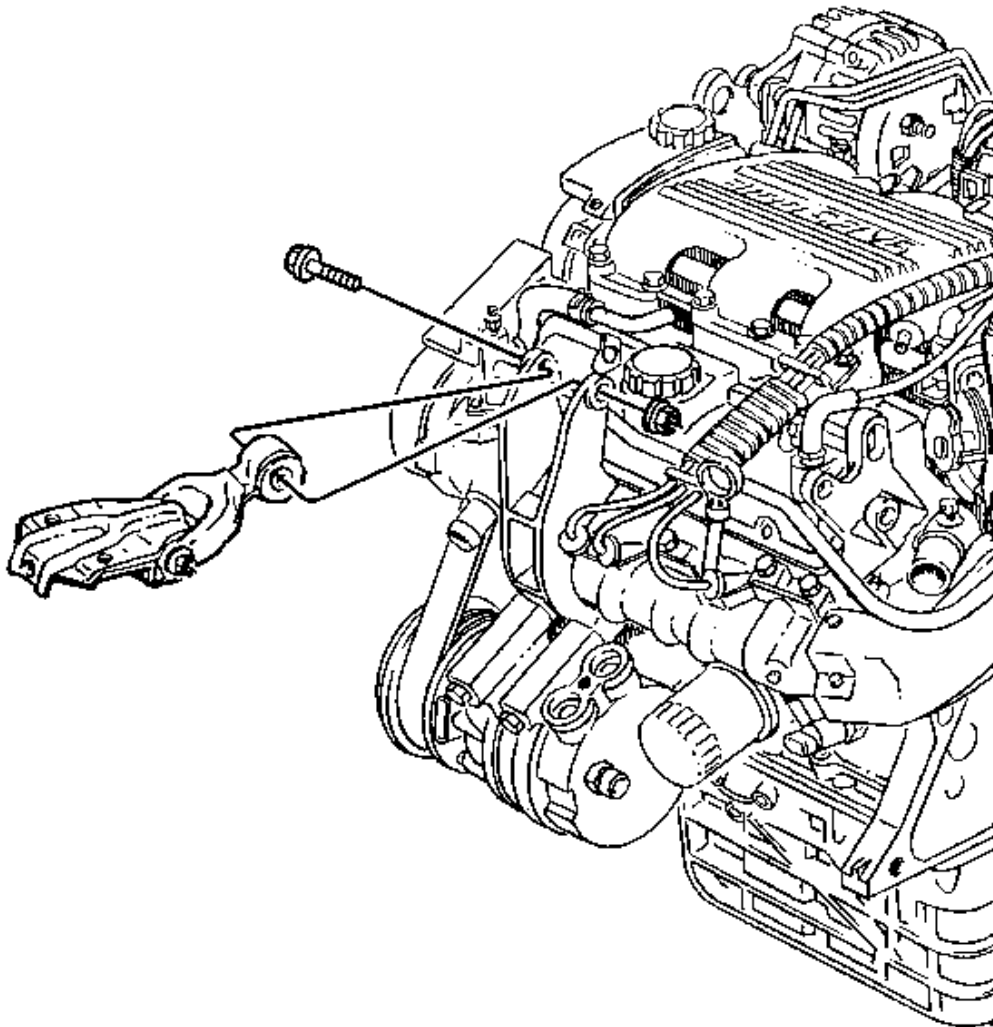


**Engine Mount Strut Bracket Replacement - Right**

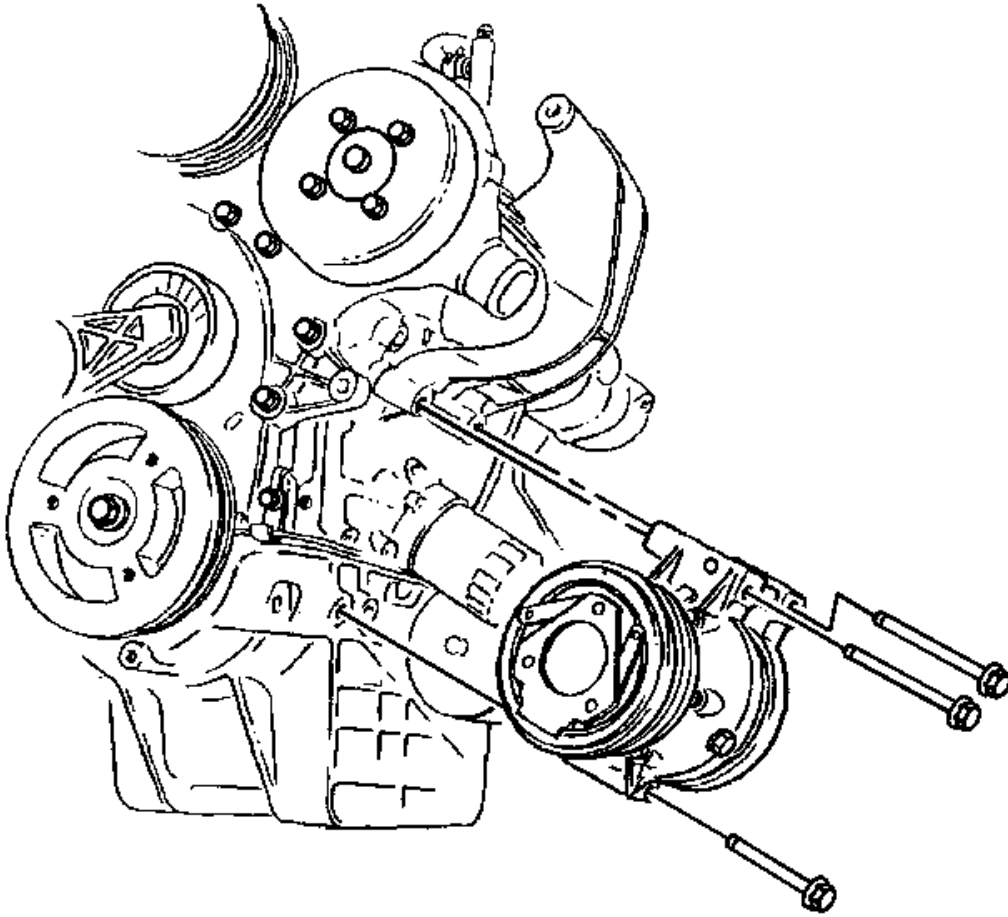
**Removal Procedure**



**Fig. 34: Engine Mount Strut, Bracket & Bolts - Right**  
Courtesy of GENERAL MOTORS CORP.

1. Remove the right engine mount strut from the right engine