VARIANT 485 ROTO CUT VARIANT 480 / 480 ROTO CUT VARIANT 465 ROTO CUT VARIANT 460 / 460 ROTO CUT



Operator's Manual



Original Operator's Manual Read and follow the safety advice

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1 Introduction

1.1 General information

1.1.1 Manual validity

186337-003

Machine	Туре	Identification number		
		from	to	
VARIANT 460 / 465	751	75104559	75104559	
		75104569	75104580	
		75104707	_	
		VPYSE700075105657	_	
VARIANT 480 / 485	752	75204900	75204900	
		75204938	75204965	
		75205094	_	
		VPYSE700075205608	_	

1.1.2 Information about this Operator's Manual

174708-005

Read this Operator's Manual thoroughly in order to make yourself familiar with safe and correct operation, maintenance and transportation of the machine. This avoids injuries and machine damage. If you cannot understand parts of the Operator's Manual, contact a CLAAS Sales Partner.

This Operator's Manual is part of the machine and must be handed over to the buyer of the machine in case of resale. In case of loss or damage, the Operator's Manual and the safety decals applied to the machine can be reordered from a CLAAS Sales Partner. This Operator's Manual is also available in other languages.

Directions such as front, rear, right and left refer to the direction of forward travel.

169886-010

1.1.3 Symbols and notes

Symbol	Meaning
(6)	Reference to page or documentation containing further information
*	Optional equipment
>	Procedure instruction



Symbol	Meaning
	Lubricate grease points with multi-purpose grease.
	Lubricate grease points with lubricating oil.

NOTICE

The note describes how to facilitate operation or avoid material damage.

161815-011

1.1.4 Optional equipment

The Operator's Manual describes all machine types, series and special equipment available at the time of the copy deadline of this Operator's Manual.

In this Operator's Manual, optional equipment is marked with a <*>.

 In case of questions regarding machine equipment, please contact a CLAAS Sales Partner.

160551-010

1.1.5 Qualified specialist workshop

Qualified specialist workshops have the knowledge, tools and skills necessary to perform any required work properly, such as:

- Maintenance work
- · Repair work
- · Installation and retrofitting

In accordance with CLAAS regulations, the qualified specialist workshops keep a record of the work that has been carried out. This documentation may be required for warranty claims.

CLAAS recommends using a CLAAS sales partner.

161401-009

1.1.6 Maintenance notes

Complying with the prescribed maintenance intervals guarantees the best possible machine performance, reliability and safety.

CLAAS recommends having maintenance work carried out by a qualified specialist workshop.

175649-002

1.1.7 Notes on warranty

Warranty claims result from the conditions of sale agreed with the CLAAS Sales Partner.



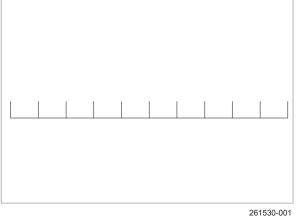
Before delivery, the specialist workshop has carried out a pre-delivery inspection in accordance with the service booklet. The specialist workshop must confirm this inspection and delivery to the customer in the delivery advice. The instructions in this Operator's Manual and the service booklet must be observed. Failure to observe these instructions may result in loss of warranty claims.

Maintenance work that is not described in this Operator's Manual may be carried out only by a qualified specialist workshop.

225419-001

- ▶ Enter the vehicle identification number in the box opposite.
 - This vehicle identification number is shown on the identification plate.
- ▶ Quote the vehicle identification number when ordering spare parts or if you have technical questions.
- Page 56, Serial number, identification number or VIN code

1.1.8 Spare parts and technical questions





1.2 Intended use

1.2.1 Using in line with intended usage

127820-001

The CLAAS baler is designed solely for professional use in compliance with the rules of agricultural engineering, for harvesting straw from cereals and fodder crops.

The baler is a machine for agricultural work hitched to a tractor/traction machine approved or authorised by the manufacturer; it is designed and intended for gathering and baling straw from cereals and fodder crops in fields. By fodder crops, we mean tall stemmed plants such as grass and alfalfa.

The baler gathers the crop (straw from cereals or fodder crops) laid in swathes using a pick-up and conveys it using a feed unit (or cutting unit, as an option) to the baling unit. The baling unit compacts and ties the crop (straw from cereals or fodder crops) to form a bale. A device deposits the bale behind the baler for later transport.

When being transported by road, and depending on the provisions of the current Highway Code, the baler may be hitched to a tractor/traction unit approved or authorised by the manufacturer.

Only persons familiar with the machine and its associated hazards are authorised to use it and to carry out maintenance and servicing on it.

By using in line with intended usage, we mean, amongst others, adhering to the instructions in the user manual, and the conditions of use, maintenance and servicing stipulated by the manufacturer.

The user and the owner are obliged to follow the rules governing the prevention of accidents at work, as well as the general technical safety and workplace health rules and road traffic regulations.

Any use other than that defined above is considered to not be in line with intended usage. the manufacturer is not liable for any damage which then results. The user is solely liable for the risks.

You may request specific advice from CLAAS for using in line with intended usage under particular conditions.

121621-002

1.2.2 Reasonably foreseeable misuse

Using the machine for purposes other than those provided for by the manufacturer constitutes misuse as defined by the European machinery directive.

The manufacturer is not liable for any damage caused by misuse.



Examples of misuse of the CLAAS baler:

- Use of surfaces or spaces which are not described as work or maintenance stations in the Operator's Manual.
- Not following the information in the Operator's Manual when performing adjustment, cleaning or maintenance operations.
- Resolving faults and performing maintenance operations while the drives are moving and/or the engine is running.
- Failure to comply with the warnings on the machine or in the Operator's Manual.
- Maintenance or repair operations carried out by untrained personnel.
- · Arbitrary modifications to the machine.
- Fitting of additional unauthorised or non-certified equipment.
- Use of parts which are not original CLAAS spare parts.
- · Stationary usage.
- Use for baling materials other than straw or forage, like waste material, for example.
- The transport of persons.
- · The transport of goods.



173669-005

2 Safety

2.1 Identifying warnings

2.1.1 Hazard signs

2.1.2 Signal word

 Λ

This hazard sign warns of risks of injury.

To avoid injuries and death, follow all measures marked by this hazard sign.

173668-004

The warnings in this Operator's Manual are introduced by the hazard sign and a signal word. The signal word expresses the degree of the hazard.



DANGER identifies a hazardous situation which causes death or serious injury if not avoided.

AWARNING

WARNING identifies a hazardous situation which may cause death or serious injury if not avoided.

ACAUTION

CAUTION identifies a hazardous situation which may cause slight or medium-grade injuries if not avoided.

2.2 Safety rules

2.2.1 Importance of Operator's Manual

1711-011 158622-005

The Operator's Manual is an important document and a part of the machine. It addresses the user and contains safety-relevant information. Only the procedures specified in the Operator's Manual are

- Read and observe the safety chapter of the machine before using it for the first time.
- ▶ Read and observe the relevant chapters of the Operator's Manual before starting work.
- When failing to understand content or when help is needed, contact a CLAAS Sales Partner.

2.2.2 Observing safety decals and warnings

Safety decals provided on the machine and warnings in the Operator's Manual warn about hazards threatening at hazard points and are important elements of the machine's safety equipment. Any missing or illegible safety decals increase the risk of serious and lethal injuries.

- Read and follow the safety precautions and warnings in the Operator's Manual and the safety decals provided on the machine before putting the unit into operation.
- Clean any soiled safety decals.
- Replace any missing and illegible safety decals immediately. Page 25
- Apply the proper safety decals to spare parts. Page 25
- Spare parts and components supplied by component suppliers may contain additional safety precautions that are not listed in this Operator's Manual.

158627-003

2.2.3 Requirements for all persons working with the machine

All persons working with the machine must meet the minimum requirements below in order to avoid accidents:

- They are physically capable of controlling the machine.
- They are healthy and do not suffer from tiredness.
- They are not under the influence of drugs.
- · They can carry out the work described in this Operator's Manual safely.
- They understand the functions of the machine and can identify and avoid hazards involved in the work.
- · They have understood the Operator's Manual and can put the information provided in the Operator's Manual into action.

- They are familiar with the safe driving of vehicles.
- For road travel, they are familiar with the relevant road traffic rules and have the necessary driver's licence.

158631-004

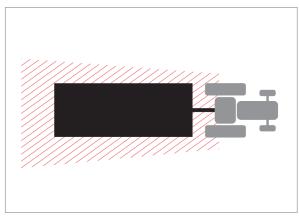
2.2.4 Children in danger

Children cannot assess hazards and behave in an unpredictable way. This is why children are particularly endangered.

- ▶ Never carry children along on the machine.
- ► Keep children a large distance away from the hazard area of the machine.
- ▶ Before driving off and starting machine movements, ensure that no children are present in the hazard area.

196633-001

2.2.5 Hazard areas



274185-001

2

The adjacent image shows the hazard areas around the machine:

The following major hazards are present in these areas:

- The machine may start moving or roll away and run someone over.
- Accidentally operating the power lift may cause the machine to move, creating a dangerous situation.
- Defective or unsecured electrical lines may cause fatal electric shocks.
- Defective or unsecured hydraulic or pneumatic lines may come loose and fly around. Hydraulic oil may escape under high pressure and cause serious injury to the skin or face.
- An exposed PTO shaft or a damaged or incorrectly fitted drive shaft may catch and entangle clothing.
- Machine parts may rotate or swivel when the drive is switched on.
- Hydraulically lifted machine parts may lower slowly without being noticed.
- Foreign bodies in the crop may be shot up into the air and cause physical injury.

Failure to pay attention to the hazard area may cause serious physical injury or death.

- Keep persons away from the hazard area of the machine.
- ▶ Only switch the drives and the engine on if there are no persons present in the hazard area.
- Switch off the drives and engine immediately if a person enters the hazard area.
- Before working in front of or behind the machine and in the tractor hazard area:
 Switch off and secure tractor and machine.



This also applies to brief inspection work. Many serious accidents to the front and rear of the machine happen as a consequence of inattention and because the machine is running.

► Take the information in all the relevant Operator's Manuals into account:

Tractor Operator's Manual Machine Operator's Manual

173777-003

2.2.6 Presence between tractor and machine

Persons who are present between the tractor and the machine could be seriously or fatally injured by the tractor rolling away or by machine movements.

- ▶ Before any work is carried out between the tractor and the machine: Switch off and secure the tractor and the machine. Page 149 This also applies to brief inspection work. Many serious accidents happen as a consequence of inattention and because the machine is running.
- ▶ When operating the power lift, keep all persons away from the range of motion of the power lift.

173713-005

2.2.7 Persons riding on the machine



3

2.2.8 Hitching the tractor to the machine

Persons riding on the machine may be seriously injured or fall off and be run over by the machine. Persons riding on the machine may be hit and injured by objects thrown into the air by the machine.

Never let other persons travel on the machine at the same time.

175747-005

Improper hitching of the tractor and machine produces hazards that may cause serious accidents.

- ► Comply with all Operator's Manuals when hitching and during use:
 - Tractor Operator's Manual Machine Operator's Manual
- ▶ Only hitch the machine to a tractor.
- ▶ Observe the hitching instructions. Page 162, Hitching the machine
- ► Install the safety chain, if provided.

1711-011 175819-007

2.2.9 Danger of injury from rotating shafts



263247-001

Persons could be caught and pulled in by rotating shafts and suffer serious injuries as a result.

- Ensure that the protective guards are fitted and functional
- ► Make sure that nobody is present in the hazard zone of the PTO shaft and universal drive shaft.
- Wear tight-fitting clothing.
- ► Ensure sufficient coverage of PTO shaft guard, lemon tube and universal drive shaft guard.
- ► Engage the universal drive shaft guard locks.
- ► Secure the universal drive shaft guard against rotating along by fastening the chain.
- ▶ Disengage the PTO shaft if the angle becomes too large. The machine could be damaged. Parts could be projected and cause personal injury.
- Disengage the PTO shaft when no longer needed.
- Do not exceed the maximum PTO shaft speed.
- Check the tractor PTO shaft guards. Page 150

158623-006

2.2.10 Structural alterations

Structural alterations and extensions may affect the operability and operational safety of the machine. Persons could be seriously or fatally injured as a result.

Structural alterations and extension are permitted only if approved by CLAAS.

158625-009

2.2.11 Optional equipment and spare parts

Optional equipment and spare parts not meeting CLAAS requirements may impair the operational safety of the machine and cause accidents.

- Use only original CLAAS equipment and spare parts or equipment and spare parts meeting CLAAS requirements.
- ▶ Please contact a CLAAS Sales Partner if you have any questions regarding equipment items or spare parts.

172224-004

2.2.12 Controlling the tractor when it is running

When the tractor is running, the operator must be able to intervene quickly at any time. Otherwise, the tractor and hitched implements may move uncontrollably and cause serious or fatal injury.

- ► Start the engine only when sitting in the driver's seat.
- ► Always fasten your seatbelt before driving off.
- Never leave the driver's seat while driving.
- Never climb onto or leave the tractor while it is moving.



1711-011 175748-003

2.2.13 Operation only after proper putting into operation

The operational safety of the machine is not ensured if the machine is not properly put into operation in accordance with this Operator's Manual. This may cause accidents and persons may be seriously injured or even killed.

- ▶ Adapting the tractor. [™] Page 150
- ▶ Adapting the machine. Page 152
- ► Hitch the machine. [™] Page 162
- ▶ Preparing for road travel. [™] Page 227
- ► Adapting fieldwork. Page 175

158639-007

2.2.14 Technical condition

Improper maintenance may impair the operational safety of the machine and cause accidents. Persons could be seriously or fatally injured as a result.

 Carry out all maintenance work at the specified service intervals.

158642-005

2.2.15 Danger from damage to the machine

Damage to the machine may affect the operational safety of the machine and cause accidents. This may seriously injure or even kill persons. The components below are particularly important for safety:

- Brakes
- Tyre
- Steering
- · Protective guards
- Connectors
- · Lighting
- · Hydraulic system

If there is damage to the machine or a change in operating behaviour:

- ► Switch off and secure the machine. [™] Page 149
- Determine the cause of damage or change in operating behaviour and rectify the problem.
- Have any damage that may affect safety repaired by a qualified specialist workshop.

173767-004

2.2.16 Complying with technical limit values

Failure to comply with the technical limit values of the machine may damage the machine. This may cause accidents and seriously injure or even kill persons. Compliance with the following technical limit values is particularly important in terms of safety:

- · Maximum ground speed
- · Tyre pressure
- · Permissible total weight
- Required tractor vertical load
- Maximum PTO speed



- Comply with the limit values.
 - Identification plate on the machine
 - Page 136, Technical specifications

173820-004

2.2.17 Danger from continued running of machine parts

After the drives have been disengaged, machine parts could continue to run and cause serious or fatal injuries to persons as a result.

▶ Before anyone approaches the machine, wait until all running machine parts have come to a stop.

158795-007

2.2.18 Keeping safety devices functional

When safety devices are missing or damaged, moving machine parts or objects flying away may seriously injure or even kill persons.

- Replace any damaged safety devices without delay.
- ➤ Refit any dismounted safety devices and other parts prior to putting into operation and set them to their protective position.
- ▶ If in doubt as to whether all safety devices are properly fitted and functional, have a qualified specialist workshop carry out a check.

173825-003

2.2.19 Personal protective equipment

Wearing personal protective equipment is an important safety component. Missing or unsuitable personal protective equipment increase the risk of health damage and injuries of persons. Personal protective equipment includes e.g.:

- · Safety gloves
- · Safety shoes
- Protective clothing
- ▶ Define and keep the personal protective equipment ready for the respective work.

158646-006

2.2.20 Wearing suitable clothing

Loose clothing increases the hazard of being seized and wrapped by rotating components and of getting caught on protruding components. Persons could be seriously or fatally injured as a result.

- ▶ Wear tight-fitting clothing.
- Never wear any jewellery or watches.
- ► Tie long hair together and wear a hair net.
- Wear sturdy shoes or safety shoes.

173868-005

2.2.21 Removing dirt and loose objects

Loose objects and objects not belonging to the machine may fall off the machine or be ejected, causing injury to persons.

Before starting the machine, remove loose objects such as tools or installation material as well as dirt from the machine.



1711-011 158801-005

2.2.22 Preparing the machine for road travel

When failing to prepare the machine properly for road travel, serious road traffic accidents may result.

Prepare the machine for road travel every time before driving on a

road. Page 227 Page 162

174884-005

2.2.23 Risks when driving on the road and in the field

Having a machine hitched or fitted will change the tractor's road holding. Road holding depends on the following factors:

- · Operating status
- Filling or loading
- Ground

The machine may tilt when driven over sloping ground. This can lead to accidents, with a risk that persons may be seriously injured or killed.

To maintain control of the tractor and the hitched machine, users must adapt the speed of travel and their driving behaviour according to the change in conditions.

- ► Follow the recommended measures for driving on the road and in fields.
 - Page 228, Travelling on the road
 - Page 228, Driving in fields
- Reduce your speed when driving on rough ground, bends and uphill.
- ▶ Do not hitch the machine or tow it with a vehicle such as a truck, a transporter or a car.
 The machine must only be towed with a correctly

ballasted tractor.

 Respect the tractor's maximum authorised towable weight.

The tractor must be heavy and powerful, so that it has sufficient braking force for the machine being towed.

Manufacturer's operating manual for the tractor

173863-005

2.2.24 Parking the machine safely

Uneven or soft ground surfaces affect the stability of the unhitched machine. The unhitched machine may roll away or tilt. Persons could be crushed and killed.

- Park the machine only on strong and level ground.
- ▶ Before adjustment, repair, maintenance and cleaning work, make sure that the machine is standing securely. In case of doubt, provide the machine with appropriate support.
- ► Secure the machine with wheel chocks so it will not roll away.
- ▶ Observe measures for unhitching. [™] Page 301



1711-011 175842-003

2.2.25 Unsupervised parking

An unsupervised, insufficiently secured tractor with hitched machine represents a hazard for persons and playing children.

► Shut down and secure the tractor and the machine before leaving. ○ Page 149

182858-001

2.2.26 Unsuitable operating materials

Operating materials which do not meet the manufacturer's requirements may impair operational safety and cause accidents.

 Only use operating materials which meet the requirements.

Page 144, Operating utilities

158649-006

2.2.27 Safe handling of operating and auxiliary utilities

Improper handling of operating and auxiliary utilities may cause intoxication or even death of persons. Food and fodder polluted with operating utilities represent a health hazard.

- Store operating and auxiliary utilities in a safe and locked-up area. Never store operating and auxiliary utilities near food or fodder.
- Keep operating and auxiliary utilities away from children.
- Store operating and auxiliary utilities in their original containers.
- ▶ Dispose of empty containers responsibly and in line with regulations.
- Sort out all polluted food and fodder and dispose of them properly. Ensure that the polluted food and fodder will not enter the nutrition cycle.

158652-004

2.2.28 Environmental protection and disposal

Operating and auxiliary materials may damage the environment and the health of persons.

- ► Use leak-proof and liquid-tight containers when draining operating and auxiliary materials. Do not use any foodstuff containers.
- ▶ Do not let operating materials escape into the environment.
- ► Absorb any escaped operating materials with absorbent material or with sand and fill it into a liquid-tight and marked container.
- ▶ Dispose of operating materials filled into containers and rags soiled with oil or grease responsibly and according to regulations issued by authorities.



1711-011 219100-001

2.2.29 Fire prevention

A buildup of crop material, dust and other debris may occur during normal operation. The risk of buildup increases in very dry operating conditions or conditions where airborne crop material or crop dust is present. Any such buildup must be removed to ensure proper machine function and to reduce the risk of fire.

- ▶ At least once a day and at the end of the day, remove all trash and debris from the machine, especially around moving parts and hot components such as engine, transmission, exhaust, battery etc. ore frequent cleaning may be required depending on the operating environment and conditions.
- Perform all maintenance work at the prescribed maintenance intervals.
- Never expose the machine to open flames or burning materials.

206680-001

2.2.30 Highly dangerous electric shock from the overhead power lines

The baler may reach the same height as the overhead power lines when operating. Electricity can be transmitted to the baler and cause a fatal electric shock or start a fire.

- ▶ To avoid the risk of electric shock:
 - ► Keep away from the tractor or the baler when underneath power cables.
 - ► Never get into or out of the tractor underneath power cables.
 - Never climb onto the baler underneath power cables
 - ► Keep a suitable distance away from the power lines when opening the tailgate (round balers).
 - ► Keep a suitable distance away from the power lines when closing the bale ramp (square balers).

158656-006

2.2.31 Electrocution by electrical system

Contact with damaged electrical parts can result in serious electric shock, which could lead to injury or death.

Have damaged insulation and electrical system components repaired immediately by a qualified specialist workshop.

1711-011 173907-003

2.2.32 Pressurised fluids

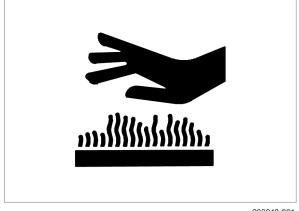


263245-001

5

2.2.33 Compressed air

2.2.34 Hot surfaces



263248-001

6

The following fluids are highly pressurised:

· Hydraulic oil

Fluids escaping at high pressure may enter the body through the skin and cause serious injuries.

- If you suspect that a pressure system is damaged, immediately contact an specialist workshop.
- Keep your face and body parts away from any leaking points.
- Never try to find leaks using your hand. Even a pin-sized hole can lead to serious injuries.
- If any fluid enters the body, immediately seek medical assistance. The fluid must be removed from the body as quickly as possible. Risk of infection!

158780-003

Damaged compressed-air hoses may cause compressed-air system hoses to tear off. Hoses that move around uncontrolled may injure persons seriously.

Contact a qualified authorized workshop immediately when suspecting that the compressed-air system is damaged.

206704-001

The following parts may be hot during operation, on very sunny days, or when outdoor temperatures are high:

- · Hydraulic system
- · Metal components

Risk of burns!

- Keep a suitable distance away from hot surfaces.
- Wear suitable protective gloves!

158785-006

2.2.35 Working on machine only after shutting it down

When the machine has not been shut down, parts may move unintendedly or the machine may start moving. Persons could be seriously or fatally injured as a result.

Prior to any work on the machine such as adjusting, cleaning, preparing for road travel, preparing for fieldwork, maintenance or troubleshooting, switch off and secure the machine. Page 149



1711-011 175849-004

2.2.36 Maintenance work and repairs

Improper maintenance and repair work endanger operational safety. This may cause accidents and seriously injure or even kill persons.

- Carry out only the work described in this Operator's Manual. Before undertaking any work, always switch off and secure the tractor and machine. Page 149
- ► Have any maintenance or repair work that is not described in this manual carried out only by a qualified specialist workshop.
- ► Have work on pre-loaded energy accumulators such as springs, pressure accumulators or hydraulic cylinders carried out only by a qualified specialist workshop. Depressurise pre-loaded energy accumulators before work is commenced on them
- Never weld, drill, saw, grind, braze, torch-cut or carry out machining on the frame or joints of the tractor or the machine. Contact a qualified specialist workshop.

158787-007

2.2.37 Raised machine parts and loads



263249-001

Raised loads may drop down. Hydraulically raised machine parts may drop unintentionally and crush or kill persons. The raised machine may drop down, roll or tip over and kill persons.

- ▶ Never stand beneath raised loads.
- ► Securely support the machine prior to carrying out any work under the machine.
- ▶ Prior to all work on or beneath raised machine parts, lower these machine parts or secure them against dropping down either mechanically using a rigid safety support or with a hydraulic shut-off device.
- ▶ Use lifting equipment and supports with sufficient load-bearing capacity, and ensure that they are functioning properly. Do not use any hollow building blocks, bricks or other unsuitable materials as supports.
- Never work under a machine that is raised with only a jack.

205426-001

There is a risk that non-compliant welding work will prevent the machine from operating safely. This can lead to accidents, with a risk that persons may be seriously injured or killed.

- ▶ Never weld the following safety components:
 - Chassis
 - · Hitching device
 - Drawbar
 - Brake system
- Ducts, hoses, tanks and reservoirs which contain flammable liquids

2.2.38 Risks related to welding work



- Always ensure welding work on other components is performed by a qualified, specialist workshop.
- Before any electrical welding work, unhitch the machine and remove all connectors.
- ▶ Before any electrical welding work, stop all electrical devices. If the machine is equipped with a control, the plug-in module must be removed from the central electrical system.
- ▶ Great care should be taken when welding close to electrical and hydraulic components, plastic components and accumulators. The components may be damaged, and it may endanger the safety of persons or lead to accidents.

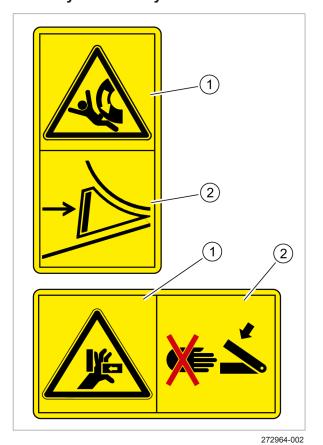
When the paintwork is heating during welding work, it can release dangerous vapours which will be inhaled.

- Remove the paint before welding work.
- Perform welding work outside, or use an extraction device.

177964-006

2.3 Safety decals

2.3.1 Layout of safety decals



The hazard points of the machine are identified by safety decals.

	Designation
1	Pictograph: shows the type and source of the hazard and possible consequences.
2	Pictograph: shows how the hazard can be avoided by proper behaviour.

The positioning and the meaning of the safety decals are described in this Operator's Manual. Page 25

▶ Please contact CLAAS if you cannot understand the safety decals.

1711-011 186575-004

126694-001

2.3.2 Location of safety stickers



9



313910-001

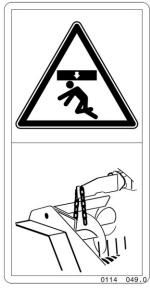


313911-001



313912-001

00 0114 049 0



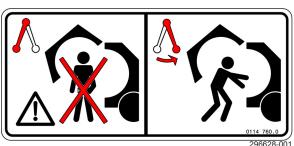
40079-001

Fit locking chains to the pick-up in the top position before entering a danger zone.

10

187718-001

00 0114 760 0



11 When working underneath the open tailgate or in the bale chamber, put the safety lever in the safety position.



1711-011 194591-001

00 0114 768 0



313978-001

13



313980-001

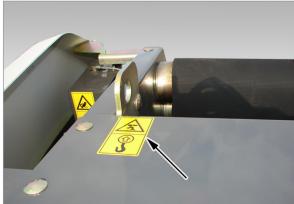


Never place your hands in an area where they are at risk of being crushed by parts which may start moving.



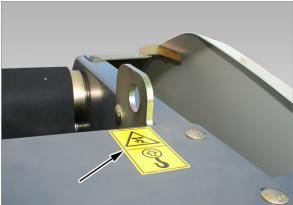
1711-011 126443-001

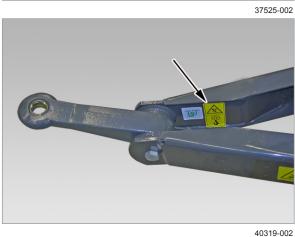
00 0514 038 2



37524-002

15







Only use the marked points to lift the machine. Never stand in the danger area or underneath a suspended load.

16



1711-011 121013-002

00 0514 837 0

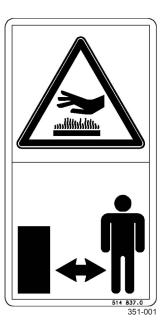


313986-001



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18



Keep a sufficient distance from hot surfaces.

19

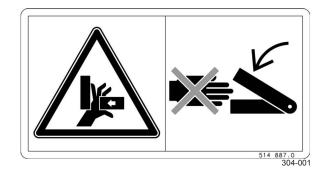
1

313987-001



1711-011 130914-001

00 0514 887 0



20

Never place your hands in an area where they are at risk of being crushed by parts which may start moving.



Depending on equipment

296664-001



Depending on equipment

37544-002

21



Depending on equipment

313915-001



Depending on equipment

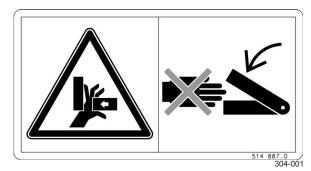
313916-001

22



1711-011 130914-001





Never place your hands in an area where they are at risk of being crushed by parts which may start moving.

24



Depending on equipment

313917-001



Depending on equipment

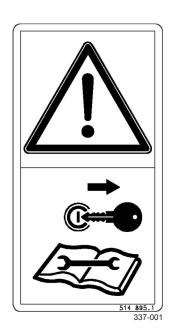


37550-002

25

00 0514 895 1

126461-002



Before carrying out any work on the machine, switch the tractor's engine off and remove the ignition key.

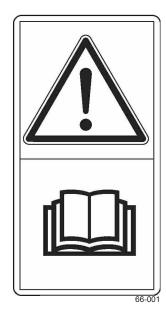


1711-011 129308-001





27



Prior to putting into operation, read and observe the operator's manual and the safety instructions.

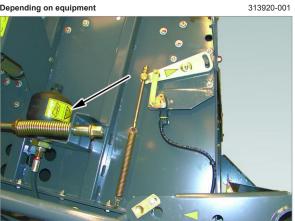


1711-011 130917-001





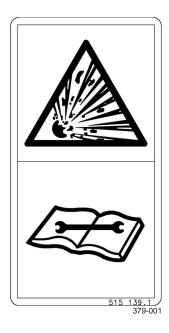
Depending on equipment



37555-002



Depending on equipment



The accumulator is under gas and oil pressure. The instructions in the Technical manual must be followed when removing and repairing it.

29

28



1711-011 126453-001

00 0516 025 0







Stay outside the tailgate swing zone when the tractor engine is running.



1711-011 126684-001

00 0516 028 0



32



313961-001



297000-001



Do not open or remove the protective devices while the engine is running.

33



1711-011 126684-001

00 0516 028 0



35





313965-001



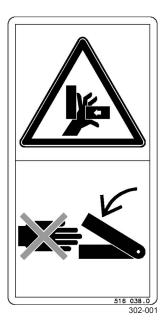


Do not open or remove the protective devices while the engine is running.

36

129312-002

00 0516 038 0



Never move your hands into the pinching as long as parts may be moving there.

38



1711-011 126460-002

00 0516 039 1



-

39



313983-001



313984-001



249638-001

Never open or remove the safety devices when the engine is running.



1711-011 126674-001

00 0516 041 0



42 313969-001



313968-001



313971-001



4



Never place your hand or an object near the augers when the engine is running.

43

126463-001

00 0516 047 0



Before unhitching or storing the machine, secure it using chocks to prevent accidental movement.

45



1711-011 126456-001





313972-001

46

47

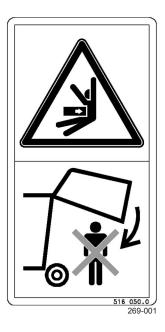
48



313973-001



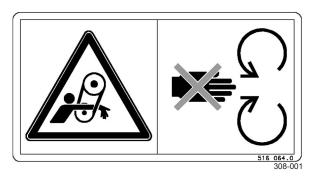
313991-001



Stay out of range of the raised tailgate until the lock is in place.

120965-002

00 0516 064 0



Never open or remove safety devices while the engine is running.

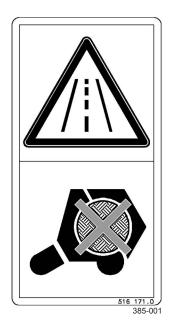


1711-011 126470-001

00 0516 171 0



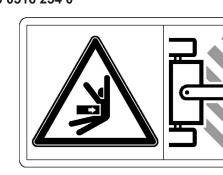
49



Never leave a bale in the chamber when driving on a road.

126454-001

00 0516 254 0



50



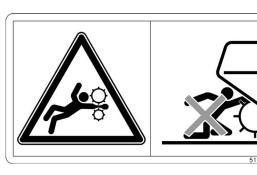
37529-002

Stay outside the sweep zone when the engine is running.



1711-011 130915-001

00 0516 518 0



52

313975-001

Stay outside the range of the swathe collector while the engine is running.



313976-001

53

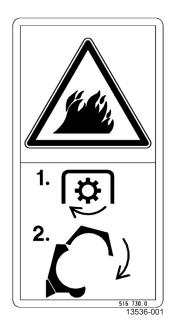
00 0516 730 0

130919-002



37560-002

54



Always close the tailgate when the belts are rotating. Risk of fire during belt rotation due to crop accumulating in the belts when stopped.



3 Machine description

3.1 Existing models

3.1.1 Machine description

186340-002

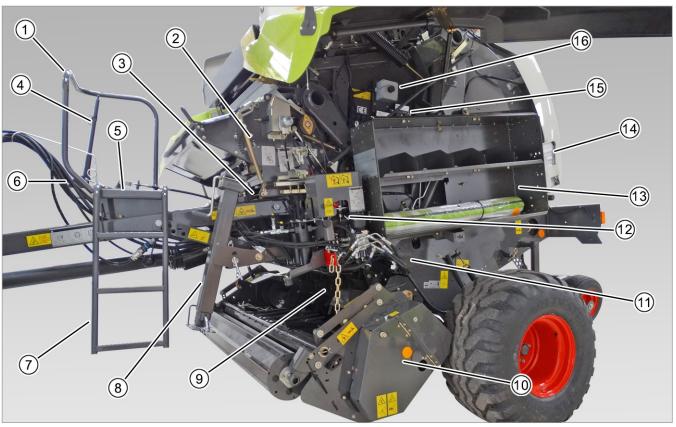
The balers described in this user manual have a variable diameter bale chamber with belts. They are available in several models:

	Type 751	Type 752		
Maximum bale diameter	1.55 m (60 in)	1.75 m (68 in)		
Minimum bale diameter	0.90 m (36 in)	0.90 m (36 in)		
Feed rotor	VARIANT 460	VARIANT 480		
Cutting rotor	VARIANT 460 RotoCut	VARIANT 480 RotoCut		
HeavyDuty cutting rotor	VARIANT 465 RotoCut	VARIANT 485 RotoCut		

186585-001

3.2 Overview and functions

3.2.1 Left-hand side



298536-001

	Description	Function
1	Guard rail	The guard rail protects the user when on the step.
2	Net tying system	Net tying enables the bale to be tied with net.
3	Twine tying system	Twine tying enables the bale to be tied with twine.
4	Parking brake	The parking brake immobilises the baler when parking.
5	Step	The step is used for access to the front part of the baler.
6	Hydraulic safety brake*	The hydraulic safety brake activates braking if the baler becomes unhitched from the tractor.
7	Ladder	The ladder allows access to the top of the baler, in particular during preparation or tying adjustments.
8	Jack stand	The jack stand supports the baler when it is not hitched to a tractor.
9	Rotor	The RotoFeed* feed rotor transfers the crop from the pick-up to the bale chamber.
		The RotoCut* cutting rotor cuts and transfers the crop from the pick-up to the bale chamber.
10	Pick-up	The pick-up gathers the crop arranged in swaths.

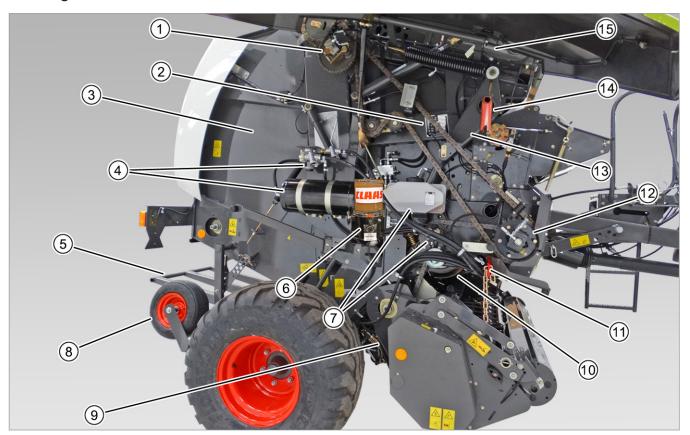


	Description	Function
11	Tying function electromagnetic clutch	The clutch controls activation of the tying drive belt.
12	Hydraulic block/Oil filter/Tailgate safety lever	The hydraulic block controls the baler's hydraulic functions.
		The oil filter filters the tractor's hydraulic oil circulating round the baler.
		The safety lever is used to hold the tailgate in the open position when the machine is being worked on.
		Always place the lever in the safety position before working on the machine!
13	Twine/net box	The twine/net box is used to store spare twine and/or net.
14	Wheel chocks	The wheel chocks prevent any accidental movement when the baler is being unhitched.
15	Module	The module contains the baler's operating program.
16	Diagnostic unit	The diagnostic unit is used to connect the CLAAS Diagnostic System for troubleshooting and electronic adjustments.



1711-011 186586-002

3.2.2 Right-hand side



298532-001

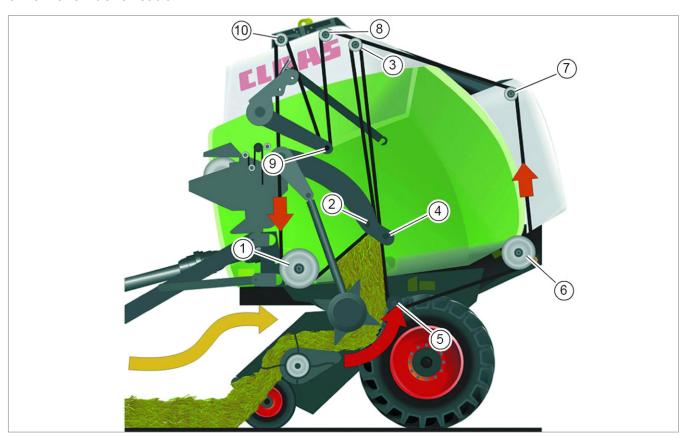
	Description	Function
1	Drive clutch for roller 3	The clutch drives the rotation of roller 3 and disengages it when the tailgate is opened.
2	Identification plate	The identification plate identifies the baler and lists its specifications.
3	Tailgate	Along with the front hood, the tailgate forms the bale chamber.
4	Pneumatic safety brake and air tank*	The pneumatic safety brake activates braking if the baler becomes unhitched from the tractor.
5	Bale ramp	The bale ramp allows the bale to be discharged smoothly onto the ground and the tailgate's area of movement to be cleared after the bale has been discharged.
6	Electric central lubrication pump*	The electric pump provides regular lubrication of the points connected to the central lubrication system distributors.
7	Lubrication pump and oil tank	The drive chain automatic lubrication device ensures that the drives have a long service life.
8	Pick-up wheels	In the working position (on the pick-up), the pick- up wheels are used to maintain a constant distance between the tines of the pick-up and the ground.



	Description	Function
9	Cutting floor*	The cutting floor supports the knives enabling the crop to be cut. The cutting floor is either fixed or pivoting.
		The pivoting floor facilitates unblocking.
10	Tying feed plate	The tying feed plate facilitates the introduction of twine* or net* during tying.
11	Pick-up locks	The pick-up locks on each side of the machine immobilise the pick-up at a certain height.
12	Rotor drive clutch	The clutch drives the rotation of the rotor and disengages it when the tailgate is opened.
13	Lower tensioning arms (on the left and right of the machine)	The lower tensioning arms apply constant pressure to the bale while it is being formed via rollers 2 and 4.
14	Unblocking key* Machine without pivoting floor	The unblocking key allows the baler to be unblocked by reversing the rotor's direction of rotation.
15	Upper tensioning arms (on the left and right of the machine)	The upper tensioning arms hold the belts taut while the bale is being formed.

128718-001

3.2.3 Roller identification



13722-002



127829-004

21774-002

3.3.1 Indicator lights

3.3 Safety equipment



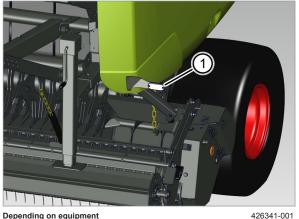
Options depend on the country where the baler is being used.

Result: Some equipment is not available on all balers.

The indicator lights (1) on the baler depend on the legislation in force in the country of use.

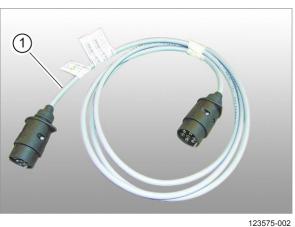


58



Depending on equipment

59



The indicator lights are activated when the cable (1) is connected between the tractor and the baler.

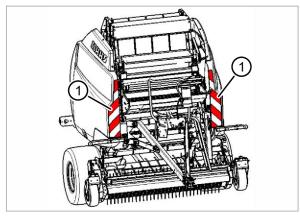
Page 170, Lighting



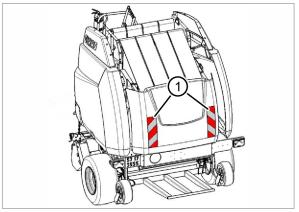
1711-011 206632-003

21774-002

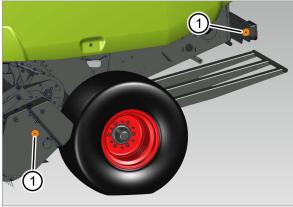
3.3.2 Reflective equipment



28832-003



339244-002



341048-002

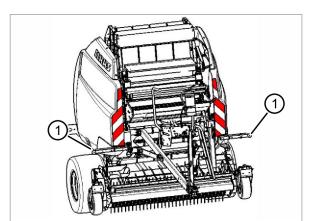
Information

Options depend on the country where the baler is being used.

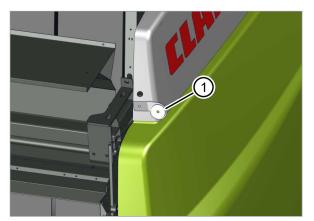
Result: Some equipment is not available on all balers.

The balers may be fitted with additional reflective devices (1) on the front, rear, and side panels of the machine.

62

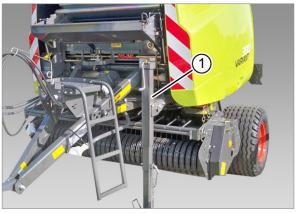


372645-001



426345-001

3.3.3 Jack stand



150171-001

Clearance reflectors

Non-braked machine

The clearance reflectors (1) are adjustable; their position corresponds to the maximum width of the baler.

Page 160, Clearance reflectors

64

65

66

Braked machine

127834-003

The jack stand (1) enables the baler to be maintained in a stable position when it is not hitched to a tractor.

The jack stand is mounted on the front of the baler.

The position of the jack stand is changed manually.

43395-001

WARNING

Swivelling of the jack stand

Result: Cut or crushed fingers

- Always switch off the tractor engine and remove the ignition key.
- ► Always carry out this operation without the assistance of another person.
- ► Always wear protective gloves when handling the jack stand
- Avoid placing hands or fingers in the cutting or crushing areas if the jack stand swivels round.

1711-011 14712-001

WARNING

Movement of the baler when on the jack stand Result: damage to the jack stand and the baler

► Always raise the jack stand before moving the baler.

Transport position

- ▶ Hitch the baler to the tractor.
- ► Turn the handle (1) clockwise to raise the leg.

22741-001

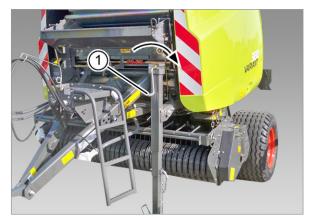


Instability and loss of balance of baler

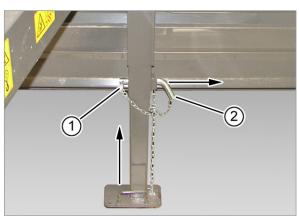
Result: Severe damage to the baler

► Always keep the baler hitched to the tractor when putting it in the transport position.

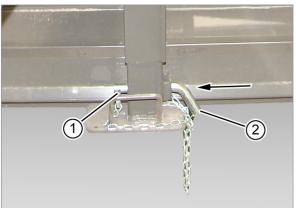
- ▶ Hold the lower section of the jack stand.
- ▶ Remove the safety pin (1).
- ► Turn and pull the retaining pin (2).
- ▶ Lift the lower section of the jack stand.



150177-001



149945-001



149944-001

68

67

- ▶ Insert and turn the retaining pin (2).
- ▶ Insert the safety pin (1) onto the pin (2).

110059-002

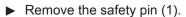
AWARNING

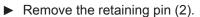
Jack stand pin not locked

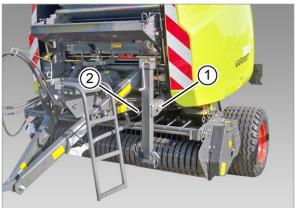
Result: Severe damage to the baler

► Always check that the jack stand pin is locked.





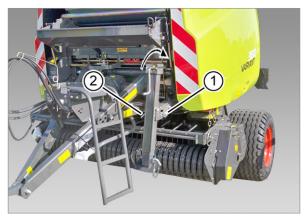




150181-001

70

71



150198-001

- ► Swivel the jack stand round to the rear.
- ► Fit the retaining pin (2) in the lower hole.
- ► Fit the safety pin (1).

The jack stand is in the transport position.

110059-002

WARNING

Jack stand pin not locked

Result: Severe damage to the baler

► Always check that the jack stand pin is locked.

Park position

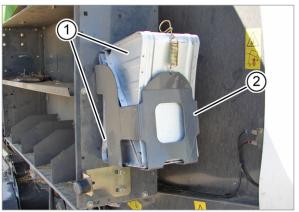
► Follow the procedure described for the Transport position in the reverse order.

127833-002

The wheel chocks (1) prevent accidental movement of the baler. When not in use, the chocks must always be stored on the baler.

The chock holder (2) is mounted on the rear of the twine/net box, on the left-hand side of the baler.





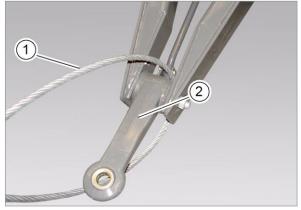
150441-001





20130-003

3.3.5 Retaining cable*



123602-001

74

Use

▶ Place the chocks (1) under the wheels on the side opposite the direction of the slope.

The machine is protected against accidental movement.

14721-001

AWARNING

Accidental movement of the baler.

- Result: danger of death, serious accident or damage to the baler
 - ► Always place the chocks under the wheels before unhitching the baler from the tractor.

122004-003

Valid for:

Machines not equipped with brakes with EU typeapproval

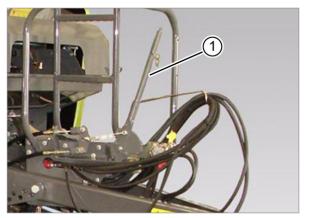
The retaining cable (1) of the baler is passed around the hitch eye (2) and is securely attached to the tractor.

The retaining cable ensures the baler is secured should the hitch break.

1711-011 127831-003

21774-001

3.3.6 Parking brake



150589-001



28322-002

WARNING

Options depend on the country where the baler is being used.

Result: Some equipment is not available on all balers.

60485-001

75 **WARNING**

Using the parking brake does not remove the need to use chocks.

Result: Always place chocks under the wheels when parked.

143093-001

WARNING

Use of the safety brake (depending on equipment) 76 instead of the parking brake.

Result: Death, serious injuries, severe damage to the baler

- Never use the safety brake when parking.
- Always use the parking brake.

The parking brake is controlled manually.

The parking brake is mounted on machines equipped with one of the three types of braking (hydraulic, active hydraulic or pneumatic).

The parking brake is fitted with:

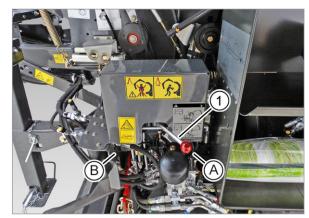
- a locking ratchet lever (1) located on the front of the baler.
- two control cables (2) leading to each wheel and controlling the brakes.

A chain, supplied with each machine, must be attached to the lever ring and to a fixed point on the tractor to enable the parking brake to be activated if the baler/tractor coupling is broken.



1711-011 186576-001

3.3.7 Locking the tailgate



295893-001

When working underneath the open tailgate or in the bale chamber, put the safety lever (1) in the safety position (A).

52583-002

WARNING

Accidental lowering of the baler tailgate

Result: Death, serious injuries

Always lock the tailgate in the open position using the hydraulic safety lock.

77

Unlocking

To close the tailgate, put the safety lever (1) in the reverse position (B).

186573-001

When work is carried out underneath the baler or during transport, lock the pick-up in the top position.

Lock the retaining chains (1) for the pick-up in one of the two notches (2) in the holder.

125689-001



Work carried out under the pick-up.

Result: Death or serious injuries

127837-002

21774-001

78

Never work under the pick-up without having secured it in the raised or lowered position.

WARNING

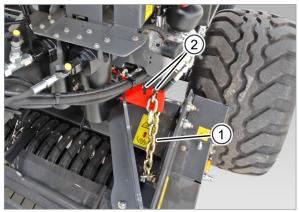
Options depend on the country where the baler is being used.

Result: Some equipment is not available on all balers.

An extinguisher (1) is fitted to the front of the baler.

79

3.3.8 Locking the pick-up



295410-001

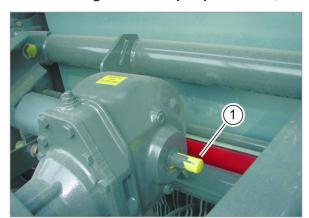
3.3.9 Extinguisher





1711-011 127838-001

3.3.10 Main gearbox output protection, without twine tying



When the baler is not fitted with twine tying, a safety plug (1) is fitted to the drive gearbox output.

80

126769-001



3.4 Working and service areas

0.4.4.0

3.4.1 General points

The baler's working and maintenance areas are the zones to which the operator must have access under the baler's normal conditions of use.

Normal use of the baler excludes maintenance operations (except routine lubrication) and repair operations.

► The machine must be stopped before the working and maintenance areas are accessed.

30348-002

124948-005

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- ► Stop the tractor engine.
- Remove the ignition key.

2188-003

AWARNING

Risk of unwanted movement of the baler.

Result: Death or serious injuries

- Chock the wheels.
- Position the jack stand to stabilise the baler.

186374-001

The operator must be able to access this part in order to carry out the following work:

- Fit or replace the tying twines.
- Fit or replace the net*.
- Carry out the routine manual lubrication procedures (depending on equipment).
- Access the front section of the baler using the ladder (1) secured on the step.

3.4.2 Front section of the baler

81

294677-001



3.5 Identification plate and serial number

3.5.1 Replacement parts and technical information

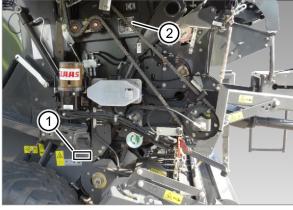
124912-001

With any replacement parts order or any request for technical information, indicate the baler identification number.

This number will prevent parts not suitable for your baler from being delivered.

220025-003

3.5.2 Serial number, identification number or VIN code



371552-001

Depending on the machine equipment and current legislation, the machine can be identified by:

- a serial number (1)

or

- an identification number or VIN code (1)

In both cases, the number (1) is stamped on the righthand side of the front chassis and shown on the identification plate (2).

82

Serial number

752XXXXX

VARIANT 485 / 480

382786-001

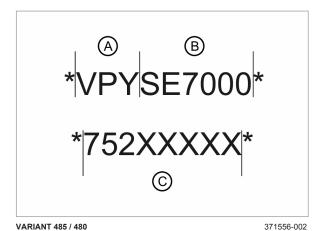
83

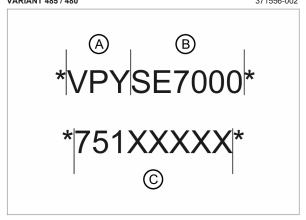
751XXXXX

VARIANT 465 / 460

382785-001







VARIANT 465 / 460 371555-002

3.5.3 Machine identification plate



295685-001

Identification number or VIN code

The identification number or VIN code comprises the following:

	Description
A	WMI (World Manufacturer Identifier) code: manufacturer's international identification code
В	VDS (Vehicle Descriptor Section) code: descriptor code for the baler
С	VIS (Vehicle Indicator section) code: indicator code for the machine (baler serial number)

220023-003

1711-011

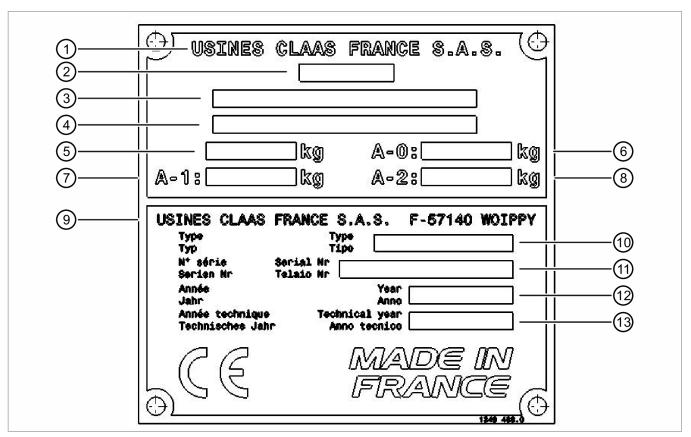
The machine identification plate (1) is affixed to the right-hand side of the baler.

Depending on the machine equipment and the applicable regulations, 3 types of identification plate may be fitted to the machine.

87

85

Identification plate for a machine with European certification

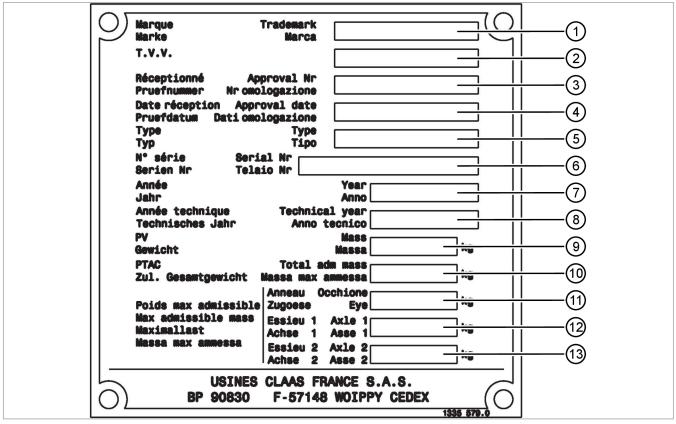


372816-001 88

	Description		Description
1	Manufacturer name	2	Vehicle category
3	Acceptance number for the European Union	4	VIN code: machine identification number
5	Sum of the weights technically permissible on the axle (Category S)	6	Maximum permissible weight on eye
7	Maximum permissible weight on axle 1	8	Maximum permissible weight on axle 2
9	Manufacturer's address	10	Machine type
11	Machine serial number	12	Year of manufacture of the machine
13	Technical year		



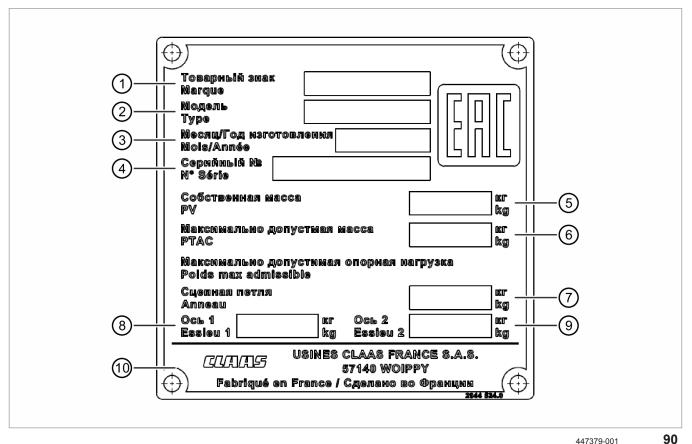
Identification plate for a machine without European certification



267363-001

	Description		Description		
1	Machine brand	2 Type, Variant, Version (FRANCE only)			
3	Machine homologation number	4 Machine homologation date			
5	Machine type	6	Machine serial number		
7	Year of manufacture of the machine	8	Technical year		
9	Machine weight	10	Total authorised laden weight		
11	Maximum permissible weight on eye	12	Maximum permissible weight on axle 1		
13	Maximum permissible weight on axle 2				

Identification plate for countries in the Customs Union (Belarus, Kazakhstan, Russia)

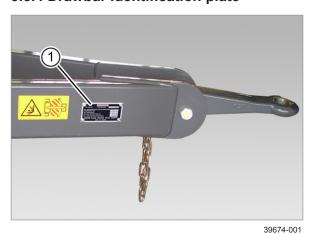


447379-001

	Description		Description
1	Machine brand	2	Machine type
3	Date of production (month / year)	4	Machine serial number
5	Unladen weight	6 Total authorised laden weight	
7	Maximum permissible weight on eye	8	Maximum permissible weight on axle 1
9	Maximum permissible weight on axle 2	10	Manufacturer's name and address

205654-001

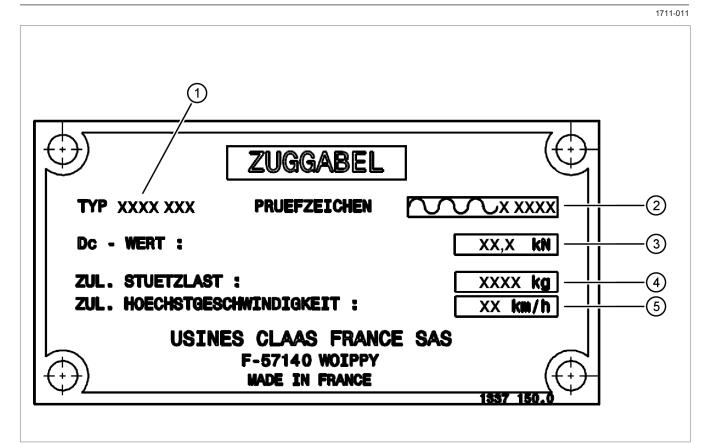
3.5.4 Drawbar identification plate*



If the legislation in force in the country in which the baler is being used requires it, the drawbar identification plate (1) is riveted onto the side of the drawbar.







92

	Description		Description
1	Drawbar CLAAS part number	4	Authorised nose weight
2	Drawbar TÜV acronym and certification number	5	Maximum authorised speed
3	Drawbar Dc value		

The Dc value is used to calculate the total authorised weight of the towing vehicle.

