Cat®
MD6640

Rotary Blasthole Drill

Specifications

Mainframe Components

Air Compressor with Unloader Package

Oil-Flooded Screw Compressor and Constant Volume Oil Pump for Optimized Cooling	
Standard	85 m^3/min (3000 cfm) free air, 4.5 bar (65 psi)
Optional	108 m^3/min (3800 cfm) free air, 4.5 bar (65 psi)

Leveling Jacks (4)

Automatic leveling system	Standard
Jack Size - Rear	229 mm (9 in) diameter x 1 676 mm (66 in) stroke
Jack Size - Front	229 mm (9 in) diameter x 1 676 mm (66 in) stroke

(2) positioned outside mast at rear and (2) positioned outside frame at front

Lubrication

Automatic PLC Centralized	Standard

Drilling	**(9.625 – 16 in)**
Hole Diameter	244 – 406 mm
Hole Depth	19.81 m (65 ft)

Lower Works

Crawler Mounting

Heavy-duty with Excavator-style Sprocket Drive Links	
Dual Axles	Fixed Rear & Pivitable Front
Overall Length	7.29 m (23 ft 11 in)
Overall Tread Width - Standard	6.25 m (20 ft 6 in)
Tread Widths - Standard	914 mm (36 in)
Ground Bearing Pressure	113 kPa (16.4 psi)
Optional Wide Links	1 067 mm (42 in)
Ground Bearing Pressure	96.5 kPa (14 psi)
Total effective bearing area (3 556 mm treads)	64 m^2 (689 ft^2) 221 kPa (32.1 Psi)

Propel

Chainless Hydraulic Drive, Counter-rotating Tracks, Crawler-mounted Disc Brakes and Tow Brake Release	Standard
Propel Speed	1.45 km/h (0.9 mph)
Operating Propel Guide	[2]25%
Gradeability	80%

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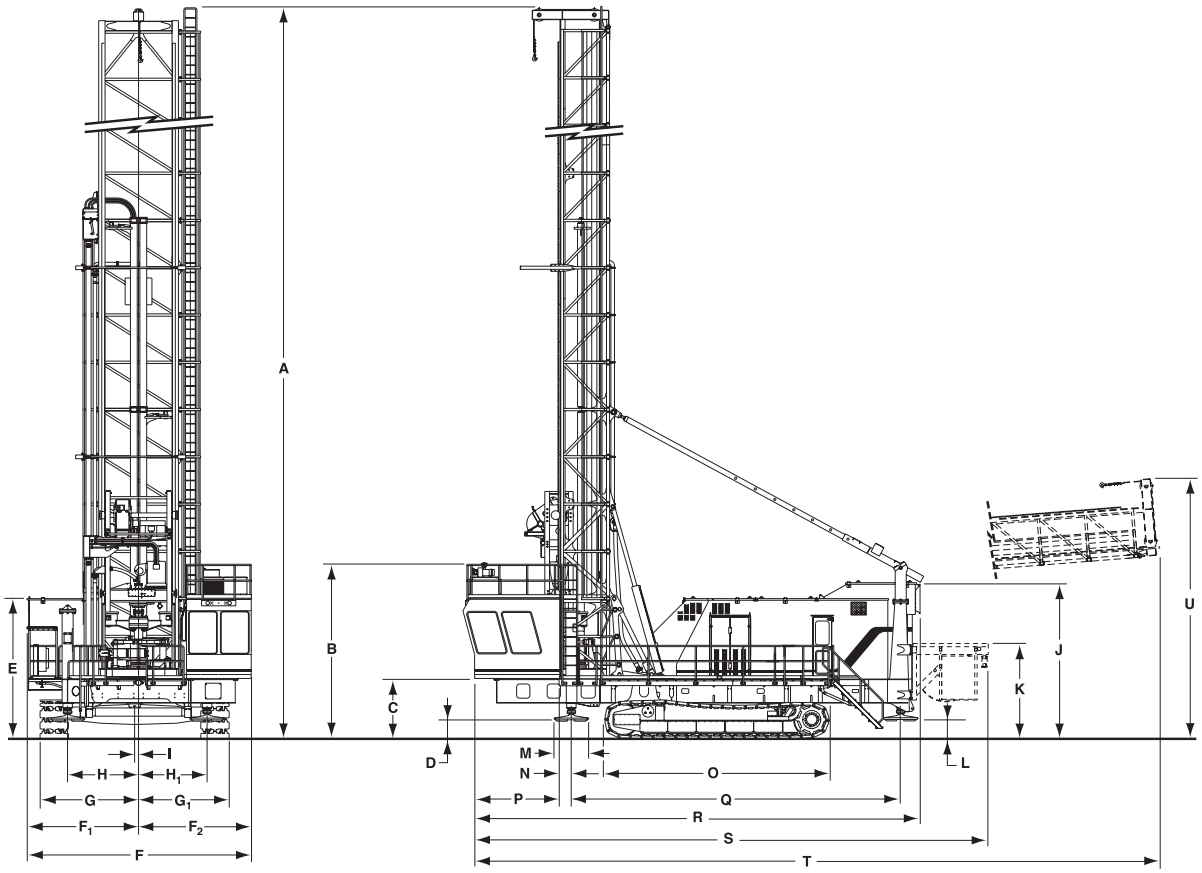

