

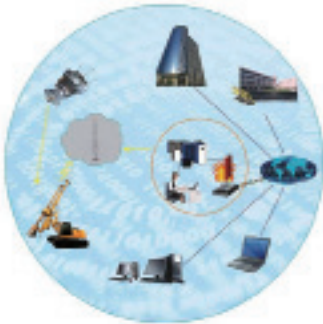
Rotary Drilling Rig

TR180DI



Electric system

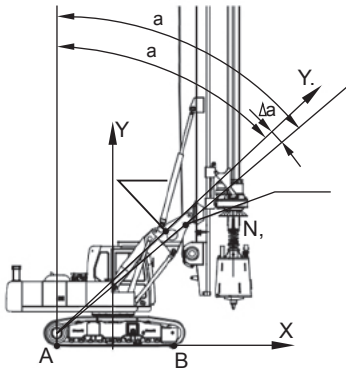
- Wireless transmission system and GPS remote service



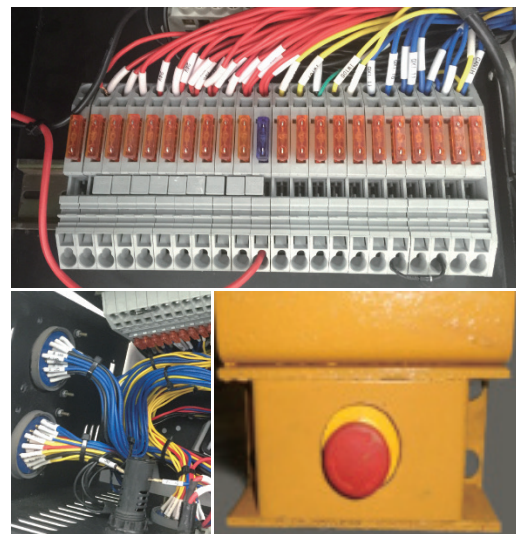
- Construction monitoring system



- The stability of drilling rig monitoring system

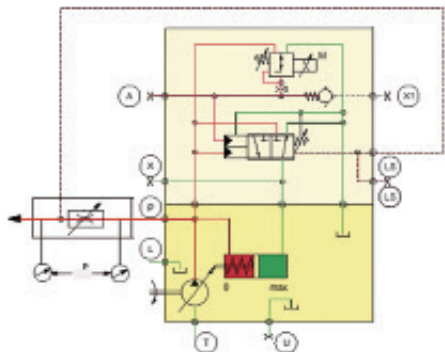


- Emergency switch and concentration of wiring harness

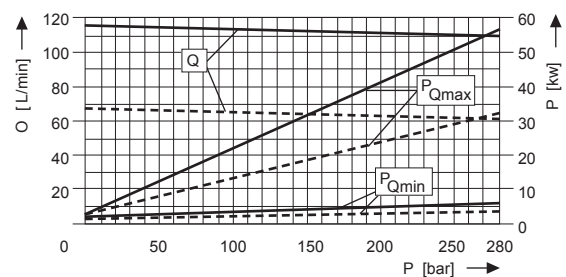


Hydraulic System

- Caterpillar's main hydraulic system
- The main pump negative flow control system
- The auxiliary pump load sensitive control system



- One main hydraulic tank and two auxiliary hydraulic oil tank, the hydraulic oil cooling and cleaning easier



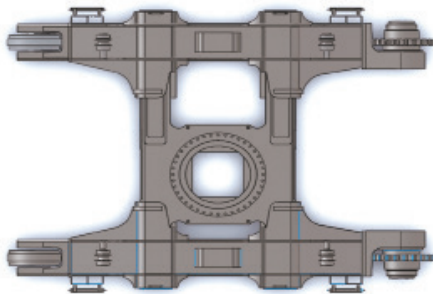
- The main winch hydraulic oil confluence technology improve the winch speed by 50%
- Crowd force stepless adjustment improve construction efficiency
- The rotary drive self-adaptive drilling system and high speed spin-off system improve drilling efficiency

