

## POWER STEERING GEAR REPLACEMENT (NON RACK AND PINION)

### Tools Required

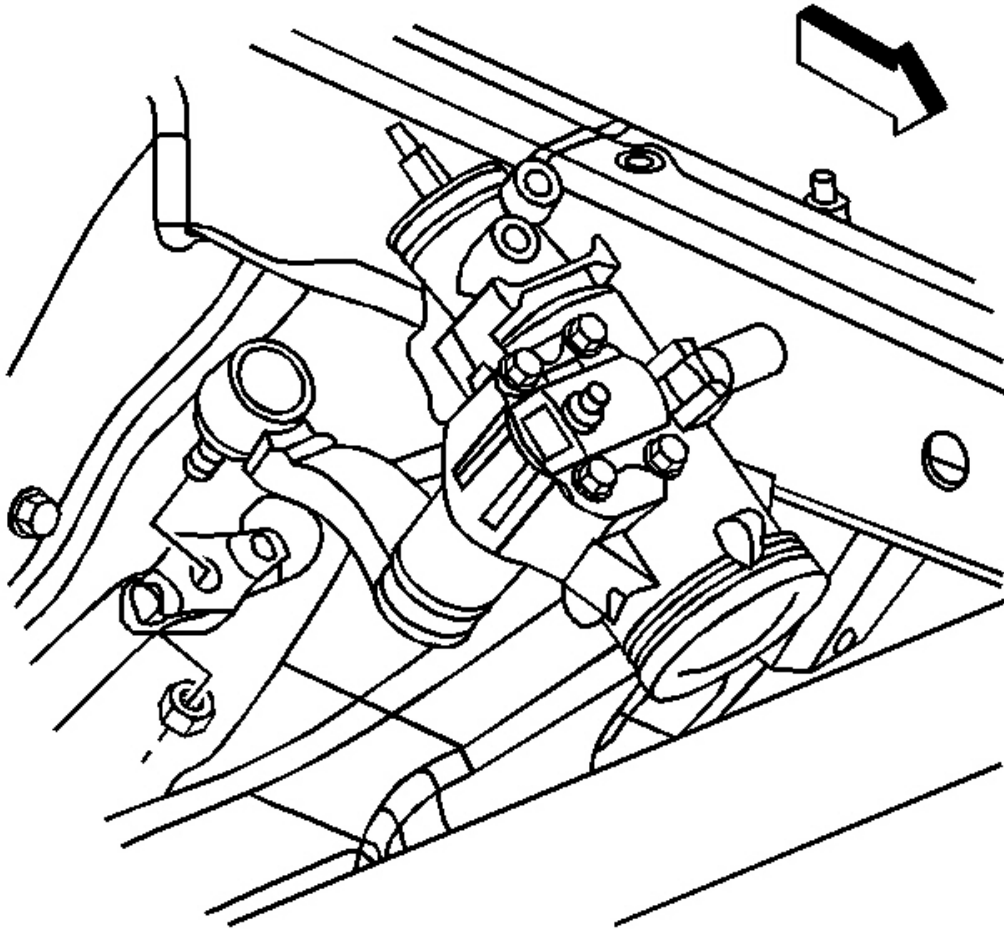
- **J 6632-01** Pitman Arm Puller. See **Special Tools** .
- **J 24319-B** Universal Steering Linkage Puller. See **Special Tools** .
- **J 29107-A** Pitman Arm Puller. See **Special Tools** .

### Removal Procedure

1. Place a drain pan under the vehicle.
2. Remove the engine protection shield, if equipped. Refer to **Engine Protection Shield Replacement** in Frame and Underbody.
3. For vehicles equipped with a 6.6L diesel, remove the left charge air cooler hose. Refer to **Charged Air Cooler Hoses/Pipes Replacement (Left)** or **Charged Air Cooler Hoses/Pipes Replacement (Right)** in Engine Mechanical - 6.6L (LLY).

