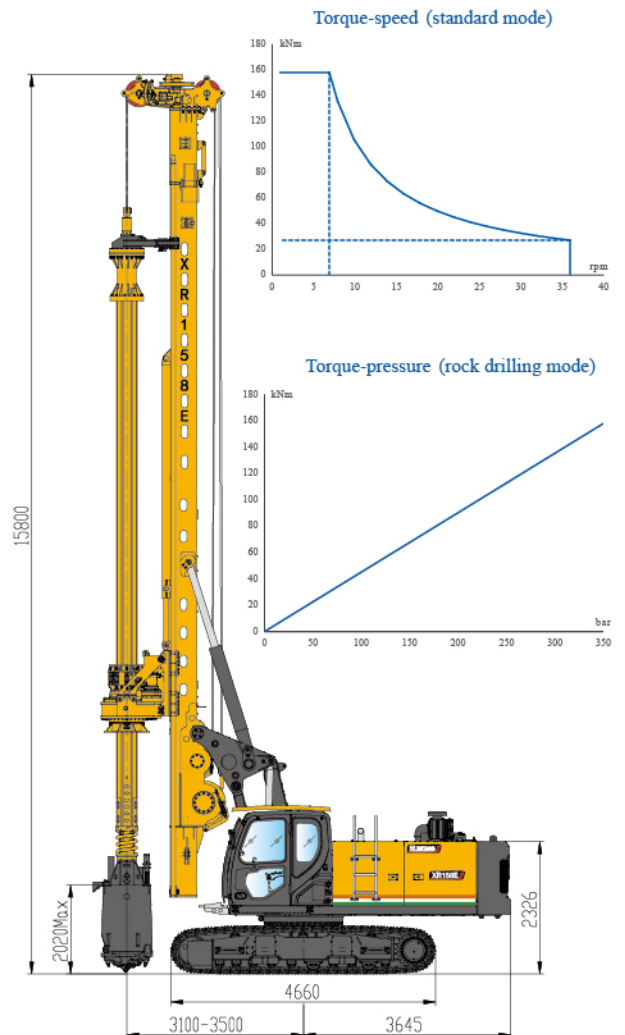
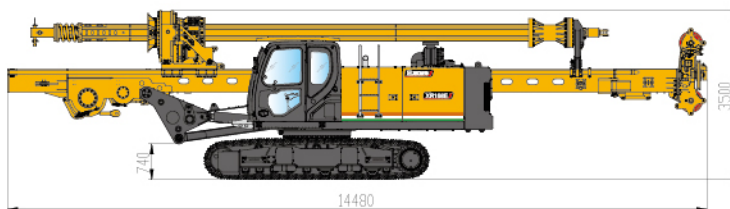


Parameters	Unit	Values	Remark
Max. drilling diameter	mm	Φ1500	
Max. drilling depth	m	45/36	
Engine			
Model	/	QSB5.9	
Rated power	kW	133	
Rotary drive			
Rated output torque	kNm	158	
Working speed	r/min	6-35	
Crowd cylinder			
Max. crowd force	kN	130	
Max. lifting force	kN	160	
Max. stroke	m	3.7	
Main winch			
Max. lifting force	kN	150	
Max. line speed	m/min	80	
Wire rope diameter	mm	Φ28	
Auxiliary winch			
Max. lifting force	kN	60	
Max. line speed	m/min	75	
Wire rope diameter	mm	Φ16	
Mast inclination			
Lateral/Forward/Backward	°	±3/5/90	
Chassis			
Max. traveling speed	km/h	1.5	
Max. gradeability	%	35	
Track shoe width	mm	600	
Track length	mm	4660	
Max. span of track	mm	2550-3650	
Hydraulic system			
Working pressure	Mpa	35	
Operating weight	t	42	
Dimensions			
Working state	mm	7900×3650×15800	
Transport state	mm	14480×2550×3500	

Kelly bars	Weight(t)	Drilling depth(m)	Remarks
JS355-4×8	4300	28	Standard
JS355-4×10	4900	36	Optional
MZ355-4×10	4500	36	Optional
MZ355-5×10	4700	45	Optional



Advantages

XR158E rotary drilling rig: it is suitable for civil engineering, municipal engineering, power grid piles and other fields, and has high efficiency and flexible operation in soil and sand layers.

Strong power: Equipped with Cummins QSB5.9 turbocharged engine, the machine has large power reserve and high construction efficiency.

Efficient construction: The large torque and high speed rotary drive ensures stable drilling and easy spin-off. One-button automatic up & down soil discharging is equipped.

Intelligent operation: The noise-proof cab with FOPS is equipped with high definition display and has super large operating space and wide view. The standard touch bottom protection, one-button mast verticality adjustment, automatic soil discharging and other functions make the machine intelligent.

Efficient & energy-saving: The negative-flow control technology has fast response and ensures excellent composite action control performance. The constant power controlled main pump ensures efficient construction. The auxiliary system adopts load sensitive control technology, which is energy-saving and efficient.

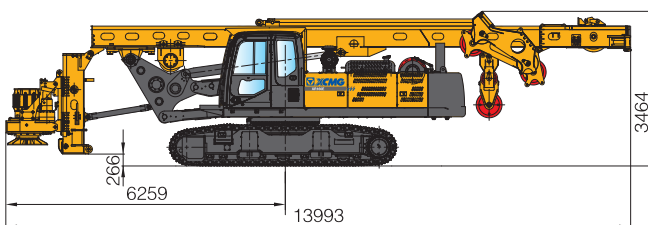
Safe & reliable: The machine adopts TDP series hydraulic crawler chassis dedicated for rotary drilling rigs, as well as the large diameter slewing bearing, to get better working stability. The double boom large parallelogram luffing mechanism with large support range and support angle makes the operation more stable.

Convenient transportation: It can be transported without removing the Kelly bar and the transport height is within 3.5m, which make the site transfer more convenient.

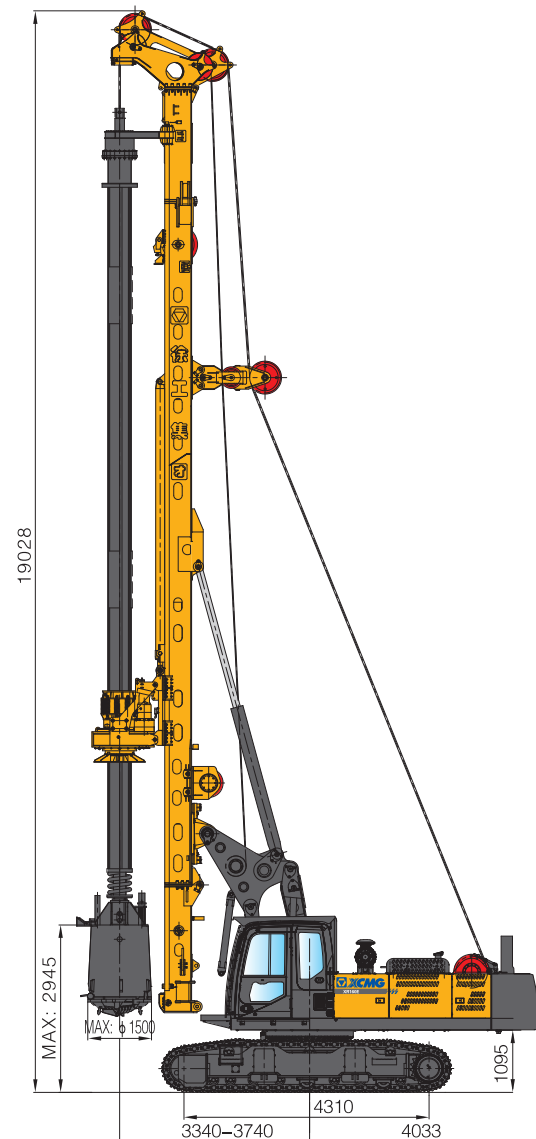
XR160E Rotary Drilling Rig

Parameter	Unit	Data	
Max. drilling diameter	mm	φ 1500	
Max. drilling depth	m	44/56	
Engine	Model	/	
	Rated power	kW	150/2050
Rotary drive	Rated output torque	kN · m	160
	Rotation speed	r/min	5–35
Crowd cylinder	Max. crowd force	kN	160
	Max. lifting force	kN	160
	Max. lifting stroke	m	4.2
Crowd winch	Max. crowd force	kN	160
	Max. lifting force	kN	180
	Max. lifting stroke	m	13
Main winch	Max. lifting force	kN	160
	Max. winch speed	m/min	80
	Wire rope diameter	mm	φ 28
Auxiliary winch	Max. lifting force	kN	60
	Max. winch speed	m/min	80
	Wire rope diameter	mm	φ 16
Drill mast inclination	Lateral/forward	°	± 3/5/90
Chassis	Max. traveling speed	km/h	2.1
	Max. climbability	%	35
	Track shoe width	mm	700
	Track length	mm	5107
Hydraulic system	Working pressure	MPa	35
	Working weight	t	53
Dimension	Work condition	mm	7862 × 4200 × 19028
	Transport condition	mm	13993 × 2960 × 3464

Kelly bar configuration	Weight of Kelly bar (t)	Drilling depth (m)	Remarks
JS377-4 × 12	7	42	Optional
JS377-4 × 12.5	7.3	44	Standard
MZ377-5 × 12	6.4	53.5	Optional
MZ377-5 × 12.5	6.7	56	



- One machine with multiple functions, it can realize the quick switch among crowd cylinder, crowd winch, CFA and double rotary drive to meet construction requirements of different projects.
- Equipped with Cummins electrically controlled turbocharged engine, it has strong power, quick and convenient service.
- The rated output torque of rotary drive is 160 kN · m, working rotation speed is 35 rpm, more efficient.
- The main winch and auxiliary winch adopt single-row rope, the life of wire rope is 2–4 times longer than that of multi-layer, the cost is lower.
- Double boom large parallelogram luffing mechanism has large support angle, the support range is increased by 24%, more stable.
- The main hydraulic system adopts negative flow control with quick response and good control.
- Powerful double hydraulic oil cooler, meeting the requirements of construction in high temperature areas.
- The intelligent control system realizes the automatic adjustment and display of the verticality of the drill mast, automatic self-righting and automatic spin-off.
- Adopting the special hydraulic crawler chassis of TDP series for rotary drilling rigs, with large diameter slewing bearing and better working stability.



Parameters	Unit	Values	Remark
Max. drilling diameter	mm	Φ1500	
Max. drilling depth	m	56/44	
Engine			
Model	/	QSB7	
Rated power	kW	169	
Rotary drive			
Rated output torque	kNm	178	
Working speed	r/min	6-38	
Crowd cylinder			
Max. crowd force	kN	160	
Max. lifting force	kN	180	
Max. stroke	m	4.2	
Main winch			
Max. lifting force	kN	170	
Max. line speed	m/min	80	
Wire rope diameter	mm	Φ28	
Auxiliary winch			
Max. lifting force	kN	60	
Max. line speed	m/min	80	
Wire rope diameter	mm	Φ16	
Mast inclination			
Lateral/Forward/ Backward	°	±3/5/90	
Chassis			
Max. traveling speed	km/h	2.1	
Max. gradeability	%	35	
Track shoe width	mm	700	
Track length	mm	4826	
Max. span of track	mm	2960-4200	
Hydraulic system			
Working pressure	Mpa	32	
Operating weight	t	52	
Dimensions			
Working state	mm	8205×4200×19208	
Transport state	mm	14442×2960×3555	

Kelly bars	Weight(t)	Drilling depth(m)	Remarks
JS377-4×11	6500	40	Optional
JS377-4×12	7000	44	Optional
MZ377-5×10	5500	43.5	Optional
MZ377-5×11	6000	48.5	Optional
MZ377-5×12	6500	56	Standard

Advantages

XR178E rotary drilling rig: it is suitable for civil engineering, municipal engineering, power grid piles and other fields, and has high efficiency and flexible operation in soil and sand layers.

Strong power: The Cummins QSB7 turbocharged engine meets China III emission standard. Among products of the same level, it has the highest power reserve and high construction efficiency.

