

SENEBOGEN



PRELIMINARY

NEW!



630E

Heavy Duty Cycle Crawler / Crane



186 kW



30 t



35.5 m



maxCAB

Tier 4 emission
standards

630E Advanced. The E-Series.



1962: rope-driven S833
with elevated operator cab

What makes up the E-Series

- 60 years of experience in the design and construction of duty cycle crawler cranes
- Uncompromisingly high performance in all areas
- Technology that can be mastered: high-quality components without over-engineering
- Long product service life and high value retention

Your top benefits:

1 Green Efficiency

Save fuel – reduce operating costs
Work quietly – protect operator and environment



2 Performance at the highest level

Durable mechanical systems – stressed parts optimized
High speeds – high load capacities

3 Maximum ease of use

Maxcab comfort cab – work in comfort
SENCON – SENNEBOGEN Control System

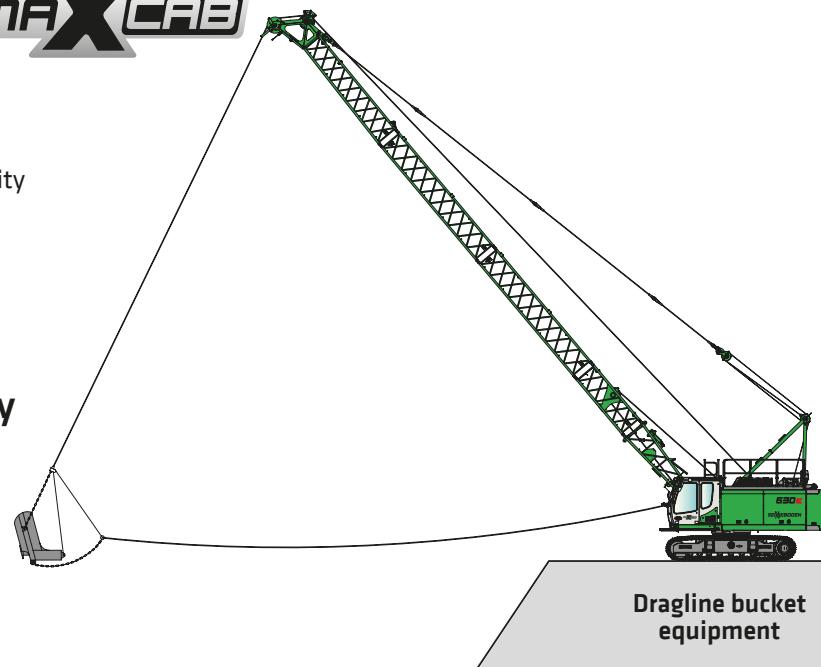


4 Flexible implementation

Moving under load – minimal space requirements
Strong undercarriage traction – good all-terrain mobility

5 Easy transport

Telescopic undercarriage – ready to go in no time
Ballast unloading system – short setup time



6 Maintenance and service made easy

Easy error diagnostics – central measuring points
Simple maintenance – clear labelling

7 Consultation and support

3 production locations – 2 subsidiaries
120 sales partners – more than 300 service stations



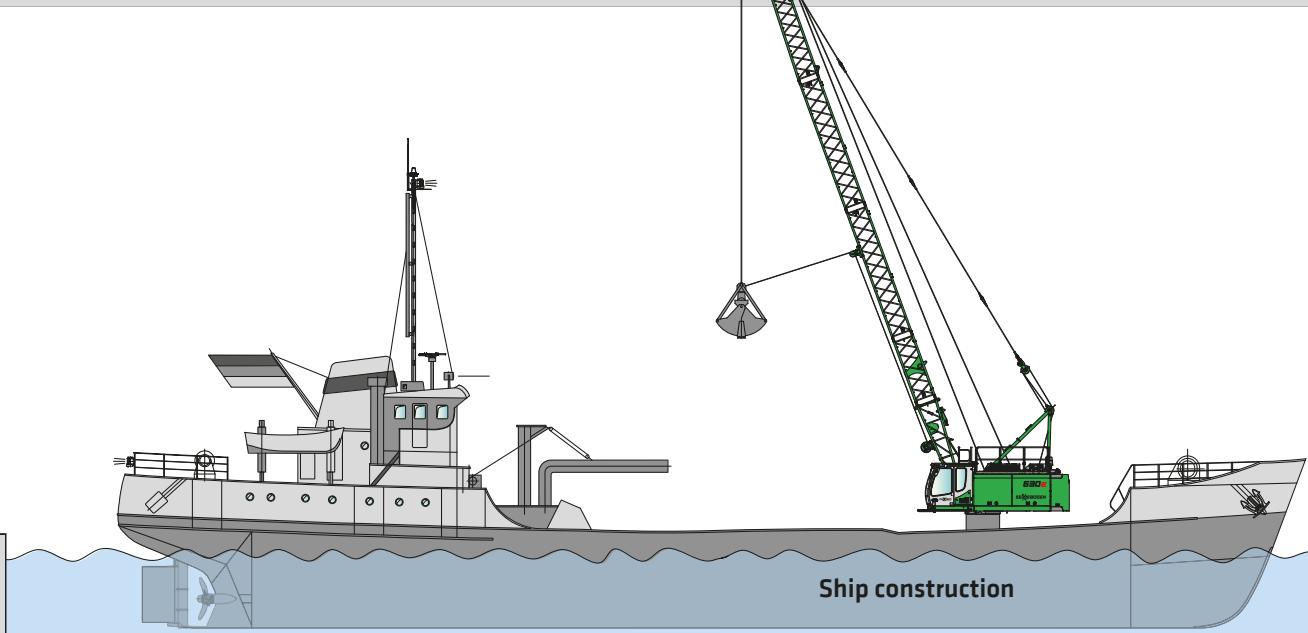
Leader

Casing oscillator

Grab equipment

Crane equipment
Crane equipment
with fixed fly

Ship construction



630E Technical data, equipment

HD

MACHINE TYPE

Model (type) **630**

ENGINE

Power	186 kW/253 hp at 1850 rpm
Model	CAT C7.1 Level IIIa or IV Direct injection, turbo-charged, charge air cooling, reduced emissions
Cooling	Water-cooled
Air filter	Dry filter with pre-separator, automatic dust discharge, main element and safety element, contamination indicator
Fuel tank	450 l
Electr. system	24 V
Batteries	2 x 150 Ah , main switch

UPPERCARRIAGE

Design	Torsion-resistant box design, precision crafted, bronze bushings for boom bearing arrangement Clear, service-friendly concept, engine installed in the longitudinal direction
Lighting	LED headlights for optimal illumination of the work area
Safety	Camera monitoring of the rear area and right side
Options	<ul style="list-style-type: none"> ■ Maritime climate varnish as corrosion protection ■ Low-temperature package for use at temperatures below -20 °C ■ Ballast support fixture ■ Pinion tooth lubrication for slewing ring, outer ■ Automatic central lubrication system for equipment and slewing ring, inner ■ Walkways left and right on the uppercarriage

HYDRAULIC SYSTEM

Multi-circuit hydraulic system for optimal function and capacity, all movements can be run simultaneously. The hydraulic pumps are variable displacement piston pumps with individual control and energy-saving flow-on-demand control. The pumps only request as much oil as is actually consumed. Pressure cut-off, load limit sensing control

Delivery rate **maximum 3 x 220 l/min**

Operating pressure **max. 330 bar**

Filtration High-performance filtration with long-term change interval, contamination level indicator

Hydraulic tank **550 l (450 l to the middle of the sight glass)**

Control system Proportional, precision hydraulic servo control of the movements, 2 hydraulic servo joysticks for work functions, supplemental functions via switches and foot pedals - arranged clearly and ergonomically

