MX

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LOADING AND FORAGE TRANSPORT WAGONS



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MX

Self-loading and forager-filled forage wagons



Fully-featured dual-purpose forage wagon

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KRONE MX

The powerful large-capacity loading and forage transport wagon



MX, this is the designation for high-performance large-capacity loading and forage transport wagons with a transport volume of 33 m^3 to 40 m^3. Genuine dual-purpose forage wagons, they run in both the grass harvest chain as self-loading machines with discharge rollers and in the maize transport chain as forager-filled silage trailers. These machines score on versatility, reliability, efficiency and flexibility.

The dual-purpose loading and forage transport wagon

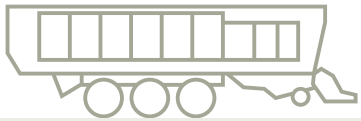
MX 330 GL and GD



The MX 330 GL/GD as self-loading wagon
Fast and consistent fills are key and attributed to the wide work width of the pick-up and the rotor cutter as well as the wide and short feed chamber. Blades with wavy edges and plated rotor tines ensure a particularly high quality of cut.



The MX 330 GL/GD as forage transport wagon
Thanks to its stable all-steel body and the high permissible axle load of 18 t, the MX 330 also proves to be extremely reliable and economical when used with forage harvesters.





Compact and robust

- **Self-loading and forager-filled forage wagons**
- **All-steel body**
  with 33 m³ loading volume
- **Hydraulic crop guide flap**
  on the front wall of the loading space
- **Unloading**
  with or without discharge unit
- **Cutting rotor**
  with 41 blades

The robust all-steel body with 33 m³ loading volume and the large tandem chassis with steered rear axle make the MX 330 a genuine loading and forage transport wagon. The machine is available with discharge rollers (GD) and without the rollers (GL). A hydraulically operated silage hatch at the top of the headboard is standard-fit for easier filling from the leading forager.





Safe road travel
The long and slim drawbar, the compact build, and the tandem axle with either a steered rear axle or a mechanical force-steer option optimize ride performance and stability – both in the field and on public roads.

The dual-purpose loading and forage transport wagons

MX 370 GL / GD and 400 GL

Effective and efficient

- **Self-loading and forager-filled forage wagons**
- **Loading volume**
  of 37 or 40 m³
- **All-steel body**
  optionally with discharge rollers (GD) or without (GL)
- **Hydraulic pivoting headboard**
- **Cutting rotor**
  with 41 blades

The two dual-purpose forage wagons MX 370 and MX 400 feature the proven designs and innovative technical solutions of the RX series as the base for implementing new and practical ideas.



Serving as self-loading forage wagons
The extra wide pick-up unit, the wide feed chamber and the hydraulic pivoting headboard ensure fast and consistent fills to maximum capacity. The very small distance between the blade edge and the paddle tines ensures the highest cutting quality (shear cut principle).



The ideal silage trailer
Very fast unloading with a transport volume of 37 m³ or 40 m³ and a high permissible total weight of up to 22 t also make the MX 370/400 an excellent transport vehicle in a foraging column. This dual use option makes MX an even more productive machine.





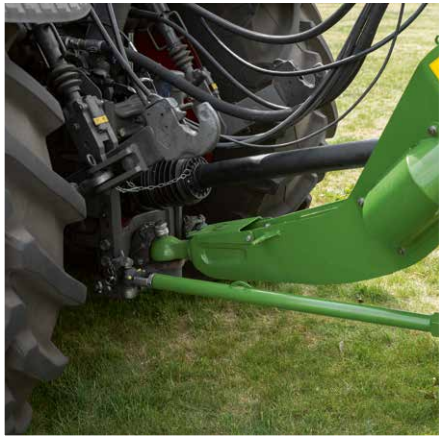
Safe road transport

The long, narrow drawbar, the tandem chassis with self-steering rear axle or optional mechanically forced-steering axle optimise handling and stability both in the field and on the road.



