

# PowerROC D55

Surface drill rig for mining and quarrying

Hole diameter: 90–152 mm (3.5–6")







# Performance you can count on

PowerROC D55 is a hydraulic down-the-hole rig you can trust on to perform reliably, even in the most demanding mines and quarries.

The PowerROC D55 is designed according to our philosophy of providing customers a reliable drill rig with high capacity, maximum uptime and simplicity in operation. Dual drill steel supports for straight hole drilling. Spacious compartment with ergonomic design, providing high visibility during drilling as well as comfortable operation. This rig allows flexibility for different

applications, such as horizontal hole drilling, de-water hole drilling and toe hole drilling, not limited to production drilling. A touchscreen-and-button display, with the size of 12.1 inch, offers operators a user-friendly interface for an intuitive understanding about the running status of the whole rig. With the new interface, maintenance is easier, and service cost can be reduced.

## ⊕ Main benefits

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

**High reliability** due to a tried and tested design and reliable, high quality components

**Easy operation and maintenance** thanks to straightforward design



# Dependable performance

Epiroc is constantly focused on the safety of our products. Data shown on a display in cabin include, but are not limited to the data of engine, systems running status, diagnostic information, warning and alarm message and functional parameter settings, which clearly shows the running status of the rig.



### + Safety in focus

The rig is equipped with FOPS and ROPS certified cabin. The rig will stop drilling automatically when operator leaves seat. The rig features a strong, standard boom giving strength and stability during drilling. The PowerROC D55 stops immediately if one of the four emergency stop switches which are distributed around the machine is activated.



### + High performance

The rig is fitted with an onboard Atlas Copco compressor delivering up to 321 l/s of air at a maximum pressure of 24 bar ensuring a high penetration rate. The straightforward design makes PowerROC D55 more reliable. A robust chain feed gives the PowerROC D55 lower running costs and a prolonged service life. The cooling system can handle a wide ambient temperature range of between -20°C to 50°C even during demanding drilling.



### + Easy maintenance

The centralized service spot is a feature on PowerROC D55. It provides easy access to vital service points, convenient replacement of air filters and oil filters, and makes it easy to check all oil levels. Additionally, 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

- Cummins turbo-charged Tier III and China IV diesel engine
  - Atlas Copco two-stage screw type compressor
  - Carousel type rod handling system
  - Break-out table
  - Track frames with triple grouser pads and cleaning holes, hydraulic track oscillation and two speed traction
  - ROPS and FOPS certified cabin with a 12.1 inch display and air-condition
  - Standard boom
  - Hydraulic oil heater
  - Power ECO
- PowerUP
  - Aluminum feed beam which can be positioned horizontally for toe-hole drilling
  - Chain feed system powered by hydraulic motor
  - Dust collection system
  - Pre-separator
  - Feed extension
  - DTH hammer lubricator device (pneumatic)
  - Thread lubrication, spray system
  - Back-up alarm
  - 2D angle indicator, integrated into display

### Engine

| Cummins turbo-charged, diesel engine, QSL8.9-C360 Tier 3 version and L9CS4 360C China IV version | Metric | US     |
|--------------------------------------------------------------------------------------------------|--------|--------|
| Power rating at 2 000 rpm                                                                        | 265 kW | 356 hp |

### Dust collector

| PowerROC D55 - DCT 200       | Metric      | US                    |
|------------------------------|-------------|-----------------------|
| Filter area                  | 20 m²       | 215 sq.ft             |
| Number of filter elements    | 20 pcs      | 20 pcs                |
| Cleaning air pressure, max   | 7.0 bar     | 102 psi               |
| Cleaning air consumption     | 2–4 l/pulse | 0.06–0.12 cu.ft/pulse |
| Suction capacity at 500mm wg | 850 l/s     | 1 802 cfm             |

### Hole range & depth (recommended)

| Recommended DTH hammers and hole range         |                        |                    |       |
|------------------------------------------------|------------------------|--------------------|-------|
| PowerROC D55                                   | COP 35, COP 44, COP 54 | 90–152 mm (3.5–6') |       |
| Hydraulic rod adding system for max hole depth |                        | Metric             | US    |
| PowerROC D55                                   |                        | 30 m               | 98.4' |
| Single pass drilling, max hole depth           |                        |                    |       |
| PowerROC D55                                   | Ø 102 mm Rod           | 5 m                | 16.4' |

