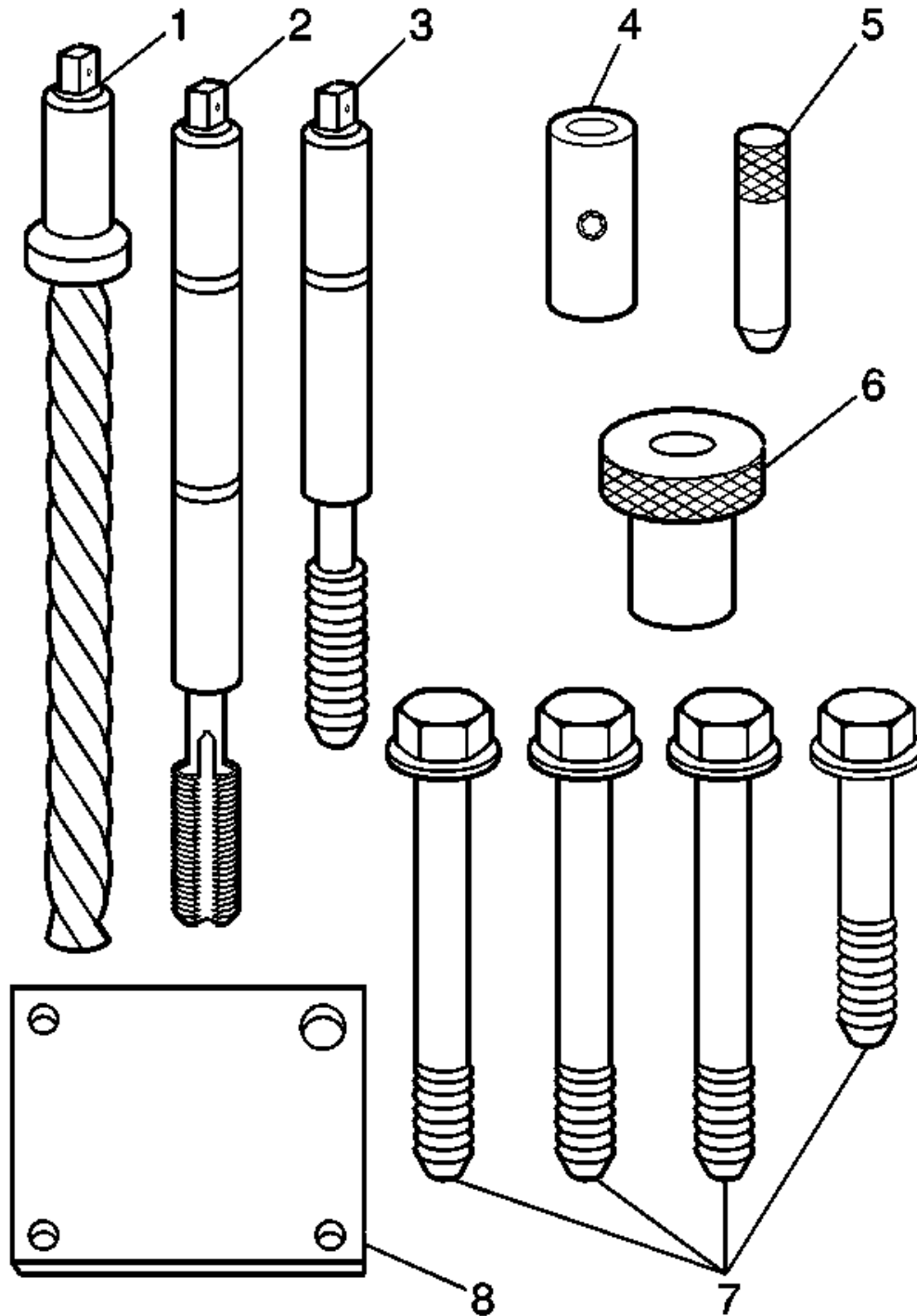


2007 Buick Rainier

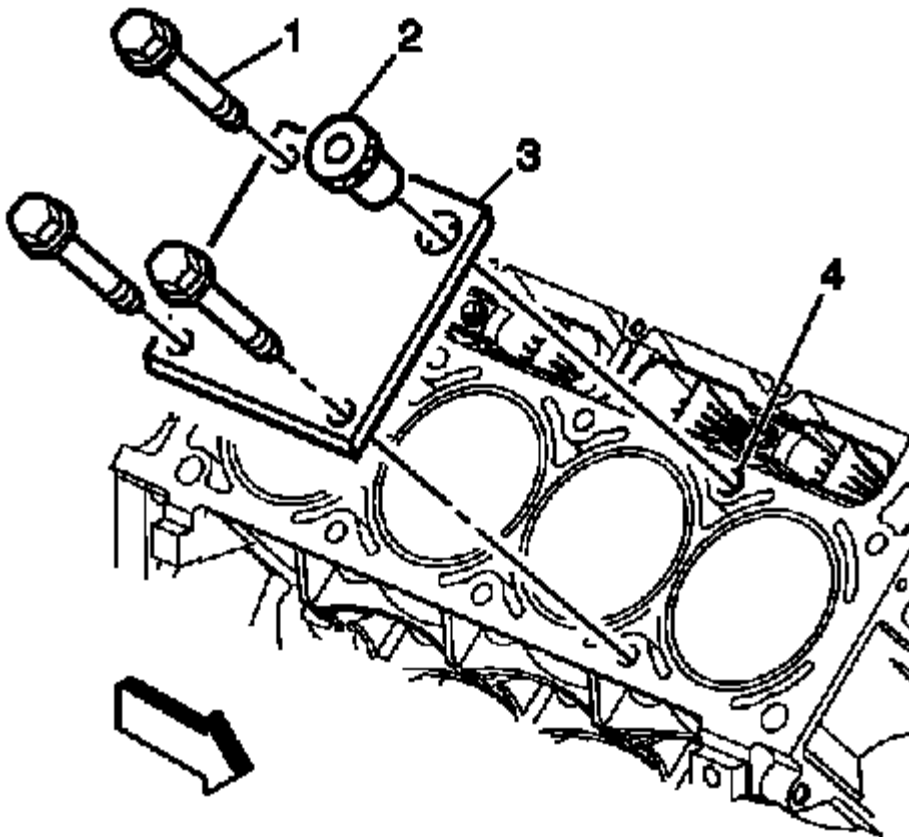
2007 ENGINE Engine Mechanical - 5.3L - Envoy, Rainier & TrailBlazer



**Fig. 515: Identifying Thread Repair Kit Components**  
Courtesy of GENERAL MOTORS CORP.

1. The cylinder head bolt hole thread repair kit consists of the following items:

- The drill (1)
- The tap (2)
- The installer (3)
- The sleeve (4)
- The alignment pin (5)
- The bushing (6)
- The bolts (7)
- The fixture plate (8)



