

PRODEMAND

YMMS: 2007 Honda Odyssey EX-L
Engine: 3.5L Eng
VIN: 5FNRL38757B413870

Feb 22, 2022
License:
Odometer:

TRANSMISSION REMOVAL

Special Tools Required

- Engine Support Hanger, A and Reds AAR-T1256*
- Engine Hanger Balance Bar VSB02C000019*
- Engine Hanger Adapter VSB02C000022*
- Subframe Adapter VSB02C000016*
- 2008 V6 Attachment Arm SIL02C000033*

*: Available through the Honda Tool and Equipment Program 888-424-6857.

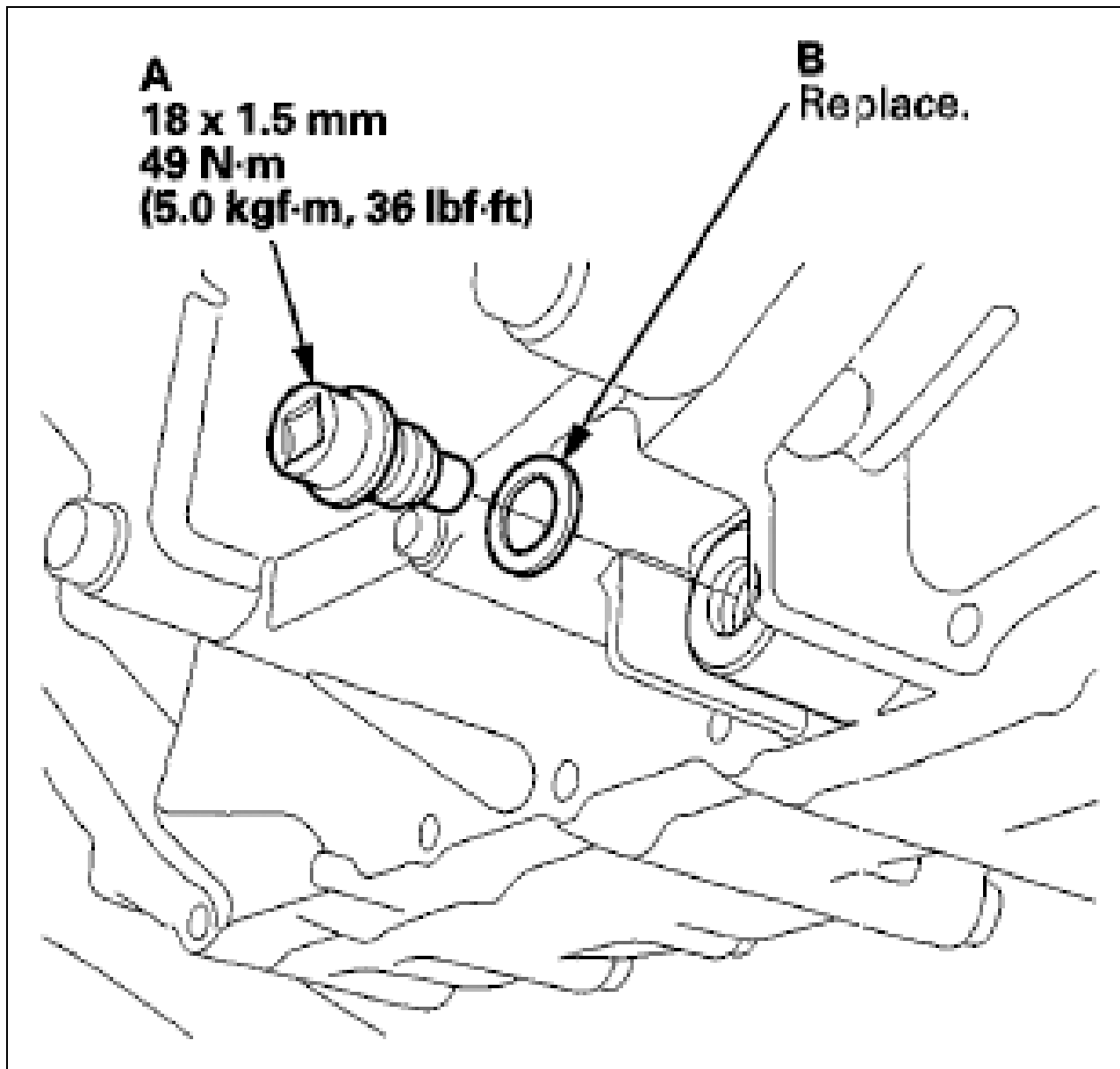
NOTE:

- *Use fender covers to avoid damaging painted surfaces.*
- *Special tool Reds engine support hanger AAR-T1256 must be used with the side engine mount installed.*

1. Raise the vehicle on a lift, and make sure it is securely supported.
2. Remove the front inner fender and the splash shield.
3. Remove the front wheels.

4. Remove the drain plug (A), and drain the automatic transmission fluid (ATF).

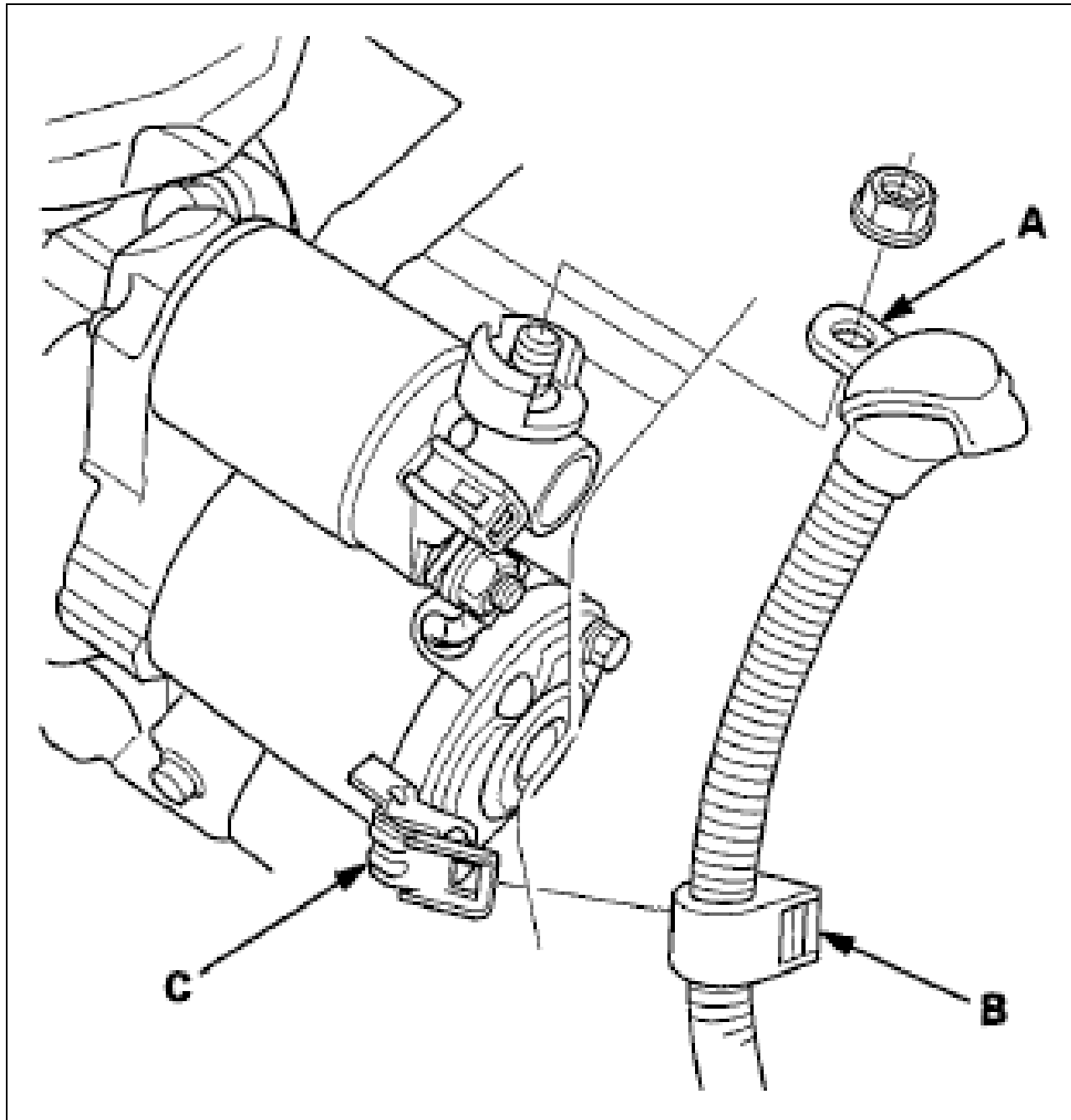
Fig 1: Drain Plug And Automatic Transmission Fluid With Torque Specifications



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5. Reinstall the drain plug with a new sealing washer (B).
6. Remove the front grille cover.
7. Do the battery removal procedure (see BATTERY REMOVAL AND INSTALLATION).
8. Remove the engine cover.
9. Remove the air cleaner assembly and the intake air duct.
10. Loosen the two bolts securing the battery base from the under the vehicle, and remove the two bolts securing the battery base in the engine compartment, then remove the battery base.
11. Remove the dipstick.
12. Except '08-10 models with the J35A7 engine: Disconnect the positive starter cable (A) from the starter, then remove the harness clamp (B) from the clamp bracket (C).

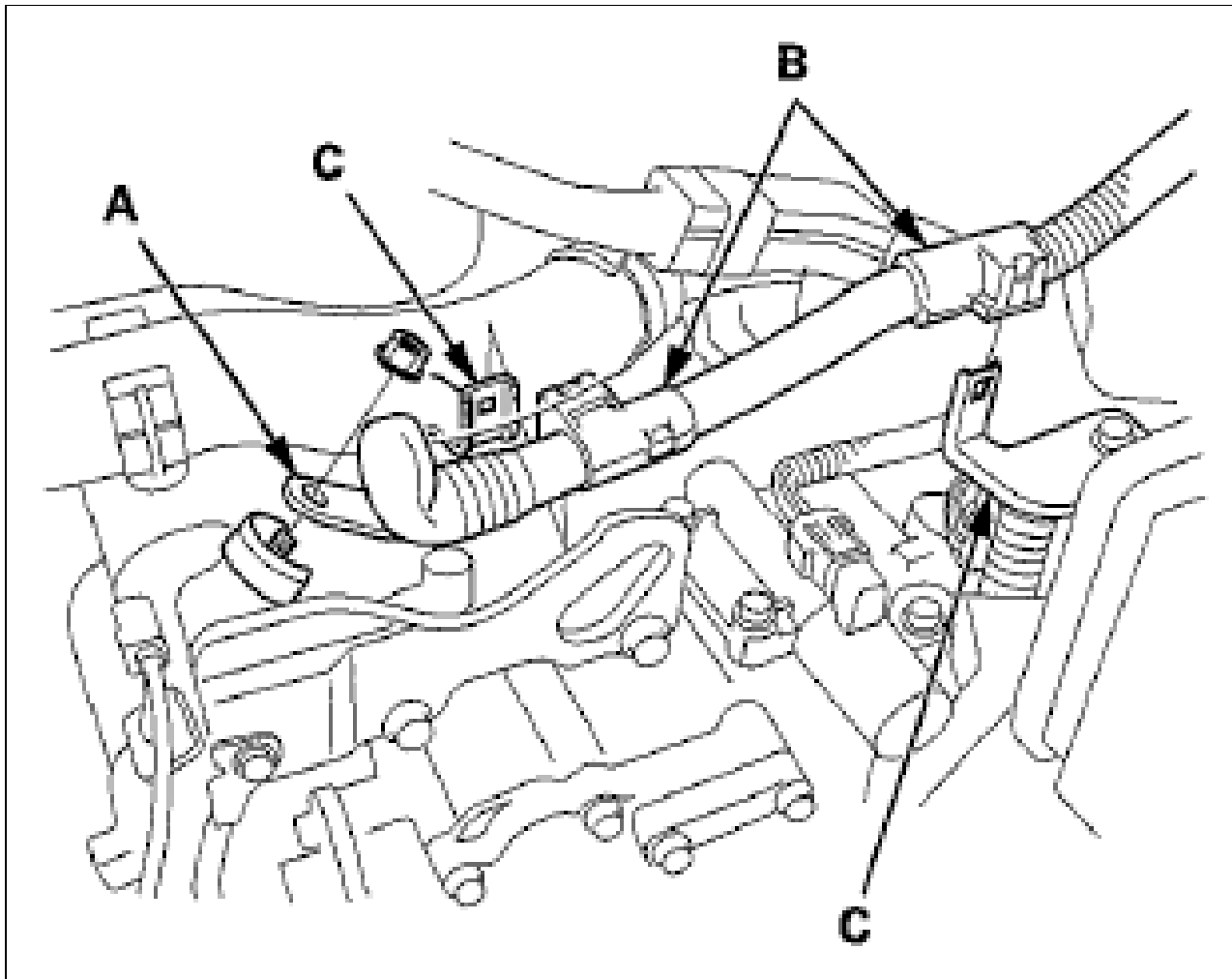
Fig 2: Identifying Positive Starter Cable, Harness Clamp And Clamp Bracket



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- '08-10 models with the J35A7 engine: Disconnect the positive starter cable (A) from the starter, and remove the harness clamps (B) from the clamp brackets (C).

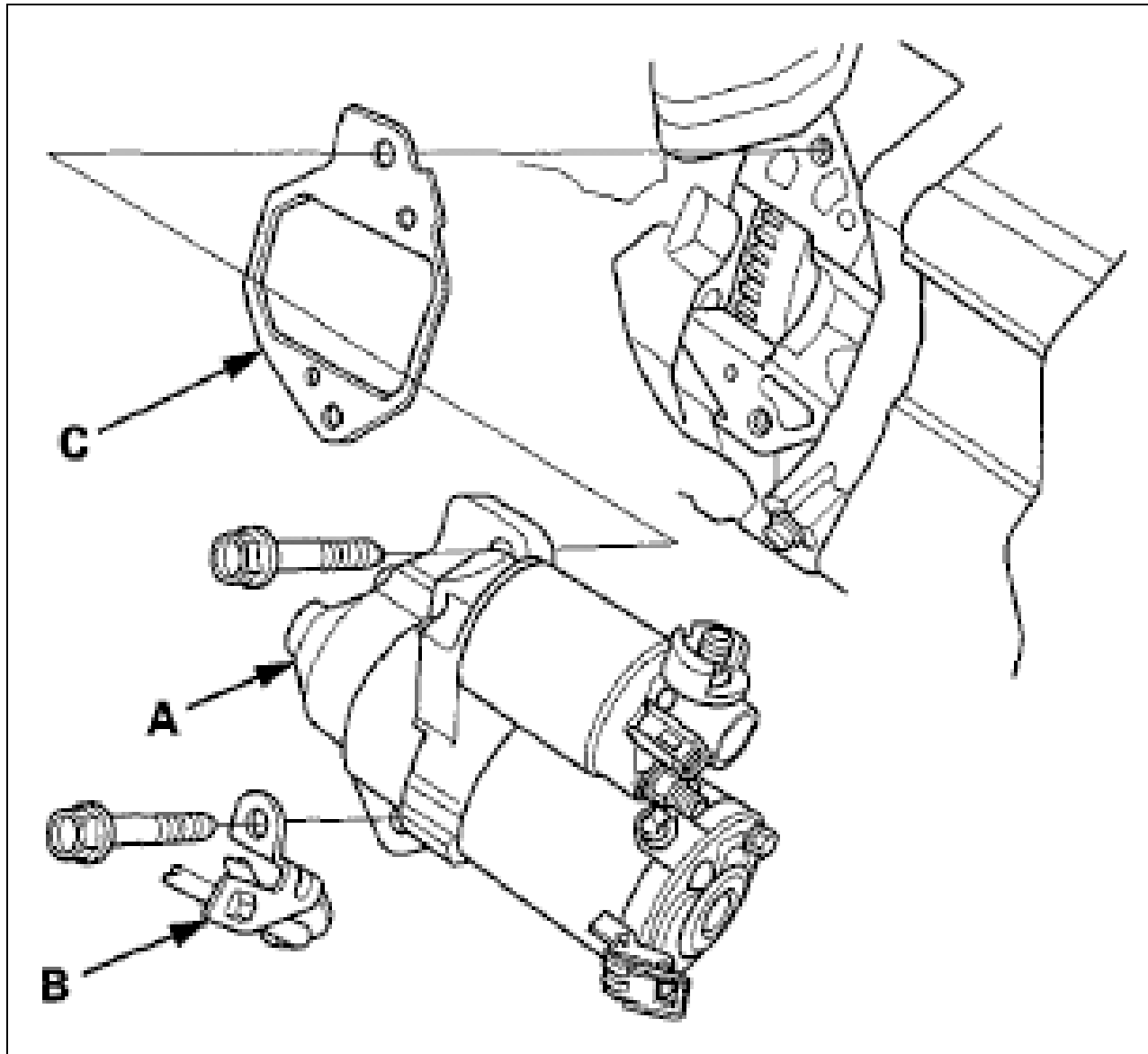
Fig 3: Identifying Positive Starter Cable, Harness Clamps And Clamp Brackets



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14. Except '08-10 models with the J35A7 engine: Remove the starter (A) with the harness clamp bracket (B) and the gasket (C).

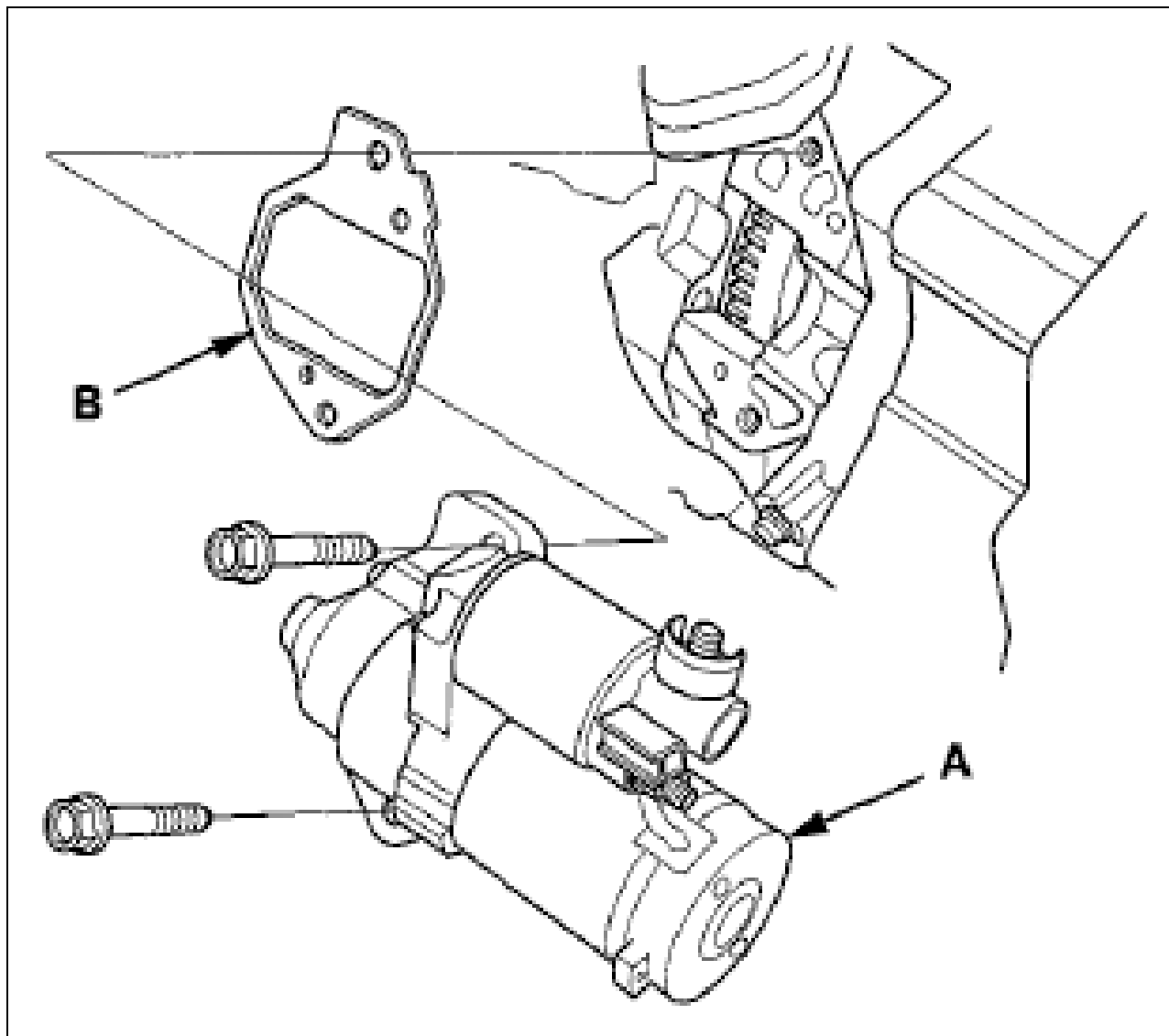
Fig 4: Identifying Starter, Harness Clamp Bracket And Gasket



Courtesy of AMERICAN HONDA MOTOR CO., INC.

