

A Defect And Its Aftermath

By Caroline Ajootian

A hull crack that nearly sank a sailboat in the Atlantic reveals a manufacturing defect, and unleashes a blogging nightmare for an esteemed boatbuilding company

A year ago, owners of certain Tartan 3700 sailboats received letters from the boat's manufacturer, Tartan Yachts, describing a manufacturing defect on one vessel that prompted the company to call for inspections of 60 others. A year has passed since the letters were sent out, yet — fairly or unfairly — questions about the safety of these boats persist on Internet sailing chat rooms and on marina docks around the country.

Tartan's letters came more than a year after a 2005 Tartan 3700 called *Blue Heron* nearly sank due to what Tartan describes as a "significant" hull fracture caused by what the company acknowledged was a manufacturing deficiency. The accident occurred in the Atlantic Ocean off the New Jersey coast in December 2006. The boat manufacturer acknowledged they had "not done a good job of communicating" with owners of these boats in the intervening year, exposing them to high risk if their vessels, too, had the same hull problems. Company officials told BoatU.S. that they inspected a few boats built at about the same time as *Blue Heron* and none were found to have the same hull problem. The company also told BoatU.S. that no other Tartan 3700 owners have reported similar hull problems with their boats.

BoatU.S. Investigates

BoatU.S. recently discussed the Tartan 3700 situation, as well as sailors' concerns about the boats, with William Ross, owner of Novis Marine Ltd., parent company of Tartan Yachts and C&C Yachts. Ross explained that *Blue Heron's* hull failed because not enough fiberglass cloth and resin was laminated at the centerline just forward of the keel. Construction of large vessels like the Tartan 3700 involves rotating the mold so that technicians can laminate one side, then rotating the mold so the

other side can be built. In the case of *Blue Heron*, the overlap between the two sides didn't meet the design's lamination specs.

Ross said that *Blue Heron* was brought to Tartan's factory in Fairfield, Ohio, immediately after the accident occurred in December 2006. The boat was inspected, the defect identified and completely repaired, he said, adding that the owners were fully satisfied with the work and are currently considering the purchase of a larger Tartan model.

Ross told BoatU.S. that Tim Jackett, designer of the Tartan 3700 and the company's COO, personally inspected vessels with hull identification numbers just before and after that of *Blue Heron* and found no problems, which indicated to them that the defect was indeed an oversight in the construction process of that one boat, rather than a flaw in the overall design.

Ross told BoatU.S. that Tartan's effort to alert owners to possible hull problems was the responsible, proactive approach but that criticism by bloggers exaggerated the situation. At least two Tartan owners have filed lawsuits against the manufacturer, alleging problems completely unrelated to the hull defect manifested in the *Blue Heron* accident. These individuals, Ross said, have widely posted their grievances, as well as other negative information about Tartan Yachts, online in an effort to embarrass the company into ceding to their wishes. "They're Internet terrorists," said Ross.

In January 2008, a month after the letter to owners was written, Novis Marine announced the sale of its assets to a private equity group based in Cleveland. Typically, legal liability for products and for warranty obligations is transferred only when the corporate entity, rather than physical assets such as real estate, machinery, and designs, is purchased outright. New owners are not required to provide warranty coverage

on the predecessor's products. Ross said the bloggers seized on this development as evidence that the company wanted to absolve itself of warranty obligations. He assured BoatU.S. that these allegations are completely false and that Tartan and C&C warranties will be honored.

The Internet campaign was also mentioned in the boatbuilder's letter to Tartan 3700 owners. "Over the past few months, there has been a substantial amount of 'chatter' regarding the safety of the Tartan 3700 hulls," states the letter, which was signed by Jackett. "The Internet chatter would have you believe that [the *Blue Heron* near-sinking] was a sudden and catastrophic failure, but careful analysis showed the failure was not sudden at all."