Efficient construction: The large torque and high speed rotary drive ensures stable drilling and easy spin-off. The one-button automatic up & down soil discharging improves the soil discharging efficiency by 2-3 times in small hole drilling in clay stratum.

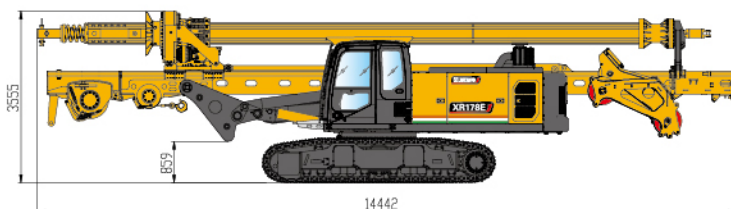
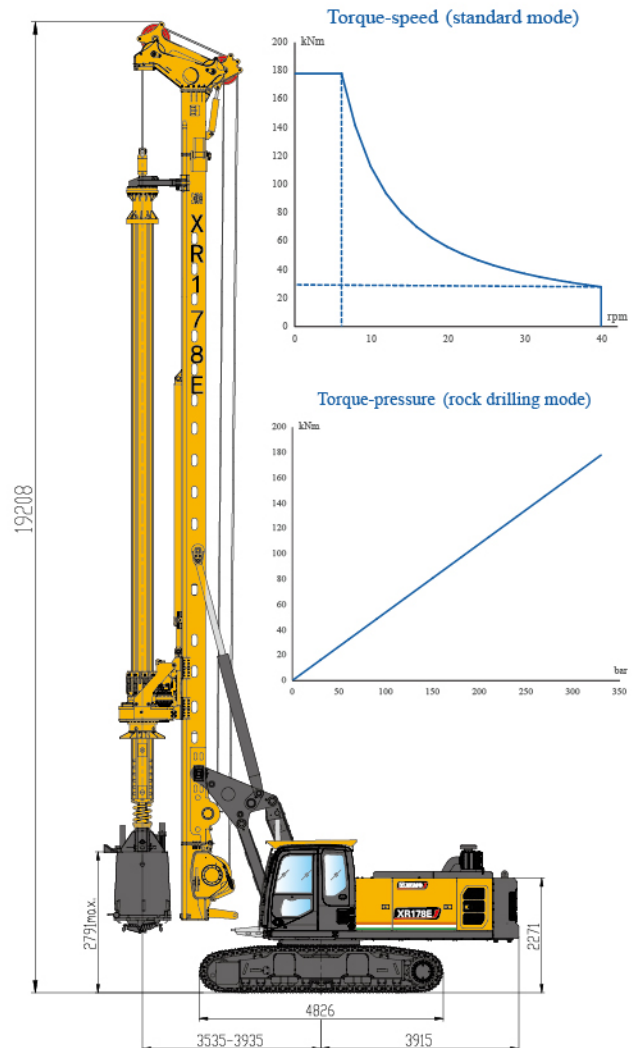
Intelligent operation: The new-generation cab with a large screen display has super-large operating space, a broad field of vision, and first-class operating experience. The standard touch bottom protection, automatic mast verticality adjustment and display make the entire machine more intelligent.

Efficient & energy-saving: The hydraulic system with large diameter pipe lines has high efficiency. The full power engine control matching technology improves power utilization. The independent cooling system that can adjust the fan speed in real time ensures low fuel consumption of the whole machine.

Safe & reliable: The machine adopts TDP series hydraulic crawler chassis dedicated for rotary drilling rigs, as well as the large diameter slewing bearing, to get better working stability. The double boom large parallelogram luffing mechanism with large support angle increases the support range and makes the operation more stable.

Convenient transportation: It can be transported without removing the Kelly bar and the transport height is within the limit, which make the site transfer more convenient.

Convenient maintenance: It has optional centralized lubrication system. The pumps, valves and filters are centrally arranged near the side door to leave a large maintenance space. The online fault alarm & diagnosis guides the troubleshooting. The online fault warning guides customers to conduct troubleshooting in advance and prevents potential problems.



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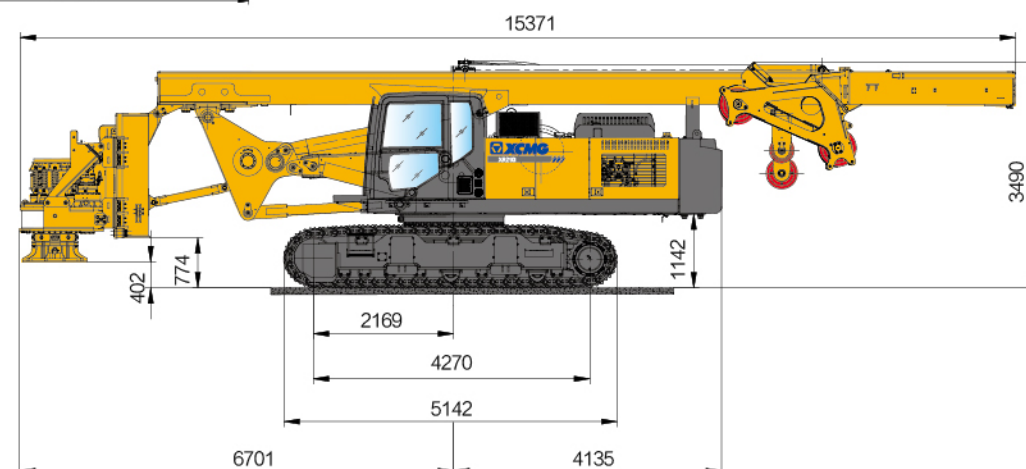
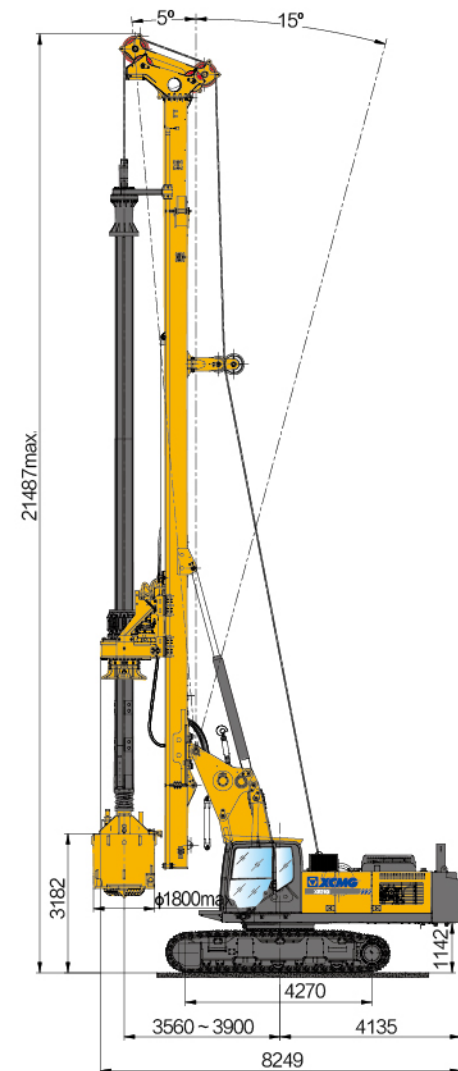
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Technical Characteristics

1. With the special hydraulic telescopic crawler chassis (TDP series) of rotary drilling rig and large diameter slewing bearing, it meets strong stability and easy transportation.

2. With the electronically controlled and turbocharged engine of Cummins, which is powerful and emissions meet Euro stage IIIA standards.
3. The hydraulic system adopts the limit of power control and positive flow control, that makes the hydraulic system more powerful and efficient.
4. With the single rope main winch, it efficiently solves the problem of wire rope wear, and improves the service life of wire rope; a detection device of drilling depth on the main winch, and single rope makes deep inspection more accurate.
5. Main winch bottom protection function prevents the main winch wire rope in slack .
6. Optional function with centralized lubrication system, which makes maintenance more convenient.
7. Selection of a variety of specifications for kelly-bar, meeting the efficient construction of different strata.
8. Multi-function such as crowd winch, spin-off of rotary drive, casing driver and hydraulic casing oscillator are optional.
9. The removable type key of rotary drive makes maintenance and exchange more convenient.



XR210I

Main Technical Specification

	Max. drilling diameter	1800 mm
	Max. drilling depth	65 m
	Working height	21.5 m
	Working weight	65 t
Undercarriage	Width	2960~4200 mm
	Width of triple grouser track shoes	700 mm
	Travel speed	1.5 km/h
Drilling mast inclination	Lateral	±3°
	Forward	5°
	Backward	15°
Rotary drive	Torque	210 kN·m
	Rotary speed	5-30 rpm
Crowd cylinder	Pressing force	180 kN
	Lifting force	190 kN
	Stroke	5 m
Main winch	Lifting force	216 kN
	Speed	60 m/min
	Rope diameter	28 mm
Auxiliary winch	Lifting force	80 kN
	Speed	57 m/min
	Rope diameter	20 mm
Engine	Type	CUMMINS QSB6.7
	Power	194 kW/ (2200 r/min)
	Emission	U.S. EPA Tier 3, CARB Tier 3, EU Stage IIIA CNIII

Kelly bar	Drilling depth (m)	Weight (kg)	Configuration
Friction ϕ 406-5 × 14.5	65	042	Standard
Interlocking ϕ 406-4 × 14	50	8830	Optional

Parameters	Unit	Values	Remark
Max. drilling diameter	mm	Φ1800	
Max. drilling depth	m	65/50	
Engine			
Model	/	QSB6.7	
Rated power	kW	194	
Rotary drive			
Rated output torque	kNm	218	
Working speed	r/min	5-30	
Crowd cylinder			
Max. crowd force	kN	180	
Max. lifting force	kN	190	
Max. stroke	m	5	
Main winch			
Max. lifting force	kN	216	
Max. line speed	m/min	80	
Wire rope diameter	mm	Φ28	
Auxiliary winch			
Max. lifting force	kN	80	
Max. line speed	m/min	57	
Wire rope diameter	mm	Φ20	
Mast inclination			
Lateral/Forward/Backward	°	±3/5/90	
Chassis			
Max. traveling speed	km/h	1.5	
Max. gradeability	%	35	
Track shoe width	mm	700	
Track length	mm	5145	
Max. span of track	mm	2960-4200	
Hydraulic system			
Working pressure	Mpa	35	
Operating weight	t	62	
Dimensions			
Working state	mm	8350×4200×21480	
Transport state	mm	15370×2960×3490	

Kelly bars	Weight(t)	Drilling depth(m)	Remarks
JS406-4×12	7800	42	Optional
JS406-4×14	9000	50	Standard
MZ406-5×13.5	8300	60	Optional
MZ406-5×14.5	8800	65	Optional

Advantages

XR218E rotary drilling rig: it is suitable for civil engineering, municipal engineering, power grid piles and other fields, and has high efficiency and flexible operation in soil and sand layers.

Strong power: The Cummins QSB6.7 turbocharged engine meets China III emission standard. Among products of the same level, it has the highest power reserve and high construction efficiency.

