



Service Letter

SL03-415/CSH
January 2003

60-98MC/MC-C Engines
Radial Type Starting Air Distributors
Action Code: WHEN CONVENIENT

Dear Sirs

The radial type starting air distributor was introduced for the large bore MC/MC-C engines in the early 1990s, and later for the medium bore MC/MC-C engines.

As impurities in the starting air, in a few cases, have caused starting air distributors of this type to fail, we take this opportunity to describe the nature of these few failures and, at the same time, state our recommendations for precautions to be taken to avoid such inconveniences.

Almost all the starting difficulties encountered have been caused by sticking of the piston valve slide, see, by way of example, Item 129 of the enclosed [Plate 90703-0086](#), which is for an S70MC-C engine.

Insufficient cleaning of pipes and air bottles before their installation on board may cause seizure and sticking of the piston valve slides. The foreign particles are gradually carried by the air, through the pipe system, ending up in the distributor, thus creating seizure and sticking of the piston valve slides.

In addition, we have experienced cases where a high air humidity level at the compressor air intake has created heavy condensation of water, which is carried with the air through the system, causing corrosion of the steel and iron components. The rust scales resulting from such corrosion have, when entering the distributor, also contributed to seizure and sticking of the piston valve slides.

In the cases experienced, the foreign particles entering the distributor have caused the coefficient of friction to increase, leading to seizure of the running surfaces between the liners (Items 130 and 274) and the piston valve slide (Item 129), and also between the cam follower of the piston valve slide (Item 129) and the running surface of the starting cam (Item 058). The seizures furthermore contribute to an increase of the friction, thus aggravating the situation. This increase in the frictional resistance has, in a few cases, become so high that the piston valve slide has become self-locking and caused the piston valve slide or the starting cam to break.

In order to improve the distributor's resistance to damage caused by the ingress of foreign particles from the air, the profile of the starting cam for 'ahead' has been slightly modified. The pitch of the 'ahead' cam has been reduced, thereby also reducing the guide and friction forces.

For plants that have suffered from problems with broken piston valve slides/damaged starting cams, it is recommended that the new modified starting cam is installed in connection with the replacement of damaged piston valve slides.

In addition to following the overhaul procedure for the starting air distributor (Instruction book, Volume II, Chapter 907-1), we also find it appropriate to extend the recommended inspections with the following points:

1. During port stays, when the engine is stopped, we recommend checking whether the piston valve slide (Item 129) and the liners (Items 130 and 274) have become seized. Check, with stopped engine, that the piston valve slide can be pushed up and down by hand just overcoming the force of the spring. If this is not possible, it is recommended that the piston valve slide (Item 129) and liners (Items 130 and 274) are disassembled for inspection.
2. When the distributor parts are assembled, the parts should be lubricated with Molybdenum Disulphide (MoS_2). The starting cam and the cam followers should be lubricated with grease containing MoS_2 .

When operating in areas with a high humidity level, it is recommended to check that the automatic venting valves are functioning properly, otherwise manual draining of condensate water from the air bottles is recommended.

Questions or comments regarding this SL should be directed to our Dept. 2300.

Yours faithfully

MAN B&W Diesel A/S



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Encl.