A Scary Night At Sea

Information published by the company has offered differing explanations for the December 2006 incident that occurred a few hours before dawn about nine miles offshore and 12 miles southeast of Barnegat Light. During what should've been a routine delivery from Staten Island, New York, to Annapolis by a professional crew, *Blue Heron*, a Tartan 3700 sailboat built in 2005, began taking on water and listing dangerously. The Atlantic seas that morning were running six to seven feet and the crew, fearing the vessel would sink, issued a mayday call. Water quickly reached several feet deep in the cabin.

According to court documents filed as part of a salvage claim for the vessel, efforts by the U.S. Coast Guard to staunch the flow of water into the boat failed. The crew was airlifted by a Coast Guard helicopter. More powerful de-watering pumps provided by a salvor called to the scene stabilized *Blue Heron* so that she could be towed to a marina. Once the boat was hauled, inspection revealed a 30-inch hull



The Tartan 3700 has been the subject of much internet chatter since the *Blue Heron* incident.

crack along the centerline just forward of the keel. Tartan technicians inspected *Blue Heron* and she was transported to the company's factory in Fairport for further evaluation and repairs.

A few months after the boat was brought to the factory, a memo to dealers from Jackett stated, "We concluded that although we might not know the exact cause of the damage to the hull, it was the result of several contributing factors, including improper rig tuning."

Though the memo also states, "There may have been an area just forward of the mast step and near the instrument through-hull penetrations where the centerline laminate overlap was less than ideal," the memo clearly lays much of the blame at the feet of *Blue Heron's* owner.

"During the previous two seasons the owner had complained that the rigging was too long and had provided photos showing shroud turnbuckles either close to or were bottomed out on their adjustment," the Tartan memo states. "Our experience has been that the only way to apply the amount of rigging tension that would allow this rigging to reach its maximum adjustment is to tension the leeward shrouds while sailing ... The answer is that, if an owner tightens rigging while it is under load, he can exert enough compression loading at the mast step to cause damage."

For non-sailors, the stays (also known as shrouds) are part of a sailboat's standing rigging and support the mast both fore and aft, as well as side to side. The situation described in the dealer memo involves the port and starboard stays. Turnbuckles allow stay tension to be adjusted, but adjustments each time the boat changes tack usually aren't necessary or recommended. It's not unusual or a matter of concern for the leeward shrouds to have some slack when a boat heels under sail.

Tartan Makes Good

Jackett's letter to owners states that he inspected an unspecified number of other Tartan 3700s of the same vintage as *Blue Heron* and found "no other boats with this issue." Nevertheless, the letter invites owners of Tartan 3700 hulls 58 through 119 to have boats inspected by dealers. The 61 boats in this hull-number range were built between 2002 and 2007, sources told BoatU.S. According to the letter, boats found with hull damages will be repaired at no expense to owners, an offer Ross repeated during his conversations with BoatU.S.

Jackett's letter acknowledges that the company was "slow to respond to the concerns of owners" in part because the company "needed to thoroughly understand the causes of a problem with one boat ... Our

investigation revealed that [the *Blue Heron* hull] did not have the proper amount of overlap for a short section forward of the keel stub, as required by the laminate schedule. "Over time, the comparative lack of strength in this area allowed it to gradually delaminate, ultimately resulting in the crack that allowed water to enter during the delivery."

Jackett's letter to owners states that the weak area in *Blue Heron's* hull was located under the boat's floor pan in an area owners normally wouldn't inspect. The letter doesn't mention the earlier allegation that the hull damages were caused by over-tightening the boat's rigging, but Ross told BoatU.S. that some of the damages were caused by the owners.

BoatU.S. has provided the Coast Guard with information obtained from owners. If the Coast Guard determines that other boats have the same defect, the manufacturer could be required to initiate a recall campaign.

Ross says he is fully confident that the problem with this particular boat was unique to *Blue Heron*, that it has been fixed to the highest standards, and to the full satisfaction of the owner.

Tartan 3700 owners who have observed hull damages should contact the BoatU.S. Consumer Protection Bureau, ConsumerProtection@BoatUS.com or 703-461-2856. 