



Schaeffer

23e

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THE INNOVATIVE ELECTRIC LOADER

ELECTRIC LOADER

Emission-free, powered by lithium-ion technology

- **100 % emission-free:** no exhaust fumes, no noise
- **Efficient high-voltage technology,** hydraulics and drive each powered by their own electric motor
- **Standard or power battery pack:** hours of normal use, second pack can be retrofitted at any time, maintenance-free
- **Two charging options:** on board system, 230 V / 16 A or external system, 400 V / 32 A: **power battery pack can be charged up to 80 % in as little as 30 minutes!**
- **Battery life warranty:** 5,000 charging processes or 5 years, whichever comes first
- **Energy recuperation:** automatic charging of the battery, e. g. during braking processes
- **Significant savings:** reduced maintenance costs and lower operating costs compared to diesel machine or other battery concepts, due to better efficiency
- **No memory effect:** recharging possible at any time
- **Safe temperature regulation:** reliable water cooling of the entire system
- **20 km/h:** the only battery-powered yard loader with a top speed of 20 km/h
- **Hill-Hold function:** 'start up assistant' to make hill starts easier

Li-Ion 



Schaeffer

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EMISSION-FREE OPERATION – A BENEFIT IN MANY APPLICATIONS

The new electric loader 23e from Schäffer delivers emission-free operation: exhaust gases and noise are now a thing of the past. This is a significant advantage when working inside, but as animals, people and the environment all benefit from clean air and extremely low noise levels, the 23e is well suited to use in outside stables, barns, sheds, storage depots, warehouses and riding arenas too. The innovative water cooling system contributes to clean ambient air, and regulates the temperature of the electric motors, removing the need for an oversized fan and the associated dust and straw turbulence that comes with it.

From the outside, the electric loader is similar to the very popular 2345 diesel model, a 45 hp compact loader with an operating weight of 2.3 tonnes. The electric loader is also a match for its diesel counterpart when it comes to performance: tipping load and lifting height are almost identical for electric and diesel engines. Of course, existing tools can be easily used on the 23e. All other advantages which distinguish the proven loaders of the Schäffer 23 series are also standard. These include the maintenance-free articulated pendulum joint and the original Schäffer axles, which guarantee high thrust forces.

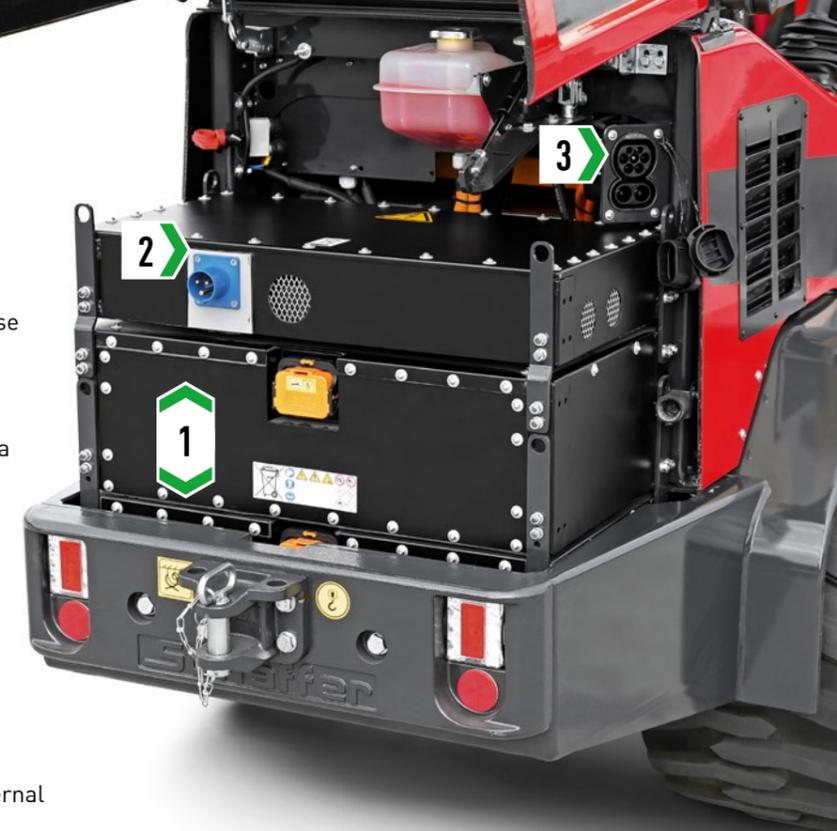
The 23e is the only electric loader to reach a speed of 20 km/h. The typical rapid acceleration of an electric vehicle comes as standard, powered by the 21 kW electric motor, which is responsible for the traction drive. It is flanged directly to the rear axle to ensure direct power transmission of the torque. The new 23e is a pleasure to drive and has all the technology and power needed to make light work of most tasks.



A FLEXIBLY DESIGNED CONCEPT

Two battery capacities and two charging options promise flexibility for daily use..

1. The 23e can be equipped with two lithium-ion battery packs. They work with a voltage of 260 V at a respective capacity of 6.7 kWh each. One package is sufficient for common farm work, the second can be retrofitted to double the operating time to up to five hours under normal use.
2. The on-board charger fitted as standard enables the battery to be charged using a 230 V / 16 A Schuko plug. It takes around 2 hours to charge each battery pack to 80%.
3. Alternatively, the battery can be charged by an external charging system with 400 V / 32 A power current. The charging time per battery pack is just 15 minute to charge to 80%!



MAXIMUM EFFICIENCY – MINIMUM CHARGING TIMES THANKS TO INNOVATIVE LITHIUM-ION TECHNOLOGY

When developing the 23e electric loader, achieving maximum energy efficiency alongside emission-free operation was of real importance.

All components of the drive system are perfectly matched to the electric drive. Together with the lithium-ion battery, the loader achieves an efficiency about three times as high as that of a comparable diesel engine. This means that only one third as much energy is needed to operate the machine. Maintenance of the electric motors and battery takes considerably less

effort too, which further reduces the costs per operating hour. If there's a biogas plant or a photovoltaic system at the site of operation, the 23e will be even more economical to use.

The use of lithium-ion technology makes the 23e a real innovation. The customer receives a guarantee of 5,000 charging cycles or five years of use, whichever comes first. It can be charged at any time without affecting the lifetime of the batteries - another advantage of lithium-ion technology.

23e as standard

- Electric motor drive: 21 kW; electric motor working hydraulics: 9.7 kW
- Electric four wheel drive with cardan shaft
- On board charging device 3 kW / 230 V / 16 A
- Battery management system
- Energy recuperation
- Hill-Hold function: 'start up assistant' to make hill starts easier
- Tyres 10.0/75-15.3 AS offset +40
- Quick gear 20 km/h with eco mode
- Genuine Schäffer axle
- Water cooling of electric motors and converters
- Maintenance free articulated pendulum joint
- Multiple disk brake, maintenance free; service and parking brake
- Restraining system for protection roof
- 1 x LED working headlight front
- Parallel lift
- SilencePlus gear pump, particularly quiet
- Working hydraulics: 42 l/min, demand responsive and extra sensitive
- Electronically operated additional controller incl. locking catch and volume control via potentiometer
- Adjustable steering column
- Main battery switch, 12 V
- Hour meter, range display and charging status display
- Rear weight end plate
- Quick-change frame SWH with hydraulic tool lock

Technical data 23e

Operating weight	2,300 kg	Turning radius	835 mm
Driving speed	0 - 20 km/h	Lifting height (tool pivot)	2,880 / 3,110 mm (option)
Length with standard bucket	3,880 mm	Lifting force	1,700 kg
Width	1,020 - 1,570 mm	Tipping load, straight (pallet fork)*	1,048 - 1,321 kg
Height over protective roof	2,215 mm	Tipping load, straight (bucket)*	1,250 - 1,578 kg

* acc. to ISO 8313 (boom horizontal)