

SR-60

HYDRAULIC ROTARY RIG



SR-60

HYDRAULIC DRILLING RIG

The hydraulic drilling rig SR-60 is mounted on a CATERPILLAR turret and has been specially designed for suiting the following applications:

- **cased bore piles** with casing driven directly through rotary head or optionally by casing oscillator powered by the base carrier itself;
- **deep bored piles** stabilized by drilling fluid or dry hole;
- **CFA piles** by means of long auger string;
- **displacement piles**;
- **soil-mixing**.

The SR-60 is equipped with the **CAT monitoring system** of the engine power and hydraulic system.

Option features:

- winch crowd system;
- crowd winch force monitoring;
- central lubrication;
- auxiliary free-fall winch.

LARGE DIAMETER BORED PILE (LDP)

* Emission certification:
EU stage III / US EPA Tier3

Main performances

Max pile diameter (cylinder/winch)	mm	1800 / 1500
Max pile depth	m	66
Max casing diameter	mm	1700

Undercarriage

Overall length	mm	5280
Track shoe width	mm	750
Overall width (extended side frames)	mm	4450
Overall width (retracted side frames)	mm	3000
Ground pressure	MPa	0,09
Travelling speed	km/h	2,25

Diesel engine

Model	type	CAT C9*
Rated power	kW (HP)	261 (350) @ 1800 rpm

Hydraulic pumps

Main pumps	l/min	2x280
Auxiliary pumps	l/min	40
Max working pressure	MPa	35

Main winch

Controlled descent

1st layer nominal line pull	kN	210
1st layer nominal rope speed	m/min	71
Rope diameter	mm	26

Auxiliary winch (Standard)

Controlled descent

1st layer nominal line pull	kN	80
1st layer nominal rope speed	m/min	71
Rope diameter	mm	20

Auxiliary winch (Optional)

Free fall

1st layer nominal line pull	kN	61
1st layer nominal rope speed	m/min	71
Rope diameter	mm	18

Rotary without shifting gear box (Standard)

Maximum nominal torque	kNm	201
Max spin off speed	rpm	130
Maximum drilling speed	rpm	31

Crowd cylinder (Standard)

Crowd force (pull down/pull up)	kN	160 / 280
Pull down stroke	mm	5600

Winch crowd system (Optional)

Crowd force (pull down/pull up)	kN	220 / 260
Pull down stroke	mm	13000

CONTINUOUS FLIGHT AUGER (CFA)

4th line pull

Main performances

Max pile diameter	mm	1000
Max pile depth	m	23
Max pile depth (w. roller type auger cleaner)	m	20,5
Max diameter (w. roller type auger cleaner)	mm	1000
Max extraction force	kN	560
Crowd force on auger	kN	90

TURBOJET

Main performances

Max pile diameter	mm	1000
Max pile depth (4 th line pull)	m	22
Max extraction force	kN	560
Crowd force on tool	kN	90

WEIGHT & DIMENSIONS

* c/w kelly, w/o tool

** w/o rotary and kelly

*** w/o rotary, counterweight and kelly

Transport width	mm	3000	3000
Transport height	mm	3325	3500
Transport length	mm	14300	14300
Operating weight	ton	63*	62
Minimum transport weight	ton	50** / 42***	50 / 42

KELLY BARS

Standard dimension of tool connection is 150x150 mm

H = kelly stub height from ground level

Mechanical locking kelly bar – Ø 406 mm

	elements n°	length m	depth m	weight ton	H height m
	3x	9,0	23,6	4,0	9,1
	3x	12,0	31,7	5,0	6,4
	4x	9,0	31,9	5,1	8,9
	4x	10,0	35,3	5,6	7,9
	4x	12,0	42,4	6,6	6,2
	4x	13,5	49,7	7,3	4,4
	4x	14,5	53,1	7,7	3,8

Friction kelly bar – Ø 406 mm

	elements n°	length m	depth m	weight ton	H height m
	4x	10,5	36,9	5,8	7,8
	4x	11,5	41,3	6,3	6,4
	4x	12,5	44,6	6,8	5,6
	4x	13,5	49,6	7,3	4,6
	4x	14,5	53,1	7,7	3,8
	5x	10,5	46,2	6,1	7,9
	5x	11,0	48,5	6,4	7,2
	5x	11,5	51,6	6,6	6,8
	5x	12,0	53,5	6,8	6,2
	5x	13,0	60,5	7,3	5,0
	5x	13,5	62,0	7,6	4,8
	5x	14,0	62,3	7,8	4,4
	5x	14,5	66,0	8,1	3,9



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MAIN FEATURES

- 1 - **Undercarriage** class D6 with expandable tracks by means of hydraulic cylinders
- 2 - **Caterpillar** power module 3.30D c/w diesel engine C9 Tier 3 and sound proofed canopy, mounted on a 360° 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 of 13,05 m intermediate element, 2,22 m bottom element and 2,25 m extension
- 6 - **Sheave cathead**
- 7 - **Crowd system** by 5,6 m hydraulic cylinder
- 8 - **Rotary head** with 4 hydraulically shifted drilling speeds and one high speed spin-off
- 9 - **Telescopic kelly bar** with guide. Available with friction or mechanical locking type
- 10 - **New "Caterpillar" turret** with easy access to any hydraulic and mechanical part. New designed cabin allows better visibility and easier way of use

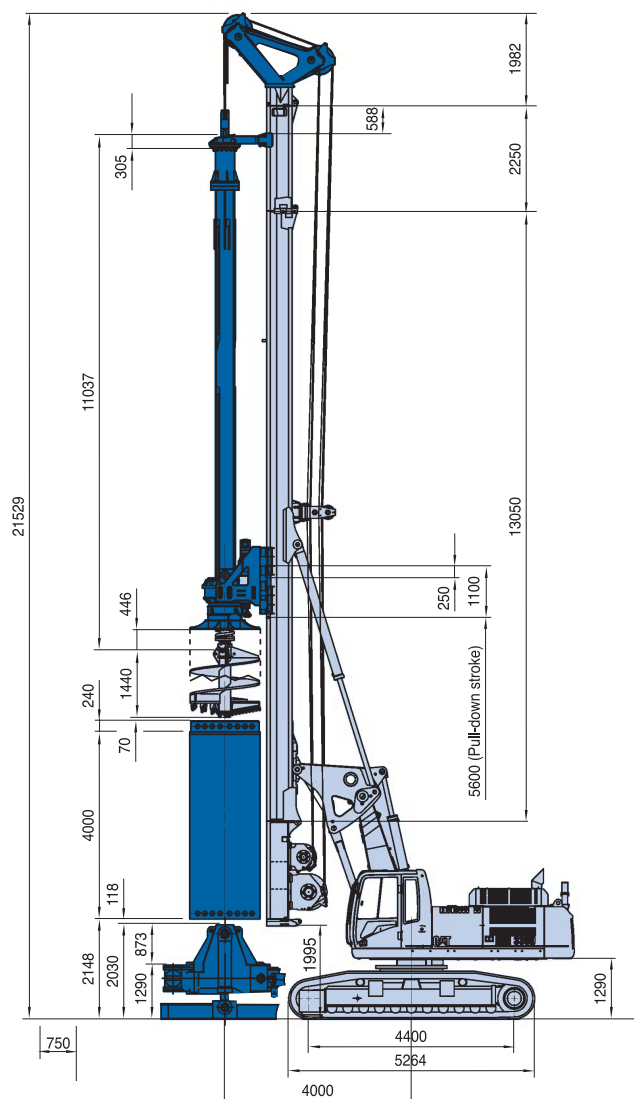
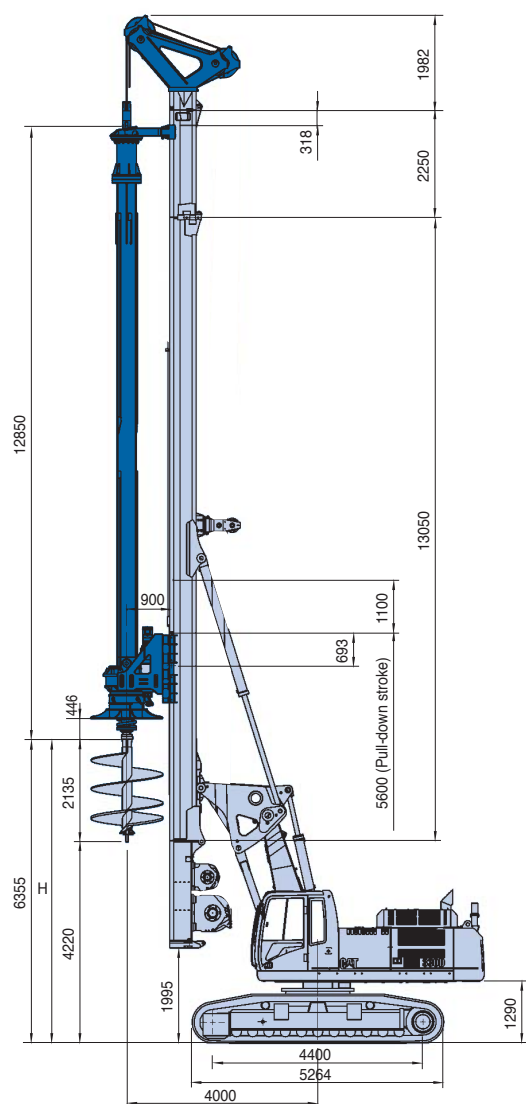


