119 kW (Stage IIIa)
129 kW (Stage IV)

40 t
30 m

Mobile telescopic crane
What makes up the E-Series

- Over 25 years of experience in construction and building of highly specialized telescopic cranes
- Uncompromisingly high performance in all areas
- Technology that can be mastered: High-quality components without over-engineering
- Long service life and high value stability

Telescopic crane TX10

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°

3. **Maximum usability**
   - MultiCab – work in comfort
   - SENCON – work program selection made easy

4. **Flexibility in service**
   - Operate under full load – less space required
   - Strong undercarriage traction – good off-road capability

5. **Easy transport**
   - Mobile undercarriage with sliding beam support – ready to go in no time

6. **Maintenance and service made easy**
   - SENNEBOGEN control system – easy error diagnostics
   - Simple maintenance – clear labeling

7. **Consultation and support in your area**
   - 3 production sites – 2 subsidiaries
   - 130 sales partners – over 350 service stations
Stage IV
- Most modern, powerful engine
- Fuel-efficient
- Clean emissions
**ENGINE**

**Model**

Cummins diesel engine QSB 4.5

- **119 kW / 162 hp at 2,200 rpm**
- Compliant with Tier IIIa emission standards

Cummins diesel engine QSB 4.5

- **129 kW / 175 hp at 2,500 rpm**
- Compliant with Tier IV emission standards

**Cooling**

Direct injection, turbo-charged, charge air cooling, reduced emissions

**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

**DEF Tank**

38 l

**Electr. System**

24 V

**Batteries**

2 x 155 AH battery disconnect switch

**Options**

- Low-temperature package with engine pre-heating and heated diesel filter for temperatures below -20 °C
- Electric diesel fuel pump

---

**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**

- Additional LED headlights
- Up to 2 additional cameras
- Maritime climate varnishing as corrosion protection
- Low-temperature package for use at temperatures below -20 °C

---

**HYDRAULIC SYSTEM**

**Load Sensing/LUDV**

Hydraulic system, electrohydraulic pilot-controlled work functions, load limit sensing control

**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**

- Bio-oil
- SENNEBOGEN HydroClean 3 μm hydraulic microfilter
- Electric heater for hydraulic tank for 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

**Rotation Speed**

0–2 rpm, variable

---

Subject to change. Additional options available upon request.
**TECHNICAL DATA, EQUIPMENT**

**CAB**

- **Cab type**: Multicab, can be inclined by 15°
- **Cab equipment**: Flexibly mounted comfortable cab with super sound insulation. All-weather design, all-round glazing in safety glass and large roof window, adjustable windshield. Flexibly mounted comfortable seat, adjustable according to weight and shock-absorbent. Dashboard overview with swiveling steering column. Variable, controllable cab heating with air circulation stage and particle filter, automatic climate control
- **Options**:
  - Cab type E240, can be elevated 240 cm
  - Cab can be tilted 20°
  - Auxiliary heating system with timer
  - Activated carbon filter for cabs
  - Armored-glass windshield
  - Armored-glass sunroof
  - Protective roof grating
  - FOPS protective roof grating
  - Radio with USB and SD connection, MP3 and Bluetooth function

**ATTACHMENTS**

- **Design**: Decades of experience, state-of-the-art computer simulation, maximum stability and service life, oversized and low-maintenance bearing points, sealed special bearing bushings, precision-crafted
- **Telescopic boom**: 4-part with pulley head, continuous hydraulic telescoping to 9–30 m
- **Hoisting winch**: Drive using inclined axis hydraulic motor with compact planetary gear, traction 35 kN (40 kN in the 1st position), cable speed 0–95 m/min., cable diameter 14 mm, 160 m cable length.
- **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 Eventrecorder
- **Cylinders**: Hydraulic cylinders with high-quality sealing and guide elements

