

Operation manual

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Ex machine no.(PSN)	DW001000
Serial number (PIN)	02DW01
Reference No.	VGG0609DW(7)EN

Identification of the machine

To support you as soon as possible your dealer requires several details of your machine.
Please enter the information here.

Designation

7420

PIN

Mounted options

Dealer's address

Manufacturer's
address

Kverneland Group Geldrop BV
Nuenenseweg 165
5667 KP Geldrop
The Netherlands

Phone +31 40 2893300

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Target group of this operation manual

This operation manual is meant for those concerned with the control, use and maintenance of the machine. It contains all data required for a safe handling, use and maintenance of the machine.

For your safety

Before starting to adjust and use your machine, familiarise yourself with this operation manual. By doing so your safety and the best performance are assured. It is very important to read this manual carefully before using the machine and to keep it handy. In this way, you will

- avoid accidents
- respect the warranty conditions
- always have a functional machine in perfect working order

For the employer

All personnel are to be trained in the use of the machine regularly (at least once a year) in accordance with employers' liability insurance association guidelines. Untrained or unauthorised individuals are not permitted to use the machinery.

You are responsible for the safe operation and maintenance of your machine. You must ensure that you and anyone else who is going to operate, maintain or work around the unit be familiar with the operating and maintenance procedures and related safety information contained in this manual.

Symbols used

In this operation manual the following symbols and terms are used:

- A bullet stands at enumerations

> A triangle stands at steps, which you must do

→ An arrow shows cross-references at other text passages

[+] The plus sign shows that it involves optional equipment, which does not belong to the standard model.

Besides these symbols, pictograms are used, which will help you with locating of text passages:

TIP The word "Tip" shows tips and advices to the use.



The triangle refers to danger at assembling or (adjusting) work.



The key refers to tips at assembling or adjusting work.



The star shows examples, which are needed for a better understanding.



For your safety

This chapter contains all general safety instructions. Subject-specific safety instructions are located per chapter. Take care of the safety instructions

- because of your own safety
- because of the safety of your fellow man
- to guarantee the machine safety

When handling agricultural machinery, wrong behaviour can lead to a lot of danger. Therefore work with special care and never under pressure of time.

For the employer

Inform the one who works with this machine frequently about these safety instructions and according to the legal regulations.



Meaning of the safety decals



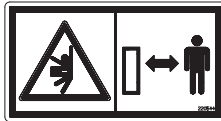
Read the operation manual carefully

Read the operation manual carefully before taking the machine into operation. Read and obey the safety instructions.



Use the transport lock

Before road transport, the transport lock must be used to secure the loading arm. A non-secured loading arm can cause serious or deadly injuries or damages.



Stay clear of the pre-stretcher

Stay clear of the pre-stretcher area while the wrapper arms are rotating. Serious injuries can occur.



Stay clear of the loading arm area

Stay clear of the moving loading arm area. A loading arm moving down can cause serious personal injuries.



Stop the tractor engine

Prior to any maintenance, repair and adjustment work, stop the tractor engine and remove the ignition key. Otherwise serious or deadly injuries can occur.



Pre-stretcher rotation 30 rpm

The prescribed pre-stretcher rotation of maximum 30 rpm may not be exceeded.



Use ear protection

Use adequate ear protection during wrapping. Serious hearing injuries can occur.



Never stay behind the machine while unloading

Stay clear of the table area while unloading a bale. An outgoing, rolling bale has a heavy mass and a high speed. A rolling bale can cause serious or deadly injuries.



Stay clear of pre-stretcher rollers

Stay clear of the pre-stretcher rollers. Hands can be squeezed between the rollers. Personal injuries can occur.



Stay clear of the pre-stretcher area

Stay clear of the pre-stretcher area while the wrapper arms are rotating. Serious injuries can occur.

Safety instructions



Use the table safety bar

Prior to any maintenance, repair and adjustment work on the tipped table, place the table safety bar. A non-secured table can cause serious or deadly injuries.



Stay clear of the applicutter rollers

Stay clear of the applicutter rollers. Hands can be squeezed between the rollers. Personal injuries can occur.



Who is allowed to operate the machine?

General

Authorised people only

The machine may only be used, maintained or repaired by authorised people who have been informed about the dangers when handling the machine.

Usually such persons have an agricultural or equal intensive education.

Safety is your responsibility

Apply and insist upon application of the safety instructions. Most accidents are avoidable. Do not run the risk of serious or fatal accidents through ignorance of these safety instructions.

Wear close fitting clothing

Avoid wearing loose fitting clothing.

Loose clothing can get stuck between rotating parts. Danger of serious injury.

Keep the machine clean

Always keep the machine clean to avoid fire risk. Equip the machine with a 10 litre pressurised water fire extinguisher to be prepared in case of fire.

Running in an enclosed area

Do not run the machine in an enclosed area. Exhaust fumes can be dangerous.

Never work on a running machine

Never work on the machine while it is running. Severe injuries can occur.

No modification of the machine

Do not modify the machine in any way. Unauthorised modifications may impair the function and/or safety and could affect the life of the machine.



Hitching the machine

Increased danger of injury

While hitching the machine onto the tractor an increased danger of injury occurs. Therefore:

- prevent the tractor from rolling away, shut down the engine and remove the ignition key
- never stay between tractor and machine during hitching

In case of negligence damages to the machine or serious personal injuries can occur.

Hydraulics

Hydraulic couplings only pressureless

Only couple the hydraulic hoses to the tractor when both tractor and machine hydraulics are pressureless. Hydraulics under pressure can cause accidental movements of the machine.

High pressure in the hydraulic system

The hydraulic system is under high pressure. All tubes, hoses and couplings must be controlled regularly for leaks and external damages. Only use suitable tools when searching for leaks. Immediately repair damages. Leaking oil can cause injuries and fire. When having injuries visit a doctor immediately.



Road transport

Pay attention to a road-safe condition

When driving on the local roads, the machine must correspond to the current traffic prescriptions. To which e.g. belongs:

- mounting of lighting, warning and protection installations
- comply with the permissible transport dimensions and weights, maximum permissible axle loads, tyre carrying capacity, total weights and national speed limits
- taking care of the maximum permitted speed of 25 km/h

In case of negligence, driver and owner of the machine are fully liable.

Prohibition of transporting people on the machine

Nobody and nothing shall be transported on the machine during transport. Transporting of people or objects on the machine is perilous and prohibited.

Changed driving and braking handling

Because of the hitched machine the driving and braking handling changes. Especially when driving curves the dimensions and mass of the machine have to be taken into account. A not adapted driving style can lead to accidents.

Adapted driving speed

Under bad road circumstances and at high driving speeds very high crafts can appear, which load or overload the tractor and machine too much. Adapt the driving speed according to the road circumstances. A not adapted driving speed can lead to accidents.



Working with the machine

First use only after instruction

The machine may at the first time of use only be brought into use by employees of the dealer, factory representatives or employees of the manufacturer. False use after bringing the machine into use without instructions can cause damages to the machine or accidents.

Take care of technical correct condition

Only bring the machine into use in a technical correct condition. Check all important parts and replace defective parts before use. Defective parts can cause material or personal damages.

Do not remove protective covers

The protective covers should not be removed or evaded. Check all protective covers before using. Unprotected machine parts can cause heavy or deadly accidents.

Prohibition of transporting people on the machine

Nobody and nothing shall be transported on the machine during transport. Transporting of people or objects on the machine is perilous and prohibited.

Check the direct surroundings

Before driving and bringing into use of the machine the direct surroundings must be checked. Take care of sufficient view. Only start driving when no persons or objects are in the direct surroundings. Perilous injuries can occur.

Tighten bolts and nuts

Check bolts and nuts regularly for being tight and tighten if necessary. Because of using the machine bolts can get loose. Damages to the machine or accidents can be caused.

Behaviour at troubles

At functional troubles stop and secure the machine immediately. Remedy the trouble immediately or commission a workshop. Continuing working with the machine cause accidents or damages.

Blockage or operation of a security device

In case of a blockage or operation of a security device, never work on the machine without

- stopping the engine and
- removing the ignition key

Never be tempted to hand feed or unblock the machine while it is running. Serious or deadly injuries can occur.



Unhitching the machine

Increased danger of injury

While unhitching the machine from the tractor an increased danger of injury occurs. Therefore:

- prevent the tractor from rolling away, shut down the engine and remove the ignition key
- never stay between tractor and machine during unhitching
- take care of a level and secure surface for the machine
- take care of a secure lock of the support jack
- only detach the hydraulic hoses when the hydraulic system at both tractor and machine is pressureless

In case of negligence heavy or deadly injuries can be the consequence.



Care and maintenance

Observe the care and maintenance intervals

Observe the prescribed intervals and those stated in the operation manual for recurring checks and inspections. In case of negligence of the intervals damages to the machine or accidents can be caused.

Use original parts only

Lots of components have special properties which decides for the stability and the function of the machine. Only the parts and options delivered from the manufacturer have been tested and released. Other products can interrupt the function of the machine or can harm the security. When using not original parts the warranty and liability of the manufacturer reduces to nil and void.

At all care and maintenance work:

- make the hydraulics pressureless
- switch off the engine and remove the ignition key
- make sure the tractor and machine are positioned on a firm and level area, support if necessary
- unhitch the tractor if possible
- do not use parts of the machine as climbing help, use suitable climbing helps on the contrary

Only when observing these prescriptions a secured working during care and maintenance work is guaranteed.

Interrupt electric power supply

Before working on the electrical device, separate this from the electric power supply. Supplies being charged can cause material or personal damages.

Exchange hydraulic hoses

Hydraulic hoses can age without external recognizable indications. We therefore recommend to exchange all hydraulic hoses every six years. Defective hydraulic hoses can cause heavy or deadly injuries.

Careful when cleaning with high-pressure cleaner

The machine can partly be cleaned with water or steam. Clean bearings, plastic parts and hydraulic hoses with low pressure only. Too high pressure can damage these parts.



Careful when cleaning with compressed air cleaner

The machine can partly be cleaned with compressed air. Clean electric parts and the hydraulic valve block with low pressure only. Too high pressure can damage these parts.

No aggressive wax additives

When cleaning do not use aggressive wax additives. Bright metal surfaces can get damaged.

Before welding work

Before welding to the hitched machine, untie the tractor's battery and the dynamo. Therefore you will avoid damages to the electrical installation.

Tighten bolted links

After care and maintenance work all loose bolted links must be tightened. Because of loose bolted links material damages can be caused.

Further prescriptions

Observe the prescriptions

Please observe besides these safety instructions

- the accident prevention prescriptions
- the general accredited safety-technical, industrial medicinal and road traffic law rules
- the tips in this operation manual
- the work, care and maintenance prescriptions

Acquaintance with the machine

This chapter contains general information about your machine and information about:

- characteristics
- technical specifications

Destination of the machine

This machine is exclusively appropriate designed for film wrapping of round bales of ligneous plants, mainly grasses, taking into account all prescriptions, procedures, etcetera as stated herein and/or through decals or other signs on the machine.

Intended use of the machine

This machine shall be exclusively used for the normal agricultural work.

