

Marine Safety Flash



A17-03 (12th June 2017)

Fire in Engine Room

Incident Overview

Whilst conducting routine running of the engine driven fire pump, the engine shutdown unexpectedly.

The Engineer and GPH attended to investigate and observed wispy white smoke and small orange flames around the turbo exhaust manifold lagging.

They quickly used a nearby portable extinguisher to extinguish the smoke/fire.



Key Findings

- Engine shut-down on high coolant temperature (approx. 105 °C). A hot spot was created on the exhaust manifold causing the surrounding dust and oily grime to smoulder and then ignite underneath the lagging.
- Air trapped in the seawater side of the cooling system on this engine lead to cavitation and inefficient cooling.
- A build-up of grime, dust, etc. around the manifold provided sufficient fuel to convert the high temperatures into a fire.
- Although damage was superficial and minimal, there was obvious potential for a larger fire.



Recommendations

- Raising general awareness of this incident and causal factors through a Safety Flash.
- PMS work instruction for similar tasks amended to include close monitoring by Engineer during initial start-up and operation of such equipment.
- During next Safety Area Inspection, pay particular attention to greasy, oily grime build-up around machinery spaces, particularly near high temp areas such as exhaust manifolds as well as a focus on general engine room house-keeping.