

MD6310

Rotary Blasthole Drill

**13.7 m or 17.5 m
(44.9 ft or 57.4 ft)
Mast Configuration**



Description

The MD6310 crawler-mounted blasthole drill is designed to drill from 203 mm to 311 mm (8 in to 12.25 in) diameter holes in Rotary or DTH (Down The Hole) modes to single pass or multi pass depths.

Basic Specs

13.7 m (44.9 ft) Mast

Hole diameter range	203-311 mm	8-12.25 in
Single pass depth	13.7 m	44.9 ft
Multi pass depth	Down to 74.6 m	Down to 244.9 ft
Pull-down capacity	Up to 39 009 kg	Up to 86,000 lb
Hoist capacity	Up to 29 484 kg	Up to 65,000 lb
Hoist speed	37.4 m/min	122.7 ft/min
Bit load (single pass)	Up to 41 165 kg	Up to 90,753 lb

17.5 m (57.4 ft) Mast

Hole diameter range	203-311 mm	8-12.25 in
Single pass depth	17.5 m	57.4 ft
Multi pass depth	Down to 47.9 m	Down to 157.4 ft
Pull-down capacity	Up to 39 009 kg	Up to 86,000 lb
Hoist capacity	Up to 29 484 kg	Up to 65,000 lb
Hoist speed	37.4 m/min	122.7 ft/min
Bit load (single pass)	Up to 42 149 kg	Up to 92,922 lb

Basic Specs (continued)

Emissions: U.S. EPA Tier 4 Final

Engine	C32 @ 1,800 rpm	
Power rating ISO 14396	751 kW	1,007 hp

Emissions: Equivalent to Tier 2

Engine	C32 @ 1,800 rpm	
Power rating ISO 14396	769 kW	1,031 hp

Compressor

Rotary drilling	56.6 m ³ /min (2,000 ft ³ /min) @ 8.6 bar (125 psi)	
Rotary drilling	73.6 m ³ /min (2,600 ft ³ /min) @ 7.6 bar (110 psi)	
DTH drilling	42.2 m ³ /min (1,500 ft ³ /min) @ 34.4 bar (500 psi)	
Angle drilling	Vertical to 30° (in 5° increments)	

MD6310 Specifications

Engine Choices

- Dual starter motors
- Scheduled oil sampling (S·O·SSM) ports
- Common air intake filters provide +500 hour service interval in normal operating conditions
- Ether starting aid; ether bottle supplied locally

Compressor/Receiver Choices

DTH drilling (includes tool lubrication system and hammer storage)

- 42.2 m³/min (1,500 ft³/min) @ 34.4 bar (500 psi)

Rotary drilling

- 56.6 m³/min (2,000 ft³/min) @ 8.6 bar (125 psi)
- 73.6 m³/min (2,600 ft³/min) @ 7.6 bar (110 psi)
- With the compressors variable volume control, the operator can limit air output resulting in reduced fuel consumption
 - Both high and low pressure compressors contain this feature
- Electronic compressor control and regulation with purged air lines

Receiver Tank Choices

- Low pressure 8.6 bar (125 psi) for ASME/CR N/AU or CE
- High pressure 34.4 bar (500 psi) for ASME/CR N/AU or CE

Cooling

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

Climate Choices

Climate Level 1 standard fluids and lubricants

- Rated down to -1° C (30° F) temperatures
- Withstands high heat to 52° C (125° F)

Climate Level 2 Arctic fluids and lubricants

- Rated down to -18° C (-0.4° F) temperatures

Climate Level 4 Arctic fluids and lubricants, heating package

- Rated down to -40° C (-40° F) temperatures
- Diesel fired heating system that heats and circulates engine coolant through the: engine block, primary water tank, heating elements for battery trays with a provision for fuel tanks
- Full arctic lubricant package includes: engine oil, compressor oil and hydraulic oil
- Electric heating package with breaker panel to power:
 - 120V heating blanket for compressor receiver tank, compressor control box, heat trace for compressor control lines, heat trace for housing from water tank to water pump and water fast-fill assembly plus tank
- Shore power connection box with switchable 240-600V (50 amp) connection; diesel genset and or plug, sold separately
- Breaker panel includes five (5) additional breakers for locally supplied heating elements, if needed

