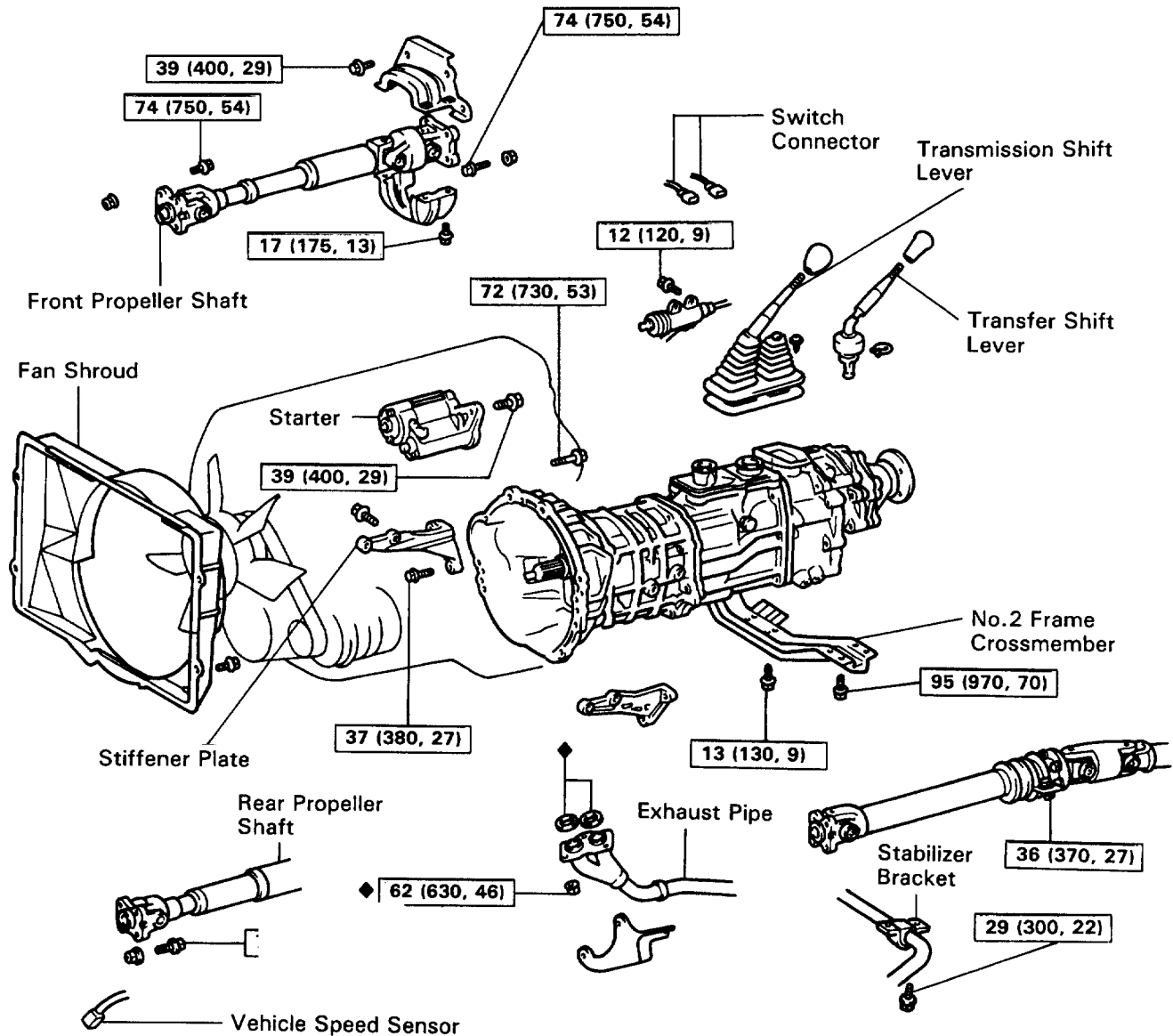


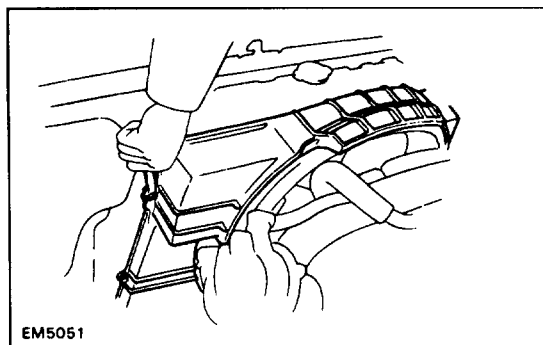
ASSEMBLY REMOVAL AND INSTALLATION 4WD



Q03147

N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

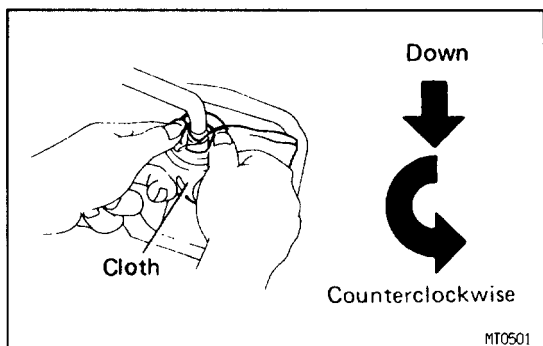


TRANSMISSION REMOVAL

1. **DISCONNECT NEGATIVE (-) TERMINAL CABLE FROM BATTERY**

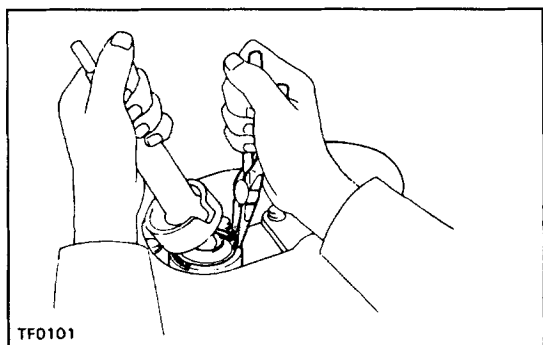
2. **REMOVE FAN SHROUD SET BOLTS**

Remove the 4 bolts.



3. **REMOVE TRANSMISSION SHIFT LEVER FROM INSIDE VEHICLE**

- (a) Remove the 4 screws and remove the shift lever boot retainer.
- (b) Pull up the shift lever boot.
- (c) Cover the shift lever cap with a cloth.
- (d) Then, pressing down on the shift lever cap, rotate it counterclockwise to remove.