15. '08-10 models with the J35A7 engine: Remove the starter (A) and the gasket (B).

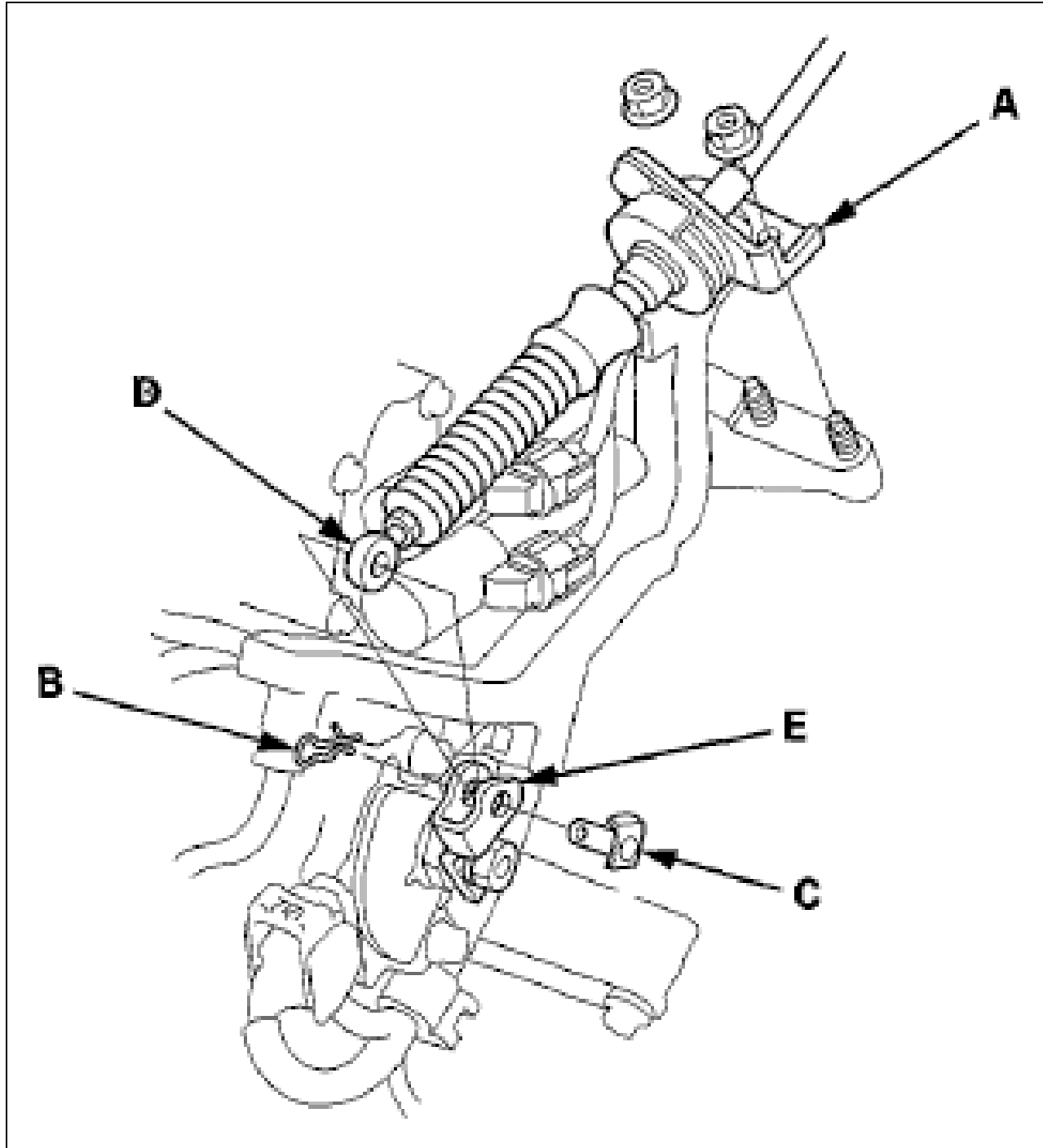
Fig 5: Identifying Starter And Gasket



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16. Remove the nuts securing the shift cable bracket (A).

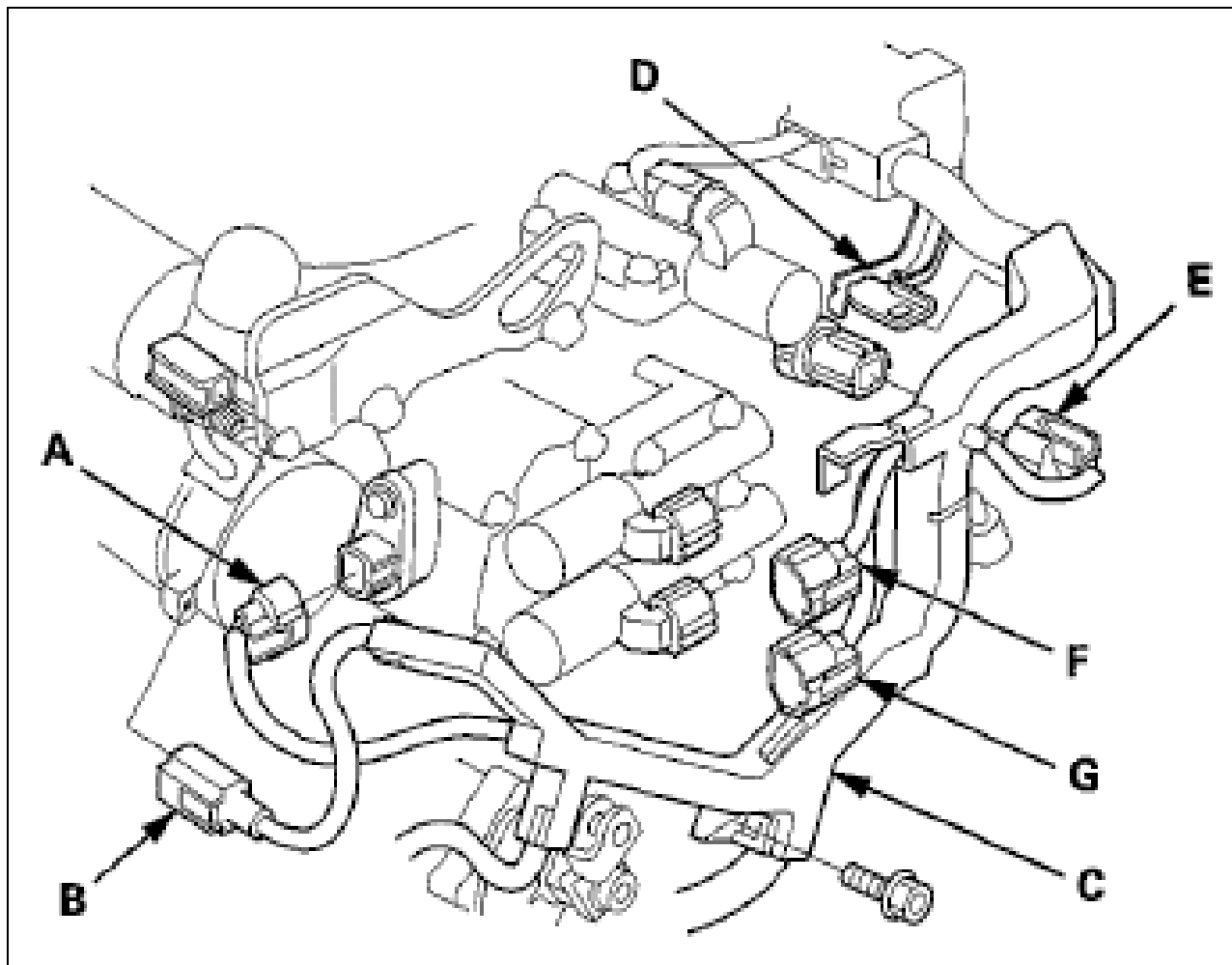
Fig 6: Identifying Shift Cable Bracket, Spring Clip, Control Pin And Shift Cable End



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17. Remove the spring clip (B) and the control pin (C), then separate the shift cable end (D) from the control lever (E).
18. Disconnect the shift solenoid wire harness connector (A) and the S terminal connector (B).

Fig 7: Identifying Shift Solenoid Wire Harness Connector And S Terminal Connector



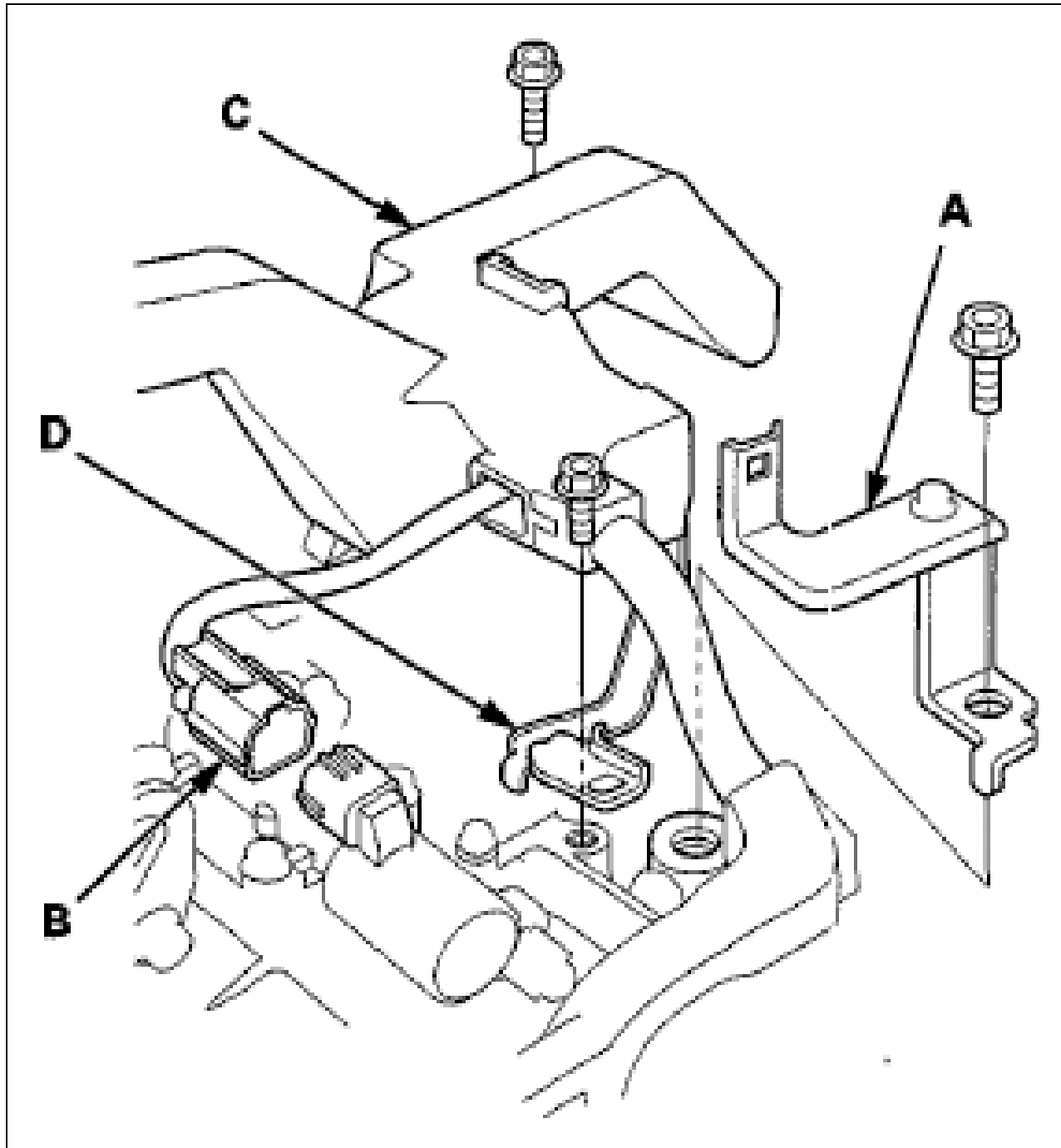
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19. Remove the harness cover (C) from the harness cover/clamp bracket (D).
20. Disconnect the 4th clutch transmission fluid pressure switch connector (E).

21. Disconnect the A/T clutch pressure control solenoid valve A connector (F) and the A/T clutch pressure control solenoid valve B connector (G).

22. '08-10 models with the J35A7 engine: Remove the starter cable clamp bracket (A).

Fig 8: Identifying Starter Cable Clamp Bracket And A/T Clutch Pressure Control Solenoid Valve C Connector

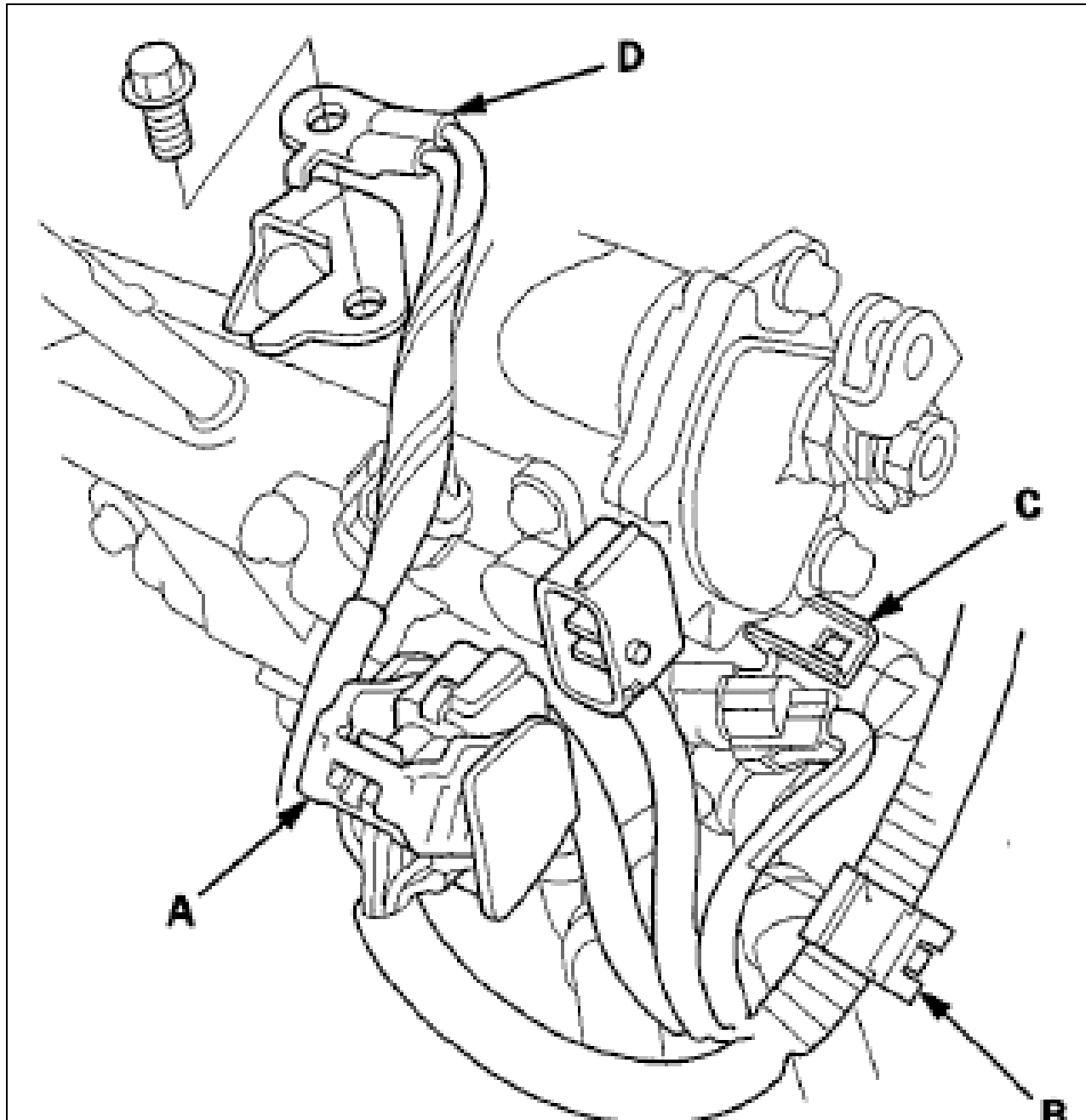


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23. Disconnect the A/T clutch pressure control solenoid valve C connector (B).
24. Remove the bolts securing the harness cover (C) and the harness cover/clamp bracket (D).
25. Disconnect the transmission range switch connector (A), and remove the harness clamp (B) from the clamp bracket (C).

