Action code: WHEN CONVENIENT

Alpha Lubricator

Service Experience

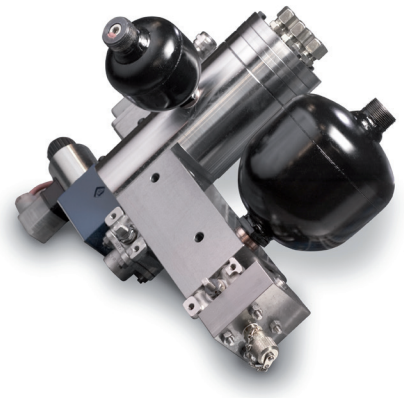
SL2016-632/AAB
November 2016

Concerns

Owners and operators of MAN B&W two-stroke marine diesel engines.
Type: MC/MC-C

Summary

The service letter adresses overhaul strategy, service issues and introduces service kits for the Alpha lubrication system.



Dear Sirs

Now that Alpha lubrication systems have been in service for more than a decade, we have gained sufficient service feedback to outline a safe and economically sound approach to an overhaul strategy of Alpha Lubricators in service.

This service letter applies to MAN B&W two-stroke marine diesel engines of the MC/MC-C type.

Furthermore, the aim of the service letter is to address the service issues that have come to our attention, as well as to introduce service kits for the Alpha lubrication system.

Yours faithfully

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Overhaul and Maintenance Strategy

Based on our service experience and our guideline for overhaul intervals, the following parts must be replaced every 5 years or 32,000 R/H to ensure optimal and trouble-free operation.

Lubricator:

a) Accumulators
b) Solenoid valves
c) Non-return valves
d) Feedback sensors

Items a) to d) are included in the service kit for the Alpha lubricator.

e) Sealings and O-rings

In the maintenance kit for the Alpha lubricator.

Pump station:

f) Filter inserts
g) Coupling spiders

Items f) and g) are included in the lubricator pump station sevice kit.

We have yet to observe and conclude on issues with wear of moving parts such as actuation or delivery pistons under normal service conditions. Exchanging the above parts should ensure trouble-free operation and dosing of the correct lubrication amount based on the provided set point.

Note that lack of maintenance may result in low or missing accumulator pressure, worn solenoid valves as well as defective non-return valves, which all may cause excessive lubrication above the setpoint. This can be avoided by using the recommended overhaul and maintenance strategy.

We have now created maintenance and service kits on the basis of the feedback and service experience, containing all the necessary parts as listed above. These kits are available through our spare-part department.

For a quotation on the kits, please contact primeserv-cph@mandieselturbo.com and state vessel IMO no. and part numbers of the lubricator and pump station.