- Reducer, motor, pump, valve configuration of the international first-class brand

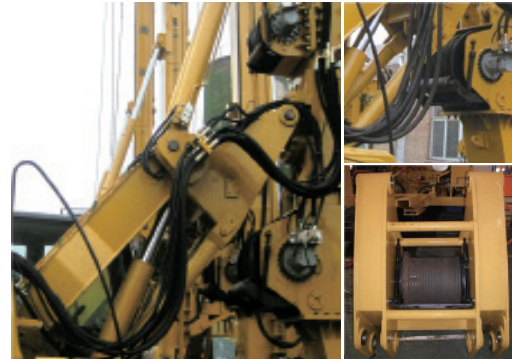


Mechanical System

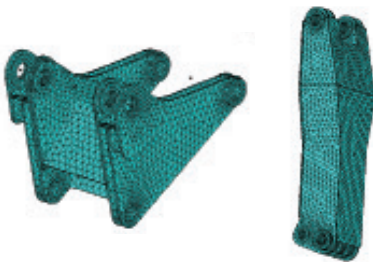
- Kelly drilling and CFA drilling
- Caterpillar Undercarriage



- The broken line reel technology and the winch patent technology make the service life of wire rope improve greatly



- Caterpillar Undercarriage structure and the mast structure, all materials are special high-strength steel



- Rotary Drive multi-stage damping structure improves the borehole verticality and structural life



