DAIMLERCHRYSLER

Revised November 2004

Dealer Service Instructions for:

Customer Satisfaction Notification No. D19
Camshaft Sprocket Bolt Torque

The note in the "Models" section has been revised to include an "H" designation applicable to SRT-10 truck engines.

Effective immediately, all repairs on involved vehicles are to be performed according to this notification. Service Action #04-006 is being cancelled. Those vehicles that have already had this repair performed, as determined by our warranty records, have been excluded from this notification.

Models

2004 (ZB) Dodge Viper
(DR) Dodge Ram SRT-10

NOTE: This notification applies only to the above vehicles equipped with an ***8.3L V-10 engine*** *("Z" or "H" in the 8th VIN position) built through January 31, 2004* ***(MDH 013100)****.*

IMPORTANT: Many of the vehicles within the above build period have already been inspected or repaired and, therefore, have been excluded from this notification.

IMPORTANT: Some of the involved vehicles may be in dealer vehicle inventory. Dealers should complete this repair on these vehicles before retail delivery. Dealers should also perform this repair on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

The camshaft sprocket retaining bolts on about 1,200 of the above vehicles may not have been properly tightened. A loose cam sprocket bolt can back out and cause significant engine damage.

Repair

The camshaft sprocket retaining bolts must be tightened to the proper specification.

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Parts Information

IMPORTANT: Due to the small number of involved vehicles, no parts will be distributed to involved dealers. Parts may be ordered as needed to support scheduled repairs.

The following parts are required for each vehicle:

Part Number	Quantity	Description
05245135	1	Seal, Front Crankshaft
05281090	1	Filter, Oil
P5007324	10	Oil, Mobil 1 Synthetic 10W30
05013457AA	1	Fluid, Power Steering (ATF+4) (Ram SRT-10 Only)

Service Procedure

RAM SRT-10 TRUCK REPAIR PROCEDURE:

NOTE: Refer to Page 11 for Viper repair procedure.

1. Disconnect the negative battery cable and isolate it.

   NOTE: To enhance customer satisfaction, remember to reset the clock when you have completed the service procedure.

2. Remove the air cleaner cover and air inlet tube.

3. Raise the vehicle on an appropriate hoist.

4. Remove the front belly pan.

5. Drain the engine coolant via the petcock and the lower radiator hose. Filter and save the coolant for later reuse.

6. Disconnect the power steering lines from the bottom of the radiator fan module and drain the power steering fluid.

7. Detach the power steering line retaining clip from the radiator fan module.

8. Remove the accessory drive belt.

Service Procedure (Continued)

9. Drain the engine oil and remove the oil filter. Discard the filter.
10. Remove the lower radiator hose.
11. Disconnect the oil cooler line from the timing chain cover using special tool #9005 (Figure 1).
12. Remove the A/C compressor and mounting bracket assembly and then set it aside. Do not disconnect the refrigerant lines or discharge the A/C system.
13. Remove the steering gear assembly retaining bolts and lower the assembly (Figure 2).
14. Remove the sway bar-to-frame attaching bolts and lower the sway bar (Figure 2).
15. Loosen the right and left engine mount through bolts.
16. Lower the vehicle.
17. Remove the upper radiator hose.
18. Disconnect the cooling fan module electrical connector and hydraulic lines (Figure 3).

