## PowerROC D60

Surface drill rig for mining and quarrying Hole diameter: 110–178 mm (4.3–7°)





D60

# When bigger is better

PowerROC D60, a hydraulic down-the-hole drill rig, perfectly meets the needs of open-pit mines and quarries when it comes to drilling big holes. Thanks to its reliable performance, it effectively improves production capability. It is suitable not only for drilling production holes, but also other auxiliary operations at the jobsite.



## **Excellent** combination of value and drilling capacity

PowerROC D60 is a drill rig with a high level of productivity and performance when it comes to drilling big holes ranging from 110 mm to 178 mm.



### 🕀 Main benefits

High performance thanks to well-proven Epiroc technology and extensive experience

High reliability due to highquality components

A straightforward design makes the machine easy to operate and easy to maintain

## A partner you can trust

The PowerROC D60 hydraulic down-the-hole drill rig is safe, environmentally friendly and powerful, helping you increase production capability. With its ease of maintenance and repair, the rig ensures high availability, performance and productivity day in and day out.







#### + Safety always in focus

The air-conditioned FOPS and ROPS certified cabin ensures operator safety at all times. It provides a comfortable experience and a broad view when drilling or changing rods. If the system detects a reduction or loss of hydraulic pressure due to the operator leaving the seat in the cabin, the rig will stop drilling in order to prevent injury to others at the jobsite. PowerROC D60 stops immediately if one of the four emergency stop switches distributed around the machine is operated.

#### + High performance ensuring high productivity

PowerROC D60 is built with the proven Epiroc rotary unit, providing great power to daily production. Equipped with an onboard Atlas Copco two-stage screw compressor, PowerROC D60 delivers up to 428 L/s of air at a maximum pressure of 25 bar, thereby ensuring a high penetration rate. The straightness of the aluminum feed beam ensures drilling is steady and smooth. A robust chain feed ensures that PowerROC D60 has lower running costs and a longer service life.

#### + Easy and convenient maintenance

PowerROC D60 provides easy access to vital service points through centralized access. All air filters and oil filters can be changed and all oil levels checked at one single spot. In addition, the hydraulic valve blocks have been positioned to allow for easy adjustment and inspection. The feed beam can be positioned horizontally, which enables toe-hole drilling and makes for easy inspection and maintenance.



## 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

#### Main components

- Track frames with triple grouser pads and cleaning holes, hydraulic track oscillation and two speed traction
- Cummins turbo-charged Tier III diesel engine/ CAT turbo-charged Tier 4 Final diesel engine
- Atlas Copco two stage screw type compressor for high pressure
- Air-conditioned cabin, ROPS and FOPS certified
- Standard boom
- · Dry type dust collector with pre-seperator

#### Engine

| Cummins turbo-charged, diesel engine<br>QSZ13-C500, Tier III/Stage 3 | Metric | US     | Chain feed with dual drill rod support | Metric   | US                      |
|--|--------|--------|--|----------|-------------------------|
| Power rating at 1 800 rpm  | 379 kW | 505 hp | Feed extension                         | 1900 mm  | 74.8"                   |
| CAT turbo-charged, diesel engine C13B,<br>Tier 4 Final/Stage V       |        |        | Feed rate, max<br>Feed force, max      | 0.85 m/s | 170 ft/min<br>5 394 lbf |
| Power rating at 1 800 rpm  |        |        | Tractive pull, max                     | 30 kN    | 6 743 lbf               |
|  |        |        | Total length                           | 9 400 mm | 370"                    |
|  |        |        | Travel length                          | 5 400 mm | 212.6"                  |

#### Compressor

| Atlas Copco, two-stage screw type<br>compressor | Metric  | US      |
|---|---------|---------|
| Maximum working pressure                        | 25 bar  | 363 psi |
| FAD, at normal working pressure                 | 428 l/s | 906 cfm |

#### Hydraulic system

| Hydraulic oil cooler        | Metric | US      |
|-----------------------------|--------|---------|
| Maximum ambient temperature | 52°C   | 125.6°F |

