

PRODEMAND

YMMS: 2012 Chevrolet Silverado 2500 HD

Engine: 6.6L Eng

VIN:

Jun 10, 2020

License:

Odometer:

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (RIGHT SIDE)

Special Tools

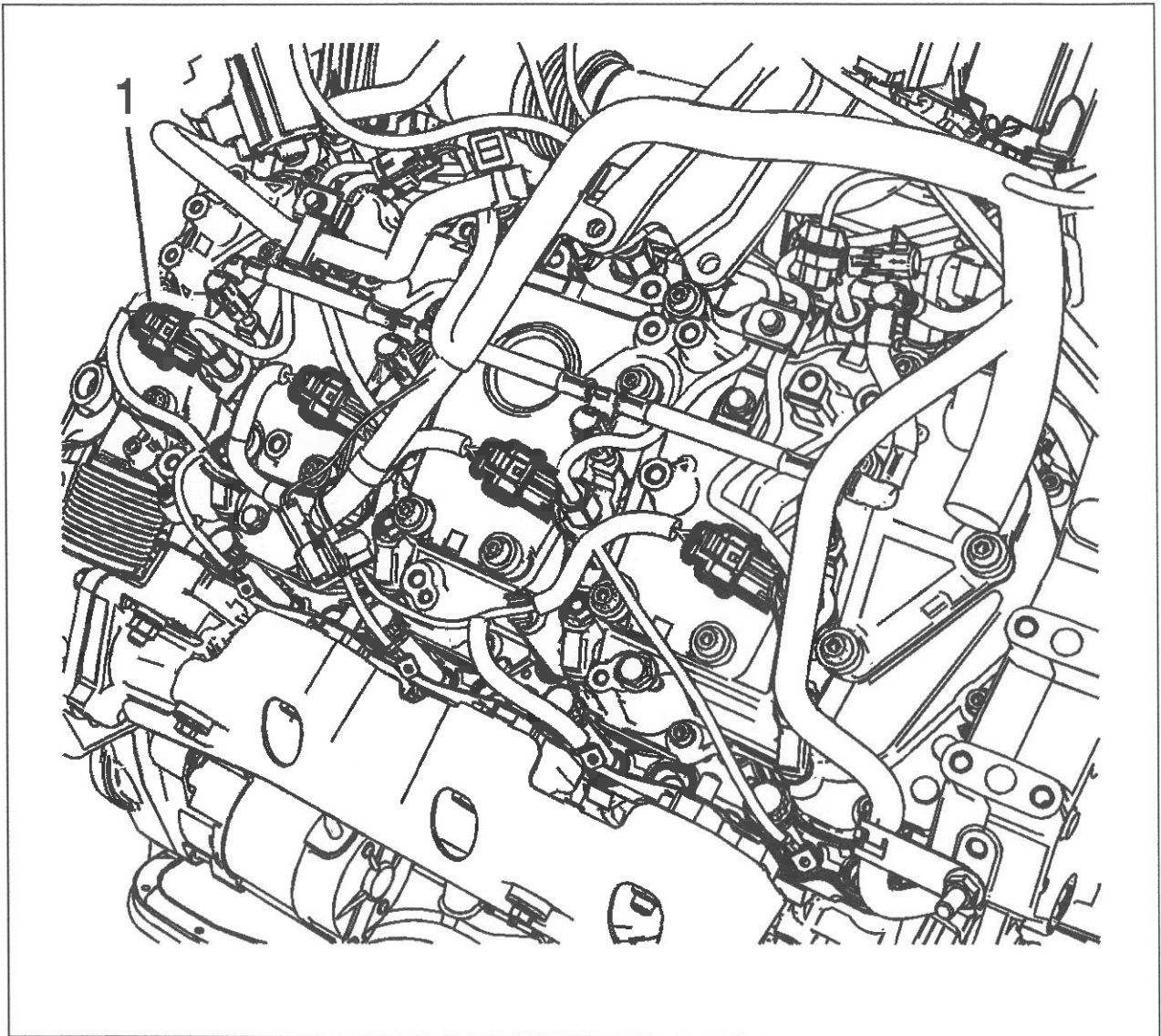
- **EN 47909** Injector Bore and Sleeve Cleaning Kit
- **EN 49774** Fuel Injector Puller

For equivalent regional tools, refer to Special Tools (Diagnostic Tools Diesel) .

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (RIGHT SIDE) > REMOVAL PROCEDURE

1. Remove the fuel filter bracket Fuel Filter Bracket Replacement .
2. Remove the right side fuel injection fuel feed pipes. Refer to Fuel Injection Fuel Feed Pipe Replacement - Right Side .

Fig 1: Identifying Fuel Injector Electrical Connectors

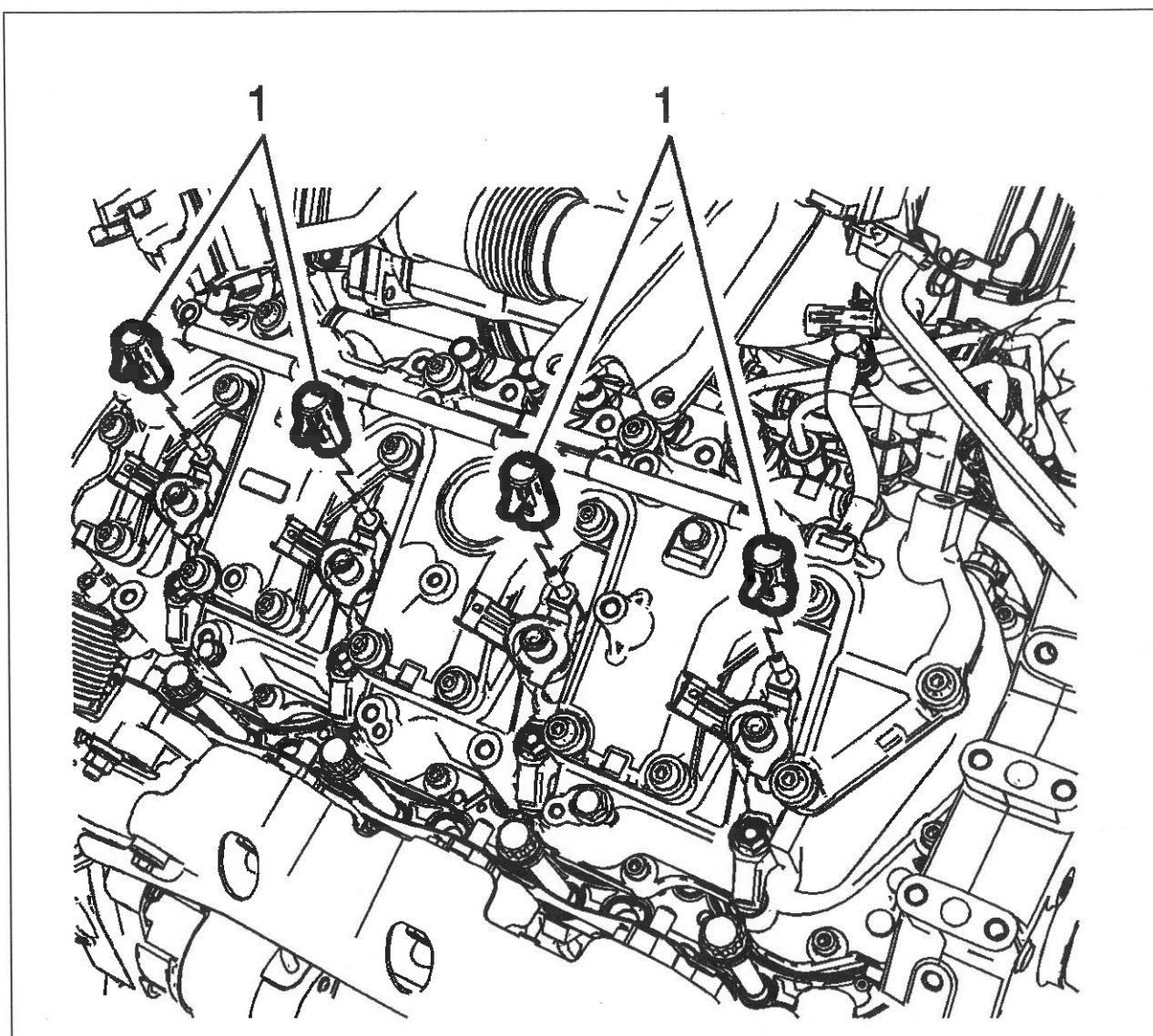


Courtesy of GENERAL MOTORS COMPANY

CAUTION: Label all the injector electrical connectors before the connectors are removed in order to prevent reconnecting to the wrong injector. Failure to properly connect the injectors in the correct sequence will cause severe engine damage.

