

" THIS ARTICLE IS INTENDED FOR YOUR REFERENCE ONLY.

ACTUAL PARTS, YEARS AND BODY STYLES CONTAINED

IN THIS ARTICLE MAY DIFFER SLIGHTLY FROM YOUR APPLICATION. "

YOU CAN DO IT EASY UPGRADES

1955-58 V8, 1955-62 6-CYLINDER NEOPRENE REAR MAIN SEAL CONVERSION



The most frustrating thing to have happen is to spend a bunch of money building a new engine, putting only the best parts in it, putting a drop dead gorgeous paint job on the engine, set it into your pristine restored car and start it up and have it leak like an old junk yard dog. One of the most common questions we get at CCI is: What can I do to stop the leaks? Did I install the rear main rope seal incorrectly? Is there anything I can do without pulling the oil pan? Unfortunately, there is no way to fix this problem without pulling the oil pan. It sure would have been nice to know about a neoprene rear main seal that would have sealed up the engine from the beginning! In this article we are going to install a neoprene rear main seal that will replace the original rope seal without doing any machine work on the block or crankshaft. This procedure is similar for V8 and 6-cylinder engines. This procedure can be completed with the engine in the car or out on a stand.

Tools Needed:

Torque Wrench
3/8" Ratchet
3/8" Extension

5/8" Socket
Pliers
Plastic Mallet

Time Frame:

2 Hours

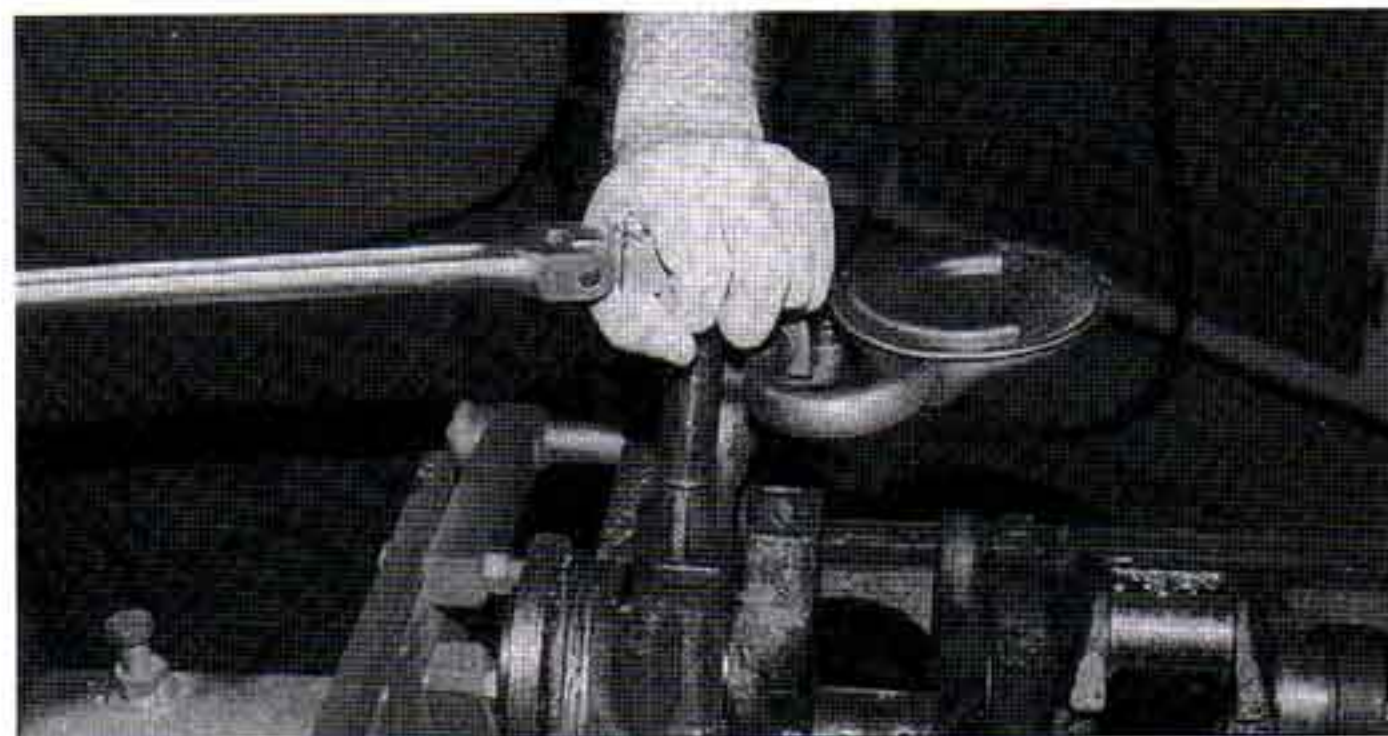


Photo #1: To replace the rear main seal, the oil pan will need to be removed. Drain the engine oil by removing the drain plug at the rear of the oil pan. Unbolt the idler arm bracket from the frame and lower the center link. Next remove all oil pan bolts. Using a putty knife or gasket scraper, remove the oil pan from the bottom of the engine. To access the rear main seal, the oil pump and the rear main cap must be removed. The oil pump is bolted to the rear main cap with one 5/8" bolt.

Parts Needed:

- 18-133 Neoprene Rear Main Seal, V8
- 18-174 1955-62, 6-Cylinder Neoprene Rear Main Seal



Photo #2a & 2b: The rear main cap is held to the engine block with two 5/8" bolts. Remove the two bolts. Using a plastic mallet, tap the main cap loose from the block.