mount strut bracket. Refer to **Engine Mount Strut Replacement**.
2. Remove the air conditioning compressor mounting bolts. Refer to **Compressor Replacement (3.1L)** in Heating Ventilation, and Air Conditioning.

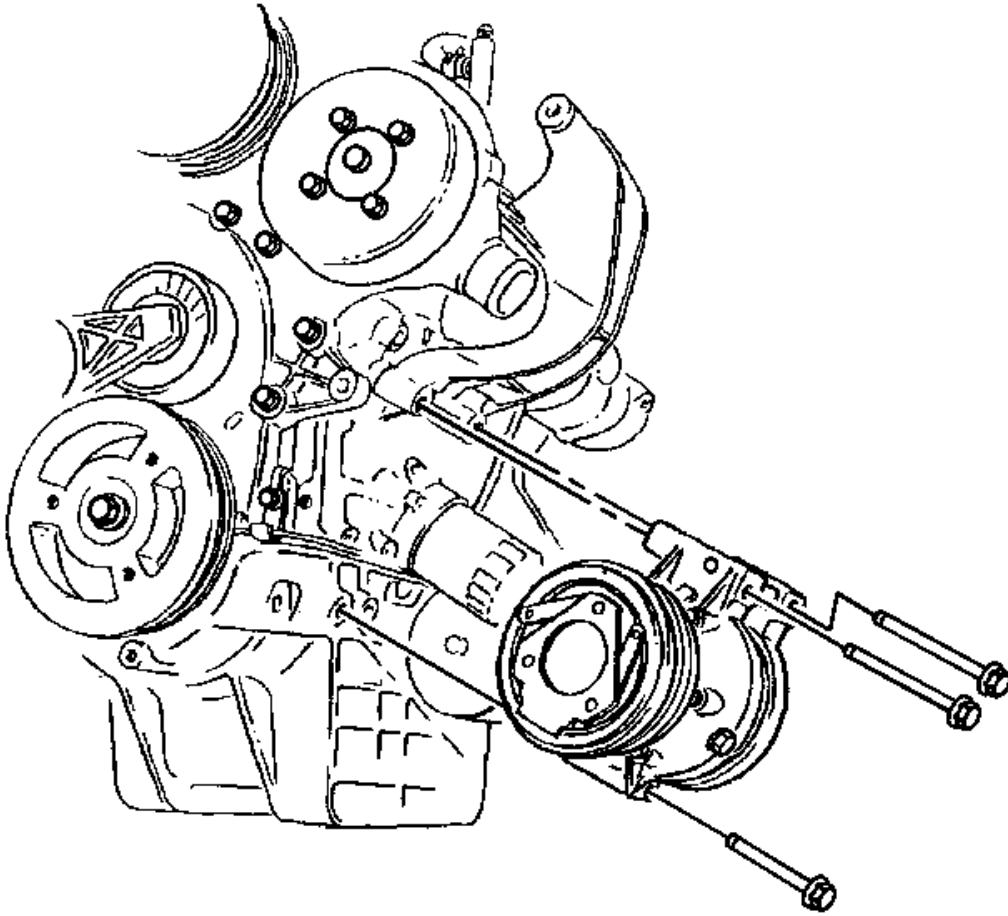
3. Remove and set the air conditioning compressor aside.



