

## ULSTEIN DESIGNS PIONEERING HEAVY LIFT VESSEL FOR PENTA-OCEAN CONSTRUCTION

Penta-Ocean Construction, a prominent Japanese general contractor, has commissioned Ulstein Design & Solutions B.V. to design its new heavy lift vessel for offshore wind foundation installation. The customised ULSTEIN HX118 design will feature a 5,000-ton Huisman main crane and the Ulstein U-STERN™, which enables installation of increasingly larger monopile foundations.



Following feasibility and concept studies in 2023, Penta-Ocean Construction selected Ulstein for the project. Ulstein proposed the HX118 with the U-STERN™, a design that builds on Ulstein's successful track record of crane vessels. The selected design offers a well-balanced combination of a flush work deck, lifting capacity, accommodation and DP capability and will be the largest X-BOW® vessel to date.

The U-STERN™, developed by Ulstein, features longitudinal storage and upending of monopiles along the ship's centreline. This innovation enables the installation of longer monopiles without overhanging the ship's sides and allows the vessel to face into the waves during the installation, minimising ship motions and fuel consumption.

Since last summer, Ulstein has been collaborating with Penta-Ocean Construction on the Basic Design of the heavy lift vessel, including an extensive model test program. The design is being developed at Ulstein's Rotterdam office, with significant support from Ulstein Poland during the Basic Design phase.

"We are honoured that Penta-Ocean Construction chose us to design their new heavy lift vessel. This project represents a powerful collaboration between Penta-Ocean Construction, Ulstein and Huisman to design this most capable monopile installation vessel," says Ko Stroo, lead designer at Ulstein Design & Solutions B.V. "As the project moves forward, we remain committed to supporting Penta-Ocean Construction and Seatrium throughout the construction phase."

**End press release**

**Note for the editor:**

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**Ulstein Design & Solutions B.V.** specialises in the design and development of game changing ships for the offshore energy market. Sometimes brilliantly simple, sometimes necessary complex. We push for sustainable solutions. Besides newbuild designs, Ulstein Design & Solutions is actively involved in consultancy and feasibility studies for upgrading vessels.

**ULSTEIN** is a family-owned group, headquartered in Ulsteinvik, Norway. ULSTEIN delivers products and services within ship design and shipbuilding to the international market within segments such as offshore wind, expedition cruise and offshore oil and gas. For over 100 years, ULSTEIN has been associated with innovation and quality in design and delivery, meeting the demanding marine challenges by embracing change and identifying opportunities. ULSTEIN's vision is to create tomorrow's solutions for sustainable marine operations.