Fig. 1: Service and maintenance kit

Fig. 2a: Defective feedback sensor

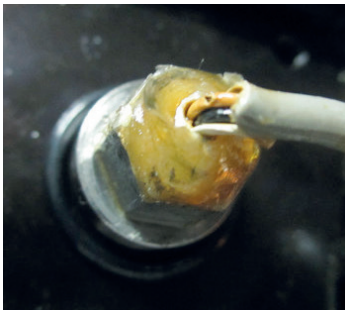

Fig. 2b: Defective feedback sensor

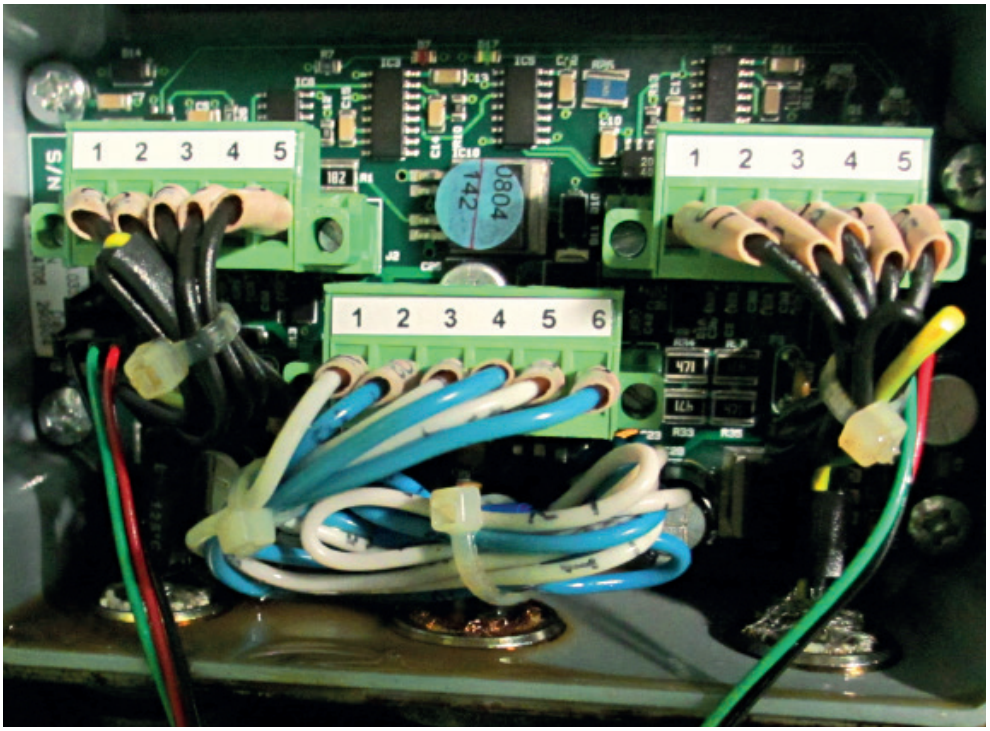

Fig. 2c: *Oil in junction box and PCB for feedback loop due to the defective sensor*

Service Experience

As a defective sensor may cause oil to enter the junction box and printed circuit boards (PCB), attention should be paid to the condition of the feedback sensor, see Figs. 2a and b showing a faulty feedback sensor.

It is recommended that the accumulators, as a minimum, are refilled every 2000 hours, and that the pressure drop across the filters in the pump station are monitored with intervals as stated in the standard manual.

Power Supply

Based on feedback from vessels with Alpha lubricator units in service, we have, in addition to the above, observed that a large part of the experienced difficulties, including damage to PCBs (i.e. the master control unit (MCU), backup control unit (BCU) and switch board unit (SBU)), can be ascribed to the fact that the 24V power supply to the Alpha lubricator system is made through the ships common supply.

Our standard and specified system includes a stand-alone 24 V supply with uninterruptable power supply (UPS), see Fig. 3. If installed, such a system will improve the margin to failures, false alarms and damage to PCBs contrary to an installation connected to the common 24 V supply system on board.

We recommend that the mentioned stand-alone power supply with UPS is installed when convenient. Technical questions should be submitted to: dt-cph@mandieselturbo.com.

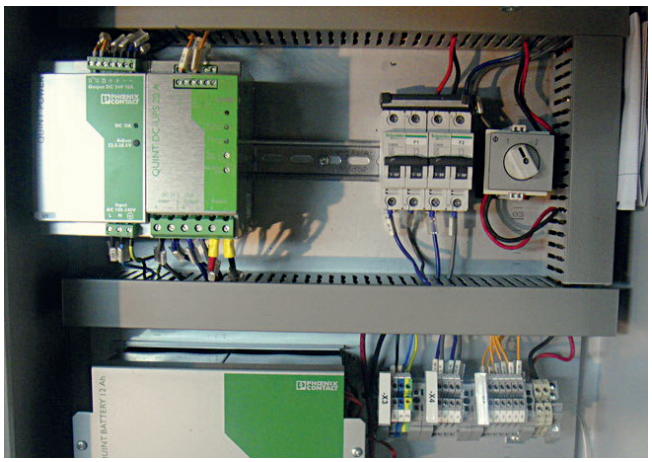

Fig. 3: *The 24 V stand-alone power supply with UPS*

Recommended Spare Parts

It is recommended to have the following spares available onboard at all times:

2 maintenance kits for Alpha lubricators
2 service kits for Alpha lubricators
1 service kit for Alpha lubricator pump station
2 pick-ups for backup control unit (BCU)