

PURPOSE-BUILT FROM THE GROUND UP



# 718E MATERIAL HANDLER



Cummins QSB 4.5 Tier 4F  
160 HP (119 kW)



Rubber Tired (M) - 47,180 lb (21,400 kg)

Crawler (R-HD) - 62,000 lb (28,100 kg)

# SENEBOGEN®

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

By building simply, we can build flexibly.

The design and manufacture of every SENNEBOGEN forestry and arborist machine 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 ideal solution is to engineer machines that adapt easily to their intended purpose:

- Industry-standard service parts
- Intelligent hydraulics in place of complex electronics
- Robust structures matched to heavy loads and stresses
- Interchangeable attachments
- Operational safety
- Fuel efficiency

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





## SENNEBOGEN 718 E

### Custom-engineered tree care handler

The compact size of the 718 allows easy transport and efficient maneuvering in tight urban work sites.

#### QUICK SPECS

**718 M**  
RUBBER TIRED

**718 R-HD**  
CRAWLER TRACKS

**Net power**

160 HP (119 kW)

160 HP (119 kW)

**Operating weight**

47,180 lb (21,400 kg)

62,000 lb (28,100 kg)

**Max reach**

43' (13 m)

43' (13 m)

**Max load (@ full reach)**

3,700 lb (1700 kg)

3,700 lb (1700 kg)

Telescoping stick adds precision and control with total horizontal reach up to 43 ft. (13 m) and a vertical reach up to 45 ft. (13.7 m)

Highest safety and ideal overview - elevating cab with 18 ft. (5.5 m) eye-level, with a 30° tiltable cab as a standard feature

Interchangeable saws, grapples for multiple tree care applications

Easy to transport without special permits

For use in environmentally sensitive areas with biodegradable fluids

## Quiet operation

Consistently quiet operation due to decoupled engine mounts and soundproofing in the doors

## High-capacity cooling

Constant, reliable performance due to powerful fans and coolers

## OSHA-compliant

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

Additional hydraulics for high flow attachments with extra performance filtration

Available with crawler or rubber tired undercarriage

Stability built into undercarriage design; high ground clearance; low ground pressure



## UNDERCARRIAGE

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### Stable footprint

The centered point of rotation for the swing bearing allows for 360° equal lift capacity when equipped with either outriggers or a combination of outriggers and a stabilizer blade or on tracks

### Swing system

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

### Multiple platforms

The modular 718 is designed to adapt to standard wheeled and tracked undercarriage

## CAB

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### Elevating & tilting Maxcab

Various cab configurations maximize safety, loading accuracy and stability with hydraulic elevation up to a height of 20 ft. (6.1 m)

### Joystick steering

Unobstructed view for operator with highly responsive controls

### 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

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

## HYDRAULIC SYSTEM

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### 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

### Attachment pump

Additional piston pump for attachment independent from the main pump allowing proper operation of attachments that require high oil flow like mulchers or mowers

## UPPER CHASSIS

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### 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 unequalled fuel efficiency due to efficient cooling

### Automatic lubrication

Extend component life with no waste, no spill hazards

## BOOM & STICK

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### 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

### Boom pivot

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

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### 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

# The Tree Care Specialist

- Landscape conservation, gardening and landscaping companies
- Urban forestry and tree care specialists
- Arboriculture
- Land clearing
- Municipalities
- Storm cleanup
- Roadside clearing maintenance
- Woodlot maintenance
- Golf course development



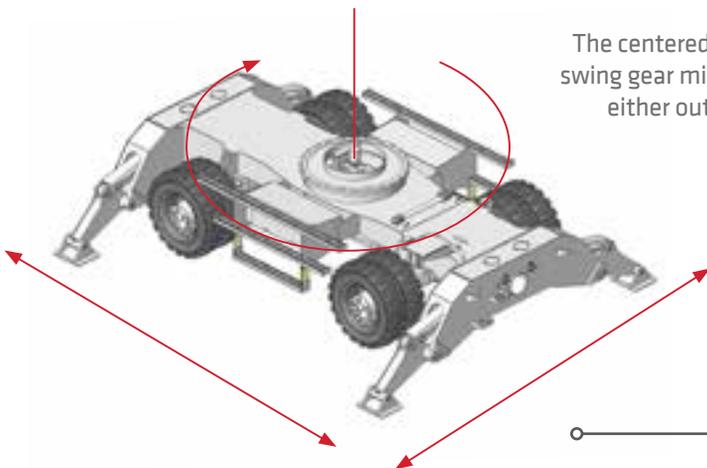


# Health & Safety: The First Step To Productivity

The SENNEBOGEN 718 E rubber tired and tracked models bring a new standard of safety to urban forestry, arboriculture, storm clean-up, and woodlot maintenance. The 718's 43 ft. (13 m) boom and simple, intuitive controls extend the arborist's reach to perform a full range of cutting, pruning and handling tasks while working from the safety and comfort of the enclosed cab.

