

Starts, non-starts and misfires

By Len Burton



In our first maintenance column last month I covered everything you should have done prior to laying up your outboard for the season.

Now the big day has arrived, it's time to go boating. So pull the cord or turn on your ignition. If the engine starts right up, you are one happy boater, ready for cruising.

If it doesn't start right up, you may or may not say a few unkind words to the outboard. LDM#!!@**

So why does it not start?

- Did you lay it up properly, prior to putting it away for the season?
- Are you using fresh fuel for your four-stroke engine?
- If you have a two-stroke, is your fuel/oil mixture correct according to the manufacturer's instructions? (Too much oil mix will foul the plugs.)
- Did you hook up the fuel line correctly? (Look at the direction of flow on the primer bulb.)
- Did you forget to connect the fuel line to the portable tank or the engine?
- Are you standing on the fuel line, cutting off the fuel supply?
- Did you choke the carburetor? (A cold engine won't start unless you choke it.)
- Is the engine flooded?
- Does the gas leak out of the carburetor, leaving a nice big rainbow on the water behind you?
- If it isn't flooded, is the fuel pump working?
- Do you have spark to fire the plugs?

Ninety-five percent of all non- or intermittent starts on a gasoline engine result from the ignition system. Fuel left in the carburetor for a long period of time will eventually evaporate, leaving a gooey varnish by-product. This plugs you idle passages and or main jet. The engine floods out when restarted after a long layup. Time to call a mechanic unless you are into carburetor rebuilds.

THE SPARK

No spark, no fire, no run. Pull the plugs and see if they are fouled. Always carry a spark plug wrench and a small container of methyl hydrate (alcohol) to clean fouled plugs. In addition, carry a spare set of brand new plugs as well. If the plugs are not fouled, check for spark.

Do not simply lay the spark plug on the outboard to ground it when you hit the key or pull the start cord. Always carry a small set of alligator clips in your tool box. Connect the metal base of the spark plug to one end of the clip, the other to the metal part of the outboard to ground.

Failure to properly ground the spark plug will cause your Capacitor Discharge Ignition ("black box") to burn out. Plugs are cheap. A new CDI will cost you \$200 or more.

IGNITION COIL FAILURE

These coils do not usually just quit working. They *tell* you they are going to quit. If the engine starts to misfire when it's hot this tells you the coil is about to wear out.

You can always check the coil by swapping it over. A two-cylinder engine will fire and run (not well admittedly) on one cylinder.

Swap cylinder coils around to check for a dead coil. It's an easy test to eliminate coil failure.

Those are a few common examples of why you get a no start on an outboard.

And remember: *never* run your outboard without having its kill switch attached to a lanyard around your wrist.

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