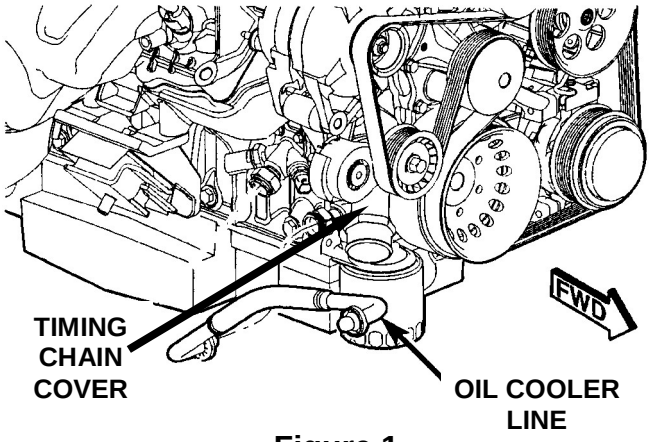

Figure 1

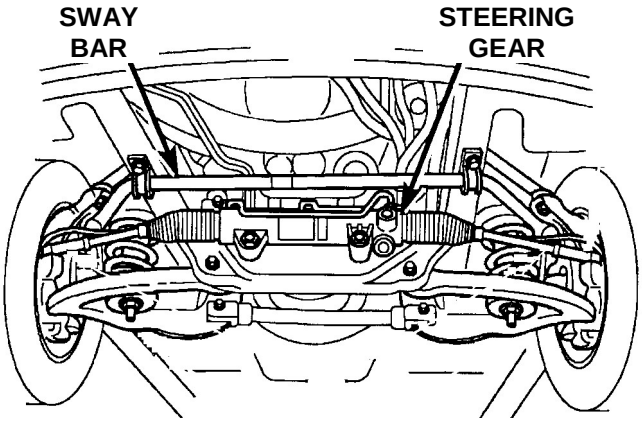

Figure 2

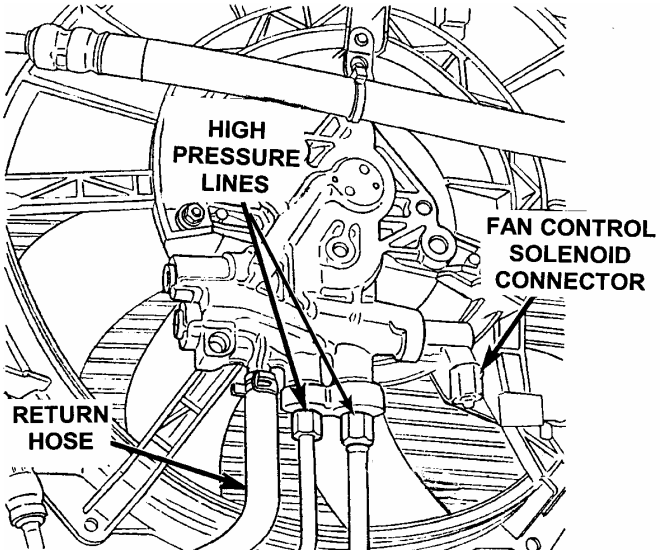

Figure 3

Service Procedure (Continued)

19. Remove the coolant recovery bottle.
20. Remove the cooling fan module (Figure 4).
21. Remove the crankshaft pulley.
22. Remove the crankshaft vibration damper using special tool #1023 (puller) and special tool #6827-A (insert).

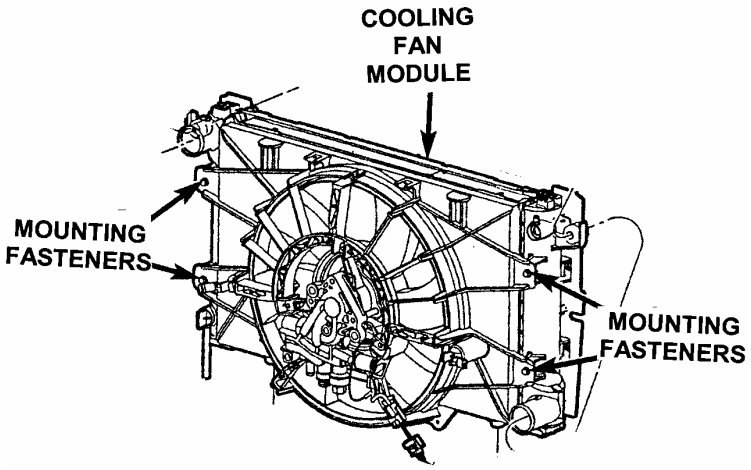

Figure 4

23. Inspect the mating surfaces of the crankshaft and vibration damper. If there is evidence of the damper slipping on the crankshaft, polish the crankshaft with emery or crocus cloth and discard the vibration damper.
24. Remove the pressure hose from the power steering pump.
25. Remove the power steering pump assembly and set it aside in the driver side frame rail area (Figure 5).
26. Remove the accessory drive belt idler pulley (Figure 5).
27. Remove the generator (Figure 5).
28. Disconnect the heater hoses from the timing chain cover.
29. Disconnect the ground cable from the thermostat housing.

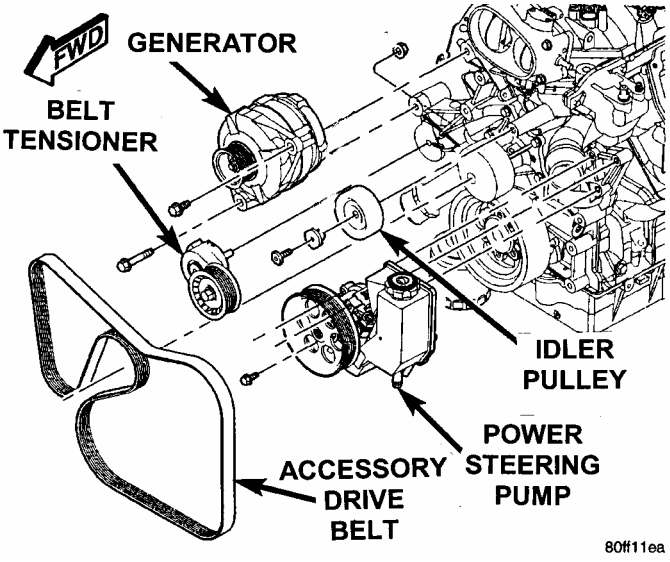

Figure 5

Service Procedure (Continued)

30. Install engine lift fixture special tool #8534-B and #9363 and raise engine/transmission assembly.
31. Raise the vehicle.
32. Remove the flywheel inspection cover.
33. Remove the oil pan bolts.
34. Carefully separate the oil pan from the oil pan-to-engine block gasket. Lower the oil pan leaving the gasket attached to the block. Do not remove the oil pan gasket. It can be reused, unless it is damaged.
35. Disconnect oil pick up tube and lower it into the oil pan (Figure 6).
36. Remove the accessory drive belt tensioner.
37. Carefully cut the RTV between the timing chain cover and the oil pan gasket.
38. Lower the vehicle.
39. Remove the timing chain cover bolts (Figure 7).
40. Remove the timing chain cover (Figure 7).

