



LINER

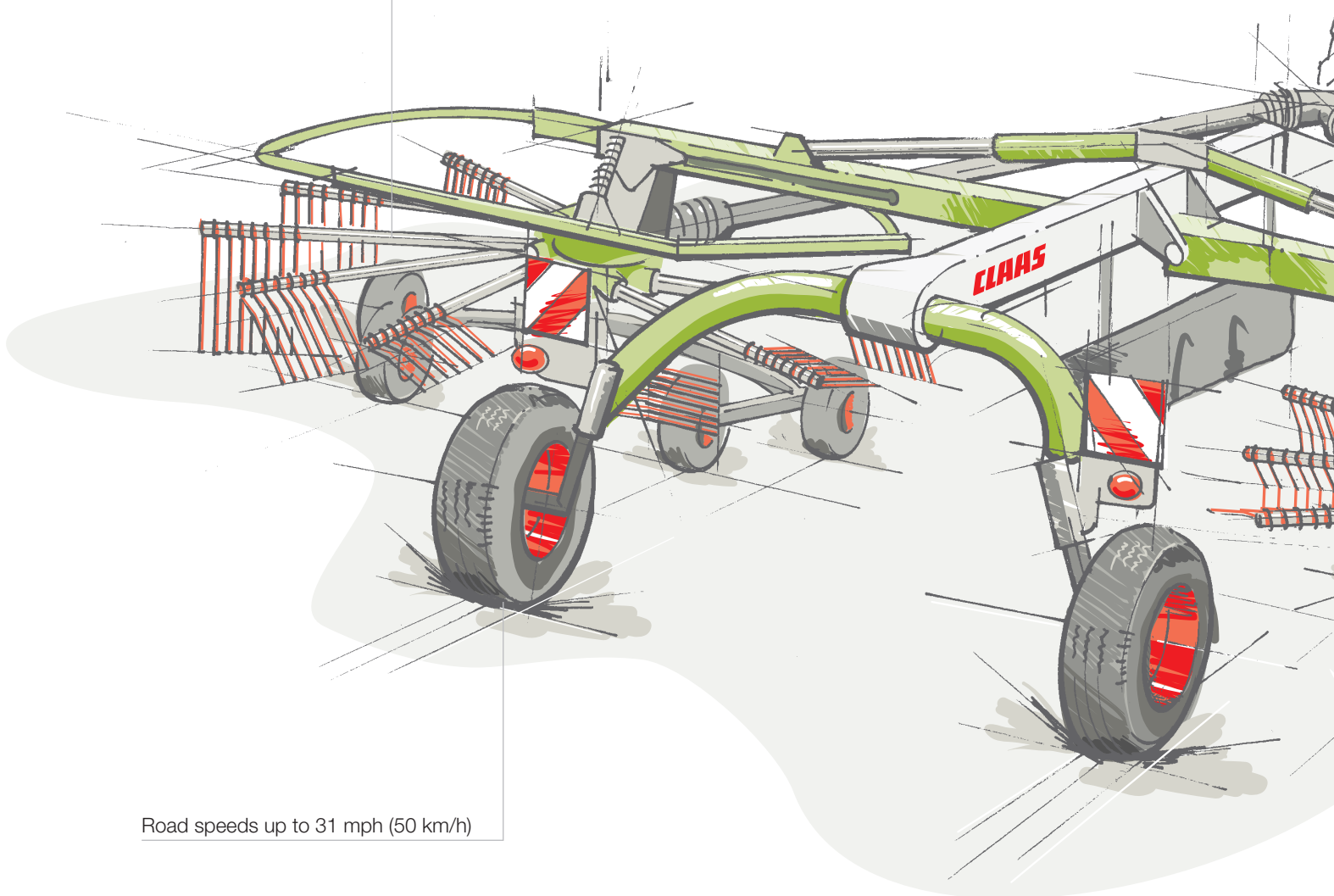
Rotary Rakes

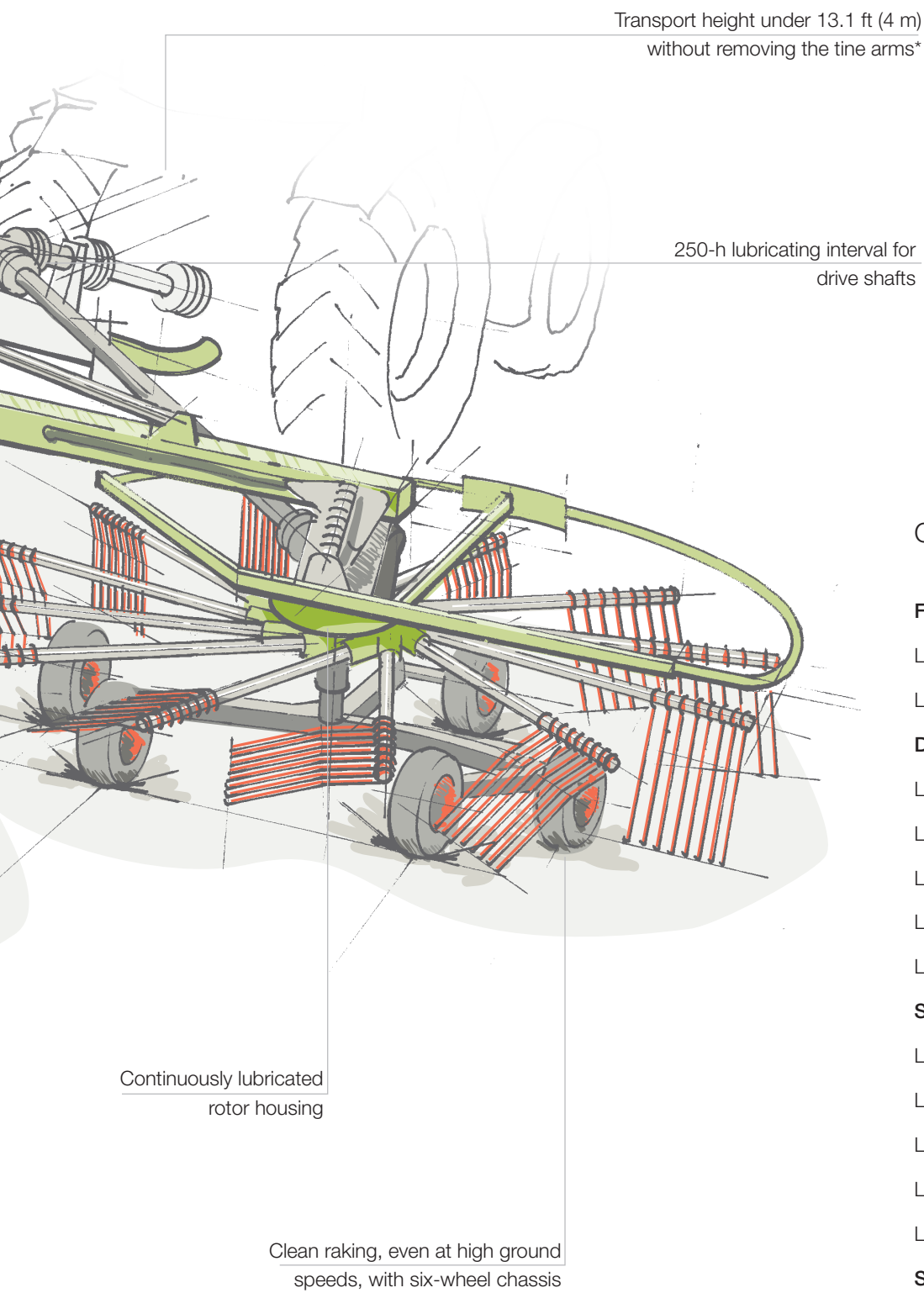
The time-saving machine.

PROFIX tine-arm mounting

Road speeds up to 31 mph (50 km/h)

* With the exception of the LINER 3500 and LINER 3100





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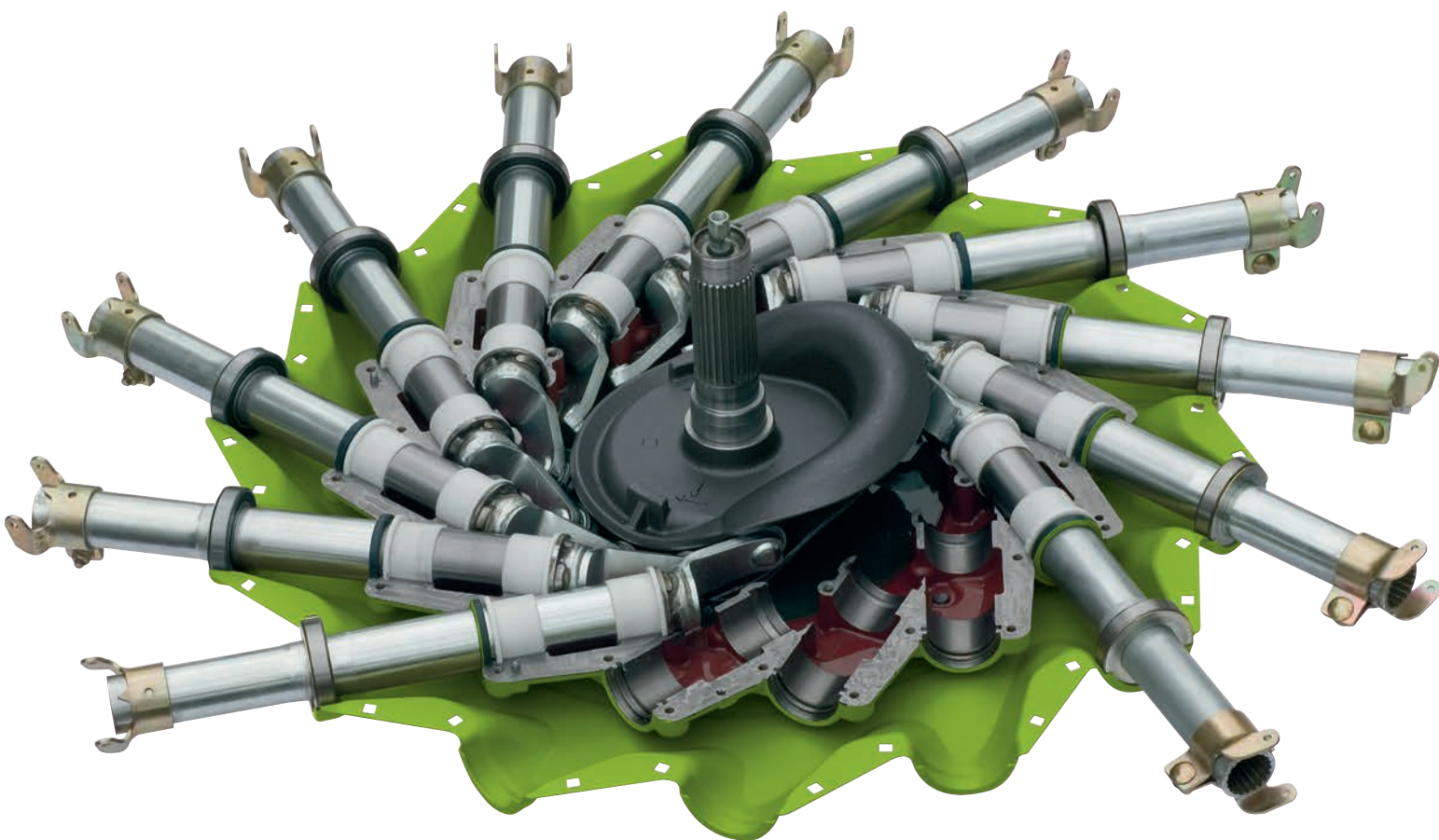
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Continuously lubricated rotor housing.

For more than 15 years, CLAAS customers have relied on the successful design of the LINER series – the airtight, continuously lubricated rotor housing. It gives the LINER the unique reliability and robustness that a high-performance rake needs. The rows are gathered precisely into a perfect windrow thanks to the intelligent tine control system. Add to this extremely low maintenance and low wear characteristics, and you'll quickly understand what the LINER rake family is all about.

- Airtight rotor housing.
- No penetration from dirt or crop particles.
- The rotor housing is a low-viscosity, grease-filled casing for permanent lubrication and frictionless operation of the cam track rollers.
- Minimum wear, maximum service life.

A true professional: the latest innovation is hidden inside.

For the new generation of rakes, the field-proven, enclosed rotor housing has been further refined on the basis of experience gained over thousands of acres. The aim: to further increase the machine's performance and durability.

- Robust cast housing.
- The strongest cam-track arms on the market, with a large tube diameter and high-strength structural elements throughout.
- The tine-arm break-away point is located outside of the rotor housing, which makes replacement easy.
- The sturdy dual bearings on the tine arm guard against horizontal and vertical loads, thus protecting the cam track rollers.
- Large, wear-resistant tine-arm slide bearings.

The CLAAS long-running cam track.

Its spheroidal graphite iron cast construction gives the cam track the strength required to withstand any load. The large diameter and the gentle rise of the cam track ensure the following:

- Smooth running of the tine arms, ensuring clean raking during prolonged use without material fatigue.
- Smooth operation of the cam-track rollers under all conditions to significantly increase the service life of the cam track.



Runs like clockwork.

- In the case of the 14-arm rotor housing of the LINER 4000, 3100, 2900, 1750 550 T, and 500 T models, forces acting on the cam-track arms and rollers are spread more evenly, with high loadings absorbed fully by an additional bearing housing.

Easy with PROFIX.

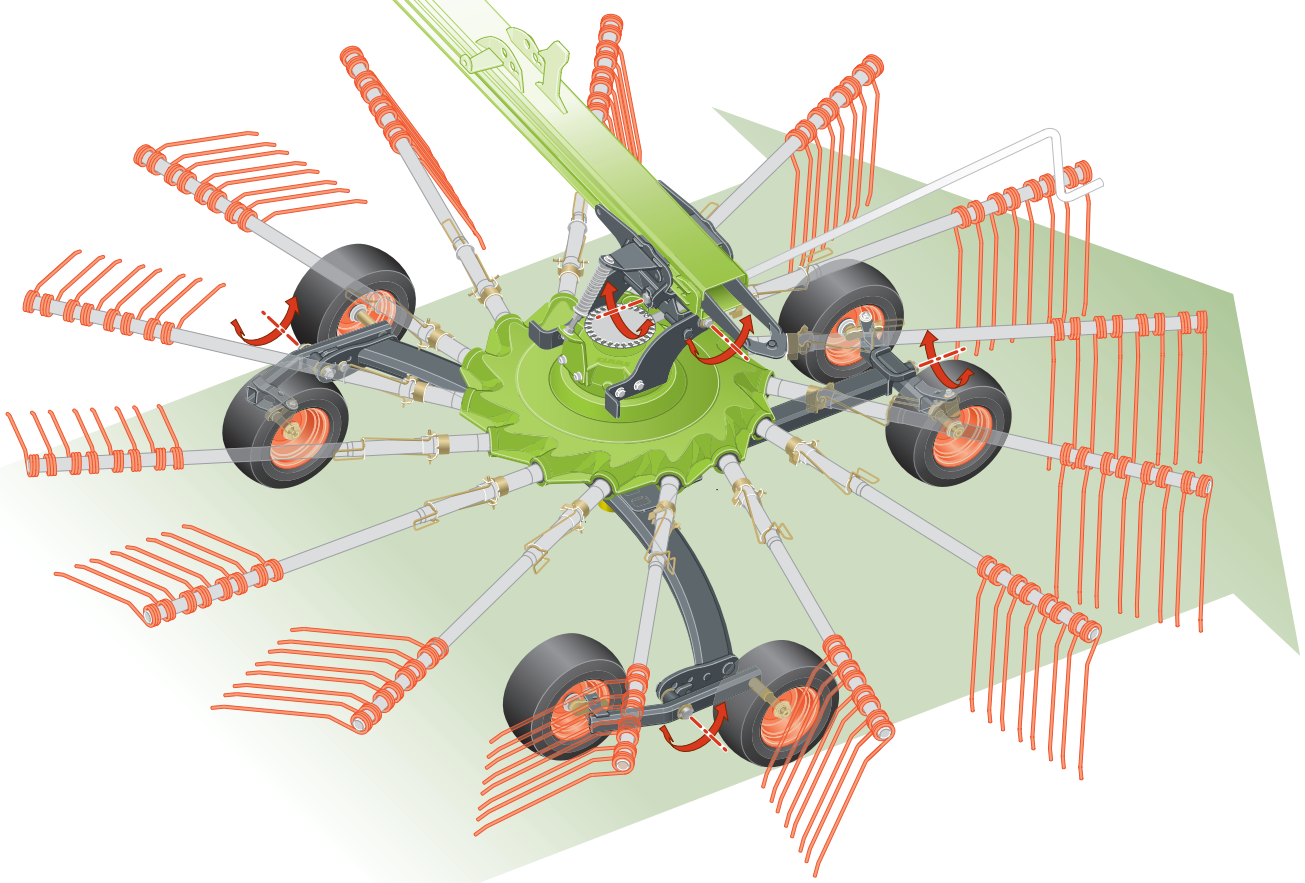
- Standard equipment on the LINER 4000, 3500, 3100, 2900, 2800, 2700, 1750, 1650, and 750 machines, as well as on all side-delivery rakes and LINER 450 T single-rotor rakes.
- Easy-release bracket for the tine arms.
- Multiple grooves on the tine arms for perfect, firm seating without play or wear.
- Marker arrow to help when replacing removed tine arms.

- All components of the PROFIX tine arm bracket can be replaced quickly and economically, should the need arise.

Tried and tested: low-friction oil-immersed transmission.

The LINER 2600 and LINER 370 T are equipped with the familiar, tried-and-tested rotor housing from the LINER 650 TWIN. Here, too, the steel cam-track rollers are continuously lubricated in an oil bath.





Contour tracking is three-dimensional, clean and fast.

- Both rotors can move independently of the chassis.
- Three-dimensional tracking over uneven ground, thanks to fully floating suspension that levels the rake both fore and aft and at right angles to the direction of travel.
- The tines always stay parallel to the ground, ensuring raking remains clean at any speed.

A wide track with secure rotor suspension – the four- and optional six-wheel rotor chassis. (Standard on LINER 3100 only)

- Positioning close to the tines produces even and clean raking across the entire working width.
- Suspended mounting of the rotor chassis front axle on LINER 4000, 2900, 2800, 1750 and the new LINER 3100 – for precise rotor guidance.
- Four steerable wheels on the front rotor of the LINER 4000 and the LINER 1750 – for optimum turf protection, thanks to precise running.
- Perfect contour tracking and smooth running, even at high working speeds.



The new LINER 3100 is fitted with a six-wheel chassis as standard. The LINER 2900, 2800, 2700, 1750, and 1650 TWIN, plus the rear rotor of the LINER 4000, can be fitted with an optional six-wheel chassis (available through CLAAS Parts). The additional suspended axles with the trailing steered wheels optimize contour tracking, and consequently the work and forage quality as well.

GRASS CARE.

High work quality =
high forage quality.

No.1 for lifting.

- When turning on headlands, the rotors raise high enough to avoid disturbing the flat windrow with their rotating tines.
- When lowering, the rear wheels touch down before the front wheels, preventing the tines from digging into the ground.
- Headland lifting of approximately 20 in (more than 500 mm) makes it possible to run across the highest windrow.
- Automatically folding windrow guard for all center rakes.

Work goes on without leaving the cab.

Most LINER rakes (excluding LINER 3500 and LINER 3100) come in at a transport height of under 13.1 ft (4 m) – the clever design of this family of rakes makes this possible.

After folding, the telescopic rotors retract hydraulically via a dual-acting hydraulic. A mechanical locking device secures the rotors for transport.

The stable ride provided by the low center of gravity means safe transport, even at speeds of up to 31 mph (50 km/h).

Active steering.

For dual-rotor rakes, as the tractor is steered, the control linkage steers the large wheels fitted to the main chassis.

- The rake wheels follow the movement of the tractor, thus maintaining a clean track, even at high speeds.
- The angled wheel connection reduces the steering forces to a minimum.
- Reduced tire wear and zero-play steering.





We create space – the inverted U-frame.

All LINER machines with a separate chassis fit onto the lower linkage points on the tractor with an open mounting block that uses a sturdy inverted U-frame.

- Quick to hitch up, reliable and stable during operation.
- Maximum space for the PTO shaft to effortlessly accommodate headstock angles of up to 80°.
- Stable, easy-to-use parking stand.
- Practical storage for the drive shaft.
- Convenient brackets for the hydraulic lines in standby position.
- The pivot-mounted hose supports provide secure, well-protected running of control lines to the tractor.

The power of the main drive is distributed to the rotors via an auxiliary gearbox.

- The sophisticated transmission ratio ensures minimum loads and optimum service life.
- The integrated freewheel mechanism comes as standard.
- Each individual rotor is protected against overload.

Making your work more pleasant than ever before.

Comfort and safety first – down to the smallest detail.

- The scale on the rotor arm is used for setting the rake width on the LINER 3100, LINER 2900 and LINER 2800.
- Infinite hydraulic adjustment of rotor overlap on the LINER 1650 TWIN and LINER 1750 for easy selection between maximum working width and greater overlap for tight turns.
- Scale on the central main frame for setting the working height.
- Lighting and warning signs are fitted as standard for safe road transport.

Maintenance – almost unheard of.

Thanks to the new drive-line design, maintenance tasks on your new LINER are easier to perform and are required less frequently than ever before.

- The drive train is located entirely on the outside and at an accessible height.
- 250-hour lubrication interval for drive-shaft universal joints.
- 50-hour lubrication interval on the drive shaft U-joints.
- The rotor housings are continuously lubricated for maintenance-free operation.



LINER four-rotor rakes –
full width windrowing.





Feeds the chopper to the brim.

Setting new standards.

The unique design of the LINER 4000 facilitates new standards of windrowing performance. With a working width of up to 49 ft (15 m) and a transport height under 13.1 ft (4 m), the LINER 4000 combines maximum work rates and optimum flexibility. The perfectly shaped windrow created by the LINER 4000 is ideal for maximizing the workload of the JAGUAR.

Four times as good.

The transport height of the LINER 4000 can be reduced to below 13.1 ft (4 m) directly from the cab. Hydraulic lowering of the main chassis and rotors means there is no need to remove the individual tine arms. In terms of longevity and comfort, too, the LINER 4000 leaves little to be desired.

- Continuously lubricated CLAAS professional rotor housing assembly with additional bearing housing.
- Four rotors, each with a 12.5 ft (3.8 m) working width and cardan suspension.
- Fourteen removable tine arms, using the PROFIX quick-change system.
- All rotors are protected by cam clutches.





Gentle on the soil.

Perfect ground-contour following is crucial to ensuring smoothness of travel and clean forage, particularly at high speeds. The LINER 4000 is well-equipped in this respect. Four-wheel chassis (available through CLAAS Parts) with steerable front wheels and laterally suspended front axle.

- The optional six-wheel chassis for the rear pair of rotors is equipped with extra tandem axles and trailing wheels for precise ground-contour tracking.
- Powerful spring increases the rotor floatation in various conditions.

Intelligent headland management.

- Adjustable time sequence for lifting and lowering of the front and rear rotor pairs.
- Infinitely variable, hydraulic headland lift height to suit all types of forage crop.
- Automatic, hydraulically folding windrow guard for maximum ground clearance.
- Optimized center of gravity at the headland through automatic rotors that are drawn towards the chassis via the folding kinematics.





Convenient operation.

The driver is assisted by numerous automated processes when operating the LINER 4000. The clear and logical arrangement of the operating menus is also a major plus.

- Folding in and out from the comfort of the tractor cab.
- Working width 40 - 49.2 ft (12.2–15 m) and windrowing width 5 - 8.5 ft (1.5–2.6 m) are set hydraulically and infinitely variable.
- A whole range of windrowing widths can be saved to memory.
- Individual and dual raising of rotors possible.
- Operation via CLAAS COMMUNICATOR or any other ISOBUS-compatible terminal.
- With ISOBUS operation, various functions can be controlled via the tractor's function keys.



Excellent ground protection, excellent on-road stability.

Performance-based transportation.

To reduce the transport height, the main chassis can be lowered hydraulically from the driver's seat. The integrated suspension assembly delivers a secure and comfortable ride.

- Automatic mechanical transport locking device for rotors.
- Fold-away warning signs with lighting for narrow entrances to yards and fields.