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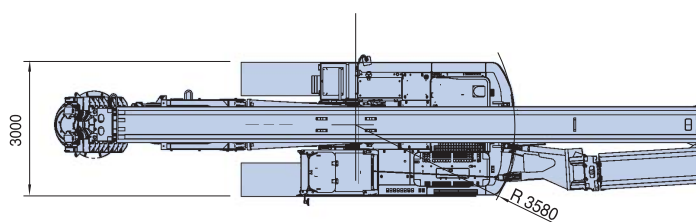
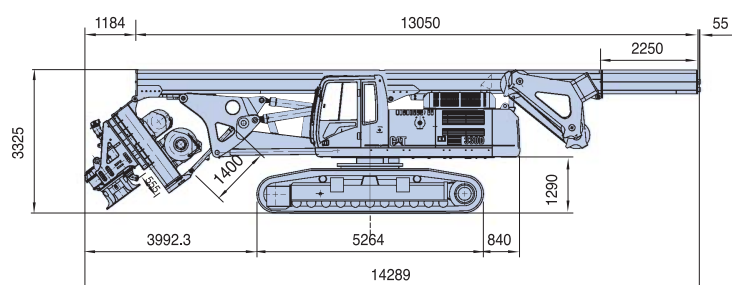
LARGE DIAMETER BORED PILES (LDP) VERSION

Crowd cylinder
(standard)

