

# Technical Service Bulletin

**NUMBER:** 09-01-99 Rev. A

**GROUP:** Engine

**DATE:** May 21, 1999

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**THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 09-01-99, DATED MARCH, 19, 1999, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **\*\*ASTERISKS\*\*** AND INCLUDE LOWER TORQUE STRUT ADJUSTMENT SPECIFICATION.**

***SUBJECT:***

Shake In Steering Wheel And/Or Seat At Idle

***OVERVIEW:***

This bulletin involves replacing the right engine mount with a revised elastic material and inspecting the position of the two radiator upper mounting brackets and correcting as needed.

***MODELS:***

2000 (PL) Neon

***SYMPTOM/CONDITION:***

A shake in the steering wheel and/or seat may be felt at idle.

***DIAGNOSIS:***

Start the vehicle and allow it to idle. If the shake is experienced in either the steering wheel or seat, perform the Repair Procedure.

***PARTS REQUIRED:***

1 04668192AC Engine Mount (Right)

***REPAIR PROCEDURE:***

1. Remove the accessory drive belts using the procedure in the 2000 Neon Service Manual (publication No. 81-270-0025) 7-24.
2. Raise the vehicle on a suitable hoist.
3. Remove the right side splash shield.
4. Remove the crankshaft damper.
5. Remove the bolts attaching the lower strut to crossmember and strut bracket (Figure 1).
6. Remove the lower torque strut.
7. Lower the vehicle.
8. Remove the bolts attaching the upper torque strut to the shock tower bracket and engine mount bracket (Figure 1).
9. Remove the upper torque strut.

