

ORIGINAL INSTRUCTIONS –

according to Directive 2006/42/EC, Annex I 1.7.4.1 and according to Supply of Machinery (Safety) Regulations 2008, Annex I 1.7.4.1

OPERATOR'S MANUAL

FCT 1060

Forage harvester

PIN KTNKB262A00002289 and above



Part number 91845001

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1 - GENERAL INFORMATION

Note to the owner

This manual has been prepared to assist you in the correct procedure to run in, to drive, to operate, to adjust and to maintain your new implement.

This implement has been designed and built to give maximum performance, economy and ease of operation under a wide variety of conditions.

Prior to delivery, your implement was carefully inspected both at the factory and by your dealer to make sure that it reaches you in optimum condition. To maintain this condition and assure trouble-free operation it is important that routine services, as specified in this manual, are carried out at the recommended intervals.

Read this manual carefully (especially Chapter 2 that covers the safety information) and keep this manual in a convenient place for future reference. DO NOT operate or permit anyone to operate or service this implement until you and/or other persons have read this manual. Read the manual, it will save you time and hassle later. Lack of knowledge can lead to accidents. Employ only trained operators who have demonstrated the ability to operate and service this implement correctly and safely. Contact your dealer for assistance providing the required training to your operators. Contact your dealer to obtain additional manuals or alternate language versions.

If at any time you require advice that concerns your implement, do not hesitate to contact your authorized dealer. He has factory-trained personnel, genuine service parts and the necessary equipment to carry out your service requirements.

NOTICE: *This implement has been designed and built in line with the requirements put forward by the European Directives 2006/42/EC and 2014/30/EU.*

Always use genuine KONGSKILDE - SEKO SRL Service Parts or parts that match at least the same quality, reliability and functionality as the equivalent original Service Parts when you service and repair your implement and do not modify your implement without a written permission of the manufacturer. Failure to do so will void the responsibility of the manufacturer.

Check local road legislation before you drive the implement on public roads.

When you operate interchangeable implement, make sure that the implement is CE approved.

As this publication is distributed throughout our international network, the implement illustrated, either as standard or as an accessory, may vary according to the country in which the implement is to be used. Low specification configurations, as chosen by the customer, may deviate from the specifications given.

Several figures in this operator's manual show the safety guarding or the additional guards, legally required by certain countries, open or removed to better illustrate a particular feature or adjustment. The implement must not be used in this condition. For your own safety, make sure that all guards are closed or replaced before you operate the implement.

OWNER ASSISTANCE

We at KONGSKILDE - SEKO SRL and your KONGSKILDE - SEKO SRL dealer want you to be completely satisfied with your investment. Normally, your dealer's Service Department will handle any problems with your implement. Sometimes however, misunderstanding can occur. If your problem has not been handled to your satisfaction, we suggest you to contact the owner or General Manager of the dealership, explain the problem and request assistance. When additional assistance is needed, your dealer has direct access to our branch office.

COMPANY POLICY

Company policy, which is one of continuous improvement, reserves the right to make changes in design and specification at any time without notice and without obligation to modify units previously built.

All data given in this book is subject to production variations. The information in this publication is provided on the basis of information that was available at the time that the manual was written. Settings, procedures and other items can change. These changes can affect the service that is given to the implement.

Dimensions and weights are approximate only and the illustrations do not necessarily show the implement in standard condition. For exact information about any particular implement please consult your dealer. Make sure that you have the most current and complete information from your dealer before you start any job.

ACCESSORIES AND OPTIONS

Your implement has been designed to operate in a wide variety of soils/crops and conditions. Nevertheless additional equipment may, in certain cases, be required to improve the implement performance. A list of this additional equipment is given in the "Accessories" chapter in this manual. Use only those accessories designed for your implement.

PARTS AND ACCESSORIES

Genuine KONGSKILDE - SEKO SRL parts and accessories have been specifically designed for KONGSKILDE - SEKO SRL implements.

We would like to point out that "non-genuine" parts and accessories have not been examined and released by KONGSKILDE - SEKO SRL. The installation and/or use of such products could have negative effects upon the design characteristics of your implement and thereby affect its safety. KONGSKILDE - SEKO SRL is not liable for any damage caused by the use of "non-genuine" parts and accessories. Rely on your authorized dealer to

supply you with genuine KONGSKILDE - SEKO SRL parts only. These parts are covered by our warranty and will give you the best performance. See the parts catalog or browse the KONGSKILDE - SEKO SRL portal to find service parts for your implement. When you order service parts, always quote the model and serial number printed on the Product Identification Number (PIN) plate.

LUBRICANTS

Your dealer sells a selection of specially formulated lubricants based on own engineering specifications.

Recommended lubricants for your implement are listed in the maintenance chapter.

WARRANTY AND LIABILITY

Warranty

This Warranty covers the product to which it was annexed at the time of purchase.

With this Warranty, you guarantee the product against any material or manufacturing defects for the duration of 12 MONTHS from the original date of purchase.

If during the warranty period there are defects in materials or workmanship (at the original date of purchase), we will repair or (at our discretion) replace the defective product or its components under the terms and conditions set out below, without any charge for the costs of spare parts. The service department reserves the right to replace defective products or their components with new or revised products or parts. All products and components replaced will become the property of the KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.**

Conditions

Warranty interventions will only be carried out if the defective product is presented within the warranty period together with the original sales invoice or a purchase receipt (showing the date of purchase, the type of product and the name of the retailer).

KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** reserves the right to refuse warranty interventions in the absence of the afore-mentioned documents or in the event that the information contained therein is incomplete or illegible. This Warranty will lapse if the model or serial number shown on the product has been modified, deleted, removed or made illegible.

All parts shipped upon request of warranty will be invoiced and any recognition of the warranty will only be credited after receipt of the damaged piece and related verification by our Technical Department.

The Purchaser will be responsible for all charges relating to shipping, packaging and labour of both any defective parts and those recognised under warranty.

The charges deriving from the labour necessary for the replacement of the defective part and for the set-up of the machine are excluded from the warranty.

For petrol, diesel, electric, hydraulic engines, for hydraulic components for electric or electro-hydraulic control panels and in any case for all those components assembled on the machine but not manufactured by SEKO, the warranty conditions of each individual manufacturer apply.

The following are excluded from this Warranty:

- Periodic maintenance and repair or replacement of parts due to wear and tear;
- The consumable material (components that are expected to require periodic replacement during the useful life of a product, such as tools, lubricants, filters, etc.).
- Damage or defects due to use or improper treatment of the product, for purposes other than normal professional use;
- Damage or changes to the product resulting from improper use, including:

- Treatments causing damage or physical, aesthetic or superficial alterations;
- Incorrect installation or use of the product for purposes other than those envisaged or non-compliance with the instructions on installation and use;
- Improper maintenance of the product, not in accordance with the instructions on correct maintenance;
- Installation or use of the product that does not comply with the technical or safety regulations in force in the country where the product is installed or used;
- Condition or defects of the systems to which the product is connected or in which it is incorporated;
- Repair interventions or repair attempts by unauthorised personnel;
- Adjustments or modifications made to the product without prior written authorisation by the manufacturer, updating of the product exceeding the specifications and functions described in the instruction manual or modifications made to the product to make it comply with the national or local technical or safety standards in countries other than those for which the product was specifically designed and manufactured;
- Negligence;
- Fortuitous events, fires, liquids, chemicals or other substances, flooding, vibrations, excessive heat, inadequate ventilation, current surges, excessive or incorrect input supply voltage, radiations, electrostatic discharges, including lightning, other external forces and impacts.

Exclusions and limitations

Except as noted above, KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** issues no warranties (express, implied, statutory or otherwise) regarding the product in terms of quality, performance, precision, reliability, suitability for a particular use or otherwise.

If this exclusion is not fully or partially permitted by applicable law KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** excludes or limits its warranties to the maximum extent permitted by applicable law.

Any warranty that cannot be completely excluded will be limited (within the terms permitted by applicable law) to the duration of this Warranty.

The only obligation of KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** under this Warranty is to repair or replace the products under these warranty terms and conditions. KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** disclaims all liability for loss or damage regarding products, services, this Warranty or otherwise, including economic or intangible losses – the price paid for the product – loss of profits, income, data, enjoyment or use of the product or other associated products – indirect, incidental or consequential loss or damage. This applies to loss or damage resulting from:

Impairment of the operation or failure of the product or associated products as a result of defects or unavailability during the time it is held at KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** or at other authorised assistance centre, resulting in downtime, loss of useful time or interruption of activity;

Imperfect performance of the product or associated products.

This applies to losses and damages under any legal theory, including negligence and other wrongful acts, breach of contract, express or implied warranties and strict liability (even if KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** or the authorised assistance centre have been informed of the possibility of such damages).

Where applicable law prohibits or limits these disclaimers KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** excludes or limits its liability to the maximum extent permitted by applicable law.

Some nations, for example, prohibit the exclusion or limitation of damages due to negligence, gross negligence, willful default, fraud, and other similar acts. The liability of KONGSKILDE - SEKO SRL **Errore. L'origine riferimento non è stata trovata.** under this warranty shall in no event exceed the price paid for the product, it being understood that, where applicable law imposes higher limits of liability, such limits shall apply.

The purchaser must inform the manufacturer, in writing, of any defect that occurred within 8 days of the occurrence of the same.

Reserved legal rights

Applicable national laws grant purchasers statutory rights in relation to the sale of consumer products.

This warranty does not affect the rights of the purchaser established by the laws in force, nor the rights that cannot be excluded or limited, nor the rights of the customer against the retailer. The customer may decide to assert the rights due at its sole discretion.

The Court of Padua (Italy) is competent for any dispute.

CLEANING YOUR IMPLEMENT

When you use a high pressure washer, do not stand too close to the implement and avoid directing the jet at electronic components, electrical connections, breathers, seals, filler caps, and so on.

Clean decals only with a soft cloth, water and a gentle detergent. DO NOT use solvent, gasoline or other harsh chemicals to clean decals. Decals could be removed or get damaged.

DISASSEMBLY OR SCRAPPING

The critical condition of the equipment is the complete wear and tear of all components. When the costs of repair, restoration or replacement of the individual components and/or assemblies become economically impractical, a decision is made on decommissioning the equipment.

When your implement is taken out of service because it is damaged beyond repair or has reached the end of its useful life, disassembly, scrapping and/or recycling of components must be performed only by a qualified technician with service instructions, and in compliance with local law and regulations.

Intended use

KONGSKILDE - SEKO SRL forage harvester can only perform the usual work in agriculture. Only connect the forage harvester to a tractor that corresponds with the specifications of the implement and is legal to use. Only the Power Take-Off (PTO) of the tractor can drive the attached forage harvester.

The implement comes with either a roll-type conditioning system and can solely cut on the ground natural or planted grass and stem crops for animal feeding purposes. The forage harvester lays the material in a windrow, which allows the subsequent pick-up of the material.

The work must occur under reasonable conditions, or thorough agricultural knowledge and authorised operation, on a normal cultivation that has a reasonable extension without foreign matter and the like. The

Prohibited usage

NOTICE: *DO NOT use this implement for another purpose than intended by the manufacturer (as described in the manual, shown by the decals, or in other product safety information provided with the implement). These information sources define the intended use of the implement.*

Any other use beyond the intended use is regarded as misuse and requires the authorization of the manufacturer. The manufacturer is not responsible for any damage that results from the improper use of the implement. The user bears that risk.

Contact your local dealer when you are not sure about the use or function of your implement in a particular

performance of the implement will depend on the crop, the condition of the field, the ground, and finally the weather.

Intended use implies that you observe the prescriptions concerning adjustment, operation and maintenance in the instruction manual. Observed altogether the safety instructions as well as common rules concerning technical safety, working practices and road safety. Also read the spare parts catalog and use original spare parts. If necessary contact an authorised workshop.

If you notice degradation of performance, contact your dealer for assistance. He may have useful information for improvements, or a kit may be available to enhance the performance.

With respect for the routine maintenance and with operating conditions, the assigned service life for the implement is minimum seven years.

application (for example crop, variety, unique conditions, etcetera) or you do not know if there is a need for special equipment or special precautions.

No parts must be fitted to this implement, which have not been released by KONGSKILDE - SEKO SRL . They might affect the implement operation, safety of the user or other people, stability or wear characteristics of the implement. They may also void the homologation approval obtained for your country and compliance with EC directives.

Do not make changes to the implement and its construction without the permission from the manufacturer. The manufacturer does not accept any responsibility for damages that results from unauthorized modification.

Electro-Magnetic Compatibility (EMC)

This machine complies strictly with the European Regulations on electro-magnetic emissions. However, interference may arise as a result of add-on equipment which may not necessarily meet the required standards. As such interference can result in serious malfunction of the unit and/or create unsafe situations, you must observe the following:

- Ensure that each piece of non- KONGSKILDE - SEKO SRL equipment fitted to the machine bears the CE mark.
- The maximum power of emission equipment (radio, telephones, etc.) must not exceed the limits imposed by the national authorities of the country where you use the machine.
- The electro-magnetic field generated by the add-on system should not exceed **24 V/m** at any time and at any location in the proximity of electronic components.

Failure to comply with these rules will render the KONGSKILDE - SEKO SRL warranty null and void.

Manual scope and required training level

Introduction to this manual

This manual gives information about the use of your KONGSKILDE - SEKO SRL machine as intended and under the conditions foreseen by KONGSKILDE - SEKO SRL during normal operation, routine service, and maintenance.

This manual does not contain all the information that relates to periodic service, conversions, and repairs that only trained service personnel can perform. Some of these activities may require appropriate facilities, technical skills, and/or tools that KONGSKILDE - SEKO SRL does not supply with the machine.

The manual contains the chapters as shown on the Contents pages. See the Index at the end of this manual to locate specific items about your KONGSKILDE - SEKO SRL machine.

Normal operation

Normal operation consists of the use of this machine for the purpose KONGSKILDE - SEKO SRL intends by an operator that:

- Is familiar with the machine and any mounted equipment or towed equipment
- Complies with the information on operation and safe practices as specified by KONGSKILDE - SEKO SRL in this manual and by the signs on the machine

Normal operation includes:

- Preparation and storage of the machine
- Addition and removal of ballast
- Connection and disconnection of mounted equipment and/or towed equipment
- Adjustment and configuration of the machine and equipment for the specific conditions of the job site, field, and/or crop
- Movement of components into and out of working positions

Routine service and maintenance

Routine service and maintenance consists of the daily activities necessary to maintain the proper machine function. The operator must:

- Be familiar with the machine characteristics
- Comply with the information on routine service and safe practices as specified by KONGSKILDE - SEKO SRL in this manual and by the signs on the machine

Routine service can include:

- Fueling
- Cleaning
- Washing
- Topping up fluid levels
- Greasing
- Replacing consumable items such as light bulbs

Periodic service, conversions, and repairs

Periodic service consists of activities that are necessary to maintain the expected life of the KONGSKILDE - SEKO SRL machine. These activities have defined intervals.

