

MAN B&W Diesel AG



MARINE SERVICE JAROSZEWICZ
Ul. Bielanska 23

PL 70-703 Szczecin

Augsburg, 12.06.95
TMF Dr. Bergbauer
(0343/95)
call: 3514

Chocking of MAN B&W four-stroke engines
with EPY-resin

Dear Mr. Jaroszewicz,

following the discussions we had with you and Prof. Grudzinski and based on the documentation that has been handed over to us we can state that we have no objections to use EPY supporting chocks for our four-stroke engines in case of the following standard applications:

- rigidly mounted engines.
- chocking of mounts for MAN B&W direct resilient mounting system.

Chocking of steel spring plates for MAN B&W semi-resilient mounting system will only be allowed as soon as fatigue test results of the EPY material are available and have been checked by us.

Our approval of the EPY material depends on the approval of some of the most important classification societies. No investigations have been carried out by MAN B&W itself. The following conditions have to be observed:

- Mixing and processing of the cast resin has to be carried out by the manufacturer or its authorised representative.
- Pressure on chocks effected by engine weight is max. 0.7 N/mm^2 :
- Pressure by holding-down-bolts and engine weight together does not exceed 5.0 N/mm^2 .
- Maximum temperature permissible at the chocks during operation is 80 deg C .
- The arrangement of the epoxy resin chocks and the tension of the foundation bolts must comply with the requirements of MAN B&W.



- Four measuring pins per engine have to be arranged between engine landing and top-plate. Vertical distances and the pretension of the engine holding down bolts have to be reported on in regular intervals. In case there is any deterioration the crank web deflections have to be immediately checked and countermeasures to be taken in case the permissible limits are exceeded.
- A sign plate has to be fitted on the engine indicating the tightening torque of the holding-down bolts and/or data on which the bolt prestressing has been based, the date of pouring, the name of the firm responsible and the name of the cast resin.

The quality and physical properties of synthetic resin chocks depend largely on the following factors which are in the responsibility of Marine Service Jaroszewicz and the authorized representatives of MSJ.

- exotherm temperature in the chock during curing
- post-heating-procedure (if any) of the chocks
- ambient temperature and humidity
- thickness of the chocks
- pouring in one or in several layers
- changes in manufacture, formulation, mixing ratio and conditions of application

Design and construction of the engine foundation is not carried out by MAN B&W. MAN B&W are unable to accept any responsibility for the chocking of engines with synthetic resin. Processing, utilisation, special design and warranty remain the responsibility of MSJ and its authorized representatives. MAN B&W will not be responsible for any engine damage which is provably caused by improper chocking.

The approval may be at any time reconsidered in case of dissatisfactory service experience with your product "EPY" or non compliance to the approval conditions.

Kind regards

MAN B&W Diesel Aktiengesellschaft

A handwritten signature in black ink, appearing to read 'Man Jürgen Bergmann', written over the printed name of the company.