

PRELIMINARY

**119** kW (Tier 3a)**129** kW (Tier 4f)**50** t**30.4** m**maXcab****653E**

Telescopic crawler crane

Tier 4f emission
standards

653E Advanced. The E-Series.



1978: TX10 telescopic crane

What defines the E-Series

- More than 20 years of experience in designing and manufacturing highly specialized telescopic crawler cranes
- Highest performance in all areas
- Technology that can be handled: high-quality components without complicating them
- Long product lifetime and high value retention

Your top benefits:

1 Green Efficiency

Save fuel – reduce operating costs
Work quietly – protect operator and environment



2 Peak performance

Robust boom system – work on an incline of up to 4°
2 equally strong crane winches – high line speeds

3 Maximum usability

maXcab – work in comfort
SENCON – work program selection made easy



4 Flexibility in service

Moving under load – minimal space requirements
Strong undercarriage traction – excellent all-terrain mobility

5 Easy transport

Telescopic undercarriage – ready to go in no time
Ballast unloading system – short setup time

6 Maintenance and service made easy

SENNEBOGEN control system – easy error diagnostics
Simple maintenance – clear labelling

7 Expertise and support near you

3 production sites - 2 subsidiaries
120 sales partners - more than 300 service points



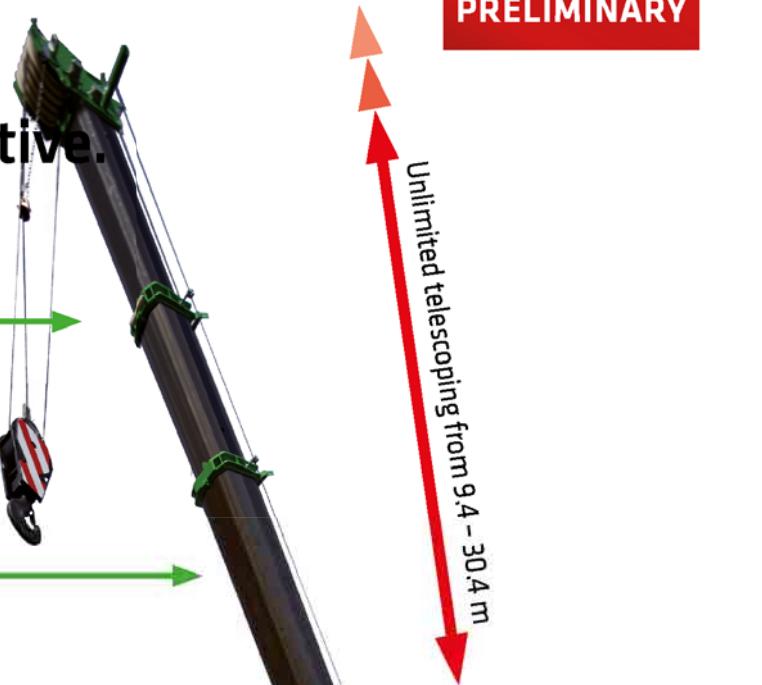
Tier 4 emission standard

- Powerful, state-of-the-art engine
- Fuel efficient
- Low emissions

653 E Powerful. Effective.

Strong telescopic boom for demanding tasks

- Full power boom
- Work on inclines of up to 4° possible*
- Telescoping under load

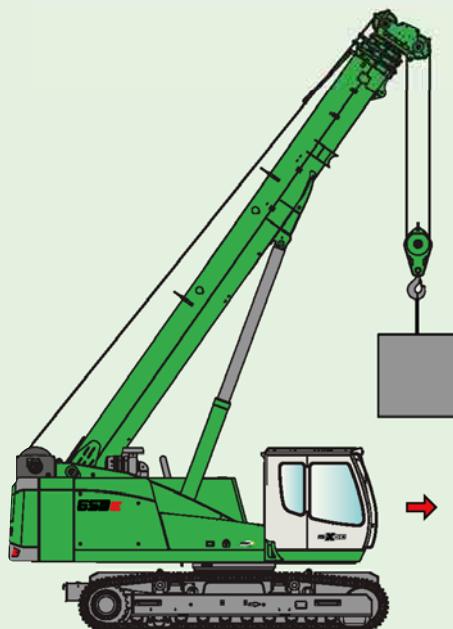


Large operating range

- 30.4-meter boom length
- With fly boom extendable to 36.9 m or 43.4 m

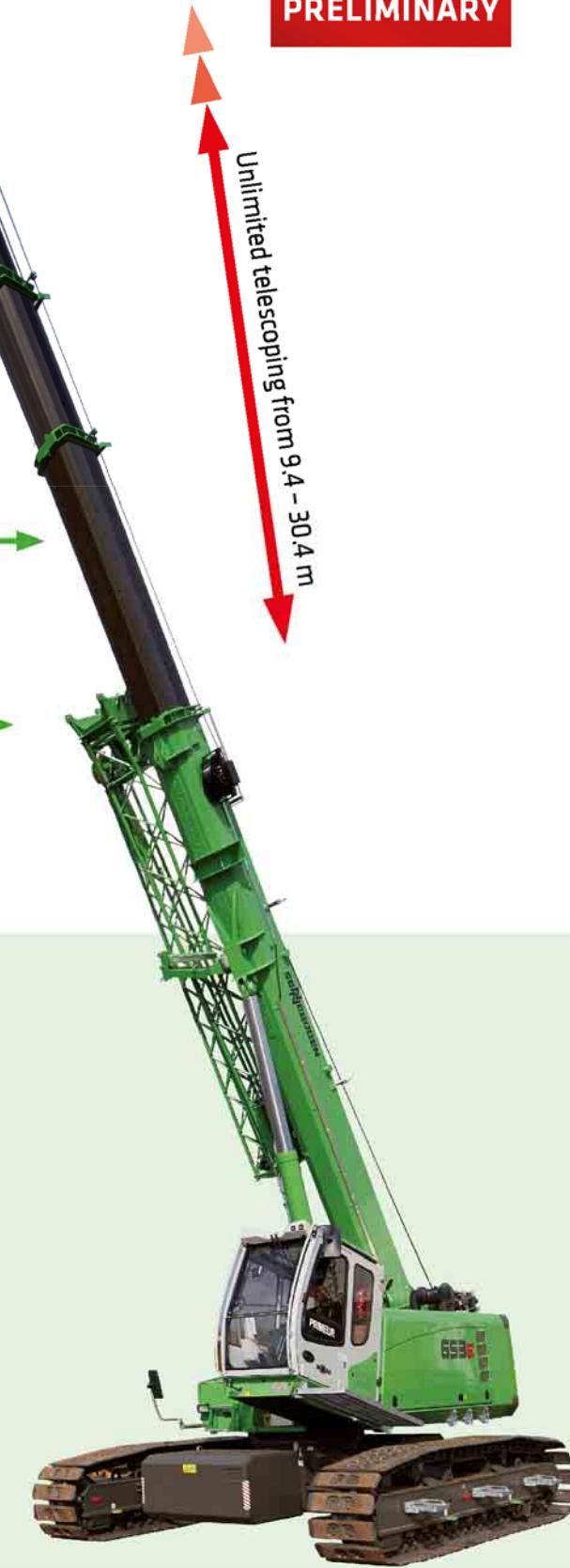
Easy and flexible work – saves time

- Precision hydraulics allow telescoping to any boom length quickly
- Intuitive joystick control
- Ready to go in no time, even with varying work heights
- Always the ideal boom length in no time at all



Unique flexibility on site

- Moveable even under high loads
- Excellent maneuverability thanks to strong undercarriage traction
- Easy, inexpensive transport and short setup time thanks to self-assembly system



Telescopic undercarriage

- Maximum stability due to extremely long, telescopic crawler chassis with large outrigger area
- Low ground pressure due to wide crawler shoes, reliable stability even during dynamic tasks
- Robust tractor chassis and well sized travel drive for maximum all-terrain movement

653E Modern. Flexible.



