

Christensen CS10

Surface core drill rig for mineral exploration

Atlas Copco



POWER IN A COMPACT DESIGN

Our Christensen CS10 surface core drill rig is compact, trailer mounted and ideal for shallow drilling down to 800 meters.

Christensen CS10 can be found drilling in remote locations, such as Siberia, as well as in harsh environments of the South Pacific and Africa. The rig incorporates an ergonomic and user-friendly design,

which displays the drilling parameters necessary to ensure productive drilling. Also included is a bit balancing function to prolong bit life.

+ MAIN BENEFITS

Compact and strong. Delivers the torque and speed necessary for BO-PO size coring.

Exceptional productivity. Modern feed system, strong rod holder and high capacity rotation unit ensures productive drilling.

Flexibility. The long mast can be split into three sections, which simplifies transport between work sites.



COMPACT AND MANOEUVRABLE

Christensen CS10 features a long, robust mast that can be split into three sections making it easy to transport between work sites and on difficult terrain. The modern feed system, strong rod holder and the high capacity rotation unit ensures productive drilling.

+ SAFETY AND ERGONOMICS

Christensen CS10 is a user-friendly drilling rig giving operators a sense of comfort during operation. All moving parts, such as the rotation units, are protected by metal mesh guards. The rig is also equipped with two emergency stop buttons, extra lights for night work and thread compensation for safer rod changes.

+ HIGH CAPACITY

Christensen CS10 rig has a drilling depth capacity of 800 meters. This flexible drilling rig can handle up to 6 meter core barrels. And thanks to the robust hydraulic legs, the rig is kept firmly in place during drilling.

+ PROVEN RELIABILITY

Tried and tested for many years, Christensen surface core drill rigs have proven their reliability. Thanks to our Atlas Copco designed rotation units, the Christensen CS10 was made to withstand any eventuality while maintaining efficiency. Together with robust components such as the main hoist and feed system, drilling can be carried out with minimum downtime.

ATLAS COPCO SERVICE

Even the best equipment requires regular service to ensure optimal performance. Atlas Copco provides service solutions to safeguard an optimized relationship between productivity, availability and operational cost. Atlas Copco Mining and Rock Excavation Technique has over 3 300 technicians located in over 80 countries. By combining the usage of Atlas Copco genuine parts with service provided by a certified Atlas Copco technician, you'll have a winning combination no matter of where in the world you operate.



TECHNICAL SPECIFICATIONS

Christensen CS10

Wireline hoist

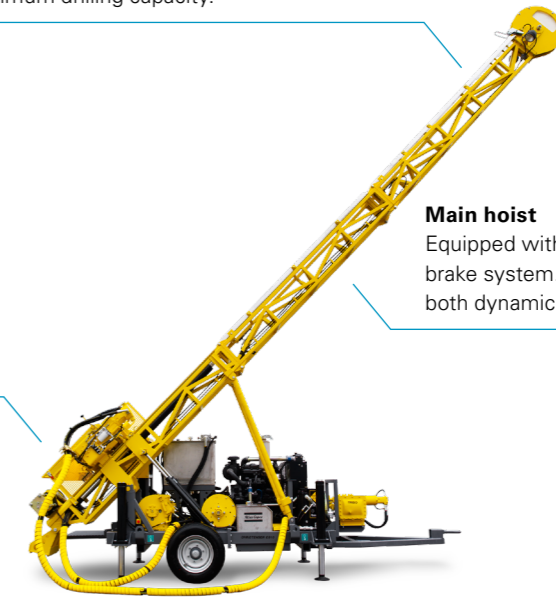
Dimensioned to handle the total rod weight at the maximum drilling capacity.

Rotation unit

Consists of a hydraulic motor, sealed gearbox, hollow spindle and hydraulic chuck. The rotation speed is adjustable from the control panel.

Main hoist

Equipped with a hydraulic motor and dual brake system. The dual brake system offers both dynamic and static breaking.