No need to lubricate – just drive.

Zero-downtime windrowing is the paramount objective of the LINER series, which is why only components that guarantee maximum reliability are employed.

- Zero-maintenance, continuously lubricated rotor housing.
- 250-hour lubrication interval on all drive shafts.
- 50-hour lubrication interval on the drive shaft connecting with the tractor.
- Highly dependable drive chain with very low maintenance requirements.



Four times the efficiency and quality of work.



Clean and fast clearance.

The LINER 3500 – developed from the legendary LINER 3000 – adds a new chapter in the incredible success story of the CLAAS family of large rakes. With an efficient and impressive working width of 32.4 - 41 ft (9.9 - 12.5 m), the LINER 3500 bridges the gap between the professional class dual-rotor central rakes and the LINER 4000.

A magic formula for optimal performance.

The combination of the DISCO 9100 C AUTO SWATH with the LINER 3500 deposits 59 feet (18 m) of working width over a windrow, achieving a gain of 40 percent in forage harvester performance.

Convenient operation.

- Continuously lubricated CLAAS rotor housing.
- Twelve removable tine arms with the PROFIX quick-change system.
- All rotors are protected by cam clutches.

Highly flexible.

The LINER 3500 can be matched closely to the crop volume and any current pick-ups used to gather the windrow. The appropriate windrow width is set in one manual operation, matching the windrow to the pick-up vehicle.

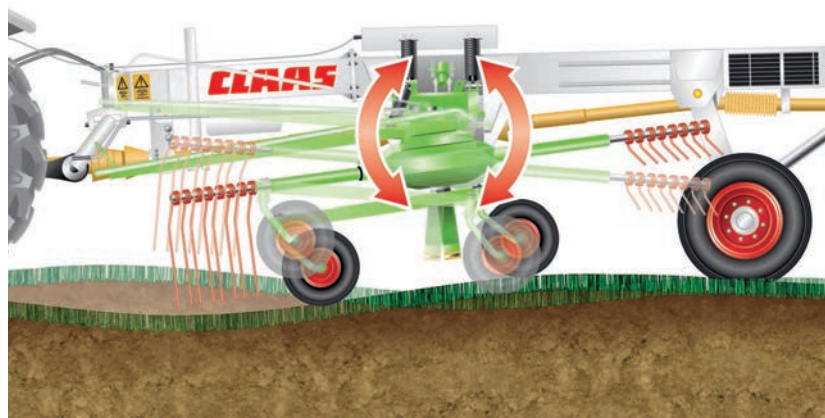


GRASS CARE – ground-contour following.

- Fully floating suspension of rotors, independent of the main chassis.
- Powerful spring packs cushion the rotors.
- Large transport tires for maximum soil protection.
- Four-wheel rotor running gear ensures stable running.

Rugged hitching.

- Convenient inverted U-frame attachment to lower linkage points on tractor.
- Single wide-angle PTO drive shaft for the narrowest of turning circles.



Intelligent headland management.

- Adjustable time sequence for lifting and lowering of the front and rear rotor pairs.
- Hydraulically adjustable (infinitely variable) lift height at headlands to suit every type of forage crop.
- Automatically folding windrow guard for maximum ground clearance.





Tailormade running gear.

The main chassis can be lowered hydraulically to reduce the on-road height. When folded in, the outer rotors are automatically locked into place.

- Large 15/55-17 road tires for optimum ground protection and maximum stability during transportation.

No need to lubricate – just drive.

Zero-downtime windrowing is the paramount objective of the LINER series, which is why only components that guarantee maximum reliability are employed.

- Zero-maintenance, continuously lubricated rotor housing.
- 250-hour lubrication interval on all drive shafts.
- Highly dependable drive chain with very low maintenance requirements.



High output guaranteed.

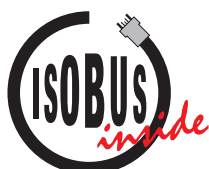
Unifying driver and machine.

Silage preparation is always done within a brief time window, and this calls for maximum performance from the harvesting equipment. Ease of control and operation, and a low level of operator fatigue are essential to get the most out of the machines you use and their modern control technology. You can choose between the familiar CLAAS STANDARD TERMINAL or the CLAAS COMMUNICATOR.

CLAAS STANDARD TERMINAL.

The CLAAS STANDARD TERMINAL (CST) allows you to perform all necessary functions directly.

The clearly arranged keys make using the CST easy and convenient. The status of the function in question is displayed by an LED.



LINER dual-rotor rakes –
the best in their class.





The all-rounder.



The alternative to a four-rotor rake.

The LINER 3100 can be used wherever a high work rate is needed. With a working width of 28.5 to 33 ft (8.7 to 10 m), it works well in both silage and hay. In straw, a LINER 3100 can combine two windrows of a 25 ft (7.5 m) cutterbar.

- Continuously lubricated CLAAS professional rotor housing assembly with additional bearing housing.
- The working width is hydraulically adjustable to anywhere from 28.5 to 33 ft (8.7 to 10 m), readable from a scale.
- Fourteen removable tine arms with five dual tines and PROFIX quick-change system.

High-quality forage guaranteed.

- 3D ground-contour following, thanks to cardan suspension on rotors and six-wheel chassis as standard.
- Lifting of the rotors parallel to the ground prevents the rotors catching on the ground.



Also manages dense windrows.

With a lift height up to 3 ft (90 cm), the LINER 3100 can drive effortlessly over the largest windrows without tearing up the straw. It can be adapted to all harvesting conditions via infinitely variable headland stops. At headlands, the windrow guard automatically fold upwards, giving maximum clearance for high windrows. Wheel weights fitted as standard ensure stability on slopes or when lifting rotors. Every rotor is protected against overloading.

Time-saving on the road.

For a transport height of less than 13 ft (4 m), three tine arms are removed from each rotor and secured in the appropriate holder right next to the rotor, saving time. (Single-rotor lifting is controlled via a three-way valve.) The chassis, with its large-volume tires and active steering, enables road speeds of up to 31 mph (50 km/h) to be reached. Warning signs and lighting are fitted as standard for safety while on the road.





Power to perform.

The LINER 2900 opens up new dimensions in every respect. It reliably offers the best windrow output in the shortest time and is also quick in between jobs, with no need for the driver to leave the cab even once. This is unique to the CLAAS central rake series, designed for the professional. When a large forage harvester is used to process the crop, the rake needs to be able to operate at a very high work rate, without compromising the good forage quality.

- The continuously lubricated rotor housing assembly is fitted with an additional bearing housing.
- The working width is infinitely variable (hydraulically) from 26 to 29.5 ft (8 to 9 m).
- Fourteen removable tine arms, using the PROFIX quick-change system.



Everyday operation with you in mind.

- The four-wheel chassis with steerable front wheels and laterally suspended front axle ensures extremely smooth running and precision tracking of the ground contour.
- The optional six-wheel chassis is equipped with extra tandem axles and trailing wheels (available through CLAAS Parts).
- Infinitely variable, hydraulic headland stop to suit all types of forage crop.
- Automatic, hydraulically folding windrow guard for maximum ground clearance.



Highest work rates =
superb forage quality.



Convenient transport.

Reduce the transport height to below 13.1 ft (4 m) by hydraulically lowering the rotors in their folded state without leaving the cab.

- The machine has a low center of gravity in the transport position and thus more stable handling, even at higher speeds of up to 31 mph (50 km/h).
- The extra-large tires for transport (15/55-17) provide optimum stability for driving both in the field and on the road.
- Transport lock released automatically on deployment of the rotors.
- Single-rotor lifting, also controlled via a three-way valve.

A well-rounded product.



No more getting out of the cab – now it's just all go.

The LINER 2800 faultlessly performs preparatory work for the field clearance machines. Whether for large volumes of crop or for straw, the crop is raked into a perfectly even box-shaped windrow every time.

- Continuously lubricated CLAAS professional rotor housing.
- The working width is hydraulically adjustable to anywhere from 24.2 - 27 ft (7.4 to 8.2 m), readable from a scale.
- Twelve removable tine arms with the PROFIX quick-change system.

Work quality – excellent.

