

MD6380

Rotary Blasthole Drill

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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MD6380 Rotary Blasthole Drill Specifications

Engine

Emissions	Fuel Optimized	
Engine	Cat® 3512C @ 1,800 rpm	
Power Rating (ISO 14396)	949 kW	1,273 hp
Power Rating (J1995)	960 kW	1,287 hp

- Diesel engine
- Turbocharged-aftercooled
- Dual starter motors
- Ether starting aid

Compressor/Receiver Tank

- Compressor
  - For rotary drilling
  - Single stage
  - 101.9 m³/min (3,600 ft³/min) @ 6.9 bar (100 psi)
  - Electronic variable volume control
- Reciever tank
  - Low Pressure

Cooling

- Coolers with easy cleaning access
- Separate engine cooling module
- All cooler core sections are replaceable
- Functional in ambient temperature up to 52° C (125° F)
- Automatic variable speed fan control

Undercarriage

Model	Cat 374 Excavator type	
Lower Rollers	12	
Carrier Rollers	4	
Drawbar Pull	980 686 N·m	723,316 lbf
Max Travel Speed	1.93 kph	1.2 mph
Double Grousers for Hard Rock Applications	750 mm	29.5 in
Double Grousers for Soft Rock Applications	900 mm	35.4 in
Positive Pin Retention		
Auto chain tensioner		

Hydraulics

- Two (2) primary pumps – 280 cc (piston with proportional electronic controls)
- One (1) auxiliary circuit pump – 145 cc (piston, load sensing)
- Two (2) fan pumps – 100 cc (piston with proportional electronic controls)
- Two (2) charge pumps – 74 cc (fixed displacement)
- S·O·S℠ ports

Mast and Pipe Rack Carousel Features

19.8 m (64.9 ft) Mast		
Pulldown Capacity (up to)	49 895 kg	110,000 lb
Bit Load – single pass (up to)	53 850 kg	118,719 lb
Hoist Capacity (up to)	37 421 kg	82,500 lb
Hole diameter minimum	251 mm	9.875 in
Hole diameter maximum	381 mm	15 in
Single pass depth (down to)	19.8 m	65 ft
Multi-pass depth (down to)	39.6 m	130 ft
Rotation Torque (up to)	21 873 N·m	16,133 lbf

- Mast configurations complete with pipe rack carousel and angle drilling package (vertical, out to 20 degrees in 5-degree increments)
- Drill string configured for above-deck bit changes
- Single hydraulic cylinder and cable pulldown/hoist system
- Hydraulically actuated pipe loader, pipe catcher and bit basket
- Auto tensioning for pulldown and hoist cables
- Rotation gear box with dual motors, rotation torque control and virtual rotary head travel interlocks
- Hydraulic pipe support in the upper section of the mast
- Variable grip hydraulic break out wrench (HOBO) for range of pipe diameters
- Sliding deck wrench assembly
- Configured with roller deck bushing for tricone applications
- Drill pipe positioner

Mast Accessories

- Pipe positioner (stabilizer) engaged/disengaged indicator, and interlock
- One hydraulic pipe catcher
- Hydraulic pipe support in the upper section of the mast

Pipe Loader

- Left Hand/Right Hand (LH/RH) pipe racks holds 9.9 m (32.5 ft) drill pipe
- 219 mm (8.625 in) diameter
  - LH and RH, double pipe rack
  - Capable of single and multi-pass
  - Primary loader @ 29.68 m (97.5 ft)
  - Secondary loader @ 39.59 m (130 ft)
- 235 mm (9.25 in) diameter
  - LH and RH, double pipe rack
  - Capable of single and multi-pass
  - Primary loader @ 29.7 m (97.5 ft)
  - Secondary loader @ 39.6 m (130 ft)
- 273 mm (10.75 in) diameter
  - LH and RH, double pipe rack
  - Capable of single and multi-pass
  - Primary loader @ 29.7 m (97.5 ft)
  - Secondary loader @ 39.6 m (130 ft)

Break Out Wrench

- Variable Grip
  - 219, 235, 273 mm (8.625, 9.25, 10.75 in)

Drill Tool Package

- One piece roller deck bushing, pipe positioner, deck wrench, bit sub, pipe wiper seal
  - 219 mm (8.625 in)
  - 235 mm (9.25 in)
  - 273 mm (10.75 in)

Subs

- Shock absorber with top sub adapter – available in Standard or Premium
  - 219 mm (8.625 in)
  - 235 mm (9.25 in)
  - 273 mm (10.75 in)

