

Boyles C6/C6C

A versatile core drilling rig suitable for any job



Versatile drilling rigs for all conditions

The Boyles C6 and C6C surface core drilling rigs come in two different carrier versions: the Boyles C6 rig being trailer mounted and the Boyles C6C rig crawler mounted. Medium-sized, the drilling rigs are powerful and compact – ready for the job at hand. Both models have a drill capacity of 1 200 meters (NO).

+ Main benefits

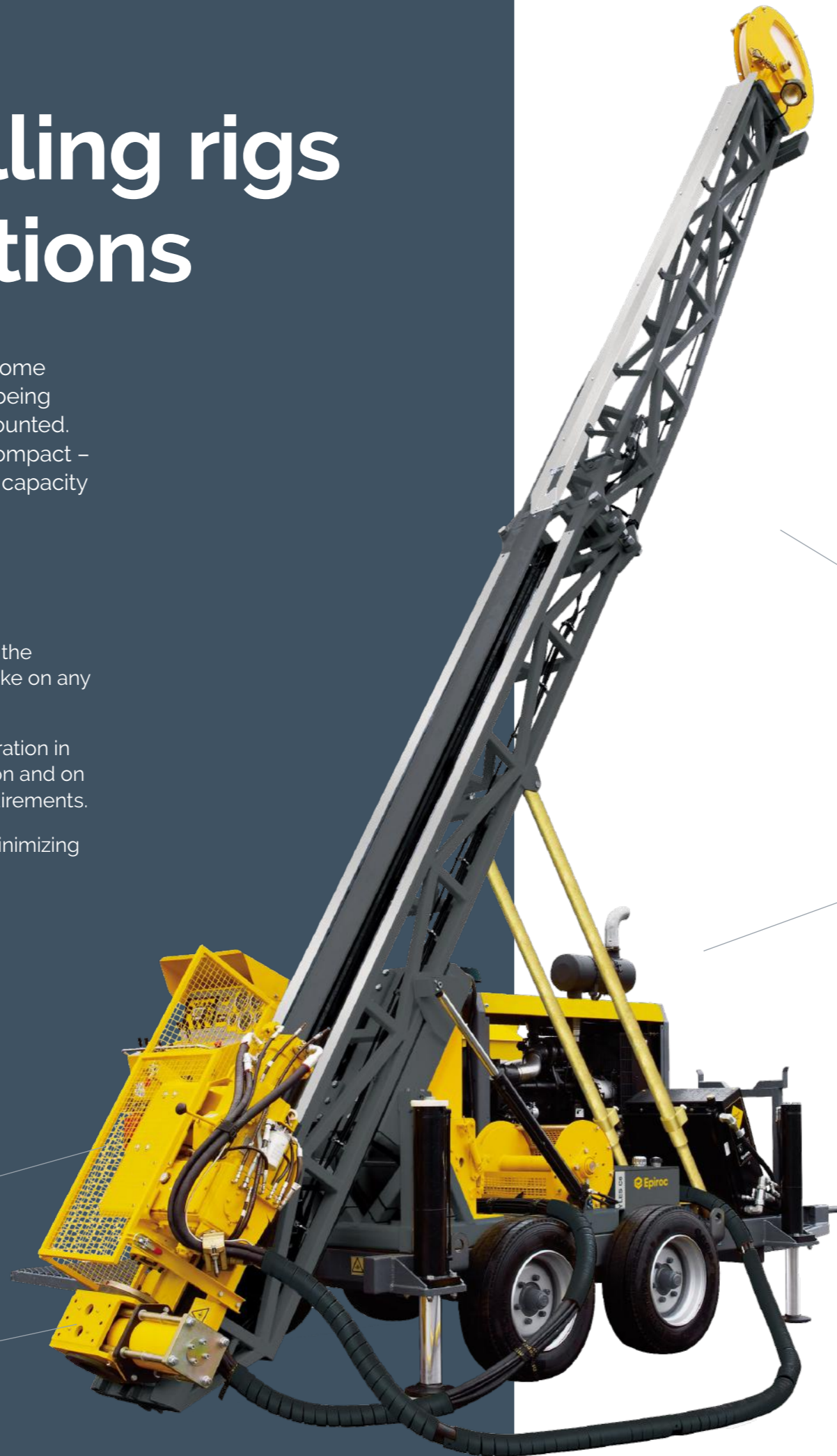
Versatility - Optimized for medium-depth drilling, the Boyles C6/C6C rig makes it possible for you to take on any exploration job.