- Cross Roller Bearing improves the drilling accuracy significantly



- Reasonable layout, repair, maintenance are convenient



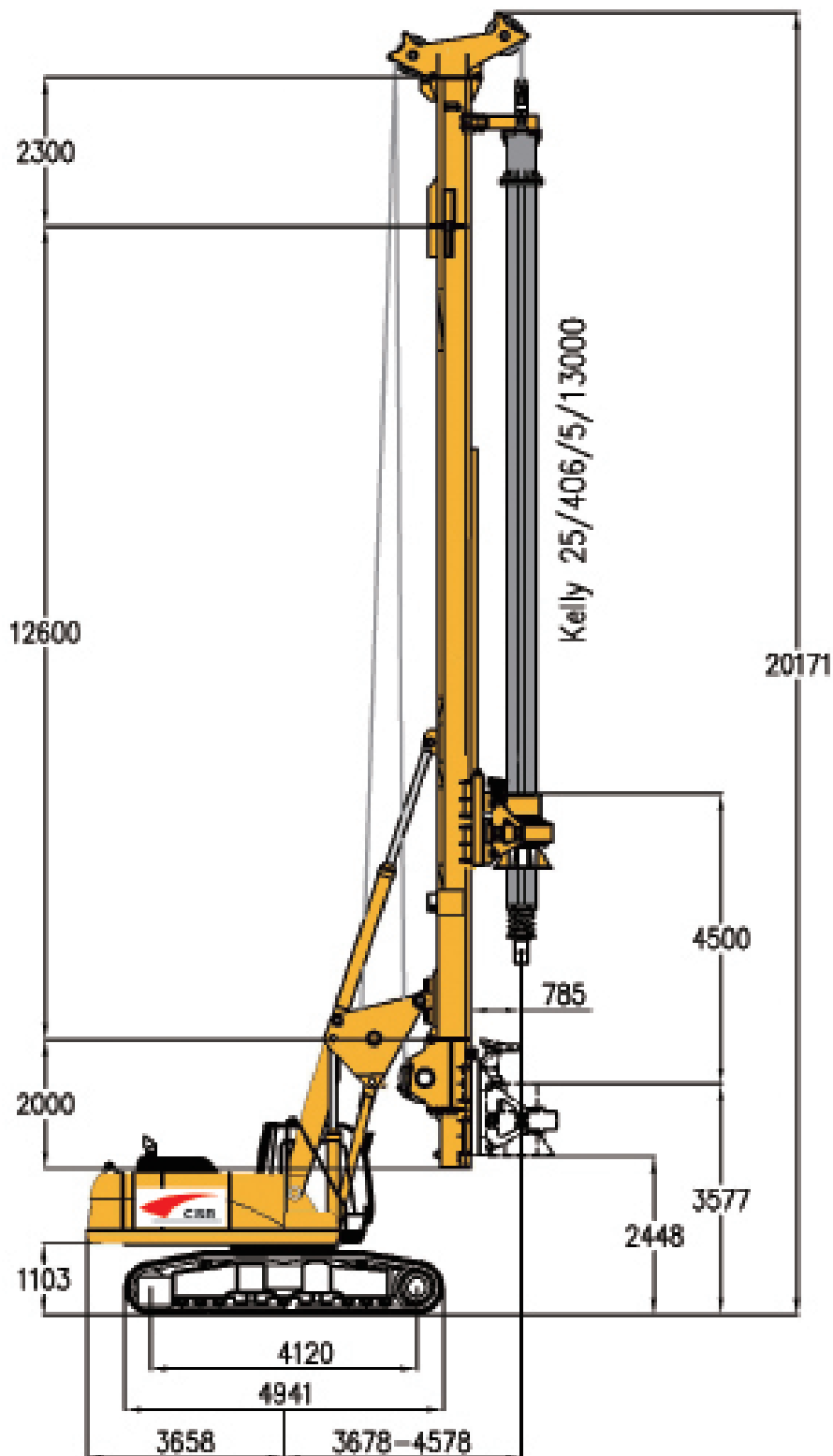
Dimensions

Crowd cylinder type

The TR180DI rotary drilling rig has an operating weight of approx 56.7 ton. It is suited for:

- Rotary drilling
- Drilling cased boreholes (installation of casing by rotary drive))
- Drilling boreholes with long hollow stem augers (CAF system), with or without kelly extensions

TR180DI Rotary Drilling Rig is mainly used in the construction of civil and bridge engineering, which adopts advanced intelligent electronic control system and load sensing type pilot control hydraulic system, the whole machine is safe and reliable.