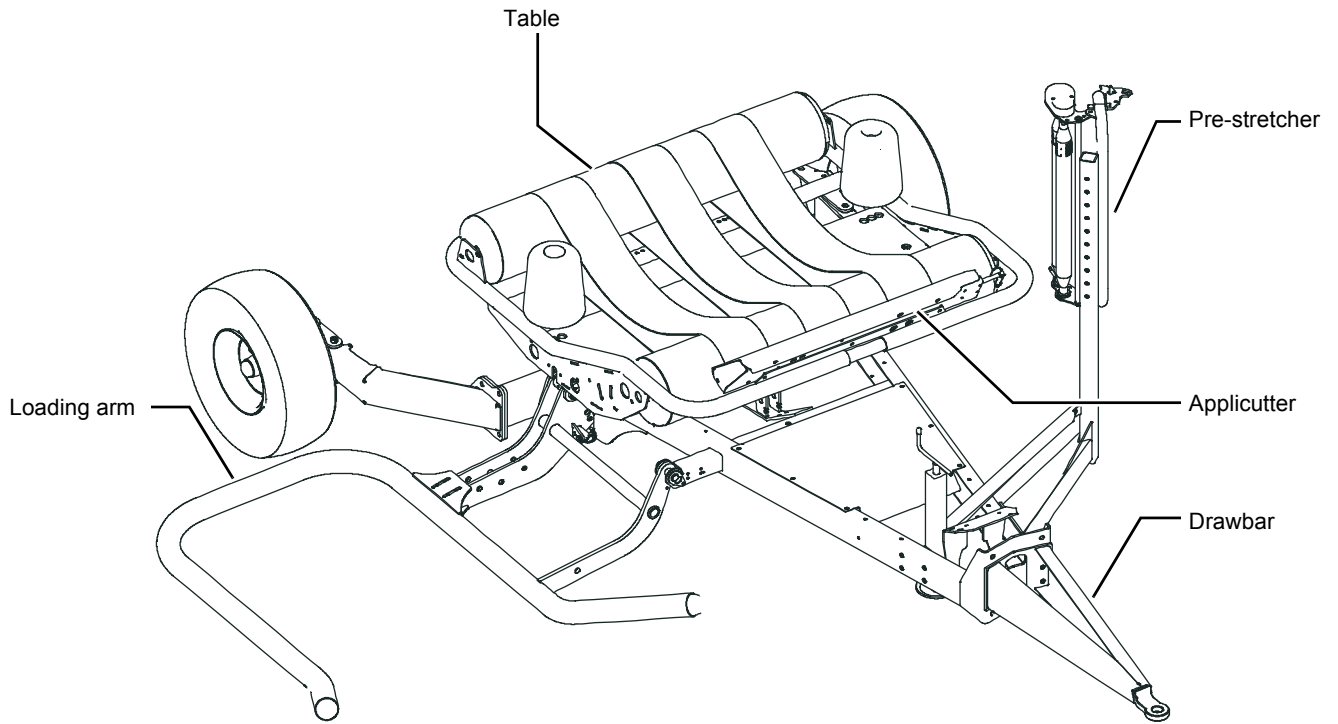
Any use beyond the one stipulated above requires written authorization of the manufacturer, this may be required for film wrapping unusual, non-grass plants as well.

Characteristics of the machine

The loading arm picks up, lifts the bale and puts it onto the table. The table starts rotating. The bale is being wrapped with film. When the desired number of film wraps is reached, the table stops rotating. The film is cut by the applicutter. The bale will be unloaded by tipping backward the table.

Acquaintance with the machine

Description of the components

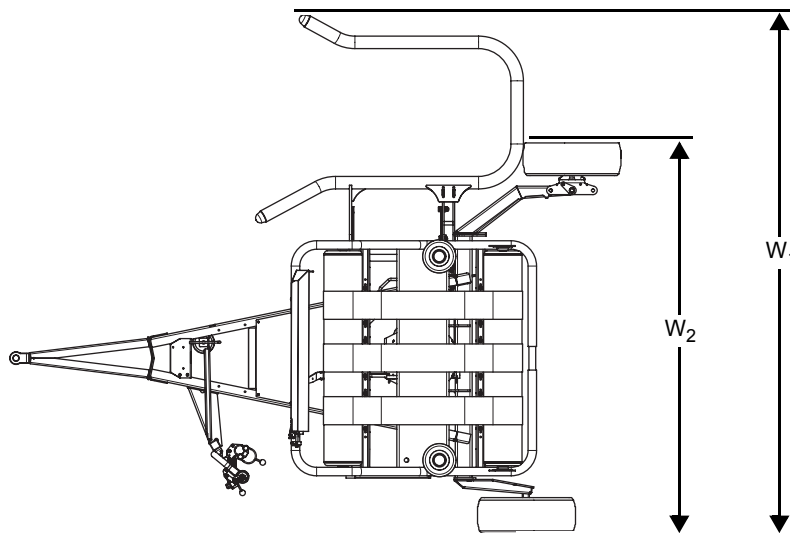
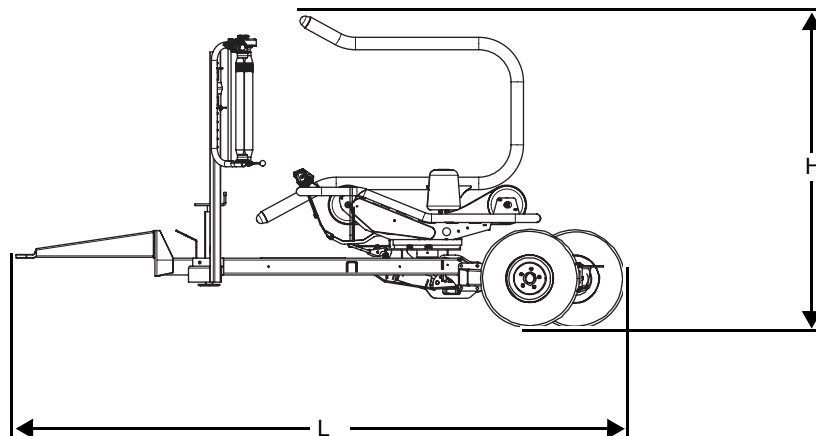


Acquaintance with the machine

Technical specifications

Dimensions / weight

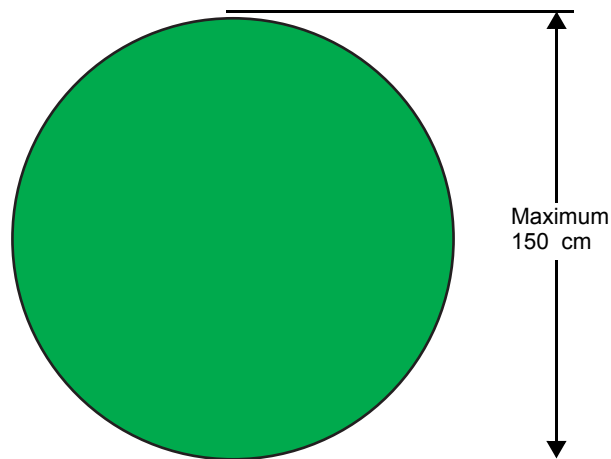
Weight	
Maximum weight (kg)	1,000
Length (m)	
Overall length	4.55 (L)
Width (m)	
Overall width with loading arm folded up and right wheel in transport position	2.45 (W ₂)
Overall width with loading arm folded up with both left and right wheel in transport position	2.18 (W ₂)
Overall width with loading arm folded down	3.75 (W ₁)
Height (m)	
Overall height with loading arm folded up	2.28 (H)



Acquaintance with the machine

Bale requirements

Round bales	
Minimum diameter (cm)	100
Maximum diameter (cm)	150
Maximum weight (kg)	1.000



Acquaintance with the machine

Optional equipment

Film roll holder	
Road lighting set	
Film break kit	
Drop mat	
Bale turner	
Adapter for 500 mm film rolls	
Remote control	
Wheel chocks	
Wrap and bale counter	

Tractor requirements

Tractor requirements	
Electronics	12 V (DC) coupling for control box (DIN 9680)
	12 V (DC) coupling for road lighting (DIN ISO 1724) [+]
Hydraulics	1 single acting control valve with pressureless return
Pump capacity (l/min)	26
Pressure (bar)	150

Acquaintance with the machine

Machine requirements

Tyres	
standard	11.0/65-12
Maximum transport speed (km/h)	25
Maximum satellite rpm	30

Film requirements

Film width (mm)	750
Alternative film width (mm)	500
Minimum film thickness (μm)	25
Quality	3-layer blown film

Delivery and preparation

Safety



Wear safety shoes

During all work at the machine never bring your feet under the machine and always wear safety shoes. Wearing safety shoes prevents or decreases the risk of serious injuries.

Checking the delivery

Completely delivered

The machine is delivered completely. In case parts are not present, please contact your dealer.

The machine must be checked after delivery. The machine is equipped with:

- Operation manual
- Spare parts manual
- Hydraulic hose with coupling
- Cable control [+]
- Electronic control system (control box, fixing brackets, power cable) [+]

Preparing the machine

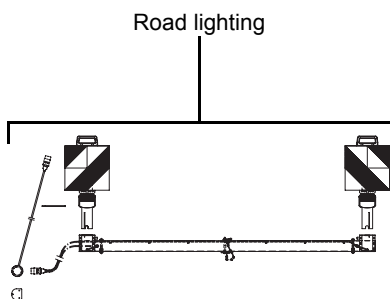
The machine must be prepared before taking into use is possible. The following must be prepared:

- the road lighting [+]

Road lighting [+]

The road lighting must be mounted according to the assembly instruction.

- > Mount the road lighting at the places provided



Safety



Increased danger of injury

- Prevent the tractor from rolling away
 - Never stay between the tractor and the machine during hitching
- In case of negligence serious or deadly injuries can occur.

Use a proper tractor

Make sure the tractor

- is in safe operating condition
- has adequate braking capabilities for this machine
- is suitable for carrying and transporting this machine

Using a tractor which is not suitable can cause serious personal and material damages.

General

The machine is provided for hitching to the towing hook of the tractor. To prepare the machine for hitching, the following items are necessary:

- Both tractor and machine must be placed on a firm level
- The machine must be levelled horizontally
- The hydraulic hoses must be coupled
- The lighting cables [+] must be coupled
- The cable control [+] must be installed

or

- The electronic control box [+] must be installed

Hitching the machine

General



Remove the tractor lower links

Remove the lower links of the tractor to avoid them touching the drawbar. During turning, the lower links of the tractor can touch the drawbar and the machine can tip over. Personal or machine damages can occur.

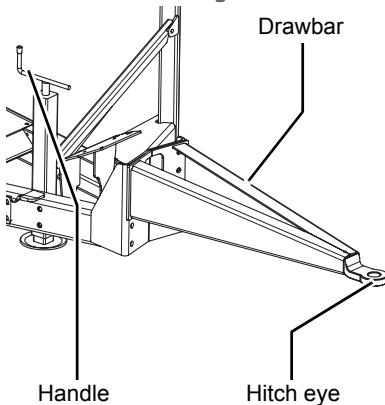
The machine is ex works provided for hitching to the towing hook of the tractor.

Before the machine can be hitched to the towing hook of the tractor, the correct height of the hitch eye to the towing hook of the tractor must be determined.

- > Place both tractor and machine in line on a firm level, with a distance between the towing hook of the tractor and the hitch eye of about 15 cm

If necessary, the drawbar can be turned upside down. Doing this, the drawbar can be set for high or low attachment.

Drawbar adjustment



Four drawbar types exist:

- standard drawbar
- drawbar with eye
- drawbar with double tongue
- high drawbar

→ Optional equipment, page 84

The machine must be placed in a horizontal position:

- > Turn the handle to the left: the drawbar goes upwards
or
- > Turn the handle to the right: the drawbar goes downwards
- > Check the height of the towing hook of the tractor

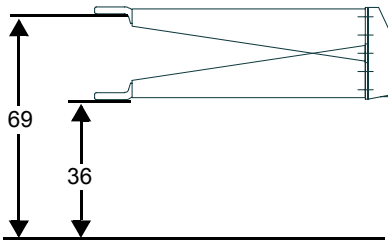
The drawbar height can be changed by moving the drawbar. The drawbar can be placed into six positions.

Select the correct position in accordance with your tractor in order to have tractor and machine lined up correctly.

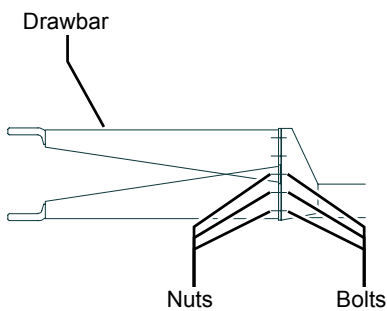
→ Moving the drawbar, page 29

Hitching the machine

Moving the drawbar



Towing hook height (cm)	Cm
Minimum	36
Maximum	69



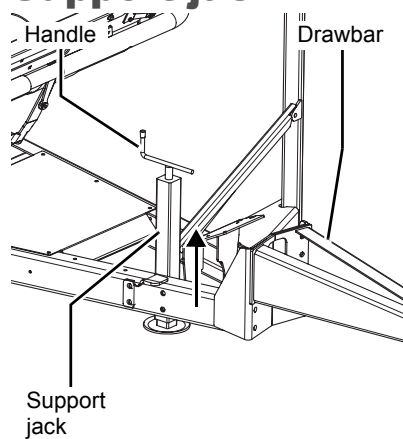
- > Secure the drawbar by placing it in a well suited hoist
 - > Loosen the bolts and nuts
 - > Move the drawbar to the desired position
- The drawbar must always be fitted with 3 bolts and nuts per side.
- > Tighten the bolts and nuts
 - > Torque the bolts and nuts to 220 Nm
 - > Remove the hoist

Hitching

- > Hitch and secure the machine to the towing hook of the tractor

Hitching the machine

Support jack



- > Fully retract the support jack using the handle

Installation cable control



Check correct lying of the cables

Cables may not get stretched or get trapped. Take care of sufficient free space. Torn or trapped cables can lead to unpredictable movements of the machine and can lead to serious damages and injuries.

