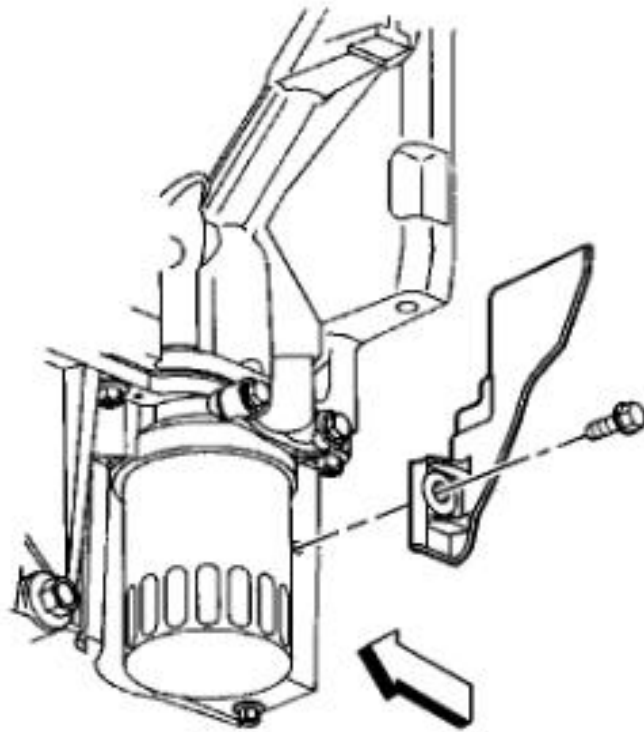


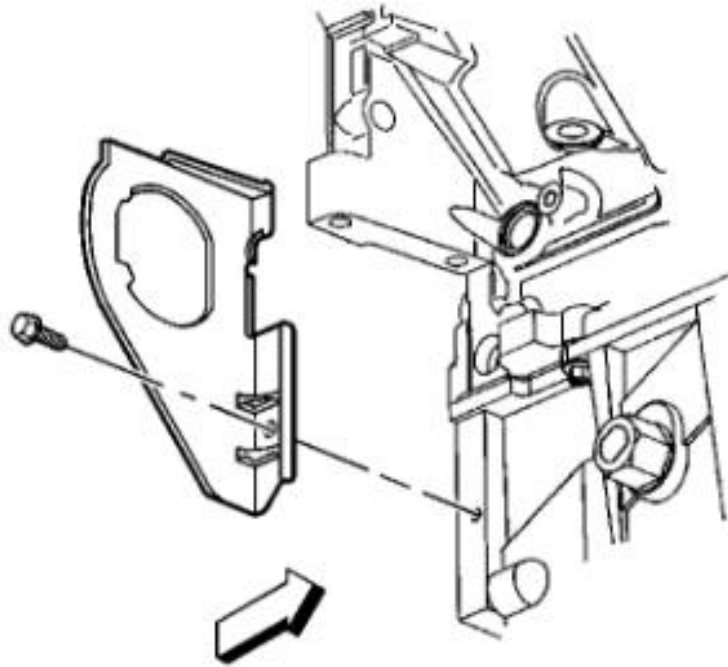
# Oil Pan Replacement

## Removal Procedure

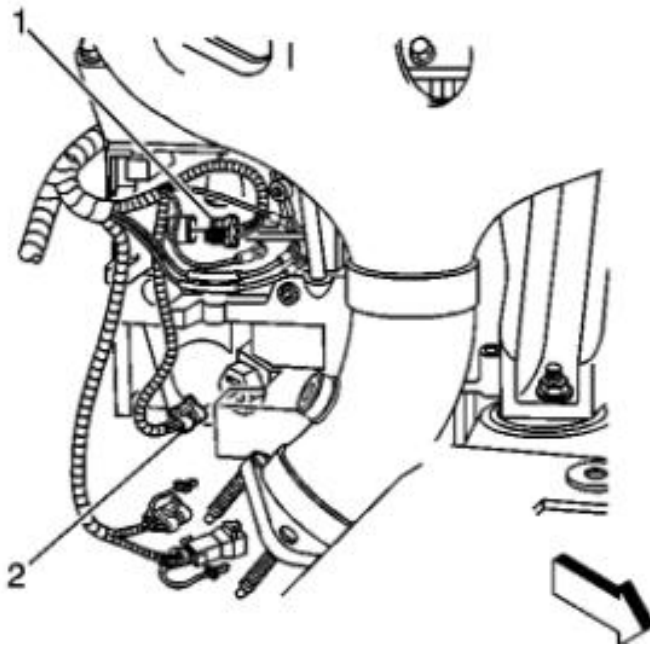


1. Remove the front suspension crossmember.
2. Drain the oil. Refer to [Draining Fluids and Oil Filter Removal](#) .
3. Remove the oil filter. Refer to [Engine Oil and Oil Filter Replacement](#) .