Hoisting winches

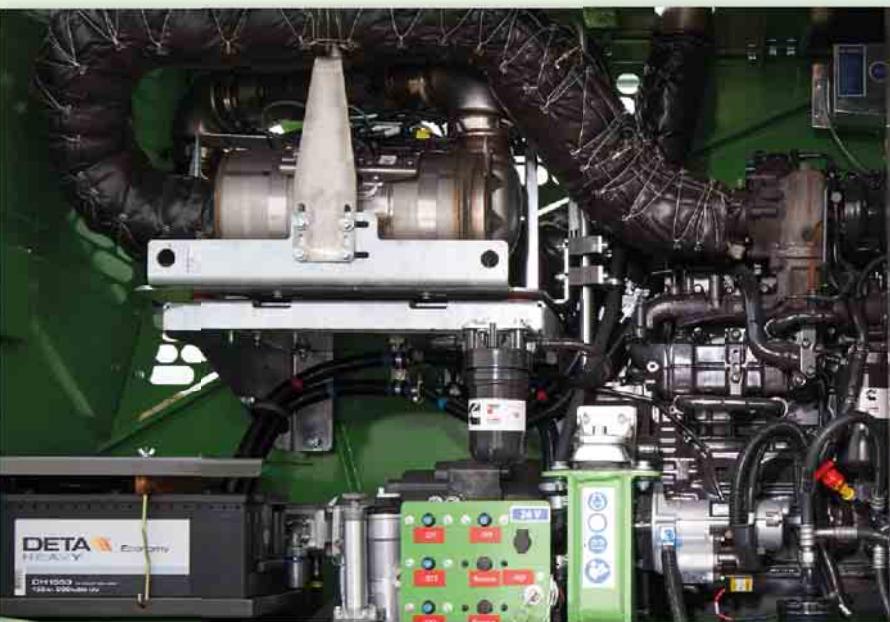
- Two hoisting winches working side by side
- Compact machine with small rear radius

500 kg elevating work platform*



Elevating work platform*

- Unfolds to an internal size of 4 x 1.25 m
- Payloads up to 500 kg possible
- 360° endless rotation



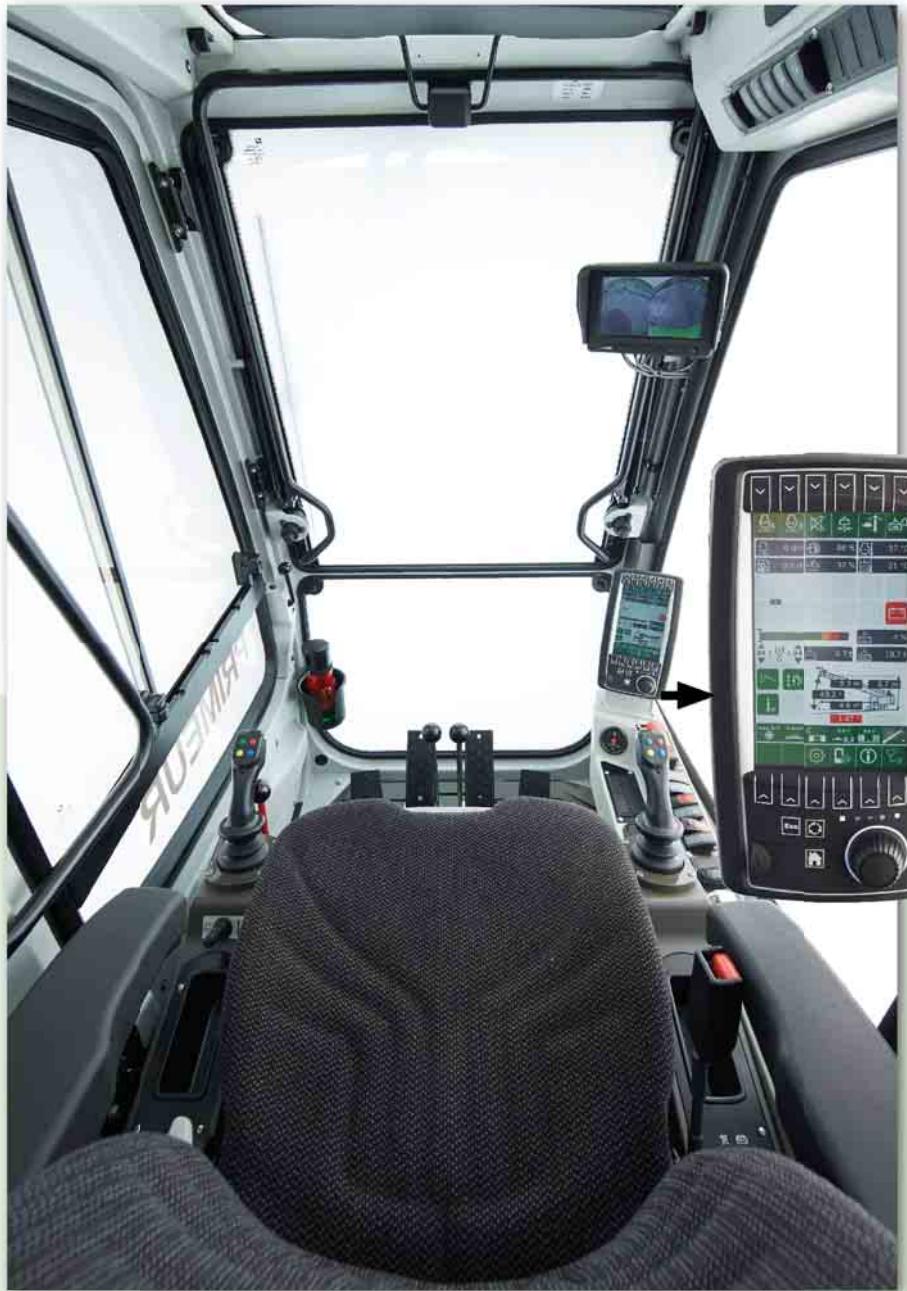
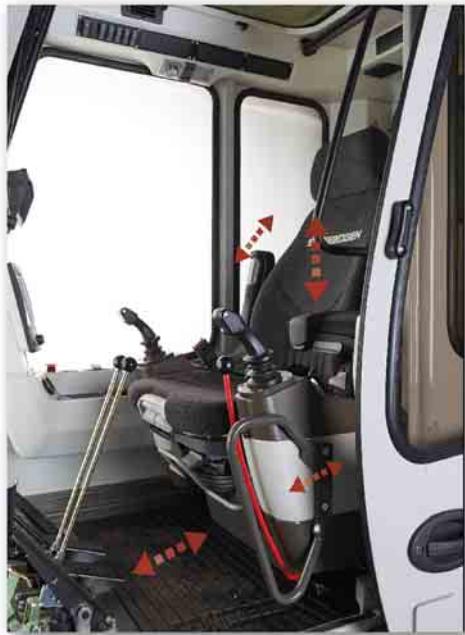
Quiet operation

- Consistently quiet operation due to decoupled engine mounts and soundproofing
- Sound pressure level in accordance with 2000/14/EC as much as 2 dB lower than required

Straightforward engine compartment

- Service-friendly design
- Engine Tier 3a emission standards
- Engine Tier 4f emission standards incl. AdBlue supply

653E Comfort redefined



Automatic climate control

- Consistently pleasant cab climate thanks to 10 evenly distributed air vents
- Central controls make operation easy

Comfortable maXcab cab

- Air-suspension comfort seat with heater
- Convenient joystick control
- Hinged front window
- Sliding door, platform in front of cab
- Color monitor for up to 4 cameras
- Cab can be tilted 15°

