

LF230 Core Drill

Technical Data Sheet - Rev 4



July 2008 - MKT1803

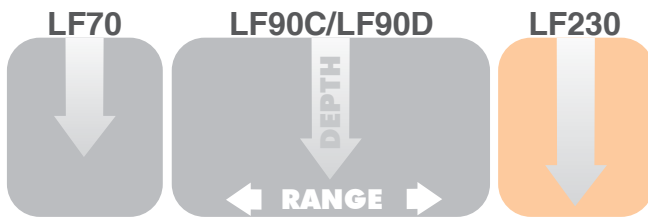
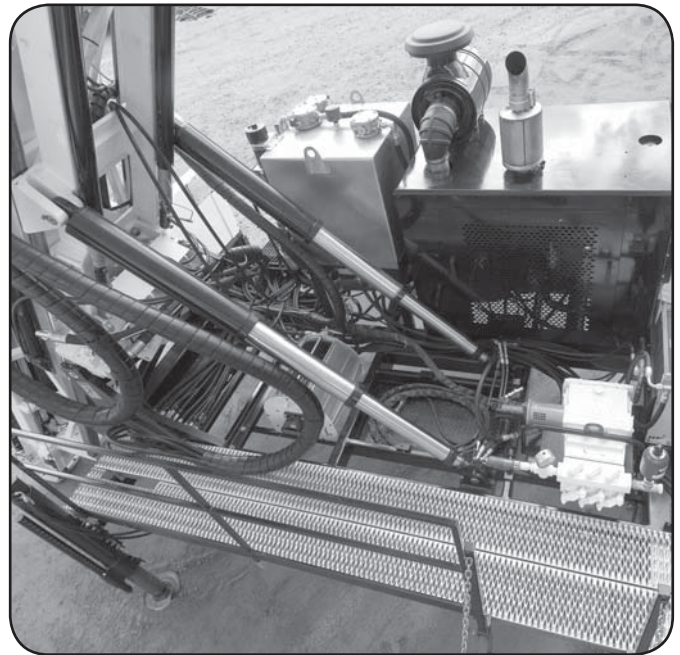
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PRODUCT OVERVIEW

It is considered to be one of the most productive deep hole drills in its class.

FEATURES:

- Dump mast — creates a stable working platform and lowers the working height dramatically.
- Patented Nitro-Chuck® — offers you performance and reliability (1 year warranty).
- Telescopic mast — compact transport size but still capable of 9 m (30 ft) rod pulls, easy onsite setup.
- Independent dual hydraulic mast raising cylinders.
- Mounting configuration — truck mounted for mobility.



DRILLING DEPTH GUIDELINES

The figures in these tables have been calculated, based on field experiences, and may be reasonably expected. Ratings are based on a vertical, straight, clean down hole using a

18 258 kg (40,000 lb) hoist (single line pull). Actual drilling capacity will depend on in-hole tools, conditions, drilling techniques and equipment used.

DRILL ROD/CORE BARREL	DRY HOLE		FLUID FILLED	
	Hole Depth (meters)	Hole Depth (feet)	Hole Depth (meters)	Hole Depth (feet)
BRQ/BQ	3 050	10,000	3 495	11,460
BRQTK/BQTK	3 815	12,500	4 390	14,390
NRQ/NQ/NQ2	2 350	7,690	2 695	8,830
NRQ V-WALL	2 770	9,090	3 195	10,470
HRQ/HQ	1 585	5,190	1 815	5,945
HRQ V-WALL	2 180	7,140	2 520	8,265
HWT/PQ	1 045	3,420	1 195	3,915

* BQ capacity shown for comparison purposes only. It is not recommended drilling practice to drill over 2 000 m BQ depth. Always verify manufacturers rod depth ratings prior to use.