**Fig. 516: View Of Fixture Plate, Bolts, Bushing & Cylinder Hole**  
Courtesy of GENERAL MOTORS CORP.

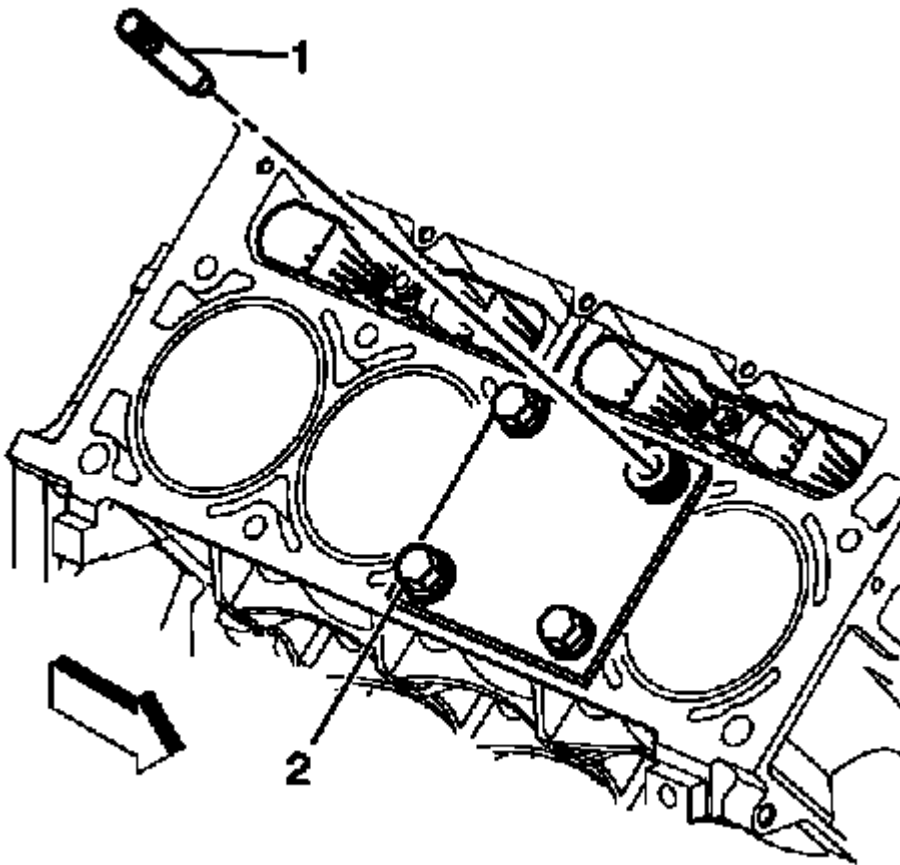
**CAUTION:** Refer to SAFETY GLASSES CAUTION .

**IMPORTANT:**

- The use of a cutting type fluid GM P/N 1052864 (Canadian P/N 992881), WD 40® or equivalent, is recommended when performing the drilling and tapping procedures.
- Driver oil **MUST** be used on the installer driver tool.
- The tool kits are designed for use with either a suitable tap wrench or drill motor.

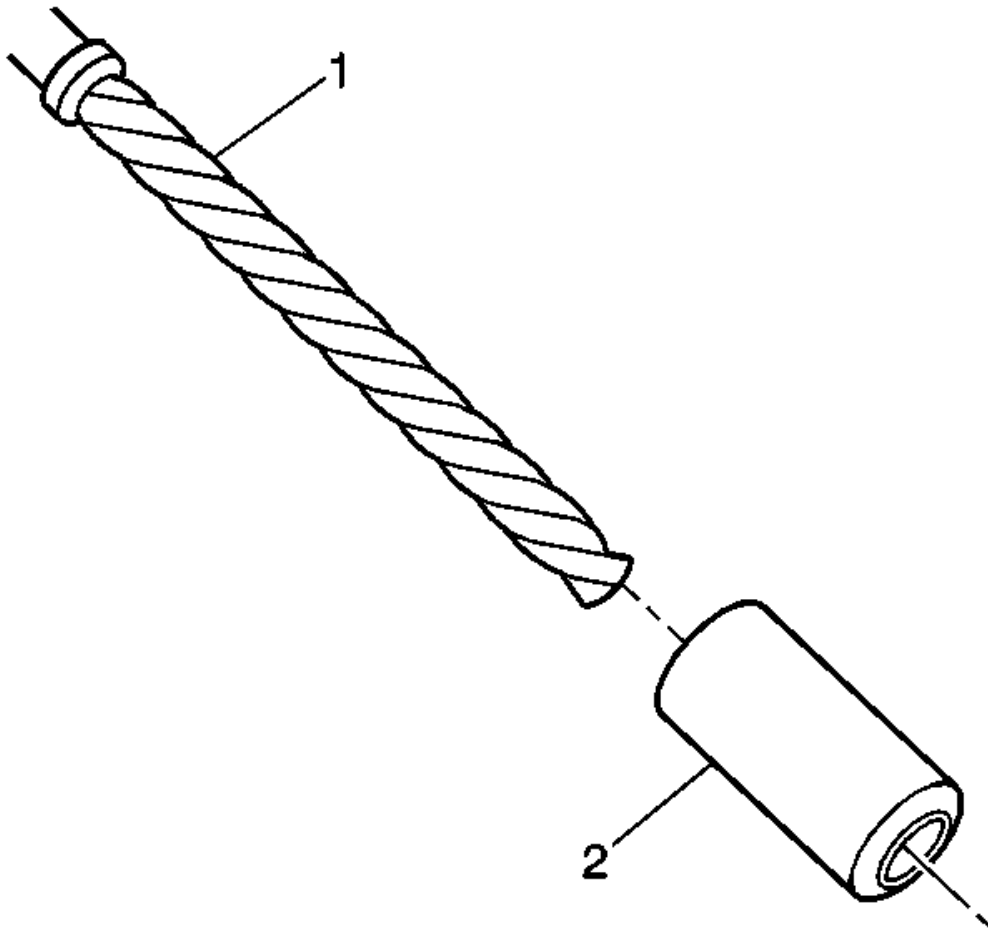
2. Install the fixture plate (3), bolts (1) and bushing (2) onto the engine block deck.

