

Technical Specifications

SENNEBOGEN Rubber Tired Material Handler



Leading Through Innovation

Engine

Model Cummins QSB6.7-C220 Tier 4 Final
Net Power 225 HP (168 kW)

Operating Weight

M-HD rubber tired 88,185 lb (40,000 kg)
M-HD-S rubber tired 90,389 lb (41,000 kg)

Reach

standard 50'1" (15.26 m) (stick pin)
optional 55'7" (17 m) (stick pin)

Magnet System

rating 20 kW

830E
M-HD | M-HD-S

SENNEBOGEN

Technical Specifications 830 M-HD/M-HD-S “E”

ENGINE	
model	Cummins QSB6.7-C225
type	in-line, 6 cylinder, cooled exhaust gas recirculation, water cooled
emission	EPA Tier 4 Final
net power	225 HP (168 kW) @ 2,000 rpm
injection	high pressure common-rail
displacement	6.7 L (408 cu.in.)
bore	4.21 in (107 mm)
stroke	4.88 in (124 mm)
aspiration	turbo charged, charge air cooled
fuel tank	132 gal (500L)
air filtration	direct flow filtration system dual stage filter with pre-filter
control	integrated ECM automatic idle - stop eco mode
ELECTRICAL	
alternator	100 V/Ah
starter	24 V, 7.8 kW
battery	2 x 12 V, 150 Ah
lights	2 x cab roof, type halogen 2 x frame upper carriage, type H4
HYDRAULIC SYSTEM	
system type	LUDV load sensing pilot pressure controlled open center
pump type	variable-displacement axial-piston pump
max. pump flow	137 gpm (520 l / m)
max. pressure	5,076 psi (350 bar)
hydraulic tank	82 gal (310 L)
hydraulic system	180 gal (680 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
WEIGHT	
operating weight	M-HD rubber tired: 88,185 lb (40,000 kg) approx. M-HD-S rubber tired: 90,389 lb (41,000 kg) approx.

SWING SYSTEM	
swing speed	0 - 8 rpm
swing hydraulic drive	open loop 1 x axial piston motor driving planetary gearbox, integrated brake valves
swing brake	multidisc brake, spring loaded
swing bearing	external teeth, sealed ball bearing
TRAVEL / UNDERCARRIAGE	
type	MP31E (M-HD) MP34E (M-HD-S)
drive system	all-wheel drive, variable displacement motor with dual stage power shift transmission
travel speed	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) M-HD 4 x 16.00-25 (solid rubber) M-HD-S
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
REFILL CAPACITIES	
fuel tank	132 gal (500 L)
engine cooling system	13.20 gal (50.0 L)
engine oil w / filter	4.49 gal (17.0 L)
hydraulic tank	82 gal (310 L)
hydraulic system	180 gal (680 L)
swing gear	1.06 gal (4.0 L)
axle hub (front axle)	0.31 gal (1.2 L)
axle hub (rear axle)	0.39 gal (1.5 L)
axle differential (front axle)	6.9 gal (26.0 L)
axle differential (rear axle)	5.1 gal (19.5 L)
axle transmission	0.8 gal (3.0 L)
swing ring lubrication reservoir	0.26 gal (1.0 L)
central lubrication reservoir	5.5 lb (2.5 kg)
diesel exhaust fluid	7.93 gal (30 L)
MAGNET SYSTEM	
rating	20 kW
voltage (magnetized)	230 V
current (cold condition)	87 Amps
controller	Hubbell
generator	Baldor
drive	hydraulic

Subject to technical modification.