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TECHNICAL SPECIFICATIONS

	METRIC SYSTEM	U.S. CUSTOMARY SYSTEM	
PRIME MOVER			
Standard Unit	Cummins QSC 8.3 L, Tier 3, liquid cooled, turbo charged, charge air cooled engine.		
Displacement	8.3 L	506 in ³	
Power (maximum) at 2,200 RPM	194 kW	260 hp	
TORQUE AND RPM RATINGS			
(Hydraulic motor at maximum/minimum displacement, prime mover at 2,200 RPM)			
	Speed (no load)	Torque (stall)	
	RPM	Nm	lbft
1st Gear	144 - 199	5 322 - 3 826	3,925 - 2,822
2nd Gear	288 - 400	2 648 - 1 898	1,953 - 1,400
3rd Gear	514 - 714	1 486 - 1 068	1,096 - 788
4th Gear	900 - 1,250	849 - 610	626 - 450
HYDRAULIC SYSTEM			
Primary Pump	Axial piston, variable displacement, load sensing, pressure compensated with low pressure standby.		
Max Flow	318 L/m	84 gpm	
Maximum Pressure (factory setting)	31 MPa	4,500 psi	
Secondary Pump	Axial piston, variable displacement, load sensing, pressure compensated with low pressure standby.		
Max Flow	72 L/m	19 gpm	
Maximum Pressure (factory setting)	21 MPa	3,000 psi	
Auxiliary Pump	Axial piston, variable displacement, pressure compensated.		
Max Flow	42 L/m	11 gpm	
Maximum Pressure (factory setting)	14 MPa	2,000 psi	
Hydraulic Tank			
Capacity	435 L	115 gal	
DRILL HEAD			
Rotation Motor	Rexroth hydraulic motor - variable/reversible		
Mechanical Transmission	Funk 4 speed		
Ratios	1st	6.27:1	
	2nd	3.12:1	
	3rd	1.75:1	
	4th	1.00:1	
Final Drive	Straight cut gears		
Ratio	2:1		
Head Opener	Pivoting style — hydraulically actuated		
Hydraulic PQ Chuck	Patented Nitro-Chuck® Hydraulically opened, nitrogen gas spring closed. Axial holding capacity of 222 400 N (50,000 lbf)		
Drill Head Lubrication	Force fed bearings, oil bath for gears, external sump		
Drill Head Lubricating Oil Filtration	25 micron suction oil filter		

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TECHNICAL SPECIFICATIONS

	METRIC SYSTEM	U.S. CUSTOMARY SYSTEM
DRILL MAST AND FEED SYSTEM		
Feed Stroke	3.35 m	11 ft
Feed Pull	223 300 N	50,200 lbf
Feed Thrust	117 877 N	26,500 lbf
Rod Pull	6 or 9 m	20 or 30 ft
Drilling Angle	45° off horizontal to 90° vertical down	
Mast Dump (Crowd)	2.74 m	9 ft
Mast Telescope	2.87 m	9.42 ft
DRAW WORKS		
Main Line Winch (40,000 lb)	Two speed motor	
Hook Load (single part line)		
Bare Drum	18 144 kg	40,000 lb
Hoisting Speed (single part line)		
Bare Drum	72 m/min and 40 m/min	236 ft/min and 131 ft/min
Main Line Winch Cable Dia.	22 mm	7/8 inch
Minimum Breaking Strength	51 891 kg	114,400 lb
NOTE: Do not use multiple part lines with the main line hoist, use single part line ONLY.		
Wireline Hoist		
Line Pull		
Bare Drum	907 kg	2,000 lb
Full Drum	510 kg	1,125 lb
Line Speed		
Bare Drum	160 m/min	525 ft/min
Full Drum	284 m/min	932 ft/min
Drum Capacity (6.4 mm/1/4" swaged)	3 300 m	10,827 ft
NOTE: Wireline cable length to be specified at time of order.		

