

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 with single pass or multi pass depths.

Basic Specs

13.7 m (44.9 ft) Mast

Hole diameter range	203-279 mm	8-11 in
Single pass depth	13.7 m	44.9 ft
Multi pass depth	Down to 62.5 m	Down to 205 ft
Pull-down capacity	Up to 289.13 kN	Up to 65,000 lb
Hoist capacity	Up to 289.13 kN	Up to 65,000 lb
Hoist speed	44.76 m/min	146.8 ft/min
Bit load (single pass)	Up to 31 640 kg	Up to 69,755 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 48 m	Down to 157.5 ft
Pull-down capacity	Up to 382.5 kN	Up to 86,000 lb
Hoist capacity	Up to 382.5 kN	Up to 86,000 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	
Rated horsepower SAE J1995	760 kW	1,018 hp
Rated horsepower ISO 14396	752 kW	1,008 hp

Emissions: Equivalent to Tier 2

Engine	C32 @ 1,800 rpm	
Rated horsepower SAE J1995	770 kW	1,032 hp
Rated horsepower ISO 14396	765 kW	1,025 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)	

Elevation capable

Tier 2 Equivalent engine	4750 m	15,000 ft
Tier 4 Final engine	3658 m	12,000 ft

Angle drilling 30° (in 5° increments)

MD6310 Specifications

Engine Choices

U.S. EPA Tier 4 Final

Engine	C32 @ 1,800 rpm	
Rated horsepower SAE J1995	760 kW	1,018 hp
Rated horsepower ISO 14396	752 kW	1,008 hp

U.S. EPA Tier 2 Equivalent

Engine	C32 @ 1,800 rpm	
Rated horsepower SAE J1995	770 kW	1,032 hp
Rated horsepower ISO 14396	765 kW	1,025 hp

- Dual starter motors
- Scheduled oil sampling (S-O-SSM) ports
- Common air intake filters provide +500 hour service interval (engine and compressor) in normal operating conditions
- Ether starting aid

Compressor/Receiver Choices

- With the compressors variable volume control, the operator can limit air output and engine speed both resulting in reduced fuel consumption. All of these compressors contain this feature.
- Compressor control box enclosure with air purged lines

DTH drilling includes tool lubrication and hammer storage

- 42.2 m³/min (1,500 ft³/min) @ 34.4 bar (500 psi) with High Pressure Receiver Tank for ASME/CRN/AU or CE Tank; hammer storage and tool oiler

Rotary drilling

- 56.6 m³/min (2,000 ft³/min) @ 8.6 bar (125 psi); with Low Pressure Receiver Tank for ASME/CRN/AU or CE Tank
- 73.6 m³/min (2,600 ft³/min) @ 7.6 bar (110 psi) with Low Pressure Receiver Tank for ASME/CRN/AU or CE Tank

Cooling

- Low coolant level sensor
- 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

Regulatory Compliance

- CE compliant
- CSA certifiable
- EAEU certifiable
- CSA certified
- MDG15 and MDG41 aligned

Climate Choices

Climate Level 1 standard fluids and lubricants

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

Climate Level 2 Arctic fluids and lubricants

- -18° C (-0.4° F) temperatures
- Extra batteries

Climate Level 4 Arctic fluids and lubricants

- -40° C (-40° F) temperatures
- Engine coolant and water tank heater, battery trays and provision for fuel heating – diesel fired
- 50 Hz, High or Low Pressure Compressor, Tier 4 Final engine
- Arctic fluids, Genset ready, heaters and blankets for tanks, extra batteries, heated water suction lines
- Shore power connection box with switchable 240-600 volt, 50 amp waterproof connection

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
- Pipe roller guide assembly on deck for loading pipe
- Four leveling jacks to provide leveling on a 7° bench (any orientation)
- Walkway, with railing and toe guards
- Slip resistant surface on all decks and walkways
- Fuel tank capacity 1609 L (425 gal)
- Fuel tank expansion of +1609 L (425 gal) for total of 3218 L (850 gal)
- Manual, centralized, lubrication banks for all pivot points on drills, or automated lubrication system (option)
- Heavy duty tow hooks (front end)
- Lift lugs, quantity four, for use with cables or chains
- Fire suppression ready (includes platform on non-drill end to mount bottles, and frame around power train to mount nozzles)
- Deck mounted jib crane with 750 kg (1,653 lb) at full extension, can lift from ground level supply to in-deck storage and deck bushing centerline (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