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

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.



The centered point of rotation for the swing gear minimizes tipping risk with either outriggers or outriggers and stabilizing blade.

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

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



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.



Interchangeable attachments provide a complete toolkit for every specialized need.





The fully enclosed, elevated Maxcab provides protection for operators plus a wide-angle view of the work zone and the complete job site.



**MAXCAB**



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



The Maxcab's sliding door provides the safest entry and exit in the industry.

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.

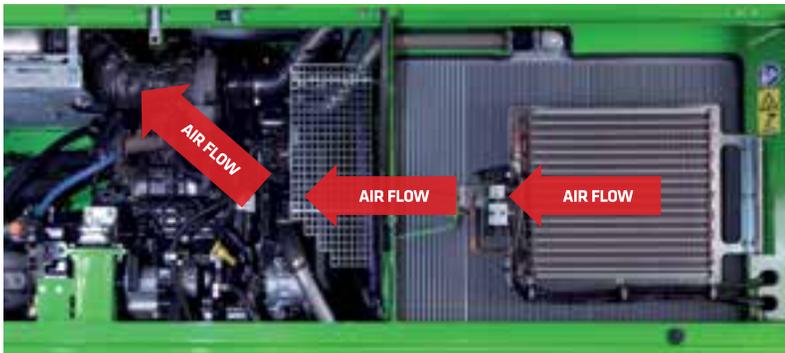
Dual cameras with views to the rear and to the right side are standard equipment.

Various optional guarding packages available to meet industry safety requirements.

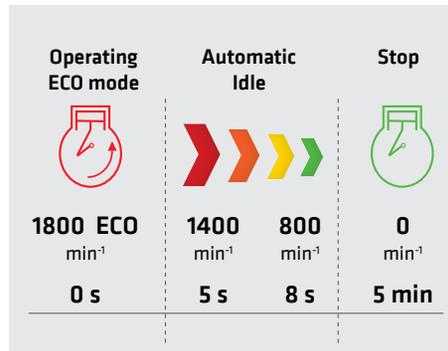
# Good For The Environment. Easy On The Budget.

SENNEBOGEN 718 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 718 E Series 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.



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



## 3 WAYS TO SAVE ON DIESEL

The 718 E Series includes an automatic idling mode that reduces engine speed to 40% of working speed. The automatic stop function switches the engine off completely if no power is required in a specified time. With the new ECO mode switch turned on, the 718 operates normally but engine speed is reduced from 2200 rpm down to 1800 rpm.



# 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, matched to specific service tasks and machines. Hundred of assorted parts, connectors, fittings, 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.



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



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.



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



## SENCON

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



All the fuses and relays are in a centrally located box for easy access. Test and service points are conveniently arranged together behind the cab and within reach from ground level.



Simple hydraulic controls replace complex electronics, so the 718 requires no special software or “black box” components to troubleshoot your machine.

# 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 m<sup>2</sup>) 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.





# 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.

Visit us online at [www.sennebogen-na.com/training](http://www.sennebogen-na.com/training)

## 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.



### 5 Day Course

#### 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

Offered in English and Spanish sessions

**Course fees:** No charge to SENNEBOGEN dealers, staff and customers.

### ALL TRAINING COURSES AVAILABLE FREE

- Service Level 1
- Service Level 2
- Parts Training
- Operator Familiarization

### 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

Offered in English and Spanish sessions

**Course fees:** No charge to SENNEBOGEN dealers, staff and customers.

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

# Purpose-Built Facilities

With nearly 1,000,000 sq. ft. (93,000 m<sup>2</sup>) of production space in our four manufacturing facilities, 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)*



Every configuration of a SENNEBOGEN 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.





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.

# SPECIFICATIONS INDEX

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# 718 M “E” Technical Specifications

ENGINE	
model	Cummins QSB 4.5
type	inline 4 cylinder, direct injection
emission	EPA Tier 4 Final
net power	160 HP (119 kW) @ 2200 rpm
displacement	272 cu.in. (4.5 L)
bore	4.21 in (107 mm)
stroke	4.88 in (124 mm)
aspiration	turbo charged, charge air cooled
fuel tank	87 gal (330 L)
DEF tank	7.9 gal (30 L)
air filtration	direct flow filtration system dual stage filter with pre-filter
control	integrated ECM automatic idle - stop eco mode

SWING SYSTEM	
swing speed	0 - 8 rpm
swing hydraulic	open loop
drive	planetary gearbox with axial piston motor and integrated brake valves
swing bearing	oversized slewing ring; hydraulic brake valves
parking brake	spring-loaded, hydraulically vented safety multidisc brake