Standard / Optional Equipment 830 M-HD/M-HD-S “E”

ENGINE	
Water separator in fuel line	●
Automatic idle / engine stop control	●
Eco mode	●
Visual fuel tank check	●
Engine block & water separator pre-heater	○

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	●
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	○
Hydraulic circuit for hammer, breaker	○
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	●
Turning signal lights in upper carriage frame	●
Removable panels	●
Additional light package	○
Custom colors	○
Seawater paint coating	○

OPERATORS CAB (maXCab)	
Hydraulic elevating cab system E270	●
Multi adjustable, air suspended operators 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 shade	●
Interior lighting	●
Rain cover front window	●
Outside mirror	●
Cab with upward and forward moving E300/260	○

OPERATORS CAB (maXCab)	
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	○
Hydraulic elevating up and out cab E300/260	○
Operators cab with floor window	○
Steering column instead of joystick steering	○
Steering column in combination with joystick steering	○
Additional cameras	○

UNDERCARRIAGE	
Robust designed material handling under carriage	●
Heavy duty axles	●
8 x 12.00-20 (solid rubber) M-HD / 4 x 16.00-25 (solid rubber) M-HD-S	●
Front axle oscillating w/axle unlock (travel position)	●
Dual stage power shift transmission	●
Drive train protection guards	●
Travel alarm	●
Centralized lubrication points	●
2 circuit servo brake system	●
4-point outriggers w/integrated safety check valves in outrigger cylinders	●
Tool and storage compartments, lockable	●
Individual outrigger control	○
Increased size outrigger pads to decrease ground pressure	○
Pneumatic tires 20.5-25 (4 units) (830 M-HD-S only)	○
Towing hitch package	○
Below grade, bent outrigger legs (830 M-HD-S only)	○
Increased size outrigger pads to decrease ground pressure	○

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	●
Halogen light package boom	○
Purpose built material handling stick with reversing linkage	○
Purpose built material handling boom for scrap shears	○

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

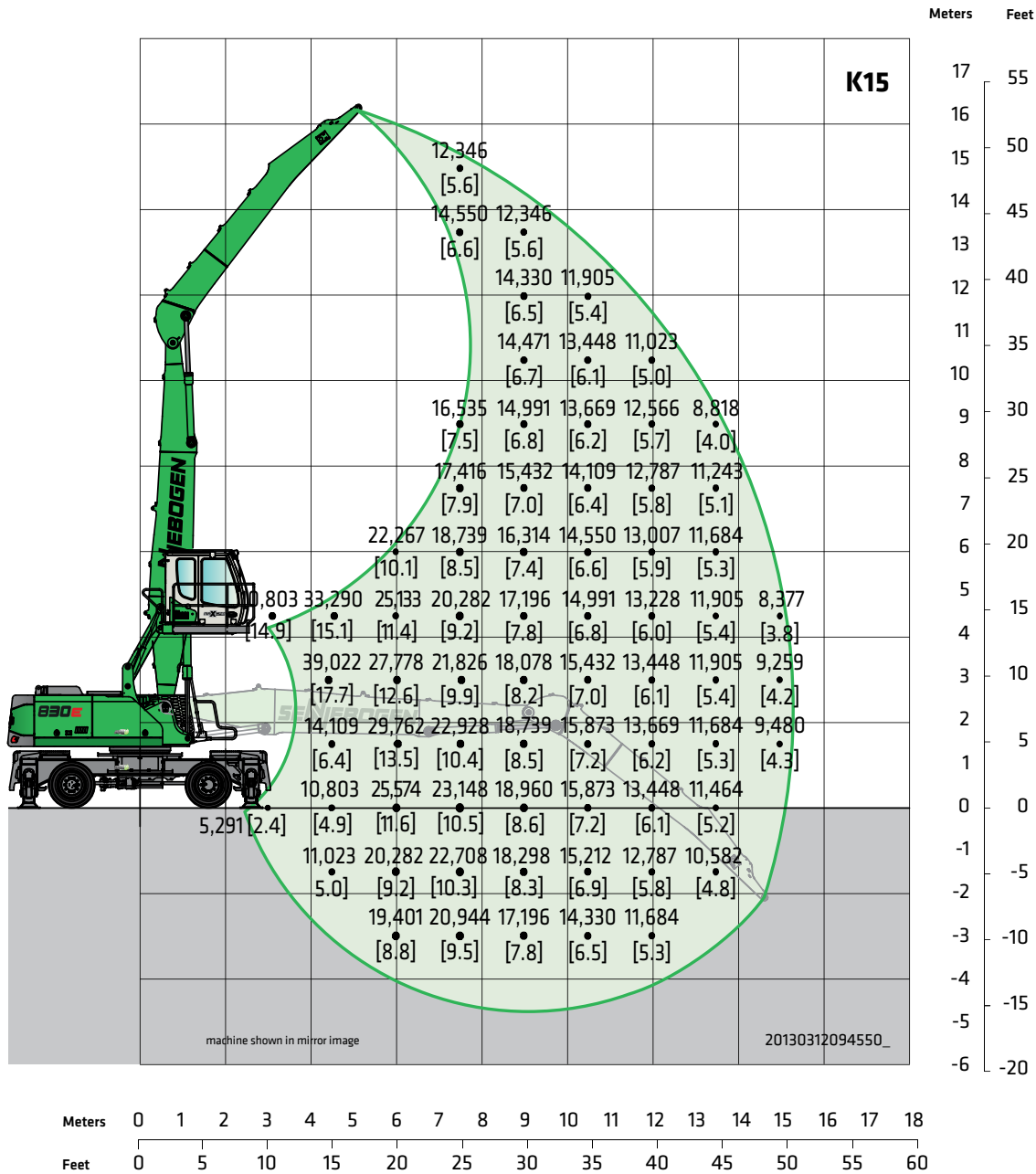
ATTACHMENTS	
Orange peel grapple	○
Mag grapple	○
Clamshell	○
Magnet	○
Log grapple	○
Scrap shear	○
Power attachment	○
Pipe handler	○
Live heel	○