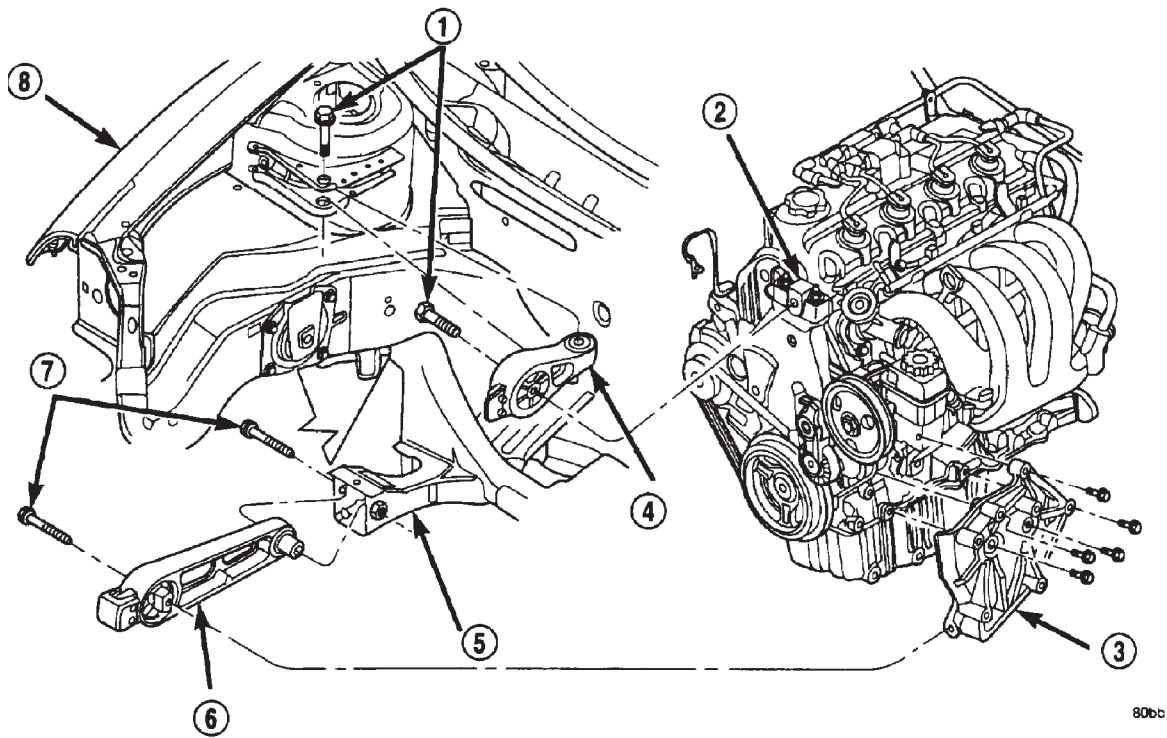


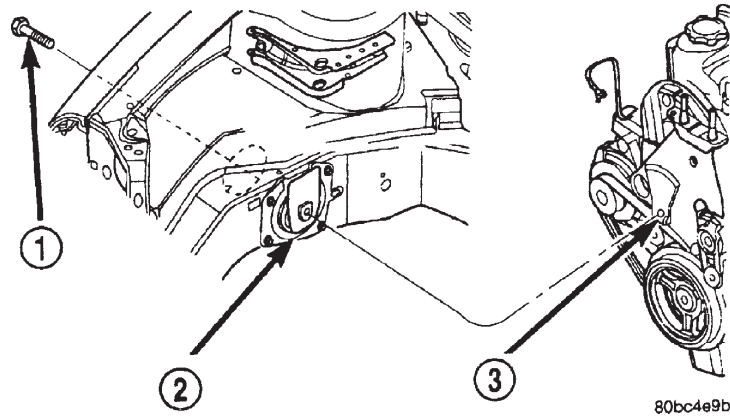
FIGURE 1

1-	UPPER TORQUE STRUT BOLTS	5-	CROSSMEMBER
2-	ENGINE MOUNT BRACKET	6-	LOWER TORQUE STRUT
3-	TORQUE STRUT BRACKET	7-	LOWER TORQUE STRUT BOLTS
4-	UPPER TORQUE STRUT	8-	RIGHT FENDER

10. Remove the ground strap and power steering hose support clip from the engine mount bracket.
11. Remove the power steering pump and set aside.
12. Support engine with a suitable jack.
13. Remove the bolt access cover and bolt attaching the right engine mount to mount bracket (Figure 2).
14. To remove the engine mount bracket, remove the three bolts attaching the bracket to the front of the engine block.

**NOTE: THE ENGINE MOUNT BRACKET REMOVAL REQUIRES RAISING THE ENGINE TO PROVIDE CLEARANCE BETWEEN THE FRAME RAIL AND ENGINE.**

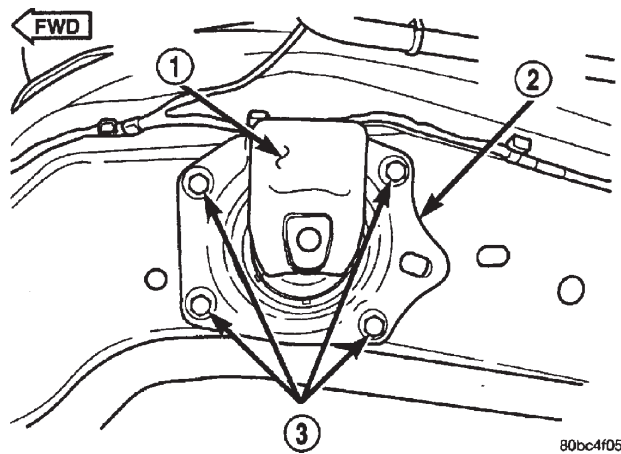
**NOTE: THE RIGHT ENGINE MOUNT ATTACHING HOLES ARE SLIGHTLY OVERSIZE TO COMPENSATE FOR MANUFACTURING TOLERANCES. THE MOUNT HAS BEEN SET AT THE MANUFACTURING PLANT FOR PROPER POWERTRAIN ALIGNMENT. THEREFORE, IT IS NECESSARY TO MARK THE POSITION OF THE MOUNT BEFORE THE ATTACHING BOLTS ARE LOOSENED.**



**FIGURE 2**

1-	ENGINE MOUNT TO BRACKET BOLT
2-	RIGHT ENGINE MOUNT
3-	ENGINE MOUNT BRACKET

- 15. Using a permanent ink marker or equivalent, mark the position of engine mount to the body frame rail.
- 16. Remove the bolts attaching mount to the body (Figure 3).



**FIGURE 3**

FWD	FORWARD
1-	SNUBBER PAD
2-	RIGHT ENGINE MOUNT
3-	ENGINE MOUNT BOLTS

17. Remove mount between engine and body frame rail. Mount removal may require engine position to be raised or lowered to allow mount removal clearance.
18. Position new mount (P/N 04668192AC) into the original position of discarded mount on body frame rail.

