

MAN Energy Solutions, 2450 Copenhagen, Denmark

Bardahl de Mexico S.A. de C.V.
Eje 1 Norte # 16 Mz. 1
Parque Industrial Toluca 2000,
CP:50233
Toluca, Edo. de Mexico
Attn: Juan Guzman Vazquez

Copenhagen, 17 February 2020

EEEDF4/JUSV/CEN
Case no: [13157-2020]

No Objection Letter for cylinder oil Bardahl Naval Cylinder Oil, SAE 50, TBN 70 from Bardahl

Dear Mr Vazquez

MAN Energy Solutions
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info-cph@man-es.com
www.man-es.com

MAN Energy Solutions (MAN ES) has participated in the testing of the basic additive package which is part of Bardahl Naval Cylinder Oil, (70 BN, SAE 50), in 2005 according to our prevailing field testing procedure (the "Field Test"). The Field Test was performed on a 12K98MC-C MAN B&W engine and covered engine operations on high sulphur heavy fuel. The Field Test included more than 4000 service hours and inspections by MAN ES at the start and the end of the test. The first no objection letter (NOL) was issued in 2013 (17220-2013).

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MAN ES has evaluated data received in 2019 and the Field Test and found the performance of the Lube Oil acceptable. Different engine types and different engine operation conditions may require different cylinder lubrication feed rates and or oil type. Consequently, the result of this evaluation and Field Test cannot be held out as a general statement.

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MAN ES has No Objection to the usage of the Lube Oil in our MAN B&W two-stroke engine designs provided that the recommendations in our prevailing engine-type specific guidelines are followed.

FORWARDING & RECEIVING
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This No Objection is valid three years from date, that is until 17 February 2023. Before the period is ended, Bardahl can apply for a renewal of the No Objection.

Engine-type specific guidelines, engine-design, operation pattern, legislation and economic conditions all influence the lubrication in a direct or indirect way and they are all subjected to changes. As a consequence, MAN ES reserves the right to revise or withdraw the No Objection to the usage of the Lube Oil if the usage of the Lube Oil is deemed to not be applicable for all or certain engines types.

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Quality assurance and monitoring of product performance are important. We expect that Bardahl has processes in order to assure that the quality of the product is acceptable and suitable for its intended use.



As the Lube Oil is neither produced nor sold by MAN ES, MAN ES cannot be held responsible for any damage to the engine or engine components that may be caused by the use of the Lube Oil. Only the full and complete version of this No Objection Letter may be reproduced and/or displayed by the receiver.

Best regards,
MAN Energy Solutions

A handwritten signature in blue ink, appearing to read "Julia Svensson".

Julia Svensson
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