Advanced. The E-Series.

What makes up the E-Series
- 60 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

Your top benefits:

1. **Green Efficiency**
   - Save 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 operating comfort**
   - Comfortable Maxcab operator cab – relaxed work
   - SENCON – SENNEBOGEN Control System

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

5. **Maintenance and service made easy**
   - Easy fault diagnosis – central measuring points
   - Easy maintenance – clear labeling

6. **Consultation and support**
   - 3 production sites – 2 subsidiaries
   - 120 sales partners – over 300 service stations
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 engine settings, reduced specific fuel consumption, state-of-the-art exhaust aftertreatment

Quiet operation
- Consistently quiet operation thanks to decoupled engine mounts and soundproofing in the doors
- Sound pressure level reduced by up to 4.5 dB; sound power 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 on-demand thermostatic control
- Charge-air cooler with mechanical drive
Maximum safety
- No-slip work surfaces
- Peripheral railing*
- 2 cameras to the right and rear
- Step grid with railing next to cab sliding door

Smart cooler technology
- Standard features: automatic, fast and strong fan reversal for blowing out coolers and continuous cooling capacity
- Side-by-side coolers, easily accessible and clean cooling technology
- Fuel savings through optimized fan operation

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

* Optional
Maxcab comfort cab
- Air-suspension comfort seat with heater
- Convenient joystick control
- Hinged front window
- Sliding door, platform in front of cab
- Color monitor for right-side and rear-facing camera feeds
- SENNEBOGEN OptiMode: Various modes to optimize performance

Platform with railing
- Safety when entering and exiting the cab
- Sliding door makes entering and exiting easy and safe

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

SENCOn
- Clear menu
- Determine operating values without the need for additional instruments
- Fast troubleshooting thanks to detailed messages
Maintenance and service made easy

Optimized for maintenance
- Fast and easy troubleshooting 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

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

Central reading points
- Easily accessible, central reading points
- Quickly inspect entire hydraulic system

Clear labeling
- All parts labeled with a unique part number
- Easy and reliable spare parts ordering
Modular design – versatile solutions

Attachments

- Multi-shell grab
- Double shell grab
- Magnetic plate
- Scrap metal shears
- Vacuum traverse

Equipment options (others available upon request)

Cabs

- Maxcab
- Maxcab Industry
- Mastercab

Cab elevation

- E270
- E300/260
- Skylift 700/900

Uppercarriage

- Diesel-hydraulic drive
- Electrohydraulic drive

Options

- Engine line drum
- Transformer

Undercarriage variants

- Mobile MP71
- Mobile MP80
- Crawler R83/450*
- Special crawler R83/490*
- Crawler gantry P136*
- Special mobile MS120
- 4-point underframe ST90/550

* Additional information on our crawler undercarriages can be found in the 860 R E-Series brochure
Reliable operation through robust and FEM-optimized equipment

Better illumination of the work area through powerful LED headlights*

Ideal overview and safe working height thanks to stable cab elevation

High load capacities even when fully extended, thanks to massive cylinders

Robust side cover Made of recyclable sheet steel

Safe entry and exit thanks to railings, grip handles and no-slip steps

High stability due to the broad outrigger area
SENNEBOGEN Green Hybrid Energy Recovery System

Save 30% energy with the Green Hybrid system

- A combination of hydraulic cylinders at the outrigger and nitrogen piston accumulators with gas recovers energy during the work procedure
- Use of the recovered energy during the next working cycle reduces the necessary engine power

Safety
- Use of standard hydraulic components
- Energy storage in the enclosed rear section

Reduce operating costs
- High quality components for a long service life and reliability
- Proven concept: successfully in use since 2013
- High efficiency of the system - already very effective in small lifting movements
Recommended grabs

<table>
<thead>
<tr>
<th>Design / size</th>
<th>Grapple capacity</th>
<th>Weight</th>
<th>Maximum load capacity</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Shell shape</td>
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<tr>
<td></td>
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SGM multi-shell grab (4 shells)

Double-shell grab SGZ

Magnetic plates

<table>
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<tr>
<th>Design / size</th>
<th>Grapple capacity</th>
<th>Weight</th>
<th>Maximum load capacity</th>
</tr>
</thead>
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<tr>
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<tr>
<td>4000.60</td>
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<td>3920</td>
<td>3920</td>
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</table>

Type series / model | Power | Deadweight | Breakaway force | Load-bearing capacity in kg
<table>
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</thead>
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<tr>
<td>WOKO</td>
<td>kW</td>
<td>kg</td>
<td>kN</td>
<td>Slab (safety factor 2)</td>
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<tr>
<td>S-RSL 17</td>
<td>17.0</td>
<td>2500</td>
<td>460</td>
<td>23000</td>
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<tr>
<td>S-RLB 15</td>
<td>11.7</td>
<td>2400</td>
<td>380</td>
<td>19000</td>
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<tr>
<td>S-RSL 17</td>
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<td>640</td>
<td>32000</td>
</tr>
<tr>
<td>S-RLB 19</td>
<td>22.0</td>
<td>5090</td>
<td>790</td>
<td>39500</td>
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</table>