With casing oscillator



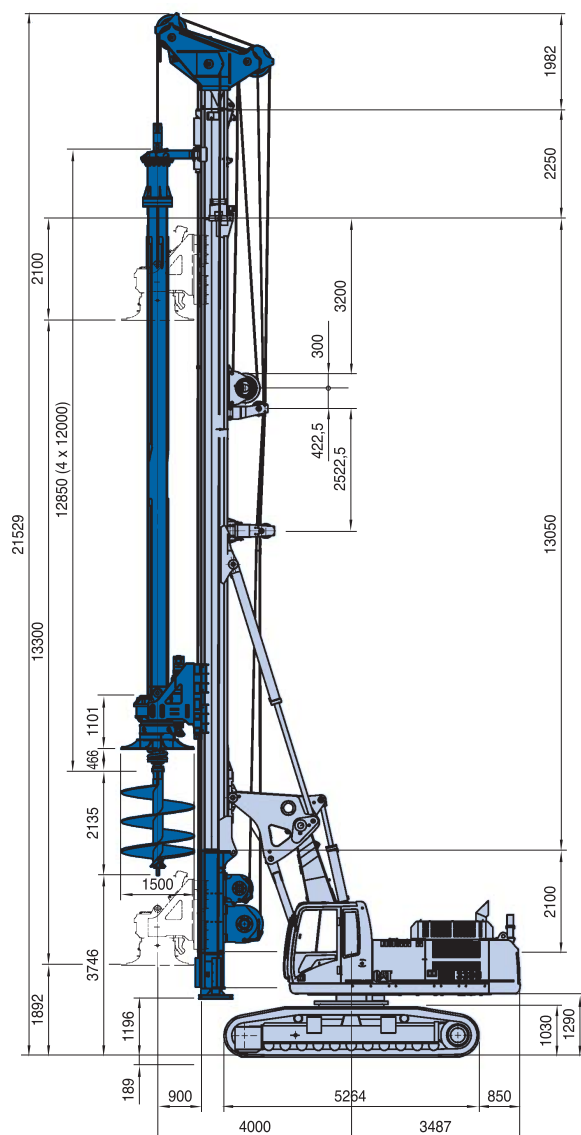
LDP Transport Condition



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LARGE DIAMETER BORED PILES (LDP) VERSION

Winch crowd system
(optional)



