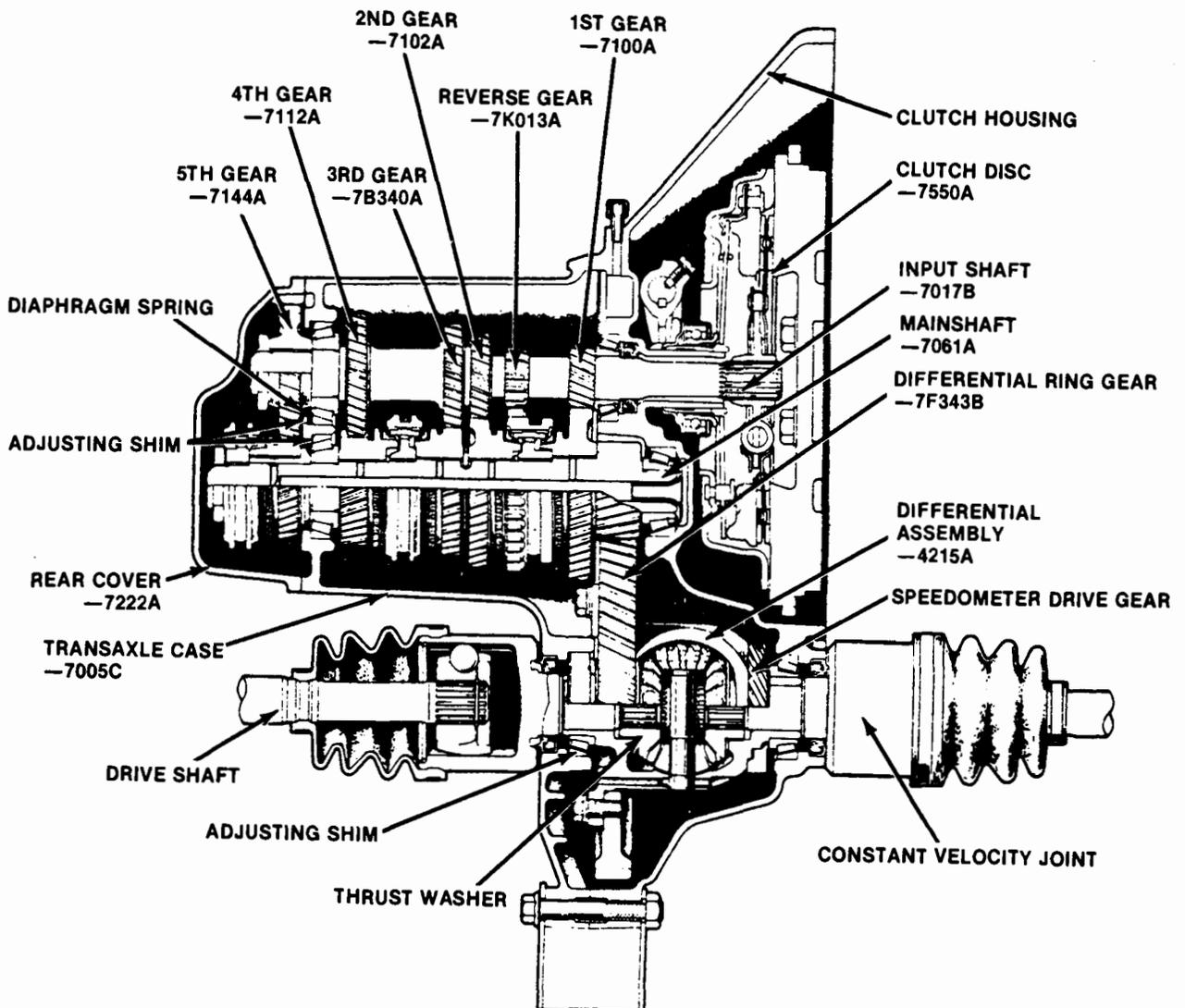
When a gear is selected, drive is transferred through the gears on the input shaft to the main shaft. From the main shaft, the drive is transferred to a constantly engaged final drive ring gear of the differential assembly.

Gear engagement is started by moving the synchronizer sleeve from its central position to a gear on the main shaft. That gear is then locked to the main shaft by its shift synchronizer. The input shaft gear will drive the matching engaged gear on the main shaft which will drive the final drive ring gear.

The 5th gear range provides a ratio, in which the input speed (rpm) from the engine is less than the transaxle output speed to the differential.

Reverse is accomplished by sliding a reverse idler gear into mesh with the input shaft gear and the reverse gear on the main shaft. The reverse idler gear acts as an idler and reverses the direction of the main shaft rotation.

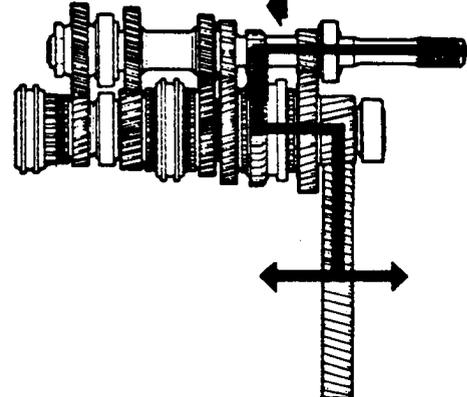
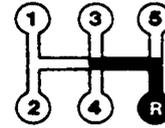
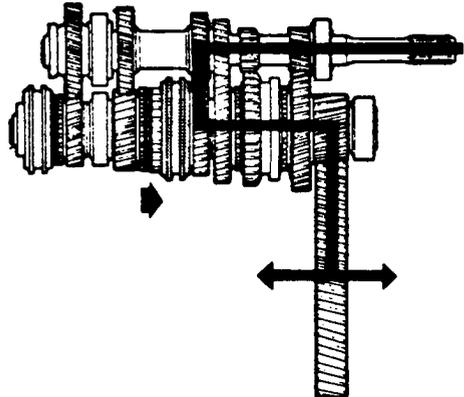
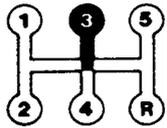
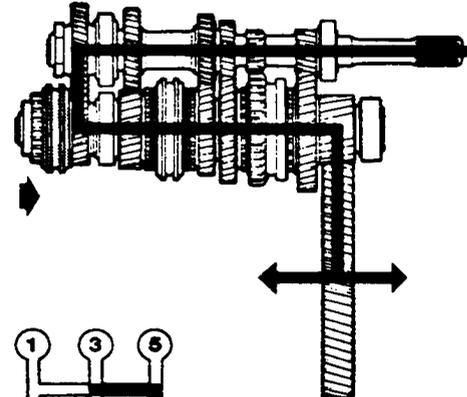
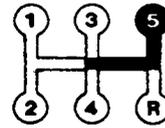
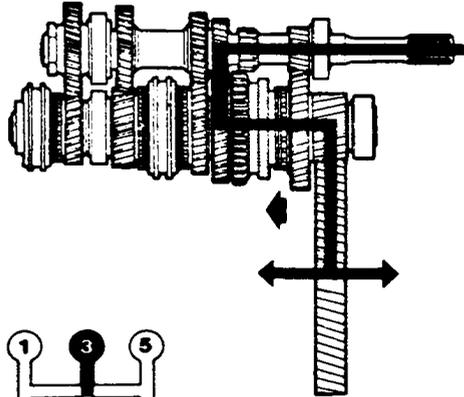
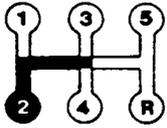
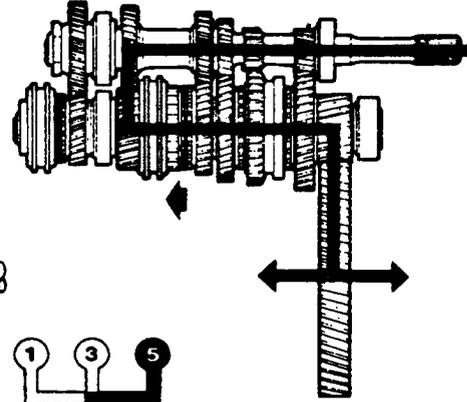
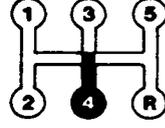
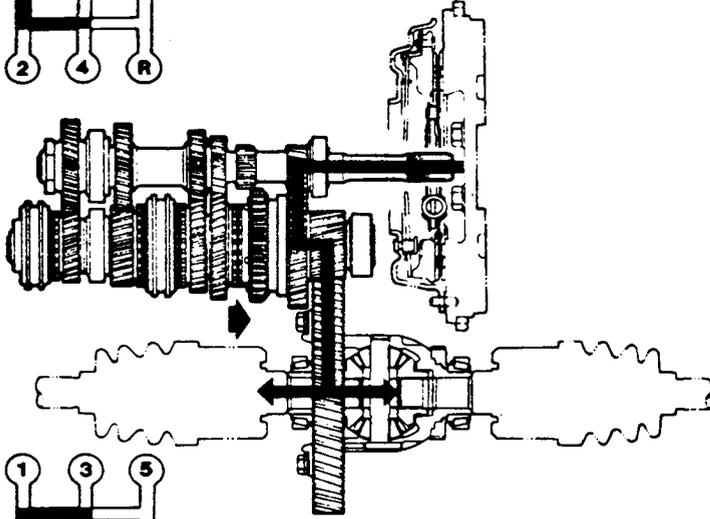
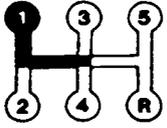
The input shaft, main shaft and the differential assembly are installed on tapered roller bearings which are pre-loaded using adjusting shims. A plastic speedometer drive gear is installed on the differential carrier.



C7492-A

OPERATION (Continued)

Manual Transaxle Power Flow



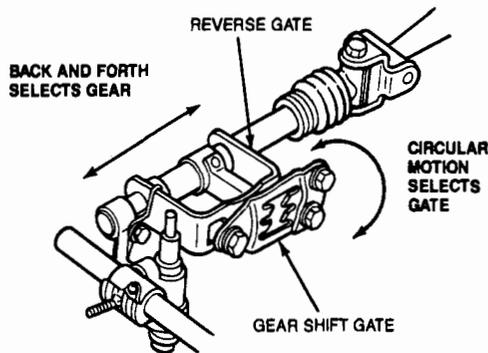
C7493-A

OPERATION (Continued)

Shift Linkage

The back and forth and side to side movement of the gearshift lever are controlled by a gearshift gate.

The movements in the gearshift lever are transmitted to the control rod and then is transmitted to the gearshift gate. The back and forth movement of the gearshift lever selects either the first and second gear or the third and fourth gearshift fork, or the fifth gear shift fork and the reverse lever. The side to side movement of the gearshift lever positions the selector inside the guide gate.



C6922-A

Gearshift Gate

A gearshift gate is installed inside the transaxle housing and provides a more positive shift feel. In the event of poor shift feel or performance when shifting from Neutral to either first, third or fourth gear, check the clearance between the gate and the gate pin and adjust the location of the gate.

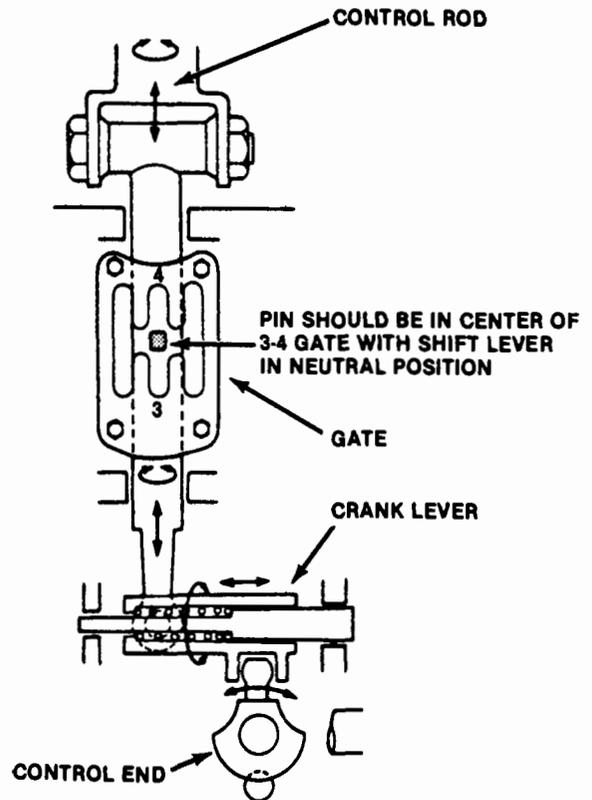
The pin should be in the center of third and fourth gear position when the lever is in the neutral position.

NOTE: This adjustment can only be performed with the transaxle housing disassembled.

A reverse gate is provided to prevent inadvertent selection of reverse gear.

NOTE: Spring resistance is felt when moving the shift lever between first and second and fifth and reverse gears.

NOTE: No external linkage or selector adjustments are provided or necessary under normal operation.

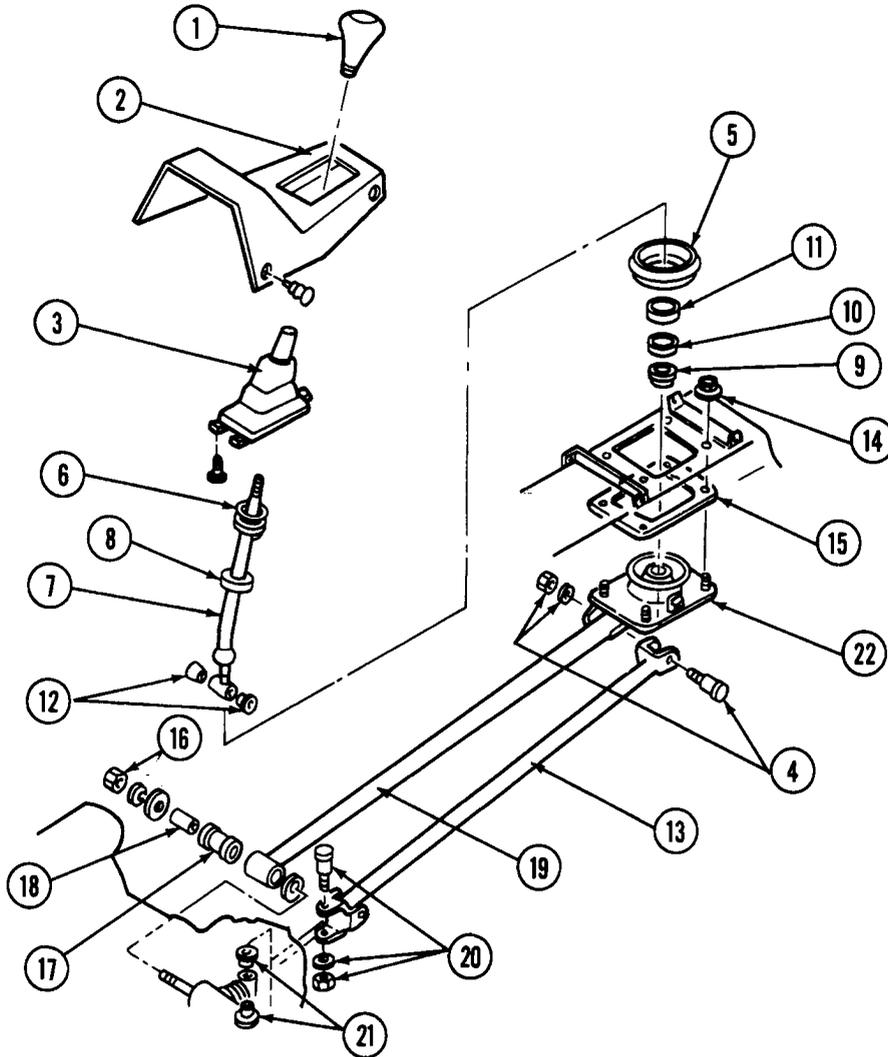


C7495-A

REMOVAL AND INSTALLATION

Gearshift Linkage

Gearshift Linkage—Disassembled View



ITEM DESCRIPTION

1. GEAR SHIFT KNOB — 7213A
2. CONSOLE — 61045A36D
3. GEAR SHIFT BOOT — 7277D
4. BOLT NUT AND WASHER — 7K104A
5. MOUNTING RUBBER — 7C301A
6. SHIFTER SHAFT SPRING — 7227A
7. GEAR SHIFT LEVER — 7210A
8. BALL SEAT (UPPER)
9. BOOT, BALL SOCKET
10. RETAINER
11. BALL SEAT (LOWER)

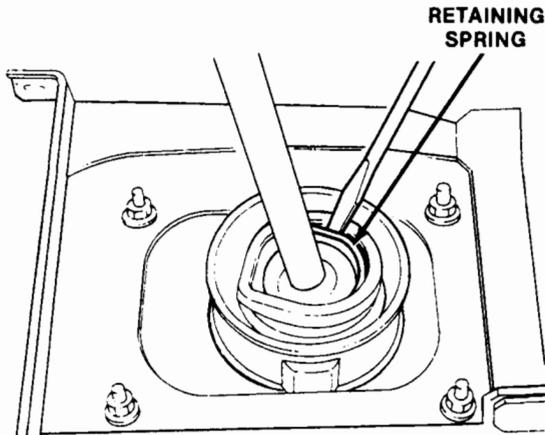
ITEM DESCRIPTION

12. BUSHING — 7335A
13. SHIFT CONTROL ROD — 7B140A
14. SELF-LOCKING NUT (4) — 7E093A
15. SEAL, RUBBER — 7D358A
16. NUT AND WASHERS
17. BUSHING, CONTROL ROD-TO-TRANSAXLE
18. SPACER, CONTROL ROD — 7K047A
19. EXTENSION BAR — 7L257A
20. BOLT NUT AND WASHER — 7353A
21. BUSHINGS, SHIFT CONTROL ROD-TO-TRANSAXLE — 7335A
22. HOUSING ASSEMBLY

C6923-A

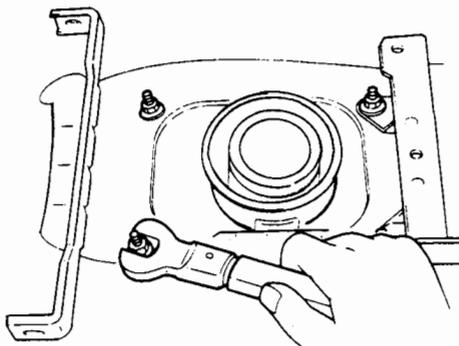
REMOVAL AND INSTALLATION (Continued)**Removal**

1. Remove the console and gearshift knob.
2. Remove the bolt, nut and washer attaching the shift control rod to the gearshift lever.
3. Disengage the retaining spring from the gearshift lever ball and socket by using a flat-blade screwdriver.



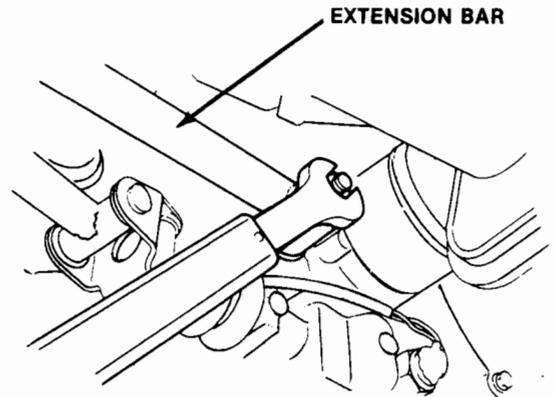
C7497-A

4. Remove the mounting rubber and shifter shaft spring by sliding them over the gearshift.
5. Remove the gearshift lever assembly by pulling up.
6. Remove the bolt, nut and washer attaching the control rod to the transaxle.
7. Remove the upper ball seat from the gearshift lever.
8. Remove the ball socket boot, retainer ring and lower ball seat from the gearshift lever.
9. From inside the vehicle, remove the four mounting nuts securing the gearshift housing assembly to the floor.