Page 146, Maximum authorised weight of the towing vehicle

186588-001

3.5.5 Axle identification plate

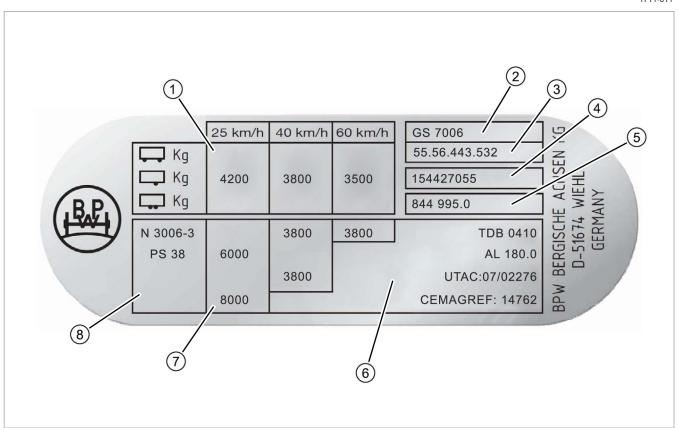


93

The axle is fitted with its own identification plate, located on the main beam.

39687-002





295624-001

	Description		Description
1	Static axle load	5 CLAAS article number	
2	Type of axle	6	Brake test certificates*
3	Manufacturer's item number	7 Technical axle load*	
4	Manufacturer tracking number	8	Type of brake*



3.6 General operating principle

3.6.1 Baling cycle

127858-001

The balers described in this manual only enable hay, straw and silage to be compressed in the form of round bales.

Bale compressing is a 5-step process:

- · gathering the crop using the pick-up,
- transferring the crop from the pick-up to the bale chamber,
- · baling,
- tying,
- · discharging the bale.

The baler is driven by a universal drive shaft and angle drive gearbox.

206542-001

3.7 Information on the machine

3.7.1 Location of information stickers



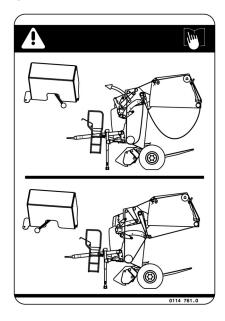
95

The stickers provide information relating to the machine (use, technical specifications, settings, maintenance, etc.).

The presence of some information stickers depends on the country of use and the machine equipment.

206481-001

00 0114 761 1



338739-001

Ensure the position of the locking lever are observed to release the baling belts.

1711-011 147800-004

00 0514 197 4



96



338779-001



338821-001



161437-002

Maximum tyre pressure 2.5 bar

97

98

206480-001

00 0514 290 0

MINUS AN MASSE NEGATIVE EARTH ONLY braun - Masse (-) brown - earth (-) schwarz-positiv (+) black - positive (+)

Ensure the electrical connections are respected:

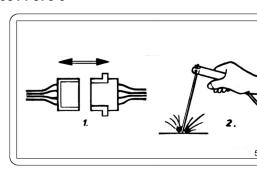
The minus must always be connected to the earth.

- The brown must be connected to the negative earth terminal (-)
- The black must be connected to the positive terminal (+)



1711-011 126472-001

00 0514 373 0



Before carrying out welding work or work on the electrics, disconnect all the electrical equipment

(modules and plugs) to cut the power supply.



313913-001

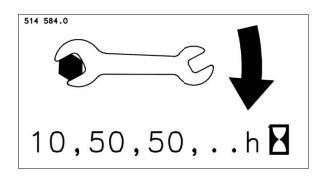
99



296906-001

166470-001





244434-001



338747-001



338749-001

Check the tightness of the bolts:

- after the first 10 hours of operation
- then every 50 hours of operation

Relating to wheel tightening.

102



1711-011 166885-001





296830-001



246002-001

Place the jack in this position to raise the machine.

157303-002







141484-002

104

338782-001

This machine meets the safety regulations of the EC directive in force.



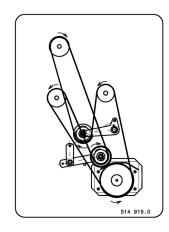


1711-011 206417-001





105



338613-001

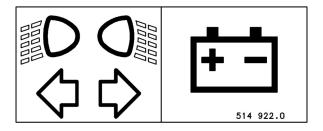
Routing of the tying system drive belt

206478-001

00 0514 922 0



106

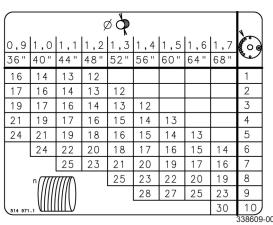


338726-001

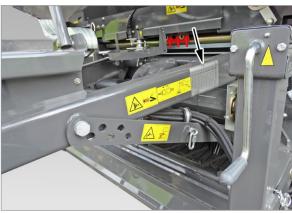
The signalling lighting must be connected to the tractor battery.

206414-001

00 0514 971 1



Positions of the perforated wheel corresponding to the number of twine wraps



338786-001 **107**



Valid for: VARIANT 480/485 equipped with twine tying

206416-001

00 0516 288 1

	Øø							
0,9	1,0	1,1	1,2	1,3	1,4	1,5		
36"	40"	44"	48"	52"	56"	60"	ه	
16	14	13	12				1	
17	16	14	13	12			2	
19	17	16	14	13	12		3	
21	19	17	16	15	14	13	4	
24	21	19	18	16	15	14	5	
	24	22	20	18	17	16	6	
		25	23	21	20	19	7	
	n/////////////////////////////////////							
	28 27							
516 288	<u>., ШШ</u>	ШУ				40	10	

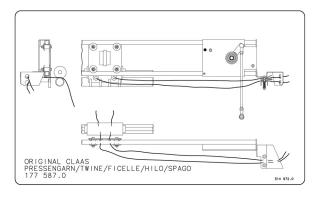
338610-001

Positions of the perforated wheel corresponding to the number of twine wraps

Valid for: VARIANT 460/465 equipped with twine tying

206428-001

00 0514 972 0



338627-001

Passage of the twine through the tying system Valid for: machine equipped with twine tying



108 338956-001

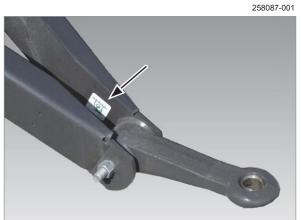


1711-011 133826-003

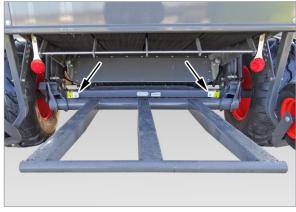
00 0515 334 1



109



314194-001



296607-001



Marks the permitted lask

Marks the permitted lashing-down points where the machine can be secured during transport.

110

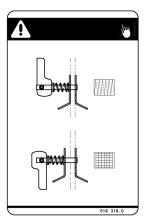
Depending on equipment

1711-011 206413-001

00 0516 318 0







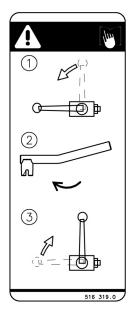
338604-001

Position of the belt brake according to the type of tying used:

- Belt brake applied for twine tying
- Belt brake released for net tying

206474-001

00 0516 319 0



338724-001



113

338783-001

Unblocking the baler manually:

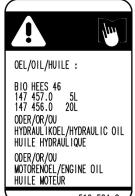
- Open the valve to uncouple the rotor.
- ► Turn the rotor using the unblocking key, then remove the key.
- ► Close the valve to couple the rotor.

00 0301 388 7-BA VARIANT 485/480/465/460-08/2021



1711-011 173896-002

00 0516 584 0



263107-001

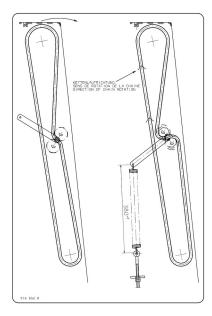


Use a recommended lubrication oil.

- Recommended oil:
 - Bio HEES 46
 - Hydraulic oil
 - Engine oil

206473-001

00 0516 652 0



338719-001

Adjustment dimension for the drive chain tensioner for tailgate roller No.5



115 338952-001

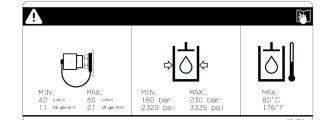


1711-011 206471-001

00 0516 729 0







338713-001

Respect the conditions of use for the hydraulic oil:

Minimum flow rate: 42 l/min (11 US gal/min)Maximum flow rate: 80 l/min (21 US gal/min)

Minimum pressure: 160 bar (2320 psi)
Maximum pressure: 230 bar (3335 psi)
Maximum temperature: 80°C (176°F)

192369-001

00 0516 811 0



309111-001

Final validation of the quality control



338789-001

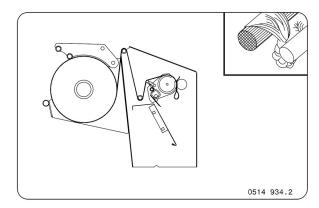


1711-011 206469-001

00 0516 934 2



118

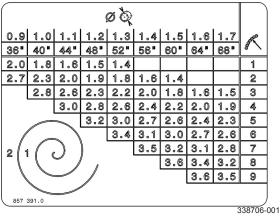


338709-001

Passage of the net into the tying system Valid for: machine equipped with net tying

206465-001

00 0857 391 0

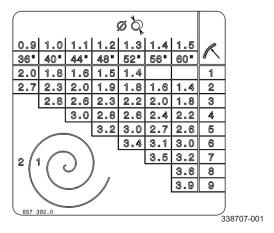


Positions of the selector corresponding to the number of net wraps

Valid for: VARIANT 480/485 equipped with net tying

206468-001

00 0857 392 0





Depending on equipment

338826-001

Depending on equipment

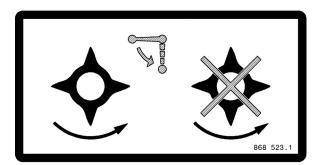
1711-011

Positions of the selector corresponding to the number of net wraps

Valid for: VARIANT 460/465 equipped with net tying

171483-002

00 0868 523 1



338527-001

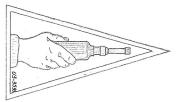
Before manually unblocking the baler, uncouple the rotor using the valve.

173920-001

00 0924 112 1

120

338929-001



263203-001

Point to be lubricated with recommended grease

- Refer to the lubrication plan.

168921-005

00 0930 939 2



251262-004



Depending on equipment

121

338819-001



Maximum permissible PTO speed and direction of rotation of the machine's input shaft.

178934-002

00 1393 790 0



280156-001

Maximum permissible PTO speed and direction of

rotation of the machine's input shaft.



Depending on equipment

3.8 Control terminal

3.8.1 Control terminal



COMMUNICATOR

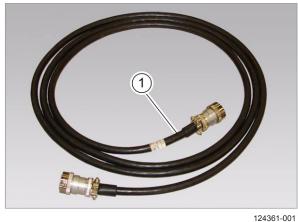
123



OPERATOR

124

3.8.2 ISOBUS connection



125

The baler can be controlled directly using the tractor terminal if this has an ISOBUS connection.

The connection between the tractor and the baler requires an ISOBUS cable (1).

For more details on the operation of the ISOBUS terminal, refer to the manufacturer's manual.

171144-002

The balers described in this manual may be equipped with one of the following terminals as an option:

- COMMUNICATOR
- OPERATOR

120678-001



1711-011 194000-001

3.8.3 EASY on board



126 289447-001 The baler can be controlled directly using a touch tablet (Apple iPad) (1) if the tractor has an ISOBUS connection.

The connection between the tractor and the baler requires an ISOBUS cable.

The use of a touch tablet (Apple iPad) requires the installation of <EASY on board> equipment.

For more operating information, refer to the operator's manual for the <EASY on board> equipment.

127861-001

3.9 Transmission and drive

3.9.1 Transmission

The baler is driven by the tractor via a universal drive shaft. Two types of universal drive shaft can be fitted to the VARIANT baler:

- · a universal drive shaft with shear bolt,
- a universal drive shaft with cam-type cut-out clutch.

The universal drive shaft supplied with the baler depends on the equipment and options.

Universal drive shaft with shear bolt

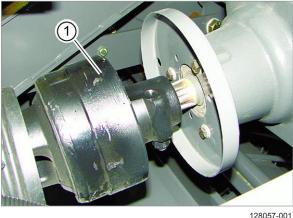
The shear bolt (1) protects the baler against overload.



127

Universal drive shaft with cam-type cut-out clutch

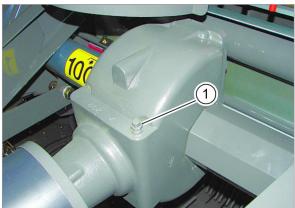
The universal drive shaft is fitted with a cam-type cutout clutch (1) which protects the baler against overload.



128

127862-002

3.9.2 Drive



11862-002

The baler drive, i.e. the rotation of the belts and the pick-up, is powered by an angle drive gearbox (1).

There are two types of gearbox:

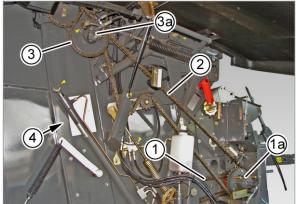
- the 540 rpm drive gearbox
- the 1000 rpm drive gearbox

The drive gearbox fitted on the baler depends on the equipment and options.



1711-011 129697-001

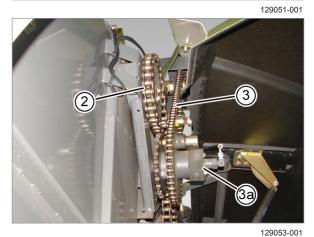
3.9.3 Drive chains



The main drive gearbox drives the chain (1) via the clutch (1a) and the chain (2).

Chain (2) drives chain (3) via the clutch (3a) and chain (4) located in the tailgate.

130



Chain No	Function	Note
1	drives the rotor	via the clutch (1a)
2	drives the chain (3)	via the clutch (3a)
	drives the chain (4)	chain (4) is located in the tailgate
3	drives roller 3	roller 3 is driven when the clutch (3a) is activated
4	drives roller 5	roller 5 is driven permanently

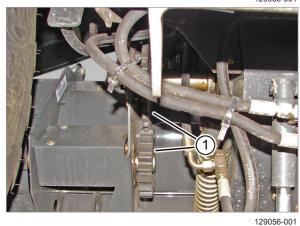
1711-011 129696-001

3.9.4 Pick-up drive



The pick-up is driven by the pair of gears (1) on the left-hand side of the baler.

132 129055-001



133

129698-001

3.9.5 Rotor drive



134

The rotor is driven with the chain (1) via the clutch (2).



224242-002

3.10 Coupling frame

3.10.1 Types of hitch



135



- Clevis hitch

ways:

Swinging drawbar



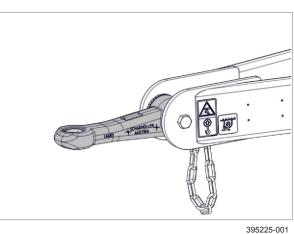
136 295053-001

> There are different types of coupling for hitching the baler:

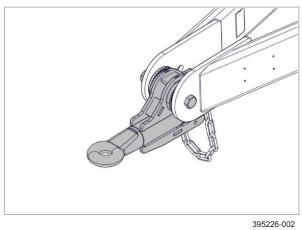
The baler can be hitched to the tractor in various

Page 138, Hitching

- Hitch eye

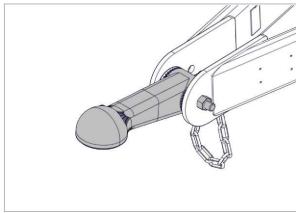






Swivel hitch eye

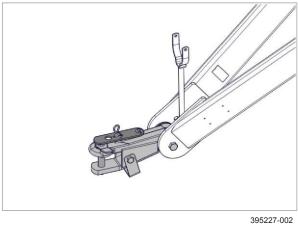
138



- Ball hitch

447592-001

139



- Clevis drawbar

____ 140



188637-002

3.11 Crop feeding

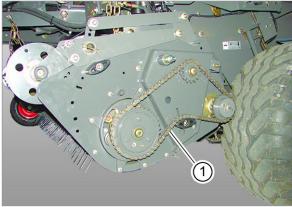
3.11.1 Pick-up



The pick-up (1) is the component which gathers swathes of hay, silage and straw.

126811-001

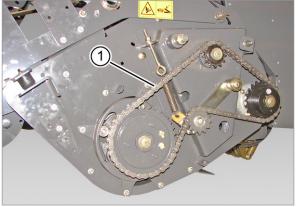
141



The pick-up rotation is powered by drive chains (1), on the right-hand and left-hand sides.

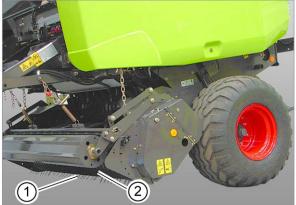
Pick-up 2100 mm

126810-001



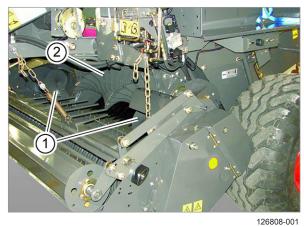
Pick-up 2350 mm 160117-001

143



The double tines (1) fitted to the pick-up (2) catch hold of the crop and take it towards the rotor.

144 126809-001



145

126807-001

146

Two lateral feed augers (1) are fitted at the rear of the pick-up drum, in front of the rotor (2); they are moved by chains.

The lateral feed augers catch hold of the crop being gathered by the pick-up and centre it across the rotor.

Pick-up wheels

The pick-up is equipped with castor wheels (1), called pick-up wheels. The use of pick-up wheels depends on the type of crop being gathered.

Generally, for:

- · Hay, silage: work with pick-up wheels
- · Straw: work without pick-up wheels

Pick-up wheels ensure a consistent distance between the ground and the pick-up tines.

2 types of pick-up wheels can be fitted to the balers described in this manual:

- · Pivoting pick-up wheels
- Folding pivoting pick-up wheels



Working position

147



Transport position

426596-001



Working position

149 299141-001



Transport position

299140-001

Pivoting pick-up wheels

148

Folding pivoting pick-up wheels

The folding pivoting pick-up wheels can be folded up against the machine to reduce the transport width.

1711-011 127864-001

3.11.2 Crop guard



151 129353-001

The crop guard (1) regulates the amount of crop being gathered. It ensures that a regular supply reaches the pick-up and the rotor.

The crop guard (1) is effective for collecting irregular swathes.

127865-002

3.11.3 Short crop plate*



152 126805-001

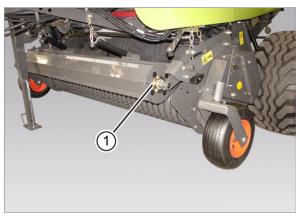
The short crop plate (1) regulates the amounts of crop which is being gathered. It ensures that a regular supply reaches the pick-up and the rotor.

The short crop plate (1) reduces the amount of crop wound round the pick-up.

This is effective at gathering small swathes.

127866-002

3.11.4 Roller crop press*



126806-001

The roller crop press (1) regulates the amount of crop which is being gathered. It ensures that a regular supply reaches the pick-up and the rotor.

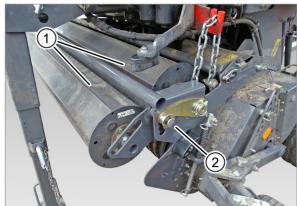
The roller crop press (1) is efficient for collecting large swathes of straw or irregular swathes. It also precompresses the crop before it reaches the rotor.

The roller crop press (1) is mounted on the top of the pick-up. It is positioned slightly in front of the pick-up. This position enables the roller crop press (1) to work directly on the flow of crop before it reaches the pick-up.



1711-011 186378-001

3.11.5 Double roller crop press*



298317-001 **154**

The double roller crop press (1) regulates the amount of crop being gathered. It ensures that a regular supply reaches the pick-up and the rotor.

The double roller crop press (1) is efficient for collecting large swathes of straw or irregular swathes. It also precompresses the crop before it reaches the rotor.

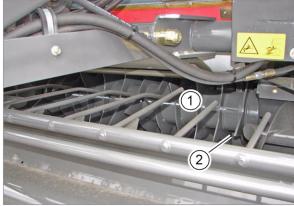
The double roller crop press (1) is mounted on the top of the pick-up. It is positioned slightly in front of the pick-up. This position enables the double roller crop press (1) to work directly on the flow of crop before it reaches the pick-up.

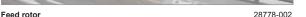
The height of the double roller crop press (1) can be adjusted to one of 4 positions depending on the size of the swathes. The lock (2) is used for quick, easy adjustment of the height.

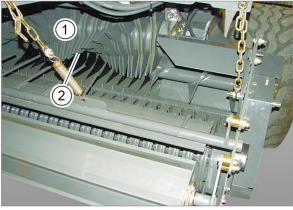
127872-002

3.12 Feeder unit

3.12.1 Rotor

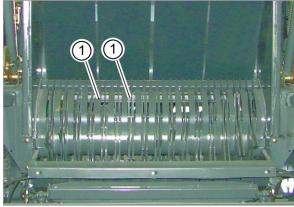






RotoCut cutting rotor

156



12157-002

157

3.12.2 Rotor chassis with pivoting floor*

The rotor (1) transfers the crop from the pick-up to the bale chamber. The crop is guided by the tines (2) on the rotor which are positioned in a spiral.

The feed rotor on VARIANT models comprises single tines.

The cutting rotor on the VARIANT RotoCut models comprises double tines.

155

The rotor is equipped with individual scrapers (1). These scrapers prevent crop from accumulating and rising above the rotor. They help to provide a regular amount of crop to the bale chamber.

127875-002

VARIANT balers may be equipped with an optional pivoting floor.

This is designed to facilitate unblocking operations. It also makes it easier to adapt the working speed to the pick-up / baling conditions (volume of crop, humidity, etc.).

The main function of the pivoting floor is to simplify unblocking operations if the rotor becomes overloaded.

127873-003

The double safety mechanism (mechanical and hydraulic) associated with the pivoting floor function allows the working speed to be adapted to the pick-up / baling conditions.

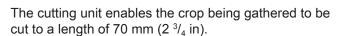
The pivoting floor is activated by two cylinders (1) located on each side of the baler.



127630-001

3.12.3 RotoCut cutting unit*

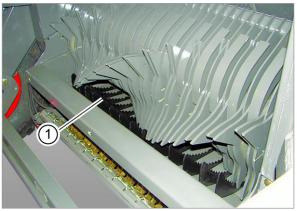
158



Note: The cutting unit is only available on VARIANT RotoCut balers.



There are 14 knives (1) on the RotoCut cutting unit. The knives are individually fixed to the cutting frame.



126812-001



126813-001

Protection from foreign objects

When foreign objects such as stones are gathered, the knives automatically retract using a spring (1). As a result, each knife is individually protected from damage. After passing a foreign object, the knife resumes its initial position.

160

1711-011 186593-002

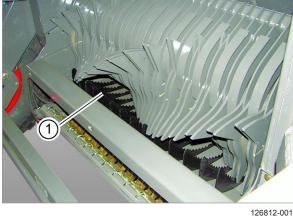
3.12.4 RotoCut HeavyDuty cutting unit*

The <Heavy Duty> cutting unit enables the crop being gathered to be cut to a length of 70 mm ($2^{3}/_{4}$ in).

Note: The cutting unit is only available on VARIANT 465 RotoCut and VARIANT 485 RotoCut balers.

<HeavyDuty> knives

The RotoCut <HeavyDuty> cutting unit is equipped with 14 <HeavyDuty> knives (1). The knives are individually fixed to the cutting frame.



161

Protection from foreign objects

When foreign objects such as stones are gathered, the knives automatically retract using a <HeavyDuty> spring (1). As a result, each <HeavyDuty> knife is individually protected from damage. After passing a foreign object, the knife resumes its initial position.

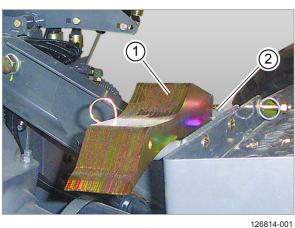


126813-001

162

186596-001

3.12.5 Dummy knives*



163

Dummy knives (1) are metal components which are fitted in place of any knives which are removed.

These are used to prevent:

- the accumulation of crop or stones in the slots in the cutting frame
- unnecessary and premature wear of the knives, if not used for a long period
- damage to the knives when gathering crop in fields with stones

The dummy knife holder (2) is fixed to the rear of the step. It safely stores any knives and dummy knives which are not in use.

3.13 Baling system

1711-011

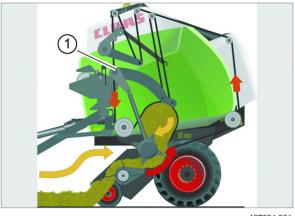
127877-001

3.13.1 Bale chamber and belts



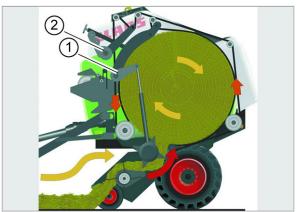
164 127691-001





127694-001

165



127697-001

166

The crop being gathered by the pick-up (1) travels under the rotor (2) where it is cut (RotoCut).

The rotor (2) continually drives the crop into the bale chamber while rotating it.

This crop rotation is then continued by the rotating belts (3).

The compression of the crop rotating in the chamber raises the bottom tensioning arm (1) continually and evenly.

The movement of the tensioning arm (1) changes the position of the belts. The upper tensioning arm (2) guarantees optimum belt tension throughout the entire baling process.



1711-011 127879-003

3.13.2 Soft centre



17958-001

The soft centre corresponds to the centre of the bale, baled at a lower pressure. The pressure then increases to reach the pressure set for the bale.

Under certain conditions, the existence of the soft centre allows the quality of the forage to be maintained during winter storage, and makes the bale easier to unwind.

The setting specifications for the soft centre are:

- diameter
- pressure

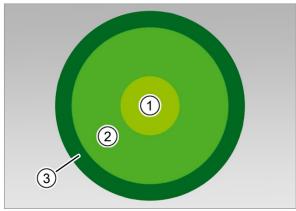
167 Settings are made on the control terminal.

For an optimum soft centre, the settings must be adapted to the baling conditions.

Page 251, Bale parameters

188654-002

3.13.3 Managing the peripheral layers



299180-001

168

To ensure a uniform densification of the bale, the baling pressure is automatically adjusted during the baling cycle. The baling pressure is increased at the end of the bale.

Example:

The values set by the user are as follows:

Diameter: 160 cm (64 in)Pressure: 150 bar (2175 psi)

When the diameter reaches 128 cm (52 in) (80% of 160 cm (64 in)), the pressure increases.

	Description	
1	Soft centre	
2 Area created with pressure of 150 ba (2175 psi)		
3	Area created with pressure of > 150 bar (2175 psi)	

The gradual increase in pressure allows the densification force in the machine to be kept constant.

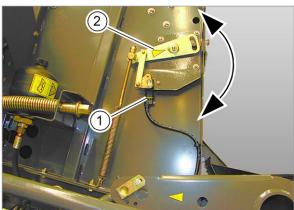
127880-003

3.13.4 Bale chamber filling indicator*

Description

The baler can be fitted with a Filling indicator function, as an option. This function provides information on the uniformity of bale chamber filling.

This function is particularly useful for gathering small or irregular swathes or silage. It ensures the belts are correctly tensioned and prevents the belts from turning over.



12071-002



12096-002

Operation

Sensors (1) on the levers (2), located either side of the baler, detect the tension applied to each of the outer belts (3).

169

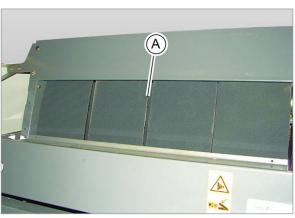
170

If the tension on the outer belts is unequal - which would signify that the bale chamber was being filled unevenly - the lever corresponding to the slackest belt is moved upwards accordingly.

This movement is displayed on the control terminal screen as a symbol.

Symbol		Control terminal
■ L¦R	•	COMMUNICATOROPERATORISOBUS terminal

By default the sensors evaluate the shape of the bale from the centre (A) of the belts (widthways).



127700-001



If, after checking the first bale to be compressed, the centre is not suited to the swaths being gathered, then this can be modified by pressing the reset key to reset the filling indicator to zero.

Key	Control terminal
L [†] R 🖸	- COMMUNICATOR
•	- OPERATOR
	 ISOBUS terminal

The moisture sensor (1) checks the moisture level in

The moisture sensor (1) is located in the bale

the baled crop in real time.

chamber's tailgate.

187971-001

3.13.5 Moisture sensor*



172

60 1 150 cm 2 150 cm

297333-001

The moisture level (1) is displayed on the control terminal screen in real time.

The value displayed is an indicator and not a calibrated measurement.

The moisture level is measured on the outer face of the bale.

The moisture inside the bale may be different from the value measured on the surface. The moisture inside the bale may be measured using a separate hygrometer (not supplied).

173 The value displayed serves as a reference for the user for the change in moisture in the baled crop during the working day. Using this information, it is possible:

- to adapt the baling pressure to reach the required bale density
- · to stop baling if the gathered crop is too wet

The maximum moisture level measured is 40%.

If the moisture level measured is over 40%, the control terminal shows the following value:

> 40%



3.14 Tying system

3.14.1 Tying categories and types

181145-002

Definition

Category: the tying category corresponds to the level of tying automation.

Type: the tying type corresponds to the material used in the tying process.

Tying category

As an option, the baler is fitted with two tying categories:

- · standard tying
- · comfort tying

The tying category fitted to the baler (standard or comfort) determines the type of tying available.

Types of tying

As an option, the baler is fitted with three tying types:

- · net tying
- twine tying
- · twine and net tying

Net tying is available as Extra wide tying*.

Tying process

The tying process is triggered automatically when the diameter of the compressed bale corresponds to the diameter selected on the control terminal.

Tying can nevertheless be configured to operate manually.

127244-001

3.14.2 Standard tying

Description

Standard tying is a tying process which is partially automated.

Some of the settings (number of twine or net wraps) must be entered directly on the baler. The other settings can be made on the control terminal.

Balers fitted with twine and net tying

For balers equipped with twine and net tying, the selection of the type of tying (twine or net) is mechanical on the baler and electronic on the control terminal.

127885-002

3.14.3 Comfort tying

Description

Comfort tying is a tying process which is more automated than standard tying.

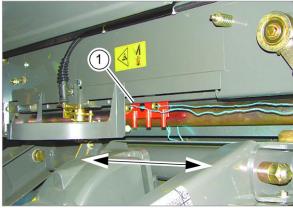
All the main settings (number of twine or net wraps, tying start delay) are entered from the control terminal.

Balers fitted with twine and net tying

For balers equipped with twine and net tying, the selection of the type of tying (twine or net) is mechanical on the baler and electronic on the control terminal.

127886-001

3.14.4 Twine tying



127745-001

Twine slide

The twine slide (1) guides the twine in the bale chamber.

When the twine slide (1) is in the central position (rest) it is aligned with a rubber roller. This rubber roller helps to ensure that the twine correctly feeds into the bale chamber and unwinds properly.

This twine slide is moved by a drive chain. It moves along the entire length of the bale during the tying process to cover the surface of the bale with twine.

174

Twine guide

The twine guides (1) stop the twine from slipping on the sides of the bale. These guides are stops which are positioned closer together than the width of the bale.

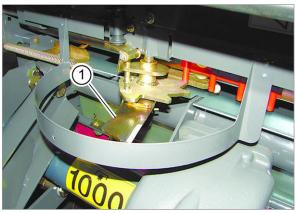
The position of the guides can be adjusted depending on the crop being gathered. The drier the collected crop, the further the stops must be from the edge of the bale, i.e. from the side wall.

127746-001

175

Twine knife

When the specified number of twine wraps is reached, the twine knife (1) is activated to cut the twine.



127747-001



1711-011 127887-003

3.14.5 Net tying



Net brake

The net brake (1) tensions the net during tying. It also ensures that the net roller is held in position.

150621-001

177

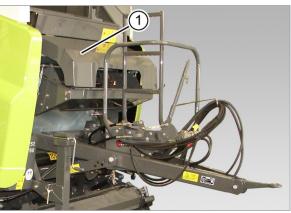


Net knife

When the specified number of net wraps is reached, the net knife (1) is activated to cut the net.

127749-001

178



Net box cover*

The net box can be fitted with a cover (1), as an option, which is designed to prevent crop accumulating on the net roller and tying device.

179

37931-002



1711-011 181146-002

186380-002

3.14.6 Extra wide net tying*

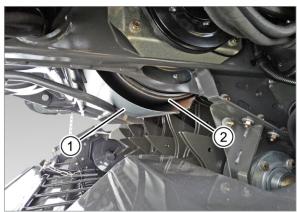


Extra wide net tying* uses a net to cover the edges of the bale.

Extra wide net tying* provides better coverage of the bale.

180

3.14.7 Tying feed plate



The tying feed plate (1) flattens the twine or net against the belts (2) during tying. The twine or net can then be driven and fed into the bale chamber more easily.

181

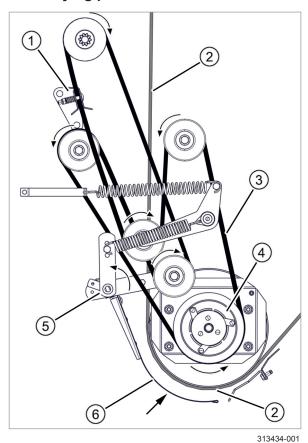
299097-001

00 0301 388 7-BA VARIANT 485/480/465/460-08/2021



1711-011 186382-003

3.14.8 Tying process



Once the bale has reached the set diameter:

- The electromagnetic clutch (4) is activated automatically. The tying process begins, the STOP symbol is displayed on the control terminal screen and a beep is emitted.
 - Activation of the electromagnetic clutch (4) allows the belt (3) to be driven.
- The sudden tension applied to the belt (3) causes the lever (5) to rotate left (arrow). The tying feed plate (6) is flattened against the rotating endless belts (2), facilitating the introduction of the net or twine.

Twine tying

If twine is used for tying, the belt brake (1) is applied.

The belt brake (1) slows the belt (3) during tying.

Net tying

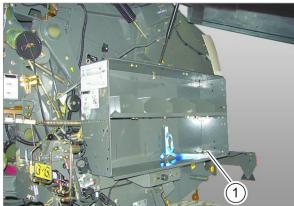
If net is used for tying, the belt brake (1) is released.

The belt (3) remains free during tying.



1711-011 127889-002

3.14.9 Twine/net box



183



184

A twine/net box (1) is mounted on the left-hand side of the baler.

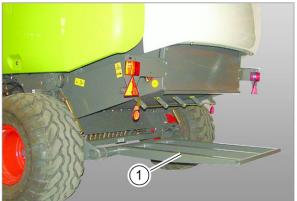
This can store (depending on the equipment):

- 5 twine reels and 1 net roller (on machines equipped with twine and net tying)
- 10 twine reels (on machines equipped with twine tying)
- up to 2 net rollers (on machines equipped with net tying)

127890-004

3.15 Bale discharge

3.15.1 Bale ramp



185

12092-002

A bale ramp (1) is fitted at the rear of the baler.

It enables the bale to be placed on the ground without damaging it, keeping it well away from the tailgate. This prevents the bale from touching the tailgate.

It is not necessary to reverse to discharge the bale.

The bale ramp is fitted with sensors which detect the movement of the bale. When the bale moves onto the bale ramp, the symbol is displayed on the control terminal screen.

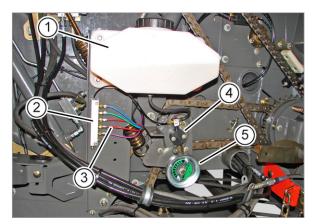
Symbol	Control terminal
	- COMMUNICATOR
	- OPERATOR
	 ISOBUS terminal



156628-002

3.16 Lubricating oil system

3.16.1 Automatic chain lubrication



177117-001

Oil reservoir

The baler is fitted with an oil reservoir (1) for lubricating the drive chains.

The reservoir is connected to the oil pump (4).

Oil pump

The oil pump (4) is activated by a cam (5) secured to the rotor drive chain tensioner pinion.

The oil pump (4) is connected to the lubrication ducts (3) by means of a distributor (2).

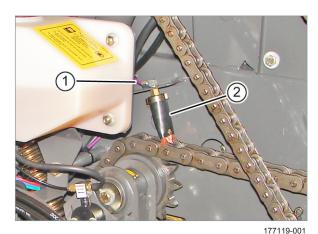
The chains are lubricated continuously as soon as the machine starts rotating.

The oil flow can be adjusted using the cam (5).
Page 407, Setting



Each duct (1) ends in a lubrication brush (2).

Oil is deposited on the drive chains using lubrication brushes (2).



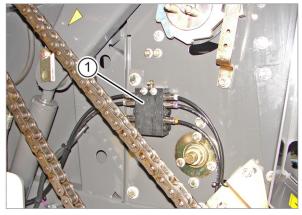
187



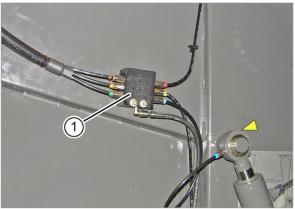
156632-002

3.17 Greasing system

3.17.1 Manual central lubrication



177122-001



189 177123-001

The baler is fitted with 2 central lubrication modules (1) which are connected to the various lubrication points to facilitate lubrication of the baler.

The modules are located on the front right-hand chassis and on the right-hand side of the tailgate.

19252-001

WARNING

Presence of areas which have not been automatically greased by central lubrication

- 188 Result: damage to non-lubricated areas
 - Regularly lubricate all areas which are not automatically greased by central lubrication.
 - ► **™** Lubrication plan.

193882-001

3.17.2 Electric automatic central lubrication*



313089-001

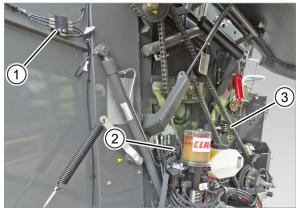
An electric grease pump (1) is mounted on the lefthand side of the machine.

It transmits grease to the various lubrication points via the central lubrication modules.

Lubrication is activated as soon as the main drive starts operating.

The interval between two lubrications can be adjusted using the control terminal.

Lubrication can be carried out manually from the control terminal.



191

The electric grease pump transmits grease to the distribution module (2) that distributes grease between:

- module (3) located on the front left-hand side of the chassis
- module (1) located on the left-hand side of the tailgate

Modules (1) and (3) are connected to the various central lubrication points.

LLMM3

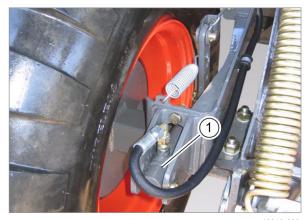
1711-011

127891-002

21774-001

3.18 Brake

3.18.1 Hydraulic brakes



19013-003

192

WARNING

Options depend on the country where the baler is being used.

Result: Some equipment is not available on all balers.

Oil pressure is supplied by the tractor.

A hydraulic braking system ensures the baler is braked via a hydraulic connection to the tractor.

Hydraulic braking consists of hydraulic slave cylinders (1) that control the brakes.

127892-004

21774-002

3.18.2 Active hydraulic brakes*

Information

Options depend on the country where the baler is being used.

Result: Some equipment is not available on all balers.

Oil pressure is supplied by the tractor.

The active hydraulic brakes comprise two hydraulic slave cylinders (1) located on each wheel, controlling the brakes, and a safety brake (2) located at the front of the baler.

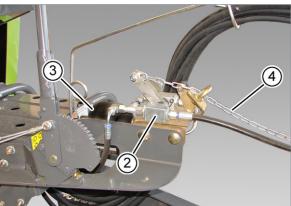
The safety brake (2) provides braking, and is used to stop the baler if the connection between the baler and the tractor is broken.

- The chain (4) connected to the tractor triggers the safety brake (2).
- The hydraulic pressure accumulator (3) releases the oil pressure to the two hydraulic slave cylinders (1).

143093-001



193



_______**1**50615-002

WARNING

Use of the safety brake (depending on equipment) instead of the parking brake.

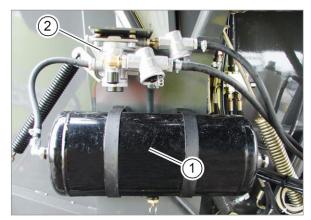
Result: Death, serious injuries, severe damage to the baler

- Never use the safety brake when parking.
- Always use the parking brake.

1711-011 127893-002

21774-001

3.18.3 Pneumatic braking



18972-002



18973-002

AWARNING

Options depend on the country where the baler is being used.

Result: Some equipment is not available on all balers.

Air pressure is supplied by the tractor.

Double circuit pneumatic braking ensures the baler brakes and stops in the event that the baler-tractor connection is broken thanks to the safety brake.

Double circuit pneumatic brakes are fitted with:

- an air tank (1) located under the right-hand side door of the baler.
- a safety valve (2) located under the right-hand side door of the baler, that stops the baler if:
 - the baler is detached,
 - the pneumatic hose is ruptured.
- pneumatic cylinders (3) to control the brakes.

196

187534-001

3.19 Hydraulic system

3.19.1 Baler hydraulic block



296121-001



296124-001

198

The hydraulic block is located on the left-hand side of the baler.

The hydraulic block regulates the baling pressure.

The hydraulic locking lever (1) prevents the tailgate from being lowered and protects the user while operating the machine with the tailgate open.

One or two filters (2) ensure that the oil from the baler's hydraulic circuit is filtered.

The valve* (1) is used to disengage the rotor to facilitate unblocking.

188749-002

3.19.2 Active hydraulics

Description

Active hydraulics is a hydraulic baler function which ensures the belts are tensioned when the tailgate is closed.

Active hydraulics also ensures the belt guide function, at the start of bale formation, in extreme conditions for silage and small swathes.

When the tailgate is closed, the pressure in the hydraulic circuit is approximately 75 bar (1088 psi). In order to ensure the belts are sufficiently tensioned, active hydraulics transfer the pressure from the tailgate actuators to the tensioning arm actuators.

218106-001

3.19.3 <ICT hydraulics> function* (Implement Controls Tractor)

Description

The <ICT hydraulics> function enables a machine with standard equipment to be used in <Comfort> mode.



The <ICT hydraulics> function enables the following <Comfort> functions to be activated:

- Automatic opening / closing of the tailgate at the end of baling
- Automatic pressure recharge
- Semi-automatic unblocking of the ROTO CUT knives and the pivoting floor
- Deactivation of the knives at the end of baling
- Automatic cleaning of the knives every 5 bales

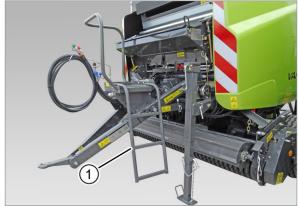
The <ICT hydraulics> function is only available if the baler and the tractor are equipped with the <ICT hydraulics> function.



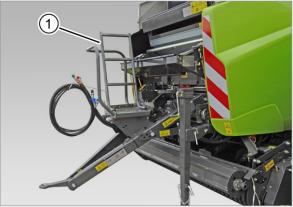
187068-001

3.20 Equipment

3.20.1 Ladder



294677-001



294866-001

200

To access the front section of the baler, a ladder (1) is fitted to the side of the step.

21879-001

WARNING

Handling the ladder

Result: Cut or crushed fingers.

- ► Always wear gloves when handling the ladder
- Avoid placing hands or fingers in the cutting or crushing areas when handling the ladder.

When not in use, the ladder (1) must be in the transport position.

187066-001

3.20.2 Step



294849-001

A step (1) is fitted to the front of the baler. This gives access to the net box*. It also enables the dummy knife holder to be fitted.

The step (1) is fitted with a guard rail (2) to ensure the user's safety.

21900-001

WARNING

Access to the front section of the machine

Result: Serious injuries

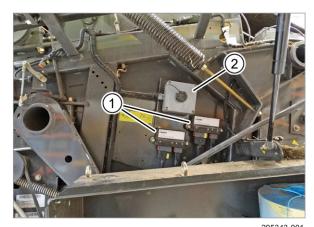
- ► Always stop the tractor engine and remove the ignition key.
- Always wait until the moving parts have stopped completely before using the step and opening the bonnet.
- ► Always check that the step is clean and, particularly, that there is no grease or any other slippery product on the step before using it.



1711-011 186664-001

220045-003

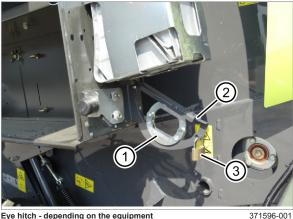
3.20.3 Modules



Depending on the baler's options and equipment, it will be equipped with one or more UBM modules (1) and a diagnostics unit (2).

202

3.20.4 Anti-theft device



Eye hitch - depending on the equipment

Ball hitch - depending on the equipment

371597-001

204

An anti-theft device is available on the machine; it is designed to prevent the machine being hitched.

Storing the anti-theft device

When not in use, the anti-theft device (1) must be secured in its support (2) and locked with the padlock (3).

The support (2) is fitted at the rear left of the machine, underneath the wheel chocks.



187063-001

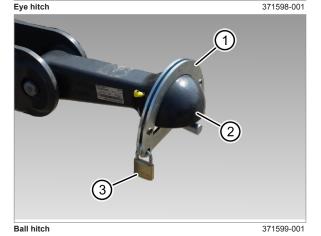
(1)

205

Using the anti-theft device

and lock with the padlock (3).

Insert the anti-theft device (1) in the hitch device (2)



206

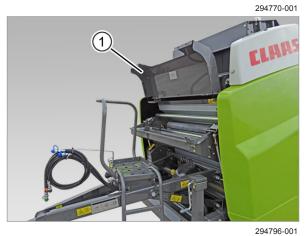
3.20.5 Net box cover*



The net box can be fitted with a cover (1), as an option, which is designed to prevent crop accumulating on the net roller and tying device.

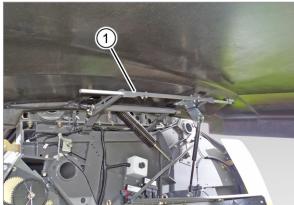
The net box cover is opened and closed using gas struts which hold the cover in position (open or closed).





1711-011 193818-001

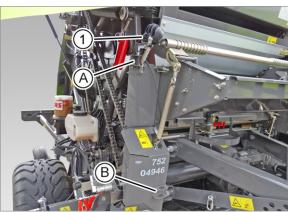
3.20.6 Work lighting*



The baler is equipped with work lighting comprising:

a LED strip (1) for the twine box lighting

209 312973-001



– a work lighting (1) for lighting:

- the tying, in the high position (A)
- the pick-up, in the low position (B)

210 313019-001



The work light is controlled by the switch (1).

The indicator lights on the switch (1) make them easy to find in low light.

4.1 COMMUNICATOR II



1711-011

4 Operating and display elements

4.1 COMMUNICATOR II

4.1.1 Presentation

161374-002

The balers described in this manual may be equipped with a COMMUNICATOR control terminal as an option.

The COMMUNICATOR enables the baler to be set and controlled from the tractor.

This section presents all the baler functions which can be controlled from the COMMUNICATOR. The availability of the functions depends on the baler's equipment (options).

The display, use and management of the COMMUNICATOR specific data are described in the COMMUNICATOR user manual. III

Before first use

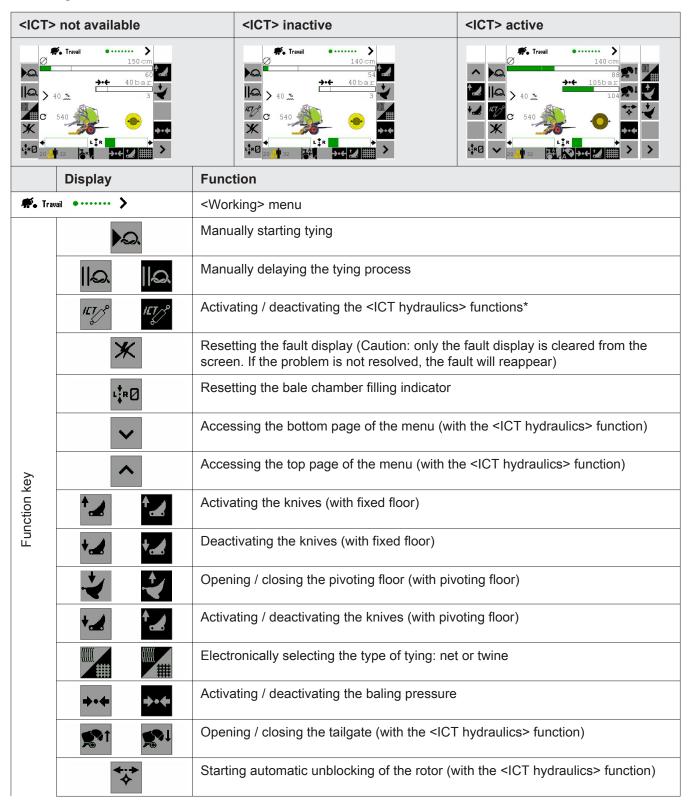
► Read the COMMUNICATOR user manual. □

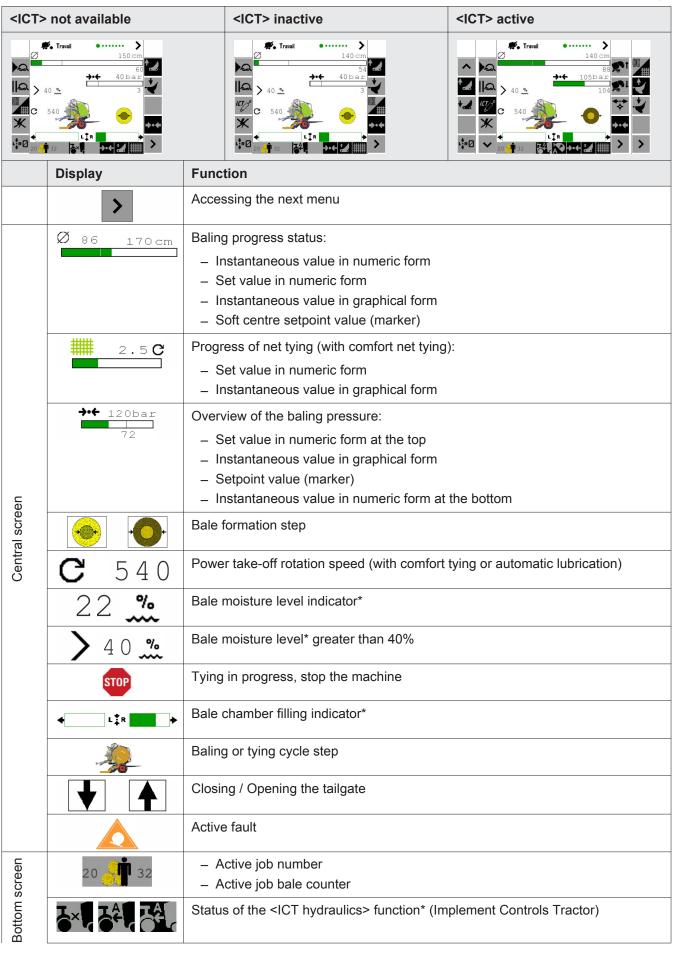


1711-011 217686-001

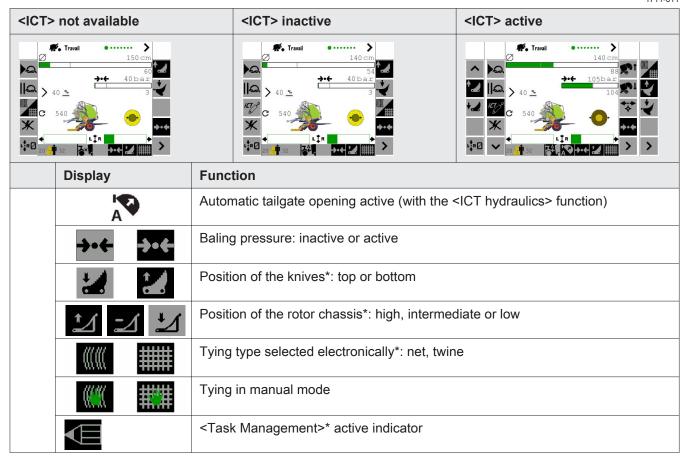
4.1.2 Description of the COMMUNICATOR <Use> menus

<Working> menu



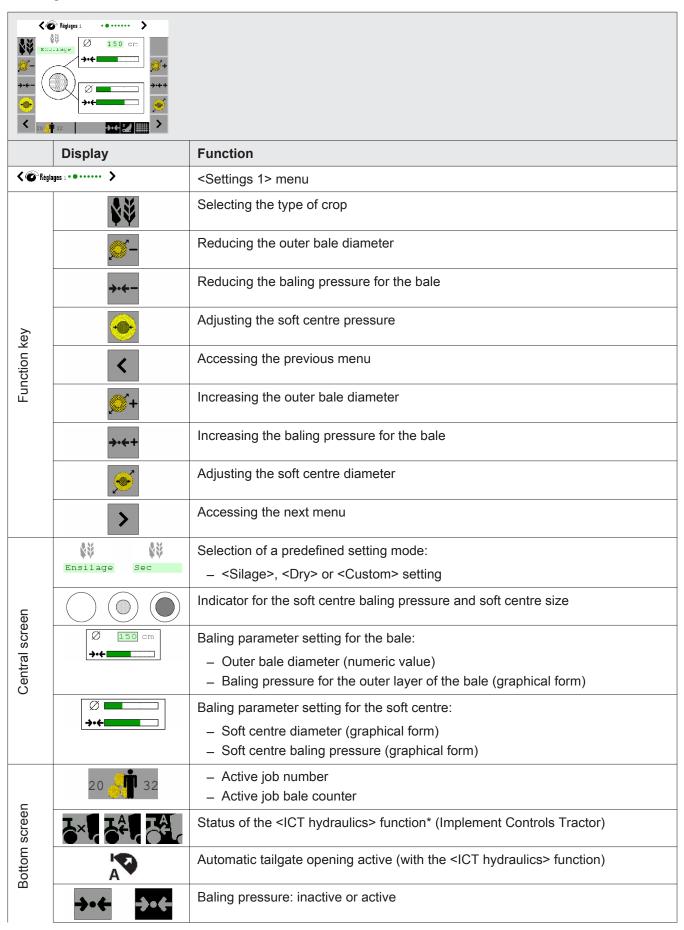




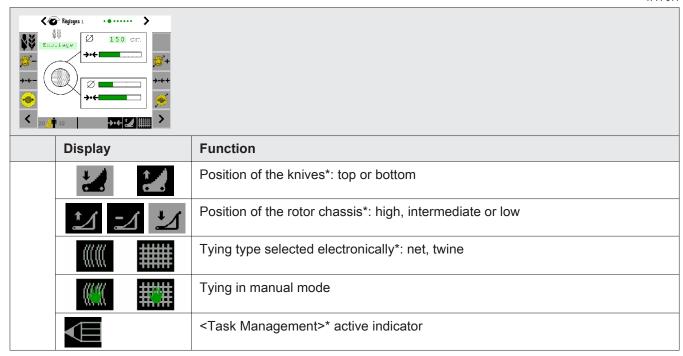




<Settings 1> menu

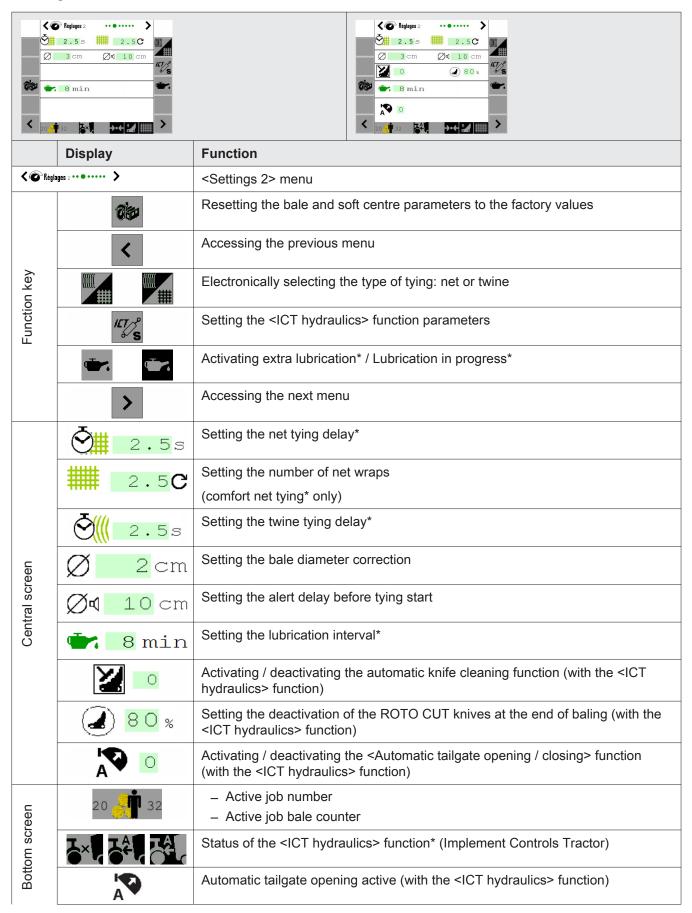








<Settings 2> menu







∢ © Réglages 2 Ž∰ 2.5s ∰ 2.5**C** Ø 3cm Ø4 10 cm **2** 80 % 🔭 8 min 🔭 8 min O PA **Display Function** Baling pressure: inactive or active Position of the knives*: top or bottom Position of the rotor chassis*: high, intermediate or low Tying type selected electronically*: net, twine Tying in manual mode