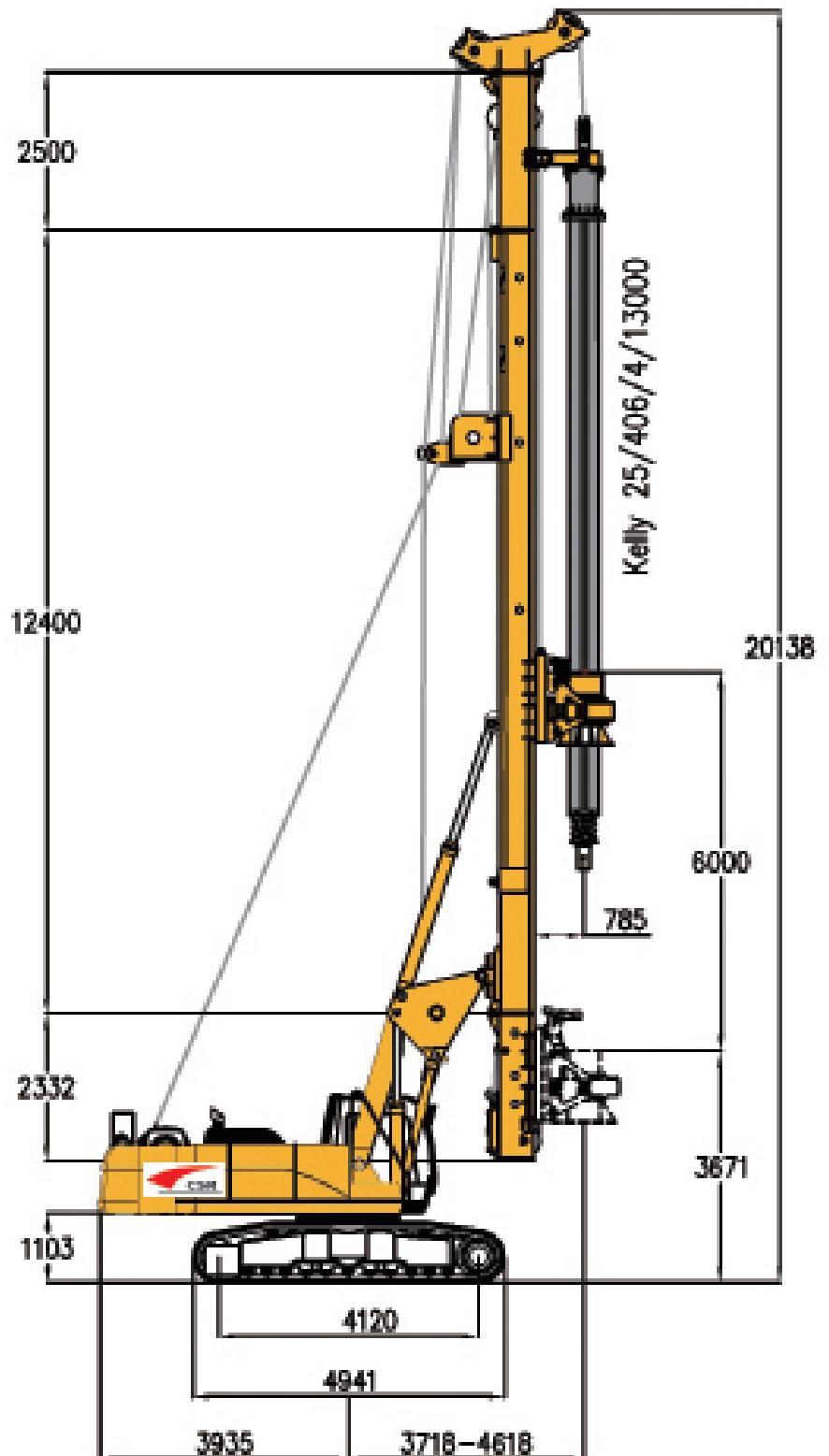


Dimensions

Crowd winch type

The whole machine standard equipment

- Main machine system
(Including chassis system, power system, mast system, Rotary Drive)
- One set Kelly bar
- 250 working hours maintenance package
- Two set drilling buckets
- Spare parts kit



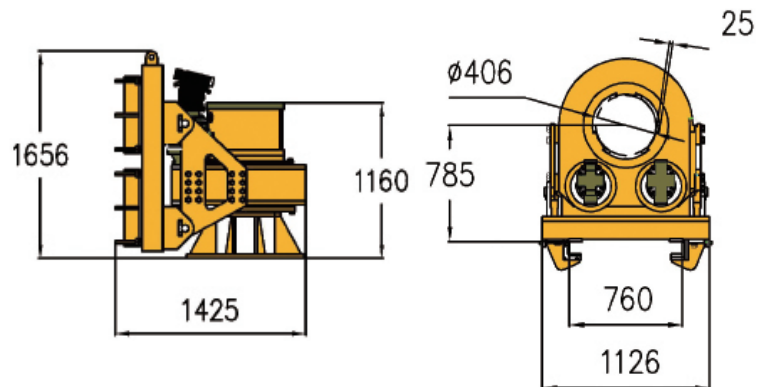
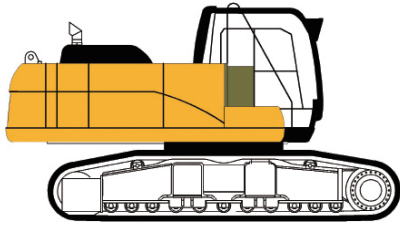
Technical parameters

