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# XR系列旋挖钻机

XR SERIES ROTARY DRILLING RIG



徐工基础工程机械事业部  
XCMC FOUNDATION CONSTRUCTION MACHNESY BUSINESS DIVISION

## 徐工基础工程机械事业部

XCMC FOUNDATION CONSTRUCTION MACHNESY BUSINESS DIVISION

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## 企业简介

### Company Profile

徐工基础工程机械事业部（简称徐工基础），是徐工集团主机产品核心事业部之一，包含2010年成立的基础公司和铁装公司。徐工基础事业部是研制、生产、销售桩工机械、非开挖机械、煤矿掘进机械、能源钻采机械、隧道装备、矿山设备、铁路装备的专业化制造企业。目前拥有全球最大吨位的旋挖钻机和水平定向钻机，“徐工旋挖钻机、水平定向钻机”连续八年稳居国内市场第一，2019年徐工基础蝉联由国家工业和信息化部评选的“制造业单项冠军示范企业”，旋挖钻机和水平定向钻机智能制造车间被评为“江苏省示范智能车间”，产品出口至欧洲、美洲、非洲、东南亚等全球80多个国家和地区。

事业部聚焦于地下工程领域，深耕地下岩土及资源的“钻、掘、采”产品和工法技术，

不断优化成套化产品板块群，成为全球最大的钻采类机械研发生产基地和综合服务提供商。

面向“十四五”，徐工基础正在实施“智能+生态”的千亩新型产业园方案，规划建设基础工程机械工业园区，提升桩工机械、煤矿、资源钻采机械等产品智能化生产能力和关键结构件制造能力。目前事业部正以高质量发展速度迈向百亿级企业、致力于打造世界桩工机械第一品牌。

XCMG Foundation Construction Machinery Business Division (XCMG Foundation for short) is one of the core business divisions of XCMG main machine products, including Foundation Company and Railway Equipment Company that were both established in 2010. XCMG Foundation Business Division is a specialized manufacturing enterprise that develops, produces and sells piling machinery, non-excavation machinery, coal-mine tunneling

machinery, energy resource exploitation machinery, tunnel equipment, mine equipment and railway equipment. At present, it owns the world's largest tonnage rotary drilling rig and horizontal directional drilling rig. The rotary drilling rig and horizontal directional drilling rig of XCMG have been in the first place in the domestic market for eight consecutive years, XCMG Foundation retains the title of the single champion model enterprise in manufacturing industry awarded by MITT, and the intelligent manufacturing workshops of the rotary drilling rig and horizontal directional drilling rig are named "Intelligent Demonstration Workshop of Jiangsu Province", with products exported to more than 70 countries and regions around the world including Europe, America, Africa and Southeast Asia.

Focusing on the underground construction field, the business division industriously not only industriously researches the "drilling, excavation

& exploitation" products as well as construction techniques of underground rock-soil and resources, but continuously optimizes the complete set of product group, making it the world's largest R&D and production base for drilling machinery and comprehensive service provider.

Faced with the "14th Five-Year Plan", XCMG Foundation is implementing the "Intelligence + Ecology" 1000-mu new industrial park plan, planning to build the foundation construction machinery industrial park, and upgrading the intelligent production capacity of products such as piling machinery, coal mine machinery, as well as energy resource exploitation machinery & the manufacturing capacity of key structural components. At present, the business division is moving towards a ten-billion enterprise with high-quality development speed, and is committed to building the world's first brand of piling machinery.

## XR系列 旋挖钻机

XR Series Rotary Drilling Rig



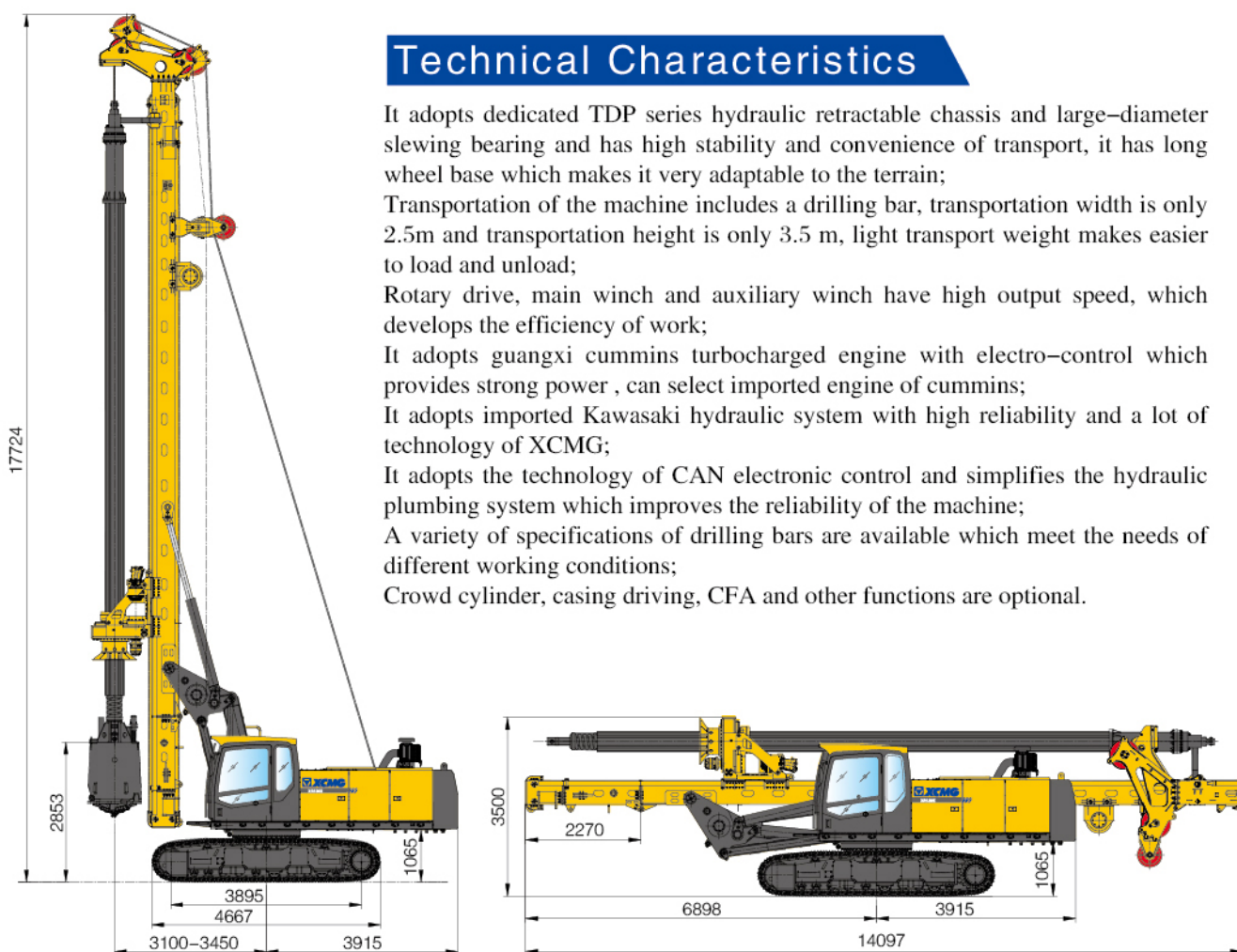


### 性能特点

采用旋挖钻机专用液压伸缩式履带底盘和大直径回转支承，满足超强的稳定性和运输的便捷性，超长轮距，对地层适应能力更强；  
 整机带杆运输，运输宽度仅2.5米，运输高度仅3.5米，运输重量轻，使用更加便捷；  
 动力头、主、副卷工作端输出转速高，施工效率更高效；  
 采用广西康明斯电控涡轮增压发动机，动力强劲，可选配进口康明斯发动机；  
 采用川崎液压系统，更可靠，同时应用徐工多项成熟技术；  
 采用CAN总线全电控技术，简化了液压管路、提高了整车的可靠性，充分体现了人、机、液、电的一体化；  
 多种规格钻杆配置可供选择，满足不同地层的高效施工；  
 可选油缸加压、套管驱动、长螺旋等功能，满足客户多种需求。

### Technical Characteristics

It adopts dedicated TDP series hydraulic retractable chassis and large-diameter slewing bearing and has high stability and convenience of transport, it has long wheel base which makes it very adaptable to the terrain;  
 Transportation of the machine includes a drilling bar, transportation width is only 2.5m and transportation height is only 3.5 m, light transport weight makes easier to load and unload;  
 Rotary drive, main winch and auxiliary winch have high output speed, which develops the efficiency of work;  
 It adopts guangxi cummins turbocharged engine with electro-control which provides strong power, can select imported engine of cummins;  
 It adopts imported Kawasaki hydraulic system with high reliability and a lot of technology of XCMG;  
 It adopts the technology of CAN electronic control and simplifies the hydraulic plumbing system which improves the reliability of the machine;  
 A variety of specifications of drilling bars are available which meet the needs of different working conditions;  
 Crowd cylinder, casing driving, CFA and other functions are optional.



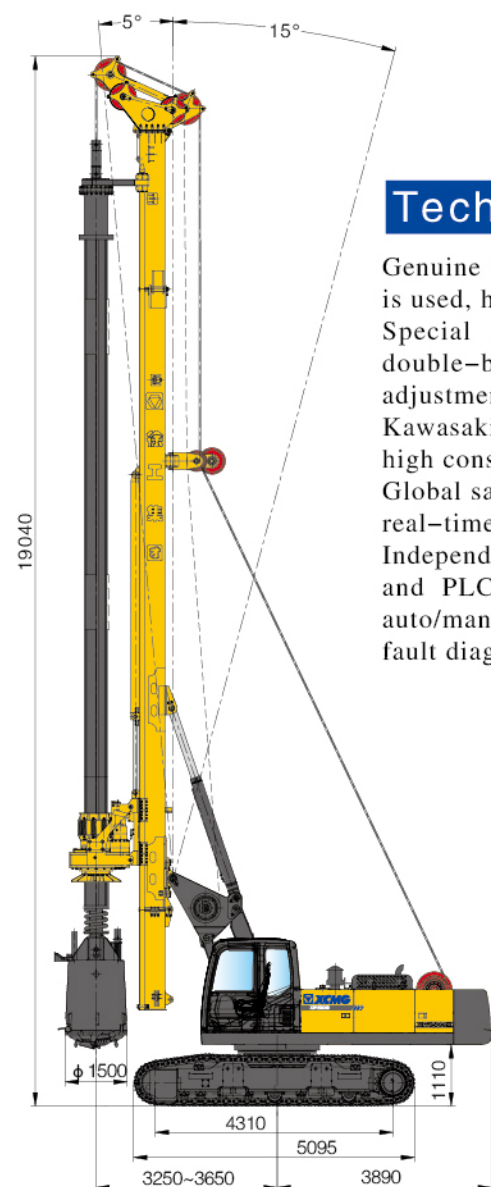
### 主要技术参数 Main Technical Specification

参数名称 Type		单位 Unit	参数 Parameter
最大钻孔直径 Max. drilling diameter		m	φ 1.5/φ 1.3*
钻杆配置/钻深 Kelly bar configuration/drilling depth		m	JS355-4 × 11.3/40 ( 标配 Standard )
			MZ355-4 × 11.3/40 ( 选配 Optional )
			MZ355-5 × 11.3/50 ( 选配 Optional )
发动机 Engine	型号 Model	/	QSB7-C227
	功率 Power	kW	169
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	130
	转速 Rotary speed	r/min	8-35
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	120
	最大提升力 Max. pull-down piston pull	kN	140
	最大行程 Max. pull-down piston stroke	m	3.5
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	200
	最大提升力 Max. pull-down piston pull	kN	200
	最大行程 Max. pull-down piston stroke	m	11
主卷扬 Main winch	最大提升力 Max. pulling force	kN	140
	最大卷扬速度 Max. speed	m/min	75
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	50
	最大卷扬速度 Max. speed	m/min	70
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 3/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	2.7
	最大爬坡度 Max. grade ability	%	40
	最小离地间隙 Min. clearance	mm	345
	履带板宽度 Track shoe width	mm	600
液压系统 Hydraulic system	工作压力 Working pressure	MPa	35
	整机质量 Overall weight	t	43
外形尺寸 Dimension	工作状态 Working condition	mm	7546 × 3600 × 17724
	运输状态 Transportation condition	mm	14097 × 2500 × 3500

注：带“\*”的参数为卷扬加压配置对应参数。  
 Parameters with “\*” refer to the ones of crowd winch configuration.

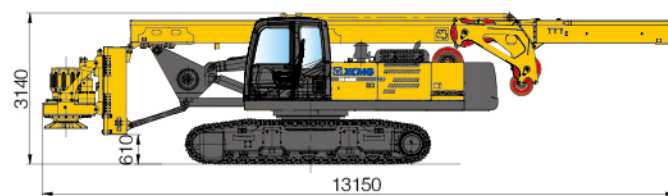
### 性能特点

采用广西康明斯涡轮增压发动机，动力强劲，性能可靠；  
 可伸缩专用旋挖钻底盘，配备双箱体式变幅机构，便于运输与调整，保证工作稳定性与可靠性；  
 川崎液压原件，动力系统匹配合理，施工效率高；  
 GPS全球卫星定位系统应用，整机工况实现远程数据分析，并具有远程实时监控、远程故障诊断功能；  
 具有自主知识产权的智能控制系统，CAN总线和PLC控制系统的应用，包括钻桅垂直度自动/手动调整、深度自动检测显示、智能故障诊断控制等。



### Technical Characteristics

Genuine Guang xi Cummins electric control turbo-supercharged engine is used, high power, reliable performance;  
 Special telescopic rotary excavating undercarriage, equipped with double-box type derricking mechanism, easy for transportation and adjustment, enabling excellent operation stability and reliability;  
 Kawasaki hydraulic components, reasonable power system matching and high construction efficiency;  
 Global satellite positioning system (GPS), allowing remote data analysis, real-time monitoring and fault diagnosis of complete machine;  
 Independent intellectual property intelligent control system, CAN bus and PLC control system application, including the mast verticality auto/manual adjustment, depth auto detection and display, intelligent fault diagnosis control, etc.



### 主要技术参数 Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter
最大钻孔直径 Max. drilling diameter	m	φ 1.5
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS377-4 × 12.5/44 ( 标配 Standard )
		MZ377-5 × 12.0/54 ( 选配 Optional )
		MZ377-5 × 12.5/56 ( 选配 Optional )
发动机 Engine	型号 Model	QSB7-C202
	功率 Power	150
动力头 Rotary drive	最大输出扭矩 Max. output torque	150
	转速 Rotary speed	7-33
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	120
	最大提升力 Max. pull-down piston pull	160
	最大行程 Max. pull-down piston stroke	3.5
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	/
	最大提升力 Max. pull-down piston pull	/
	最大行程 Max. pull-down piston stroke	/
主卷扬 Main winch	最大提升力 Max. pulling force	160
	最大卷扬速度 Max. speed	72
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	50
	最大卷扬速度 Max. speed	60
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	± 3/5/15
底盘 Undercarriage	最大行走速度 Max. traveling speed	2.5
	最大爬坡能力 Max. grade ability	40
	最小离地间隙 Min. clearance	384.5
	履带板宽度 Track shoe width	700
	履带最大总宽 Distance between tracks	2960-4200
液压系统 Hydraulic system	工作压力 Working pressure	35
整机质量 Overall weight	t	49
外形尺寸 Dimension	工作状态 Working condition	7550 × 4200 × 19040
	运输状态 Transportation condition	13150 × 2960 × 3140



### 性能特点

一机多能，可实现油缸加压、卷扬加压、长螺旋、双动力头等功能快速切换，满足更多不同工程施工需求；

配置康明斯电控涡轮增压发动机，动力强劲，服务方便快捷；

动力头最大输出扭矩可达160kN·m，转速可达35r/min，作业效率更高；

主、副卷扬均采用单排绳技术，钢丝绳寿命比多层绳长2~4倍，使用成本更低；

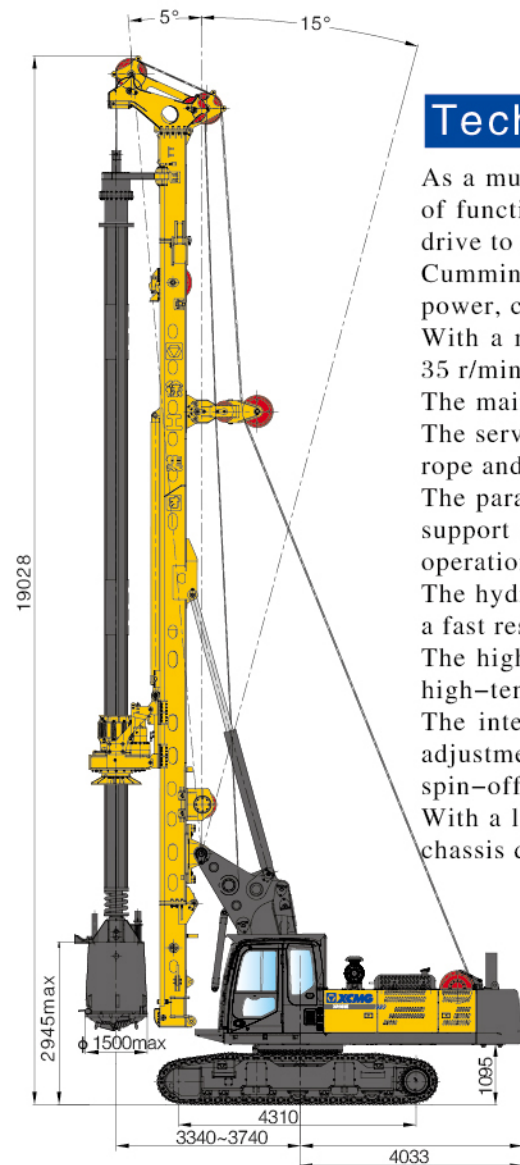
采用双动臂大平行四边形变幅机构，支撑角度大，支撑范围增加24%，作业更稳定；

液压主系统采用负流量控制技术，响应快，操控性能好；

大功率双液压油冷却器，满足高温地区施工；

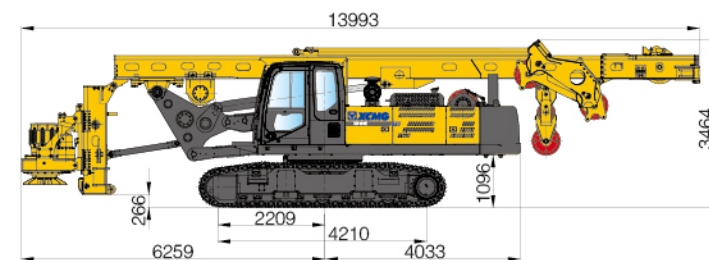
智能控制系统实现钻桅垂直度自动调节与显示、自动回转、自动甩土等功能；

采用TDP系列旋挖钻机专用液压履带底盘，大直径回转支承，工作稳定性更好。



### Technical Characteristics

As a multi-functional machine, XR160E can realize the quick switching of functions such as crowd cylinder, crowd winch, CFA and dual rotary drive to meet more different construction needs; Cummins electronically controlled turbocharged engine ensures strong power, convenient and efficient service; With a maximum output torque of 160kN·m and a maximum speed of 35 r/min, the rotary drive can work more efficiently; The main and auxiliary winches both adopt single-row rope technology, The service life of wire rope is 2~4 times longer than that of multi-layer rope and the cost is lower; The parallelogram luffing mechanism with double swing arm has a large support angle and a 24% increase in support range, which makes the operation more stable; The hydraulic system adopts negative flow control technology which has a fast response and good handling performance; The high-power dual hydraulic oil cooler is suitable for construction in high-temperature areas; The intelligent control system can achieve functions such as automatic adjustment and display of mast perpendicularity, automatic slew and spin-off, etc; With a large diameter slewing bearing, the TDP series hydraulic crawler chassis dedicated for rotary drilling rigs ensures better working stability.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 1.5/φ 1.3*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS377-4 × 12.5/44 ( 标配 Standard )	
		MZ377-5 × 12.0/54 ( 选配 Optional )	
		MZ377-5 × 12.5/56 ( 选配 Optional )	
发动机 Engine	型号 Model	/	
	功率 Power	kW	150
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN·m	160
	转速 Rotary speed	r/min	5-35
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	160
	最大提升力 Max. pull-down piston pull	kN	160
	最大行程 Max. pull-down piston stroke	m	4.2
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	160
	最大提升力 Max. pull-down piston pull	kN	180
	最大行程 Max. pull-down piston stroke	m	13
主卷扬 Main winch	最大提升力 Max. pulling force	kN	160
	最大卷扬速度 Max. speed	m/min	80
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	60
	最大卷扬速度 Max. speed	m/min	80
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	2.1
	最大爬坡度 Max. grade ability	%	40
	最小离地间隙 Min. clearance	mm	384.5
	履带板宽度 Track shoe width	mm	700
液压系统 Hydraulic system	工作压力 Working pressure	MPa	35
	整机质量 Overall weight	t	53
外形尺寸 Dimension	工作状态 Working condition	mm	7862 × 4200 × 19328
	运输状态 Transportation condition	mm	13993 × 2960 × 3464

