

## Atlas Copco Surface drill rigs

# SmartROC D65

## Technical specification



### The mining mastermind. Brilliant and built to last.

- Supports you ambitions in the total mining process
- Maximizes your drilling time
- Boosts operator productivity

### SmartROC D65 series are intended for open pit mining, selective mining and quarrying.

#### Main features:

- Full drill cycle automation
- Hole Navigation System, option
- Documentation by IREDES
- Atlas Copco Rig Control System, RCS
- Troubleshooting support from cabin display
- Vaportec compressor control
- ROPS and FOPS approved cabin
- Hydraulic cylinder operated feed system
- Aluminium profile feed beam
- Break out table
- Caterpillar turbo charged diesel engines
- Atlas Copco high pressure screw compressors

Hole range			
Recommended hole range			
SmartROC D65	COP 44, COP 54GE, COP 64 Gold	110-203 mm	4 5/16"-8"
Hydraulic tube handling system for max hole depth, with 6 m (20') tubes and a 7.5 m starter tube			
SmartROC D65	Ø 89-114 mm (3 1/2"- 4 1/2") drill tubes	54 m	177'
SmartROC D65	Ø 127-140 mm (5"- 5 1/2") drill tubes	30 m	98'
Single pass drilling, max hole depth			
SmartROC D65		7,5 m	25'

# Specifications

SmartROC D65

## Engine

Caterpillar turbo charged, diesel engine, CAT C15, Tier III/stage 3  
 • Power rating at 1800 rpm 402 kW 539 HP

## Carrier

• Trimming speed, max ..... 3.5 km/h 2.2 mph  
 • Traction force, max ..... 138 kN 31 020 lbf  
 • Track oscillation ..... ±10°  
 • Ground clearance ..... 405 mm 16"

## Aluminium feed

Hydraulic cylinder feed with hose guide and double drill tube support with break-out table and movable lower guide/dust hood

• Feed rate, max ..... 0.9 m/s 177 ft/min  
 • Feed force, max ..... 40 kN 8 992 lbf  
 • Tractive pull, max ..... 50 kN 11 240 lbf  
 • Feed extension ..... 1 150 mm 3' 9"  
 • Travel length ..... 7 540 mm 25'

## Dust collector DCT 320F including pre-separator

• Filter area ..... 32 m<sup>2</sup> 344 ft<sup>2</sup>  
 • Number of filter elements ..... 32 pcs  
 • Suction capacity at 500 mm wg ..... 1270 l/s 2 690 cfm  
 • Suction hose diam ..... 203 mm 8"  
 • Cleaning air pressure, max ..... 8 bar 116 psi  
 • Cleaning air consumption ..... 2-4 l/pulse 0,06-0,12 cf/pulse

## Cabin

• ROPS and FOPS approved with rubber vibration dampers  
 • 2 x wipers with washer  
 • Clear laminated glass (front and roof windows)  
 • Clear toughened glass (side and rear windows)  
 • Fully adjustable operator's seat  
 • Adjustable foot rest  
 • Cabin light  
 • Rig inclination indicator  
 • Rear view mirror  
 • Fire extinguisher, 6 kg (13 lbs) dry chemical type ABE class III type  
 • Outlet socket, 24 V  
 • Prepared for radio/speakers for CD radio or DVD radio  
 • Electric combined engine/inclination/hole depth instrument

## Compressor

Atlas Copco XRX 10, two stage screw type compressor

• Working pressure, max ..... 30 bar 435 psi  
 • FAD, at normal working pressure ..... 470 l/s 995 cfm

## Hydraulic system

Hydraulic oil cooler

• Max ambient temperature ..... 50°C 122°F

Pumps

• Axial piston pump (1) ..... 245 l/min 65 US gal/min  
 • Gear pump (2) ..... 110 l/min 29 US gal/min  
 • Gear pump (3) ..... 65 l/min 17.2 US gal/min  
 • Gear pump (4) ..... 40 l/min 10.5 US gal/min  
 • Gear pump (5) ..... 30 l/min 7.9 US gal/min  
 • Gear pump (6) ..... 30 l/min 7.9 US gal/min

Return and drainage filters (2 x 3 filters)

• Filtration rate ..... 20 µm absolute

## Electrical system

• Voltage ..... 24 V  
 • Batteries ..... 2 x 12 V, 185 Ah  
 • Alternator ..... 28 V, 95 Ah  
 • Work lights, front ..... 4 x 70 W  
 • Work lights, rear ..... 2 x 70 W  
 • Warning lamp and reverse buzzer  
 • Work lights, feed ..... 2 x 70 W

