

WARRANTY INFORMATION

SERVICE INFORMATION

## Gasoline Engines with Water Damage

### Situation

Use this bulletin when working on an engine that is still within the warranty period.

Water can get into an engine in several different ways. The two main areas where water can be found in an engine are in the oil or on top of the pistons. Sometimes water is in both locations. Occasionally, water is found inside the exhaust manifold and not inside the engine. You need to know where the water is located to properly diagnose the failure.

### Step 1

- A. Quiz the boat owner when they first report this problem to your dealership about who, what, when, where and how they first noticed the problem. Find out as much information as possible about what occurred just prior to the boater's discovery of the problem.
- B. Ask if the boat sank or had a lot of water in the bilge.

Attach this information to the work order to help the technician when they work on the engine.

### Step 2

When a product comes in for repair and it has water in the engine or the exhaust system, speed is an important factor. The primary goal is to try and save the engine itself. This has to be done immediately after the boat owner contacts the dealership with the problem.

- A. Check engine oil to see if water is in the oil. If there is, change oil and filter.
- B. Check for water on the top of the pistons. Remove the spark plugs and ground the coil high-tension wire. Crank the engine over to purge any water. Squirt engine oil into the cylinders through the spark plug holes and crank the engine over again. Look at the spark plugs for signs of water.
- C. Install new spark plugs and try to start the engine. If possible, run engine until it reaches its normal operating temperature. Run engine at 1300 rpm during this time.
- D. Note on the work order what was observed. Water in oil, (yes or no). Water in cylinders, (yes or no).

When the technician is ready to work on the engine, these notations on work order will help them understand the failure and in what condition the engine was in when it came in.

---

## Step 3

- A. If the boat is in the water, leave it there. If boat is on a trailer, you may be asked to launch the boat and take some measurements while it is tied to the dock.
- B. Do not disassemble any exhaust component or remove cylinder heads.
- C. Call the Mercury Marine Technical Service Center for your location for further instruction.