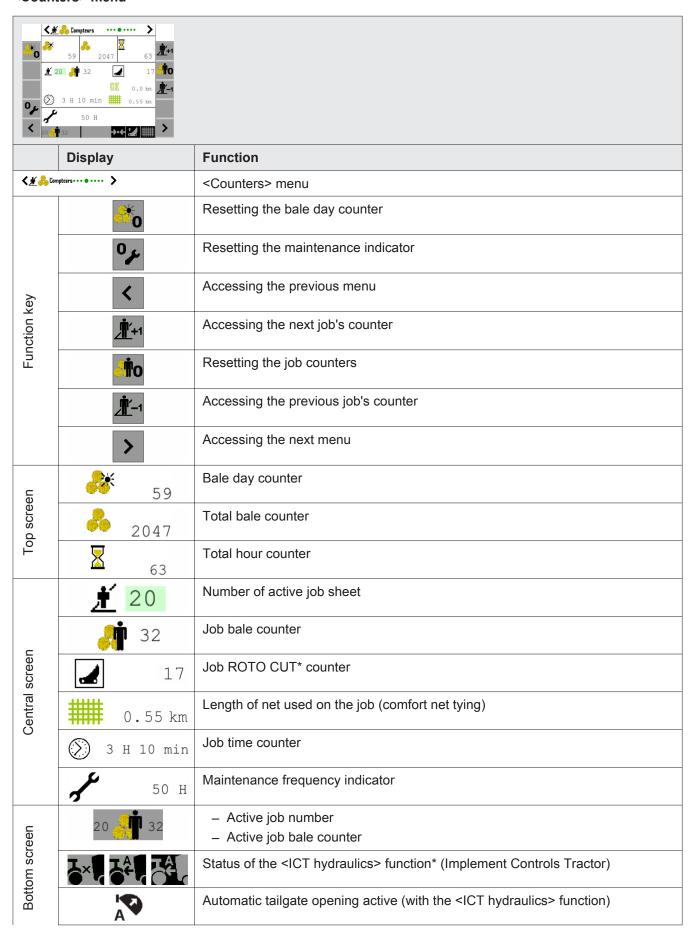
<Task Management>* active indicator





	Reglages 4 · · · · · · · · · · · · · · · · · ·				
	Display	Function			
⟨ ⊘R	églages 4 ••••••	<settings 4=""> menu</settings>			
key	₽ A	Automatic detection of the tractor hydraulic control valve for opening / closing the tailgate			
Function key		Confirming the entry and returning to the previous menu			
Fu	8	Cancelling the entry and returning to the previous menu			
	# 1 4+	Activating / deactivating the <tailgate closing="" opening=""> function</tailgate>			
<u>د</u>		Selection of the tractor hydraulic control valve for opening / closing the tailgate			
cre		Status of the selected hydraulic control valve			
trals	# 77	Activating / deactivating the <roto cut="" knives=""> and <pivoting floor=""> functions</pivoting></roto>			
Central screen	· ·	Selection of the tractor hydraulic control valve for the ROTO CUT knives and pivoting floor			
		Status of the selected hydraulic control valve			
	20 👫 32	Active job number			
		Active job bale counter			
	4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Status of the <ict hydraulics=""> function* (Implement Controls Tractor)</ict>			
	A	Automatic tailgate opening active (with the <ict hydraulics=""> function)</ict>			
reen	> •←	Baling pressure: inactive or active			
Bottom screen		Position of the knives*: top or bottom			
Bot	1 1 1	Position of the rotor chassis*: high, intermediate or low			
	 	Tying type selected electronically*: net, twine			
	##	Tying in manual mode			
		<task management="">* active indicator</task>			

<Counters> menu





Display

Function

Baling pressure: inactive or active

Position of the knives*: top or bottom

Position of the rotor chassis*: high, intermediate or low

Tying type selected electronically*: net, twine

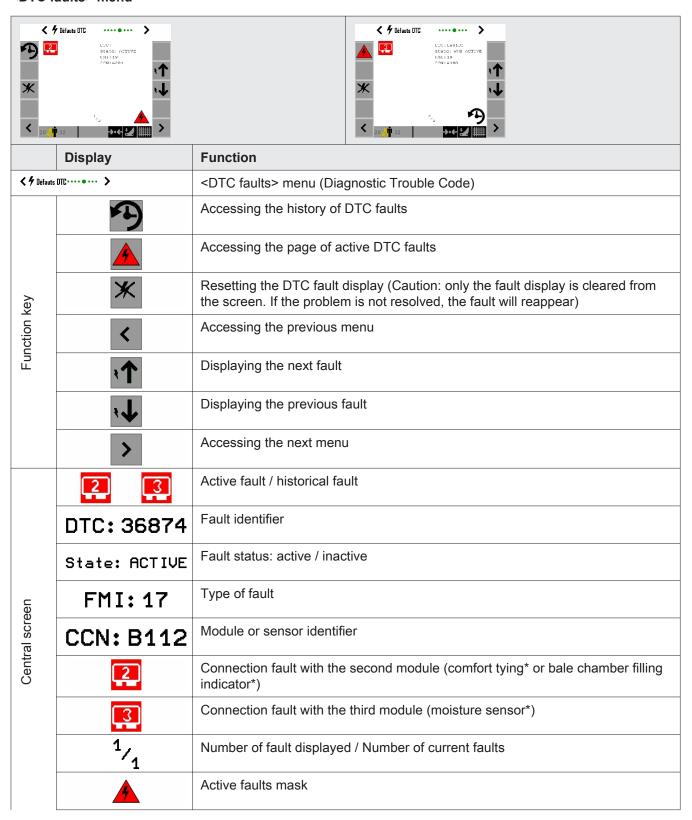
Tying in manual mode

Tying in manual mode

Task Management>* active indicator



<DTC faults> menu

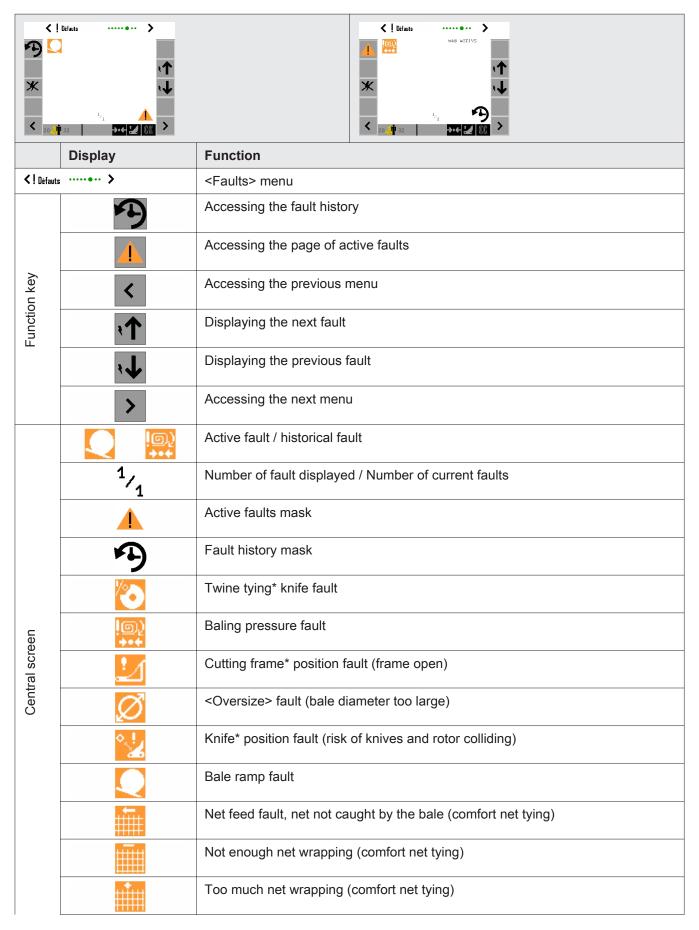




1711-011 🗸 🗲 Défauts DTC 🗸 🗲 Défauts DTC **Display Function** Fault history mask - Active job number - Active job bale counter Status of the <ICT hydraulics> function* (Implement Controls Tractor) Automatic tailgate opening active (with the <ICT hydraulics> function) Baling pressure: inactive or active Bottom screen Position of the knives*: top or bottom Position of the rotor chassis*: high, intermediate or low Tying type selected electronically*: net, twine Tying in manual mode <Task Management>* active indicator



<Faults> menu

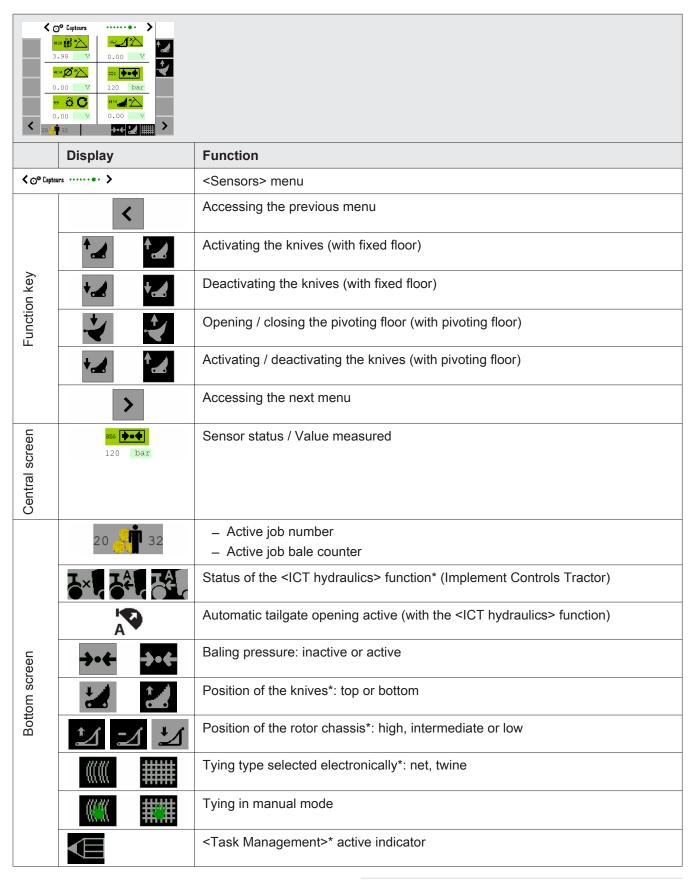




< ! Défauts < ! Défauts **Display Function** Early net tying start fault (comfort net tying) Failure to detect the connection to the tractor (with the <ICT hydraulics> function) - Active job number Active job bale counter Status of the <ICT hydraulics> function* (Implement Controls Tractor) Automatic tailgate opening active (with the <ICT hydraulics> function) Baling pressure: inactive or active Bottom screen Position of the knives*: top or bottom Position of the rotor chassis*: high, intermediate or low Tying type selected electronically*: net, twine Tying in manual mode <Task Management>* active indicator

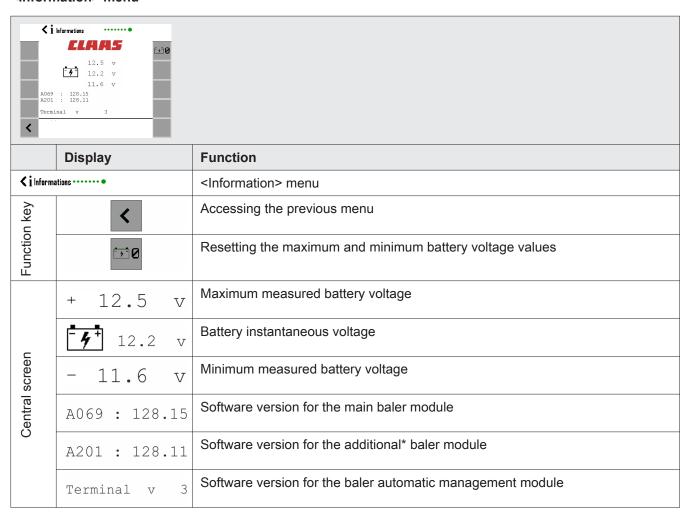


<Sensors> menu





<Information> menu





4.2 OPERATOR

4.2.1 Presentation

207172-001

The balers described in this manual may be equipped with an OPERATOR control terminal as an option.

The OPERATOR enables the baler to be set and controlled from the tractor. The availability of the functions depends on the baler's equipment (options).

► Refer to the technical specifications of the baler to see the machine's equipment.

The screens and functions available on the OPERATOR (except the simplified menu display) are similar to the screens and functions on the COMMUNICATOR.

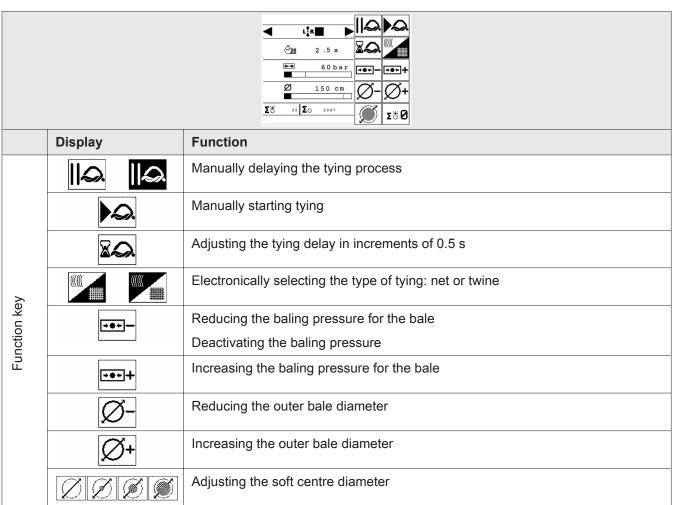
The display, use and management of the OPERATOR terminal's specific data are described in the OPERATOR Operator's Manual.

Before first use

Read the OPERATOR terminal Operator's Manual.

188316-003

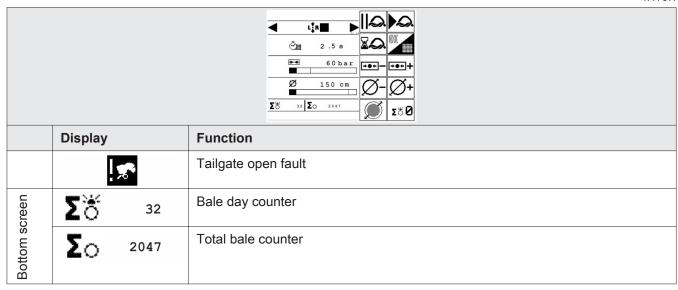
4.2.2 Description of the simplified* OPERATOR menu





1711-011 **⋖** L R 2 .5 s 60bar 150 cm **Display Function** Resetting the bale day counter Σ∜ Ø Top screen Time 19:13 Date 08 / 04 / 2013 Bale chamber filling indicator* ■ L‡R Software version for the baler module V1.15 **∑**## Net tying delay* 1.0s Twine tying delay* -2.5_s Tying in manual mode 60 bar Overview of the baling pressure: - Set value in numeric form - Instantaneous value in graphical form Central screen Setpoint value (marker) Ø Baling progress status: 150 cm - Set value in numeric form - Instantaneous value in graphical form - Soft centre setpoint value (marker) Tying in progress, stop the machine Twine tying* knife fault Baling pressure fault <Oversize> fault (bale diameter too large) Bale ramp fault







130508-002

4.3 ISOBUS terminal

4.3.1 Presentation

The balers described in this manual may be equipped with an ISOBUS connection cable as an option.

This cable, which connects the baler to the tractor, allows the baler to be controlled via the tractor's ISOBUS terminal. The availability of the functions depends on the baler's equipment (options).

► Refer to the technical specifications of the baler to see the machine's equipment.

The screens and functions available on the tractor terminal, with an ISOBUS connection, are identical to the screens on the COMMUNICATOR.

For more details on the operation of the ISOBUS terminal, refer to the manufacturer's manual.

127459-002

4.3.2 General points

Before first use

Before first use, the ISOBUS terminal needs to be configured for use with the baler.

- ► Connect the ISOBUS cable to the baler

 This Hitching the baler.
- Connect the ISOBUS cable to the tractorHitching the baler.
- ▶ When first activated, the configuration of the baler's specific menus will upload to the ISOBUS terminal - this may take a few minutes. The configuration is saved to the ISOBUS terminal's memory.
- Wait for the Work menu to be displayed on the screen.

The ISOBUS terminal is ready for use.

Special features of the ISOBUS terminal

Please refer to the manufacturer's manual for details of the special features of the ISOBUS terminal.



4.4 EASY on board

4.4.1 Presentation

193944-001

1711-011

The balers described in this manual may be equipped as an option with the <EASY on board> equipment.

This equipment can be used to control the baler via a touch tablet (Apple iPad). The availability of the functions depends on the baler's equipment (options).

► Refer to the technical specifications of the baler to see the machine's equipment.

The screens and functions available on the touch tablet (Apple iPad) are identical to the COMMUNICATOR screens.

For more operating information, refer to the operator's manual for the <EASY on board> equipment.

193972-001

Before first use

Before first use, the touch tablet (Apple iPad) must be configured to allow the baler to be operated.

- ➤ Connect the ISOBUS cable to the baler and the tractor. → Page 173, Electrical supply for the baler using the ISOBUS cable
- When first switching on, the configuration of menus specific to the baler is loaded onto the touch tablet (Apple iPad). The loading process can take a few minutes. The configuration is saved in the touch tablet memory (Apple iPad). Refer to the <EASY on board> equipment's operator's manual.
- Wait for the <Working> menu to be displayed on the screen.

The touch tablet (Apple iPad) is ready for use.

Specific features of the touch tablet

For the specific features of the touch tablet (Apple iPad), refer to the manufacturer's manual.

4.4.2 General points



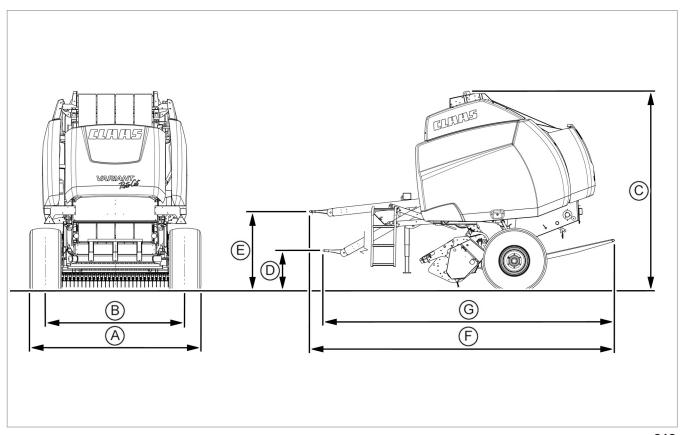
5 Technical specifications

5.1 Baler

127840-007

1711-011

5.1.1 Dimensions



212 177502-001

	Туре	Pick-up wheels			
		Pivoting wheels	Folding	wheels	
	751 / 752	Work position	Work position	Transport position	
Α	Pick-up 2100	2900	2986	2736	mm
	Pick-up 2350	3145	3231	2981	mm

Without braking - Without pick-up wheels						
	Ту	pe		Tyres		
	751	752	380/55 - 17	480/45 - 17	500/50 - 17	
Α	Pick-u	p 2100	2480	2649	2673	mm
	Pick-u	p 2350	2628	2649	2673	mm
В	Machin	e track	2100	2170	2170	mm
С	•		2893	2900	2934	mm
		•	3066	3073	3107	mm



	With braking - Without pick-up wheels							
	Туре		e Tyres					
	751	752	480/45 - 17	500/50 - 17				
Α			2899	2923	mm			
В	Machine track		2420	2420	mm			
С	•		2911	2945	mm			
		•	3084	3118	mm			

	Туре	- Hitching			
	751 / 752				
D	Swinging drawbar	Minimum	315	mm	
G	Swinging drawbar	Wiinimum	Willilliam	4408	mm
Е	Clavia hitah	is hitch Maximum	1374	mm	
F	Cievis nitch		4763	mm	

5.1.2 Weight

240561-001

The information engraved on the identification plate for your machine depends on the machine configuration.

The tables below summarise the engraved information based on the type of axle fitted to the machine and the total loads on the axles.

Non-hydrod avda 754/759	Total loads on the axle	
Non-braked axle 751/752	3500	kg
Total authorised laden weight	4250	kg
Maximum weight on hitch	750	kg
Sum of the weights technically permissible on the axle (Category S)	3500	kg
Maximum weight on axle 1	3500	kg
Maximum weight on axle 2	-	kg
Towable weight	No towable weight	

	Total loads on the axle				
Braked axle	751	751/752	751/752	751/752	
	2850	2950	3050	3150	kg
Total authorised laden weight	3600	3700	3800	3900	kg
Maximum weight on hitch	750	750	750	750	kg
Sum of the weights technically permissible on the axle (Category S)	2850	2950	3050	3150	kg



	Total loads on the axle				
Braked axle	751	751/752	751/752	751/752	
	2850	2950	3050	3150	kg
Maximum weight on axle 1	2850	2950	3050	3150	kg
Maximum weight on axle 2	-	-	-	-	kg
Towable weight		No t	owable weigh	t	

224250-002

5.1.3 Hitching

Description	Note
Ø 50 mm hitch eye	
Ø 40 mm hitch eye	without ring*with a Ø 33 mm ring*
Ø 35 mm swivel hitch eye	
Ø 80 mm ball hitch	
Ø 25.4 mm clevis drawbar	
Jack stand	Manual height adjustment

127842-004

5.1.4 Universal drive shaft

Type of drive shaft	Specifications
Wide angle	6 x 1 ^{3/8"} splines
Wide angle	21 x 1 ^{3/8"} splines
Conversion kit	6 / 21 → 8 splines

186610-003

5.1.5 Feeding and baling

Pick-up				
Gathering width	2100 mm	2350 mm		
Number of tine carriers	4	4		
Number of tines per tine carrier	16 double tines	18 double tines		
Tine spacing	61	mm		
Lift type	Hydraulic linkage, from the tractor (single action control valve)			
Height adjustment	By chains			
Ground guide	2 pick-up wheels (pivoting* or folding pivoting*)			
	2 lateral feed augers	2 lateral feed augers		
	Crop guard*	Roller crop press*		
Additional equipment	Short crop plate*	Double roller crop press*		
	Roller crop press*			
	Double roller crop press*			





Harvesting feed Type Description **Balers** 751 VARIANT 460 By feed rotor VARIANT 460 RC By cutting rotor VARIANT 465 RC By <HeavyDuty> cutting rotor 752 VARIANT 480 By feed rotor VARIANT 480 RC By cutting rotor VARIANT 485 RC By <HeavyDuty> cutting rotor

ROTO CUT cutting unit		
Number of knives	14	
Protection from foreign objects	The knives are individually protected	
Cutting length	70 mm	
Activating / deactivating the cutting system	From the control terminal	
Dummy knives*	14 dummy knives and a holder	

Bale chamber				
Belts	4 endless belts	4 endless belts		
Rollers	10	10		
Bale diameter	Type 751: 0.90 m - 1.55 m			
bale diameter	Type 752: 0.90 m - 1.75 m	Can be adjusted		
Soft centre diameter	2 or 3 preset diameters according to the work mode	on the control terminal		
Baling pressure	60 bar - 190 bar			
	Balers equipped with OPERATOR with simplified menu:	Not adjustable on		
	Fixed factory value	the control		
Soft centre density	If, however, adjustment is required, please contact your CLAAS dealer	terminal		
	Balers equipped with OPERATOR or COMMUNICATOR:	Can be adjusted on the control		
	2 or 3 preset densities according to the work mode	terminal		
Checking the baling pressure	Pressure sensor on the hydraulic block	Display on the		
Checking the moisture level*	Moisture sensor in the bale chamber	control terminal		



1711-011 186650-004

5.1.6 Tying device

Description	
Tying type Twine tying*	
	Net* / <extra wide=""> net* tying</extra>
	Twine and net* / <extra wide=""> net* tying</extra>
Tying category	Standard tying*
(level of automation)	Comfort tying*
Tying initialisation	Automatic or manual tying initialisation (via the control terminal)

Twine tying	
Page 144, Tying twine	
Twine box	10 twine reels

Net tying	
Page 145, Tying net	
Net box	1 net roller
Spare net storage mounting	2 spare net rollers

Twine / net tying			
Page 144, Tying twine			
Page 145, Tying net			
Twine box 5 twine reels and 1 net roller			
Net box	1 net roller		

127845-002

5.1.7 Wheels

Description	Inflation pressure
With 15.0/55 - 17 10 PR tyres	2.5 bar (36 psi)
With 19.0/45 - 17 10 PR tyres	2.5 bar (36 psi)
With 500/50 - 17 10 PR tyres	2.5 bar (36 psi)
Pick-up wheels with 16/6.50 - 8 10 PR tyres	2.1 bar (30 psi)

127852-002

5.1.8 Hydraulic circuit

Description		
Oil - Quantities and grades	Refer to the lubricants table - Tage 144, Lubricants	
Baler equipment		
Opening and closing the tailgate	2 double action hydraulic cylinders	
Raising the pick-up	2 single action hydraulic cylinders	



Description		
Pivoting floor*		2 double action hydraulic cylinders
Cutting unit Fixed floor*		2 single action hydraulic cylinders
	Pivoting floor	2 double action hydraulic cylinders

127846-004

5.1.9 Bolt tightening torques

Mounting bolts	Dimension / Grade Standard		Tightening torque		
	4 M24 x 2 x 90 - 10.9 bolts	ISO 8765			
	8 DNL24 lock washers		640	Nm	*
Drawbar arm	4 M24 x 2 - 10.9 nuts	ISO 8673			
Diawbai aiiii	2 M24 x 2 x 140 - 10.9 bolts	ISO 8765	3765		
	4 DNL24 lock washers		640	Nm	*
	2 M24 x 2 - 10.9 nuts	ISO 8673			
	1 M20 x 2.5 x 160 - 10.9 bolt	ISO 4014			
Hitching device	2 DNL20 lock washers		486	Nm	*
	1 M20 x 2.5 - 10.9 nut	ISO 4032			
Universal drive shaft	Refer to the manufacturer's instructions for the universal drive shaft.				
Wheels	M18 x 1.5 x 30 nut ISO 8676		270	Nm	
Pick-up wheels	M12 x 20 bolt	ISO 4017	83.5	Nm	

(*) These tightening torques are applicable to 10.9 grade bolts with a surface coating with a friction coefficient of between 0.10 and 0.14 $\mu m,$ and NORDLOCK type lock washers (DNL20 / DNL24).

127847-003

5.1.10 Braking

Description	Note	
Pneumatically controlled double circuit brakes (depending on country)	Limited to 50 km/h	
Tractor pneumatic brake connections	Connectors compatible with pneumatic brakes (tractor side)	
Hydraulically controlled single circuit braking (depending on country)	Limited to 50 km/h	
Tractor hydraulic brake connections	Connectors compatible with hydraulic brakes (tractor side)	
Parking brake	Controlled by a crank handle	



1711-011 193918-001

5.1.11 Greasing and lubrication

Description	
Manual lubrication	In line with recommendations in the lubrication chart
Manual central lubrication*	2 central lubrication modules to be used with a grease pump (in accordance with the lubrication chart instructions)
Electric automatic central lubrication*	Electric grease pump connected to the central lubrication modules
	Automatic lubrication at regular intervals, adjustable from the control terminal
	Manual lubrication by pressing a key on the control terminal
Chain lubrication	Permanent when the machine is rotating

122089-002

5.1.12 Noise level

The noise level is measured using method 2 - acoustic board - Appendix 1 <Noise level of agricultural machines>, AIC 1986/117 (REV), the competent authority for work health and safety.

Noise level = 87 dB(A)

Tractor = CLAAS ARES 696 Power = 103 kW (140 hp)

Power take-off speed = 540 rpm

Hitching = Swinging drawbar

The measurements are taken from the exterior using a 1 m^2 acoustic board installed at the rear of the tractor cab.

In a silent cab (Q Cab) with all the openings closed, the noise level is below 2 to 3 dB(A).



5.2 Safety devices

5.2.1 Shear bolt

205666-002

Component	Dimension / Grade	Standard	Tightening torque
Universal drive shaft (depending on	M8 x 45 - 8.8 bolt	ISO 4014	23 Nm
equipment)	VM8 safety nut	ISO 7042	
Pick-up drive*	M8 x 65 - 10.9 bolt	ISO 4014	23 Nm
	VM8 safety nut	ISO 7042	
	A8 contact washer		

127849-004

5.2.2 Cut-out clutch

540 rpm universal drive shaft	Torque	
6-spline shear bolt	2150	Nm
8-spline shear bolt	2150	Nm
6-spline cam clutch	2050 to 2200	Nm
8-spline cam clutch	2050 to 2200	Nm
USA cam clutch	1900	Nm

1000 rpm universal drive shaft	Torque	
6-spline cam clutch	1350 to 1500	Nm
8-spline cam clutch	1100 to 1200	Nm
21-spline cam clutch	1350 to 1500	Nm

Pick-up	Torque	
Cam clutch*	1000	Nm



5.3 Operating utilities

5.3.1 Lubricants

128028-006

Module	Lubricant	Filling volume	
	Specification		
	Viscosity class		
540 rpm drive gearbox	AGRISHIFT MT 80W-90	~ 1.75	I
	API GL-5		
	MIL.L.2105D		
	80W-90		
1000 rpm drive gearbox	AGRISHIFT MT 80W-90	~ 3	I
	API GL-5		
	MIL.L.2105D		
	80W-90		
Automatic lubrication pump	AGRIGREASE EP 2	Page 411, Filling	
Manual lubrication points	EP 2 Grease	the grease reservoir Page 341, Lubrication plan	
-	NLGI 2		
_	ISO 6743-9: L-XBCEB 2		
	DIN 51502: KP2K-25		
Automatic chain lubrication pump	Biodegradable chain oil	Page 406, Filling	
\wedge	AGRIHYD XTREME 46	with oil	
Wheel hubs	EP lithium grease		
 Interior bearing 	DIN 51825	~ 40	g
- Hub cap	NLGI 2-3	~ 80	g
	Dropping point > 190 °C		

226739-001

5.3.2 Tying twine

Recommended tying twine	Length / kg	Tensile strength
CLAAS BALETEX 750 XL	720 m/kg	69 daN
CLAAS BALETEX 1000 XL	1060 m/kg	47 daN
Light duty use		

Recommended specification	ations		
Length / weight	Sisal twine	200 - 330	m/kg
	Synthetic twine	400 - 1060	m/kg
Minimum tensile strength		47	daN



1711-011 226745-001

5.3.3 Tying net

Recommended tying net	Width	Tensile strength
CLAAS ROLLATEX PRO XW	1.30 m	290 daN
<extra wide=""> tying*</extra>		
CLAAS ROLLATEX PRO	1.23 m	290 daN
CLAAS ROLLATEX	1.23 m	270 daN
CLAAS ROLLATEX CLASSIC	1.23 m	260 daN

Recommended specifications		
Width	1.23 - 1.30	m
Minimum tensile strength	260	daN
Maximum roller diameter	290	mm



5.4 Tractor

5.4.1 Power required

186613-001

Baler model	
VARIANT 460 / VARIANT 480	Tractor power from 66 kW (90 bhp)
VARIANT 460 RotoCut / VARIANT 480 RotoCut	Tractor power from 74 kW (100 bhp)
VARIANT 465 RotoCut / VARIANT 485 RotoCut	Tractor power from 74 kW (100 bhp)

240568-001

5.4.2 Maximum authorised weight of the towing vehicle

Calculation formula	Calculation data	
	T = Authorised weight of the towing vehicle in tonnes (t)	
	C = Total load on the baler axles in tonnes (t)	
$T = C \times Dc \div (9.81 \times C - Dc)$	Page 137, Weight	
	Dc = Dc value of the drawbar in kilo Newtons (kN)	
	Dc = 23.4 kN	

For further information, refer to the homologation sheet for the baler.

Maximum authorised weight of the towing vehicle				
Total loads on the axle	Non-braked axle 751/752	Braked axle 751	Braked axle 752	
2850 kg	-	14.6	-	t
2950 kg	-	12.5	12.5	t
3050 kg	-	10.9	10.9	t
3150 kg	-		9.8	t
3500 kg	7.5	-	-	t

224290-001

5.4.3 Hitching

Type of baler hitch	Type of tractor hitch	
Hitch eye	Clevis hitch	
	Swinging drawbar	
Swivel hitch eye	Clevis hitch	
	Swinging drawbar	
Ball hitch	Hitching ball	
Clevis drawbar	Swinging drawbar	



1711-011 127851-003

5.4.4 Power take-off

Specifications		
Engine speed	540 rpm	1000 rpm
Minimum torque	1900 Nm (1401 lb ft)	1100 Nm (811 lb ft)

128887-001

5.4.5 Hydraulic oil and circuit

Specif	Specifications			
Hydrai	Hydraulic oil			
	Minimum grade	ISO VG HM 46		
	Maximum oil temperature	80 °C (176 °F)		
Hydrai	Hydraulic circuit pressure			
	Minimum	160 bar (2320 psi)		
	Maximum	230 bar (3335 psi)		
Hydrai	Hydraulic oil flow			
	Minimum	42 l/min (11 US gal/min)		
	Maximum	80 l/min (21 US gal/min)		

122085-002

5.4.6 Electrical connections

Baler functions	Connector type
Electrical power supply for the baler and the control terminal (depending on equipment)	2-pin connector (12V) with 25A suspended fuse
Baler lighting	7-pin connector
ISOBUS	ISOBUS connector*

133001-002

5.4.7 Hydraulic connections

Baler functions	Type of control valve
Raising the pick-up and RotoCut with fixed floor*	Single action control valve with automatic hydraulic connection
Raising/lowering the pivoting floor and RotoCut with pivoting floor (depending on equipment)	Double action control valve with automatic hydraulic connections
Baler operation	Double action control valve with automatic hydraulic connections



1711-011 124972-003

5.4.8 Braking

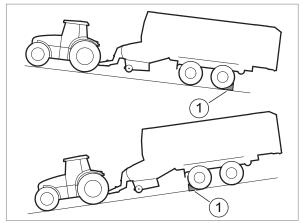
Braking type	Connection type	
Hydraulic brakes and active hydraulic brakes* Hydraulic brake point with quick connection		
Pneumatic brakes*	One pneumatic brake point with yellow quick connection	
Frieumanc Diakes	One pneumatic brake point with red quick connection	

6 Machine preparation

6.1 Switching off and securing the machine

6.1.1 Stopping and securing the tractor and machine





- ► Put the gearbox into neutral.
- ► Apply the tractor's parking brake.
- ► Stop the power take-off drive, and any other drives which may be operating.
- ► Place the hydraulic control valves in the neutral position.
- Stop the engine.
- ▶ Remove the ignition key.
- On tractors with a battery isolating switch, disconnect the battery isolating switch and unplug it
- Apply the parking brake if the machine is fitted with one.
- ► On terrain with a gradient, secure the machine with chocks (1) to avoid any risk of movement.
- Keep all children and unauthorised persons away.

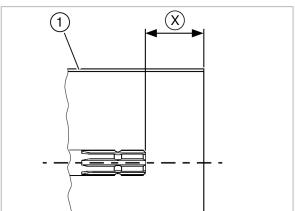
162854-001

ELHAS

6.2 Adapting the tractor

200851-001

6.2.1 Checking the protective guard on the tractor PTO shaft



It must be ensured that no part of the rotating driveshaft, the PTO shaft or any attached adapter is unprotected. The protective guard (1) of the tractor must overlap the end of the PTO shaft and any attached adapter.

For overlap (X), see table:

214

265162-002

PTO shaft type	Diameter	Toothing	X ±5 mm (0.20 in.)
1	35 mm (1.378 in.)	6	85 mm (3.35 in.)
2	35 mm (1.378 in.)	21	85 mm (3.35 in.)
3	45 mm (1.772 in.)	20	100 mm (4.00 in.)
4	57.5 mm (2.264 in.)	22	100 mm (4.00 in.)

200852-001

NOTICE

Even with the steering wheel turned completely to one side and the articulated drawbar raised, the universal drive shaft must move freely.

182152-003

6.2.2 Configuring the tractor air brake system

182153-003

NOTICE

The distribution of the braking force between tractor and machine is not configured.

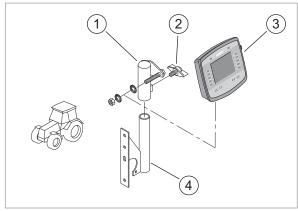
Uneven brake lining wear, machine pushing or blocking tendency of individual axles.

- Configure the tractor compressed air brake system with the machine compressed air brake system - towing configuration.
- Have adjustment work performed by a qualified specialist workshop.



1711-011 149211-004

6.2.3 Installing the COMMUNICATOR II*



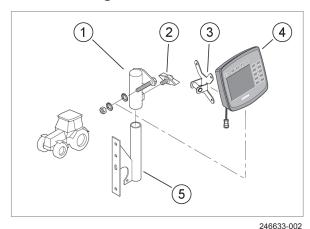
_____ **215**

▶ Bolt bracket (4) down at a suitable position in the cab or use the existing bracket.

- ▶ Bolt COMMUNICATOR II (3) down to retainer (1) with bolt, washers and nuts.
- ➤ Slacken off wing screw (2).
- ► Fit retainer (1) with COMMUNICATOR II on bracket (4) or existing bracket.
- ► Tighten wing screw (2).

164561-003

6.2.4 Installing the OPERATOR*

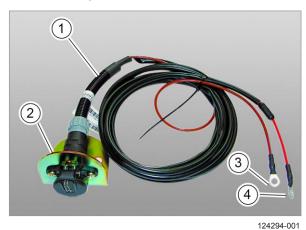


216

- Bolt brackets (3) down on the OPERATOR (4).
- ▶ Bolt down bracket (5) at a suitable position in the cab or use the existing bracket.
- ▶ Bolt the bracket (3) to the holder (1) using a bolt, washers and a nut.
- ➤ Slacken off wing screw (2).
- ► Fit the holder (1), along with the OPERATOR (4), to the bracket (5) or to an existing bracket.
- Tighten wing screw (2).

180701-001

6.2.5 Battery cable*



217

The battery cable (1) is used if the tractor is not fitted with an electrical socket to supply the electricity needed to power the baler.

- ► Attach the support (2) to the rear of the tractor.
- ► Connect the terminal (3) of the shortest wire (no sheath) directly to the tractor's earth (chassis).
- Connect the terminal (4) of the longest wire (black sheath) directly to the + terminal on the tractor's battery.

To guarantee a constant voltage is supplied to the baler, it is recommended that the battery cable always be used, even if the tractor is equipped with an electrical socket.

187209-002

6.3 Adapting the machine

6.3.1 Recommendations



218

This machine is designed to be directly hitched to a tractor. Any other form of hitch shall exempt the manufacturer from all liability for any damage that may arise.

- ► Always hitch the baler so that it is as close to horizontal as possible.
 - The support (1) for the drawbar arm must be horizontal.
 - This position improves the flow of crop.
- ► Always check that the hitch system on the tractor is adapted to the baler, i.e. the tractor hitch pin corresponds to the diameter of the hitch eye.
- ► Always check that the hitch eye is well lubricated: Grease minimises friction and reduces the risk of wear to the hitch eye.
- ► Adjust the height of the tractor lifting arms according to the position of the drawbar.
- ► If the universal drive shaft is on the baler when hitching, check the following:
 - the universal drive shaft is resting on its support
 - the universal drive shaft is fully retracted

106461-003

NOTICE

The universal drive shaft is extended and not placed in its support during hitching.

Result: Damage to the universal drive shaft, to the baler and the tractor.

- Retract the universal drive shaft fully.
- ► Fit the universal drive shaft on its support.

24974-002

WARNING

Accidental unhitching of the baler

Result: Fatal or serious injury, severe damage to the baler

- ► Hitch the baler in accordance with the instructions.
- Always use the hitching and safety devices provided.
- ► Take care when hitching or unhitching the baler to or from the tractor.



► Check that the baler retaining cable* or chain* is present and securely attached to the tractor.

Page 162, Retaining cable*

187099-004

37003-001

WARNING

Accidental movement of the baler.

Result: danger of death or serious accident or damage to the baler

► Always put the jack stand in the safety position as soon as the baler is uncoupled from the tractor.

Drawbar arm

108105-004

WARNING

Break in the baler-tractor connection

Result: Fatal or serious injury, severe damage to the baler

 Always use dual self-locking washers to attach the hitch.

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- ▶ Undo the 4 bolts (4).
- ► Remove the 2 bolts, washers and nuts (3). Caution: the step (1) is no longer attached.
- Adjust the position of the drawbar so that it corresponds with the hitch desired (clevis hitch or swinging drawbar).
- ► Refit the 2 bolts, washers and nuts (3); do not tighten.

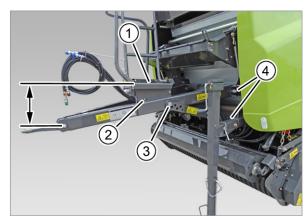
Caution: the step (1) must be secured with the 2 bolts, washers and nuts (3).

Adjust the position of the step (1) so that it is horizontal.

Positioning the 2 bolts (2) in the corresponding holes will ensure the step (1) remains horizontal. The heads of the 2 bolts (2) must be pressing against the drawbar arms.

▶ Tighten the 4 bolts (4) and the 2 bolts (3).

Note: The tightening torques for the bolts are given in the sections below.

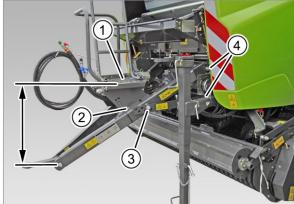


6.3.2 Adapting clevis hitch / swinging drawbar

Clevis hitch

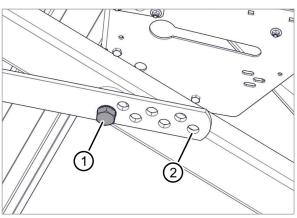


295193-001



Swinging drawbar

220



Drawbar in bottom position

The lowest position for the drawbar corresponds to it being mounted in the hole (1).

Drawbar in upper position

The highest position for the drawbar corresponds to it being mounted in the hole (2).

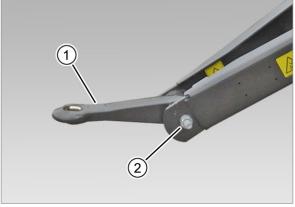
221



Hitching device

- ▶ Undo the bolt (2).
- ► Adjust the position of the hitching device (1) so that it is as parallel to the ground as possible.
- ► Retighten the bolt (2).

Note: The tightening torques for the bolts are given in the sections below.



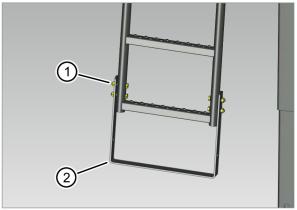
295196-001

222



Only valid for the drawbar in the highest position Page 154, Drawbar in upper position

- ▶ Remove the 4 bolts, washers and nuts (1).
- ► Adjust the position of the step (2).
- ▶ Fit the 4 bolts, washers and nuts (1).

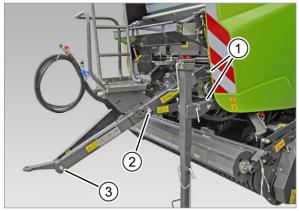


426503-001

125050-003

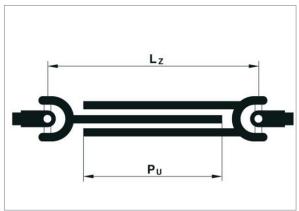
Tightening torques for the drawbar arm bolts and hitching device bolts

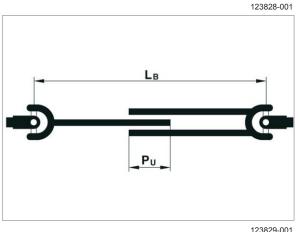
	Dimensions		
1	M24 x 2 x 90 - 10.9	640	Nm
2	M24 x 2 x 140 - 10.9	640	Nm
3	M20 x 2.5 x 160 - 10.9	486	Nm



295195-001

6.3.3 Overlap of the universal drive shaft





225

Checking the overlap

- Separate the two halves of the universal drive shaft.
- ► Fit each half of the universal drive shaft to the correct power take-off at the tractor and baler ends, without overlapping.
- ► Keep the two halves of the universal drive shaft side by side.
- ► Check the overlap (P_U) in a straight line.

The two halves of the universal drive shaft must fit one into the other completely without the outer ends of the universal drive shafts touching.

The overlap (P_U) must be at least equal to half the length of the profile tubes.

If the outer ends touch, each half must be shortened by the same amount.

Checking the turning circle

► Check the length of the universal drive shaft when turning fully to the left and to the right:

The universal drive shaft must only extend by a third of the initial overlap (Pu).

Lengths:

226

- L_z Length of the universal drive shaft when fitted
- P_U Overlap of the two driveshaft halves
- L_B Maximum turning length

125051-003

6.3.4 Adapting the length of the universal drive shaft

Shortening

Shortening of the universal drive shaft should only be carried out by a professional workshop.

(3



1711-011

Note: After shortening, the straight-line overlap length of the two halves of the universal drive shaft must be at least equal to half the length of the profile tubes. For more information, refer to the universal drive shaft manufacturer's instructions supplied with the machine.

- Uncouple the two halves (1) and (2) of the universal drive shaft.
- ► Hold the two halves of the universal drive shaft next to each other to simulate their operating position.
- Mark the inner and outer protective tubes to indicate the length (X) of tube that must be cut.
- Remove the protective tubes from each half of the universal drive shaft.
- Remove the sliding tube (3).
- ► Shorten the outer protective tube by the length marked (X).



- ► Place the cut part next to the inner protective tube.
- Shorten the inner protective tube by the same length (X).

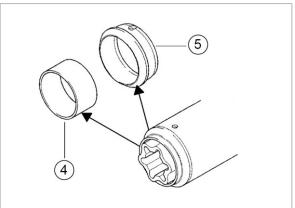


123807-001



228

- ▶ Slide the tube (4) out of the outer section.
- ▶ Remove the thrust ring (5) from the inner section.
- ► Keep the tube (4) and the thrust ring (5): they are refitted after shortening.



123808-001





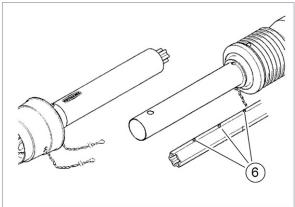
➤ Cut the inner and outer sections at right angles and by the same length (X) - the tube offcuts can be used as templates.

- Deburr and clean the cut sections.
- Grease the inner and outer sections.

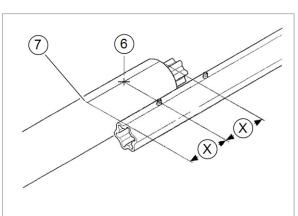
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231



123811-001



123812-001

Lubrication device

The outer section of the universal drive shaft has three grease nipples (6) each set at 100 mm (3 15/16 in) intervals.

After fitting the universal drive shaft between the baler and the tractor, the grease nipple openings must be re-drilled.

Taking measurements

- Measure the length (X) between the first grease nipple (6) and the end of the section.
- Note this length (X) on the two halves of the universal drive shaft, on the tractor side and on the baler side: the length is measured from the end of the protective tube.
- Make a mark (7) on the two protective tubes.

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(8

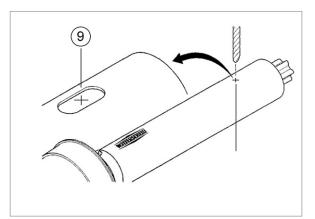


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Universal drive shaft half - baler end

- ▶ Remove the protective tube.
- On the protective tube, mark out length (X) measured between the first grease nipple and the end of the section.
- Drill a hole (8) 25 mm (1 in) in diameter in the protective tube.
- ▶ Deburr the hole (8).





123813-001

Universal drive shaft half - tractor end

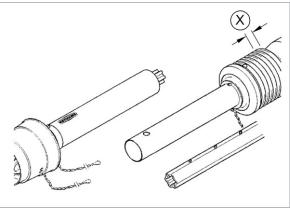
- ▶ Remove the protective tube.
- On the protective tube, mark out length (X) measured between the first grease nipple and the end of the section.
- ▶ Drill a hole (9) 25 mm (1 in) in diameter in the protective tube.
- Open out the hole lengthways (9) to 25 x 60 mm $(1 \times 2^{3})_{8}$ in): the hole must be centred around the original hole.



Baler end protective bell cover

To optimise the fit of the universal drive shaft and to facilitate maintenance, the protective bell cover on the baler side can be shortened.

Shorten the protective bell cover by the length (X) $= 60 \text{ mm} (2 ^{3}/_{8} \text{ in}).$



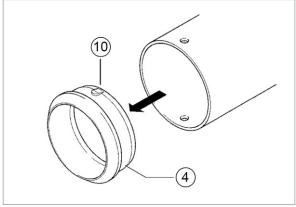
123817-001

123815-001

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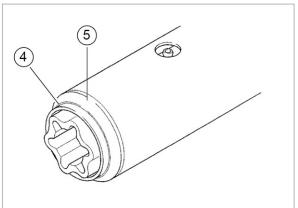
Fitting the protective intermediate bearing

► File the thrust ring (4) stop cams (10).



123819-001





► Fit the thrust ring (5) in the protective tube.

been cut and deburred.

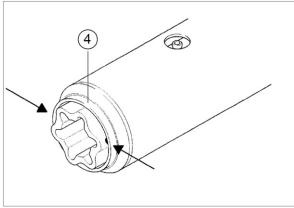
by 5 mm ($^{3}/_{16}$ in).

► Check that the mating surface between the tube (4) and the thrust ring (5) is sufficiently large. If these two parts do not make sufficient contact, adjust their position.

Slide the outer section into the protective tube. Slide the tube (4) onto the outer section that has

Position the tube (4) so that the section protrudes

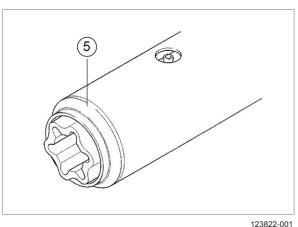
238 123820-001



► Keep the tube (4) in position using two weld spots (arrows).

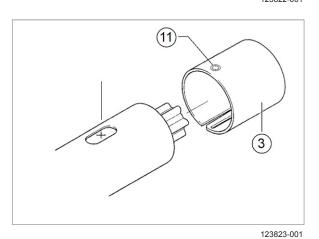
123821-001

239



► Cement the thrust ring (5) in the protective tube using quick-drying or synthetic adhesive.

240



Connecting the two halves

Slip the sliding tube (3) or

- ➤ Slip the sliding tube (3) onto the outer protective tube.
- ▶ Push the sliding tube (3) onto the protective tube until the rivet (11) clicks into the longitudinal hole.



- Grease the two ends of the sections.
- Fit the universal drive shaft.
- Grease the two tubes again.

24980-002



Failure to grease or irregular greasing of the universal drive shaft

For tractors equipped with an 8-spline power take-off, a universal drive shaft conversion kit is available as an

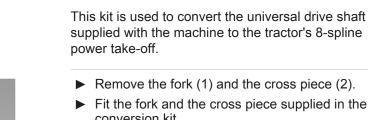
Result: damage and reduced service life

- - Lubrication plan

Grease the universal drive shaft regularly.

141518-002

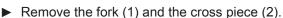
6.3.5 Conversion kit - 8 splines*



option.

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123825-001



Fit the fork and the cross piece supplied in the conversion kit.

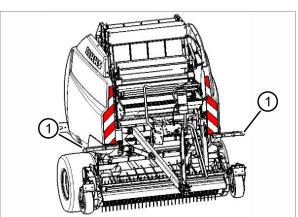


147349-001

243

220659-002

6.3.6 Clearance reflectors



244 372645-001

The position of the clearance reflectors (1) must correspond to the maximum width of the baler.

Any time the dimensions of the baler are altered (change to the pick-up, change to the wheel size, change to the pick-up wheels, etc.) check the position of the clearance reflectors, and adjust if necessary.

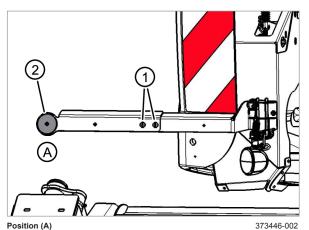


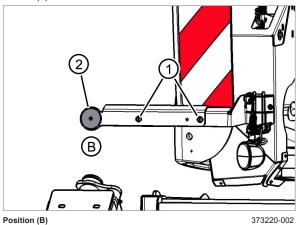
Adjusting the position of the clearance reflectors

On both sides of the baler:

- ▶ Remove the bolts (1).
- ▶ Move the reflector (2) to position (A) or (B).
- Position (A): reflector in extended position
- Position (B): reflector in retracted position
- ▶ Secure the reflector (2) using the bolts (1).

No components of the machine should extend more than 150 mm past the end of the reflectors (2) on either side of the machine.





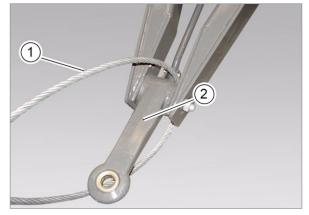
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131614-004

6.4 Hitching the machine

6.4.1 Retaining cable*



123602-001

Valid for:

Machines not equipped with brakes with EU typeapproval

- Pass the retaining cable (1) around the hitch eye (2).
- Attach the retaining cable (1) securely to one of the tractor's upper anchorage points.

If the hitch breaks, the retaining cable must prevent the drawbar from touching the ground.

The retaining cable must not touch the universal drive shaft.

131617-002

247

WARNING

Risk of the retaining cable becoming wrapped around the universal drive shaft.

Result: Danger of death, severe material damage.

► The retaining cable must never be in contact with the universal drive shaft to ensure it never gets wrapped around it.

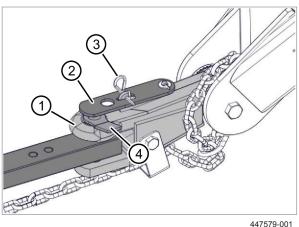
250900-001

The clevis drawbar (1) is fitted with a safety plate (2).

The safety plate (2) is held in position by the pin (3). This device ensures the pin (4) is held in its housing.

Always secure the machine's hitch using the safety plate (2) and the pin (3).

6.4.2 Locking the hitch





1711-011 125049-003

6.4.3 Universal drive shaft safety advice

104762-002

WARNING

Failure to follow the recommendations for use and maintenance of the universal drive shafts.

Result: Fatal or serious injury, severe damage to the baler

- Read the manual provided with the universal drive shaft closely.
- Respect the recommendations given in the manual provided with the universal drive shaft.

24978-002



Rotating universal drive shafts

Result: Death or serious injuries

- Check that the universal drive shaft is properly coupled and that the safety devices are correctly fitted.
- Never use a universal drive shaft without any safety devices.
- Immediately replace any damaged safety device.
- Secure the universal drive shaft retaining chain to the tractor (tractor side) and to the baler (baler side) so that the protection tube does not turn together with the universal drive shaft.

24979-002

AWARNING

Fitting direction for universal drive shafts.

Result: Death or serious injuries

- Check that the tractor symbol on the universal drive shaft is facing the tractor power take-off.
- Check that the universal drive shaft one-way clutch is facing the baler.

127925-003

Preparation

- Clean and grease the power take-offs on the tractor and the baler ends.
- ► Grease the universal drive shaft gear sections.

6.4.4 Fitting the universal drive shaft

1711-011 30348-002

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

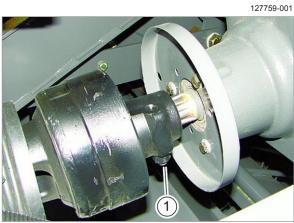
- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

Baler end

- ▶ Undo the mounting bolt (1).
- ► Fit the universal drive shaft to the baler's power take-off.
- ► Lock the universal drive shaft in position by tightening the bolt (1).
 - Tightening torque: refer to the manufacturer's instructions.
- Check that the universal drive shaft is properly secured.

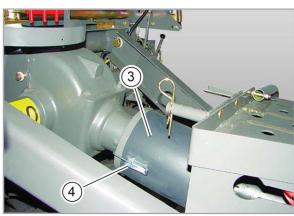


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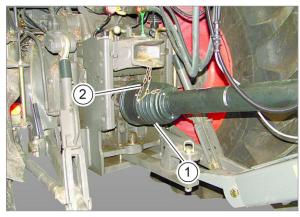
123873-001





15257-001

- ► Fit the protective bell cover (3) in position.
- ► Lock the protective bell cover (3) with fasteners (4).



123875-001

Tractor end

- ▶ Fit the end of the universal drive shaft whose protective tube has a <Tractor> symbol onto the tractor's power take-off.
- Push it until the quick release clicks.
- Check that the tubes and the protective bell cover (1) are correctly fitted.

30348-002

WARNING

252

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.
- Attach the retaining chain (2) to the universal drive shaft mounting ring.
- Attach the retaining chain (2) to the tractor so that the universal drive shaft turning circle is sufficient irrespective of the machine's position.

25250-002

NOTICE

Winding of the retaining chain

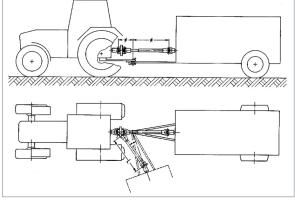
Result: material damage

► Attach the chain so that it wraps around the protective bell cover by a maximum of 90° whatever the working position (also when turning).

Checking the turning circle

► Check that the two halves of the universal drive shaft are sufficiently covered when turning to the left or right.

The minimum overlap of the universal drive shaft halves is 275 mm (10 7/8 in). It must never be less than this length.



253 12066-001

129938-003

The baler is fitted with:

• 1 hose with a green plug for opening the tailgate

6.4.5 Identifying the hydraulic hoses

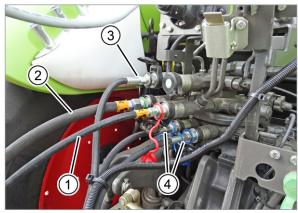


- 1 hose with a red plug for closing the tailgate
- 1 hose with a black plug for lifting the pick-up
- · 2 hoses with blue plugs for manoeuvring the pivoting floor*

For clear identification, the hoses are also marked with stickers.

129939-002

6.4.6 Connection to the tractor's hydraulic control valves



340772-001

- ► Connect the hoses with the red (1) and green (2) plugs to a double action control valve on the tractor.
- ► Connect the hose with the black plug (3) to one of the double action control valve outlets, or to a single action control valve, on the tractor.
- ► Connect the hoses with the blue plugs (4)* to a double action control valve on the tractor.

37071-002

NOTICE

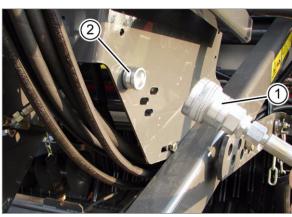
Reversed hydraulic hose connections. 254

Result: Reversal of functions

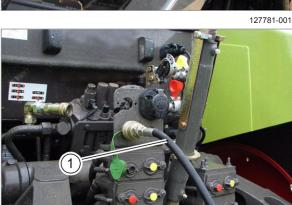
 Always connect the hydraulic hoses as indicated below.

127932-001

6.4.7 Hydraulic brakes



255



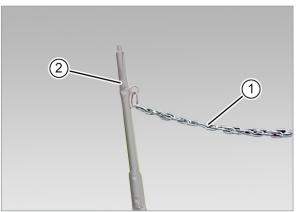
127782-001

- Disconnect the hydraulic brake hose (1) from its support (2) on the baler.
- Connect the hydraulic brake hose (1) to the tractor's hydraulic brake coupling.



127933-002

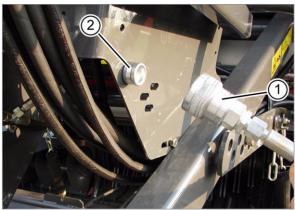
► Attach the chain (1) on the parking brake lever (2) to the tractor.



