



TIGER 5

ROPA

Superior class.

The new superior class.





- ✓ innovative and field proven
- ✓ harvesting the entire beet crop
- ✓ excellent reliability – robust quality construction
- ✓ **long lasting and of stable value**
- ✓ new chassis - more operational safety in wet conditions, increased traction and stability
- ✓ levelling on slopes and higher driving comfort
- ✓ new cabin of easier operation
- ✓ large tank capacity – high daily performance
- ✓ reduced fuel consumption
- ✓ less wear and tear
- ✓ **more soil protective**

Significantly larger ground contact area for sustainable soil protection

The increased and soil-conserving tires of the new Tiger make him look mighty big and imposing. Good soil protection is maintained by the new 800/70 R38 Ultraflex tires at the front and 1050/50 R32 Michelin MegaXBib at the rear axles even with full bunker of about 43 m³ / 30 t. The soil is protected and damping characteristics are improved at the same time.





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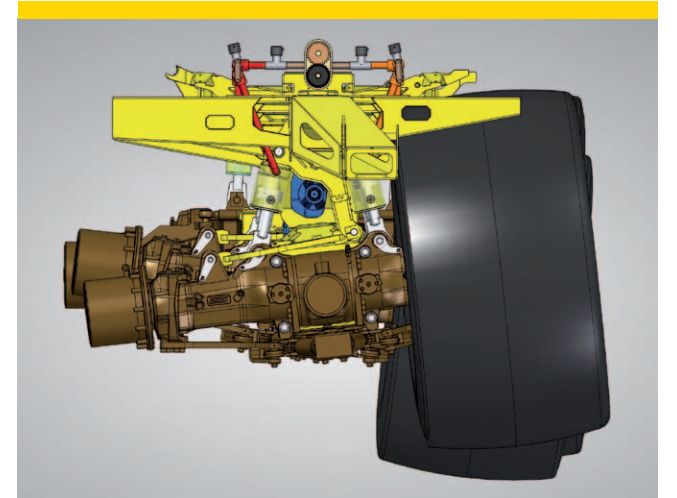
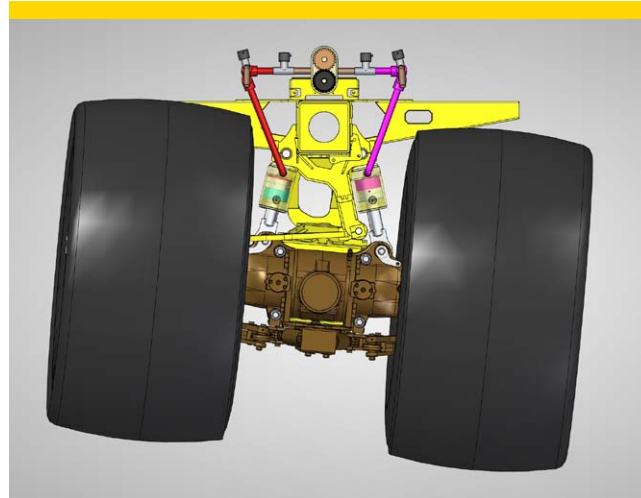
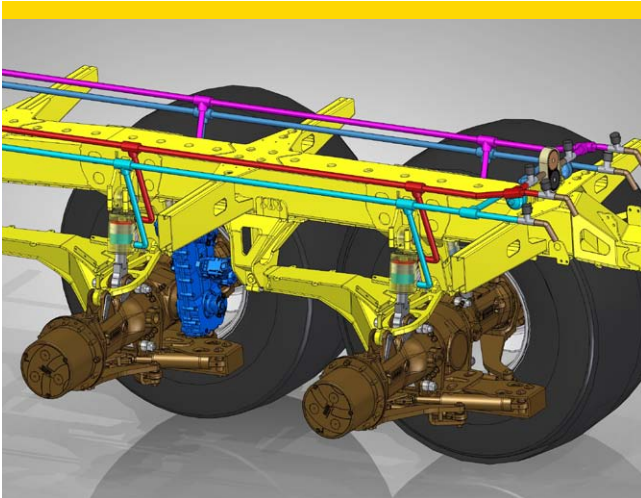
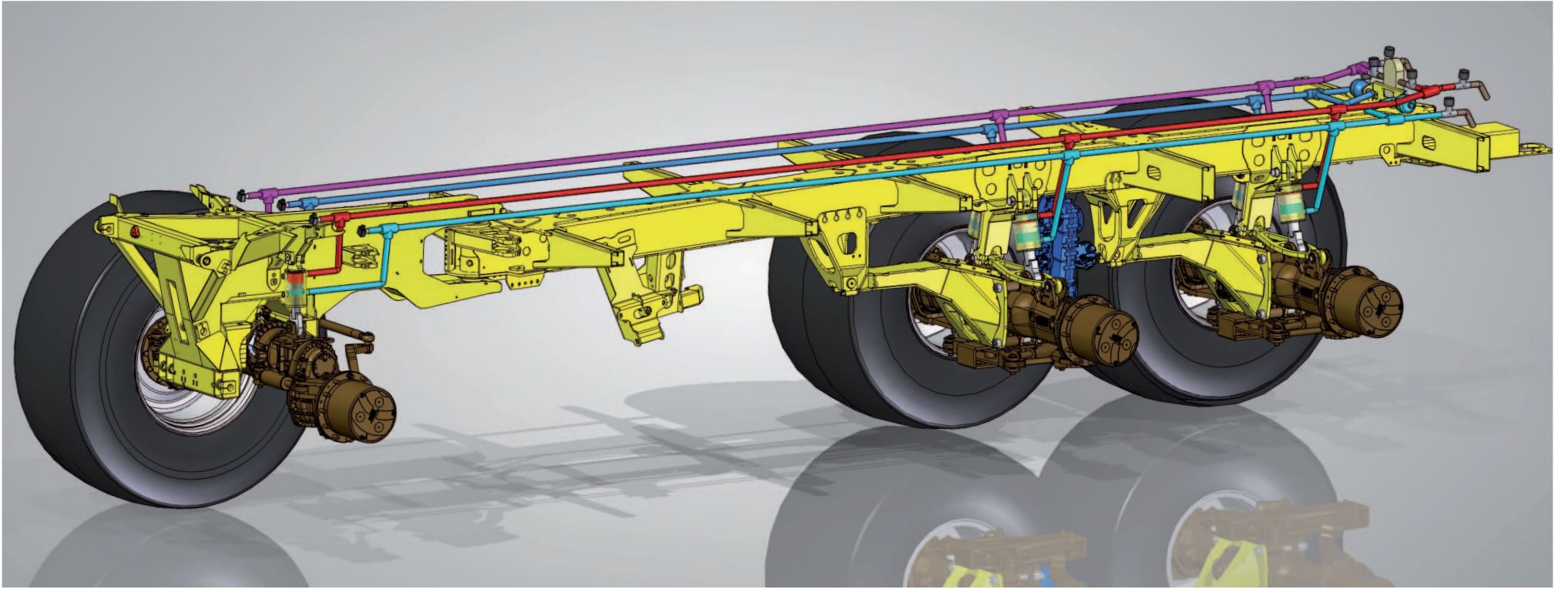
TIGER

