SB-10055165-4872

CHRYSLER

February 2014

Dealer Service Instructions for:

Customer Satisfaction Notification P01 Engine Timing Chain and Chain Guide

Models

2009-2012 (LC) Dodge Challenger

(LD) Dodge Charger

(LX) Chrysler 300

NOTE: This recall applies only to the above vehicles equipped with a 5.7L Hemi engine ***(sales code EZD or EZH),*** *automatic transmission* ***(sales code DGJ)*** *and rear axle ratio 3.06, 3.73 or 3.92* ***(sales code DMP, DME or DMH)*** *built from August 04, 2008 through July 10, 2012* ***(MDH 080406 through 071008)****.*

IMPORTANT: Some of the involved vehicles may be in dealer used 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 engine timing chain guide on about 50,800 of the above vehicles may fracture. A fractured engine timing chain guide could cause the engine timing chain to break. A broken engine timing chain will result in severe engine damage.

Repair

The engine timing chain, timing chain tensioner and timing chain guide must be replaced.

Parts Information

Part Number	Description
CBPRN291AA	**Engine Timing Chain Package**

Each package contains the following components:

Quantity	Description
1	Chain, Engine Timing
1	Guide, Engine Timing Chain
1	Tensioner, Engine Timing Chain
1	O-ring, Oil Pick-up Tube
1	Gasket, Engine Timing Cover

NOTE: Order two heater tube O-rings separately listed below for each repair.

Part Number	Description
53013736AA	**O-ring, Heater Tube (order two per vehicle)**

Each dealer to whom vehicles in the recall were assigned will receive enough Engine Timing Chain Packages to service about 20% of those vehicles.

Part Number	Description
04884899AB	**Filter, Oil**
68079549MB	**Oil, Engine (5W20) (U.S. and Mexico)**
0VU02161AD	**Oil, Engine (5W20) (Canada)**
68066408EA	**Oil, Engine (5W20) (Export)**
68051212AB	**Coolant, Engine (U.S. and Mexico)**
OVU01524AB	**Coolant, Engine (Canada)**
05103532EC	**Coolant, Engine (Export)**
04883971	**RTV, Engine Sealant (one tube can repair 10 vehicles)**

Special Tools

The following special tools are required to perform this repair:

➢ NPN	wiTECH VCI Pod Kit
➢ NPN	Laptop Computer
➢ NPN	wiTECH Software
➢ 26342	Button, Crankshaft
➢ 8514	Pin, Timing Chain Tensioner
➢ 10387	Installer, Crankshaft Damper

Service Procedure

1. Open the trunk and disconnect the negative battery cable at the battery.
2. Open the hood.
3. Remove and save the engine plastic cover.
4. Remove and save the air cleaner assembly and air inlet hose to the throttle body.
5. Drain and save the engine coolant.

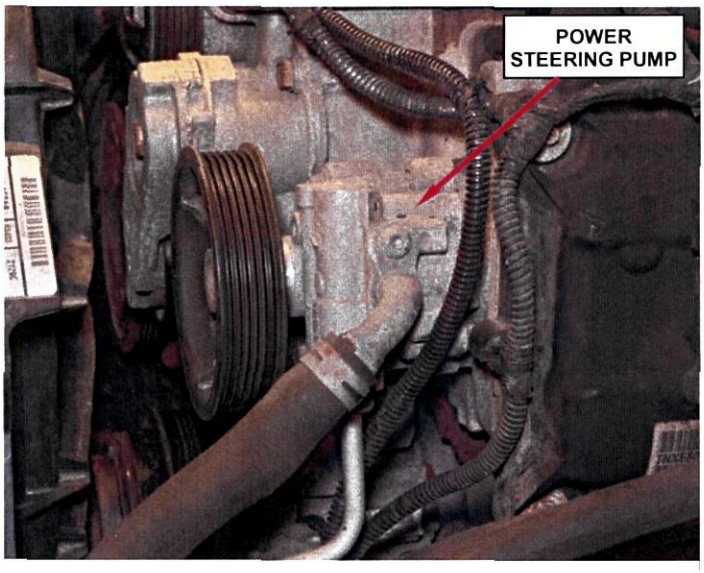

Figure 1 – Power Steering Pump

6. Remove and save the accessory drive belt and accessory drive belt tensioner.
7. Remove and save the upper radiator hose.
8. Remove and save the power steering pump retaining bolts (Figure 1).
9. Set the power steering pump aside, but do not disconnect any of the power steering pump hoses.
10. Disconnect the camshaft position sensor electrical connector.
11. Disconnect the engine coolant temperature sensor electrical connector.
12. Remove and save the accessory drive belt idler pulley (Figure 2).
13. Disconnect the lower radiator hose at the water pump

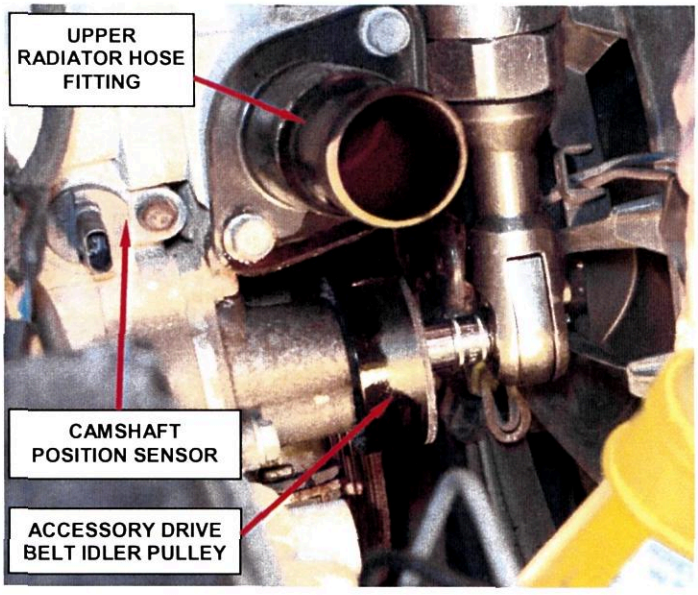

Figure 2 – Accessory Drive Belt Idler Pulley

Service Procedure (Continued)

14. Remove and save the left steel heater tube bracket bolt located at the rear of the left cylinder head.

15. Remove the left steel heater tube retaining bolt at the timing chain cover (Figure 3).

16. Pull the left steel heater tube out of the timing cover, twist the steel tube counterclockwise, and push the tube back out of the way (Figure 3).

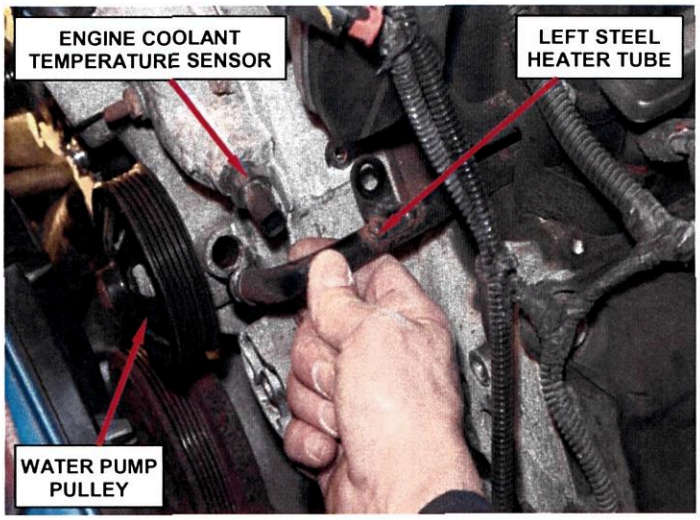

Figure 3 – Left Steel Heater Tube

17. Disconnect the electrical fan connector located on the fan shroud.

18. Remove and save the two fan shroud retaining bolts.

19. Remove and save the radiator fan and shroud as an assembly.

20. Install a piece of cardboard or equivalent to the radiator face to protect the radiator during this repair procedure (Figure 4).

