Thinking **Beyond the Machine** $\clubsuit \diamondsuit \circlearrowleft$





PURPOSE-BUILT MATERIAL HANDLER





Rubber Tired (M) - 57,600 lbs (26,120 kg) **Crawler (R-HD) -** 72,300 lb (32,800 kg)



PURPOSE-BUILT - TO SUIT YOUR PURPOSE

We're building smarter, to build *your* business.

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.

With our Green Hybrid series of purpose-built material handlers, we're meeting our commitment to help you move more material, safely, at a lower cost:

- Innovative energy recovery system saves costs with every lift
- Interchangeable components across multiple platforms
- Industry standard parts for service & repairs
- Intelligent hydraulics in place of complex electronics
- Robust structures matched to heavy loads and stresses

Now in our third generation as a family-owned business, SENNEBOGEN takes pride in taking a personal interest in the needs of our customers. By listening and responding to their requirements, we have continually delivered the world's best material handling solutions since 1952.

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











The SENNEBOGEN 825 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 825 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.

QUICK SPECS	825 M RUBBER TIRED	825 R-HD CRAWLER TRACKS
Net Power	197 HP (145 kW)	197 HP (145 kW)
Operating Weight	57,600 lbs (26,120 kg)	72,300 lb (32,800 kg)
Magnet System	15 kW	15 kW
Max reach	45' 11" (14 m)	45' 11" (14 m)



Power

With their purpose-built lifting capability and engineered eGreen efficiency, SENNEBOGEN material handling machines reduce both your operating costs and your environmental footprint whether you choose diesel power, electric drive or a combination of the two.

Cab Configurations

The elevating Maxcab, now with bulletproof windshield and skylight as standard equipment, allows an unobstructed view in all directions for increased safety and productivity, even under harsh and adverse conditions. Optional features include:

- Windshield protective guard
- Skylight protection guard and/or FOPS guard

Cabs



E270 with Maxcab

E300/260 with Maxcab

Booms and Sticks

A wide choice of powerful boom and stick configurations allows the 825 to adapt easily to match the specific lift and reach requirements of your operations.

Attachments

SENNEBOGEN grapples and magnets complete your purpose-built solution with the same reliability as our 825 material handling machines. Your machine will also accept a full range of standard attachments from all brand-name manufacturers including:



Orange Peel Grab



Log Grapple





Lifting Magnets



Mobile Shear Types

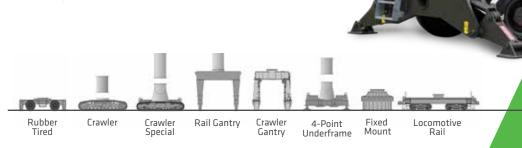


Waste/Trash Grapple

powered by Baldor generators with

Platforms

The modular design of the 825 adapts easily to any required mounting for gantries, rail cars, barges and ship applications.







UNDERCARRIAGE

Stable footprint

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

Swing system

The large-diameter slewing ring provides excellent cycle times and swing torque for large loads

Multiple platforms

The modular 825 is designed to adapt to standard wheeled and tracked platforms as well as specialized mounts.

CAB

Elevating Maxcabs

Various cab configurations maximize safety, loading accuracy and stability. Optionally available with an elevated fixed cab

Joystick steering

Unobstructed view for operator with highly responsive controls

SENCON

Advanced diagnostic system with userfriendly multicolored interface, available in multiple languages

Entry/exit

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

Superior visibility

Large bulletproof glass front window and skylight as well as large side windows supplemented by 2-camera system are standard. Also available with glass floor

HYDRAULIC SYSTEM

Purpose-built design

Fully hydraulic controls require no special software to troubleshoot

Convenient servicing

All test ports are easily accessible in one place

HydroClean filtration

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

UPPER CHASSIS

Upper carriage

Guarding surrounds upper deck to enhance safety for service technicians

One-piece center frame

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

Reversible fan

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

OSHA-compliant

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

Longitudinal engine mount

Allows safe and easy access and unequaled fuel efficiency due to efficient cooling

Automatic lubrication

Extend component life with no waste, no spill hazards

BOOM & STICK

Limit switches

Boom pivot

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

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

Cylinder protection

The boom and stick have been designed specifically for material handling applications. Hydraulic cylinders are mounted and protected by an open box frame to ensure uptime

SAFETY

Safety rails

Full guarding on upper decks provide safety for technicians on North American models

Fuses and relays

All fuses and relays are clearly labeled and easily accessible in a centrally located terminal box

