



BEIJING SANY INTELLIGENT TECHNOLOGY CO., LTD.

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This manual strives to be comprehensive and detailed based on existing information. Considering the continuous technological progress and updates of Beijing Sany Intelligent Technology Co., Ltd., modifications and adjustments to product technical parameters and configurations are made from time to time. Therefore, this product manual is for reference only. The actual appearance, configuration, and technical parameters of specific models are subject to the actual models sold by the dealer.

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SANY®

# SR175M

## ROTARY DRILLING RIG



NEW  
POWER



MORE  
ENERGY-SAVING



NEW  
TECHNOLOGY



MORE  
RELIABLE



NEW  
EXPERIENCE



MORE  
INTELLIGENT



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QUALITY CHANGES THE WORLD

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## BEIJING SANY INTELLIGENT TECHNOLOGY CO., LTD.

Beijing Sany Intelligent Technology Co., Ltd, as a key piling foundation and underground construction equipment manufacturer built by Sany Group, is deeply engaged in technology innovation and devotes itself to creating a new generation of foundation construction techniques and overall solutions; insists on casting industry benchmarks with craftsmanship, and provides customers around the world with one-stop experience with reliable quality, convenience, efficiency, flexibility and energy saving.

In September 2021, Beijing Piling Machinery Plant was honored by the World Economic Forum as the first "lighthouse factory" in the heavy machinery industry, designing 12 production lines with an automation rate of 83%. Workshop robots realized flexible welding, using machine vision and industrial robot assembly, production efficiency and product quality have been greatly improved, to achieve customers' personalized customization needs.



### Vision

Build first-class enterprises  
Foster first-class talents  
Make first-class contributions

### Mission

Quality changes the world

### Enterprise ethics

Be just and faithful  
Be thankful

### Operation principles

All for the customer  
All from innovation



## SANY GROUP

Founded in 1989, Sany Group is mainly engaged in the equipment manufacturing industry, and its products include: concrete machinery, excavating machinery, lifting machinery, road construction machinery, piling machinery, wind power equipment, port machinery, petroleum equipment, coal equipment, aerial working machinery, etc. At present, Sany concrete machinery is steadily ranked as the No. 1 brand in the world; excavating machinery has been the consecutive global sales champion since 2020, and has been the consecutive sales champion in the domestic market for many years; large-tonnage cranes, crawler cranes, piling machinery, coal excavation machinery, and port machinery are steadily ranked No. 1 in China.

Sany Group has industrial parks in Changsha, Beijing, Shanghai, Shenyang, Kunshan, Zhuhai, Chongqing, Xi'an and Urumqi, etc. Among them, Beijing Piling Machinery Plant and Changsha No. 18 Plant have been selected by the World Economic Forum as part of the Global Lighthouse Factory Network, which are the only two lighthouse factories in the global heavy industry. Sany Group also has R&D and manufacturing centers in the U.S., Germany, India, Brazil, and Indonesia, with its business covering the whole world, and its products have been exported to more than 150 countries and regions.



