

Reapproval PetroChina Kunlun DCB Series

To whom it may concern:

Based upon the written statement and laboratory analyses, that the formulation of the above mentioned has not been changed since the initial approval, we grant reapproval for the above mentioned series for the use in MAN ES 4 stroke medium speed engines.

This lubricant is suitable for heavy fuel oil operation. This approval covers the following products:

Product Name	SAE Viscosity Grade	TBN	Oil Code #
KUNLUN DCB3030H	30	30	PC-KUN-DCB4040H-02
KUNLUN DCB3040H	30	40	PC-KUN-DCB4040H-03
KUNLUN DCB3050H	30	50	PC-KUN-DCB4040H-04
KUNLUN DCB4030H	40	30	PC-KUN-DCB4040H-05
KUNLUN DCB4040H	40	40	PC-KUN-DCB4040H-01 (Master Code #)
KUNLUN DCB4050H	40	50	PC-KUN-DCB4040H-06

Only the above stated Master Code # and Code #(s) including rebrands have been issued and approved.

This approval is valid for two years (July2021) provided there are no changes in formulation (base oil, additives). The approval needs to be prolonged after July 2021 according to the most current "Testing Procedure for Engine Lubricating Oil Approval" at that time.

The Master Code # including any of the above stated Code #(s) may be withdrawn at MAN ES sole discretion at any time if any of the following reasons apply: The lubricant does not fulfill the lubrication as previously tested; the lubricating oil characteristics change during real-life engine operation regarding engine cleanliness and/or wear & tear rates; the lube oil formulation is proven to be the cause for an engine damage; any changes in the lube oil formulation; any changes in lube oil characteristics that increase the lube oil consumption beyond MAN ES specifications (e.g. lacquering, increased evaporation loss due to high shear); increased temperatures (e.g. bearings); unusual running pattern on the bearing surface; engine technology outdates the additive technology.

For reasons of completeness we emphasize that, in any case, the lube oil Master Code # owner must take over the full warranty for the lube oil formulation including all above stated Oil Code #(s) thereof and that are referenced and bound to the Master Code #.

Yours truly,

MAN Energy Solutions SE

i.V.


Dr. Ingo Henne
Head of Quality E & M Systems Augsburg

i.A.


Dr. Christoph Rohbogner
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