



Chevy 305 Engine Main Bearings Replacement

This guide is to assist you in replacing the main bearings 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.

The main bearings on a vehicle are what makes it possible for the crankshaft to rotate smoothly inside the engine. A bearing is needed for anything that runs in a circular motion to run smoothly, these main bearings are between the caps and the crankshaft in order to give it that smooth, frictionless surface.



TOOLS:

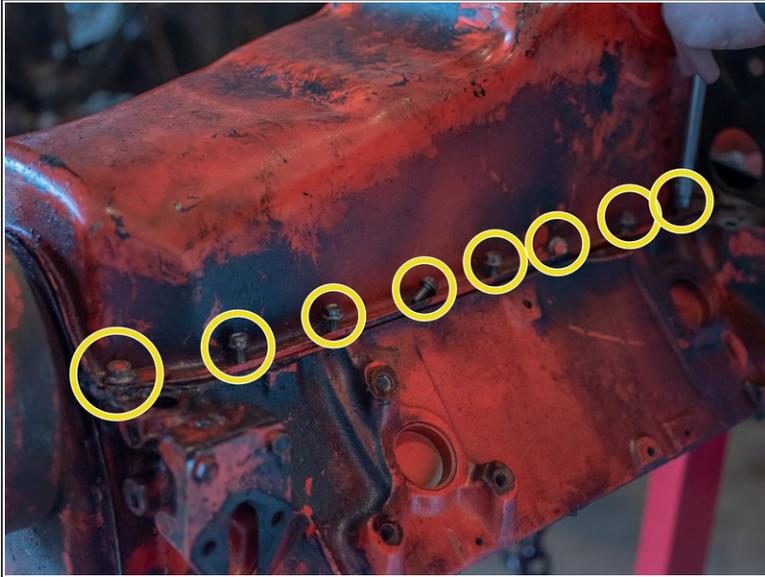
- [3/8" Socket](#) (1)
- [1/2" Socket](#) (1)
- [3/8 inch Drive Socket Ratchet Extension](#) (1)
- [3/8" Drive Ratchet](#) (1)
- [5/8" Socket](#) (1)
- [Craftsman SEAL ASSEMBLY OIL 155236](#) (1)
- [Torque Wrench](#) (1)
- [Beer](#) (12)



PARTS:

- [Chevrolet 305 Main Bearings](#) (1)
- [Oil Pan Gasket](#) (1)