COOLING	
cooling type	cool-on-demand, suction-type fan system
hydraulic / water	hydraulic fan drive, axial piston pump, reversible fan, thermostatically controlled
charge air	direct fan drive

UPPER CARRIAGE	
design	torsion-free upper frame with continuous bearing plates from boom linkage to counterweight, lockable storage compartment, sound attenuation for reduced in-cab noise emission

TRAVEL / UNDERCARRIAGE	
type	rubber tired
drive system	all-wheel drive, variable displacement motor with 2-stage power shift transmission
travel speed	1st 0-3.4 mph (0-5.5 km/h) 2nd 0-12.4 mph (0-20 km/h)
steering	joystick steering
design	robust undercarriage with 4-point outrigger or combination of stabilizer blade and outrigger, independent actuation
front axle	fixed
rear axle	disc brake
tires	pneumatic 600/50x22.5

HYDRAULIC SYSTEM	
system type	load-sensing/LUDV hydraulic system for work and travel functions
pump type	swashplate-type, variable-displacement piston pump. load pressure is independent from flow distribution. provides independent control of work functions
pump control	zero-stroke control with on-demand flow control. provides load limit sensing control
operating pressure	5076 psi (350 bar)
filtration system	high performance filtration with long intervals between changes
hydraulic tank	68 gals (260 l)
control system	proportional, precision hydraulic actuation of work movements using 2 hydraulic servo joysticks. Additional function with switches and pedals
attachment pump	additional piston pump for attachment independent from the main pump allowing proper operation of attachments that require high oil flow like mulchers or mowers

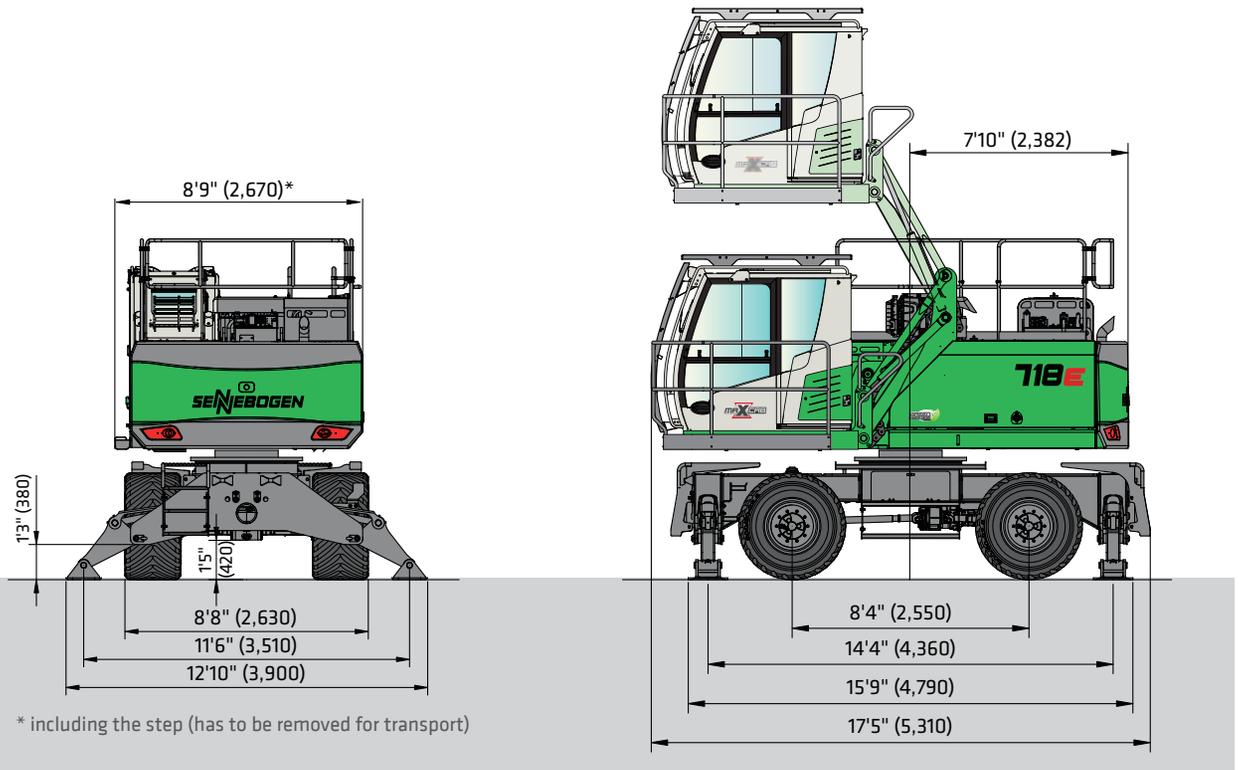
  

WEIGHT	
operating weight	47,180 lb (21,400 kg)

