

# Atlas Copco Exploration Drilling Christensen CT20 Core Drill



**INFRASTRUKTUR FÖR DJUP KÄRNBORNING OCH PROVTAGNING  
EN NATIONELL RESURS ÖPPEN FÖR ALL SVENSK GEOVETENSKAPLIG  
FORSKNING OCH TILLÄMPNING. OPERATIVT ANSVAR TEKNISK GEOLOGI LTH.**

FÖR SVENSKA UNIVERSITET OCH HÖGSKOLOR  
SAMVERKAN MED bl.a SDDP, SWEDISH DEEP DRILLING PROGRAMME

# CT20 PERFORMANCE SPECIFICATIONS

## Depth capacity coring (wireline or conventional)

N wireline	2 450 m	(8030 ft)
H wireline	1 600 m	(5250 ft)
P wireline	1 055 m	(3440 ft)

Depth are based on vertical water filled hole

## Main hoist

Single line capacity: Bare drum 178 kN (40 000 lb)  
Automatic speed adjustment depending on the load  
Line speed: @ max displacement 34 m/min (117 ft/min)  
                  @ min displacement 72 m/sec (232 ft/min)  
Cable size: 33 m (118 ft) x 24 mm (61/64 in)  
10830

## Wireline

Capacity: 3 600 m (12 130 ft) of 5 mm (~3/16 in)  
              3 300 m (10 830 ft) of 6 mm  
              3 000 m (9 843 ft) of 6,35 mm (1/4 in)  
Line pull: bare drum: 18,6 kN (4 181 lb)  
              full drum: 4,2 kN (9 44 lb)  
Line speed: bare drum 76 m/min (249 ft/min)  
              full drum 337 m/min (1 106 ft/min)

## Mast and feed system

Feed stroke: 3,5 m (11,5 ft)  
Feed speeds: fast and slow with variable control  
Mast dump: 2 m (6,56 ft)  
Thrust: 100 kN (22 480 lb)  
Pull: 200 kN (45 000 lb)  
Drilling angle: 45 to 90 degrees  
Rod pull length: 6,09 m (20 ft) or 9,14 m (30 ft)

## Power unit

Manufacture: Cummins  
Model: QSL 9 Tier III (Tier IIIB will be available)  
Volume: 8.8 liter 6 cyl.  
Power: 224 kW (305 hp)  
RPM: 2100  
Engine type: Diesel turbocharged/after cooled  
Cooling: Water  
Electrical system: 24 V (Alternator 24 V, 110 Amp)

## Hydraulic system

Primary pump: 310 bar – 295 l/min (4 500 psi – 77 gal/min)  
Secondary pump: 200 MPa – 145 l/min (2 900 psi – 38 gal/min)  
Auxiliary pump: 215 MPa – 55 l/min (3 050 psi – 15 gal/min)  
Hydraulic oil cooling: Air

## Drillhead and spindle speeds

Power: hydraulic motor – variable speed/reversible  
Final drive: 5 in chain driven in oil bath – 2:1 ratio  
Spindle (inner diameter): 120,6 mm (4,75 in)  
4- speed gear box range selection: manual control from operator's station, head hydraulic slide away,  
Max Torque: 6245 Nm (4 606 ftlb)  
Speed: 0 – 1300 rpm

(v0.9)

## Chuck assembly

Type: hydraulic open, spring closed  
Maximum inside diameter: 120,6 mm (4,75 in)  
Holding capacity: 178 kN kg (40 000 lb)

## Rod Holder

Type: hydraulic open, gas spring closed  
Maximum clamping dia.: PW Casing 144 mm (5,7 in)  
Max open (without jaw and guide):  
Holding capacity: 200 kN (45 000 lb)

## Drill base supports

Self supporting chassis, designed to be mounted on a truck  
Support: 4 hydraulic jacks  
Pad area: 210 x 210 mm (8,3 x 8,3 in)  
Travel length: 600 mm (23,6 in)

## Weight

Complete rig, wet: 18 000 kg (39 680 lb)  
Depends on version and options

## Dimensions on standard truck (L – W – H)

Transport 11 500 – 2500 – 4150 (mm)

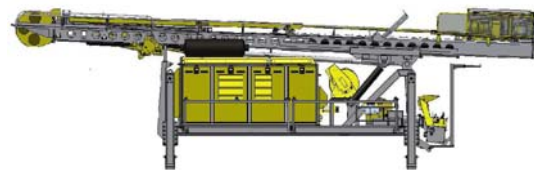
## Standard equipment

- Hydraulic mast dump
- Drill speed gauge
- Safety guards (with inter-lock)
- User-friendly control panel
- Hydraulic oil reservoir fill pump & filtration
- Make and brake with joy-stick
- Ladder kit with safety system
- WL winch with Level-wind and Parking Brake
- Rope tentioner – to ensure good cable management
- Hydraulic rod holder (PW)
- Multi function display
- Fuel tank 950 l (251 gal)
- High Altitude capacity
- Hydraulic Mud Mixer
- Cat walks
- Hyd pressure filters
- Trido 140 water pump

## Options

- Crawler mounted (under dev, targeted delivery early 2011)

All weights and dimensions are approximations and are subject to change



## Atlas Copco Craelius

Birstagatan 13  
SE-195 82 Märsta  
SWE