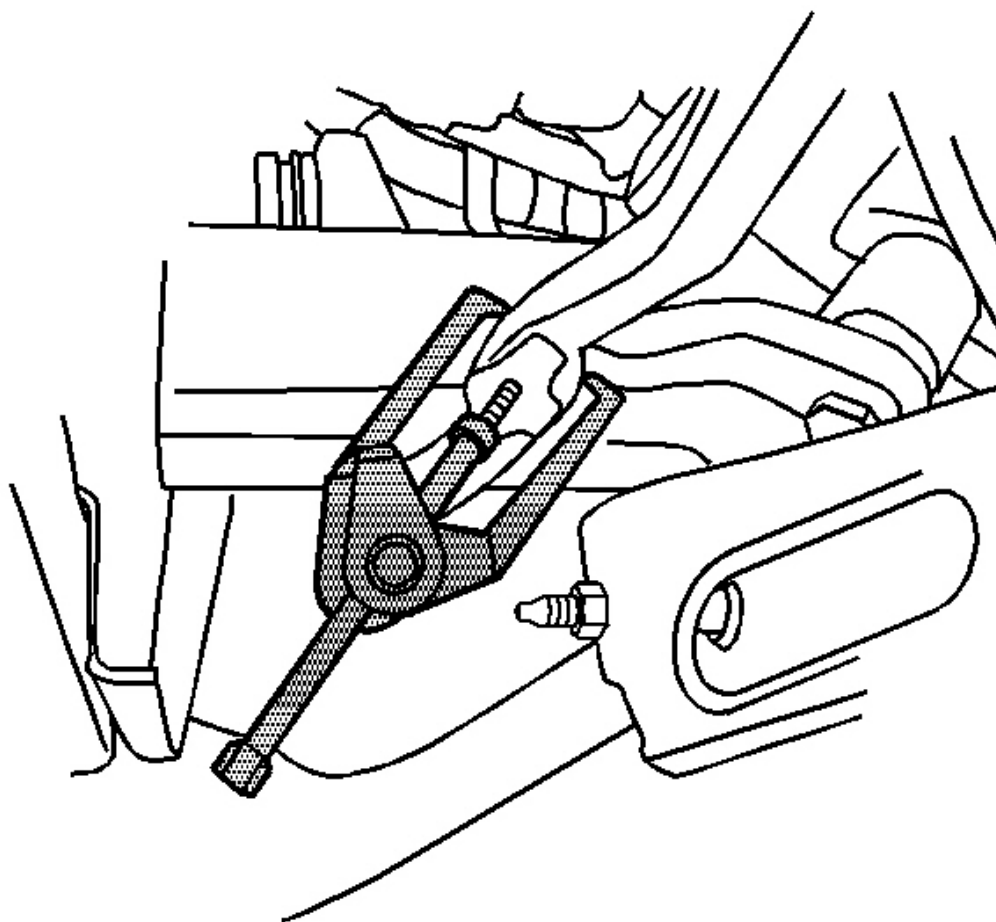
**NOTE:** Refer to **POWER STEERING HOSE DISCONNECTED NOTICE** in **Cautions and Notices**.

4. Remove the power steering hoses from the steering gear.
5. Cap the ends of the hoses and the power steering gear in order to prevent any entrance of dirt.
6. Disconnect the intermediate shaft from the steering gear. Refer to **Intermediate Steering Shaft Replacement - Lower** in Steering Wheel and Column.