Robust design - Designed for sturdiness and operation in harsh environments, the Boyles C6 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 two 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.

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 Boyles C6C crawler rigs come with a radio remote control, which allows you to tram the rig from a distance providing a safer working environment.



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. Includes a rod kicker to facilitate threading, and a foldable mast 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 III/Stage 3A.



Best in class

The well proven Boyles C6/C6C rigs are today drilling in many different project sites, confronting the most harsh conditions and environments. It offers superb versatility in the surface core drilling segment for 1 200 meter N-size borehole depths. The rig's safety and ergonomic features provide confidence and assurance for drill rig operators.



+ Depth capacity

With a drill depth capacity of 1 200 meters N-size (3 937 ft), the Boyles C6/C6C rig is the surface core drilling rig with the deepest drilling depth capacity in its drill class.



+ Ergonomics and safety

A user-friendly drilling rig that 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 that make up the drilling rig are of the highest quality and standard designed with durability in mind. The Boyles C6/C6C rig is synonymous with productive drilling, high rate of uptime and minimal maintenance needed.



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 C6/C6C

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 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 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

- 6m(20 ft) pull mast with 3.5m(11.5 ft) feed stroke
- PO capacity drillhead with 2 gears and hydraulic chuck 1 set of NO jaws and bushing incl.
- Hydraulic mast dump
- Foldable mast
- Large crown sheave wheel
- Wear liners on lower mast
- Safety guards
- Hydraulic oil reservoir fill pump
- Hydraulic oil tank volume (300 liters)
- Diesel tank volume (200 liters)
- Radio remote control (C6C)
- Control panel
- Gas cartridge type rod holder- PO size
- 4 hydraulic levelling jacks
- Towing package (C6)
- Hydraulic mast raise
- RPM meter
- Tachometer
- Lighting kit
- Crawler tracks (C6C)
- Wireline winch

Main hoist

| | Metric | US |
|---------------------------------|--------------|-------------|
| Single line capacity, bare drum | 80 kN | 18 000 lb |
| Line speed, bare drum | 44 m/min | 148 ft/min |
| Cable size | 27 m x 16 mm | 89' x 0.63" |

Rod holder

| Hydraulic open, gas spring closed - BO to PO rods/HW casing | Metric | US |
|---|-----------|----------|
| Max diameter | 210 mm | 8.3' |
| Clamping diameter PO size rods | 114.7 mm | 4.5" |
| Clamping capacity | 13 000 kg | 2 900 lb |

Depth capacity

| | Standard | | Thin Wall | |
|---|----------|--------|-----------|--------|
| | Metric | US | Metric | US |
| B | 1 540 m | 5 052' | 1 812 m | 5 945' |
| N | 1 200 m | 3 936' | 1 412 m | 4 631' |
| H | 800 m | 2 624' | 941 m | 3 086' |
| P | 475 m | 1 558' | 588 m | 1 929' |

*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

| | |
|--------------------------|---|
| Power | Hydraulic motor - variable speed/reversible |
| Final drive | Gear driven |
| Spindle (inner diameter) | 124 mm (4.9') |
| Max torque | 6 550 Nm |
| Max speed | 1 300 rpm |
| Gear change | Mechanical shift |

Mast and feed system

| | Metric | US |
|----------------------------------|------------------------------------|-----------|
| Feed travel | 3.5 m | 11.5' |
| Feed speeds | High and Low with variable control | |
| Mast dump travel Trailer version | 0.8 m | 2.6' |
| Mast dump travel Crawler version | 0.8 m | 2.6' |
| Thrust | 59.6 kN | 13 390 lb |
| Pull | 138 kN | 31 020 lb |
| Drilling angle | 45° - 90° | |
| Rod pull length | 6.09 m | 20' |
| Transportation mode | Foldable mast | |

