

 **630**

SENEBOGEN



PRELIMINARY

630E

Mobile Heavy Duty Cycle Crane

 **186 kW**

 **30 t**

 **35,5 m**

 **MAX CAB**

Emissions level IV

630E Advanced. The E-Series



1962: rope-driven S833 with elevated operator cab


What makes up the E-Series

- Over 65 years of experience in construction and building of duty cycle crawler cranes
- Uncompromisingly high performance in all areas
- Technology that can be mastered: High-quality components without over-engineering
- Long service life and high value stability

Your top benefits

1

Green Efficiency

Safe fuel - reduce operating costs 
Work quietly - protect operator and environment


2

Peak performance

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

3

Maximum usability

Comfort Cab Maxcab - work in comfort 
SENCON - work program selection made easy

4

Flexibility in service

Operate under full load - less space required
Strong undercarriage traction - good off-road capability

5

Easy transport

Mobile undercarriage - ready to go in no time

6

Maintenance and service made easy

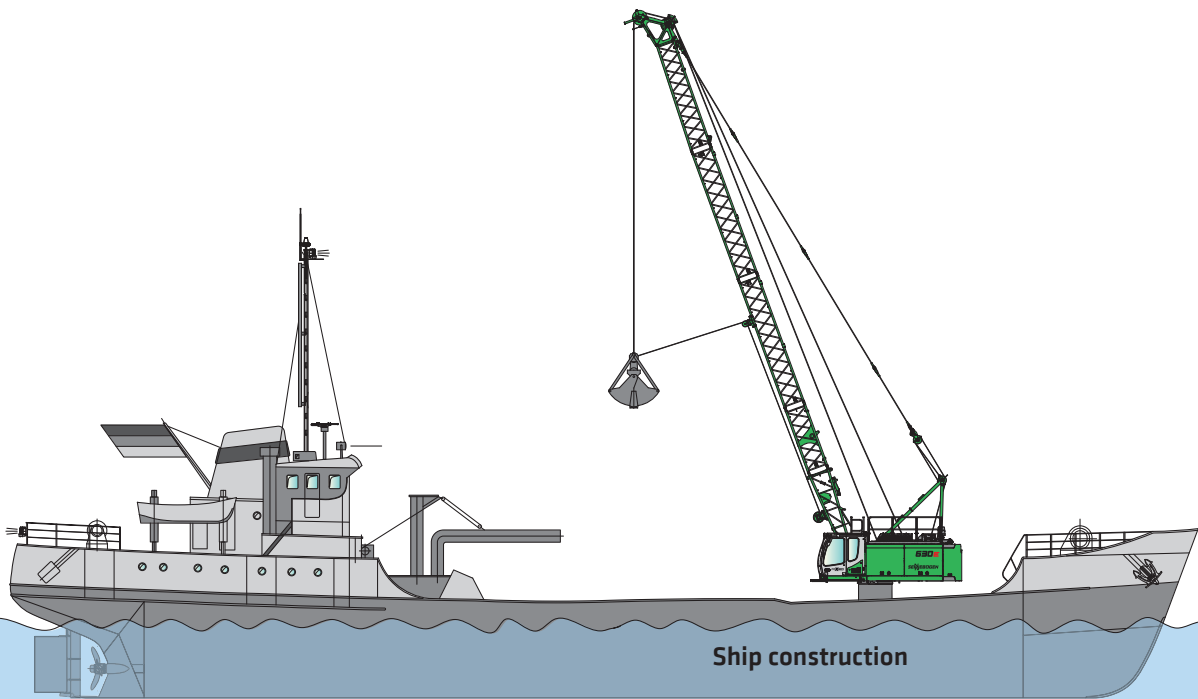
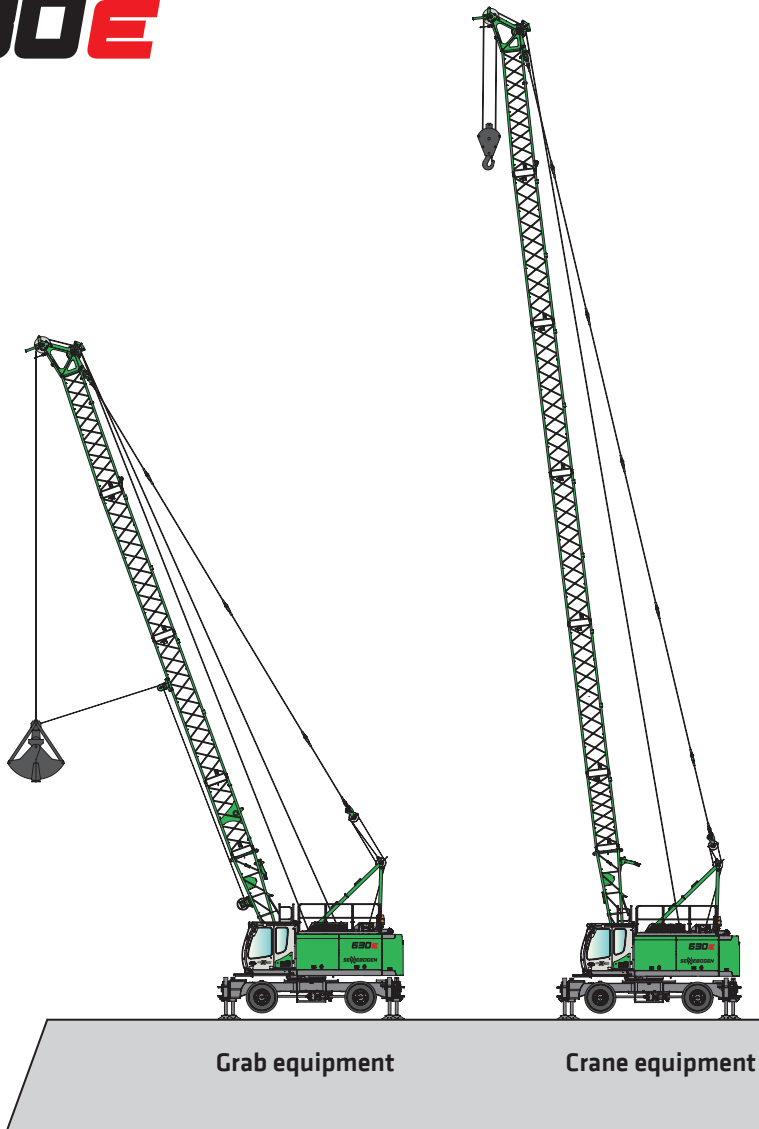
SENNEBOGEN control system - easy error diagnostics
Simple maintenance- clear labeling

