2-stroke

Valve spindle and seat grinding machine

CHRIS-MARINE®

LBD



2-stroke exhaust valve components operate under extreme thermal load and in a corrosive environment. The exhaust system is a cost intensive part of the engine and requires much service.
Therefore, high-quality service and equipment is needed.
LBD is designed and developed for grinding of exhaust valve spindles and seats on large bore 2-stroke diesel engines. The LBD has a high range of operation, up to 650 mm valve and seat diameter, and features anti-vibration dampers and self-centering of valve and seat.







Application area

- 2-stroke engines

Key benefits

- LBD is suitable for all 2-stroke engines on the market
- When following the recommended intervals for exhaust valve grinding with LBD the lifetime of the valves will increase
- LBD is easy to use as it is fully self-centring and has fixed/pre-set grinding angles
- The machine is suitable for onboard use thanks to its sophisticated anti-vibration design
- LBD has been tested and approved by the major 2-stroke engine designers

Sustainable engine operation

LBD helps reducing operating costs and emissions while preserving engine performance. Thanks to its sturdy design and incorporated features like high-precision grinding spindle, automatic centring and insensibility to vibrations, LBD delivers high-quality grinding results, even under the most demanding operating conditions. LBD has been designed to last and its high-quality parts ensure a long lifetime. This means fewer costly investments in new equipment, and as a result less waste of material.



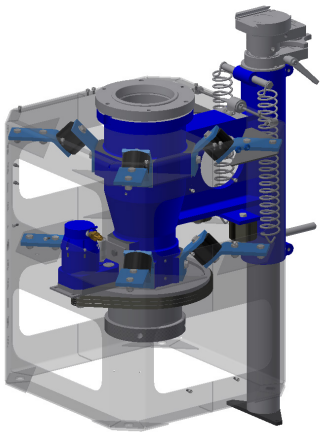
Improves valve sealing surface
Grinding seat sealing surface to correct angle.



Angle setting
Fixed grinding angles to reduce risk of errors



Versatile
Grinding of the valve seat body.



Unique design
The Chris-Marine LBD features a unique design, with the centre body being a single piece of cast steel, which is suspended in the housing with vibration dampers. This ensures a stiff connection of grinding motor towards the workpiece, decoupled from vibration and motion of the ship.

Technical specifications

• Machine capacity	Up to Ø650 mm on valve disc and valve seat
• Air pressure	0.6 - 0.9 MPa (6 - 9 bar OR 85 - 130 psi)
• Air consumption	1700 l/min
• Noise level	91.6/81.0 dB(A) for pneumatic and electric version respectively
• Air hose connection	16 mm (5/8")
• Normal grinding time	10 - 20 min per seat
• Weight	440 - 460 kg
• Max dimensions	H: 1300 - 1700 mm, W: 960 x 700 mm



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
info.sg@chris-marine.com

CHRIS-MARINE CHINA
Tel: +86 21 6575 9331
info.cn@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 USA
Tel: +1 786 212 9592
info.us@chris-marine.com

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

B104-2430/E