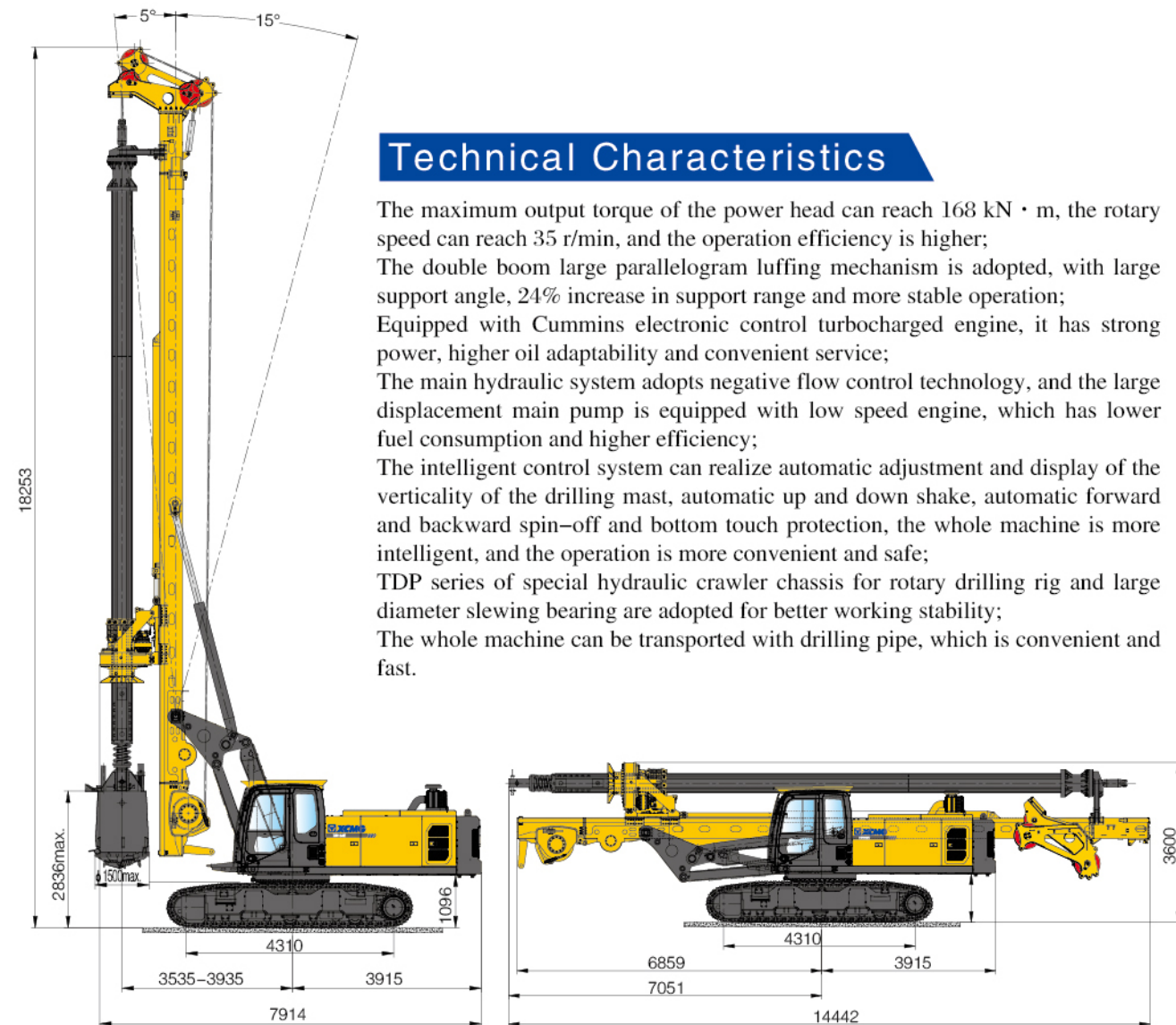
注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



### 性能特点

动力头最大输出扭矩可达168kN·m，转速可达35r/min，作业效率更高；  
 采用双动臂大平行四边形变幅机构，支撑角度大，支撑范围增加24%，作业更稳定；  
 配置康明斯电控涡轮增压发动机，动力强劲，油品适应性更高，服务方便快捷；  
 液压主系统采用负流量控制技术，大排量主泵配低转速发动机，油耗更低，效率更高；  
 智能控制系统实现钻桅垂直度自动调节与显示、自动上下抖土、动力头自动正反转甩土、触地保护等功能，整机更智能，作业便捷性及安全性更高；  
 采用TDP系列旋挖钻机专用液压履带底盘，大直径回转支承，工作稳定性更好；  
 整机可带杆运输，方便快捷。



### Technical Characteristics

The maximum output torque of the power head can reach 168 kN · m, the rotary speed can reach 35 r/min, and the operation efficiency is higher;  
 The double boom large parallelogram luffing mechanism is adopted, with large support angle, 24% increase in support range and more stable operation;  
 Equipped with Cummins electronic control turbocharged engine, it has strong power, higher oil adaptability and convenient service;  
 The main hydraulic system adopts negative flow control technology, and the large displacement main pump is equipped with low speed engine, which has lower fuel consumption and higher efficiency;  
 The intelligent control system can realize automatic adjustment and display of the verticality of the drilling mast, automatic up and down shake, automatic forward and backward spin-off and bottom touch protection, the whole machine is more intelligent, and the operation is more convenient and safe;  
 TDP series of special hydraulic crawler chassis for rotary drilling rig and large diameter slewing bearing are adopted for better working stability;  
 The whole machine can be transported with drilling pipe, which is convenient and fast.

### 主要技术参数

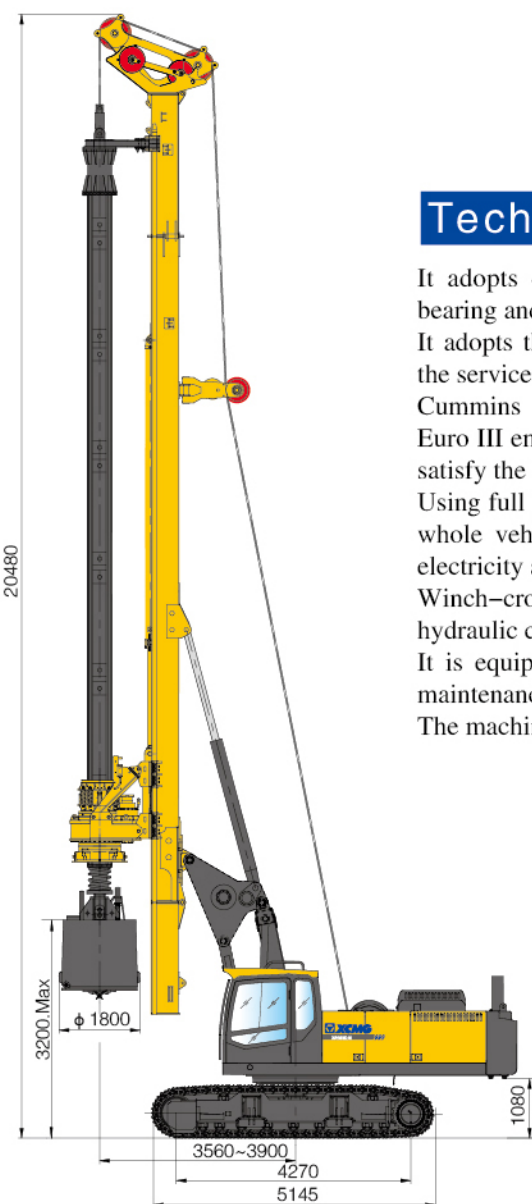
### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 1.5 (油缸加压 Crowd cylinder)	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS377-4x12.5/44 (标配 Standard)	
		MZ377-5x12.0/54 (选配 Optional)	
		MZ377-5x12.5/56 (选配 Optional)	
发动机 Engine	型号 Model	康明斯Cummins QSB7 SO30054	
	功率 Power	kW	169
	柴油箱 Diesel tank	L	390
	排放 Emission	/	CN 三
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	168
	转速 Rotary speed	r/min	5~35
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	160
	最大提升力 Max. pull-down piston pull	kN	160
	最大行程 Max. pull-down piston stroke	mm	4200
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	/	/
	最大提升力 Max. pull-down piston pull	/	/
	最大行程 Max. pull-down piston stroke	/	/
主卷扬 Main winch	最大提升力 Max. pulling force	kN	168
	最大卷扬速度 Max. speed	m/min	80
	绳径 Rope diameter	mm	28
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	60
	最大卷扬速度 Max. speed	m/min	80
	绳径 Rope diameter	mm	16
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/5/15
	宽度 Width	mm	2960~4200
底盘 Undercarrige	履带板宽 Track shoe width	mm	700
	履带长度 Crawler length	mm	5100
	驱动力 Driving force	kN	340
	行走速度 Traveling speed	km/h	0~2.1
液压系统 Hydraulic system	最大流量 Max. flow	L	2 × 225+80
	工作压力 Working pressure	MPa	33
整机质量 Overall weight	t	50	
变幅 Luffing mechanism	工作范围 Working range	mm	3535~3935
	工作状态 Working condition	mm	7914 × 4200 × 18253
外形尺寸 Dimension	运输状态 Transportation condition	mm	14442 × 2960 × 3600



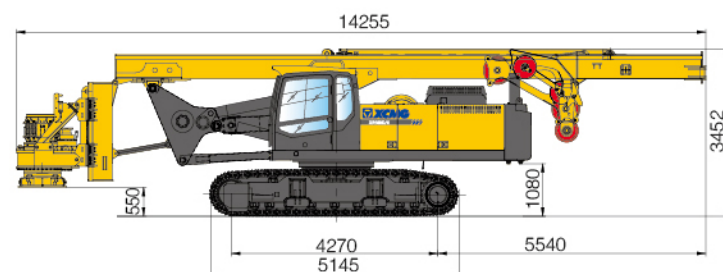
### 性能特点

专用液压伸缩式履带底盘，重型回转支承，整机稳定性高；  
 单排绳主卷扬结构，钢丝绳寿命大大延长，使用成本更低；  
 康明斯发动机，动力强劲，足够的功率储备满足高原施工，排放满足欧Ⅲ标准；  
 采用CAN总线技术，简化了液压管路、提高整车的可靠性，充分体现了人、机、液、电的一体化；  
 可选卷扬加压、套管驱动，长螺旋，搓管机，气动潜孔锤等多功能配置，满足用户多种需求；  
 标配集中润滑系统，维护保养更便捷；  
 整机符合欧盟CE要求。



### Technical Characteristics

It adopts dedicated hydraulic retractable crawler chassis and heavy slewing bearing and has high stability;  
 It adopts the front-located single-rope main winch structure to greatly prolong the service life of steel wire rope and lower the use cost;  
 Cummins electric control turbo-supercharged engine is used, it complies with Euro III emission standard, in addition, it has strong power, which is sufficient to satisfy the construction on the plateau, its noise is up to the national standard;  
 Using full electronic control technology of CAN bus, improves the reliability of the whole vehicle and simplify hydraulic line, fully reflects the people, machine, electricity and liquid integration;  
 Winch-crowd and sleeve-driven functions are available for selection to CFA, hydraulic casing oscillator, DTH hammer satisfy various needs of the users;  
 It is equipped with a centralized lubrication system as standard configuration; maintenance is easier;  
 The machine obtains CE certification of T ü V Rheinland group.



### 主要技术参数

### Main Technical Specification

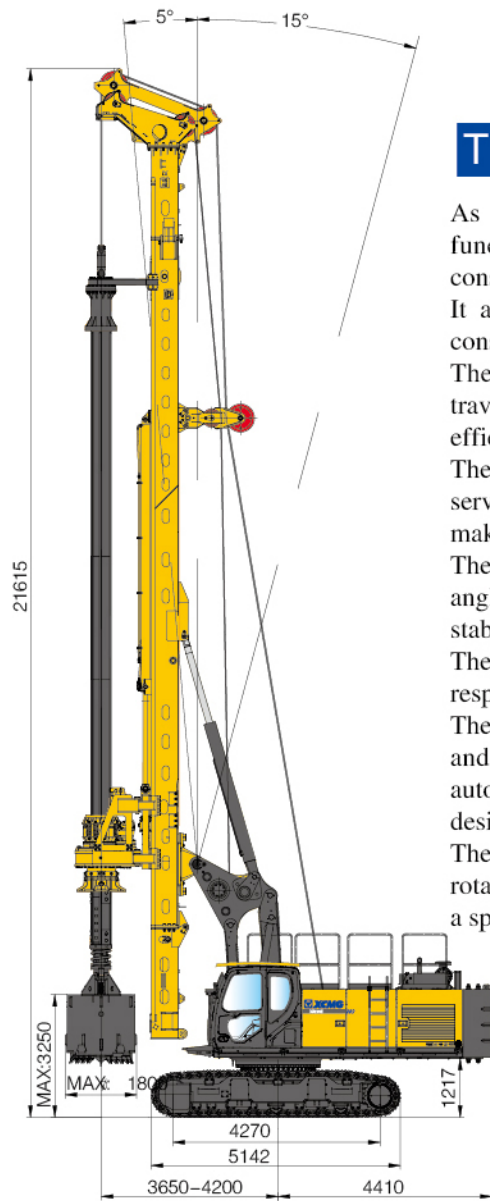
参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 1.8/1.6*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS406-4 × 13.0/46 ( 标配 Standard )	
		MZ406-5 × 13.5/60 ( 选配 Optional )	
发动机 Engine	型号 Model	/	
	功率 Power	kW	194
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	180
	转速 Rotary speed	r/min	7-27/6-33*
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	160
	最大提升力 Max. pull-down piston pull	kN	180
	最大行程 Max. pull-down piston stroke	m	5
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	210
	最大提升力 Max. pull-down piston pull	kN	210
	最大行程 Max. pull-down piston stroke	m	13
主卷扬 Main winch	最大提升力 Max. pulling force	kN	180
	最大卷扬速度 Max. speed	m/min	65
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	80
	最大卷扬速度 Max. speed	m/min	70
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 3/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.5
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	384.5
	履带板宽度 Track shoe width	mm	700
液压系统 Hydraulic system	工作压力 Working pressure	MPa	35
	整机质量 Overall weight	t	60
外形尺寸 Dimension	工作状态 Working condition	mm	8350 × 4200 × 20480
	运输状态 Transportation condition	mm	14380 × 3000 × 3490*

注：带“\*”的参数为卷扬加压配置对应参数。  
 Parameters with “\*” refer to the ones of crowd winch configuration.



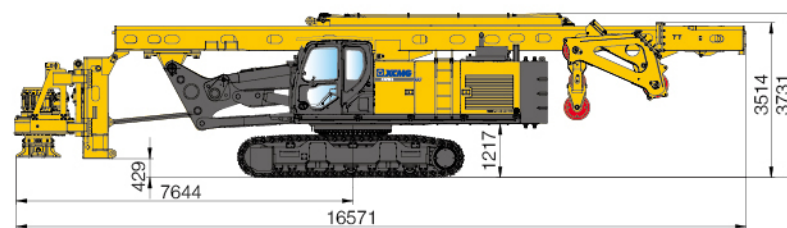
### 性能特点

一机多能，可实现油缸加压、卷扬加压、搓管机等功能快速切换，满足更多不同工程施工需求；  
 配置五十铃电控涡轮增压发动机，油耗更低，服务方便快捷；  
 动力头工作性能提升11%，主卷扬提升18%，行走驱动提升20%，散热能力提高1.4倍，作业效率更高；  
 主、副卷扬均采用单排绳技术，钢丝绳寿命比多层绳长2~4倍，使用成本更低；  
 采用双动臂大平行四边形变幅机构，支撑角度大，支撑范围增加16%，作业更稳定；  
 液压主系统采用负流量控制技术，响应快，操控性能好；  
 智能控制系统实现钻桅垂直度自动调节与显示、自动回转、自动甩土、长螺旋工法自动提升灌注及桩型显示等功能，采用总线面板设计，有限防止误操作；  
 动力头可选配高速甩土功能，转速最高可至80r/min，挂装螺旋钻头施工作业效率更高。



### Technical Characteristics

As a multi-functional machine, XR200E can realize the quick switching of functions such as crowd cylinder, crowd winch, to meet more different construction needs;  
 It adopts Isuzu electronically controlled turbocharged engine with lower fuel consumption and convenient service;  
 The rotary drive performance is increased by 11%, main winch by 18%, travelling drive by 20%, heat dissipation capacity by 1.4 times, and the working efficiency is much higher;  
 The main and auxiliary winches both adopt single-row rope technology, the service life of wire rope is 2~4 times longer than that of multi-layer rope, which makes the cost lower;  
 The parallelogram luffing mechanism with double swing arm has a large support angle and a 16% increase in support range, which makes the operation more stable;  
 The hydraulic system adopts negative flow control technology which has a fast response and good handling performance;  
 The intelligent control system can achieve functions such as automatic adjustment and display of mast perpendicularity, automatic slew, automatic spin-off, automatic lifting & concrete pouring and pile type display, etc, the bus panel design is adopted to prevent misoperation;  
 The rotary drive can be equipped with high-speed spin-off function and the rotation speed can reach up to 80r/min, the construction efficiency is higher with a spiral drilling bucket.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter
最大钻孔直径 Max. drilling diameter	m	φ 1.8
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS406-4 × 13.0/46 ( 标配 Standard )
		JS406-4 × 14.5/52 ( 选配 Optional )
		MZ406-5 × 13.5/60 ( 选配 Optional )
		MZ406-5 × 14.5/65 ( 选配 Optional )
发动机 Engine	型号 Model	/
	功率 Power	kW
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m
	转速 Rotary speed	r/min
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN
	最大提升力 Max. pull-down piston pull	kN
	最大行程 Max. pull-down piston stroke	m
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN
	最大提升力 Max. pull-down piston pull	kN
	最大行程 Max. pull-down piston stroke	m
主卷扬 Main winch	最大提升力 Max. pulling force	kN
	最大卷扬速度 Max. speed	m/min
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN
	最大卷扬速度 Max. speed	m/min
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°
		± 4/5/15
底盘 Undercarriage	最大行走速度 Max. traveling speed	km/h
	最大爬坡度 Max. grade ability	%
	最小离地间隙 Min. clearance	mm
	履带板宽度 Track shoe width	mm
液压系统 Hydraulic system	工作压力 Working pressure	MPa
		35
整机质量 Overall weight	t	63/65*
外形尺寸 Dimension	工作状态 Working condition	mm
	运输状态 Transportation condition	mm

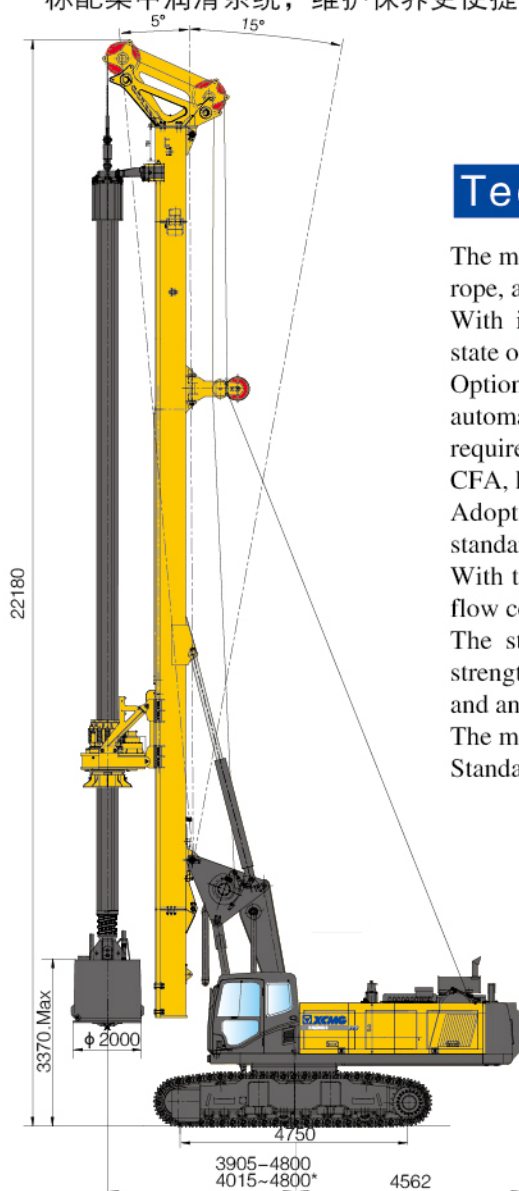
注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



## 性能特点

采用单层绳主卷扬，有效解决钢丝绳磨损问题，提高钢丝绳使用寿命；  
安装了红外摄像头，在驾驶室就能昼夜观察主卷钢丝绳使用情况；  
可根据用户要求进行多种配置（如：支腿油缸，自动回转，卷扬加压，长螺旋，搓管机，气动潜孔锤），扩展性好；  
选用康明斯电控涡轮增压发动机，满足欧Ⅲ排放标准，节能环保，动力强劲；  
液压系统采用极限功率控制和正流量控制，使液压系统效率更高，更加节能；  
稳定的平行四边形变幅机构，实现了大范围的工作区域，钻桅设计为高强材质的箱形结构，较高的强度与刚性，可有效保证钻孔精度；  
整机通过德国莱茵公司欧盟CE认证；  
标配集中润滑系统，维护保养更便捷。



## Technical Characteristics

The machine adapts single row rope for main winch to figure out the wear of steel rope, and extend the life-span;  
With infrared camera for observing main winch, manipulator can observe the state of steel rope at day and night in cab;  
Optional configuration according to customers' requirement (Eg: support cylinder, automatic positioning of slewing, optional configuration according to customers' requirement ( supporting cylinder, automatic positioning of slewing, crowd winch CFA, hydraulic casing oscillator, DTH hammer ) has good expansibility;  
Adopting the supercharged CUMMINS engine with European III effluent standard, meet environmental protection and energy conservation, super power;  
With the hydraulic pressure system adopted threshold power control and positive flow control, the system acquired high efficiency and higher energy conservation;  
The stability articulated structure actualizes a wider work range, the highly strengthened box-type steel structure design makes the mast of highly-rigidity and anticontored, therefore the drill accuracy is heightened;  
The machine has passed CE certification of T ü V Rheinland group;  
Standard centralized lubricating system, allowing easier maintenance.

