As technology continues to improve, we are unable to inform you of the change of our products in time. We apologize for any inconvenience caused!

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XCMG

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XCMG FOUNDATION CONSTRUCTION MACHINERY BUSINESS DIVISION

Address: No.36 Tuolanshan Road, Jinshanqiao Developing Zone, Xuzhou, Jiangsu, China

Sales and Service Hotline: +86 400-110-9999

Postcode: 221004

www.xcmg.com/xgjc/

XCMG FOUNDATION CONSTRUCTION MACHINERY BUSINESS DIVISION

Highlights Introduction

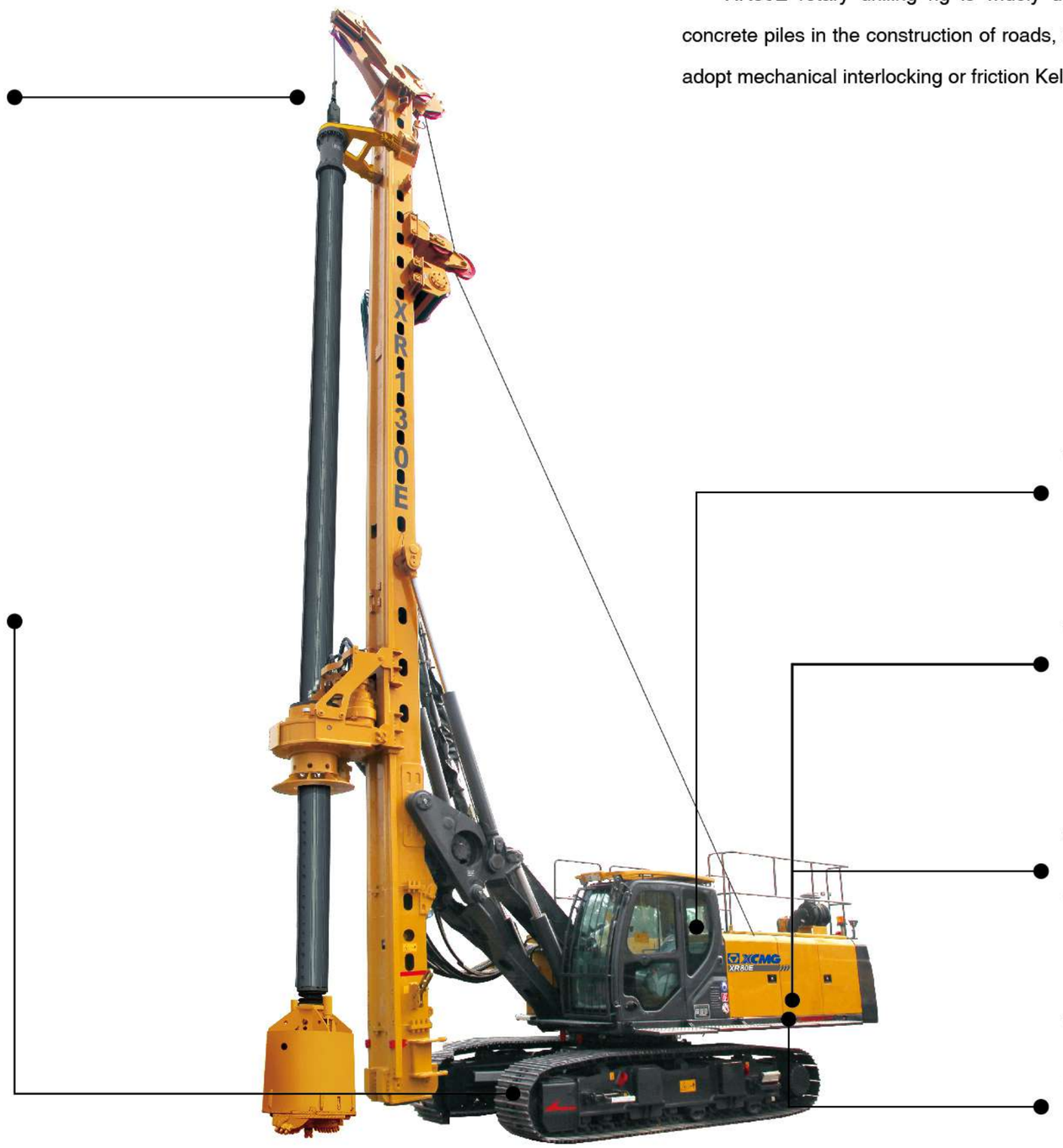
XR80E rotary drilling rig is widely used in the hole-forming operations of cast-in-place concrete piles in the construction of roads, railways, bridges, ports and high-rise buildings. It can adopt mechanical interlocking or friction Kelly bars.

