ZDTC6 4 Remote- control Underground Long- hole Drilling Rig





ZDTC64 Remote-control Underground Long-hole Drilling Rig

ZDTC64 remote-control underground long-hole drilling rig is used for production drilling in underground mining applications. The rig is a long-hole drilling rig for small to medium - sized drifts in 45 mm to 64mm hole range. It provides the max. coverage area up to 2.6 x 2.8 meters with feed dump of +15° forward and -80° backward. It is also capable of drilling 1.5meters parallel holes, upwards, downwards and in the side walls. With the PLC industrial control system, remote-control function, and computerized anti-jamming system, it can guarantee the optimum long-hole drilling for every application. A high-performance patent-winning ZDG550 hydraulic rock drill with the 24Kw impact power is installed on the rig. Even with 76mm drilling shank, the speed of drilling can reach to 1.2 meters per minute. The rig offers the miners with not only top-notch precision, versatility and flexibility, but also with the maximum safety during setup and positioning.

Main Advantages of Rock drill

ZDG550 rock drill with impact power of 24Kw and impact frequency up to 75Hz maximum

High drilling speed and low failure rate esp. for hard rock condition

Made by our own factory means low costs and faster delivery on spare parts, saving the time and expenses of the miners

Self-lubrication material is applied in the rock drills -the maintenance period is longer than similar products

Pressurized housing and mating surfaces to reduce internal contamination of the rock drill and the system - the life circle is longer than similar products



Positioning unit - high mobility

Feed with tilt, rotation, pendulum arm and slide table

Accurate and smooth movements of the rig

Mine-adapted, sturdy carrier

Control system - maximum safety for the miners

EDS control system

Basic functions such as the anti-jamming system and fast rock drill return and forward movement

Remote control system for maximum safety during positioning, setting up and drilling

General - Best quality guaranteed

Firm steel protective FOPS proofed roof for the maximum safety

Automatic hydraulic -driven cable reel for customer requirements

Electrically driven compressor

Working lights on tripods

Specifications

Rock Drill	ZDG550
Shank adapter	R32 T38 R38
Hole diameter	45mm-64mm
Feed impact force	≤425 J
Percussion power	24Kw
Precussion rate	75Hz Max.
Hydraulic pressure	200 bar
Rotation system	Separate rotation
Rotation speed	0-300 rpm
Rotation torque, max	980 N.m
Water consumption, max	2 L/s
Weight	180 Kg
Sound Level	<110 dB(A)

Feed	
Adapt to drilling width	3500-4300mm
Adapt to drilling height	2700-3300mm
Drill rod length	915mm-1525mm

Drilling unit	
Rod retainer	Manual, for one feed
Drilling up to	20 meters

Drilling force	Max. 23kN
Adaptable to R32, R38, T38 speedrods	

Positioning system	
Feed extension (with option drill steel)	650-1200mm
Sliding table for parallelism	Automatic hydraulic
Stinger backward on feed	600mm
Stinger forward on feed	1150mm
Feed dump, drilling	+15° forward and 80° backward
Roll- over angle	360°
Visual angle indicators	2 pcs feed tilt and side angle

Air System	
Compressor	Chinese brand
Air pressure gauge	Yes
Capacity. Max at 10 bar	600L/Min
Hole blowing kit with external air	250-300L/min

Control system	
Remote--- control automatic drilling	50m
Anti- jamming system	Yes
Electrical Direct system	Yes

Power pack	
Hydraulic pump for percussion, positioning, feed	Yes
Hydraulic pump for rotation	Yes
System pressure, max	200 bar
Pumps unloaded at start	Yes
Hydraulic oil tank, volume max	165L
Low oil level indicator and shut down	Yes
Oil temperature gauge on oil tank, electronically supervised	Yes
Filtration, absolute	12 μm
Oil filter indicator	Yes
Water cooled oil in stainless steel	Yes
Mineral hydraulic oil	

Electrical system	
Electric motor	ABB YX3 250M-4(B5)
Total installed power	68kW
Main motors	55kW
Standard voltages	380-1000V
Frequency	50-60Hz
Staring method	star/delta (380-690V)
	direct(1000V)

Percussion hour meters on operator display	Yes
Digital volt/amperage meter in electric cabinet	Yes
Phase sequence indicator	Yes
Earth fault indicator	Yes
Battery charger	Yes
Transformer	4kVA
Working lights on tripods	2x200W, 24V
Limit switch for cable reel	Yes, at the operator station
Emergency stop	On the electric cabinet and at the right side machine
Laser positioning light	At each side

