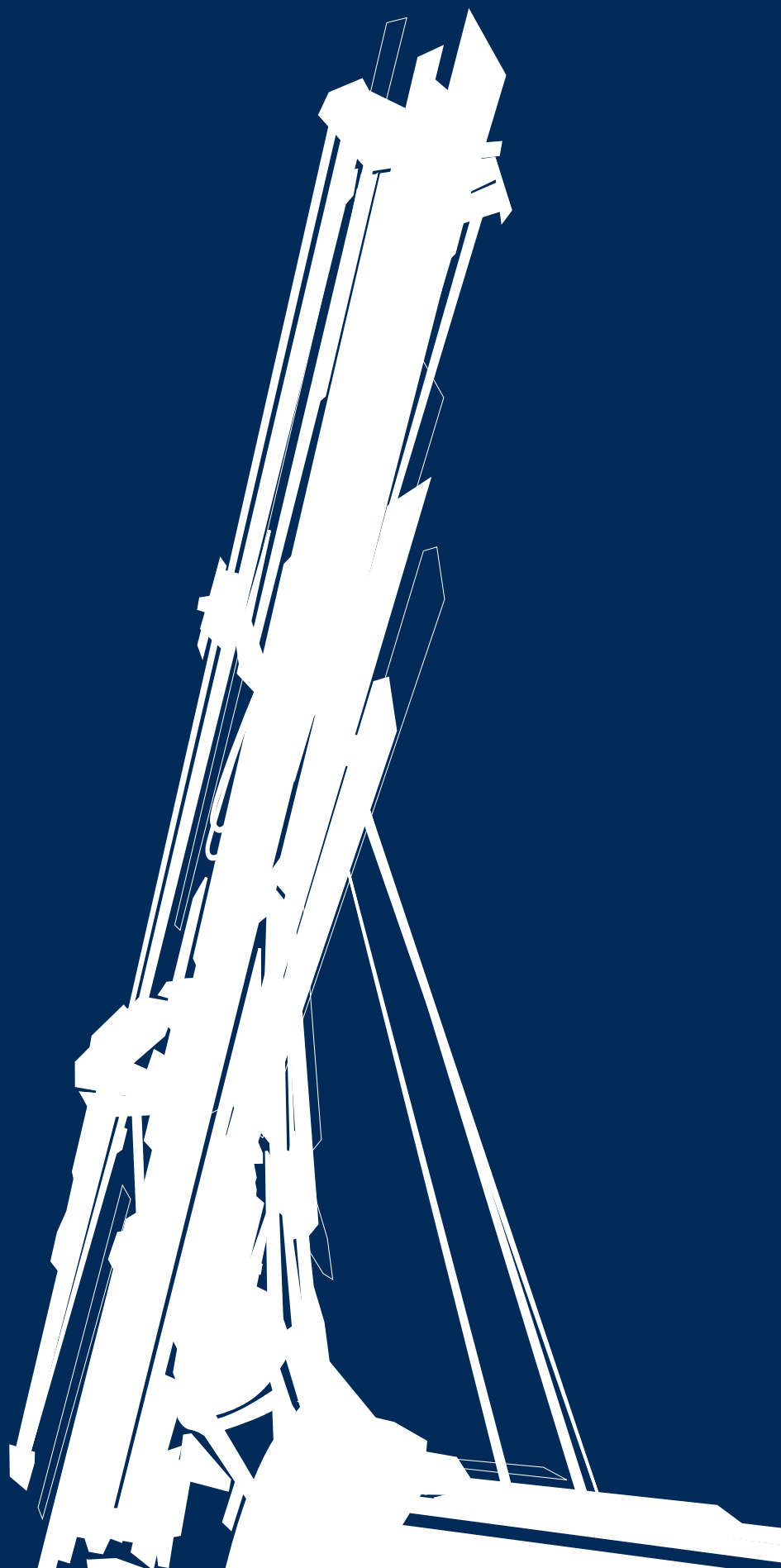


SR-65

HYDRAULIC ROTARY RIG



SR-65

HYDRAULIC DRILLING RIG

The hydraulic drilling rig SR-65 is mounted on a SOILMEC base carrier 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;
- **very deep bored piles** stabilized by drilling fluid or dry hole;
- **CFA piles** by means of very long auger string;
- **CAP piles** with double rotary;
- **displacement piles**;
- **soil-mixing**;
- **reverse circulation**;
- it can be converted to work with an **hydraulic grab** for diaphragm walls.

