

MAN PrimeServ



PrimeServ Assist

powered by MAN CEON



Four-stroke
Cases

Availability, safety, efficiency



How PrimeServ Assist helps you to optimize

Four-stroke engines are well known as highly flexible power sources for a variety of applications. But as the saying goes, accidents can happen. Experiencing engine downtime whilst out on the ocean, for instance, is not a scenario that's beyond the realm of possibility. No matter if your four-stroke engines are installed on board or on site, effective preventive maintenance can help reduce operating costs. Choose PrimeServ Assist and gain access to a combination of machine data, advanced analytics and MAN expertise to help you optimize not only your daily operation, but also the efficiency and maintenance of your four-stroke engines. After all, who wouldn't avoid getting stuck whilst out on the ocean if they could?

Service offer

Ad-hoc
assistance on
daily operation

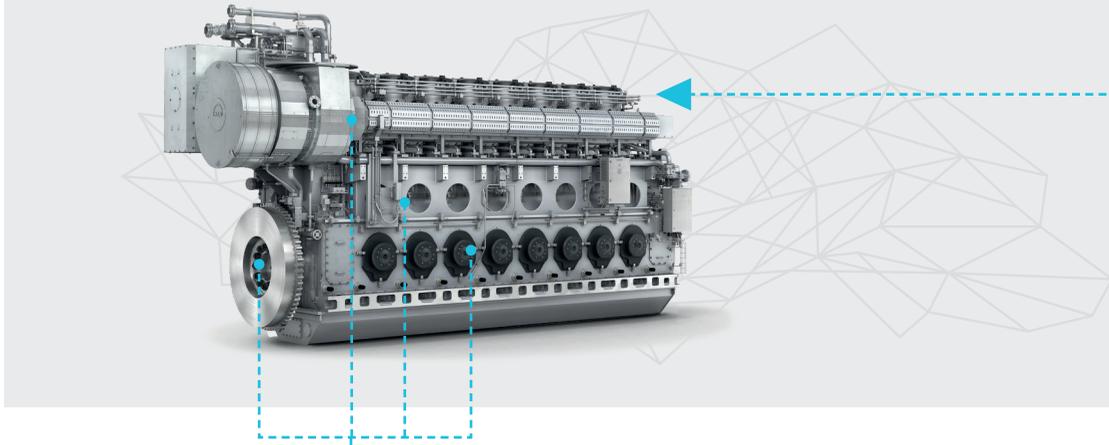
**PrimeServ
Assist**

Instant technical
support

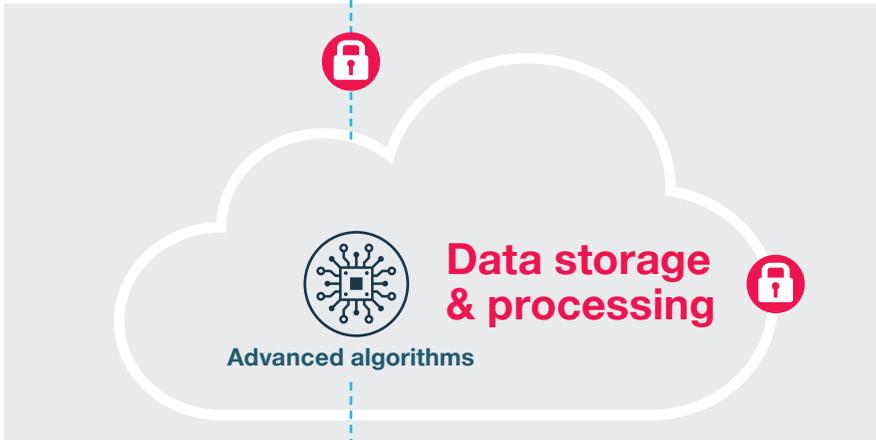


What happens when there's an anomaly?

