

LEWCO DIRECTDRIVE™ TOP DRIVES

High Torque Performance

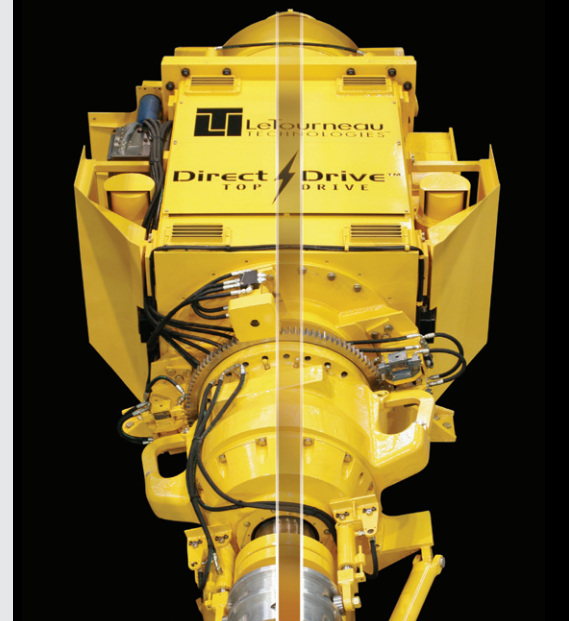
LEWCO DirectDrive™ Top Drives from LeTourneau Drilling Systems set higher standards for performance and reliability. The key to the LEWCO DirectDrive Top Drive is the LeTourneau patented gearbox free, AC electric motor direct-driven design, which eliminates associated gearbox problems. The result is a low maintenance, high performance, high reliability top drive designed for high torque drilling applications.

A Fully Integrated System

Available in 500, 750, and 1000 ton models, LEWCO DirectDrive™ Top Drives include the components necessary to improve drilling efficiency, performance, and reliability. The LEWCO DirectDrive system offers a high level of torque for increased drilling performance, while its redundant speed sensing capability provides for operational reliability. Built solid to meet demanding drilling applications, each LEWCO DirectDrive Top Drive is designed, manufactured, and tested to API 8C PSL1 standards.

The system includes:

- Counterbalance system
- Through-shaft design AC drilling motor from LeTourneau Power Systems
- Integral disc brake system
- Motor cooling system
- Hydraulic rotary head system with locking clamps
- Pipe handling system featuring 360° rotational capacity
- IBOP system
- Electrical / control service loop kit
- Derrick termination kit
- Top drive dolly
- Elevator links



A unique feature of the DirectDrive™ system is the through-shaft design AC drilling motor. Mud passes through an integrated stem module that remains completely separate from the motor.

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OEM AC Motors

Able to deliver a significant amount of torque, OEM AC Motors are highly reliable. High density magnetic steel and windings put more “copper in the slot” to deliver peak performance.



LEWCO DirectDrive™ Top Drive Specifications

Model	DDTD-500	DDTD-750	DDTD-1000
Hoisting capacity	500 short tons	750 short tons	1000 short tons
Drilling capacity	500 short tons	750 short tons	750 short tons
Direct drive variable AC motor performance*	42,500 ft-lbs	72,000 ft-lbs	94,000 ft-lbs
	Continuous Torque; 0-115 rpm	Continuous Torque; 0-116 rpm	Continuous Torque; 0-112 rpm
	80,000 ft-lbs	100,000 ft-lbs	130,000 ft-lbs
	Intermittent Torque; 0-115 rpm	Intermittent Torque; 0-116 rpm	Intermittent Torque; 0-112 rpm
Continuous HP	930 from 115-240 rpm	1575 from 116-240 rpm	2075 from 112-240 rpm
Static brake capacity	35,000 ft-lbs	57,000 ft-lbs	65,000 ft-lbs
Pipe clamp capacity	80,000 ft-lbs	110,000 ft-lbs	110,000 ft-lbs
Mud passage @ 7500 psi	3 inches	4 inches	4 inches
IBOPs, remote-actuated upper & manual-actuated lower	15,000 psi	15,000 psi	15,000 psi
Hook weight	43,500 lbs	65,000 lbs	105,000 lbs
Stack-up height	23.8 ft	28 ft	31.3 ft
Width x depth	7 ft x 5 ft	8.2 ft x 5 ft	9.4 ft x 6.8 ft

All specifications are subject to change. Information important to a particular application should be verified by LeTourneau Drilling Systems.

* All torque data is based on the combined performance of LeTourneau Power Systems' variable frequency drive and AC motor.