## 主要技术参数

## Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 2	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS406-4 × 14.5/52 ( 标配 Standard )	
		JS406-4 × 13.0/46 ( 选配 Optional )	
		MZ406-5 × 14.9/67 ( 选配 Optional )	
		JS440-4 × 14.5/52 ( 选配 Optional )	
		MZ440-5 × 14.8/67 ( 选配 Optional )	
MZ440-6 × 14.8/80 ( 特配 Special )			
发动机 Engine	型号 Model	/	
	功率 Power	kW	242
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	220
	转速 Rotary speed	r/min	7-25/7-22*
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	200
	最大提升力 Max. pull-down piston pull	kN	200
	最大行程 Max. pull-down piston stroke	m	5
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	250
	最大提升力 Max. pull-down piston pull	kN	250
	最大行程 Max. pull-down piston stroke	m	15
主卷扬 Main winch	最大提升力 Max. pulling force	kN	230
	最大卷扬速度 Max. speed	m/min	70
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	80
	最大卷扬速度 Max. speed	m/min	60
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.5
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	450
	履带板宽度 Track shoe width	mm	800
	履带最大总宽 Distance between tracks	mm	3250-4400
液压系统 Hydraulic system	工作压力 Working pressure	MPa	35
整机质量 Overall weight		t	76/78*
外形尺寸 Dimension	工作状态 Working condition	mm	8968 × 4400 × 22688*
	运输状态 Transportation condition	mm	16785 × 3250 × 4305*

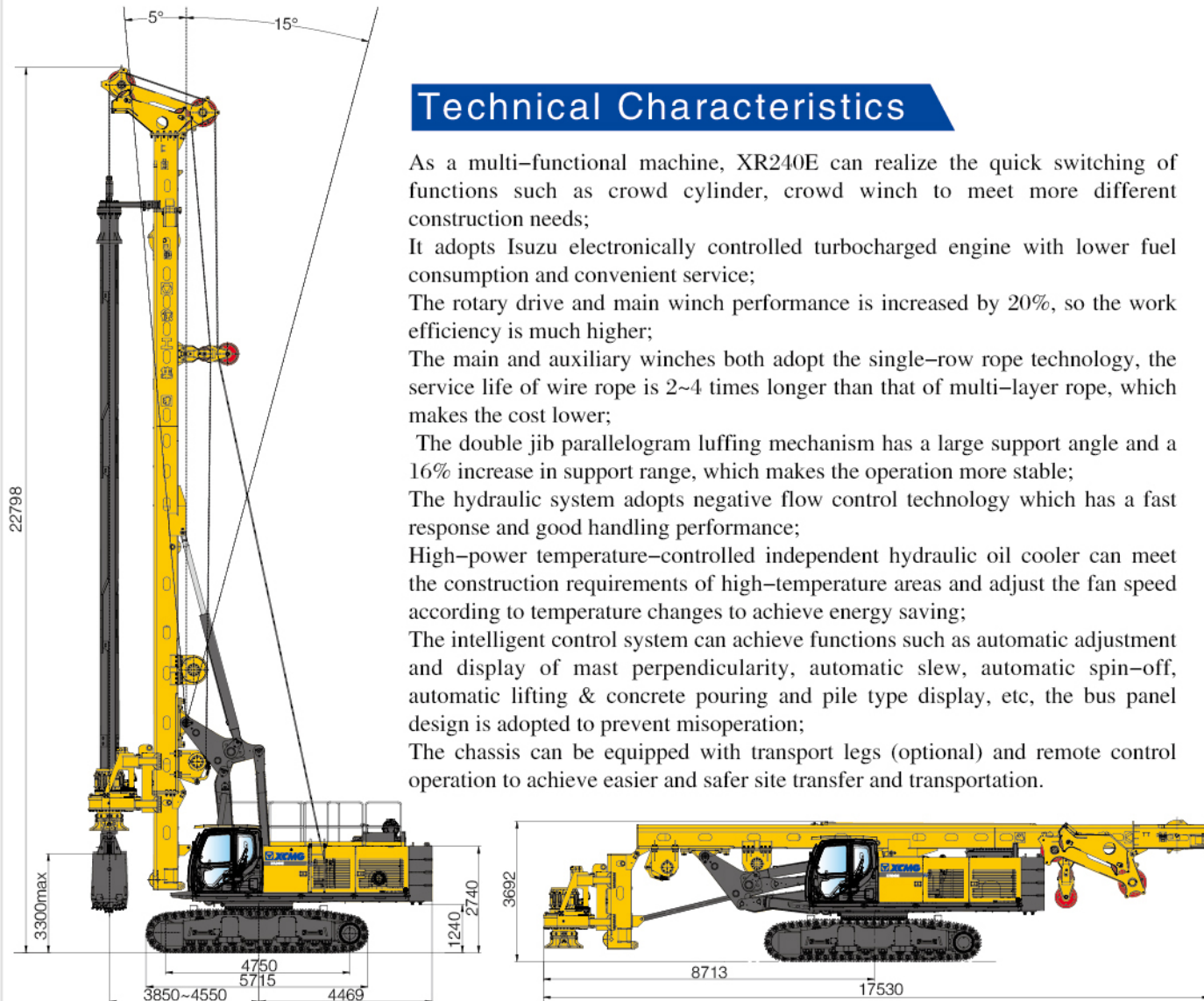
注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



### 性能特点

一机多能，可实现油缸加压、卷扬加压、搓管机等功能快速切换，满足更多不同工程施工需求；  
 配置五十铃电控涡轮增压发动机，油耗更低，服务方便快捷；  
 动力头、主卷扬工作性能提升20%，作业效率更高；  
 主、副卷扬均采用单排绳技术，钢丝绳寿命比多层绳长2~4倍，使用成本更低；  
 采用双动臂大平行四边形变幅机构，支撑角度大，支撑范围增加16%，作业更稳定；  
 液压主系统采用负流量控制技术，响应快，操控性能好；  
 大功率温控独立液压油冷却器，满足高温地区施工，且可随温度变化调节风扇转速，实现节能；  
 智能控制系统实现钻桅垂直度自动调节与显示、自动回转、自动甩土、长螺旋工法自动提升灌注及桩型显示等功能，采用总线面板设计，有效防止误操作；  
 底盘可配运输支腿（选装），遥控操作，运输转场更简便、安全。



### Technical Characteristics

As a multi-functional machine, XR240E can realize the quick switching of functions such as crowd cylinder, crowd winch to meet more different construction needs;  
 It adopts Isuzu electronically controlled turbocharged engine with lower fuel consumption and convenient service;  
 The rotary drive and main winch performance is increased by 20%, so the work efficiency is much higher;  
 The main and auxiliary winches both adopt the single-row rope technology, the service life of wire rope is 2~4 times longer than that of multi-layer rope, which makes the cost lower;  
 The double jib parallelogram luffing mechanism has a large support angle and a 16% increase in support range, which makes the operation more stable;  
 The hydraulic system adopts negative flow control technology which has a fast response and good handling performance;  
 High-power temperature-controlled independent hydraulic oil cooler can meet the construction requirements of high-temperature areas and adjust the fan speed according to temperature changes to achieve energy saving;  
 The intelligent control system can achieve functions such as automatic adjustment and display of mast perpendicularity, automatic slew, automatic spin-off, automatic lifting & concrete pouring and pile type display, etc, the bus panel design is adopted to prevent misoperation;  
 The chassis can be equipped with transport legs (optional) and remote control operation to achieve easier and safer site transfer and transportation.

### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 2.2/φ 2*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS440-4 × 15.5/56 (标配 Standard)	
		MZ440-5 × 15.5/70 (选配 Optional)	
		JS406-4 × 15.5/56 (选配 Optional)	
		MZ406-5 × 15.5/70 (选配 Optional)	
MZ440-6 × 14.8/80 (特配 Special)	/	6UZ1X-270	
		270	
发动机 Engine	型号 Model	6UZ1X-270	
	功率 Power	kW	270
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	240
	转速 Rotary speed	r/min	7-30
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	210
	最大提升力 Max. pull-down piston pull	kN	220
	最大行程 Max. pull-down piston stroke	m	5
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	250
	最大提升力 Max. pull-down piston pull	kN	250
	最大行程 Max. pull-down piston stroke	m	13
主卷扬 Main winch	最大提升力 Max. pulling force	kN	240
	最大卷扬速度 Max. speed	m/min	70
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	80
	最大卷扬速度 Max. speed	m/min	70
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/5/15
底盘 Undercarriage	最大行走速度 Max. traveling speed	km/h	1.8
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	450
	履带板宽度 Track shoe width	mm	800
履带最大总宽 Distance between tracks	mm	3250-4400	
		4400	
液压系统 Hydraulic system	工作压力 Working pressure	MPa	35
整机质量 Overall weight	t	84	
外形尺寸 Dimension	工作状态 Working condition	mm	8870 × 4400 × 22800
	运输状态 Transportation condition	mm	17525 × 3250 × 3594

注：带“\*”的参数为卷扬加压配置对应参数。  
 Parameters with “\*” refer to the ones of crowd winch configuration.



## 性能特点

采用旋挖钻机专用液压伸缩式履带底盘，满足超强的稳定性和运输的便捷性；采用进口康明斯涡轮增压发动机（欧Ⅲ排放阶段），动力强劲，足够的动力储备满足高原施工，噪音、排放达到国家标准；恒功率最佳动力输出，使整机处于最佳工作状态；

液压系统采用负荷传感技术，使液压系统效率更高，更节能；

拥有专利的平行四边形铰接机构实现了较大范围的工作区域，钻桅设计为高强度材质的箱形结构，较高的刚性与抗扭曲性，有效地保证了钻孔精度，各铰接均采用免润滑轴承，转动灵活自如；360°上车回转任意角度排渣；

具有自主知识产权的智能控制系统，CAN总线和PLC控制系统的应用，包括钻桅垂直度自动/手动调整、深度自动检测显示、回转角度自动显示、智能故障诊断控制等；

采用单排绳主卷扬，有效解决钢丝绳磨损问题，提高钢丝绳使用寿命；

安装了观察主卷的红外摄像头，在驾驶室就能昼夜观察主卷钢丝绳使用情况；

标配集中润滑系统，维护保养更便捷；

整机通过德国莱茵公司欧盟CE认证。

## Technical Characteristics

The special hydraulic chassis for the rotating drill with extensible crawler is provided with the excellent stability and is convenient to transport; the imported Cummins turbo-supercharged engine (meeting EU-III standard) is powerful, and has sufficient power reserve, which can be operated in plateau, its noise and emission meet the national standards; the constant power and the best output enable the complete machine to function at its best;

The load-sensing technique is used in the hydraulic system to make it more efficient and save more energy;

The patented parallelogram articulation mechanism can work in a large area, the drill mast, which is designed in box structure and made of the materials with high strength, has good rigidity and anti-distortion, guaranteeing the drilling accuracy, the hinge is provided with the bearing exempt from lubrication, and can work freely, the slag can be discharged in any angle due to 360° lifting and revolving;

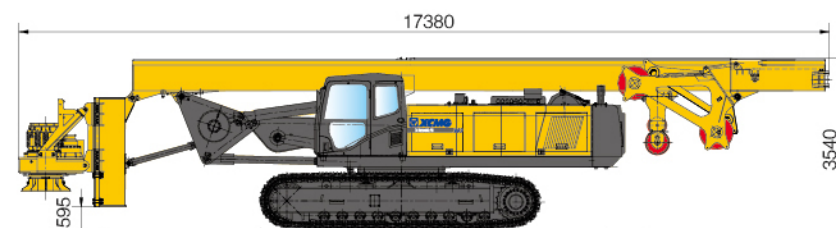
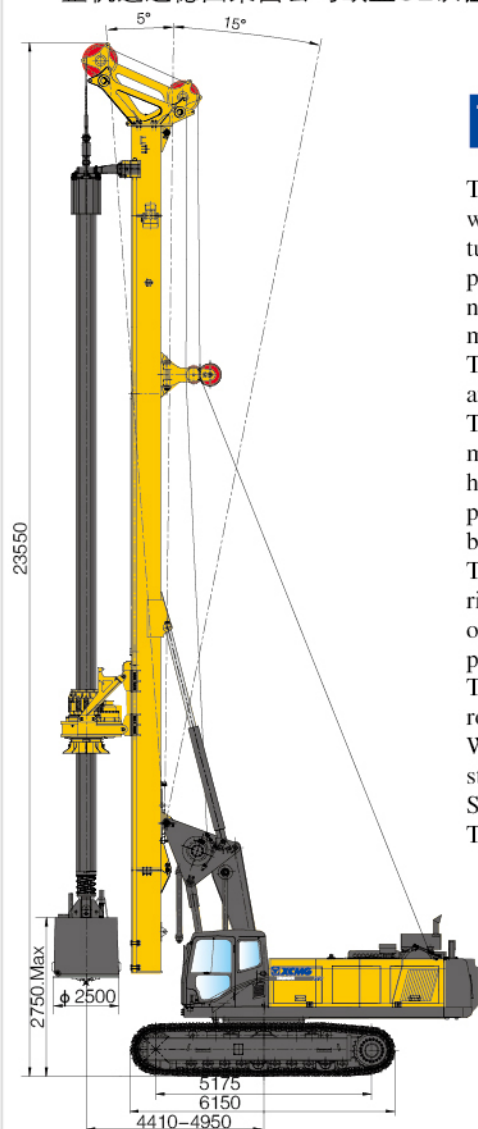
The intellectual controlling system, CAN bus and PLC with self-intellectual property right are used, including the automatic and manual regulation of the perpendicularity of the drill mast, automatic display of the drilling depth, automatic rotation positioning control, and intellectual fault diagnosis control;

The machine adapts single row rope for main winch to figure out the wear of steel rope and extend the life-span, and high reliability;

With infrared camera for observing main winch, manipulator can observe the state of steel rope at day and night in cab;

Standard centralized lubricating system, allowing easier maintenance;

The complete machine has passed CE certification of TÜV Rheinland group.



## 主要技术参数

## Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 2.5/φ 2.2*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS508-4 × 16.0/58 (标配 Standard)	
		MZ508-5 × 16.1/73 (选配 Optional)	
		MZ508-6 × 16.1/88 (特配 Special)	
发动机 Engine	型号 Model	/	
	功率 Power	kW	298
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	280
	转速 Rotary speed	r/min	6-22
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	210
	最大提升力 Max. pull-down piston pull	kN	320
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	300
	最大提升力 Max. pull-down piston pull	kN	300
	最大行程 Max. pull-down piston stroke	m	16
主卷扬 Main winch	最大提升力 Max. pulling force	kN	300
	最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	100
	最大卷扬速度 Max. speed	m/min	65
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.5
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	445
	履带板宽度 Track shoe width	mm	800
液压系统 Hydraulic system	工作压力 Working pressure	MPa	32
	整机质量 Overall weight	t	88/96
外形尺寸 Dimension	工作状态 Working condition	mm	10770 × 4800 × 23550
	运输状态 Transportation condition	mm	17380 × 3500 × 3540

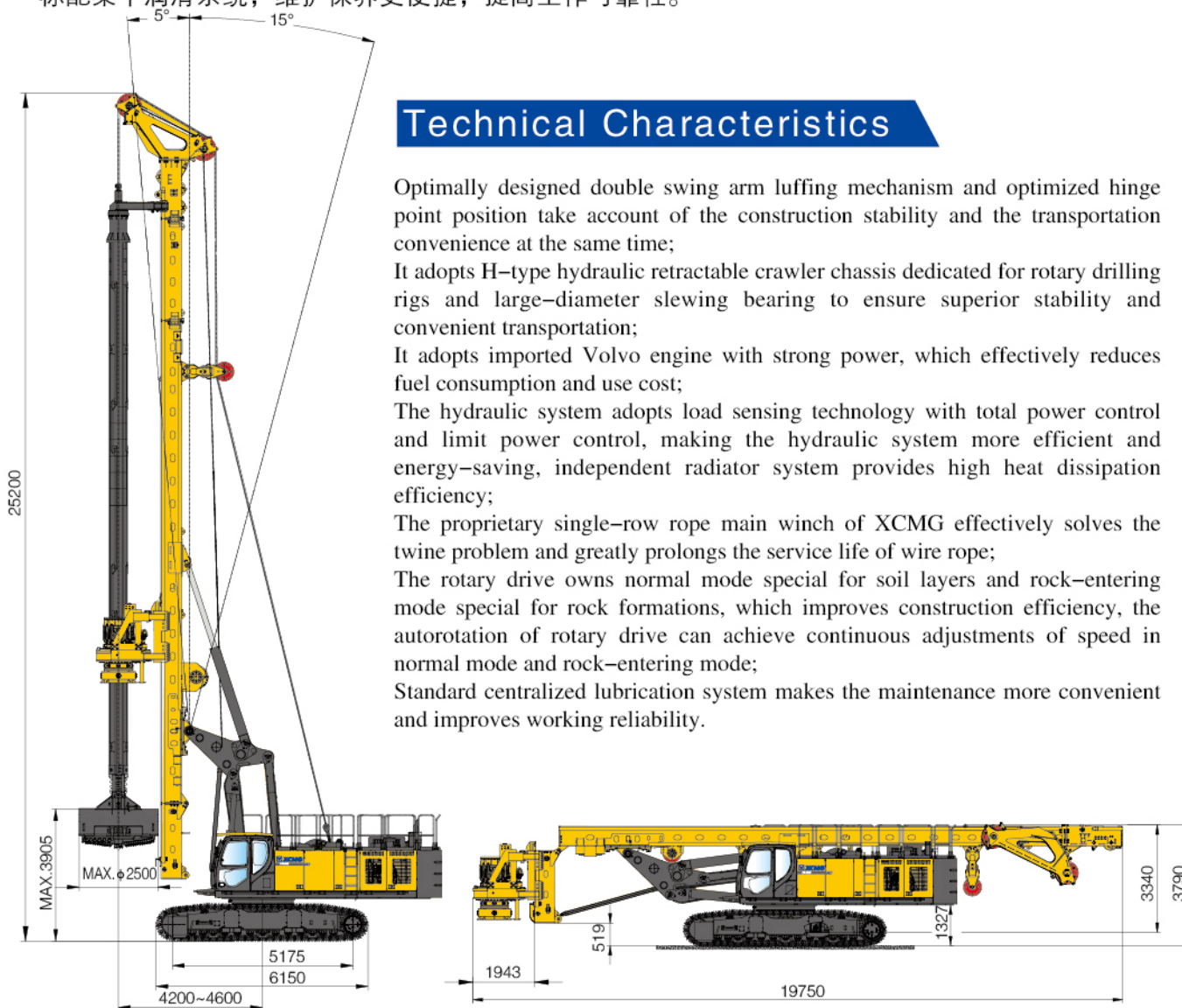
注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



### 性能特点

优化设计的双动臂变幅机构，优化铰点位置，兼顾施工稳定性与转场运输便捷性；  
 采用旋挖钻机专用H型液压伸缩式履带底盘，装备大直径回转支承，保证了超强的稳定性和运输的便捷性；  
 采用进口沃尔沃发动机，动力强劲，有效降低了燃油消耗和使用成本；  
 液压系统采用负荷传感技术，叠加总功率控制与极限功率控制技术，使液压系统效率更高，更节能，独立散热器系统，散热效率高；  
 徐工专有的单排绳主卷扬结构，有效的解决了钢丝绳“咬绳”问题，大大延长了钢丝绳的使用寿命；  
 动力头拥有普通模式和入岩模式，分别针对土层和岩层作业，提高了施工效率，动力头具有自动旋转功能，可在普通模式和入岩模式下转速连续可调；  
 标配集中润滑系统，维护保养更便捷，提高工作可靠性。



### Technical Characteristics

Optimally designed double swing arm luffing mechanism and optimized hinge point position take account of the construction stability and the transportation convenience at the same time;  
 It adopts H-type hydraulic retractable crawler chassis dedicated for rotary drilling rigs and large-diameter slewing bearing to ensure superior stability and convenient transportation;  
 It adopts imported Volvo engine with strong power, which effectively reduces fuel consumption and use cost;  
 The hydraulic system adopts load sensing technology with total power control and limit power control, making the hydraulic system more efficient and energy-saving, independent radiator system provides high heat dissipation efficiency;  
 The proprietary single-row rope main winch of XCMG effectively solves the twine problem and greatly prolongs the service life of wire rope;  
 The rotary drive owns normal mode special for soil layers and rock-entering mode special for rock formations, which improves construction efficiency, the autorotation of rotary drive can achieve continuous adjustments of speed in normal mode and rock-entering mode;  
 Standard centralized lubrication system makes the maintenance more convenient and improves working reliability.