C7498-A

10. Remove the nut from the extension bar mounting bracket on the transaxle.



C7499-A

11. Remove the washer and bushings and slide the extension bar off the mounting bracket.
12. Remove the extension bar and housing assembly from the vehicle.
13. Remove the bolt and nut attaching the control rod to the transaxle and remove the control rod.

Inspection

Inspect all parts for wear or damage and service or replace if necessary.

NOTE: Ensure that plastic and rubber parts and all bushings are in good condition and are not cracked, deteriorated or worn excessively.

Installation

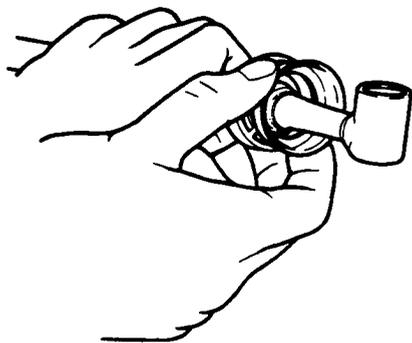
NOTE: Apply Multi-Purpose Grease D7AZ-19584-AA (ESR-M1C 159-A) or equivalent to all joints.

1. Install the control rod to the transaxle. Install the bushings, washer, and bolt and tighten to 16-22 N·m (12-17 lb-ft).
2. Install the extension bar, spacer, bushing, washer and nut to the mounting bracket on the transaxle. Tighten nut to 31-46 N·m (23-34 lb-ft).
3. Install the rubber seal, housing assembly, and the extension bar to the floor. Install and tighten the four nuts to 7-10 N·m (60-84 lb-in).
4. Install the lower ball seat to the gearshift lever.
5. Install the gearshift retainer to the gearshift.
6. Install the ball and socket boot to the gearshift lever.

REMOVAL AND INSTALLATION (Continued)

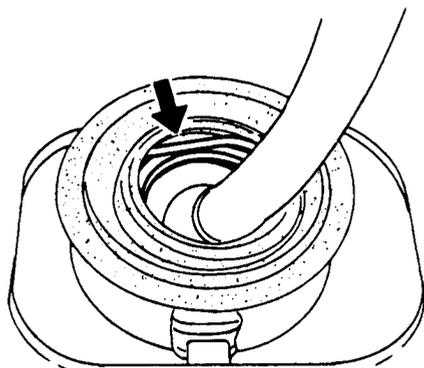
7. Install the upper ball seat to the gearshift lever.

NOTE: Apply a coating of Multi-Purpose Grease D7AZ-19584-AA (ESR-M1C159-A) or equivalent to the ball seat surface, and install the upper and lower ball seat, the retainer and the ball socket boot.



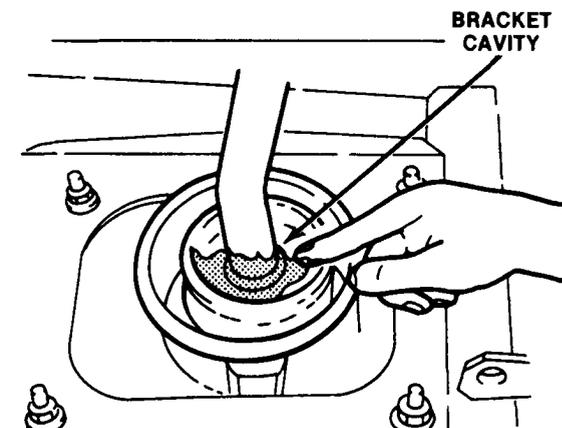
C7500-A

8. From inside the vehicle, install the gearshift lever assembly into the housing assembly.
9. Install the mounting rubber over the gearshift lever and install the shifter shaft spring to the gearshift lever ball as shown.



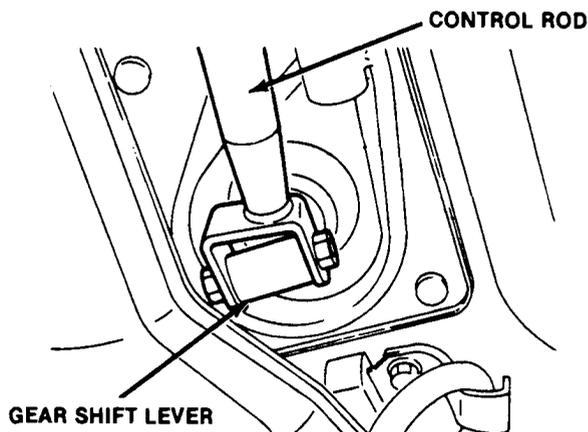
C7501-A

10. Apply Multi-Purpose Grease D7AZ-19584-AA (ESR-M1C159-A) or equivalent to the bracket cavity as shown.



C7502-A

11. Install the control rod to the gearshift lever so that its relationship with the gearshift lever is as shown. Install the bolt and nut and tighten bolt to 16-22 N·m (12-17 lb-ft).



C7503-A

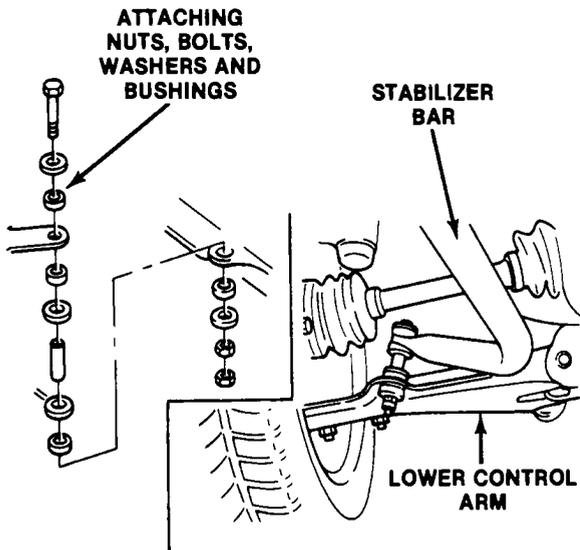
12. If removed, install the dust boot to the housing assembly and install the four screws.
13. Install the console.
14. Install the gearshift knob by screwing it onto the gearshift lever.
15. Check the shift control operation.

Transaxle Oil Seal**Removal**

1. Raise the vehicle. Refer to Section 00-02. Remove the necessary engine compartment underbody covers.

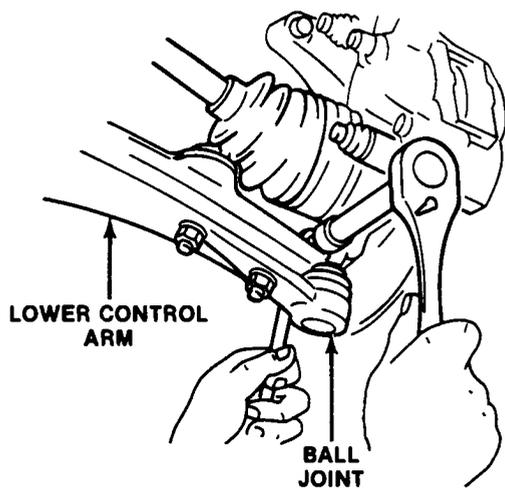
REMOVAL AND INSTALLATION (Continued)

- Remove the stabilizer bar to control arm attaching bolt, nuts, washers and bushings.



E6810-A

- Remove the wheel.
- Remove the lower control arm ball joint clamp bolt and nut. Pry downward on the control arm to separate the ball joint from the steering knuckle.



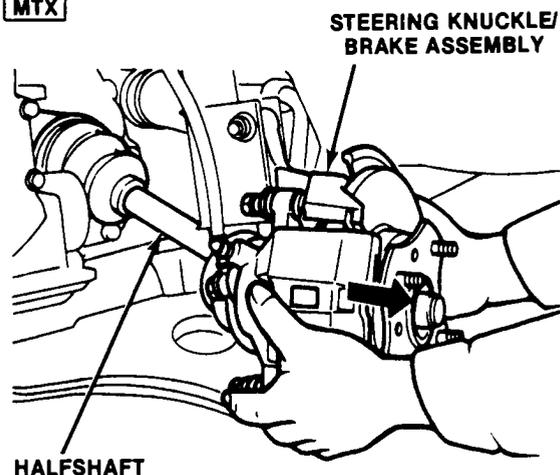
E6811-A

- Partially drain the transaxle oil.
- Separate the halfshaft from the transaxle as follows:

Pull outward on the steering knuckle / brake assembly to separate the halfshaft from the transaxle.

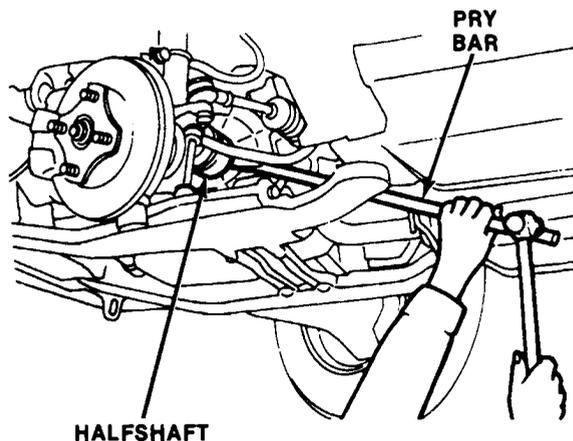
CAUTION: Use care when removing the halfshaft from the transaxle as damage to the boot may result.

MTX



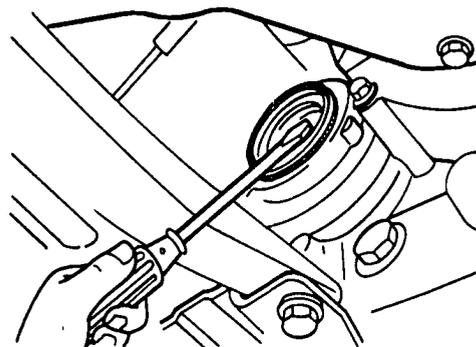
E6812-A

NOTE: If the halfshaft is difficult to remove, a pry bar can be used to loosen it from the differential side gear. Insert the bar between the halfshaft and the transaxle case. Lightly tap on the end of the bar until the halfshaft loosens from the differential side gear.



E6813-A

- Remove the oil seal with a flat-blade screwdriver.

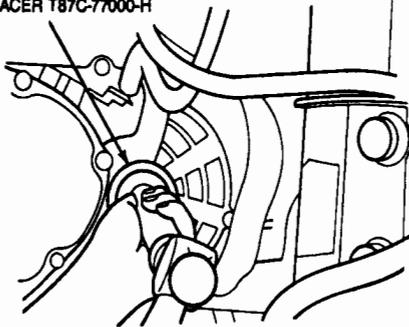


C6924-A

REMOVAL AND INSTALLATION (Continued)

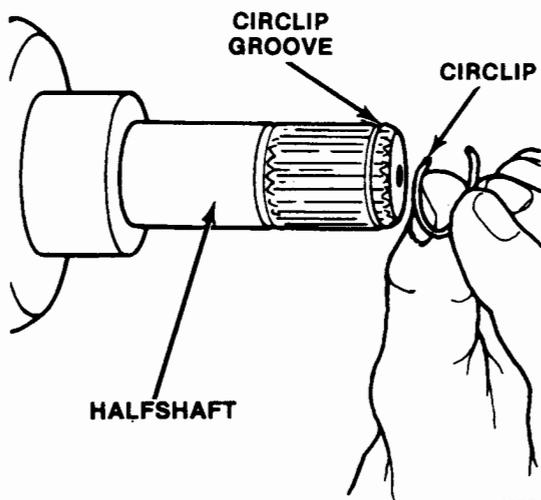
Installation

1. Coat oil seal lip with clean transmission fluid. Install seal with Differential Seal Replacer T87C-77000-H or equivalent.

DIFFERENTIAL SEAL
REPLACER T87C-77000-H

C6925-A

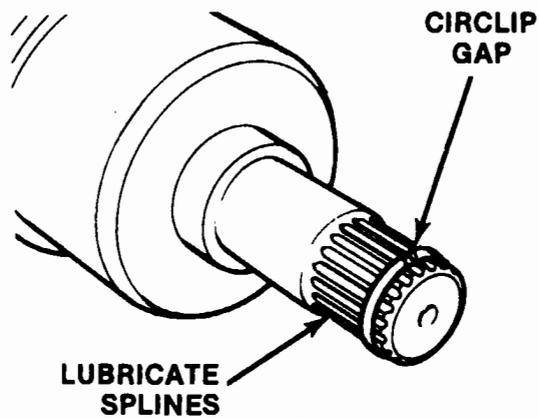
2. Install a new circlip on the CV joint stub shaft.
CAUTION: The original circlip must not be reused.



E6620-A

NOTE: To install the circlip properly, start one end in the groove and work the clip over the stub shaft end and into the groove. Using this method will prevent over-expanding of the circlip.

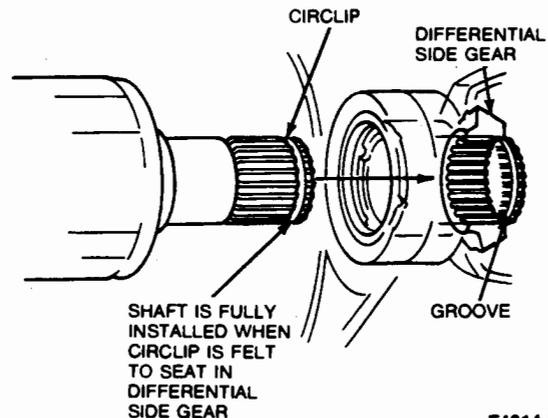
3. Make sure the circlip gap is positioned at the top of the halfshaft splines and lightly lubricate the splines with Premium Long-Life Grease XG-1-C (ESA-M1C75-B) or equivalent.



E6821-A

4. Carefully align the CV joint splines with the differential side gear splines and push the halfshaft into the differential.

When it seats properly, the circlip can be felt as it snaps into the differential side gear groove.

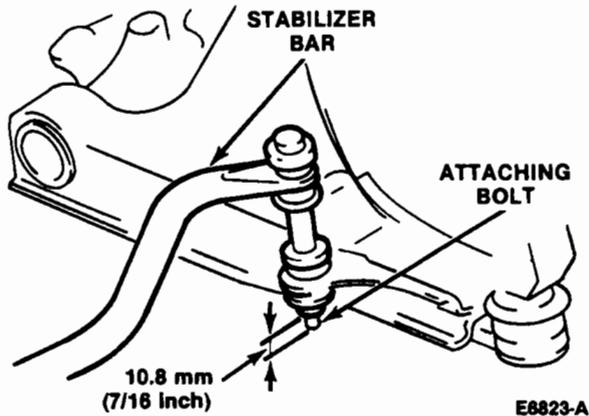


E4314-B

5. Position the lower control arm ball joint in the steering knuckle and install the clamp bolt and retaining nut. Tighten the retaining nut to 43-50 N·m (32-40 lb-ft).
6. Position the stabilizer bar and install the retaining bolt, nuts, washers and bushings.
Tighten the retaining nuts until 0.8mm (7 / 16 inch) of the bolt threads extend beyond the nut.
7. Install the removed underbody covers.
8. Install the wheel. Tighten lug nuts to 90-120 N·m (67-88 lb-ft).

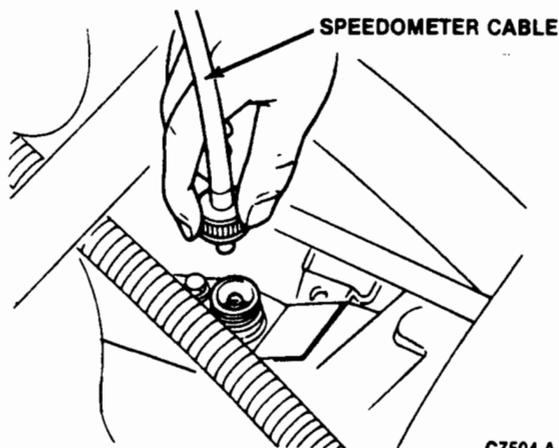
REMOVAL AND INSTALLATION (Continued)

9. Lower vehicle and fill transaxle with Motorcraft Mercon®.

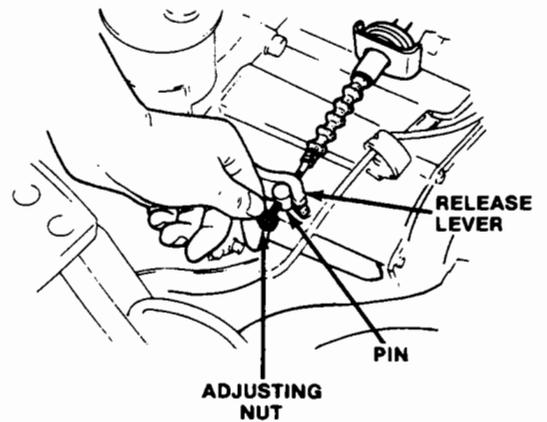
**Transaxle****Removal**

NOTE: To support the engine assembly, it is necessary to support the engine from the sling hook provided at the rear of the engine using the Three Bar Engine Support D88L-6000-A or equivalent.

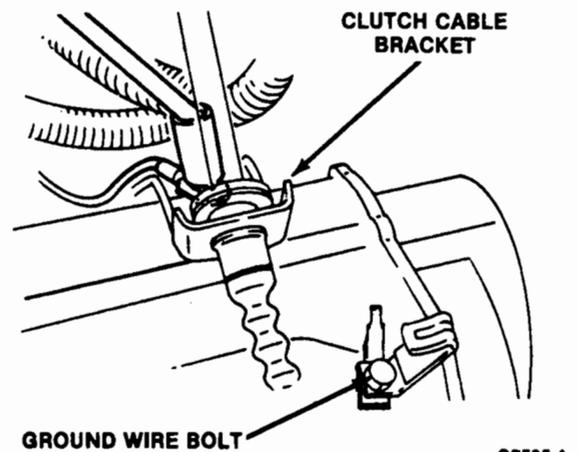
1. Disconnect the negative cable from the battery.
2. Remove the air cleaner assembly.
3. Loosen the front wheel lug nuts.
4. Disconnect the speedometer cable from transaxle.



5. Remove the clutch cable from the release lever by removing the adjusting nut and pin.



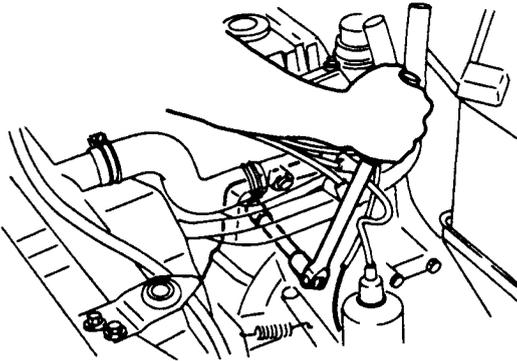
6. Remove intake air bypass valve mounting nut.
7. Remove the clutch cable mounting bracket from the transaxle.
8. Remove the ground wire retaining bolt and ground wire.



9. Remove the coolant pipe bracket.
10. Remove the wire harness clip.
11. Disconnect the connectors for the neutral switch and the backup lamp switch.
12. Disconnect the body ground connector.