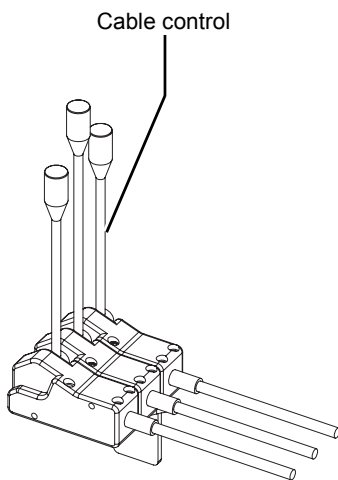
The cable control must be installed on a support or holder in the tractor cab.

Take care of the following:

- Ensure the cable control is installed in good manual and visible reach of the operator
- Do not mount the cable control onto a part that is subject to strong vibrations
- Ensure the cable control is in an area with less dust
- Avoid sharp bends in the cables

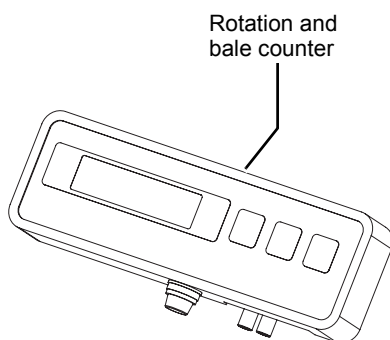
> Mount and connect the cable control at the tractor

Mounting and connecting



Rotation and bale counter

The rotation and bale counter must be mounted and connected.



Hitching the machine

Installation control box



Correct connection of the electronic control system

Never connect the cable to the cigarette lighter because of interference risk. Always connect the cable directly to the interference-free power source. Therefore check the functioning of the fuses on the power cables.

The control box must be installed on a support or holder in the tractor cab.

Take care of the following:

- Ensure the control box is installed in good manual and visible reach of the operator
- Do not mount the control box onto a part that is subject to strong vibrations
- Ensure the control box is in an area with less dust
- Do not install the control box where bright sun or rain may reach it

Electrical connections control box

Connection to control box



- > Connect the main power cable of the machine box directly to the 12V battery of the tractor

Cable code	Pole
+	+
-	-

- > Connect the 4-pin connectors of the control box and machine box to each other

Hydraulic connections



Hydraulic coupling only pressureless

Only couple the hydraulic hoses to the tractor when both tractor and machine hydraulics are pressureless. Hydraulics under pressure can cause accidental movements of the machine.

Avoid oil mixture

When using the machine in combination with different tractors, improper oil mixture can take place. Improper oil mixture can destroy tractor parts.

Avoid entering of dirt into the hydraulic system

The hydraulic system can get seriously damaged. Personal injuries or material damage can be caused.

Check hoses and couplings

Before connecting, prove all hydraulic hoses for damages. After connecting check all hydraulic couplings for tight connection. Defective hydraulic hoses or bad connected hydraulic couplings can cause injuries or unforeseen movements of the machine.

Secure tractor hydraulic devices

In transport position tractor hydraulic devices must be secured against unintentional movements. Unintentional movements of the hydraulic device can cause serious injuries or unforeseen movements of the machine.

Check correct position of hydraulic hoses

Hydraulic hoses may not stick or tighten. Pay attention to sufficient free space. Torn or stuck hydraulic hoses cause unverifiable movements of the machine and serious injuries.

Take care of the correct laying of hydraulic hoses

Hydraulic hoses may not stick or tighten. Take care of sufficient free space. Worn or stuck hydraulic hoses can cause heavy damage to the machine or severe injuries.

Check, if applicable, the following connections from the tractor to the machine:

- hydraulic connections
- electronic connections

Before coupling, the hydraulic block must be adapted:

- Hydraulic block - open centre
- Hydraulic block - closed centre
- Hydraulic block - load sensing

Hitching the machine

Hydraulic block - open centre

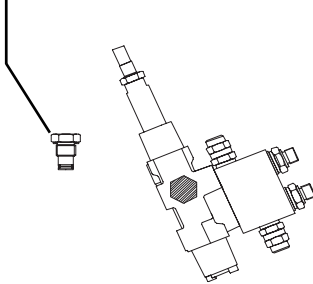
The machine is standardly adjusted for tractors with an open centre hydraulic system.
No adjustment of the hydraulic block is necessary.

Hydraulic block - closed centre

When the tractor is provided with a closed centre hydraulic system, the hydraulic block must be adjusted accordingly.

Cable control

Blocking plug

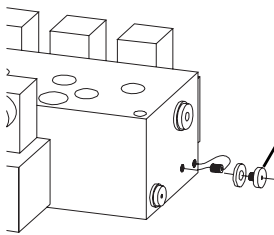


When the machine is provided with a cable control the hydraulic block must be adjusted accordingly.

- > Switch off the tractor engine and remove the ignition key
- > Mount the blocking plug

Electronic control

Main plug

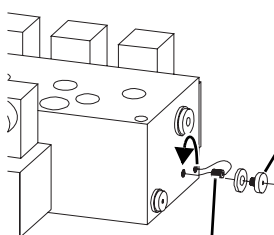


When the machine is provided with an electronic control the hydraulic block must be adjusted accordingly.

- > Switch off the tractor engine and remove the ignition key

- > Remove the main plug

Main plug



- > Mount the blocking bolt
- > Mount the main plug

Blocking bolt

Hydraulic block - load sensing

The machine is standardly adjusted for tractors with an open centre hydraulic system.
No adjustment of the hydraulic block is necessary.
The oil flow of the tractor must be adjusted to 26 l/min.

Hydraulic hose

- > Make sure the tractor hydraulic device is pressureless
- > Couple the hydraulic coupling to a single or to a double acting hydraulic device with pressureless return

Electronic connections



Check cables and couplings

Before connecting, prove all electronic cables for damages. After connecting check all electronic couplings for tight connection. Defective electronic cables or bad connected electronic couplings can cause injuries or unforeseen movements of the machine.

Check correct position of electronic cables

Cables hoses may not stick or tighten. Pay attention to sufficient free space. Torn or stuck electronic cables cause unverifiable movements of the machine and serious injuries.

Take care of the correct laying of electronic cables

Electronic cables may not stick or tighten. Take care of sufficient free space. Worn or stuck electronic cables can cause heavy damage to the machine or severe injuries.

Electric lighting [+]

- > Connect the 7-pin plug to the trailer lighting socket on the tractor

Safety



Obey safety instructions

Obey the safety instructions at the execution of all work. Ignoring the safety instructions can lead to serious or deadly injuries.

Guarantee correct hydraulic coupling

Check before using if all hydraulic couplings are coupled correct to the single and double acting valves. Not correct coupled hydraulic couplings can cause unpredictable movements of the machine.

Never work on the machine while it is running

Never carry out adjustment work while the machine is running.

- The tractor engine must be switched off and the ignition key must be removed
- The electronic control box must be switched off

In case of negligence, serious or deadly injuries can occur.

No persons in turning area

During work, no persons may be within the turning area of the machine, including the satellite area. Serious personal injuries can be caused.

Secure the machine

During adjustment, an increased danger of injury exists. Therefore

- secure the machine from accidental commencement of operations and rolling away
- the machine must have a level, secure position and must be supported during working if necessary

Unsecured or not supported machines can lead to accidents.

Wear safety shoes

During all work at the machine never bring your feet under the machine and always wear safety shoes. Wearing safety shoes prevents or decreases the risk of serious injuries.

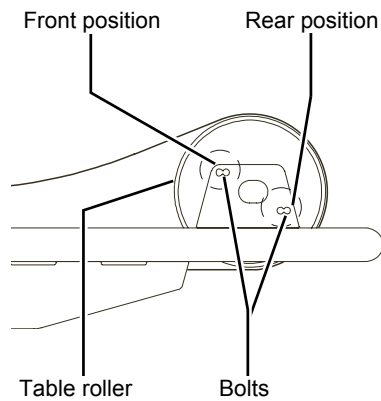
Guarantee correct hydraulic coupling

Check definitely, before using the machine, if the hydraulics for the system are coupled to the correct single acting valves with pressureless return. Not correct coupled hydraulic hoses can cause accidental movements of the machine.

The following preparations have to be done:

- table roller adjustment
- support rollers adjustment
- pre-stretcher adjustment
- film installation
- film overlap

Table roller adjustment



To ensure good stability of the bale during wrapping, the table roller must be adjusted for small or large bales.

Recommended position, depending on the bale diameter:

Bale size (m)	Recommended position
until 1.30	front
over 1.30	rear

To prevent the table roller from unintended moving:

- > support the roller

- > Remove the bolts
- > Move the roller to the desired setting
- > Tighten the bolts
- > Remove the support of the roller

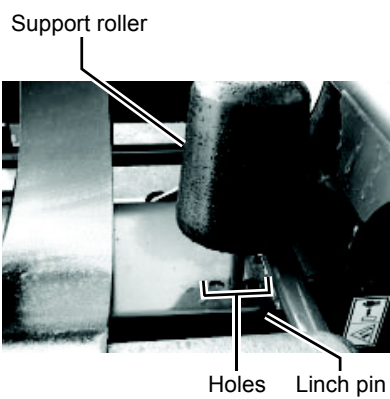
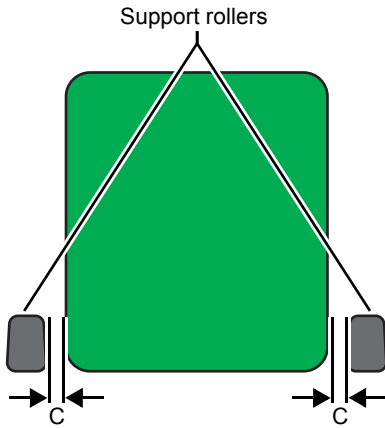
Preparation for use

Support rollers

To ensure a good stability of the bale during wrapping, the support rollers can be adjusted for small or large bales.

Support rollers adjustment

The support roller must be adjusted so, that the bale is in the middle of the table. When the bale is on the table, the clearance C on both sides between the bale and both support rollers should be maximum 150 mm.



The support rollers can be placed in three positions. The middle or the right hole are recommended.

- > Remove the linch pin
- > Place the roller in the correct hole, to adjust to clearance C
- > Place the linch pin

Pre-stretcher

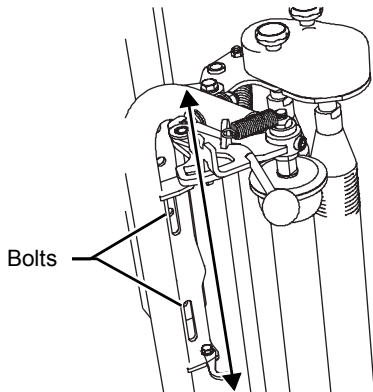


Wear safety shoes

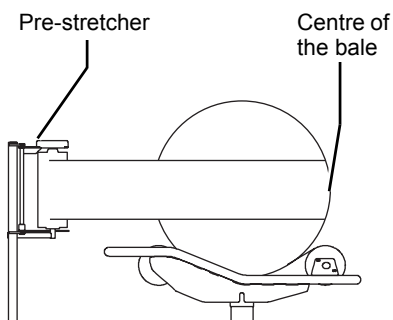
During all work at the machine never bring your feet under the machine and always wear safety shoes. Wearing safety shoes prevents or decreases the risk of serious injuries.

The pre-stretcher must be adjusted so, that the centre of the film roll matches the centre of the bale.