Suspension, drawbar and chassis

Safe, dynamic and comfortable



Bottom-mount drawbar
All MX models are specified with the standard ball hitch 80 which offers a tongue load of 4 t, offering great agility at minimum wear. Mechanical forced-steering is available as an option.Simply attach the steering rod to the ball hitch 50 and the tractor.



Articulated drawbar
The MX masters even narrow bends. Its long, slim and suspended drawbar is articulated and cushions the shock-loads. Two massive rams lift the drawbar no matter the load and give the wagon plenty of ground clearance no matter the situation. As an option, an automatic system stores and retrieves the two drawbar positions automatically.



Convenient control
For easy attachment and removal, the articulated drawbar is raised and lowered by pressing one of the two buttons on the machine.



Tandem axle
The MX runs on tandem axles with mechanical suspension as standard specification. A hydraulic levelling system is available as an option. The system ensures the weight is always distributed uniformly to all four wheels to give optimum rides and stability. A range of tyre options is available to suit all harvest conditions.





Always on track

- **Standard bottom hitching**
  with ball head
- **Articulated drawbar**
  for high lifting height
- **Drawbar suspension**
  for comfortable driving

Varying conditions, high payloads, challenging unloading sites and long-distance travel at speed are challenges that call for a very stable, safe and shockload cushioning running gear. It is down to the steered tandem axle, the ball hitch and the articulated drawbar that the MX is up to any job and situation.



Steered rear axle
The optional forced steering of the rear axle facilitates driving around curves, protects the sward and reduces tyre wear. The system is set up and monitored by means of pressure gauges. An electronic power steering system is also available This allows the driver to actively intervene in the steering action and, for example, counteract any drifting of the loading and forage transport wagon on slopes or on the silo.

Tyre size
A range of tyre options is available in the following sizes to suit all harvest conditions: 710/40 R 22.5, 710/45 R 22.5, 710/45 R 26.5 and 800/45 R 26.5.



Cross ply tyres
710/45 - 22.5 162 A8
Width: 720 mm
ø: 1,235 mm



Radial ply tyres
710/45 R 22.5 165 D
Width: 725 mm
ø: 1,220 mm



Radial ply tyres
800/45 R 26.5 174 D
Width: 800 mm
ø: 1,350 mm



800/45 R 26.5 TL 174 D (Trac)
Width: 800 mm
ø: 1,380 mm

The KRONE Pick-up EasyFlow

Efficient and clean crop pick-up

Strong and reliable

- **Wide pick-up**
  for clean and comprehensive gathering
- **No cam track means few moving parts, minimized service and maintenance and quiet running**
- **6.5 mm thick double tines**
  with large coil diameter
- **Tines arranged in a ‘W’-line**

The EasyFlow pick-up excels by virtue of clean and thorough gathering – at high work rates and at low wear rates even in difficult conditions. Made up of few moving parts, the unit runs extremely quietly and dependably.



The pick-up
With a working width of 1.8 m (according to DIN 11220), the pick-up also picks up large swaths without any problems and feeds the cutting rotor very evenly. Spring-suspended and pivoting, it excellently adapts to ground contours.



Tines arranged in a ‘W’-line
The diameter of 6.5 cm and the large coils make the double tines particularly resilient and wear-resistant. Arranged in a wavy pattern, six rows of tines feed the material from the ends to the middle of the rotor, thereby preventing crop from building up as the machine travels through bends, for example, and spreading it evenly across the full width of the rotor cutter.





The crop press roller unit

The pick-up is supported in its work by a crop press roller unit. Its height is adjusted easily and without tools to match the current crop, the swath volume and ground speed.

The guide wheels

The pick-up runs on two castering gauge wheels which pivot flexibly. These wheels are height adjusted without tools and can be complemented by two extra and optional gauge wheels at the rear.These extra wheels do not run in the tractor wheelings and help contouring in difficult harvest conditions and reducing crop contamination.

