

Rotary Drilling Rig
TR160D



Electric system

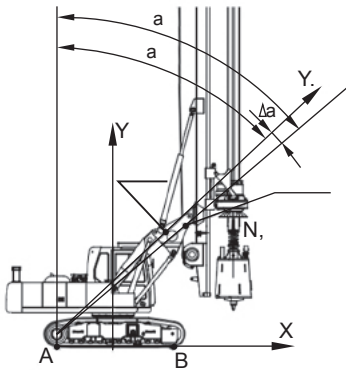
- Wireless transmission system and GPS remote service



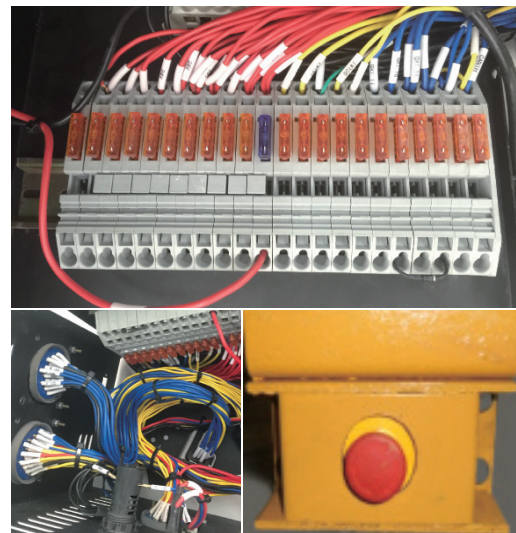
- Construction monitoring system



- The stability of drilling rig monitoring system

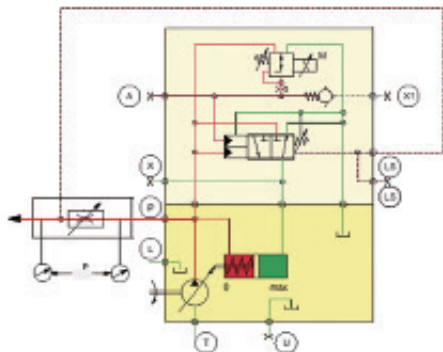


- Emergency switch(optional) and concentration of wiring harness

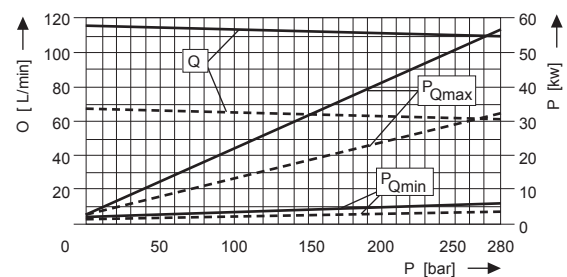


Hydraulic System

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



- The auxiliary pump load sensitive control system



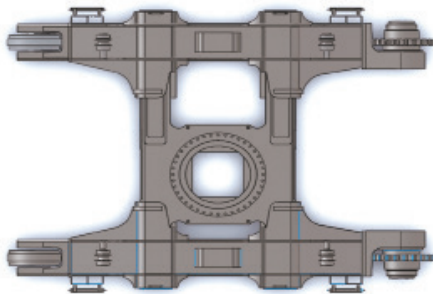
- The main winch hydraulic oil confluence technology improve the winch speed by 50%
- Crowd force stepless adjustment improve construction efficiency
- The rotary drive self-adaptive drilling system and high speed spin-off system improve drilling efficiency

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

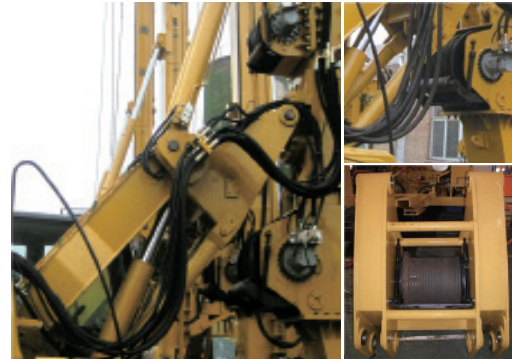


Mechanical System

- 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



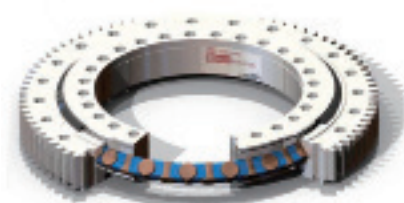
- Caterpillar Undercarriage structure and the mast structure, all materials are special high-strength steel