Sliding door

The door slides open for safe ease of entry and exit from the cab

Bulletproof glass

Bulletproof windshield and skylight are standard on all new SENNEBOGEN models



HEALTH & SAFETY: THE FIRST STEP TO PRODUCTIVITY

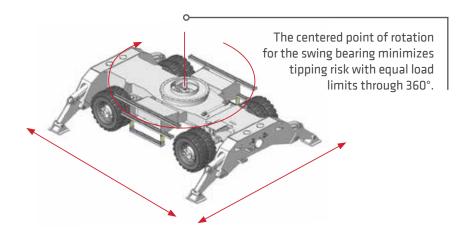
Various optional guarding packages available to meet industry safety requirements. Bulletproof windshield and skylight are now standard on all new SENNEBOGEN material handlers.



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, ground-to-cab guarding, sliding door cab entry, 360° visibility, battery disconnect switch and travel alarm are all standard features of your SENNEBOGEN.



Safe access to the upper deck is achieved with a permanent 3-point contact ladder with railings.

Handrails around the upper deck and anti-slip walking surfaces provide a safe working environment for service and maintenance crews.

All high-pressure hydraulic hoses in the engine compartment are secured in sleeves to protect service personnel.











BEYOND THE MACHINE

SENNEBOGEN is on a mission to deliver the lowest Total Cost of Ownership with the industry's best in aftersale service. Expert technical support, available parts, and qualified servicing translate into less downtime and more productive years on the job.

- Our 100,000 sq. ft. (9,300 m²) headquarters in Stanley, NC is a multipurpose facility dedicated to supporting customers "beyond the machine."
- 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.





The largest inventory of material handler parts in the Americas ensures fast delivery for repairs and service to every fielded SENNEBOGEN machine currently in operation.

98% ORDER FULFILLMENT WITHIN 24 HOURS



TRAINING CENTER OF EXCELLENCE

The dedicated Training Center in our North American head office complex provides primary and advanced courses.

Offered free of charge for our dealers and their customers, the Training Center has working units, demonstration modules, and is staffed with professional trainers each with many years of in-field experience and hands-on knowledge.

Purpose-built For America's Best-Trained Technicians

The main demonstration bay allows hands-on access to machines while the meeting rooms and classrooms are all equipped with the technology required for today's interactive instruction methods.

Truly a Center for developing excellence in service and support for dealer and customer personnel, the SENNEBOGEN Training Center has earned accolades for the quality of the instructors, facilities and materials.

Free Training Courses Include:

Service • Parts Training • Operator Familiarization

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



Service Level 1

Class Size: 8 Students

Required: Basic Technical Knowledge

Course Content:

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

Service Level 2

Class Size: 8 Students

Required: Completion of Level 1 Class

Course Content:

- Remote Troubleshooting
- Component Training & Repair
- Failure Analysis
- In-Depth Troubleshooting:
 Magnet System, Hydraulics, Electrics

Course fees: No charge to SENNEBOGEN dealers, staff and customers.
 Courses offered in English and Spanish sessions



PROVEN UPTIME

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.



SENNEBOGEN UPtime Kits are matched to specific service tasks and machines. Hundreds of assorted parts, connectors, fittings and electrical components are easy to locate and access.

In the shop or in the field, these fully stocked kits bring together all the parts and material required for a specific service need, conveniently sorted and organized in one place.





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



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



Simple hydraulic controls replace complex electronics, so the 825 requires no special software or "black box" components to troubleshoot your machine.



Test and service points are conveniently arranged together behind the cab and within reach from ground level.

SENCON

The advanced SENCON diagnostic and reporting system presents a multicolored user-friendly interface, now available in multiple languages.



With no bypass in the fluid circuit, SENNEBOGEN's HydroClean system continuously protects hydraulic components with industry-leading 3-micron oil filtration.



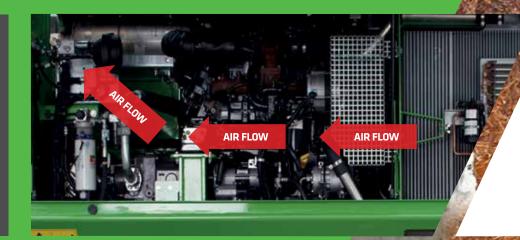
Automatic central lubrication, standard on all SENNEBOGEN machines, saves servicing time every day while improving component life cycles.



GOOD FOR THE ENVIRONMENT. EASY ON THE BUDGET.

"Green Efficiency" powers a new generation of machines that reduce operating costs through every working hour and on every lift.