Customer



MAN CEON



continuous development & lessons learned

MAN PrimeServ



24-hour monitoring & anomaly detection



Your decision-maker



Start operation and/or maintenance job

- effective
- focused
- on time

Get proactively informed

Request technical support



MAN CEON web-based customer interface



Ad-hoc notifications

- Which assets
- Type of anomaly
- Severity of anomaly
- Recommendations



Asset dashboard

- Asset condition
- Connectivity status



Asset details & analysis

- Engine performance
- Engine balance
- Data history



Instant technical support

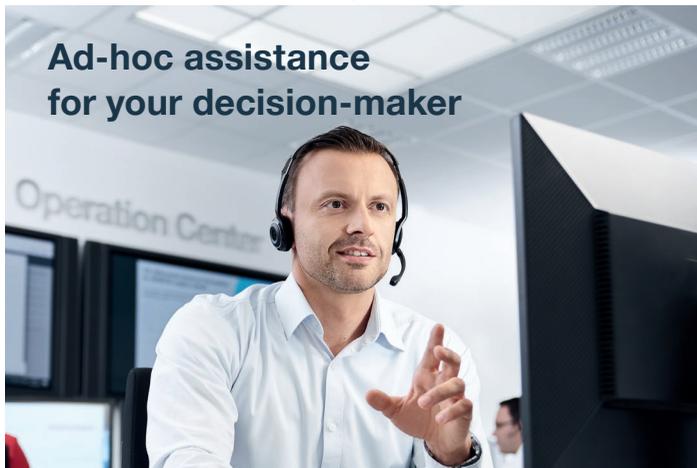
- 24/7
- Troubleshooting



Root-cause analysis and mitigating actions



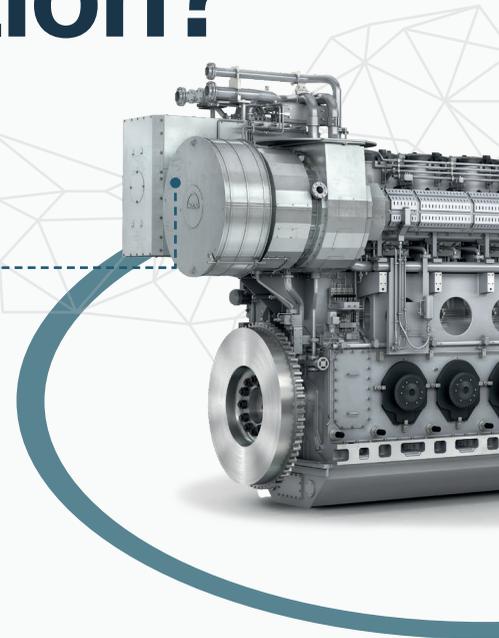
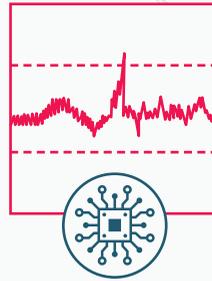
Ad-hoc assistance for your decision-maker



What kind of assistance can you expect with your daily operation?

Anomalies in Common Rail pressure behavior

Flawless functionality of your four-stroke engine's Common Rail system is one of the cornerstones of smooth operation. Anomalies in the relation between the actual Common Rail pressure and its setpoint can indicate imminent complications. Therefore, based on CEON internal pre-alarms (thresholds), and trend-observing algorithms, PrimeServ Assist continuously evaluates Common Rail pressure behavior. In case of deviation from the nominal state, MAN will notify and provide you with detailed advice on how to proceed. Detecting these anomalies at an early stage increases your engine's reliability to a higher level as well as saving time and preventing consecutive damages, thus making PrimeServ Assist not only convenient but also a reliable cost-saving measure.



Dear customer,

Our threshold system has detected an inert behavior of your common rail pressure. In addition, our common rail pressure algorithm detected a pressure increase after engine stop. These two indications point to an increased wear of the suction throttle valve's solenoid, which leads to the stick-slip effect. We recommend replacing the solenoid at the next scheduled engine stop to prevent consequential damage and unavailability.



Anomalies in engine balance and load control

In an engine, the cooling water circuit's different modes are triggered and employed according to the incoming load signal. On this account, PrimeServ Assist keeps a careful eye on it. For instance, low-load operation on a parameter set that is not suitable or operation with running heat consumers despite lower load can result in lower-than-recommended cooling water temperatures. And over time, even small deviations can lead to corrosion. PrimeServ Assist points such anomalies out, so that distribution can be balanced for smoother operation. Thus, optimised load distribution can not only increase overall efficiency, but it can also deliver a vital contribution to keeping operational cost low and safeguarding long-term engine lifetime.