7

Consultation and support in your area

3 production sites - 2 subsidiaries
130 sales partners - over 350 service stations

630E



630E Technical data, equipment

MACHINE TYPE

Model (type) **630**

ENGINE

Power **186 kW / 253 PS at 1850 rpm**

Model **CAT C7.1 Tier IIIa or IV**
Direct injection, turbo-charged, charge air cooling, reduced emissions

Cooling water-cooled

Air filter Dry filter with intergrated 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, steel bushings for boom bearings. Extremely service-friendly design, longitudinal engine

Lighting LED headlights for optimal illumination of the work area

Safety Rearview and right sideview cameras, LED lighting package

Options

- Maritime climate varnishing as corrosion protection
- Low-temperature package for use at temperatures below -20°C
- Automatic central lubrication system for equipment and slewing ring, inner
- Pinion tooth lubrication for slewing ring
- 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 max. **3x 220 l/min**

Operating pressure max. **330 bar**

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

Hydraulic tank **550 l (450 l to the middle of gauge class)**

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 3 µm hydraulic microfilter
- Potentiometer for casing machine and other attachments
- Grapple fill automation
- Supplemental hydraulic system with 1 x 220 l/min

SLEWING DRIVE

Gearbox Compact planetary gear with hydraulic and electric rotor, integrated brake valves, positioner slewing gear brake

Slewing gear brake Spring-loaded disk brake, pedal for individual braking

Slewing ring Ball gearing rotary connection with exterior gearing

Drehgeschwindigkeit **0-4,1 min rpm**, 3 adjustable rotation speeds

CAB MAXCAB

Cab type Maxcab full-size cab, 20° tiltable

Cab equipment Sliding door, sliding window in the drive door, excellent ergonomics, automatic climate control, heated seat, air-suspension comfort seat, fresh air filter/circulating air filter, 12/24 V connections, SENCON, roller shade for sunroof

Options

- Hydraulically elevating cab E270, can be elevated 2.70 m and tilted 30°
- Auxiliary heating system with timer
- Activated-carbon filter for cab
- Armored-glass windshield
- FOPS protective roof grating
- Radio with USB and SD connection, MP3, and Bluetooth function
- Working range restriction

630E Technical data, equipment

ATTACHMENTS

Design	Decades of experience and the latest computer simulations guarantee maximum stability and service life
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
Safety brake	Spring-loaded 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 ■ HD sheaves for working with optimal rope guide ■ Boom damping, hydraulic ■ Load moment limitation for hoisting implementation: latest generation fo load moment monitoring, display shows all important data, lifting limit switch, pressure relief valves, rope run-out safeguard ■ working area limitation