	Crowd cylinder	Crowd winch
Overall weight	49 ton	49 ton
Operation weight (with kelly)	56.7 ton	56.7 ton
Rotary Drive		
Nominal torque	180 kNm	180 kNm
Speed of rotation	37 rpm	37 rpm
Spin-off speed	130 rpm	130 rpm
Crowd system		
Crowd force push/pull	150/190 kN	200/200 kN
Stroke (kelly system)	4500 mm	6000 mm
Stroke (CFA system)		14000 mm
Rope diameter/length		24 mm/50 m
Speed down/up	5/6 m/min	6/6 m/min
Fast speed down/up		12/12 m/min
Main winch		
Line pull (1st layer)	180 kN	180 kN
Rope diameter/length	26 mm/90 m	26 mm/90m
Line speed max	78 m/min	78 m/min
Auxiliary winch		
Line pull (1st layer)	99 kN	99 kN
Rope diameter/length	20 mm/60 m	20 mm/60m
Line speed max	70 m/min	70 m/min
Mast inclination		
Backward/forward/lateral	15/5/5	15/5/5

Standard module

- Rotary drive (two reduction gears), self-adaptive drilling
- Hoist limit switch on main and auxiliary winches
- PLC processor and standard monitor unit
- Display of pump pressures and fault messages
- Mast inclination measurement on X/Y axes
- Display of drilling depth
- Swing caution light and stability monitoring system

Base Carrier CAT329D



Engine

Rated output	187kW@1800rpm
Exhaust emission standard	Tier II
Diesel tank	500L
Ambient air temperature	-20° up to 40°
Sound pressure level in cabin	77 dB
Sound power level	112 dB

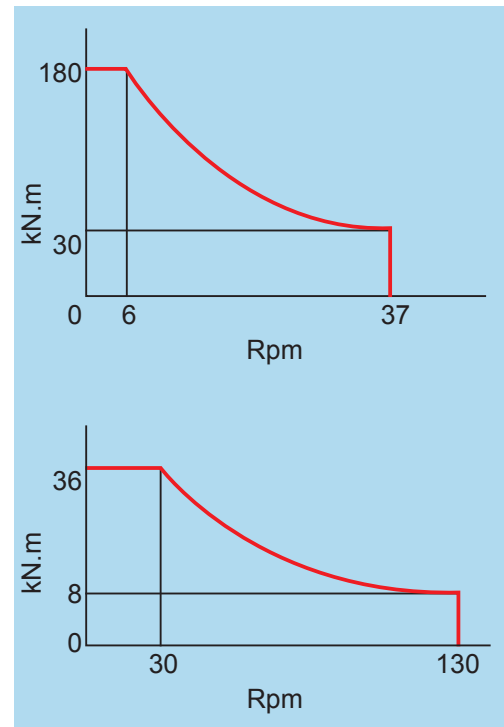
Hydraulic system

Hydraulic power output	135 kW
Hydraulic pressure	350 bar
Flow rates(main pump)	2X235 l/min
Flow rates(auxiliary pump)	90 l/min
Hydraulic oil main tank capacity	500 l
Hydraulic oil auxiliary tank capacity	250 l
Hydraulic oil spin-off tank capacity	60 l

Undercarriage

Crawler type	TC320VH
Track width (retracted/extended)	2200mm/3500mm
Overall width of crawlers (retracted/extended)	3000mm/4300mm
Width of track shoes	800 mm
Overall length of crawlers	4941 mm
Traction force	420 kN
Travel speed	1.5 km/h

