Crawler material handler

- 227 kW (Stage IIIa)
- 231 kW (Stage V)
- 200 kW (Electro)
- 57 - 67 t
- 20 m
Advanced. The E-Series

What makes up the E-Series

- More than 65 years of experience in designing and constructing hydraulic material handling machines
- Uncompromisingly high performance in all areas: Focus on material handling
- Technology that can be mastered: High-quality components without over-engineering
- Long product service life and high value retention

1962: Rope-driven S833 with elevated operator cab

Your top benefits

1. **Green Efficiency**
   Safe fuel - reduce operating costs
   Work quietly - protect operator and environment

2. **Peak performance**
   Durable mechanical systems - stressed parts optimized
   High speeds - high load capacities

3. **Maximum usability**
   Comfortable Maxcab operator cab - relaxed work
   SENCON - work program selection made easy

4. **Maximum safety**
   Safe entry and exit - no-slip steps
   State-of-the-art camera - entire work area in view

5. **Maintenance and service made easy**
   SENNEBOGEN Control System SENCON - easy fault diagnosis
   Easy Maintenance - clear labeling

6. **Consultation and support in your area**
   3 production sites - 2 subsidiaries
   more than 130 sales partners - worldwide and also in your area
The E-Series. At a glance.

Four ways to save fuel

- Up to 20% savings: working in Eco Mode with reduced engine speed
- Idle automation reduces speed to 40% of operating speed
- Stop automation switches the engine off when not needed
- Optimized settings of engine and hydraulics reduces fuel consumption

<table>
<thead>
<tr>
<th>1800 ECO RPM</th>
<th>1400 RPM</th>
<th>800 RPM</th>
<th>0 RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>Idle</td>
<td>Stop</td>
<td></td>
</tr>
<tr>
<td>0 s</td>
<td>5 s</td>
<td>8 s</td>
<td>5 min</td>
</tr>
</tbody>
</table>

Quiet operation

- Consistently quiet operation thanks to decoupled engine mounts and soundproofing in the doors
- Soundpower level according to 2000/14/EC up to 2 dB lower than required

High-capacity cooling

- Constant, reliable performance thanks to large-dimensioned and robust fans and coolers
- Water and oil coolers with top-notch efficiency thanks to axial-piston pump and motor control and ondemand thermostatic control
- Fan reversal for cleaning in series

Subject to technical changes. Further options available upon request.
Maximum safety
- Non-slip work surfaces
- Hand rails (optional) 1
- 2 cameras to the right and to the rear
- Step grid with railing, sliding door 2

Powerful hydraulic system
- Strong pumps with power reserves
- Top efficiency thanks to large-dimensioned hydraulic valves and lines
- Extra-long change intervals of 4,000 operating hours through initial fill-up with special oil with extended service life when using SENNEBOGEN HydroClean*
The premium cab.

Features

- optimum cab climate with automatic air conditioning system, partial tinted glass
- pleasant and equal temperature dispersion by means of 9 nozzles
- panoramic view
- climatic comfort seat with air suspension and air conditioning*
- very quiet through optimized noise insulation
- Highest safety & comfort with sliding door, wide door opening
- ergonomically arranged operating controls for fatigue-free and relaxed working
- 12 V, 24 V, and USB charging sockets hands-free telephone preparation, document box
- various options: electric cooler behind’s, protective covers, seat air conditioning

Our SENNEBOGEN joysticks

- consoles and ergonomic joysticks that move with the seat
- pleasant grip through ergonomic design
- precise control of all movements through direct and sensitive function activation
- quick access to all operating controls through optimized design of all push-buttons and switches

* Option
Hydro Clean*
- Optimal protection of hydraulic components thanks to 3 μm micro-filter
- Cleaner hydraulic oil, longer service life

Central measuring points
- Easily accessible
- Quickly inspect entire hydraulic system

Clear labeling
- All parts labeled with a unique part number
- Easy and reliable spare parts ordering

Optimized for maintenance
- Fast and easy diagnosis thanks to straightforward and clearly labeled electrical distributor
- Easy access to all service points on the machine
- Automatic central lubrication for equipment and slewing gear raceway
840E Modular structure - versatile solutions

Attachments

Orange peel grab
Clamshell grab
Magnet plate
Scrap metal shears

Equipment (additional equipment on request)

