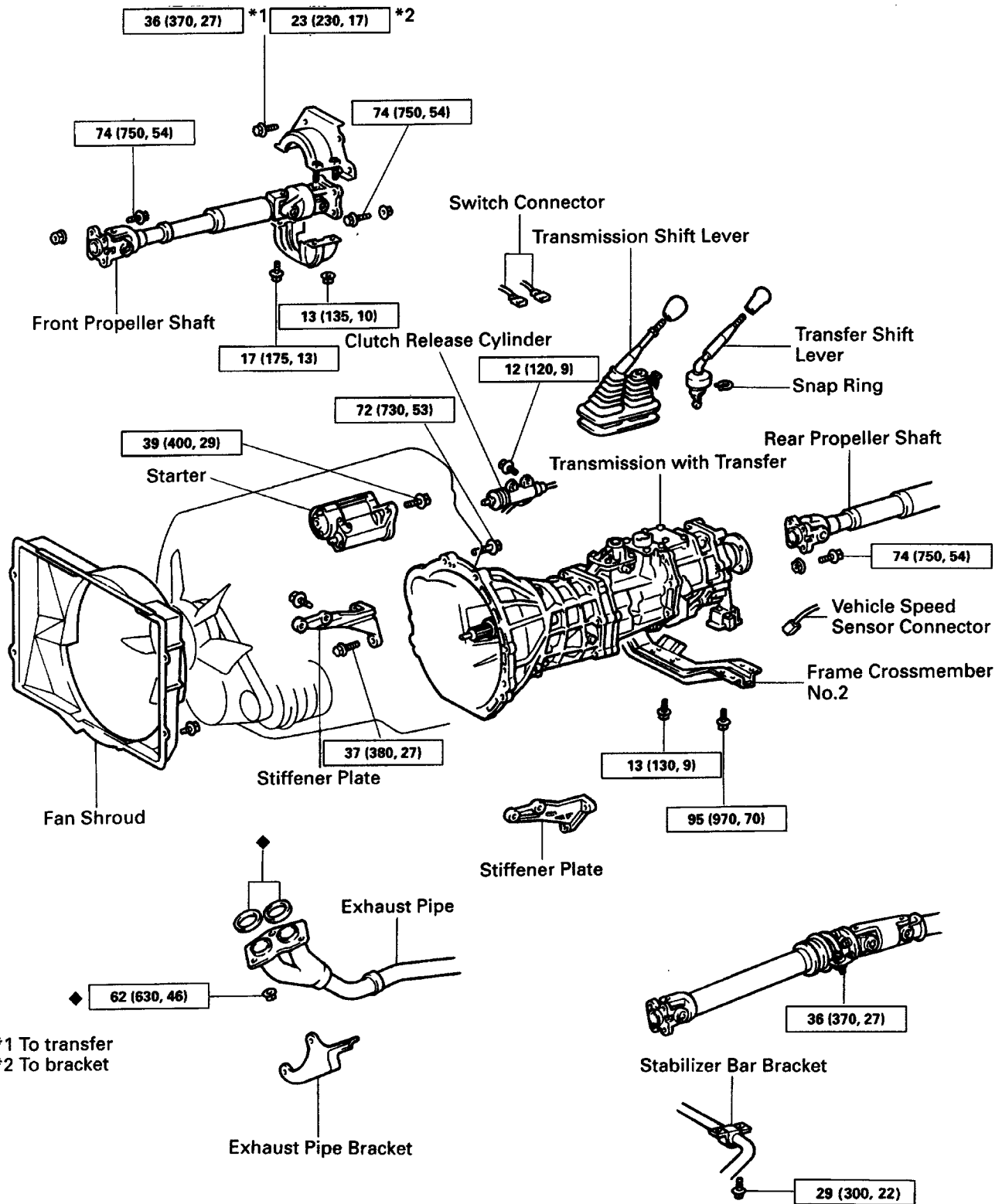


ASSEMBLY REMOVAL AND INSTALLATION

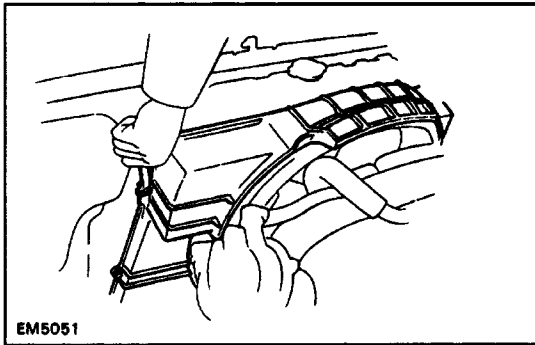


Q03787

Z14378

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

◆ Non-reusable part

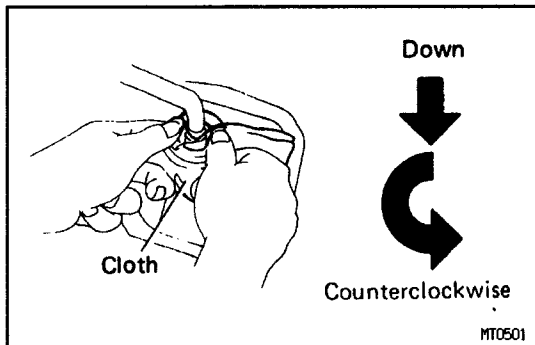


TRANSMISSION REMOVAL

1. DISCONNECT NEGATIVE (–) TERMINAL CABLE FROM BATTERY

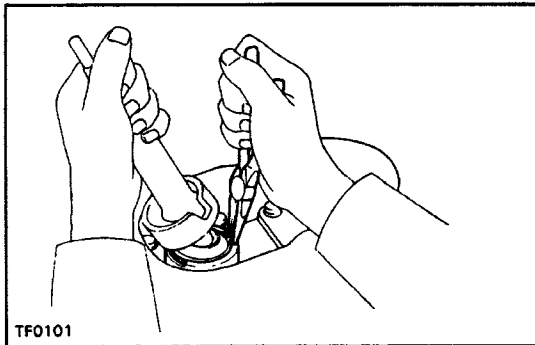
2. REMOVE FAN SHROUD SET BOLTS