### 主要技术参数

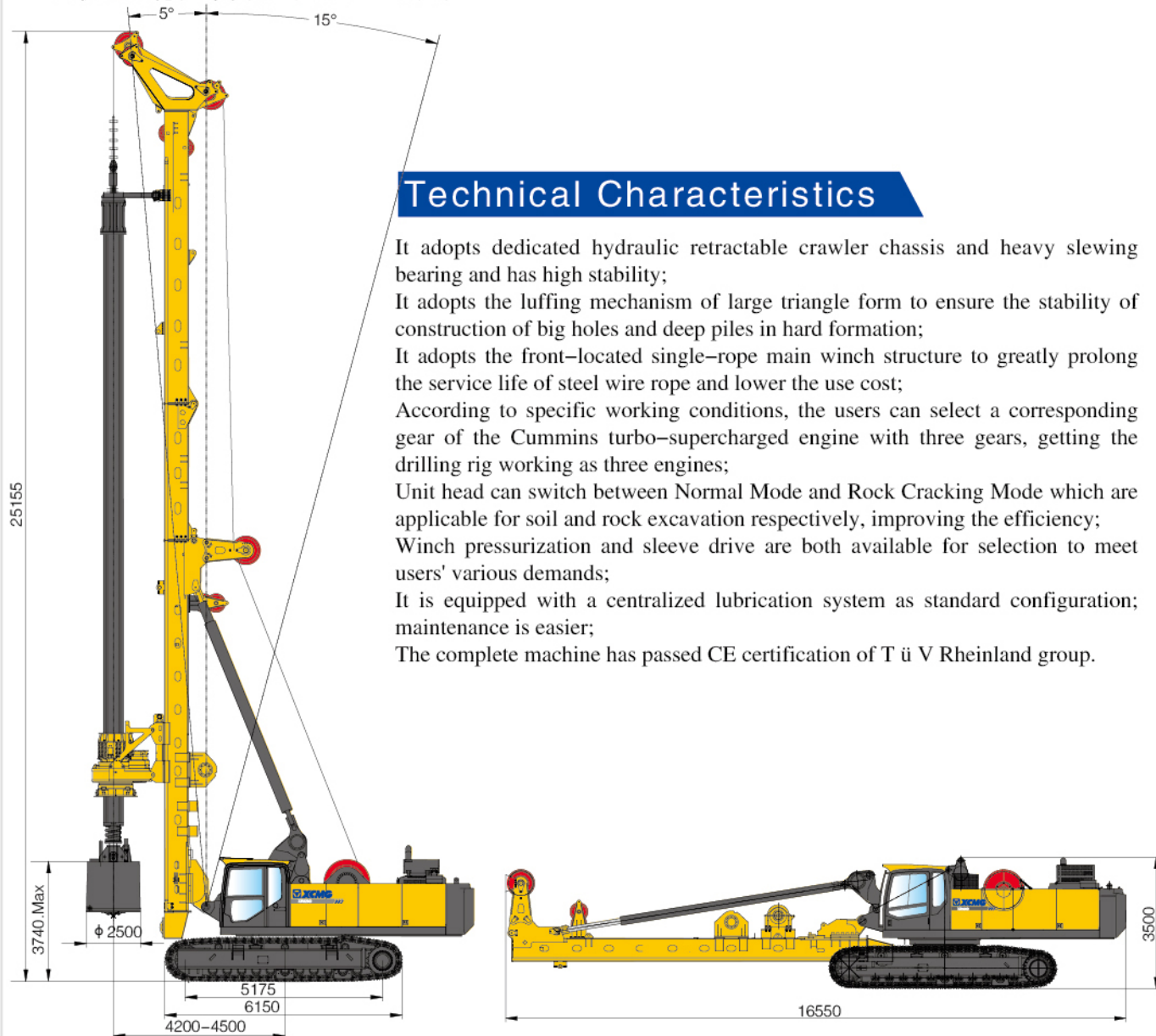
### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter
最大钻孔直径 Max. drilling diameter	m	φ 2.5
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS508-4 × 16.0/57 ( 标配 Standard )
		JS508-4 × 17.0/61 ( 选配 Optional )
		MZ508-5 × 16.1/73 ( 选配 Optional )
		MZ508-5 × 17.1/78 ( 选配 Optional )
		MZ508-6 × 16.1/86 ( 特配 Special )
		MZ508-6 × 17.1/91 ( 特配 Special )
发动机 Engine	型号 Model	/ TAD1352VE
	功率 Power	kW 315
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m 300
	转速 Rotary speed	r/min 6-27
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN 260
	最大提升力 Max. pull-down piston pull	kN 330
	最大行程 Max. pull-down piston stroke	m 6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN 330
	最大提升力 Max. pull-down piston pull	kN 330
	最大行程 Max. pull-down piston stroke	m 13
主卷扬 Main winch	最大提升力 Max. pulling force	kN 330
	最大卷扬速度 Max. speed	m/min 75
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN 100
	最大卷扬速度 Max. speed	m/min 41
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	° ± 4/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h 1.5
	最大爬坡度 Max. grade ability	% 35
	最小离地间隙 Min. clearance	mm 445
	履带板宽度 Track shoe width	mm 800
履带最大总宽 Distance between tracks	mm 3500-4800	
液压系统 Hydraulic system	工作压力 Working pressure	MPa 33
整机质量 Overall weight	t	106
外形尺寸 Dimension	工作状态 Working condition	mm 10825 × 4800 × 25200
	运输状态 Transportation condition	mm 19750 × 3500 × 3790



### 性能特点

- 专用液压伸缩式履带底盘，重型回转支承，整机稳定高；
- 采用大三角变幅机构，保证了在大孔深桩硬地层施工的稳定；
- 前置单排绳主卷扬结构，钢丝绳寿命大大延长，使用成本更低；
- 康明斯涡轮增压发动机拥有三档控制，用户可根据工况相应选择档位，实现一台钻机达到三台发动机的功效；
- 动力头拥有普通模式和入岩模式，分别针对土层和岩层作业，提高了施工效率；
- 可选卷扬加压、套管驱动功能，满足用户多种需求；
- 标配集中润滑系统，维护保养更便捷；
- 整机通过德国莱茵公司欧盟CE认证。



### Technical Characteristics

It adopts dedicated hydraulic retractable crawler chassis and heavy slewing bearing and has high stability;  
 It adopts the luffing mechanism of large triangle form to ensure the stability of construction of big holes and deep piles in hard formation;  
 It adopts the front-located single-rope main winch structure to greatly prolong the service life of steel wire rope and lower the use cost;  
 According to specific working conditions, the users can select a corresponding gear of the Cummins turbo-supercharged engine with three gears, getting the drilling rig working as three engines;  
 Unit head can switch between Normal Mode and Rock Cracking Mode which are applicable for soil and rock excavation respectively, improving the efficiency;  
 Winch pressurization and sleeve drive are both available for selection to meet users' various demands;  
 It is equipped with a centralized lubrication system as standard configuration; maintenance is easier;  
 The complete machine has passed CE certification of T ü V Rheinland group.

### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 2.5/φ 2.2*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS508-4 × 17.0/61 ( 标配 Standard )	
		MZ508-5 × 17.1/78 ( 选配 Optional )	
		MZ508-6 × 17.1/91 ( 特配 Special )	
发动机 Engine	型号 Model	/	
	功率 Power	kW	298
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	320
	转速 Rotary speed	r/min	5.5-21
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	250
	最大提升力 Max. pull-down piston pull	kN	250
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	330
	最大提升力 Max. pull-down piston pull	kN	350
	最大行程 Max. pull-down piston stroke	m	16
主卷扬 Main winch	最大提升力 Max. pulling force	kN	280
	最大卷扬速度 Max. speed	m/min	75
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	100
	最大卷扬速度 Max. speed	m/min	65
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.5
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	445
	履带板宽度 Track shoe width	mm	800
液压系统 Hydraulic system	工作压力 Working pressure	MPa	32
	整机质量 Overall weight	t	95
外形尺寸 Dimension	工作状态 Working condition	mm	10480 × 4800 × 25155
	运输状态 Transportation condition	mm	16500 × 3500 × 3500

注：带“\*”的参数为卷扬加压配置对应参数。  
 Parameters with “\*” refer to the ones of crowd winch configuration.



## 性能特点

采用旋挖钻机专用液压伸缩式履带底盘，满足超强的稳定性和运输的便捷性；采用进口康明斯涡轮增压发动机（欧Ⅲ排放阶段），动力强劲，足够的动力储备满足高原施工，噪音、排放达到国家标准；恒功率最佳动力输出，使整机处于最佳工作状态；

主副液压系统均采用负荷传感技术，使液压系统效率更高，更节能；采用重载液压元件，满足旋挖钻机各种工况；

拥有专利的平行四边形铰接机构实现了较大范围的工作区域，钻桅设计为高强度材质的箱形结构，较高的刚性与抗扭曲性，有效地保证了钻孔精度，各铰接均采用免润滑轴承，转动灵活自如；360°上车回转任意角度排渣；

具有自主知识产权的智能控制系统，CAN总线和PLC控制系统的应用，包括钻桅垂直度自动/手动调整、深度自动检测显示、回转角度自动显示、智能故障诊断控制等；

动力头采用三个减速机驱动，满足大扭转输出；

标配集中润滑系统，维护保养更便捷。

## Technical Characteristics

The special hydraulic chassis for the rotating drill with extensible crawler is provided with the excellent stability and is convenient to transport, the imported Cummins turbo-supercharged engine (meeting EU-III standard) is powerful, and has sufficient power reserve, which can be operated in plateau, its noise and emission meet the national standards; the constant power and the best output enable the complete machine to function at its best;

The main and auxiliary hydraulic systems all adopt the technique of load sensor, which can increase the efficiency of hydraulic system and save energy; it uses heavy load hydraulic units to satisfy the all kinds operating status of drill;

The patented parallelogram hinge mechanism enlarges the work area;

Independent intellectual property rights of the intelligent control system, the application of CAN bus and the PLC control system, including the automatic and manual adjustment of the perpendicularity of the drill mast, the automatic display of the drilling depth, rotary automatic positioning control and the intellectual fault diagnosis control;

Three speed reducers are used in the power head, it can output high torque, the drill mast, which is made of the materials with high strength, is designed to box structure, the higher rigidity and anti-distortion can ensure the drilling accuracy effectively, the hinge provided with the bearing exempt from lubrication can turn neatly, the slag can be discharged at any point of 360° rotation;

Standard centralized lubricating system, allowing easier maintenance.



## 主要技术参数

## Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 2.5	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS508-4 × 17.0/62 (标配 Standard)	
		JS508-4 × 18.7/69 (选配 Optional)	
		MZ508-5 × 17.1/78 (选配 Optional)	
		MZ508-6 × 17.1/92 (特配 Special)	
		MZ508-6 × 18.7/102 (特配 Special)	
发动机 Engine	型号 Model	/	
	功率 Power	kW	298
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	360
	转速 Rotary speed	r/min	5-20
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	240
	最大提升力 Max. pull-down piston pull	kN	320
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	/
	最大行程 Max. pull-down piston stroke	m	/
主卷扬 Main winch	最大提升力 Max. pulling force	kN	320
	最大卷扬速度 Max. speed	m/min	72
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	100
	最大卷扬速度 Max. speed	m/min	65
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/5/15
底盘 Undercarriage	最大行走速度 Max. traveling speed	km/h	1.5
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	445
	履带板宽度 Track shoe width	mm	800
液压系统 Hydraulic system	工作压力 Working pressure	MPa	32
	履带最大总宽 Distance between tracks	mm	3500-4800
整机质量 Overall weight	t	92	
外形尺寸 Dimension	工作状态 Working condition	mm	11000 × 4800 × 24586
	运输状态 Transportation condition	mm	17380 × 3500 × 3810



### 性能特点

优化设计的双动臂变幅机构，优化铰点位置，兼顾施工稳定性与转场运输便捷性；  
 采用旋挖钻机专用H型液压伸缩式履带底盘，装备大直径回转支承，保证了超强的稳定性和运输的便捷性；  
 采用进口沃尔沃发动机，动力强劲，有效降低了燃油消耗和使用成本；  
 液压系统采用负荷传感技术，叠加总功率控制与极限功率控制技术，使液压系统效率更高，更节能，独立散热器系统，散热效率高；  
 徐工专有的单排绳主卷扬结构，有效的解决了钢丝绳“咬绳”问题，大大延长了钢丝绳的使用寿命；  
 动力头拥有普通模式和入岩模式，分别针对土层和岩层作业，提高了施工效率，动力头具有自动旋转功能，可在普通模式和入岩模式下转速连续可调；

标配集中润滑系统，维护保养更便捷，提高工作可靠性。

### Technical Characteristics

Optimally designed double swing arm luffing mechanism and optimized hinge point position take account of the construction stability and the transportation convenience at the same time;  
 Dedicated H-type hydraulic retractable crawler chassis for rotary drilling rigs with large-diameter slewing bearing ensures superior stability and convenient transportation;  
 Imported Volvo engine with strong power effectively reduces fuel consumption and use costs;  
 The hydraulic system adopts load sensing technology with total power control and limit power control, making the system more efficient and energy-saving, independent radiator system provides high heat dissipation efficiency;  
 The proprietary single-row rope main winch of XCMG effectively solves the twine problem and greatly prolongs the service life of wire rope;  
 The rotary drive owns normal mode special for soil layers and rock-entering mode special for rock formations, which improves construction efficiency, the autorotation of rotary drive can achieve continuous adjustments of speed in normal mode and rock-entering mode;  
 Standard centralized lubrication system makes the maintenance more convenient and improves working reliability.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter
最大钻孔直径 Max. drilling diameter	m	φ 2.6/φ 2.3*
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS530-4 × 17.0/61 ( 标配 Standard )
		JS530-4 × 18.0/65 ( 选配 Optional )
		MZ530-5 × 17.0/77 ( 选配 Optional )
		MZ530-5 × 18.0/82 ( 选配 Optional )
		MZ530-6 × 17.0/91 ( 特配 Special )
		MZ530-6 × 18.0/97 ( 特配 Special )
		JS508-4 × 19.0/69 ( 特配 Special )
		MZ508-5 × 19.0/87 ( 特配 Special )
MZ508-6 × 19.0/103 ( 特配 Special )		
发动机 Engine	型号 Model	/ TAD1353VE
	功率 Power	kW 345
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m 360
	转速 Rotary speed	r/min 6-27
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN 300
	最大提升力 Max. pull-down piston pull	kN 350
	最大行程 Max. pull-down piston stroke	m 6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN 300
	最大提升力 Max. pull-down piston pull	kN 350
	最大行程 Max. pull-down piston stroke	m 10/16
主卷扬 Main winch	最大提升力 Max. pulling force	kN 370
	最大卷扬速度 Max. speed	m/min 60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN 100
	最大卷扬速度 Max. speed	m/min 41
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	° ± 5/5/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h 1.3
	最大爬坡能力 Max. grade ability	% 35
	最小离地间隙 Min. clearance	mm 450
	履带板宽度 Track shoe width	mm 800
履带最大总宽 Distance between tracks	mm 3500-4900	
	工作压力 Working pressure	MPa 33
液压系统 Hydraulic system		
整机质量 Overall weight	t 115	
外形尺寸 Dimension	工作状态 Working condition	mm 10870 × 4900 × 25820
	运输状态 Transportation condition	mm 20650 × 3500 × 3845

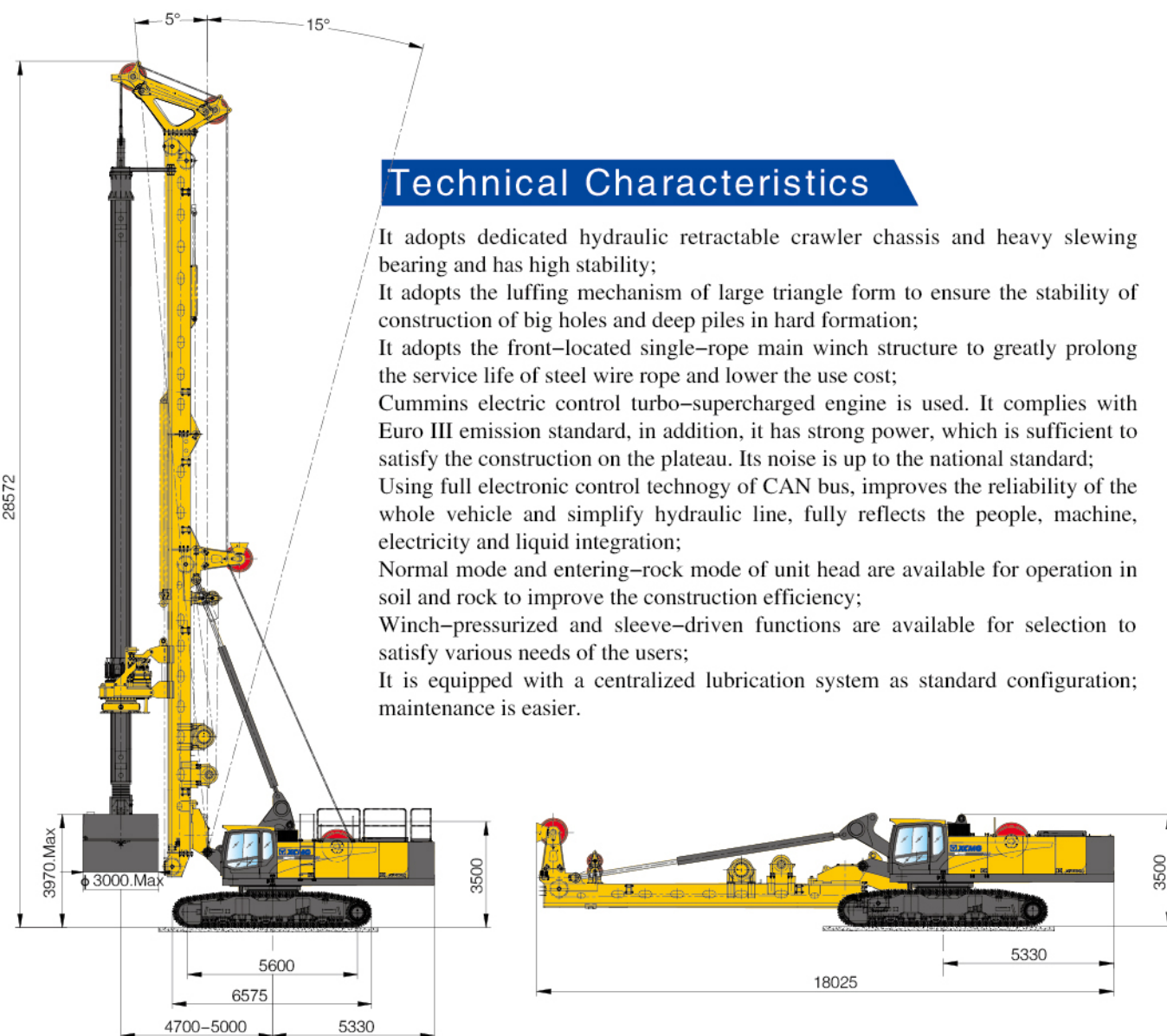
注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



### 性能特点

专用液压伸缩式履带底盘，重型回转支承，整机稳定高；  
 采用大三角变幅机构，保证了在大孔深桩硬地层施工的稳定；  
 前置单排绳主卷扬结构，钢丝绳寿命大大延长，使用成本更低；  
 康明斯发动机，动力强劲，足够的功率储备满足高原施工，噪音、排放满足欧Ⅲ标准；  
 采用CAN总线全电控技术，简化了液压管路、提高整车的可靠性，充分体现了人、机、液、电的一体化；  
 动力头拥有普通模式和入岩模式，分别针对土层和岩层作业，提高了施工效率；  
 可选卷扬加压、套管驱动功能，满足用户多种需求；  
 标配集中润滑系统，维护保养更便捷。



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ3/φ2.8*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS575-4 × 20.0/72 ( 标配 Standard )	
		MZ575-5 × 20.0/91 ( 选配 Optional )	
		MZ575-6 × 20.0/109 ( 选配 Optional )	
发动机 Engine	型号 Model	/	
	功率 Power	kW	373
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	400
	转速 Rotary speed	r/min	7-23
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	300
	最大提升力 Max. pull-down piston pull	kN	400
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	300
	最大提升力 Max. pull-down piston pull	kN	400
	最大行程 Max. pull-down piston stroke	m	16
主卷扬 Main winch	最大提升力 Max. pulling force	kN	420
	最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	100
	最大卷扬速度 Max. speed	m/min	65
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	±5/90/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.3
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	450
	履带板宽度 Track shoe width	mm	900
履带最大总宽 Distance between tracks	mm	3700-5100	
	液压系统 Hydraulic system	工作压力 Working pressure	MPa
整机质量 Overall weight	t	132	
外形尺寸 Dimension	工作状态 Working condition	mm	10530 × 5100 × 28572
	运输状态 Transportation condition	mm	18025 × 3700 × 3500