Cabs
Maxcab
Maxcab Industry

Cab elevation

K17
K18
B18
B19
K20

Uppercarriage

Diesel-hydraulic drive
Electro-hydraulic drive
Motorized cable reel
Transformer

Options

Variants undercarriage

Mobil E* MP42
Crawler R43/400
Crawler Special R44/400
4-point-pedestal ST48/400

* Additional information on our mobile undercarriages can be found in the separate 840 M E-Series brochure.
Advantages at a glance

- Reliable work through robust and FEM-optimized equipment
- Better illumination of the work area through powerful LED headlights*
- High safe working loads even at maximum extension, due to massive cylinders
- Safe entry and exit thanks to railings*, grip handles and non-slip steps
- Sliding door for convenient entry and exit, step grid with railing
- Ideal overview and safe working height, thanks to stable cab elevation
- Robust side cover of recyclable steel sheet
- Robust slewing gear (2x) for fast work cycles and high-performance material handling

* Option
### MACHINE TYPE

**Model (type)** 840

---

### MOTOR

**Power**
- **Stage V:**
  - Rated Power: 231 kW at 2100 rpm
  - 237 kW at 2000 rpm / 242 kW at 1800 rpm
- **Stage IIIa:**
  - Rated Power: 227 kW at 2000 rpm
  - 254 kW at 1800 rpm

**Model** Cummins L9
- Direct injection, turbo charged, charge air cooling, reduced emissions, ECO mode, idle automation, stop automation, fuel pre-warming

**Cooling**
- Water-cooled, direction of rotation changeover of the cooler fan

**Diesel filter**
- With water separator and heater

**Air filter**
- Dry filter with integrated pre-separator, automatic dust discharge, main element and safety element, contamination indicator

**Fuel tank** 625 l

**DEF tank** 75 l

**Electr. system** 24 V

**Batteries** 2 x 150 Ah, battery disconnect switch

**Options**
- Engine block pre-warming at temperatures under -20°C
- Electric fuel pump

---

### UPPERCARRIAGE

**Design**
- Torsion-resistant box design, precision crafted, steel bushings for boom bearing arrangement
- Extremely service-friendly concept, engine installed in the longitudinal direction

**Central lubrication**
- Autom. central lubrication for equipment and slewing gear raceway

**Electrical**
- Central electrical distributor, battery disconnect switch

**Cooling system**
- 3-circuit cooling system with high cooling output, thermostatically regulated fan drive for oil cooler and water cooler, fan reversal for cleaning

**Options**
- Slewing gear brake via foot pedal
- Hand rail at the upper structure
- LED light packages
- Fire extinguisher
- Sea climate resistant coating
- Electrical hydraulic tank pre-warming at temperatures under -20°

---

### HYDRAULIC SYSTEM

**Load sensing / LUDV hydraulic system, hydraulic, pilot-controlled work functions, load limit sensing control**

**Pump type** Variable-displacement piston pump in swashplate design, 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

**Delivery rate** maximum 740 l/min

**Operating pressure** to 350 bar

**Filtration**
- High-performance filtration with long-term change interval SENNEBOGEN HydroClean micro-filter system water separator option

**Hydraulic tank** 500 l

**Control system**
- Proportional, precision hydraulic activation of work movements, 2 hydraulic servo joysticks for work functions, supplemental functions via switches and foot pedals

**Safety**
- Hydraulic circuits with safety valves, secured emergency lowering of the equipment at engine standstill, pipe fracture safety valves for lift cylinder and stick cylinder

**Options**
- Electric fuel pump for fueling without moving the machine
- Bio-oil filling - ecologically worthwhile
- Tool Control for easy attachment change
- Supplemental hydraulic circuit for shear attachment
- Load moment warning with capacity utilization indicator, e.g. for tasks in halls
- Overload safeguard with overload shutdown e.g. for tasks in halls