SWING SYSTEM	
360° protection cover, removable	●
Manual operated swing gear pinion lubrication system	●

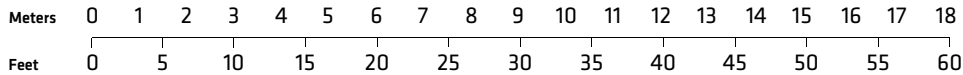
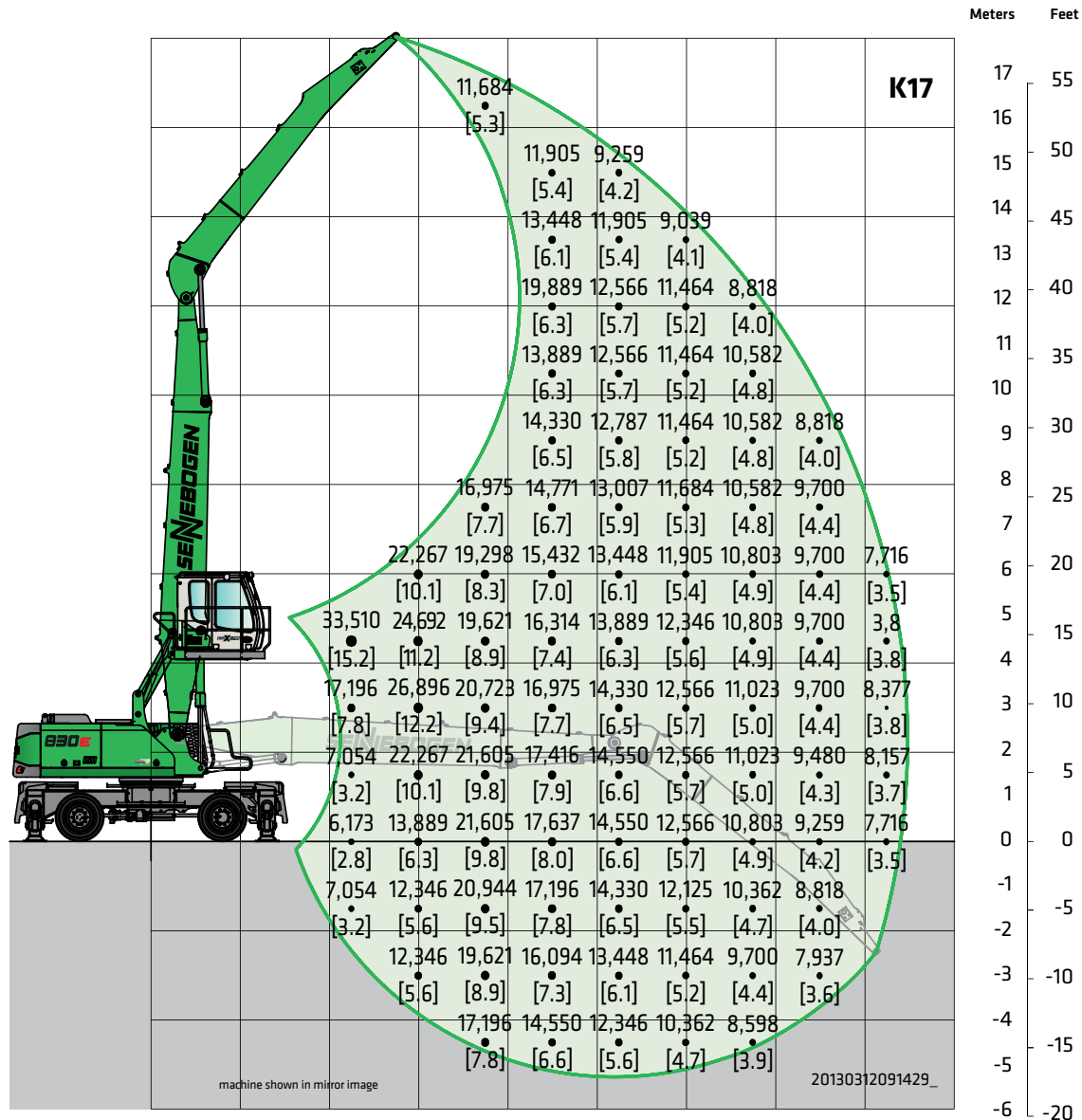
Subject to technical modification.

