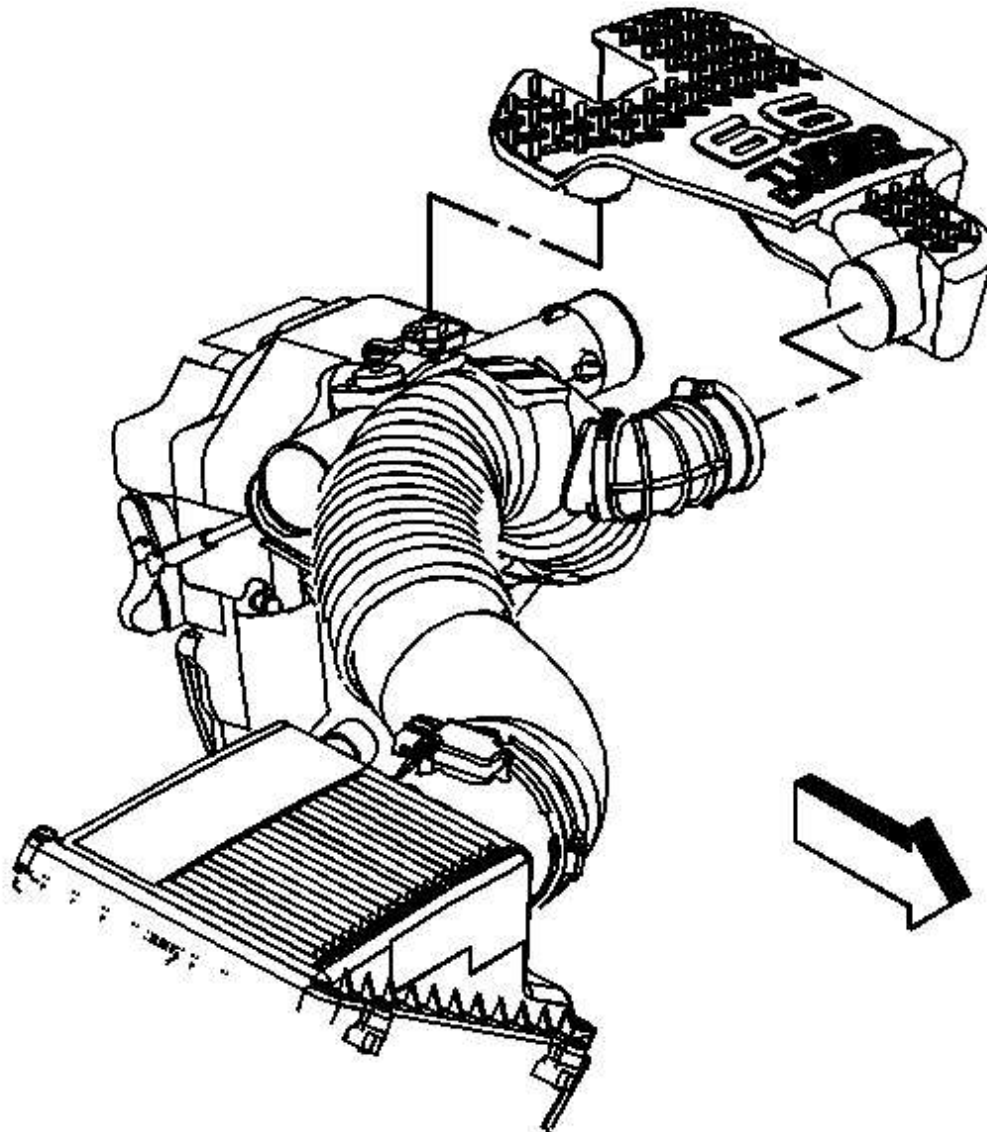


**THERMOSTAT HOUSING CROSSOVER REPLACEMENT (6.6L (LB7) ENGINE)**

**Removal Procedure**

1. Loosen the outlet duct clamp at the upper intake manifold cover.
2. Remove the upper intake manifold cover from the outlet duct.
3. Remove the upper intake manifold cover.