- Options
- Bio-oil - environmentally friendly
 - SENNEBOGEN HydroClean micro-filter system with water separator
 - Potentiometer for casing machine and other attachments
 - Grapple fill automation
 - Supplemental hydraulic system with 1x 220 l/min

SLEWING DRIVE

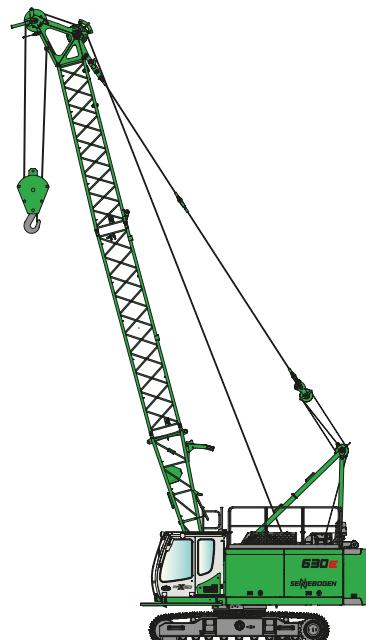
Gearbox	Compact planetary gear with slant axis hydraulic motor, integrated brake valves - positioner slewing gear brake
Parking brake	Spring-loaded multi-disk brake
Slewing ring	Ball bearing rotary connection with exterior gearing
Slewing speed	0-4.1 rpm, 3 adjustable rotation speeds

CAB **MAXCAB**

Cab type	Maxcab rigid
Cab equipment	Sliding door, excellent ergonomics, climate automation, seat heater, air-suspension comfort seat, fresh air filter / circulating air filter, joystick steering, 12 V / 24 V connections, SENCON, roof window
Options	<ul style="list-style-type: none"> ■ Cab type E270, can be elevated 270 cm ■ Cab can be tilted 15° ■ Auxiliary heating system with timer ■ Cab active-charcoal filter - inside air/outside air ■ Sliding window in operator door ■ Armored glass windshield, additional safety ■ Armored glass roof window, additional safety ■ Safety side window and rear window ■ Sunblind for windshield ■ Protective roof grating ■ FOPS protective roof grating ■ Protective front grating ■ Radio with speakers

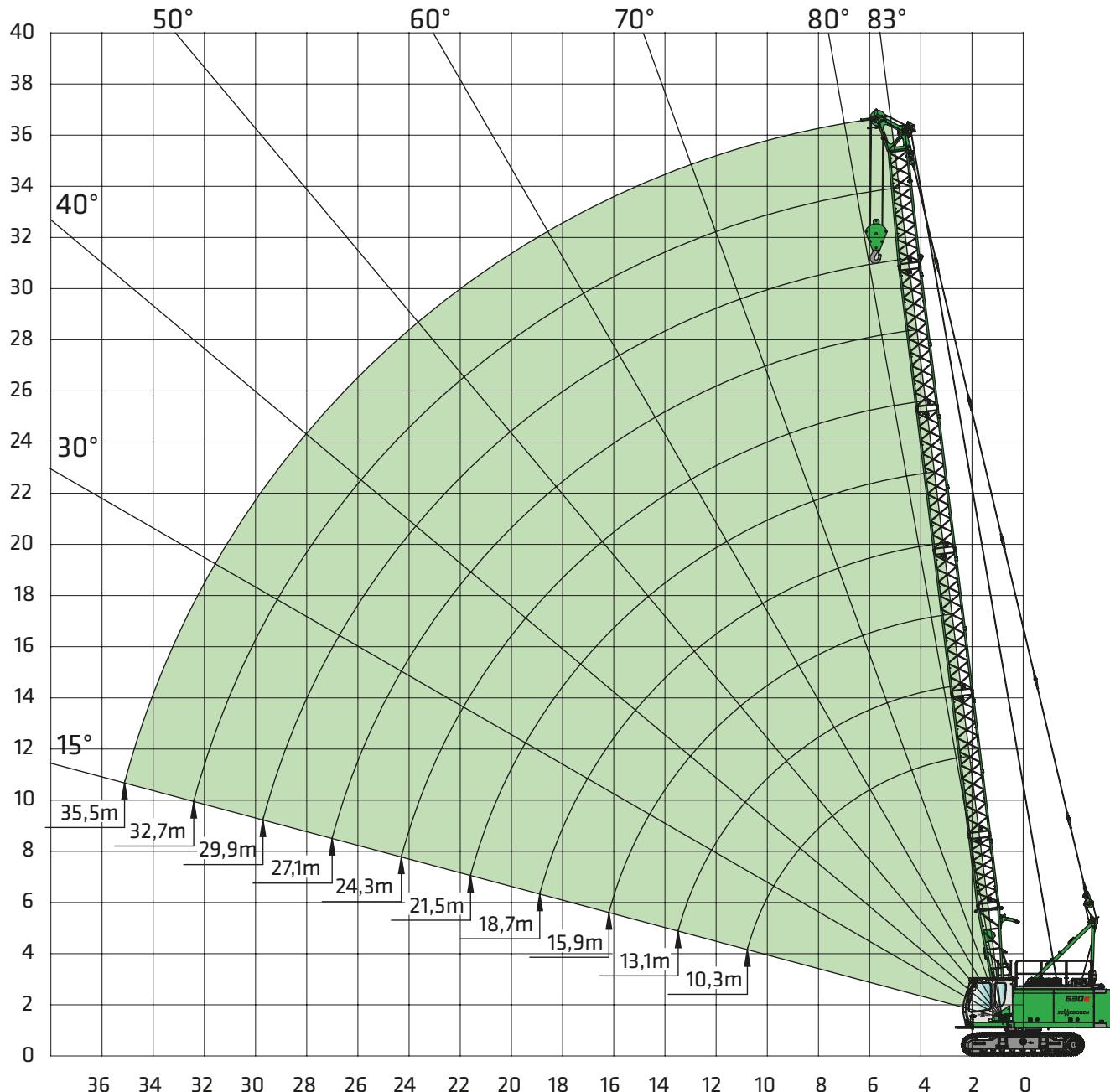
630E Technical data, equipment

HD

 ATTACHMENTS		 WINCH	
Design	Decades of experience and the latest computer simulations guarantee the greatest degree of stability and longest service life	The winches are driven via high-pressure-regulated adjustable hydraulic motors, thus there is always optimal pulling force speed control. Hydraulic lowering brake valves for sensitive, wear-free braking. Strong oil-bath planetary gear, low-maintenance.	
Boom adjustment winch	Drive via slant axis hydraulic motor with compact planetary gear, pulling force 52 kN, rope diameter 14 mm, adjustment speed 30° to 80° in approx. 40 seconds.	Crane brake and free-fall brake are spring-loaded, maintenance-free, low-wear disc brakes running in the oil bath, oil-cooled. The individual, variably adjustable free-fall brake actively supports the operator, prevents slack cable and protects the machine	
Safety brake	Spring-loaded multi-disk brake		
Boom	Boom length to 35.5 m		
Options	<ul style="list-style-type: none"> ■ Auxiliary jib, for safe working loads to 8.5 t ■ Fixed fly to 18 m ■ Steel rope sheaves ■ Jib sheaves for grapple implementation ■ HD sheaves for working with optimal rope guide ■ Boom damping, hydraulic ■ Load moment limitation for hoisting implementation: latest generation of load moment monitoring, display shows all important data, lifting limit switch, pressure relief valves, rope run-out safeguard 		
 UNDERCARRIAGE		 OPERATING WEIGHT	
Design	Extremely strong crawler undercarriage, type T27/355 with hydraulically extensible track width. Stable welded construction.	Mass	approx. 35,000 kg
Drive	Strong travel drive with axial piston hydraulic motor and directly attached automatically functioning brake valve and compact planetary gear on each running gear side; protected drive transmission	630 HD with 2 x 12 t free-fall winches, basic boom 10.3 m, counterweight 6.5 t, 25 t bottom hook block, 700 mm 3-grouser base plates, 125 m hoisting rope	
Parking brake	Spring-loaded multi-disk brake	Notice	The operating weight varies depending on the version and equipment.
Traveling gear	Maintenance-free tractor running gear B60 with hydraulic chain tension, 700 mm 3-grouser base plates,		
Speed	0 - 2.0 km/h		
Options	<ul style="list-style-type: none"> ■ 700 mm flat base plates (transport width 3000 mm) ■ 800 mm flat base plates (transport width 3200 mm) ■ 800 mm 3-grouser base plates (transport width 3200 mm) 		
			