Access Choices

- Access ladder from cab area on right side of frame
- Cascading, hydraulic self-leveling access stairs to cab area. Includes tram interlock for when the ladder is down. (option)
- Cab perimeter walkway available with either choice

Undercarriage

Model	Cat® 349E EL Excavator type with three carrier rollers, chain guards and guides	
Ground clearance	490 mm	19.3 in
Draw bar pull	560,000 N	
Travel speed – via a sensor with in-cab display	2.45 kph	1.5 mph
Triple grousers for hard rock	600 mm	23.6 in
Triple grousers for soft rock	750 mm	29.5 in

Hydraulics

- Auxiliary circuit pump
- Two fan pumps
- Two primary pumps
- Scheduled Oil Sampling (S-O-S) ports

Mast

Hydraulic, indexing pipe carousels accept various pipe diameters

Configuration choices include single pass, multi pass, vertical or angle drilling

- 13.7 m (44.9 ft) or 17.5 m (57.4 ft) Mast complete with pipe carousel
- Pulldown/hoist system is a single cylinder
- Auto tensioning of pull down and hoist cables
- Feed system accommodates multiple pipe diameters
- Base plate bushing diameters accommodate bits 235 mm (9.625 in) to 311 mm (12.25 in)
- Hydraulic break out wrenches (HOBO) available with adjustable grip ranges
- Deck wrench fits flats of corresponding drill pipe diameters and DTH hammer
- Configured with roller deck bushing for tricone applications, two-piece deck bushing for DTH
- Angle drilling 0-30°; in 5° increments (option)
- Drill pipe positioner with pipe diameter specific inserts
- Thread greaser with reloadable tank or disposable grease bucket (option)
- Overhead winch with remote; variable speed drive with ≥ 1818 kg (4,000 lb) rating, length to reach 6 m (20 ft) past drill deck (option)
- Mast lanyard mounting provisions (option)
- Rotation Gear Box with dual motor, up to 160 rpm, and 16,000 N·m of torque (11,800 ft·lb)
- Pipe catcher; manual or hydraulic (option)
- Tool oiler 113 L (30 gal) oil injection system (Rotary drilling only)
- Mast access ladder and grating (option)

MD6310 Specifications

Mast Packages: Standard or Premium Choices

13.7 m (44.9 ft) Mast		
Single pass depth	13.7 m	44.9 ft
Multi pass depth	Down to 62.5 m	Down to 205 ft
Pulldown – rated single cylinder pull-down/hoist system	Up to 289.13 kN	Up to 65,000 lb
Hoist	Up to 289.13 kN	Up to 65,000 lb
Mast accessories manual	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	
17.5 m (57.4 ft) Mast		
Single pass depth	17.5 m	57.4 ft
Multi pass depth	Up to 48 m	Up to 157.5 ft
Pulldown – rated single cylinder pull-down/hoist system	Up to 382.5 kN	Up to 86,000 lb
Hoist – pull-down/hoist	Up to 382.5 kN	Up to 86,000 lb
Mast accessories manual	Two wire rope (17.5 m/57.4 ft) 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	Available with either mast	

Carousel and Pipe (Mast size dependent)

13.7 m (44.9 ft) Mast Carousel; takes quantity of 4 × 12.19 m (40 ft) pipes; total depth 62.5 m (205 ft)		
Pipe diameters	178 mm	7 in
	193 mm	7.625 in
	203 mm	8 in
	219 mm	8.625 in
17.5 m (57.4 ft) Mast Carousel; takes quantity of 4 × 7.6 m (25 ft) pipes; total depth 48 m (157.5 ft)		
Pipe diameters	178 mm	7 in
	193 mm	7.625 in
	203 mm	8 in
	219 mm	8.625 in
17.5 m (57.4 ft) Mast Carousel; takes quantity of 2 × 7.6 m (25 ft) pipes; total depth 32.7 m (107.4 ft)		
Pipe diameters	235 mm	9.25 in

Hydraulic Break Out Wrench

Variable grip hydraulic break out wrench grip ranges

- 177-219 mm (7.0-8.625 in)
- 235 mm (9.25 in)

Drill Pipe

12.1 m (40 ft) pipes – requires quantity of four	13.7 m (44.9 ft) Mast	
DTH	178 mm	7 in
Rotary or DTH	193 mm	7.625 in
Rotary	203 mm	8 in
Rotary	219 mm	8.625 in
7.62 m (25 ft) pipes – requires quantity of four	17.5 m (57.4 ft) Mast	
DTH	178 mm	7 in
Rotary or DTH	193 mm	7.625 in
Rotary	203 mm	8 in
Rotary	219 mm	8.625 in
7.62 m (25 ft) pipes – requires quantity of only two	17.5 m (57.4 ft) Mast	
Rotary	235 mm	9.25 in