3. Disconnect the fuel injector electrical connectors (1).

Fig 2: Identifying Fuel Return Pipes



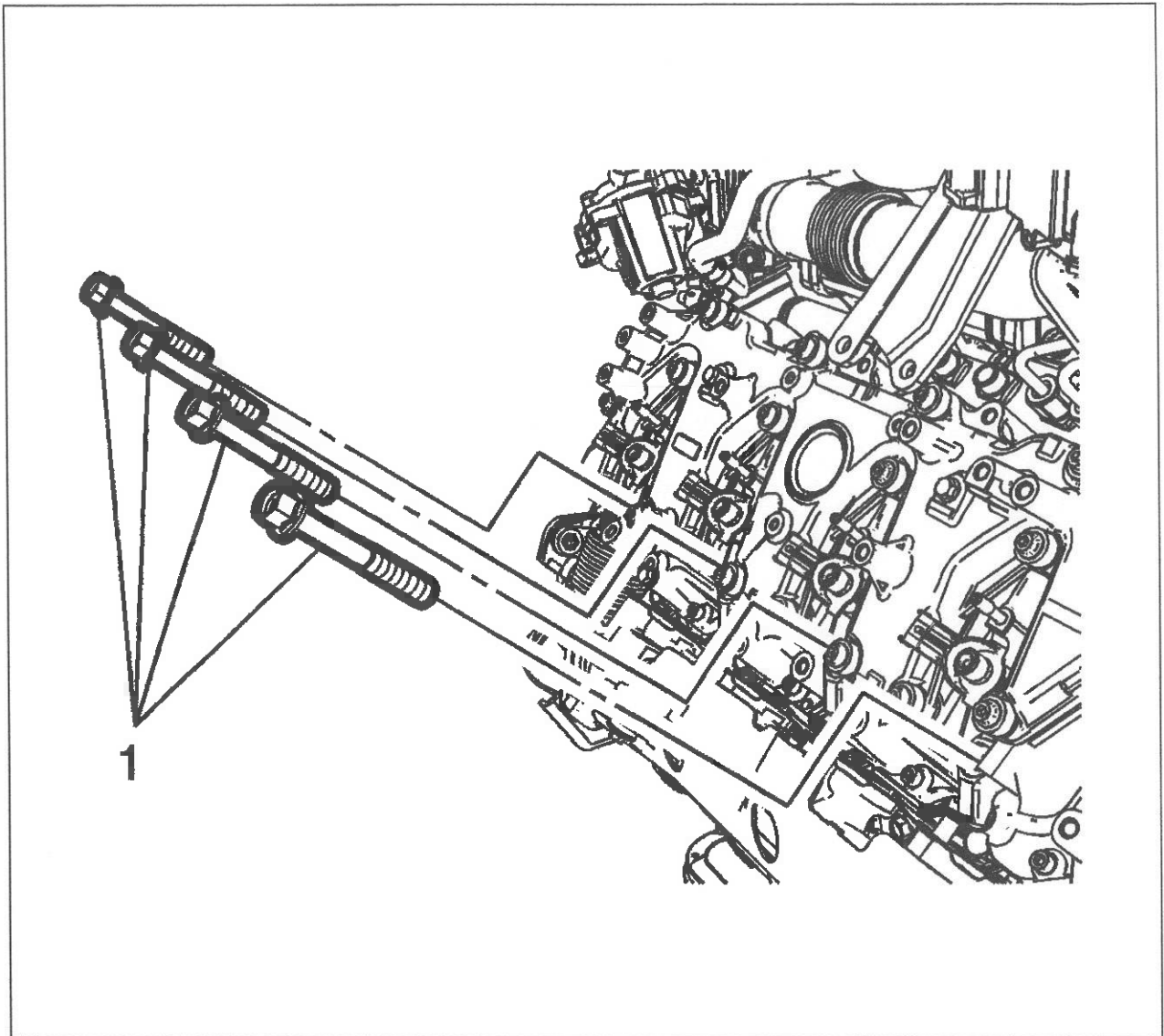
Courtesy of GENERAL MOTORS COMPANY

NOTE:

1. Prior to removal of the fuel injector pipes, use compressed air to remove any debris from the injector line and fittings.
2. Spray lithium grease, or equivalent, between the fuel injector line and fittings to assist with removal. Refer to Adhesives, Fluids, Lubricants, and Sealers .

4. Disconnect and reposition the fuel return pipes (1).

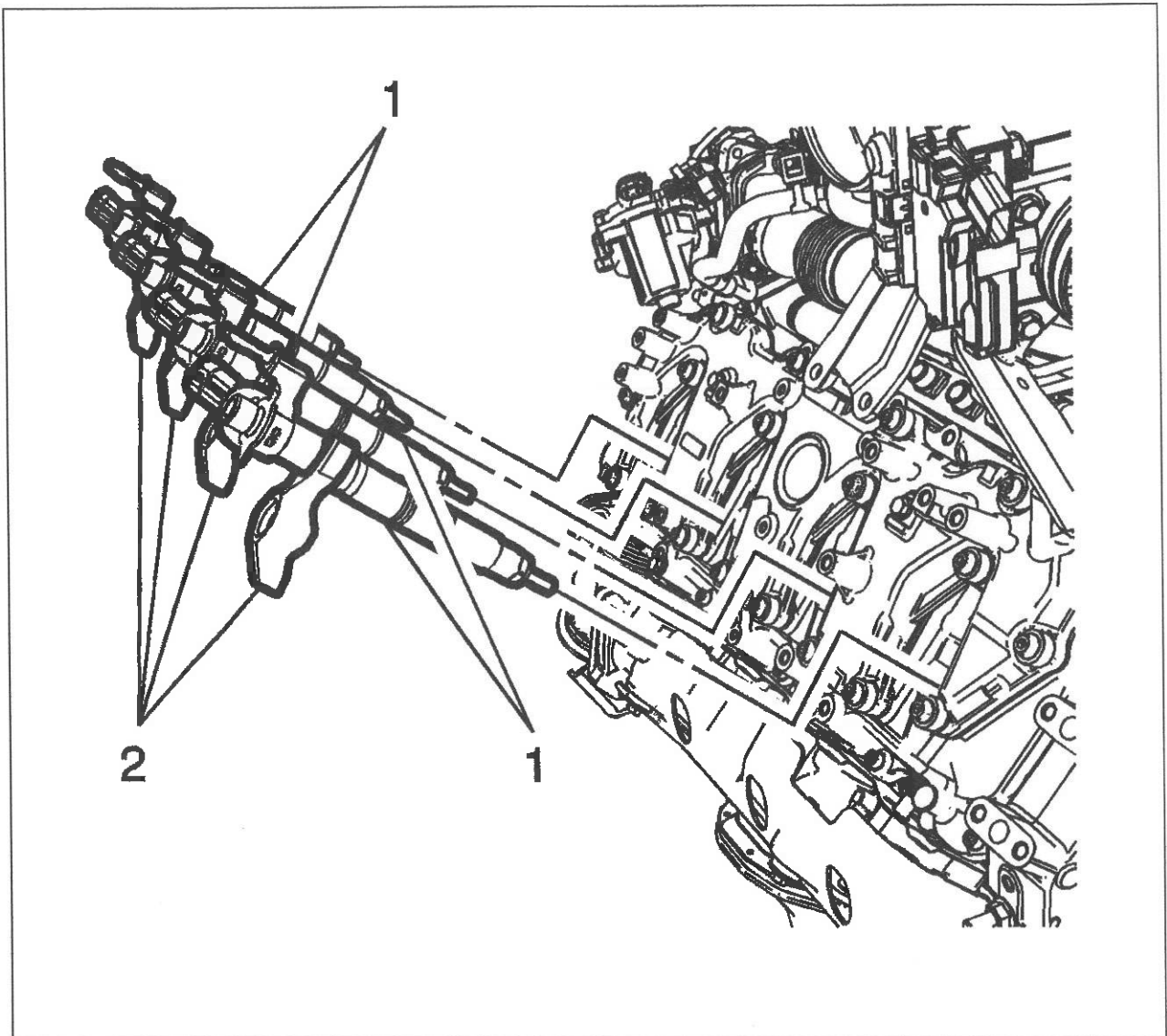
Fig 3: Identifying Fuel Injector Bracket Bolts



Courtesy of GENERAL MOTORS COMPANY

5. Remove the fuel injector bracket bolts (1).

Fig 4: Identifying Fuel Injectors And Brackets



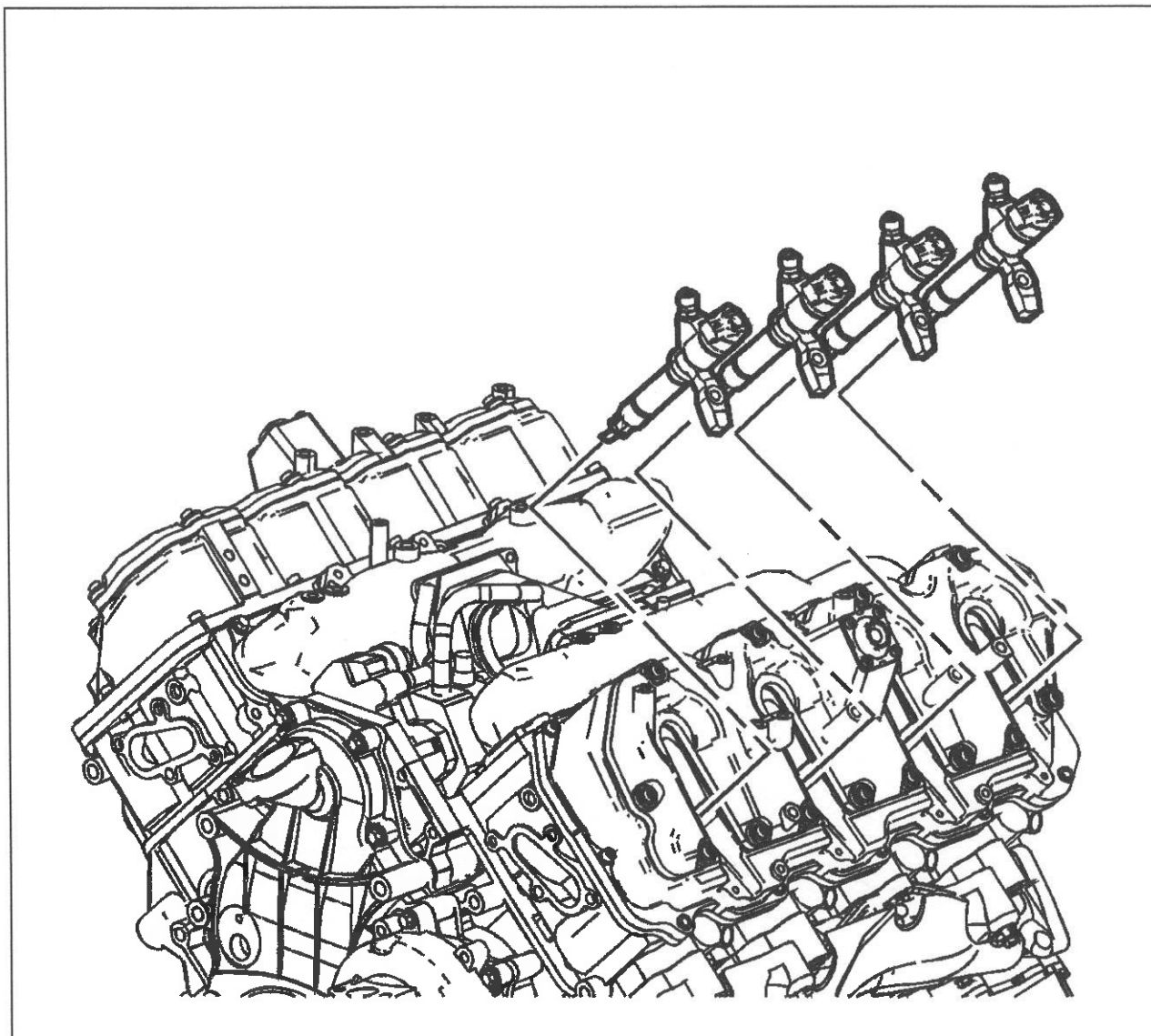
Courtesy of GENERAL MOTORS COMPANY

6. Install **EN 49774** puller into the bolt hole in the fuel injector bracket.
7. Install a flare nut wrench onto **EN 49774** puller, and work the tool outward until the injector releases from its seat.
8. Remove the **EN 49774** puller.
9. Remove the fuel injectors (1) with the brackets (2).
10. Remove and discard the copper washer from the fuel injector bore.
11. Remove and discard the fuel injector O-ring from the injector.

**REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (RIGHT SIDE) >
INJECTOR BORE CLEANING**

NOTE: The procedure below will aid in the cleaning of carbon deposits from the injector sleeve during an injector replacement

Fig 1: View Of Left Fuel Injectors W/Brackets



Courtesy of GENERAL MOTORS COMPANY

1. Install the **EN-47909-2** brush to the **EN-47909-1** handle.
2. Insert the brush into the injector bore and rotate the handle in order to break loose any carbon deposits from the injector bore walls and the combustion deck hole.

WARNING: Wear safety glasses in order to avoid eye damage.

3. Using compressed air, evacuate any debris from the injector bore.
4. Remove the radial brush from the handle assembly.
5. Install the **EN-47909-3** brush to the **EN-47909-1** handle.
6. Insert the axial brush into the injector bore and rotate the handle while also applying a slight downward pressure, in order to force the brush ends into the bottom corners of the injector bore.

WARNING: *Wear safety glasses in order to avoid eye damage.*

7. Using compressed air, evacuate any debris from the injector bore.

CAUTION: *Do not allow excessive amounts of solvent to go into the cylinder during cleaning. Failure to do so may cause engine damage upon startup.*

8. Lightly dampen **EN-47909-20** swab with Top Engine Cleaner and wipe away any deposits from the injector bore. Refer to Adhesives, Fluids, Lubricants, and Sealers .
9. Inspect the injector bore for any deposits and repeat brushing if necessary.

WARNING: *Keep hands and face clear of glow plug holes while cranking. Hot liquid or gases may be expelled during cranking.*

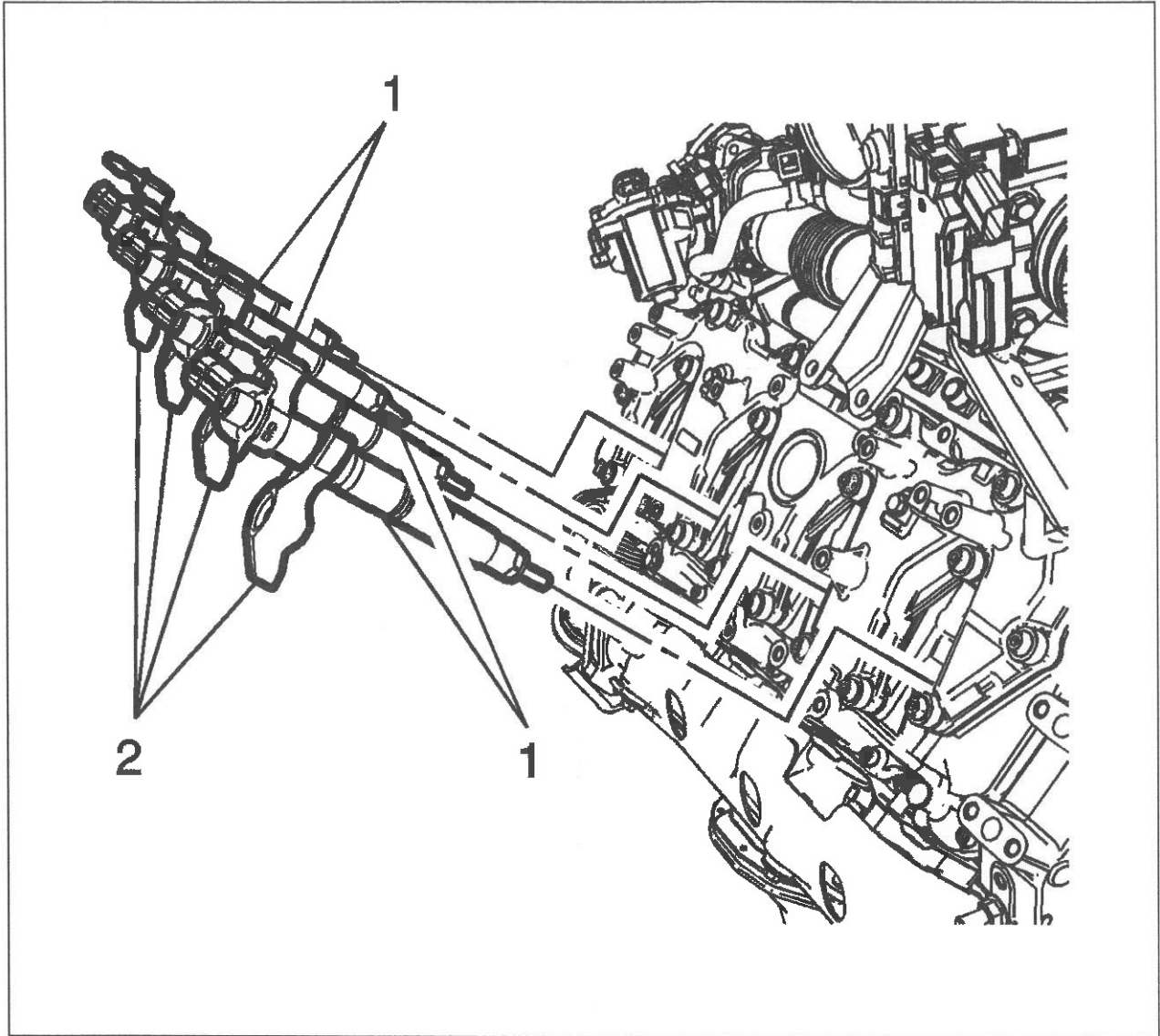
WARNING: *Wear safety glasses in order to avoid eye damage.*

10. If necessary, crank the engine in order to expel any solvent before starting the engine.
 1. Remove the glow plugs. Refer to Glow Plug Replacement - Bank 1 , and/or Glow Plug Replacement - Bank 2 .
 2. Disable the fuel system.
 3. Disconnect the crankshaft position (CKP) sensor electrical connector.
 4. Crank the engine in order to expel any excessive solvent.
 5. Using the cotton swabs supplied with the kit, wipe the injector bore clean of any solvent and/or debris.
 6. Connect the CKP sensor electrical connector.

7. Enable the fuel system.
8. Reinstall the glow plugs. Refer to Glow Plug Replacement - Bank 1 , and/or Glow Plug Replacement - Bank 2 .

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (RIGHT SIDE) > INSTALLATION PROCEDURE

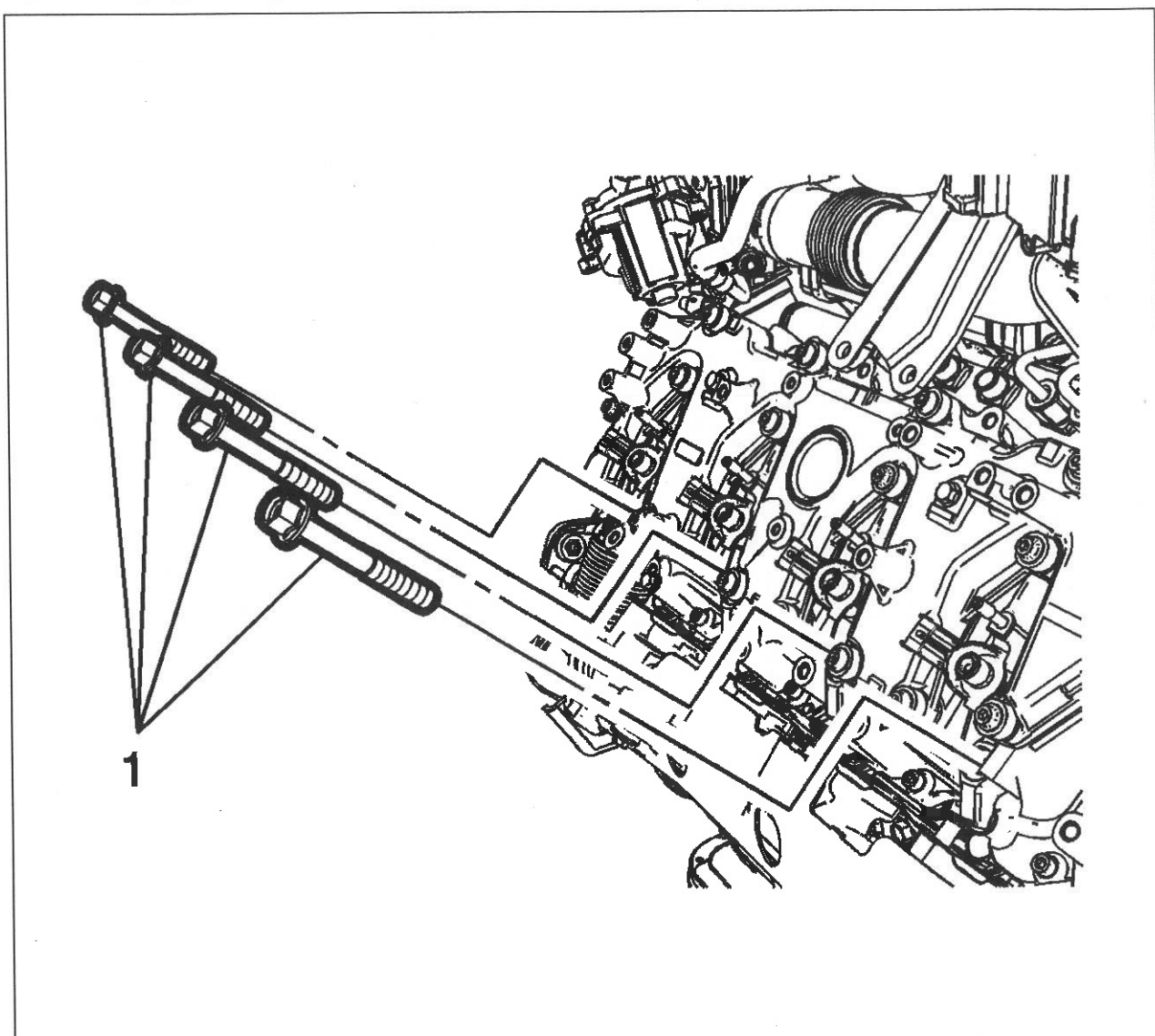
Fig 1: Identifying Fuel Injectors And Brackets



