

Thoma-Sea launches 168' Great Lakes ferry

Thoma-Sea Marine Contractors, Houma, La., recently built and launched the 168'x45' passenger, truck and automobile ferry *Carmen Lee*.

The ferry, designed by New Orleans-based **TAI Engineers Inc.**, was built for a partnership between the Lorain Port Authority (LPA) and **Kelleys Island Ferry Boat Line**. It can hold 149 passengers and 36 trucks and automobiles. The *Carmen Lee* will operate on Lake Erie providing service between Marblehead, Ohio, and Kelleys Island, Ohio. It will begin service in early 2022.

The double-ended ferry is designed to operate on lakes, bays and sounds. The vessel has a steel hull and deck-house design and is compliant with Coast Guard Subchapter T regulations. The main deck is high-strength AH 36 steel to withstand tire loadings from up to 36 cars or equipment trucks in four



lanes.

Main propulsion comes from four **Caterpillar** C18 propulsion engines, producing 470 hp at 1,800 rpm, each driving **Schottel** SRP 150FP Z-drives using **Twin Disc** HPTO hydraulic clutches. The propulsion package allows precision maneuvering in challenging Lake Erie approaches during harsh weather and provides propulsion redundancy.

Ship's service power comes from two **Cummins** Onan 40-kW marine gensets. Kelleys Island Ferry Boat Line has a similar ferry called the *Shirley Irene* in operation on this route.

TAI was selected to provide naval architecture and marine engineering services and also provided professional support for the competitive procurement of a shipyard to build the new ferry. TAI's work included drawing review, construction inspection, as well as test and trial supervision of the boat during its construction. The *Carmen Lee* has been built to conform (but not certified) to **American Bureau of Shipping** (ABS) standards and is Coast Guard inspected.