



LS™600

V1 7/11/17

GENERAL PERFORMANCE RATING		
	Metric	U.S.
Drilling Depth	152 mm - 182 m	6 in - 600 ft
Max Drilling Diameter	305 mm	12 in
Pull Back	67.5 kN	15,175 lbf
Down Force	40.5 kN	9,105 lbf
Max Casing Length	6 m	20 ft
SONIC HEAD		
	Metric	U.S.
Drill Head Type	BL-150	
Vibration Motors	Fix displacement piston motors	
Frequency range	0-150 Hz	
Output Force @ 150 Hz	222 kN	50,000 lbs
Rotation Motor	Charl-Lynn Gerotor hydraulic motor - reversible	
Maximum Torque	3,660 Nm	2,700 ftlb
Rotation Speed	0-70 RPM	
PRIME MOVER		
	Metric	U.S.
Engine - Standard Unit	Caterpillar C6.6, liquid cooled, turbo charged, charge air cooled engine.	
Displacement	6.6 L	402.8 in ³
Power (maximum) at 2,200 RPM	168 kW	225 hp
Emissions	Stage™ III	tier 3
Fuel Tank Capacity	156 L	41.2 gal
Engine - High Altitude Unit	Caterpillar C7, liquid cooled, turbo charged, charge air cooled engine.	
Displacement	7.2 L	439 in ³
Power (maximum) at 2,200 RPM	223 kW	300 hp
Emissions	Stage™ III	tier 3
Fuel Tank Capacity	240 L	63.4 gal

HYDRAULIC SYSTEM		
	Metric	U.S.
Primary Pump	Variable Displacement axial piston close loop pumps	
Max Flow	2x240 lpm	2x63.4 gpm
Maximum Pressure (factory setting)	27.5 MPa	4,000 psi
Secondary Pump	Gear pumps	
Max Flow	114+114+60+60 Lpm	30+30+15+15 gpm
Maximum Pressure (factory setting)	20.5 MPa	3,000 psi
Auxiliary Pump	Gear pumps	
Max Flow	60+114+114+35 Lpm	15+30+30+9 gpm
Maximum Pressure (factory setting)	20.5 MPa	3,000 psi
Hydraulic Oil Tank Capacity open loop	333 L	88 gal
Hydraulic Oil Tank Capacity close loop	208 L	55 gal
DRILL MAST SYSTEM		
	Metric	U.S.
Overall Length		
Drilling Angle	45° off horizontal to 90° vertical down	
Rod Pull	6 m	20 ft
Head Tilt	0 - 90 Degrees	
DRILL FEED SYSTEM		
	Metric	U.S.
Feed Stroke	7.47 m	24.5 ft
Feed Pull	67.5 kN	15,175 lbf
Feed Thrust	40.5 kN	9,105 lbf
Feed speed back-fine	25 m/min	82 ft/min
Feed speed down-fine	42 m/min	138 ft/min
Feed speed back-fast	50 m/min	164 ft/min
Feed speed down-fast	84 m/min	275 ft/min
Drilling Angle	45° off horizontal to 90° vertical down	
MAIN WINCH		

	Metric	U.S.
Line Pull		
Bare Drum	9,650 N	2,169 lb
Full Drum	7,145 N	1,606 lb
Rope speed		
Bare Drum	41 m/min	134 ft/min
Full Drum	56 m/min	183 ft/min
Main line winch cable dia.	6 mm	1/4 in
Minimum breaking strength	23,90 kN	5373 lb
Rope length	65 m	213 ft

WIRELINE HOIST

	Metric	U.S.
Line Pull		
Bare Drum	9,650 N	2,169 lb
Full Drum	7,145 N	1,606 lb
Rope speed		
Bare Drum	41 m/min	134 ft/min
Full Drum	56 m/min	183 ft/min
Main line winch cable dia.	6 mm	1/4 in
Minimum breaking strength	23.9 kN	5,373 lb
Rope length	152 m	500 ft

FOOT CLAMP/BREAKOUT SYSTEM

	Metric	U.S.
Rod Clamps	2 (dual cylinders - top and bottom)	
Max clamping diameter (clamp/breakout tool)	305 mm	305 mm
Range of clamping diameter w/std jaws	76 mm - 267 mm	3 in - 10.5 in
Range of clamping diameter w/ optional jaws (casing)	267 mm - 305 mm	10.5 in - 12 in
Clamping force	129 kN	29,000 lb
Max breaking torque	23 kNm	16,964 lbft
Max breaking angle	39 deg	

UNDERCARRIAGE

	Metric	U.S.
Crawler - Standard Unit	Morooka 1500VD	
Max speed, 1st gear	7.6 km/h	4.7 m/h
Max speed, 2nd gear	11 km/h	6.8 m/h
Track width:	700 mm	27.5 in

Ground pressure	0.041 MPa	5.9 PSI
Crawler - High Attitude Unit	Morooka 2200VD	
Max speed, 1st gear	8 km/h	5 m/h
Max speed, 2st gear	12 km/h	7.5 m/h
Track width:	750 mm	29.5 in
Ground pressure	0.046 MPa	6.6 PSI
COMPRESSOR		
	Metric	U.S.
Type	Hydraulic driven piston type	
Max flow	400 lpm	105 gpm
Max pressure	8 bar	115 PSI