

R-620

HYDRAULIC ROTARY RIG



R-620

HYDRAULIC DRILLING RIG

A new model

The R-620 drilling rig on Caterpillar 3.30 C high power module has been designed to perform the following jobs:

- Bored pile, with dry or bentonite system;
- Bored pile, with casing installed by oscillator or rotary crowd system;
- C.F.A. (Continuous Flight Auger) piles.

The main features of R-620 are the following:

- Machine class: 60 tons;
- New machine Caterpillar type 3.30 C module c/w diesel engine and sound proofed canopy, mounted on 360 degrees slew ring;
- New electronic engine C9 ATAAC with more power (355 BHP) and meeting the most recent emission regulations;
- New powerful rotary: 201 kNm
- Completely self erecting; mast able to withstand the max torque over the whole length;
- Casing installation by rotary crowd system;
- Advanced instrumentation;
- Reliability and safety;
- Stability and easy to handle;
- High productivity;
- Easy to transport;
- Cable crowd system (optional);
- Mechanical and hydraulic pre-arrangement for casing oscillator (available on request).

Large diameter bored pile		
Max pile diameter	mm	1800
Max cased diameter	mm	1500
Max pile depth	m	66
Max nominal torque	kNm	201
Max drilling speed	rpm	34
Spin off	rpm	144
Main winch nominal line pull	kN	192
Service winch nominal pull	kN	80
Engine ¹	type	CATERPILLAR C9 ATAAC-HEUI
Max power	kW (BHP)	261 (355)
Crowd system by cylinder with 2 mounting positions	kN	210 / 150
Pull down stroke	mm	5600
Cable crowd system (13 m stroke)	kN	200 / 200
Operating weight	ton	63

The nominal values are referred to 100% total efficiency. / ¹ Meeting the EPA-TIER2 emission regulations.

Continuous Flight Auger (CFA)		
Max pile diameter	mm	900 / 1000
Max pile depth	m	22,5
Max nominal extraction force	kN	600
Max nominal torque	kNm	201
Max drilling speed	rpm	34
Operating weight	ton	60 - 63

Friction kelly bar – Ø 406 mm				
elements n°	length m	depth m	weight ton	H height m
4x	9,0	32,0	4,0	8,1*
4x	10,5	37,0	5,7	7,6
4x	11,5	41,5	6,3	6,4
4x	13,5	50,0	7,1	4,4
5x	9,0	39,5	4,9	8,1*
5x	10,5	46,0	5,5	7,6
5x	12,0	55,0	6,4	5,9
5x	13,5	62,0	6,9	4,5
5x	14,0	63,5	7,1	4,2
5x	14,5	66,0	7,4	3,6

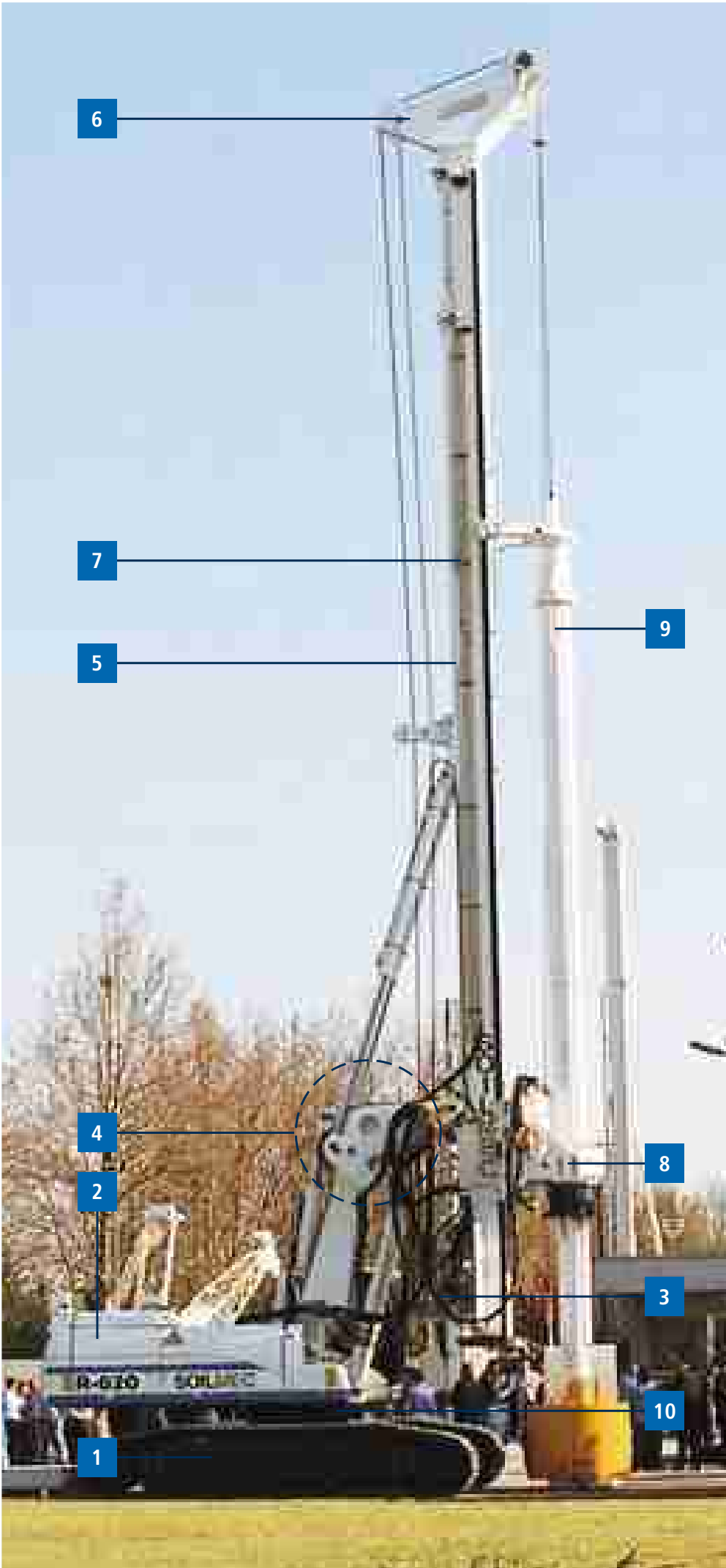
Mechanical locking kelly bar – Ø 406 mm				
elements n°	length m	depth m	weight ton	H height m
4x	9,0	32,0	5,2	8,1*
4x	10,0	35,0	5,6	7,9
4x	12,0	42,0	6,4	6,2
4x	13,5	49,0	7,2	4,4
4x	14,5	53,0	7,7	3,5

H = Kelly stub height from ground level
* Height limited by rotary position

- Undercarriage** class D6D CAT with tracks expandable by means of hydraulic cylinder.
- Base machine** Caterpillar 3.30 C high power module c/w diesel engine C9 ATAAC and sound proofed canopy, mounted on a 360° degree slew ring.
- Winch assembly.**
- Parallelogram system** which allows to vary the working radius maintaining the mast always in vertical position.
- Self-erecting** mast which can withstand the max torque over the whole length. It is composed by 12,75 m intermediate element, 2,1 m bottom element and 2,25 m extension.
- Sheave cathead.**
- Crowd system** by 5,6 m. hydraulic cylinder.
- Rotary head** with 4 drilling speeds and one spin-off high speed. For each drilling speed the max torque is achieved.
- Telescopic kelly** bar with guide on the mast. Available in friction or mechanical locking version.
- Mechanical** and hydraulic pre-arrangement for casing oscillator (available on request).



The new R-620 is installed on new "Caterpillar" turret with easy access to any hydraulic and mechanical parts. New designed cabin allows better visibility and easier way of use.

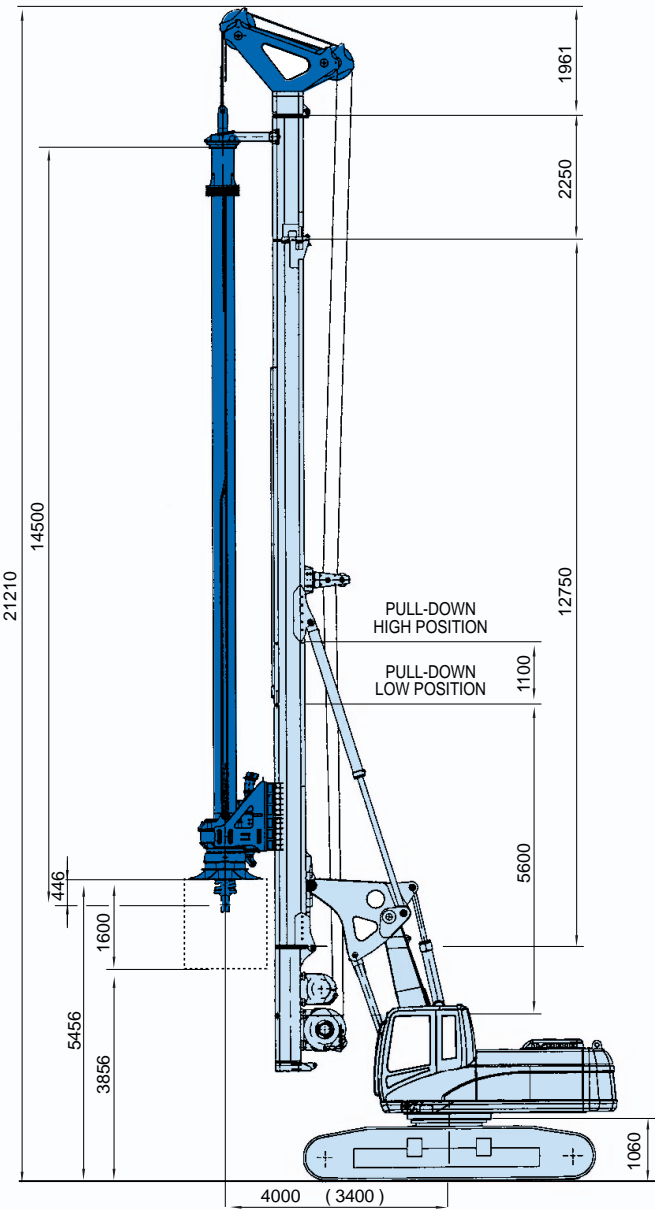


R-620

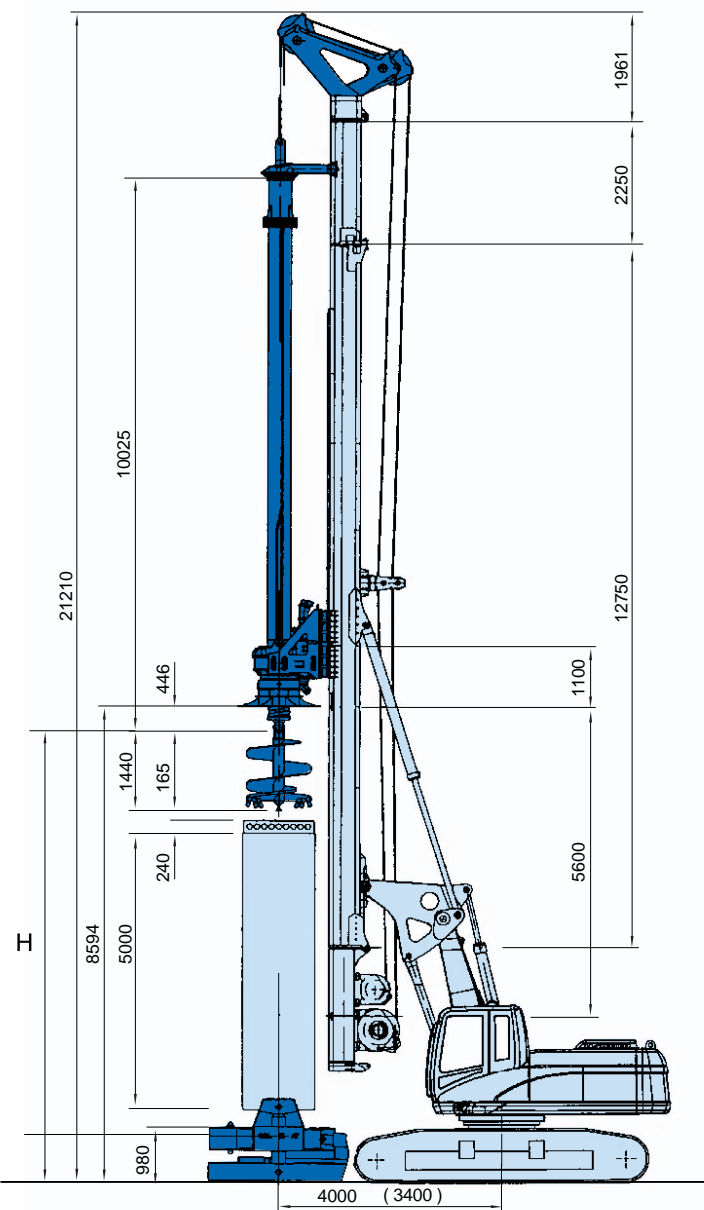
LARGE DIAMETER PILES

Working Condition

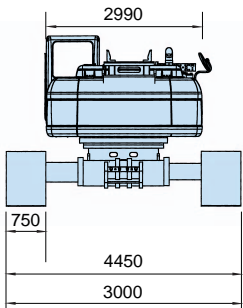
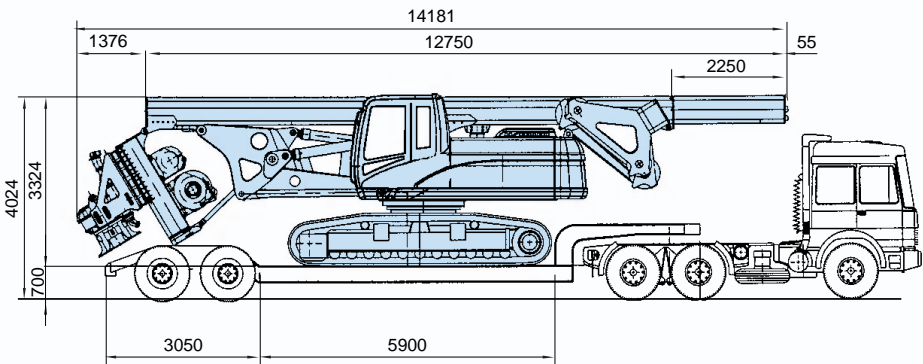
Standard version



Std. with Casing Oscillator

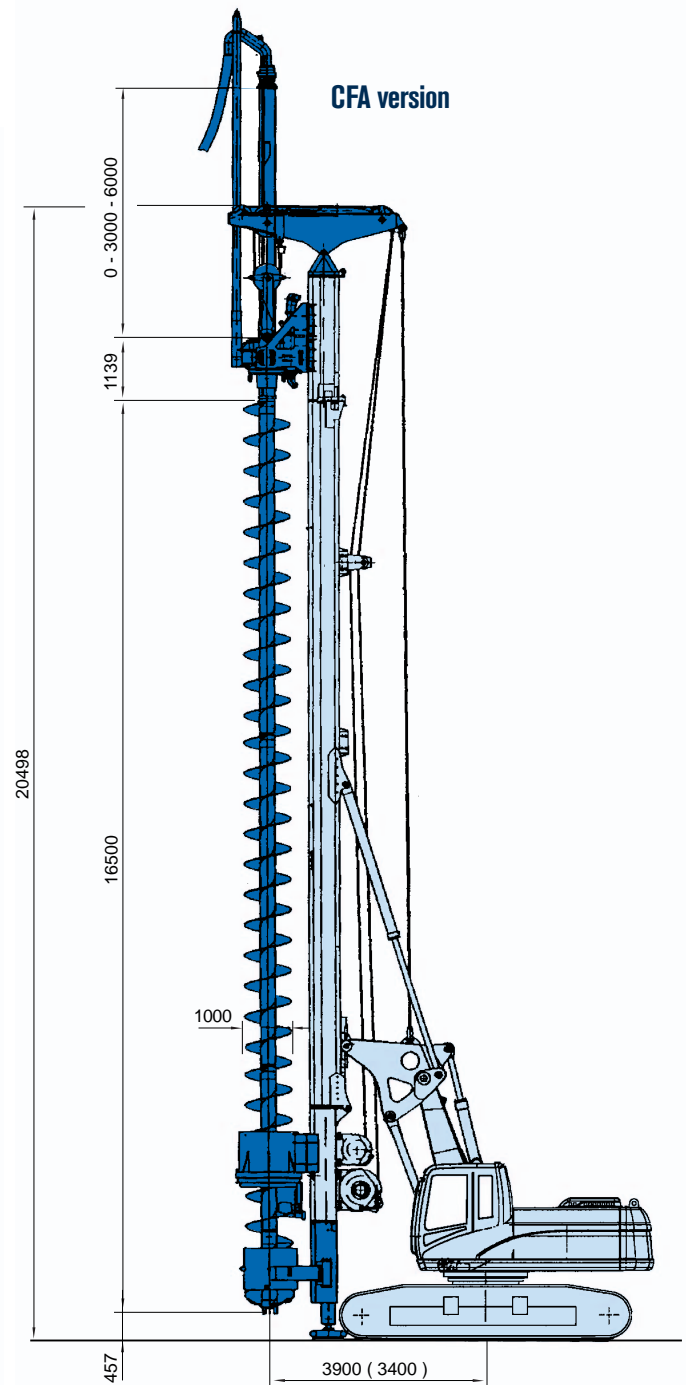


Transport Condition - Standard Version



CROWD SYSTEM BY WINCH / CFA

Crowd System by Winch



Technical drawing of the Liebherr 954 mobile crane in its transport configuration. The crane is shown on a multi-axle trailer. Dimensions are provided in millimeters.

Key dimensions include:

- Overall length: 14181 mm
- Wheelbase: 12750 mm
- Height to top of boom: 4400 mm
- Height to top of cab: 3500 mm
- Height to bottom of chassis: 900 mm
- Height to top of chassis: 1310 mm
- Height to top of boom: 3320.5 mm
- Height to top of chassis: 4220.5 mm
- Width: 379 mm
- Wheelbase: 4170 mm
- Wheelbase: 5264 mm
- Wheelbase: 837 mm
- Height to top of boom: 2250 mm





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