

SUMMARY

On 4 April 2018, the fire alarm went off on deck 1, i.e. the lowest deck of the cargo hold on the car and truck carrier MIGNON. The vessel was sailing in the South China Sea off the Philippines, having departed ports in Japan and South Korea on the way towards Europe. The vessel was nearly fully loaded with different new vehicles and used passenger cars.

A search team led by the chief engineer was quickly able to identify a fire among the used cars on deck 1. The chief engineer made the decision to activate the CO₂ fire suppression system.

The investigation shows that the actual activation of the fire suppression system was delayed by approximately five minutes due to unclear instructions. Once the system had been activated, the fire could be extinguished. SHK has made the assessment that if the activation of the fire suppression system had been further delayed, there would have been a risk of the fire becoming uncontrollable and of the extinguishing operation failing. It cannot be ruled out that such a scenario could have entailed serious danger to the crew and a total loss of the vessel.

The fire caused fire or smoke damage to a large number of cars, as well as damage to decks 1, 2 and 3.

The investigation shows that the fire was probably caused by a short circuit in the starting motor of a used passenger car. The fire had then spread to combustible material in the car's engine compartment and then to the passenger compartment and on to other cars and parts of the ship's structure.

Contributing factors that allowed the fire to spread included the cars being loaded close together and the car windows on the driver's side being rolled down.

Safety Recommendations

Following the incident, the shipping company has installed a new central fire alarm control panel. Furthermore, a new instruction for the fire suppression system is being developed in collaboration with the manufacturer. Work to review emergency checklists, including procedures to call for outside help, has also been initiated. In addition, procedures have been introduced to ensure that the negative pole of used car is always disconnected.

SHK therefore refrains from issuing any recommendations in these regards.

Wallenius Marine AB is recommended to:

- Reduce the risk of fire in vehicles being transported by taking fire pre-vention measures based on identified fire risks for each type of vehicle. See section 3.3.1. (*RS 2019:02 R1*)
- Develop procedures for loading of vehicles which allow the windows on the vehicles to be kept closed, in order to limit the spread of fire. See section 3.3.2. (*RS 2019:02 R2*)
- Complete the work that has been initiated to improve the search team routines, set limits for what risks the team members are allowed to take, and provide adequate training for the team, so that its members are able to identify risks and determine a suitable protection level before taking action. See section 3.2.2. (*RS 2019:03 R3*)

The Swedish Transport Agency is recommended to:

- Advocate internationally for inspections in conjunction with loading of used vehicles in all the world's ports. See section 3.3.1.
(RS 2019:04 R4)