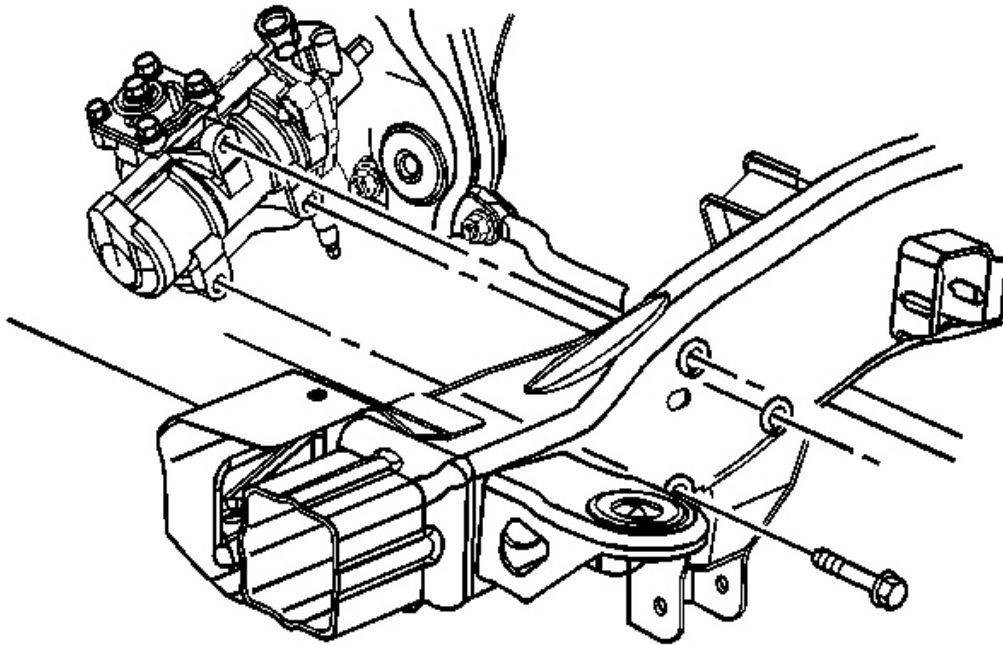
**Fig. 168: Pitman Arm To Relay Rod Nut (Non Rack and Pinion)**  
Courtesy of GENERAL MOTORS CORP.

7. Remove the pitman arm to relay rod nut.



**Fig. 169: Disconnect The Pitman