Remove the 4 bolts.



3. REMOVE TRANSMISSION SHIFT LEVER FROM INSIDE OF VEHICLE

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

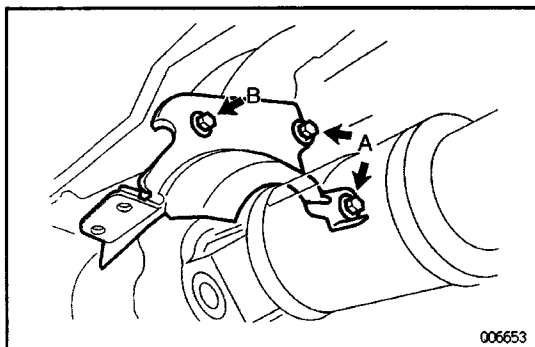


4. REMOVE TRANSFER SHIFT LEVER FROM INSIDE OF VEHICLE

Using pliers, 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.



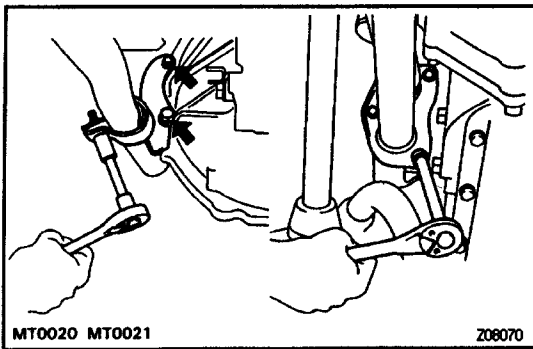
6. REMOVE PROPELLER SHAFT DUST COVER SUB-ASSEMBLY

Remove the 3 bolts and cover.