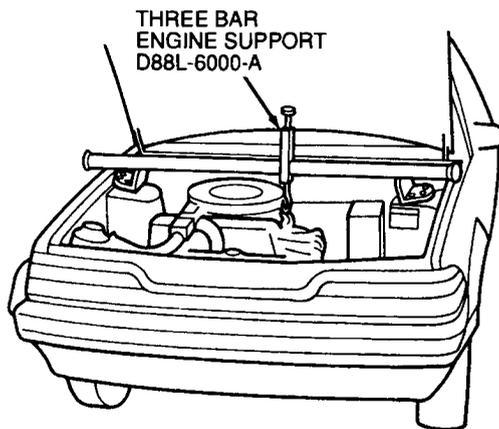
REMOVAL AND INSTALLATION (Continued)

13. Remove the two upper transaxle-to-engine mounting bolts. Remove upper starter mounting bolts.



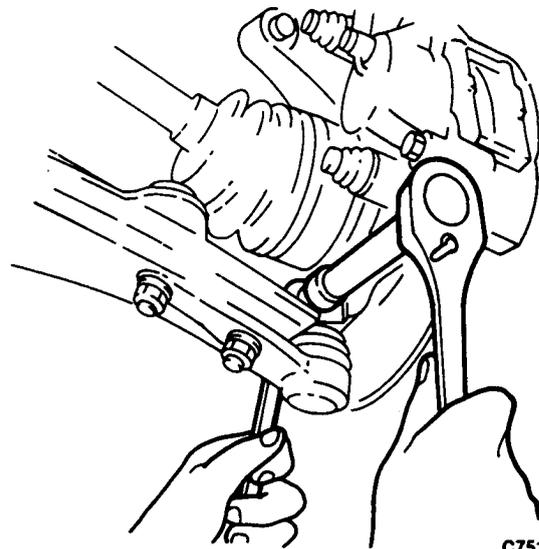
C7507-A

14. Mount the Three Bar Engine Support D88L-6000-A or equivalent to the engine hanger as shown.



C6913-B

15. Raise the vehicle. Refer to Section 00-02. Suitably support it at the specified positions.
16. Remove the transaxle drain plug and drain the fluid.
17. Remove the front wheel lug nuts and remove the front wheels.
18. Remove the front stabilizer bar.
19. Remove the ball joint clamp bolts, pull the lower arms downward, and separate the lower arms from the knuckles.

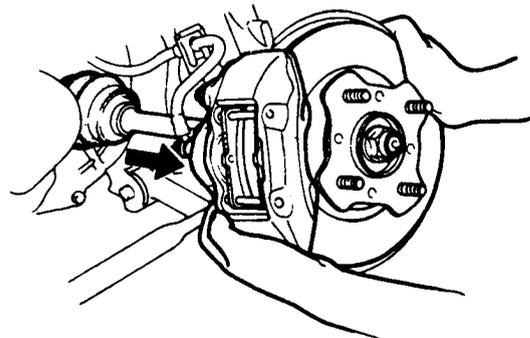


C7510-A

CAUTION: Use care not to damage the ball joint dust boot.

20. Separate both halfshafts by pulling the front hub outward as shown. (Apply even pressure and increase gradually.)

CAUTION: Use care not to damage CV joint boot.



C7511-A

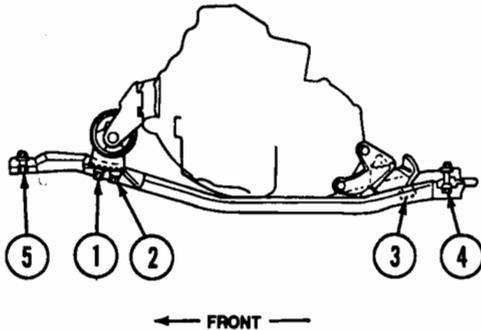
- Withdraw halfshafts horizontally from the transaxle to prevent damage to the oil lip seals.
- Hold halfshafts during removal to prevent damage to the boots and joints caused by moving the joint through angles in excess of 20 degrees.
- Suspend the halfshafts in a horizontal position using a wire hanger or tie to the vehicle.

NOTE: On turbocharged vehicles it will be necessary to remove the intermediate shaft and support bearing assembly. Refer to Section 05-04.

21. Remove two front crossmember braces.

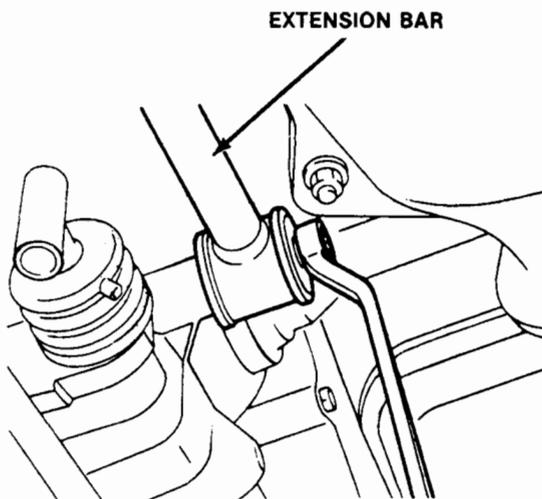
REMOVAL AND INSTALLATION (Continued)

22. Remove crossmember brace to A-arm support bolts.
23. Remove exhaust hanger from crossmember.
24. Remove remaining crossmember bolts in the order shown, and remove crossmember.



C894-A

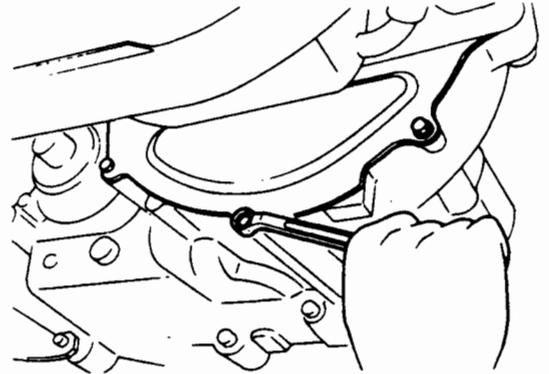
25. Remove the bolt and nut attaching the shift control rod to the transaxle and slide the control rod out of the way.
26. Remove the bolt from the shift extension bar mounting bracket and slide the extension bar off the bracket.



C7513-A

27. Remove the lower bolts attaching the starter to the transaxle housing and remove the starter.

28. Remove the bolts attaching the end plate to the transaxle.



C7514-A

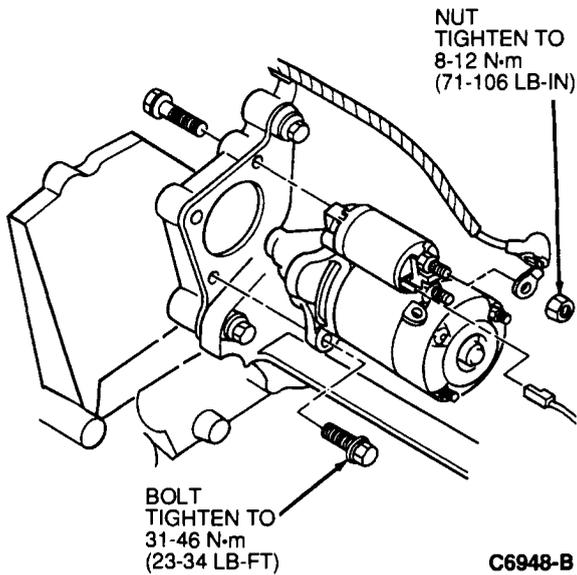
29. Lower the transaxle by loosening the engine bracket bar hook bolt.
30. Support the transaxle by placing a suitable floor jack such as Rotunda Low Lift Transmission Jack 007-00033 or equivalent under the transaxle.
31. Remove front engine mount and bracket from transmission.
32. Remove the bolts attaching the transaxle to the engine and remove the transaxle.

Installation

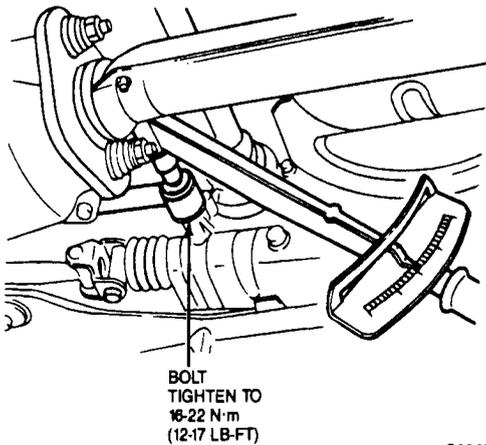
1. Apply a thin coating of Premium Long-Life Grease, XG-1-C (ESA-M1C75-A) or equivalent to the spline of the input shaft.
2. Position the transaxle assembly in the vehicle and carefully align the input shaft through the clutch disc spline and align the clutch housing onto the engine guide bushings.
NOTE: The transaxle aluminum alloy construction requires that the torque specifications must be strictly adhered to.
3. Install the bolts attaching the transaxle to the engine and tighten bolts to 63-89 N·m (47-66 lb-ft).
4. Support the transaxle by placing a suitable jack under the transaxle.
5. Raise the transaxle, using the jack, to the proper height and tighten the engine bracket bar hook.
6. Install the front engine mount and bracket. Tighten bolts to 37-52 N·m (27-38 lb-ft).

REMOVAL AND INSTALLATION (Continued)

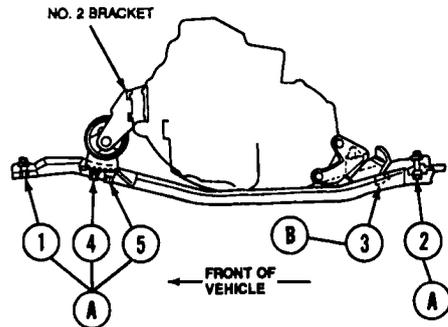
7. Install the starter and lower retaining bolts and tighten to 31-46 N·m (23-34 lb-ft).



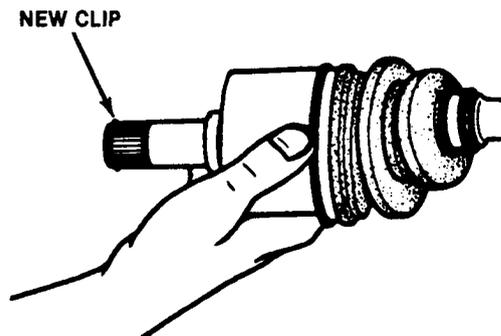
8. Slide the extension bar onto the mounting bracket on the transaxle. Install and tighten the retaining nut to 31-46 N·m (23-34 lb-ft).
9. Install the control rod to the transaxle. Install the nut and bolt and tighten to 16-22 N·m (12-17 lb-ft).



10. Install the crossmembers to the vehicle, and install the retaining nuts and bolts to the crossmember and tighten in numerical sequence to the specified torque as shown.



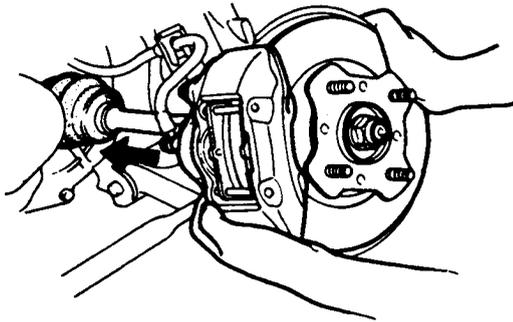
11. Install crossmember brace to A-arm support bolts. Tighten to 93-117 N·m (69-86 lb-ft).
12. Install front crossmember braces. Tighten bolts to 31-46 N·m (23-34 lb-ft).
13. Install exhaust hanger to crossmember.
- NOTE: On turbocharged vehicles install the intermediate shaft and support bearing assembly. Refer to Section 05-04.
14. Install a new clip on the end of each halfshaft, and make sure that the gap in the clip is at the top of the clip groove.



REMOVAL AND INSTALLATION (Continued)

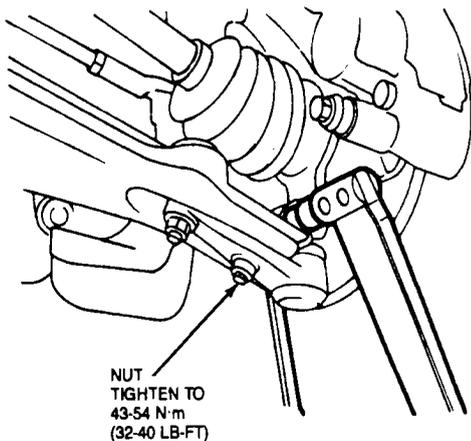
15. Slide the halfshaft horizontally into the transaxle differential, supporting it at the CV joint to prevent damage to the oil seal lip. Ensure that both halfshafts are engaged into the side gear and apply even pressure to hub until the circlip is heard to engage into the side gear.

NOTE: After installation, pull both front hubs outward to confirm that the halfshafts are retained by the circlip.



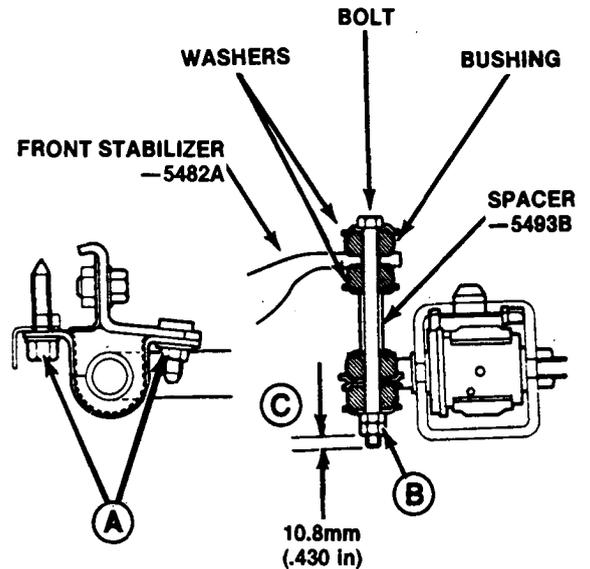
C7524-A

16. Install the lower arm ball joints to the knuckle. Install the retaining nut to the ball joint and tighten to 43-54 N·m (32-40 lb-ft).



C6950-A

17. Install the stabilizer bar mounting brackets to the vehicle frame and tighten to 31-44 N·m (23-33 lb-ft) as shown at point "A" in the illustration.



C7517-A

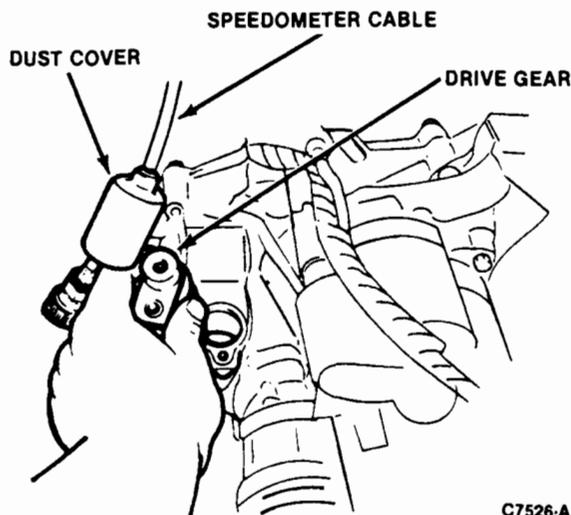
18. Assemble the front stabilizer link by inserting the bolt through the bushings, washers and the spacer as shown in the illustration. Install the nuts (as shown by "B" in the illustration) and tighten to 12-18 N·m (9-13 lb-ft). Tighten the nuts further, as necessary, until the threads exposed on the stabilizer link bolt past the nut are 10.8mm (0.43 inch) in length (as shown by "C" in the illustration). Lock the nuts against each other.
19. Install the front wheels and lug nuts and hand tighten.
20. Lower the vehicle and tighten the front wheel lug nuts to 90-120 N·m (67-88 lb-ft).
21. Install the two upper transaxle-to-engine mounting bolts. Tighten the bolts to 63-89 N·m (47-66 lb-ft).
22. Install upper starter mounting bolts. Tighten to 31-46 N·m (23-34 lb-ft).
23. Remove the engine support bracket bar.
24. Connect the body ground connector.
25. Connect neutral and backup lamp switch connectors.
26. Connect the wire harness clip.
27. Install the ground wire and retaining bolt and tighten the bolt.
28. Install the clutch cable mounting bracket to the transaxle.
29. Install the clutch cable pin and adjusting nut to the release lever and adjust the clutch pedal free play and pedal height. Refer to Section 08-02.
- NOTE: If adding transaxle fluid, or checking level of the fluid, refer to Service Procedures as outlined.
30. Install the speedometer cable into the transaxle.
31. Connect the battery ground cable.
32. Install the air cleaner.

SERVICE PROCEDURES

Transaxle Fluid Level Check

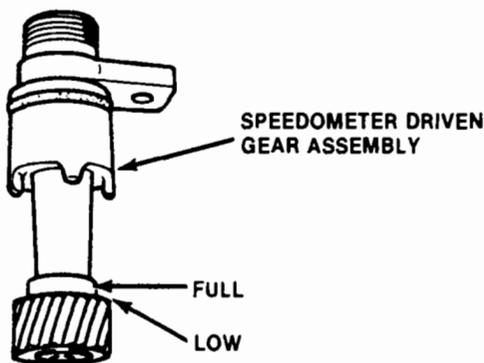
Transaxle fluid level should only be checked after the vehicle has been standing on level ground for some time.

1. Apply the parking brake and make sure that the vehicle is in a level position.
2. Slide the speedometer dust cover up the cable to expose the cable connection.
3. Disconnect the cable from the drive gear.
4. Remove the speedometer driven gear retaining screw and pry driven gear assembly from the transaxle housing. If necessary, use a screwdriver to pry between the driven gear retaining flange and the housing.



C7526-A

5. Check the fluid level on the speedometer driven gear as shown.



C7527-A

NOTE: If the transaxle fluid level is low, refer to Section 08-00.

Adding Transaxle Fluid

1. Follow transaxle fluid check procedure.
2. Place a funnel into the speedometer driven gear mounting hole.



C7528-A

3. Add fluid to level indicated on the speedometer driven gear.
4. Install speedometer cable into the speedometer mounting hole in the transaxle.

