



**AGD Equipment Limited**

SALES • RENTAL • SERVICE • PARTS

**MINI CRANES**

**CRAWLER CRANES**

**TELESCOPIC CRANES**

**PILING RIGS  
AND EQUIPMENT**

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# **Sennebogen 6113E Specification**

[www.agd-equipment.co.uk](http://www.agd-equipment.co.uk)



**164** kW (Tier 3a)

**168** kW (Tier 4)



**120** t



**40** m



**MAX CAB**

# 6113 **E**

Telescopic crawler crane

Tier 4f emission  
standards

# 6113E Powerful. Effective.

## Strong telescopic boom for demanding tasks

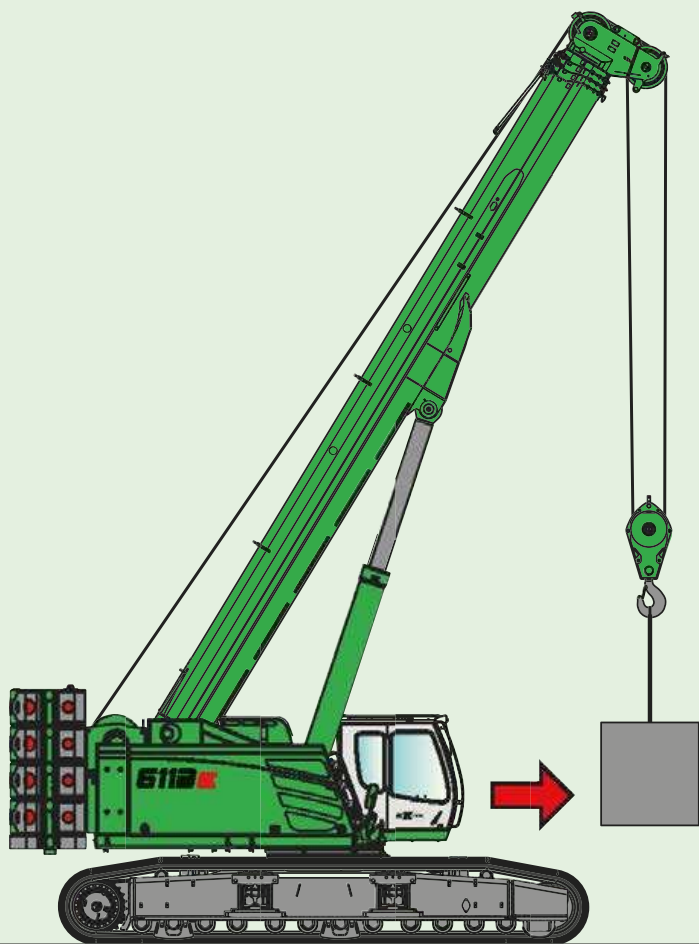
- Maintenance-free telescoping thanks to multi-cylinder system
- Maintenance-free cable drive or chain drive
- Work on inclines of up to 4° possible\*
- Telescoping under load
- Full power boom

## Large operating range

- 40.2 m boom length
- Extendable up to 67 m with fly boom and tower extension

## Easy and flexible work – saves time

- Precision hydraulics allow telescoping to any boom length quickly
- Intuitive joystick control
- Ready to go in no time, even with varying work heights
- Always the ideal boom length in no time at all



## Unique flexibility on the construction site

- Moveable even under high loads
- Excellent maneuverability thanks to strong undercarriage traction
- Easy, inexpensive transport and short set-up time thanks to self-assembly system

## Telescopic undercarriage

- Maximum stability due to extremely long, telescopic crawler track with large outrigger area
- Low ground pressure due to wide crawler shoes, reliable stability even during dynamic tasks
- Robust tractor chassis and well sized travel drive for maximum all-terrain movement



# 6113E Technical data - equipment

## MACHINE TYPE

Model (type) **6113**

## ENGINE

Model	Cummins diesel engine QSB 6.7 <b>164 kW / 223 hp at 2,000 rpm</b> Compliant with TIER III emission standard  Cummins diesel engine QSB 6.7 <b>168 kW / 228 hp at 2,000 rpm</b> Compliant with TIER IVf emission standard  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	<b>540 l</b>
AdBlue tank	<b>38 l</b>
Electrical system	<b>24 V</b>
Batteries	<b>2 x 155 AH</b> battery disconnect switch
Options	<ul style="list-style-type: none"><li>■ Low-temperature package with engine pre-heating and heated diesel filter for temperatures below -20 °C</li><li>■ Electric fuel pump</li></ul>

## UPPERCARRIAGE

Design	Torsion-resistant box design, precision crafted, steel bushings for boom bearings Extremely service-friendly design, longitudinal engine
Electrical	Central electrical distributor, battery disconnect switch
Cooling system	3-circuit cooling system with high cooling capacity, thermostatically regulated fan drive for oil cooler, electronically regulated water and charge air cooler
Safety	Rearview and right sideview cameras LED lighting package Uppercarriage railing
Options	<ul style="list-style-type: none"><li>■ Additional LED headlights</li><li>■ Up to 2 additional cameras</li><li>■ Anti-corrosive maritime climate varnish</li><li>■ Low-temperature package for use at temperatures below -20 °C</li></ul>

### 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, electrohydraulic pilot-controlled work functions, load limit sensing control	
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. <b>330 bar</b>
Filtration	High-performance filtration with long change interval
Hydraulic tank	<b>1,125 l</b>
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 with safety valves  Pipe fracture safety valve for luffing and telescoping cylinders
Options	<ul style="list-style-type: none"><li>■ Bio-oil – ecologically worthwhile</li><li>■ SENNEBOGEN HydroClean 3 µm hydraulic microfilter</li><li>■ Electric heater for hydraulic tank for temperatures below -20 °C</li></ul>