Fahrzeug schert aus!

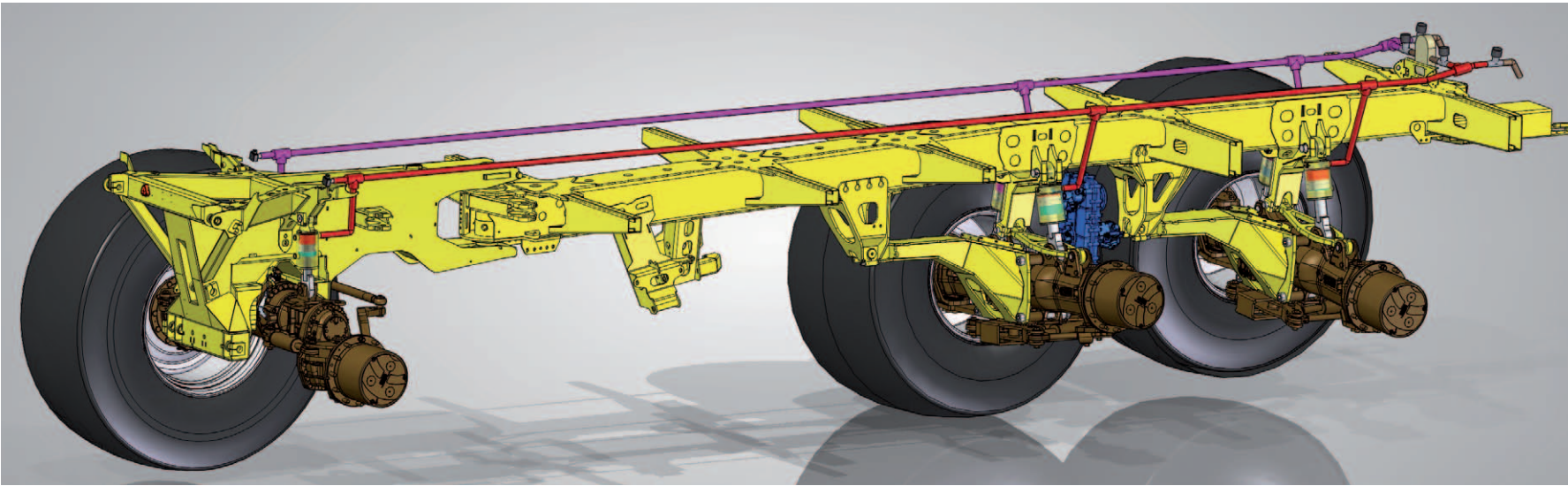
Hydraulic chassis system - roll stabilization with fully automatic wheel load and slope compensation

