

# SR-40

HYDRAULIC ROTARY RIG



**soilmeco**   
Drilling and Foundation Equipment

# SR-40

## HYDRAULIC DRILLING RIG

### A new model

The SR-40 drilling rig on new Caterpillar 3.25 D high power module has been designed to perform the following jobs:

- **bored pile with or without drilling fluid;**
- **bored pile with casing installed by oscillator or rotary crowd system;**
- **continuous flight auger pile (CFA).**

The main features of SR-40 are the followings:

- Machine class: 45 tons;
- New Caterpillar Power 3.25 D module c/w diesel engine and sound proofed canopy, mounted on a 360 degrees slew ring;
- New electronic Caterpillar engine C7 ACERT® with max power 313 BHP and meeting latest TIER 3 emission regulations;
- New powerful rotary: 161 kNm, available on request as 3 gear version;
- Self-erecting mast able to withstand the max torque over the whole length;
- Casing driving by rotary crowd system;
- Crowd system by 5,1 m hydraulic cylinder;
- Advanced instrumentation;
- Reliability and safety;
- Stability and easy to handle;
- High productivity;
- Easy to transport, transport weight 45 tons;
- Mechanical and hydraulic pre-arrangement for casing oscillator (available on request);
- Crowd system by winch (available on request).

### Large diameter bored pile

Max pile diameter	mm	1500
Max cased diameter	mm	1300
Max pile depth	m	55
Max torque	kNm	161
Spin off speed	rpm	160
Main winch line pull	kN	150
Service winch line pull	kN	65
Engine <sup>1</sup>	type	CAT C7 ACERT®
Max Power	kW (BHP)	230 (313) @ 2500 rpm
Cylinder crowd (Pull up/down force on kelly)	kN	155 / 120
Stroke	mm	5100
Winch crowd (Pull up/down force on kelly)	kN	180 / 180
Stroke	mm	11000
Operating weight (c/w kelly w/o tool) <sup>2</sup>	ton	49
Transport weight (w/o kelly)	ton	45

The nominal values are referred to 100% total efficiency. / <sup>1</sup> Meeting the EPA-TIER3 emission regulations. / <sup>2</sup> Weight is based on final configuration.

### Continuous Flight Auger (CFA)

Max pile diameter	mm	750 / 1000
Max pile depth <sup>1</sup>	m	20 / 17 / 14
Max extraction force	kN	520
Max torque	kNm	161
Operating weight <sup>2</sup>	ton	48

<sup>1</sup> Pile depth depends on sleeve length. / <sup>2</sup> Weight is based on final configuration.

### Mechanical locking kelly bar – Ø 355 mm

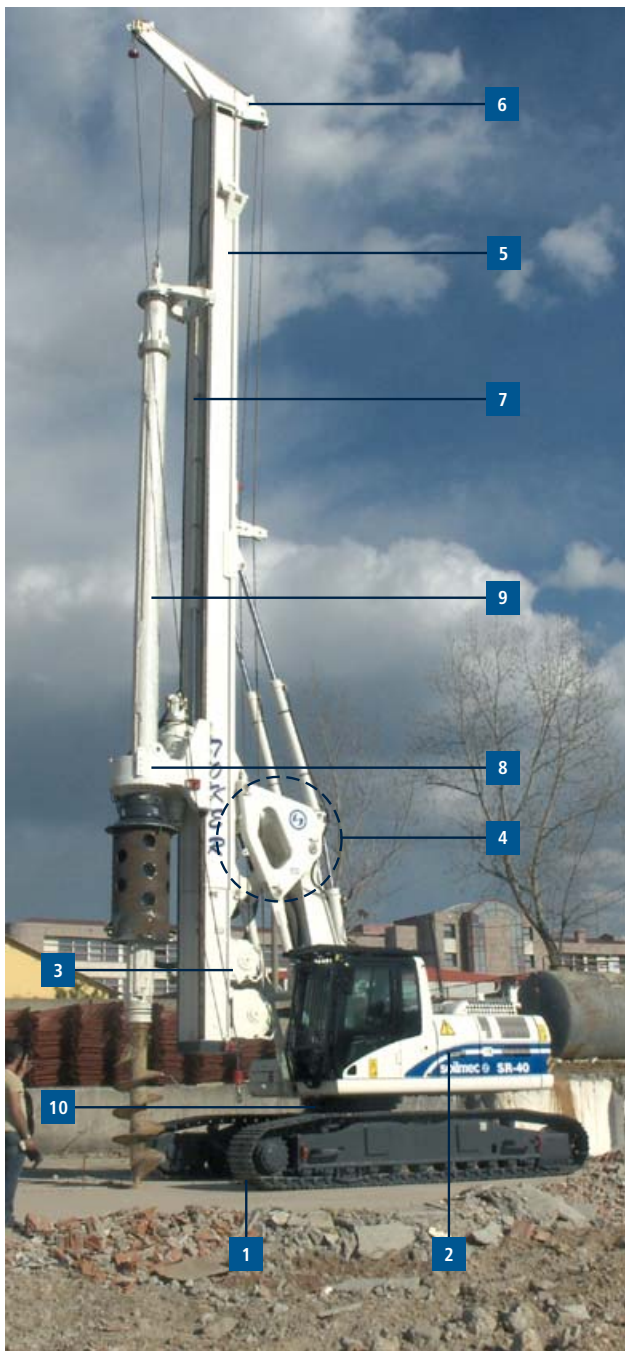
elements n°	length m	depth m	weight ton	H height m
4x	6,0	18,5	2,4	6,9
4x	8,0	28,5	3,0	6,9
4x	9,0	32,5	3,3	6,6
4x	10,5	38,5	3,8	5,1
4x	12,0	45,0	4,2	3,4
4x	13,0	48,0	4,6	2,6