DEPTH CAPACITY

Standard	Metric		Imperial	
	Metric	Imperial	Metric	Imperial
B	1 200 m	3 936 ft	1 412 m	4 631 ft
N	800 m	2 624 ft	941 m	3 087 ft
H	600 m	1 968 ft	706 m	2 315 ft
P	400 m	1 312 ft	471 m	1 544 ft

ROTATION UNIT

	Metric	Imperial
Power, hydraulic motor	Variable speed/reversible	Variable speed/reversible
Final drive	Gear driven	Gear driven
Spindle (inner diameter)	124 mm	4.88 in
Max torque	6 790 Nm	5 008 lbf
Max speed	1 300 rpm	1 300 rpm

SPINDLE DATA

Spindle	Ratio	Speed, rpm	Torque, Nm
Low speed	17.55:1	80-200	6 790-2 670
High speed	2.70:1	510-1300	1 070-420

CHUCK ASSEMBLY

	Metric	Imperial
Type	Hydraulic open, spring close	Hydraulic open, spring close
Maximum diameter	124 mm	4.88 in
Holding capacity	178 kN	40 000 lbf

MAST AND FEED SYSTEM

	Metric	Imperial
Feed travel	1.83 m	6 ft
Feed speeds, with variable control	High and Low	High and Low
Thrust	59.6 kN	13 390 lb
Pull	90 kN	20 200 lb
Drilling angle	45-90 degrees	45-90 degrees
Rod pull length	6 m	20 ft

ROD HOLDER

	Metric	Imperial
Type: Hydraulic open, gas spring closed	BO to PO rods/PW casing	BO to PO rods/PW casing
Max diameter	144 mm	5.7 in
Clamping capacity	130 kN	29 922 lbs

POWER UNIT

Cummins QSB 4.5, Tier III	Metric	Imperial
Volume	4.5 liters, 4 cyl	1.2 g
Power, Tier III	116 kW	155 hp
RPM	2 000	2 000
Cooling system	Water	Water
Electrical system	24V	24V

*Above 3 000 m, High Altitude kit needed.

MAIN HOIST		
	Metric	Imperial
Single line capacity, bare drum	53.4 kN	12 000 lbs
Line speed, bare drum	51 m/min	167 ft/min
Cable size	27 m x 16 mm	89 ft x 10/16 in

WIRELINE HOIST		
	Metric	Imperial
Capacity	2 000 m of 4.76 mm	6 561 ft of 3/16 in
Line pull, bare drum	13 kN	2 922 lb
Line pull, full drum	4 kN	899 lb
Line speed, bare drum	130 m/min	427 ft/min
Line speed, full drum	420 m/min	1 378 ft/min

DRILL BASE SUPPORTS		
Mount/base system: Trailer mounted rig with four wheels (215/75R17.5) and towing package		
	Metric	Imperial
Pad diameter	Ø220 mm	8.7 in
Leg adjust range	550 mm	21.7 in

TRIDO		
	Metric	Imperial
Model	Trido 140H	Trido 140H
Flow	140 l/min	37 gal/min
Pressure	70 bar	1 015 psi