01

The machine can be transported with Kelly bar.

02

It adopts TDP series hydraulic retractable crawler chassis dedicated for rotary drilling rigs and large diameter slewing bearing, which ensures super stability and transportation convenience.



03

Standard central lubrication system makes the maintenance more convenient.

04

Crowd cylinder is standard configuration and multifunctional configuration is optional (such as crowd winch, CFA, rotary spray, etc.).

05

The hydraulic system adopts limit power control and negative flow control to be more energy-saving and efficient.

06

Imported Cummins electronically controlled turbocharged engine can ensure strong power and its emission conforms to EPA Tier 4 Final and EU stage V standards.

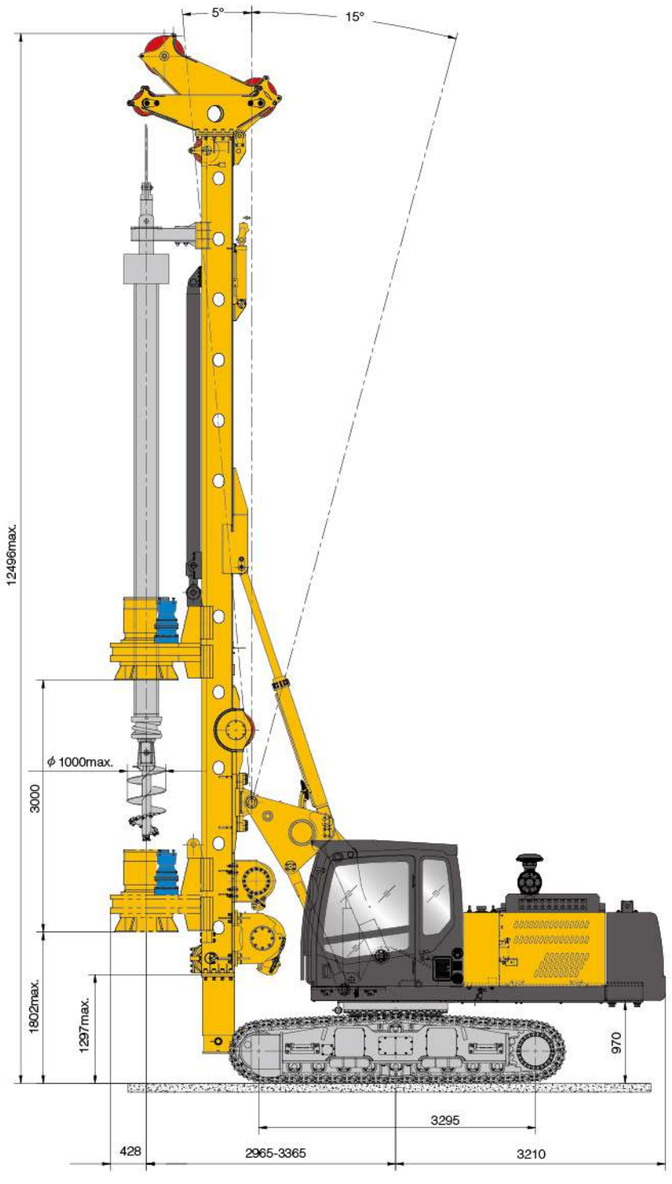
Dimension & Configuration

Standard

- Mast perpendicularity detection
- Real-time detection of drilling depth
- Oil pressure detection
- PLC intelligent control module
- Intelligent fault detection
- Manual/automatic adjustment of mast perpendicularity
- Main winch floating
- Fuel self-priming pump
- Rotation sound-light alarm
- Main winch height limit
- Air conditioner
- Luffing limit protection
- Mast limit (front and back, left and right)
- Filter clogging alarm
- Radio
- Rotation angle display
- Security monitoring of the tail
- Central lubrication

