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By Larry Chowning

atti Marine Enterprises launched the 170' x 40' x 18' Defender on Feb. 6 for Global Seas as an Alaska pollock boat. It's the second major conversion of a fishing vessel by the Pensacola, Fla., boatyard for the Seattle-based Global Seas, a vessel management company.

The Defender was formerly the 164-foot Western Venture and was built in 2006 by Boconco Shipyard in Bayou La Batre, Ala. Dona Martita, an affiliate company of Global Seas and the Bristol Bay Economic Development Corp., purchased the Western Venture in 2014. She would be renamed the Defender after a retired boat once part of Global Seas' West Coast fishing fleet.

Global Seas had been considering building a new boat to replace a 195-footer, when the Western Ven-

ture came up for sale. An inspection of the boat showed a solid hull, good propulsion, refrigeration and hydraulic systems. After weighing these positives and the lower cost of conversion against a \$35 million to \$40 million price tag to build a similar vessel, Global Seas went with the conversion.

In 2012, Patti converted the Dona Martita into the Bering Defender for Global Seas ("Goin' big, NF June 2012, p. 30). The conversion was similar to that of the Defender in that Patti took the 1986-built Dona Martita, an East Coast mackerel and herring boat working out of New Bedford, Mass., and converted her into an Alaska pollock boat.

In New England, the Western Venture, which was also fishing for mackerel, had a good reputation for regularly off-loading high-quality fish at a New Bedford fish plant affiliated with Global Seas. The quality of fish



▲ The Western Venture before being lengthened 6 feet at the stern for working area around the net reels.

stemmed from pumping fish out of nets and onto the boat, instead of hauling them aboard in a cod end. It was the type of fishing Global Seas wanted for the Bering Sea. Based on the successful conversion of the Dona Martita to the Bering Defender, Global Seas contracted with Patti to convert the Western Venture, as well.

Seas Global brought in another longtime associate in Jensen Maritime Consultants of Seattle for the design engineering work. Several years ago, Global Seas hired Jensen Maritime to test hull efficiencies associated with installing bulbous bows on fishing boats built with traditional bows. The results showed



▲ The Western Venture's forward deck is being enclosed with bulwarks and a whaleback top deck is lowered in place.



▲ The Defender, ex-Western Venture, ready for sea trials and the Bering Sea.

that increased fuel efficiency, improved running performance and added stability were gained with a bulbous bow along with a stern extension. These features were built into both the

Bering Defender and the Defender.

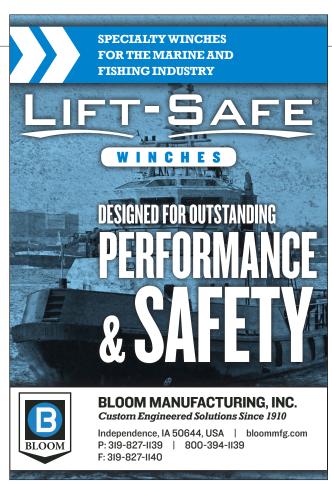
Patti lengthened the Western Venture by 6 feet at the stern "giving them more working space at the back of the boat," says Jensen Maritime's Jonathan Parrott. "It gave them room to work behind the net reels. Before it was a little awkward."

Adding the bulbous bow was done mostly for buoyancy. The fuel tanks are aft, so prior to adding the bulbous bow, when the fish holds were full and it was "light in fuel, the boat had a tendency to get down at the bow," says Parrott.

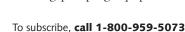
Several structural changes were made forward of the wheelhouse. The fish distribution area is now enclosed to protect the crew from the elements while they are sorting fish. A new whaleback top deck

was built forward and above the distribution area that covers the anchor windlass and will reduce ice buildup over the bow area. In addition, the yard crew installed an antiroll tank that runs athwartships in front of the wheelhouse. And they changed a forward workshop into a crew exercise room.

Global Seas wanted an efficient pumping system on the vessel to pump fish from the net. "We renewed a lot of the existing pumping equipment and kind of started over," says







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Ashley Stone, Patti's project manager. Fish were pumped from the port side of the Western Venture, but on the Defender the pumping will be done from the stern. That's opposed to hauling a cod end with 150-200 tons of pollock onto the vessel's upper deck.

Pumping fish out of a net is quite common in Europe and is done on the U.S. East Coast but is not widely accepted in the West Coast pollock fishery. Global Seas believes that pumping pollock onboard will help them deliver



▲ Patti Marine's Frank Patti Jr. (left) and Global Seas' Bob Desautel led the Defender's launching ceremonies.

a better quality product.

There's plenty of room to pack the fish, because the Defender has 10 refrigerated seawater tanks of welded steel construction that will hold close to 2 million pounds.