21. Remove and save the engine crankshaft damper bolt.

22. Using engine crankshaft button (Special Tool 26342) and a crankshaft damper puller, remove the engine crankshaft damper (Figure 4).

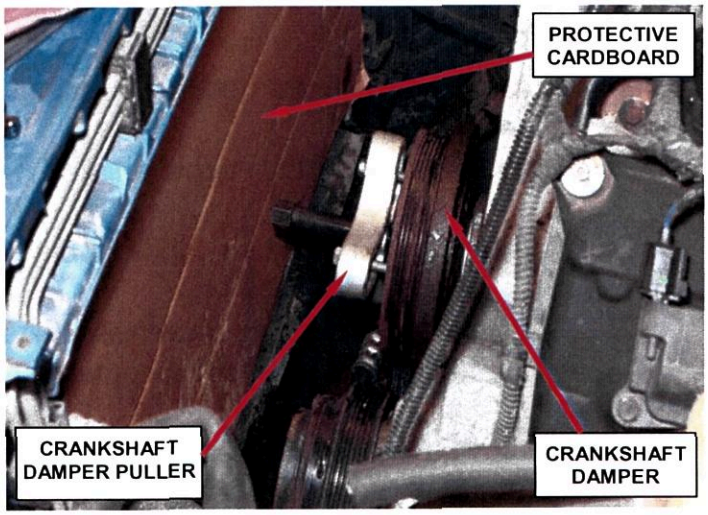

Figure 4 – Crankshaft Damper Puller

CAUTION: Failure to install crankshaft button (Special Tool 26342) onto the nose of the crankshaft may allow the damper puller to damage the threads in the nose of the crankshaft.

Service Procedure (Continued)

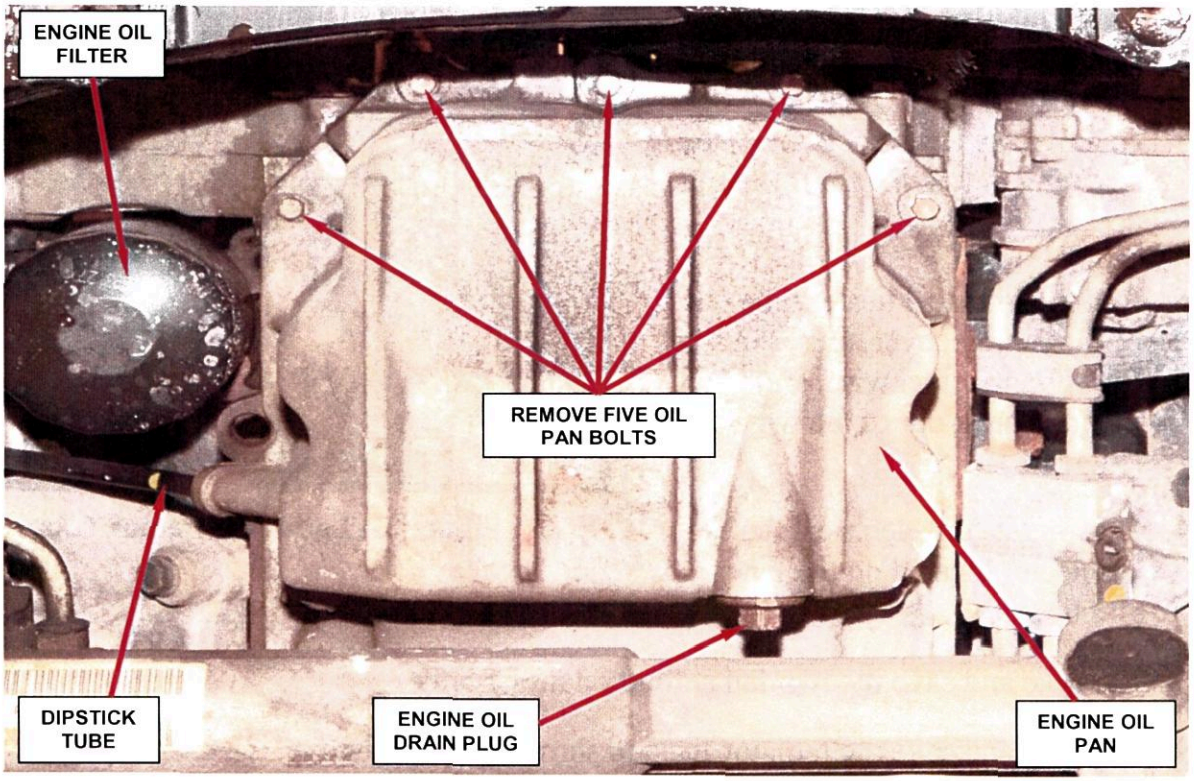

Figure 5 – Oil Pan Bolts

23. Lift the vehicle on the hoist.

24. Remove and save the underbody engine plastic splash shield.

25. Drain and discard the engine oil.

26. Remove and save the air conditioning compressor mounting bolts.

27. Set the air conditioning compressor aside. Do not disconnect any of the hoses going to the air conditioning compressor.

28. Remove and save the two lower alternator mounting bolts.

29. Remove and save the three front oil pan bolts (Figure 5).

30. Remove and save the right and left side front oil pan bolts (Figure 5).

Service Procedure (Continued)

