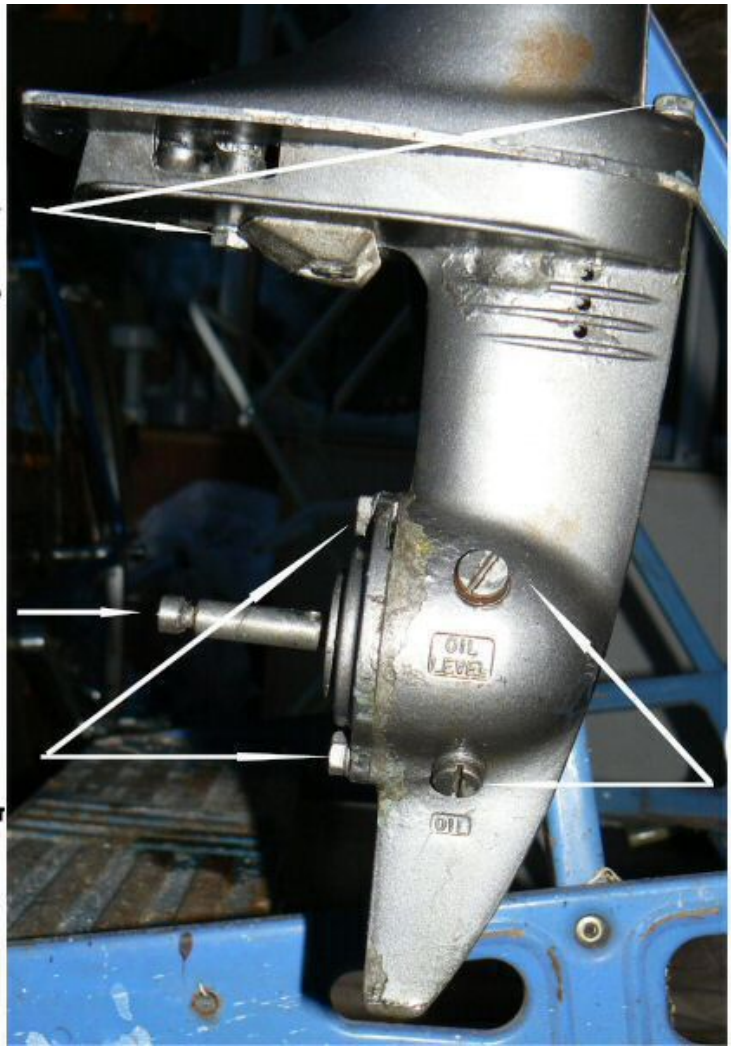
## Mariner 2M Impeller replacement

This worked for me, I don't know if it's the 'official' way…

The cooling water pump on the Mariner 2M is sited in the drive leg just above the gearbox. Replacement involves removing the gearbox.

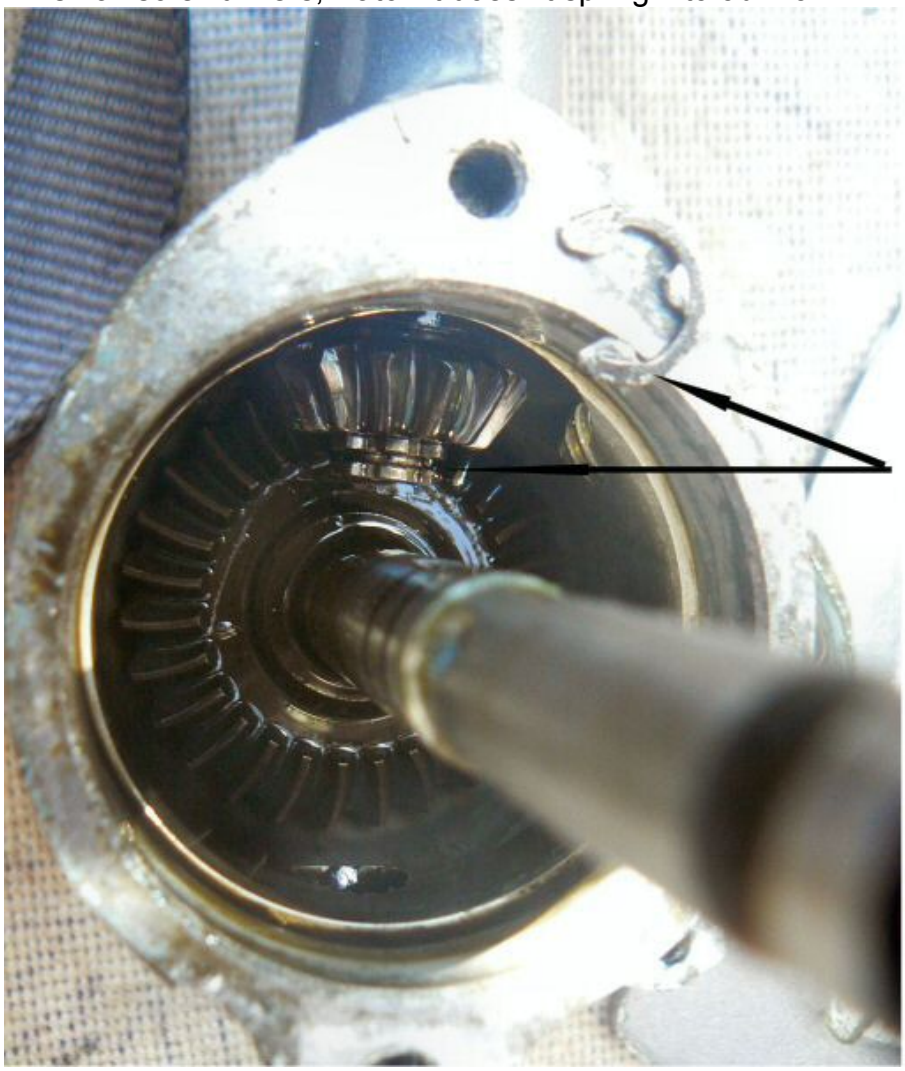
Here are the first four steps.