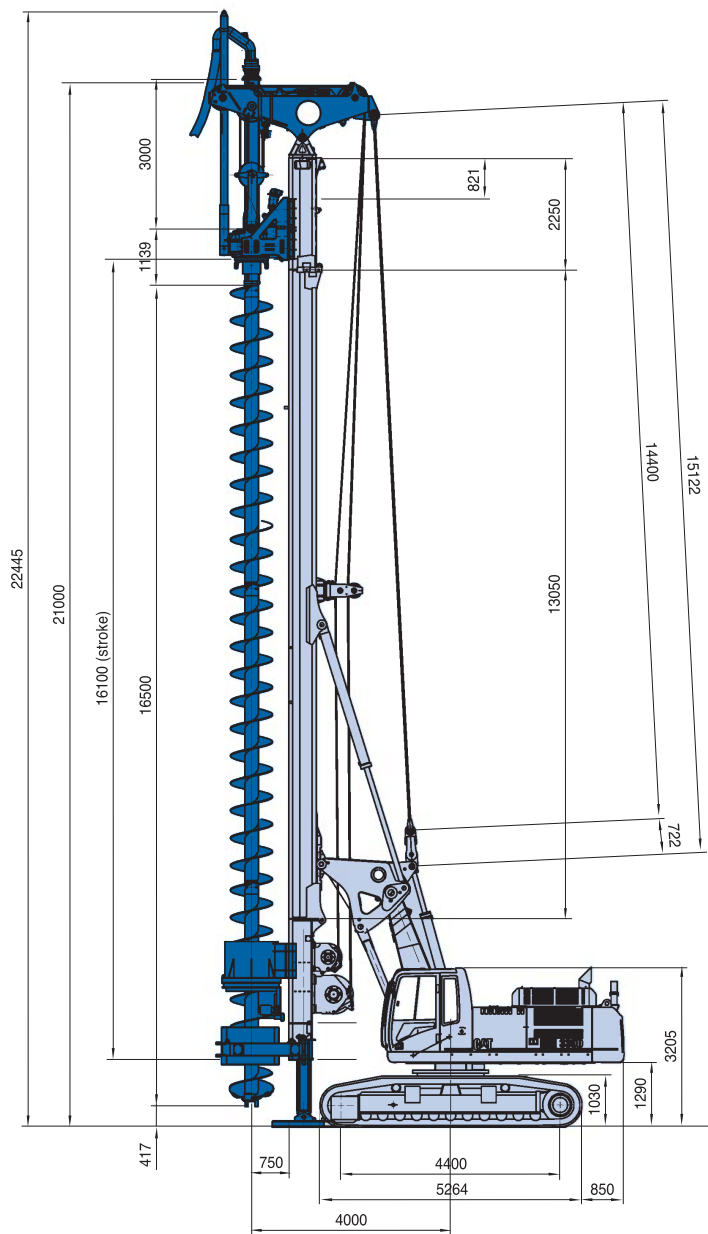
Pictures



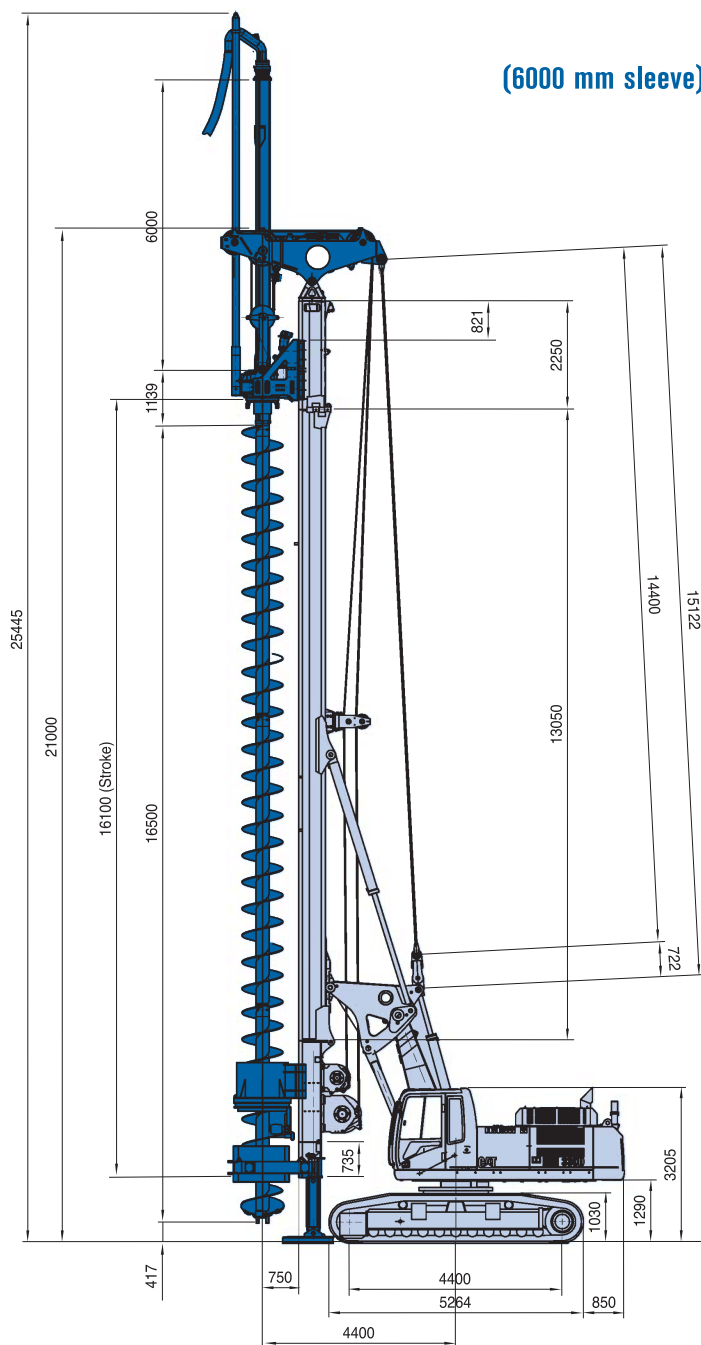
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CONTINUOUS FLIGHT AUGER (CFA) VERSION

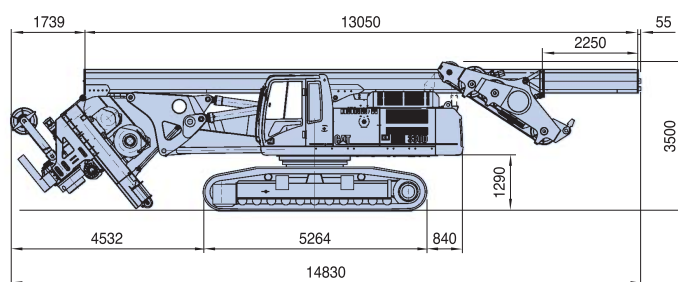
(3000 mm sleeve)



(6000 mm sleeve)



CFA Transport Condition



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CERTIFIED QUALITY SYSTEM

In 1990 Soilmec was awarded with the certification of its Quality System complying with ISO 9001:2000 and ISO 14001:2004 standards.



SOILMEC S.p.A.
Drilling and Foundation Equipment
 5819, via Dismano
 47522 Cesena (FC) - Italy
 tel. +39-0547-319111
 fax +39-0547-318548
[http:// www.soilmec.it](http://www.soilmec.it)
 e-mail: soilmec@soilmec.it

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