

Press release

Wednesday, 3 April 2024

Royal IHC signs contract with Eastern Shipbuilding Group for cutting-edge Medium-Class Hopper Dredge

Royal IHC is honored to announce that it has signed a contract with the Eastern Shipbuilding Group (ESG). The two companies have joined forces to build a highly automated, state-of-the-art medium-class hopper dredge for the United States Army Corps of Engineers (USACE).

Pushing boundaries

Building on a history of successful collaboration, Royal IHC and ESG will deliver an unparalleled dredging vessel with ground-breaking design, engineering, dredging equipment and automation systems. This partnership underlines Royal IHC's commitment to support its customers in pushing the boundaries of dredging efficiency and performance.

Ready Reserve Fleet

The new hopper dredge will enter the USACE's Ready Reserve Fleet and will play a critical role in the Corps' navigation mission and provide for safe, reliable, effective, and environmentally sustainable waterborne transportation systems for vital national security, commerce, and recreation needs. The vessel will replace the 57-year-old Dredge McFARLAND based in the Corps' Philadelphia District. The Dredge McFARLAND is one of four oceangoing hopper dredges owned and operated by USACE.

Efficient design

"The hopper dredge is designed to meet and exceed the mission-based operational requirements of USACE and features one of the most advanced configurations ever developed by Royal IHC," said Leo van Ingen, Area Sales Director at Royal IHC. Royal IHC's well-known bulbous bow design is the basis for a relatively high maximum hopper capacity of 6,000 yd³, given the maximum vessel dimension requirements. Combined with optimum dredging efficiency, this results in significant fuel savings. The hopper can be fully loaded with medium fine sand in less than 45 minutes, and the available dredge pump power, together with the latest high efficiency dredge pumps, almost halves the desired discharge time.

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High level of automation

Leo van Ingen: "Another special feature of this hopper dredge is the high level of automation on board. For example, the Integrated Forward-Looking Sonar System, Dynamic Positioning and Dynamic Tracking in close concert with Dredging Assist capabilities. This concept can advise and assist the dredge master on the best dredging techniques and improve overall efficiency by integrating various dredging automation systems. In addition, with the ECO Package, the USACE's new hopper dredge can load up to 15 percent more energy efficiently, reducing fuel consumption and environmental impact."

Dredging Assist capabilities

Unique to this hopper dredge is the use of the Dredging Assist for executing dredging tasks. This system initiates the lowering and lifting of the suction pipes, unloading the soil through the bottom doors, the activation of the required dredge pumps and jet pumps, taking account of the desired valve configuration, auxiliary equipment and automatic controllers. All of these tasks can be executed fully autonomously in a human-in-the-loop responsibility (approval of the dredge master).

Reliability and limited environmental impact

The Cutterspecial® pump was selected from Royal IHC's latest range of dredge pumps to maximize the operational efficiency of this hopper. The proven dredge pump has a very robust design and is specifically developed for passage of large obstacles and is therefore ideal for use on hopper dredges with this requirement. Both pumps are also equipped with Royal IHC's Curve® impellers, a patented design, offering the highest level of efficiency and durability.

The environmental impact of the new hopper dredge is reduced by the patented Plumigator® overflow, which reduces the release of air under and around the vessel caused by the overflow discharge plume. In addition, Royal IHC's selected drag heads are also designed for both efficiency and interchangeability. All main equipment is designed with maximum efficiency to ensure continuous operation even under extreme conditions. The stringent requirements for the dredging vessel as part of the Ready Reserve Fleet demand this.

Diesel Electric Propulsion

The hopper dredge is equipped with a diesel-electric propulsion system that meets EPA Tier 4 and IMO Tier 3 standards. The set-up, consisting of 3 main generators, allows for maximum flexibility, optimal fuel consumption and operational safety in case of engine failure.