Pre-stretcher adjustment



- > Switch off the tractor engine and remove the ignition key
- > Loosen the bolts one turn
- > Move the entire pre-stretcher upwards or downwards, depending on the bale diameter and the kind of bales to be wrapped



The centre of the film roll must now match the centre of the bale.

- > Tighten the bolts

Preparation for use

Film installation



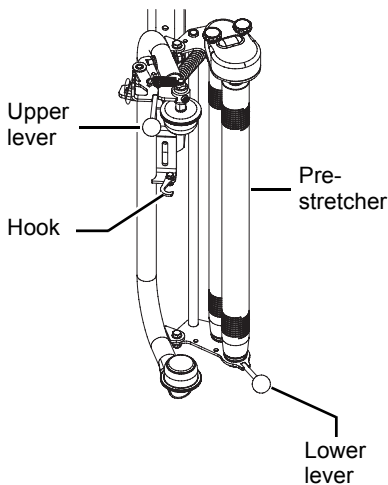
- Before installing the film:
- > switch off the tractor engine
 - > remove the ignition key

Stay clear of pre-stretcher rollers

Stay clear of the pre-stretcher rollers. Hands can be squeezed between the rollers. Personal injuries can occur.

Choose a good quality of film in order to ensure troublefree functioning of the film wrap system. Recommended is
→ Film requirements, page 25

Loading the film roll



- > Move the lower lever to secure the pre-stretcher with the hook
- > Release and lift the upper lever

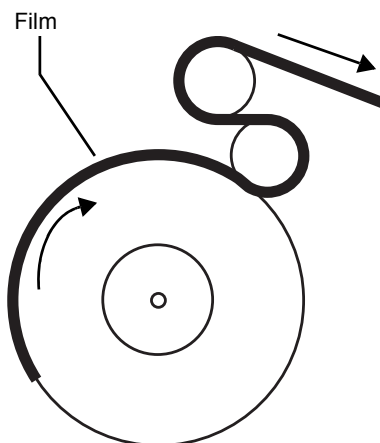
In case a 500-mm film roll is used:

- > place an adapter [+] on top of the film roll

- > Place a film roll

Take care of the right direction of rotation of the film roll.

- > Lower the upper lever

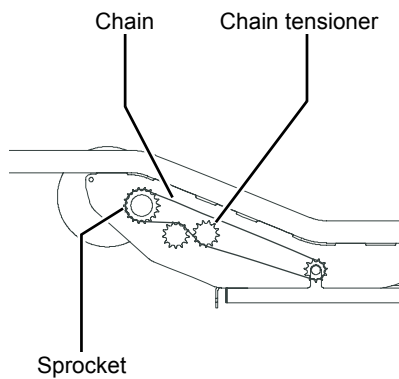


- > Guide the film between the pre-stretcher, according to direction of the arrows
- > Move the lower lever to unsecure the pre-stretcher from the hook
- > Connect the end of the film to the applicutter

Electronic control only:

- OK > push for a counter/programme reset

Film overlap



The film overlap is determined by the rotation speed of the table belts. The speed of the table belts can be varied by mounting a different sprocket.

A 12-teeth sprocket is standard mounted. In case a pre-stretcher adapter for 500 mm film rolls [+] is mounted, an 18-teeth sprocket can be mounted.

Recommended setting, depending on the desired film roll width:

Film width (mm)	Sprocket (teeth)	Film overlap (%)
500	18	50
750	12	50

Exchanging the sprocket:

- > Loosen the chain tensioner
- > Remove the chain
- > Remove the sprocket
- > Mount the desired sprocket
- > Mount the chain
- > Tighten the chain tensioner

Preparation for use

Check at beginning of the season

The following items have to be checked before using the machine at the beginning of the season:

- Check the electric connections
 - Electrical connections control box, page 32
- Check the road lighting [+]
 - Road lighting [+], page 26
- Check the lubrication
 - Maintenance intervals, page 71
- Check the tyre pressure
 - Tyre pressure, page 75

Running

- > Run the tractor hydraulics at idle
 - Check the correct operation of the components
 - Check, if there are no unusual noises
- > Switch off the tractor hydraulics
 - Check the tightness of the hardware

During the running-in period, a specific maintenance must be done, confer to maintenance chart

- Maintenance intervals, page 71

Safety

Before road transport will take place, please read the following safety instructions. The compliance is prescribed and helps you to avoid accidents.



Close valves

Before road transport close all valves. With open valves and false operation the lifting cylinder can be lowered. Traffic accidents can be caused.

Clean the machine before road transport

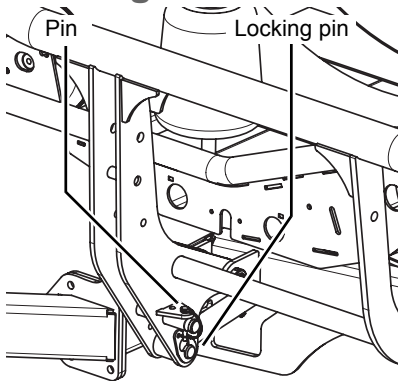
Clean the machine, before every road transport, from crop residues and heavy dirt. Crop or dirt, falling at the road, can cause a slippery state of the road. This can lead to fatal accidents.

Before road transport

Road transport must be done in transport position. To bring the machine into transport position, the following steps are necessary:

- the table must be fully tipped forwards
- the loading arm lock must be applied
- the right wheel must be in transport position

Loading arm lock



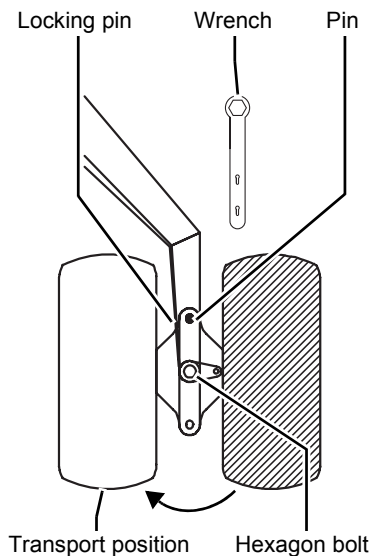
The loading arm must be locked into transport position.

- > Move up the loading arm completely
- > Mount the pin
- > Lock the pin with the locking pin

The locking pin must be in the left hole.

Road transport

Right wheel in transport position



The right wheel must be in transport position.

- > Remove the locking pin
- > Remove the pin
- > Place the wrench on the hexagon bolt
- > Use the wrench to turn the wheel into transport position
- > Place the pin
- > Place the locking pin
- > Remove the wrench

Checking the machine

Check the machine before road transport by means of the checklist:

- The tractor hydraulic is switched off?
- All valves are closed?
- Crop residues and heavy dirt are removed?
- Cables and lines are placed in that way they will not tension or get in touch with the tractor rear tyres during curve driving?

Road transport

- Before starting driving, check the close environment. Always take care of a clear view and especially at children in the working environment of the machine.
- Lock the hydraulic valves of the tractor before road transport
- Do not transport any persons or objects at the machine
- Adapt the drive speed to the road conditions
- Do not exceed the maximum speed of 25 km/h. Obey the national and local speed limits.
- Pay attention to sufficient driving and braking capacity. Then driving and braking capacity are influenced by the attached machine (longer braking paths because of larger driving power).

Safety



Obey the safety instructions

Obey the safety instructions at the execution of all work. Ignoring the safety information can lead to serious or deadly injuries.

Secure tractor and machine

- Switch off and secure the tractor
- Prevent the machine against accidental commencement of operations

Unsecured machines and tractors can lead to accidents.

Performing settings

The settings to the machine must be performed in working position. They are described in the next sections:

- Prior to wrapping
- Placing into working position

Prior to wrapping

Before wrapping can start, the following has to be checked:

- Has the loading arm been placed into working position?
- Has the right wheel been placed into working position?

The machine has to be adapted to the type of the bale and the size of the bales wrapped

- Is the number of table rotations ok?
- Is the pre-stretcher height ok?

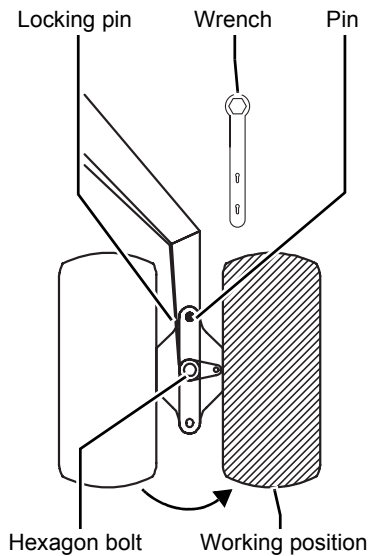
Preparation at the field

Placing into working position

The machine must be used in working position. To bring the machine into working position, the following steps are necessary:

- the right wheel must be in working position
- the loading arm lock must be removed

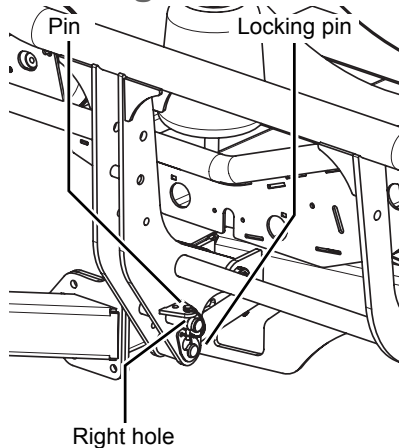
Right wheel in working position



The right wheel must be in working position.

- > Remove the locking pin
- > Remove the pin
- > Place the wrench on the hexagon bolt
- > Use the wrench to turn the wheel into working position
- > Place the pin
- > Place the locking pin
- > Remove the wrench

Loading arm lock



The loading arm must be placed into working position.

- > Remove the locking pin
- > Remove the pin
- > Move down the loading arm completely
- > Mount the pin
- > Lock the pin with the locking pin

The locking pin must be in the right hole.

Safety



Driving along at the machine prohibited

It is never allowed that people or objects drive along at the machine. Driving along at the machine is perilous and prohibited.

No persons in the turning area

Take care of no people be in the turning and working area of the machine. People can get grabbed by the machine within this area. Serious or deadly injuries can occur.

No persons in the folding area

Take care of no people be in the folding area of the machine. People can get crushed by the machine within this area. Serious or deadly injuries can occur.

Take care of the field condition

Take care of the field condition especially during driving on slopes when unloading a round bale. Unloading a round bale on a slope may only take place in a 90° direction to the slope. Serious or deadly injuries can occur.

Checks before use

Check that

- the film is held between the applicutter
- the number of film wraps is set

Film wrap recommendations

The number of table laps decides how many film layers the bale is wrapped with. It is recommended that a minimum 6 layers of film are applied to the bale. It may be necessary to increase the number of layers if the bale has hard and stemmy material.

- > Count the number of the table revolutions to cover the bale completely with film
 - > Add 1 to this number
 - > Multiply this with 3, for 6 layers
- or
- > multiply this with 4, for 8 layers

The table drive is set to give 2+2+2... layers overlap, using 750 mm film.

Recommendation 500 mm film

The recommended number of film wraps must be 6 film wraps.

Bale diameter (cm)	4 layers	6 layers
120	24	36
150	30	45

Recommendation 750 mm film

The recommended number of film wraps must be 6 film wraps.

Bale diameter (cm)	4 layers	6 layers
120	16	24
150	20	30

Start position mode

The loading arm and the table must be put into start position before wrapping can get started.

The start position is reached when:

- the loading arm is in the middle position
- the table is fully downwards and in the loading position



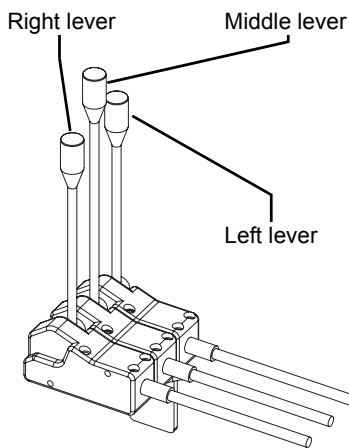
> Push to reset the table revolution counter

Wrapping

The wrapping cycle depends on the kind of control on the machine:

- cable control
- electronic control

Cable control



- > Drive to the bale
- > Move the right lever forwards to lift the bale using the loading arm onto the table
- > Move the right lever backwards to lower the loading arm completely
- > Use the middle lever to start wrapping

The table must turn with maximum 30 rpm.