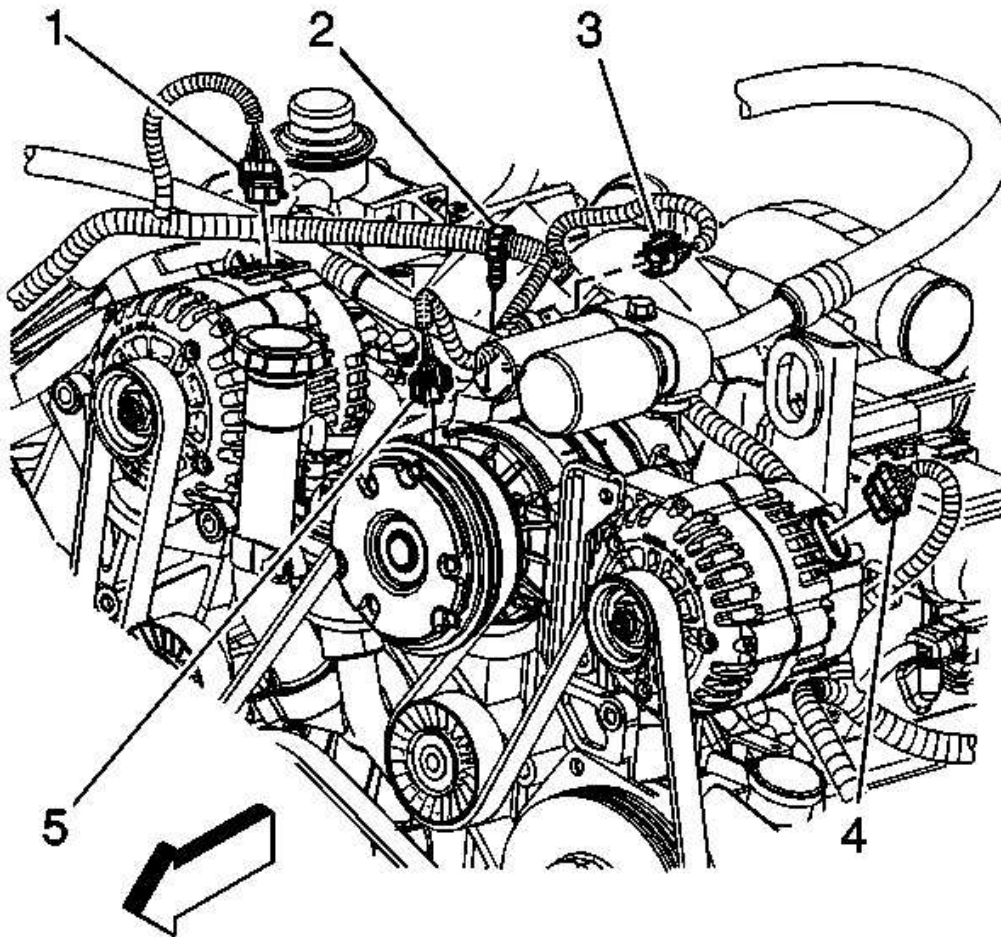


**Fig. 358: View Of Upper Intake Manifold Cover, Outlet Duct & Clamp**  
Courtesy of GENERAL MOTORS CORP.

4. Drain the cooling system. Refer to [Draining and Filling Cooling System \(with HP2\)](#) or [Draining and Filling Cooling System \(without HP2\)](#).
5. Disconnect the negative battery cables. Refer to [Battery Negative Cable Disconnect/Connect Procedure \(Single Battery\)](#) or [Battery Negative Cable Disconnect/Connect Procedure \(Auxiliary\)](#)

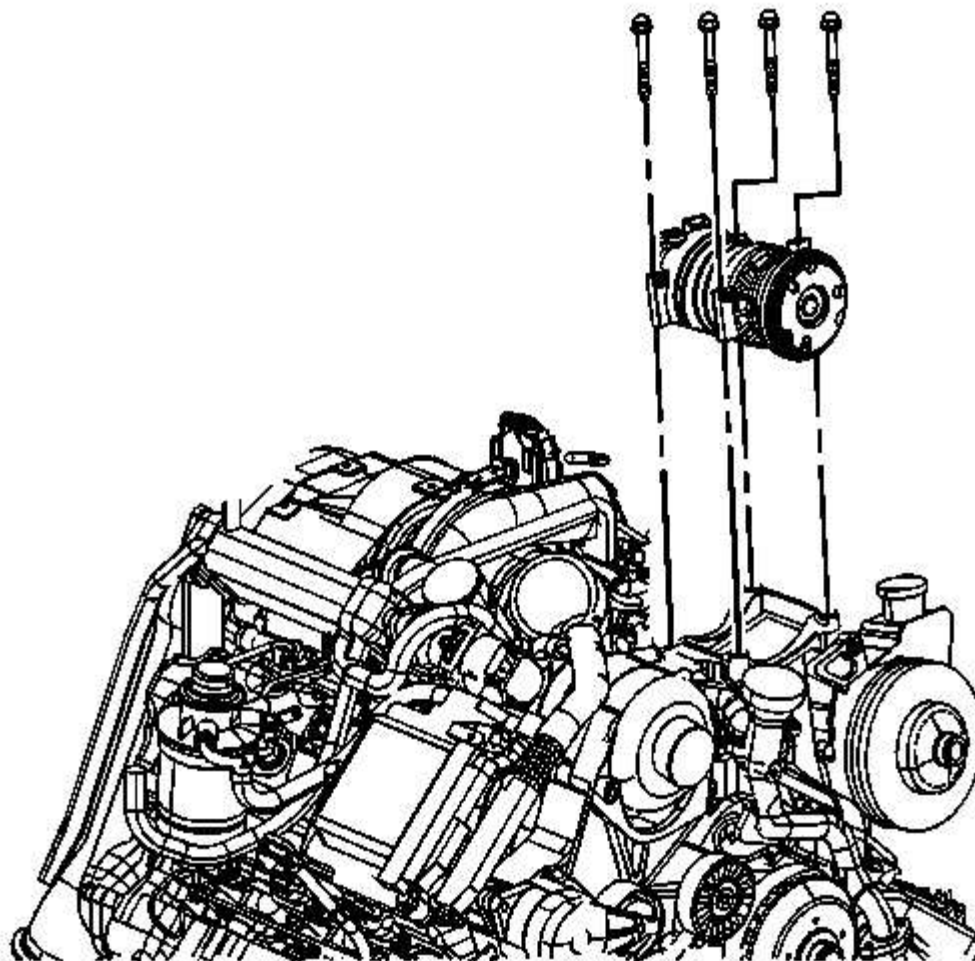
**Battery**) in Engine Electrical.