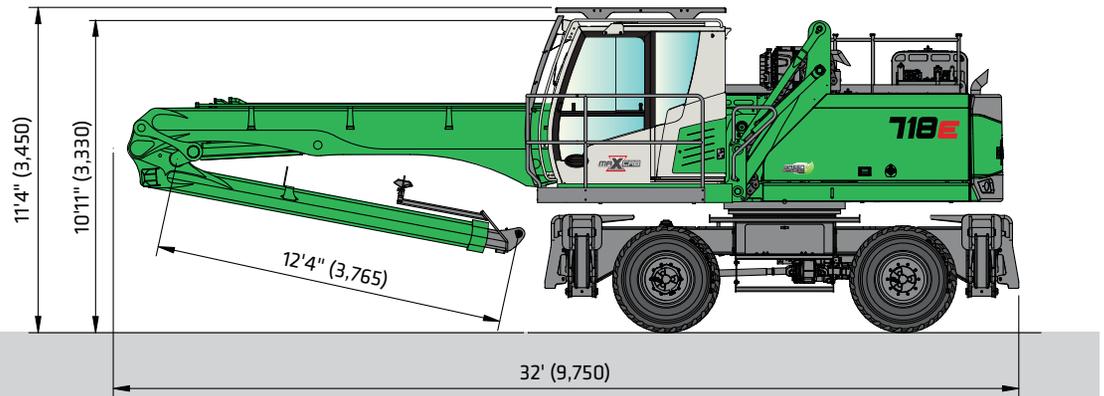
Subject to technical modification.



## 718 M "E" Dimensions with 4-point outrigger

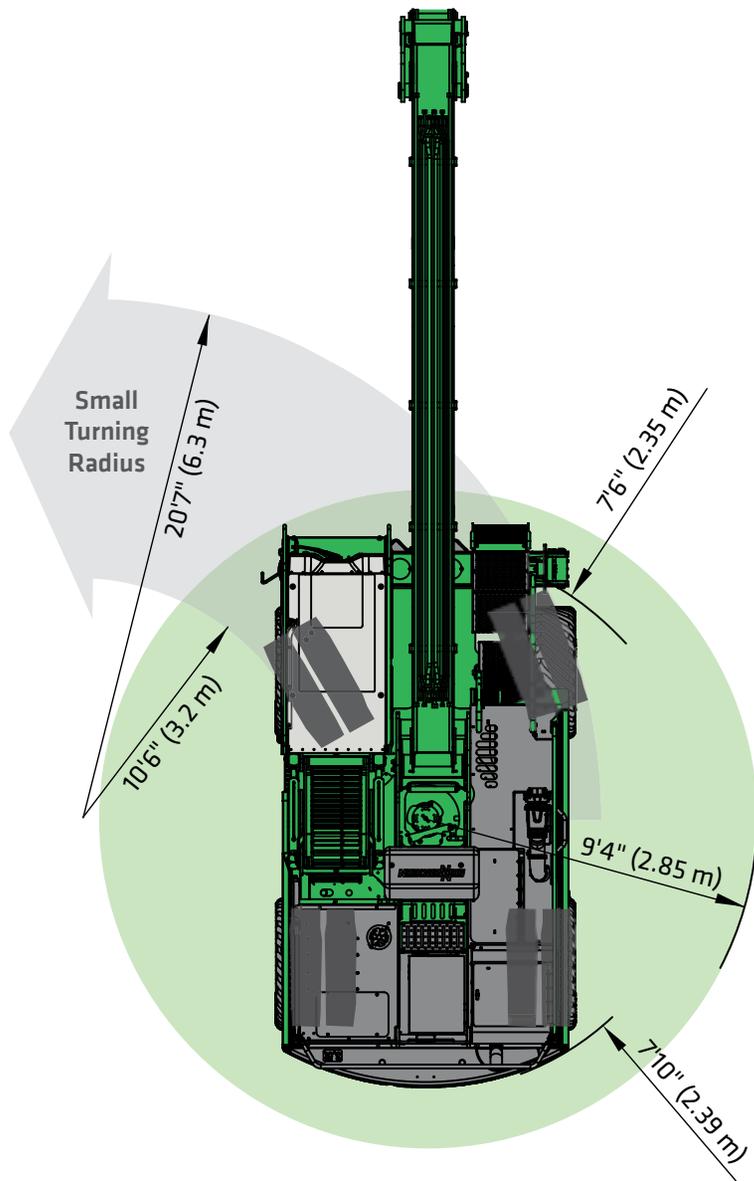


## 718 M "E" Transport Dimensions



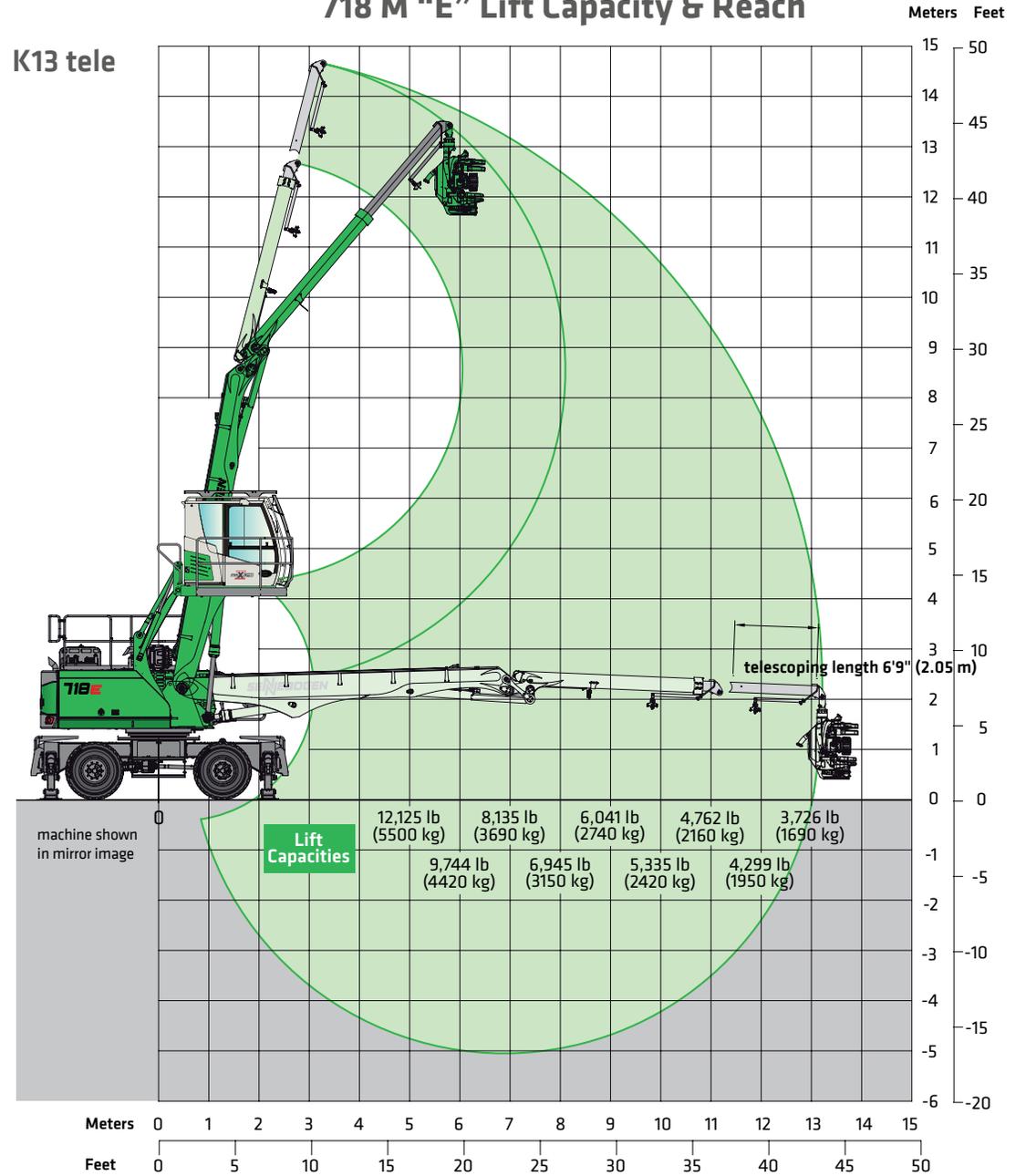
718 M with 21'4" (6.5 m) K13 boom and 13'9" (4.2 m) stick with telescoping extension

## 718 M "E" Slewing Radius / Turning Radius



## 718 M "E" Lift Capacity & Reach

K13 tele



Lift capacities are in lb and (kg) and are 75% of the static tipping load or 87% of the hydraulic lifting force in accordance with ISO 10567, and apply at the required operating temperature in the Green Hybrid system. They apply on firm and level ground and 360° slewing. Attachments such as orange-peel grabs, magnets, etc. are included in the load capacity. In accordance with harmonized EU standard EN 474-5, hydraulic excavators used for hoisting must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device.

# 718 R-HD “E” Technical Specifications

ENGINE	
model	Cummins QSB 4.5
type	inline 4 cylinder, direct injection
emission	EPA Tier 4 Final
net power	160 HP (119 kW) @ 2200 rpm
displacement	272 cu.in. (4.5 L)
bore	4.21 in (107 mm)
stroke	4.88 in (124 mm)
aspiration	turbo charged, charge air cooled
fuel tank	87 gal (330 L)
DEF tank	7.9 gal (30 L)
air filtration	direct flow filtration system dual stage filter with pre-filter
control	integrated ECM automatic idle - stop eco mode

SWING SYSTEM	
swing speed	0 - 8 rpm
swing hydraulic	open loop
drive	planetary gearbox with axial piston motor and integrated brake valves
swing bearing	oversized slewing ring; hydraulic brake valves
parking brake	spring-loaded, hydraulically vented safety multidisc brake

COOLING	
cooling type	cool-on-demand, suction-type fan system
hydraulic / water	hydraulic fan drive, axial piston pump, reversible fan, thermostatically controlled
charge air	direct fan drive

UPPER CARRIAGE	
design	torsion-free upper frame with continuous bearing plates from boom linkage to counterweight, lockable storage compartment, sound attenuation for reduced in-cab noise emission

TRAVEL / UNDERCARRIAGE	
type	crawler
drive system	fixed wide gauge
drive	independant driven by an axial piston motor through a compact planetary
travel speed	0-1.5 mph (0-2.4 km/h)
shoes	23.6" (600 mm) (triple grouser)
crawler	B4HD maintenance free
steering	foot pedals/levers
safety	travel alarm

HYDRAULIC SYSTEM	
system type	load-sensing/LUDV hydraulic system for work and travel functions
pump type	swashplate-type, variable-displacement piston pump. load pressure is independent from flow distribution. provides independent control of work functions
pump control	zero-stroke control with on-demand flow control. provides load limit sensing control
operating pressure	5076 psi (350 bar)
filtration system	high performance filtration with long intervals between changes
hydraulic tank	68 gals (260 l)
control system	proportional, precision hydraulic actuation of work movements using 2 hydraulic servo joysticks. Additional function with switches and pedals
attachment pump	additional piston pump for attachment independent from the main pump allowing proper operation of attachments that require high oil flow like mulchers or mowers

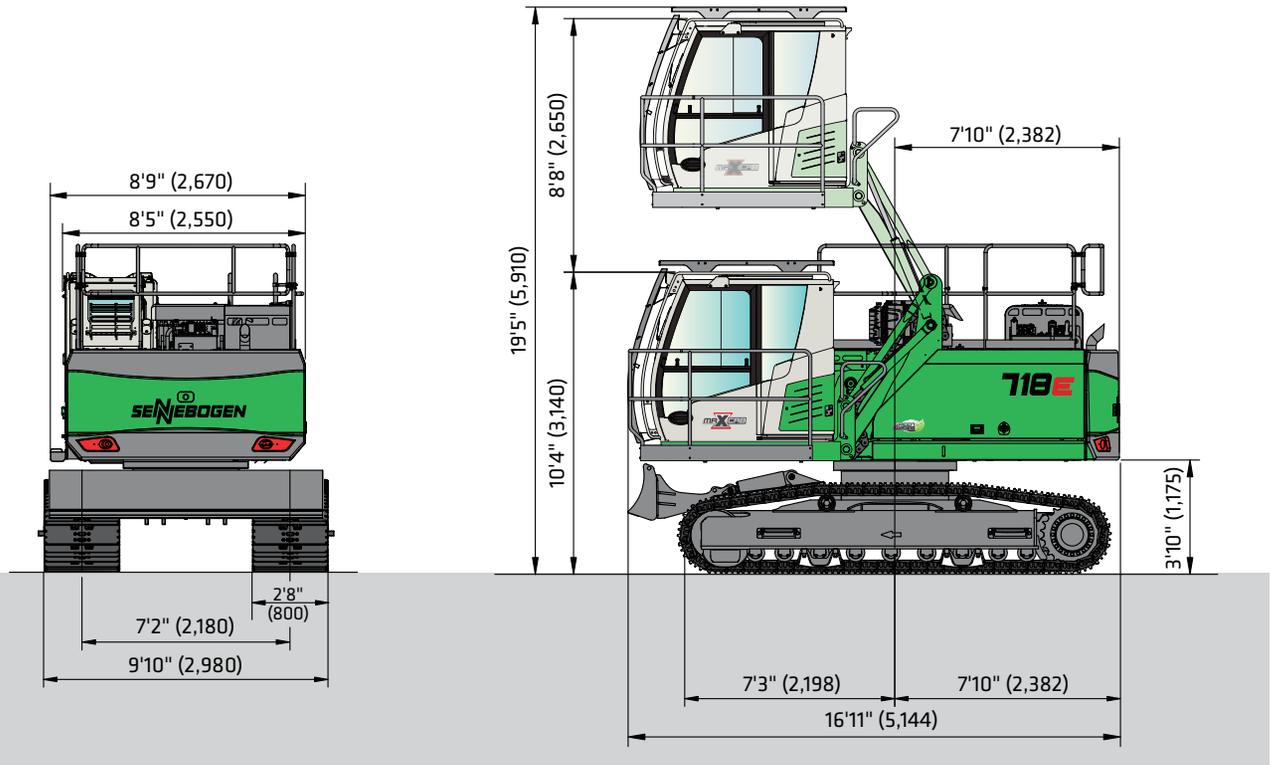
  

WEIGHT	
operating weight	62,000 lb (28,100 kg)