Standard Equipment ●
Optional Equipment ○

830 M-HD/M-HD-S "E" Lift Capacities



830 M-HD/M-HD-S "E" Lift Capacities



Working Equipment K17

reach	55'7" (17 m)
boom	32'1" (9.8 m)
stick	24'6" (7.5 m)

Operator's Cab

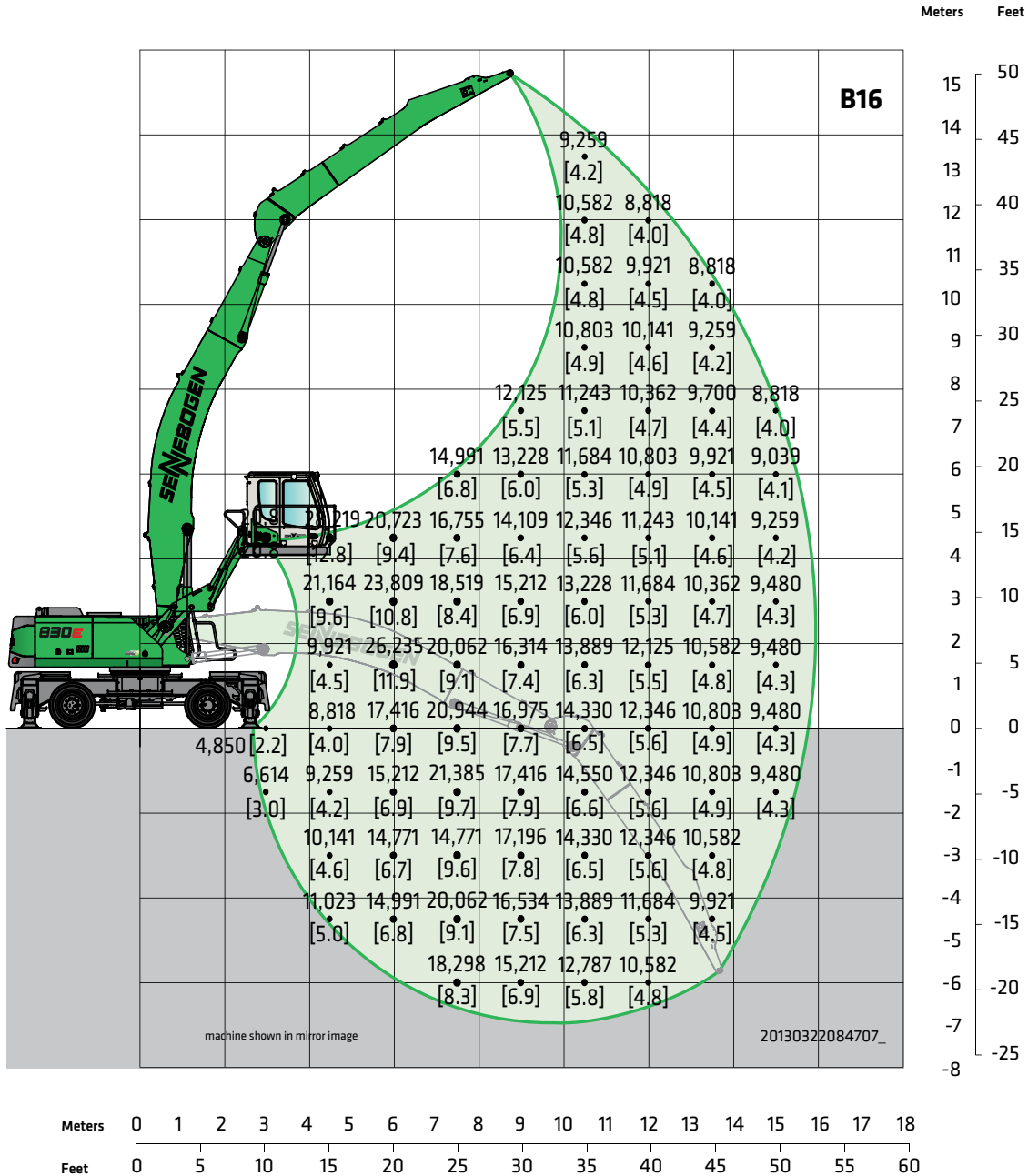
model	E270 maXCab
	hydraulic elevating up
eye level	approx. 18' (5.5 m)

Undercarriage

model	MP31E (M-HD)
	MP34E (M-HD-S)
tires	8 x 12.00-20 (M-HD)
	4 x 16.00-25 (M-HD-S)
	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% 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.

830 M-HD/M-HD-S "E" Lift Capacities



Working Equipment B16

reach	52'3" (16 m)
boom	30'8" (9.4 m) banana
stick	22'9" (7.0 m)