Frame and Work Deck

- Jacks, mast pivot and deck are welded integrally to mainframe for maximum durability and long life
- Stationary rear deck; for vertical and angle drilling
- Four leveling jacks to provide leveling on a 7° bench (any orientation)
- Slip resistant surface
- Fuel tank capacity 1609 L (425 gal)
- Fuel capacity expansion for additional +1609 L (425 gal)
- Manual, centralized, lubrication banks for all pivot points on drill, or automated lubrication system (option)
- Heavy duty tow hooks (front end)
- Four (4) lift lugs, for use with cables or chains
- Bolt-on platform for cold weather generator or fire suppression bottles (option)
- Three egress points on deck areas in addition to main access
- Walkway around cab to drill deck (option)
- Bit storage box in-deck with hinged cover (option)
- DTH hammer storage on drill deck with high pressure configuration (option)
- Hydraulically operated viewing hatch in drill deck with spotlight (option)
- Drill pipe thread greaser with remote fill tank or disposable grease bucket (option)
- Sturdy guardrails, toe guards, self closing gates

Frame Access Choices

- Fixed access ladder to the cab area
- Cascading, hydraulic stairs to cab area (option) – includes jack and tram interlock that activates when the stairs are down
- Cab perimeter walkway available with either choice

Undercarriage

Model	Cat® 349E EL Excavator type	
Lower rollers	Thirteen (13)	
Carrier rollers	Three (3)	
Track chain guards and guides	Level two	
Draw bar pull	547 000 N	122,971 lbf
Travel speed	2.45 kph	1.5 mph
Triple grousers for hard rock ground bearing pressure	600 mm	23.6 in
1.59 bar (23.1 psi)		
Triple grousers for soft rock ground bearing pressure	750 mm	29.5 in
1.28 bar (18.5 psi)		

Hydraulics

- Two (2) primary pumps – 210 cc (piston, with proportional electronic controls)
- One (1) auxiliary circuit pump – 110 cc (piston, load sensing)
- Two (2) fan pumps – 1,000 cc (piston, with proportional electronic controls)
- Two (2) charge pumps – 43.9 + 56.5 cc (double stack gear, fixed displacement)
- Scheduled Oil Sampling (S·O·S) ports

Mast

Hydraulic, indexing pipe carousels accept various pipe diameters

Configuration choices include single pass, multi pass, vertical out to 30 degree angle drilling

- 13.7 m (44.9 ft) or 17.5 m (57.4 ft) Mast configurations complete with pipe rack carousel
- Pulldown/hoist system is a single cylinder
- Auto tensioning of pull down and hoist cables
- Feed system accommodates multiple pipe diameters
- Variable grip hydraulic break out wrench (HOBOW) for range of pipe diameters
- Sliding deck wrench assembly
- Configured with roller deck bushing for tricone applications, two-piece deck bushing for DTH
- Angle drilling 0-30°; in 5° increments
- Drill pipe positioner
- Overhead winch with remote; variable speed drive with ≥ 1818 kg (4,000 lb) rating, length to reach 6.1 m (20 ft) past drill deck (option)
- Rotation Gear Box with dual motor arrangement, up to 160 rpm, and 16,000 N·m of torque (11,800 ft-lb)
- Pipe catcher; manual or optional hydraulically actuated
- Tool oiler 113.5 L (30 gal) oil injection system (Rotary drilling only)
- Mast lanyard mounting provisions (option)
- Mast access ladder and grating (option)

MD6310 Specifications

Mast Packages

Mast accessories manual 13.7 m (44.9 ft) Mast	One wire rope pipe catcher, hydraulically actuated pipe positioner, manual bit basket
Mast accessories hydraulic	One hydraulic pipe catcher, hydraulically actuated pipe positioner, hydraulic bit basket
Mast accessories manual 17.5 m (57.4 ft) Mast	Two wire rope pipe catchers, hydraulically actuated pipe positioner, manual bit basket
Mast accessories hydraulic	One hydraulic pipe catcher, plus one wire rope, hydraulically actuated pipe positioner, hydraulic bit basket
Angle drilling	Included with either mast

Carousel (Mast size and pipe diameter dependent)

13.7 m (44.9 ft) Mast Carousel; holds quantity of 4 × 12.19 m (40 ft) pipes; total depth 62.5 m (204.9 ft)

Pipe diameters	178 mm	7 in
	194 mm	7.625 in
	203 mm	8 in
	219 mm	8.625 in

13.7 m (44.9 ft) Mast Carousel; holds quantity of 5 × 12.19 m (40 ft) pipes; total depth 74.6 m (244.9 ft)

Pipe diameters	194 mm	7.625 in
	219 mm	8.625 in

13.7 m (44.9 ft) Mast Carousel, dual purpose; holds quantity of two (2) 12.19 m (40 ft) pipes and quantity of two (2) 9.14 m (30 ft) pipes, and adapters to connect to DTH hammer and tricone bit (DTH hammer and tricone not included)

