SENNEBOGEN

115 kW (Stage V)
97 kW (Stage IIIa)
90 kW (Electro)

21,8 t

10 m

maXCAB

818E

Mobile material handling machine

Stage V

818E 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

1 Green Efficiency
Save 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
Comfortable Maxcab operator cab - relaxed work
SENCON - work program selection made easy

4 Maximum safety
Safe entry and exit - no-slip steps
State-of-the-art camera - entire work area in view

5 Maintenance and service made easy
SENNEBOGEN Control System SENCON - easy fault diagnosis
Easy Maintenance - clear labeling

6 Consultation and support in your area
3 production sites - 2 subsidiaries
more than 130 sales partners - worldwide and also in your area


818E

818E 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 settings of engine and hydraulics reduces fuel consumption

Quiet operation 3

- 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 4

- 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
- Fan reversal for cleaning in series

Maximum safety

- No-slip work surfaces 1
- 2 cameras to the right and rear
- Step grid with railing* next to cab sliding door 2

Powerful hydraulic system 5

- Strong pumps with power reserves
- Top efficiency thanks to large-dimensioned hydraulic valves and lines
- Extra-long change intervals of 4,000 operating hours through initial fill-up with special oil with extended service life when using SENNEBOGEN HydroClean*

* optional

The premium cab.

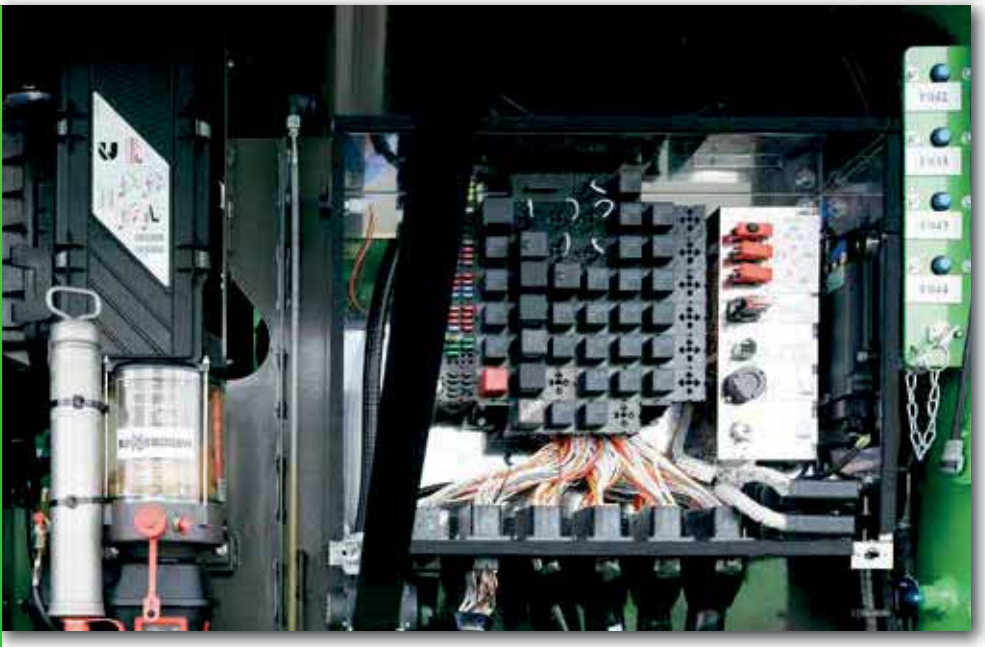
Features

- optimum cab climate with automatic air conditioning system, partial tinted glass
- pleasant and equal temperature dispersion by means of 9 nozzles
- panoramic view
- comfort seat with air suspension
- 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 operator`s 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

818 E Maintenance and service made easy.



Optimized for maintenance

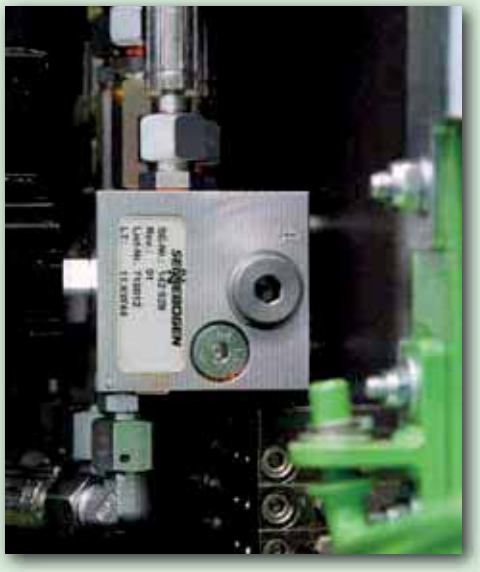
- Fast and easy diagnosis thanks to straightforward and clearly labeled electrical distributor
- Easy access to all service points on the machine
- Automatic central lubrication for equipment and slewing gear

SENNEBOGEN Hydro Clean*

- 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



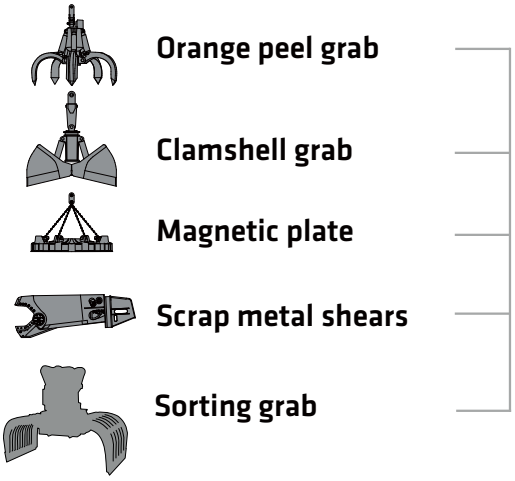
Clear labeling

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

* Option

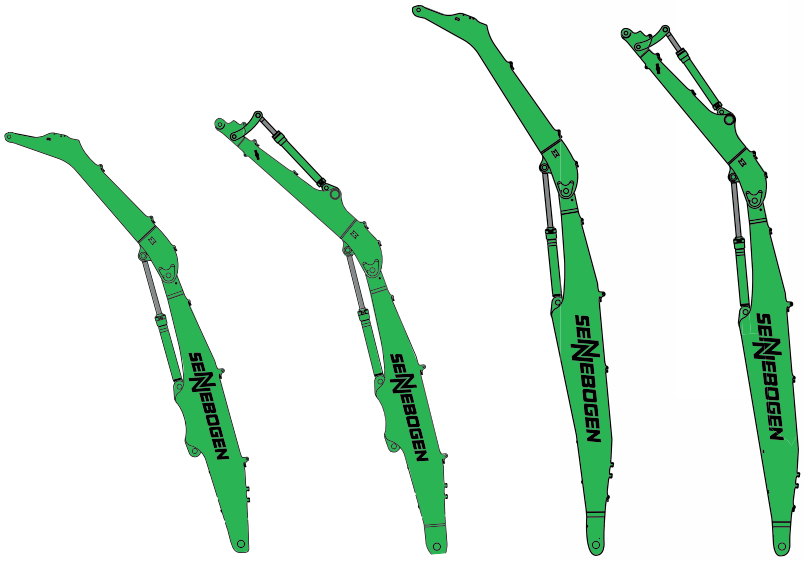
818 E Modular design - versatile solutions

Attachments



- Orange peel grab
- Clamshell grab
- Magnetic plate
- Scrap metal shears
- Sorting grab

Equipment options (others available upon request)



K9 | K9 ULM | K10 | K10 ULM

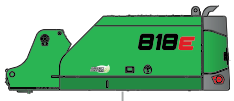
Cabs

Maxcab

Maxcab Industry

Cab elevation

E270



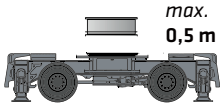
Uppercarriage

- Diesel-hydraulic drive
- Electrohydraulic drive

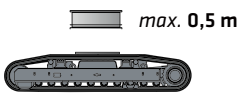
Options

- Motorized cable reel
- Transformer

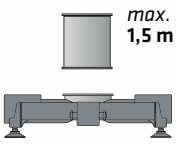
Undercarriage variants



Mobile M



Crawler
R25/240*



4-point pedestal

* further information about our crawler undercarriages can be found in the separate brochure 818 R E-Series.

818E Advantages at a glance

Reliable operation through robust and FEM-optimized equipment

High load capacities even when fully extended, thanks to massive cylinders

Sliding door for convenient entry and exit

Ideal overview and safe working height thanks to stable cab elevation

Better illumination of the work area through powerful LED headlights*

Robust side cover made of recyclable sheet steel

Safe entry and exit thanks to railings*, grip handles and no-slip steps

High stability due to the broad outrigger area

* Option

818 E Technical data, equipment

MACHINE TYPE

Model (type)	**818**

ENGINE

Power	**97 kW at 2200 rpm (Stage IIIa)** **115 kW at 2200 rpm (Stage V)**
Model	**Cummins B 4,5 Stage V** **Cummins QSB 4,5 Stage IIIa** Direct injection, turbo charged, charge air cooler, reduced emissions, Eco Mode, idle automation, stop automation, diesel particulate filter (DPF - only Stage V)
Cooling	Water-cooled
Air filter	Dry air filter with integrated pre-separator, safety element, contamination indicator
Fuel tank	**330 l**
DEF tank	**30 l**
Electr. system	**24 V**
Batteries	2 x cold-start high-performance batteries
Options	■ Engine block heater ■ Electric fuel pump ■ Jump-start battery terminals ■ additional cyclone pre-separator

UPPERCARRIAGE

Design	Torsion-resistant box design, precision crafted, steel bushings for boom bearings. Extremely service-friendly design, longitudinal engine
Central lubrication	Automatic central lubrication for equipment and slewing gear
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
Safety	Camera package (right/rear)
Options	■ Slewing gear brake via foot pedal ■ Hand rail at the upper structure for additional safety ■ LED lighting packages ■ Fire extinguisher ■ Special paint finish ■ Electric heater for hydraulic tank ■ Low-temperature packages ■ Hydraulically driven magnetic generator 9 kW ■ Telematic system SENtrack DS

Options	■ Additional ballast ■ Rotating lights and alarm horns

HYDRAULIC 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
Delivery rate	**max. 310 l/min**
Operating pressure	**max. 350 bar**
Filtration	High-performance filtration with long change interval
Hydraulic tank	**260 l**
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 ■ 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

SLEWING DRIVE

Gearbox	Compact planetary gear with bent-axis hydraulic engine, integrated brake valves
Parking brake	Spring-loaded, hydraulically vented safety multi-disk brake
Slewing ring	Strong slewing ring, sealed
Slewing speed	0-8 rpm, stepless. Hydraulic brake valves integrated in motor ensure wear-free braking.

818 E Technical data, equipment

CAB

Cab type	Hydraulically elevating cab E270
Cab equipment	Sliding door incl. sliding pane, vibration damped, tinted safety glass, front pane can be opened, roof window, Windscreen wiper for windscreen, radio preparation, air-suspended comfort seat, joystick steering, SENNEBOGEN SENCON control & diagnostic system
Options	■ active seat air conditioning ■ Auxiliary heating system with timer ■ Cabs with active carbon filter ■ Armored-glass windshield ■ Armored-glass sunroof ■ Safety side window and rear window ■ Rolling shade for roof window and wind-shield ■ Protection guards ■ FOPS protective roof grating ■ Protective front grating ■ Radio ■ Maxcab Industry with undivided armored glass windshield ■ electrical cooling box ■ Steering wheel steering ■ 30° tiltable cab ■ Camera for ground monitoring ■ Protective cover for the seat ■ Comfort armrests ■ Protective ventilation system

EQUIPMENT

Design	Sealed and soiling-protected box design with oversized bearing points for long service life. Oversized bearing points with low-maintenance, sealed special bushings, precision-crafted
Cylinders	Special hydraulic cylinder with hydraulic end position damping, optimized kinematics for high lifting power. The material handling equipment is specifically designed for high-performance applications.
Central lubrication	Automatic central lubrication system
Options	■ Ball valves on the hydraulic lines ■ Multi-coupling ■ Adjustable hoisting limiter/stick limiter ■ Additional cameras ■ Boom damping

UNDERCARRIAGE

Design	Strong undercarriage with 4-point outrigger support or combination of stabilizer blade and outrigger support (option), hydraulically locking pendulum steering axle. Pendulum axle cylinder with pipe-fracture safety valves
Drive	All-wheel drive powered by a variable-displacement hydraulic engine with direct-mounted, automatically actuated brake valve and 2-stage power shift transmission. Strong planetary axles with integrated steering cylinder, 2-circuit multi-disk service brake.
Parking brake	Spring-loaded multi-disk brake
Tires	8 x 10.00-20 solid rubber
Speed	Stage I: **0–5.5 km/h**; Stage II: **0–20 km/h**
Options	■ 8 x 10.00-20 pneumatic tires ■ Individual outrigger actuation ■ Additional pushing blade for 4-point outrigger (front or rear) ■ 2-point outrigger and stabilizer blade (front or rear) ■ Protection for travel drive/shunting coupling ■ Pylon extension

ELECTRIC DRIVE eGREEN

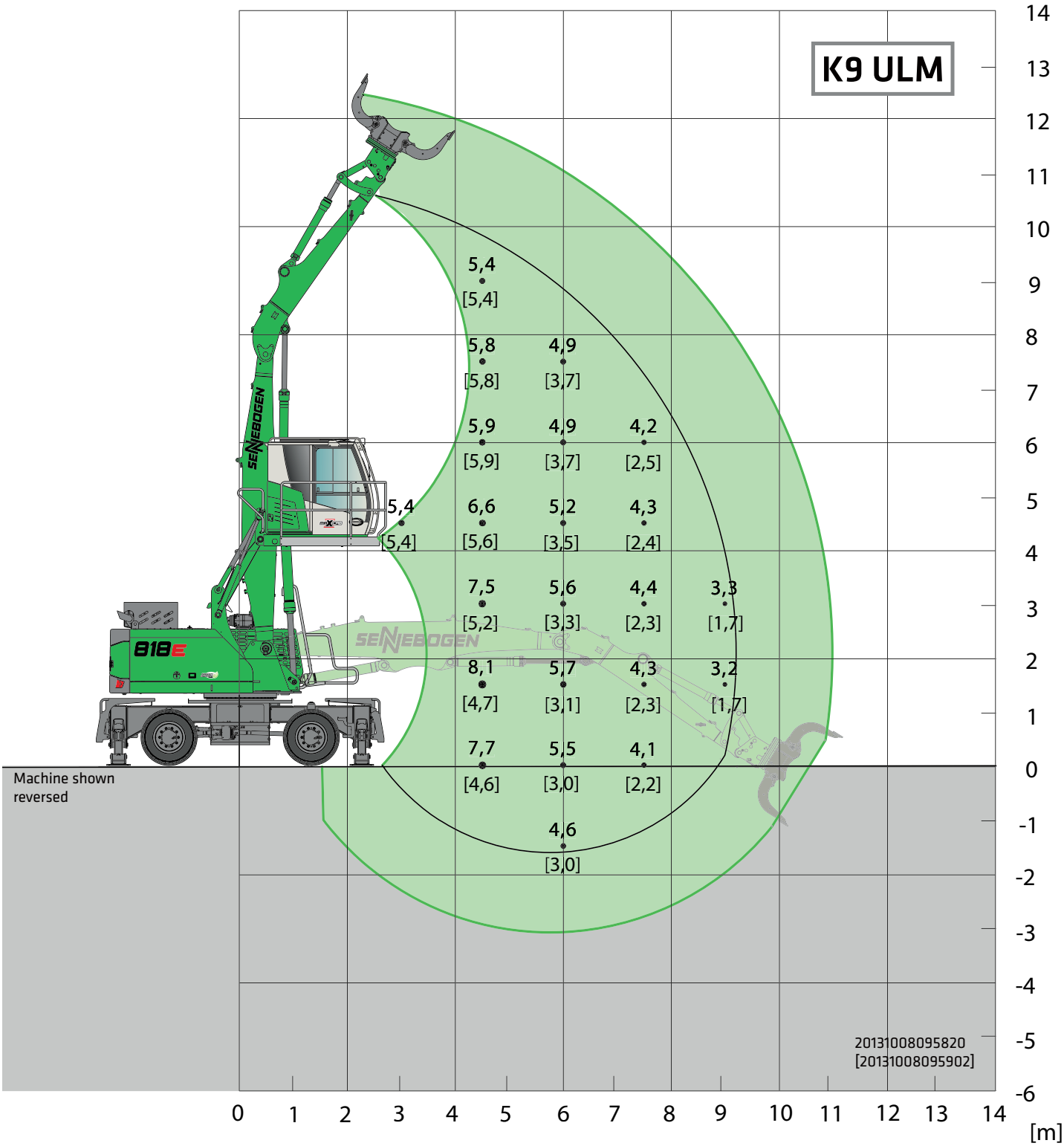
Option	■ Power: **90 kW / 400 V / 50 Hz** Total connected load 200 kVA, machine fusing 200 (alternatively 200 A with magnet system) for 400 V, motor start-up via star-delta circuit ■ Advantages: lowest operating costs, quiet and virtually vibration-free work, long service life of hydraulic components

OPERATING WEIGHT

Mass	818 M with 4-point outrigger, K9 compact loading equipment and 600 l orange peel grab **Approx. 21,800 kg**
Notice	Operating weight varies by model and equipment.

818E Load ratings

M

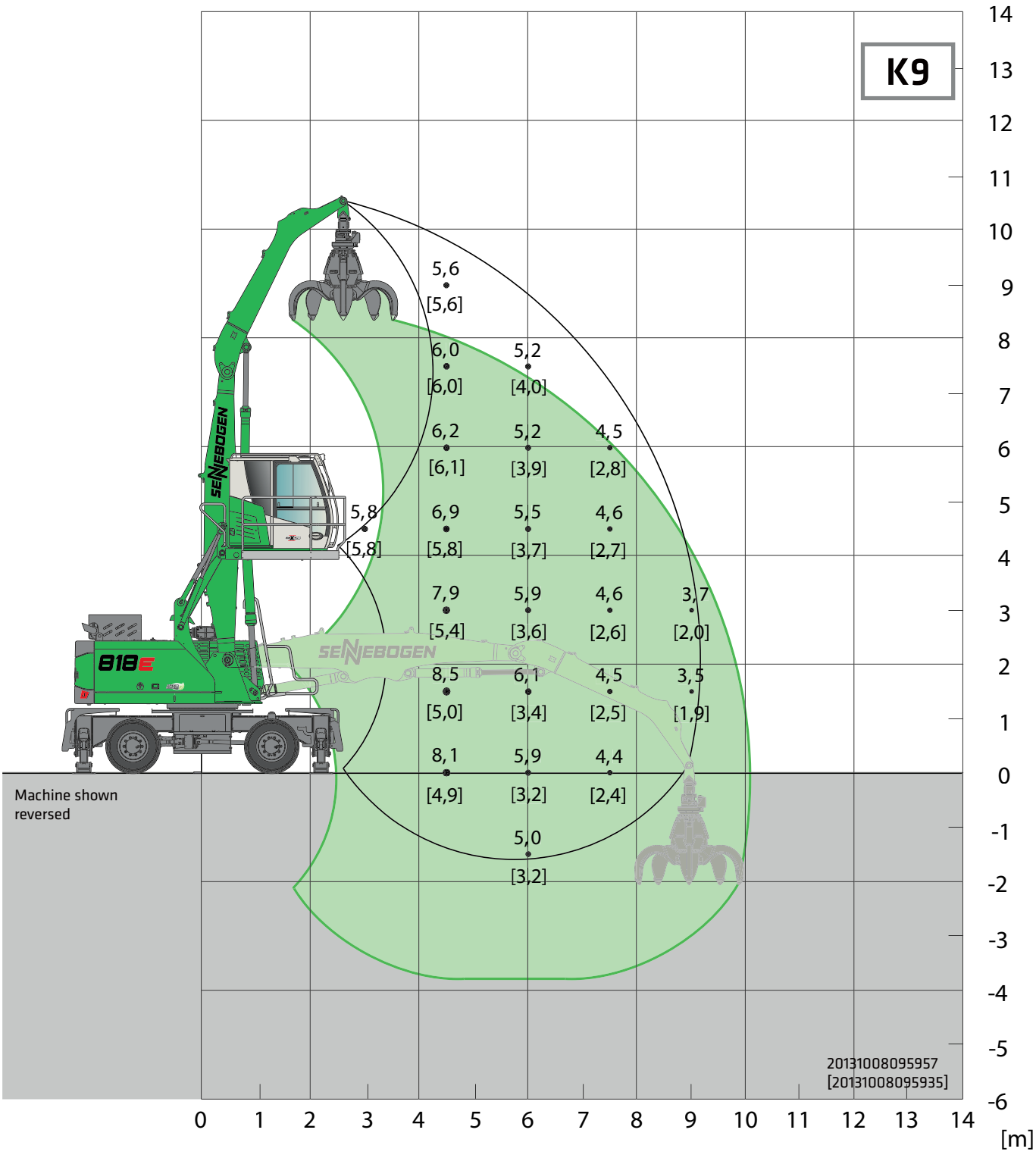


Undercarriage	**MP21**	**Compact boom** **Grab stick**	**5,3 m** **3,8 m ULM**	**Cab**	**Maxcab E270,** **hydraulically elevating**

All load ratings are in tons (t) and apply at the end of the stick, without attachment, on solid, level ground. Attachments such as grapple, magnet, load hook, etc. are part of the specified load ratings. The ratings constitute 75% of the static tipping load or 87% of the hydraulic lifting power in accordance with ISO 10567. In accordance with EU standard EN 474-5, material handling machines used for hoisting must be equipped with pipe-fracture safety devices on the hoist cylinders and an overload warning device. Load ratings apply for a machine with deployed 4-point outrigger support and for 360° slewing. Load ratings in square brackets [ ] apply for blocked pendulum axle, undeployed outriggers, free-standing, and 360° slewing.

818E Load ratings

M

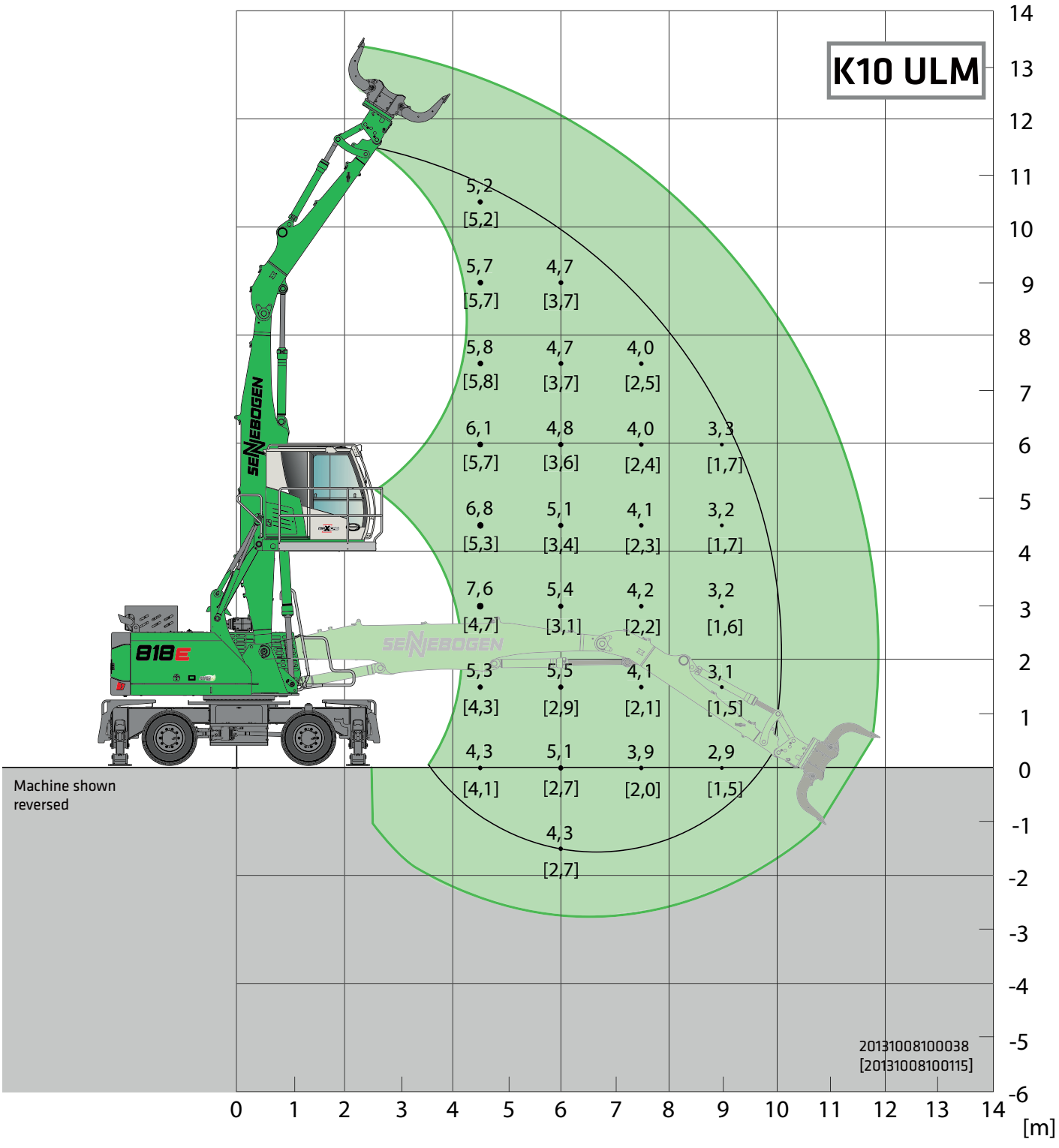


Undercarriage	**MP21**	**Compact boom** **Grab stick**	**5,3 m** **3,8 m**	**Cab**	**Maxcab E270, hydraulically elevating**

All load ratings are in tons (t) and apply at the end of the stick, without attachment, on solid, level ground. Attachments such as grapple, magnet, load hook, etc. are part of the specified load ratings. The ratings constitute 75% of the static tipping load or 87% of the hydraulic lifting power in accordance with ISO 10567. In accordance with EU standard EN 474-5, material handling machines used for hoisting must be equipped with pipe-fracture safety devices on the hoist cylinders and an overload warning device. Load ratings apply for a machine with deployed 4-point outrigger support and for 360° slewing. Load ratings in square brackets [ ] apply for blocked pendulum axle, undeployed outriggers, free-standing, and 360° slewing.

818E Load ratings

M

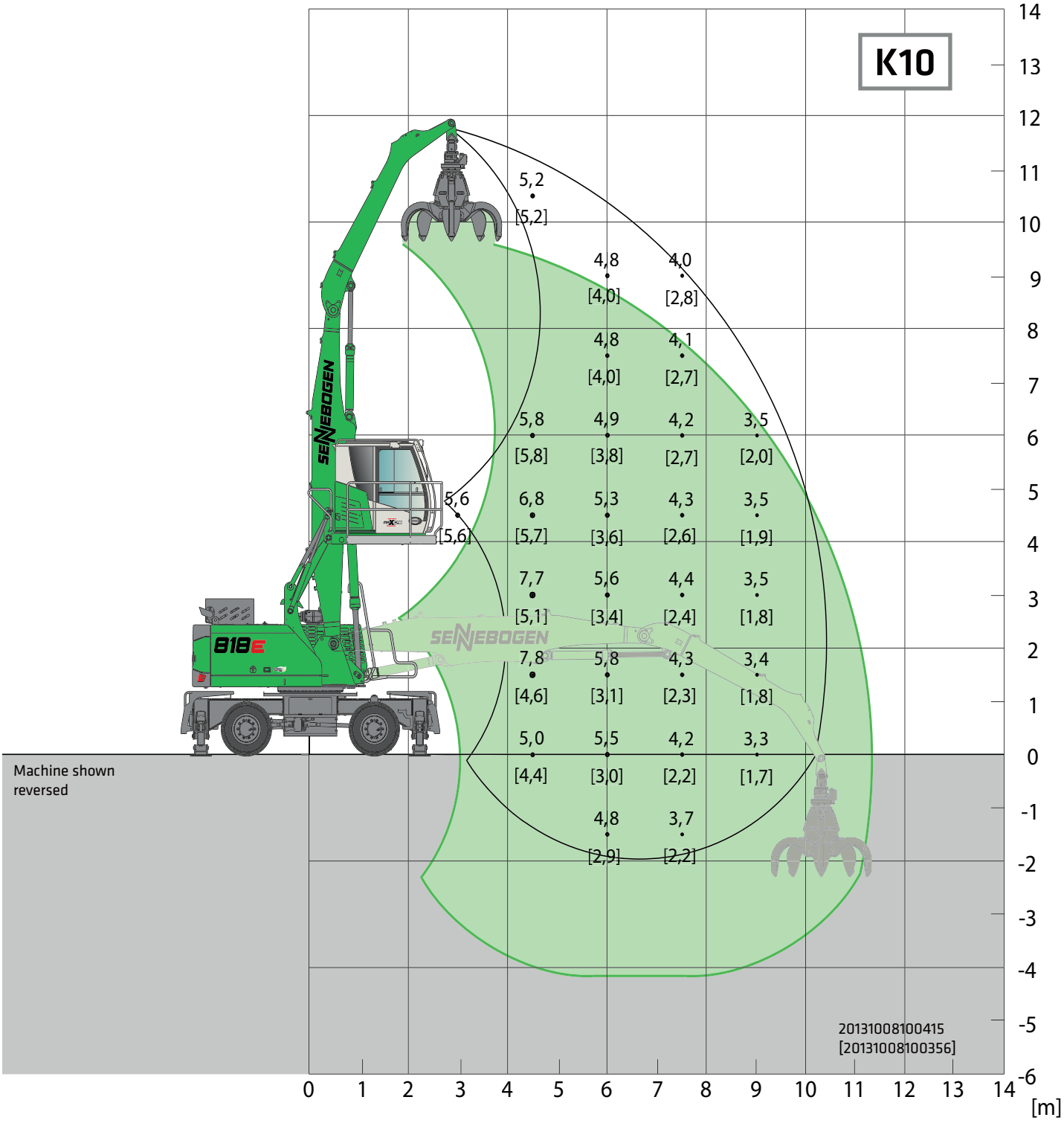


Undercarriage	**MP21**	**Compact boom** **Grab stick**	**6,2 m** **3,8 m**	**Cab**	**Maxcab E270, hydraulically elevating**

All load ratings are in tons (t) and apply at the end of the stick, without attachment, on solid, level ground. Attachments such as grapple, magnet, load hook, etc. are part of the specified load ratings. The ratings constitute 75% of the static tipping load or 87% of the hydraulic lifting power in accordance with ISO 10567. In accordance with EU standard EN 474-5, material handling machines used for hoisting must be equipped with pipe-fracture safety devices on the hoist cylinders and an overload warning device. Load ratings apply for a machine with deployed 4-point outrigger support and for 360° slewing. Load ratings in square brackets [ ] apply for blocked pendulum axle, undeployed outriggers, free-standing, and 360° slewing.

818E Load ratings

M



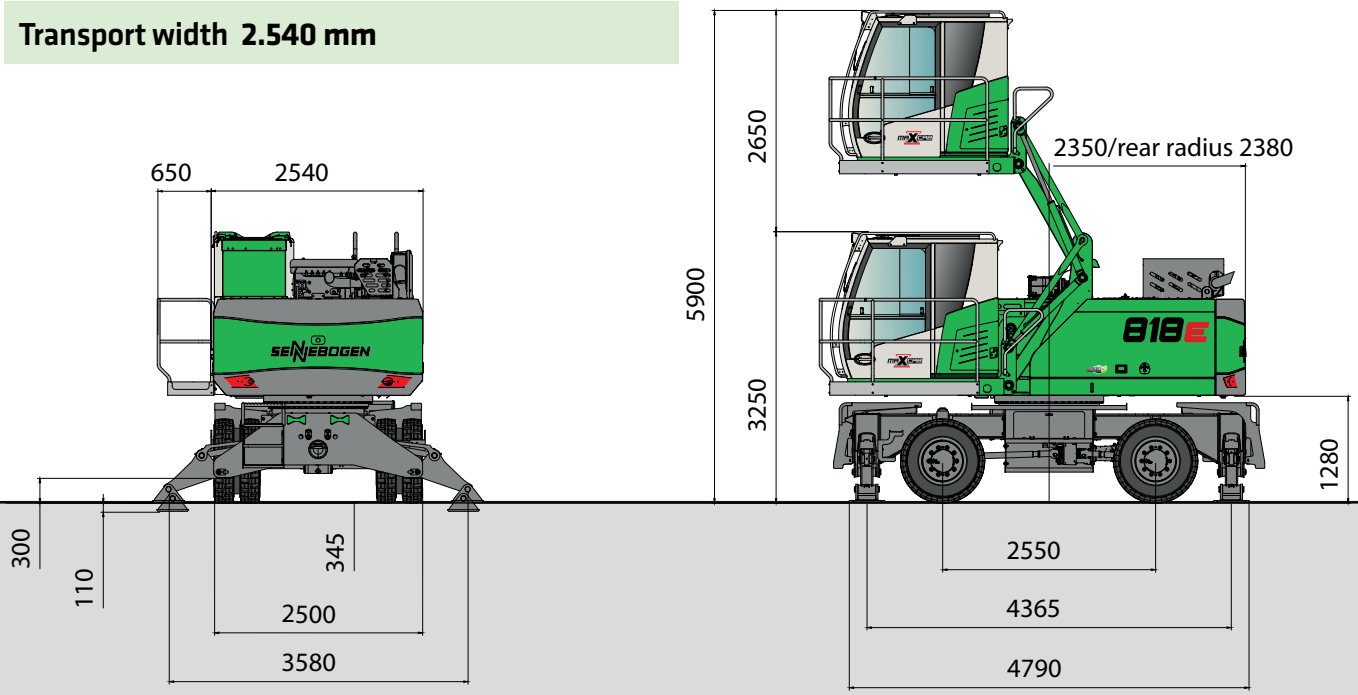
Undercarriage	**MP21**	**Compact boom** **Grab stick**	**6,2 m** **4,2 m**	**Cab**	**Maxcab E270, hydraulically elevating**

All load ratings are in tons (t) and apply at the end of the stick, without attachment, on solid, level ground. Attachments such as grapple, magnet, load hook, etc. are part of the specified load ratings. The ratings constitute 75% of the static tipping load or 87% of the hydraulic lifting power in accordance with ISO 10567. In accordance with EU standard EN 474-5, material handling machines used for hoisting must be equipped with pipe-fracture safety devices on the hoist cylinders and an overload warning device. Load ratings apply for a machine with deployed 4-point outrigger support and for 360° slewing. Load ratings in square brackets [ ] apply for blocked pendulum axle, undeployed outriggers, free-standing, and 360° slewing.

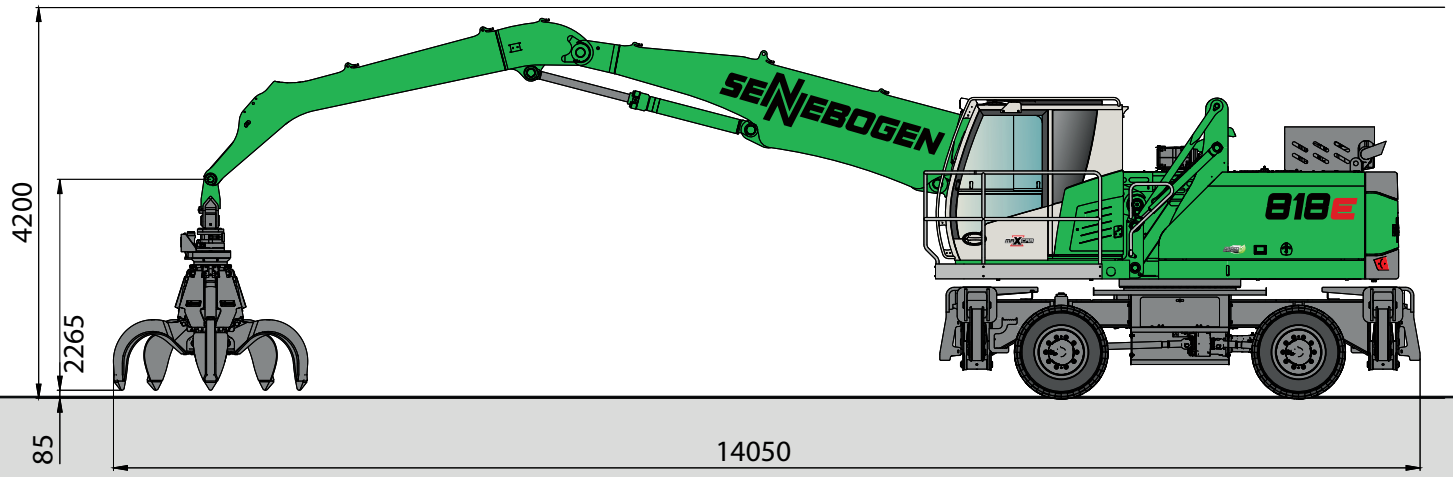
818 E Transport dimensions

M

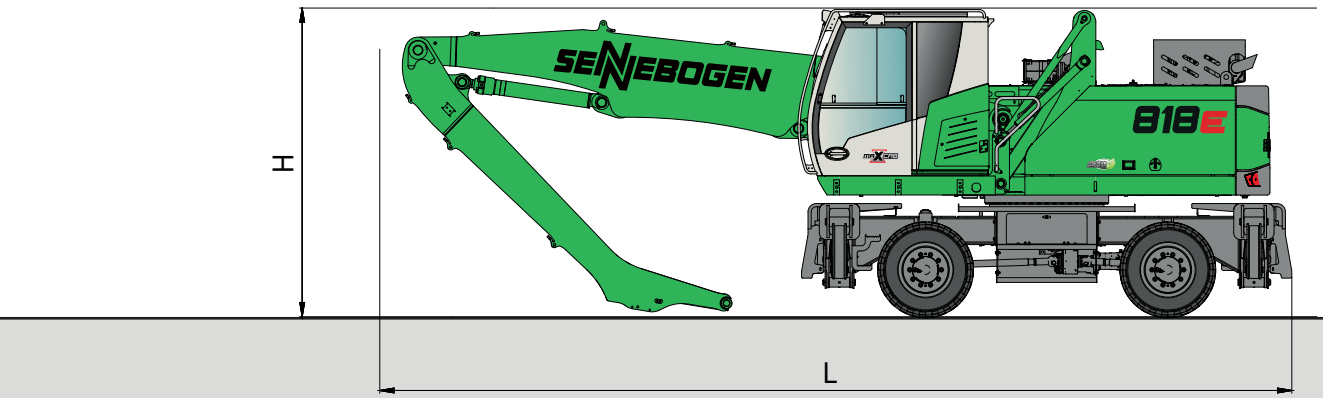
Transport width 2.540 mm



818 M with MP21 undercarriage and type E270 hydraulically elevating cab

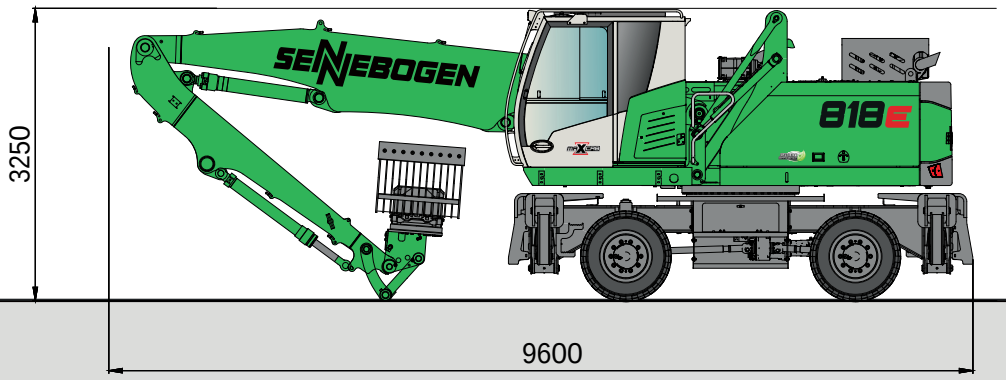


818 M with 6.2 m K10 compact boom and 4.2 m grab stick with SENNEBOGEN orange peel grab



818 M with undercarriage MP21

	Load boom	Grab stick	Transport length (L)	Transport height (H)
K9 ULM	5.3 m	3.8 m ULM	8.7 m	3.25 m
K9	5.3 m	3.8 m	8.7 m	3.25 m
K10 ULM	6.2 m	3.8 m ULM	9.6 m	3.25 m
K10	6.2 m	4.2 m	9.6 m	3.25 m



818 M with 6.2 m K10 compact boom ULM and 3.8 m grab stick

818E Recommended grabs

SGM orange peel grab (4 shells)

Design / size	Grab capacity	Weight[1]		Max. piled density
		Shell shape		
		HO	G	
SGM	l	kg	kg	t/m³
500.20-4	500	835	975	2.0
400.30-4	400	1290	1390	
600.30-4	600	1315	1445	
800.30-4	800	1350	1515	

SGM orange peel grab (5 shells)

Design / size	Grab capacity	Weight[1]		Max. piled density
		Shell shape [2]		
		HO	G	
SGM	l	kg	kg	t/m³
500.20	500	970	1060	2.0
400.30	400	1480	1530	
600.30	600	1510	1590	
800.30	800	1550	1660	

Clamshell grab SGZ

Design / size	Grab capacity	Weight[1]	Max. piled density
		kg	t/m³
1000.40	1000	1440	2.0
1200.40	1200	1575	

Sorting grab SGR

Type series / model	Grab capacity	Weight[1]
SGR	l	kg
800.30 L	380	1000
1000.30 L	450	1050
1200.30 L	520	1060

Magnetic plates

Type series / model	Power	Deadweight	Breakaway force	Lifting capacity in kg
WOKO	kW	kg	kN	Slab (safety factor 2)
S-RLB 10	4.8	730	190	9500
S-RLB 11.5	5.5	1060	240	12000
S-RLB 12.5	8.8	1310	280	14000
Recommended magnetic generator: 9 kW/15 kW				

*) Available upon request

[1]) Weight information without grab suspension, stick bolts, hose system

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

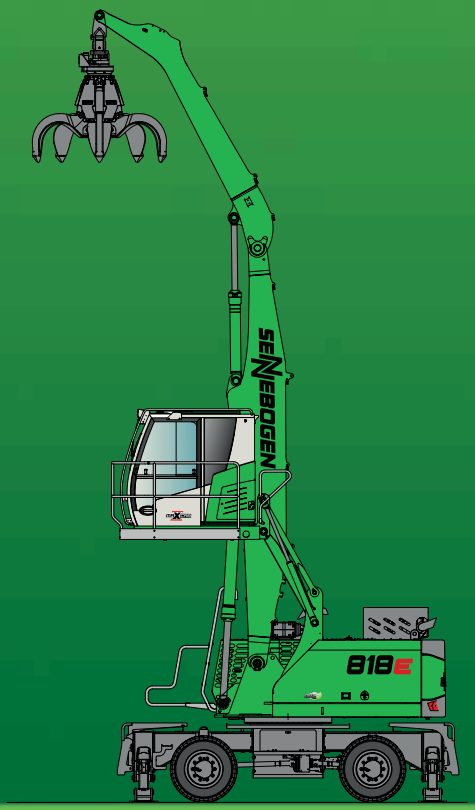
Detailed information on grabs, as well as log grabs, quick-release systems, and other attachments can be found in the "Attachments" brochure

Dimensions in [mm]

818 M Electro - Loading of a baler with sorting grab

818 M - best overview when loading and unloading trains due to stepless cab elevation

818 E M



SENNEBOGEN
Maschinenfabrik GmbH
Sennebogenstraße 10
94315 Straubing, Germany

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

BestellNr. / Item No. 187557
818M-E-031610-111610-071815-091815-021915-052010