UNDERCARRIAGE

Design	Strong mobile undercarriage MS30-2 with integrated 4-point outrigger, steering axle as hydraulically locking pendulum axle. Pendulum axle cylinder with pipe-fracture safety valves
Drive	All-wheel drive powered by an adjustable hydraulic motor with direct-mounted, automatically actuated brake valve and 2-stage power shift transmission. Strong 40 t planetary axles with integrated steering cylinders, 2-circuit multi-disk service brake.
Steering	All-wheel steering
Parking brake	Spring-loaded multi-disk brake
Traveling gear	12.00-20, 8x
Speed	0-10 km/h

WINCH

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

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

	Series production	Option
Winches	12 t	9 t
Rope winch		
(rated load) 1st layer	120 kN	90 kN
Rope diameter	22 mm	18 mm
Rope speed	0-125 m/min	0-120 m/min
Options	<ul style="list-style-type: none"> ■ Grapple steadying winch 9 kN ■ Grapple steadying winch 18 kN ■ Rope tensioning pulley 	

OPERATING WEIGHT

Mass **approx. 30.000 kg**
630 M with 2 x 12 t free-fall winches, basic boom 10.3 m, counterweight 6.5 t, 25 t bottom hook block, 125 m hoisting rope

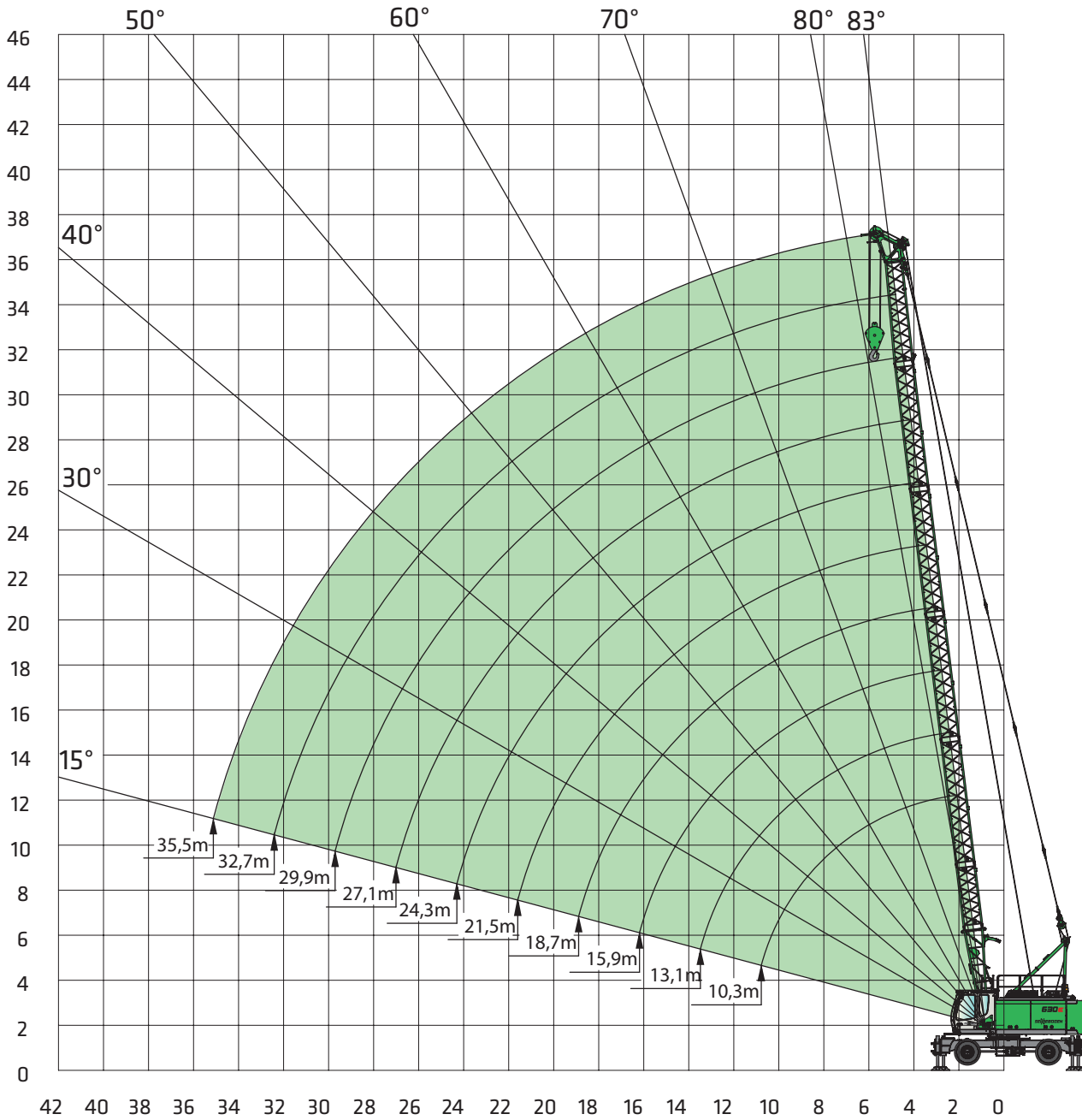
Notice Operating weight varies by model



630E Load capacity



Main boom



		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	2,8 m	0	1	2	1	2	1	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 Load capacity



SH-Main boom

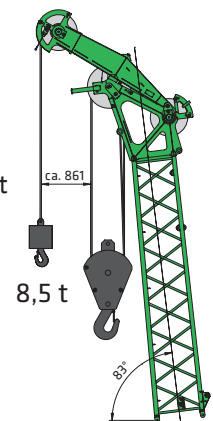
4,0 t	Boom length [m]									
	10,3	13,1	15,9	18,7	21,5	24,3	27,1	29,9	32,7	35,5
2,6	30,0									
3,0	30,0	28,1	24,6/3,3	21,2/3,6						
4,0	30,0	27,1	24,1	21,0	18,1	15,3/4,3	14,2/4,7			
5,0	28,8	26,1	23,4	20,4	17,7	15,0	14,0	12,2	10,4/5,4	8,8/5,7
6,0	20,5	20,4	15,4	18,5	17,3	14,6	13,5	11,7	10,1	8,7
7,0	15,4	15,4	12,2	15,1	14,4	13,8	13,0	11,2	9,7	8,3
8,0	12,3	12,3	10,1	12,2	12,1	11,7	11,3	10,7	9,3	8,0
9,0	10,2	10,2	8,6	10,1	10,0	10,0	9,7	9,4	8,9	7,6
10,0	8,7	8,6	7,4	8,5	8,4	8,4	8,4	8,3	8,0	7,3
11,0	7,6/10,9	7,5	6,5	7,4	7,3	7,3	7,2	7,1	7,0	6,8
12,0		6,6	5,8	6,4	6,4	6,3	6,2	6,2	6,1	6,0
13,0		5,8	5,2	5,7	5,6	5,6	5,5	5,4	5,4	5,3
14,0		5,5/13,6	4,7	5,1	5,0	5,0	4,9	4,8	4,7	4,7
15,0			4,2	4,6	4,5	4,5	4,4	4,3	4,2	4,2
16,0			4,1/16,3	4,2	4,1	4,0	3,9	3,9	3,8	3,7
17,0				3,8	3,7	3,7	3,6	3,5	3,4	3,3
18,0				3,5	3,4	3,3	3,2	3,2	3,1	3,0
19,0				3,2	3,1	3,1	3,0	2,9	2,8	2,7
20,0					2,9	2,8	2,7	2,6	2,5	2,5
22,0					2,2/21,7	2,4	2,3	2,2	2,1	2,0
24,0						2,1	2,0	1,9	1,8	1,7
26,0						2,0/24,4	1,7	1,6	1,5	1,4
28,0							1,5/27,1	1,4	1,3	1,2
30,0								1,2/29,8	1,1	1,0
32,0									0,9	0,8
34,0									0,9/32,5	0,7
36,0										0,6/35,2
38,0	TAB.-Nr. 630M-80/2739/4.0/02.15 SH									
Strang-	Ø 22 mm	4	4	3	3	3	2	2	2	2
zahl	Ø 18 mm	5	5	5	4	4	3	3	3	2

Notes:

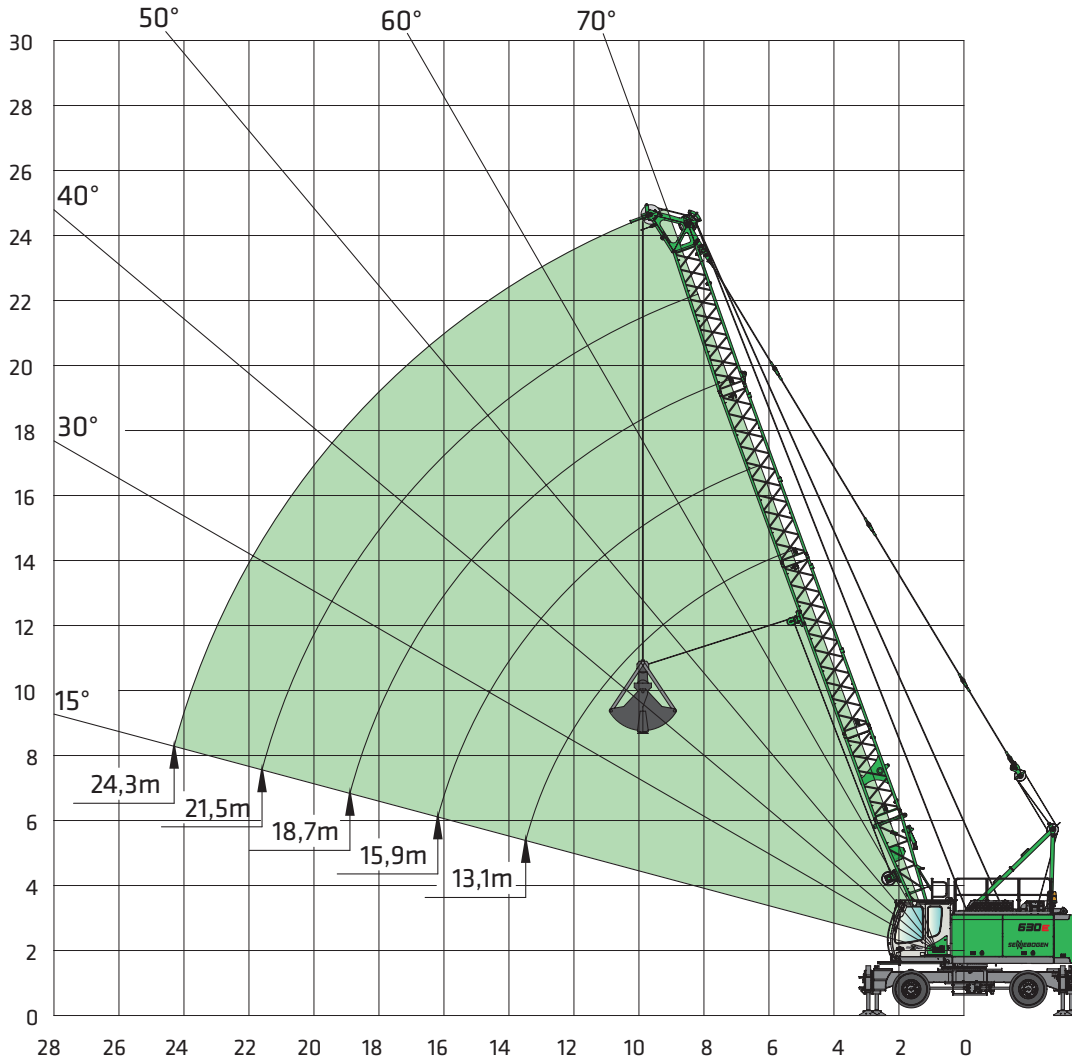
1. The specified safe working load values apply to ensure level and firm standing of the machine.
2. The safe working load values are specified in tons (t) and apply for 360 degrees.
3. The safe working loads take the standards ISO 4305 Tab. 1+2 and the tilt angle method (tilt angle 4°) into account.
4. Deduct the weight of the load handling devices (hook, suspension gear) from the safe working loads.
5. The safe working load values apply for the maximum undercarriage track width of 4600/5500 mm.
6. Load ratings must be limited or reduced to take into account unfavorable conditions, such as soft or uneven ground, slopes, wind, lateral loads, swinging loads, jerking or sudden stopping of the load, operator inexperience, driving with load.
7. Permissible rope tension per strand in crane operation
for rope diameter 22 mm - 8.500 kg
for rope diameter 12 mm - 6.000 kg
8. Safe working load values apply for the SH boom (boom assembly in accordance with the operating manual).
9. Load ratings apply to optimum boom assembly and a pulley head with steel cable pulleys.
10. 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 Grab equipment



Notes:

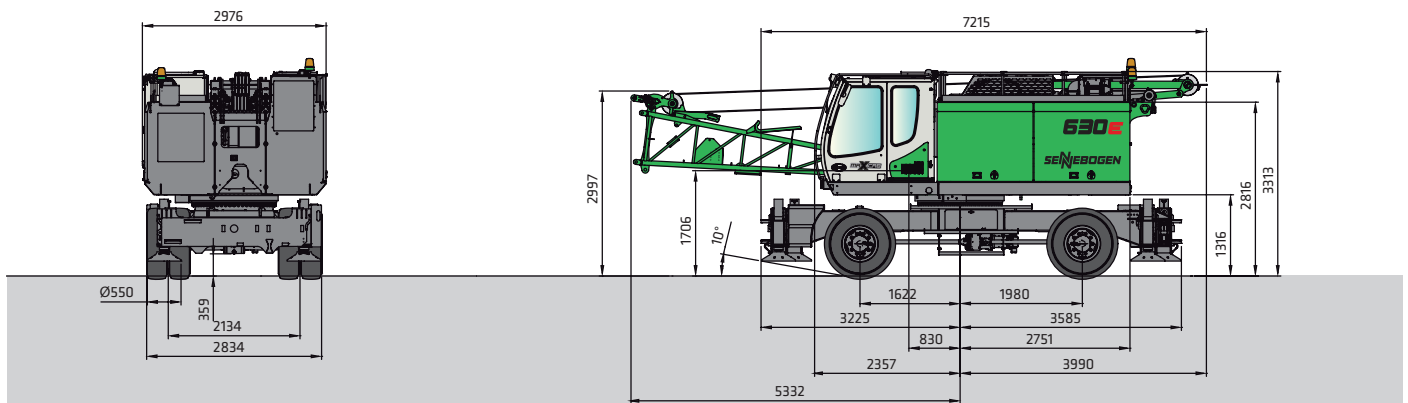
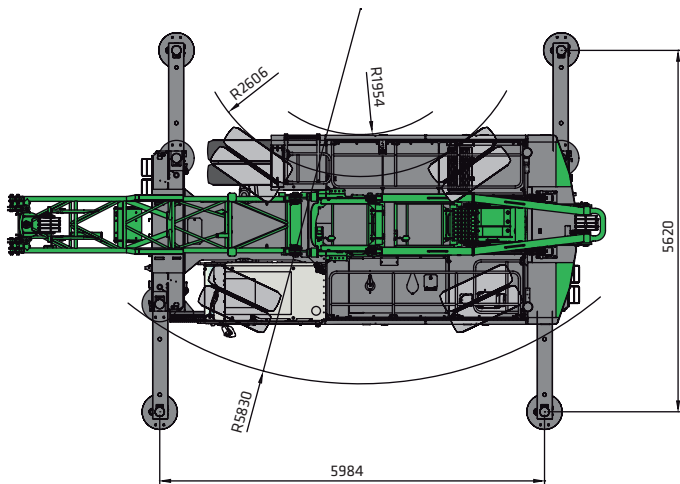
1. The specific safe working load values apply to ensure level and firm standing of the machine.
2. The safe working loads are given in tons and apply for 360° C.
3. The safe working load values apply for the maximum undercarriage track width of 5,6 mm
4. The specified safe working loads include the diaphragm wall 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
max. safe working load in single-winch operation [t]	9,0	12,0
max. safe working load in two-winch operation [t]	13,6	18,2