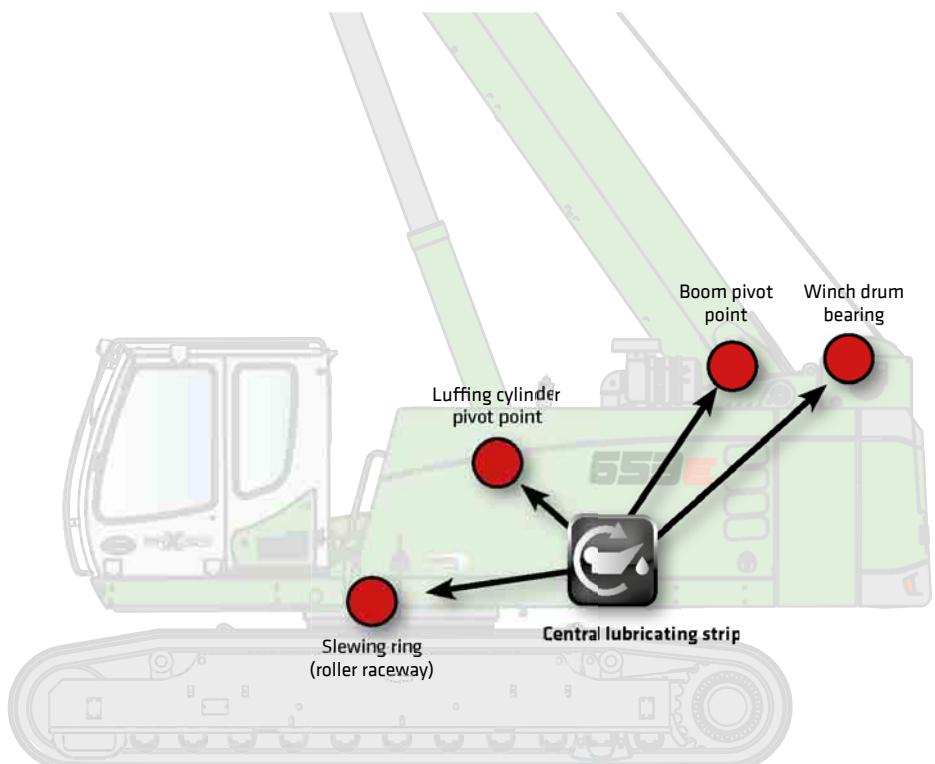
SENCON control system

- Clear menu control
- Individual fine-tuning, optimal machine performance
- Integrated load moment limiting with capacity utilization indicator
- Fast troubleshooting due to detailed information

653E Maintenance and service made easy

Simplest service

- Central, easily accessible lubricating strip
- Optional: central lubrication system for automatic lubrication



HydroClean*

- 3-µm microfilter for optimal protection of hydraulic components
- Cleaner hydraulic oil, extended oil service life
- With water separator

Walkways on both sides

- Platform in front of and next to cab for more safety while entering and exiting
- Platforms along left and ride sides of uppercarriage for safe maintenance

Optimized for maintenance

- Fast and easy troubleshooting thanks to straightforward and clearly labeled electrical distributor
- Easy access to all service points on the machine

653E Technical data, equipment

MACHINE TYPE

Model (type) **653**

- Automatic central lubrication for boom pivot point, luffing cylinder, slewing ring track and winch drum bearing
- Pinion tooth lubrication for slewing ring

ENGINE

| | |
|-------------------|--|
| Model | Cummins QSB 4.5 diesel motor, 119 kW/162 hp at 2,200 rpm Tier 3a emission standard |
| | Cummins QSB 4.5 diesel motor, 129 kW/175 hp at 2,500 rpm Tier 4f emission standard |
| | Direct injection, turbocharged, charge air cooling, reduced emissions |
| Cooling | Water-cooled |
| Diesel filter | With water separator and heating system |
| Air filter | Dry filter with integrated pre-separator, automatic dust discharge, main element and safety element, contamination indicator |
| Fuel tank | 360 l |
| AdBlue tank | 38 l |
| Electrical system | 24 V |
| Batteries | 2 x 155 AH battery disconnect switch |
| Options | <ul style="list-style-type: none"> ■ Low-temperature package with engine pre-heating and heated diesel filter for temperatures below -20 °C ■ Electric fuel pump |

HYDRAULIC SYSTEM

| | |
|--------------------|--|
| Pump type | Swashplate-type variable-displacement piston pump, load pressure-independent flow distribution for simultaneous, independent control of work functions |
| Pump control | Zero-stroke control, on-demand flow control – the pumps only pump as much oil as will actually be used, pressure purging, load limit sensing control |
| Operating pressure | max. 330 bar |
| Filtration | High-performance filtration with long change interval |
| Hydraulic tank | 500 l |
| Control system | Proportional, precision electrohydraulic actuation of work movements, 2 electric servo joysticks for work functions, including winch motion display via vibration transducer, additional functions via switches and pedals |
| Safety | Hydraulic circuits secured with safety valves Pipe fracture safety valve for luffing and telescoping cylinders |
| Options | <ul style="list-style-type: none"> ■ Bio-oil – environmentally friendly ■ SENNEBOGEN HydroClean 3-µm hydraulic microfilter ■ Electric heater for hydraulic tank for temperatures below -20 °C |

UPPERCARRIAGE

| | |
|-------------------|--|
| Design | Torsion-resistant box design, precision crafted, steel bushings for boom bearings. Extremely service-friendly design, longitudinal engine |
| Electrical system | Central electrical distributor, battery disconnect switch |
| Cooling system | 3-circuit cooling system with high cooling capacity, electronically regulated fan drive for water, charge air and oil cooler |
| Safety | Rearview and right sideview cameras, LED lighting package |
| Options | <ul style="list-style-type: none"> ■ Additional LED headlights ■ Up to 2 additional cameras ■ Anti-corrosive maritime climate varnish ■ Low-temperature package for use at temperatures below -20 °C |

SLEWING DRIVE

| | |
|--------------------|---|
| Gearbox | Compact planetary gear with slant-axis hydraulic motor, integrated brake valves |
| Slewing gear brake | Spring-loaded disk brake, pedal for individual braking |
| Slewing ring | Externally geared slewing ring, sealed |
| Slewing speed | 0 – 2 rpm, variable |

653E Technical data, equipment

CAB maXcab

| | |
|---------------|--|
| Cab type | maXcab full-size cab, 15° tiltable |
| Cab equipment | Sliding door, excellent ergonomics, automatic climate control, heated seat, air-suspension comfort seat, fresh air filter/circulating air filter, 12/24 V connections, SENCON, roller shade for sunroof |
| Options | <ul style="list-style-type: none"> ■ Hydraulically elevating cab E270, can be elevated 2.70 m and tilted 30° ■ Auxiliary heating system with timer ■ Activated-carbon filter for cab ■ Sliding window in operator door ■ Armored-glass windshield ■ Armored-glass sunroof ■ Protective roof grating ■ FOPS protective roof grating ■ Radio with CD player |

ATTACHMENTS

| | |
|-----------------|---|
| Design | Decades of experience, state-of-the-art computer simulation, maximum stability, longest service life, oversized, low-maintenance bearing points, sealed special bearing bushes, precision-crafted |
| Telescopic boom | 4-piece with pulley head, continuous hydraulic telescoping from 9.4 – 30.4 m |
| Hoisting winch | Slant-axis hydraulic motor drive with compact planetary gear, 50 kN pulling power (4th layer), 0 - 115 m/min. cable speed, 16 mm cable diameter, 170 m cable length. Winch motion display via vibration transducers in the joysticks |
| Safety brake | Spring-loaded disk brake |
| Crane safety | Next-generation load moment monitoring, straightforward panel displaying all important data through SENCON display, lifting limit switch, cable exit protection, pressure relief valves and pipe fracture safety device with event recorder |
| Cylinders | Hydraulic cylinders with high-quality sealing and guide elements |
| Options | <ul style="list-style-type: none"> ■ 6.5-m fly boom, tiltable (0°, 40°), extremely fast and easy setup without auxiliary devices, locked on basic boom when not in use ■ Fly boom extension to 13 m, tiltable (0°, 40°) |

