Atlas Copco Exploration Drilling
Christensen CS14 Core Drill

CS14 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: QSB6,7 Tier III
Volume: 6,7 liter 6 cyl.
Power: 153 kW (208 hp)
RPM: 1800
Engine type: Diesel turbocharged/after cooled
Cooling: Water

Hydraulic system
Primary pump: 28 MPa – 242 l/min (4061 psi – 63,9 gal/min)
Secondary pump: 20 MPa – 122 l/min (2901 psi – 32,2 gal/min)
Auxiliary pump: 21,5 MPa – 47 l/min (3118 psi – 12,4 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	117-196	5113-3051 (3771-2250)
2nd	3,17:1	245-410	2445-1459 (1803-1076)
3rd	1,72:1	451-756	1326-792 (978-584)
4th	1,00:1	776 1300	771-460 (569-340)

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

6991 1389 01 (v2.0)

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

Rod Holder
Type: hydraulic open, gas spring closed
Maximum inside diameter: 210 mm (8,3 in)
Holding capacity: 13 000 kg (28 660 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)

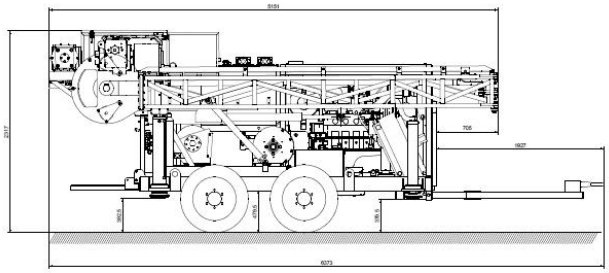
Weight
CS14 incl. Trido140 and Rod Holder: 7000 kg (15 430 lb)

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
-Wear lines on lower mast
-Safety guards
-Hydraulic oil reservoir fill pump & filtration
-Hydraulic P-size rod holder
-4 hydraulic levelling jacks
-Towing package
-Fuel tank 200 l (53 gal)
-Fuel filter & water separator
-Hydraulic mast raise

Options
-Hydraulic mud mixer
-RPM meter
-Water flow meter (max 6,4 MPa)
-Hydraulic mud pump, Trido 140:
max flow: 140 l/min (37 gal/min)
max pressure: 7 MPa (1015 psi)

All weights and dimensions are approximations and are subject to change



Atlas Copco Craelius
Birstagatan 13
SE-195 82 Märsta
SWED