



- **Massive Unique Lifting Equipment**

Design and build one-of-a-kind lifting equipment

When Wartsila Defense needed a massive, unique piece of lifting equipment built to rigid specifications in a tight timeframe for one of its customers, it turned to Fairbanks Morse for a solution.

The lifter that Wartsila sought was a single-purpose device intended to reduce the time and effort required to load and mount a unique, very large and very heavy component into a larger assembly. With decades of experience in designing and building very large engines for a wide variety of critical applications, the Fairbanks Morse Solutions Group leveraged its core competencies to develop a custom, quality response and successfully fabricate the one-of-a-kind device.

Before awarding the project, the Wartsila Defense team made a site visit to the Fairbanks Morse, Beloit, Wis. manufacturing facility to see first-hand, company capabilities for handling the project.

“We knew that Fairbanks Morse had the capability to handle and machine massive, heavy components because they build big engines,” said Bobby Hening, operations director for Wartsila Defense. “They also have an amazing five-axis milling machine, a high-quality team of engineers and a strong, dynamic workforce.”

Even so, there was a long list of tightly defined specifications for welding techniques and materials, surface cleaning and painting, etc., that had

to be matched exactly, and Wartsila needed to know if Fairbanks Morse was up to the challenge.

As a long-time supplier to the United States Navy and Coast, Guard, Fairbanks Morse has decades of experience adapting to, and meeting very rigid and highly specific project requirements. “They told us ‘This is what we do for a living,’” Hening recalled.

“Our welders are more than qualified for a project like this, said Shaun Fuller, director of business development for Fairbanks Morse, “so it was no problem to qualify and certify them for these particular specifications, which were related primarily to the materials to be used.”

Other requirements included designing and fabricating the custom weights necessary to test the device's ability to lift its unique load. Fairbanks Morse was also responsible for designing and executing the tightly defined test protocols. When the team determined that factory didn't have sufficient height or floor space to conduct the tests, they explored various options and determined that the only viable alternative was to erect and test the lifter outside of the building. There, working in Wisconsin's bitter winter weather, they tested the device to safely lift 150,000 lbs. (68,000 kg).

"We attended several progress meetings in Beloit with our customer," Heninger said. "That allowed them to see the effort that Fairbanks Morse put into this project. The customer was very impressed and felt that the project went very smoothly."

Fairbanks Morse also earned high marks for the way it handled the inevitable changes that could be expected when fabricating a unique, one-off piece of equipment.

"Fairbanks Morse was very successful in mitigating the cost increases and delays created by the changes," Heninger said, noting that despite the delays, Fairbanks Morse was able to complete and ship the lifter within the required time.

For more information, please visit [www.fairbanksmorsedefense.com](http://www.fairbanksmorsedefense.com) or email us at [FM.marketing@FMDefense.com](mailto:FM.marketing@FMDefense.com)

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*Bobby Heninger, Operations Director, Wartsila Defense*

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