

# BOYLES C8C

A core drilling rig for deep depths and all ground conditions

Atlas Copco



# A POWERFUL DRILLING RIG FOR DEEP BOREHOLE DEPTHS AND ALL GROUND CONDITIONS.

*IT IS A RUGGED ALL TERRAIN RADIO REMOTE CONTROLLED AND CRAWLER MOUNTED DRILLING RIG THAT STANDS UP TO ANY TERRAIN AND GROUND CONDITION IT CONFRONTS. THE BOYLES C8C RIG IS A POWERFUL, COMPACT AND RELIABLE DRILL WITH A DRILL CAPACITY OF 1,800 METERS (NO).*

## + MAIN BENEFITS

**Deep drilling.** The Boyles C8C rig is ideal for deep borehole depths, and despite its power, it is compact in design and easy to operate in the field.

**Robust design.** Designed for sturdiness and operation in harsh environments, the Boyles C8C rig just goes on and on without interruption, thus minimizing service requirements.

**Safety.** The rig is designed with safety in mind, minimizing the risk of personal injury during operation.

Rotation unit - robust rotation unit with four speeds providing the essential torque and rpm speed ranges for coring. It can drill effectively from 45 to 90 degree angles, make and break rods (from the control panel) and includes safety guarding with sensors that stops operation if the guarding is opened.

Rod holder – opens hydraulically and closes using gas pressure. In case of loss of hydraulic pressure, the rod holder closes instantly to prevent dropping the drill string in the hole. The jaws' gripping is evenly distributed around the drill string to reduce wear and tear on rods.







*The C8C crawler rigs come with a radio remote control, which allows you to the rig from distance.*

*Ergonomic and user-friendly design, which displays the drilling parameters necessary to ensure productive drilling. Also included is a hold back function to prolong bit life.*

Mast and feed system - sturdy and stable ensuring minimal vibrations, straight bore holes and optimum lifting/holding capacity. The mast is foldable to facilitate convenient transportation.

Power pack and engine – the Cummins engine is recognized for its durable life, high efficiency and capability to minimize fuel consumption in the toughest of drilling operations. The engine is compliant with Tier 3/Stage 3A.

# THE BOYLES C8C RIG OFFERS THE POWER NECESSARY FOR EFFECTIVE SURFACE CORE DRILLING FOR 1,800 METER N-SIZE BORE-HOLE DEPTHS.

THE BOYLES C8C RIG CAN DRILL IN MANY DIFFERENT PROJECT SITES, CONFRONTING THE HARSHTEST CONDITIONS AND ENVIRONMENTS. THE RIG'S SAFETY AND ERGONOMIC FEATURES PROVIDE CONFIDENCE AND ASSURANCE, MAKING IT FIRST IN MIND AND FIRST IN CHOICE FOR DRILL OPERATORS.



## + DEPTH CAPACITY

With a drill depth capacity of 1,800 meters N-size the Boyles C8C rig is the surface core drilling rig with the deepest drilling depth capacity in its drill class.



## + ERGONOMICS AND SAFETY

A user-friendly drill which gives operators a sense of comfort during operation. The rig comes equipped with guarding around moving parts, safety sensors, warning displays, nocturnal lighting, safety stops and fire-extinguishers.



## + PRODUCTIVITY AND LOWER OPERATIONAL COSTS

The parts and components making up the drill are of the highest quality and standard designed with durability in mind. The Boyles C8C rig is synonymous with productive drilling, high rate of uptime and minimal maintenance needed.

## ATLAS COPCO SERVICE

Mining and Rock Excavation Service division optimizes delivery of quality spare parts, as well as superior service to all customers in the mining and rock excavation industry. We act as the most competent speaking partner in matters regarding customers' operations of their equipment.

This enhances our customers' productivity, profitability, and peace of mind, ensuring successful sustainable business relationships.



## Boyles C8C

### Wireline hoist

The wireline hoist has a high level of speed control to ensure safe and consistent operation.

### Rotation unit

The rotation unit can handle BO-PO rods and BW-HW casing. It consists of a hydraulic motor, a sealed gearbox, a hollow spindle and an Atlas Copco patented hydraulic chuck, and quick change chuck jaws. The rotation speed is adjustable from the control panel.