Specifically for the Tiger 5, ROPA has developed an innovative chassis concept with an oscillating front axle in conjunction with two hydraulically supported rear axles. Compared to previous chassis of 3-axle beet harvesters (the central axle is fixed to the frame) this reduces the sway of machine by one third! It is caused by hydraulic connection of stabilization cylinders at the front and rear axles of the one side, so that the ground unevenness at the wheel in level difference affects the frame only to 33 per cent - roll stabilization of the chassis. Thanks to the reduction of the chassis swing, the row and depth control is improved simultaneously, as the frame is averaged to the position of three axles. The hydraulic connection of the axles distributes the load always equally.

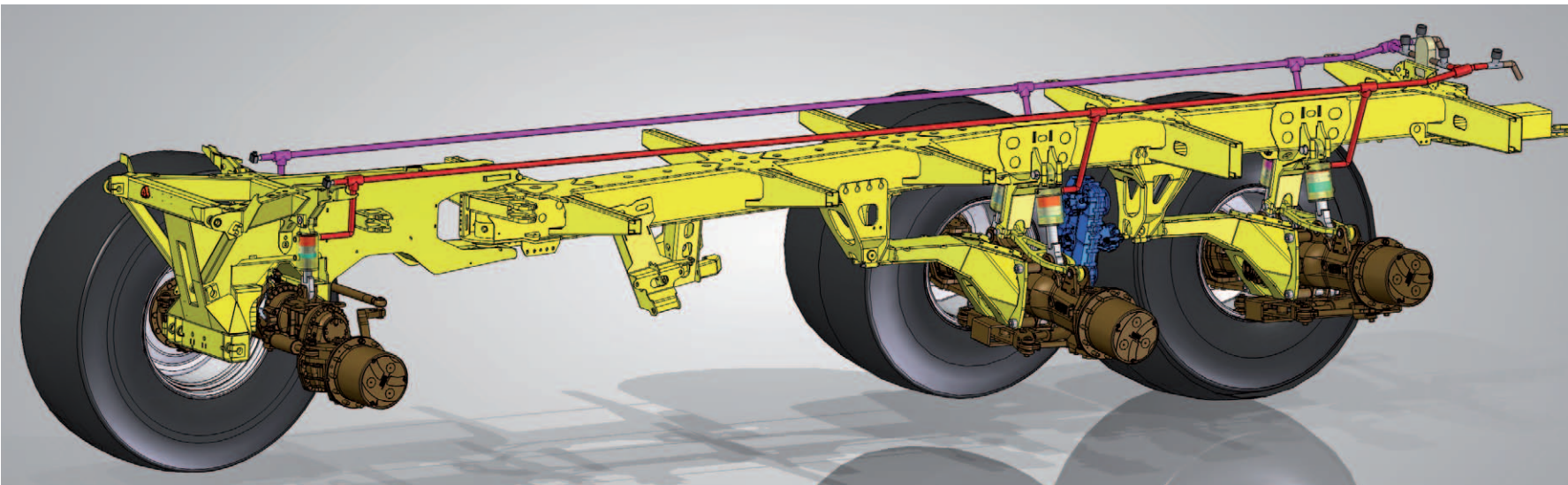




Very large swing angle of the axles



No twisting of the main frame, also at oblique crossing of edges or ridges





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TIGER 5

Achtung, Fahrzeug schiebt aus!




Slope compensa

Unique among 3-axle beet harvesters is the automatic levelling system using six hydraulic cylinders and sensors. The entire vehicle is inclined to the slope by 10 % and thus held horizontally,

10%
left

tion up to 10%

the lifting unit runs itself scanning the soil surface. The slope stability is highly improved, even in extreme situations, the Tiger itself keeps stable where other harvesters would tip over.