6. Remove the upper fan shroud. Refer to **Fan Shroud Replacement - Upper (W/O M74)** or **Fan Shroud Replacement - Upper (W/M74)** or **Fan Shroud Replacement - Upper (W/HP2)**.
7. Remove the drive belt. Refer to **Drive Belt Replacement** in Engine Mechanical - 6.6L.
8. Disconnect the air conditioning (A/C) compressor clutch electrical connector (5).
9. Disconnect the A/C cut out switch electrical connector.



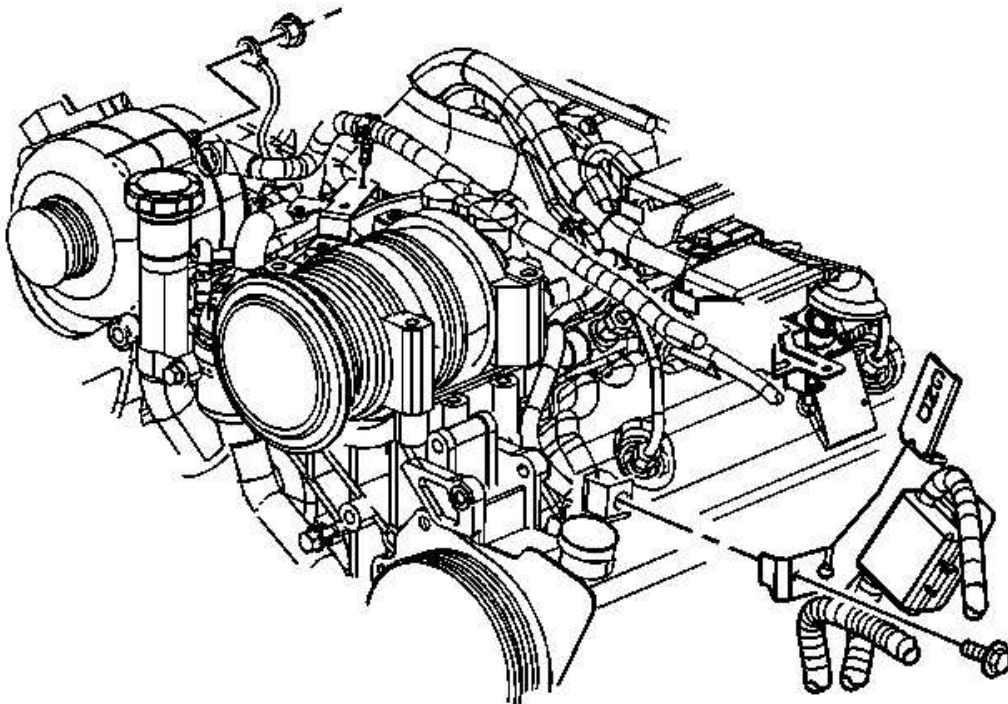
**Fig. 359: View of Generator Harness, Clip, A/C Refrigerant Switch, Dual Generator Harness Connector & A/C Compressor Clutch**  
Courtesy of GENERAL MOTORS CORP.

10. Remove the A/C compressor bolts.
11. Move the A/C compressor with the hoses attached to the right side of the engine compartment.



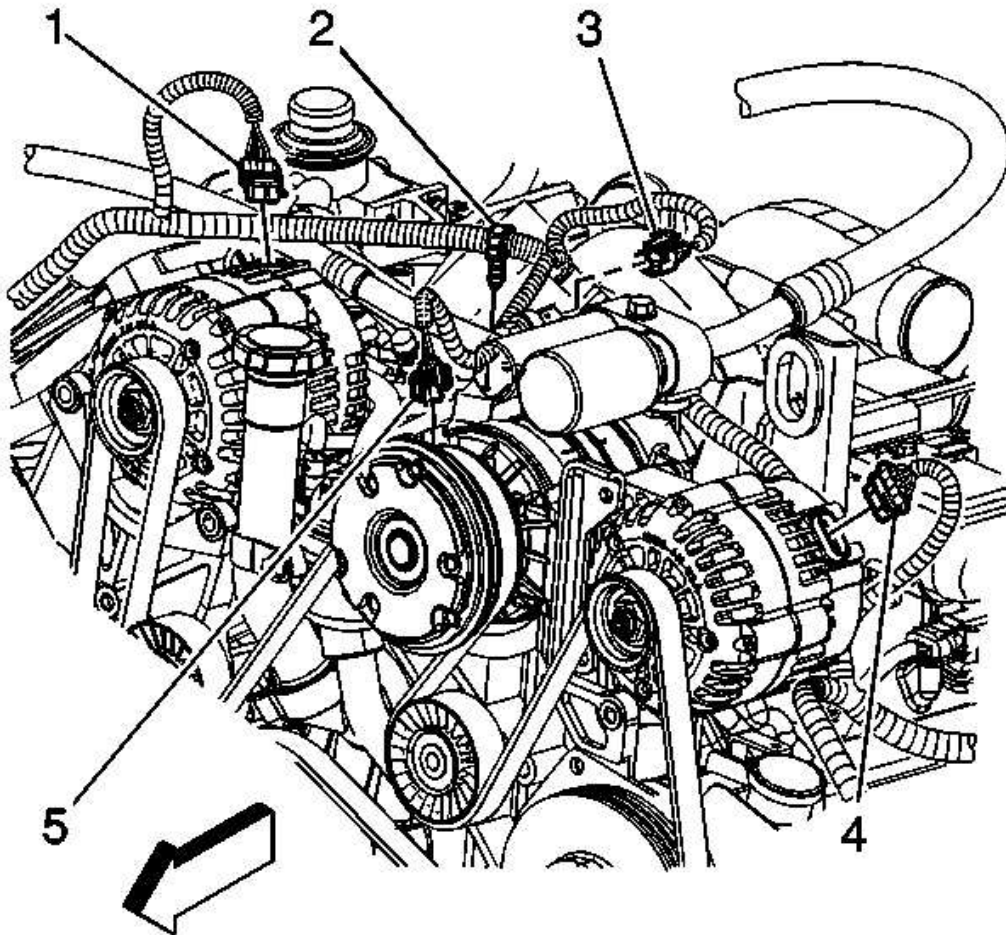
**Fig. 360: View Of A/C Compressor & Bolts**  
Courtesy of GENERAL MOTORS CORP.