Patti also replaced the hydraulic bow thruster with a new Wesmar thruster and refurbished the 48-inch, 350-hp Rexroth hydraulic stern thruster.

Highland Refrigeration came down from Seattle and went through the boat's refrigeration system. "There were no major changes on the refrigeration system. It was in fairly good shape," says Highland Refrigeration's Todd Poulsen. A technician from Highland Refrigeration did a complete overhaul on the compressors, pressure treated the system, updated the release valves and the RSW system. Once the Defender arrives in Seattle, Highland Refrigeration will commission the system.

Interior accommodations were substantially upgraded for the crew's comfort and safety. That includes a new fixed CO2 fire extinguishing system, fire detection equipment and an alarm system. The walls and ceilings in the accommodations area were removed, and the area behind them painted with Mascoat Marine-DTM, an anti-condensation coating, and then insulation

Upgrades all around

The contract discussions between Patti Marine in Pensacola, Fla., and Seattle-based Global Seas could not have come at a more fortuitous time, as Patti was in the process of enlarging and upgrading its railway.

"Our old railway had been in service for 30 years and needed substantial repairs," says Ashley Stone, Patti's project manager. "It was coincidental that we got the contract about the same time we decided to upgrade the railway. It all could not have come at a better time."

The old 800-ton-capacity railway was limited to a 200-foot boat with a 16-foot depth. That would not have worked for the 1,000-ton Western Venture. But the new railway has a 1,200-ton capacity, 26-foot water depth and can haul a 300-foot boat. At 1,000 tons, Western Venture was a first for Patti. "It's the biggest boat we have ever had on the rails, and we could not have hauled it if we had not upgraded," says Stone.

— L.С.



was placed over the paint. The engine room overhead received a coating of Mascoat dB, which is "effective at knocking down noise," says Stone.

The Defender's wheelhouse has "a full suite of new electronics that would even impress Star Wars fanat-

ics," says Stone. Harris Electric of Seattle and Pro Sound and Video of Pensacola, Fla., installed the electronics.

Down in the engine

room, the electrical system and wiring received substantial upgrades. The main engines are a pair of rebuilt 1,800-hp Caterpillar 3512s. Prior to the rebuild, they were "closer to 1,500 horsepower," says Stone. The Cats are matched up to ZF W7500 marine transmissions with 4.939:1

ratios that spin Aquamet 17 stainless

steel shafts and 81-inch props inside

new Kort nozzles with Deflector rud-

ders. Two 590-kW Caterpillar 3412

ship-service generators and a 165-kW

would even impress Star Wars f ics," says Stone. Harris Elec-

Caterpillar emergency generator were also rebuilt.

The Defender meets all U.S. Coast Guard alternate safety compliance regulations that will be implemented by 2020.

Once the conversion was com-

It's the biggest boat we have ever had on the rails.

- Ashley Stone, PATTI MARINE

pleted, Global Seas held a ceremony to change the boat's name from the Western Venture to the Defender. The Defender was then christened and launched. Sea trials were set for mid-April, and by the end of the month the Defender was scheduled to leave on her 5,200-mile trek to Seattle. She should be heading to the Bering Sea in May for the pollock B season.

At the Defender's launching on Feb. 6, Bob Desautel, Global Seas CEO and president, presented Patti Marine Enterprises' owner, Frank Patti Jr., a filet knife. It was a first issue Global Seas prototype. "This had a special meaning for Frank Jr.," says Stone.

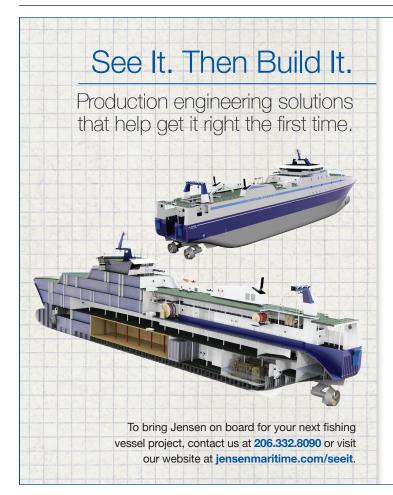
"He grew up on the cutting table at his grandfather's fish house, Joe Patti's Seafood."

Patti's shipbuilding operation was started by Frank Patti Sr. and was set up in the Joe Patti's Seafood parking lot in 1977. But with the growth in both the families seafood and

boatbuilding companies, the shipyard moved in 1985 a few miles away to Pensacola's Bayou Chico.

Larry Chowning is a reporter for the Southside Sentinel in Urbanna, Va.

For information on companies mentioned in this article, see page 49.



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