Optimal Working Ranges		
A	Overall height w/mast for 65’ single pass	31.22 m (102 ft 5 in)
B	Height to top of handrails on operator cab	5.64 m (18 ft 6 in)
C	Groundline to top of deck	1.93 m (6 ft 4 in)
D	Groundline to bottom of rear jack pads	0.61 m (2 ft)
E	Groundline to top of machinery house roof	4.60 m (15 ft 1 in)
F	Overall width of machine	7.24 m (23 ft 9 in)
F_1	Centerline of machine to LH side	3.61 m (11 ft 10 in)
F_2	Centerline of machine to RH side	3.63 m (11 ft 11 in)
G	Centerline of machine to LH outside edge of 914 mm (36 in) tracks	3.17 m (10 ft 5 in)
G_1	Centerline of machine to RH outside edge of 914 mm (36 in) tracks	2.92 m (9 ft 7 in)
H	Centerline of machine to centerline of LH rear leveling jack	2.29 m (7 ft 6 in)
H_1	Centerline of machine to centerline of RH rear leveling jack	2.21 m (7 ft 3 in)
I	Centerline of hole to centerline of equalizer jack	127 mm (5 in)
J	Height to top of machinery house pressurizing unit	5.05 m (16 ft 7 in)
K	Height to top of cable reel (optional)	3.07 m (10 ft 1 in)
L	Groundline to bottom of front jack panels	0.63 m (2 ft 1 in)
M	Diameter of jack pads	1.12 m (3 ft 8 in)
N	Centerline of hole to centerline of rear jacks	400 mm (15.75 in)
O	Overall length of crawlers	7.29 m (23 ft 11 in)
P	Centerline of hole to rear of operator’s cab	3.10 m (10 ft 2 in)
Q	Centerline of rear jacks to centerline of front jacks	11.02 m (36 ft 2 in)
R	Overall length of machine	14.73 m (48 ft 4 in)
S	Overall length of machine with optional cable reel	16.97 m (55 ft 8 in)
T	Overall length of machine w/mast for 65’ single pass drill depth - mast at rest	31.24 m (102 ft 6 in)
U	Groundline to high point w/mast for 65’ single pass drill depth - mast at rest	9.88 m (32 ft 5 in)

Weight*	
Working Weight	154 224 kg (340,000 lbs)

* Type and number of options will affect machine weight.

