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CROWLEY MARITIME TESTING CATERPILLAR TECHNOLOGY FOR VESSEL MONITORING & DIAGNOSTICS

Houston, TX – Calling it “the next logical step in marine technology,” Crowley Maritime Corporation is installing Cat®Asset Intelligence software on one of its vessels.

The tugboat *Guide*, a ship-assist vessel operating out of Seattle, is being fitted with a custom vessel monitoring and diagnostics solution, which will keep watch over its main engines, generators, thrusters and critical systems 24/7. While completely automated from data capture through analysis and advisory recommendations for each piece of equipment, the Caterpillar Marine Asset Intelligence team will provide advisory and management reports including recommendations for individual equipment, as well as additional ways Crowley can save money and incrementally improve operations.

“It’s a robust system that does all the key monitoring and analysis we need,” said Bill Metcalf, Vice President of Strategic Engineering for Crowley Maritime. “We’re looking at it as the next level of management and optimization, and we want to see how it can help us increase reliability, safety and efficiency onboard our vessels.”

Unlike technologies that only monitor engine performance, Cat Asset Intelligence services provide monitoring and diagnostics for an entire vessel, including many of its critical operating systems. Dedicated Fleet Advisors then use the aggregated data and automated analytics to provide customers, such as Crowley, with actionable advisories to increase vessel productivity and improve equipment management.

“It’s very scalable and customizable. That’s one of the things we liked about this technology,” Metcalf said. “Plus, Cat Asset Intelligence will monitor and analyze anything—not just Cat products. That was a big selling point as we, like many others, have a wide variety of equipment that is critical to our success.”

With the software monitoring and analyzing *Guide*’s key systems, Crowley Maritime expects to see value in a number of areas.

“It can give us early warning of a catastrophic failure so we can schedule maintenance. It can save us time and money during the inspection process. It can help us keep our vessels and people out of harm’s way,” Metcalf said. “We’re also looking at fuel savings. That’s not likely to be a big issue on *Guide*, because of its size and application, but it could be huge for our larger vessels.”

On smaller vessels like *Guide*, which operate with a limited crew, Cat Asset Intelligence software’s remote monitoring capabilities play a critical role.

“*Guide* is a four-man boat, which means the chief engineer also serves as a deckhand when he’s on duty,” Metcalf said. “This technology will make his job easier. And as its accessible for our engineering staff, adding another set of eyes on the vessel, another level of comfort for the captain and operations team.”

Crowley Maritime has established a governance committee to analyze the software's performance onboard *Guide* and, if it proves valuable, hopes to expand vessel monitoring and diagnostics to other ships in its fleet.

"We consider Crowley Maritime an important partner, and we're working through the Cat Asset Intelligence journey together," said Leslie Bell-Friedel, Global Business Manager for Caterpillar Marine Asset Intelligence. "There's a real team mentality in place to ensure they get as much value from this technology as possible."

Metcalf is confident the addition of Cat Asset Intelligence technology will help Crowley Maritime maintain and enhance its reputation as a leader in the areas of safety, reliability and efficiency.

"Caterpillar has been a good partner with Crowley for many years, and they've been at this for a long time," he said. "This process is in place in mines and factories. It's the next logical step in marine technology, and we want to be early adopters if it adds value."

About Crowley Maritime Corporation

Crowley Maritime Corporation is a U.S.-owned and -operated marine solutions, energy and logistics company providing services in domestic and international markets through six operating lines of business: Puerto Rico liner services; International liner services; logistics; marine contract solutions; deep sea petroleum transportation; and petroleum transportation, distribution and sales in Alaska. More information is available at www.crowley.com.

About the Caterpillar Marine Asset Intelligence division

Caterpillar Marine Asset Intelligence provides technology-enabled services and solutions to customers using data analytics and expert advisory services to predict and avoid equipment failures, reduce fuel and energy consumption, and optimize maintenance. Their innovative technology and service offering complements Cat® Marine products and technologies focused on providing the highest level of uptime and the lowest total operating cost. More information is available at www.cat.com/assetintel.

About the Caterpillar Marine division

Caterpillar Marine, with headquarters in Hamburg, Germany, groups all the marketing and service activities for Cat and MaK™ marine diesel, dual fuel, and gas power and propulsion systems within Caterpillar Inc. The organization provides premier power solutions in the medium- and high-speed segments with outputs from 93 to 16,800 kW in main propulsion and 10 to 16,100 kWe in marine generator sets, as well as a comprehensive portfolio of propulsion solutions. The sales and service network includes more than 2,100 dealer locations worldwide dedicated to supporting customers in ocean-going, commercial marine and pleasure craft wherever they are. More information is available at www.marine.cat.com or on Facebook (<http://www.facebook.com/caterpillarmarine>) and Twitter (@catmarineglobal).