### SANY

# SR455-S

#### SANY

Rotary Drilling Rig	Metric	Imperial	
Pile			
Max. drilling diameter	2500 mm	98 in	
Max. drilling depth ①	106/69 m	347/226 ft	
Rotary drive			
Rated output torque	400 kN⋅m	295025 lbf×ft	
Rotation speed	7~26 rpm	7~26 rpm	
Crowd system			
Crowd force	405 kN	91048 lbf	
Line pull	405 kN	91048 lbf	
Stroke	9000/19000 mm	354/748 in	
Main winch			
Lifting capacity	400 kN	89924 lbf	
Wire rope diameter	36 mm	1.42 in	
Max. line speed	75 m/min	246 ft/min	
Auxiliary winch			
Lifting capacity	105 kN	23605 lbf	
Wire rope diameter	20 mm	0.79 in	
Max. line speed	80 m/min	262 ft/min	
Mast inclination			
Forward/backward	90/15 °	90/15 °	
Lateral	±3°	±3°	
Main chassis			
Engine model	Cummins X15	Cummins X15	
Engine power ISO 3046-1	391 kW/1800 rpm	524 HP/1800 rpm	
Emission regulation	EEC 97/68 EC	EPA/CARB	
Emission regulation	Stage V/	Tier4 final	
Fuel tank capacity	600 L	159 US gal	
AD Blue tank cpacity	45 L	12 US gal	
Width retracted/extended	3600-5000 mm	142-197 in	
Track shoe width	900 mm	35 in	
Swing radius	4900 mm	193 in	
Overall machine			
Overall height	27430 mm	1080 in	
Operating weight ②	137000 kg	302033 lb	
Transport width	3600 mm	142 in	
Transport height	3380 mm	133 in	
Transport Length	19570 mm	770 in	

①: Friction kelly / inter-locking kelly

②: with standard kelly

К	elly bar	Weight	Depth	Option
Inter-locking kelly	Ф530×4×17	16100 kg	61 m	
		35494 lb	200 ft	
	Ф530×4×18	16900 kg	65 m	Standard
		37258 lb	213 ft	
	Ф530×4×19	17700 kg	69 m	
		39022 lb	226 ft	
Friction kelly	Ф. Г. О 4.7	17400 kg	94 m	
	Ф530×6×17	38360 lb	308 ft	
	ΦΕΩΟΟ4.0	18300 kg	100 m	
	Ψ550×6×16	40345 lb 328 ft		
	Ф530×6×19	19200 kg	106 m	
		42329 lb	348 ft	

Note: Drilling depth with bucket 1000 mm long

#### INTELLIGENT CONTROL, EFFICIENT ROCK DRILLING

SR400M is a medium and large-sized winch crowded rotary drilling rig, featured with great rock drilling adaptability and low vibration. It can meet the requirements of long casing construction, and has excellent performance in housing construction and bridges.

Strong adaptability: ultra-long stroke winch crowd, realizing a faster conversion to any construction modes, can be matched with torque amplifier and automatic casing driver for long casing construction.

High efficiency: the rotary drive has sufficient torque and high crowd force, enables fast drilling and rock extraction; fast main winch line speed, and fast soil discharging speed; the engine with high continuous output power, and pump & valves ensures accurate control, fast and smooth compound action. The whole machine has high comprehensive construction efficiency to guarantee a quick return.

Superior quality: each key structural component undergoes the most stringent functional and performance tests, stable and reliable, long-lasting use without cracking faults; single-layer of main winch drum, ensures long service life of wire rope; no downtime, low cost.

Easy to operate: fully electric control system featured with fast response and precise control; configured with automation function, simplifying the operation and reducing the work intensity; a new generation of cabin, equipped with one-click startup button, electronic throttle knob, and convenient mechanical buttons, making it more convenient to operate.

Easy to maintain: stacked counterweight, convenient installation and removal, fast transferring; standard configuration of intelligent central lubrication system, time-saving and labor-saving; centralized filter arrangement, convenient replacement; left and right access ladders, full-sized catwalk, facilitating maintenance.

Convenient transportation: the center-mounted main winch can be transported in a single load with the base machine; foldable guardrail, and catwalk ensure the transport dimensions within limit; the cylinder-propelled pins on rotary drive and derricking mechanism facilitate removal and installation.

