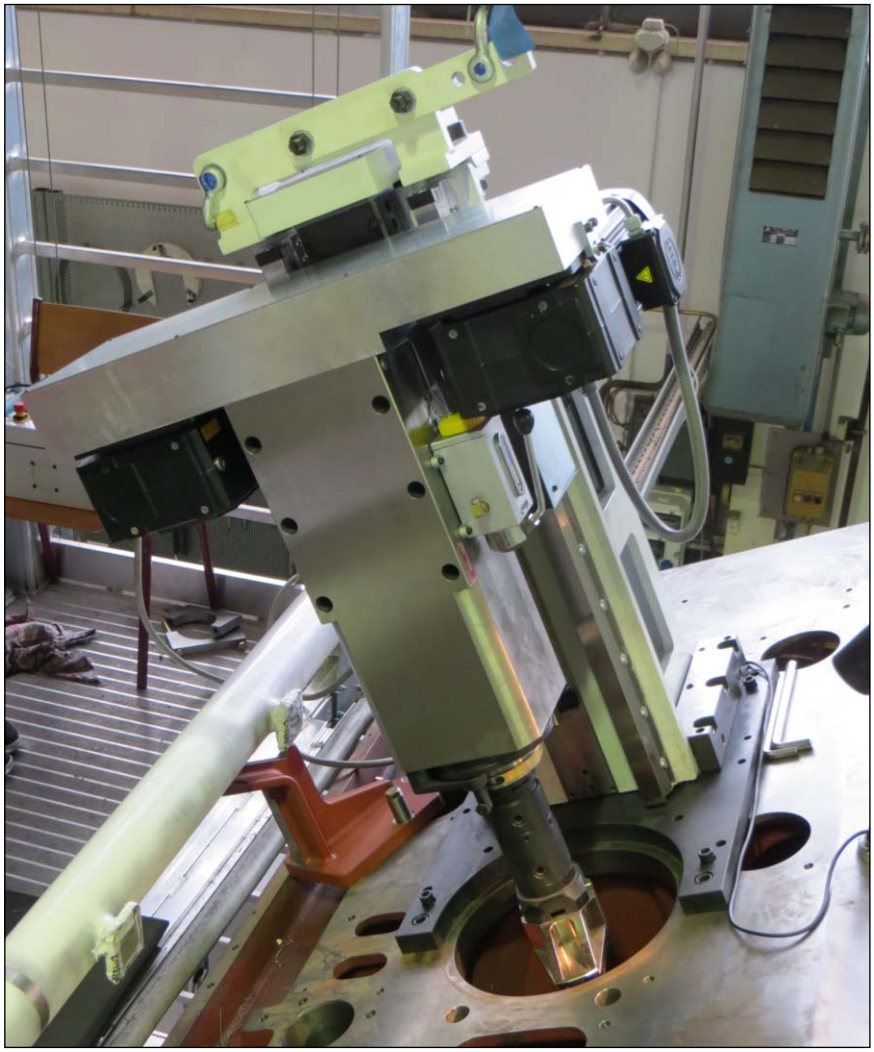
Hunger AD Series

Portable Boring Machines
for on-site machining cylinder bores up to Ø 420mm.



Type AD 320
for cylinder bores up to 320mm diameter.

Type AD 420
for cylinder bores up to 420mm diameter.

Different tool heads and boring tools are available for counterboring and facing balcony seats for installing sleeves or over-size liners and for boring upper and lower liner fits and inserted sleeves.

This versatile on-site boring machines will help to eliminate inferior repair procedures by precision counterboring cylinder bores with the precision and speed of stationary machines for a perfect fit of the cylinder liners.
The job can be done quickly to get back in operation with minimum downtime.
An experienced operator can usually mount the machine on the crankcase, align it and start cutting in the same as on a big machine tool.

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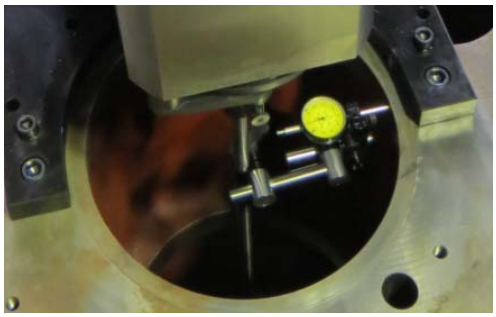
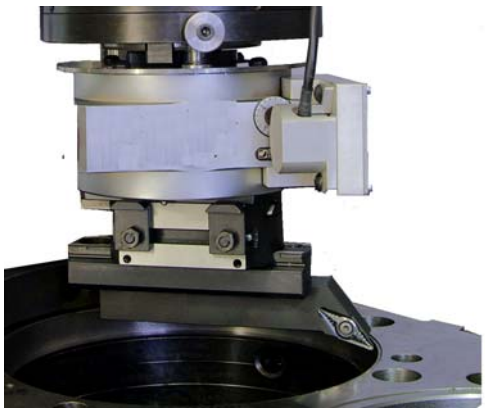
Control panel



Concentricity gauge



Boring and facing head

Digital precision boring unit

Features:

A light-weight control panel for remote control of the machine is provided to conveniently operate the machine while watching the machining process.
The control panel includes buttons and dials for selecting the various machining programs and parameters and a digital display showing the selected program menu.
The position of the cutting tool and the feed stop position can be displayed.

The power supply, the programmable logic controller PCL , input and output modules I/O, fuses and relays are housed in separate switchgear cabinet for ease of handling.

The heavy-duty boring spindle is driven by two motors arranged radially opposite to provide smooth cutting action.
The speed of the spindle drive motors is infinitely adjustable .
The feed motor for the boring spindle is electronically controlled so that the feed rate and rapid travel of the boring spindle can be adjusted within a broad range.

The machine is mounted to the deck surface of the crankcase by means of an adapter plate including set screws for 3-axis adjustment of the machine.
A concentricity gauge to be mounted to the boring spindle is provided for aligning the boring spindle in centerline with the cylinder bore to be reconditioned.

Tools:

The tools inserted in the boring spindle can be easily changed.
A boring and facing head is provided for counterboring the upper bore and the upper recess in the crankcase with a specified corner radius to the bottom surface.
The boring tools for the lower bore are of solid design for chatterfree boring.
The finish boring tool for the lower bore and the ring inserted in the lower bore includes a precision boring unit provided with a digital scale for adjusting the cutting diameter in increments of 0,001mm.

Specifications:	AD 320	AD 420
Max. bore diameter	320 mm	420 mm
Max. boring depth	450 mm	780 mm
Max. facing diameter	350 mm	435 mm
Spindle rotation speed	40-150 rpm	40-100 rpm
Spindle drive motors	2 x 1.1 kW	2 x 2.2 kW
Feed per minute	5 to 30 mm	
Rapid travel per minute	200-1200 mm	
Electrical requirements	400V 3ph+N+PE	
Rated current	10A	16A
Width/depht/height of machine	900/320/950 mm	800/600/650 mm
Net weight of machine, approx.	300 kg	900 kg
Net weight of adapter plate, approx.	60 kg	100 kg
Net weight of switchgear cabinet	80 kg	
Width/depht/height of control unit	430/230/320 mm	
Net weight of control unit	10 kg	

Specifications subjec to change due to technical reasons.

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