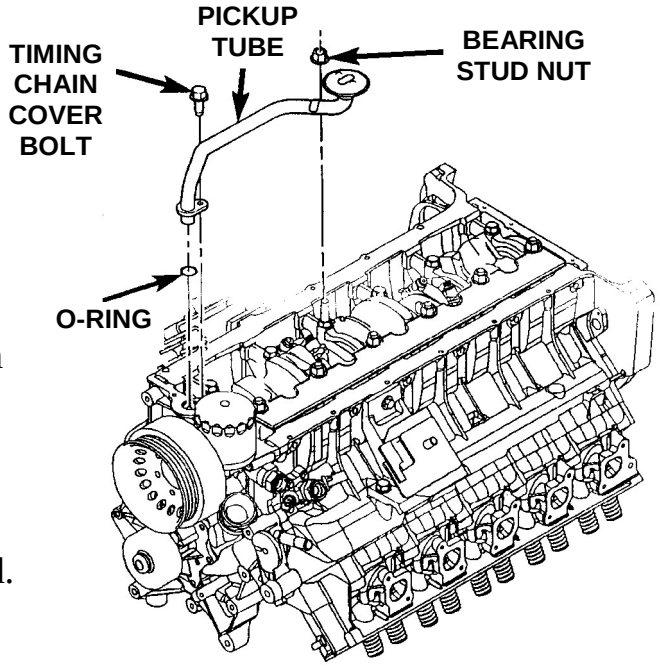

Figure 6

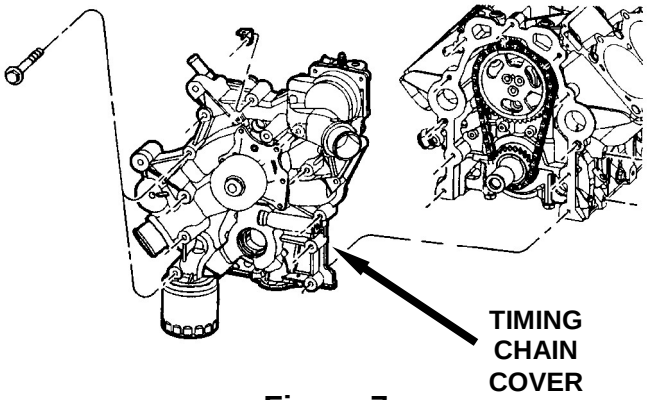

Figure 7

41. Remove the front crankshaft seal from the timing chain cover and discard the seal. Use care to not damage the machined surfaces.

Service Procedure (Continued)

42. Inspect the three (3) camshaft sprocket bolts (Figure 8).

43. If any camshaft sprocket bolt is broken or missing, contact the STAR Center for further information.

44. If any camshaft sprocket bolts are loose but not broken, inspect the camshaft position sensor in the timing chain cover for damage. Remove and discard the sensor if it is damaged.

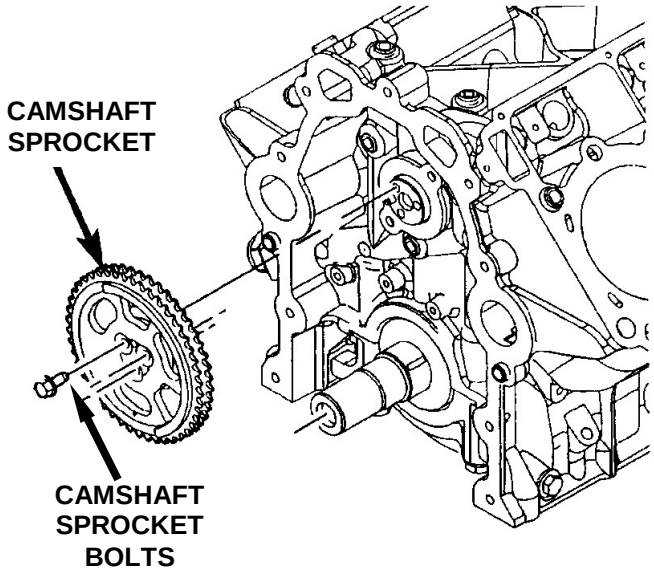

Figure 8

45. Rotate crankshaft to position the camshaft sprocket so that the raised front edge is at the upper (12 O'clock) position.

46. Snug the three (3) camshaft sprocket bolts to 50 in-lbs (6 N·m) to ensure hard contact of the joint faces.

47. Tighten each camshaft sprocket bolt to 250 in-lbs (29 N·m) starting with the bolt opposite the dowel pin. Tighten the bolts in a clockwise pattern.

48. Install the timing chain cover onto the location dowels without the front crankshaft seal installed (Figure 7).

49. Install all timing chain cover bolts and tighten to 100 in-lbs (11 N·m) using the sequence found in Figure 9, then using the same sequence, tighten the bolts to 200 in-lbs (22 N·m).

