Top Drives

MH™ TD series

Our top drive (TD) design is based on years of experience from MDDMs and DDMs in operation, combining the highest torque, lifting and handling capabilities with a compact design.

Our TDs feature continuous main shaft from the power swivel through the gearbox and the pipe handler. The weight of the drill string is transferred from the link hanger to the main shaft by means of a load hang-off nut. A remote controlled, multifunctional pipe handler enables 360° continuous rotation. The auto positioning ensures safe, easy and accurate orientation at all times.

In addition to providing market leading drilling torque and speed, the drive motors provide make-up and break-out of the drill-pipe connection. With a multi jaw design, the back-up wrench requires only minimal adjustments to clamp various tool-joint sizes.

Various features of our top drives minimize manual handling and therefore improve safety and reduce maintenance downtime considerably:

- The unit flush can be lowered to the drill floor via the link tilt system with bi-directional knuckle links
- The top drive's subs can easily be removed via a simple clamp system
- The elevator can be lowered or stopped in any position with a link-tilt float system – simply by means of gravity
- The complete stack can swing out to simplify inspections and reduce work on the drill floor itself

To further reduce your maintenance time on-site, critical main components of our TDs are modularized, e. g. the AC motors, pipe handler, back-up wrench, hydraulic swivel, inside blow out preventers (IBOP) etc.

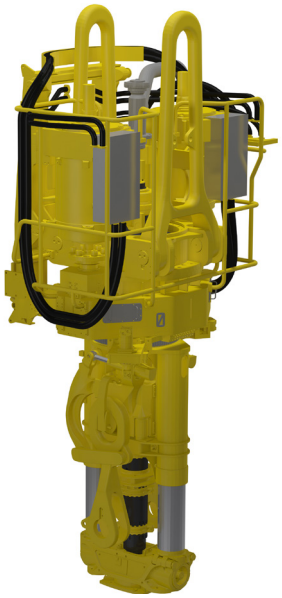
Our top drives are designed in accordance with recognized RAM and FMECA standards. For the requirements of harsh environments we use state-of-the-art components, such as stainless steel hydraulic fittings.

Available Options:

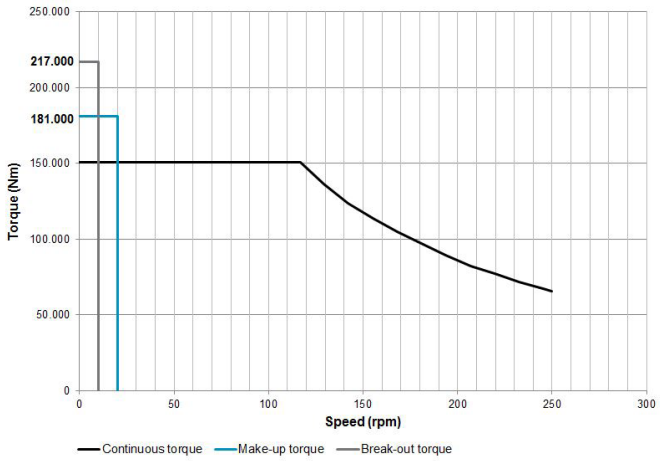
- ABS and DNV approval
- Riser handling system
- Various elevator links, saver subs, etc.
- 10 000 psi mud pressure
- Long-life wash pipe
- Soft Torque Z

Benefits

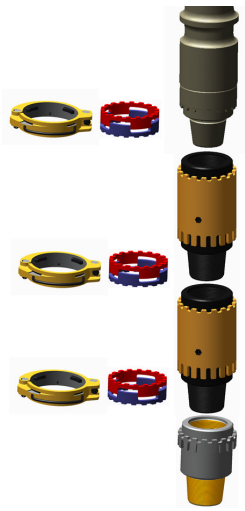
- Modularized design significantly minimizes field maintenance
- Simple IBOP actuator system with direct acting cylinders
- Single oil reservoir eliminates the risk of leakage between oil reservoirs
- Improved HSSE performance due to requirements for no manual tong to break subs
- Water (IP56) and air cooled main motors available to meet your project requirements
- IBOP/saver sub clamp handling eases installation, inspection and maintenance
- Prepared for CBM (Condition Based Maintenance) strategy



Drilling Performance TD 1250 and TD 1500



Clamp System for the Kelly Subs



Technical Specifications

Description	TD 1250	TD 1500
Controls	Electric remote	
Weight	85 980 lb (39 000 kg)	
Motor type	AC induction motor	
Power rating	2 x 1 300 hp (969 kW)	
Height	22 ft (6.7 m)	
Continuous torque, max.	110 662 lbf·ft (150 500 Nm)	
Speed @ max. continuous torque	117 rpm	
Torque @ max. speed	45 735 lbf·ft (62 200 Nm)	
Speed, max.	250 rpm	
Hook load	1 250 sh.tons (1 134 m.tons)	1 500 sh.tons (1 361 m.tons)
Pressure class	10 000 psi (690 bar)	
IBOP pressure rating	20 000 psi (1 380 bar)	
Water course	4 in (102 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.	-4/+131°F (-20/+55°C)	
Hydraulic requirements	79.3 gpm(us) @ 3 000 psi (300 l/min @ 210 bar)	

All data is subject to confirmation by the manufacturer.