KAWASAKI HYDRAULIC DECK MACHINERY SERVICE NEWS

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SUBJECT : Recommended maintenance cycle for hydraulic equipment

The recommended maintenance cycle for hydraulic equipment of hydraulic deck machinery manufactured by Kawasaki is summarized in Table 1 in Attachment-1. As shown in Attachment-2, insufficient maintenance may lead to an emergency, such as equipment damage, marine pollution caused by oil leakage, loss of hydraulic power, or inability to moor. For preventive maintenance of deck machinery, it is recommended to carry out regular inspection, maintenance and replacement according to Table 1, and to have spare parts such as seal parts and finished products as needed. Please note that the delivery time and the work period required for maintenance and replacement of each part will be confirmed on a case-by-case basis, so please contact your sales agent for further details.

In addition, we recommend the following daily inspections and general inspections.

・Daily and periodic inspections based on the Maintenance Manual
The Deck Machinery Maintenance Manual published by Kawasaki provides detailed inspection points and maintenance methods for each winch and hydraulic equipment. Please check the Maintenance Manual and carry out daily and periodic inspections by ship's crew.
If you do not have the maintenance manual, please contact your sales agent.

・General inspections by Kawasaki engineer
We recommend general inspections of deck machinery by Kawasaki engineer. General inspections include visual inspections of the winch and hydraulic equipment, various measurements, and operational checks, and we will evaluate and report the condition of each piece of equipment. For more details, please contact your sales agent.

KAWASAKI HEAVY INDUSTRIES, LTD.
PRECISION MACHINERY BUSINESS DEVISION
CUSTOMER SERVICE DEPARTMENT

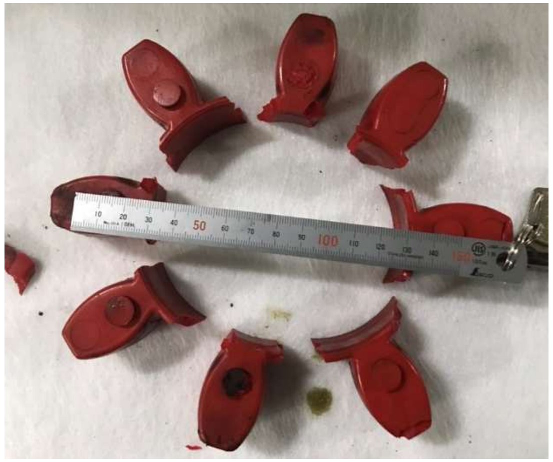
Table 1 Recommended maintenance cycle of hydraulic equipment for deck machinery

Equipment	Recommended maintenance cycle	Impact of insufficient maintenance
Hydraulic motor	Overhaul every 5 to 7 years	Oil leakage, Marine pollution, Inability to moor
Valve for hydraulic motor unit (Control valve, counterbalance valve, etc.)	Overhaul every 5 to 7 years	Oil leakage, Marine pollution, Inability to moor
Hydraulic pump	Overhaul every 5 to 7 years	Oil leakage, Loss of hydraulic power
Cylinder for Hydraulic brake and clutch	Overhaul every 5 to 7 years	Oil leakage, Marine pollution
Hyraulic hose	Replace every 5 to 7 years	Oil leakage, Burst
Spider for ROTEX coupling	Replace every 5 to 7 years	Loss of hydraulic power
Chain coupling	Replace every 10 years	Loss of hydraulic power
Solenoid Valve	Replace every 10 years	Oil leakage, Loss of hydraulic power
Zinc bar for oil cooler	Clean and inspect every 6 month	Water leakage, Mixing of moisture in oil, Damage of equipment
Filter element	Replace every 2 years	Contamination of oil, Damage of equipment

(Note) The recommended cycle in Table 1 is only a guide. The frequency of maintenance and replacement cycle depends on the cleanliness of the hydraulic oil and operating conditions. Therefore, it is recommended that daily inspections in accordance with the Maintenance Manual and general inspections by Kawasaki engineer.

Attachment-2 No. NO-25-005E

Example of the trouble of hydraulic equipment for deck machinery

 Breakage of cross coupling for hydraulic motor	 Oil leakage from brake cylinder	 Oil leakage from solenoid valve
 Oil leakage from hydraulic pump (Screw type)	 Oil leakage from hydraulic pump (Axial piston type)	 Breakage of spider for ROTEX coupling