- Accepts 194 mm (7.625 in) pipe – contact factory for additional pipe diameters

17.5 m (57.4 ft) Mast Carousel; holds quantity of 4 × 7.62 m (25 ft) pipes; total depth 48 m (157.5 ft)

Pipe diameters	178 mm	7 in
	194 mm	7.625 in
	203 mm	8 in
	219 mm	8.625 in

17.5 m (57.4 ft) Mast Carousel; holds quantity of 2 × 7.62 m (25 ft) pipes; total depth 32.7 m (107.4 ft)

Pipe diameter	235 mm	9.25 in
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Hydraulic Break Out Wrench

Variable grip hydraulic break out wrench grip ranges

- 178-219 mm (7.0-8.625 in)
- 235 mm (9.25 in)

Drill Pipe

12.19 m (40 ft) pipes – pipe rack 13.7 m (44.9 ft) Mast carousel holds a quantity of four (4) or five (5) pipes

DTH	178 mm	7 in
Rotary or DTH	194 mm	7.625 in
Rotary	203 mm	8 in
Rotary	219 mm	8.625 in

7.62 m (25 ft) pipes – pipe rack 17.5 m (57.4 ft) Mast carousel holds a quantity of four (4) or five (5) pipes

DTH	178 mm	7 in
Rotary or DTH	194 mm	7.625 in
Rotary	203 mm	8 in
Rotary	219 mm	8.625 in

7.62 m (25 ft) pipes – pipe rack 17.5 m (57.4 ft) Mast carousel holds a quantity of four (4) or five (5) pipes

Rotary	235 mm	9.25 in
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Dual purpose carousel pipe: 13.7 m (44.9 ft) Mast; holds quantity of two (2) 12.19 m (40 ft) pipes and quantity of two (2) 9.14 m (30 ft) pipes, and adapters to connect to DTH hammer and tricone bit (DTH hammer and tricone not included)

- Dual purpose pipe carousel accepts 194 mm (7.625 in) pipe – contact factory for additional pipe diameters

Tool Package Rotary

- Roller deck bushing
- Pipe positioner inserts
- Deck wrench, sliding
- Top Sub, or Shock sub and cross over adapter (option)
- Bit sub
- Pipe wiper seal

Tool Package DTH

- Two piece bushing
- Pipe positioner inserts
- Deck wrench, sliding
- Shock sub and top sub adapter
- Cross over hammer adapter
- Pipe wiper seal

Overhead Winch System (optional)

Capacity rating	1814 kg	4,000 lb
Cable diameter	13 mm	0.5 in
Winch reach – past the drill deck	6.1 m	20 ft

- Variable speed control

Rotary Head Top Drive System

- Spindle with 168 mm (6.625 in) API regular thread and splined collar
- Rotation gear box with dual motor arrangement, up to 160 rpm, and 16 000 N·m (11,800 lbf-ft) of torque
- Rotary torque control
- Virtual rotary head travel stops and interlocks

Operator Environment

- Cab, Standard
 - Fabric seat
 - Single pane window glass
 - Windshield wiper for driller window
 - Window shades (option)
 - Foldaway trainer's seat (option)
 - Removable floor mat
- Cab, Premium
 - Leather seat with heat and ventilation
 - Dual pane window glass
 - Front window guard
 - Additional in-cab storage box
 - Additional windshield wipers on front and rear windows
 - Window shades (option)
 - Foldaway trainer's seat (option)
 - Removable floor mat
- Spacious FOPS cab has 3 m² (32.4 ft²) floor space with an integrated operator station
- Extended cab option 4.2 m² (45.2 ft²); prewired and dedicated space for refrigerator and microwave
- Cab perimeter walkway available for both cab sizes
- Drill performance touchscreen display
- Cab rubber shock-mounts absorb mechanical vibration and restrict exterior noise
- Two swing-out hinged doors with windows and Cat keyed locks
- Operator station design integrates an ergonomic seat, armchair joystick controls with full instrumentation, and two 254 mm (10 in) color, high definition touchscreens and 12 volt power port
- Additional display screen for cc cameras; color, high-definition 254 mm (10 in)
- Power convertor 24V to 12V
- Radio-ready for communication and entertainment radio
- Cab roof access ladder (option)
- Literature holder
- Seat swivels, locks and has two point/76 mm (3 in) seat belt, tilts (5° adjustment), lumbar support, fore/aft seat adjustment 80 mm (3.1 in)
- Trainer's seat that folds away and has retractable seat belt (optional)

