June 8, 2026
Kawasaki Kisen Kaisha, Ltd.

"K" LINE Implements Electronic UMS Check System for Vessels Under Its Management

— Enhancing crew safety and reducing onboard workload —

Kawasaki Kisen Kaisha, Ltd. ("K" LINE) has decided to implement the Electronic UMS (Unattended Machinery Space) Check System, which was developed to collect and manage data from UMS checks conducted onboard vessels, throughout its managed fleet. This system was developed to reduce crew workload, increase safety and facilitate the effective utilization of operational data throughout vessels managed by "K" LINE. Following multiple operational trials conducted onboard vessels between 2024 and 2026, "K" LINE plans to begin the phased full-scale implementation of the system in around July 2026.

UMS checks are inspection and verification procedures conducted prior to conducting operations in UMS, such as in operational modes in which engine room is left unattended when navigating at night or while at berth. These checks include approximately 1,000 individual inspection items. To date, crew members, including engineers, have recorded each inspection item manually on paper. This paper-based process required the use of both hands, creating slip, trip and fall risks, particularly in unstable conditions such as on moving vessels or in areas with limited footing.

To address these challenges, "K" LINE has developed a system that enables inspection data to be recorded using smartphones and a dedicated application. By making one-handed data entry possible, crew members can use the other hand to support themselves. They can also stow the smartphone in a pocket while moving, enhancing onboard safety by enabling them to keep both hands free. Additionally, the elimination of paper records makes it possible to reduce printing and storage costs, eases the administrative workload, and reduces "K" LINE's environmental impact.

Previously, inspection data for each vessel was stored on paper. Using the system, the data can be centrally collected and stored long term. This facilitates the continuous monitoring of equipment conditions, helping to prevent the overlooking of abnormalities and enabling their early detection. In the future, "K" LINE aims to leverage AI to analyze the accumulated data and further enhance its proactive and systematic management of safety.

This initiative is an important first step toward establishing a foundation for the effective utilization of vessel data going forward. "K" LINE will continue to proactively adopt the latest digital technologies to further enhance safety and reduce crew workload. By working seamlessly throughout both its ship and shore operations, "K" LINE will promote even higher standards for the safe operation of vessels while also striving to improve the quality of its transportation services and contribute to the conservation of the environment.

川崎汽船株式會社
ｻｽﾃﾅﾋﾞﾘﾃｨ・環境経営推進・IR・広報ｸﾞﾙｰﾌﾟ
KAWASAKI KISEN KAISHA, LTD.
Corporate Sustainability, Environment Management,
IR and Communication Group

Fig. 1 Electronic UMS Check System
(smartphone screen)

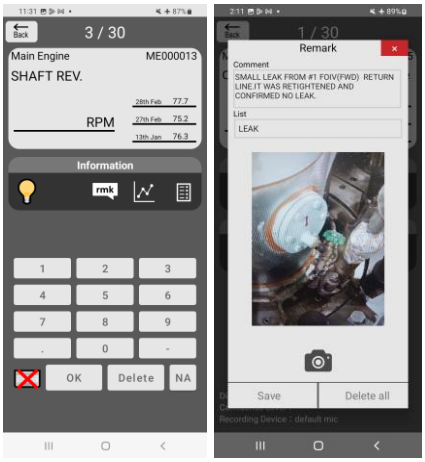

Fig. 2 Device configuration
(measurement smartphone and data management PC)