



ROCK DRILLING EQUIPMENT

Sunward Intelligent Equipment Co., Ltd.

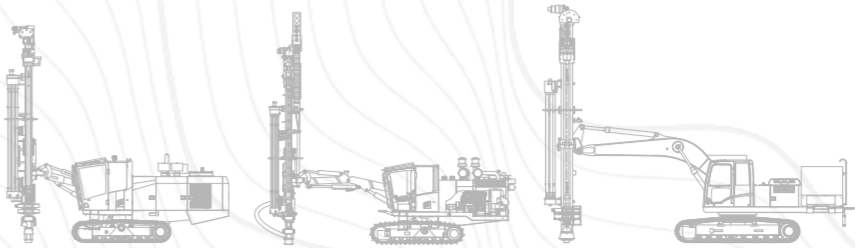
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Please read the operation and maintenance manual carefully first for proper use of the equipment. Sunward will make continual improvement, however, it may not be possible for us to inform you of all improvements to the products. This illustration is only used for reference and will be finally interpreted by Sunward.
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SWD EN 2025.1



SUNWARD

GROUP PROFILE

Sunward was founded in 1999 principally by He Qinghua, a professor of Central South University.

In December 2018, Sunward signed a "Share Transfer Framework Agreement" with Guangzhou Industrial Investment Holding Group Co., Ltd. (GIHG), making GIHG the first majority shareholder and actual controller of Sunward.

The Company has now developed into an international enterprise group with a certain influence at home and abroad with a listed company, i.e. Sunward Intelligent Equipment Co., Ltd. as the core and Changsha as the headquarters.

The Company strategically positions at "One Point, Three Lines" and "One Body, Two Wings", focusing on equipment manufacturing industry, comprehensively developing in the three major fields of engineering equipment, special equipment, and aviation equipment, and continuously launching products with global influence by strategically rooting from Hunan and Guangdong.

Now the Company is a leading enterprise in underground engineering equipment in China, one of the top 50 global engineering machinery manufacturers, and one of the top 3 global regional aircraft leasing enterprises, and has been selected as one of the top 50 intelligent manufacturing companies in China.

Pioneering innovation is the core for the development of Sunward. Compared to the followup innovation on the market, pioneering innovation is a more complex and difficult whole process product development model, a higher level of independent innovation, and the main way to achieve the transition from Made in China to Created in China at present!

At the beginning of its establishment, Sunward proactively established a pioneering innovation model and system, bringing differentiated development opportunities to the enterprise, and taking innovation as a "gene" rooted in the life of the enterprise, forming a product group with distinct Sunward characteristics and significant differentiation.

In more than 10 fields such as underground engineering equipment, full series excavators, high-altitude machinery and package mining equipment, mine equipment, hoisting machinery, oil and gas pipeline equipment, hydraulic components, special equipment, and general aviation equipment, the company has successfully developed more than 200 specifications and types of high-end equipment products with independent intellectual property rights and core competitiveness and has exported them to more than 100 countries and regions in batches.



- 1980s
- Started to develop rock drill, underground bench rock drill and open-air drill
- 2003
- Launched China's first electric all-in-one DTH drill
- 2005
- The all-in-one DTH drill passed product appraisal, New Products of Hunan Province
- 2007
- China's first channel drill, broke the construction record of 50m underwater
- 2009
- The industry's first high-speed rotary cutting drill appeared
 - The channel drill was rated as the Key New Product of Hunan Province
- 2011
- The "Key Technology and Productization of High-performance Cutting Drill"
 - was awarded the "Second Prize of Science and Technology" in Changsha City
- 2013
- The SWDB200 large-diameter DTH drill broke through the life exclusion zone of 5000m above sea level in Tibet
- 2016
- The "full hydraulic drill" project was approved as the "100 key new products promotion plan" in the field of industry in Hunan Province
- 2019
- The spiral cutting drill refreshed the cost record of drilling in soft coal seam
- 2022
- The SWDE152I 5G Intelligent Drill won the honorary title of "China's Star Product of Machinery Intelligent Equipment"

- 2000
- Elected in the National "863" Program and launched China's first tunneling rock drilling robot
- 2004
- Launched China's first diesel/electric all-in-one DTH drill
 - The all-in-one DTH drill won the First Prize for Scientific and Technological Progress in Changsha Economic and Technological Development Zone
- 2006
- The all-in-one DTH drill passed high-tech product appraisal of Hunan Province and won the First Prize for Scientific and Technological Progress in Hunan Province
- 2008
- Boom type DTH drill was put on the market
- 2010
- SWDH series open-air hydraulic drill was successfully launched, breaking the international monopoly of diesel/electric all-in-one DTH drill to market
- 2012
- The spiral pile drill was exported to Japan in batches
 - The all-in-one hydraulic DTH drill was jointly recognized by the Ministry of Science and Technology, the General Administration of Environmental Protection, the Ministry of Commerce and the General Administration of Quality Supervision, Inspection and Quarantine as "New Product of the Nation"
- 2015
- The SWDT series rock drilling platform was successfully assembled
- 2017
- The diesel/electric dual-arm rock drill realized the first sale
- 2020
- The intelligent drilling rig was successfully assembled, opening a new era of intelligent mining

CHINA'S LEADING BRAND OF HIGH-END ROCK DRILLING EQUIPMENT



Split DTH Rig

- ◆ SWDQ series crawler hydraulic down-the-hole drilling rig, with comprehensively optimized structure, lower advance cost and more ergonomic design.
- ◆ With diesel engine-hydraulic pump unit as power source, the hydraulic motor completes the auxiliary actions such as slewing, propulsion, lifting, traveling and hydraulic oil cylinder swing positioning of the drilling rig. The product is mainly used for drilling and blasting holes in hydropower projects, open-pit mining and road construction.