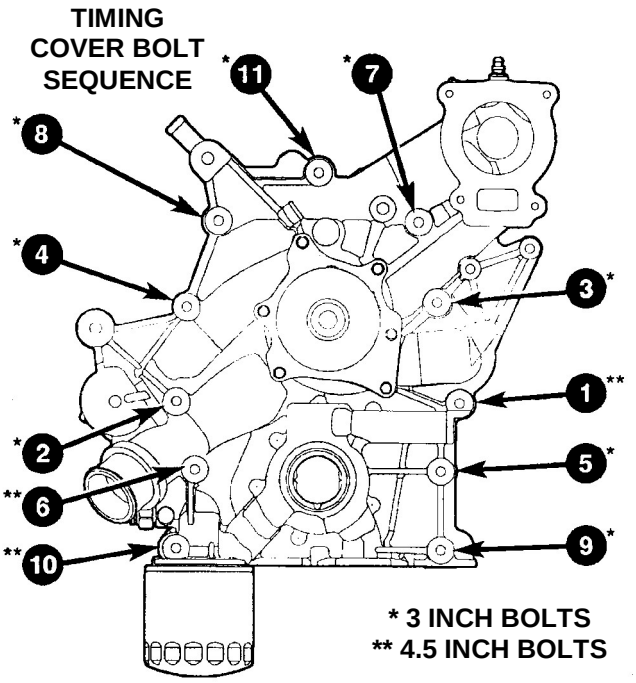

Figure 9

Service Procedure (Continued)

50. Using crank seal installation tool MD998306, install the front crankshaft seal to the proper depth (Figure 10).

51. If the camshaft position sensor was removed due to damage, slide a new sensor (P/N 05245084) into the timing chain cover sensor hole until it makes light contact with raised edge on the camshaft sprocket. Tighten the sensor retention bolt to 100 in-lbs (11 N·m).

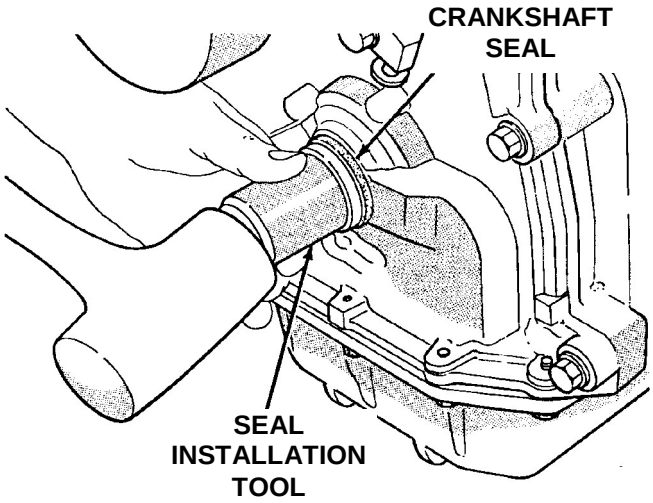

Figure 10

52. Raise the vehicle.

53. Install the accessory drive belt tensioner and nut to the appropriate position and tighten to 30 ft-lbs (41 N·m).

54. Clean any coolant and oil from the oil pan using MOPAR brake cleaner (P/N 04897150AB).

55. Inspect the oil pickup tube O-ring (Figure 6). Install a new O-ring (P/N 06032920) if it is damaged.

56. Install the oil pickup tube into the timing chain cover, seating the O-ring (Figure 6).

57. Install oil pickup tube flange onto the timing chain cover (Figure 6). Tighten the bolt to 100 in-lbs (11 N·m).

58. Install the oil pickup tube main bearing stud nuts to secure the oil pickup tube straps (Figure 6). Tighten the nuts to 200 in-lbs (22 N·m).

59. Clean and inspect the oil pan gasket. Install a new oil pan gasket (P/N 05037163AC) if the original gasket was damaged.

Service Procedure (Continued)

60. Apply a 1/8" bead of Mopar RTV (P/N 04883971) to the timing chain cover-to-block-to-oil pan joint area (two locations) and to the rear main seal-to-block-to-oil pan joint area (two locations).

61. Place the oil pan gasket onto the oil pan and place the oil pan into position on the engine.

62. Install all of the oil pan bolts. Tighten the small bolts to 100 in-lbs (11 N·m) and the large bolts to 200 in-lbs (22 N·m).

63. Install the oil pan drain plug. Tighten the drain plug to 25 ft-lbs (34 N·m).

64. Install the flywheel inspection cover.

65. Lower the vehicle.

66. Lower the engine/transmission assembly.

67. Remove the engine lift fixture.

68. Install the ground cable onto the thermostat housing.

69. Connect the heater hoses to the timing chain cover.

70. Install the generator (Figure 5).

71. Install the accessory drive belt idler pulley (Figure 5). Tighten the bolt to 30 ft-lbs (41 N·m).

72. Install the power steering pump assembly (Figure 5). Tighten the bolts to 200 in-lbs (22 N·m).

73. Install the crankshaft vibration damper using special tools #8512-A, #8698-1 and #9055-1. If the original damper was damaged, install a new vibration damper (P/N 05159003AA).

