

## CRS 140 (DUO) Sonic Rig





# CRS 140 (DUO): Multi-purpose sonic rig

- Mineral sampling
- Environmental research
- Geotechnical sampling and testing
- Geo-constructional drilling
- Seismic drilling
- Customized solutions

The CompactRotoSonic crawler 140 (CRS 140) is built to perform in the most challenging and diverse working conditions. Maximum power applicable in small spaces because of its great manoeuvrability.

This rig is also available as DUO, which is equipped with both a CompactRotoSonic drillhead and a four speed rotation head. Easily change the drillheads by shifting the trolleyboard, to combine Sonic sampling and diamond core drilling in the same borehole.

## CRS 140



| CompactRotoSonic HO Drill head   | Metric                                   | Imperial   |
|--|--|--|
| Max. frequency   | 0 - 150 Hz                               | 0 - 150 Hz                                       |
| Sonic vibration oscillator output force                                      | 150 kN                                   | 33.8 k lbf                                       |
| 2 eccentrics, mechanically synchronized                                      |  |  |
| Rotation torque: clockwise 0-120 rpm   | 2,650 Nm @ 185 bar                       | 1,955 ft-lbf @ 2,680 psi                         |
| Rotation torque: counter clockwise   | 3,000 Nm @ 210 bar                       | 2,210 ft-lbf @ 3,045 psi                         |
| Head tilt max.   | 70°                                      | 70°  |
| Type of damper / buffer  | rubber 4x                                | rubber 4x  |
| Max. hydraulic pressure on sonic   | 230 bar                                  | 3,335 psi  |
| Mass of head   | 600 kg                                   | 1,350 lbf  |
| Pull up force in combination with sonic                                      | 5,000 daN                                | 11,240 lbf                                       |
| Pull down force in combination with sonic                                    | 5,000 daN                                | 11,240 lbf                                       |
| Pull up force static   | 10,000 daN                               | 22,480 lbf                                       |
| Pull down force static   | 5,500 daN                                | 12,400 lbf                                       |
| Drilling under angle perpendicular driving direction                         | 10°                                      | 10°  |
| Advised power from rig engine  | 127 kW                                   | 170 HP   |
| 4-Speed rotary drill head (in DUO)   | Metric                                   | Imperial   |
| Hydraulically driven in serial or parallel mode mechanical 2 speed selection |  |  |
| Shock absorber   |  |  |
| Sub saver from rotary spindle  |  |  |
| Air / Mud swivel, inlet available  | 35 mm                                    | 1 3/8"   |
| Torque / speed to select from  | 350 Nm @ 950 rpm to<br>7,100 Nm @ 50 rpm | 258 ft-lbf @ 950 rpm to<br>5,237 ft-lbf @ 50 rpm |

| Gear ratio | 1^ speed |     | 2^ speed |     | 3^ speed |     | 4^ speed |     |
|------------|----------|-----|----------|-----|----------|-----|----------|-----|
|            | daNm     | rpm | daNm     | rpm | daNm     | rpm | daNm     | rpm |
| 1^         | 35       | 950 | 70       | 425 | 125      | 270 | 250      | 135 |
| 2          | 42       | 860 | 84       | 430 | 150      | 240 | 300      | 120 |
| 3          | 55       | 700 | 110      | 350 | 190      | 200 | 370      | 100 |
| 4          | 68       | 540 | 136      | 270 | 240      | 150 | 480      | 75  |
| 5          | 80       | 430 | 160      | 215 | 290      | 120 | 580      | 60  |
| 6          | 100      | 340 | 200      | 170 | 355      | 100 | 710      | 50  |
| 7          | 115      | 270 | 230      | 135 | 410      | 80  | 820      | 40  |

| Rig  | Metric   | Imperial  |
|--|--|---|
| Caterpillar 4 cylinder water cooled engine, Tier 5 | 110 kW   | 148 HP  |
| Dimensions folded (L x W x H) approx.              | 6,000 x 2,100 x 2,890 mm                           | 19'8" x 6'11" x 9'6"                                |
| Height (when drilling) max.                        | 6,000 mm   | 19'8"   |
| Mass approx.                                       | Between 10,000 and 13,000 kg, depending on options | Between 22,000 and 28,600 lbs, depending on options |
| Fuel tank (diesel)                                 | 170 liter  | 45 gallon   |
| Load sensing hydraulic system                      | Yes  | Yes   |
| Control panel on turning arm                       | Yes  | Yes   |
| High pressure water pump                           | 19 l/min. @ 210 bar                                | 5 gpm @ 3,045 psi                                   |
| Large flow water pump                              | 285 l/min. @ 48 bar                                | 75 gpm @ 700 psi                                    |
| Aluminum water tank                                | 500 liter  | 132 gallon  |
| Rubber tracks                                      | Yes  | Yes   |
| Radio remote for driving                           | Yes  | Yes   |
| Work lights  | 4  | 4   |

| Mast  | Metric                                | Imperial                        |
|---|---------------------------------------|---------------------------------|
| Stroke  | 3,700 mm                              | 12'2"                           |
| Mast dump   | 600 mm                                | 24"                             |
| Pull up   | 100 kN                                | 22,500 lbf                      |
| Pull down   | 68 kN                                 | 15,300 lbf                      |
| Pull up and down speed                                  | 30 m/min                              | 98 ft/min                       |
| Double hydraulic break out clamp                        | 60 - 280 mm                           | 2 3/8" - 11"                    |
| Adjustable clamping force of                            | 140 kN                                | 31,500 lbf                      |
| Break out torque  | 38 kNm                                | 28,000 ft-lbf                   |
| Main winch  | 2,000 daN, speed 55 m/min, 50 m cable | 4,496 ft-lbf, 180 ft/min, 18 ft |
| Casing lifter mounted on break out clamp                | 200 kN stroke 300 mm                  | 45,000 lbs stroke 12"           |
| SPT auto drop hammer with blow counter on control panel |                                       |                                 |







| Options   | Metric               | Imperial              |
|---|----------------------|-----------------------|
| SPX40 hose pump   | 114 l/min @ 10 bar   | 30 gpm @ 145 psi      |
| Steel tracks or rubber pads                             |                      |                       |
| Triple floatable clamp                                  | 800 mm               | 32"                   |
| ManipAll 200 (magnetic rod loading arm) or ManipAll 250 |                      |                       |
| Safety cage   |                      |                       |
| Sleuable, extendable jibboom with wireline              | 200 m                | 656'                  |
| Fully remote controlled                                 |                      |                       |
| SPT auto drop hammer with blow counter on control panel |                      |                       |
| Casing lifter mounted on break out clamp                | 200 kN stroke 300 mm | 45,000 lbs stroke 12" |
| Mud pump triplex piston                                 | 285 liter @ 48 bar   | 75 gallon @ 700 psi   |



## Choose your configuration

Royal Eijkelkamp provides the possibility to customise your CRS 140 and CRS 140 DUO. Customise it yourself, or choose one of our standard configurations for a shorter delivery time due to our rigs in stock. We offer two standard configurations called Pro and Royal. Scan the QR-code to view a complete overview.

## Eijkelkamp Customer Service Agreement

Royal Eijkelkamp provides the possibility to add a tailor fit service contract to the extensive range of machines we offer. We call these the Eijkelkamp Customer Service Agreements. We have three types of Customer Service Agreements called Start, Pro and Royal. The Royal type is a service contract that can be tailor fit to the needs of the customer. All Eijkelkamp Customer Service Agreements will be delivered with the Eijkelkamp Service Assistant, this is an advanced track & trace system that is available for use by customer and driller on site via the mobile phone application and web browser.

**For more information on demos, pilot projects or personal advice contact our sales department!**

**For urgent service calls and/or technical information contact or special service telephone: +31 313 800 967**

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