

Boyles C5/C5C

Compact and powerful core drilling rig



Power and flexibility in a compact design

The Boyles C5/C5C surface core exploration drilling rig is compact, yet powerful. Its compact design makes it easy to position and transport, even by helicopter. The sturdy and robust design enables continuous operation also in remote locations and harsh operating environments.

+ Main benefits

Small and compact-Despite its small and compact exterior, the Boyles C5/C5C provides the torque and RPM necessary for BO-PO size coring, making it the most powerful rig in its class.

Robust design-Designed for sturdiness and operation in harsh environments, the Boyles C5/C5C just goes on and on without interruption, minimizing service requirements.

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

The rig is equipped with the Durahead 2-gear drive rotation unit that provides the necessary torque and rpm speed ranges for coring and comes with an improved design of chuck and jaws.

The rig is equipped with safety guard around the rotation unit which provides operators with operational safety.



The rig can be divided into seven main modules, the heaviest weight as 1 000 kg (2 200 lbs). Each module is equipped with lifting points to ensure safe and effective helicopter transportation.



All drilling functions are performed, using the ergonomic and user-friendly control panel which also displays all the drilling parameters necessary to ensure productive drilling.



The Boyles C5C crawler rigs come with a radio remote control, which allows you to tram the rig from a distance providing a safer working environment.

A sturdy mast and feed system ensures minimal vibration, straight bore holes and optimum lifting capacity. It can drill effectively from 45 to 90 degree angles. The three-piece, de-mountable mast adds further to the rig's excellent mobility.

Tier III Cummins engine is recognized for its durable life, efficient operation and capability to minimize fuel consumption even in the toughest of drilling operations.



Second to none in its drill class

The Boyles C5/C5C guarantees high performance and productivity coupled with the service and support necessary to maintain and ensure the rig's durability and continuous uptime. It is an affordable, fully hydraulic machine that takes a leadership position in its drill class segment.

+ Depth capacity

Robustly designed down to the smallest component, the Boyles C5/C5C has a drilling depth capacity of 800 meters N-size (2 625 ft) making it suitable for drilling at large depths in remote locations.

+ Ergonomics and safety

The rig is easy to operate using an intuitive control panel. All drilling functions can be operated from the control panel. For example, you can make and break rods without manual intervention or being close to any moving parts.

+ Productivity and lower operational costs

Every part and component is of the highest quality and standard, designed with ruggedness and durability in mind. The Boyles C5/C5C is synonymous with productive drilling, maximum uptime and low maintenance requirements.



A comprehensive service offering

Even the best equipment needs to be serviced regularly to make sure it sustains peak performance. An Epiroc service solution offers peace of mind, maximizing availability and performance throughout the lifetime of your equipment. We focus on safety, productivity and reliability.

By combining genuine parts and an Epiroc service from our certified technicians, we safeguard your productivity – wherever you are.



Technical specifications

Boyles C5/C5C

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 gear-box, a hollow spindle and an Epiroc 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 well-controlled feed. The dual brake system offers both dynamic and static breaking. When the lifting operation is stopped, firm self-locking is applied.



Standard equipment

- Mast in three sections
- Large crown sheave wheel
- Wear liners on lower mast
- Safety guards
- Hydraulic oil fill pump and filtration system
- Tier III diesel engine
- Control panel
- Hydraulic rod holding clamp
- 4 manual leveling jacks
- Fuel tank 200 l
- Fuel filter and water separator
- Hydraulic mast raise
- Lighting kit
- Emergency-stop devices
- Spindle tachometer

Main hoist

| | Metric | US |
|---------------------------------|-------------|-------------|
| Single line capacity, bare drum | 69 kN | 15 500 lb |
| Line speed, bare drum | 39.7 m/min | 130 ft/min |
| Cable size | 27 mx 16 mm | 89' x 0.63" |

Rod clamp

| Hydraulically open and close. Easy-to-remove jaws, common jaws from 56 mm to 117 mm | Metric | US |
|---|-----------------|----------|
| Max diameter | 210 mm | 8.3" |
| Max clamping diameter | 117 mm | 4.6" |
| Holding capacity | Up to 13 000 kg | 2 900 lb |

Depth capacity

| | Metric | US |
|---|---------|--------|
| B | 1 000 m | 3 281' |
| N | 800 m | 2 625' |
| H | 500 m | 1 640' |
| P | 300 m | 984' |

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

Rotation unit

| | |
|--------------------------|---|
| Model | Durahead 6M |
| Power | Hydraulic motor – variable speed/reversible |
| Final drive | Gear driven |
| Spindle (inner diameter) | 124 mm (4.9") |
| Max torque | 5 850 Nm |
| Max speed | 1 300 rpm |