630E Main boom

HD



Boom configuration											
	Boom length	10.3	13.1	15.9	18.7	21.5	24.3	27.1	29.9	32.7	35.5
Lower boom section type 870.52	4.4 m	1	1	1	1	1	1	1	1	1	1
Boom section type 870.52 (DL) *	2.8 m	0	0 (1)	0 (1)	0 (1)	0 (1)	0 (1)	0	0	0	0
Boom section type 870.52	2.8 m	0	1 (0)	2 (1)	1 (0)	2 (1)	1 (0)	2	1	2	1
Boom section type 870.52	5.6 m	0	0	0	1	1	2	2	3	3	4
Head piece type 870.52	5.9 m	1	1	1	1	1	1	1	1	1	1
Auxiliary jib S12.5 (option)	8.5 t	x	x	x	x	x	x	x	x	x	x

630E**Overall loads - with main boom SH****HD**

6.5 t	Boom length [m]									
Outreach [m]	10.3	13.1	15.9	18.7	21.5	24.3	27.1	29.9	32.7	35.5
2.6	30.0									
3.0	30.0	28.1	24.6/3.3	21.2/3.6						
4.0	28.2	26.3	24.1	21.0	18.1	15.3/4.3	14.2/4.7			
5.0	20.6	19.9	18.9	17.9	17.1	15.0	14.0	12.2	10.4/5.4	8.8/5.7
6.0	15.4	15.3	15.2	14.5	13.9	13.3	12.8	11.7	10.1	8.7
7.0	12.3	12.2	12.1	12.1	11.7	11.2	10.8	10.4	9.7	8.3
8.0	10.1	10.0	10.0	9.9	9.8	9.6	9.3	8.9	8.6	8.0
9.0	8.6	8.5	8.4	8.4	8.3	8.3	8.1	7.8	7.5	7.3
10.0	7.4	7.3	7.3	7.2	7.1	7.1	7.0	6.9	6.7	6.4
11.0	6.6/10.9	6.4	6.4	6.3	6.2	6.2	6.1	6.0	5.9	5.7
12.0		5.7	5.6	5.6	5.5	5.4	5.3	5.3	5.2	5.1
13.0		5.1	5.0	5.0	4.9	4.8	4.7	4.7	4.6	4.5
14.0		4.8/13.6	4.5	4.5	4.4	4.3	4.2	4.2	4.1	4.0
15.0			4.1	4.1	3.9	3.9	3.8	3.7	3.6	3.6
16.0			3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.2
17.0			3.6/16.3	3.4	3.3	3.2	3.1	3.1	3.0	2.9
18.0				3.1	3.0	2.9	2.9	2.8	2.7	2.6
19.0				2.9	2.8	2.7	2.6	2.5	2.4	2.4
20.0					2.5	2.5	2.4	2.3	2.2	2.1
22.0					2.2/21.7	2.1	2.0	1.9	1.8	1.8
24.0						1.8	1.7	1.6	1.5	1.5
26.0						1.8/24.4	1.5	1.4	1.3	1.2
28.0							1.4/27.1	1.2	1.1	1.0
30.0								1.0/29.8	0.9	0.8
32.0									0.8	0.7
34.0									0.7/32.5	0.5
36.0										0.5/35.2
38.0	Table no. 630R-80/1840/6.5/08.14 SH									
Number of strands	Ø 22 mm	4	4	3	3	2	2	2	2	2
	Ø 18 mm	5	5	5	4	4	3	3	2	2

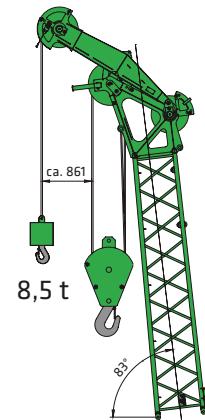
Comments:

- The specified safe working load values apply for a level and stable stance of the machine.
- The safe working load values are specified in tons (t) and apply for 360 degrees.
- The safe working loads take the standards ISO 4305 Tab. 1+2 and the tilt angle method (tilt angle 4°) into account
- Deduct the weight of the load handling devices (hook, suspension gear) from the safe working loads.
- The safe working loads apply for the maximum undercarriage track width of 3800 mm.
- Load ratings must be limited or reduced when conditions are unfavorable, such as soft or uneven ground, slopes, wind, lateral loads, swinging loads, jerking or sudden stopping of the load, operator inexperience, driving with load.
- Permissible rope tension per strand in crane operation for rope diameter with 22 mm - 8500 kg with rope diameter 12 mm - 6000 kg
- Safe working loads apply for the SH boom (boom assembly in accordance with the operating manual)
- Safe working loads apply for optimum boom assembly and a pulley head with plastic pulleys.
- The specified safe working load values are only for orientation. See the operating manual for the respectively valid safe working loads.