4. Remove the left rear transmission cover.
5. Remove the starter motor assembly. Refer to [Starter Motor Replacement](#) in Engine Electrical.

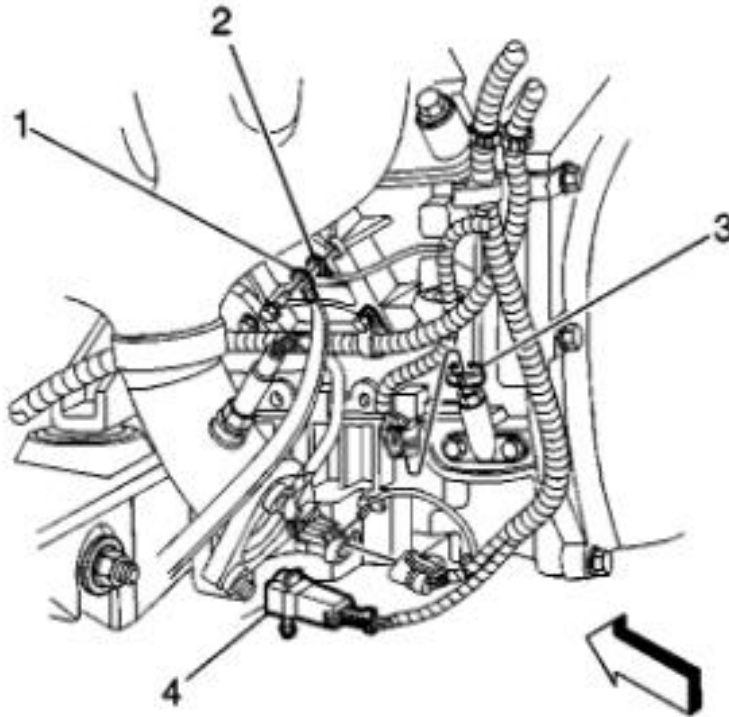
6. Remove the right transmission cover.



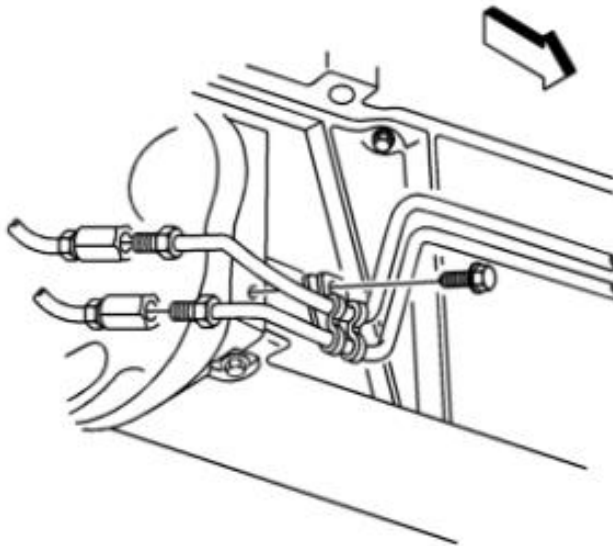
7. Disconnect the engine oil level sensor electrical connector - (2).



