



Service Letter

No: SL88-244/UM
October 1988

L50-60-70MC/MCE
Starting Air Distributor

Dear Sirs,

With the introduction of the MC/MCE range of engines, the rotating type of starting air distributor was applied for the types mentioned above.

As this distributor type in some cases has caused manoeuvring and starting difficulties, we take this opportunity to describe the nature of these 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 wear of the closing disc arrangement (plate 90703-33, items 095, 117 and 166), causing the distributor to leak to such an extent that the venting system is pressurized. This, in turn, leads to a sluggish engine start or, in extreme cases, to starting failure.

The conditions causing the wear most probably originate from insufficient cleaning of pipes and air bottles before installation on board. The foreign particles are gradually carried with the air, through the pipe system, ending up in the distributor, thus creating wear on the moving parts.

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

In the cases experienced, the wear has mainly been concentrated around the closing disc arrangement; only in rare cases has wear been found between the reversing and distributor disc, items 249 and 129. (This wear pattern can be verified by checking the axial clearance - max. 2.5 mm - between bushing, item 715, and hub, item 703, when the shaft, item 213, is pressed towards aft).

Based upon the above, we stress the necessity of observing the 8000 hr "overhaul" intervals, as stated in the instruction books: "Checking and Maintenance Programme", Section 900-1, page 5.

Furthermore, it is recommended that the following spare parts are kept on board (see the enclosed instruction book plate No. 90703-33):

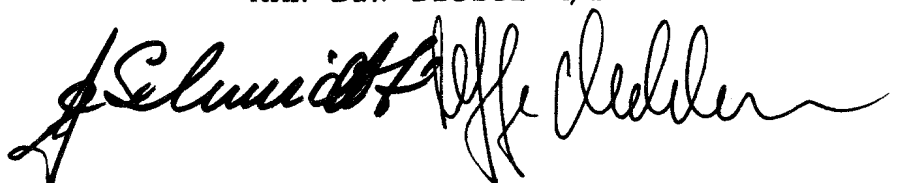
- Item 095 Flange
- Item 105 Ring
- Item 117 Stop disc
- Item 129 Distributor disc
- Item 166 Closing disc
- Item 237 Oil seal
- Item 250 O-ring
- Item 715 Bushing

Apart from following the procedure "Setting of starting air distributor" (Instruction book, volume II, Chapter 907-2), we also find it appropriate to extend the recommended inspection with the following points:

1. We recommend dismantling and inspection for wear of the following parts: Items 095, 105 and 166. Special attention should be paid to the inner diameter $\varnothing 114$ of flange, item 095, which should be smooth and not larger than $\varnothing 114 + 0.035$ mm, and diameter $\varnothing 92$ which should not be larger than $\varnothing 92 + 0.035$.
2. After dismantling the above-mentioned parts, the clearance between the outer diameter of distributor disc (item 129), and inner diameter of housing (item 345), should be measured with a feeler gauge at the bottom of the housing (nominal clearance 2 mm). The measurements are to be taken with tight and slack chain. If the difference between the measurements with tight and slack chain is 0.35 mm or more, the bushing (item 715), should be renewed since the measurements indicate too large wear of the bushing at the chain wheel end.
3. The diameter $\varnothing 92$ of distributor disc (item 129) should also be inspected and measured. If the diameter is smaller than $\varnothing 92 - 0.07$, the distributor disc should be renewed.

Yours faithfully,
MAN B&W Diesel A/S

Encl.





STARTING AIR DISTRIBUTOR

PLATE 90703-33

L60MC/MCE