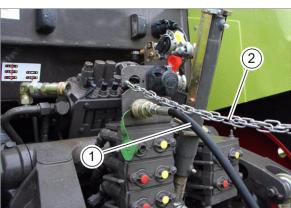
129748-002

257

6.4.8 Active hydraulic brakes



258 127781-001



259 129759-001

▶ Disconnect the hydraulic brake hose (1) from its support (2).

- ► Connect the hydraulic brake hose (1) to the tractor's hydraulic brake coupling.
- ▶ Firmly attach the safety chain (2) to the tractor.

142877-001

AWARNING

Accidental braking of the baler

Result: Severe injuries, severe material damage

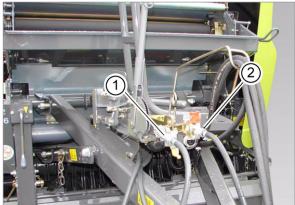
- ► Ensure the chain length is adapted to the tractor: if the chain is too short, it may rip off and cause emergency braking of the baler.
- Have the length of the chain adjusted by a specialist workshop.
- ► When changing tractor, ensure that the chain is still suitable.



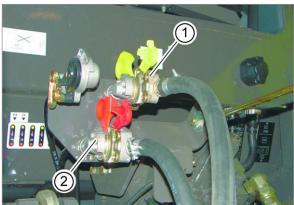
1711-011 127934-004

54000-001

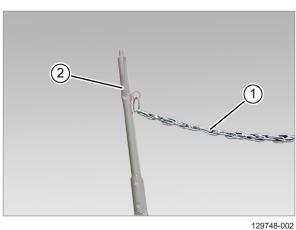
6.4.9 Pneumatic brake



260 128381-001



261 127857-001



262

AWARNING

Accidental braking of the baler

Result: Severe injuries, severe material damage

- ► Ensure the length of the hoses is adapted to the tractor: if the hoses are too short, they may rip off and cause emergency braking of the baler.
- ► Have the length of the pneumatic hoses adjusted by a specialist workshop.
- ► When changing tractor, ensure the hoses are still the right length.

25305-001

WARNING

Pneumatic brake hoses connected in reverse order.

Result: Unsolicited movement of the baler

- Always connect the hose with the yellow coupling attachment first.
- Always connect the hose with the red coupling attachment second.
- ► Connect the hose with the yellow coupling attachment (1) to the quick release coupling with the yellow end on the tractor.
- ➤ Connect the hose with the red coupling attachment (2) to the quick release coupling with the red end on the tractor.
- ► Attach the chain (1) on the parking brake lever (2) to the tractor.

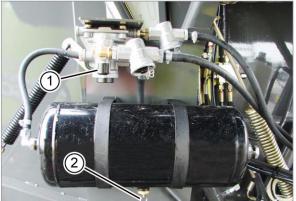
Movement of the baler without the pneumatic brake (machine fitted with pneumatic brake)

60711-001



If there is air in the air tank and the hoses are disconnected, the pneumatic brake is activated.

131599-002



WARNING

Movement of the baler if the pneumatic brake is released.

Result: Danger of death, material damage.

Limit movement of the baler without using the pneumatic brake during maintenance and/or repair work. Extreme care required.

263

When the brake hoses are uncoupled, the pneumatic brake can be released as follows:

- ► Press the relief valve button (1) if the air pressure in the tank is more than 4 bar (58 psi).
- ► Or, bleed the air from the air tank using the drain valve (2) if the air pressure in the air tank is less than 4 bar (58 psi).

This operation requires great care, as the baler may move unexpectedly or uncontrollably.

137991-002

6.4.10 Identifying the electrical cables

Standard equipment

The baler is fitted with 2 electrical cables:

- · the lighting cable,
- the power supply cable for the baler and control terminal or an ISOBUS cable (depending on equipment).

Optional equipment

Depending on the baler's options, additional equipment is available for the electrical connections:

- · an extension for the control terminal
- · a battery cable



1711-011 56785-001



Reversed polarity

Result: material damage, short circuit, fire, physical injury

- ► Observe polarity:
- ► + wire on + terminal
- earth wire on earth (chassis)

56816-001

WARNING

Damaged electrical cables and wires

Result: material damage, short circuit, fire, physical injury

- ► Regularly check that the electrical wires and cables are in good condition.
- Secure electrical wires and cables to prevent them from being ripped off or damaged.

104709-001

AWARNING

Baler abnormal supply pressure

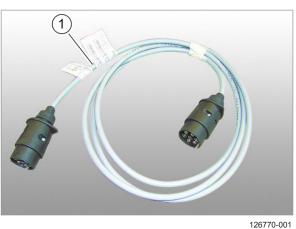
Result: poor operation, material damage

► The optimum supply voltage should be between 12 and 14V.

125090-001

Connect one of the lighting cable connectors (1) to the tractor's lighting connector.





264

► Connect the other lighting cable connector to the baler's lighting connector.



1711-011 182127-001

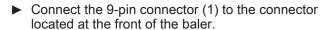
6.4.12 Power supply for the baler and the OPERATOR*



158000-001



265



Connectors available on the supply cable

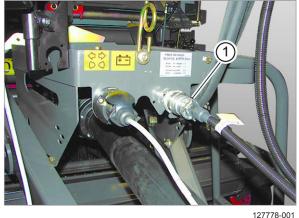
terminal has 3 connectors:

baler end

Baler end

The power supply cable (1) for the baler and control

- one 2-pin connector (2) for the electrical power - one 9-pin connector (3) for the control terminal - one 9-pin connector (4) to be connected on the



266



238559-001

(2)

cable connector*.

OPERATOR

Tractor end

Connect the connector (2) for the OPERATOR to the 9-pin connector (1) for the power supply

► Connect the 2-pin connector for the power supply to the tractor's 12V connector or to the battery

Place the OPERATOR on its holder in the tractor cab within arm's reach of the baler's driver.



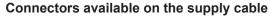
1711-011 127929-003

6.4.13 Power supply for the baler and the COMMUNICATOR*



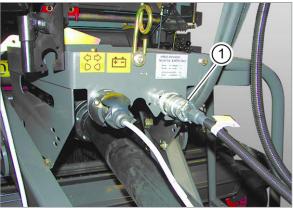
268

158000-001



The power supply cable (1) for the baler and control terminal has 3 connectors:

- one 2-pin connector (2) for the electrical power
- one 9-pin connector (3) for the control terminal
- one 9-pin connector (4) to be connected on the baler end



127778-001

Baler end

► Connect the 9-pin connector (1) to the connector located at the front of the baler.

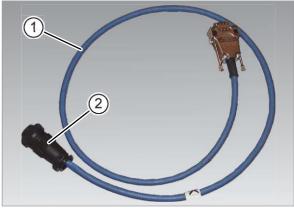
269

Tractor end

► Connect the 2-pin connector for the power supply to the tractor's 12V connector or to the battery cable connector*.

COMMUNICATOR

- Connect the connector (2) of the COMMUNICATOR lead (1) to the 9-pin connector of the baler power supply cable.
- Place the COMMUNICATOR on its holder in the tractor cab within arm's reach of the baler's driver.



157994-001





▶ Connect the flat connector (1) on the extension to the main connector on the COMMUNICATOR.

157668-001

271

127930-001

6.4.14 Electrical supply for the baler using the ISOBUS cable



Connectors available on the supply cable

The ISOBUS supply cable (1) has two ISOBUS connection sockets (2).

124291-001





Baler end

► Connect the ISOBUS connector (1) to the connector located at the front of the baler.





Tractor end

➤ Connect the ISOBUS connector (2) to the ISOBUS connector (4) located at the rear of the tractor.

93-001

6.4.15 Baler power supply with <EASY on board>

194344-001

The connection between the baler and tractor is identical to the ISOBUS connection.

Page 173, Electrical supply for the baler using the ISOBUS cable

To connect the <EASY on board> equipment, refer to the operator's manual for the <EASY on board> equipment.

6.5 Preparing fieldwork

6.5.1 Pick-up wheels

188639-003

Using and adjusting the pick-up wheels depends on the type of crop being gathered and the swathe shape.

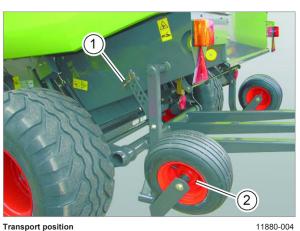
The wheels must be used when gathering hay and silage, however wheels are not required when gathering straw.

The table below displays wheel usage on the pick-up according to the type of crop gathered:

Crop	Pick-up wheels	
Hay	With	
Silage	With	
Straw	Without	

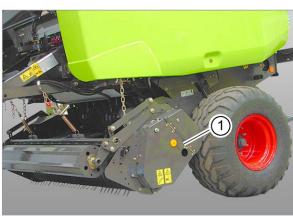
Fitting pick-up wheels

- ► Remove the spring pin (1).
- Drop the pick-up wheels (2) from their transport position.



Transport position

275



11874-002

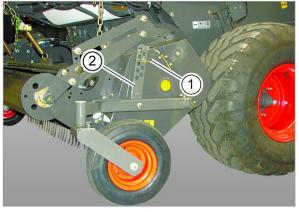
- ► Turn the cover (1) to access the hole for positioning the pick-up wheels.
 - Slide the wheel shaft in the hole for positioning the pick-up wheels.



➤ At the rear of the pick-up, lock the wheel using the linch pin (1).



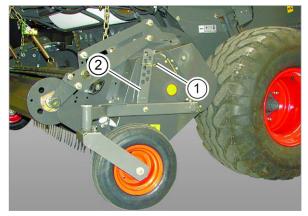
277 124307-001



Working position

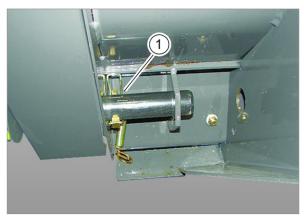
11885-002

278



Working position

11885-002



124307-001

- ► Adjust the height of the wheel by sliding the flat bar (2) onto the shaft of the pick-up housing.
- ► Lock the flat bar (2) in position using the spring pin (1).

The pick-up tines must be 20 mm to 30 mm above the ground to optimise gathering.

▶ Adjust the second wheel to the same height.

Removing pick-up wheels

- ▶ Remove the spring pin (1) which secures the flat bar (2).
- Remove the flat bar (2) from the pick-up housing shaft.

45702-001

AWARNING

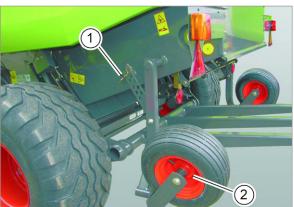
Pinching and trapping of fingers in the pick-up wheel flat parts.

279 Result: Injuries, crushed fingers.

- ▶ Remove the linch pin (1) at the rear of the pick-up.
- Remove the pick-up wheel shaft.
- ► Turn the cover to block the hole for positioning the pick-up wheels.

Transport position

1711-011



- Slide the wheel in the mounting of the tailgate.
- Lock the wheel (2) in the transport position using the spring pin (1).

281

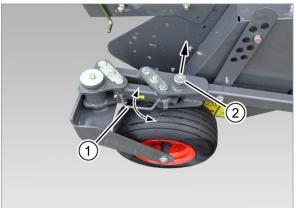
11880-004



Working position 299141-001



Transport position 299140-001



299157-001

Folding pivoting pick-up wheels*

The folding pivoting pick-up wheels are fitted and removed in the same way as the pivoting pick-up

The folding pivoting pick-up wheels must be moved to the working position before use.

The folding pivoting pick-up wheels may be moved to the transport position to reduce the width of the machine during transport.

Caution: Check that the width complies with the legislation in force in the country of use. Tage 136, **Dimensions**

282

283

Changing position

- Lift the lock (2).
- Push or pull the handle (1) in the desired direction until the lock (2) returns to its position.

1711-011 187249-002

6.5.2 Pick-up height

82055-002



Work carried out under the pick-up.

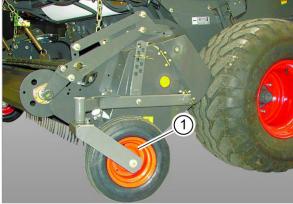
Result: Death or serious injuries

Never work under the pick-up without having secured it in the top or bottom position.

Hay and silage

When collecting hay and silage, the operating height of the pick-up is adjusted using the pick-up wheels.

- ▶ Position the pick-up wheels (1).
 - Page 175, Fitting pick-up wheels



285 126807-001

Lower the pick-up to the required height using the tractor's hydraulic control valve.

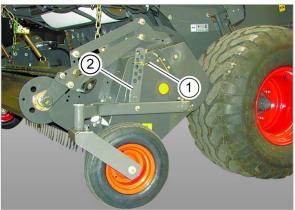
The chains (1) must remain slack.

The pick-up tines must be 20 to 30 mm ($^{3}/_{4}$ to 1 $^{3}/_{16}$ in) above the ground to optimise gathering.



127613-001

286



287 11885-002

- ▶ Remove the spring pin (1) from the shaft.
- ▶ Remove the flat bar (2) of the shaft to place the wheels in contact with the ground.
- ▶ Insert the flat bar (2) onto the shaft.
- ► Lock the flat bar (2) using the spring pin (1).
- Check the height set with the tractor's hydraulic control valve.

Caution: The pick-up wheels must have the same setting on the right and left.

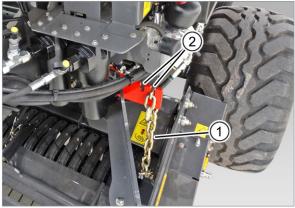
► For gathering, set the tractor's hydraulic control valve to the floating position.

The pick-up wheels should follow the contours of the terrain.



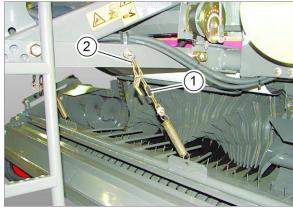


288 127614-001



295410-001

6.5.3 Roller crop press*



315_001

290

Straw

When collecting straw, the operating height of the pick-up is adjusted using the pick-up retaining chains.

- Raise the pick-up wheels as high as possible so that they are no longer in contact with the ground. The pick-up wheels must be removed.
 - Page 176, Removing pick-up wheels

Adjust the height of the pick-up using the tractor's

The pick-up tines must be 20 to 30 mm ($^{3}/_{4}$ to 1 $^{3}/_{16}$ in) beneath the stubble to optimise gathering.

hydraulic control valve to adapt it to the height of

► Lock the pick-up in position using the chains (1), left-hand and right-hand side.

Two notches (2) of different sizes enable fine-

tuning.
Caution: The chains (1) must have the same setting

Caution: The chains (1) must have the same setting on the right and left.

289

127952-003

Working position

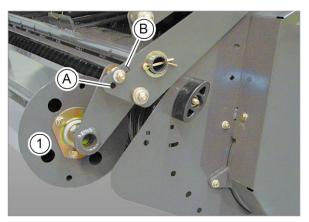
the stubble.

- ▶ Secure the roller crop press in the top position.
- ► Change the position of the roller crop press retaining chain (1) using the hook (2) attached to the drawbar.
 - ► The roller crop press is higher when the chain is shorter.
 - The roller crop press is lower when the chain is longer.

► Follow the same procedure for the other side.

The roller crop press is in the working position.





127616-001

Roller position

The head roller (1) can be positioned so that it overhangs the pick-up by varying degrees.

The position of the head roller is set in accordance with the size of the swathe:

- Hole (A): <Small swathe>
- · Hole (B): <Large swathe>

25527-001

291

WARNING

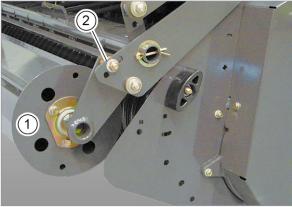
Weight of the head roller

Result: Injury

- Work in pairs to change the position of the head roller.
- ► If working alone, use a lifting device to secure the head roller in position.

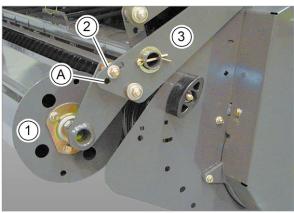


- ► Secure the roller (1) in position.
- ▶ Undo the bolt, washer and nut assembly (2).



127618-001

292



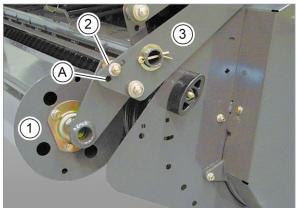
127617-001

- Move the roller (1) in order to align the head roller mounting hole with the hole (A) of the roller crop press mounting (3).
- ► Assemble the head roller mounting and the roller crop press mounting (3) by fitting the original bolts in the <Small swathe> hole (A).

Tightening torque: 83.5 Nm (62 lb ft)

293

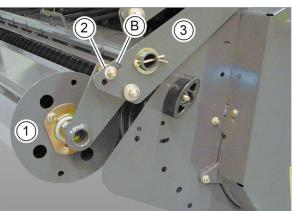
► Follow the same procedure for the other side. The head roller is in the <Small swathe> position.



<Large swathe> position

- ▶ Secure the head roller (1) in position.
- ▶ Undo the bolt, washer and nut assembly.

294 127617-001



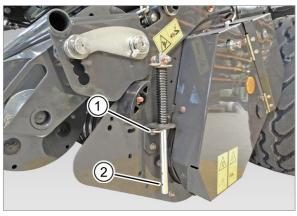
295 127619-001

- ► Move the head roller (1) in order to align the head roller mounting hole with the hole (B) of the roller crop press mounting (3).
- ➤ Assemble the head roller mounting and the roller crop press mounting (3) by fitting the original bolts in the <Large swathe> hole (B).
 - Tightening torque: 83.5 Nm (62 lb ft)
- ► Follow the same procedure for the other side.

The head roller is in the <Large swathe> position.

187331-004

6.5.4 Double roller crop press*



306461-001

296

Use

Working position

- Raise the pick-up fully using the tractor's hydraulic control valve.
 - The spring pin (1) is no longer under tension.
- Remove the spring pin (1).
- Fit the spring pin (1) in the hole (2).

Transport position

- Raise the pick-up fully using the tractor's hydraulic control valve.
- ▶ Remove the spring pin (1) from the hole (2).
- ▶ Return the spring pin (1) to its initial position.



Setting the height of the double roller crop press

The height of the double roller crop press can be adjusted to one of 4 positions depending on the size of the swathes.

- 1 low position
- 2 intermediate positions
- 1 high position



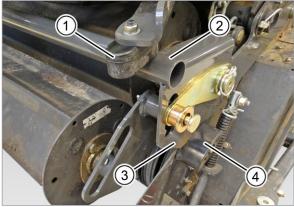
Bottom position





Top position





298362-001

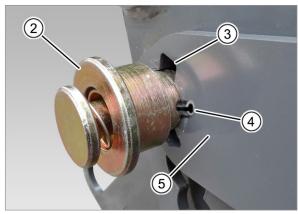
298348-001

Changing position

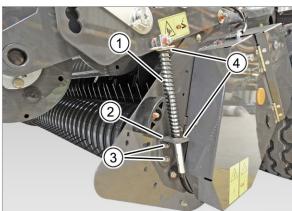
► Raise the pick-up fully using the tractor's hydraulic control valve.

The tube (2) must be against the end stop (1). The flat bar (3) must be against the end stop (4).

298366-001



313226-001



302 306350-001

Either side of the double roller crop press:

- ► Hold the double roller crop press in position using the handle (1).
- ▶ Pull the ring (2) on the lock outwards and turn it. The fitting (4) must rest on the flat bar (5).
- ▶ Lift the double roller crop press using the handle (1) and position it at the desired height. To facilitate the change from one position to another, one side can be unlocked when changing the opposite side.
- ► Turn the ring (2) on the lock so that the fitting (4) is opposite the notch (3).
- ► Release the ring (2) on the lock; it will return to its original position.
- Check that the double roller crop press is correctly locked.

The left and right positions must be identical.

188364-001

WARNING

Pinching or trapping of fingers.

Result: Injuries, crushed fingers.

301

Use in dry crop with large swathes

For optimum use in dry crop with large swathes, it may be preferable to remove the spring (1) on each side of the pick-up.

- ▶ Remove the pick-up wheels.
- Lower the pick-up as far as possible.
- Raise the double roller crop press fully and hold it in position.

On each side of the pick-up:

- ► Remove the 2 bolts, washers and nuts (3) and the bracket (2).
 - Caution: The spring (1) is under tension.
- ▶ Remove the spring (1) and the 2 washers (4).

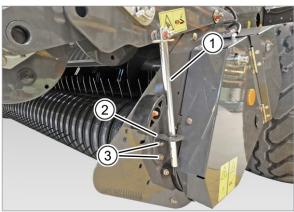
188364-001

AWARNING

Pinching or trapping of fingers.

Result: Injuries, crushed fingers.





➤ Refit the bracket (2).

The spring guide (1) is inserted into the bracket (2).

► Fit the 2 bolts, washers and nuts (3).

303 306437-001

► Repeat the procedure in the reverse order to refit the springs in position.

226777-001

6.6 Twine tying

6.6.1 Twine quality

6.6.2 Preparation

CLAAS recommends the use of CLAAS BALETEX twine.

Page 144, Tying twine

CLAAS BALETEX twine is tested and approved for our balers (longitudinal resistance, elasticity, wear on the tying device, etc.

It enables the tying device to operate correctly and reduces wear upon it.

In case of doubt or if you need further information, contact the CLAAS after-sales service.

If using another brand of twine:

- ► Respect the recommended specifications.
 - Page 144, Tying twine
- In any case, although there is no guarantee of optimal operation, a twine must be chosen with specifications which correspond to the recommended specifications and to your working conditions.

133011-003

21924-002

NOTICE

Tying system settings

Result: severe damage to the baler, specifically to the tying system

► Check all the settings before beginning work.

The preparation and fitting of the twine must be done when the machine is stopped and in the safety position.

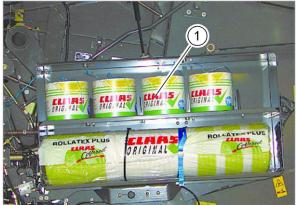
▶ Open the left-hand side flap (1).





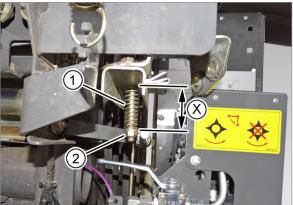
187543-002

- ▶ Place the twine reels in the twine box (1). The twines must be accessible from the top of the reel:
 - to allow the reels to be knotted together and
 - to allow the reels to unwind correctly the reel is unwound from the top



305 132269-001

6.6.3 Adjusting the twine tensioner



306 296155-001

The twine tensioner is adjusted before fitting the twine.

► Tighten or undo the 2 nuts (2) to adjust the length (X) of the 2 springs (1).

54 mm < X < 56 mm $2^{1}/_{8}$ in < X < $2^{7}/_{32}$ in

► Then adapt the length (X) of the 2 springs (1) to the thickness of the twine used.

Note: If the twine used is very fine, increase compression of the springs.

127905-003

21926-002

6.6.4 Fitting the reels

NOTICE

Oil and grease on the tying devices

Result: equipment damage and twine movement problems

- Check that the twine is free from all traces of oil and grease.
- Check that the twine tensioners are free from all traces of oil and grease.
- ► Check that the eyes are free from all traces of oil and grease.
- Check that the parts of the tying device that come into contact with the twine are free from all traces of oil and grease.



1711-011 30348-002

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

21938-002

AWARNING

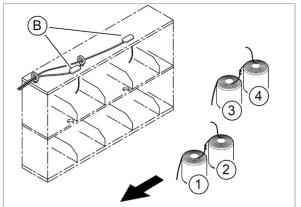
Unsolicited movement of a part of the baler.

Result: Death or serious injuries

► All the different twine fitting stages must be carried out by the same individual.

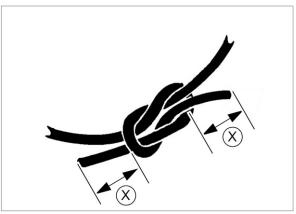
Knotting the twines (twine and net tying)

- Knot the beginning of the reel (1) and the end of the reel (2) with a flat knot.
- ► Thread the start of the reel (2) through the eye (B), plugged by a rubber part.
- ► Knot the beginning of the reel (3) and the end of the reel (4) with a flat knot.
- ► Thread the start of the reel (4) through the eye (B), plugged by a rubber part.



127801-001

307



124511-001

Shorten the ends of the twine that protrude from the knots:

The end of the twine remaining should measure 15 to 20 mm ($\frac{5}{8}$ to $\frac{3}{4}$ in) (X).



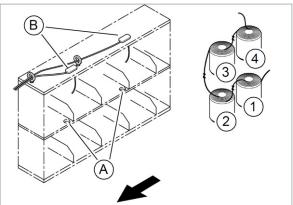
Knotting the twines (twine tying)

- ► Knot the beginning of the reel (1) and the end of the reel (2) with a flat knot.
- Thread the start of the reel (2) through the eye (A).
- Knot the beginning of the reel (2) and the end of the reel (3) with a flat knot.
- Knot the beginning of the reel (3) and the end of the reel (4) with a flat knot.
- Thread the start of the reel (4) through the eye (B), plugged by a rubber part.
- reels. ► Shorten the ends of the twine that protrude from

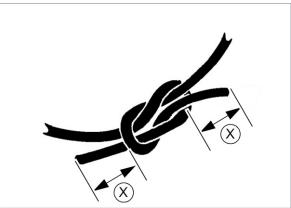
Repeat the same operation for the other four

The end of the twine remaining should measure 15 to 20 mm (${}^{5}/_{8}$ to ${}^{3}/_{4}$ in) (X).





309 127802-001



310 124511-001



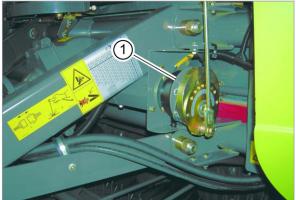
127803-001

Twine knife

the knots:

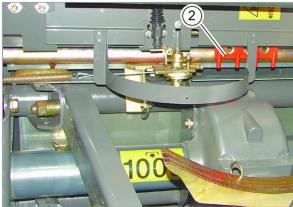
▶ Put the twine knife (1) in the safety position, i.e. the knife must be pointing towards the rear of the





312 127805-001

Twine slide

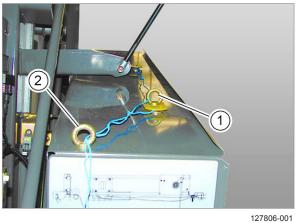


127804-001

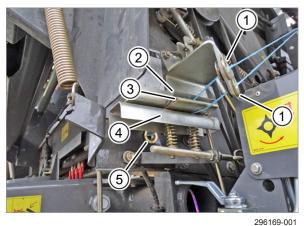
313

187563-002

6.6.5 Threading the twine



314



315

► Thread the twine from the twine box through the eyes which are blocked by a rubber part.

► Move the coupling (1) manually so that the twine slide (2) is in its initial position, i.e. slightly offset to

the left in relation to the twine knife.

- ► Thread a twine through the eye (1) to lead the twine out of the box.
- ► Thread the first and second twine through the eye (2).

- ► Thread each twine through one of the eyes (1) in the twine tensioner.
- Thread each twine into the twine tensioner.
 - The twine which exits the top eye is threaded between the plates (2) and (3).
 - ➤ The twine which exits the bottom eye is threaded between the plate (3) and the U-shaped component (4).

Note: the twine tensioner can be adjusted.

Page 186, Adjusting the twine tensioner

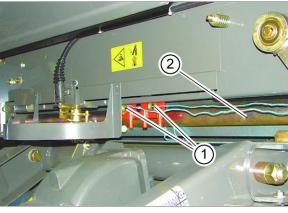
➤ Thread each twine through the eye (5) located after the twine tensioner.



At the tensioner outlet, the two twines must have the same tension.

If this is not the case:

- ► Check the twine circuit, particularly the outlet routes from the twine box.
- ► Thread each twine through one of the eyes of the twine slide (1).
- ➤ Slide the pieces of twine between the rubber roller and the metal roller (2) located behind the twine slide (1).
- ► Turn the metal roller (2) to retract about twenty centimetres of twine.



316

6.6.6 Selecting twine tying*

Following twine breakage

Thread the twine through the eyes again, following the procedure described above, if one or more twines break.

188248-002

For balers fitted with twine and net tying, the type of tying used must be set:

- · electronically on the control terminal
- mechanically on the baler

30348-002



Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

Electronic selection

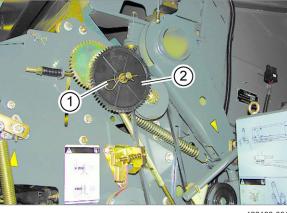
▶ Press key (1) to select twine tying (2).

1	Key
2	Display

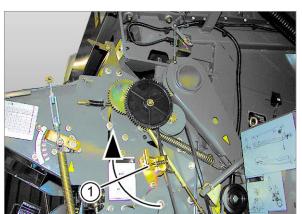
Twine tying is displayed in the form of a symbol (2).

Mechanical selection (standard twine / net tying*)

- ▶ Remove the pin (1).
- ▶ Pull on the toothed wheel (2) so that it is in contact with the end of the rotation shaft.
- ► Slide the pin into the shaft at the rear of the toothed wheel (2).

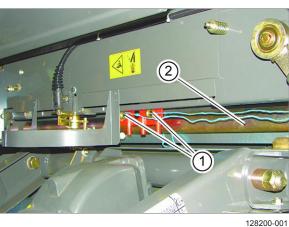


317

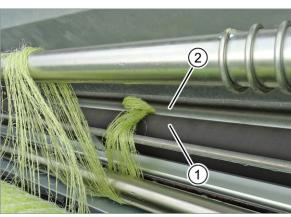


► Move the V-belt brake lever (1) upwards to activate the belt brake.





319



298125-001

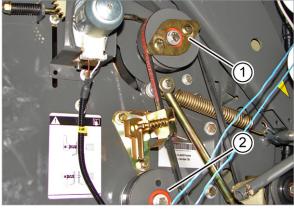
- ▶ Put the twines (1) in place.
 - Page 189, Threading the twine The twines must be in contact with the metal roller (2).

▶ Pull the net out of the net tying drive system. The net should no longer be between the rubber roller (1) and the pressure roller (2). The net must no longer be in contact with the rubber roller (1).



Mechanical selection (comfort twine / net tying*)

- ▶ Remove the fork (1) to position it on the twine engagement pulley (2).
 - ► Rotate the pulley so that the pulley holes coincide with the holes on the locking disc.
- ► Check that the fork is engaged.



321



▶ Move the V-belt brake lever (1) upwards to activate the belt brake.







The twines must be in contact with the metal roller (1).

Page 189, Threading the twine

▶ Put the twines in place.

128204-001

323



▶ The net may remain in place.

324

298190-001



Checking

► Check that the mechanical tying and electronic tying are set in the same way before starting work.



6.7 Net tying

6.7.2 Preparation

6.7.1 Quality of the net

226786-001

CLAAS recommends the use of CLAAS ROLLATEX net.

Page 145, Tying net

CLAAS ROLLATEX net has been tested and validated for our balers (resistance, elasticity, tying device wear, etc.).

It enables the tying device to operate correctly and reduces wear upon it.

In case of doubt or if you need further information, contact the CLAAS after-sales service.

If using another brand of net:

- ► Respect the recommended specifications.
 - Page 145, Tying net
- In any case, although there is no guarantee of optimal operation, a net must be chosen with specifications which correspond to the recommended specifications and to your working conditions.

187046-001

21924-002

NOTICE

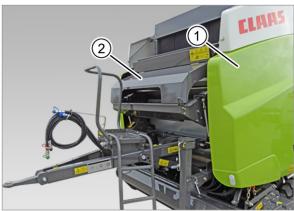
Tying system settings

Result: severe damage to the baler, specifically to the tying system

► Check all the settings before beginning work.

The preparation and fitting of the net must be done when the machine is stopped and in the safety position.

- ▶ Open the left-hand side flap (1).
- ▶ Open the net box cover (2)*.

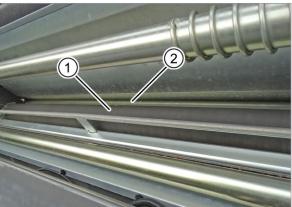


-001



Place a replacement net roller in the twine/net box.

▶ Secure the net roller using the strap provided (1).



326

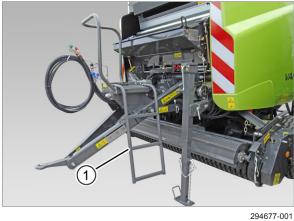
- ► Regularly clean the rubber roller (1) and the pressure roller (2).
 - The rollers must turn freely for the net drive to work correctly when tying starts.
- ► Apply talc to the rubber roller (1) to improve the grip of the net on the roller.

297938-001

327

186419-003

6.7.3 Fitting the net



001

▶ Pull down the ladder (1).

35764-002

WARNING

Risk of falling from the baler

Result: Injuries, death

► Always use the ladder to reach the step and access the net box.



- Carefully lift the net roller brake (1).
- ► Lock the brake using the hook (2).

50638-001



Pinching and trapping fingers in the net roller brake Result: Injuries, crushed fingers

- Wear safety gloves.
- Never slide hands or fingers under the net roller
- brake.



298077-001

- - Open the tailgate using the tractor's hydraulic control valve.
 - Close the tailgate using the tractor's hydraulic control valve.

Manually reset the net knife (1).



330

- Stop the tractor engine.
- ▶ Remove the ignition key from the tractor.

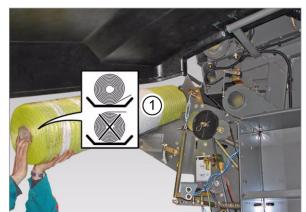
59091-002

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by entrapment

- ► Stop the power take-off.
- ► Stop the tractor engine.
- ▶ Remove the ignition key.
- Place the chocks under the wheels to lock the baler.



127842-001



332 298082-001



298093-001



334

- Place the net roller (1) on the side of the box (pay attention to the direction of fitting).
- Position the net roller (1) against the roller guide (2).
- Slide the net roller (1) into the box.



The <Extra wide>* tying system enables a net roller of up to 1300 mm (4 ft 3 in) to be used.

33629-001

WARNING

331 Weight and inertia of the net roller

Result: Falling off

Always slide the net roller carefully and using

333

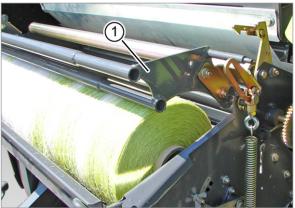
The net roller (1) is in the net box.

The lateral position of the net roller can be adjusted using guide plates (1).

- Page 200, Position of the net roller
- Page 201, Position of the <Extra wide>* net roller



- ▶ Pull the net out by 60 cm (2 ft).
- ▶ Pull down the net brake (1) over the net roller.

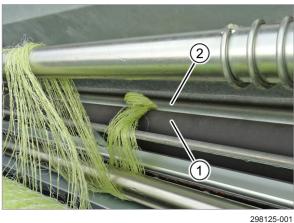


335 150621-001



336

298112-001

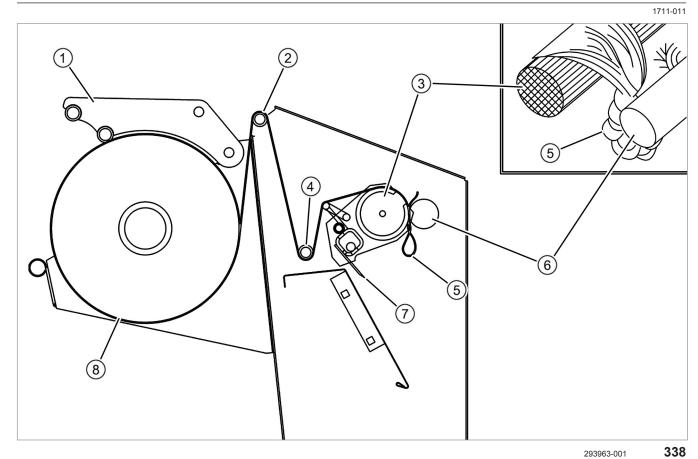


3

- Wind the end of the net around itself to make a mesh.
- ▶ Pass the net mesh over the roller (1).
- ▶ Slide the mesh under the next roller (2).

- ► Slide the mesh between the rubber roller (1) and the pressure roller (2).
- ▶ Pass approximately 20 cm (8 in) of net between the rubber roller (1) and the pressure roller (2).



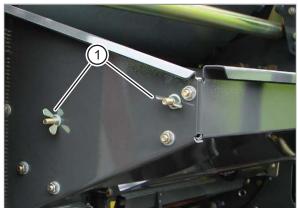


The diagram above illustrates the route of the net.

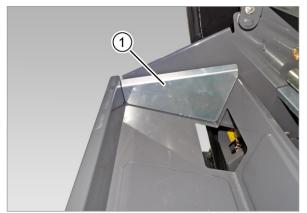
	Description
1	Net roller brake
2	Roller
3	Rubber roller
4	Roller
5	Net mesh
6	Pressure roller
7	Net knife
8	Net roller

Position of the net roller

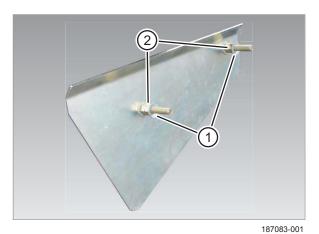
▶ Remove the washers and wing nuts (1).



187082-001 **339**



► Remove the guide plate (1).



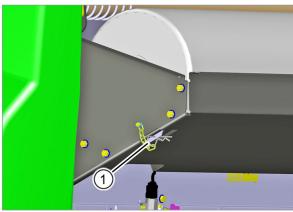
296415-001

340

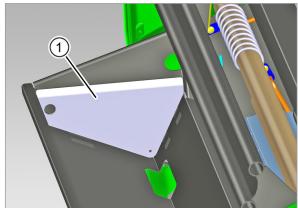
- ► Adjust the position of the nuts (2) and washers (1) to correct the position of the guide plate.
- ► Refit the guide plate, washers and wing nuts.
- Repeat the operations above on the opposite guide plate.

Position of the <Extra wide>* net roller

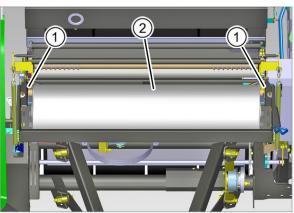
▶ Remove the right- and left-hand spring pins (1).



280323-001



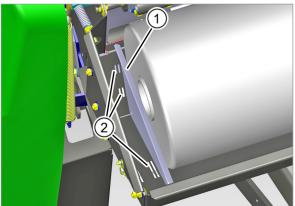
► Remove the right- and left-hand guide plates (1).



280313-001

► Centre the net roller (2) in relation to the side walls (1).



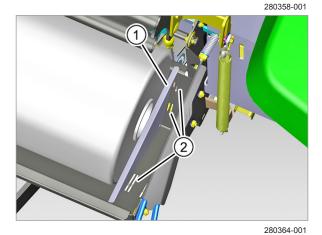


► Fit the right- and left-hand plates (1) in the grooves (2).

Each plate (1) must be as close as possible to the net roller without obstructing it.

The plates (1) must be positioned symmetrically.





346



347

280408-001

6.7.4 Selecting net* tying

► Fit the right- and left-hand spring pins (1).

188242-002

For balers fitted with twine and net tying, the type of tying used must be set:

- · electronically on the control terminal
- · mechanically and manually on the baler

1711-011 30348-002

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

Electronic selection

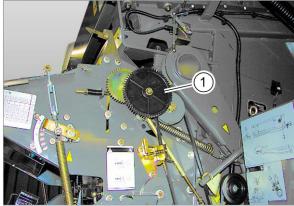
▶ Press key (1) to select net tying (2).

1		Key
2	###	Display

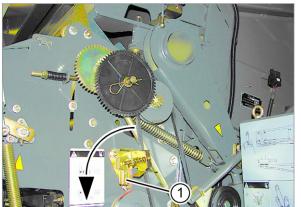
Net tying is displayed in the form of a symbol (2).

Mechanical selection (standard twine / net tying*)

- ► Remove the pin fixed at the rear of the toothed wheel (1).
- Push the toothed wheel (1).
- ► Slide the pin into the shaft at the front of the toothed wheel (1).



128206-001



128207-001

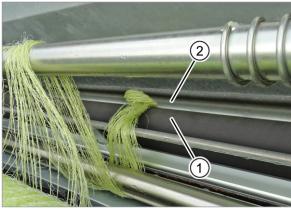
► Move the V-belt brake lever (1) downwards to deactivate the belt brake.



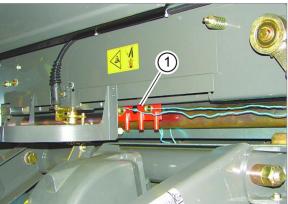
▶ Put the net in place.

Page 195, Fitting the net

The net should be between the rubber roller (1) and the pressure roller (2).



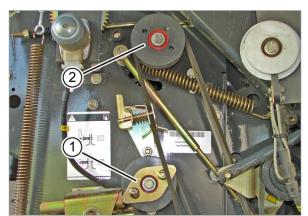
350 298125-001



351

127808-001

Remove the twines (1) from the twine drive system.



128208-001



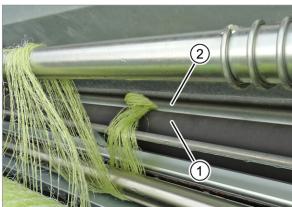
128209-001

Mechanical selection (comfort twine / net tying*)

- ▶ Remove the fork (1) to position it on the net engagement roller pulley (2).
 - ► Rotate the pulley so that the pulley holes coincide with the holes on the locking disc.
- ► Check that the fork is engaged.

Move the V-belt brake lever (1) downwards to deactivate the belt brake.

353



▶ Put the net in place.

Page 195, Fitting the net

The net should be between the rubber roller (1) and the pressure roller (2).

354



► The twines may remain in place.

355

Checking

Check that the mechanical tying and electronic tying are set in the same way before starting work.



6.8 Cutting unit

6.8.1 Safety advice

122388-002

17281-002

ACAUTION

Sharp knife blades.

Result: Injuries to hands and fingers

- Always wear gloves when working on the cutting frame.
- ▶ Use pliers if necessary to remove the knives.

30254-002

AWARNING

Tailgate may close unexpectedly

Result: Death or serious injuries

Always place the safety lever in the safety position when the tailgate is open.

107140-002

WARNING

Activation of the hydraulic circuit during operations on the machine.

Result: Death or serious injuries

- ➤ Switch off the hydraulic circulation and lock the hydraulic controls in the neutral position.
- Never allow anyone to go near the hydraulic controls.

30348-002

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- ▶ Remove the ignition key.



6.8.2 Checking

6.8.3 Fitting the knives (fixed floor)

1711-011 122389-001

- ► Check that the cutter knives are properly sharpened.
- ▶ Remove all traces of rust on the knives.

127917-005

105514-002

ACAUTION

Using the cutting unit without a knife, or with missing knives

Result: Accumulation of crop or stones in the slots in the cutting frame

- Replace missing knives with new knives or dummy knives*.
- Open the tailgate using the tractor's hydraulic control valve.
- Lock the tailgate. Page 53, Locking the tailgate

30254-002

WARNING

Tailgate may close unexpectedly

Result: Death or serious injuries

Always place the safety lever in the safety position when the tailgate is open.

36262-002

AWARNING

Activation of the hydraulic circuit during operations in or under the bale chamber

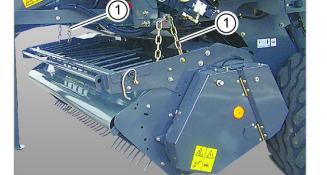
Result: Death or serious injuries

- Never allow anybody to climb into the tractor cab or go near the tractor's hydraulic controls when the tailgate is open.
- ► Always place the safety lever in the safety position when the tailgate is open.



- Raise the pick-up using the tractor's hydraulic control valve.
- ► Hold the pick-up in the upper position using the chains (1).

30348-002



127946-001

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

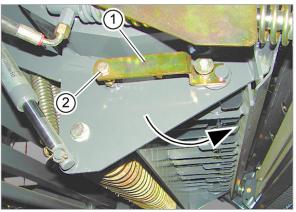
Result: Death or serious injuries by trapping

356

- ► Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

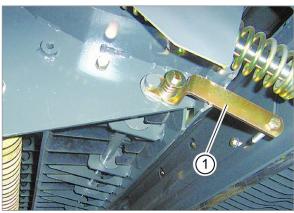
Under the baler, behind the right-hand wheel:

- ▶ Pull the lock lever (1) to release the bolt (2).
- ► Move the lock lever (1) forwards (arrow).



127948-001

357



358 127950-001

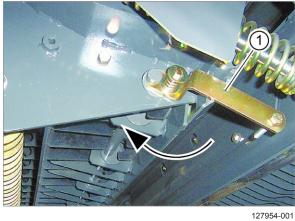
The lock lever (1) is in the unlocking position. The knives can be removed from their mounting shaft.



Under the tailgate, on the cutting rotor:

▶ Slide the knives (1) through the rotor stars and insert them on the mounting shaft.

359

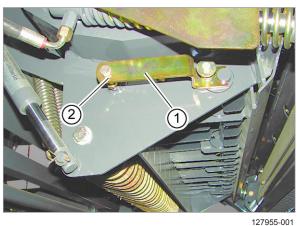


Under the baler, behind the right-hand wheel:

▶ Return the lock lever (1) to its initial position.



360



Return the lock bolt (2) on the lock lever (1) to its position.

The knives are locked on their mounting shaft.

- Unlock the tailgate. Page 53, Unlocking
- Close the tailgate again using the tractor's hydraulic control valve.



1711-011 149086-006

6.8.4 Fitting the knives (pivoting floor)

105514-002



Using the cutting unit without a knife, or with missing knives

Result: Accumulation of crop or stones in the slots in the cutting frame

Replace missing knives with new knives or dummy knives*.

17282-002



Weight and inertia of the cutting frame.

Result: Pinching and trapping hands or fingers

- Always wear gloves when working on the cutting frame.
- ► Stop the tractor's power take-off.
- ► Lower the pivoting floor.
 - Page 276, Rotor with pivoting rotor floor*
- Open the tailgate using the tractor's hydraulic control valve.
- ▶ Lock the tailgate.
 - Page 53, Locking the tailgate

30254-002



Tailgate may close unexpectedly

Result: Death or serious injuries

► Always place the safety lever in the safety position when the tailgate is open.



1711-011 36262-002

WARNING

Activation of the hydraulic circuit during operations in or under the bale chamber

Result: Death or serious injuries

- Never allow anybody to climb into the tractor cab or go near the tractor's hydraulic controls when the tailgate is open.
- ► Always place the safety lever in the safety position when the tailgate is open.

82124-002

Information

Knives in top position

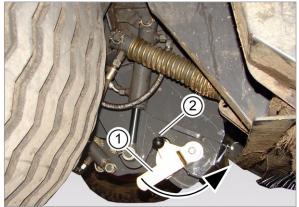
Result: impossible to fit or remove knives and dummy knives

► Always place the knives in the bottom position

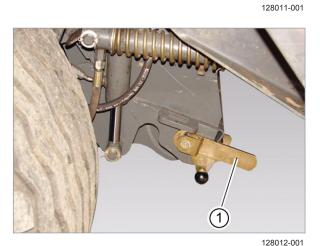
To the right of the baler, behind the pick-up:

- ▶ Pull the handle (2) of the lock lever (1) to release it
- Move the lock lever (1) forwards (arrow).

The lock lever (1) is in the unlocking position. The knives can be removed from their mounting shaft.



362



363

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1711-011 17281-002

ACAUTION

Sharp knife blades.

Result: Injuries to hands and fingers

- ► Always wear gloves when working on the cutting frame.
- ▶ Use pliers if necessary to remove the knives.
- ► Check that the cutter knives are properly sharpened.
- ▶ Remove all traces of rust on the knives.

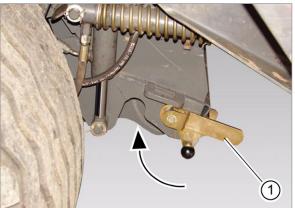
Under the tailgate, on the cutting rotor:

- Remove the existing knives or dummy knives through the rotor stars.
- ➤ Slide the knives (1) through the rotor stars and insert them on the mounting shaft.



128013-001

364



365 128014-001 To the right of the baler, behind the pick-up:

▶ Return the lock lever (1) to its initial position.



366

The knives are locked on their mounting shaft.

51945-001



Cutting frame raised without locking the mounting shaft with the lock lever

Result: Breakage of the mounting shaft or lever

Ensure that the mounting shaft and the lock lever are in the safety position before raising the cutting frame using the control terminal.

- Unlock the tailgate.
 - Page 53, Unlocking
- Close the tailgate again using the tractor's hydraulic control valve.
- ► Raise the pivoting floor.
 - Page 276, Rotor with pivoting rotor floor*

127919-002

127920-002

6.8.5 Fitting the dummy knives*

Use

The dummy knives are available as an option.

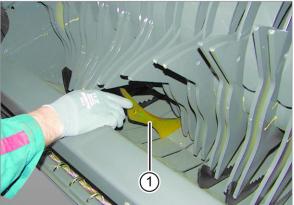
These are used to prevent:

- the accumulation of crop or stones in the slots in the cutting frame
- unnecessary and premature wear of the knives, if not used for a long period
- damage to the knives when gathering crop in fields with stones

Fitting

Dummy knives (1) are fitted in the same way as the knives.

- Page 207, Fitting the knives (fixed floor)
- Page 210, Fitting the knives (pivoting floor)



2 367

6.8.6 Unused knives and dummy knives*



368

Fitting the knives

➤ Store the unused knives (2) on the dummy knife holder (1).

The blade of the knives (2) must be pointing towards the ground.





The knives (2) are fitted to the lower section of the dummy knife holder (1).

3**69**



Fitting the dummy knives*

► Store the unused dummy knives (1) on the dummy knife holder.

The dummy knives (1) are stored on the upper section of the dummy knife holder.

128018-001

128069-003

6.9 Loading the machine

6.9.1 Lashing the baler





371 39641-001



372 39640-002

If transporting the baler by lorry or by train:

- Observe the legislation in force in the country of use.
- Close the flaps and covers and keep them closed using straps or plastic clips.
- ▶ Remove the universal drive shaft.
- Raise the pick-up and lock it in the upper position.
- ► Ensure that there are no bales or crops in the baler.
- ▶ Place these pieces of equipment in their transport positions.
- ► Apply the parking brake (depending on equipment).
- ▶ Place chocks in front of and behind the wheels.

▶ Place the drawbar on a chock, checking that the pick-up is not on the ground.

▶ Put the jack stand in the transport position.

107850-002

AWARNING

Use of baler jack stand when lashing

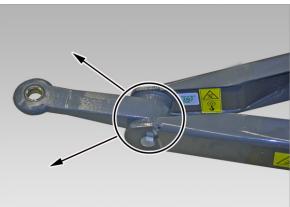
Result: Death or serious injury, severe material damage.

Never use the jack stand to stabilise the baler when lashing it for transport





272378-001





40179-001

Lashing the baler

► Only use the lashing points specified here. The lashing points are identified by the sticker (1).

107874-002

NOTICE

Use of lashing slings

Result: material damage

Check the lashing area before using lashing slings to prevent damaged to the surrounding components.

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1711-011 128070-002

6.9.2 Lifting points

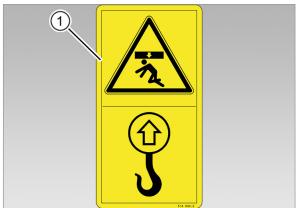


295744-001

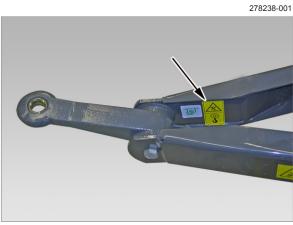
Lifting eyes

The baler is equipped with two lifting eyes (1).

376



_____ 3



40319-002

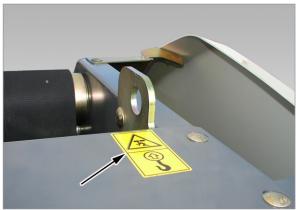
Lifting points

The machine is equipped with several lifting points that must be used when lifting the machine.

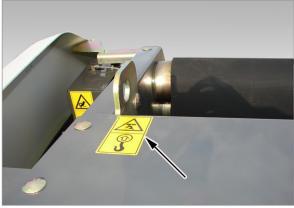
The lifting points are identified by the sticker (1).

377



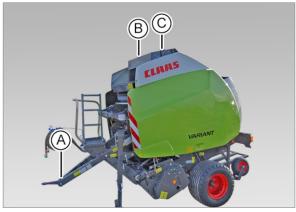


379 37525-002



37524-002

6.9.3 Lifting



295747-001

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381

 Use lifting equipment designed to support this load.

- Check that all the doors and covers are locked.
- Attach the slings to the various lifting points (A), (B) and (C), following the slinging instructions.
- ► Tension the slings.
- Carefully raise the machine.

107995-002

128071-004

WARNING

Baler raised with a bale in the chamber

Result: death, serious injury, severe material damage

▶ Never leave the baler with a bale in the chamber.

Instructions for slinging and lifting operations

- Only authorised personnel may carry out slinging and lifting operations.
- Respect the basic rules for slinging operations, handling and safety.
- ► Use slings designed for the operation which are in perfect condition.



With the machine horizontal, the weight is distributed as follows:

- Lifting point (A): approx. 600 kg (1323 lb)
- Lifting point (B): approx. 1400 kg (3086 lb)
- Lifting point (C): approx. 1400 kg (3086 lb)

The loads at the different lifting points are given for information purposes and may vary according to the options and/or equipment.

109094-002

AWARNING

Incorrectly carried out slinging or lifting operation
Result: death, serious injury, severe material damage

- Using slings and crosspieces designed for the load which are in perfect condition.
- Only authorised personnel may carry out slinging and lifting operations.
- Respect the basic rules for slinging and lifting operations.

7 Operation

7.1 General information

7.1.1 Baler user

127481-001

To guarantee quality results in complete safety, the baler must be used by competent personnel who have been trained how to use the tool.

128029-003

7.1.2 Opening the flaps and covers



382

Side flaps

The side flaps are equipped with locks which can be opened using an 8 mm Allen key (1).

Opening the side flaps

- ► Slide the key (1) into the lock.
- ► Turn the key in an anticlockwise direction to unlock the lock.
- ▶ Pull the handle to open the side flap.

The side flap opens and is held in position by the cylinders.

The opening height of the side flaps can be adjusted to one of 4 positions to facilitate their use.

Page 415, Adjusting the opening height

Closing the side flaps

- ▶ Pull the handle on the side flap to lower and close it
- Use one hand to press the lock to engage the catch.
- Check that the side flap is locked correctly by pulling it.



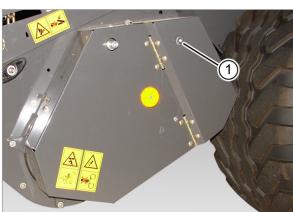
128763-001

CLARS

384 294770-001



385 294796-001



386 129361-001

Net box cover*

- ► Lift the cover (1) to open.

 The gas struts hold the cover open.
 - Lower the cover (1) to close it.
 Caution: force is exerted by the gas struts when closing.

The gas struts hold the cover closed.

Left pick-up housing

The left-hand pick-up housing is fitted with a lock that can be opened using an 8 mm Allen key.

Opening

- ▶ Slide the Allen key into the lock (1).
- ► Turn the key to the left to unlock the lock.
- Pull the housing to open it.

Closing

- ► Close the housing.
- Use one hand to press the lock to engage the catch.
- Check that the housing is locked correctly by pulling it.

1711-011 205470-001

7.1.3 Raising / lowering the pick-up



126811-001

The pick-up (1) is raised and lowered using one of the tractor's hydraulic control valves.

- Check the hydraulic connections.
 - Page 166, Connection to the tractor's hydraulic control valves
- Activate the hydraulic control valve to raise the pick-up.
- ► Place the hydraulic control valve in the neutral position.
- Activate the hydraulic control valve in the opposite direction to lower the pick-up.
 - The hydraulic control valve can be placed in the float position when the pick-up is lowered.

The pick-up must be locked mechanically when working on and/or underneath the machine.

Page 53, Locking the pick-up

The pick-up must be locked mechanically for use at a constant height, without wheels.

125689-001



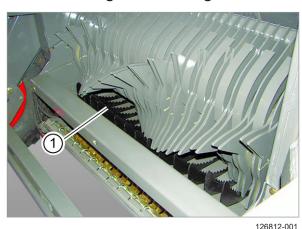
Work carried out under the pick-up.

Result: Death or serious injuries

Never work under the pick-up without having secured it in the raised or lowered position.

205472-001

7.1.4 Activating / deactivating the ROTO CUT knives*



388

The ROTO CUT knives (1) with a pivoting floor are activated and deactivated by the control terminal and one of the tractor's hydraulic control valves.

The hydraulic control valve used controls the ROTO CUT knives or the pivoting floor, depending on the selection on the control terminal.

- ► Check the hydraulic connections.
 - Page 166, Connection to the tractor's hydraulic control valves
- Activate the function on the control terminal.
 - Page 276, Activating the knives
- ► Activate the hydraulic control valve.
- Place the hydraulic control valve in the neutral position.

The ROTO CUT knives (1) with a fixed floor are activated and deactivated by the control terminal and one of the tractor's hydraulic control valves.

The hydraulic control valve used controls the pick-up or the ROTO CUT knives, depending on the selection on the control terminal.

Check the hydraulic connections.

Page 166, Connection to the tractor's hydraulic control valves

- ▶ Activate the function on the control terminal.
 - Page 275, Starting

hydraulic control valves.

- Activate the hydraulic control valve.
- ► Place the hydraulic control valve in the neutral position.

205474-001

7.1.5 Raising / lowering the pivoting floor* The ROTO CUT pivoting floor (1) is raised and lowered by the control terminal and one of the tractor's

389

127630-001

The hydraulic control valve used controls the ROTO CUT knives or the pivoting floor, depending on the selection on the control terminal.

- ► Check the hydraulic connections.
 - Page 166, Connection to the tractor's hydraulic control valves
- ▶ Activate the function on the control terminal.
 - Page 277, Activating the pivoting floor
- Activate the hydraulic control valve.
- ▶ Place the hydraulic control valve in the neutral position.

The ROTO FEED pivoting floor is raised and lowered by the tractor's hydraulic control valve.

The hydraulic control valve used only controls the pivoting floor.

