

for MITSUI – MAN B&W engines, Introduction of Safety screen filter for control valve with FIVA / ELFI / ELVA		No.114	
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ENGINE TYPE	ME engine	DATE	2021/6/4

We are pleased to introduce the new “Safety screen filter”, which can be installed permanently to protect the control valve of the FIVA/ELFI/ELVA against foreign particles in the hydraulic oil line (between HPS (Hydraulic Power Supply) filter and control valve).

1. Function of Safety screen filter

FIVA/ELFI/ELVA valve is fixed on HCU (Hydraulic Cylinder Unit) and is controlled by an electronically controlled control valve. The FIVA/ELFI/ELVA valve controls fuel injection and exhaust valve activation by supplying hydraulic oil to the FO pump and exhaust valve actuator.

Therefore, fuel injection and exhaust valve activation will not work properly in case of control valve malfunction due to foreign particles flowing in hydraulic oil, etc.

Normally the HPS filter (mesh size: 6 μm) catches foreign particles. If Safety screen filter (mesh size: 100 μm) is installed between the FIVA/ELFI/ELVA valve and control valve, the risk of the control valve sticking can be reduced by catching foreign particles before the control valve. There is no influence on the engine performance by the applying the filter.

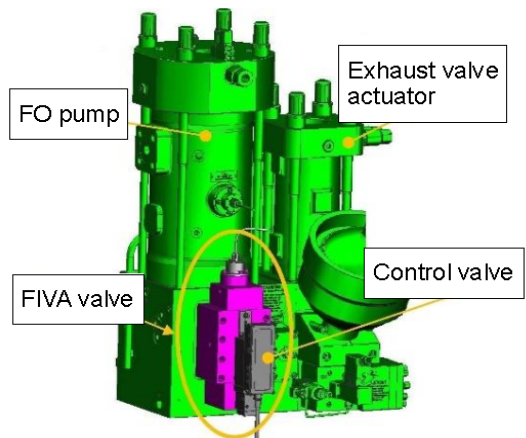


Fig.1 FIVA valve with Hydraulic Cylinder Unit

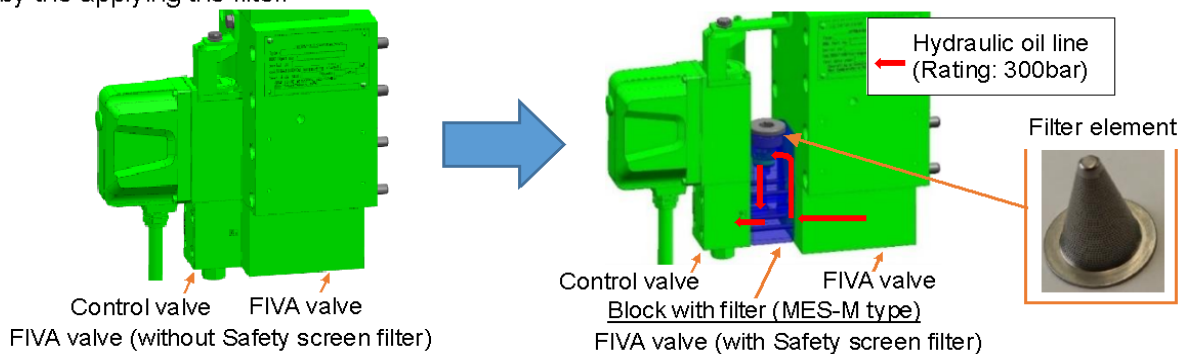


Fig.2 Image of Safety screen filter applying

PRIORITY

IMMEDIATELY <input type="checkbox"/>	AT FIRST OPPORTUNITY <input type="checkbox"/>	WHEN CONVENIENT <input checked="" type="checkbox"/>	OTHERS <input type="checkbox"/>
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2. Installation and supply of Safety screen filter

It is possible to retrofit Safety screen filter, regardless of specification of FIVA/ELFI/ELVA valve^{※1} without influence on the main engine performance.

The following parts will be supplied with the Safety screen filter for the existing FIVA/ELFI/ELVA valve onboard. (Refer to Fig.3)

- Block with filter (Block for filter・Filter element・Nut・Plug・O-ring)
- Bolts
- Flange
- Cleaning tool for filter element

It is possible for ship's crew to install Safety screen filter in accordance with the fitting manual included with the filter.

※1 Pipes, grating or cable way around FIVA/ELFI/ELVA valve could possibly interfere with the retrofit of the filter. Therefore, please contact us about the details for your vessel.

3. Maintenance of Safety screen filter

Inspection and cleaning of the filter is required every 6,000 running hours.

Please clean the Safety screen filter regularly. If the filter is clogged, fuel injection or exhaust valve activation may be adversely affected.

The filter element can be cleaned by compressed air and the cleaning tool.

After overhauling parts related to the HPS or hydraulic oil line, the Safety screen filter may catch foreign particles. In such case, please inspect and clean the filter before regular maintenance.

During regular maintenance, please check the appearance of filter element, and if any damage or deformation is found, please replace the filter element with a new one.

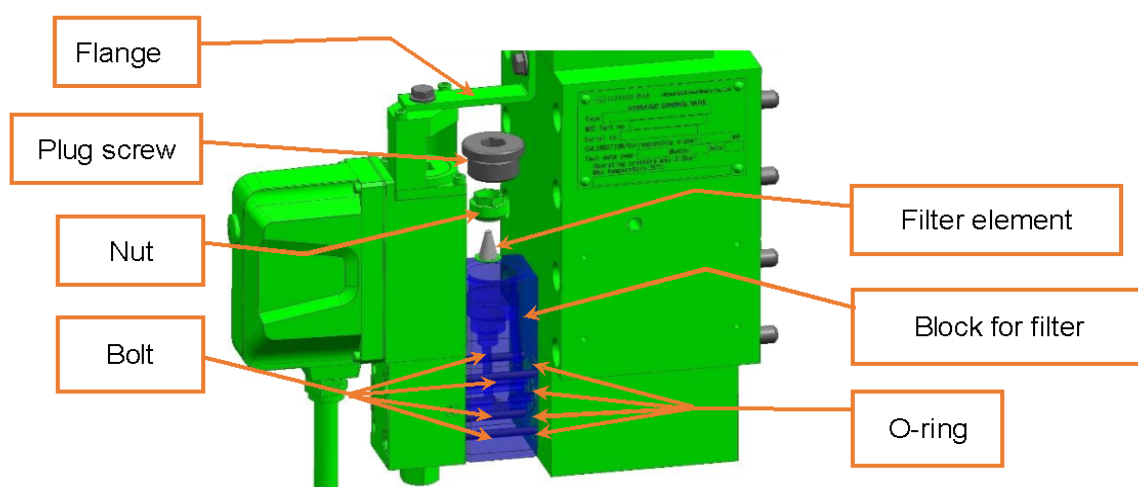


Fig.3 Component of Safety screen filter

4. Inquiry and purchase

Please contact your local sales representative.