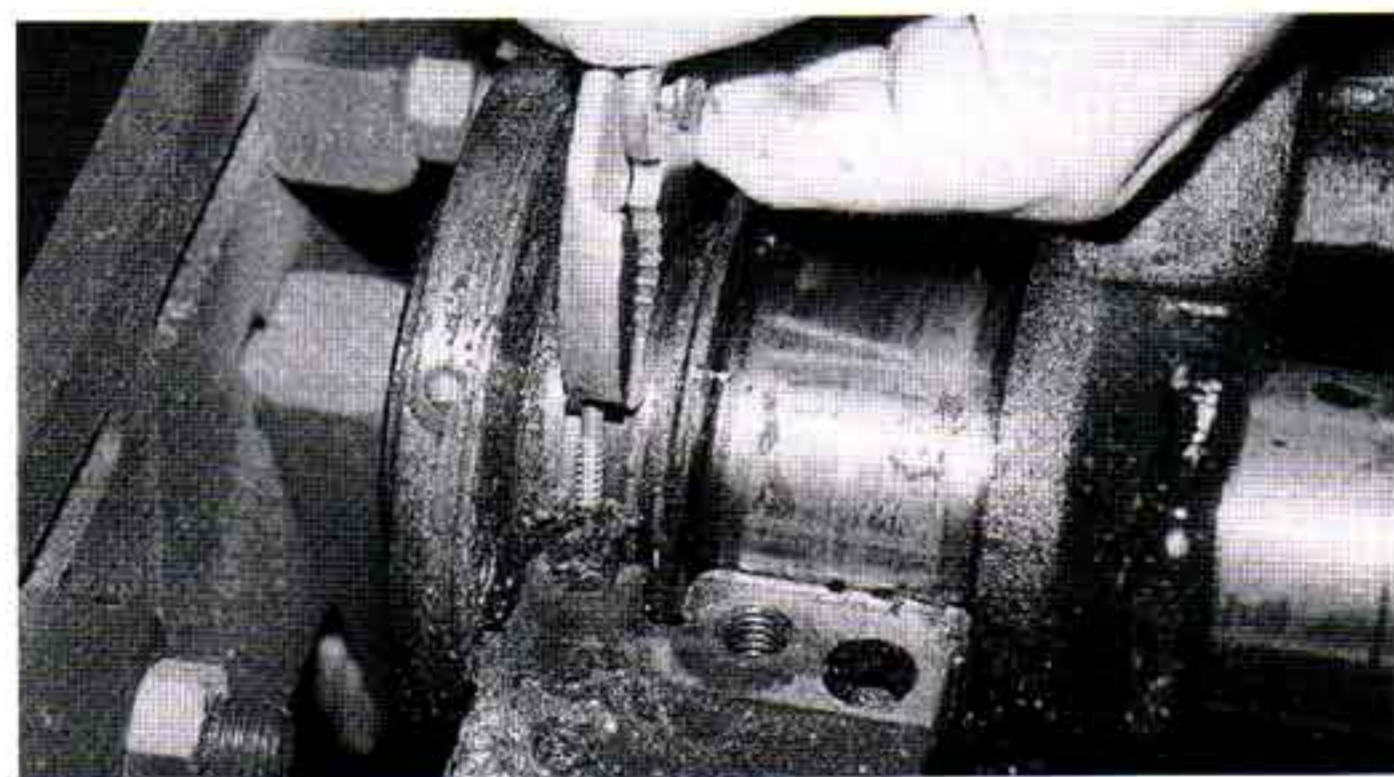


Photo #3: The rope seal is placed in a groove at the rear of the engine block and rides against the rear main journal of the crankshaft. Sometimes you can get lucky and rotate the crankshaft and the rope seal will rotate with the crank and come out. If the seal doesn't rotate with the crankshaft, screw a #6 sheet metal screw into the rope seal making sure not to make contact with the crank journal and just pull the screw and seal out.