注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



## 性能特点

采用双动臂变幅机构和旋挖钻机专用H型液压伸缩式履带底盘，装备大直径回转支承，保证了超强的稳定性和运输的便捷性；

采用康明斯发动机，动力强劲，拥有三档功率控制，用户可根据工况选择相应档位，实现一台钻机发挥三台发动机的功效，优化的三档功率曲线，有效降低了燃油消耗和使用成本；

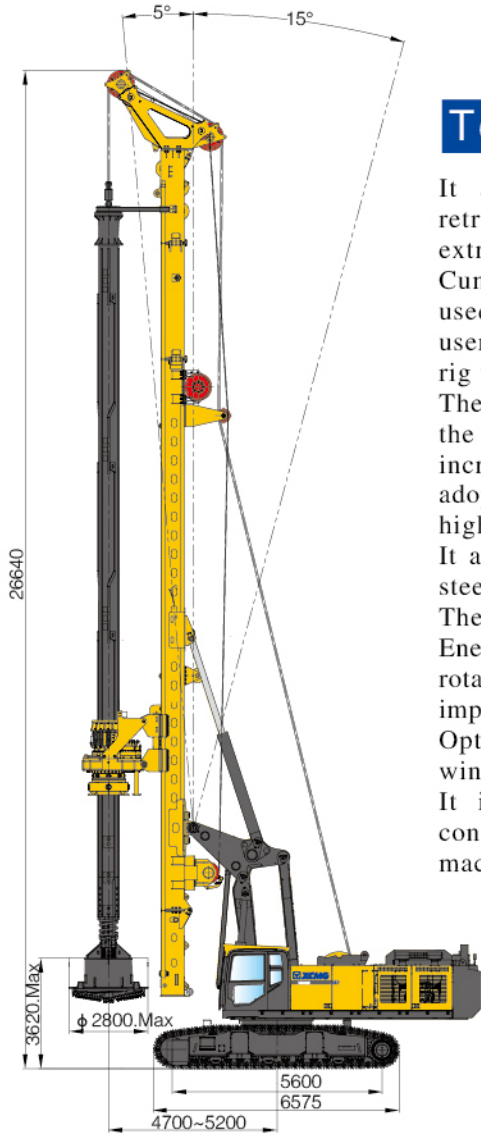
液压系统采用负荷传感技术，叠加总功率控制与极限功率控制技术，使液压系统效率更高，更节能，采用三合一组合散热器系统，结构紧凑、散热效率高；

徐工专有的单排绳主卷扬结构，有效的解决了钢丝绳“咬绳”问题，大大延长了钢丝绳的使用寿命；

动力头拥有普通模式、入岩模式和节能模式，用户可根据不同地质情况选择相应模式，提高了施工效率和降低了燃油消耗；

多种配置：可选配卷扬加压、套管驱动等，扩展性好；

标配集中润滑系统，维护保养更便捷，提高工作可靠性。



## Technical Characteristics

It adopts double-boom luffer and H-style. Dedicated hydraulic retractable crawler chassis and large diameter slewing bearing to provide extraordinary stability and transport convenience;

Cummins electric control turbo-supercharged with three gears engine is used, it has strong power. According to specific working conditions, the users can select a corresponding gear of the engine, getting the drilling rig working as three engines.

The main hydraulic system adopts the negative flow control, and adopts the main power control and limit power control together which can increase the system efficiency and make the most of the engine power. It adopt three-in-one cooling system which is tightly packed and has a high-efficiency in cooling.

It adopts the single-rope for main winch to figure out the wear of the steel rope, and extend the life-span.

The rotary drive can switch from Normal Mode, Rock Mode and Energy-Saving Mode, the user can select a corresponding mode of the rotary drive according to the specific working conditions, which can greatly improve the working efficiency and lower the fuel consumption.

Optional configuration according to customers' requirement, E.g: Crowd winch, Outrigger cylinder, Sleeve-driven and so on.

It is equipped with a centralized lubrication system as standard configuration to provide more convenient maintenance and make the machine a good reliability.

## 主要技术参数

## Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter		
最大钻孔直径 Max. drilling diameter	m	φ 2.8/ φ 2.5*		
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS530-4 × 17.0/61 ( 标配 Standard )		
		JS530-4 × 19.0/69 ( 选配 Optional )		
		MZ530-5 × 19.0/87 ( 选配 Optional )		
		JS575-4 × 17.0/60 ( 选配 Optional )		
MZ530-6 × 19.0/103 ( 特配 Special )	/	QSX15-C500		
		发动机 Engine	型号 Model	功率 Power
动力头 Rotary drive	kN · m	最大输出扭矩 Max. output torque	400	
		转速 Rotary speed	r/min	7-25
加压油缸 Crowd cylinder	kN	最大加压力 Max. pull-down piston push	300	
		最大提升力 Max. pull-down piston pull	400	
		最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	kN	最大加压力 Max. pull-down piston push	400	
		最大提升力 Max. pull-down piston pull	400	
主卷扬 Main winch	kN	最大提升力 Max. pulling force	370	
		最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	kN	最大提升力 Max. pulling force	100	
		最大卷扬速度 Max. speed	m/min	65
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 5/4/15	
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.3	
	最大爬坡度 Max. grade ability	%	35	
	最小离地间隙 Min. clearance	mm	450	
	履带板宽度 Track shoe width	mm	800	
履带最大总宽 Distance between tracks	mm	3500-4900		
		液压系统 Hydraulic system	工作压力 Working pressure	MPa
整机质量 Overall weight	t	118		
外形尺寸 Dimension	工作状态 Working condition	mm	10995 × 4900 × 26640	
	运输状态 Transportation condition	mm	20755 × 3500 × 3910	

注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



### 性能特点

液压系统响应快，操控性能好，根据工况需求调节主泵功率，辅系统采用负载敏感控制技术，系统综合施工效率提高20%；

采用旋挖钻机专用H型液压伸缩式履带底盘，装备大直径回转支承，搭配底盘拆装支腿，保证了工作稳定性和运输便捷性；

配置康明斯15L电控涡轮增压发动机，动力强劲，油耗低，服务方便快捷，采用中冷、水散独立风扇，噪音低；

动力头采用竖销连接式动力箱体与托架，可靠性高，且拆装方便快捷；配套管驱动器，提升钻机下套管能力；动力箱配置循环过滤系统，保持箱体的齿轮油的清洁度及轴承的充分润滑；

上置主卷扬，采用销轴连接，连接强度高，拆装便捷；箱型结构主卷扬支架，结构安全可靠；主卷扬可至520kN，满足M6使用工况；

智能控制系统实现钻桅垂直度自动调节与显示、自动甩土（频率可调）、定速巡航、加压力无级调节、触底保护等功能，采用总线面板设计，有限防止误操作，搭配12寸触屏显示器和电控手柄，操控性能更好。

### Technical Characteristics

The hydraulic system with fast response and good control performance, the main pump power is adjusted according to the working conditions, the auxiliary system adopts load sensitive control technology, and the comprehensive construction efficiency of the system is increased by 20%;

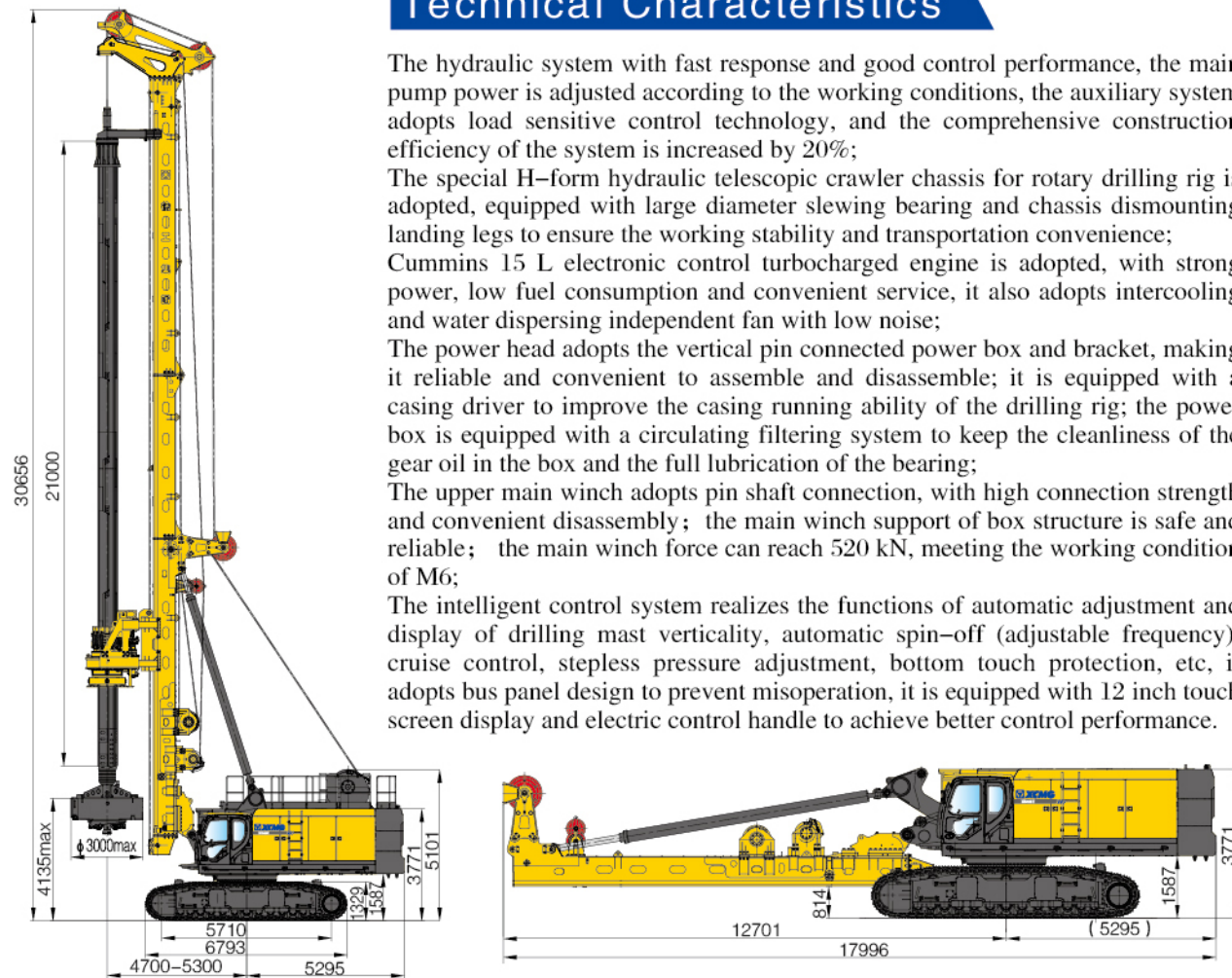
The special H-form hydraulic telescopic crawler chassis for rotary drilling rig is adopted, equipped with large diameter slewing bearing and chassis dismounting landing legs to ensure the working stability and transportation convenience;

Cummins 15 L electronic control turbocharged engine is adopted, with strong power, low fuel consumption and convenient service, it also adopts intercooling and water dispersing independent fan with low noise;

The power head adopts the vertical pin connected power box and bracket, making it reliable and convenient to assemble and disassemble; it is equipped with a casing driver to improve the casing running ability of the drilling rig; the power box is equipped with a circulating filtering system to keep the cleanliness of the gear oil in the box and the full lubrication of the bearing;

The upper main winch adopts pin shaft connection, with high connection strength and convenient disassembly; the main winch support of box structure is safe and reliable; the main winch force can reach 520 kN, meeting the working condition of M6;

The intelligent control system realizes the functions of automatic adjustment and display of drilling mast verticality, automatic spin-off (adjustable frequency), cruise control, stepless pressure adjustment, bottom touch protection, etc, it adopts bus panel design to prevent misoperation, it is equipped with 12 inch touch screen display and electric control handle to achieve better control performance.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 3/2.8*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS580-4 × 21.0/76 (标配 Standard)	
		MZ580-5 × 21.0/95 (选配 Optional)	
		MZ580-6 × 21.0/114 (选配 Optional)	
发动机 Engine	型号 Model	/	
	功率 Power	kW	399
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	450
	转速 Rotary speed	r/min	7-25
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	400
	最大提升力 Max. pull-down piston pull	kN	400
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	400
	最大提升力 Max. pull-down piston pull	kN	400
	最大行程 Max. pull-down piston stroke	m	10
主卷扬 Main winch	最大提升力 Max. pulling force	kN	520
	最大卷扬速度 Max. speed	m/min	70
	钢丝绳直径 Diameter of wire rope	mm	42
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	100
	最大卷扬速度 Max. speed	m/min	65
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 3/90/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.5
	最大爬坡度 Max. grade ability	%	35
	履带板宽度 Track shoe width	mm	900
	履带最大总宽 Distance between tracks	mm	3700-5300
整机质量 Overall weight	t	165	
外形尺寸 Dimension	工作状态 Working condition	mm	11200 × 5300 × 30656
	运输状态 Transportation condition	mm	18000 × 3771 × 3700

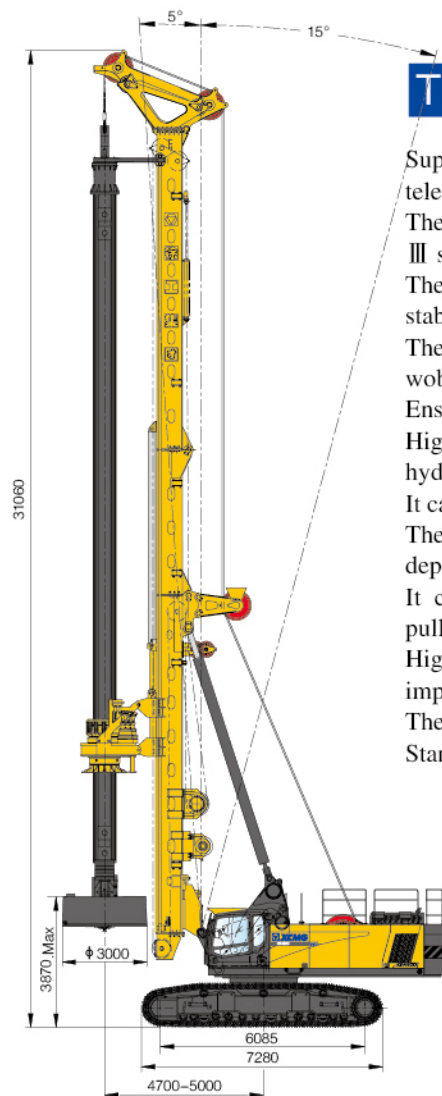
注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



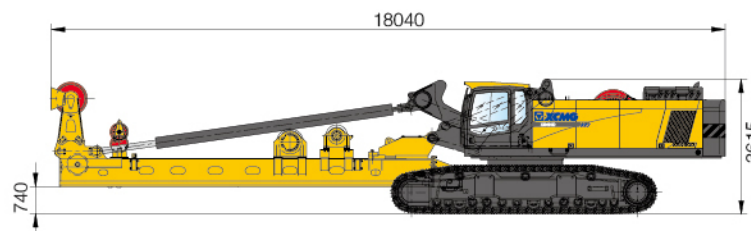
### 性能特点

采用旋挖钻机专用液压伸缩式履带底盘，满足超强的稳定性和运输的便捷性；  
 采用康明斯发动机，动力强劲，足够的功率储备满足高原施工，噪音、排放满足欧Ⅲ标准；  
 采用大三角变幅结构，具有超强的稳定性；  
 超大的钻桅截面，减低钻桅在施工时的晃动量，提高施工质量；  
 加装了钻杆托架，降低施工时钻杆晃动量，保证钻孔垂直度；  
 液压系统采用负荷传感技术，使液压系统效率更高，更节能；  
 可配置多种钻具，实现干湿两种钻孔作业，适用于多种地基的灌注桩钻孔工程。钻杆采用机锁式或摩阻式伸缩结构，通过牙嵌或摩擦板传递扭矩给钻具，传递扭矩大、效率高；  
 主卷扬钢丝绳采用单层缠绕，操作方便自如，大大的提高了钢丝绳的使用寿命。并在主卷扬上设有钻孔深度检测装置，单层绕绳使深度检测更准确、方便维修；  
 可选配卷扬加压，行程16米，卷扬加压最大加压力可达50吨；  
 动力头采用国际知名公司的进口减速机及马达，钻进扭矩大，工作效率高；  
 安装了观察主卷的红外摄像头，在驾驶室就能昼夜观察主卷钢丝绳使用情况；  
 标配集中润滑系统，维护保养更便捷。



### Technical Characteristics

Super stability and convenience of transportation, for using the special hydraulic and telescopic crawling chassis of rotary drilling rig;  
 The Cummins engine provides strong power, and the noise and emission meet Europe III standard;  
 The design of big trigonal luffing mechanism brings a significant improvement in stability;  
 The quality of work is enhanced by increasing the mast section to reduce mechanical wobble of the mast;  
 Ensure verticality of the hole by adding a bracket for drill pipe;  
 High-performance and more energy-efficient, due to the technology of load-sensing hydraulic system;  
 It can be equipped with a variety of drilling tools to realize drought and wet working;  
 The single winding roll of main winch enhances the life of rope and the precision of depth detection;  
 It can choose winch pull-down. The travel is 16 m, The Max. force of winch pull-down is 500kN;  
 Highly effective drilling torques, due to the robust drilling head, which choose the import motor and reducer manufactured by internationally renowned company;  
 The worker can observe the rope in cab day and night by infrared camera;  
 Standard centralized lubricating system, allowing easier maintenance.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 3/ φ 2.8*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS630-4 × 22.0/79 ( 标配 Standard )	
		MZ630-5 × 22.0/100 ( 选配 Optional )	
		MZ630-6 × 22.0/120 ( 选配 Optional )	
发动机 Engine	型号 Model	/	
	功率 Power	kW	447
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	460
	转速 Rotary speed	r/min	5.5-20
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	300
	最大提升力 Max. pull-down piston pull	kN	400
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	500
	最大提升力 Max. pull-down piston pull	kN	500
	最大行程 Max. pull-down piston stroke	m	16
主卷扬 Main winch	最大提升力 Max. pulling force	kN	520
	最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	180
	最大卷扬速度 Max. speed	m/min	50
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 5/90/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1
	最大爬坡能力 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	500
	履带板宽度 Track shoe width	mm	1000
液压系统 Hydraulic system	工作压力 Working pressure	MPa	32
	履带最大总宽 Distance between tracks	mm	4050-5500
整机质量 Overall weight	t	168	
外形尺寸 Dimension	工作状态 Working condition	mm	10750 × 5500 × 31060
	运输状态 Transportation condition	mm	18040 × 4050 × 3615

注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.

