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REF: Engine Mechanicals - Sub-07A

Making 91-03 Breather Bolt Holes Smaller

This was done as a test to see if crankcase pressure would change with the smaller hole using a slack tube to measure the pressure change.

The process is document here.

5/16" fine threaded bolts were screwed into the threaded holes in the breather bolts with O-ring seals.

The stock air cleaner slides over the new bolt assembly with no clearance issues with the 1/2" hex head.



The internal hole on the outside end of 91-03 breather bolts is factory tapped 5/16"x24. It's not known at this time why as the thread are not used on OEM Sportsters.

Below and for lack of having fine thread 5/16" bolts, course thread SS (5/16"x18) bolts were re-threaded to 5/16"x24. This works fine and re-threads easily.

But it's easier to go and buy the correct bolts.

The holding block was needed to keep the bolt straight while boring a hole through it.

You could use a block of wood, plastic or steel. The hole was drilled .2720" and tapped 5/16"x24.

Each bolt was screwed into the hole, corner to corner lines drawn across the head to find center and the center punched to keep the bit from wandering.



The small hole in 04-up breather bolts is 1/16" in diameter. However, as a test, 1/8" holes were drilled in these.

An O-ring was added under the head to seal off the original hole.

The factory threads were chased with a 5/16"x24 tap to straighten warpage and clean the threads for the new bolts to be inserted.

Normally, marking center on both ends and sending the drill bit in just over half way from each end will make a more straight thru hole.

But this just being a test, the hole was drilled thru from one side.

The hole ended up off center in the thru end but this is not a critical point in this application.





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