12. Remove the generator positive cable to generator nut.
13. Remove the positive cable from the generator.
14. Remove the clip holding the positive cable to the engine front cover.
15. Remove the battery positive cable junction block to power steering pump bolt.
16. Move the generator positive cable and the junction block bracket aside.



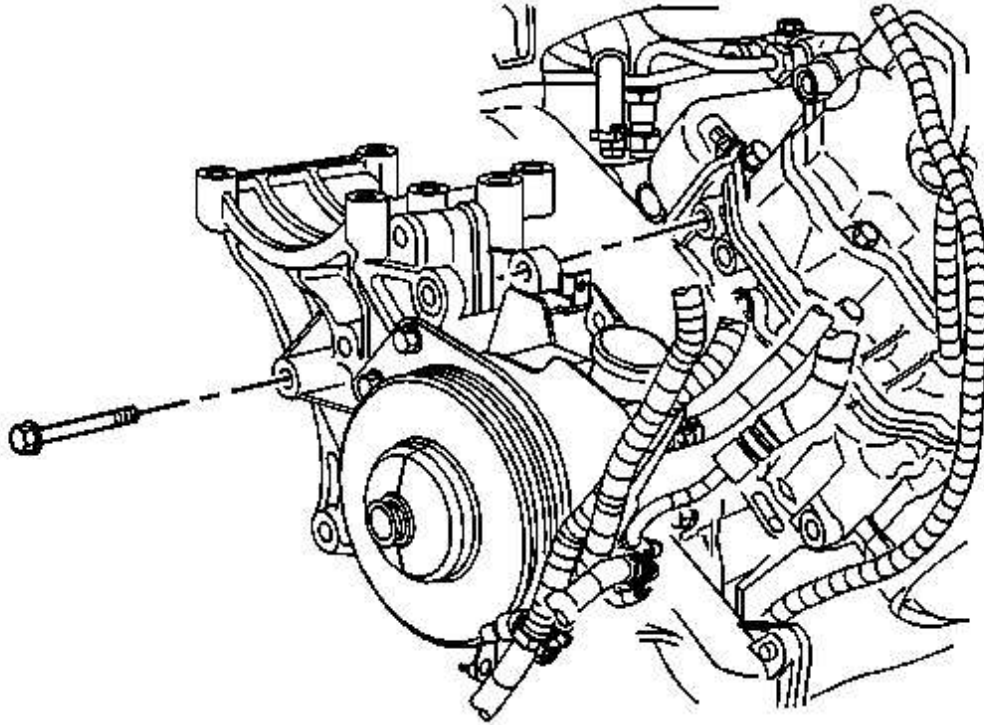
**Fig. 361: View Of Upper Engine**  
Courtesy of GENERAL MOTORS CORP.

17. Disconnect the generator electrical connector (1).



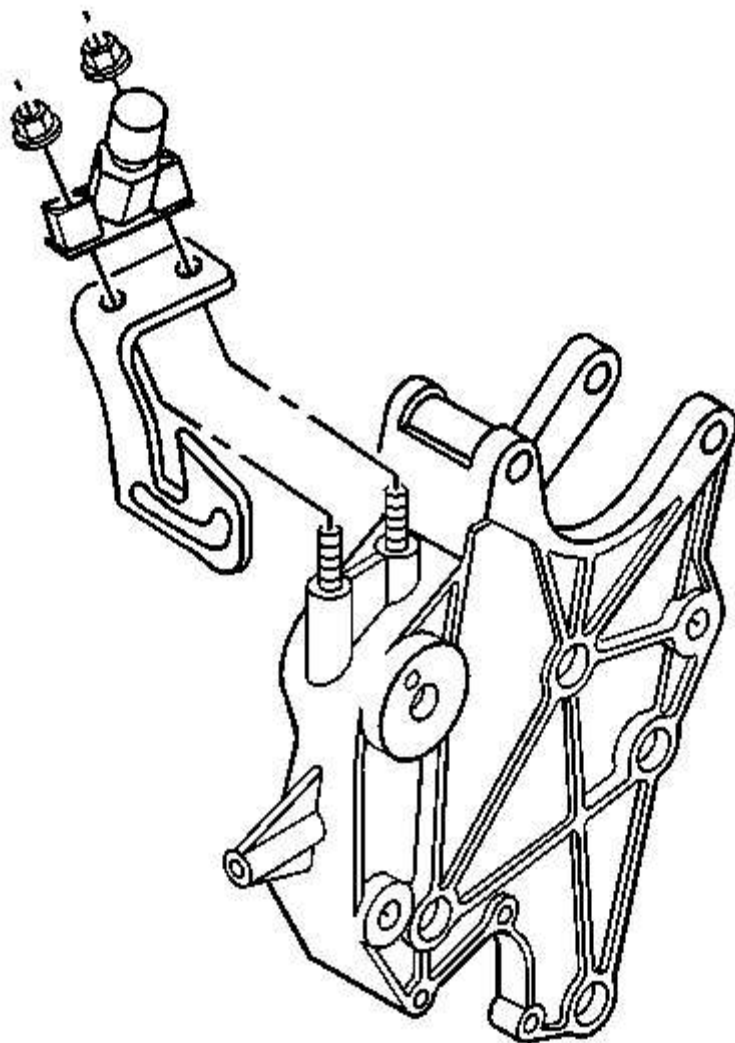
**Fig. 362: View of Generator Harness, Clip, A/C Refrigerant Switch, Dual Generator Harness Connector & A/C Compressor Clutch**  
Courtesy of GENERAL MOTORS CORP.