Trained service personnel familiar with the machine characteristics must perform these activities at the defined intervals. Trained service personnel must comply with the information on periodic service and safe practices as partly specified by KONGSKILDE - SEKO SRL in this manual and/or other company literature.

Periodic service includes:

- Oil change service for the engine, hydraulic circuits, or transmission
- Periodic exchange of other substances or components as required

Conversion activities rebuild the KONGSKILDE - SEKO SRL machine in a configuration that is appropriate for a specific job site, crop, and/or soil conditions (e.g., installation of dual wheels). Conversion activities must be done:

- By trained service personnel familiar with the machine characteristics
- By trained service personnel that comply with the information on conversion as partly specified by KONGSKILDE - SEKO SRL in this manual, assembly instructions, and/or other company literature

Additional documents

When required, the machine is delivered with an assembly instruction. The assembly instruction shows the packaging depending on the kind of shipment and the related procedure to assemble the received components -

Repair activities restore proper function to a KONGSKILDE - SEKO SRL machine after a failure or degradation of performance. Dismantling activities occur during the scrapping and/or dismantling of the machine.

Trained service personnel familiar with the machine characteristics must perform these activities. Trained service personnel must comply with the information for repair as specified by KONGSKILDE - SEKO SRL in the service manual.

Before you operate

Read this manual before you start the engine or operate this KONGSKILDE - SEKO SRL machine. Contact your KONGSKILDE - SEKO SRL dealer if:

- You do not understand any information in this manual
- You need more information
- You need assistance

All persons training to operate, or who will operate this KONGSKILDE - SEKO SRL machine should be old enough to possess a valid local vehicle operating permit (or meet other applicable local age requirements). These persons

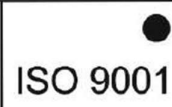
must demonstrate the ability to operate and service the KONGSKILDE - SEKO SRL machine in a correct and safe manner..

Product Identification Number (PIN)

The Product Identification Number (PIN) is a serial number that identifies the implement.

The serial number, model, and other specifications, are on the plate.

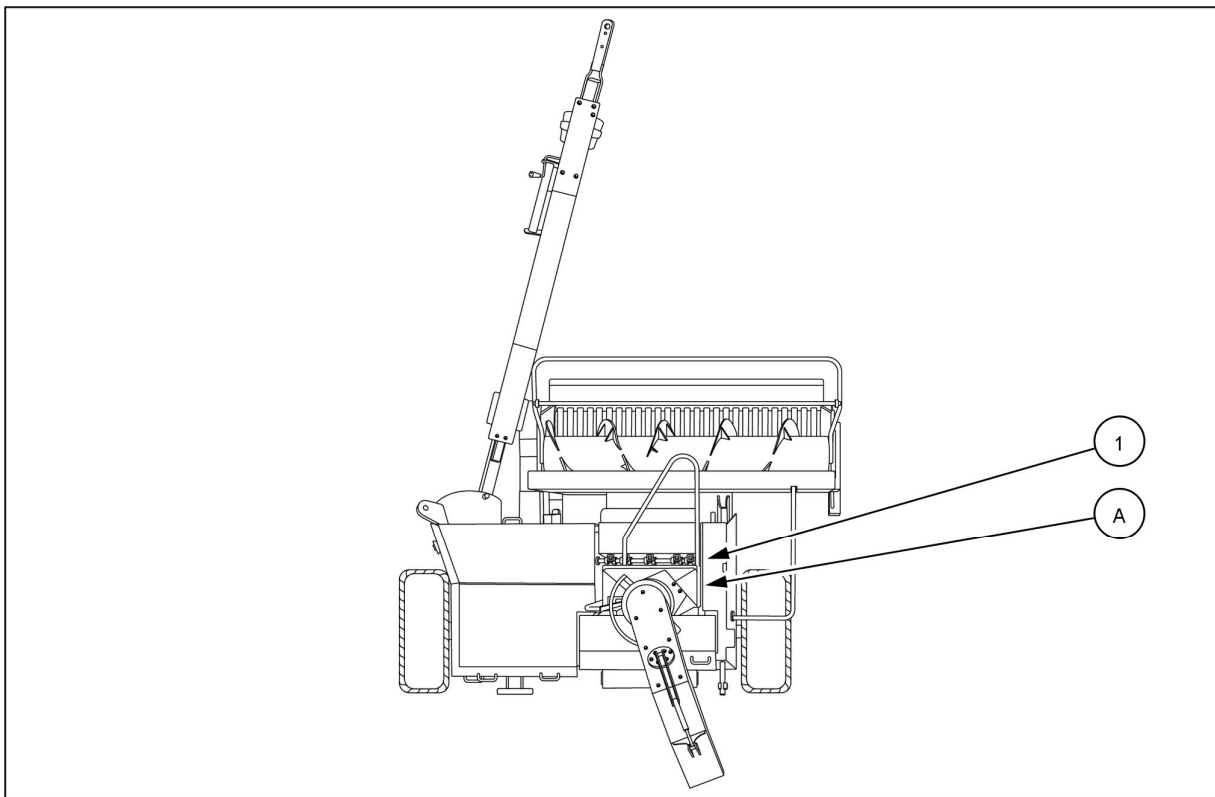
Provide your KONGSKILDE - SEKO SRL dealer with the model and PIN when you order spare parts.

					
Kongskilde - Seko Srl Via Gorizia, 90 - 35010 Curtarolo (PD) Italy					
MODELLO - MODEL MODÈLE - MODELL TIPO - TYPE TYPE - TYP MATRICOLA - SERIAL NUM. N. DE SERIE - DIESERIE NUM. N. OMOLOGAZIONE - OMOLOGATION NUM. N. OMOLOGATION - BESTÄTIGUNG					
ANNO - YEAR ANNÉE - JAHR					
kW		R.P.M.		CARICHI AMMESSI - LOADS ALLOWED CHARGES ADMIS - LADUNG ZUGELASSEN:	
MASSA - MASS - MASSE - MASSE:		gancio di traino - draw-eye - crochet de traction - der Ösenhaken			
a vuoto - empty à vide - vakuum		primo asse - first axle premier axe - ersten brett			
max. ammessa - max. allowed max. Admis - max. zugelassen		secondo asse - second axle deuxième axe - Zweite brett			
kg		terzo asse - third axle troisième axe - drittes brett			
kg		quarto asse - fourth axle quatrième axe - viertes brett			
		LUBRIFICANTI RACCOMANDATI - RECOMMENDED LUBRICANTS - LUBRIFIANTS CONSEILLES - EMPFEHLEN SCHMIERMITTELN		PARTI DA LUBRIFICARE - PARTS TO LUBRICATE - PARTIES A LUBRIF. - ERSATZTEILEN ZU SCHMIEREN	
		ARNICA 46		VEDI LIBRETTO ISTRUZIONI LOOK INSTRUCTION BOOK VOIR LE LIVRE D'INSTRUCTION SEHEN DAS UNTERRICHT - BUCH	
		BLASIA 220			
		GR MU EP 2			

Product identification

NOTE: Do not remove or change the Product Identification Number (PIN) plate **(1)** on the implement.

The PIN plate **(1)** is on the right-hand side of the implement.



For future reference, record your implement model and PIN in the spaces below.

Model _____ Product Identification Number
(PIN) _____

Operator's manual storage on the machine

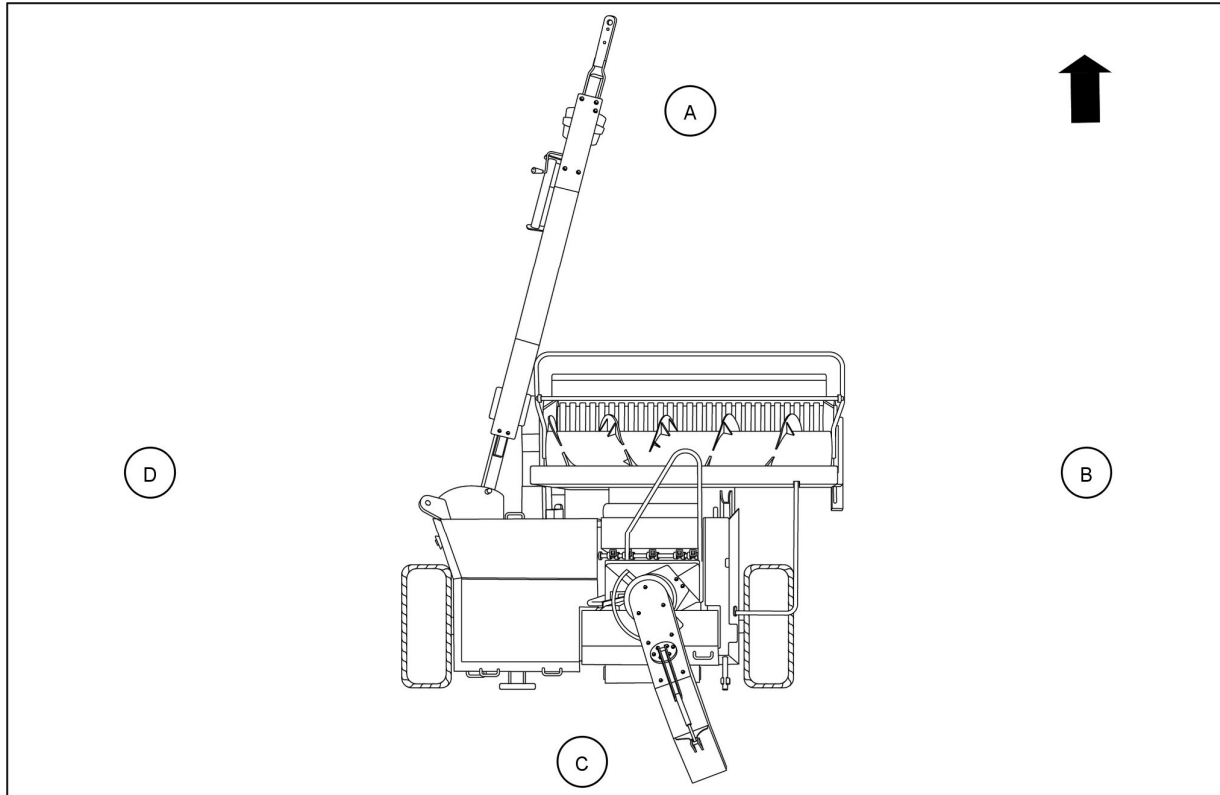
Keep this operator's manual protected and accessible on the tractor whenever you transport or operate the implement.

Implement orientation

NOTE: To determine the left-hand side and the right-hand side of the implement, stand behind the implement and face the direction of travel during working operation.

1 - GENERAL INFORMATION

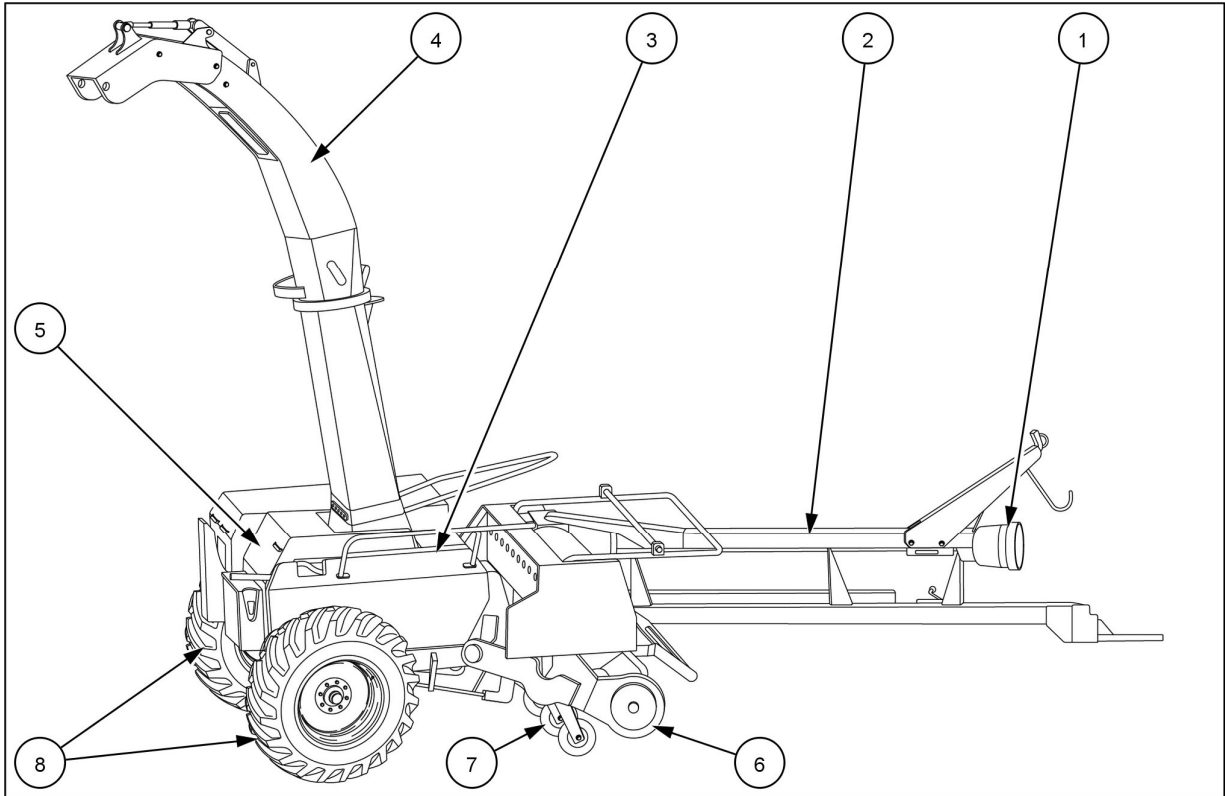
The following overhead view illustration is a general representation of the implement. The illustration indicates the sides, front, and rear orientations of the implement as referred to throughout this operator's manual.



NOTE: The arrow indicates the direction of the implement during working operation.

- (A) Front of the implement
- (B) Right-hand side of the implement
- (C) Rear of the implement
- (D) Left-hand side of the implement

Implement components



- (1) Power Take-Off (PTO) shaft
- (2) Drawbar
- (3) Rotor housing
- (4) Chute

- (5) Grinding device housing
- (6) Pickup rollers
- (7) Pickup wheels
- (8) Tires and wheels

2 - SAFETY INFORMATION

Safety rules and signal word definitions

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 **DANGER** indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 **WARNING** indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 **CAUTION** indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

General recommendations

You can avoid most farm machinery accidents with the observance of a few simple safety precautions.

