

SEA-Mate®

Blending-on-Board



Fit-for-Purpose Lubrication

SEA-Mate® Blending-on-Board (BOB) is the **environmentally friendly** solution, that can reduce CO2 by **reducing the overall lubrication consumption** onboard by up to 40%, while **deliver a fuel saving** of up to 1.5%.

Compliance with **2020 Fuel Sulphur cap** has brought new challenges for cylinder lubrication.

Function

BOB provides the needed cylinder oil flexibility, by blending a Fit-for Purpose cylinder oil quality onboard.

Simply blend a high BN oil (BN100-400) with used system oil to get the BN needed in the engine to protect against corrosion and provide detergency.

With used system oil being used for cylinder lubrication the engine sump can be refilled with fresh, new System Oil which leads to cleaner oil in circulation with improvement in viscometry's & related improved fuel economy. Cleaner oil will promote cleaner engine crankcases and longer critical component lifetime.

For scrubber vessels, BOB is also a good match, capable of delivering a higher than 100 BN cylinder oil, when required for corrosive-sensitive engines.

Key Features

BOB is designed to produce a finished Cylinder lubricant to a targeted specific Base Number with one switch making it user friendly & simple to operate.

The operator can continuously adjust & optimize the lubricant neutralization characteristics in accordance with the engine requirements & fuel Sulphur content.

Technical Advancements

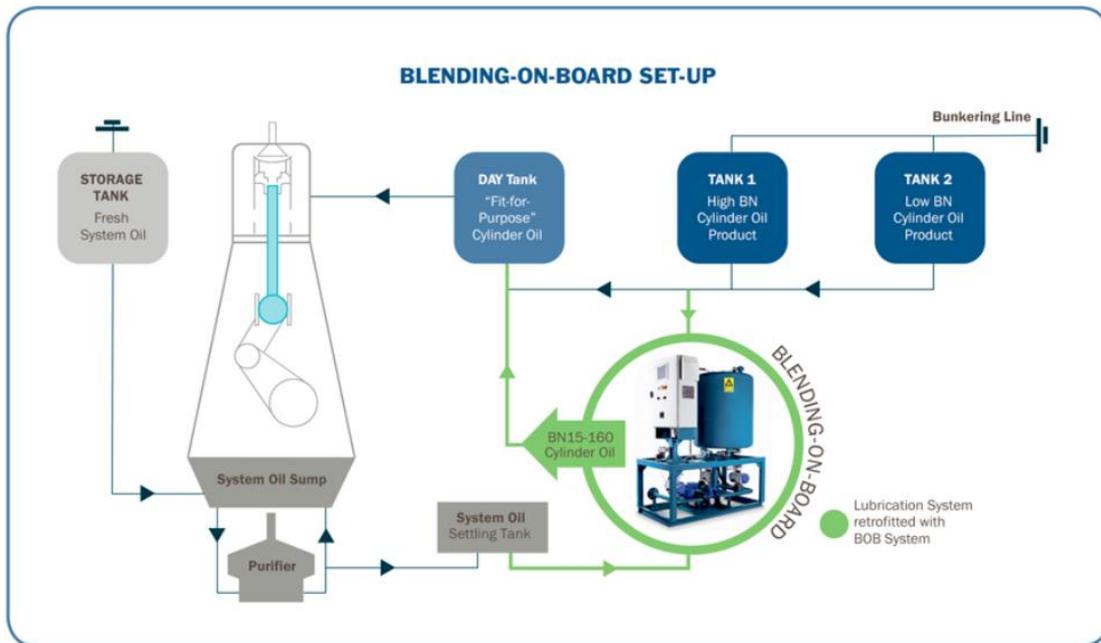
- **Flexibility** to produce Fit-for-Purpose cylinder oil to meet the operating conditions at any time, keeping minimum feed-rate,
- Eliminate cold corrosion and liner bore polishing,
- Continuous **renewal of the system oil** in operation and improved hydraulic system reliability,
- **Reduced friction losses** due to correct system oil viscosity

The technology was originally developed by **A.P. Moller-Maersk**, allows owners to produce a Fit-for Purpose cylinder lubricant onboard, by blending either the in-use system oil with a higher-BN cylinder oil product, which also facilitates the addition of fresh system oil to the engine sump, or by mixing a low BN cylinder oil with a high BN cylinder oil.

SEA-Mate® Blending-on-Board System has been type approved by Lloyd's Register.



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Product and Technical Specifications

PERFORMANCE	SEA-Mate B500Mk2®	SEA-Mate B1000Mk2®	SEA-Mate B3000®
Ingoing cylinder oil product range (BN)	15-325	15-325	15-325
Blended cylinder oil output (BN)	15-160	15-160	15-160
Standard deviation range (BN)	+/- 2	+/- 2	+/- 2
Blending capacity (ltr/workingday)	0 - 300	0 - 300	0 - 2000
Streams that can be blended	3	4+	4+
Operation	Semi-automatic	Semi-automatic or automatic with multiple options for signal input	Semi-automatic or automatic with multiple options for signal input
TECHNICAL			
Working temperatur (°C)	5 - 50	5 - 50	5 - 50
Dimensions L x W x H (cm)	110 x 60 x 85	110 x 60 x 85	130 x 70 x 170
Weight (kg)	170	170	350
Power requirement	3x 440V / 6A	3x 440V / 6A	3x 440V / 10A

Financial Benefits (ROI)

- **Reduced cylinder oil consumption** when running minimum feed-rate and adjustable cylinder oil BN,
- Increase TBO and **reduce maintenance cost**,
- **Reduced energy consumption** and thereby fuel savings,
- **Reduced system oil losses** due to having cleaner system oil

Return of
investment
Between
6-8 months