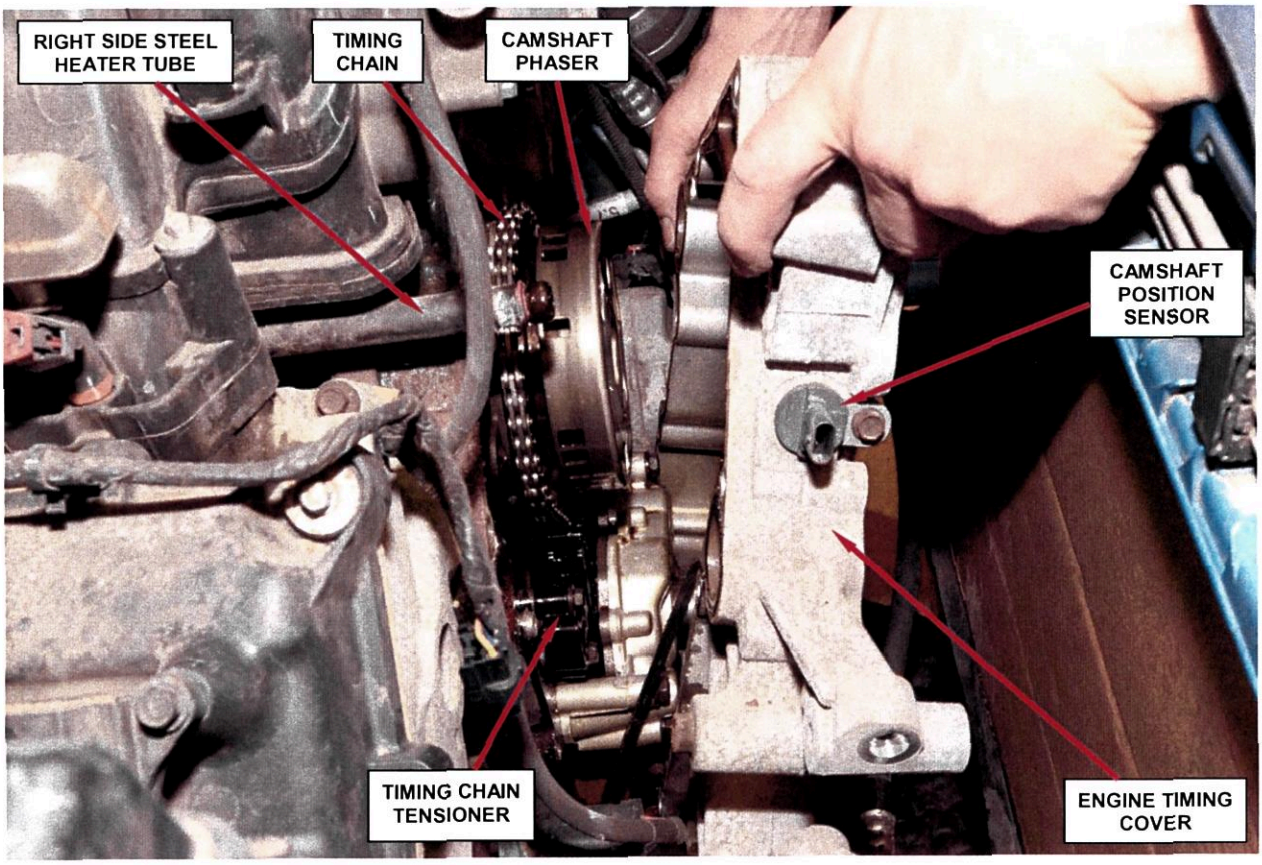

Figure 6 – Engine Timing Cover

31. Lower the vehicle.

32. Remove and save the upper alternator mounting bolt and set the alternator aside. Do not disconnect any of the electrical connections to the alternator.

33. Remove and save the six timing cover retaining bolts.

34. Carefully remove the engine timing cover assembly from the engine (Figure 6).

    NOTE: The engine timing cover will require extra effort to remove. Patience and perseverance during removal is required.

Service Procedure (Continued)

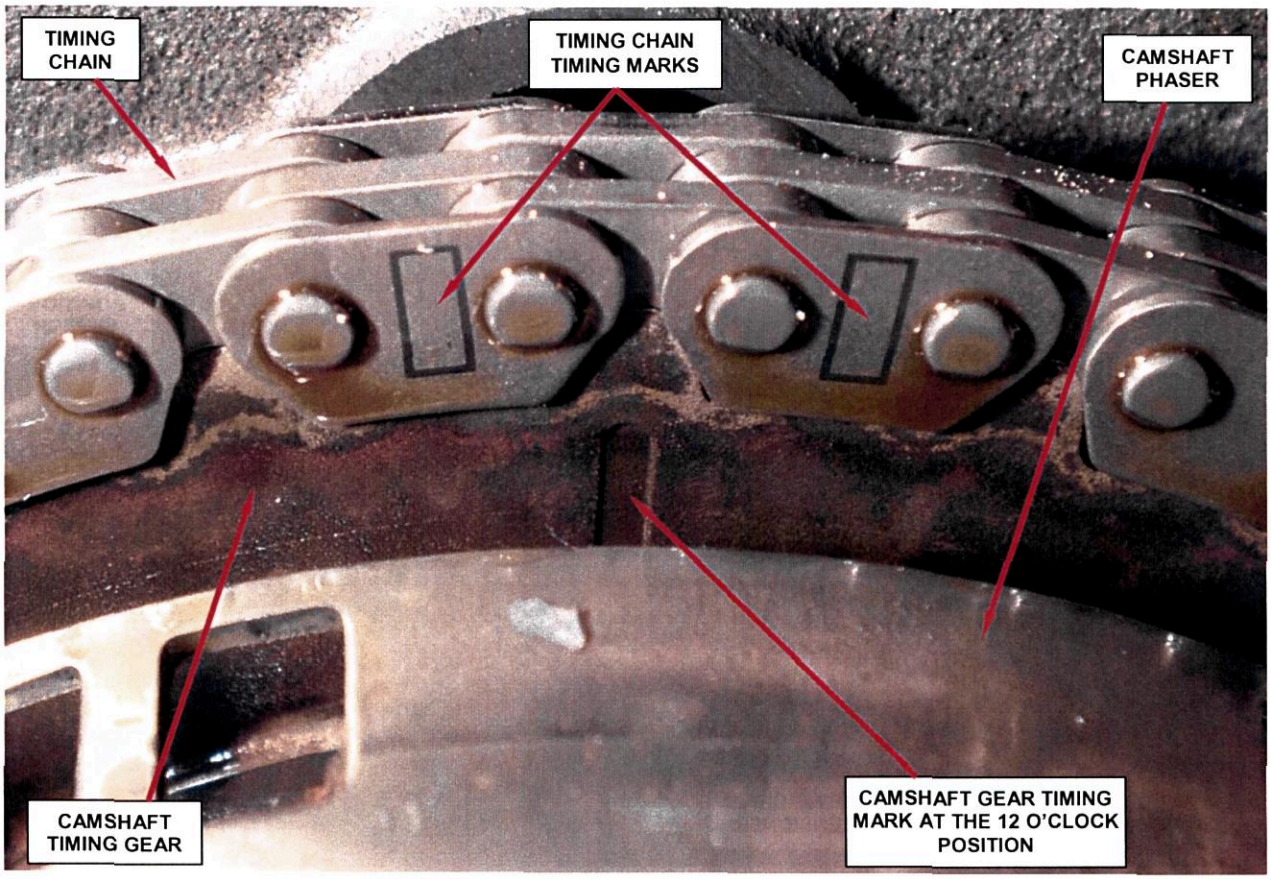

Figure 7 – Camshaft Gear and Timing Chain Marks

35. Bar the engine over by hand until the timing mark on the camshaft gear is aligned with the camshaft timing chain marks and all the marks are at the 12 o'clock position (Figure 7).

Service Procedure (Continued)