The SR-65 is equipped with the **DRILLING MATE SYSTEM (DMS)** on 12" touch screen for monitoring and control of the operating parameters.

The **standard DMS equipment** is composed of:

- PLC controller for all electrically actuated functions
- fault checking and reporting
- monitor unit designed to display:
- engine informations and diagnostic capability
- pump pressures
- mast verticality
- drilling depth
- rotary speed and pressure
- crowd pressure
- graphics drilling trends

Additional **DMS optional** features:

- recording of operating data into storage card
- DMS-PC software package to analyze and print production data and Job site daily reports
- automatic turret hole centering
- automatic mast verticality
- CFA kit for automatic auger lifting
- remote transmission of process and operating data
- tele assistance

LARGE DIAMETER BORED PILES (LDP)

* Emission certification:
EU stage III / US EPA Tier3

** Removing the mast bottom section



CONTROL CAMERA SYSTEM



DRILLING MATE SYSTEM

Main performances

Max pile diameter	mm	2000 / 2500 **
Max pile depth	m	77
Max casing diameter	mm	2000

Undercarriage

Overall length	mm	5550
Track shoe width	mm	900
Overall width (extended side frames)	mm	4480
Overall width (retracted side frames)	mm	2980
Ground pressure	MPa	0,080
Travelling speed	km/h	1,6

Diesel engine

Model	type	DEUTZ TCD 2015 V06 *
Rated power	kW (HP)	300 (402)

Hydraulic pumps

Main pumps	l/min	2x280
Auxiliary pumps	l/min	90, 24, 66 (35 only with FF winch)
Max working pressure	MPa	30

Main winch

Controlled descent

1st layer nominal line pull	kN	240
1st layer nominal rope speed	m/min	80
Rope diameter	mm	30

Auxiliary winch

Controlled descent

Free fall (Optional)

1st layer nominal line pull	kN	140	140
1st layer nominal rope speed	m/min	90	90
Rope diameter	mm	26	26

Rotary without shifting gear box

Maximum nominal torque	kNm	240
Max spin off speed	rpm	140
Maximum drilling speed	rpm	26

Crowd cylinder (Standard)

Crowd force (pull down/pull up)	kN	201/264
Pull down stroke	mm	6500

Winch crowd system (Optional)

Crowd force (pull down/pull up)	kN	200/320
Pull down stroke	mm	12500



CONTINUOUS FLIGHT AUGER (CFA)

4th line pull

Main performances		
Max pile diameter	mm	1200
Max pile depth (w. roller type auger cleaner)	m	26 (24)
Max extraction force	kN	740

CASED AUGERED PILES (CAP)

Main performances		
Max pile diameter	mm	800
Max pile depth	m	21,5 (15 cased)
Casing pull up/down	kN	320
Second rotary torque	kNm	190
Max casing speed	rpm	18
Max extraction force	kN	740

DISPLACEMENT PILES (DISCREPILES)

Main performances		
Max pile diameter	mm	600
Max pile depth	m	22,8
Crowd force (pull down / pull up)	kN	320/740

TURBOJET

Main performances		
Max pile diameter	mm	1200
Max pile depth	m	23
Max extraction force	kN	740
Crowd force on tool	kN	320

REVERSE CIRCULATION SYSTEM (RCDS)

Main performances		
Max pile diameter	mm	2000
Max pile depth	m	50
Max extraction force	kN	360

WITH BH GRAB FOR DIAPHRAGM WALLS

Main performances		
Max section excavation	mm	3000 x 1000
Max wall depth	m	50
Max extraction force	kN	260

WEIGHT & DIMENSIONS

* w/o counterweight, rotary and kelly

		LDP version	CFA version	CAP version	DISCR/TJ version	RCDS version	BH version
Transport width	mm	2980	2980	2980	2980	2980	2980
Transport height	mm	3518	3518	3518	3518	3518	3400
Transport length	mm	14240	16430	16430	16430	14240	11340
Operating weight	ton	72	72	78	75	75	68
Minimum transport weight	ton	50*	50	50	50	50	43