**Fig. 35: Locating Air Conditioning Compressor Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

4. Remove the bolts from the right engine mount strut bracket.
5. Remove the right engine mount strut bracket.

**Installation Procedure**



**Fig. 36: Locating Air Conditioning Compressor Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

1. Position the right engine mount strut bracket over the pin locator.

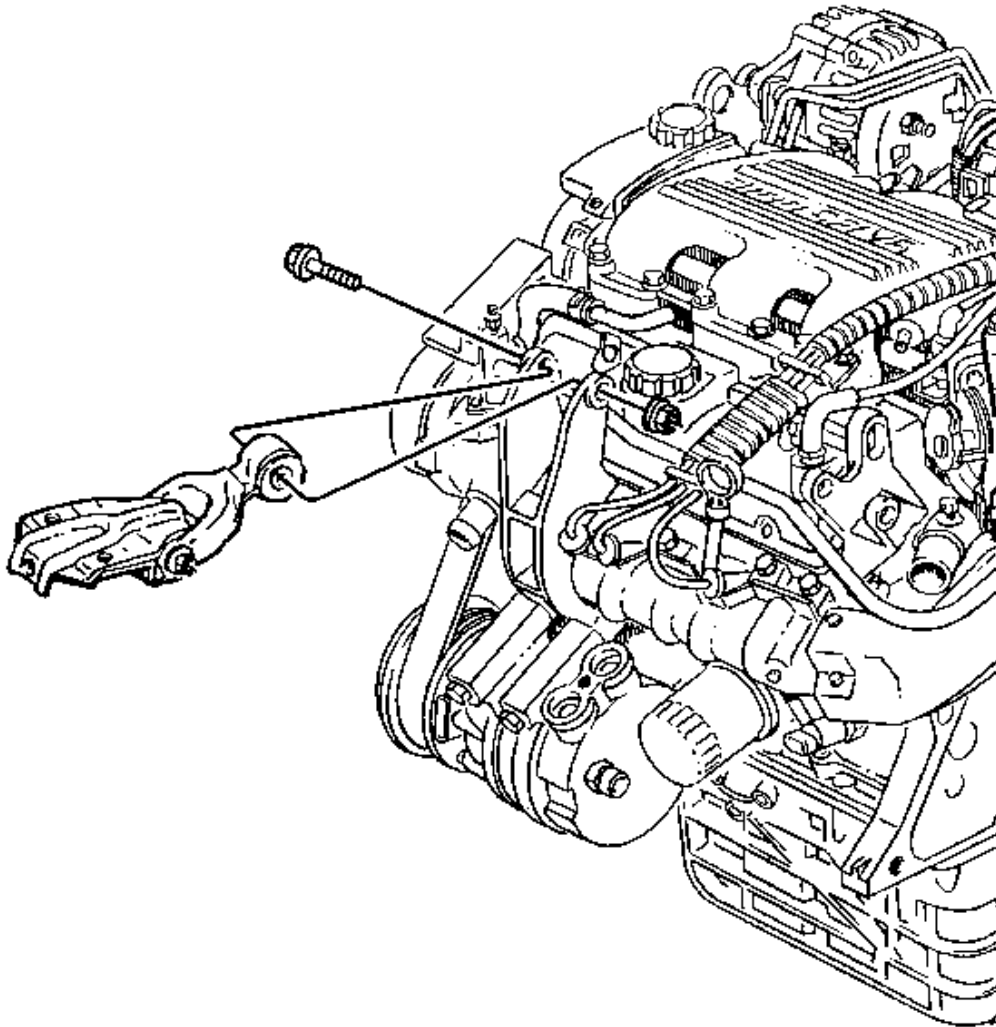
**NOTE:** Refer to Fastener Notice in Cautions and Notices.

2. Install the bolts through the right engine mount strut bracket to the cylinder head.

**Tighten:** Tighten the engine mount strut bracket bolt to 50 N.m (37 lb ft).

3. Install the air conditioner compressor. Refer to **Compressor Replacement (3.1L)** in Heating, Ventilation, and Air Conditioning.