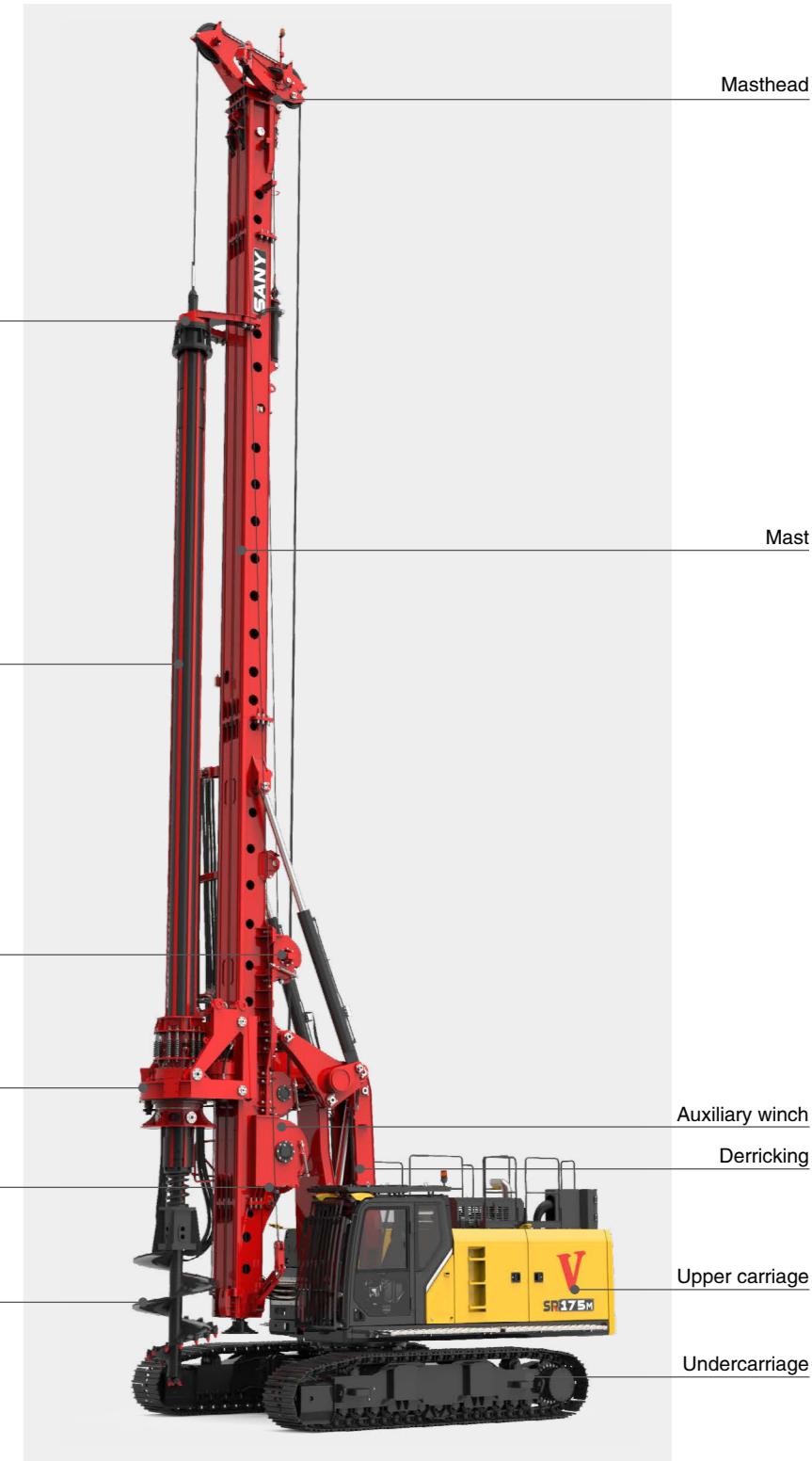


Sany rotary drilling rigs integrate the latest design concepts and technological achievements, aiming to provide users with safer, more reliable and more efficient construction solutions, especially suitable for large infrastructure pile foundation projects, such as highways, high-speed railways, high-rise buildings, bridges, oil drilling, river support, etc., which can significantly improve the construction efficiency, reduce the cost, and at the same time reduce the impact on the environment.

## SR175M Rotary drilling rig

### Main parameters

- >> Max. drilling diameter: 1500 mm
- >> Max. drilling depth: 61/58 m
- >> Max. torque: 185 kN · m
- >> Overall height: 20.5 m
- >> Engine: B6.7/209 kW



### Multi-functional



SR125

Max. drilling dia.: 1500 mm  
Max. drilling depth: 41/31 m

SR175M

Max. drilling dia.: 1500 mm  
Max. drilling depth: 61/58 m

SR285M

Max. drilling dia.: 2200 mm  
Max. drilling depth: 94/61 m

SR400M

Max. drilling dia. 2500 mm  
Max. drilling depth: 103/86 m

## Safe and comfortable cab

- >> Front/top guardrails, with the enhanced top guard
- >> ROPS-certified
- >> Seat belt alarm
- >> Safety hammer and fire extinguisher in cab
- >> Large sunroof and roof wiper
- >> Long front window wiper with double arms
- >> High-efficiency air-conditioning
- >> Extensively insulated to minimise noise
- >> Air suspension driver's seat with a high seat backrest and individual adjustment options