Notes:

2. The oil should look like oil, not white sauce. If it's white it means water has seeped into the gearbox past one or more of the oil seals. Check and replace if necessary.
3. The front seal plate has a male section inserted about a centimetre into the body of the gearbox. It is sealed with an 'O' ring. There are likely to be shims on the prop shaft, make sure you don't lose them.
4. Remove the retaining bolts. Now gently separate the gearbox from the drive leg. When separating the gearbox from the leg you are also separating both the square section drive shaft from the drive spigot just below the power head and the cooling water transfer pipe from the rubber socket in the water pump.

Looking inside the gearbox you will see the drive shaft entering from the top. Holding the cog onto the drive shaft is a circlip, lever this off with a couple of small screwdrivers, watch it doesn't spring into oblivion.



On top of the gearbox sits the water pump with the drive shaft and its cover protruding from the top.

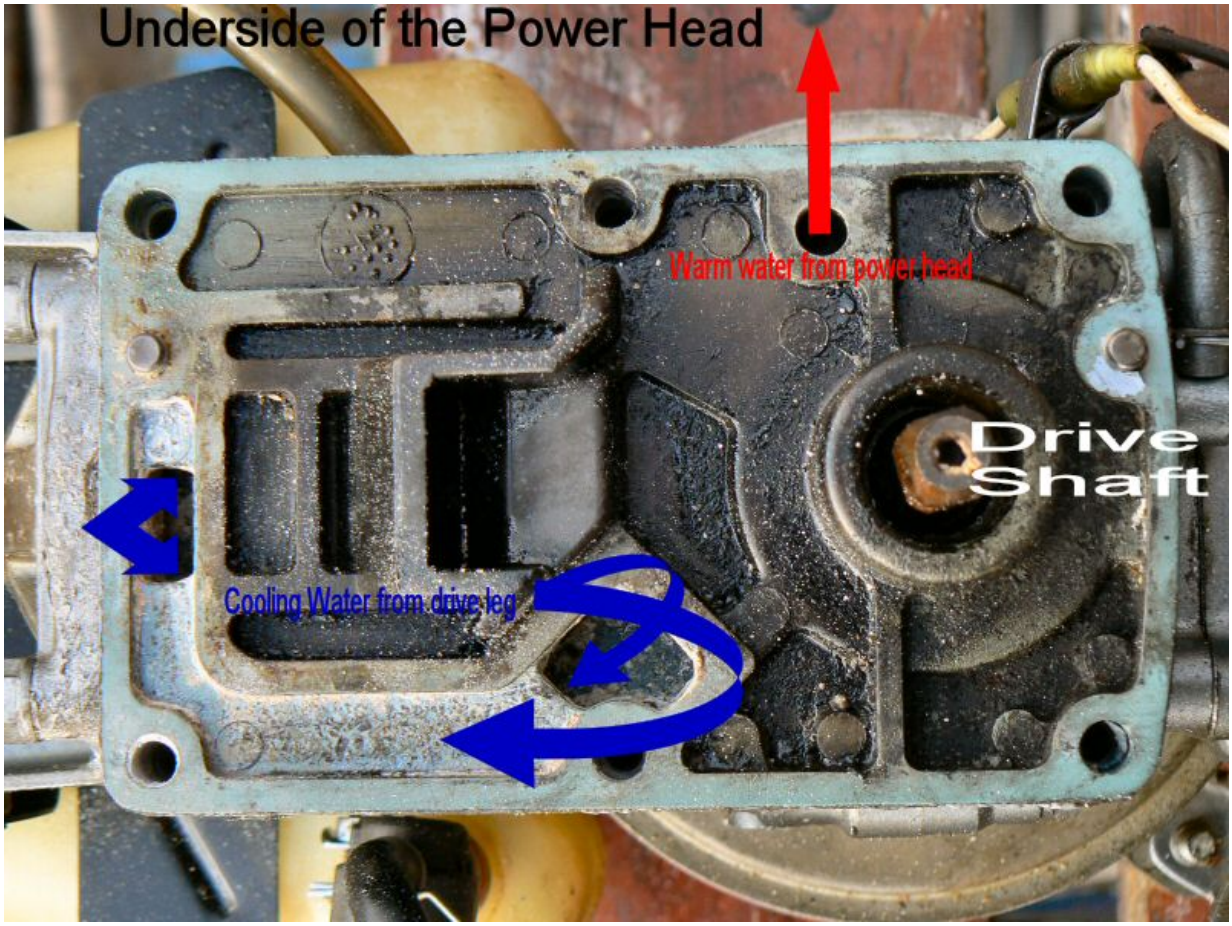
**Undo the 2 bolts holding the water pump cover. Gently separate the cover from the base. Note that at this point you will also be withdrawing the drive-shaft from the gearbox. Do not lose the cog which will be loose inside the gearbox once the shaft is withdrawn.**