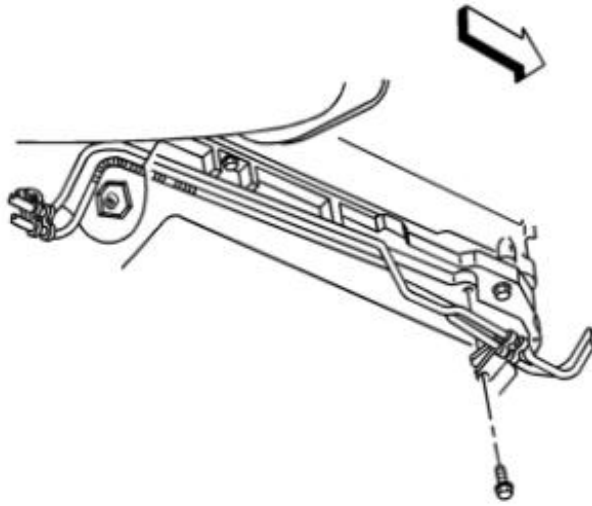
8. Disconnect the engine oil temperature sensor electrical connector - (3).

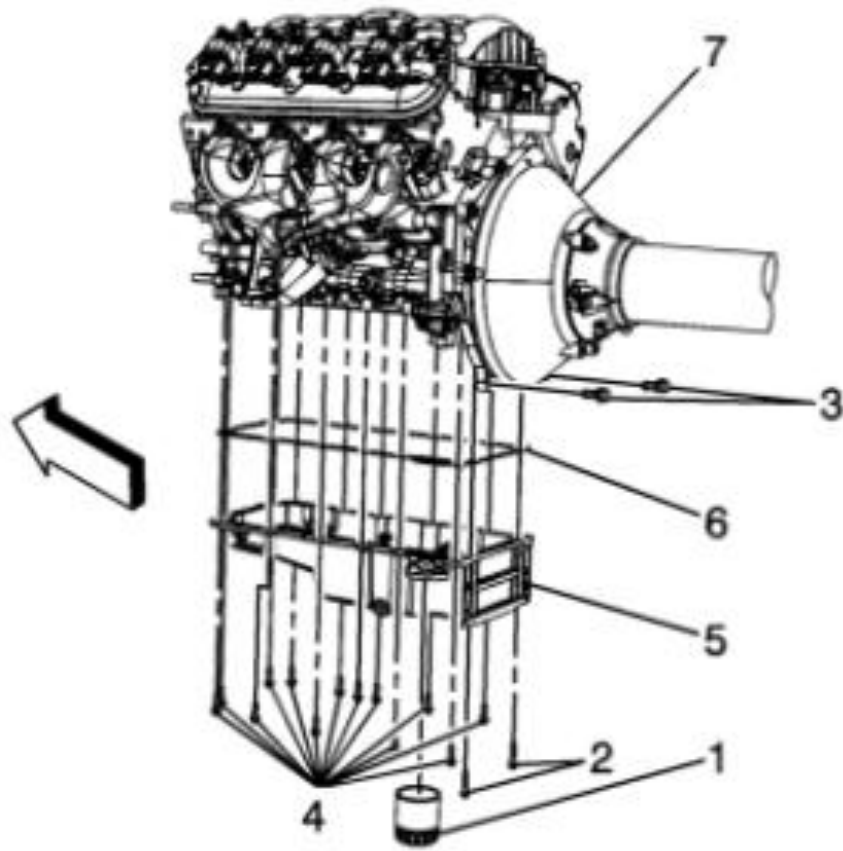


9. Remove the transmission lines from the rear of the oil pan.



10. Remove the transmission lines from the front of the oil pan.





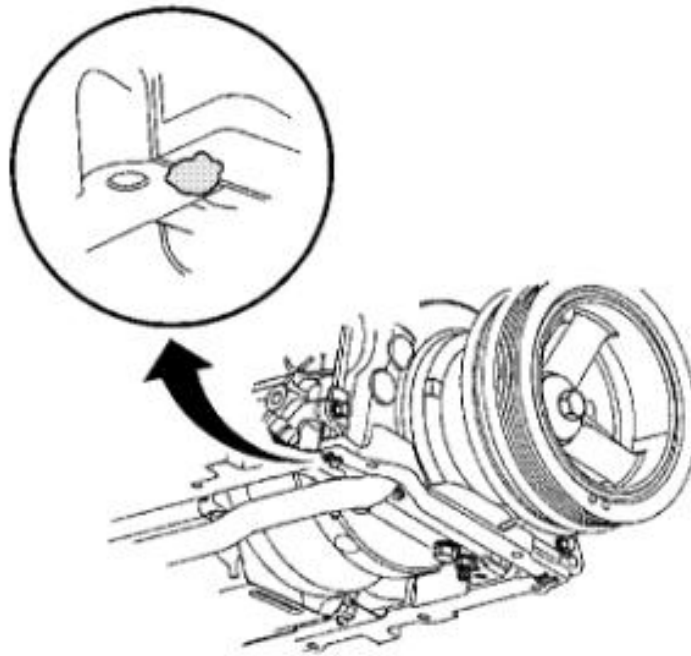
11. Remove the rear oil pan bolts 2.
12. Remove the bolts from the clutch housing to the oil pan 3.
13. Remove the remaining oil pan bolts 4.
14. Remove the oil pan 5 from the engine block 7.