Arm From The Relay Rod (Non Rack and Pinion)**  
Courtesy of GENERAL MOTORS CORP.

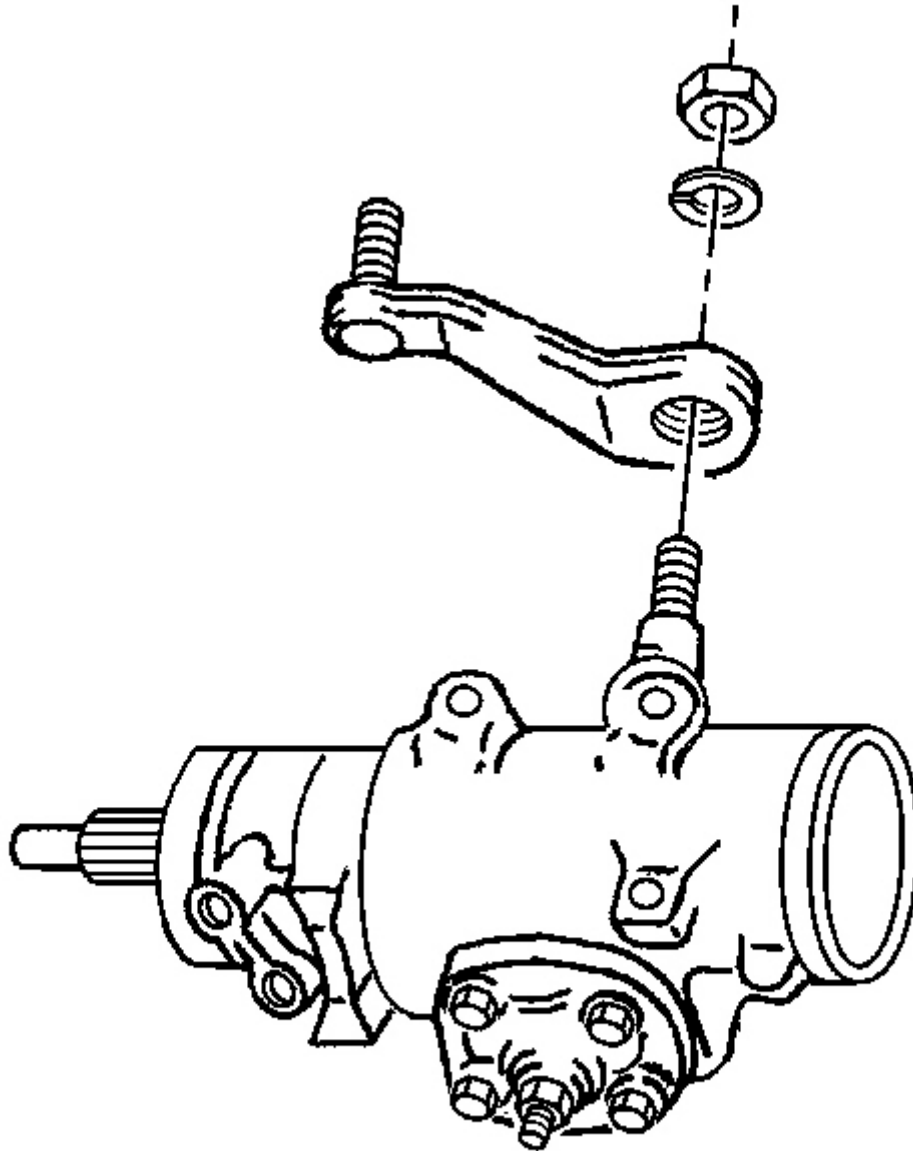
8. Disconnect the pitman arm from the relay rod using the **J 24319-B** . See **Special Tools** .



