



New Found Metals, Inc 240 Airport Rd. Port Townsend, WA 98368

REPLACING A LEAKING PORT CAN BE SIMPLE

Boat owners who are tired of leaks, crazed Lexan and lack of good ventilation need more than just a temporary solution. Faced with an odd-shaped, oversize cutout too large to match most available portlights, one boat owner found success with New Found Metal's opening ports.

David (Wally) Bryant replaced large, leaking, fixed ports on his 1981 C&C Landfall 38 with New Found Metal's opening TriMatrix portlights. His solution involved creating 1/16" aluminum frames to replace the entire length of his fixed window cutout. Then, on the aluminum frame, he created cutouts for the Tri-Matrix portlights.

His first step was to create a pattern by tracing the outlines of the old windows onto a long piece of paper. He then traced the cutouts for the portlights onto his pattern and took them to a metal shop, where they were transferred to 1/16" aluminum.

Bryant planned his cabin thickness carefully so it would not exceed the maximum 1-1/4" allowed for the TriMatrix. He plugged the existing window and finished the interior cabin with 3/4" marine plywood. To protect the wood, he sealed it with penetrating epoxy

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and protected the aluminum frames with a hardcoat anodized seal, a thin layer of zinc chromate and a layer of single-part paint.

Next, with the help of a heat gun, pry bar and grinder, he removed the old frames that were bedded in 3M 5200. Once he had cleaned up the cutout as much as possible, he began to bed the aluminum frames with new 3M 4200. Bryant explained, "3M's 4200 is still a serious polyurethane adhesive caulk, but it's not as destructively permanent as 5200."

Before caulking and screwing the aluminum frames in place, he glued in the 3/4" thick plywood. After cutting the holes for the portlights, he sealed the edges of the exposed wood with products from West System

When the cutout was fully prepared, Bryant installed the TriMatrix ports. The port has bolt-through construction, with hinges and dogs that adjust for cabin thickness and sealing pressure. When the port is bolted together, a closed-cell silicon foam compresses between the outside cabin and finishing ring, creating an instant watertight seal. Springs on the hinges allow the port to stay open without chain hangers. Although the ports are caulkless, Bryant still decided to back up the silicon foam with a small layer of butyl.

A few months later Bryant reported, "The ports are just perfect and I'm a very happy sailor. As you may know, winter

came early to the San Francisco Bay this year, and over 3 inches of rain dumped onto *Stella Blue* in the course of about 6 hours. We had no leaks."

The complete details on Bryant's project can be found at:
<http://www.wbryant.com/StellaBoat/Projects/windows/index.htm>

To make the cutting job easier, New Found Metals rents a TriMatrix drilling template for a small fee.

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