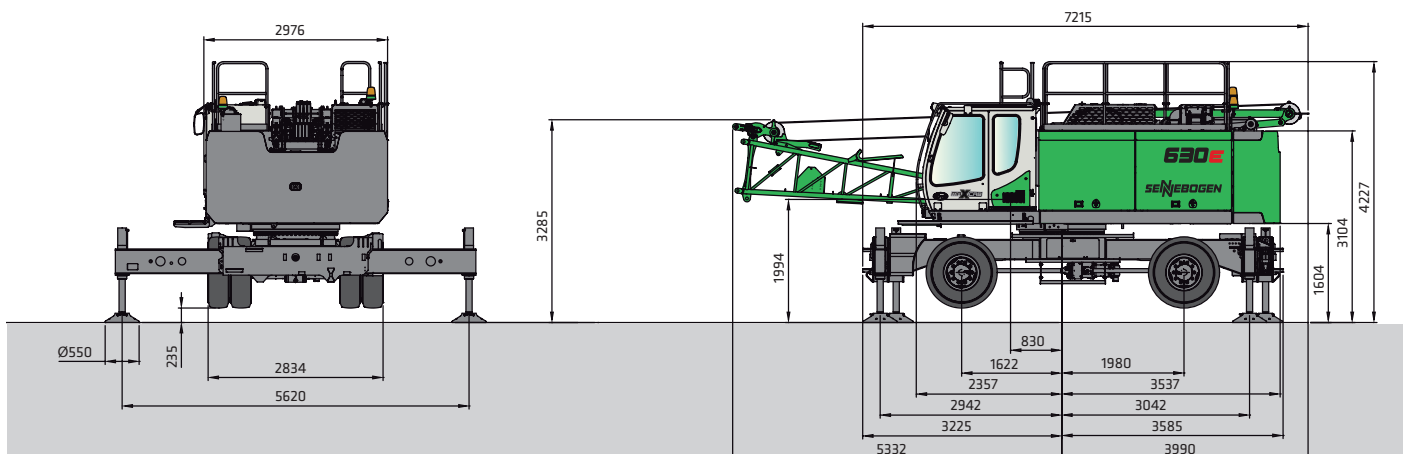
 4,0 t Boom angle alpha [°]	Boom length [m]														
	13,1			15,9			18,7			21,5			24,3		
	R	H	t	R	H	t	R	H	t	R	H	t	R	H	t
	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t
70	5,8	13,8	18,2	6,8	16,4	13,7	7,7	19,0	10,9	8,7	21,7	8,9	9,6	24,3	7,5
65	6,8	13,3	13,4	8,0	15,8	9,2	9,2	18,4	8,1	10,4	20,9	6,7	11,6	23,4	5,6
60	7,8	12,7	10,7	9,2	15,1	8,1	10,6	17,6	6,5	12,0	20,0	5,3	13,4	22,4	4,4
55	8,8	12,1	8,9	10,4	14,4	6,8	12,0	16,6	5,4	13,6	18,9	4,4	15,2	21,2	3,7
50	9,7	11,3	7,6	11,5	13,5	5,8	13,3	15,6	4,7	15,1	17,8	3,8	16,9	19,9	3,1
45	10,5	10,5	6,8	12,4	12,5	5,2	14,4	14,5	4,1	16,4	16,5	3,3	18,4	18,4	2,7
40	11,2	9,6	6,1	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	5,6	14,2	10,3	4,3	16,5	11,9	3,4	18,7	13,5	2,7	21,0	15,1	2,2
30	12,4	7,7	5,2	14,9	9,1	4,0	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	4,6	16,3	5,2	3,4	19,0	6,0	2,7	21,7	6,7	2,1	24,4	7,4	1,7

8 Subject to technical changes. Further options available upon request.

630E Transport dimensions and weights

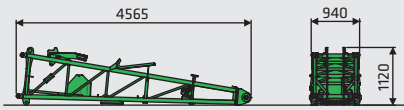


630 HD without counterweight, lower boom section, 2 x 12 t freefall winches, ca. 24.500 kg

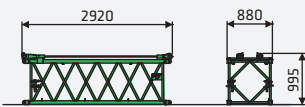


630 HD without counterweight 4,5 t, telescopic undercarriage T27/355. lower boom section, 2 x 12 t freefall winches ca. 28.500 kg

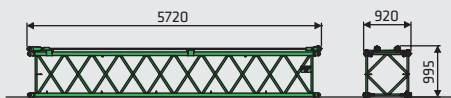
630E Transport dimensions and weights



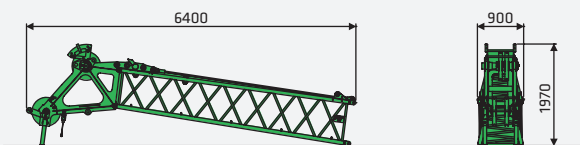
Lower boom section 4,4 m, type 870.52
Weight: 680 kg



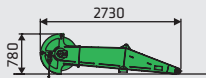
Intermediate boom section 2,8 m Typ 870.52
Weight: 250 kg (incl. holding ropes)



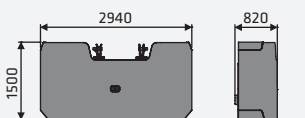
Intermediate boom section 5,6 m type 870.52
Weight: 400 kg (incl. holding ropes)



Boom headpiece 5,9 m type 870.52
Steel rollers: 1050 kg (incl. holding ropes)
Plastic rollers: 920 kg (incl. holding ropes)