## Volumes

• Hydraulic oil tank ..... 380 l 100 US gal  
 • Hydraulic system, total ..... 470 l 124 US gal  
 • Compressor oil ..... 63 l 12 US gal  
 • Diesel engine oil ..... 42 l 11 US gal  
 • Diesel engine, cooling water ..... 68 l 18 US gal  
 • Diesel engine, fuel tank ..... 1050 l 277 US gal  
 • Traction gear ..... 3 l 0.8 US gal  
 • Lubrication tank (HECL) ..... 20 l 5.3 US gal

## Air conditioner

• Refrigerant ..... R134a  
 • Cooling capacity ..... 5,5 kW  
 • Fan suction capacity ..... 125 l/s 265 cfm

## Rotary head

Rotary head	Connection thread	Max rpm	Max torque, drilling		Max torque, breaking		Suitable for DTH-hammer
			Nm	lbf	Nm	lbf	
DHR6 H 45	API 2 3/8" REG, box	137	1839	1356	1916	1413	COP 44 (COP 54)
DHR6 H 56	API 3 1/2" REG, box	107	2353	1735	2452	1809	COP 54, COP 64
DHR6 H 68	API 3 1/2" REG, box	68	3677	2712	3831	2818	COP 64
DHR6 H 78	API 3 1/2" REG, box	42	4633	3417	6034	4450	COP 64

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

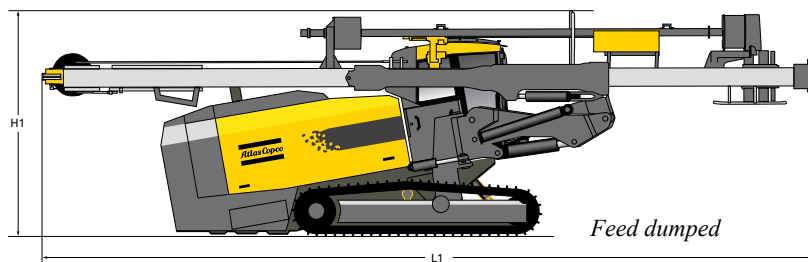
Down-the-hole hammer	Hole range		Top sub thread	Weight		Length excl thread	
	mm	in		kg	lbf	mm	in
COP 44	110-130	4 5/16 - 5 1/8	API 2 3/8" REG pin	38	84	958	37,72
COP 54 GE	134-152	5 1/4 - 6	API 2 7/8" REG pin	66	145	1119	44,1
			API 3 1/2" REG pin	76 HD	167 HD		
COP 64 Gold	156-178	6 1/8 - 7	API 3 1/2" REG pin	96	212	1163	45,78
	165-203	6 1/2 - 8		109 HD	241 HD		

HD = Heavy duty

# Transport dimensions

SmartROC D65

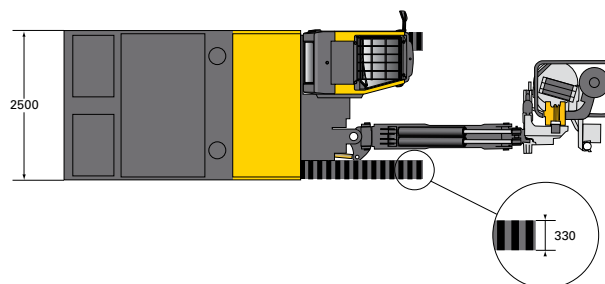
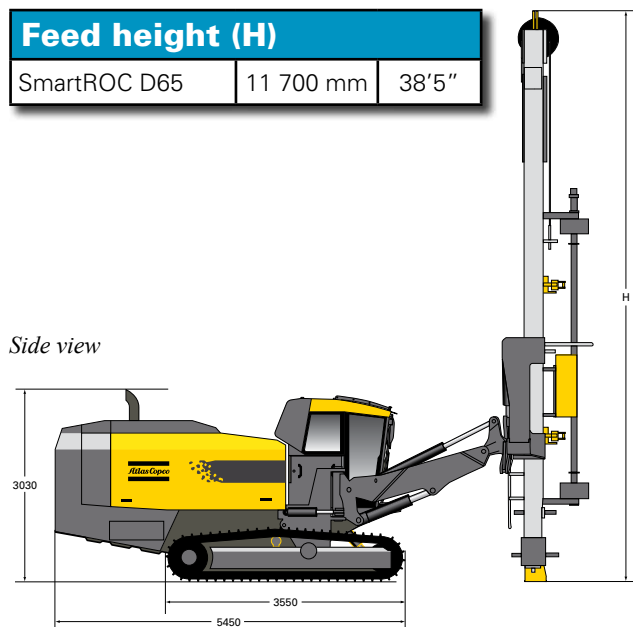
Height and length		
Height (H1)	3 500 mm	11' 6"
Length (L1)	11 700 mm	38' 5"