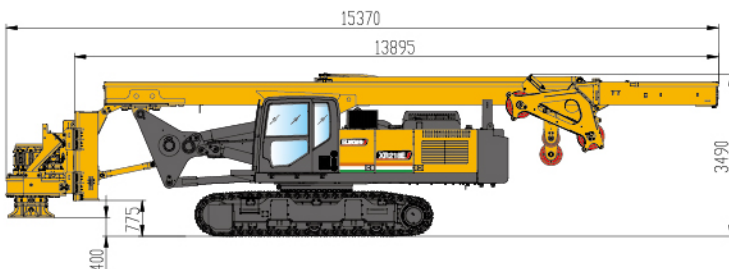
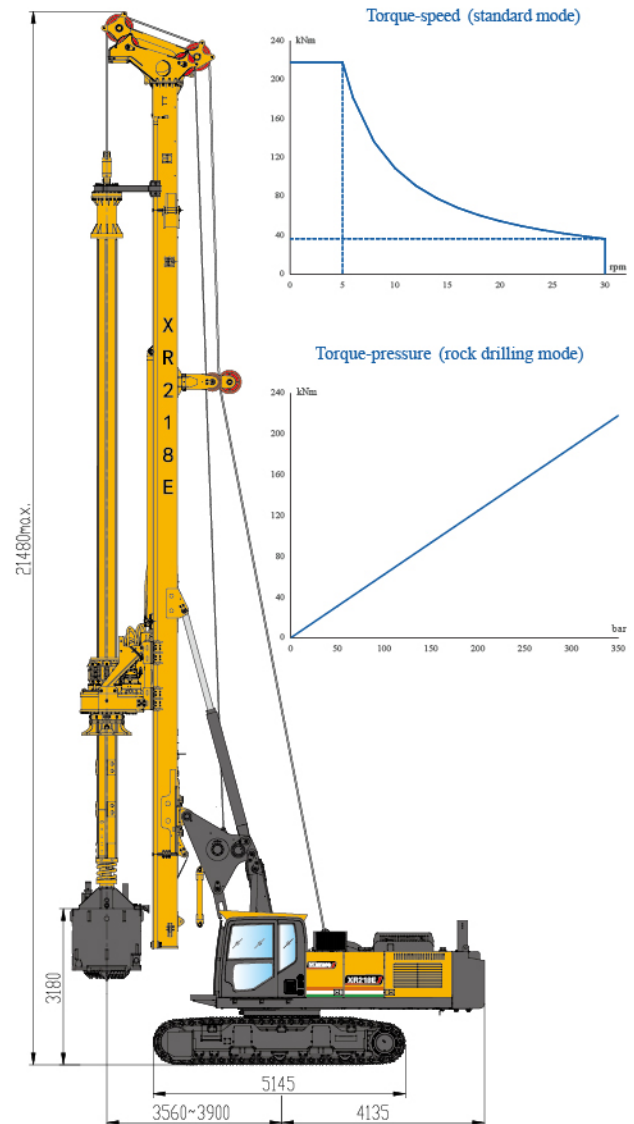
Efficient construction: The large torque and high speed rotary drive ensures stable drilling and easy spin-off.

Intelligent operation: The E-series rig adopts new appearance and coating. The new-generation cab with a large screen display has super-large operating space, a broad field of vision, and first-class operating experience. The standard touch bottom protection, automatic mast verticality adjustment and display make the entire machine more intelligent.

Efficient & energy-saving: The hydraulic system with large diameter pipe lines has high efficiency. The full power engine control matching technology improves power utilization. The independent cooling system that can adjust the fan speed in real time ensures low fuel consumption of the whole machine.

Safe & reliable: The machine adopts TDP series hydraulic crawler chassis dedicated for rotary drilling rigs, as well as the large diameter slewing bearing, to get better working stability.

Convenient maintenance: It has optional centralized lubrication system. The pumps, valves and filters are centrally arranged near the side door to leave a large maintenance space. The online fault alarm & diagnosis guides the troubleshooting. The online fault warning guides customers to conduct troubleshooting in advance and prevents potential problems.

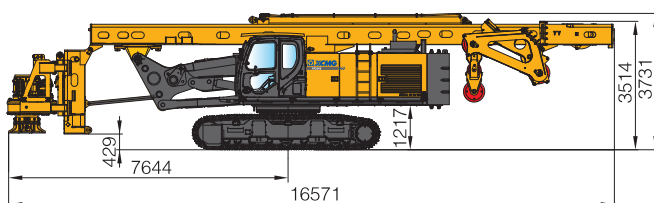


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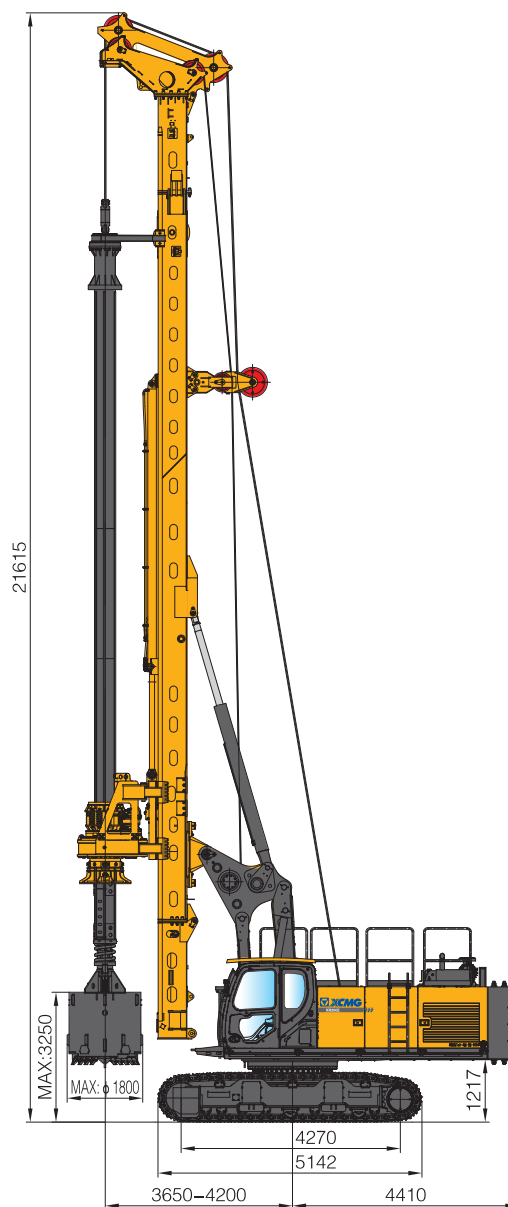
XR200E Rotary Drilling Rig

Parameter	Unit	Data	
Max. drilling diameter	mm	φ 1800	
Max. drilling depth	m	65/52	
Engine	Model	/	
	Rated power	kW	212
Rotary drive	Rated output torque	kN · m	220
	Rotation speed	r/min	7–34
Crowd cylinder	Max. crowd force	kN	210
	Max. lifting force	kN	210
	Max. lifting stroke	m	4.8
Crowd winch	Max. crowd force	kN	210*
	Max. lifting force	kN	210*
	Max. lifting stroke	m	13*
Main winch	Max. lifting force	kN	190
	Max. winch speed	m/min	75
	Wire rope diameter	mm	φ 28
Auxiliary winch	Max. lifting force	kN	80
	Max. winch speed	m/min	70
	Wire rope diameter	mm	φ 20
Drill mast inclination	Lateral/forward	°	± 4/5/15
Chassis	Max. traveling speed	km/h	1.9
	Max. climbability	%	40
	Track shoe width	mm	700
	Track length	mm	5142
Hydraulic system	Working pressure	MPa	35
Working weight	t	70	
Dimension	Work condition	mm	8800 × 4200 × 21615
	Transport condition	mm	16576 × 3000 × 3731

Kelly bar configuration	Weight of Kelly bar (t)	Drilling depth (m)	Remarks
JS406-4 × 13.0	8.2	46	Optional
MZ406-5 × 13.5	8.3	60	
JS406-3 × 14.5	7.9	38	
JS406-4 × 14.5	8.8	52	
MZ406-5 × 14.5	8.8	65	



- One machine with multiple functions, it can realize the quick switch among crowd cylinder, crowd winch and casing oscillator to meet construction requirements of different projects.
- Equipped with Isuzu electrically controlled turbocharged engine, it has less fuel consumption, quick and convenient service.
- The working performance of the rotary drive is improved by 11%, the main winch 18%, the walking drive 20%, the heat dissipation capacity 1.4 times, and the operation efficiency is higher.
- The main winch and auxiliary winch adopt single-row rope, the life of wire rope is 2–4 times longer than that of multi-layer, the cost is lower.
- Double boom large parallelogram luffing mechanism has large support angle, the support range is increased by 16%, more stable.
- The main hydraulic system adopts negative flow control with quick response and good control.
- The intelligent control system realizes the automatic adjustment and display of the verticality of the drill mast, automatic self-righting, automatic spin-off, CFA automatic pouring lifting and pile type display. The bus panel design is adopted to effectively prevent misoperation.



Technical Characteristics

1. With the special hydraulic telescopic crawler chassis (TDP series) of rotary drilling rig and large diameter slewing bearing, it meets strong stability and easy transportation.

2. With the electronically controlled and turbocharged engine of Cummins, which is powerful and emissions meet Euro stage IIIA standards.

3. With the hydraulic pressure system adopted threshold power control and negative flow control, the system acquires high efficiency and higher energy conservation.

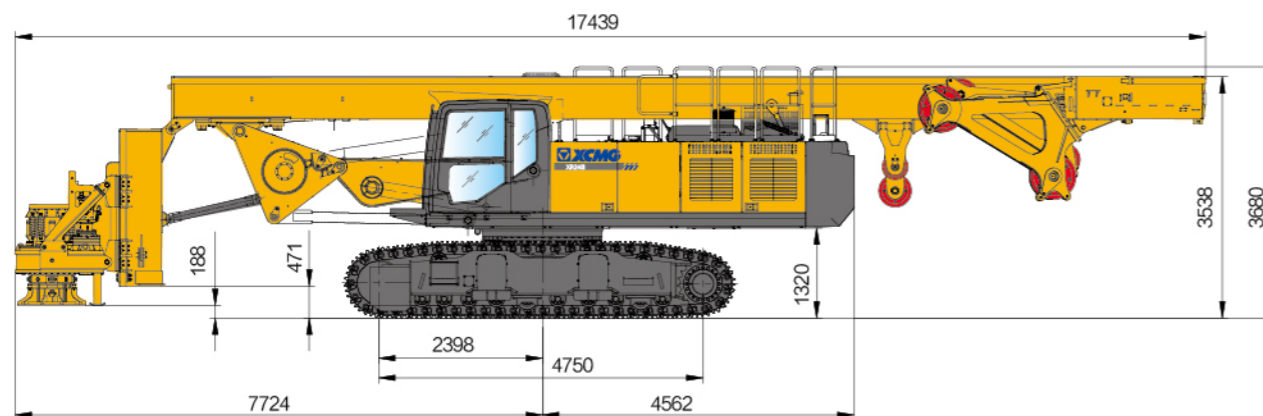
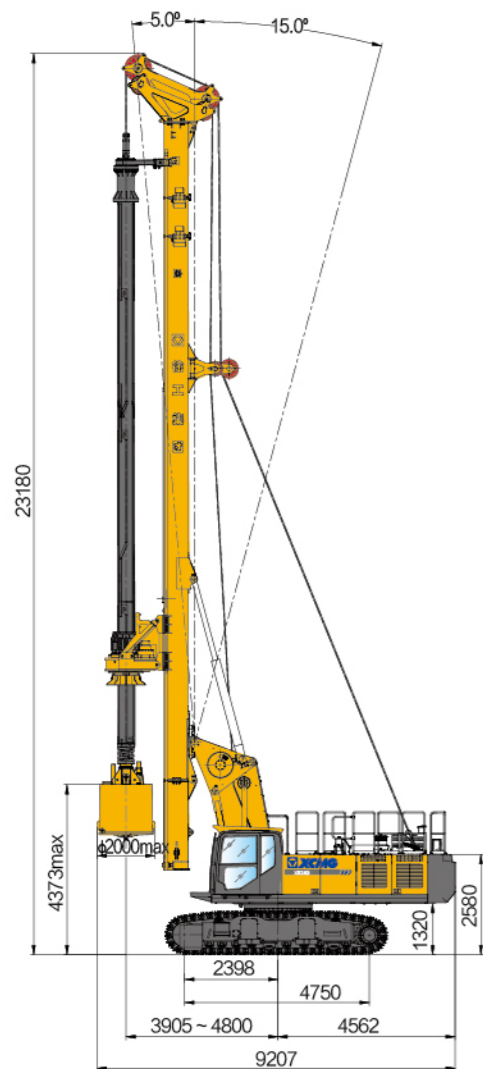
4. With the single rope main winch, it efficiently solves the problem of wire rope wear, and improves the service life of wire rope; a detection device of drilling depth on the main winch, and single rope makes deep inspection more accurate.