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DIMENSIONS AND WEIGHTS*

WEIGHT	
Wet Weight ** = 13 607 kg (30,000 lb)	Consisting of: Power Unit Group Cummins QSC 8.3 L, Tier 3, 6 cylinder Hydraulic Module Draw Works Grp. c/w 40,000 lb Main Line Hoist with Cable, Wireline Hoist less Cable Hydraulic Mast Raising Hydraulic Mast Dump Telescopic Mast Assembly Rotation Unit Grp. c/w PQ NitroChuck® Base Frame Fuel Tank (485 L/128 US gal) Battery Hydraulic Leveling Jacks/Outriggers (Optional) Foot Clamp Mast Access Ladders Hydraulic Water Pump
OPTIONS	
Truck Mounted - International 5600 Catwalk, Railing and Access Stairs Rod Rack Platform (vertical holes ONLY) *** Hydraulic Cooler (hot climate) Mast Rest (truck mount version) Decals available in any language	** For high mobility, the mast mounted platform is kept lightweight. An optional rod rack is available for vertical holes only, otherwise rods are stacked on the ground. *** Limited to 22,000 lb of gross weight stacked at 5° off vertical mast. i.e. 140 x 30 ft stands NQ WARNING: Do not operate this drill with rods racked in wind velocities in excess of 85 km/h. This unit must not be operated without a truck or drilling skid base installed for stability.

* Dimensions and weights may vary depending on options and should be checked before crating or lifting.

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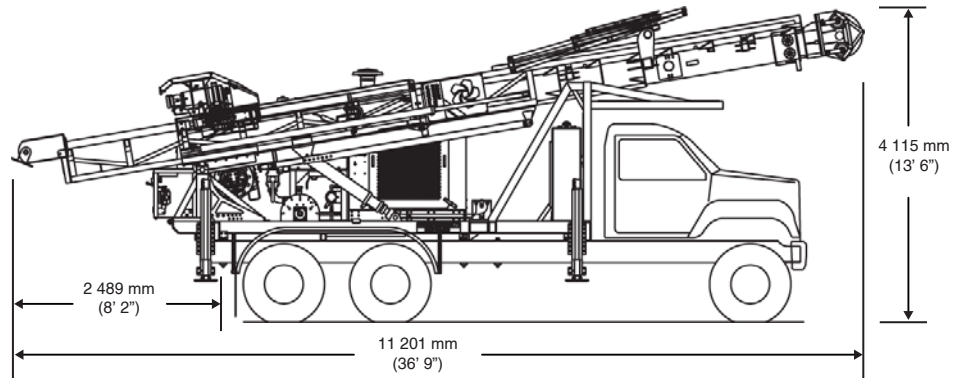
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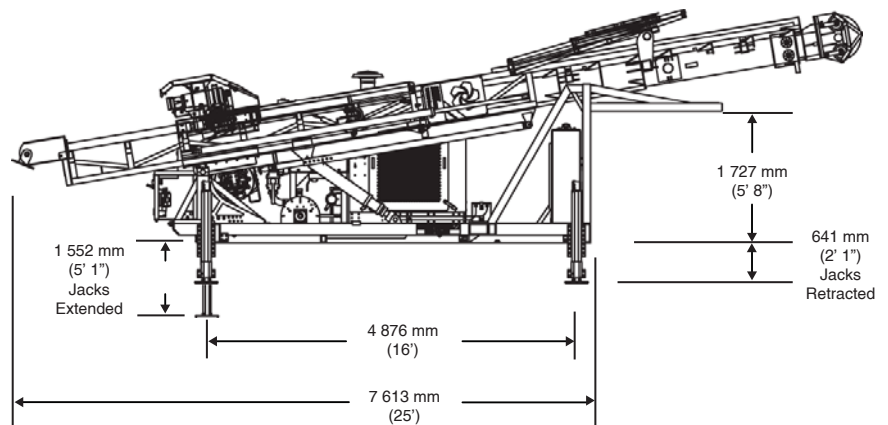
DIMENSIONS AND WEIGHTS*

DRILL TRANSPORT POSITION

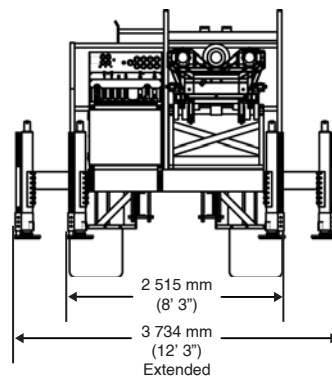
(shown with optional truck)