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. SENNEBOGEN material handlers reduce your costs and environmental footprint with multiple innovative initiatives.



Eco-mode engine control automatically reduces engine speed to 1400 rpm.

Operating ECO Mode

1800 ECO

min-1

0 s

Automatic

1400 800 min-1

5 s

min-1 8 s

Stop

min-1 5 min







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 825, 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 825 is built to deliver the best return on your equipment investment.



A continuous flange ring reduces stress and improves distribution of swing loads to the undercarriage.



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

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



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.





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 lineup 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 built-to-order machine competitively. Shared systems also streamline aftersale parts inventories for customers and their local SENNEBOGEN distributors.













SPECIFICATIONS INDEX

825 M "E"_







Technical Specifications - 825 M "E"

ENGINE	
model	Cummins QSB 6.7
type	in-line, 6 cylinder, cooled exhaust gas recirculation, water cooled
emission	EPA Tier 4 Final
net power	197 HP (145 kW) @ 2000 rpm
injection	high pressure common-rail
displacement	6.71 L (408 cu.in.)
bore	4.49 in (114 mm)
stroke	5.69 in (145 mm)
aspiration	turbo charged, charge air cooled
fuel tank	118 gal (450 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. pump flow	108 gpm (410 l/m)
max. pressure	5,076 psi (350 bar)
hydraulic tank	82 gal (310 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	120 V/Ah
starter	24 V, 7.8 kW
battery	2 x 24 V, 155 Ah
lights	2 x cab roof, type halogen
	2 x frame upper carriage, type H4
SWING SYSTEM	
swing speed	0 - 8 rpm
swing hydraulic	open loop
drive	1 x axial piston motor
	driving planetary gearbox,
	integrated brake valves
swing brake	multidisc brake, spring loaded
swing bearing	internal teeth, sealed ball bearing
UPPER CARRIAGE	
design	torsion-free upper frame with
	continuous bearing-plates for
	optimal power introduction, precision pivot; excellent design;
	very low noise emission
TRAVEL / UNDERCA	
type	rubber tired MP26E
drive system	all-wheel drive variable
	displacement motor with dual
	stage power shift transmission
travel speeds	1 st 0-4.35 mph (0-7 km/h)
	2 nd 0-12.43 mph (0-20 km/h)
tires	8 x 12.00-20 (solid rubber)
steering	joystick steering
front axle	oscillating with hydraulic lock,
	integrated safety check valves
rear axle	fixed
service brake	disc brake
parking brake	multidisc brake spring loaded
safety	travel alarm

DEFILL CARACITIES	
REFILL CAPACITIES	
fuel tank	126 gal (480 L)
engine cooling system	13.2 gal (50 L)
engine oil w / filter	3.7 gal (14 L)
hydraulic tank	82 gal (310 L)
hydraulic system	180 gal (680 L)
axle hub (front axle)	2.9 gal (11 L)
axle hub (rear axle)	3.7 gal (14 L)
axle transmission	0.8 gal (3.0 L)
central lubrication reservoir	5.5 lb (2.5 kg)
diesel exhaust fluid	7.9 gal (30 L)
MAGNET SYSTEM	
rating	15 kW
voltage (magnetized)	230 V
current (cold condition)	39 Amps
drive	hydraulic
WEIGHT	
operating weight	57,600 lbs (26,120 kg)

Subject to technical modification.

Standard / Optional Equipment - 825 M "E"

ENGINE	
Water separator in fuel line	
Automatic idle / engine stop control	
Eco mode	
Air filter pre-cleaner	
Visual fuel tank check	
Heated water separator	
Engine block pre-heater	0
ELECTRIC	
Battery disconnect switch	•
Centralized fuse box	
Battery jump start connection from ground level	
· · · · · · · · · · · · · · · · · · ·	
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 (HydroClean)	
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	0
Biodegradable hydraulic oil	0
Hydraulic circuit for scrap shear	0
Hydraulic circuit for hammer, breaker	0
Additional hydraulic circuits	0
,	O
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	
Turning signal lights in upper carriage frame	
Removable panels	
	0
Additional light package	_
	0

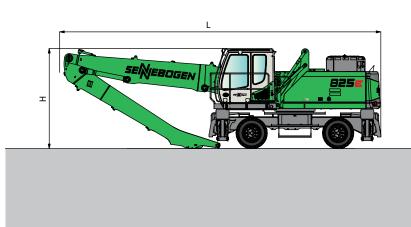
Automatic lubrication system

OPERATOR'S CAB (Maxcab Industry)	
Hydraulic elevating up and out cab E270	•
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	•
Radio with USB and SD port, MP3 and Bluetooth	
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	
Bulletproof windshield	•
Bulletproof skylight	
Windshield protection guard	0
Skylight protection guard	0
Skylight FOPS guard	0
Polycarbonate side windows	0
Additional light package	0
Fixed cab elevation	0
Steering column instead of joystick steering	0
Steering column in combination with joystick steering	0
Additional cameras	0

