CMAC LH II

CMAC-Thyssen Production drilling rigs
CMAC LH II – LONG HOLE II

The CMAC LH II is an electrohydraulic unit for long-hole drilling. Versatile equipment. Top Hammer drifter type. Patented positioning system offering the widest coverage available on the market. Easy, fast and accurate operation. Optimal consumables lifespan. Simple, reliable and robust mechanical design, high availability. Optimum drilling: 76mm diameter / 40m deep.

STANDARDS FEATURES

Rock drill
• Various model available
• Easy interchangeable for various application
• Shank adapters suitable for the given hole range

Positioning unit
• Easy, safe and ergonomic operation
• Fast and accurate positioning
• Easy repair and maintenance

Drilling unit
• Mechanized arm for rod handling
• Feed force............................. pull – 11,300lbs
......................................... push – 7,460 lbs
• One (1) front and two (2) rear-mounted stingers
• Robust and reliable clamp - can be used for collaring

Control system
• Electric wireless or hydraulic control panel
• Automatic thread and unthread system
• Angle reading instrument
• Adjustable control for collaring, anti-jamming, feed thrust and percussion
• Pre-set parameters for different drilling conditions

General
• Working lights
• Front and rear stabilizers

Carrier
• Four wheel drive
• Hydrostatic transmission
• Service brake
TECHNICAL SPECIFICATIONS

Drilling unit
• Model: CMAC Feed (CF series)
• Steel length: 4 ft (1.2m) / 5 ft (1.5m) / 6 ft (1.8m)
• Drill steel: R32 / T38 / ST51 / ST68
• Rod Handling System, articulated arm with wireless remote
• Hole length limited by feed force, not carrousel capacity
• Mechanized drilling up to 40 m

Positioning system
• Lateral displacement: 2,235 mm
• Longitudinal displacement: 610 mm
• Drilling table 180° hydraulic rotation
• 360° feed rotation with hydraulic actuator
• One (1) stinger backward on feed
• Two (2) stingers forward on feed
• Feed dump, drilling (adjustable): +90° forward / -25° backward

Power pack
• Electrical motor: 75hp (56kW) / 100 hp (75kW)
• Hydraulic pump for feed, positioning and rotation
• Hydraulic pump for percussion
• Load sensing pump
• System pressure, max: 193 bar
• Hydraulic oil tank, volume max/min: 200 l
• Oil temperature gauge on oil tank
• Electric oil filling pump

Carrier
• Model: CMAC LH II
• Carrier hydraulics:
  - Variable displacement piston pump with load sense
  - Closed center circuit design for optimal efficiency
  - Stick steering with a direct-acting control valve
  - Two double-acting steer cylinders
  - Totally enclosed service brake hydraulically applied
  - Spring release on front/rear axles with automatic brake application

Control system
• Model: hydraulic / electric or fully electric
• Connection System: wire / wireless
• Flushing control: air - water - air/mist flushing
• Automatic functions: collaring / anti-jamming / feed and percussion pressure
• Light, heavy duty wireless terminals
• Integrated diagnostic system
• Angle reading instrument on control screen

Electrical system
• High/low voltage: separate cabinet
• Voltage: 380-600 V
• Frequency: 50 or 60 Hz
• Total installed power: 158 kW
• Main motors: 75 hp (75.5 kW) or 100 hp (85.5kW)
• Starting method: star/delta (380-600 V)
• Overload protection for electric motors
• Volt/amperage gauge in electric cabinet
• Phase detector
• Transformer: 5 kVA
• Led working lights, mounted on roof
• Cable reel

OPTIONAL EQUIPMENT

Carrier
• Fire suppression system, manual or automatic (ANSUL)

Drilling system
• Rock drill lubrication surveillance system

Positioning system
• Rig alignment laser
### ROCK DRILL

<table>
<thead>
<tr>
<th></th>
<th>Montabert *</th>
<th>HC 109</th>
<th>HC 112</th>
<th>HC 170 RP</th>
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</thead>
<tbody>
<tr>
<td>Rod diameter</td>
<td>mm</td>
<td>38-45</td>
<td>45-51</td>
<td>45-68</td>
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<tr>
<td>Hole diameter</td>
<td>mm</td>
<td>64-89</td>
<td>76-127</td>
<td>102-150</td>
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<tr>
<td>Input power</td>
<td>kW</td>
<td>30</td>
<td>Max - 45.5</td>
<td>Min - 28</td>
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<tr>
<td>Output power</td>
<td>kW</td>
<td>18</td>
<td>Max - 29</td>
<td>Min - 19</td>
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<tr>
<td>Impact rate</td>
<td>Hz</td>
<td>46</td>
<td>43-50</td>
<td>40</td>
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<tr>
<td>Hydraulic pressure, max.</td>
<td>bar</td>
<td>135</td>
<td>160</td>
<td>180</td>
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<tr>
<td>Rotation motors</td>
<td>cm³</td>
<td>055</td>
<td>160</td>
<td>250</td>
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<tr>
<td>Rotation speed, max.</td>
<td>rpm</td>
<td>175</td>
<td>120</td>
<td>169</td>
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<tr>
<td>Torque, max</td>
<td>N.m</td>
<td>780</td>
<td>1560</td>
<td>1090</td>
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<tr>
<td>Lubrication air consumption</td>
<td>dpm</td>
<td>15-18</td>
<td>30-40</td>
<td>30-40</td>
</tr>
<tr>
<td>Water consumption</td>
<td>lpm</td>
<td>30-50</td>
<td>50-100</td>
<td>50-100</td>
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<tr>
<td>Weight</td>
<td>kg</td>
<td>142</td>
<td>200</td>
<td>320</td>
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*Other rock drill models can be installed. For further information contact manufacturer, CMAC-Thyssen Mining Group.*

### FEED

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<tr>
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<th>CF 1219</th>
<th>CF 1524</th>
<th>CF 1828</th>
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<tr>
<td>Approx length with centraliser</td>
<td>mm</td>
<td>3,225</td>
<td>3,531</td>
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<tr>
<td></td>
<td>in</td>
<td>127</td>
<td>139</td>
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<tr>
<td>Drill rod length</td>
<td>m</td>
<td>1,2</td>
<td>1,5</td>
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<tr>
<td></td>
<td>ft</td>
<td>4</td>
<td>5</td>
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### DIMENSIONS

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<tr>
<th>mm</th>
<th>Width</th>
<th>1,236</th>
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<tbody>
<tr>
<td></td>
<td>Height tramming</td>
<td>2,291</td>
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<tr>
<td></td>
<td>Height rotation point</td>
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<tr>
<td></td>
<td>Length tramming</td>
<td>6,097</td>
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<td></td>
<td>Ground clearance</td>
<td>185</td>
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### WEIGHT *

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<th>kg</th>
<th>Total</th>
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<td>9,100</td>
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SIDE VIEW

TRAMMING VIEW

COVERAGE AREA