Dear Sirs

Occasionally, a high rate of lubricating oil consumption has been observed on the engine type L23/30H. MAN Diesel & Turbo has investigated the cause of the high lubricating oil consumption and found it to be the result of too high a lubricating oil level in the top cover. A too high lubrication oil level will cause too high lubricating oil drainage between valve spindles and valve guides.

In some cases, overhauls have revealed a large build-up of coke deposits on the valve cones and exhaust channels originating from the excessive flow of lubricating oil flowing from the valve guides.

A normal – and low level of lubricating oil in the top cover has been ensured by adding one extra drain hole in the roller guide draining to the oil sump. The existing roller guides can be modified by crew. A guideline for the modification is enclosed with this Service Letter. The new modified valve roller guides can be ordered from our PrimeServ sales organisation.

The investigation also revealed a second issue related to correct drainage of the lubricating oil from the top cover. In a few cases, incorrect dimensions of the push rods and protecting tube have restricted the oil flow. The outer diameter of the push rod must be 25 mm and the inner diameter of the protecting tube must be 30 mm. If the dimensions of the push rod and the protection pipe are incorrect, they must be replaced to obtain a correct drain flow from the top cover. The roller guide with two drain holes has been introduced as the standard on new engines since July 2014.

For the L23/30H type engine, two types of lube oil can be used; SAE30 and SAE40. However, thermostatic elements must be in accordance with the viscosity of the lube oil. For SAE30, a 60°C thermostatic lube oil element must be selected, and for SAE40, a 66°C thermostatic lube oil element must be selected. Incorrect thermostatic elements may also be the cause of drain problems from the top cover.

In case of any questions, please do not hesitate to contact the Operation Department in Holeby at LEO9-hol@mandieselturbo.com

Yours faithfully

Mikael C. Jensen
Vice President
Engineering

Kjeld Lorentzen
Superintendent
Operation Department

Encl.
Modification of valve roller guide
L23/30H

Kjeld Lorentzen
LEO9
Holeby, December 2014
Modification of valve roller guide

- Dismantle the rocker arms
- Dismantle the push rods
- Dismantle the protection pipe for push rod
- Dismantle the flange for push rods
- Dismantle the roller guide for valve
Modification of valve roller guide

Dismantle the locking screw

Dismantle the pin and roller

Punch mark opposite side of the existing drain hole
Modification of valve roller guide

- Punch mark
- Align the roller guide
- Drill an 8-mm hole
Modification of valve roller guide

New drain hole

Clean the roller guide by air and diesel oil if required.
Modification of valve roller guide

Check for particles

Install the roller and pin

The key must be aligned according to roller guide
Modification of valve roller guide

The locking screw must be installed and secured by means of Locktite 243.

- Install the roller guide in the housing
- Install the push rod pipe and protection pipe
- Install the rocker arms
- Adjust the valve clearance according to instruction manual.