**Important**

It may be necessary to rotate the oil pan to remove to gain enough clearance to clear the oil pump pick up tube.

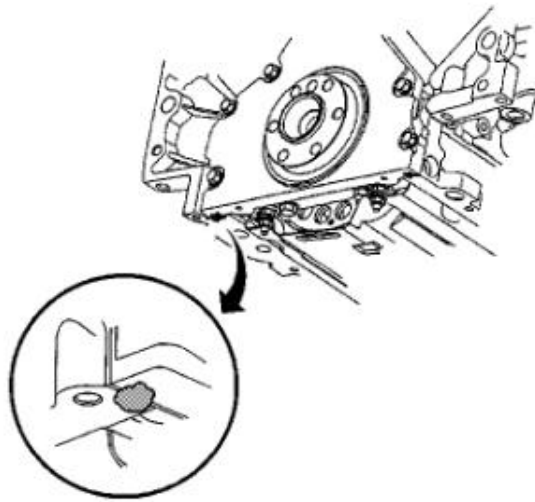
15. Remove the oil pan gasket 6 from the engine block 7.

## Installation Procedure

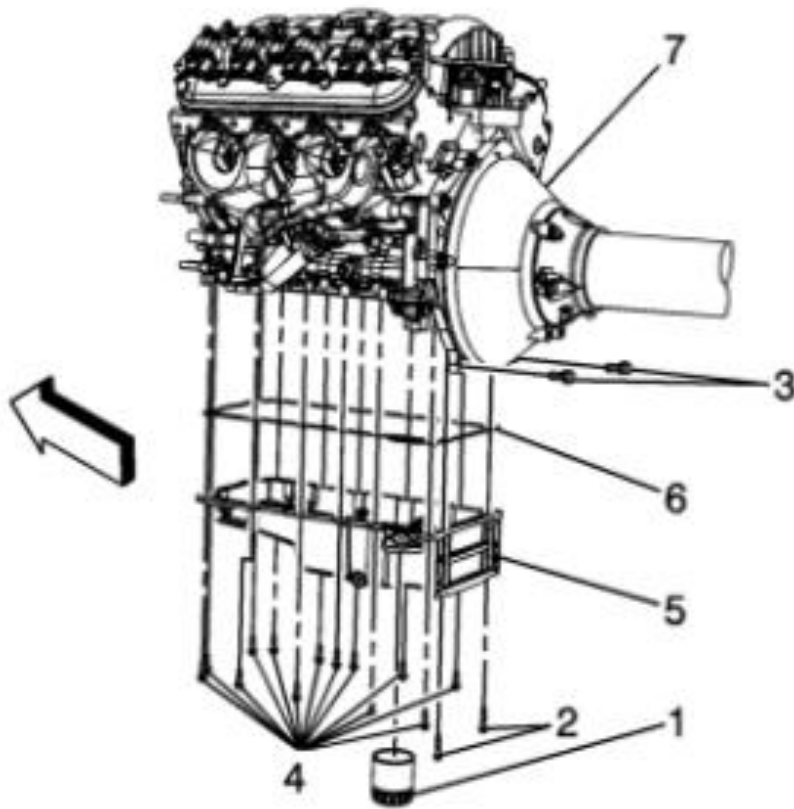


### **Important**

- The alignment of the structural oil pan is critical. The rear bolt hole locations of the oil pan provide mounting points for the transmission housing. To ensure the rigidity of the power train and correct transmission alignment, it is important that the rear of the block and the rear of the oil pan are flush, or even. The rear of the oil pan must NEVER protrude beyond the engine block and transmission housing plane.
  - Do not use the oil pan gasket again.
  - It is not necessary to rivet the NEW gasket to the oil pan.
1. Apply a 5 mm (0.2 in) bead of sealant GM P/N 12378190 or equivalent 20 mm (0.8 in) long to the engine block. Apply the sealant directly onto the tabs of the front cover gasket that protrude into the oil pan surface.