Except '08-10 models with the J35A7 engine

Fig 9: Identifying Transmission Range Switch Connector And Harness Clamp ('08-10 Models)

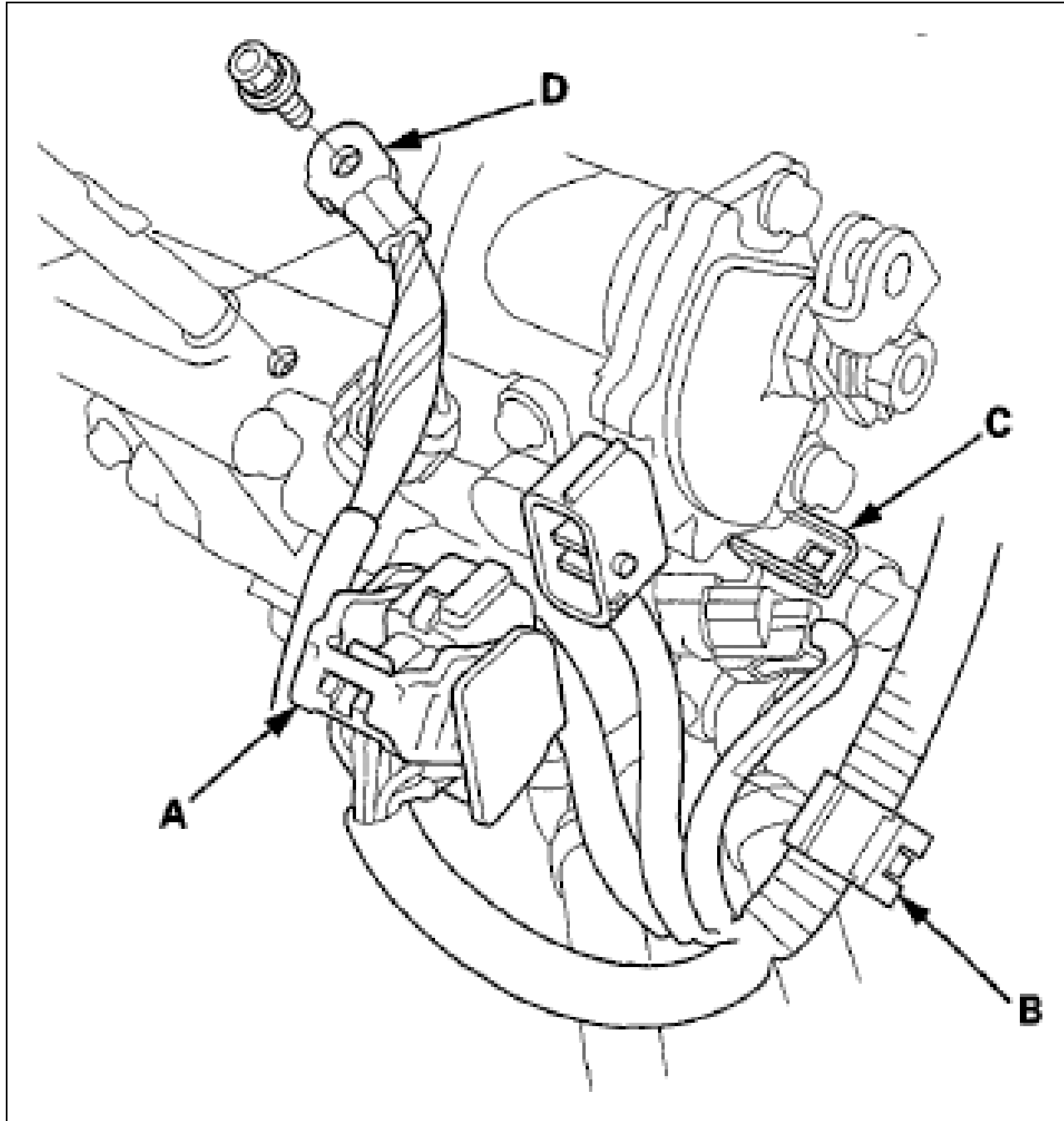




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'08-10 models with the J35A7 engine

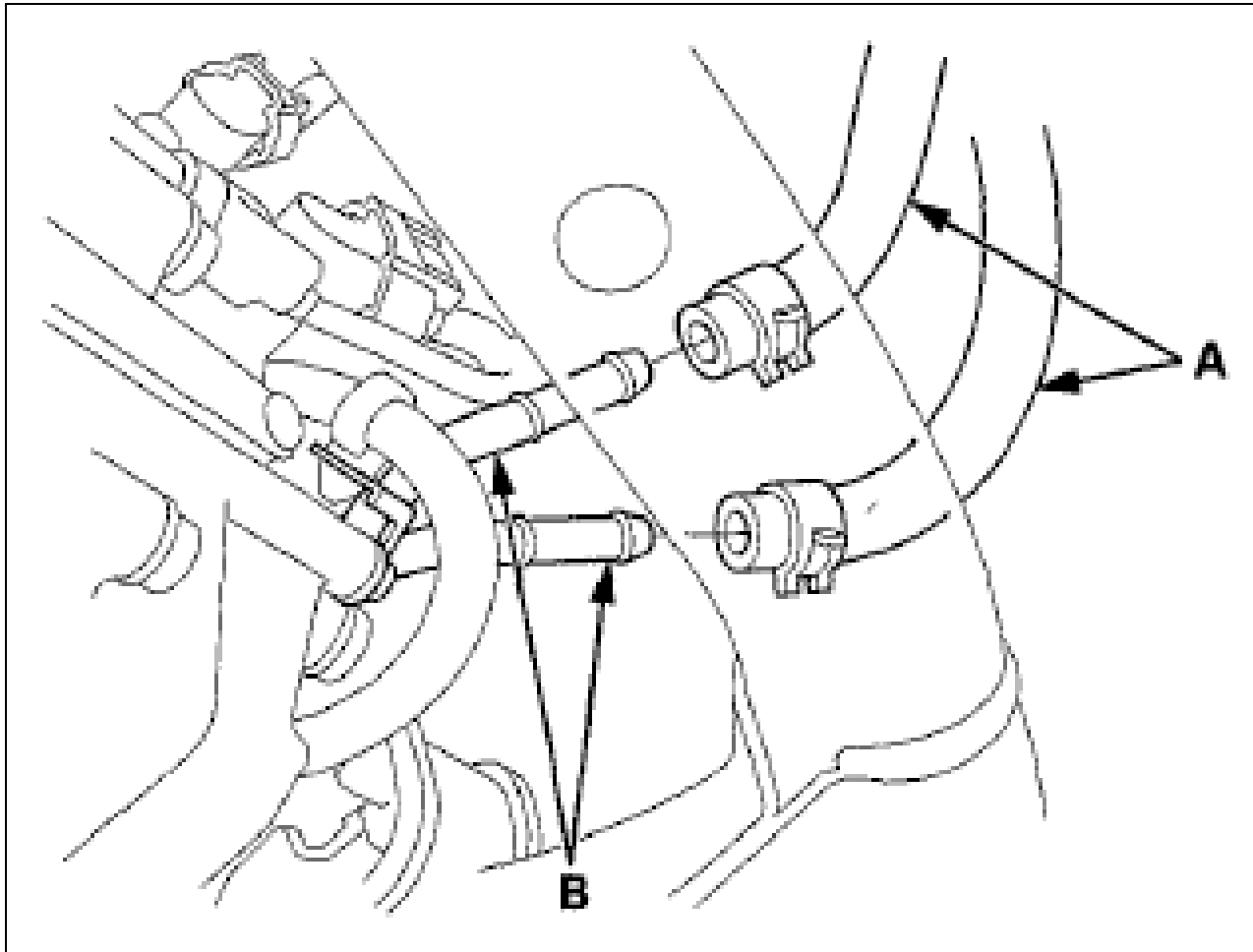
Fig 10: Identifying Transmission Range Switch Connector And Harness Clamp ('08-10 Models)



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26. Remove the transmission ground cable (D).
27. Disconnect the ATF cooler hoses (A) from the ATF cooler lines (B). Turn the ends of the cooler hoses up to prevent ATF from flowing out, then plug the cooler hoses and the lines.

Fig 11: Identifying ATF Cooler Hoses And ATF Cooler Lines

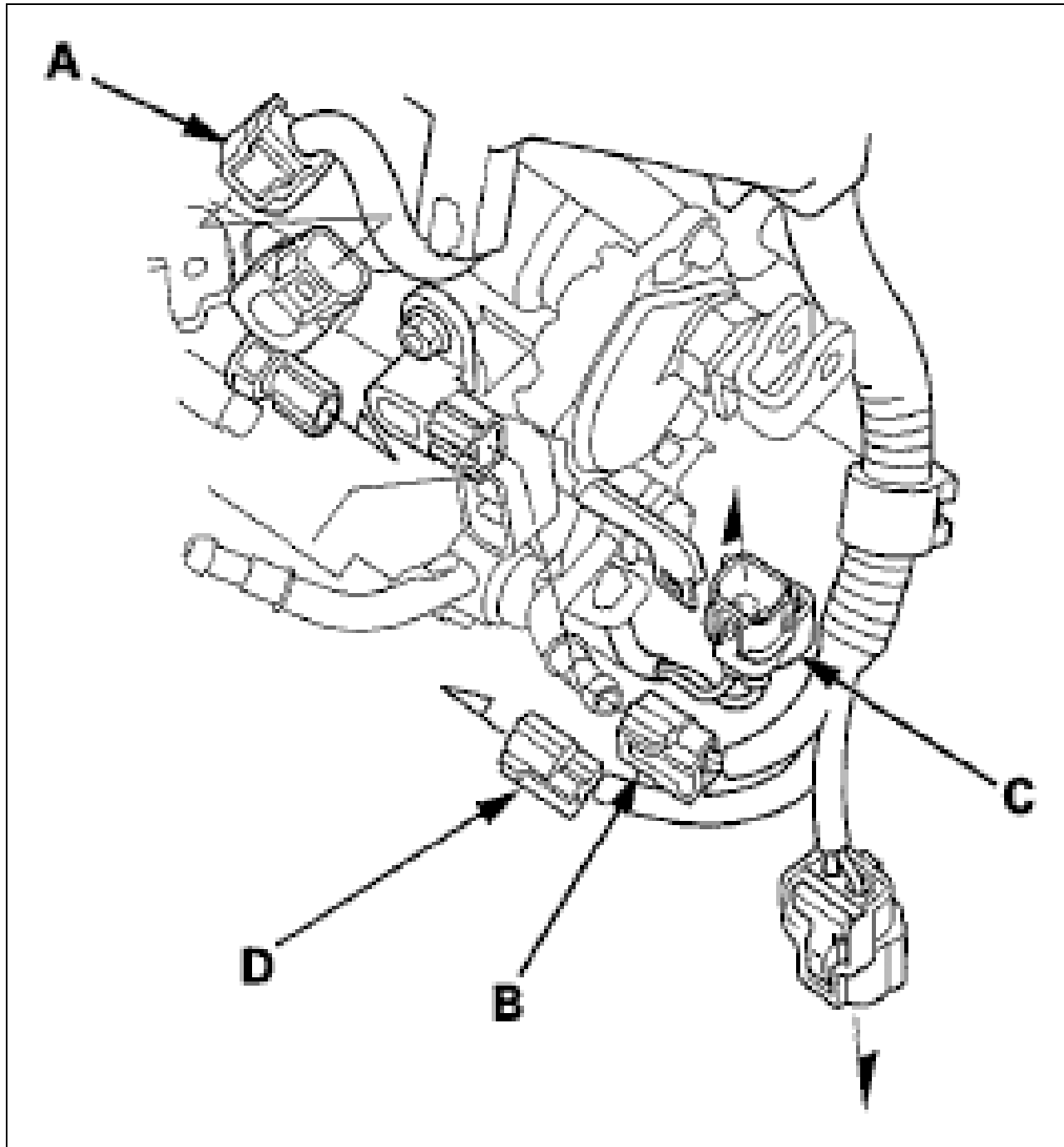


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28. Check for any signs of leakage at the hose joints.

29. Disconnect the input shaft (mainshaft) speed sensor connector (A), the output shaft (countershaft) speed sensor connector (B), the ATF temperature sensor connector (C), and the transmission fluid pressure switch B (3rd clutch) connector (D).

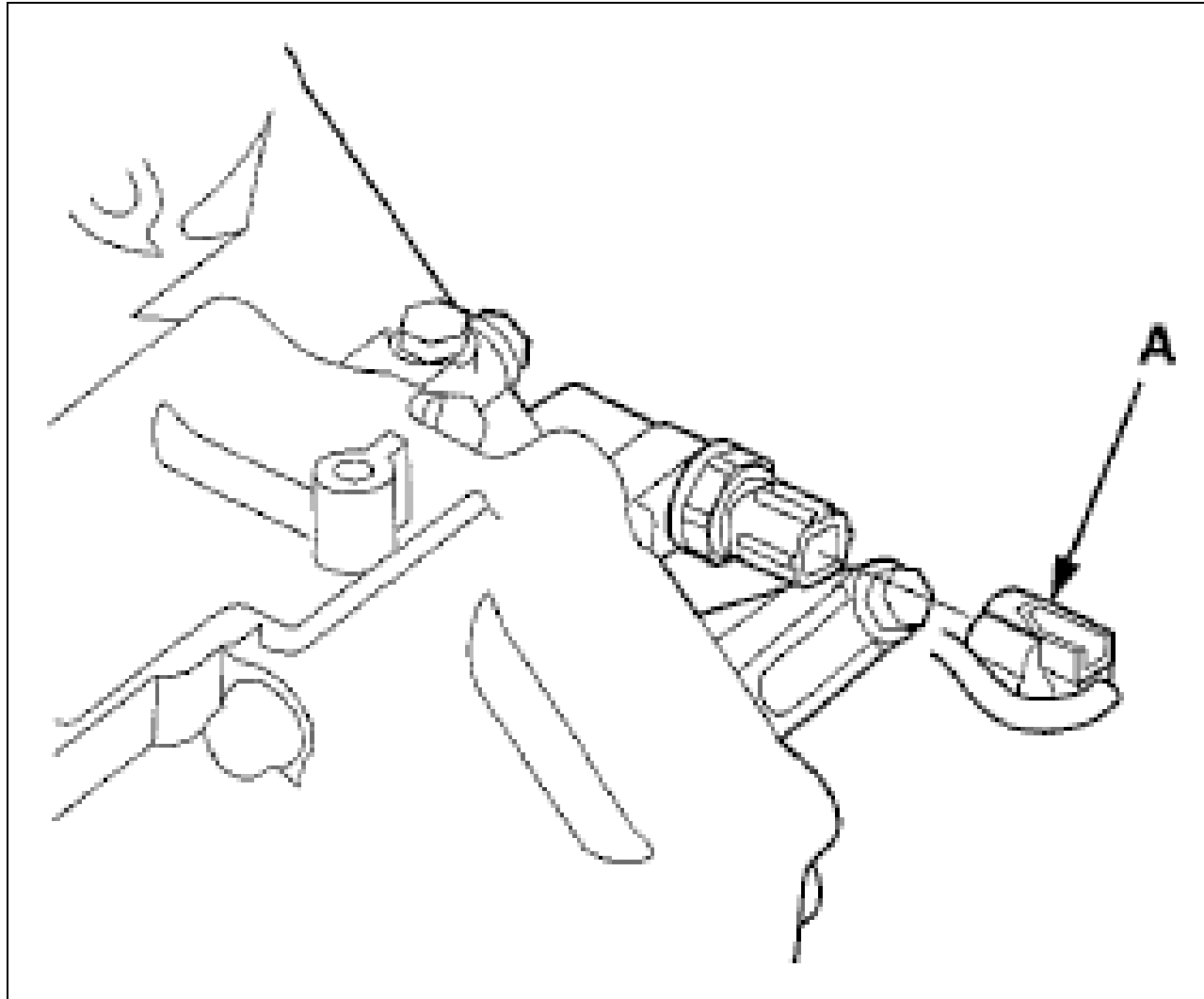
Fig 12: Identifying Input Shaft Speed Sensor Connector And Output Shaft Speed Sensor Connector



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- 30. Disconnect the transmission fluid pressure switch A (2nd clutch) connector (A).

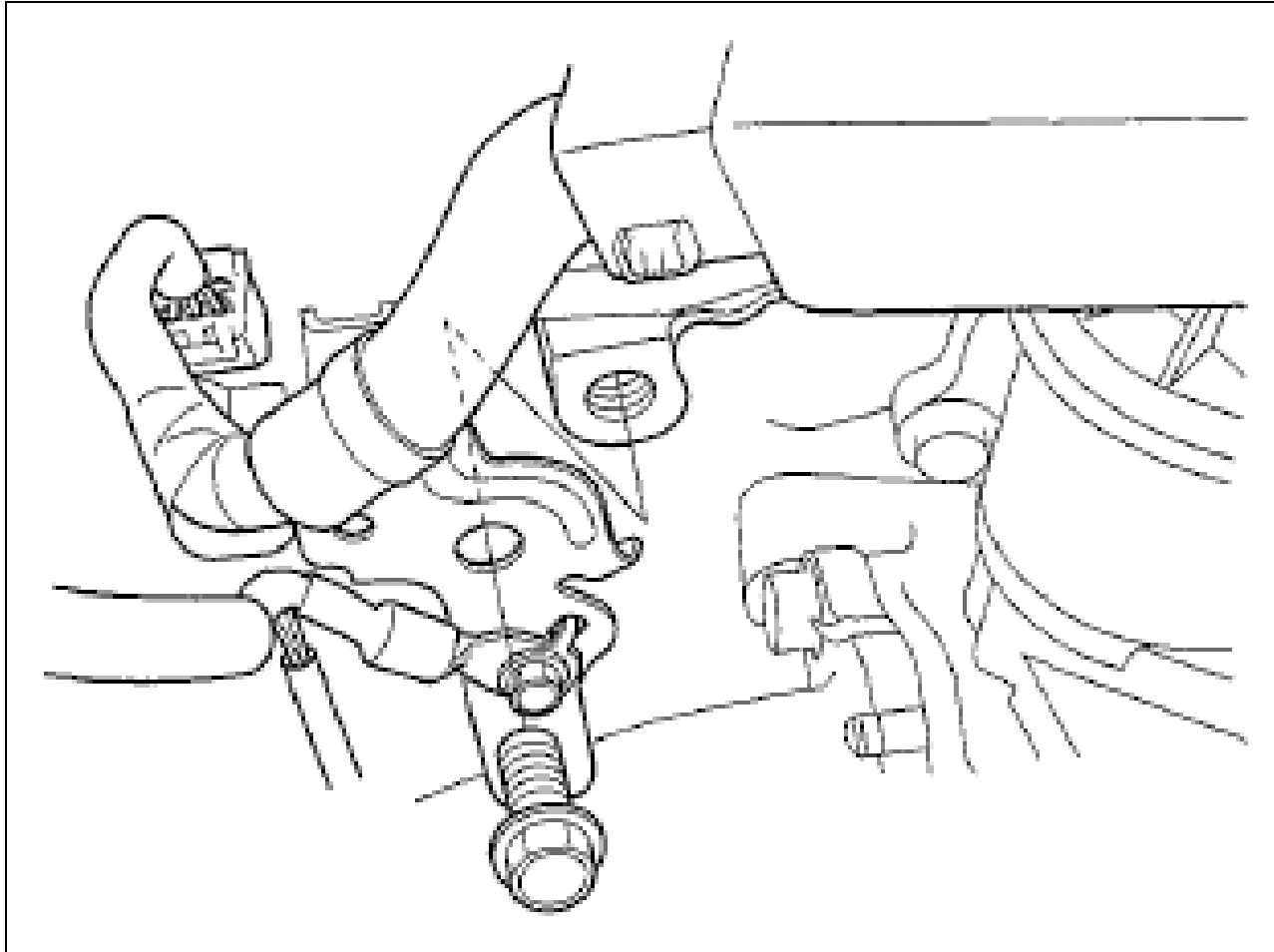
Fig 13: Identifying Transmission Fluid Pressure Switch A Connector



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31. Remove the front A/F sensor connector bracket from the front cylinder head; use the bracket bolt hole to attach the engine hanger balancer bar front arm.