Off-road capability

- ◆ The vehicle body is designed with a gravity shaft device, which reduces the frictional resistance during traveling, enhances the firmness of the connection between the body and the track, so the chassis of the drilling rig is more durable and not easy to deform.
- ◆ The passability when crossing a slope and longitudinal gradeability can reach 20° and 35°, respectively.

Slewing power head

- ◆ Spur-gear reduction gear, with low temperature rise, high carrying capacity and long service life.
- ◆ The slewing speed can be adjusted according to the rock hardness.
- ◆ The slewing head is equipped with Eaton hydraulic pump, which works stably.
- ◆ The standard configuration is equipped with a reinforced shock-absorbing joint to reduce the damage to the slewing reduction gear caused by the impact reaction force of drill holes.

Dust removal device

- ◆ The pulse jet blowing dust removal technology features strong dust removal ability with high efficiency, small air leakage rate, as well as low emission concentration and energy consumption, enabling the dust collector to operate in a stable and reliable manner and protect the health of operators.
- ◆ High-quality filter material ensures the dust removal efficiency and service life.

Item		SWDQ120	SWDQ138
Main parameters			
Hole diameter	mm	90-152	90-178
DTH hammer	"	3.5、4、5	3.5、4、5
Tube diameter	mm	64、76	76、89
Tube length	m	3m×7	3m×7
Maximum hole depth	m	21	21
Dust collector	-	Dry cleaning system	
Air compressor			
Working pressure	bar	17-25	17-25
Engine			
Brand	-	YuChai	YuChai
Model	-	YC4A100-T302	YC4A100-T302
Power rating	kW/rpm	73.5/2200	73.5/2200
Fuel tank volume	L	155	155
Feed system			
Total length	mm	5750	5750
Feed extension	mm	1200	1200
Feed force	kN	12.5	12.5
Pitch angle	°	135	135
Turning angle	°	L30 R90	L30 R90
Drill boom			
Lifting angle	°	-22-65	-22-65
Swing angle	°	L45 R40	L45 R40
Carrier			
Tramming speed	km/h	3.2	3.2
Gradeability	°	35	35
Rotary head			
Rotation speed	rpm	0-110	0-85
Torque	Nm	2300	3500
Dimension			
Weight	kg	7200	7200
L × W × H (work)	m	4.8×2.8×5.8	4.8×2.8×5.8
L × W × H (Transportation)	m	5.8×2.2×2.3	5.8×2.2×2.3

DTH Drilling Rig (without cab)

Two-stage screw air compressor is adopted, which is suitable for rock drilling operations in open-pit coal mines, metal mines and limestone mines.



Reliable air supply

◆ The heavy-duty two-stage compression screw main machine from international famous brand is designed with unique sealing groove lines at the root and crest of the rotor teeth, which minimizes the internal leakage of the rotor and can provide sufficient displacement and pressure, leading to small shaft power and low energy consumption.

Steady power

◆ Turbocharged engine has stable and strong power and low fuel consumption, meeting China IV standards in terms of energy saving and environmental protection.

Intelligent fuel saving

◆ The intelligent control system accurately controls the compressor system according to the actual working conditions and significantly reduces fuel consumption.

Automatic drill pipe connecting/disconnecting

◆ The automatic drill pipe connecting/disconnecting device, which is efficient and fast, reduces the labor intensity of operators and improves work efficiency and safety performance.

Efficient dust suppression

◆ The two-stage dry-type dedusting effectively reduces dust pollution, protects the environment and decreases the risk of occupational diseases for workers.

Easy maintenance

◆ The gull-wing side door provides spacious maintenance space, and the maintenance and adjustment positions of the engine, compressor and hydraulic system are within easy reach.

Convenient transfer

◆ Single-tooth track has excellent grip performance, showing good traveling performance in rainy and snowy days and scum environment.

Item		SWDE120Q	SWDE138Q	SWDE152Q
Main parameters				
Hole diameter	mm	90-115	90-138	90-152
DTH hammer	"	3.5、 4	3.5、 4、 5	3.5、 4、 5
Tube diameter	mm	64/76	64/76	76/89
Tube length	m	3m × 7	3m × 7	3m × 7
Maximum hole depth	m	21	21	21
Dust collector	-	Dry (standard) water mist (optional)		
Air compressor				
Working pressure	bar	20	20	20
FAD	m³/min	17	19	21
Engine				
Brand	-	YuChai	YuChai	YuChai
Model	-	YCA08260-T300	YCA08300-T300	YCK09360-T301
Power rating	kW/rpm	191/2200	221/2200	265/2200
Fuel tank volume	L	500	500	500
Feed system				
Total length	mm	6500	6500	6500
Feed extension	mm	1000	1000	1000
Compensation stroke	mm	3950	3950	3950
Feed force	kN	17	17	17
Pitch angle	°	140	140	140
Turning angle	°	-30~90	-30~90	-30~90
Drill boom				
Lifting angle	°	50~30	50~30	50~30
Swing angle	°	L46 R30	L46 R30	L46 R30
Carrier				
Tramming speed	km/h	1.8/3.6	1.8/3.6	2/4.2
Gradeability	°	25	25	25
Track oscillation	°	±10	±10	±10
Rotary head				
Rotation speed	rpm	0-150	0-130	0-110
Torque	Nm	2400	3000	3800
Dimension				
Weight	kg	11500	12000	13000
L × W × H (work)	m	5.9×2.5×6.6	5.9×2.5×6.6	5.9×3.1×7.0
L × W × H (Transportation)	m	7.7×2.5×3.3	7.7×2.5×3.3	7.6×2.75×3.3