7. DISCONNECT FRONT AND REAR PROPELLER SHAFT

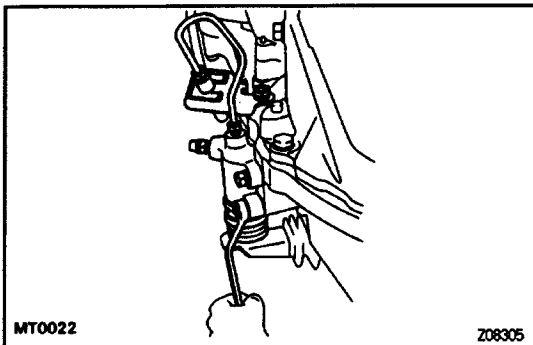
(See page [PR-7](#))

8. DISCONNECT VEHICLE SPEED SENSOR, BACK-UP LIGHT SWITCH CONNECTOR AND TRANSFER INDICATOR SWITCH CONNECTOR



9. REMOVE EXHAUST PIPE CLAMP AND PIPE

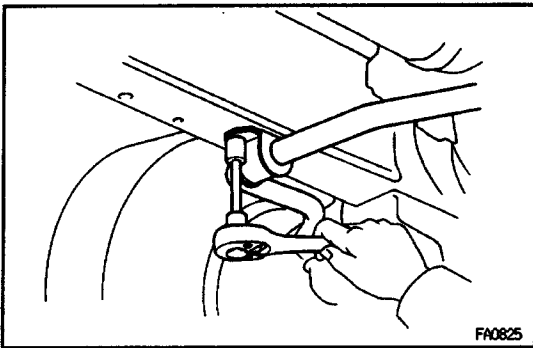
- Remove the exhaust pipe clamp.
- Remove the 2 bolts and exhaust pipe bracket from the clutch housing.
- Remove the 3 nuts, exhaust pipe and 2 gaskets from the exhaust manifold.



10. REMOVE CLUTCH RELEASE CYLINDER AND LINE BRACKET

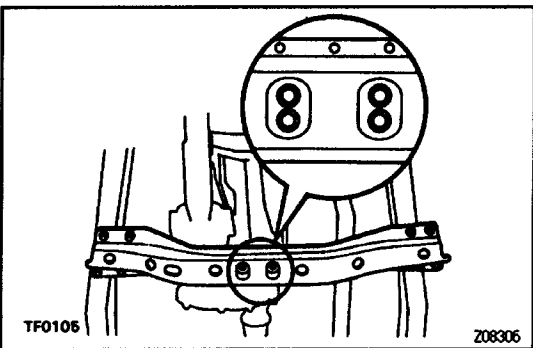
Remove the 2 bolts and lay the cylinder alongside the engine.

HINT: Do not disconnect the clutch line.



11. REMOVE STABILIZER BAR BRACKET SET BOLTS

Remove the 4 bolts.



12. REMOVE NO. 2 FRAME CROSSMEMBER FROM SIDE FRAME

- Remove the 4 bolts from the engine rear mounting.
- Using a transmission jack, support the transmission.
- Remove the 8 bolts and No.2 frame crossmember from the side frame.

13. PLACE PIECE OF WOOD BETWEEN ENGINE OIL PAN AND FRONT AXLE

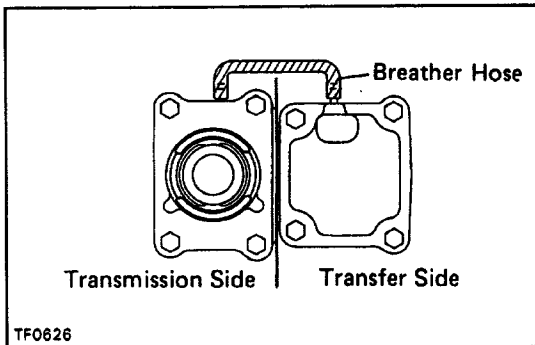
14. LOWER TRANSMISSION WITH TRANSFER

15. REMOVE STARTER

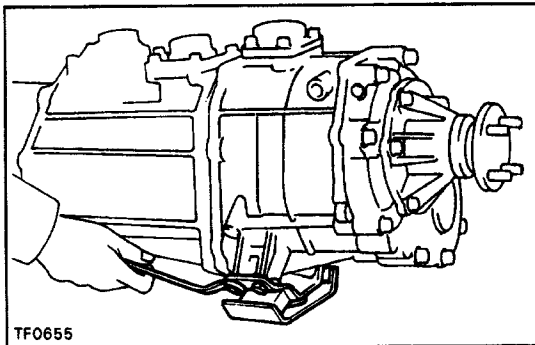
- Remove the 2 bolts and starter.
- Lay the starter alongside the engine.