Courtesy of GENERAL MOTORS COMPANY

1. Install a NEW copper washer to the fuel injector bore.
2. Install a NEW fuel injector O-ring to the injector.
3. Install the fuel injectors (1) with brackets (2).

Fig 2: Identifying Fuel Injector Bracket Bolts

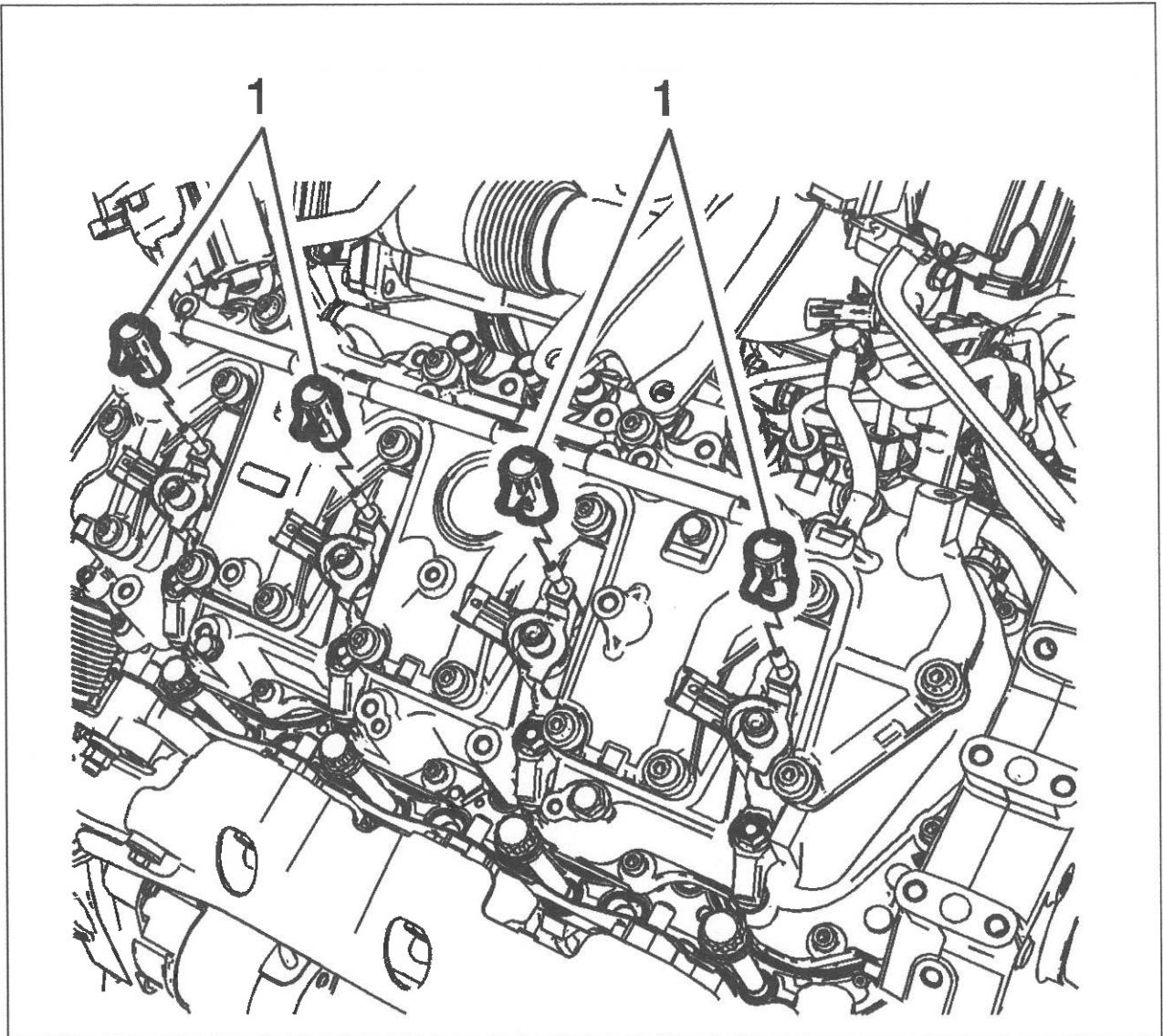


Courtesy of GENERAL MOTORS COMPANY

CAUTION: *Refer to Fastener Caution .*

4. Install the fuel injector bracket bolts and tighten to 30 (22 lb ft).

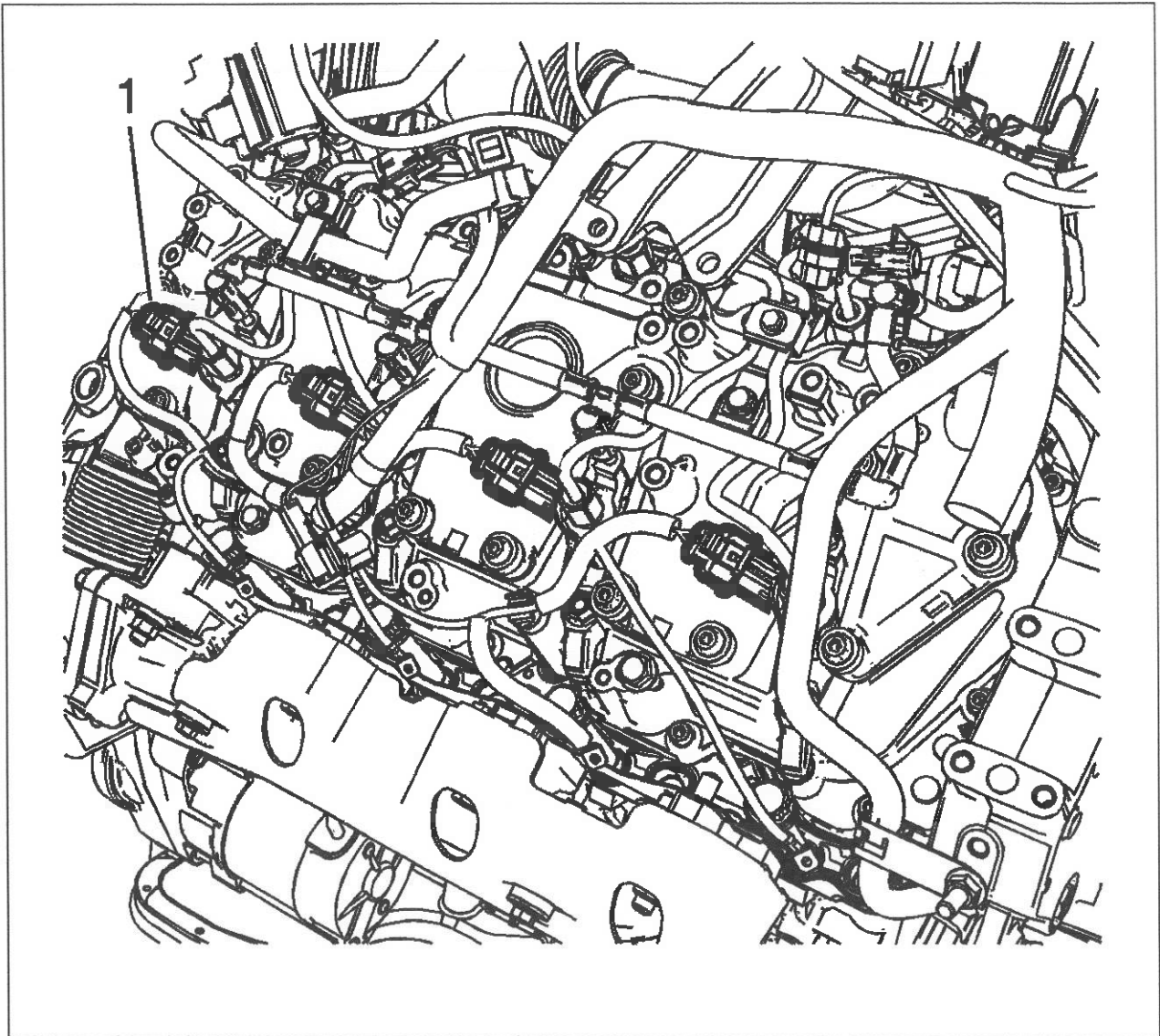
Fig 3: Identifying Fuel Return Pipes



Courtesy of GENERAL MOTORS COMPANY

5. Reposition and connect and the fuel return pipes (1).

Fig 4: Identifying Fuel Injector Electrical Connectors



Courtesy of GENERAL MOTORS COMPANY

6. Connect the fuel injector electrical connectors (1).
7. If the fuel injectors were replaced, program the flow rate. Refer to Fuel Injector Flow Rate Programming .
8. Prime the fuel system. Refer to Fuel System Priming .
9. Start the engine. If the engine stalls, repeat the above step.
10. Once the engine starts, inspect for fuel leaks.
11. If any or all fuel injectors were replaced, perform the fuel injector correction reset. Refer to Fuel Injector Correction Reset .