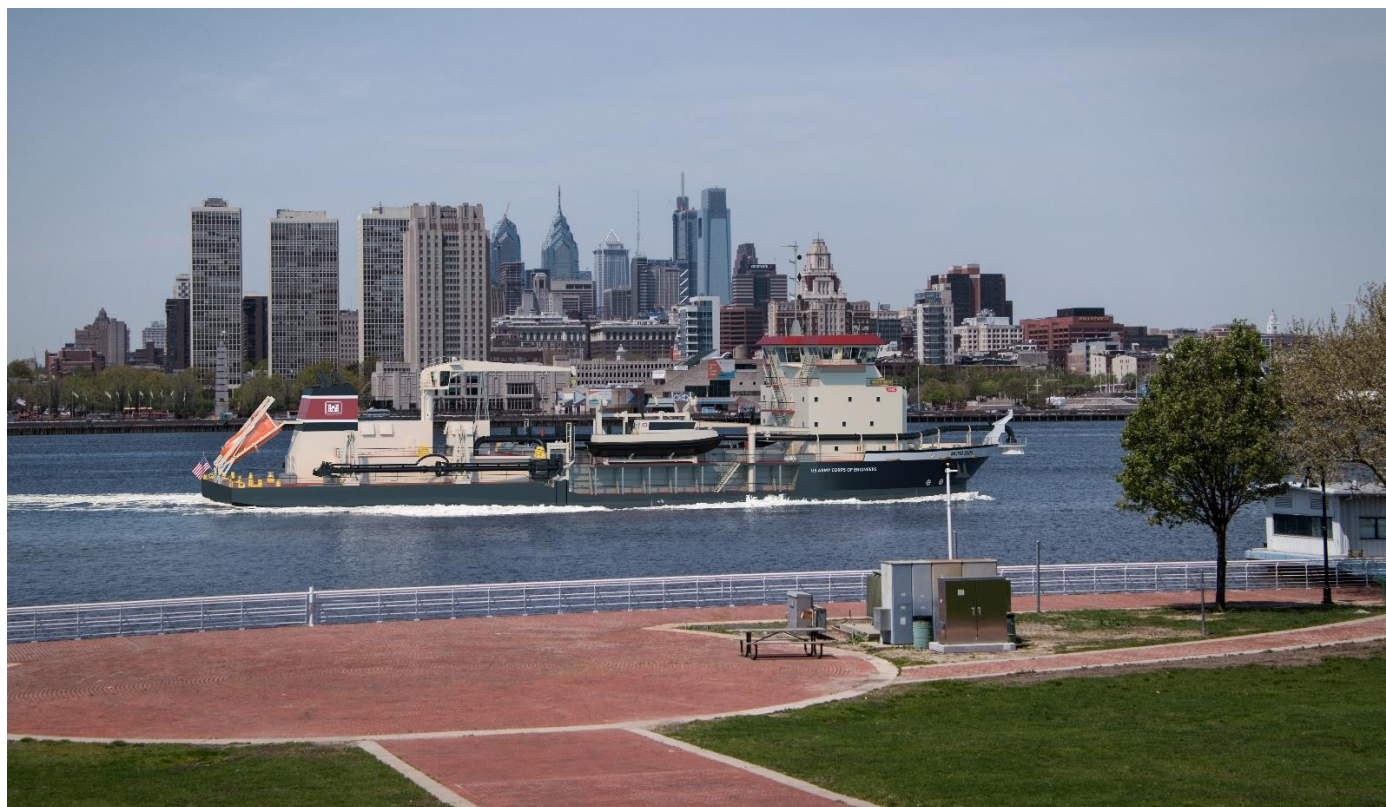
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Partnership

The collaboration between USACE, Eastern Shipbuilding Group and Royal IHC represents the best of both worlds. ESG is the most experienced builder of high spec TSHD's in the U.S., and Royal IHC brings an advanced customized design with state-of-the-art dredging equipment, a high degree of automation and environmental awareness. The medium-sized hopper dredge is a testament to innovation in the maritime industry.

Specifications

- Overall length (hull): 320. feet (97.54 meters)
- Hopper capacity: 6,000 cubic yards (4,600 cubic meters)
- Dredging depth: 65 feet (19.81 meter)
- Dragarms ID: 2 x 600 mm
- Total installed power: 7,770 kW
- Speed: 12.0 knots



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Note for the editors, not for publication:

Company profile

Royal IHC is a leading supplier of maritime technology and determined to play a leading role in making the maritime industry more efficient and sustainable.

Anchored in the rich Dutch maritime history, Royal IHC continues to build on its position as a leading provider of maritime technology and craftsmanship. With the right expertise on board and driven by innovation, Royal IHC offers a clear competitive advantage to its global clients in the dredging, offshore, mining and defence industries.

Through its equipment, ships and services, Royal IHC delivers reliable, integrated solutions to increase customers' operational efficiency and enable more sustainable solutions. In an ever-changing world, our goal remains to find the smartest and safest way forward for both our customers and Royal IHC employees.

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This press release can also be found on our website www.royalihc.com.