- (e) Remove the shift lever.



4. **REMOVE TRANSFER SHIFT LEVER FROM INSIDE VEHICLE**

Using a snap ring expander, remove the snap ring and pull out the shift lever from the transfer.

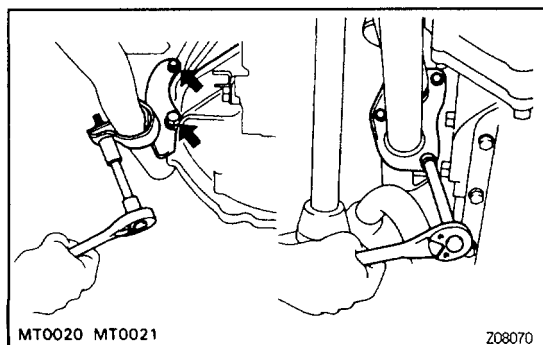
5. **RAISE VEHICLE AND DRAIN TRANSMISSION AND TRANSFER OIL**

NOTICE: Be sure the vehicle is securely supported.

6. **DISCONNECT PROPELLER SHAFT**

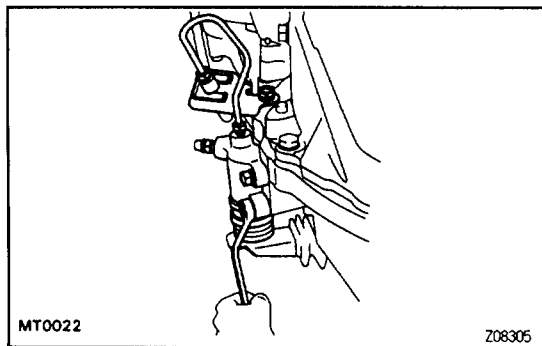
(See page [PR-7](#))

7. **DISCONNECT VEHICLE SPEED SENSOR, BACKUP LIGHT SWITCH CONNECTOR AND TRANSFER INDICATOR SWITCH CONNECTOR**



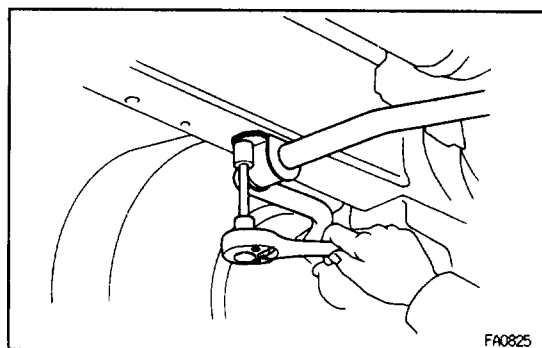
8. **REMOVE EXHAUST PIPE CLAMP AND EXHAUST PIPE**

- (a) Remove the exhaust pipe clamp.
- (b) Remove the exhaust pipe from the exhaust manifold.

