

Modular Derrick Drilling Machine



MH™ MDDM series

The name of our modular derrick drilling machines (MDDM) says it all: its outstanding modular design improves uptime and eases maintenance as critical components can be swiftly replaced.

Our MDDMs are based on our long-term experience and in-depth understanding of top drives in daily operation. The highly modular top drive speeds-up the exchange of main parts significantly, such as the main motors or main shaft. Practical tests have proven that repair times exceed customer expectations considerably.

The MDDM and the travelling block are connected via a travelling block adaptor. Its easy hook-off design allows for quick disconnection of the travelling block from the top drive.

The main motor(s) are attached with hydraulic nuts for rapid removal. Additionally, manifold and valves on the MDDM are centralized providing easy access and maintenance.

The inside blow out preventer (IBOP) stack is locked with easy-to-remove clamps, to select the break-out point. For replacement, it can easily swing out after breaking the connection to the drill stem.

Reliable Performance

The MDDM's load is taken via the load frame and gearbox, either through the main shaft when drilling, or via the link-hanger during tripping, casing or riser operations.

Drive-controlled water-cooled motors provide torque and speed to the drill string, as well as accurate control during directional drilling, using soft torque and tool face.

A back-up wrench provides holding force when breaking out or making up a new connection.

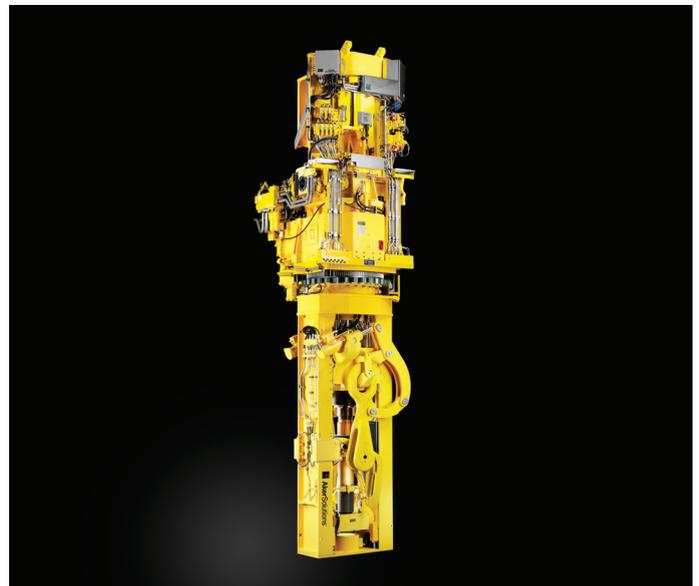
For the requirements of harsh environments we use state-of-the-art components, such as stainless steel hydraulic fittings.

Available Options:

- ABS or DNV approval
- Riser handling system
- CE marking
- Various elevator links, saver subs, TBA, etc.
- SoftTorque Z

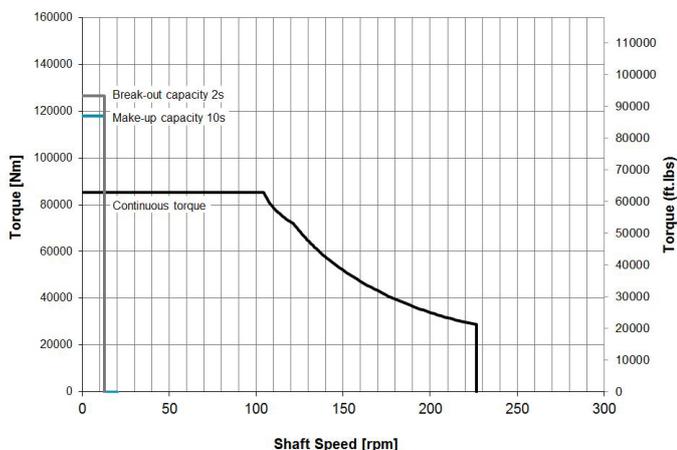
Benefits

- 100 % modular design for minimum downtime and quick change-out of main parts
- Easy-to-access inspection hatches for gear and thrust bearing reduce the inspection time
- High commonality between MDDM 1000 and MDDM 1250 reduces your stock inventory
- Additional remote access (two remote IBOPs and one manual IBOP)

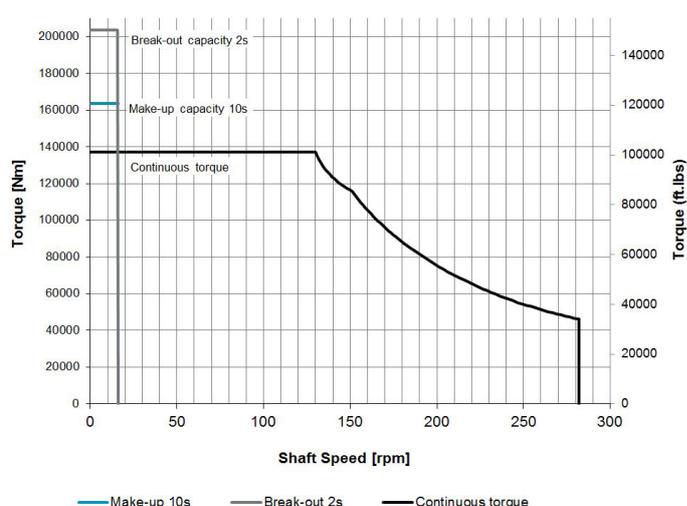


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Drilling Performance MDDM 1000



Drilling Performance MDDM 1250



Technical Specifications

| Parameters | MDDM 1000 | MDDM 1250 |
|---|---|---|
| Controls | Electric remote | |
| Weight | 99 200 lb (45 000 kg) | 142 200 lb (64 500 kg) |
| Motor type | AC induction motor, water cooled | |
| Power rating | 1 270 hp (947 kW) | 2 x 1 270 hp (947 kW) |
| Height | 29.2 ft (8.9 m) | 30.8 ft (9.4 m) |
| Continuous torque, max. | 62 900 lbf-ft (85 300 Nm) | 101 000 lbf-ft (137 000 Nm) |
| Speed @ max. continuous torque | 104 rpm | 130 rpm |
| Torque @ max. speed | 21 200 lbf-ft (28 700 Nm) | 34 100 lbf-ft (46 200 Nm) |
| Speed, max. | 227 rpm | 282 rpm |
| Hook load | 1 000 sh.tons (907 000 kg) | 1 250 sh.tons (1 134 000 kg) |
| Pressure class | 7 500 psi (517 bar) | |
| IBOP pressure rating | 15 000 psi (1 034 bar) | |
| Water course | 3.5 in (76.2 mm) | 4 in (101.6 mm) |
| BU wrench, make-up/break out | 86 873 lbf-ft (117 800 Nm)/ 93 339 lbf-ft (125 568 Nm) | 120 563 lbf-ft (163 484 Nm)/ 150 135 lbf-ft (203 584 Nm) |
| Hazardous area classification (according to IEC 60079-10-1) | Zone 1 | |
| Ambient temperature, min./max. | -20/+50°C (-4/+122°F) | |
| Hydraulic requirements | 84.5 gpm(us) @ 3 000 psi (320 l/min @ 210 bar) | |

All data is subject to confirmation by the manufacturer.