10%
right

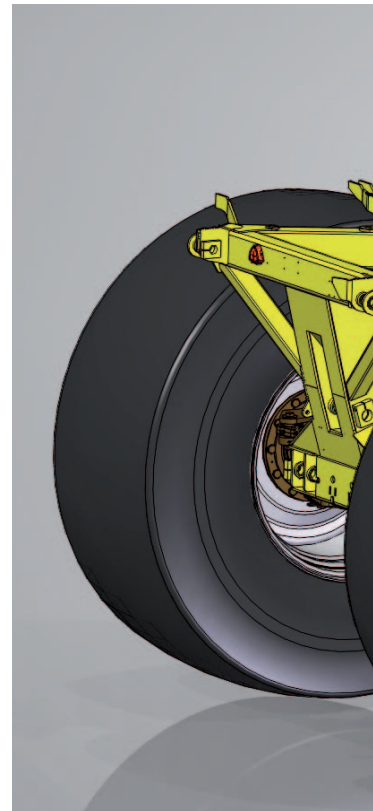
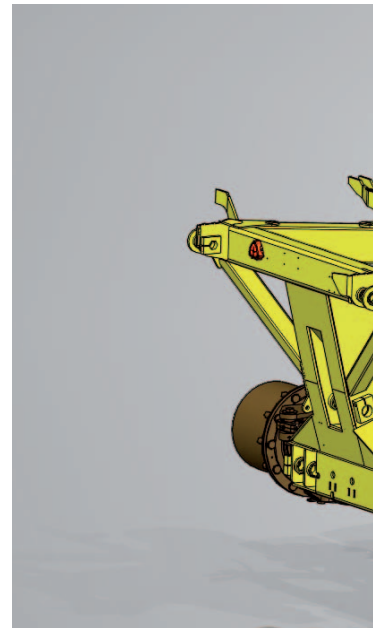


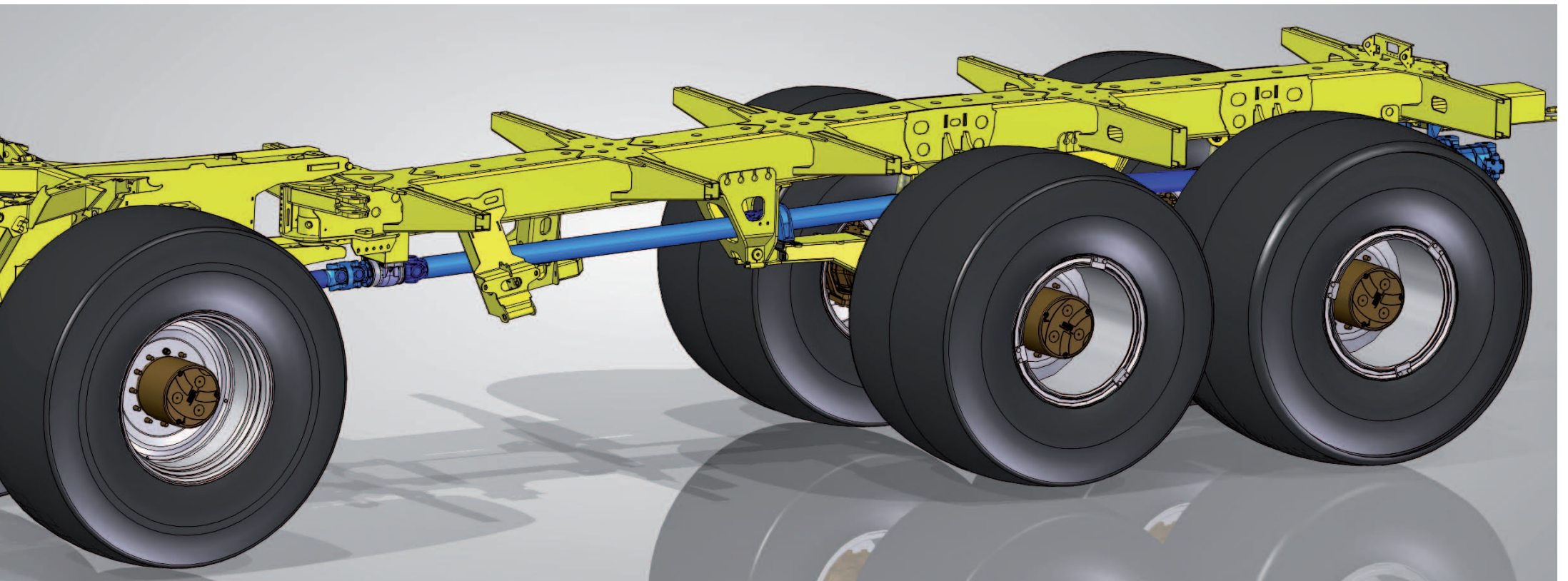
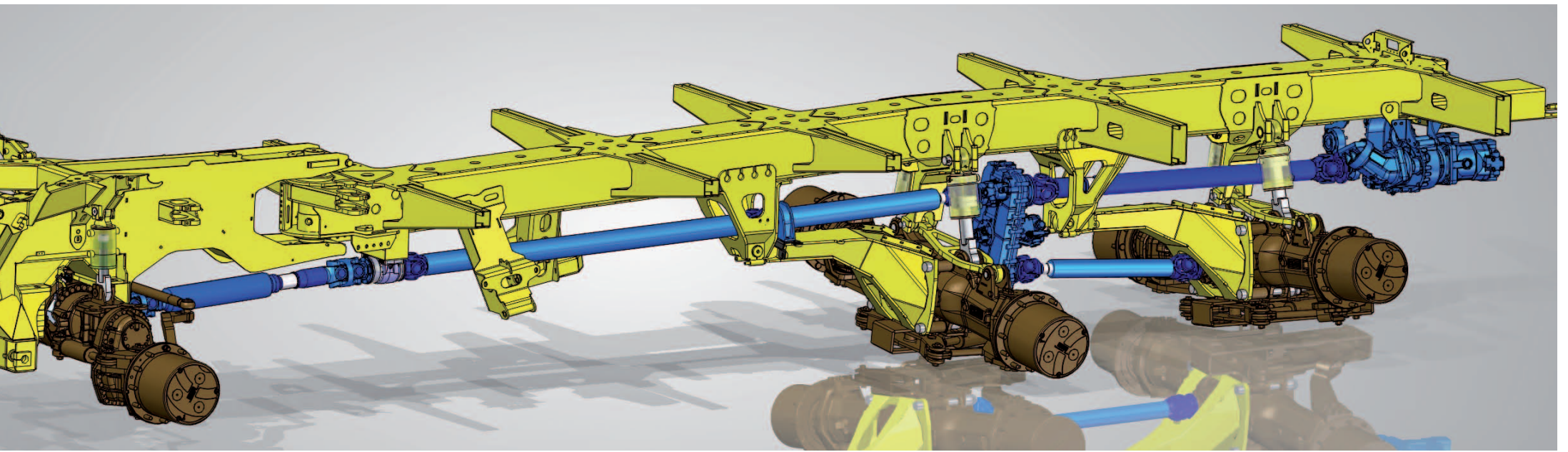
Stepless CVR gearbox for efficient power transfer