5. Main winch bottom protection function prevents the main winch wire rope in slack .

6. Optional function with centralized lubrication system, which makes maintenance more convenient.

7. Selection of a variety of specifications for kelly-bar, meeting the efficient construction of different strata.

8. Multi-function such as crowd winch, spin-off of rotary drive, casing driver and hydraulic casing oscillator are optional.



XR240I

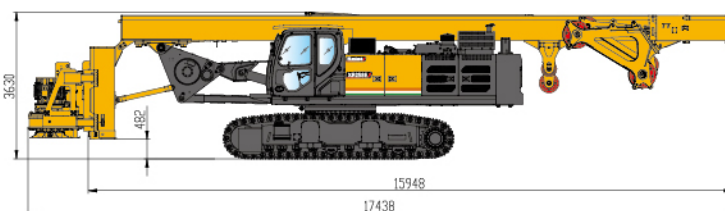
Main Technical Specification

	Max. drilling diameter	Φ2000 mm
	Max. drilling depth	72 m
	Working height	23.2 m
	Working weight	86 t
Undercarriage	Width	3250~4400 mm
	Width of triple grouser track shoes	800 mm
	Travel speed	1.5 km/h
Drilling mast inclination	Lateral	±4°
	Forward	5°
	Backward	15°
Rotary drive	Torque	240 kN·m
	Rotary speed	7~27 r/min
Crowd cylinder	Pressing force	210 kN
	Lifting force	270 kN
	Stroke	5 m
Main winch	Lifting force	270 kN
	Speed	70 m/min
	Rope diameter	30 mm
Auxiliary winch	Lifting force	100 kN
	Speed	66 m/min
	Rope diameter	20 mm
Engine	Type	CUMMINS QSL-325
	Power	242 kW/ (2100 r/min)
	Emission	U.S. EPA Tier 3, CARB Tier 3, EU Stage IIIA CNIII

Kelly bar	Drilling depth (m)	Weight (kg)	Configuration
Friction φ 406-5 × 15.8	72	9660	Standard
Interlocking φ 406-4 × 15.5	56	9120	Optional

Parameters	Unit	Values	Remark
Max. drilling diameter	mm	φ2000	
Max. drilling depth	m	72/56	
Engine			
Model	/	QSL8.9	
Rated power	kW	242	
Rotary drive			
Rated output torque	kNm	258	
Working speed	r/min	5-27	
Crowd cylinder			
Max. crowd force	kN	210	
Max. lifting force	kN	270	
Max. stroke	m	5	
Main winch			
Max. lifting force	kN	270	
Max. line speed	m/min	70	
Wire rope diameter	mm	Φ30	
Auxiliary winch			
Max. lifting force	kN	100	
Max. line speed	m/min	66	
Wire rope diameter	mm	Φ20	
Mast inclination			
Lateral/Forward/Backward	°	±4/5/90	
Chassis			
Max. traveling speed	km/h	1.5	
Max. gradeability	%	35	
Track shoe width	mm	800	
Track length	mm	5715	
Max. span of track	mm	3250-4400	
Hydraulic system			
Working pressure	Mpa	35	
Operating weight	t	83	
Dimensions			
Working state	mm	9165×4400×23180	
Transport state	mm	17438×3250×3630	

Kelly bars	Weight(t)	Drilling depth(m)	Remarks
JS406-4×15	9600	54	Standard
JS406-4×15.5	9900	56	Optional
MZ406-5×14	8500	63	Optional
MZ406-5×15.8	9500	72	Optional



Advantages

XR258E rotary drilling rig: it is suitable for civil engineering, municipal engineering, power grid piles and other fields, and has high efficiency and flexible operation in soil and rock layers.

Strong power: Equipped with Cummins QSL8.9 turbocharged engine that meets China III emission standard, the machine has large power reserve and high construction efficiency.

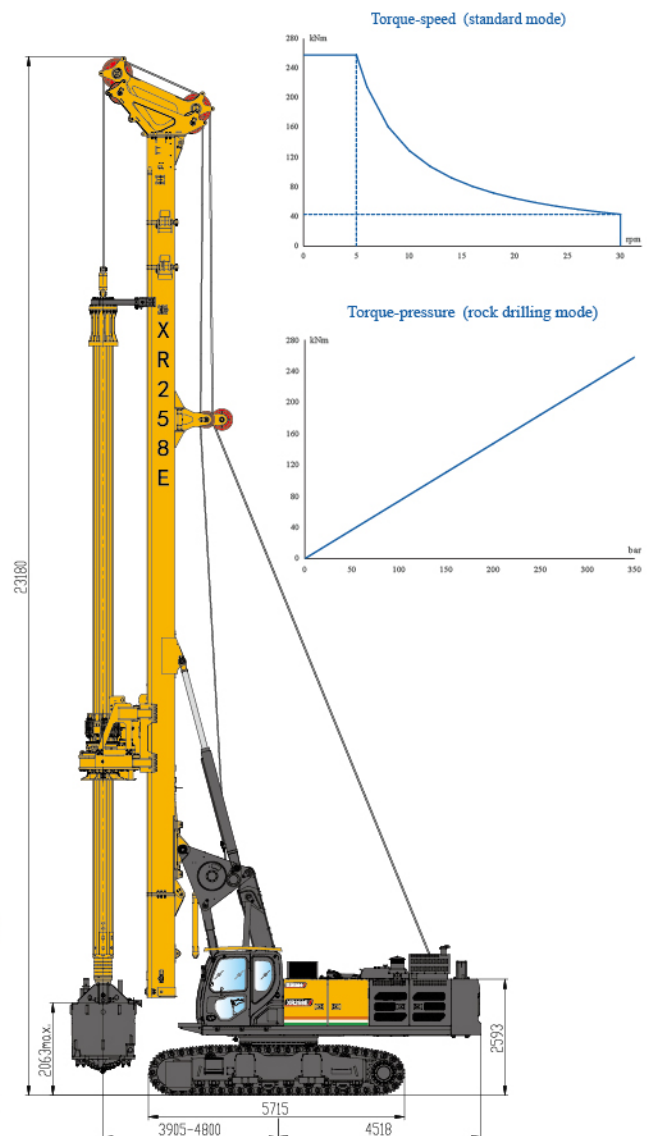
Efficient construction: The large torque and high speed rotary drive ensures stable drilling and easy spin-off.

Intelligent operation: The E-series rig adopts new appearance and coating. The new-generation cab with a large screen display has super-large operating space, a broad field of vision, and first-class operating experience. The standard touch bottom protection, automatic mast verticality adjustment and display make the entire machine more intelligent.

Efficient & energy-saving: The hydraulic system with large diameter pipe lines has high efficiency. The full power engine control matching technology improves power utilization. The independent cooling system that can adjust the fan speed in real time ensures low fuel consumption of the whole machine.

Safe & reliable: The machine adopts TDP series hydraulic crawler chassis dedicated for rotary drilling rigs, as well as the large diameter slewing bearing, to get better working stability.

Convenient maintenance: It has optional centralized lubrication system. The pumps, valves and filters are centrally arranged near the side door to leave a large maintenance space. The online fault alarm & diagnosis guides the troubleshooting. The online fault warning guides customers to conduct troubleshooting in advance and prevents potential problems.

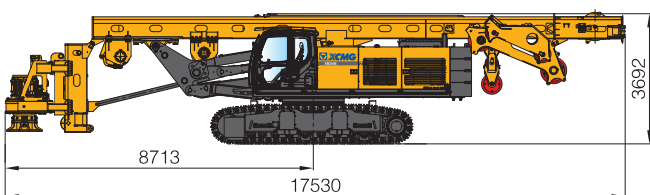


XR240E Rotary Drilling Rig

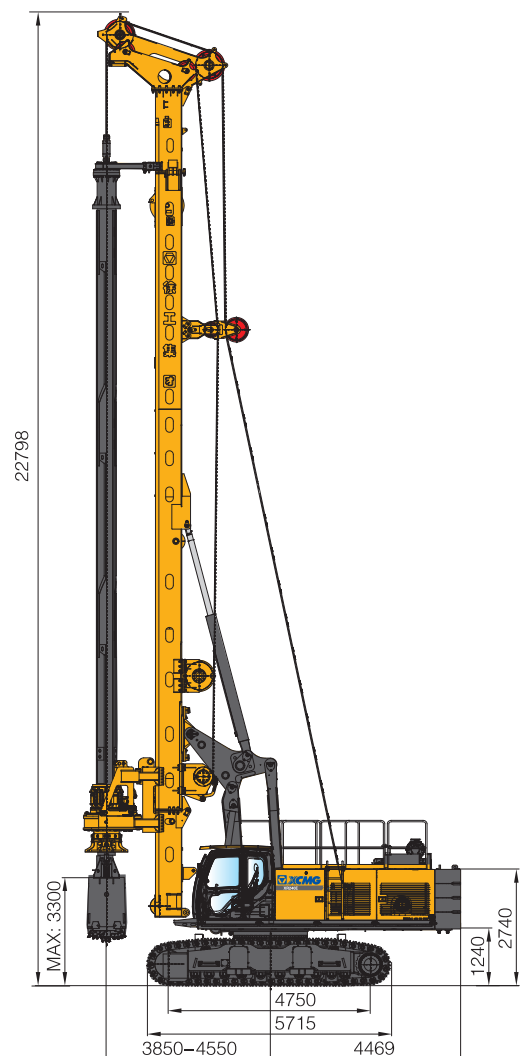
Parameter	Unit	Data	
Max. drilling diameter	mm	φ 2200/φ 2000*	
Max. drilling depth	m	80/70/56	
Engine	Model	/	
	Rated power	kW	270
Rotary drive	Rated output torque	kN · m	240
	Rotation speed	r/min	7–30
Crowd cylinder	Max. crowd force	kN	220
	Max. lifting force	kN	270
	Max. lifting stroke	m	5
Crowd winch	Max. crowd force	kN	250*
	Max. lifting force	kN	250*
	Max. lifting stroke	m	16*
Main winch	Max. lifting force	kN	240
	Max. winch speed	m/min	70
	Wire rope diameter	mm	φ 32
Auxiliary winch	Max. lifting force	kN	80
	Max. winch speed	m/min	70
	Wire rope diameter	mm	φ 20
Drill mast inclination	Lateral/forward	°	± 4/5/90
Chassis	Max. traveling speed	km/h	1.8
	Max. climbability	%	35
	Track shoe width	mm	800
	Track length	mm	5715
Hydraulic system	Working pressure	MPa	35
Working weight	t	84	
Dimension	Work condition	mm	8870 × 4400 × 22798
	Transport condition	mm	17530 × 3250 × 3692

Remarks: parameters with “*” are those of crowd winch configuration.