The KRONE cutting rotor

Precise cut and high throughput



The rotor
With a working width of 1,580 mm and a diameter of 880 mm, the cutting rotor is designed for cutting large quantities of forage. The 17 mm wide tines, arranged in eight rows in a spiral, feature Hardox supports which ensure a very long service life. The scraper elements, too, are made from hard-wearing Hardox steel. The design ensures the tines feed the crop dependably through the blades for precise and scissor-like cuts and fast and uniform fills.



The blades
The blades have long cutting edges which give particularly light-pulling cuts. The wavy edges give cut very precisely and maintain their sharpness for many operating hours. All blades are identical and interchangeable.



The rotor drive
The rotor is driven by a massive and enclosed spur gear. The spur wheel gearbox runs in an oil bath and can withstand the highest loads.



Blades easy to change

- **High loading capacity**
  thanks to wide rotor with large diameter
- **Smooth running**
  thanks to rows of tines arranged in a spiral
- **Easy pulling blades**
  for exact and scissor-like cuts

Powerful and low-maintenance, the MX rotor operates very smoothly and feeds the crop super gently and consistently into the machine. The rotor blades give exact cuts, stay sharp for a long time and are very easy to replace.



The blade cassette
The blade cassette lowers hydraulically and swings out to the side. After the blades are unlocked on a central lever they are removed and swapped conveniently.



The blade group control system
The central blade group control system controls the cutting length.Operators can select 41, 21, 20, or 0 blades, 41 blades achieve a theoretical cutting length of 37 mm. 0 blades means the system is not cutting.



Single blade locking device
Each blade is individually secured by a tension spring to prevent overloading by foreign objects. the tripping force of which can be adjusted centrally and steplessly. After tripping, the blade automatically returns to the working position.

The KRONE blade grinding device SpeedSharp

Perfect cutting quality at all times!



Getting ready
To get ready for grinding, pull out the blade cassette and swing it alongside the machine. Then fold up the grinding device and position it above the blades. which are then fixed in place with the retaining comb.



Hydraulic connection
By coupling two hydraulic hoses to the vehicle frame, the grinding device is connected to the drive.



At the touch of a button
Both the blade cassette and the grinding device can be conveniently operated from the wagon at the touch of a button.

Directly on the loading and forage transport wagon

- **Convenient and quick sharpening** of the blades
- **Sharpening 41 blades takes less than four minutes**
- **Gives all blades a consistent grind**
- **Reduces fuel consumption and improves the forage quality**

The automatic SpeedSharp blade grinder sharpens your blades in just a few minutes. Grinding the blades right on the machine and on the site gives you great flexibility and saves time you would otherwise spend on replacing dull blades – an important detail when your aim is consistently high-quality forage and good fuel economy.



Quick and safe
Grinding 41 blades takes less than four minutes. As grinding takes place, the sparks can fly off without doing any harm to the machine.

The grinding discs
The discs have flaps that overlap generously to ensure superior grinds and longevity, giving a 'cold' grind that cuts out the risk of annealing.

A consistent grind
Each grinding disc is pressed on to the blade by a bevel spring for a high-quality and consistent cut to each individual blade at minimum material wear.







The loading space

With impressive features

Robust and durable

- **Steel structure and steel floor**
- **Pivoting headboard**
- **Double scraper conveyor,** sloping towards the front
- **With or without discharge rollers**
- **Optional cross conveyor belt** for unloading fresh feed in the barn

The MX dual-purpose loading and forage transport wagons are designed with an all-steel loading space for the toughest practical applications. The pivoting headboard makes for easier filling – both from the forage harvester or the pick-up. The heavy-duty chain-and-slat floor feeds even heavy forage swiftly and consistently to the rear for unloading.