- Lighting:
 - LED interior lights; separate reading light, and backlit joysticks and keypads
 - Zone controls for area lights and spot lighting for night drilling
 - Flood lights for the drill perimeter
 - Spot lights for power group area; drill deck; mast carousel; access ladder and walkways
 - Standard lighting is Halogen, 1,300 lumens flood light on perimeter, area spot lights have 1,950 lumens
 - Premium lighting is LED, 4,200 lumens flood light on perimeter (option)
 - Mast clearance lights, cab mounted strobe, front mounted tram beacon (option)
- HVAC:
 - Floor vents in the foot rest area
 - Roof-mounted air conditioner/heating/pressurizing unit
 - Filter access from deck, does not require roof access, and has approximately 500 hour service interval
 - Defogging HVAC vents on driller window
- Cameras:
 - Mounted on the front and left sides to provide 360° view from operator's seat
 - Camera on the mast to view pipe carousel/top drive operation

Operating System Controls (Standard)

- All electric controls for drilling, tramming, leveling plus auxiliary functions
- Electronic compressor control
- Rotation torque control
- Virtual rotary head travel stops and interlocks
- Pipe positioner engaged/disengaged indicator
- Drill depth meter
- Drill performance and display system
- Delayed engine shut down
- Rotary head rpm gauge – (digital display in screen)
- Filter indicators for hydraulic, compressor and engine
- Jack pressure sensors in the display
- Dust suppression control
- Mast lock indicator
- ECM controlled proportional fan speed control system
- Tram interlock, machine stability limits
- Tram interlock, pipe in hole
- Tram interlock, mast up and locked or down and parked
- Tram interlock, jacks retracted
- Cab environment controls (AC, filter, heat, fan speeds)
- Cabin pressure manometer with indicator (option)
- Dust curtain lifting system – auto hydraulic raise front and rear (option)
- Prewired for Terrain and autonomous operation
- Data logging of machine health with warnings, and fault code records; export capability

MD6310 Specifications

Automation and Technology

- Drill depth indicator and interlocks
- Auto level, auto retract, auto mast
- Drill assist (single or multipass auto drill) (options)
- Product Link Elite (hardware from factory, subscription package via dealer)
- Autonomy ready
- Optional Command for Drilling enables each operator to manage more than one machine
- Optional Cat Terrain for Drills – Mining System Interface
 - Production
 - Navigation
- Wiring for third party interface

Dust Suppression Choices

- Dust curtain hydraulic lifters raise front and rear dust curtains (option) (recommended with dust collector)
- Tram off spray to wet the ground around the cuttings pile (not recommended for cold weather applications)
- Water injection (standard)
 - Water tank capacity 1514 L (400 gal)
- Water injection and dry dust collector (option)
 - Water tank capacity 1514 L (400 gal)
 - 204 m³/min (7,200 cfm) dry dust collector
 - Self-cleaning filters, with auto-eject dust chute
- High Volume Water Injection system (Not compatible with basic service package)
 - Water tanks total capacity 3785 L (1,000 gal) maximum
 - Primary tank above deck – 1514 L (400 gal) capacity (heated for extreme cold weather)
 - Secondary tank above deck – 2271 L (600 gal) capacity deck
- Static dust curtains, four sides boxed in (standard)

Service Packages

- Basic/Manual – Centralized Manual Lube; Gravity Fill for fuel and water
- Standard – Fast Fill for fuel and water; Automatic Lubrication System
- Premium – Service center for lubricant drain and fill (compressor oil, hydraulic oil, gearbox oil, engine oil, tool lubrication and grease), Automatic Lubrication System, Fast Fill for fuel and water, blowdown hose