Torque-Speed (standard mode)

		Torque-Speed (standard mode)
		450 [kN·m]
		400 (400,7)
		350
		300
		250
<u> </u>		200
Ī		150 (144,26)
		100
		50
	SANY	o rpm
		5 10 15 20 25 30
		Torque-Pressure (rock drilling mode)
		350 [kN·m]
		300
		250
2/430 1080 in	4.	200
2/430 1080 in		
		150
		100
		50
		0 bar
		50 100 150 200 250 300 350
1350		
1350 53 in	1.	
	M's SRATO	3775 148.6 in 4150 163.4 in
•	The second second	92 48
▼		* Y
	4255~4565	4805
	167.5~179.7 in	189 in

Rotary Drilling Rig	Metric	Imperial		
Pile				
Max. drilling diameter	3000 mm	118 in		
Max. drilling depth ①	110/90 m	361/295 ft		
Rotary drive				
Rated output torque	455 kN⋅m	335591 lbf×ft		
Rotation speed	5~25 rpm	5~27 rpm		
Crowd system				
Crowd force	400 kN	89924 lbf		
Line pull	400 kN	89924 lbf		
Stroke	6000 mm	236 in		
Main winch				
Lifting capacity	560 kN	125893 lbf		
Wire rope diameter	40 mm	1.57 in		
Max. line speed	63 m/min	207 ft/min		
Auxiliary winch				
Lifting capacity	105 kN	23604 lbf		
Wire rope diameter	20 mm	0.79 in		
Max. line speed	80 m/min	262 ft/min		
Mast inclination				
Forward/backward	90/15 °	90/15 °		
Lateral	±3°	±3°		
Main chassis				
Engine model ②	TAD1385VE	TAD1385VE		
Engine power ISO 3046-1	405 kW/1900 rpm	543 HP/1900 rpm		
Emission regulation	EEC 97/68 EC	EPA/CARB		
Emission regulation	Stage V/	Tier4 final		
Fuel tank capacity	690 L	182 US gal		
AD Blue tank cpacity	45 L	12 US gal		
Width retracted/extended	3600-4900 mm	142-193 in		
Track shoe width	800 mm	32 in		
Swing radius	4910 mm	193 in		
Overall machine				
Overall height	29710 mm	1170 in		
Operating weight	158000 kg	348330 lb		
Transport width	3600 mm	142 in		
Transport height	3805 mm	150 in		
Transport Length	19650 mm	774 in		
1): Friction kelly /inter-locking kelly				

Friction kelly /inter-locking kelly

②: VOLVO

K	elly bar	Weight	Depth	Option
Inter-locking kelly	Ф580×3×19	18200 kg	51 m	
		40124 lb	167 ft	
	Ф580×4×19	20200 kg	68 m	
		44533 lb	223 ft	
	ΦΕΩΩ42Ω	21200 kg	72 m	Standard
	Ф580×4×20	46738 lb	236 ft	
	Ф580×5×20	23100 kg	90 m	
		50927 lb	295 ft	
Friction kelly	Ф580×6×19	21400 kg	104 m	
		47179 lb	341 ft	
	Ф580×6×20	22500 kg	110 m	
		49604 lb	361 ft	

Note: Drilling depth with bucket 800 mm long

## INTELLIGENCE , LARGE DIAMETER and DEEP PILE

SR455-S is suitable for pile foundation construction of housing, bridges, highways, high-speed railways and other large buildings. It can realize efficient drilling in granite, various types of weathered rocks, pebbles and other hard strata with intelligent functions and comfortable operating experiences.

Efficient construction: imported engine with high power and large displacement can realize real-time power distribution and efficient power output. Main winch with large reserve of line pull, large mechanical structure with high stability and reliability, rotary drive with high torque, enable high drilling efficiency and fast hole formation.

Strong rock drilling ability: rotary drive with three groups of motors and reducers can realize high torque and high speed output; the whole machine is equipped with positive control hydraulic system, the crowd force of cylinder is stable and strong.

Quick removal and installation: the pioneering self-disassembly technology on supporting trestle pin and rotary drive in the industry, which increases the disassembly efficiency by 5 times and makes the whole machine more convenient to transfer.

Intelligent control: advanced technology of auto soil dumping, intelligent drilling, auto drilling, etc., enable intelligent and efficient control of the whole machine.

Comfortable experience: the industrial design is grand and magnificent with comfortable operating experience taken into consideration; full electric control hydraulic positive control system, ensures efficient construction and fast response.

Convenient maintenance: double walking boards, double climbing ladders, single-side arrangement of filter elements, central lubrication system, facilitate maintenance.