Pivoting front wall
The MX 370 and 400 models have a hydraulic headboard which pivots to various positions to support the filling and unloading processes. For example, when the machine is filled by a forage harvester, the headboard pivots all the way forward to maximize the capacity (left). By comparison, when the machine is gathering material through the pick-up, the headboard is nearly vertical to optimize the filling process. Once the load area is filled to capacity, the headboard pivots towards the tractor to expand the capacity by 4 m^3. To speed up unloading, the headboard can pivot back and forth and support the work of the floor chain.



The silage hatch
The straight headboard on the MX 330 has the hydraulic top hatch as a standard feature. Opening a field, the operator can open the hatch conveniently from the cab for an improved crop flow into the machine.



Crop covers
After the machine is filled to capacity, you can protect the material with a pair of crop covers to prevent losses during road travel. The cover, made of highly tear-resistant fabric mesh, can be operated from the tractor cab via two hydraulic motors using an operating terminal.



The door

Those MX forage wagons that are fitted with discharge rollers have a large near-side door that gives access to the load area. With the help of a fold-out ladder and a side grab handle, you can safely access the loading space through the door which swings to the side.

Lights

It is possible to order optional LED lights for the MX models which can be fitted on the inside and outside of the body. The inside is illuminated by four optional LED light bands that are installed at the top of the sides while up to four LED work lights can be installed on the outside for better visibility. All lights can be switched from the operator terminal.



The loading space

Emptied cleanly and in a flash

The chain-and-slat floor

The four floor chains are made of high-tensile tube steel and the slats are made of channel steel.The chains are driven by two hydromotors – one on either side of the machine – and convey the heaviest material fast and effectively to the rear for quick unloading. The floor slopes at its front end, thereby shortening the passageway into the machine and reducing the strain on the crop as well as input power whilst boosting the intake rate.

The automatic loading system

To relieve the driver, the scraper conveyor can be activated and controlled via sensors. The PowerLoad sensor measures the pressure that is exerted by the material on the headboard (right) Another sensor on the front wall registers the volume via the deflection of the pendulum flap (left). The chain-and-slat floor is started automatically as soon as the pressure scanned equals the preset pressure. Depending on the type of forage, you can also use the two sensors separately.









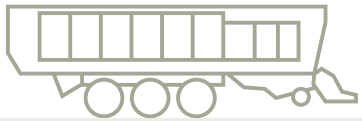
Unloading without discharge rollers
The MX GD models have two or three discharge rollers which unload the material in a uniform mat. Overload protected by the clutch in the main driveshaft, the rollers discharge the material fast and efficiently.



Uniform mats
The discharge rollers unload the material in very uniform layers.Available in sets of two or three, the bottom roller spins at a higher speed than the top roller(s).



The feeding belt
The optional cross conveyor belt is an ideal feature for farmers who feed the fresh forage directly to their cows. The 90 cm wide belt feeds the material to the right and left side. But you can also empty the machine as usual via the discharge rollers without any previous modification. The belt is integrated in the “rucksack” tailgate and moves out of the way when this is opened.



The KRONE on-board electronics and operating terminals

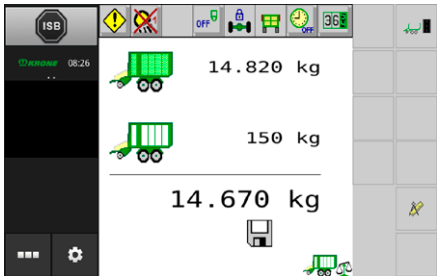
Practical operation at the push of a button



Operator Comfort
The Comfort electronic system is ISOBUS compatible and is required for the optional features such as the automatic loading / unloading system.



Oil is supplied on demand only
The comfort hydraulic system is loadsensing-compatible, which means, if hitched to a load-sensing linkage, oil will be supplied only on requirement. This reduces the load on the tractor hydraulics. On tractors without loadsensing it is also possible to operate the machine via the constant pressure hydraulic system.





Weighing the crop the easy way
With the optional weighing device, the weight of the load can be determined and stored via gauging pins on the running gear and on the articulated drawbar.

Uncomplicated handling

- **Clear and convenient**
- **Easy and user friendly**
- **ISOBUS compatible**

Working with the KRONE comfort on-board electronics significantly simplifies, improves and speeds up work with the MX dual-purpose loading and forage transport wagon. Two different terminals are available to cater for different applications and needs.







DS 100 control unit
The layout of the DS 100 control unit is specially designed for the convenient operation of a forage wagon, providing optimum ergonomics and haptic press button feedback to the operator so they can now use the keypad without looking down.



The DS 500 Terminal
The compact DS 500 terminal has a 5.7" colour display screen and can be operated with 12 function keys, the touchscreen or the scroll wheel on the back. An optional joystick is available for even more convenient operation.



Existing third-party terminals
If the tractor's own operating terminal is ISOBUS-compatible, it can also be used to directly control the MX's comfort on-board electronics. In this case, the KRONE terminal is not required and operation is also significantly simplified.



More operator comfort
The CCI 1200 operating terminal with 12" touch display offers the option of splitting the screen in addition to the Delta terminal. For example to see all machine control elements in one view and the camera footage in the other. Also, an additional AUX joystick enhances operator comfort even further.

KRONE fresh matter Express

Perfect team for recovering forage



Directly from the field to the forage table
Dairy farmers are looking into the potential of fresh grass for increasing milk yields from the basic ration. In view of rising silage storage costs, hay milk production programmes and further aspects fresh mass is being viewed from a different angle today. This new approach is supported by KRONE who offers the ideal machines that help you cut and feed highly valuable fodder every day. Combining the EasyCut F 400 CV Fold mower with the MX 330 GD forage wagon makes a powerful punch.



MX 330 GD with discharge belt
The cross belt discharges the feed on to small and large any feed passages in no time. Mounted cleverly at the tailgate, the discharge belt enables owners to use the MX for feeding fresh grass directly to the cows.



EasyCut F 400 CV
The combination goes into narrow buildings and feed passages thanks to the patented slewing gearbox which allows the wide mower to be folded into a narrow unit.