Tool Package Rotary

- Roller deck bushing
- Pipe positioner inserts
- Deck wrench, sliding
- Shock sub and top sub adapter (option)
- Cross over hammer adapter
- Pipe wiper seal

Tool Package DTH

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

Overhead Winch System

Capacity rating	1818 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 with splined collar
- Rotation gear box with dual motor, 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 shade (option)
 - Foldaway trainer's seat (option)
- Cab, Premium
 - Leather seat with heat and ventilation
 - Dual pane window glass
 - Front window guard
 - Removable floor mat
 - Foot rest
 - Wrist rests
 - Additional in-cab storage box
 - Additional windshield wipers on front and rear windows
 - Window shade (option)
 - Foldaway trainer's seat (option)
- Spacious FOPS cab has 3 m² (32.4 ft²) floor space with an integrated operator station
- 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 displays, high definition screen 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)
- Independent circuit breakers
- 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 light 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 per flood light on perimeter
 - 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, tramping, leveling plus auxiliary functions
- Electric 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
- Filter indicators for hydraulic, fuel, compressor and engine
- Jack pressure sensors in the display
- Pump drive gearbox temperature sensor
- 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
- Tram interlock, overhead winch parked
- Cab environment controls (AC, filter, heat, fan speeds)
- Cab manometer with indicator (option)
- Dust curtain lifting system – auto hydraulic raise front and rear with gravity down (option)
- ECM interlock for the jacks, raises curtains when jacks are lifted
- Wiring for Terrain interface
- Pre-wired for Terrain and autonomous operation
- Zone control for area lighting and spotlighting during dark conditions
- 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 (pass auto drill) (option)
- Product Link Elite (option)
- Autonomy ready
- Command for Drilling enables each operator to manage more than one machine
- 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 (recommended with dust collector)
- Tram off spray to wet the ground around the cutting pile (not recommended for cold weather applications)
- Water injection (standard)
 - Water tank capacity 1514 L (400 gal)
- Water injection and dust collector (option)
 - Water tank capacity 1514 L (400 gal)
 - 204 m³/min (7,200 cfm) Dry dust collector box
 - Self-cleaning filters, dust chute with clean-out door
- 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)
- Hydraulic lifters for front and rear dust curtains (optional)
- Low water level indicator

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

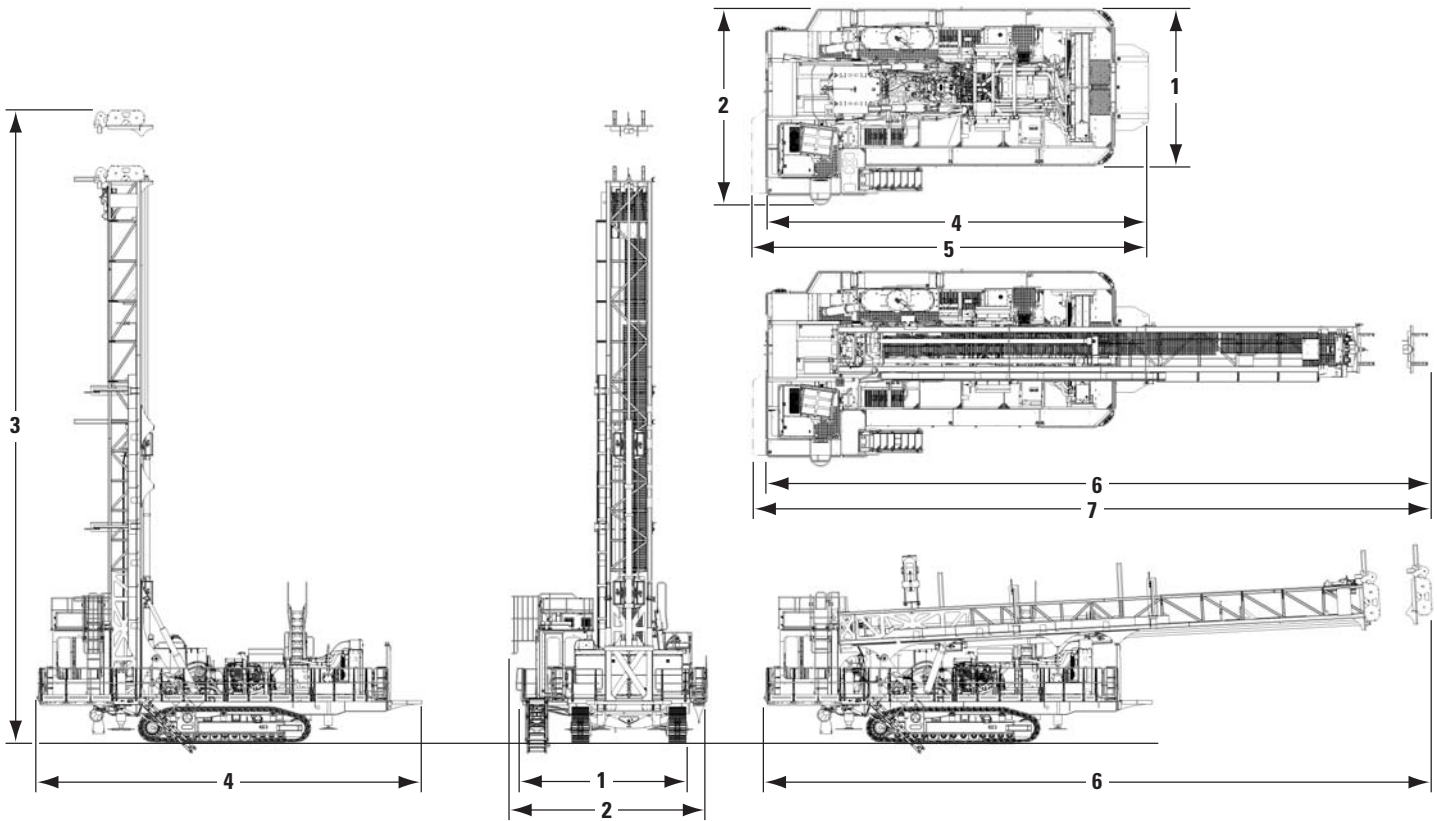
- Bushing Retention Tool 178 to 235 mm (7.000 to 9.250 in) pipe diameter
- Lifting bails (available on request; required for commissioning)
 - 114 mm (4.5 in) API thread
 - 140 mm (5.5 in) API thread
 - 168 mm (6.625 in) for top sub/shock sub API thread
 - 108 mm (4.25 in) for 178 mm (7 in) pipe BECO thread
 - 152 mm (6 in) for 193 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 engine shut down buttons: one 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 with yellow strobe light 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 mount 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	17.67 ft	5.39 m	17.67 ft
2 Width rear	6.32 m	20.75 ft	6.32 m	20.75 ft
3 Height mast up	19.97 m	65.5 ft	23.77 m	78 ft
4 Body length – standard cab	13.27 m	43.5 ft	13.27 m	43.5 ft
5 Body length – extended cab	13.79 m	45.25 ft	13.79 m	45.25 ft
6 Length mast down – standard cab	21.1 m	69.2 ft	24.9 m	81.7 ft
7 Length mast down – extended cab	21.62 m	70.93 ft	25.42 m	83.4 ft

Weights

Working weight range – minimum	75 500 kg	166,450 lb	77 500 kg	170,900 lb
Working weight range – maximum	95 000 kg	209,450 lb	95 000 kg	209,450 lb

MD6310 Configuration Choices

Mandatory Choices

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

COMPRESSOR/RECEIVER TANK

- Rotary/Low
 - 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/High
 - 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 289.13 kN (65,000 lb) pull-down/hoist
- 17.5 m (57.4 ft) single pass depth
 - Vertical or Angle Drilling
 - Up to 382.5 kN (86,000 lb) pull-down/hoist

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 (205 ft)
 - 193 mm (7.625 in) pipe; four pod with retainer; total depth 62.5 m (205 ft)
 - 203 mm (8 in) pipe; four pod with retainer; total depth 62.5 m (205 ft)
 - 219 mm (8.625 in) pipe; four pod with retainer; total depth 62.5 m (205 ft)
- 17.5 m (57.4 ft) Mast/7.6 m (25 ft) Pipe Rack
 - 178 mm (7 in) pipe; four pod with retainer; total depth 48 m (157.5 ft)
 - 193 mm (7.625 in) pipe; four pod with retainer; total depth 48 m (157.5 ft)
 - 203 mm (8 in) pipe; four pod with retainer; total depth 48 m (157.5 ft)
 - 219 mm (8.625 in) pipe; four pod with retainer; total depth 48 m (157.5 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 177-219 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
 - 193 mm (7.625 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, cross over bit sub, pipe wiper seal
 - 203 mm (8 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, cross over bit subs, pipe wiper seal
 - 219 mm (8.625 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, cross over bit subs, pipe wiper seal
- 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
 - 193 mm (7.625 in) pipe diameter – two piece bushing, pipe positioner inserts, sliding deck wrench, cross over adapter for hammer, pipe wiper seal

DRILL TOOL PACKAGES – 17.5 m (57.4 ft) MAST

- ROTARY DRILLING Package
 - 193 mm (7.625 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, cross over hammer adapter, pipe wiper seal
 - 203 mm (8 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, cross over hammer adapter, pipe wiper seal
 - 219 mm (8.625 in) pipe diameter – two piece bushing, pipe positioner inserts, sliding deck wrench, cross over hammer adapter, pipe wiper seal
 - 235 mm (9.25 in) pipe diameter – one piece roller deck bushing, pipe positioner inserts, sliding deck wrench, cross over 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
 - 193 mm (7.625 in) pipe diameter – two piece bushing, pipe positioner inserts, sliding deck wrench, cross over adapter for hammer, pipe wiper seal

SUBS

- Shock Absorbers with crossover sub
 - 178 mm (7 in)
 - 193 mm (7.625 in)
 - 203 mm (8 in)
 - 219 mm (8.625 in)
 - 235 mm (9.25 in)
- Top Subs
 - 193 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
- Cab, Premium
 - Leather seat with heat and ventilation
 - Dual pane window glass
 - Front window guard
 - Removable floor mat
 - Foot rest
 - Wrist rests
 - Additional in-cab storage box
 - Additional windshield wipers on front and rear windows
- 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; –1° C (30° F) temperatures; withstands high heat to 52° C (125° F)
- Level 2 Arctic fluids and lubricants; –18° C (–0.4° F) temperatures; extra batteries
- Tier 4 Final, high altitude or equivalent Tier 2
 - 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, extra batteries, heated water suction lines
 - Shore power connection box with switchable 240-600 volt, 50 amp waterproof connection
- Tier 4 Final, low altitude or equivalent Tier 2
 - Level 4 –40° C (–40° F) temperatures
 - Engine coolant and water tank heaters, battery trays, and provision for fuel heating – diesel fired
 - 50 Hz Low Pressure Compressor, Tier 2 or 4 Final engine
 - Arctic fluids, Genset ready, heater and blankets for tanks, extra batteries, heated water suction lines
 - Shore power connection box with switchable 240-600 volt, 50 amp waterproof connection

TECHNOLOGY AND AUTOMATION

- Depth indicator and interlocks
- Auto level, auto retract, auto mast
- Drill Assist (single pass auto drill)
- Product Link Elite (see Factory Options – Technology Products for options)

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 ≥ 1818 kg (4,000 lb) rating, length to reach 6 m (20 ft) past drill deck
- Rotary tool lubrication, 113 L (30 gal) oil injection system
- Mast access ladder, mast grating and lanyard posts

DECK

- Deck mounted jib crane with 750 kg (1,653 lb) at full extension, can lift from ground level supply to in-deck storage and deck bushing centerline

OPERATOR ENVIRONMENT

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

SERVICE TOOLS OPTIONS

- Bushing Retention Tool 178 to 235 mm (7 to 9.25 in) pipe diameter
- Lifting bails (available on request; required for commissioning)
- API thread
 - 114 mm (4.5 in)
 - 140 mm (5.5 in)
 - 168 mm (6.625 in) for top sub/shock sub
- BECO thread
 - 108 mm (4.5 in) for 114 mm (7 in) pipe
 - 152 mm (6 in) for 193 mm (7.625 in) up to 235 mm (9.25 in) pipe

TECHNOLOGY PRODUCTS

- Product Link Elite – cellular
- Product Link Elite – satellite
- Product Link Elite – Dual (cellular and satellite)

DUST SUPPRESSION

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

DRILL PIPE

- 12.1 m (40 ft) Pipes, 13.7 m (44.9 ft) Mast – Carousel accepts quantity of four
 - DTH – 178 mm (7 in)
 - Rotary/DTH – 193 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 accepts quantity of four
 - DTH – 178 mm (7 in)
 - Rotary/DTH – 193 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

DEALER OPTIONS

- Window tint/film
- Kit to convert Genset ready from 50 Hz to 60 Hz

MD6310 Rotary Blasthole Drill

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AEHQ8038 (06-2017)

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