PRODEMAND

YMMS: 2012 Chevrolet Silverado 2500 HD

Engine: 6.6L Eng

VIN:

Jun 10, 2020

License:

Odometer:

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (LEFT SIDE)

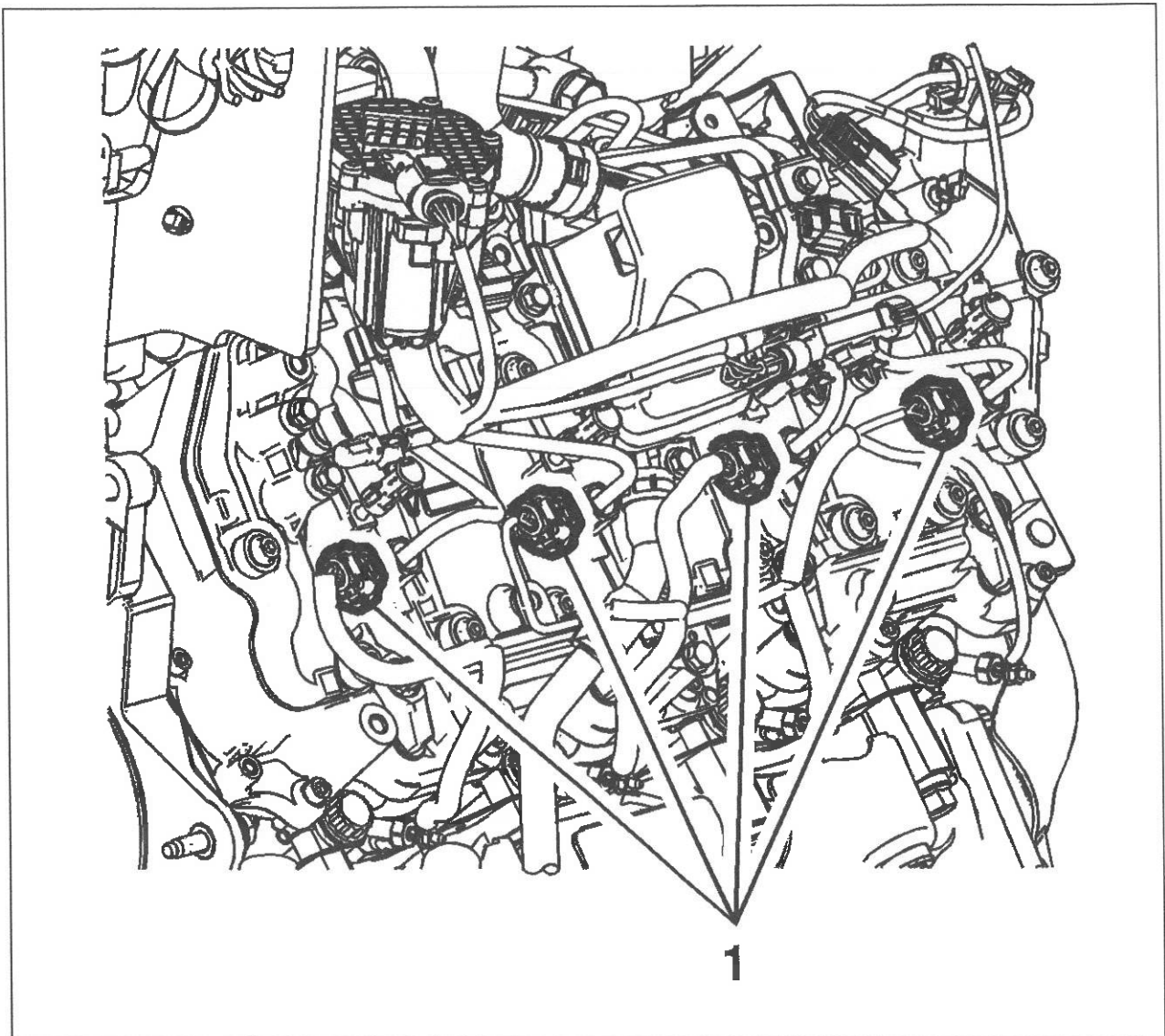
Special Tools

- **EN 47909** Injector Bore and Sleeve Cleaning Kit
- **EN-49774** Fuel Injector Puller

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (LEFT SIDE) > REMOVAL PROCEDURE

1. Remove the left side fuel injection fuel feed pipes. Refer to Fuel Injection Fuel Feed Pipe Replacement - Left Side

Fig 1: Identifying Fuel Injector Electrical Connectors

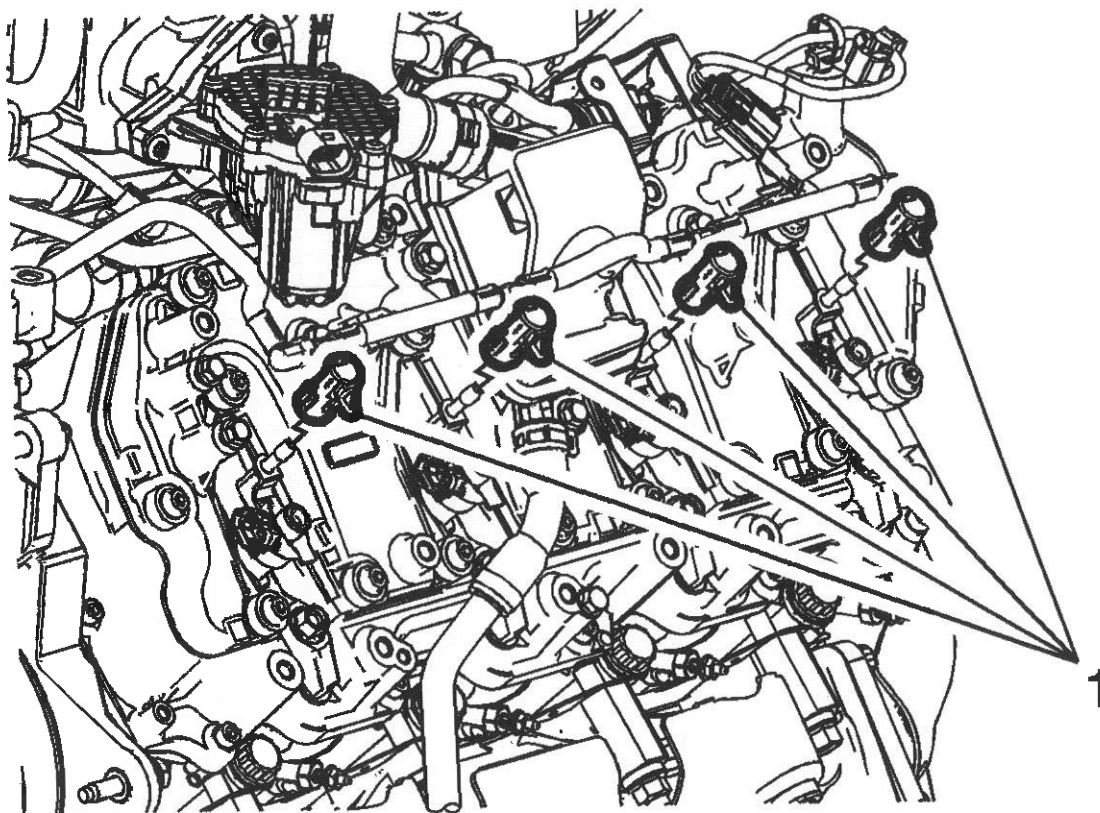


Courtesy of GENERAL MOTORS COMPANY

CAUTION: Label all the injector electrical connectors before the connectors are removed in order to prevent reconnecting to the wrong injector. Failure to properly connect the injectors in the correct sequence will cause severe engine damage.

