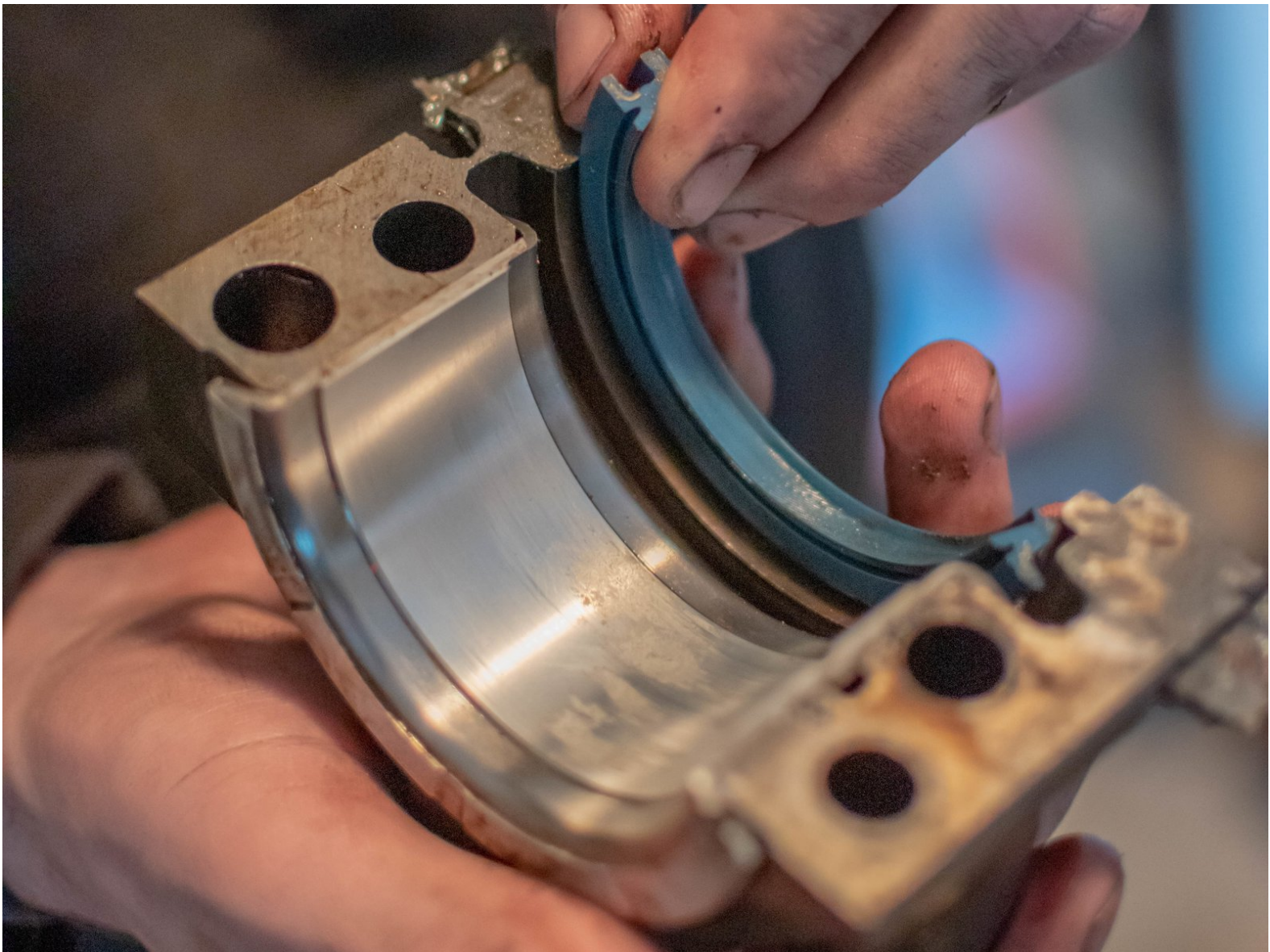




Chevy 305 Engine Rear Main Seal Replacement

This guide is to assist you in replacing the rear main seal on a small block 305 Chevrolet engine.

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INTRODUCTION

This guide is intended for use on engines already removed from the vehicle. While this kind of work may be possible to complete with the engine still in the car, it will be much easier with the engine removed.

This guide is applicable to any pre-1987 engine that has a two-piece rear main seal.

The rear main seal is what seals the tail end of the crankshaft so that oil does not leak out and external debris cannot get in.



TOOLS:

- [3/8" Drive Ratchet](#) (1)
 - [3/8" Socket](#) (1)
 - [1/2" Socket](#) (1)
 - [3/8 inch Drive Socket Ratchet Extension](#) (1)
 - [beer](#) (12)
- Miller Lite
- [9/16" Socket](#) (1)
 - [11 16 Socket](#) (1)
 - [1/2" Drive Breaker Bar](#) (1)
 - [Large Needle Nose Pliers](#) (1)



PARTS:

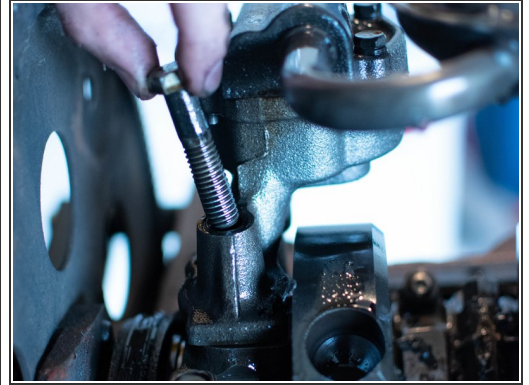
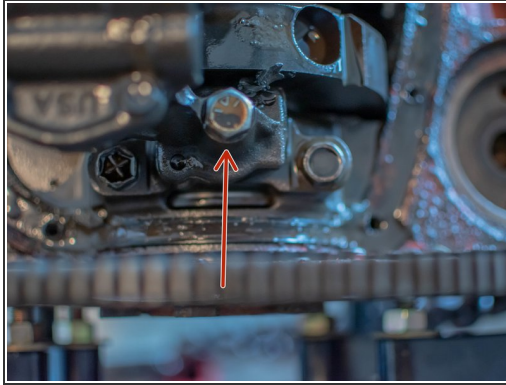
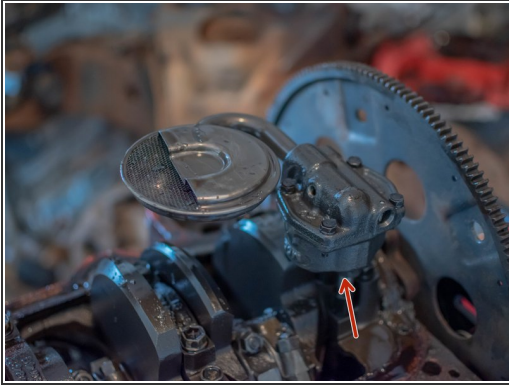
- [Rear Main Seal](#) (1)

Step 1 — Rear Main Seal




- Remove the 18 bolts holding the oil pan in place using the 3/8 and 1/2 sockets, 6 inch extension and 3/8 ratchet.
 - ⓘ Fourteen 3/8 bolts around the perimeter and four 1/2 bolts on each corner.
- Lift the oil pan up and forward so the oil pump pick up will clear the baffle.
 - ⓘ Do not remove the oil pan gasket yet.

Step 2



- Remove the single 9/16 bolt holding the oil pump in place and pull straight up from the base of the oil pump to remove.

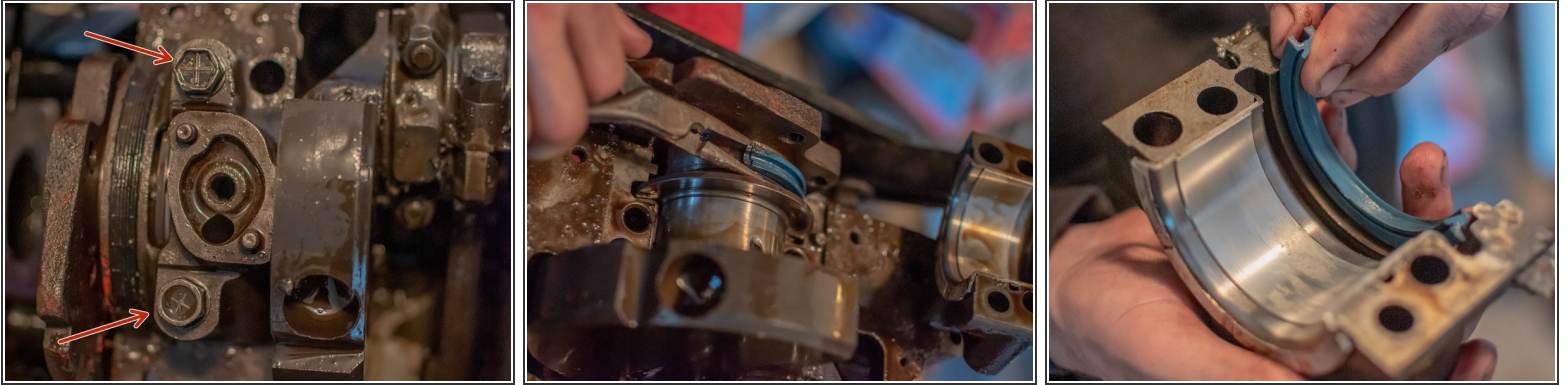
 Using a rubber mallet to break loose, gently tap on the side of the base of the pump indicated by the arrow. **DO NOT HIT THE TOP OF THE PICK UP TUBE AND SCREEN.** This can potentially damage the pick up tube or screen.

Step 3



- Remove the six 11/16 flywheel bolts using the 11/16 socket.
 - ⓘ The breaker bar may be needed to break these bolts loose
 - ⓘ This provides more room to access the rear main cap.

Step 4



- Remove the two 5/8 rear main cap bolts. Gently tap the side of cap with a rubber mallet if needed to break free.
- Remove the rear main seal. The upper half of the seal can easily be removed by hand.
- Loop the new bottom half of the seal through the slot indicated in picture.
 - ⓘ Needle nose pliers may make this easier but be cautious not to handle the new seal too aggressively so you do not damage it .
- Put the rear main cap back and torque to specs (65 ft.-lbs.) followed by the oil pump and torque to specs (60-70 ft.-lbs.)

To reassemble, follow these instructions in reverse order following manufacture recommended torque specs and sequences.