

Throttle for Pressure Switch

M43 ; M43C

On the M 43 engines cooling water pressure and lubricating oil pressure are monitored by pressure switches at the following measuring points:

Measuring point 2103 Low cooling water pressure - engine stop

Measuring point 1106 Low lubricating oil pressure - engine stop

Measuring point 1104 Low lubricating oil pressure - start of standby pump

On **M43C engines** these pressure switches are installed on the central engine control stand. By means of the identification plate you can safely identify the pressure switches 2103, 1106, and 1104.



Identification plate with all engine measuring points

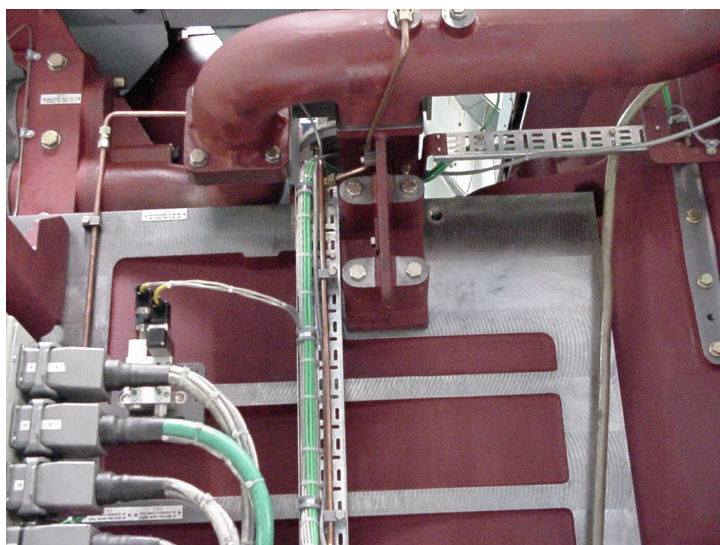
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On older **M43 engines** the pressure sensors are fitted decentrally on the engine.



Built-on group of lubricating oil pressure sensors 1106 and 1104



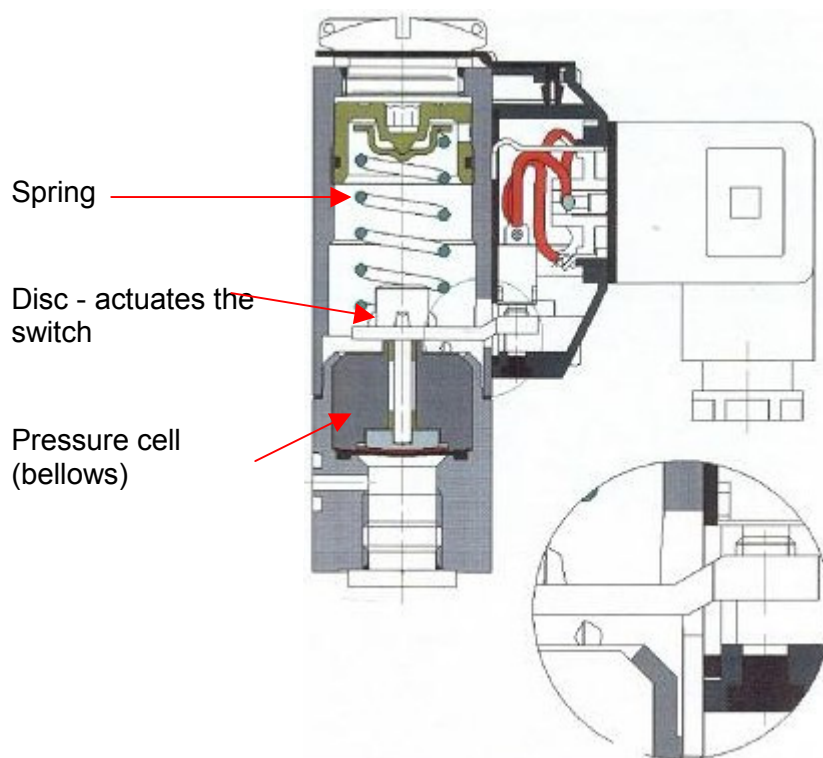
Built-on group of cooling water pressure sensor 2103

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Function of the pressure switch

The pressure switches include a pressure cell (bellows) that performs a stroke in the event of a pressure rise. According to the adjusted spring pressure the switch will then be actuated upon reaching this pressure.