Optional

- Casing driving
- High-speed spin-off
- Main winch bottom protection
- Main winch infrared monitoring
- Auxiliary winch height limit
- Display of rotary drive torque
- Main winch extraction force detection

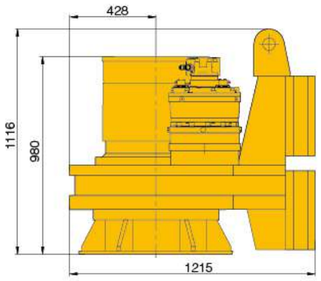


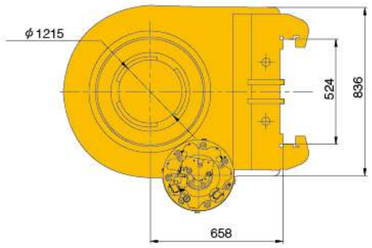
Main Technical Parameters

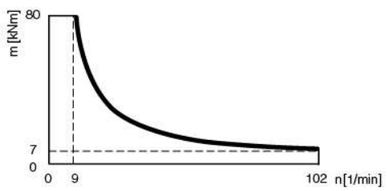
Working height	12.5 m	41ft
Overall operating weight (standard)	29 t (without drilling tools)	32 ton (US)
Max. drilling diameter	φ1200 mm	47.2 in
Max. drilling depth	24 m	79 ft
Dimensions		
Working condition	6490×3400×12450 mm	256×134×491 in
Transport condition	11208×2500×3500 mm	442×98×138 in
Engine	Cummins QSB4.5	Cummins QSB4.5
Rated power	115 kW/2000 r/min	154 hp/2000 rpm
Emission standard	EPA T4F/EU stage V	EPA T4F/EU stage V
Fuel tank capacity	256 L	68 US gal
Rotary drive		
Rated output torque	80 kNm	58966 lbf*ft
Rotary speed	9-42 r/min	9-42 rpm
Crowd cylinder		
Max. crowd force push/pull	100 kN/100 kN	22481 lbf/22481 lbf
Max. stroke	3 m	10 ft
Crowd winch (optional)		
Max. crowd force push/pull	100 kN/100 kN	22481 lbf/22481 lbf
Max. stroke	7.5 m	25 ft
Main winch		
Max. pulling force	80 kN	17985 lbf
Max. line speed	76 m/min	249 ft/min
Auxiliary winch		
Max. pulling force	50 kN	11241 lbf
Max. line speed	60 m/min	197 ft/min
Mast inclination		
Lateral/forward/backward	±5°/5°/15°	±5°/5°/15°
Undercarriage		
Max. travel speed of overall unit	2.5 km/h	1.6 mph
Min. ground clearance	335 mm	13.2 in
Width of triple grouser track shoes	600 mm	23.6 in
Width of crawlers retracted/extended	2500-3400 mm	99 -134 in
Max. climbable gradient of overall unit	35%	35%
Ground pressure	69 kPa	10 psi
Hydraulic system		
Hydraulic oil tank capacity	280 L	74 US gal
Working pressure	34 MPa	4931 psi

Rotary Drive

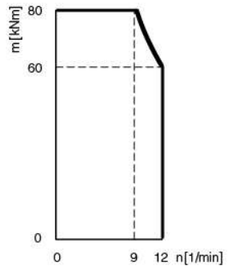
Equipped with a hydraulic motor for drilling driving and a spring damper on the top, the rotary dive is pushed and pulled by a crowd winch. A driving casing suitable for friction and interlocking Kelly bars is installed and casing driving connection can be selected to facilitate the construction.