Rotary Drive

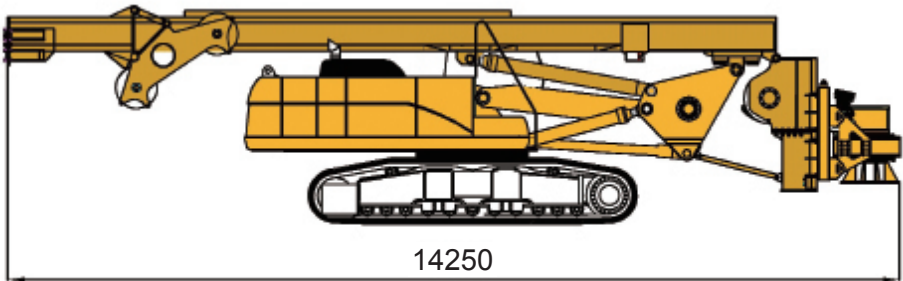


Rotary Drive Standard equipment

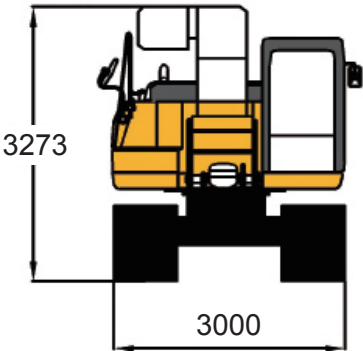
- Integrated Kelly damping system (Four level damping)
- Exchangeable Kelly drive adapter
- Exchangeable Kelly drive keys
- Self-adaptive drilling system
- High speed Spin-off system

Transport data

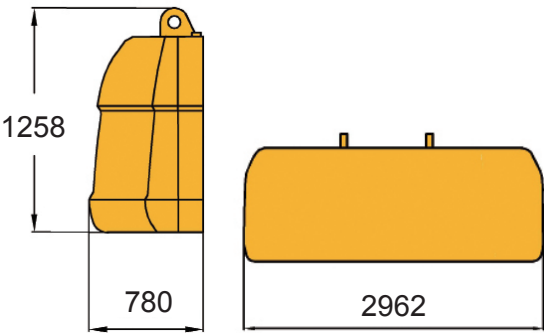
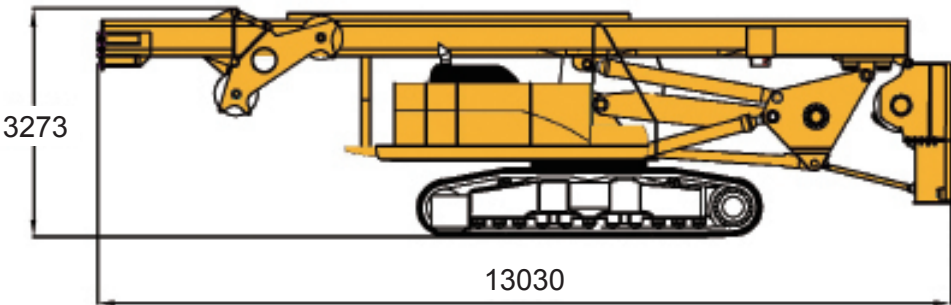
G=49 ton