Auxiliary jib S12.5

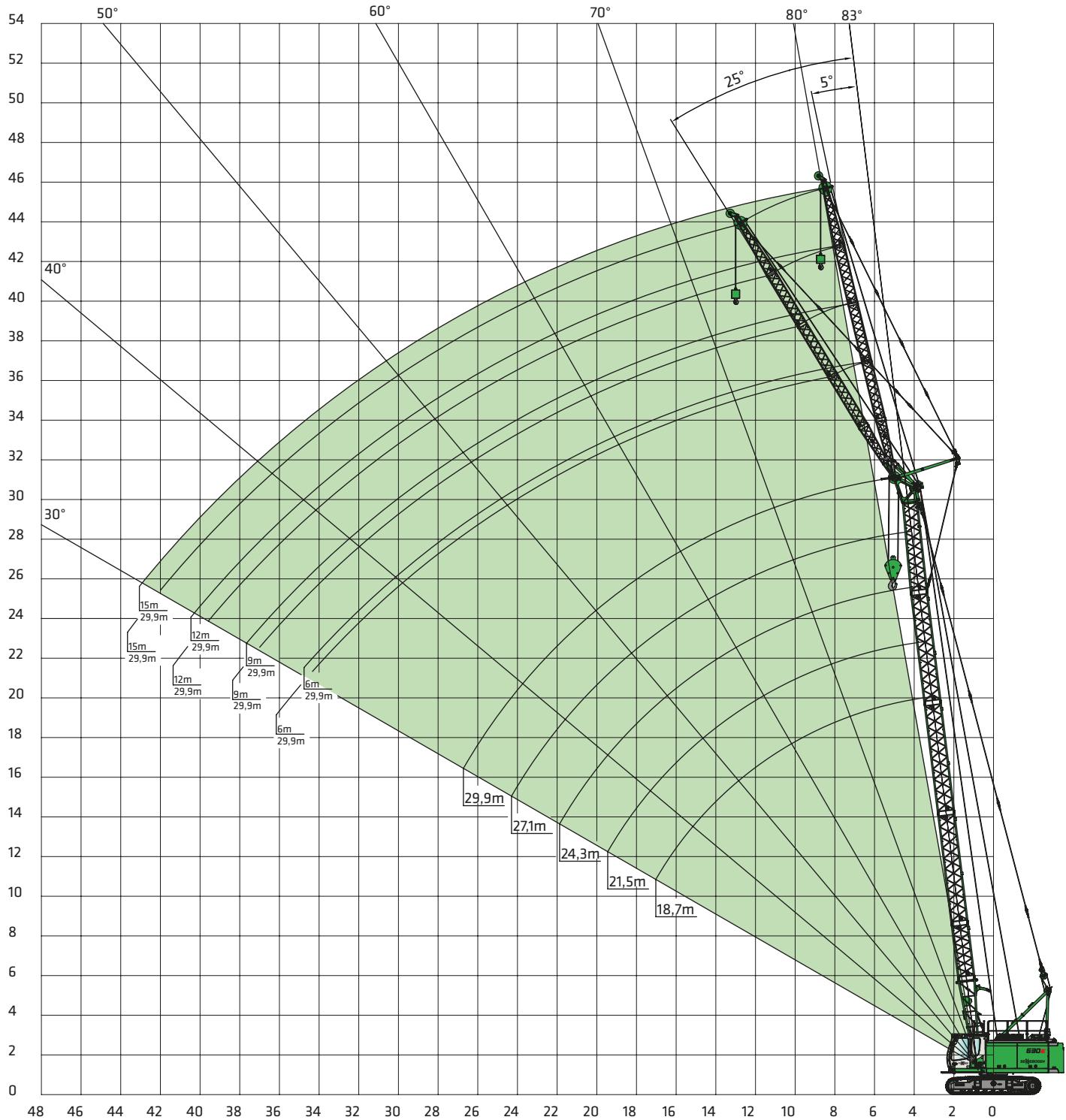
Max. load capacity 8.5 t

(rope diameter 22 mm)

or max. load capacity 6.0 t
(rope diameter 18 mm)

630E Fixed fly boom

HD



630E Working loads SHFS - fixed fly boom HD



		Main boom length [m]																								
		18.7					21.5					24.3					27.1									
Outreach [m]	5°	Fly boom length [m]																								
		6.0	9.0	12.0	15.0	18.0	6.0	9.0	12.0	15.0	18.0	6.0	9.0	12.0	15.0	18.0	6.0	9.0	12.0	15.0	18.0					
5.0		8.5/ 5.2					8.5/ 5.5					8.5/ 5.8														
6.0		8.5	8.5/ 6.1	6.6/ 6.9			8.5	8.4/ 6.5				8.5	7.8/ 6.8				8.5/ 6.2				8.2/ 6.5					
7.0		8.5	8.5	6.6	5.5/7.4	4.8/7.6	8.5	8.2	6.2/ 7.2	5.2/ 7.7		8.5	7.8	5.9/ 7.5			8.5	7.2/ 7.2			8.1	6.6/ 7.5				
8.0		8.5	8.0	6.3	5.3	4.7	8.5	7.8	6.0	5.2	4.5	8.5	7.4	5.8	5.0	4.4/8.3	8.5	7.0	5.6	4.7/ 8.4	4.1/ 8.6	7.9	6.5	5.2/ 8.3	4.3/ 8.8	
9.0		8.3	7.6	5.9	5.1	4.5	8.1	7.4	5.8	4.9	4.4	7.9	7.1	5.6	4.8	4.3	7.6	6.7	5.4	4.6	4.1	7.3	6.3	5.1	4.3	
10.0		7.2	7.1	5.6	4.8	4.3	7.1	7.0	5.5	4.7	4.2	7.0	6.8	5.4	4.6	4.1	6.7	6.5	5.2	4.4	3.9	6.5	6.1	5.0	4.2	
11.0		6.2	6.3	5.3	4.6	4.1	6.1	6.3	5.2	4.5	4.0	6.1	6.2	5.2	4.4	4.0	6.0	5.9	5.0	4.2	3.8	5.8	5.7	4.8	4.0	
12.0		5.5	5.6	5.0	4.3	3.9	5.4	5.5	5.0	4.2	3.9	5.3	5.4	4.9	4.2	3.8	5.3	5.3	4.8	4.1	3.7	5.2	5.1	4.6	3.9	
13.0		4.9	5.0	4.7	4.1	3.7	4.8	4.9	4.7	4.0	3.7	4.7	4.8	4.7	4.0	3.6	4.6	4.7	4.6	3.9	3.5	4.6	4.6	4.5	3.8	
14.0		4.4	4.5	4.3	3.9	3.5	4.3	4.4	4.4	3.8	3.5	4.2	4.3	4.3	3.8	3.5	4.1	4.2	4.3	3.7	3.4	4.1	4.2	4.2	3.6	
15.0		4.0	4.0	4.0	3.7	3.3	3.9	3.9	4.0	3.7	3.3	3.8	3.9	3.9	3.6	3.3	3.7	3.8	3.5	3.3	3.6	3.7	3.8	3.5		
16.0		3.6	3.7	3.7	3.5	3.2	3.5	3.6	3.6	3.5	3.2	3.4	3.5	3.5	3.4	3.2	3.3	3.4	3.4	3.2	3.3	3.3	3.4	3.3		
17.0		3.3	3.3	3.4	3.3	3.0	3.2	3.2	3.3	3.3	3.0	3.1	3.2	3.2	3.2	3.0	3.0	3.1	3.1	3.0	2.9	3.0	3.0	3.0		
18.0		3.0	3.0	3.1	3.1	2.9	2.9	3.0	3.0	3.0	2.8	2.8	2.9	2.9	2.9	2.7	2.8	2.8	2.8	2.6	2.7	2.8	2.8			
19.0		2.7	2.8	2.8	2.8	2.7	2.6	2.7	2.7	2.7	2.6	2.6	2.6	2.7	2.7	2.6	2.5	2.6	2.6	2.5	2.4	2.5	2.5	2.5		
20.0		2.5	2.6	2.6	2.6	2.6	2.4	2.5	2.5	2.5	2.5	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.3	
22.0		2.1	2.2	2.2	2.2	2.2	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.8	1.9	1.9	1.9	
24.0		2.0/ 23.0	1.9	1.9	1.9	1.9	1.7	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.6		
26.0		1.6/ 25.8	1.6	1.6	1.6	1.6	1.5/ 25.4	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1.4	1.3	1.4	1.4	1.4	1.2	1.3	1.3	1.3		
28.0			1.4	1.4	1.4		1.3	1.3	1.3	1.3	1.3	1.2/ 27.8	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.2	1.1	1.0	1.1	1.1		
30.0			1.8/ 28.6	1.2	1.2		1.3/ 28.3	1.1	1.1	1.1	1.1		1.0	1.1	1.1	1.0	0.9	0.9	1.0	1.0	0.9	0.8	0.9	0.9	0.9	
32.0			1.1/ 31.3	1.1			1.0/ 31.0	1.0	1.0			1.0/ 30.7	0.9	0.9	0.9	0.9/ 30.2	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7		
34.0				0.9/ 33.8				0.8/ 33.7	0.8			0.8/ 33.5	0.7	0.7		0.7/ 33.1	0.6	0.6	0.6	0.6/ 32.6	0.6	0.6	0.6	0.6		
36.0									0.7				0.6	0.6			0.5/ 35.9	0.5	0.5		0.5/ 35.5	0.4	0.4		0.4	
38.0									0.7/ 36.3				0.6/ 36.1	0.5				0.4	0.4			0.3	0.3		0.3	
40.0													0.4/ 38.7					0.4/ 38.5	0.3			0.3/ 38.3	0.2			0.2/ 41.0
42.0																				0.2/ 41.1						
44.0																										

Table no. 630R-80/1840/06.5/09.14 SHFS5

Comments:

- The specified safe working load values apply for a level and stable stance of the machine.
- The safe working load values are specified in tons (t) and apply for 360 degrees.
- The safe working loads take the standards ISO 4305 Tab. 1+2 and the tilt angle method (tilt angle 4°) into account
- Deduct the weight of the load handling devices (hook, suspension gear) from the safe working loads.
- The safe working loads apply for the maximum undercarriage track width.
- Load ratings must be limited or reduced when conditions are unfavorable, such as soft or uneven ground, slopes, wind, lateral loads, swinging loads, jerking or sudden stopping of the load, operator inexperience, driving with load.
- Permissible rope tension per strand in crane operation is with rope diameter 22 mm - 8500 kg with rope diameter 18 mm - 6000 kg (max. safe working load 6000 kg)
- Safe working loads apply for the SHFS boom (boom assembly in accordance with the operating manual)
- Safe working loads apply for optimum boom assembly and a pulley head with plastic pulleys.
- The specified load ratings are only for orientation. See the operating manual for the respectively valid safe working loads.