Position the fixture plate and bushing over the hole that is to be repaired (4).



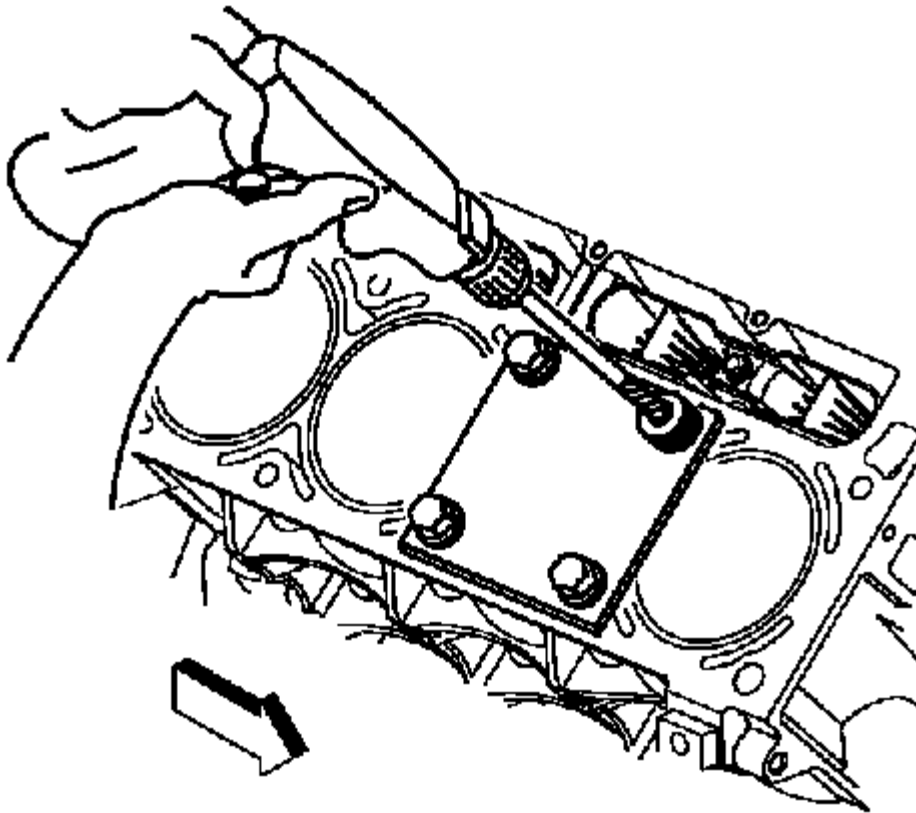
**Fig. 517: View Of Alignment Pin & Fixture Retaining Bolts**  
Courtesy of GENERAL MOTORS CORP.

