

PRECISION IN-SITU MACHINING

VARIOUS APPLICATIONS USING FULL RANGE OF LINE BORING EQUIPMENT WITH OPTICAL ALIGNMENT AND IN-SITU MACHINING CAPABILITY

M & A Engineering offers a comprehensive range of line-boring equipment, with the capability of machining bores from 58mm diameter (2¼") to more than 2m (78¾").

One of the unique design features of our 115 boring equipment is the ability to mount optical targets in the centre bore of each modular section of bar. This allows a 'line of sight' to be taken when checking the alignment of bores, without the need to remove the boring equipment, thus reducing down time and increasing accuracy.

M & A's in-house designed, and proprietary boring equipment can be applied to any site environment; for example: Petro-Chemical, Marine, Steel Production, Aggregate Production, Power Generation and so on.

Here are just a few of the varied applications our line-boring equipment has been put to in the field.



Repair To A Ro-Ro Ferry; Ramp Hinge-Pin Locations

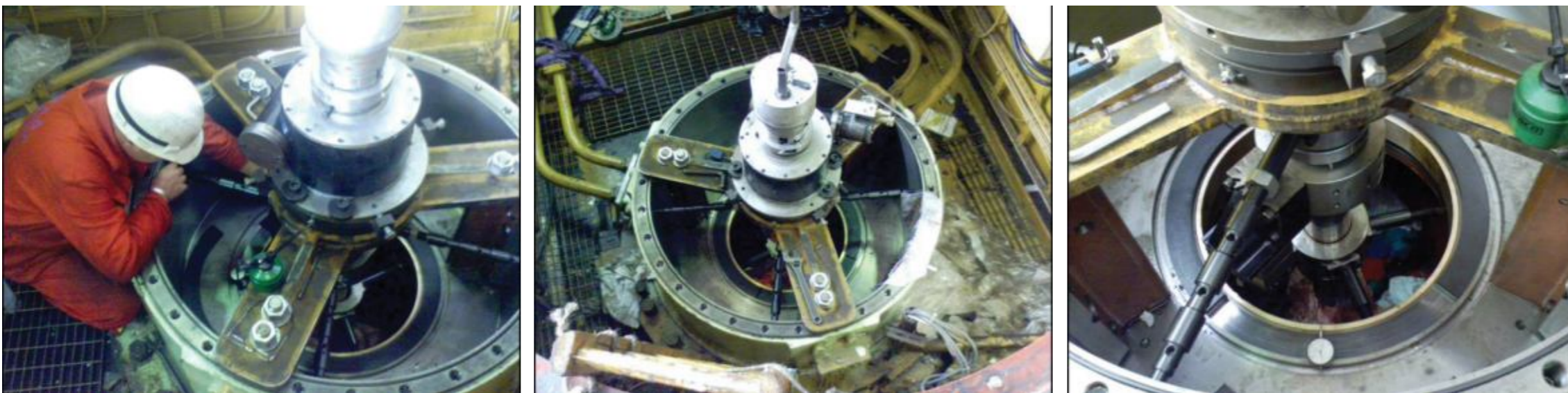
The boring equipment was set concentric with the existing pitch circle of tapped holes and the bore then machined out to accept a liner manufactured by the shipyard. The work to machine both port and starboard locations was completed in less than 24 hours, thus ensuring an early departure from dry-dock.

"Line boring to more than 2 metres diameter can be undertaken anywhere in the world using M&A's unique range of equipment"



Dimensional survey, prior to re-machining a propulsion unit location using M & A's unique modular boring system.

Tight access to this rudder bore is not a problem for M & A engineers when utilising one of our smaller range of line boring equipment.



Machining the upper ring of a rudder bore in-line with the lower rudder bore location.



Crusher Bearing Bores Repair

M & A Engineering was requested to re-machine the bearing bores in-line with the drive gearbox output bore. The boring bar was aligned using a Rank Taylor Hobson Micro Alignment Telescope and optical targets. Due to the unique design of the boring bar a line of sight is obtained through the bar to the output bore of the drive gearbox.

Note the innovative solution involving connection of the CCTV to the eye piece of the telescope to aid the engineer's view of the optical targets.

M & A Engineering has the proven expertise and equipment, much of it designed and engineered in-house, to undertake any line boring application, on any type of equipment, anywhere in the world.



M&A Engineering
machining without boundaries

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