- The four-wheel chassis with steerable front wheels and laterally suspended front axle ensures extremely smooth running and precision tracking of the ground contour.
- The optional six-wheel chassis is equipped with extra tandem axles and trailing wheels for precise ground-contour tracking (available through CLAAS Parts).
- Infinitely variable headland stop to suit all types of forage crop.
- Automatically folding windrow guard for maximum ground clearance.

Maximum comfort on the road.

- You can reduce the transport height to below 13.1 ft (4 m) by hydraulically lowering the rotors in their folded state without leaving the cab.
- The machine's center of gravity is reduced as the telescopically retracted rotors are lowered when in their transport position, giving more stable handling, even at higher speeds.
- Transport lock automatically released on deployment of the rotors.
- Single-rotor lifting, controlled via a three-way valve.





Reliability that meets the highest demands.

The tight timeframes in forage harvesting mean you need to eliminate bottlenecks with continuous, uninterrupted rake performance. Mid-sized farms are just as dependent on safety and reliability as the largest forage producers or contractors. The LINER 2700 offers the working width best suited to this market segment, combined with the performance characteristics of top-range rakes. The sturdy rotor housing offers the highest standards of safety, durability and windrowing performance all in one.

- Continuously lubricated CLAAS professional rotor housing.
- The working width is hydraulically variable from 22.3 - 24.3 ft (6.8 to 7.4 m) with two-stage adjustable mechanical stops; all you need is a single-acting hydraulic.
- Twelve removable tine arms with the PROFIX quick-change system.

Sophisticated.

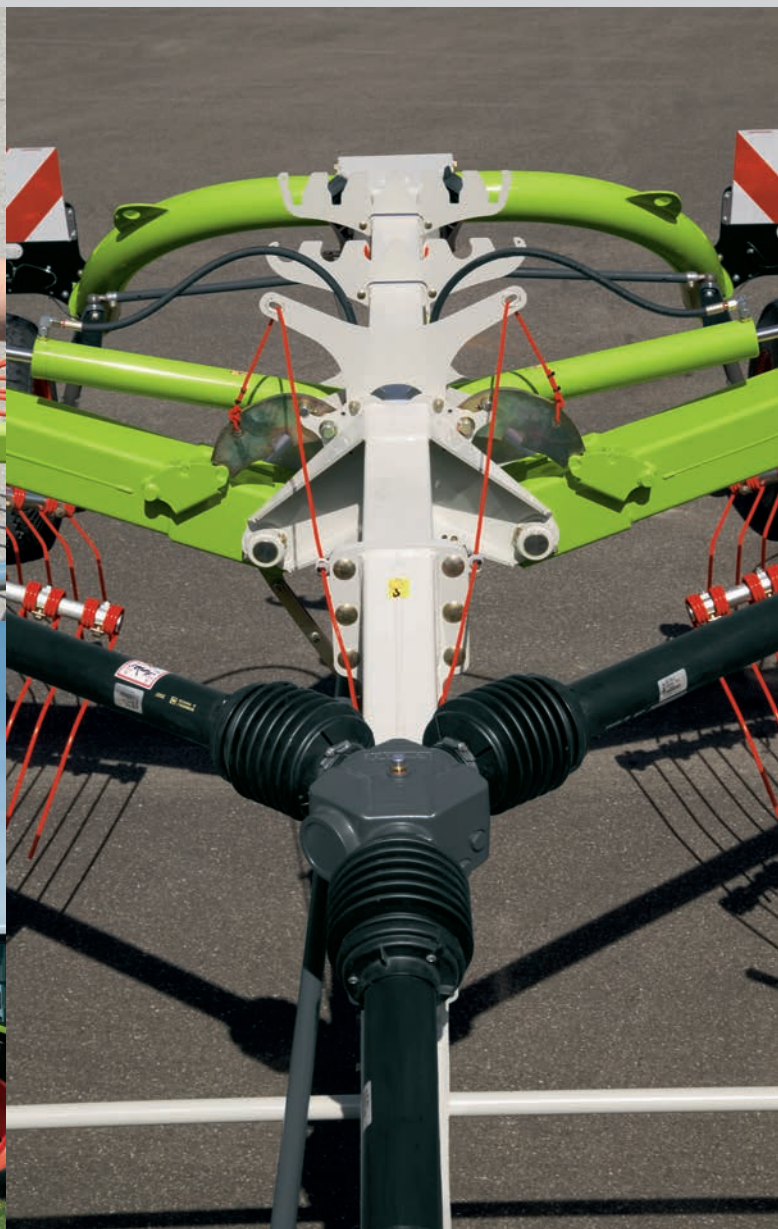
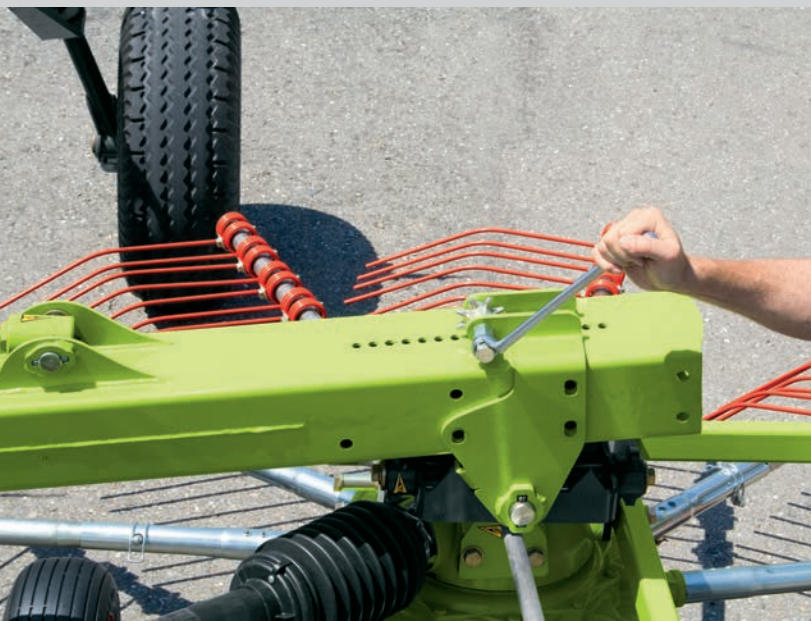
- Four-wheel chassis with steered front wheels.
- The optional six-wheel chassis is equipped with extra tandem axles and trailing wheels (available through CLAAS Parts).
- Mechanical transport locking device.
- Automatic, mechanically folding windrow guard for maximum ground clearance.
- Optional individual rotor lifting, controlled via a three-way valve (available through CLAAS Parts).



Professional class in a
mid-sized format.



The smallest member of a family of giants.





Flawless windrowing results.

Regardless of the crop quality, the LINER 2600 will faultlessly deposit a clean, box-shaped windrow in the center of the machine for the baler or forager. With a working width of 20.3 ft (6.2 m) or more, this dual-rotor rake lays the ideal windrow for loader wagons or smaller-sized balers.

Even the smallest member of the new-generation central rake family has the performance attributes required for successful and efficient forage harvesting. The LINER 2600 is priced competitively to give you unbeatable performance with all the basic features a good rake needs.

- You'll appreciate the familiar and proven oil-packed rotor housing from the LINER 650 TWIN with no maintenance to worry about.
- Working width range from 20.3 - 22.3 ft (6.2 to 6.8 m), adjustable in three different widths.
- Eleven removable tine arms.

Ideal working conditions.

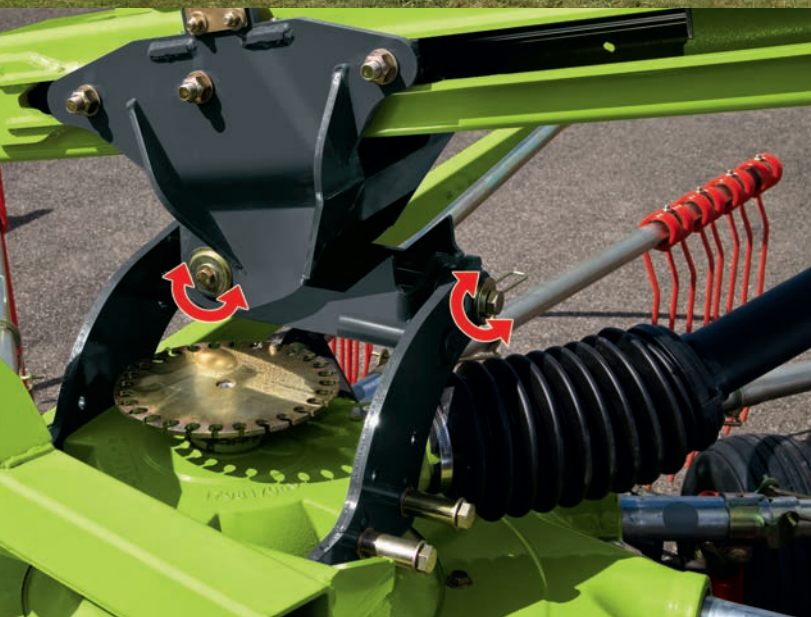
- Four-wheel chassis with steered front wheels.
- Two-level adjustable, mechanical headland stop.
- Mechanical transport locking device.
- Automatic, mechanically folding windrow guard for maximum ground clearance.
- Optional individual rotor lifting, controlled via a three-way valve (available through CLAAS Parts).



Raking it in.







Professional windrow collection – the LINER 1750.

Loss-free raking and transfer to the secondary rotor means a clean and accurate shape, which is ideal for processing the windrow with the machine following. The LINER 1750, with its 26.3 ft (8 m) raking width, is the rake for all professional silage businesses and farm contractors.

- Infinitely variable overlapping of rotors from the driver's seat to avoid losing forage.
- Continuously lubricated CLAAS professional rotor housing assembly with additional bearing housing.
- 14 removable tine arms with PROFIX quick-change system for maximum raking output.



Precision ground-contour following.

- Fully floating rotor suspension for optimal ground-contour following.
- The four-wheel chassis with steerable front wheels and laterally suspended front axle provides extremely smooth running and accurate gauging of each ground contour.
- The optional six-wheel chassis is equipped with extra tandem axles and trailing wheels for precise ground-contour tracking, highest working speeds and minimal crop contamination (available through CLAAS Parts).

Professional windrowing is its job.

Easy, customizable operation.

- Infinitely variable, hydraulic headland stop to suit all types of forage crop.
- You use the sequential valve to adjust the time delay for lifting and lowering the rotors to suit your individual requirements.
- Rotor overlap adjustable from the tractor cab to prevent forage losses, particularly when cornering.

Secure and comfortable transport.

- You can reduce the transport height to below 13.1 ft (4 m) by hydraulically lowering the rotors without leaving the cab.
- The windrow guard is lockable in the transport position so the crop stays where it belongs when going back for large windrows.
- Transport lock automatically released on deployment of the rotors.
- The machine has a low center of gravity due to the rotors being telescopically retracted downwards in their transport position, ensuring more stable handling, even at higher speeds of up to 31 mph (50 km/h).



The choice is yours.



Versatile in the field.

With such a range of easily used set-up options, you can match the LINER 1650 TWIN to produce top results in any crop in line with your forage yield or the type of machine planned to process the windrow. You can choose between a single, large windrow to feed the self-propelled JAGUAR, for instance, or make two windrows at night if the crop is extremely dense.

- For a single windrow 22.3 ft (6.8 m) raking width, and for dual windrows up to 25.9 ft (7.9 m).
- Continuously lubricated CLAAS professional rotor housing.
- 12 removable tine arms with PROFIX quick-change system for maximum raking output.



On track – ground-contour following.

- Fully floating rotor suspension for optimal ground-contour following.
- Four-wheel chassis with steered front wheels.
- The optional six-wheel chassis is equipped with extra tandem axles and trailing wheels (available through CLAAS Parts).





Customized for your needs.

You can switch from single to dual windrow operation by moving the telescopic boom in or out. This is controlled using the double-acting hydraulic valve. By simply inserting a pin, you can decide in advance which windrow type you prefer. A second windrow guard is optionally available.

- Two-stage adjustable, mechanical headland stop to suit the most varied forage quantities.
- Fitted as standard with a sequential control for adjusting the time delay between front and rear rotors when raising and lowering.
- Rotor overlap can be adjusted from the tractor cab.

Comfort and convenience on the road.

- The transport height can be reduced to below 13.1 ft (4 m) by hydraulically lowering the rotors without leaving the cab.
- The windrow guard is lockable in the transport position so the crop stays where it belongs when going back for large windrows.
- Mechanical transport locking device.
- The machine has a low center of gravity with rotors retracted downwards into the transport position, ensuring stable handling.





Efficient, high-performance windrowing.

For small and medium-sized farms looking to pack a punch without paying for more machine than you need. The LINER 750 TWIN and 650 TWIN with their large working width, moderate power requirements, high operating comfort and outstanding raking quality are among the most adaptable machines available for forage harvesting.

A versatile operator.

The LINER 750 TWIN and 650 TWIN are compact twin-rotor rakes with built-in road suspension. Both machines can be conveniently switched from single to dual windrow operation from the comfort of the cab.

Extremely flexible: the CLAAS swivelling drive head.

The front rotor is linked to the main frame via a swivelling drive head.

- Outstanding agility.
- Excellent stability on hills thanks to the close positioning of the transmission next to the tractor's rear axle.
- Drive train is well protected against bending and distortion.

LINER 750 TWIN
LINER 650 TWIN

Unlimited flexibility.



GRASS CARE – perfect float in any field condition.

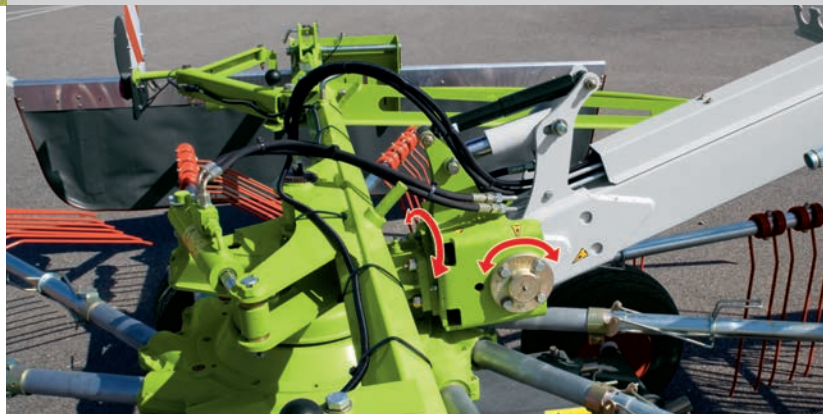
The top priority is always an absolutely clean crop, even under less than ideal conditions and high working speeds, ensuring high-quality forage.

- Fully floating suspension on the rear rotor.
- Perfect independent contour tracking by both rotors, with a pendulum travel of $\pm 15^\circ$ fore and aft and at right angles to the direction of travel.
- Tandem axles with four large-volume tires per rotor for smooth running and precise rotor guidance.
- Accurate gauging of the ground profile has been enhanced by placing the wheels close to the tines.
- An optional castor guide wheel can be fitted with no tools required.
- Shock absorbers on the rear rotor ensure stable handling and accurate contour tracking.

Reduced transport width.

The tine arms on both LINER machines can be removed, and the protection frame folded.

In the transport position, two wheels are raised per rotor to prevent scrubbing and minimize wear and tear.



It always cuts a fine figure.

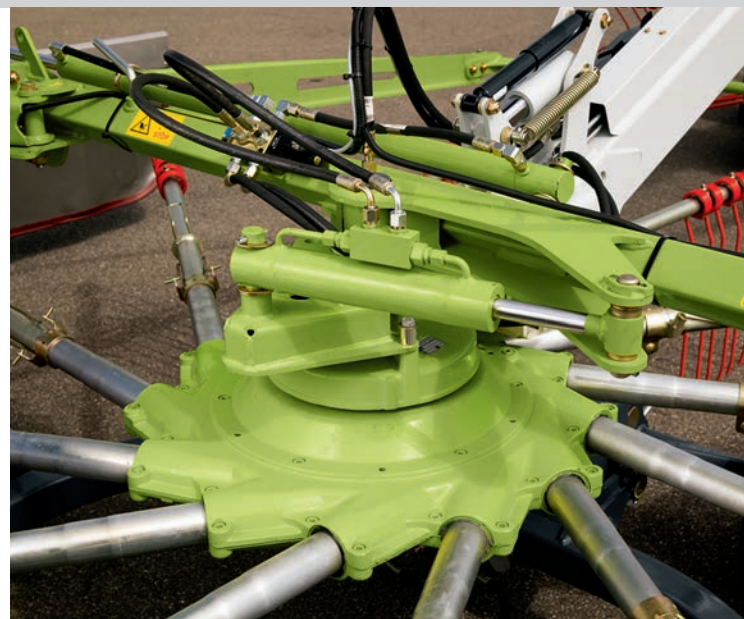
Engineered for safety in use.

The LINER 750 TWIN gives you a versatile, multi-purpose rake with an outstanding price-performance ratio. The LINER 750 TWIN is renowned for its low fuel consumption, high operator comfort, excellent raking quality and multiplicity of settings according to forage volume and clearance machinery.

- Infinitely variable hydraulic adjustment of the windrowing width and rotor overlap between 13.1 - 24.6 ft (4 - 7.5 m).
- Change over with ease from field work to transport mode and from single to dual windrow position from the driver's seat.
- Continuously lubricated CLAAS professional rotor housing.
- 12 removable tine arms with PROFIX quick-change system for maximum raking output.
- Optional gauge wheel.

Well-designed attachment.

- The drawbar is parallel to the ground and the hitching point remains in the same position. This has the advantage of keeping loading even and reducing wear on the hitch to a minimum.
- Park the machine safely using the stable jack with convenient height adjustment.
- The center drawbar lifting cylinder spreads the forces evenly and balances the parallel lifting effort.





Infinitely variable configuration.

- Check the exact raking height on the scale.
- Adjust the sideways angle of both rotors to any desired setting.
- Set the rotor angle in the direction of travel with the aid of the additional spindle on the rear rotor.



Everyday operation with you in mind.

- Headland lifting of more than 1.6 ft (500 mm) makes it possible to run across the highest windrow.
- Set the time delay (infinitely variable adjustment) between lifting and lowering the forward and rear rotors.
- A second windrow guard for the front rotor is a useful option for night work.



Narrow dimensions on the road.

Folding the protective frame on the LINER 750 TWIN locks the rotors. Removing three tine arms from each of the left and right rotors gives you a reduced road width of 7.8 ft (2.4 m).





Versatile in the field.

Not all farmers or contractors place the same demands on a rake. The fields they're used on come in all shapes and sizes, which explains why farmers have so many wide-ranging requirements when it comes to their machinery. The LINER 650 TWIN can meet all of their needs.

Runs like clockwork.

- Change over with ease from field work to transport mode and from single to dual windrow position from the driver's seat.
- Hermetically sealed tine control with oil bath lubrication.
- 11 removable tine arms.
- Hydraulic adjustment of the windrowing width between 11.5 - 20.7 ft (3.5 - 6.3 m).
- Maximum working width or maximum overlap by slotting the cylinder into a second mounting hole.
- Park the machine safely using the practical and stable jack with convenient height adjustment.

Sheer comfort.

Unbeatable in the field.

- A narrow turning circle at the headland, good ground clearance and safe negotiation of laid windrows are all achieved by the hydraulic rotor lift reaching a height in excess of 1.6 ft (500 mm).
- Smooth and infinitely variable raking height adjustment via a spindle fitted with a thrust bearing.
- The drawbar lift cylinder is centrally located for an even distribution of forces and parallel lifting.
- Set the rotor angle with the aid of the additional spindle on the rear rotor.
- A hydraulic sequential control is optionally available for delayed rotor lifting (available through CLAAS Parts).
- A second windrow guard for the front rotor is a useful option for night work.

Space-saving on the road.

The transport width of the LINER 650 TWIN can be reduced to just 9.8 ft (3 m) by retracting the windrow guard. Electrohydraulic windrow guard adjustment is optionally available.

With tine arms removed and protective frame folded, the width can be reduced to just 7.2 ft (2.2 m); ideal for narrow roads, passages and space-saving storage.



One for all.





One for life.



LINER single rotor rakes.

The LINER single-rotor rakes are specially developed by CLAAS for frequent work in smaller fields. The working widths of 17, 15.75, 14.75, and 11.5 ft (5.2, 5, 4.5, and 3.5 m) are ideal for these situations. LINER single-rotor rakes are renowned for high work rates and excellent reliability.

Runs like clockwork.

For single-rotor rakes too, CLAAS uses only continuously lubricated, airtight sealed rotor housings. This ensures minimal wear and tear and maximum operational reliability.

- Cam track manufactured from wear-resistant spheroidal graphite iron.
- Wide connection of the tine arms absorbs vertical loads.
- PROFIX tine arm bracket with multiple grooves for the LINER 550 T, 500 T, and 450 T minimizes wear and tear and facilitates rapid attachment and removal of tine arms.

All bumps smoothed out.

The CLAAS contour chassis with V-shape tandem axle is positioned close to the tines and adapts to uneven ground. The configurable lateral tilt enables the machine to adjust to different forage volumes. An optional castor guide wheel (available through CLAAS Parts) enables the rake to glide over uneven surfaces, even under challenging conditions, to ensure the machine operates with minimal loss and deliver outstanding crop quality.





The ideal machine every time.

CLAAS designers have made the LINER 550 T, 500 T, 450 T and 370 T available as trailed variants so that farmers with smaller tractors can also enjoy the benefits of a high-performance rake. The trailed rakes follow effortlessly behind the tractor, even over sloped terrain. Once hitched up, the wide-track machine stays in line behind the tractor both in the field and on the road.

Off you go – no fuss.

Just one single-acting remote is required to operate the trailed single-rotor rakes.

- The hitch design enables raising of the rotors parallel to the ground.
- Setting of rotor angle in the direction of travel via a built-in crank handle fitted in the drawbar cylinder.
- Parallelogram drawbar for connection to rigid pulling mechanisms.

Rapid maintenance.

Maintenance on the LINER is very straightforward: the airtight and continuously lubricated rotor housing is entirely-maintenance free and resistant to wear.

- Drive shaft with integrated overload protection and 50-hour lubrication interval.



LINER four-rotor rakes.

		4000	3500
Hitching			
Linkage category		Cat. III	Cat. II
Rake			
Working width	ft	40 - 49.2	32.5 - 41
	(m) (DIN)	(12.2 - 15.0)	(9.9 - 12.5)
Windrow width*	ft	5 - 8.5	4.6 - 7.5
	(m), approx.	(1.5 - 2.6)	(1.4 - 2.3)
Transport width			
with tine arms attached		9.85 (3.0)	9.85 (3.0)
Transport height			
with tine arms attached		13 (3.99)	—
with tine arms removed		11.7 (3.57)	12.8 (3.9)
Parking length (transport position)		33.3 (10.16)	27.5 (8.4)
Number of rotors		4	4
Rotor diameter		12.5 (3.8)	10.8 (3.3)
Tine arms per rotor set		Qty 14	12
Dual tines per arm set		Qty 4	4
Tine diameter		9.5	9.5
Windrow former		Cloth guard	Cloth guard
Windrow discharge		Center	Center
Contour chassis		4-wheel chassis	4-wheel chassis
		Front lateral suspension	
		Fully floating suspension	Fully floating suspension
Drive systems			
PTO shaft speed		rpm 540	540
Single wide-angle PTO drive shaft		●	●
Tires			
Contour chassis	16 x 6.50-8 10PR	4 x 4	4 x 4
Main frame	10.00/75-15.3 10PR	—	—
	15/55-17	—	2 (○)
	500/55-20	—	2 (○)
	620/40 R22.5	2	—
Weight		approx. lb (kg)	12,895 (5,850)
Required hydraulic connections		1 x dual-acting	1 x dual-acting
Convenience			
6-wheel chassis		○	—
Spare wheel 16 x 6.50-8 10PR		○	○
Individual rotor lift (three-way valve)		—	—

● Standard ○ Optional — Not available

* Dependent on the prevailing crop conditions and rpm

LINER dual-rotor rakes.