This new stepless traction drive was specifically developed by ROPA, Omsi and Bosch-Rexroth for the Tiger 5 and its high driving power. The „Constant variable ROPA“ gearbox (CVR) consists of three hydraulic motors on the compound gearbox and is located between the engine compartment and the third axle.

Direct power transmission with cardan shafts ensures a very high torque on all wheels

As a unique selling proposition on the market of 3-axle harvesters, the Tiger has a direct power transmission via directly linear situated cardan shafts from traction drive to the both rear axles and the front axle, which is a great advantage for better traction in changing or difficult soil and harvesting conditions. Thus, lead or lag between the axles are consistently excluded.





Master of extreme terrain





ROPA defoliator PES

The both hydraulically driven defoliation rotors can be adjusted in rotational speed and height independently from each other - unique!

Various settings can be stored and accessed on the joystick using a memory function.







ROPA all-round defoliator

Leaf ejection



ROPA all-round defoliator

Integral controlled leaf laying



ROPA integral defoliator





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Superior class.

Non-jamming PR lifting unit with hydraulic stone protection

The PR2h lifting unit is equipped with counter-rotating oscillating shares and completely maintenance-free hydraulic stone protection.

The 900 mm large depth-control wheels combined with the intelligent three-point suspension guarantee accurate depth control of the lifter. Minimum maintenance costs are required thanks to adjustable taper roller bearing in gears and oscillating share drive.



Micro-Topper

Leaves are removed with a sharp flail in such a way, that nothing is wasted and no beet is topped too deep.





Tiger 5





Efficiency and effectiveness with lifting units from PR-XL series

Significantly higher area performance with reduced fuel consumption leads to lower costs during the profitable and effective sugar beet harvesting.

Less passes and maneuvers also contribute to better soil protection. Thanks to the possibility of overloading while driving the area performance of more than 2 ha per hour can be achieved under favorable harvest conditions.





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ROPA

XL 40

XL

THIS MACHINE SWINGS WIDE ON TURNS

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TIGER 5

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R Concept

R Transfer
Wi-Fi Connect

Lenkung nur bei laufendem Motor betrie...