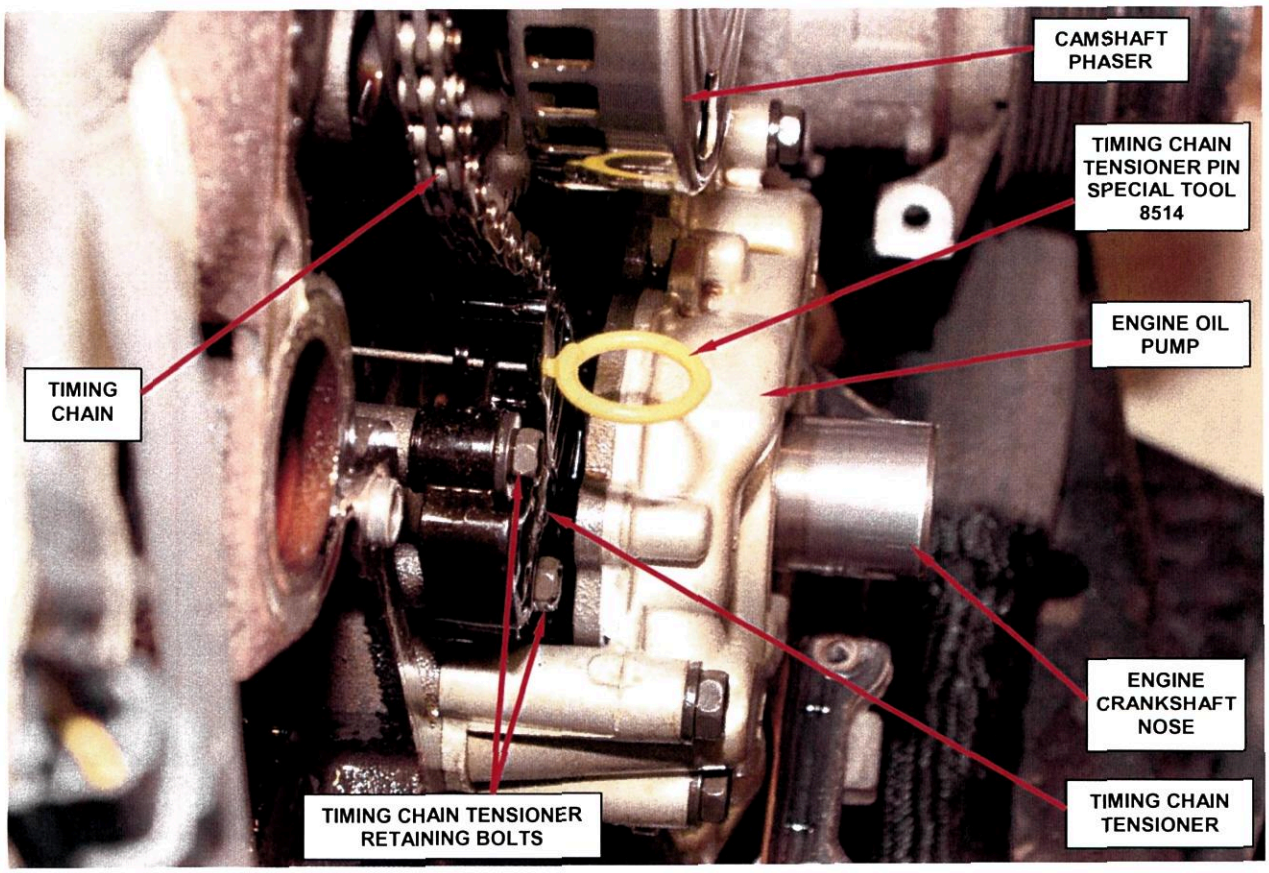

Figure 8 – Special Pin Tool 8514

36. Push the engine timing chain tensioner away from the timing chain and insert the timing chain tensioner pin tool (Special Tool 8514) to hold the timing chain tensioner way from the timing chain (Figure 8).

    CAUTION: Failure to insert the timing chain tensioner pin tool (Special Tool 8514) into the engine timing chain tensioner will result in the timing chain tensioner spring and piston falling into the engine oil pan during timing chain tensioner removal.

37. Remove and save the two engine timing chain tensioner retaining bolts (Figure 8).

38. Remove and discard the original engine timing chain tensioner.

    NOTE: Carefully remove the timing chain tensioner pin tool (Special Tool 8514) before discarding the original engine timing chain tensioner.

Service Procedure (Continued)

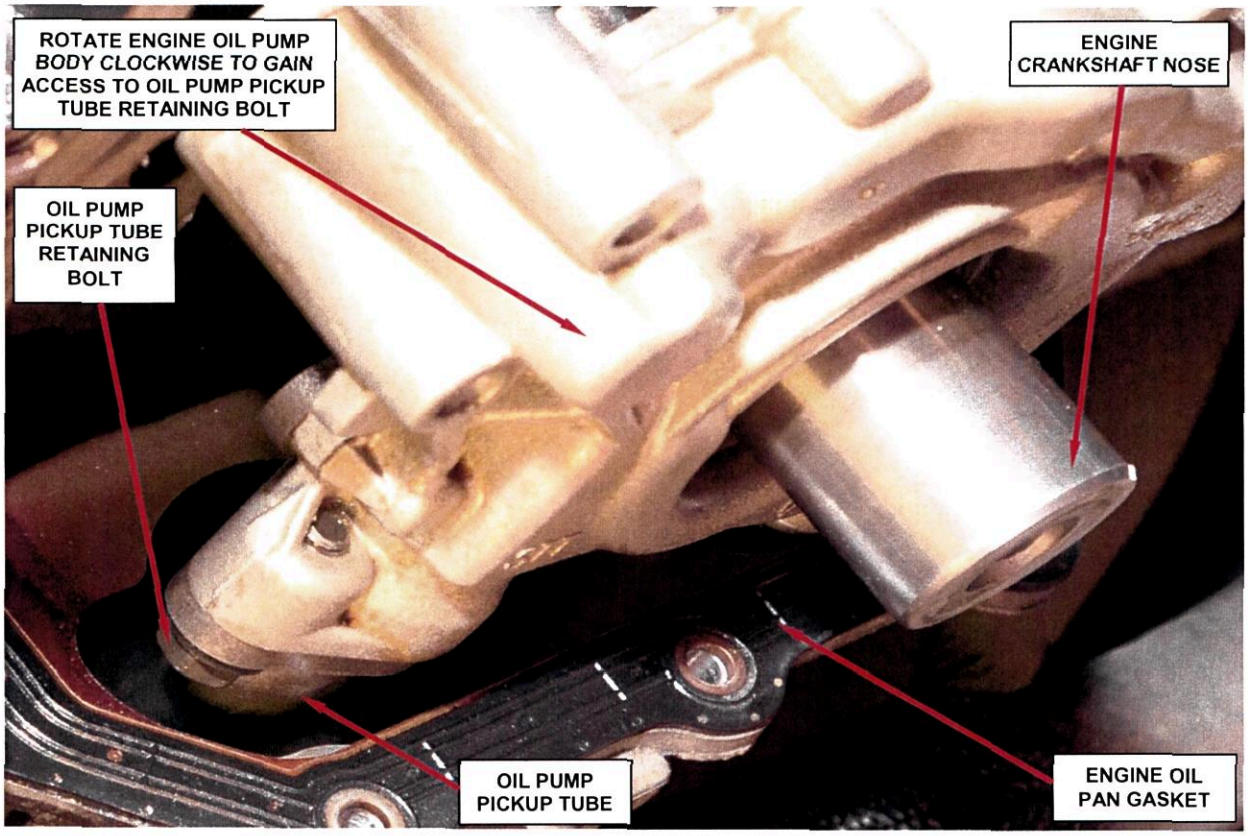

Figure 9 – Oil Pump Pickup Tube Retaining Bolt

39. Remove and save the four engine oil pump retaining bolts.

40. Rotate the engine oil pump body clockwise to gain access to the oil pump pickup tube retaining bolt (Figure 9).

41. Carefully remove the engine oil pump pickup tube retaining bolt (Figure 9).

42. Carefully pull the engine oil pump pickup tube from the engine oil pump body.

    CAUTION: There is a blue O-ring on the pickup tube. Be sure not to drop the O-ring into the engine oil pan.

43. Remove and save the engine oil pump from the engine.

44. Remove and save the two engine timing chain guide retaining bolts.

Service Procedure (Continued)

45. Remove and discard the original engine timing chain guide.

46. Remove and discard the original engine timing chain.

    CAUTION: Do not rotate the crankshaft or camshaft after timing chain removal. The 5.7L engine has a zero skipped tooth clearance. Catastrophic engine damage will result if the proper camshaft and crankshaft positions are not established during reassembly.

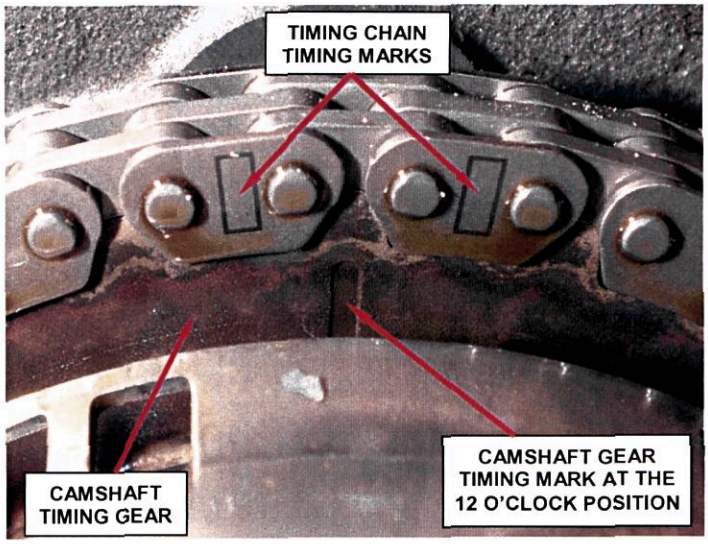

Figure 10 – Camshaft Gear Timing Marks

47. Place a shop towel over the engine oil pan opening to catch any debris created while cleaning the sealing surfaces on the engine block.

48. Clean the timing cover sealing surfaces on the engine block.

    CAUTION: Do not spray brake parts cleaner on the engine block. Damage to the oil pan gasket will occur.

