

CRS 170 (DUO) Sonic Rig



CRS 170 (DUO): Multi-purpose sonic rig

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

The CompactRotoSonic crawler 170 (CRS 170) 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 170



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	450 Nm @ 840 rpm to 5,600 Nm @ 65 rpm	331 ft-lbf @ 849 rpm to 4,130 ft-lbf @ 65 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	129 kW	173 HP
Dimensions folded (L x W x H) approx.	8.850 x 2.310 x 2.995 mm	29' x 7'7" x 9'11"
Height (when drilling) max.	7.500 mm	24'7"
Mass approx.	Between 10,000 and 16,500 kg, depending on options	Between 22,000 and 36,376 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. @ 70 bar	75 gpm @ 1,015 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	5,200/5,500 mm	17'1"/18'0.5"
Mast dump	1,000 mm	3'3"
Pull up	120 kN	27,000 lbf
Pull down	68 kN	15,285 lbf
Pull up and down speed	27 - 36 m/min	88.6- 118.1 ft/min
Triple floating break out clamp	60 - 280 mm	2 3/8"- 11"
Adjustable clamping force of	140 kN	31,473 lbf
Break out torque	38 kNm	28,027 ft-lbf
Hydraulic break out cylinder	Yes	Yes
Main winch	3,600 daN, speed 35 m/min, 50 m cable	8,093 ft-lbf, 115 ft/min, 164 ft

Rod / casing handler		
Mechanical separators among different rod layers	Yes	Yes
Casing or drill rod storage depends on diameter and length	Yes	Yes





Options	Metric	Imperial
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"
Pneumatic separators among different rod layers		
Mud pump triplex piston	283 liter @ 70 bar	75 gallon @ 1015 psi
SPX40 hose pump	114 l/min @ 9.6 bar	30 gpm @ 140 psi
Steel tracks		
Triple floatable clamp		
ManipAll 250 (magnetic rod loading arm)		
Safety cage		
Slewable, extendable jibboom		



Choose your configuration

Royal Eijkelkamp provides the possibility of customising your CRS 170 and CRS 170 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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