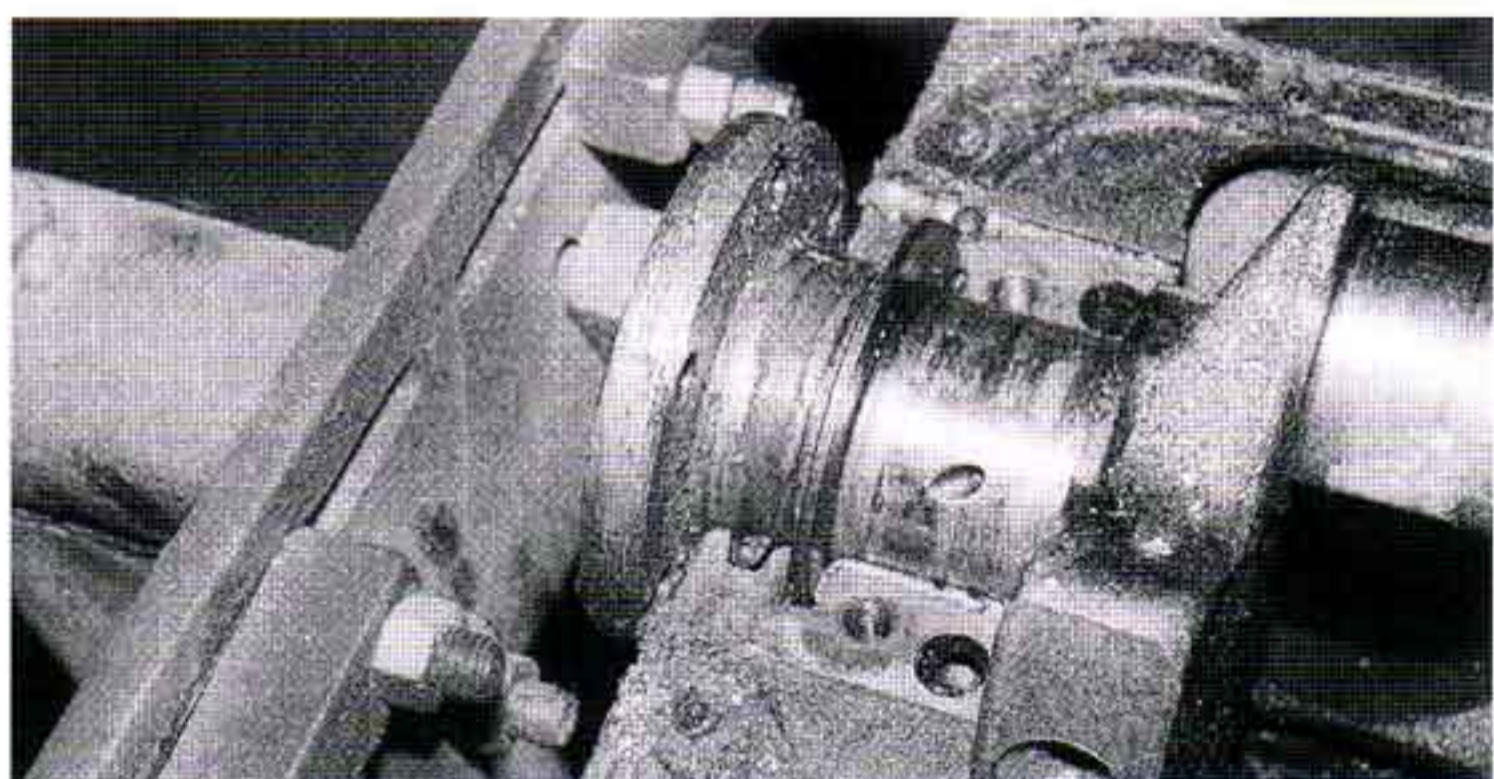