74. Place the transmission in gear.

75. Install the vibration damper bolt and tighten it to 130 ft-lbs (176 N·m).

Service Procedure (Continued)

76. Install the crankshaft pulley. Tighten the crankshaft pulley bolts to 200 in-lbs (22 N·m).
77. Install the cooling fan module (Figure 4).
78. Install the coolant recovery bottle.
79. Connect the cooling fan module electrical connector and hydraulic lines (Figure 3).
80. Install the upper radiator hose.
81. Raise the vehicle.
82. Tighten the engine mount through bolts to 75 ft-lbs (102 N·m).
83. Install the sway bar-to-frame mounting bolts (Figure 2). Tighten the bolts to 45 ft-lbs (61 N·m).
84. Install the steering gear assembly (Figure 2). Tighten the mounting bolts to 235 ft-lbs (319 N·m).
85. Install the A/C compressor and bracket assembly. Tighten the fasteners to 200 in-lbs (22 N·m).
86. Install the oil cooler line to the timing chain cover (Figure 1).
87. Install the lower radiator hose.
88. Install a new oil filter (P/N 05281090).
89. Install the accessory drive belt by positioning the belt over all pulleys except the water pump pulley, then rotate tensioner counterclockwise and slip the belt over water pump pulley and gently release the tensioner.
90. Install the cooling fan module power steering line retainer.
91. Install the power steering and cooling fan hydraulic lines (Figure 3). Tighten the return line to 52 ft-lbs (71 N·m), the pump-to-fan line to 275 in-lbs (32 N·m) and the pump-to-steering gear line to 325 in-lbs (37 N·m).

Service Procedure (Continued)

92. Install the front belly pan. Tighten the fasteners to 50 in-lbs (6 N·m).
93. Lower the vehicle.
94. Open the coolant bleeder valve.
95. Fill the engine with the original coolant until coolant bleeder valve has steady flow of coolant. Close the bleeder valve and install the radiator cap.
96. Fill the engine with 9 quarts of Mobil 1 10W30 Synthetic motor oil (P/N P5007324).
97. Install the air cleaner cover and air inlet tube.
98. Connect the negative battery cable.
99. Fill the power steering pump reservoir with Power Steering Fluid (ATF+4) (P/N 05013457AA).
100. Start the engine and run for 1 minute.
101. Turn the engine off.
102. Check all fluid levels after 5 minutes and top off as required.
103. Start the engine.
104. Remove air from steering system by using the DRBIII® (Scan Tool) to actuate cooling fan at 50% duty while slowly rotating the steering wheel lock to lock.
105. Turn the engine off and check all fluid levels after 5 minutes and top off as required.
106. Check for fluid leaks.

Service Procedure (Continued)

VIPER REPAIR PROCEDURE:

1. Place the vehicle on an appropriate hoist.
2. Open the trunk and pull back the carpet.
3. Remove the battery cover, disconnect the negative battery cable and isolate it.
4. Open the hood.
5. Remove the air cleaner assembly.
6. Drain the engine coolant via the radiator petcock. Filter and save the coolant for later reuse.
7. Remove the upper radiator hose.
8. Remove front strut tower to tower brace.
9. Remove the accessory drive belt (Figure 11).
10. Remove the power steering pump (Figure 11).
11. Remove the generator (Figure 11).
12. Remove the heater hoses from the timing chain cover.
13. Raise the vehicle.
14. Drain the engine oil and remove the oil filter. Discard the filter.

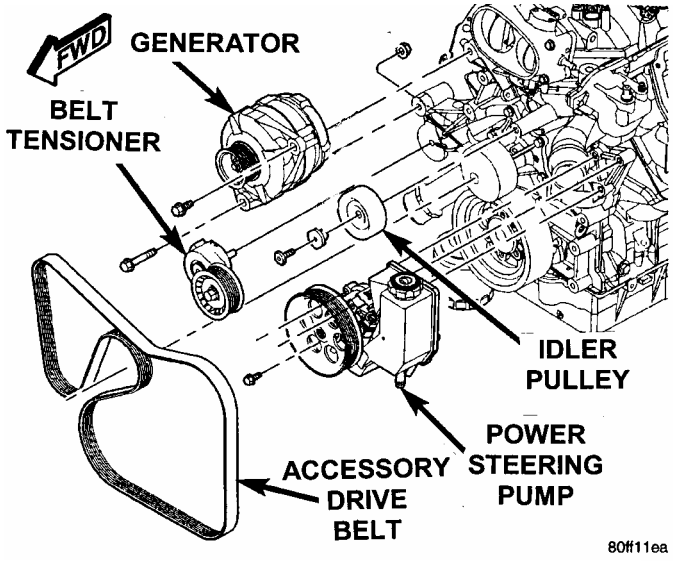

Figure 11

15. Remove the flywheel inspection cover.
16. Remove the A/C compressor and mounting bracket assembly and then set it aside. Do not disconnect the refrigerant lines or discharge the A/C system.

Service Procedure (Continued)

17. Remove coolant hose from the thermostat housing.
18. Remove the A/C line retaining bolt at the oil pan.
19. Remove the four (4) bell housing-to-oil pan bolts.
20. Remove the oil pan bolts.
21. Carefully separate the oil pan from the oil pan-to-engine block gasket. Remove the oil pan leaving the gasket attached to the block. Do not remove the oil pan gasket. It can be reused, unless it is damaged.
22. Carefully cut the RTV between timing chain cover and the oil pan gasket.
23. Remove the oil pick up tube (Figure 12).
24. Remove the left and right motor mount retaining nuts.
25. Temporarily install the oil pan for lifting engine.
26. Lower the vehicle.
27. Raise the engine with a floor jack (place wood between the jack and the oil pan).
28. Remove the crankshaft pulley.