Service Tool Options

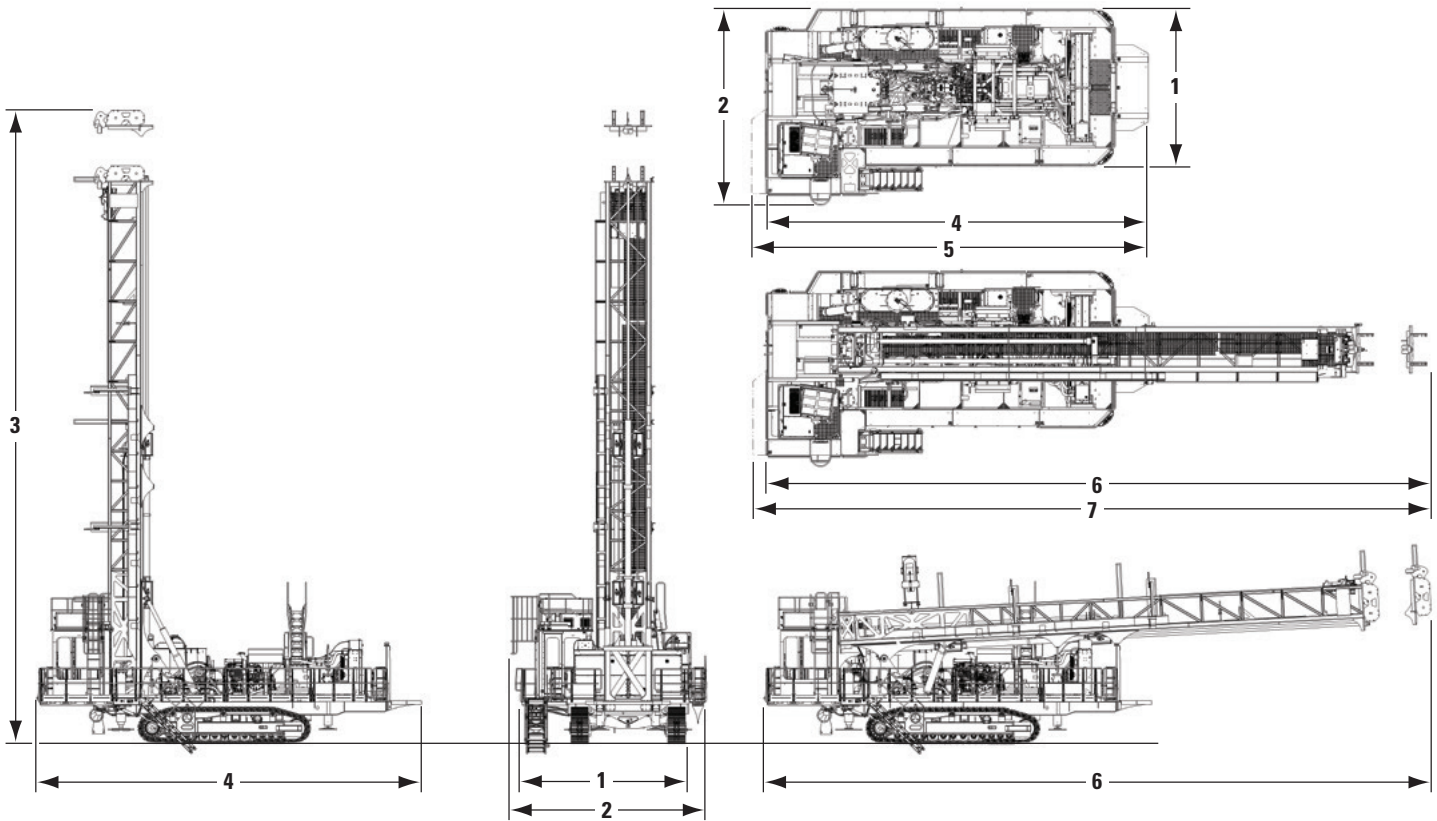
- Bushing Retention Tool 178 to 235 mm (7.00 to 9.25 in) pipe diameter
- Lifting bails (available on request)
 - 114 mm (4.5 in) API reg thread
 - 140 mm (5.5 in) API reg thread
 - 168 mm (6.625 in) for top sub/shock sub API thread
 - 114 mm (4.5 in) for 178 mm (7 in) pipe BECO thread
 - 152 mm (6 in) for 194 mm (7.625 in) up to 235 mm (9.25 in) pipe BECO thread

Safety and Security

- Approach angle of 14 degrees facilitates loading and unloading on a lowboy
- Alloy drill deck covers, with storage provision
- Seven (7) engine shut down buttons: in cab, at drill deck, on deck at power train, ground accessible by main access point and each side of the drill front and left
- Electric horn activated by push button in the cab
- Tram alarm is automatic and audible
- Hinged protective guard for full front drill window
- Guards for exhaust pipes and turbo lines
- Mast access ladder with mast grating (option)
- Three egress points on deck areas in addition to main access
- Self-closing, gates secure egress ladder locations
- In-deck mounted battery box
- Ground level keyed battery disconnect/starter lockout with remote jump start terminals
- Air hose retention devices

Dimensions

All dimensions are approximate.



	13.7 m (44.9 ft) Mast		17.5 m (57.4 ft) Mast	
1 Width front	5.39 m	17.68 ft	5.39 m	17.68 ft
2 Width rear	6.32 m	20.74 ft	6.32 m	20.73 ft
3 Height mast up	19.93 m	65.39 ft	23.77 m	77.99 ft
4 Body length – standard cab	13.27 m	43.54 ft	13.27 m	43.54 ft
5 Body length – extended cab	13.79 m	42.24 ft	13.79 m	42.24 ft
6 Length mast down – standard cab	21.1 m	69.23 ft	24.9 m	81.69 ft
7 Length mast down – extended cab	21.62 m	70.87 ft	25.43 m	83.33 ft

Weights

Working weight range – minimum/maximum	75 800/97 000 kg	167,110/213,848 lb	75 500/97 500 kg	166,449/214,950 lb
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MD6310 Configuration Choices

Mandatory Choices

Mandatory choices may vary. Consult your Cat dealer for details.