KELLY BARS

Standard dimension of tool connection is 150x150 mm

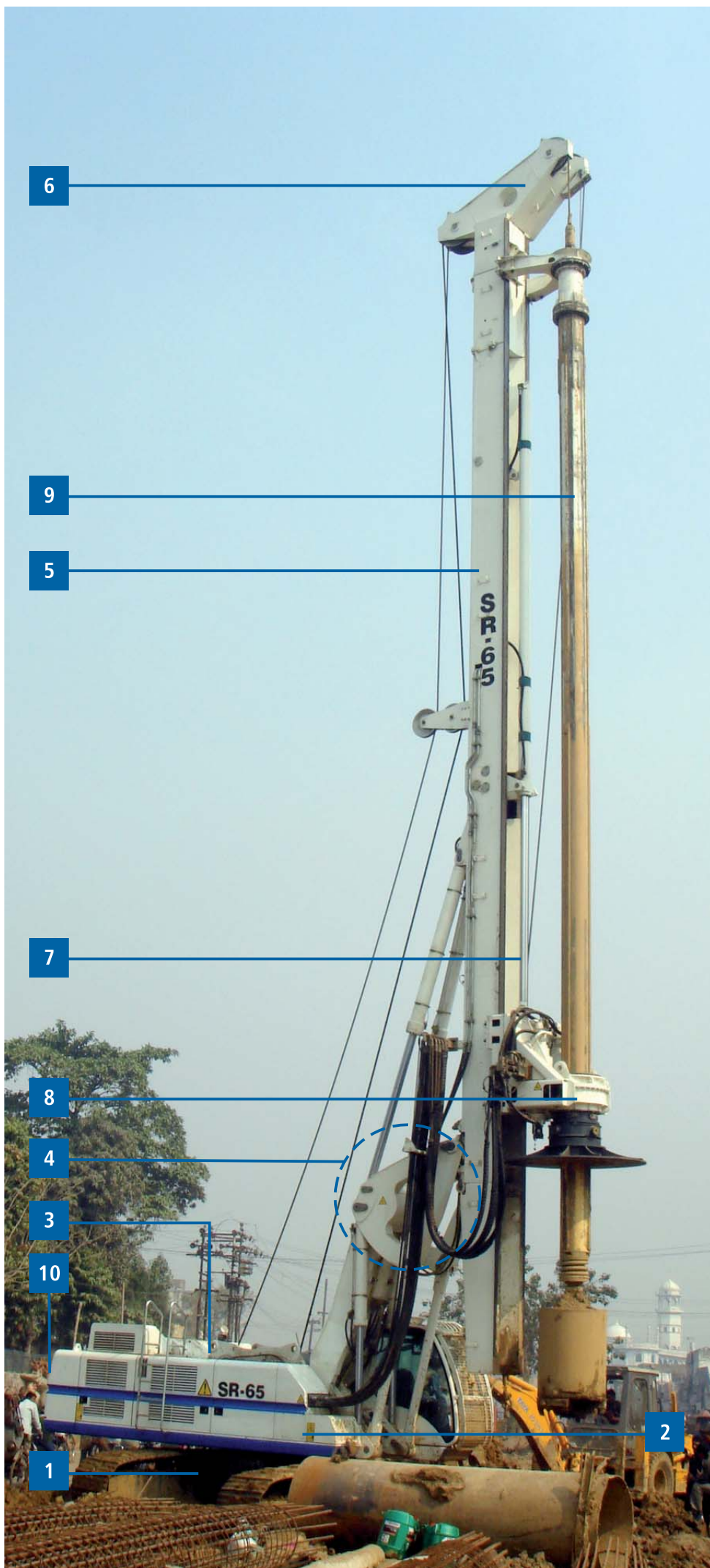
H = kelly stub height from ground level

Mechanical locking kelly bar – Ø 406 mm	elements n°	length m	depth m	weight ton	H height m
	4x	10,5	37,0	5,8	9,2
	4x	11,5	41,0	6,3	8,1
	4x	13,5	50,0	7,2	6,0
	4x	15,5	58,0	8,2	3,9
	4x	16,5	62,0	8,7	2,9
Friction kelly bar – Ø 406 mm	elements n°	length m	depth m	weight ton	H height m
	4x	10,5	37,0	5,7	9,2
	4x	11,5	41,0	6,2	8,1
	4x	13,5	50,0	7,1	6,0
	4x	15,5	58,0	8,0	3,9
	4x	16,5	62,0	8,5	2,9
	5x	10,5	46,0	5,5	9,2
	5x	11,5	51,5	6,0	8,1
	5x	13,5	62,0	6,9	6,0
	5x	15,5	72,0	7,9	3,9
	5x	16,5	77,0	8,4	2,9

SR-65

MAIN FEATURES

- 1 - **Undercarriage** with expandable tracks from 2980 to 4480 mm by means of hydraulic cylinders.
- 2 - **Turret** c/w DEUTZ TCD 2015 V06 Tier 3 diesel engine and sound proofed canopy, mounted on a 360° slew ring
- 3 - **Winch** assembly
- 4 - **Parallelogram system** allowing working radius adjustment always maintaining the mast in vertical position. C/w electronic device for automatic stop
- 5 - **Self-erecting mast** composed by an intermediate element 13,5 m long and a top element with 1,5 m extension. The max torque can be applied all over the mast length
- 6 - **Sheave cathead**
- 7 - **Crowd system** by means of 6,5 m stroke hydraulic cylinder
- 8 - **Rotary head** with variable displacement motors and one high spin off speed
- 9 - **Telescopic kelly bar** with guide to mast, available with friction or mechanical locking type
- 10 - **Self mounting type counterweight** by means of three hydraulic cylinders. It can be easily and quickly removed for transport purpose