- ► Check the hydraulic connections.
 - Page 166, Connection to the tractor's hydraulic control valves
- Activate the hydraulic control valve.
- ► Place the hydraulic control valve in the neutral position.

205471-001

7.1.6 Opening / closing the tailgate



390

The tailgate is opened and closed by one of the tractor's hydraulic control valves.

- ► Check the hydraulic connections.
 - Page 166, Connection to the tractor's hydraulic control valves
- Activate the hydraulic control valve to open the tailgate.
- ▶ Place the hydraulic control valve in the neutral position.
- ► Activate the hydraulic control valve in the opposite direction to close the tailgate.
- ► Place the hydraulic control valve in the neutral position.

When carrying out work underneath the open tailgate or in the bale chamber, the tailgate must be locked.

Page 53, Locking the tailgate



1711-011 52583-002



Accidental lowering of the baler tailgate

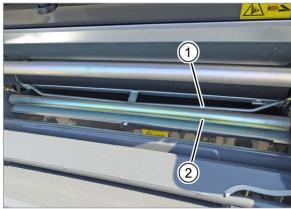
Result: Death, serious injuries

► Always lock the tailgate in the open position using the hydraulic safety lock.



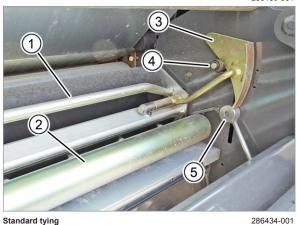
1711-011 205505-001

7.1.7 Resetting the net knife

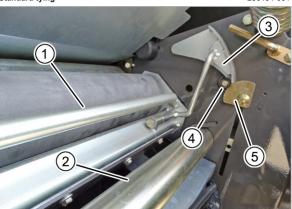


286430-001

391



Standard tying



Comfort tying

286441-001

The net knife can be reset manually if necessary.

30348-002

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

Manual reset

Behind the net box:

Firmly pull the bar (1) on the net knife support to

The hook (3) passes behind the knurled shaft (4) and must make contact with the stop (5).

Warning: risk of pinching between the bar (1) and the roller (2).

The net knife is reset.

392

183292-001

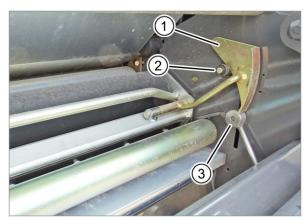
WARNING

Your fingers may be pinched or trapped when resetting the net knife.

Result: Injuries, crushed fingers

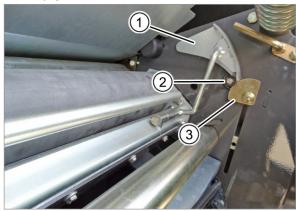
Position your hands so as to prevent your fingers becoming pinched or trapped during the manoeuvre.





Standard tying

337714-001



Comfort tying

337715-001

395

Automatic reset

► Fully open the tailgate.

Page 223, Opening / closing the tailgate The hook (1) passes behind the knurled shaft (2) and must make contact with the stop (3).

► Close the tailgate.

Page 223, Opening / closing the tailgate

The net knife is reset.

394



121626-001

7.2 Travelling with the baler

7.2.1 Checking the equipment

7.2.2 Preparing for transportation

The baler equipment must be checked each time before moving.

Lighting and indicators

► Check that the baler's lighting and indicators are clean and operating correctly

Braking

- Check the operation of the braking circuit.
- Check the brake hoses and their coupling attachment.

Wheels and tyres

- Check the tightness of the wheel nuts.
- Check the tyre pressures.

122582-005

Hitching

- Check that the baler is correctly hitched to the tractor.
- ► Check that the baler retaining cable is present and securely fixed to the tractor (machine not equipped with brake used in France).

Towing

► The balers described in these instructions are not able to tow.

Transport position

- ► Place the following pieces of equipment in their transport positions:
 - Pick-up
 - Pick-up wheels
 - Jack stand
 - ▶ Ladder
- Put the wheel chocks in their storage location.

Universal drive shaft

Couple both halves of the universal drive shaft.

Hydraulic and electrical connections

- ► Connect the hydraulic hoses.
- ► Connect the electric cables.

Hydraulic controls

- ▶ Place the hydraulic control valves in the neutral position.
- Lock the hydraulic control valves to prevent any movement.

7.2 Travelling with the baler

7.2.3 Travelling on the road

7.2.4 Arriving at the field

7.2.5 Driving in fields



1711-011

Braking*

- ▶ Connect the brake hoses to the tractor.
- ► Attach the safety chain to a fixed point on the tractor (active hydraulic brake option).

Bale chamber

► Empty the bale chamber before travelling on public roads.

Bodywork

▶ Check that the flaps and covers are closed and locked.

122583-001

Observe the legislation in force in the country of

121647-001

- ▶ Put the following equipment in its operating position:
 - ▶ the pick-up,
 - ▶ the pick-up wheels.

121646-001

- Drive at a steady speed.
- ▶ If the field is on a steep incline, drive in the direction of the slope, never cut across the slope.

122586-002

Short term

- ▶ Position the machine on firm ground.
- Put the jack stand in the park position.
 - Page 48, Jack stand
- ▶ Chock the wheels.
- Page 301, After use.

Winter storage

Page 419, Winter storage.

7.2.6 Parking



122376-001

7.3 Before each usage

7.3.1 Reminders

7.3.2 Universal drive shaft

► Check that the baler is safe for transportation on roads and is safe to operate.

- ► Ensure that the operator is familiar with all the baler controls and understands their functions. If necessary, refer to the user manual for more detailed information.
- ► Ensure that nobody is near the baler when it is put into operation or moved.
- Ensure that the machine is kept clean to avoid any fire hazards.
- Check that all the safety devices are in place.
- Check the wear of the safety devices. Replace worn safety devices before restarting the machine.
- Retighten all the wheel nuts according to the recommended tightening torques.

122385-004

Safety advice

- Only use universal drive shafts recommended by the manufacturer.
- Check that all the safety devices are fitted and operating correctly.
- Check that the overlap of the universal drive shaft tubes is correct (minimum overlap of 275 mm (10 ⁷/₈ in)).
- Check the length of the universal drive shaft in all conditions of use to avoid collisions or insufficient coverage of the universal drive shaft sections.
- ► Check that the universal drive shaft is the correct one for the tractor used.

Fitting

Detailed procedure for fitting the universal drive shaft:

Page 163, Fitting the universal drive shaft

- Clean and grease the power take-off of the tractor and the machine.
- ► Fit the universal drive shaft on the baler end.
- ▶ Fit the universal drive shaft on the tractor end.
- Attach the universal drive shaft retaining chain so that it allows enough movement in all the positions of use. Attach the chain at right angles to the universal drive shaft on the baler and tractor ends.
- ➤ On the baler end, push the protective bell cover onto the adaptor until the lock is heard to engage (click) or lock using the latching hooks (depending on equipment).
- Check that the lubrication protective tube is in the closed position.



1711-011 104762-002

AWARNING

Failure to follow the recommendations for use and maintenance of the universal drive shafts.

Result: Fatal or serious injury, severe damage to the baler

- ► Read the manual provided with the universal drive shaft closely.
- Respect the recommendations given in the manual provided with the universal drive shaft.

127914-001

- Check that all the settings are correct.
- Check all the maintenance areas mentioned in the Maintenance section.
- ▶ Check the tension and the condition of the V-belt.
- ▶ Check the tension of the baler's drive chains.
- ► Check the oil level in the oil reservoir for chains.
- ► Check the drive gearbox oil level.
- ► Check the seal of the hydraulic circuit.
- ► Check the tyre pressures.
- Check that there is no crop behind the twine box,
 Page 416.
- Check the sharpness of the knife blades (depending on equipment).
- Check that the inductive sensors are operating correctly.

135046-001

The baler equipment must be checked before each use.

Oil level

- Check the oil level in the drive gearbox,
 Page 351, Maintenance operations gearbox.
- Check the oil level in the oil tank, Page 406, Chain lubrication.

Lubrication

- ► Carry out the recommended lubrication, Page 341, Lubrication plan.
- ► Check the grease level in the central lubrication pump reservoir (depending on equipment).

Braking (option)

- Check the operation of the braking circuit.
- Check the brake hoses and their coupling attachment.

7.3.3 Baler maintenance

7.3.4 Checking the equipment



Wheels and tyres

- Check the tightness of the wheel nuts,Page 357, Checking the wheel tightness.
- ► Check the tyre pressures, Page 357, Checking the tyres.

Safety equipment

► Check that all safety equipment is present and that it is in good working order.

206709-001

7.3.5 Periods of very hot weather

When the weather is very hot, pay particular attention to the following points:

- The tension of the tailgate spring (on VARIANT)
- The cleanliness of the machine (bearings, chains, etc.)
- Ensuring the bearings are correctly lubricated
- Ensuring the chains are correctly lubricated and tensioned
- ► Ensuring that the weather conditions allow the equipment to be used in accordance with the technical constraints of the baler, particularly in very hot weather.



127945-006

7.4 Commissioning in the field

7.4.1 User advice

Safety

- Check that the protective flaps and covers are properly closed and locked.
- Check the presence and correct mounting of the covers, panels and safety devices.

108195-002



Unprotected components on the baler.

Result: Death or serious injuries

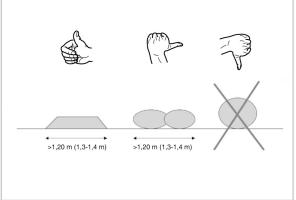
- Close the doors and protective covers.
- Check the presence and correct mounting of covers, panels and safety devices

General points

- ▶ Never run the baler when the belts are slack.
- Always disengage the power take-off if the tailgate is left open for a prolonged period.
- ▶ Dummy knives* may be fitted instead of knives when the cutting system is not in use.
 - Page 213, Fitting the dummy knives*

Optimum gathering conditions

- Work with a wide, compact swath.
- Operate the baler at full speed.



396 12064-001

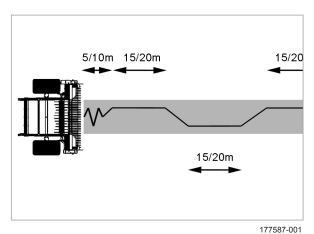
5/10m 15/20m 15/20 15/20m

177586-001

Optimum gathering procedure for swathes over 1.40 m (4 ft 7 in)

To ensure uniform filling of the bale chamber and to obtain the correct bale shape:

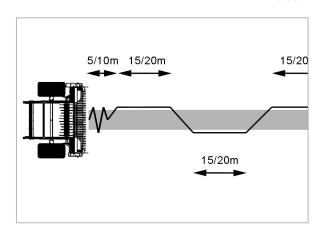
- ► For wide, flat swathes over 1.40 m (4 ft 7 in):
 - Gather by following the swathe.
- ► For swathes closer to 1.40 m (4 ft 7 in):
 - Gather by moving slightly from side to side.

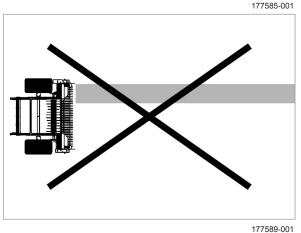


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177588-001

398





401

Optimum gathering procedure for swathes of 0.80 m to 1.40 m (2 ft 7 in to 4 ft 7 in)

To ensure uniform filling of the bale chamber and to obtain the correct bale shape:

- ► For swathes closer to the width of the rotor frame chamber (1.20 m) (3 ft 11 in):
 - ➤ To start filling and baling, gather by moving from side to side for lengths of 5 to 10 m (16 ft 5 in to 32 ft 10 in), then for lengths of 15 to 20 m (49 ft 3 in to 65 ft 7 in).
- ► For narrower swathes (specifically with the 2.35 m (7 ft 9 in) pick-up*):
 - ► Increase the width of the side-to-side movement while remaining roughly within the width of the rotor frame chamber (1.20 m) (3 ft 11 in).

Optimum gathering procedure for small swathes of less than 0.80 m (2 ft 7 in)

To ensure uniform filling of the bale chamber and to obtain the correct bale shape:

► For small swathes (specifically with the 2.35 m (7 ft 9 in) pick-up*):

To start filling and baling, gather by moving from steeply side to side for lengths of 5 to 10 m (16 ft 5 in to 32 ft 10 in), then for lengths of 15 to 20 m (49 ft 3 in to 65 ft 7 in).

Always keep the swathe aligned with the rotor frame chamber to prevent the swathe from veering to the side of the pick-up and outside the rotor frame chamber.

Risks:

- incorrect loading of the machine
- belts turning over
- feed auger breakage



1711-011 156941-002

NOTICE

Gathering small swathes with the end of the pick-up

Result: incorrect loading of the machine, belts turning over, equipment damage

► Always keep the swathe aligned with the rotor frame chamber to prevent the swathe from veering to the side of the pick-up and outside the rotor frame chamber

Twine tying*

Check that the two twines are inserted in the bale correctly.

If only one twine is inserted, allow the cycle to finish, stop the baler, return the twines to their positions, then restart tying using the control terminal.

Net tying*

► Check that the net is inserted in the bale correctly. If the net is not inserted, stop the baler, return the net to its position in the pressure roller then restart tying using the control terminal.

Opening and closing the tailgate

- ► Always close the tailgate when the belts are rotating.
- ► Always open the tailgate quickly and smoothly to avoid the bale and the tailgate coming into contact and to prevent any damage to the baler or bale.

Bale discharge

Never discharge bales on a slope.

128788-001

Control terminal

Switch the control terminal on.

Universal drive shaft

- ▶ Engage the power take-off at minimum speed.
- Gradually increase the power take-off speed until the nominal speed is reached (depending on equipment).

Baling pressure

Check that the baling pressure is active and activate it if necessary.

Cutting system

 Activate the cutting system, if applicable (depending on equipment).

7.4.2 Starting the machine

Pick-up

▶ Lower the pick-up.

193864-001

7.4.3 Work lighting*



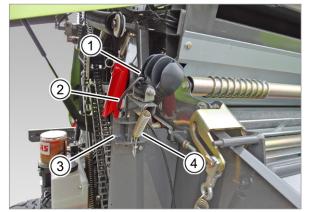
Work lighting control

- Connect the baler to the tractor.
 - Page 171, Power supply for the baler and the **OPERATOR***
- Press switch (1) to switch on the LED strip and the work light.
- Press switch (1) again to switch off the LED strip and the work light.

402

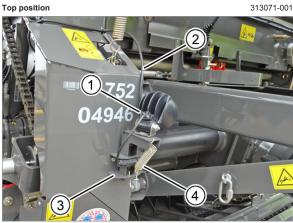
Changing the position of the work light

- ▶ Detach the spring (4) from the support (3).
- ▶ Remove the work light (1) from the support (3).
- ▶ Fit the work light (1) in the second support (3). Caution: make sure the electrical cable (2) is not trapped or damaged.
- ▶ Move the work light (1) to the desired position.



Top position

403



Bottom position

313070-001



127947-001

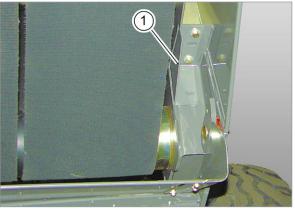
127948-001

7.5 Specific use

7.5.1 Use for silage - Normal conditions



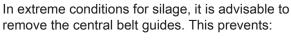
405



128020-001

406

7.5.2 Use for silage - Extreme conditions



▶ Remove the panel (1) on the left and right-hand

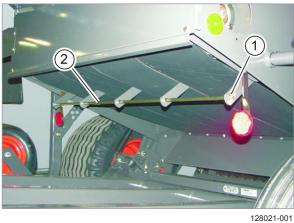
Keep the panels and bolts for refitting.

side for silage work.

- · crop accumulating around the belts, and
- the belts jamming due to accumulated crop.

Removing belt guides

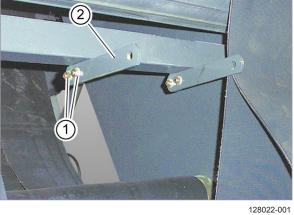
- ▶ Remove the cotter pin (1) securing the shaft (2).
- ► Remove the shaft (2).



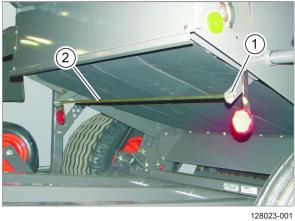
- ▶ Undo the two nuts (1) securing the belt guides (2).
- ▶ Remove each central belt guide (2).

If spacers are present behind the belt guides:

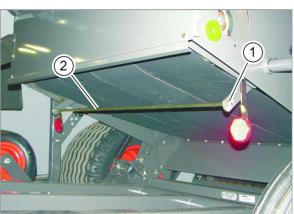
- Note the number and position of the spacers for each belt guide,
- Remove the spacers.



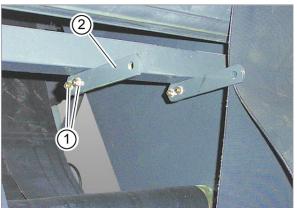
408



409



128023-001



128022-001

- Refit the shaft (2).
- Secure the shaft (2) using the pin (1).

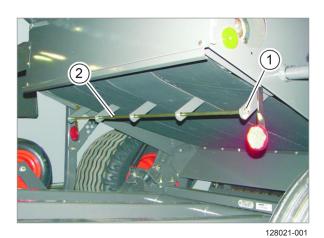
Fitting belt guides

- Remove the cotter pin (1) which secures the shaft (2).
- Remove the shaft (2).

If spacers are present behind the belt guides during removal:

- Reposition the same number of spacers in their original positions,
- ► Refit the belt guides (2).
- ➤ Tighten the two nuts (1) securing the belt guides (2).





- ▶ Refit the shaft (2).
- ► Secure the shaft (2) using the pin (1).



7.6 Pick-up

7.6.1 Important

122959-002

The pick-up and all components which make up the pick-up must be adjusted before starting work.

Settings which are adapted to the shape of the swathe and to the crop gathered optimise the use of the baler.

30348-002

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- ► Stop the tractor engine.
- ► Remove the ignition key.

7.7 Feeder unit

7.7.1 Rotor chassis with pivoting floor*



127630-001

413

7.7.2 RotoCut cutting unit*



414 126812-001

1711-011

131883-004

An angular sensor continually detects the position of the pivoting floor.

A slight overload on the rotor causes the pivoting floor to open partially and an audible signal (beep) to sound on the control terminal.

This signal indicates that the baler's intake capacity has been reached and there is a need to slow down. This allows the working speed to be continually adjusted without causing blockages and machine stoppages. The machine's performance is improved and the drive components preserved.

The pivoting floor is activated by two cylinders (1) located on each side of the baler.

RotoFeed*

The pivoting feed floor is controlled by a double-action hydraulic control valve on the tractor.

RotoCut*

The pivoting cutting floor is controlled by the control terminal and a double-action hydraulic control valve on the tractor. This control valve controls the knives and the pivoting floor.

Page 277, Activating the pivoting floor

127954-003

The cutting unit enables the crop being gathered to be cut to a length of 70 mm (2 3/4 in).

Note: The cutting unit is only available on VARIANT RotoCut balers.

Knives

There are 14 knives (1) on the RotoCut cutting unit. The knives are individually fixed to the cutting frame.

Activation of the cutting unit:

- Page 275, ROTO CUT cutting unit with fixed rotor floor*
- Page 276, Rotor with pivoting rotor floor*

127957-002

7.8 Tying

7.8.1 Reminders

Tying category

As an option, the baler is fitted with 2 tying categories:

- · Standard tying
- · Comfort tying

Standard tying:

Standard tying is a tying process which is partially automated.

Some of the main settings (number of twine or net wraps) must be entered directly on the baler. The other settings can be made on the control terminal.

Comfort tying:

Comfort tying is a tying process which is more automated than standard tying.

All the main settings (number of twine or net wraps, tying start delay) are entered on the control terminal.

130286-002

7.8.2 Selecting twine tying or net tying*

For balers fitted with twine and net tying, the type of tying used must be set:

- · electronically on the control terminal and
- · mechanically on the baler
 - Twine tying: Page 190, Selecting twine tying*
 - Net tying: Page 202, Selecting net* tying

186427-002

7.8.3 Setting the number of twine wraps with standard tying

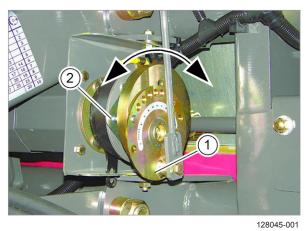
Reminder

For balers equipped with standard tying, the number of twine wraps must be set directly on the baler.

Setting system

The number of twine wraps is set using the perforated wheel (1).

- Press on the mounting plate (2) to disengage the selection shaft.
- ➤ Turn the wheel (1) so that the numbered adjustment hole of the perforated wheel is aligned with the selection shaft.
- ▶ Release the mounting plate (2) to engage the selection shaft.
- ► Check that the shaft is correctly engaged in the perforated wheel.





Position of the perforated wheel

The position of the perforated wheel (1) is set according to the bale diameter and the number of twine wraps. The sticker (2) attached to the drawbar near the perforated wheel shows the position of the perforated wheel allowing the number of twine wraps required to be obtained according to the selected bale diameter.

128046-001

416

Ø (A)(B) 1,1 1,2 1,3 1,4 56" 60 48" 44" 16 14 13 16 14 13 12 12 19 14 13 17 16 21 17 15 14 13 19 16 24 21 16 15 14 18 17 24 22 20 16 23 19 21 20 23 22 28 27 9 40 10

Twine tying - VARIANT 450 / 460

417 128221-001

A	ØØ							B		
	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	
	36"	40"	44"	48"	52"	56"	60"	64"	68"	&e/
	16	14	13	12						1
	17	16	14	13	12					2
	19	17	16	1 4	13	12				3
	21	19	17	16	15	14	13			4
	24	21	19	18	16	15	14	13		5
		24	22	20	18	17	16	15	14	6
			25	23	21	20	19	17	16	7
	n/////////// 25 23 22 20					19	8			
	28 27 25 2							23	9	
	514 971.1								10)	
Twine tying - VARIANT 470 / 480 128222-001										

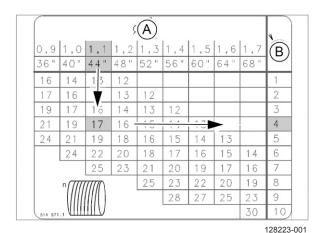
Twine tying - VARIANT 470 / 480

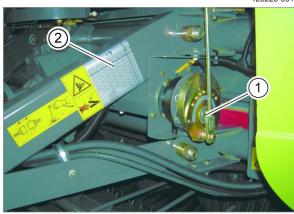
Composition of stickers

The settings information is displayed in the following tables:

- · Line (A) shows the diameter of the bale selected (in metres and in inches).
- · Column (B) shows the settings positions of the perforated wheel.
- The point where the line crosses with the column shows the number of twine wraps on the bale.







Setting the number of twine wraps

- ▶ Select the bale diameter on the control terminal.
- ▶ Select the number of twine wraps required.
- ▶ Refer to the table (2):
 - Use line (A) to find the diameter selected.
 - ► Use the column of the diameter value to find the number of wraps required (arrow down).
 - ▶ Use the line detailing the number of wraps to find the figure indicated in the right-hand column (B) (arrow to the right):

The figure in the column (B) shows the position of the shaft on the perforated wheel.

Example:

419

The bale diameter is set to 1.10 m (44 in). The number of twine wraps required is 17.

- ► Use the line (A) to find the diameter of 1.10 m (44 in).
- ► Look in the column under the diameter value to find the number 17, which corresponds to the number of wraps required.
- ► Use the line corresponding to the number 17 to find out which figure is shown in the right-hand column (B).

The figure in column (B), in this case 4, shows the position of the shaft on the perforated wheel (1).

186425-002

7.8.4 Setting the number of net wraps with standard tying

Reminder

For balers equipped with standard tying, the number of net wraps must be set directly on the baler.

Setting system

The number of net wraps is set using the selection lever (1).

The number of net wraps is set according to the bale diameter.

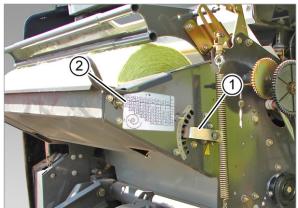
- ▶ Pull the selection lever (1) to disengage the selection shaft.
- ➤ Turn the selection lever (1) so that the selection shaft is aligned with the selection hole in the side wall.
- Release the selection lever (1) to engage the selection shaft.
- Check that the shaft is correctly engaged in the machine side.



421

150642-001





Selection lever position

The selection lever (1) position is set according to the bale diameter and the number of net wraps. The sticker (2) attached to the left-hand side of the net box shows the position of the selection lever allowing the number of net wraps required to be obtained according to the diameter of the bale selected:

150641-001

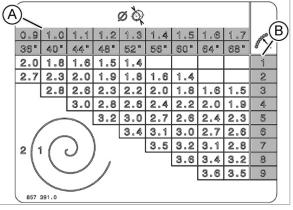
422

ØØ (A)B 0.9 1.0 1.1 1.2 1.3 1.4 1.5 48" 52" 40" 44" 2.0 1.8 1.6 1.5 1.4 2.7 2.3 2.0 1.9 1.8 1.6 2.8 2.6 2.3 2.2 2.0 3.0 2.8 2.6 2.4 2.2 3.2 3.0 2.7 5 2.6 3.1 3.0 3.5 3.2 2 8 3.6 9

Net tying - VARIANT 450 / 460

423

128225-001



Net tying - VARIANT 470 / 480

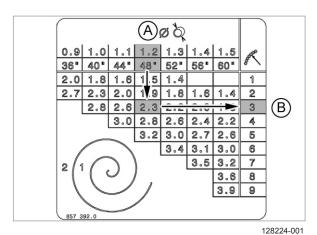
128226-001

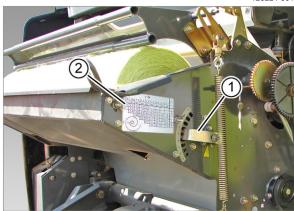
Composition of stickers

The settings information is displayed in the following tables:

- Line (A) shows the diameter of the bale selected (in metres and in inches).
- Column (B) shows the settings positions of the perforated wheel.
- The point where the line crosses with the column shows the number of net wraps on the bale.







Setting the number of net wraps

- ▶ Select the bale diameter on the control terminal.
- Select the number of net wraps required.
- ▶ Refer to the table (2):
 - Use line (A) to find the diameter selected.
 - ► Use the column of the diameter value to find the number of wraps required (arrow down).
 - ▶ Use the line detailing the number of wraps to find the figure indicated in the right-hand column (B) (arrow to the right).

The figure in column (B), shows the position of the selection lever.

Example:

425

The bale diameter is set to 1.20 m (48 in). The number of net wraps required is 2.3.

- ► Use the line (A) to find the diameter of 1.20 m (48 in).
- Use the column of the diameter value to find the number 2.3, which corresponds to the number of wraps required.
- ▶ Use the line corresponding to the number 2.3 to find out which figure is shown in the right-hand column (B).

The figure in column (B), in this case 3, shows the position of the selection lever (1).

186717-002

7.8.5 Setting the number of net wraps with standard Extra wide* tying

Reminder

For balers equipped with standard tying, the number of net wraps must be set directly on the baler.

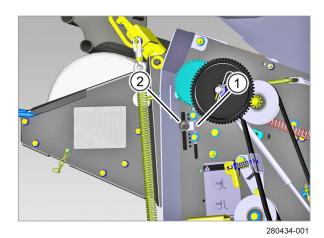
For balers equipped with comfort tying, the number of net wraps is set on the control terminal.

Setting system

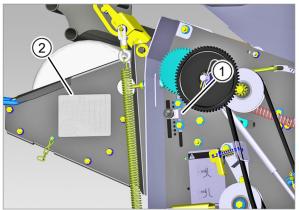
The number of net wraps is set using the selector (1).

The number of net wraps is set according to the bale diameter.

- ▶ Pull the lock (2) to unlock the selector (1).
- ► Slide the selector (1) vertically to align the lock (2) with the selection hole in the wall.
- ► Release the lock (2) to lock the selector (1).
- Check that the lock (2) is correctly engaged in the selection hole in the wall.







Position of the selector

Composition of stickers

The position of the selector (1) is set according to the bale diameter and the number of net wraps. The sticker (2) attached to the left-hand side of the net box shows the position of the selector allowing the number of net wraps required to be obtained according to the diameter of the bale selected.

428 280436-001

The settings information is displayed in the following tables:

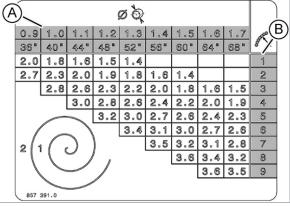
- Line (A) shows the diameter of the bale selected (in metres and in inches).
- Column (B) shows the selection holes in the wall.
- The point where the line crosses with the column shows the number of net wraps on the bale.

ØØ (A) B 0.9 1.0 1.1 1.2 1.3 1.4 1.5 48" 52" 40" 44" 2.0 1.8 1.6 1.5 1.4 2.7 2.3 2.0 1.9 1.8 1.6 2.8 2.6 2.3 2.2 2.0 1.8 3.0 2.8 2.6 2.4 2.2 3.2 3.0 2.7 5 2.6 3.1 3.0 3.5 3.2 2 8 3.6 9

VARIANT 460 / 450

128225-001

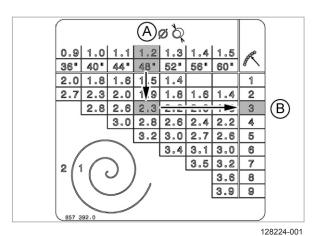
429

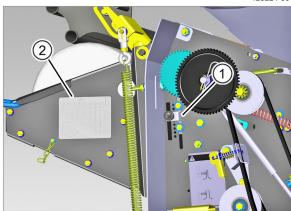


VARIANT 480 / 470

128226-001

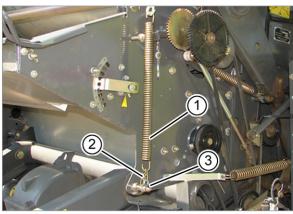






432 280436-001

7.8.6 Adjusting the net brake



433

150077-001

Setting the number of net wraps

- ▶ Select the bale diameter on the control terminal.
- ▶ Select the number of net wraps required.
- Refer to the table (2):
 - Use line (A) to find the diameter selected.
 - ► Use the column of the diameter value to find the number of wraps required (arrow down).
 - ► Use the line detailing the number of wraps to find the figure indicated in the right-hand column (B) (arrow to the right).

The number in column (B) shows the position of the selector (1).

Example:

431

The bale diameter is set to 1.20 m (48 in). The number of net wraps required is 2.3.

- ► Use the line (A) to find the diameter of 1.20 m (48 in).
- Use the column of the diameter value to find the number 2.3, which corresponds to the number of wraps required.
- ▶ Use the line corresponding to the number 2.3 to find out which figure is shown in the right-hand column (B).

The number in column (B), in this case 3, shows the position of the selector (1).

127911-002

The net brake must be tightened enough to ensure that the net is correctly tensioned on the bale during tying:

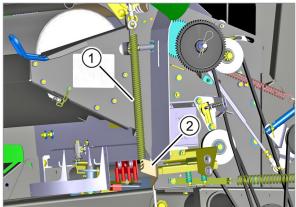
A correctly tensioned net guarantees that the entire width of the bale is tied evenly whilst maintaining the shape of the bale.

Attach the spring (1) to the chain (2). To obtain the optimum tension, attach it to the second link on the hook (3). Depending on the quality of the net, the spring may be attached between the first and fifth link.



1711-011 180923-003

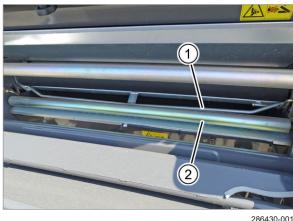
7.8.7 Adjusting the net brake - Extra wide tying*



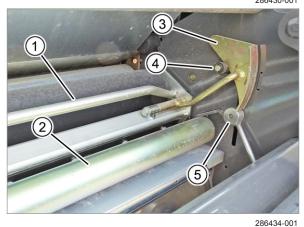
280501-001

434

7.8.8 Replacing the net roller



435



436

The net brake must be tightened enough to ensure that the net is correctly tensioned on the bale during tying.

A correctly tensioned net guarantees that the entire width of the bale is tied evenly whilst maintaining the shape of the bale.

Attach the spring (1) to the bent plate (2). To obtain the optimum tension, attach it to the lowest notch in the bent plate (2). Depending on the quality of the net, the spring may be attached between the first and third link.

183296-002

If the net runs out while tying, the net roller must be replaced, according to the following procedure for safe replacement. After replacement, tying can be restarted.

Standard tying*

30348-002

MARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- ► Remove the ignition key.

Behind the net box:

► Firmly pull the bar (1) on the net knife support to reset it.

The hook (3) passes behind the knurled shaft (4) and must make contact with the stop (5). Warning: risk of pinching between the bar (1) and the roller (2).

1711-011 183292-001

WARNING

Your fingers may be pinched or trapped when resetting the net knife.

Result: Injuries, crushed fingers

- Position your hands so as to prevent your fingers becoming pinched or trapped during the manoeuvre.
- Fit a new net roller.
 - Page 195, Fitting the net
- ► Start up the power take-off.
- Manually activate tying using the control terminal.
 - Page 278, Manually activating tying

After tying, the bale can be removed.

Comfort tying*

30348-002



Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- ► Remove the ignition key.

437

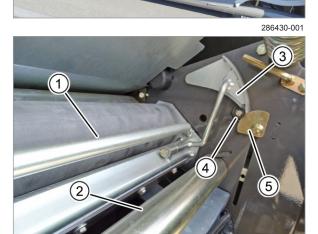
Switch off the control terminal.
 If there is an ISOBUS connection*, disconnect the

ISOBUS cable.
Behind the net box:

► Firmly pull the bar (1) on the net knife support to reset it.

The hook (3) passes behind the knurled shaft (4) and must make contact with the stop (5). Warning: risk of pinching between the bar (1) and the roller (2).

183292-001



438

286441-001

AWARNING

Your fingers may be pinched or trapped when resetting the net knife.

Result: Injuries, crushed fingers

Position your hands so as to prevent your fingers becoming pinched or trapped during the manoeuvre.



- ► Fit a new net roller.
 - Page 195, Fitting the net
- ➤ Switch the control terminal on.
 If there is an ISOBUS connection*, connect the ISOBUS cable.
- ► Cancel the fault which may appear on the control terminal.
 - Page 279, Faults
- ► Start up the power take-off.
- ▶ Manually activate tying using the control terminal.
 - Page 278, Manually activating tying

After tying, the bale can be removed.

7.9 Bale parameters

7.9.1 General points

186721-003

To form a bale, the user must first set the following 4 parameters on the control terminal:

- Bale diameter
- Baling pressure
- Soft centre diameter
- Soft centre density

	VARIANT 460	VARIANT 480		
	VARIANT 465	VARIANT 485		
Bale diameter	0.90 m - 1.55 m	0.90 m - 1.75 m		
Baling pressure	<dry> mode: 60 bar - 190 bar (1 - 10)</dry>			
	<silage> mode: 60 bar - 160 bar (1 - 10)</silage>			
	<custom> mode: 60 bar - 190 bar (1 - 10)</custom>			
Soft centre diameter	2 positions in <silage> mode</silage>			
	3 positions in <dry> and <custom> modes</custom></dry>			
Soft centre density	Fixed using OPERATOR with simplified menu			
	2 positions in <silage> mode with OPERATOR or COMMUNICATOR</silage>			
	3 positions in <dry> and <custom> modes with OPERATOR or COMMUNICATOR</custom></dry>			

These parameters should be adjusted according to the baling conditions (silage, hay, straw and rate of dry crop).

The <Settings> menu offers several setting modes:

- 1 < Dry> mode
- 1 <Silage> mode
- 3 < Custom > modes

All these modes can be configured.

<Dry> and <Silage> modes offer setting limits
adapted to the crop being baled.

Bale diameter

Depending on the type of crop being baled, the diameter may be set between 0.90 m and the machine's maximum capacity.

If, due to expansion of the crop, the actual diameter of the bale is not exactly equal to the diameter set on the terminal, the user may perform an adjustment using the correction factor.

Page 265, Correction of the bale diameter



Baling pressure

Adjusting the pressure parameter enables the user to produce bales of varying density.

Soft centre

The control terminal has a <Settings> menu with numerous choices. These preset values can be fine-tuned by the user according to the following indications.

188083-003

7.9.2 Settings advised for dry crop (straw or hay)

Bale parameters

The parameters must be adapted to the baling conditions.

Crop	Mode	Diameter	Pressure	Note	
Straw	<dry></dry>	0.90 m - 1.55 m* /1.75 m*	6 - 10	Small soft centre	
			135 bar - 190 bar	indicated	
Hay	<dry></dry>	0.90 m - 1.55 m* /1.75 m*	3 - 8	Soft centre recommended	
			90 bar - 165 bar		

Soft centre parameters

The parameters must be adapted to the baling conditions.

Baler equipped with OPERATOR with simplified menu

The diameter of the soft centre can be adjusted to one of 3 positions (small, medium, large).

The density of the soft centre is preset in the factory to 40 bar and cannot be altered by the user.

Baler equipped with OPERATOR or COMMUNICATOR

The diameter of the soft centre can be adjusted to one of 3 positions (small, medium, large).

The density of the soft centre can be adjusted to one of 3 positions (low, medium, high).

	Large swath > 1.20 m	Small swath < 1.20 m
Soft centre density	low - high	low - high

If the soft centre created for the bale does not meet the user's requirements, it may be necessary to modify the soft centre setting parameters as indicated below:

- ► Firstly reduce the density of the soft centre.
- ► Then, increase the diameter of the soft centre if necessary.



In general:

- The wetter the crop, the higher the soft centre density needs to be.
- The narrower the swathes, the higher the soft centre density needs to be.

If the crop is dry and the swaths large, the density in the soft centre may be kept at a minimum.

188102-003

7.9.3 Recommended settings for wilted silage and silage

Bale parameters

The parameters must be adapted to the baling conditions.

Crop	Mode	Diameter	Pressure	Note
Wilted silage	<silage></silage>	0.90 m - 1.55 m	5 - 9	Small soft centre
(40 - 55% dry crop)			105 bar - 150 bar	indicated
Silage	<silage></silage>	0.90 m - 1.35 m	4 - 7	Soft centre recommended
(15 - 40% dry crop)			90 bar - 125 bar	

132544-002

NOTICE

In silage, baling pressure too low or incorrect loading of the baling chamber

Result: endless belts turned over

- ► Follow the minimum pressure values recommended for silage according to the rate of dry crop and the size of the swathes.
- Ensure that the bale chamber is loaded in a regular manner.

Soft centre parameters

The parameters must be adapted to the baling conditions.

Baler equipped with OPERATOR with simplified menu

The diameter of the soft centre can be adjusted to one of 2 positions (medium, large).

The density of the soft centre is preset in the factory to 40 bar and cannot be altered by the user.

Baler equipped with OPERATOR or COMMUNICATOR

The diameter of the soft centre can be adjusted to one of 2 positions (medium, large).

The density of the soft centre can be adjusted to one of 3 positions (low, medium, high).



Soft centre density		
	Large swath > 1.20 m	Small swath < 1.20 m
Wilted silage (40 - 55% dry crop)	medium - high	high
Silage (15 - 40% dry crop)	high	high

Depending on the type of crop being baled, a small soft centre may be recommended to make wrapped bales easier to store and unwind during the winter season.

188106-001



Using the Soft centre function in silage

Result: endless belts turned over

- Under conditions of silage in large swaths, the soft centre density must always be medium or high.
- ► Under conditions of silage in small swaths, the soft centre density must always be high.

If the soft centre created for the bale does not meet the user's requirements, it may be necessary to modify the soft centre setting parameters as indicated below:

- ► Firstly reduce the density of the soft centre.
- ► Then, increase the diameter of the soft centre if necessary.

In general:

- The wetter the crop, the higher the soft centre density needs to be.
- The narrower the swathes, the higher the soft centre density needs to be.

If the crop is dry and the swaths large, the density in the soft centre may be kept at a minimum.

186723-001

7.10 OPERATOR

7.10.1 General points

The screens and functions available on the OPERATOR are similar to the screens and functions on the COMMUNICATOR.

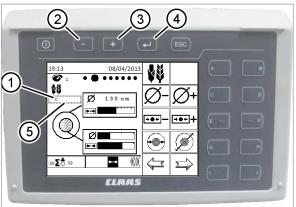
188403-002

7.10.2 Name of setting mode



439

298512-001



298534-001

440



298513-001 **441**

Entering the setting mode name

- Select the desired setting.
- ► Select the location (1) of the setting mode name using the key (3).
- ▶ Press key (4) to confirm the selection.

The write mode appears.

- Scroll through the characters (1) with the keys (2) and (3) to select the required character.
- ► Confirm the character by pressing key (4).

The confirmed character is displayed in the box (5).

▶ Repeat the operation for the following characters.

The setting mode name may contain up to 8 characters.

The setting mode name is displayed in the <Settings 1> menu.

186495-003

7.11 OPERATOR with simplified menu

7.11.1 Bale parameter settings



442 298418-002



298419-002

443



444 298420-002

Reminder:

The soft centre pressure on machines equipped with the OPERATOR with simplified menu is fixed.

Pressure of the outer layer of the bale

The pressure (1) of the outer layer of the bale may be set using keys (2) and (3), in 10 barincrements.

- ▶ Press key (2) to decrease the pressure.
- ▶ Press key (3) to increase the pressure.

Note: The baling pressure can be deactivated by pressing and holding key (2).

For optimum baling, the settings must be adapted to the baling conditions.

Page 251, Bale parameters

Diameter of the outer layer of the bale

The diameter (1) of the outer layer of the bale may be set using keys (2) and (3), in 5 cmincrements.

- ▶ Press key (2) to decrease the diameter.
- ▶ Press key (3) to increase the diameter.

Soft centre diameter

The diameter (1) of the soft centre can be set using the key (2).

4 soft centre sizes are available:

Soft centre diameter	(1)
No soft centre	
Small soft centre	
Medium soft centre	
Large soft centre	

For an optimum soft centre, the settings must be adapted to the baling conditions.



Page 251, Bale parameters

Selecting the tying type

For balers equipped with twine and net tying, the tying type (2) to be used must be selected on the OPERATOR and on the baler.

- Press key (1) to electronically select the tying type (2): net or twine.
- ► On the baler, mechanically select the tying type to
 - Page 190, Selecting twine tying*
 - Page 202, Selecting net* tying

19:13 VARIANT V1.15 (m) 2.5 s 60 bax 150 cm 150

298421-002

Setting the tying delay

Parameter	Adjustment range
Net tying delay	From 1.0 s to 10.0 s in increments of 0.5 s
Twine tying delay	From - 5.0 s to 10.0 s in increments of 0.5 s

Tying delay

The tying delay corresponds to the time between the start of tying (insertion of twine or net into the baler) and the finished bale audio and visual indicator (baler stopped). This delay can be adjusted from the control terminal.

- Delay of 5.0 s to 0.1 s (twine): tying starts between 0.1 s and 5.0 s before the STOP symbol is displayed and the beeps sound.
- Delay of 0.1 s to 10.0 s (twine and net): tying starts between 0.1 s and 10.0 s after the STOP symbol is displayed and the beeps sound.

If the delay is set at 10 seconds, tying switches to <Manual tying> mode: Tying no longer starts automatically; it must be started manually.

Page 259, Manual tying start

Setting procedure:

- Check that the correct tying type is selected (twine* or net*).
- ▶ Press the key (1) to increase the tying delay (2) by 0.5 s.

If the delay is set to 10 s:

- A hand (3) is displayed on the screen to indicate that tying has switched to <Manual tying> mode. Tying must be started manually.
- An additional press on the key (1) brings the tying delay back to its minimum value.

Net tying*: 1.0 s Twine tying*: -5.0 s



446

1711-011 186496-002

7.11.2 Baling / tying process



298428-002

4 stages in the baling / tying process are shown on the control terminal when they are activated.

End of baling - start of tying

The flashing STOP signal (1) accompanied by slow beeps indicates that the bale has been compressed and that tying is about to start.

► Halt the tractor once the STOP signal flashes and the beep sounds.

Tailgate opening

Twine tying: A new series of slow beeps indicates that tying is complete.

Net tying: The net knife cutting noise indicates that tying is complete.

Open the baler tailgate using the tractor's control valve.

Bale on bale ramp

A series of rapid beeps indicates that the bale is on the ramp.

▶ Wait until the symbol stops flashing.

Tailgate closing

The symbol (1) indicates that the chamber is empty and the bale is no longer on the ramp.

- Close the baler tailgate using the tractor's control valve.
- Check that the pressure does not exceed 230 bar (3336 psi).
- Resume gathering.

NOTICE

105963-003

448

Tailgate meets an obstacle whilst closing (bale for example)

Result: severe material damage

Ensure that there are no obstacles before closing the tailgate.



298429-002



1711-011 186497-002

7.11.3 Baling pressure

The baling pressure must always be activated on the baler before starting work.

If the baler is jammed by a blockage, the pressure must be stopped manually.

37486-002

Information

No pressure during baling - Control terminal screen displays pressure fault

Result: baling fault

- Always activate the baling pressure during operation.
- ► Always deactivate the baling pressure when unblocking the baler.

Stopping

Press and hold key (1) for more than 5 seconds to deactivate the baling pressure.

The baling pressure is immediately reduced. The marker (2) for the pressure setpoint value is no longer displayed.



298431-002



298418-002

Starting

▶ Adjust the pressure (1) to the desired value using keys (2) and (3) to activate the baling pressure.

The baling pressure is activated.

► Actuate the tailgate closure hydraulic control valve to put the tensioning arms under pressure.

450

186498-002

7.11.4 Manual tying start

If necessary, tying can be started manually.





298457-002

451

Net tying:

- ► Halt the baler when there is no more crop to be gathered.
- ▶ Press the key (1) to start tying manually.

The symbol (A) flashes.

Tying is started.

Twine tying:

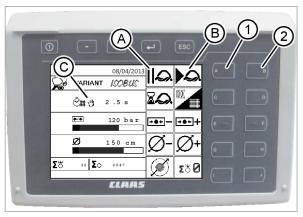
- Start tying before there is no more crop to be gathered.
- ▶ Press the key (1) to start tying manually.

The symbol (A) flashes.

Tying is started.

186499-002

7.11.5 Tying delay



298459-002

The tying delay is used to put off tying to the end of a swathe.

▶ Press the key (1) to delay tying.

The symbol (A) is displayed on a dark background to indicate that tying has been delayed. The symbol (B) flashes. The <Manual tying> mode symbol (C) is displayed.

▶ Press the key (2) to start tying.

The symbol (A) will be displayed on a light background. Tying is started.

452 If the bale diameter reaches the maximum possible diameter (<Oversize>), tying is started automatically.

Tying status	(A)
Tying delayed	
Tying started or automatic cycle active	

47592-002

Information

Press the tying delay key before automatic tying starts.

218896-001

The filling indicator optimises bale chamber filling.

7.11.6 Bale chamber filling indicator*



369476-001

Using the filling indicator

- ► Move the baler and the tractor in the direction (1) indicated on the control terminal screen:
 - ► If simply moving the baler is sufficient, continue gathering.
 - ► If moving the baler is not sufficient, reset the filling indicator.

453

Resetting the filling indicator

The filling indicator is reset each time the tailgate is closed after a tying cycle.

186500-002

If a fault (1) is detected on the baler when working, stop gathering and resolve the issue before resuming work.

- ▶ Stop baling.
- Find the source of the fault(s).
- Resolve the fault(s).
 - Page 309, Faults and remedies

The fault has been repaired. The fault symbol is cleared.

▶ If another fault is displayed on the terminal, restart the above operations for the fault in question.

7.11.7 Faults



298460-002

454

182845-001

7.12 COMMUNICATOR II

7.12.1 General points

7.12.2 Counters menu



455 296620-001

This chapter shows the COMMUNICATOR operating screens for a machine equipped with comfort tying.

The display may vary slightly depending on the machine equipment and options.

186788-002

Job selection and settings

Job selection

Before starting any work with the baler, the job for which the values will be saved needs to be selected.

- ▶ Switch the control terminal on.
- ▶ Go to the <Counters> menu (1).
- ▶ Select the job using keys (2) and (3).

The job is selected; it needs to be set up according to the job requirements and type.

▶ Go to the <Settings> menu and set the baling parameters if required.

182410-001

Information

The setting parameters on the control terminal are independent of the job selected.

Result: the active setting parameters are the last parameters set.

Set the parameters before starting work on a new job.

Resetting the job counters

► Reset the job counters (2) by pressing key (1).

All of the job counters, i.e. the Job, Twine length, Net length, Hour and RotoCut counters (depending on equipment), are reset.



4: 296621-001



Resetting the day counter

▶ Reset the day counter (2) by pressing key (1).

The day counter is reset.

457 296622-001



General note

The counters can be reset according to requirements.

Only the following counters cannot be reset:

- total bale counter (1)
- total time counter (2)

458

296623-001



459

296624-001

Resetting the maintenance indicator

The <Counters> menu displays the baler's maintenance frequency with the maintenance indicator (2).

Press key (1) to reset the maintenance indicator (2).

1711-011 218107-001

7.12.3 Bale parameter settings



<Settings 1> menu

369529-001

460



<Settings 2> menu

461

369530-001



462 296949-001

The <Settings> menu comprises 2 separate pages.

Page 1: <Settings 1> menu

- Selection of a predefined settings mode
- Setting the baling pressure and diameter for the outer layer of the bale
- Setting the baling pressure and diameter of the soft centre

Page 2: <Settings 2> menu

- Setting the twine and/or net tying delay
- Setting the number of net wraps (comfort tying*)
- Setting the bale diameter correction
- Setting the alert delay before tying start
- Activating / deactivating the automatic ROTO CUT knife cleaning function (with the <ICT hydraulics> function)
- Setting the deactivation of the ROTO CUT knives at the end of baling (with the <ICT hydraulics> function)
- Setting the automatic lubrication interval*
- Activating / deactivating automatic tailgate opening at the end of baling (with the <ICT hydraulics> function)
- Resetting the bale and soft centre parameters to the factory values
- Access to the settings page for the <Hydraulic ICT> functions (with the <ICT hydraulics> function)

Bale and soft centre settings

The user may choose between 5 predefined setting modes (1):

- 1 <Silage> setting mode
- 1 <Dry> setting mode
- 3 <Custom> setting modes
- Press the key (2) to switch to the next setting mode.

The pressure and diameter values for the outer layer of the bale (3) and the soft centre (4), defined for the selected setting mode, are displayed.

The setting modes provide factory values or values saved by the user. The user may modify these values manually as required.

Modifications made to the predefined values in each setting mode are saved automatically.

The <Custom> setting modes can be renamed.

Page 270, Name of setting



463



297025-002

Diameter of the outer layer of the bale

The diameter (2) of the outer layer of the bale can be set using the knob (1), or the keys (3) and (4) in 5 cm increments.

- ▶ Press the key (3) to decrease the diameter.
- ▶ Press the key (4) to increase the diameter.

Correction of the bale diameter

The actual diameter of the bale may differ from the displayed diameter.

The bale diameter correction factor makes it possible to correct this difference.

The bale diameter correction factor can be adjusted from -10 % to +10% of the bale diameter, from the <Settings 2> menu.

Example:

If the set bale diameter is 150 cm, the possible correction will be ± 15 cm.

The cumulative value for the bale diameter and the correction factor may not exceed the machine's maximum bale diameter: Page 41, Machine description

- ► Turn the knob (1) until a frame surrounds the diameter correction factor (2).
- ▶ Press the knob (1) to confirm the selection.

The selection frame will get bigger.

- ► Turn the knob (1) to obtain the required value.
- ▶ Press the knob (1) to confirm the value entered.

The selection frame will get smaller. The value is saved.

Pressure of the outer layer of the bale

The pressure (1) of the outer layer of the bale can be set using the keys (2) and (3) in increments of 10 bar or 15 bar, depending on the setting mode selected.

- ▶ Press key (2) to decrease the pressure.
- ▶ Press key (3) to increase the pressure.

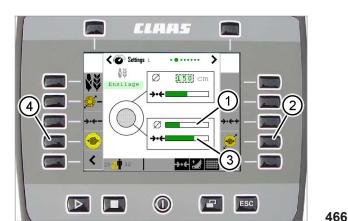
For optimum baling, the settings must be adapted to the baling conditions.

Page 251, Bale parameters



465





296974-001

Soft centre density and diameter

The diameter (1) of the soft centre can be set using the key (2).

Depending on the selected setting mode, there is a choice of 3 or 4 soft centre sizes.

- <Silage>:
 - No soft centre
 - Small soft centre
 - Medium soft centre
- <Dry> or <Custom>:
 - No soft centre
 - Small soft centre
 - Official Soft Scritic
 - Medium soft centre
 - Large soft centre

The density (3) of the soft centre can be set using the key (4).

Depending on the selected setting mode, there is a choice of 3 or 4 soft centre densities.

- <Silage>:
 - No density (no soft centre)
 - Medium density
 - High density
- <Dry> or <Custom>:
 - No density (no soft centre)
 - Low density
 - Medium density
 - High density

For an optimum soft centre, the settings must be adapted to the baling conditions.

Page 251, Bale parameters

Net tying* settings

In the <Settings 2> menu:

▶ Press key (2) to select net tying (3).

The net tying management parameters are displayed:

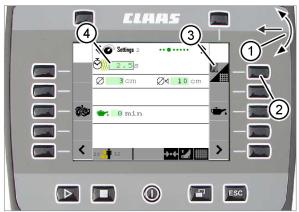
- Net tying delay (4)
- Number of net wraps (5) (with comfort tying*)
- ► Select and modify the tying parameters using the knob (1).



297023-002



	Parameter	Adjustment range
4	Net tying delay	from 1.0 s to 10.0 s in increments of 0.1 s
5	Number of net wraps (with comfort tying)	from 1.2 to 6.0 wraps in increments of 0.1 wrap



Twine tying* settings

In the <Settings 2> menu:

▶ Press key (2) to select twine tying (3).

The twine tying management parameters are displayed:

- Twine tying delay (4)
- ► Select and modify the tying parameters using the knob (1).

468

29	7024-002

	Parameter	Adjustment range
4	Twine tying delay	from - 5.0 s to 10.0 s in increments of 0.1 s

Reminder

The number of net or twine wraps is set directly on the baler for machines equipped with standard tying.

Tying delay

The tying delay corresponds to the time between the start of tying (insertion of twine or net into the baler) and the finished bale audio and visual indicator (baler stopped). This delay can be adjusted from the control terminal.

- Delay of 5.0 s to 0.1 s (twine): tying starts between 0.1 s and 5.0 s before the STOP symbol is displayed and the beeps sound.
- Delay of 0.1 s to 10.0 s (twine and net): tying starts between 0.1 s and 10.0 s after the STOP symbol is displayed and the beeps sound.





If the delay is set at 10 s, tying switches to <Manual tying> mode:

- A hand (1) flashes at the bottom of the screen to indicate that tying is in manual mode.
- Tying no longer starts automatically; it must be started manually.
 - Page 278, Manually activating tying

297031-002 4**69**



297038-002



471 297026-002



367852-001

Selecting the tying type

For balers equipped with twine and net tying, the tying type to be used must be selected on the control terminal and on the baler.

- ► Press key (1) to select the tying type electronically: net or twine.
- On the baler, mechanically select the tying type to use.
 - Page 191, Mechanical selection (standard twine / net tying*)
 - Page 203, Mechanical selection (standard twine / net tying*)

Alert delay before tying start

A beep sounds before the end of the bale to warn the user that the bale is nearly finished. This allows the user to anticipate the start of tying and stop the baler.

The alert delay before tying start (2) can be adjusted.

➤ Select and alter the alert delay before tying (2) using the knob (1).

Automatic ROTO CUT* knife cleaning

The <Automatic ROTO CUT knife cleaning> function is only available with the corresponding <ICT hydraulics> function activated.

If the <Automatic ROTO CUT knife cleaning> function is activated, the knives are cleaned automatically every 5 bales.

➤ Select and modify the <Automatic ROTO CUT knife cleaning> function (2) using the knob (1).

0	Function inactive
1	Function active



473

Automatic deactivation of the knives at the end of baling*

The <Automatic deactivation of the knives at the end of baling> function is only available with the corresponding <ICT hydraulics> function activated.

If the <Automatic deactivation of the knives at the end of baling> function is activated, the ROTO CUT knives are deactivated as baling ends.

➤ Select and modify the <Automatic deactivation of the knives at the end of baling> function (2) using the knob (1).



Function inactive



Function active

Adjustable from 75 to 95 % of the finished bale diameter, in increments of 1 %

The setting corresponds to the percentage of the set bale diameter.

Example:

Set bale diameter: 1.5 m

Value set for the function: 80 %

The knives are deactivated when the bale reaches 1.2 m.

Automatic tailgate opening*

The <Automatic tailgate opening> function is only available with the corresponding <ICT hydraulics> function activated.

If the <Automatic tailgate opening> function is activated, the tailgate opens automatically when tying is complete, and closes once the bale has left the bale ramp.

If there is a fault during tying or discharge of the bale, the tailgate must be closed manually.

If the <Automatic tailgate opening> function is active, the symbol (3) will be displayed at the bottom of the screen.

➤ Select and modify the <Automatic tailgate opening> function (2) using the knob (1).

0	Function inactive	
1	Function active	



367865-001



Restoring the factory settings

The settings made on the control terminal can be reset to the factory values.

▶ Press the key (1) to restore all settings to their original values (factory values).



297027-002 297027-002

188307-002

7.12.4 Name of setting

0

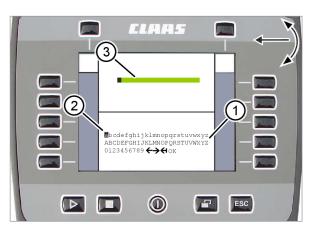
17

ESC

298508-001

266117-001

476



477

Entering a setting name

- Select the desired setting. Page 264, Bale parameter settings
- ➤ Select the location (2) of the setting name using the knob (1).
- ▶ Press the knob (1) to confirm the selection.

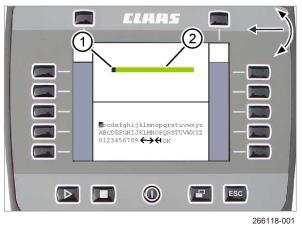
The write mode appears with a virtual keypad (1).

- ▶ Move the black cursor (2) using the knob to select the required character.
- ► Confirm the character by pressing the knob.

