



237 kW (Stage V) 227 kW (Stage IIIa) 160/200 kW (Electro)











Crawler material handling machine

### **BBS** Advanced. The E-Series.



1962: Rope-driven S833 with elevated operator cab

# What makes up the E-Series

- More than 65 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

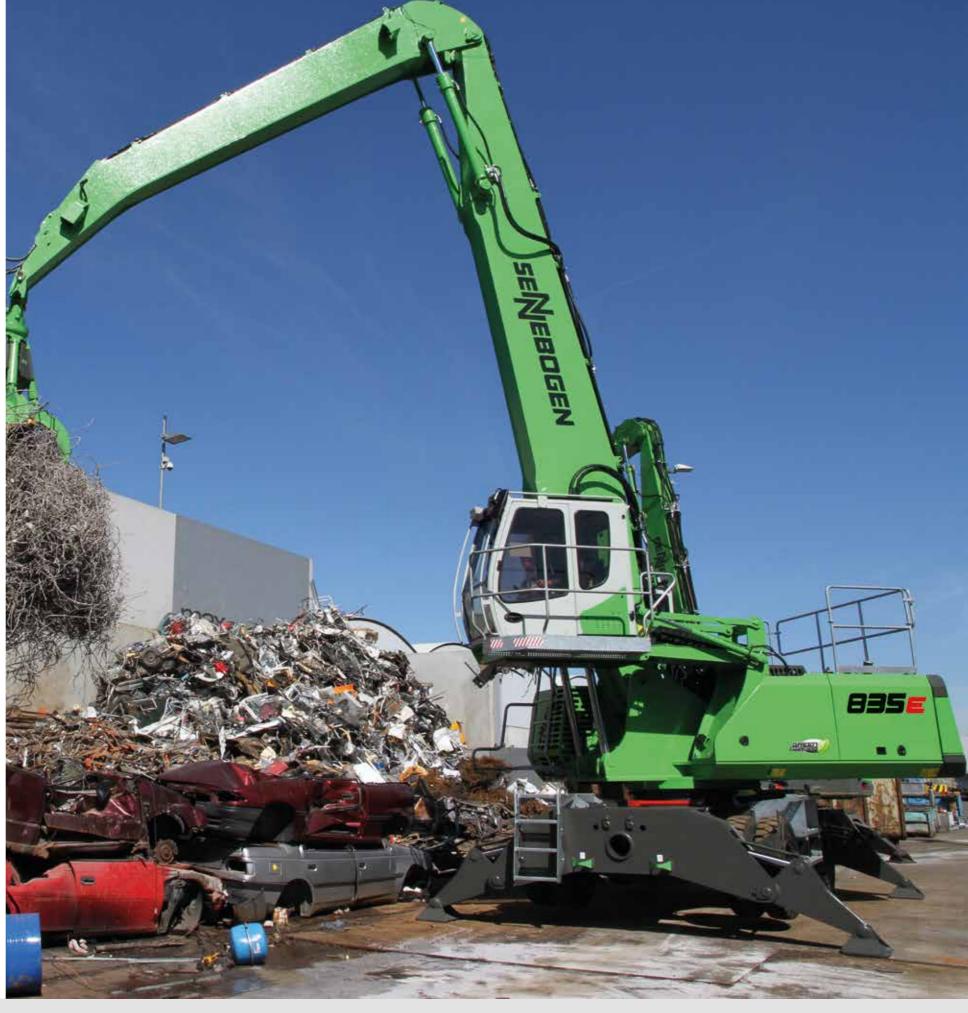
- Green Efficiency
  Save fuel reduce operating costs
  Work quietly protect operator and environment
- Peak performance

  Durable mechanical systems stressed parts optimized

  High speeds high load capacities
- Maximum usability

  Comfortable Maxcab operator cab relaxed work

  SENCON work program selection made easy
- Maximum safety
  Safe entry and exit no-slip steps
  State-of-the-art camera entire work area in view
- Maintenance and service made easy
  SENNEBOGEN Control System SENCON easy fault diagnosis
  Easy Maintenance clear labeling
- Consultation and support in your area
  3 production sites 2 subsidiaries
  more than 150 sales partners worldwide and also in your area



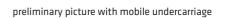
preliminary picture with mobile undercarriage





#### 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 settings of engine and hydraulics reduces fuel consumption



### Maximum safety

No-slip work surfaces

SENVEBOERN

- 2 cameras to the right and rear
- Platform with railing next to cab with sliding door 5

5

Hand rails\* 1

### Quiet operation 2

- Consistently quiet operation thanks to decoupled engine mounts and soundproofing in the doors
- Soundpower level according to 2000/14/EC up to 2 dB lower than required

### High-capacity cooling **I**

- Constant, reliable performance thanks to largedimensioned and robust fans and coolers
- Water and oil coolers with top-notch efficiency thanks to axial-piston pump and motor control and ondemand thermostatic control
- Fan reversal for cleaning in series

- Strong pumps with power reserves
- Top efficiency thanks to large-dimensioned hydraulic valves and lines

Powerful hydraulic system <a>I</a>

Extra-long change intervals of 4,000 operating hours through initial fill-up with special oil with extended service life when using SENNEBOGEN HydroClean\*

\* Option Subject to technical changes. Further options available on request.



### **B35** Maintenance and service made easy.



#### **Features**

- optimum cab climate with automatic air conditioning system, partial tinted glass
- pleasant and equal temperature dispersion by means of 9 nozzles
- panoramic view
- climatic comfort seat with air suspension and air conditioning\*
- very quiet through optimized noise insulation
- highest safety & comfort with sliding door, wide door opening
- ergonomically arranged operating controls for fatigue-free and relaxed working
- 12 V, 24 V, and USB charging sockets, hands-free telephone preparation, document box
- various options: electric cooler behind the driver seat, protective covers, seat air conditioning

#### SENNEBOGEN-Joysticks

- consoles and ergonomic joysticks that move with the seat
- pleasant grip through ergonomic design
- precise control of all movements through direct and sensitive function activation
- quick access to all operating controls through optimized design of all push-buttons and switches



# Optimized for maintenance

- Fast and easy diagnosis 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



### SENNEBOGEN HydroClean\*

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



### Central measuring points

- Easily accessible
- Quickly inspect entire hydraulic system

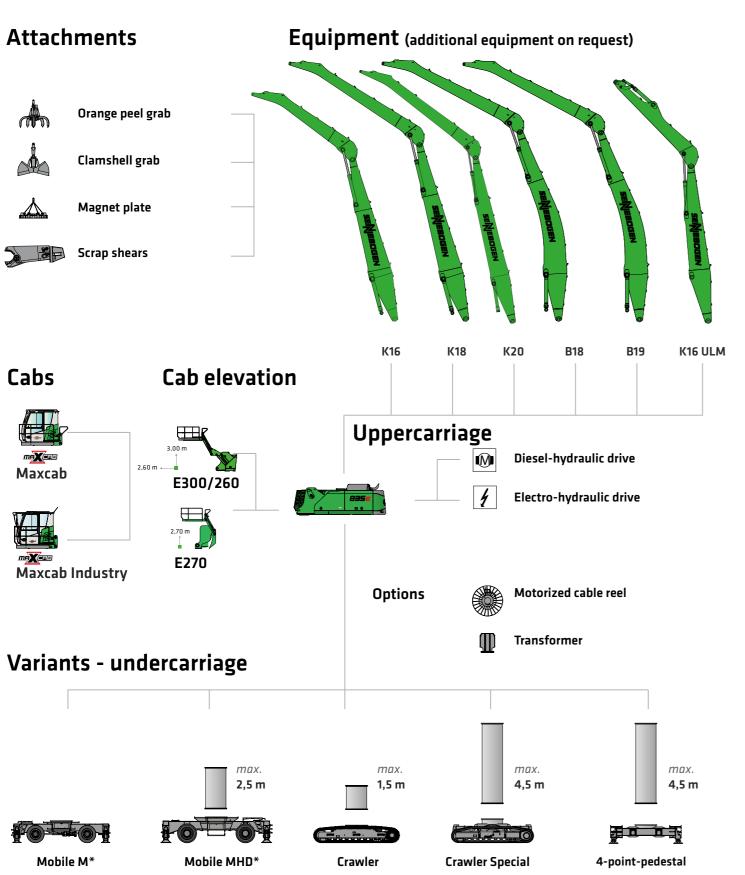


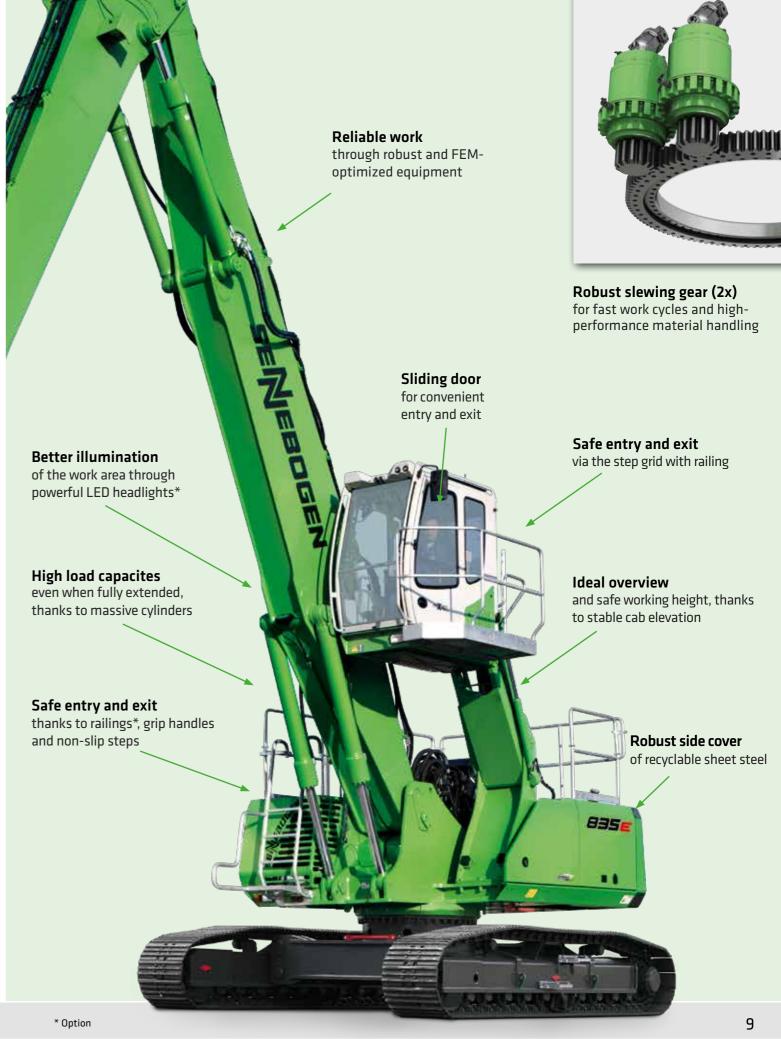
Clear labeling

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

6 \*Option \*Option 7

### **B35** Modular structure - versatile solutions









MACHINE '	TYPE
Model (type)	835
ENGIN	E
Power	Stage V: Rated power: 231 kW at 2100 rpm 237 kW at 2000 rpm / 241 kW at 1850 rpm Stage Illa: Rated power: 227 kW at 2000 rpm 254 kW at 1800 rpm
Model	<b>Cummins L9</b> Direct injection, turbo charged, charge air cooler, reduced emissions, ECO mode, idle automation, stop automation, fuel pre-warming
Cooling	water-cooled, direction of rotation changeover of the cooler fan
Diesel filter	with water separator and heater
Air filter	Dry filter with integrated pre-separator, automatic dust discharge, main element and safety element, contamination indicator
Fuel tank	625 l
Adblue tank	75 l
Electr. system	24 V
Batteries	2 x 150 Ah, battery disconnect switch
Options	<ul> <li>Engine block pre-warming at temperatures under -20°C</li> <li>Electric fuel pump</li> </ul>
UPPER	CARRIAGE
Design	Torsion-resistant box design, precision crafted, steel bushings for boom bearing arrangement Extremely service-friendly concept, engine installed in the longitudinal direction
Central lubrication	Automatic central lubrication for equipment and slewing ring raceway

	UPPER	CARRIAGE
	Design	Torsion-resistant box design, precision crafted, steel bushings for boom bearing arrangement Extremely service-friendly concept, engine installed in the longitudinal direction
	Central lubrication	Automatic central lubrication for equipment and slewing ring raceway
	Electrical system	Central electrical distributor, battery disconnect switch
	Cooling system	3-circuit cooling system with high cooling output thermostatically regulated fan drive for oil cooler and water cooler, fan reversal for cleaning
	Options	<ul> <li>Slewing gear brake via foot pedal</li> <li>Hand rail at the upper structure for additional safety</li> <li>LED lighting packages</li> <li>Fire extinguisher</li> <li>Sea climate resistant coating</li> <li>Electric heater for hydraulic tank</li> <li>low temperature packages</li> <li>Hydraulically-driven magnetic generator</li> </ul>

15 kW / 20 kW

■ Telematic system SENtrack DS

Controlled Work	functions, load limit sensing control
Pump type	Variable-displacement piston pump in swashplate design, load pressure-independen 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
Delivery rate	maximum 740 l/min
Operating pressure	to 350 bar
Filtration	High-performance filtration with long-term change interval
Hydraulic tank	500 l
Control system	Proportional, precision hydraulic activation of work movements, 2 hydraulic servo joysticks for work functions, supplemental functions via switches and foot pedals
Safety	Hydraulic circuits with safety valves, secured emergency lowering of the equipment at engine standstill, pipe fracture safety valves for lift cylinder and stick cylinder
Options	<ul> <li>Bio-oil filling - ecologically worthwhile</li> <li>Tool Control for programming up to 10 tools in pressure / rate</li> <li>Supplemental hydraulic circuit for shear attachment</li> <li>Load moment warning with capacity utilization indicator</li> <li>Overload safeguard with overload shut-down</li> <li>60 µm pressure filter for attachments</li> <li>3 µm hydraulic micro-filter - SENNEBOGEN HydroClean</li> </ul>
SLEWI	NG DRIVE
Gearbox	Compact planetary gear with bent-axis hydraulic motor, integrated brake valves
Parking brake	Spring-loaded disk brake
Slewing ring	External gear slewing ring with 360° protection and pinion tooth lubrication

Slewing speed 0-8 RPM, stepless

# **B35** Technical data - equipment

■ CAB					
Cab type	Hydraulically elevating cab E270				
Cab equipment	Sliding door, sliding window in the operator door, excellent ergonomics, climate automation, seat heater, air-suspension comfort seat, fresh air filter / circulating air filter, joystick steering, 12 V / 24 V connections, SENCON				
Options	<ul> <li>Cab E300/260 can be elevated 300 cm, and moved forward 260 cm hydraulically</li> <li>Rigid cab elevation 1.00 m</li> <li>Auxiliary heating system with timer</li> <li>Cab active-charcoal filter inside air/outside air, ideal for waste recycling applications</li> <li>Steering wheel steering with adjustable steering column</li> <li>Armored glass windshield, additional safety</li> <li>Armored glass roof window, additional safety</li> <li>Safety side window</li> <li>Camera system for view under cabin</li> <li>Sunblind for roof window</li> <li>Protective roof grating</li> <li>FOPS protective roof grating, protection against falling objects</li> <li>Front protective grating</li> <li>Radio with speakers</li> <li>Enlarged industrial cab with undivided armored glass windshield</li> </ul>				
<b>EQUIPMENT</b>					

armored glass windshield					
<b>EQUIPMENT</b>					
Design	Decades of experience, state-of-the-art computer simulation, highest level stability, longest service life, large-dimensioned bearing points, sealed special bearing bushes, precision-crafted, quick-release couplings on the grapple connections - open/close/rotate				
Cylinders	Hydraulic cylinders with high-quality sealing and guide elements, end position damping, sealed bearing points				
Options	<ul> <li>Ball valves on the hydraulic lines grab open, close, rotate</li> <li>Kinematic position II for greater working depth</li> <li>Sea climate resistant coating</li> <li>Sea climate resistant coating of all cylinders, nickel-plated and chrome-plated</li> <li>Float position for equipment via hoist cylinder</li> <li>Lift limitation / stick limitation adjustable for the stop settings, for example in the hall</li> </ul>				

CARRIAGE
Wide-gauge crawler undercarriage in stable, torsionally rigid box construction
Hydraulic travel drive, integrated in the traveling gear frame for each traveling gear side through an axial piston motor via compact planetary gear.
Spring-loaded, hydraulically ventilated disk brakes. Hydraulic brake valves protect the drive engines when moving downhill.
Telescopic crawler undercarriage type T41/380 with mechanical track adjustment from 2.3 – 3.8 m and maintenance-free B6 crawler track (55 links, length 5350 mm) with 700 mm triple-grouser track shoes, canted
0 - 1.6 km/h stage I 0 - 3 km/h stage II
<ul> <li>Telescopic crawler undercarriage type         T41/380 with hydraulic track adjustment         of 2.3 - 3.8 m</li> <li>Maintenance-free B6 crawler track         (55 links, length 5350 mm) with 700 mm         flat track shoes, rounded</li> <li>Maintenance-free B6 crawler track         (55 links, length 5350 mm) with 800 mm         triple-growser track shoes, canted</li> </ul>

### ELECTRIC DRIVE GREEN Power: 160 kW / 400 volt / 50 Hz Option Total connected load 270 kVA, fuse protection in machine's switch box 315A at 400 V / in combination with magnet system 355A at 400 V - engine start up via star delta switch.

Power: 200 kW / 400 volt / 50 Hz Total connected load 340 kVA, fuse protection in machine's switch box 400A at 400 V / in combination with magnet system 425 at 400 V - engine start up via star delta switch.

Advantages: Lowest operating costs, low-noise and virtually vibration-free work, long service life of the hydraulic components

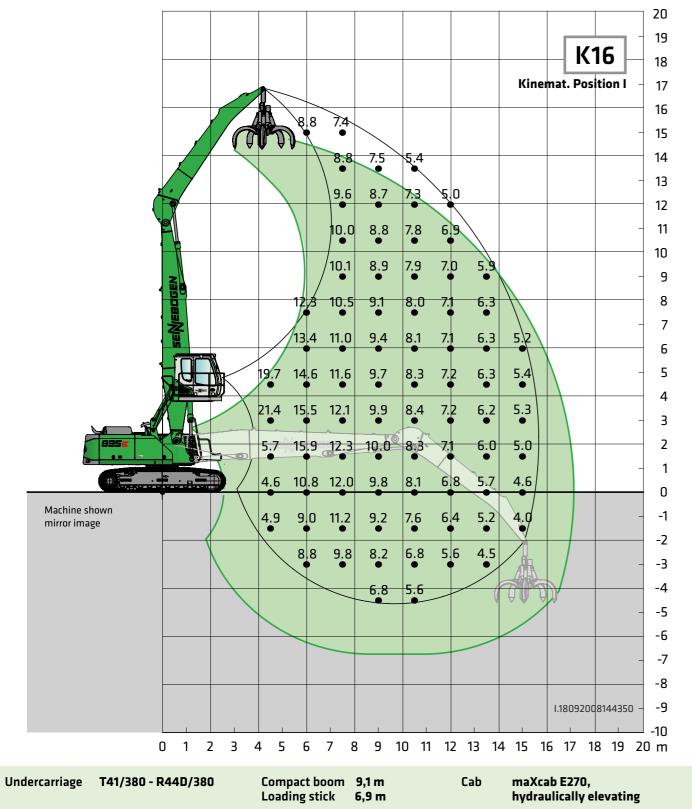
### OPERATING WEIGHT

Mass approximately 54,500 kg Basic machine 835 R with attachment K18 and 600 l multi-shell grab

Note The operating weight varies depending on the model.

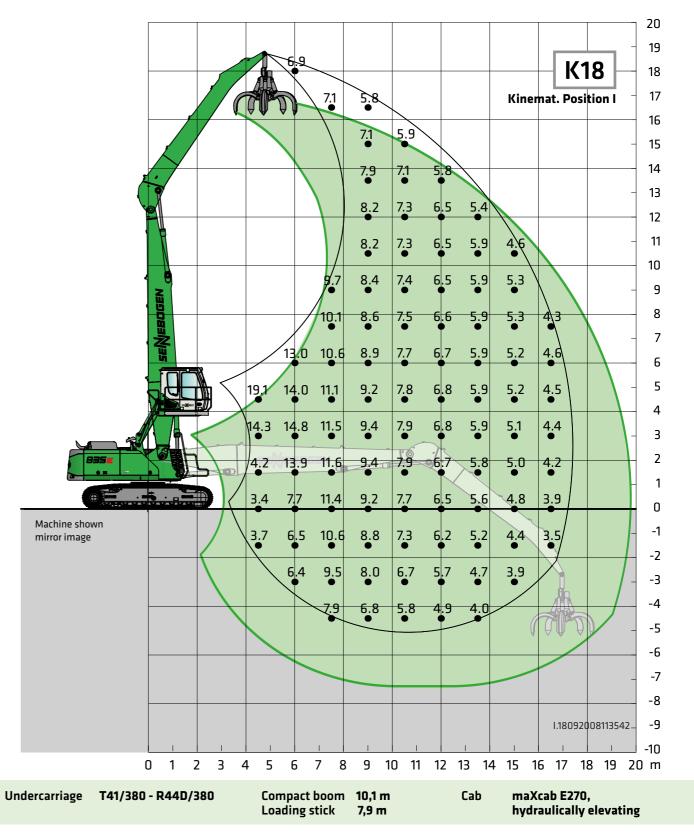


10 Subject to change. Subject to change.



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, et cetera 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 handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load





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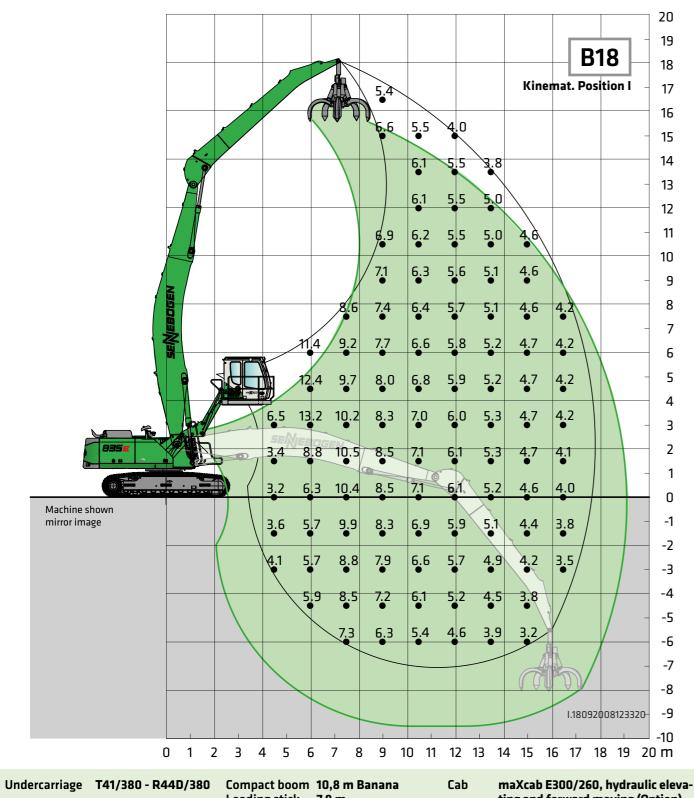
12 Technical data and dimension information subject to change.

ratings in square brackets [] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.

Technical data and dimension information subject to change

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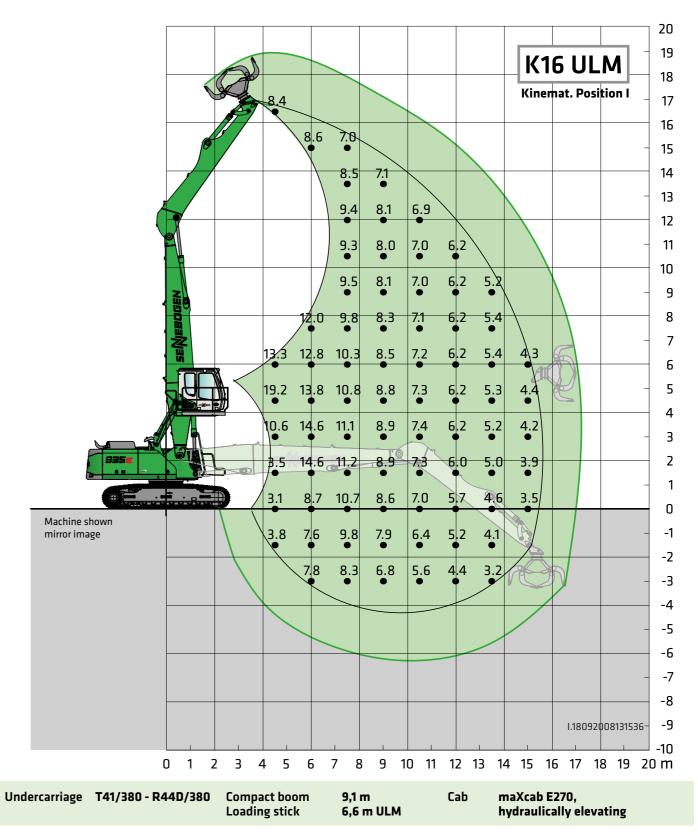




Undercarriage T41/380 - R44D/380 Compact boom 10,8 m Banana Cab maXcab E300/260, hydraulic eleva Loading stick 7,9 m ting and forward moving (Option)

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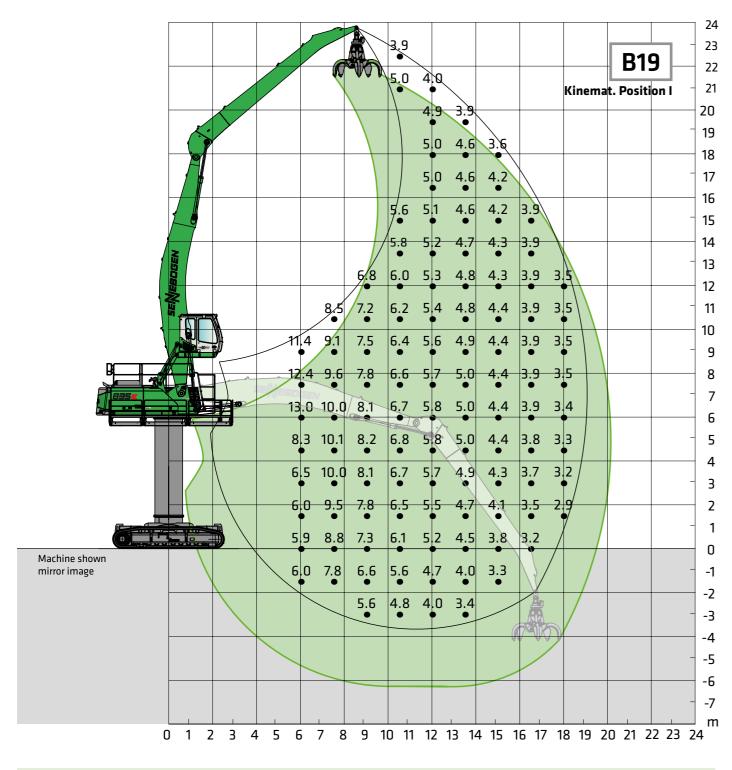
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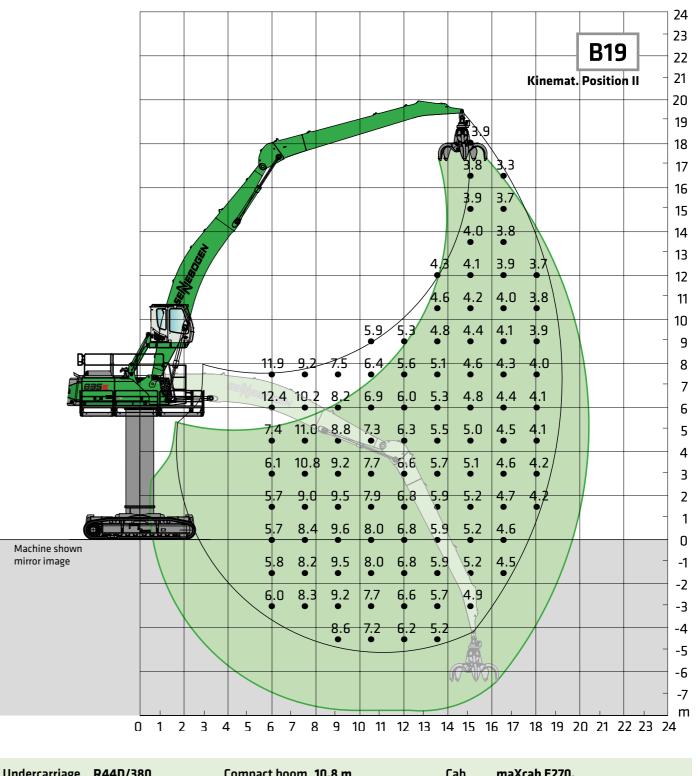




Undercarriage R44D/380 Compact boom 10,8 m Cab maXcab E270,
Pylon 4,5 m Loading stick 9,4 m hydraulically elevating

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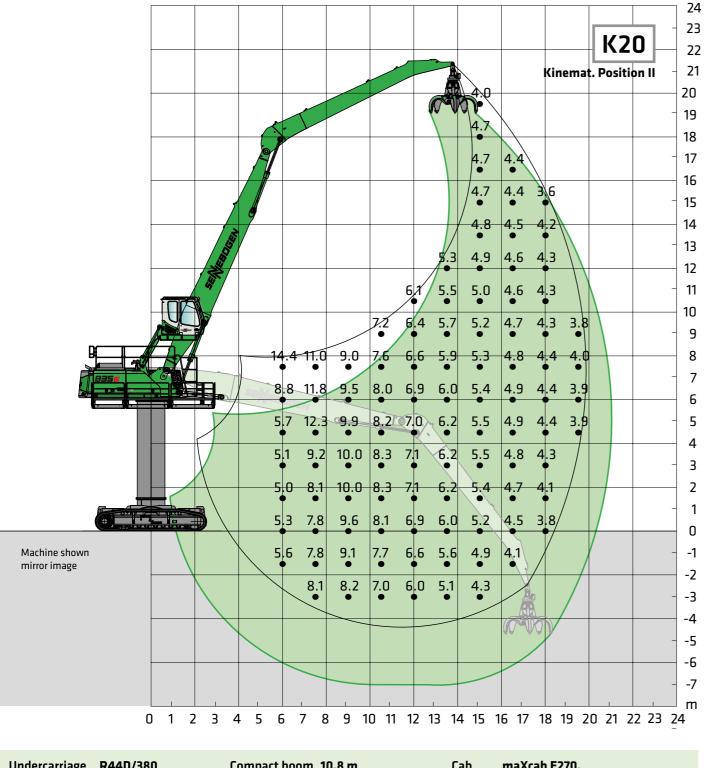
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Undercarriage R44D/380 Compact boom 10,8 m maXcab E270, Pylon Loading stick 9,4 m hydraulically elevating

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#### Orange peel grab SGM (4 shells)



Orange peel grab SGM (5 shells)



SGZ clamshell grab



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Design / sine	Crab canacity	Weight <sup>1</sup>		max.
Design / size	Grab capacity	Shell	form <sup>2</sup>	piled density
		но	G	
SGM	I I	kg	kg	t/m³
400.40-4	400	1570	1720	
600.40-4	600	1600	1790	
800.40-4	800	1685	1930	2,0
1000.40-4	1000	1755	2085	
1250.40-4	1250	1850	2200	

Design / size	Grab capacity	Weight¹ Shell form²		max. piled density
		НО	G	
SGM	I	kg	kg	t / m³
400.40	400	1820	1920	
600.40	600	1910	2035	
800.40	800	1960	2140	2,0
1000.40	1000	2040	2290	2,0
1250.40	1250	2180	2415	
1400.40	1400	2250	2500	

Design / size	Grab capacity	Weight <sup>1</sup>	max. payload
SGZ	ı	kg	t/m³
1500.50	1500	1950	3.6
2000.50	2000	2200	2,6
2500.50	2500	2300	2,0
3000.50	3000	2490	2,0
4000.50	4000	2880	1,6
3000.50 L	3000	2140	1,0
3500.50 L	3500	2260	1,0
4000.50 L	4000	2480	0.0
4500.50 L	4500	2600	0,8
1500.50 HD	1500	2240	3.5
2000.50 HD	2000	2535	3,5

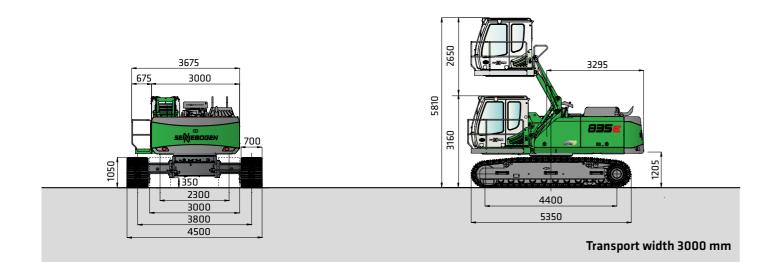
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Type series / model	Power	Weight	Pull-off strength	Lifting capacity in kg	
woкo	kW	kg kN		Slab (safety factor 2)	
S-RSL 15	12,2	1950	360	18000	
S-RSL 17	17,0	2500	460	23000	
S-RLB 13,5	10,0	1700	300	15000	
S-RLB 15	11,7	2400	380	19000	
S-RLB 17	17,8	3300	640	32000	
Recommended magnetic generator: 15 kW / 20 kW					

<sup>1)</sup> Weight information without grab suspension, stick holts, hose system

<sup>2)</sup> Half-open shells: Shell sheet steel 400 mm wide, from content 1250 I shell sheet steel 500 mm wide

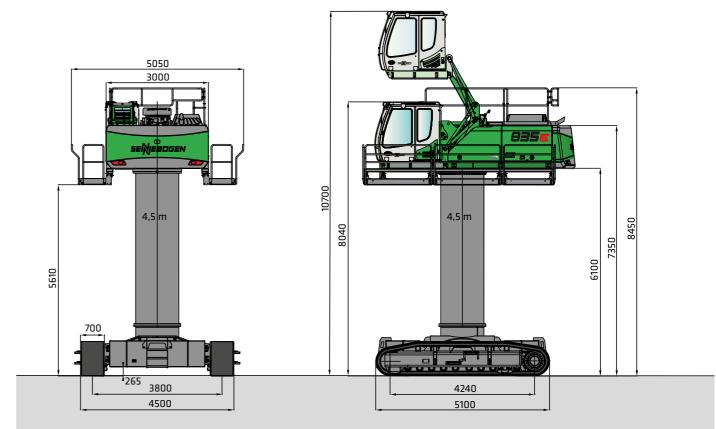
### **B35** Dimensions



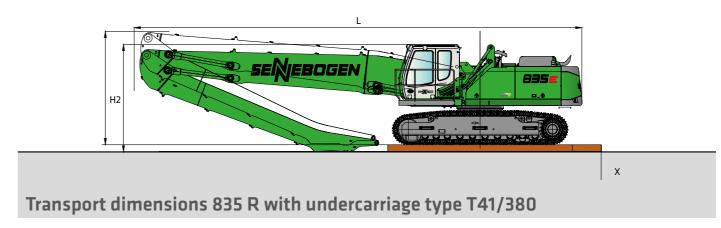
835 R with hydraulic telescopic undercarriage T41/380 and hydraulic elevating cab E270

835 R with wide gauge undercarriage R44D/380 and hydraulic elevating and





835 R with wide gauge undercarriage R44D/380, 4,5m Pylon and hydraulic elevating cab type E270



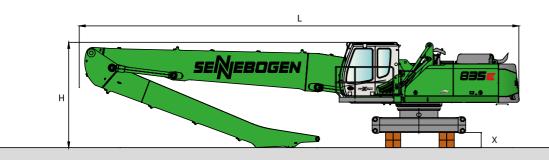
	Loading boom	Grabstick	Transport length (L)	Transport height (H2)	Transport height (H1)	Transport height (X)
K16	9,1 m	6,9 m	13,5 m	3,20 m	-	-
K18	10,1 m	7,9 m	14,5 m	3,90 m	3,50	0,20 m
B18	10,8 m Banana	7,9 m	15,1 m	3,45 m	-	-
K16 ULM	9,1 m	6,6 m	13,5 m	3,80 m	3,45	0,20 m

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forward moving cab E300/260

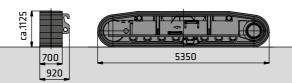
# **B35** Transport dimensions



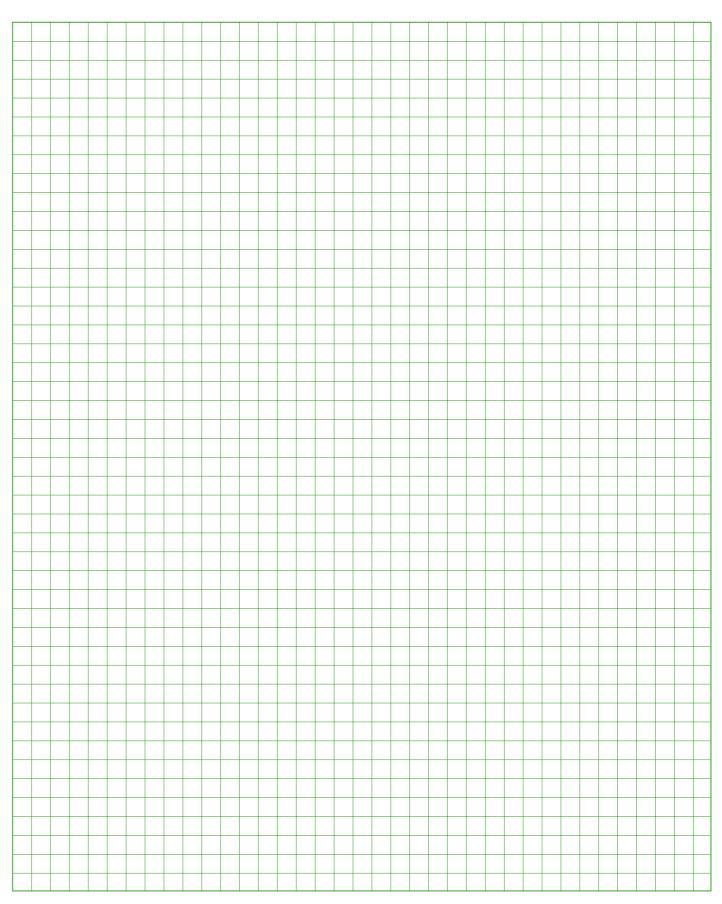


### Transport dimensions 835 R with undercarriage type R44D/380

	Loading boom	Grabstick	Transport length (L)	Transport height (H)	Transport height (X)
K16	9,1 m	6,9 m	13,4 m	3,45 m	0,25 m
K18	10,1 m	7,9 m	14,4 m	3,45 m	0,50 m
B18	10,8 m Banana	7,9 m	15,1 m	3,45 m	0,25 m
K16 ULM	9,1 m	6,6 m	13,4 m	3,45 m	0,50 m



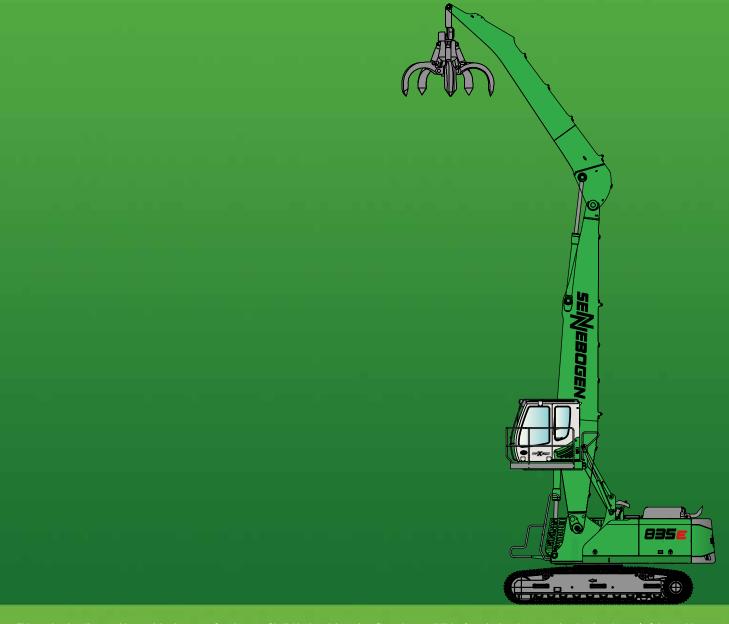
Crawler, B6 crawler R44D/380 with 700 mm track shoes, weight approx. 6.850 kg - 2 pieces



22 23







This catalog describes machine models, the scope of equipment of individual models, and configuration possibilities (standard equipment and optional equipment) of the machines delivered by SENNEBOGEN Maschinenfabrik. Machine illustrations can contain optional equipment and supplemental equipment. Depending on the country in which the machines are delivered, deviations from the equipment are possible, particularly with regard to standard equipment and optional equipment.

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Please contact your local SENNEBOGEN sales partner for information concerning the equipment variants offered. Desired performance characteristics are only binding if they are expressly agreed when the contract is concluded. Delivery possibilities and technical features are subject to change. All information is provided without guarantee. We reserve the right to make equipment changes and further developments.

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