Boom type DTH Drilling Rig

- ◆ The new generation of integrated down-the-hole drilling rig is specially designed for high productivity, and created for green and intelligent drilling and blasting.
- ◆ The series of down-the-hole drilling rigs have a drilling diameter of 90-230mm and a maximum drilling depth of 36m.
- ◆ Meeting the drilling needs of vertical, inclined and horizontal blasting holes under various geological conditions, with high hole-forming efficiency, low energy consumption and environment-friendly skills.
- ◆ The unique one-click switching between down-the-hole mode and cutting mode allows drilling operations on both soft and hard rock stratum, which expands the application range, reduces construction costs and improves construction efficiency.



Accurate and flexible

- The multi-angle heavy-duty drill boom has large carrying capacity, and the drilling positioning is quick and convenient.
- ◆ Drilling of vertical, inclined and horizontal multi-degree blasting holes can meet various geological requirements.
- ◆ The down-the-hole/cutting dual operation mode adapts to various rock strata, that is, down-the-hole mode for hard rock stratum and cutting mode for soft rock stratum.
- ◆ Sunward's patented high-torque slewing power head is simple in structure, with high rotation speed and large torque. It can avoid sticking and loss of drilling tools.
- ◆ The cold-drawing drilling rig has good integrity and high strength.

Intelligent and Efficient

- The new electronic monitoring system displays the real-time parameters of engine, air compressor, hydraulic system, etc and controls the operation status of the drilling rig.
- ◆ The self-diagnosis fault alarm immediately provides solutions, with built-in maintenance tips.
- ◆ The hole depth and inclination measurement system displays the real-time drilling depth.
- ◆ The control system of rock self-adaptation drilling rig effectively reduces the sticking and loss of drilling tools.
- ◆ Sunward Cloud, the intelligent IoT cloud platform, provides synchronous data transmission, displays real-time construction progress and drilling rig status, and efficiently manages multiple devices.
- ◆ The RTK positioning system has the functions of remote hole arrangement, hole sequence planning and operation statistical report output. It can realize common bottom control of platform and digitally manage rock drilling operations.

Environment friendly

- Cyclone+Laminar flow two-stage dedusting system, equipped with imported high-power dedusting motor.
- ◆ Patented anti-top impact device, with dust removal efficiency of more than 95%.

Safe and comfortable

- The universal four-wheel one-track for excavators, with reinforced wear-resistant track link, large ground clearance, and high-torque traveling motor, can meet the operation requirements of various scenarios.
- ◆ Cab with FOPS (Falling Object Protective Structure) and ROPS (Rollover Protective Structure) certification.
- ◆ Comfortable working environment with wide field of view, suspension seat, micro-pressurization and fresh air system.

Strong power

- Technology upgrading route of high-pressure common rail + DOC + DPF + SCR.
- ◆ Optimal balance of emission control, economic benefits and power efficiency.
- ◆ The efficient drilling performance of original and imported AIRMAN head greatly improves work efficiency.

Easy maintenance

- Maintenance and parameter adjustment can be easily completed on the ground, which is safer, more convenient and more efficient.
- ◆ The maintenance position and parameter adjustment panel are on the cab side, facilitating check of adjustment effect in time and saving man-hours.