H=Kelly stub height from ground level

### Friction kelly bar – Ø 355 mm

elements n°	length m	depth m	weight ton	H height m
4x	6,0	20,0	2,4	6,9
4x	9,0	33,0	3,4	6,6
4x	11,0	40,0	3,7	4,2
4x	12,0	46,0	4,2	3,4
5x	8,5	39,0	4,1	6,9
5x	9,0	41,0	4,3	6,6
5x	11,0	50,0	5,1	3,6
5x	12,0	55,0	5,5	3,8

- 1 - **Undercarriage** class D5 with expandable tracks by means of hydraulic cylinders.
- 2 - **Caterpillar** power module 3.25D c/w diesel engine C7 ACERT® and sound proofed canopy, mounted on a 360 degrees slew ring.
- 3 - **Winch** assembly.
- 4 - **Parallelogram system** which allows various working radius and always maintaining the mast in vertical position.
- 5 - **Self-erecting mast** which can withstand the max torque over the whole length it is composed by 11,43 m intermediate element, 2,1 m bottom element and 1,85 m extension.
- 6 - **Sheave cathead.**
- 7 - **Crowd system** by 5,1 m hydraulic cylinder.
- 8 - **Rotary head** with 4 hydraulically shifted drilling speeds and one high speed spin-off. On request a gear with 3 mechanical shifts is available.
- 9 - **Telescopic kelly bar** with guide on mast either available friction or mechanical locking type.
- 10- **Mechanical and hydraulic** pre arrangement for casing oscillator (optional).

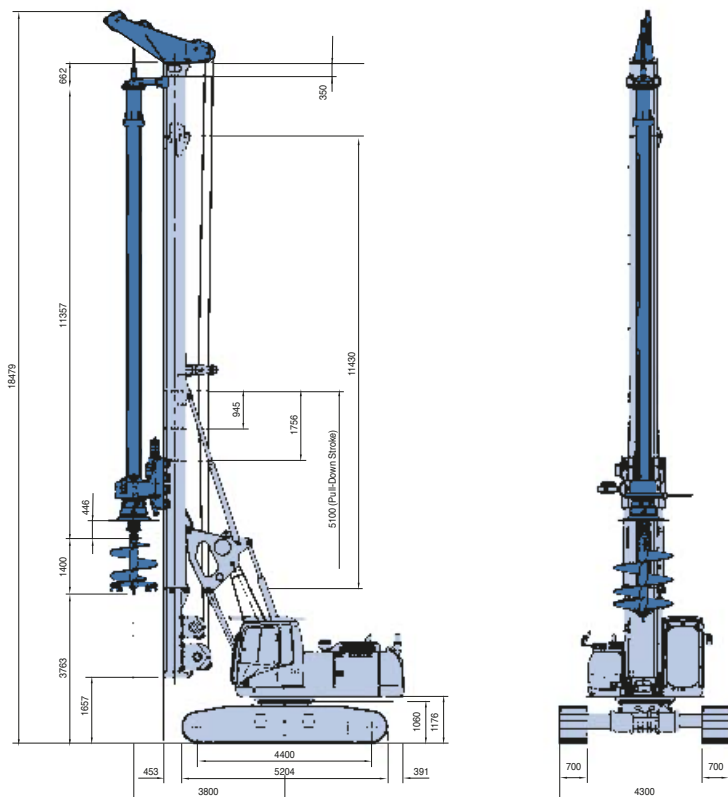


The new SR-40 is installed on new "Caterpillar" turret with easy access to any hydraulic and mechanical parts. New designed cabin allows better visibility and easier way of use.

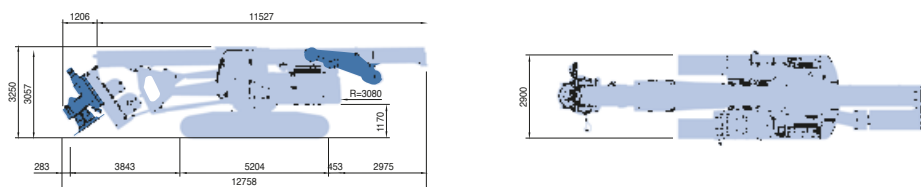
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## LARGE DIAMETER BORED PILES

### Working Condition



### Transport Conditions





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In 1990 Soilmec was awarded with the certification of its Quality System complying with ISO 9001:2000 standards.



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

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