2. Disconnect the fuel injector electrical connectors (1).

Fig 2: Identifying Fuel Return Pipes

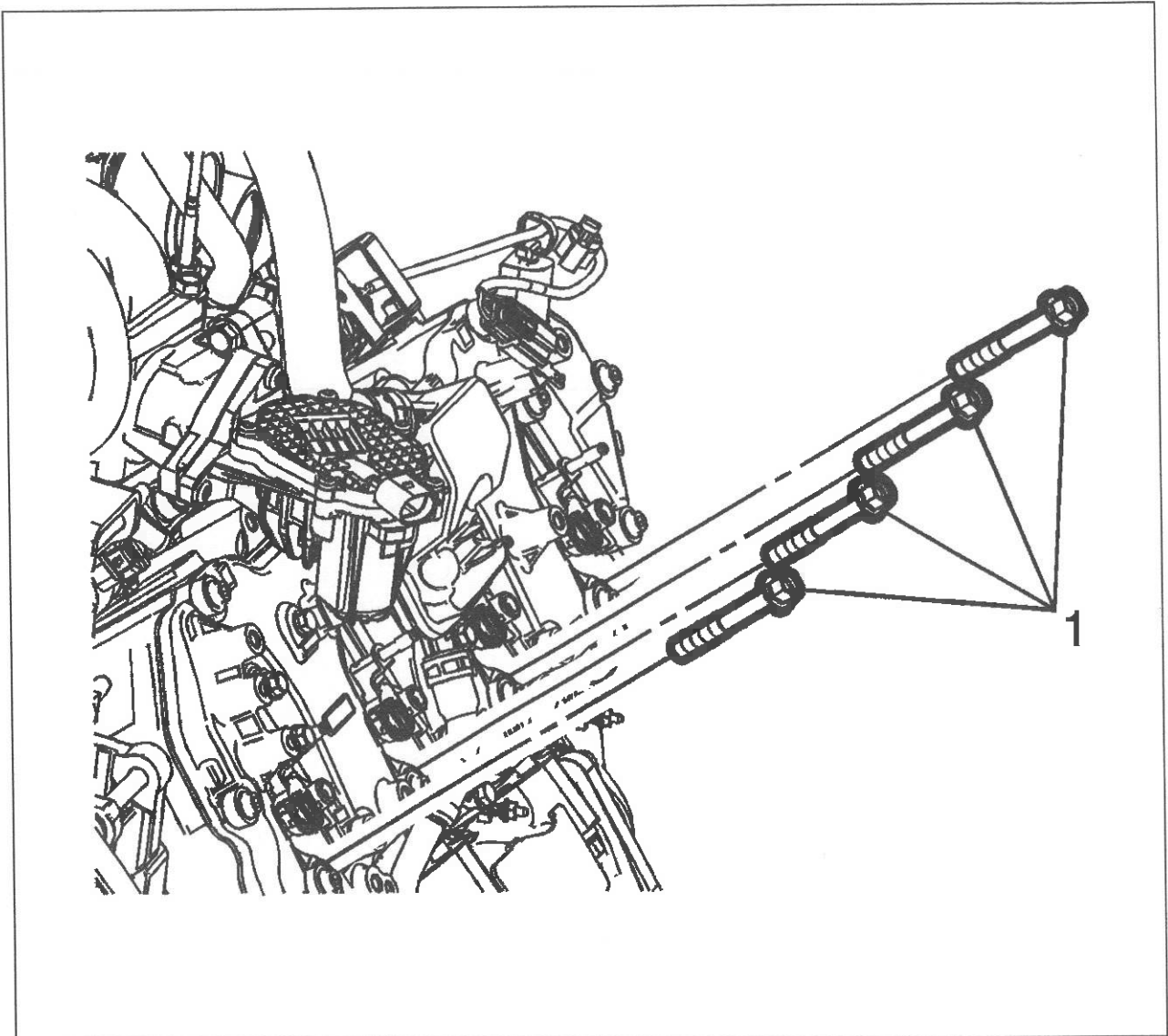


Courtesy of GENERAL MOTORS COMPANY

NOTE:

1. Prior to removal of the fuel injector pipes, use compressed air to remove any debris from the injector line and fittings.
 2. Spray lithium grease, GM P/N 12346293 or equivalent, between the fuel injector line and fittings to assist with removal.
3. Disconnect and reposition the fuel return pipes (1).

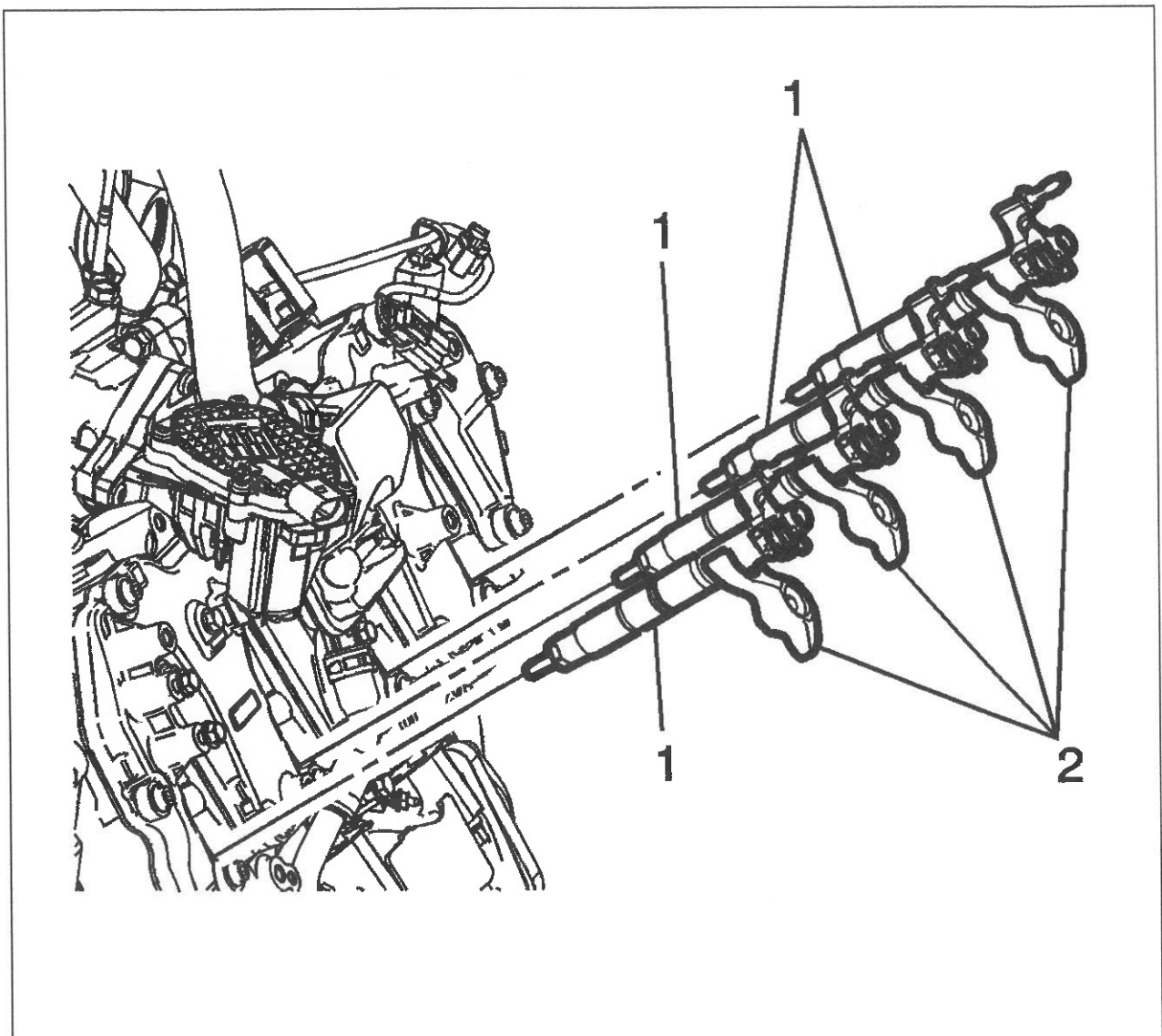
Fig 3: Identifying Fuel Injector Bracket Bolts



Courtesy of GENERAL MOTORS COMPANY

4. Remove the fuel injector bracket bolts (1).

Fig 4: Identifying Fuel Injectors And Brackets



Courtesy of GENERAL MOTORS COMPANY

5. Install **EN-49774** puller into the bolt hole in the fuel injector bracket.
6. Install a flare nut wrench onto **EN-49774** puller, and work the tool outward until the injector releases from its seat.
7. Remove the **EN-49774** puller.
8. Remove the fuel injectors (1) with the brackets (2).
9. Remove and discard the copper washer from the fuel injector bore.
10. Remove and discard the fuel injector O-ring from the injector.

YMMS: 2012 Chevrolet Silverado 2500 HD

Engine: 6.6L Eng

VIN:

Jun 10, 2020

License:

Odometer:

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (LEFT SIDE)

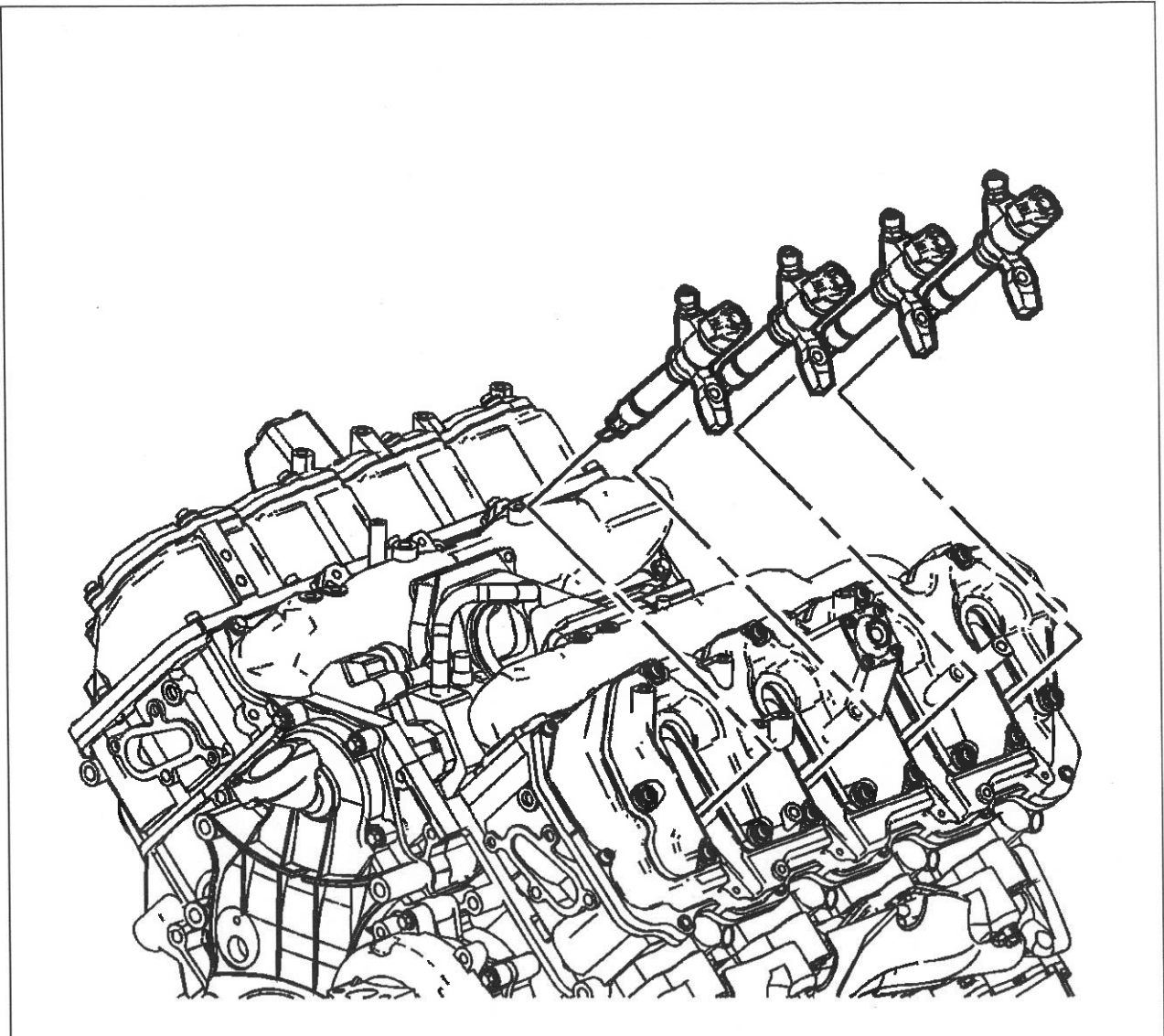
Special Tools

- **EN 47909** Injector Bore and Sleeve Cleaning Kit
- **EN-49774** Fuel Injector Puller

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (LEFT SIDE) > INJECTOR BORE CLEANING

NOTE: *The procedure below will aid in the cleaning of carbon deposits from the injector sleeve during an injector replacement*

Fig 1: View Of Left Fuel Injectors W/Brackets



Courtesy of GENERAL MOTORS COMPANY

1. Install the **EN 47909-2** brush to the **EN 47909-1** handle.
2. Insert the brush into the injector bore and rotate the handle in order to break loose any carbon deposits from the injector bore walls and the combustion deck hole.

