

HPOP Bolt Stripped Thread Repair

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IMPORTANT: Before starting installation, please be sure that all items which were supplied with the kit are accounted for.

Recommended Parts:

-Riffraff Diesel HPOP Bolt Thread Repair Kit

Recommended Tools:

-90° Drill

-Ratcheting Tap Handle or Tap Sockets



Instructions:

- 1) Block off all of the ports on the front cover with rags or tape. This will keep debris out of the engine. (Fig 1)
- 2) Set the drill stop at a depth to allow the threaded insert to be fully installed in the aluminum front cover and to sit below the surface. It must be below the surface to allow the HPOP gasket to seal properly. (Fig 2)
- 3) Drill out the damaged threads with the provided drill bit and drill stop. Make sure the drill is perpendicular to the front cover surface. It may be required to remove the GPR/IAH Relay bracket for the drill to access the passenger side hole.(Fig 3)
- 4) Using a lubricant on the starting tap, begin to thread the tap into the resized holes. Only turn the tap $\frac{1}{2}$ to $\frac{1}{3}$ of a turn at a time, then reverse the tap until you feel the chip free up. Repeat this as many times as needed until the tap bottoms out in the hole. (Fig 4)
- 5) Now you can use the bottoming tap to finish the threads in the hole from the starting tap. Again, work slowly and reverse the tap often to clear chips.
- 6) Clean all drill shavings away from the work area and clean the newly threaded holes with a shot of brake cleaner.



Fig 1



Fig 2

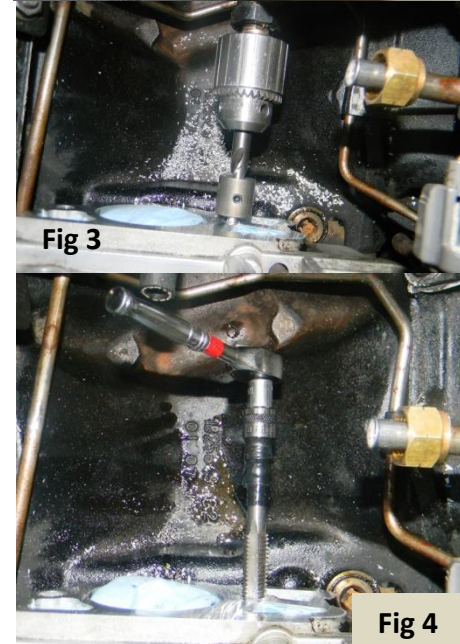


Fig 3

Fig 4

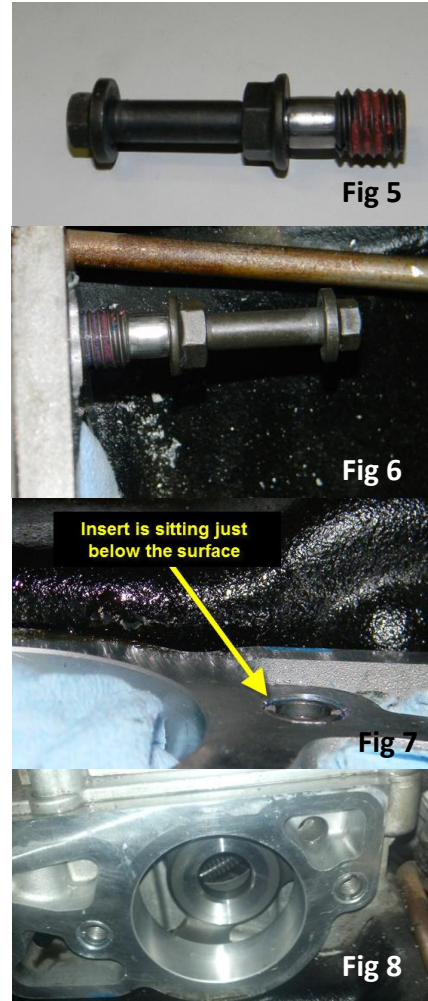
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- 7) Using the HPOP Bolt and a nut, thread the insert onto the bolt. Use of a spacer is important to allow the threaded insert to be fully inserted flush into the hole and recessed a small amount. You can also use a large common screwdriver to install the inserts (Fig 5)
- 8) Apply medium or high strength Loctite® to the threaded inserts.
- 9) Thread the insert into the hole until it is just below the surface of the front cover. This will allow the HPOP gasket to seal properly. (Fig 6 & 7)
- 10) Remove the bolt from the insert and repeat for the other hole.
- 11) Once again, verify all the drill shavings and chips have been cleaned from the area and remove the rags or tape used to keep debris out of the front cover. (Fig 8)
- 12) You can now install your HPOP without worrying about pulling the threads out of the front cover. These inserts will make repeated removal of the HPOP no big deal.



Special thanks to Ken (Woodnthings of FTE) for photos and instructions.

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