### Volumes

|                              |       |             |
|------------------------------|-------|-------------|
| Hydraulic oil tank           | 380 l | 100 US gal  |
| Hydraulic system, total      | 470 l | 124 US gal  |
| Compressor oil               | 70 l  | 18.5 US gal |
| Diesel engine oil            | 35 l  | 9.2 US gal  |
| Diesel engine, cooling water | 60 l  | 15.9 US gal |
| Diesel engine, fuel tank     | 760 l | 201 US gal  |
| Traction gear                | 3 l   | 0.8 US gal  |
| Lubrication tank (ECL)       | 20 l  | 5.3 US gal  |
| Urea tank (China IV version) | 85 l  | 22.5 US gal |

### Rotary head

| Rotary head          | Connection thread   | Hole range         | Max rpm | Max torque, drilling | Max torque, breaking | Suitable for DTH hammer |
|----------------------|---------------------|--------------------|---------|----------------------|----------------------|-------------------------|
| DHR 6H 45            | API 2 3⁄8" REG, box | 90–152 mm (3.5–6') | 136     | 2 630 Nm (1 939 lbf) | 3 000 Nm (2 211 lbf) | COP 35, COP 44          |
| DHR 6H 56            | API 2 3⁄8" REG, box | 90–152 mm (3.5–6') | 107     | 3 375 Nm (2 488 lbf) | 3 900 Nm (2 875 lbf) | COP 44, COP 54          |
| DRU5 (China IV only) | API 2 3⁄8" REG, box | 90–152 mm (3.5–6') | 90      | 2040 Nm (1504 lbf)   | 3 400 Nm (2 506 lbf) | COP 35, COP 44, COP 54  |

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

| Down-the-hole hammer | Top sub thread     | Hole range           | Weight          | Length excl thread |
|----------------------|--------------------|----------------------|-----------------|--------------------|
| COP 35               | API 2 3⁄8" REG pin | 90–105 mm (3.5–4.1') | 30 kg (65 lb)   | 902 mm (35.5')     |
| COP 44               | API 2 3⁄8" REG pin | 110–127 mm (4.5–5')  | 40.5 kg (89 lb) | 1034 mm (40.5')    |
| COP 54               | API 2 3⁄8" REG pin | 134–152 mm (5.5–6')  | 66 kg (146 lb)  | 1 194 mm (47')     |

### Hydraulic system

| Hydraulic oil cooler        | Metric | US    |
|-----------------------------|--------|-------|
| Maximum ambient temperature | 50°C   | 122°F |