630E Working loads SHFS - fixed fly boom HD



		Main boom length [m]																						
		18.7					21.5					24.3					27.1							
		Fly boom length [m]																						
Outreach [m]		6.0	9.0	12.0	15.0	18.0	6.0	9.0	12.0	15.0	18.0	6.0	9.0	12.0	15.0	18.0	6.0	9.0	12.0	15.0	18.0			
5.0																								
6.0																								
7.0	74/ 7.1						71/ 7.4					6.7/ 7.8												
8.0	7.2	5.5/ 8.8					6.9					6.7					6.4/ 8.1					6.0/ 8.5		
9.0	6.9	5.5					6.7	5.2/ 9.2				6.5	5.0/ 9.5				6.2	4.7/ 9.9				6.0		
10.0	6.6	5.3	4.1/ 10.4				6.5	5.1	3.9/10.7			6.3	4.9				6.1	4.7				5.8	4.5/ 10.2	
11.0	6.4	5.1	4.0	3.4/ 11.7			6.3	4.9	3.9			6.1	4.8	3.7			5.9	4.6	3.5/ 11.4			5.7	4.4	3.4/ 11.7
12.0	5.7	4.9	3.9	3.3	3.0/ 12.7	5.7	4.8	3.8	3.1		5.6	4.6	3.6	3.0/ 12.3		5.6	4.5	3.5	2.8/ 12.7		5.4	4.3	3.4	
13.0	5.1	4.7	3.8	3.2	2.9	5.0	4.6	3.7	3.1	2.8	5.0	4.5	3.5	2.9	2.7/ 13.4	4.9	4.4	3.4	2.8	2.5/13.8	4.9	4.2	3.3	2.7
14.0	4.6	4.5	3.6	3.1	2.8	4.5	4.5	3.6	3.0	2.7	4.5	4.4	3.4	2.9	2.6	4.4	4.2	3.3	2.8	2.5	4.3	4.1	3.3	2.7
15.0	4.1	4.3	3.5	3.0	2.7	4.1	4.2	3.4	2.9	2.6	4.0	4.2	3.4	2.8	2.6	3.9	4.1	3.3	2.7	2.5	3.9	4.0	3.2	2.6
16.0	3.7	3.9	3.3	2.9	2.6	3.7	3.8	3.3	2.8	2.6	3.6	3.8	3.3	2.7	2.5	3.5	3.7	3.2	2.6	2.4	3.5	3.7	3.1	2.6
17.0	3.4	3.5	3.2	2.8	2.6	3.3	3.5	3.2	2.7	2.5	3.3	3.4	3.2	2.6	2.4	3.2	3.1	2.6	2.4	3.1	3.3	3.0	2.5	2.5
18.0	3.1	3.2	3.1	2.7	2.5	3.0	3.2	3.1	2.6	2.4	3.0	3.1	3.1	2.6	2.4	2.9	3.0	3.0	2.5	2.3	2.8	3.0	3.0	2.4
19.0	2.8	3.0	2.9	2.6	2.4	2.8	2.9	3.0	2.5	2.3	2.7	2.8	3.0	2.5	2.3	2.6	2.8	2.9	2.4	2.2	2.6	2.7	2.8	2.4
20.0	2.6	2.7	2.8	2.6	2.3	2.5	2.7	2.8	2.4	2.3	2.5	2.6	2.7	2.4	2.2	2.4	2.5	2.6	2.4	2.2	2.3	2.5	2.6	2.3
22.0	2.2	2.3	2.4	2.4	2.2	2.1	2.2	2.3	2.2	2.1	2.1	2.2	2.3	2.3	2.1	2.0	2.1	2.2	2.2	2.1	1.9	2.1	2.2	2.2
24.0	1.9/ 23.5	2.0	2.1	2.1	2.0	1.8	1.9	2.0	2.1	2.0	1.7	1.8	1.9	2.0	2.0	1.7	1.8	1.9	1.9	2.0	1.6	1.7	1.8	1.9
26.0		1.7	1.8	1.8	1.9	1.5	1.6	1.7	1.8	1.8	1.5	1.6	1.6	1.7	1.8	1.4	1.5	1.6	1.6	1.7	1.3	1.4	1.5	1.6
28.0	1.6/ 26.5	1.5	1.6	1.6		1.4	1.4	1.5	1.6	1.2	1.3	1.4	1.5	1.5	1.2	1.2	1.3	1.4	1.4	1.1	1.2	1.3	1.3	
30.0		1.3/ 29.5	1.4	1.4		1.3/ 29.0	1.2	1.3	1.3	1.2/ 28.4	1.1	1.2	1.2	1.3	1.0	1.0	1.1	1.2	1.2	1.2	0.9	1.0	1.0	1.1
32.0			1.2	1.2		1.0/ 31.9	1.1	1.1		1.0/ 31.4	1.0	1.0	1.1	0.9/3 0.8	0.8	0.9	1.0	1.0	0.7	0.8	0.9	0.9	0.9	0.9
34.0			1.1/ 32.5	1.0			0.9	1.0			0.8	0.9	0.9		0.7/ 33.8	0.7	0.8	0.8	0.6/ 33.2	0.6	0.7	0.7	0.7	0.7
36.0			0.9/ 35.4				0.8/ 34.9	0.8			0.8/ 34.4	0.7	0.8			0.6	0.6	0.7		0.5	0.5	0.6		
38.0							0.7/ 37.8				0.6/ 37.3	0.6				0.5/ 36.8	0.5	0.5		0.4/ 36.2	0.4	0.4		
40.0														0.5			0.4/ 39.7	0.4			0.3/ 39.2	0.3		
42.0														0.5/ 40.2					0.3				0.2	
44.0																	0.2/ 42.7					0.2/ 42.2		
46.0																								

Table no. 630R-80/1840/06.5/09.14 SHFS25

Comments:

- The specified safe working load values apply for a level and stable stance of the machine.
- The safe working load values are specified in tons (t) and apply for 360 degrees.
- The safe working loads take the standards ISO 4305 Tab. 1+2 and the tilt angle method (tilt angle 4°) into account
- Deduct the weight of the load handling devices (hook, suspension gear) from the safe working loads.
- The safe working loads apply for the maximum undercarriage track width.
- Load ratings must be limited or reduced when conditions are unfavorable, such as soft or uneven ground, slopes, wind, lateral loads, swinging loads, jerking or sudden stopping of the load, operator inexperience, driving with load.
- Permissible rope tension per strand in crane operation is with rope diameter 22 mm - 8500 kg
- with rope diameter 18 mm - 6000 kg (max. safe working load 6000 kg)
- Safe working loads apply for the SHFS boom (boom assembly in accordance with the operating manual)
- Safe working loads apply for optimum boom assembly and a pulley head with plastic pulleys.
- The specified load ratings are only for orientation. See the operating manual for the respectively valid safe working loads.