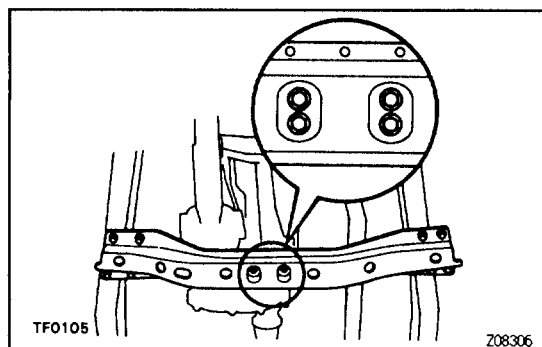
**9. REMOVE CLUTCH RELEASE CYLINDER, TUBE BRACKET**

Remove the mounting bolts and lay the release cylinder alongside the engine.

HINT: Do not disconnect the clutch line.

**10. REMOVE STABILIZER BRACKET SET BOLTS**

Remove the 4 bolts.

**11. REMOVE NO. 2 FRAME CROSSMEMBER FROM SIDE FRAME**

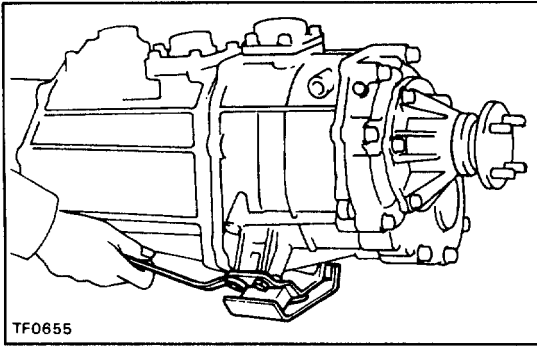
- (a) Remove the 4 bolts from the engine rear mounting.
- (b) Raise the transmission slightly with a jack.
- (c) Remove the 8 bolts from the side frame and remove the No. 2 frame crossmember.

12. PLACE PIECE OF WOOD BETWEEN ENGINE OIL PAN AND FRONT AXLE**13. LOWER TRANSMISSION WITH TRANSFER****14. REMOVE STARTER**

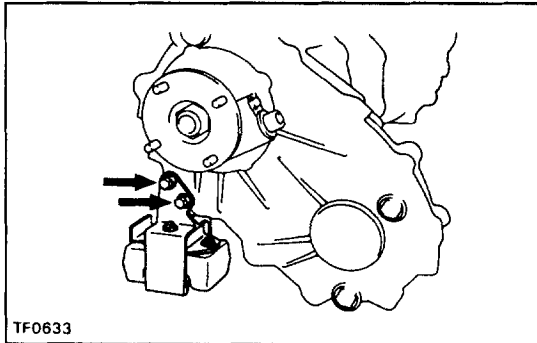
- (a) Remove the 2 bolts.
- (b) Lay the starter alongside the engine.

15. REMOVE EXHAUST PIPE BRACKET AND STIFFENER PLATE BOLTS**16. REMOVE REMAINING TRANSMISSION BOLTS****17. REMOVE TRANSMISSION WITH TRANSFER**

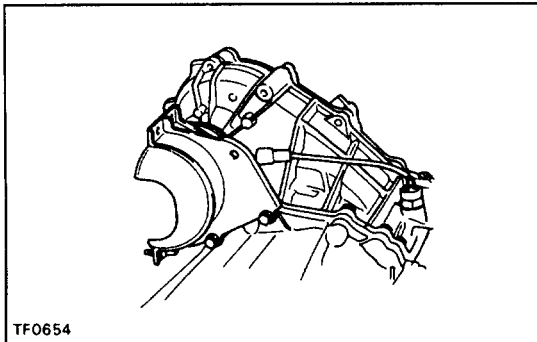
Remove the transmission with the transfer toward the rear of the vehicle.