18. Disconnect the engine coolant temperature (ECT) sensor electrical connector.
19. Remove the power steering pump bracket and secure to the side.
  - Do not remove the power steering pump from the bracket.
  - The hoses and battery cables can remain on the power steering pump.



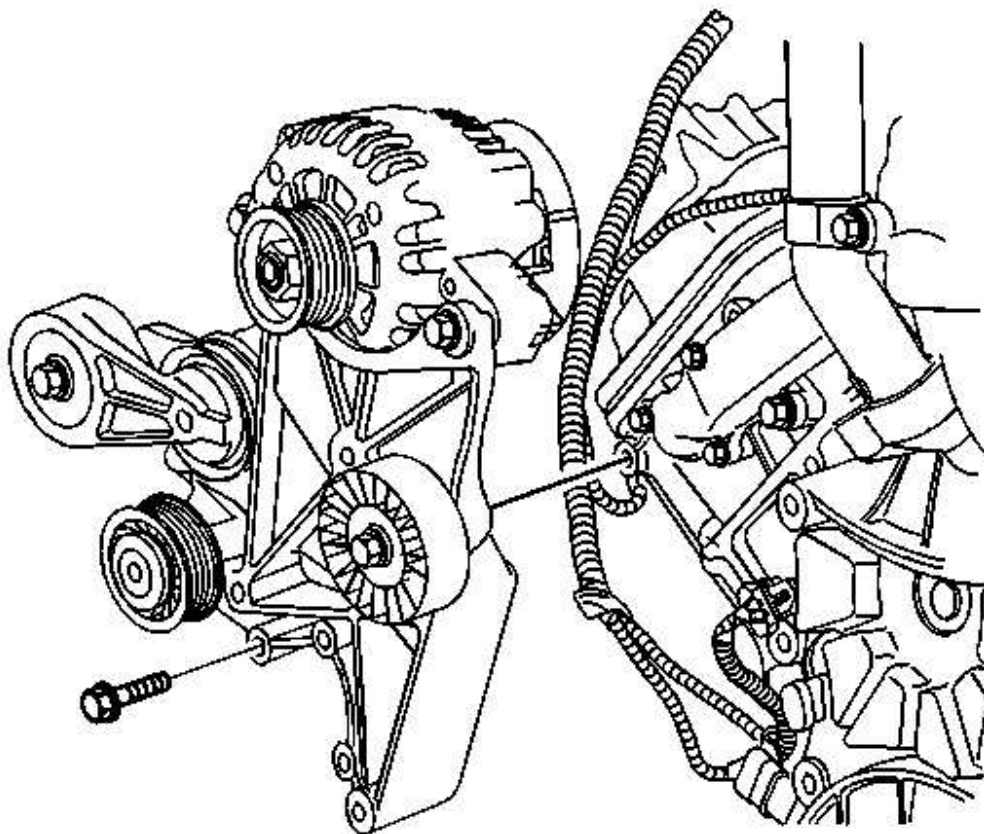
**Fig. 363: View Of Power Steering Pump Bracket**  
Courtesy of GENERAL MOTORS CORP.

20. Remove the fuel bleed valve and positive crankcase ventilation (PCV) oil separator bracket bolt from the generator bracket.