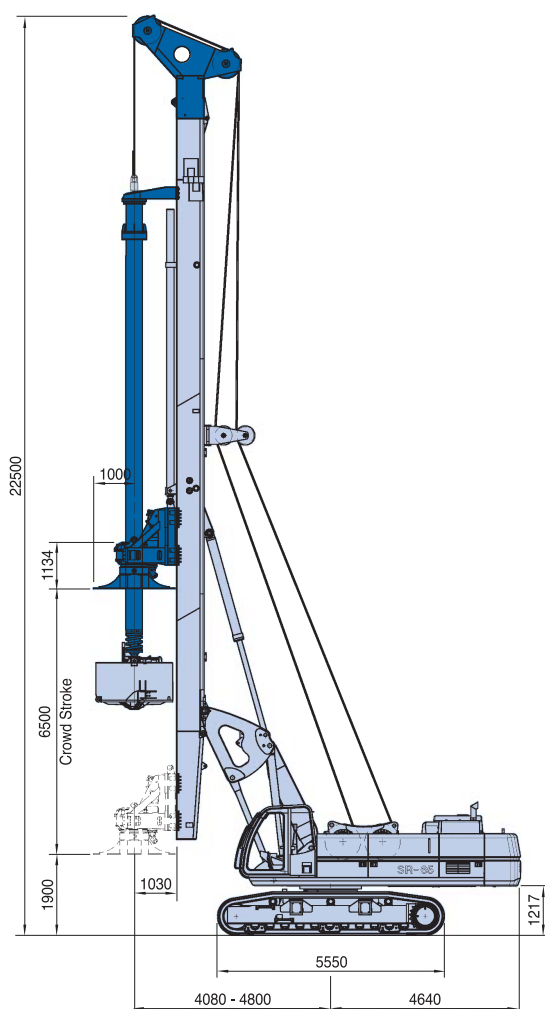


SR-65

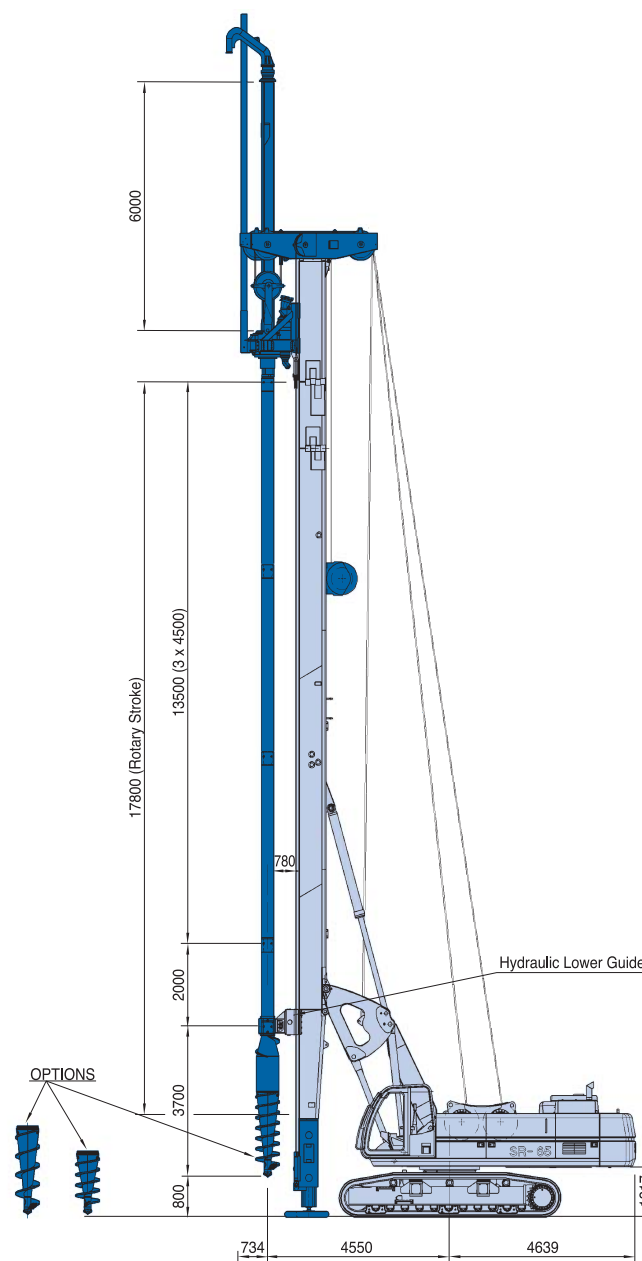
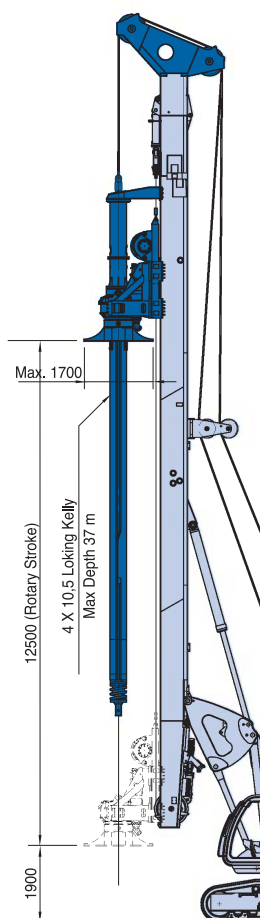
LARGE DIAMETER BORED PILES (LDP) VERSION

