

Action code: AT FIRST OPPORTUNITY

### IMO Tier II L23/30H

SL2015-610/HZJ  
December 2015

#### Concerns

Owners and operators of  
MAN four-stroke diesel engines.

Type:  
L23/30H-720/750 rpm, IMO Tier II

#### Summary

Increased level of black smoke at steady  
loads; most significant during operation  
at loads below 60%

Dear Sirs


When the engine type IMO Tier II L23/30H was introduced 1st January 2011, and after entering into operation, some owners have experienced an increased level of smoke at steady loads; most significant during operation at loads below 60%.

Smoke during load steps and start-up of engine is not considered part of increased smoke level.

In November 2013 Circular Letter CL008-2013/JIML/JEC was issued. However, it has come to our knowledge that not all owners of affected IMO Tier II compliant L23/30H engines have received this information. The Circular Letter CL008-2013/JIML/JEC is hereby expired and closed with the issue of this Service Letter SL SL2015-610/HZJ.

As not all owners have received the same information, we therefore ask for your attention in regard to problems with black smoke.

Yours faithfully

  
**Mikael C. Jensen**  
Vice President  
Engineering

  
**Henrik Jørgensen**  
Superintendent  
Operation

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Attachments:  
Work cards  
514-01.01 (02), 514-01.02 (02),  
514-01.03 (02), 514-01.04 (02)  
Plates  
P51402-29, P51402-31, P51402-32





Owners, who have not received the issued Circular Letter CL008-2013/JIML/JEC, have the opportunity to order the parts free of charge until 30 June 2016.

There can be ordered one (1) pc. fuel nozzle for each unit and one (1) pc. turbocharger nozzle ring for each turbocharger of the affected IMO Tier II compliant L23/30H engine.

Delivery terms: EX Works Frederikshavn.

For more information about which components that need to be changed on your specific engine, you are welcome to contact our Operation Department on e-mail:

[LEO7-HOL@mandieselturbo.com](mailto:LEO7-HOL@mandieselturbo.com)

To rectify if change of fuel nozzle and turbocharger nozzle ring is recommended, following information are needed:

- Name of vessel.
- Vessel IMO No.
- Engine type.
- Engine serial No.
- Engine builder.
- Fuel equipment maker.
- Turbocharger type and serial No.

Black smoke is most noticeable on the five-cylinder version of the IMO Tier II compliant L23/30H engine, where we have found it necessary to upgrade the turbocharger to a new specification to ensure the required air volume and pressure for the combustion cycle.

The engines may have been delivered with 10-hole fuel nozzles; a setup that had to be changed to 8-hole fuel nozzles, as the 10-hole nozzles resulted in a too low injection intensity at 720/750 rpm causing smoke. The problem is, however, not isolated to the five-cylinder version of this engine type.

In case the forwarded information show that engine is not specified according to our updated specification, new fuel nozzles and turbocharger nozzle ring will be supplied by MAN Diesel & Turbo.

After 30 June 2016 the affected parts can be ordered through our PrimeServ organisation by contacting our PrimeServ on e-mail: [PrimeServ-Hol@mandieselturbo.com](mailto:PrimeServ-Hol@mandieselturbo.com)

Exchange of the recommended parts is therefore to be changed by the crew at first opportunity or during normal maintenance work.

Please be advised that opening pressure of new fuel valve (8-hole nozzle) is 320 bar.

Please be advised that if turbocharger nozzle ring is changed the name plate has to be changed in regard to this change. Name plate will be delivered with the turbocharger nozzle ring.

As a change of these parts will affect the technical file of the engine, an amendment has to be issued for your vessel. MAN Diesel & Turbo will deliver this document to your classification society.