- This operator's manual contains important information concerning operation, maintenance and adjustment of the implement. Furthermore, this operator's manual mentions and emphasizes all the safety instructions.
- Read the operator's manual thoroughly before you start, operate, service, or carry out any other operation on the implement. Even though you have been driving a similar implement before, you must read the manual. This is a matter of your own and other people safety. A few minutes reading will save you time and hassle later. Lack of knowledge can lead to accidents.
- Your implement was designed with safety in mind. However, there is no real substitute for caution and attention when you need to prevent an accident. Once an accident has occurred, it is too late to think about what you should have done. This means that it is very important that you as user of the implement pay attention and use the implement correctly and thereby avoid exposing yourself and others to unnecessary danger.
- In case of an accident, stop the tractor, turn off the engine and remove the key from the contact, assess the situation and call emergency services when required.
- **There is a risk of death in the area between the tractor and the implement; turn off the engine and remove the key from the contact before accessing this area.**
- **It is forbidden to enter the pick-up working area without first turning off the tractor, disconnecting the hydraulic pipes and the PTO shaft. It is forbidden to operate the machine without the pick-up protection devices; do not modify these protection devices if the pick-up is in operation and the PTO shaft is connected.**
- The implement must be operated only by responsible persons who have been adequately trained and authorized to use the implement. Never leave the implement to others before you have made sure that they have the necessary knowledge to operate the implement safely.
- **The machine must always be used on flat ground, including coupling and uncoupling operations to the tractor.**
- Never let the implement run without supervision.
- Always keep a first aid kit handy.
- The implement has only one operator station and this is the cab of the tractor, which is a one man operated implement. Never permit anyone to ride on or in an implement. Do not allow riders on the implement or tractor; do not allow people to stand on the ladder or steps. Your view to the left or right will be obstructed and a rider risks to fall from the implement or tractor during unforeseen or abrupt movements. There is no need for other people on or around the implement during normal operation.
- Do not use this implement as a lift, ladder or platform to work at heights.
- **Pay particular attention to prevent the upper parts of the machine from hitting the power lines during use and road transport.**
- **Work on the machine at height can only be carried out using suitable access means; climbing on the machine structure is not permitted.**
- **During road transport, the machine must always have its folding parts in the closed position.**
- **Never insert the product into the implement using hands and feet.**
- Before you work on the implement **and in the area underneath the implement**, disengage all drives, stop the engine and remove the ignition key. Wait for the rotating parts to run down.
- Never work around the implement with loose clothing, jewelry, watches, long hair and other loose or hanging items can be pulled in by the moving parts of the implement. **Wear tight-fitting clothing during repairs or maintenance. Before performing repairs or maintenance, make sure all rotating parts have stopped, turn off the engine, and remove the key.**
- Keep hands away from moving parts of the implement.
- **The control panel with wired connection must be used away from dangerous areas of the machine.**
- Never attempt to carry out any adjustments on the implement while the implement is in motion or while the Power Take-Off (PTO) shaft is engaged.
- PTO driven implement can cause death or serious injury. Before you work on or near the PTO shaft or service or clear the driven implement, disengage the PTO, stop the engine and remove the ignition key.
- **comply with the current lighting regulations of the country of use.**

Illustrations

WARNING

Illustrations in this manual may show protective shielding open or removed to better illustrate a particular feature or adjustment.

Replace all shields before operating the machine.

Failure to comply could result in death or serious injury.

NOTE: Some of the illustrations in this manual have been obtained by photographing prototypes. Standard production machines may differ in some details.

Local obligations

Your machine may be equipped with special guarding or other devices in compliance with local legislation. Some of these require active action by the operator.

Therefore, check local legislation on the usage of this machine.

Fire or explosion prevention

1. Crop material, trash, debris, bird nests or flammable material can ignite on hot surfaces.
2. Inspect the electrical system for loose connections or frayed insulation. Repair or replace loose or damaged parts.
3. Do not store oily rags or other flammable material on the implement.
4. Do not weld or flame cut any items that contain flammable material. Clean items thoroughly with non-flammable solvent before you weld or cut with a flame.
5. Do not expose the implement to flames, burning brush or explosives.
6. Promptly investigate any unusual smells or odors that may occur during the operation of the implement.

WARNING

A fire extinguisher should be installed on the tractor to be used in case of fire

Hazardous chemicals

1. If you are exposed to or come in contact with hazardous chemicals you can be seriously injured. The fluids, lubricants, paints, adhesives, coolant, etcetera. required for the function of your machine can be hazardous. They may be attractive and harmful to domestic animals as well as humans.
2. Material Safety Data Sheets (MSDS) provide information about the chemical substances within a product, safe handling and storage procedures, first aid measures and procedures to be taken in the event of a spill or accidental release. MSDS are available from your dealer.
3. Before you service your machine check the MSDS for each lubricant, fluid, etcetera. used in this machine. This information indicates the associated risks and will help you service the machine safely. Follow the information in the MSDS, on manufacturer containers, as well as the information in this manual when you service the machine.
4. Dispose of all fluids, filters and containers in an environmentally safe manner in accordance with local laws and regulations. Check with local environmental and recycling centers or your dealer for correct disposal information.
5. Store fluids and filter in accordance with local laws and regulations. Use only appropriate containers for the storage of chemicals or petrochemical substances.
6. Keep out of reach of children or other unauthorized persons.
7. Additional precautions are required for applied chemicals. Obtain complete information from the manufacturer or distributor of the chemicals before you use them.

Starting up the implement safely

Before you attach the implement to the tractor, ensure that the tractor is in good working order and that the brakes are efficient (**perform a brake check for a duration of 10 seconds**), particularly if you operate on hilly ground. Also, ensure that the hydraulic or pneumatic system is compatible with that of the implement.

When you attach the implement to the tractor:

- Never allow anyone to stand between the tractor and the implement. An unintentional manoeuvre with the tractor may cause serious injury.
- Never go under an unsupported implement.

Install all the guards correctly before you use the implement.

Replace worn and damaged canvases before you work with the implement.

Make sure that you are thoroughly familiar with the instruments and controls before you engage the Power TakeOff (PTO) drive for the first time.

The PTO shaft has its own instruction manual that the manufacturer supply with the implement. To ensure the correct use of the shaft, follow all the instructions of the manufacturer manual. Pay particularly close attention to the safety and maintenance instructions, in order to prevent unintentional injury and damage.

Do not use Power Take-Off (PTO) drive shafts with other specifications than the shaft which was supplied with the implement.

Before you install the PTO drive shaft, check that the Revolutions Per Minute (RPM) and direction of the PTO on the tractor match those of the PTO on the implement.

Repair immediately a damaged PTO shaft before you work with the implement.

Always stop the PTO and the tractor engine and remove the ignition key before you connect the PTO drive shafts.

After you attach the implement to the tractor, ensure that the Power Take-Off (PTO) lock pin is properly engaged in the tractor Power Take-Off shaft. An incorrectly locked PTO shaft could work loose and cause accidents or damage to the implement.

Make sure to install and secure the PTO drive shaft correctly. Check that the lock pin is in mesh. Fasten the support chain at both ends.

Always make sure that the guard tubes do not separate at the maximum working or transport length of the PTO drive shaft. Check also that the guard tubes do not jam at the minimum working or transport length of the PTO drive shaft.

Unless the protective guards, the PTO drive shaft may cause serious injury. Be careful not to damage the guards when you connect the PTO drive shaft to or from the tractor.

Fit correctly the guards on the PTO drive shaft. Secure the guard of the PTO shaft with the chain.

Before you start up the implement (for example the first time after a long standstill period), make sure that there are no detached loose parts on the drive line area and on the moving parts of the implement.

Traveling on public roads

Comply with the relevant traffic regulations

WARNING

Loss of control hazard!

Uneven brake force exists on left-hand and right-hand brakes. Always use brake pedal coupler when traveling on public roads to ensure brakes are actuated together.

Failure to comply could result in death or serious injury.

WARNING

Impact hazard!

Take care when making turns. The machine rear end swings out when changing direction. Failure to comply could result in death or serious injury.

The implement is built according to the homologation requirements of your country. Do not modify the implement in a sense that would conflict with the national regulations.

If you wish to transport the implement on the public road, make sure that the combination tractor and implement observes the traffic rules in your country. This gives you and your surroundings the best possible safety.

The operators must observe relevant statutory or other national regulations that deal with road safety and labor safety issues.

Before you drive the implement on public roads:

- Check the allowable transport dimensions and weights.
- Install correctly the lighting and the warning panels.

Always observe the principles for permissible axle loads, the total unit mass and the transport gauge.

Observe the tractor manufacturer regulations and recommendations, specifically those relating to maximum transport loads and maximum speed.

Even in similar circumstances, the maximum allowed speed can vary depending on which country you travel in.

Always drive with the statutory lights and safety marking during transport on public road and at night.

Install all the required signs that indicate the vehicle width. Also install all the required lights that indicate the vehicle width during the nightly transport. If in doubt, contact your government department responsible for road transport.

Travel may be restricted to certain road types. Transport may be restricted to daytime or outside peak traffic hours. However plan your route to avoid heavy traffic and peak traffic hours.

Passengers

Do not allow passengers to ride in the tractor unless a specific seat is provided.

During transport, the transportation of people on top of the implement is strictly forbidden.

Transport safety

Transport the implement only in transport position. Secure the implement for transport. Always activate the mechanical transport safety devices before transport.

Make sure to fit all the hitch pins with retaining pins correctly. Mechanically secure the hydraulic cylinders to prevent cylinders from creeping.

Engage the header lift lock valve when ever the implement is in the raised position for road transport. Failure to engage the header lift lock valve presents a crush hazard condition. When you transport the implement, a failure of the hydraulic system can cause the implement to drop onto the pavement, creating a loss of control hazard.

Engage the tongue swing cylinder lock prior to road transport. Failure to engage the tongue swing cylinder lock when you transport the implement could cause the implement to swing sideways into oncoming traffic, bridge or overpass abutments, other roadside obstacles, or ditches, if the tractor hydraulic system is accidentally engaged during transport.

Drive safe

Do not drive under the influence of alcohol or drugs.

Never travel at speed in crowded areas.

When you maneuver the tractor with the implement, always be aware and conscious of its size. The implement is long and does not completely follow the tractor in sharp turns. Avoid that the implement rear end hits an obstacle.

The tractor driver must not leave the cabin during transport.

Always consider other road users.

Always adopt safe driving practices. Slow down and signal before turning. Give way to oncoming traffic in all situations, including narrow bridges, intersections etcetera. Pull over to allow faster traffic to pass.

If the implement is marked with a maximum speed limit, never exceed this maximum speed limit.

Always adjust the driving speed to the road and weather conditions. In case of bad road conditions and high driving speeds, big forces may occur and cause overload of tractor and implement.

Drive at a safe speed to ensure control and ability to stop in an emergency.

Lock the tractor brake pedals together. Never use independent breaking at transport speeds.

Trailed implements and ballast weights influence the driving, steering and braking capacity of the tractor. Make sure that the additional weight of the implement on the linkage does not compromise driving, steering and braking capacity of the tractor. Install front weights or repair the brakes if the tractor is not safe to drive.

Reduce speed during turns. Tractors have not been designed for fast turning. Avoid that the rear end of the implement hits an obstacle.

When you turn during transport, pay attention to the overhang and/or oscillating weight of the implement.

Use engine braking when you drive down hills. Do not coast.

Watch for obstructions, particularly if over-width. Observe any load ratings applicable on bridges.

After you finish the transport, before you leave the tractor, always lower the implement to the ground in parking position, turn off the tractor engine, pull the parking brake, and remove the key from the ignition.

Operating the implement safely

▲ WARNING

Rotating parts!
Keep clear of all drives and rotating components.
Failure to comply could result in death or serious injury.

▲ WARNING

Entanglement hazard!
Make sure all people and obstructions are clear of the implement before engaging the tractor Power Take-Off (PTO).
Failure to comply could result in death or serious injury.

▲ WARNING

Hazard to bystanders!
Always sound the horn before starting the machine. Make sure the work area is clear of other persons, domestic animals, tools, etc. before you operate the machine. Never allow anyone in the work area during machine operation.
Failure to comply could result in death or serious injury.

NOTE: Only put the implement into operation according to the instructions from the dealer.

Never operate the implement under the influence of alcohol, drugs, or while otherwise impaired.

Keep people away from the implement during operation. Ask bystanders to leave the field. There is the risk for bystanders to be overrun by the implement. Stop the implement immediately if someone approaches.

The tractor or its implement may strike or crush against a person or pet within the operator area of the tractor. Do not allow anyone to enter the work area. Make sure that the area is clear and operation is safe before you move the implement.

Before you switch on the Power Take-Off (PTO) shaft, take care that no one stays in the danger zone of the implement.

Before you swing the tongue, make sure that the implement will clear any obstructions. Make sure that bystanders are clear of the implement when you swing the tongue. Air in the hydraulic system or a high hydraulic flow rate can cause erratic operation.

Lower the header to working position before you start the power transmission. Operate only with an enclosed cab tractor.

Always start the implement with the engine running at low speed.

Whenever a PTO is in operation, a guard must be in place to prevent death or injury to the operator or bystanders.

Before you raise or lower the header, check that nobody is near the implement or touches the implement.

When you operate the implement, always remain seated in the tractor cab. Operate controls only when seated in the tractor seat, except for those controls expressly intended for use from other locations.

Set the header flotation correctly to ensure optimal operation in the field and to reduce the risk of damaging the cutter bar.

The transportation of people on top of the implement is strictly forbidden at all times.

Avoid using the implement in unsuitable crop and weather conditions. It is better to stop work temporarily rather than to operate in such conditions.

If the cutter bar or the conditioner is blocked because of foreign matter, stop the PTO of the tractor, activate the parking brake and wait until all revolving parts have stopped. Then try to remove the foreign matter.

Never attempt to remove crop or residues from an implement while the implement runs. Such an imprudence could cost life or limb. Always disengage the PTO, switch off the tractor engine and apply the parking brake before you remove crop or residues.

Always stop the PTO when the PTO is not needed or when the PTO shaft is in an adverse position.

During the daily work you must consider that loose stones and foreign matter on the ground might get in contact with the revolving parts and get thrown out again at a very high speed. Therefore, before you operate the implement make sure that all safety guards are intact, properly fitted and secured.

In stony fields adjust the stubble height to maximum (horizontal cutter bar) and reduce the cutting angle as much as possible. This results in less wear of blades and stone guards and reduces the risk of loose stones being thrown out from the rotating parts of the implement.

Do not operate the implement during a thunderstorm. If you are on the ground during a thunderstorm, stay away from machinery and equipment. Seek shelter in a permanent, protected structure. If a lightning from a thunderstorm should strike during operation, remain in the tractor cab. Do not leave the cab. Do not make contact with the ground or objects outside the machine.

Always operate the implement at a safe speed in accordance with the ground conditions. On uneven ground, proceed with the utmost caution to ensure proper stability.

When you turn on hillsides always be careful when you lift or swing the implement because there is a risk of overturning. Adjust the speed to these conditions.

Drive in a low tractor gear if you work on hillsides.

When you drive up and down and across hillsides, avoid sharp turns.