Operator Environment

- Cab, Standard (Extended Size)
  - Fabric seat
  - Single-pane window glass with shades
  - Windshield wiper for driller window
  - Removable driller window guard
  - Trainer seat
- Cab, Premium (Extended Size)
  - Leather-trimmed fabric seat with heat and ventilation
  - Heavy duty suspension
  - Dual-pane window glass
  - Windshield wipers on front and rear windows
  - Removable driller window guard and front window guard
  - Trainer seat
  - Additional storage

Fluids

Service Packages

- Standard
  - Fast fill fuel and water only
  - Automated lubrication system
- Premium
  - Service center for lubricant drain and fill
  - Fast fill fuel and water
  - Automated lubrication system

Dust Suppression

Water Injection System	2271 L	600 gal

- Tank below deck
- Fast fill

Water Injection/Dry Dust Collection	2271 L	600 gal

- Tank below deck
- Fast fill
- 204 m^3/min (7,200 ft^3/min) dry dust collection

Water Injection System, High Volume Total Tank Capacity	5299 L	1,400 gal

- 2271 L (600 gal) below deck mounted tank
- 3028 L (800 gal) above deck mounted tank
- Fast fill

Batteries

- Four (4) each batteries, sealed
- Six (6) each batteries, sealed
  - Required for semi/full autonomy packages

Climate

- Level 1, Standard fluids and lubricants
  - Temperature range of –1° C (30° F) to 52° C (125° F)
- Level 2, Arctic fluids and lubricants
  - Temperatures down to –18° C (–0.4° F)

Automation and Technology

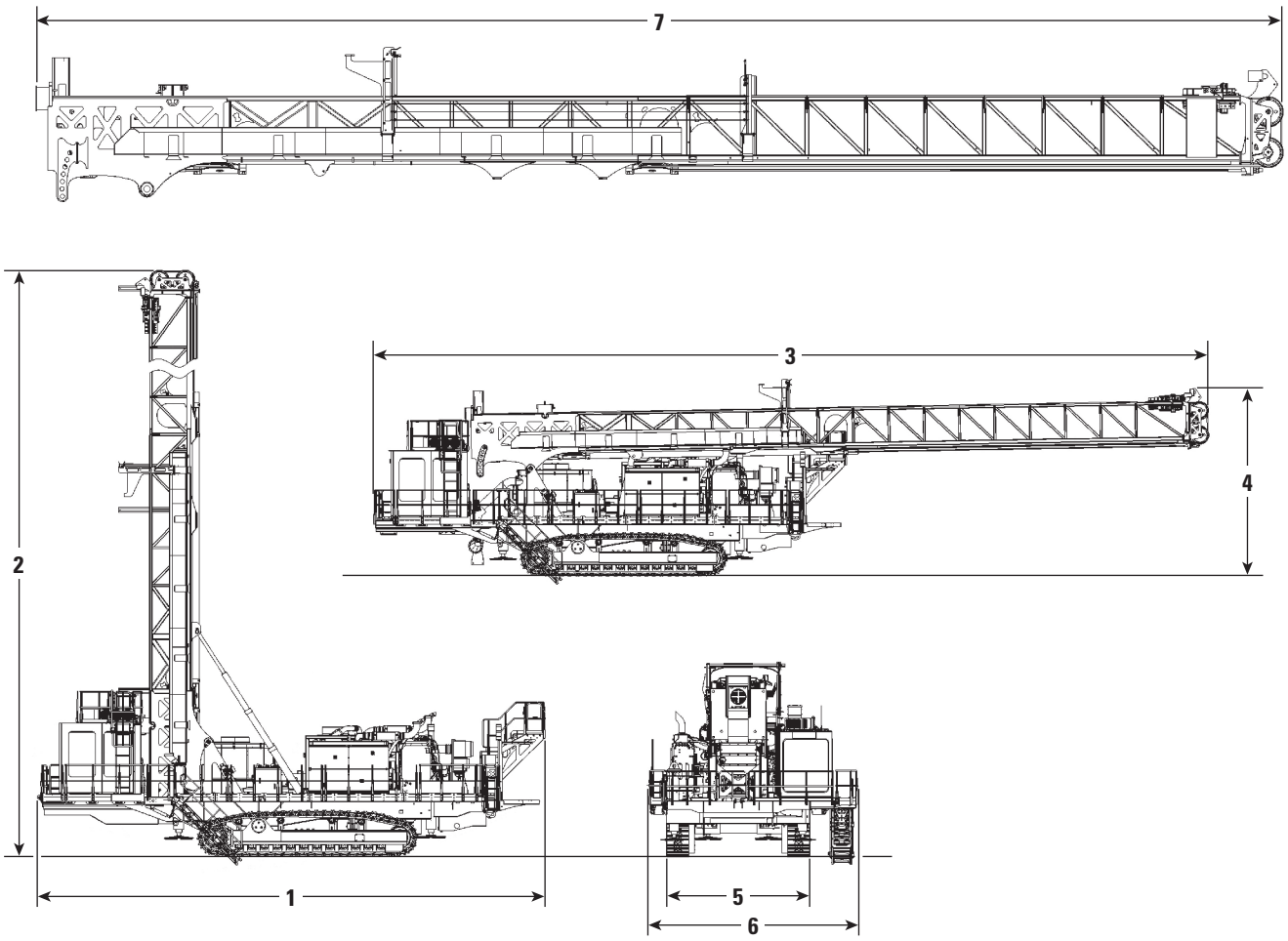
- Drill depth indicator and interlocks
- Electronic controls for tramming, leveling and drilling, plus auxiliary functions
- Radio-ready for communication and entertainment radio
- Product Link™ Elite*
- Drill Assist automated functionalities
  - Auto Level (and auto jacks retract)
  - Auto Mast (raise, lower and lock into place)
  - Auto Drill (single pass)
- MineStar™ Command for drilling* (ready)