UNDERCARRIAGE	
Robust designed material handling undercarriage	•
Heavy-duty axles	
Solid rubber tires 12.00-20 (8x) incl. intermediate ring	
Front axle automatic oscillating axle unlock (travel position)	
Dual stage power shift transmission	
Drivetrain protection guards	
Travel alarm	
Centralized lubrication points	
Servo brake system	
4-point outriggers	
Integrated safety check valves in outrigger cylinders	
Tool and storage compartments, lockable	•
Individual outrigger control	0
Towing hitch package	0
Pneumatic tires 10.00-20 (8x)	0
WORKING EQUIPMENT	
Purpose-built material handling boom	•
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	•
Bronze bushings connected to automatic lubrication system	•
Stick limitation	•
Boom hoist limitation	•
LED light package boom	0
LED light package stick	0
Purpose-built material handling stick with reversing linkage	0
Purpose-built material handling boom for scrap shears	0
MAGNET SYSTEM	
Hydraulic driven generator	0
Magnet controller	0
Magnet suspension link	Ō
ATTACHMENTS	
ATTACHMENTS Orange neel grannle	0
Orange peel grapple	0
Orange peel grapple Mag grapple	0
Orange peel grapple Mag grapple Clamshell	0
Orange peel grapple Mag grapple Clamshell Magnet	0 0
Orange peel grapple Mag grapple Clamshell Magnet Log grapple	0 0 0
Orange peel grapple Mag grapple Clamshell Magnet Log grapple Scrap shear	0 0 0 0
Orange peel grapple Mag grapple Clamshell Magnet Log grapple	0 0 0

Standard Equipment
Optional Equipment O
Subject to technical modification.

Dimensions - 825 M "E"



9'3" (2,750) 8'8" (2,650) 9'0" (2,750) Rear Radius 9'2" (2,800) 4'6" (680)(1,375) (1,375) 19'4" (5,895) 11'3" (3,425) 11'3" (3,425) (340) 9'2" (2,800) 15'5" (4,690) 16'9" (5,115) 9'0" (2,730) Transport width 13'1" (3,980) 8'4" (2,550 mm) 14'4" (4,360)

825 M with undercarriage type MP26E

825 M with hydraulic elevating cabin type E270

11'3" (3,425)

	Boom	Stick	Transport Length (L)	Transport Height (H)
K12	22'4" (6.8 m)	18'4" (5.6 m)	34'1" (10.40 m)	10'8" (3.25 m)
K12 ULM	22'4" (6.8 m)	18'1" (5.5 m)	34'1" (10.40 m)	11'2" (3.40 m)
K13	24'7" (7.5 m)	19'0" (5.8 m)	36'5" (11.10 m)	10'10" (3.30 m)

Dimensions in (mm)

Lift Capacities - 825 M "E"

Working Equipment K12

Reach	40'8" (12.4 m)
Boom	22'4" (6.8 m)
Stick	18'4" (5.6 m)

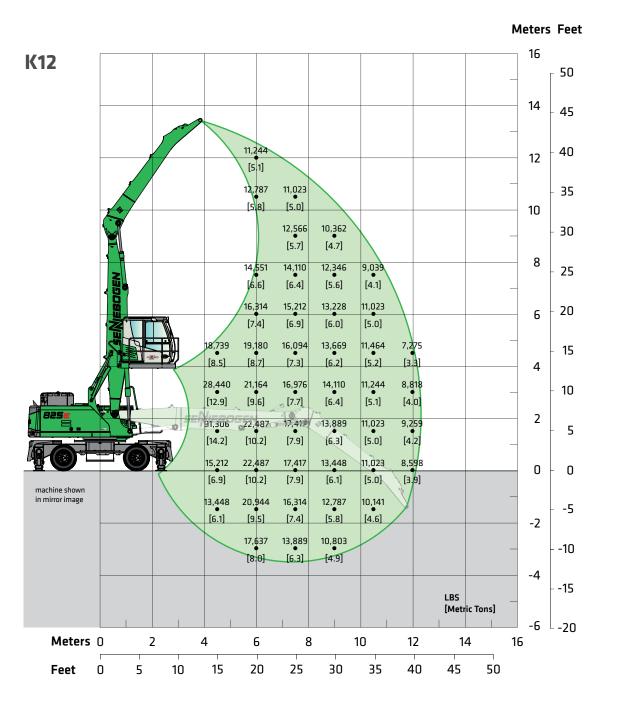
Operator's Cab

Model	E270 Maxcab hydraulic elevating up
Eye level	approx 19' (5.8 m)

Undercarriage

Model	MP26E 4-point outriggers
Tires	8 x 10.00-20 solid rubber

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% of 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 G safety manuals provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.





Lift Capacities - 825 M "E"

Working Equipment K12 ULM

Reach	46'11" (14.3 m)
Boom	22'4" (6.8 m)
Stick (ULM)	18'1" (5.5 m)

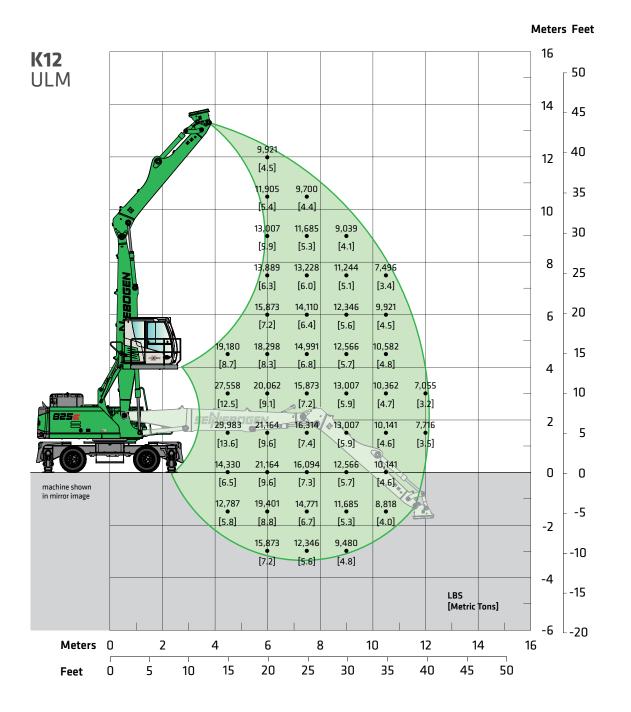
Operator's Cab

Model	E270 Maxcab hydraulic elevating up
Eye level	approx 19' (5.8 m)

Undercarriage

Model	MP26E 4-point outriggers
Tires	8 x 10.00-20 solid rubber

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% of 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 6 safety manuals provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.



Lift Capacities - 825 M "E"

Working Equipment K13

Reach	43'8" (13.3 m)
Boom	24'7" (7.5 m)
Stick	19'0" (5.8 m)

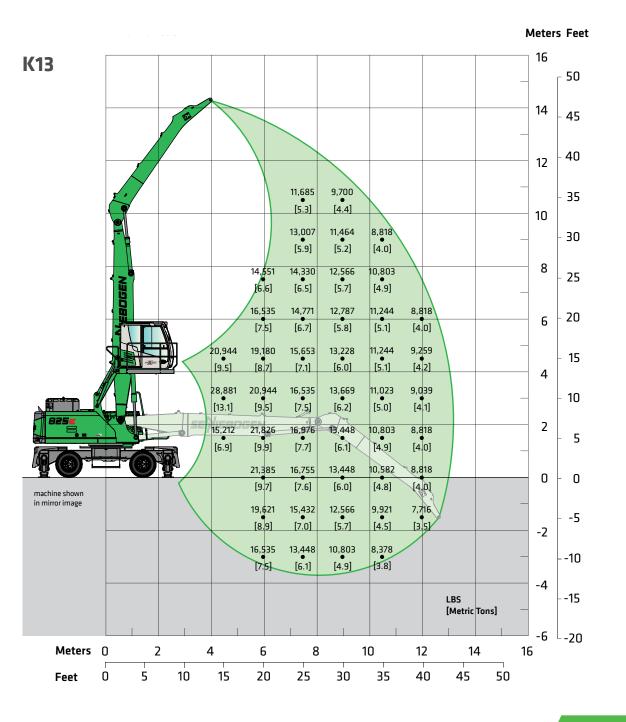
Operator's Cab

Model	E270 Maxcab hydraulic elevating up
Eye level	approx 19' (5.8 m)

Undercarriage

Model	MP26E 4-point outriggers
Tires	8 x 10.00-20 solid rubber

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% of 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 G safety manuals provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.