630E**HD**

Main boom with fixed fly SHFS

		Boom configuration									
Boom length		Main boom					Fixed fly jib				
		18.7	21.5	24.3	27.1	29.9	6.0	9.0	12.0	15.0	18.0
Lower boom section type 870.52	4.4 m	1	1	1	1	1					
Boom section type 870.52	2.8 m	1	2	1	2	1					
Boom section type 870.52	5.6 m	1	1	2	2	3					
Head piece type 870.52	5.9 m	1	1	1	1	1					
Fly boom - lower boom section type 598	3.0 m						1	1	1	1	1
Fly boom - boom section type 598	3.0 m						0	1	2	3	4
Fly boom head piece type 598	3.0 m						1	1	1	1	1

Combination possibilities SHFS

Length fixed fly	Boom configuration				
	Main boom				
18.7	21.5	24.3	27.1	29.9	
6.0 m	x	x	x	x	x
9.0 m	x	x	x	x	x
12.0 m	x	x	x	x	x
15.0 m	x	x	x	x	x
18.0 m	x	x	x	x	



Hook

For 120 kN winches with 22 mm rope diameter

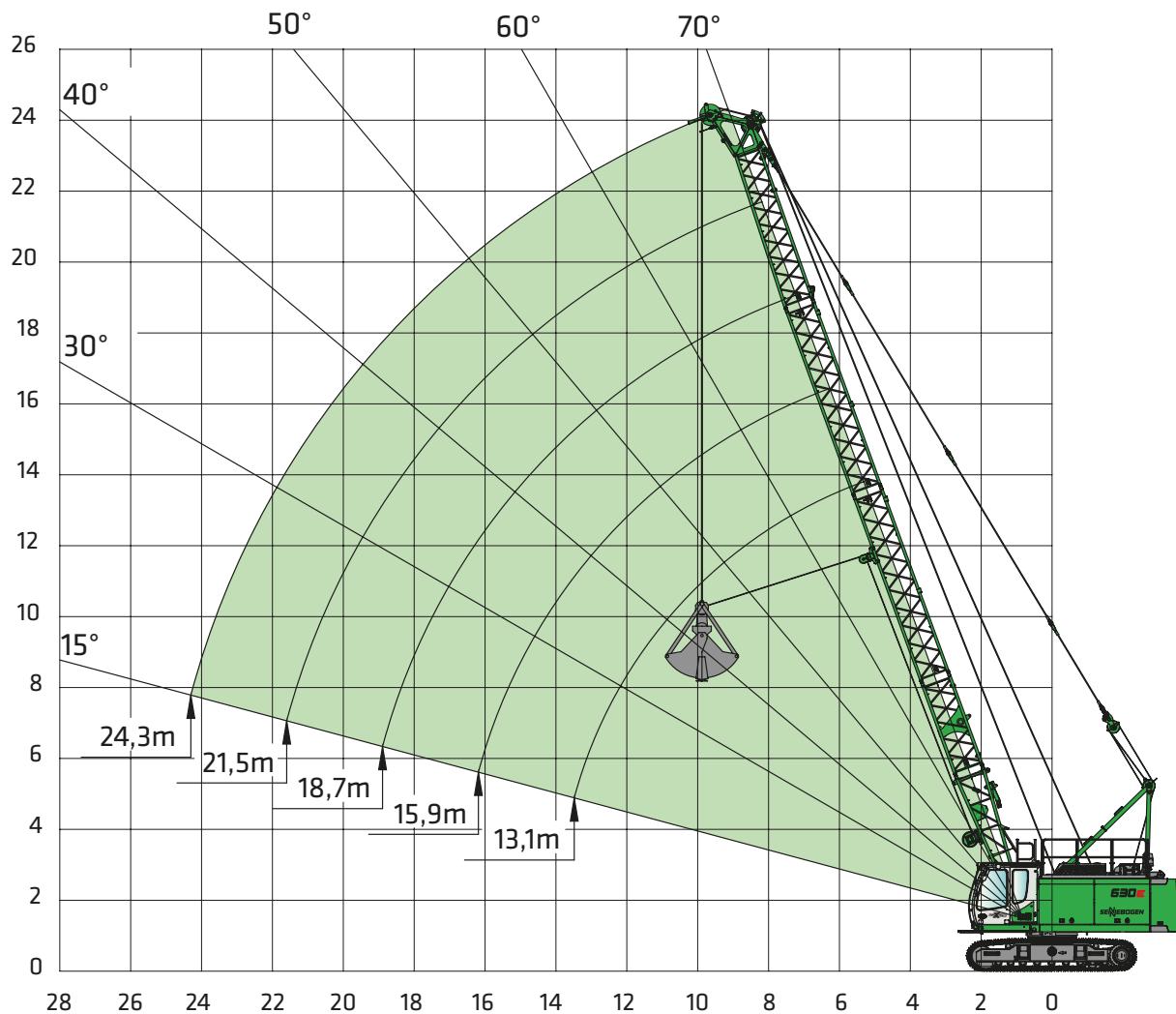
Capacity	Weight	Rope strands and maximum safe working load [kg]					
		6	5	4	3	2	1
10 t	200 kg						8500
25 t 1-pulley	300 kg				25,000	17,000	8500
40 t 2-pulley	350 kg			30,000	25,500	17,000	8500

For 90 kN winches with 18 mm rope diameter

Capacity	Weight	Rope strands and maximum safe working load [kg]					
		6	5	4	3	2	1
6 t	120 kg						6000
18 t 1-pulley	200 kg					18,000	12,000
32 t 3-pulley	300 kg			30,000	24,000	18,000	12,000