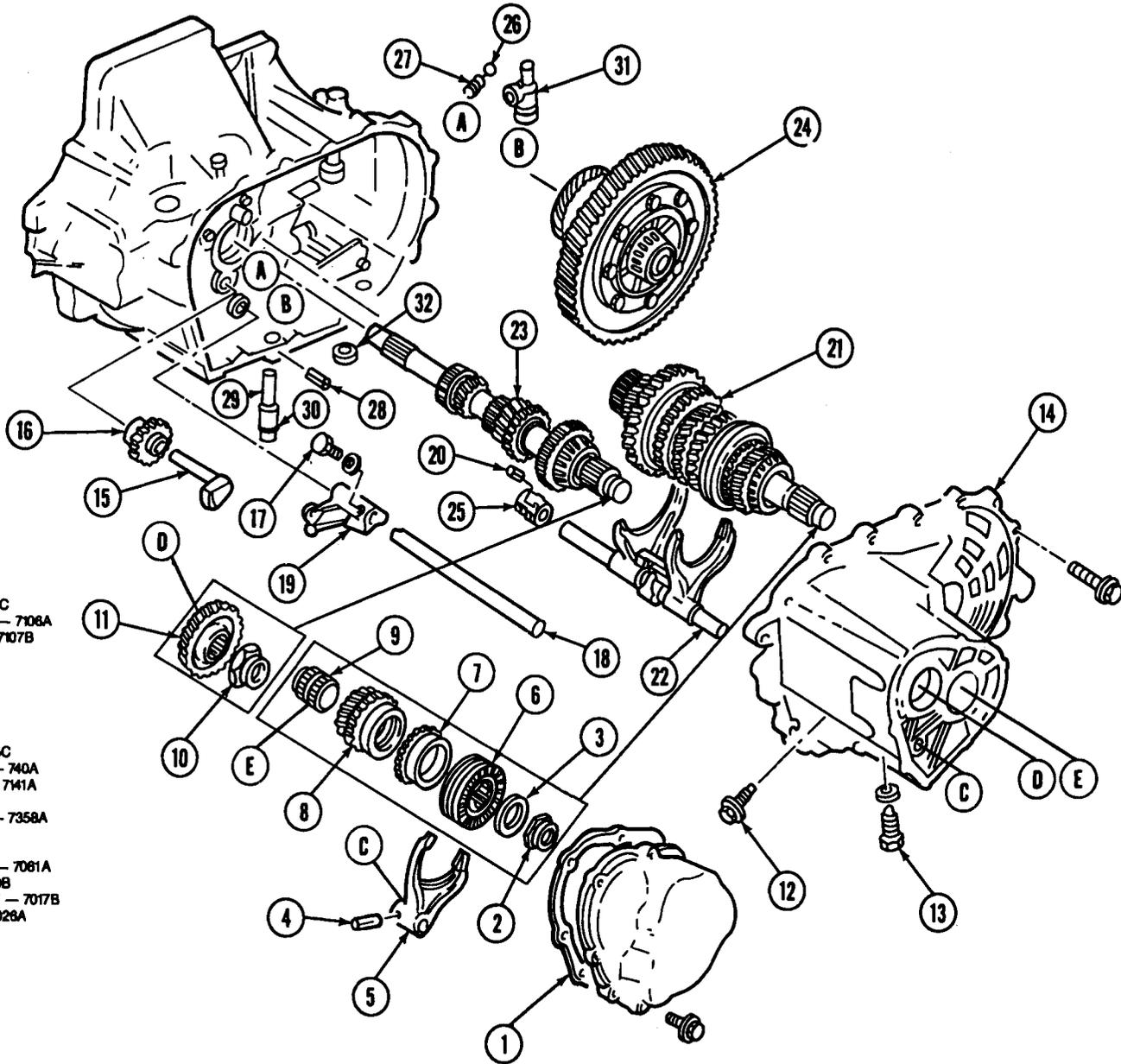
Draining Transaxle Fluid

1. Apply the parking brake and make sure that the vehicle is in a level position.
2. Remove speedometer driven gear as outlined in Fluid Level Check procedure.
3. Remove the drain plug and drain the fluid into a suitable container.
4. Install and tighten the drain plug to 39-54 N·m (29-40 lb-ft).
5. Fill transaxle assembly as outlined.
6. Install speedometer cable into the speedometer mounting hole in the transaxle and tighten the bolt.

DISASSEMBLY AND ASSEMBLY

Transaxle

Transaxle—Disassembled View



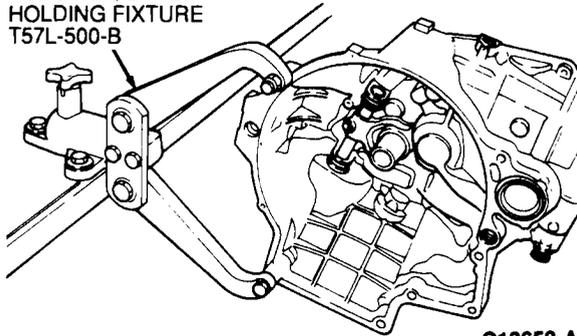
ITEM DESCRIPTION

1. REAR COVER — 7222A
2. LOCKNUT — 7N170A
3. LOCK WASHER
4. ROLL PIN
5. SHIFT FORK (5TH) — 7230C
6. CLUTCH HUB ASSEMBLY — 7106A
7. SYNCHRONIZER RING — 7107B
8. 5TH GEAR — 7144A
9. GEAR SLEEVE — 7A061A
10. LOCKNUT — 7N170A
11. INPUT GEAR — 7K316A
12. LOCK BOLT
13. GUIDE BOLT
14. TRANSAXLE CASE — 7005C
15. REVERSE IDLER SHAFT — 740A
16. REVERSE IDLER GEAR — 7141A
17. LOCK BOLT
18. SHIFT ROD (5TH & REV.) — 7358A
19. GATE — 7G043A
20. ROLL PIN
21. MAINSHAFT GEAR ASSY — 7061A
22. SHIFT FORK ASSY — 7230B
23. INPUT SHAFT GEAR ASSY — 7017B
24. DIFFERENTIAL ASSY — 4026A
25. CONTROL END — 7302A
26. STEEL BALL
27. SPRING
28. ROLL PIN
29. CRANK LEVER SHAFT
30. O-RING
31. CRANK LEVER ASSY
32. MAGNET — 7L027A

C6926-A

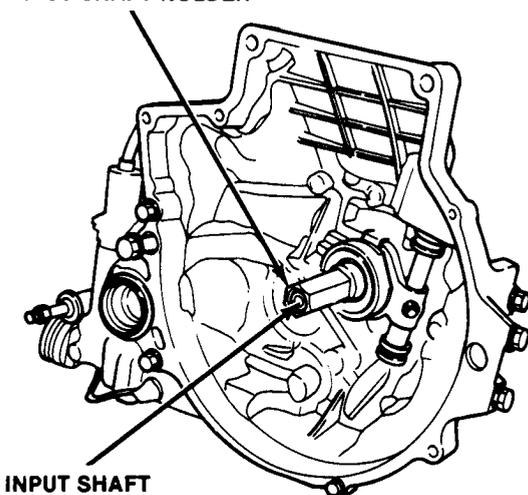
DISASSEMBLY AND ASSEMBLY (Continued)**Disassembly**

1. Mount the transaxle to Bench Mounted Holding Fixture T57L-500-B or equivalent.
2. Remove the drain plug and drain any remaining fluid from the transaxle.
NOTE: Shift to first or second gear. Position the transaxle with the input shaft down, rear cover up.
3. Remove the bolts that secure the rear cover to the transaxle case. Tap the cover with a fiber or plastic mallet to loosen the gasket seal. Remove the rear cover.

BENCH MOUNTED
HOLDING FIXTURE
T57L-500-B

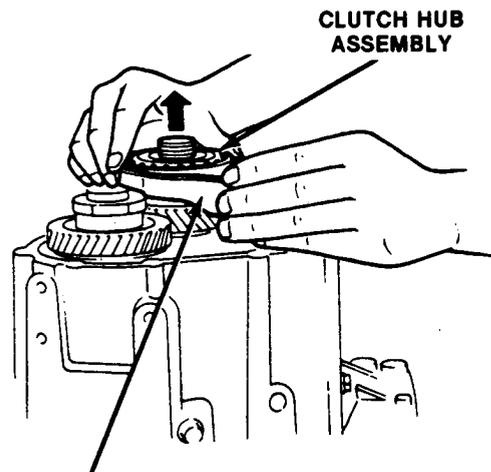
4. Bend down the tang on the lock washer under the 5th gear locknut.
5. Lock the input shaft with the Torque Adapter T87C-7025-A or equivalent and remove the locknut. Apply even pressure and increase gradually. Do not strike or apply severe shocks to loosen nut.

INPUT SHAFT HOLDER



INPUT SHAFT

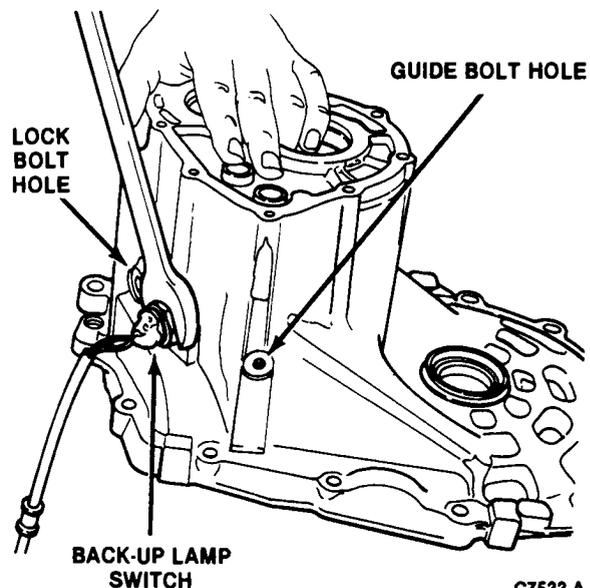
6. Drive out the roll pin and remove the shift fork (5th gear) together with the clutch hub assembly.



5TH GEAR SHIFT FORK

C7532-A

7. Remove the synchronizer ring, fifth gear and the gear sleeve as an assembly by sliding it off the shift rod.
8. Repeat Step 5 above to lock the input shaft. Remove the locknut on the input shaft gear. Remove the input gear by sliding it off.
9. Remove the lock bolt, guide bolt and backup light switch from the side of the transaxle case as shown. Remove all of the transaxle housing-to-clutch housing bolts. Number the bolts as they are removed so that they can be replaced exactly as removed.

LOCK
BOLT
HOLE

GUIDE BOLT HOLE

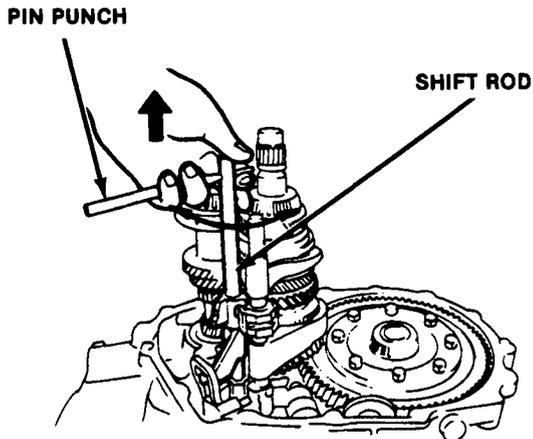
BACK-UP LAMP
SWITCH

C7533-A

10. Tap the transaxle case lightly with a plastic or fiber mallet to loosen the gasket seal. Remove the case by sliding it straight up from the clutch housing.

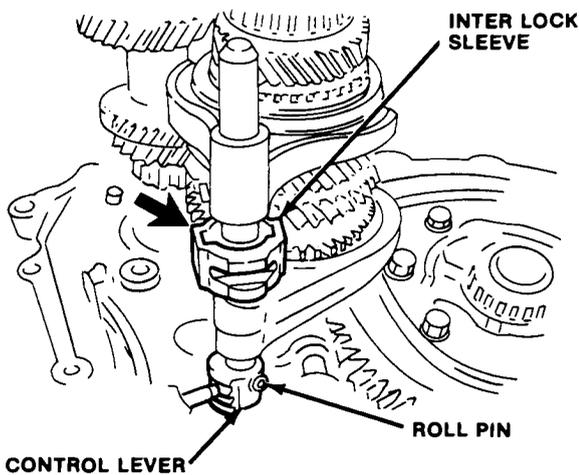
DISASSEMBLY AND ASSEMBLY (Continued)

11. Insert a pin punch or suitable rod into the roll pin hole of the shift rod. Pull out the shift rod while turning the pin punch or the rod.



C7534-A

12. Position the interlock sleeve and control lever in the position as shown.

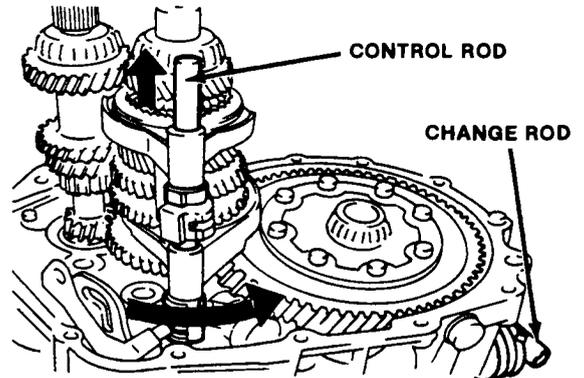


C7537-A

13. To gain access to, and remove the roll pin attaching the control rod to the control end, use the following instructions:

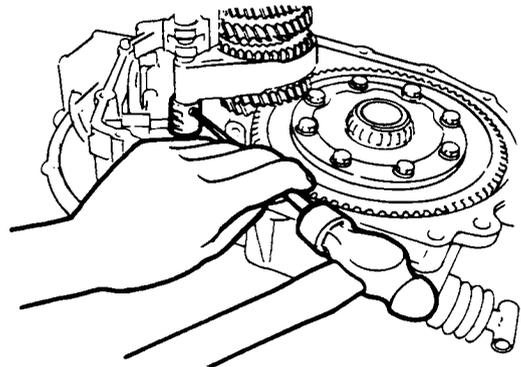
- a. Move the change rod to turn the control rod counterclockwise.

- b. Hold the change rod in the turned position and push inward to raise the control rod upward.



C7538-A

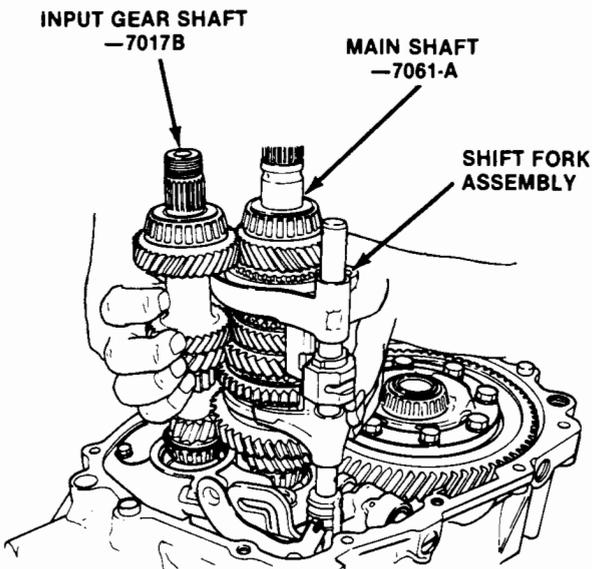
- c. Remove the roll pin with a pin punch.



C7539-A

DISASSEMBLY AND ASSEMBLY (Continued)

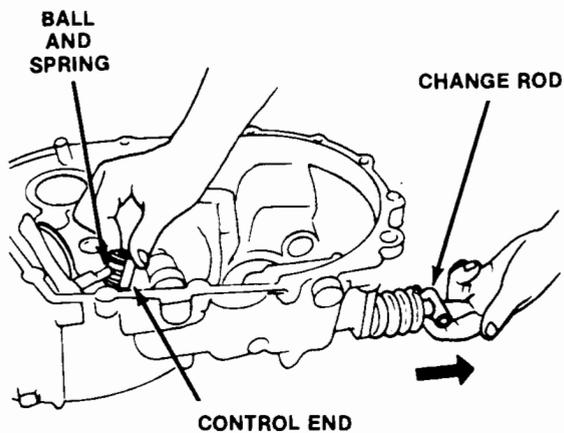
14. Lift the input gear shaft, main shaft and shift fork components out as an assembly.



C7540-A

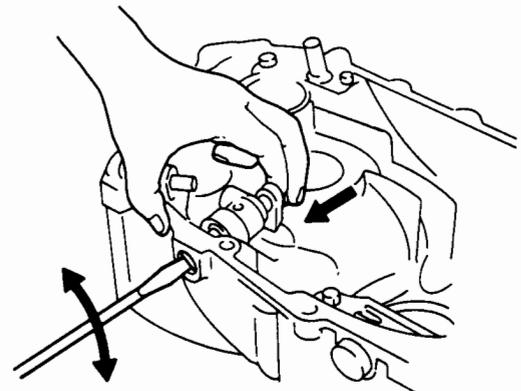
15. Pull the change rod rearward and remove the control end, ball and spring.

CAUTION: Be careful not to lose the ball and spring.



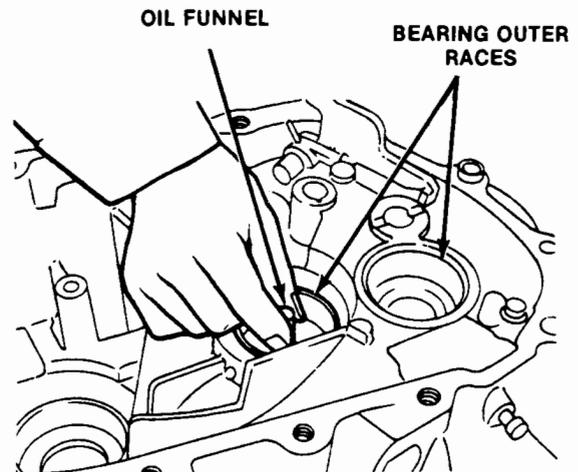
C7541-A

16. Turn the lever with a screwdriver while pushing the lever out of the housing.



C7542-A

17. Remove the input gear shaft front bearing race using Bearing Cup Puller T77F-1102-A and Impact Slide Hammer T50T-100-A or equivalent. Remove the main shaft front bearing race by pulling up on the oil seal.
18. Remove the three bolts, washers and spacer sleeve that secure the guide plate to the clutch housing. Remove the guide plate.



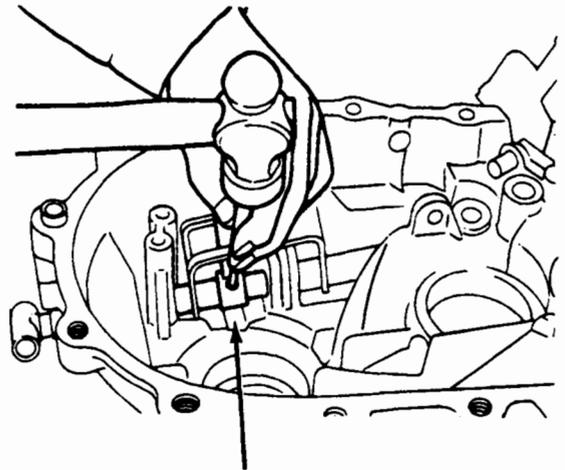
C7543-A

19. Loosen and remove the change arm bolt and washer. Slide the change rod out of the clutch housing far enough to remove the change arm from the rod.
20. Remove the roll pin that secures the selector to the change rod. Match the pin's position with the removing groove then tap the pin out using a suitable drift and hammer.
21. Slide the change rod out of the clutch housing.
22. Remove the boot from the oil seal.
23. Retrieve the change arm spring, selector, and reverse gate from the clutch housing.
24. Remove the change rod oil seal from the clutch housing.

