

Top Drive

TD-500-AC-1M-GE

Cameron's TD-500-AC-1M-GE top drive is a single-motor machine, designed to meet client expectations as an efficient, safe and rigid top drive system for all drilling operations. The engineering of the top drive ensures a long lifetime with industry-proven components and high-fatigue capacity materials, resulting in low maintenance costs and downtime. The remote-operated control system uses a customized PLC to ensure that the driller perceives all operations as smooth, natural and comfortable. The top drive is designed for permanent installation on offshore drilling locations.



Main Features

- 500-ton capacity in elevator
- High-capacity thrust bearing
- Helical-cut gear teeth (carburized and grinded) increase service life and reduce noise level and maintenance
- Gearbox lubrication ensures optimal conditions for gears and bearings under all environmental conditions
- Self-calibrating thread compensation system uses analogue stroke sensor to optimize performance
- Bell housings between AC motors and gearbox provide precise alignment as well as protect the flexible coupling between motor output shaft and gearbox pinion shaft
- High-capacity knuckle link tilt system allows handling of latest model of "fail-safe" elevator – from drilling to maximum kickout mode
- Torque wrench can handle tool joint OD sizes from 4" to 10" without changing die inserts
- Wash pipe can be replaced within five minutes
- Rotary head with 18 ports

Safety Features

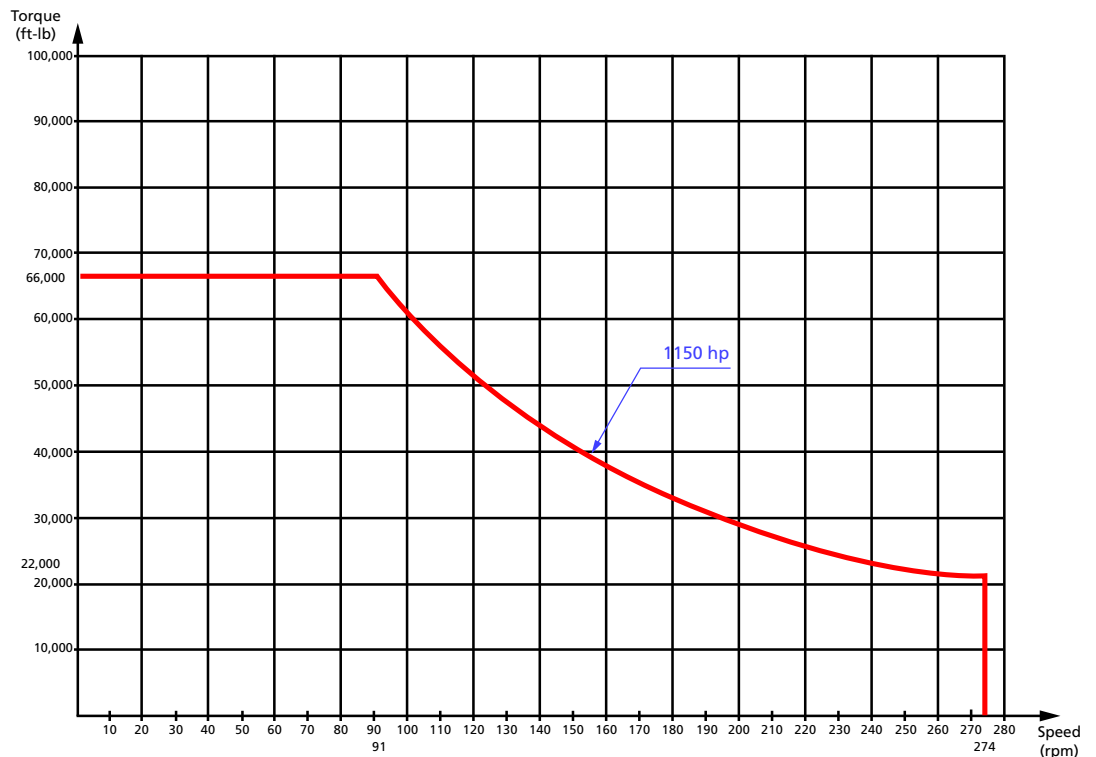
- Programmable arbitrary stop positions for the pipehandler rotate function allow the driller to set a number of predefined elevator open positions
- No need for hammer tools when replacing wash pipe
- Customized PLC software provides easy, accurate and natural operator controls from a single point
- Low noise levels
- No sensitive components located in front end
- Relevant maintenance accessible from backside of top drive (normally from a platform located between tracks)
- Dual retention of all fasteners
- Torque wrench design eliminates risk of accidental break out of drillstem subs

Technical Specifications	SI	Imperial (US)
Load rating	4500 kN	500 tons
Continuous torque rating	89,500 N-m @ 91 rpm	66,000 ft-lb @ 91 rpm
Maximum M/U and B/O torque	155,000 N-m	115,000 ft-lb
Area classification	Zone 1, IIB, T3 area	

Scope of Supply	Options
Top drive assembly complete with gearbox, S-pipe, AC drilling motor with IP44 enclosure, blower, drillstem subs, suspension system, weight-compensating system, pipehandler with knuckle link tilt system, remote IBOP actuator and high-capacity torque wrench	Retractable or non-retractable dolly – specifically designed to fit existing guide rails
Power and signal service loops	Elevator links for drilling and/or casing
Control system, including PLC, onboard valve control unit and derrick junction box termination kit	AC-driven package
Handling (transport) cradle including lifting sling	AC motor with IP56 enclosure
Auxiliary tools	Mud hose
Standard project documentation	Saver sub for various joint sizes
	Traveling block adapter
	Operator's control panel

Performance Curve

* Single-speed configuration



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