COMPRESSOR/RECEIVER TANK

- Rotary/Single Stage, Low Pressure
 - 56.6 m³/min (2,000 ft³/min) @ 8.6 bar (125 psi); with Low Pressure Receiver Tank for ASME/CRN/AU or CE
 - 73.6 m³/min (2,600 ft³/min) @ 7.6 bar (110 psi) with Low Pressure Receiver Tank for ASME/CRN/AU or CE
- DTH/Two Stage, High Pressure
 - 42.5 m³/min (1,500 ft³/min) @ 34.4 bar (500 psi) with High Pressure Receiver Tank for ASME/CRN/AU or CE; hammer storage and tool oiler

FRAME ACCESS

- Fixed stairs
- Cascading, hydraulic stairs with walkway

DRILL DECK MISCELLANEOUS

- Drill pipe thread greaser with reloadable tank that can also hold a disposable grease bucket
- Cover in place of thread greaser
- With toolbox
- Cover in place of toolbox

UNDERCARRIAGE

- 600 mm (23.6 in) triple grousers – hard rock
- 750 mm (29.5 in) triple grouser – soft rock

MAST

- 13.7 m (44.9 ft) single pass depth
 - Vertical or Angle Drilling
 - Up to 29 484 kg (65,000 lb) pull-down/hoist
- 17.5 m (57.4 ft) single pass depth
 - Vertical or Angle Drilling
 - Up to 39 009 kg (86,000 lb) pull-down

MAST ACCESSORIES

- 13.7 m (44.9 ft) or 17.5 m (57.4 ft)
 - Manual – one wire rope (13.7 m/44.9 ft) or two wire rope (17.5 m/57.4 ft) pipe catchers, hydraulically actuated pipe positioner, manual bit basket
- 13.7 m (44.9 ft) Mast
 - Hydraulic – one hydraulic pipe catcher, hydraulically actuated pipe positioner, hydraulic bit basket
- 17.5 m (57.4 ft) Mast
 - Hydraulic – one hydraulic pipe catcher, plus one wire rope, hydraulically actuated pipe positioner, hydraulic bit basket

PIPE CAROUSEL

- 13.7 m (44.9 ft) Mast/12.19 m (40 ft) Pipe Rack
 - 178 mm (7 in) pipe; four pod with retainer; total depth 62.5 m (204.9 ft)
 - 194 mm (7.625 in) pipe; four pod with retainer; total depth 62.5 m (204.9 ft)
 - 203 mm (8 in) pipe; four pod with retainer; total depth 62.5 m (204.9 ft)
 - 219 mm (8.625 in) pipe; four pod with retainer; total depth 62.5 m (204.9 ft)
 - 194 mm (7.625 in) pipe; five pod with retainer; total depth 74.6 m (244.9 ft)
 - 219 mm (8.625 in) pipe; five pod with retainer; total depth 74.6 m (244.9 ft)
- Dual Purpose/13.7 m (44.9 ft) Mast
 - Holds quantity of two (2) 12.19 m (40 ft) pipes and quantity of two (2) 9.14 m (30 ft) pipes, and adapters to connect to DTH hammer and tricone bit (DTH hammer and tricone not included)
- 17.5 m (57.4 ft) Mast/7.62 m (25 ft) Pipe Rack
 - 178 mm (7 in) pipe; four pod with retainer; total depth 48 m (157.4 ft)
 - 194 mm (7.625 in) pipe; four pod with retainer; total depth 48 m (157.4 ft)
 - 203 mm (8 in) pipe; four pod with retainer; total depth 48 m (157.4 ft)
 - 219 mm (8.625 in) pipe; four pod with retainer; total depth 48 m (157.4 ft)
 - 235 mm (9.25 in) pipe; two pod with retainer; total depth 32.7 m (107.4 ft)

BREAK OUT WRENCH

- Variable grip hydraulic break out wrench grip range of 178-219 mm (7.0-8.625 in)
- Variable grip hydraulic break out wrench for 235 mm (9.25 in)

Mandatory Choices *(continued)*

Mandatory choices may vary. Consult your Cat dealer for details.

