

BLUETRACKER HULL MONITOR

The Bluetracker Hull Monitor is a performance module that enables ship managers and operators to monitor, track and analyze the evolution of a vessel's hull performance over time.

At a given depth and defined speed, the hull performance has a significant impact on the fuel oil consumption. Industrial studies on the topic (done by fathom) indicate a range of speed loss from moderate fouling of between 10 and 18 percent. The hull performance needs to be assessed continually and any measures already taken on the hull evaluated so as to enable fuel oil consumption and CO₂ emissions to be reduced.

The ship energy efficiency management plan (SEEMP) reflects measures to improve the management of cleaning intervals of the hull and propeller. Changes to the hull performance within a dry-docking interval can be analysed with the Bluetracker (BT) Hull Monitor. Corresponding cleaning events can be initiated in good time and thus savings generated in the fuel oil consumption. For example, recoating a rough hull can yield an approx. 10 percent reduction in fuel costs. The greenhouse gas (GHG) rating platform, shippingefficiency.org, rewards hull and propeller maintenance measures with an improved GHG rating.

BENEFITS

Providing data-driven performance benefits is an important competitive edge for ship owners and ship managers and their stakeholders. The monitor can:

- ✓ Track the degradation of the hull performance, especially after mechanical damage
- ✓ Predict future hull and propeller maintenance events and profit from the before and after comparison
- ✓ Issue an automatic alert about a pre-defined low hull performance
- ✓ Assist with maintaining good charter performance
- ✓ Determine the impact of idle periods on hull performance
- ✓ Deliver increased transparency in data and analysis regarding the performance claims of fuel-saving coating providers

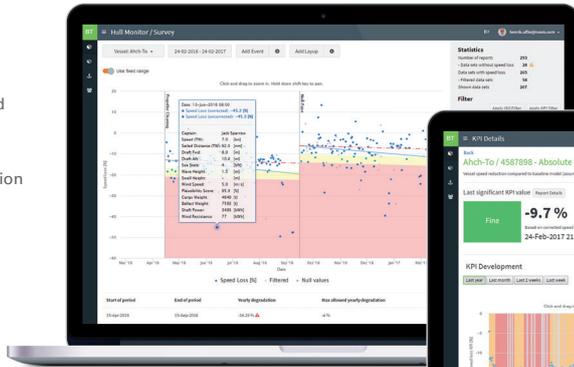
FEATURES

The Bluetracker Hull Monitor approach includes:

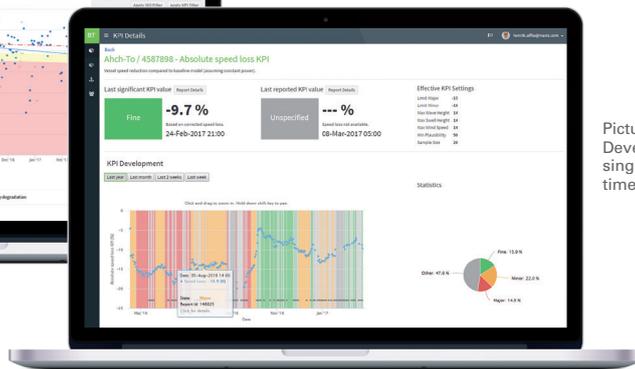
- Correction of ambient factors under ISO 19030
- Complete transparency of the KPI calculation with drill down from the dashboard to KPI development through to details of raw data
- Calculation and visualization of speed losses (power increase) by hull aging, hull fouling, etc.
- Automatic notification of high speed loss and fast increase of speed loss
- Analysis of the effects of hull maintenance measures, including hull cleaning, coating, modifications, by providing regressions between hull effective events and comparing the real situation against the expected hull efficiency decrease
- Establishment of a complete hull performance data history as documentary evidence in case of a claim

Furthermore, the Hull Monitor enables flexible handling of different kinds of hull models, such as CFD, sea trial measurements, towing tank measurements. Extrapolation is possible optionally in case of operation ranges outside of the reference.

Picture left: Plot of speed loss over time with hull performance events, regressions, maximum allowed yearly degradation and tolerance bands.



Picture right: Development of a single hull KPI over time



PACKAGING

Bluetracker Hull Monitor is designed in compliance with ISO 19030 and supports different ISO-standardized measurement methods depending on the type of data collection.

AUTOMATIC	MANUAL	
<ul style="list-style-type: none"> ✓ Supports ISO 19030 standard measurement of hull and propeller performance ✓ Web-based SaaS ✓ Speed-loss-over-time calculation and visualization ✓ Hull Monitor KPI dashboard ✓ Single KPI visualization over time with drill down from the dashboard to KPI development through to details of raw data 	Report via API interface plus Hull Monitor module	Report via Bluetracker Express plus Hull Monitor module
	<ul style="list-style-type: none"> ✓ Connected to existing manual reporting system via API interface ✓ Supports ISO 19030 alternative measurement of hull and propeller performance ✓ Web-based SaaS ✓ Speed-loss-over-time calculation and visualization ✓ Hull Monitor KPI Dashboard ✓ Single KPI visualization over time with drill down from the dashboard to KPI development through to details of raw data 	<ul style="list-style-type: none"> ✓ Connected to Bluetracker Express manual reporting system ✓ Supports ISO 19030 alternative measurement of hull and propeller performance ✓ Web-based SaaS ✓ Speed-loss-over-time calculation and visualization ✓ Hull Monitor KPI Dashboard ✓ Single KPI visualization over time with drill down from the dashboard to KPI development through to details of raw data

If you have any questions or would like to set up an appointment with one of our sales representatives, please call or e-mail us: