





164 kw



38 - 43.5։



14 - 17_m





Material handling machine

BBOE Advanced. The E-Series.



1962: rope-driven S833 with elevated operator cab

What makes up the E-Series

- 60 years of experience in designing and constructing hydraulic material handling machines
- Uncompromisingly high performance in all areas: focus on material handling
- Technology that can be mastered: high-quality components without over-engineering
- Long product service life and high value retention

Your top benefits:





- Performance at the highest level
 Durable mechanical systems stressed parts optimized
 High speeds high load capacities
- Maximum ease of use

 Maxcab comfort cab work in comfort



- SENCON SENNEBOGEN Control System
 - Maximum safety
 Safe entry and exit no-slip steps
 State-of-the-art cameras entire work area in view
- Maintenance and service made easy
 Easy error diagnostics central measuring points
 Simple maintenance clear labelling
- Consultation and support
 3 production locations 2 subsidiaries
 120 sales partners more than 300 service stations





BBO The E-Series. At a glance.



Four ways to save fuel

- Up to 20 % savings: working in Eco Mode with reduced engine speed
- Idle automation reduces speed to 40 % of operating speed
- Stop automation switches the engine off when not needed
- Optimized engine settings, reduced specific fuel consumption, state-of-the-art exhaust aftertreatment





Quiet operation

- Consistently quiet operation thanks to decoupled engine mounts and soundproofing in the doors
- Sound pressure level reduced by up to 4.5 dB; sound power level according to 2000/14/EC up to 2 dB lower than required

High-capacity cooling

- Constant, reliable performance thanks to large-dimensioned and robust fans and coolers
- Water and oil coolers with top-notch efficiency thanks to axial-piston pump and motor control and on-demand thermostatic control
- Charge-air cooler with mechanical drive







Smart cooler technology

- Comes standard: automatic, fast and strong fan reversal for blowing out coolers and continuous cooling capacity
- Side-by-side coolers, easily accessible and clean cooling technology
- Fuel savings through optimized fan operation

Powerful hydraulic system

- Strong pumps with power reserves
- Top efficiency thanks to large-dimensioned hydraulic valves and lines
- Extra-long change intervals of 4000 operating hours through initial fill-up with special oil with extended service life when using SENNEBOGEN HydroClean*

* Optional, see page 7

BBO The E-Series. Pure comfort.

Maxcab comfort cab

- Air-suspension comfort seat with heater
- Convenient joystick control
- Hinged front window
- Sliding door, platform in front of cab
- Color monitor for right side and rear-facing camera feeds
- SENNEBOGEN OptiMode:
 Various modes to optimize performance







Platform with railing

- Safety when entering and exiting the cab
- Sliding door makes entering and exiting easy and safe



Automatic climate control

- Consistently pleasant cab climate thanks to 10 evenly distributed air vents
- Central controls make operation easy



SENCON

- Clear menu
- Determine operating values without the need for additional instruments
- Fast troubleshooting thanks to detailed messages



BBO Maintenance and service made easy



Optimized for maintenance

- Fast and easy troubleshooting thanks to straightforward and clearly labeled electrical distributor
- Easy access to all service points on the machine
- Automatic central lubrication for equipment and slewing gear raceway







HydroClean*

- Optimal protection of hydraulic components thanks to 3 µm micro-filter
- Cleaner hydraulic oil, longer oil service life

Central reading points

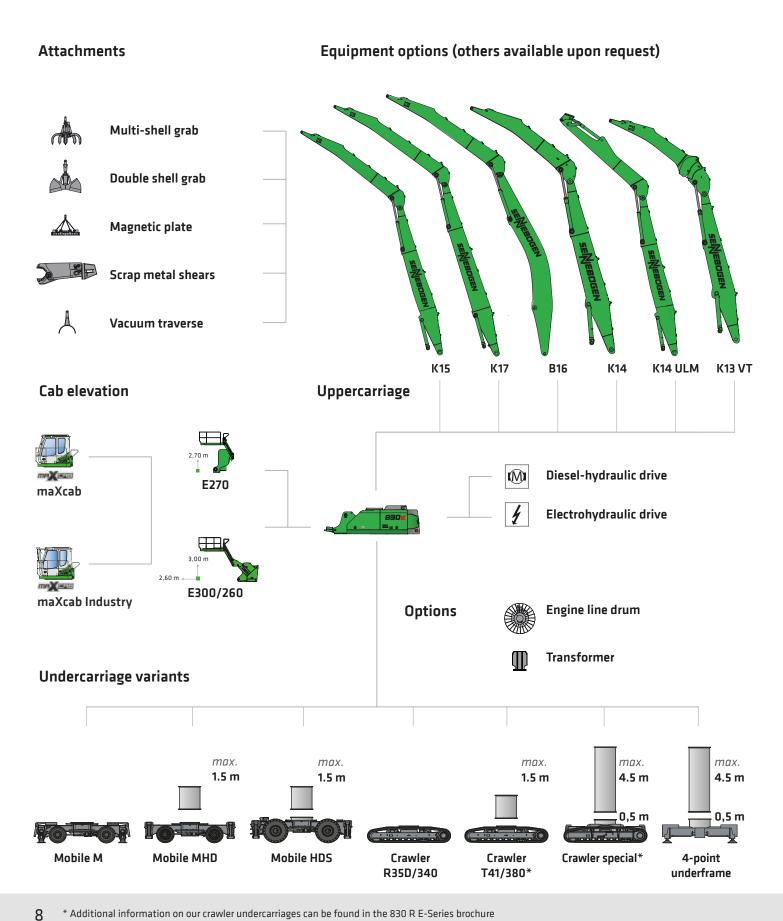
- Easily accessible, central reading points
- Quickly inspect entire hydraulic system