The confirmed character is displayed in the box (3).

▶ Repeat the operation for the following characters.

The setting name may contain up to 8 characters.



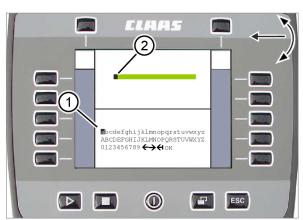
478

There are functions allowing the user to insert a space, move the black cursor (1) right or left, delete a character from the box (2) and confirm the setting name.

Symbol	Function	
_	Move cursor right	
→	Insert a space	
←	Move cursor left	
(4	Delete characters	
ок	Confirm setting name	

Using the virtual keypad functions

- Creating a space:
 - ► Place the black cursor (1) on the move icon (right arrow) using the knob.
 - Confirm the space by pressing the knob.
- Moving the black cursor (2):
 - ▶ Place the black cursor (1) on the move icon using the knob.
 - ► Confirm the move by pressing the knob.
- Deleting a character:
 - ▶ Place the black cursor (2) to the right of the character to be deleted with the move icons.
 - Select the erase icon by moving the black cursor (1) with the knob.
 - ▶ Delete the character by pressing the knob.
- · Modifying a character:
 - ► Place the black cursor (2) on the character to be modified with the move icons.
 - Select a new character by moving the black cursor (1) with the knob.
 - Confirm the new character by pressing the knob.
- · Confirming setting name:
 - ▶ Place the black cursor (1) on the OK icon.
 - Confirm the setting name by pressing the knob.

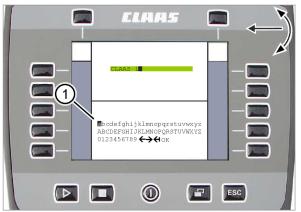


479

266119-001



- Move the black cursor (1) using the knob to select the OK icon.
- ► Confirm the setting name by pressing the knob.



480 266120-001



298509-001

481

The setting name is displayed in the <Settings> menu.

186791-003

7.12.5 Baling / tying process



There is a graphical representation of the baling / tying process on the control terminal screen.

Each stage of the process has a specific associated display (1) and (2). The images below present the steps in the baling / tying process.

482

290700-001		
(1)	(2)	Description
	**	The bale is being compressed. – Baling of the soft centre
	+	The bale is being compressed. - Baling of the outer layer of the bale



		1711-011
(1)	(2)	Description
		The bale has reached the set diameter.
	STOP	Tying is in progress.
		Stop moving forwards when the STOP symbol appears on the screen and the beep sounds.
		There must be no forward movement while the STOP symbol is displayed on the screen.
		Tying is complete.
1	STOP	Open the baler tailgate using the tractor's hydraulic control valve to deposit the bale.
	STOP	The tailgate is open.
	STOP	The bale has left the bale chamber; it is on the bale ramp. The bale ramp sensor is activated.
	STOP	The tailgate is open. The bale is no longer on the bale ramp.
		The bale is deposited.
*	STOP	Close the baler tailgate using the tractor's hydraulic control valve.
		The tailgate is closed.
8	STOP STOP	The bale counter goes up by one.
		 A beep sounds.
		A new cycle can begin.

105963-003

NOTICE

Tailgate meets an obstacle whilst closing (bale for example)

Result: severe material damage

► Ensure that there are no obstacles before closing the tailgate.

3)

2



1711-011

The bargraph (1) shows the development of the bale diameter.

- The value (2) is the setpoint value set in the <Settings> menu.
- The value (3) is the instantaneous value.
- The marker (4) shows the soft centre diameter set in the <Settings> menu.
- The maximum value for the bargraph (1) shows the diameter of the finished bale.

483 296785-001





0

484 296786-001

The bargraph (1) shows the development of the baling pressure of the bale.

- The value (2) is the setpoint value set in the <Settings> menu.
 - soft centre pressure during the soft centre baling phase
 - baling pressure for the outer layer after formation of the soft centre
- The value (3) is the instantaneous value.
- The marker (4) shows the active pressure setpoint defined in the <Settings> menu:
 - soft centre pressure during the soft centre baling phase
 - baling pressure for the outer layer after formation of the soft centre
- The maximum value for the bargraph (1) represents a pressure of 210 bar (3046 psi).

186792-001

When the control terminal is started, the baling pressure is active. So the bale is always baled under pressure.

On the other hand, if the baler is jammed by a blockage, the pressure must be stopped manually.

37486-002

Information

No pressure during baling - Control terminal screen displays pressure fault

Result: baling fault

- Always activate the baling pressure during operation.
- Always deactivate the baling pressure when unblocking the baler.

7.12.6 Baling pressure



Stopping

Starting

▶ Press key (1) to stop the baling pressure.

The baling pressure is immediately reduced.

The baling pressure symbols (A) and (B) are displayed on a light background to indicate that the baling pressure has been deactivated.

485 296788-001



(B)

486

296789-001

▶ Press key (1) to activate the baling pressure.

The baling pressure symbols (A) and (B) are displayed on a dark background to indicate that the baling pressure has been activated.

► Actuate the tailgate closure hydraulic control valve to put the tensioning arms under pressure.

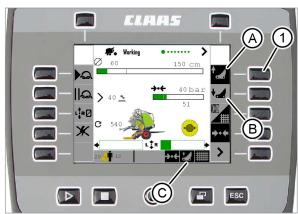
Pressure status	(A)	(B)
Pressure activated	*•	->-
Pressure deactivated	*•	-> •←

186793-002

82834-004

7.12.7 ROTO CUT cutting unit with fixed rotor floor*

-



296809-002

Information

Raising / lowering the ROTO CUT knives

- ► Select the <Knives> function on the control terminal.
- Use the pick-up hydraulic control valve to raise or lower the knives.

487 Starting

Press key (1) to activate the ROTO CUT cutting unit.

The ROTO CUT symbols (A) and (C) will be displayed on a dark background and the symbol (B) will be displayed on a light background to indicate that the ROTO CUT cutting unit has been activated.

➤ Activate the pick-up raising control valve to place the knives in the <Cut> position, holding down the control valve until the knives lock in place. This action will raise the pick-up.



The ROTO CUT cutting unit knives are active, i.e. they will cut the crop as it passes into the cutting frame. The pick-up can then be lowered.

► If necessary, lower the pick-up using the tractor's hydraulic control valve.

Status of the knives	(A)	(B)	(C)
Knives activated	†	*	***
Knives deactivated	†	+	

Stopping

▶ Press key (1) to stop the ROTO CUT cutting unit.

The ROTO CUT symbol (B) will be displayed on a dark background and the symbols (A) and (C) will be displayed on a light background to indicate that the ROTO CUT cutting unit has been deactivated.

► Position the tractor's hydraulic single action control valve to the floating position.

The crop is no longer cut: the cutting system is inactive. The pick-up can be raised to the upper position.

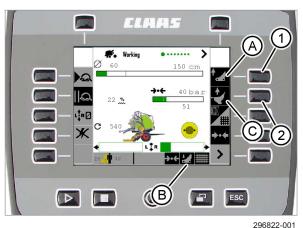
► If necessary, raise the pick-up to the top position using the tractor's control valve.

186794-002

7.12.8 Rotor with pivoting rotor floor*

ELAA5

(C



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296810-002

Activating the knives

- ► Ensure that the floor is in the raised position: symbol (C) on dark background.
- Press key (1) to select the <Knives> function (symbol (A) flashes to indicate that the <Knives> function is activated).
- Activate the tractor's hydraulic control valve to activate or deactivate the knives.

Symbols (A) and (B) on the control terminal change status.

Status of the knives	(A)	(B)
Knives activated	†	
Knives deactivated	+	

1711-011 90758-004

Information

Raising / lowering the ROTO CUT knives

- Select the <Knives> function on the control terminal.
- ► Use the hydraulic control valve for the knives and pivoting floor to raise or lower the knives.

Activating the pivoting floor

- ▶ Press key (2) to select the <Pivoting floor> function (symbol (C) flashes to indicate that the <Pivoting floor> function is activated).
- Activate the tractor's hydraulic control valve to raise or lower the pivoting floor.

Symbol (C) on the control terminal changes status.

Status of the pivoting floor	(C)
Pivoting floor in raised position	1
Pivoting floor in lowered position	*

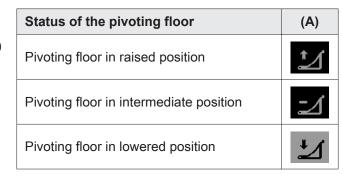
Activating the ROTO FEED pivoting floor*

Reminder

The pivoting floor on balers equipped with a ROTO FEED feed rotor (excluding ROTO CUT balers) is controlled directly via a double action hydraulic control valve on the tractor.

➤ Activate the tractor's hydraulic control valve to lower or raise the pivoting floor.

Symbol (A) on the control terminal changes status.



Lowering the pivoting floor has the following effects:

- The baling pressure is deactivated.
- If the ROTO CUT* knives were activated, the knives are deactivated.
- The pivoting floor is lowered.



490



Raising the pivoting floor has the following effects:

- If the ROTO CUT* knives were activated before the pivoting floor was lowered, the knives are reactivated.
- The pivoting floor is raised.
- The baling pressure must be reactivated manually.

186795-001

186796-001

► Press key (1) once to activate tying manually.

Tying is activated. Stop gathering.

7.12.9 Manually activating tying



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7.12.10 Tying delay



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The tying delay is used to put off tying to the end of a swathe.

▶ Press the key (1) to delay tying.

The symbol (A) is displayed on a dark background to indicate that tying has been delayed. The symbol (B) flashes. The symbol (C) is displayed in the status bar.

▶ Press the key (2) to start tying.

The symbol (A) will be displayed on a light background. Tying is activated.

If the bale diameter reaches the maximum possible diameter (oversize), tying is activated automatically.

Tying status	(A)
Tying delayed	
Tying started or automatic cycle active	

47592-002

Information

Press the tying delay key before automatic tying starts.

186797-001

The filling indicator optimises bale chamber filling.

7.12.11 Bale chamber filling indicator*

The filling indicator is automatically reset after the bale is deposited and the tailgate is closed.

Using the filling indicator

- ► Move the baler and the tractor in the direction (1) indicated on the control terminal screen:
 - ► If simply moving the baler is sufficient, continue gathering.
 - ► If moving the baler is not sufficient, reset the filling indicator.

493 296861-001



296862-001

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Resetting the filling indicator

The filling indicator is manually reset when the chamber is empty and the machine is level.

- ▶ Press key (1) to reset the filling indicator.
- ► Check that the indicator is correctly reset.

186798-001

7.12.12 Bale moisture level indicator*



495 296866-001

The bale moisture level (2) is displayed on the control terminal screen in real time.

The maximum measured moisture level is 40%. Above this value, the icon (1) appears.

186799-001

7.12.13 Faults

If one or more faults (A) are displayed on the control terminal screen during work on a job:

- ► Find the source of the fault(s).
- ▶ Resolve the fault(s).
 - Page 314, COMMUNICATOR II



Press the Cancel faults key (1) to clear the fault symbol (A) from the screen.

17209-003

Information

Eliminating the fault symbol by pressing the Cancel faults key

Result: the symbol is removed but the problem generating the fault has not been resolved.

- Resolve the issue.
- Always resolve the problem before pressing the key, otherwise the fault symbol will be displayed

187848-003

again.

7.12.14 Automatic lubrication*



ELHA5

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296870-001

The interval between two automatic lubrication operations can be adjusted using the <Settings 2> menu of the control terminal.

- Turn the knob (1) until a frame surrounds the lubrication interval value (2).
- Press the knob (1) to confirm the selection.

The selection frame will get bigger.

- ► Turn the knob (1) to obtain the required value.
- ▶ Press the knob (1) to confirm the value entered.

The selection frame will get smaller. The value is saved.

The duration of each lubrication is fixed. It is factoryset to 10 minutes.

The automatic lubrication interval (2) can be adjusted from 2 to 10 minutes. The interval can be adjusted in increments of 1 min.

Interval	min
Minimum	2
Maximum	10
Increment	1

Manual activation of automatic lubrication

Central lubrication can be activated manually to check that this equipment is operating correctly.

This operation must also be performed before and after the baler is cleaned with a high pressure cleaner.

194060-002



Activate the main drive.

▶ Press key (1) to start extra lubrication.

A complete baler centralised lubrication cycle has been activated.

498

7.12.15 Task management*



499 313723-001

The symbol (1) is displayed at the bottom part of the screen of all of the control terminal menus, except for the <Home> and <Information> menus, under the following conditions:

- The baler is connected to a terminal equipped with a task controller.
- A task is in progress.

The following data is saved and transmitted to the task controller:

- total time counter
- total bale counter
- baling pressure set for the soft centre
- diameter set for the soft centre
- baling pressure set for the outer layer
- diameter set for the outer layer
- current bale diameter
- compressed crop moisture level*
- status of the RotoCut* knives
- status of the rotor chassis*
- active fault

The following data is displayed on the task controller:

- task time counter active
- task time counter inactive
- bale counter for current task





Note:

<Task management> is recognised and can be used by other ISOBUS terminals. For example, this is an ISOBUS Fendt terminal.

500 256556-001

Using the data

The saved data can be used by software solutions designed for agricultural use.

For this purpose, CLAAS offers the <AGROMAP> software as part of its <EASY> product range.

217690-001

7.12.16 ICT - Interface status



367823-001

501

Baler / tractor interface status

The baler / tractor interface status is represented by the symbol (1) on the control terminal screen.

(1)	Description		
	The ICT option is not available on the machine.		
Z×	Authentication has failed.		
J ^A	Authentication has been successful and no function is active.		
TA C	Authentication has been successful and at least one function is active.		

218103-001

7.12.17 ICT hydraulics - Tailgate opening / closing*



367844-001

If the <ICT hydraulics> function is available on the tractor, and the tractor has been authenticated, the symbols (1) and (2) are displayed on the control terminal screen.

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503 367963-001

367964-001

504

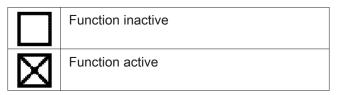
Automatic tailgate opening / closing

► Select the tractor hydraulic control valve dedicated to the <Automatic tailgate opening / closing> function (2) using the knob (1).

The tractor hydraulic control valve dedicated to the <Automatic tailgate opening / closing> function (2) can also be detected automatically using the key (3).

Activating / deactivating the <Automatic tailgate opening / closing> function

Select and activate or deactivate the <Automatic tailgate opening / closing> function (2) using the knob (1).



The symbol (3) indicates the status of the tractor hydraulic control valve or associated cylinder.

41-	Hydraulic control valve closed		
$\overline{}$	Hydraulic control valve in floating position		
←	Cylinder retracted		
$\stackrel{\iota}{\longrightarrow}$	Cylinder extended		

If a tractor hydraulic control valve is activated manually, the corresponding <ICT hydraulics> function is automatically deactivated.



1711-011 218936-001

7.12.18 ICT hydraulics - Pivoting floor and ROTO CUT* knives



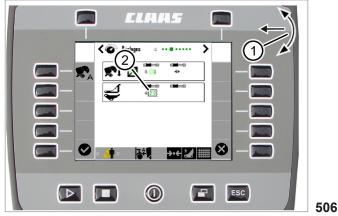
If the <ICT hydraulics> function is available on the tractor, and the tractor has been authenticated, the symbols (1) and (2) are displayed on the control terminal screen.

367844-001

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<Pivoting floor and ROTO CUT knives> function

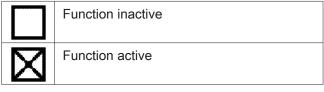
➤ Select the tractor hydraulic control valve dedicated to the <Pivoting floor and ROTO CUT knives> function (2) using the knob (1).



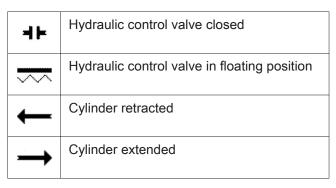
367974-001

Activating / deactivating the <Pivoting floor and ROTO CUT knives> function

► Select and activate or deactivate the <Pivoting floor and ROTO CUT knives> function (2) using the knob (1).



The symbol (3) indicates the status of the tractor hydraulic control valve or associated cylinder.



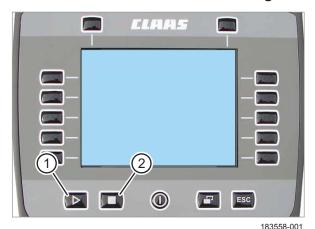


367975-001

If a tractor hydraulic control valve is activated manually, the corresponding <ICT hydraulics> function is automatically deactivated.

186800-002

7.12.19 Functions which can be assigned to softkeys



The softkeys (1) and (2) are programmable shortcut keys assigned to specific functions.

Programming, use and deletion: Refer to the COMMUNICATOR Operator's Manual.

The shortcut function is therefore accessible regardless of the active menu.

The following baler functions can be set up on these keys:

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	103000-001		
	Function		Function
	Manually starting tying	† 2	Activating the knives (with fixed floor)
	Delaying the start of tying	+ ∠	Deactivating the knives (with fixed floor)
	Activating the baling pressure	2 2	Opening / closing the pivoting floor (with pivoting floor)
*	Cancelling faults	↑ ∠/	Activating / deactivating the knives (with pivoting floor)
L‡R 🛭	Resetting the bale chamber filling indicator*	L‡R 🛛	

187793-002

7.12.20 Monitoring the sensors and actuators



509 297267-001

The <Electric> menu displays the status of 6 proportional or on/off sensors or actuators (1) selected from those on the machine.

This display allows the operation of each sensor or actuator selected to be monitored in real time. It is also a troubleshooting aid.

For the sensors or actuators, the display either shows the interpreted or electrical unit.

2



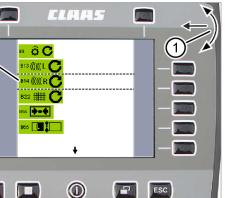
1711-011

Selecting the sensor or actuator

- ► Select the display (2) to be modified using the knob (1).
- ► Confirm by pressing the knob (1).



297268-001



- ➤ Select the desired sensor or actuator (2) using the knob (1).
- ► Confirm by pressing the knob (1).

The new sensor or actuator (2) is displayed.

297269-001

511



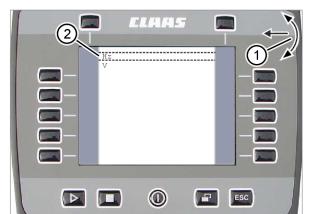
297270-001

Selecting the sensor or actuator unit (proportional type only)

- Select the unit display (2) to be modified using the knob (1).
- ► Confirm by pressing the knob (1).

512







► Confirm by pressing the knob (1).

The new unit (2) is displayed.

Depending on the sensor or actuator selected, the following units may be chosen:

▶ Select the desired unit (2) using the knob (1).

- voltage (V)
- frequency (Hz)
- status (Tor)
- angle (°)
- size (cm)
- pressure (bar)
- amplitude (%)

514

513



Depending on the baler's equipment, the following sensors or actuators may be displayed:

	Description		Description
⇔ 🛱 C	Power take-off speed of rotation	B22 ## C	Net length measurement
взв .ж.	Moisture sensor	B56 •••	Baling pressure sensor
B65	Chamber left-hand filling sensor	B66 R	Chamber right-hand filling sensor
B67	Cutting frame position	B111 🚅 🗠	Knife position
B128 4 0/1	Bale discharge sensor	B134 Ø <u>*</u>	Bale diameter sensor
B135 😭 ⁰ / 1	Tailgate locking sensor	M11 0/1	Comfort net tying motor
M25 🔓 0/1	Automatic lubrication motor	Y38 🕥 🕠	Standard twine tying slide clutch
Y39 1 0/1	Twine / Net clutch engaged	Y50 🚺 💍	Baling pressure regulation
Y148 	Preselection open / close cutting frame	Y436 🕌 🎳	Preselection RotoCut knives extended / retracted
Z13 ((((((Twine knife sensor	z102 🙇 ⁰ / 1	Hydraulic filter clogging sensor
** V	Battery voltage	5 V	



7.13 ISOBUS terminal

7.13.1 General points

130509-002

The screens and functions available on the tractor terminal, with an ISOBUS connection, are identical to the screens on the COMMUNICATOR.

For more details on the operation of the ISOBUS terminal, refer to the manufacturer's manual.



7.14 EASY on board

7.14.1 General points

194348-001

The screens and functions available on the touch tablet with <EASY on board> are identical to the COMMUNICATOR screens.

For more information on using <EASY on board>, refer to the operator's manual for the <EASY on board> equipment.



123110-002

7.15 Unblocking the baler

7.15.1 How can blockages be avoided?

Location

Blockages in the baler can be located in the pick-up and the conveying system.

Cause

Most blockages are due to excessive ground speed, irregular swathe shape or a foreign object.

Advice

- Form regular swaths.
- Adjust the height of the swath to the tractor ground clearance.
- Drive and gather the crop at a constant speed.
- Avoid too rapid ground speeds.

There is a regular flow of crop reaching the baler. This means the feed to the pick-up and conveying system is continuous.

123111-002

30348-002

7.15.2 Safety advice

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- Stop the power take-off.
- ▶ Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

107140-002

WARNING

Activation of the hydraulic circuit during operations on the machine.

Result: Death or serious injuries

- Switch off the hydraulic circulation and lock the hydraulic controls in the neutral position.
- Never allow anyone to go near the hydraulic controls.

7.15.3 Unblocking the pick-up



1711-011 23211-001



Sharp parts

Result: Major injuries

Always wear safety gloves when manually unblocking the baler.

30254-002



Tailgate may close unexpectedly

Result: Death or serious injuries

► Always place the safety lever in the safety position when the tailgate is open.

127971-001

When the pick-up has a blockage, it can be unblocked in two steps:

- mechanical unblocking using the tractor's hydraulic control valve,
- manual unblocking, if mechanical unblocking is not enough.

Mechanical unblocking

Mechanical unblocking enables the baler to be unblocked when the blockage is not too big. Mechanical unblocking must always be started before manual unblocking; It allows some of the accumulated crop to be removed:

- Reverse a few metres.
- Raise and lower the pick-up using the tractor's hydraulic control valve.
 - ▶ If the pick-up is unblocked, continue baling.
 - If the pick-up is still blocked, start manual unblocking.

28334-001



Reversing with a bale still on the bale ramp.

Result: Bale falling off and being crushed, with risk of damage to the baler.

Always check that there is no bale on the bale ramp before reversing.

Manual unblocking

After having carried out mechanical unblocking, if crop still remains blocked in the pick-up, then it is necessary to manually unblock the pick-up.

- Stop the tractor engine, remove the ignition key and disconnect the universal drive shaft from the power take-off.
- Wait until all of the moving parts have stopped.
- ▶ Unblock the pick-up (1) manually.
- Couple the universal drive shaft to the power take-off.
- Climb back into the tractor cab and switch on the ignition again.
- Engage the power take-off.
- Restart baling.



515

7.15.4 Unblocking the baler with fixed floor

186727-001

When the baler is jammed by a blockage, it needs to be unblocked.

Unblocking is primarily carried out using the control terminal: this is simple unblocking.

If simple unblocking does not suffice, the operator has 2 possible solutions:

- tying and discharging the bale in order to empty the bale chamber
- manual unblocking by reversing the rotor

Simple unblocking using the control terminal

- ▶ Stop the power take-off.
- Deactivate the baling pressure.
 - Page 274, Baling pressure
- If the cutting unit is activated, lower the knives.
 Page 275, ROTO CUT cutting unit with fixed rotor floor*
- ► Start the power take-off at low speed.

82834-003

Information

Raising/lowering the RotoCut knives

- ► Select the Knives function on the control terminal.
- ▶ Use the pick-up hydraulic control valve to raise or lower the knives.

If the blockage is removed:

- ► Select the Baling pressure function.
 - Page 274, Baling pressure
- ► Actuate the tailgate closure hydraulic control valve to put the tensioning arms back under pressure.
- ► Reactivate the cutting unit if necessary.
 - Page 275, ROTO CUT cutting unit with fixed rotor floor*

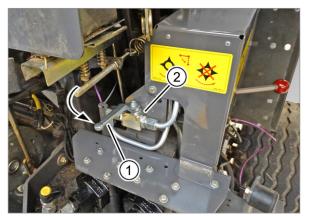
If the machine remains blocked:

▶ If the diameter of the bale in the bale chamber is what the operator requires, the bale can be tied and discharged, otherwise the baler must be unblocked manually.

Bale tying

- ▶ Stop the power take-off.
- ► Select the Baling pressure function.
 - Page 274, Baling pressure
- ► Actuate the tailgate closure hydraulic control valve to put the tensioning arms back under pressure.
- If the cutting unit is activated, lower the knives.
 Page 275, ROTO CUT cutting unit with fixed rotor floor*
- Open the right-hand side flap.
- ➤ Turn the lever (1) on the 3-way valve (2) forward.
- Lock the tailgate.
 - Page 53, Locking the tailgate
- ► Actuate the tailgate opening /closing hydraulic control valve to simulate opening (the rotor is uncoupled from the machine drive).
- Start up the power take-off.
 The belts turn and the rotor remains stationary.

106212-001



296129-001

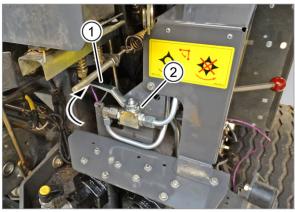
516

AWARNING

Slipping of the belts

Result: damaged belts.

If the belts do not start moving once the drive is activated, stop the power take-off immediately and start manually unblocking.



296134-001

- Manually activate tying using the control terminal.
 Page 278, Manually activating tying
- ► Return the lever (1) for the 3-way valve (2) to its original position.
- Unlock the tailgate. Page 53, Locking the tailgate
- ▶ Open the tailgate to deposit the bale.
- Close the tailgate. The tailgate is closed and the rotor is coupled once more.

If the blockage is removed:

517 ▶ Do

Reactivate the cutting unit if necessary.
Page 275, ROTO CUT cutting unit with fixed rotor floor*

82834-003

Information

Raising/lowering the RotoCut knives

- Select the Knives function on the control terminal.
- Use the pick-up hydraulic control valve to raise or lower the knives.

If the machine remains blocked:

Unblock the baler manually by reversing the rotor.

Manual unblocking by reversing the rotor

- ▶ Stop the power take-off.
- Deactivate the baling pressure.
 - Page 274, Baling pressure
- ► If the cutting unit is activated, lower the knives.
 Page 275, ROTO CUT cutting unit with fixed rotor floor*

30348-002

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- Stop the power take-off.
- ▶ Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.



- Open the right-hand side flap.
- ► Turn the lever (1) on the 3-way valve (2) forward.
- Lock the tailgate.
 - Page 53, Locking the tailgate
- Actuate the tailgate opening /closing hydraulic control valve to simulate opening (the rotor is uncoupled from the machine drive).

Stop the tractor engine and remove the ignition

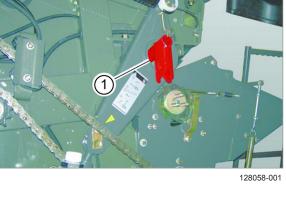
Remove the unblocking key safety system (1). Remove the unblocking key (1) from the



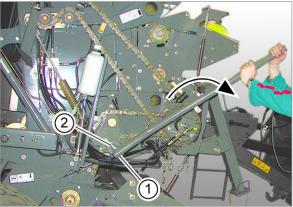
296129-001







519



128366-001

► Fit the unblocking key (1) onto the shaft (2).

23242-001

AWARNING

Risk of the key slipping when being mounted.

Result: Injury

key.

tensioning arm tube.

Take great care when mounting the key on the shaft.

520

- Eliminate the blockage by turning the key (1) forwards (see arrow).
- Remove the unblocking key (1) from the shaft (2).
- If not all the crop comes out, unblock the machine by hand.

23211-001

WARNING

Sharp parts

Result: Major injuries

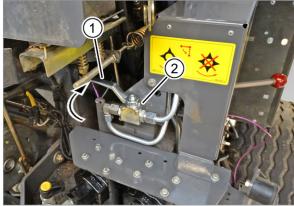
Always wear safety gloves when manually unblocking the baler.



Refit the unblocking key (1) into the tensioning arm tube.

► Secure the unblocking key (1) using the safety system.

521 128058-001



▶ Return the lever (1) for the 3-way valve (2) to its original position.

Unlock the tailgate.

Page 53, Locking the tailgate

522 296134-001

- Connect the power take-off and restart the tractor engine.
- ► Select the Baling pressure function.
 - Page 274, Baling pressure
- Actuate the tailgate closure hydraulic control valve to put the tensioning arms back under pressure.
- Start the power take-off at low speed.
- ▶ Reactivate the cutting unit if necessary.
 ⑤ Page 275, ROTO CUT cutting unit with fixed rotor floor*

The baler is unblocked and ready for use.

188326-002

7.15.5 Unblocking the baler with pivoting floor

The pivoting floor offers a quick and simple unblocking solution.

Depending on the size of the blockage, the pivoting floor may be opened partially or fully. This is indicated by symbol (A) on the control terminal screen:



Status of the pivoting floor	(A)
Pivoting floor in raised position	1
Pivoting floor in intermediate position	_
Pivoting floor in lowered position	<u>*</u>

When the baler is jammed by a blockage, it needs to be unblocked:

- ▶ Stop the tractor's power take-off.
- Select the <Pivoting floor> function using the control terminal (only with the ROTO CUT machine).
- ► Activate the tractor's hydraulic control valve to move the pivoting floor to the lowered position.

The <Baling pressure> function is deactivated. If they are active, the knives are automatically deactivated. The pivoting floor is lowered.

➤ Start the power take-off at low speed.

If the blockage is removed:

- Select the <Baling pressure> function using the control terminal.
- ► Actuate the tailgate closure hydraulic control valve to put the tensioning arms under pressure.
- Select the <Pivoting floor> function using the control terminal (only with the ROTO CUT machine).
- ► Activate the tractor's hydraulic control valve to raise the pivoting floor.

The pivoting floor is raised. If they were active before the blockage, the knives are automatically reactivated.

90529-004

Information

Raising/lowering the pivoting floor with the cutting unit

- Select the Pivoting floor function on the control terminal.
- ▶ Use the hydraulic control valve for the knives and pivoting floor to raise or lower the pivoting floor.



1711-011 133020-002

Information

Raising and lowering the pivoting floor without cutting unit:

► Use the hydraulic control valve for the pivoting floor to raise or lower the pivoting floor.

If the machine remains blocked:

Unblock the baler manually.

23211-001



Sharp parts

Result: Major injuries

Always wear safety gloves when manually unblocking the baler.

218145-001

7.15.6 Unblocking the rotor (with <ICT hydraulics>)

When the baler is jammed by a blockage, it needs to be unblocked.

Possible causes of a rotor blockage:

- · Irregular swathe shape
- · Excessive ground speed
- Accumulation of crop around the rotor; this stops its movement
- Foreign object preventing the rotor from turning, etc.

Procedure:

- Stop moving forwards.
- ► Stop the power take-off.
- Press key (1) to activate automatic unblocking. The knives are deactivated and the cutting floor opens.
- Restart the power take-off.
- Wait until the machine reaches its normal rotation speed (1000 rpm).
 - The cutting floor is raised automatically, along with the knives, if they were being used.
- Resume baling.

If the blockage has been eliminated, restart baling.

Note: the cutting floor is automatically closed and the knives extend once the machine has returned to its normal rotation speed.



523



1711-011 72078-002

Information

If the tractor stalls once the machine is blocked, try to:

- disengage the power take-off before starting the tractor again
- ► Activate the hydraulic control valve to restart the flow of oil within the machine

23207-002

MARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- ► Stop the tractor engine.
- ► Remove the ignition key.

121830-001

7.16 After use

7.16.1 Reminders

7.16.2 Securing the baler



20130-003

524

- Ensure that the machine is kept clean to avoid any fire hazards.
- ► Check that all the safety devices are in place.
- ► Check the condition (wear) of the safety devices. Replace worn safety devices before restarting the machine.
- Retighten all the wheel nuts according to the recommended tightening torques.

127991-003

- Check that there are no bales or crop in the machine.
- ▶ Loosen the belts to maximise their service life.
- ► Check that the ground is stable and as level as possible (less than 8.5° gradient).
- Stop the tractor engine.
- ► Apply the tractor's handbrake.
- ▶ Remove the ignition key.
- Switch off the control terminal.
- Apply the baler parking brake (depending on the equipment).

143093-001

AWARNING

Use of the safety brake (depending on equipment) instead of the parking brake.

Result: Death, serious injuries, severe damage to the baler

- Never use the safety brake when parking.
- Always use the parking brake.
- Wait until all of the rotating components have stopped.
- ► Chock the wheels (1).



1711-011 53811-001

AWARNING

Accidental movement of the baler.

Result: danger of death or serious accident or damage to the baler

- ▶ Park the baler on firm, level ground.
- ► Always activate the parking brake before unhitching the baler from the tractor.
- ► Chock the wheels.
- ► Always put the jack stand in the safety position before unhitching the baler from the tractor.

108119-002



Unhitching with a bale or crop in the baler.

Result: danger of death, serious accident or damage to the baler

► Check there are no bales or crops in the baler.

108118-002

WARNING

Baler is unstable.

Result: danger of death, serious accident or damage to the baler

► Unhitch the baler on stable ground which is as flat as possible (gradient of less than 8.5°).

123135-001

- Check the drive gearbox oil level.
- Lubricate all of the points indicated in the "Lubrication plan" section.
- ► Fill the chain lubrication tank.

127994-003

- Every day, blow air through:
- the pick-up
- the bale chamber
- the bodywork
- the belts
- the rollers (particularly roller nos. 3 and 5)
- the tying feed plate
- the non-slip surfaces

7.16.3 Daily checks

7.16.4 Daily cleaning



Cleaning the baler on a daily basis reduces the risk of the baler overheating.



225559-002

7.17 Unhitching the machine

7.17.1 Retaining cable*

Valid for:

Machines not equipped with brakes with EU homologation

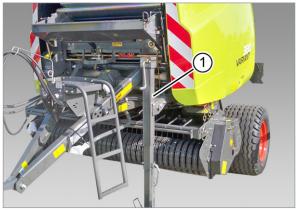
Detach the retaining cable from the tractor.

127992-002

7.17.2 Uncoupling the baler

123875-001

525



150171-001

Securing the baler

Secure the baler. Page 301, Securing the baler

Universal drive shaft

- ▶ Uncouple the universal drive shaft (1) from the power take-off on the tractor, not forgetting the retaining chain (2).
- Fit the universal drive shaft to the support provided:

Jaw drawbar Mounting chain Swinging drawbar Fork support

Jack stand

- Lock the jack stand (1) in the safety position. Page 48
- Lower the jack stand until the eye of the hitching ball no longer rests on the tractor attachment.

82109-001

WARNING

Swivelling of the jack stand

Result: Cut or crushed fingers

- ► Always switch off the tractor engine, remove the ignition key and secure the baler.
- Always carry out this operation without the assistance of another person.
- Always wear protective gloves when handling the jack stand
- Avoid placing hands or fingers in the cutting or crushing areas if the jack stand swivels round.

1711-011 14712-001

WARNING

Movement of the baler when on the jack stand Result: damage to the jack stand and the baler

Always raise the jack stand before moving the baler.

Electrical connections

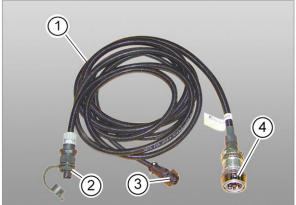
▶ Disconnect the lighting cable (1) on the baler and tractor sides.



527 126770-001

Control terminal

- ▶ Disconnect the electrical supply cable (1) from the baler and the control terminal, baler side (4) and tractor side (2) and (3).
- Store the cable and the control terminal: they must be protected from rain and any sources of moisture.



126773-001

528

ISOBUS connection

- Disconnect the ISOBUS cable (1) on the baler and tractor sides.
- Store the cable: it must be protected from rain and any sources of moisture.



124361-001

529



Hydraulic connections

- ▶ Disconnect the tractor hydraulic hoses.
- ► Fit protective plugs to both ends of the hoses, in order to protect them.



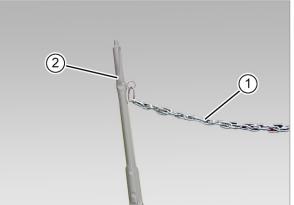
530



Slide the hydraulic hoses into the slot (1) on the step.

12123-003





532 129748-002



127782-001

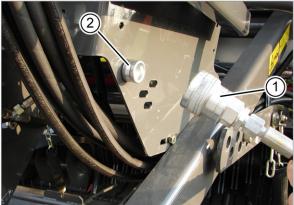
Brakes (optional)

▶ Detach the chain (1) on the parking brake lever (2) from the tractor (depending on equipment).

Balers equipped with hydraulic brakes

▶ Disconnect the hydraulic brake hose (1).

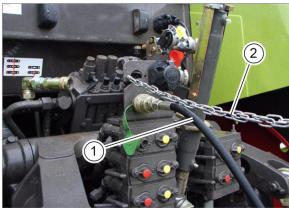




▶ Attach the hydraulic hose (1) to its location on the step (2).

19011-002

534

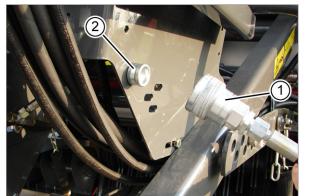


Balers equipped with active hydraulic brakes

- ▶ Disconnect the hydraulic brake hose (1).
- Unhook the safety chain (2).

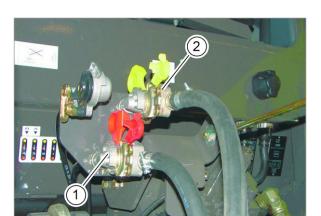


535



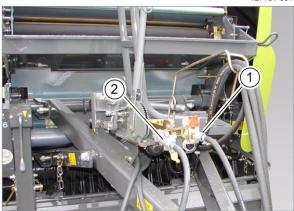
19011-002

Attach the hydraulic hose (1) to its location on the step (2).



127784-001

127783-001



Balers equipped with pneumatic brakes

- ▶ Disconnect the hose with the red coupling attachment (1).
- Disconnect the hose with the yellow coupling attachment (2).
- Fix the pneumatic hoses (1) and (2) to the baler's supports.

53880-001

AWARNING

Pneumatic brake hoses disconnected in reverse 537 order.

Result: Accidental movement of the baler.

- ► Always disconnect the hose with the red coupling attachment first.
- ► Always disconnect the hose with the yellow coupling attachment second.



8 Faults and remedies

8.1 General information

8.1.1 Sensors

123144-002

A dirty or damaged sensor may result in baler operational faults, or display faults on the control terminal screen.

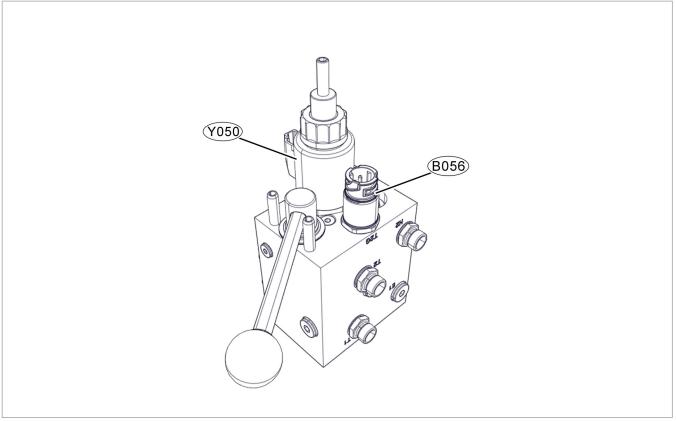
- ► Check the sensor operating status regularly.
- ► Check the sensors regularly.



8.2 Hydraulic system

8.2.1 Hydraulic block

186815-001



298306-001

539

	Description		Description
1	Solenoid valve Y050	4	Pressure sensor B056

186816-001

8.2.2 Baling pressure

Fault	Possible cause/solution
The baling pressure always remains at maximum.	The solenoid valve (Y050), located on the hydraulic block, is not receiving power.
	Check the power supply to the baler (voltage for the tractor + wiring harness).
	Check the connection cables between the baler and the control terminal.
	Check the control terminal is operating correctly. Switch the control terminal off and on again.
	The electromagnetic coil is defective.
	➤ Replace the electromagnetic coil.
The baling pressure is not correct.	The Baling pressure function is not activated even though baling is in progress.
	► Activate the Baling pressure function on the control terminal.





Fault	Possible cause/solution
	The solenoid valve is supplied with a permanent voltage.
	 Disconnect the solenoid valve electrical connection. If the pressure changes, check the connection cables and the module.
	If the pressure does not change, have the tailgate sensor checked.
	The baler and/or the control terminal are not receiving power.
	Check the power supply to the baler (voltage for the tractor + wiring harness).
	Check the control terminal is operating correctly. Switch the control terminal off and on again.
	The pressure sensor (B056) is disconnected.
	► Reconnect the pressure sensor (B056).
	Hydraulic circuit fault.
	➤ Contact the CLAAS after-sales service.
	The hydraulic control is not correct.
	► If the baling pressure is too low at the start of the baling cycle, check that the tailgate opening control valve is not in the floating position.

8.2.3 Rotor

Fault	Possible cause/solution
The rotor does not start.	The rotor cut-out clutch does not operate correctly.
	 Check that the clutch linings are not stuck, and clean them if necessary (unscrew the 3 bolts/springs and check the clutch). Check the setting of the 3 bolts/springs. Check the sealing of the rotary connector at the end of the clutch. The tractor's oil flow is too low. Check that the clutch moves correctly and clean it if necessary (undo the 3 bolts/springs and clean the 3 shafts).
The rotor starts up during tying.	Hydraulic fault with the tractor.
	Check there are no micro-leaks in the tractor's control valve (presence of unwanted residual pressure in the hoses).
	Hydraulic circuit fault.
	► Contact the CLAAS after-sales service.



1711-011 186817-003

8.2.4 Tailgate

Fault	Possible cause / solution
The tailgate does not open.	The control terminal is switched off.
	➤ Switch the control terminal on.
	The tailgate is secured against movement.
	 Check the baler's hydraulic connection. Page 166, Connection to the tractor's hydraulic control valves Check the position of the tailgate safety lever. Check the position of the rotor disengaging lever.
The baling pressure does not drop when the tailgate is opened.	 Close the tailgate and keep the control valve under pressure for 2 - 3 seconds (the pressure must be at maximum). Open the tailgate.
	Hydraulic circuit fault.
	► Contact the CLAAS after-sales service.
	The tailgate sensor is defective.
	► Replace the tailgate sensor.
The tailgate latching hooks open	Hydraulic circuit fault.
erratically.	► Contact the CLAAS after-sales service.
	Hydraulic fault with the tractor.
	Check there are no micro-leaks in the tractor's control valve (presence of unwanted residual pressure in the hoses).
The tailgate opens too slowly.	The tractor oil flow rate must be between 42 and 60 l/min (11 and 16 US gal/min) inclusive when the tailgate is opened.
	► Check the flow rate of the tractor's hydraulic control valve (42 to 60 l/min (11 to 16 US gal/min) when the tailgate opens). Caution: must not exceed 60 l/min (16 US gal/min): risk of the oil overheating, damage to seals, etc.
	Hydraulic circuit fault.
	► Contact the CLAAS after-sales service.
The belts do not slacken.	The control terminal is switched off or malfunctioning.
	➤ Switch the control terminal on.
	➤ Restart the control terminal.
	The power supply is not correct.
	Check the power supply to the baler (voltage for the tractor + wiring harness).
	Hydraulic circuit fault.
	► Contact the CLAAS after-sales service.



1711-011 186824-001

8.2.5 Drive

Fault	Possible cause/solution
The drive for roller 3 starts by	One or two return springs are broken.
itself.	► Replace the return spring or springs.
	Hydraulic circuit fault.
	► Contact the CLAAS after-sales service.
The drive for roller 3 does not start	The drive control is not correct.
up.	► Check the sealing of the rotary connector at the end of the drive.
	Hydraulic circuit fault.
	► Contact the CLAAS after-sales service.



8.3 COMMUNICATOR II

8.3.1 Electric circuit

186801-001

Fault		Possible cause/solution
2	Fault when connecting to the second module	The connection between the second electronic module and the control terminal is faulty.
		Check the electrical cables and connectors that connect the second module to the control terminal.
3	Fault when connecting to the third module	The connection between the third electronic module and the control terminal is faulty.
		Check the electrical cables and connectors that connect the third module to the control terminal.

186802-001

8.3.2 Cutting floor*

Fault		Possible cause/solution
<u>!</u>	Cutting floor not correctly closed	The cutting floor is not correctly closed. ► Close the cutting floor using the control terminal. □ Page 276, Rotor with pivoting rotor floor*
		Compressed crop is preventing the cutting floor from closing fully. ➤ Start mechanical unblocking. ➤ Page 297, Unblocking the baler with pivoting floor ➤ Improve the shape of the swaths. ➤ Adapt the working speed.
		The cutting floor sensor is incorrectly adjusted. Adjust the sensor.
!	Knife position fault	The knives are incorrectly positioned. ➤ Close the cutting frame using the control terminal. ➤ Page 276, Rotor with pivoting rotor floor ➤ Deactivate the knives then reactivate them if necessary. ➤ Page 276, Rotor with pivoting rotor floor*

186804-001

8.3.3 Baling pressure

Fault		Possible cause/solution
••• •••	Baling pressure	The Baling pressure function is not activated even though baling is in progress.
		 Activate the Baling pressure function on the control terminal. Page 274, Baling pressure



1711-011 186806-002

8.3.4 Oversize

Fault		Possible cause / solution	
$ \emptyset $	Bale diameter	The maximum bale diameter accepted by the machine has been reached.	
		Page 41, Machine description	
		Tying will be automatically started.	
		➤ Stop immediately.	
		► Reduce the diameter of the bale using the control terminal.	
		Correct the bale diameter correction factor using the control terminal.	

186809-001

8.3.5 Bale discharge

Fault		Possible cause/solution
	Bale ramp fault	The bale remains in contact with the bale ramp.
		Move the baler forward a little so that the bale is not too close to the bale ramp.
		The bale is still jammed in the bale chamber.
		► Close then open the tailgate again.
		The bale ramp is blocked.
		Check the bale ramp end of travel detection system: damage, breakage, incorrect adjustment.
		► Replace the bale ramp end of travel detection system.

186810-004

8.3.6 Twine tying*

Fault		Possible cause / solution
6	Twine knife	Tying has been initiated for 30 seconds but the twine knife has not been activated.
		► Check the twine guide tubes control; adjust if necessary.
		Tying is in progress when it should not be. The twine guide tubes are in the working position.
		➤ Stop the tying in progress.
		➤ Stop the power take-off.
		➤ Cut the twines.
		Restart the power take-off so that the twine guide tubes return to the rest position.
		The twine knife position is not being detected.
		► Check the twine knife sensor; replace it if necessary.



1711-011 186811-001

8.3.7 Net tying

Fault		Possible cause/solution
Net feed failed (comfort tyin	Net feed failed (comfort tying)	No net is present.
		► Reposition a net roller in the net box.
		The net has not been caught by the rotating bale.
		► Check the positioning of the net and adjust it.
		Increase the power take-off speed to the authorised maximum (540 rpm or 1000 rpm).
		The net knife is not reset.
		Reset the net knife manually. Danger!
		Net unwinding is not being detected.
		► Check/replace the rubber roller rotation sensor.
!	Net caught by the bale	The net is caught by the bale without tying.
111111	(comfort tying)	➤ Stop the power take-off.
		Remove the net from the chamber.
		► Check the net brake.
		The net knife is not reset.
		Reset the net knife manually. Danger!
		The net is not positioned correctly.
		► Check the positioning of the net and adjust it.
+++++	Too much net wrapping	The net brake is not fully applied.
	(comfort tying)	► Tighten the net brake.
		The electromagnetic clutch is faulty.
		 Test the electromagnetic clutch using the control terminal. Manually activate tying using the control terminal.
		Check whether the electromagnetic clutch engages.
		If the electromagnetic clutch engages, the clutch is operating correctly.
		If the electromagnetic clutch cannot be engaged, proceed to the next stage.
		► Check the wiring harness.
		If the wiring harness is damaged, replace it.
		If the wiring harness is not damaged then the clutch is faulty.
		► Have the faulty electromagnetic clutch replaced.
-	Not enough net wrapping (comfort tying)	The power take-off does not operate at full speed and therefore the bale does not rotate fast enough:
		► Increase the power take-off speed to the authorised maximum (540 rpm or 1000 rpm).



Fault	Possible cause/solution
	The net knife is not reset.
	Reset the net knife manually. Danger!
	The electromagnetic clutch is faulty.
	 Test the electromagnetic clutch using the control terminal. Manually activate tying using the control terminal.
	Check whether the electromagnetic clutch engages.
	If the electromagnetic clutch engages, the clutch is operating correctly.
	If the electromagnetic clutch cannot be engaged, proceed to the next stage.
	Check the wiring harness.
	If the wiring harness is damaged, replace it.
	If the wiring harness is not damaged then the clutch is faulty.
	Have the faulty electromagnetic clutch replaced.

218042-001

8.3.8 ICT* faults

Fault	Possible cause / solution
\$ 1	
Fault 1	The ICT versions of the tractor and machine are incompatible.
Incompatible <ict> version</ict>	▶ Update the tractor and/or machine software.
Fault 2 ICT communication lost during	Communication has been lost during the authentication phase. Communication issue between the tractor and machine.
authentication	 Check the condition of the wiring harness connections between the tractor and machine. Restart the tractor and the machine.
Fault 3	Data consistency issue during the authentication phase.
Authentication ID not known	➤ Contact the After-Sales Service.
Fault 4 ICT communication lost during	Communication has been lost during the assignment phase. Communication issue between the tractor and machine.
assignment	Check the condition of the wiring harness connections between the tractor and machine.
	► Restart the tractor and the machine.
Fault 5	Data consistency issue.
Inconsistent data	► Check the condition of the wiring harness connections between the tractor and machine.
	► Restart the tractor and the machine.



Fault	Possible cause / solution
Fault 6 ICT communication lost during	Communication has been lost during the command phase. Communication issue between the tractor and machine.
a command	 Check the condition of the wiring harness connections between the tractor and machine. Restart the tractor and the machine.
Fault 7 ICT communication lost during	Communication has been lost during the synchronisation phase. Communication issue between the tractor and machine.
synchronisation	 Check the condition of the wiring harness connections between the tractor and machine. Restart the tractor and the machine.
Fault 8	Tractor status not received. Communication issue between the tractor and machine.
Tractor status data lost	 Check the condition of the wiring harness connections between the tractor and machine. Restart the tractor and the machine.
Fault 9	Data consistency issue during the synchronisation phase.
Data consistency incorrect during synchronisation	 Check the condition of the wiring harness connections between the tractor and machine. Restart the tractor and the machine.
Fault 10	Data consistency issue during the command phase.
Data consistency incorrect during a command	 Check the condition of the wiring harness connections between the tractor and machine. Restart the tractor and the machine.
Fault 11	The <ict> function is already being used by another machine on the tractor.</ict>
Maximum amount of equipment reached	▶ Use another hydraulic circuit.
Fault 12 <ict> function not known</ict>	The <ict> function is not recognised. Communication issue between the tractor and machine.</ict>
NOT PRINCIPLIFIED REPORT	 Check the condition of the wiring harness connections between the tractor and machine. Restart the tractor and the machine.



8.4 Tying

8.4.1 Twine tying

Fault	Possible cause / solution
Twine tying does not start	The baler is not set to twine tying.
automatically when the bale diameter selected is reached.	➤ Set the baler mechanically and electronically to twine tying.
Twine tying cannot be started	The electrical power supply to the baler is faulty.
manually.	► Check the electrical cables.
	► Check the electrical plug-in connections.
	Check that the control terminal is on.
	► Check the fuses and replace them if necessary.
	The tensioning arm position sensor is not functioning.
	► Check the sensor.
	► Check the electrical cables.
	The tailgate inductive sensor jams.
	► Check the operation of the inductive sensor.
	► Replace the sensor if it no longer works, then adjust it.
	Page 417, Tailgate inductive sensor
	The control terminal indicates that the tailgate is not completely closed.
	► Check the operation and setting of the inductive sensor.
	► Replace the sensor if it no longer works, then adjust it.
	Page 417, Tailgate inductive sensor
	The tying drive belt is not driven.
	Check the operation of the electromagnetic clutch by starting tying manually using the control terminal.
	► Clean the electromagnetic clutch.
	 ▶ Page 403, Cleaning the tying clutch ▶ Check the electromagnetic clutch wiring harness if this is not
	working.
	The min. diameter for the tying start is not obtained in <manual tying=""> mode.</manual>
	▶ Obtain the min. diameter and restart tying manually.

Fault	Possible cause / solution
Twine tying is started and the electromagnetic clutch remains activated. The control terminal does not beep and does not display any STOP symbols on the screen even though the delay necessary for tying has been exceeded.	The tailgate is not completely closed. ▶ Close the tailgate.
	The tailgate inductive sensor jams. ► Check the operation of the inductive sensor. ► Replace the sensor if it no longer works, then adjust it. □ Page 417, Tailgate inductive sensor
The twines have not unwound during the tying process.	The twine tying rubber roller is dirty. ▶ Clean the rubber roller.



Fault	Possible cause / solution
	The twine is broken.
	► Reposition the twine.
	The knot between the twine reels has come undone.
	► Redo the knot between the reels.
	The belt brake is incorrectly adjusted which causes the tying feed plate to be incorrectly positioned.
	▶ Put the belt brake in the twine tying position.
	The twine brake has not released.
	Check the operation of the twine brake.Check the setting of the twine brake.
	The twine is jammed.
	 Check that the twine is not jammed somewhere. Check that the twine unwinds properly in the various eyes.
	The twine knife cable has broken.
	► Replace the cable.
	The twine knife stop is not in position.
	► Reposition the stop.
The twine has not been correctly	The tying feed plate is dirty.
inserted into the bale chamber at the start of tying.	➤ Clean the tying feed plate. © Page 402, Maintenance
	The tying feed plate does not push correctly against the belts at the start of tying.
	➤ Check the tying feed plate. □ Page 402, Checking
The twines are not taut enough	The twine brake is incorrectly adjusted.
around the bale.	► Check the twine brake setting. Readjust it if necessary.
	The twine feed time is not long enough.
	► Increase the twine feed delay.
Tying continues when the knife	The knife is blunt or rusty.
starts operating.	► Sharpen the knife.
	▶ Replace the knife with a knife which has identical specifications.
	The twine knife sensor is incorrectly adjusted.
	► Check the setting of the sensor, and adjust it if necessary.
	► Check the operation of the sensor, replace it if necessary.
	The twine knife cable has broken.
	► Replace the cable.



Fault	Possible cause / solution
	The twine knife stop is not in position.
	► Reposition the stop.
The twines break.	The twine brake is applied too tightly.
	➤ Release the twine brake.
	The twines are interlaced in the twine box.
	Position the twine reels in the direction indicated.Page 186, Fitting the reels
The twine slide moves backwards	The disc brake on the chain drive is not tight enough.
and forwards in a restricted area because it is pulled by the twines.	➤ Tighten the disc brake springs.
The distance between the outer	The twine guides are incorrectly positioned.
edges of the bale and the outer twines is too great.	► Move the twine guides outwards.
The twines slide across the sides	The twine guides are incorrectly positioned.
of the bale.	► Move the twine guides inwards.

186836-004

8.4.2 Net tying

Fault	Possible cause / solution
Net tying does not start	The baler is not set to net tying.
automatically when the selected bale diameter is reached.	► Adjust the baler mechanically and electrically to net tying.
Net tying cannot be started	The electrical power supply to the baler is faulty.
manually.	► Check the electrical cables.
	Check the electrical plug-in connections.
	Check that the control terminal is on.
	Check the fuses and replace them if necessary.
	The tensioning arm position sensor is not functioning.
	► Check the sensor.
	► Check the electrical cables.
	The tailgate inductive sensor jams.
	► Check the operation and setting of the inductive sensor.
	 Replace the sensor if it no longer works, then adjust it. Page 417, Tailgate inductive sensor
	The control terminal indicates that the tailgate is not completely closed.
	► Check the operation and setting of the inductive sensor.
	 Replace the sensor if it no longer works, then adjust it. Page 417, Tailgate inductive sensor



Fault	Possible cause / solution
	The tying drive belt is not driven.
	 Check the operation of the electromagnetic clutch by starting tying manually using the control terminal. Clean the electromagnetic clutch. Page 403, Cleaning the tying clutch Check the electromagnetic clutch wiring harness if this is not working.
	The minimum diameter for the tying start (80 cm) is not obtained in <manual tying=""> mode.</manual>
	Obtain the min. diameter and restart tying manually.
When the bale has reached the set	The bale diameter sensor is incorrectly adjusted or faulty.
diameter, the STOP symbol and the beep are not triggered.	► Check the sensor; if necessary, readjust or replace it.
39	The electrical power supply is faulty.
	► Check the electrical cables.
	Check the electrical connections.
	► Check that the control terminal is on.
	► Check the fuses and replace them if necessary.
The net has not reached the bale	The net knife is not reset.
chamber and winds around the rubber roller or pressure roller.	Reset the net knife manually. Danger!
	The tailgate has not been opened enough to reset the net knife.
	Reset the net knife manually. Danger!
	The net knife resetting lever is not correctly positioned or is incorrectly adjusted.
	Reset the net knife manually. Danger!
	Adjust the lever setting.Page 398, Net knife resetting lever
	The pressure roller does not press correctly against the rubber roller.
	► Check the tension of the springs.
	The rubber roller is dirty or damaged.
	► Clean the rubber roller.
	► Replace the rubber roller.
	The rubber roller scraper is incorrectly adjusted.
	► Adjust the rubber roller scraper.
	The net sticks to the rubber roller because of the pressure from the pressure roller after a prolonged lack of use.
	► Pull the net 5 cm towards the rear then feed it into the tying system again.
The net tears at the start of tying.	The net brake is applied too tightly.
	► Loosen the net brake.