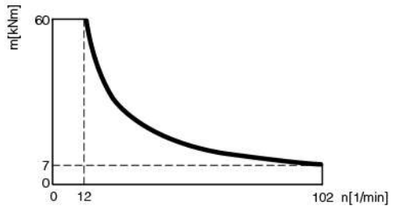




Working mode



Rock drilling mode

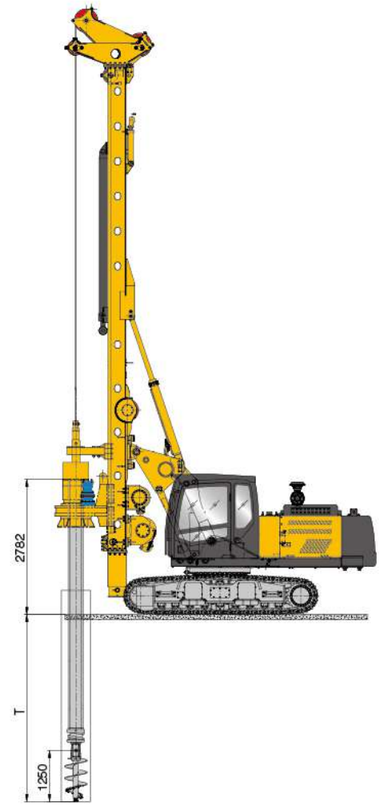


Efficiency mode

Kelly Bar

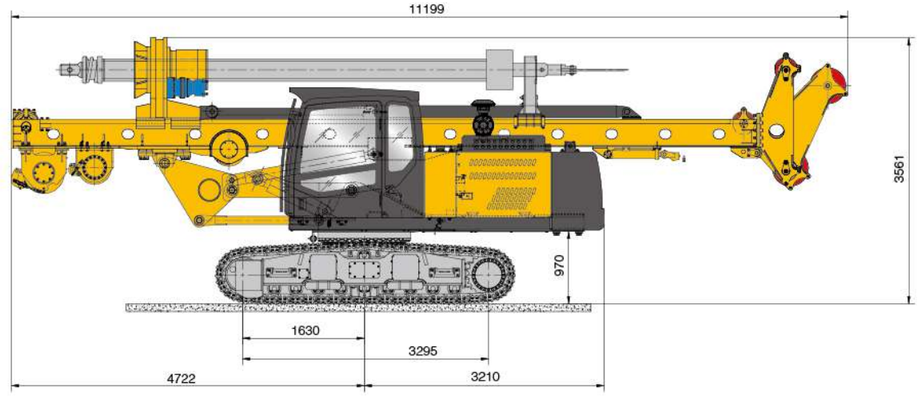
Interlocking Kelly bar	Weight		Drilling depth	
Φ299 mm-4×7 m	3050 kg	6724 lb	24 m	79 ft
Φ299 mm-4×6 m	2710 kg	5974 lb	20 m	66 ft
Φ299 mm-4×5.5 m	2520 kg	5556 lb	18 m	59 ft
Friction Kelly bar	**Weight**		**Drilling depth**	
Φ299 mm-4×7 m	3050 kg	6724 lb	24 m	79 ft
Φ299 mm-4×6 m	2710 kg	5974 lb	20 m	66 ft
Φ299 mm-4×5.5 m	2520 kg	5556 lb	18 m	59 ft

Kelly Drilling System



Transportation Plan

Whole Machine Transportation



Transport weight: 29 t (without drilling bit)

Transport width: 2500 mm

E Series Rotary Drilling Rig

Note: All figures marked here are maximum.

Drilling Tools

Main application: gravel cobble and weathered rock

Double-bottom double-door bucket with cutting teeth

Double-bottom single-door bucket with cutting teeth

Double cut bucket with cutting teeth

Double cut single spiral auger with cutting teeth

Main application: soil, sand and ooze

Double-bottom single-door soil bucket

Double-bottom single-door soil bucket

Main application: hard bed rock and boulder formations

Core barrel with cutting teeth

Core barrel with cone bit

Main application: clay, soil, dry construction method

Split type drill bit

Double cut single spiral soil auger

Single-bottom double-door soil bucket

Main application: cleaning up the sediment at the bottom of the hole

Cleaning bucket

Main application: cobble, strong weathered rock, Tundra, broken rock

Single cut single spiral auger with cutting teeth

Double cut single spiral auger with cutting teeth

Main application: soil, sand, soft rock

Belling bucket for soil

Belling bucket for rock

Others

Kelly box adapter

Extension rod

Casing

Betek tooth