Item		SWDE120B	SWDE138B	SWDE152B	SWDE165B	SWDE180B	SWDE200B
Main parameters							
Hole diameter	mm	90-138	115-152	138-165	138-180	138-203	165-230
DTH hammer	"	3.5、 4、 5	4、 5	5、 6	5、 6	5、 6、 7	6、 8
Tube diameter	mm	76	76、 89	102	102、 114	102、 114	114、 127
Tube length	m	4m×7	4m×7	6m×6	6m×6	6m×6	6m×6
Maximum hole depth	m	28	28	36	36	36	36
Dust collector	-	Dry (standard) water mist (optional)					
Air compressor							
Working pressure	bar	20	21	21	25	25	24
FAD	m³/min	18	20.5	20.5	28.1	29.8	34.6
Engine							
Brand	-	Cummins	Cummins	Cummins	Cummins	Cummins	Cummins
Model	-	QSC8.9-C325-30	QSL8.9-C360-30	QSL8.9-C360-30	X12CS3375	X12-C500-T0	QSM15-563-CS3
Power rating	kW/rpm	242/2100	264/2100	264/2100	336/1800	373/1800	563/2100
Fuel tank volume	L	450	590	730	730	730	730
Feed system							
Total length	mm	7350	7350	10520	10520	10520	10520
Feed extension	mm	1200	1200	1300	1300	1300	1300
Feed force	kN	30	30	45	45	45	45
Pitch angle	°	140	140	140	140	140	140
Turning angle	°	-20-90	-20-90	-20-90	-20-90	-20-90	-20-90
Drill boom							
Lifting angle	°	50~-20	50~-20	50~-30	50~-30	50~-30	50~-30
Swing angle	°	L20 R32	L20 R32	L15 R45	L15 R45	L15 R45	L15 R45
Carrier							
Tramming speed	km/h	3.2	3.2	3.2	3.2	3.2	3.2
Traction force	kN	110	110	180	180	180	180
Gradeability	°	25	25	25	25	25	25
Track oscillation	°	±10	±	±10	±10	±10	±10
Ground clearance	mm	438	104	480	480	480	480
Rotary head		38					
Rotation speed	rpm	0-120	0-130	0-150	0-150	0-150	0-150
Torque	Nm	3400	3800	5000	5500	5500	5800
Dimension							
Weight	kg	14500	15500	22500	23000	23500	24000
L × W × H (work)	m	7.9×2.5×7.7	8.2×2.5×7.7	9.2×2.7×10.6	9.5×2.7×10.6	9.5×2.7×10.6	9.5×2.8×10.6
L × W × H (Transportation)	m	10.0×2.5×3.5	10.3×2.5×3.5	12.2×2.7×3.8	12.3×2.7×3.8	12.3×2.7×3.8	12.3×2.8×3.8

Item		SWDE120S	SWDE138S	SWDE152S	SWDE165S	SWDE200S
Main parameters						
Hole diameter	mm	90-138	115-152	138-165	138-180	165-230
DTH hammer	"	3.5、 4、 5	4、 5	5、 6	5、 6	6、 8
Tube diameter	mm	76	76、 89	102	102、 114	114、 127
Tube length	m	4m×7	4m×7	6m×6	6m×6	6m×6
Maximum hole depth	m	28	28	36	36	36
Dust collector	-	Dry (standard) water mist (optional)				
Air compressor						
Working pressure	bar	20	20	21	25	25
FAD	m³/min	17.0	20.4	22.5	29.8	33.8
Engine						
Brand	-	Cummins	Cummins	Cummins	Yuchai	Cummins
Model	-	QSC8.9-C325-30	QSL8.9-C360-30	QSL8.9-C360-30	YCK11460-H300	QSZ13-C550
Power rating	kW/rpm	242/2100	264/2100	264/2100	338/2100	410/2100
Fuel tank volume	L	450	590	730	730	730
Feed system						
Total length	mm	7350	7350	10520	10520	10520
Feed extension	mm	1200	1200	1300	1300	1300
Feed force	kN	30	30	45	45	45
Pitch angle	°	140	140	140	140	140
Turning angle	°	-20-90	-20-90	-20-90	-20-90	-20-90
Drill boom						
Lifting angle	°	50~-20	50~-20	50~-30	50~-30	50~-30
Swing angle	°	L20 R32	L20 R32	L15 R45	L15 R45	L15 R45
Carrier						
Tramming speed	km/h	3.2	3.2	3.2	3.2	3.2
Traction force	kN	110	110	180	180	180
Gradeability	°	25	25	25	25	25
Track oscillation	°	±10	±	±10	±10	±10
Ground clearance	mm	438	104	480	480	480
Rotary head						
38						
Rotation speed	rpm	0-120	0-120	0-150	0-150	0-150
Torque	Nm	3400	3800	5000	5500	5800
Dimension						
Weight	kg	14500	15500	22500	23000	24000
L × W × H (work)	m	7.9×2.5×7.7	8.2×2.5×7.7	9.2×2.7×10.6	9.5×2.7×10.6	9.5×2.8×10.6
L × W × H (Transportation)	m	10.0×2.5×3.5	10.3×2.5×3.5	12.2×2.7×3.8	12.3×2.7×3.8	12.3×2.8×3.8

Elevated DTH Drilling Rig

□Four-point hydraulic outrigger, with good working stability.

◆Original in the industry, the elevated drilling rig has long drill pipe structure, leading to less auxiliary time and low drilling tool consumption.

◆The cab meeting ROPS and FOPS requirements has good vision and exquisite layout, allowing safe and comfortable operation.

◆Sunward Cloud, the intelligent control system, provides synchronous data transmission and displays real-time construction progress.



Item		SWDB165B		SWDB200B
Main parameters				
Hole diameter	mm	138-180		180-230
DTH hammer	"	5、 6		6、 8
Tube diameter	mm	133		146
Tube length	m	10m×3		10m×3
Maximum hole depth	m	30		30
Dust collector	-	Dry (standard) water mist (optional)		
Air compressor				
Working pressure	bar	25		24
FAD	m³/min	29.8		34.6
Engine				
Brand	-	CAT	Cummins	Cummins
Model	-	C15	QSM15CS3-755C	QSM15CS3-755C
Power rating	kW/rpm	403/2100	563/2100	563/2100
Fuel tank volume	L	1500	1500	1500
Feed system				
Total length	mm	14000		14000
Feed extension	mm	1800		1800
Feed force	kN	75		75
Carrier				
Tramming speed	km/h	3.2		3.2
Traction force	kN	180		180
Gradeability	°	25		25
Ground clearance	mm	480		480
Rotary head				
Rotation speed	rpm	0-105		0-65
Torque	Nm	6500		8000
Dimension				
Weight	kg	25000		30000
L × W × H (work)	m	8.2×5.6×15.5		8.2×5.6×15.5
L × W × H (Transportation)	m	15.5×3.4×3.8		15.5×3.4×3.8

Diesel-electric Integrated DTH Drilling Rig



□With the diesel-electric dual power, traveling is driven by diesel engine, which is flexible; operation is driven by electricity, which saves more energy.