## SANY-ADMS Intelligent control system

- >> 12.8-inch high-definition touch screen
- >> EPAD panel
- >> Friendly UI operation interface
- >> Digital analog display for locking device
- >> L3 level intelligent construction assistance
- >> Grouting construction management system
- >> Bluetooth
- >> MySANY digital housekeeper, providing online customer service, one-key call, spare parts query, equipment monitoring, operation statistics and other functions



## Easy to disassemble and transport

- >> Automatic upper mast folding and unfolding
- >> Masthead automatic folding
- >> Masthead can be folded when transported, reducing the transportation length
- >> Transport with kelly bar
- >> Kelly bar fixed firmly, easy to disassemble



## Power with high performance

- >> Euro 5/Tier 4f dual certification
- >> Electronically controlled silicone oil clutch fan, more energy-saving
- >> Low noise and low fuel consumption
- >> Non-sensory regeneration, easy to operate
- >> More convenient service outlets



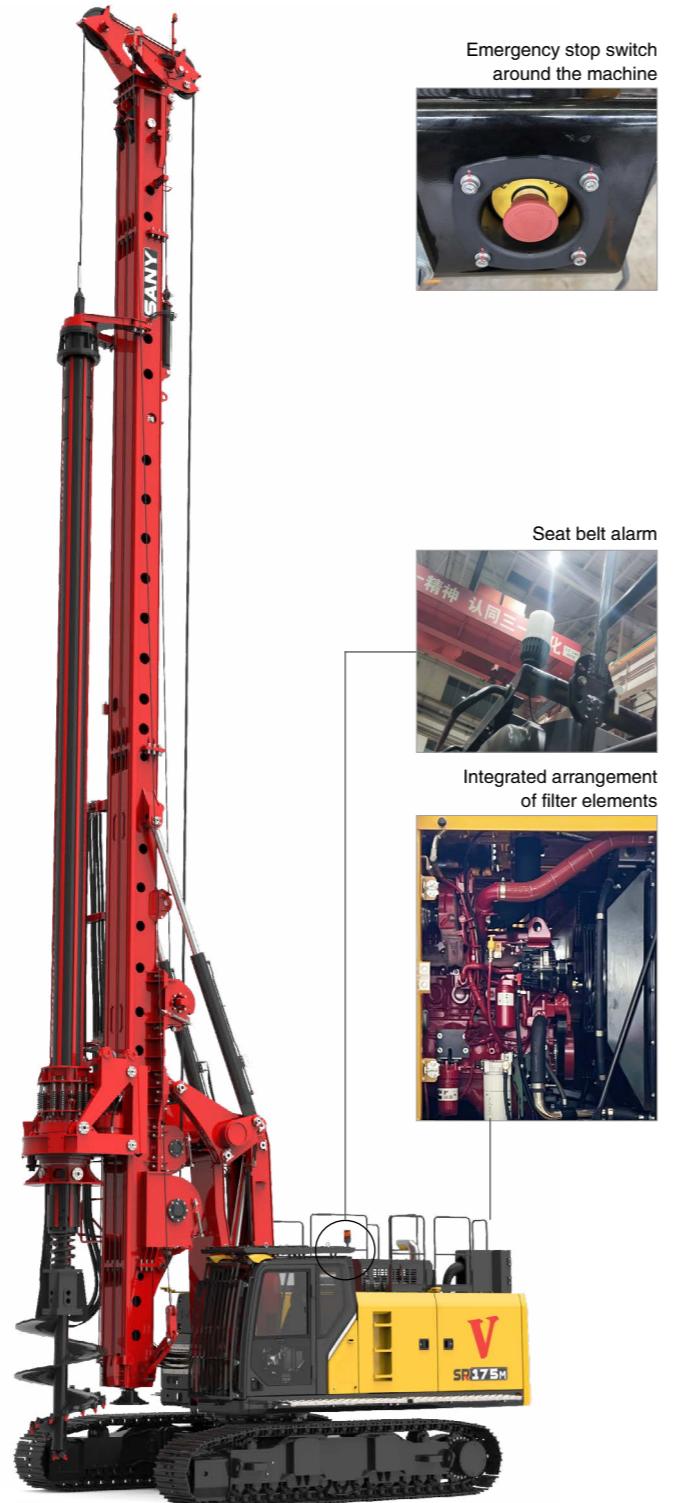
## Intelligent operation

- >> Auto-freefall
- >> Auto shaking-off debris
- >> One-touch shaking-off debris
- >> Intelligent drilling
- >> Intelligent crowding
- >> One-way spin-off



