

ROCK BUGGY SURFACE DRILL RIGS

TECHNICAL SPECIFICATION



MAIN COMPONENTS

- One hydraulic rock drill
- Aluminium feed with rail bar
- Two independent hydraulic stabilizer legs
- Rail bar
- Folding boom

DSI APPLICATIONS

Marble - Granite - Sandstone - Limestone

DSI OPERATIONS

Primary cut drilling
Bench dressing
Block dressing

ROCK DRILL

	Metric	Imperial
DF420		
Hole diameter	28 - 45 mm	(1 1/8" - 1 3/4")
Weight	41 kg	(90.4 lb)
Percussion pressure	110/140 bar	(1 595/2 031 psi)
Percussion rate	100 - 115 Hz	100 - 115 Hz
Percussion oil flow	40/60 lit./min	10.6/15.8 US gal/min
Rotation torque	100 Nm	73.7 lbs/ft
Rotation speed	245 rpm	245 rpm
DF500X		
Hole diameter	28 - 45 mm	1 1/8" - 1 3/4"
Weight	55 kg	121.3 lb
Percussion pressure	100/130 bar	1 595/1 885 psi
Percussion rate	75 - 95 Hz	75 - 95 Hz
Percussion oil flow	46/80 lit./min	12.1/21.1 US gal/min
Rotation torque	110 Nm	81.1 lbs/ft
Rotation speed	235 rpm	235 rpm

DRILLING UNIT

Starter rod	2.40 m	7' 10 1/2"
Rail bar with travel length	3.7 m	12' 1 11/16"
Rail bar with travel length	3.05 m	10'
2 independent hydraulic stabilizer legs		
Rail bar front rotation +/-20°		
Rail bar lateral rotation +/-20°		
Rail bar horizontal rotation +/-90°		
Feed in aluminium with hardened steel inserts for slide advancing with hydraulic approaching device to the ground		
Chain feed slide with hydraulic engine		
Sliding block in self lubricating composite		
Fast system steel retainer		

FOLDING BOOM

Length boom	4.8m	15'9"
Swing boom rotation +/- 35°		

CARRIER

Axles: equipped with three steering systems
Front axle rigid to the frame
Balancing rear axle
4 drive steering wheels
4 hydraulic stabilizer legs
Hydrostatic transmission at closet circuit with pump and variable-powered pistons hydraulic motor
Differential automatic blocksystem

- Self propelled four-wheel drive unit
- CANBUS control system
- Cummins engine
- Screw compressor
- Dust collector system

HYDRAULIC SYSTEM

Variable displacement main pump with load-sensing control system
Gears secondary pump for starting the dust collector system and radiator oil cooling device
Automatic device of oil pre-heating system
Oil cooling system
Anti-jamming device
Proportional control hydraulic valves
10 micron absolute oil filtration

CONTROL SYSTEM

PMI (Panel Machine Interface) is a cable control system with graphic display and joystick
3 electronic power stations
As optional 1 Radio Remote Control panel
Drilling low start device concerning both the thrust pressure and the percussion pressure

ENGINE

Cummins B 3.3 Turbo
Direct injection
4 cylinders
Power 85 hp - 62.5 kW

COMPRESSOR

FAD, at normal working pressure	22 l/s	46 cfm
Maximum pressure	6 bar	87 psi
Mod E3		

DUST COLLECTOR

Filtering surface	6 m²	65 sq.ft
Suction capacity	97 l/s	206 cfm
Number of filters: 2		
Automatic cleaning system of the filters		

TRAMMING

Tramming speed	9.5 km/h	5.9 mph
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VOLUMES

Hydraulic oil tank	60 l	15.9 US gal
Hydraulic oil total	100 l	26.4 US gal
Compressor oil	8 l	2.11 US gal
Diesel engine oil	8.5 l	2.25 US gal
Diesel tank	140 l	37 US gal

ENVIRONMENT

Temperature limits	-20° C +45° C	-4° F + 113° F
Maximum altitude	2 300m	7 550ft

ELECTRICAL SYSTEM

Voltage: 24 V
Batteries: 2 x 12V 100 Ah
Alternator: 55 A