DRILL TOOL PACKAGES – 13.7 m (44.9 ft) MAST

- ROTARY DRILLING Package
 - 194 mm (7.625 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, bit sub, pipe wiper seal (select top sub arrangement in next section)
 - 203 mm (8 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, bit subs, pipe wiper seal (select top sub arrangement in next section)
 - 219 mm (8.625 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, bit subs, pipe wiper seal (select top sub arrangement in next section)
- DTH DRILLING Package
 - 178 mm (7 in) pipe diameter – two piece bushing, pipe positioner inserts, sliding deck wrench, cross over adapter for hammer, pipe wiper seal (select top sub arrangement in next section)
 - 194 mm (7.625 in) pipe diameter – two piece bushing, pipe positioner inserts, sliding deck wrench, cross over adapter for hammer, pipe wiper seal (select top sub arrangement in next section)
 - Dual purpose 194 mm (7.625 in) pipe diameter – Two (2) piece bushing, pipe positioner inserts, sliding deck wrench and dual purpose carousel

DRILL TOOL PACKAGES – 17.5 m (57.4 ft) MAST

- ROTARY DRILLING Package
 - 194 mm (7.625 in) pipe diameter – roller deck bushing, pipe positioner inserts, sliding deck wrench, bit sub, pipe wiper seal
 - 203 mm (8 in) pipe diameter – roller deck bushing, pipe positioner inserts, sliding deck wrench, bit sub, pipe wiper seal
 - 219 mm (8.625 in) pipe diameter – roller deck bushing, pipe positioner inserts, sliding deck wrench, bit sub, pipe wiper seal
 - 235 mm (9.25 in) pipe diameter – roller deck bushing, pipe positioner inserts, sliding deck wrench, bit sub, pipe wiper seal
- DTH DRILLING Package
 - 178 mm (7.0 in) pipe diameter – two piece bushing, pipe positioner inserts, sliding deck wrench, cross over adapter for hammer, pipe wiper seal, (select top sub arrangement in next section)
 - 194 mm (7.625 in) pipe diameter – two piece bushing, pipe positioner inserts, sliding deck wrench, cross over adapter for hammer, pipe wiper seal, (select top sub arrangement in next section)

SUBS

- Shock Absorbers with crossover sub (required with DTH package, optional with Rotary package)
 - 178 mm (7 in)
 - 194 mm (7.625 in)
 - 203 mm (8 in)
 - 219 mm (8.625 in)
 - 235 mm (9.25 in)
- Shock subs with long top sub adaptor for Dual Purpose 13.7 m (44.9 ft) Mast
 - 194 mm (7.625 in)
- Top Subs (Rotary package only)
 - 194 mm (7.625 in)
 - 203 mm (8 in)
 - 219 mm (8.625 in)
 - 235 mm (9.25 in)

OPERATOR ENVIRONMENT

- Cab, Standard
 - Fabric seat
 - Single pane window glass
 - Windshield wiper for driller window
 - Removable floor mat
- Cab, Premium
 - Leather seat with heat and ventilation
 - Dual pane window glass
 - Front window guard
 - Additional in-cab storage box
 - Additional windshield wipers on front and rear windows
 - Removable floor mat
- Lighting
 - Standard – Halogen – 1,300 lumens flood light on perimeter, area spot lights have 1,950 lumens
 - Premium – LED – 4,200 lumens per flood light on perimeter, area spot lights have 1,950 lumens, mast clearance lights and cab mounted yellow strobe light and front mounted tram beacon
- View hatch
 - Deck cover plate in lieu of viewing hatch
 - Viewing hatch with spot light
- Decals
 - Decals (films) – ANSI
 - ISO (films) – ISO

MD6310 Configuration Choices

Mandatory Choices *(continued)*

Mandatory choices may vary. Consult your Cat dealer for details.

SERVICE PACKAGES

- 13.7 m (44.9 ft) Mast
 - Basic/Manual – Centralized Manual Lube for all pivot points; Gravity Fill for fuel and water
 - Standard – Fast Fill for fuel and water; Automated lubrication system
 - Premium – Service center for lubricant drain and fill, Automated lubrication system, Fast Fill fuel and water, blowdown hose
- 17.5 m (57.4 ft) Mast
 - Basic/Manual – Centralized Manual Lube for all pivot points; Gravity Fill for fuel and water
 - Standard – Fast Fill for water and fuel; Automated lubrication system
 - Premium – Service center for lubricant drain and fill, Automated lubrication system, Fast Fill fuel and water, blowdown hose