WARNING: *Wear safety glasses in order to avoid eye damage.*

3. Using compressed air, evacuate any debris from the injector bore.
4. Remove the radial brush from the handle assembly.
5. Install the **EN 47909-3** brush to the **En 47909-1** handle.

6. Insert the axial brush into the injector bore and rotate the handle while also applying a slight downward pressure, in order to force the brush ends into the bottom corners of the injector bore.

WARNING: *Wear safety glasses in order to avoid eye damage.*

7. Using compressed air, evacuate any debris from the injector bore.

CAUTION: *Do not allow excessive amounts of solvent to go into the cylinder during cleaning. Failure to do so may cause engine damage upon startup.*

8. Lightly dampen **EN 47909-20** swab with Top Engine Cleaner and wipe away any deposits from the injector bore. Refer to Adhesives, Fluids, Lubricants, and Sealers .
9. Inspect the injector bore for any deposits and repeat brushing if necessary.

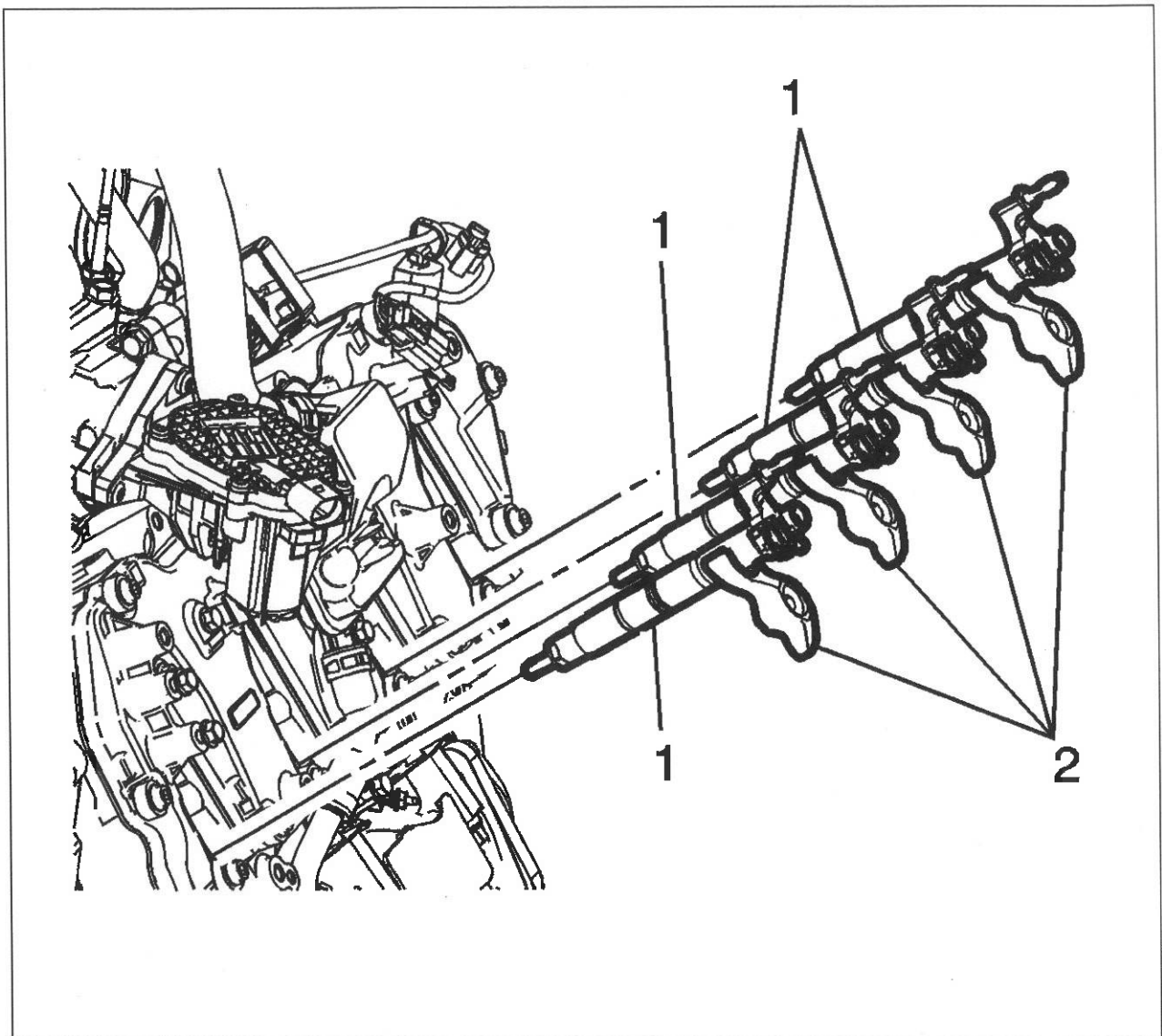
WARNING: *Keep hands and face clear of glow plug holes while cranking. Hot liquid or gases may be expelled during cranking.*

WARNING: *Wear safety glasses in order to avoid eye damage.*

10. If necessary, crank the engine in order to expel any solvent before starting the engine.
 1. Remove the glow plugs. Refer to Glow Plug Replacement - Bank 1 , and/or Glow Plug Replacement - Bank 2 .
 2. Disable the fuel system.
 3. Disconnect the crankshaft position (CKP) sensor electrical connector.
 4. Crank the engine in order to expel any excessive solvent.
 5. Using the cotton swabs supplied with the kit, wipe the injector bore clean of any solvent and/or debris.
 6. Connect the CKP sensor electrical connector.
 7. Enable the fuel system.
 8. Reinstall the glow plugs. Refer to Glow Plug Replacement - Bank 1 , and/or Glow Plug Replacement - Bank 2 .

REPAIR INSTRUCTIONS > FUEL INJECTOR REPLACEMENT (LEFT SIDE) > INSTALLATION PROCEDURE

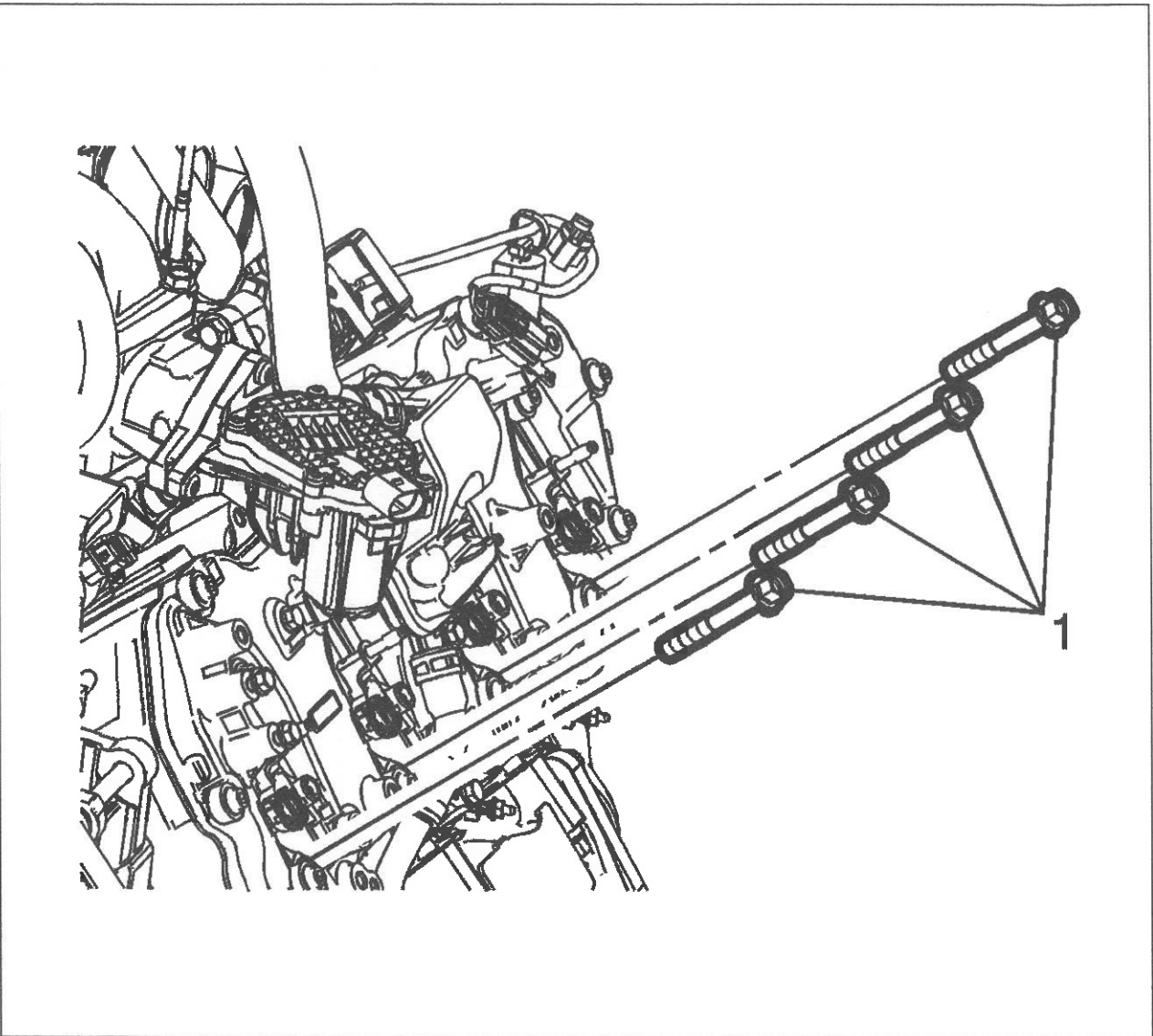
Fig 1: Identifying Fuel Injectors And Brackets



Courtesy of GENERAL MOTORS COMPANY

1. Install a NEW copper washer to the fuel injector bore.
2. Install a NEW fuel injector O-ring to the injector.
3. Install the fuel injectors (1) with brackets (2).

