

ER-1100 DIAMOND CORE DRILLING RIG TECHNICAL SPECS



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TECHNICAL SPECS

Drilling Depth Capacity	
Drill Rod	Drilling Depth, meters <i>Based on fluid filled hole conditions</i>
BQ	1400
NQ	1100
HQ	725
PQ	480

Engine (Prime Mover)	
Engine (Prime Mover)	Iveco N67MNTF41, 6 cylinder, turbo charged, after cooled diesel engine.
Displacement	6,7 L
Power (maximum) at 2,200 RPM	285 hp

PQ Drill Head - Hollow Spindle		
Maximum Rod Diameter	127 mm	
Rotation Motor	Rexroth A6VM107HD2 hydraulic motor - variable/reversible	
Mechanical Transmission Ratios	4 speed gearbox	
	1st	6.27:1
	2nd	3.12:1
	3rd	1.75:1
	4th	1.00:1
Final Drive Ratio	Straight Cut Gears 2:1	
Head Opener	Side sliding style — Hydraulic Operation	
Hydraulic PQ Chuck	Nitro-Chuck-Hydraulically opened, nitrogen gas spring closed. Axial holding capacity of 222000 N	
Drill Head Lubrication	Force fed bearings - Hydraulically driven	
Drill Head Lubrication Oil Filtration	25 Micron high pressure oil filter	

Torque And RPM Ratings - PQ Head		
(Hydraulic motor at maximum/minimum displacement, prime mover at 2,200 RPM)		
	Speed (no load) RPM	Torque (stall) Nm
1st Gear	122- 199	5322 - 3254
2nd Gear	245 - 400	2648 - 1620
3rd Gear	440 - 714	1486 - 908
4th Gear	769 - 1,250	849 - 519

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Hydraulic System	
Primary Pump	Kawasaki K3VL112 Axial piston, variable displacement load sensing, pressure compensated with low pressure standby.
Max Flow	246 L/m
Maximum Pressure	320 bar
Secondary Pump	Kawasaki K3VL45 Axial piston, variable displacement, pressure compensated
Max Flow	99 L/m
Maximum Pressure	320 bar
Auxiliary Pump	Kawasaki K3VL28 Axial piston, variable displacement load sensing, pressure compensated with low pressure standby.
Max Flow	61 L/m
Maximum Pressure	170 bar
Drill Mast And Feed System	
Feed Stroke	3.80 m
Pull Capacity @ 2,000 psi	7850 kg
Thrust Capacity @ 2,000 psi	5200 kg
Rod Pull	3 or 6 m
Drilling Angle	45° off horizontal to 90° vertical down
Draw Works	
Main Line Hoist	Main Line Hoist Double speed motor
Hook Load (single part line) Bare Drum	9500 kg
Hoisting Speed (single part line) Bare Drum	53 m/min
Main Hoist Cable	16 mm
Minimum Breaking Strength	23000 kg
Foot Clamp Capacity	HWT
Wireline Hoist	
Rotation Motor	Eaton 1041991 400 cc/rev, hydraulic motor
Line Pull	
Bare Drum	990 kg
Full Drum	275 kg
Line Speed	
Bare Drum	145 m/min
Full Drum	433 m/min
Drum Capacity 4.8 mm (3/16") swaged	1900 m
Minimum Breaking Strength	2250 kg

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Track System	
Track Model	Strickland DT223B
Maximum Dynamic Capacity	7500 kg
Track Type	400 mm wide triple grouser steel track shoes

RQ-535 Triplex Mud Pump	
Rotation Motor	Eaton 104-1385 100 cc/rev, hydraulic motor
Max. Flow Rate	135 L/m
Working Pressure	36 Bar
Max. Pressure	49 Bar

Mud Mixer	
Hydraulicly Powered Mud Mixer	
Maximum R.P.M. of Mud Mixer Shaft at Full Flow	2300

One ER-1100 Drilling Unit Consist of:
Undercarrige (Track System)
Power Unit Group Iveco 6.7 L, Tier 3, 6 cylinder
Hydraulic Module
Draw Works Grp. c/w 9 Ton Main Line Hoist with Cable, Wireline Hoist less Cable
Hydraulic Mast Raising
Hydraulic Mast Dump
Telescopic Mast Assembly
Rotation Unit Grp. c/w PQ Nitro Chuck/Head Guard
Base Frame
Fuel Tank (300 L)
Battery - 12V
Hydraulic Foot Clamp HWT Capacity
Hydraulic Leveling Jacks
Hot Weather Hydraulic Cooling Group
Catwalk, Railing and Access Stairs
Rod Rack Platform
One Mud Circulation Pump
Mud Mixer

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