New cabin and operating concept

The newly designed and considerably better mounted R-Cab cabin on hydraulic bushings ensures an optimized view of the improved PR2 lifting unit, whilst maintaining an ergonomically adapted and comfortable seating position. An attractive and spacious interior of the new cabin in combination with excellent sound insulation guarantee most comfortable operation. Extremely powerful fully LED working lights turn night into day.





R-Concept

ROPA combines under the name **R-Concept** its new **intuitive operating philosophy**. A large **12.1 inch touch screen** performs as an information and command centre of the machine. From here the operator monitors the entire machine, receives information about operating conditions and performance data, adjusts functions and, thus, working results of the machine. The operation is performed dually, either with finger tip on the touch screen or with turning and pressing the rotate buttons „**R-Select**“ and „**R-Direct**“, which are situated in the ergonomically perfect position at the newly designed control panel in the handle of the multifunctional joystick. The thin control panel at the operator's seat suggests numerous possible adjustments for the ergonomic and comfortable seating position and at the same time increased visibility and heating of comfortable air seat. Premium class workplace.

R-Select

Selection of important operational functions

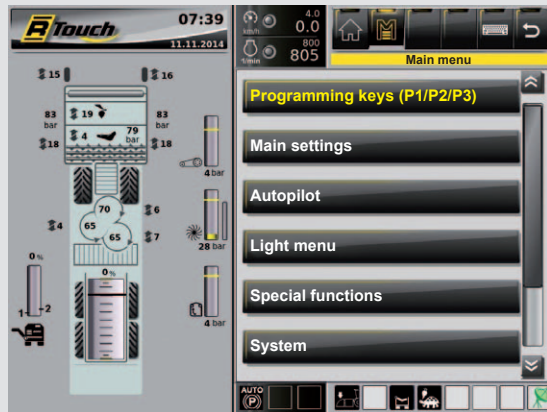
-> Functional groups for intuitive selection and adjustment of all the important operational functions without need in significant prior knowledge.





Directly in the terminal menus

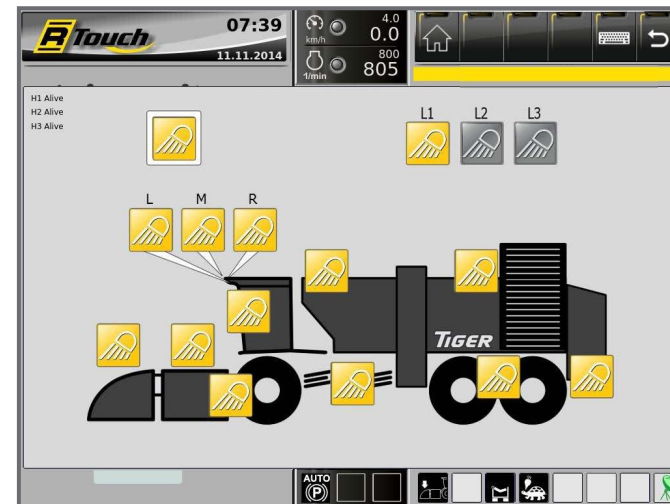
-> Direct selection of main menus as well as adjustment of machine details and data query in sub-menus.



Light menu

Some or all working lights can be switched with a finger tip on the touch terminal.

Up to three individually definable light programs can be stored and recalled just with a finger tip.



Automatic unfolding

A button touch is enough to „transform“ automatically ROPA Tiger 5 from the road drive mode to the field mode. Unloading conveyor, 1000 mm wide ring elevator and the bunker auger unfold controlled by sensors one by one and partially simultaneously. The entire unfolding process is performed by simultaneous activation of all functions to 50 % faster than before.



43m³ large beet bunker

The automatic bunker filling allows optimum traction under all harvest conditions by excellent weight distribution. Two ultrasound sensors measure the bunker filling, sum up the bunker charges and save it in the database. The data export is possible via ISO-BUS.





Super long unloading conveyor for quick bunker unloading

The new extremely long unloading conveyor is located above the two rear axles and can be raised further due to higher tires. A great advantage when overloading on driving alongside trailers, as it is performed shallower. It is 3-way foldable and 2000 mm wide for even simpler application of 10-meter-wide piles or easy overloading on trailer. The careful rubberized fingers guarantee high feeding capacity at short unloading time, only 50 sec with full bunker.





