

# Atlas Copco Exploration Drilling Christensen CS10 Core Drill



# CS10 PERFORMANCE SPECIFICATIONS

## Depth capacity coring (wireline or conventional)

B wireline	1070 m	(3500 ft)
N wireline	762 m	(2500 ft)
H wireline	460 m	(1500 ft)
P wireline	305 m	(1000 ft)

Depth are based on vertical hole

## Main hoist

Single line capacity: Bare drum 53,5 kN (12 000 lb)  
Line speed: Bare drum 55 m/min (180 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: 1,83 m (6 ft)  
Feed speeds: fast and slow with variable control  
Thrust: 59,6 kN (13 390 lb)  
Pull: 90 kN (20 200 lb)  
Drilling angle: 45 to 90 degrees  
Rod pull length: 6,09 m (20 ft)

## Power unit

Manufacture: Caterpillar  
Model: CAT C3054E, 4,4 l, 4 cylinder, Tier II  
Power: 104 kW (140 hp)  
RPM: 2200  
Engine type: Diesel turbocharged/after cooled  
Cooling: Water

## Hydraulic system

Primary pump: 28 MPa – 230 l/min (4061 psi – 61 gal/min)  
Secondary pump: 20 MPa – 122 l/min (2901 psi – 32 gal/min)  
Auxiliary pump: 21,5 MPa – 56 l/min (3118 psi – 14,8 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	116-196	4517-2662 (3331-1963)
2nd	3,17:1	242-410	2160-1273 (1593-939)
3rd	1,72:1	446-757	1170-690 (863-509)
4th	1,00:1	766-1300	681-402 (503-296)

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, two 770 mm (30,3 in) wheels  
Support: 4 hydraulic jacks  
Pad diameter: 200 mm (7,87 in)  
Travel length: 550 mm (21,6 in)

## Weight

CS10 incl. Trido140 and Rod Holder: 5000 kg (11 020 lb)

## Dimensions (L – W – H)

In transport position (top mast removed):  
5950 mm (19,52 ft) 2200 mm (7,22 ft) 2190 mm (7,2 ft)

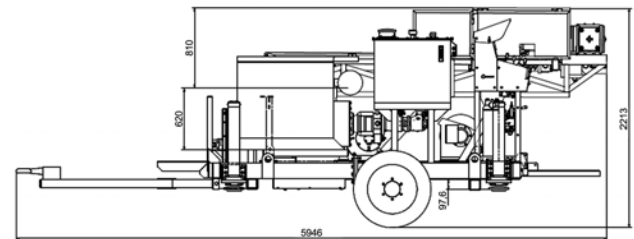
## Standard equipment

-Hydraulic P-size rod holder (gas loaded)  
-Mast in three sections -4 hydraulic levelling jacks  
-Large crown sheave wheel -Towing package  
-Wear lines on lower mast -Fuel tank 180 l (47,5 gal)  
-Safety guards -Fuel filter & water separator  
-Hydraulic oil reservoir fill pump & filtration -Hydraulic mast raise

## Options

-Hydraulic mud mixer  
-Water flow meter (max 6,4 MPa) -RPM meter  
-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



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