After the last but one number of film wraps, the buzzer sounds. Then the final wrap is added.

Extra wraps can be added. The buzzer will sound 2 seconds for every extra wrap.

- > Leave the middle lever to stop wrapping

The bale counter will be reset to zero.

The table must be in tip off position now.

- > Move the left lever backwards to unload the bale
- > Move the left lever forwards to move the table into loading position

Use at the field

Electronic control

The required number of film wraps must have been set

→ CYC, page 61

> Drive to the bale

> Use the hydraulic valve to lift the bale using the loading arm onto the table



> Push

OK > Push activate the programm

OK > Push to operate the loading arm

OK > Push to start wrapping

In case the wrapping process is interrupted

OK > push to restart wrapping

The table must turn with about 30 rpm.

General

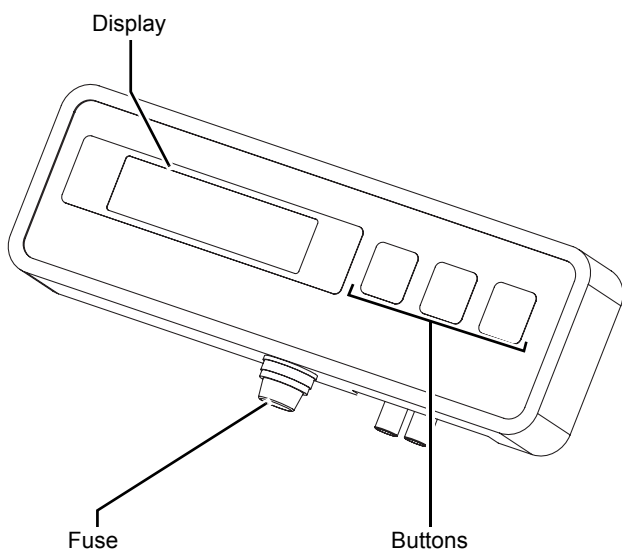
If the machine is equipped with a cable control, the wrap and bale counter can be mounted. This counter controls and monitors the wrapping of the bale. Furthermore the buzzer sounds when the pre-set number of wraps has been reached.

Wrap and bale counter box

The wrap and bale counter box enables supervision of the bale wrapping procedure from the tractor cab. Especially the following functions can be monitored:

- Bale counters (1 day counter, 1 total bale counter)
- Film wrap counter

Control box front



Buttons



Actual mode button

- Selection of the mentioned bale wrap sequence



Clear button

- Change a value
- Reset a value




Set button


- Change a value


Wrap and bale counter


Parameter change

The parameters can be changed upon desire.

 > Push to enter the desired display

 > Push until the desired digit flashes

 > Push to set the digit

 > Push to confirm







Parameter settings

Via the parameter settings, the entire wrapping process is prescribed.

CYK

The current number of table laps can be set. The pre-set number of table laps can be shown in the display.





Number	Recommended number
2 - 99	→ Film wrap recommendations, page 48

-  > Push to enter the display CYK
-  > Push until the current number of table laps flashes
-  > Push to set the first digit
-  > Push for the last digit
-  > Push to set the last digit
-  > Push to confirm

BAL

The number of bales wrapped can be shown in the display. The number of bales wrapped can be reset to zero.

Number
0 - 99999

-  > Push to enter the display BAL
-  > Push until the number of bales wrapped flashes
-  > Push to reset to clear the number of bales wrapped to zero
-  > Push to confirm

Wrap and bale counter

BAL +

The total number of bales wrapped.

Number
0 - 99999

The total number of bales wrapped can not be reset

F.

The stop position of the table can be set. Which gives the possibility to leave the lever until the pre-set number of film wraps is reached.

Auto stop function must be set

Setting
0.00 - 1.99



In case 0.00 is set: the table stops rotating immediately after reaching the pre-set number of film wraps.

In case 1.00 is set: the table makes one turn after reaching the pre-set number of film wraps.



> Push to enter the display F.



> Push until the first digit flashes



> Push to set the first digit



> Push until the second digit flashes



> Push to set the second digit



> Push until the last digit flashes



> Push to set the last digit



> Push to confirm

General

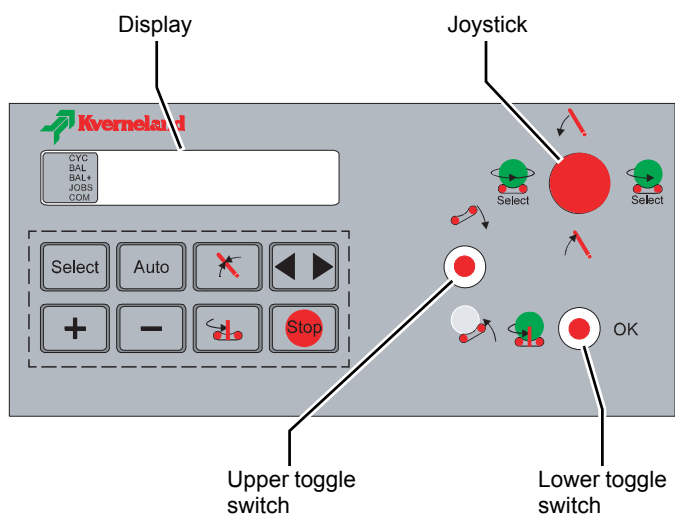
The machine can be equipped with an electronic control system. This control system controls and monitors the wrapping and clearing out of the bale. Furthermore the system also provides error indicating functions.

Control box

The control box enables supervision of the total bale wrapping procedure from the tractor cab. Especially the following functions can be monitored:

- Bale counters (4 day counters, 1 total counter)
- Film wrapping process
- Automatic or manual film wrapping control
- Control of several individual parts of the machine

Control box front



Electronic control system

Buttons



Auto button

- Selection of automatic mode



Stop button

- To stop, interrupt a procedure. Rotation of the table is interrupted.
- Selection of manual mode



Programme mode button

- Programming functions
- Counter reset



To neutral position

The loading arm is moved to its neutral position, in front of its sensor.



To start point

To:

- move the loading arm to the middle position
- move the table fully downwards
- reset the revolution counter to zero



Pushing to

- increase a value
- switch the buzzer on



Pushing to


- decrease a value
- switch the buzzer off





Table to bale loading position


This is only possible, if the loading position sensor is mounted on the machine.


Joystick


-  Pushing up:
- lowering the loading arm


-  Pushing down:
- raising the loading arm

-  Pushing to the left:
- parameter selection
 - table rotation at normal speed

-  Pushing to the right:
- parameter selection
 - table rotation at low speed

-  **Upper toggle switch**
- Pushing up:
- lowering the table

-  Pushing down:
- raising the table

-  **Lower toggle switch**
- Pushing to the left:
- table to loading position

- OK** Pushing to the right:
- approve of a function
 - interrupt the program before the preset number of foil wraps has been reached
 - reset the revolution counter

Electronic control system

Control mode

The electronic control system can be used in the following control modes:

- manual mode
- semi-automatic mode
- automatic mode

The set of parameters determines working in semi-automatic or automatic mode.

Manual mode

In manual mode, the wrapping cycle is controlled by the toggle switches and the joystick.



> Push to select manual mode

Depending on the requested action

> Push the concerning toggle switches or joystick on the control box

Semi-automatic mode

Semi-automatic mode offers the possibility for the following:

- to stop the table before film wrapping starts
- to stop before bale unloading



> Push to select semi-automatic mode

When one or more of the above-mentioned adjustments are selected, the wrapping cycle will stop at the concerning point(s).




> Push to set the desired parameter

OK > Push to continue wrapping

Automatic mode


In automatic mode, the entire wrapping cycle is automatic.


 > Push to select automatic mode

OK > Push to start wrapping

The machine starts in a programmed cycle.

In case of a failure or correction during wrapping

 > Push to select manual mode

 > Push to select automatic mode

OK > Push



Wrapping will continue from the point of failure.



Electronic control system


Parameter change

The parameters can be changed upon desire.

 > Push

  > Push joystick left or right to select the desired parameter

  > Push to change the parameter value

 > Push to return to automatic mode
or

OK > Push to return to manual mode
The value is stored.

Parameter settings

Via the parameter settings, the entire wrapping process is prescribed.

CYC

The number of table laps can be set.

Number	Recommended number
1 - 100	no recommendation

BAL

The number of bales wrapped.

Number
0 - 99999

The number of bales can be reset

OK > Push to confirm

Now the total number of jobs increases with one.

→ JOBS, page 61

BAL +

The total number of bales wrapped.

Number
0 - 99999

The total number of bales wrapped can not be reset

JOBS

The total number of jobs done.

Setting	
0 - 99999	Can be cleared to zero

The total number of jobs can be reset to zero

OK > Push to confirm

After the number of bales has been cleared to zero, the total number of jobs done increases with one.

Electronic control system

A. on / A. off

A buzzer can be switched on or off for

- a sound after the last sensor by-pass
- when an error occurs

Setting	Buzzer
• +	• on
• -	• off

A1:1 / A1:0

This setting is only valid in case your machine is equipped with the electronic control system.

The bale loading with the loading arm can be included in the wrapping procedure.

Setting	Recommended setting
• 1 = yes	1
• 0 = no	

A2:1 / A2:0

This setting is only valid in case your machine is equipped with the electronic control system.

The start of film wrapping after bale loading.

Setting	Recommended setting
• 1 = start	1
• 0 = stop	

After the bale is loaded

OK > Push to confirm

A3:1 / A3:0

The bale unloading can be included in the wrapping procedure.

Setting	Recommended setting
<ul style="list-style-type: none">• 1 = yes• 0 = no	1

If '0' is chosen, a new loading and wrapping cycle can be started

OK > Push to confirm

A4:1 / A4:0

The bale unloading can be done immediately after the wrapping cycle is finished.

Setting	Recommended setting
<ul style="list-style-type: none">• 1 = yes• 0 = no	0

If '0' is chosen, the bale unloading can be done manually

OK > Push to confirm

A6:1 / A6:0

This setting is only valid in case your machine is equipped with the loading position sensor.

After bale unloading the table turns 90°.

Setting	Recommended setting
<ul style="list-style-type: none">• 1 = possible• 0 = impossible	1

A7:1 / A7:0

Independent on an optional film sensor is mounted, this setting must be used.

Setting	Recommended setting
<ul style="list-style-type: none">• 1 = mounted• 0 = not mounted	0

Electronic control system

t1 Start of the flashing light before the automatic wrapping cycle starts. It is recommended to mount a flashing light when a remote control is mounted.

Flashing light	Setting	Recommended setting
• mounted	• sec and 1/10 sec	• 2.0
• not mounted	• sec and 1/10 sec	• 0.0

t2 The time can be set before an error message occurs, in case a sensor does not function.

Setting	Recommended setting
sec	15

t3 This setting is only valid in case your machine is equipped with the electronic control system.
The maximum raising time for the loading arm from the middle position to the fully lifted position.

Setting	Recommended setting
sec	4 - 6

t4 This setting is only valid in case your machine is equipped with the electronic control system.
The time delay for lowering the loading arm after reaching the sensor.

Setting	Recommended setting
sec and 1/10 sec	0.5

t5 Before the table rotates at normal speed, a slow-motion start time can be set.

Setting	Recommended setting
sec and 1/10 sec	2.5

t6 After the last sensor by-pass, the table speed can be delayed slow down.

Setting	Recommended setting
sec and 1/10 sec	1.0 - 2.0

t7 The time the table turns at half speed before stopping, after the last sensor by-pass t6 has taken place.

Setting	Recommended setting
sec and 1/10 sec	1.5 - 2.5

t8 The time the table is standing still before turning at half speed to the bale unloading position, after the table has stopped.

Setting	Recommended setting
sec and 1/10 sec	0.5 - 0.7

t9 The table raising time before bale unloading.

Setting	Recommended setting
sec	4 - 6

t10 The time delay before lowering the table.

Setting	Recommended setting
sec and 1/10 sec	0.3 - 0.5

t11 The time delay after the table is fully lowered.

Setting	Recommended setting
sec and 1/10 sec	0.3 - 0.5

t12 Not in use.

t14 The maximum interval between the pulses of the film sensor when wrapping in automatic mode.