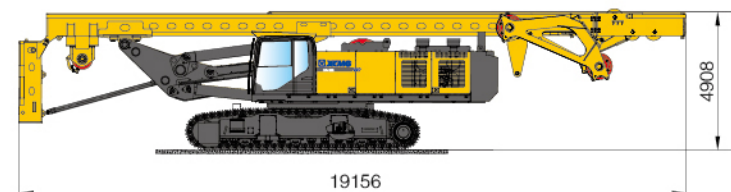
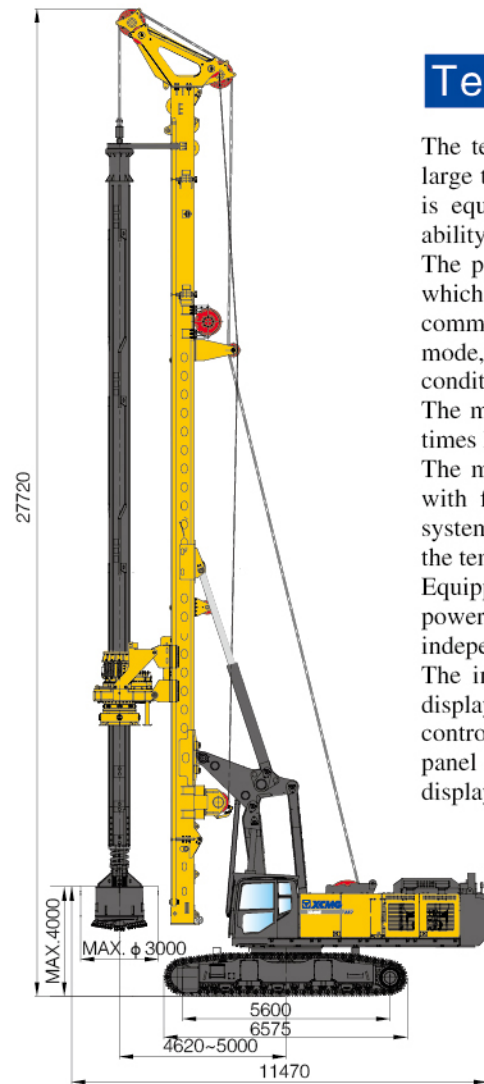


### 性能特点

采用带摆动支腿的伸缩式履带底盘，满足大吨位钻机稳定性和拆装运输的便捷性，装备大直径回转支承，抗倾覆能力更强；  
 动力头采用竖销连接式动力箱体与托架，可靠性高，且拆装方便快捷；动力头拥有普通模式、入岩模式、中速入岩模式和节能模式，用户可根据不同地质情况选择相应模式，提高了施工效率和降低了燃油消耗；  
 主卷扬采用单排绳技术，钢丝绳寿命比多层绳长 2~4 倍，使用成本更低；  
 液压主、副系统采用负载敏感控制技术，响应快，操控性能好，采用双顶置散热系统，根据温度智能调节散热能力，散热能力强，节能降噪；  
 配置康明斯 15L 电控涡轮增压发动机，动力强劲，油耗低，服务方便快捷，采用分散式独立散热系统，散热能力强，噪音低；  
 智能控制系统实现钻桅垂直度自动调节与显示、自动甩土（频率可调）、定速巡航、加压力无级调节、触底保护等功能，采用总线面板设计，有效防止误操作，搭配 12 寸触屏显示器，操控性能好。

### Technical Characteristics

The telescopic crawler chassis with swing legs is adopted to meet the stability of large tonnage drilling rig and the convenience of disassembly and transportation, it is equipped with large diameter slewing bearing with stronger anti overturning ability;  
 The power head adopts vertical pin shaft connection type power box and bracket, which has high reliability and is convenient to disassemble; the power head has common mode, rock entry mode, medium speed rock entry mode and energy-saving mode, and users can select corresponding modes according to different geological conditions, which improves construction efficiency and reduces fuel consumption;  
 The main winch adopts single row rope, the service life of steel wire rope is 2 ~ 4 times longer than that of multi-layer rope, and the use cost is lower;  
 The main and auxiliary hydraulic systems adopt load sensitive control technology, with fast response and good control performance, the double overhead cooling system is adopted, which can intelligently adjust the cooling capacity according to the temperature, with strong cooling capacity, energy saving and noise reduction;  
 Equipped with Cummins 15 L electronic control turbocharged engine, it has strong power, low fuel consumption, convenient and fast service, and adopts decentralized independent cooling system, with strong cooling capacity and low noise;  
 The intelligent control system realizes the functions of automatic adjustment and display of drilling mast verticality, automatic spin-off (adjustable frequency), cruise control, stepless pressure adjustment, bottom touch protection, etc, it adopts bus panel design to prevent misoperation, it is equipped with 12 inch touch screen display and electric control handle to achieve better control performance.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter
最大钻孔直径 Max. drilling diameter	m	φ 3 (拆钻桅   Mast   disassembled)
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS575-4 × 17.5 /63 (标配 Standard)
		JS575-4 × 18.0 /65 (选配 Optional)
		JS575-4 × 19.0 /69 (选配 Optional)
		MZ575-5 × 19.0 /86 (选配 Optional)
发动机 Engine	型号 Model	QSX15-C600
	功率 Power	447 kW
动力头 Rotary drive	最大输出扭矩 Max. output torque	460 kN·m
	转速 Rotary speed	6~25 r/min
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	350 kN
	最大提升力 Max. pull-down piston pull	400 kN
	最大行程 Max. pull-down piston stroke	6 m
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	400 kN
	最大提升力 Max. pull-down piston pull	400 kN
主卷扬 Main winch	最大提升力 Max. pulling force	450 kN
	最大卷扬速度 Max. speed	70 m/min
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	110 kN
	最大卷扬速度 Max. speed	50 m/min
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	± 4/5/15 °
底盘 Undercarriage	最大行走速度 Max. traveling speed	1.3 km/h
	最大爬坡度 Max. grade ability	35 %
	最小离地间隙 Min. clearance	445 mm
	履带板宽度 Track shoe width	900 mm
液压系统 Hydraulic system	工作压力 Working pressure	33 MPa
	整机质量 Overall weight	135 t
外形尺寸 Dimension	工作状态 Working condition	11470 × 5100 × 27720 mm
	运输状态 Transportation condition	19156 × 3700 × 4000 mm

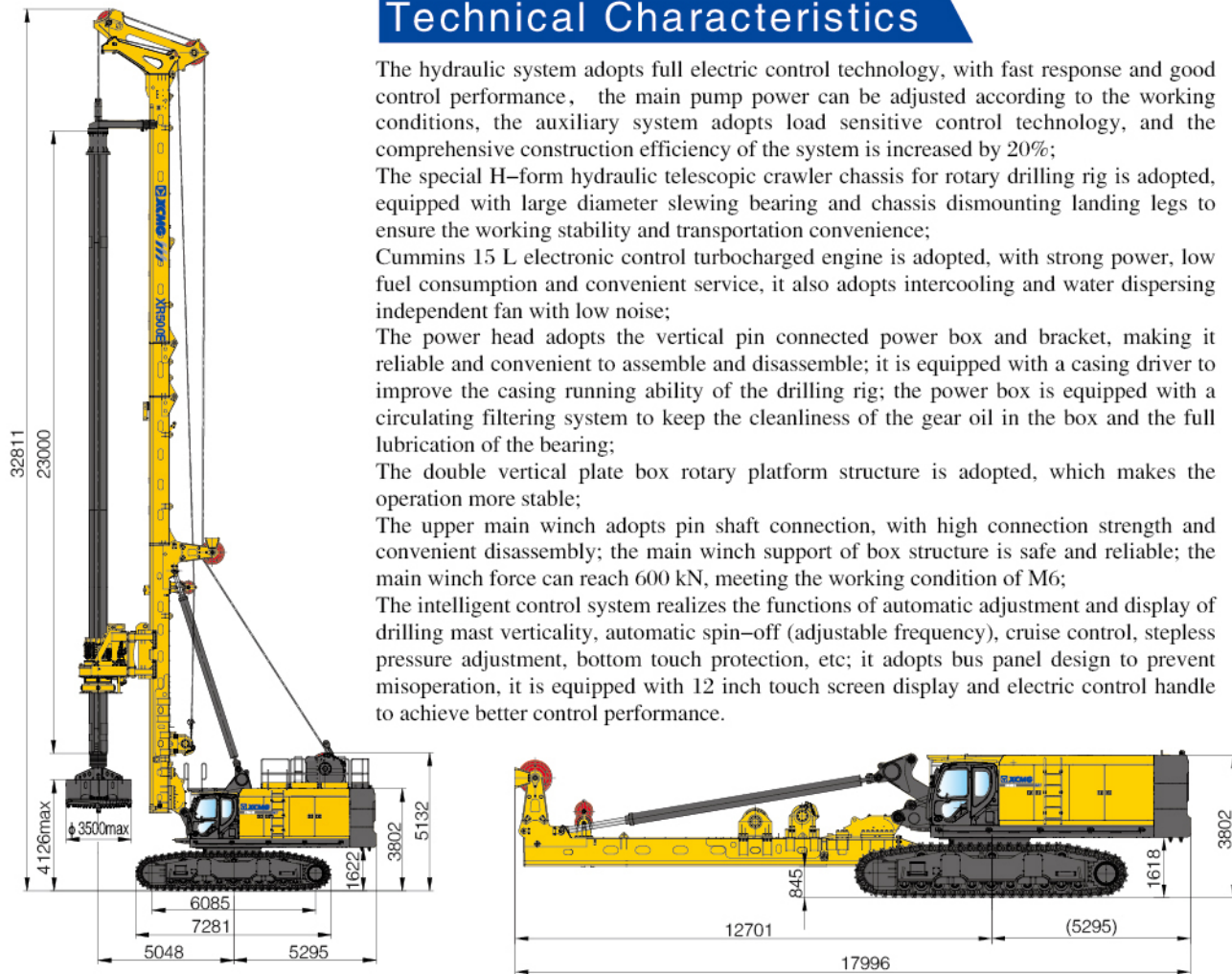


### 性能特点

液压系统采用全电控控制技术，响应快，操控性能好，根据工况需求调节主泵功率，辅系统采用负载敏感控制技术，系统综合施工效率提高20%；  
 采用旋挖钻机专用H型液压伸缩式履带底盘，装备大直径回转支承，搭配底盘拆装支腿，保证了工作稳定性和运输便捷性；  
 配置康明斯15L电控涡轮增压发动机，动力强劲，油耗低，服务方便快捷，采用中冷、水散独立风扇，噪音低；  
 动力头采用竖销连接式动力箱体与托架，可靠性高，且拆装方便快捷；配套管驱动器，提升钻机下套管能力；动力箱配置循环过滤系统，保持箱体的齿轮油的清洁度及轴承的充分润滑；  
 采用双大立板箱型回转平台结构，作业更稳定可靠；  
 上置主卷扬，采用销轴连接，连接强度高，拆装便捷；箱型结构主卷扬支架，结构安全可靠；主卷扬可至600kN，满足M6使用工况；  
 智能控制系统实现钻桅垂直度自动调节与显示、自动甩土（频率可调）、定速巡航、加压力无级调节、触底保护等功能，采用总线面板设计，有限防止误操作，搭配12寸触屏显示器和电控手柄，操控性能更好。

### Technical Characteristics

The hydraulic system adopts full electric control technology, with fast response and good control performance, the main pump power can be adjusted according to the working conditions, the auxiliary system adopts load sensitive control technology, and the comprehensive construction efficiency of the system is increased by 20%;  
 The special H-form hydraulic telescopic crawler chassis for rotary drilling rig is adopted, equipped with large diameter slewing bearing and chassis dismounting landing legs to ensure the working stability and transportation convenience;  
 Cummins 15 L electronic control turbocharged engine is adopted, with strong power, low fuel consumption and convenient service, it also adopts intercooling and water dispersing independent fan with low noise;  
 The power head adopts the vertical pin connected power box and bracket, making it reliable and convenient to assemble and disassemble; it is equipped with a casing driver to improve the casing running ability of the drilling rig; the power box is equipped with a circulating filtering system to keep the cleanliness of the gear oil in the box and the full lubrication of the bearing;  
 The double vertical plate box rotary platform structure is adopted, which makes the operation more stable;  
 The upper main winch adopts pin shaft connection, with high connection strength and convenient disassembly; the main winch support of box structure is safe and reliable; the main winch force can reach 600 kN, meeting the working condition of M6;  
 The intelligent control system realizes the functions of automatic adjustment and display of drilling mast verticality, automatic spin-off (adjustable frequency), cruise control, stepless pressure adjustment, bottom touch protection, etc; it adopts bus panel design to prevent misoperation, it is equipped with 12 inch touch screen display and electric control handle to achieve better control performance.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 3.5/φ 3.2*	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS630-4 × 23.0/84 (标配 Standard)	
		MZ630-5 × 23.0/105 (选配 Optional)	
		MZ630-6 × 23.0/126 (选配 Optional)	
发动机 Engine	型号 Model	/	
	功率 Power	kW	447
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	500
	转速 Rotary speed	r/min	6-22
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	500
	最大提升力 Max. pull-down piston pull	kN	500
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	500
	最大提升力 Max. pull-down piston pull	kN	500
	最大行程 Max. pull-down piston stroke	m	10
主卷扬 Main winch	最大提升力 Max. pulling force	kN	600
	最大卷扬速度 Max. speed	m/min	65
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	180
	最大卷扬速度 Max. speed	m/min	60
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 3/90/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.5
	最大爬坡度 Max. grade ability	%	35
	履带板宽度 Track shoe width	mm	900
	履带最大总宽 Distance between tracks	mm	3700-5300
整机质量 Overall weight	t	185	
外形尺寸 Dimension	工作状态 Working condition	mm	11500 × 5300 × 32656
	运输状态 Transportation condition	mm	18000 × 3771 × 3700

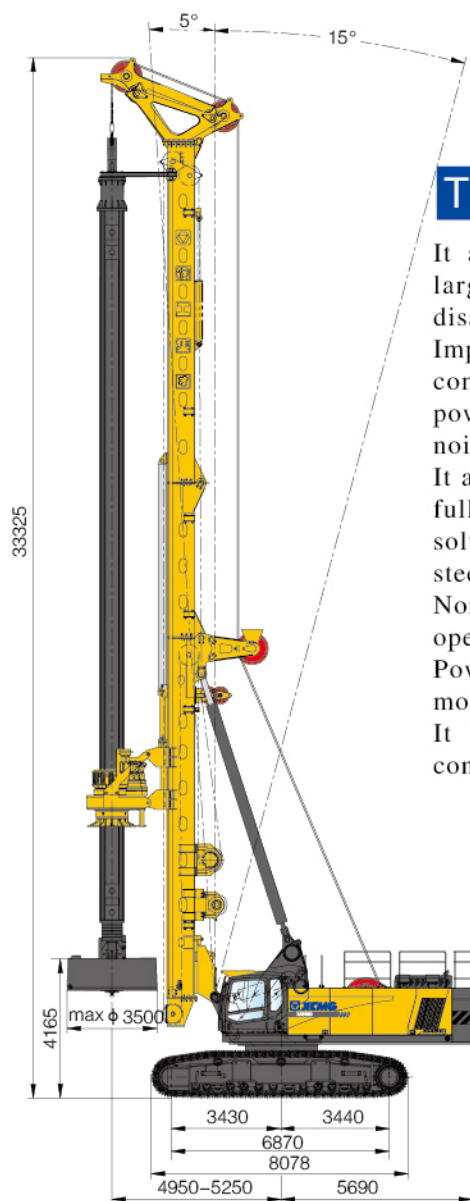
注：带“\*”的参数为卷扬加压配置对应参数。

Parameters with “\*” refer to the ones of crowd winch configuration.



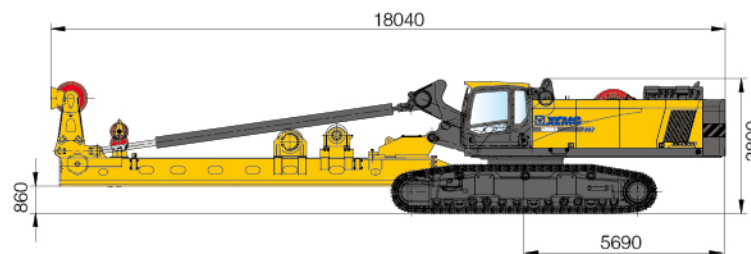
### 性能特点

专用H型液压伸缩式履带底盘，装备大直径回转支承，底盘带摆动支腿，可辅助拆卸；  
 采用进口康明斯发动机，动力强劲，足够的功率储备满足高原施工，噪音、排放满足欧Ⅲ标准；  
 单排绳主卷扬结构，主卷扬钢丝绳在全钻深132米状态下，均可满足单排绳卷绕，有效的解决了钢丝绳“咬绳”问题，大大延长了钢丝绳的使用寿命；  
 动力头拥有普通模式和入岩模式，分别针对土层和岩层作业，提高了施工效率；  
 动力头具有自动旋转功能，可在普通模式和入岩模式下转速连续可调；  
 标配集中润滑系统，维护保养更便捷。



### Technical Characteristics

It adopts dedicated H-type hydraulic retractable crawler chassis and large diameter slewing bearing, chassis with swing legs to aid disassemble;  
 Imported Cummins electric control turbo-supercharged engine is used, it complies with Euro III emission standard, in addition, it has strong power, which is sufficient to satisfy the construction on the plateau, its noise is up to the national standard;  
 It adopts the single-rope main winch structure, the main winch rope at full drilling depth 132 m status can meet single-rope winding, effective solution to line tangle problem, to greatly prolong the service life of steel wire rope;  
 Normal mode and entering-rock mode of unit head are available for operation in soil and rock to improve the construction efficiency;  
 Power head with automatic rotation, in normal mode and entering-rock mode rotating speed continuously adjustable;  
 It is equipped with a centralized lubrication system as standard configuration, maintenance is easy.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 3.5	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS630-4 × 24.0/87 ( 标配 Standard )	
		MZ630-5 × 24.0/110 ( 选配 Optional )	
		MZ630-6 × 24.0/132 ( 选配 Optional )	
发动机 Engine	型号 Model	/	
	功率 Power	kW	447
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	550
	转速 Rotary speed	r/min	6-20
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	300
	最大提升力 Max. pull-down piston pull	kN	400
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	400
	最大提升力 Max. pull-down piston pull	kN	520
	最大行程 Max. pull-down piston stroke	m	10/16
主卷扬 Main winch	最大提升力 Max. pulling force	kN	600
	最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	180
	最大卷扬速度 Max. speed	m/min	50
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 5/90/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	500
	履带板宽度 Track shoe width	mm	1000
液压系统 Hydraulic system	工作压力 Working pressure	MPa	33
	整机质量 Overall weight	t	185
外形尺寸 Dimension	工作状态 Working condition	mm	12790 × 6000 × 33325
	运输状态 Transportation condition	mm	18040 × 4550 × 3800

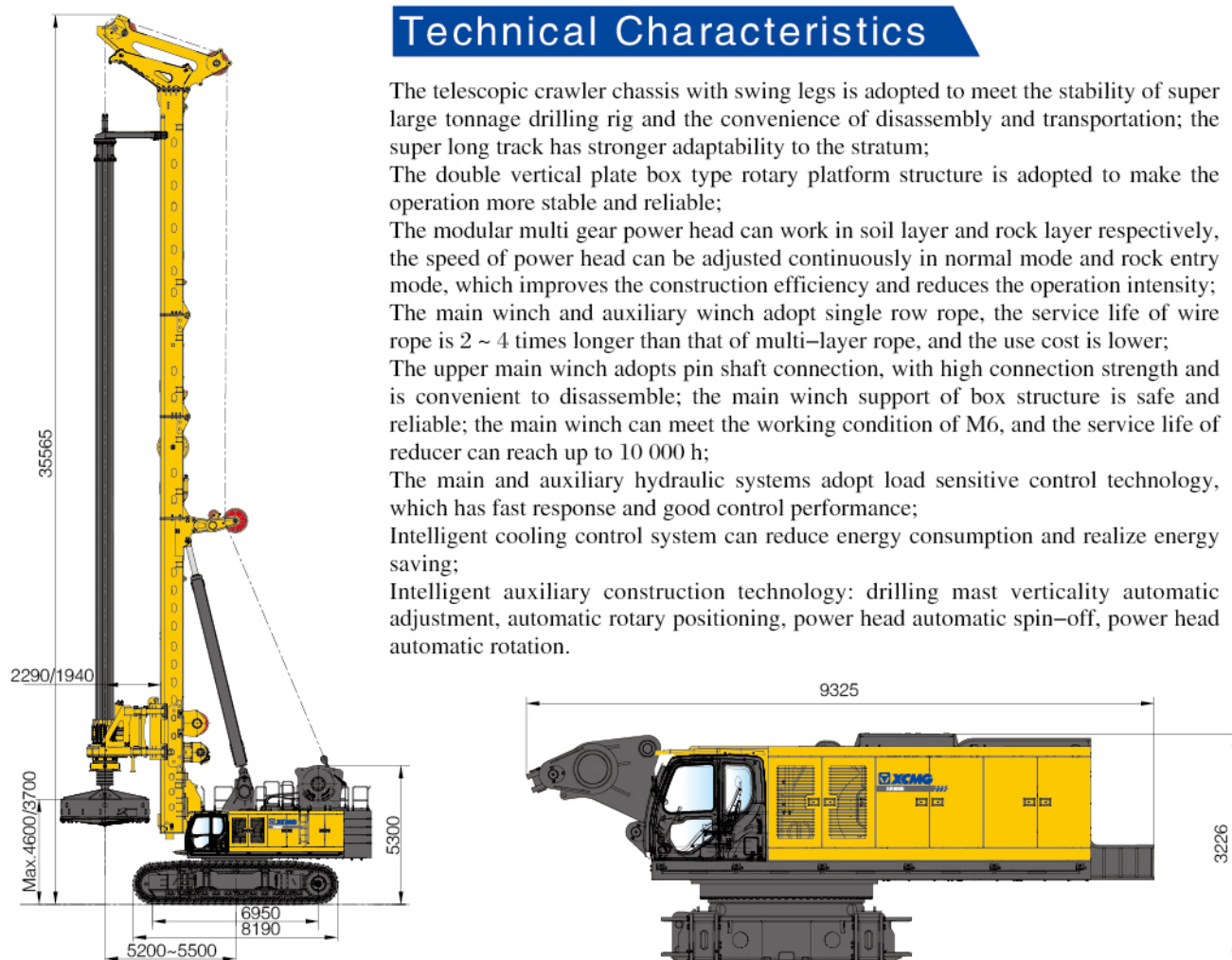


### 性能特点

采用带摆动支腿的伸缩式履带底盘，满足超大吨位钻机稳定性和拆装运输的便捷性，超长轮距，对地层适应能力更强；  
 用双大立板箱型回转平台结构，作业更稳定可靠；  
 模块化多档位动力头，分别针对土层和岩层作业，动力头可在普通模式和入岩模式下转速连续可调，提高了施工效率，降低了操作强度；  
 主、副卷扬均采用单排绳技术，钢丝绳寿命比多层绳长2~4倍，使用成本更低；  
 上置主卷扬，采用销轴连接，连接强度高，拆装便捷；箱型结构主卷扬支架，结构安全可靠；主卷扬满足M6使用工况，减速机寿命最高可达10000h；  
 液压主、副系统采用负载敏感控制技术，响应快，操控性能好；  
 智能散热控制系统，降低能耗，实现节能；  
 智能化辅助施工技术：钻桅垂直度自动调节、自动回转定位、动力头自动甩土、动力头自动旋转。