**Tighten:** Tighten the air conditioning compressor mounting bolts to 50 N.m (37 lb ft).

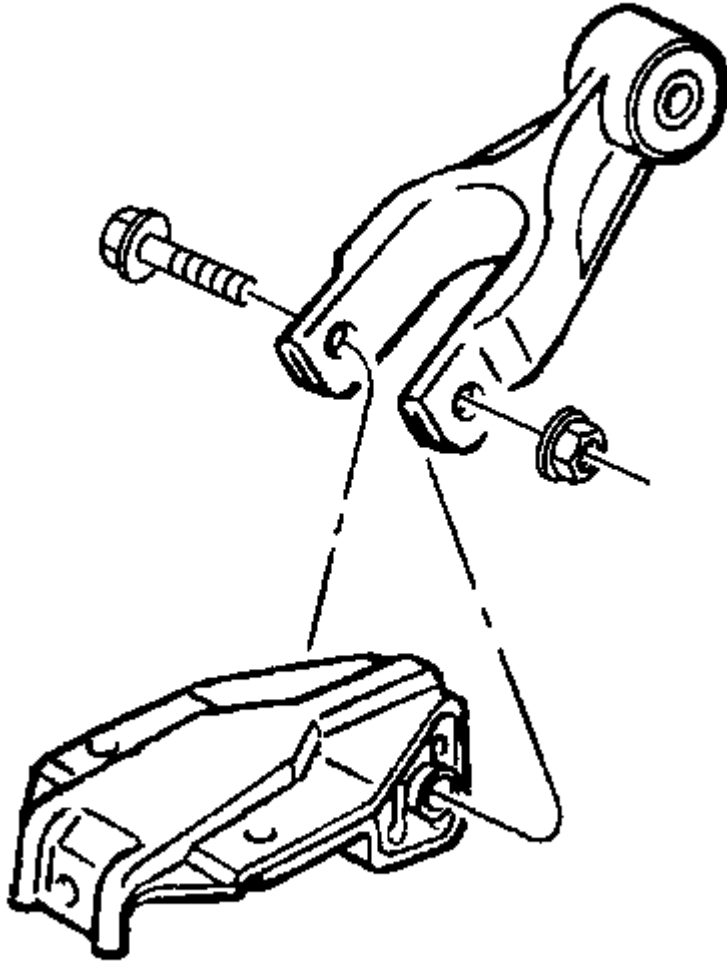


**Fig. 37: Engine Mount Strut, Bracket & Bolts - Right**  
Courtesy of GENERAL MOTORS CORP.

4. Install the right engine mount strut to the right engine mount strut bracket. Refer to **Engine Mount Strut Replacement**.