630E Grab equipment

HD

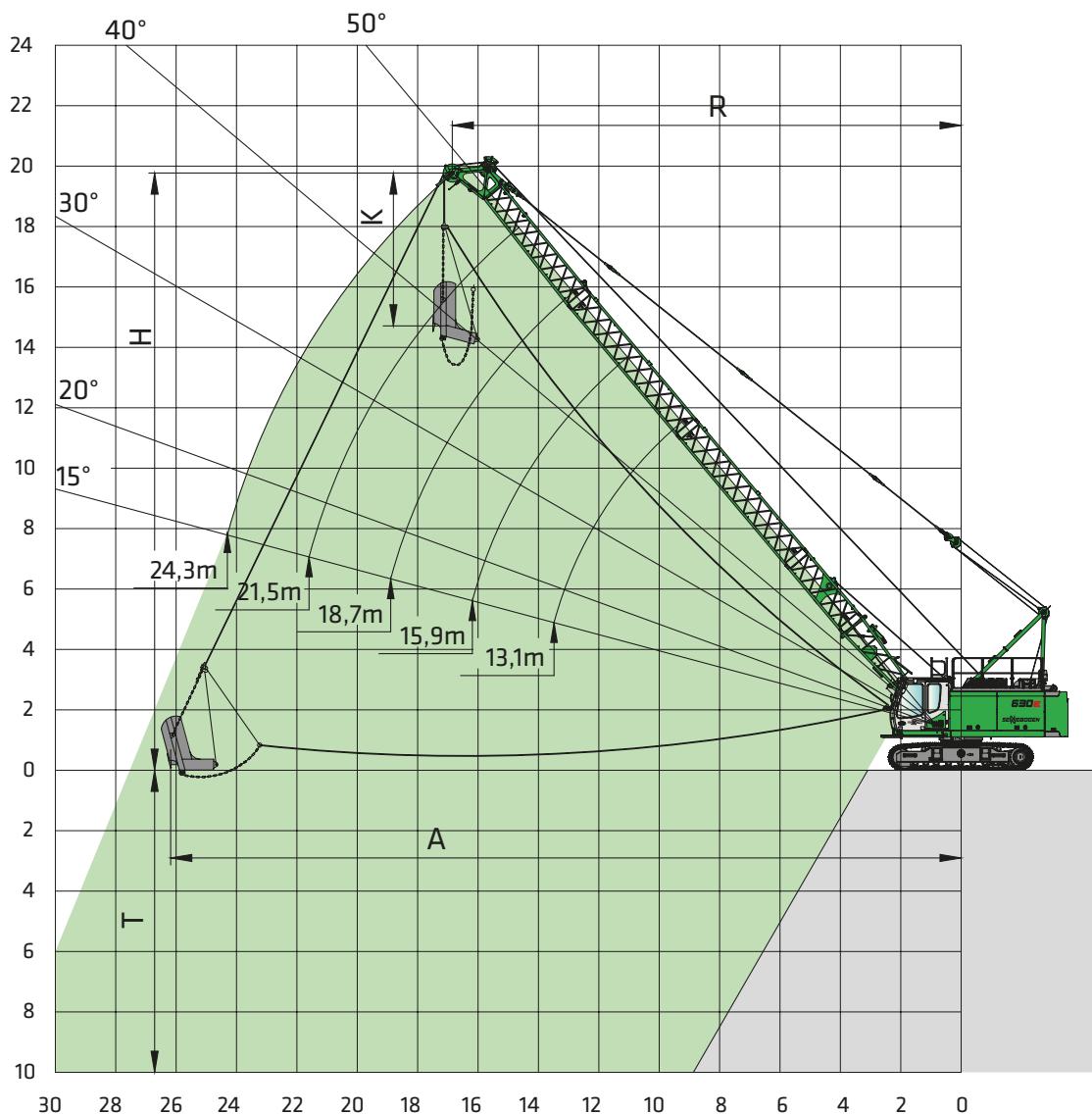
**Comments:**

1. The specified safe working load values apply for a level and stable stance of the machine.
 2. Load ratings are in tons (t) and apply for 360 degrees.
 3. The safe working loads apply for the maximum outrigger width / undercarriage track width of 3550 mm
 4. The specified safe working loads include the grapple weight and do not exceed 66.7 % of the tipping load
 5. For operation with a mechanical two-rope grapple and even load distribution on the closing and holding ropes, the safe working load is limited by the permissible rope tension or the maximum winch pulling force of a winch:
- | | | |
|---|------|------|
| Winch pulling force [kN] | 90 | 120 |
| Rope diameter [mm] | 18 | 22 |
| Minimum tensile strength [kN] | 320 | 426 |
| Maximum safe working load in single-winch operation | 9.0 | 12.0 |
| Maximum safe working load in two-winch operation | 13.6 | 18.2 |

Boom angle alpha [°]	Boom length [m]														
	13.1			15.9			18.7			21.5			24.3		
	R	H	t	R	H	t	R	H	t	R	H	t	R	H	t
70	5.8	13.8	13.5	6.8	16.4	10.7	7.7	19.0	8.8	8.7	21.7	7.3	9.6	24.3	6.3
65	6.8	13.3	10.6	8.0	15.8	8.3	9.2	18.4	6.8	10.4	20.9	5.7	11.6	23.4	4.8
60	7.8	12.7	8.7	9.2	15.1	6.8	10.6	17.6	5.6	12.0	20.0	4.6	13.4	22.4	3.9
55	8.8	12.1	7.4	10.4	14.4	5.8	12.0	16.6	4.7	13.6	18.9	3.8	15.2	21.2	3.2
50	9.7	11.3	6.5	11.5	13.5	5.0	13.3	15.6	4.1	15.1	17.8	3.3	16.9	19.9	2.7
45	10.5	10.5	5.8	12.4	12.5	4.5	14.4	14.5	3.6	16.4	16.5	2.9	18.4	18.4	2.4
40	11.2	9.6	5.3	13.3	11.4	4.1	15.5	13.2	3.2	17.6	15.0	2.6	19.8	16.8	2.1
35	11.9	8.7	4.9	14.2	10.3	3.7	16.5	11.9	3.0	18.7	13.5	2.4	21.0	15.1	1.9
30	12.4	7.7	4.6	14.9	9.1	3.5	17.3	10.5	2.8	19.7	11.9	2.2	22.1	13.3	1.8
25	12.9	6.7	4.3	15.5	7.9	3.3	18.0	9.1	2.6	20.5	10.2	2.1	23.1	11.4	1.6
20	13.3	5.6	4.2	16.0	6.6	3.2	18.6	7.5	2.5	21.2	8.5	2.0	23.8	9.4	1.6
15	13.6	4.5	4.0	16.3	5.2	3.1	19.0	6.0	2.4	21.7	6.7	1.9	24.4	7.4	1.5

630E Dragline bucket equipment

HD

**Comments:**

- The specified safe working load values apply for a level and stable stance of the machine.
- The safe working load values are specified in tons (t) and apply for 360 degrees.
- The safe working loads apply for the maximum outrigger width / undercarriage track width of 3550 mm.
- The specified safe working loads include the grapple weight and do not exceed 75 % of the tipping load.
- Motor and winch equipment as required (the specified values apply for maximum equipment and average conditions).

6. The dragline bucket size must be configured in accordance with the given conditions.

Dredging arc:

R = Working radius

A = Maximum dredging width = approx. $R + 1/3$ to $1/2$ (H-K)