Dear customer,

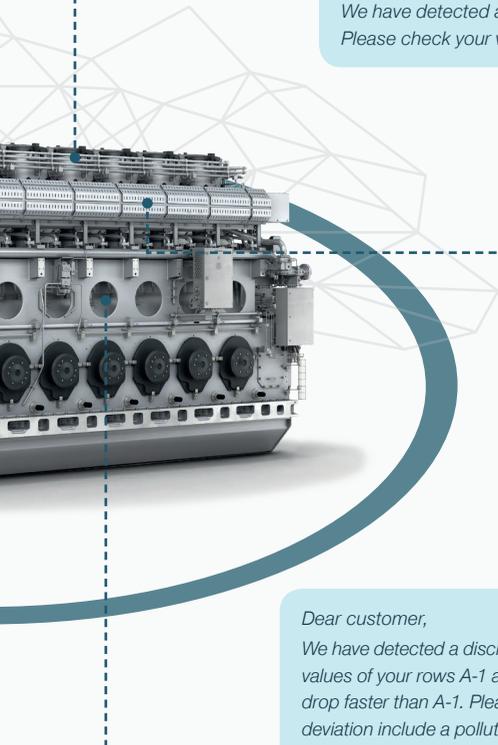
We have identified that the cooling water temperature in one of your engines is below the recommended level. Please check on the issue and pay particular attention to the load distribution between the engines. Should there be an imbalance, please balance out the distribution.

Anomalies in injection behavior



Abnormal injection behavior in four-stroke engines is often a sign of faulty components. To detect anomalies at early stages and prevent complications, not to mention down-time, PrimeServ Assist continuously monitors exhaust gas temperatures and fuel oil injection duration. Thanks to this degree of effective expertise, faulty components can be identified and, if necessary, substituted in a timely and discreet manner – before they cause you more serious headaches. Added reliability of this kind gives you the freedom to focus on what really matters.

*Dear customer,
We have detected a high mean-value deviation of your exhaust gas temperature on cylinder #7. Please check your valve groups and let us know the result for further evaluation.*



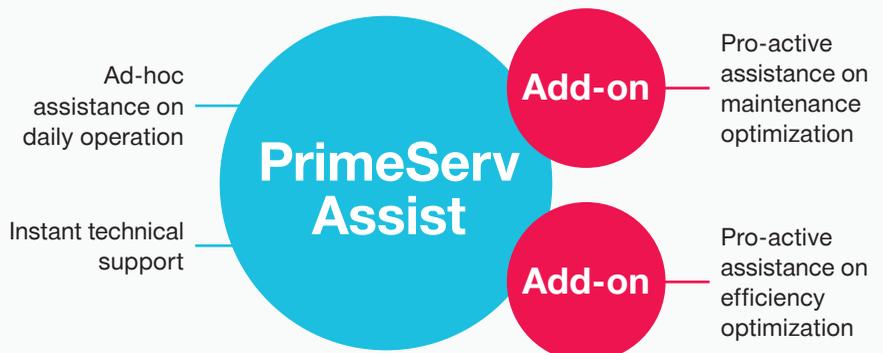
Anomalies in hidden operating values

The monitoring of engine performance indicators is a fundamental part of any crew's everyday operation. But some parameters are more easily interpreted than others. For instance, the intake air pressure value fluctuates depending on possible changes in positioning or configuration, making it difficult to detect successive processes like pollution of the silencer filter fleece. Therefore, PrimeServ Assist provides continuous monitoring that discloses longstanding trends. Even indicating specific information such as discrepancies between two existing rows, PrimeServ Assist helps prevent efficiency losses or even turbocharger damage, thus ensuring the desired ratio between fuel consumption and output.

*Dear customer,
We have detected a discrepancy in the long-term trends of the intake air pressure values of your rows A-1 and B-1. The air pressure intake of row B-1 appears to drop faster than A-1. Please check on the respective row. Possible causes for the deviation include a pollution of the silencer filter. Hence, we advise you to specifically examine and replace the silencer filter, should it be polluted.*

Coming soon

New individual add-ons:



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D2366644-P8 Serviceplan
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