2. Apply a 5 mm (0.2 in) bead of sealant GM P/N 12378190 or equivalent 20 mm (0.8 in) long to the engine block. Apply the sealant directly onto the tabs of the rear cover gasket that protrude into the oil pan surface.



3. Position the oil pan gasket 6 on the oil pan 5.
4. Using 2 bolts 4 to hold the oil pan gasket in place, install the oil pan assembly 5 and 6 to the engine block 7.
5. Finger tighten the 2 bolts 4 to hold the oil pan assembly 5 in place.

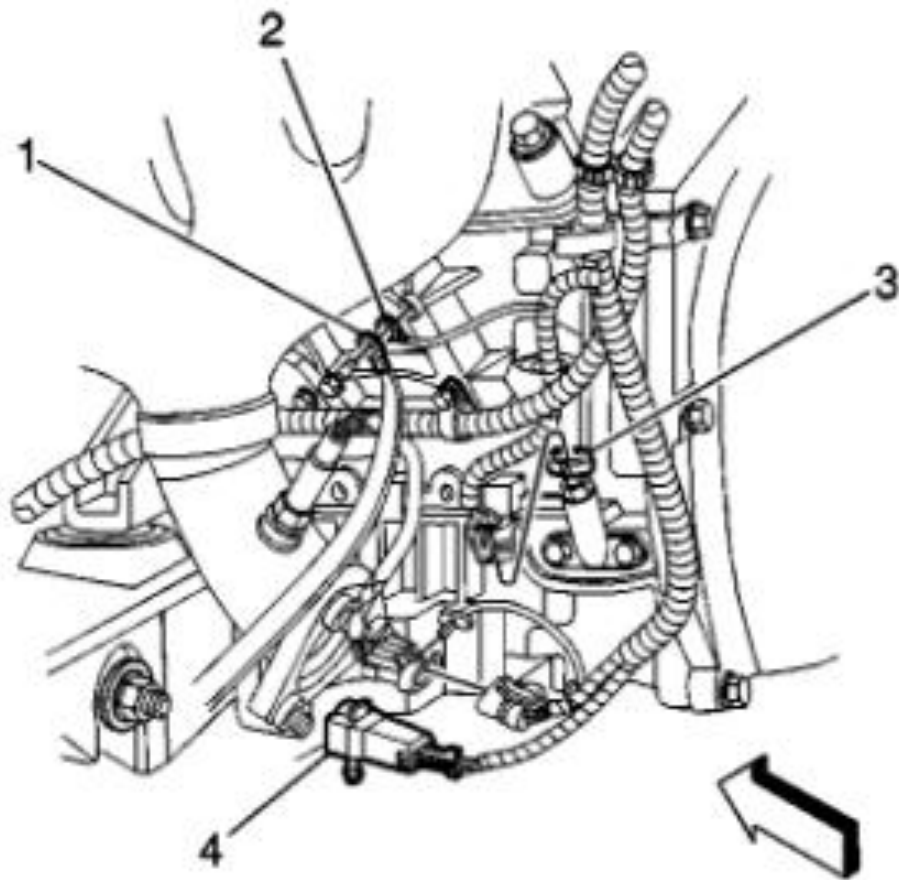
**Notice**

Refer to [Fastener Notice](#) in Cautions and Notices.

