

MAUS 6



ROPA



Outstanding productivity at the lowest cost

- Advanced technology for professional use
- High reliability – sturdy construction, years of experience
- Faster automatic folding
- Low wear and operating costs
- Completely networked for effective administration and prompt service
- Durable and with excellent residual value

Premium class workplace

- 4 Comfortable driver's seat
- 5 Operating components and joysticks
- 6 Height-adjustable cabin with panoramic view
- 7 12.1 inch R-Touch display, intuitive operation
- 8 Underfloor heating and park heating
- 9 Powerful LED lighting
- 10 R-Connect telematics
- 12 Compact on the road
- 13 Digital cameras and R-View video system
- 14 10.2 m pickup system
- 14 Automatic folding
- 15 Long life due to hard coating
- 16 Recleaning
- 17 Water spray system
- 18 Weighing system with CAN bus weighing cells
- 19 Optimum balance
- 20 Service-friendly and easy to maintain
- 21 Diesel engine and hydraulic system
- 22 Technical data





First class driver's seat

Significantly larger cabin with new interior

The newly designed panoramic cabin gives a generous feeling of space and can be raised to 5.10 m in the working mode for convenient operation and excellent visibility. Compared to the Maus 5, the cabin of the Maus 6 is 16 cm wider, 40 cm longer and, with an enormous total volume of 4,400 l, offers 1,125 l or 35 percent more space and room. Thus, it is the largest cleaner-loader cabin on the market. It now offers more room also for a foldable passenger seat, e.g. for a supervisor or for coordination in case of a driver change.

A pleasant and user-friendly interior of the new cabin in combination with the excellent sound insulation guarantees the most comfortable operation. Digital DAB radio with Bluetooth and hands-free set are installed as standard.





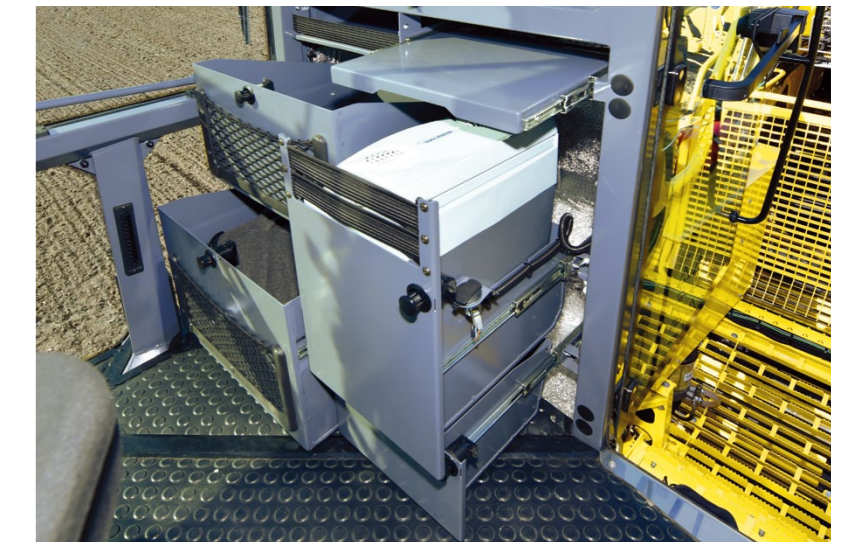
Height-adjustable cabin with panoramic view

New computers, joysticks and two 12.1-inch displays for even more intuitive and user-friendly operation

The driver's rotating seat with integrated seat ventilation and seat heating is the visual manifestation of leadership in technology and the breakthrough into a new era of networking in the harvest loading. Improved ergonomics thanks to two new joysticks with additional functions, a height-adjustable steering column and terminals perfectly positioned in line of sight. Additional operating terminals for beet logistics can be installed next to the ROPA terminals at an optimum viewing angle.

