

PRELIMINARY



261 kW (Tier 4)

268 kW (Tier 3a)



114 - 117 t



33 m / 36 m



MAXCAB

870E

Long-front demolition material handler

Tier IV emission standards

870E Advanced. The E-Series



1980: S214 with double cylinders

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





870E 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
- Sound pressure level reduced by up to 4.5 dB; 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 ondemand thermostatic control
- Fan reversal for cleaning in series



30° tiltable cab

Maximum safety

- Maxcab cab with sliding door
- No-slip work surfaces
- Peripheral railing **1**
- 2 cameras to the right and rear
- Step grid with railing next to cab sliding door
- Protective front and roof grating

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*



The premium cab.

Panoramic view

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`s, protective covers, seat air conditioning

Our 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



870E 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 service life



Central measuring points

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

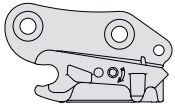


Clear labeling

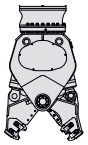
- All parts labeled with a unique part number
- Easy and reliable spare parts ordering

870E Modular design

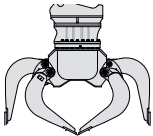
Attachments



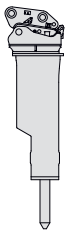
Mechanical quick changing system



Crusher



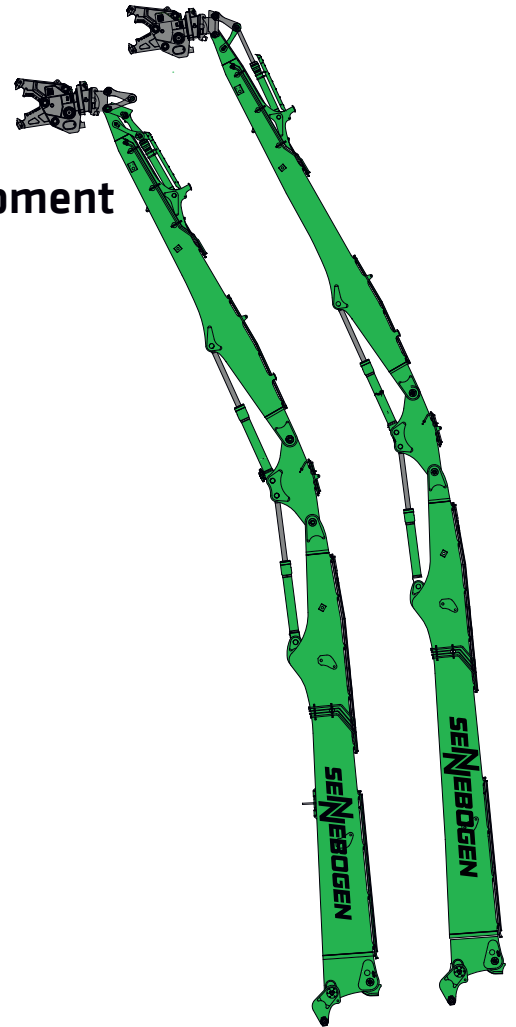
Demolition grab



Demolition hammer

Long-front demolition equipment

AB 33 with 33 m reach
AB 36 with 36 m reach



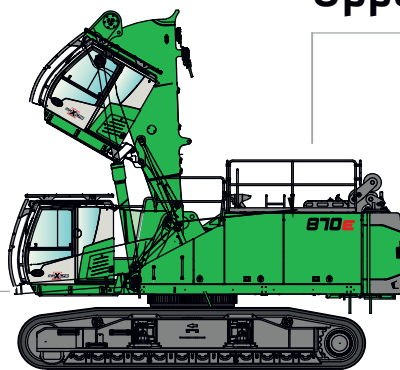
Uppercarriage



Diesel-hydraulic drive
Elektro-hydraulic drive (option)

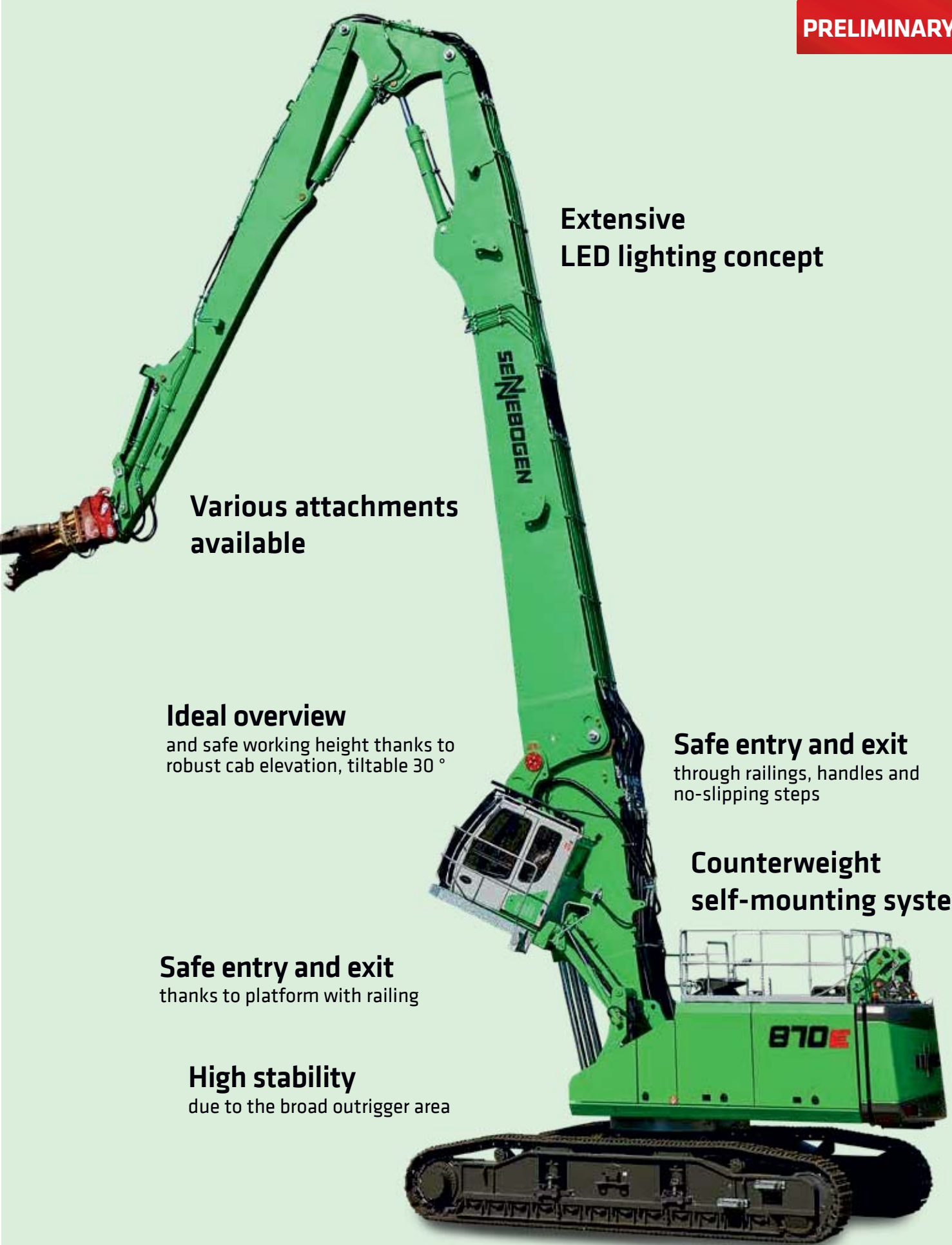
Cab **MAX GRAB**

30° tiltable



Undercarriage

telescopic



Extensive LED lighting concept

Various attachments available

Ideal overview
and safe working height thanks to robust cab elevation, tiltable 30 °

Safe entry and exit
through railings, handles and no-slipping steps

Counterweight self-mounting system

Safe entry and exit
thanks to platform with railing

High stability
due to the broad outrigger area

Telescopic crawler undercarriage

870E Technical data, equipment

MACHINE TYPE

Model (type) **870**

ENGINE

Power **261 kW/355 hp at 1,800 rpm (Tier IV)**
268 kW/364 hp at 1,500 rpm (Tier IIIa)

Model **Cummins QSL 12-C350 Tier IV**
Cummins QSLM 11-C350 Tier IIIa
Direct injection, turbocharged, charge-air cooler, reduced emissions, EcoMode, automatic idle, auto-stop, fuel preheating

Cooling Water-cooled, cooler fan reversal

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 **1000 l**

DEF tank **100 l**

Electr. system **24 V**

Batteries **2 x 180 Ah**, battery disconnect switch

Options

- Engine block heater
- Electric fuel pump
- Jump-start terminals

UPPERCARRIAGE

Design Torsion-resistant box design, precision crafted, steel boom bushings
Very service-friendly design, longitudinal engine

Central lubrication Automatic central lubrication for equipment and slewing gear 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

- Slewing gear brake via foot pedal
- LED lighting package
- Fire extinguisher
- Electric heater for hydraulic tank
- Low-temperature package for use at temperatures below -20 °C
- Generator with 24 kW

HYDRAULIC SYSTEM

Load sensing/LUDV hydraulic system, hydraulic 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

Delivery rate **2x 475 l/min** and **1x 274 l/min** for rotary drive in the closed circuit

Operating pressure **max. 350 bar**

Filtration High-performance filtration with long change interval

Hydraulic tank **900 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 with safety valves, secured 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 the pressure/rate for up to 10 tools
- Additional hydraulic circuit for shear attachment
- 60 µm pressure filter for attachments
- 3 µm hydraulic micro-filter - SENNEBOGEN HydroClean

SLEWING DRIVE


Gearbox Compact planetary gear with slant-axis hydraulic motor, integrated brake valves


Parking brake Spring-loaded multi-disk brake


Slewing ring External gear slewing ring with 360° protection and pinion gear lubrication


Slewing speed 0–5 rpm, variable

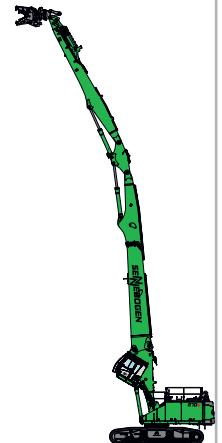
870E Technical data, equipment

CAB 	
Cab type	Hydraulically elevating cab E270, tiltable 30°
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	<ul style="list-style-type: none"> ■ 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 windshield ■ Protective roof grating ■ FOPS protective roof grating ■ Protective front grating ■ Radio with speakers ■ Maxcab industrial cab with undivided armored glass windshield ■ electrical cooler

ATTACHMENTS 	
Design	Decades of experience, state-of-the-art computer simulation, highest level of stability, 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 grab
Cylinders	Hydraulic cylinders with high-quality sealing and guide elements, end position damping, sealed bearing points
Safety	electronic work area monitoring with overload warning
Options	<ul style="list-style-type: none"> ■ Ball valves in the hydraulic lines for quick and easy grab switching ■ Adjustable hoisting limiter/stick limiter ■ Additional LED lights ■ Camera on a stick ■ electronic work area monitoring

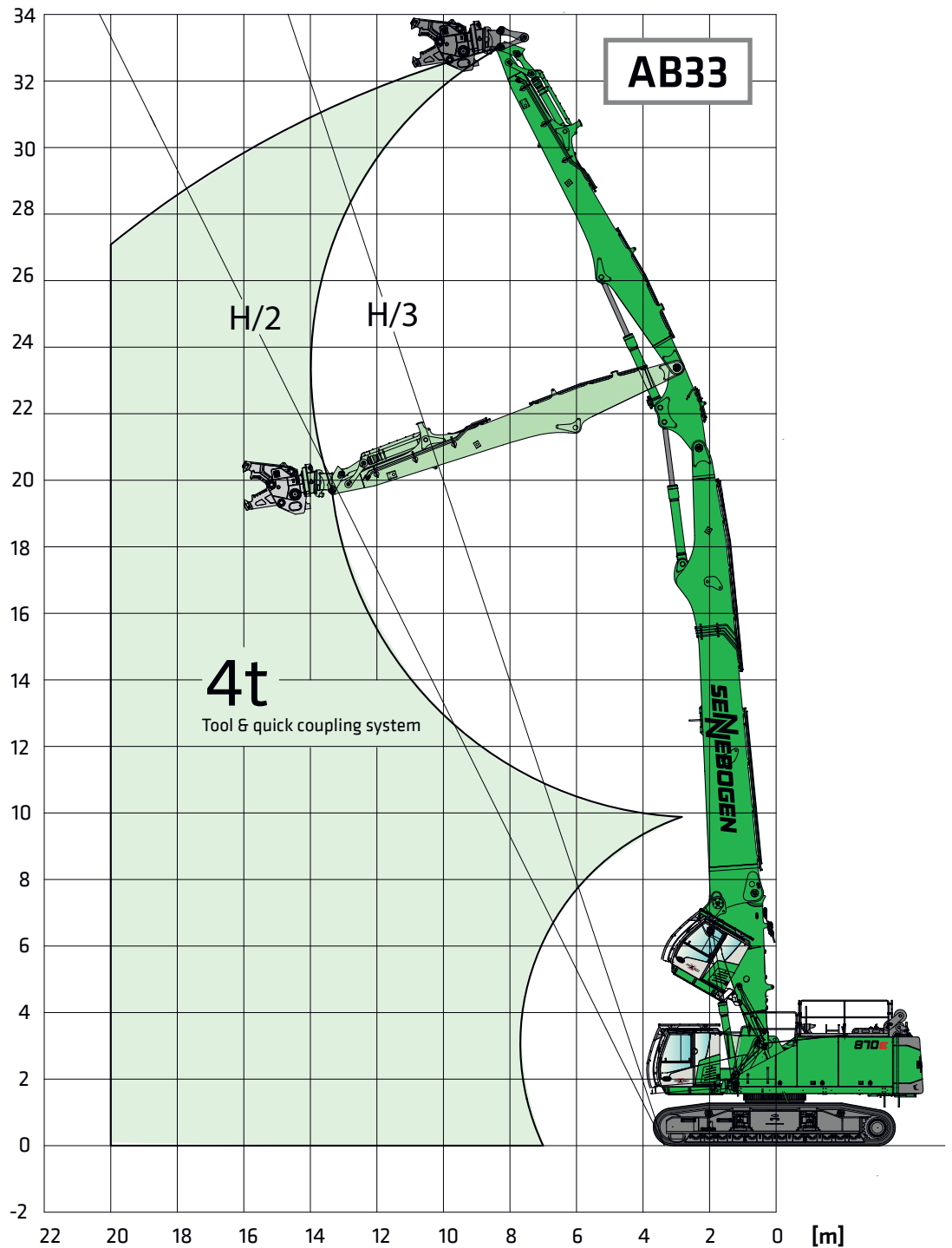
UNDERCARRIAGE 	
Design	Hydraulically telescopic crawler undercarriage with stable, torsion-resistant box construction
Drive	Hydraulic traction drive for each crawler integrated in the chassis and connected by a compact planetary gear to an axial piston motor.
Parking brake	Spring-loaded, hydraulically ventilated disk brakes. Hydraulic brake valves protect the traction motors when going downhill.
Traveling gear	Telescopic crawler undercarriage with maintenance-free crawler track with canted 600 mm triple grouser shoes
Speed	0 - 1.6 km/h Level I: 0 - 3 km/h Level II

OPERATING WEIGHT 	
Mass	114 t - 117 t basic machine 870 R
Notice	Operating weight varies by design.



870E Load ratings

Demolition

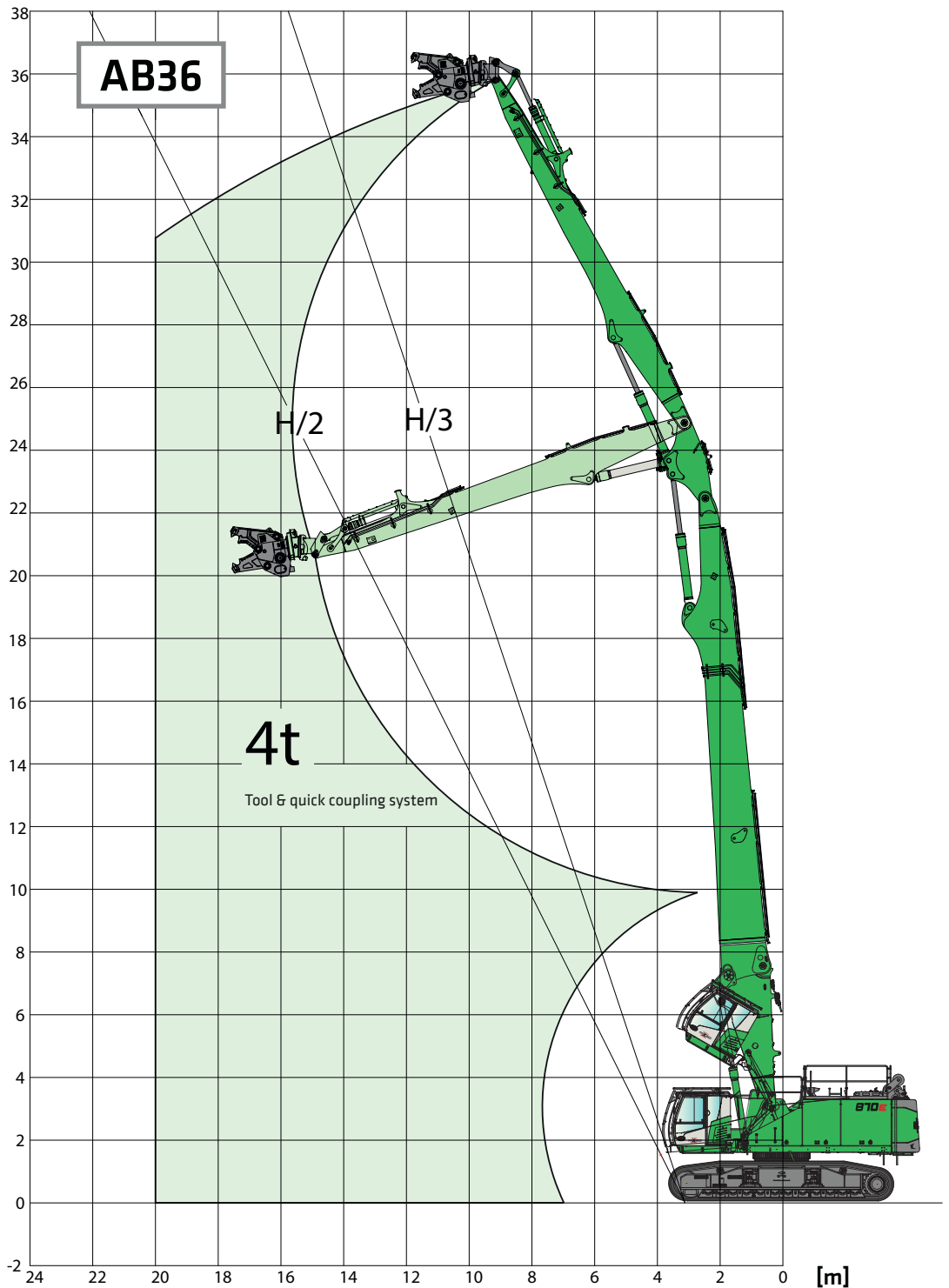


Undercarriage	T102/420	Compact boom Dipper stick	18 m 11 m	Cab	Maxcab E270, hydraulically elevating , tiltable 30°
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All values are in tons (t) and are 75% of the static tipping load or 87% of the hydraulic lifting force in accordance with ISO 10567, and apply at the required operating temperature in the Green Hybrid system. They apply 360° on solid, level ground. Safe working loads include attachments such as multi-shell grapples, magnets, etc. According to harmonized EU standard EN 474-5, hydraulic excavators used for lifting must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device.

B70E Load ratings

Demolition

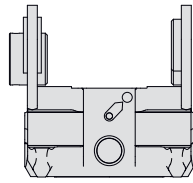
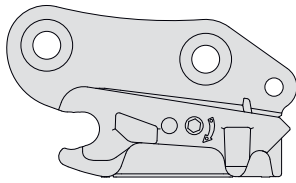


Undercarriage T102/420	Compact boom	19,5m	Cab	Maxcab E270,
	Dipper stick	12,5m		hydraulically elevating ,
				tiltable 30°

All values are in tons (t) and are 75% of the static tipping load or 87% of the hydraulic lifting force in accordance with ISO 10567, and apply at the required operating temperature in the Green Hybrid system. They apply 360° on solid, level ground. Safe working loads include attachments such as multi-shell grapples, magnets, etc. According to harmonized EU standard EN 474-5, hydraulic excavators used for lifting must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device.

870E Attachments

Demolition



Quick coupling systems

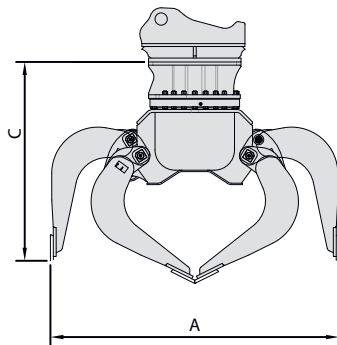
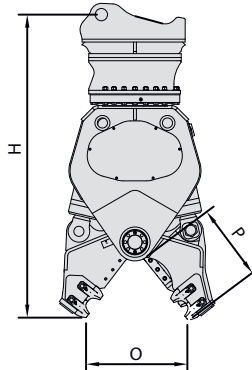
Weight (kg)
ca. 430

Example

Crushers

Type	Weight (kg)	H (mm)	O (mm)	P (mm)
CC 2500	ca. 2800	ca. 2300	ca. 860	ca. 730

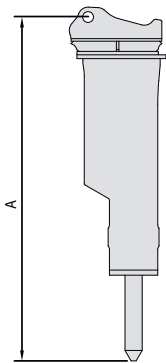
Example



Demolition grabs

Type	Weight (kg)	Width (mm)	A (mm)	C (mm)
MG 1500	ca. 1800	ca. 1100-1200	ca. 2200	ca. 1600

Example



Demolition hammer

Type	Weight (kg)	A (mm)
AB 2500	ca. 2500	2930

Example

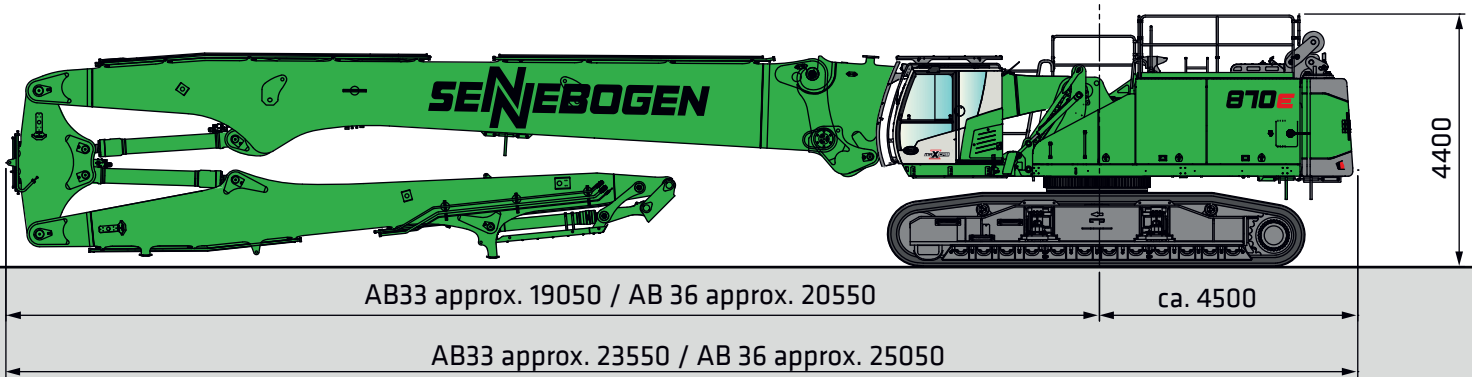
Hydraulic power data at the stick

- Tool OPEN/CLOSE up to 385 lt./min./ 350 bar
- Volume and pressure setting via Tool-Control
- Tool TURNING
- Hammer valve / return line (Option)
- Activation hydrl. quick coupling system (Option)

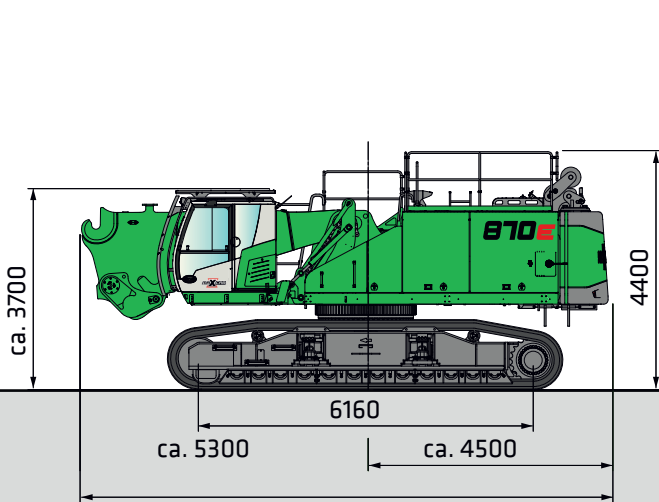
The illustrated tools serve as examples of possible usable sizes. The selection of tools is made by the customer



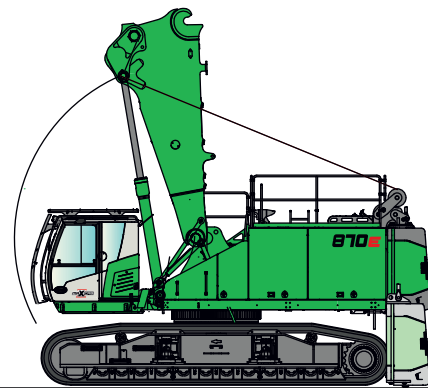
870E Transport dimensions and weights



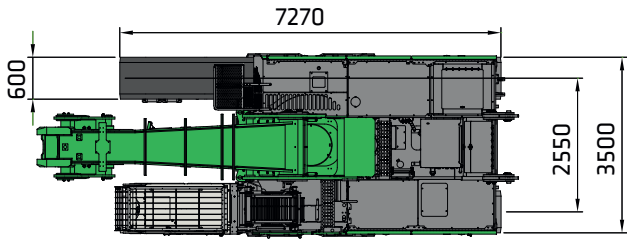
870 R with undercarriage T102/420 and 3-parts demolition equipment, hydraulically elevating cab Maxcab, tiltable 30 °, ULM, **Operating weight:** approx. 114 t - 117 t (without tool)



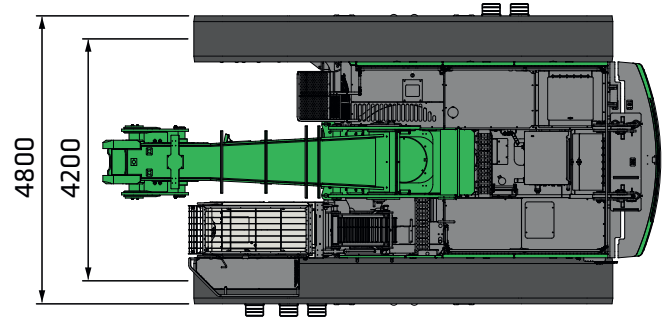
870 R basic machine incl. uppercarriage railing-and counterweight, transport weight approx. 92 t incl. counterweight approx. 26 t



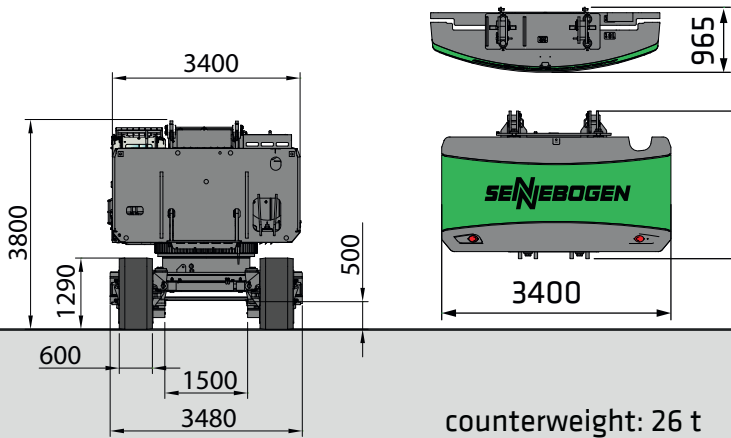
Self-mounting system for counterweight



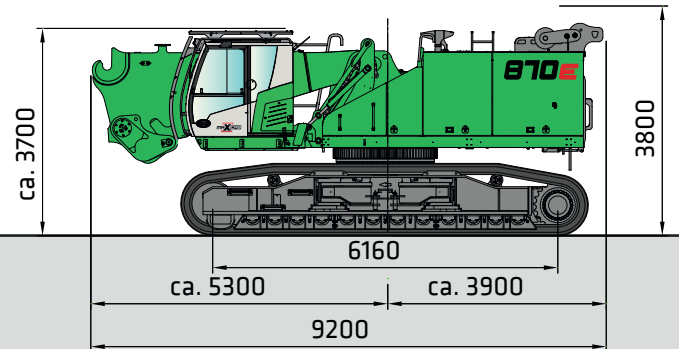
870 R basic machine
undercarriage retracted without counterweight



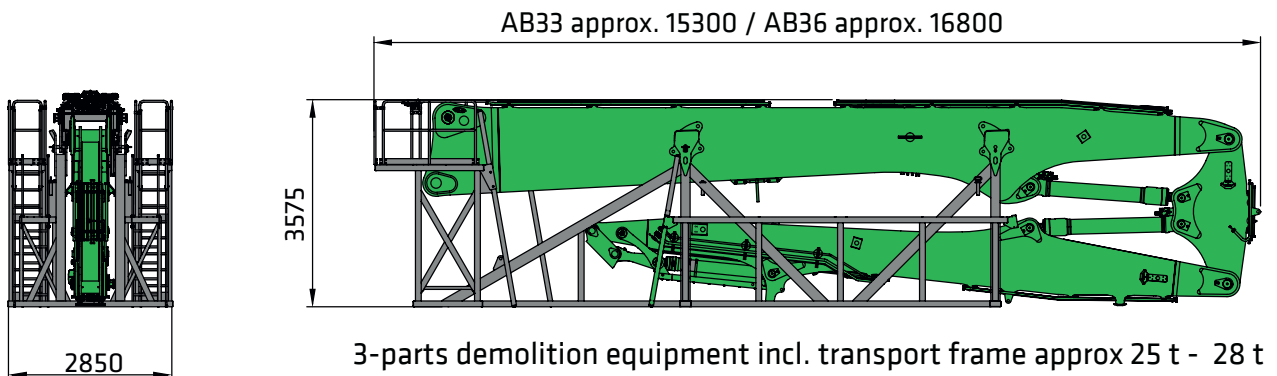
870 R basic machine
undercarriage extended incl. counterweight



counterweight: 26 t



870 R basis machine without uppercarriage railing,
without counterweight, transport weight approx. 66 t



3-parts demolition equipment incl. transport frame approx 25 t - 28 t

870E Removable demolition equipment



Storage of demolition equipment in transport frame

Safe and precise mounting of equipment

Extra robust and safe quick coupling boom system



Counterweight mounting system

Simple and fast - for lower transport weight of basic machine

870E Maximum flexibility & simple transportation

Telescopic crawler undercarriage



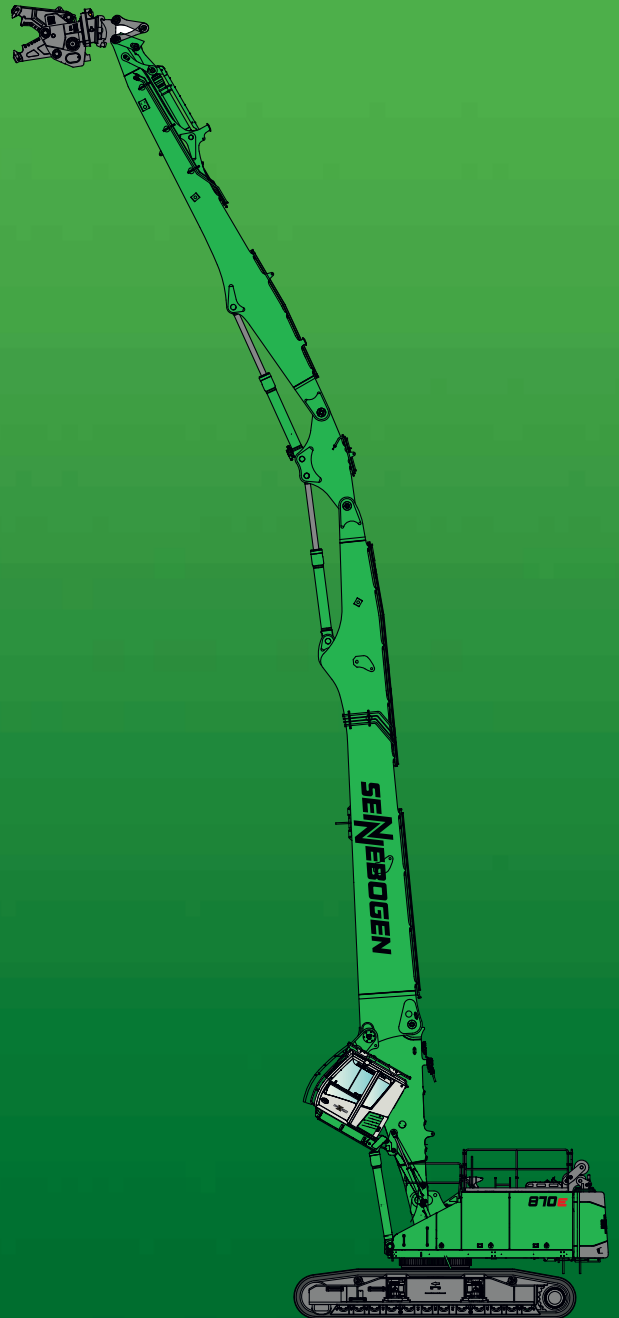
undercarriage width 4800 mm

Simple transportation in 3 units

basic machine - demolition equipment- counterweight



870E



This catalog describes machine models, scopes of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines supplied by SENNEBOGEN Maschinenfabrik GmbH. 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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GO FOR GREEN

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