Kelly bar configuration	Weight of Kelly bar(t)	Drilling depth (m)	Remarks
JS440–4 × 15.5	10.7	56	Standard
JS440–3 × 14.5	9	38	Optional
MZ440–5 × 15.5	10.7	70	
MZ440–6 × 14.8	10.4	80	Special



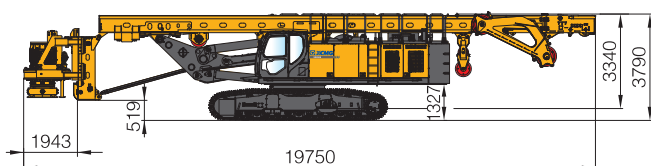
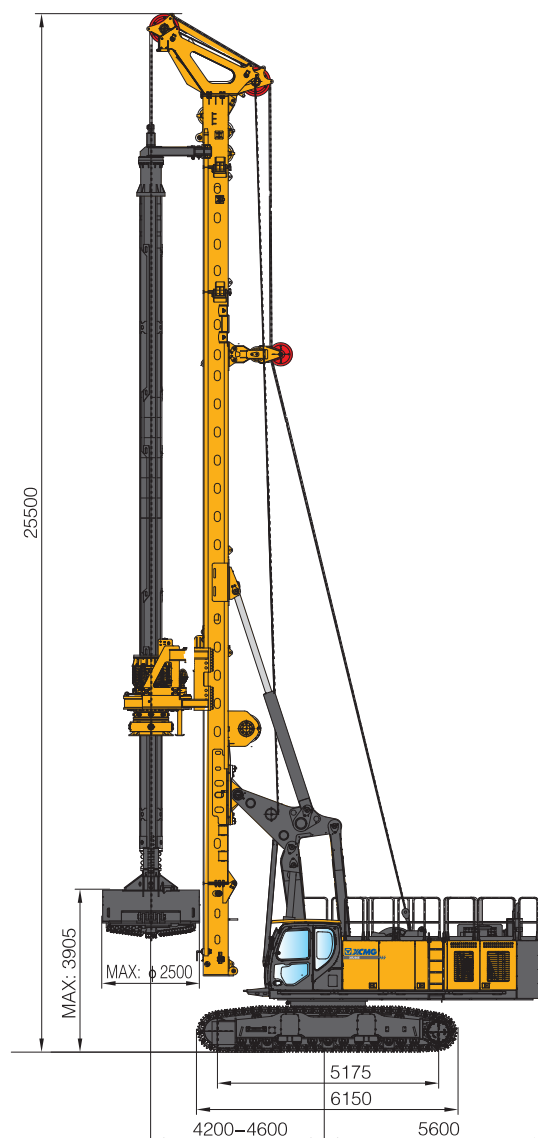
- One machine with multiple functions, it can realize the quick switch among crowd cylinder, crowd winch and casing oscillator to meet construction requirements of different projects.
- Equipped with Isuzu electrically controlled turbocharged engine, it has less fuel consumption, quick and convenient service.
- The working performance of rotary drive and main winch is increased by 20% and the construction efficiency is higher.
- The main winch and auxiliary winch adopt single-row rope, the life of wire rope is 2–4 times longer than that of multi-layer, the cost is lower.
- Double boom large parallelogram luffing mechanism has large support angle, the support range is increased by 16%, more stable.
- The main hydraulic system adopts negative flow control with quick response and good control.
- Powerful independent temperature-controlled hydraulic oil cooler, meeting the requirements of construction in high temperature areas, the fan speed can be adjusted according to temperature changes to realize energy saving.
- The intelligent control system realizes the automatic adjustment and display of the verticality of the drill mast, automatic self-righting and automatic spin-off. The bus panel design is adopted to effectively prevent misoperation.
- Transport legs are optional to realize remote control, with safer and more convenient transfer.



Parameter		Unit	Data
Max. drilling diameter		mm	φ 2500/φ 2300
Max. drilling depth		m	61/94
Engine	Model	/	TAD1352VE
	Rated power	kW	315
Rotary drive	Rated output torque	kN · m	300
	Rotation speed	r/min	6–29
Crowd cylinder	Max. crowd force	kN	280
	Max. lifting force	kN	340
	Max. lifting stroke	m	6
Crowd winch	Max. crowd force	kN	330
	Max. lifting force	kN	340
	Max. lifting stroke	m	13
Main winch	Max. lifting force	kN	340
	Max. winch speed	m/min	80
	Wire rope diameter	mm	φ 36
Auxiliary winch	Max. lifting force	kN	100
	Max. winch speed	m/min	41
	Wire rope diameter	mm	φ 20
Drill mast inclination	Lateral/forward	°	± 4/5/15
Chassis	Max. traveling speed	km/h	1.5
	Max. climbability	%	35
	Track shoe width	mm	800
	Track length	mm	6150
Hydraulic system	Working pressure	MPa	33
	Working weight	t	106
Dimension	Work condition	mm	10825 × 4800 × 25500
	Transport condition	mm	19750 × 3500 × 3790

- > Optimized double boom luffing mechanism and position of hinge point ensure stable construction and convenient transfer.
- > Dedicated hydraulic retractable crawler chassis for rotary drilling rig and large-diameter slewing bearing both ensure stable operation and convenient transport.
- > Adopting imported Volvo engine with strong power, which effectively reduces fuel consumption and usage cost.
- > The hydraulic system adopts load sensing technology, superimposed total power control and limit power control technology, which makes the hydraulic system more efficient and more energy-saving. The independent radiator system has high heat dissipation efficiency.
- > Single-row rope main winch structure, effectively solves the overlap problem of wire rope, greatly extending the service life of the wire rope.
- > The rotary drive has standard mode and rock drilling mode, which are for soil and rock operation respectively, improving the construction efficiency. The rotary drive has automatic rotation function, and the speed can be continuously adjusted in standard mode and rock drilling mode.
- > Centralized lubrication system is equipped as standard, which makes maintenance more convenient and improves working reliability.

Kelly bar configuration	Weight of Kelly bar (t)	Drilling depth (m)	Remarks
JS508-4 × 16	13.7	57	Standard
JS508-4 × 17	14.4	61	Optional
MZ508-5 × 16.1	13.3	73	
MZ508-6 × 17.5	15.5	94	



Technical Characteristics

1.H-type hydraulic telescopic crawler chassis for rotary drilling rig, equipped with large-diameter slewing bearing, ensures superior stability and convenient transportation.

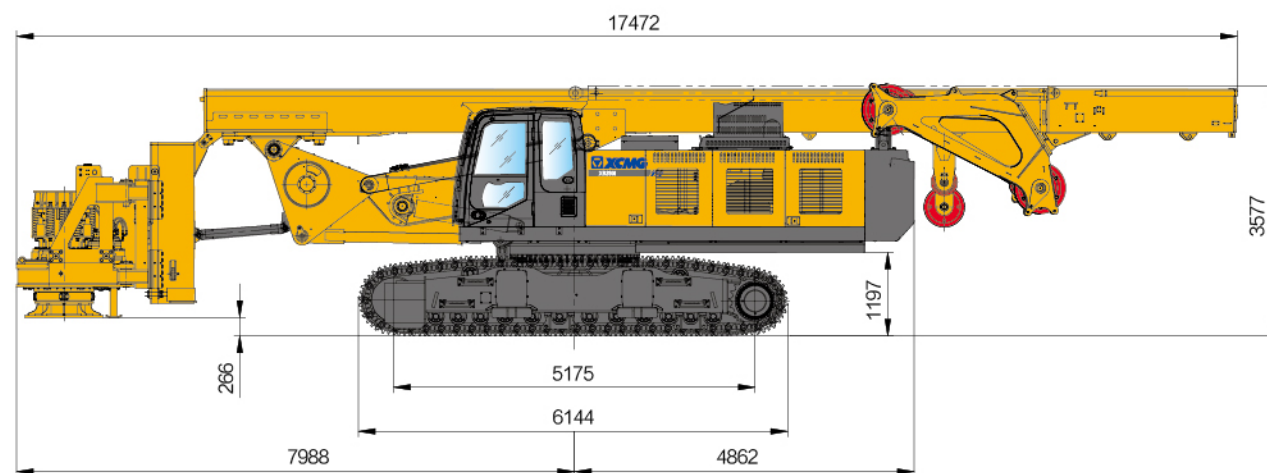
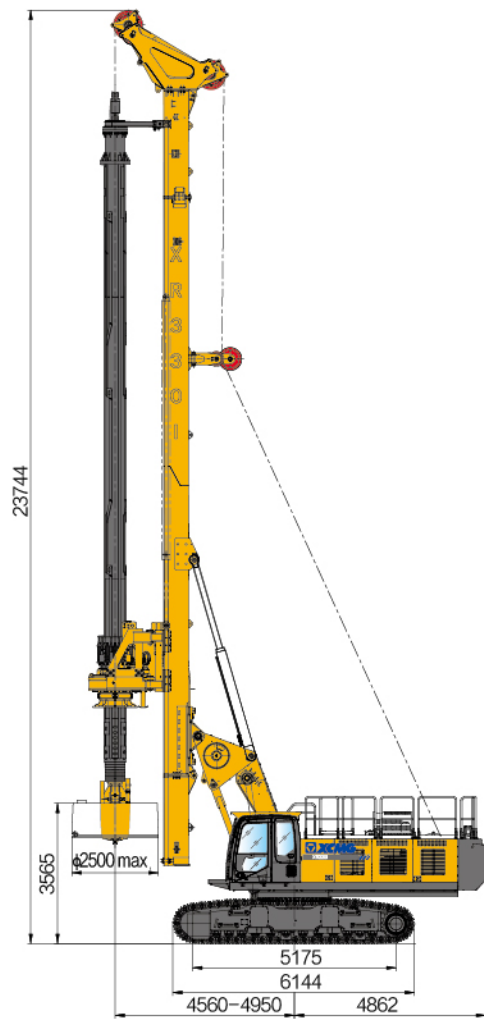
2.Cummins turbocharged engine, using advanced electro-hydraulic control technology, strong power.

3.The main winch adopts single-row rope technology, the life of steel wire rope is 2~4 times longer than that of multi-layer rope, and the use cost is lower.

4.The hydraulic system adopts load sensing technology and superimposes total power control and limit power control technology to make the hydraulic system more efficient and more energy-saving; it adopts a dual heat dissipation system with engine direct drive heat dissipation and auxiliary electronic heat dissipation, high heat dissipation efficiency.

5.Multi-gear rotary drive, single-row rope main winch, work performance is increased by 20%, and work efficiency is higher.

6.Intelligent control system to realize automatic adjustment and display of drill mast verticality, depth detection display, rotation angle display, etc.



XR330I

Main Technical Specification

	Max. drilling diameter	Φ2500 mm
	Max. drilling depth	88 m
	Working height	23.7 m
	Working weight	100 t
Undercarriage	Width	3500~4800 mm
	Width of triple grouser track shoes	800 mm
	Travel speed	1.5 km/h
Drilling mast inclination	Lateral	±4°
	Forward	5°
	Backward	15°
Rotary drive	Torque	330 kN·m
	Rotary speed	6~28 r/min
Crowd cylinder	Pressing force	336 kN
	Lifting force	336 kN
	Stroke	6 m
Main winch	Lifting force	330 kN
	Speed	62 m/min
	Rope diameter	36 mm
Auxiliary winch	Lifting force	110 kN
	Speed	70 m/min
	Rope diameter	20 mm
Engine	Type	CUMMINS QSM11-C400
	Power	298 kW/ (1900 r/min)
	Emission	U.S. EPA Tier 3, CARB Tier 3, EU Stage IIIA CNIII

Kelly bar	Drilling depth (m)	Weight (kg)	Configuration
Interlocking φ 508-4 × 16.0	58	13.53	Standard
Friction φ 508-5 × 16.1	73	13.32	Optional
Friction φ 508-6 × 16.1	88	14	Optional