Setting	Recommended setting
sec and 1/10 sec	1.0

OK > Push to confirm

Cleaning and caring

Safety

For all cleaning and caring activities applies:



Do not penetrate bearings and hydraulic parts

Be careful when cleaning with a high-pressure cleaner. Bearings, sealings and bolted joints are not waterproof. To avoid machine damages never penetrate bearings, sealings and bolted joints with water.

Do not clean bearings and hydraulic parts with high pressure

Do not clean bearings and hydraulic parts with a high-pressure cleaner. Bright metal parts will get degreased and start rusting. After every cleaning grease the bearings and grease bright metal parts.

Cleaning

After every time of using the machine:

- > Empty and clean the machine of all accumulated crop

Cleaning can be done with low pressure with the high-pressure cleaner. Do not clean bearings, electronic and hydraulic parts with the high-pressure cleaner.

Pre-stretcher rollers

The pre-stretcher rollers must be cleaned from particles, dust, crop and tack.

- > Use methylated spirit or similar to clean the rollers

After cleaning

After cleaning with the high-pressure cleaner

- > grease all bearings

Caring

When you observe the rules below, you will have a fully operational machine at the start of the next season:

- > Protect all bright metal parts with an oil film. Only use authorized biological oil, like rape oil
- > Repaint any paint damages

Safety



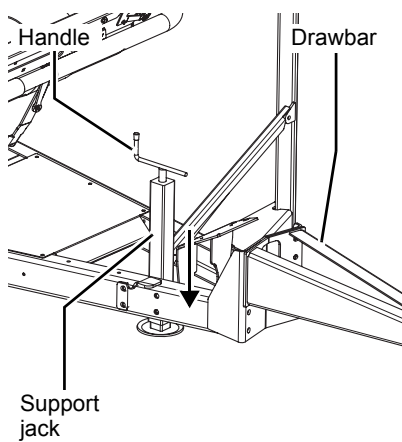
Obey the safety instructions

Obey the safety instructions at the execution of all work. Ignoring the safety information can lead to serious or deadly injuries.

Machine is no toy

Store the machine in an area away from human activity. Never allow children to play on or around the stored machine. Metal edges and parts of the machine can lead to serious injuries.

Unhitching and securing of the machine



- > Place the machine on a dry and stable ground
- > Secure the tractor from rolling away

- > Disconnect the hydraulic connections and store them in the support at the drawbar
- > Disconnect the electronic connections and store them in the support at the drawbar
- > Use the handle to lower the support jack fully

Machine with electronic control box only

- > Store the control box in a dry and dust-proof room free from rodents, insects and martens

- > Unhitch the machine from the towing hook of the tractor

After the season

After the season and at longer storage periods, the following work must be performed:

- Thoroughly clean the machine
- Cleaning, page 66
- Check all bolted joints and torque them
- Repair or replace damaged parts
- Repaint any paint damages
- Lubricate the machine
- Check the tyre pressure

Safety

For all maintenance work applies:



Take care of the safety instructions

Definitely take care of the safety instructions during all work. In case of negligence of the safety instructions serious or deadly accidents can occur.

Conditions for maintenance work

Only carry out maintenance work if you do dispose of the necessary professional knowledge and of the suitable tools. Missing professional knowledge or unsuitable tools can cause accidents or damages.

Use original parts

Use original parts for safety relevant components. Dimensions, strength, and material quality must be guaranteed. Building in of not original parts reduces the warranty to nil and void.

Protect the machine against unintentional use

Carry out general repairs, maintenance and repair of function troubles at the hitched machine, in principle with switched off hydraulics, switched off engine and removed ignition key! At unintended taking in-to use serious accidents can be caused.

Welding work

Before welding work at the tractor and the machine in principal the electronic circuit must be interrupted. Otherwise damages to the electronic can not be excluded.

Protection measures in contact with oil or lubricants

Additives in oil and lubricants can have, under circumstances, harmful effects to health. Because an indication according to the danger order is not necessary, therefore in principle please pay attention to:



Avoid skin contact

Avoid skin contact with these oil and lubricants. Protect your skin by skin protection creams or oil-resistant gloves. Skin contact can lead to skin diseases.

Do not use oil for cleaning

Never use oil and lubricants for hand cleaning! Chips and waste in this oil and lubricants can extra lead to injuries.

Change dirty clothing

Change extremely filthy oiled clothing as soon as possible. Oil can cause health injuries.

- TIP**
- Waste oil must be collected and recycled
 - in case skin diseases by oil or lubricants occur, immediately visit a doctor

Maintenance

General

This information is related to all maintenance work. At all maintenance work the machine must be secured in working position. In case the transport position is necessary for maintenance, you will find suitable tips to the maintenance work.

Information of directions

Information of directions (left, right, front, rear, above, below) are to be seen in the direction of travel.

The directions have been defined as follows:

Direction	Description
Left	counterclockwards
Right	clockwards
Front	in the direction of travel
Rear	in the direction of travel
Rotation around a horizontal axis	as seen at right angles to the direction of travel from left to right
Rotation around a vertical axis	as seen from top to bottom
Rotation from bolts, nuts, etcetera	always as seen from the operating side

Maintenance intervals



Before doing any maintenance, the following must be obtained:

- Clean the machine before doing any repair work
- Never work on the machine while it is running
- The tractor engine must be switched off and the ignition key must be removed
- Clean the machine with a compressor

	After the first working hour	After the first 8 working hours	After the first 50 working hours	Every 10 working hours	Every 15 working hours	Every 50 working hours	Every 150 working hours	Every 200 working hours	Every week	Once per season	Grease	Oil	Check	Tighten	Change	Page
Attaching elements																
Screwing bolts tighter	•	•								•			•	•		72
Special torques	•	•							•				•	•		72
Pre-stretcher																
Checking the pre-stretcher rollers			•					•				•	•			74
Wheels/tyres																
Tyre pressure				•						•			•			75
Hydraulics																
Hydraulic hoses																76
Filter hydraulic block										•			•			76
Filter hydraulic block										•				•		76
Table																
Drive chain tension									•					•		77
Table lock adjustment																77
Applicutter																
Applicutter knife replacement															•	78
Catch rod adjustment																78
Cutting time adjustment																79
Lubrication																
Motor gear				•								•				80
Gear ring								•				•				80
Table roller drive chain						•						•		•		80
Table sprocket						•						•				81
Tipping frame hinges						•						•				81
Loading arm hinge					•							•				81
Loading arm cylinder								•				•				81
Wheel hubs			•									•				82
Wheel arm right			•									•				82
Applicutter			•									•				82
Catch rod applicutter						•						•				82
Pre-stretcher gears						•						•				83

Maintenance

Attaching elements

Screwing bolts tighter

All bolts and nuts must be checked and screwed tighter:

- after the first 8 working hours
- depending on the usage frequency of the machine
- at least once per season

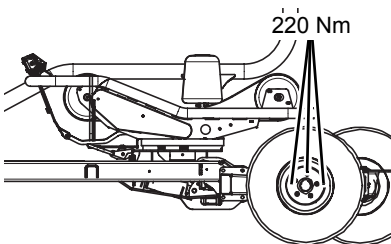
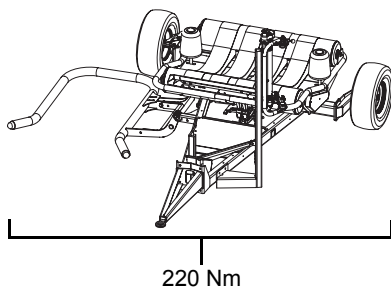
Special torques

Take care of the special torques for the following screwed joints:

- 220 Nm all main frame bolts

All main frame bolts must be checked and screwed tighter:

- after one working hour
- every week



- 220 Nm wheel nuts

Check and screw tighter the wheel nuts:

- after the first 8 working hours
- every week
- after every tyre / wheel renewal

Tightening torques

All screwed joints on this machine must be torqued in accordance with the values given in this table below unless indicated otherwise. On this machine, 8.8 is both standard and minimum quality used. If not indicated anyhow use this quality for determination of torque (in most cases the quality can be found on the head of the respective bolt).

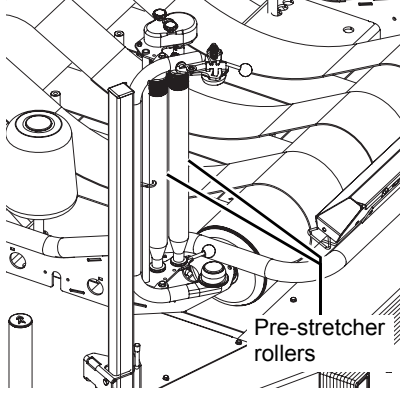
Thread	Torque value			Spanner size*
	8.8	10.9	12.9	
	Nm			mm
M3	1.3	1.8	2.1	6
M4	2.9	4.1	1.9	7
M5	5.7	8.1	9.7	8
M6	9.9	14	17	10
M8	24	34	41	13
M10	48	68	81	17 (15)
M12	85	120	145	19 (17)
M14	135	190	225	22 (19)
M16	210	290	350	24 (22)
M18	290	400	480	27
M20	400	570	680	30
M20 x 1.5	-	640	-	30
M22	550	770	920	32
M24	700	980	1180	36
M27	1040	1460	1750	41
M30	1410	1980	2350	46
M33	1910	2700	3200	50
M36	2450	2546	3063	55
M39	3200	4500	5400	60

* Values in brackets = spanner size of lock bolts and nuts with toothed flange are given in brackets if different from standard.

- TIP**
- The listed values are applicable for dry or slightly oiled joints
 - Do not use plated bolts/screws/nuts without grease
 - When a stiff grease is applied decrease the given value by 10%
 - In case lock nuts, lock screws or lock bolts are used increase the given value by 10%

Pre-stretcher

Checking the pre-stretcher rollers



The pre-stretcher must be checked

- after the first 50 working hours
 - after every 500 working hours
-
- > Check that the bolts of the rollers gears are tightened correctly
 - > Check that the pre-stretcher rollers can be moved by hand easily
 - > Check that the pre-stretcher rollers are clean

Wheels/tyres



Do not drive with worn-out or damaged tyres

Exchange worn-out or damaged tyres immediately. Especially during road transport with such tyres an increased risk of accidents exists.

Correct repairwork only

Repairwork on wheels and tyres must only be carried out

- by professionals
- with the correct fitting equipment

Mounting wheels and tyres requires sufficient knowledge and availability of prescribed tools and equipment being in perfect condition. Serious personal injuries or machine damages can occur.

Tyre dimensions as prescribed

Do not fit other tyre dimensions than prescribed. Fitting other tyre dimensions can cause accidents. Personal injuries or machine damages can occur.

Prescribed tyre pressure only

Only use the prescribed tyre pressure. Using the wrong tyre pressure can cause serious personal injuries, machine damages or traffic accidents.

When working on the wheels and tyres make sure that the machine

- has been placed on the ground safely (use support jack)
- is secured by chocks against unintentional rolling

Tyre pressure

Check the tyre pressure regularly

- once a day
- before every road transport
- before and after every season

Tyre size	Tyre pressure (bar)
11.0/65-12	2.3

Maintenance

Hydraulics



Take care at welding work

Do not carry out welding work near to hydraulic hoses. Hydraulic oil can ignite very easily.

Hydraulic device pressureless

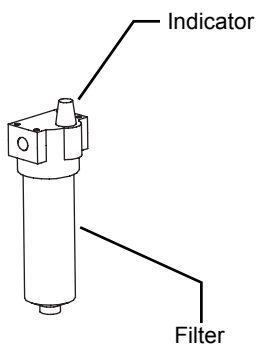
Before replacing the hydraulic hoses, the hydraulic device must be pressureless. When working at a hydraulic device which is under pressure, by unintentional movements at the machine or by squirting hydraulic oil, accidents can occur.

Hydraulic hoses

Hydraulic hoses age without recognizable external indications, too. Therefore, we recommend to replace the hydraulic hoses every six years.

- > Make the hydraulic device pressureless
- > Switch off the engine and remove the ignition key
- > Discouple the hydraulic hoses
- > Replace the hydraulic hoses

Filter hydraulic block



Stay clear of the table area

Stay clear of the table area while it is rotating. Serious injuries can occur.

