

# Atlas Copco Exploration Drilling Christensen CS14 Core Drill



# CS14 PERFORMANCE SPECIFICATIONS

## Depth capacity coring (wire line or conventional)

B wire line	1540 m	(5052 ft)
N wire line	1200 m	(4042 ft)
H wire line	800 m	(2695 ft)
P wire line	540 m	(1819 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)

## Wire line

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: 140 kN (31 470 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

## Drill head 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	129-227	5573-3483 (4110-2569)
2nd	3,17:1	270-432	2665-1665 (1966-1228)
3rd	1,72:1	498-796	1496-904 (1103-667)
4th	1,00:1	856-1369	841-525 (620-387)

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

Trailer mounted rig, four 770 mm (30,3 in) wheels  
Support: 4 hydraulic jacks  
Pad diameter: 200 / 230 mm (7,87 / 9 in)  
Travel length: 550 mm (21,6 in)

## Weight

Base drill: 5 000 kg (11 020 lb)

## Dimensions (L – W – H)

In transport position (top mast removed):  
6370 mm (21,45ft) 2200 mm (7,22ft) 2340 mm (7,88ft)  
Transport on drill site (top mast folded):  
6370 mm (21,45ft) 2550 mm (8,59ft) 2340 mm (7,88ft)

## 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 mast raise
- 4 hydraulic levelling jacks
- Tier II engine
- Wear lines on lower mast
- Safety guards
- Fuel filter & water separator

## Options

- Hydraulic P-size rod holder
- Mast lightening kit
- RPM meter
- Hydraulic mud pump, Trido 140:
- max flow: 140 l/min (37 gal/min)
- max pressure: 4,9 MPa (700 psi)
- Hydraulic mud mixer
- Water flow meter
- Hydraulic break out tool

*All weights and dimensions are approximations and are subject to change*

## Atlas Copco Exploration Products

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