Fig 2: Identifying Fuel Injector Bracket Bolts

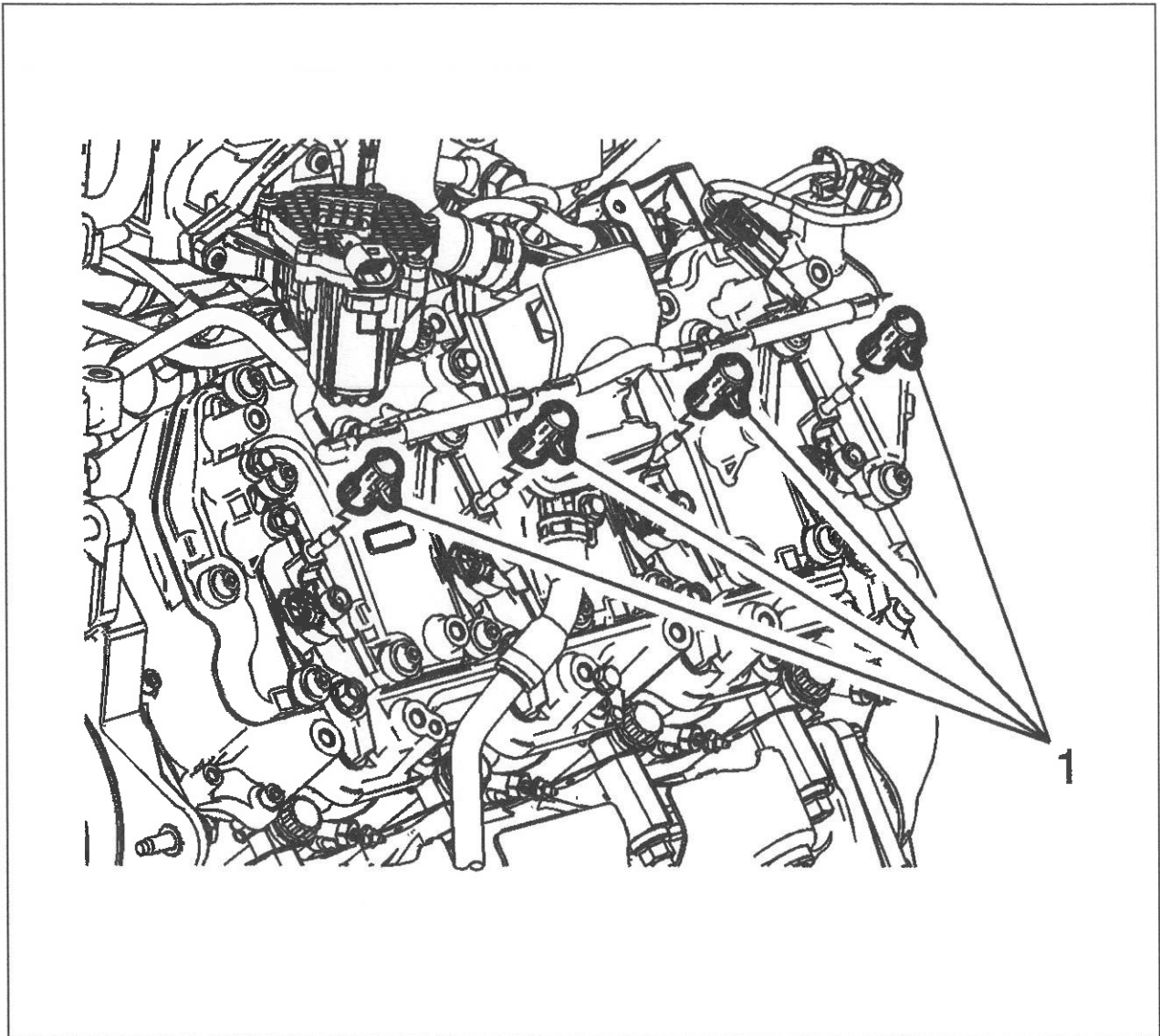


Courtesy of GENERAL MOTORS COMPANY

CAUTION: *Refer to Fastener Caution .*

4. Install the fuel injector bracket bolts and tighten to 30 (22 lb ft).

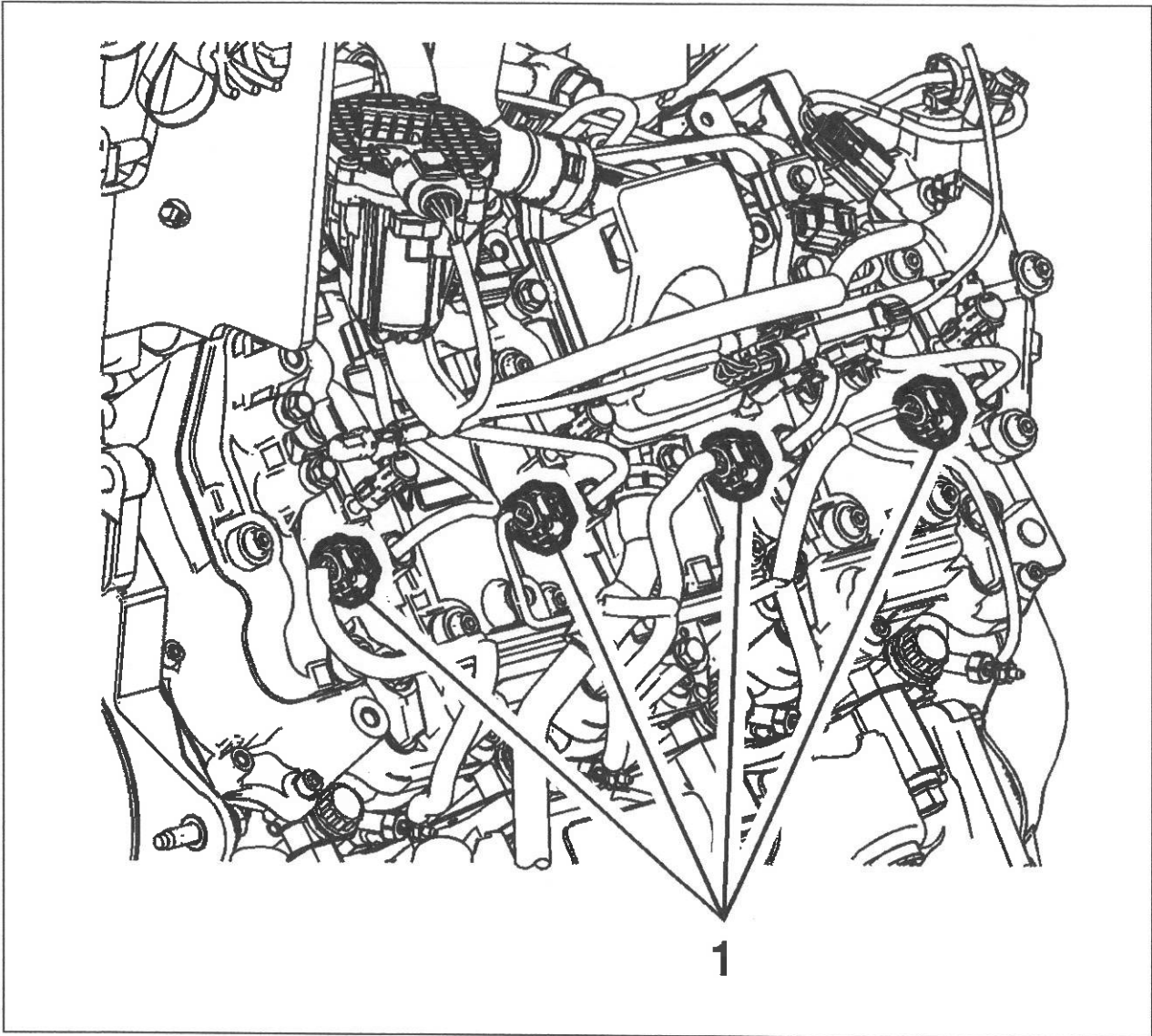
Fig 3: Identifying Fuel Return Pipes



Courtesy of GENERAL MOTORS COMPANY

5. Reposition and connect and the fuel return pipes (1).

Fig 4: Identifying Fuel Injector Electrical Connectors



Courtesy of GENERAL MOTORS COMPANY

6. Connect the fuel injector electrical connectors (1).
7. If the fuel injectors were replaced, program the flow rate. Refer to Fuel Injector Flow Rate Programming .
8. Prime the fuel system. Refer to Fuel System Priming .
9. Start the engine. If the engine stalls, repeat the above step.
10. Once the engine starts, inspect for fuel leaks.
11. If any or all fuel injectors were replaced, perform the fuel injector correction reset. Refer to Fuel Injector Correction Reset .