16. REMOVE EXHAUST PIPE BRACKET AND STIFF-ENER PLATE BOLTS**17. REMOVE REMAINING TRANSMISSION BOLTS****18. REMOVE TRANSMISSION WITH TRANSFER**

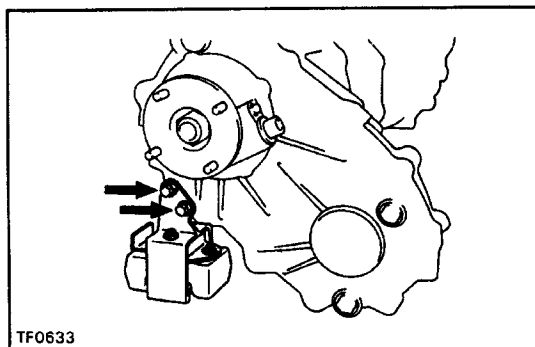
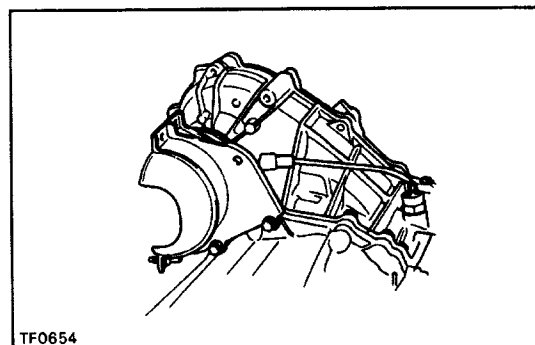
Remove the transmission with the transfer toward the rear of the vehicle.

**19. REMOVE BREATHER HOSE**

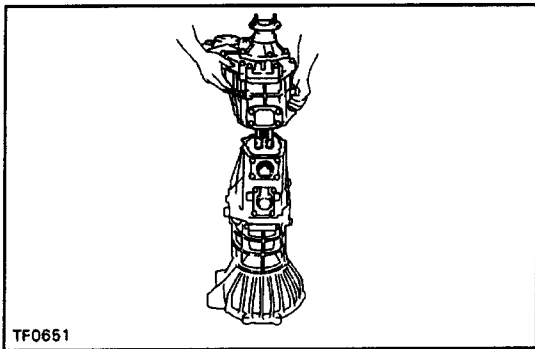
Disconnect the breather hose from the transfer upper cover and transmission control retainer.

**20. REMOVE ENGINE REAR MOUNTING**

Remove the 4 bolts and engine rear mounting from the transfer.

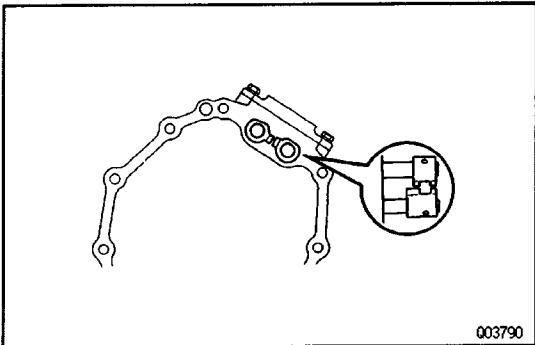
**21. Regular Cab w/Planetary Gear Type Transfer:
REMOVE DYNAMIC DAMPER****22. REMOVE PROPELLER SHAFT UPPER DUST COVER
AND TRANSFER FROM TRANSMISSION**

- (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.

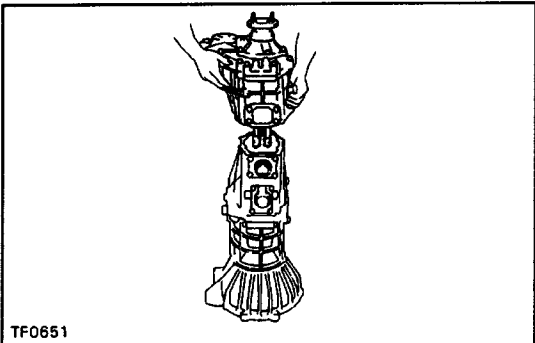
HINT: Take care not to damage the adaptor rear oil seal with the transfer input gear spline.