**UNDERCARRIAGE**

- **Design**: Strong mobile undercarriage with integrated pendulum axle
- **Travel drive**: All-wheel drive powered by an adjustable hydraulic motor with direct-mounted, automatically actuated brake valve and 2-stage power shift transmission. Strong 40 t planetary axles with integrated steering cylinders, 2-circuit multi-disk service brake.
- **Steering**: All-wheel steering
- **Parking brake**: Spring-loaded disk brake
- **Tires**: 12.00-20, 8x
- **Speed**: 0–6 km/h off-road, 0–25 km/h on-road

**OPERATING WEIGHT**

- **Mass**: Approx. 27 t
  - with 30 m telescopic boom, 13 m fly boom, 1.9 t counterweight, 25 t hook, 2 hoisting winches.
- **Notice**: Operating weight varies by model.

Subject to change. Additional options available upon request.
Crane equipment

30 m main boom (HA)

Hook

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Weight</th>
<th>Number of strands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>9    8  7  6  5  4  3  2  1</td>
</tr>
<tr>
<td>32 t</td>
<td>300 kg</td>
<td>31,500 kg 28,000 kg 24,500 kg 21,000 kg 17,500 kg 14,000 kg 10,500 kg 7,000 kg 3,500 kg</td>
</tr>
<tr>
<td>25 t</td>
<td>220 kg</td>
<td>24,500 kg 21,000 kg 17,500 kg 14,000 kg 10,500 kg 7,000 kg 3,500 kg</td>
</tr>
<tr>
<td>4 t</td>
<td>40 kg</td>
<td>3,500 kg</td>
</tr>
</tbody>
</table>

Subject to change. See page 12 for notes on load lift charts.
## Load ratings

### 30 m main boom (HA)

<table>
<thead>
<tr>
<th>Counterweight [t]</th>
<th>9.0</th>
<th>12.5</th>
<th>16.0</th>
<th>19.5</th>
<th>23.0</th>
<th>26.5</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1.3</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>0.5</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1.4</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>0.7</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

| Outreach [m] | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 | 27.0 | 28.0 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 100          | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  |
| 50           | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  |
| free         | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  | 0%  |

**Outrigger width [%]**

- 5/6.6
- 8/6.2
- 2.8/6.2

**Load capacity reduction (%)**

- 570
- 420
- 330
- 280
- 240
- 210
- 180

Subject to change. See page 12 for notes on load lift charts.
Crane equipment

6.5 m or 13 m fly boom (SA)

Subject to change. See page 12 for notes on load lift charts.
| Outreach [m] | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 18.0 | 20.0 | 22.0 | 24.0 | 26.0 | 28.0 | 30.0 | 32.0 | 34.0 | 36.0 | 38.0 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 9.0         | 5.5 | 3.5 | 6.0 | 6.0 | 4.9 | 3.3 | 6.0 | 6.0 | 4.4 | 3.1 | 5.9 | 3.4 | 6.0 | 3.5 | 4.0 | 2.9 | 5.4 | 3.3 | 5.9 | 4.7 | 3.2 | 5.5 | 3.3 | 5.3 | 3.2 | 4.7 | 3.1 |
| 16.0        | 6.0 | 6.0 | 6.0 | 6.0 | 5.0 | 3.6 | 6.0 | 6.0 | 4.3 | 3.0 | 5.6 | 3.2 | 5.5 | 3.3 | 5.2 | 2.8 | 5.4 | 3.3 | 5.7 | 4.7 | 3.2 | 5.7 | 3.3 | 5.6 | 3.2 | 4.7 | 3.1 |
| 23.0        | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 5.5 | 6.0 | 6.0 | 4.9 | 3.2 | 5.8 | 3.4 | 6.0 | 3.5 | 4.9 | 4.0 | 3.6 | 6.0 | 4.9 | 5.5 | 6.0 | 5.5 | 3.3 | 5.6 | 3.4 | 5.5 | 3.3 |
| 30.0        | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 5.0 | 4.3 | 5.6 | 3.3 | 5.9 | 3.4 | 5.9 | 4.7 | 3.2 | 5.7 | 4.7 | 3.2 | 5.7 | 3.3 | 5.6 | 3.4 | 5.5 | 3.3 |