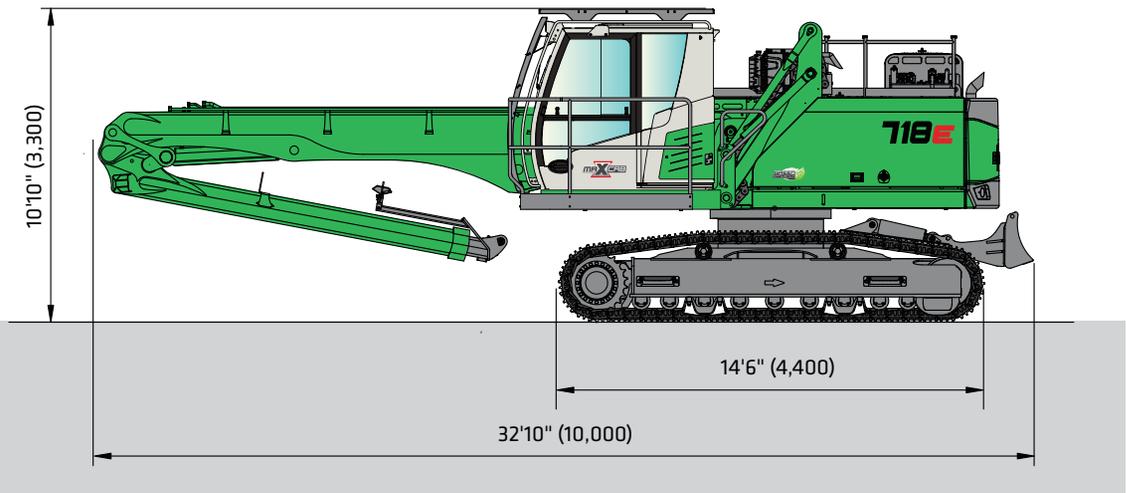
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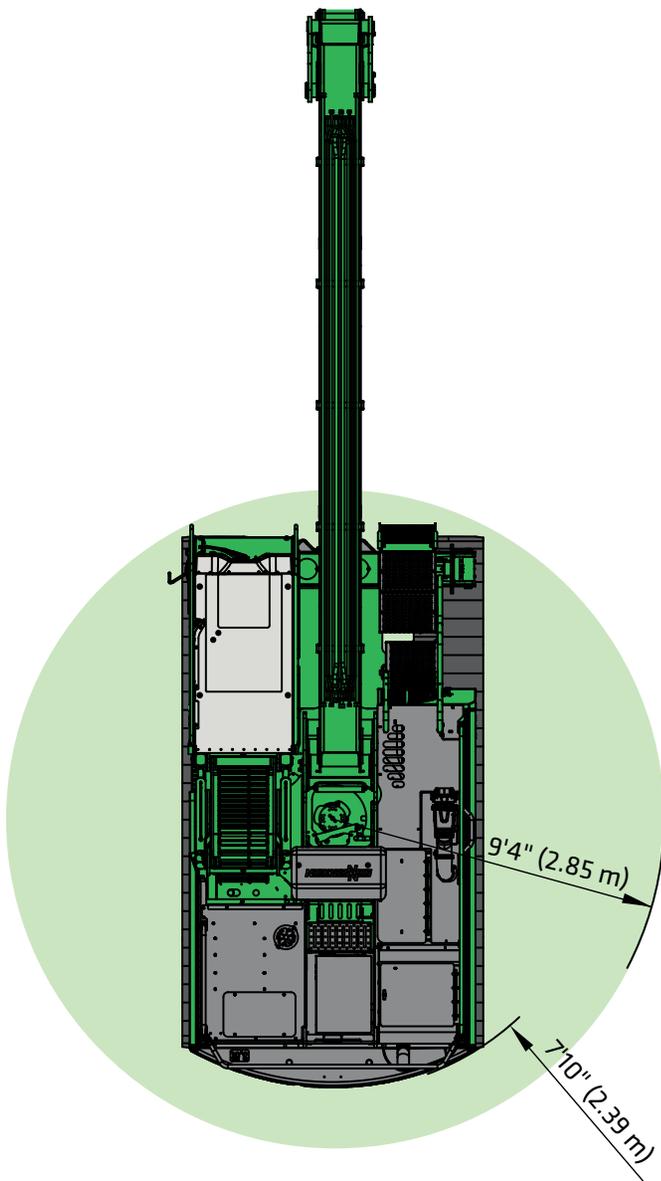
## 718 R-HD "E" Dimensions