Operator's Cab

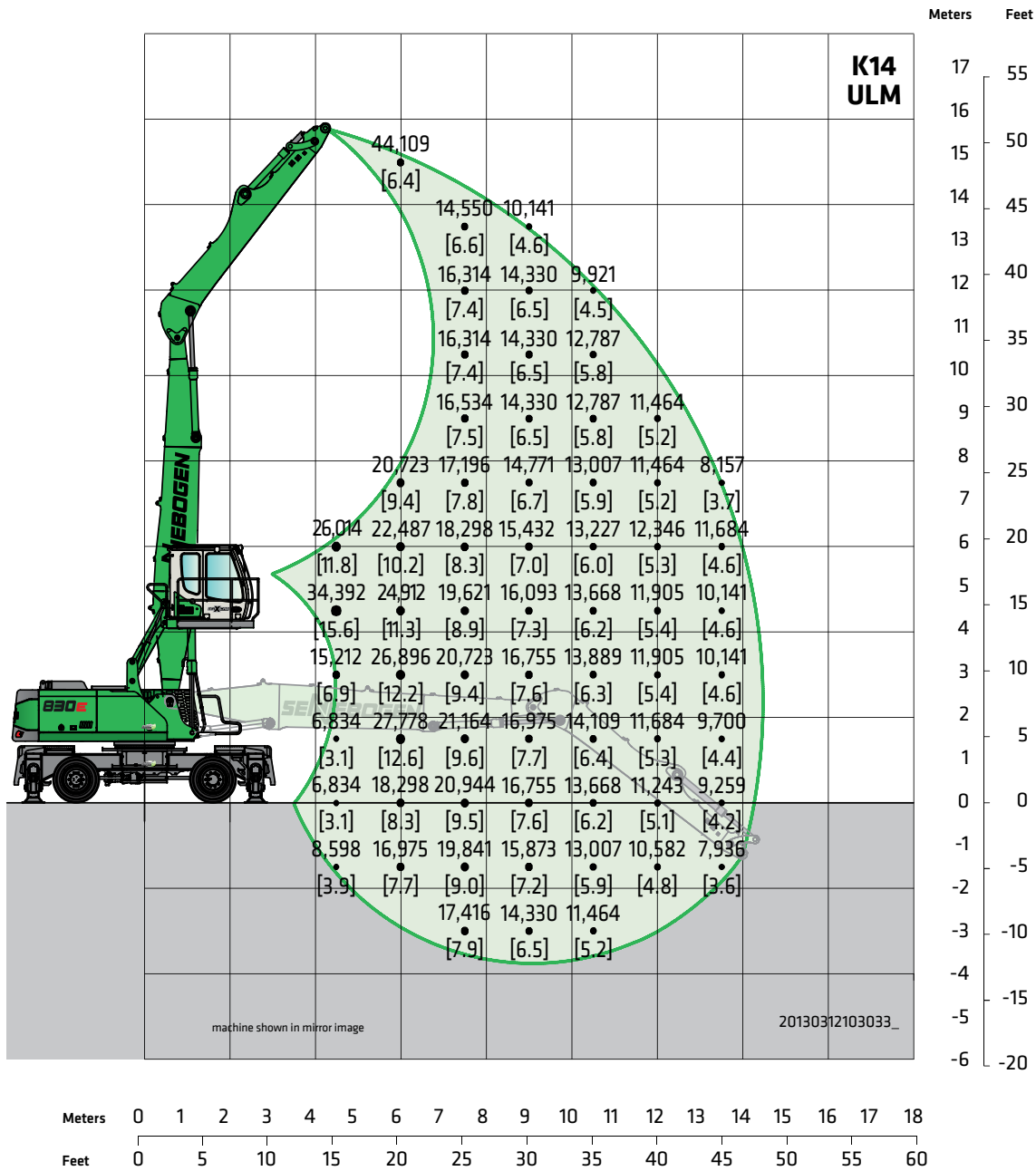
model	E300/260 maXCab
	hydraulic elevating up & out (optional item)
eye level	approx. 20'4" (6.2 m)

Undercarriage

model	MP31E (M-HD)
	MP34E (M-HD-S)
tires	8 x 12.00-20 (M-HD)
	4 x 16.00-25 (M-HD-S)
	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% 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.

830 M-HD/M-HD-S "E" Lift Capacities



Working Equipment K14 ULM

reach	47'5" (14.5 m)
boom	27'11" (8.5 m)
stick	19'8" (6.0 m)

Operator's Cab

model	E270 maXCab
	hydraulic elevating up
eye level	approx. 18' (5.5 m)