49. Carefully remove the shop towel from the engine oil pan opening.

50. Carefully clean off any excess RTV from the area where the engine block meets the engine oil pan gasket.

51. Install the new engine timing chain with the timing marks on the chain correctly oriented to the camshaft drive sprocket (Figure 10).

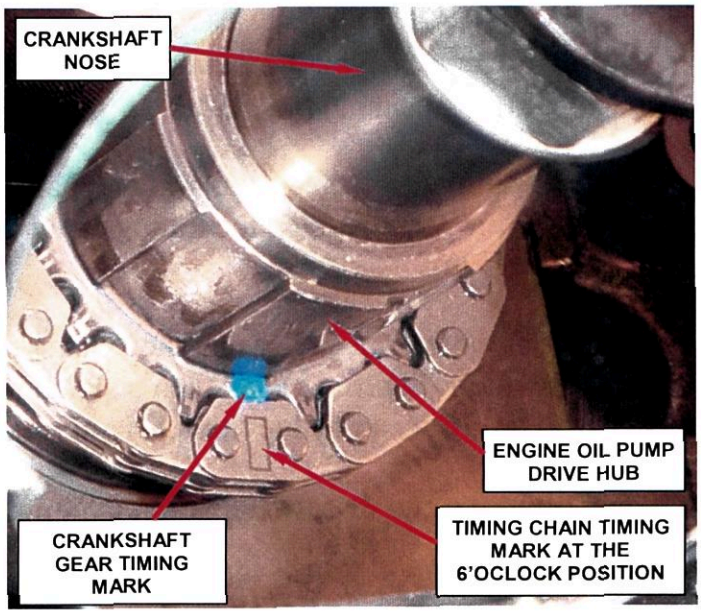

Figure 11 – Crankshaft Timing Chain Marks (crankshaft gear mark painted blue for photographic purposes only)

Service Procedure (Continued)

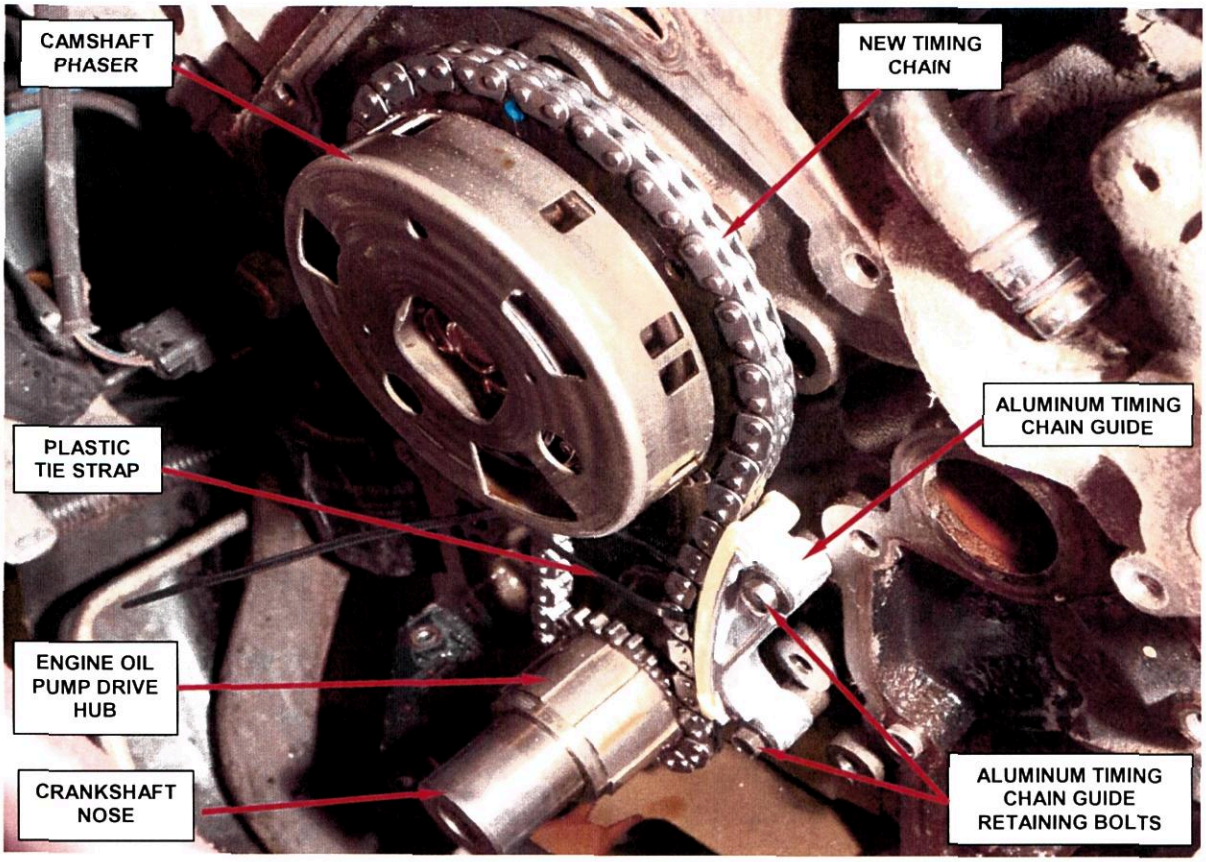

Figure 12 – Install Plastic Tie Strap to Maintain Chain Tension during Assembly

52. Install the new aluminum timing chain guide supplied in the repair kit (Figure 12). Tighten the timing chain guide retaining bolts to 98 in. lbs. (11 N·m).

53. Using a mirror, verify that the crankshaft sprocket timing mark is in the correct position (Figure 11) and then install a plastic tie strap around the timing chain to hold tension on the timing chain (Figure 12).

54. Remove and discard the original oil pump pickup tube blue O-ring.

CAUTION: If the oil pickup tube blue O-ring is not on the oil pump pickup tube, check the oil pump pickup tube hole in the oil pump body. Verify that the original blue O-ring is not in the oil pump body pickup tube hole.

Service Procedure (Continued)