*Requires software license, sold separately.

MD6380 Rotary Blasthole Drill Specifications

Dimensions

All dimensions are approximate.



1 Working Length Mast Up*	14.7 m	48.1 ft
2 Height Mast Up	26.7 m	87.6 ft
3 Length Mast Down	28.3 m	92.9 ft
4 Height Mast Down	6.6 m	21.7 ft
5 Working Width (non-drill end)	6.06 m	19.9 ft
6 Working Width (drill end)	6.89 m	22.6 ft
7 Mast Only Shipping Length	25.24 m	82.8 ft

*Working Length Mast Up with bolt-on platform adds 1.2 m (4 ft) for total of 15.9 m (52.1 ft)

Weights

Working Weight Range	142 300 kg	313,717 lb
Without Mast	102 300 kg	225,533 lb
Mast Only	40 000 kg	88,184 lb

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat® dealer for details.

	Standard	Optional
POWERTRAIN		
Receiver tank for American Society of Mechanical Engineers (ASME)/Canadian Registration Number (CRN)/Australia (AU) or Certified European (CE) receiver tank	✓	
CAB		
Standard cab (extended size) – Includes a fabric seat, single pane window glass, shades, and a windshield wiper for driller window, removable driller window guard and a trainer seat	✓	
Premium cab (extended size) – Includes a leather seat with fabric inlay with heat and ventilation, heavy duty suspension, dual-pane window glass – Additional storage plus windshield wipers on front and rear windows, a removable driller window guard plus front window guard and a trainer seat		✓
Viewing hatch to spot over the hole	✓	
Cab roof access system (includes ladders, cage and rails)		✓
Lights for tram (front and cab)		✓
LED lighting	✓	
CONTROLS		
Basic drill depth indicator and interlocks	✓	
Manometer/pressure gauge		✓
TECHNOLOGY AND AUTOMATION		
Product Link (Cellular)	✓	
Product Link (Dual: Cellular + Satellite)		✓
Drill Assist:		
– Auto Level (and auto jacks retract)	✓	
– Auto Mast raise/lower	✓	
– Auto Drill (single pass)		✓

	Standard	Optional
MAST		
No mast access/handrail only	✓	
Mast Access Arrangement – Includes steps, guardrails, landing platforms, and walkway		✓
Drill pipe thread greaser		✓
Tool Lubrication System – Rotary tricone, 113.5 L (30 gal)		✓
Flashing beacon for mast clearance		✓
Overhead winch assembly – Includes cable and hook plus remote		✓
PIPE LOADER (SELECT ONE)		
219 mm (8.625 in) diameter – Two pipe rack – Capable of single and multi-pass	✓	
235 mm (9.25 in) diameter – Two pipe rack – Capable of single and multi-pass	✓	
273 mm (10.75 in) diameter – Two pipe rack – Capable of single and multi-pass	✓	
TOP SUB/SHOCK SUB (SELECT ONE)		
219 mm (8.625 in) standard	✓	
235 mm (9.25 in) standard	✓	
273 mm (10.75 in) standard	✓	
219 mm (8.625 in) premium		✓
235 mm (9.25 in) premium		✓
273 mm (10.75 in) premium		✓