Fig 14: Identifying Front A/F Sensor Connector Bracket

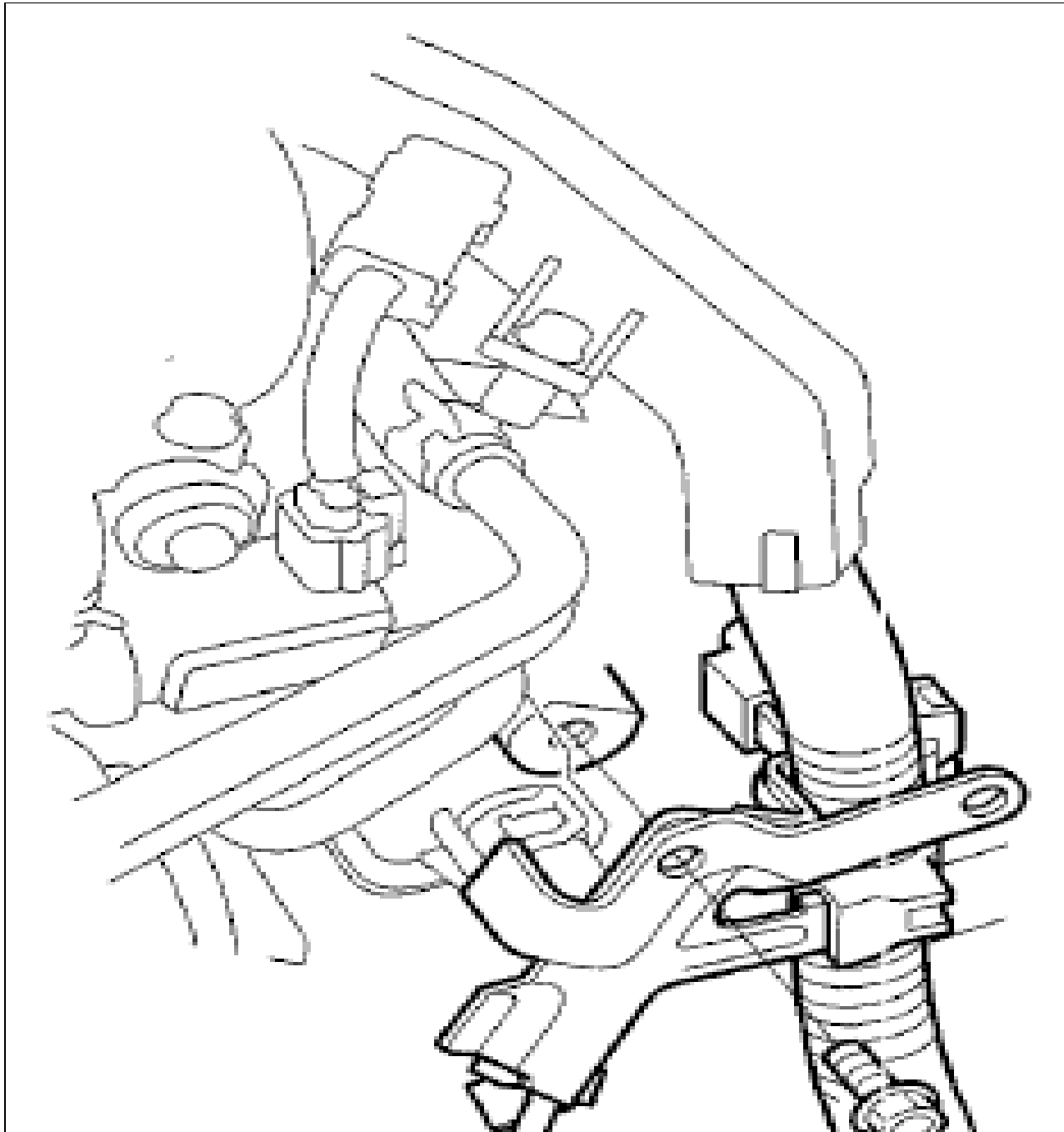


Courtesy of AMERICAN HONDA MOTOR CO., INC.

*: This illustration shows '08-10 models.

32. Remove the rear A/F sensor connector bracket from the rear cylinder head; use the bracket bolt hole to attach the 2008 V6 attachment arm.

Fig 15: Identifying Rear A/F Sensor Connector Bracket



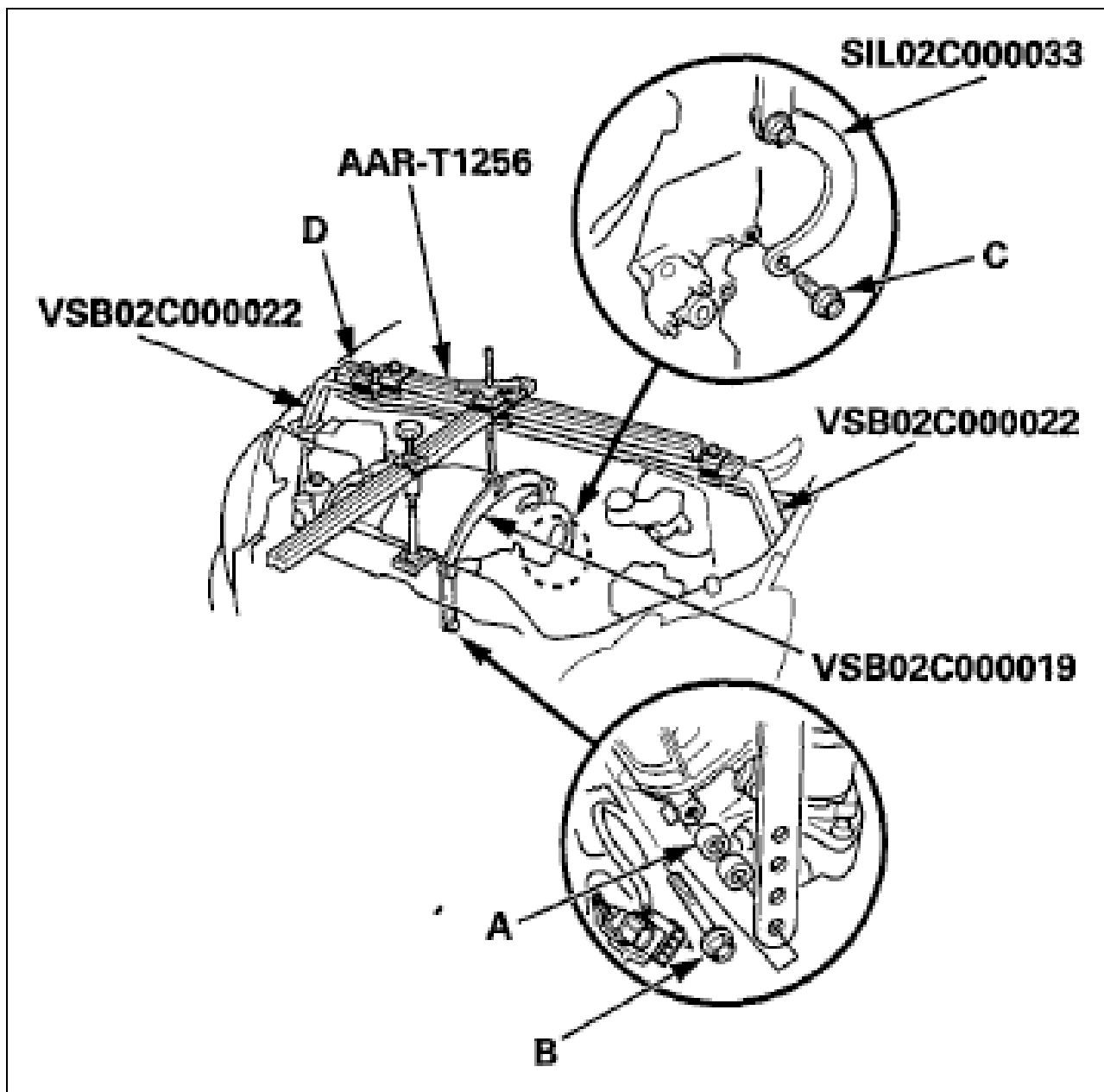


Courtesy of AMERICAN HONDA MOTOR CO., INC.

*: This illustration shows '08-10 models.

33. Lift and support the engine with the engine support hanger (AAR-T1256) and the engine balancer bar (VSB02C000019). Attach the front arm to the front cylinder head with spacers (A) and a 10x1.25 mm bolt (B). Attach the 2008 V6 attachment arm (SIL02C000033) to the rear cylinder head with a 8 x 1.25 mm bolt (C).

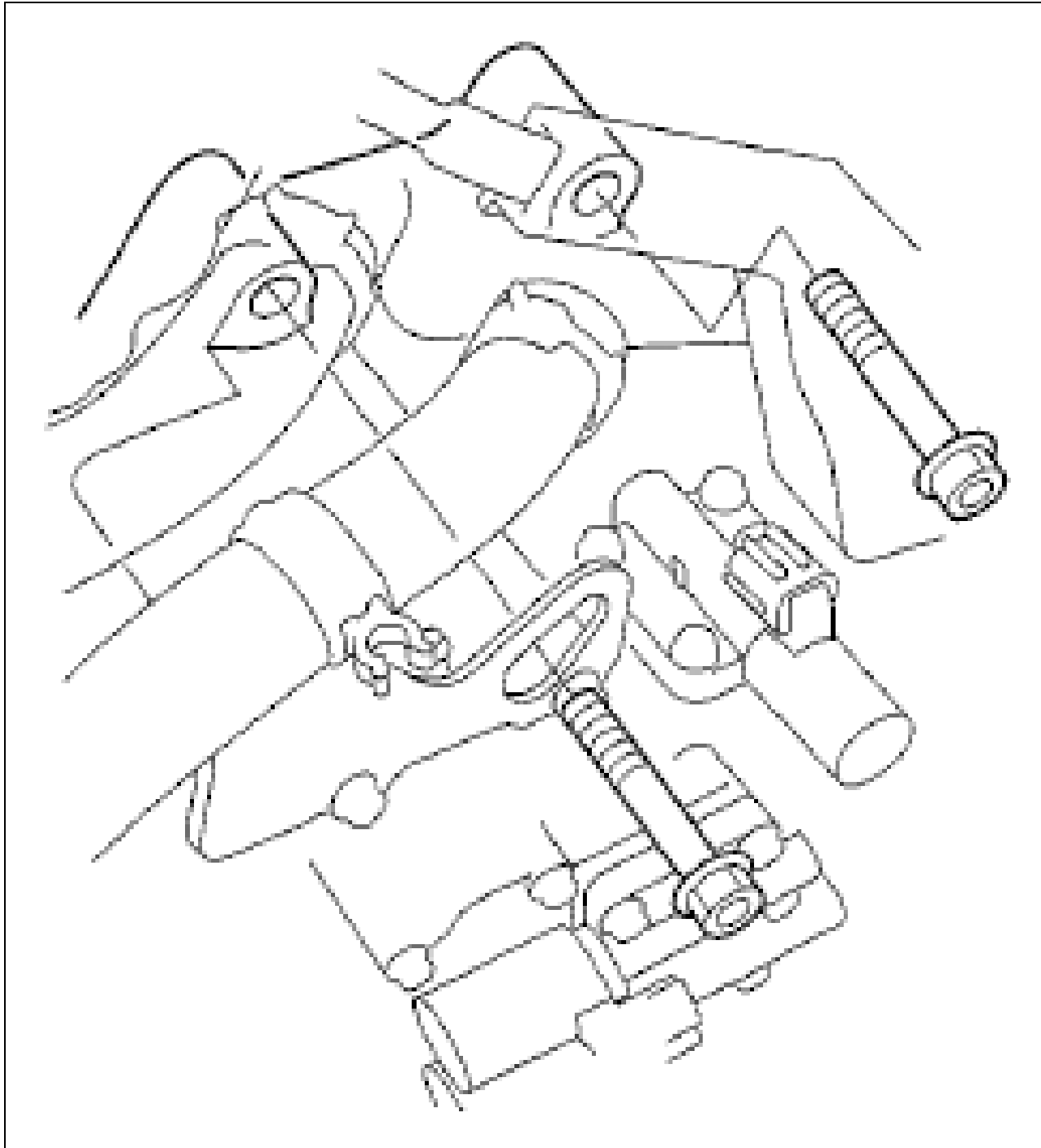
Fig 16: Identifying Engine Balancer Bar, Front Cylinder Head And Spacers



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34. Install the engine hanger adapters (VSB02C000022) on the end of the engine support beams (D), then install the engine support hanger (AAR-T1256) with the adapters to the vehicle.
35. Remove the upper transmission housing mounting bolts.

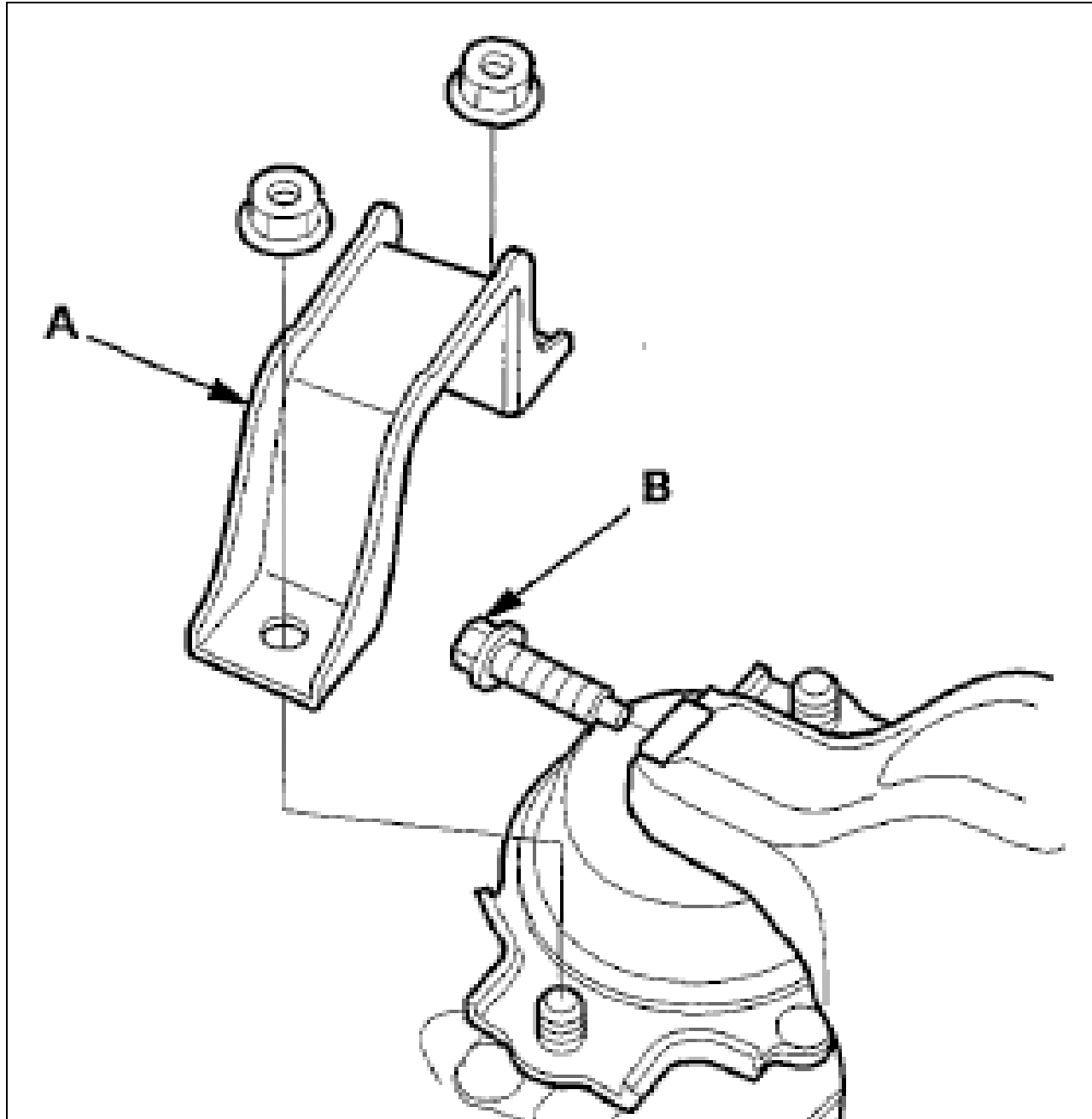
Fig 17: Identifying Engine Hanger Adapters And Engine Support Beams



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36. With active control engine mount (ACM) system: Remove the front engine mount stop (A), and remove the front engine mount bolt (B).

Fig 18: Identifying Active Control Engine Mount, Front Engine Mount Stop And Front Engine Mount Bolt



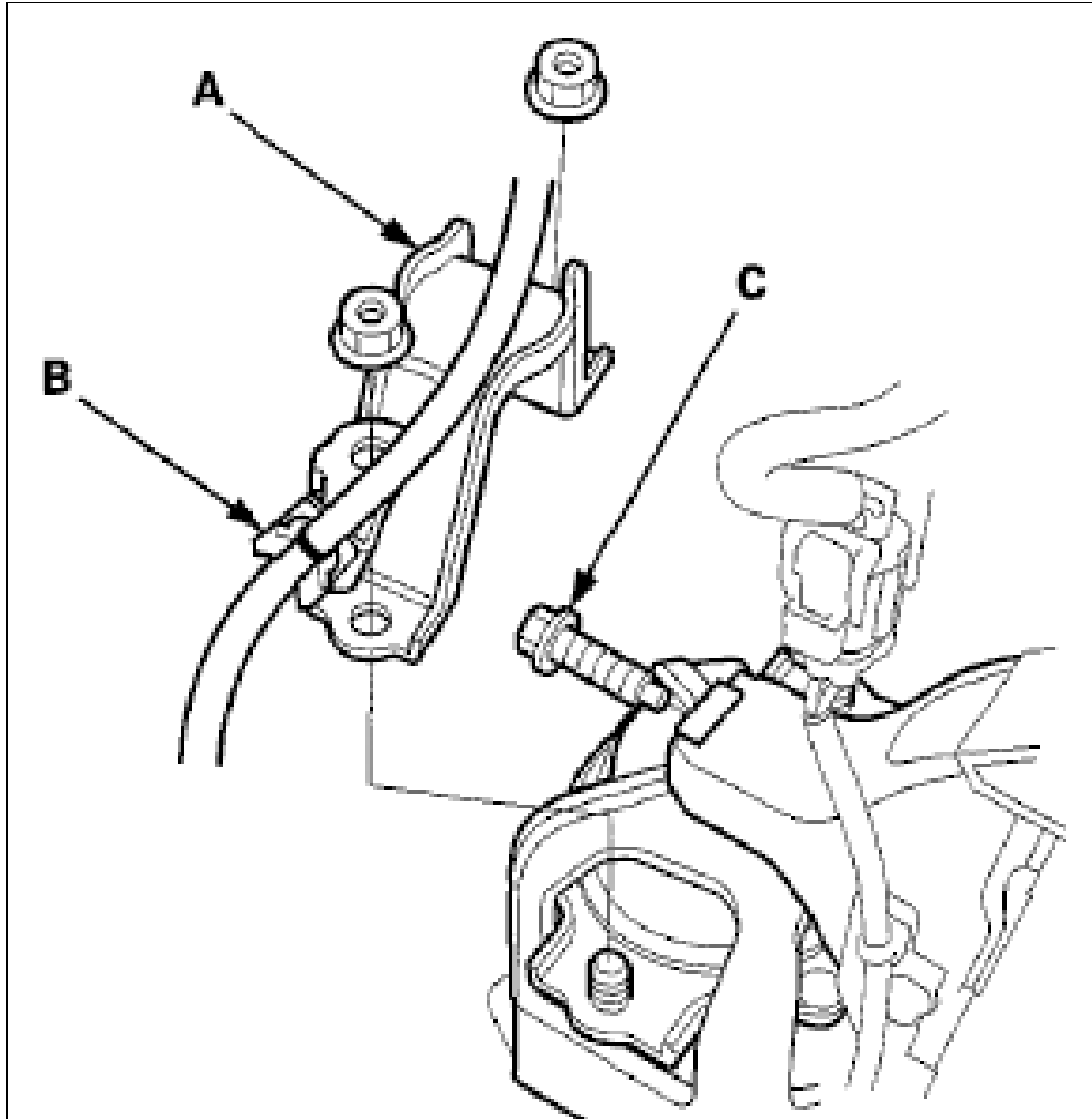


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*: This illustration shows '08-10 models.

37. With engine mount control system: Remove the front engine mount stop (A) and the vacuum tube clamp bracket (B), and remove the front engine mount bolt (C).

