

 **630**

# SENEBOGEN



**PRELIMINARY**

# 630E

Mobile Heavy Duty Cycle Crane

 **188 kW**

 **30 t**

 **35,5 m**

 **MAX CAB**

Stage V emission standards

# 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

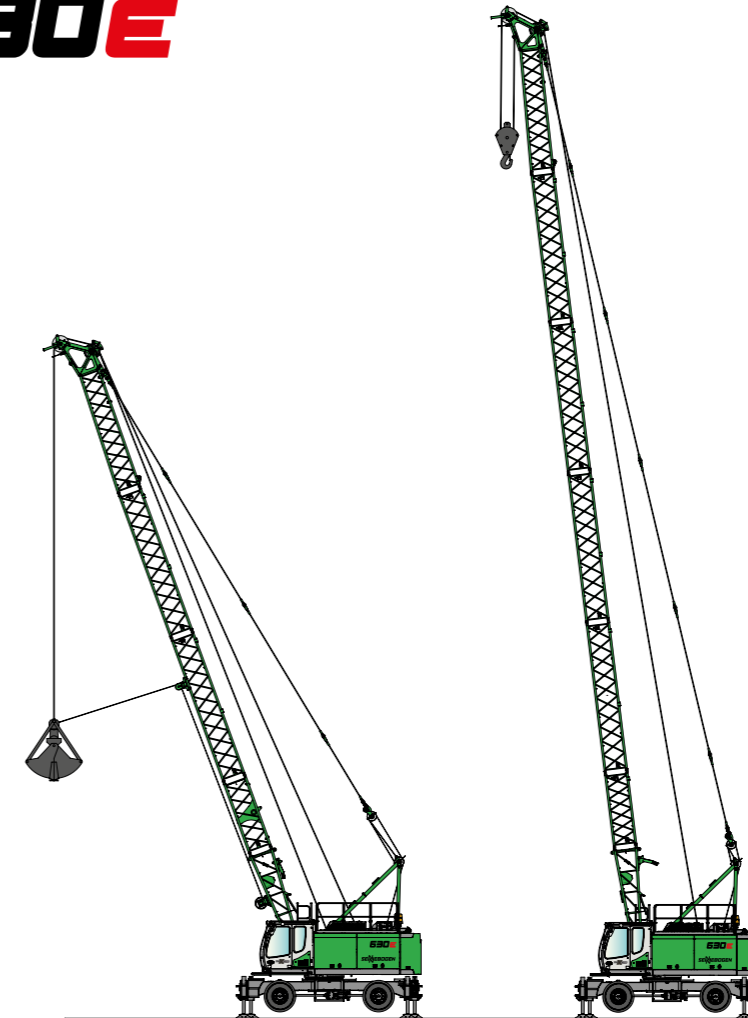
**4 Flexibility in service**  
 Operate under full load - less space required  
 Strong undercarriage traction - good off-road capability

**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

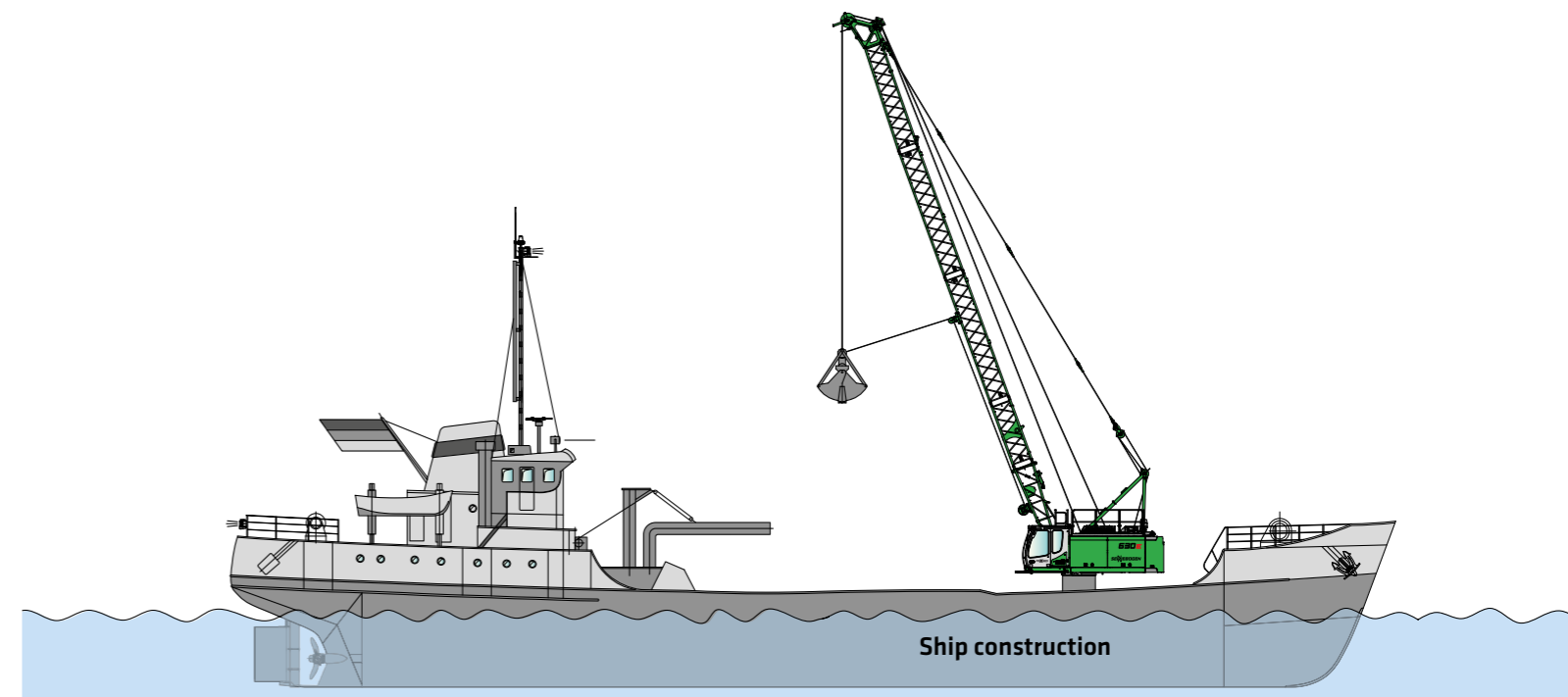
**7 Consultation and support in your area**  
 3 production sites - 2 subsidiaries  
 130 sales partners - over 350 service stations

# 630E



Grab equipment

Crane equipment



Ship construction

# 630E Technical data, equipment

## MACHINE TYPE

Model (type) **630**

## ENGINE

Power	<b>186 kW / 253 PS at 1850 rpm</b>
Model	<b>Stage V:</b> Cummins B6.7 EU / USA EPA Tier 4f FR95885 Rated engine power 168 kW / 2200 rpm Standard operating point 188 kW / 1800 rpm ECO operating point 185 kW / 1650 rpm <b>Tier 3a:</b> Cummins QSB6.7 EU / USA EPA Tier 3 R96045 Rated engine power 164 kW / 2000 rpm Standard operating point 171 kW / 1800 rpm ECO operating point 161 kW / 1650 rpm
Cooling	water-cooled
Air filter	Dry filter with intergrated pre-separator, automatic dust discharge, main element and safety element, contamination indicator
Fuel	<b>450 l</b>
Ad Blue	<b>45l</b>
Electr. system	<b>24 V</b>
Batteries	<b>2 x 150 AH</b> , 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	<ul style="list-style-type: none"> <li>Maritime climate varnishing as corrosion protection</li> <li>Low-temperature package for use at temperatures below -20°C</li> <li>Automatic central lubrication system for equipment and slewing ring, inner</li> <li>Pinion tooth lubrication for slewing ring</li> <li>Walkways left and right on the uppercarriage</li> </ul>

## 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. <b>3x 220 l/min</b>
Operating pressure	max. <b>330 bar</b>
Filtration	High-performance filtration with long change interval, contamination level indicator
Hydraulic tank	<b>550 l (450 l to the middle of gauge class)</b>
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	<ul style="list-style-type: none"> <li>Bio-oil-environmentally friendly</li> <li>SENNEBOGEN HydroClean 3 µm hydraulic microfilter</li> <li>Potentiometer for casing machine and other attachments</li> <li>Grapple fill automation</li> <li>Supplemental hydraulic system with 1 x 220 l/min</li> </ul>

## 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	<b>0-4,1 min rpm</b> , 3 adjustable rotation speeds

# 630E Technical data, equipment

## CAB

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	<ul style="list-style-type: none"> <li>Hydraulically elevating cab E270, can be elevated 2.70 m and tilted 30°</li> <li>Auxiliary heating system with timer</li> <li>Activated-carbon filter for cab</li> <li>Armored-glass windshield</li> <li>FOPS protective roof grating</li> <li>Radio with USB and SD connection, MP3, and Bluetooth function</li> <li>Working range restriction</li> </ul>

## 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"> <li>Auxiliary jib, for safe working loads to 8.5 t</li> <li>Fixed fly to 18 m</li> <li>Steel rope sheaves</li> <li>HD sheaves for working with optimal rope guide</li> <li>Boom damping, hydraulic</li> <li>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</li> <li>working area limitation</li> </ul>

## UNDERCARRIAGE

Design	Strong mobile undercarriage MS30-2 with intergrated 4-point outrigger, steering axle as hydraulically locking pendulum axle. Pendulum axle cylinder with pipe-fracture safety valves
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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

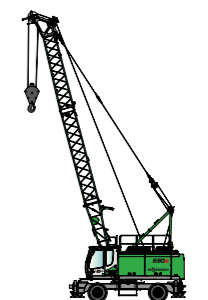
The winches are driven via high-pressure-regulated adjustable hydraulic motors, thus there is always optimal pulling force speed control. Hydraulic lowering brake valves for sensitive, wear-free braking. Strong oil-bath planetary gear, low-maintenance

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

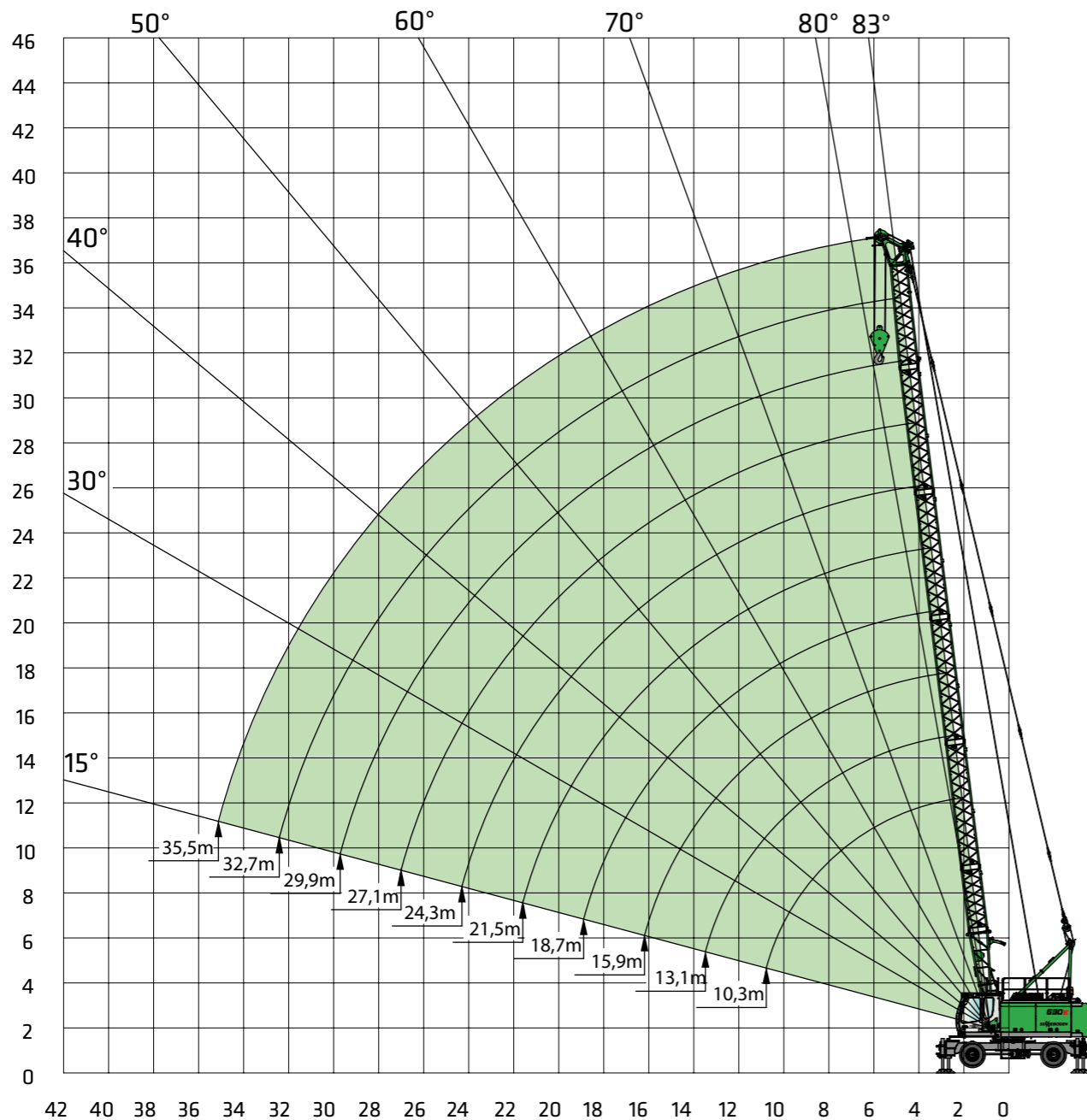
	Series production	Option
<b>Winches</b>	12 t	9 t
Rope winch (rated load) 1st layer	120 kN	90 kN
Rope diameter	22 mm	18 mm
Rope speed	0-125 m/min	0-120 m/min
Options	<ul style="list-style-type: none"> <li>Grapple steadying winch 9 kN</li> <li>Grapple steadying winch 18 kN</li> <li>Rope tensioning pulley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

## OPERATING WEIGHT

Mass	<b>approx. 30.000 kg</b> 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



		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

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

# 630E Load capacity



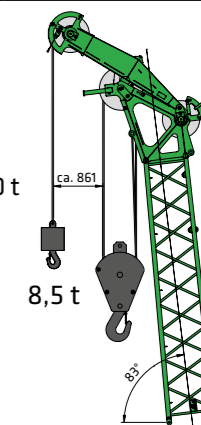
4,0 t outreach [m]	Boom length [m]										
	10,3	13,1	15,9	18,7	21,5	24,3	27,1	29,9	32,7	35,5	
2,6	30,0										
3,0	30,0	28,1	24,6/3,3	21,2/3,6							
4,0	30,0	27,1	24,1	21,0	18,1	15,3/4,3	14,2/4,7				
5,0	28,8	26,1	23,4	20,4	17,7	15,0	14,0	12,2	10,4/5,4	8,8/5,7	
6,0	20,5	20,4	15,4	18,5	17,3	14,6	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-zahl	Ø 22 mm	4	4	3	3	3	2	2	2	2	2
	Ø 18 mm	5	5	5	4	4	3	3	3	2	2

**Notes:**

- The specified safe working load values apply to ensure level and firm standing 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 load values apply for the maximum undercarriage track width of 4600/5500 mm.
- 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.
- Permissible rope tension per strand in crane operation  
for rope diameter 22 mm - 8.500 kg  
for rope diameter 18 mm - 6.000 kg
- Safe working load values apply for the SH boom (boom assembly in accordance with the operating manual).
- Load ratings apply to optimum boom assembly and a pulley head with steel cable pulleys.
- The specified safe working load values are only for orientation. See the operating manual for the respectively valid safe working loads.

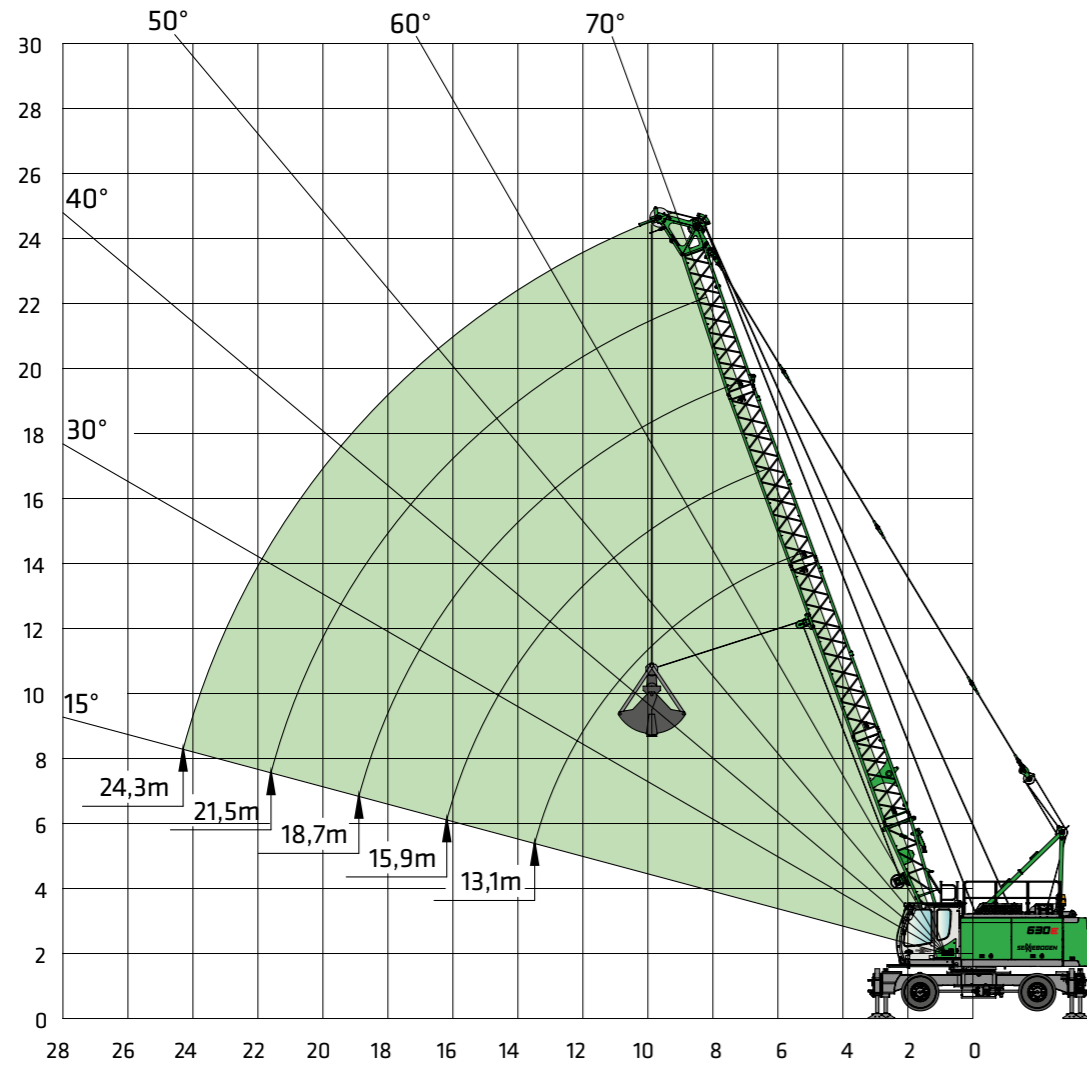
**Auxiliary Jib S12.5**

max. load capacity 8.5 t (rope diameter 22 mm)  
or max. load capacity 6.0 t (rope diameter 18 mm)



Subject to technical changes. Further options available upon request.

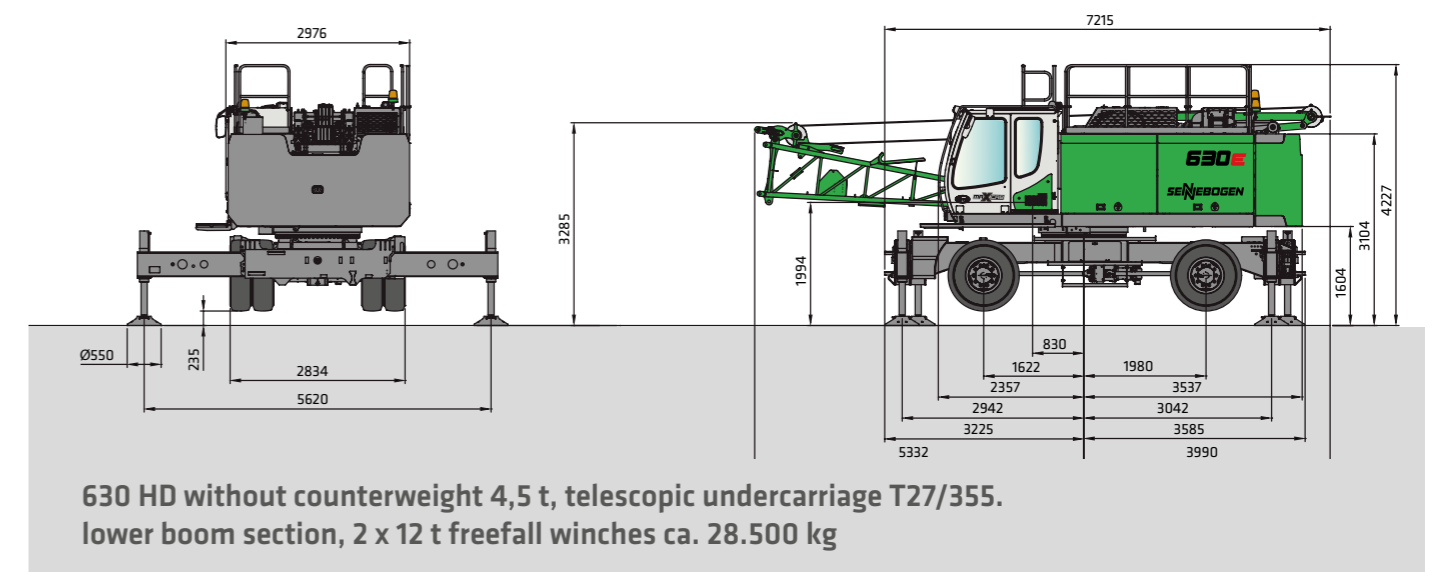
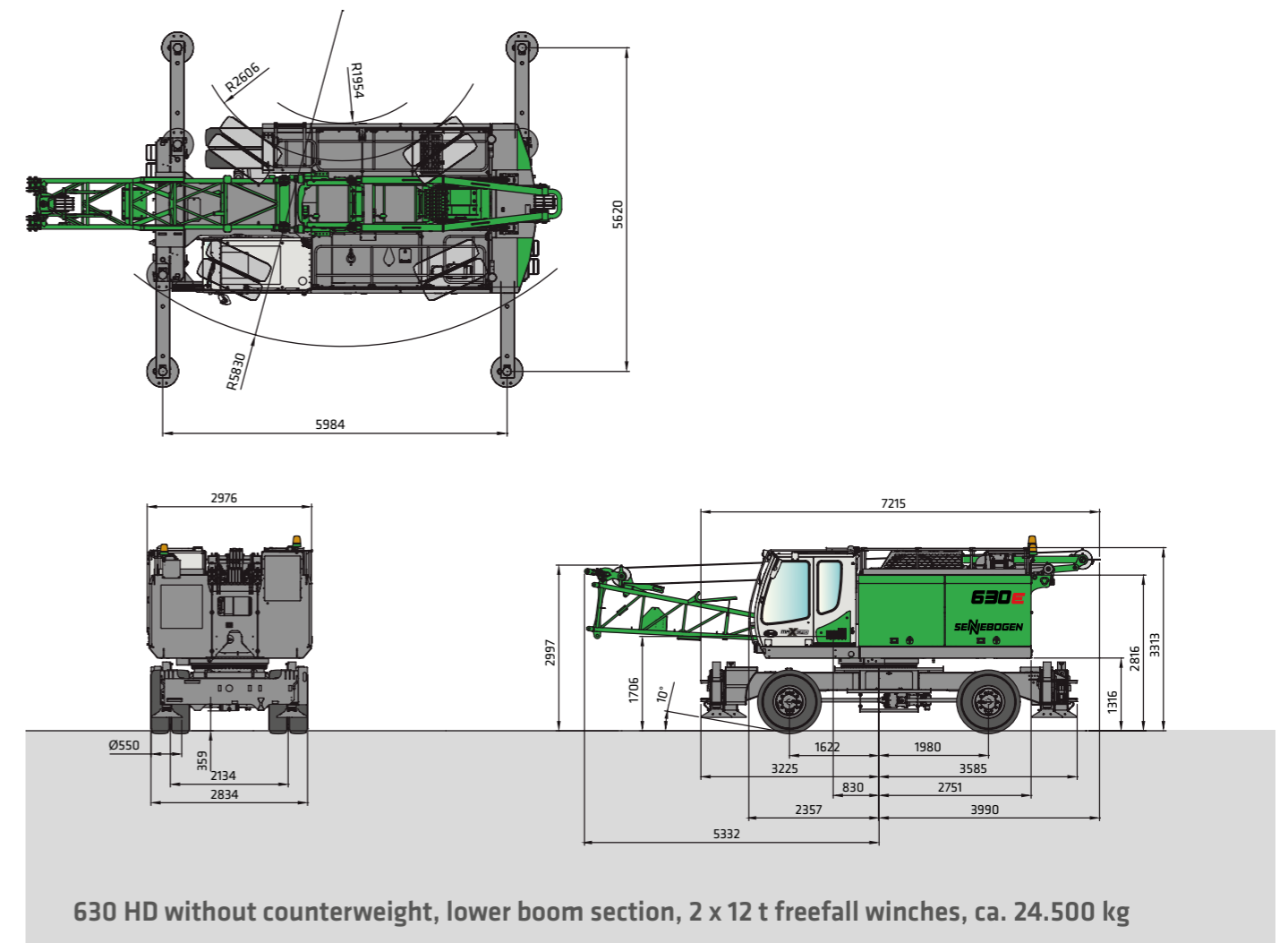
# 630E Grab equipment



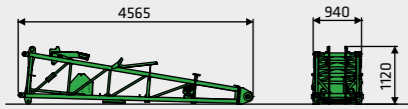
- Notes:**
- The specific safe working load values apply to ensure level and firm standing of the machine.
  - The safe working loads are given in tons and apply for 360° C.
  - The safe working load values apply for the maximum undercarriage track width of 5,6 mm
  - The specified safe working loads include the diaphragm wall weight and do not exceed 66,7 % of the tipping load.
  - 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 |

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	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

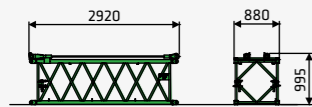
# 630E Transport dimensions and weights



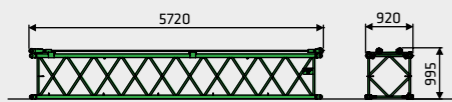
# 630E Transport dimensions and weights



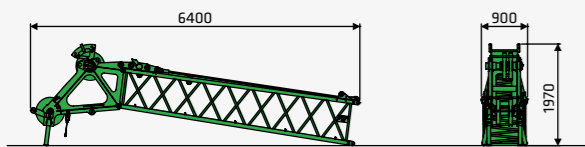
Lower boom section 4,4 m, type 870.52  
**Weight:** 680 kg



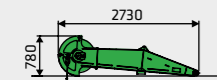
Intermediate boom section 2,8 m Typ 870.52  
**Weight:** 250 kg (incl. holding ropes)



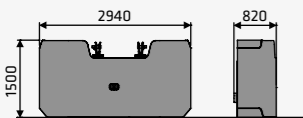
Intermediate boom section 5,6 m type 870.52  
**Weight:** 400 kg (incl. holding ropes)



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

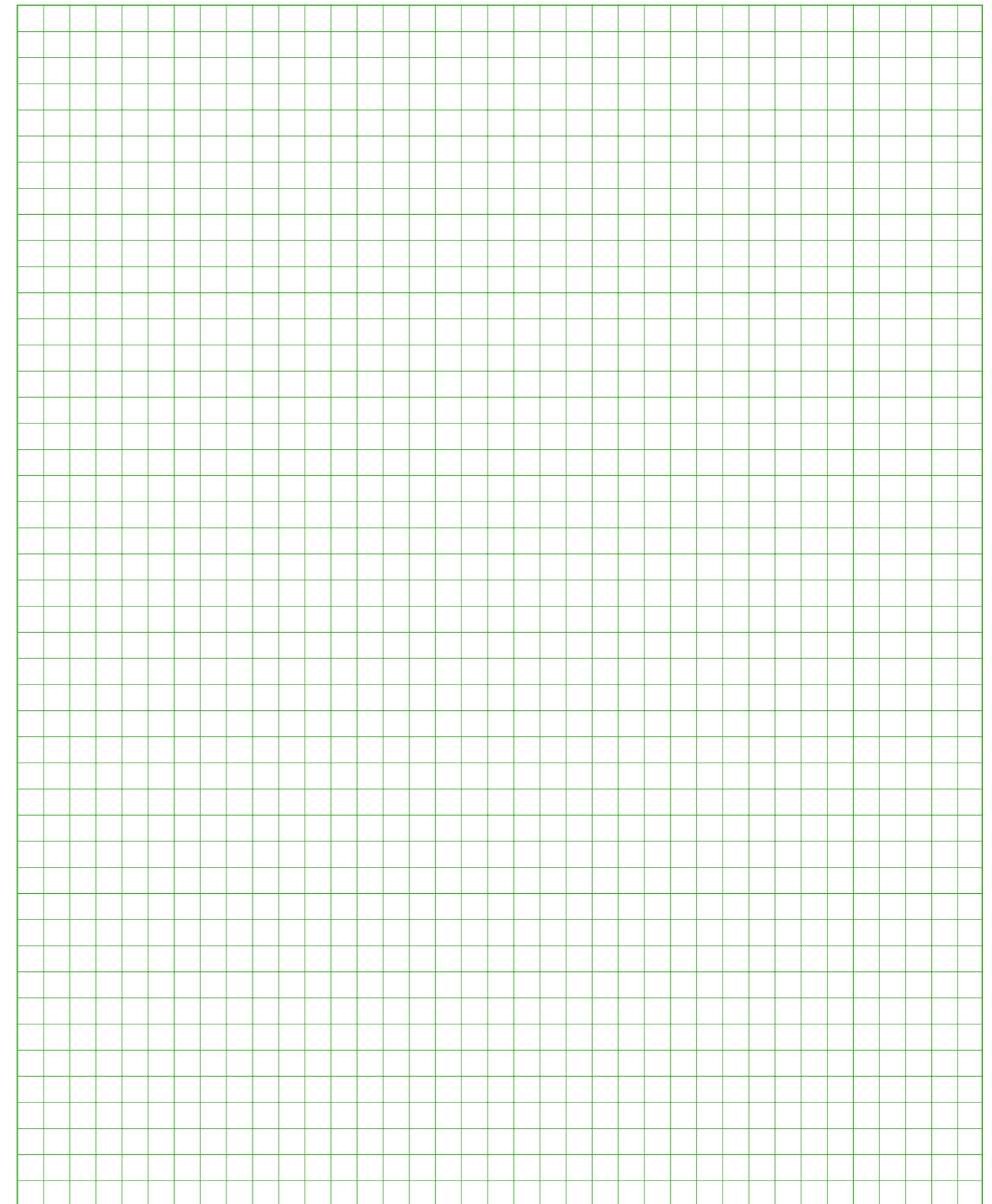


S12.5 auxiliary jib  
**Weight:** 280 kg



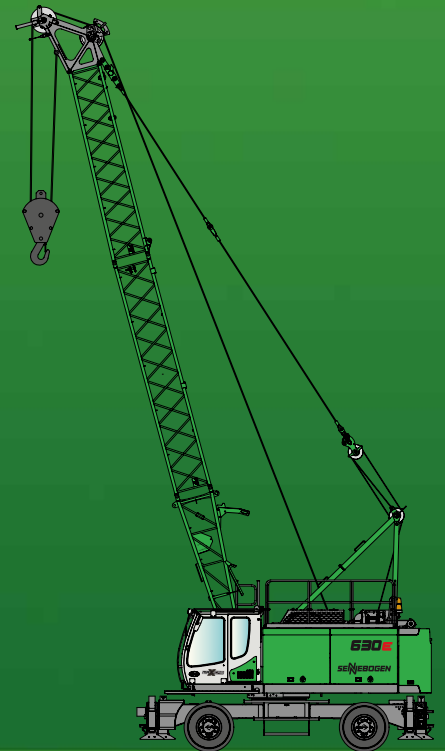
Counterweight  
**Weight:** 4000 kg

# 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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