DRILL TRANSPORT POSITION WITH NO TRUCK



REAR END VIEW OF DRILL - OUTRIGGER DETAIL



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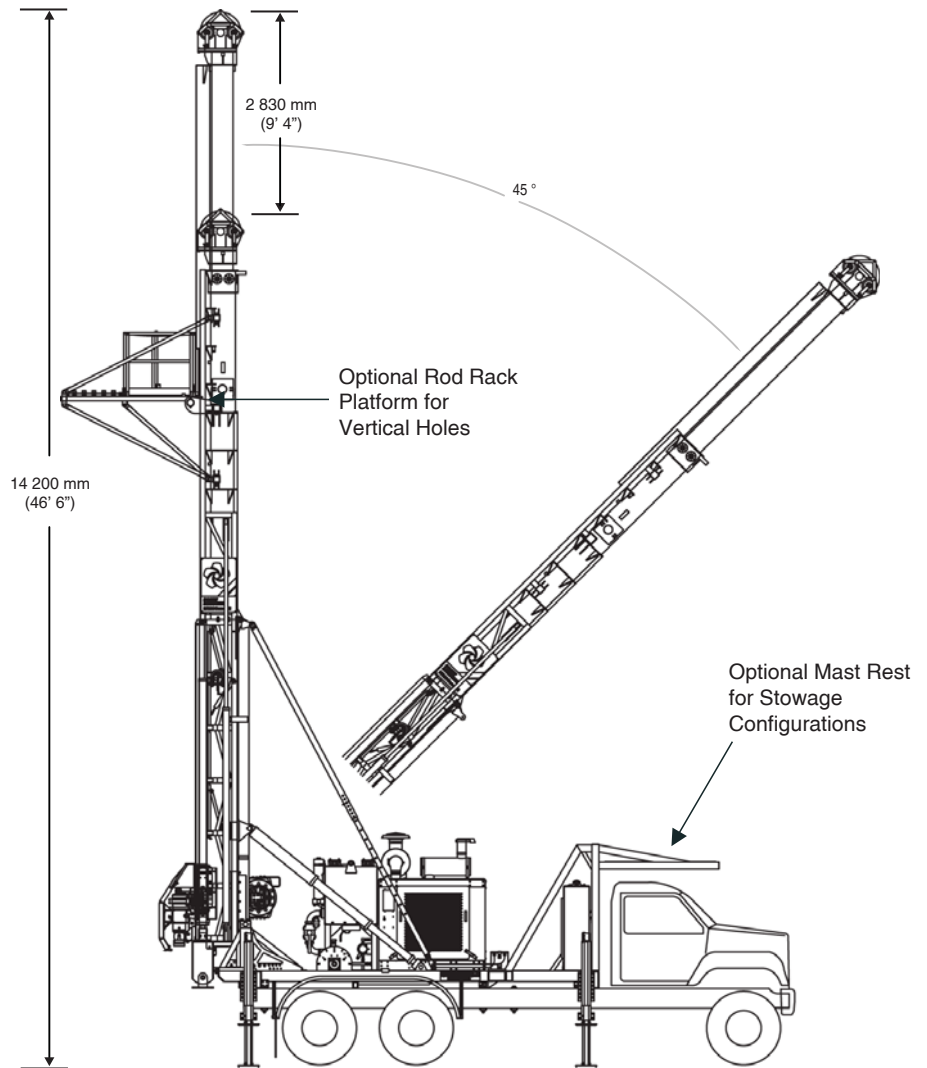
DIMENSIONS AND WEIGHTS*

DRILL - MAST AT 90°

Side view of drill with mast in 9 m (30 ft) pull

NOTE: Dimensions are with hydraulic leveling jacks extended to ground level. Leveling jack full stroke is 914 mm (3')

(shown with optional truck)



* Dimensions and weights may vary depending on options and should be checked before crating or lifting.