## SLEWING DRIVE

Gearbox	2x compact planetary gear with slant axis hydraulic motor, integrated brake valves
Slewing brake	Spring-loaded disk brake, pedal for individual braking
Slewing ring	Externally geared slewing ring, sealed
Slewing speed	<b>0-2 rpm</b> , continuous

# 6113E Technical data - equipment



Cab type	Maxcab full-size cab, tiltable up to 20°
Cab equipment	Sliding door, excellent ergonomics, automatic climate control, heated seat, air-suspension comfort seat, fresh air filter/circulating air filter, 12 V/24 V connections, SENCON, sunblind for roof window
Options	<ul style="list-style-type: none"><li>Hydraulically elevating cab E270, can be elevated up to 2.70 m and tilted up to 30°</li><li>Auxiliary heating system with timer</li><li>Carbon-active filter for cab</li><li>Sliding window in operator door</li><li>Armored glass windshield</li><li>Armored glass roof window</li><li>Protective roof grating</li><li>FOPS protective roof grating</li><li>Radio with CD player</li></ul>

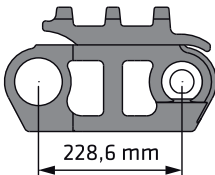
## ATTACHMENTS

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	4-piece with roller head, continuous hydraulic telescoping from 12.6 – 40.2 m
Hoisting winch	Slant-axis hydraulic motor drive with compact planetary gear, 125 kN pulling power, 0 – 115 m/min. winching speed, 26 mm cable diameter, 175 m cable length. Winch motion display via vibration transducers in the joysticks
Safety brake	Spring-loaded disk brake
Crane safety	Latest generation of load moment monitoring, clearly organized panel displaying all important data via SENCON display, lifting limit switch, cable exit protection, pressure relief valves and pipe fracture safety device with event recorder
Cylinders	Hydraulic cylinders with high-quality sealing and guide elements
Options	<ul style="list-style-type: none"><li>8-m fly jib, tiltable (0°, 20°, 40°), extremely fast and easy setup without auxiliary devices, locked on basic boom when not in use</li><li>Fly jib extension to 15 m (7 m extension), tiltable (0°, 20°, 40°), must be transported separately</li></ul>

Options	<ul style="list-style-type: none"><li>Auxiliary jib, 12-t load capacity, 1-strand</li><li>2nd crane winch with 125 kN pulling power, 0–115 m/min. cable speed, 26 mm cable diameter, 175 m cable length</li><li>Additional load charts accepted for 2°/4° incline position</li><li>Suitable for use as elevating work platform with up to 4 m width and 1,000 kg payload</li><li>3 kW electrohydraulic emergency unit</li><li>Remote radio control</li></ul>
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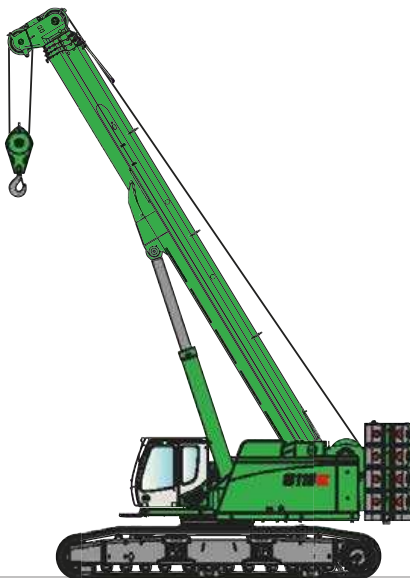
## UNDERCARRIAGE

Design	<b>T119/540</b> crawler undercarriage with hydraulically extendable track gauge. Stable welded construction
Drive	Hydraulic travel drive per chassis side, hydraulic traction motors
Parking brake	Spring-loaded, hydraulically ventilated disk brake
Traveling gear	900 mm triple bar shoes, maintenance-free tractor chassis
Speed	<b>0 – 2.5 kph</b>
Options	900-mm flat crawler shoes