## All-round safety protection

- >> Safety hammer and fire extinguisher in cab
- >> Delayed shutdown of headlights
- >> Emergency stop switch around the machine body
- >> Sound and light alarm for slewing and traveling
- >> Hydraulic oil leakage and low level alarm
- >> 360° Surround View Monitoring
- >> Top aviation warning light
- >> Chassis level monitoring and warning
- >> Derricking monitoring and alarm



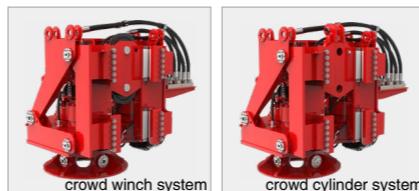
## Modular design of mast

- >> Super large hole construction can be realized
- >> Low headroom construction can be achieved
- >> Foldable mast to realize minimum transport length



## Powerful rotary drive

- >> Multi-gear control for efficient drilling in different formations
- >> Triple buffer to reduce construction impact
- >> Deep hole drilling motor protection technology
- >> Long guide design, high drilling verticality
- >> Multiple soil dumping modes to improve efficiency
- >> Standard spin-off reduces, max. speed 100 rpm
- >> Crowd winch or crowd cylinder to be choice



## New generation Kelly bar

- >> High strength steel pipe material
- >> Upgraded structural, improving quality
- >> 100% robot auto welding on key welds
- >> 100% flaw detection on key welds, zero defects



## Multiple customization options

- >> Multiple configurations to meet personalized customization
- >> Recommend the best construction plan to maximize the return on investment



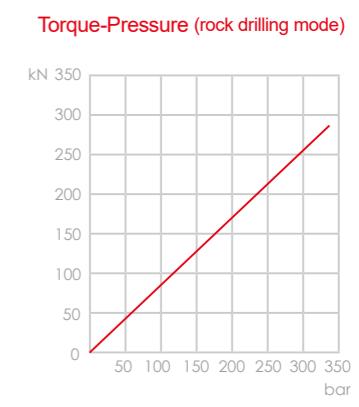
# Technical parameters

	Unit	Standard	Spin off
 Rotary drive			
Rated output torque	kN·m	185	185
Max. rotation speed	rpm	31	100
 Crowd system		Crowd winch	Crowd cylinder
Max. crowded force push	kN	240 (nominal)	200
Max. crowded force pull	kN	240 (nominal)	140
Stroke	mm	15000	5200
Rope diameter	mm	20	/
Standard mode speed (push/pull)	m/min	7	4.5/9.5
Fast mode speed (push/pull)	m/min	21	/
 Main winch		M6/L3/T5	
Line pull	kN	185	
Rope diameter	mm	28	
Max. line speed	m/min	75	
 Auxiliary winch		M6/L3/T5	
Line pull	kN	80	
Rope diameter	mm	16	
Max. line speed	m/min	75	
 Chassis			
Engine model	/	Cummins B6.7	
Engine power	kW/rpm	209/2000	
Emission	/	Stage V/Tier 4 final	
Fuel tank/AD blue tank capacity	L	380 L/46 L	
Sound pressure level in the cabin	dB	LPA 75	
Sound power level	dB	LPw 113	
Hydraulic pressure	bar	343	
Hydraulic oil tank capacity	L	450	
Crawler width (extension)	mm	3000~4000	
Track shoe width	mm	700	
Tail radius	mm	3985	
Traction force	kN	305	

Kelly bar	Model	Weight(kg)	Depth(m)	S/O	Remark
Interlocking	Φ406×4×9	5820	30	Standard	①
Interlocking	Φ406×4×11	7220	38	Option	
Interlocking	Φ406×4×13	8410	46.5	Option	
Interlocking	Φ406×5×13.5	8710	61	Customize	America version
Friction	Φ406×5×12.5	7700	55.5	Standard	②
Friction	Φ406×5×13	8100	58	Option	

Note:  
※ Standard kelly bar needs to choose one from ① and ②.