Technical Specifications - 825 R-HD "E"

ENGINE	
model	Cummins QSB 6.7
type	in-line, 6 cylinder, cooled exhaust gas recirculation, water cooled
emission	EPA Tier 4 Final
net power	197 HP (145 kW) @ 2000 rpm
injection	high pressure common-rail
displacement	6.71 L (408 cu.in.)
bore	4.49 in (114 mm)
stroke	5.69 in (145 mm)
aspiration	turbo charged, charge air cooled
fuel tank	118 gal (450 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. pump flow	108 gpm (410 l/m)
max. pressure	5,076 psi (350 bar)
hydraulic tank	82 gal (310 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	120 V/Ah
starter	24 V, 7.8 kW
battery	2 x 24 V, 155 Ah
lights	2 x cab roof, type halogen
	2 x frame upper carriage, type H4
SWING SYSTEM	
swing speed	0 - 8 rpm
swing hydraulic	open loop
drive	1 x axial piston motor
	driving planetary gearbox,
	integrated brake valves
swing brake	multidisc brake, spring loaded
swing bearing	internal teeth, sealed ball bearing
UPPER CARRIAGE	
design	torsion-free upper frame with
	continuous bearing-plates for
	optimal power introduction, precision pivot; excellent design;
	very low noise emission
TRAVEL / UNDERCA	· · · · · · · · · · · · · · · · · · ·
	crawler R35/240
type	
system	system fixed wide gauge
drive	independent driven by an axial
	piston motor through a compact planetary
travel speeds	1st 0-1.24 mph (0-2 km/h)
traver speeus	2 nd 0-2.17 mph (0-3.5 km/h)
shoes	23.6" (600 mm) (triple grouser)
crawler	R60 maintenance-free
steering	foot pedals / levers
safety	travel alarm
Juicty	craver aratti

REFILL CAPACITIES	
fuel tank	118 gal (450L)
engine cooling system	13.2 gal (50 L)
engine oil w / filter	3.7 gal (14 L)
hydraulic tank	82 gal (310 L)
hydraulic system	180 gal (680 L)
final drive (each)	2.38 gal (9.0 L)
central lubrication	5.5 lb (2.5 kg)
reservoir	
MAGNET SYSTEM	
rating	15 kW
voltage (magnetized)	230 V
current (cold condition)	39 Amps
drive	hydraulic
WEIGHT	
operating weight	72,300 lb (32,800 kg)

Subject to technical modification.

Standard / Optional Equipment - 825 R-HD "E"

ENGINE	
Water separator in fuel line	•
Automatic idle / engine stop control	•
Eco mode	•
Air filter pre-cleaner	•
Visual fuel tank check	
Heated water separator	•
Engine block pre-heater	0
ELECTRIC	
Battery disconnect switch	
Centralized fuse box	
Battery jump start connection from ground level	•
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 (HydroClean)	
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	0
Biodegradable hydraulic oil	0
Hydraulic circuit for scrap shear	0
Hydraulic circuit for hammer, breaker	0
Additional hydraulic circuits	0
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	
Turning signal lights in upper carriage frame	•
Removable panels	
Additional light package	0
Custom colors	0
Seawater paint coating	0

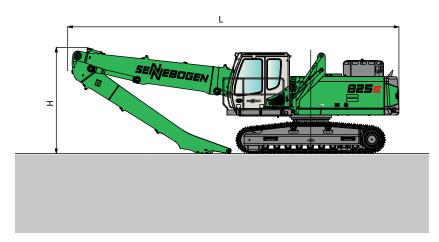
OPERATOR'S CAB (Maxcab Industry)	
Hydraulic elevating up and out cab E270	
Multi-adjustable, air suspended operator's seat	
3" (76 mm) seat belt	
Seat heater	
Automatic climate control (heater / AC)	
Air outlets w / defroster	
Storage area for lunch box	
Large cup holder	
Fire extinguisher	
Tinted windows with safety glass	
Door window as sliding window	
Radio with USB and SD port, MP3 and Bluetooth	•
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	
Bulletproof windshield	•
Bulletproof skylight	
Windshield protection guard	0
Skylight protection guard	Ö
Skylight FOPS guard	0
Polycarbonate side windows	00000
Additional light package	0
Fixed cab elevation	0
Steering column instead of joystick steering	0
Steering column in combination with joystick steering	0
Additional cameras	0
Additional Califeras	$\overline{}$