18. REMOVE ENGINE REAR MOUNTING

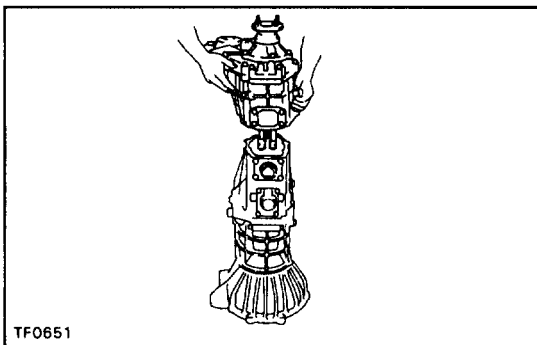


19. Regular Cab w/Planetary Gear Type Transfer: REMOVE DYNAMIC DAMPER



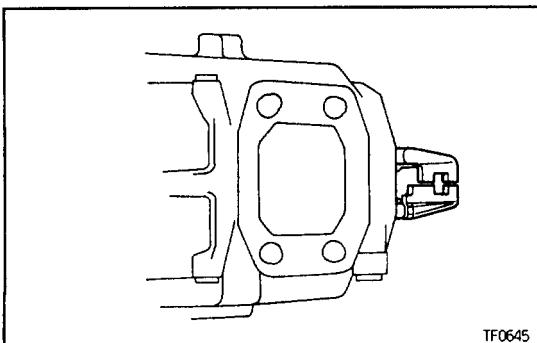
20. REMOVE PROPELLER SHAFT UPPER DUST COVER AND TRANSFER FROM TRANSMISSION

- (a) Remove the dust cover bolt from the bracket.
- (b) Remove the transfer adaptor rear mounting bolts.



- (c) Pull the transfer straight up and remove it from the transmission.

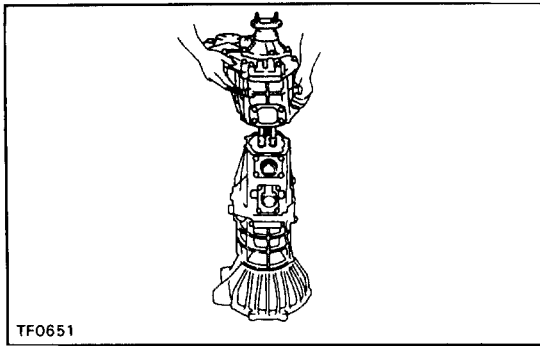
HINT: Take care not to damage the adaptor rear oil seal with the transfer input gear spline.



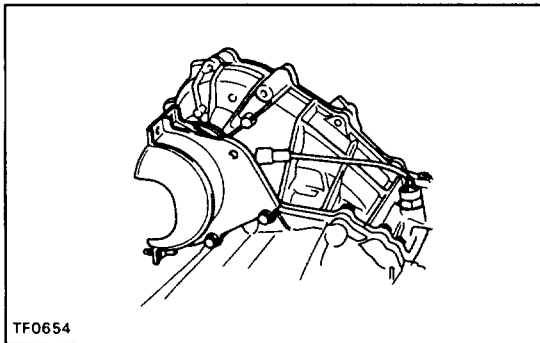
TRANSMISSION INSTALLATION

1. INSTALL TRANSFER AND PROPELLER SHAFT UPPER DUST COVER TO TRANSMISSION WITH NEW GASKET

- (a) Shift the 2 shift fork shafts to the high-4 position.



- (b) Apply MP grease to the adaptor oil seal.
 - (c) Place a new gasket to the transfer adaptor.
 - (d) Install the transfer to the transmission.
- HINT: Take care not to damage the oil seal by the input gear spline when installing the transfer.

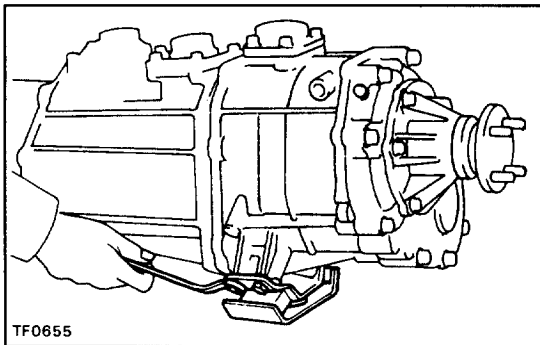


- (e) Install and torque the bolts with the propeller shaft upper dust cover.