Options

- Auxiliary jib, 5-t load capacity, 1-strand
- 2nd crane winch with 50 kN pulling power (4th layer), 0 – 115 m/min. cable speed, 16 mm cable diameter and 170 m cable length
- Additional load charts accepted for 2°/4° incline position
- Suitable for use as elevating work platform with up to 4 m width and 500 kg payload
- 3-kW electrohydraulic emergency unit
- Remote radio control



UNDERCARRIAGE

| | |
|----------------|---|
| Design | T41/380 crawler undercarriage with hydraulically extendable track width. Stable welded construction. |
| Drive | Hydraulic travel drive for each running gear side, variable displacement hydraulic travel motors |
| Parking brake | Spring-loaded, hydraulically ventilated disk brake |
| Traveling gear | 700-mm 3-grouser crawler shoes, maintenance-free tractor chassis |
| Speed | 0 – 2.9 kph |
| Options | Available crawler shoe types: <ul style="list-style-type: none"> ■ 800-mm triple-bar-shoes ■ 900-mm triple-bar-shoes ■ 700-mm flat crawler shoes |



OPERATING WEIGHT

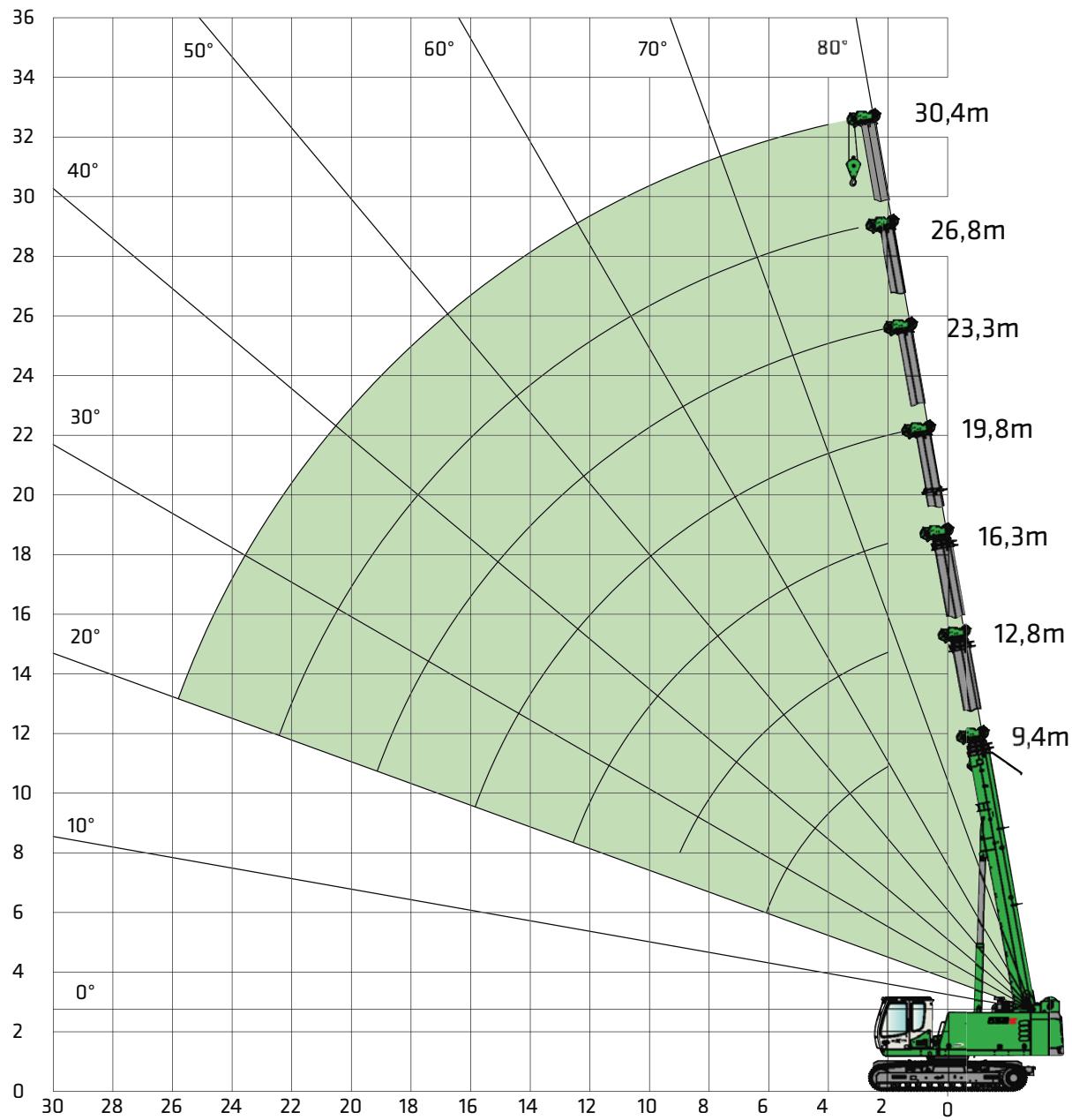
| | |
|------|--|
| Mass | Approx. 50,200 kg With 30.4-m telescopic boom, 13-m fly boom, 35-t hook, 700-mm 3-grouser crawler shoes, 2 hoisting winches, hydraulically telescoping undercarriage, 8.9-t ballast, 5.5-t undercarriage ballast |
| Note | The operating weight varies according to model type. |



653 E Crane equipment



30.4-m main boom (HA)



Hook

| Capacity | Weight | Rope reaving and max. load capacity | | | | | | | | | |
|------------------|--------|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| | | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 5 t | 80 kg | | | | | | | | | | 5,000 kg |
| 15 t 1-pulley | 190 kg | | | | | | | | 15,000 kg | 10,000 kg | 5,000 kg |
| 35 t 3-pulley | 260 kg | | | | 35,000 kg | 30,000 kg | 25,000 kg | 20,000 kg | 15,000 kg | 10,000 kg | 5,000 kg |
| 60 t 6-pulley | 540 kg | 50,000 kg | 45,000 kg | 40,000 kg | 35,000 kg | 30,000 kg | 25,000 kg | 20,000 kg | 15,000 kg | 10,000 kg | 5,000 kg |

653E Load ratings



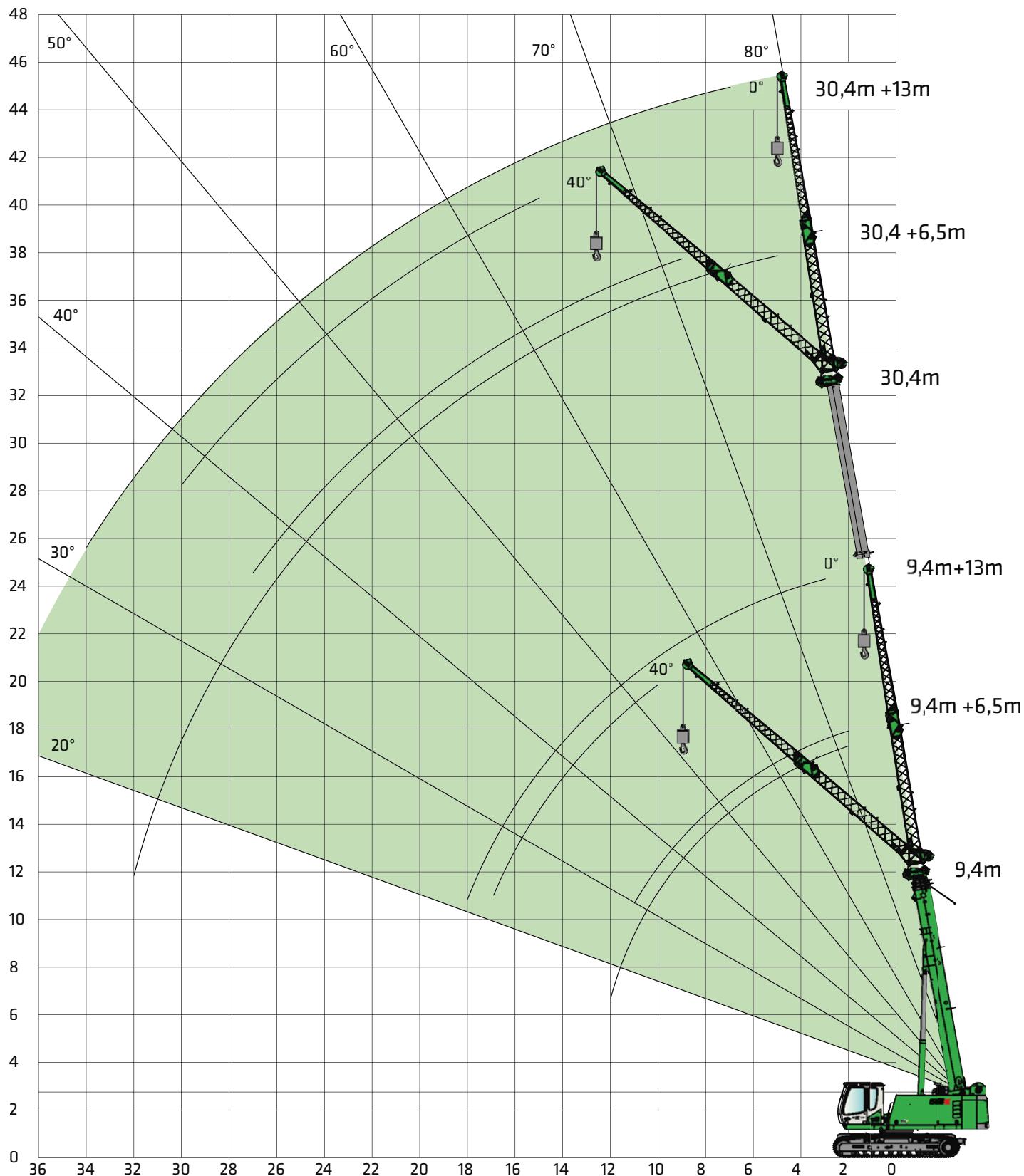
30.4-m main boom (HA)

| | Boom length [m] | | | | | | | | | | | | | | | | | | |
|-------------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| | 9.4 | | 12.8 | | | 16.3 | | | 19.8 | | | 23.3 | | | 26.8 | | | 30.4 | |
| Counterweight [t] | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | | |
| Carbody counter-weight [t] | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | | |
| Undercarriage track width [m] | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | |
| Outreach [m] | | | | | | | | | | | | | | | | | | | |
| 2.0 | 50,0 | 40,0 | | 31,0 | 31,0 | | 28,0 | 26,0 | | 15,6 | 15,6 | | 14,5 | 14,5 | | | | | |
| 3.0 | 45,0 | 40,0 | | 31,0 | 31,0 | | 25,0 | 24,4 | | 15,6 | 15,6 | | 14,5 | 14,5 | | 12,7 | 12,7 | | |
| 4.0 | 38,0 | 30,0 | 24,0 | 31,0 | 30,0 | 22,7 | 22,0 | 21,7 | 20,0 | 15,6 | 15,6 | 15,6 | 14,5 | 14,5 | 14,5 | 12,6 | 12,6 | 12,6 | |
| 5.0 | 30,0 | 22,5 | 17,0 | 28,0 | 22,6 | 17,3 | 19,3 | 19,3 | 16,0 | 15,6 | 15,6 | 15,5 | 14,2 | 14,2 | 14,2 | 12,4 | 12,4 | 12,4 | |
| 6.0 | 22,0 | 17,0 | 13,0 | 22,5 | 17,0 | 13,2 | 16,9 | 16,6 | 12,8 | 14,9 | 14,9 | 12,6 | 13,6 | 13,6 | 12,3 | 11,9 | 11,9 | 11,9 | |
| 7.0 | | | | 17,5 | 13,4 | 10,4 | 15,0 | 13,3 | 10,3 | 13,6 | 13,4 | 10,4 | 12,5 | 12,5 | 10,2 | 11,1 | 11,1 | 10,0 | |
| 8.0 | | | | 14,2 | 10,9 | 8,4 | 13,5 | 10,8 | 8,3 | 12,2 | 11,2 | 8,7 | 11,2 | 11,2 | 8,7 | 10,3 | 10,3 | 8,6 | |
| 9.0 | | | | 11,7 | 9,0 | 7,0 | 11,7 | 8,9 | 6,9 | 11,1 | 9,3 | 7,3 | 10,2 | 9,6 | 7,5 | 9,4 | 9,4 | 7,4 | |
| 10.0 | | | | | | | 9,9 | 7,5 | 5,8 | 10,1 | 7,9 | 6,1 | 9,3 | 8,2 | 6,4 | 8,6 | 8,3 | 6,4 | |
| 11.0 | | | | | | | 8,5 | 6,4 | 4,9 | 8,9 | 6,8 | 5,2 | 8,5 | 7,0 | 5,5 | 8,0 | 7,2 | 5,6 | |
| 12.0 | | | | | | | 7,4 | 5,5 | 4,1 | 7,7 | 5,9 | 4,5 | 7,9 | 6,1 | 4,7 | 7,3 | 6,3 | 4,9 | |
| 13.0 | | | | | | | 6,4 | 4,7 | 3,5 | 6,8 | 5,1 | 3,9 | 7,1 | 5,4 | 4,1 | 6,8 | 5,5 | 4,3 | |
| 14.0 | | | | | | | | | | 6,0 | 4,5 | 3,4 | 6,2 | 4,7 | 3,6 | 6,3 | 4,9 | 3,8 | |
| 15.0 | | | | | | | | | | 5,4 | 3,9 | 2,9 | 5,6 | 4,2 | 3,2 | 5,8 | 4,4 | 3,3 | |
| 16.0 | | | | | | | | | | 4,8 | 3,5 | 2,5 | 5,0 | 3,7 | 2,8 | 5,2 | 3,9 | 2,9 | |
| 17.0 | | | | | | | | | | | | | 4,5 | 3,3 | 2,4 | 4,7 | 3,5 | 2,6 | |
| 18.0 | | | | | | | | | | | | | 4,1 | 2,9 | 2,1 | 4,3 | 3,1 | 2,3 | |
| 19.0 | | | | | | | | | | | | | 3,7 | 2,6 | 1,8 | 3,9 | 2,8 | 2,0 | |
| 20.0 | | | | | | | | | | | | | 3,3 | 2,3 | 1,5 | 3,6 | 2,5 | 1,7 | |
| 21.0 | | | | | | | | | | | | | | | | 3,3 | 2,2 | 1,5 | |
| 22.0 | | | | | | | | | | | | | | | | 3,0 | 2,0 | 1,3 | |
| 23.0 | | | | | | | | | | | | | | | | 2,7 | 1,8 | 1,1 | |
| 24.0 | | | | | | | | | | | | | | | | | | 2,4 | |
| 25.0 | | | | | | | | | | | | | | | | | | 2,2 | |
| 26.0 | | | | | | | | | | | | | | | | | | 1,5 | |
| Parts reaving | 4 | 10 | 10 | 3 | 8 | 8 | 3 | 6 | 6 | 2 | 4 | 4 | 2 | 4 | 4 | 2 | 4 | 4 | |
| I | 0% | | | 50% | | | 100% | | | 100% | | | 100% | | | 100% | | | |
| II | 0% | | | 0% | | | 0% | | | 25% | | | 50% | | | 75% | | | |
| III | 0% | | | 0% | | | 0% | | | 25% | | | 50% | | | 75% | | | |
| Reduction of load | 580 | | 420 | | 330 | | 270 | | 230 | | 200 | | 180 | | | | | | |

653E Crane equipment



6.5-m or 13-m fly jib (SA)



653E Load ratings



6.5-m fly jib (SA)

| 8.9 t | 5.5 t | Telescopic boom length [m] | | | | | | | |
|--------------------|--|----------------------------|------|------|------|------|------|------|-----|
| | | 9.4 | | 16.3 | | 23.8 | | 30.3 | |
| 3.8 m | | 0° | 40° | 0° | 40° | 0° | 40° | 0° | 40° |
| Working radius [m] | | | | | | | | | |
| 2.0 | 10.0 | | | | | | | | |
| 3.0 | 9.9 | | 10.0 | | 9.9 | | | | |
| 4.0 | 8.6 | | 9.9 | | 9.4 | | | | |
| 5.0 | 7.7 | 4.6 | 9.4 | | 9.0 | | 4.9 | | |
| 6.0 | 6.9 | 4.4 | 8.7 | 4.6 | 8.5 | | 4.8 | | |
| 7.0 | 6.3 | 4.2 | 8.0 | 4.5 | 8.0 | 4.4 | 4.8 | | |
| 8.0 | 5.7 | 4.0 | 7.4 | 4.3 | 7.6 | 4.3 | 4.7 | | |
| 9.0 | 5.2 | 3.9 | 6.9 | 4.2 | 7.2 | 4.2 | 4.7 | 4.0 | |
| 10.0 | 4.8 | 3.8 | 6.4 | 4.1 | 6.8 | 4.1 | 4.7 | 4.0 | |
| 11.0 | 4.5 | 3.7 | 6.0 | 4.0 | 6.5 | 4.0 | 4.7 | 3.9 | |
| 12.0 | 4.1 | | 5.7 | 3.9 | 6.2 | 3.9 | 4.7 | 3.8 | |
| 13.0 | | | 5.3 | 3.8 | 5.9 | 3.9 | 4.6 | 3.8 | |
| 14.0 | | | 5.0 | 3.8 | 5.7 | 3.8 | 4.4 | 3.7 | |
| 15.0 | | | 4.8 | 3.7 | 5.4 | 3.7 | 4.2 | 3.7 | |
| 16.0 | | | 4.6 | 3.7 | 5.0 | 3.7 | 4.0 | 3.6 | |
| 17.0 | | | 4.2 | | 4.6 | 3.6 | 3.8 | 3.5 | |
| 18.0 | | | 4.0 | | 4.2 | 3.6 | 3.7 | 3.4 | |
| 19.0 | | | | | 3.7 | 3.6 | 3.5 | 3.3 | |
| 20.0 | | | | | 3.5 | 3.5 | 3.4 | 3.2 | |
| 21.0 | | | | | 3.2 | 3.3 | 3.2 | 3.1 | |
| 22.0 | | | | | 2.9 | | 3.0 | 3.0 | |
| 23.0 | | | | | 2.6 | | 2.7 | 2.8 | |
| 24.0 | | | | | 2.4 | | 2.4 | 2.6 | |
| 25.0 | | | | | | | 2.2 | 2.4 | |
| 26.0 | | | | | | | 2.0 | 2.2 | |
| 27.0 | | | | | | | 1.8 | 2.0 | |
| 28.0 | | | | | | | 1.7 | | |
| 29.0 | | | | | | | 1.5 | | |
| 30.0 | | | | | | | 1.4 | | |
| 31.0 | | | | | | | 1.2 | | |
| 32.0 | Table no.: 653R-75/1977/8.9 t + 5.5/10.14 SA6.5 0.3° | | | | | | 1.1 | | |
| 33.0 | | | | | | | | | |
| Parts reaving | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |
| I | 0% | | 100% | | 100% | | 100% | | |
| II | 0% | | 0% | | 50% | | 100% | | |
| III | 0% | | 0% | | 50% | | 100% | | |

653E Load ratings



13-m fly jib (SA)

| 8.9 t | 5.5 t | Telescopic boom length [m] | | | | | | | |
|--------------------|---|----------------------------|------|------|------|------|------|------|-----|
| | | 9.4 | | 16.3 | | 23.8 | | 30.3 | |
| 3.8 m | | 0° | 40° | 0° | 40° | 0° | 40° | 0° | 40° |
| Working radius [m] | | | | | | | | | |
| 3.0 | 4.6 | | | | | | | | |
| 4.0 | 4.4 | | | 4.6 | | | | | |
| 5.0 | 4.0 | | | 4.4 | | 3.8 | | | |
| 6.0 | 3.7 | | | 4.1 | | 3.7 | | | |
| 7.0 | 3.4 | | | 3.8 | | 3.6 | | 2.1 | |
| 8.0 | 3.1 | | | 3.6 | | 3.4 | | 2.1 | |
| 9.0 | 2.9 | | | 3.4 | | 3.3 | | 2.1 | |
| 10.0 | 2.7 | 1.8 | | 3.2 | | 3.1 | | 2.1 | |
| 11.0 | 2.5 | 1.7 | | 3.0 | | 3.0 | | 2.1 | |
| 12.0 | 2.3 | 1.7 | | 2.8 | 1.7 | 2.9 | | 2.1 | |
| 13.0 | 2.2 | 1.7 | | 2.6 | 1.7 | 2.7 | 1.7 | 2.1 | |
| 14.0 | 2.0 | 1.6 | | 2.5 | 1.7 | 2.6 | 1.6 | 2.1 | |
| 15.0 | 1.9 | 1.6 | | 2.4 | 1.6 | 2.5 | 1.6 | 2.1 | 1.5 |
| 16.0 | 1.8 | 1.5 | | 2.3 | 1.6 | 2.4 | 1.6 | 2.1 | 1.5 |
| 17.0 | 1.7 | 1.5 | | 2.1 | 1.5 | 2.3 | 1.5 | 2.1 | 1.5 |
| 18.0 | 1.6 | | | 2.0 | 1.5 | 2.2 | 1.5 | 2.1 | 1.5 |
| 19.0 | | | | 2.0 | 1.5 | 2.1 | 1.5 | 2.0 | 1.4 |
| 20.0 | | | | 1.9 | 1.5 | 2.1 | 1.5 | 2.0 | 1.4 |
| 21.0 | | | | 1.8 | | 2.0 | 1.4 | 1.9 | 1.4 |
| 22.0 | | | | 1.7 | | 1.9 | 1.4 | 1.9 | 1.4 |
| 23.0 | | | | 1.6 | | 1.8 | 1.4 | 1.8 | 1.4 |
| 24.0 | | | | 1.5 | | 1.8 | 1.4 | 1.8 | 1.3 |
| 25.0 | | | | | | 1.7 | 1.4 | 1.7 | 1.3 |
| 26.0 | | | | | | 1.7 | 1.4 | 1.7 | 1.3 |
| 27.0 | | | | | | 1.6 | | 1.6 | 1.3 |
| 28.0 | | | | | | 1.4 | | 1.6 | 1.3 |
| 29.0 | | | | | | 1.4 | | 1.6 | 1.3 |
| 30.0 | | | | | | | | 1.3 | 1.1 |
| 31.0 | | | | | | | | | 1.1 |
| 32.0 | | | | | | | | | 0.9 |
| 33.0 | Table no.: 653R-75/1977/8.9+5.5/10.14 SA13 0.3° | | | | | | | | 0.7 |
| 34.0 | | | | | | | | | 0.6 |
| Parts reaving | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |
| I | 0% | | 100% | | 100% | | 100% | | |
| II | 0% | | 0% | | 50% | | 100% | | |
| III | 0% | | 0% | | 50% | | 100% | | |