◆The customized special vehicle transformer features low voltage drop, stable and safe operation, and low energy consumption.

◆Electrical components are dust-proof, moisture-proof and vibration-resistant, with a protection grade of IP65. Green energy helps to achieve low carbon and environmental protection.

◆The cab with ROPS and FOPS certifications has good vision and exquisite layout, as well as safe and comfortable operation.

◆Sunward Cloud, the intelligent control system, provides synchronous data transmission and displays real-time construction progress.

Item		SWDA165C	SWDA200C	SWDE165C
Main parameters				
Hole diameter	mm	138-180	180-230	138-180
DTH hammer	"	5、6	6、8	5、6
Tube diameter	mm	110、133	146	102、114
Tube length	m	8.5m×3	10m×3	6
Maximum hole depth	m	25	30	36
Dust collector	-	Dry (standard) water mist (optional)		
Air compressor				
Working pressure	bar	21	24	24
FAD	m³/min	28.3	30.3	30.3
Engine				
Brand	-	Cummins	Cummins	Cummins
Model	-	QSB4.5-C130-30	QSB4.5-C130-30	QSB4.5-C130-30
Power rating	kW/rpm	97/2200	97/2200	97/2200
Fuel tank volume	L	200	200	200
Electric Motor Max. power	kW	344	374	374
Feed system				
Total length	mm	11500	14000	10520
Feed extension	mm	1800	1800	1300
Feed force	kN	75	75	45
Carrier				
Tramming speed	km/h	3.2	3.2	3.2
Traction force	kN	180	180	180
Gradeability	°	25	25	25
Ground clearance	mm	480	480	480
Rotary head				
Rotation speed	rpm	0-105	0-65	0-65
Torque	Nm	6500	8000	5500
Dimension				
Weight	kg	28500	31500	32600
L × W × H (work)	m	9.6×4.7×11.5	9.6×4.7×15.5	10.6×4.6×10.6
L × W × H (Transportation)	m	11.5×3.6×3.5	15.5×3.6×3.5	13.8×3.5×4.2

Cutting and DTH Drilling Rig (excavator chassis)

Combining the advantages of excavator and rock drilling rig, the product has the functions of high-speed cutting and percussion drilling



Higher operation efficiency and better economy

- ◆The 360° rotation of the upper body effectively improves the working efficiency.
- ◆The two-speed propulsion mode features less auxiliary time and high comprehensive efficiency.
- ◆Reliable down-the-hole impactor and powerful air compressor ensure efficient and stable operation.
- ◆The integrated down-the-hole/cutting dual function adapts to various rock strata, that is, down-the-hole mode for hard rock stratum and cutting mode for soft rock stratum, effectively reducing operation cost.
- ◆The quasi-constant power hydraulic system control saves more fuel.
- ◆The autonomous identification of working status prevents sticking and improves operation efficiency.

Higher reliability

- ◆The buffering mechanism effectively protects the power head and drilling tools.
- ◆The enhanced thread and aerosol lubrication ensures a longer service life of the drill pipe.
- ◆Core components of international famous brands are selected, and the system design is reasonably matched.
- ◆Boom supports forging to improve stress distribution.
- ◆Reinforced platform has strong carrying capacity.

Better adaptability to working conditions

- ◆Universal excavator chassis, large ground clearance and strong off-road capability.
- ◆The power system has strong adaptability to plateau and oil products.
- ◆The standard low-temperature startup and intelligent temperature control system has good low-temperature adaptability.
- ◆Large slewing torque of the power head and strong pulling force of the heavy chain propulsion system can easily deal with adverse rock strata.

Safer and greener

- ◆Cab with ROPS & FOPS certification.
- ◆Interlocking of operation and adjustment mode.
- ◆Automatic fire extinguishing system.
- ◆Dry dedusting covering large filtration area; wet dedusting with high-pressure water mist.

Better adaptability

- ◆The panoramic cab, spacious and comfortable, features wide field of view and suspension seat.
- ◆Anti-vibration and noise isolation, superior to industry standards.
- ◆Air conditioner is equipped, not afraid of cold and hot weather.