- 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

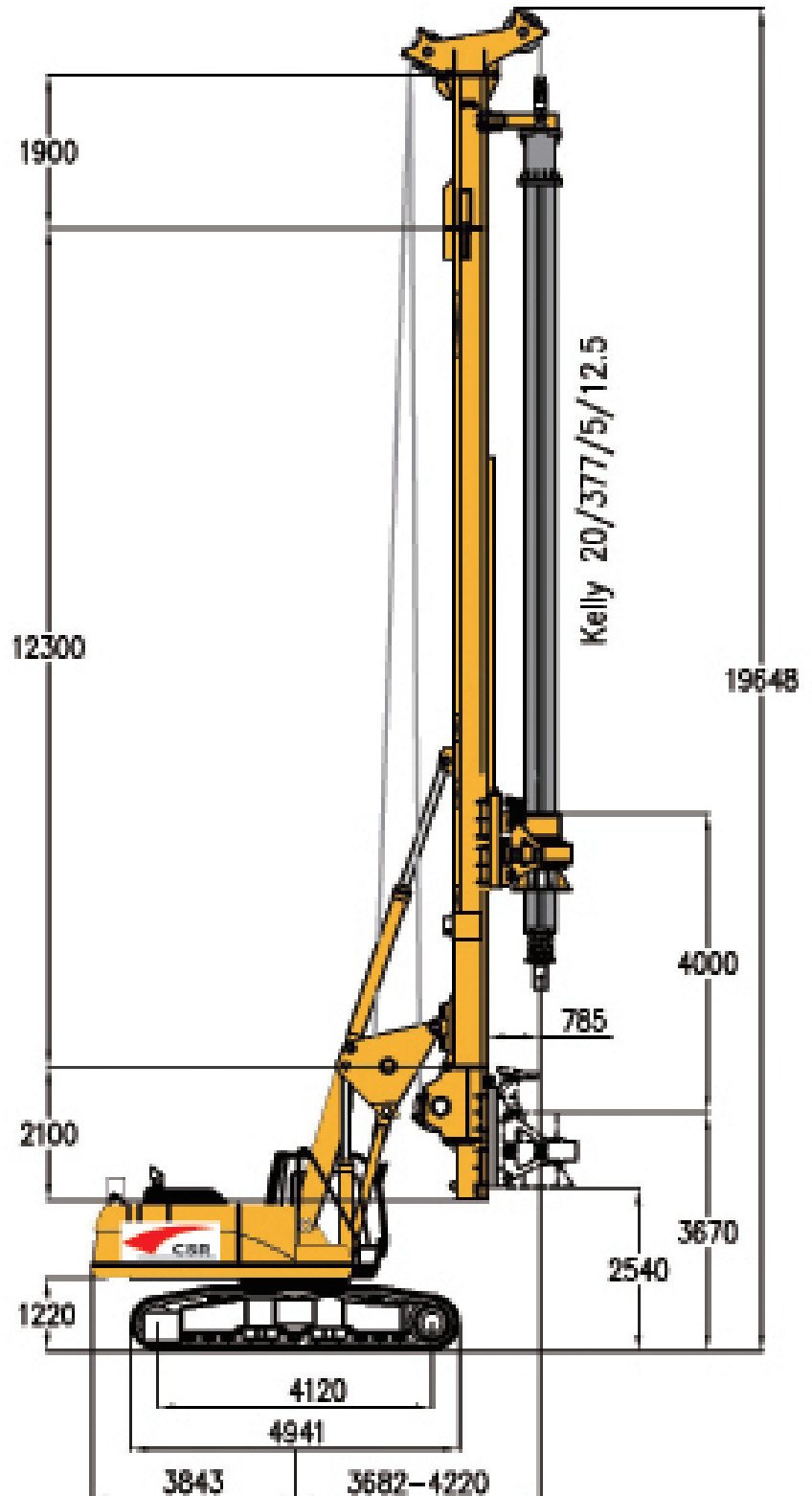


Dimensions

The TR160D rotary drilling rig has an operating weight of approx 52 ton. It is suited for:

- Rotary drilling
- Drilling cased boreholes (installation of casing by rotary drive))

TR160D 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.



