Loader wagons

QUANTUM
When you are working in the field day in, day out, you need more than just robust machinery; you need technology that is fun to work with – reliable technology that works in harmony when the going gets tough and when there seems to be no end in sight. And you also need harvesting systems that piece together seamlessly.

As a leading equipment manufacturer of forage harvesting machinery, CLAAS provides the ideal harvesting chain for every farm and business size. Our coordinated range of machines support you in your day-to-day operations and enable you to achieve optimal results when harvesting forage.

Quantum.claas.com

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QUANTUM 5700–4700.
For professionals.

Professional.

The QUANTUM 5700-4700 machines are loader wagons for professional operations. With load volumes of between 29 and 37 m³ and permissible gross weights of up to 16 tonnes, these machines meet all the requirements for efficient and successful forage harvesting.

Power-saving precision cut.

The controlled pick-up with overload protection ensures a continuous crop flow. The rotor conveys the crop gently to the 33 knives, and the wagon is always evenly filled when using the automatic loading mode. As an optional extra, this operation can be optimised with a sensing bolt on the transmission.

Stable structure.

A solid construction is required to deliver high loading performance. Accordingly, the body of the QUANTUM is made entirely from steel and the spur gear drive is designed to cope with very high loads. In addition, large tyres of up to 22.5" ensure ground protection in the field and secure transport operations on the road.

Even unloading.

Metering rollers in the 5700 S and 4700 S models allow you to unload the crop smoothly and evenly. There is a choice between two or three metering rollers. There is also a straightforward setting to determine whether the tailgate opens fully or partially during discharging.

Operation.

All functions are operated with ISOBUS technology via the COMMUNICATOR II. In conjunction with the order printer, this allows you to document loading and unloading times.
QUANTUM 3800.
Agile.

The QUANTUM 3800 models are designed for use with smaller tractors. They are easy to tow, thanks to the single-tine rotor, which facilitates fuel-efficient loading of the wagon.

Absolutely dependable.

Large tyres up to 22.5" in conjunction with BPW axles with parabolic springs ensure optimal ground protection and safe road transportation. In addition, an automatically lubricated triplex chain drive and the controlled pick-up with overload protection help guarantee the machine’s operational reliability. The controls are conveniently operated via the CLAAS CONTROL TERMINAL.

Unloading.

In conjunction with the scraper floor and its four robust chains, the tailgate opens up wide to allow quick and easy discharging of the wagon.

Fully loaded.

A load volume of up to 33 m³ and permissible gross weights of up to 13 tonnes meet the criteria for efficient and successful harvesting.
Hitching

Creating space.

Maximum tongue load.

With a tongue load of up to 2 tonnes, the drawbar of the QUANTUM is perfectly matched to its load capacity. Depending on the particular model, permissible gross weights of 11 to 16 tonnes are possible. Hitching is with a Schrammle coupling system or hitching eye, depending on the region. Alternatively, you can equip your QUANTUM model with a bottom hitch.

Sheer convenience.

A folding parking jack with a wide contact surface ensures that the machine is held securely in place when unhitched. When unhitching the machine, all the hoses can be placed in the specially provided brackets.

Creating space when emptying.

Two large double-acting hydraulic rams allow you to achieve a ground clearance of 680 mm with the pick-up fully raised. This protects the components when passing over the clamp, and facilitates access for maintenance, or when changing knives. In the QUANTUM 5700-4700 machines, drawbar suspension enhances driving comfort during transport operations, while at the same time protecting the wagon’s components.

Slimline drawbar.

Thanks to the slimline design, the drawbar ensures optimum clearance for the tractor’s tyres when cornering, giving it a very small turning circle. In wagons with a top hitch, the underside of the drawbar features a rounded plate to protect the tractor tyre in a collision.
High performance.

High output at the pick-up is essential in order to exploit the full capacity of the QUANTUM. This is possible thanks to the controlled pick-up, which has a working width of 1.80 metres. In addition, a vertically adjustable crop guard, with either a simple guide roller or twin roller crop press, ensures uninterrupted crop flow.

The controlled pick-up offers distinct advantages compared with an uncontrolled one:

- Continuous crop flow, thanks to the short distance between the pick-up and the rotor, even with wet and short-cut material
- Reduction in speed of up to 55 percent effectively prevents forage contamination
- Better chop quality, because longitudinal alignment of the crop is prevented

Easily adjustable.

Dual castor-mounted, height-adjustable guide wheels allow the pick-up to adjust effortlessly to uneven ground. Even on hilly terrain, the large swivel range ensures loss-free pick-up.

Robust.

If the machine is to be put to continuous use, a sturdy design is called for from the ground up. This includes five rows of dual tines bolted onto a U-shaped profile to enhance stability. Overload protection with integrated flywheel comes as standard to protect the components.
An insatiable appetite.

Powerful.

With a diameter of 860 mm, the rotor rapidly feeds the harvested material to the knives and towards the loading bay. The nine rows of tines produce small chopped slices, which keeps down the load peaks even during periods of high throughput. This protects the drive components and ensures long maintenance intervals. To prevent recirculation of the forage, the QUANTUM is equipped with sturdy Hardox strippers.