Item		SWDR152B	SWDR165B	SWDR180B
Main parameters				
Hole diameter	mm	105-165	138-180	138-203
DTH hammer	"	4、 5	5、 6	5、 6、 7
Tube diameter	mm	76、 89、 102	89、 102、 114	102、 114
Tube length	m	5m×6	5m×6	5m×6
Maximum hole depth	m	30	30	30
Upper frame rotation angle	°	360	360	360
Dust collector	-	Dry (standard) water mist (optional)		
Air compressor				
Working pressure	bar	21	25	25
FAD	m³/min	20.5	28.1	29.7
Engine				
Brand	-	Cummins	Cummins	Cummins
Model	-	QSL8.9-C360-30	X12CS3375	X12-C500-T0
Power rating	kW/rpm	264/2100	336/1800	373/2100
Fuel tank volume	L	790	790	790
Feed system				
Total length	mm	9800	9800	9800
Feed force	kN	50	50	50
Carrier				
Tramming speed	km/h	3.5/5.6	3.5/5.6	3.5/5.6
Traction force	kN	200	200	200
Gradeability	°	25	25	25
Ground clearance	mm	480	480	480
Rotary head				
Rotation speed	rpm	0-200	0-200	0-200
Torque	Nm	5000	5000	5500
Dimension				
Weight	kg	28000	29000	29000
L × W × H (work)	m	10.7×3.7×9.8	11.6×3.9×9.8	11.6×3.9×9.8
L × W × H (Transportation)	m	15.6×3.0×3.6	15.6×3.1×3.6	15.6×3.1×3.6

SWDL PV Drilling Rig (solar drilling rig)

Combining the advan ages of excavator and rock drilling rig, the product has the functions of high-speed cutting and percussion drilling



Higher operation efficiency and better economy

- ◆The 360° rotation of the upper body effectively improves the working efficiency.
- ◆The two-speed propulsion mode features less auxiliary time and high comprehensive efficiency.
- ◆Reliable down-the-hole impactor and powerful air compressor ensure efficient and stable operation.
- ◆The integrated down-the-hole/cutting dual function adapts to various rock strata, that is, down-the-hole mode for hard rock stratum and cutting mode for soft rock stratum, effectively reducing operation cost.
- ◆The quasi-constant power hydraulic system control saves more fuel.
- ◆The autonomous identification of working status prevents sticking and improves operation efficiency.

Higher reliability

- ◆The buffering mechanism effectively protects the power head and drilling tools.
- ◆The enhanced thread and aerosol lubrication ensures a longer service life of the drill pipe.
- ◆Core components of international famous brands are selected, and the system design is reasonably matched.
- ◆Boom supports forging to improve stress distribution.
- ◆Reinforced platform has strong carrying capacity.

Better adaptability to working conditions

- ◆Universal excavator chassis, large ground clearance and strong off-road capability.
- ◆The power system has strong adaptability to plateau and oil products.
- ◆The standard low-temperature startup and intelligent temperature control system has good low-temperature adaptability.
- ◆Large slewing torque of the power head and strong pulling force of the heavy chain propulsion system can easily deal with adverse rock strata.

Safer and greener

- ◆Cab with ROPS & FOPS certification.
- ◆Interlocking of operation and adjustment mode.
- ◆Automatic fire extinguishing system.
- ◆Dry dedusting covering large filtration area; wet dedusting with high-pressure water mist.

Better adaptability

- ◆The panoramic cab, spacious and comfortable, features wide field of view and suspension seat.
- ◆Anti-vibration and noise isolation, superior to industry standards.
- ◆Air conditioner is equipped, not afraid of cold and hot weather.

ITEM		SWDL600
Main parameters		
Hole diameter		115-300
Pile drilling range	mm	76-114
Tube diameter	"	4、5、6、8
Tube length	mm	76/89/102/114/146
DTH hammer	m	-
Maximum hole depth	m	3.2
Dust collector	-	-
Air compressor		
Working pressure	bar	-
FAD	m³/min	-
Engine		
Brand/Emission	-	YuChai/Emission Stand III
Model	-	YCF3065-T300
Power rating	KW/rpm	48/2200
Fuel tank volume	L	145
Hydraulic system		
Hole diameter	L/min	140
System Pressure	MPa	28
Main Hydraulic pump calue	-	Hydraulic Control Pilot、Constant Power
Feed system		
Total length	mm	4900
Propulsion stroke	mm	3400
Feed extension	mm	-
Feed force	Kn	30
Pitch angle	°	120
Turning angle	°	-7-90
Carrier		
Tramming speed	km/h	2.2/4.2
Traction force	kN	75
Superstructure rotation	°	360
Gradeability	°	25
Ground clearance	mm	400
Rotary head		
Rotation speed	rpm	0-40
Torque	Nm	6000
Dimension		
Weigh	kg	9450
L × W × H(WORK)	m	5.7× 2.25× 5.2
L × W × H(Transportation)	m	8.5× 2.3× 3.6

Top-hammer Surface Drilling Rig

□Top-hammer Surface Drilling Rig is designed according to the operating conditions of small and medium-sized quarries and small open-pit mines,and is mainly used for drilling hard and medium-hard (F10 and above) rocks.

- ◆ It can be used for rock blasting and drilling in the construction of quarries, civil works, road projects, open-pit mines and hydropower plant, etc.
- ◆ This product is equipped with a high-efficiency hydraulic rock drill, with fast drilling rate, low energy consumption, flexible maneuverability and strong gradeability. It can be used for drilling operations in complex terrain.



- ### Low operating costs

 - ◆ The high-power hydraulic rock drill with reverse drilling function minimizes the probability of sticking.
 - ◆ The intelligent identification of rock stratum attributes prevents sticking and idle drilling, extending the service life of drilling tools.
 - ◆ The reasonable power matching of rock drill-air compressor-engine further reduces fuel consumption.
 - ◆ Constant power control.
 - ◆ Self-adaptation of operation status.

