

Patti Marine delivers Jensen-designed push boat



Shipbuilder **Patti Marine Enterprises Inc.** of Pensacola, FL recently delivered the river push boat *M/V Stephenson II*, to the U.S. Army Corps of Engineers for use in Gasconade, Mo., in the Corps' Kansas City district.

Seattle-based **Jensen Maritime Consultants, Inc.**, performed the functional design and production lofting of the ABS classed, 58-foot, 770-horsepower boat. Patti Marine hired Jensen to take the Corps' design for a smaller and narrower boat and create the functional design and production lofting.

The image on this page is a composite of the push boat, combining the production lofting drawings supplied by Jensen Maritime and the finished product built by the shipyard.

Lofting essentially involves taking a vessel design and creating a building kit for the shipyard, including assembly drawings and directions for the cutting machines. This process helps optimize building productivity and quality. Jensen worked closely with Patti Marine to ensure the vessel was successfully delivered on time.

"We appreciate the opportunity to be of service to Patti Marine and the Corps of Engineers," said Jensen Vice President Jonathan Parrott. "We are confident the boat will have a long and productive service life."





M/V Stephenson II will provide operational support for the district's operations and maintenance mission on the lower Missouri River as well as for general construction and mitigation projects.

As a day boat and support vessel, the vessel has no accommodations and no provisions for fresh water, although it does come equipped with an Incolet brand of head as a small crew comfort. Noise and vibration reduction of the exhaust system was very important to the Corps, which wanted no more than 20 percent transmissibility. Jensen designed the system to use cable-mounted silencer isolators and pipe hangers, which greatly reduced the amount of noise and vibration transferred to the crew areas.

Jensen Maritime is a Naval Architecture and Marine Engineering firm owned by Crowley Maritime Corporation. The company offers a diverse range of consulting, design and engineering services developed from nearly 50 years experience working around the world.





M/V "STEPHENSON II" - Hull 737

Construction and Equipment Details

Builder: **Patti Marine Enterprises, Inc.**
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Designer: **U.S. Army Corps of Engineers – Marine Design Center**
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and

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Owners: **U.S. Army Corps of Engineers – Kansas City District**
 Mission: Inland River Towboat
 Length: 58'-0"
 Beam: 22'-0"
 Depth: 7'-0" (@ Midship)
 Draft: 4'-6" (Full Load)
 Main Engine: (2) CAT C12B, 385 HP @ 1,800 RPM diesel engines
 Gears: (2) Twin Disc MG-516, 4.0:1 ratio
 Props: (2) Rolls Royce, 48" diameter, (5)-blade, Next Generation Work Wheels, CF-3 stainless steel
 Controls: ZF Mathers
 Gen-sets: (1) CAT C4.4, 44kW @ 1,800 RPM
 Hydraulic Steering: Sentinel Control Technologies
 Crane: None
 Barge Winches: (2) Wintech mdl. 311-RC, 5 HP, 40-ton
 Capstans: None
 Hull Construction: Steel
 Crew Quarters: None; day boat
 Capacities: Fuel Oil = 1,275 gal.
 Hyd Oil = None
 Lube Oil = 152 gal.
 Gear Oil = None
 Waste Oil = 152 gal.
 Oily Water = None
 Potable Wtr = None
 Sewage = None
 Electronics: E & R Marine Electronics (Furuno)
 Class: ABS Class A1 Towing Service AMS Machinery USCG, Subchapter-C Uninspected Towing Vessel
 Tonnage: n/a

Completion Dates:
 June 2010

Homeport:
 Gasconade, MO