Fig 19: Identifying Front Engine Mount Stop, Vacuum Tube Clamp Bracket And Front Engine Mount Bolt

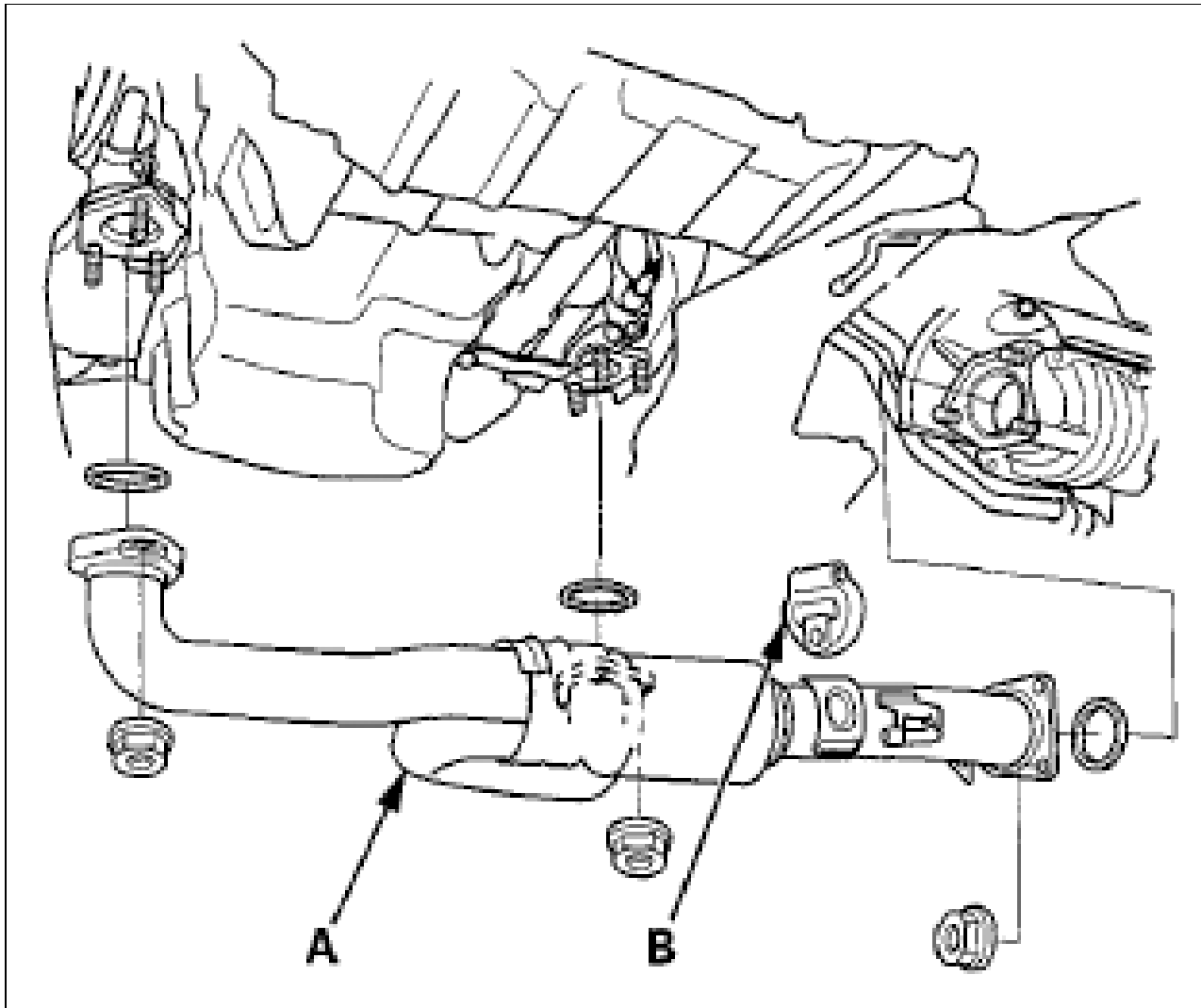




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38. Remove exhaust pipe A and its mount (B).

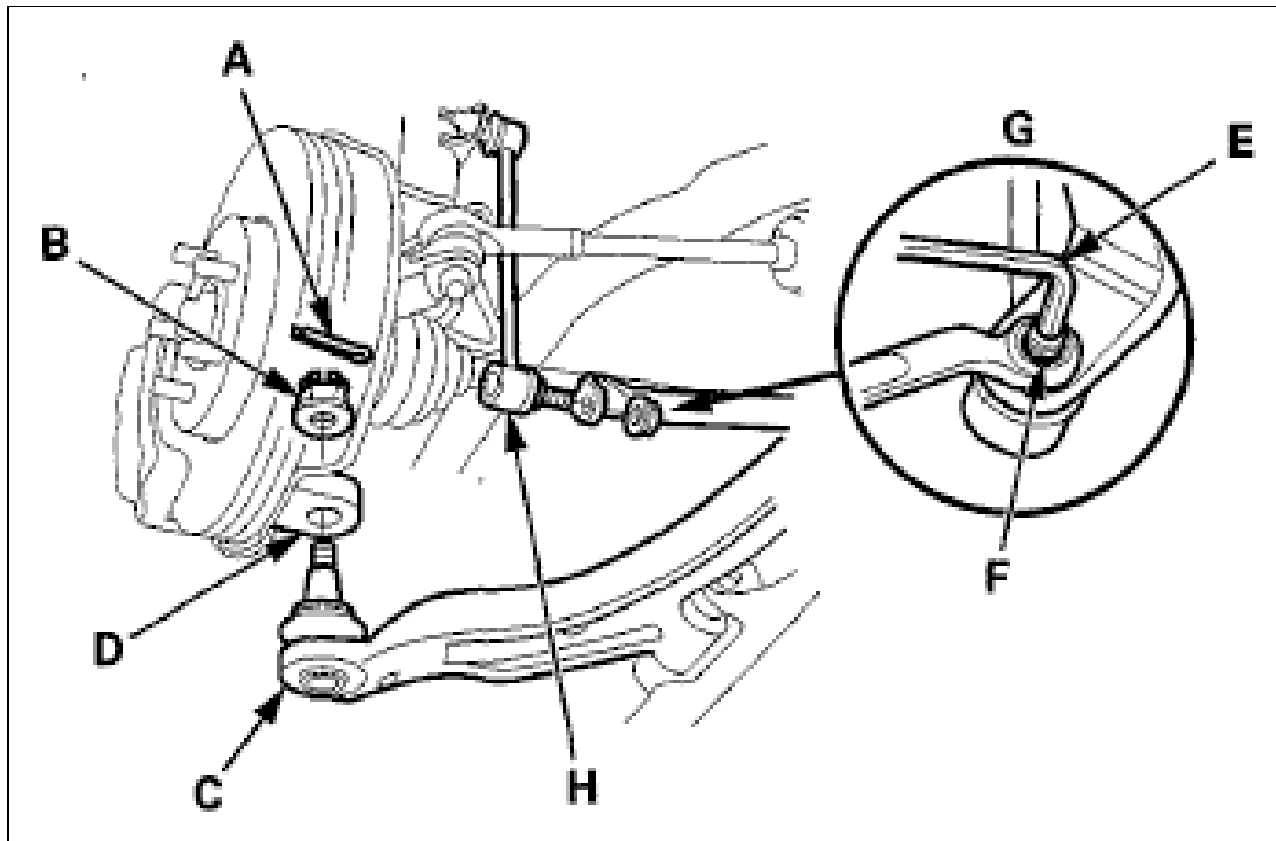
Fig 20: Identifying Exhaust Pipe And Mount



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39. Remove the lock pins (A) and the castle nuts (B), and separate the lower arms (C) from the knuckles (D) (see step 11 under KNUCKLE/HUB/WHEEL BEARING REPLACEMENT).

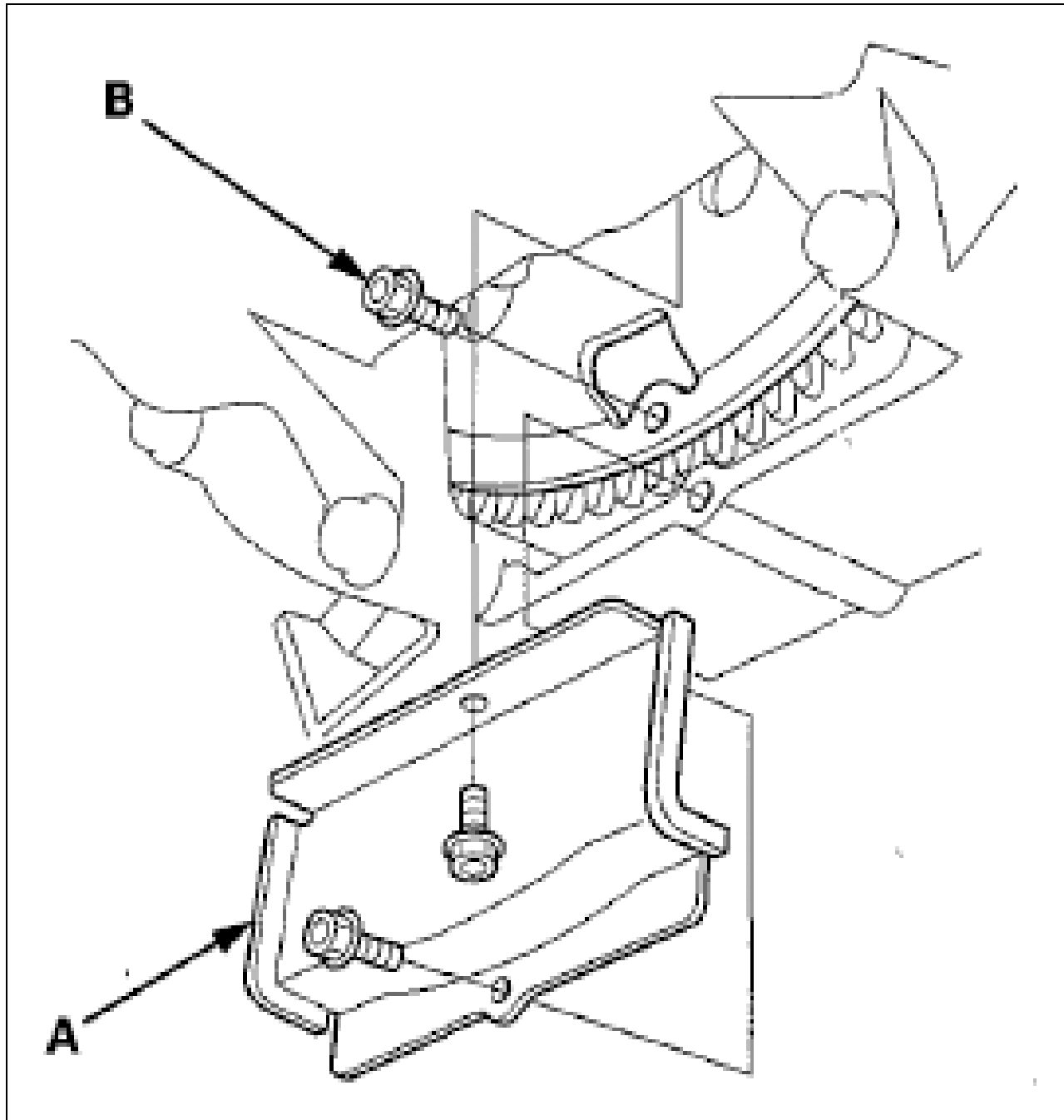
Fig 21: Identifying Lock Pins, Castle Nuts, Lower Arms And Knuckles



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40. Insert a hex wrench (E) in the top of the joint pin (F), remove the nuts (G), then separate the stabilizer links (H).
41. Remove the torque converter cover (A), and remove the drive plate bolts (B) (8) one at a time while rotating the crankshaft pulley.

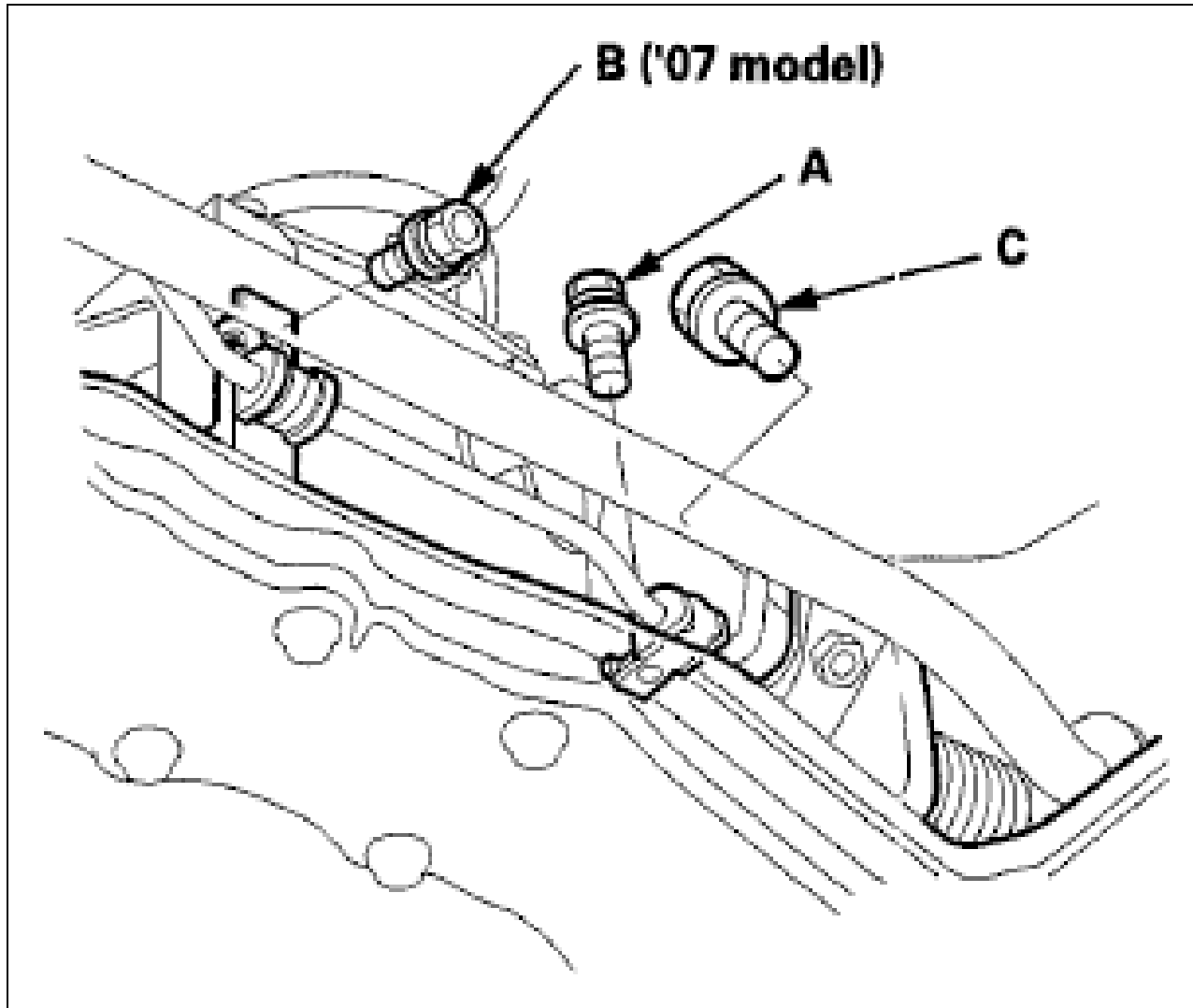
Fig 22: Identifying Torque Converter Cover And Drive Plate Bolts



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42. Remove the P/S fluid line bracket bolts (A), (B) ('07 model), and remove the steering gearbox mounting bolt (C).

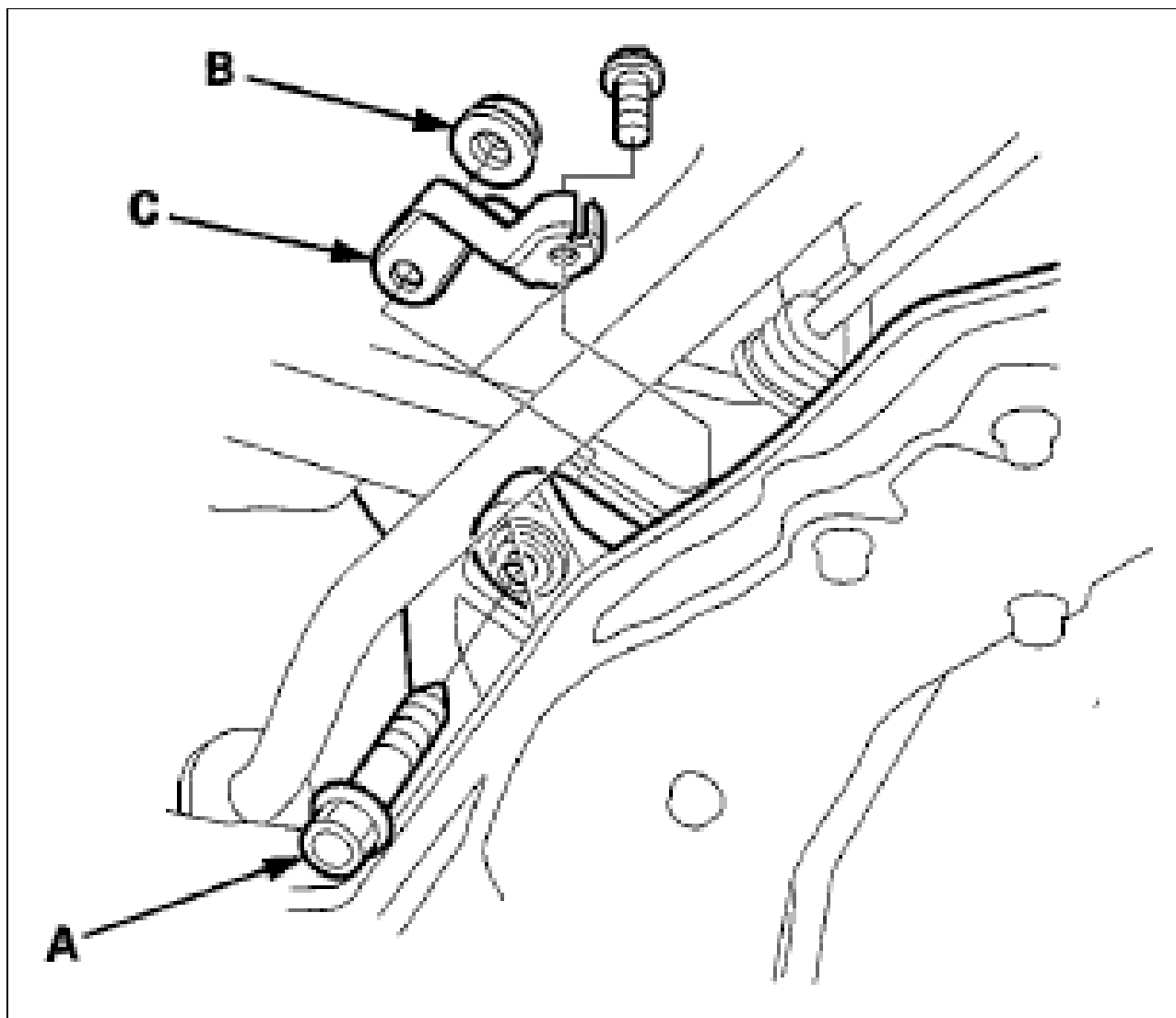
Fig 23: Identifying P/S Fluid Line Bracket Bolts And Steering Gearbox Mounting Bolt



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43. Remove the steering gearbox mounting bolt (A) and the nut (B), and remove the steering gearbox stiffener (C).

