

Action code: **WHEN CONVENIENT**

## Inspection Inside Cylinder Liners

Engine types: 90-98MC/MC-C, ME/ME-C and ME-S

SL09-521/NJC  
December 2009

### Concerns

Owners and operators of MAN B&W large bore two-stroke marine and stationary diesel engines.

### Summary

Exhaust valve hole safety ring allows cylinder liner access without disassembling the cylinder cover.

Dear Sirs

Based on investigations and re-evaluation of MAN Diesel safety procedures, we are re-introducing the acceptance of accessing the cylinder liner through the exhaust valve hole without removing the cylinder cover on 90-98 cm bore engines. Reference is made to SL07/488/PMN.

MAN Diesel has developed a safety ring for this purpose that can be ordered from our PrimeServ organisation. Access through the exhaust valve hole is allowed when applying the safety ring and following the safety instructions described in this service letter.

Yours faithfully



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### Safety Conditions for Accessing Cylinder Liner

The following safety conditions must be fulfilled before an inspector is allowed to enter the cylinder liner without removing the cylinder cover:

#### Equipment

1. Mount the safety ring in the exhaust valve hole of the cylinder cover, thereby eliminating the risk of hot cooling water potentially entering the cylinder liner, see Fig. 1.
2. The engine room crane and turning gear must be available and fully functional at the specific cylinder unit.
3. A suitable ladder (max. 420 mm wide) must be available outside the cylinder liner to allow evacuation of the inspector, e.g. in the event of a power failure, or if the engine room crane should break down.

#### Personnel

4. A safety assistant must be stationed outside the cylinder liner at all times and be in contact with the inspector throughout the operation.
5. The inspector must wear an approved safety harness, which is connected to the engine room crane. The safety assistant can then lift his partner out of the cylinder liner in case of exhaustion.
6. The inspector must wear suitable clothing and safety shoes in order to avoid burn injuries caused by skin contact with the hot surfaces.

#### Operation

7. **No mechanical work** is permitted in the cylinder liner without removing the cylinder cover. **Only inspection, photography and wear measuring** are allowed.
8. The inspector is to stand on top of the piston and descent/ascent by means of the turning gear. The turning gear can be operated by either the inspector himself or the safety assistant.

Furthermore, we refer to our basic safety guidelines. During work in an engine room it is essential to follow basic safety guidelines as outlined in our Operation manual, section 701-01, Safety Precautions and our Maintenance manual, section 900-2, General Safety Precautions.

Entering cylinder liners on engines with a bore **smaller than 90 cm** is **not** allowed without dismantling the cylinder cover.

MAN Diesel will specify the safety ring as an option on 90-98 bore engines ordered from January 2010.

The safety ring can be ordered via our PrimeServ dept. (e-mail: [PrimeServ-cph@mandiesel.com](mailto:PrimeServ-cph@mandiesel.com)):

K/S90MC/MC-C/ME/ME-C/-S:	Part no. 5183885-9
K98MC/ME/ME-C:	Part no. 5171859-4

Questions or comments regarding this SL should be directed to our Dept. LEE3 (e-mail: [lee3@mandiesel.com](mailto:lee3@mandiesel.com)).

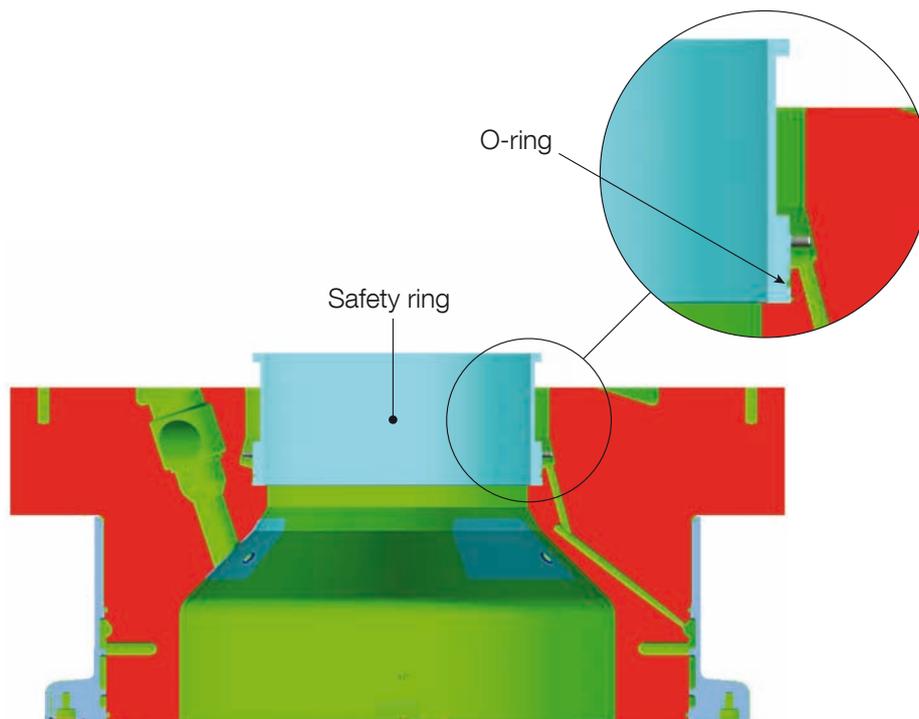


Fig. 1: Safety ring mounted in exhaust valve hole