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.

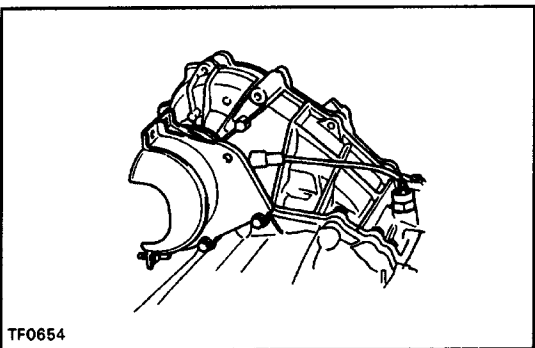


(b) Apply MP grease to the adaptor oil seal.

(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.

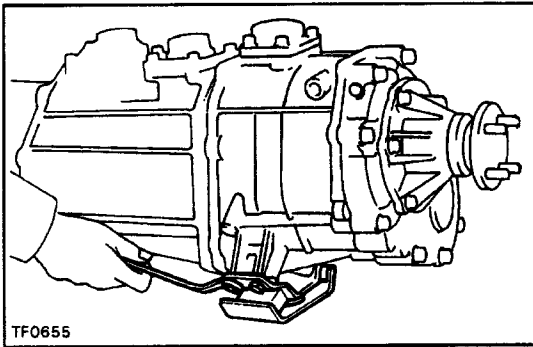


(e) Install and torque the bolts with the propeller shaft upper dust cover.

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

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

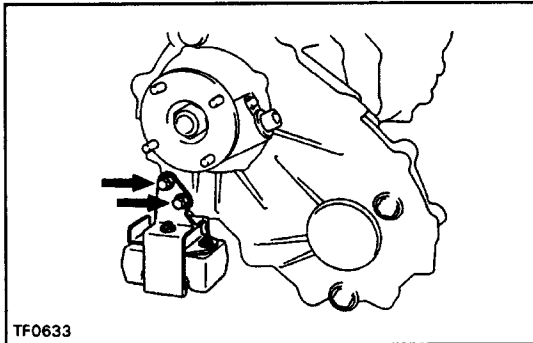
Torque: 23 N–m (230 kgf–cm, 17 ft–lbf)



2. INSTALL ENGINE REAR MOUNTING

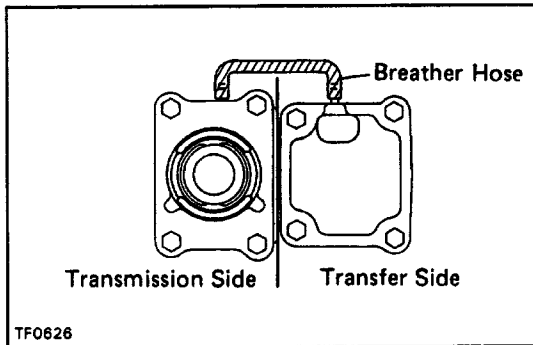
Install the engine rear mounting and torque the 4 bolts.

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. INSTALL BREATHER HOSE

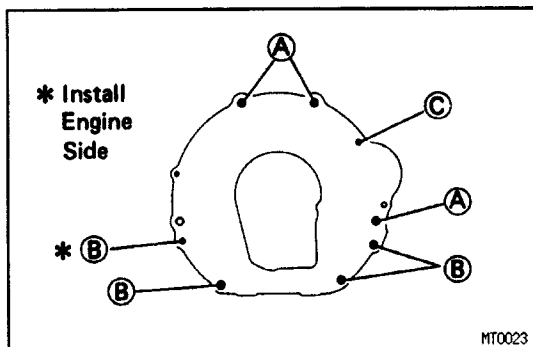
Connect the breather hose for the transfer upper cover and transmission control retainer, as shown.

Hose depth:

13 mm (0.51 in.)

5. 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.



6. INSTALL TRANSMISSION AND STIFFENER BOLTS

Torque:

(A) Transmission bolt:

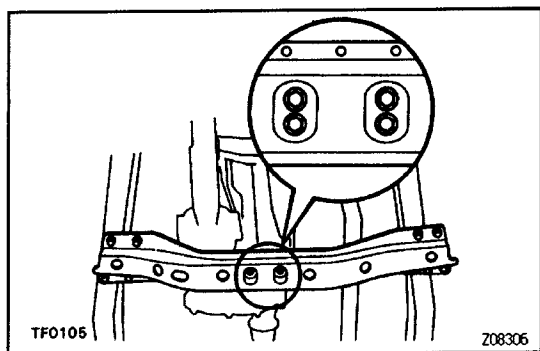
72 N-m (730 kgf-cm, 53 ft-lbf)

(B) Stiffener plate bolt:

37 N-m (380 kgf-cm, 27 ft-lbf)

(C) Starter bolt:

39 N-m (400 kgf-cm, 29 ft-lbf)



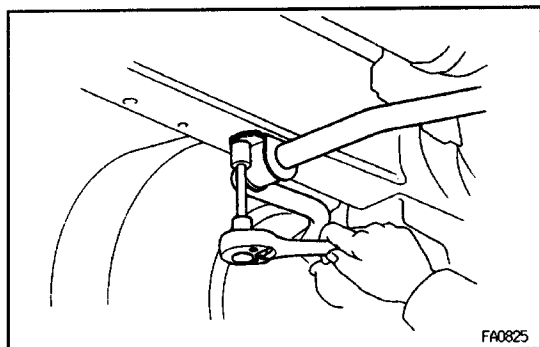
7. INSTALL NO. 2 FRAME CROSSMEMBER

- (a) Raise the transmission slightly with a jack.
- (b) Install the No. 2 frame crossmember to the side frame and torque the 8 bolts.

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

- (c) Lower the transmission and transfer.
- (d) Install the 4 mounting bolts to the engine rear mounting. Torque the bolts.

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

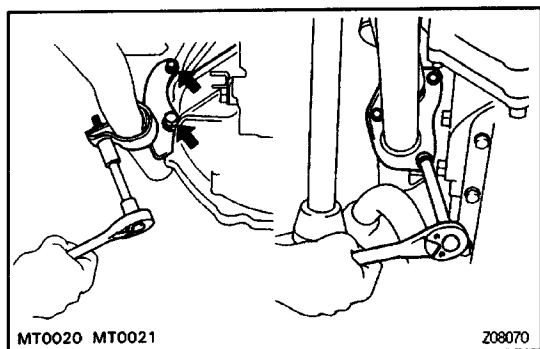


8. INSTALL STABILIZER BAR BRACKET SET BOLTS

Install and torque the 4 bolts.

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

9. REMOVE PIECE OF WOOD FROM FRONT AXLE AND ENGINE OIL PAN



10. INSTALL EXHAUST PIPE, BRACKET AND CLAMP

- (a) Install 2 new gaskets and the exhaust pipe to the manifold. Torque 3 new nuts.

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

- (b) Install the pipe bracket to the clutch housing and torque the 2 bolts.

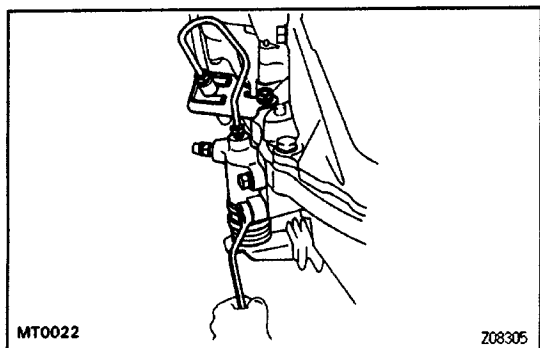
Torque:

Upper bolt: 19 N-m (195 kgf-cm, 14 ft-lbf)

Lower bolt: 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)



