

## Approval List for Lube Oil in Distillate Fuel Oil Operation (SAE 40)

Applicable for MAN ES type medium-speed engines and for all engines of the Pielstick brand except PA4 200 ID engines

Company	BASE NUMBER (mgKOH/g) (10) 12 – 16
Castrol	MLC 40 / MHP 154
Chevron	HDAX 9700 SAE 40**
Chevron (Texaco, Caltex)	Delo 1000 Marine 40 Delo SHP40 Taro 12 XP 40 / Taro 12 XP 40 (2) Taro 16 XP 40 / Taro 16 XP 40 (2) Delo 400 TBN10*
ExxonMobil	Mobilgard 412 (Gp1) / Mobilgard 412 (Gp2) Mobilgard 1SHC Mobilgard ADL 40 (Gp1) / Mobilgard ADL 40 (Gp2) Mobil Delvac 1640 (Gp1) / Mobil Delvac 1640 (Gp2)
Fuchs Petrolube	Fuchs Titan MarWay 1040*
Gulf Oil Marine	GulfSea Power MDO 4012S / GulfSea Power MDO 4015S Gulfgen Supreme MDO 412S / Gulfgen Supreme MDO 415S
Shell	Gadina AL 40 / Gadina S3 / Gadina S4 Sirius X40
Sinopec	Marine TPEO 4012 / Marine TPEO 4015
SK Lubricants	Supermar 13TP40 / Supermar 15TP40
TOTAL Lubmarine	Disola M 4015 / Disola M 4012 / Disola 4015 / Disola 4012 Caprano M 40 / Caprano 4015 / Caprano 4012
Vibra Energia (Lubrax)	Marbrax CCD-410 / Marbrax CCD-415

We do not assume any responsibility for difficulties that might be caused by these oils.

For Pielstick engines, not all recommended lube oils are listed in this document. For more information, please contact your Pielstick technical correspondent.

\* Sulfur content in fuel max. 1% (10 000 ppm)

\*\* Sulfur content in fuel max. 0,1% (1 000 ppm)