

C1 Water Pump Replacement

Mark Brennan #41386 <Send E-Mail> -- Saturday, 28 May 2005, at 4:45 a.m.

Bob, I have done this twice now and feel I could do it in my sleep. The procedure is pretty much straightforward...

remove the fan and water pump pulley,

generator fan belt

and heater hose.

Support the engine:

Before removing the water pump support the engine. I've done this two ways and seen a third. I've used an engine hoist attached to the intake manifold with a lift plate and I've used two hydraulic bottle jacks (Walmart for cheap) under the engine block near the front edge of the oil pan. A third method is to build a wooden U-support that supports the engine under the oil pan flange with a floor jack. **Just don't support the engine by the oil pan as it will deform.** Any three will work fine, just make sure the emergency brake is set.

Make some support studs from long bolts:



Paragon Number: 720

Water pump attaching bolt, "TR" headmark, **3/8-16x2 3/4"**, lower R.H. water pump bolt, all w/S.B.

WATER PUMP ATTACHING BOLT KIT

Paragon Number: 963K

Water pump attaching bolt kit, includes (1) 520 stud and (2) 826 bolts and (1) 720 bolt.

Years 1958 - 1962

Paragon Number: 826

Water pump to engine block attaching bolt, "TR" headmark, **3/8-16x1 7/8"**, Grade 5, zinc plated. Use w/water pumps requiring 1 7/8" long bolt ea. Also for possible use as 1953-62 body mounting bolts

Years 1955 - 1974



Paragon Number: 520K

GM Part Number: 3750553

Generator adjusting brace attaching stud kit, includes nut and lock washer.

Years 1958 - 1962

Condition: New

Additional Notes: Attaching the generator adjusting brace.

Next, I went to Home Depot or Lowes and picked up some Grade 8 bolts the **same diameter and thread pitch (3/8-16) as the water pump bolts.** You can remove one from the engine for sizing and it

won't hurt anything. Just don't remove two. The bolts I bought were 4-inches long. I cut off the heads with a hacksaw and then used my Dremel Tool to slot the ends for easy removal with a screwdriver.

Once the engine is supported properly, loosen the water pump bolts and replace each one at a time with the slotted bolt shafts.

Next, remove the engine support bolts on either side and remove the water pump and engine support.

Examine the engine support bracket closely as pitting occurs around the water pump openings. If there is any pitting, junk it and get a new bracket. They're relatively cheap and most all vendors have them.

Clean the front of the engine of all gasket material with a razor blade. If you're re-using the engine support bracket, do the same. For re-assembly, I always use "red" silicone sealant on all sides of gaskets and the parts. It is tenacious on clean surfaces and allows for some movement with no leaks.

Install the gasket between the engine block and bracket with sealant and let it set until it cures.

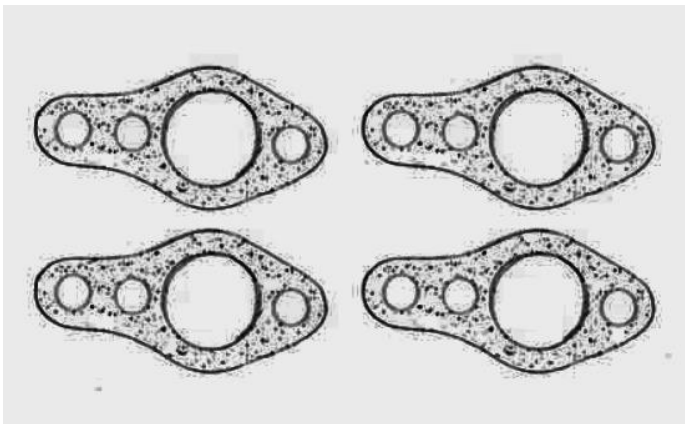
Do the same with the water pump. (As an option, I always chase the threaded holes with a tap to clean them and get rid of old sealer. It also provides for correct torque readings when tightening the bolts.)

Apply sealant to the front of the engine/bracket gasket and install the bracket over the bolt shafts. Next, apply sealant to the gaskets on the water pump and slide it on.

With the engine still supported by whatever means, remove each bolt shaft and install the correct water pump bolts into the block. Apply some sealant to the bolt threads after cleaning thoroughly. Do the water pump bolts one at a time so that alignment of everything stays in place. Tighten each bolt snug.

After installing the water pump bolts and torquing to spec., tighten the engine support bolts and nuts and remove your support mechanisms.

Install all accessories and you're done. Good luck.



**WATER PUMP TO ENGINE BLOCK
GASKET KIT**

Paragon Number: 5924K

GM Part Number:

Water pump to engine block gasket kit, 4 pc.

Years 1955 - 1962

Type: Stock

Note: this info was posted at the NCRS Tech Discussion Board.