**Fig. 170: Removing The Bolts Retaining The Steering Gear To The Frame (Non Rack and Pinion)**

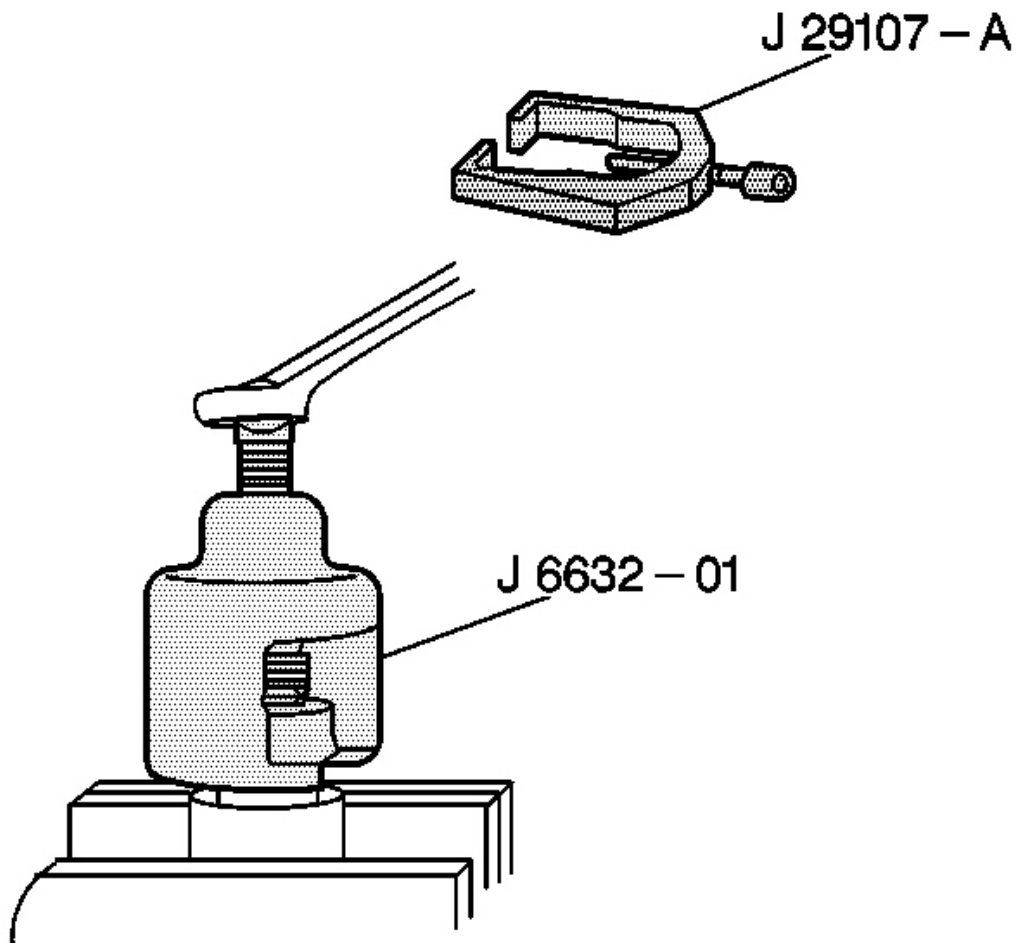
**Courtesy of GENERAL MOTORS CORP.**

9. Remove the bolts retaining the steering gear to the frame.
10. Remove the steering gear from the vehicle.



**Fig. 171: Remove The Pitman Arm Retaining Nut (Non Rack and Pinion)  
Courtesy of GENERAL MOTORS CORP.**

11. Remove the pitman arm to the power steering gear retaining nut.