Fault	Possible cause / solution
	The rubber roller is worn.
	► Replace the rubber roller.
The net slides on the rubber roller.	The net box is rusty or dirty.
	► Clean the net box.
	The net brake is applied too tightly.
	► Loosen the net brake.
	The net mesh is not driven by the rubber roller during the first tying operation.
	► Ensure the net is spread out over the entire width of the rubber roller when the net is put in position.
	The rubber roller is dirty or damaged.
	► Clean the rubber roller.
	► Replace the rubber roller.
The net has not been correctly inserted into the bale chamber at	The tying feed plate is dirty.
the start of tying.	➤ Clean the tying feed plate. The Page 402, Maintenance
	The tying feed plate does not push correctly against the belts at the start of tying.
	Check the tying feed plate.Page 402, Checking
The net is not taut on the bale.	The number of net wraps set is too low.
	► Increase the number of net wraps.
	The net is poor quality.
	► Use CLAAS ROLLATEX PRO net.
	Too much net has been wound around the crop.
	► Alter the tying delay.
	► Stop moving forward when the STOP symbol appears on the control terminal and the beeps sound.
The number of net wraps is too	The hook or the net tying drive mechanism is jammed.
low.	► Check the tension of the springs.
	The number of net wraps set is too low.
	► Increase the number of net wraps.
The net is not cut.	The net is incorrectly positioned.
	➤ Refit the net.
	The protective strip on the net knife has not been removed.
	► Remove the protective strip from the net knife.
	The net knife has not been reset.
	Reset the net knife manually.Danger!



Fault	Possible cause / solution
	The net knife sticks or is rusty.
	► Clean the net knife.
	The net is not taut enough because the net brake is not applied tightly enough.
	➤ Tighten the net brake.
	The net is not sufficiently taut as the ratchet wheel is not set correctly.
	Adjust the ratchet wheel.Page 397, Net tying
The net is damaged on the bale.	The bale ramp is damaged.
	► Replace the bale ramp.
	The rotor cut-out clutch does not operate correctly.
	► Clean and lubricate the rotor cut-out clutch.
	► Adjust the rotor cut-out clutch springs.
	The tailgate touched the bale during discharge and damaged the bale.
	► Open the tailgate more quickly.
	Check the flow rate of the tractor's hydraulic control valve (42 l/min to 60 l/min) when the tailgate opens.
	Caution: it must not exceed 60 l/min: risk of the oil overheating, damage to seals, etc.



157787-001

8.5 Lubricating oil system

8.5.1 Cause of the problems

Lubrication faults are often due to:

- a blocked nozzle
- a blocked or pinched lubrication hose
- an inferior quality of oil
- an empty oil reservoir
- a fault on the pump or an incorrect flow setting
- a clogged filter

186837-002

8.5.2 Resolving problems

Fault	Possible cause / solution
Oil does not come out of the	The baler is not moving.
ubrication brush.	► Start the machine moving by activating the tractor's power take-off.
	The oil tank is empty.
	► Fill the tank with oil.
	The distributor or one of its calibrated nozzles is blocked.
	► Clean the distributor.
	► Clean or replace the calibrated nozzles.
	The pump's oil intake or discharge hose is blocked.
	► Clean the hose.
	The pump's oil intake or discharge hose is squashed, pinched, bent or cut.
	► Replace the hose.
	The corresponding lubrication hose is blocked.
	► Clean the hose.
	The corresponding lubrication hose is disconnected.
	► Reconnect the hose.
	The corresponding lubrication hose is squashed, pinched, bent or cut.
	► Replace the hose.
	Incorrect oil has been used.
	► Manually empty the oil tank.
	➤ Fill the tank with clean, suitable oil. □ Page 144, Lubricants
	The oil tank is empty.
	► Fill the tank with clean, suitable oil.
	► Activate the pump by rotating the machine.
	The pump is faulty.
	▶ Replace the pump.



Fault	Possible cause / solution	
The pump's throughput setting is at the minimum level.		
	Increase the throughput by altering the position of the mark on the cam's graduated segment.	
	The tank oil filter is clogged.	
	► Replace the filter.	
There is air in the corresponding lubrication hose.		
	► Activate the pump by rotating the machine.	

8.6 Greasing system

8.6.1 Cause of the problems

193901-001

Lubrication faults are often due to:

- a blocked circuit
- a bent or broken duct
- a blocked or damaged grease nipple
- electric pump* malfunctioning

193902-003

8.6.2 Resolving problems

Fault	Possible cause / solution	
The grease does not reach the	A duct is blocked.	
lubrication point.	► Clean the pipe.	
	A duct is squashed, pinched, bent or cut.	
	► Replace the pipe.	
	A duct is disconnected.	
	► Reconnect the pipe.	
	A foreign object is obstructing the lubrication point.	
	► Clean the lubrication point inlet.	
	A grease nipple is blocked.	
	► Clean or replace the grease nipple.	
	A grease nipple is damaged.	
	► Replace the grease nipple.	
Grease does not come out of the	The grease reservoir is empty.	
pump (electric lubrication*).	Fill the reservoir with clean suitable grease.	
	 Page 144, Lubricants Manually activate a lubrication cycle using the control terminal. 	
	The electric pump motor no longer operates.	
	► Replace the electric pump.	
	The electric pump is disconnected.	
	► Check the pump's electrical connection.	
	Inappropriate grease used.	
	► Empty the grease reservoir manually.	
	► Bleed the entire circuit.	
	► Fill the reservoir with clean suitable grease. The property is a property of the property	
	The external temperature is cold (less than 5 °C).	
	Use a grade 2 lubricant suitable for cold conditions.Page 144, Lubricants	
Insufficient lubrication (electric	The lubrication parameters are incorrect.	
lubrication*).	► Reduce the lubrication interval on the control terminal.	



8.7 Other functions

8.7.1 General functions

Fault	Possible cause / solution	
The pick-up shear bolt breaks too	The working speed is too fast.	
often.	➤ Reduce the working speed.	
	Inappropriate shear bolt.	
	▶ Use a bolt of a suitable quality.☼ Page 143, Shear bolt	
	The pick-up drive chain is slack.	
	➤ Tension the pick-up drive chain. © Page 371, Pick-up	
	The swathe is irregular.	
	Adapt the shape of the swathe. Avoid bundles.	
	The rotor cut-out clutch is set incorrectly.	
	► Contact the CLAAS after-sales service.	
The shear bolt* or universal drive	The working speed is too fast.	
shaft cut-out clutch* react too often.	► Reduce the working speed.	
	The baling pressure is too high.	
	► Reduce the baling pressure.	
	Inappropriate shear bolt*.	
	➤ Use a bolt of a suitable quality. © Page 143, Shear bolt	
	The swathe is irregular.	
	Adapt the shape of the swathe. Avoid bundles.	
	The cut-out clutch* is faulty.	
	► Check / replace the cut-out clutch.	
The pivoting floor* fault appears	The working speed is too fast.	
too often.	► Reduce the working speed.	
	Gathering is not regular.	
	➤ Adapt the shape of the swathe. Avoid bundles.	
	Beware of bundles in the swathe.	
The machine rotates unevenly.	The chamber fills unevenly.	
	► Adapt the shape of the swathe. Avoid bundles.	
	 Move from side to side over the swathes to fill the bale chamber evenly. Page 232, User advice 	





Fault	Possible cause / solution	
	The baling pressure is too high.	
	➤ Reduce the baling pressure.	
The machine is not being correctly	The chamber fills unevenly.	
filled.	 Move from side to side over the swathes to fill the bale chamber evenly. Page 232, User advice 	
	The crop is not being correctly gathered.	
	Adjust gathering to suit the size of the swathe.Page 232, User advice	
One or more belts have turned	► Contact a qualified specialist workshop.	
over.	The baling pressure is not adapted to the baling conditions.	
	Adjust the baling pressure to suit the conditions.Page 232, User advice	
	The crop is not being correctly gathered.	
	Adjust gathering to suit the size of the swathe.Page 232, User advice	
The endless belts slide to either side of the baler.		
A feed auger is broken.	Too much crop is gathered by the end of the pick-up.	
	Adjust gathering to suit the size of the swathe.Page 232, User advice	

9 Maintenance

9.1 General maintenance information

9.1.1 Maintenance and safety advice

123191-003

30348-002

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

2188-003

WARNING

Risk of unwanted movement of the baler.

Result: Death or serious injuries

- Chock the wheels.
- Position the jack stand to stabilise the baler.

122152-002

17284-002

AWARNING

The tyres may burst if the air pressure is too high or too low.

Result: Serious injuries

- ▶ Never stand near the tyre when it is being inflated.
- ► Conform to the recommended inflation pressure.
- Check the tyre pressures regularly.
- Have all the repair work on the tyres carried out in a specialised workshop which has the necessary tools available.
- Secure the baler with chocks before starting any work on the baler.
- ▶ If the baler is suspended or raised, check that nobody is underneath.
- Check that the lifting equipment used has enough load capacity to lift and hold the raised baler.

9.1.2 Wheels and tyres

9.1.3 Brakes

1711-011

- Check the tightness of the wheel nuts after the first 10 hours of operation then after every 50 hours of use.
- ► Check the tyre pressures regularly.

128014-002

25632-002

MARNING

Irregular maintenance of the brakes

Result: Death, severe material damage

- ► Have the brakes checked regularly at a specialised workshop.
- Immediately replace any worn or damaged brake hose
- Always have the brakes repaired at a specialised workshop.

17286-001

AWARNING

Brakes not operating

Result: Severe injuries, severe material damage

- ► Have the brakes checked regularly at a specialised workshop.
- Immediately replace any worn or damaged brake hose.
- ► Always have the brakes repaired at a specialised workshop.

25633-001

WARNING

Contact with fluid or machine components which are still extremely hot

Result: Risk of burns

- ► Wear appropriate protective clothing.
- ► Allow fluids and parts to cool.
- Follow all of the safety advice provided in this manual.

9.1.4 Hydraulic circuit



1711-011 17287-001



Faulty braking

Result: Severe injuries, severe material damage

- ► Have a detailed check carried out on the braking system at a specialised workshop.
- Check and have the brake hoses checked regularly.
- Never repair the brake components by soldering or brazing.

128015-004

The repair work on the hydraulic circuit of the baler must only be carried out at specialised workshops that have been approved by CLAAS.

17289-002



Pressurised hydraulic circuit.

Result: Fatal or serious injuries

► Reduce the pressure in the hydraulic circuit to zero before any operation.

147200-002



Residual pressure in the hydraulic circuit of certain components despite the engine being stopped, the hydraulic control valves being switched to neutral and the control terminal being switched off.

Result: Death or serious injuries

- ▶ Be aware of the residual pressure present during any operation on the hydraulic circuit.
- Always wear safety gear when handling the hydraulic circuit.

1711-011 25633-001

AWARNING

Contact with fluid or machine components which are still extremely hot

Result: Risk of burns

- ► Wear appropriate protective clothing.
- ► Allow fluids and parts to cool.
- Follow all of the safety advice provided in this manual.

14708-001

AWARNING

Pressurised hydraulic oil may penetrate the skin.

Result: Severe injuries caused by oil penetrating the skin

- Always use specialised workshops to carry out work on the hydraulic circuit.
- ► Regularly check that the hydraulic pipes and hoses are in good condition.
- Replace any damaged pipes or hoses.
- ► Replace the hydraulic pipes every 6 years after the purchase date.
- Always wear safety gear when handling the hydraulic circuit.
- In the event of an accident, immediately consult a doctor to prevent any risk of infection.

50845-001

Environment

Pollution to the flora and fauna.

Result: Pollution to the flora and fauna

- ► Eliminate used hydraulic oil in accordance with the current standards.
- ▶ Dispose of used oil filters in accordance with the current standards.

123199-002

- ► Check regularly that the V-belt is taut.
- Check the wear on the V-belt, replace it as soon as a crack is visible.

9.1.5 V-belt

9.1.6 Chains

1711-011 27160-002



Cracked and/or damaged V-belt

Result: Death or serious injuries

- ► Check the condition of the belt regularly.
- ▶ Replace the belt as soon as it is damaged.
- Check that no sharp objects come into contact with the tensioned belt, as this may damage the belt.

17288-001



V-belt soiled by oil

Result: damage to belt

- ► Clean the V-belt with an alkaline cleaning product.
- Never use petrol or any other similar product to clean the V-belt.
- ▶ After changing the V-belt, check that it is still taut after 2 to 3 hours of use. If necessary, pull it taut again.

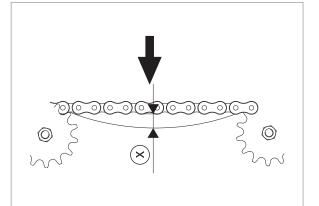
122155-004

Check the tension of the chains regularly, and especially when they are new.

Slackened chains must be retensioned in one of two ways depending on the machine equipment:

- ► Tension the chain using the chain tensioner if the machine has one.
- Shorten chains which have become too long by removing a double link.

2428-003



540

857-002

CAUTION

Pinch points during assembly work.

Bruises of limbs.

- ► Keep limbs out of the hazard area.
- Use suitable tools.

► Check the tension of the chain by pressing with the thumb in the middle of the slack side.

With a low load on the slack side, dimension (X) must be equal to 2% of the centre-to-centre distance of the two chain wheels.

Example:

Measured centre-to-centre distance 200 mm (7 ⁷/₈ in)

200 mm (7 $^{7}/_{8}$ in) x 2 : 100 = 4 mm ($^{5}/_{32}$ in)

Dimension (X) = 4 mm ($^{5}/_{32}$ in)

If the chain is too slack:

➤ Tension the chain using the chain tensioner if the machine has one.

If this does not suffice, or if the machine does not have a chain tensioner:

- ▶ Remove the chain.
- Remove the quick release.
- ► Shorten the chain.
- Refit the quick release.
- Fit the chain.
- Tension the chain.

127990-002

 Check that all the safety devices are fitted and operating correctly.

104762-002

WARNING

Failure to follow the recommendations for use and maintenance of the universal drive shafts.

Result: Fatal or serious injury, severe damage to the baler

- ► Read the manual provided with the universal drive shaft closely.
- Respect the recommendations given in the manual provided with the universal drive shaft.

123212-002

- ► Refit all safety devices (covers, movable plates, etc.) in position at the end of the maintenance work.
- Regularly check that the safety devices are in good condition.
- Replace any safety device which is damaged or which can no longer provide a good level of protection.

17295-002

AWARNING

Access to moving parts if the safety devices are not in position.

Result: Death or serious injuries by entrapment.

 Always refit safety devices after maintenance work.

9.1.7 Universal drive shaft

9.1.8 Safety device



1711-011 131938-002

9.1.9 Inductive sensors

Dirty inductive sensors adversely affect the operation of the machine

- Check that there are no filings on the inductive sensors.
- ▶ Clean the inductive sensors with a cloth.

131951-002



Dirty inductive sensors.

Result: Danger of death, material damage, incorrect operation.

- Check that there are no filings on the inductive sensors.
- ► Clean the inductive sensors with a cloth.

62832-002

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- ► Stop the tractor engine.
- ► Remove the ignition key.



9.2 Maintenance schedules

9.2.1 Before the harvest

188442-003

Maintenance operations	Note
Check the drawbar mounting.	© Page 366
Check the hitching device mounting.	© Page 366
Check the tightness of the wheel nuts.	© Page 357
Check the wheel hub play.	© Page 360
Check the wheel hub yoke mountings.	© Page 360
Check the pressure and condition of the tyres.	© Page 357
Check the tension of the pick-up drive chains.	© Page 371
Check the tailgate chain tension.	© Page 390
Check the condition of the tying drive belt(s)*.	
Replace the chain lubrication oil tank filter.	© Page 406
Fill the chain lubrication oil tank.	© Page 406
Check the operation of the chain lubrication.	© Page 408
Check the operation of the central lubrication*.	© Page 409
Check the drive gearbox oil level.	© Page 351
	© Page 354
Lubricate the machine fully.	© Page 341
Check the cleanliness of the inductive sensors.	© Page 336
Check brake operation*.	
Check the safety brake*.	© Page 361
	© Page 364
Have the pneumatic brake cylinders cleaned by a specialised workshop.	© Page 364
Check the adjustment of the rotor cut-out clutch springs.	© Page 375
Clean the rotor cut-out clutch.	© Page 375
Clean the tying feed plate.	© Page 402

205787-001

9.2.2 After the first 10 hours of operation

Maintenance operations	Note
Check the hitching device mounting.	Page 366
Check the drawbar mounting.	© Page 366
Check the tightness of the wheel nuts.	© Page 357
Check the tailgate chain tension.	© Page 390
Check the condition of the tying drive belt(s)*.	



CLAAS

Maintenance operations	Note
Check the tension of the pick-up drive chains.	© Page 371
Clean the back of the twine box.	© Page 416

203514-003

9.2.3 After the first 50 hours of operation

Maintenance operations	Note
Change the drive gearbox oil.	Page 351
	© Page 354
Replace the hydraulic oil filter.	© Page 369
Check the wheel hub play.	Page 360

188441-002

9.2.4 Every 8 hours of operation or every day

Maintenance operations	Note
Clean the machine.	
Fill the chain lubrication oil tank.	© Page 406
Check the operation of the chain lubrication.	© Page 408
Check the lubrication of rollers No. 3 and No. 5 (machine equipped with central lubrication).	Page 45
Check the condition of the tying drive belt(s)*.	
Net tying*: check that the rubber roller and pressure roller turn freely.	© Page 194
Check the operation of the brakes* when starting.	
Check the brake cylinders and levers*.	© Page 361
	© Page 361
Check the brake hoses*.	
Check the cleanliness of the inductive sensors.	Page 336
Carry out the recommended lubrication.	© Page 341

205806-001

9.2.5 Every 50 hours of operation

Maintenance operations	Note
Carry out the maintenance in the <every 8="" daily="" hours="" of="" operation="" or=""> section.</every>	Page 338
Check the drive gearbox oil level.	Page 351
	Page 354
Check the operation of the central lubrication*.	© Page 414
Check the hitching device mounting.	Page 366
Check the drawbar mounting.	Page 366
Check the tension of the pick-up drive chains.	© Page 371
Check the pressure and condition of the tyres.	© Page 357



Maintenance operations	Note
Check the tightness of the wheel nuts.	© Page 357
Check the endless belts.	© Page 377
Check the tailgate chain tension.	© Page 390
Clean the back of the twine box.	© Page 416
Purge the pneumatic brake* air tank.	© Page 363
Clean the filters for the pneumatic brake circuit*.	© Page 362
Carry out the recommended lubrication.	© Page 341

251491-001

9.2.6 Every 100 hours of operation

Maintenance operations	Note
Carry out the maintenance in the <every 8="" daily="" hours="" of="" operation="" or=""> section.</every>	Page 338
Carry out the maintenance in the <every 50="" hours="" of="" operation=""> section.</every>	© Page 338
Check the condition of the tying drive belt(s)*.	Page 333
Check the brake cylinders and levers*.	Page 361
	© Page 361
Check the wear on the brake linings*.	© Page 364
Check the sealing of the water drain valve in the compressed air tank*.	© Page 363
Check the compressed air tank mounting*.	© Page 363
Carry out the recommended lubrication.	© Page 341

251493-001

9.2.7 Every 250 hours of operation

Maintenance operations	Note
Carry out the maintenance in the <every 8="" daily="" hours="" of="" operation="" or=""> section.</every>	Page 338
Carry out the maintenance in the <every 50="" hours="" of="" operation=""> section.</every>	Page 338
Check the wheel hub yoke mountings.	© Page 360
Carry out the recommended lubrication.	© Page 341

188447-003

9.2.8 Every 500 hours of operation or every year

Maintenance operations	Note
Carry out the maintenance in the <every 8="" daily="" hours="" of="" operation="" or=""> section.</every>	Page 338
Carry out the maintenance in the <every 50="" hours="" of="" operation=""> section.</every>	© Page 338
Carry out the maintenance in the <every 100="" hours="" of="" operation=""> section.</every>	© Page 339
Carry out the maintenance in the <every 250="" hours="" of="" operation=""> section.</every>	© Page 339



Maintenance operations	Note
Change the drive gearbox oil.	© Page 351
	© Page 354
Replace the hydraulic oil filter.	© Page 369
Replace the chain lubrication oil tank filter.	© Page 406
Check the scraper on roller no.5.	© Page 386
Check the wheel hub bearing play.	© Page 360
Check the safety brake*.	Page 361
	© Page 364
Have the pneumatic brake cylinders cleaned by a specialised workshop.	© Page 361
Lubricate the wheel hub bearings.	© Page 360
Check the adjustment of the rotor cut-out clutch springs.	© Page 376
Clean the rotor cut-out clutch.	© Page 375
Clean the tying clutch.	© Page 403
Clean the tying feed plate.	© Page 402

157803-002



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9.3 Lubrication plan

9.3.1 Important

The machines can be equipped with 2 types of optional lubrication:

- individual component lubrication
- central lubrication

Certain intervals and lubrication points may differ depending on the type of lubrication.

Machine not equipped with central lubrication

It is important to observe the greasing intervals, in particular those concerning:

- the rotor cut-out clutch
 - right-hand side, every 8 hours
- roller No.3
 - right-hand side, every 8 hours
 - left-hand side, every 8 hours
- roller No.5
 - right-hand side, every 8 hours
 - left-hand side, every 8 hours

Only apply a few pumps of grease (2 or 3) per lubricator.

Machine equipped with central lubrication

It is important to observe the greasing intervals, in particular those concerning:

- the rotor cut-out clutch
 - right-hand side, every 8 hours
- the 2 lubrication modules
 - right-hand side, every 8 hours

Use the correct amount of grease for each lubrication module.

Page 410, Manual central lubrication*

Only the main lubrication points are connected to the central lubrication system. Refer to the lubrication plan to ensure that the unconnected components are properly lubricated.

158316-001



Non-lubricated components

Result: Significant material damage

Refer to the lubrication plan to ensure that the components not connected to the central lubrication system are properly lubricated 9.3.2 Lubrication intervals



1711-011

Caution: It is important to check that the grease is exiting the lubrication points, in particular roller 3.

128081-003

30348-002

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- ► Stop the tractor engine.
- ► Remove the ignition key.

57132-002

NOTICE

Not observing lubrication intervals

Result: Significant material damage

► Observe the lubricating intervals.

57133-002

NOTICE

Too much lubricant

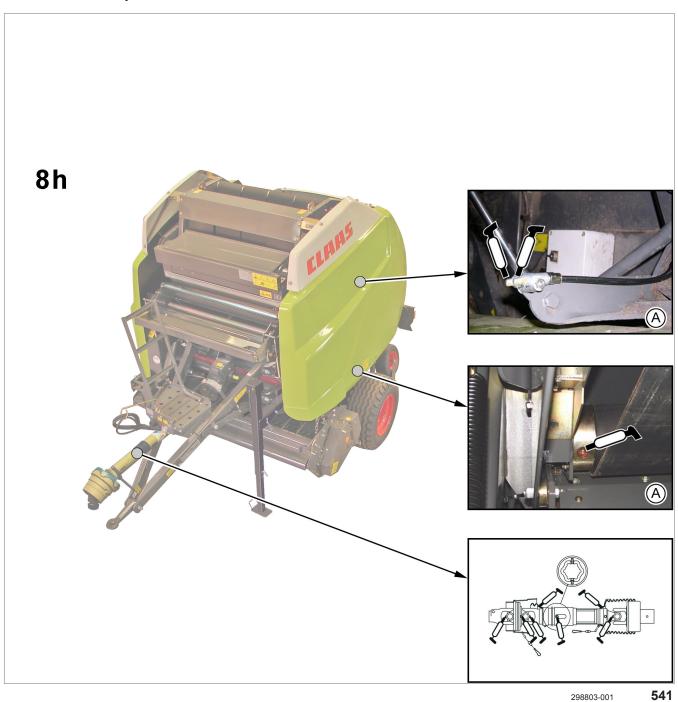
Result: Significant material damage

Observe the lubrication advice



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9.3.3 Lubrication points - 8 h



	Description
Α	Machine not equipped with central lubrication





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	Description
Α	Machine not equipped with central lubrication
В	Machine equipped with manual central lubrication
	Page 410, Manual central lubrication*
С	Open the tailgate before lubricating the rotor cut-out clutch.



1711-011 188514-001

9.3.4 Lubrication points - 50 h



298807-001 **543**

	Description
Α	With all types of eyes and US jaw drawbar
В	With ball hitch
С	Machine not equipped with central lubrication



1711-011 **50h** VARIANT

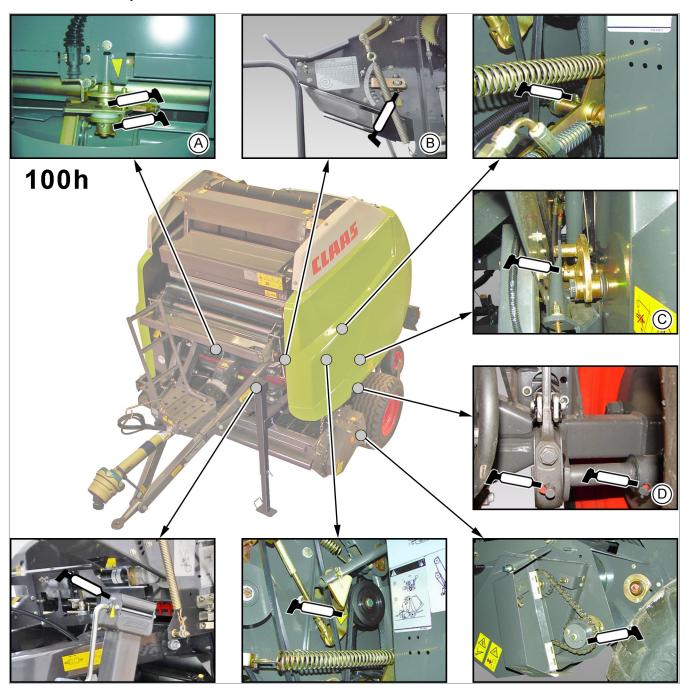
298804-001 **544**

	Description
Α	Machine not equipped with central lubrication



1711-011 188517-002

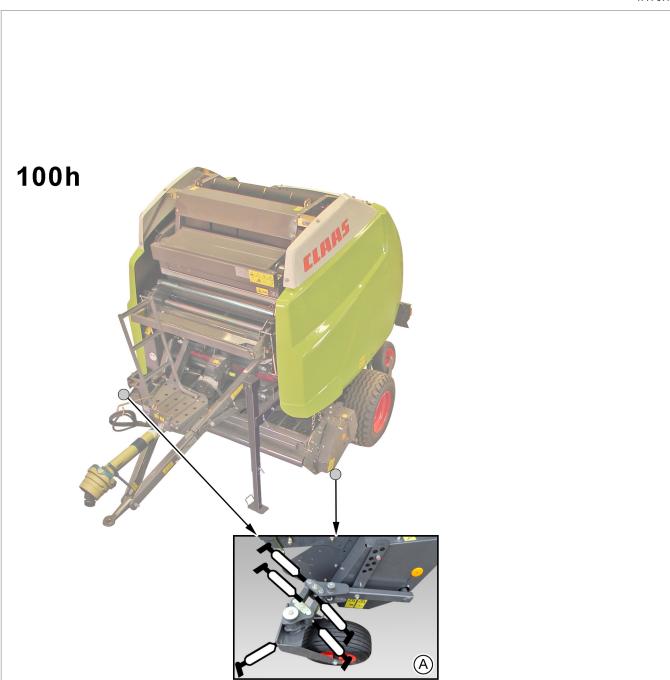
9.3.5 Lubrication points - 100 h



298817-002

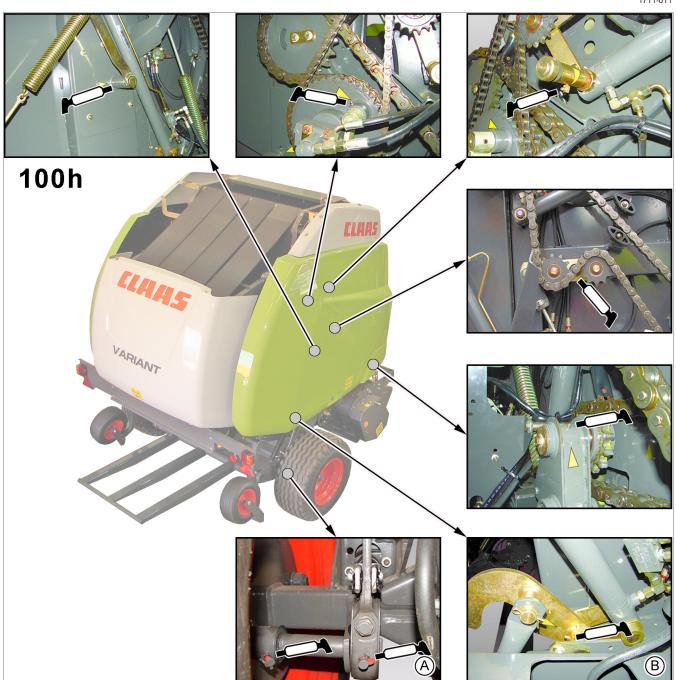
545

	Description
Α	Twine tying only
В	Net tying only
С	Machine not equipped with central lubrication
D	Braked machine only



299169-002 **546**

	Description
Α	Folding pivoting pick-up wheels*



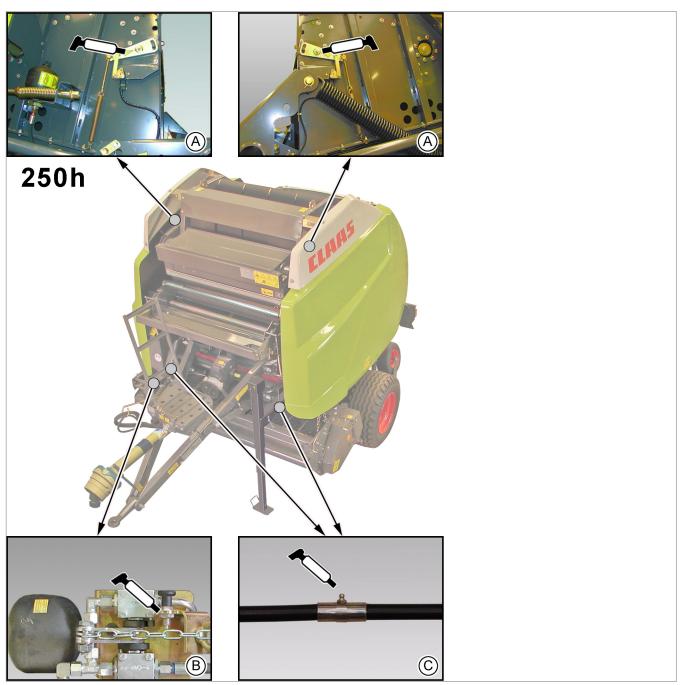
547

	Description	
Α	Braked machine only	
В	Machine not equipped with central lubrication	



1711-011 188520-001

9.3.6 Lubrication points - 250 h



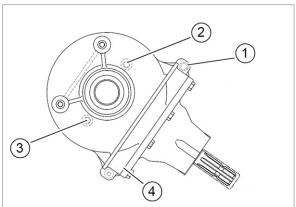
298818-001 **548**

	Description
Α	With bale chamber filling indicator
B With active hydraulic brakes only	
С	With any type of brakes (parking brake cables)

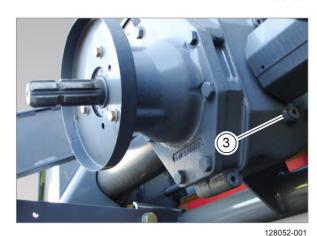
128040-003

9.4 Maintenance operations gearbox

9.4.1 540 rpm drive gearbox



128051-001



550

549

Check the oil level

Identification

Breather valve
 Filler plug
 Oil level plug
 Drain plug

- ▶ Put the baler in a horizontal position.
- ► Follow the safety advice indicated at the beginning of the section.
- Check the oil level using the oil level plug (3).
 - ► There is enough oil in the gearbox if the oil reaches the lower section of the level plug.
 - There is insufficient oil in the gearbox if the oil does not reach the lower section of the level plug: add more oil.

Change the oil

- ► Position the baler horizontally on flat, hard ground.
- ► Follow the safety advice indicated at the beginning of the Maintenance section.
- ▶ Place a recovery container for waste oil under the drain opening:
 - The capacity of the container must be greater than the total volume of oil contained. Page 144, Operating utilities
- Clean the area around the drain plug and the drain plug itself to remove all traces of dust.



1711-011 25633-001

AWARNING

Contact with fluid or machine components which are still extremely hot

Result: Risk of burns

- ► Wear appropriate protective clothing.
- ► Allow fluids and parts to cool.
- ► Follow all of the safety advice provided in this manual.

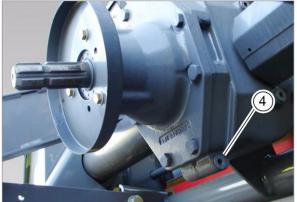
25642-001

Environment

Disposal of waste oil and used oil filters

Result: Environmental pollution

- ► Recover waste oils and used oil filters.
- Store the oil and used oil filters in accordance with the current standards.
- Dispose of waste oil and oil filters in accordance with the current standards.
- ▶ Undo the drain plug (4).
- Recover the used oil.
- Retighten the drain plug (4).



128053-001

Filling

551

- ► Position the baler horizontally on flat, hard ground.
- ► Follow the safety advice indicated at the beginning of the Maintenance section.

1711-011 17296-002

WARNING

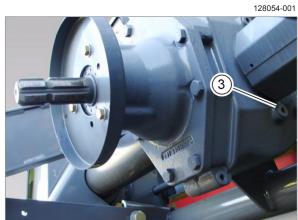
Using non-approved spare parts.

Result: Death or serious injuries.

- ► Always use replacement parts with technical specifications that correspond to those recommended by the manufacturer.
- ▶ Preferably use CLAAS replacement parts.
- ► Clean the area around the filler (2) and level (3) plugs to remove all traces of dust.
- ▶ Undo the filler plug (2).
- ▶ Undo the level plug (3).
- ▶ Pour the oil. [™] Page 144
- ► Check that the oil reaches the gearbox level plug.
- ► Clean the filler (2) and level (3) plugs to remove all traces of dust and dirt.
- Retighten the filler plug (2).
- ► Retighten the level plug (3).



552

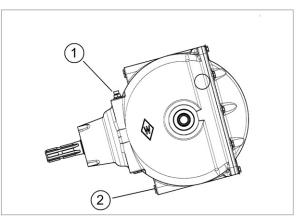


128055-001

553

128041-003

9.4.2 1000 rpm drive gearbox



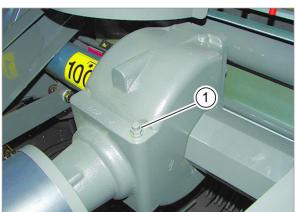
12052-005

554

Identification

- 1 Filler plug with dipstick and breather valve
- 2 Drain plug





555 11862-002

Check the oil level

- ▶ Put the baler in a horizontal position.
- ► Follow the safety advice indicated at the beginning of the Maintenance section.
- Clean the area around the filler plug to remove all traces of dust.
- Undo the filler plug (1).
- ► Check the oil level using the dipstick (1): it must be level with the dipstick mark.
 - There is enough oil in the gearbox if the oil level reaches or exceeds the mark on the dipstick.
 - ► There is not enough oil in the gearbox if the oil level is below the mark on the dipstick.

Change the oil

- Position the baler horizontally on flat, hard ground.
- ► Follow the safety advice indicated at the beginning of the Maintenance section.
- Place a recovery container for waste oil under the drain opening:
 - The capacity of the container must be greater than the total volume of oil contained. Tage 144, Operating utilities
- Clean the area around the drain plug and the drain plug itself to remove all traces of dust.

25633-001

WARNING

Contact with fluid or machine components which are still extremely hot

Result: Risk of burns

- Wear appropriate protective clothing.
- Allow fluids and parts to cool.
- ► Follow all of the safety advice provided in this manual.

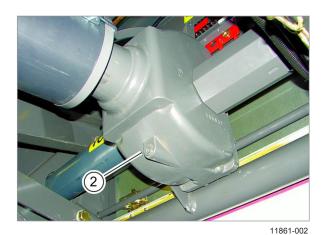
25642-001

Environment

Disposal of waste oil and used oil filters

Result: Environmental pollution

- ► Recover waste oils and used oil filters.
- ► Store the oil and used oil filters in accordance with the current standards.
- Dispose of waste oil and oil filters in accordance with the current standards.



Undo the drain plug (2).

- Recover the used oil.
- Retighten the drain plug (2).

556

Filling

- Position the baler horizontally on flat, hard ground.
- Follow the safety advice indicated at the beginning of the Maintenance section.

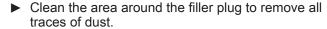
17296-002

WARNING

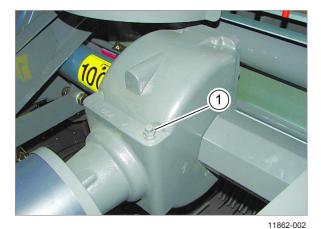
Using non-approved spare parts.

Result: Death or serious injuries.

- Always use replacement parts with technical specifications that correspond to those recommended by the manufacturer.
- ▶ Preferably use CLAAS replacement parts.

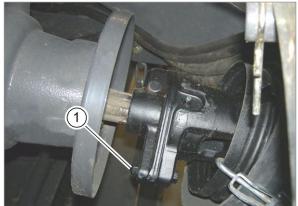


- Undo the filler plug (1).
- Pour in the oil Page 144
- Check the gearbox oil level using the dipstick: the oil level must reach the mark on the dipstick.
- Clean the filler plug to remove any traces of dust and dirt.
- Retighten the filler plug (1).



557

9.4.3 Universal drive shaft shear bolt



The universal drive shaft is protected against overload by a shear bolt (1).

128056-001

558

Cause of shear

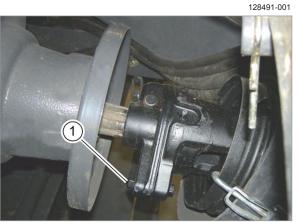
- ▶ Look for the cause of the shear.
 - ► Blockages in the pick-up?
 - Presence of foreign objects?

Replacing the bolt

- ▶ Remove the drive protection (2).
- ▶ Remove the rest of the shear bolt (1).
- Insert a new shear bolt which has identical technical specifications to the original bolt.
- ► Tighten the shear bolt. Tightening torque: 24.5 Nm (18 lb ft)
- ▶ Refit the drive protection (2).



559



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203497-001

9.5 Maintenance operations axle and wheels

9.5.1 Checking the tyres

Observe the general safety instructions.

Page 330, General maintenance information

The tyres are important components of the machine.

The pressure and condition of the tyres must be checked regularly.

Tyre wear

A worn or damaged tyre must be replaced immediately.

- Only use the tyres recommended for your machine.
 - Page 140, Wheels

Inflation pressure

The tyre inflation pressures may vary depending on their specifications.

Page 140, Wheels

The inflation pressure is given on a sticker affixed nearby.

128033-002

25907-002

NOTICE

Use of impact wrenches to tighten the wheel nuts

Result: tightening torque which cannot be checked, material damage to the baler

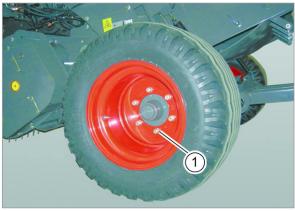
Always use a torque wrench to tighten the wheel nuts.

561

- ► Check the tightness of the wheel nuts (1) after the first 10 hours of operation and each time a wheel is removed. Refer to the maintenance interval table for more information.
- ➤ Tighten the wheel nuts (1) diagonally using a torque wrench.

Туре	Dimensions	Tightening torque
Nuts	M 18 x 1.5	270 Nm (199 lb ft)

9.5.2 Checking the wheel tightness

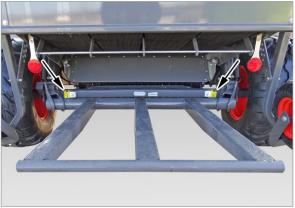


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9.5.3 Lifting points



562 296829-001

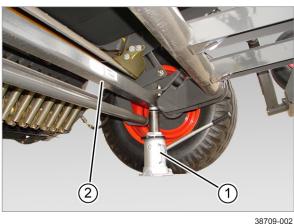


296830-001

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128034-003

9.5.4 Changing the wheels



___ 56

Raising the baler

▶ Position the baler on firm, level ground.

The lifting points must be used when lifting the

The lifting points are identified by the sticker (1).

machine.

- Immobilise the baler with wheels chocks and/or the parking brake (depending on equipment).
- Check the tailgate is closed.
- ► Position a jack (1) underneath the cross member (2) on the side to be lifted.

564





128502-001

565



566 128502-001

- Unlock the wheel nuts (1).
- Lift the baler until the wheel no longer rests on the ground.

25906-001

1711-011

WARNING

Raised baler unstable, when using only a jack

Result: Severe injuries, severe material damage

- In addition to the jack, use axle stands or suitable chocks to support the raised baler.
- Check that the equipment used is compatible with the load raised.
- Check that the assembly is perfectly stable and remains stable throughout the necessary maintenance operations on the machine.
- Check that the ground supporting the machine is stable.

Changing the wheel

- Hold the wheel.
- Unlock and remove the wheel nuts (1).
- Remove the wheel; ensure that it does not rub against the studs.
 - Adjust the lifting height to facilitate removal of the wheel.
- Position the new wheel in front of the hub.
- Position the holes in the wheel opposite the studs in the hub.
- Fit the wheel; ensure that it does not rub against the studs.

Adjust the lifting height to facilitate fitting of the wheel.

Fit the nuts (1) and tighten them without overtightening.

106057-002

ACAUTION

The wheel is heavy

Result: Injury, material damage

- ► Handle the wheel with caution.
- Use suitable handling equipment.





128502-001

Tightening the wheel

- Rest the baler on the ground.
- ➤ Tighten the wheel nuts (1) diagonally using a torque wrench.

Туре	Dimensions	Tightening torque
Nuts	M 18 x 1.5	270 Nm (199 lb ft)

25907-002

567

NOTICE

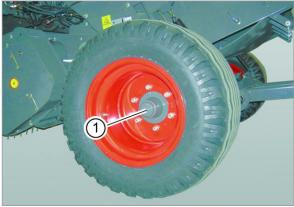
Use of impact wrenches to tighten the wheel nuts

Result: tightening torque which cannot be checked, material damage to the baler

Always use a torque wrench to tighten the wheel nuts.

128035-002

9.5.5 Wheel hub



128512-001

Checking the play

Bearings are components that wear out. Their service life depends on the operating conditions, load, speed, adjustment and lubrication.

After the first few hours of use, play may develop around the wheel hub (1). This play must be checked at least once a year in order to prevent the axle, hubs and wheels from deteriorating.

Have the wheel hub play checked by a specialised workshop.

568

Lubricating the hub bearings

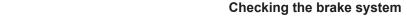
The hub bearings must be lubricated every year at least.

► Have the wheel hub bearings lubricated at a specialised workshop.

9.6 Maintenance operations brake

9.6.1 Hydraulic brakes* and active hydraulic brakes*

128036-004



► Have the entire brake system checked annually by a qualified specialist workshop.

Brake cylinder

Check that the brake cylinder (1) is dry and that there are no leaks.

If this is not the case, have the brake cylinder (1) repaired or replaced by a qualified specialist workshop.

Brake lever

After the first few hours of operation, the brake linings become adapted to the wheels and play develops. To adjust the play, the brake lever must be adjusted (except if the linings are worn).

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338340-001

- Check that the wheel is not locked when the brake is in the rest position (risk of brake overheating).
- ► Have the brake cylinder travel (1) and the brake lever adjustment (2) checked annually by a qualified specialist workshop.

25914-001



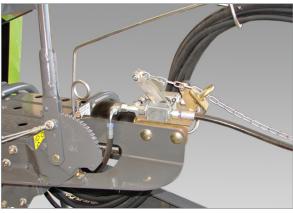
Modification of brake cylinder position on the lever without manufacturer's authorisation

Result: Loss of machine approval, injury, severe material damage

Never alter the position of the cylinder on the brake lever.

Safety brake* (active hydraulic brake)

- ► Have the safety brake checked by a qualified specialist workshop before each harvest.
- Read and comply with the manufacturer's instructions supplied with the machine.



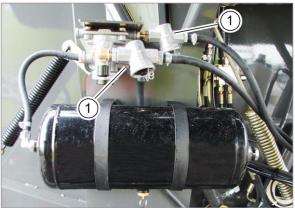
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9.6.2 Pneumatic brakes*

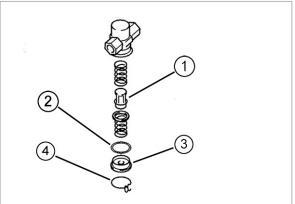
128038-005

Checking the brake system

Have the entire brake system checked annually by a qualified specialist workshop.



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Circuit filtration

The pneumatic brake circuit is equipped with filters. These filters are housed in filter casings (1).

Filtering the air in the pneumatic circuit prevents the pneumatic circuit components from being damaged. When the filters are clogged, they allow air to pass through without filtering it: it is therefore important to clean the filters at regular intervals.

Cleaning the filters

- ▶ Depressurise the pneumatic circuit by disconnecting the pneumatic brake hoses connected to the tractor and by draining the compressed air tank.
- ► Remove the spring ring (4) whilst being aware of the counter-pressure exerted by the cover (3).
- Take out all of the filter elements.
- Wash the filter with solvent.
- ▶ Blow the filter with compressed air.
- ► Replace the damaged parts filter (1) and O-ring (2) with suitable replacement parts.

17296-002

AWARNING

Using non-approved spare parts.

Result: Death or serious injuries.

- Always use replacement parts with technical specifications that correspond to those recommended by the manufacturer.
- ▶ Preferably use CLAAS replacement parts.

Draining the compressed air tank

27162-001

WARNING

Presence of water in the compressed air tank

Result: Material damage caused by corrosion

- Check and drain the tank regularly
- ▶ Replace the valve immediately if it is damaged.

573

The temperature difference between the air outside and the air circulating in the pneumatic circuit creates condensation in the compressed air tank. Therefore it is necessary to drain the tank regularly (every 50 hours of baler use) in order to prevent too much water accumulating in the tank.

Operate the drain valve (1) to drain the tank.

Checking the compressed air tank

27166-003

AWARNING

Damage to the compressed air tank.

Result: Death or serious injuries

- Follow the maintenance and check intervals.
- ► Have the damaged compressed air tank replaced by a qualified specialist workshop.

574

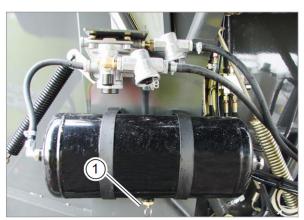
Have the compressed air tank checked by a qualified specialist workshop in accordance with the applicable national regulations.

CLAAS recommends that the check be performed every 2 years.

Brake lever

After the first few hours of operation, the brake linings become adapted to the wheels and play develops. To adjust the play, the brake lever must be adjusted (except if the linings are worn).

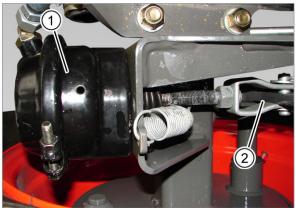
- ► Check that the wheel is not locked when the brake is in the rest position (risk of brake overheating).
- Have the brake cylinder travel (1) and the brake lever adjustment (2) checked annually by a qualified specialist workshop.



28560-001



128575-001



575 338342-001



1711-011 25914-001

AWARNING

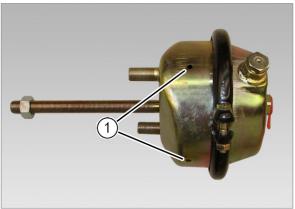
Modification of brake cylinder position on the lever without manufacturer's authorisation

Result: Loss of machine approval, injury, severe material damage

Never alter the position of the cylinder on the brake lever.

Checking the pneumatic brake cylinder

- ► Check that no crop has accumulated in the brake cylinder via one of the orifices (1). If crop is present in the brake cylinder, have it cleaned by a qualified specialist workshop.
- ► Have the brake cylinder membranes checked by a qualified specialist workshop before each harvest.



127960-001

576

Safety brake

► Have the safety brake checked by a qualified specialist workshop before each harvest.



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128039-002

9.6.3 Replacing the brake pads

The brake pads located inside the drums wear out during the lifetime of the machine. They should be replaced before they become too worn.

► Have the brake pads replaced at a specialised workshop.



1711-011 41509-002

AWARNING

Using non-approved spare parts.

Result: Death or serious injuries.

- ► Always use replacement parts with technical specifications that correspond to those recommended by the manufacturer.
- ► Preferably use CLAAS replacement parts.



9.7 Maintenance operations hitch

9.7.1 Drawbar and hitching device mounting

187483-003

108105-004

WARNING

Break in the baler-tractor connection

Result: Fatal or serious injury, severe damage to the baler

- ► Always use dual self-locking washers to attach the hitch.
- ▶ Observe the general safety instructions.

The hitching device and drawbar are important components of the machine.

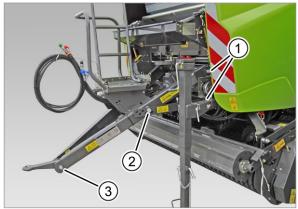
The hitching device and drawbar mounting must be checked regularly.

Checking the drawbar and hitching device mounting

The drawbar arms and height adjustment bars are mounted using the hardware (1) and (2).

The hitching device is mounted on the drawbar arms using the hardware (3).

▶ ™ Page 141, Bolt tightening torques



295195-001



9.8 Maintenance operations hydraulic system

9.8.1 Hydraulic hoses

1711-011

120856-013

124582-008

ACAUTION

Hydraulic hoses may become leaky due to damage and ageing. This may make machine parts drop unintendedly and injure persons.

- Have any damaged hydraulic hoses replaced immediately by a qualified specialist workshop.
- Have hydraulic hose replaced 6 years after manufacture at the latest by a qualified specialist workshop.

To facilitate identifying of hydraulic hoses, each hose has the CLAAS part number printed on it.

- Check hydraulic hoses before initial commissioning and thereafter at least once a
- In the case of damage and ageing, replace hydraulic hoses.

The date of manufacture can be seen on the hose fittings (1).

- (2) = year (e.g. 12 = 2012)
- (3) = month (e.g. 07 = July)

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40202-004



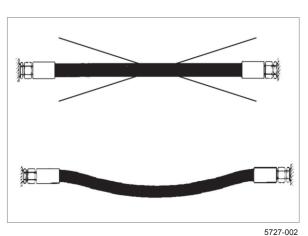
Hose placement

13989-003

NOTICE! Hoses laid in a straight line get shorter as the hydraulic pressure is built up. Valves may be torn

- Always install hoses with a slight slack.
- Install the hoses.
 - Ensure that no tensile or compressive load will occur in any operating condition.

When moving the hose to either side at the centre between two fixing or joining elements (e.g. clamps), the entire play of the hose must be 1 cm min.

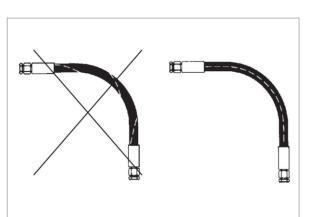


(1)

XXX / 250 bar / <u>13</u>/

1

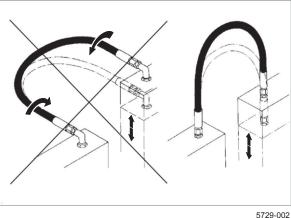




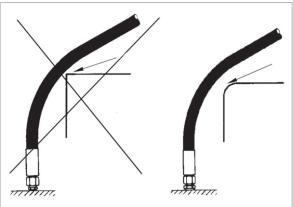
▶ Do not install hose with a twist.

Particularly if there is movement at the hose line

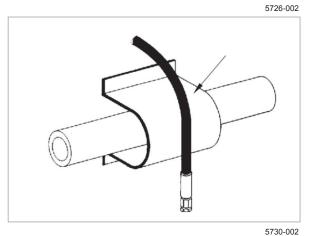
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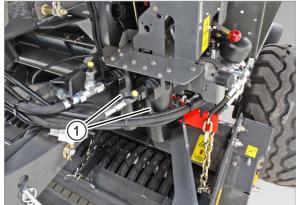
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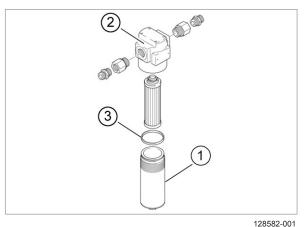
- ► Avoid external mechanical impacts on hoses.
 - Avoid chafing the hoses against each other or against components through proper placement and fastening.
 - ► Keep an adequate distance from components.
 - ► Keep sharp-edged components covered at all times.
- When high outside temperatures are involved, install hose lines at a sufficient distance from components radiating heat.
 - If necessary, protect hose by a protective guard.

1711-011 186542-001

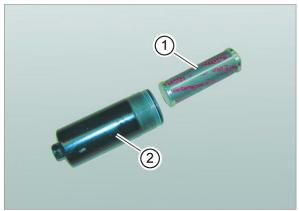
9.8.2 Filter



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128583-001

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Circuit filtration

The hydraulic circuit of the baler is equipped with one or two filters (1). This filter is fitted to the left-hand side of the baler underneath the hydraulic block.

Filtering the hydraulic circuit prevents the circuit components from being damaged. When the filter is clogged, oil passes through without being filtered: it is therefore important to clean and replace the filter regularly.

Changing the filter

The filter must be replaced after 500 hours of use or every year.

- ▶ Release the pressure in the hydraulic circuit.
- ▶ Undo the filter casing (1) from its body (2).
- ▶ Remove and discard the seal (3).

- ► Take the filter (1) out of the casing (2).
- ► Clean the casing (2).

17296-002

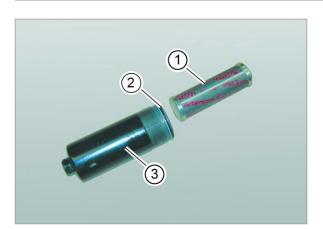


Using non-approved spare parts.

Result: Death or serious injuries.

- ► Always use replacement parts with technical specifications that correspond to those recommended by the manufacturer.
- ▶ Preferably use CLAAS replacement parts.





128584-001

588

- ► Replace the original filter (1) with a filter which has identical specifications.
- ► Replace the original seal (2) with a seal which has identical specifications.
- ► Screw the filter casing (3) back onto its body.

The filter must be sealed tightly after the casing has been screwed on.

25642-001

Environment

Disposal of waste oil and used oil filters

Result: Environmental pollution

- Recover waste oils and used oil filters.
- ► Store the oil and used oil filters in accordance with the current standards.
- ▶ Dispose of waste oil and oil filters in accordance with the current standards.



156872-004

30348-002

9.9 Maintenance operations pick-up

9.9.1 Pick-up

MARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.

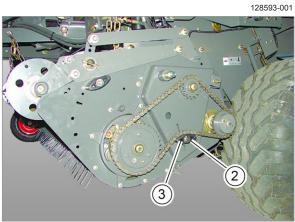
The pick-up is driven by chains. After several hours of use, the chains slacken.

Left-hand side - Assembly with a tensioning guide

- Remove the protective cover (1).
- ▶ Undo the bolt (2) on the tensioning guide (3).
- ► Move the tensioning guide (3) upwards to tighten the chain.
- ▶ Retighten the tensioning guide bolt (2).
- ▶ Refit the protective cover (1).



589



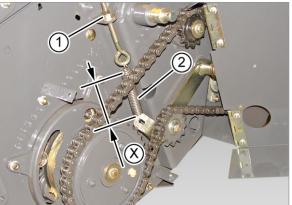
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128596-001

Left-hand side - Assembly with a tensioner

▶ Remove the protective cover (1).

591 128593-001



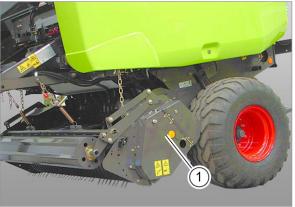
The chain is tensioned with the spring (2).

► Adjust dimension (X) of the spring (2) using the nut / lock nut (1).

The dimension (X) is taken at the edges of the spring coils (2).

X = 107 mm

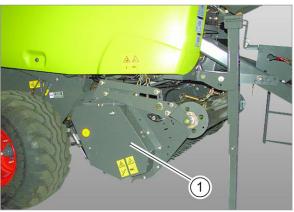
592



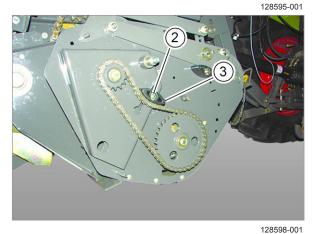
► Fit the protective cover (1).

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128593-001



594



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9.9.2 Pick-up shear bolt*



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Right-hand side

- ▶ Remove the protective cover (1).
- ▶ Undo the bolt (2) on the tensioning guide (3).
- ► Move the tensioning guide (3) downwards to tighten the chain.
- ▶ Retighten the tensioning guide bolt (2).
- Refit the protective cover (1).

128067-004

Valid for:

Cause of shear

Look for the cause of the shear.
 Blockages in the pick-up?
 Presence of foreign objects?

Machine equipped with a pick-up with shear bolt

The pick-up drive and the lateral feed augers are protected by a shear bolt (1).



Replacing the bolt

30348-002



Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.
- Remove the pick-up wheel.
- ▶ Open the rear section of the left-hand cover (1) with an Allen key.



128601-001 **597**

- ► Insert atechnic

 Tighte

 Close
- ► Remove the rest of the shear bolt (2).
 - ► Insert a new shear bolt which has identical technical specifications to the original bolt.
 - Page 143, Shear bolt
 - Tighten the shear bolt.
 - ► Close the rear section of the left-hand cover (1).

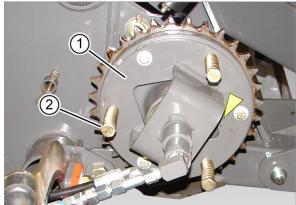


128603-001

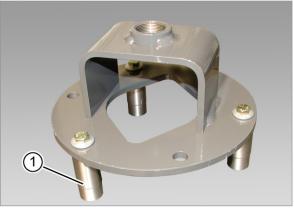
128048-005

9.10 Maintenance operations feeder unit

9.10.1 Rotor cut-out clutch

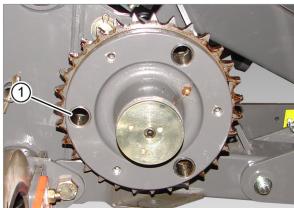


599



149811-001

600



149810-001

601

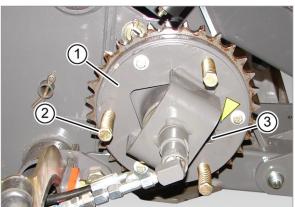
Cleaning

- ► Ensure that the hydraulic circuit is not pressurised.
- ▶ Remove the 3 bolts and springs (2).
- ► Remove the plate (1).