### Main hoist

The powerful main hoist, equipped with a hydraulic motor and a dual brake system, ensures a well-controlled speed. The dual brake system offers both dynamic and static breaking. When the lifting operation is stopped, firm self-locking is applied.



### DEPTH CAPACITY

The below drill depth capacities only serve as guidelines and refer to vertical down drilling. Atlas Copco cannot guarantee that these results can be achieved in all drilling conditions.

Standard	Standard		Thin Wall	
	Meters	Feet	Meters	Feet
B	2,200	7,216	2,588	8,489
N	1,800	5,904	2,118	6,946
H	1,200	3,936	1,412	4,631
P	800	2,624	941	3,087

### ROTATION UNIT

Power	hydraulic motor – variable speed/reversible
Final drive	chain drive
Spindle (inner diameter)	114 mm (4.5 inch)
Max torque	5,742 Nm
Max speed	1,300 rpm

### SPINDLE DATA

Spindle	Ratio	Speed, rpm	Torque, Nm (lb)
1st	6.63:1	130–196	5,742–3,804 (4,235 - 2,806)
2nd	3.17:1	272–410	2,745–1,819 (2,025 - 1,342)
3rd	1.72:1	502–756	1,488–986 (1,097 - 727)
4th	1.00:1	862–1,300	866–574 (639 - 423)

### CHUCK ASSEMBLY

Type	Hydraulic open, spring close
Maximum diameter	117 mm (4.5/8 in)
Holding capacity	18,143kg (40,000 lbs)

### MAST AND FEED SYSTEM

Feed travel	3.5 m (11.5 ft)
Feed speeds	High and Low with variable control
Mast dump travel	1.7 m (5.57 ft)
Thrust	59.6 kN (13,390 lbs)
Pull	156 kN (35,000 lbs)
Drilling angle	45–90
Rod pull length	6.09 m (20 ft)
Transportation mode	Hinged mast

### ROD HOLDER

Type	Hydraulic open, gas spring closed - BO to PO rods/HW casing
Max diameter	123 mm (4.8 inch)
Clamping diameter PO size rods	114.7 mm (4.5 inch)
Clamping capacity	130 kN

### POWER UNIT

Manufacture	Cummins
Mode	QSB 6.7
Volume	6.7 liter, 6 cyl
Power	Tier 3: 179 kW (240 hp)
RPM	2 000
Engine type	Diesel turbocharged/after cooled
Cooling system	Water
Electrical system	24V (Alternator 24 V, 95 Amp)
Sound level	Tier 3: 116 dB(A)

\* Above 3,000 m, High Altitude kit needed.

## Boyles C8C

### MAIN HOIST

Single line capacity, bare drum	133 kN (30,000 lbs)
Line speed, bare drum	40 m/min (131 ft/min)
Cable size	29 m (95 ft) x 21 mm (0.83 in)

### WIRELINE HOIST

Capacity	2,200 m (7,220 ft) of 4.76 mm (3/16 in), or 1,400 m (4,600 ft) of 6.35 mm (1/4 in)
Line pull	bare drum: 12.6 kN (2,830 lb), full drum: 3.3 kN (750 lb)
Line speed	bare drum 115 m/min (377 ft/min) full drum 434 m/min (1,424 ft/min)

### DRILL BASE SUPPORTS

Crawler mounted rig on crawler tracks	Crawler mounted rig on crawler tracks
Crawler band width	400 mm
Crawler ground pressure	11 psi / 74.5 kPa
Radio control tramming speed (max)	2.8 km/h
Support	4 hydraulic jack legs to adjust rig height
Pad diameter	Ø210 mm
Leg adjust range	600 mm

### TRIDO

Model	Trido 140H
Flow	140 l/min (37 gal/min)
Pressure	70 bar (1,015 psi)

### HYDRAULIC SYSTEM

Primary pump	31.2 MPa, 250 l/min (4,524 psi, 66 gal/min)
Secondary pump	20 MPa – 125 l/min (2,901 psi, 33 gal/min)
Auxiliary pump	21.5 MPa – 54 l/min (3,118 psi, 14 gal/min)
Hydraulic oil cooling	Air