Stepless gearbox for field and road

The speed of Tiger 5 is electronically restricted to 17.5 km/h in the lifting mode, during the road drive the Tiger moves continuously and „lively“ from 0 to 40 km/h **without switching and traction interruption!** The maximum speed of 40 km/h can be reached by the Tiger 5 at extremely economical 1,195 1/min. Lifting in the field can be performed at the lifting speed of only 1,125 1/min. Depending on the power requirement the rotational speed of the Tiger is automotive regulated up to 1,650 1/min. The multi-disk differential brakes integrated into the axles (protected from dirt) running in oil bath serve for the „taming“ of the Tiger when required.

The power transfer in Tiger 5 of 626 hp/460 kW became even more efficient through reduced fuel consumption. A higher maximum torque of no less than 2,900 Nm is transferred with optimized efficiency.





Technical Data of ROPA Tiger 5

Engine:

Mercedes Benz diesel engine OM473LA 6 cylinders in row, exhaust gas norm EUROMOT 4, 460 kW (626 hp), 15.6 l capacity, max. torque of 2,900 Nm, operating speed 1,125 1/min automotive up to max 1,650 1/min, fuel consumption display l/ha and l/h at the terminal.

Traction drive:

Completely new traction drive construction with stepless CVR gearbox for efficient power traction, consisting of three hydraulic motors on the compound gearbox, from 0 up to 40 km/h continuously without any interruption (no gear change or switching). 40 km/h in road mode at 1,195 1/min, 17.5 km/h in the field at 1,220 1/min.

Tyres:

1st axle - 800/70 R38 Michelin CerexBib

2nd axle - 1050/50 R32 Michelin MegaXBib

3rd axle - 1050/50 R32 Michelin MegaXBib

Only 1,4 bar front / 1,9 bar rear at full bunker load. Large surface area offers high operational safety even under wet conditions or on slopes.

Hydraulic chassis:

An innovative chassis concept with an oscillating front axle in conjunction with two hydraulically supported rear axles. With the help of 6 hydraulic cylinders, the chassis can be inclined on both sides by approx. 10 % to the slope, the slope compensation is automatically controlled by two electronic inclination sensors.

Roll stabilization due to hydraulic levelling of the oil volume in the cylinders of the one vehicle side.

Cooling system:

Side-by-side arrangement of cooling elements for loading air and water, dirt resistant positioning of the coolers at rear top side. Hydrostatically stepless propelled and automatically reversible fan.

Hydraulics:

Pump distributor gears with pressurized air lubrication and gear oil cooling system, Bosch-Rexroth, operational load sensing hydraulics from Bosch-Rexroth, Bucher and Hydac with excellent capacity.

Cabin:

New cabin positioning with hydraulic bushings, sound-proof and tinted all-round glazing with low-line vision, heating and ventilating system (automatic air-conditioning), R-Concept control panel, 12,1" R-Touch display, joystick-operation, autopilot, cruise control, machine diagnostics incl. diesel engine fully integrated in the display, air-sprung Grammer comfort seat with heating, Bluetooth MP3 audio system with radio, base console for telephone, whole screen wipers, 2 LED-internal lights, video-monitor with standard reversing camera.

Bunker capacity: About 43 m³

Defoliator unit:

PIS - integral defoliator unit with leaf spreading between beet rows, 2 depth-control wheels.