**CAUTION: THE ENGINE MOUNT MUST BE INSTALLED IN THE ORIGINAL POSITION ON THE BODY FRAME RAIL.**

19. Ensure the new mount maintains the originally marked position and install mount bolts. Torque the bolts to 28 N·m (250 in.lbs.) (Figure 3).
20. Install the engine mount bracket and torque bolts to 61 N·m (45 ft.lbs).
21. Install bolt attaching the right engine mount to bracket and torque to 118 N·m (87 ft.lbs) (Figure 2).
22. Remove the support from under the engine.
23. Install the power steering pump.
24. Install the power steering hose support clip and ground strap.
25. Raise the vehicle on a suitable hoist.
26. Position the lower torque strut into mounting location.
27. Install the mounting bolts.
28. Install the crankshaft damper.
29. Install the generator belt.
30. Install the right side splash shield.
31. Lower the vehicle.
32. Position the upper torque strut into mounting locations.
33. Install the mounting bolts.

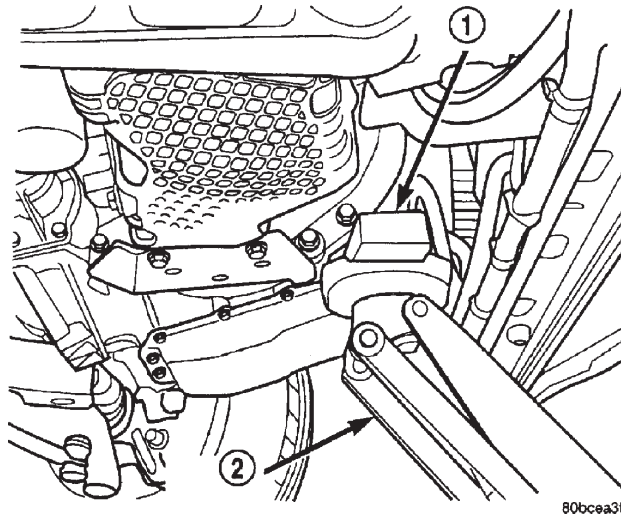
**NOTE: THE UPPER AND LOWER TORQUE STRUTS NEED TO BE ADJUSTED TOGETHER TO ASSURE PROPER ENGINE POSITIONING AND ENGINE MOUNT LOADING. WHENEVER A TORQUE STRUT BOLT(S) IS LOOSENED THE TORQUE STRUT ADJUSTMENT MUST BE PERFORMED.**

34. Loosen the upper and lower torque strut attaching bolt at the suspension crossmember and shock tower bracket.
35. The engine position may now be adjusted by positioning a suitable floor jack on the forward edge of the transmission bell housing (Figure 4).

**NOTE: THE FLOOR JACK MUST BE POSITIONED AS SHOWN IN FIGURE 4 TO PREVENT MINIMAL UPWARD LIFTING OF THE ENGINE.**

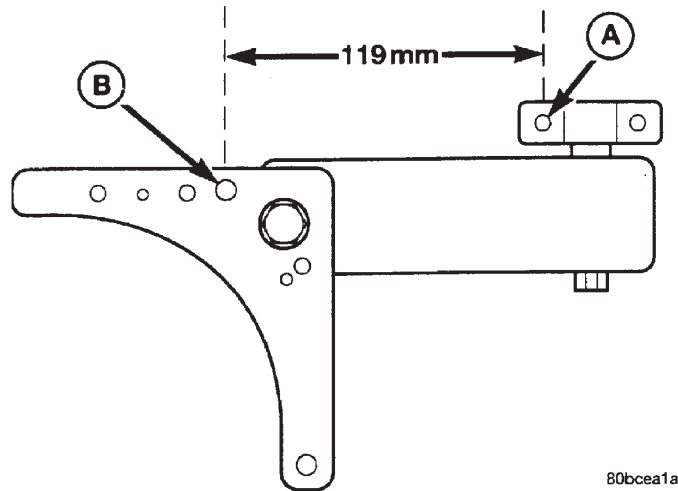
36. **\*\*Carefully apply upward force, allowing the upper engine to rotate rearward until the distance between the center of the rearmost attaching stud on the engine mount bracket (point "A") and the center of the hole for the washer hose clip on the shock tower bracket (point "B") is 119 mm (4.70 in.) (Figure 5). Torque the upper strut bolts to 118 N·m (87 ft. lbs.).\*\***

- 37. \*\*Adjust the lower torque strut to allow a distance of 262 mm (10.30 in.) from the center point of the bolt in the torque strut bracket (point "A") and the center of the bolt in the crossmember (point "B") (Figure 6). Torque the bolts to 118 N·m (87 ft. lbs.).\*\*
- 38. Remove the floor jack.