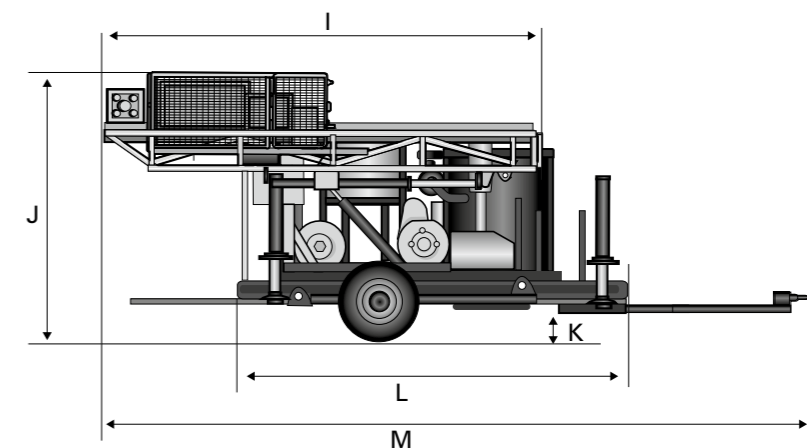
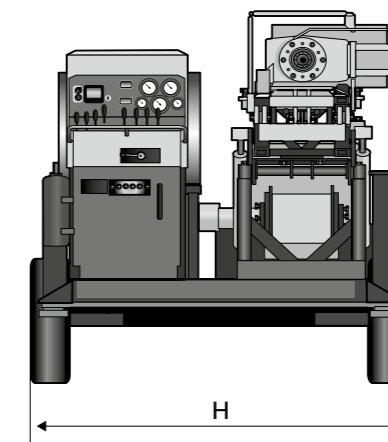
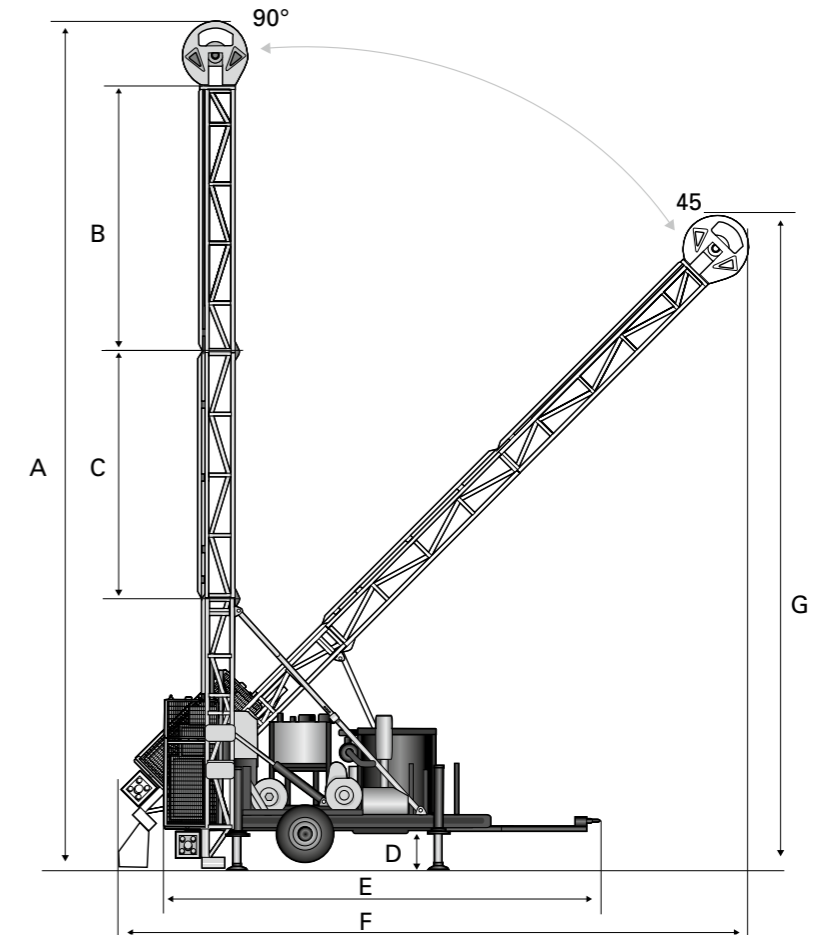
HYDRAULIC SYSTEM		
	Metric	Imperial
Primary pump	28 MPa, 242 l/min	4 061 psi, 64 gal/min
Secondary pump	20 MPa, 122 l/min	2 901 psi, 32.2 gal/min
Auxiliary pump	21.5 MPa, 47 l/min	3 118 psi, 12.4 gal/min
Hydraulic oil cooling	Air	Air

STANDARD EQUIPMENT	
Mast in three sections	Hydraulic PW-size rod holder
Large crown sheave wheel	4 hydraulic levelling jacks
Wear lines on lower mast	Towing package
Safety guards	Fuel filter and water separator
Hydraulic oil reservoir fill pump	Hydraulic mast raise
Electric water flow meter	RPM meter
Hydraulic oil tank volume (300 liters)	Tachometer
Diesel tank volume (200 liters)	Lighting kit
Mud-Mixer	Trido pump

WORKING DIMENSIONS		
Dimension	Metric	Imperial
A	11 120 mm	438 in
B	3 500 mm	138 in
C	3 234 mm	127 in
D	465 mm	18 in
E	5 780 mm	228 in
F	8 197 mm	323 in
G	8 564 mm	341 in

TRANSPORTATION DIMENSIONS		
Dimension	Metric	Imperial
H	2 200 mm	87 in
I	3 448 mm	136 in
J	2 192 mm	86 in
K	376 mm	15 in
L	3 720 mm	146 in
M	5 946 mm	234 in

WEIGHT		
Dimension	Metric	Imperial
Base drill	5 500 Kg	12 130 lbs



COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers,
towards the environment and the people around us.
We make performance stand the test of time.
This is what we call – Sustainable Productivity.

www.atlascopco.com

The Atlas Copco logo consists of the brand name "Atlas Copco" in a white, italicized serif font, centered between two horizontal white bars of equal length.