

# CASS TECHNAVA

Since the beginning of 2020, CASS TECHNAVA TLD has been accumulating feedback from shipowners regarding their experience with new 0,5% Sulphur Fuels and two stroke Engines' Cylinder Liners' wear.

**Detergency** is a chemical additive with a property of preventing the deposition of carbon on the Cylinder Liner and washes it away with the lube oil. **Lack of sufficient Detergency** in a low BN (e.g 40BN) Cylinder Oil can be one of the reasons for the accelerated abrasive (mechanical) wear (even Scuffing) on the two stroke Main Engine Cylinder Liners, due to deposition of Carbon on the Liners and piston rings.

**Parker Kittiwake "Ferrous Wear Meter" (FWM)** enables crew onboard to easily (*within 2sec, no reagents*) and accurately ( $\pm 10ppm$ ) measure the **Abrasive IRON** concentration (ppm) in the Scrapedown Cylinder Oil (a.k.a. Drip Oil or Drain Oil analysis).

This solution enables crew onboard to real time monitor and support the safe operation of the Main Engine.

## Benefits of onboard Oil analysis

The benefits of onboard scrapedown Oil analysis (Iron, BN) have been widely embraced by both the market and the OEMs and include adjusting the Cylinder Oil feed-rate, so as to protect the cylinder liners/piston rings or to achieve important savings from the Cylinder Oil consumption.



Ferrous Wear Meter (FWM)

### How it works :

- FWM determines (metallic) iron content (ppm) by magnetometry
- Ferrous iron causes a disturbance in a magnetic field
- This disturbance is measured by a sense coil
- Extent of disturbance is determined by iron level (ppm of Abrasive Iron)

### Very easy test:

- 5 ml oil sample
- 2 seconds measurement time

We remain at your disposal for a detailed web presentation of Parker Kittiwake Solutions.

Best regards,

**George Sotirelis**  
Mechanical Engineer  
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