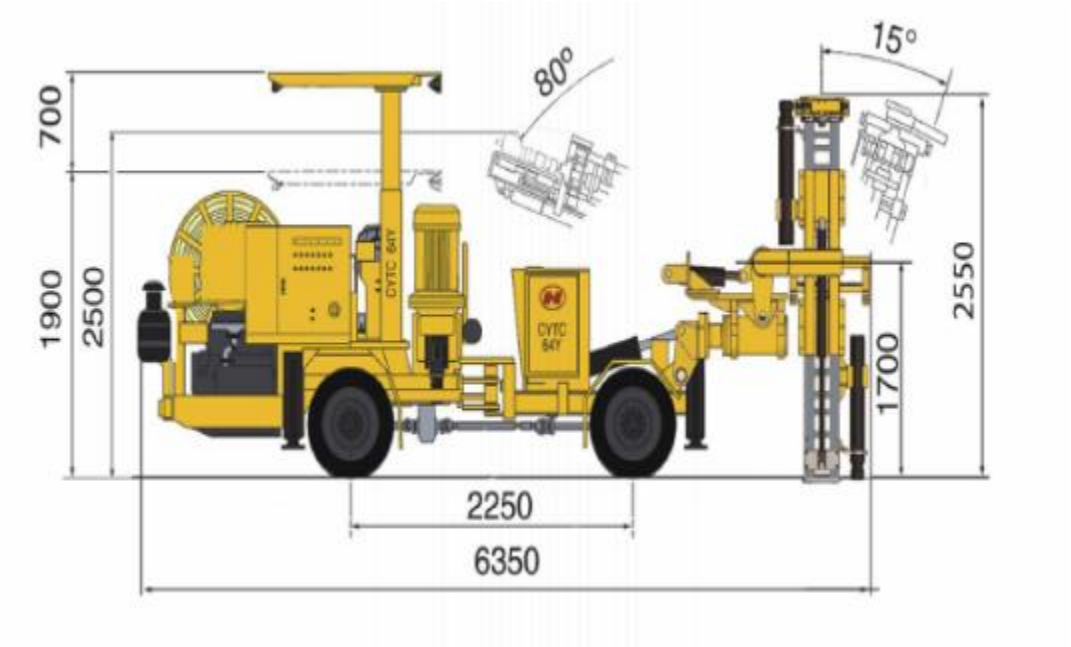
Water System	
Electric water boost pump	Yes
Capacity at 10 bar boost	200 L/min, Max
Water pressure gauge / water flow guard	Yes
Min. Water inlet pressure, bar	2 bar

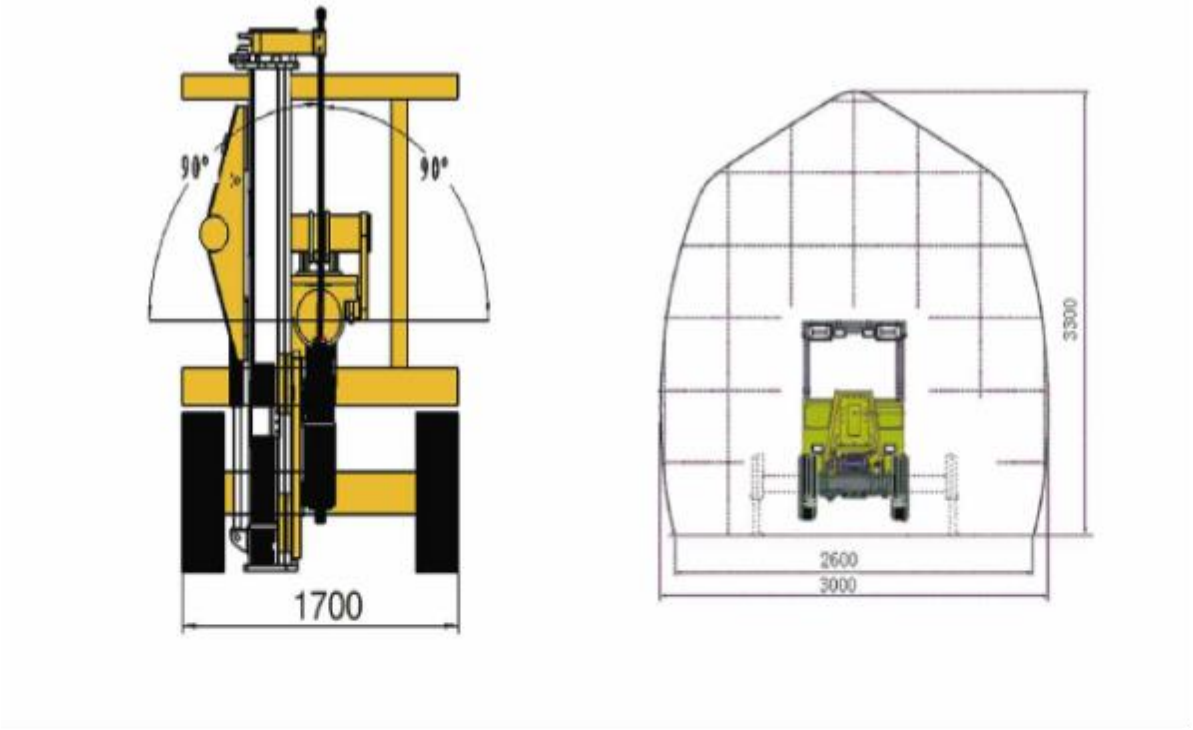
Carrier	
Engine	Diesel Engine
Power rating at 2500rpm	52kW (75hp)
Torque at 1500rpm	258Nm
Fixed seat for tramming with safety belt	Yes

