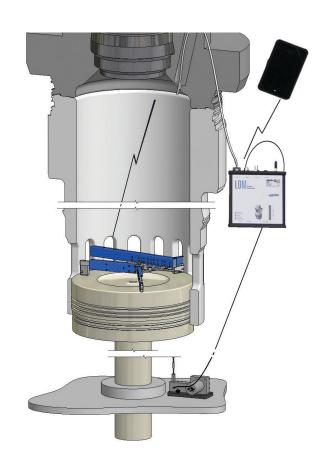
### **Monitoring**

## Liner Diameter Measurement



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.



### **Product features**

- Innovative measuring tool for 500 980 mm bore 2-stroke 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 generation tool that presents measurement results

- Approved as checked baggage according to IATA 2015 regulations
- Long-lasting battery user time:
  Approximately 13 hours of continuous usage without recharging



# KM Ratiam AR

# CHRIS-MARINE®

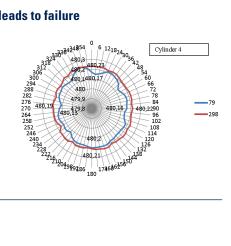
# Watch video

#### 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

### Chris-Marine Headquarters and Subsidiaries

CHRIS-MARINE SWEDEN HEADQUARTERS Tel: +46 - 40 671 2600 info@chris-marine.com

CHRIS-MARINE DENMARK Tel: +45 - 4498 3833 iop@chris-marine.com

CHRIS-MARINE GERMANY Tel: +49 4101 5880 0 lemag@chris-marine.com

CHRIS-MARINE SINGAPORE Tel: +65 - 6268 8611 chrism@chris-marine.com.sg

CHRIS-MARINE CHINA Tel: +86 - 21 6575 9331 info.cn@chris-marine.com

CHRIS-MARINE JAPAN Tel: +81 - 78 570 5642 info.jp@chris-marine.com

CHRIS-MARINE INDIA Tel: +91 - 712 224 2719 info.in@chris-marine.com

CHRIS-MARINE ECUADOR Tel: +593 979 000 379 info.ec@chris-marine.com

CHRIS-MARINE BRAZIL Tel: +55 21 3349-4349 info.br@chris-marine.com

Contact one of our offices to get in touch with your local agent.