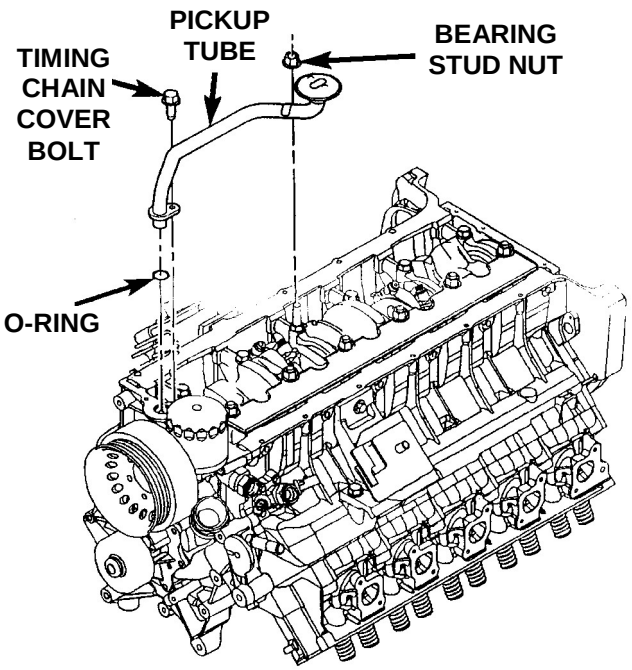

Figure 12

29. Remove the crankshaft vibration damper using special tool #1023 (puller) and special tool #6827-A (insert).
30. Inspect the mating surfaces of the crankshaft and vibration damper. If there is evidence of the damper slipping on the crankshaft, polish the crankshaft with emery or crocus cloth and discard the vibration damper.

Service Procedure (Continued)

31. Remove the oil cooler line from the timing chain cover using special tool #9005 (Figure 13).
32. Remove the lower radiator hose from the front cover.
33. Remove the accessory drive belt tensioner.

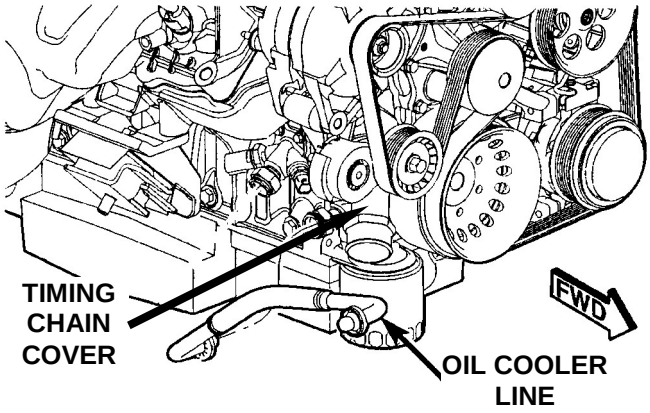

Figure 13

34. Remove the timing chain cover (Figure 14).
35. Remove the front crankshaft seal from the timing chain cover and discard the seal. Use care to not damage the machined surfaces.
36. Inspect the three (3) camshaft sprocket bolts (Figure 15).
37. If any camshaft sprocket bolt is broken or missing, contact the STAR Center for further information.
38. If any camshaft sprocket bolts are loose but not broken, inspect the camshaft position sensor in the timing chain cover for damage. Remove and discard the sensor if it is damaged.

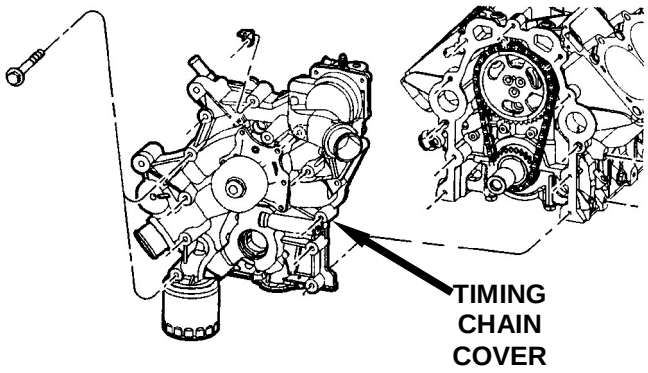

Figure 14

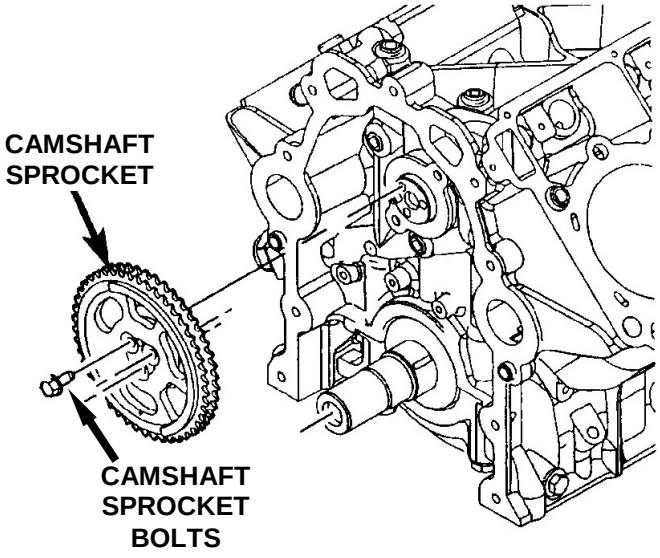

Figure 15

Service Procedure (Continued)

39. Rotate crankshaft to position the camshaft sprocket so that the raised front edge is at the upper (12 O'clock) position.

