

# Safety Alert

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**Subject: Engine Damage After Routine Maintenance**

## What Happened / Narrative

Recently one of our members vessels maneuvered alongside an offshore installation in DP mode.

While alongside, an Engine Room alarm sounded, followed by a phone call from the 2nd Engineer to the bridge team reporting that it was necessary to stop Port Side Main Engine due to a high temperature alarm.

Cargo operations were stopped, and the vessel moved to a safe location before the engine was stopped.

## Why Did it Happen / Cause

Upon inspection damage was found in a valve gear assembly of a cylinder.

Investigation showed that 86 running hours before the incident, valve adjustments had been carried out. When removing the cylinder cover small metal particles and partial destruction of the exhaust valve tappet tip was found.

The evidence available indicated that the locking nut of the adjusting screw from the exhaust rocker arm (that regulates the clearance of the exhaust valve) had become loose. The most likely cause of this is that when reassembling, the locking nut had not been tightened as per the manufacturer's requirements.

## Corrective Actions Taken / Recommendations

- After maintenance always carefully (double) check that all parts are properly (re-)assembled
- Always check torque using a torque wrench as per manufacturers manual

Whilst alongside the installation the vessel was positioned and set-up in accordance with operators' requirements and Guidelines for Offshore Marine Operations (GOMO) which minimised any risk to the installation.

## Photographs / Supporting Information



Picture showing rocker arm adjusting screw with locking nut removed / dismantled



Picture showing partial destruction of the exhaust valve tappet tip, showing also the valve roto cap.

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