DISPLACEMENT PILES (DISCREPILES) VERSION

Crowd cylinder
(standard)

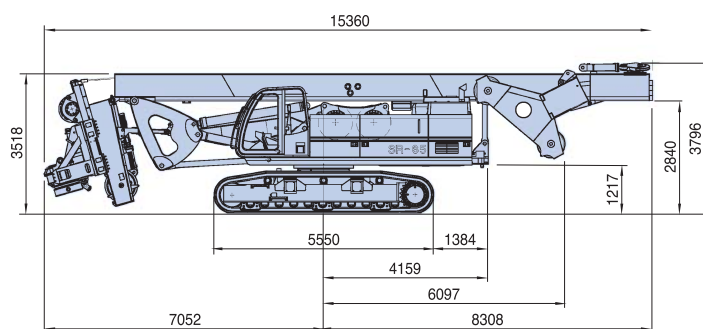
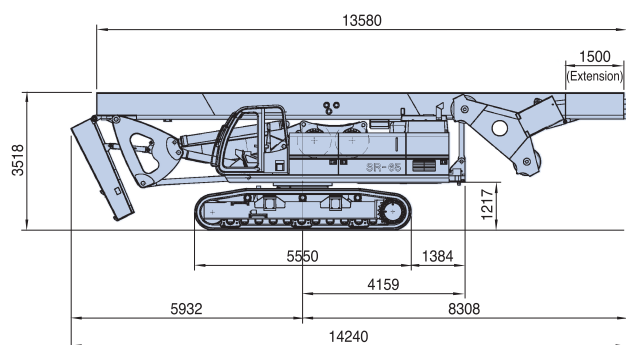