---

### SLEWING DRIVE

**Gearbox**
- Compact planetary gear with slant axis hydraulic motor, integrated brake valves

**Parking brake**
- Spring-loaded disk brake

**Slewing ring**
- Strong ball race slewing ring, sealed

**Slewing speed**
- 0-8 RPM, stepless

---

Subject to change.
## UNDERCARRIAGE

<table>
<thead>
<tr>
<th>Design</th>
<th>Wide-gauge crawler undercarriage, type R43/400 with 4 m track width and B7 traveling gear in stable, torsionally rigid box construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>Hydraulic travel drive, integrated in the traveling gear frame for each traveling gear side through an axial piston motor via compact planetary gear.</td>
</tr>
<tr>
<td>Parking brake</td>
<td>Spring-loaded, hydraulically ventilated disk brakes. Hydraulic brake valves protect the drive engines when moving downhill.</td>
</tr>
<tr>
<td>Traveling gear</td>
<td>B7 crawler track (58 links) with 700 mm triple-grouser track shoes, canted</td>
</tr>
<tr>
<td>Speed</td>
<td>0 - 2.3 km/h</td>
</tr>
<tr>
<td>Options</td>
<td>- R44-400 crawler undercarriage</td>
</tr>
<tr>
<td></td>
<td>- Maintenance-free B7 crawler track with 700 mm triple grouser track shoes</td>
</tr>
<tr>
<td></td>
<td>- Maintenance-free B7 crawler track with 800 mm flat track shoes</td>
</tr>
</tbody>
</table>

## CAB

| Cab type         | Hydraulically elevating cab E270                                                                                                             |
| Cab equipment    | Sliding door, excellent ergonomics, climate automation, seat heater, air-suspension comfort seat, fresh air filter / circulating air filter, joystick steering, 12 V / 24 V connections, SENCON |
| Options          | - active seat air conditioning                                                                                                               |
|                 | - Auxiliary heating system with timer                                                                                                       |
|                 | - Cabs with active carbon filter                                                                                                             |
|                 | - Bullet proof windshield                                                                                                                   |
|                 | - Bullet proof skylight                                                                                                                     |
|                 | - Safety side window and rear window                                                                                                         |
|                 | - Sun protection for skylight and windscreen                                                                                                 |
|                 | - Protective roof grating                                                                                                                   |
|                 | - FOPS protective roof grating                                                                                                                |
|                 | - Protective front grating                                                                                                                   |
|                 | - Radio with speakers                                                                                                                       |
|                 | - Maxcab industrial cab with undivided armored glass windshield                                                                                  |
|                 | - electrical cooling shield                                                                                                                  |

## EQUIPMENT

| Design          | Decades of experience, state-of-the-art computer simulation, highest level stability, longest service life, large-dimensioned bearing points, sealed special bearing bushes, precision-crafted, quick-release couplings on the grapple connections - open/closed/rotate |
| Cylinders       | Hydraulic cylinders with high-quality sealing and guide elements, end position damping, sealed bearing points                            |
| Options         | - Ball valves on the hydraulic lines grab open, closed, rotate                                                                              |
|                 | - Kinematic position II for greater working depth                                                                                            |
|                 | - Sea climate resistant coating                                                                                                              |
|                 | - Maritime coating of all cylinders, nickel-plated and chrome-plated                                                                         |
|                 | - Float position for equipment                                                                                                                |
|                 | - Lift limitation / stick limitation adjustable for the stop settings, for example in the hall                                               |

## ELECTRIC DRIVE

| Option          | Power: 200 kW, 400 V, 50 Hz Total connected load 340 kVA, machine-provided 400 A fuse (alternatively 425 A with magnet system) for 400 V – star-delta connection motor start | Advantages: Lowest operating costs, quiet and virtually vibration-free work, long service life of hydraulic components |

## OPERATING WEIGHT

| Mass            | approx. 59,000 kg Basic machine 840 R with attachment K18 and 600 l orange peel grab and 700 mm 3-grouser track shoes |
| Note            | The operating weight varies depending on the model. |
All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, etcetera are part of the specified load ratings. The specified values are 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567. In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.

Machine shown mirror image
All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, etc., are part of the specified load ratings. The specified values are 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567. In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.

Technical data and dimension information subject to change.
All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, et cetera are part of the specified load ratings. The specified values are 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567. In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.
In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist.

Technical data and dimension information subject to change.
In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.