#### Dust collector DCT 320

|                            | Metric            | US                    | Down-the-hole | Top sub thread     | Hole range             |  |
|----------------------------|-------------------|-----------------------|---------------|--------------------|------------------------|--|
| Filter area                | 32 m <sup>2</sup> | 344 sa.ft             | hammer        |                    |                        |  |
|                            | 02                |                       | 4             | API 2 3/8" REG pin | 110-130 mm (4.3-5.1°)  |  |
| Number of filter elements  | 32 pcs            | 32 pcs -              | ·             | ATE /s Reapin      | 110 100 1111 (1.0 0.17 |  |
|                            |                   |                       | 5"            | API 3 1/2" REG pin | 130-152 mm (5.1-6")    |  |
| Cleaning air pressure, max | 8.0 bar           | 116 psi               |               |                    |                        |  |
|                            | 0.41.6            | 0.00.012              | 6"            | API 3 ½" REG pin   | 152–178 mm (6–7°)      |  |
| Cleaning air consumption   | 2-4 l/pulse       | 0.06–0.12 cu.ft/pulse |               |                    | 1                      |  |

#### Volumes

| Hydraulic oil tank               | 380 l | 100 US gal  | Recommended DTH                      | Recommended DTH hammers and hole range                 |      |                     |  |
|----------------------------------|-------|-------------|--------------------------------------|--|------|---------------------|--|
| Hydraulic system, total          | 470 l | 124 US gal  | PowerROC D60                         | PowerROC D60 4" 5" 6" 11                               |      | 110-178 mm (4.3-7°) |  |
| Compressor oil                   | 80 L  | 21.1 US gal |                                      | Hydraulic rod handling system for max hole depth, with |      | US                  |  |
| Diesel engine oil (Tier 3)       | 45 L  | 11.9 US gal | 5m tubes                             |  |      |                     |  |
| Diesel engine oil (Tier 4 Final) | 36 L  | 9.5 US gal  | PowerROC D60                         | Ø 102 mm, Ø 114 mm rod                                 | 30 m | 98.5'               |  |
| Diesel engine, cooling water     | 60 L  | 15.9 US gal |                                      | Ø 140 mm rod   | 25 m | 82'                 |  |
|                                  | 760 L |             | Single pass drilling, max hole depth |  |      |                     |  |
| Diesel engine, fuel tank         | 7601  | 200 US gai  | 200 US gal PowerROC D60              |  | 5 m  | 16.4'               |  |
| Traction gear                    | 31    | 0.8 US gal  | FowerRoc Doo                         | POWEIROC DOO 51  |      | 10.4                |  |
| Lubrication tank (HECL)          | 20 l  | 5.3 US gal  |                                      |  |      |                     |  |
|                                  |       |             |                                      |  |      |                     |  |

#### Rotary head

| Rotary head   | Connection thread | Hole range | Max rpm | Max torque              | Suitable for DTH hammer |
|---------------|-------------------|------------|---------|-------------------------|-------------------------|
| DHR 6H 56 - 1 | API 2 %"REG, box  | 110-152 mm | 107 rpm | 3 900 Nm (2 867lbf-ft)  | 4.5                     |
| DHR 6H 68 - 3 | API 3 ½ REG, box  | 152-178 mm | 68 rpm  | 5 100 Nm (3 761 lbf-ft) | 6"                      |

- Aluminum feed beam and chain feed system powered by hydraulic motor
- Dual break-out table
- Rod Handling System (RHS)
- Thread lubrication, spray system
- Back-up alarm

#### Feed

#### **Electrical system**

| Voltage            | 24 V             |
|--------------------|------------------|
| Batteries          | 2 x 12 V, 200 Ah |
| Alternator         | 28 V, 110 A      |
| Work lights, front | 3 x 70 W         |
| Work lights, rear  | 1 x 70 W         |
| Work lights, feed  | 2 x 70 W         |