DISASSEMBLY AND ASSEMBLY (Continued)

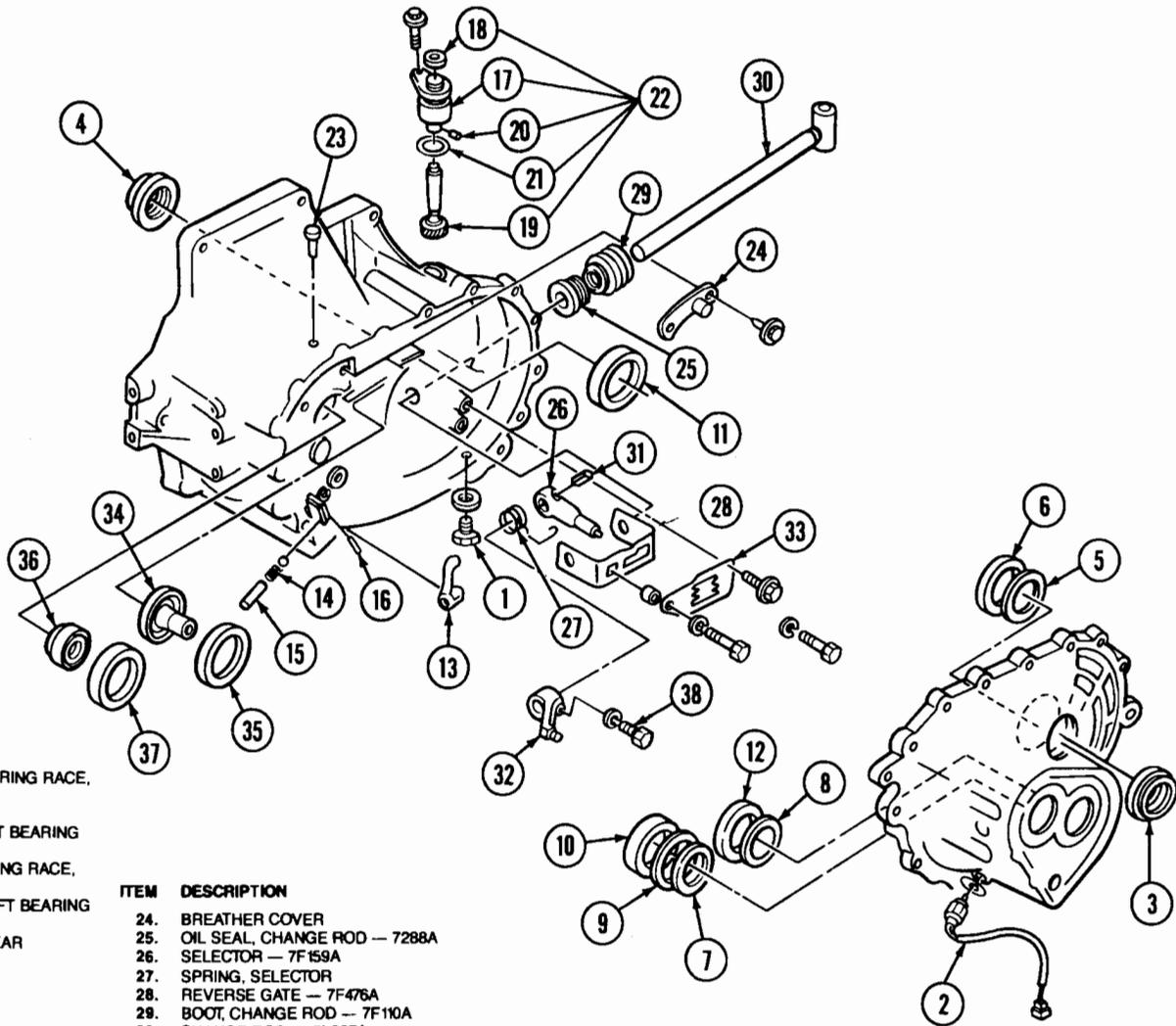
25. Remove the breather cover screws and remove the breather cover.

26. Remove the breather from the case by turning and pulling it out.

**REMOVING GROOVE**

C7545-A

DISASSEMBLY AND ASSEMBLY (Continued)



ITEM DESCRIPTION

1. DRAIN PLUG AND WASHER
2. SWITCH, BACK-UP LAMP
3. OIL SEAL, AXLE SHAFT, LEFT
4. OIL SEAL, AXLE SHAFT, RIGHT
5. ADJUSTMENT SHIM, DIFFERENTIAL BEARING RACE, REAR
6. BEARING RACE, DIFFERENTIAL, REAR
7. ADJUSTMENT SHIM (INPUT GEAR SHAFT BEARING RACE, REAR)
8. ADJUSTMENT SHIM (MAIN SHAFT BEARING RACE, REAR)
9. DIAPHRAGM SPRING, INPUT GEAR SHAFT BEARING RACE, REAR
10. BEARING RACE, INPUT GEAR SHAFT, REAR
11. BEARING RACE, DIFFERENTIAL, FRONT
12. BEARING RACE, MAIN SHAFT, REAR
13. REVERSE LEVER, 7K002A
14. SET SPRING, 7K182A
15. REVERSE LEVER SHAFT — 7233A
16. ROLL PIN, REVERSE LEVER SHAFT
17. GEAR CASE, SPEEDOMETER — 17B301A
18. OIL SEAL, SPEEDOMETER GEAR CASE
19. DRIVEN GEAR, SPEEDOMETER — 17271A
20. ROLL PIN, DRIVEN GEAR-TO-CASE
21. O-RING, SPEEDOMETER GEAR CASE
22. SPEEDOMETER DRIVEN GEAR ASSY
23. BREATHER

ITEM DESCRIPTION

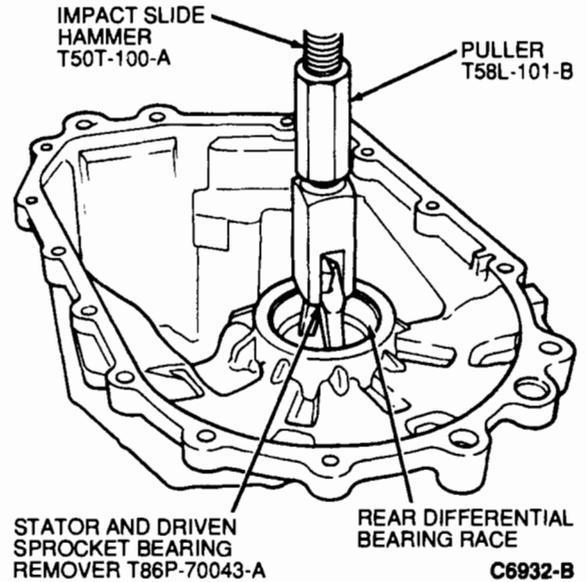
24. BREATHER COVER
25. OIL SEAL, CHANGE ROD — 7288A
26. SELECTOR — 7F159A
27. SPRING, SELECTOR
28. REVERSE GATE — 7F476A
29. BOOT, CHANGE ROD — 7F110A
30. CHANGE ROD — 7L267A
31. ROLL PIN, SELECTOR-TO-CHANGE ROD
32. CHANGE ARM — 7F477A
33. GUIDE PLATE — 7G043-A
34. OIL FUNNEL — 7L276A
35. BEARING RACE, MAIN SHAFT, FRONT
36. OIL SEAL, INPUT SHAFT — 7A011A
37. BEARING RACE, INPUT GEAR SHAFT, FRONT
38. BOLT, CHANGE ARM RETAINING

C6927-A

DISASSEMBLY AND ASSEMBLY (Continued)

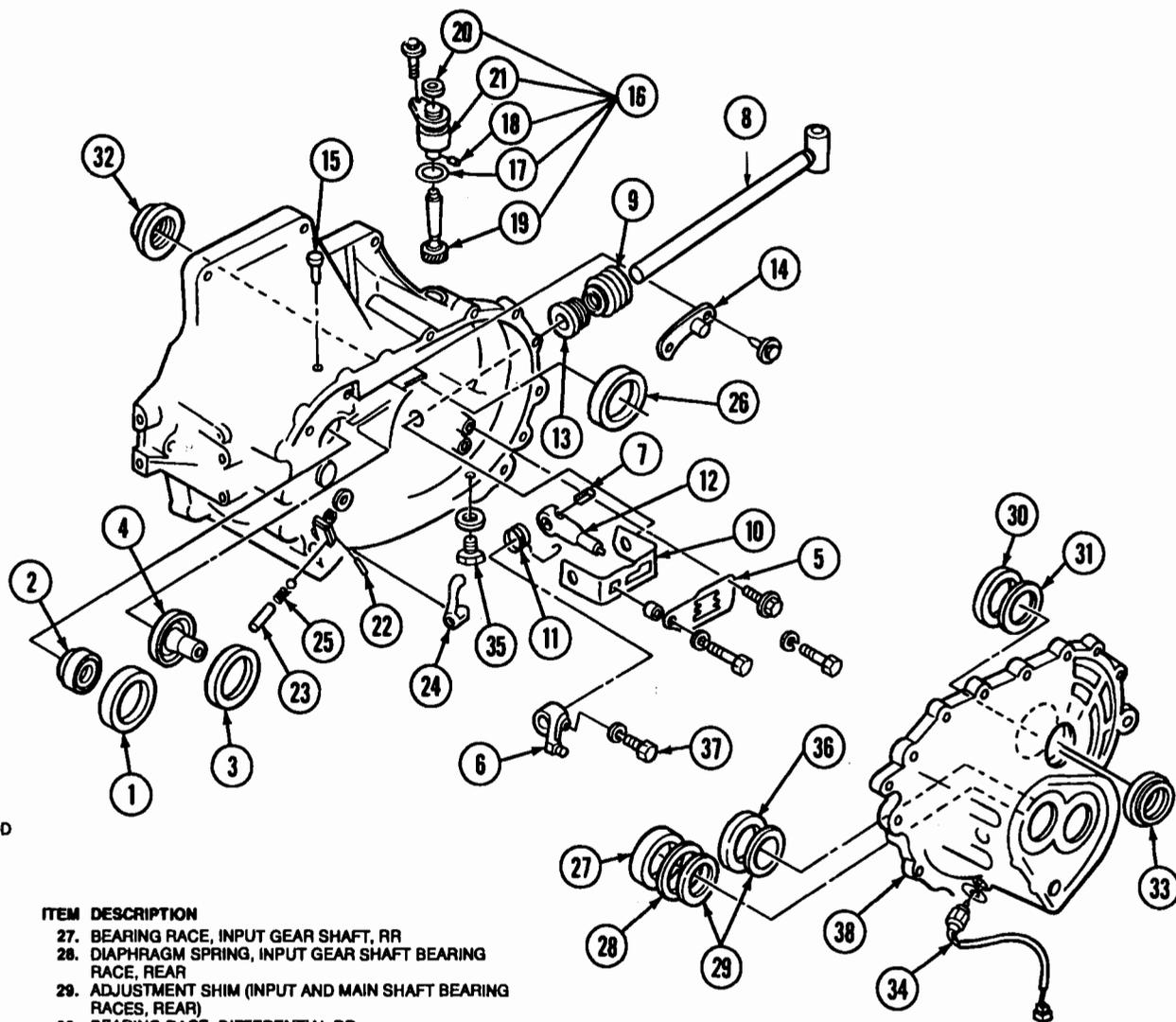
27. Remove the speedometer drive gear assembly from the case. If necessary, disassemble it as shown, in numerical sequence.
28. Remove the reverse lever shaft roll pin. Drive the reverse lever shaft out of the case using the proper size drift and a plastic or fiber mallet.
29. Retrieve the reverse lever and lever set spring from the case.
NOTE: The following bearing races, diaphragm spring and adjustment shims should be identified upon removal so that they may be re-installed exactly as removed, if reused.
30. Remove the differential front bearing race from the clutch housing using Stator and Driven Sprocket Bearing Remover T86P-70043-A, Puller T58L-101-B and Impact Slide Hammer T50T-100-A or equivalent.
31. Remove the input shaft rear bearing race from the transaxle case using Bearing Cup Puller T77F-1102-A and Impact Slide Hammer T50T-100-A or equivalent.
32. After removal of the input shaft rear bearing race, remove the diaphragm spring and adjusting shim, noting their original position.
33. Remove the differential rear bearing race from the transaxle housing using Stator and Driven Sprocket Bearing Remover T86P-70043-A, Puller T58L-101-B and Impact Slide Hammer T50T-100-A or equivalent.
34. Remove the adjusting shim for the differential rear bearing race.
35. Remove the left differential oil seal from the transaxle case using Bearing Cup Puller T77F-1102-A and Impact Slide Hammer T50T-100-A or equivalent.
36. Remove the right differential oil seal from the clutch housing using Bearing Cup Puller T77F-1102-A and Impact Slide Hammer T50T-100-A or equivalent.

37. If not previously removed, remove the backup lamp switch and the drain plug.
38. Remove the main shaft rear bearing race from the transaxle case using Bearing Cup Puller T77F-1102-A and Impact Slide Hammer T50T-100-A or equivalent.

**Assembly**

All parts should be clean and dry. Use clean transaxle fluid on friction surfaces before assembly.

DISASSEMBLY AND ASSEMBLY (Continued)



ITEM DESCRIPTION

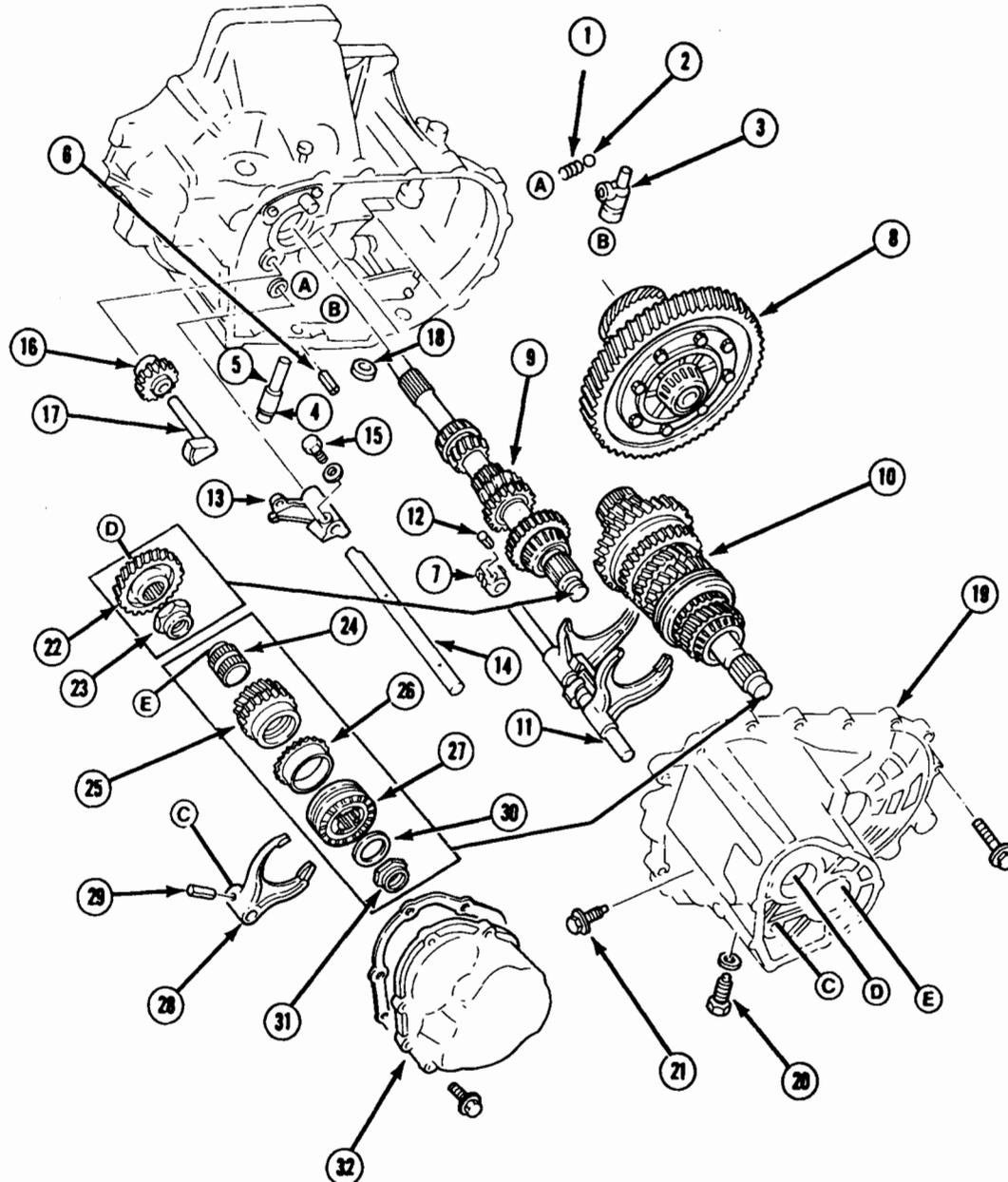
1. BEARING RACE, INPUT SHAFT, FT
2. OIL SEAL, INPUT SHAFT — 7A011A
3. BEARING RACE, MAIN SHAFT, FT
4. OIL FUNNEL — 7L278A
5. GUIDE PLATE — 7G043A
6. CHANGE ARM — 7F477A
7. ROLL PIN SELECTOR TO CHANGE ROD
8. CHANGE ROD — 7L278A
9. BOOT, CHANGE ROD — 7F110A
10. REVERSE GATE — 7F476A
11. SPRING, SELECTOR
12. SELECTOR — 7F159A
13. OIL SEAL, CHANGE ROD — 7288A
14. BREATHER COVER
15. BREATHER
16. SPEEDOMETER DRIVEN GEAR ASSY
17. O-RING, SPEEDOMETER GEAR CASE
18. ROLL PIN, DRIVEN GEAR TO CASE
19. DRIVEN GEAR, SPEEDOMETER — 17217A
20. OIL SEAL, SPEEDOMETER GEAR CASE
21. GEAR CASE, SPEEDOMETER — 17B301A
22. ROLL PIN, PEVERSE LEVER SHAFT
23. REVERSE LEVER SHAFT — 7233A
24. REVERSE LEVER — 7K002-A
25. SET SPRING REVERSE LEVER — 7K182A
26. BEARING RACE, DIFFERENTIAL, FT

ITEM DESCRIPTION

27. BEARING RACE, INPUT GEAR SHAFT, RR
28. DIAPHRAGM SPRING, INPUT GEAR SHAFT BEARING RACE, REAR
29. ADJUSTMENT SHIM (INPUT AND MAIN SHAFT BEARING RACES, REAR)
30. BEARING RACE, DIFFERENTIAL RR
31. ADJUSTMENT SHIM, DIFFERENTIAL BEARING RACE, RR
32. OIL SEAL, DIFFERENTIAL, RIGHT
33. OIL SEAL, DIFFERENTIAL, LEFT
34. SWITCH, BACK-UP LAMP
35. DRAIN PLUG AND WASHER
36. BEARING RACE, MAIN SHAFT, REAR
37. BOLT CHANGE ARM RETAINING
38. TRANSAXLE CASE

C6830-A

DISASSEMBLY AND ASSEMBLY (Continued)

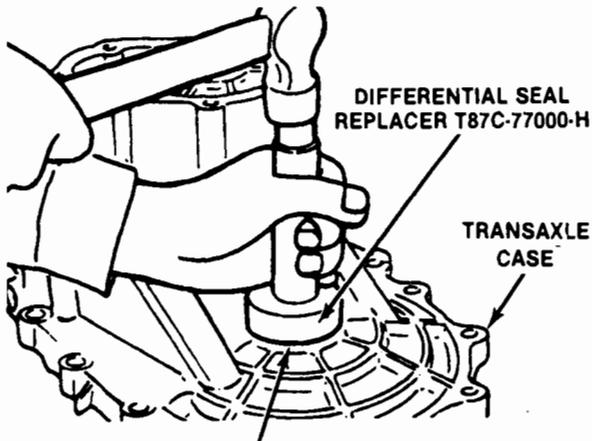


1. SPRING
2. STEEL BALL
3. CRANK LEVER ASSEMBLY
4. O-RING
5. CRANK LEVER SHAFT
6. ROLL PIN, CRANK LEVER SHAFT-TO-CLUTCH HOUSING
7. CONTROL END—7302A
8. DIFFERENTIAL ASSEMBLY—4026A
9. INPUT GEAR SHAFT ASSEMBLY—7017B
10. MAINSHAFT ASSEMBLY—7061A
11. SHIFT FORK ASSEMBLY—7230B
12. ROLL PIN, CONTROL END-TO-SHIFT FORK
13. GATE—7G043A
14. SHIFT ROD, 5TH AND REVERSE—7358A
15. LOCK BOLT, GATE-TO-SHIFT ROD
16. REVERSE IDLER GEAR—7141A
17. REVERSE IDLER SHAFT—7140A
18. MAGNET—7L027A
19. TRANSAXLE CASE—7005C
20. GUIDE BOLT AND WASHER
21. LOCK BOLT
22. INPUT GEAR—7K316A
23. LOCKNUT—7N170A
24. GEAR SLEEVE (5TH GEAR)—7A061A
25. 5TH GEAR—7144A
26. SYNCHRONIZER RING—7107B
27. CLUTCH HUB ASSEMBLY—7106A
28. SHIFT FORK (5TH GEAR)—7230C
29. ROLL PIN, SHIFT FORK-TO-SHAFT
30. LOCK WASHER
31. LOCKNUT—7N170A
32. REAR COVER—7222A

C7627-A

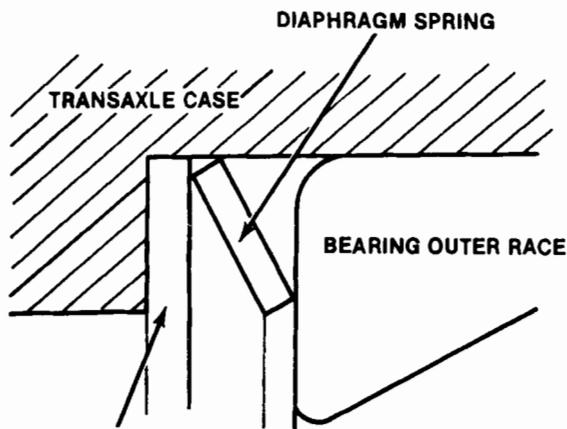
DISASSEMBLY AND ASSEMBLY (Continued)

1. Install the drain plug into the transaxle case and tighten it to 39-54 N·m (29-40 lb-ft). Install the backup lamp switch to the transaxle case. Tighten to 25-34 N·m (18-25 lb-ft).
2. Install the left differential oil seal into the transaxle case using Differential Seal Replacer T87C-77000-H or equivalent.
3. Install the right differential oil seal into the clutch housing using Differential Seal Replacer T87C-77000-H or equivalent.