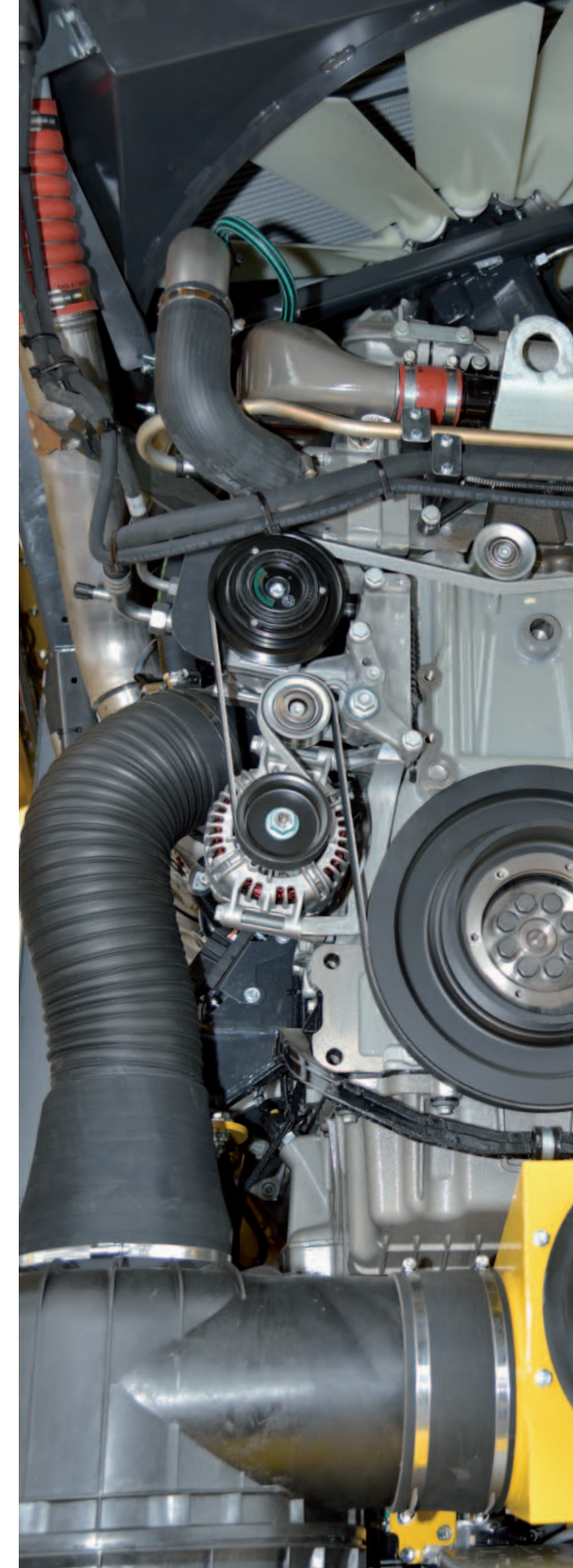
PAS - all-round defoliator unit, push-button operation from the driver's seat, can be changed for either integral topping or leaf ejection to the left, 2 depth-control wheels (4 depth-control wheels optionally).

PBS - defoliator unit with leaf ejection to the left, leaf-spreader and 2 depth-control wheels (4 depth-control wheels optionally).

PES - rubber defoliator with leaf spreading between beet rows, 2 depth-control wheels.

Lifting unit:

PR2 - 6-row lifting unit, 45 cm, 50 cm or variable, with faster shaking shares drive via axial piston motor, hydraulic stone protection, 900 mm depth-control wheels and





adjustable taper roller bearing in shaking shares drive and lifting unit gears, defoliator positioning enables raising for maintenance by 90 degrees for optimum control and service of flails, scalping knife and lifting shares, distance between fourth and fifth lifting rollers variably adjustable, excellent overview of lifting unit and scalper without additional cameras.

Cleaning:

800 mm wide infeed conveyor, 1,700 mm first turbine diameter, 1,500 mm second and third turbine diameter, 1000 mm wide elevator, gates height of all turbines is independently adjustable, partial replacement of gates by spring tines is possible.

Electrics / electronics:

Integrated net of 24 volt, generator of 150 amps, 24 LED operating lights from Hella, coming home light function, 2 x 12 volt sockets for radio or telephone etc., CAN-BUS computer system with integrated diagnosis of all components connected to the terminal, software update per USB interface possible.

Unloading conveyor:

Triple-foldable conveyor for even easier establishment of 10-meter-wide clamps. Beet protective PU cam for high throughput and short unloading, unloading conveyor width is 200 cm for even easier trailer loading, fast bunker emptying in less than a minute, as longitudinal conveyors are regulated to cross conveyors.

Overloading height: up to 4.00 m

Yield indicator:

2 ultra-sound sensors measure the bunker content, full bunkers (and partly loaded bunkers) are added up and automatically recorded in the database.

Dimensions:

Length: 14.99 m

Height: 4.00 m (transport mode)

Width: 3.00 m (6-rows at 45 cm width),

3.30 m (6-rows at 50 cm width and 45-50 cm variable)

Fuel tank: 1150 l diesel, 130 l Ad Blue

Standard:

Central lubrication system, fuel consumption measurement, air-conditioning, manual slope compensation, 40 km/h.

Optional:

Leaf-spreader with stone protection, skids at scalper, forged widia shares, lifting rollers with hard welded finish, gates segments with spring tines in turbine 1-3, agitator in the 2nd turbine, turbine camera, unloading conveyor camera, 2 LCD color displays, 2 LED high beam headlamps, data printer, via Wi-Fi Connect: R-Transfer Basic with data export to Ropa app, R-Transfer Professional with data import and export to Ropa-App or USB stick. Distance Control Assistant, GPS driving speed sensor, leaf collecting equipment (only for defoliator with leaf auger), bio-hydraulic oil, automatic slope compensation, additional chassis (obligatory in Germany).

Correspond to TÜV, Trade and CE regulations. Subject to technical changes. Existing protective covers have been partially dismantled for better imaging.

The machine must not be operated without these covers!



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