

INSTRUCTIONS

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Revision 3

CAM DRIVE WATER PUMP

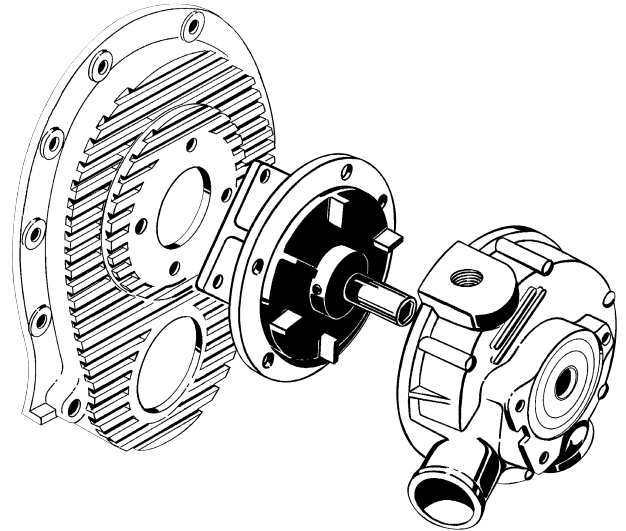
NOTE: THIS WATER PUMP MOUNTS TO ANY FRONT TIMING COVER DESIGNED TO MOUNT HILBORN, ENDERLE, OR SIMILAR STYLE DIRECT DRIVE FUEL PUMPS. THE FUEL OR POWER STEERING PUMP CAN THEN BE MOUNTED TO THE FRONT FLANGE OF THE COMPETITION WATER PUMP, OR A BLOCK OFF PLATE CAN BE INSTALLED.

If your engine is not currently equipped with a front drive accessory mount pad, additional parts will be required:

Small block Chevy Timing Cover p/n 540-181
3/8" Hex shaft Cam Drive p/n 805-7092

If you already have a front drive fuel/power steering pump setup, remove pump from front cover and start at step #7 to complete the installation.

1. Disassemble engine as required to remove existing water pump and timing cover.
2. Remove bolts from cam and hold drive spindle in place, making sure dowel hole is aligned. Drive spindle should fit snugly into timing gear. On some timing gears (such as Pete Jackson) you may need to machine small shoulder down on drive spindle to fit into gear.
3. Install bolts in gear (do not Lock-Tite bolts at this time). Make sure you have at least 5/16 engagement on bolt threads.
4. Bolt the front cover to the block with 4 bolts spaced out on the bolt pattern. Do not use a gasket or sealant at this time.
5. Measure the gap between drive spindle and water pump, You should have approximately 1/4" or more gap. Mark the spindle and cut off any excess length.
6. Slide the hex drive key in place—it should be too long. Measure pump and key, mark key so it's 1/16" to 1/8" shorter than hole. Hex key must not be too long. Using water pump as a cam stop may cause pressure on the water pump shaft, bearings, and seals, and cause premature failure.
7. The pump isn't designed to handle the thrust of the cam as it moves forward during deceleration. If you aren't using a front drive (such as the Summers Brothers drive) that controls the cam walk, make a brass spacer that rests on the water pump housing, **NOT** the bearing.
8. Once you fit spindle and key, you're ready to make the final installation of spindle (you should use lock washers or Lock-Tite on the three bolts). Make sure spindle and drive gear are seated flat.



IMPORTANT

9. Determine where you'll be pumping water into block. Tap out holes in front cover and run #8 (or 1/2") hose from pump to stock water inlet location in block. Here at Speedway, we've found in some engine configurations that running water into lower drain plug holes in the block provides a slight improvement in cooling. Holes must be drilled and tapped to 1/2 NPT (or 3/8 NPT), to allow using at least #8 line. For your specific application, we recommend discussing water inlet locations with your engine builder.
10. Apply silicone and mount front cover using proper gasket.
11. Mount fuel pump or power steering pump to front of water pump. Check shaft for length. Shaft is made this length to allow maximum engagement on the fuel/steering pump. If needed, grind off any excess.
12. Install hex drive key and slip water pump in place. Radial adjustment is required for mounting pump; if necessary, ream the four mounting holes in back of pump. NOTE: Pump should be installed with inlet pointed down and toward passenger side. You may change direction of inlet, but pump must be disassembled first.
13. Apply silicone to flange of pump. Slip pump into place. Using lock washers, spin nuts onto mounting bolts so nuts are just finger tight.
14. To ensure alignment between pump and drive and to prevent premature failures, turn engine over 2-3 times and gradually tighten nuts.
15. Apply Teflon® to the fitting you'll be using. Install fittings and run water lines to block.
16. After running engine, recheck front cover and water pump mounting bolts.

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