653E Load ratings



Auxiliary jib (HA-S)

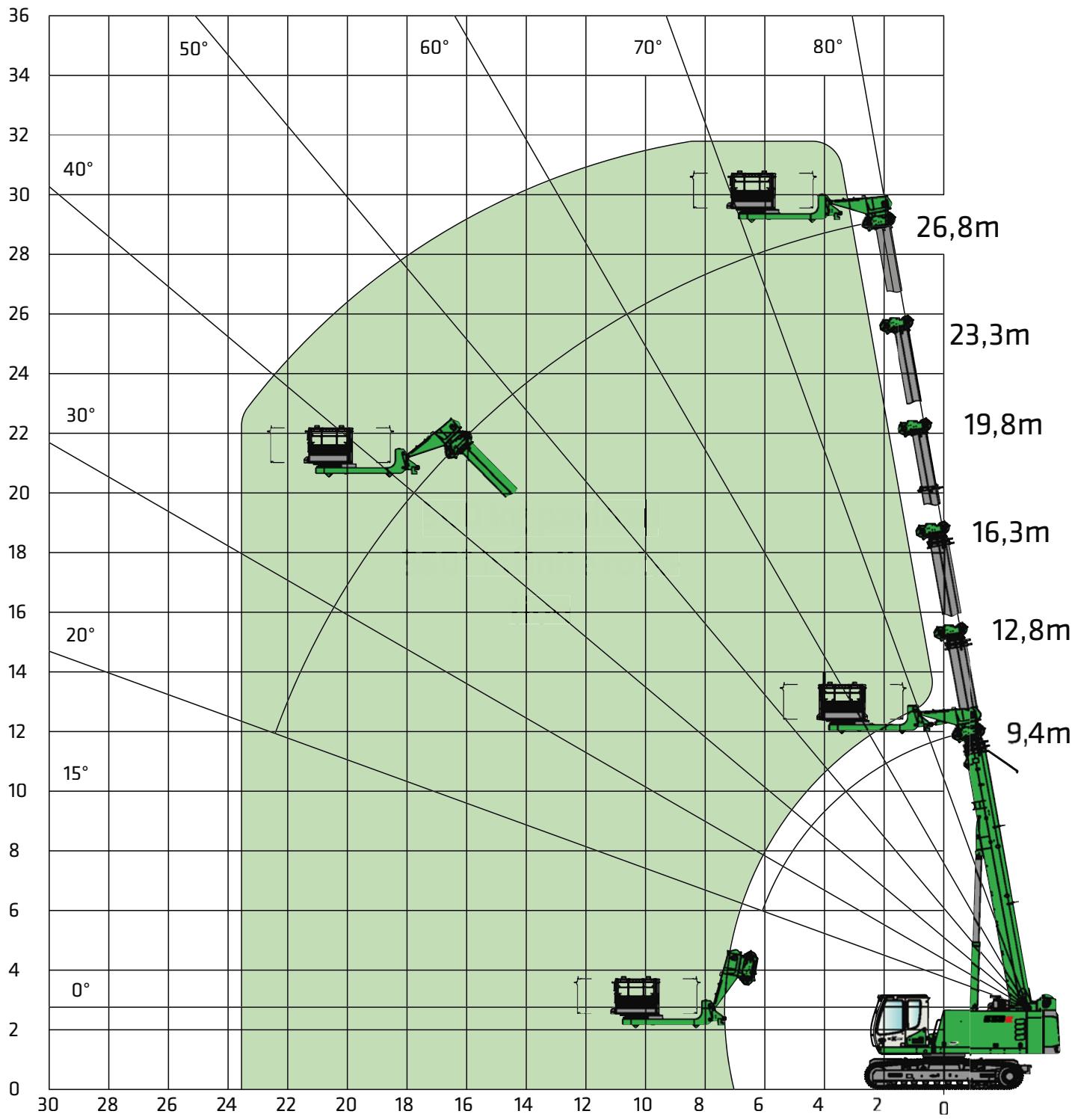
| | Boom length [m] | | | | | | | | | | | | | | | | | |
|-------------------------------|-----------------|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|------|--|
| | 9.4 | | 12.8 | | | 16.3 | | | 19.8 | | | 23.3 | | | 26.8 | | 30.4 | |
| Counterweight [t] | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | |
| Carbody counter-weight [t] | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | |
| Undercarriage track width [m] | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | 2.3 | 3.8 | 3.0 | |
| Working radius [m] | | | | | | | | | | | | | | | | | | |
| 2.0 | 5,0 | 5,0 | | 5,0 | 5,0 | | 5,0 | 5,0 | | 5,0 | 5,0 | | 5,0 | | | | | |
| 3.0 | 5,0 | 5,0 | | 5,0 | 5,0 | | 5,0 | 5,0 | | 5,0 | 5,0 | | 5,0 | 5,0 | | 5,0 | | |
| 4.0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 5.0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 6.0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 7.0 | | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 8.0 | | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 9.0 | | | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 10.0 | | | | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 11.0 | | | | | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | 5,0 | |
| 12.0 | | | | | | 5,0 | 5,0 | 4,3 | 5,0 | 5,0 | 4,6 | 5,0 | 5,0 | 4,8 | 5,0 | 5,0 | 5,0 | |
| 13.0 | | | | | | | 5,0 | 4,9 | 3,7 | 5,0 | 5,0 | 4,0 | 5,0 | 5,0 | 4,2 | 5,0 | 5,0 | |
| 14.0 | | | | | | | | | | 5,0 | 4,6 | 3,5 | 5,0 | 4,8 | 3,7 | 5,0 | 5,0 | |
| 15.0 | | | | | | | | | | | 5,0 | 4,0 | 3,0 | 5,0 | 4,3 | 3,2 | 5,0 | |
| 16.0 | | | | | | | | | | | | 4,2 | 3,6 | 2,6 | 4,4 | 3,8 | 2,8 | |
| 17.0 | | | | | | | | | | | | | 3,7 | 3,1 | 2,2 | 3,9 | 3,4 | |
| 18.0 | | | | | | | | | | | | | | 3,6 | 3,0 | 2,1 | 3,7 | |
| 19.0 | | | | | | | | | | | | | | | 3,2 | 2,7 | 1,8 | |
| 20.0 | | | | | | | | | | | | | | | 2,8 | 2,4 | 1,6 | |
| 21.0 | | | | | | | | | | | | | | | | 2,8 | 2,3 | |
| 22.0 | | | | | | | | | | | | | | | | 2,5 | 2,0 | |
| 23.0 | | | | | | | | | | | | | | | | 2,3 | 1,8 | |
| 24.0 | | | | | | | | | | | | | | | | 2,0 | 1,6 | |
| 25.0 | | | | | | | | | | | | | | | | | 0,9 | |
| 26.0 | | | | | | | | | | | | | | | | | 2,0 | |
| Parts reaving | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| I | 0% | | 50% | | | 100% | | | 100% | | | 100% | | | 100% | | 100% | |
| II | 0% | | 0% | | | 0% | | | 25% | | | 50% | | | 75% | | 100% | |
| III | 0% | | 0% | | | 0% | | | 25% | | | 50% | | | 75% | | 0% | |
| Reduction of load | 580 | | 420 | | | 330 | | | 270 | | | 230 | | | 200 | | 180 | |

Subject to change. See page 17 for notes on load charts.