## 718 R-HD "E" Transport Dimensions

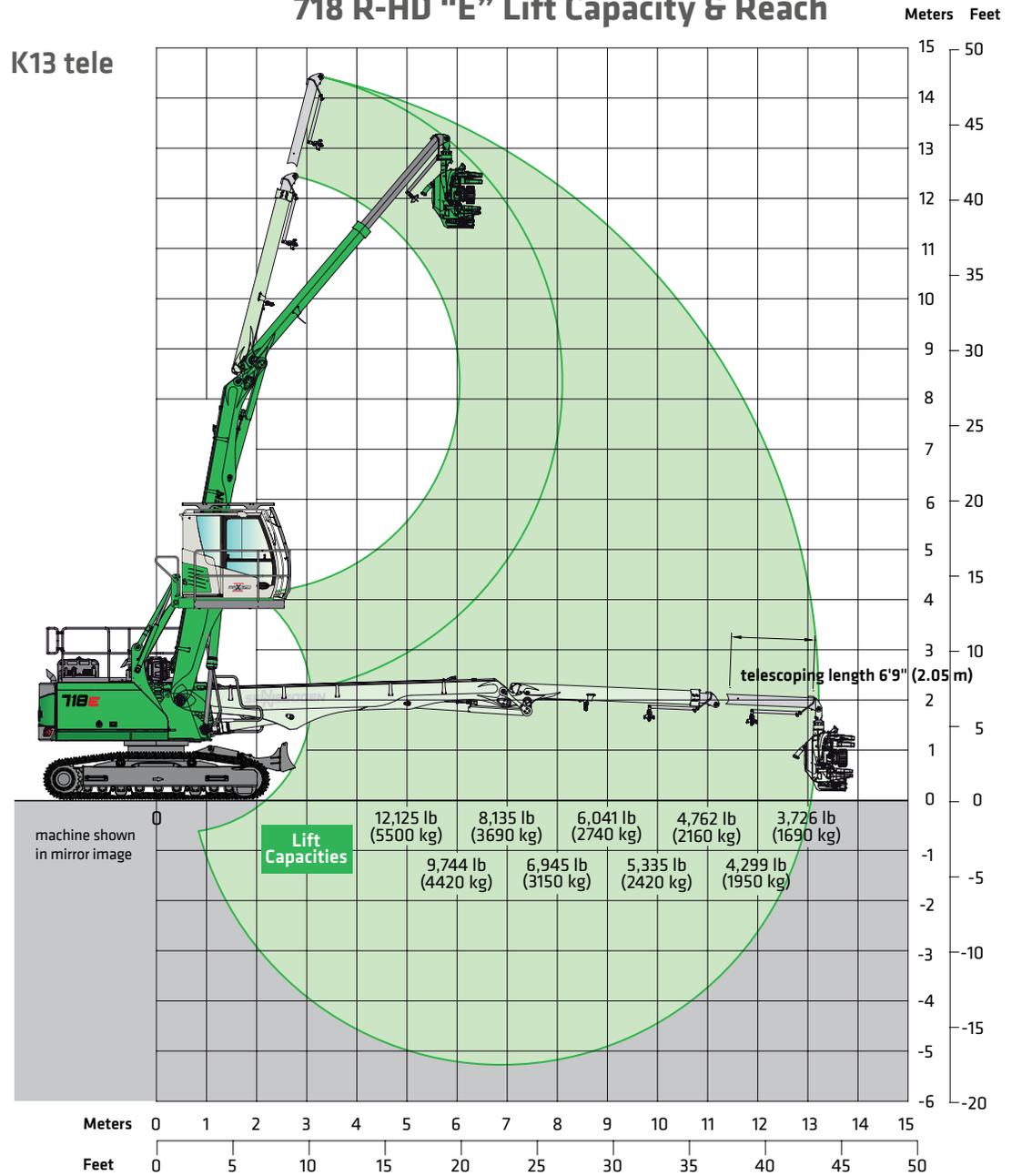


# 718 R-HD "E" Slewing Radius



# 718 R-HD "E" Lift Capacity & Reach

K13 tele



Lift capacities are in lb and (kg) and are 75% of the static tipping load or 87% of the hydraulic lifting force in accordance with ISO 10567, and apply at the required operating temperature in the Green Hybrid system. They apply on firm and level ground and 360° slewing. Attachments such as orange-peel grabs, magnets, etc. are included in the load capacity. In accordance with harmonized EU standard EN 474-5, hydraulic excavators used for hoisting must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device.

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



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