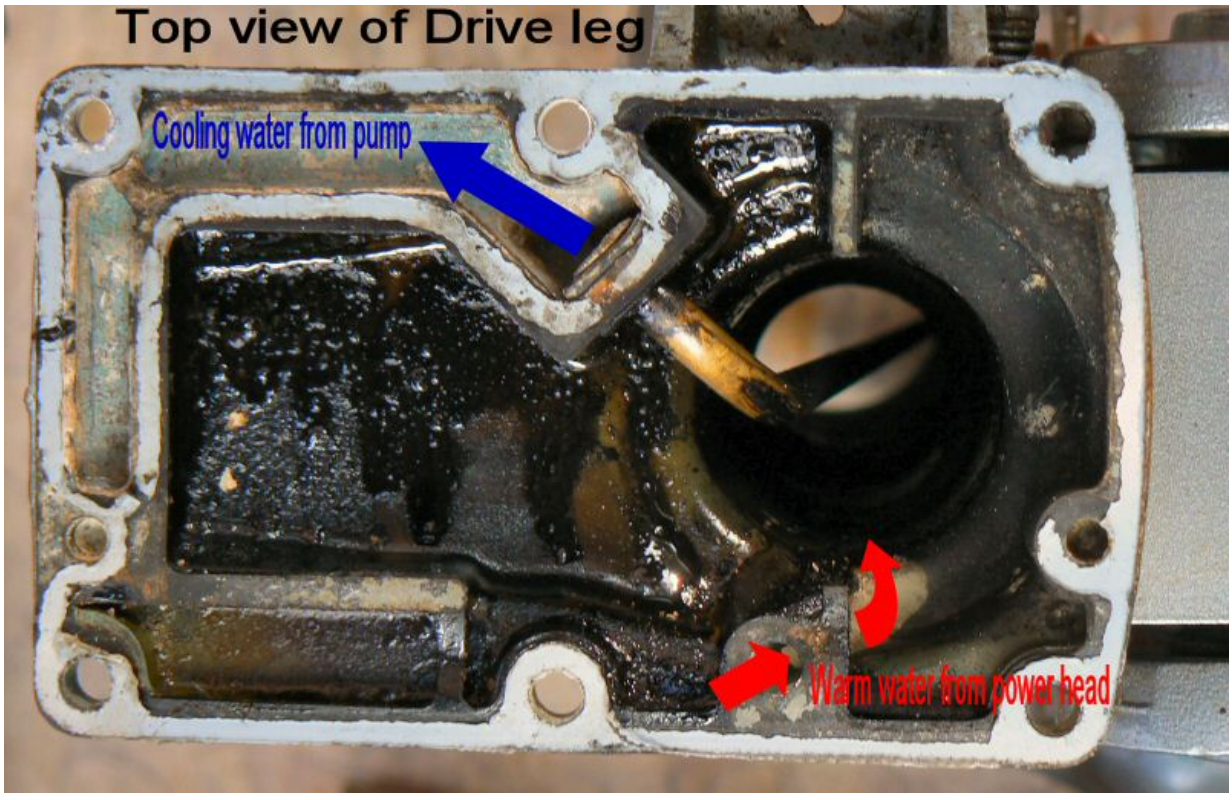
Separating the two halves of the water pump is the most delicate part of the operation. There is a thin alloy plate between the two halves which you do not want to damage or distort. You can try levering the end of the driveshaft inside the gearbox to see if this will push the pump apart. The gear on the end of the driveshaft will drop off as the shaft is withdrawn.

Once separated, the impeller can be slid off the drive shaft.  Do not lose the drive pin which is a loose fit into the shaft.

As the saying goes, reassembly is the reverse of disassembly.  The trickiest bit is getting the small gear onto the end of the driveshaft as the pump is reassembled.

As a bonus, the next two photos show the top of the drive leg and the underside of the power head.  You will need to get in here if the waterways are blocked.


Underside of the Power Head
Warm water from power head
Drive Shaft
Cooling Water from drive leg


Top view of Drive leg
Cooling water from pump
Warm water from power head