Good adaptability to working conditions

 - ◆ Dual operation mode, one-click switching between economic and intensive mode.
 - ◆ Small and flexible body with compact structure, strong gradeability and good terrain adaptability.
 - ◆ Folding arm structure with large coverage area in single positioning.
 - ◆ Meeting the drilling requirements of vertical, inclined and horizontal blasting holes.

High reliability

 - ◆ Core components of international famous brands are selected, and the system design is reasonably matched.
 - ◆ The product has withstood the tests of high temperature of 45°C in Laos, high altitude of 4,500m in Qinghai Province, China, and extreme low temperature of -30°C in Inner Mongolia, China.
 - ◆ The cold-drawing structure steel propulsion beam with double-sided guide rails is adopted, with high strength and good pilot accuracy.

- ### More intelligent

 - ◆ The intelligent monitoring system displays real-time operation parameters and maintenance tips.
 - ◆ The self-diagnosis fault system displays code prompt and provides quick solution.
 - ◆ The intelligent common-bottom control system accurately control the drilling angle and depth.
 - ◆ The self-adaptive drilling to rock strata reduces the sticking and the loss of drilling tools.
 - ◆ Sunward Cloud, the IoT control system, provides synchronous data transmission on APP and displays real-time construction progress.
 - ◆ Path planning, hole sequence planning, graphic guidance, and fast positioning.

Safety and environmental protection

 - ◆ Cab with ROPS & FOPS certification.
 - ◆ Interlocking of operation and adjustment mode.
 - ◆ Automatic fire extinguishing system.
 - ◆ Dry dedusting covering large filtration area.

Item		SWDH102S		SWDH115S
Main parameters				
Hole diameter	mm	76-115		89-127
Rod	-	T45/T51		T51
Tube length	mm	3660		3660
Maximum hole depth	m	24		24
Dust collector	-	Dry dust removal		Dry dust removal
Hydraulic rock drill				
Model	-	HC150E		HC160Q
Impact power	kW	21		21
Slewing torque	Nm	994		1612
Slewing speed	rpm	0-129		0-130
Air compressor				
Working pressure	bar	10		10
FAD	m³/min	10@2200rpm		12.8@2000rpm
Engine				
Brand	-	CUMMINS	CAT	CUMMINS
Model	-	QSC8.3-C240-30	C7.1	QSC8.9-C325
Power rating	kW/rpm	179/2200	168/2200	242/2100
Fuel tank volume	L	450		600
Feed system				
Total length	mm	7300		7300
Feed extension	mm	1200		1200
Pitch angle	°	140		140
Turning angle	°	-20-90		-20-90
Feed force	kN	30		30
Drill boom				
Type	-	Folding boom		Folding boom
Lifting angle	°	70~-10		70~-10
Folding angle	°	65-165		65-165
Swing angle	°	20~-30		20~-30
Carrier				
Tramming speed	km/h	4.2		3.2
Traction force	kN	110		110
Gradeability	°	25		25
Track oscillation	°	±10		±10
Ground clearance	mm	400		400
Dimension				
Weight	kg	15000		16500
L × W × H (work)	m	9.2×2.6×8.6		9.5×2.6×8.6
L × W × H (Transportation)	m	11.2×2.6×3.5		12×2.6×3.5



Rotary Blast Hole Drill

- High axial pressure, high torque, high rotation speed and large hole diameter provide superior production efficiency for your mining operation.
- The dual power system of motor and diesel engine and optional air compressor with high/low pressure or low air pressure are efficient, energy-saving and eco-friendly.
- The constant-power variable electro-hydraulic proportional control system is used to adjust the operation parameters automatically according to the rock stratum.
- Three-point floating leveling chassis and high-strength truss drill frame are equipped to offer high reliability.
- Two rock drilling modes (roller bit rotation and down-the-hole impact) offer good adaptability to working conditions and wide adaptability to rock strata.

Item		SWDRT200B			SWDRT250B	SWDRT250				SWDRT250BH
Drilling method	-	DTH/Rotary			Rotary	DTH/Rotary				Rotary
Type of power	-	Diesel			Diesel	Diesel				Diesel
Dust collector	-	Dry (standard) water mist (optional)								
Main parameters										
Rotary hole diameter	mm	180-216			200-250	180-216	180-230	200-250	200-230	200-250
DTH hole diameter	mm	165-203	-		-	180-230	180-255	-		180-255
Maximum hole depth	m	48			48	48				19
Drilling angle(Optional)	°	90(60-90)			90(60-90)	90(60-90)				90
Rock hardness	-	f4~f20			f4~f20	f4~f20				f4~f20
Tube diameter	mm	133、140、159、178			159、178、194	140、159、178、194				140、159、178、194、203
Tube length	m	10m×5			10m×5	10m×5				10m×2
Air compressor										
Working pressure	bar	24	8		8	20	25	8	7	20/24
FAD	m³/min	34.6	32		43	31.1	36.5	43	38	43/38.5
Power	kW	-	-		-	372/1800	410/1800	340/1800	264/2000	-
Prower group										
Brand	-	CUMMINS	CUMMINS	CAT	CAT	CUMMINS				CAT CUMMINS
Model	-	X15	X15	C15	C18	X12				C27 QSK23
Power rating	kW/rpm	447/2100	410/2100	403/2100	571/2100	277/2100				653/2100 641/2100
Fuel tank volume	L	1200			1800	1800				2500
Motor power	kW/V	-			-	-				-
Feed system										
Drill frame length	m	15			15	15				25
Feed length	m	11.6			11.6	11.6				21.5
Feed rate	m/min	35			30	30				30
Feed force	kN	160			220	220				350
Maximum bit load	kN	180			270	270				380
Retract speed	m/min	45			45	45				35
Carrier										
Tramming speed	km/h	2.4			1.8	1.8				1.5
Gradeability	°	≤20			≤20	≤20				≤14
Ground pressure	kPa	≤95			≤95	≤95				≤112
Rotary head										
Rotation speed	rpm	0-170			0-160	0-160				0-160
Torque	kNm	9			11.8	11.8				11.8
Power	kW	90			90	90				90
Dimension										
Weight	kg	48000-52000			65000-70000	65000-70000				94000-98000
L × W × H (work)	m	16.6×5.42×6.85			17×5.9×6.6	17×5.9×6.6				27.5×6.6×7.8
L × W × H (Transportation)	m	11×5.42×16.7			11.5×5.9×17.5	12.5×5.9×17.5				14.5×6.6×27.7

