

TD-750-AC-1M-C

Top drive

APPLICATIONS

Offshore drilling operations

BENEFITS

- Improved operational certainty and efficiency with best-in-class performance and reliability
- Rig-time savings through simplified maintenance
- Enhanced range of applications through modular design and ruggedized drilling capabilities

FEATURES

- Maintenance-friendly solutions
 - Hydraulic valve blocks directly mounted on rotation head
 - Drip pans under all filters
 - Access to all relevant maintenance items if working platform mounted between guiderails
 - Swing-out blower design
 - Docking pin that enables splitting top drive body from main frame in minimum time
 - Lifting provisions on all items
 - Disk brakes mounted inside coupling bell housings
- High-capacity thrust bearing
- Helical-cut gear teeth (carburized and grinded) that increase service life and reduce noise level and maintenance
- Gearbox lubrication for optimal performance of gears and bearings under all environmental conditions
- Self-calibrating thread compensation system that uses analog stroke sensor to optimize performance
- Onboard hydraulic system designed to minimize the number of hoses and fittings installed
- Bell housings between AC motor and gearbox that ensure perfect alignment and protect the flexible coupling between motor output shaft and gearbox pinion shaft

The TD-750-AC-1M-C provides best-in-class performance and proven reliability combined with simple maintenance and superior uptime.

Reliable, long-life service

Built with preloaded axial bearing high-capacity thrust bearings, the TD-750-AC-1M-C top drive is engineered for long service life and dependable performance, even in challenging drilling conditions, including top hole drilling.

Flexible, customizable operation

The top drive's modular design ensures quick and easy replacement of parts. All maintenance and lubrication points are easily accessible and protected from collision. Because it is easily accessible, the gearbox can be quickly and easily lubricated to ensure optimal gear and bearing conditions under all environmental conditions. Additionally, the gear teeth are helical cut, carburized, and grinded, which helps increase service life and reduce noise level and maintenance requirements.

Expedited pipe handling

Cameron high-performance vertical pipe handling solutions perform tripping and standbuilding smoothly and accurately, bringing safety and efficiency to the modern drill floor. The pipe handling systems include a stiff-link system that enables handling of the latest-model fail-safe elevator—from drilling to maximum kickout mode. Washpipe can be replaced within 5 min.



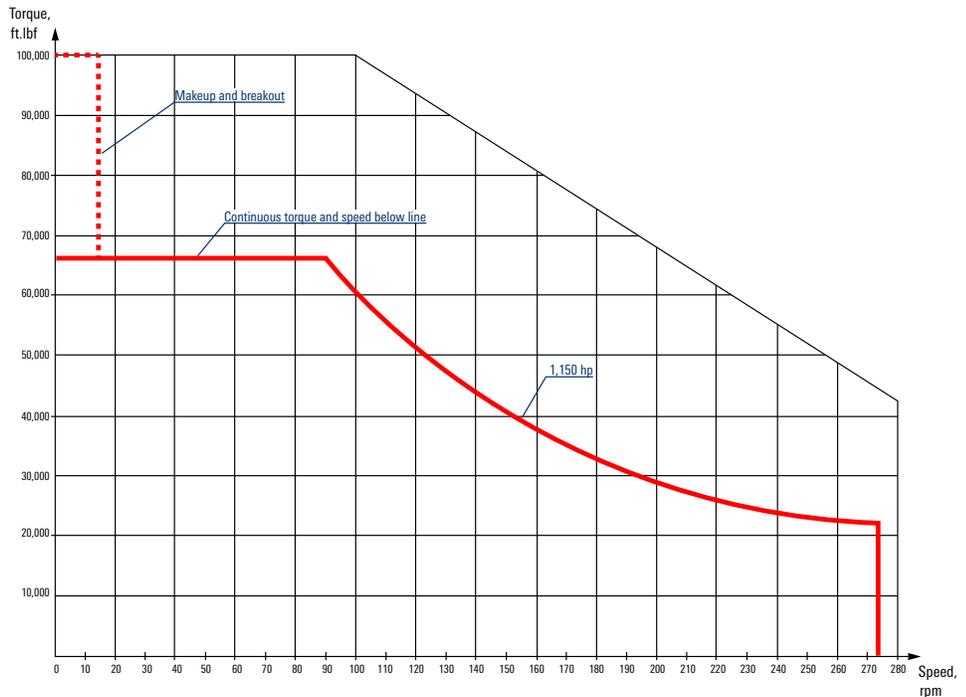
The top drive's compact and modular design enables streamlined replacement of parts, helping to maximize uptime.

Technical Specifications

Hoisting capacity, t [tonUK]	750 [680]
Maximum continuous torque, ft.lbf [N.m]	66,000 [89,500]
Maximum speed, rpm	274
Maximum makeup-breakout torque, ft. lbf [N.m]	100,000 [135,600]
Backup tong grab size, in [mm]	
Minimum OD	4 [101]
Maximum OD	10 [254]
Power rating, hp [kW]	
Standard	1,150 [846]
High-power option	1,500 [1,120]
Water course pressure rating, psi [MPa]	7,500 [51.7]
Inside BOP (IBOP) pressure rating, psi [MPa]	15,000 [103.4]
Design code and standard	API Specification 8C (Product Specification Level 1)
Area classification	ATEX Zone 1

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- High-capacity stiff-link tilt system for handling the latest model of fail-safe elevator—from drilling to maximum kickout mode
- Backup grabber that can handle tool joint OD sizes from 4 in to 10 in without changing die inserts
- Washpipe that can be replaced within minutes
- Rotary head with 18 ports
- Ready integration with hydraulic elevators, pneumatic elevators, or both
- Programmable arbitrary stop positions for the pipehandler rotate function, enabling the driller to set a number of predefined “elevator open” positions
- No need for hammer or tools when replacing washpipe
- Customized programmable logic control (PLC) software for simple, accurate, and natural operator controls from a single point
- Noise reduction
- Dual retention of all fasteners
- Torque wrench design that eliminates risk of accidental breakout of drillstem subs



Torque and rpm performance curve of the top drive represents its high-quality performance in a range of operating parameters.

Scope of Supply

Top drive assembly with gearbox, S-pipe, AC drilling motor with Ingress Protection Standard 44 (IP44), blower, drillstem subs, suspension system, weight-compensating system, rotatable pipehandler with stiff-link tilt system, remote IBOP actuator, and backup grabber

Power and signal service loops

Control system that includes PLC, onboard valve control unit, and derrick junction box termination kit

Handling (transport) cradle, including lifting sling

Auxiliary tools

Documentation

Options

Retractable or nonretractable dolly specifically designed to fit existing guide rails

Elevator links for drilling, casing, or both

AC drive package

AC motor with IP56-rated enclosure

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