When you turn during operation, pay attention to the overhang and/or oscillating weight of the implement.

Avoid changing direction abruptly, especially when you reverse, to avoid dangerous pitching of the implement.

When you work with a mower, keep a safe distance from steep slopes and similar ground conditions, as the ground may be slippery and pull the mower and the tractor sideways. Also remember to adjust the speed for sharp turns when you drive on hillsides.

Pay the necessary attention while you operate next to public roads or footpaths.

Danger of death by electrocution! Pay special attention to the overhead power lines. Always ask the owner of the field about the presence of overhead power lines. Make sure the implement has sufficient clearance to pass in all directions (also with raised or opened implement components). Also think of the radio aerial(s) or any other accessory or parts which may have been added afterwards. High voltage lines may require significant clearance for safety. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines. Should a contact between the implement and an electric power line occur, then the following precautions must be taken: Stop the implement movement immediately, stop the tractor engine and apply the tractor handbrake. Check if you can safely leave the cab or your actual position without direct contact with electric wires. If not, stay in your position and call for help. If you can leave your position without touching the lines, jump off the last step or support position and make sure that there is no contact between any part of your body, the tractor and the ground at the same time. Never touch the tractor or the implement afterwards until power to the lines has been shut off. When people approach the tractor or the implement, warn them not to touch the tractor or the implement but to ask the electric power supply company to shut off the power to the lines.

Stopping the implement safely

▲ WARNING

Moving parts!

Some components may continue to run after disengaging the drive systems. Make sure all drive systems are fully disengaged and all movement has stopped before servicing the machine.

Failure to comply could result in death or serious injury.

Always interrupt the operation of the implement before you leave the tractor seat.

For safety's sake never leave the tractor cab without first to disengage the Power Take-Off (PTO) drive mechanism and to stop the tractor engine. Furthermore, if you leave the tractor unattended, always remove the ignition key.

Stop the tractor engine and the PTO drive and wait until the implement has completely stopped before you open any of the guards. There are rotating parts under the guards which may continue rotating after the implement has been stopped. Keep a safe distance until the implement has come to a complete standstill. Look and listen for evidence of rotating parts before you open any of the guards.

Never leave the tractor before the header is resting on the ground, the engine of the tractor has stopped, and the parking brake has been activated. This is the only way to perform a safe operation.

Do not try to lift the canvas shields of the header until all revolving parts have stopped.

Make sure to secure the tractor by means of the hand brake and/or stop blocks if you need to stand between the tractor and the implement.

When, due to exceptional circumstances, you decide to keep the tractor engine running after you leave the tractor cab, proceed as follows:

- Bring the tractor engine to low idle speed.
- Disengage all drive systems.
- Shift the tractor transmission into neutral.
- Apply the parking brake.

When you park the implement, there are some operational risks which may cause personal injury. Therefore, you must:

- Make sure that the ground is firm and even during parking.
- Make sure that tractor and implement cannot move.
- Always lower the header to the ground.

- Stop the tractor engine and remove the ignition key.
- Use correct support or transport safety device when the implement is parked. Make sure that the jack is secured.
- Make sure that the jack on the tongue of the implement is correctly fastened and locked when you park the implement.

When you detach the implement from the tractor:

- Never allow anyone to stand between the tractor and the implement. An unintentional manoeuvre with the tractor may cause serious injury.
- Always stop the PTO and the tractor engine and remove the ignition key before you disconnect the PTO drive shafts.
- Unless the protective guards, the PTO drive shaft may cause serious injury. Be careful not to damage the guards when you disconnect the PTO drive shaft from the tractor.
- Never allow the PTO drive shaft guards to fall into the implement or drop to the ground, damage will almost certainly occur.
- After you remove the PTO shaft, place the guard on the tractor PTO.
- Before you disconnect the lift cylinder hose, make sure that the header rests on the ground.
- Always detach the implement carefully and on a flat surface to prevent damage.
- Never go under an unsupported implement.

Maintenance

WARNING

Maintenance hazard!

Before you start servicing the machine, attach a DO NOT OPERATE warning tag to the machine in a visible area.

Failure to comply could result in death or serious injury.

- Follow the maintenance schedule with regard to the implement servicing intervals.
Remember that the implement requires attention from time to time. Also remember that the maintenance will greatly extend the life of the implement.
 - Take the necessary precautions: not to spill any oil, fuel or grease.
To avoid oil and grease contact with your skin, wear protective gloves.
 - Service the implement on a firm level surface.
 - **park the car safely on firm, level ground, blocking it with chocks to prevent free movement and apply the mechanical parking brake.**
 - Do not attempt to remove material from any part of the implement, clean, lubricate or carry out any adjustments on the implement while it is in use.
 - Keep hands, feet and/or garments away from parts which move. Check that all rotating parts have a suitable protective guard.
 - Raised implement and/or loads can fall unexpectedly and crush persons underneath. Never enter or allow anyone to enter the area underneath raised implement during operation.
Unsupported hydraulic cylinders can lose pressure and drop the implement and cause a crushing hazard. Do not leave the implement in a raised position while parked or during service, unless securely blocked on wooden blocks.
 - Never work under a raised implement unless a support chain or other mechanical securing device secure the link arms of the tractor so that the implement cannot move to a lower position unintentionally.
 - Relieve the pressure, stop the engine and remove the ignition key, before you connect or disconnect fluid lines.
 - Before you adjust, clean, lubricate or you carry out repairs on the implement, stop the engine and remove the ignition key.
 - Never adjust the implement while the Power Take-Off (PTO) drive shaft is engaged. Do not to remove the guards until all revolving parts have stopped.
 - Any leakage of hydraulic oil or fuel under pressure may cause severe harm, so always use a shielding, goggles and gloves when you trace oil or fuel leaks.
- Clean the pipe fittings and oil inlets before connecting them to prevent the ingress of impurities.**
- Do not use your hand to check for leaks. Use a piece of cardboard or paper.
- Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.
 - If hydraulic fluid or diesel penetrates the skin, seek medical care immediately.
 - Observe all recommendations that are mentioned in this manual such as service intervals, torques, lubricants, etcetera.
 - Always replace all parts that have damage or wear.
 - Never build flexible hose assemblies from hoses that were previously part of a hose assembly.
 - Never weld to the tubes.
 - Always use gloves when you work with parts on the implement as the parts can have sharp edges.
 - Transmission and hydraulic lines may become hot during operation. Be careful when you service such components. Allow surfaces to cool before you handle or disconnect hot components. Wear protective equipment when required.
 - Always relieve the roll pressure before you remove a crop plug from the roller conditioner.
 - Inflate the tires correctly. Do not exceed any recommended load or pressure. Follow the instructions in the operator's manual for proper tire inflation.
 - Tires are heavy. Always handle the tires with proper equipment. Failure to comply could cause death or serious injury.
 - **During welding operations, disconnect all connections to the tractor, the PTO shaft and the drawbar**
 - Never weld on a wheel with a tire installed. Always remove the tire completely from the wheel before you weld.
 - Always have a qualified tire technician service the tires and wheels. If a tire has lost all pressure, take the tire and wheel to a tire shop or your dealer for service. Explosive separation of the tire can cause serious injury.
 - Do not weld to a wheel or rim until the tire is completely removed. Inflated tires can generate a gas mixture with the air that can be ignited by high temperatures from welding procedures performed on the wheel or rim. Removing the air or loosening the tire on the rim (breaking the bead) will not eliminate the hazard. This condition can exist whether tires are inflated or deflated. The tire must be completely removed from the wheel or rim prior to welding the wheel or rim.

Personal Protective Equipment (PPE)

Wear Personal Protective Equipment (PPE) such as protective clothing, eye protection, hearing protection, dust mask, hard hat, heavy gloves, work boots, and/or any other PPE that provides for the safety and protection of the individual that operates this equipment.



Safety requirements for fluid power systems and components hydraulic systems

⚠ WARNING

Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.

Failure to comply could result in death or serious injury.

Before you start the engine or pressurize the hydraulic system, install and tight correctly all the hydraulic couplings. Check that all hoses and fittings are undamaged. Replace immediately damaged components.

Only connect the hydraulic hoses to the tractor outlets if the tractor and the implement are pressure-free. If the hydraulic system of the tractor is activated, the hydraulic system may lead to uncontrolled movements which may cause secondary damage.

Make sure that no persons are near the implement when you start the implement, as there might be air in the hydraulic system which might lead to sudden movements.

When the tractor engine has stopped, activate the tractor hydraulic spool valves to make sure that there is no pressure in the hydraulic hoses.

To expel all the air from the oil in the hydraulic cylinders, test all the functions after you connect the hydraulic connections to the tractor, especially before you enter or drive on the public roads. Otherwise you risk that the header suddenly moves downward after you open the transport lock.

Noise emission

The measuring and reporting of the noise level were carried out according to **ISO 5131**.

The noise is measured with the engine and all mechanisms engaged and running at normal operating speed for the specified use of the product. These are maximum values which in normal operating conditions will never be exceeded.

The measurement of the noise level took place in the tractor cabin, where usually is the head of the operator.

NOTE: *When you replace the blades, replace both the blades on the disc in question not to create an unbalance.* noted that the airborne noise produced by the implement attached to the tractor is measured at a distance of **200 mm (7.9 in)** behind the rear window position of an average tractor suitable for operating the implement.

Two measurements were carried out, both with the Revolutions Per Minute (RPM) of the tractor engine adjusted so that the Power Take-Off (PTO) runs at **1000 RPM**:

- Implement connected, tractor window closed: **70.3 dB**

enable measurement of noise level at the operator seat used by the tractor - implement combination, it must be living parts are balanced by means of a special machine electronic sensors. If a part still has an unbalance, small interweights must be fastened.

the rotor run at up to **1600 RPM**, even the slightest balance will cause vibrations which may lead to fatigue ureas.

E: *If the vibrations or the noise of the implement increase siderably during the operation, stop the work immediately. ect the fault before you continue the work.*

with an uncertainty of **1.5 dB**.

- Implement connected, tractor window open: **81.9 dB** with an uncertainty of **1.5 dB**.

Vibration levels

On tractors with cab provided all windows, doors and other possible openings are kept closed; it is obvious that the real noise level at the operator's seat will be significantly lower. The exact level will depend on the noise insulation qualities of the cab.

On tractors without a cab or when you work with the cab doors or windows open, it is recommended to use ear protection equipment when the noise level exceeds 90 dBa. In several countries this is mandatory, so check local legislation.

Always use hearing protectors if the noise from the implement is annoying or if you work with the implement for a considerable period in a tractor that has not an adequate soundproof cabin.

NOTICE: *The level of noise for the operator could be less or greater depending upon the towing tractor.*

Ecology and the environment

Soil, air, and water quality is important for all industries and life in general. When legislation does not yet rule the treatment of some of the substances that advanced technology requires, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

Familiarize yourself with the relative legislation applicable to your country, and make sure that you understand this legislation. Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to the effect of these substances on man and nature and how to safely store, use, and dispose of these substances. Your KONGSKILDE - SEKO SRL dealer can also provide assistance.

Helpful hints

- Avoid the use of cans or other inappropriate pressurized fuel delivery systems to fill tanks. Such delivery systems may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of these products contain substances that may be harmful to your health.
- Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
- Avoid spillage when you drain fluids such as used engine coolant mixtures, engine oil, hydraulic fluid, brake fluid, etc. Do not mix drained brake fluids or fuels with lubricants. Store all drained fluids safely until you can dispose of the fluids in a proper way that complies with all local legislation and available resources.
- Do not allow coolant mixtures to get into the soil. Collect and dispose of coolant mixtures properly.
- Do not open the air-conditioning system yourself. It contains gases that should not be released into the atmosphere. Your KONGSKILDE - SEKO SRL dealer or air-conditioning specialist has a special extractor for this purpose and can recharge the system properly.
- Repair any leaks or defects in the engine cooling system or hydraulic system immediately.

- Do not increase the pressure in a pressurized circuit as this may lead to a component failure.

Battery recycling

Batteries and electric accumulators contain several substances that can have a harmful effect on the environment if the batteries are not properly recycled after use. Improper disposal of batteries can contaminate the soil, groundwater, and waterways. KONGSKILDE - SEKO SRL strongly recommends that you return all used batteries to a KONGSKILDE - SEKO SRL dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.



Mandatory battery recycling

Since batteries contain sulfuric acid solution and heavy metals such as lead, before disposing of them, check your country regulations in terms of content and obligations related to the collection and recycling of used batteries.

Safety signs

The following safety signs are on your implement as a guide for your safety and for the safety of those who work with you.

Walk around the implement and note the content and location of all safety signs before you operate your implement. Read all the safety decals adhered to the implement and follow the instructions.

Keep all safety signs clean and legible. Clean safety signs with a soft cloth, water, and a gentle detergent.

NOTICE: Do not use solvent, gasoline, or other harsh chemicals. Solvents, gasoline, and other harsh chemicals may damage or remove the safety signs.

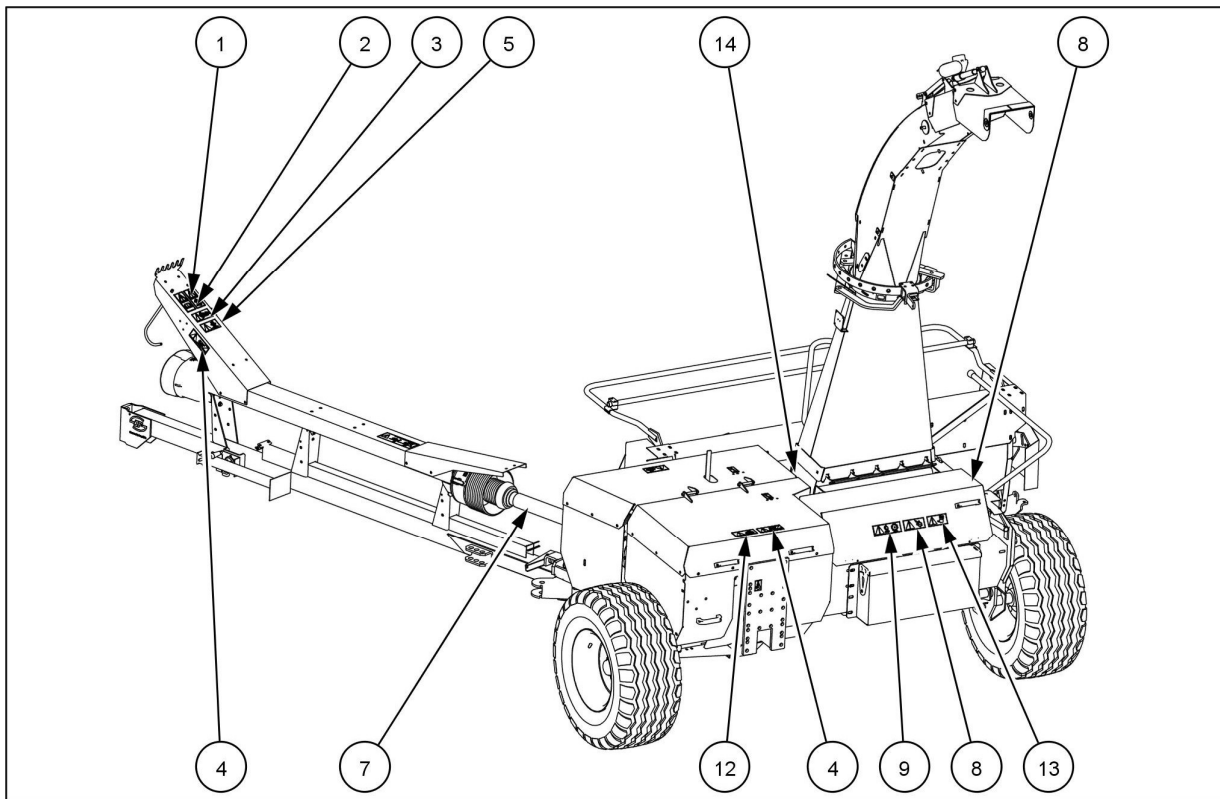
The safety signs are located on both side of the implement.

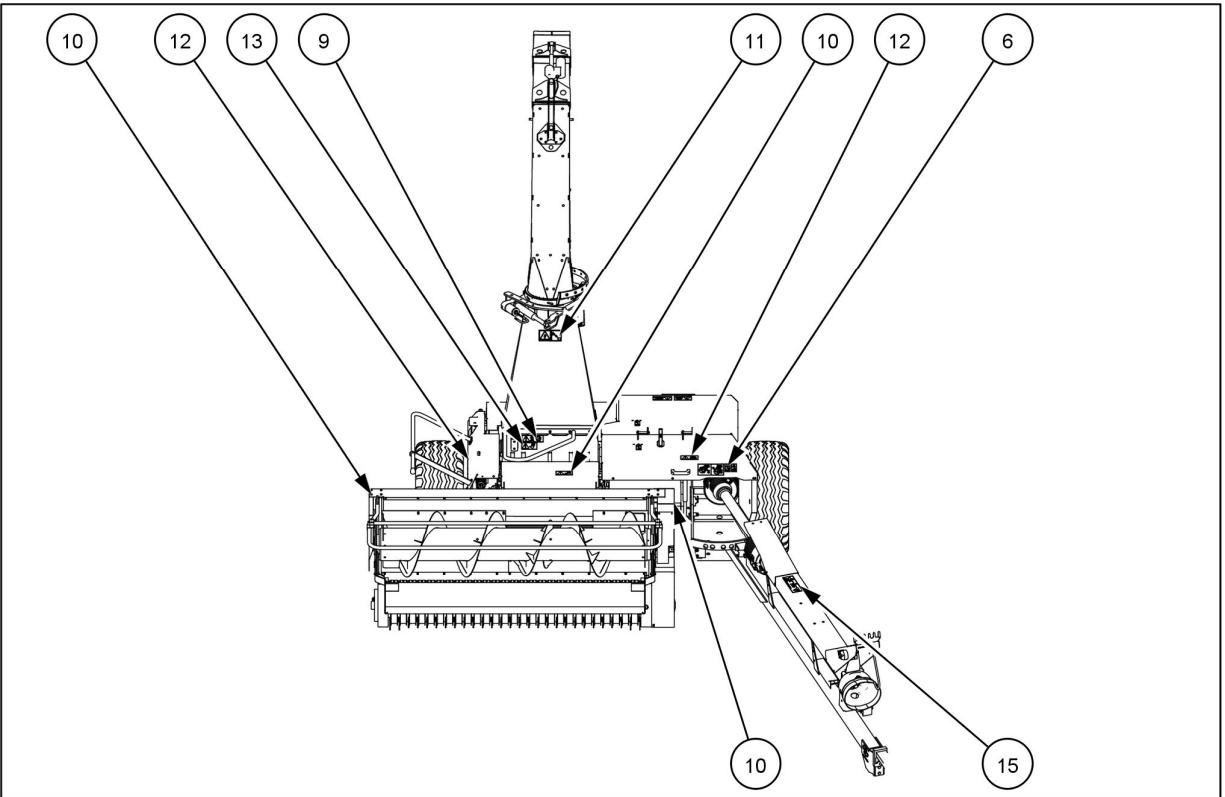
Replace all safety signs that are damaged, missing, painted over, or illegible. If a safety sign is on a part that you or your dealer replaces, make sure that you or your dealer install the safety sign on the new part. Contact your dealer for the replacement of the safety signs.

Safety signs that display the “Read operator’s manual” symbol direct you to the operator’s manual for further information regarding maintenance, adjustments, or procedures for particular areas of the implement. When a safety sign displays this symbol, consult the appropriate page of the operator’s manual.



Safety signs that display the “Read service manual” symbol direct you to the service manual. If you doubt your ability to perform service operations, contact your dealer.





Safety sign (1)

⚠ WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE DEATH OR SERIOUS INJURY.

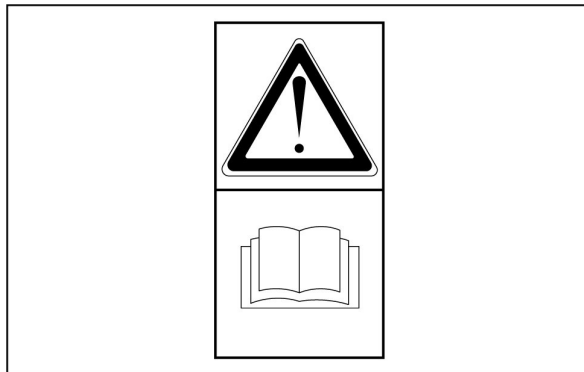
MAKE SURE THAT EVERY OPERATOR:

- is instructed in the safe and proper use of this machine.
- reads and understands the operator's manual for this machine.
- reads and understands ALL safety signs on the machine.

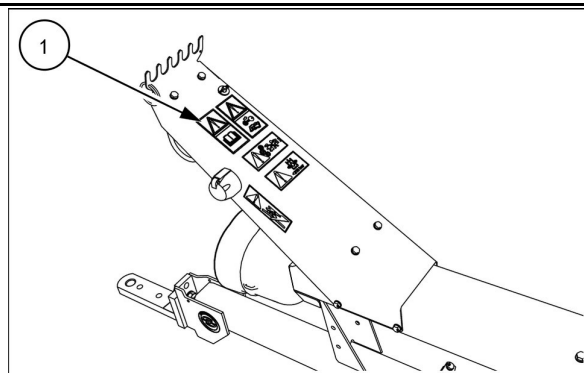
Failure to comply could result in death or serious injury.

Read the operator's manual and the safety instructions before you operate the implement.

Read the delivered manuals to operate the implement correctly and to avoid unnecessary accidents and implement damage. Part number: 81PR80-0841



Located on the Power Take-Off (PTO) shaft.



Safety sign (2)**⚠ WARNING**

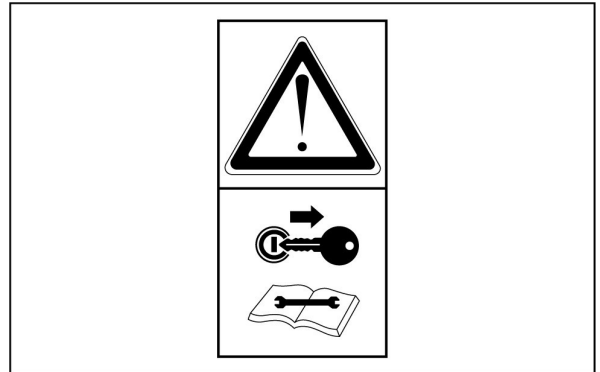
Avoid injury! Always do the following before lubricating, maintaining, or servicing the machine.

1. Disengage all drives.
2. Engage parking brake.
3. Lower all attachments to the ground, or raise and engage all safety locks.
4. Shut off engine.
5. Remove key from key switch.
6. Switch off battery key, if installed.
7. Wait for all machine movement to stop.

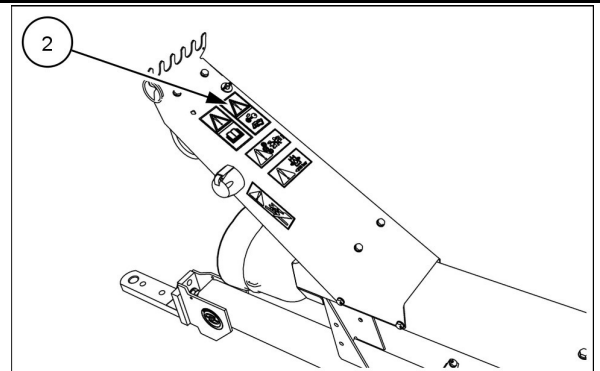
Failure to comply could result in death or serious injury.

Stop the tractor engine and remove the ignition key before you touch the implement. Always remember to stop the tractor engine you adjust, maintain, repair, or lubricate the implement. Also remember to remove the ignition key. Make sure that nobody starts the engine, until you have finished.

Part number: 81PR80-0842



Located on the Power Take-Off (PTO) shaft.

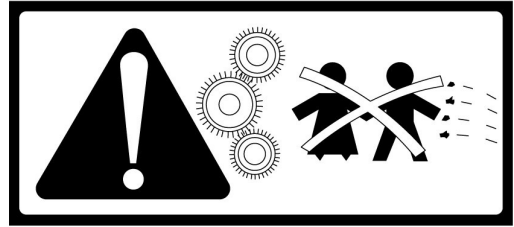


Safety sign (3)

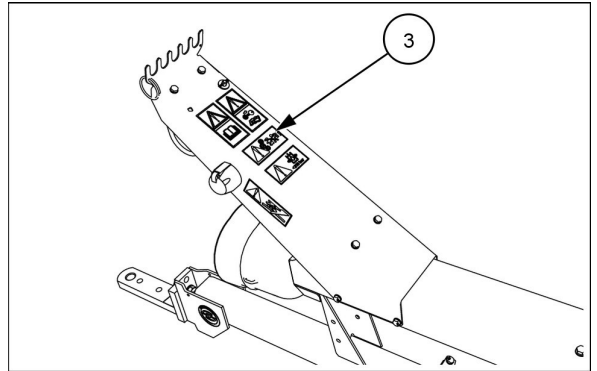
Children.

Never let children stand near the implement during operation. Especially not small children as they have a tendency to do unforeseen things.

Part number: 81PR80-0811



Located on the Power Take-Off (PTO) shaft.



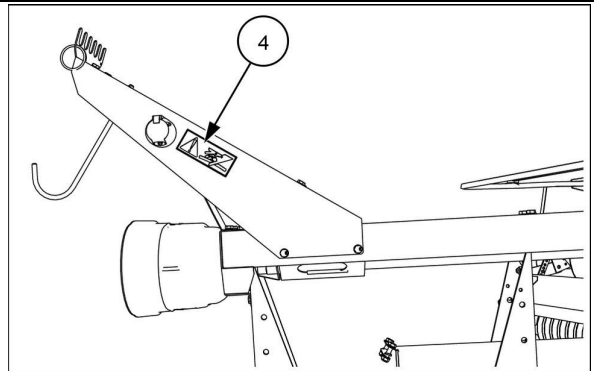
Safety sign (4)

Avoid pressurized outflowing of liquid.

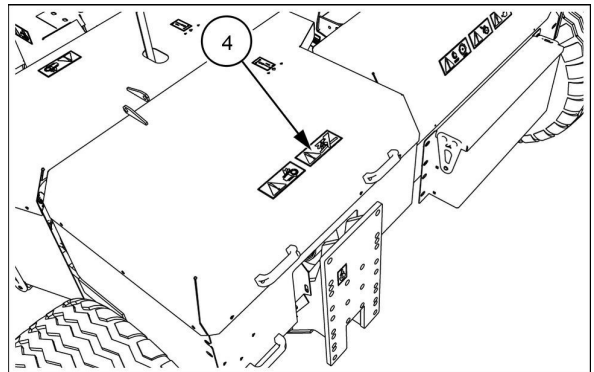
Danger generated by hydraulic oil out flowing under pressure. The danger may cause severe injuries to the entire body, with possible lethal effect. Before proceeding to maintenance procedures or repairs of the hydraulic system, make sure the system is depressurized. Do not try to seal hydraulic oil leaks using your hands or fingers. Part number: PR80-0814



Located on the Power Take-Off (PTO) shaft.



Located on the housing on rear of the implement.



Safety sign (5)

⚠ WARNING

Avoid injury!

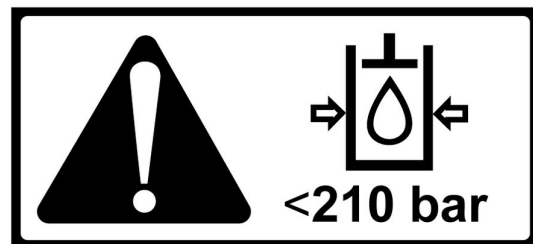
Do not exceed the maximum pressure shown on the decal. Never overload the machine hydraulic system.

Failure to comply could result in death or serious injury.

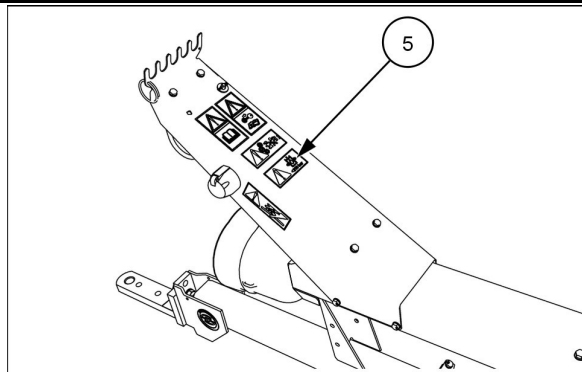
Maximum **210 bar (3045 psi)**.

Make sure that the hydraulic components are not exposed to more pressure than maximum **210 bar (3045 psi)** as there could be a risk of explosive damage of parts. Hereby you expose yourself and others to serious danger of getting hit by metal parts with high speed or oil under high pressure and with high temperature.

Part number: 81PR80-0832



Located on the Power Take-Off (PTO) shaft.

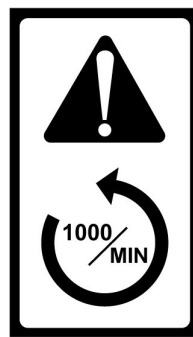


Safety sign (6)

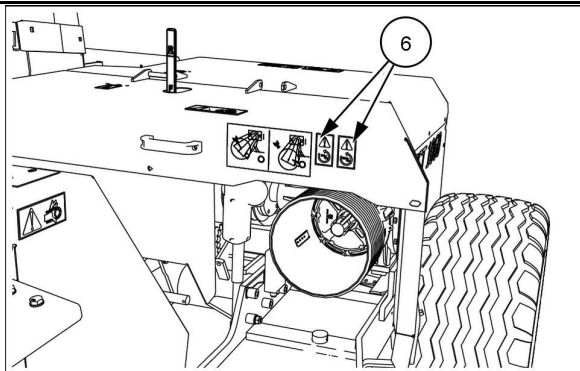
The number and the direction of rotations.