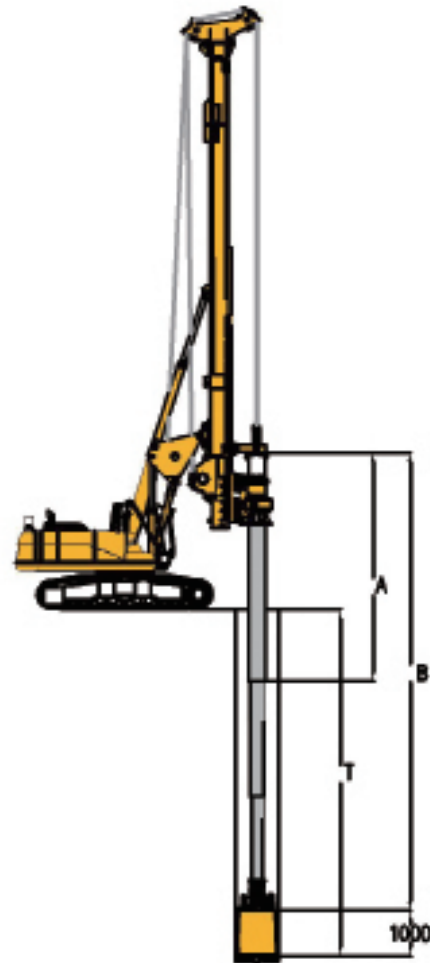
Technical parameters

Crowd Cylinder	
Overall weight	46.5 ton
Operation weight (with kelly)	52 ton
Rotary Drive	
Nominal torque	160 kNm
Speed of rotation	6-35 rpm
Crowd system	
Crowd force push/pull	140/160 kN
Stroke (kelly system)	4000 mm
Speed down/up	5/6 m/min
Main winch	
Line pull (1st layer)	160 kN
Rope diameter/length	26 mm/90 m
Line speed max	78 m/min
Auxiliary winch	
Line pull (1st layer)	50 kN
Rope diameter/length	16 mm / 45 m
Line speed max	90 m/min
Mast inclination	
Backward/forward/lateral	15/5/5

Standard module

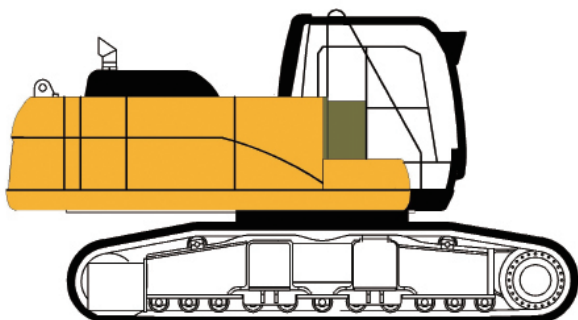
- Rotary drive (two reduction gears), self-adaptive drilling
- Hoist limit switch on main and auxiliary winches
- PLC processor and standard monitor unit
- Display of pump pressures and fault messages
- Mast inclination measurement on X/Y axes
- Display of drilling depth
- Swing caution light and stability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

Kelly drilling system



Drilling depths			
Friction kelly bar	A(m)	B(m)	T(m)
Φ377-5x12.5	12.5	60.3	56.3
Φ377-5x11.5	11.5	55.3	51.3
Φ377-4x12.5	12.5	48.2	44.2
Φ377-4x11.5	11.5	44.2	40.2
Interlocking Kelly bar			
Φ377-4x12.5	12.5	48.2	44.2
Φ377-4x11.5	11.5	44.2	40.2
Φ377-3x12.5	12.5	36.5	32.5
Φ377-3x11.5	11.5	33.5	29.5
Max. Drilling diameter 1500 mm			

Base Carrier CAT324D



Engine

Rated output	147kW@1800rpm
Exhaust emission standard	Tier II
Diesel tank	520L
Ambient air temperature	-20°up to 40°
Sound pressure level in cabin	76 dB
Sound power level	110 dB

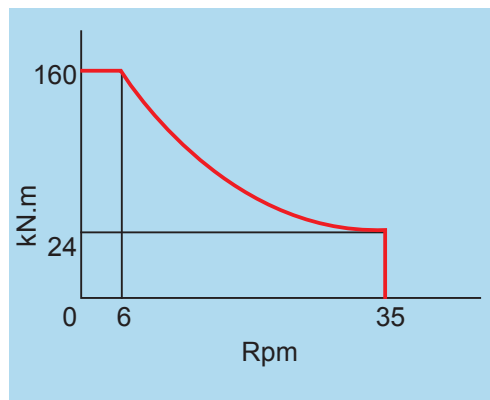
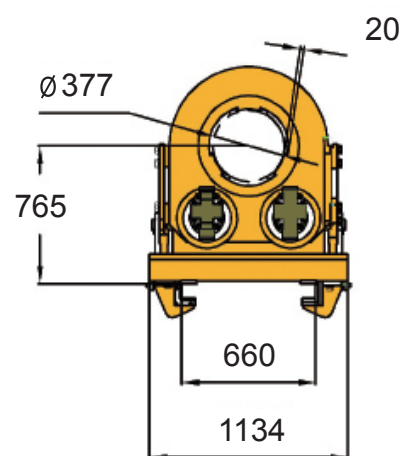
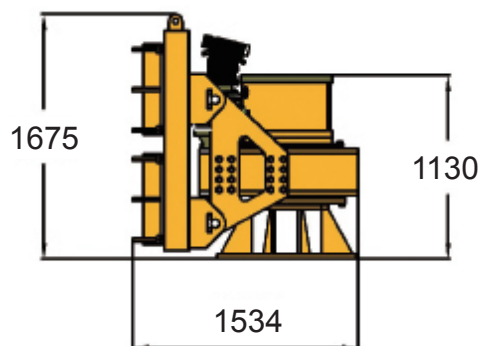
Hydraulic system