Detailed information on grapples, as well as log grapples, quick-release systems, and other attachments can be found in the "Attachments" brochure.
**ENGINE**

- **Power**: 261 kW/355 hp at 1,800 rpm (Tier IIIa) / 268 kW/364 hp at 1,500 rpm (Tier IV)
- **Model**: Cummins QSL 12- Tier IV / Cummins QSM 11 - Tier IIIa
- **Cooling**: Water-cooled, cooler fan reversal
- **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**: 1000 l
- **DEF tank**: 110 l
- **Electrical system**: 24 V
- **Batteries**: 2 x 180 Ah, battery disconnect switch
- **Options**: Engine block heater, Diesel refueling pump, Jump-start terminals

**UPPERCARRIAGE**

- **Design**: Torsion-resistant box design, precision crafted, steel bushings for boom bearings. Extremely service-friendly design, longitudinal engine
- **Central lubrication**: Automatic central lubrication for equipment and slewing gear raceway
- **Electrical system**: 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, 360° uppercarriage railing for additional safety, LED lighting package, Fire extinguisher, Maritime climate varnish as corrosion protection, Electric heater for hydraulic tank, Low temperature package, Hydraulically driven magnetic generator 20 kW/25 kW

**HYDRAULIC SYSTEM**

- **Load sensing/LUDV hydraulic system, hydraulic 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
- **Delivery rate**: 2x 475 l/min and 1x 274 l/min for rotary drive in the closed circuit
- **Operating pressure**: max. 340 bar
- **Filtration**: High-performance filtration with long change interval
- **Hydraulic tank**: 900 l
- **Control system**: Proportional, precision hydraulic actuation of work movements, 2 hydraulic servo joysticks for the work functions, additional 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**: Bio-oil – environmentally friendly, ToolControl for programming the pressure/rate for up to 10 tools, Additional hydraulic circuit for shear attachment, Load moment warning with capacity utilization indicator, Overload safeguard with shutdown, 60 µm pressure filter for attachments, 3 µm hydraulic micro-filter - SENNEBOGEN HydroClean

**SLEWING DRIVE**

- **Gearbox**: Compact planetary gear with slant-axle hydraulic motor, integrated brake valves
- **Parking brake**: Spring-loaded multi-disk brake
- **Slewing ring**: External gear slewing ring with 360° protection and pinion gear lubrication
- **Slewing speed**: 0-5.5 rpm, variable
860E Technical data, equipment

Cab
- Hydraulically elevating cab E270
- Sliding door, excellent ergonomics, automatic climate control, heated, air-suspension comfort seat, fresh/circulating air filter, joystick control, 12 V/24 V connections, SENCON

Options
- Active seat climatisation
- Cab E300/260 can be elevated 300 cm and moved forward 260 mm hydraulically
- Cab adjustment Skylift 700
- Cab adjustment Skylift 900
- Auxiliary heating system with timer
- Cabs with active carbon filter
- Sliding window in operator door
- Armored-glass windshield
- Armored-glass sunroof
- Safety side window and rear window
- Floor window for a better view
- Rolling shade for roof window and windshield
- Protective roof grating
- FOPS protective roof grating
- Protective front grating
- Radio with speakers
- Enlarged industrial cab with undivided armored glass windshield
- Mastercab large area port cab with second seat

ATTACHMENTS
- Decades of experience. state-of-the-art computer simulation, highest level of stability, longest service life, large-dimensioned and low-maintenance bearing points, sealed special bearing bushes, precision-crafted, quick-release couplings on the connections - open/close/rotate grapple

Cylinders
- Hydraulic cylinders with high-quality sealing and guide elements, end position damping, sealed bearing points

Options
- Ball valves in the hydraulic lines for quick and easy grapple switching
- Maritime climate vanishing
- Maritime climate coating of all cylinders, nickel-plated and chrome-plated
- Float position of the equipment
- Adjustable hoisting limiter/stick limiter
- LED Lighting
- Camera on a stick

UNDERCARRIAGE
- Design: MP71 E mobile undercarriage with integrated 4-point outrigger system, hydraulic locking pendulum steering axle and pendulum axle cylinder with pipe fracture safety valves
- Drive: All-wheel drive powered by a variable-displacement hydraulic motor with direct-mounted, automatic brake valve and 2-gear power shift transmission
- Planetary axles with integrated steering cylinder and dual-circuit service brake
- Parking brake: Spring-loaded multi-disk brake
- Tires: Solid-rubber tires 14.00-24, 8
- Speed: 0–5.4 kph Tier I, 0–10 kph Tier II
- Options: Solid-rubber tires 16.00-25, 8
- Individual outrigger control for stability on uneven ground
- Traction drive protection
- Shunting coupler
- MP80: Solid rubber tires 23.5 - 25, 4-fach
- MS120: Solid rubber tires 23.5 - 25, 4-fach

ELECTRIC DRIVE
- Power: 250 kW, 400 V, 50 Hz
- Total connected load: 270 kVA, 500 A
- Machine side fuse (alternatively 630 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. 93,500 kg
- 860 M basic machine with K18 equipment and 3000 l multi-shell grab
- Notice: Operating weight varies by design.