#### **Engine Mount Strut Bracket Replacement - Upper Radiator Support**

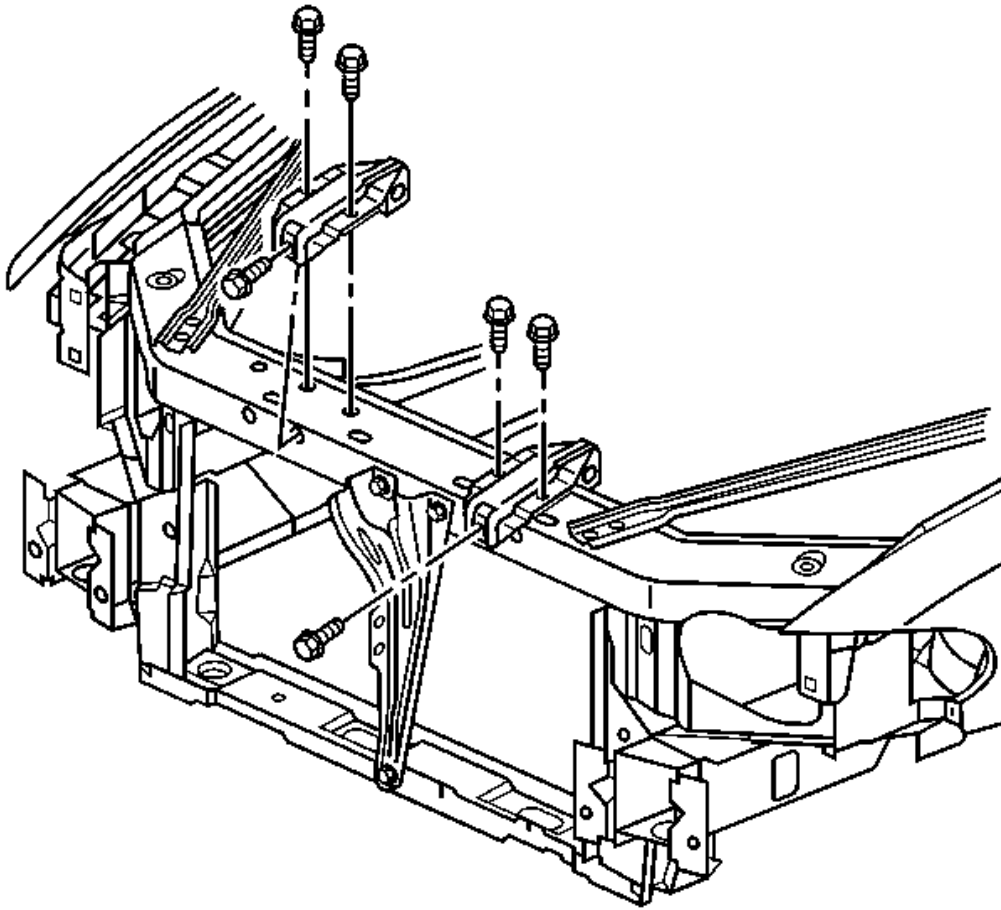
##### **Removal Procedure**



**Fig. 38: Engine Mount Strut**

Courtesy of GENERAL MOTORS CORP.

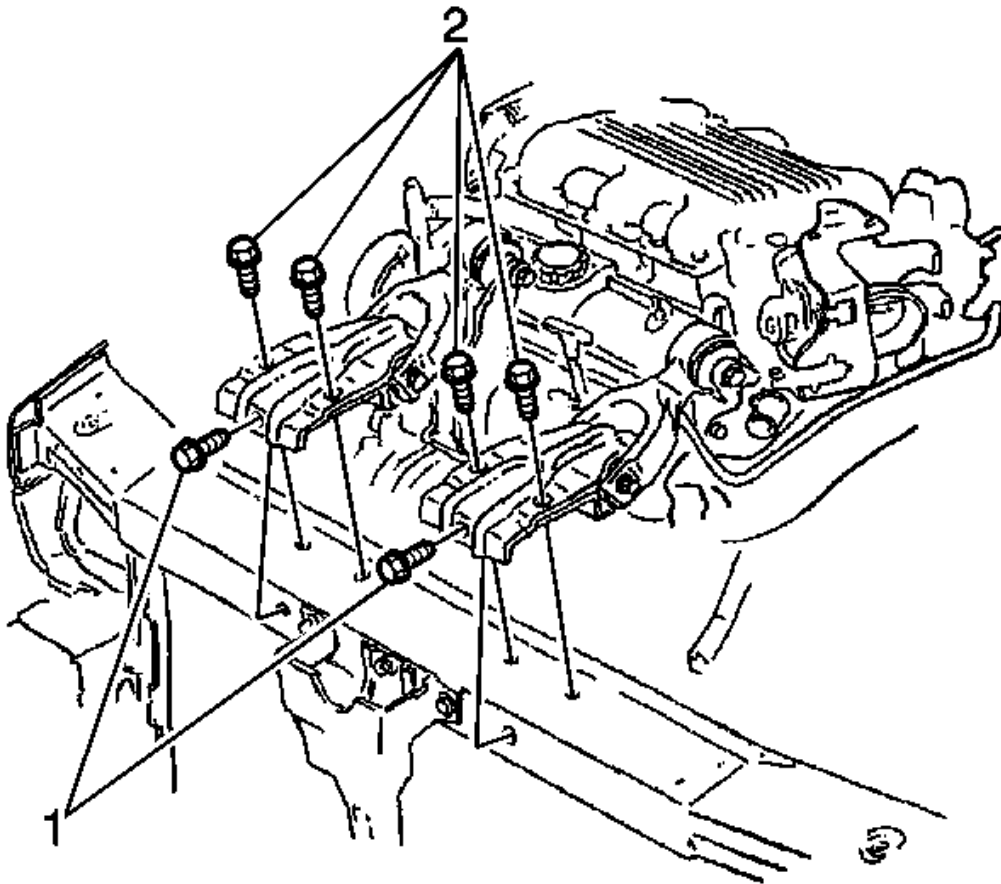
1. Remove the engine mount strut from the engine mount strut bracket at the upper radiator support. Refer to **Engine Mount Strut Bracket Replacement - Left** and/or **Engine Mount Strut Bracket Replacement - Right**.



**Fig. 39: Horizontal & Vertical Engine Mount Strut Bracket Bolts**  
Courtesy of GENERAL MOTORS CORP.

2. Remove the horizontal engine mount strut bracket bolt from the engine mount strut bracket.
3. Remove the vertical engine mount strut bracket bolts from the engine mount strut bracket.
4. Remove the engine mount strut bracket from the upper radiator support.