6. Install the mounting bolts 2, and 3, for the oil pan assembly.

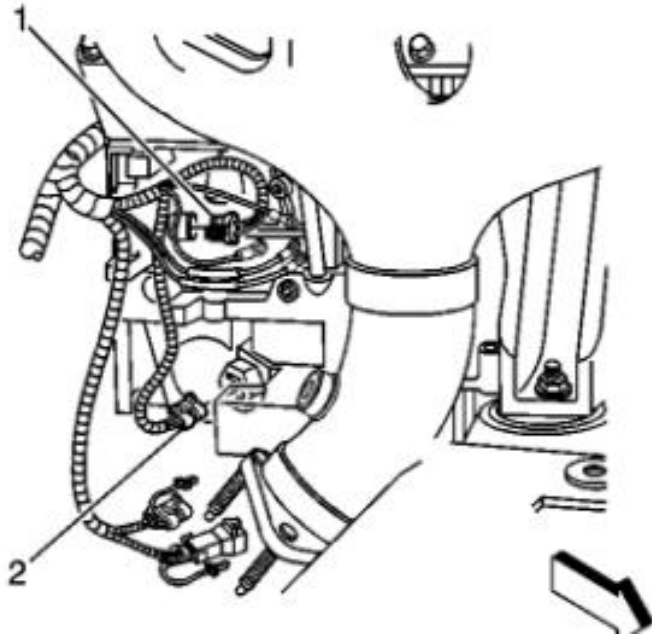
**Tighten**

- a. Tighten the oil pan mounting bolts 2 M6 to 12 N·m (106 lb in).
- b. Tighten the oil pan mounting bolts 4 M8 to 25 N·m (18 lb ft).

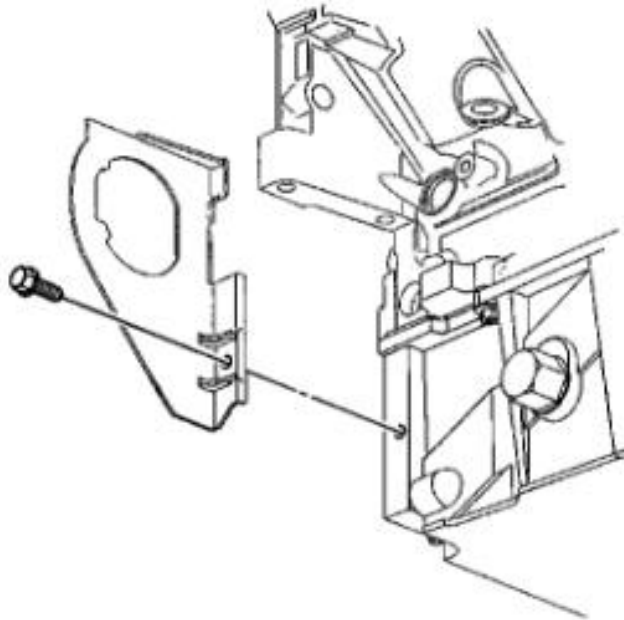




7. Reconnect the engine oil temperature sensor 3 electrical connector.



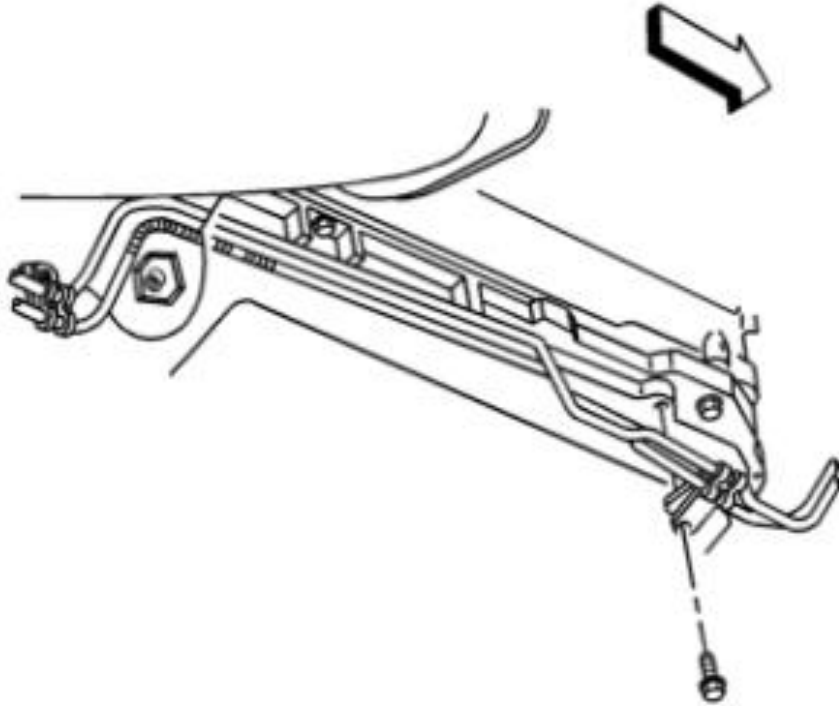
8. Reconnect the engine oil level sensor 2 electrical connector.