The integrated storage space in the rear wall of the cabin has also been significantly increased. The new cabin has a lot of practical drawers and, for the first time, a cooling box and an additional shelf (for snacks or sandwiches).

Sun blinds on all windows and two wipers on each side window provide the best visibility in any weather conditions. The window wipers run synchronously and can be switched conveniently on the R-Touch display to work either in adjustable intervals or permanently.



Maximum warming comfort

Underfloor and park heating as standard

The heating concept has been completely redeveloped to ensure a pleasantly warm workplace even in frosty weather with temperatures below freezing. A high-performance underfloor heating system ensures that your feet are always warm. Pipes with larger cross-section were used

to increase the flow rate of hot water to the cabin and to the air heat exchanger. Moreover, there is an optimised park heating for the cabin, hydraulic oil and engine with a convenient user interface on the R-Touch display for the entire air conditioning system. The park heating on the Maus 6 can also

be switched on or preset remotely via the myROPA online portal and R-Connect, so that the driver will find a warm workplace when he gets into the vehicle.



Powerful LED lighting

Perfect illumination - safe operation

The LED light package enables perfect illumination of the entire working area. Single or all working lights can be switched on by the tap of a finger on the R-Touch display. Three individual lighting configurations can be saved and activated at any time. Three factory-installed free connector plugs, which can be switched via the Lighting menu, for easy installation of up to 6 additional LED spotlights to meet individual requirements.



Extremely powerful fully LED working lights turn night into day and make operation even safer.

R-Connect

R-Connect telematics module and remote diagnostics as standard equipment



The ROPA Maus 6 is connected to the myROPA portal as standard via powerful telematics hardware and SIM card. The telematics module is thus the basis for proactive Service 4.0, particularly for predictive analytics and fast assistance and diagnostics on any continent. If service is required, the service technician can link directly to the terminal and the machine controller to assist the driver with resolving the problem.

The R-Connect dashboard shows the current status of the machines and the daily output. The location, road travel along and current loading progress of the machines can be seen in the individual view along with detailed data. For machines with weighing device, weighed loads are transmitted individually, including the associated machine data, to the R-Connect portal, where they can be viewed, evaluated and downloaded by the machine schedulers.



R-Connect offers drivers and schedulers numerous options for machine and fleet optimisation. Now, the scheduler can be present virtually "live" on the machine with the help of online facilities. A diesel supplier, for example, can also be granted access to the current location of the machine and the fuel level as well as AdBlue level. The ROPA R-Connect online portal can be opened via a web browser on any device (PC, tablet, smartphone).

Compact on the road

Preparation without leaving the cabin

On roads, the complete Maus 6 folds in automatically **to a road width of 3.00 m** and a total length of only 14.97 m with just one control element in the cabin. The large wheel base of 5.5 m combined with two hydraulically sprung additional axles guarantees safe handling of the sturdily constructed loader while maintaining the best driving comfort even at the speed of 40 km/h. The new intelligent main steering switch activates simultaneously the automatic centre positioning of the rear axle steering.



Keep an eye on everything with R-View

High-resolution digital cameras as standard

The Maus 6 has high-resolution digital cameras as standard. The image quality of the digital cameras is significantly better, and an additional Ethernet network is integrated into the machine to handle the resulting greatly increased volumes of data. The Maus 6 now comes with a central mark camera and a rear view camera as standard. The additional cameras on the truck conveyor and the reclaimer, as well as the new **R-View with the back run camera and two additional side cameras** for rear area monitoring, can be ordered optionally.



R-View with rear view camera and two side cameras. Each camera can be zoomed in to full screen at the touch of a finger.



Pickup

10.2 m wide pickup system with flexible cleaning adjustment

The robust pickup system has a total of 18 cleaning rollers for efficient soil and weed removal. It is the widest pickup system of all cleaner-loaders on the market. Depending on the level of cleaning required the cleaning path in the pickup system can be adjusted in length and intensity from the driver's cabin. The Maus 6 can be folded out and in fully automatically and even more quickly with a toggle switch.



