



Left untreated, wiring harnesses are notorious for catching the corrosion disease.

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Combat Corrosion

You need an edge!

It's no secret that saltwater is corrosive stuff, and thwarting marine corrosion can be an extremely difficult challenge. The corrosive effects of saltwater and salt spray can wreak havoc on your hardware as well as your electronics, and corrosion is like cancer – left untreated it will spread rapidly. Even if you take the necessary precautions and preventative measures to combat the acidic tendencies of saltwater, the truth is you don't stand much of a chance on your own. You need an edge, which is where technologically advanced corrosion fighting products come into play.

If you think corrosion is all rust then you are sadly mistaken, as there are many forms of corrosion. The term aqueous corrosion refers to the majority of problems that originate from contact with saltwater. Atmospheric corrosion on the other hand, is the disintegration of metals that occurs

near coastal or salt-laden regions. Both can be highly problematic and warrant a comprehensive plan of attack to both eliminate and prevent future contamination.

Generalized corrosion is the most common form of corrosion, and is often characterized by contamination of a large area. This type of corrosion can be easily prevented and controlled with the proper protection. Galvanic corrosion is an electrochemical process that occurs when two different metals are placed in a conductive or corrosive environment. The first step in galvanic corrosion can be seen as a white powdery substance over exposed metal surfaces. Stress corrosion is the gradual and selective disintegration of metal surfaces due to mechanical wear and tear, and the first step in this process can be seen by minute cracks. Stress corrosion often occurs around propeller shafts and underneath welded hardware,

while crevice corrosion is a form of localized corrosion that generally occurs near gasket surfaces, lap joints and bolt/screw heads. Finally, pitting is another form of localized corrosion and generally forms where there is a surface scratch or break in a protective coating/finish.

Now that you know the different forms of corrosion, how can you protect your vessel and equipment from their damaging effects? The most basic form of protection is a water displacing lubricant such as CRC 6-56 or WD-40. While these products have been around for ages and are no doubt beneficial in the fight against corrosion, there are some new-age products that have been designed specifically to fight and prevent corrosion in harsh marine environments.

386 Nanotech incorporates molecular technology that utilizes various particulates to create a water-resistant buffer. Through nanotechnology, a molecular bond forms



Corrosion Fighting Tips

- ▶ When replacing hardware, properly seal screws and bolts with a high-quality marine compound.
- ▶ Periodically check the wiring on your vessel for nicks or damaged sections. If you find any corrosion peel back the insulation and replace the damaged section, or replace the entire wire all together.
- ▶ If you have any scratches on your outboard motor or lower-unit, it is highly recommended that you immediately touch-up the chipped paint to avoid the spread of rust.
- ▶ Proper grounding of your electrical systems can help to prevent galvanic corrosion.
- ▶ If you find a scratch in your stainless-steel hardware, gently smooth it out with a fine-grit sand paper and metal polish.
- ▶ Routinely check your sacrificial anodes and replace when more than 50-percent gone.
- ▶ If you notice rust stains near any screws or fittings, it is likely that saltwater has seeped beneath the hardware.



an invisible layer of protection that creates a corrosion resistant barrier. 386 Nanotech can be used on aluminum, brass, chrome, copper, stainless and many other metal surfaces, and one application protects for two-years! Lear Chemical's Corrosion Block is sacred among seasoned boaters and for good reason. A clean fluid that actively protects metals using advanced polar bonding chemistry, Corrosion Block's synthetic additives completely penetrate corrosion cells, leaving a hydrophobic film to further protect the metal. Corrosion

Block protects for up to 18-months and can be sprayed, brushed or wiped onto marine electronics, batteries, circuit panels, inboard and outboard motors, thru-hull fittings, hose-clamps, pumps, as well as any plastic and rubber components found on your boat.

Corrosion-proofing ensures years of trouble-free service.

Even with the most vigilant inspections and precautions, you will never be able to fully eliminate corrosion from your boat, however, if you're able to detect corrosion in it's early stages, you will be able to take the necessary steps to keep corrosion under control. By properly caring for your boat with a routine scheduled maintenance program, you will undoubtedly save yourself a great amount of time and effort, not to mention a boatload of cash (no pun intended).

Mechanical, electrical, it doesn't matter, protect everything.

—Steve Dougherty **PRO**



Corrosion Killers

- ▶ Corrosion Block
www.LearChem.com
- ▶ CRC 6-56
www.CRCIndustries.com
- ▶ 386 Nanotech
www.386Nanotech.com
- ▶ Corrosion X
www.CorrosionX.com
- ▶ WD-40
www.WD40.com