### STANDARD EQUIPMENT

Hydraulic mast dump	Hydraulic PO-size rod holder
Mast in one section	4 hydraulic levelling jacks
Large crown sheave wheel	Towing package
Ware lines on lower mast	Fuel filter & water separator
Safety guards	Hydraulic mast raise
Hydraulic oil reservoir fill pump	RPM meter
Electric water flow meter	Tachometer
Hydraulic oil tank volume (300 liters)	Lighting kit
Diesel tank volume (700 liters)	Crawler tracks
Radio remote control	Control panel
Wireline winch with level wind	

### OPTIONAL EQUIPMENT

Hydraulic mud mixer
High altitude kit, to achieve Power Unit max capacity when drilling above 3,000 m.
Trido water pump
Wireline cable

### WORKING DIMENSIONS

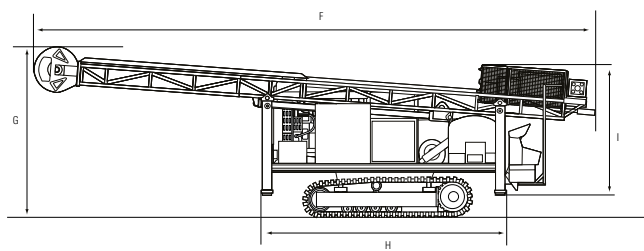
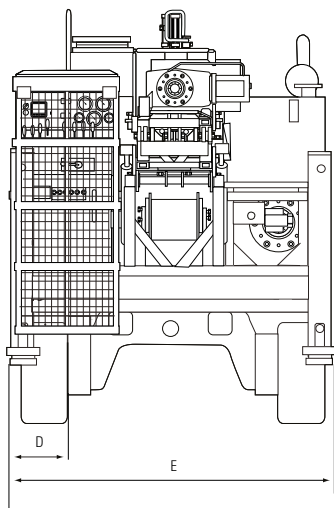
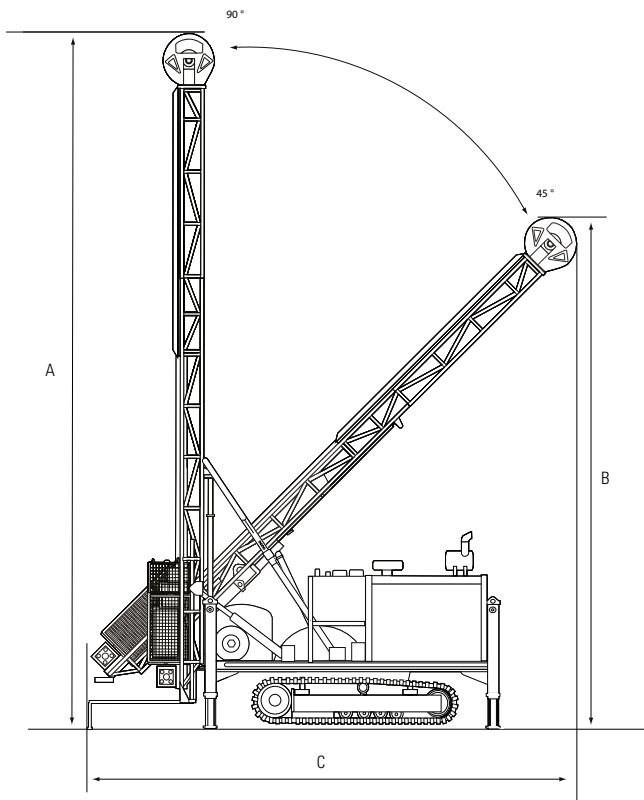
Dimension	mm	in
A	11,219	442
B	8,145	321
C	8,296	327

### WEIGHT

Crawler	14,000 kg (30,800 lb)
---------	-----------------------

### TRANSPORTATION DIMENSIONS

Dimension	mm	in
D	450	18
E	2,500	98
F	11,242	443
G	3,199	126
H	4,571	180
I	2,470	97



## ***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](http://www.atlascopco.com)

The Atlas Copco logo consists of the brand name "Atlas Copco" in a stylized, italicized serif font. It is positioned between two thick, horizontal blue bars that serve as a frame for the text.