

# Inboard Engine

## General Maintenance

By Graham Turner, Shrimper 438 (2009)

**This is a simple guide to engine maintenance driven by experience. It fits into the Yanmar service requirements but as always it is up to the individual owner to decide what is required. It assumes approximately 50 hrs running per year.**

### Annually (in the Autumn)

1. Change the engine oil
2. Flush the engine with fresh water by closing the seacock and introducing a hose from a bucket into the top of the strainer. Then leave with a 50% anti-freeze mixture to protect the system from freezing.
3. Check the water pump for leaks. Rectify if necessary by changing the shaft seals. Pay special attention to the oil pipe that runs below the pump to ensure this is not corroded. Remove the water pump impeller and store or replace.
4. Check or replace the fuel pre-filter
5. Check tension and condition of the alternator drive belt
6. Top up the fuel tank
7. Remove the battery, check electrolyte level and charge occasionally during the winter.
8. Spray the engine with corrosion inhibitor such as WD40.
9. Check the shaft cutless bearing for excessive wear.
10. Visually check all rubber hoses for leakage and condition, including the exhaust hose and the rubber sleeve behind the stern gland
11. Check the engine flexible mounts for breakage or swelling. These are expensive to replace – over £400 for the parts alone.

### in the spring

12. Replace the battery
13. Replace the water pump impeller, preferably with a new one
14. Test run the engine and check the stern gland for leakage when afloat

## **Every other year**

15. Renew the engine oil filter
16. Change the gearbox oil
17. Check the valve clearances
18. Check or replace the on-engine fuel filter
19. Remove and check the exhaust bend from the cylinder head, clean internally and check for pitting and pin-holes
20. Replace the water side anode.
21. Remove the air filter, wash and replace.

## **Other considerations**

22. Check propeller shaft alignment
23. Check / replace injector nozzle and check fuel pump timing
24. Check cylinder head bolts for tightness