(continued on next page)

Standard and Optional Equipment *(continued)*

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
TOOL GROUPS (SELECT ONE)		
219 mm (8.625 in) – One piece roller deck bushing, pipe positioner, deck wrench, bit sub, pipe wiper seal	✓	
235 mm (9.25 in) – One piece roller deck bushing, pipe positioner, deck wrench, bit sub, pipe wiper seal	✓	
273 mm (10.75 in) – One piece roller deck bushing, pipe positioner, deck wrench, bit sub, pipe wiper seal	✓	
VARIABLE GRIP HYDRAULIC BREAKOUT WRENCH		
Grip range – 219, 235, 273 mm (8.625, 9.25, 10.75 in)	✓	
DRILL PIPE – 9.9 M (32.5 FT) LENGTH		
219 mm (8.625 in) diameter		✓
235 mm (9.25 in) diameter		✓
273 mm (10.75 in) diameter		✓

	Standard	Optional
TRICONE BITS GROUP (SELECT ONE)		
Bit lock plate 251 mm (9.875 in)		✓
Bit lock plate 270 mm (10.625 in)		✓
Bit lock plate 311 mm (12.25 in)		✓
Bit lock plate 349 mm (13.75 in)		✓
Bit lock plate 381 mm (15 in)		✓
Hydraulic bit basket	✓	
TRICONE DRILL BITS GROUPS*		
Available for soft (S3), medium (m1, m2), medium-hard (m3) and hard (h1) types.		
– 251 mm (9.875 in); qty 9 bits per pallet		✓
– 270 mm (10.625 in); qty 9 bits per pallet		✓
– 311 mm (12.25 in); qty 6 bits per pallet		✓
SERVICE TOOLS		
Lifting bail 152 mm (6 in) Bucyrus Erie Company (BECO) for 194-235 mm (7.625-9.25 in) pipe		✓
Lifting bail 203 mm (8 in) BECO for 273-324 mm (10.75-12.75 in) pipe		✓
Lifting bail 254 mm (10 in) BECO for 340 mm (13.375 in) pipe		✓
Lifting bail 168 mm (6.625 in) American Petroleum Institute (API) regular thread for 251-349 mm (9.875-13.75 in) tricone bit		✓
Bushing retainment tool (8.625-10.75 in pipe) (6 in, 7 in and 7.8 in flats)		✓
SERVICE PACKAGES/FLUID SYSTEM		
Standard fast fill for fuel and water only, automated lubricant system	✓	
Premium with Service Center for lubricant drain and fill; automated lubricant system, fast fill fuel and water		✓

*Refer to PEXQ1027-05 for additional details.

(continued on next page)

Standard and Optional Equipment *(continued)*

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
CLIMATE/REGIONAL CONSIDERATIONS		
Air receiver tank low pressure (ASME/CRN/AU)	✓	
Air receiver tank low pressure (CE)		✓
Four (4) batteries	✓	
Six (6) batteries (required for autonomy packages)		✓
Climate Level 1 – Standard fluids and lubricants – With a temperature range of –1° C (30° F) to 52° C (125° F)	✓	
Climate Level 2 – Arctic fluids and lubricants – Temperatures down to –18° C (–0.4° F)		✓
Certifications CE		✓
FRAME/DECK		
No tool storage box (cover only)	✓	
Tool storage box		✓
Jib crane ready (mounting kit only)		✓
Blowdown lines and nozzle (with quick connect cooler end and drill deck)		✓

	Standard	Optional
DUST SUPPRESSION		
Water injection only (no dust collector) – 2271 L (600 gal) tank below deck	✓	
Water injection and dust collector – 2271 L (600 gal) tank below deck – 204 m^3/min (7,200 ft^3/min) dry dust collection		✓
High capacity water injection – 5299 L (1,400 gal) • 2271 L (600 gal) below-deck mounted tank and a 3028 L (800 gal) above deck mounted tank		✓
Dust curtain hydraulic lifters – Front and rear dust curtains (recommended with dust collector)		✓
Tram-off spray system		✓
UNDERCARRIAGE (SELECT ONE)		
750 mm (29.5 in) double grousers for hard rock applications	✓	
900 mm (35.4 in) double grousers for soft rock applications	✓	

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