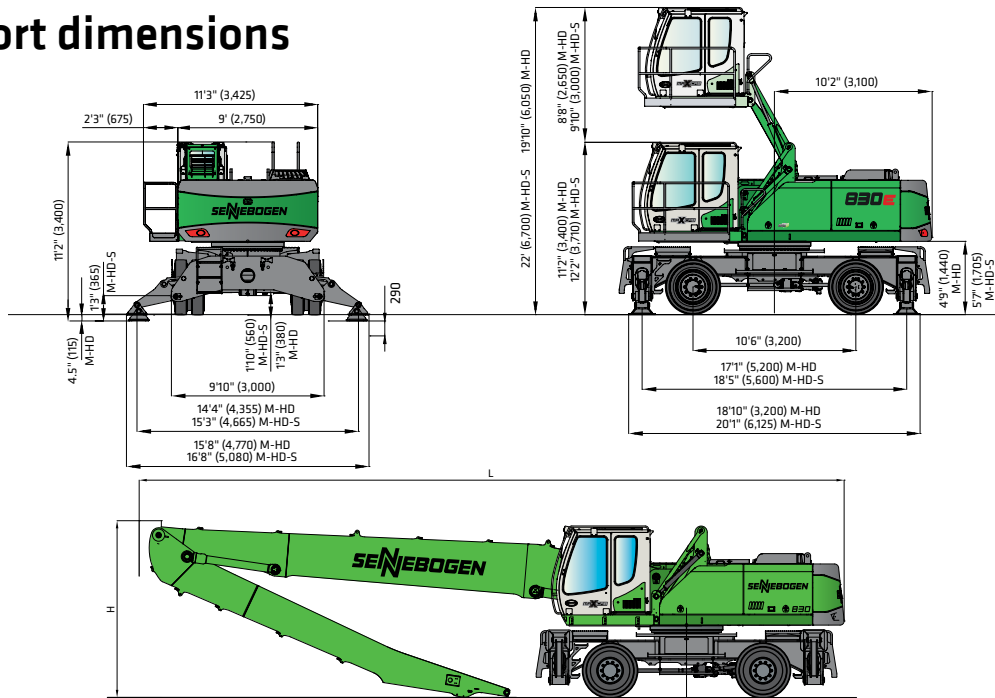
Undercarriage

model	MP31E (M-HD)
	MP34E (M-HD-S)
tires	8 x 12.00-20 (M-HD)
	4 x 16.00-25 (M-HD-S)
	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% 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.

830E M-HD | M-HD-S

Transport dimensions

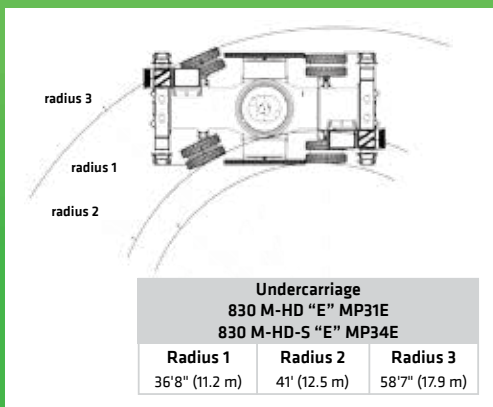


830 M-HD with undercarriage type MP31E, hydraulic elevating maXCab type E270, Tires 12.00 - 20, 8 tires, transport width 9'10" (3,000 mm), Operating weight including boom K17, 6001 orange peel grab, approx. 88,185 lbs (40,000 kg).

830 M-HD-S with undercarriage type MP34E, hydraulic elevating and forward moving maXCab, Tires 16.00 - 25, 4 tires, transport width 9'10" (3,000 mm), Operating weight including boom K17, 6001 orange peel grab, approx. 90,390 lbs (41,000 kg).

Reach	Boom Length	Stick Length	Transport Length	Transport Height (M-HD)*	Transport Height (M-HD-S)*
K15	27'11" (8.5 m)	23' (7.0 m)	41' (12.5 m)	11'2" (3.4 m)	12'2" (3.7 m)
K17	32'2" (9.8 m)	24'7" (7.5 m)	45'4" (13.8 m)	11'2" (3.4 m)	12'2" (3.7 m)
B15	30'10" (9.4 m)	23' (7.0 m)	44' (13.4 m)	11'6" (3.5 m)	12'6" (3.8 m)
K14 ULM	27'11" (8.5 m)	19'8" (6.0 m)	41' (12.5 m)	11'2" (3.4 m)	12'2" (3.7 m)

transport dimensions valid for boom position 1 only • boom position 2 may increase transport height & transport length • handrails, catwalks & other accessories are disassembled for transportation • *optional cab E300/260 will increase machine transport height by 2" (50 mm)



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"Under our policy of continuous improvements we reserve the right to change specifications, materials and design without prior notice. The illustrations shown may include optional equipment. See your SENNEBOGEN dealer for further information."

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