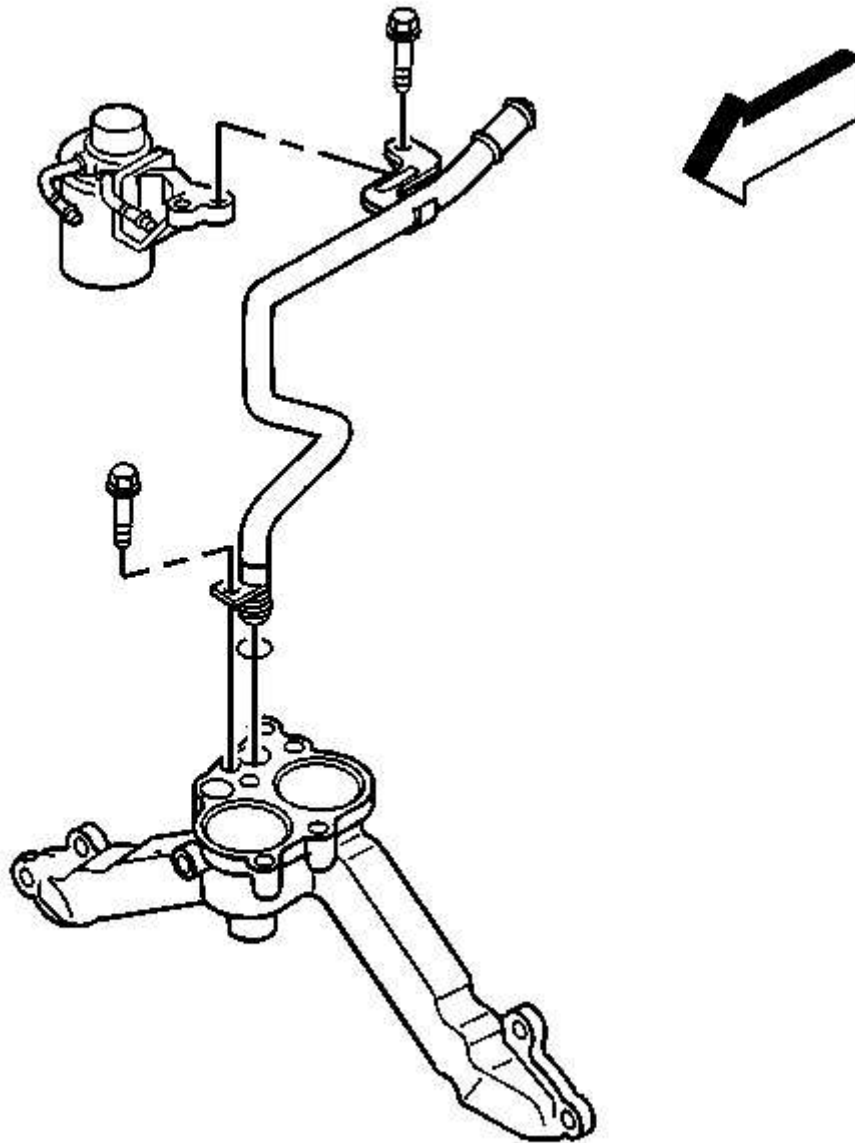
**Fig. 364: View Of PCV Oil Separator & Bracket**  
Courtesy of GENERAL MOTORS CORP.

21. Remove the heater outlet hose bracket bolt from the generator bracket.
22. Remove the ribbed idler pulley.
23. Remove the generator bracket and position to the side.
  - The generator does not require removal.
  - The drive belt tensioner does not require removal.



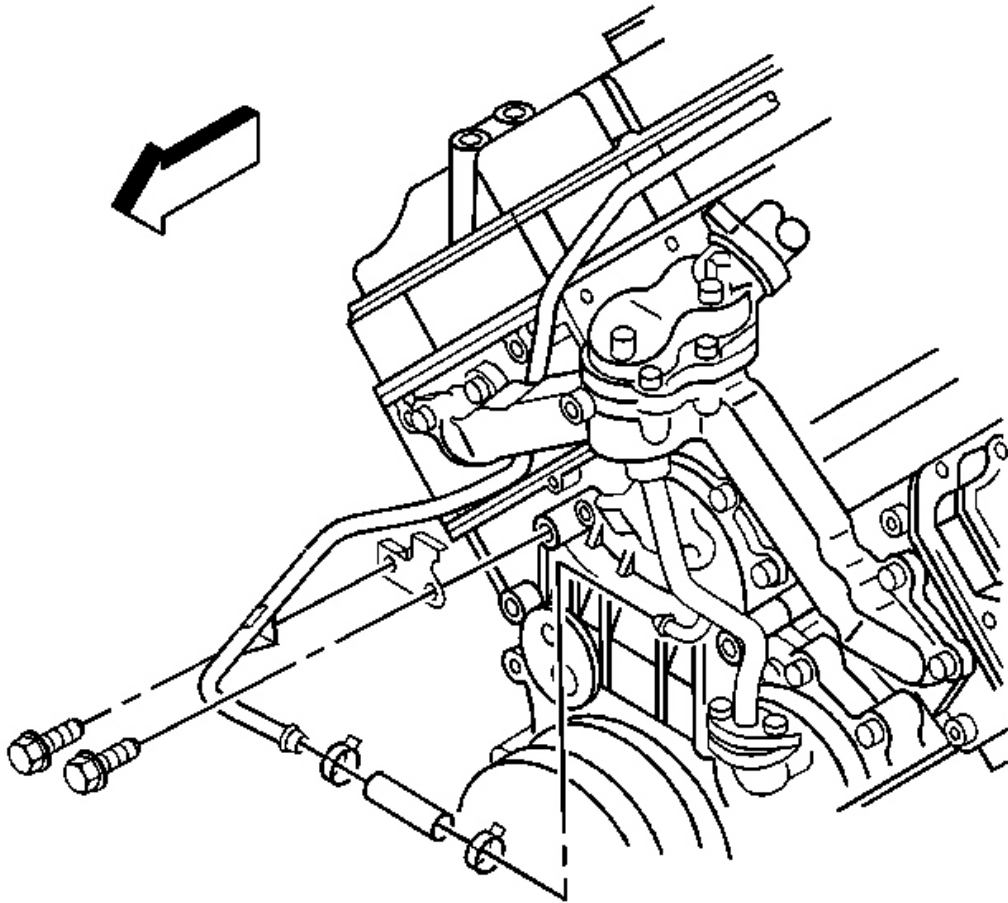
**Fig. 365: View Of Generator & Mounting Bracket**  
Courtesy of GENERAL MOTORS CORP.

24. Remove the oil fill tube. Refer to **Oil Fill Tube Replacement** in Engine Mechanical - 6.6L.
25. Remove the water outlet. Refer to **Water Outlet Tube Replacement (6.6L (LB7) Engine)** or **Water Outlet Tube Replacement (6.6L (LLY) Engine)**.
26. Remove the heater inlet pipe to fuel filter bolt.
27. Remove the heater inlet pipe with O-ring seal from the crossover.