Ideally suited to the job at hand.

In the QUANTUM 5700 and 4700, the twin rows of tines on the rotor ensure high loading performance with precise chop quality.

The QUANTUM 3800 models are equipped with a single-tine rotor. This allows power-saving loading operations, thereby meeting the requirements for use with small tractors.

Robust design.

The QUANTUM 5700 and 4700 models are driven by a durable spur gear, which is hermetically sealed and continuously lubricated in an oil bath. In the QUANTUM 3800 P, the rotor is driven by a triplex chain with automatic lubrication.

Precision.

The QUANTUM 5700-3800 models are equipped with 33 knives, giving a chop length of 45 mm. All the knives are individually secured with spring mountings against damage from foreign objects.

Shows no mercy.

Unstoppable.

Blockages in the loading assembly can be cleared effortlessly from the comfort of the cab. To do so, the feed channel is extended by 80 mm. When the PTO shaft is switched back on, the full drive force acts against the blockage. This function protects the drive while clearing the blockage promptly. If the chopper housing is not fully closed when operations are resumed, the driver receives a visual signal from the control terminal and an acoustic warning from the COMMUNICATOR II.

In a second stage, the chopper housing can be fully opened for maintenance work or to remove large foreign bodies.

Sharp.

Sharp knives ensure a clean cut and reduce the power requirement. Knives can be replaced without tools, allowing the operation to be carried out in the shortest possible time. The individual blade retainers are automatically released when the chopper housing is opened. After that, all you have to do is to release and remove the locking lever and push up another ejection lever. The knives then sit loosely in the chopper housing and can be removed.
Body

A tough customer.

Built tough.

The QUANTUM has been designed for tough, continuous operation, where heavy loads need to be transported safely and reliably – which means a sturdy construction is vital.

Durable.

The side-mounted pressure plates at the front of the loading bay absorb and distribute any forces occurring there. This ensures the forage is conveyed backwards more efficiently, and with lower power requirements.

The chassis.

At the heart of the wagon is a continuous longitudinal steel chassis beam up to 8.0 mm thick. This, in turn, supports solid uprights, which are double-bolted to the continuous vertical profile panels and the longitudinal chassis beam, thereby ensuring even loading over the entire body.

The scraper floor.

Care was also taken to give the scraper floor a sturdy design. Four rugged chains convey the crop towards the rear along bolted conveyor strips. The two-stage scraper floor drive allows it to be promptly cleared of any load residues. This feature is available in the QUANTUM 5700-4700 models.
Well set up.

Tandem axles from BPW guarantee safety and comfort, both when loading and on the road. Depending on the particular model, these permit high load capacities of between 11 and 16 tonnes. Parabolic springs in conjunction with sprung rocker arms provide quiet running and stable handling. This combination produces excellent damping properties, with axle load compensation. Additionally, even at high travel speeds of up to 60 km/h, the load is evenly distributed over both axles.

Large tyres.

Depending on the particular model, the QUANTUM can be fitted with various large tyres up to 22.5". This keeps the pressure on the soil to a minimum, even when carrying heavy loads.

Gentle on the soil while loading.

A trailing axle helps minimise damage to the grass cover and reduce tyre wear. It can be hydraulically locked when reversing or running over the clamp. In the QUANTUM 5700-4700 models, the steering axle is automatically locked by the ISOBUS control when reversing, or at speeds above 15 km/h.
Safe and reliable.

When closing, the QUANTUM 5700-4700 models feature an integrated safety function. Firstly, the tailgate lowers under its own weight, but stops a few centimetres before the catch. Only then is the hydraulic system activated and the tailgate locked.

Cross conveyor.

For sideways distribution of the crop on the feed table, the QUANTUM 5700 and 4700 S models are equipped with an additional cross conveyor. Using the COMMUNICATOR II, the direction of discharge can be preselected at the press of a button.

Well metered.

Even layering.

The use of metering rollers allows the crop to be layered evenly on the clamp. This significantly reduces the effort of distributing the crop. Depending on the particular model, the QUANTUM can be fitted with either two or three metering rollers.

Partially opened tailgate.

When fully opened, the forage can be rapidly unloaded, a particular advantage with short clamps. When the lower section of the tailgate is opened, the forage drops downwards vertically, as in a chute, forming an even mat.

Metering rollers

Well metered.
Arrive feeling fresh and relaxed.

In the QUANTUM 5700 and 4700, the ISOBUS control system via the COMMUNICATOR II gives a feeling of relaxed driving comfort. Thanks to the load-sensing comfort hydraulics, all the functions can be performed directly at the push of a button. The driver’s work is also reduced by a range of automated sequences.

Automated loading function.

The wagon is automatically loaded when the filler bar on the metal top is displaced. If it is raised, the scraper floor is automatically engaged with an adjustable drive speed. As an optional extra, the automatic loading mode can also be controlled via the torque on the rotor drive. Combining the two systems allows you to load the wagon evenly, while protecting the forage, even when processing wet material. The automatic loading mode is disengaged as soon as the tailgate or the lower metering roller is displaced by the crop.