The filter is situated near the hydraulic block of machines with control box only.

The filter contains an indicator on top of it. The indicator shows, whether the filter has to be exchanged or not.

Indicator colour	Meaning
green	The filter is clean
red	The filter must be replaced

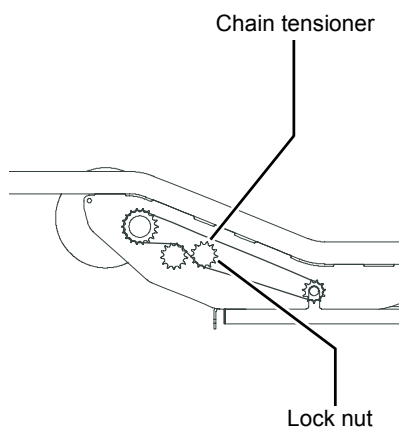
Only check the indicator when the hydraulic oil is at working temperature.

When the machine is hitched onto a tractor with a closed centre hydraulic system, the tractor engine must be at the rpm as during wrapping before checking the filter indicator.

- > Check the indicator every 3000 bales or once a season
- > Replace the filter every 8000 bales and once a season

Table

Drive chain tension



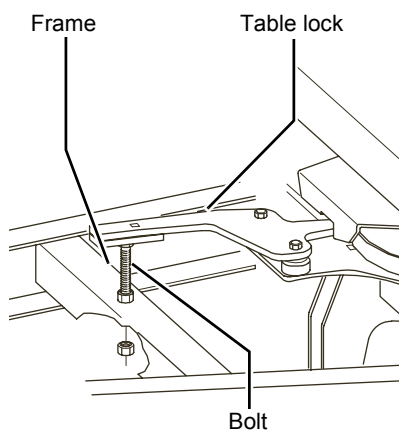
The table roller drive chain is under the cover, at the side of the table. The chain should have a slight slack.

> Check the chain tension every week

Correct the chain tension as follows:

- > Loosen the lock nut
- > Move the chain tensioner to the left or to the right until the chain is tensioned correctly
- > Tighten the lock nut

Table lock adjustment



The table lock prevents the table from turning in the wrong direction.

When the table is fully down, the length of the bolt must be adjusted so that the table lock

- is open when the table rotates to the left
- is closed when the table rotates to the right

The table lock must be adjusted if it does not work correctly.

> Turn the bolt to the left or to the right until it touches the frame

Maintenance

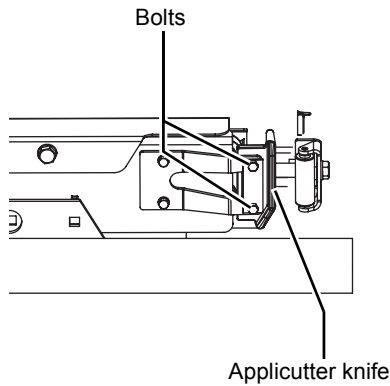
Applicutter

Applicutter knife replacement



Wear safety gloves

The applicutter knife is very sharp. Always wear safety gloves when handling the applicutter knife. Not wearing safety gloves can cause serious injuries.



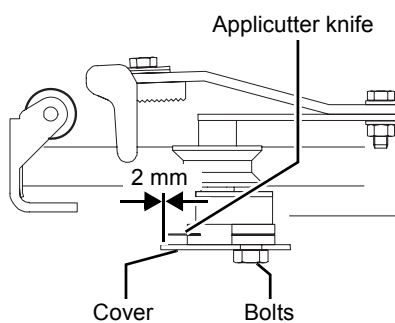
In case of a dull applicutter knife, it can be exchanged.

- > Switch off the electronic control system
- > Shut down the tractor engine
- > Remove the ignition key
- > Loosen the bolts
- > Take out the dull applicutter knife

- > Place a new applicutter knife

The applicutter knife must be adjusted:

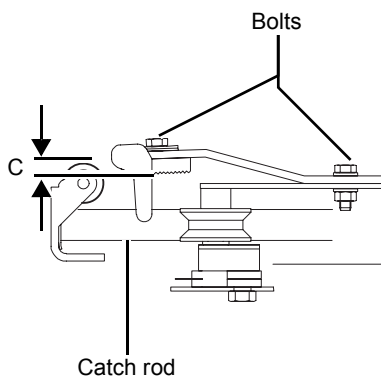
- parallel to the edge of the cover
 - 2 mm from the edge of the cover
- > Tighten the bolts



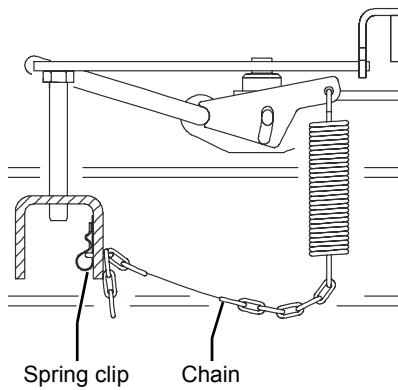
Catch rod adjustment

The catch rod must have a distance C of 4 - 5 mm between the wheels. If the film is slipping out the catch rod after cutting, distance C must be checked and adjusted if necessary.

- > Use washers below the bolts to increase distance C
- > Remove washers below the bolts to decrease distance C



Cutting time adjustment



The length of the chain must be adjusted so that the film is cut when it is fully collected by the catch rod.

- > Remove the spring clip
- > Adjust the chain to the desired length
- > Mount the spring clip

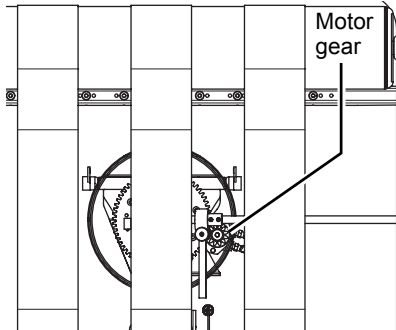
Maintenance

Lubrication

All grease nipples must be greased

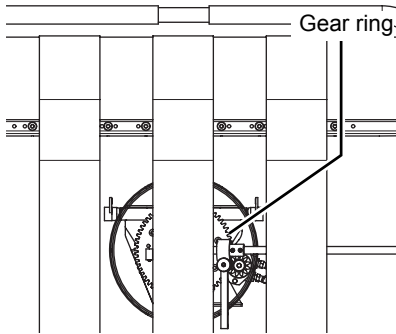
- after every cleaning with a high-pressure cleaner
- every indicated working hours indication

Motor gear



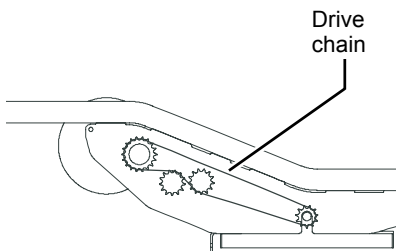
- > Clean the motor gear if necessary
- > Grease the motor gear every 10 working hours

Gear ring



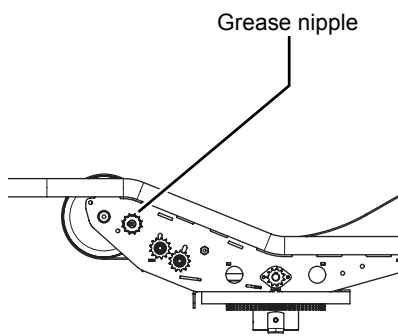
- > Clean the gear ring if necessary
- > Grease the gear ring every 200 working hours

Table roller drive chain



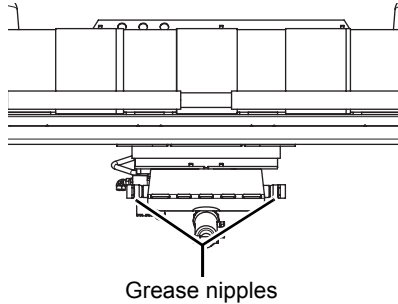
- > Oil the table roller drive chain every 50 working hours

Table sprocket



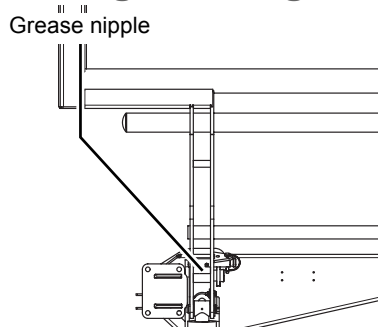
- > Grease the grease nipple every 50 working hours

Tipping frame hinges



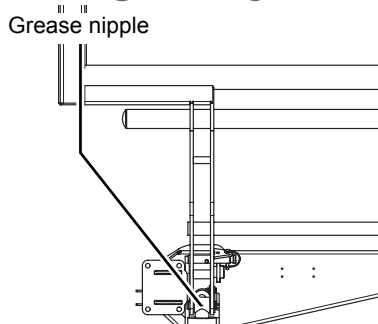
- > Grease the grease nipples on both sides every 50 working hours

Loading arm hinge



- > Grease the grease nipple every 15 working hours

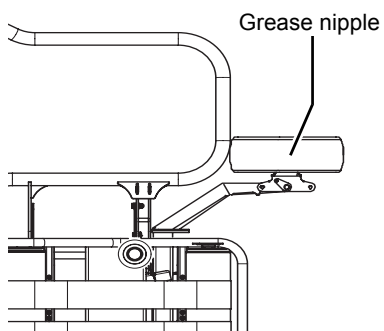
Loading arm cylinder



- > Grease the grease nipple every 150 working hours

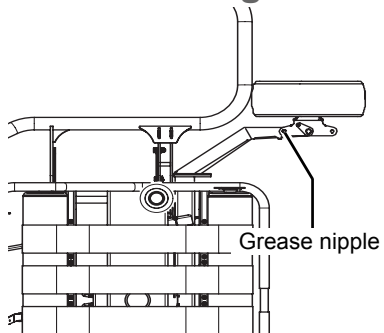
Maintenance

Wheel hubs



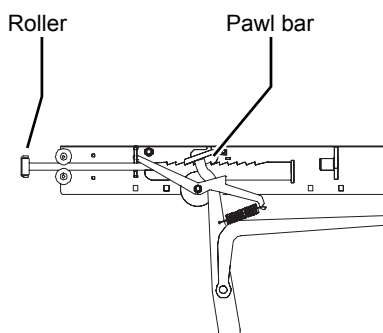
- > Grease the grease nipple on both left and right wheel hub every 50 working hours

Wheel arm right



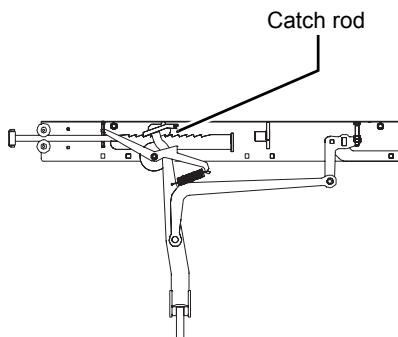
- > Grease the grease nipple every 50 working hours

Applicutter



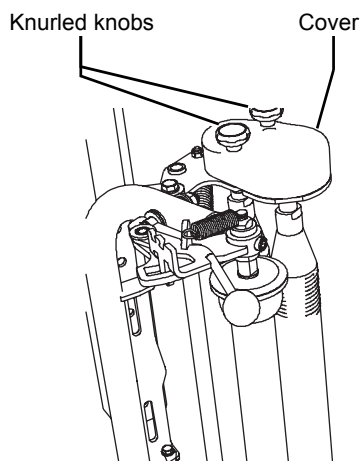
- > Grease the pawl bar every 50 working hours
- > Oil the roller every 10 working hours

Catch rod applicutter



- > Grease the catch rod every 50 working hours

Pre-stretcher gears



The pre-stretcher gears are situated under the cover.

- > Remove the knurled knobs
- > Open the cover
- > Oil the pre-stretcher gears every 50 working hours
- > Close the cover
- > Mount the knurled knobs

Optional equipment

General

Where parts are to be changed, only use genuine original spare parts. When ordering, quote the machine identification numbers. Trained people only must carry out the use, maintenance and repair of the machine. Consult your dealer for any additional advice.

In addition, the warranty will be automatically annulled if the machine has been equipped with accessories or spare parts not authorised by the manufacturer.