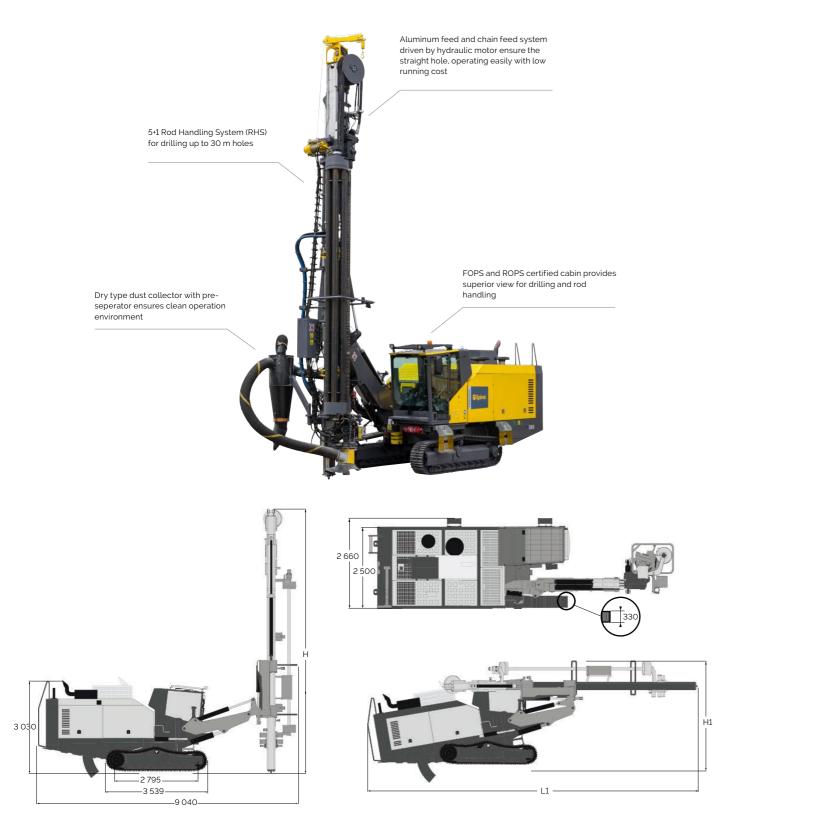
#### Down-the-hole hammer (to be ordered separately)

#### Hole range & depth (recommended)

-2 700

- 3 190 -

Horizontal reach (mm)



#### • Radio

Reversing camera

Safety cabin

#### Carrier

• Hydraulic support leg

**Selection of options** 

• 2D angle indicator, electronic

• 3D angle indicator, electronic

- Electrical refueling fuel pump
  Electrical refueling hydraulic oil pump

Combined warning sound and warning light

Vertical reach (mm)

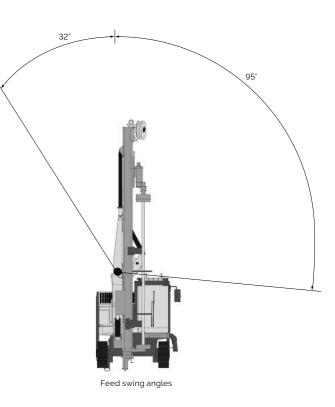
- Service lamps in canopy
  Cold weather kit, diesel engine pre-heater and compressor regulation heating kit
- Tie down point on top of canopy
- Heavy duty air intake filters for engine and compressor (Tier 3 only)

#### Transport dimensions

|                 | Metric    | US        |
|-----------------|-----------|-----------|
| Height (H1)     | 3 500 mm  | 138"      |
| Length (L1)     | 11 350 mm | 447"      |
| Feed height (H) | 9 400 mm  | 370"      |
| Weight          | 20 800 kg | 45 856 lb |



Toe-hole drilling reach



#### Lubrication oil, lubrication system and water mist system

- Central lubrication system (CLS)
- Artic hydraulic oil, VG 32
- Tropical hydraulic oil, VG 68
- Biological hydraulic oil, VG 46
- Water mist system, with water pump and 400 l water tank

#### Feed

25°

1040

2 659

- Dimension kit for 76 mm, 89 mm, 102 mm, 114 mm or 140 mm rod
- Wide feed foot
- Service winch with jib boom mounted on the feed



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