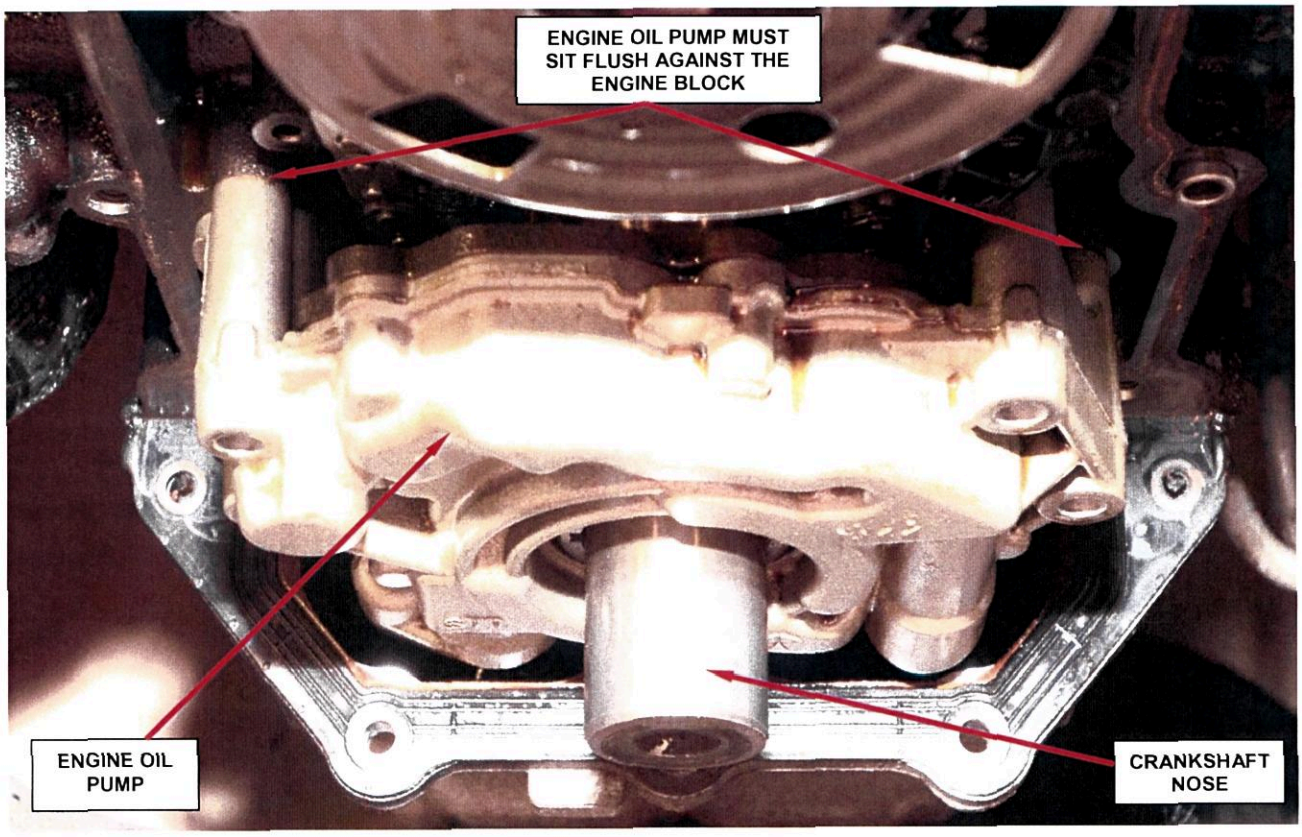

Figure 13 – Install the Oil Pump

55. Install a new blue O-ring on the oil pickup tube.

56. Install the engine oil pump onto the crankshaft (Figure 13).

    CAUTION: The engine oil pump drive hub and inner gerotor must be aligned while installing the engine oil pump. This may require some patients and perseverance. The engine oil pump must sit flush against the engine block. Do not use the engine oil pump mounting bolts to draw the engine oil pump onto the crankshaft; engine oil pump damage will occur.

57. Rotate the engine oil pump body clockwise to gain access to the engine oil pickup tube.

58. Insert the engine oil pickup tube into the engine oil pump body.

    CAUTION: Be sure the engine oil pickup tube flange is flush to the body of the engine oil pump. The blue O-ring should not be visible when the engine oil pump pickup tube is fully seated.

Service Procedure (Continued)

59. Install the engine oil pickup tube retaining bolt (Figure 14). Tighten the bolt to 195 in. lbs. (22 N·m).

60. Turn the oil pump body counter clockwise to align the oil pump body mounting holes to the engine bolt holes.

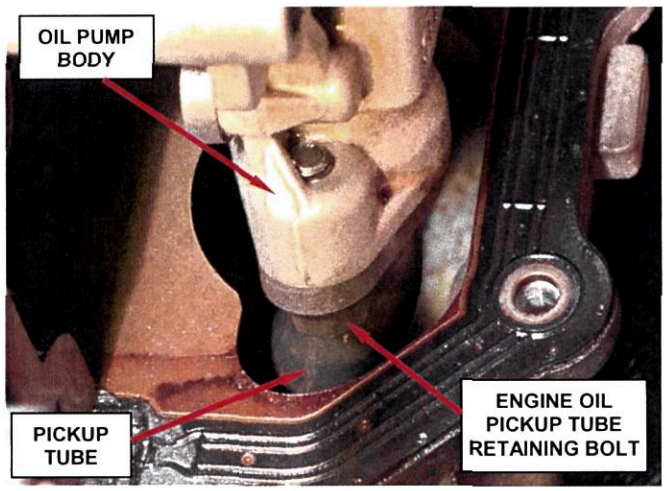

Figure 14 – Engine Oil Pickup Tube Bolt

61. Verify that the oil pump body is flush to the engine block and install the four oil pump retaining bolts finger tight (Figure 13).

    CAUTION: Verify that the oil pump mounting pads at four bolt locations are flush to the engine block and install the four oil pump mounting bolts.

62. Tighten the oil pump mounting bolts to 21 ft. lbs. (28 N·m) in an "X" pattern.

63. Install the new engine timing chain tensioner (Figure 15). Tighten the bolts to 98 in. lbs. (11 N·m).

Service Procedure (Continued)

64. Remove and discard the engine timing chain tensioner retaining pin (Figure 15).

65. Cut off and discard the timing chain tensioning plastic tie strap.

66. Bar the engine over by hand two full turns to verify that there is no valve to piston interference. If the engine will not bar over, do not force it to rotate. Recheck valve timing.

    CAUTION: The 5.7L engine is a non-freewheeling type engine. Failure to properly align the timing marks on the timing chain to the timing marks on the timing gears will result in catastrophic engine damage. It is imperative that the timing marks are properly aligned.

67. Remove and discard the timing chain cover rubber gasket.

68. Clean all sealing surfaces on the timing chain cover.

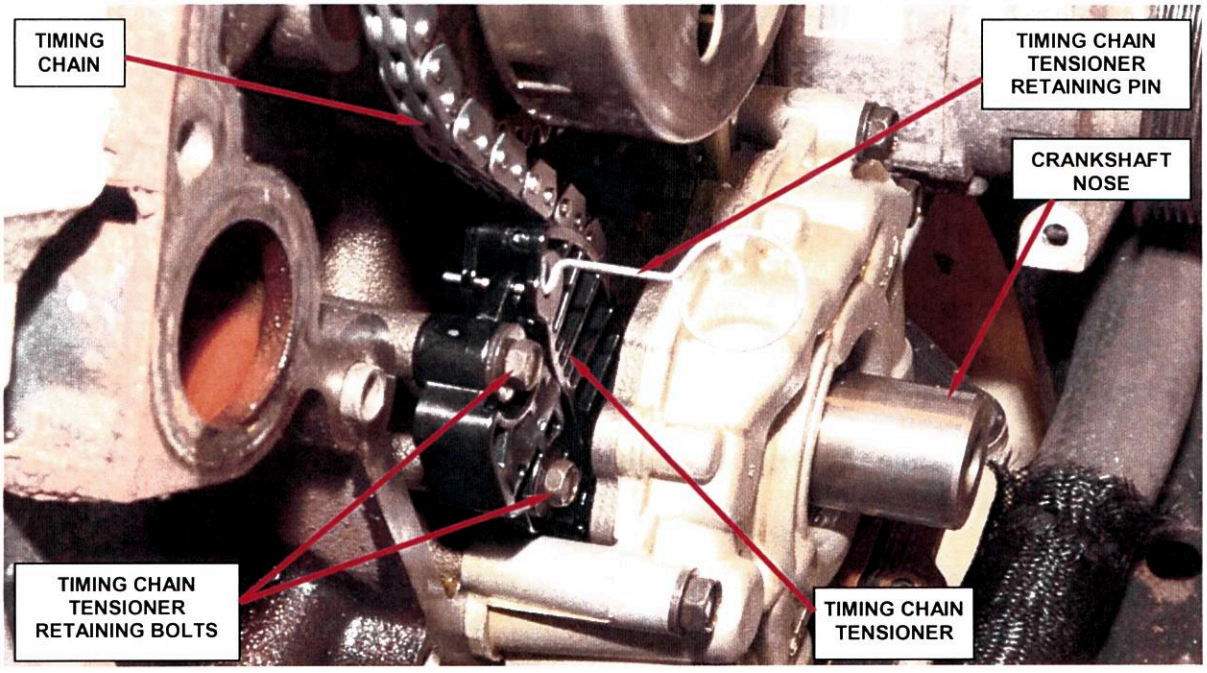

Figure 15 – Install Engine Timing Chain Tensioner

Service Procedure (Continued)