40. Snug the three (3) camshaft sprocket bolts (Figure 15) to 50 in-lbs (6 N·m) to ensure hard contact of the joint faces.

41. Tighten each camshaft sprocket bolt to 250 in-lbs (29 N·m) starting with the bolt opposite the dowel pin. Tighten the bolts in a clockwise pattern.

42. Install the timing chain cover onto the location dowels without the front crank seal installed (Figure 14).

43. Install all timing chain cover bolts and tighten to 100 in-lbs (11 N·m) using the sequence shown in Figure 16, then using the same sequence, tighten the bolts to 200 in-lbs (22 N·m).

44. Using crank seal installation tool MD998306, install the front crankshaft seal to the proper depth (Figure 17).

45. If the camshaft position sensor was removed due to damage, slide a new sensor (P/N 05245084) into the timing chain cover sensor hole until it makes light contact with raised edge on the camshaft sprocket. Tighten the sensor retention bolt to 100 in-lbs (11 N·m).

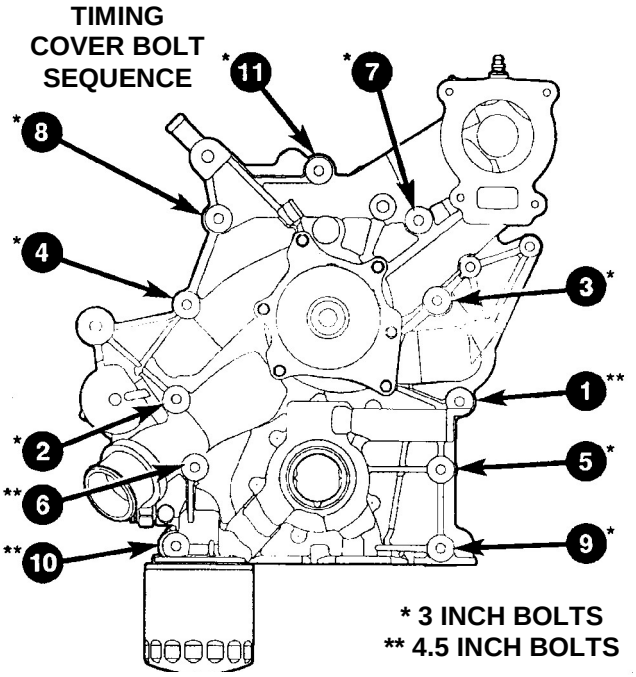

Figure 16

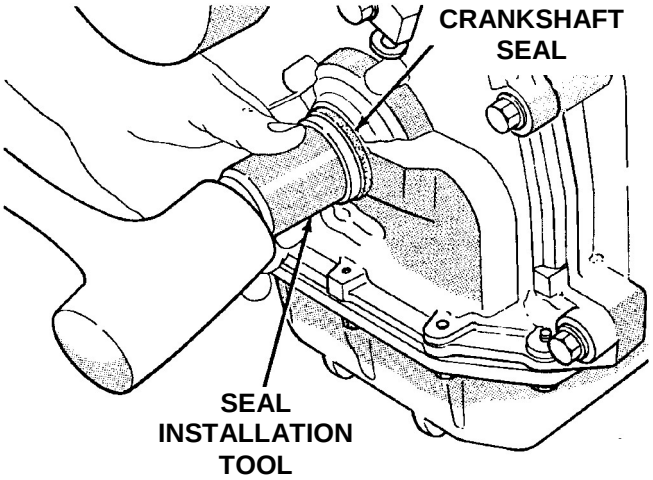

Figure 17

Service Procedure (Continued)

46. Install the accessory drive belt tensioner and nut to the appropriate position and tighten to 30 ft-lbs (41 N·m).
47. Install the lower radiator hose onto the timing chain cover.
48. Install the oil cooler line onto the timing chain cover (Figure 13).
49. Install the crankshaft vibration damper using special tools #8512-A, #8698-1 and #9055-1. If the original damper was damaged, install a new vibration damper (P/N 05159003AA).
50. Place the transmission in gear.
51. Install the vibration damper bolt and tighten it to 130 ft-lbs (176 N·m).
52. Install the crankshaft pulley. Tighten the crankshaft pulley bolts to 200 in-lbs (22 N·m).
53. Lower the engine.
54. Raise the vehicle.
55. Install the left and right motor mount retaining bolts.
56. Clean any coolant and oil from the oil pan using MOPAR brake cleaner (P/N 04897150AB).
57. Inspect the oil pickup tube O-ring (Figure 12). Install a new O-ring (P/N 06032920) if it is damaged.
58. Install the oil pickup tube into the timing chain cover, seating the O-ring (Figure 12).
59. Install oil pickup tube flange onto the timing chain cover (Figure 12). Tighten the bolt to 100 in-lbs (11 N·m).
60. Install the oil pickup tube main bearing stud nuts to secure the oil pickup tube strap (Figure 12). Tighten the nuts to 200 in-lbs (22 N·m).