Mast and feed system

| | Metric | US |
|-----------------|-------------------------------------|-----------|
| Feed travel | 2.0 m | 6.6' |
| Feed speeds | Fast and slow with variable control | |
| Mast dump | 0.42 m | 1.4' |
| Thrust | 59.6 kN | 13 390 lb |
| Pull | 107 kN | 24 055 lb |
| Drilling angle | 45° – 90° | |
| Rod pull length | 6.09 m | 20' |

Technical specifications

Drill base supports

| | |
|-------------------|---|
| Mount/base system | Trailer mounted rig with two 770 mm wheels and towing package |
| Support | 4 mechanical jacks and can adjust rig height manually |
| Pad diameter | Ø200 mm |
| Leg adjust range | 550 mm |

Hydraulic system

| | |
|-----------------------|--------------------|
| Primary pump | 25 MPa, 182 l/min |
| Secondary pump | 20 MPa, 135 l/min |
| Auxiliary pump | 21.5 MPa, 39 l/min |
| Hydraulic oil cooling | Air |

Chuck assembly

| | |
|------------------|------------------------------|
| Type | Hydraulic open, spring close |
| Maximum diameter | 124 mm (4.6") |
| Holding capacity | 18 000 kg (39 600 lb) |

Power unit

| | |
|-------------------|---|
| Manufacture | Cummins |
| Mode | QSB4.5 Tier III |
| Volume | 4.5 liter, 4 cyl |
| Power | 119 kW |
| RPM | 2 200 |
| Engine type | Diesel turbocharged, air-to-air charge air cooled |
| Cooling system | Water |
| Electrical system | 24V |

Wireline hoist

| | |
|------------|---|
| Capacity | 1 500 m x 6 mm, 1 850 m x 5 mm |
| Line pull | Bare drum: 9.0 kN, full drum: 2.4 kN |
| Line speed | Bare drum: 126 m/min, full drum 484 m/min |

Spindle data

| | | | |
|--|-----------|-----------------|------------------|
| Range selection: Manual control from operator's station Hinged head: Swing away | | | |
| | Ratio | Speed, rpm | Torque, Nm |
| Low speed | 17.55 : 1 | 90 – 200 rpm | 5 850 – 2 670 Nm |
| High speed | 2.70 : 1 | 595 – 1 300 rpm | 920 – 420 Nm |

Weight

| | | |
|-------------------------|----------|-----------|
| | Metric | US |
| Complete rig Boyles C5 | 5 700 kg | 12 566 lb |
| Complete rig Boyles C5C | 8 100 kg | 17 857 lb |
| Trido 140 | 315 kg | 694 lb |

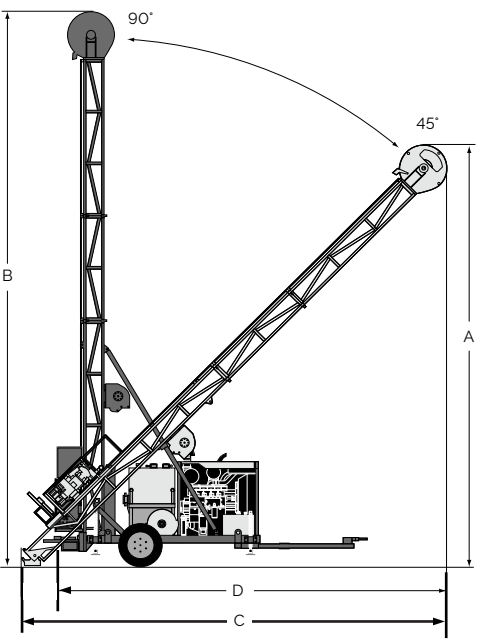
Optional rodholder (gas pressure)

| | |
|------|---|
| Type | Hydraulically opened, gas pressure locked |
|------|---|