SWDRT270B	SWDRT270BH	SWDRT200E	SWDRT250E	SWDRT250EH	SWDRT270E	SWDRT270EH
Rotary	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
Diesel	Diesel	Electric	Electric	Electric	Electric	Electric
Dry (standard) water mist (optional)						
216-270	216-270	180-216	200-250	200-250	200-270	200-270
-	-	-	-	-	-	-
48	19	48	48	19	48	19
90(60-90)	90	90(60-90)	90(60-90)	90	90(60-90)	90
f4~f20	f4~f20	f4~f20	f4~f20	f4~f20	f4~f20	f4~f20
178、194、203、219	178、194、203、219	140、159、178	159、178、194	159、178、194、203	159、178、194、203、219	159、178、194、203、219
10m×5	10m×2	10m×5	10m×5	10m×2	10m×5	10m×2
8	8	8	8	8	7.5	7.5
53	50	53	50	32	42	42
-	-	-	-	220	250	250
CAT	CAT	-	-	-	-	-
C27	C27	-	-	-	-	-
597/2100	597/2100	-	-	-	-	-
2500	2500	-	-	-	-	-
-	-	160/380	160/380	160/380	200/380	200/380
15	25	15	15	25	15	25
11.6	21.5	11.6	11.6	21.5	11.6	21.5
30	30	35	30	30	30	30
350	350	160	220	350	350	350
400	380	180	270	380	400	380
45	35	45	45	35	45	35
1.5	1.5	2.4	1.8	1.5	1.5	1.5
≤20	≤14	≤20	≤20	≤14	≤20	≤14
≤106	≤112	≤95	≤95	≤112	≤106	≤112
0-150	0-150	0-170	0-160	0-160	0-150	0-150
13.8	13.8	9	11.8	11.8	13.8	13.8
90	90	80	90	90	90	90
88000-92000	94000-98000	48000-52000	65000-70000	88000-92000	88000-92000	94000-98000
17×6.6×7	27.5×6.6×7.8	16.6×5.5×6.85	16.5×5.9×6.6	27.5×6.6×7.8	17×6.6×7	27.5×6.6×7.8
14.5×6.6×17.5	14.5×6.6×27.7	11×5.5×16.7	12.5×5.9×17	14.5×6.6×27.7	14.5×6.6×17.5	14.5×6.6×27.7

Full Life Cycle Service

Pre-sales service

- Project investigation and field research
- Demand analysis and product recommendation
- Case sharing to promote development

In-sales service

- Complete training system and customized training scheme
- On-site delivery and installation, professional guidance
- Regular return visit and systematic communication

After-sales service

- Professional team, international warranty service
- Four-in-one accessory guarantee for efficient supply
- Service extension and co-creation of value



24-hour hotline

If you need any help, please dial the 24-hour after-sales service hotline 400-887-8230.



Reply in 15 minutes

Within 15 minutes, the after-sales service engineer will contact you, ask you about the equipment and service requirements, and handle the problem through telephone remote guidance.



Departure within 1 hour

If the troubleshooting fails to be conducted well through the guidance on the telephone, the service engineer will carry the maintenance tools to the site where the equipment is located for on-site maintenance service within 1 hour.



Arrival within 2 hours

The office service engineer will arrive at the site within 2 hours in the city, 12 hours in the province and 48 hours outside the province.



Handling of major situations

For major and special situations, the service system will launch a rapid response mechanism, an expert support mechanism and a green channel for accessories.



Telephone follow-up

After the completion of the on-site service, the call center of the company's headquarters will call back to track the quality and completion of the service, listen to the opinions and suggestions of clients and feed them back to various functional units for implementation and improvement so as to provide better service for clients.

Application Cases



Namibia-SWDE138A



Russia-SWDE165



The Line, Saudi Arabia-SWDH102S



Xinjiang, China-SWDR152



Yakutsk, Russia-SWDR250 roller-bit hole drilling rig



SWDE152I 5G Intelligent drilling rig



SWDE152B Slope operation



Democratic Republic of Congo-SWDE152B



Xinjiang, China-SWDR138