Technical specifications

Drill base supports

| | |
|---------------------------------------|---|
| Mount/base system | Trailer mounted rig with four wheels (215/75R17.5) and towing package |
| Support | 4 hydraulic jack legs to adjust rig height |
| Pad diameter | Ø220 mm |
| Leg adjust range | 550 mm (21.7") |
| Crawler mounted rig on crawler tracks | Crawler mounted rig on crawler tracks |
| Crawler band width | 300 mm (11.8") |
| Crawler ground pressure | 11 psi/74.5 kPa |
| Radio control tramming speed (max) | 2.6 km/h |

Chuck assembly

| | |
|------------------|------------------------------|
| Type | Hydraulic open, spring close |
| Maximum diameter | 124 mm (4 7/8") |
| Holding capacity | 178 kN |

Trido

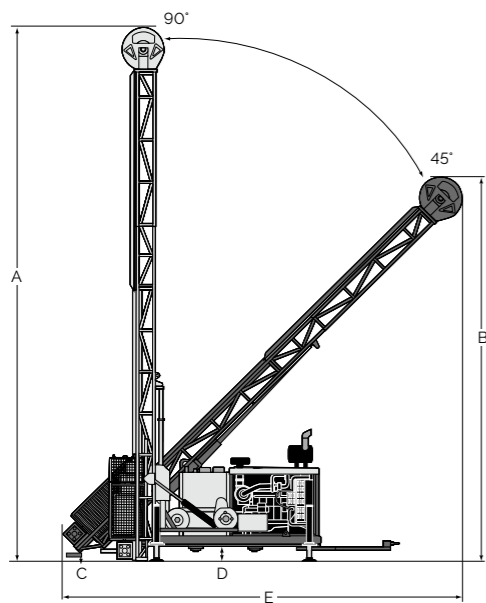
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|-------------------|---------------|------------|
| Trido 140H | Metric | US |
| Flow | 140 L/min | 37 gal/min |
| Pressure | 70 bar | 1 015 psi |

Power unit

| | |
|-------------------|----------------------------------|
| Manufacture | Cummins |
| Mode | QSB 6.7 |
| Volume | 6.7 liter, 6 cyl |
| Power | Tier 3: 153 kW (205 hp) |
| RPM | 1 800 |
| Engine type | Diesel turbocharged/after cooled |
| Cooling system | Water |
| Electrical system | 24V (Alternator 24 V, 95 Amp) |
| Sound level | Tier III: 116 dB(A) |

*Above 3 000 m, High Altitude kit needed.

Boyles C6



Wireline hoist

| | |
|------------|--|
| Capacity | 1 500 m (4 921') of 6 mm (¼") or 1 800 m (5 906') of 5 mm (3/16") |
| Line pull | Bare drum: 9.0 kN (2 023 lb), full drum: 2.4 kN (540 lb) |
| Line speed | Bare drum: 138 m/min (453 ft/min), full drum: 533 m/min (1 749 ft/min) |

Weight

| | | |
|---------|---------------|-----------|
| | Metric | US |
| Trailer | 7 ton | 14 000 lb |
| Crawler | 9 ton | 18 000 lb |

Spindle data

| | | | | |
|----------------|--------------|-----------------|------------------|-------------------|
| Spindle | Ratio | Speed | Torque | |
| | | | Metric | US |
| 1st | 17.55 : 1 | 90 - 200 rpm | 6 550 - 3 000 Nm | 4 793 - 2 212 lbf |
| 2nd | 2.70 : 1 | 595 - 1 300 rpm | 1 030 - 470 Nm | 960 - 347 lb |

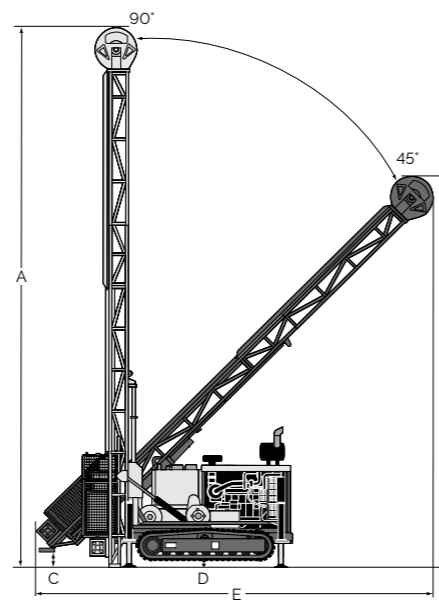
Hydraulic system

| | |
|-----------------------|--|
| Primary pump | 28 MPa, 242 L/min (4 060 psi, 64 gal/min) |
| Secondary pump | 20 MPa, 122 L/min (2 901 psi, 32 gal/min) |
| Auxiliary pump | 21.5 MPa, 47 L/min (3 118 psi, 12 gal/min) |
| Hydraulic oil cooling | Air |