Hydraulic power output	110 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

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	410 kN
Travel speed	1.6 km/h

Rotary Drive

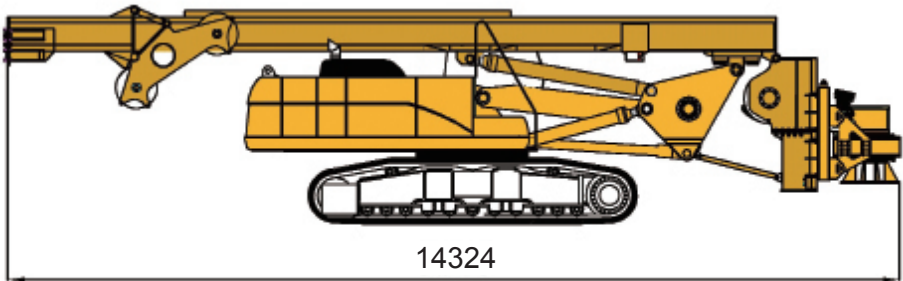


Rotary Drive Standard equipment

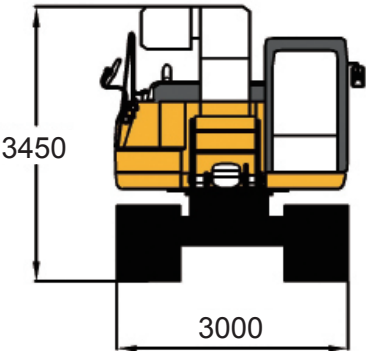
- Integrated Kelly damping system (Four level damping)
- Exchangeable Kelly drive adapter
- Exchangeable Kelly drive keys
- Self-adaptive drilling system

Transport data

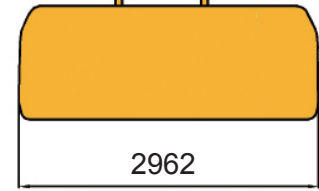
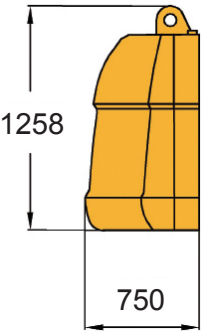
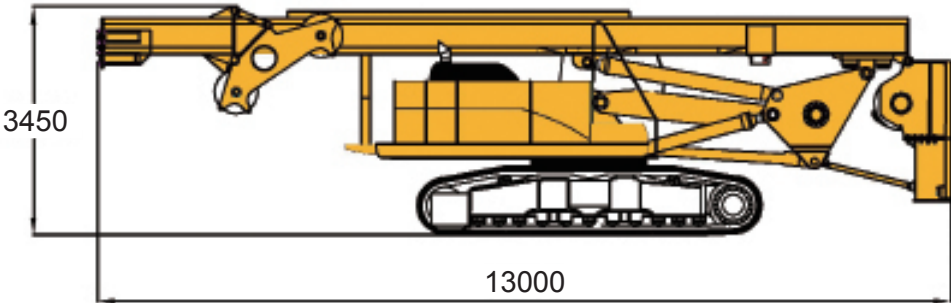
G=46.5 ton



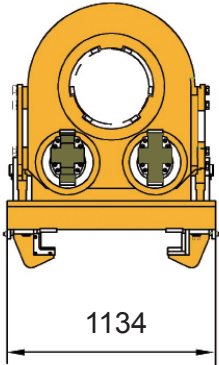
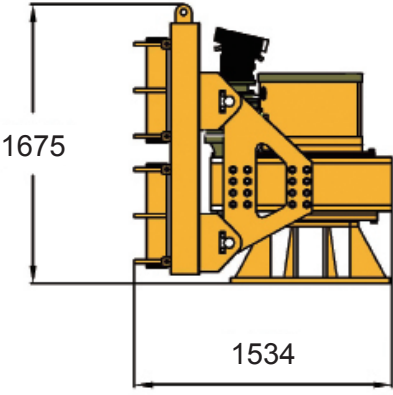
G=27 ton



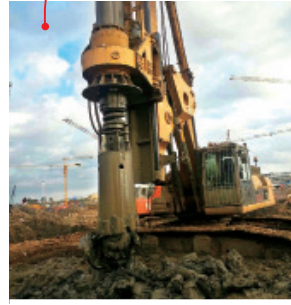
G=34.5 ton



G=8 ton



G=4 ton



ISO9001:2000
国际质量管理体系认证



Contact information

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

Other info: