



Transmission

REMOVAL & INSTALLATION

1. Disconnect the negative battery cable.
2. If necessary, disconnect the accelerator linkage.
3. Raise the front of the truck and support it with jackstands.
4. Disconnect the exhaust pipe from the manifold and bracket, if necessary, to gain clearance for transmission removal.
5. Tag and disconnect any switches that are connected to the transmission case (back-up, neutral, top gear or overdrive).
6. Disconnect the speedometer cable where it attaches to the transmission.
7. Remove the driveshaft(s). Don't forget to plug the opening in the rear extension so that oil won't flow out.
8. Remove the clutch slave cylinder.
9. Remove the rubber boot and console box (if so equipped). Place the shift lever in neutral, remove the circlip and then remove the shifter. On 4wd models remove the transfer case shift lever also.
10. Support the engine by placing a jack under the oil pan with a wooden block used between the jack and the pan.

NOTE: Never position the jack directly under the oil pan drain plug.

11. Support the transmission with a transmission jack.
12. Loosen the rear engine mount securing nuts temporarily and then remove the crossmember. On 4wd models, remove the torsion bar springs.

Fig. 1: Remove the torsion spring

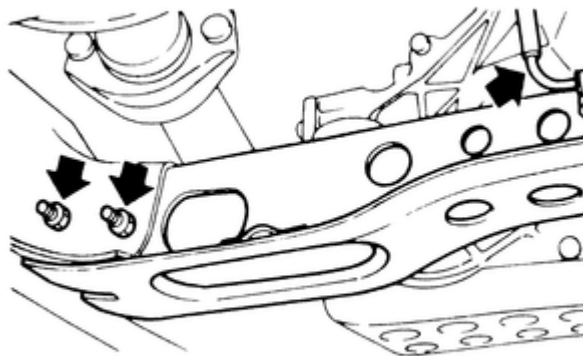


Fig. 2: Transmission-to-engine bolt locations —
4-cylinder engines

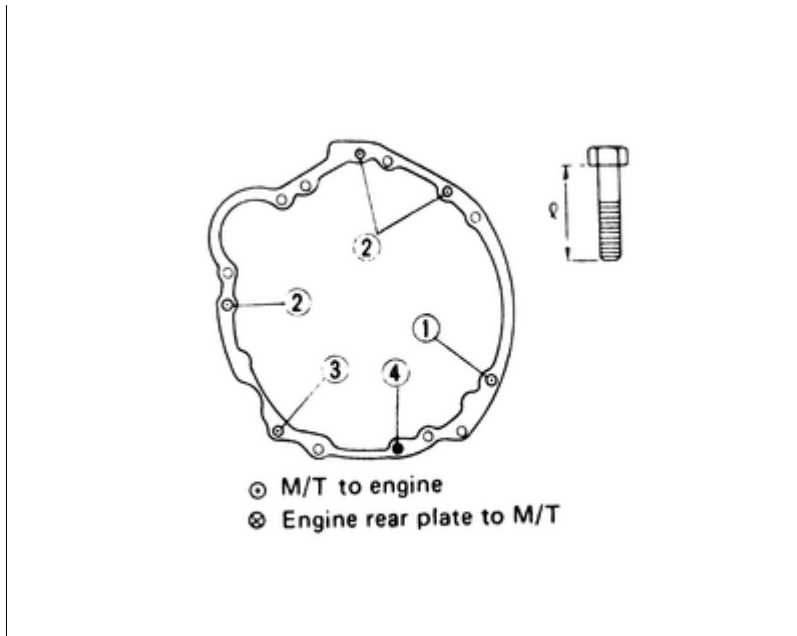


Fig. 3: Transmission-to-engine bolt locations — 6-cylinder engines

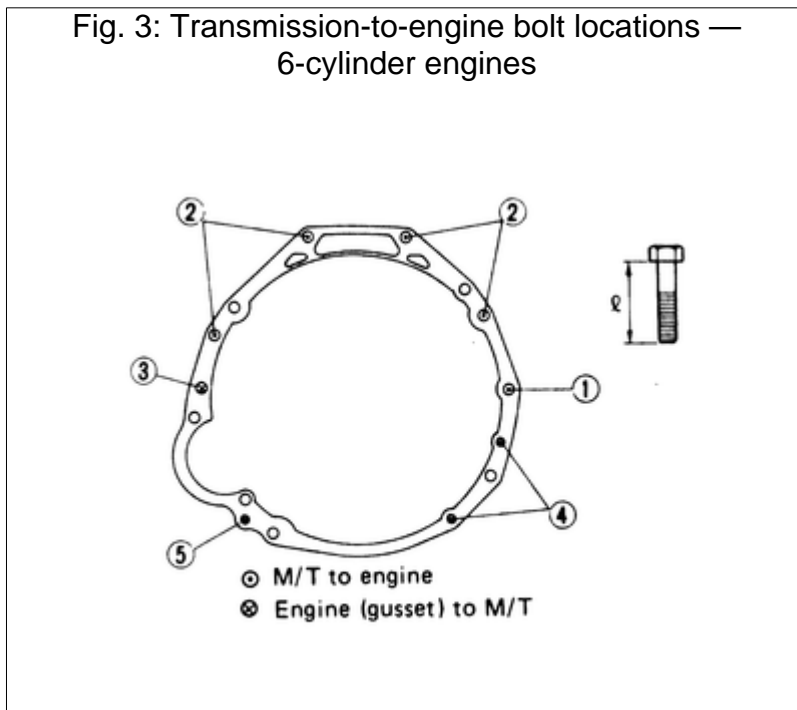


Fig. 4: Sealant application — 4-cylinder engines

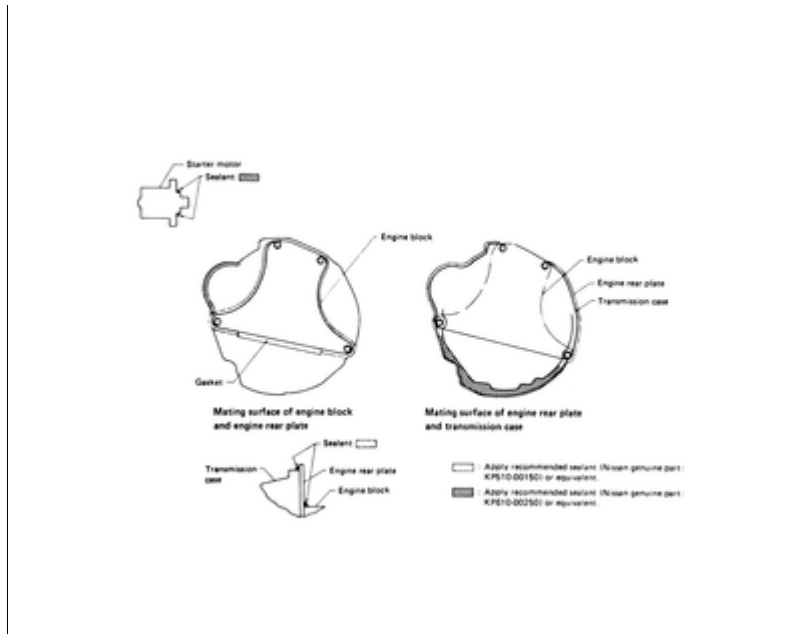


Fig. 5: Sealant application — 6-cylinder engines

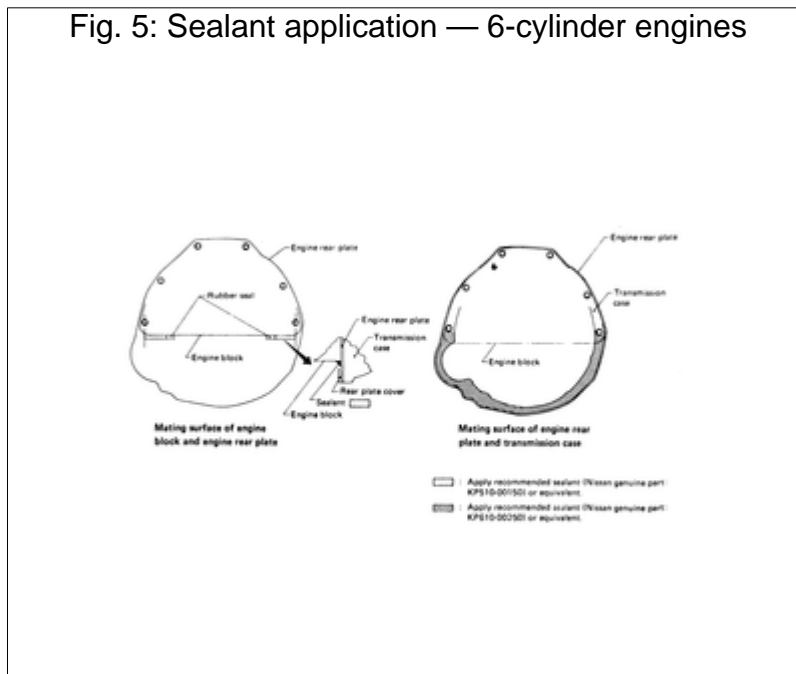


Fig. 6: Remove the bolts from the transmission gussets or brackets before removal of the assembly



Fig. 7: View of engine-to-transmission supporting bracket — note location for proper installation

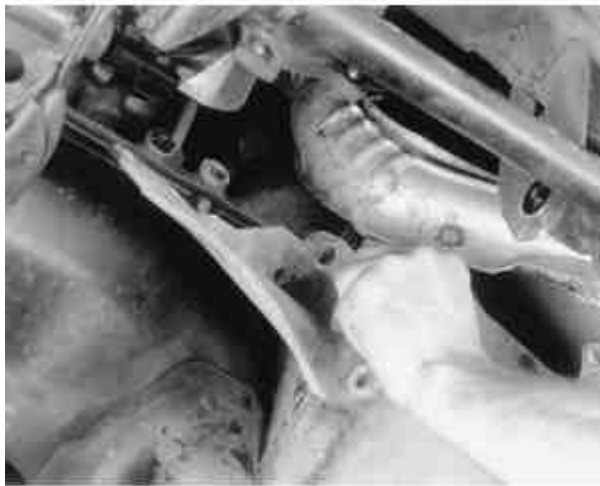


Fig. 8: Remove the lower mounting bolt for the transfer case shifter lever

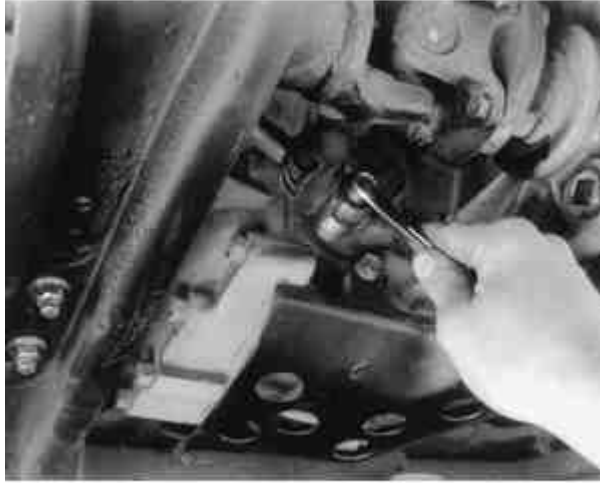


Fig. 9: After removing the hold-down bolt remove, the transfer case lever



Fig. 10: Remove the transmission retaining bolts with box-type wrench

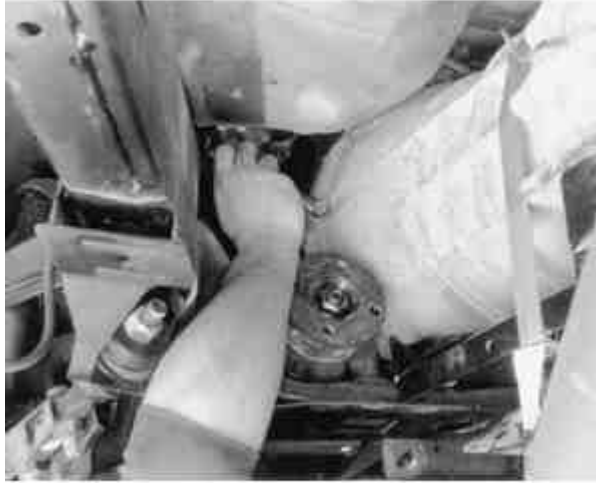


Fig. 11: Remove the clutch slave cylinder from the transmission assembly



13. Lower the rear of the engine slightly to allow additional clearance.
14. Remove the starter electrical connections and the starter motor.
15. Remove the transmission-to-engine mounting bolts, lower the transmission (or transmission and transfer case assembly) and remove it toward the rear.

To install:

16. Install the transmission in the correct position. Tighten all the transmission-to-engine mounting bolts.
 - A. On Z24i and KA24E engines, tighten the 4 longest bolts (65mm and 60mm) to 29–36 ft. lbs. (39–49 Nm); tighten the 2 shortest bolts (25mm and 16mm) to 14–18 ft. lbs. (19–25 Nm).
 - B. On VG30i and VG30E engines, tighten the 5 longest bolts (65mm and 60mm) to 29–36 ft. lbs. (39–49 Nm); tighten the 4 shortest bolts (55mm, 30mm and 16mm) to 22–29 ft. lbs. (29–39 Nm).
17. Install the starter motor and electrical connections.
18. Install the crossmember assembly and tighten all retaining nuts to crossmember and rear engine mounts. Install the torsion bars on 4wd models.
19. Install the shifter(s). Install the rubber boot and console box if so equipped.
20. Install the clutch slave cylinder.

21. Install the driveshaft(s) and connect the speedometer cable.
22. Connect any switches that are connected to the transmission case (back-up, neutral, transfer switch).
23. Connect the exhaust pipe to the manifold and bracket if necessary.
24. Connect the accelerator linkage.
25. Connect the negative battery cable. Bleed the clutch hydraulic system if necessary. Road test the vehicle for proper operation.