Clear labeling

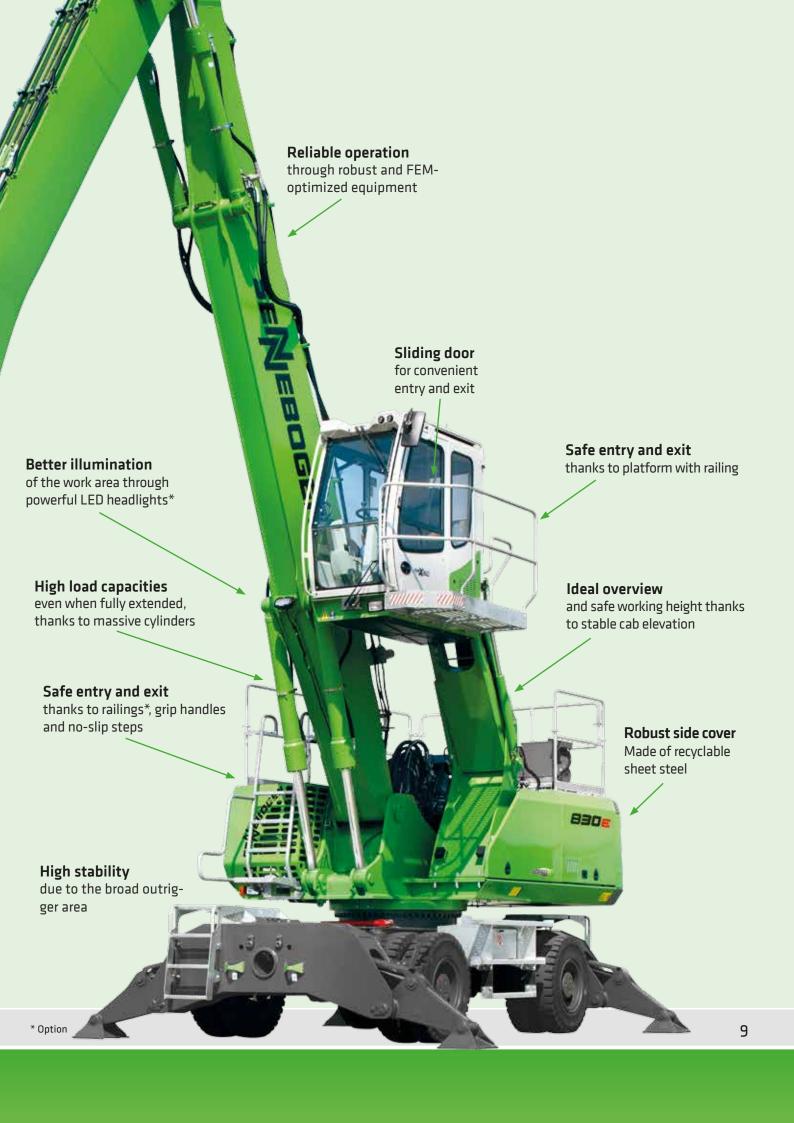
- All parts labeled with a unique part number
- Easy and reliable spare parts ordering

* Optional

BBD Modular design – versatile solutions



^{*} Additional information on our crawler undercarriages can be found in the 830 R E-Series brochure



BBO Technical data, equipment

MACHINE TYPE Model (type) 830

ENGINE					
Power	164 kW/223 hp at 2000 rpm				
Model	Cummins QSB 6.7 – C220 TIER III or IVf Direct injection, turbo charged, charge air cooler, reduced emissions, Eco Mode, idle automation, stop automation				
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	500 l				
DEF tank	30 l				
Electr. system	24 V				
Batteries	2 x 150 Ah, main switch				
Options	 Engine block heater for temperatures below -20 °C Electric fuel pump Jump-start terminals 				

UPPER	CARRIAGE
Design	Torsion-resistant box design, precision crafted, steel bushings for boom bearings. Extremely service-friendly design, longitudinal engine
Central lubrica- tion	Automatic central lubrication for equipment and slewing gear raceway
Electrical sys- tem	Central electrical distributor, battery disconnect switch
Cooling system	3-circuit cooling system with high cooling out- put, thermostatically regulated fan drive for oil cooler and water cooler, fan reversal for cleaning
Options	 Slewing gear brake via foot pedal Peripheral uppercarriage railing for additional safety LED lighting package Fire extinguisher Maritime climate varnish for corrosion protection Electric heater for hydraulic tank for temperatures below -20 °C Low-temperature package for use at temperatures below -20 °C Hydraulically driven magnetic generator 15 kW/20 kW

HYDRA	ULIC SYSTEM			
Load sensing / LUDV hydraulic system for hydraulic, pilot-controlled work 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. 350 bar			
Filtration	High-performance filtration with long change interval			
Hydraulic tank	310 I			
Control system	Proportional, precision hydraulic actuation of work movements, 2 hydraulic servo joysticks for the work functions, additional functions via switches and foot pedals			
Safety	Hydraulic circuits secured with safety valves, emergency lowering of the equipment at engine standstill, pipe fracture safety valves for lift cylinder and stick cylinder			
Options	 Bio-oil - environmentally friendly ToolControl for programming pressure/rate for up to 10 tools Additional hydraulic circuit for shear attachment Load moment warning with capacity utilization indicator Overload safeguard with overload shutdown 3 µm hydraulic micro-filter - SENNEBOGEN HydroClean 			

SLEWIN	NG DRIVE
Gearbox	Compact planetary gear with slant-axis hydraulic motor, integrated brake valves
Parking brake	Spring-loaded multi-disk brake
Slewing ring	Strong ball race slewing ring, sealed
Slewing speed	0-8 rpm, variable



Subject to change.