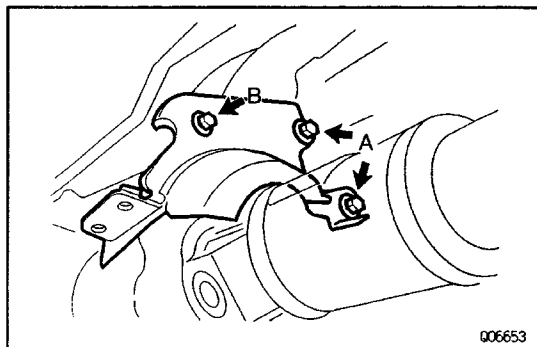
11. INSTALL STARTER MOUNTING BOLTS, CLUTCH RELEASE CYLINDER AND LINE BRACKET

- (a) Install the line 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)



12. INSTALL PROPELLER SHAFT DUST COVER SUB-ASSEMBLY

- Install the cover.
- Install and torque the 3 bolts.

Torque:

Bolt A: 36 N-m (370 kgf-cm, 27 ft-lbf)

Bolt B: 23 N-m (230 kgf-cm, 17 ft-lbf)

13. CONNECT VEHICLE SPEED SENSOR, BACK – UP LIGHT SWITCH CONNECTOR AND TRANSFER INDICATOR SWITCH CONNECTOR

14. CONNECT FRONT AND REAR PROPELLER SHAFT (See page [PR-16](#))

15. FILL TRANSMISSION WITH GEAR OIL

Oil grade:

API GL-3, GL-4 or GL-5

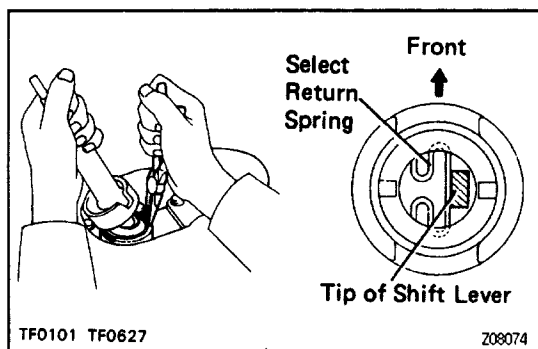
Viscosity:

SAE 75W-90

Capacity:

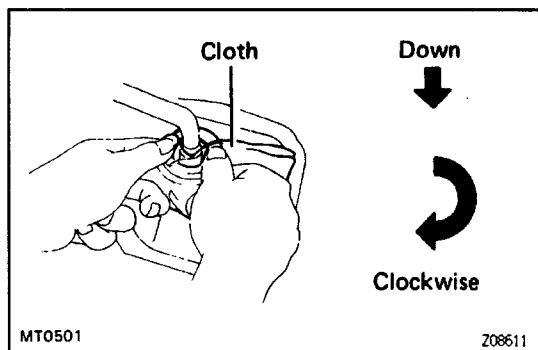
3.9 liters (4.1 US qts, 3.4 Imp. qts)

16. LOWER VEHICLE



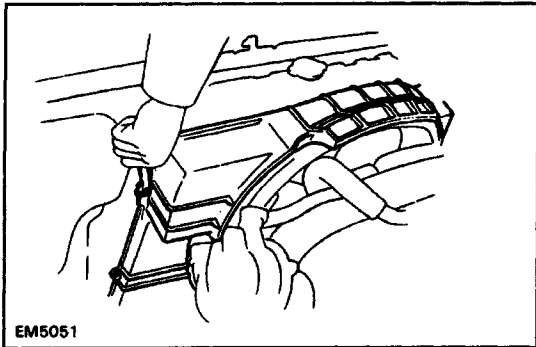
97. INSTALL TRANSFER SHIFT LEVER

- Apply MP grease to the transfer shift lever.
- Install the shift lever, as shown.
- Using pliers, install the snap ring.



18. INSTALL TRANSMISSION SHIFT LEVER

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

**19. INSTALL FAN SHROUD SET BOLTS**

Install and torque the 4 bolts.

20. CONNECT NEGATIVE (–) TERMINAL CABLE TO BATTERY**21. PERFORM ROAD TEST**

Check for abnormal noises and smooth shifting.