Service Procedure (Continued)

61. Clean and inspect the oil pan gasket. Install a new oil pan gasket (P/N 05037163AC) if the original gasket was damaged.

62. Apply a 1/8" bead of Mopar RTV (P/N 04883971) to the timing chain cover-to-block-to-oil pan joint area (two locations) and to the rear main seal-to-block-to-oil pan joint area (two locations).

63. Place the oil pan gasket onto the oil pan and place the oil pan into position on the engine.

64. Install all of the oil pan bolts. Tighten the small bolts to 100 in-lbs (11 N·m) and the large bolts to 200 in-lbs (22 N·m).

65. Install the oil pan drain plug. Tighten the drain plug to 25 ft-lbs (34 N·m).

66. Install the flywheel inspection cover.

67. Install the A/C line retaining bolt at the oil pan.

68. Install the coolant hose at thermostat housing.

69. Install the A/C compressor/bracket to the engine, tighten the fasteners to 200 in-lbs (22 N·m).

70. Lower the vehicle.

71. Install the heater hoses onto the timing chain cover.

72. Install the generator (Figure 11).

73. Install power steering pump (Figure 11). Tighten the fasteners to 200 in-lbs (22 N·m).

74. Install accessory drive belt (Figure 11) by positioning the belt over all pulleys except water pump pulley, then rotate tensioner counterclockwise and slip belt over water pump pulley and gently release tensioner.

75. Install the front strut tower to tower brace.

Service Procedure (Continued)

76. Install the upper radiator hose.
77. Install the air cleaner assembly.
78. Install and secure all electrical sensor connections.
79. Open the coolant bleeder valve.
80. Fill the engine with the original coolant until coolant bleeder valve has steady flow of coolant. Close the bleeder valve and install the radiator cap.
81. Fill the engine with 10 quarts of Mobil 1 10W30 Synthetic motor oil (P/N P5007324).
82. Connect the battery cable and install the battery cover. Place the trunk carpeting back into its proper position.
83. Verify the fluid level in the power steering pump.
84. Start the engine and run for 1 minute.
85. Turn the engine off.
86. Check all fluid levels after 5 minutes and top off as required.
87. Check for fluid leaks.

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by DaimlerChrysler to record Customer Satisfaction Notification service completions and provide dealer payments.

Use the following labor operation number and time allowance:

	Labor Operation Number	**Time Allowance**
Tighten cam sprocket bolts	09-D1-91-82	
Viper (ZB)		3.3 hours
Ram SRT-10 (DR)		5.1 hours

Add the cost of the parts plus applicable dealer allowance to your claim.

NOTE**:** See the Warranty Administration Manual, Recall Claim Processing Section, for complete claim processing instructions.

Parts Return

Not Applicable.

Dealer Notification

All dealers will receive a copy of this dealer notification letter by DMAIL and by mail. Two additional copies will be sent through the DCMMS. DealerCONNECT will be updated to include this notification in the near future.

Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed. Involved dealers were also mailed a copy of their vehicle (VIN) list with the dealer notification letter.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the **"Service"** tab and then click on **"Global Recall System."** Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers should perform this repair on all unsold vehicles *before* retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Owner Notification and Service Scheduling

All involved vehicle owners known to DaimlerChrysler are being notified of the service requirement by mail. They are requested to schedule appointments for this service with their dealers. A copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification Form. The involved vehicle and notification are identified on the form for owner or dealer reference as needed.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services Field Operations
DaimlerChrysler Corporation

DAIMLERCHRYSLER

CUSTOMER SATISFACTION NOTIFICATION
CAMSHAFT SPROCKET BOLT TORQUE

Dear Dodge Viper or Ram SRT-10 Owner:

The satisfaction of our customers is very important to DaimlerChrysler. Because of this, we are requesting owners of some **2004 model year Dodge Viper and Ram SRT-10 vehicles** to contact their dealer to have the following service performed.

The problem is...	**The camshaft sprocket retaining bolts on your vehicle** (identified on the enclosed form) **may not have been properly tightened. A loose camshaft sprocket bolt could fall out and cause significant engine damage.**
What DaimlerChrysler and your dealer will do...	**DaimlerChrysler will repair your vehicle free of charge (parts and labor).** To do this, your dealer will tighten the camshaft sprocket bolts to the proper specification. The work will take about 3½ hours to complete for Vipers and about 5½ hours for Ram SRT-10 trucks. However, additional time may be necessary depending on how dealer appointments are scheduled and processed.
What you must do...	➢ Simply **contact your dealer** right away to schedule a service appointment. ➢ **Bring the enclosed form with you to your dealer.** It identifies the required service to the dealer.
If you need help...	If you have questions or concerns which your dealer is unable to resolve, please contact DaimlerChrysler at 1-800-853-1403.

If you have already experienced this condition and have paid to have it repaired, you may send your original receipts and/or other adequate proof of payment to the following address for reimbursement: DaimlerChrysler, P.O. Box 610207, Port Huron, MI 48061-0207, Attention: Reimbursement.

We are sorry for any inconvenience, but we believe that this service will help to ensure your continuing satisfaction with your vehicle. Thank you for your attention to this important matter.

Customer Services Field Operations
DaimlerChrysler Corporation
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Buckle up for Safety