### Technical Characteristics

The telescopic crawler chassis with swing legs is adopted to meet the stability of super large tonnage drilling rig and the convenience of disassembly and transportation; the super long track has stronger adaptability to the stratum;  
 The double vertical plate box type rotary platform structure is adopted to make the operation more stable and reliable;  
 The modular multi gear power head can work in soil layer and rock layer respectively, the speed of power head can be adjusted continuously in normal mode and rock entry mode, which improves the construction efficiency and reduces the operation intensity;  
 The main winch and auxiliary winch adopt single row rope, the service life of wire rope is 2 ~ 4 times longer than that of multi-layer rope, and the use cost is lower;  
 The upper main winch adopts pin shaft connection, with high connection strength and is convenient to disassemble; the main winch support of box structure is safe and reliable; the main winch can meet the working condition of M6, and the service life of reducer can reach up to 10 000 h;  
 The main and auxiliary hydraulic systems adopt load sensitive control technology, which has fast response and good control performance;  
 Intelligent cooling control system can reduce energy consumption and realize energy saving;  
 Intelligent auxiliary construction technology: drilling mast verticality automatic adjustment, automatic rotary positioning, power head automatic spin-off, power head automatic rotation.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 3.5/φ 4 (特配 Special)	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS630-4 × 25.0/91 (标配 Standard) (φ 3.5)	
		JS630-4 × 26.0/95 (选配 Optional) (φ 3.5)	
		JS630-4 × 24.0/87 (选配 Optional) (φ 3.5/φ 4)	
		JS630-4 × 26.5/97 (特配 Special) (φ 3)	
		MZ630-6 × 26.0/143 (选配 Optional) (φ 3.5)	
MZ630-6 × 26.5/146 (特配 Special) (φ 3)	MZ630-6 × 27.2/150 (特配 Special) (φ 3)		
发动机 Engine	型号 Model	/	
	功率 Power	kW	567
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	600
	转速 Rotary speed	r/min	6~20
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	500
	最大提升力 Max. pull-down piston pull	kN	600
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	500
	最大提升力 Max. pull-down piston pull	kN	600
	最大行程 Max. pull-down piston stroke	m	13
主卷扬 Main winch	最大提升力 Max. pulling force	kN	700
	最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	180
	最大卷扬速度 Max. speed	m/min	50
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/90/15
底盘 Undercarriage	最大行走速度 Max. traveling speed	km/h	1
	最大爬坡度 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	500
	履带板宽度 Track shoe width	mm	1000
履带最大总宽 Distance between tracks		mm	4550-6000
液压系统 Hydraulic system	工作压力 Working pressure	MPa	33
整机质量 Overall weight		t	225
外形尺寸 Dimension	工作状态 Working condition	mm	12000 × 6000 × 35565
	运输状态 Transportation condition	mm	/

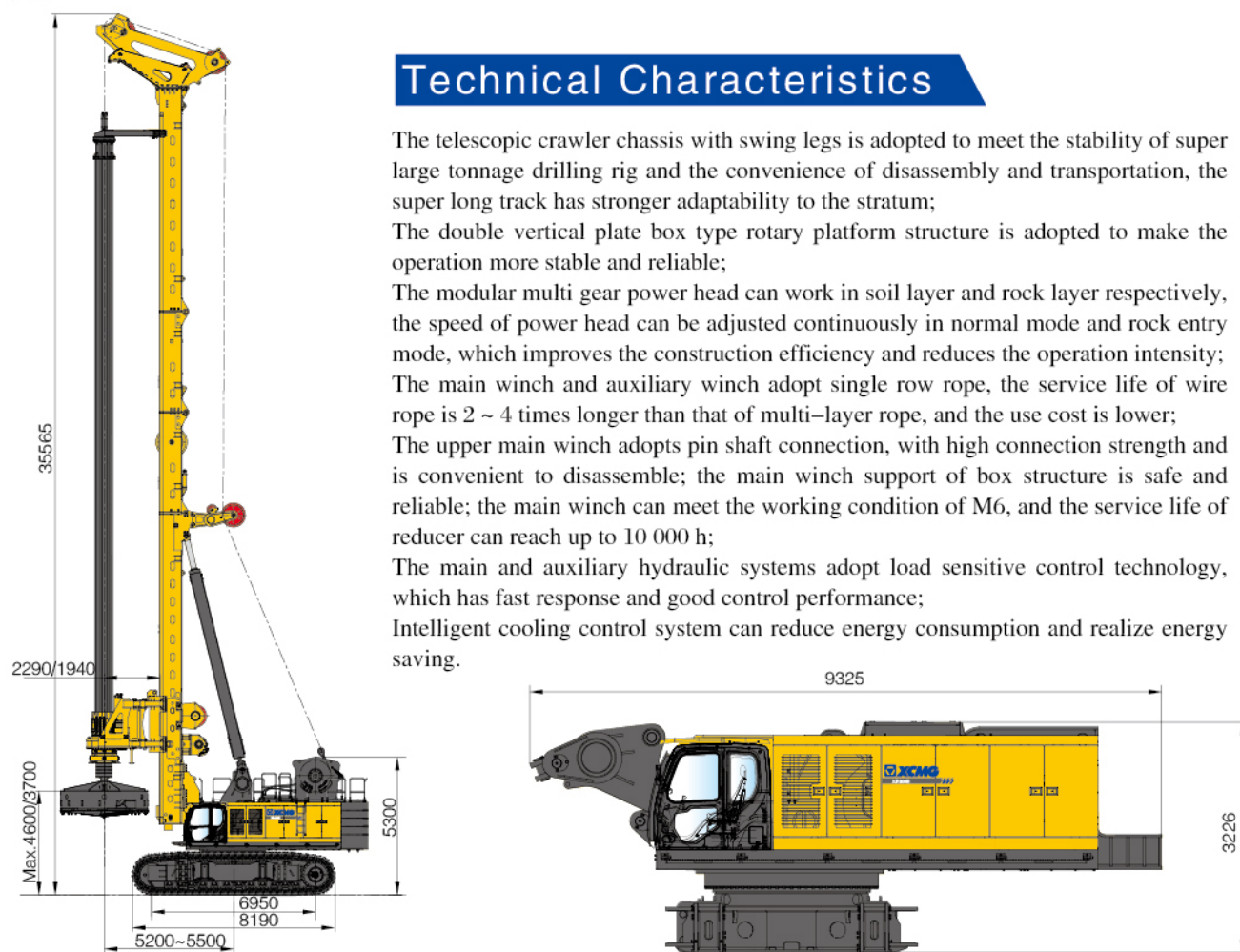


### 性能特点

采用带摆动支腿的伸缩式履带底盘，满足超大吨位钻机稳定性和拆装运输的便捷性，超长轮距，对地层适应能力更强；  
 采用双大立板箱型回转平台结构，作业更稳定可靠；  
 模块化多档位动力头，分别针对土层和岩层作业，动力头可在普通模式和入岩模式下转速连续可调，提高了施工效率，降低了操作强度；  
 主、副卷扬均采用单排绳技术，钢丝绳寿命比多层绳长2~4倍，使用成本更低；  
 上置主卷扬，采用销轴连接，连接强度高，拆装便捷；箱型结构主卷扬支架，结构安全可靠；主卷扬满足M6使用工况，减速机寿命最高可达10000h；  
 液压主、副系统采用负载敏感控制技术，响应快，操控性能好；  
 智能散热控制系统，降低能耗，实现节能；  
 智能化辅助施工技术：钻桅垂直度自动调节、自动回转定位、动力头自动甩土、动力头自动旋转。

### Technical Characteristics

The telescopic crawler chassis with swing legs is adopted to meet the stability of super large tonnage drilling rig and the convenience of disassembly and transportation, the super long track has stronger adaptability to the stratum;  
 The double vertical plate box type rotary platform structure is adopted to make the operation more stable and reliable;  
 The modular multi gear power head can work in soil layer and rock layer respectively, the speed of power head can be adjusted continuously in normal mode and rock entry mode, which improves the construction efficiency and reduces the operation intensity;  
 The main winch and auxiliary winch adopt single row rope, the service life of wire rope is 2 ~ 4 times longer than that of multi-layer rope, and the use cost is lower;  
 The upper main winch adopts pin shaft connection, with high connection strength and is convenient to disassemble; the main winch support of box structure is safe and reliable; the main winch can meet the working condition of M6, and the service life of reducer can reach up to 10 000 h;  
 The main and auxiliary hydraulic systems adopt load sensitive control technology, which has fast response and good control performance;  
 Intelligent cooling control system can reduce energy consumption and realize energy saving.



标准配置的尺寸图

### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter
最大钻孔直径 Max. drilling diameter	m	φ 3.5/ φ 4 ( 特配 Special )
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS720-4 × 24.0/86 ( 标配 Standard ) ( φ 3.5/ φ 4 )
		JS720-4 × 25.0/90 ( 选配 Optional ) ( φ 3.5 )
		JS720-4 × 26.0/94 ( 选配 Optional ) ( φ 3.5 )
		JS630-4 × 25.0/90 ( 选配 Optional ) ( φ 3.5/ φ 4 )
		JS630-4 × 26.5/96 ( 选配 Optional ) ( φ 3.5 )
		JS630-4 × 27.5/100 ( 特配 Special ) ( φ 3.5 )
		MZ630-6 × 29.0/160 ( 特配 Special ) ( φ 2.5 )
发动机 Engine	型号 Model	/
	功率 Power	kW
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m
	转速 Rotary speed	r/min
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN
	最大提升力 Max. pull-down piston pull	kN
	最大行程 Max. pull-down piston stroke	m
主卷扬 Main winch	最大提升力 Max. pulling force	kN
	最大卷扬速度 Max. speed	m/min
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN
	最大卷扬速度 Max. speed	m/min
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h
	最大爬坡度 Max. grade ability	%
	最小离地间隙 Min. clearance	mm
	履带板宽度 Track shoe width	mm
液压系统 Hydraulic system	工作压力 Working pressure	MPa
	整机质量 Overall weight	t
外形尺寸 Dimension	工作状态 Working condition	mm
	运输状态 Transportation condition	mm

Parameters with “\*” refer to the ones of crowd winch configuration.

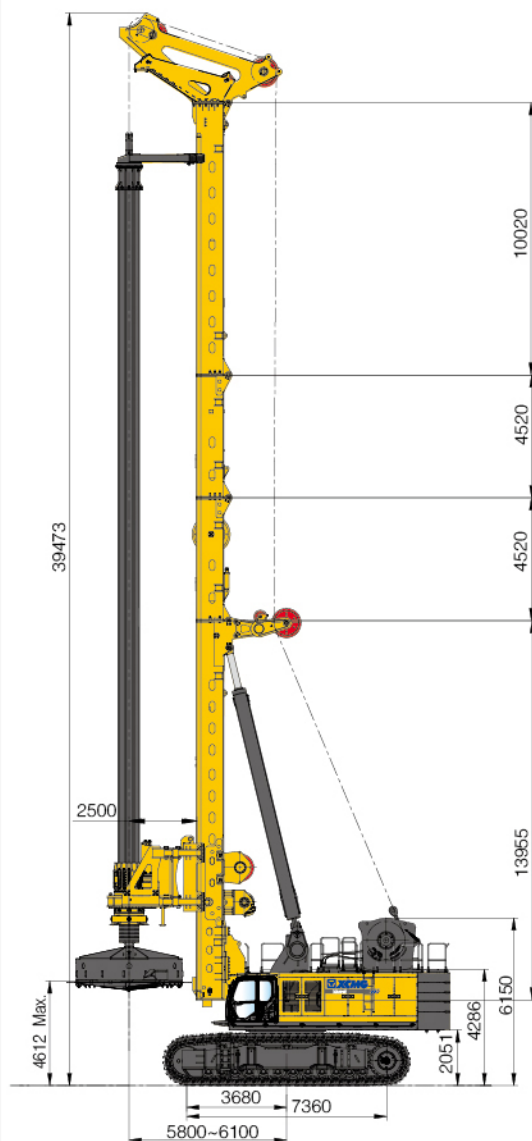


### 性能特点

采用销轴连接不可伸缩式履带底盘，满足超大吨位钻机稳定性和拆装运输的便捷性，超长轮距，对地层适应能力更强；  
 采用双大立板箱型回转平台结构，作业更稳定可靠；  
 动力头采用卓仑双速比减速机配250马达，实现高低速两档功能；  
 主、副卷扬均采用单排绳技术，钢丝绳寿命比多层绳长2~4倍，使用成本更低；  
 上置主卷扬，采用销轴连接，连接强度高，拆装便捷。箱型结构主卷扬支架，结构安全可靠。主卷扬满足M6使用工况，减速机寿命最高可达10000h；  
 液压主、副系统采用负载敏感控制技术，响应快，操控性能好；  
 智能散热控制系统，降低能耗，实现节能；  
 智能化辅助施工技术：钻桅垂直度自动调节、自动回转定位、动力头自动甩土、动力头自动旋转；  
 底盘配置运输支腿，转场拆装更简便、安全。

### Technical Characteristics

It adopts pin-linked non-retractable chassis to obtain stability of superlarge tonnage rigs and convenience of disassembly transportation; and extra-long wheel track makes it more adaptable to various formations;  
 It adopts box-type slewing platform with double large vertical plate, which makes the operation more stable and reliable;  
 The rotary drive adopts Zollern dual-speed reducer with 250 motor to realize high and low speed;  
 The main and auxiliary winches all adopt single-row rope technology, through which the service life of wire rope is 2~4 times longer than that of multi-layer rope, and the use cost is lower;  
 The upper main winch is connected by a pin shaft, which has high connection strength and is convenient to dismount. The main winch bracket of box-type structure is safe and reliable. The main winch meets the M6 working condition and the life of reducer can reach up to 10000h;  
 The hydraulic main and auxiliary systems adopt load-sensitive control technology to obtain quick response and good control performance;  
 Intelligent cooling control system reduces energy consumption, making the rig energy-saving;  
 Intelligent auxiliary construction technologies: automatic adjustment of drilling mast verticality, automatic slewing positioning, automatic spin-off and rotation of rotary drive;  
 The chassis is equipped with transport legs, making it easier and safer for site transfer and transportation.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 4.6	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS720-4 × 27.5/100 ( 标配 Standard )	
		JS720-5 × 27.5/125 ( 选配 Optional )	
		MZ720-5 × 27.5/126 ( 选配 Optional )	
		MZ720-6 × 27.5/150 ( 选配 Optional )	
发动机 Engine	型号 Model	/	
	功率 Power	kW	641
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	793
	转速 Rotary speed	r/min	5-40
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	/
	最大提升力 Max. pull-down piston pull	kN	/
	最大行程 Max. pull-down piston stroke	m	/
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	600
	最大提升力 Max. pull-down piston pull	kN	800
	最大行程 Max. pull-down piston stroke	m	10/16
主卷扬 Main winch	最大提升力 Max. pulling force	kN	800
	最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	180
	最大卷扬速度 Max. speed	m/min	50
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 4/90/10
	最大行走速度 Max. traveling speed	km/h	1
底盘 Undercarrige	最大爬坡度 Max. grade ability	%	30
	最小离地间隙 Min. clearance	mm	750
	履带板宽度 Track shoe width	mm	1200
	履带最大总宽 Distance between tracks	mm	6600
液压系统 Hydraulic system	工作压力 Working pressure	MPa	35
整机质量 Overall weight	t	320	
外形尺寸 Dimension	工作状态 Working condition	mm	13780 × 6600 × 39473
	运输状态 Transportation condition	mm	/

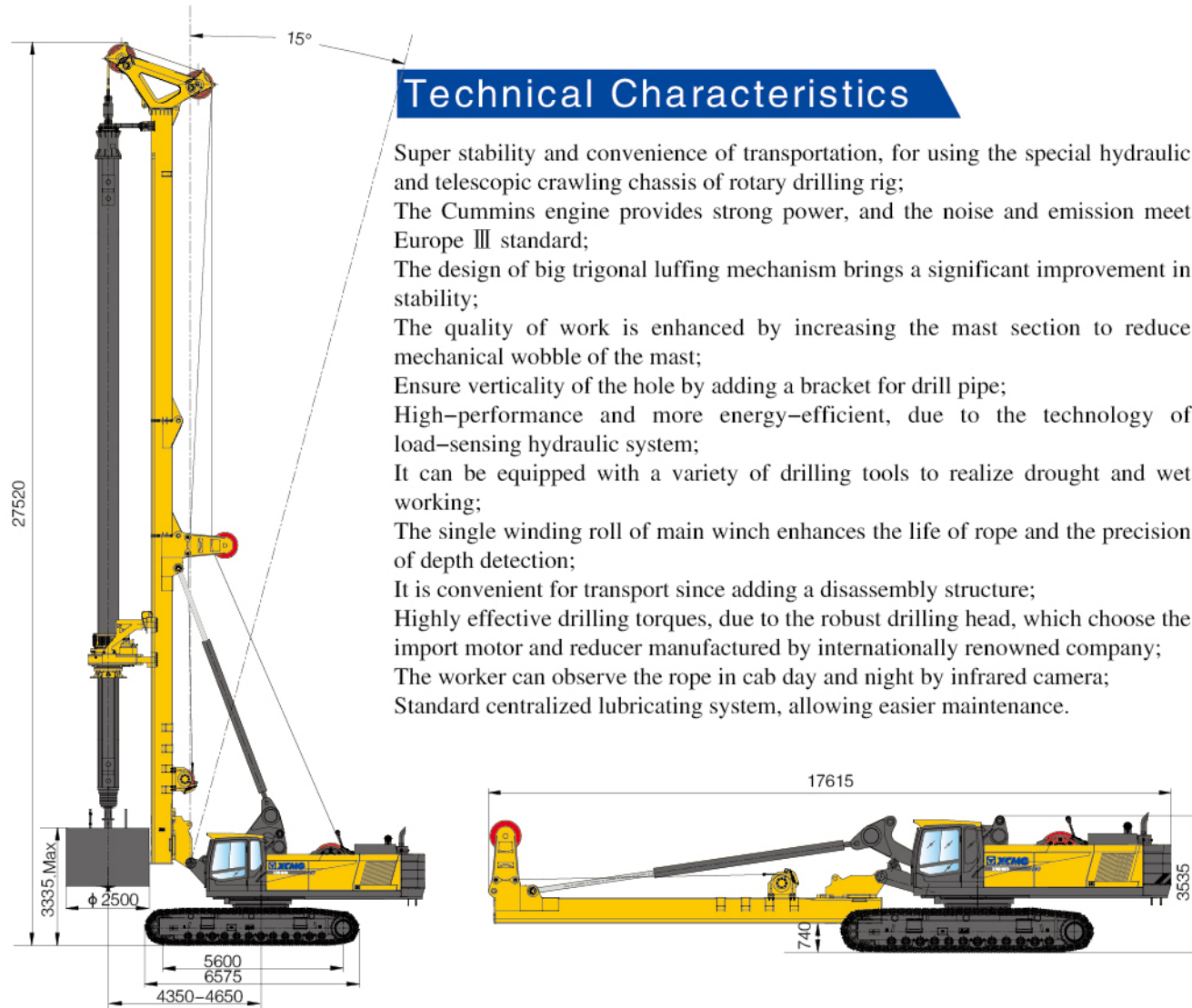


### 性能特点

采用旋挖钻机专用液压伸缩式履带底盘，满足超强的稳定性和运输的便捷性；  
 采用康明斯发动机，动力强劲，足够的功率储备满足高原施工，噪音、排放满足欧 III 标准；  
 采用大三角变幅结构，具有超强的稳定性；  
 超大的钻桅截面，减低钻桅在施工时的晃动量，提高施工质量；  
 加装了钻杆托架，降低施工时钻杆晃动量，保证钻孔垂直度；  
 液压系统采用负荷传感技术，使液压系统效率更高，更节能；  
 可配置多种钻具，实现干湿两种钻孔作业，适用于多种地基的灌注桩钻孔工程。钻杆采用机锁式或摩阻式伸缩结构，通过牙嵌或摩擦板传递扭矩给钻具，传递扭矩大、效率高；  
 主卷扬钢丝绳采用单层缠绕，操作方便自如，大大的提高了钢丝绳的使用寿命。并在主卷扬上设有钻孔深度检测装置，单层绕绳使深度检测更准确、方便维修；  
 可选装运输拆卸支腿，方便拆开运输；  
 动力头采用国际知名公司的进口减速机及马达，钻进扭矩大，工作效率高；  
 安装了观察主卷的红外摄像头，在驾驶室就能昼夜观察主卷钢丝绳使用情况；  
 标配集中润滑系统，维护保养更便捷。

### Technical Characteristics

Super stability and convenience of transportation, for using the special hydraulic and telescopic crawling chassis of rotary drilling rig;  
 The Cummins engine provides strong power, and the noise and emission meet Europe III standard;  
 The design of big trigonal luffing mechanism brings a significant improvement in stability;  
 The quality of work is enhanced by increasing the mast section to reduce mechanical wobble of the mast;  
 Ensure verticality of the hole by adding a bracket for drill pipe;  
 High-performance and more energy-efficient, due to the technology of load-sensing hydraulic system;  
 It can be equipped with a variety of drilling tools to realize drought and wet working;  
 The single winding roll of main winch enhances the life of rope and the precision of depth detection;  
 It is convenient for transport since adding a disassembly structure;  
 Highly effective drilling torques, due to the robust drilling head, which choose the import motor and reducer manufactured by internationally renowned company;  
 The worker can observe the rope in cab day and night by infrared camera;  
 Standard centralized lubricating system, allowing easier maintenance.



