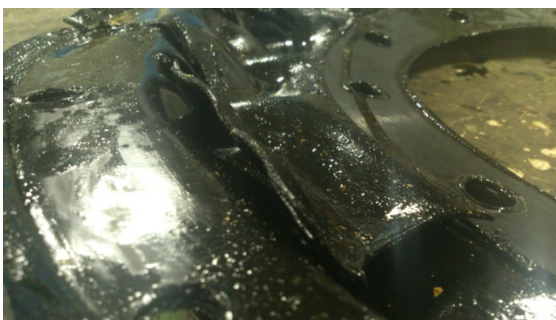
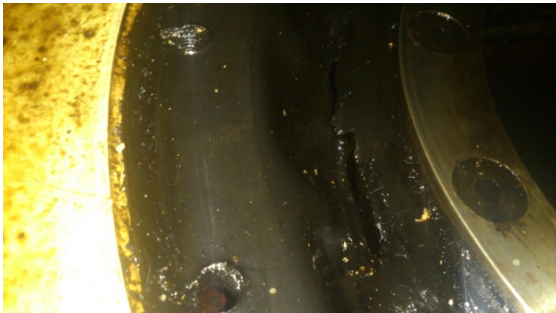


Water ingress into Main engine lube oil sump tank.

During one of the inspections we have been witnesses of a serious operational accident onboard of a cargo vessel.

The main engine circulating oil system was heavily contaminated by water during the port stay. The source of water ingress into lube oil system was damaged water hose of purifier. Around ten tons of water, which accumulated on the bilge deck under the main engine, was lost through that hose.

The series of events, such as damaged water hose, defective water level switch in bilge well under main engine flywheel, and damaged rubber diaphragms between the main engine crankcase and the sump tank, caused serious contamination of circulating oil by water. As a result, the vessel could not leave the port until the problem was fixed. The main engine lube oil outlets rubber diaphragms were replaced according to Maker's recommendations, lube oil in sump tank was exchanged by fresh one, and the functionality of level switch was restored.



The observation of engine room documentations has shown that:

- Working condition of level switches in the ER bilge wells was not checked regularly;
- Condition of ME LO outlets rubber diaphragms was not checked since the delivery of the vessel. The total amount of engine running hours is 101 156, therefore the rubber diaphragms had to be changed three times according to Maker's advice to do it after each 32 000 hours of operation.



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- The crew members were not adequately familiar with engine construction and Maker's recommendations.

Service letters, related to MAN engines, are situated on the website of MAN or could be requested from the technical department of company. The recommendations about the accident described above can be found in the service letter SL08-492.

Summary:

To avoid operational losses (demurrage, expenses related to lube oil cost) the following actions must be considered as vital:

- Weekly inspection and testing of level alarms in the engine room bilge wells;
- Inclusion of all necessary inspections into planned maintenance system which has to be implemented onboard of each vessel;
- Regular training for engine room staff.

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