MAN Diesel



PetroChina Lubricant Company Beijing International Convention Center, 8th Floor. No. 8 Beichendong Road, Chaoyang District Beijing 100101 China

Att: Mr Zhai Yue Kui Head of Dalian Lube Oil R&D Institute

LDF4/DOJA/CEN/2122-2010

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No Objection Letter for cylinder oil: Blending onboard additive package PetroChina: RHY3532 and ExxonMobil Mobilgard 300 (system oil)

Dear Mr Zhai Yue Kui.

The PetroChina additive RHY3532 has been tested in combination with ExxonMobil system oil Mobilgard 300 for the Blending On-Board concept. The tested blend had a BN value of 70.

The field test of the combination RHY3532/Mobilgard 300 has been carried out in a MAN B&W Diesel 12K90MC engine with supervision of MAN Diesel and inspection of engine condition at the start and end of tests in accordance with the guidelines stated in the MAN Diesel document "Cylinder & System Lubricating Oil Properties and Engine Development".

The 4000 hrs end test inspection, conducted by MAN Diesel personnel, demonstrated acceptable performance, and therefore, MAN Diesel is granting a No Objection Letter for on-board blending of RHY3532/Mobilgard 300 at BN70 on MAN B&W two-stroke engines.

Additive and system lube oil different from the PetroChina additive (RHY3532) and ExxonMobil system oil (Mobilgard 300) may result in different performance in the engine and it is therefore mandatory for the safety and reliability of the engine operation that the different combinations of additive/system oil are individually tested as well as blend ratios resulting in products with lower than BN70.

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However, as MAN Diesel does not warrant the performance by the MFT-I equipment or any feed stock or additive package materials, MAN cannot be held responsible for any damage caused by improper use of SEA-Mate© products or the use of blended cylinder oil based on used system oil and additive package materials.

Kind regards MAN Diesel SE Dorthe Jacobsen Fuel & Lube projects

Cc: Mr Tony Ng, Overseas Representative