# Technical parameters

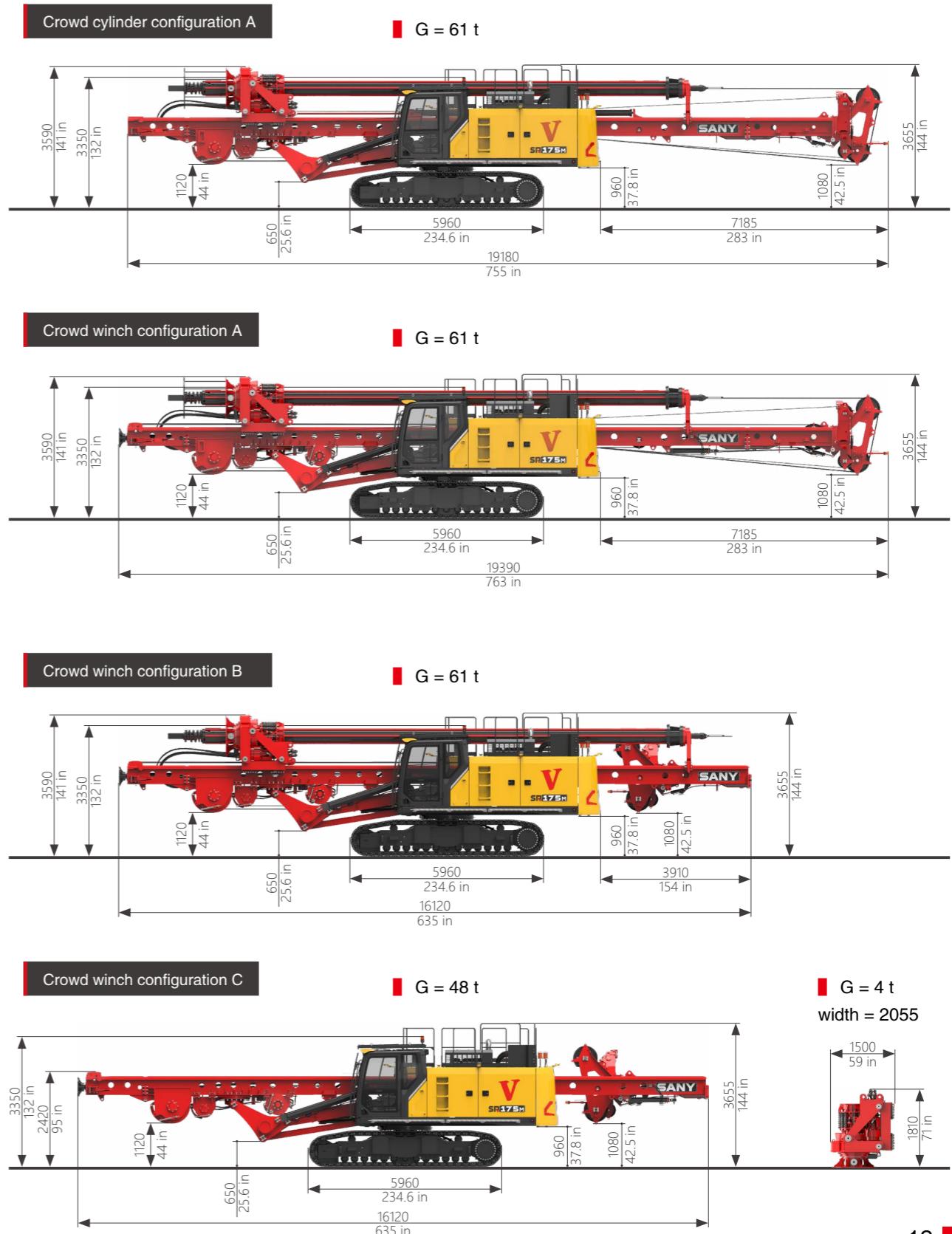


# Machine dimensions



Drilling configuration	Unit	Crowd winch	Crowd cylinder
Max. drilling diameter	mm	1000(casing) 1300(nocasing)	1500
Max. drilling depth (inter-locking)	m	61	61
Max. drilling depth (friction)	m	58	58
Stroke	mm	15000	5200
Mast	/	Standard mast	Standard mast
Remark	/	/	/

# Transport dimensions



# Construction Cases

No matter what kind of terrain environment, SANY rotary drilling rigs can work easily.