Check that the Power Take-Off (PTO) drive shaft runs with the right RPM and in the right direction. A wrong number of rotations and/or direction of rotation can damage the implement with the risk of personal injury as a result.

Part number: 81PR80-0805



Located on the housing on front of the implement.



Safety sign(7)**▲ WARNING**

Entanglement hazard!

The Power Take-Off (PTO) guard must be installed when operating PTO-driven equipment.

Failure to comply could result in death or serious injury.

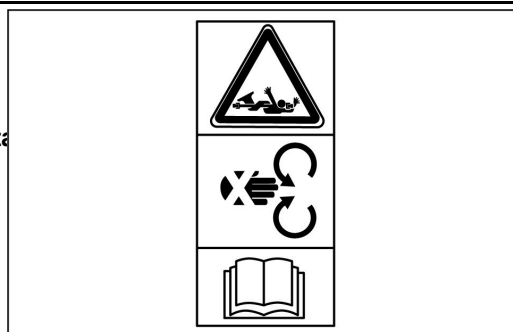
Do not operate without:

- All driveline tractor and equipment shields in place.
- Drivelines securely attached at both end
- Driveline guards that turn freely on driveline.

Failure to comply will result in death or serious injury.

Read the instruction manual and the safety instructions.

Part number: 811340-9999



Safety sign (8)

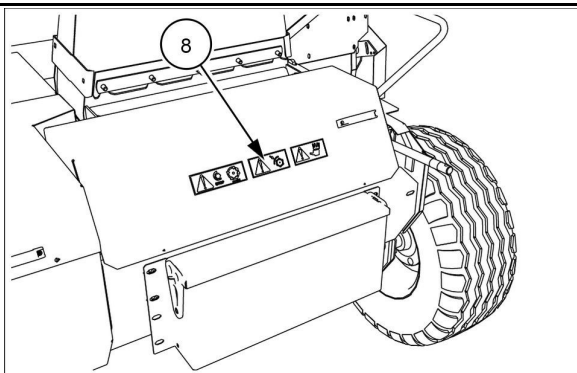
Remember the guards when grinding.

Remember to close all guards after switching to grinding mode before commencing grinding.

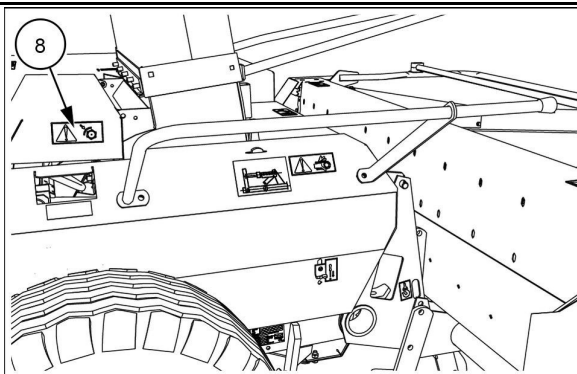
Part number: PR80-0823



Located on the grinding device housing.



Located on the grinding device housing, at the right-hand side of the implement.



Safety sign (9)

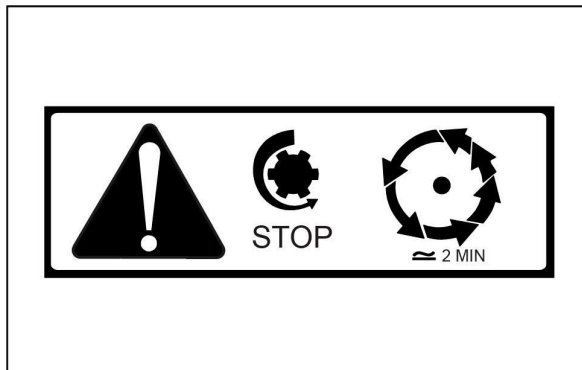
⚠ WARNING

Rotating parts!
Keep clear of all drives and rotating components.
Failure to comply could result in death or serious injury.

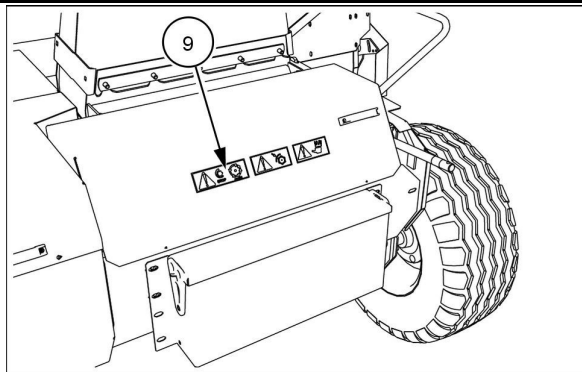
Rotating parts.

After the Power Take-Off (PTO) drive shaft has stopped, the blades will have a momentum where they keep rotating for up to **2 min.** Wait until the blades have come to a complete stop before you remove the canvas and the shields for inspection and maintenance.

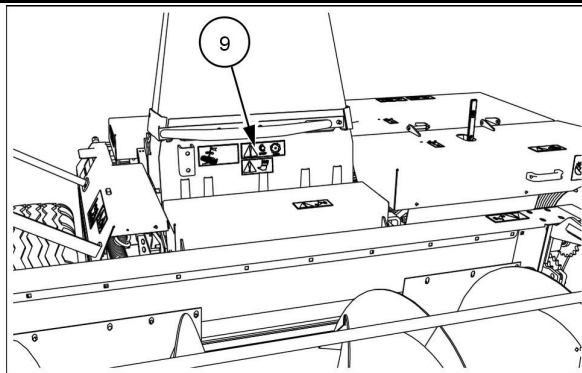
Part number: PR80-0821



Located on the grinding device housing.



Located on front of the implement, at the base of the chute support.



Safety sign (10)

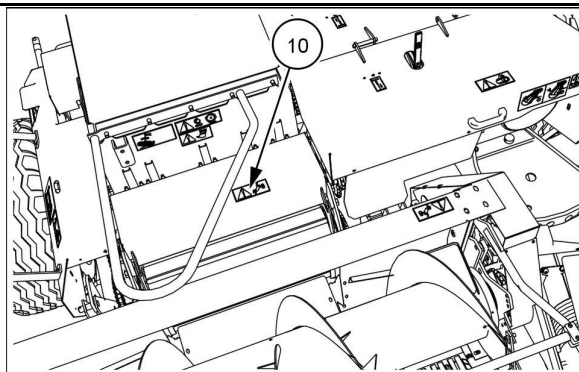
Risk of injury.

Keep away from the vicinity of any attachments and feed rollers while the machine running. Ensure that the tractor's engine has stopped first.

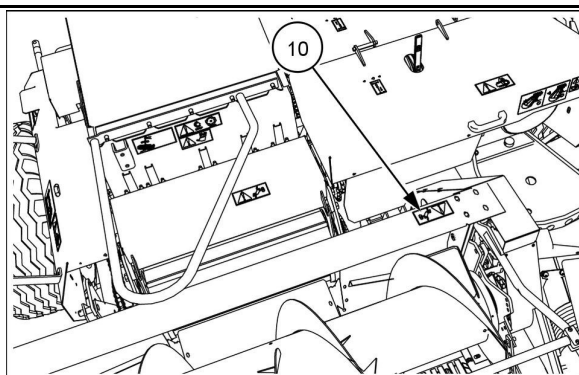
Part number: PR80-0824



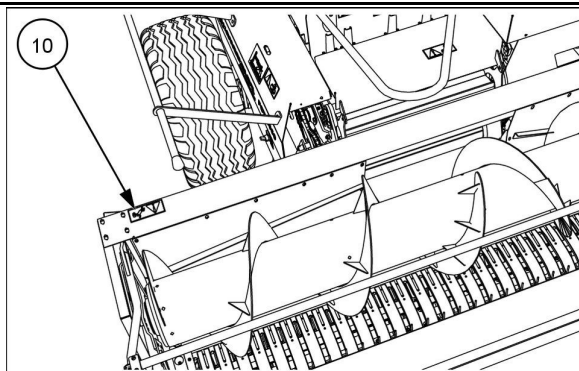
Located on the housing on front of the implement.



Located on the edge of the rotors, on the left-hand side of the implement.



Located on the edge of the rotors, on the right-hand side of the implement.

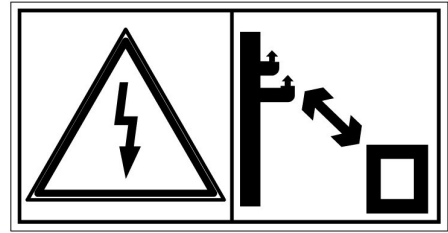


Safety sign (11)

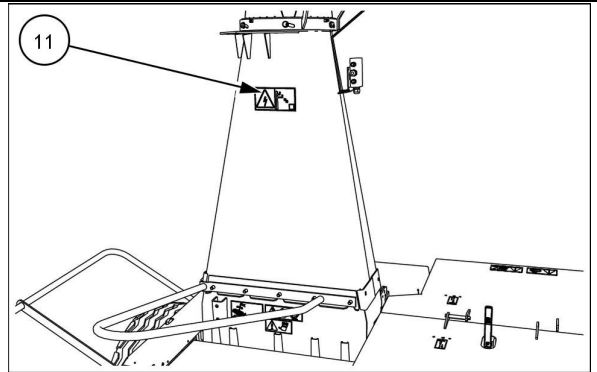
High-voltage lines.

This label is intended to warn of the danger of getting too close to high-voltage lines with the machine.

Part number: PR80-0861



Located on the chute support.

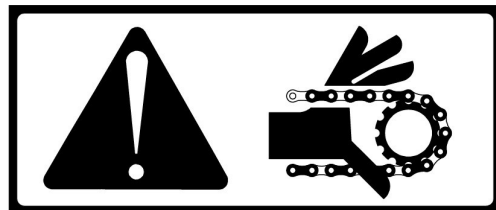


Safety sign (12)

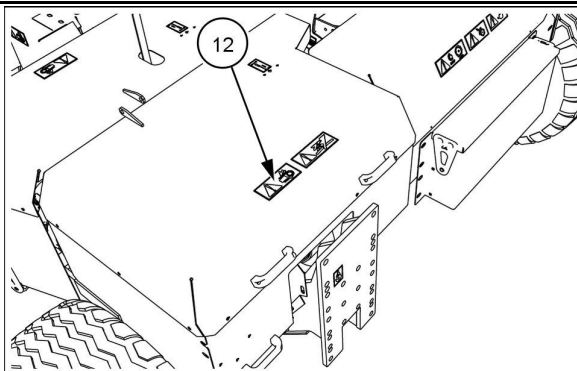
Chain drives.

One or several chain drives are located beneath this guard. Ensure that the tractor's engine has been turned off before opening the guard.

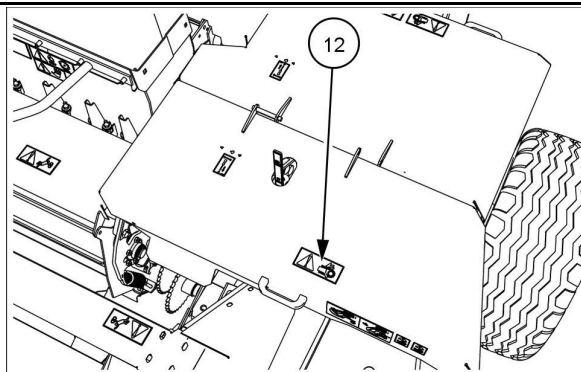
Part number: PR80-0826



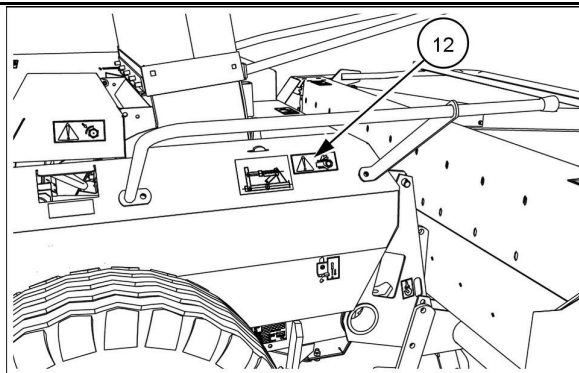
Located on the housing on rear of the implement.



Located on the housing on front of the implement.



Located on the rotor housing, on the right-hand side of the implement.

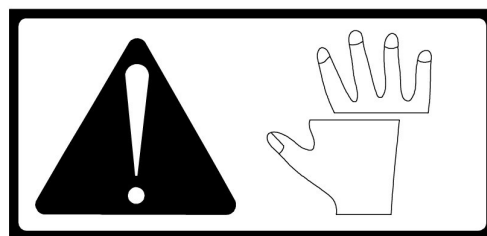


Safety sign (13)

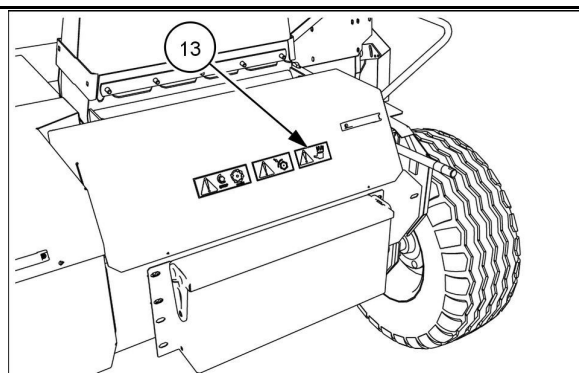
Risk of cutting.

There is a risk of fingers becoming crushed in various parts of the machine. Be careful when the machine is coupled to the tractor and ready for use. The machine can easily crush or cut off any part of the body that might get caught in the machine.

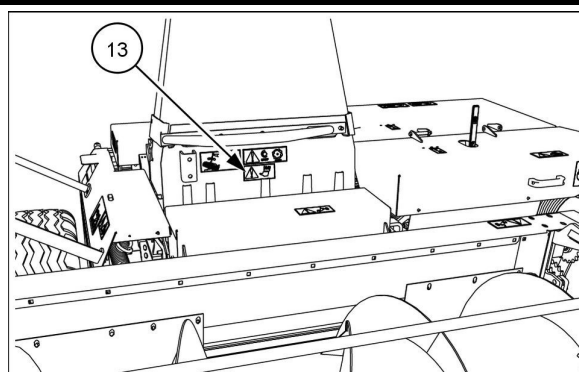
Part number: PR80-0293



Located on the grinding device housing.