Optional equipment may only be mounted

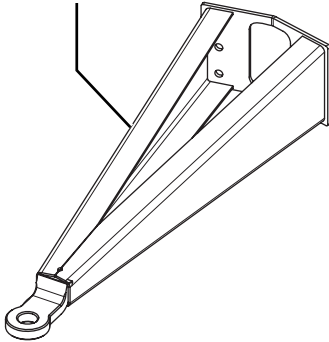
- in accordance with the mounting instructions
- to the appropriate attaching points

For details of the optional equipment

→ Spare parts manual

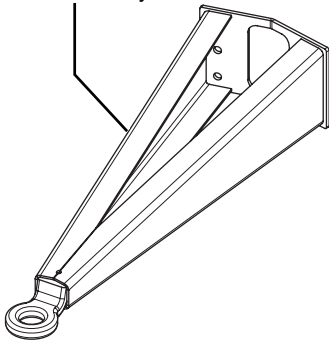
Standard drawbar

Standard drawbar



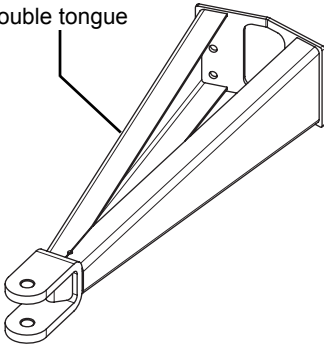
Drawbar with eye

Drawbar with eye



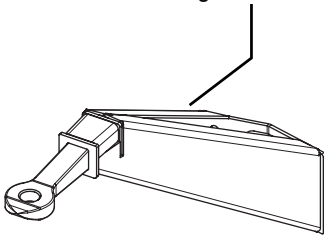
Drawbar with double tongue

Drawbar with double tongue



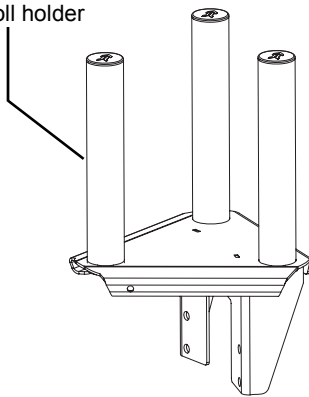
High drawbar

High drawbar



Film roll holder

Film roll holder

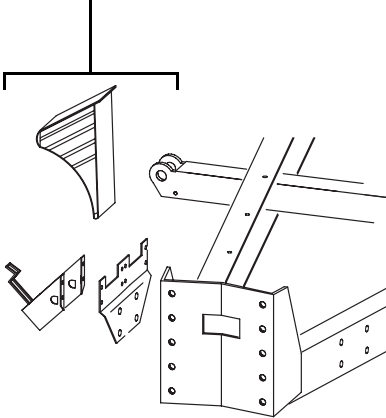


This film roll holder offers the possibility to carry 3 additional film rolls.

Optional equipment

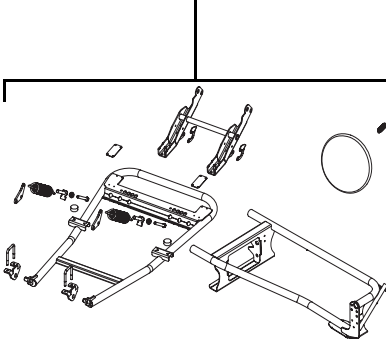
Wheel chock set

Wheel chock set



Bale turner

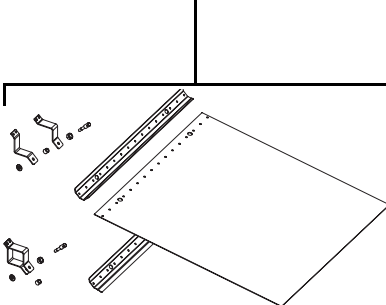
Bale turner set



To prevent wrapped bales from rolling away, the bale turner is used to place the wrapped bales on their flat side.

Drop mat

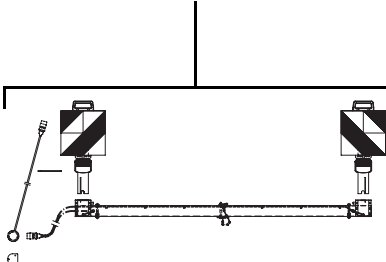
Drop mat



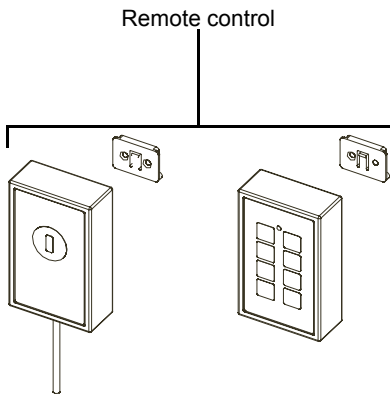
The drop mat is used to prevent punctures on the bale from stiff stubble when unloading the bale on the ground.

Road lighting

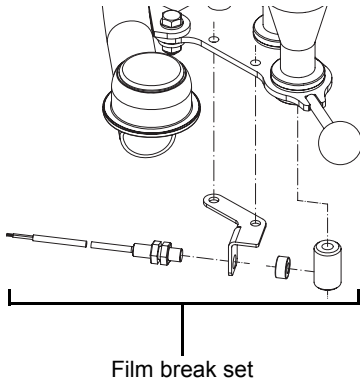
Road lighting set



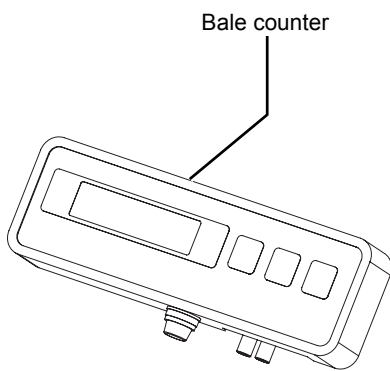
Remote control



Film break set



Bale counter



Troubleshooting

Safety



Switch off engine

Before any resolving of troubles:

- > switch off the engine and remove the ignition key

Troubles can mostly be easily and quickly be remedied. Before you make an appeal to the service department, please check with help of the table, if you can remedy the trouble by yourself.

- Most malfunctions are caused by incorrect connections
- The machine box may only be opened by people with sufficient expertise
- Make sure no dirt gets into the opened central operating panel
- Only restart the machine once the cause of the failure has been identified. Otherwise, parts damaged as a result will not be covered by warranty

Electronic control system

Problem	Cause	Solution	Page
Err 1	The warning beacon is not connected	> Set t1 to 0.0	64
Err 2	The maximum time for raising or lowering the loading arm is exceeded	> Check the sensor on the loading arm > Increase the oil flow from the tractor	
Err 3	<ul style="list-style-type: none"> • Wrong distance between magnet and sensor • Sensor defect or disconnected • Parameter A6 set wrongly 	<ul style="list-style-type: none"> > Adjust the magnet or the sensor > Check or exchange the sensor > Change parameter A6 	• 63
Err 4	The table is not in the bale loading position	> Check if the table load position sensor works	
Err 5	The table is not in the bale unloading position	> Check if the table unload position sensor works	
Err 6	The maximum time of raising the table is exceeded	<ul style="list-style-type: none"> > Check if the table down sensor works > Increase t9 > Increase the oil flow from the tractor 	• 65
Err 7	The table is not in the horizontal position	<ul style="list-style-type: none"> > Push "OK" > Check if the table down sensor works 	

Problem	Cause	Solution	Page
Err 8	The magnet or the sensor for the loading arm is defect or wrongly positioned	> Adjust the magnet/sensor so, that the sensor is activated when the loading arm is in correct position	•
Err 9	The maximum time between two pulses of the film end stop sensor is exceeded	> Check if the film end stop sensor works > Increase t14	• • 65
Err 99	The activated function is not available for this machine		
off	<ul style="list-style-type: none"> • The control panel does not communicate with the driver module • Defect fuse at the main print card in the driver module 	<ul style="list-style-type: none"> > Check that the power supply and the cables between control panel and driver module are OK and properly connected. > Disconnect the power supply for 15 sec and reconnect > Check the fuse 	

Applicutter

Problem	Cause	Solution	Page
The catch rod is not fully charged	The applicutter is not adjusted correctly	> Adjust the catch rod	
The catch rod is not released	Basic setting of the applicutter	> Check that the distance between retainer and pawl is 10 - 20 mm > Adjust correctly	
The film is not cut	<ul style="list-style-type: none"> • Too much pressure on the roller • Roller does not rotate freely • The knife is dull 	<ul style="list-style-type: none"> > Adjust the distance between the roller and the retainer to 4 - 5 mm > Oil the roller > Exchange and adjust the knife 	

Troubleshooting

Problem	Cause	Solution	Page
The film is not retained	<ul style="list-style-type: none"> • Too less pressure on the roller • The roller is dirty • The retainer is worn • Catch rod L releases too late 	<ul style="list-style-type: none"> > Check the distance, 4-5 mm > Check whether there is play between guide rollers A and catch rod L > Check whether roller B is clean; there must be no oil on the outside > Check the retainer for wear and tear > Replace if necessary > Adjust by means of washers under catch rod stopper A so, that the distance between the edge of the end plate and the knife assembly is 2-3 mm 	

Pre-stretcher

Problem	Cause	Solution	Page
Holes in the stretched film	The pre-stretcher rollers are dirty	> Clean the pre-stretcher rollers	
The film tears at the lower edge	The pre-stretchers are set too low	> Increase the height of the pre-stretchers	
The film slips along the tilted surface of the bale	The pre-stretchers are set too high	> Decrease the height of the pre-stretchers	

Hydraulics

Problem	Cause	Solution	Page
Oil flow blockage in the quick-couplings	<ul style="list-style-type: none"> • Blocked return coupling 	> Change the return coupling	
Oil heats up	<ul style="list-style-type: none"> • Wrong setting of the valve block • Too high oil flow from the tractor 	<ul style="list-style-type: none"> • Check setting of the valve block • Reduce the oil flow to 26 l/min 	<ul style="list-style-type: none"> • 34 • 34
Spool valve unit faulty	The spool valve does not move freely	<ul style="list-style-type: none"> > Move the spool valve backwards and forwards a few times > Push the plastic cap at the end of the magnet 	

Troubleshooting

Film

Problem	Cause	Solution	Page
The film slips along the tilted surface of the bale	The film is too little or not tacky	Change to a film with more tackiness	

Bale

Problem	Cause	Solution	Page
Difficulties when bale loading	Bad bale shape	The bale shape, during baling, must be improved	

Disposal of the machine

When the real life of the machine has finished, its separate parts must be properly disposed. Please observe the local current and valid waste disposal regulations.

Metal parts

All metal parts have to be delivered to a metal recycling company.

Oil

The hydraulic oil must be disposed at a used-oil recycling company.

Plastic parts

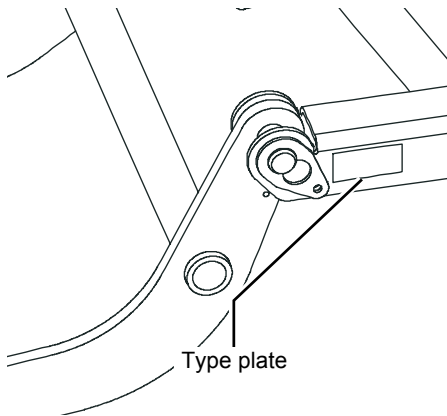
All plastic parts can be recycled.

Rubber

Rubber parts, like hoses and tyres, have to be delivered at a rubber recycling company.

EC Declaration of conformity

In accordance with EU Directive, 98/37/EC



We

Kverneland Group Geldrop BV
Nuenenseweg 165
5667 KP Geldrop
The Netherlands

declare under our sole responsibility that the product

7420 and accessories

to which this declaration relates, conforms to the relevant basic safety and health requirements of EU Directive 98/37/EC.

For the relevant implementation of the safety and health requirements mentioned in the EU Directive, the following standards have been taken into account:

- EN 12100-1;2 (04/2004)
- EN 294 (06/1992)
- EN 982 (11/1996)
- DIN EN ISO 14982 (08/1998)

Kverneland Group Geldrop BV
Geldrop, 22.09.2006



Casper Böhme
Business unit manager

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