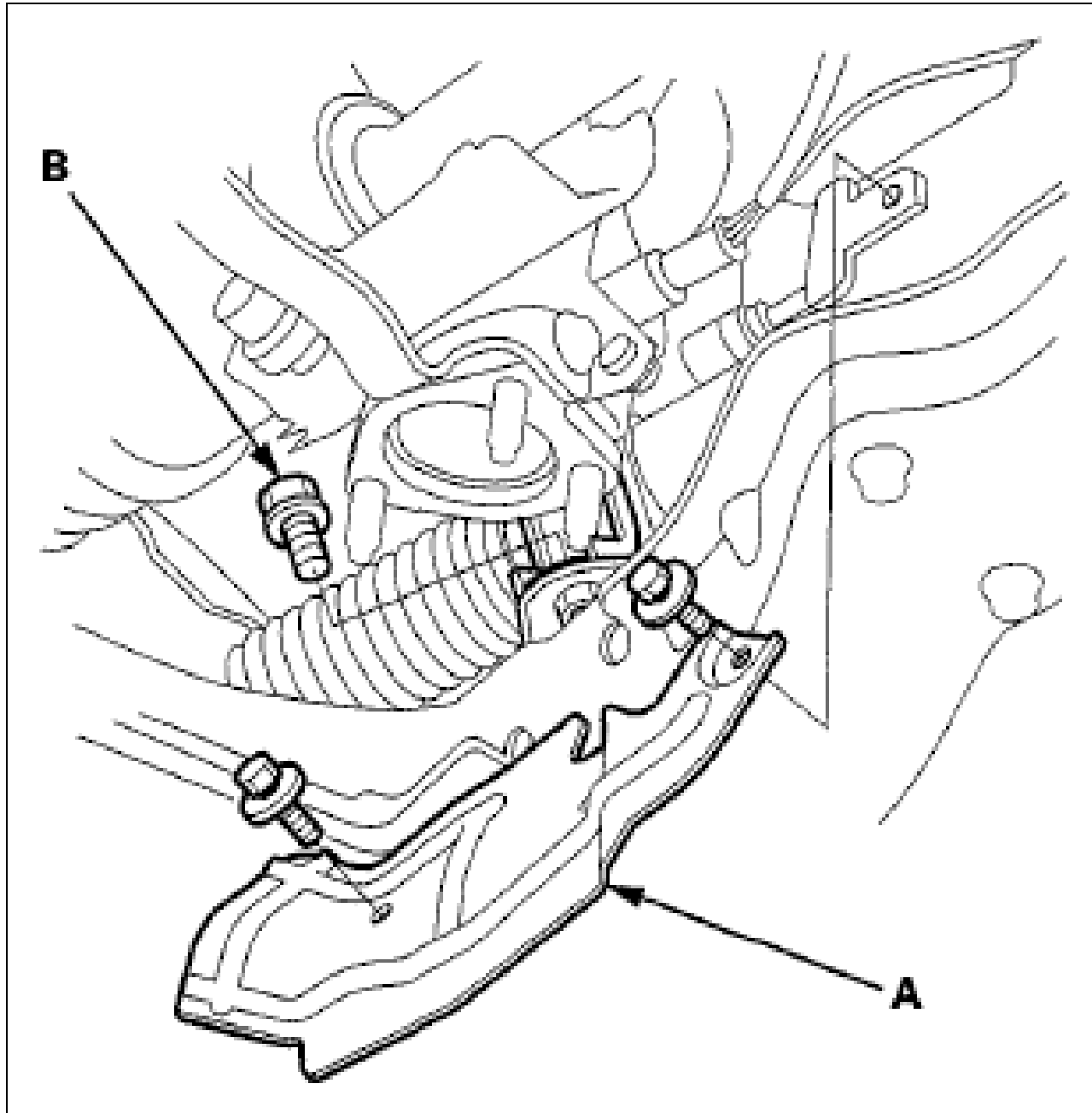
Fig 24: Identifying Steering Gearbox Mounting Bolt And Steering Gearbox Stiffener



Courtesy of AMERICAN HONDA MOTOR CO., INC.

44. Remove the P/S heat shield (A), and remove the steering gearbox mounting bolt (B).

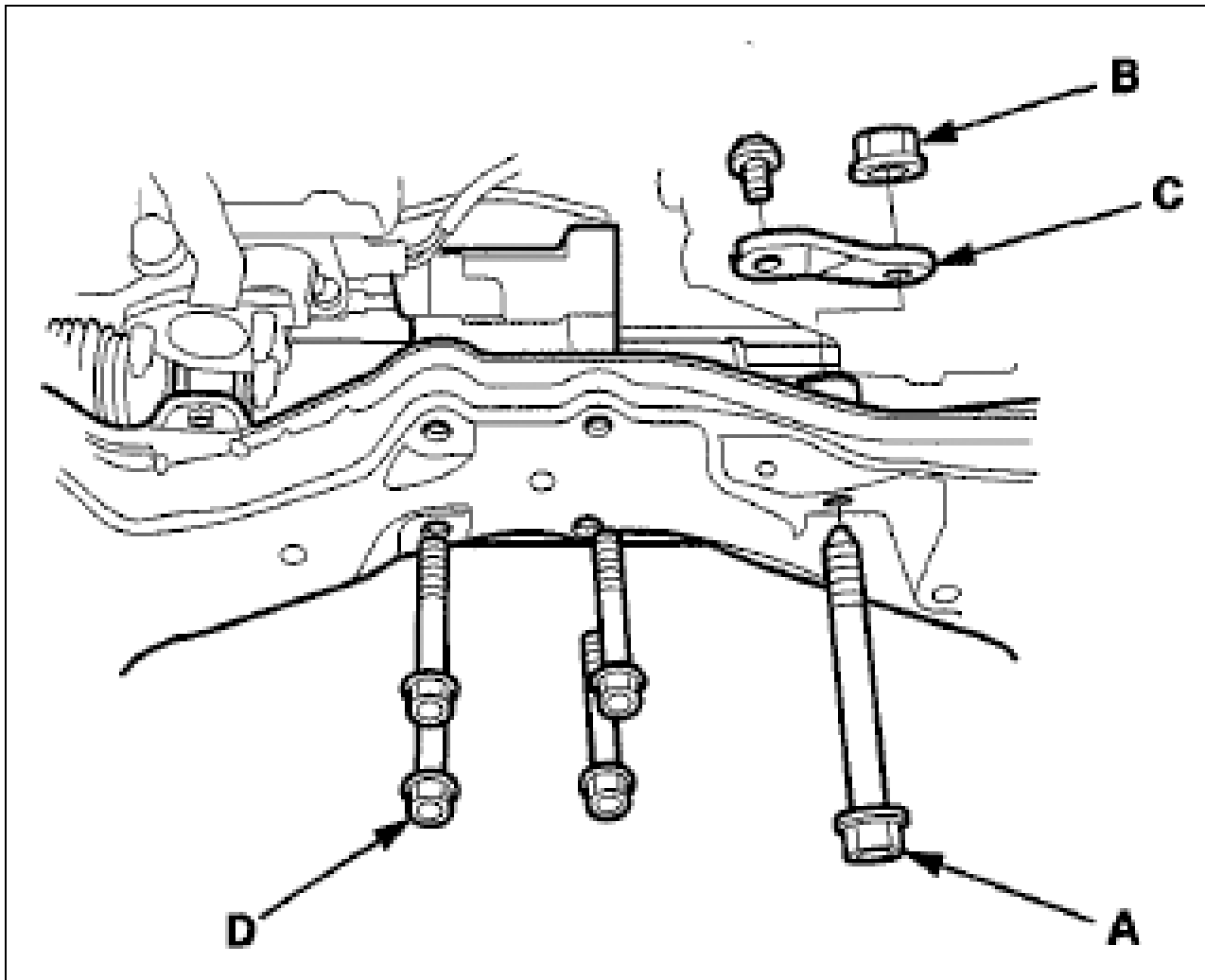
Fig 25: Identifying P/S Heat Shield And Steering Gearbox Mounting Bolt



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45. Remove the steering gearbox mounting bolt (A) and the nut (B), and remove the steering gearbox stiffener (C).

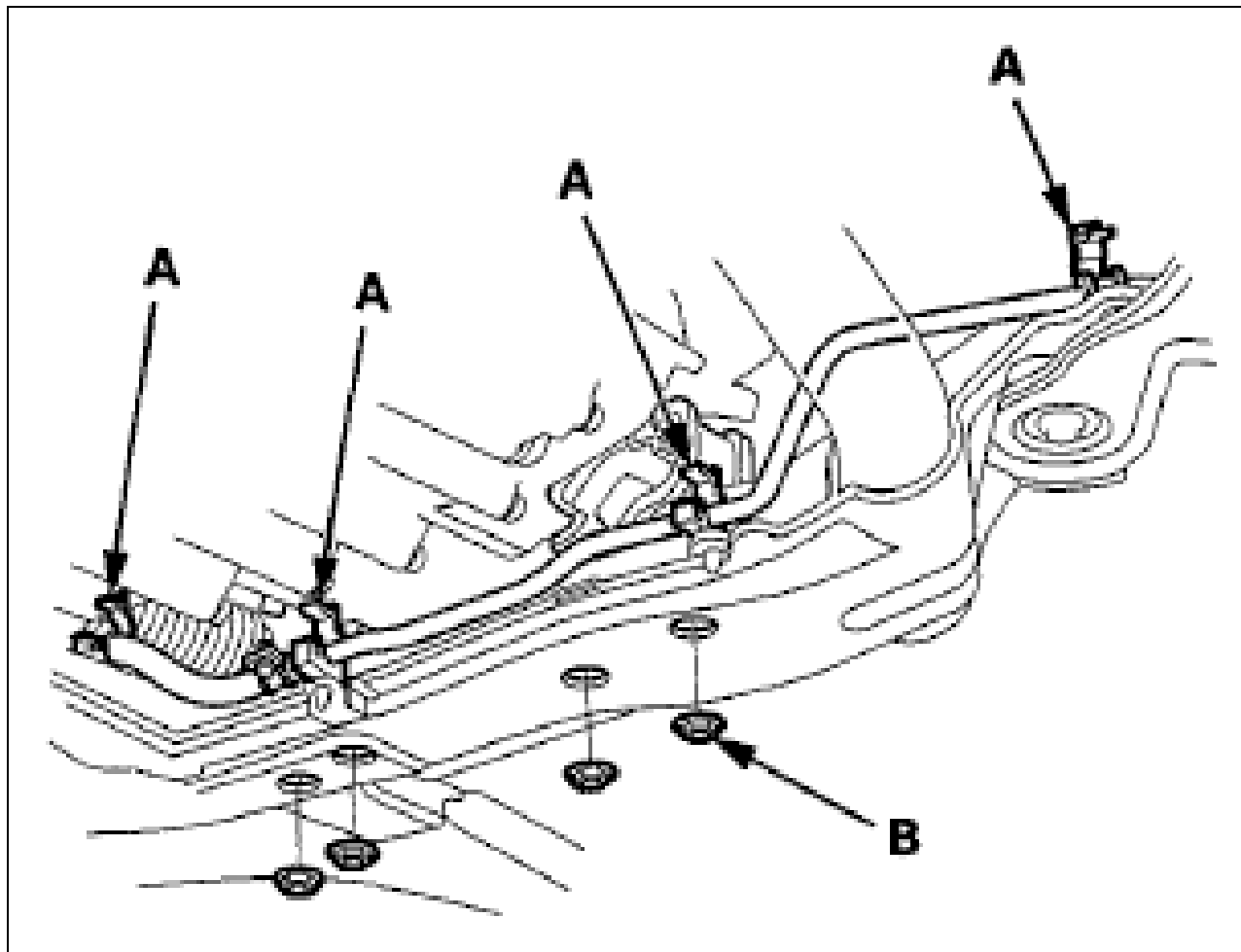
Fig 26: Identifying Steering Gearbox Mounting Bolt And Steering Gearbox Stiffener



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46. Remove the rear engine mount mounting bolts (D).
47. Unclamp the P/S fluid line clamps (A) on the front subframe.

Fig 27: Identifying P/S Fluid Line Clamps On Front Subframe

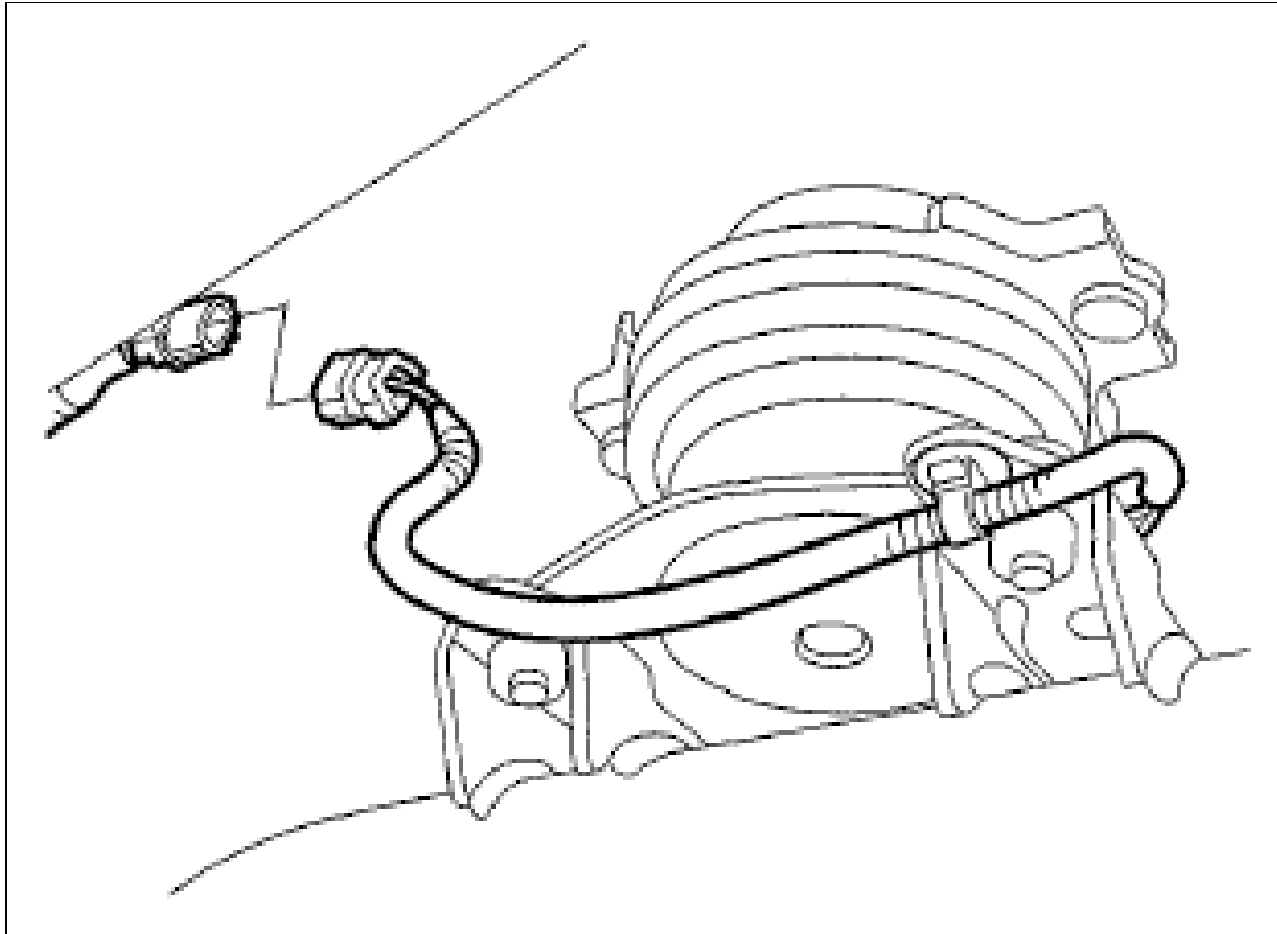


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48. Remove the transmission lower mount nuts (B).

49. With active control engine mount (ACM) system: Disconnect the engine mount control actuator connector at the front engine mount.

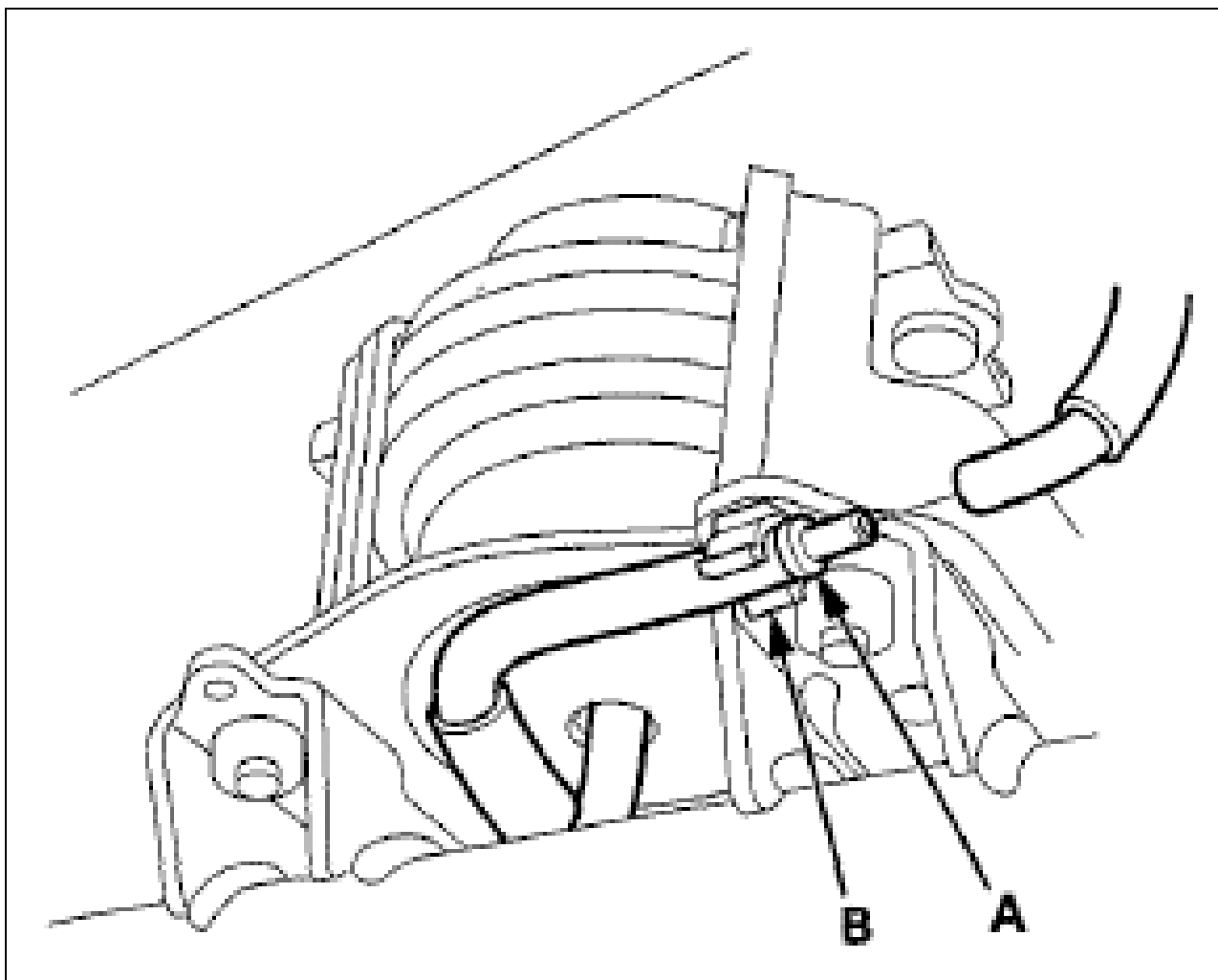
Fig 28: Identifying Transmission Lower Mount Nuts



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50. With engine mount control system: Remove the vacuum tube joint (A) from its clamp (B) on the front engine mount, disconnect the vacuum tube joint, then reinstall the joint in the clamp.