**Installation Procedure**



**Fig. 40: Horizontal & Vertical Engine Mount Strut Bracket Bolts**  
Courtesy of GENERAL MOTORS CORP.

1. Position the engine mount strut bracket over the upper radiator support. Make sure that the engine mount strut bracket and the engine mount strut are aligned to the proper holes of the upper radiator support. The proper torque sequence is shown (1, 2).

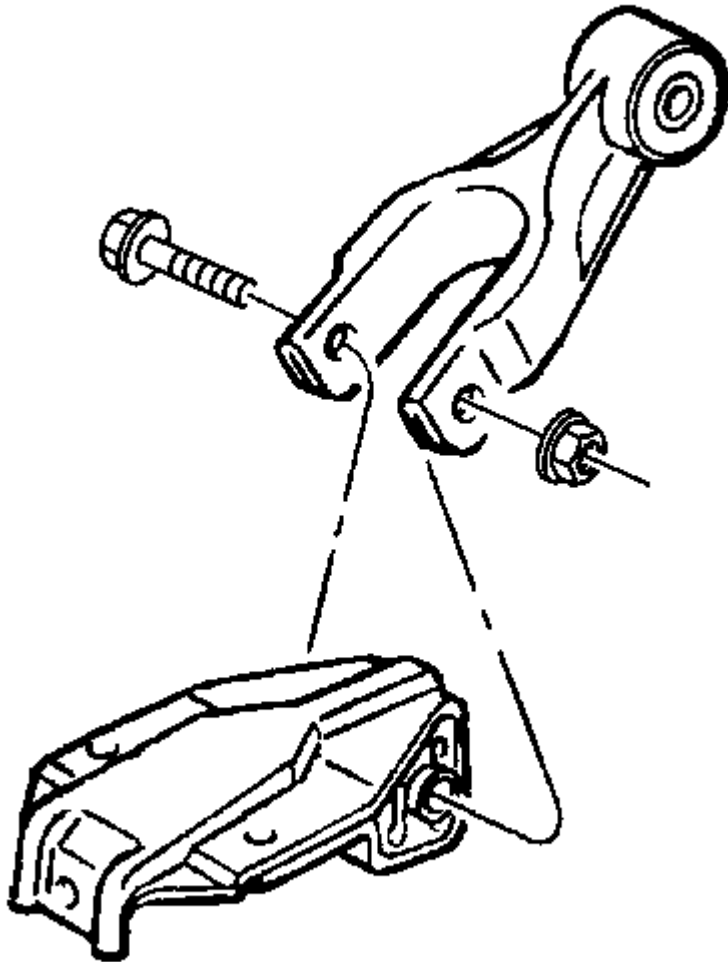
**NOTE:** Refer to Fastener Notice in Cautions and Notices.

2. Install and tighten the engine mount strut bracket bolts. The following is a mandatory torque sequence:
  1. Tighten the horizontal engine mount strut bracket bolt (1) to the engine mount strut bracket.

