SENNEBOGEN

PRELIMINARY

633 E

Crawler telescopic crane

119 kW (level IIIa)
129 kW (level IV)

33 t

38 m

MULTICAB

Tier IVf emission standards

633E Advanced. The E-Series.

1978: TX10 telescopic crane

What makes up the E-Series

- Over 20 years experience in construction and building of highly specialized crawler telescopic cranes
- Uncompromising maximum performance and quality in all areas
- Technology that can be mastered: High-quality components without over-engineering
- Long life cycle and high value stability

Your top benefits:

1 Green Efficiency
Save fuel- Reduce operating costs
Quiet operation - Protect driver and environment

2 Performance at the highest level
Sturdy boom system - work up to 4° inclined position
2 equal crane winches - high rope speed

3 Greatest operating comfort
Comfort cab Multicab - stress-free work
SENCON - simple selection of work programs

4 Flexible to use
Operate under load -less space required
Strong undercarriage strength - good off-road capability

5 Simple transport
Telescopic undercarriage - ready quickly

6 Maintenance and service made easy
SENNEBOGEN Control System- simple error diagnosis
Easy to maintain - clear coding

7 Consultation and support near you
3 production sites - 2 subsidiaries
120 sales partners - more than 300 service points

Emissions level IV
- Most modern, powerful engine
- fuel efficient
- Clean emissions

633E Technical data, equipment

MACHINE TYPE

Model (type)	**633**

ENGINE

Model	Cummins diesel engine QSB 4.5 **119 kW / 162 PS at 2200 min^{-1}** Emissions according to emissions level IIIa Cummins diesel engine QSB 4.5 **129 kW / 175 PS at 2200 min^{-1}** Emissions according to emissions level IV Direct injection, turbo-charged, charge air cooling, reduced emissions
Cooling	Water-cooled
Diesel filter	With water separator and heating system
Air filter	Dry filter with integrated pre-separator, automatic dust discharge, main element and safety element, contamination indicator
Fuel tank	**360 l**
DEF tank	**38 l**
Electr. system	**24 V**
Batteries	**2 x 155 AH** battery disconnect switch
Options	■ Low-temperature package with engine pre-heating and heated diesel filter for temperatures below -20 °C ■ Electric fuel pump

UPPERCARRIAGE

Design	Torsion-resistant box design, precision crafted, steel bushings for boom bearings. Extremely service-friendly design, longitudinal engine
Electrical system	Central electrical distributor, battery disconnect switch
Cooling system	3-circuit cooling system with high cooling capacity, electronically regulated fan drive for water, charge air and oil cooler
Safety	Rearview and right sideview cameras, LED lighting package
Options	■ Additional LED headlights ■ Up to 2 additional cameras ■ Maritime climate varnish as corrosion protection ■ Low-temperature package for use at temperatures below -20 °C
Options	■ Automatic central lubrication for boom pivot point, luffing cylinder, slewing ring track and winch drum bearing ■ Pinion tooth lubrication for slewing ring

HYDRAULIC SYSTEM

Load sensing / LUDV hydraulic system, electro-hydraulic servo-assisted working functions

Pump type	Swashplate-type variable-displacement piston pump, load pressure-independent flow distribution for simultaneous, independent control of work functions
Pump control	Zero-stroke control, on-demand flow control – the pumps only pump as much oil as will actually be used, pressure purging, load limit sensing control
Operating pressure	**max. 330 bar**
Filtration	High-performance filtration with long change interval
Hydraulic tank	**500 l**
Control system	Proportional, precision electrohydraulic actuation of work movements, 2 electric servo joysticks for work functions, including winch motion display via vibration transducer, additional functions via switches and pedals
Safety	Hydraulic circuits secured with safety valves Pipe fracture safety valve for luffing and telescoping cylinders
Options	■ Bio-oil – environmentally friendly ■ SENNEBOGEN HydroClean 3-µm hydraulic microfilter ■ Electric heater for hydraulic tank for temperatures below -20 °C

SLEWING DRIVE

Gearbox	Compact planetary gear with slant-axis hydraulic motor, integrated brake valves
Slewing gear brake	Spring-loaded disk brake, pedal for individual braking
Slewing ring	Externally geared slewing ring, sealed
Slewing speed	**0 – 2 rpm, variable**

633E Technical data, equipment

CAB MULTICAB

Cab type	Multicab, can be inclined by 15°
Cab equipment	Elastically supported comfortable cab with super sound insulation. All-weather design, all-round glazing in safety glass and large roof window, adjustable windshield. Flexibly mounted comfortable seat, adjustable according to weight and shock absorbent. Dashboard overview with swiveling steering column. Variable, controllable cab heating with air circulation stage and particle filter, automatic climate control
Options	■ Auxiliary heating system with timer ■ Cabs activated carbon filter ■ Armored-glass windshield ■ Armored-glass sunroof ■ Protective roof grating ■ FOPS protective roof grating ■ Radio with USB and SD connection, MP3 and Bluetooth function

EQUIPMENT

Design	Decades of experience, state-of-the-art computer simulation, maximum stability, longest service life, oversized, low-maintenance bearing points, sealed special bearing bushes, precision-crafted
Telescopic boom	3-part with pulley head, hydraulic continuously telescopic to 10-25.2 m
Hoisting winch	Drive using inclined axis hydraulic motor with compact planetary gear, traction 35 kN (40 kN in the 1st position), rope speed 0 - 95 m/min., rope diameter 14 mm, 130 m rope length.
Safety brake	Spring-loaded disk brake
Crane safety	Next-generation load moment monitoring, straightforward panel displaying all important data through SENCON display, lifting limit switch, cable exit protection, pressure relief valves and pipe fracture safety device with Eventrecorder
Cylinders	Hydraulic cylinders with high-quality sealing and guide elements
Options	■ 6.5-m fly boom, tiltable (0°, 40°), extremely fast and easy setup without auxiliary devices, locked on basic boom when not in use ■ Fly boom extension to 13 m, tiltable (0°, 40°)

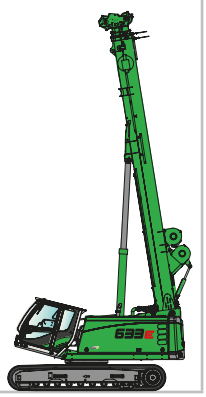
Options	■ Wind movement display using vibrating joystick ■ Auxiliary jib, 3.5-t load capacity, 1-strand ■ 2nd crane winch: traction 35 kN (4th position), rope speed 0 - 95 m/min, rope diameter 14 mm, 130 m rope length ■ Additional load charts accepted for 2°/4° incline position ■ 7.5-kW electrohydraulic emergency unit ■ Remote radio control

UNDERCARRIAGE

Design	**T31/380** crawler undercarriage with hydraulically extendable track width. Stable welded construction.
Drive	Hydraulic travel drive per chassis side, adjustable hydraulic drive motors
Parking brake	Spring-loaded, hydraulically ventilated disk brake
Traveling gear	700 mm, 3-grouser, base plates, maintenance-free tractor drive
Speed	**0 – 2.9 km/h**
Options	Available crawler shoe types: ■ 800-mm 3-grouser crawler shoes ■ 900-mm 3-grouser base plates ■ 700 mm flat base plates

OPERATING WEIGHT

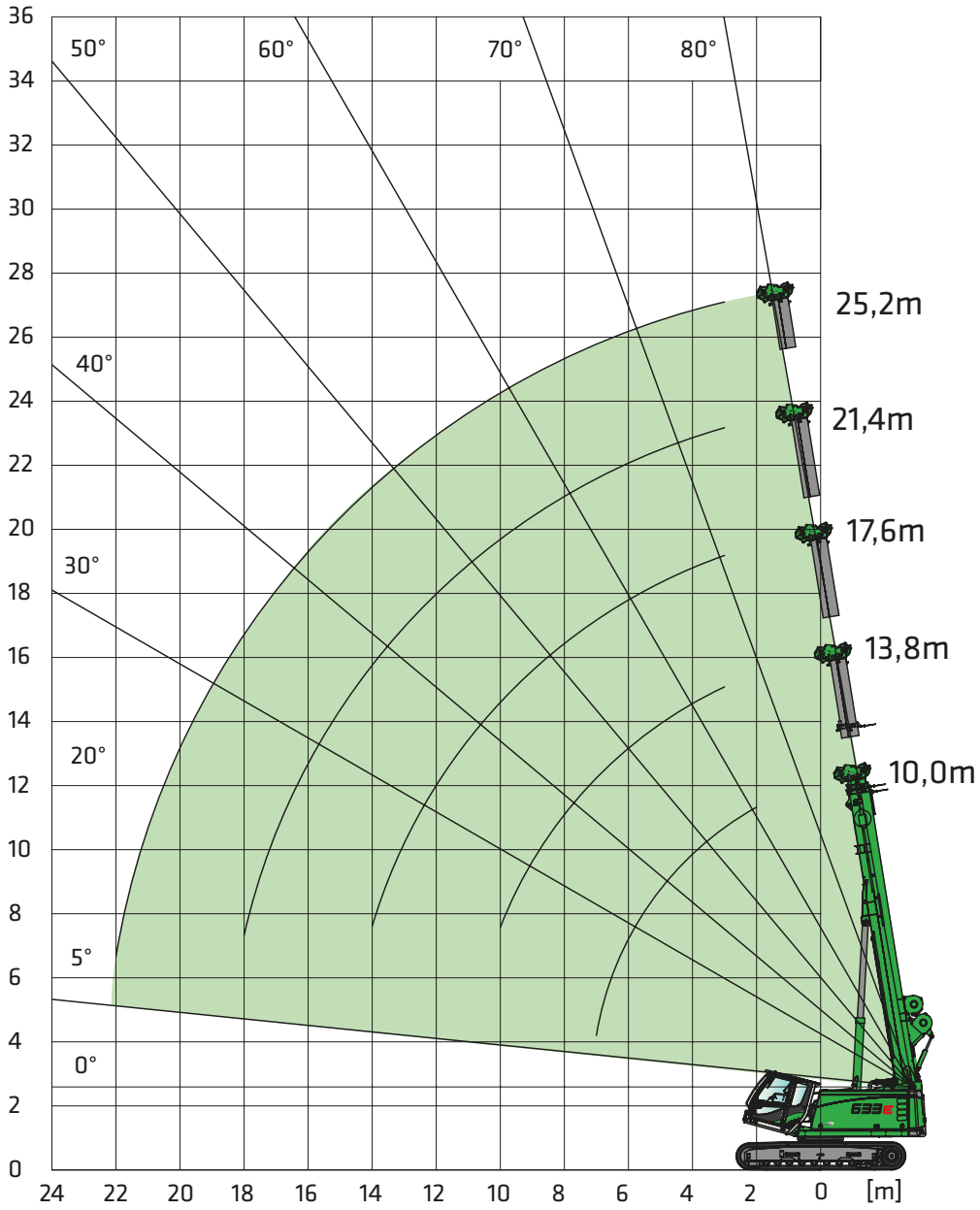
Mass	**approx. 33,000 kg** with telescopic boom 25.2 m, fly boom 13 m, 35 t hook, 3-grouser base plates 700 mm, 2 hoisting winch, with hydraulic telescopic undercarriage, Ballast 5 t
Notice	Service weight varies according to design.



633E Crane equipment

EN 360°

25.2-m main boom (HA)



Hook

Capacity	Weight	Cable reeving and max. load capacity									
		10	9	8	7	6	5	4	3	2	1
4 t	80 kg										3,500 kg
17.5 t 2-pulley	180						17,500 kg	14,000 kg	10,500 kg	7,000 kg	3,500 kg
25 t 3-pulley	220 kg				24,500 kg	21,000 kg	17,500 kg	14,000 kg	10,500 kg	7,000 kg	3,500 kg
35 t 5-pulley	400 kg	33,000 kg	31,500 kg	28,000 kg	24,500 kg	21,000 kg	17,500 kg	14,000 kg	10,500 kg	7,000 kg	3,500 kg

Subject to change. Notes regarding the load lift charts see page 12

633E Load ratings

EN 360°

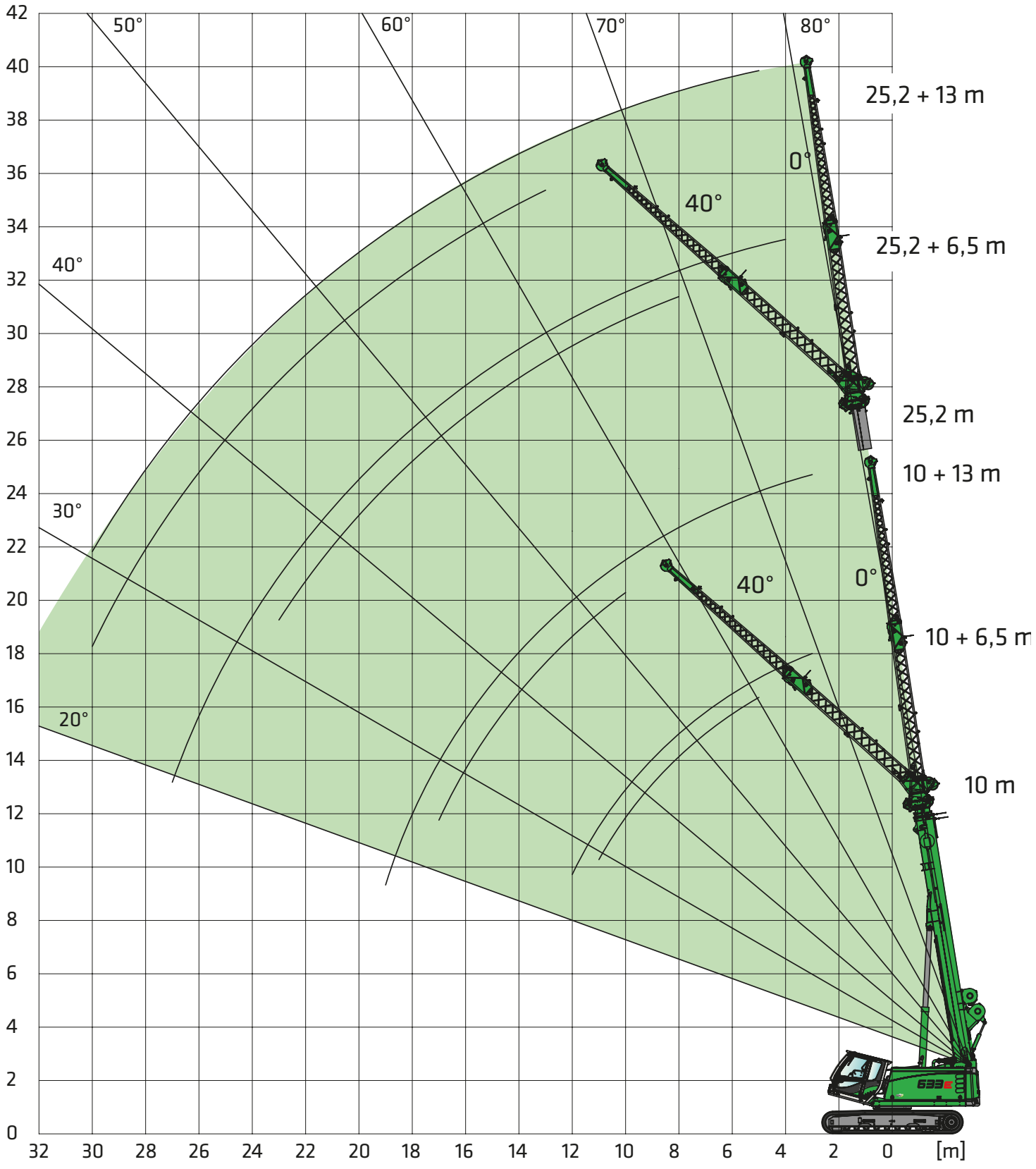
25.2-m main boom (HA)

	Boom length [m]														
	10.0			13.8			17.6			21.4			25.2		
Counterweight [t]	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Undercarriage track width [m]	3.8	3.05	2.3	3.8	3.05	2.3	3.8	3.05	2.3	3.8	3.05	2.3	3.8	3.05	2.3
Outreach [m]															
2.5	30.0	22.0	21.0												
3.0	28.5	20.0	20.0	19.0	16.0	16.0	19.0	17.0	17.0	14.2	14.2	14.2	10.3	10.3	10.3
4.0	24.5	17.0	13.0	19.0	15.0	13.0	18.3	14.0	12.0	13.2	13.2	11.2	9.8	9.8	9.8
5.0	18.8	13.0	9.5	18.5	13.5	9.7	16.9	12.0	9.1	12.0	11.3	8.2	9.3	9.3	8.2
6.0	13.6	10.0	7.1	14.0	10.3	7.4	13.6	9.6	7.3	10.8	9.1	7.1	8.6	8.6	6.8
7.0	10.5	7.7	5.6	10.8	8.0	5.9	11.0	7.7	6.0	10.0	7.6	5.9	7.9	7.2	5.9
8.0				8.7	6.4	4.7	8.8	6.4	4.9	8.9	6.3	4.9	7.3	6.2	4.7
9.0				7.2	5.3	3.9	7.4	5.3	4.0	7.4	5.4	4.2	6.8	5.4	4.1
10.0				6.0	4.5	3.3	6.2	1.5	3.5	6.3	4.5	3.5	6.4	4.6	3.5
11.0							5.3	3.8	2.9	5.4	3.9	2.9	5.5	4.0	3.0
12.0							4.5	3.3	2.5	4.7	3.4	2.6	4.7	3.5	2.7
13.0							4.0	2.8	2.1	4.1	2.9	2.1	4.1	3.0	2.2
14.0							3.5	2.5	1.8	3.6	2.6	1.9	3.6	2.7	1.9
15.0										3.2	2.3	1.6	3.2	2.3	1.7
16.0										2.8	2.0	1.3	2.8	2.0	1.4
17.0										2.5	1.7	1.1	2.6	1.8	1.2
18.0										2.2	1.5	0.9	2.3	1.5	1.0
19.0													2.0	1.3	0.8
20.0													1.8	1.1	0.6
21.0													1.6	0.9	
22.0													1.4	0.8	
23.0															
24.0															
25.0	Tab. no.: 633R-75/1977/5.0+0.0/04.17 HA 0.3°														
26.0	Tab. no.: 633R-75/1602/5.0+0.0/04.17 HA 0.3° Tab.no.: 633R-75/1227/5.0+0.0/04.17 HA 0.3°														
Number of strands	10	10	10	8	8	8	8	8	8	6	6	6	4	4	4
I	0%			25%			50%			75%			100%		
II	0%			25%			50%			75%			100%		
Load capacity reduction *[kg]*	-			-			-			-			-		

633E Crane equipment

EN 360°

6.5-m or 13-m fly boom (SA)



SENNEBOGEN

633E Load ratings

6.5-m fly boom (SA)

5.0 t	Telescopic boom length [m]									
	10.0		13.8		17.6		21.4		25.2	
3.8 m	0°	40°	0°	40°	0°	40°	0°	40°	0°	40°
Outreach [m]										
2.0										
3.0	7.0		7.0		7.0		7.0			
4.0	7.0		7.0		7.0		7.0		5.7	
5.0	6.9	4.4	7.0	4.3	7.0		6.9		5.7	
6.0	6.7	4.1	6.9	4.2	7.0	4.2	6.7		5.5	
7.0	6.1	3.9	6.8	4.1	6.9	4.1	6.5	4.0	5.4	
8.0	5.5	3.8	6.4	3.9	6.7	4.0	6.2	3.9	5.1	3.8
9.0	5.1	3.6	6.0	3.8	6.4	3.9	5.8	3.8	4.9	3.7
10.0	4.7	3.6	5.5	3.7	6.0	3.8	5.5	3.7	4.7	3.6
11.0	4.3	3.5	5.2	3.6	5.5	3.7	5.3	3.6	4.4	3.6
12.0	3.9		4.8	3.5	4.8	3.6	4.8	3.5	4.2	3.5
13.0			4.2	3.4	4.2	3.5	4.1	3.5	3.9	3.4
14.0			3.7	3.3	3.7	3.4	3.6	3.4	3.7	3.4
15.0			3.3		3.2	3.3	3.2	3.4	3.1	3.3
16.0			2.9		2.8	3.1	2.8	3.2	2.8	3.2
17.0					2.5	2.8	2.5	2.8	2.5	2.8
18.0					2.3		2.2	2.5	2.3	2.6
19.0					2.0		1.9	2.2	2.0	2.3
20.0							1.7	1.9	1.7	2.1
21.0							1.5		1.5	1.8
22.0							1.4		1.3	1.6
23.0							1.1		1.2	1.4
24.0									1.0	
25.0									0.8	
26.0									0.7	
27.0									0.6	
28.0										
29.0										
30.0										
31.0										
32.0										
33.0										
34.0	633R-75/1977/5.0+0.0/04.17 SA6.5									
Number of strands	2	2	2	2	2	2	2	2	2	2
I	0%		25%		50%		75%		100%	
II	0%		25%		50%		75%		100%	

633E Load ratings

13-m fly boom (SA)

5.0 t	Telescopic boom length [m]									
	10.0		13.8		17.6		21.4		25.2	
3.8 m	0°	40°	0°	40°	0°	40°	0°	40°	0°	40°
Outreach [m]										
2.0										
3.0	3.5		3.5		3.5					
4.0	3.5		3.5		3.5		3.2			
5.0	3.5		3.5		3.5		3.2		2.4	
6.0	3.5		3.5		3.5		3.2		2.4	
7.0	3.3		3.4		3.4		3.2		2.4	
8.0	3.1		3.3		3.3		3.1		2.4	
9.0	2.8		3.1		3.1		3.0		2.4	
10.0	2.6	1.7	2.9	1.7	3.0		2.8		2.4	
11.0	2.5	1.6	2.7	1.7	2.8	1.7	2.7		2.4	
12.0	2.3	1.6	2.5	1.7	2.7	1.7	2.6	1.6	2.4	
13.0	2.1	1.5	2.4	1.6	2.6	1.6	2.5	1.6	2.4	1.5
14.0	2.0	1.5	2.3	1.6	2.4	1.6	2.4	1.5	2.4	1.5
15.0	1.9	1.4	2.1	1.5	2.3	1.5	2.3	1.5	2.2	1.4
16.0	1.8	1.4	2.0	1.5	2.2	1.5	2.2	1.4	2.1	1.4
17.0	1.7	1.3	1.9	1.4	2.1	1.5	2.1	1.4	2.0	1.4
18.0	1.6		1.8	1.4	2.0	1.4	2.0	1.4	2.0	1.4
19.0	1.5		1.7	1.4	1.9	1.4	1.9	1.3	1.9	1.3
20.0			1.6	1.4	1.8	1.4	1.9	1.3	1.8	1.3
21.0			1.5		1.7	1.4	1.8	1.3	1.8	1.3
22.0			1.4		1.7	1.3	1.6	1.3	1.6	1.3
23.0					1.5	1.3	1.5	1.3	1.4	1.3
24.0					1.4		1.3	1.3	1.2	1.2
25.0					1.3		1.1	1.3	1.1	1.2
26.0							1.0	1.2	0.9	1.2
27.0							0.9		0.8	1.1
28.0							0.8		0.7	1.0
29.0									0.6	0.9
30.0									0.6	0.8
31.0										
32.0										
33.0										
34.0	633R-75/1977/5.0+0.0/04.17 SA13									
Number of strands	2	1	2	1	2	1	2	1	2	1
I	0%		25%		50%		75%		100%	
II	0%		25%		50%		75%		100%	

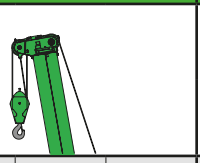
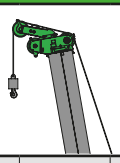
633E Load ratings

EN 360°

Auxiliary jib (HA-S)

	Boom length [m]														
	10.0			13.8			17.6			21.4			25.2		
Counterweight [t]	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Undercarriage track width [m]	3.8	3.05	2.3	3.8	3.05	2.3	3.8	3.05	2.3	3.8	3.05	2.3	3.8	3.05	2.3
Outreach [m]															
2.0	3.5	3.5	3.5												
3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
4.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
6.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
7.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
8.0				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
9.0				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
10.0				3.5	3.5	3.2	3.5	3.5	3.4	3.5	3.5	3.4	3.5	3.5	3.4
11.0							3.5	3.5	2.8	3.5	3.5	2.8	3.5	3.5	2.9
12.0							3.5	3.2	2.4	3.5	3.3	2.5	3.5	3.4	2.6
13.0							3.5	2.7	2.0	3.5	2.8	2.0	3.5	2.9	2.1
14.0							3.4	2.4	1.7	3.5	2.5	1.8	3.5	2.6	1.8
15.0										3.1	2.2	1.5	3.1	2.2	1.6
16.0										2.7	1.9	1.2	2.7	1.9	1.3
17.0										2.4	1.6	1.0	2.5	1.7	1.1
18.0										2.1	1.4	0.8	2.2	1.4	0.9
19.0													1.9	1.2	0.7
20.0													1.7	1.0	0.5
21.0													1.5	0.8	
22.0													1.3	0.7	
23.0															
24.0															
25.0	Tab.no.: 633R-75/1977/5.0+0.0/04.17 HA-S 0.3°														
26.0	Tab.mo.: 633R-75/1602/5.0+0.0/04.17 HA-S 0.3°														
	Tab.no.: 633R-75/1227/5.0+0.0/04.17 HA-S 0.3°														
Number of strands	10	10	10	8	8	8	8	8	8	6	6	6	4	4	4
I	0%			25%			50%			75%			100%		
II	0%			25%			50%			75%			100%		
Load capacity reduction *[kg]*	-			-			-			-			-		

633E Load capacity programs

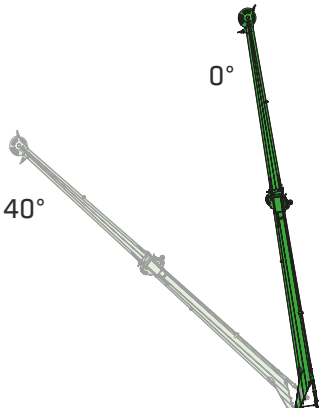
Counterweight [t]	Main boom HA			Auxiliary jib HA-S			Fly boom SA 6.5 m			Fly boom SA 13 m		
												
Undercarriage track width	3.8 m	3.0 m	2.3 m	3.8 m	3.0 m	2.3 m	3.8 m	3.0 m	2.3 m	3.8 m	3.0 m	2.3 m
5.0 t	360°	360°	360°	360°	360°	360°	360°	–	–	360°	–	–

Note:

Optional load capacities available for 2° and 4° incline positions.

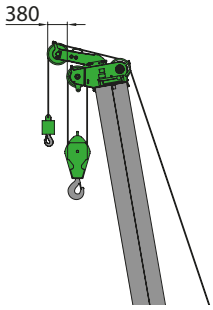
1. Specified load ratings only apply when machine is level (±0.3°) and stable.
2. The safe working load values are specified in tons (t) and apply for 360 degrees.
3. Load ratings are in accordance with EN 13000.
4. The weight of the load handling devices (e.g., hook, cable) must be subtracted from the load ratings.
5. 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 load, operator inexperience, driving with load.
6. Permissible cable pull per strand in crane mode for cable diameter 14 mm – 3,500 kg.
7. Specified load ratings are for reference only. See the tables in the operating manual for the applicable load rating.

633E Fly boom

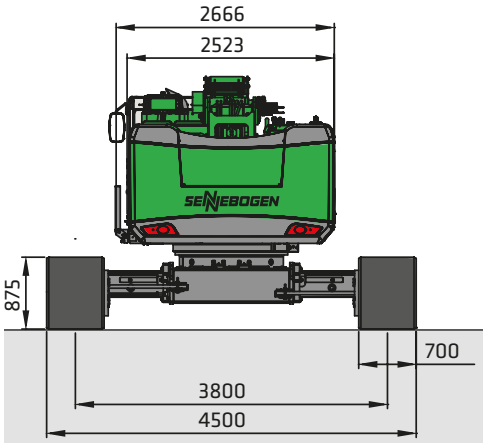


Fly boom variants

- 6.5-m fly boom*
  Max. 2-strand, possible offset angle 0°/40°
- Fly boom 13 m*
  with 6.5 m extension,
  max. 2-string, offset angle 0°/40°
- Auxiliary jib
  3.5 t carrying capacity, 1 string

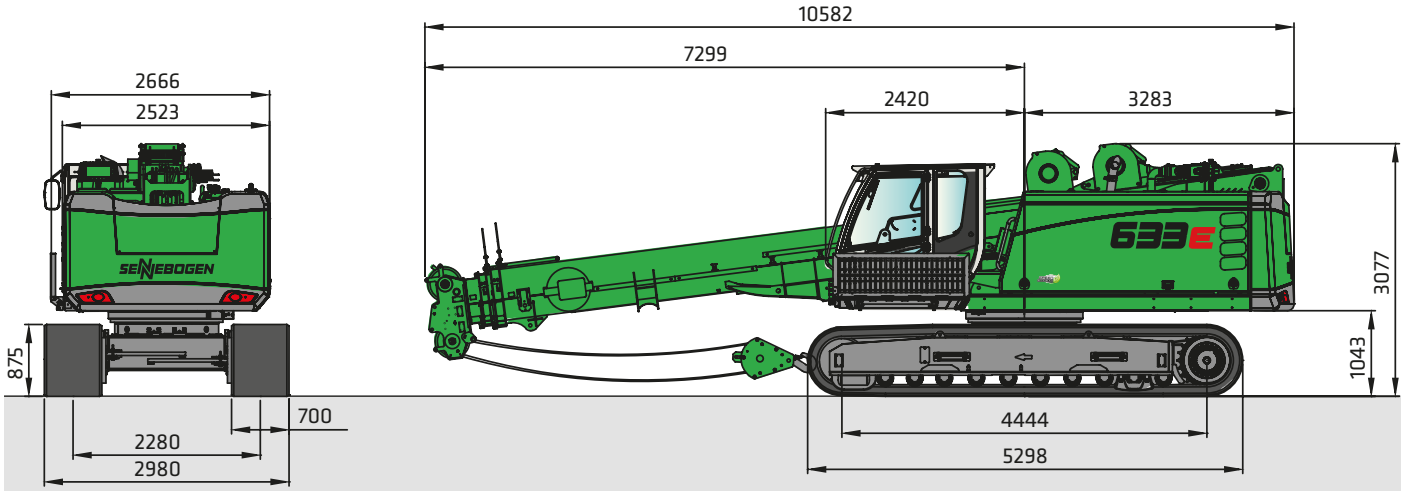


633E Transport dimensions and weights



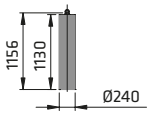
Base plates	Min. transport width
700 mm	3000 mm
800 mm	3300 mm
900 mm	3400 mm

633 with undercarriage T31/380 and 700 mm 3-grouser base plates
Service weight: approx. 33,000 kg
(with 13 m fly boom, 2 hoisting winches, counterweight 5 t as well as hook 35 t)

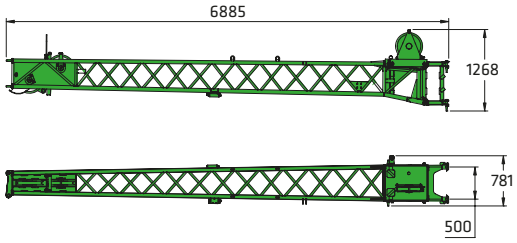


Transport weight: approx. 33,000 kg
(with 13 m fly boom, 2 hoisting winches, counterweight 5 t as well as hook 35 t)

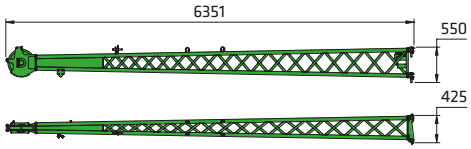
633E Transport dimensions and weights



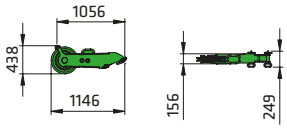
Insert weights — **2x 400 kg**



6.5-m fly boom — **600 kg**



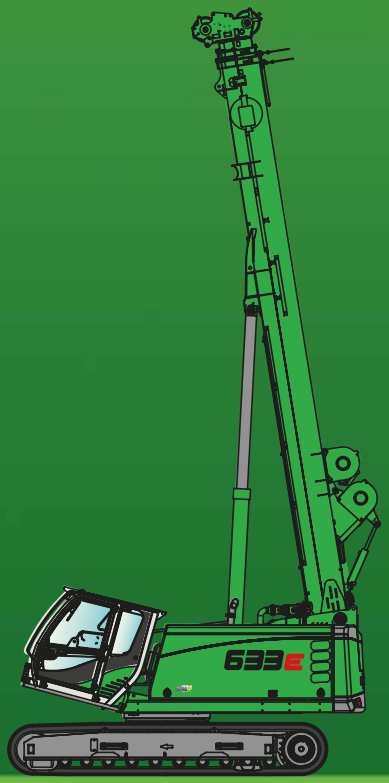
6.5-m fly boom extension — **250 kg**



Auxiliary jib — **50 kg**

633E Notes

633E



SENNEBOGEN

SENNEBOGEN
Maschinenfabrik GmbH
Sennebogenstraße 10
94315 Straubing, Germany

Tel. +49 9421 540-144/146
Fax +49 9421 43 882
marketing@sennebogen.de

Order no. / item no. 299133
633R-E-051710