

Ref : DMA/AIFI/96/C 862

Date: 15/01/2018

Dear captain;
Good Day

Please find the attached informative document titled "Engine Room Fire", for your kind attention and necessary precaution measures.

You are requested to confirm receipt , discuss the contents in the next consolidated meeting on board and keep a copy in the DA-11 file .

Best Regards,

Capt. M.A.Abrishami

Accident Investigation / Fleet Inspection Expert Department of Maritime Affairs ROD Ship Management Co.

Dept. Tel No. : +98-21-26100357

Dept. Fax No.: +98-21-26100356

Direct Tel No.: +98-21-23843207

Please reply to dma@sealeaders.com

(Note: This e-mail has been sent as BCC <blind carbon copy to : All R.O.D.-SMC Vessels, to eliminate the lengthy list that would result if this e-mail is printed)

Engine Room Fire Burns for 12 Hours

A bulk carrier was being loaded when the ship's fire detection system activated. Soon after, fire alarms began sounding throughout the ship and many (though not all) of the accommodation fire doors closed automatically. The chief engineer, who was in the engine control room (ECR), went to investigate and saw smoke and flames coming from the generator fiat. He made an unsuccessful attempt to extinguish the fire using a portable fire extinguisher, then returned to the ECR and phoned the bridge, confirming there was a fire in the engine room. Shore-side assistance was called. By this time, thick black smoke was building up quickly in the accommodation area.



An announcement was made over the ship's PA system; all crew members were directed to their muster stations. Some duty engine room crew evacuated the engine room via the lift while others used the stairs. Once most of the engine room ventilation dampers were closed the CO2 fixed fire suppression system was activated. However, a number of mushroom ventilators and dampers could not be fully closed because the closing mechanisms were difficult or impossible to operate. Consequently, the engine room was not effectively isolated. Smoke continued to billow from the openings and air entering the engine room sustained the fire.

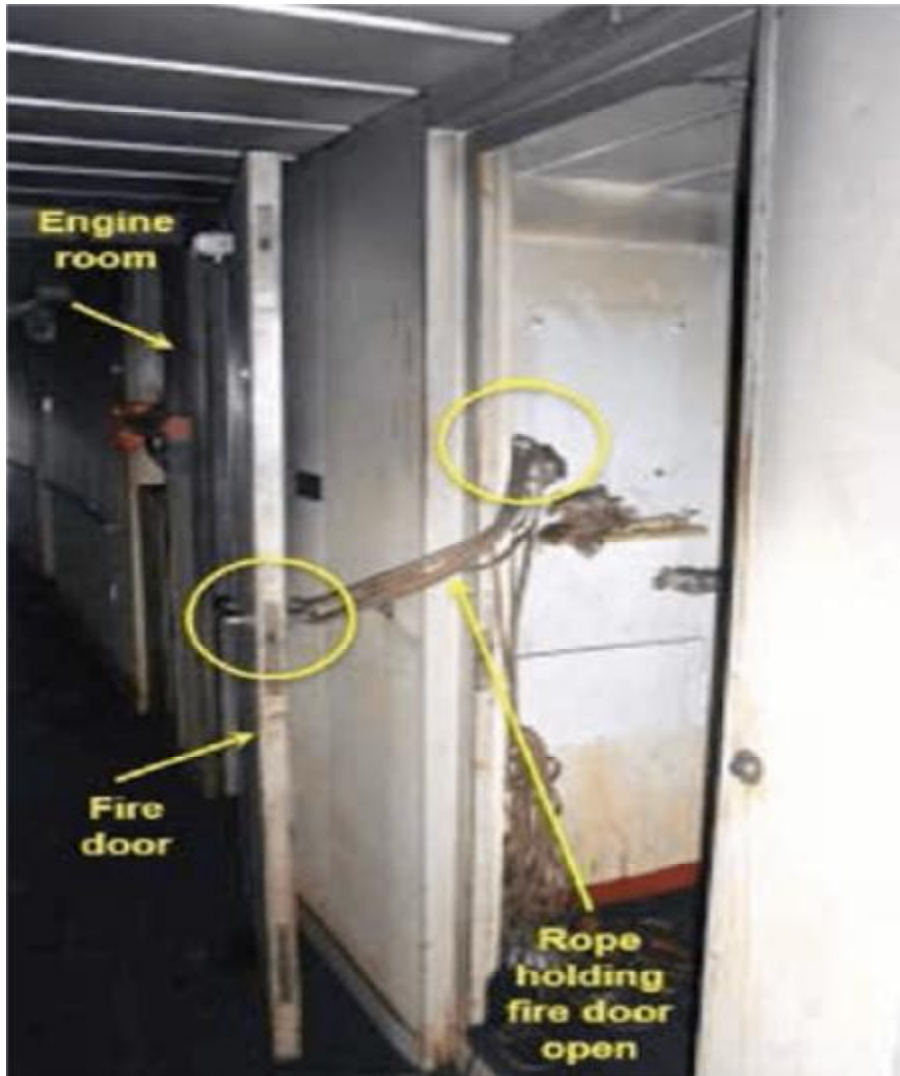
It was later discovered that the CO2 gas was not fully released due to multiple failings linked to maintenance and testing of this equipment. Because the engine room was not effectively sealed the fire continued for about 12 hours until it burnt itself out. The fire was caused by fuel oil spraying from a generator on to a hot surface. A fuel oil pressure gauge compression fitting on the generator had failed due to a less than adequate repair.

Some of the other findings and safety issues of the official report were as follows:

- A number of the vessel's engine room fire doors were held open by wire and/or rope. The open doors allowed the smoke to spread across the engine room and into the accommodation spaces.

- The maintenance of the opening and dosing arrangements for the vessel's engine room fire dampers, ventilators, and other openings was inadequate. Several of them could not be closed, making it impossible to seal the engine room to contain and suppress the fire.

- The CO2 gas fixed fire suppression system for the engine room was not fully operational. The multiple failures of the system at the time of the fire were not consistent with proper maintenance and testing.



Lessons learned:

- The fixed fire suppression system is an essential safety element of your vessel, therefore it shall be ensured that it is properly tested and maintained
- All dampers, openings and mushroom ventilators shall be checked on regular basis to ensure their proper status
- Fire doors shall not be kept open using ropes
- Emergency drills shall be held regularly and the relevant procedures shall be explained/exercised in full detail