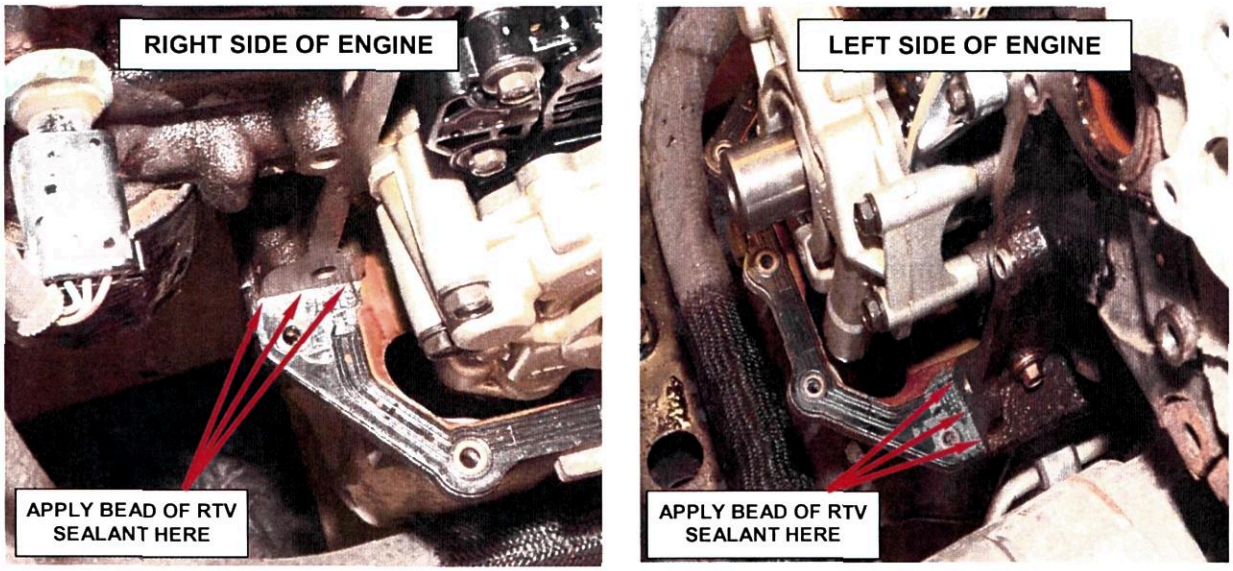

Figure 16 – Apply RTV Sealant

69. Install a new timing chain rubber gasket into the groove on the timing chain cover.

70. Remove and discard the original O-rings on the right side steel heater tube.

71. Install a new O-ring on the right steel heater tube. Apply a small amount of lubricant to the new O-ring.

72. Apply a small bead of RTV sealant to the right and left edges of the engine block where the engine block meets the oil pan (Figure 16).

73. Install the engine timing cover into position.

    NOTE: Be sure the right steel heater tube is fully seated into the engine timing cover.

74. Install the six engine timing cover assembly mounting bolts. Tighten the bolts to 21 ft. lbs. (28 N·m).

    NOTE: The engine timing cover bolts are different lengths. Be sure the correct length bolt is in the correct location.

Service Procedure (Continued)

75. Place the alternator into position and install the upper alternator fastener finger tight.

76. Raise the vehicle on the hoist.

77. Install the five oil pan bolts. Tighten the oil pan bolts to 108 in. lbs. (12 N·m).

78. Place the air conditioning compressor into position. Install the mounting bolts and tighten them to 21 ft. lbs. (28 N·m).

79. Install the lower alternator mounting bolts and tighten to 41 ft. lbs. (55 N·m).

80. Remove and discard the original engine oil filter.

81. Install a new engine oil filter.

82. Install the underbody engine plastic splash shield.

83. Lower the vehicle from the hoist.

84. Tighten the upper alternator mounting bolt to 21 ft. lbs. (28 N·m).

85. Using special tool 10387, install the engine crankshaft damper.

    NOTE: There is no required orientation of the crankshaft damper.

Service Procedure (Continued)

86. Inspect the crankshaft damper retaining bolt threads for damage. Replace the crankshaft damper retaining bolt if the threads are damaged.

87. Install the engine crankshaft damper bolt. Tighten the crankshaft damper bolt to 148 ft. lbs. (200 N·m).

88. Remove the protective cardboard placed against the radiator face.

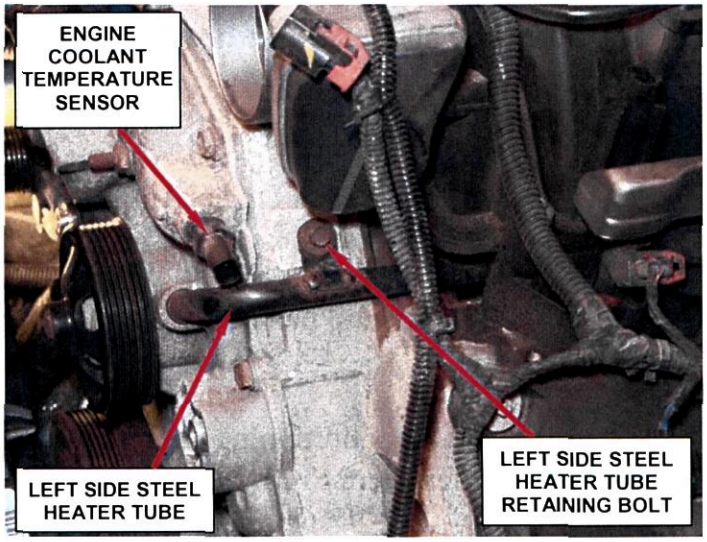

Figure 17 – Left Side Steel Heater Tube

89. Carefully install the radiator fan and shroud assembly. The shroud has two retainer clips at the bottom and two fasteners at the top.

90. Connect the radiator fan electrical connector.

91. Remove and discard the original left side steel heater tube O-ring.

92. Install a new O-ring onto the left side steel heater tube.

93. Lubricate the O-ring onto the left side steel heater tube and install the heater tube into the timing cover (Figure 17). Install the retaining bolt and tighten the fastener securely.

94. Install the left steel heater tube bracket bolt located at the rear of the left cylinder head.

95. Install the lower radiator hose.

96. Install the accessory drive belt idler pulley.

97. Connect the camshaft position sensor electrical connector.

98. Connect the engine coolant temperature sensor electrical connector (Figure 17).

Service Procedure (Continued)

99. Install the accessory drive belt tensioner.

100. Install the power steering pump and retaining bolts. Tighten the power steering pump retaining bolts to 21 ft. lbs. (28 N·m).

101. Install the accessory drive belt (Figure 18).

102. Install the upper radiator hose.

103. Fill the engine with 5w20 engine oil (Figure 19).

104. Remove the thermostat housing plug from the thermostat housing (Figure 19). This will allow air to escape from the cooling system during the filling process.