3. Position the alignment pin (1) through the bushing and into the hole.
4. With the alignment pin in the desired hole, tighten the fixture retaining bolts (2).
5. Remove the alignment pin from the hole.



**Fig. 518: View Of Stop Collar & Counterbore Drill**  
Courtesy of GENERAL MOTORS CORP.

6. Install the sleeve (2) onto the drill (1).



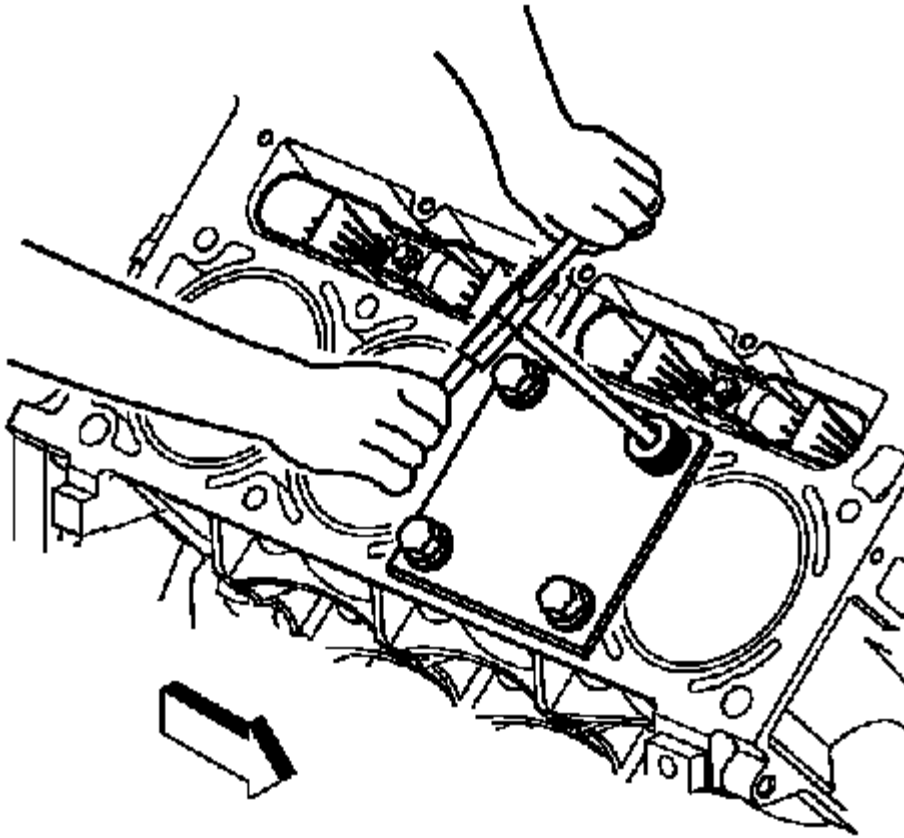
**Fig. 519: Drilling Cylinder Head Bolt Hole**  
Courtesy of GENERAL MOTORS CORP.

**IMPORTANT:** During the reaming process, it is necessary to repeatedly remove the drill and clean the chips from the hole.

7. Drill out the threads of the damaged hole.

Drill the hole until the stop collar of the drill bit or the sleeve contacts the bushing.

8. Using compressed air, clean out any chips.



**Fig. 520: Tapping Threads Of Drilled Hole Using Tapping Wrench**  
Courtesy of GENERAL MOTORS CORP.

9. Using a tap wrench, tap the threads of the drilled hole.