LEFT AXLE SHAFT
OIL SEAL

C7622-A

4. Install the input gear shaft seal to the clutch housing using a driver or socket.
5. Install the adjustment shim and bearing race for the rear differential bearing to the transaxle case using Bearing Cup Replacer T77F-1217-B and Drive Handle T80T-4000-W or equivalent.
6. Install the adjustment shims for the input gear shaft and main shaft rear bearing races to the transaxle case.
7. Install the diaphragm spring for the input gear shaft rear bearing race as shown in the illustration.



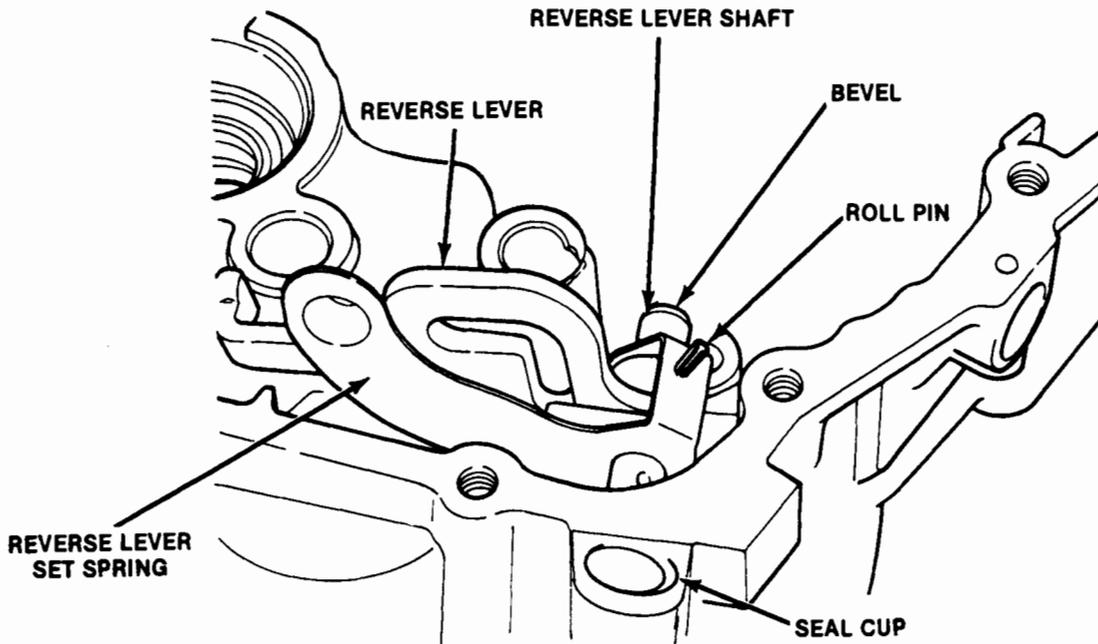
ADJUSTMENT SHIM

C7623-A

8. Install the input gear shaft rear bearing race into the transaxle case using Bearing Cup Replacer T77F-1217-B and Drive Handle T80T-4000-W or equivalent.
9. Install the differential front bearing race into the clutch housing using Bearing Cup Replacer T77F-1217-B and Drive Handle T80T-4000-W or equivalent.
10. Install the main shaft rear bearing race into the transaxle case using Bearing Cup Replacer T77F-1217-B and Drive Handle T80T-4000-W or equivalent.
11. Install the reverse lever set spring to the reverse lever.
12. Position the reverse lever and set spring in the clutch housing in their normal location.
13. Install the reverse lever shaft through its hole in the clutch housing (beveled end first), through the reverse lever and set spring. Align the hole in the reverse lever shaft with the roll pin hole in the clutch housing.
14. Install the roll pin through the set spring, clutch housing, and into the reverse lever shaft using a drift.

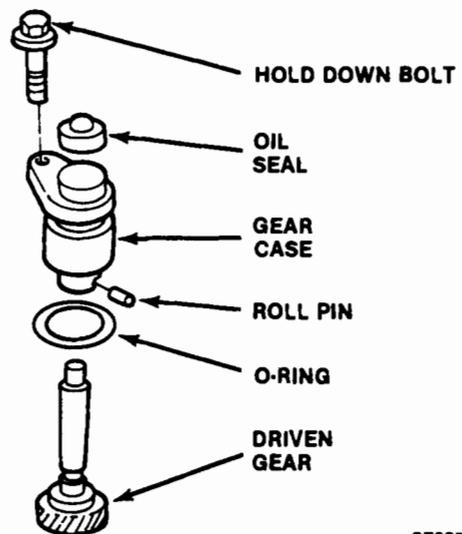
DISASSEMBLY AND ASSEMBLY (Continued)

15. Coat the cup that seals the reverse lever shaft hole in the clutch housing with Gasket Eliminator E 1FZ-19562-A (ESE-M4G234-A2) or equivalent and install it to the hole until flush with housing.



C7624-A

16. Assemble the speedometer driven gear assembly as follows:
- Install a new oil seal to the top of the speedometer gear case.
 - Install the speedometer driven gear shaft up through the bottom of the speedometer gear case. Install the roll pin through the gear case and into the speedometer driven gear shaft.
 - Install a new O-ring to the speedometer gear case.
17. Install the speedometer driven gear assembly to the clutch housing. Install the bolt and tighten to 7.8-10.8 N·m (69-95 lb-in).
18. Install the breather to the clutch housing by tapping it in with a fiber or plastic mallet.
19. Install the breather cover to the clutch housing and secure it with the two retaining bolts. Tighten the bolts to 7.8-10.8 N·m (69-95 lb-in).
20. Install the change rod oil seal to the clutch housing using a driver or socket of appropriate size.
21. Install the selector spring to the clutch housing and position them so they will accept the change rod when it is installed.

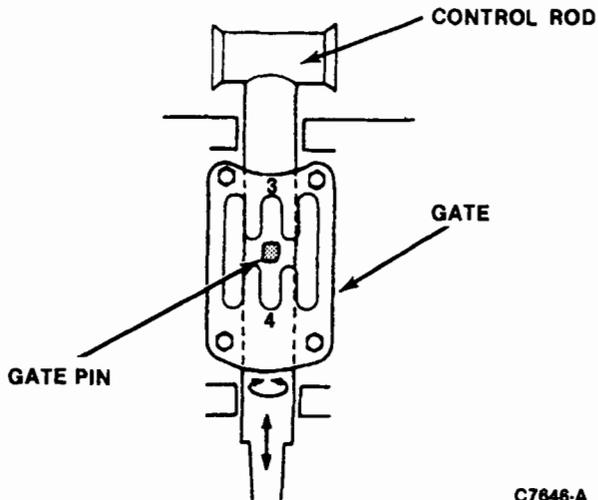


C7625-A

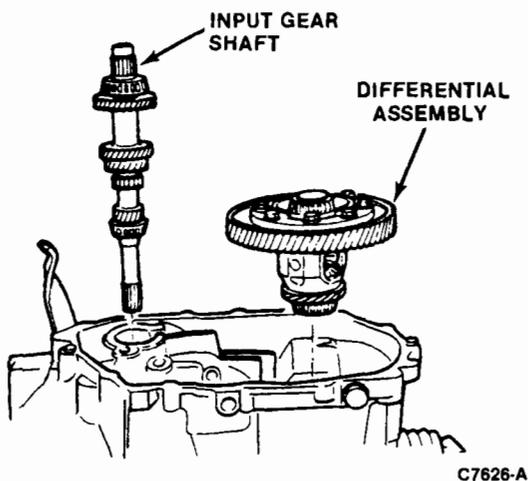
22. Install the change rod shift boot to the change rod. Insert the change rod through the seal and clutch housing. Feed the reverse gate and selector onto the rod and then the change arm. Align the roll pin hole in the change rod with the hole in the selector.
23. Install the roll pin through the selector and into the hole in the change rod. Drive the pin flush with the selector using a suitable drift and hammer.

DISASSEMBLY AND ASSEMBLY (Continued)

24. Install the change arm bolt through the arm and into the threaded hole in the change rod. Tighten the bolt to 12-16 N·m (9-11 lb-ft).
25. Index the pin of the change arm into the center slot of the guide plate and install the guide plate, bolts (hand tight) and spacer to the clutch housing.
26. Adjust the guide plate so that the gate pin is in the center of the third/fourth gear slot when the control rod is in the neutral position.



27. While holding the gate in the proper position, tighten the guide plate bolts to 8-11 N·m (6-8 lb-ft).
28. A check of the input gear shaft and differential bearing preload is necessary to confirm that the correct adjustment shims for the two gear shafts and the differential bearing cups were selected. Perform this check as follows:
 - a. Install the input gear shaft and the differential assembly into the clutch housing.



- b. Install the transaxle case to the clutch housing. Install all of the retaining bolts and tighten them to 19-26 N·m (14-19 lb-ft). Mark the first bolt to be tightened and work in a circle until all bolts are tight.

NOTE: The transaxle case and clutch housing are aluminum. To prevent component damage, do not overtighten the retaining bolts.

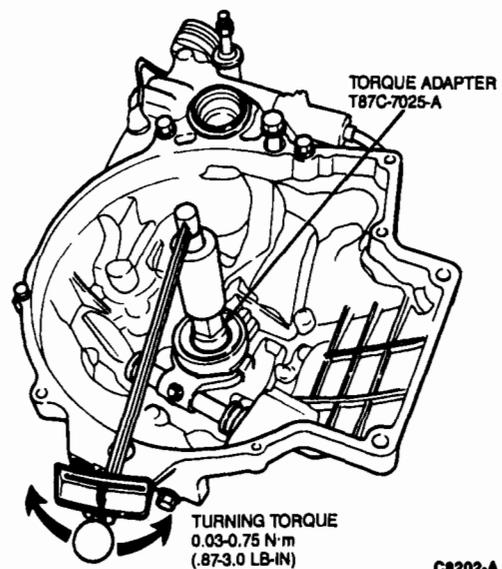
- c. Install the Torque Adapter T87C-77000-K or equivalent through the oil seal and onto the pinion shaft. Use a N·m or lb-in torque wrench to measure the preload by turning the tool and reading the torque wrench as the differential is rotating. Do not use the initial torque reading as it will be higher than the actual turning torque reading.

Preload: 0.03-0.75 N·m (0.26-6.6 lb-in).

- d. Remove the turning tool and torque wrench.
- e. With the input shaft facing up, install the Torque Adapter T87C-7025-A or equivalent. Use an appropriate socket and install a torque wrench to the end of the shaft holder.
- f. Measure the turning torque of the input shaft by rotating it with the torque wrench.

Preload: 0.03-0.75 N·m (0.26-6.6 lb-in).

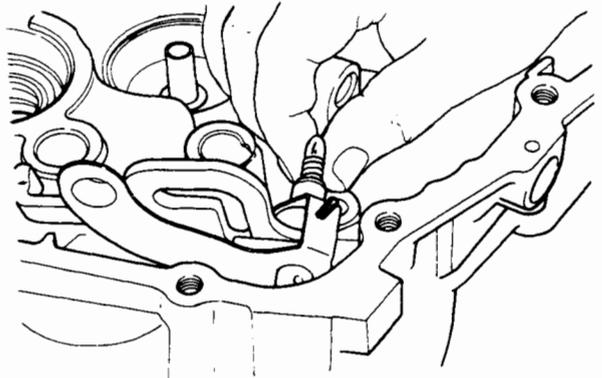
- g. If the bearing preload measurements are not within limits, the adjustment shims are not correct. Refer to the appropriate Bearing Preload Adjustment section as outlined for correct adjustment shim selection.



TURNING TORQUE
0.03-0.75 N·m
(.87-3.0 LB-IN)

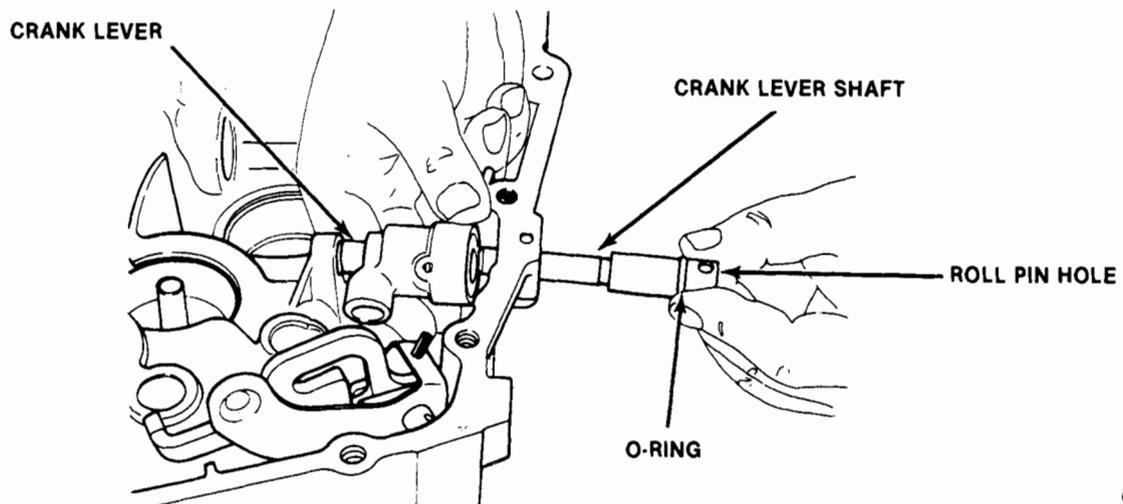
DISASSEMBLY AND ASSEMBLY (Continued)

29. Install the spring and then the steel ball to the reverse lever shaft.



C7628-A

30. Install the crank lever assembly to the gear case.



C7629-A

31. Install a new O-ring to the crank lever shaft. Coat the shaft and O-ring with clean transaxle fluid.
32. Install the crank lever shaft through the clutch housing and into the crank lever with the roll pin hole positioned up.
33. Install the roll pin through the clutch housing and into the crank lever shaft, until it is just below the surface of the clutch housing.

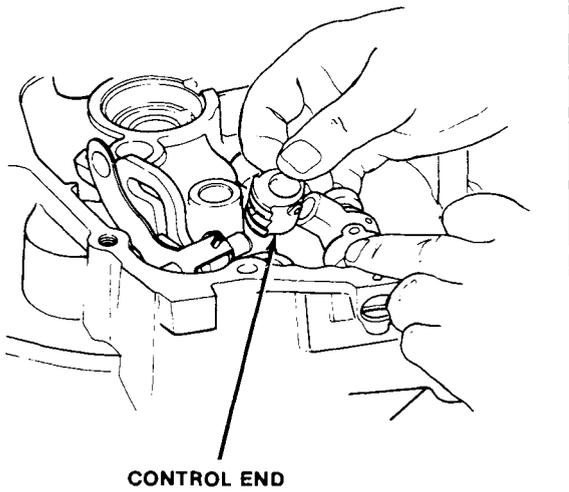


ROLL PIN

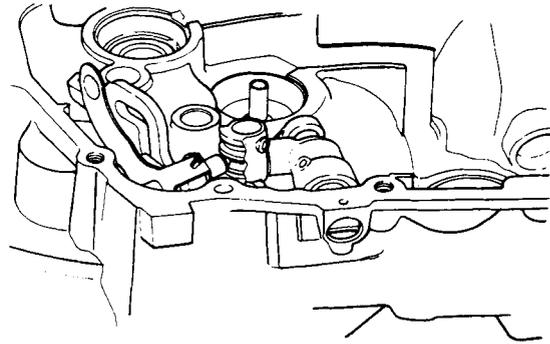
C7630-A

DISASSEMBLY AND ASSEMBLY (Continued)

34. Install the control end between the ball in the crank lever and the ball in the reverse lever shaft.



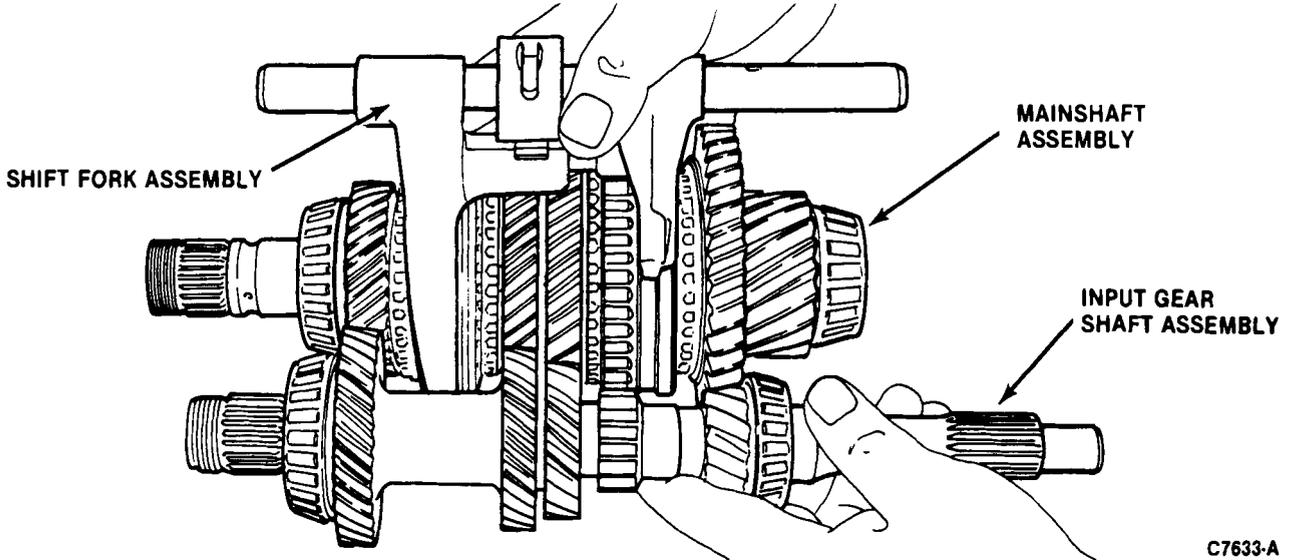
CONTROL END



C7631-A

35. Install the differential assembly to the clutch housing.

36. Assemble the input gear shaft, main shaft and shift fork assembly.

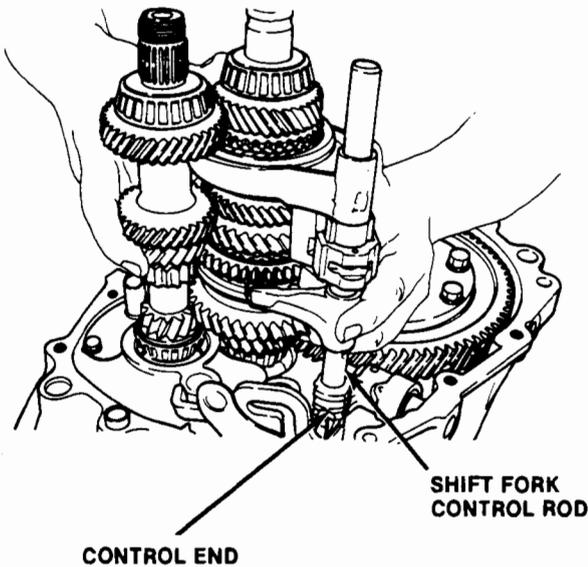


C7633-A

DISASSEMBLY AND ASSEMBLY (Continued)

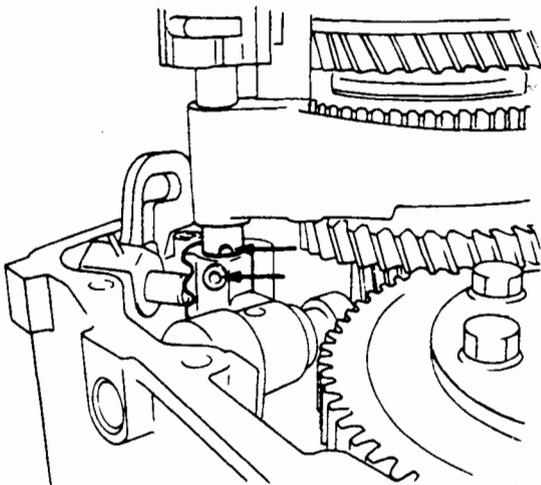
37. Install the gear shaft and shift fork assembly to the clutch housing, installing the shift fork control rod into the control end as the unit is lowered into place.