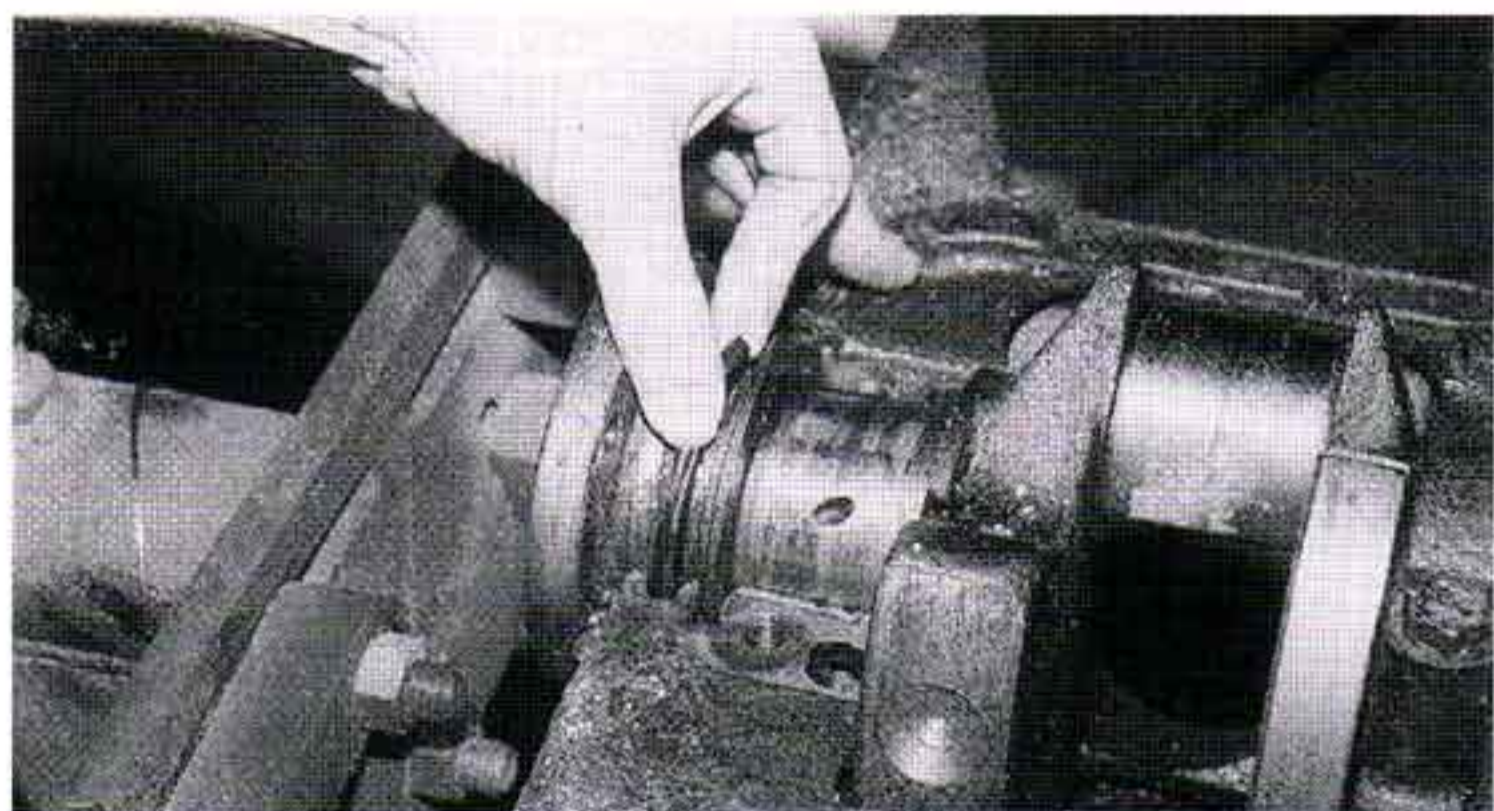