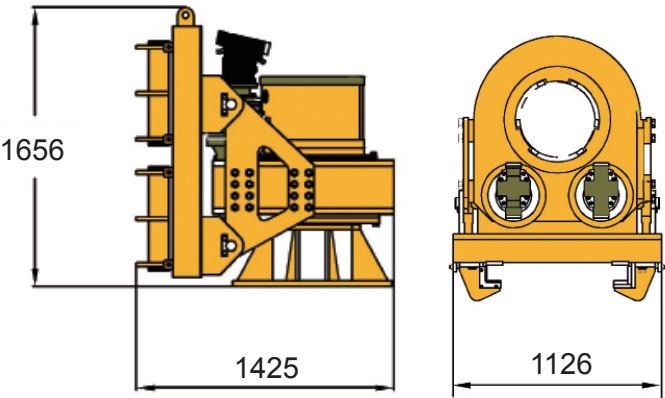
G=26 ton



G=35 ton

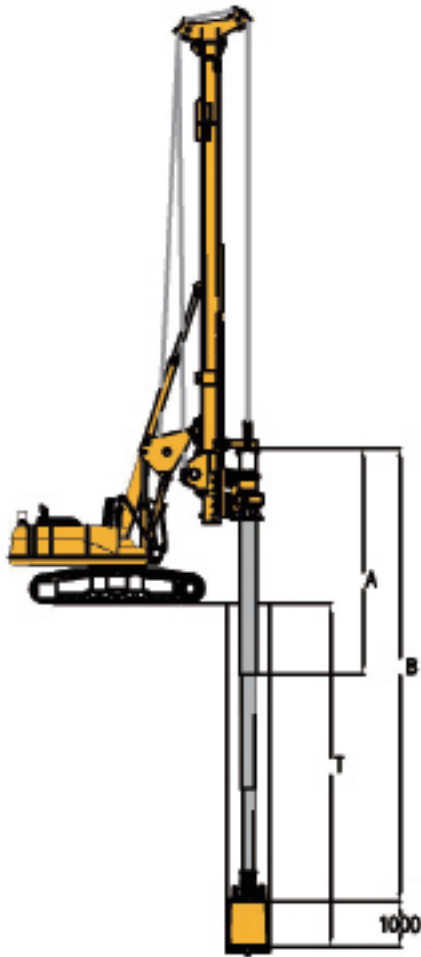


G=9.8 ton

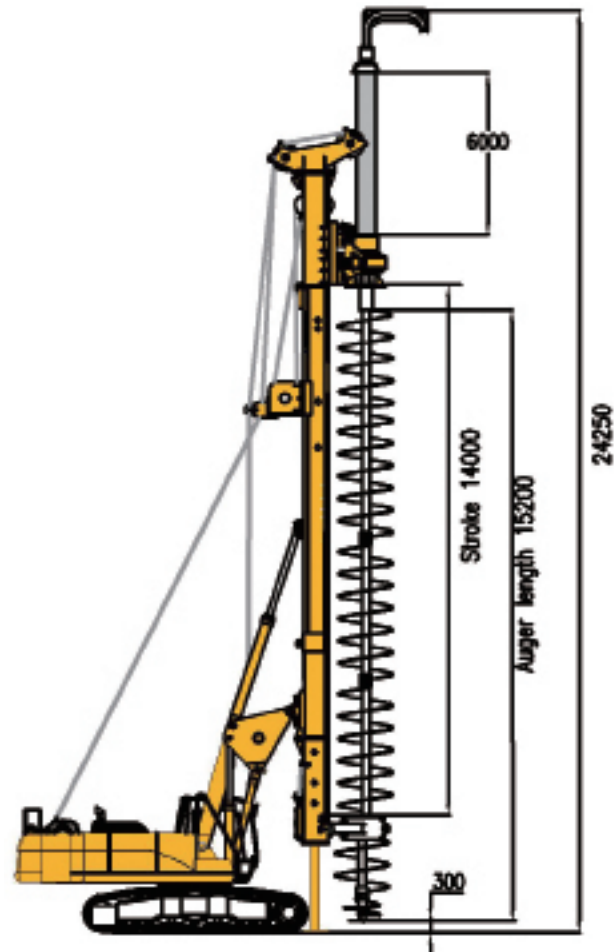


G=4.2 ton

Kelly drilling system

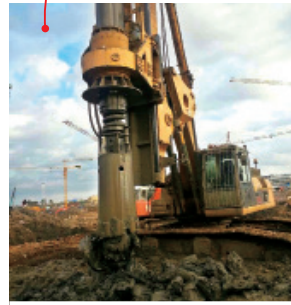


CFA drilling system



Drilling depths			
Friction kelly bar	A(m)	B(m)	T(m)
Φ406-5x13	13	63.6	60
Φ406-5x12	12	58.6	55
Φ406-4x13	13	50.7	47.1
Φ406-4x12	12	46.7	43.1
Interlocking Kelly bar			
Φ406-4x13	13	50.4	46.8
Φ406-4x12	12	46.4	42.8
Φ406-3x13	13	37.9	34.3
Φ406-3x12	12	34.9	31.3
Max. Drilling diameter		1800mm	

	Standard	Kelly extension 6m
Drilling depth	14m	20m
Drilling diameter	1000mm	1000mm
Pulling force (crowd winch)	240 kN	240 kN
Max.pulling force (crowd winch + main winch)	600 kN	600 kN
Crowd force	160 kN	180 kN
Auger length	15200mm	15200mm



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All technical data are purely indicative and subject to change without notice

Other info: