

PURPOSE-BUILT FROM THE GROUND UP

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870E MATERIAL HANDLER

PRELIMINARY

ENGINE

Cummins QSG12, Tier 4F
355 HP (261 kW)

OPERATING WEIGHT

Approximately
231,500 lb (105,000 kg)

UNDERCARRIAGE

Rubber Tired (M)
Crawler (R-HD)

SENNEBOGEN®

Purpose-Built – To Suit **Your** Purpose

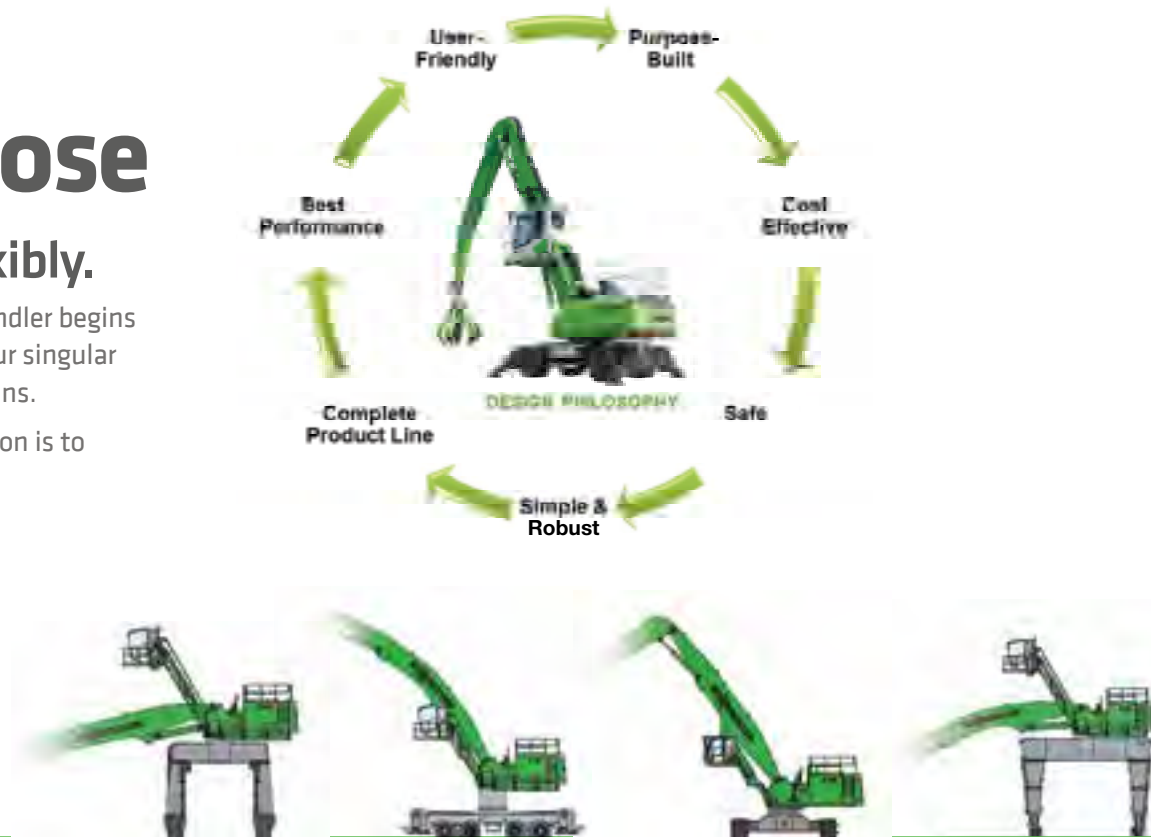
By building simply, we can build flexibly.

The design and manufacture of every SENNEBOGEN material handler begins with you, our customer, and the challenges you face every day. Our singular focus leads us to the simplest, most efficient engineering solutions.

To meet our commitment to customer needs, the simplest solution is to engineer machines that adapt easily to their intended purpose:

- Interchangeable components across multiple platforms
- Industry standard service parts
- Intelligent hydraulics in place of complex electronics
- Robust structures matched to heavy loads and stresses

When you purchase a SENNEBOGEN machine, you'll know it was purpose-built for you, **from the ground up.**



One Model: Many Choices

The SENNEBOGEN 870 is offered with a complete range of mobile and stationary undercarriages to provide the best fit for your operation and related equipment. The adaptability of the 870 diesel power and/or electric drive with multiple boom configurations allows customers to choose the right model to achieve their production goals without the added cost of custom engineering.

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Designed and Manufactured To Give You Total Confidence



Safety First

SENNEBOGEN's safety-first engineering leads the industry with ground-to-cab guarding, 360° visibility and safe service access.

PG6



Efficiency & Economy

Designed for high throughput and productivity, the 870's Green Hybrid features achieve the most rigorous environmental goals while reducing operational costs for energy, downtime and service parts.

PG8



Simplicity & Reliability

Generations of experience drive SENNEBOGEN's focus on simple structural and hydraulic design for built-in durability and uptime.

PG10

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Serviceability

Virtually all daily maintenance on the 870 can be completed safely with service components conveniently grouped and labeled for easy servicing.

PG12

Service & Support

America's largest inventory of material handler service components and the best-trained dealer network ensures ready access to the parts and skills to keep your 870 up & running.

PG14

Purpose-Built

The modular design of the 870 adapts easily to any required mounting for gantries, rail cars, barges and ship applications.

PG16

870 Specifications

Get all the details, specifications, dimensions, lifting charts and available options for the 870 M and the 870 R-HD units.

PG18



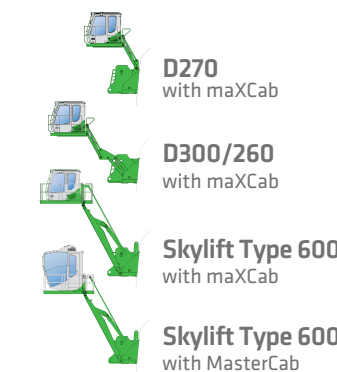
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Power

With its engineered efficiency and Green Hybrid energy recovery system, the 870 reduces operating costs and your environmental footprint whether you choose diesel power, electric drive or a combination of the two.

Cab Configurations

You can configure the cab to your application. Whether it is the Industry maXCab, the spacious PortCab or MasterCab, they all deliver operator comfort. The unobstructed views of the worksites ensure safety and productivity are maintained even under extremely harsh and adverse conditions.



Platforms

The modular design of the 870 adapts easily to any required mounting for gantries, rail cars, barges and ship applications.



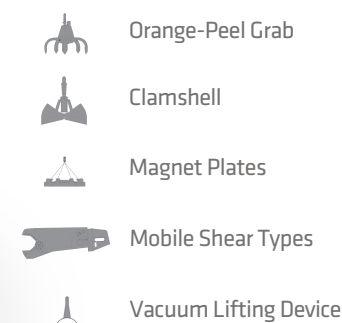
Booms and Sticks

A wide choice of powerful boom and stick configurations allows the 870 to adapt easily to match the specific lift and reach requirements of your operations.



Attachments

SENNEBOGEN grapples, buckets and magnets complete your purpose-built solution with the same reliability as our 870 material handling machines.



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UNDERCARRIAGE

Automatic lubrication

Extend component life with no waste, no spill hazards

Swing system

Dual drives provide excellent cycle times and swing torque for large loads

Stable footprint

The centered point of rotation for the swing bearing allows for 360° equal lift capacity

Multiple platforms

Adapts to standard wheeled, tracked and pedestal mounts

CAB

Elevating maXCabs

Various cab configurations maximize safety, loading accuracy and stability with hydraulic elevation

Joystick steering

Unobstructed view for operator with highly responsive control

SENCON

Advanced diagnostic system with user-friendly multi-colored interface, available in multiple languages

Entry/exit

maXCab sliding door with permanent catwalk for safe, easy entry and exit

Superior visibility

Open front window and large side windows supplemented by 2-camera system as standard

HYDRAULIC SYSTEM

Purpose-built design

Fully hydraulic controls require no special software to troubleshoot and all test ports are easily accessible in one place

HydroClean filtration

3-micron oil filtering with 99.95% efficiency absorbs water, prevents acid generation

Hybrid Technology

Green Hybrid is a unique and innovative energy recovery system

UPPER CHASSIS

Upper carriage

Solid steel top-opening compartment doors for easy access

One-piece center frame

Optimizes distribution of stresses and machine balance from boom pivot to counterweight

Boom pivot

Purpose-designed boom mounting point on the chassis for enhanced balance and lifting capacity

OSHA-compliant

Continuous 3-point contact access to upper deck with handrails and guarding from ground to cab

Longitudinal engine mount

Allows improved balance, strength, service access and cooling efficiency

Reversible fan

Closed circuit drive with axial displacement pump allows fast change between normal and reverse

SAFETY

Safety rails

Full guarding on upper decks provide safety for technicians

Limit switches

Limit switches on the boom and stick cylinders prevent high pressure peaks to provide a cushion for rod movement and prevent attachments from colliding with the cab

Sliding door

The door slides open for safe, ease of entry and exit from the cab, complete with catwalk and handrail

Fuses and relays

All fuses and relays are easily accessible in a centrally located box with distinct labeling

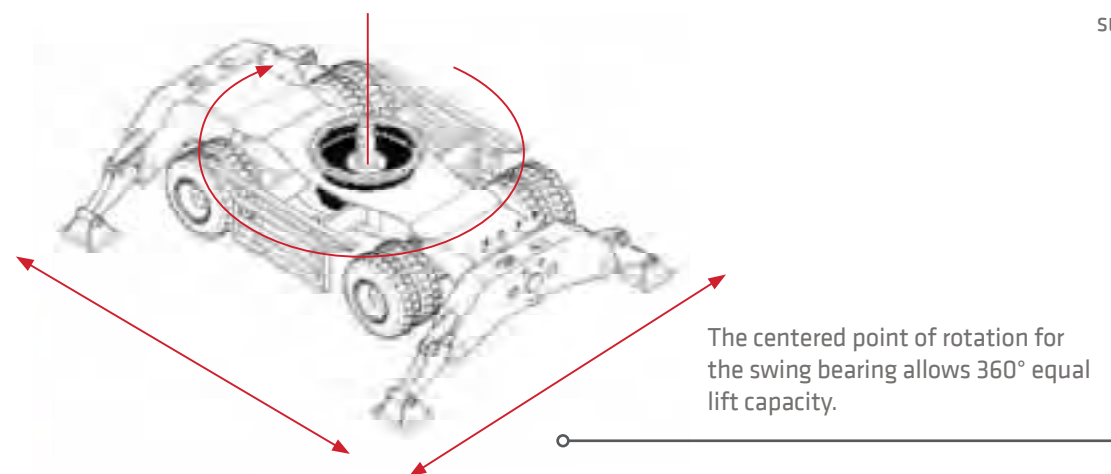
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Health & Safety: The First Step To Productivity

SENNEBOGEN is renowned as the industry leader in preventing downtime, and in protecting people.

Safety-conscious producers look for equipment that prevents liability costs and protects their most valued assets. SENNEBOGEN works closely with the operators and technicians who know our equipment best, and we listen to their ideas to make our machines the safest on any jobsite.

That's why ease of access, enhanced guarding and 360° visibility are all standard features of your 870.



Dual cameras with views to the rear and to the right side are standard equipment.



Various guarding packages available to meet industry safety requirements.



maXCab's sliding door and guarded permanent catwalk provides the safest entry and exit in the industry.

SENNEBOGEN's maXCab puts you in the driver's seat for jobsite safety.



Permanent 3-point contact for access to upper deck with full railings and anti-slip walking surfaces to protect service crews during inspections and repairs.



Full railings on the upper deck protect service crews during inspections and repairs.



All daily service is completed with easy access to all maintenance points.

Accessible safety switches including emergency shut-off, battery disconnect and travel alarm.

Gas accumulators are safely located at the rear of the undercarriage.



maXCab's maximized window area and elevating mount gives the operator an unobstructed wide-angle view of the work zone.

Intuitive joystick controls connect the operator seamlessly to the industry's most responsive hydraulic system for precise, easy handling.

Ergonomic comfort and climate control features keep operators alert, adapting to individual preferences to fight fatigue through long shifts.



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Good For The Environment. Easy On The Budget.

SENNEBOGEN 870 E-Series material handlers lead a new generation of machines that are both cost-saving and environmentally-friendly.

Creating a truly “green” machine takes more than a new energy-saving device. Our “Green Efficiency” solution is built on layers of smart engineering and system innovations aimed at doing more with less. The 870 E material handlers reduce your costs and environmental footprint with multiple SENNEBOGEN initiatives.



Longitudinally mounted engines provide natural, flow-through cooling, while adding structural strength to the upper carriage from boom pin point to counterweight.



Eco-mode engine control automatically reduces engine speed to 1800 rpm.



Electrically powered eGreen models achieve an additional 50% reduction of energy costs over diesel models, along with low noise and vibration-free operation.



The large reversing fan provides up to 45% more of the cooling surface than comparable machines.

EXPERIENCE
THE SYSTEM

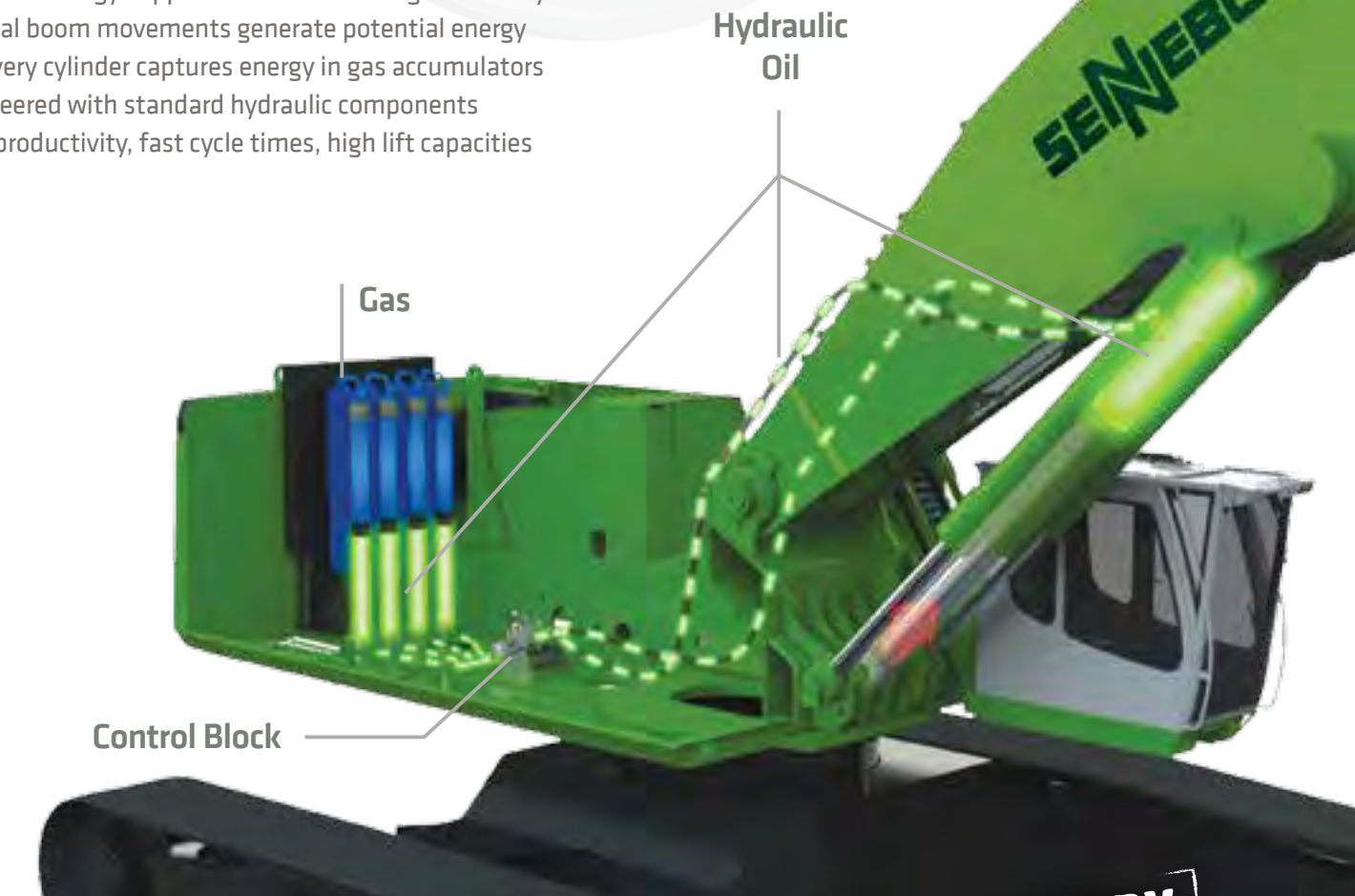
SCAN TO WATCH
AN ONLINE VIDEO
DEMONSTRATION



Green Hybrid Technology

The industry's new standard for cost-efficient material handling.

- Released energy supports the boom through the lift cycle
- Vertical boom movements generate potential energy
- Recovery cylinder captures energy in gas accumulators
- Engineered with standard hydraulic components
- High productivity, fast cycle times, high lift capacities



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Attention To Details Makes Us Stronger

Strong-and-smart SENNEBOGEN machines stand up to your toughest and grittiest work environments.

Reliability and durability are engineered into the details of your 870, from heavy-duty structural components to natural flow-through engine cooling. Each of SENNEBOGEN's manufacturing, fabrication and assembly facilities is ISO-certified to deliver the same outstanding quality in every machine, every time.

By going to work every day, and staying on the job year after year, your 870 is built to deliver the best return on your equipment investment.



Dual motors extend swing system life while improving cycle times and torque.

A continuous flange ring reduces stress and improves distribution of swing stresses.



The upper carriage is built around a large, continuous one-piece center frame for added structural strength and improved air flow.

Fabricating booms and sticks in our own shops lets SENNEBOGEN eliminate welding stresses inside the box structure and maximize service life.



Low-vibration engine mounting reduces wear on components and lowers sound levels.



Our intelligent hydraulics minimize the need for delicate electronics and computers, preventing their related failures and the associated downtime in harsh environments.

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Uptime By Design

To find out how to make SENNEBOGEN machines easier to maintain than any other material handler, we ask the experts...

... we talk to the technicians who actually service our equipment.

Our own support team, our instructors, our dealers and customers are all in constant contact to troubleshoot problems and find permanent solutions. Even our senior management and the Sennebogen family take a hands-on approach to product improvement, meeting customer mechanics and operators in their own shops and yards.

Their innovative ideas help us to deliver machines that spend more time on the job, and less time in the shop.



Industry-standard service parts make shop inventories easy to stock and easy to source locally.

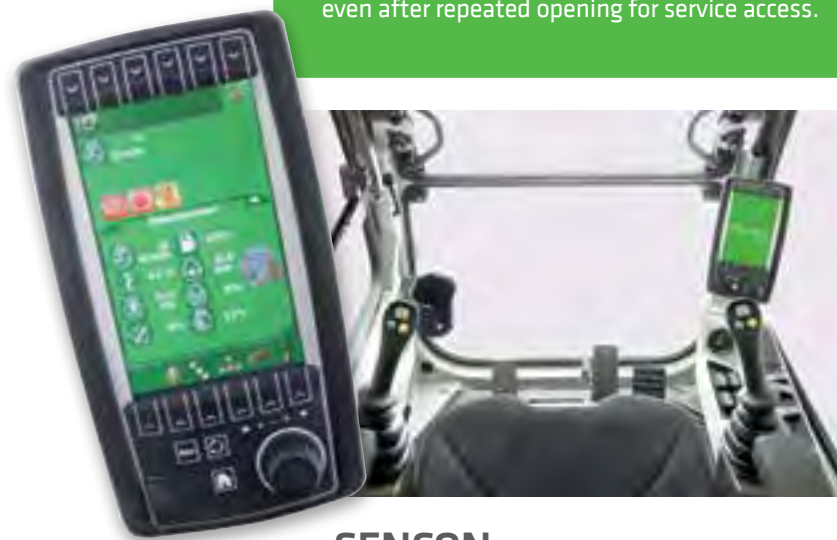
We are continually adding to our pre-packaged sets of parts and fasteners for routine servicing. Each package is tailored to your specific machine, according to recommended service intervals.

SENtrack

SENtrack telematics allow detailed monitoring of the 870's location, operating status and performance metrics from the shop or on the road.



Solid steel top-opening compartment doors on the sides and top of the upper deck maintain a secure fit, even after repeated opening for service access.



SENCN

The advanced SENCN diagnostic and reporting system presents a multi-colored, user-friendly interface, now available in multiple languages.

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Natural airflow through the engine compartment, uninterrupted from front to back, plus a large reversing cooling fan, lets your 870 start reliably and keep on running through any extremes of heat, cold or dusty conditions.

Test ports and service points are conveniently arranged together and within easy reach from ground level.



With hydraulic controls instead of electronics, the 870 requires no special software or "black box" components to troubleshoot your machine.



All the fuses and relays are grouped together in a centrally located box for easy access.

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Our Commitment To Your Business

SENNEBOGEN's investment in service support is unmatched in the industry, providing the capabilities and resources to build success for our customers.

- Our headquarters in Stanley, NC is a 100,000 sq. ft. (9,300 m²) multi-purpose facility dedicated to supporting SENNEBOGEN material handlers throughout the Americas.
- Our coast-to-coast network of factory-trained distributors and technicians sets the industry standard for outstanding field service.
- SENNEBOGEN application specialists provide customers and dealer sales staff with expert insight into the unique challenges.
- Our in-house engineering services respond quickly to customer needs for unique solutions.

Our large parts warehouse maintains inventories of service parts and replacement components for all of our fielded machines, from O-rings to engines, axles and complete boom and stick assemblies.



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Center of Excellence

The dedicated Training Center in our North American head office complex provides primary and advanced courses free of charge, with working units, demonstration modules and experienced trainers.

Truly a center for developing excellence in service and support, the Training Center has earned accolades for the quality of both the facility and its instructors.

Visit us online at www.sennebogen-na.com/training

AVAILABLE TRAINING COURSES

Service Level 1 D-Series
Service Level 2 D-Series
Service Level 1 E-Series
Service Level 2 E-Series
Parts Training
Operator Familiarization

Service Level 1

Min 6 / Max 10 Students per class

Required: Basic Technical Knowledge

Course Content:

- Machine Safety, Operation & Functions
- Preventive Maintenance
- Read & Understand Hydraulic Schematics
- Read & Understand Electric Schematics
- Basic Trouble Shooting: Magnet System, Hydraulics, Electrics

5 Day Course

Service Level 2

Min 4 / Max 6 Students per class

Required: Completion of Level 1 Class

Course Content:

- Remote Trouble Shooting
- Component Training & Repair
- Failure Analysis
- In Depth Trouble Shooting Magnet System, Hydraulics, Electrics

Level 2 classes are smaller & more intensive & build on Level 1.

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Purpose-Built Facilities

With nearly 1,000,000 sq. ft. (93,000 m²) of production space in our four manufacturing facilities in Europe, every step of production at SENNEBOGEN is planned to serve individual customer needs. Every critical component and process is completed in-house to assure quality, efficiency and flexibility on the production line.

- We fabricate our own booms and sticks
- Our line-up is based on a full line of interchangeable platforms
- Our plants are designed to customize each machine, built-to-order
- Your machine is fully inspected and live-tested before it leaves the factory

Our four factories in Europe support the full range of capabilities for SENNEBOGEN to machine, fabricate and assemble all major components to our own standards, in-house.

(Pictured here is our main plant in Straubing, Germany)

Modular components used across multiple products allow SENNEBOGEN to deliver purpose-built machines competitively. Shared systems also streamline aftersale parts inventories for customers and their local SENNEBOGEN distributors.



Every configuration of the SENNEBOGEN 870 begins as an identical machine up until the final stage of assembly. The unit is then mounted on your choice of undercarriage or platform, and completed with your preferred equipment and choice of cab.



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PRELIMINARY



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Technical Specifications - 870 M “E”

ENGINE	
model	Cummins QSG12
type	in-line, 6 cylinder, cooled exhaust gas recirculation, filter water cooled
emission	EPA Tier 4F
net power	355 HP (261 kW) @ 1,800 rpm
injection	high pressure common-rail
displacement	15.0 L (915 cu. in.)
bore	5.39 in (137 mm)
stroke	6.65 in (169 mm)
aspiration	turbo charged, charge air cooled
fuel tank	264 gal (1,000 L)
air filtration	direct flow filtration system dual stage filter with pre-filter
control	integrated ECM automatic idle - stop eco mode
HYDRAULIC SYSTEM	
system type	LUDV load sensing pilot pressure controlled open center
pump type	variable-displacement axial-piston pump
max. pressure	5,076 psi (350 bar)
hydraulic tank	237 gal (900 L)
filtration	dual filtration system 3 micron (HydroClean)

COOLING	
cooling type	cool-on-demand, suction-type fan system, side by side
hydraulic / water	hydraulic fan drive axial piston pump, reversible fan thermostatically controlled, closed loop system
charge air	direct fan drive
ELECTRICAL	
alternator	100 V/Ah
starter	24 Vm 7.8 kW
battery	2 x 12 V, 210 Ah
lights	2 x cab roof, type halogen 2 x frame upper carriage, type H4
SWING SYSTEM	
swing speed	0 - 5 rpm
swing hydraulic	closed loop
drive	axial piston motor driving planetary gearbox, integrated brake valves
swing brake	multidisc brake, spring loaded
swing bearing	external teeth sealed triple roller bearing
TRAVEL / UNDERCARRIAGE	
type	rubber tired
drive	all-wheel drive powered by a variable-displacement hydraulic motor with direct-mounted, automatic brake valve and 2-gear power shift transmission planetary axles with integrated steering cylinder and dual-circuit service brake

TRAVEL / UNDERCARRIAGE (CONTINUED)	
speed	low: 0-3.4 mph (0-5.4 kph) high: 0-6.2 mph (0-10 kph)
tires	23.5x25 (4)
parking brake	spring-loaded multi-disk brake
steering	joystick steering
safety	travel alarm
REFILL CAPACITIES	
fuel tank	264 gal (1,000 L)
hydraulic tank	237 gal (900 L)
MAGNET SYSTEM (OPTIONAL)	
rating	33 kW
voltage (magnetized)	230 V
current (cold condition)	175 Amps
controller	Hubbell
generator	Baldor
drive	hydraulic
WEIGHT	
operating weight (approx)	206,130 lb (93,500 kg)

Subject to technical modification.

Standard / Optional Equipment - 870 M “E”

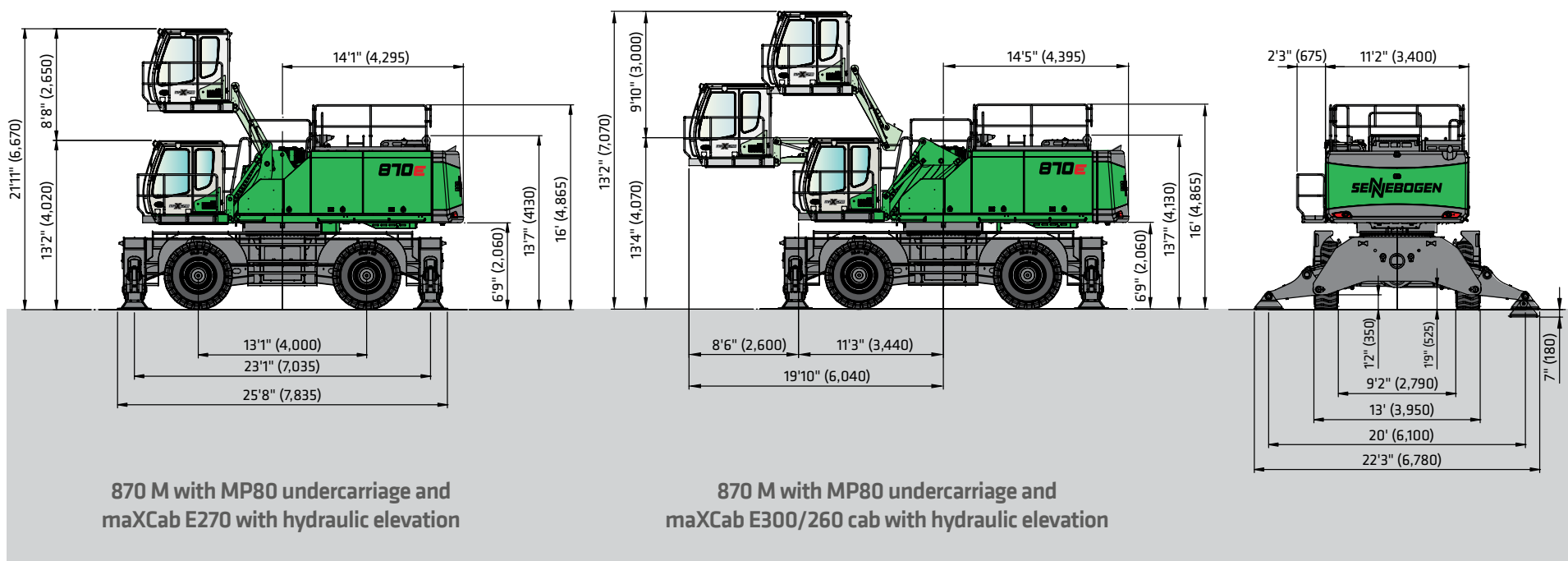
ENGINE		OPERATOR'S CAB (maXCab Industry)		UNDERCARRIAGE	
Water separator in fuel line	●	Hydraulic elevating up and out cab E300/260	●	Heavy duty designed material handling under carriage	●
Automatic idle / engine stop control	●	Multi adjustable, air suspended operator's seat	●	MP80 E undercarriage with integrated 4-point outrigger system	●
Eco mode	●	3" (76 mm) seat belt	●	All wheel drive	●
Muffler	●	Seat heater	●	Planetary axles with integrated steering cylinders	●
Visual fuel tank check	●	Automatic climate control (heater / AC)	●	Travel alarm	●
Engine block & water separator pre-heater	○	Air outlets w / defroster	●		
ELECTRIC		Storage area for lunch box	●		
Battery disconnect switch	●	Large cup holder	●		
Centralized fuse box	●	Fire extinguisher	●		
HYDRAULIC		Tinted windows with safety glass	●		
Pilot pressure controlled variable displacement pump	●	Door window as sliding window	●		
Thermostatically controlled cooling system	●	AM / FM Radio with CD player & speakers	●		
Centralized hydraulic test ports	●	Removable floor mat	●		
Protection covers for pilot pressure control valves	●	SenCon diagnostic system	●		
3 micron dual filtration system	●	Multicolor Monitor	●		
Load sensing, flow on demand hydraulic system	●	Tilt out front window	●		
Optimized hydraulic pump regulation (GLR)	●	Halogen light package on cab roof	●		
Visual hydraulic tank check from ground level	●	Mechanical hour meter	●		
Attachments open, close & rotation hydraulics	●	Sliding door	●		
Hydraulic tank shut off valve	●	Catwalk w / handrail	●		
Electrical hydraulic tank pre-heater	○	12 V / 24 V power outlet	●		
Biodegradable hydraulic oil	○	Windshield wiper and washers	●		
Hydraulic circuit for scrap shear	○	Emergency exit hammer	●		
Additional hydraulic circuits	○	Safety lever	●		
Attachment return filtration filters (60 µm)	○	Sun shades	●		
UPPER CARRIAGE		Interior lighting	●		
Rearview & right side view camera system	●	Rain cover front window	●		
Automatic lubrication system	●	Outside mirror	●		
Anti-slip mats on walking area	●	Optical and acoustic warning system	●		
Lockable side doors	●	Positive filtered ventilation (pressurized cab)	●		
Handrails on top of upper carriage	●	Safety check valves for elevating cab cylinder	●		
Mirror left side	●	Foot rest	●		
Removable panels	●	maXCab industry	○		
Additional light package	○	Windshield protection guard	○		
Custom colors	○	Skylight protection guard	○		
Seawater paint coating	○	Skylight FOPS guard	○		
		Bullet proof windshield	○		
		Bullet proof skylight	○		
		Polycarbonate side windows	○		
		Additional light package	○		
		Fixed cab elevation	○		
		Operator's cab with floor window	○		
		Additional cameras	○		
WORKING EQUIPMENT					
Purpose built material handling boom	●				
Green Hybrid energy recovery system	●				
Purpose built material handling stick	●				
Attachment hydraulic line connections with ball valves	●				
Safety check valves for stick cylinders	●				
Safety check valves for boom cylinders	●				
Cylinder end position dumping	●				
Boom hoist limitation	●				
Bronze bushings connected to automatic lubrication system	●				
Stick limitation	●				
Halogen light package boom	○				
Purpose built material handling boom for scrap shears	○				
MAGNET SYSTEM					
Hydraulic driven generator	○				
Magnet controller	○				
Magnet suspension link	○				
ATTACHMENTS					
Orange peel grapple	○				
Mag grapple	○				
Clamshell	○				
Magnet	○				
Log grapple	○				
Scrap shear	○				
Power attachment	○				
Pipe handler	○				
SWING SYSTEM					
360° protection cover, removable	●				
Electrical driven swing gear pinion lubrication pump	●				

Standard Equipment ● Optional Equipment ○

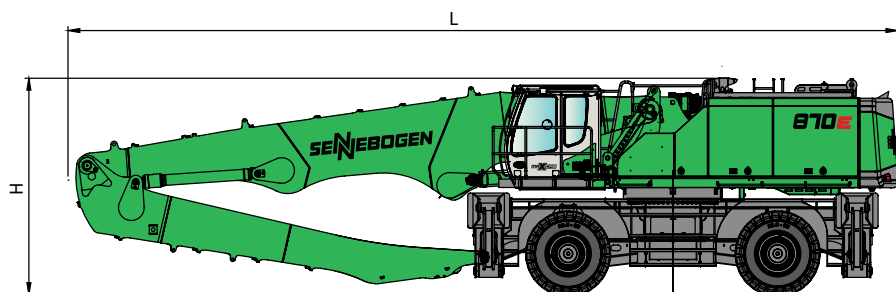
Subject to technical modification.

PRELIMINARY

Dimensions - 870 M "E"



Transport Dimensions - 870 M "E"



Reach	Boom Length	Stick Length	Transport Length (L)	Transport Height (H)
K18	35'5" (10.8 m)	25'7" (7.8 m)	52' (15.85 m)	13'5" (4.10 m)
K20	38'9" (11.8 m)	28'10" (8.8 m)	55'5" (16.9 m)	13'5" (4.10 m)
B21	44'3" (13.5 m)	32'2" (9.8 m)	60' (18.3 m)	13'5" (4.10 m)

K18

Lift Capacities - 870 M "E"

Working Equipment K18

Boom 35'5" (10.8 m)

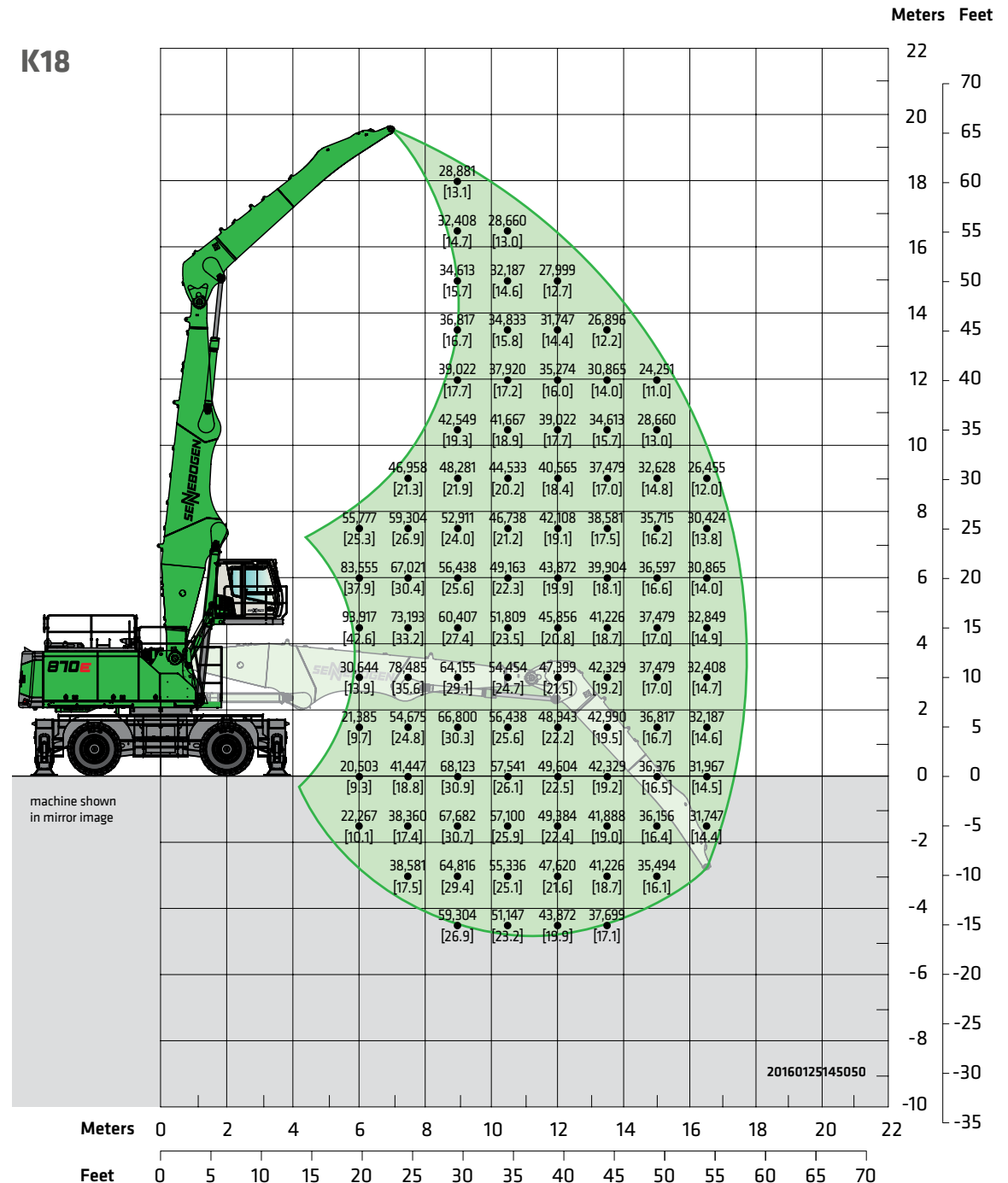
Stick 25'7" (7.8 m)

Operator's Cab

Model maXCab E270, cab with hydraulic elevation

Undercarriage

Model MP80E



Lift capacities are stated in pounds. Values in [] are stated in metric tons. Indicated figures are based on ISO 10567 and do not exceed 75% or tipping and 87% of hydraulic capacity and machine standing on firm, level supporting surface. Loads are valid for 360° with machine support outriggers. Lifting capacities do not include working equipment such as orange peel grapples, magnets, clamshells, etc. The load point is the center line of the attachment pivot mounting pin on the stick. Their weights must be deducted from the numbers indicated in the lift charts. Please contact SENNEBOGEN or your local dealer for optimum attachment selection. The operator / user of the machine should be fully acquainted with the operator's & safety manual provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.

PRELIMINARY

K20

Lift Capacities - 870 M "E"

Working Equipment K20

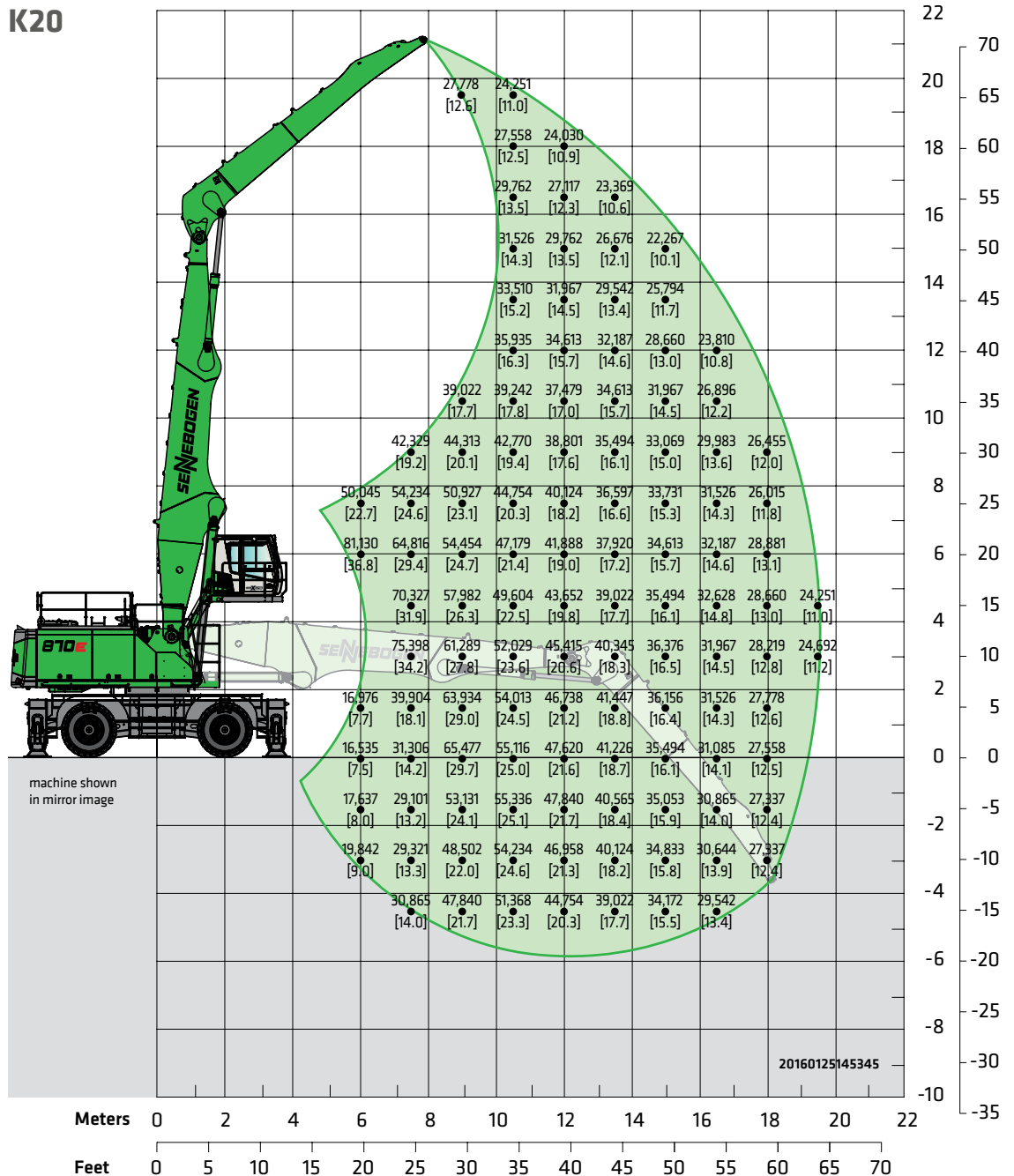
Boom	38'8" (11.8 m)
Stick	28'10" (8.8 m)

Operator's Cab

Model	maXCab E270, hydraulically elevating
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Undercarriage

Model	MP80E
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Lift capacities are stated in pounds. Values in [] are stated in metric tons. Indicated figures are based on ISO 10567 and do not exceed 75% or tipping and 87% of hydraulic capacity and machine standing on firm, level supporting surface. Loads are valid for 360° with machine support outriggers. Lifting capacities do not include working equipment such as orange peel grapples, magnets, clamshells, etc. The load point is the center line of the attachment pivot mounting pin on the stick. Their weights must be deducted from the numbers indicated in the lift charts. Please contact SENNEBOGEN or your local dealer for optimum attachment selection. The operator / user of the machine should be fully acquainted with the operator's & safety manual provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.

Lift Capacities - 870 M "E"

Working Equipment B21

Boom	44'3" (13.5 m)
Stick	32'2" (9.8 m)

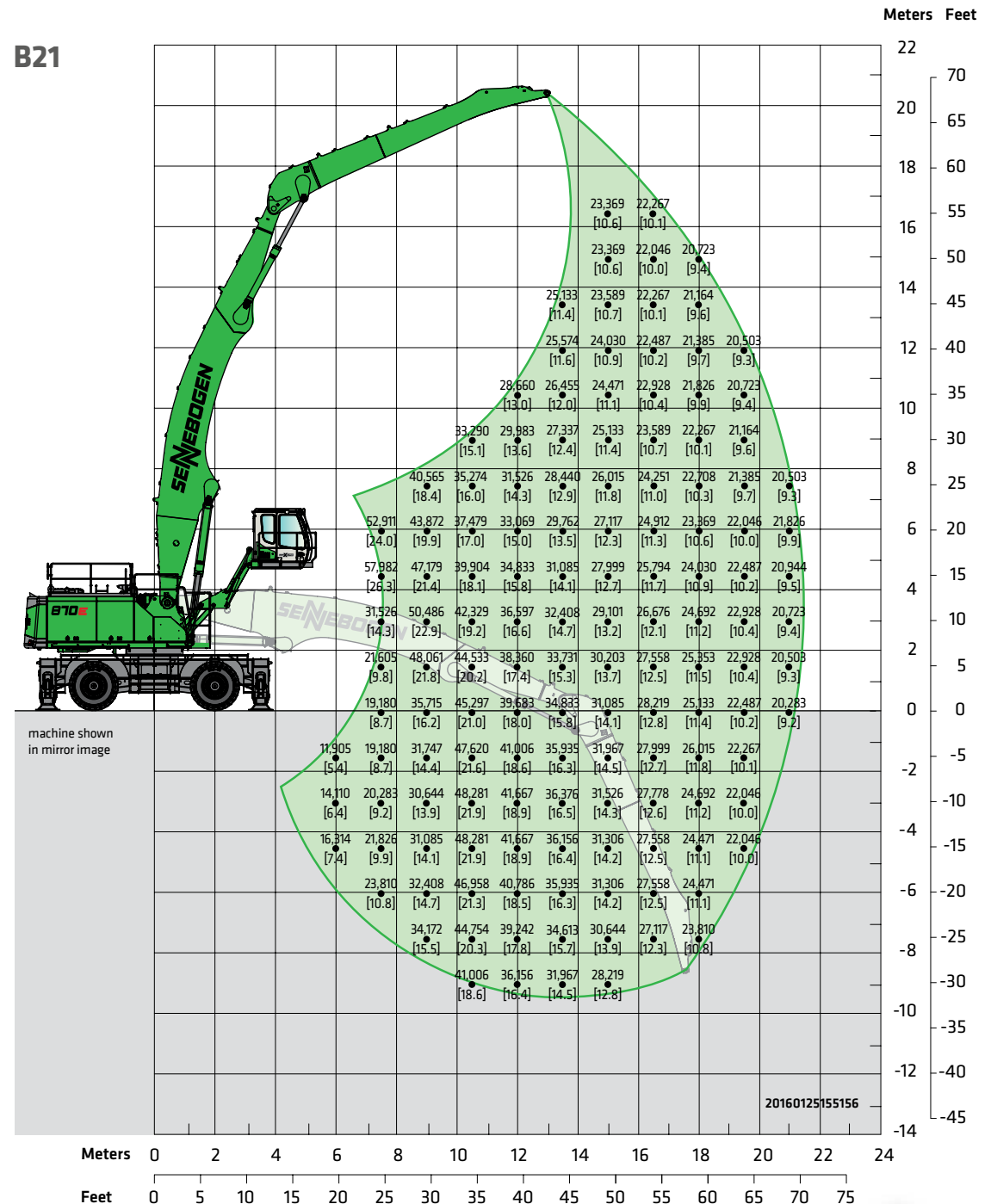
Operator's Cab

Model	maXCab E300/260, hydraulic elevation
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Undercarriage

Model	MP80E
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B21



Lift capacities are stated in pounds. Values in [] are stated in metric tons. Indicated figures are based on ISO 10567 and do not exceed 75% or tipping and 87% of hydraulic capacity and machine standing on firm, level supporting surface. Loads are valid for 360° with machine support outriggers. Lifting capacities do not include working equipment such as orange peel grapples, magnets, clamshells, etc. The load point is the center line of the attachment pivot mounting pin on the stick. Their weights must be deducted from the numbers indicated in the lift charts. Please contact SENNEBOGEN or your local dealer for optimum attachment selection. The operator / user of the machine should be fully acquainted with the operator's & safety manual provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.

PRELIMINARY

Technical Specifications - 870 R-HD “E”

ENGINE	
model	Cummins QSG12
type	in-line, 6 cylinder, cooled exhaust gas recirculation, DPF diesel particulate filter water cooled
emission	EPA Tier 4F
net power	355 HP (261 kW) @ 1,800 rpm
injection	high pressure common-rail
aspiration	turbo charged, charge air cooled
fuel tank	264 gal (1,000 L)
air filtration	direct flow filtration system dual stage filter with pre-filter
control	integrated ECM automatic idle - stop eco mode
HYDRAULIC SYSTEM	
system type	LUDV load sensing pilot pressure controlled open center
pump type	variable-displacement axial-piston pump
max. pressure	5,076 psi (350 bar)
hydraulic tank	237 gal (900 L)
filtration	dual filtration system 3 micron (HydroClean)
COOLING	
cooling type	cool-on-demand, suction-type fan system, side by side
hydraulic / water	hydraulic fan drive axial piston pump, reversible fan thermo-statically controlled, closed loop system
charge air	direct fan drive

ELECTRICAL	
alternator	100 V/Ah
starter	24 Vm 7.8 kW
battery	2 x 12 V, 210 Ah
lights	2 x cab roof, type halogen 2 x frame upper carriage, type H4
SWING SYSTEM	
swing speed	0 - 5 rpm
swing hydraulic	closed loop
drive	axial piston motor driving planetary gearbox, integrated brake valves
swing brake	multidisc brake, spring loaded
swing bearing	external teeth sealed triple roller bearing
TRAVEL / UNDERCARRIAGE	
type	crawler R83-450
system	mechanical, extendable tracks
drive	independent driven by an axial piston motor through a compact planetary
travel speed	stage I - 0-0.99 mph (0-1.6 km/h) stage II - 0-1.86 mph (0-3.0 km/h)
shoes	triple grouser, 35.4" (900 mm)
crawler	B8b maintenance free tracks
steering	joystick steering
safety	travel alarm

REFILL CAPACITIES	
fuel tank	264 gal (1,000 L)
hydraulic tank	237 gal (900 L)
MAGNET SYSTEM (OPTIONAL)	
rating	33 kW
voltage (magnetized)	230 V
current (cold condition)	175 Amps
controller	Hubbell
generator	Baldor
drive	hydraulic
WEIGHT	
operating weight (approx)	231,500 lb (105,000 kg)

Subject to technical modification.

Standard / Optional Equipment - 870 R-HD “E”

ENGINE	
Water separator in fuel line	●
Automatic idle / engine stop control	●
Eco mode	●
Muffler	●
Visual fuel tank check	●
Engine block & water separator pre-heater	○
ELECTRIC	
Battery disconnect switch	●
Centralized fuse box	●
HYDRAULIC	
Pilot pressure controlled variable displacement pump	●
Thermostatically controlled cooling system	●
Centralized hydraulic test ports	●
Protection covers for pilot pressure control valves	●
3 micron dual filtration system	●
Load sensing, flow on demand hydraulic system	●
Optimized hydraulic pump regulation (GLR)	●
Visual hydraulic tank check from ground level	●
Attachments open, close & rotation hydraulics	●
Hydraulic tank shut off valve	●
Electrical hydraulic tank pre-heater	○
Biodegradable hydraulic oil	○
Hydraulic circuit for scrap shear	○
Additional hydraulic circuits	○
Attachment return filtration filters (60 µm)	○
UPPER CARRIAGE	
Rearview & right side view camera system	●
Automatic lubrication system	●
Anti-slip mats on walking area	●
Lockable side doors	●
Handrails on top of upper carriage	●
Mirror left side	●
Removable panels	●
Additional light package	○
Custom colors	○
Seawater paint coating	○

OPERATOR'S CAB (maXCab Industry)	
Hydraulic elevating up and out cab E300/260	●
Multi adjustable, air suspended operator's seat	●
3" (76 mm) seat belt	●
Seat heater	●
Automatic climate control (heater / AC)	●
Air outlets w / defroster	●
Storage area for lunch box	●
Large cup holder	●
Fire extinguisher	●
Tinted windows with safety glass	●
Door window as sliding window	●
AM / FM Radio with CD player & speakers	●
Removable floor mat	●
SenCon diagnostic system	●
Multicolor Monitor	●
Tilt out front window	●
Halogen light package on cab roof	●
Mechanical hour meter	●
Sliding door	●
Catwalk w / handrail	●
12 V / 24 V power outlet	●
Windshield wiper and washers	●
Emergency exit hammer	●
Safety lever	●
Sun shades	●
Interior lighting	●
Rain cover front window	●
Outside mirror	●
Optical and acoustic warning system	●
Positive filtered ventilation (pressurized cab)	●
Safety check valves for elevating cab cylinder	●
Foot rest	●
maXCab industry	○
Windshield protection guard	○
Skylight protection guard	○
Skylight FOPS guard	○
Bullet proof windshield	○
Bullet proof skylight	○
Polycarbonate side windows	○
Additional light package	○
Fixed cab elevation	○
Operator's cab with floor window	○
Additional cameras	○

UNDERCARRIAGE	
Heavy duty designed material handling under carriage	●
Heavy duty crawler track frame	●
B8b maintenance free tracks	●
Hydraulic chain tension device	●
Travel alarm	●

WORKING EQUIPMENT	
Purpose built material handling boom	●
Green Hybrid energy recovery system	●
Purpose built material handling stick	●
Attachment hydraulic line connections with ball valves	●
Safety check valves for stick cylinders	●
Safety check valves for boom cylinders	●
Cylinder end position dumping	●
Boom hoist limitation	●
Bronze bushings connected to automatic lubrication system	●
Stick limitation	●
Halogen light package boom	○
Purpose built material handling boom for scrap shears	○

MAGNET SYSTEM	
Hydraulic driven generator	○
Magnet controller	○
Magnet suspension link	○

ATTACHMENTS	
Orange peel grapple	○
Mag grapple	○
Clamshell	○
Magnet	○
Log grapple	○
Scrap shear	○
Power attachment	○
Pipe handler	○

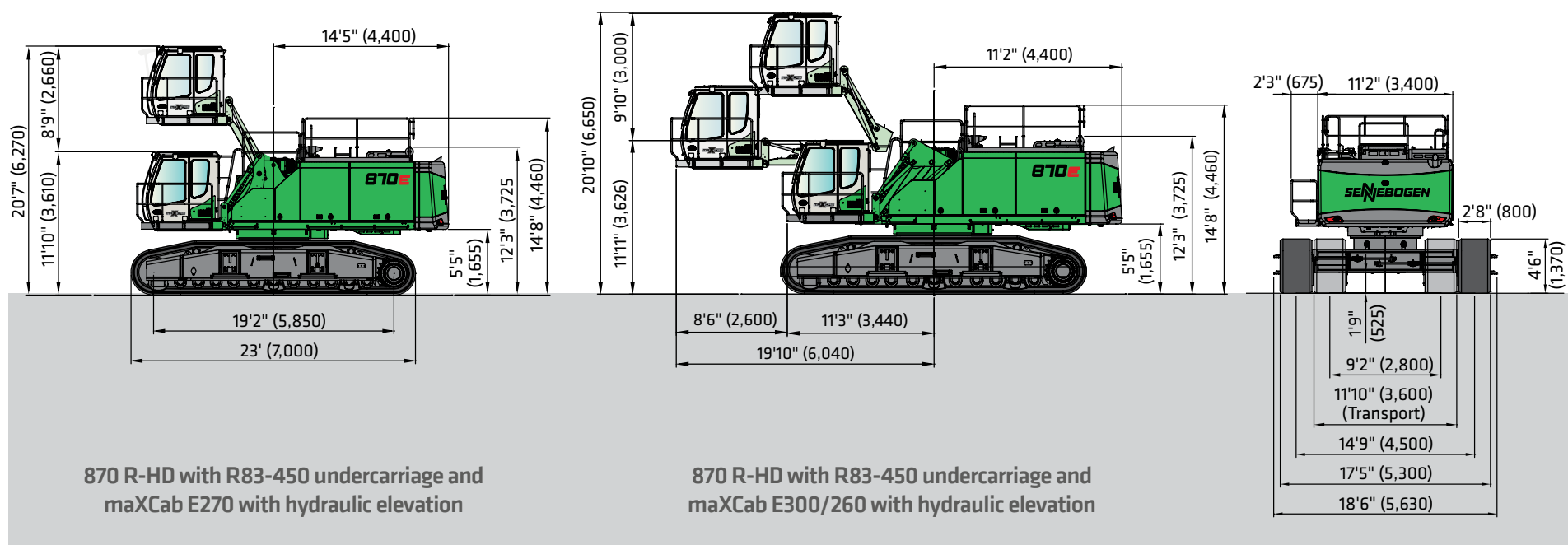
SWING SYSTEM	
360° protection cover, removable	●
Electrical driven swing gear pinion lubrication pump	●

Standard Equipment ● Optional Equipment ○

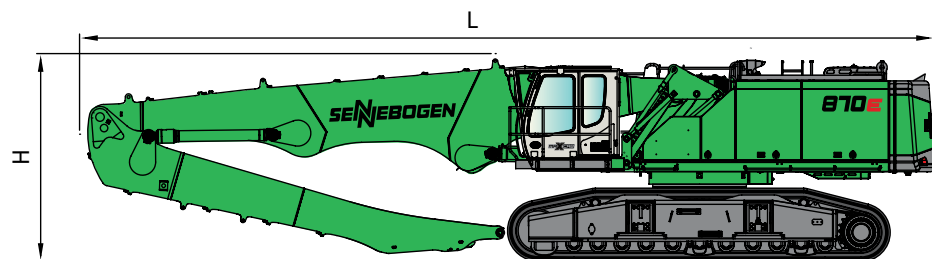
Subject to technical modification.

PRELIMINARY

Dimensions - 870 R-HD “E”



Transport Dimensions - 870 R-HD “E”



Reach	Boom Length	Stick Length	Transport Length (L)	Transport Height (H)
K18	35'5" (10.8 m)	25'7" (7.8 m)	52' (15.85 m)	12'10" (3.90 m)
K20	38'9" (11.8 m)	28'10" (8.8 m)	55'5" (16.9 m)	13'1" (4.00 m)
B21	44'3" (13.5 m)	32'2" (9.8 m)	60' (18.3 m)	13' (3.95 m)*

*Stick removed

Lift Capacities - 870 R-HD "E"

Working Equipment K18

Boom	35'5" in. (10.8 m)
Stick	25'7" (7.8 m)

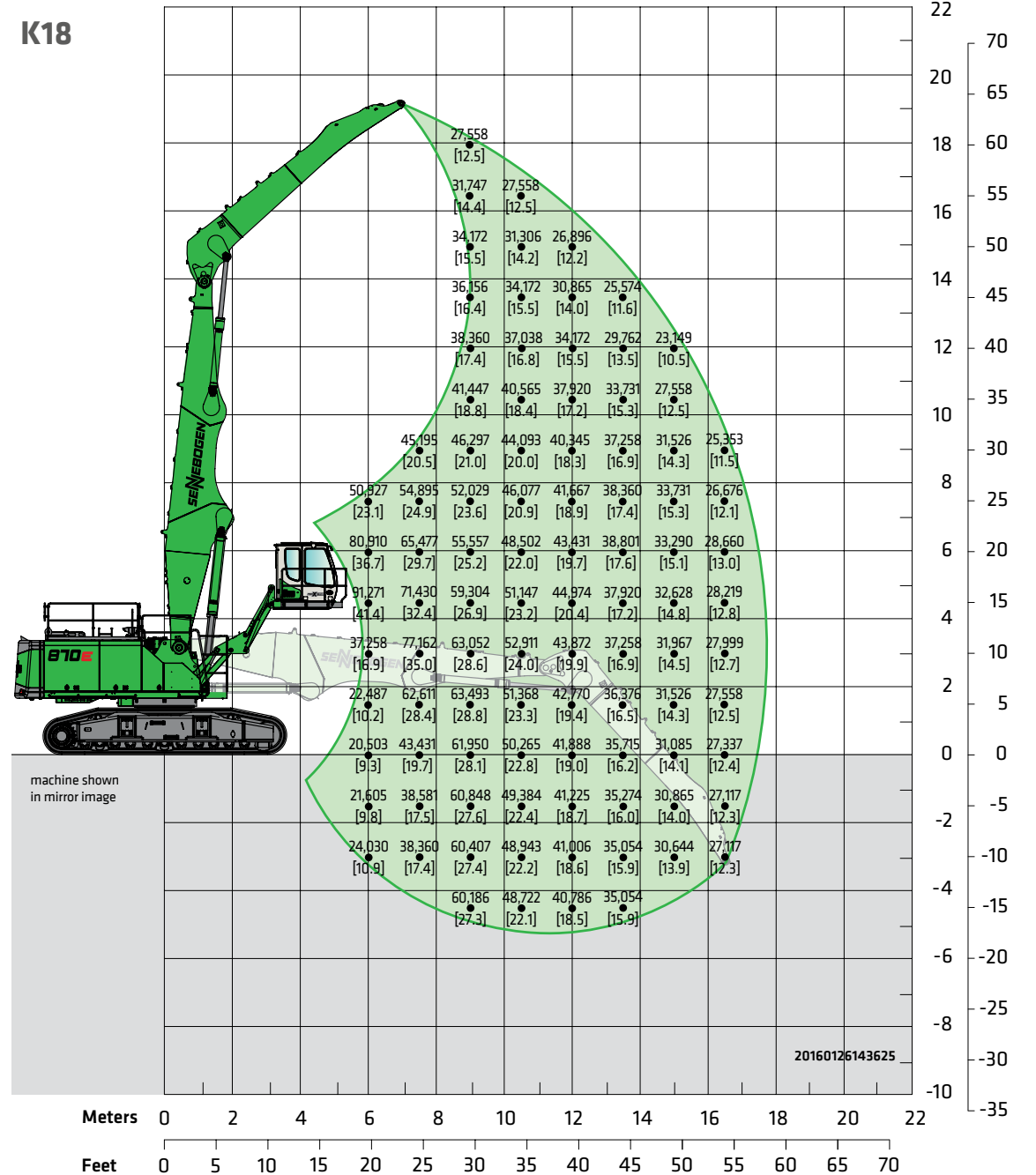
Operator's Cab

Model	maXCab E300/260, hydraulic elevation
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Undercarriage

Model	R83-450
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K18



Lift capacities are stated in pounds. Values in [] are stated in metric tons. Indicated figures are based on ISO 10567 and do not exceed 75% or tipping and 87% of hydraulic capacity and machine standing on firm, level supporting surface. Loads are valid for 360° with machine support outriggers. Lifting capacities do not include working equipment such as orange peel grapples, magnets, clamshells, etc. The load point is the center line of the attachment pivot mounting pin on the stick. Their weights must be deducted from the numbers indicated in the lift charts. Please contact SENNEBOGEN or your local dealer for optimum attachment selection. The operator / user of the machine should be fully acquainted with the operator's & safety manual provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.

PRELIMINARY

Lift Capacities - 870 R-HD "E"

Working Equipment K20

Compact boom	38'8" (11.8 m)
Loading stick	28'10" (8.8 m)

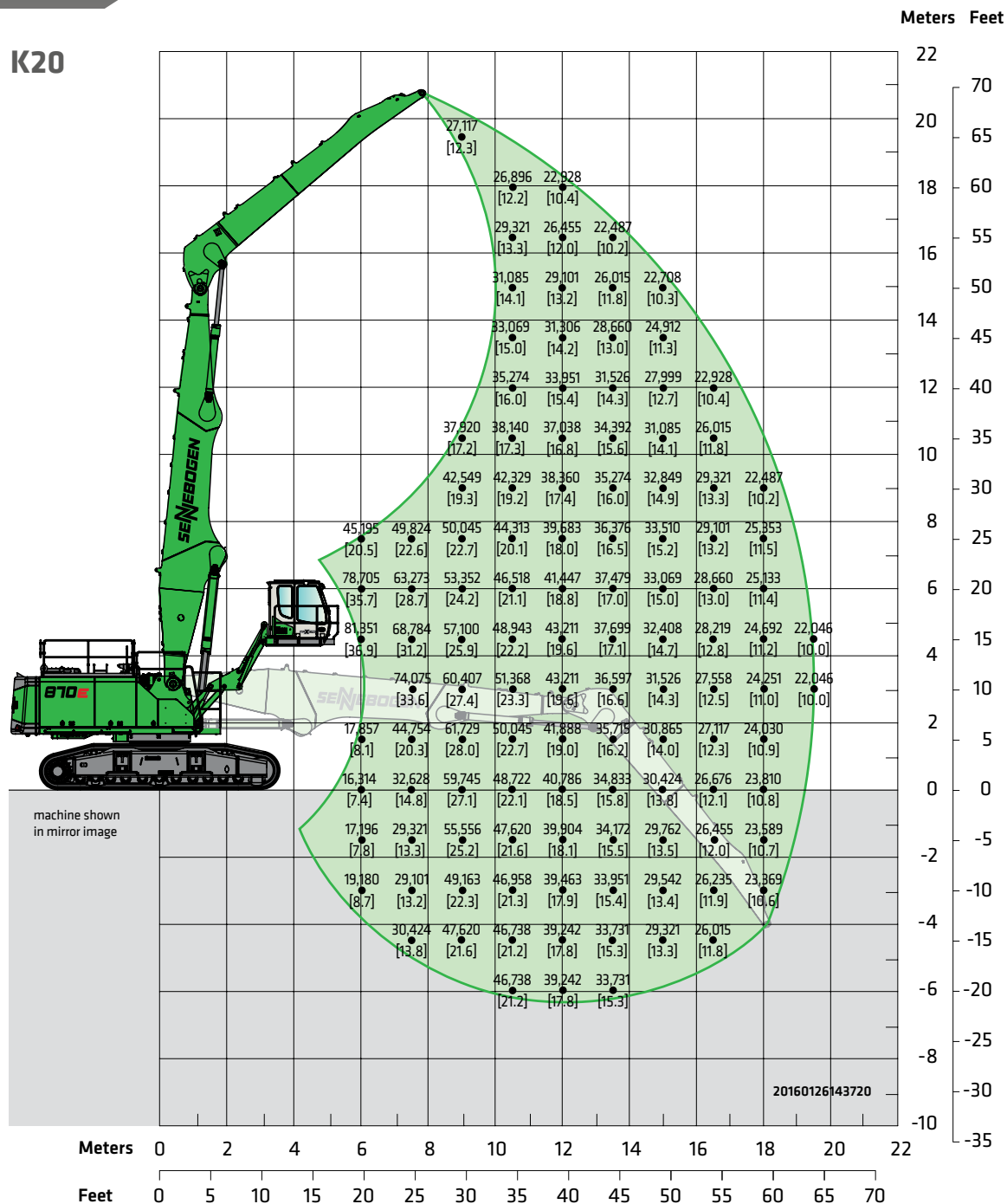
Operator's Cab

Model	maXCab E300/260, hydraulic elevation
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Undercarriage

Model	R83-450
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K20



Lift capacities are stated in pounds. Values in [] are stated in metric tons. Indicated figures are based on ISO 10567 and do not exceed 75% or tipping and 87% of hydraulic capacity and machine standing on firm, level supporting surface. Loads are valid for 360° with machine support outriggers. Lifting capacities do not include working equipment such as orange peel grapples, magnets, clamshells, etc. The load point is the center line of the attachment pivot mounting pin on the stick. Their weights must be deducted from the numbers indicated in the lift charts. Please contact SENNEBOGEN or your local dealer for optimum attachment selection. The operator / user of the machine should be fully acquainted with the operator's & safety manual provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.

Lift Capacities - 870 R-HD "E"

Working Equipment B21

Boom	44'3" (13.5 m)
Stick	32'2" (9.8 m)

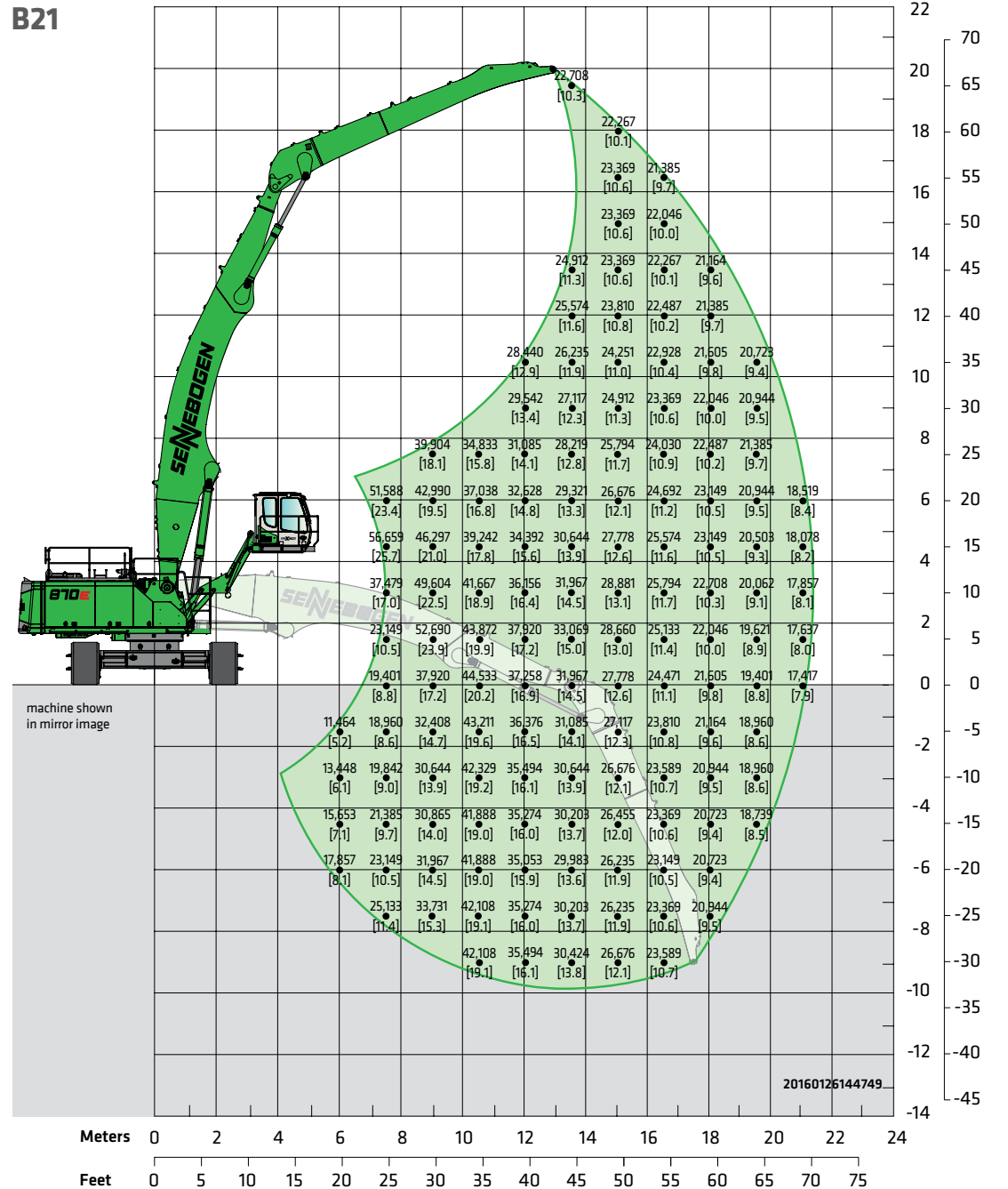
Operator's Cab

model	maXCab E300/260, hydraulic elevation
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Undercarriage

model	R83-450
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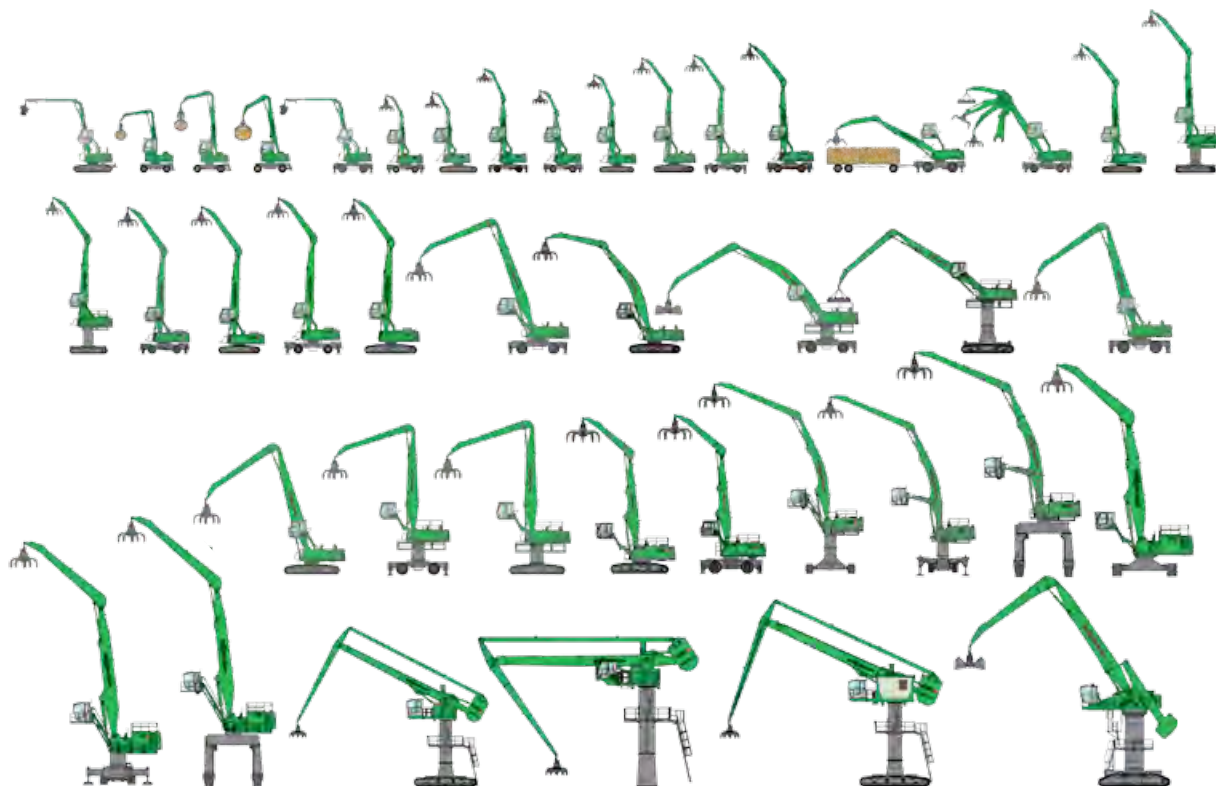
B21



Lift capacities are stated in pounds. Values in [] are stated in metric tons. Indicated figures are based on ISO 10567 and do not exceed 75% or tipping and 87% of hydraulic capacity and machine standing on firm, level supporting surface. Loads are valid for 360° with machine support outriggers. Lifting capacities do not include working equipment such as orange peel grapples, magnets, clamshells, etc. The load point is the center line of the attachment pivot mounting pin on the stick. Their weights must be deducted from the numbers indicated in the lift charts. Please contact SENNEBOGEN or your local dealer for optimum attachment selection. The operator / user of the machine should be fully acquainted with the operator's & safety manual provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.

PRELIMINARY

OUR COMPLETE LINE OF **PURPOSE-BUILT MATERIAL HANDLERS**



PRELIMINARY

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