**Tighten:** Tighten the horizontal engine mount strut bracket bolt to 26 N.m (19 lb ft).

2. Tighten the vertical engine mount strut bracket bolts (2) to the engine mount strut bracket.

**Tighten:** Tighten the vertical engine mount strut bracket bolts to 26 N.m (19 lb ft).



**Fig. 41: Engine Mount Strut**  
Courtesy of GENERAL MOTORS CORP.

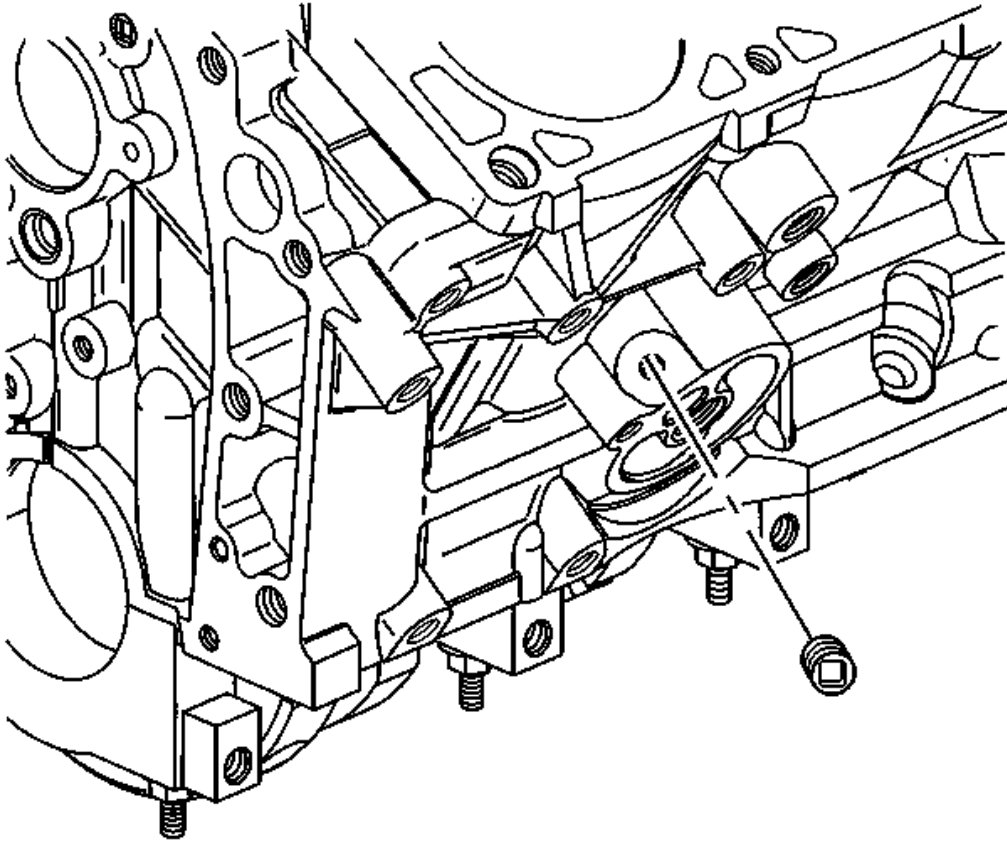
3. Install the engine mount strut to the engine mount strut bracket at the upper radiator support. Refer to **Engine Mount Strut Bracket Replacement - Left** and/or **Engine Mount Strut Bracket Replacement - Right**.

#### Oil Filter Adapter and Bypass Valve Assembly Replacement

##### Removal Procedure

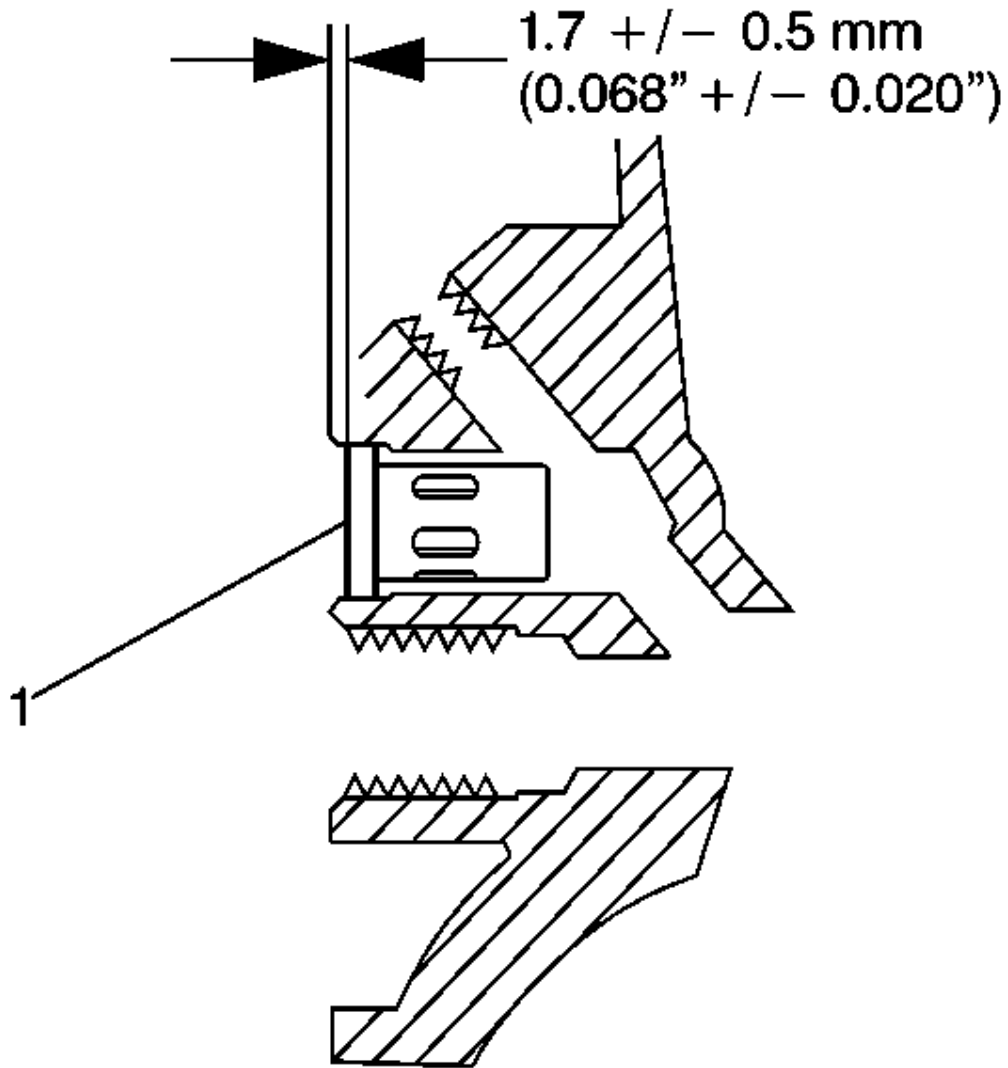


1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the oil filter. Refer to **Engine Oil and Oil Filter Replacement**.



