**INBOARDS AND OUTDRIVES**

**ENGINE CHECKLIST**

### Pre-start checks
1. Bilge blower
2. Visual check
3. Fuel and fuel tap
4. Fuel filter
5. Engine oil level
6. Gearbox oil level
7. Raw water filter and sea cock
8. Fresh water level
9. Battery switch
10. Stern gland greaser
11. Hydraulic fluid
12. Outdrive leg
13. Instruments working?
14. Out of gear

### After starting
1. Cooling water
2. Warm up

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For free Community Safety advice and information: RNLI.org/boating
Email: community_safety@rnli.org.uk
Pre-start checks

1. **Bilge blower**
   If you have a bilge blower or engine room extractor fan, run it for a few minutes before starting the engine.

2. **Visual check**
   Check belts and hoses for cuts, splits or fraying, and look out for oil or coolant leaks.

3. **Fuel**
   Make sure you have enough fuel for your intended trip, plus a reserve of about 20% of the tank’s capacity, and make sure the fuel tap is open.

4. **Fuel filter**
   Some boats have a transparent water separator/filter in the fuel line. Inspect the bowl for water or dirt, and drain off any visible contamination.

5. **Engine oil**
   Check the engine oil level with the dipstick, and top up if necessary to keep the level between the ‘max’ and ‘min’ marks.

6. **Gearbox oil**
   Check the engine oil level with the dipstick.

   **NOTE:** Some gearbox oil levels can only be checked with the engine running. Many gearboxes need special oil: **engine oil will not do!**

7. **Raw water filter**
   Shut the cooling water seacock; remove the filter element and clean it if necessary. Replace the element, screw the lid back onto the filter body, and open the sea cock.

8. **Fresh water level**
   Some engines have fresh water cooling systems as well as raw water. Carefully remove the header tank cap, and top up with water/anti-freeze mixture if necessary to bring the level within about 50mm of the top. Replace the header tank cap.

9. **Battery switch**
   Turn the battery switch on before starting. Do not switch it off while the engine is running.

10. **Stern gland greaser**
    Boats with ‘traditional’ transmission systems have stern gland greasers. Give the cap or handle one full turn.

11. **Trim tabs, or power steering**
    If your boat has an outdrive engine, check the level of the hydraulic fluid in the hydraulic reservoirs and top up if necessary.

12. **Leg**
    If your boat has an outdrive engine, check that the leg is clear of weed, rope, plastic bags, etc and is fully down.

After starting

1. **Flow of water**
   Immediately check that there is a good flow of water from the exhaust pipe or cooling water tell-tale.

2. **Tick-over smoothly**
   Allow the engine to warm up so that it will tick-over smoothly before setting off.