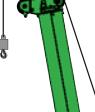
653E Crane equipment



Elevating work platform type 4000/500



653E Load capacity programs

| | | Main boom (HA) | | | Auxiliary jib (HA-S) | | | 6.5-m fly jib (SA) | | | 13-m fly jib (SA) | | | |
|---|---|---|--|--|--|--|--|---|-------|-------|--|-------|-------|-------|
| Counterweight [t] | Carbody counter-weight [t] |  | | |  | | |  | | |  | | | |
| | | Undercarriage track width | 3.8 m | 3.0 m | 2.3 m | 3.8 m | 3.0 m | 2.3 m | 3.8 m | 3.0 m | 2.3 m | 3.8 m | 3.0 m | 2.3 m |
|  8.9 t |  5.5 t | | 360°  | 360°  | 360°  | 360°  | 360°  | 360°  | — | — | 360°  | — | — | |

Note:

Optional load capacities available for 2° and 4° incline positions.

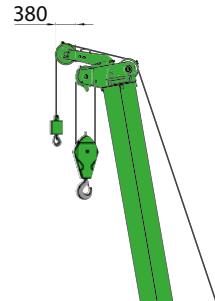
1. Specified load ratings only apply when machine is level ($\pm 0.3^\circ$) and stable.
2. Load ratings are in tons (t) and apply for 360 degrees.
3. Load ratings are in accordance with EN 13000.
4. The weight of the load handling devices (e.g., hook, cable) must be subtracted from the load ratings.
5. Load ratings must be limited or reduced when conditions are unfavorable, such as soft or uneven ground, slopes, wind, lateral loads, swinging loads, jerking or sudden stopping of load, operator inexperience, driving with load.
6. Permissible cable pull per strand in crane mode for cable diameter 16 mm – 5,000 kg.
7. Specified load ratings are for reference only. See the tables in the operating manual for the applicable load rating.

653E Fly boom

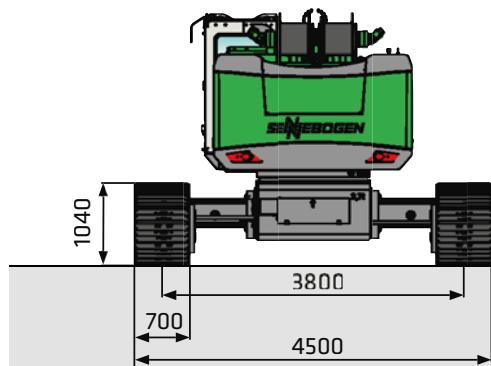


Fly boom variants

- 6.5-m fly jib*
Max. 2-lines,
possible offset
angle 0°/40°
- 13-m fly boom* with 6.5-m extension, line offset
angle 0°/40°
- Auxiliary jib, 5-t load capacity, 1-line

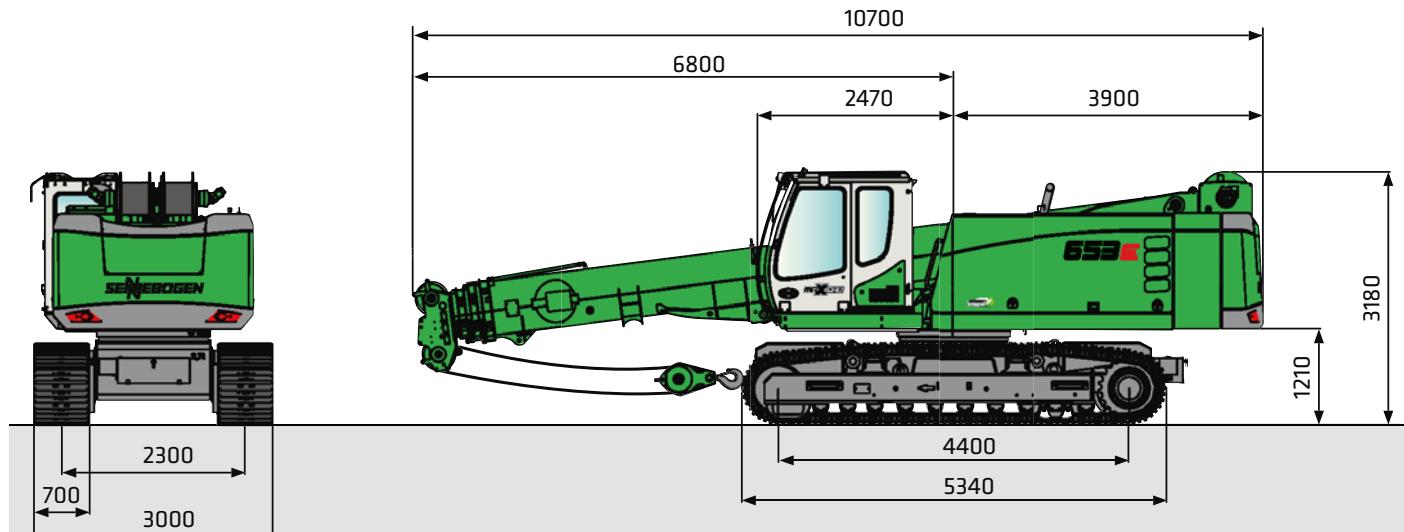


653 E Transport dimensions and weights



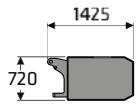
| crawler shoes | min. transport width |
|---------------|----------------------|
| 700 mm | 3000 mm |
| 800 mm | 3300 mm |
| 900 mm | 3400 mm |

653 with T41/380 undercarriage and 700-mm 3-grouser crawler shoes
Operating weight: approx. 50,200 kg
(with 13-m fly boom, 2 hoisting winches, 8.9-t counterweight, 5.5-t undercarriage ballast and 35-t hook)



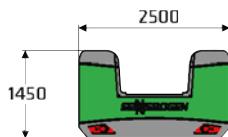
Transport weight: approx. 44,700 kg (13-m fly boom, 2 hoisting winches, without undercarriage ballast)
approx. 50,200 kg (13-m fly boom, 2 hoisting winches, with undercarriage ballast)

653E Transport dimensions and weights



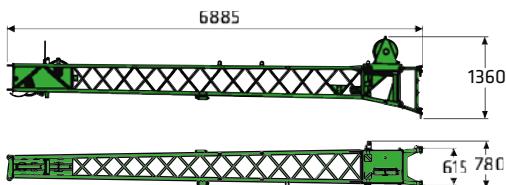
Undercarriage ballast

2x 2,750 kg



Counterweight

7,000 kg

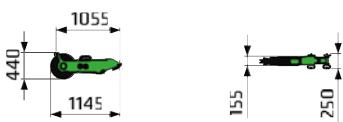


6.5-m fly boom

600 kg

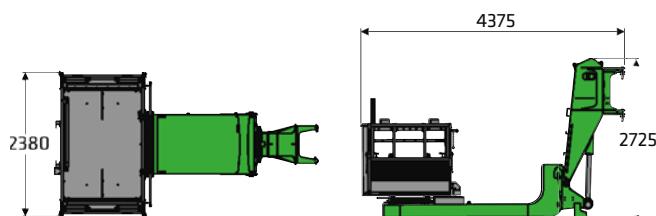
6.5-m fly boom extension

250 kg



5-t auxiliary jib

50 kg



Work platform incl. adapter, width: 2.4 m

2,300 kg

653 E



This catalog describes machine models, scope of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines delivered by SENNEBOGEN Maschinenfabrik. Machine illustrations can contain optional equipment and supplemental equipment. Actual equipment may vary depending on the country to which the machines are delivered, especially in regard to standard and optional equipment.

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