

NEW LOW ASH CYLINDER LUBE OIL



THE USER PAIN



The cost of engine reliability

- ✓ Minimize engine wear
- ✓ Minimize the risk of sudden failure
- ✓ Extended components lifetime



The overall lubrication budget

- ✓ Minimize lube oil feed rates
- ✓ Simplified lubrication management
- ✓ Adaptability to a larger fuel mix



THE RIGHT TIMING



REGULATIONS

- SO_x are to be limited worldwide
- NO_x are now at Tier III stage
- CO₂ is under pressure



ENGINE TECHNOLOGIES

- Peak pressure increases to minimize SFOC
- Temperature range is wider



EMISSION CONTROL

- Scrubbers option
- EGR/SCR influences lubrication
- Alternative fuels (LNG, MeOH...)

NEW CHEMISTRY: ASHFREE NEUTRALIZING MOLECULES (ANM)

▶ ANM are pure organic molecules of high BN

- ✓ Enable high BN finished CLO with reasonable treat rate
- ✓ Minimize the mineral source of deposits hence avoid deposit build-up
- ✓ Provide exceptional neutralization efficiency and passivation of surfaces
- ✓ Show very high thermal resistance and detergency potential



TALUSIA OPTIMA – THE FIRST CYLINDER LUBE OIL USING ANM

- ✓ Selection of ANM suitable for lubricant matrix
- ✓ Evolution of specifications with engine technologies and users practice
- ✓ Agreement for non conventional operation of 2-stroke engine bench
- ✓ Definition of the testing procedures for HFO and MDO operation
- ✓ First demonstration of ANM chemistry reliability
- ✓ Completion of comparisons with conventional chemistry

Specifications & Formulation

- Defined with OEM/users
- New components from innovative Chemical Company
- Regularly updated specifications along the time

Bench testing

- Procedures definition
- Multicandidate testing
- Test implementation with HFO and MDO

Field testing

- Demonstration of chemistry reliability (> 8000 h)
- Approval with HFO (> 8000 h)
- Approval with MGO/MDO (> 700 h)

FULL DEVELOPMENT PROCESS



TALUSIA OPTIMA HAVE COMPLETED 4331 H OF TEST ON WÄRTSILÄ 14 RT-FLEX 96C-B ENGINE, INCLUDING ABOUT 300 H IN ECA.

TALUSIA OPTIMA IS CURRENTLY IN TEST (> 2000 H ACHIEVED) ON MAN 11 S90ME-C10.2 ENGINE.

TOTAL LUBMARINE

**WE MAKE
IT POSSIBLE.**



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IS+
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THANK YOU FOR ATTENTION

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