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Bailing Velocities: 15.5° C (60° F) @ Sea Level							
Diameter				Nominal Compressor Rating - m^3/min (icfm)			
Hole		Pipe		84.9 (3,000)		107.6 (3,800)	
cm	in	cm	in	m/min	fpm	m/min	fpm
25.1	9.875	17.8	7	3 450	11,300	4 378	14,359
27.0	10.625	19.4	7.625	3 050	10,000	3 879	12,724
31.1	12.25	21.9	8.625	2 200	7,300	2 807	9,206
31.1	12.25	23.5	9.25	2 600	8,500	3 293	10,800
34.9	13.75	27.3	10.75	2 300	7,500	2 890	9,478
38.1	15	32.4	12.75	2 700	8,800	3 402	11,157
38.1	15	34.0	13.375	3 650	11,900	4 606	15,108
40.6	16	32.4	12.75	1 800	5,900	2 273	7,456
40.6	16	34.0	13.375	2 150	7,100	2 754	9,034

Recommended Bailing Velocity Range: 1,524 - 3,658 m/min (5,000 - 12,000 fpm)

Mast Components

Mast

Standard mast for drill pipe & one pipe rack	19.81 m (65 ft)
Computer analyzed, HD tubular lattice construction with back braces	
Raising and Lowering	(2) 228.6 mm (9 in diameter hydraulic cylinders
Angle Hole Drilling	[1]25° off vertical in 5° increments

Hoist/Pulldown

Chainless rack and pinion system driven by head-mounted excavator grade DC motor	
Bit Loading	Up to 63 975 kg (to 141,000 lbs)
Feed Rate	Up to 7.62 m/min (to 25 fpm)
Hoist Rate	Up to 22.86 m/min (to 75 fpm)
Lowering Rate	Up to 22.86 m/min (to 75 fpm)
Electronic Depth Indicator	Standard
Auxiliary Winch - Std. Capacity	4 536 kg (to 10,000 lbs)

Pipe Racks

Single Rack 0.31 m (13.375 in) OD pipe 25 mm (1 in) wall thickness	Standard
Optional Rack Configurations and Max. Drill Pipe Diameter	
2 Pipe Racks	Max. diameter may vary.
3 Pipe Racks	Max. diameter may vary.
4 Pipe Racks	Max. diameter may vary.

Rotary Drive

Rotary Drive - DC motor	145 kw (195 hp) @ 475V
Bit Maximum Speed	125 rpm
Cat Shock Coupling	Standard

Electrical

Equipment

Static DC Variable Output

Power Requirements

Voltage	[3]3 Phase, 60 Hz, 4,160V

Main Electrical Systems

Air Compressor/AC Induction Motor	
Dual Shaft - Standard	448 kw (600 hp) @ 4,160V available for 85 m^3/min (3,000 cfm) compressor
Optional	597 kw (800 hp) @ 4,160V available for 108 m^3/min (3,800 cfm) compressors
Hoist/Pulldown - DC Motor	97 kw (130 hp) @ 475V
Main Hydraulic Oil Pumps - Driven from Main Air Compressor Motor	186.4 kw (250 hp) @ 460V Nominal
Machinery House Pressurization - @ 529 m^3/min (18,700 cfm)	15 kw (20 hp) @ 460V
Operator Cab Pressurization with Heater and Air Conditioner	Standard
Hydraulic Oil Cooler Fan	4 kw (5 hp)
Drive Transformer	3 Phase, 425 KVA Dry-Type
Transformer, Auxiliary	3 Phase, 250 KVA Dry-Type
Lighting	120/240V
Windshield Wipers - Upper and Lower Front	Standard

[1] With optional angle hole equipment.
[2] Stability limitations apply.
[3] For alternate power configurations consult Caterpillar.