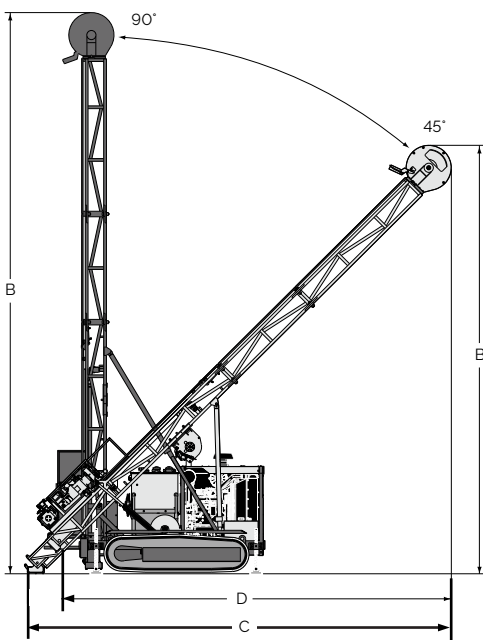
Selections of options

- Tool kit
- Gas pressure rod holder - PO size
- Hydraulic mud mixer
- Hydraulic mud pump kit, Trido 140, 140 l/min / 7 MPa
- Battery terminal for export
- RRC (Radio Remote Control) (Boyles C5C)
- Water flow meter kit
- Quick diconnect kit for fly operations
- Engine covers

Boyles C5



Boyles C5C

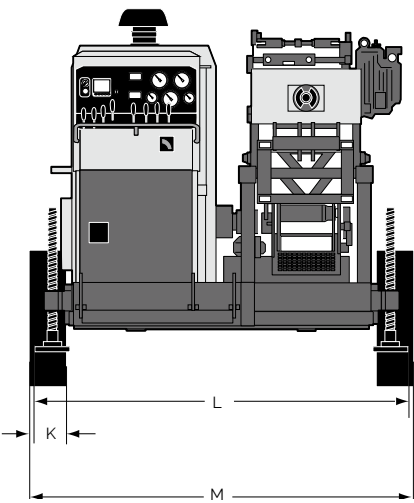


Technical specifications

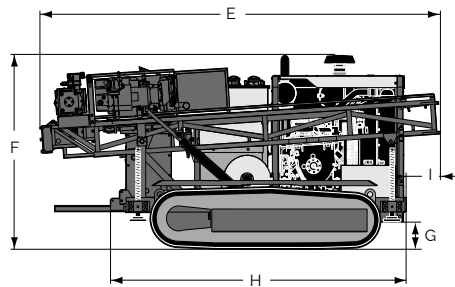
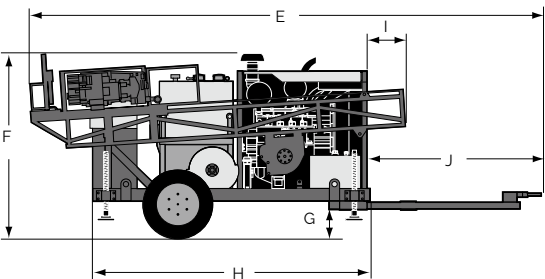
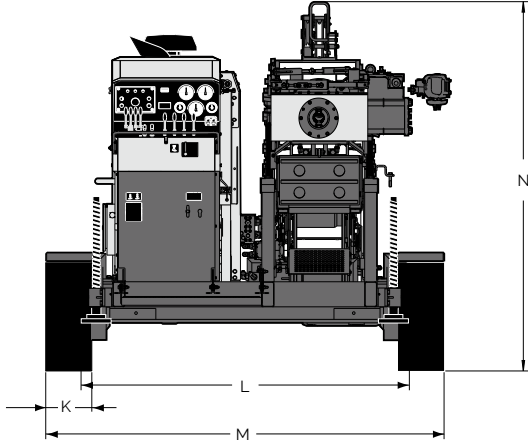
Working dimensions

| Dimension | Boyles C5 | | Boyles C5C | |
|------------------|-----------|------|------------|------|
| | Metric | US | Metric | US |
| A (45° drilling) | 7 719 mm | 304" | 7 726mm | 304" |
| B (90° drilling) | 10 112 mm | 398" | 10 119 mm | 398" |
| C (45° drilling) | 7 612 mm | 300" | 7 599 mm | 299" |
| D (90° drilling) | 6 073 mm | 239" | 4 513 mm | 178" |

Boyles C5



Boyles C5C



Transport dimensions

| Dimension | Boyles C5 | | Boyles C5C | |
|-----------------|-----------|------|------------|------|
| | Metric | US | Metric | US |
| E | 6 073 mm | 239" | 4 513 mm | 178" |
| F | 2 138 mm | 84" | 2 146 mm | 85" |
| G | 330 mm | 13" | 287 mm | 11" |
| H | 3 202 mm | 126" | 3 331 mm | 131" |
| I | 417 mm | 16" | 387 mm | 15" |
| J | 1 947 mm | 77" | - | - |
| K | 220 mm | 9" | 300 mm | 12" |
| L | 2 160 mm | 85" | 2 134 mm | 84" |
| M(incl. wheels) | 2 200 mm | 87" | 2 594 mm | 102" |
| N | - | - | 2 356 mm | 98" |

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