With characteristics of wide application, high construction efficiency, stable performance, excellent service, environmental protection and energy saving, SANY rotary drilling rigs are widely used in pile foundation of civil engineering, high-speed rail, highway, bridge, airport, water conservancy and hydropower engineering, etc. No matter in city, desert, snow, mountain or river, with suitable drilling head and construction method, all construction issues can be resolved easily by SANY rotary drilling rigs.



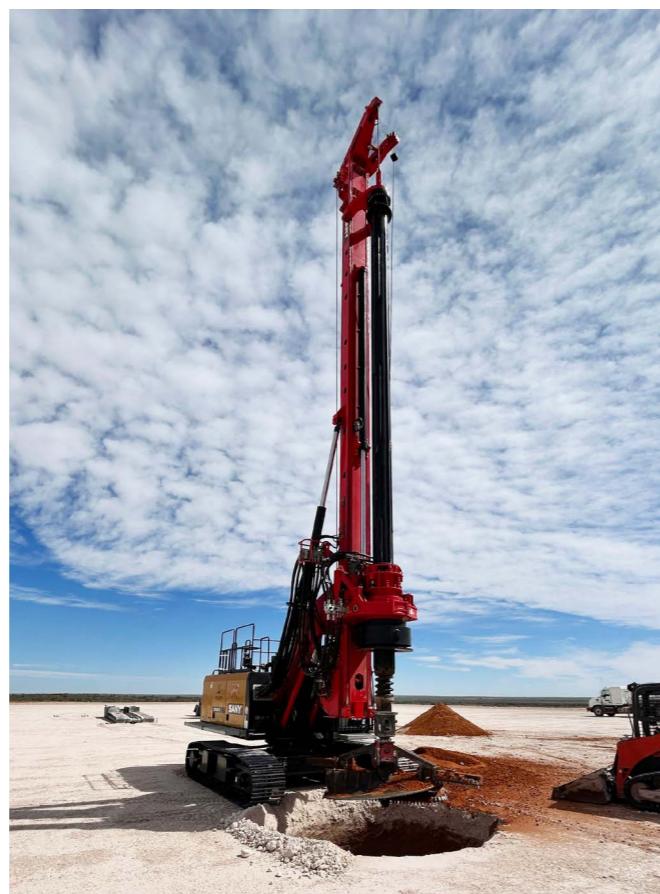
Turkey newspaper reported SANY two SR285R rotary drilling rigs



SR175-S in Hubei province, China



SR285MV is working in Turkey



SR125-V were drilling in the US with  $\Phi 3m$  short auger

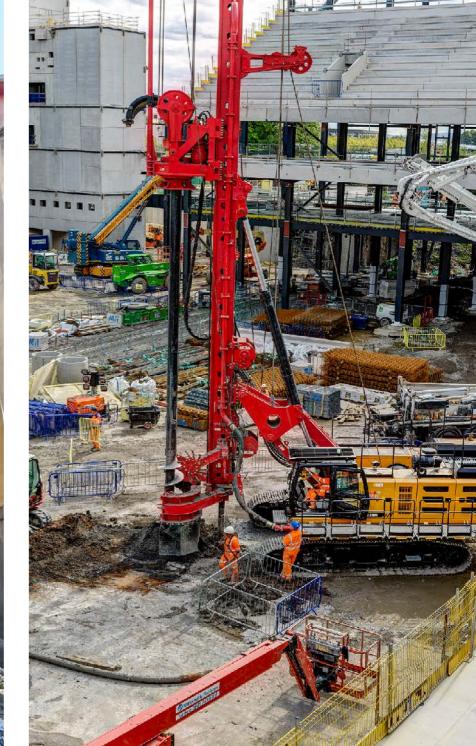
SR285MV in China with low headroom



SR285MV in Turkey with short auger and long casing



SR285MV under casing construction



SR235MV in Manchester, UK with CFA



SR125-V in the US with bailing bucket



SR285R in Yunnan, China with long auger



SR400M in Turkey with casing adapter

# Service Commitments



## Service Network/Parts Warehouses

- Parts Warehouses
- Ⓐ Service Network