UNDERCARRIAGE	
Robust designed material handling undercarriage	
Crawler undercarriage with mechanical fixed tracks	•
Heavy-duty crawler track frame	•
23.6" (600 mm) triple grouser track shoes, canted	
Maintenance-free crawler B60	
Hydraulic chain tension device	•
Travel alarm	•
Centralized lubrication points	
Servo brake system	
Towing hitch package	•
WORKING EQUIPMENT	
Purpose-built material handling boom	
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	
LED light package boom	0
LED light package boom	0
Purpose-built material handling boom for scrap shears	0
r dipose built material handling boom for scrap shears	Ü
MAGNET SYSTEM	
Hydraulic driven generator	0
Magnet controller	0
Magnet suspension link	0
ATTACHMENTS	
Orange peel grapple	0
Mag grapple	0
Clamshell	0
Magnet	0
Log grapple	0
Scrap shear	0
Power attachment	0
Live heel / dead heel	0
	0
Live heel / dead heel SWING SYSTEM Automatic lubrication system	0

Standard Equipment
Optional Equipment O
Subject to technical modification.

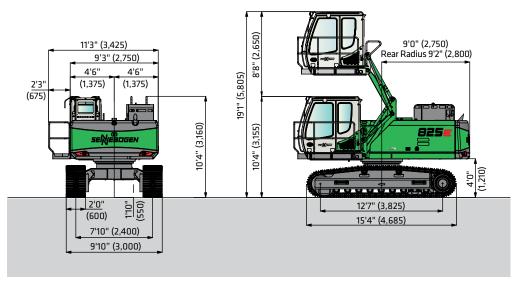


Dimensions - 825 R-HD "E"

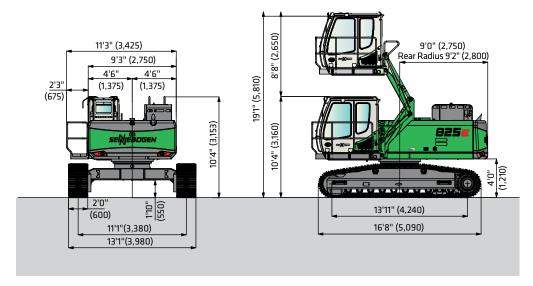


825 R-HD with undercarriage Type R35/240

	Boom	Stick	Transport Length (L)	Transport Height (H)
K12	22'4"	18'4"	33'11"	10'10"
	(6.8 m)	(5.6 m)	(10.35 m)	(3.30 m)
K12	22'4"	18'1"	34'1"	11'2"
ULM	(6.8 m)	(5.5 m)	(10.40 m)	(3.40 m)
K13	24'7"	19'0"	37'7"	11'6"
	(7.5 m)	(5.8 m)	(11.45 m)	(3.50 m)



825 R-HD with undercarriage Type R35/240 (series) and hydraulically elevating cab type E270



825 R-HD with undercarriage Type R35/340 (option) and hydraulically elevating cab type E270

Dimensions in (mm)

Lift Capacities - 825 R-HD "E"

Working Equipment K12

Reach	40'8" (12.4 m)
Boom	22'4" (6.8 m)
Stick	18'4" (5.6 m)

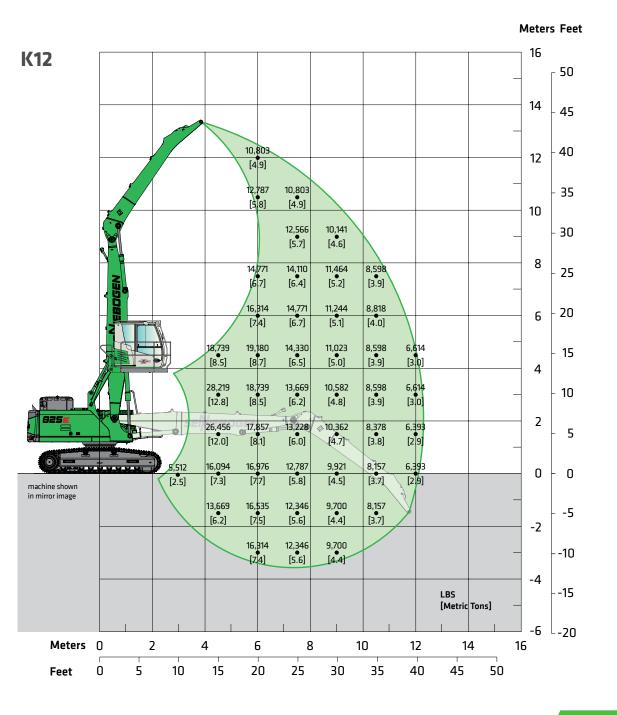
Operator's Cab

Model	E270 Maxcab hydraulic elevating up
Eye level	approx. 17'9" (5.4 m)

Undercarriage

Model	R35/240
Tracks	B60 triple grouser shoes 23.6" (600 mm)

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% of 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 hyot 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 6 safety manuals provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.