Separate drives for 3 groups of rollers with individual rotational speed adjustment and automatic reversing for stone protection. All rollers are hard-welded as standard.



Automatic folding



The central mark with its replaceable cone and a split cap has a free-of-play drive designed with conical bearing and automatic lubrication.



Wear-resistant, replaceable pickup fingers with carbide plate, cleaning rollers with forged octagonal discs and hard coating.



Pile pickup and residual beet pickup with angled corners and reinforced rubber lip.

Made for permanent use - significantly less wear and tear

The annual operating capability of loaders is constantly increasing. Many machines operate in 24 hours shifts, and time for maintenance and parts replacement is limited and expensive. ROPA has once again improved the heavy-duty parts using extra durable components.

All pinch rollers are made of seamless cold-drawn, extremely rigid special pipe, with a diameter of 138.5 mm and 8 mm wall strength. Cleaning and pinch rollers (3-seam) are hard-welded as standard. The conveyor rollers are threaded on the outer sides in the inside

direction, and have conveyor wedges to transfer beets gently to pinch rollers. Dropping wedges are situated at the inner end of the pinch rollers in the transition to the infeed conveyor to protect the beet and reduce the wear and tear at the roller ends.

Recleaning

The intensity of cleaning varies depending on the soil properties and the region of use. ROPA offers a proven and reliable solution for any demands.



Continental web conveyor recleaner

900 mm wide continental web conveyor, 40 mm pitch, stepless speed adjustment (0-3 m/sec), automatic detection of blockages.



Pinch roller recleaner

8 counter-rotating pinch rollers with hard coating, adjustable beet brake to regulate the cleaning intensity, stepless speed adjustment, automatic reversal in case of blockages, rollers identical in construction to pickup pinch rollers.



Stone remover

Continental web conveyor followed by roller cleaner, 10 PU cleaning rollers + 2 stone remover rollers, variable speed adjustment for cleaning rollers, variable adjustment of speed and direction of rotation for sprung stone remover rollers.



Water spray system



The operation of the water spray system has become even more plain and user-friendly and can be switched between automatic and interval mode.



The water spray system moistens the rollers in order to increase the sliding properties in dry conditions and thus protect the beet.

With extremely sticky soils, wetting the rollers helps to prevent soil adhesion.

Integrated weighing system

Weighing system with CAN bus weighing cells

ROPA has also completely redesigned the belt scale system. And integrated a weighing frame into the truck conveyor articulation part by means of a new mechanical construction. Thanks to two CAN bus weighing cells, the wiring on the truck conveyor can be significantly reduced and the computer unit can be relocated to the safe central electrics cabinet. It increases operational safety and provides even more accurate weighing results.



Optimum balance

Unique counterweight concept

The counterweight arm, specially developed by the company's founder Hermann Paintner, is made of special 700 fine grain steel and contributes to the impressive performance of the ROPA Maus 6 during loading whilst maintaining utmost stability. The counterweight arm is up to 9 m long and 4 m high and can

be swung out together with the fuel tank, which serves as a counterweight to the truck conveyor, thus ensuring optimum balancing of the machine even at full 15 m overloading width.

The weight of the loader is taken up by the counterweight arm at the machine centre,

MAUS 6

leaving the frame almost unstressed. An absolutely safe and horizontal position and optimal traction on all 4 wheels are essential features of the ROPA counterweight concept, field-proven over 600 times.



Machine construction in perfection

Service-friendly and easy to maintain

The main frame consists of laser-welded, angled profile tubes made of 700 fine grained steel and offers very high stability. All components are functional, transparent and maintenance-friendly.

A new design of the entire electrical system and optimised hydraulic system for increased operational safety and ease of service.