NOTE: Keep the assembly as vertical as possible while installing it.



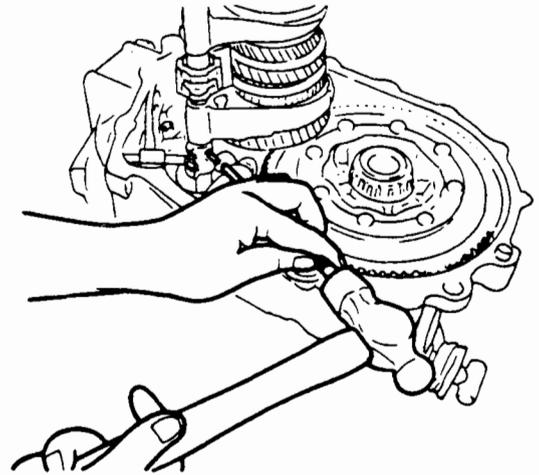
C7634-A

38. Align the holes in the control rod and the control end.



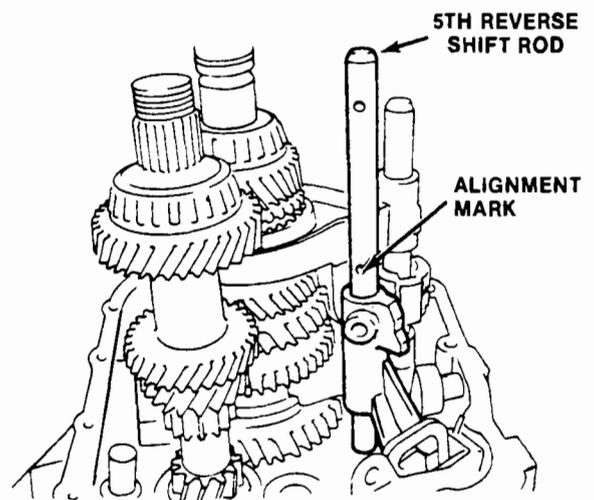
C7635-A

39. Install the roll pin with a drift and hammer.



C7636-A

40. Install the shaft rod (fifth and reverse gears). Make sure that the alignment mark on the rod is in the correct position as shown.

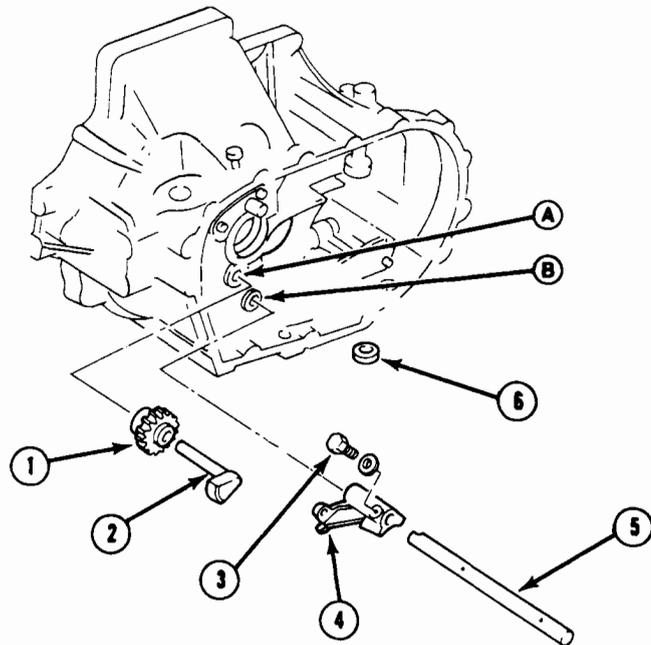


C7638-A

41. Install the gate-to-shift rod lock bolt. Tighten to 12-16 N·m (9-11 lb-ft).
42. Install the reverse idler gear onto the reverse idler shaft.
43. Install the idler gear assembly into its bore in the clutch housing as indicated in the illustration.

DISASSEMBLY AND ASSEMBLY (Continued)

44. Install the magnet into the clutch housing as shown.

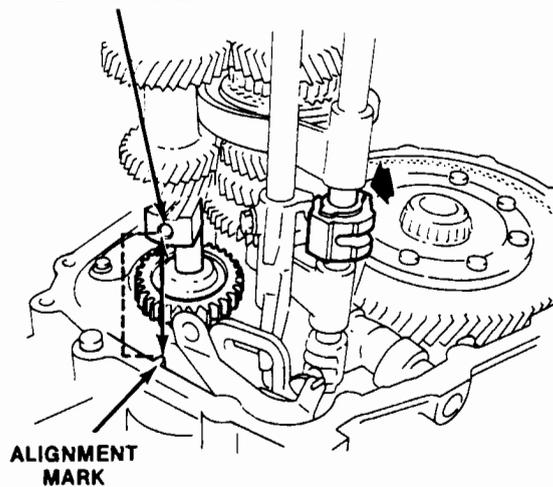


1. REVERSE IDLER GEAR—7141A
 2. REVERSE IDLER SHAFT—7140A
 3. LOCK BOLT
 4. GATE—7G043A
 5. SHIFT ROD (5TH AND REVERSE)—7358A
 6. MAGNET—7L027A

C7639-A

45. Before installing the transaxle case, make sure the control lever (arrow) is kept flush with the surface of the end of the interlock sleeve. Point the threaded hole of the reverse idler shaft toward the alignment mark of the clutch housing.

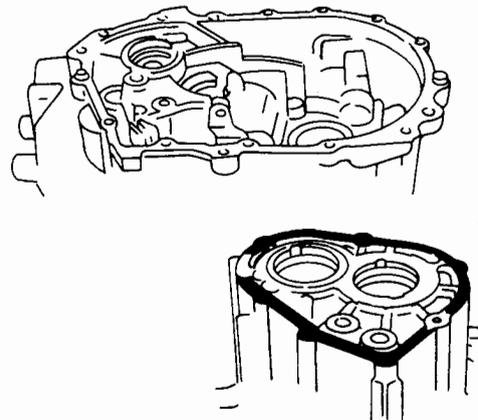
**REVERSE IDLER SHAFT
 THREADED HOLE**



C7640-A

46. Make sure transaxle case mating surfaces are clean and free of grease or oil. Surfaces should also be free of nicks and burrs.

47. Apply continuous 1/16 inch beads of Gasket Eliminator E1FZ-19562-A (ESE-M4G234-A1) or equivalent to the mating surfaces the clutch housing and transaxle case. Run the bead between bolt holes and inside edge of gasket surface. Do not allow material to get inside the transaxle.



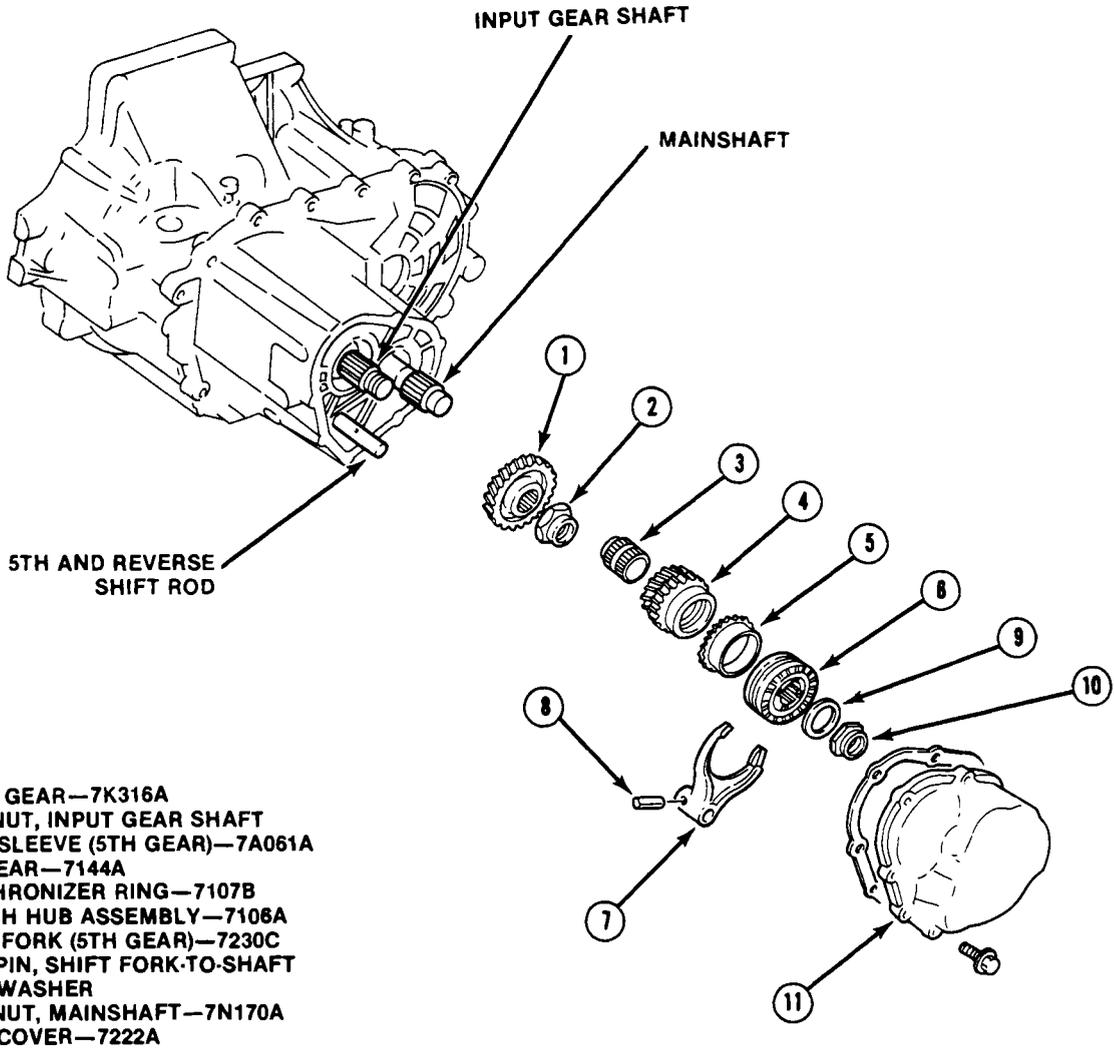
C7641-A

DISASSEMBLY AND ASSEMBLY (Continued)

48. Install the transaxle case to the clutch housing. Install the retaining bolts and tighten to 19-26 N·m (14-19 lb-ft). Mark the first bolt tightened and work in a circle until all the bolts are tightened.

NOTE: The transaxle case and clutch housing are aluminum. To prevent component damage, do not overtighten the retaining bolts.

49. Install the guide bolt to the transaxle case. Tighten the bolt to 9-12 N·m (7-9 lb-ft).
50. Install the lock bolt to the transaxle case and into the reverse idler shaft threaded hole. Tighten the bolt to 19-26 N·m (14-19 lb-ft).
51. Install the input gear to the end of the input gear shaft.



1. INPUT GEAR—7K316A
2. LOCKNUT, INPUT GEAR SHAFT
3. GEAR SLEEVE (5TH GEAR)—7A061A
4. 5TH GEAR—7144A
5. SYNCHRONIZER RING—7107B
6. CLUTCH HUB ASSEMBLY—7106A
7. SHIFT FORK (5TH GEAR)—7230C
8. ROLL PIN, SHIFT FORK-TO-SHAFT
9. LOCK WASHER
10. LOCKNUT, MAINSHAFT—7N170A
11. REAR COVER—7222A

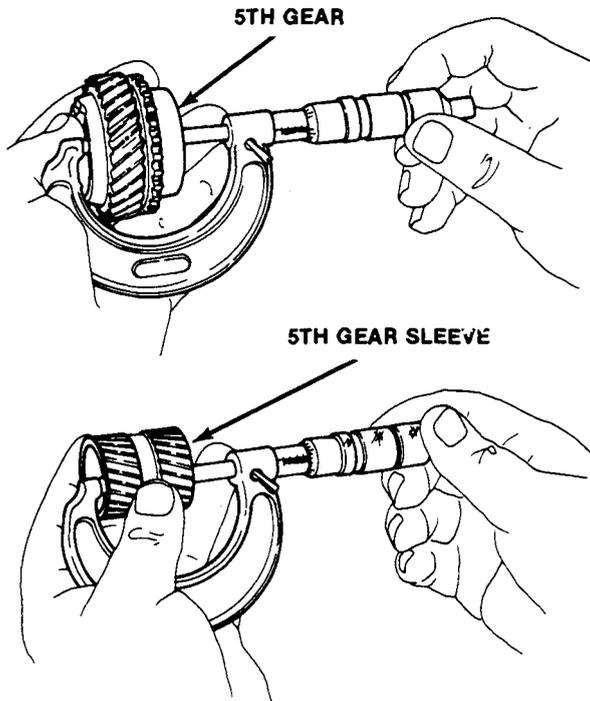
C7642-A

52. Install a new locknut. Put the transaxle in 1st or 2nd gear. Lock the input gear shaft with the Torque Adapter T87C-7025-A or equivalent.

53. Tighten the input gear locknut to 128-206 N·m (95-151 lb-ft). Stake the locknut to the groove in the input gear shaft after tightening.

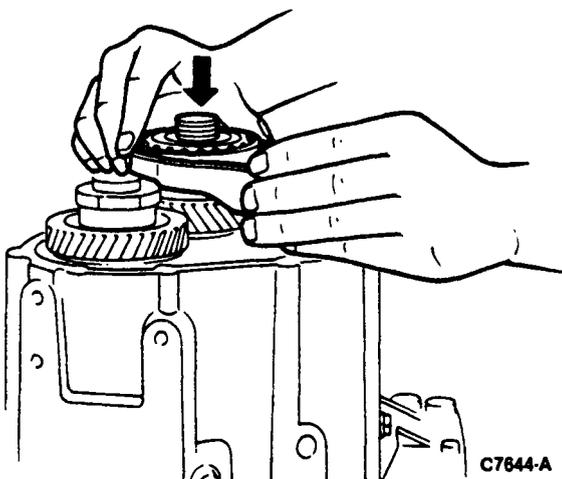
DISASSEMBLY AND ASSEMBLY (Continued)

54. Measure the fifth gear end play by measuring the width of both the fifth gear and the fifth gear sleeve. The end play equals the difference between these two measurements.



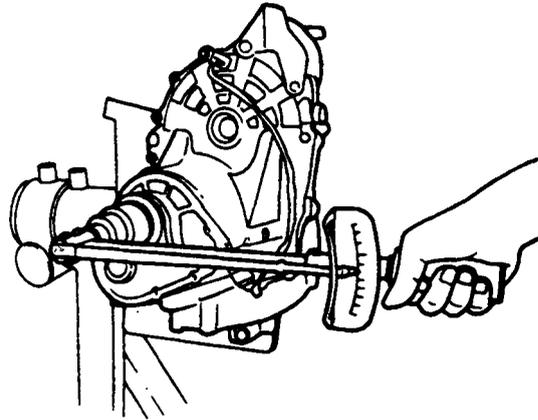
C7643-A

- Standard: 0.15-0.262mm (0.006 inch -0.010 inch)
 - Limit: 0.31mm (0.012 inch)
55. Assemble the fifth gear sleeve to fifth gear. Install the synchronizer ring and clutch hub assembly to the fifth gear.
56. Install the fifth gear shift fork to the clutch hub.
57. Install the fifth gear assembly to the main shaft while installing the shift fork to the fifth and reverse shift rod.



C7644-A

58. Install the roll pin through the fifth gear shift fork and into the fifth and reverse shift rod using a suitable drift and hammer. Sink the pin until it is just below the surface of the shift fork.
59. Install a new lock washer and locknut to the end of the main shaft.
60. Place the transaxle in first / second gear and lock the input shaft with the Torque Adapter T87C-7025-A or equivalent.
61. Tighten the main shaft locknut to 128-206 N·m (95-151 lb-ft).



C7645-A

62. Using a new gasket, install the rear cover onto the transaxle case. Install the retaining bolts and tighten to 8-11 N·m (6-8 lb-ft). Do not overtighten.