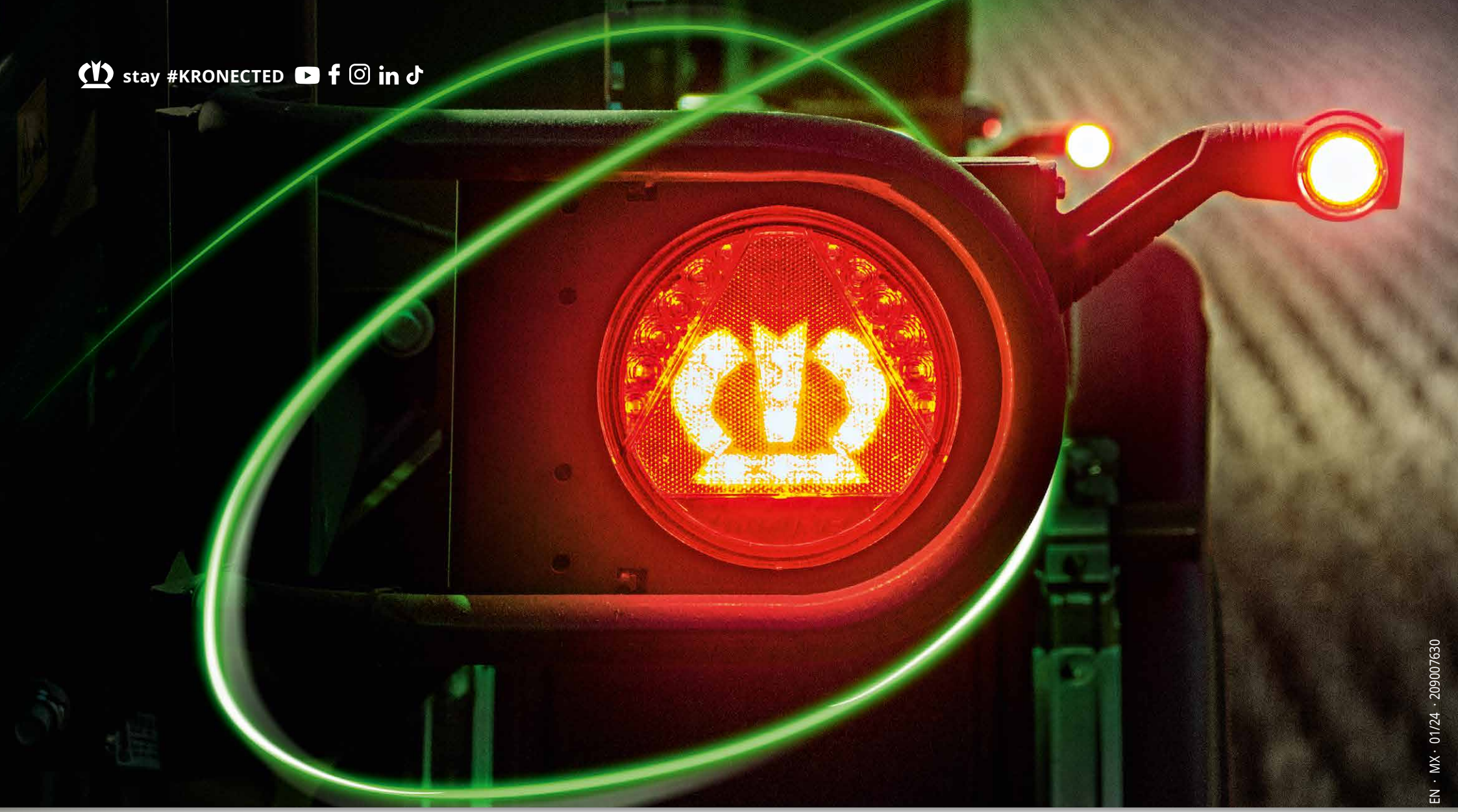




Technical data



			MX 330 GL	MX 330 GD	MX 370 GL	MX 370 GD	MX 400 GL
Capacity* (according to DIN 11741)		approx. m^3	33	33	37	37	40
Pick-up working width (according to DIN 11220)		approx. m	1.80	1.80	1.80	1.80	1.80
Cutting unit Cutting length with 21/41 blades		approx. m	74 / 37	74 / 37	74 / 37	74 / 37	74 / 37
Discharge rollers Standard/option		Number	-	2/3	-	2/3	-
Tractor power		Approx. kW/ hp	88 / 120	88 / 120	103 / 140	103 / 140	103 / 140
Dimensions	Length	approx. m	9.29	9.29	9.29	9.29	9.89
	Width	approx. m	2.90	2.90	2.90	2.90	2.90
	Height	approx. m	3.82	3.82	3.82	3.82	3.82
Platform height		approx. m	1.50	1.50	1.50	1.50	1.50
Track width		approx. m	2.05	2.05	2.05	2.05	2.05
Drawbar tongue load Bottom-mount system		t	4	4	4	4	4
Permissible axle loads (with tandem unit)		t	18	18	18	18	18
Tyre size	710/45 - 22.5 162 A8		Standard	Standard	Standard	Standard	Standard
	710/45 R 22.5 TL		option	option	option	option	option
	800/45 R 26.5 TL 174 D		option	option	option	option	option
	800/45 R 26.5		option	option	option	option	option
Filling / unloading rate		approx. min	6-9 / 2	6-9 / 3	6-9 / 2	6-9 / 3	6-9 / 2
Ground clearance - Hydraulic articulated drawbar		approx. m	0.62	0.62	0.62	0.62	0.62



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