Subject to change.

13
Load ratings

Machine shown reversed

All values are in tons (t) 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 360° on solid, level ground. Safe working loads include attachments such as multi-shell grapples, magnets, etc. According to harmonized EU standard EN 474-5, hydraulic excavators used for lifting must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device.

Undercarriage | MP71 | Compact boom | Dipper stick | 10.8 m | 7.8 m | Cab | Maxcab E270, hydraulic elevation feature
---|---|---|---|---|---|---|---
9.4 | 14.5 | 22.0 | 18.7 | 16.1 | 14.0 | 12.1 | 10.2
8.4 | 14.5 | 22.8 | 19.3 | 16.5 | 14.1 | 12.2 | 10.8
7.8 | 15.9 | 23.0 | 19.3 | 16.7 | 14.3 | 12.4 | 10.9
8.4 | 14.5 | 22.8 | 19.3 | 16.5 | 14.1 | 12.2 | 10.8
9.4 | 14.5 | 22.0 | 18.7 | 16.1 | 14.0 | 12.1 | 10.2
12.9 | 26.5 | 21.6 | 18.3 | 16.0 | 14.2 | 12.8 | 11.1
31.6 | 24.7 | 20.4 | 17.5 | 15.4 | 13.9 | 12.4 | 11.3
20.7 | 26.3 | 18.0 | 15.9 | 14.4 | 13.1 | 12.1 | 11.1
16.3 | 14.7 | 14.7 | 13.5 | 12.5 | 11.3 | 9.6
14.5 | 13.8 | 12.5 | 10.8
13.7 | 12.7 | 11.0
12.8 | 11.3
11.3

Technical features and dimensions subject to change.
All values are in tons (t) 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 360° on solid, level ground. Safe working loads include attachments such as multi-shell grapples, magnets, etc. According to harmonized EU standard EN 474-5, hydraulic excavators used for lifting must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device.
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Machine shown reversed

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Technical features and dimensions subject to change.
Load ratings

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Technical features and dimensions subject to change.
Load ratings

Machine shown reversed

<table>
<thead>
<tr>
<th>Undercarriage</th>
<th>MS120</th>
<th>Compact boom</th>
<th>Dipper stick</th>
<th>Cab</th>
<th>Mastercab Skylift 900, hydraulic elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pylon</td>
<td>3.0 m</td>
<td>13.8 m</td>
<td>10.2 m</td>
<td></td>
<td></td>
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</table>

All values are in tons (t) 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 360° on solid, level ground. Safe working loads include attachments such as multi-shell grapples, magnets, etc. According to harmonized EU standard EN 474-5, hydraulic excavators used for lifting must be equipped with pipe fracture safety devices on the hoist cylinders and an overload warning device.

Technical features and dimensions subject to change.
860 E Dimensions

860 M with MP71 undercarriage and Maxcab E270 cab with hydraulic elevation feature

860 M with MP71 undercarriage Maxcab E300/260 cab with hydraulic elevation and tilt feature

Technical features and dimensions subject to change.
860 M with MP71 undercarriage, 16.00 - 25 solid-rubber tires and hydraulic elevation cab Maxcab E300/260 and pylon 1.5 m

860 M with MP80 undercarriage and Sky lift 700 with hydraulic elevation cab Maxcab Sky lift 700 and pylon 2.5 m

Technical features and dimensions subject to change.
860 E Transport dimensions

860 M with MS120 undercarriage and Skylift 900 with hydraulic elevation cab Mastercab and pylon 3.0 m

860 M with MP71 undercarriage

<table>
<thead>
<tr>
<th>Compact boom</th>
<th>Dipper stick</th>
<th>Transport length (L)</th>
<th>Transport height (H)</th>
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<tbody>
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<td>B21</td>
<td>13.5 m</td>
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<td>K23</td>
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<tr>
<td>B23</td>
<td>13.8 m</td>
<td>10.2 m</td>
<td>18.60 m</td>
</tr>
</tbody>
</table>

Technical features and dimensions subject to change.

* Stick removed
Dimensions

MS 120 undercarriage

MP80 undercarriage

Detailed information on grapples, as well as log grapples, quick-release systems, and other attachments can be found in the "Attachments" brochure.
This catalog describes machine models, scopes of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines supplied 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. All product designations used may be trademarks of SENNEBOGEN Maschinenfabrik GmbH or other supplying companies, and any use by third parties for their own purposes may violate the rights of the owners. Please contact your local SENNEBOGEN sales partner for information concerning the equipment variants offered. Requested performance characteristics are only binding if they are expressly stipulated upon conclusion of the contract. Delivery options and technical features are subject to change. Errors and omissions excepted. Equipment is subject to change, and rights of advancement are reserved.

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SENNEBOGEN
Maschinenfabrik GmbH
Sennebogenstraße 10
94315 Straubing, Germany
Tel. +49 9421 540-144/146
Fax +49 9421 43 882
marketing@sennebogen.de

GO FOR GREEN

www.sennebogen.com