### Compressor

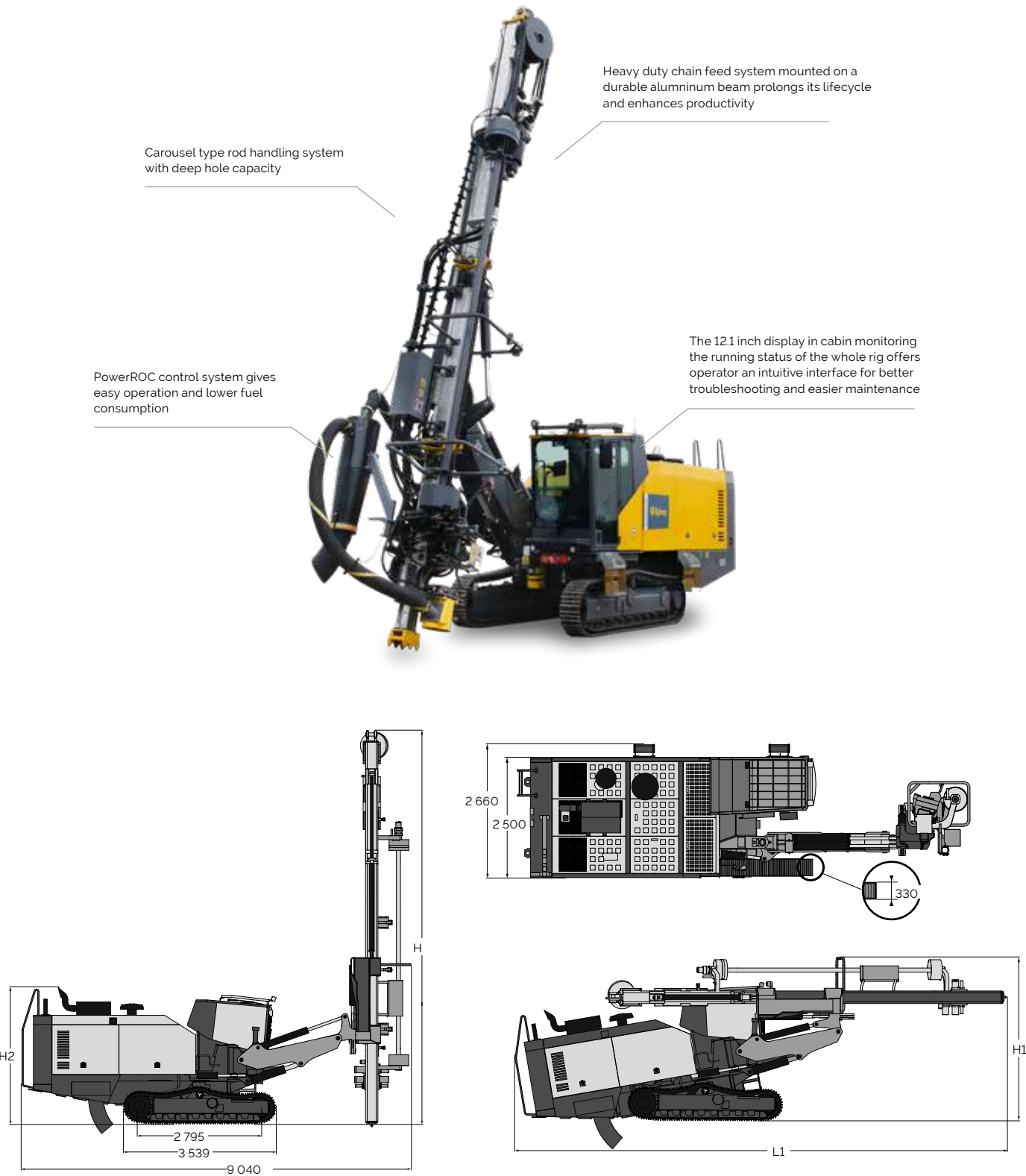
| Atlas Copco, two-stage screw type compressor    | Metric  | US      |
|-------------------------------------------------|---------|---------|
| Maximum working pressure                        | 24 bar  | 348 psi |
| FAD, at Power ECO working pressure, at 1600 rpm | 253 l/s | 536 cfm |
| FAD, at normal working pressure, at 1800 rpm    | 287 l/s | 608 cfm |
| FAD, at PowerUP working pressure, at 2000 rpm   | 321 l/s | 680 cfm |

### Feed

| Chain feed with dual drill rod support | Metric   | US         |
|----------------------------------------|----------|------------|
| Feed extension                         | 1 900 mm | 74.8'      |
| Feed rate, max                         | 0.85 m/s | 170 ft/min |
| Feed force, max                        | 35 kN    | 7 868 lbf  |
| Tractive pull, max                     | 40 kN    | 8 992 lbf  |
| Total length                           | 9 400 mm | 370.1'     |
| Travel length                          | 5 400 mm | 212.6'     |

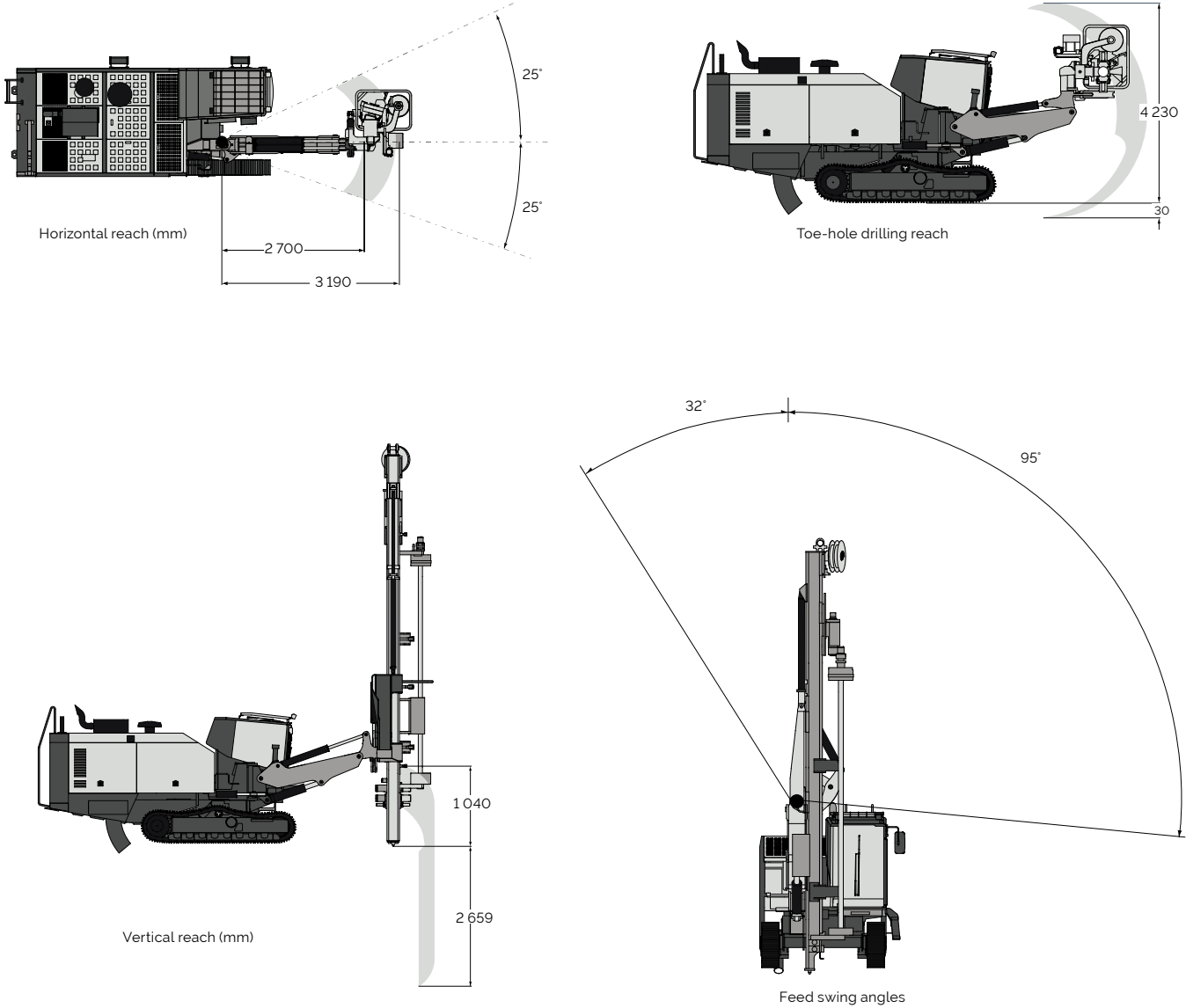
### Electrical system

|                    |                  |
|--------------------|------------------|
| Voltage            | 24 V             |
| Batteries          | 2 x 12 V, 200 Ah |
| Alternator         | 28 V, 110 A      |
| Work lights, front | 4 x 70 W         |
| Work lights, rear  | 1 x 70 W         |
| Work lights, feed  | 2 x 70 W         |



Transport dimensions

|                 | Metric                            | US        |
|-----------------|-----------------------------------|-----------|
| Height (H1)     | 3 700 mm                          | 145"      |
| Height (H2)     | 3 030 (Tier 3)/3220 (China IV) mm | 119"/127" |
| Length (L1)     | 11 350 mm                         | 447"      |
| Feed height (H) | 9 400 mm                          | 370"      |
| Weight          | 21 000 kg                         | 46 297 lb |



Selection of options

- Carrier**
- Hydraulic support leg
  - Electrical refueling pump
  - Service lamps in canopy
  - Cold weather kit, diesel engine pre-heater and compressor regulation heating kit
  - LED lights
  - DCT 320
  - Heavy duty air intake filter
  - Combined warning sound and warning light, beacon type
- Hole and inclination system**
- 3D indicator with aiming device, integrated into display in cabin
  - Hole Navigation System (HNS)
- Safety cabin**
- Reversing camera with display mounted in the cabin

- Feed**
- Service winch with jib boom mounted on the feed
  - Wide feed foot/dowel
  - Drill steel support-steel bushing type
  - Movable pre-separator
  - Dimension kit for 76 mm, 89 mm, 102 mm and 114 mm
- Digital products**
- Fleet monitoring with Fleet+ on My Epiroc
  - Machine and fleet data via APIs
- Lubrication oil, lubrication system and water mist system**
- Central lubrication system (CLS)
  - Artic hydraulic oil, VG 32
  - Tropical hydraulic oil, VG 68
  - Standard hydraulic oil, VG 46
  - Water mist system, with water pump and 400 l water tank
  - Arctic-ready water mist system

# United in performance. Inspired by innovation.

Performance unites us, innovation inspires us, and commitment drives us to keep moving forward. Count on Epiroc to deliver the solutions you need to succeed today and the technology to lead tomorrow.

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