MG-3750-D Electric Direct Drive

Provides as a reliable, economical solution for a variety of PCP applications, including heavy to light oil, coalbed methane, and water source wells

Applications

- PCP applications driven by electric motors

Features and Benefits

- The small footprint is especially useful for height-restricted areas and aesthetically sensitive environments.
- Standard features include a hinged guard for easy sheave and belt inspection or replacement and a four-point lifting system for ease of handling.
- The centrifugal braking system provides a resistive torque that is proportional to speed, for a safe release of the backspin energy. The brake shoes automatically engage and retract based on speed, which results in a quick, complete, and controlled fluid dump, enabling production to resume quickly.
- The braking system is enclosed and immersed in synthetic oil to manage a wide range in operating temperatures and to lubricate all moving parts for a long service life.

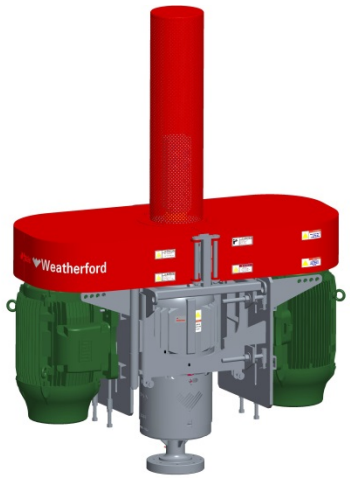
Tool Description

The Weatherford MG-3750-D drive is an electric, belt-driven drive head with a torque capacity of 3,750 lbf-ft. It is compatible with Weatherford stuffing boxes and various wellhead connections.

Specifications

Drive type	Belt direct drive
Prime mover type	Electric
Braking mechanism	Centrifugal braking system
Dynamic bearing capacity	350,702 lbf (1,560,000 N)
Bearing Ca90 capacity	90,921 lbf (41,241 kgf)
Torsional rating	3,750 lbf-ft (5,084 N•m)
Maximum polished-rod speed	500 rpm
Polished-rod size	1-1/2 in.
Maximum sheave ratio[a]	4:1
Main shaft type	Hollow

[a] May vary by motor frame size



The MG-3750-D electric direct drive is built with a unique centrifugal wet-braking system that provides reliable, controlled backspin protection to enhance operational safety.

Options

- Integral and booth mounted stuffing boxes*
- Conventional, I-PAK®, and DuraSeal® stuffing box types
- ISO 15163-2 model available
- Polished-rod speed indicator
- Polished-rod lock-out tool
- Support arms

* Some conditions may apply

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Specifications

Maximum axial load	30 tonne			
PR drive clamp type	Dual 8-bolt stacked			
Available stuffing box (SB) mounting	33.6T standard booth, bolt-on SB			Integral
Available stuffing box type	Conventional	I-PAK®	DuraSeal®	DuraSeal
Available stuffing box wellhead connection API compatible	3-1/8 3M flange			
	4-1/16 2M or 3M flange			
	5-1/8 2M or 3M flange			
Height: top of PR guard	105 in. (2,660 mm)			89 in. (2,251 mm)
Height: top of PR clamp	76 in. (1,930 mm)			60 in. (1,529 mm)
Width	41 in. (1,043 mm)			
Length	76 in. (1,927 mm)			
Approximate weight[b]	2,350 lb (1,066 kg)			2,250 lb (1,020 kg)
Motor mounting	Dual			
Maximum motor frame size	445T (Optional 505T) / IEC 280S/M (Optional IEC 315S/M)			
Maximum motor weight[c]	3,000 lb (1,361 kg) each			
Maximum mountable motor	150 hp, 1,800 rpm (Optional 200 hp 1,800 rpm)			
	125 hp, 1,200 rpm (Optional 150 hp 1,200 rpm)			
Input shaft orientation	Vertical			
Input shaft diameter	2.75 in. (70 mm)			
Maximum driven sheave diameter	31.5 in. (800 mm)			
Maximum driver sheave diameter	13 in. (330 mm)			
Maximum number of belts	8 ea. Type C, 12 ea. Type 5V			
Minimum center distance[d]	17 in. + D (432 mm + D)			
Maximum slant angle from vertical	5°			
Ambient operating temperature range	-40 to 122°F (-4 to 50°C)			
Minimum start-up temperature	32°F (0°C)			
Operating temperature range	32 to 248°F (0 to 120°C)			

[b] Not including motor, belts, sheaves, and bushings
[c] Including motor, belts, sheaves, and bushings
[d] D = distance from the base of selected motor to its centerline

* I-PAK is a registered trademark of Weatherford in the US and Canada. DuraSeal is a registered trademark of Weatherford in the US.