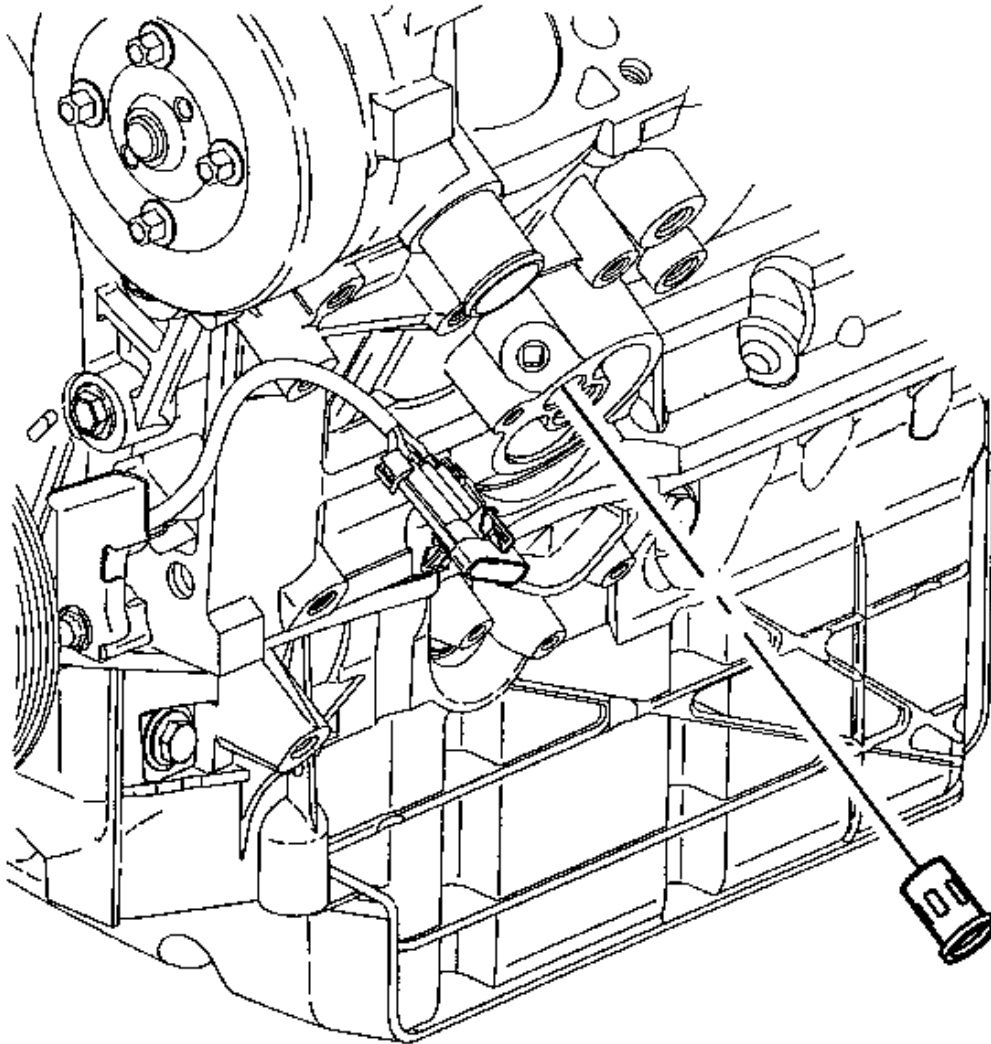
**Fig. 42: Oil Filter Bypass Hole Plug**  
Courtesy of GENERAL MOTORS CORP.

3. Remove oil filter bypass hole plug.



**Fig. 43: View Of Oil Filter Bypass Valve**  
Courtesy of GENERAL MOTORS CORP.

4. Insert a flat-bladed tool into the oil filter bypass hole and force the bypass valve (1) out.



**Fig. 44: Oil Filter Bypass Valve**  
Courtesy of GENERAL MOTORS CORP.

5. Remove the oil filter bypass valve.