Faster unloading.

The automatic discharge function means the crop can be unloaded quickly and conveniently. When it is engaged, the tailgate opens, the trailing axle is locked and the scraper floor is engaged.

Transparent right down to the finest detail.

Data recording in the COMMUNICATOR II facilitates individual order processing for each customer. You can record the number of wagon loads, the time required for loading and unloading, and the overall time taken for up to 20 orders. Using the optional ISOBUS order printer, the data can then be documented on site in the form of a delivery note.

Just climb aboard and drive off – it’s great when everything is so easy!
Operation: QUANTUM 3800/3500.

Easy to operate.

Simple to load.

The QUANTUM 3800 and 3500 models are operated using the CLAAS CONTROL TERMINAL. You can activate all the functions in the machine at the push of a button, and they are then executed via a single-acting spool valve.

The button lighting shows which functions are engaged. This allows you to work efficiently even at night.

Opens fully.

The fully opening tailgate on the QUANTUM allows you to discharge the contents of the wagon speedily. There is an additional mechanical locking mechanism when closing the tailgate via the single-acting control valve.

Less time spent over the clamp.

The scraper floor speed can be regulated via the tractor’s hydraulic power control.

The full picture.

Even if you have to work late into the night, the QUANTUM always helps give you the full picture – in the form of additional lighting for the loading bay on the QUANTUM 5700 and 4700, and with reversing headlights that switch on and off automatically, depending on the work mode, in conjunction with the ISOBUS operation.

Practical.

All hydraulic assemblies are housed under the bonnet, and protected against dirt and damage. The control terminal can also be stowed under the bonnet when parking the wagon.
Well equipped.

Maintenance

Runs like clockwork.

To minimise maintenance outlay, all lubrication points are easily accessible and centrally arranged in the form of lubrication strips. ISOBUS operation in the QUANTUM 5700 and 4700 additionally provides visual and acoustic alerts once a lubrication interval has been reached.

Razor-sharp.

Sharp knives guarantee a clean chop and reduce the wagon’s power requirements. With the AQUA NON STOP and AQUA NON STOP COMFORT grinding units, you can ensure the knives are sharp and accurately ground in next to no time. You can also use the grinding unit to sharpen the knives on CLAAS balers.

AQUA NON STOP COMFORT.

With the unique underwater sharpening system, all standard curved knives are ground to an incredible sharpness, effortlessly and with breathtaking speed. The knives are sufficiently cooled throughout the sharpening process to prevent loss of hardening and smouldering. Harmful dust produced during grinding is absorbed by the water and does not contaminate breathing air – safeguarding your health.

AQUA NON STOP COMFORT is the first fully automatic wet-grinding device for loader wagon and baler knives. Regardless of the degree of wear, the knives are no longer machined by fixed radii, but precision-ground along their individual contours. The device processes up to 52 knives per transit. Exchangeable templates enable a huge variety of knife types to be ground precisely.

AQUA NON STOP COMFORT was awarded a silver medal at Agritechnica 2013.
Service at CLAAS is more than just a commitment – it’s a way of life.

Round-the-clock support.
You can rely on professional and reliable support from the First CLAAS Service Team at all times. CLAAS importers and dealers provide fast spare parts supply and round-the-clock customer service around the world.

We’re always close by when you need us.
You can count on us whenever you need parts in a hurry. Our central warehouse delivers all CLAAS ORIGINAL spare parts quickly and reliably throughout the world. The extensive CLAAS dealer network ensures that they reach their destination as quickly as possible – wherever you happen to be.

We speak your language.
CLAAS dealers include some of the world’s most efficient agricultural machinery companies. They are highly trained, equipped with specialist tools and have intimate knowledge of how farmers and contractors work. They understand your expectations and can meet your requirements when it comes to professional support and reliability.

We get the diagnosis right.
Many years of experience enable our service engineers to pinpoint malfunctions in no time, and set up dependable configurations and updates – if necessary, directly in the field.
### QUANTUM

<table>
<thead>
<tr>
<th>Model</th>
<th>ST70 F</th>
<th>ST85 S</th>
<th>ST92 F</th>
<th>ST105 S</th>
<th>ST130 F</th>
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<td>Bottom hitching with hitching ring</td>
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<td>Pick-up</td>
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<td>Guide wheel tyres</td>
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<td>Rotor/knives</td>
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<td>Scraper floor</td>
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<td>Dimensions/weights</td>
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<td>Overall length mm</td>
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<td>Overall width with standard tyres mm</td>
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<td>Overall height with standard tyres mm</td>
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<td>Overall height with top frame lowered mm</td>
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<tr>
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<td>ISOBUS control via COMMUNICATOR II</td>
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<td>Double wide-angle PTO shaft</td>
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<td>Hydraulically sprung drawbar</td>
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<td>ISOBUS control via COMMUNICATOR II</td>
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CLAAS continually develops its products to meet customer requirements. This means that all products are subject to change without notice. All descriptions 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 in order to present the function clearly in photographs. 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.

Ensuring a better harvest.