Winch crowd system (optional)



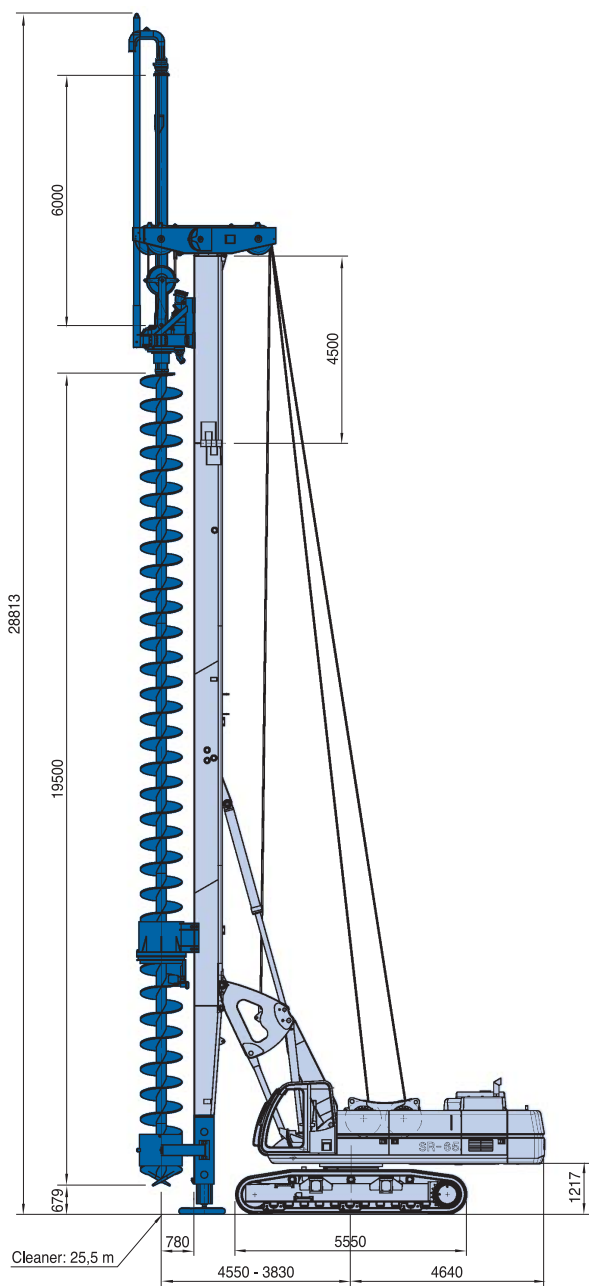
LDP Transport Condition

Winch crowd system

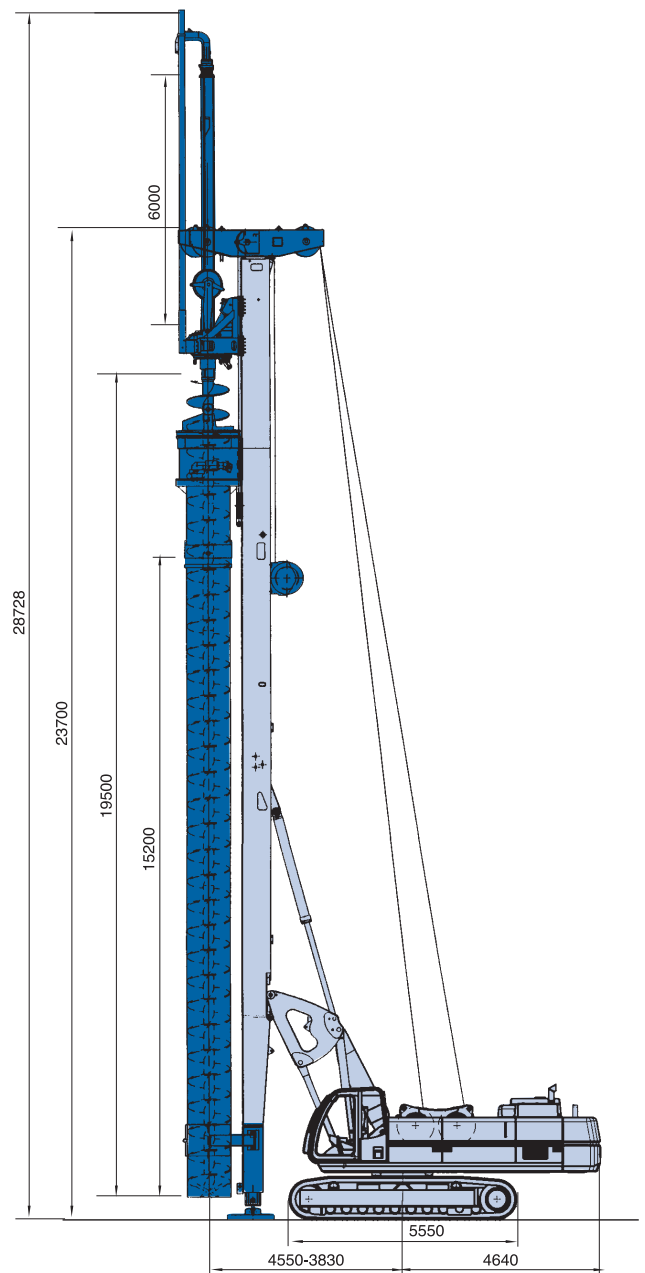