The various detailed solutions, e.g. neatly arranged and optimally accessible central electrics, reversible and swung up cooling fan, easy-to-maintain air filter, fuel filter monitoring, fuel prefilter with heating etc. contribute to the highest possible performance at the lowest maintenance need.

Electronic data recording, fuel consumption gauging, air-conditioning, rear view camera and central lubricating system are part of very comprehensive standard equipment of the ROPA Maus 6. An optional toolbox made of V2A at the rear provides additional generous storage space.



Engine

Mercedes-Benz engine

The extremely economical Mercedes Benz OM 936 LA engine of 260 kW / 354 hp with 7.7 l volume capacity, 2-stage turbocharging, 1,450 Nm max. torque at 1,200 - 1,600 rpm (exhaust gas category EU V) is integrated in the most efficient drive concept. It is automatically driven at reduced engine rpm during loading, while at the same time preserving enough power for extreme conditions.

Efficient hydraulic system enables rotational speed reduction

The hydraulic system with optimised gear/revolution transmission provides efficient power transfer. It combines high throughput with very low fuel consumption at very quiet 1,200 rpm during loading. Powerful load-sensing hydraulic system ensures the highest possible hydraulic fluid capacity and a prompt response of the entire operating hydraulics even at idling speed. **An automotive mode for diesel engine speed control during loading.** It contributes to fuel saving, as the lowest possible engine speed is automatically set according to the speed specifications of 6 separate roller and continental web conveyor drives.



The Mercedes-Benz OM936 engine is driven at strongly reduced engine rpm during loading (possible from 1,150 rpm), while enough power is preserved for extreme conditions.



Quick and easy diagnostics

All components are conveniently and safely accessible. The fully integrated in the R-Touch display diagnosis system enables fast and optimal service.



Technical Data of ROPA Maus 6

Diesel engine:

Mercedes Benz 6 cylinder row engine OM 936 LA with AdBlue, SCR-Cat and particle filter, 7.7 l volume capacity, 2-stage turbocharging, 1,450 Nm max. torque at 1,200 rpm with exhaust gas category EU V and 1,400 Nm max. torque at 1,200 rpm with USA Tier 4f, fully electronic steering with fuel consumption assessment shown at the R-Touch display, temperature-dependent controlled and automatically reversible hydrostatic fan drive, one flat belt drive with automatic belt tightening, wear-free constant throttle brake prevents over-revving of the diesel engine, automatic engine shut-down in case of operating condition leading to damage, engine diagnostics integrated into the R-Touch display, fuel tank of 1,225 l, AdBlue tank of 95 l, electronic pump for fully automatic ventilation of the fuel system

Traction drive:

continuous hydrostatic (Bosch-Rexroth) 4-gear OMSI gearbox for 2 OMSI planetary steering drive axles, traction drive pump can easily transfer more than the complete diesel engine performance, 2 separately adjustable differential locks with automatic function, automatic all wheel switch, cruise control, automatic driving at reduced rpm, load control via highly sensitive steering in crawl gear, front axle with drum brake 500x180 Duplex, rear axle with drum brake 500x120 Simplex, 4 spring-loaded actuator brake cylinders for operation and parking brake, driving speed 32 km/h, 40 km/h optionally with 2 traction motors

Cabin:

adjustable in height up to 5.1 m, sound-proof cabin with panoramic view, all-round tinted glazing and low horizon,

R-Concept control panel at the rotating seat, two 12.1 inch R-Touch displays with additional R-Select und R-Direct operating system, 2 multi-functional joysticks with integrated mini-joysticks, air conditioning with underfloor and park heating, air-cushioned rotating seat ROPA Evolution from GRAMMER with seat heating, active ventilation and rotation brake, cup holder at the swivel seat, clear display of the beet flow with load factor of the individual drives on the R-Touch display, diagnostics menu integrated in the R-Touch display, AM/FM/CD/USB/Bluetooth/DAB+ radio with external microphone for hands-free system, base console for telephone, foldable additional seat, rear cab wall with pull-outs for extensive storage space with cooling box and an additional shelf, seven windscreen wipers on front window, doors and all side windows, all windscreen wipers with synchronous operation, interval control and washing system, sun blinds on all windows, 2 LED interior lights, video system with digital cameras and 12.1 inch R-Touch display, foldable, heated and electrically adjustable exterior mirrors