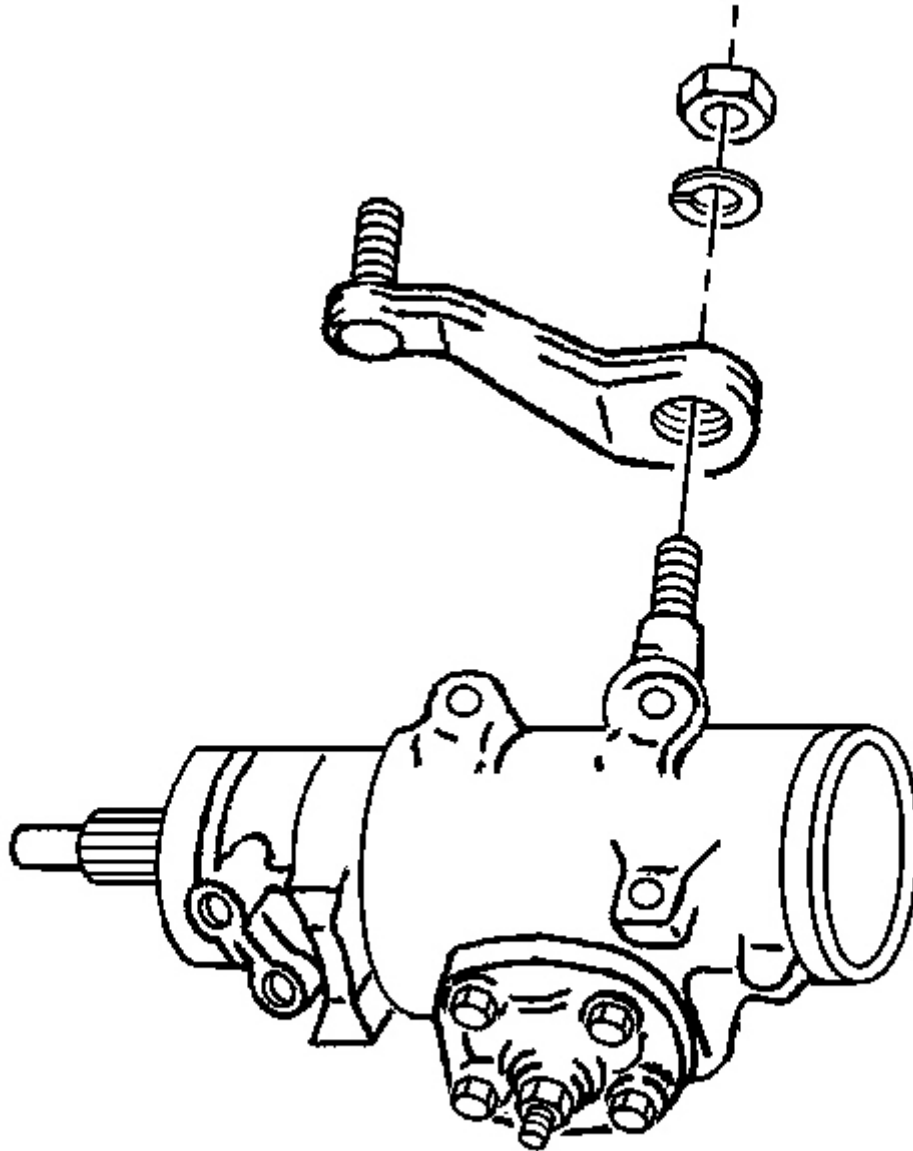


**Fig. 172: Remove The Pitman Arm From The Power Steering Gear (Non Rack and Pinion)**

Courtesy of GENERAL MOTORS CORP.

12. Remove the pitman arm from the power steering gear using the **J 6632-01** or the **J 29107-A** . See **Special Tools** .

**Installation Procedure**



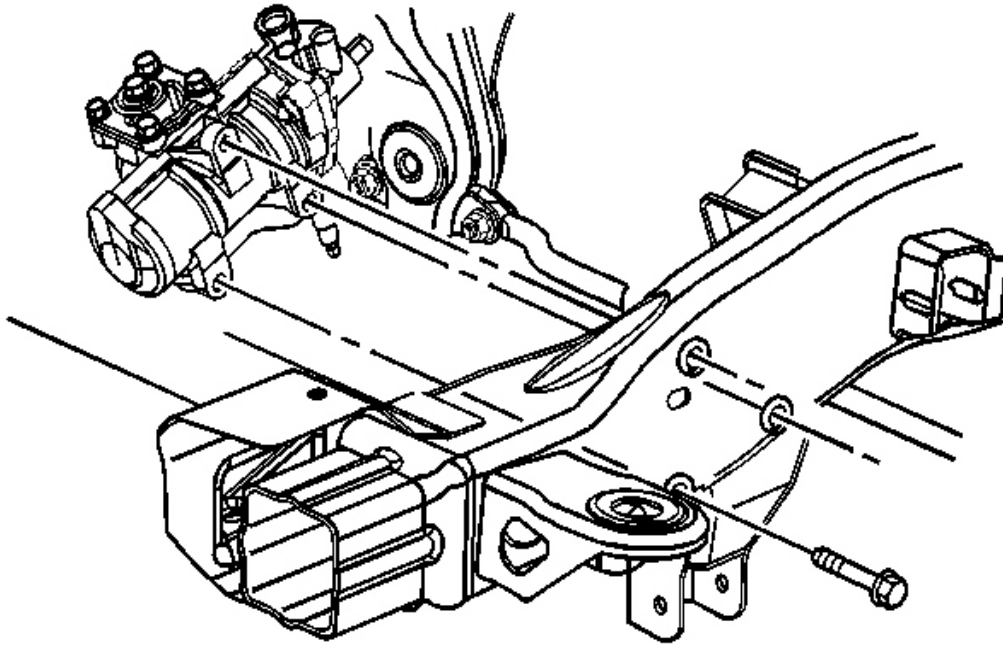
**Fig. 173: Remove The Pitman Arm Retaining Nut (Non Rack and Pinion)**  
Courtesy of GENERAL MOTORS CORP.