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

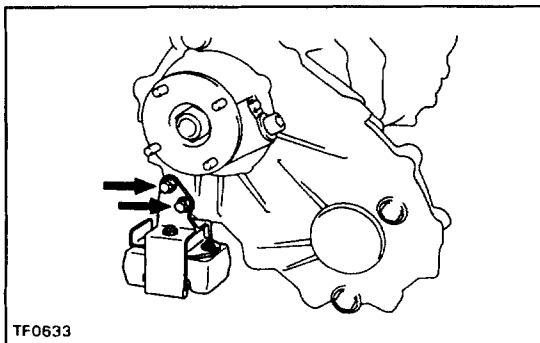
- (f) Install the dust cover bolt to the bracket.

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)



2. INSTALL ENGINE REAR MOUNTING

Torque: 25 N·m (260 kgf·cm, 19 ft·lbf)

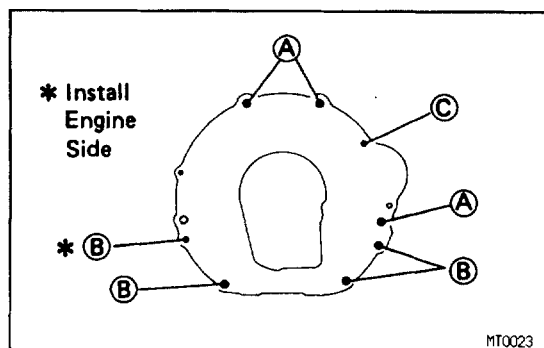


3. Regular Cab w/Planetary Gear Type Transfer: INSTALL DYNAMIC DAMPER

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

4. PLACE TRANSMISSION WITH TRANSFER AT INSTALLATION POSITION

- Support the transmission with a jack.
- Align the input shaft spline with the clutch disc, and push the transmission with the transfer fully into position.



5. INSTALL TRANSMISSION BOLTS, STIFFENER BOLTS AND STARTER

(A) Transmission bolt

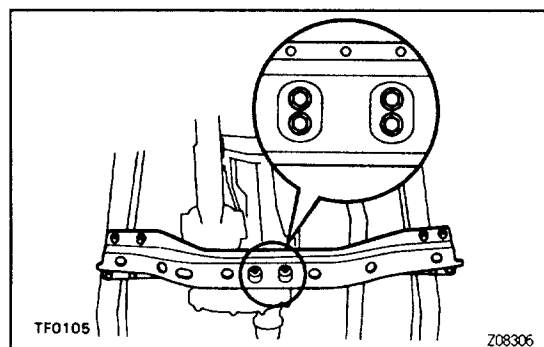
Torque: 72 N·m (730 kgf·cm, 53 ft·lbf)

(B) Stiffener plate bolt

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

(C) Starter bolt

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

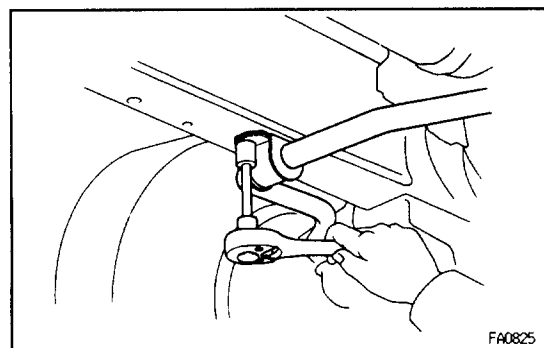


6. INSTALL NO. 2 FRAME CROSSMEMBER

- Raise the transmission slightly with a jack.
- Install the No. 2 frame crossmember to the side frame with the bolts. Torque the bolts.
- Lower the transmission and transfer.
- Install the 4 mounting bolts to the engine rear mounting. Torque the bolts.

Torque: 95 N·m (970 kgf·cm, 70 ft·lbf)

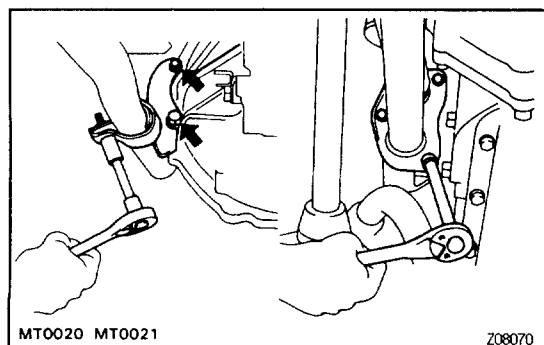
Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)



7. INSTALL STABILIZER BRACKET SET BOLTS

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

8. REMOVE PIECE OF WOOD FROM FRONT AXLE



9. INSTALL EXHAUST PIPE, BRACKET AND CLAMP

- Install the exhaust pipe to the manifold.