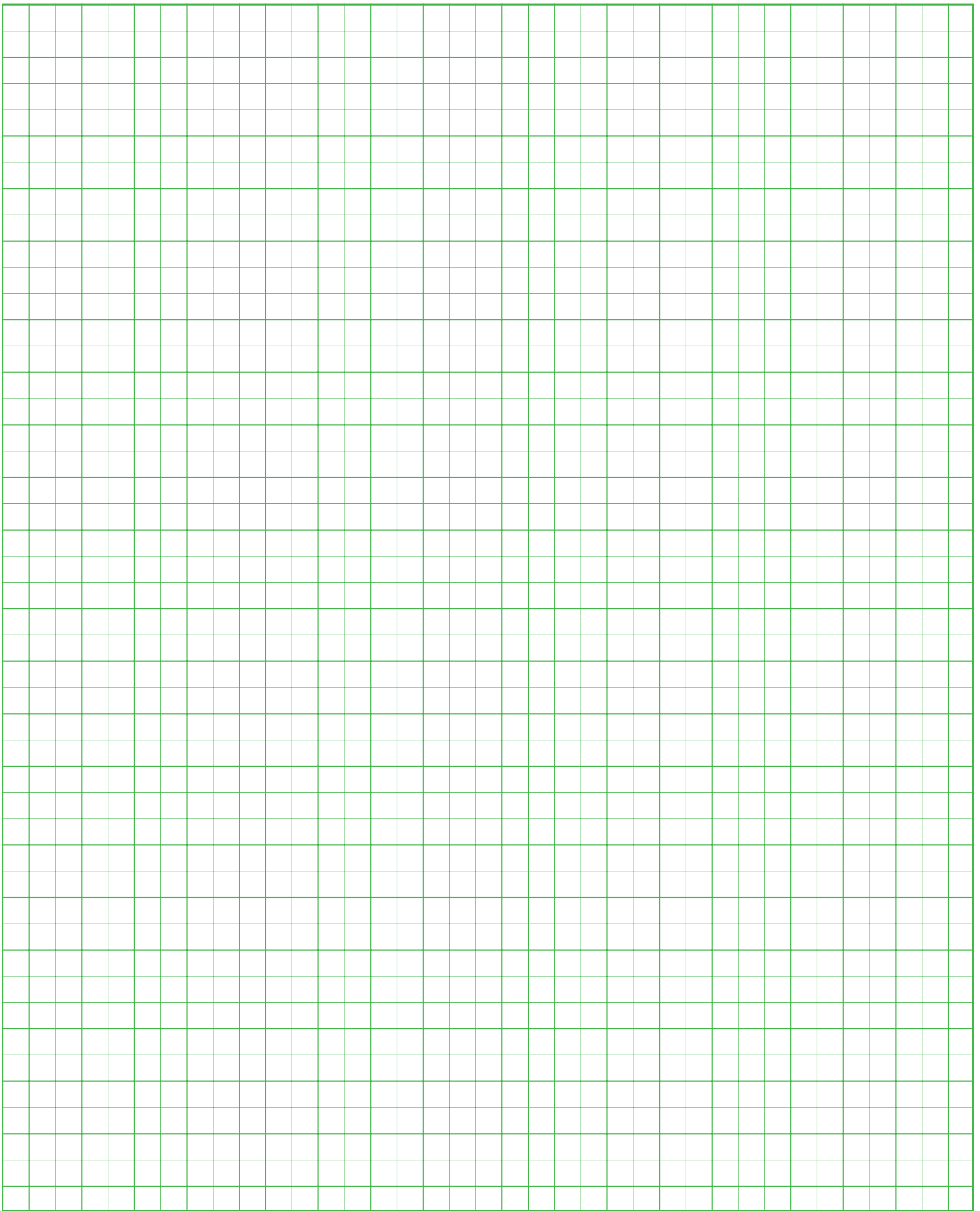


S12.5 auxiliary jib
Weight: 280 kg



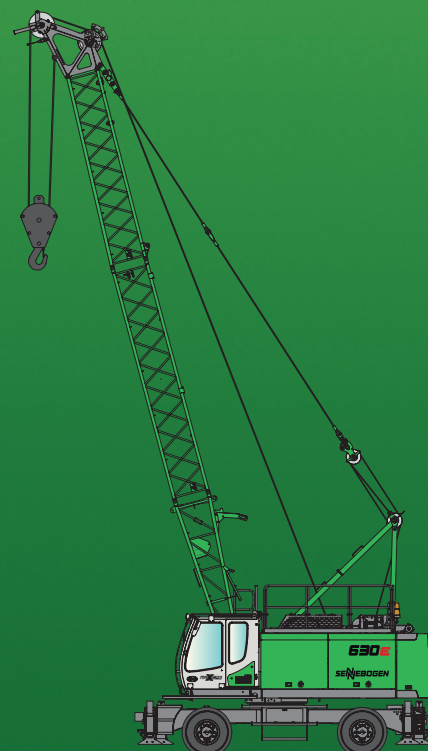
Counterweight
Weight: 4000 kg

630E Notes



630E

M



This catalog describes machine models, scopes of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines supplied by SENNEBOGEN Maschinenfabrik GmbH. Machine illustrations can contain optional equipment and supplemental equipment. Actual equipment may vary depending on the country to which the machines are delivered, especially in regard to standard and optional equipment. All product designations used may be trademarks of SENNEBOGEN Maschinenfabrik GmbH or other supplying companies, and any use by third parties for their own purposes may violate the rights of the owners.

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