

# Return On



# Investment



## AVL EPOST™ - ROI Information

How to participate from using AVL EPOST™ - THE condition monitoring system for large-bore engines

### EFFICIENCY OPTIMIZATION

AVL EPOST™ helps you to optimize your engine operation by immediate recognition of engine malfunctions and unequal operation of single cylinders – this saves your fuel and finally your money!

Depending on the maintenance status and operating strategy of the engine, fuel savings of 3% and more can be achieved by using AVL EPOST™.

AVL EPOST™ does not only give you valuable feedback on possible reasons for increased fuel consumption, but also allows for tracking of the engine performance by a single parameter – the Key Performance Index (KPI).

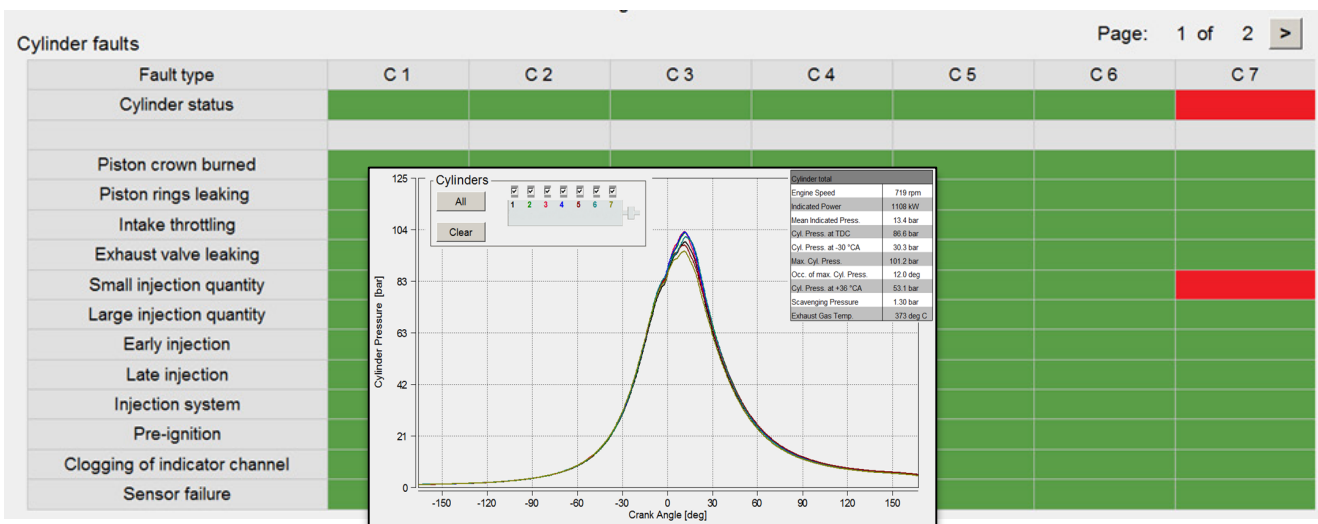
### ENGINE RELIABILITY AND SYSTEM SAFETY

Continuous monitoring of upcoming faults in conjunction with a regularly engine operation optimization increases the reliability and lifetime of your engine – saving your money using AVL EPOST™!

AVL EPOST™ helps you to avoid

- unplanned repair works,
- increased wear mechanisms, and
- engine malfunction or even engine damage.

In addition to identifying engine failures, AVL EPOST™ also enables you to track the engine condition via a single parameter – the Key Condition Index (KCI).



Failure detection with AVL EPOS™ - ambiguous deviation of cylinder pressure characteristics caused by an injection pump malfunction - indicated by red light of cylinder 7

## TUNING YOUR ENGINE

Optimizing your engine operation by using the information offered by AVL EPOS™ provides you a significant fuel saving potential:\*

- Usual maintained engine 2-3 % efficiency
- Poor maintained engines > 3% efficiency

\*confirmed by MAN Diesel CIMAC publication

This not only applies if the engine is operated at high load levels, but is even more significant at „unusual“ engine operation conditions such as slow steaming, which is nowadays widely used in marine industry. At these conditions special attention has to be paid to the “health-monitoring” of the system and the relative fuel saving potential even increases.

	Application 1	Application 2
Engine Power [MW]	45 (HFO)	8 (Gas)
Yearly operating hours [h]	6960	5000
Fuel Consumption [t/year]	55.750	6.160
<b>Potential Savings [\$ /year]</b>	<b>750.000</b>	<b>58.000</b>

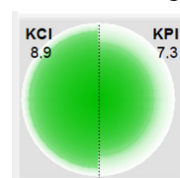
ROI calculation for 2 reference installations based on 2% efficiency increase

## MAINTAINING YOUR ENGINE

Engine malfunctions and resultant engine damages are very expensive – each year millions of dollars are spent on engine repairs throughout the industry. On average, a main engine failure costs more than 500.000 \$ (source: The Swedish Club). Therefore, preventing one major engine failure already returns your investment.

## THE AVL EPOS™ EXPERIENCE

Numerous systems of AVL EPOS™ have been installed all over the world on mobile and also stationary applications – providing plenty of „stories“ on diagnosed engine malfunctions (of which some were otherwise most likely never detected): Leaking injection pumps, burned piston crowns, frozen VIT, damaged injectors and others. AVL EPOS™ aims on supplying valuable information regarding engine parts which might have to be serviced by the crew - as it was jokingly called by one of the chief engineers who got advice on an engine failure – „sometimes, ignorance is a bliss“.



Monitoring the condition (KCI) and performance status (KPI) of your engine with key indices and the „tuning eye“ of AVL EPOS™

## WORKING ON YOUR BENEFIT

Based on our long term experience in development, testing and field support on large-bore engines we know about the wide range and diversity of your needs – therefore, AVL EPOS™ was designed as an open platform to ensure you a comprehensive baseline functionality while offering the possibility to personalize the application based on YOUR NEEDS – maximizing YOUR BENEFIT!

**Get in contact with us to discuss your case!**

## FOR FURTHER INFORMATION PLEASE CONTACT:

AVL List GmbH, Hans-List-Platz 1, A-8020 Graz, Austria  
T: +43 316 787 -0, Email: epos@avl.com, www.avl.com