# Dimensions and weight

Feed height (H)		
SmartROC D65	11 700 mm	38'5"

Weight		
<i>Standard unit excluding all options and drill steel</i>		
SmartROC D65	22 600 kg	49 800 lb



# Optional equipment

## Carrier

- Hydraulic support leg
- Protection hand rails on top of canopy
- Halogen work light pointing to feed support, transport position
- Xenon work lights, 2 pcs on top of canopy pointing forward and 2 pcs on top of canopy pointing to the rear
- Combined warning sound and light, beacon type
- Reverse camera
- Automatic fire extinguisher, P21M, type Ansul, manually activated
- Automatic fire extinguisher, P21EAM, type Ansul, automatically activated
- Tropical ambient kit for 55° ambient temperature
- Electric pump for filling hydraulic oil
- Electric fuel filling pump

- Fast fuel filling system
- Cold weather kit +5° C to -25° C, including diesel engine heater
- Cold weather kit -25° C and below, including diesel engine heater and ether start
- ProCom satellite based drill rig monitoring system (only in combination with a written service agreement)

## Safety cabin

- Clear laminated glass (front and roof windows)
- Tinted toughened glass (side and rear windows)
- Sun shade kit
- Cab heating
- Electric heated operator's seat
- Radio/CD or Radio/DVD
- Reverse camera with cab mounted monitor. May also be used for monitoring DVD

## Feed

- Service winch with jib boom mounted on the feed
- Wide feed foot
- Break out table pressure regulating kit

## Rig Control System

- Hole Navigation System
- GPS compass
- Laser receiver
- Automatic Feed Alignment

## Lubrication and water mist system

- Central lubrication system, type Lincoln
- Thread lubrication, spray system
- Artic hydraulic oil, VG 32
- Tropical hydraulic oil, VG 68
- Biological hydraulic oil, VG 46
- Water mist system with water pump and 400 l water tank

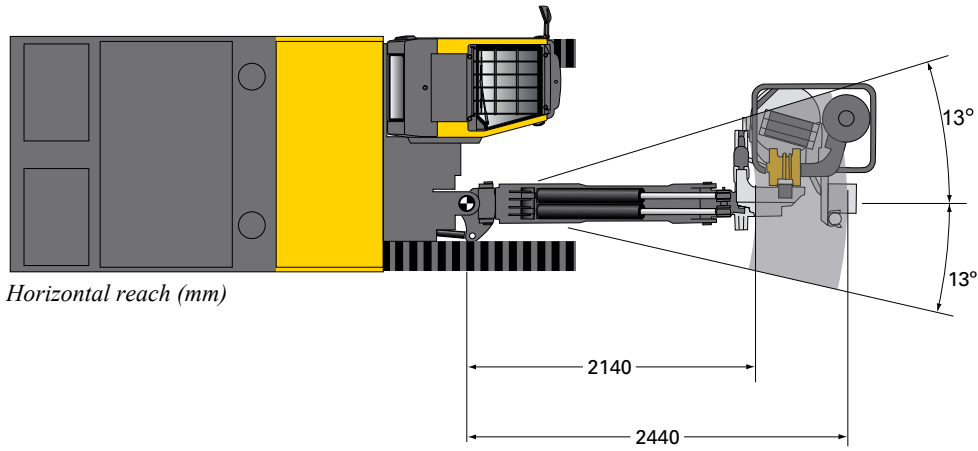
- Water mist system, insulated for arctic conditions, with water pump and 400 l water tank

## Delivered equipment, not mounted

- First 50 hours service kit for compressor
- Tool kit for rotary head with fixed spindle sub
- Tool kit for rotary head with floating spindle sub
- RCS tool box

# Coverage areas

SmartROC D65



# Feed swing angles

