

SEA-Mate® Real-time Cylinder Oil Consumption Monitoring



Challenge

Engine lubrication oil is usually the highest running cost onboard a ship excluding the fuel. Knowing actual cylinder oil consumption at a given engine load and time, would make it possible to detect significant deviations from calculated consumption. Today's cylinder oil consumption figures are calculated estimates, tank level readings or flow meter measurements. Years of operation with mechanical- and mass-flowmeters has shown they are very sensitive towards flow pulses and vibration. Today's solutions for measurement also make it difficult to identify actual consumption at a given engine load. Experience shows that estimate or measured results often deviate from actual yearly consumptions, leading to cost exceeding estimates.

Solution

The SEA-Mate Real-time Cylinder Oil Consumption Monitoring System makes it possible to measure actual consumption in 10-minute intervals.

It is a cost-efficient system that makes it possible to verify that the lubrication system supplies the anticipated volume of cylinder oil at given engine load. The accuracy of the SEA-Mate system is within 0.5 %, and the simple to use and maintain system is not affected by pulsation, vibration or other parameters affecting readout from traditional flow meters.

The system is the perfect online companion when optimizing lubrication, as well as for general lubrication troubleshooting. The system is compatible with known lubrication systems regardless of engine make and model.

The system has successfully been tested on-board the vessel Maersk Luz, equipped with a MAN B&W 9S90 ME-C main engine, & is being finalized for commercial release late 2016.

Performance & Technical Specifications

Operation	Fully automatic
Data out	IP / USB / SD
Integration with existing systems	Yes
Power requirement	3 x 440 V
Operating temperature	5 – 55°C