Torque: 62 N·m (630 kgf·cm, 46 ft·lbf)

- Install the exhaust pipe bracket to the clutch housing and torque each bolt.

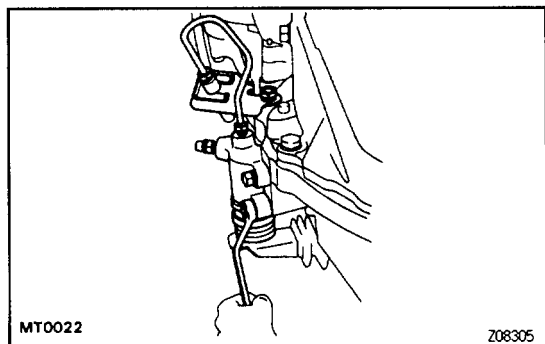
Upper bolt

Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)

Lower bolt

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

- (c) Install the exhaust pipe clamp.
Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)



10. INSTALL STARTER MOUNTING BOLTS, CLUTCH RELEASE CYLINDER AND TUBE BRACKET

- (a) Install the tube bracket and torque the starter lower mounting bolt and nut.
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)
- (b) Install the clutch release cylinder and torque the 2 bolts.
Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)

11. CONNECT VEHICLE SPEED SENSOR, BACK-UP LIGHT SWITCH CONNECTOR AND TRANSFER INDICATOR SWITCH CONNECTOR

12. CONNECT PROPELLER SHAFT

(See page [PR-19](#))

13. FILL TRANSMISSION WITH OIL

Oil grade:

API GL-4

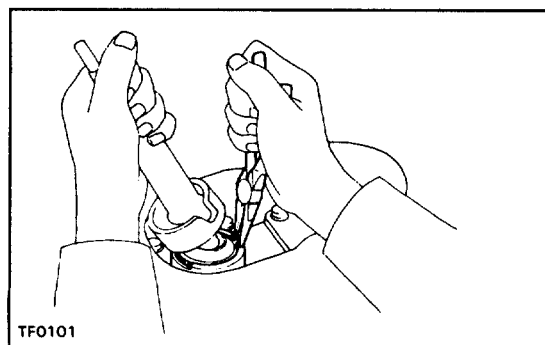
Viscosity:

SAE 75W-90 or 80W-90

Capacity:

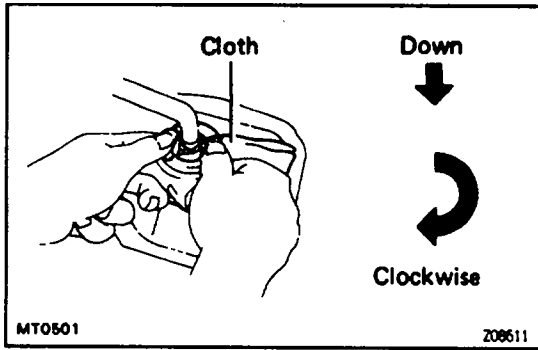
2.9 liters (3.0 US qts, 2.6 Imp. qts)

14. LOWER VEHICLE

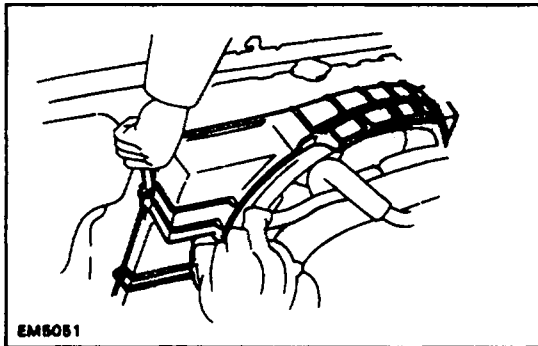


15. INSTALL TRANSFER SHIFT LEVER

- (a) Apply MP grease to the transfer shift lever.
- (b) Using a snap ring expander, install the snap ring.

**16. INSTALL TRANSMISSION SHIFT LEVER**

- (a) Apply MP grease to the transmission shift lever.
- (b) Align the groove of the shift lever cap and the pin part of the case cover.
- (c) Cover the shift lever cap with a cloth.
- (d) Then, pressing down on the shift lever cap, rotate it clockwise to install.

**17. INSTALL FAN SHROUD SET BOLTS**

Install and torque the 4 bolts.

18. CONNECT NEGATIVE (-) TERMINAL CABLE TO BATTERY**19. PERFORM ROAD TEST**

Check for abnormal noise and smooth operation.