Operating drives and hydraulic system:

OMSI pump distributor gears (PDG), pressure circulating lubrication, with gear oil cooler, adjustable transmission ratio for reduced engine revolutions by loading from 1,150 rpm, automotive mode to control the diesel engine speed during loading operation, power-shift multiple disc clutch to switch 6 hydraulic pumps of the operating drives ▷ thus, easier start of diesel engine also at very low outside temperature;

- 4 axial-piston pumps (Bosch-Rexroth) for continuous and separate rotating speed adjustment and reversing

of roller drives (pickup, out and in flow, additional cleaning);

- 2 axial-piston pumps (Bosch-Rexroth) for continuous drive of infeed and truck conveyors;
- 1 Load-Sensing axial-piston pump (Bosch-Rexroth) to feed all hydraulic cylinders, all the movements are performed at the same time by LVS directional valves with flow dividing principle;
- 1 axial-piston pump (Bosch-Rexroth) for reversible fan drive (hydraulic oil, water, charge air coolers);
- hydraulic motors from Danfoss

Steering:

front axle steering, rear axle steering, all-wheels steering, main steering switch activates automatic mid-positioning of the rear axle

Turning radius: 9.90 m inside

Cleaning and loading capacity:

up to more than 560 tons pro loading hour

Pickup system:

maximal pickup width 10.2 m, ROPA roller-pickup with 18 rollers, split into 3 separately driven units (each drive has a continuous revs. control and automatic reversing for all rollers in the case of stone clamps (patented pickup system)

1. Pickup:

2 carbide tipped finger rollers operate up to a depth of 7 cm, 2 hard-coated cleaning rollers.

Finger rollers: The highest service life due to integrated tapered roller bearing and slide ring sealing.

Cleaning rollers: 8-corner disks consisting of forged half-shells.

2. Outward flow:

6 hard-coated conveyor rollers transport outward, divide the beet flow. Integrated, adjustable tapered roller bearing guarantees lifelong operation of the roller without replacement of bearing.

3. Inward flow:

8 counter-rotating pinch rollers with hard coating convey inwards ▷ thus, double cleaning path; all pinch rollers made of seamless cold-drawn, extremely rigid special pipe, Ø 138.5 mm, 8 mm wall strength; central mark with proven, free-of-play drive; automatically adjustable rotational speed matching conveyor rollers, slow running for low wear and tear of the central mark cap; protection valve against safety chains tearing off (when not hanged off); telescopic and proportionally controlled residual beet pickup (external telescopic tube 180x180x5mm), digital camera and R-Touch display for pickup depth monitoring; de-icer in pickup centre and side parts

Infeed conveyor:

80 cm wide, 50 mm pitch with specially designed PU fingers and soil deflectors, double profile belts, with rotational speed control and quick motion switch (doubles the conveyor speed) for continental web conveyor self-cleaning in case of heavily sticky soil, 15 mm steel wear-resistant side walls, open frame construction (Y-frame) so that soil from infeed conveyor ejection does not remain on the main frame

Recleaning:

Standard: continental web conveyor, 90 cm wide, 40 mm pitch

Optional:

- pinch roller cleaning with 8 counter-rotating rollers, 1,150 mm inner width, 1,300 outer width, rollers are constructively identical to pinch rollers of pickup;
- stone remover, combination of continental web conveyor followed by roller cleaner (10 PU cleaning rollers + 2 stone remover rollers), variable speed adjustment for

cleaning rollers, variable adjustment of speed and direction of rotation for stone remover rollers.

Truck conveyor:

80 cm wide, 40 mm-pitch, with rotational speed control and quick motion switch, reversible and interchangeable side walls made of wear-resistant 15 mm thick PU plates, backstop

Overloading height: up to 6.0 m

Overloading width: up to 15.0 m

Counterweight arm:

9.02 m length, 6 m up to articulation point, bottom plate in fuel tank of 15 mm steel

Total cleaning area: approx. 35 m²

Maximum cleaning path: 31.7 m

Electrics:

24 Volt, generator of 150 amps, electronic main battery switch with automatic shut-off after ignition OFF for 5 days Outlets

In the seat console: 1 power socket 12V, 1 socket 24V, 1 USB double socket 5V/3.6A (USB-A and USB-C)

In the roof console: 2 USB double sockets 5V/3.6A (USB-A and USB-B)

In the engine compartment and at the rear: each has a socket of 24V

Diagnostic system for all sensors and actuators integrated in both R-Touch displays, warning signals are shown as symbols with text in the corresponding language, software updating via standard supplied USB ports, long-life, water and corrosion protected construction of on-board electrics, use of exclusive, individually protected plugs (AMP, Deutsch), wiring of central electric system with WAGO-spring tightening clips (vibration proof), 3 identical Hydac-TTC controllers (interchangeability if pin is not assigned!), cable harnesses with heavy-duty thread protection

Lighting:

- Hella C140 LED main headlights at the front, 2 pcs.
- Hella LED Oval 90 LED working headlights (1,700 lumen each) on the cabin roof, 11 pcs.

- Nordic Lights Scorpius GO 420 LED working floodlights (1,800 lumen each) on the machine, 13 pcs.

- Hella RotaLED Compact LED rotating beacons

Driving on roads and operating mode:

with a single operating component you can switch automatically from road drive mode into operating mode in a good minute

Dimensions during road driving:

Length: 14.97 m; width: 3.00 m; height: 4.00 m
Empty weight with full fuel tank from 30,400 to 31,600 kg depending on equipment, permitted total weight: 32,000 kg, 4-axle

Tyres:

front and rear axles with Michelin 710/75 R34 MegaXBib2 (outer width: 3.00 m), optional Michelin IF 800/70 R32 CerexBib2 (outer width: 3.26 m).
Two hydraulically sprung additional axles with 235/75 R17.5 tyres

Standard equipment:

back run camera, depth-control camera, central lubrication system, automatic climate control with park heating and underfloor heating, comfort seat with seat heating and active ventilation, AM/FM/CD/USB/Bluetooth/DAB+ radio, 2 USB interfaces, Hella LED road lights, electrically adjustable mirrors, on-board tools, all rollers are hard-coated, pickup rollers with Widia pickup fingers

Additional equipment:

pinch roller recleaner with 8 counter-rotating, hard-coated pinch rollers, stone protection consists of a continental web conveyor followed by roller cleaner, 10 PU cleaning rollers + 2 stone remover rollers, water spray system for pinch rollers and recleaner with 400 litre water tank, Duo water spray system for pinch rollers and recleaner with 400 litre water tank (2 valves for each pickup side part, extended number of nozzles on pickup, 2 valves on pinch roller recleaner), truck conveyor digital camera, recleaner digital camera, R-View with two additional side cameras for rear area monitoring, console on steering wheel, CAN interface with USB transformer for TMS device, maximum speed of 40 km/h with 2 traction drive motors, storage compartment 1,000x600x600 mm behind rear axle, made of V2A; weighing system with CAN-Bus weighing cells

Made in Germany. - Corresponds to TÜV, Trade and CE regulations. Subject to technical changes.



ROPA Fahrzeug- und Maschinenbau GmbH
Sittelsdorf 24 · DE-84097 Herrngiersdorf
Tel. +49 87 85/9 60 10

 facebook.com/ROPAmaschinenbau
ropa-maschinenbau.de