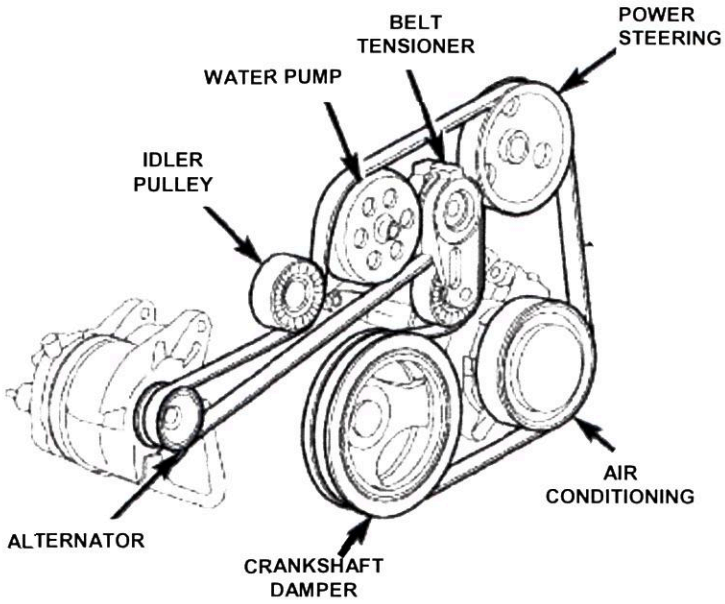

Figure 18 – Accessory Drive Belt Routing

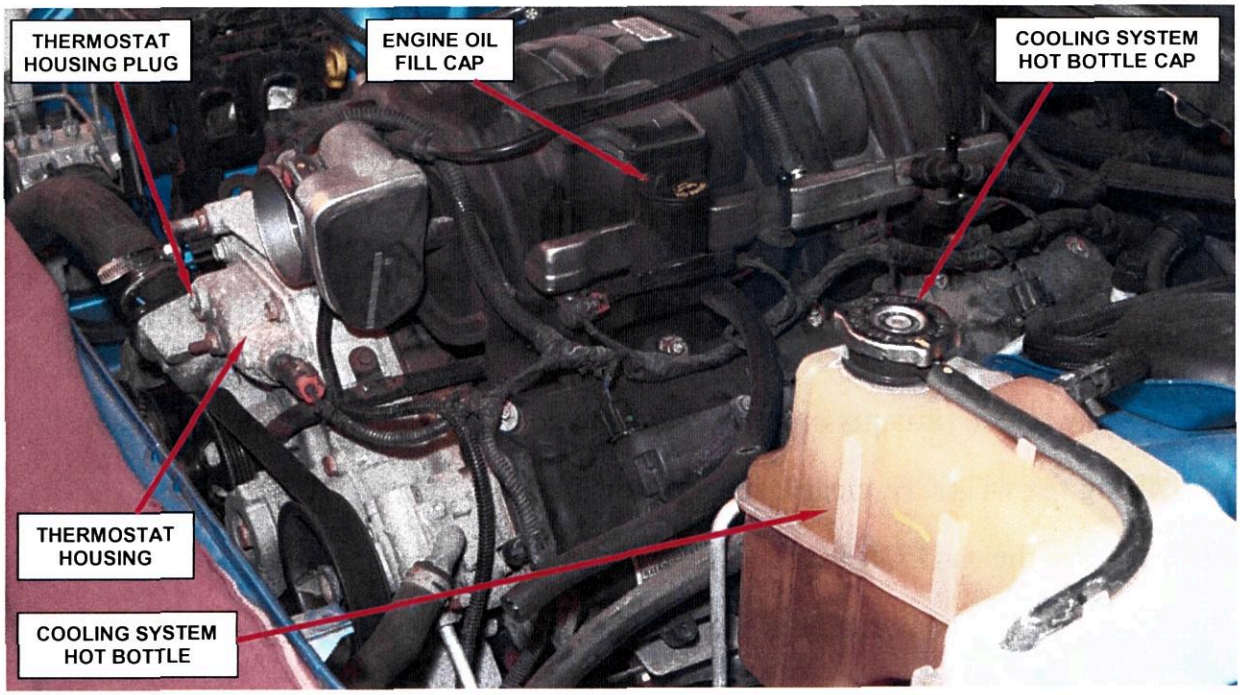

Figure 19 – Fill Cooling System

Service Procedure (Continued)

105. Use the following procedure to fill the engine cooling system:
    a. Remove the engine cooling system hot bottle cap (Figure 18).
    b. Slowly pour the engine coolant into the cooling system hot bottle.
    c. Continue adding engine coolant until coolant begins to run out of the thermostat housing plug hole in the thermostat housing (Figure 18).
    d. Install the thermostat housing plug into the thermostat housing.
    e. Continue filling the engine coolant hot bottle until the coolant level reaches the "MAX" level mark on the side of the coolant hot bottle.
106. Install the air cleaner assembly and air inlet hose.
107. Install the engine plastic cover.
108. Connect the negative battery cable to the negative battery post.
109. Start the engine and allow the engine to warm up to operating temperature. Add engine coolant as required. Once the engine coolant level has stabilized, install the engine coolant hot bottle cap.
110. Turn off the engine and connect a battery charger to the vehicle.
111. Connect a wiTECH scan tool to the vehicle and start a wiTECH session.
112. From the vehicle view screen select the "**ABS**" icon.
113. Select the "**Miscellaneous**" tab.
114. Select "**Initialize ABS**".
115. Follow screen prompts on the wiTECH to complete the initialization process.
116. Using the wiTECH, clear all Diagnostic Trouble Codes (DTC's).
117. Remove the wiTECH scan tool and battery charger from the vehicle.
118. Close the hood and road test the vehicle to reinitiate the steering sensor angles.
119. Return the vehicle to the customer.

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 Chrysler 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
Replace engine timing chain, timing chain guide, and timing chain tensioner	09-P0-11-82	3.7 hours

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

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

Dealer Notification

To view this notification on DealerCONNECT, select "Global Recall System" on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

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

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

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.

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.

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 notification only and is strictly prohibited from all other use.

Additional Information

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

Customer Service / Field Operations
Chrysler Group LLC

CHRYSLER

CUSTOMER SATISFACTION NOTIFICATION

P01

ENGINE TIMING CHAIN AND CHAIN GUIDE

This notice applies to your vehicle (VIN: xxxxxxxxxxxxxxxxx).

Dear: (Name)

At Chrysler Group LLC, you can be assured that we are changing the way we look at quality. To prove our commitment to quality, the company is investing in and prioritizing improvements for every vehicle that we build. As part of that commitment, we are also targeting existing vehicles on the road today and contacting our customers to provide these quality improvements, at no charge, that will help to improve your ownership satisfaction.

We are recommending the following improvements be performed on some **2009 through 2012 model year Dodge Challenger, Dodge Charger, and Chrysler 300 vehicles equipped with a 5.7L Hemi engine and an automatic transmission**.

Recommended Service:	**The engine timing chain guide on your vehicle may fracture. A fractured engine timing chain guide could cause the engine timing chain to break. A broken engine timing chain will result in severe engine damage.**
What your dealer will do:	**Chrysler will service your vehicle free of charge (parts and labor).** To do this, your dealer will replace the timing chain, timing chain tensioner and guide. The work will take about four hours to complete. We recommend that you make an appointment with your dealer to minimize your inconvenience.
What you should do:	Simply **contact your Chrysler, Jeep, or Dodge dealer,** at your convenience, to schedule a service appointment. Your dealer will collect the necessary information to ensure that the appropriate parts are available so your service can be completed in a timely manner. Although not required, we recommend bringing this letter with you to your dealer, when you bring your vehicle in for this service.
If you need help:	Please contact the Chrysler Customer Assistance Center at 1-800-853-1403.
California residents...	The State of California requires the completion of emission recall repairs prior to vehicle registration renewal. Your dealer will provide you with a Vehicle Emission Recall Proof of Correction Form after the recall service is performed. Be sure to save this form since the California Department of Motor Vehicles may require that you supply it as proof that the recall has been performed.

If you have already experienced this condition and have paid to have it repaired, please send your original receipts and/or other adequate proof of payment to the following address for reimbursement: Chrysler Customer Assistance, P.O. Box 21-8007, Auburn Hills, MI 48321-8007, Attention: Reimbursement. Once we receive and verify the required documents, reimbursement will be sent to you within 60 days.

Please help us update our records by filling out the attached prepaid postcard, if any of the conditions listed on the card apply to your vehicle. You may also update this information on the web at CCCCCCCCCCCCCCCCCCCCCCCC

We apologize for any inconvenience this service may cause to your schedule. Moving forward we are committed to providing our customers with world class quality products, ensuring that you have a positive dealership experience and following up on any issues and concerns that you may have in a timely manner through our Customer Assistance Center.

Sincerely,
Customer Service / Field Operations
Chrysler Group LLC