► Clean the plate pins (1).

► Clean the pinion bores (1).



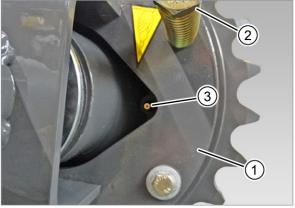


► Fit the plate (1).
Caution: the grease nipple (3) must be accessible.

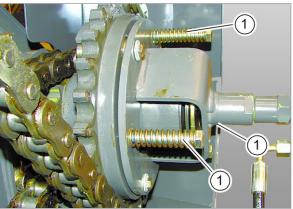
► Fit the 3 bolts and springs (2).

602

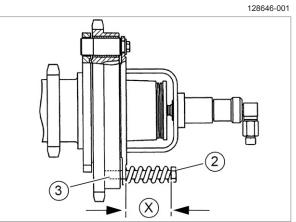
338211-001



338209-001 **603**



604



128647-001

Compression springs

► Check the length (X) of the rotor cut-out clutch springs (1).

The length (X) is measured between the rotor cutout clutch and the nut.

67 mm < X < 69 mm

- ► If the length of the spring is not correct, adjust it.
- ► Adjust the length (X) of the spring (1) using the bolt (2) and the interior bolt (3).

186544-001

9.11 Maintenance operations baling chamber

9.11.1 Loosening



13584-001

606

Switch the control terminal on.

- Open the tailgate using the tractor's hydraulic control valve.
- Lock the tailgate using the hydraulic safety lever. Page 53, Locking the tailgate
- Loosen the belts by activating the tailgate opening hydraulic control valve.
 - The tailgate remains open when the lower and upper tensioning arms are raised.
- Keep the tractor's hydraulic control valve activated until the belts are sufficiently loosened.

Do not run the machine with the belts loosened!

Re-tension the belts using the tractor's hydraulic

control valve in the opposite direction before closing the tailgate again!

128053-002

9.11.2 Checking wear



607



13828-001

The belts are composed of rubber and fabric. They are cut from a strip of material which is wider than necessary; this is why the appearance of fringes is normal. These fringes must be cut regularly.

The belts must be visually inspected once a week.

Checking procedure

- Loosen the belts.
- Check the wear of the belts.
 - If the belts contain numerous fringes: Cut the
 - If the belts are damaged around a staple or lengthways along less than 500 mm (1 ft 8 in): Repair the belts by stapling.
 - If the belts are damaged lengthways along more than 500 mm (1 ft 8 in): Replace the belts.

1711-011 128054-002

9.11.3 Repair

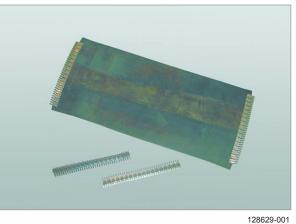


A damaged belt may be repaired using a piece of stapled belt in the following circumstances:

- · The belt is damaged widthways.
- · The belt is damaged lengthways (damaged section less than 500 mm (1 ft 8 in) long).
- The belt is damaged around the staples (for a belt repaired with staples).
- ▶ Use a special stapler to repair belts being stapled (this can be ordered from the CLAAS Replacement parts department).



13509-001

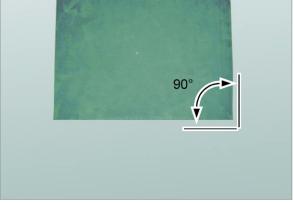


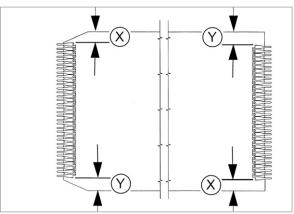
▶ Use a piece of stapled belt 500 mm (1 ft 8 in) long and box of staples (this can be ordered from the

CLAAS Spare Parts department).



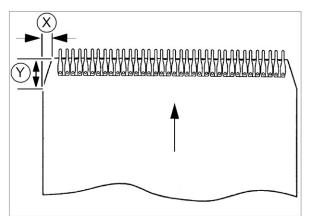
- Cut the belt around the tear.
- Remove the belt from the baler.
- Lay the belt flat.
- Cut out a piece of belt 510 mm (1 ft 8 ¹/₂ in) centred on the damaged area. Each end of the section of damaged belt must be cut at right angles.



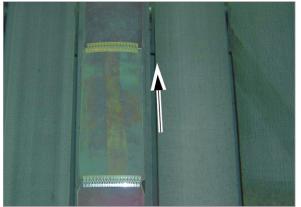




128634-001



128636-001



128638-001

- Fit the staples at each end of the belt, positioning them according to dimensions (X) and (Y).
 - X = 15 mm (5/8 in)
 - $Y = 18 \text{ mm } (^{3}/_{4} \text{ in})$
- Fix the staples to each end of the belt using the special belt stapler.

612

- Refit the belt on the baler.
- Attach the piece of belt between the two ends using a mounting rod.

The bevelled section must be oriented in the direction that the belt rotates (arrow).

37667-001

1711-011

WARNING

Mounting rod wear

Result: Belt problem

613 ► Replace the mounting rods every 2,000 bales.

- Cut the original belt with a bevelled edge in the direction that the belt rotates (arrow).
 - X = 15 mm (5/8 in)
 - $Y = 30 \text{ mm} (1 ^{3}/_{16} \text{ in})$

The bevelled belt shape is used to prevent the belt from catching in the belt guides.

615

1711-011 128055-001

9.11.4 Replacing a belt

Two techniques can be used to replace the endless belts:

- · replacement by stapling,
- · replacement by bonding.

Both replacement techniques are equivalent. The only difference is the repair time necessary when the machine is out of service. They are both available from CLAAS dealer.

Repair by stapling consists of replacing the damaged belt with a belt which will be stapled in place. This repair technique results in the baler being immobilised for a short period of time.

Repair by bonding consists of replacing the damaged belt with a belt which will be bonded in place. Not using staples reduces the wear on the rollers over which the belt is fed. This technique requires 24 hours drying time.

Replacement by stapling

 Use a belt stapling kit (this can be ordered from the CLAAS Replacement parts department).

37667-001

128056-001



Mounting rod wear

Result: Belt problem

► Replace the mounting rods every 2,000 bales.



128634-001

616



1724-001

Replacement by bonding

 Use a belt bonding kit (this can be ordered from the CLAAS Replacement parts department).

617

9.11.5 Replacing a complete set

When a set of belts is worn or damaged, the set must be completely replaced: always replace a set of belts with a new set of belts.

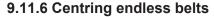
- ▶ Fit the two longest belts in the centre.
- ► Fit the two shortest belts on the outside.
- ▶ Adjust the position of the endless belts correctly using the instructions entitled Adjusting the belts (this can be ordered from the CLAAS Replacement parts department).

237259-001

The endless belts can slide from one side of the baler to the other. This sliding movement may affect belt rotation, therefore it is advisable to:

- · check the position of the belts regularly, and
- · adjust the position of the belts if necessary.

618



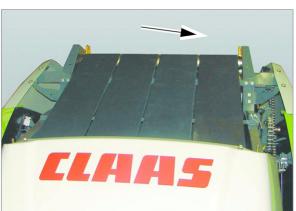


128060-001



619

128590-001



128591-001

Sliding to the left

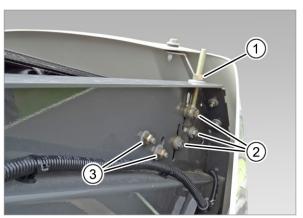
If the belts slide to the left side of the baler (in relation to the direction of forward travel):

- ▶ Raise roller no.7 on the left-hand side, or
- ▶ Lower roller no.7 on the right-hand side.
- Page 382, Adjusting roller no.7

Sliding to the right

If the belts slide to the right side of the baler (in relation to the direction of forward travel):

- ▶ Raise roller no.7 on the right-hand side, or
- ▶ Lower roller no.7 on the left-hand side.
- Page 382, Adjusting roller no.7



299379-001

Adjusting roller no.7

- ► Check that the ground is stable and as level as possible (less than 8.5° gradient).
- Stop the tractor engine.
- Apply the tractor's handbrake.
- Remove the ignition key.
- ▶ Switch off the control terminal.
- Apply the baler parking brake (depending on the equipment).

30348-002

621

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- Stop the power take-off.
- ► Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- ► Remove the ignition key.

On both sides of the machine:

- Undo the 2 scraper bolts (3).
 Caution: the scraper moves when the bolts are loosened.
- ▶ Undo the 3 bolts (2) on roller no.7.
- ▶ Raise (or lower) roller no.7 on the required side using the nuts (1) for the adjustment bolt.
- Switch the tractor on.
- Start up the power take-off.
- ▶ From the tractor, check that the belts are centred.

If the belts are still incorrectly centred

- Stop the tractor engine.
- Repeat the operations above.

30348-002

AWARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ▶ Stop the power take-off.
- Immobilise the tractor/baler assembly.
- ► Stop the tractor engine.
- Remove the ignition key.

If there is still friction or an offset after several attempts:

► Contact a qualified specialist workshop.

If the belts are centred correctly

- Stop the tractor engine.
- ▶ Apply the tractor's handbrake.
- Remove the ignition key.
- Switch off the control terminal.

30348-002

WARNING

Drives in motion during reconditioning, maintenance, cleaning work or technical operations on the baler.

Result: Death or serious injuries by trapping

- ► Stop the power take-off.
- Immobilise the tractor/baler assembly.
- Stop the tractor engine.
- Remove the ignition key.
- ▶ Retighten the 3 bolts (2) on roller no.7.
- ► Adjust the position of the scraper on roller no.7.

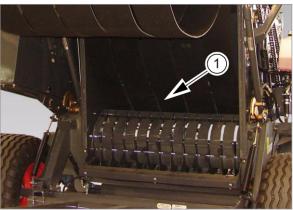
 □ Page 388, Roller No.7

1711-011 128058-005

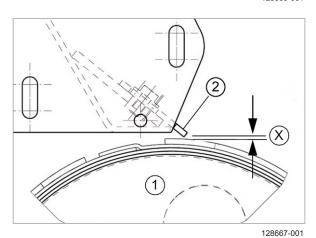
9.11.7 Roller No.1



132893-001 **622**



128666-001



624

Roller No.1 (1) is accessible from inside the machine, behind the endless belts.

Checking

- ▶ Open the tailgate using the tractor's hydraulic control valve in order to access roller No.1.
- ► Lock the tailgate. [™] Page 53, Locking the tailgate
- ► Loosen the belts. [™] Page 377
- ▶ Pull the belts slack and move them aside to access roller No.1 (1).

623

► Check the distance (X) between the scraper (2) and the roller No.1 (1).

1.5 mm < X < 2 mm

 $^{1}/_{16}$ in < X < $^{5}/_{64}$ in

▶ If the distance (X) is not correct, adjust it.

Adjusting the scraper

➤ Adjust the position of the scraper (2) using the scraper mounting bolts to obtain the distance (X).

1.5 mm < X < 2 mm

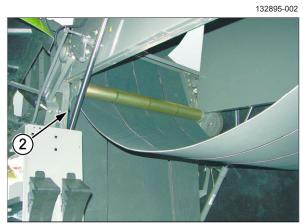
 $^{1}/_{16}$ in < X < $^{5}/_{64}$ in

1711-011 128059-005

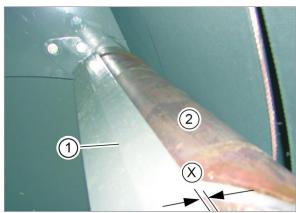
9.11.8 Roller No.2



625



128668-002



128669-001

627

Roller No.2 (2) is accessible from inside the machine, behind the endless belts.

Checking

- ▶ Open the tailgate using the tractor's hydraulic control valve in order to access roller No.2.
- ► Lock the tailgate. [™] Page 53, Locking the tailgate
- ▶ Loosen the belts. [™] Page 377
- ▶ Pull the belts slack and move them aside to access roller No.2 (2).

626

- ► Check the distance (X) between the scraper (1) and the roller No.2 (2).
 - X = 0.5 mm
 - $X = \frac{1}{64}$ in
 - ▶ If the distance (X) is not correct, adjust it.

Adjusting the scraper

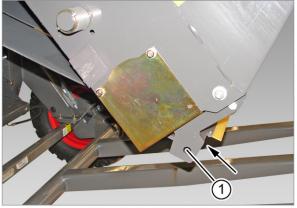
- ► Adjust the position of the scraper (1) using the scraper mounting bolts to obtain the distance (X).
 - X = 0.5 mm
 - $X = \frac{1}{64}$ in

1711-011 128060-006

9.11.9 Roller No.5

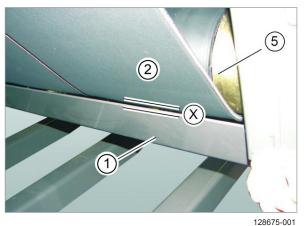


132897-001 **628**



158122-001

629



630

Roller No.5 (5) is located in the lower part of the tailgate.

Checking

- ▶ Open the tailgate using the tractor's hydraulic control valve in order to access roller No.5.
- ► Lock the tailgate. To Page 53, Locking the tailgate

▶ Press the scraper (1) so that it reaches its stop.

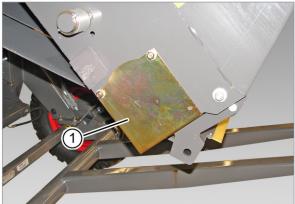
► Check the distance (X) between the belts (2) and the scraper (1).

X = 4 mm

 $X = \frac{5}{32}$ in

► If the distance (X) is not correct, adjust it.

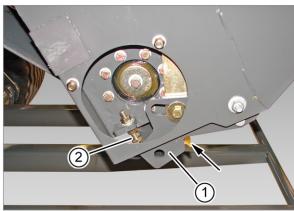




Adjusting the scraper

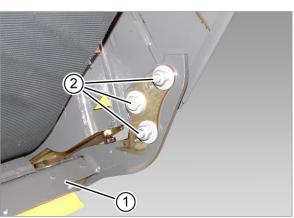
▶ Remove the protective cover (1).

631 158121-001



Press the scraper (1) so that it is positioned against the adjusting screw (2).

632 158119-001



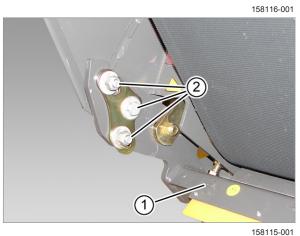
► Adjust the position of the scraper (1) so that it is parallel with the belts. Use the bolts (2) on the right and left-hand sides

to make this adjustment.

The scraper must not be in contact with the belts.

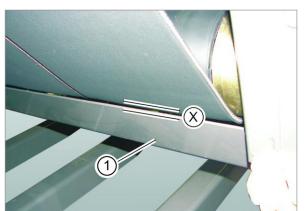
- risk of premature wear of the scraper and belts
- belt guide disruption

633





188782-002

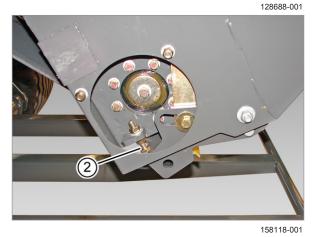


▶ Adjust the height of the scraper (1) using the bolt (2) to obtain the distance (X).

X = 4 mm

 $X = \frac{5}{32}$ in

635



636

158113-001

637

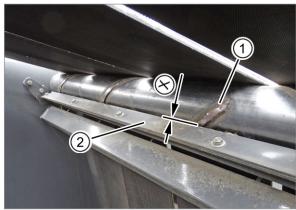
▶ Adjust the position of the bolt (2) on the right-hand side so that it is in contact with the scraper (1).

9.11.10 Roller No.7



638

Roller No.7 (7) is located in the tailgate.



Checking

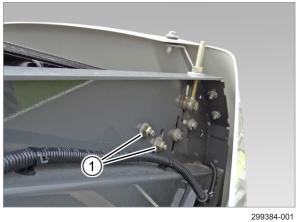
► Check the distance (X) between the scraper (2) and the helical rib (1) on roller No.7.

1 mm < X < 3 mm 3/₆₄ in < X < ¹/₈ in

▶ If the distance is not correct, adjust it.

299385-001

639



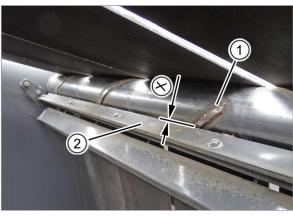
Adjusting the scraper

On both sides of the machine:

▶ Loosen the 2 scraper bolts (1). Caution: The scraper moves when the bolts are loosened.

1 001



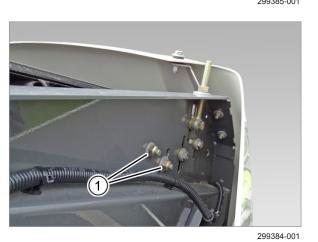


► Adjust the position of the scraper (2) to obtain the distance (X) between the scraper (2) and the helical rib (1) on roller No.7.

1 mm < X < 3 mm ${}^{3}I_{64}$ in < X < ${}^{1}I_{8}$ in

299385-001

641

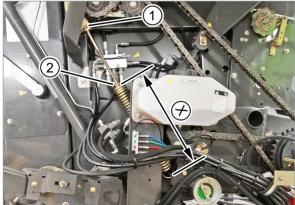


642

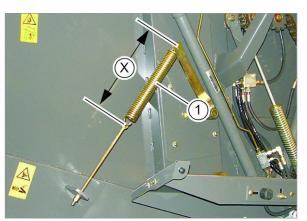
► Tighten the 2 scraper bolts (1).

1711-011 188448-002

9.11.11 Drive springs



643



128696-001

Tension spring for main chain and rotor chain

► Check the length (X) of the tension spring for the main chain and rotor chain.

The length (X) is measured between the inner edge of the mounting ring and the opposite end of the spring (lock nut contact surface).

425 mm < X < 435 mm

1 ft 4 $^{3}/_{4}$ in < X < 1 ft 5 $^{1}/_{8}$ in

If the length of the spring is not correct:

- Release the lock nut (2).
- ► Adjust the length (X) using the screw (1).
- ► Tighten the lock nut (2).

Spring for tailgate drive

► Check the length (X) of the spring (1) for the tailgate drive.

The length (X) is measured between the inner edges of the spring rings.

X = 380 mm

 $X = 1 \text{ ft } 2^{31}/_{32} \text{ in}$

If the length of the spring is not correct, adjust it.

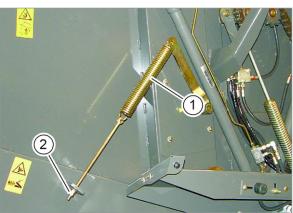
82670-001

644 **WARNING**

Spring for tailgate drive incorrectly tensioned

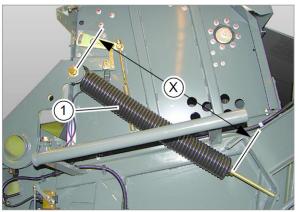
Result: High risk of baler fire

- Check the tension of the tailgate drive chain every 50 hours.
- Adjust the length (X) of the spring (1) using the nut and lock nut (2).
 - ► Tighten the lock nut (2).



128697-001





CLAA5

128698-001

Upper tensioning arm spring

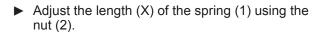
► Check the length (X) of the upper tensioning arm spring (1).

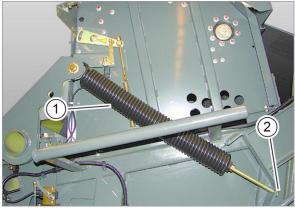
The length (X) is measured between the inner edges of the spring rings.

695 mm < X < 705 mm 2 ft 3 $\frac{3}{8}$ in < X < 2 ft 3 $\frac{3}{4}$ in

▶ If the length of the spring is not correct, adjust it.

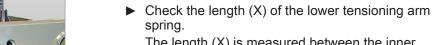






128699-001

647

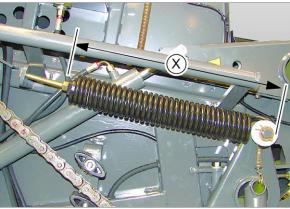


The length (X) is measured between the inner edges of the spring rings.

565 mm < X < 575 mm 1 ft 10 $^{1}/_{4}$ in < X < 1 ft 10 $^{5}/_{8}$ in

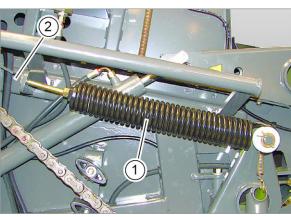
Lower tensioning arm spring

▶ If the length of the spring is not correct, adjust it.



128700-001

648

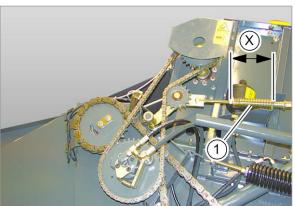


128701-001

nut (2).

Adjust the length (X) of the spring (1) using the





128702-001

Spring for free wheel drive

► Check the length (X) of the spring (1) for the free wheel drive.

The length (X) is measured between the top of the spring and the mounting nut.

VARIANT 460/465: $X = 170 \text{ mm} (6 ^{11}/_{16} \text{ in})$ VARIANT 480/485: $X = 140 \text{ mm} (5 ^{1}/_{2} \text{ in})$

▶ If the length of the spring is not correct, adjust it.



- ► Remove the upper right-hand cover.
- Undo the lock nut (2).
- Adjust the length (X) of the spring (1) using the
 - ► Tighten the lock nut (2).

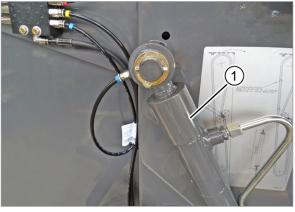


128703-001

651

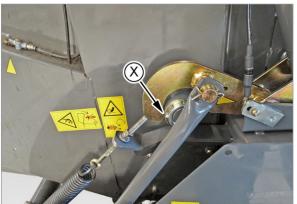
182250-001

9.11.12 Tailgate eccentric rings

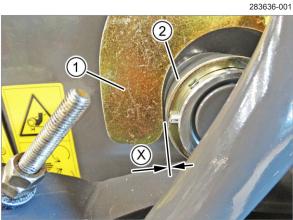


283284-001

► Check that the tailgate is properly closed. The rod for each tailgate cylinder (1) must be completely retracted.



653



654 283285-001



655 283291-001

Checking

On both sides of the machine:

Check the rear horizontal clearance (X) between the hook (1) and the tube (2). The clearance (X) must be minimal and there

must be no contact between the hook (1) and the tube (2).

Setting

On both sides of the machine:

- ▶ Remove the tensioning pin (3).
- Turn the eccentric ring (5) on the welded shaft (4) to set the rear horizontal clearance (X) between the hook (1) and the tube (2):
 - clockwise on the right-hand side of the machine
 - anticlockwise on the left-hand side of the machine

The clearance (X) must be minimal and there must be no contact between the hook (1) and the tube (2).

One of the holes in the eccentric ring (5) must be opposite the hole in the welded shaft (4).

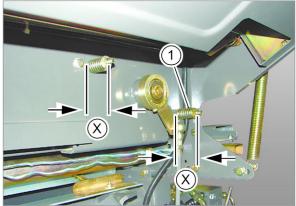
Fit the tensioning pin (3).

9.12 Maintenance operations tying

1711-011

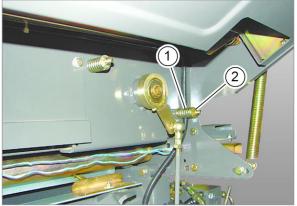
128044-003

9.12.1 Twine tying



128769-001

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128770-001

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Disc brake spring

► Check the length (X) of the two disc brake springs (1).

The length (X) is measured between the panel and the nut.

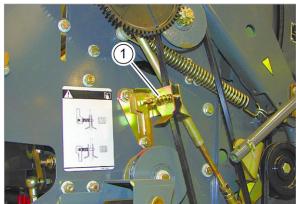
X = 40 mm

 $X = 1 \, {}^{9}/_{16} in$

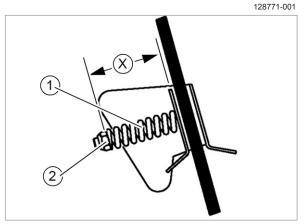
▶ If the length of the spring is not correct, adjust it.

► Adjust the length (X) of the spring (1) using the nut (2).





658



128774-001

Drive belt brake

► Check the length (X) of the drive belt brake spring (1).

The length (X) is measured between the brake plate and the nut.

X = 28 mm

 $X = 1 \, {}^{3}/_{32} in$

► If the length of the spring is not correct, adjust it.

659

► Adjust the length (X) of the spring (1) using the nut (2) or spacer rings.



660

Twine brake

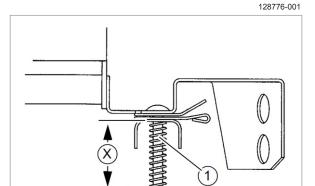
► Check the length (X) of the two twine brake springs (1).

The length (X) is measured between the upper brake plate and the nut.

X = 55 mm

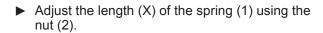
 $X = 2^{5}/_{32}$ in

► If the length of the spring is not correct, adjust it.



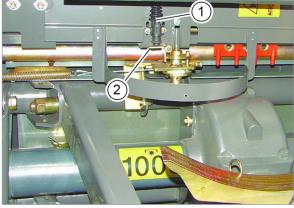
128778-001

661



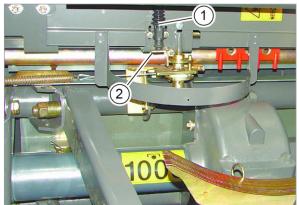
Twine knife

- ▶ Put the knife in the <Rest> position, i.e. so that the spring of the knife is not under tension.
- Check that the sensor (1) is in contact with the bracket (2).
 - ► If the sensor is in contact with the plate, then the sensor is correctly positioned.
 - ► If the sensor is not in contact with the plate, then adjust the position of the sensor.



128780-001

188591-003



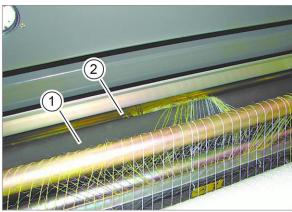
▶ Move the sensor (1) along the oblong holes so that it is touching the bracket (2).

Hold the sensor in position using the bolts.

128782-001

663

9.12.2 Net tying

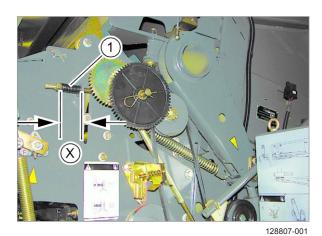


Reminder

Regularly clean the rubber roller (1) and the pressure roller (2): they must turn freely for the net drive to work correctly when tying starts.

128806-001

664



665

Counter roller

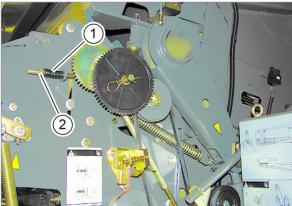
Check the length (X) of the counter roller compression spring (1) on both sides of the machine.

The length (X) is measured between the welded panel and the nut.

X = 45 mm

 $X = 1^{25}/_{32}$ in

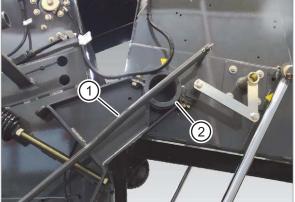
If the length of the spring is not correct, adjust it.



► Adjust the length (X) of the spring (1) using the nut (2).

666





258156-001

Net knife resetting lever

VARIANT 460 / 465

➤ Open the tailgate using the tractor's hydraulic control valve until the tie-rod (1) is centred on the bearing (2).

VARIANT 480 / 485

- ➤ Open the tailgate completely using the tractor's hydraulic control valve.
- Lock the tailgate.
 - Page 53, Locking the tailgate

667





CLAA5

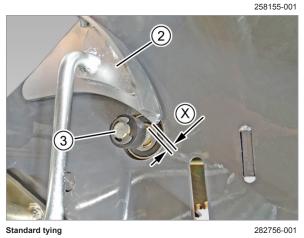
The net knife resetting lever (1) is compressed. It has moved the hook (2) on top of the knurled shaft (3).

Check the distance (X) between the end of the hook (2) and the knurled shaft (3).

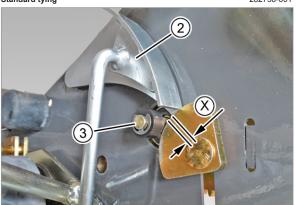
4 mm < X < 6 mm $^{5}/_{32}$ in < X < $^{15}/_{64}$ in

▶ If the distance is not correct, adjust it using the resetting lever (1).

668



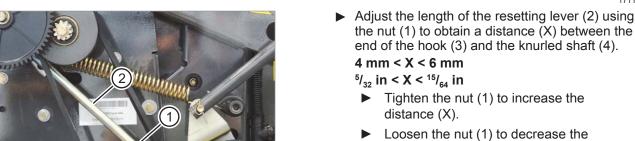
669



670

282758-001 Comfort tying





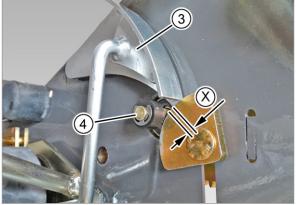
671

258151-001



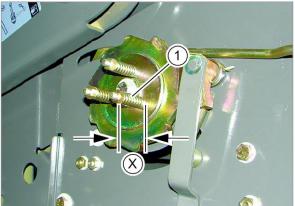
Standard tying

282757-001



Comfort tying

282759-001



674 128816-001

672

Ratchet wheel with standard tying

distance (X).

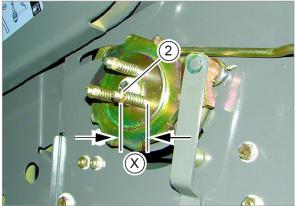
► Check the length (X) of the ratchet wheel springs (1).

The length (X) is measured between the ratchet wheel and the nut.

37 mm < X < 39 mm

 $1^{15}/_{32}$ in < X < $1^{17}/_{32}$ in

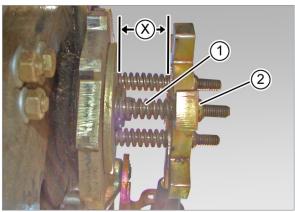
► If the length of the spring is not correct, adjust it.



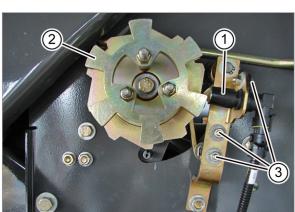
Adjust the length (X) of the spring using the nut (2).

128817-001

675



676 39462-001



39461-001

Ratchet wheel with comfort tying

► Check the length (X) of the ratchet wheel springs (1).

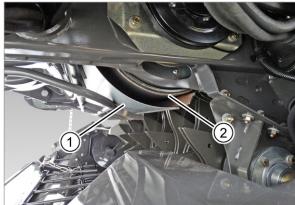
The length (X) is measured between the ratchet wheel and the nut.

35 mm < X < 36 mm

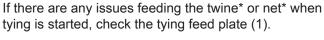
- $1^{3}/_{8}$ in < X < $1^{27}/_{64}$ in
- ► If the length of the spring is not correct, adjust it.
- ► Adjust the length (X) of the spring (1) using the nut (2).
- ► Check the position of the sensor (1) in relation to the code wheel (2): it should be between 2 and 4 mm (⁵/₆₄ and ⁵/₃₂ in).
- ▶ If necessary, adjust the position of the sensor using the bolts (3).

1711-011 194045-002

9.12.3 Tying feed plate



299097-001



Checking

► Check that the tying feed plate (1) is completely flattened against the endless belts (2) when tying is started.

The tying feed plate (1) must be in contact along the greatest section of its curvature, and this must be identical on both sides of the machine. If this is not the case, contact the CLAAS aftersales service.

678

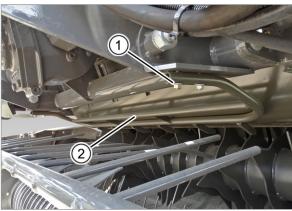
Maintenance

Clean and blow the tying feed plate (1) to remove any traces of accumulated crop.
Never use a sharp object to clean the tying feed plate (1).



313450-001

679



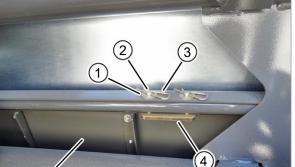
313533-001

If there is significant soiling, the tying feed plate can be removed to facilitate cleaning.

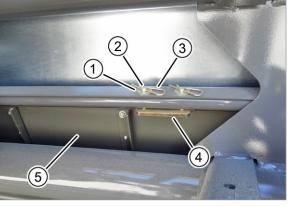
- ▶ Remove the 4 bolts, washers and nuts (1).
- ► Remove the protective tube (2).

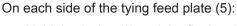
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183299-001



313524-001

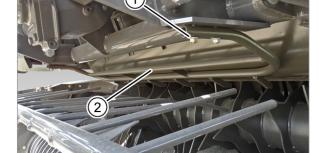




- ▶ Hold the 2 pins (2) and the flat bar (4) in place.
- Remove the 2 spring pins (3) and the 2 washers (1).
- Remove the 2 pins (2) and the flat bar (4).
- Remove the tying feed plate (5).
- Clean the tying feed plate (5).
- Perform the operations in reverse order to refit the tying feed plate (5).



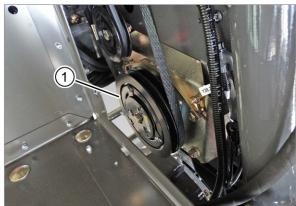
- ► Fit the protective tube (2) in place.
- Fit the 4 bolts, washers and nuts (1).



313533-001

682

9.12.4 Cleaning the tying clutch



286447-001

Reminder

The tying clutch can be accessed by removing the bottom of the twine box*.

An accumulation of crop and/or dust in the clutch can cause tying drive problems.

- ▶ Clean the clutch:
 - Blow air through all the openings.
 - If necessary, degrease using a suitable product.

128047-003

9.13 Maintenance operations bale discharge

9.13.1 Bale ramp



128720-001



128723-001

Bale ramp draw spring

► Check the length (X) of the bale ramp springs. The length (X) is measured between the inner edges of the spring rings.

X = 400 mm

 $X = 1 \text{ ft } 3^{3}/_{4} \text{ in}$

► If the length of the spring is not correct, adjust it.

- ► Adjust the length (X) of the spring (1) using the nut (2).
- ▶ Repeat the operation on the other side.

685



Bale ramp travel limit detection system

The travel limit detection system is adjusted using the control terminal and the bale ramp.

This system signals that the bale has moved onto the bale ramp: the control terminal emits a beep and a symbol appears on the display.

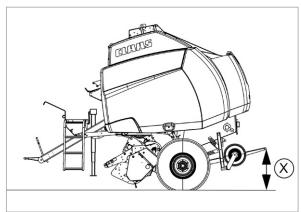
Checking

▶ Press on the bale ramp until it is at the distance (X) from the ground.

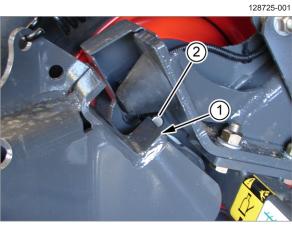
150 mm < X < 200 mm 5 ⁷/₈ in < X < 7 ⁷/₈ in

Section (1) of the ramp is no longer facing the sensor (2).

- The control terminal emits a beep and displays the bale discharge symbol on the screen: the travel limit detection system is correctly adjusted.
- The control terminal does not emit a beep and does not display the bale discharge symbol on the screen: adjust the position of the sensor.



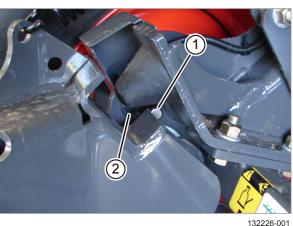
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687



Setting



688

► Press on the bale ramp until it is at the distance (X) from the ground.

150 mm < X < 200 mm 5 ⁷/₈ in < X < 7 ⁷/₈ in

- ▶ Adjust the position of the sensor (1) in the opening (2) until the control terminal emits a beep and displays the bale discharge symbol on the screen.
- ► Release the pressure on the bale ramp; the bale discharge symbol will be cleared from the screen and no beep can be heard.
- Press the bale ramp to check the setting.

156634-007

9.14 Maintenance operations lubrication system

9.14.1 Chain lubrication



177139-001

689

Lubricant

The chain lubrication tank must be filled at regular intervals. It must never be empty.

157801-002

NOTICE

Chains poorly lubricated or not lubricated at all

Result: overheating and premature wear of the chains

- ▶ Never empty the hydraulic oil tank completely.
- Regularly fill the oil tank, taking into account the pump flow setting.

36007-005

Information

Use biodegradable oil which has a viscosity suited for lubricating chains

Result: correct, regular lubrication of the chains

- ► Use biodegradable oil.
- ► AGRIHYD XTREME 46

Filling with oil

- Open the right-hand side flap.
- ► Clean the outside of the lubrication oil tank (1) and the cap (2).
- ▶ Undo the cap (2) on the oil tank (1).
- Fill the tank with oil.
 - Page 144, Operating utilities
- Screw the cap back onto the oil tank.
- Close the right-hand side flap.

690

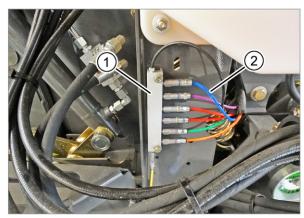
177134-001

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Changing the filter

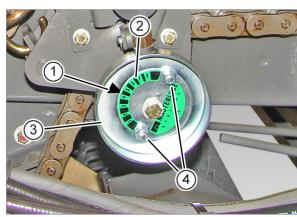
► Contact a qualified specialist workshop.





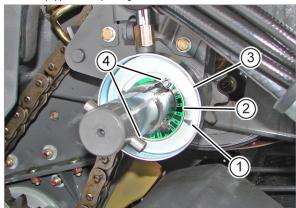
13185-001

691



Machine equipped with a pivoting floor





Machine equipped with an unblocking key

177143-001

Lubrication lines

The lubrication oil pump is connected to the lubrication lines (2) by the distributor (1).

The lubrication lines can be identified by colour:

- Blue = main drive
- Purple = rotor
- · Red = tailgate
- Green = roller No.3
- Orange = pick-up left-hand chain (depending on equipment)
- Yellow = pick-up right-hand chain (depending on equipment)

Mechanical lubrication oil pump

The oil flow depends on the position of the mark (1) in relation to the graduated segment (2).

The setting varies from 0 to 8:

- -0 = no flow
- 8 = maximum flow

Basic adjustment: the mark (1) is opposite figure 3.

Setting

► Loosen the 2 bolts (4).

692

- ➤ Turn the cam (3) to position the mark (1) on the desired value.
- ► Retighten the 2 bolts (4).

147024-002

NOTICE

Chains poorly lubricated or not lubricated at all

Result: overheating and premature wear of the chains

Never adjust the flow below 3.

693 Note: If necessary, the flow of one lubrication line can be modified independently of the other lines.

It is necessary to change the corresponding restrictor (available from the CLAAS After-Sales Service) on the distributor.

In addition to this operation, the oil pump flow must be adapted to compensate for the flow from the other lubrication lines.

1711-011 199582-001

Information

Movement of the lubrication pump piston

While the machine is rotating, the pad of the lubrication pump piston is not in permanent contact with the eccentric disc when the lubrication circuit is pressurised.

When the pressure in the lubrication circuit drops, the pad comes back into contact with the eccentric disc. The piston re-pressurises the lubrication circuit.

Priming the mechanical lubrication oil pump

If there is no oil in the lubrication circuit, the oil pump must be primed to provide an optimal flow rate.

- Fill the tank with oil.
 - Page 144, Operating utilities
- ▶ Disconnect the line (1) at the oil pump.
- ▶ Wait for the oil to flow out of the line (1).
- ➤ Connect the line (1).
- Run the machine with no load to reprime the system.

If necessary, increase the oil pump flow rate during the priming process then return it to the original setting.

Page 407, Mechanical lubrication oil pump

- ▶ Stop the power take-off.
- Stop the tractor engine and remove the ignition key.
- ▶ Check the lubrication on each chain.

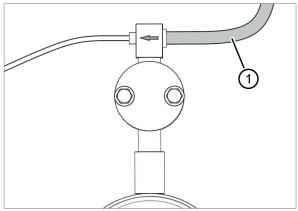
Operation check

Several times a day, check that there is oil on the drive chains.

Check that oil comes out of the lubrication brushes.

The chains must be oily. If not, check the circuit.

Page 325, Resolving problems



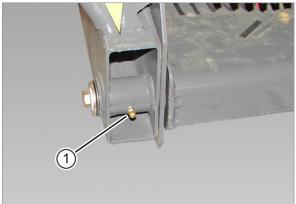
373398-001 **694**



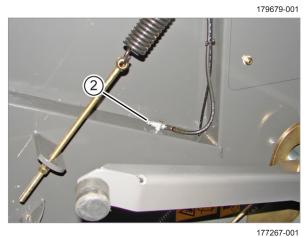
157810-001

9.15 Maintenance operations greasing system

9.15.1 Manual lubrication



695



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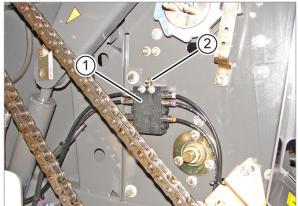
The various points requiring lubrication are equipped with a grease nipple (1) or a remote grease nipple (2) connected by a duct for easy access.

- ► Connect the end of the grease pump to the grease nipple.
- ► Inject the grease (2 or 3 pumps per grease nipple).

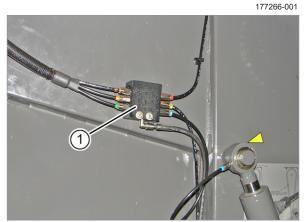
The lubrication intervals must be observed. The Page 341, Lubrication plan

1711-011 156688-003

9.15.2 Manual central lubrication*



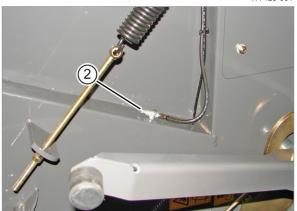
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177123-001

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177267-001

The baler is fitted with 2 central lubrication modules (1) which are connected to the main lubrication points to facilitate lubrication of the baler.

The modules are located on the front right-hand chassis and on the right-hand side of the tailgate.

On each module:

- Connect the end of the grease pump to the greaser (2).
- Inject the grease.
 - approximately 10 cm³ (0.6 in³) of grease for the front right-hand chassis module
 - approximately 15 cm³ (0.9 in³) of grease for the right-hand tailgate module

The modules must be lubricated every 8 hours.

19252-001

MARNING

Presence of areas which have not been automatically greased by central lubrication

Result: damage to non-lubricated areas

- Regularly lubricate all areas which are not automatically greased by central lubrication.
- Lubrication plan.

Operation check

After each lubrication operation:

Check that grease comes out of rollers No.3 and No.5.

If no grease comes out, check the circuit.

Page 327, Resolving problems

Every 50 hours:

- ▶ Inject at least 3 times the normal amount of grease.
- Check that grease comes out of the points supplied by each module.



If no grease comes out at any point, check the circuit.

Page 327, Resolving problems

203538-001

9.15.3 Electric automatic central lubrication*



332641-001

Checking the grease level

- ► Check the level of grease in the central lubrication pump reservoir (1) every day. The grease level should be between the <MIN> (B) and <MAX> (A) marks. The minimum level of grease advised corresponds to half the reservoir height (1).
- Refill the reservoir (1) as soon as there is insufficient grease.

204305-001

NOTICE 700

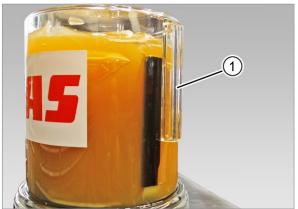
Level of grease below the "MIN" level

Result: Risk of poor lubrication due to insufficient grease.

Always fill the grease reservoir for the central lubrication pump before <MIN> level is reached.

Checking the grease reservoir breather valve

- ► Check the breather valve (1) on the side of the grease reservoir every day. To enable the air to escape when filling and grease to be drawn up by the pump during operation, the breather valve (1) must not be obstructed.
- Clean the breather valve (1) if necessary.



701 335286-001



332646-001

Filling the grease reservoir

The grease reservoir can be filled using either of the following equipment:

- a filler pump fitted with an elbow connector (part no. 00 0078 462 x) which is screwed in place of the plug (1)
- a lubrication pump fitted with a guick-fit filling connection through the grease nipple (2)
- Use a suitable grease.
 - Page 144, Lubricants

1711-011 27414-003

NOTICE

Use of unauthorised or contaminated grease

Result: Severe damage to the baler

- ► Check the operation of the lubrication pump as per the recommended intervals.
- Use grease recommended by CLAAS.

204287-001

NOTICE

Opening the grease reservoir for the central lubrication pump

Result: Contamination of the grease with risk of serious damage to the lubrication circuit

- Never open the grease reservoir.
- ► Always use a grease pump or a filler pump to fill the grease reservoir.
- ► Ensure the connections between the filler pump and the central lubrication pump are perfectly clean.

Filling with the filler pump and elbow connector

The plug (1) enables the grease reservoir to be refilled.

- Clean the plug (1).
- ▶ Unscrew the plug (1).
- Screw the filler pump connector in place of the plug (1) (the elbow is not always used).
- Fill the grease reservoir up to the <MAX> mark (A).
- Remove the filler pump.

- Clean and retighten the plug (1) on the pump. If the elbow connector is used and is still on the pump, the plug (1) is screwed onto the elbow connector.
- Clean and tighten a plug on the filler pump.

204310-001



ACAUTION

Grease reservoir too full

Result: Risk of reservoir exploding and grease overflowing

▶ Do not exceed the <MAX> level when filling the grease reservoir.



703

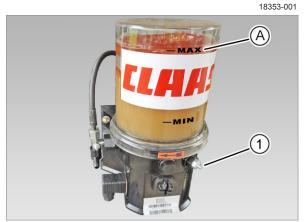


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332644-001



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332643-001



332642-001

Filling with grease pump and lubrication connector

The grease nipple (1) enables the grease reservoir to be refilled.

- Clean the grease nipple (1).
- ► Connect the pump lubrication connector onto the grease nipple (1).
- ► Fill the grease reservoir up to the <MAX> mark (A).
- ▶ Disconnect the lubrication connector from the grease nipple (1).

ACAUTION

Grease reservoir too full

Result: Risk of reservoir exploding and grease overflowing

► Do not exceed the <MAX> level when filling the grease reservoir.

Emergency central lubrication

If the central lubrication pump fails, the baler can be lubricated through the grease nipple (1).

- ► Clean the grease nipple (1).
- ► Connect the connector of a manual grease pump to the grease nipple (1) and lubricate the baler.
- Remove the manual grease pump from the grease nipple (1).

204490-001

NOTICE

Emergency central lubrication in the event of central lubrication pump failure

 Perform emergency central lubrication every 8 hours of operation.

Lubrication frequency

The lubrication frequency can be adjusted on the control terminal.

Page 280, Automatic lubrication*

Manual activation of central lubrication

Start up the power take-off.

The drive speed must be above 200 rpm.

- Manually activate a lubrication cycle using the control terminal.
 - Page 280, Manual activation of automatic lubrication

Operation check

Every day:

- Start up the power take-off.
 The drive speed must be above 200 rpm
- Manually activate 5 lubrication cycles using the control terminal.
 - Page 280, Manual activation of automatic lubrication
- Stop the power take-off.
- Check that grease comes out of the points supplied by each module.

If no grease comes out, check the circuit.

Page 327, Greasing system

204297-001

NOTICE

Grease reservoir for the central lubrication pump completely empty

Result: Poor lubrication, severe damage to the baler

- ► Fill the grease reservoir.
- Run several lubrication cycles so that the central lubrication pump operates for approximately 10 minutes and returns to full discharge capacity.

19252-001

AWARNING

Presence of areas which have not been automatically greased by central lubrication

Result: damage to non-lubricated areas

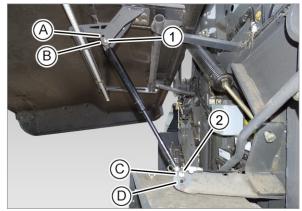
- Regularly lubricate all areas which are not automatically greased by central lubrication.
- ► **™** Lubrication plan.



187601-001

9.16 Maintenance operations machine body

9.16.1 Side flaps



296304-001

708

The opening height of the side flaps can be adjusted to one of 4 positions to facilitate their use.

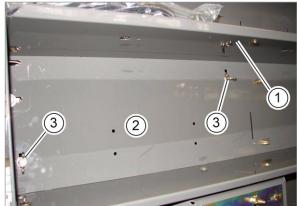
Adjusting the opening height

- Open the side flap.
- ► Hold the flap in position using appropriate lifting equipment.
- ▶ Remove the bolts, washers and nuts (1).
- ► Adjust the height of the flap to line up the holes (A) or (B) with the mounting hole for the strut.
- ► Fit the bolt, washer and nut assembly (1). The nut must be tightened without restricting the strut to allow it to move.
- ▶ Remove the bolts, washers and nuts (2).
- Adjust the height of the flap to line up the holes (C) or (D) with the mounting hole for the strut.
- ► Fit the bolt, washer and nut assembly (2). The nut must be tightened without restricting the strut to allow it to move.

Position	Opening
A - D	Minimum
A - C	Minimum intermediate
B - D	Maximum intermediate
B - C	Maximum

1711-011 128031-002

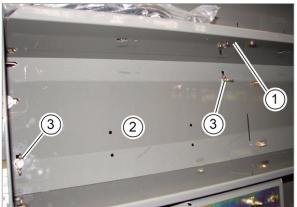
9.16.2 Twine box*



709 128587-001



128588-001



711 128587-001

The twine box (1) may be fitted with a removable base plate (2)*. The base must be regularly removed to clean the back of the twine box.

Removing the base plate

- ▶ Undo the butterfly nuts (3) without unscrewing them completely.
- ► Lift the base plate (2) and remove it from the twine box (1).

710

Fitting the base plate

- ► Fit the base plate (2) in the twine box (1).
- ► Tighten the butterfly nuts (3).

416

1711-011 128068-002

9.16.3 Extinguisher*



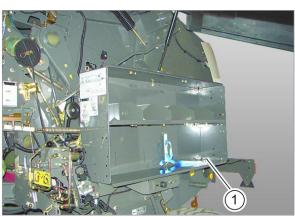
712

► Have the extinguisher (1) checked at least every two years.

Refer to the date of the last check which is affixed to the extinguisher to find out when the next check should be carried out.

128050-002

9.16.4 Tailgate inductive sensor



713



714

The inductive sensor of the tailgate is fixed to the machine chassis, behind the twine box.

Removing

► Remove the twine / net box (1).

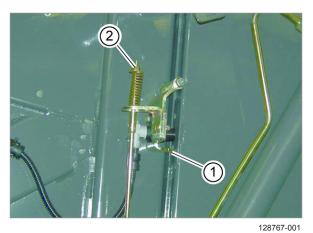
- ► Close the tailgate using the tractor's control valve.
- ► Check the distance (X) between the angle bar (1) and the spacer (2).

X = 3 mm

 $X = \frac{1}{8}$ in

► If the distance (X) is not correct, adjust it using the oblong holes of the angle bar (1).





► Check if there is contact between the stop (1) and the tailgate when the tailgate is closed.

- ▶ If there is contact, the setting is correct.
- ► If there is no contact, adjust the position of the stop by tightening the nut (2) until the stop (1) is in contact with the tailgate.

715

▶ Refit the twine / net box.



9.17 Winter storage

1711-011

128072-001

9.17.1 General points

At the end of the season, the baler must be prepared and cleaned in order to spend winter in good condition.

Following the instructions described below ensures optimum use of the baler and also ensures that the machine can be restarted quickly after winter storage.

186549-003

9.17.2 Cleaning

General points

- ▶ Blow air through the machine before washing it to remove as much dry crop as possible.
- ▶ Disconnect the electrical supply cables and store in a safe place, with the control terminal.
- ▶ Do not use pressure washers or steam jet washers to clean the cut-out clutches, bearings, or the hydraulic and electrical parts. Risk of damage and formation of rust.
- ▶ Do not use detergent or any other corrosive product.
 - Risk of damage to the seals, plastic materials, electrical parts and paintwork.
- There is a risk that the paintwork may be damaged after pressure washing and/or cleaning at very high temperatures.
 Pressure washing must be carried out at
 - pressures below 100 bar (1450 psi). Washing must be carried out at temperatures below 60°C (140°F).
- ▶ Blow air onto the machine after washing to remove any dampness.
- ► Lubricate the bearings before and after washing the machine with a high pressure washer.
- ► Then test their operation so that any water which has infiltrated can be removed from the bearings.
- ► Grease should appear around the bearings; this protects the bearings from any dirt, water or liquid from the crop which may enter.
- ▶ If the machine is stored outdoors for prolonged periods, clean and then lubricate the hydraulic cylinder rods.
 - Before using the machine, remove the grease from around the hydraulic cylinder rods.

Tying feed plate

- Blow the tying feed plate with an air gun.
- ► Clean the tying feed plate with water if necessary.

Metal components

- ▶ Blow air through the baler.
- Clean the baler.
- Remove any traces of dust and grease on the bearings.



Bodywork

- ► Clean the bodywork with clean water using a high-pressure washer at a maximum of 100 bar (1450 psi).
- ► Never use the high-pressure washer nozzle less than 50 cm (1 ft 8 in) from the bodywork.
- Do not direct the jet of the high pressure washer towards the bearings.
- Never use detergent or any other cleaning product: always use clean water.

128075-002

85067-002

NOTICE

Cleaning surfaces with stickers using a high pressure washer

Result: Stickers may be damaged and/or torn off

- ► Avoid cleaning with a high pressure washer
- Clean the surfaces allowing a sufficient distance from the high pressure jet
- ➤ Set the temperature and pressure of the water as low as possible
- ▶ Do not damage the stickers when cleaning
- Any damaged or illegible stickers must be replaced immediately (safety stickers, warning symbols, labels)

128076-001

- Lubricate all the points on the baler before winter storage.
- ► Lubricate the baler before and after it is cleaned with a high pressure cleaner.

128077-001

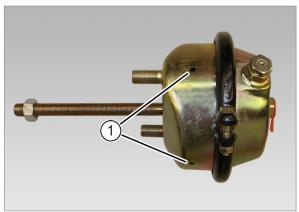
- Slacken the chains and/or remove them to soak them in an oil bath.
- Remove any rust.
- Repaint any damaged paintwork.
- Check the baler for wear and damage. Carry out any necessary repairs.

9.17.3 Cleaning surfaces with stickers

9.17.4 Lubricating

9.17.5 Maintenance

128078-002



716 127960-001

9.17.6 Storage

Checking the pneumatic brake cylinder

► Check that no crop has accumulated in the brake cylinder via one of the orifices (1): If crop is found in the brake cylinder, have it cleaned by a specialised workshop.

▶ Store the baler in a dry area which is sheltered from bad weather. The storage location must not be used to store chemical fertilisers.

- ► Raise the baler and chock it to take the weight off the tyres. Reinflate the tyres to the recommended air pressure. If the baler is not raised and chocked, increase the air pressure by 1 bar
- Cover the tyres with protective lacquer to prevent the rubber from drying out.

10 Putting out of operation and disposal

10.1 General information

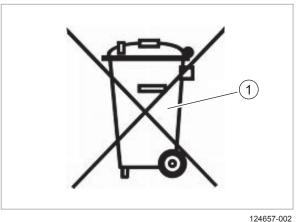
10.1.1 Removal from service and disposal

120770-015

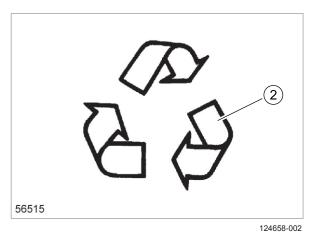
When the machine (or its components) reaches the end of its useful life and is surrendered as scrap, the components must be disposed of in the correct manner. In this process, the regulations issued by the local authorities in charge must be observed.

The operating materials in the machine require special disposal methods and must not be released into the environment. Further information regarding disposal is available from the local authority in charge, a qualified specialist workshop or the CLAAS customer service.

▶ Do not dispose of products with symbol (1) with the household waste at the end of their useful life.



____ 717



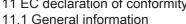
718

▶ Reuse materials with symbol (2) according to their marking.

- ► Recycle or reuse packaging materials, do not dispose of them with the household waste.
- Recycle and reuse plastics marked as a specific material such as PP TV 20 and do not dispose of them with the household waste.
- ▶ Used batteries contain pollutants and must be taken back by the seller, disposed of correctly or be returned to a collection point. Do not throw used batteries into the household waste.



- ➤ Treat operating materials such as oils, hydraulic fluids, brake fluids and fuel as hazardous waste and dispose of them correctly. Always use leak-proof containers when draining liquids. Do not let any operating materials flow into the soil, the drain or into any kind of water source.
- ➤ Only have refrigerants disposed of by specialist companies with qualified personnel and the required technical equipment. Refrigerant must never be discharged into the atmosphere. Have refrigerant disposed of by a qualified specialist workshop. Observe any country-specific regulations.
- ► Comply with the regulations issued by the local authorities in charge.





11 EC declaration of conformity

11.1 General information

11.1.1 Declaration of Conformity for EC

224286-005

compliant with Directive 2006/42/EC

We **Usines CLAAS France SAS**

Saint-Rémy

F-57140 Woippy

declare under our sole responsibility that the Collector / Baler (Type - Trade name - Serial number)

751 - VARIANT 460 / 465 from 751 04559

from VPYSE700075105657

752 - VARIANT 480 / 485 from 752 04900

from VPYSE700075205608

which is the subject of the declaration complies with the fundamental prescriptions regarding health and safety stipulated in Directive 2006/42/EC Appendix I,

and the prescriptions of the other EC Directives which apply to this domain.

To implement the prescriptions regarding health and safety stipulated in the EC Directives in respect of good industry practice, the following standard and technical specification has been taken into account:

EN ISO 4254-11/A1:2020

The person responsible for European Community documentation is:

V. Fuchs, Usines CLAAS France SAS, Saint-Rémy, F-57140 Woippy

Technical Manager

(V. Fuchs)

Quality Manager

(F. Nolin)

Woippy, 01 October 2021

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