1. Install the pitman arm to the power steering gear.

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

2. Install the pitman arm to power steering gear retaining nut and washer.

**Tighten:** Tighten the nut to 250 N.m (184 lb ft).



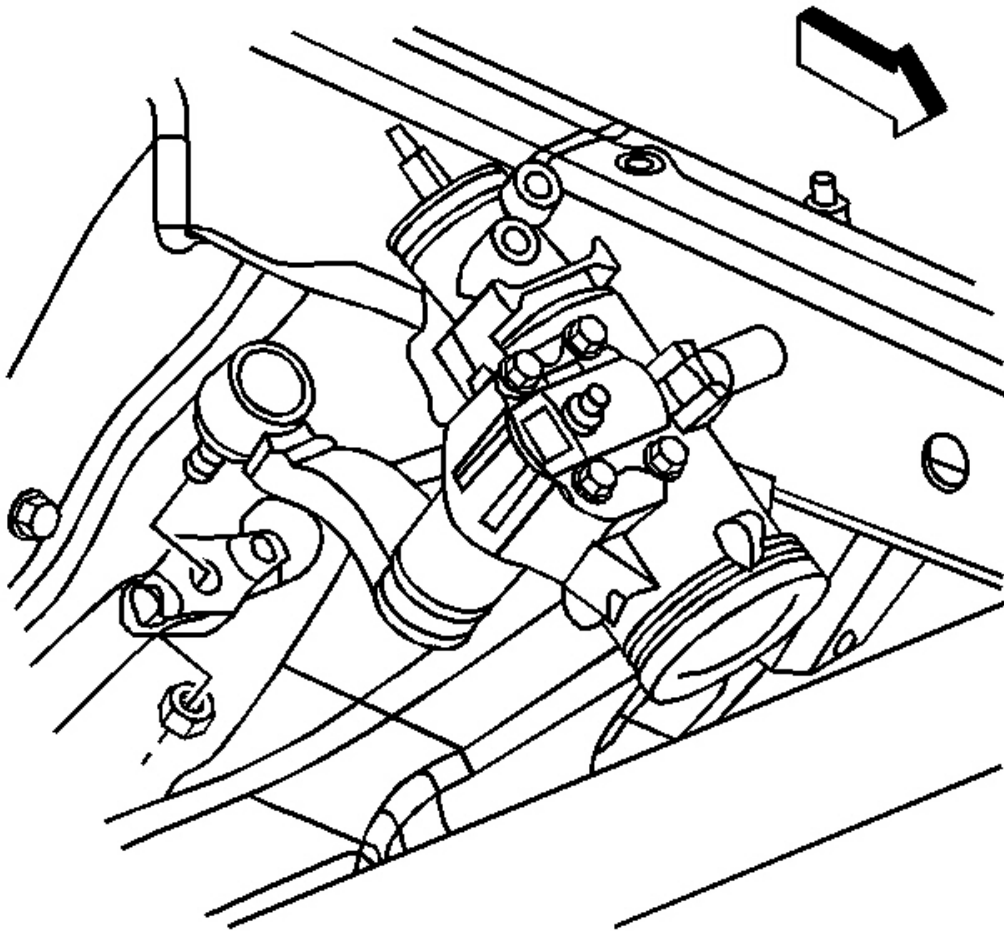
**Fig. 174: Removing The Bolts Retaining The Steering Gear To The Frame (Non Rack and Pinion)**

Courtesy of GENERAL MOTORS CORP.

3. Install the steering gear to the frame and install the retaining bolts.

**Tighten:** Tighten the bolts to 150 N.m (110 lb ft).





**Fig. 175: Pitman Arm To Relay Rod Nut (Non Rack and Pinion)**  
Courtesy of GENERAL MOTORS CORP.

4. Install the pitman arm to the relay rod.
5. Install the pitman arm to the relay rod nut.

**Tighten:** Tighten the nut to 62 N.m (46 lb ft).

6. Install the intermediate shaft to the steering gear. Refer to **Intermediate Steering Shaft Replacement - Lower** in Steering Wheel and Column.
7. Remove the caps or plugs from the steering gear and hoses.
8. Install the hoses to the steering gear.

**Tighten:** Tighten the hose fittings to 28 N.m (20 lb ft).

9. For vehicles equipped with a 6.6L diesel, install the left charge air cooler hose. Refer to **Charged Air Cooler Hoses/Pipes Replacement (Left)** or **Charged Air Cooler Hoses/Pipes Replacement (Right)** in Engine Mechanical - 6.6L (LLY).
10. Install the engine protection shield, if equipped. Refer to **Engine Protection Shield Replacement** in Frame and Underbody.
11. Remove the safety stands.
12. Lower the vehicle.
13. Bleed the power steering system. Refer to **Bleeding the Power Steering System** .