



## CAT MD5090 SURFACE DRILLS

### TECHNICAL SPECIFICATION

## Specifications

### General Data

Hole diameter	127 mm (5.0 in)
Hole depth	23 m (74.5 ft)
Compressor	8.5 m <sup>3</sup> /min (300 cfm)
HPR4519 rock drill	19 kW (25 hp)

### Rock Drill HPR4519

Output power	19 kW (25 hp)
Weight	300 kg (660 lb)
Percussion pressure	Up to 250 bar (3,600 psi max)
Blow rate	2,500 – 2,700 bpm
Rotation speed	240 rpm
Rotation torque	908 Nm (670 ft-lb)
Drill steel	38 mm and 45 mm
Optional air/oil lubrication	
Optional rock drill HPR5123	23 kW (31 hp)
Optional drill steel	51 mm

### Feed System

Feed extension	.91 m (3 ft)
Model UFH14 heavy-duty chain feed	
Pitch roller chain	31.7 mm (1.25 in)
Resists torsional and thrust loading	
Drill mounting slide	
Replaceable wear pads	
Scissor-type centralizer	
Feed swing	36° left, 37° right
Feed dump	139°

### Boom Specifications - Telescopic

Boom up	36°
Boom down	29°
Boom length	3.81 m (12.5 ft)
Boom extension	1.52 m (5 ft)
Boom swing angle	40° left 40° right

### Rod Changers

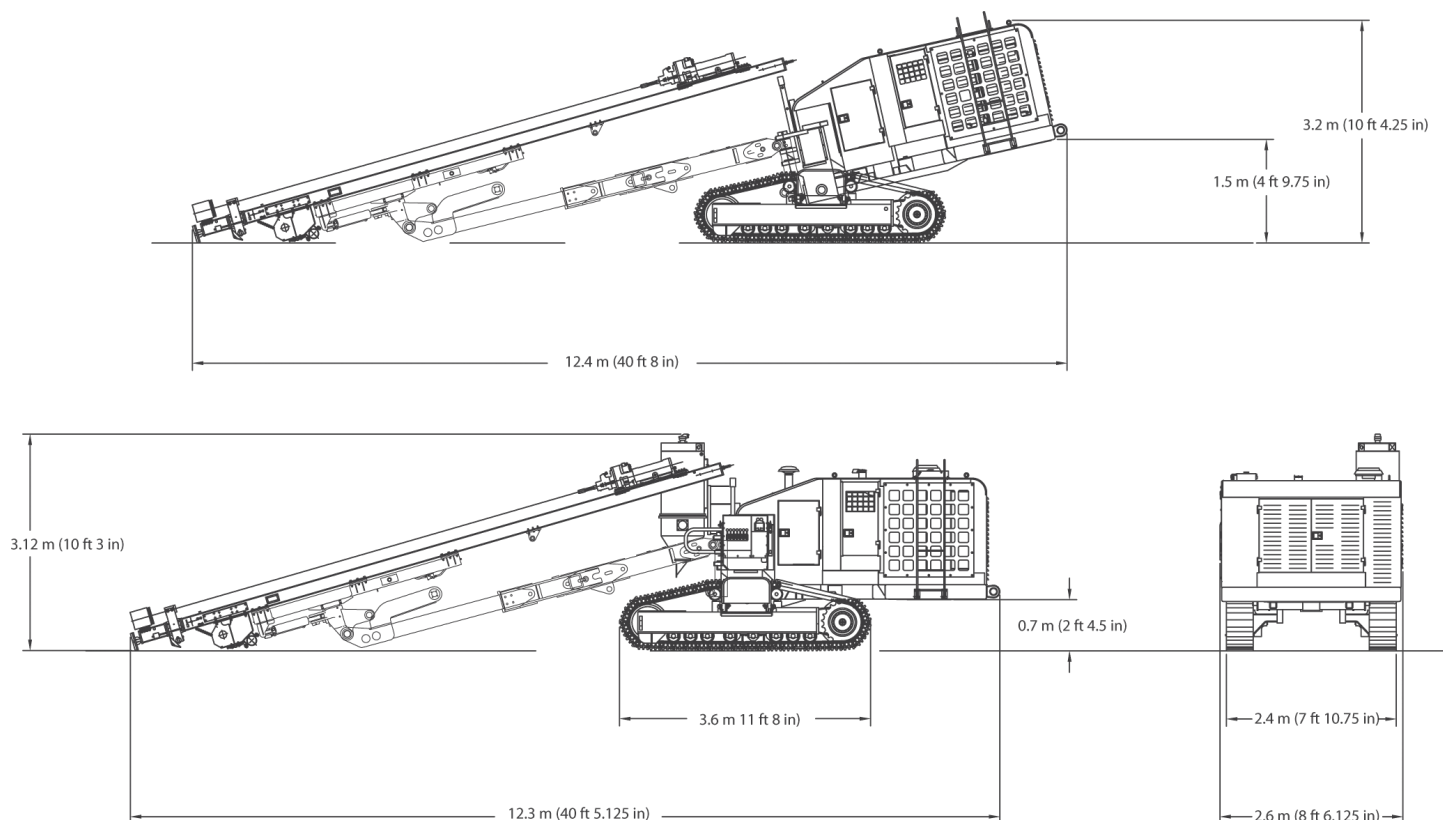
#### Manual Rack (standard)

Qty. x length	5 rods x 3.66 m (12 ft) 38, 45 or 51 mm steel
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#### Linear (optional)

Qty. x length	5 rods x 3.66 m (12 ft) or 5 rods x 4.27 m (14 ft) + one in feed 38, 45 or 51 mm steel
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## Shipping Dimensions

Length	10.3 m (33.8 ft)
Width	2.6 m (8.5 ft)
Height	3.1 m (10.3 ft)
Weight	17 855 kg (39,500 lb)

## Power Unit

Tier III Cat® C9, electronically controlled, 6-cylinder inline turbocharged, air-to-air after-cooled 224 kW (300 hp) at 1,800 rpm in three-position throttle for fuel consumption

Pumps are direct-driven by the engine through a steel flex coupling

Dual-element air filter with indicators

Engine oil sump 45°

Fuel tank 492 l (130 gal)

Fuel capacity Over 12 hours

## Air Compressor

Rotary screw compressor

140 l/sec (300 cfm) maximum

10 bar (150 psi) maximum

Dual-element air filters with indicators

## Hydraulic System

The hydraulic system is a load-sensed “dedicated” pump system

Main pump for all functions except drill rotation and dust collector

Pressure-compensated axial piston type

Full-flow supercharged inlet

Rotation and dust collector pump

Pressure-compensated axial piston type; atmospheric inlet

High-impulse spiral-wrapped hose

Full-flow 10 micron, in-tank filtration 405 l (107 gal) sealed and pressurized hydraulic tank; full-flow cooling

Manual “makeup” fill pump with 10 micron filter

## Cooling Package

Coolers for engine, hydraulic and compressor ambient capability 52° C (125° F)

Fan assembly 1 067 mm (42 in)

Side-by-side arrangement mounted vertically

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## MD5090 Dust-Collection System

Model HDE900

12.7 cm (5 in) suction hose

Feed-mounted precleaner and pickup pot

28 m<sup>2</sup> (304 ft<sup>2</sup>) of filter area

Reverse pulsing for cleaning

## Undercarriage

Excavator track pad and chain

Design side frames

Final drive assemblies

Triple grouser track pads 380 mm (15 in) wide

Hydraulically released spring-applied brakes

Independent track oscillation

Ground pressure .65 bar (9.5 psi)

Speed maximum 4 kph (2.4 mph)

Machine oscillation  $\pm 10^\circ$

Gradability 35°

Ground clearance 431 mm (17 in)

Track gauge 2 042 mm (80.4 in)

## Guide Shell

Maximum starter rod, standard non-cab

5.48 m/4.26 m (18 ft/14 ft)

Maximum starter rod, optional 6.09 m (20 ft)

Maximum single pass, standard 4.87 m (16 ft)

Maximum single pass, optional 5.64 m (18 ft 6 in)

Feed rate 37 m/min (120 ft/min)

## Controls

### Pressure-Compensated Flow & Directional Control Valves

Drill hammer

Drill rotation

Drill feed

Tramming with optional dual tram from feed

Boom and feed positioning

Remote engine throttle control

### Electronics Display

Tachometer

Hour meter

Voltmeter

Engine-oil pressure

Engine-water temperature

Hydraulic oil temperature

Hydraulic oil level

Engine fuel

Compressor discharge

### Shutdown Features

Low engine-oil pressure

High compressor discharge temperature

High engine-water temperature

Feed-mounted emergency stop cable

### Standard TramStatio

Console with stand for tram and boom functions

### Standard Controls

All drilling functions mounted on feed