9. Install the right transmission cover and bolt.

**Tighten**

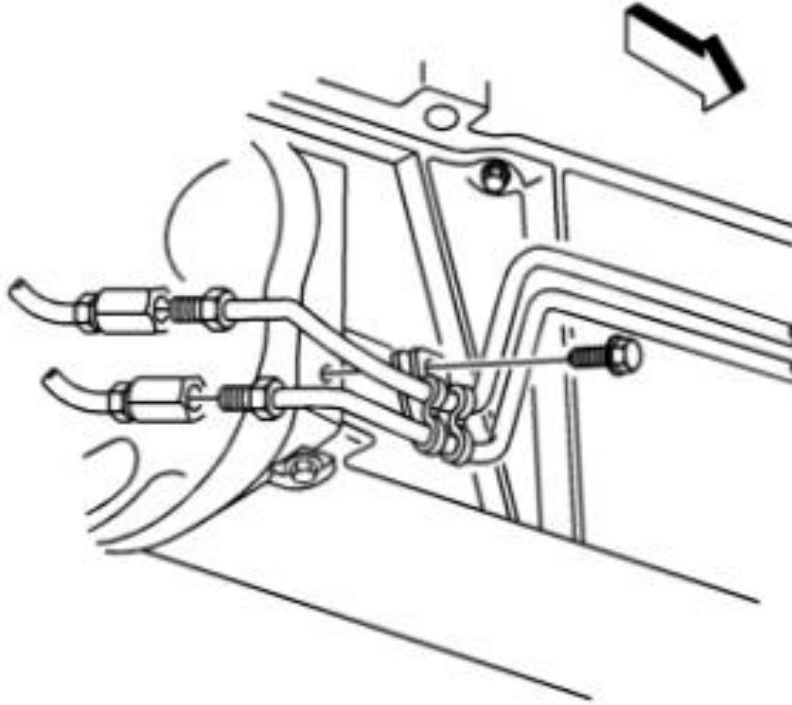
Tighten the transmission cover bolt to 12 N·m (106 lb in).



10. Install the front automatic transmission cooler line retainer and bolt.

**Tighten**

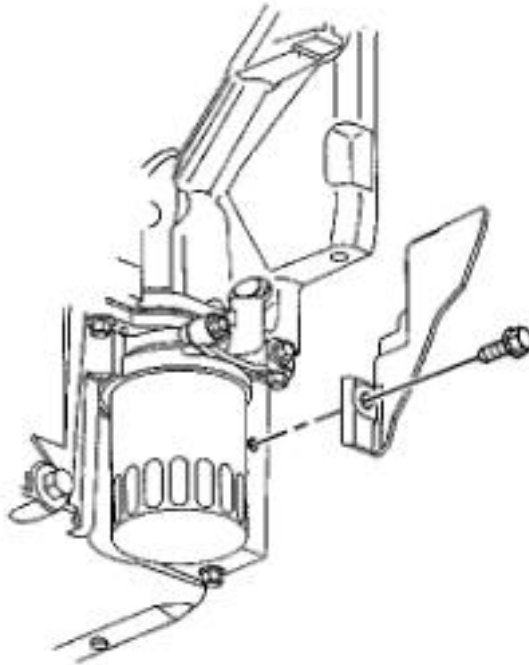
Tighten the automatic transmission cooler line retainer and bolts to 12 N·m (106 lb in).



11. Install the rear automatic transmission cooler lines retainer and bolt.

**Tighten**

Tighten the automatic transmission cooler line retainer and bolts to 12 N·m (106 lb in).



12. Install the starter assembly. Refer to [Starter Motor Replacement](#) in Engine Electrical.

13. Install the left rear transmission cover and bolt.

**Tighten**

Tighten the automatic transmission cooler line retainer and bolts to 12 N·m (106 lb in).

14. Install the oil filter. Refer to [Engine Oil and Oil Filter Replacement](#) .

15. Install the front suspension cross member.