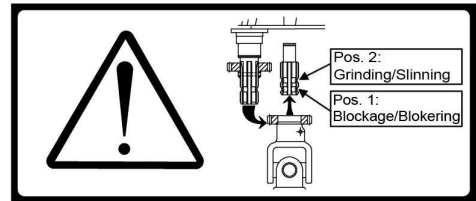
Located on front of the implement, at the base of the chute support.



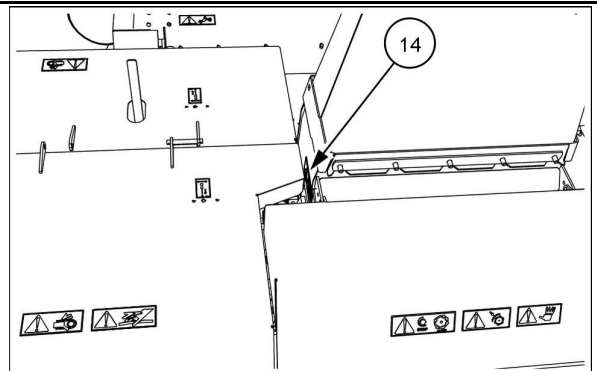
Safety sign (14)

PTO drive shaft for rotor.

There is an alternative pin for the PTO drive shaft for the rotor. This is used both when the rotor is disconnected for reversing and when the rotor rotates in the opposite direction for grinding. Ensure that you place the PTO shaft correctly on the pin when performing these operations. Part number: PR80-0837



Located in the middle of the implement, at the base of the chute support.



Safety sign (15)

⚠ WARNING

Unexpected machine movement!

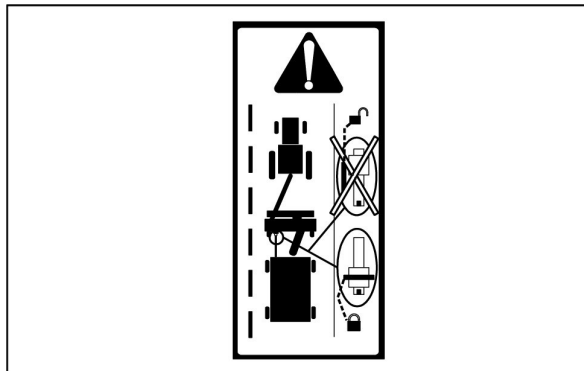
Engage the safety lock when transporting the machine to prevent accidental movement of the header.

Failure to comply could result in death or serious injury.

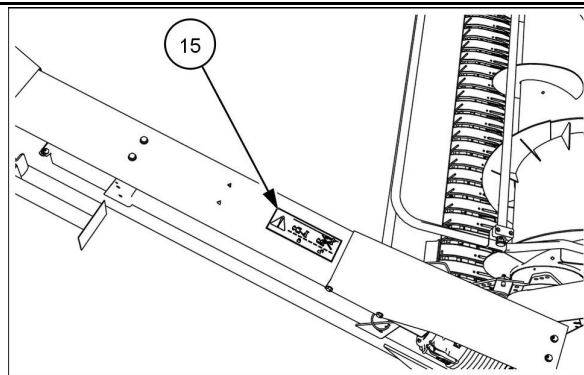
Remember the transport lock.

Always block the hydraulic hitch using the pin supplied before you transport the implement on public road. Errors in the hydraulic system and unintended manoeuvres may cause the implement to move to working position during transport which may result in serious implement damage or personal injury.

Part number: PR80-0857



Located on the drawbar.



3 - CONTROLS AND INSTRUMENTS

Information

Operating principles

For all information related to the description and the location of the controls to use your implement, see chapter “Controls and Instruments” in the operator’s manual of your vehicle.

4 - OPERATING INSTRUCTIONS

Commissioning the unit

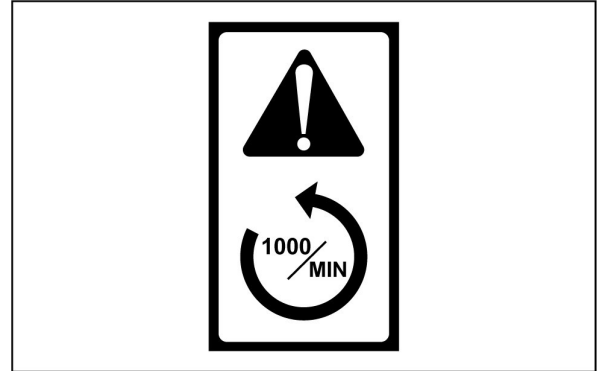
Choice of tractor

Always follow the recommendations specified in the instruction manual of the tractor. If this is not possible, seek technical assistance.

Choose a tractor which provides at least **88 kW (120 hp)** at the Power Take-Off (PTO), but which also cannot supply more than **147 kW (200 hp)**.

A suitable tractor will have a good range of gears for travelling at speeds of between **5 – 12 km/h**.

The number and direction of rotation of the tractor must be clockwise seen from a position standing behind the tractor facing the direction of travel.



NOTICE: A wrong number of rotations may result in reduced cutting and over a long period may damage the implement and at worst result in ejection of parts.

Long-term overload may damage the implement and at worst may result in ejection of parts.

Choose a tractor with a suitable own weight and track width so that it can drive steadily on the ground.

Make sure that the link arms and towing hook of the tractor are intended to carry implements with the own weight in question.

Always choose a tractor with a closed cabin when you work with a disc mower. If the rear window is broken it must be replaced by a new one before you continue the work with the implement.

Use a tractor with a cabin provided with safety glass. Furthermore, protect the glass of the cabin with polycarbonate plates inside or with a closemeshed net outside. Close the cabin when you work in the field.

Check before use

Before you operate the forage harvester for the first time, perform the following items:

- Read this operator's manual carefully, especially the chapter headed "Safety information".
- Check the correct assembly of the implement. Also check that the implement is undamaged.
- Check that no parts have been tied up inside the implement in connection with the delivery of the implement.
- Check that the protection (shields and canvases) on the implement are complete, intact and correctly mounted, and that the side canvas shields are folded down. Canvases and shields secure against ejection of stones and foreign matter.
- Check the revolving parts. Replace damaged, worn or missing parts immediately.

- Make sure there is nobody behind the discharge of the forage harvester due to the danger of being hit by metal parts from damaged blades.
- Check the correct installation of the safety devices. Also check if the safety devices are intact.
- Check that the Power Take-Off (PTO) speed of the implement (and of the tractor) is correct. Too high PTO speed can be dangerous. Too low PTO speed causes blocking of the forage harvester and high torque on the drive shafts.
- Make sure that the tractor is capable of maintaining the specified **1000 RPM** with no load on the implement.
- Check the height because the chute is more than **4 m (157 in)** high.
- Make sure to keep distance from high-voltage lines.
- Check the length of the primary PTO shaft. If the PTO shafts is too short or too long it may damage the tractor as well as the implement considerably. Check that the protection tubes do not get jammed or damaged in any position. Secure the safety chains of the protection tubes properly. Check that the safety chains do not in any position get too tight or damaged.
- Check the correct connection and tightening of the hydraulic components.
- Check that the hydraulic hoses are long enough for the movements of the implement in relation to the tractor.
- Check the length of the hydraulic hoses when the implement is in working position. Check that the hydraulic hoses are not too tense.
- Grease the implement before you start the operations. This is also necessary before you use the implement the first time (See Page **7-12**).
- Check that the oil level in the gearbox is correct (See Page **7-13**).
- Burnish the slip clutch as described on Page **6-2**.
- Check the proper tightness of all the nuts and bolts. • Check the tire pressure as described on Page **9-16**.

The implement was tested at the factory to ensure a proper operation. However, perform the following actions with the rear tractor window open and without hearing protection to check the operation of the implement.

1. Lower the header to working position before you start the power transmission.
2. Start the implement at a low number of Revolutions Per Minute (RPM). The value in the display must be 5.
3. With open rear window and without hearing protector, check that there are no unusual scratching or knocking sounds.
4. Increase the number of RPM, up to the rated speed of **1000 RPM**.
5. At the correct number of RPM, check if there are any noticeable vibrations. Check the guards for unusual vibrations.

NOTE: *If you are in doubt whether the implement is operating correctly, stop the tractor and the implement immediately.*

7. Disengage the PTO and turn off the tractor.
8. Turn the revolving parts with manual power to check if the implement can turn freely.
9. Check the implement visually to find possible errors (such as burnt or scraped paint).
10. If necessary, seek authorised assistance.

Starting the unit

Connection to the tractor

⚠ WARNING

Avoid injury!

Always stay clear of the implement operating area. In particular, DO NOT stand between the tractor and the trailed vehicle or either three-point linkage when operating lift controls. Make sure no bystanders are within or near these operating areas.

Failure to comply could result in death or serious injury

NOTE: Use original and correct coupling parts.

The PTO drive shaft between the tractor and the implement is a wide-angle shaft, which enables the implement to turn sharply and thus achieve a small turning radius. The mounting of the PTO drive shaft must always be adjusted according to the tractor that is being used to tow the implement, which means that it may be necessary to shorten the PTO drive shaft.

NOTE: To observe the latter, the tractor driver will often need to check the length of the shaft when turning in the field and adjust his or her driving accordingly.

To connect the implement PTO shaft to the tractor, proceed as follows:

1. Adjust drawbar **(1)** of the tractor so that distance **(A)** is as short as possible.
This then allows the wide-angle to accommodate the majority of the angle when turning.
2. Adjust the height of the height of drawbar **(2)** of the implement so that PTO shaft **(3)** is as close to horizontal as possible.

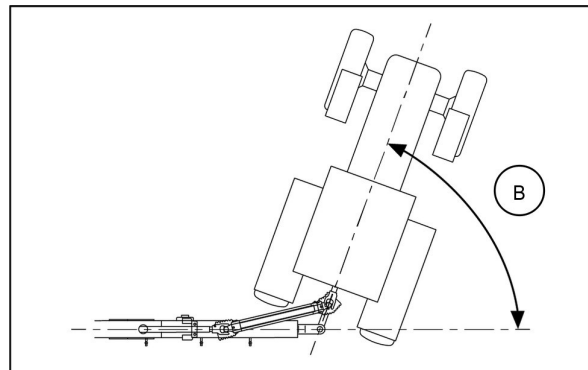
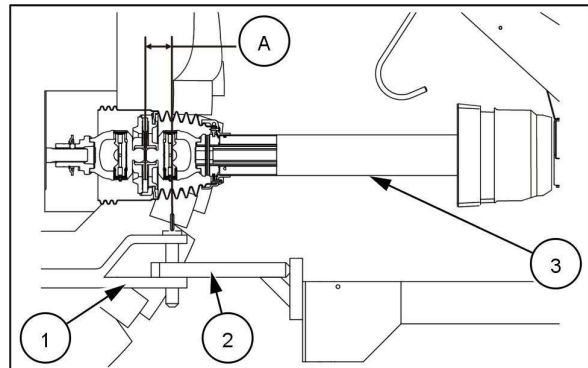
NOTE: The drawbar tongue must be mounted with two bolts.

3. Check the maximum turning angle (B). Due to the position of the PTO drive shaft, turning angle (B) is limited by the fact that the PTO drive shaft must not compressed more than the distance of 30. mm (1.2 in) from the block.

NOTE: In some cases, it is possible to increase the turning angle by shortening the PTO shaft.

Shorten the PTO drive shaft as described on Page 4-8.

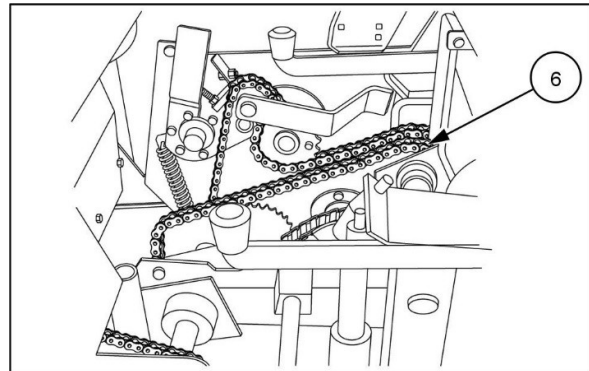
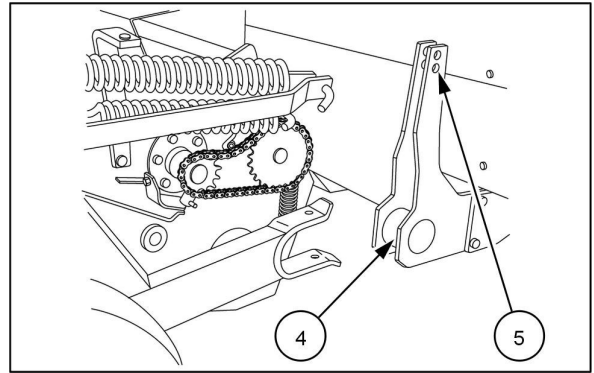
NOTE: The PTO drive shaft should only be shortened if the overlap is more than 200 mm when driving forward with the machine in the operating position.



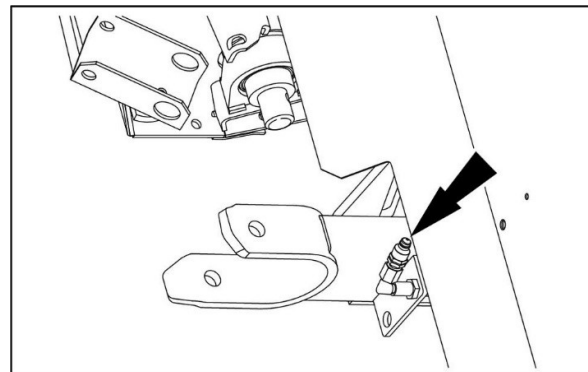
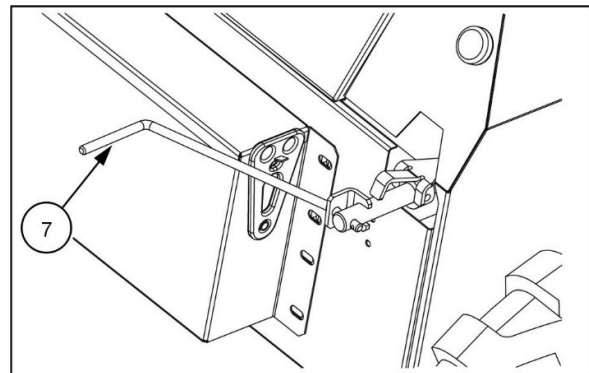
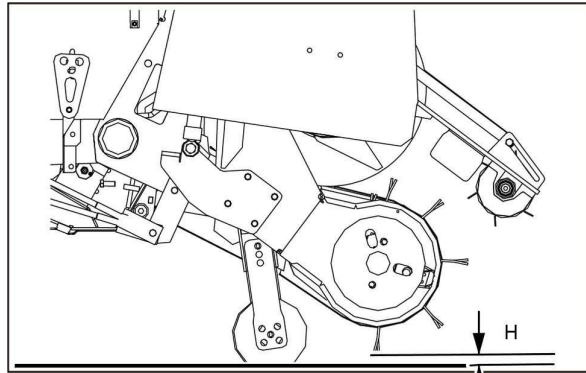
Pickup unit

To connect the pickup unit, proceed as follows:

1. Wheel the pickup on the rollers to the implement so that catch **(4)** is engaged. Fit the two pins at left and right hand side catches in order to lock the pickup to the basic body of the implement. Attach the relief device to the pickup at the pin **(5)**.
2. Fit the chain drive **(6)** for the pickup at the left hand side of the pickup.