Lift Capacities - 825 R-HD "E"

Working Equipment K12 ULM

Reach	46'11" (14.3 m)
Boom	22'4" (6.8 m)
Stick	18'1" (5.5 m)

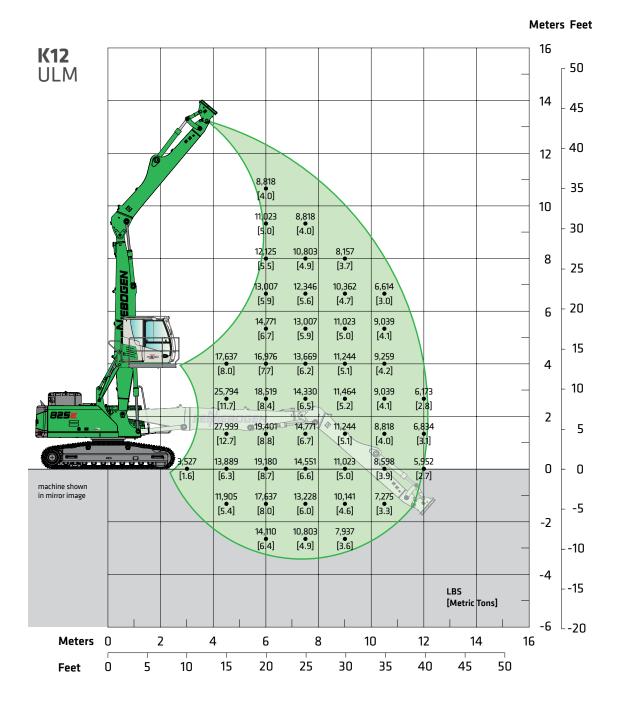
Operator's Cab

Model	E270 Maxcab hydraulic elevating up
Eye level	approx. 17'9" (5.4 m)

Undercarriage

Model	R35/340
Tracks	B60 triple grouser shoes 23.6" (600 mm)

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% of 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 6 safety manuals provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.



Lift Capacities - 825 R-HD "E"

Working Equipment K13

Reach	43'8" (13.3 m)
Boom	24'7" (7.5 m)
Stick	19'0" (5.8 m)

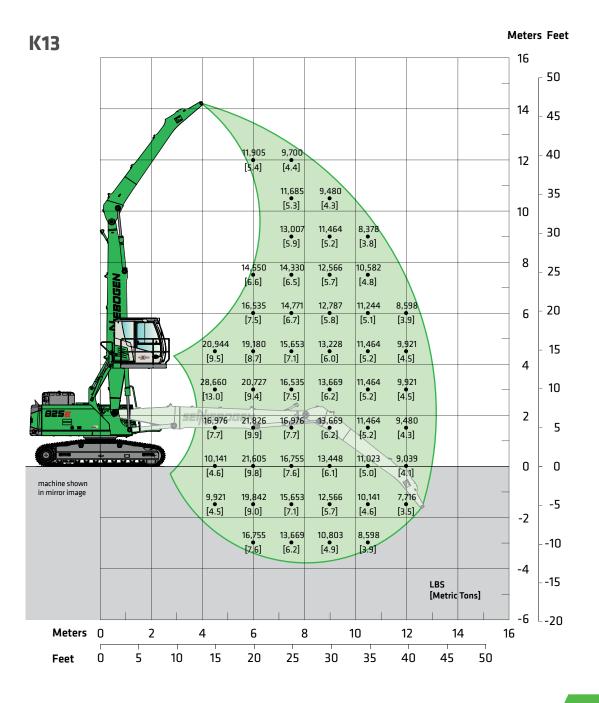
Operator's Cab

Model	E270 Maxcab hydraulic elevating up
Eye level	approx. 17'9" (5.4 m)

Undercarriage

Model	R35/340
Tracks	B60 triple grouser shoes 23.6" (600 mm)

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% of 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 hyot 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 6 safety manuals provided by SENNEBOGEN. Capacities apply only to the machine as originally manufactured and equipped by SENNEBOGEN.



OUR COMPLETE LINE OF PURPOSE-BUILT MATERIAL HANDLERS













































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