Sjøfartsdirektoratet
Norwegian Maritime Authority

Safety notice 01/2021

Date: 30.06.2021
File no: 2021/97263
Inquires to: AAA

Leaks in hydraulic hoses-, couplings and in hydraulic cylinders

Background

The Norwegian Maritime Authority regularly receives incident reports related to hose ruptures, hose coupling ruptures, and internal leaks within hydraulic cylinders in connection with vehicle ramps, lifting bows, bow ports/visors etc on ferries.

A hose rupture or a cylinder malfunction may cause hydraulic oil pollution to the sea, injuries to personnel and cargo, (passenger and vehicles), and production downtime.

An internal leak within a hydraulic cylinder may cause the cylinder to lower under constant load. In cases where this movement is minor, it may be difficult to detect. Even minor internal leaks may lead to a break down of the equipment, (port, visor, landing platform), causing possible dangerous situations to personnel, cargo and equipment in the proximity of the malfunctioning equipment.

Action

NMA recommend that Ship owners in co-operation with equipment suppliers revise the control and maintenance routines related to hydraulic hoses and cylinders.

In order to avoid or reduce pollution of hydraulic oil to the sea in the event of a rupture, installation of drip trays can be a practical solution and may therefore be considered.

If internal leaks within cylinders are discovered, these shall, in co-operation with the equipment supplier, be corrected and corrective measures should be implemented.

On ships were bow ports/visors are not mechanically secured in the open position, the Ship owner should, in consultation with equipment supplier, evaluate if the doors/ports/visors can be parked in open position for a longer period, only secured with the operating cylinders.

Rule references

1. Regulation 1. July 2014 No. 1072 on construction of ships
2. Regulation 28. March 2000 No. 305 on surveys, construction and equipment of passenger ships engaged on domestic voyages

Lars Alvestad
Acting Director General of Shipping and Navigation

Håvard Gåseidnes
Acting Head of Department

This document has been electronically approved and signed.