SR-65

CONTINUOUS FLIGHT AUGER (CFA) VERSION

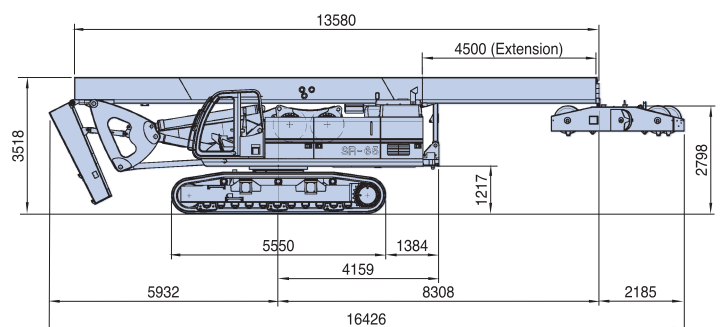
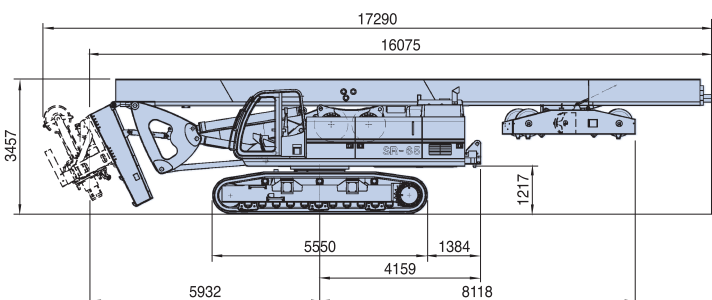