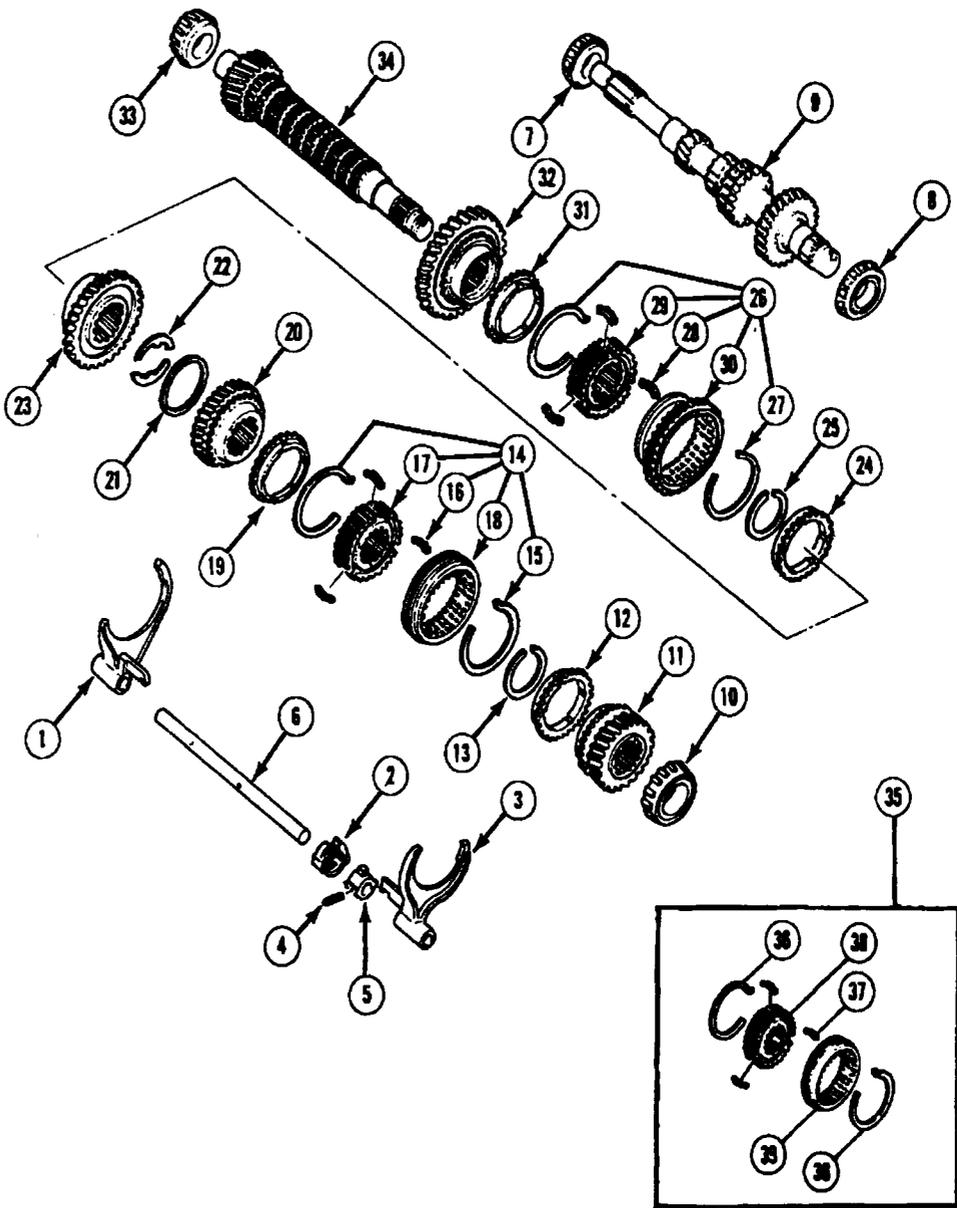
Subassemblies**Gear and Shaft****Disassembly**

Follow the numeric sequence in the figure that follows for general disassembly procedures.

NOTE: Do not disassemble the bearings unless necessary. Always replace bearings with new ones whenever they are removed from the gear shaft.

DISASSEMBLY AND ASSEMBLY (Continued)

NOTE: Before disassembly, check the thrust clearance of all gears as outlined under Transaxle Parts Inspection.

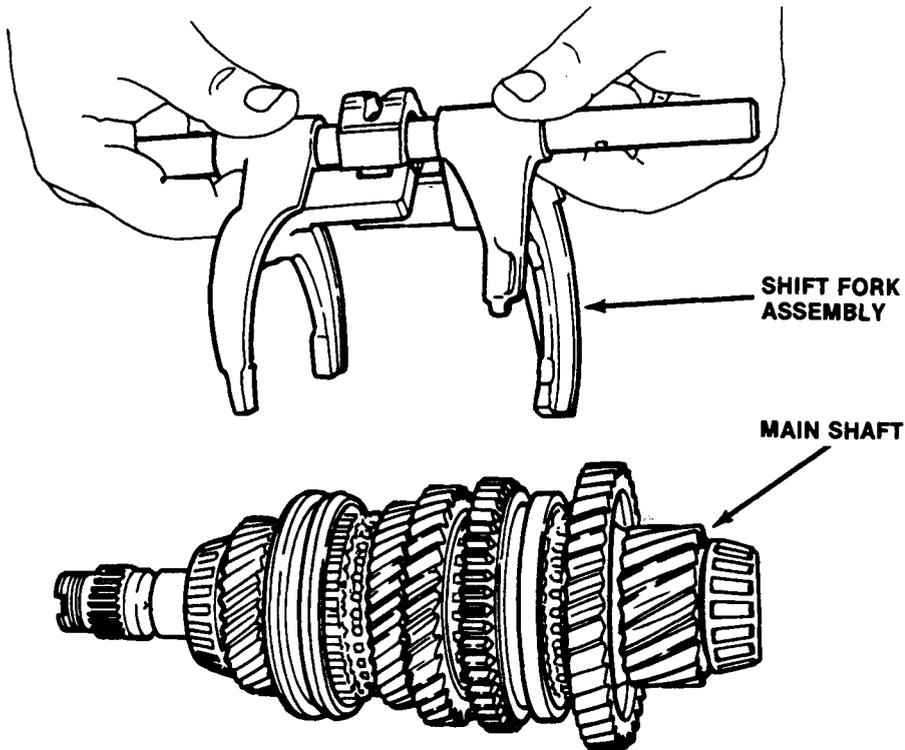


1. SHIFT FORK (1ST-2ND GEARS)—7230A
2. INTERLOCK SLEEVE—7K201A
3. SHIFT FORK (3RD-4TH GEARS)—7230B
4. ROLL PIN (CONTROL LEVER-TO-ROD)
5. CONTROL LEVER—7346A
6. CONTROL ROD—7358A
7. BEARING (INPUT GEAR SHAFT, FRONT)—7025B
8. BEARING (INPUT GEAR SHAFT, REAR)—7025A
9. INPUT SHAFT GEAR
10. BEARING (MAIN GEAR SHAFT, REAR)—7025A
11. 4TH GEAR—7112A
12. SYNCHRONIZER RING—7107B
13. RETAINING RING—7084B
14. CLUTCH HUB ASSEMBLY (3RD-4TH GEARS)—7105B
15. SYNCHRONIZER SPRING—7109B
16. SYNCHRONIZER KEY—7A044
17. CLUTCH HUB—7105B
18. CLUTCH HUB SLEEVE—7106A
19. SYNCHRONIZER RING—7107B
20. 3RD GEAR—7B340A
21. RING—7A046A
22. THRUST WASHER
23. 2ND GEAR—7102A
24. SYNCHRONIZER RING—7107A
25. RETAINING RING—7084A
26. CLUTCH HUB ASSEMBLY (1ST-2ND GEARS)—7105A
27. SYNCHRONIZER SPRING—7109B
28. SYNCHRONIZER KEY—7A044A
29. CLUTCH HUB
30. CLUTCH HUB SLEEVE (REVERSE)—7K013A
31. SYNCHRONIZER RING—7107B
32. 1ST GEAR—7100A
33. BEARING (MAIN GEAR SHAFT, FRONT)
34. MAIN SHAFT GEAR—7061A
35. CLUTCH HUB ASSEMBLY (5TH GEAR)—7105C
36. SYNCHRONIZER SPRING—7109B
37. SYNCHRONIZER KEY—7A044B
38. CLUTCH HUB—7105B
39. CLUTCH HUB SLEEVE—7106A

C7547-A

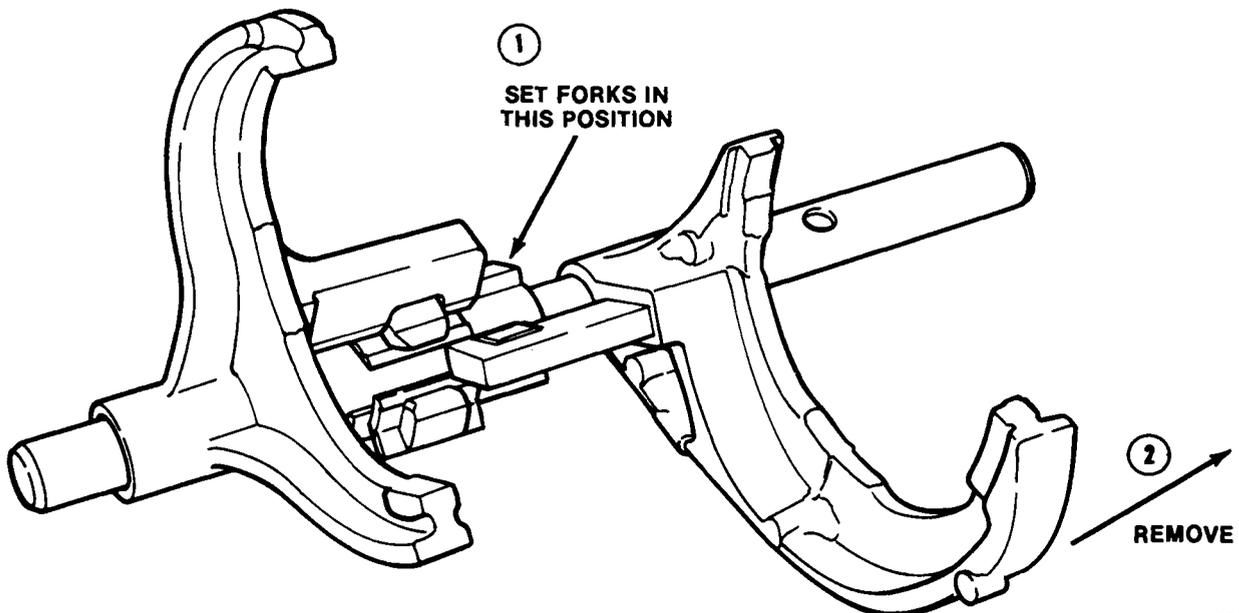
DISASSEMBLY AND ASSEMBLY (Continued)

1. Remove the shift fork assembly from the main shaft assembly as shown.



C7548-A

2. Position the shift fork assembly as shown in the illustration. Disassemble the first / second shift fork, interlock sleeve and third / fourth shift fork and interlock sleeve from the shaft.

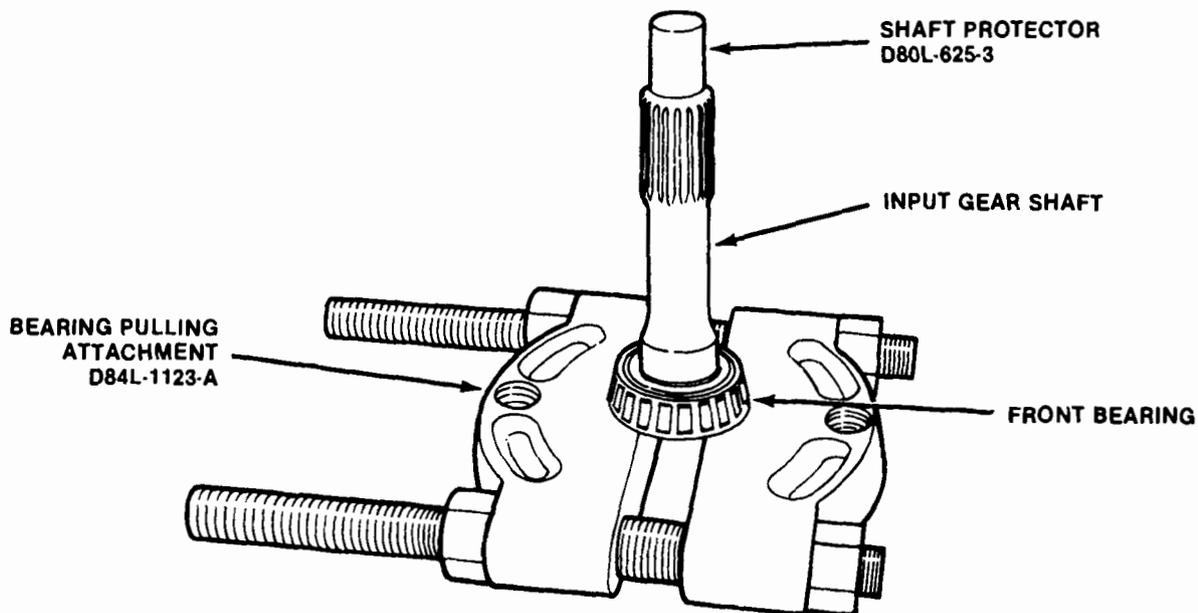


C7549-A

DISASSEMBLY AND ASSEMBLY (Continued)

3. Remove the input gear shaft front bearing by pressing it off the shaft using Bearing Puller Attachment D84L-1123-A or equivalent.

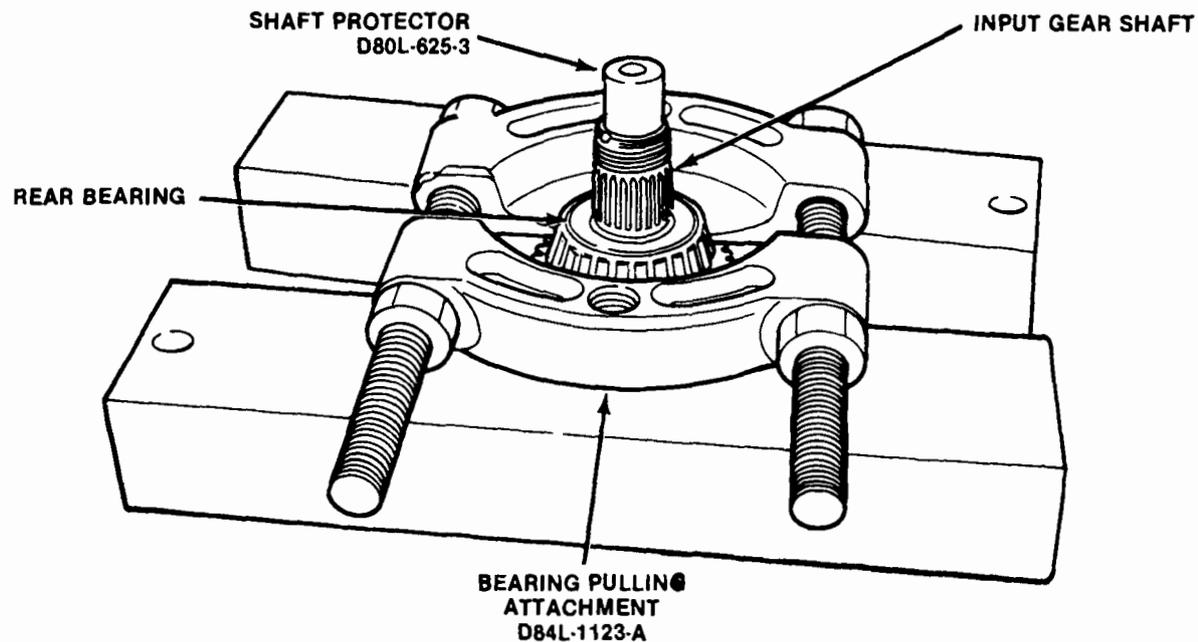
NOTE: Hold the gear shaft with one hand so that it does not fall.



C7550-A

4. Remove the input gear shaft rear bearing by pressing it off the shaft using Bearing Puller Attachment D84L-1123-A and Shaft Protector D80L-625-3 or equivalent.

NOTE: Hold the gear shaft with one hand so that it does not fall.

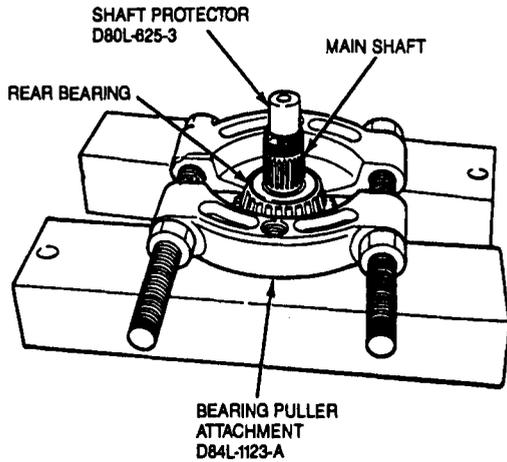


C7551-A

DISASSEMBLY AND ASSEMBLY (Continued)

- Remove the main shaft rear bearing by pressing it off the shaft using Shaft Protector D80L-625-4 and Bearing Puller Attachment D84L-1123-A or equivalent.

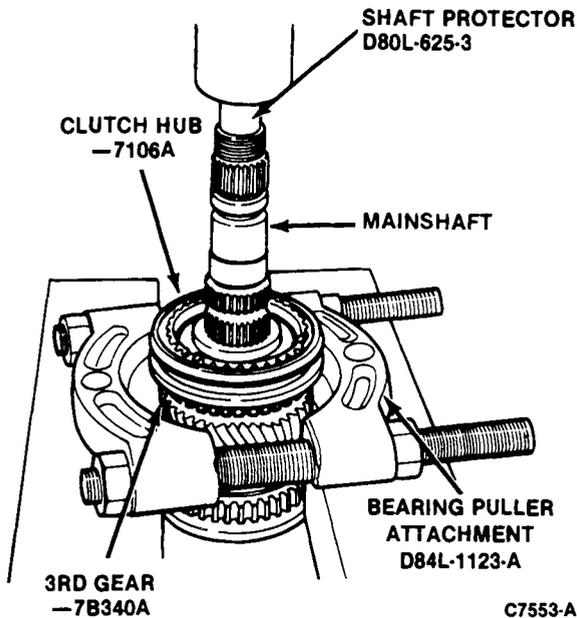
NOTE: Hold the main shaft with one hand so that it does not fall.



C9806-A

- Remove third/fourth gears and the clutch hub from the main shaft by pressing the shaft out. Install Bearing Puller Attachment D84L-1123-A or equivalent onto third gear, positioning the lips of the fixture between the two sets of teeth on third gear. Install Shaft Protector D80L-625-3 or equivalent to the end of the main shaft.

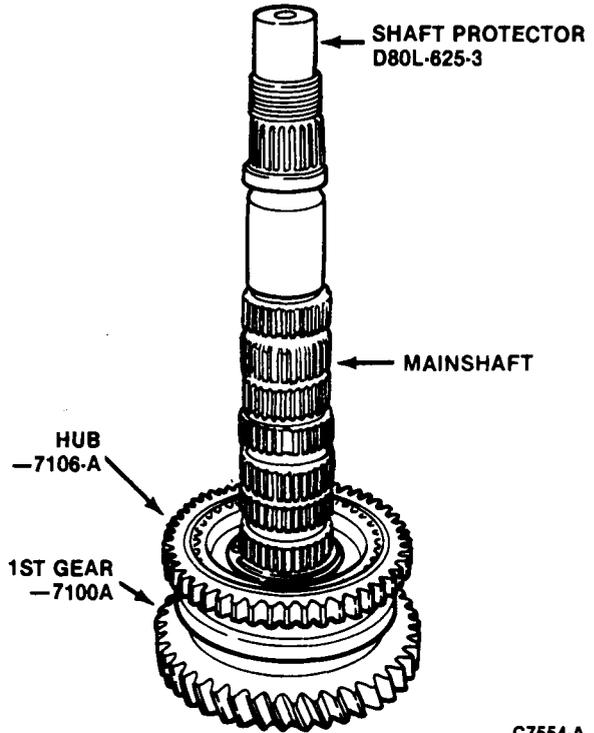
NOTE: Hold the main shaft with one hand so that it does not fall.



C7553-A

- Support first gear of the main shaft on a press bed as shown. Use Shaft Protector D80L-625-3 or equivalent and press the main shaft through the hub and first gear.

NOTE: Hold the main shaft with one hand so that it does not fall.

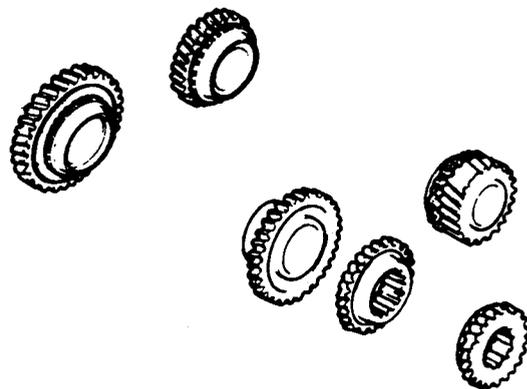


C7554-A

Transaxle Parts Inspection

Check the following parts, and replace if necessary.

1st, 2nd, 3rd, 4th and 5th Gears



C7583-A

- Worn or damaged synchronizer cone, hub sleeve coupling or gear teeth.
- Worn or damaged inner surface or end surface of gears.