BBO Technical data, equipment

CAB F	(CRB)			
Cab type	Hydraulically elevating cab E270			
Cab equipment	Sliding door, excellent ergonomics, automatic climate control, heated, air-suspension comfort seat, fresh/circulating air filter, joystick control, 12 V/24 V connections, SENCON			
Options	 Cab E300/260 can be elevated 300 cm and moved forward 260 mm hydraulically Rigid cab height elevation 1 m (MHD, MHDS, trailer 1.50 m) Joystick steering Auxiliary heating system with timer Activated carbon filter in cab for fresh/circulating air Steering wheel with adjustable steering column Sliding window in operator door Armored glass windshield, additional safety Armored glass roof window, additional safety Safety side window Floor window for a better view Rolling shade for roof window and windshield Protective roof grating FOPS protective roof grating Protective front grating Radio and CD player with speakers Enlarged industrial cab with undivided armored glass windshield 			

UNDER	CARRIAGE			
Design	Strong mobile undercarriage with integrated 4-point claw support, steering axle as hydraulically locking pendulum axle, pendulum axle cylinder with pipe fracture safety valves			
Drive	All-wheel drive powered by a variable-dis- placement hydraulic motor with di- rect-mounted, automatically actuated brake valve and 2-stage power shift transmission, strong planetary axles with integrated steer- ing cylinders, service brake in 2-circuit system			
Parking brake	Spring-loaded multi-disk brake			
Tires	M: solid-rubber tires 12.00-20, 8 MHD: solid-rubber tires 12.00-20, 8 MHDS: solid-rubber tires 16.00-25, 8 Trailer: pneumatic tires 650/65-R25, 4			
Speed	0 - 7 km/h stage l 0 - 20 km/h stage ll Trailer 25 km/h			
Options	 MHD: pneumatic tires 12.00-20, 8 MHDS: pneumatic tires 20.50-R25, 4 Additional pushing blade for 4-point support (front or rear) Individual outrigger actuation Protection for travel drive/towing pintle 			

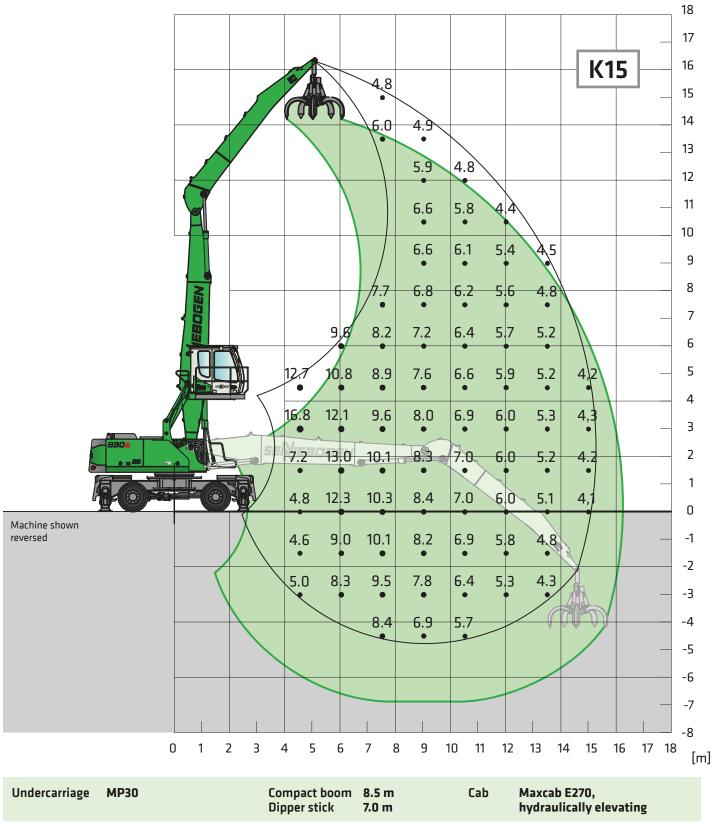
ATTACHMENTS				
Design	Decades of experience, state-of-the-art computer simulation, highest level of stabili ty, longest service life, large-dimensioned and low-maintenance bearing points, sealed special bearing bushes, precision-crafted, quick-release couplings on the connections open/close/rotate grapple			
Cylinders	Hydraulic cylinders with high-quality sealing and guide elements, end position damping, sealed bearing points			
Options	 Ball valves on the hydraulic lines - open and close grapple Kinematics position II for greater working depth Maritime climate varnishing Maritime climate coating of all cylinders, nickel-plated and chrome-plated Float position of the equipment Hoisting limiter / stick limitation adjustable for stop settings, e.g. in the hall Multi-coupling 			

Option Power: 132 kW / 400 V / 50 Hz
Total connected load 270 kVA, customer-provided fusing 400 A at 400 V - motor start-up via star-delta circuit Advantages: lowest operating costs, quiet and virtually vibration-free work, long service life of hydraulic components
5

OPERATING WEIGHT					
Mass	830 M with MP30E, operating equipment K17 and grapple 600 I approx. 38,500 kg				
	830 MHD with MP31E, operating equipment K17 and grapple 600 l approx. 40,000 kg				
Notice	The operating weight varies depending on the model.				

Subject to change.

BBOE Load ratings

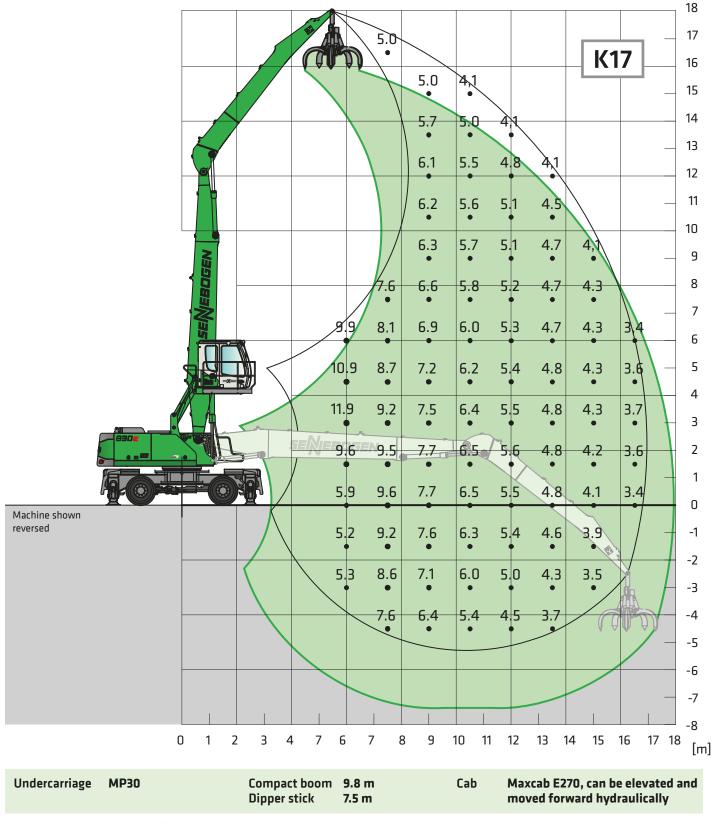


All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, etc. are part of the specified load ratings. The specified values are 75 % of the static tipping load or 87 % of the hydraulic lifting force in accordance with ISO 10567. In accordance with the EU standard EN 474-5, material loaders in hoist operation must be equipped with pipe fracture safety devices on hoist cylinders and an overload warning device.

The specified load ratings apply 360° on the crawler undercarriage; telescopic undercarriages must be completely extended.

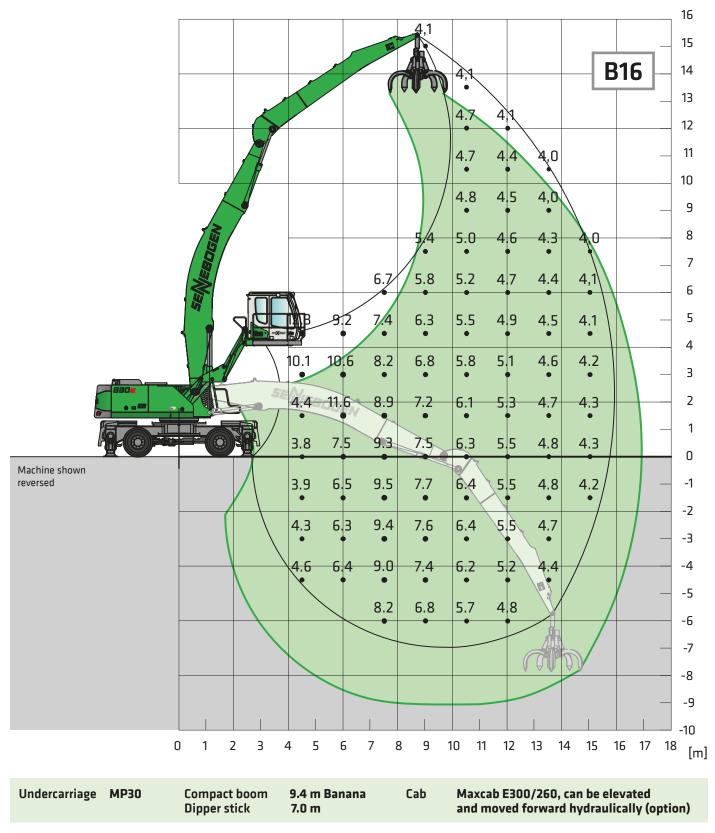






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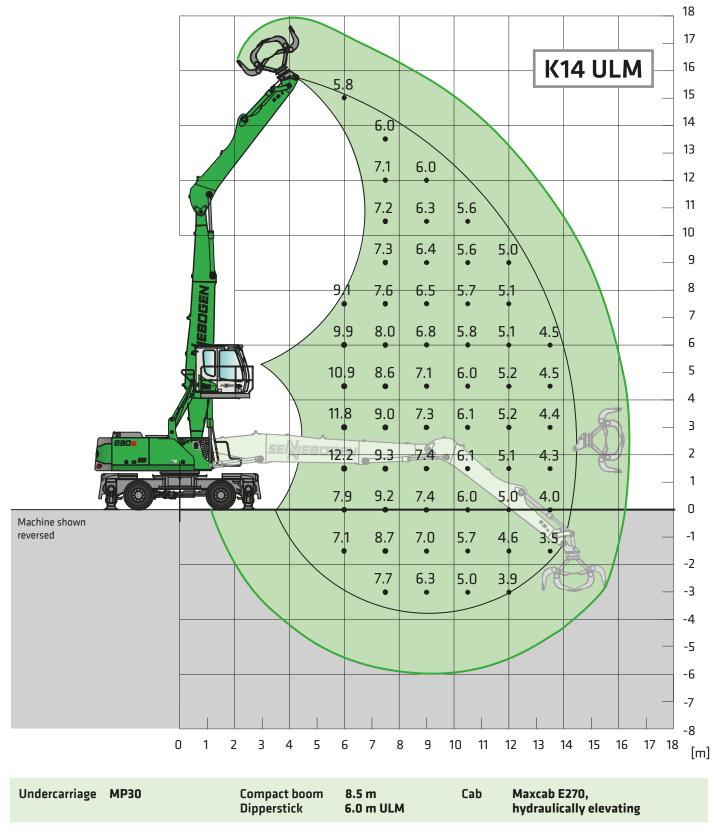


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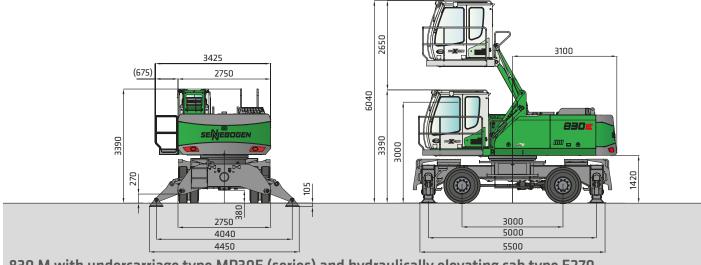


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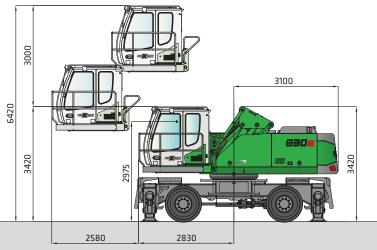


Transport width 2750 mm

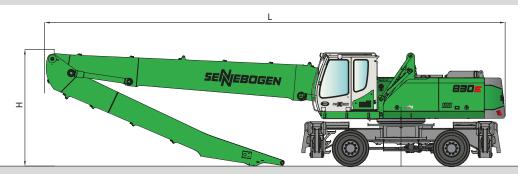
Solid-rubber tires 12.00-20, 8



830 M with undercarriage type MP30E (series) and hydraulically elevating cab type E270

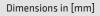


830 M with cab type E300/260 (option), can be elevated and moved forward hydraulically



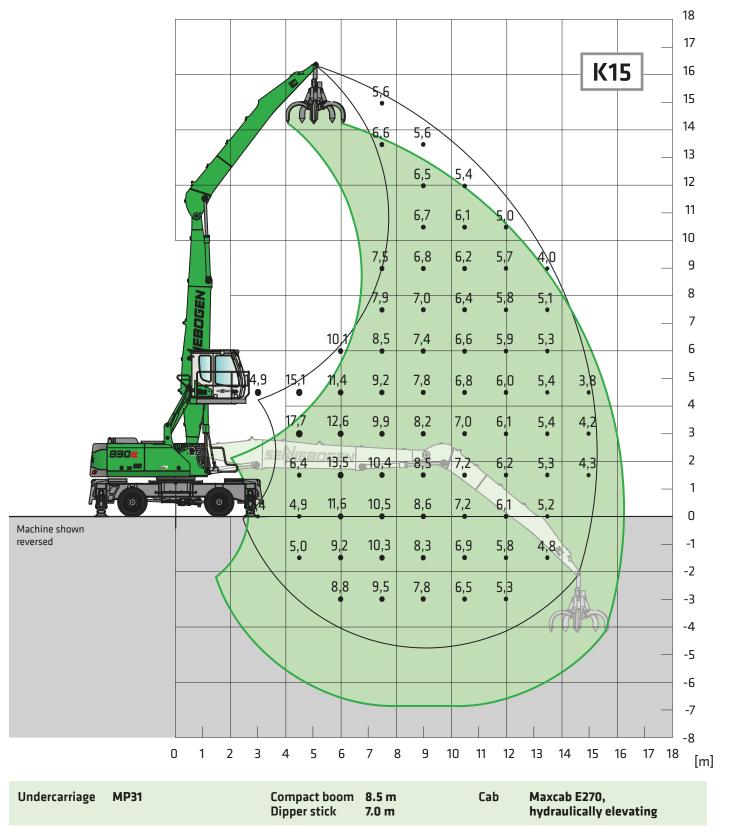
830 M with undercarriage type MP30E

	Load boom	Grapple stick	Transport length (L)	Transport height (H)
K15	8.5 m	7.0 m	12.45 m	3.40 m
K17	9.8 m	7.5 m	13.75 m	3.45 m
B16	9.4 m Banana	7.0 m	13.40 m	3.50 m
K14 ULM	8.5 m	6.0 m	12.45 m	3.40 m



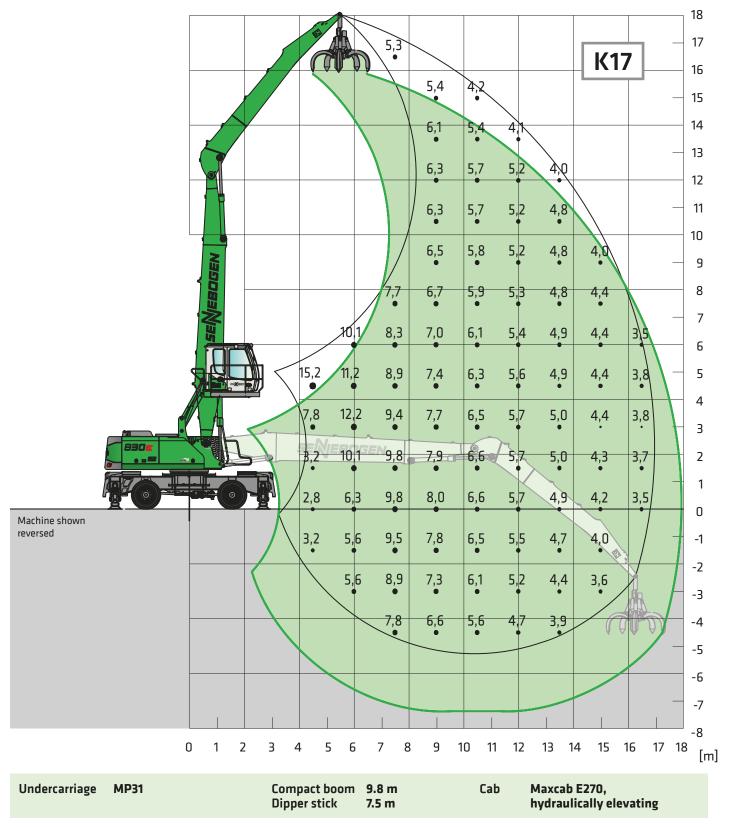






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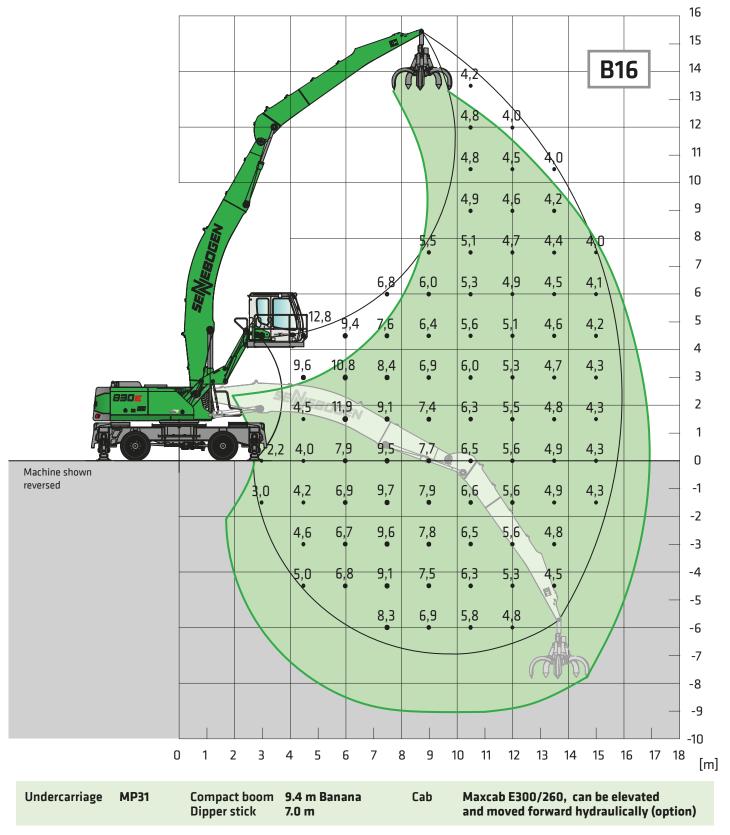


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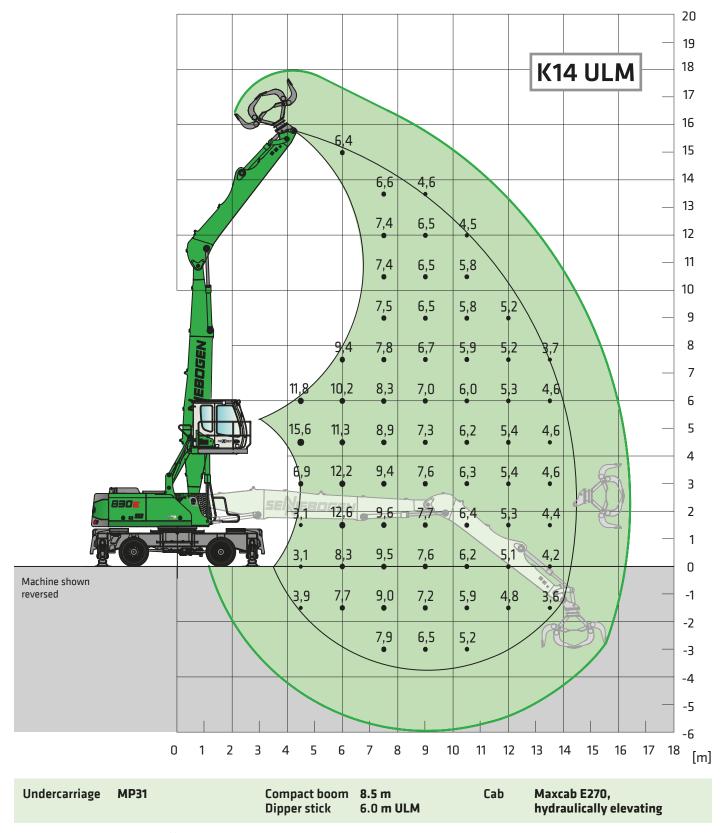






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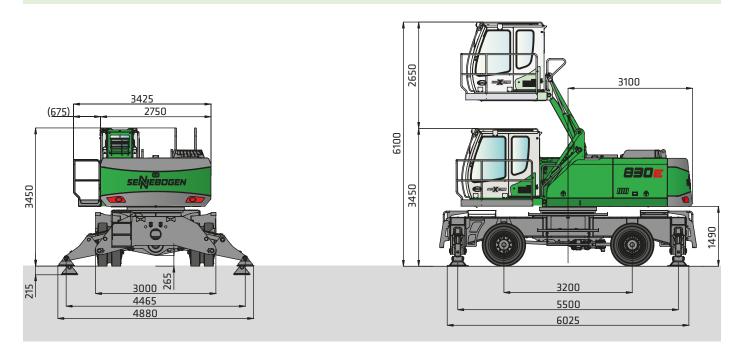


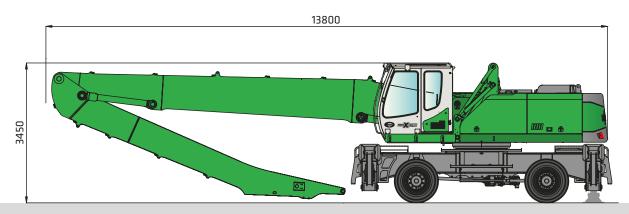


MHD

Transport width 3000 mm

Solid-rubber tires 12.00-20, 8





830 MHD with undercarriage type MP31E, hydraulically elevating Maxcab type E270, tires 12.00 - 20, 8, transport width 3000 mm, working weight with boom K17, 600 l multi-shell grab, approx. 40,000 kg

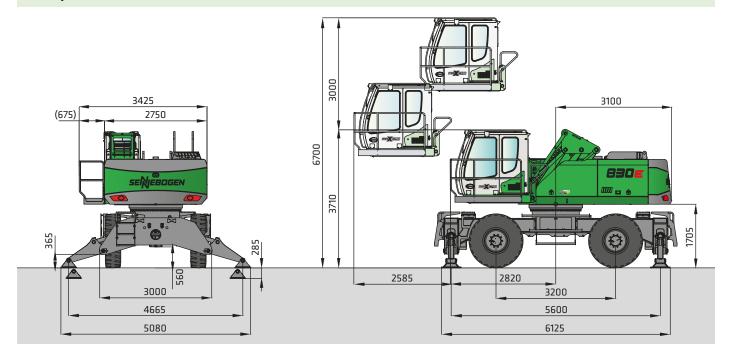
	Load boom	Grapple stick	Transport length (L)	Transport height (H)
K15	8.5 m	7.0 m	12.5 m	3.4 m
K17	9.8 m	7.5 m	13.8 m	3.4 m
B16	9.4 m	7.0 m	13.4 m	3.5 m
K14 ULM	8.5 m	6.0 m	12.5 m	3.4 m

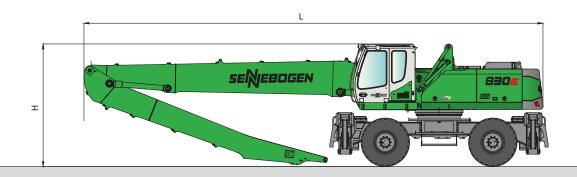


MHDS

Transport width 3000 mm

Solid-rubber tires 16.00-25, 8



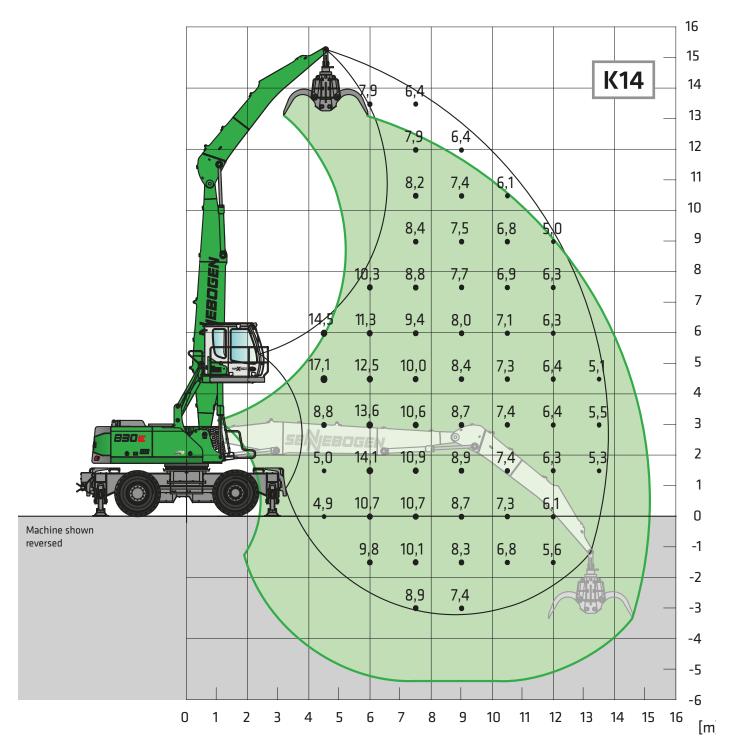


830 MHD with undercarriage type MP34, Maxcab can be elevated and moved forward hydraulically, tires 16.00 - 25, 4, transport width 3000 mm, working weight with boom K17, 600 I multi-shell grab, approx. 41,000 kg

	Load boom	Grapple stick	Transport length (L)	Transport height (H)
K15	8.5 m	7.0 m	12.5 m	3.7 m
K17	9.8 m	7.5 m	13.8 m	3.7 m
B16	9.4 m	7.0 m	13.4 m	3.8 m
K14 ULM	8.5 m	6.0 m	12.5 m	3.7 m



Trailer



Undercarriage MP38 Compact boom Dipper stick	8.2 m 5.8 m	Cab	Maxcab E270, hydraulically elevating
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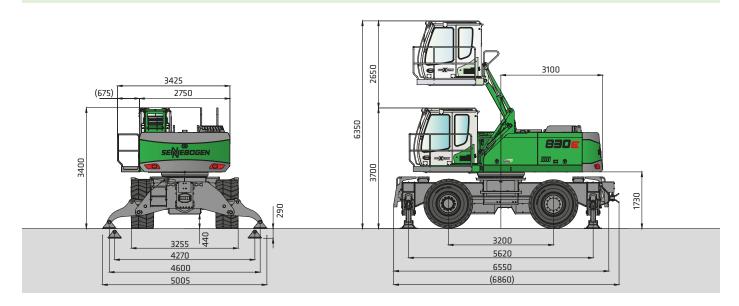


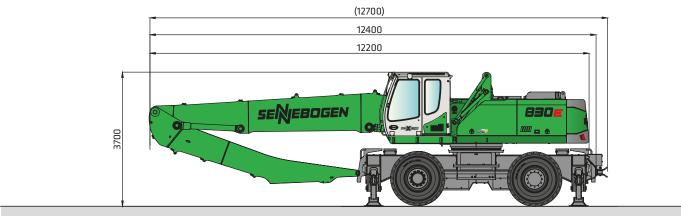
Trailer

Transport width 3255 mm

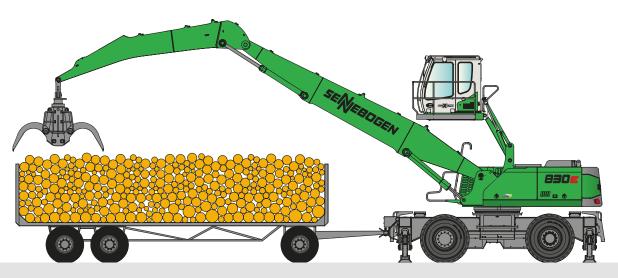
Solid-rubber tires 650/65-R25, 4

Extremely high pulling force for pulling heavy trailers





830 trailer, operating weight with boom K14, 1.5 sqm log grapple, approx. 43,500 kg







VARIOTOOL

From a high-performance handling machine to a multi-functional high-performance tool carrier

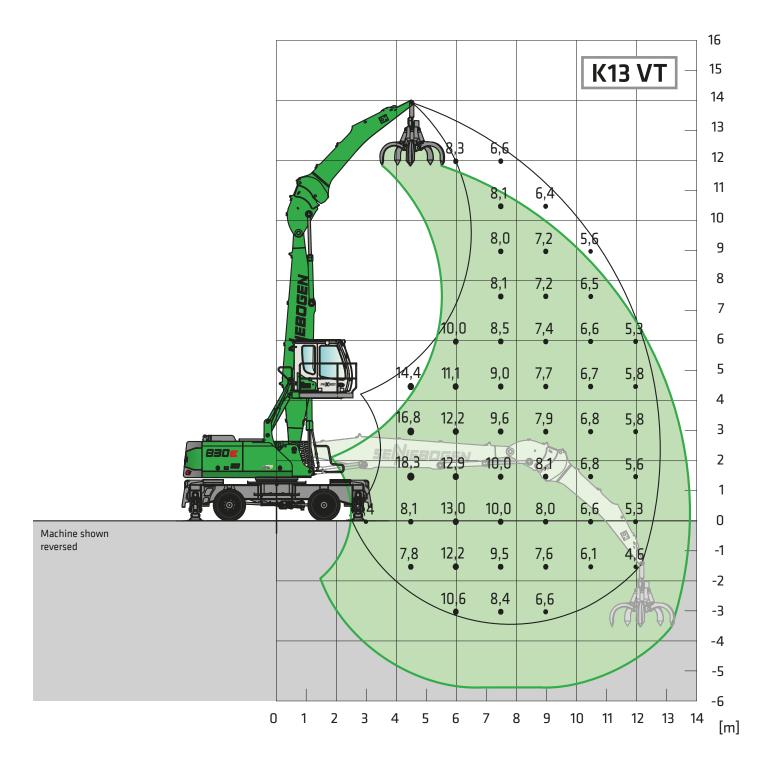


- Stick / shear can be supported without support frame
- Automatic valve protection in coupled and decoupled state
- Effective change of the attachment: simple fast reliable
- Full power with:
 - Multi-shell grab
 - Shear
 - Magnet
 - Sorting grab
- Fast and reliable changing of the attachment in seconds from the driver seat

- One basic system for different attachments
- Robust and intelligently simple
- Locking and changing the attachments without exiting
- Maximum versatility
- The material handling machine as a tool carrier
- The "VarioTool" quick changing system for material handling changes attachments fast and reliably



VARIOTOOL



Undercarriage	MP31	Compact boom Dipper stick	7.2 m 5.7 m	Cab	Maxcab E270, hydraulically elevating
		pipper stick	5.7 111		ilyuraulically elevatilig

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BBO Recommended grapples

Multi-shell grab SGM (4 shells)



Multi-shell grab SGM (5 shells)



SGZ double shell grab



Magnetic plates



Design / size	Grapple	Weight ¹ Shell form		Maximum	
Design / Size	capacity			load capacity	
		НО	G		
SGM	I	kg	kg	t	
400.40-4	400	1570	1720		
600.40-4	600	1600	1790		
800.40-4	800	1685	1930	8.0	
1000.40-4	1000	1755	2085		
1250.40-4	1250	1850	2200		

Design / size Grapple		Weight ¹		Maximum	
Design / size	capacity		shape ²	load capacity	
		НО	G		
SGM	1	kg	kg	t	
400.40	400	1820	1920		
600.40	600	1910	2035		
800.40	800	1960	2140	8.0	
1000.40	1000	2040	2290	8.0	
1250.40	1250	2180	2415		
1400.40	1400	2250	2500		

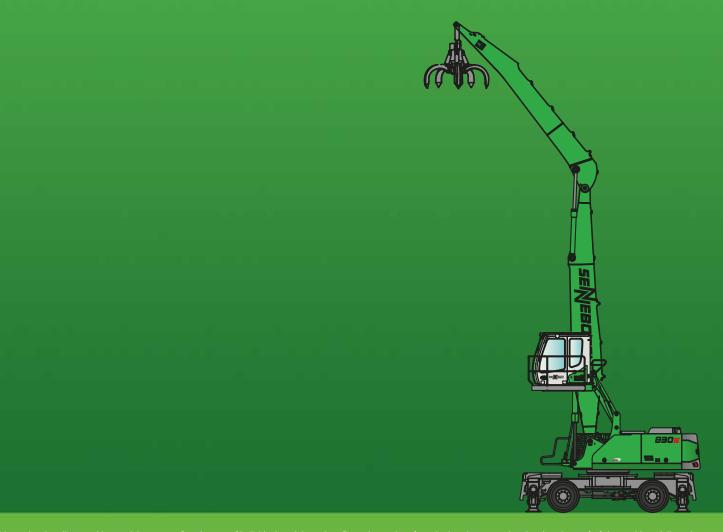
Design / size	Grapple capacity	Weight ¹	Maximum load capacity	
SGZ	I	kg	t	
1000.40	1000	1270		
1200.40	1200	1360	4.0	
1400.40	1400	1420	4.0	
1600.40	1600	1530		
1500.50	1500	1950		
2000.50	2000	2200		
2500.50	2500	2300	8.0	
3000.50	3000	2490		
4000.50	4000	2880		
3000.50 L	3000	2140		
3500.50 L	3500	2260	8.0	
4000.50 L	4000	2480		
4500.50 L	4500	2600		
1500.50 HD	1500	2240		
2000.50 HD	2000	2535	8.0	

Type series / model	Power	Deadweight	Breakaway force	Load-bearing capacity in kg		
woкo	kW	kg	kN	Slab (safety factor 2)		
S-RSL 13	10.5	1300	260	1300		
S-RSL 15	12.2	1950	360	1800		
S-RLB 12.5	8.8	1310	280	14000		
S-RLB 13.5	10.0	1700	300	15000		
S-RLB 15	11.7	2400	380	19000		
Recommended magnetic generator: 15 kW/20 kW						

^{*)} Available upon request 1) Weight information without grapple suspension, stick bolts, hose system

²⁾ Half-open shells: shell sheet steel width 400 mm, 500 mm for 1250 l capacity and higher





This catalog describes machine models, scopes of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines delivered by SENNEBOGEN Maschinenfabrik. 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.

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