

# Fenders Face 'The Crusher' and Other Torture Tests

The evaluation included testing resistance to point loading and abrasion, ease of stowage, and ease of inflation and deflation. Also compared were quality of construction, warranties, price, availability, and selection.

To gauge resistance to abrasion, testers gave each fender 10 firm strokes with a circular wood rasp and then evaluated their resistance to scratching, tearing, and gouging.

For compression testing, a wooden device (dubbed "The Crusher") was constructed so that each fender could be placed under 1,000 pounds of pressure, a weight achieved by stacking 20 sandbags weighing 50 pounds each atop a ¾-inch plywood compression plate. While 1,000 pounds doesn't represent the extreme compression fenders often face in a big blow, testers found it a useful weight to gauge the fenders' performances.

The Crusher also enabled us to test point loading and puncture resistance by placing a ¾-inch-thick board with a 2¾-inch-long, ½-inch bolt and a 1½-inch-long, ½-inch lag screw beneath each fender prior to compression to simulate use at a dock with exposed hardware. In both tests, the fenders were left in the squashed position for 30 minutes to see how well the fenders held up to sustained pressure and to see whether any air leaks developed.

Because fenders often suffer from UV, chemical, and biological deterioration, the top performers in this test are being longterm tested in real-world conditions. We'll keep you posted.



*To evaluate the fenders' ability to stand up to heavy loads, testers placed them—one by one—under a plywood plank and 1,000 pounds of sand. All passed. See page 34 for pictures of the other test results.*