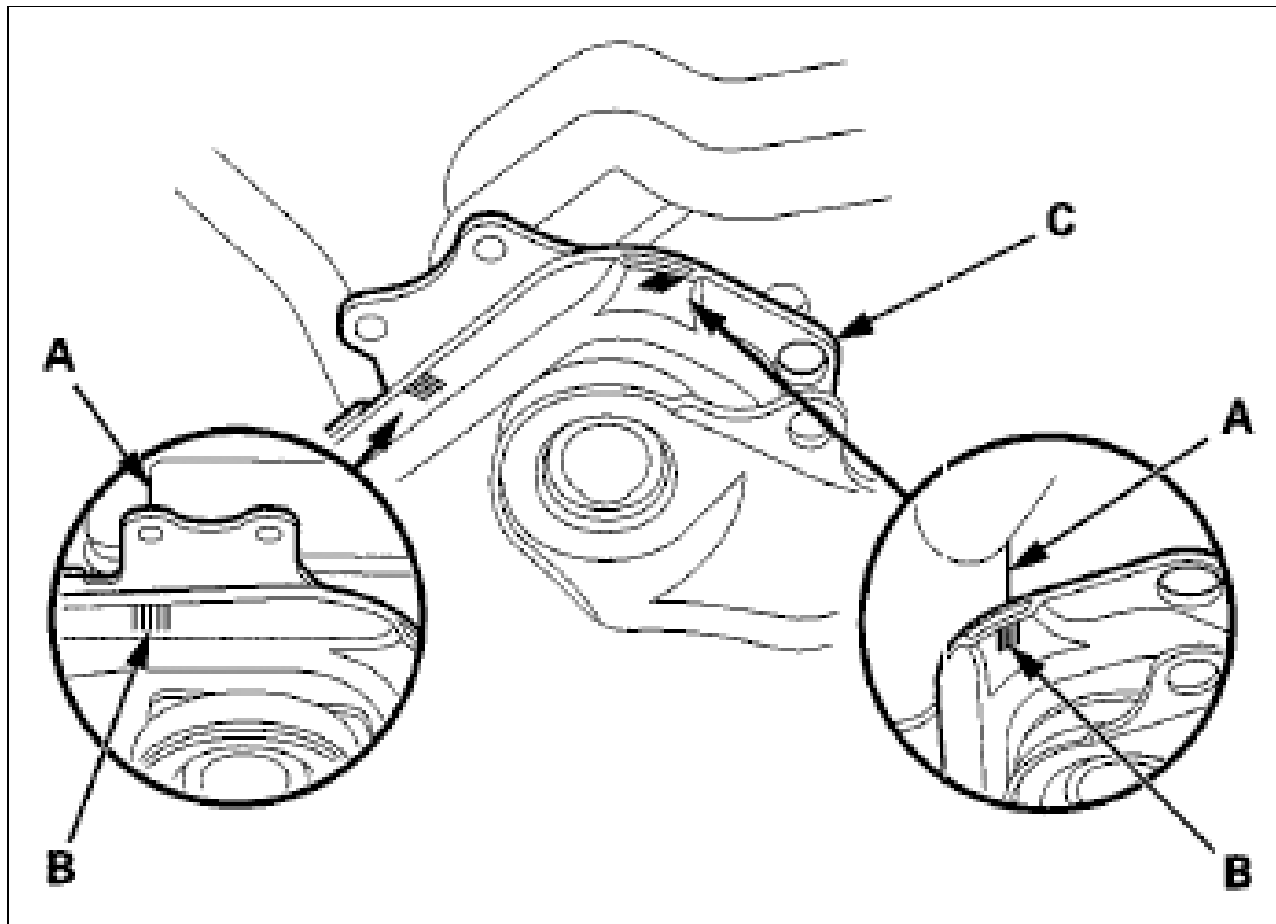
Fig 29: Identifying Vacuum Tube Joint And Clamp



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51. Make reference marks (A) on the body across the marks (B) on the edge of the front subframe (C).

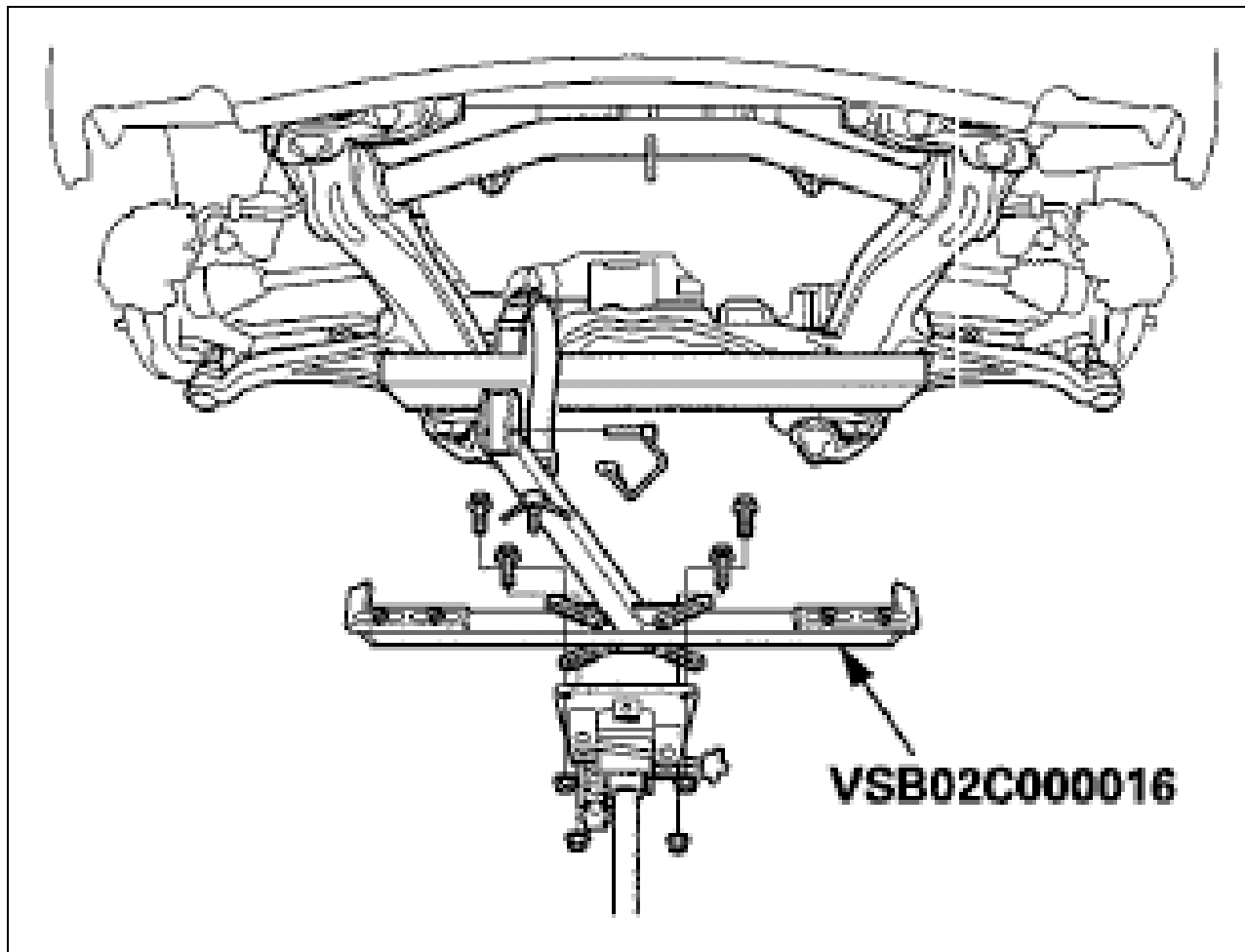
Fig 30: Identifying Reference Marks On



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52. Attach the front subframe adapter (VSB02C000016) to the front subframe by looping the belt over the front of the subframe, then securing the belt with its stop.

Fig 31: Attaching Front Subframe Adapter (VSB02C000016) To Front Subframe

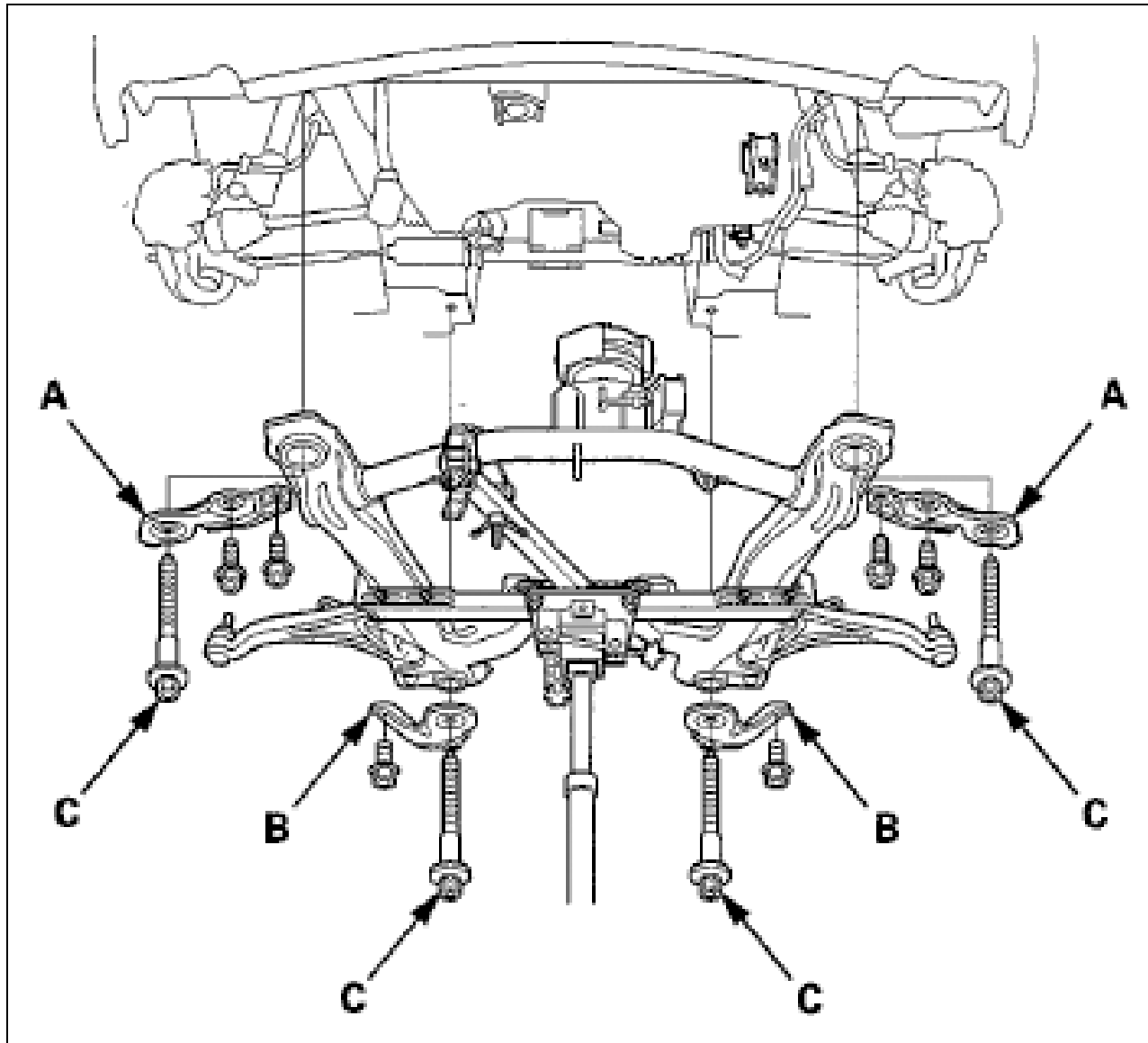


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53. Raise the jack and line up the slots in the arms with the bolt holes on the corner of the jack base, then attach them with bolts.
54. Support the steering gearbox on both sides with nylon straps.

55. Remove the four bolts securing the front stiffeners (A), the two bolts securing the rear stiffeners (B), the subframe mounting bolts (C), and remove the front and rear stiffeners.

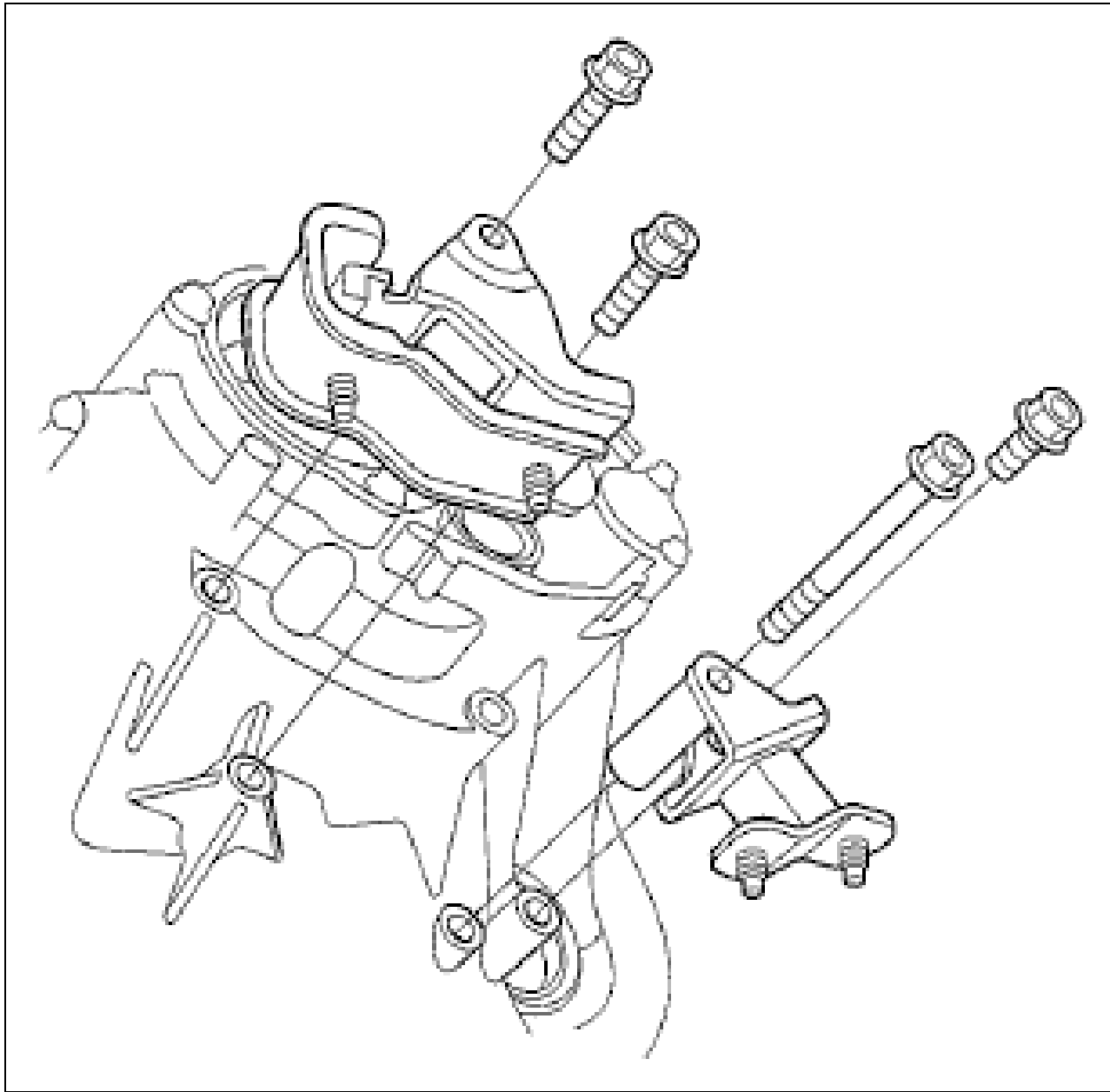
Fig 32: Identifying Front Stiffeners, Rear Stiffeners And Subframe Mounting Bolts



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56. Lower the front subframe with the jack.
57. Place a jack under the transmission.
58. Remove the transmission lower mounts.

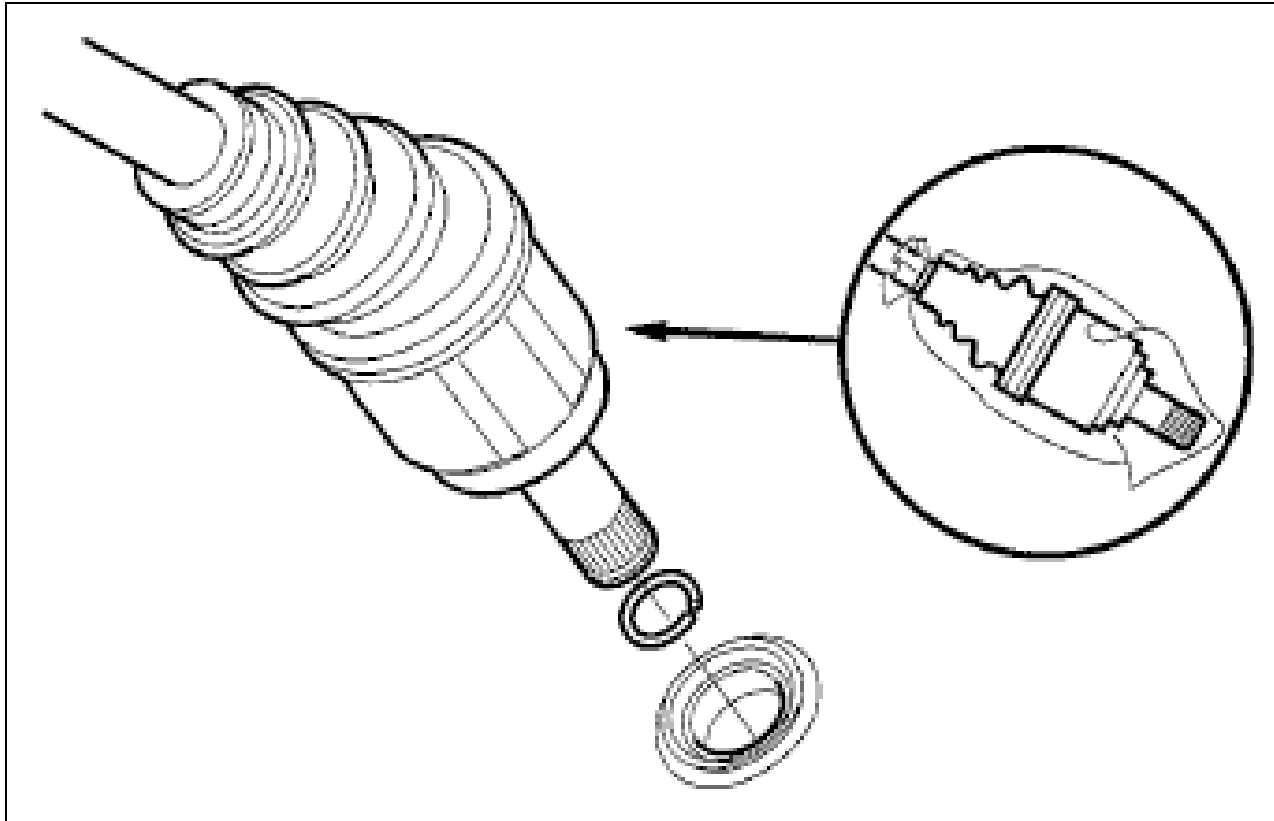
Fig 33: Identifying Transmission Lower Mounts



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59. Remove the driveshafts from the differential and the intermediate shaft. Coat all precision machined surfaces with clean engine oil, then put plastic bags over the driveshaft ends.