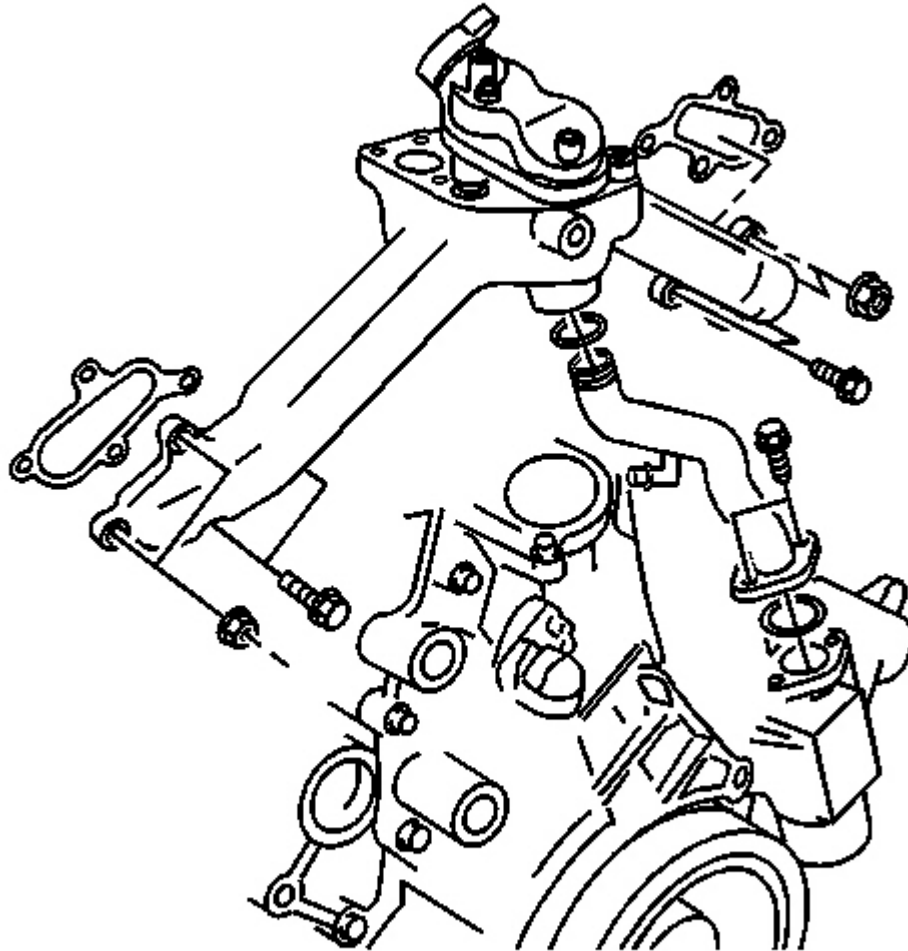
**Fig. 366: View Of Heater Inlet Pipe, Thermostat Housing & Fuel Filter**  
Courtesy of GENERAL MOTORS CORP.

28. Remove the turbocharger coolant return pipe clamps and hose.
29. Remove the fuel line bracket from the thermostat housing crossover.



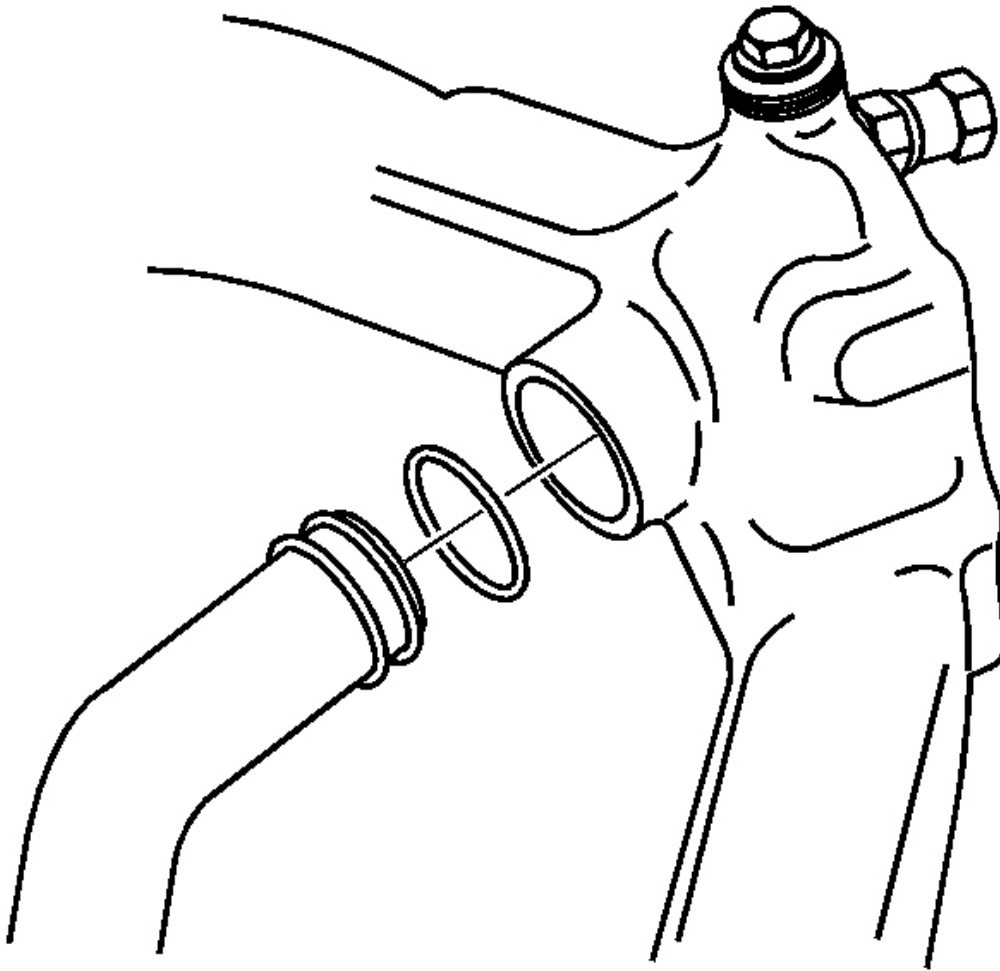
**Fig. 367: View Of Turbocharger Coolant Feed Pipe, Bracket & Bolts**  
Courtesy of GENERAL MOTORS CORP.

