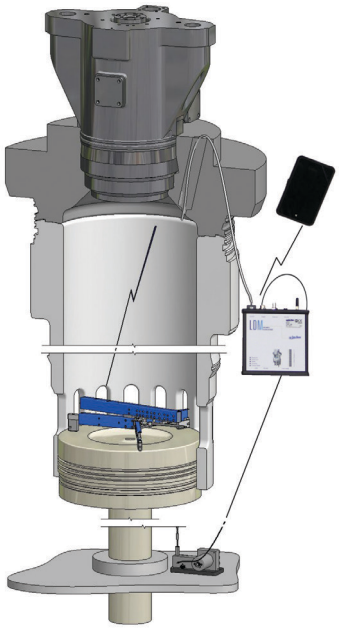
Monitoring

Liner Diameter Measurement

CHRIS-MARINE®

LDM

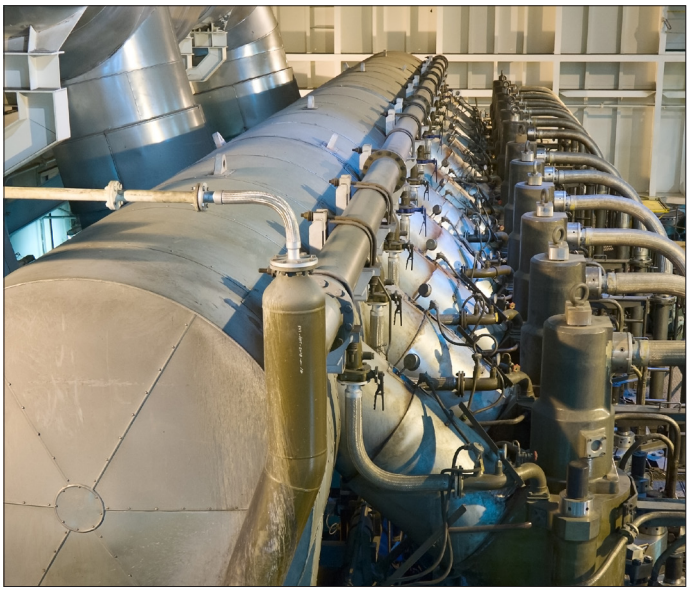
Avoid unplanned off-hire and reduce overhauling costs through continual monitoring of the cylinder condition. Pre-inspect cylinder condition before a piston overhaul to minimize downtime and cost.





Application areas

- Measuring of liner diameter without removal of cylinder head or valve housing
- 2-stroke diesel and gas engines



Key benefits

- Innovative measuring tool for 500 - 980 mm cylinder liners.
- Safe, fast and accurate measuring of cylinder liner wear and clover-leafing.
- No need to remove cylinder cover prior to measurement.
- Supplied with report generating tool that presents measurement results.
- Approved as checked baggage according to IATA 2015 regulations.
- Long-lasting battery: approximately 13 hours of continuous usage without recharging.

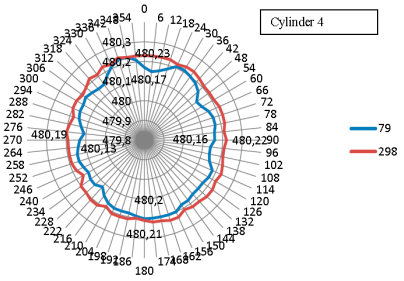
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Watch video

Detect abnormal cylinder deformation and wear before it leads to failure

The image shows two clover-leafing measurements at 79 mm and 298 mm below top rig TDC.
Some clover shape can be seen at 79 mm with peaks about 0.10 mm higher than the valleys.
Such a wear pattern will generate blow-by and eventually collapsed or broken piston rings when the piston ring pack cannot seal tightly against the cylinder liner.
Cylinder honing can restore the cylinder condition.





Avoid removal of the cylinder cover

The liner diameter measurement is performed without removal of the cylinder cover by inserting the tool through the scavenging ports.



Easy transportation

Easy to transport in one single waterproof and rugged plastic case with dimensions accepted by all major airlines. This makes is easy to move equipment from one site to another without risking damage to the equipment.

Total weight: 20 kg



Technical specifications

• Diameter measuring range	2-stroke engines 500 - 980 mm liner diameters or 4-stroke engines (cylinder cover removed) >=500 mm liner diameters
• Measurement capability	Cylinder wear (two diametres) and clover leafing (60 radii)
• Height measuring range	0-4000 mm
• Electric power supply	Battery operated Charging equipment included
• Normal measuring time	One cylinder liner (2 diametres/15 levels): 1 Hr
• Weight complete with case	20 kg



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