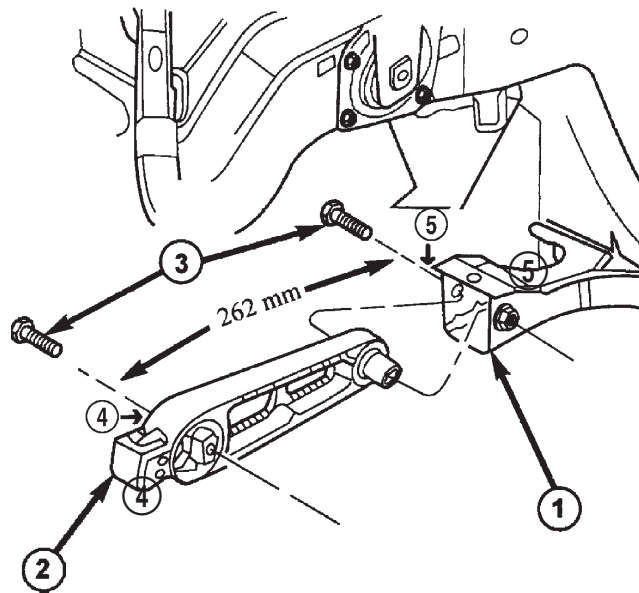


**FIGURE 4**

1-	WOOD BLOCK
2-	FLOOR JACK

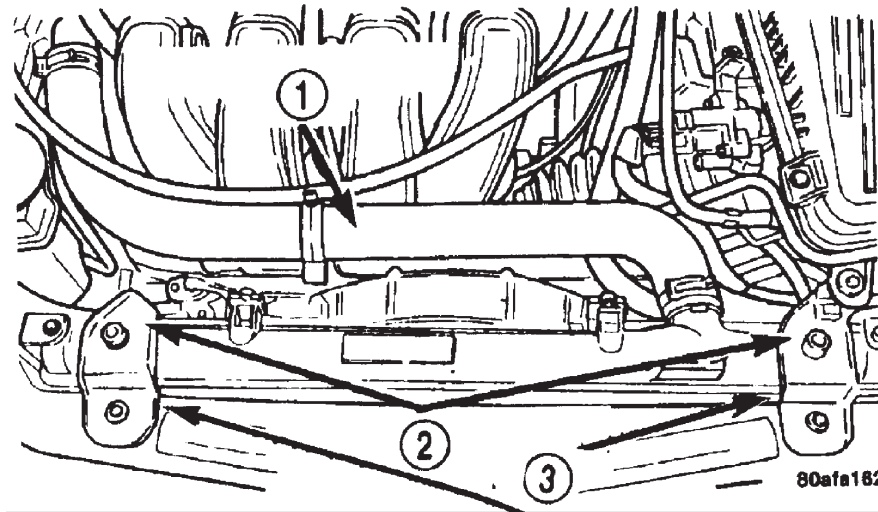


**FIGURE 5**

**FIGURE 6**

1-	CROSSMEMBER
2-	LOWER TORQUE STRUT
3-	LOWER TORQUE STRUT BOLTS
4-	POINT A
5-	POINT B

39. Install the accessory drive belts.
40. Attempt to move the radiator in the upper radiator mounting brackets. If the radiator moves freely in both brackets, no further action is required. If the radiator does not move freely or appears to be bound, proceed to step 41.
41. Remove the right and left upper radiator mounting bracket bolts (Figure 7).
42. Reposition the right and left upper radiator mounting brackets so they are perpendicular to the upper radiator crossmember (Figure 7).
43. Install the right and left mounting bolts and torque to 12.4 N·m (110 in. lbs.).
44. Check radiator to insure free movement in both the left and right upper radiator mounting brackets.



**FIGURE 7**

1-	UPPER RADIATOR HOSE
2-	UPPER RADIATOR MOUNTS
3-	UPPER RADIATOR MOUNT BRACKETS Shown Perpendicular To Upper Crossmember

**POLICY:** Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No: 09-40-20-94 ..... 1.8 Hrs.

**FAILURE CODE:** P8 — New Part