T = Dredging depth = approx. 40-50 % of R

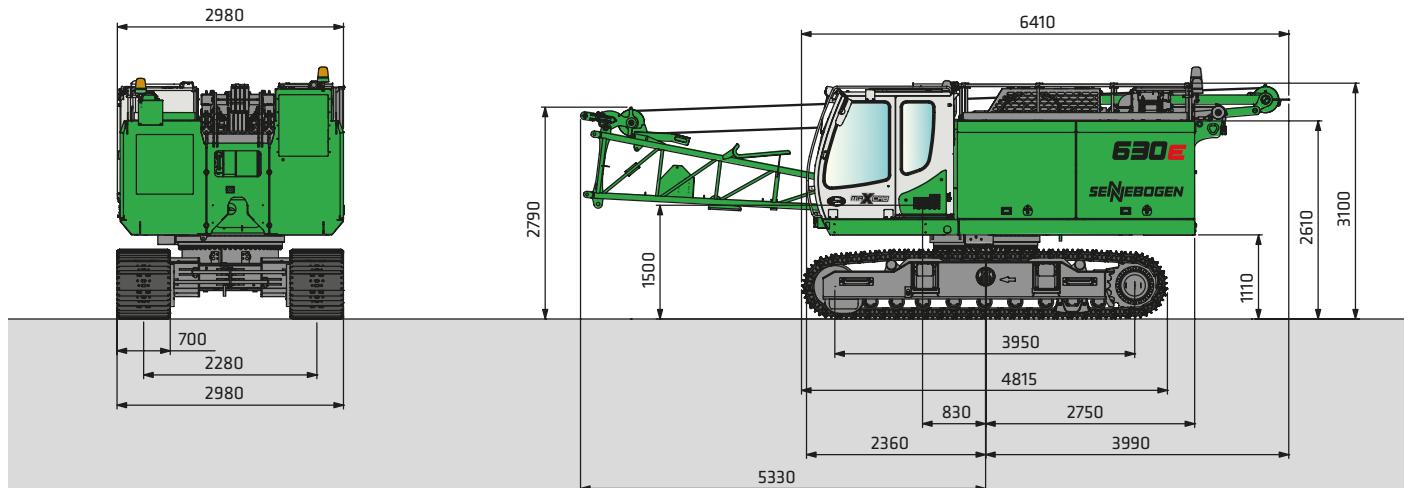
H = Height

K = Length of the dragline bucket

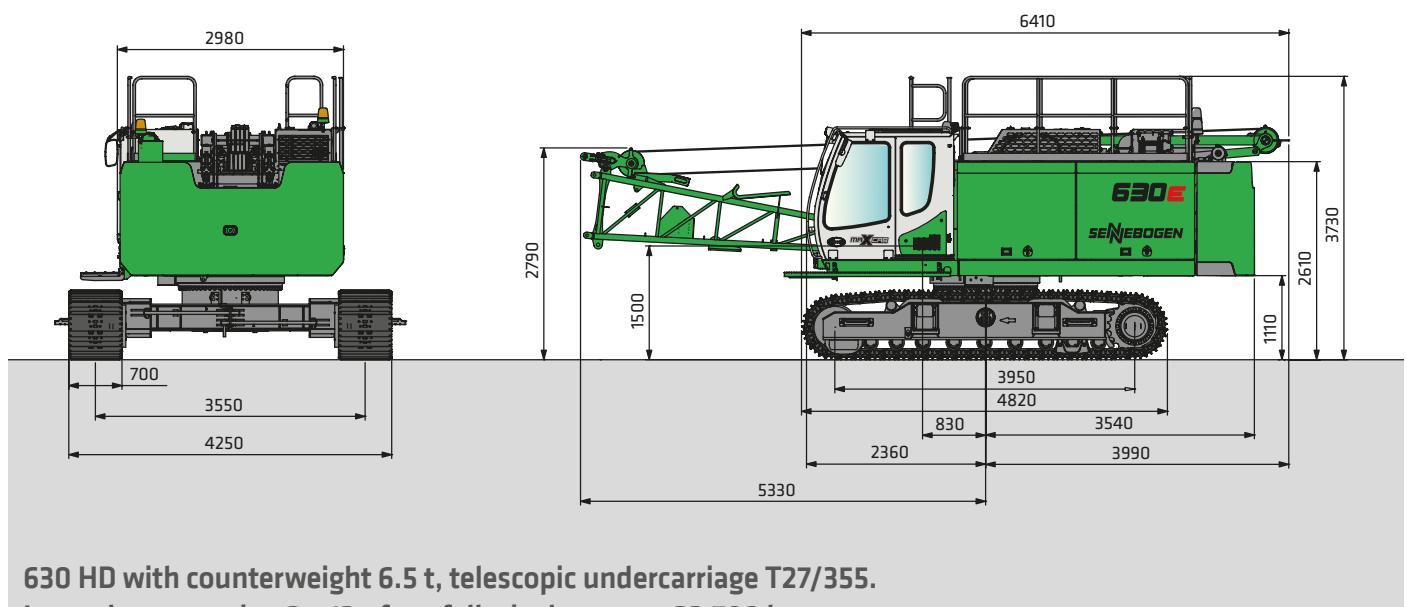
Boom angle alpha [°]	Boom length [m]														
	13.1			15.9			18.7			21.5			24.3		
	R	H	t	R	H	t	R	H	t	R	H	t	R	H	t
50	9.7	11.3	7.3	11.5	13.5	5.7	13.3	15.6	4.6	15.1	17.8	3.7	16.9	19.9	3.1
45	10.5	10.5	6.5	12.4	12.5	5.0	14.4	14.5	4.1	16.4	16.5	3.3	18.4	18.4	2.7
40	11.2	9.6	5.9	13.3	11.4	4.6	15.5	13.2	3.7	17.6	15.0	2.9	19.8	16.8	2.4
35	11.9	8.7	5.5	14.2	10.3	4.2	16.5	11.9	3.4	18.7	13.5	2.7	21.0	15.1	2.2
30	12.4	7.7	5.1	14.9	9.1	3.9	17.3	10.5	3.1	19.7	11.9	2.5	22.1	13.3	2.0
25	12.9	6.7	4.9	15.5	7.9	3.7	18.0	9.1	2.9	20.5	10.2	2.3	23.1	11.4	1.9
20	13.3	5.6	4.7	16.0	6.6	3.6	18.6	7.5	2.8	21.2	8.5	2.2	23.8	9.4	1.8
15	13.6	4.5	4.5	16.3	5.2	3.4	19.0	6.0	2.7	21.7	6.7	2.1	24.4	7.4	1.7

630E Dimensions

HD



630 HD without counterweight, lower boom section 2 x 12 t free-fall winch, approx. 27,200 kg



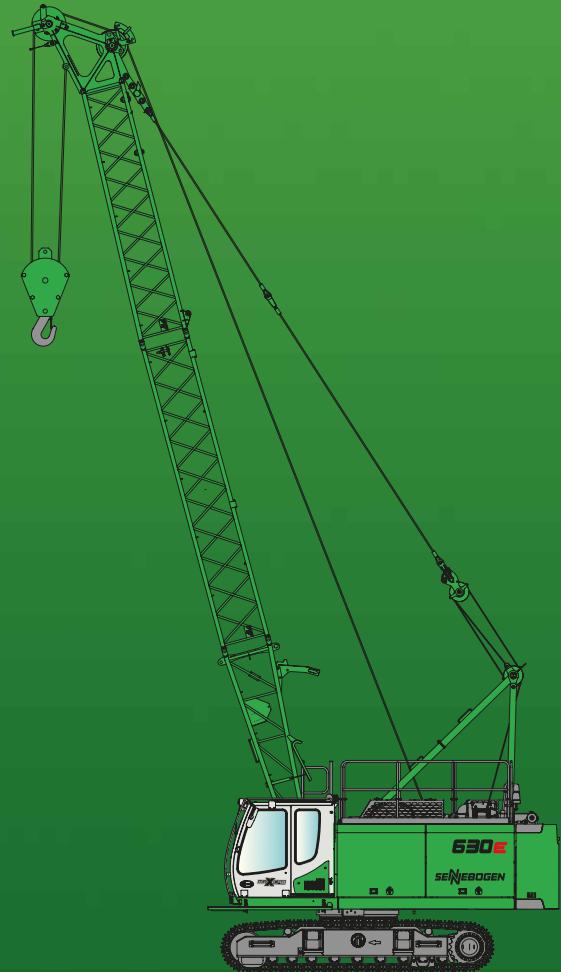
630 HD with counterweight 6.5 t, telescopic undercarriage T27/355.
Lower boom section 2 x 12 t free-fall winch approx. 33,700 kg

630E Transport dimensions

HD

	Lower boom section 4.4 m, type 870.52
	Weight: 680 kg
	Intermediate boom section 2.8 m, type 870.52 (DL) with deflection sheave for dragline bucket operation
	Weight: 520 kg (incl. holding ropes)
	Intermediate boom section 2.8 m, type 870.52
	Weight: 250 kg (incl. holding ropes)
	Intermediate boom section 5.6 m, type 870.52 with deflection sheave for dragline bucket operation
	Weight: 400 kg (incl. holding ropes)
	Boom headpiece 5.9 m, type 870.52
	Steel rollers: 1050 kg (incl. holding ropes) Plastic rollers 920 kg (incl. holding ropes)
	Auxiliary jib S12.5
	Weight: 280 kg
	Counterweight
	Weight: 6500 kg
	Lower boom section 3.0 m, type 598
	Weight: 330 kg
	Intermediate boom section 3.0 m, type 598
	Weight: 120 kg (incl. holding ropes)
	Boom headpiece 3 m, type 598
	Weight: 210 kg (incl. holding rope)

630E



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