30. Remove the cooling fan pulley. Refer to [Cooling Fan Pulley Replacement \(6.6L \(LB7\) Engine\)](#) or [Cooling Fan Pulley Replacement \(6.6L \(LLY\) Engine\)](#).
31. Remove the thermostat housing bolts and nuts from the left cylinder head.
32. Remove the thermostat housing bolts and nuts from the right cylinder head.
33. Remove the bypass pipe to water pump bolts.
34. Remove the thermostat housing with the bypass pipe.
35. Remove the bypass pipe to water pump O-ring.



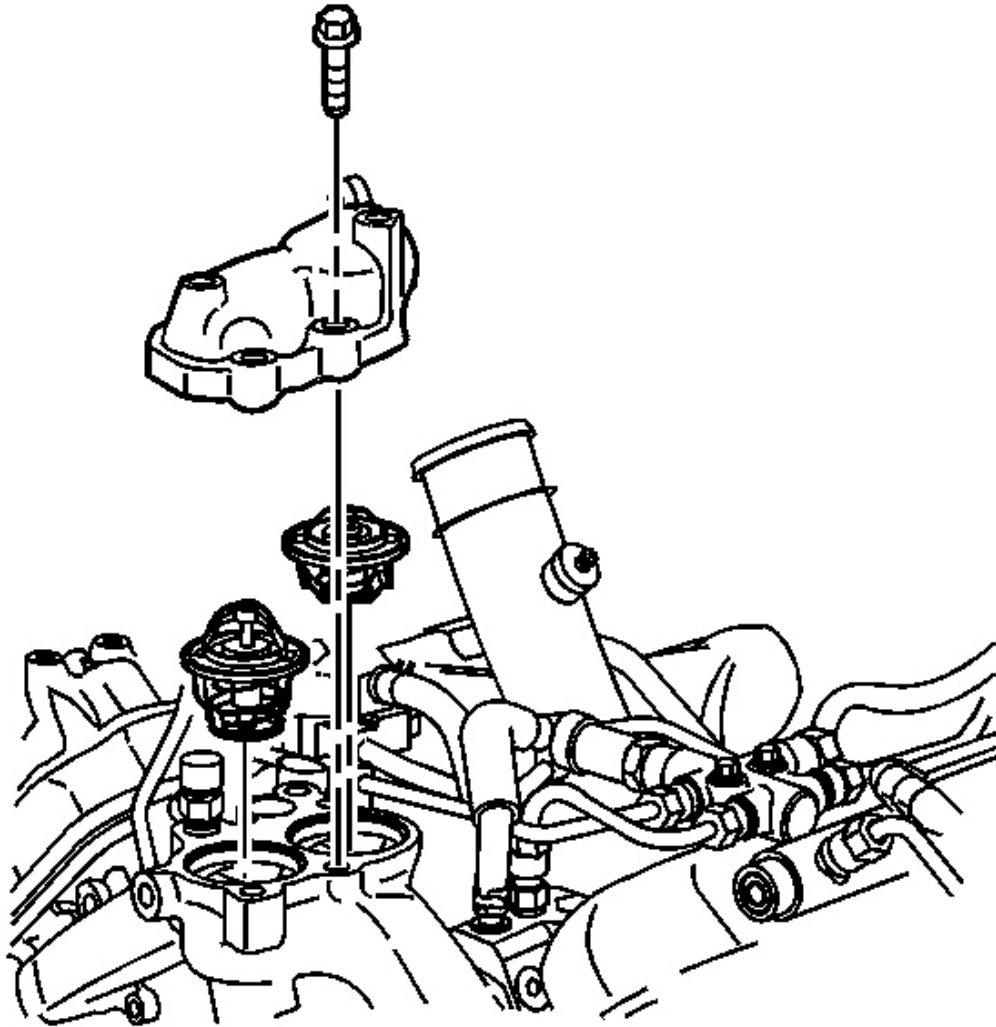
**Fig. 368: View Of Bypass Pipe & Thermostat Housing**  
Courtesy of GENERAL MOTORS CORP.

36. Remove the bypass pipe from the thermostat housing.
37. Remove the O-ring from the bypass pipe.



**Fig. 369: View Of Bypass Pipe & O-Ring**  
Courtesy of GENERAL MOTORS CORP.

38. Remove the thermostat cover bolts.
39. Remove the thermostat cover.
40. Remove the thermostats with seals.
41. Remove the thermostat seals.



**Fig. 370: View Of Thermostat Cover & Bolt**  
Courtesy of GENERAL MOTORS CORP.