Due to the mode of operation of the pressure pump and the geometry of the pipes (length and cross section) there will be different pressure impulses in the media system (cooling water and lubricating oil).

Depending on the severity and number of pressure impulses these may very quickly generate a high dynamic in the pressure cell (bellows). Due to the working strokes of the pressure bellows the material will be subject to an ageing process, which in turn may lead to malfunctions.

The ageing process is essentially determined by the severity of the pressure peaks in the respective system.

Service Information No. 05 / 07

Date : June 05, 2007

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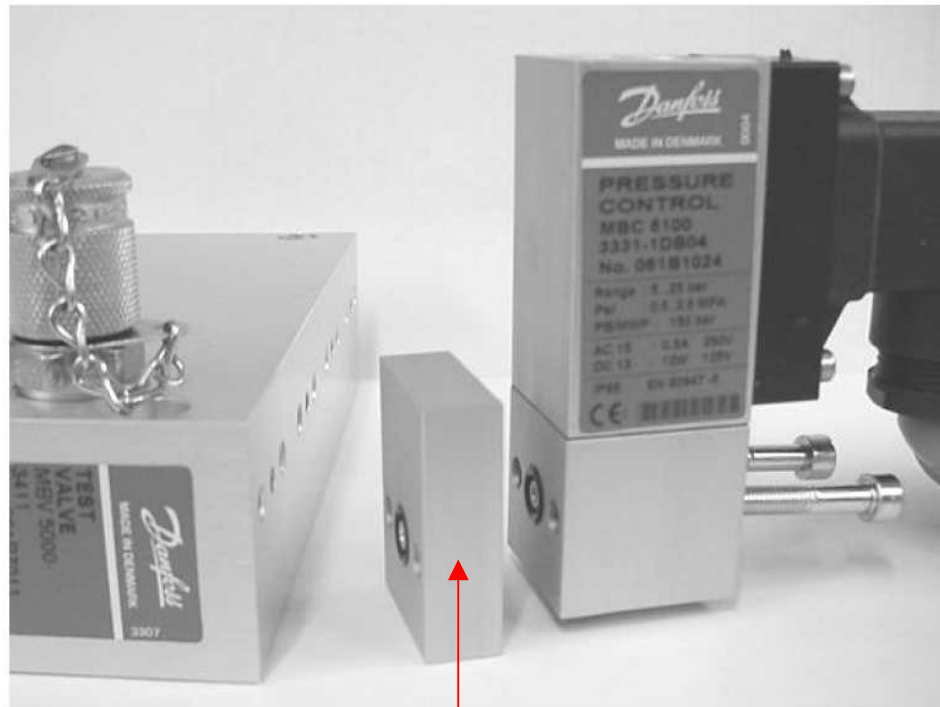
In order to remedy this problem we will, therefore, install a throttle plate that will considerably dampen the pressure impulses from the system. This will significantly increase the service life of the pressure switch.

This retrofit solution should also be replicated on engines already in service.

If your engine is still covered by warranty, your dealer will contact you and arrange for shipment of the respective parts kit.

However, in order to increase operational safety we recommend a retrofit also on the other engines in service. By end of September 2007 the required spare parts kits can be ordered at a special discount when reference is made to this Service Information. The kits will be available ex stock as from June 2007.

Installation of the throttle



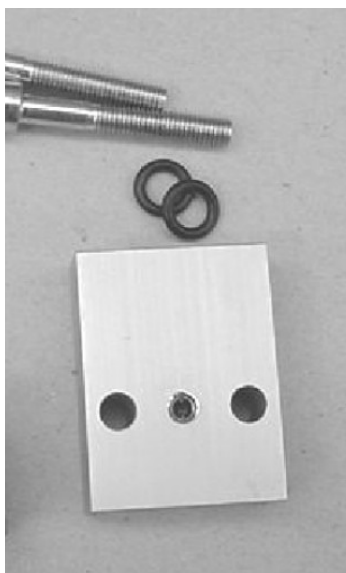
Throttle plate

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The spare parts kit includes all the material that is required to upgrade the 3 pressure switches. Please take the three throttle plates from the package and insert them between shut-off block and pressure switch. (see photo above)

Absolutely make sure to use the supplied screws and O-rings.



In order to avoid impairing the function of the media monitoring system, however, it is nevertheless required to replace the switches every three years.

If you have any further questions, please do not hesitate to contact your dealer.