### 主要技术参数

### Main Technical Specification

参数名称 Type	单位 Unit	参数 Parameter	
最大钻孔直径 Max. drilling diameter	m	φ 2.5	
钻杆配置/钻深 Kelly bar configuration/drilling depth	m	JS575-4 × 19.0/69 (标配 Standard)	
		MZ575-5 × 19.4/88 (选配 Optional)	
		MZ575-6 × 19.4/105 (选配 Optional)	
发动机 Engine	型号 Model	/	
	功率 Power	kW	298
动力头 Rotary drive	最大输出扭矩 Max. output torque	kN · m	390
	转速 Rotary speed	r/min	7-18
加压油缸 Crowd cylinder	最大加压力 Max. pull-down piston push	kN	250
	最大提升力 Max. pull-down piston pull	kN	320
	最大行程 Max. pull-down piston stroke	m	6
加压卷扬 Crowd winch	最大加压力 Max. pull-down piston push	kN	/
	最大提升力 Max. pull-down piston pull	kN	/
	最大行程 Max. pull-down piston stroke	m	/
主卷扬 Main winch	最大提升力 Max. pulling force	kN	400
	最大卷扬速度 Max. speed	m/min	60
副卷扬 Auxiliary winch	最大提升力 Max. pulling force	kN	100
	最大卷扬速度 Max. speed	m/min	65
钻桅倾度 Mast inclination	侧向/前倾/后倾 Lateral/forwards/backwards	°	± 5/90/15
底盘 Undercarrige	最大行走速度 Max. traveling speed	km/h	1.2
	最大爬坡能力 Max. grade ability	%	35
	最小离地间隙 Min. clearance	mm	445
	履带板宽度 Track shoe width	mm	800
液压系统 Hydraulic system	工作压力 Working pressure	MPa	33
	整机质量 Overall weight	t	114
外形尺寸 Dimension	工作状态 Working condition	mm	10265 × 4800 × 27520
	运输状态 Transportation condition	mm	17615 × 3500 × 3535

注：带“\*”的参数为卷扬加压配置对应参数。

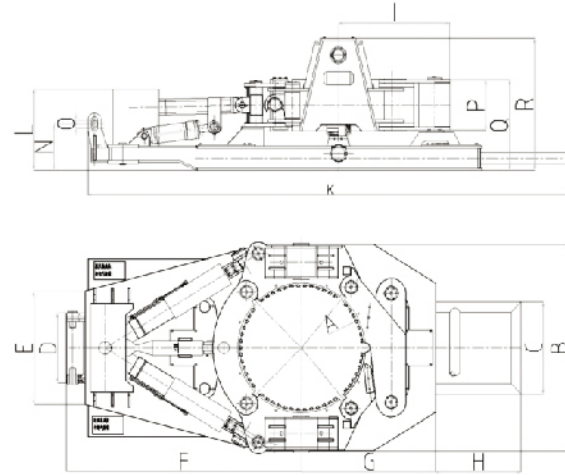
Parameters with “\*” refer to the ones of crowd winch configuration.



### 主要性能特点

#### Main Technical Characteristic

1. 搓管机采用旋挖钻机主机动力，全液压驱动，减少外接泵站投入，节约施工成本（独立泵站可选）；
2. 整机具有随主机自行走功能，减少起重设备投入，节约施工成本，简化施工流程；
3. 具有套管钻进速度无级调节功能，可在搓管机操作仪器上直接控制套管钻进速度；
4. 配备无线遥控操作模式，远程控制有效距离100米，极大的提高了施工的灵活性与安全性。



1. Hydraulic casing oscillator is full hydraulically driven and powered by Rotary Drilling Rig, saving cost by reducing external pump stations ( power pack could be choose ) ;
2. Less crane equipment is needed for the machine body is self-propelled, which makes the simpler construction and lower cost;
3. The speed of casing can be steplessly adjusted and be controlled by hydraulic oscillator operating instrument;
4. Wireless remote control operation mode is available within 100 meters, to achieve more flexible and safer construction.

### XR系列旋挖钻机配置XRCJ德国LEFFER搓管机

#### XR series rotary drilling rig equip Hydraulic casing oscillator of leffer from Germany

### 主要技术参数

#### Main Technical Specification

主参数 Main data	单位 Unit	搓管机型号 Type			
		XRCJ1000	XRCJ1500	XRCJ2000	XRCJ2500
最大搓管直径 Max.casing diameter	A/mm	Φ1000	Φ1500	Φ2000	Φ2500
最大工作压力 Max.operating pressure	MPa	27	27	27	27
扭矩 Torque	kN · m	800	1850	2700	3250
提升行程 Stroke	mm	320	450	450	450
提升力 Lifting force	kN	920	1700	2250	2950
夹紧力 Clamping force	kN	600	1450	1850	2400
搓管角度 Rotation angle	°	22	22	22	20
整机重量 Weight	t	5	12.5	18	27
旋挖钻机 rotary drilling rig	带*号的表示可以提供该产品 Products wearing "*" label are available.				
XR180DII		*			
XR220DII		*	*		
XR280DII			*		
XR320D		*	*		
XR400E			*		
XR400D		*	*		
XR460D		*	*		

### 主要技术参数

#### Main Technical Specification

主参数 Main data	单位 Unit	XRC1000	XRC1200	XRC1500	XRC1700	XRC1900	XRC2000	XRC2200	XRC2500
最大搓管直径 Max.casing diameter	A/mm	Φ1000	Φ1200	Φ1500	Φ1700	Φ1900	Φ2000	Φ2200	Φ2500
最大工作压力 Max.operating pressure	MPa	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
扭矩 Torque	kN · m	1070	2980	2530	2640	4630	4720	5520	5500
提升行程 Stroke	mm	500	500	500	500	500	500	500	540
提升力 Force	kN	1520	3140	2500	2500	2940	3100	3100	3690
夹紧力 Clamping force	kN	940	1570	1470	1470	1846	2400	2400	2400
搓管角度 Rotation angle	°	24°	24°	24°	24°	24°	24°	24°	24°
整机重量 Weight	t	9	16	20	22	26	36	38	42

旋挖钻机 Rotary drilling rig 带\*号的表示可以提供该产品 Products wearing "\*" label are available.

XR180DII	*								
XR220DII	*	*	*						
XR280DII			*	*					
XR320D	*	*	*						
XR400E			*	*					
XR400D			*	*					
XR460D	*	*	*						





XR系列旋挖钻机是徐工集团多年专业从事桩工机械研发的结果，它广泛地吸收国内外先进技术，并依托强大的工程机械制造实力生产制造，品质优秀，可靠性高，适应于我国大部分地区地层条件。

XR Series Rotary Drilling Rig stands for our company's achievement in many years' development and researches on piling machine, adopting the advanced technology, both at home and abroad. With our company's powerful machinery manufacturing capacity, it is specially designed to drill the pile hole with the big diameter and into hard-layers, fitting for layer conditions in most areas. XR series is an ideal equipment widely applied in piling constructions, featuring reasonable design, compact structure, convenient operation, high reliability, powerful performance and wide application.

### 底盘 Undercarriage



使用先进的设计方法设计制造的伸缩式履带底盘，质量高，强度大，能同时满足工作稳定性及运输方便性的要求。

Adopting advanced R&D of extendable crawler undercarriage with good quality and strong intensity, it meets requirements of stability and convenience of transportation.

### 动力头 Rotary Drive

独特的回转支承传动机构，输出扭矩大，使用寿命长，工作效率高。动力头上下都具有减震弹簧，能有效保护动力头。

Unique slewing bearings have the characteristics of large torque, long service-life and high working efficiency. Damping springs are mounted on both sides of rotary drive to protect it.



### 工作装置 Working Devices



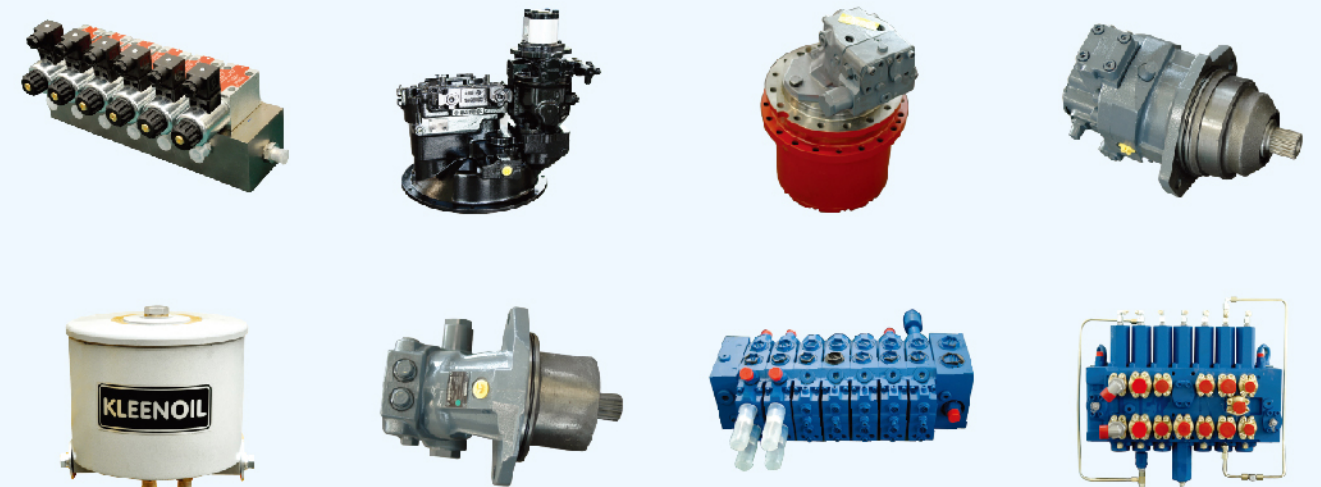
稳定的平行四边形变幅机构实现了大范围的工作区域。钻桅设计为高强度材质的箱形结构，较高的强度与刚性，有效的保证了钻孔精度。各铰接均采用免润滑轴承，转动灵活自如。

The stability articulated structure actualizes a wider work range. The highly strengthened box-type steel structure design makes the mast of highly-rigidity and anticontorted, therefore the drill accuracy is heightened. The lubrication-free bearings are equipped in the flexible articulation joints. So the regular maintenance is unnecessary. Upper structure can slew with 360 degree, and discharge slag at random angle.

### 重要元件国际化配套 World-Class Core Parts

液压元件采用国际化配套，质量可靠，货源充足，备件易得。

Hydraulic parts use International suppliers with good quality and sufficient supply.







### 主、辅卷扬 Main and Auxiliary winch

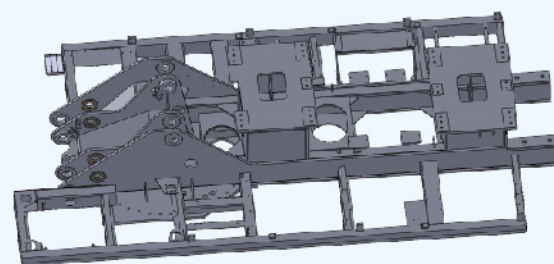
主卷扬具有“自由下放”功能，保证钻头钻进速度与卷扬钢丝绳同步，操作方便自如。

The main winch is provided with a freefall hydraulic system for automatic follow during the drill operation.

### 回转机构 Rotating Mechanism

回转机构采用进口元件，超大回转支承及自动复位机构，做到操作省时、省力。回转平台可360°回转，实现任意角度排渣。

Adoption the imported component, large back-up bearing as well as the auto-reposition mechanism make the operation easy and save the time. The rotary table rotates 360 degree to release scrap at any angle.



### 发动机 Engine

搭载着知名品牌之动力，轻松操作便能达到动力之颠峰。采用高压直喷式蜗轮增压，使功率和燃油达到最佳平衡。大功率输出和高效液压系统的完美组合，保障了强劲扭矩。

Equipped with world famous engine, with high efficiency by easy operation. The turbocharged, direct injection engine maximize the power at a optimum fuel consumption. The combination of the high horsepower and the potent hydraulic system guarantees the powerful torque output.

### 控制系统 Control System



PLC 控制器实现钻桅垂直度自动/手动调整、自动检测各关键点压力与报警，适时检测钻孔深度、动态及数码显示；系统操作简便灵活。

大屏幕彩色显示器界面为根据钻机多年实际工作经验设计，页面设置与实际操作相符合，使用方便。

PLC control system realizes the automatic/manual verticality of the mast, automatic pressure inspection and alarm, depth inspection of the hole and dynamic and digital display which makes easy and simple operation of system.

Large screen display interface is designed for drilling rigs based on many-years actual work experience in accordance with the practical use for convenience.



旋挖钻机钻杆为伸缩式结构，其功能是将扭矩和钻进加压力传递给下端的钻具，以完成灌注桩成孔作业。分为机锁式钻杆、摩阻式钻杆、多锁式钻杆、组合式钻杆，其中机锁式钻杆、摩阻式钻杆较常用。

The Kelly bar of rotary drilling rig is a telescopic structure, whose function is to transmit torque and drilling pressure to the lower Kelly bar to complete the hole forming operation of cast-in-place pile. It is divided into interlocking Kelly bar, friction Kelly bar, multi lock Kelly bar and combined Kelly bar, among which interlocking Kelly bar and friction Kelly bar are commonly used.

### 1)、摩阻式钻杆

摩阻式钻杆适用于普通土层钻进，在较软的地层钻进效率高。施工过程中容易解锁，钻杆下放及提升比较简便。一般由5节钻杆、6节钻杆组成，钻孔深度较机锁杆深。摩阻式钻杆靠键条之间的摩擦力进行向下施压，加压力较机锁杆小，不适宜用于硬地层的钻进。

#### 1)、Friction Kelly bar

Friction Kelly bar is suitable for drilling in common soil layer, and has high drilling efficiency in soft stratum. It is easy to unlock in the process of construction, and it is easy to lower and lift the Kelly bar. Generally, it is composed of 5 Kelly bars and 6 Kelly bars, and the drilling depth is deeper than the interlocking rod. The friction Kelly bar is pressed down by the friction between the key bars, which is smaller than the interlocking rod, so it is not suitable for drilling in hard formation.

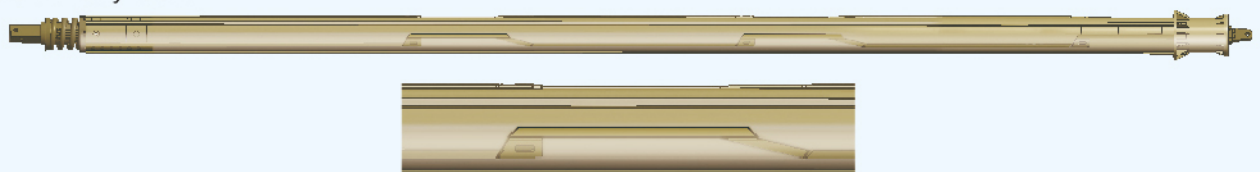


### 2)、机锁式钻杆

机锁式钻杆靠内外层驱动键、加压块向下施压，加压力大，适用于硬地层钻进。钻杆一般不超过5节。机锁式钻杆在提升钻杆前，必须使内外键条解锁后再提升钻杆，解锁较摩阻式钻杆复杂。

#### 2)、Interlocking Kelly bar

The interlocking Kelly bar is pressed down by the inner and outer drive key and pressure block, which is suitable for drilling in hard formation. The number of Kelly bars generally does not exceed 5. Before lifting the Kelly bar, the internal and external key bars of the interlocking Kelly bar must be unlocked before lifting the Kelly bar, which is more complex than the friction Kelly bar.



钻杆是旋挖钻机的核心工作装置，钻杆故障会给施工带来巨大损失，钻杆可靠性问题一直是困扰行业的难题。多年来徐工基础针对钻杆故障，一直对旋挖钻机钻杆进行研究摸索，从原材料使用、结构设计、制造工艺三方面突破，形成了徐工自主品牌钻杆—徐工金钻。

Kelly bar is the core working device of rotary drilling rig. Kelly bar failure will bring huge losses to the construction. Kelly bar reliability has always been a problem for the industry. For many years, XCMG foundation has been researching and exploring the Kelly bar of rotary drilling rig in view of Kelly bar failure. It has made breakthroughs in the use of raw materials, structural design and manufacturing technology, and formed XCMG independent brand Kelly bar: XCMG gold Kelly bar

<b>适用于土层、沙层、淤泥</b> Main application: soil, sand, ooze		<b>适用于卵石层、风化岩层</b> Main application: Cobbles, Boulder, Weathered rock			
双底单开门斗齿捞砂斗 Double-bottom single-door soil bucket	双底双开门斗齿捞砂斗 Double-bottom double-door soil bucket	双底双开门斗齿捞砂斗 Double-bottom double-door bucket with cutting teeth	双底单开门斗齿捞砂斗 Double-bottom single-door bucket with cutting teeth	截齿分体式钻头 Split type bucket with cutting teeth	双头单螺截齿直螺旋钻头 Double-head single-screw auger with cutting teeth
<b>适用于粘土、土层干成孔</b> Main application: clay, the soil dry into holes			<b>适用于坚硬基岩、孤石、漂石地层</b> Main application: Hard rock, boulder		
分体式钻头 Split type drill bit	双头单螺斗齿直螺旋钻头 Double-head single-screw soil auger	单底双开门斗齿捞砂斗 Single-bottom double-door soil bucket	截齿筒钻 Cylindrical bucket with cutting teeth	牙轮筒钻 Cone-bit cylindrical bucket	
<b>适用于卵石层、强风化岩层、冻土层、破碎岩层</b> Main application: Cobbles, Strong weathering rock, Tundra, broken rocks			<b>适用于土层、沙层、软岩地层</b> Main application: soil, sand, soft rock		
单头单螺截齿锥螺旋钻头 Single-head single-screw auger with cutting teeth	双头单螺截齿锥螺旋钻头 Double-head single-screw auger with cutting teeth	土层扩底钻头 Belling Bucket For Soil	岩层扩底钻头 Belling Bucket For Rock		
<b>用于清理孔底沉渣</b> Main application: Clean up the sediment at the bottom of the bore		<b>其它产品</b> Others			
清孔钻头 Clear hole bucket	钻杆转换接头 Kelly Box Adapter	钻杆加长杆 Extension Rod	套管 Casings	旋挖专用截齿 Betek Tooth	





徐工XR460D旋挖钻机在安徽芜湖进行芜湖大桥项目施工  
XCMG XR460D rotary drilling rig works for the construction of Wuhu bridge project in Wuhu, Anhui Province



XR280D川藏铁路林芝火车站施工XR280D works in the onstruction of Linzhi railway station of Sichuan Tibet railway



XR400E和XR200D在华夏基础柳州碧桂园十里江湾施工  
XR400E and XR200D work in Shilijiangwan of Liuzhou Country Garden in Huaxia foundation



10台徐工旋挖钻机助力徐州南三环施工  
10 sets of XCMG rotary drilling rigs assist the construction of South Third Ring Road in Xuzhou



XR460D旋挖钻在银川石嘴山黄河大桥施工  
XR460D rotary drilling rig works for the construction of Shizuishan Yellow River Bridge in Yinchuan



徐工XR120E旋挖钻机在河北雄安进行雄安高铁站项目施工  
XCMG XR120E rotary drilling rigs carry out construction of Xiong'an high speed railway station project in Xiong'an, Hebei Province



XR460E助力贵阳融创国宾道城市综合体项目施工  
XR460E helps the construction of Guiyang rongchuang Guobindao urban complex project



XR150DIII机群印尼万丹火电厂施工  
A group of XR150DIII rotary drilling rigs work in the construction of Indonesia Wandan thermal power plant



徐工XR160E在马尔代夫跨海大桥项目施工  
XCMG XR160E works in the construction of sea crossing bridge in Maldives





徐工旋挖钻机助力东莞虎门站施工  
XCMG rotary drilling rigs help the construction of Humen station in Dongguan



XR130E澳大利亚施工  
XR130E works in Australia



XR280E在徐州房建项目施工  
XR280E works in Xuzhou housing construction project



XR400E在斯里兰卡施工  
XR400E works in Sri Lanka



12台徐工旋挖钻机助力广东黄茅海跨海通道12  
XCMG rotary drilling rigs work for the construction of Huangmao sea crossing channel in Guangdong



徐工旋挖钻机助力深圳南山联合科技大厦  
XCMG rotary drilling rigs help the construction of Shenzhen Nanshan United Technology Building



XR450E在浙江绍兴杭绍甬高速复线项目施工  
XR450E works in Hangzhou Shaoxing Ningbo Expressway double track project in Shaoxing, Zhejiang Province



XR550在广东广州西江特大桥施工  
XR550 work in the construction of Xijiang grand bridge in Guangzhou, Guangdong