

Energieffektiva lösningar och leverantörer

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AVL

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Continuous ship engine monitoring

1. The background: your challenges

Competitive operations generate the following requirements for all companies:

- **Maximum ship availability at minimum service costs**
- **Highest engine efficiency and maximum performance**
- **Emission compliance at minimum costs**

In order to satisfy these objective, you need to **monitor engine performance and accurately predict future failures.**

3. Benefits for Key Stakeholders

- Ship crew: Guidance in the engine optimization for a **fuel reduction up to 4%** and early fault detection that allows planning of maintenance
- Fleet management: Key indicators allowing **engine benchmarking between vessels** and **avoidance of critical engine failure or excessive wear leading to increased maintenance.**
- Environmental department: Master upcoming IMO emission regulations **without additional cost intensive emission measurement devices.**

2. Our solution: EPOS

AVL on-board monitoring of engine condition and efficiency based on engine cylinder sensors and expert algorithms for:

- **Early fault detection** and avoidance of severe engine failure with **detailed root cause analysis**
- Continuous high engine performance through **clear guidance in engine optimization** to the crew
- First **model-based system for emission monitoring IMO compliant** (NO_x, SO_x and CO₂): no additional sensor required!

4. Why AVL?

- **Unique combination** of engine know-how and **highest measurement accuracy**
- **60 years of experience** in engine development and monitoring
- **More than 150 installations** of the system in the world
- **Steering influence** in IMO emission discussion

Continuous ship engine monitoring

Unique combination of engine know-how and highest measurement accuracy



EPOS user interface – friendly traffic light system



The heart of EPOS: our robust and long trusted measurement devices



Cylinder pressure sensor



Smart Indicating Unit

Continuous ship engine monitoring

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