

Atlas Copco Exploration Drilling Christensen CT14 Core Drill



CT14 PERFORMANCE SPECIFICATIONS

Depth capacity coring (wireline or conventional)

| | | |
|------------|--------|-----------|
| B wireline | 1540 m | (5052 ft) |
| N wireline | 1200 m | (4042 ft) |
| H wireline | 800 m | (2695 ft) |
| P wireline | 475 m | (1558 ft) |

Depth are based on vertical hole

Main hoist

Single line capacity: Bare drum 80 kN (18 000 lb)
Line speed: Bare drum 44 m/min (148 ft/min)
Cable size: 35 m (118 ft) x 16 mm (10/16 in)

Wireline

Capacity: 1830 m (6000 ft) of 4,76 mm (3/16 in)
975 m (3200 ft) of 6,35 mm (1/4 in)
Line pull: bare drum: 11,9 kN (2665 lb)
full drum: 3,0 kN (668 lb)
Line speed: bare drum 114 m/min (374 ft/min)
full drum 453 m/min (1486 ft/min)

Mast and feed system

Feed travel: 3,5 m (11,5 ft)
Feed speeds: fast and slow with variable control
Thrust: 59,6 kN (13 390 lb)
Pull: 138 kN (31 020 lb)
Drilling angle: 45 to 90 degrees
Rod pull length: 6,09 m (20 ft)

Power unit

Manufacture: Cummins
Model: QSB5.0-C, 5.9 liter 6 cylinder
Power: 158 kW (212 hp)
RPM: 1800
Engine type: Diesel turbocharged/after cooled
Cooling: Water

Hydraulic system

Primary pump: 28 MPa – 252 l/min (4061 psi – 66,6 gal/min)
Secondary pump: 17 MPa – 128 l/min (2466 psi – 33,8 gal/min)
Auxiliary pump: 21,5 MPa – 50 l/min (3118 psi – 13,2 gal/min)
Hydraulic oil cooling: Air

Drillhead and spindle speeds

Power: hydraulic motor – variable speed/reversible
Final drive: 4 in chain driven in oil bath – 2,5 ratio
Spindle (inner diameter): 117 mm (4 5/8 in)
Spindle speeds:

| | Ratio | Speed, rpm | Torque, Nm (ftlb) |
|-----|--------|------------|-----------------------|
| 1st | 6,63:1 | 132-207 | 5113-3259 (3759-2396) |
| 2nd | 3,17:1 | 275-432 | 2445-1558 (1798-1146) |
| 3rd | 1,72:1 | 508-796 | 1326-846 (975-622) |
| 4th | 1,00:1 | 873 1369 | 771-492 (567-362) |

Range selection: manual control from operator's station
Hinged head: swing away

Chuck assembly

Type: hydraulic open, spring closed
Maximum inside diameter: 117 mm (4 5/8 in)
Holding capacity: 1 8143 kg (40 000 lb)

Drill base supports

Frame mounted rig designed to be mounted on a truck
Support: 4 hydraulic jacks
Pad size: 210 x 210 mm (8,27 x 8,27 in)
Travel length: 900 mm (35,43 in)

Weight

Base drill: approx. 9000 kg (19,840 lb)

Dimensions (L – W – H)

In transport position :
9900 mm (32,48ft) 2280 mm (7,48ft) 4050 mm (13,29ft)

Standard equipment

- Hydraulic mast dump
- Mast in two sections
- Large crown sheave wheel
- Towing package
- Fuel tank 200 l (53 gal)
- Hydraulic oil reservoir fill pump & filtration
- Hydraulic P-size rod holder
- Hydraulic mud pump, Trido 140:
 - max flow: 140 l/min (37 gal/min)
 - max pressure: 4,9 MPa (700 psi)

- Hydraulic mast raise
- 4 hydraulic levelling jacks
- Tier II engine
- Wear lines on lower mast
- Safety guards
- Fuel filter & water separator
- Mast lightning kit
- Hydraulic mud mixer

Options

- Water flow meter
- RPM meter
- Hydraulic break out tool

All weights and dimensions are approximations and are subject to change

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