<table>
<thead>
<tr>
<th>Number of strands</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>1</th>
<th>1</th>
</tr>
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<tbody>
<tr>
<td>I</td>
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<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>II</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>III</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Subject to change. See page 12 for notes on load lift charts.
## Load ratings

### 13 m fly boom (SA)

<table>
<thead>
<tr>
<th>Telescopic boom length [m]</th>
<th>9.0</th>
<th>16.0</th>
<th>23.0</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.9 t</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>100%</strong></td>
<td>0°</td>
<td>0°</td>
<td>0°</td>
<td>0°</td>
</tr>
<tr>
<td>Outreach [m]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>6.0</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>7.0</td>
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<tr>
<td>8.0</td>
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<tr>
<td>9.0</td>
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<tr>
<td>10.0</td>
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<tr>
<td>34.0</td>
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<td>36.0</td>
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<tr>
<td>38.0</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Number of strands**

- **I**
  - 0%: 100% 100% 100%
  - 0%: 0% 100%
  - 0%: 0% 100%

*Table no.: 643R-30.0/75/26421.9/12.16 5A/13*

Subject to change. See page 12 for notes on load lift charts.
### Load ratings

**Auxiliary jib (HA-S)**

<table>
<thead>
<tr>
<th>Boom length [m]</th>
<th>9.0</th>
<th>12.5</th>
<th>16.0</th>
<th>19.5</th>
<th>23.0</th>
<th>26.5</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counterweight [t]</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Outreach [m]</td>
<td>100</td>
<td>50</td>
<td>free</td>
<td>100</td>
<td>50</td>
<td>free</td>
<td>100</td>
</tr>
<tr>
<td>Outrigger width [%]</td>
<td>3.0</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

*Note: Subject to change. See page 12 for notes on load lift charts.*
Load capacity programs

<table>
<thead>
<tr>
<th>Counterweight [t]</th>
<th>Undercarriage track width</th>
<th>Main boom HA</th>
<th>Auxiliary jib HA-S</th>
<th>6.5 m fly boom (SA)</th>
<th>Fly boom SA 13 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.9 t</td>
<td>100% 50% free</td>
<td>360° 360° 360°</td>
<td>360° 360° 360°</td>
<td>360°</td>
<td>360°</td>
</tr>
</tbody>
</table>

Note:
1. Specified load ratings only apply when machine is level (±0.3°) and stable.
2. Load ratings are specified in tons and apply to 360 degrees.
3. Load ratings are in accordance with DIN 15019.2 and ISO 4305.
4. The weight of the load handling devices (e.g., hook, suspension gear) 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 rope winch per strand in crane mode for cable diameter 14 mm – 3,500 kg
7. The specified load ratings are for reference only. The currently valid load ratings can be found in the tables in the operating manual.
8. Optional load capacities are also available for a 2°/4° incline position.

Fly boom variants
- **6.5 m fly boom**
  Max. 2-strand, possible offset angle 0°/40°
- **13 m fly boom**
  with 6.5 m extension, 1-strand, offset angle 0°/40°
- **Auxiliary jib**
  3.5 t load capacity, 1-strand
643 mobile undercarriage with integrated 4-point outrigger
Service weight: approx. 27 t (with 13 m fly boom, 2 hoisting winches, 1.9 t counterweight and 25 t hook)

Single tires
4 x 14.00-24

Twin tires
8 x 12.00-20

Transport weight: approx. 27,000 kg (13 m fly boom, 2 hoisting winches)

Dimensions in [mm]
643E Transport dimensions and weights

6.5 m fly boom 600 kg

6.5 m fly boom extension 250 kg

Auxiliary jib 50 kg
This catalog describes machine models, scopes 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 in a tolerance range depending on the country to which the machines are delivered, especially in regard to standard and optional equipment.

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