Technical Characteristics

1. Cummins turbocharged engine, using advanced electro-hydraulic control technology, has strong power.

2. The working performance of rotary drive and main winch is increased by 10%, and the operation efficiency is higher.

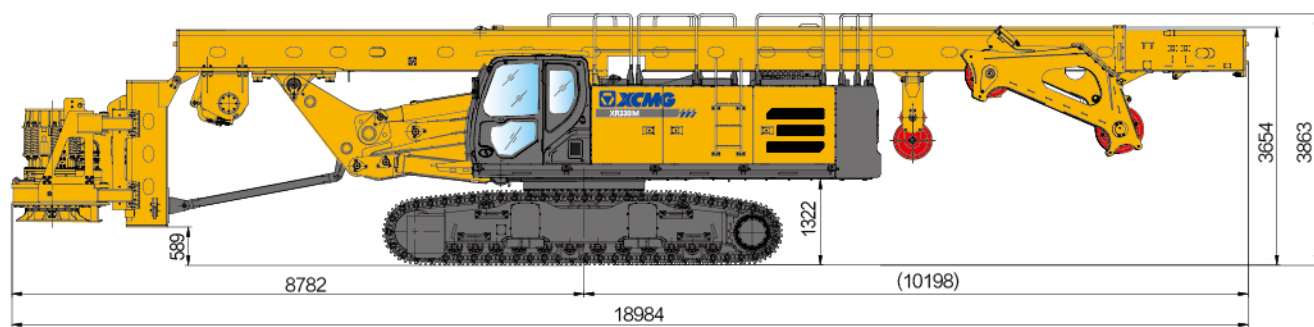
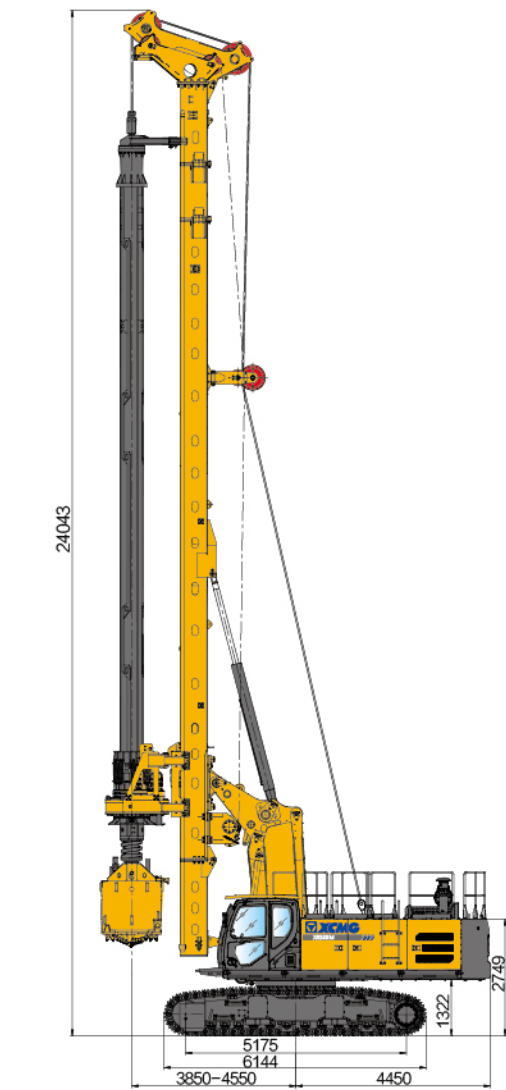
3. Multi gear mode control of rotary drive to meet the construction requirements of different geological conditions and improve the construction efficiency.

4. Double boom large parallelogram luffing mechanism is adopted, with large support angle and more stable operation.

5. The main hydraulic system adopts negative flow control technology, with fast response and good control performance.

6. High power temperature controlled independent hydraulic oil cooler can meet the construction requirements in high-temperature areas, and can adjust the fan speed according to the temperature change to realize energy saving.

7. The intelligent control system realizes the functions of automatic adjustment and display of the verticality of the drilling mast, automatic spin-off, constant speed cruise, and multi gear mode of the rotary drive. The bus panel design is adopted to effectively prevent misoperation.



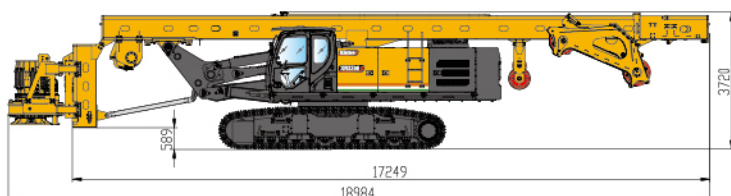
XR330IM Main Technical Specification

	Max. drilling diameter	2200 mm
	Max. drilling depth	90 m
	Working height	24.0 m
	Working weight	100 t
Undercarriage	Width	3500-4800 mm
	Width of triple grouser track shoes	800 mm
	Travel speed	1.5 km/h
Drilling mast inclination	Lateral	±4°
	Forward	5°
	Backward	15°
Rotary drive	Torque	330 kN·m
	Rotary speed	6-28 rpm
Crowd cylinder	Pressing force	336 kN
	Lifting force	336 kN
	Stroke	5 m
Main winch	Lifting force	330 kN
	Speed	70 m/min
	Rope diameter	32 mm
Auxiliary winch	Lifting force	110 kN
	Speed	70 m/min
	Rope diameter	20 mm
Engine	Type	CUMMINS QSM11-C400
	Power	298kW/ (1900 r/min)
	Emission	U.S. EPA Tier 3, CARB Tier 3, EU Stage III A, CN III

Kelly bar	Drilling depth (m)	Weight (kg)	Configuration
Interlocking φ 508-4 × 16	57	12800	Standard
Friction φ 508-5 × 16	72	13200	Optional
Interlocking φ 508-4 × 16.5	59	13200	Special
Friction φ 508-5 × 16.5	75	13600	Special
Friction φ 508-6 × 16.5	90	14300	Special

Parameters	Unit	Values	Remark
Max. drilling diameter	mm	φ2200	
Max. drilling depth	m	90	
Engine			
Model	/	QSM11	
Rated power	kW	298	
Rotary drive			
Rated output torque	kNm	338	
Working speed	r/min	6-28	
Crowd cylinder			
Max. crowd force	kN	336	
Max. lifting force	kN	336	
Max. stroke	m	6	
Main winch			
Max. lifting force	kN	330	
Max. line speed	m/min	70	
Wire rope diameter	mm	Φ32	
Auxiliary winch			
Max. lifting force	kN	110	
Max. line speed	m/min	70	
Wire rope diameter	mm	Φ20	
Mast inclination			
Lateral/Forward/Backward	°	±4/5/90	
Chassis			
Max. traveling speed	km/h	1.5	
Max. gradeability	%	35	
Track shoe width	mm	800	
Track length	mm	6144	
Max. span of track	mm	3500-4800	
Hydraulic system			
Working pressure	Mpa	35	
Operating weight	t	100	
Dimensions			
Working state	mm	8300×4800×24043	
Transport state	mm	18984×3500×3720	

Kelly bars	Weight(t)	Drilling depth(m)	Remarks
JS508-4×16	13700	57	Standard
JS508-4×16.5	14000	59	Optional
MZ508-5×16	13500	72	Optional
MZ508-6×16.5	14500	90	Optional



Advantages

XR338E rotary drilling rig: it is suitable for civil engineering, municipal engineering, power grid piles and other fields, and has high efficiency and flexible operation in soil and rock layers.

Strong power: The Cummins QSM11 turbocharged engine has lower fuel consumption and convenient service.

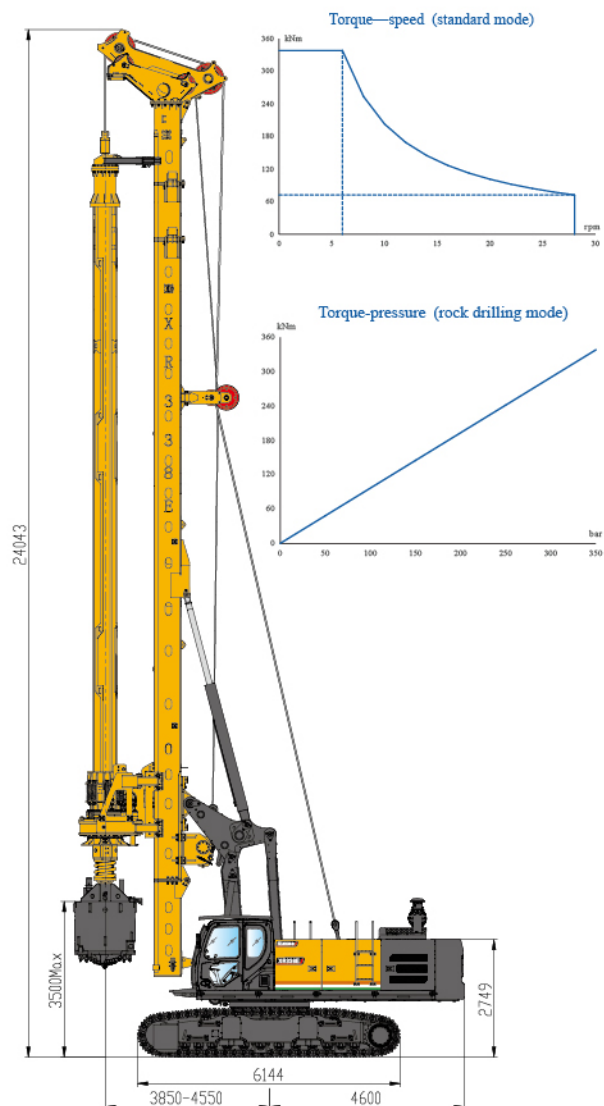
Efficient construction: The performance of the main winch is increased by 10%, resulting in higher working efficiency. The multi gear control of rotary drive can meet the construction needs under different geological conditions to improve construction efficiency.

Intelligent operation: The intelligent control system can realize automatic adjustment & display of mast verticality, automatic spin-off, powerful spin-off, cruise control, rotary drive multi-gear mode and other functions. It adopts bus panel design to effectively prevent misoperations.

Efficient & energy-saving: The hydraulic system adopts negative flow control technology with fast response to get good operating performance. The high power temperature controlled independent hydraulic oil cooler is suitable for construction in high-temperature areas, and can adjust the fan speed with temperature changes to achieve energy conservation.

Safe & reliable: The machine adopts TDP series hydraulic crawler chassis dedicated for rotary drilling rigs, as well as the large diameter slewing bearing, to get better working stability. The double boom large parallelogram luffing mechanism with large support range and support angle makes the operation more stable.

Convenient maintenance: It has optional centralized lubrication system. The pumps, valves and filters are centrally arranged near the side door to leave a large maintenance space. The online fault alarm & diagnosis guides the troubleshooting. The online fault warning guides customers to conduct troubleshooting in advance and prevents potential problems.



Technical Characteristics

1.It adopts H-type hydraulic retractable crawler chassis dedicated for rotary drilling rig and is equipped with large-diameter slewing bearing, which ensures super stability and convenient transportation.

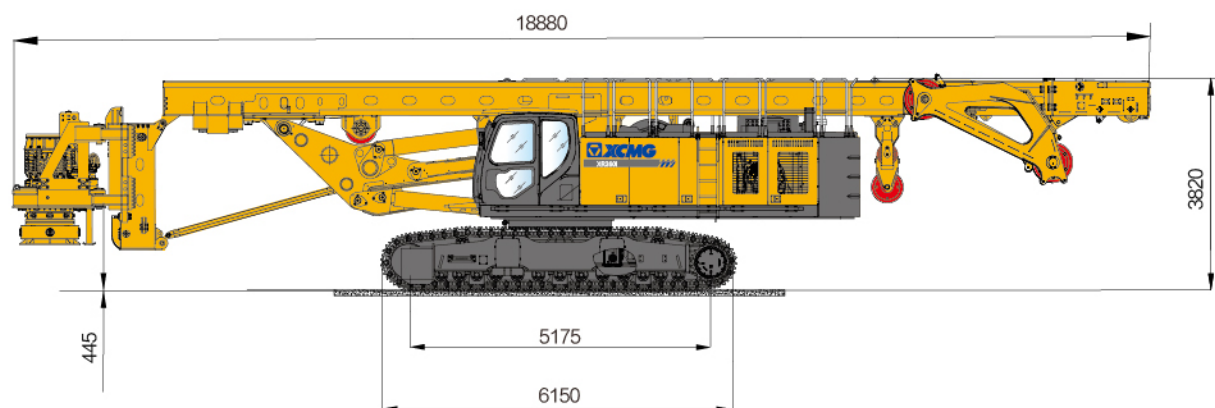
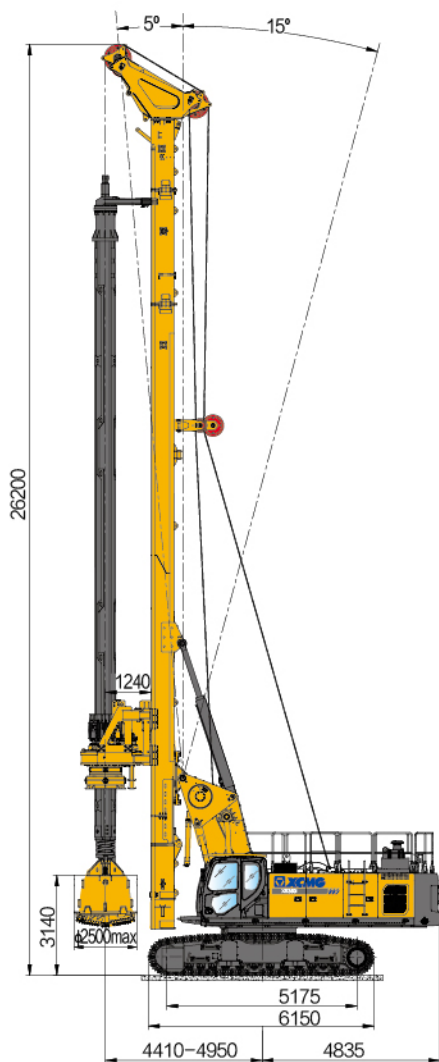
2.Cummins turbocharged, high-pressure common rail engine adopts advanced electro-hydraulic control technology, making it more powerful.