Selections of options

- Hydraulic mud mixer
- High altitude kit, to achieve Power Unit max capacity when drilling above 3 000m
- Trido water pump
- Wireline cable
- Water flow meter kit
- Battery terminal for export
- 5 km/h High tramming speed option(C6C)

Boyles C6C

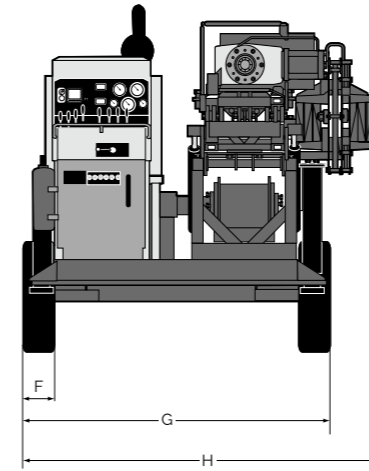


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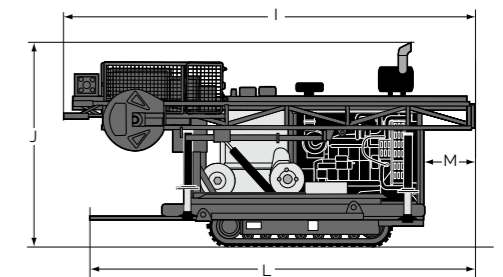
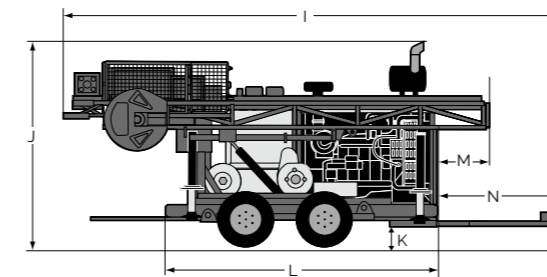
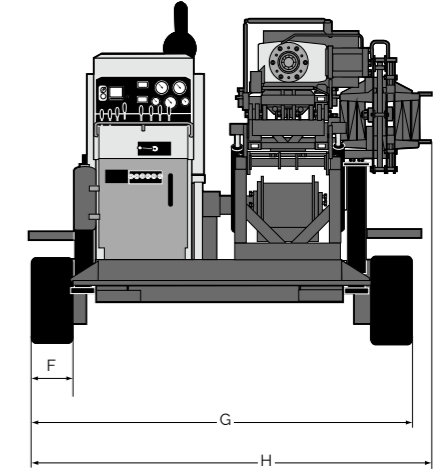
Working dimensions

| Dimension | Boyles C6 | | Boyles C6C | |
|-----------|-----------|------|------------|-------|
| | Metric | US | Metric | US |
| A | 10 082 mm | 397" | 10 082 mm | 397" |
| B | 7 294 mm | 287" | 7 541 mm | 297" |
| C | 9.5 mm | 0.4" | 256.5 mm | 10.1" |
| D | 196.5 mm | 7.7" | 87 mm | 3.4" |
| E | 7 486 mm | 295" | 7 486 mm | 295" |

Boyles C6



Boyles C6C



Transport dimensions

| Dimension | Boyles C6 | | Boyles C6C | |
|-----------|-----------|-------|------------|-------|
| | Metric | US | Metric | US |
| F | 222 mm | 8.7" | 321 mm | 12.6" |
| G | 2 205 mm | 87" | 2 634 mm | 104" |
| H | 2 602 mm | 102" | 2 817 mm | 111" |
| I | 6 525 mm | 257" | 5 302 mm | 209" |
| J | 2 625 mm | 104" | 2 555 mm | 101" |
| K | 379.5 mm | 14.9" | - | - |
| L | 3 400 mm | 134" | 4 905 mm | 193" |
| M | 705 mm | 28" | 705 mm | 28" |
| N | 1 927 mm | 76" | - | - |

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