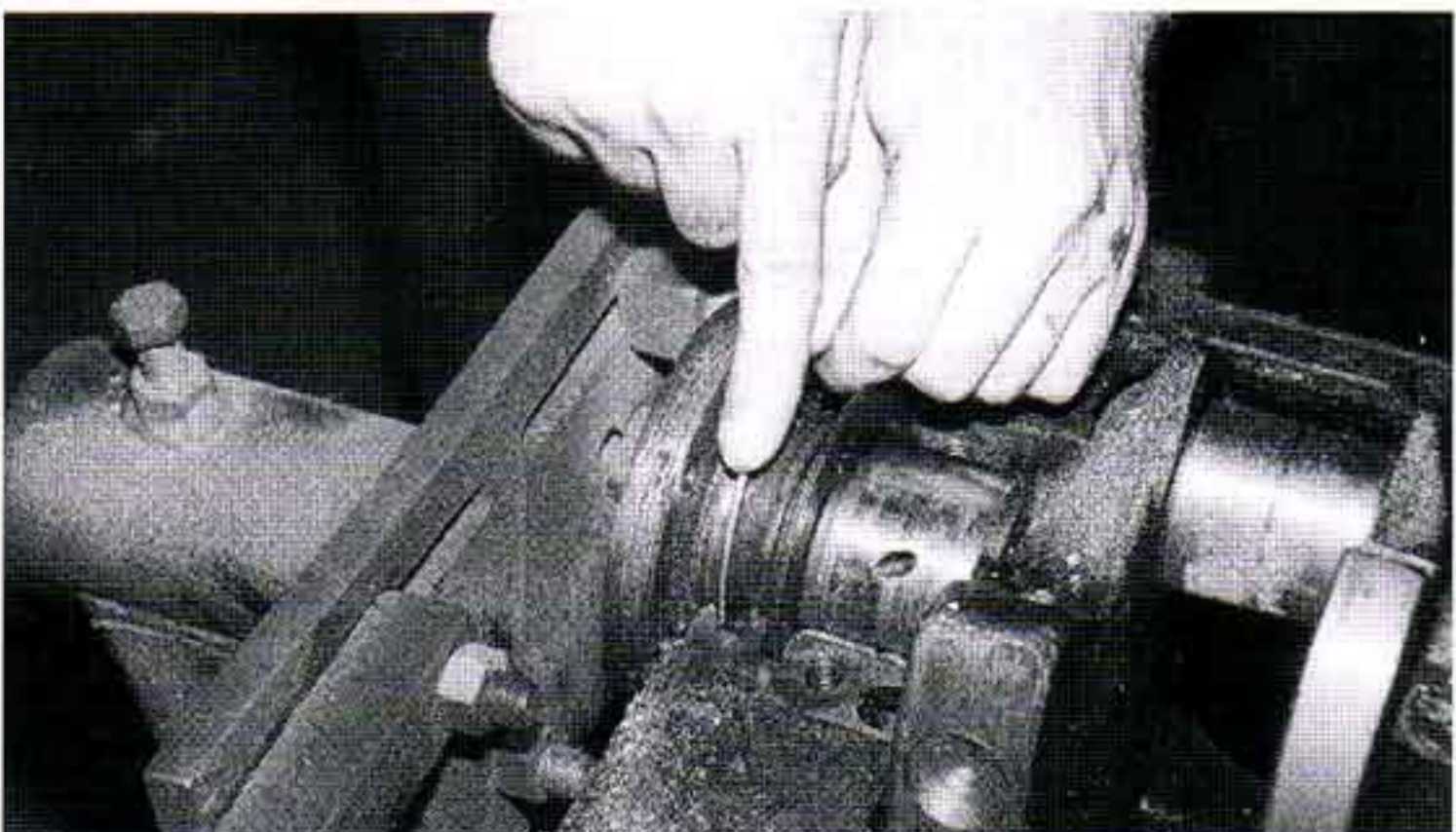