3.The main and auxiliary winches both adopt single-layer rope. The service life of the wire rope is 2~4 times longer than that of the multi-layer rope, which makes the cost lower.

4.The hydraulic system adopts load-sensitive, total power control and limit power control technologies to be more efficient and energy-saving. The independent radiator has high heat dissipation efficiency.

5.The multi-gear rotary drive and main winch with single-layer rope improve the working performance by 20%, which ensures higher working efficiency.

6.The intelligent control system can achieve functions such as automatic adjustment and display of mast verticality, depth detection display, rotation angle display, automatic soil dumping, etc. are designed with BUS panel, which can effectively prevent misoperation.



XR360I

Main Technical Specification

	Max. drilling diameter	Φ2500 mm
	Max. drilling depth	102 m
	Working height	26.2 m
	Working weight	115 t
Undercarriage	Width	3500~4800 mm
	Width of triple grouser track shoes	800 mm
	Travel speed	1.5 km/h
Drilling mast inclination	Lateral	±4°
	Forward	5°
	Backward	15°
Rotary drive	Torque	360 kN·m
	Rotary speed	6~27 r/min
	High speed spin-off (optional)	/
Crowd cylinder	Pressing force	280 kN
	Lifting force	345 kN
	Stroke	6 m
Main winch	Lifting force	335 kN
	Speed	72 m/min
Auxiliary winch	Rope diameter	36 mm
	Lifting force	100 kN
	Speed	70 m/min
Engine	Rope diameter	20 mm
	Type	CUMMINS X12
	Power	336 kW/ (1800 r/min)
	Emission	U.S. EPA Tier 3, CARB Tier 3, EU Stage IIIA CNIII

Kelly bar	Drilling depth (m)	Weight (kg)	Configuration
Interlocking φ 508-4 × 17	62	15	Standard
Interlocking φ 508-4 × 18	66	16	Optional
Friction φ 508-6 × 18.7	102	16	Special
Friction φ 508-6 × 18	97	15.5	Optional
Friction φ 508-6 × 17	91	15	Optional

Technical Characteristics

1. Optimized design of double boom luffing mechanism, optimized hinge position, taking into account construction stability and convenience of transfer transportation.
2. The special H-type hydraulic telescopic crawler chassis for rotary drilling rig is adopted and equipped with large-diameter slewing bearing to ensure super stability and convenient transportation.
3. Imported Cummins engine is adopted, with strong power and three gear power control. Users can select

the corresponding gear according to the working conditions, so as to realize the effect of three engines on one drilling rig, and the optimized three gear power curve can effectively reduce the fuel consumption and use cost.

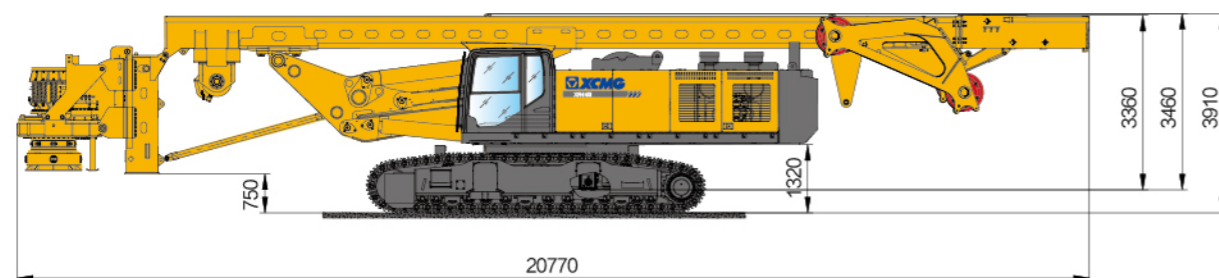
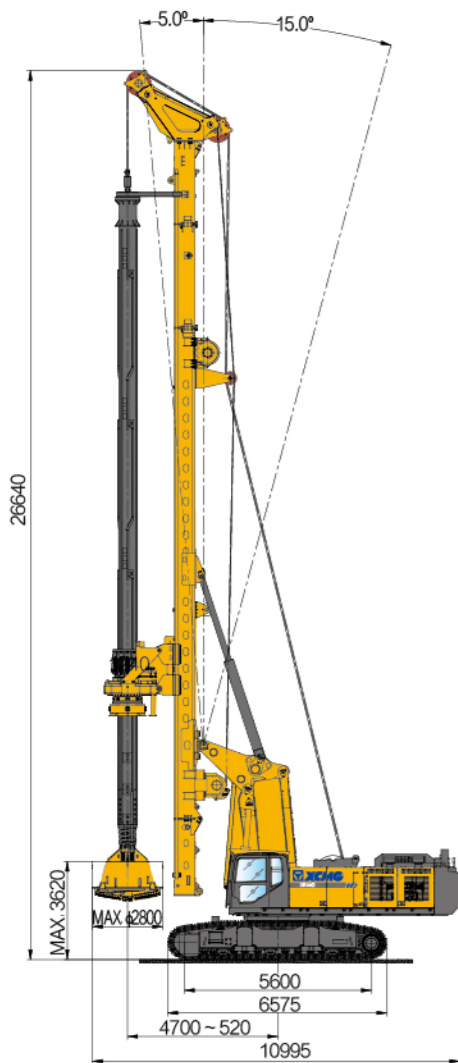
4. The hydraulic system adopts load sensing technology and superimposes total power control and limit power control technology to make the hydraulic system more efficient and energy-saving. The three in one combined radiator system is adopted with compact structure and high heat dissipation efficiency.

5. XCMG's proprietary single row rope main winch structure effectively solves the problem of line overlap of steel wire rope and greatly prolongs the service life of steel wire rope.

6. The rotary drive has ordinary mode, rock entry mode and energy-saving mode. Users can choose the corresponding mode according to different geological conditions, which improves the construction efficiency and reduces the fuel consumption.

7. Various configurations: crowd winch, chassis outrigger oil cylinder, casing drive, etc., with good expansibility.

8. The standard centralized lubrication system makes the maintenance more convenient and improves the working reliability.



XR440I

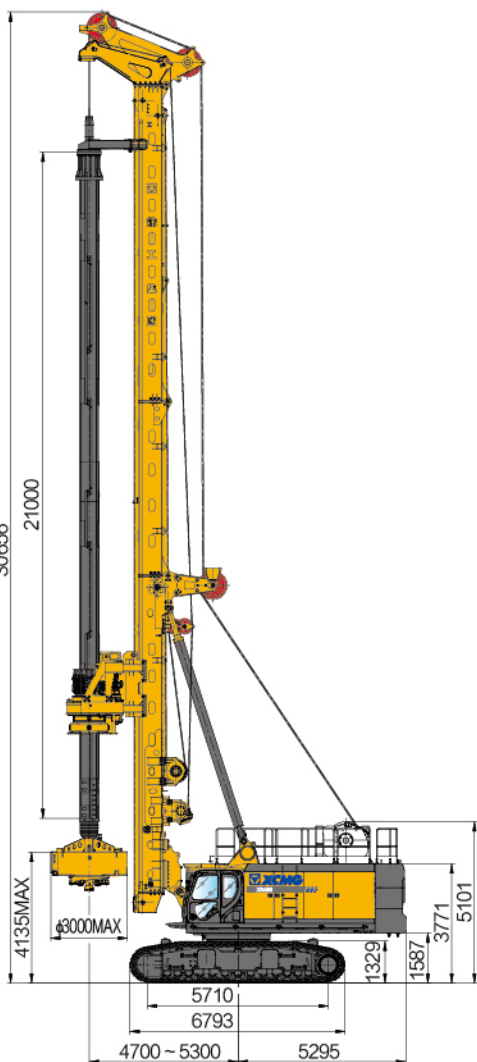
Main Technical Specification

Max. drilling diameter	Φ2800 mm Crowd cylinder Φ2500 mm Crowd winch	
Max. drilling depth	103 m	
Working height	26.7 m	
Working weight	130 t	
Undercarriage	Width	3500~4900 mm
	Width of triple grouser track shoes	800 mm
	Travel speed	1.3 km/h
Drilling mast inclination	Lateral	±4°
	Forward	5°
	Backward	90°
Rotary drive	Torque	440 kN·m
	Rotary speed	7~25 r/min
	High speed spin-off (optional)	/
Crowd cylinder	Pressing force	300 kN
	Lifting force	400 kN
	Stroke	6 m
Crowd winch (optional)	Pressing/Lifting force	400/400 kN
	Stroke	18 m
	Rope diameter	26 mm
Main winch	Lifting force	370 kN
	Speed	60 m/min
	Rope diameter	40 mm
Auxiliary winch	Lifting force	110 kN
	Speed	65 m/min
	Rope diameter	20 mm
Engine	Type	CUMMINS QSX15-C500
	Power	373 kW/(2100 r/min)
	Emission	U.S. EPA Tier 3, CARB Tier 3, EU Stage IIIA CNIII

Kelly bar	Drilling depth (m)	Weight (kg)	Configuration
Interlocking φ 530-4 × 19	69	16780	Standard
Interlocking φ 530-4 × 18	65	15970	Optional
Friction φ 530-5 × 19	87	17100	Optional
Friction φ 530-6 × 19	103	18500	Optional

Technical Characteristics

1. The hydraulic system adopts full electronic control technology, which has fast response and good control performance. The power of the main pump is adjusted according to the working conditions. The auxiliary system adopts load sensitive control technology, and the comprehensive construction efficiency of the system is improved by 20%.
2. The special H-type hydraulic telescopic crawler chassis for rotary drilling rig is adopted, equipped with large-diameter slewing bearing and chassis disassembly support legs to ensure working stability and convenient transportation.
3. Equipped with Cummins 15 L electronically controlled turbocharged engine, it has strong power, low fuel consumption, convenient and fast service, and adopts independent fans of intercooling and water dispersion, with low noise.



4. The rotary drive adopts vertical pin connected power box and bracket, which has high reliability and convenient and fast disassembly; Supporting casing driver to improve the casing running capacity of the drilling rig; The power box is equipped with circulating filtration system to maintain the cleanliness of gear oil in the box and sufficient lubrication of bearings.
5. The double vertical plate box type rotary platform structure is adopted, which makes the operation more stable and reliable. The outrigger is installed at the tail of the turntable, which can reduce the shaking of the equipment during rock entry construction.
6. 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 can reach 520 kN, which meets the service condition of M6, and the service life of the reducer can reach 10000 h at most.
7. The intelligent control system realizes the functions of automatic adjustment and display of the verticality of the drilling mast, automatic soil dumping (adjustable frequency), constant speed cruise, stepless pressure regulation, bottom touch protection, etc. the BUS panel design is adopted to prevent misoperation. With 12 Inch Touch screen display and electric control handle, the control performance is better.