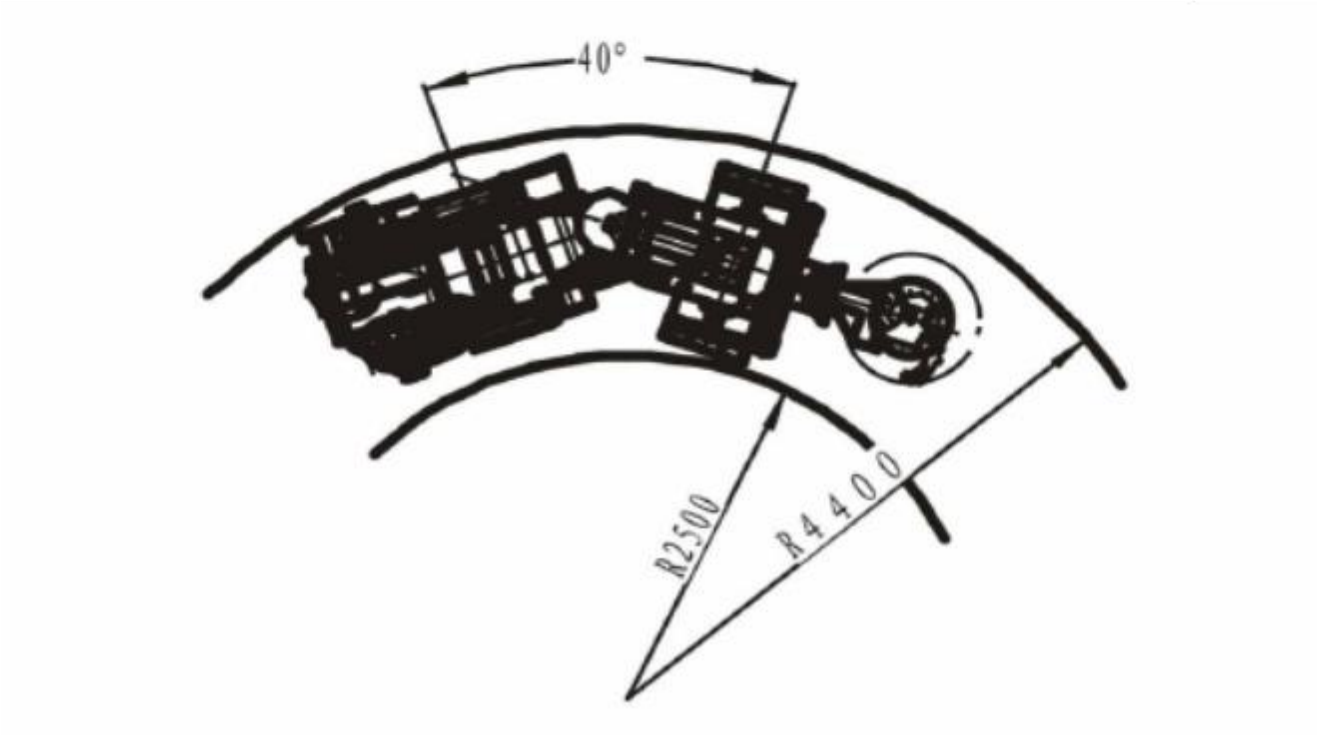
Articulated Steering	± 41 ° steering angle
FOPS- approved protective roof	Yes
Horn, beacon and reverse alarm	Yes
Four—wheel drive	Yes
Hydrostatic power steering system	Yes
Hydrostatic transmission	Clark
Front axle	Chinese brand
Rear axle	±10° oscillation
Tyres	8.25xR15
Clearance outside axles	15°
Hydraulic jacks, front	2 extendable
Hydraulic jacks, rear	2
Service brakes	2 separate circuits
Emergency and parking brakes	SHAR
Fuel tank, volume	60L
Electric system	24V
Batteries	2 x 12V, 70Ah
Tramming light	8 x 70W
Working light	2x200W, 24V
Central lubrication system	Yes
Fire extinguisher	1 x6 kg

Gradeability at max.load on drive wheels	1:4
Silencer	Yes
Catalyzer	Yes
Tramming speed on flat ground	>10 km/h
Tramming speed on incline 1:8	> 4km/h
Outlet for communication radio and USB	Yes

Measurements







Turning radius(depending on surface)	
Outer	4400mm
Inner	2500mm
Ground clearance	260mm

Recommended cablesize and length		
Voltage	Dimension	Length
380V	4×30mm2	80m
660V	4x25mm2	100m
1140V	3x25+3x6mm2	145m

Protection color in yellow/ green/ customer's requirement

Recommendations are givenfor surrounding temperature of 40°C

Documentation:

2 x Operator's manual
2 x Maintenance manual
2 x Technical manual (in English only)
2 x Parts manual (in English only)
4 x CD of manuals (PDF files)