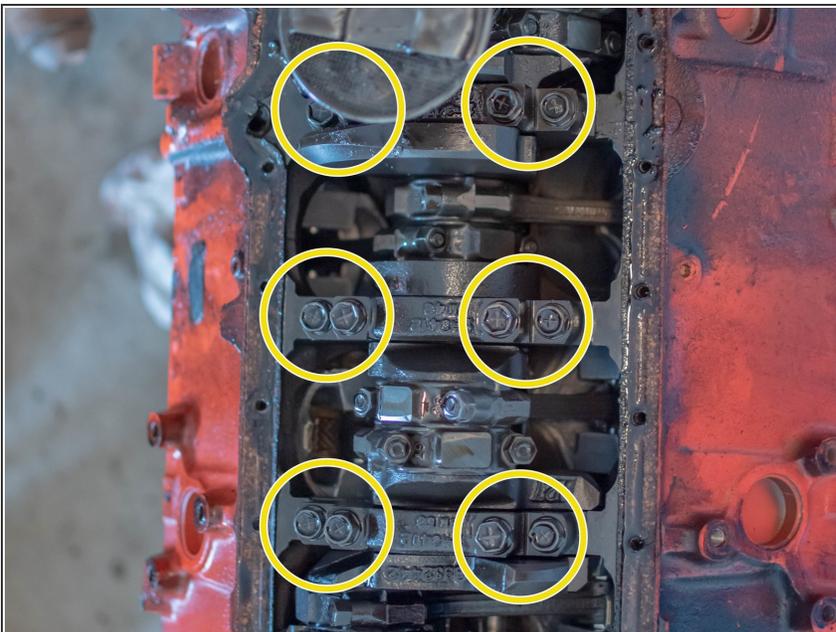
Step 1 — Main Bearings



- Remove the 18 bolts holding the oil pan in place (fourteen $\frac{3}{8}$ " bolts & four $\frac{1}{2}$ " bolts on each corner) and remove oil pan using the $\frac{3}{8}$ and $\frac{1}{2}$ sockets, 6 inch extension and $\frac{3}{8}$ ratchet.

i Do not remove the oil pan gasket yet.

Step 2



- Remove the 5 main bearing caps.
 - i** Three caps with four $\frac{5}{8}$ bolts and two caps with two $\frac{5}{8}$ bolts at the front and rear of crankshaft.
- Gently tap the side of the cap with a rubber mallet if needed to break free.

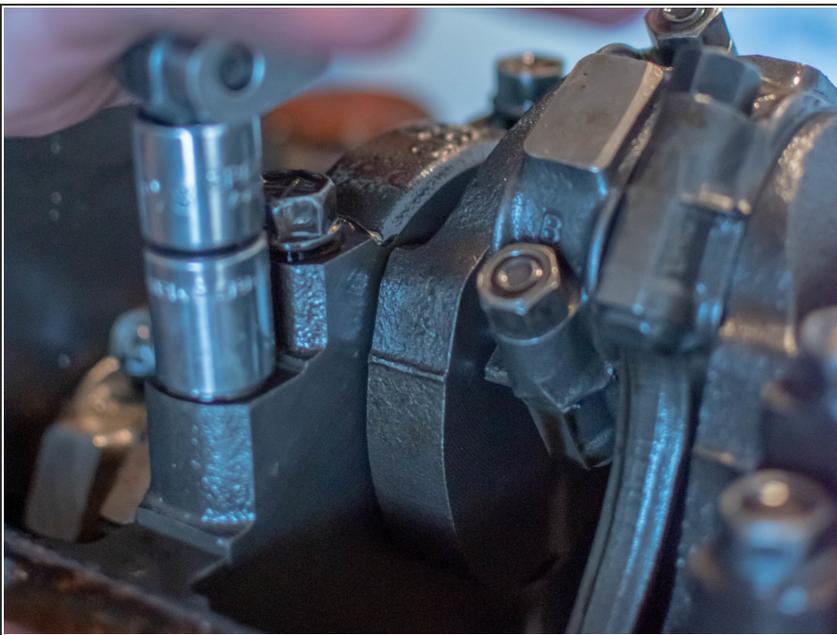
⚠ DO NOT SWAP THE LOCATIONS OR DIRECTIONS OF THE CAPS.

Step 3



- Remove and replace main bearings.
- Liberally apply assembly lubricant/oil to the new bearing surfaces and crankshaft journal.
- ⓘ Gently tap the cap against the engine block or use a thin flathead to remove.

Step 4



- Put the main bearing caps back.
- ⓘ Three caps with four $\frac{5}{8}$ bolts and two caps with two $\frac{5}{8}$ bolts at the front and rear of crankshaft and torque to specs. (65 ft.-lbs.)
- ★ Do not swap the locations or directions of the caps during reinstallation. (reverse of removal)

Step 5



- Replace the oil pan gasket.
- ⓘ Use a razor blade, flathead screwdriver or putty knife to clean up the old gasket and wipe down where the old gasket was with brake cleaner and paper towels before placing a new gasket.
- ⚠ Be careful not to drop any gasket debris into the engine.

Step 6



- Put the oil pan back into place.
- ⓘ Fourteen $\frac{3}{8}$ " bolts & four $\frac{1}{2}$ " bolts on each corner) and torque bolts to specs. (12 ft.-lbs.) (reverse of removal)