XR450I

Main Technical Specification

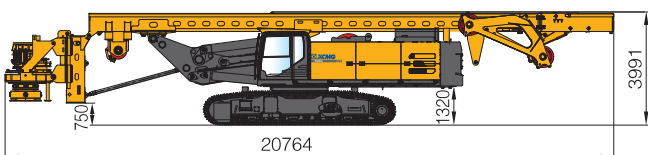
Max. drilling diameter	Φ3000 mm Crowd cylinder Φ2800 mm Crowd winch	
Max. drilling depth	114 m	
Working height	30.6 m	
Working weight	165 t	
Undercarriage	Width	3700~5300 mm
	Width of triple grouser track shoes	900 mm
	Travel speed	1.5 km/h
Drilling mast inclination	Lateral	±3°
	Forward	90°
	Backward	15°
Rotary drive	Torque	450 kN·m
	Rotary speed	7~25 r/min
Crowd cylinder	Pressing force	400 kN
	Lifting force	400 kN
	Stroke	6 m
Crowd winch (optional)	Pressing/Lifting force	400/400 kN
	Stroke	10 m
	Rope diameter	28 mm
Main winch	Lifting force	520 kN
	Speed	70 m/min
	Rope diameter	42 mm
Auxiliary winch	Lifting force	100 kN
	Speed	65 m/min
	Rope diameter	20 mm
Engine	Type	Cummins QSX15
	Power	399 kW
	Emission	U.S. EPA Tier 3, CARB Tier 3, EU Stage IIIA CNIII

Kelly bar	Drilling depth (m)	Weight (kg)	Configuration
Interlocking φ 530-4 × 19	69	16780	Standard
Interlocking φ 530-4 × 18	65	15970	Optional
Friction φ 530-5 × 19	87	17100	Optional
Friction φ 530-6 × 19	103	18500	Optional

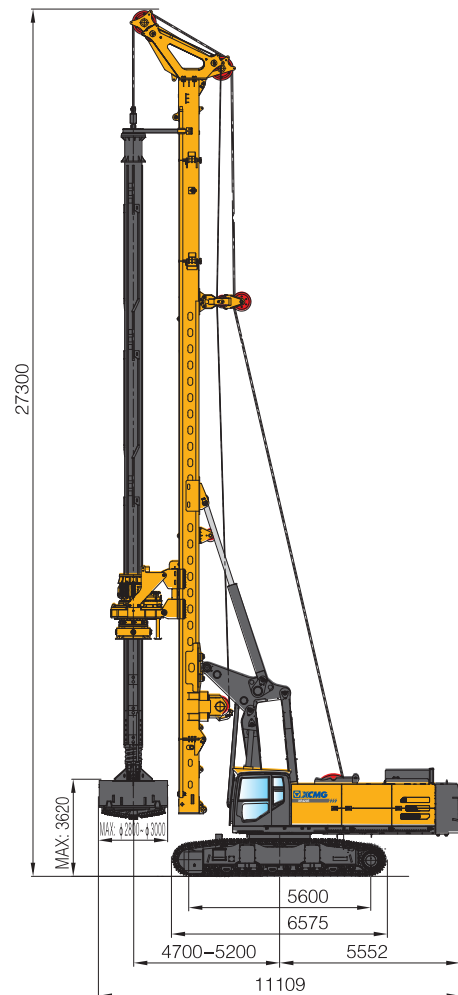
XR420E Rotary Drilling Rig

Parameter		Unit	Data
Max. drilling diameter		mm	φ 2800(φ 3000拆钻桅)
Max. drilling depth		m	69/106
Engine	Model	/	X15-C535
	Rated power	kW	399
Rotary drive	Rated output torque	kN · m	430
	Rotation speed	r/min	6-27
Crowd cylinder	Max. crowd force	kN	360
	Max. lifting force	kN	400
	Max. lifting stroke	m	6
Crowd winch	Max. crowd force	kN	400
	Max. lifting force	kN	400
	Max. lifting stroke	m	13
Main winch	Max. lifting force	kN	400
	Max. winch speed	m/min	80
	Wire rope diameter	mm	φ 40
Auxiliary winch	Max. lifting force	kN	110
	Max. winch speed	m/min	50
	Wire rope diameter	mm	φ 20
Drill mast inclination	Lateral/forward	°	± 4/5/15
	Max. traveling speed	km/h	1.3
Chassis	Max. climbability	%	35
	Track shoe width	mm	800
	Track length	mm	6575
	Track outer width	mm	3500-4900
Hydraulic system	Working pressure	MPa	33
Working weight		t	136
Dimension	Work condition	mm	11109 × 4900 × 27300
	Transport condition	mm	20764 × 3500 × 3991

Kelly bar configuration	Weight of Kelly bar (t)	Drilling depth (m)	Remarks
JS575-4 × 18	19	65	Standard
JS575-4 × 19	20	69	
MZ575-5 × 19	19.5	86	Optional
MZ575-6 × 19	19.5	106	

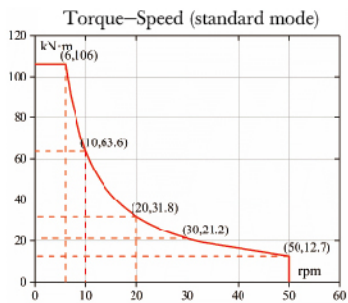
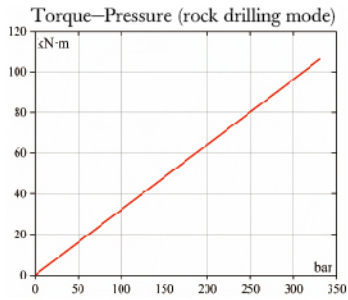


- The intelligent control system realizes the automatic adjustment and display of the verticality of the drill mast, automatic self-righting, automatic spin-off, CFA automatic pouring control and pile type display. The bus panel design is adopted to effectively prevent misoperation.
- Double boom luffing mechanism, dedicated hydraulic retractable crawler chassis for rotary drilling rig and large-diameter slewing bearing ensure stable operation and convenient transport.
- It adopts Cummins engine with strong power and has three gears of power control, so that the user can choose the corresponding gear according to the working conditions and have the efficacy of three engines with one rig. The optimized power curve of three gears effectively reduces fuel consumption and usage cost.
- The hydraulic system adopts load sensitive technology, superimposed total power control and limit power control technology, which makes the hydraulic system more efficient and more energy-saving.
- Single-row-rope main winch structure, effectively solves the overlap problem of wire rope, greatly extending the service life of the wire rope.
- The rotary drive has standard mode, rock drilling mode and energy-saving mode, and users can select corresponding mode according to the strata, the construction efficiency is improved and the fuel consumption is reduced.
- Multiple configurations: optional crowd winch, casing drive, etc., good expandability.
- Central lubrication system is equipped as standard, which makes maintenance more convenient and improves working reliability.

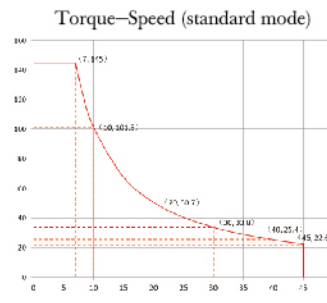
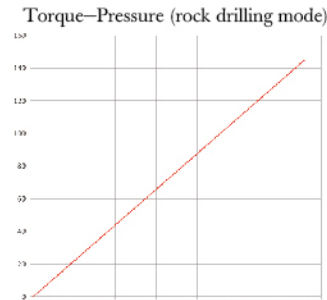


Rotary Drive Graph

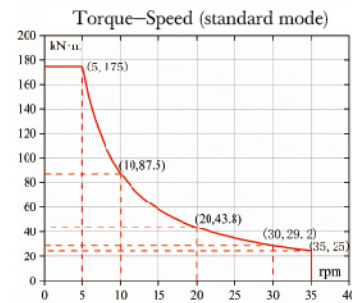
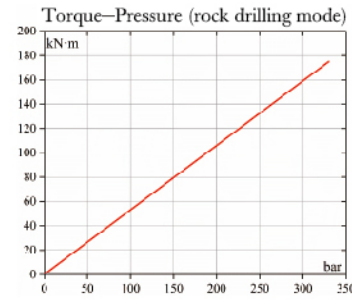
XR80I



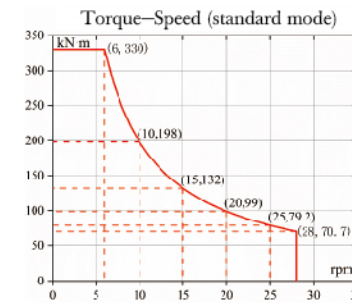
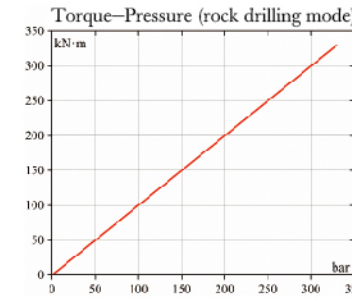
XR145I



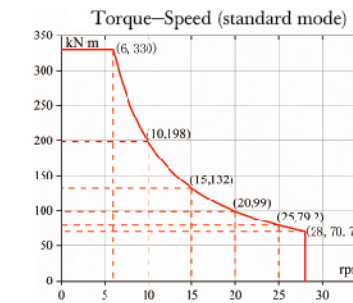
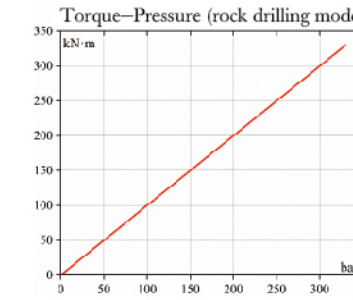
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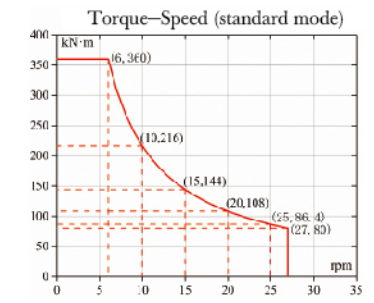
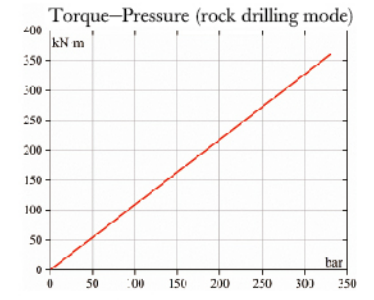
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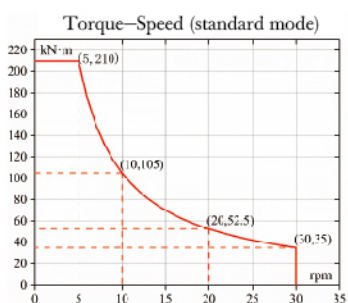
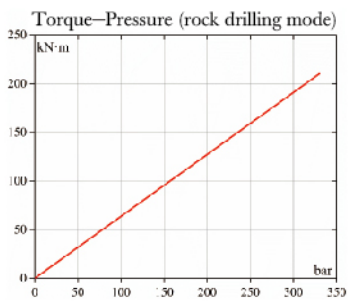
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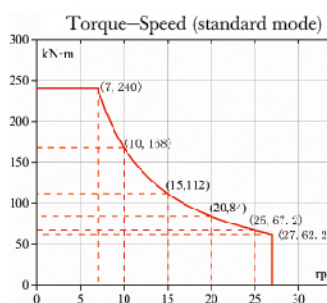
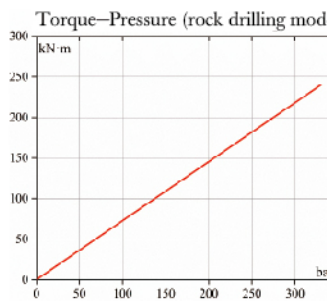
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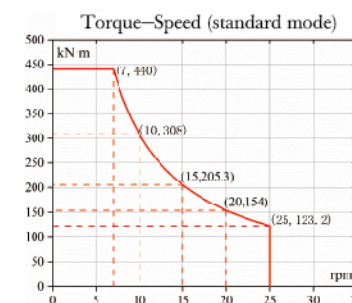
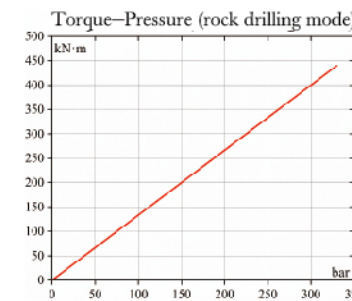
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XR240I



XR440I



XR450I