CASED AUGERED PILES (CAP) VERSION



CFA Transport Condition

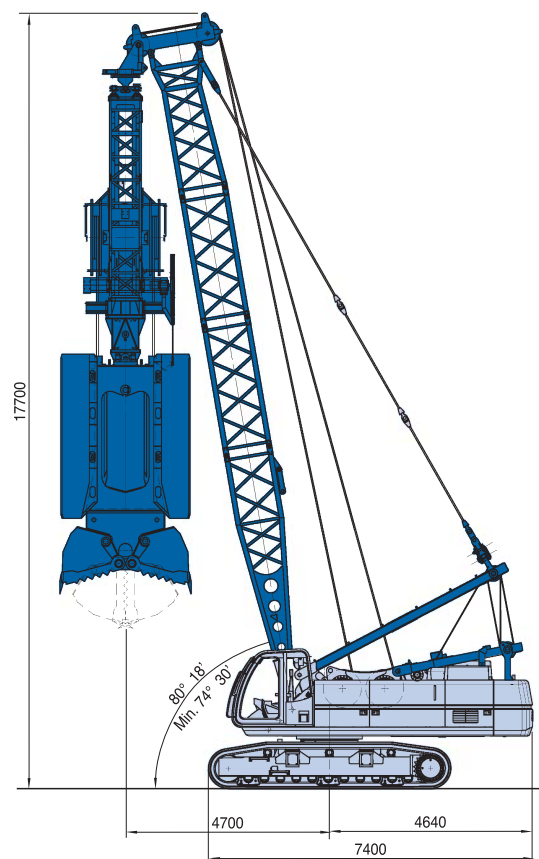
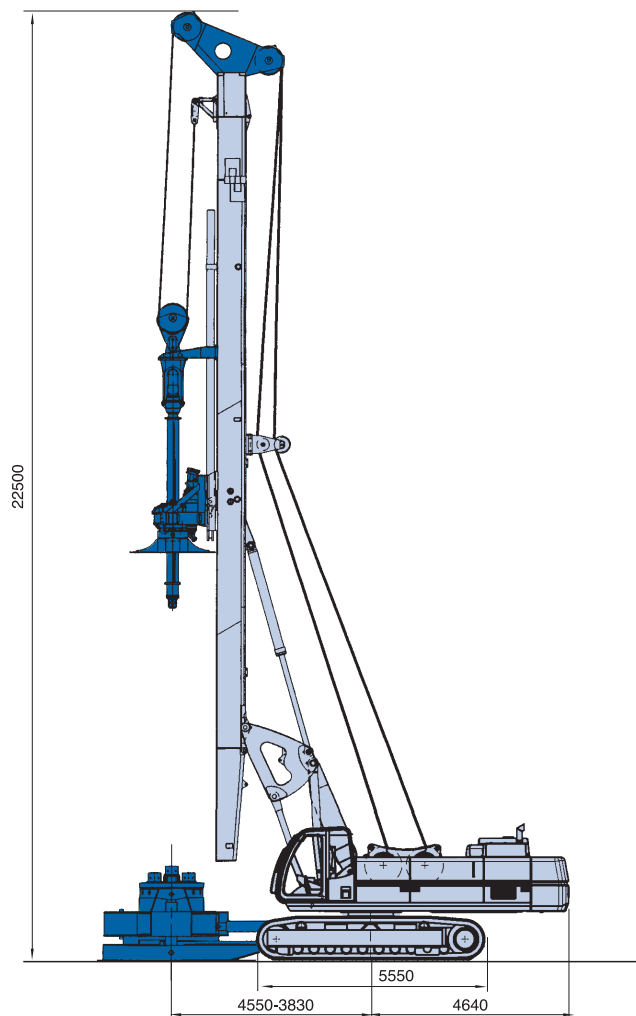
With special folding mast extension



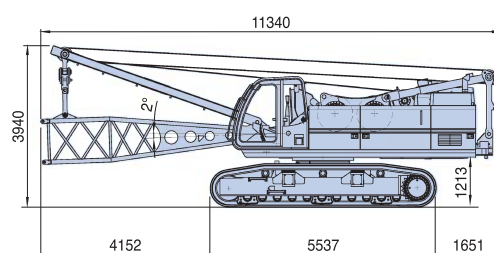
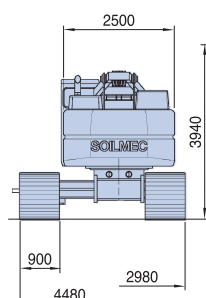
SR-65

REVERSE CIRCULATION SYSTEM (RCDS) VERSION

WITH BH GRAB FOR DIAPHRAGM WALL



Transport Condition with BH grab



SOILMEC distributes machinery and structures all over the world, supported by SOILMEC subsidiary companies and representative offices as:

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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.

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