DUST SUPPRESSION

- Water Injection system with 1514 L (400 gal) tank
- Water injection with 1514 L (400 gal) tank plus dry dust collector
- High Volume Water Injection system with total 3785 L (1,000 gal) tank: 1514 L (400 gal) tank mounted above deck and 2271 L (600 gal) mounted above deck (not compatible with basic service)

BATTERIES

- Four Cat sealed batteries
- Six Cat sealed batteries (required for cold weather Level 2 and 4 and/or semi-autonomy packages)

CLIMATE

- Level 1 Standard Fluids and lubricants; Rated down to -1°C (30°F) temperatures; withstands high heat to 52°C (125°F)
- Level 2 Arctic fluids and lubricants; Rated down to -18°C (-0.4°F) temperatures; extra batteries (option)
- Level 4 Arctic fluids and lubricants
 - Level 4 -40°C (-40°F) temperatures
 - Engine coolant and water tank heaters, battery trays, and provision for fuel heating – diesel fired
 - 50 Hz High Pressure Compressor, Tier 2 or 4 Final engine
 - Arctic fluids, Genset ready, heater and blankets for tanks, heated water suction lines
 - Shore power connection box with switchable 240-600 volt, 50 amp waterproof connection
 - Extra batteries (option)

Factory Options

Options may vary. Consult your Cat dealer for details.

FRAME

- Fuel tank expansion of +1609 L (425 gal) for total of 3218 L (850 gal) (option) required for autonomy packages

MAST

- Overhead winch with remote; variable speed drive with ≥ 1814 kg (4,000 lb) rating, length to reach 6.1 m (20 ft) past drill deck
- Rotary tool lubrication, 113.5 L (30 gal) oil injection system
- Mast access ladder, mast grating and lanyard posts

OPERATOR ENVIRONMENT

- Trainer seat that folds away
- Window shades
- Cabin pressure manometer gauge
- Cab roof access ladder

SERVICE TOOL OPTIONS

- Bushing Retention Tool 178 to 235 mm (7 to 9.250 in) pipe diameter
- Lifting bails (available on request; required for commissioning)
 - 114 mm (4.5 in) API reg thread
 - 140 mm (5.5 in) API reg thread
 - 168 mm (6.625 in) for top sub/shock sub API reg thread
 - 114 mm (4.5 in) for 178 mm (7 in) pipe BECO thread
 - 152 mm (6 in) for 194 mm (7.625 in) up to 235 mm (9.25 in) pipe BECO thread

TECHNOLOGY PRODUCTS

- Product Link Elite – cellular
- Product Link Elite – satellite
- Product Link Elite – Dual (cellular and satellite)
- Terrain for Drilling

GROUND ENGAGING TOOLS

- Drill bits, rotary tricone
 - 228 mm (9.0 in), OPT 1, (S3)
 - 228 mm (9.0 in), OPT 2, (M2)
 - 228 mm (9.0 in), OPT 3, (H1)
 - 251 mm (9.875 in), OPT 1, (M1)
 - 251 mm (9.875 in), OPT 2, (M3)
 - 251 mm (9.875 in), OPT 3, (H1)
 - 270 mm (10.625 in), OPT 1, (S3)
 - 270 mm (10.625 in), OPT 2, (M3)
 - 270 mm (10.625 in), OPT 3, (H1)
 - 311 mm (12.25 in), OPT 1, (M1)
 - 311 mm (12.25 in), OPT 2, (M3)
 - 311 mm (12.25 in), OPT 3, (H1)

DUST SUPPRESSION

- Dust curtain hydraulic lifters raise front and rear dust curtains (recommended with dust collector)
- Tram off spray system

DRILL PIPE

- 12.19 m (40 ft) Pipes, 13.7 m (44.9 ft) Mast
 - Carousel holds quantity of four
 - DTH – 178 mm (7 in)
 - Rotary/DTH – 194 mm (7.625 in)
 - Rotary – 203 mm (8 in)
 - Rotary – 219 mm (8.625 in)
- 7.62 m (25 ft) Pipes, 17.5 m (57.4 ft) Mast
 - Carousel holds quantity of four
 - DTH – 178 mm (7 in)
 - Rotary/DTH – 194 mm (7.625 in)
 - Rotary – 203 mm (8 in)
 - Rotary – 219 mm (8.625 in)
 - Rotary – 235 mm (9.25 in) Carousel accepts quantity of two
- 9.14 m (30 ft) pipes, 13.7 m (44.9 ft) Mast
 - Carousel holds quantity of two with special sub adapters to connect to DTH hammer and tricone bit (DTH hammer and tricone not included)
 - Accepts 194 mm (7.625 in) pipe
- Contact factory for additional pipe diameters

MD6310 Rotary Blasthole Drill

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