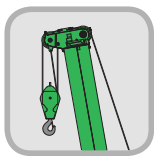


## OPERATING WEIGHT

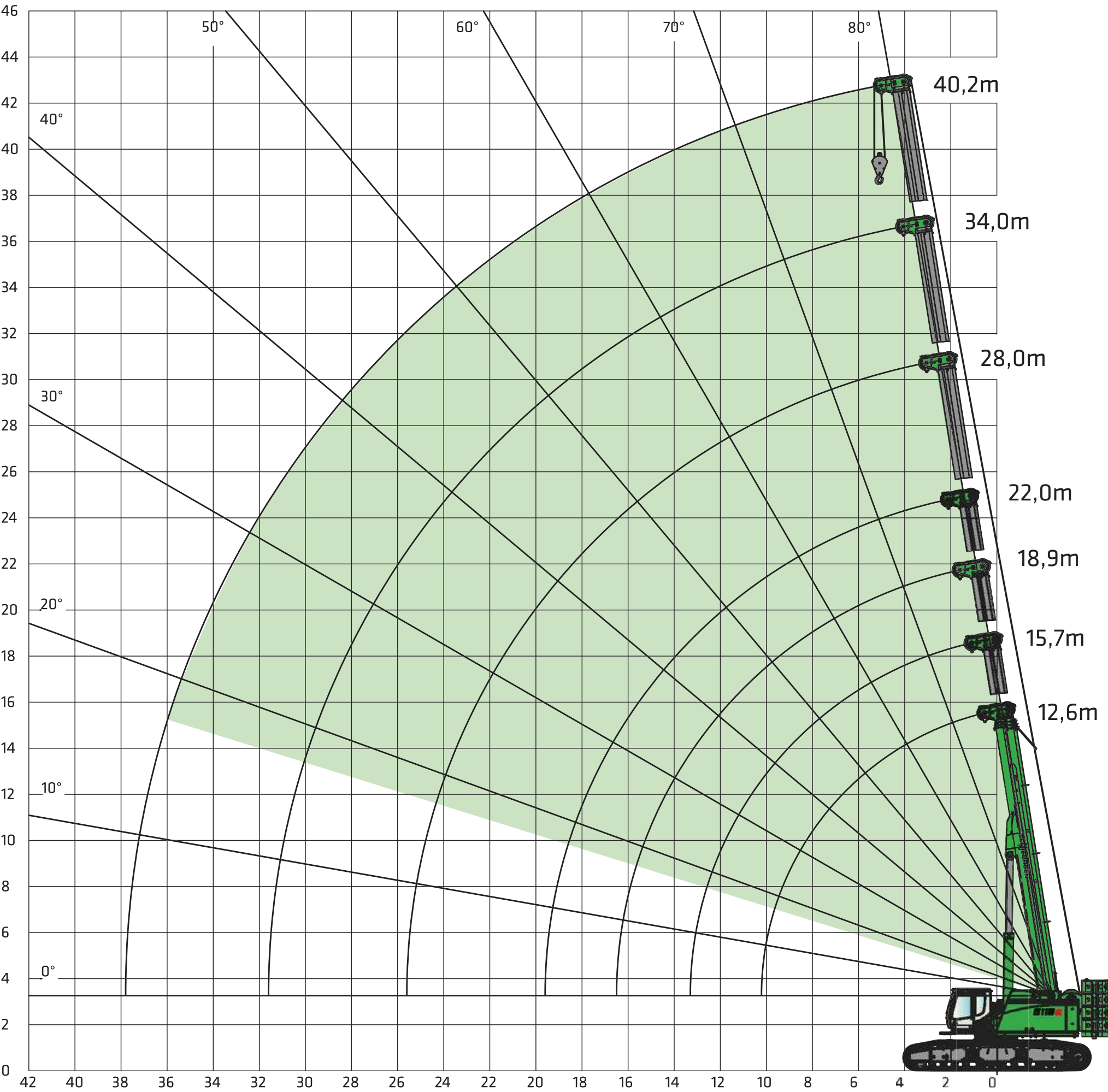
Mass	<b>Approx. 112,200 kg</b> With 40.2-m telescopic boom, 8-m fly jib, 80 t hook, 900-mm triple-bar-shoes, 2 hoisting winches with hydraulically telescoping undercarriage, 33 t ballast
Note	Operating weight varies by model.



# 6113E Crane equipment



40.2-m main boom (HA)


































































10 Subject to change. See page 21 for notes on load charts.



# 6113E Load ratings



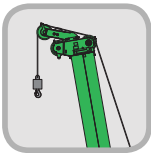
0.2-m main boom (HA)

	Boom length [m]																				
	12.6			15.7			18.9			22.0			28.0			34.0			40.2		
Counterweight [t]	 33.0	 33.0	 19.2	 33.0	 33.0	 19.2	 33.0	 33.0	 19.2	 33.0	 33.0	 19.2	 33.0	 33.0	 19.2	 33.0	 33.0	 19.2	 33.0	 33.0	 19.2
Carbody counterweight [t]	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0	 0.0
Undercarriage track width [m]	 5.4	 4.2	 5.4	 5.4	 4.2	 5.4	 5.4	 4.2	 5.4	 5.4	 4.2	 5.4	 5.4	 4.2	 5.4	 5.4	 4.2	 5.4	 5.4	 4.2	 5.4
Working radius [m]																					
2.5	120.0																				
3.0	100.0																				
4.0	84.0	75.0	75.0	69.0	69.0	69.0	66.0	66.0	66.0	52.0	52.0	52.0									
5.0	75.0	75.0	75.0	69.0	69.0	69.0	61.4	61.4	61.4	52.0	52.0	52.0	37.0	37.0	37.0	30.0	30.0	30.0			
6.0	70.0	70.0	63.5	67.0	67.0	63.1	54.0	54.0	54.0	48.4	48.2	48.2	37.0	37.0	37.0	29.8	29.8	29.8	21.0	21.0	21.0
7.0	60.0	55.5	53.7	59.0	54.9	53.3	48.3	48.3	48.3	43.3	43.3	43.3	36.2	36.2	36.2	28.5	28.5	28.5	21.0	21.0	21.0
8.0	52.0	45.1	46.0	50.0	44.5	45.4	43.4	43.4	43.4	38.8	38.8	38.8	33.7	33.7	33.7	27.0	27.0	27.0	20.0	20.0	20.0
9.0	45.0	37.7	37.8	45.0	37.2	37.2	39.3	36.8	36.8	35.2	35.2	35.2	31.0	31.0	31.0	25.2	25.2	25.2	19.4	19.4	19.4
10.0	40.0	32.1	31.8	39.9	31.7	31.3	36.0	31.3	30.9	32.1	31.0	30.6	28.2	28.2	28.2	23.4	23.4	23.4	18.6	18.6	18.6
12.0				30.8	24.0	23.2	30.5	23.7	22.9	27.1	23.5	22.6	24.4	24.3	23.6	20.4	20.4	20.4	16.6	16.6	16.6
14.0							23.9	18.6	17.7	23.2	18.4	17.4	21.1	19.2	18.3	17.9	17.9	17.9	14.8	14.8	14.8
16.0							19.3	15.0	14.0	19.1	14.8	13.8	18.4	15.6	14.7	15.9	15.9	15.2	13.3	13.3	13.3
18.0										15.7	12.1	11.1	16.2	12.9	12.0	14.3	13.4	12.5	12.0	12.0	12.0
20.0													14.0	10.8	9.9	12.9	11.3	10.4	10.8	10.8	10.8
22.0													12.0	9.1	8.3	11.6	9.6	8.8	9.8	9.8	9.1
24.0													10.3	7.7	6.8	10.7	8.2	7.4	9.0	8.6	7.8
26.0																9.4	7.1	6.2	8.2	7.4	6.6
28.0																8.2	6.0	5.2	7.6	6.4	5.6
30.0																7.2	5.1	4.4	7.0	5.5	4.8
32.0																			6.4	4.7	4.0
34.0	Table no.: 6113R-75/2790/33.0+0.0/09.14 HA 0.3° Table no.: 6113R-75/2190/33.0+0.0/09.14 HA 0.3° Table no.: 6113R-75/2790/19.2+0.0/09.14 HA 0.3°																		5.7	4.0	3.3
36.0																					
Parts reeving	10	6	6	8	8	8	8	8	8	7	7	7	5	5	5	4	4	4	3	3	3
I	0%			33%			66%			100%			100%			100%			100%		
II	0%			0%			0%			0%			33%			66%			100%		
III	0%			0%			0%			0%			33%			66%			100%		
Load ratings must be reduced when fly jib is mounted on basic body.																					
Reduction of load [kg]	520			420			350			300			240			200			170		

Subject to change. See page 21 for notes on load charts.



# 6113E Load ratings



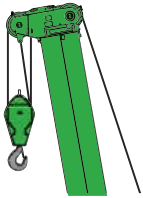
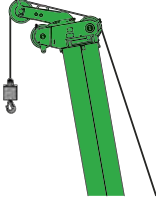






























Auxiliary jib (HA-S)
























	Boom length [m]																				
	12.6			15.7			18.9			22.0			28.0			34.0			40.2		
Counterweight [t]																					
Carbody counterweight [t]																					
Undercarriage track width [m]																					
Working radius [m]																					
2.5																					
3.0	12.5	12.5	12.5	12.5	12.5	12.5															
4.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5									
5.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5			
6.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.3	12.3	12.3			11.9
7.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.2	12.2	12.2	11.8	11.8	11.8
8.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.1	12.1	12.1	11.7	11.7	11.7
9.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.4	12.4	12.4	12.0	12.0	12.0	11.5	11.5	11.5
10.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.3	12.3	12.3	11.9	11.9	11.9	11.4	11.4	11.4
12.0				12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.3	12.3	12.3	11.8	11.8	11.8	11.3	11.3	11.3
14.0							12.5	12.5	12.5	12.5	12.5	12.5	12.3	12.3	12.3	11.8	11.8	11.8	11.1	11.1	11.1
16.0							12.5	12.5	12.5	12.5	12.5	12.5	12.3	12.3	12.3	11.7	11.7	11.7	10.8	10.8	10.8
18.0										12.5	12.4	11.5	12.3	12.3	12.2	11.7	11.7	11.7	10.3	10.3	10.3
20.0													12.3	11.0	10.1	11.5	11.5	10.6	9.5	9.5	9.5
22.0													12.1	9.3	8.4	10.6	9.8	8.9	8.7	8.7	8.7
24.0													10.4	7.9	7.0	9.8	8.4	7.6	8.0	8.0	7.9
26.0																9.0	7.2	6.4	7.4	7.4	6.7
28.0																8.3	6.1	5.3	6.9	6.5	5.7
30.0																7.2	5.2	4.4	6.4	5.6	4.8
32.0																			5.9	4.8	4.1
34.0	Table no.: 6113R-75/2790/33.0+0.0/09.14 HA-S 0.3° Table no.: 6113R-75/2190/33.0+0.0/09.14 HA-S 0.3° Table no.: 6113R-75/2790/19.2+0.0/09.14 HA-S 0.3°																		5.5	4.1	3.4
36.0																					
Parts reeving	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I	0%			33%			66%			100%			100%			100%			100%		
II	0%			0%			0%			0%			33%			66%			100%		
III	0%			0%			0%			0%			33%			66%			100%		
Load ratings must be reduced when fly jib is mounted on basic body.																					
Reduction of load [kg]	770			610			510			430			340			280			240		





# 6113E Load capacity programs

	Main boom (HA)			Auxiliary jib (HA-S)			12-m main boom extension (HAV)		
									
Undercarriage track width	 5.4 m	 4.2 m	 3.05 m	 5.4 m	 4.2 m	 3.05 m	 5.4 m	 4.2 m	 3.05 m
Counterweight [t]									
 33 t	360° 	360° 	—	360° 	360° 	—	360° 	—	—
 19.2 t	360° 	360° 	360° 	360° 	360° 	360° 	—	—	—
 0 t	360° 	360° 	360° 	360° 	360° 	360° 	—	—	—

	8-m fly jib (SA)			15-m fly jib (SA)			12-m main boom extension (HAV) + 8-m fly jib (SA)			12-m main boom extension (HAV) + 15-m fly jib (SA)		
												
Undercarriage track width	 5.4 m	 4.2 m	 3.05 m	 5.4 m	 4.2 m	 3.05 m	 5.4 m	 4.2 m	 3.05 m	 5.4 m	 4.2 m	 3.05 m
Counterweight [t]												
 33 t	360° 	—	—	360° 	—	—	360° 	—	—	360° 	—	—
 19.2 t	—	—	—	—	—	—	—	—	—	—	—	—
 0 t	—	—	—	—	—	—	—	—	—	—	—	—

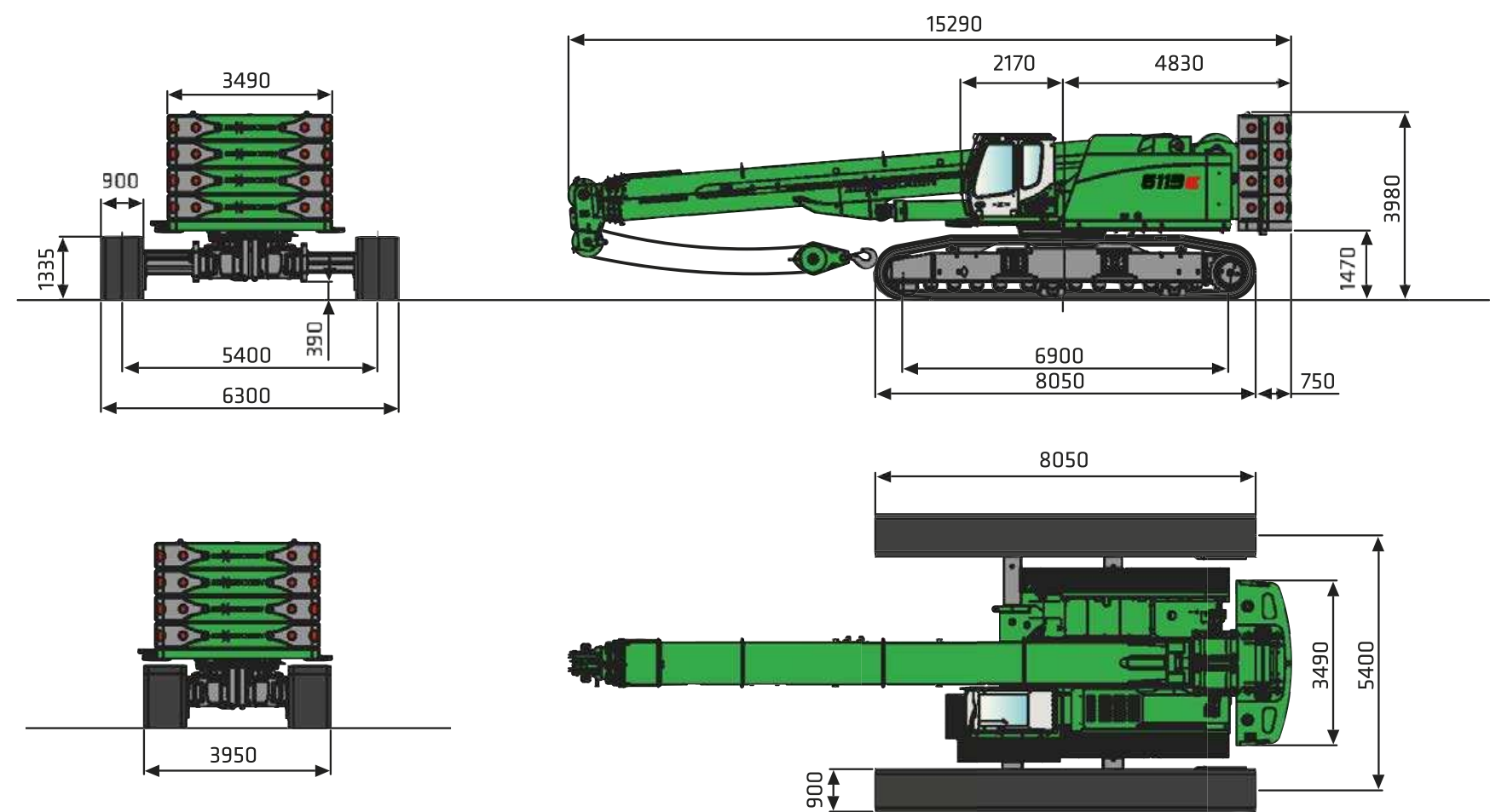
**Note:**

**Optional lift capacities available for 2° and 4° incline positions.**

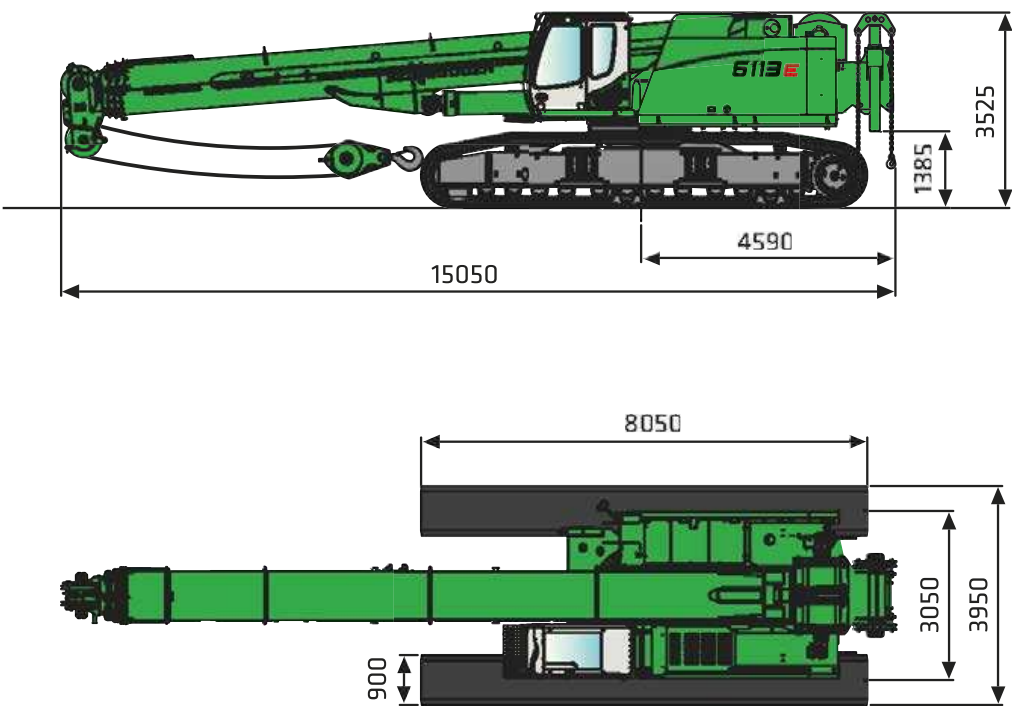
- 1. Specified load ratings only apply when machine is level (±0.3°) and stable.
- 2. Load ratings are in tons (t) and apply for 360 degrees.
- 3. Load ratings are in accordance with EN 13000.
- 4. The weight of the load handling devices (e.g., hook, cable) must be subtracted from the load ratings.
- 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 26 mm – 12,500 kg.
- 7. Specified load ratings are for reference only. See the tables in the operating manual for the applicable load rating.

# 6113E Transport dimensions and weights

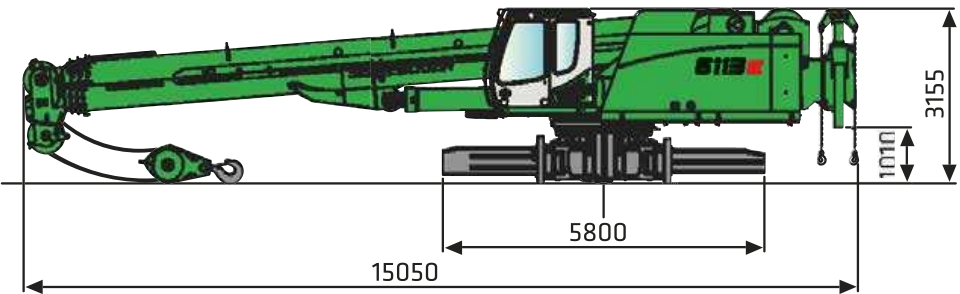
Weight: approx. 112.2 t (2 winches, 8 m fly jib, 80 t hook, 33 t counterweight, 900 mm 3-grouser crawler shoes)  
Transport width: 4 m



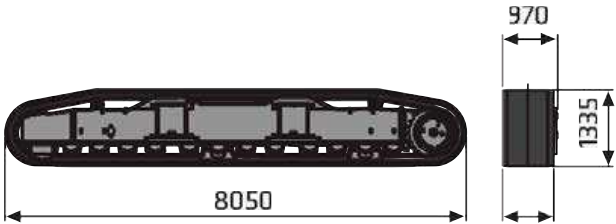
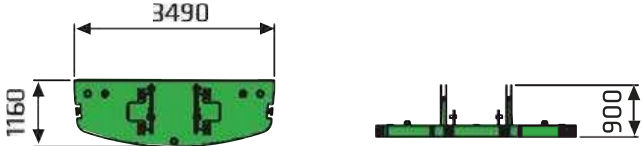
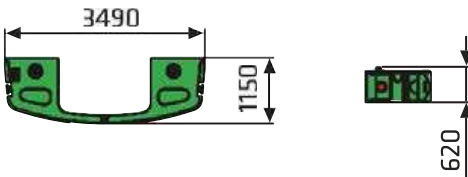
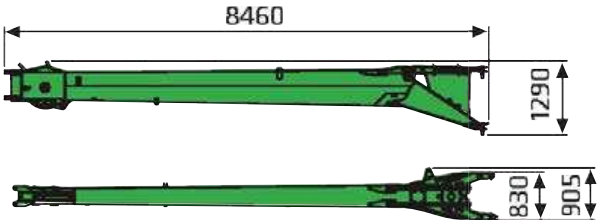
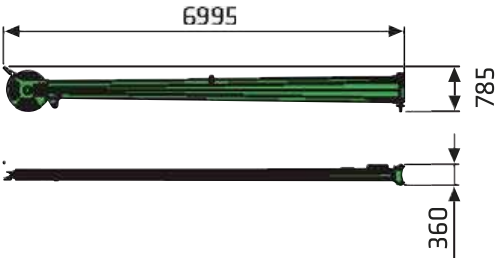
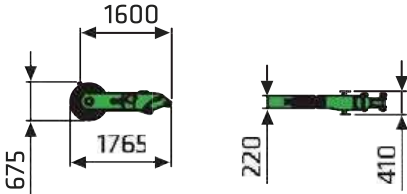
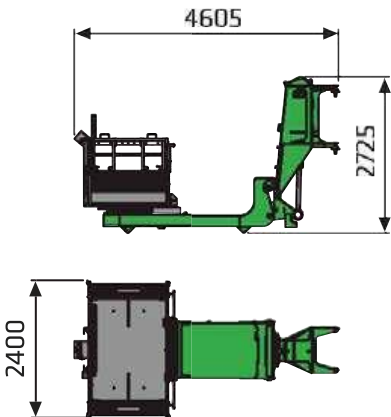
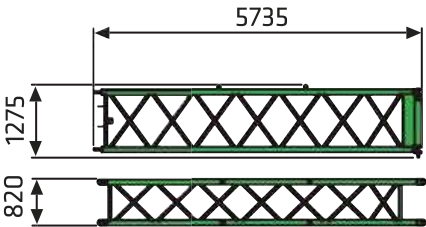
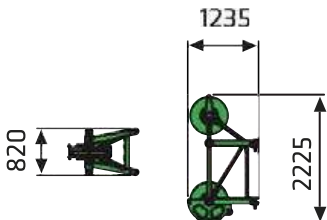
Weight: approx. 78.8 t (2 winches, 8 m fly jib, 80 t hook, no counterweight, 900-mm triple-bar-shoes)  
Transport width: 4 m



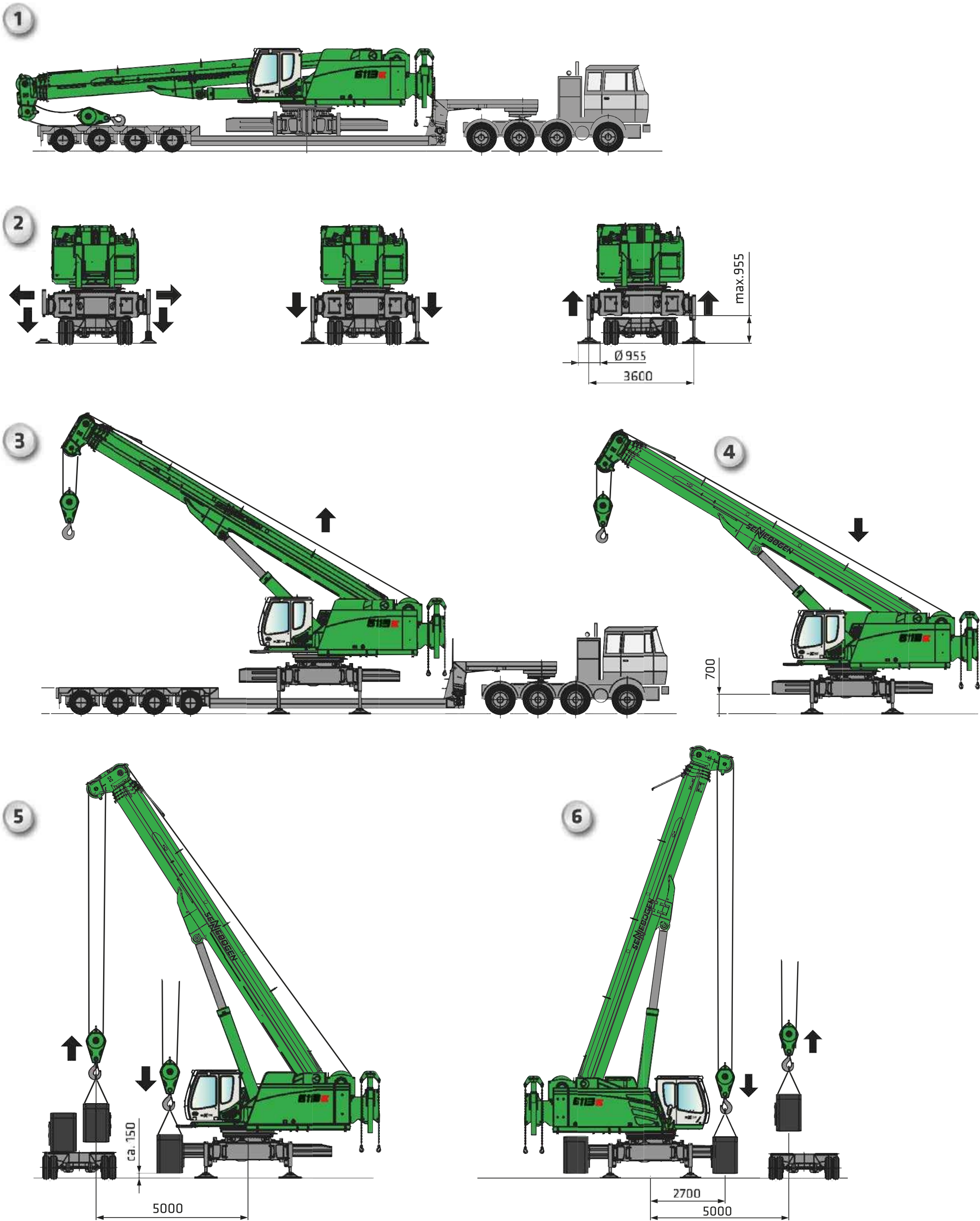
Weight: approx. 47.7 t (2 winches, 8 m fly jib, 80 t hook)  
Transport width: 3 m



# 6113E Transport dimensions and weights

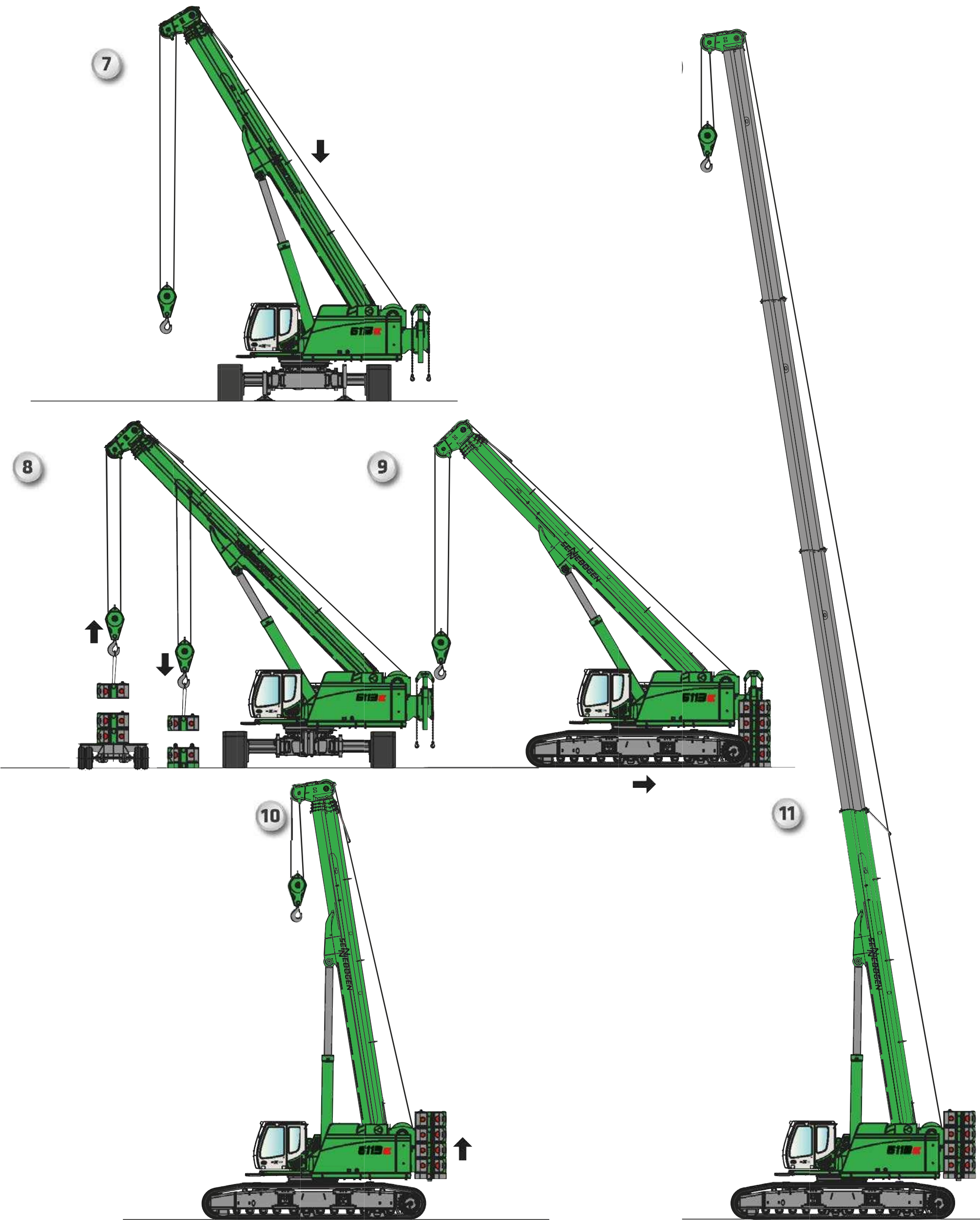
	Track wheel carrier	2x	15,700 kg
	Base plate for counterweight	1x	5,400 kg
	Counterweight	4x	6,980 kg
	8 m fly jib		900 kg
	7 m fly jib extension		300 kg
	Auxiliary jib		160 kg
	Work platform incl. adapter		2,460 kg
	Boom section		573 kg
	Head piece		391 kg

# 6113E Self-assembly system

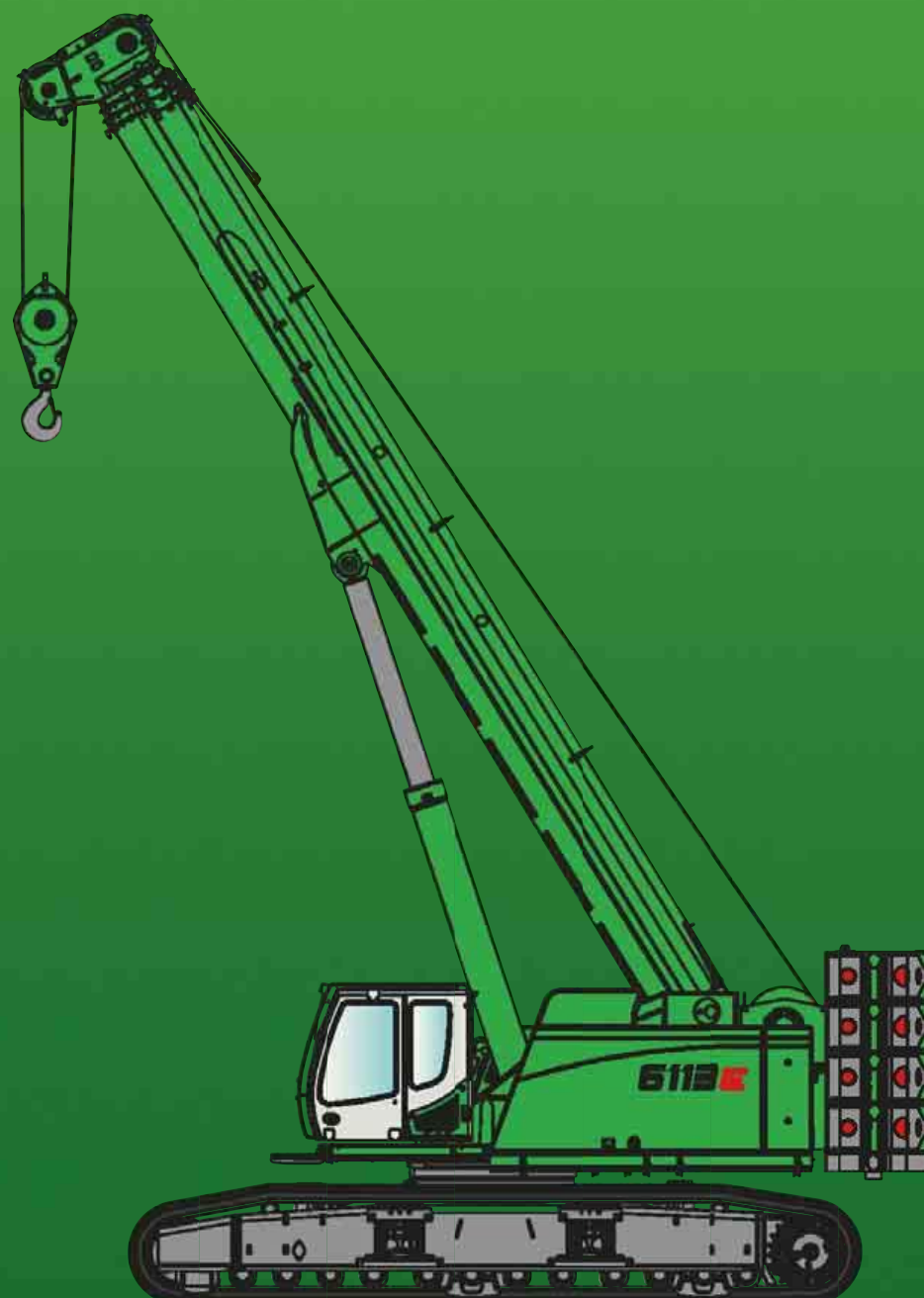




# 6113E Self-assembly system



# 6113E



This catalog describes machine models, scope of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines delivered by SENNEBOGEN Maschinenfabrik. Machine illustrations may contain optional and additional equipment. Actual equipment may vary depending on the country to which the machines are delivered, especially in regard to standard and optional equipment.

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