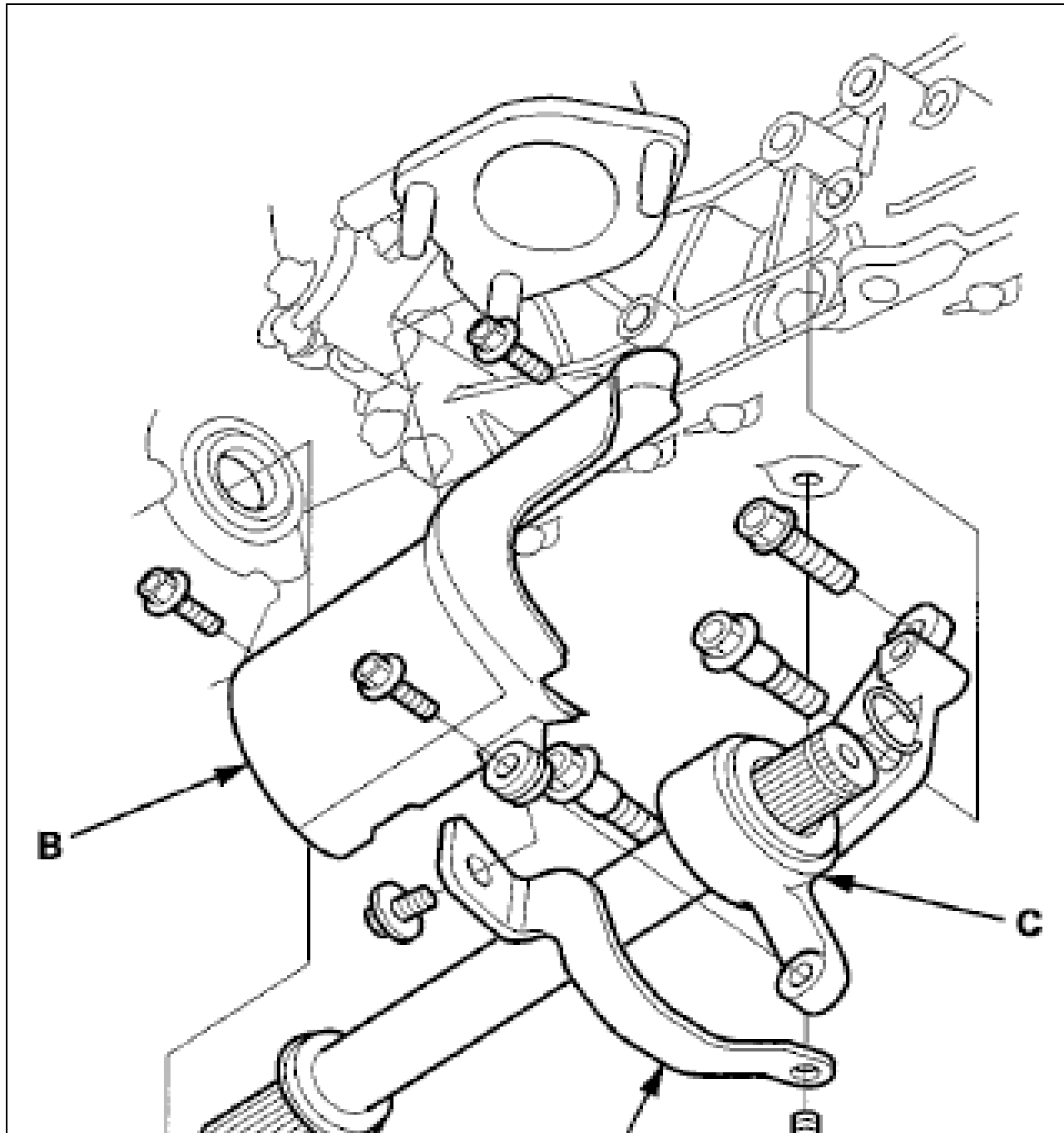
Fig 34: Covering Plastic Bags On Driveshaft



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60. Remove the rear warm up three way catalytic converter (WU-TWC) bracket (A) and the heat shield (B).

Fig 35: Identifying Three Way Catalytic Converter Bracket And Heat Shield

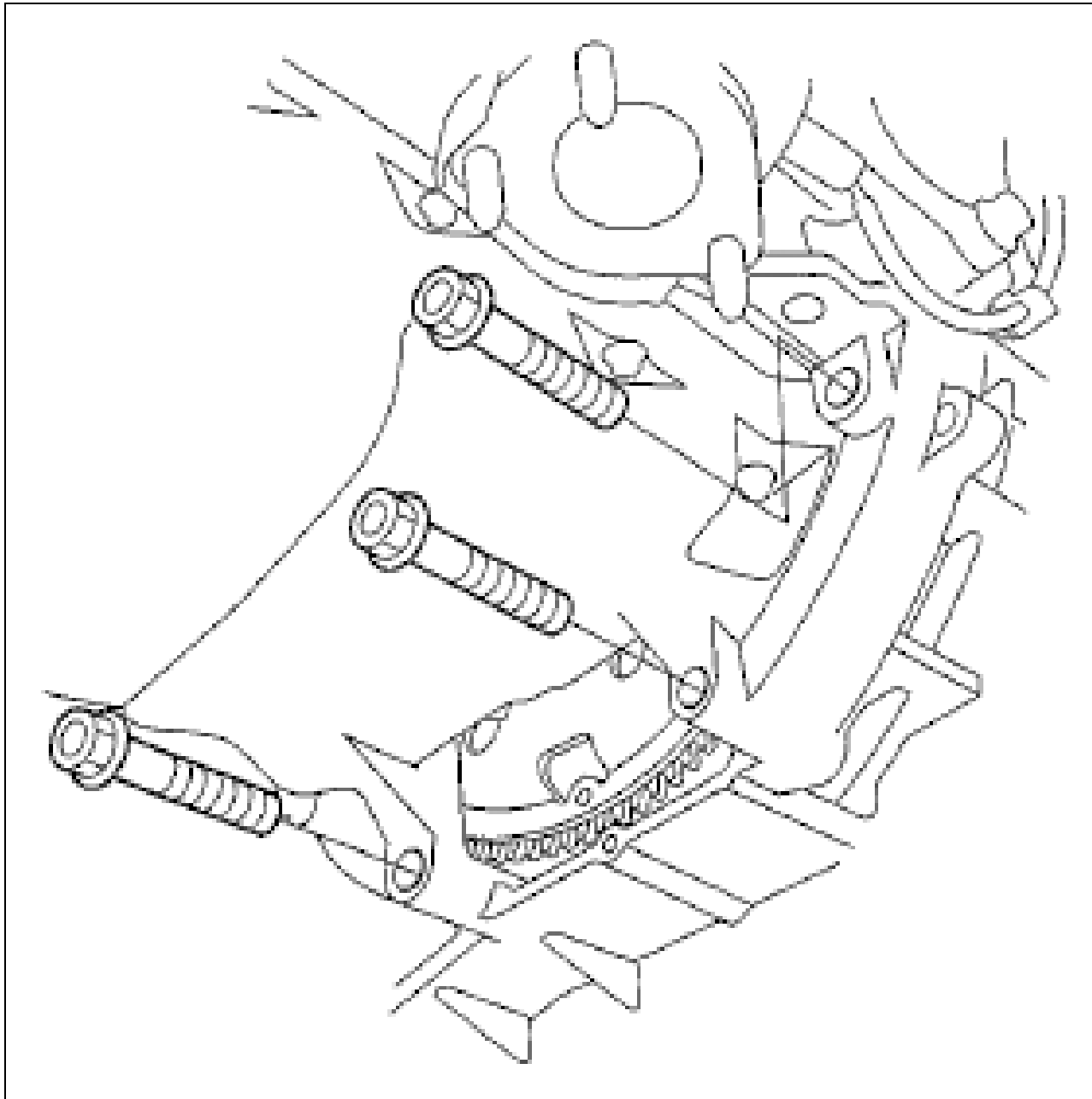




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61. Remove the intermediate shaft (C). Coat all precision finished surfaces with clean engine oil, then put plastic bags over the intermediate shaft ends.
62. Remove the lower transmission housing mounting bolts.

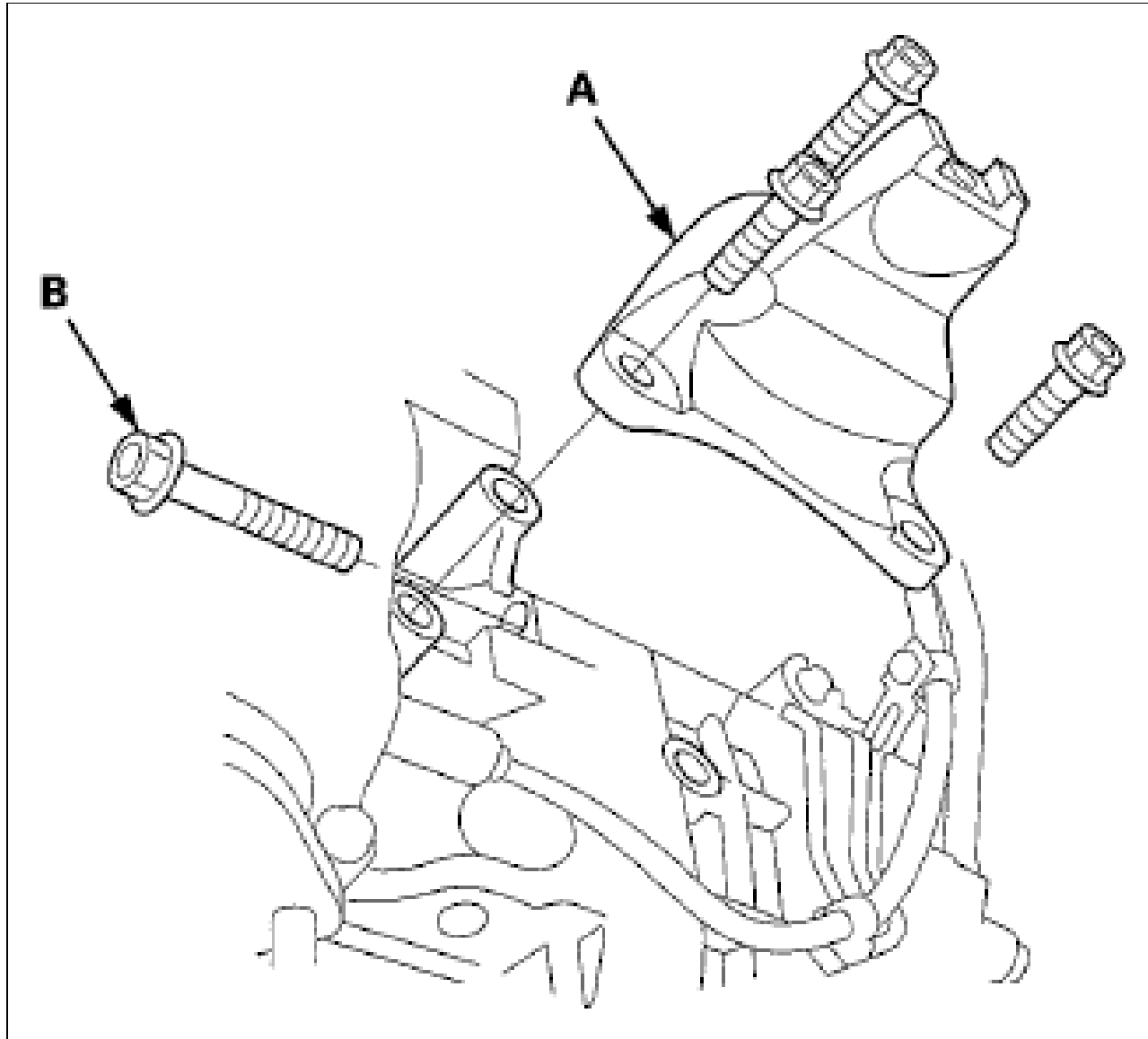
Fig 36: Identifying Lower Transmission Housing Mounting Bolts



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63. Remove the front engine mount bracket (A).

Fig 37: Identifying Front Engine Mount Bracket

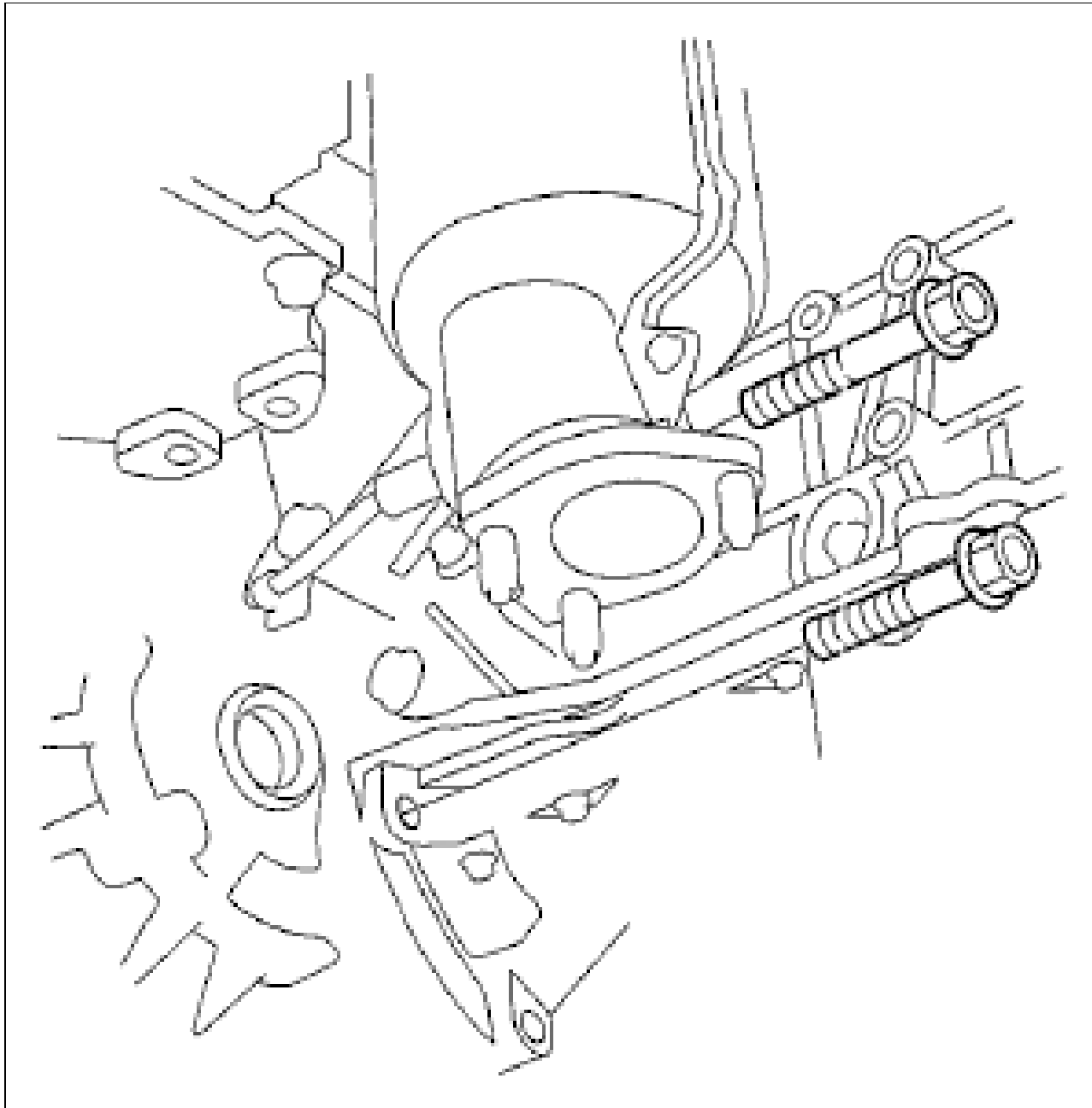


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64. Remove the front transmission housing mounting bolt(B).

65. Remove the rear transmission housing mounting bolts.

Fig 38: Identifying Front Transmission Housing Mounting Bolt

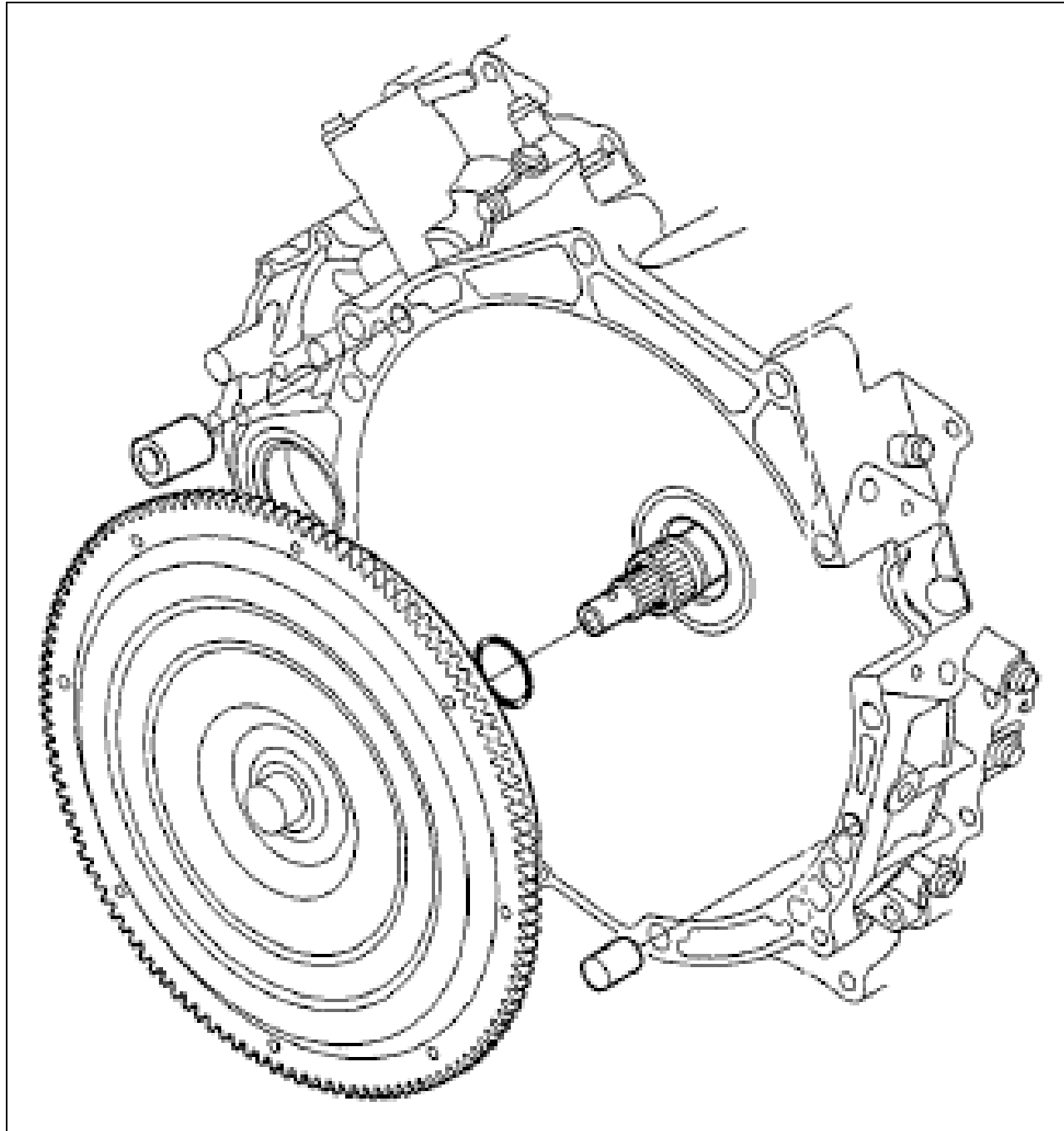


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66. Slide the transmission away from the engine to remove it from the vehicle.

67. Remove the torque converter, the O-ring, and the dowel pins.

Fig 39: Identifying Torque Converter O-ring And Dowel Pins



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68. Inspect the drive plate, and replace the drive plate if it is damaged.