* Option

Undercarriage | R44/400 | 2.0 m | Compact boom | Grab stick | 11.7 m | 9.4 m | Cab | Maxcab E300/260, hydraulically elevating and forward moving*
---|---|---|---|---|---|---|---|---

All load ratings are specified in tons (t) and apply at the end of the stick, without attachment, on a solid, level substrate. Attachments, such as grapple, magnet, load hook, et cetera are part of the specified load ratings. The specified values are 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567. In accordance with the EU standard, EN 474-5, material handling machines in hoist operation must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device. The specified load ratings apply for the machine supported with 4-point claw support and slewable 360°. The specified load ratings in square brackets [ ] apply with blocked pendulum axle, unsupported, free standing, slewable 360°.
### Orange peel grab SGM (4 shells)

<table>
<thead>
<tr>
<th>Design / size</th>
<th>Grab content</th>
<th>Weight¹</th>
<th>max. piled density</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shell shape</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HO G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGM</td>
<td>l kg kg t/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>400.40-4</td>
<td>400</td>
<td>1570</td>
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<td>1790</td>
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<td>800.40-4</td>
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<td>1930</td>
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<td>1000.40-4</td>
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<td>1755</td>
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<td>1250</td>
<td>1850</td>
<td>2200</td>
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<tr>
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<td>2490</td>
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<tr>
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<td>2345</td>
<td>2585</td>
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<tr>
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<td>2830</td>
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<tr>
<td>2000.50-4</td>
<td>2000</td>
<td>2660</td>
<td>3075</td>
</tr>
</tbody>
</table>

### Orange peel grab SGM (5 shells)

<table>
<thead>
<tr>
<th>Design / size</th>
<th>Grab content</th>
<th>Weight¹</th>
<th>max. piled density</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shell shape</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>HO G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGM</td>
<td>l kg kg t/m³</td>
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<tr>
<td>400.40</td>
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<td>3500.50</td>
<td>3500</td>
<td>3420</td>
<td>4140</td>
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</table>

### Clamshell grab SGZ

<table>
<thead>
<tr>
<th>Design / size</th>
<th>Grab content</th>
<th>Weight¹</th>
<th>max. piled density</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shell shape</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HO G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGZ</td>
<td>l kg kg t/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1500.50</td>
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<td>1950</td>
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</tr>
<tr>
<td>2000.50</td>
<td>2000</td>
<td>2200</td>
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</tr>
<tr>
<td>4000.50</td>
<td>4000</td>
<td>2880</td>
<td></td>
</tr>
</tbody>
</table>

### Magnetic plates

- Recommended magnetic generator 20 kW

---

*1 Weight information without grab suspension, stick bolts, hose system
*2 Half-open shells: Shell sheet steel 400 mm wide, from content 1250 l shell sheet steel 500 mm wide

---

Detail information concerning the grabs, as well as log grabs, quick-release systems, and other attachments is provided in the "Attachments" brochure.
Transport width 3000 mm with traveling gear telescoped

840 R with wide-gauge undercarriage R43/400, hydraulically elevating cab type E270

840 R with wide-gauge undercarriage R43/400, cab type E300/260, can be elevated and moved forward hydraulically

Technical data and dimension information subject to change.
840 R with wide-gauge undercarriage type R44/400, cab type E300/260, can be elevated and moved forward hydraulically

**Transport width 3000 mm with traveling gear removed**

**Transport dimensions 840 R with undercarriage type R43/400**

<table>
<thead>
<tr>
<th>Model</th>
<th>Load boom (m)</th>
<th>Grab stick (m)</th>
<th>Transport length (L) (m)</th>
<th>Transport height (H) (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K17</td>
<td>10.6</td>
<td>7.1</td>
<td>15.0</td>
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<tr>
<td>K18</td>
<td>10.6</td>
<td>8.0</td>
<td>15.0</td>
<td>3.65</td>
</tr>
<tr>
<td>B18</td>
<td>11.0 Banana</td>
<td>8.0</td>
<td>15.35</td>
<td>3.70</td>
</tr>
<tr>
<td>B19</td>
<td>11.0 Banana</td>
<td>9.4</td>
<td>15.3</td>
<td>3.65 m*</td>
</tr>
<tr>
<td>K20</td>
<td>11.7</td>
<td>9.4</td>
<td>16.2</td>
<td>3.40 m*</td>
</tr>
</tbody>
</table>

* Stick is dismounted

**Note:**

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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