		3100	2900	2800	2700	2600
Hitching						
Linkage category		Cat. II	Cat. II	Cat. II	Cat. II	Cat. II
Rake						
Working width	ft (m) (DIN)	28.5 - 32.8 (8.7 - 10.0)	26.2 - 29.5 (8.0 - 9.0)	24.3 - 26.9 (7.4 - 8.2)	22.3 - 24.3 (6.8 - 7.4)	20.3 - 22.3 (6.2 - 6.8)
Windrow width*	ft (m), approx.	4 - 7.9 (1.2 - 2.4)	4 - 7.9 (1.2 - 2.4)	4 - 7.2 (1.2 - 2.2)	4 - 6.5 (1.2 - 2.0)	3.6 - 6 (1.1 - 1.8)
Transport width						
with tine arms attached	ft (m)	9.75 (2.97)	9.75 (2.97)	9.75 (2.97)	9.75 (2.97)	9.75 (2.97)
Transport height						
with tine arms attached	ft (m)	13 (3.99)	13 (3.99)	13 (3.99)	13 (3.99)	13 (3.99)
with tine arms removed	ft (m)	12.2 (3.72)	12.2 (3.72)	11.4 (3.47)	11 (3.38)	10.4 (3.18)
Parking length (transport position)	ft (m)	21.4 (6.53)	21.4 (6.53)	21.4 (6.53)	19.3 (5.87)	19.3 (5.87)
Number of rotors		2	2	2	2	2
Rotor diameter	ft (m)	13.8 (4.2)	12.5 (3.8)	11.5 (3.5)	10.5 (3.2)	9.5 (2.9)
Tine arms per rotor set	Qty	14	14	12	12	11
Dual tines per arm set	Qty	5	4	4	4	4
Tine diameter	mm	9.5	9.5	9.5	9	9
Windrow former		Cloth guard	Cloth guard	Cloth guard	Cloth guard	Cloth guard
Windrow discharge		Center	Center	Center	Center	Center
Contour chassis		6-wheel chassis	4-wheel chassis	4-wheel chassis	4-wheel chassis	4-wheel chassis
		Front lateral suspension	Front lateral suspension	Front lateral suspension		
		Fully floating suspension	Fully floating suspension	Fully floating suspension	Fully floating suspension	Fully floating suspension
Drive systems						
PTO shaft speed	rpm	540	540	540	540	540
Tires						
Contour chassis	16 x 6.50-8 10PR	2 x 6	2 x 4	2 x 4	2 x 4	2 x 4
Main frame	10.00/75-15.3 10PR	—	—	2	2	2
	15/55-17	2	2	2 (○)	—	—
Weight	approx. lb (kg)	6,173 (2,800)	4,960 (2,250)	4,520 (2,050)	4,190 (1,900)	3,530 (1,600)
Required hydraulic connections		1 x single-acting 1 x dual-acting	1 x single-acting 1 x dual-acting	1 x single-acting 1 x dual-acting	1 x single-acting	1 x single-acting
Convenience						
6-wheel chassis		●	○	○	○	—
Spare wheel 16 x 6.50-8 10PR		○	○	○	○	○
Individual rotor lift (three-way valve)		●	●	●	○	○

CLAAS continually develops its products to meet customer requirements. This means that all products are subject to change without notice. All descriptions, photos, and specifications in this brochure should be considered approximate and may include optional equipment that is not part of the standard specifications. This brochure is designed for worldwide use. Please refer to your nearest CLAAS dealer and their price list for local specification details. Some protective panels may have been removed for photographic purposes in order to present the function clearly. To avoid any risk of danger, never remove these protective panels yourself. In this respect, please refer to the relevant instructions in the operator's manual.

LINER SIDE DELIVERY RAKES.

		Dual-rotor rakes			
		1750	1650	750	650
Hitching					
Mounting				Swinging drawbar	Swinging drawbar
Linkage category		Cat. II	Cat. II		
Rake					
Clearing width	ft (m)	23 (7.01)	19ft 1in (5.82)	20ft 9in (6.32)	17ft 5in (5.31)
Single windrow laying (DIN)	ft (m)	26.25 (8.0)	22.25 (6.8)	13 - 24.5 (4.0 – 7.5)	11.5 - 20.7 (3.5 – 6.3)
Twin windrow laying (DIN)	ft (m)	–	25.9 (7.9)	24.6 (7.5)	20.7 (6.3)
Windrow width*	ft (m)	–	–	–	–
Transport width					
with tine arms attached	ft (m)	9.7 (2.96)	9.44 (2.88)	11.8 (3.6)	9.85 (3.0)
with tine arms removed	ft (m)	–	–	7.9 (2.4)	7.2 (2.2)
Transport height					
with tine arms attached	ft (m)	13 (3.99)	13 (3.99)	–	–
with tine arms removed	ft (m)	12.1 (3.69)	11.6 (3.55)	–	–
Parking length (transport position)	ft (m)	31.3 (9.54)	28.2 (8.6)	28 (8.55)	26.25 (8.0)
Number of rotors		2	2	2	2
Rotor diameter	ft (m)	12.5 (3.8)	10.5 (3.2)	11.5 (3.5)	9.5 (2.9)
Tine arms per rotor set	Qty	14	12	12	11
Dual tines per arm set	Qty	4	4	4	4
Tine diameter	mm	9.5	9.5	9.5	9.0
Windrow former		Cloth guard	Cloth guard	Cloth guard	Cloth guard
Windrow discharge		left	left	left	left
Rotor chassis		Contour chassis	Contour chassis	Contour chassis	Contour chassis
		4-wheel	4-wheel	4-wheel	
		Fully floating suspension	Fully floating suspension	Fully floating rear suspension	Fully floating rear suspension
Drive systems					
PTO shaft speed	rpm	540	540	540	540
Single wide-angle PTO drive shaft		●	●	●	●
Tires					
Contour chassis	16 x 6.50-8 10PR	2 x 4	2 x 4	–	–
	18 x 8.50-8 6PR	–	–	2 x 4	2 x 4
Main chassis	10.00/75-15.3 10PR	–	2	–	–
	15/55-17	2	–	–	–
Weight	approx. lb (kg)	5,790 (2,625)	4,915 (2,230)	3,800 (1,720)	3,085 (1,400)
Required hydraulic connections		1 x single-acting	1 x single-acting	1 x single-acting	1 x single-acting
		1 x dual-acting	1 x dual-acting	1 x dual-acting	1 x dual-acting
Optional (available through CLAAS Parts)					
6-wheel chassis		○	○	–	–
Spare wheel 16 x 6.50-8 10PR		○	○	–	–
Spare wheel 18 x 8.50-8 6PR		–	–	○	○
Double wide-angle PTO drive shaft		–	–	○	○
TWIN function		–	●	●	●
Extra windrow guard for front rotors (twin windrows)		–	○	○	○
Forward castor guide wheel		–	–	○	○

● Standard ○ Optional – Not available *TWIN function (optional) **LINER 370 with single axle ***High tube boom, otherwise 1.15 m

Single-rotor rakes

550 T 500 T 450 T 370 T

Swinging drawbar/hitch Swinging drawbar/hitch Swinging drawbar/hitch Swinging drawbar/hitch

13ft 11in (4.24)	12ft 8in (3.86)	11ft 8in (3.56)	8ft 5in (2.57)
17 (5.2)	15.75 (4.8)	14.75 (4.5)	11.5 (3.5)
—	—	—	—
—	—	—	—

14.5 (4.4)		12.3 (3.76)	10.4 (3.16)
8.2 (2.5)	8.2 (2.5)	7.25 (2.2)	—

8 (2.45)	8 (2.45)	8 (2.45)	5.25 (1.60)***
		—	—
15.5 (4.7)	14.4 (4.4)	17.2 (5.25)	15.6 (4.75)
1	1	1	1
13.8 (4.2)	12.5 (3.8)	11.5 (3.5)	9.5 (2.9)
14	14	12	11
5	4	4	4
9.5	9.5	9.0	9.0
Cloth guard	Cloth guard	Cloth guard	Cloth guard
left	left	left	left
Contour chassis	Contour chassis	Contour chassis	Contour chassis
4-wheel	4-wheel	4-wheel	4-wheel

540	540	540	540
●	●	●	●

—	—	—	4
4	4	4	—
—	—	—	—
—	—	—	—

1,731 (785)	1,731 (785)	1,575 (715)	1,160 (525)
1 x single-acting	1 x single-acting	1 x single-acting	1 x single-acting
1 x dual-acting (for ○)	1 x dual-acting (for ○)	1 x dual-acting (for ○)	—

—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

○	○	○	○
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