

May 14, 2026

NS United Kaiun Kaisha, Ltd.

Kawasaki Heavy Industries, Ltd.

Launch of Joint Demonstration for Mooring Management Using a Tension Monitoring System for Mooring Line

NS United Kaiun Kaisha, Ltd. (Head Office: Chiyoda-ku, Tokyo; “NSU”) and Kawasaki Heavy Industries, Ltd. (Head Office: Minato-ku, Tokyo; “Kawasaki”) have launched a joint demonstration beginning April 27, 2026, aimed at improving and advancing the safety of mooring management* by installing Kawasaki’s Tension Monitoring System for Mooring Line (the “System”) on the bulk carrier “*SAKURA BRIGHT*” (DWT: 99,623 metric tons), operated by NSU.

The system that enables remote monitoring of the tension of mooring lines (ropes) used to secure a vessel to a berth, even from locations away from the mooring winch. It helps enhance on-site safety and improve operational efficiency. If excessive tension is applied to a mooring line due to sudden changes in weather or sea conditions and the line breaks, the resulting snap-back force can be extremely strong, potentially leading to a serious, life-threatening accident if it strikes nearby crew members or workers. In addition, because mooring line tension continually changes due to tides, wind, and cargo-handling operations, crew members must patrol the vessel’s deck every one to two hours—regardless of day or night and in all weather—to visually and audibly check the condition of the mooring lines. As a result, mooring line management places a significant burden on crew members.

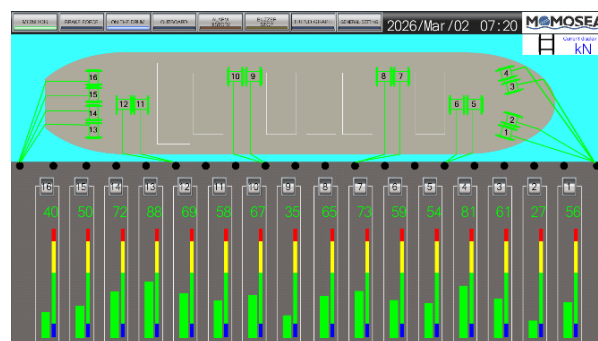
With the cooperation of domestic shipping companies, Kawasaki has conducted demonstration tests on coastal vessels operating on domestic routes in Japan to verify the basic performance of the system, and commercialized it in 2024. Through this joint demonstration, the companies aim to evaluate the system’s effectiveness on oceangoing vessels as well and advance it toward practical application. In particular, many Australian ports frequently called by NSU-operated vessels are characterized by significant fluctuations in mooring line tension due to tidal currents and changes in draft. The demonstration will therefore focus on converting mooring line tension management—previously reliant on crew experience—into data, and verifying whether it can be managed and operated accurately, with the goal of practical deployment.

Through these initiatives, NSU and Kawasaki aim to achieve safer vessel operations and reduce crew workload, thereby contributing to the more attractive and sustainable development of the maritime industry.

*Mooring management: Conducting mooring operations to secure a vessel to the berth so that it can safely remain in port, and monitoring/managing the condition of the mooring lines.



SAKURA BRIGHT used for the demonstration



Visualization of mooring line tension measurement data

< Reference Link >

Kawasaki Releases a Tension Monitoring System for Mooring Line for Its Safe Berthing/Unberthing Assist System (April. 08, 2024)

https://global.kawasaki.com/en/corp/newsroom/news/detail/?f=20240408_8227

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