Photo #4a, 4b & 4c: The neoprene seal is a specially made seal to work with the rope seal-type blocks. First, using a light weight oil lubricate the seal. With the lip of the seal facing forward get the seal started in the groove about an inch. Now rotate the crankshaft while pushing the seal into place. The seal will fit flush with the block on either side.



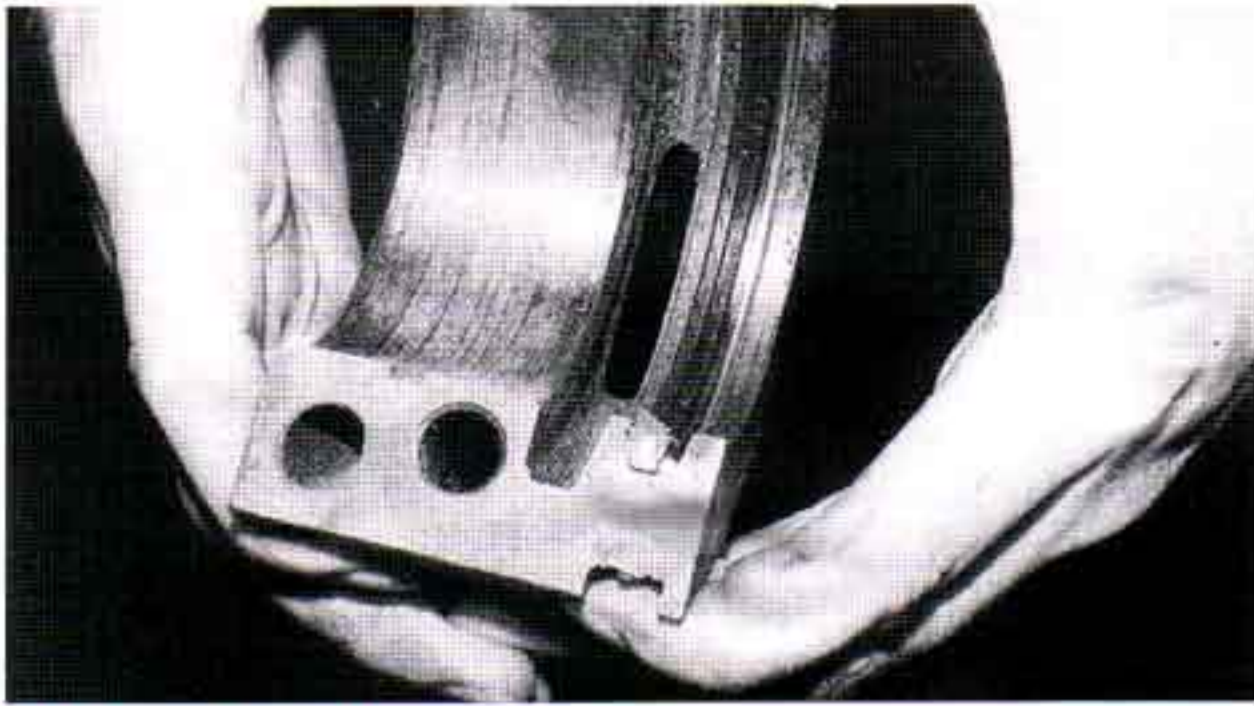


Photo #5a & 5b: On V8 installations, there is a wire spacer that fits in the rear of the seal groove to keep the seal true in the engine block and main cap. Install the wire spacer to the rear of the new seal. 6-cylinder installations do not required installtion of this spacer.

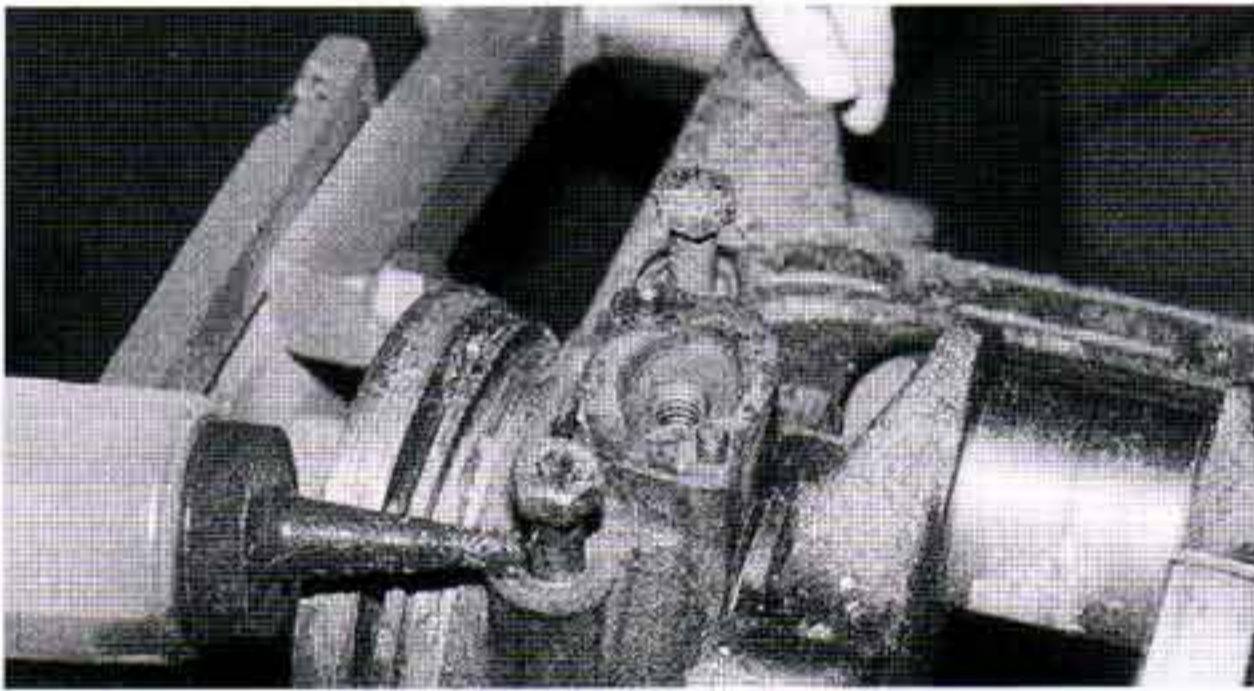


Photo #6a & 6b: Place the main cap back in place and torque the main cap bolts to 60 ft/lbs. Make sure to put oil on the threads and under the heads of the bolt to insure an even torque.



Photo #7: Next install the oil pump and oil pump drive shaft back to the rear main cap and torque the oil pump bolt to 45 ft/lbs. Install the oil pan and fill the engine with oil, start the engine and check for leaks. With the new neoprene rear main seal you can be assured that you will have a nice clean leak-proof seal at the rear of the engine.

Good Luck. 