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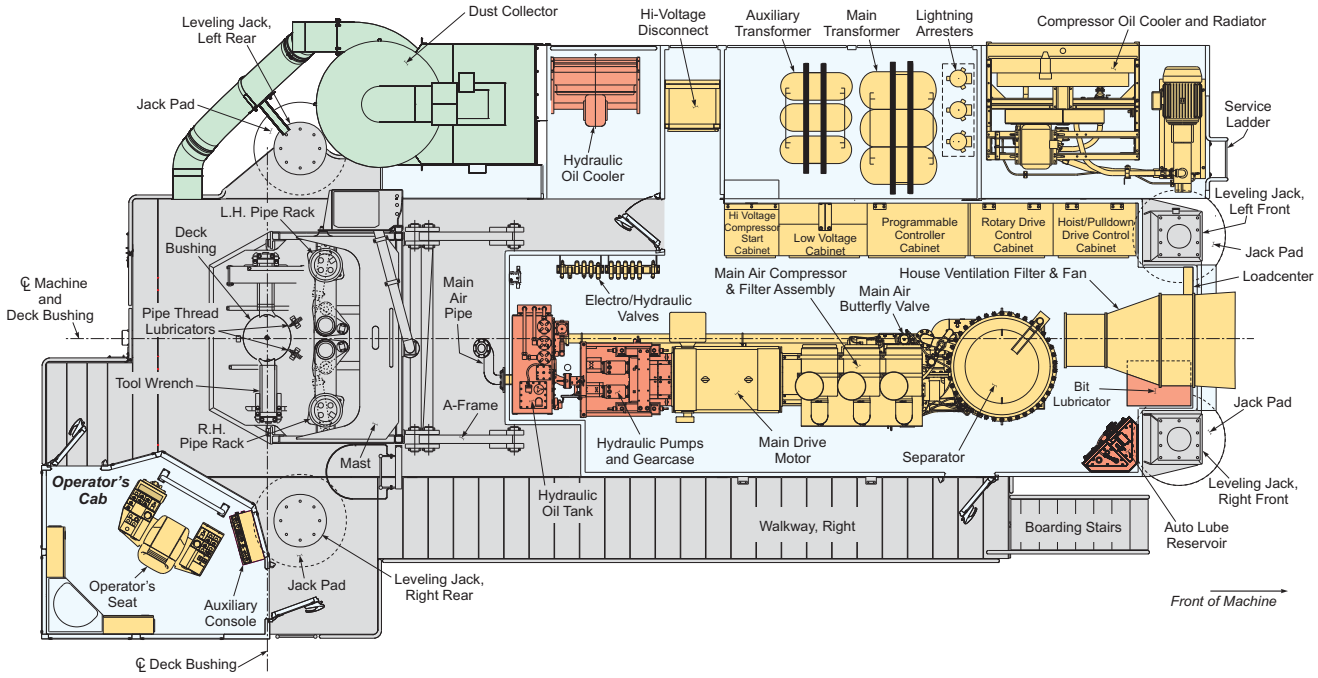

Components

1. Bit Viewing Hatch - Hydraulic Operated	9. Compressor Oil Cooler	17. Operator's Cab
2. Hydraulic Breakout Wrench (optional)	10. Heated & Insulated Cooler Compartment (optional)	18. Hydraulic Oil Reservoir
3. Tipton Dry Dust Control (optional)		19. Electro/Hydraulic Valves
4. Leveling Jack (4)	11. Cable Reel (optional)	20. Air Compressor Motor Control Center (MCC)
5. Service Platform	12. Boarding Stairs	21. Low Voltage Motor Control Center (MCC)
6. Water Injection Dust Control - 3,785 L (1,000 gal)	13. Main Air Compressor Package	22. Programmable Controller (PLC)
	14. Main Drive Motor	23. Rotary Drive Control Cabinet
7. Hydraulic Oil Cooler & Guard	15. Hydraulic Pumps & Gearcase	24. Hoist/Pulldown Drive Control Cabinet
8. Transformers	16. Pipe Racks - 1 Standard (2-4 optional)	25. Auto-Lube System

Options

18.3 m (60 ft) or 21.3 m (70 ft) Masts	Front Tow Bar / Rear Tow Hooks
Angle Hole Drilling	GPS Interface
Automatic Fire Suppression Systems	Hydraulic Breakout Wrench (controlled from operator's control console)
Cold Weather Options	Hydraulic Drive Cable Reels
Dry Dust and Water Injection Dust Control Systems	Optional 3,800 cfm Compressor
Dust Curtains	Programmed Drill Control
Remote Propel	Quick-Fill System for Oils and Lubricants

Additional options to meet customer's needs.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **mining.cat.com** and **www.cat.com**

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