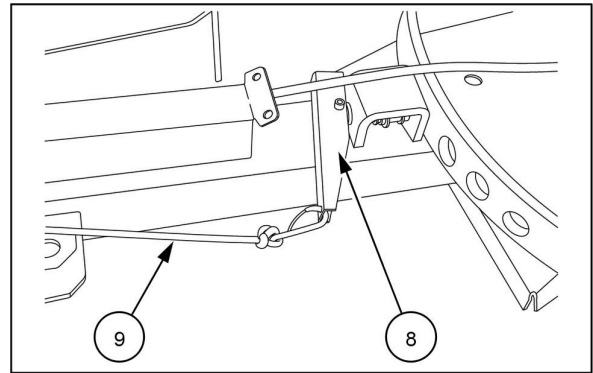
3. Adjust the height (**H**) of the rollers under the pickup so that there is a distance of **15 – 20 mm (0.6 – 0.8 in)** between the points of the pickup tines and the ground.
4. Adjust the tension of the relief springs using spindle (**7**) until the ground pressure for the pickup is a maximum of **30 kg (66 lb)**.
5. Connect the hydraulic hose for lifting an auger and front roller to the quick-release coupling at the left hand catch.



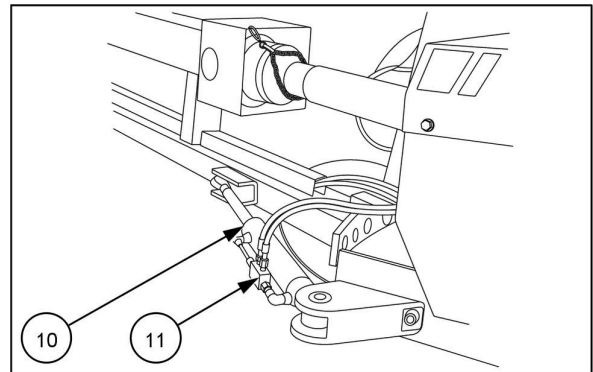
Transport conversion

If the implement is equipped with a mechanical lock **(8)** on the drawbar, you must pull the catch out using the cord **(9)**. Once the catch **(8)** has been fully removed, move backwards and forwards with the tractor so that the drawbar moves in the desired direction.

When this is close to the desired position, you can let go of the cord **(9)** so that the catch **(8)** falls into position when it lines up with a hole.



The drawbar may be fitted with a hydraulic cylinder **(10)**. The cylinder can be adjusted using the joystick on the control box. The hydraulic cylinder is equipped with a safety valve **(11)** which ensures that the implement does not make any unintentional movements in cases where there may be a leaking hose.



Front Power Take-Off (PTO) drive shaft – Shorten

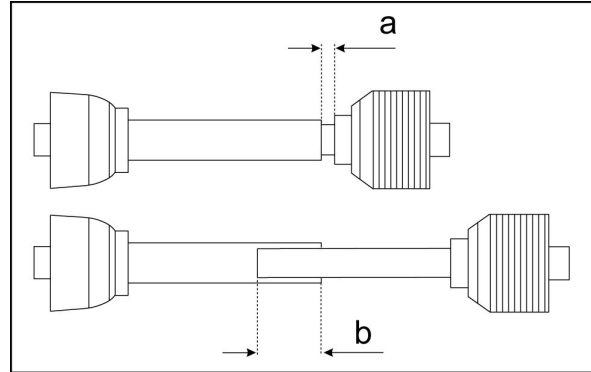
Power Take-Off (PTO) shaft length

NOTE: Do not shorten your new Power Take-Off (PTO) shaft until you are certain that it is necessary. From the factory the distance from PTO to Power Input Connection (PIC) is standard on most tractor brands.

Check the length of the PTO shaft for each tractor prior to first use.

If it is still necessary to shorten the PTO shaft, the profile tubes of the PTO shaft must fully comply with the following overlapping measures:

- The sliding tubes must have as much overlap as possible, with an acceptable minimum overlap **(b)** of **200 mm (8 in)** during normal operation.
- There must be a minimum of **30 mm (1.2 in)** of free PTO shaft length **(a)** to prevent the shaft from bottoming out.



Determining the required shaft length

When you determine that you must shorten the PTO shaft, select the length so that the telescoping members never close completely or bottom out when in use. The PTO length must never be smaller than the minimum distance between the joints.

1. Attach the implement to the tractor without the PTO shaft.
2. Adjust the three-point hitch so that the PTO shaft is parallel with the ground.
3. Stop the tractor and engage the parking brake.
4. Determine if the PTO shaft will bottom out in this position. If the PTO shaft will bottom out in this position or if the free length is less than **30 mm (1.2 in)**, proceed with the procedure to shorten the PTO shaft.

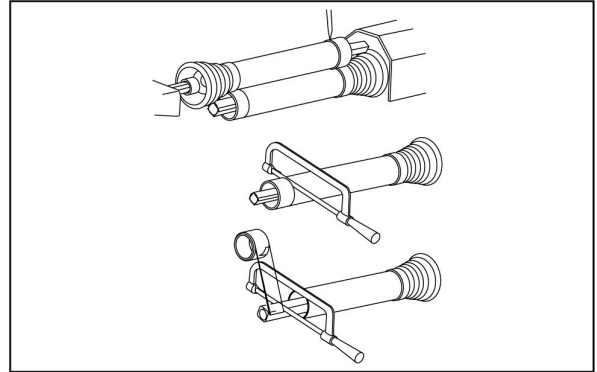
Shortening the PTO drive shaft

To shorten the PTO shaft proceed as follows.

1. Fasten the PTO drive shaft half parts to the PTO (on the tractor) and the PIC (on the implement). The PTO drive shaft half parts must be at the same horizontal level, opposite each other at the shortest distance from the tractor.
2. Make sure that a minimum overlap of **200 mm (8 in)** exists.
3. Check that the PTO shaft does not bottom out at one end. Keep the shaft ends parallel to each other and mark the minimum distance of **30 mm (1.2 in)**. Only cut enough PTO shaft off to achieve this minimum free shaf length. This will maintain the maximum amount of PTO shaft overlap.
4. Shorten all four tubes equally.
5. Round off the ends of the profile tubes and remove the burrs carefully.
6. Remove the metal shavings.

NOTICE: To avoid big friction forces, grease the tube carefully before you reassemble it. Use **TUTELA MULTIPURPOSE GR-9 GREASE**.

NOTE: If you shorten the PTO shaft, check the minimum overlap and the minimum distance again if you operate the implement with a different tractor.



Hydraulic connections

⚠ WARNING

Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately. Failure to comply could result in death or serious injury.

NOTE: Check the tractor operator's manual for instructions on which outlet you must use for single-acting cylinders.

NOTICE: The hydraulic relief valve pressure on the tractor must not exceed **210 bar (3045 psi)**, or implement damage may occur. The implement requires a minimum pressure of **170 bar (2465 psi)** to operate the lift cylinders.

The implement is equipped with its own hydraulic system, which must be supplied with oil from the tractor and controls the oil pressure and flow itself if it has been fitted with LS.

To connect the hydraulic hoses, proceed as follows:

1. Make sure that the couplers on the hydraulic hoses match the hydraulic outlets on the tractor.
2. None of the hydraulic functions use more than around **15 – 20 L/min** of oil.
Set the oil flow from the tractor to **15 – 20 L/min**, or as low as possible.
3. Connect the pressure hose to the A-port on the hydraulic outlet and the return hose to a vacant returnport leading directly to the tank or rear-axle assembly. 4. Make sure that the return pressure is suitably low.

NOTE: The hydraulic port for the selected A-port must be locked in the pressure position to ensure a continuous oil flow to the implement's hydraulic system.

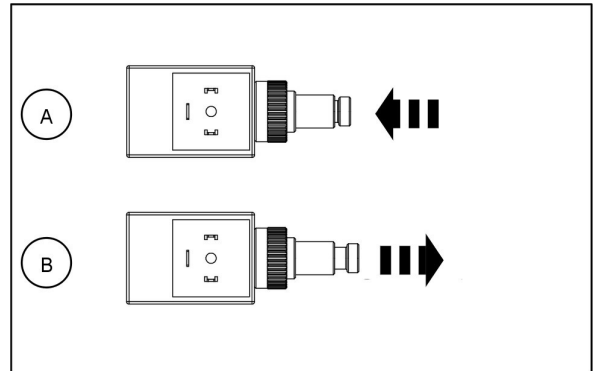
Bypass Valve

The implement is equipped with a bypass valve, located on the left hand side of the valve block. There are two types of tractor hydraulic systems:

- "open center hydraulics" **(B)** (also known as "fixed pump").
- "closed center hydraulics" **(A)** (also known as "variable pump").

If the tractor is an the "open center" type **(B)**, the bypass valve must be open to permit the passage of oil back to the tractor, and will only be activated when a function on the ZEIL21FR00065AA 1 implement is activated. The valve may be altered using the thumbscrew if it is not open.

If the tractor is an the "closed center" type **(A)**, the bypass valve must be closed to permit the tractor to close the oil flow automatically when no functions are active. The



valve may be altered using the thumbscrew if it is not closed.

The bypass valve has been designed for a maximum of **40 L/min (10.6 US gpm)**. If this limit exceeds a pressure loss will occur, which can cause the temperature of the oil and valves to increase.

Bleeding air from the lift cylinders

⚠ WARNING

Unexpected machine movement!

Air in the system or a high hydraulic flow rate can cause erratic operation. Before you swing the tongue, clear the area of all bystanders and obstructions.

Failure to comply could result in death or serious injury.

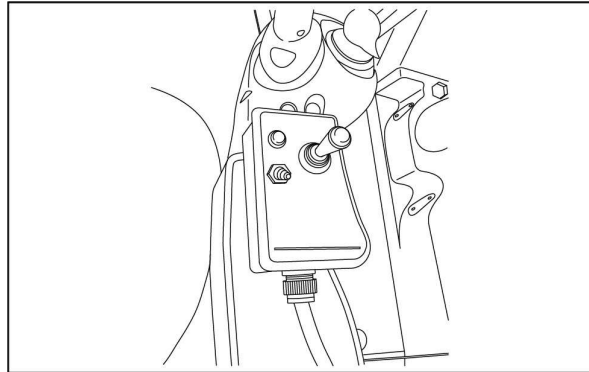
Upon initial header lift circuit operation, activate the hydraulic remote valve to fully extend the lift cylinders. If there is still air in the hydraulic system, the implement will lift unevenly. Cycle the lift cylinder several times to bleed all air from the hydraulic system.

Electrical connections

The implement is equipped of two electronic units:

- A control unit mounted on the implement together with the hydraulic system. This unit activates the hydraulic valves.
- A control box for operation of the hydraulic functions. This can be beneficially positioned on the right armrest of the tractor seat for easy access while working in the field.

The control box is equipped with detachable fittings that can be permanently screwed into the cab, allowing subsequent dismantling without the use of a tool.



The male connector for the power supply connects to a female connector inside the tractor cab. This provides **12 V** of power and allows a minimum current of **15 A**. Contact your dealer for an adapter if your tractor does not use the same connectors.

NOTE: *When the machine is parked, the control box should be placed in the holder beneath the front guard of the drawbar.*

Parking the unit

Disconnection and parking

WARNING

Unexpected machine movement!

Always secure the machine with wheel chocks to ensure that the machine cannot roll away when it is stopped or parked. Failure to comply could result in death or serious injury.

1. Turn off the tractor, and then remove the key.
2. Fix correctly the supporting leg before parking, otherwise the implement may tip over during parking.
3. Chock the wheels to prevent any unexpected movement of the implement.
4. Place the wheel chocks as follows:
 - On a flat surface: one wheel chock in front of, and one behind a wheel.
 - On a slope: one wheel chock per wheel, either in front of, or behind the wheel, depending on the incline of the ground.
5. Remove the front Power Take-Off (PTO) from the tractor PTO shaft.
6. Disconnect the hydraulic hoses and control box.
7. Disconnect the implement from the tractor.

NOTE: *When the machine is parked, the control box should be placed in the holder beneath the front guard of the drawbar.*

5 - TRANSPORT OPERATIONS

Preparing for road transport

Travelling on public roads

WARNING

Transport hazard!

For speeds up to 32 km/h (20 mph), make sure that the weight of a trailed vehicle that is not equipped with brakes **DOES NOT EXCEED 1.5 times the tractor weight**. Stopping distance increases with increasing speed as the weight of the towed load increases, especially on hills and slopes.

Failure to comply could result in death or serious injury-

Prepare the implement for road transport

1. Make sure that you connect all hydraulic connections are connected to the tractor remote outlets.

NOTICE: *If the hoses are disconnected, either connect the hoses to the tractor or make sure that you position the hydraulic hoses in the hanger and secure the hoses to prevent damage.*

2. Before you drive on public roads, convert the implement from transport to working position and back again to ensure that there is no air in the hydraulic system.
3. Turn off the control unit using the button on the side of the control box, and disconnect the oil supply to the implement. This prevents faulty operation during transport..

NOTE: *If the implement is fitted with an auto-hitch, activate the mechanical lock on the auto-hitch when driving while towing a trailer on public roads.*

Traffic marking

The owner is always obliged to ensure that the implement is equipped with correct lighting system and other traffic marking in accordance with the country's current rules.

NOTE: *Limit the transport speed to maximum **30 km/h** if the machine has not been marked with another maximum speed limit from the factory.*

6 - WORKING OPERATIONS

General information

Implement overview

The precision chop forage harvesters FCT 1060 and FCT 1060MD offer highly versatile performance, which, when used with the correct equipment, enables grass and whole crops to be chopped.

The implements may both be used alone or in parallel with other machines.

The FCT 1060 and FCT 1060MD have a high capacity compared with other similar products because of the "Direct Cut" system that they use. "Direct Cut" minimizes power loss when cutting the material, thus ensuring maximum utilisation of the available tractor power.

The capacity of a forage harvester will be dependent not only on the type of crop being harvested, but also on the way the crop has been treated prior to being harvested or cut, in addition to the cutting length used by the implement.

It is desirable to operate the forage harvester in the highest possible tractor gear without causing frequent blockages. However, the quantity of grass in a field will always vary, for instance where the mower conditioner has had to turn or change forward speed or direction of travel. Therefore, it is often appropriate either to drive with a power reserve so that the implement will not become blocked, or to continuously adapt the driving of the precision chop forage harvester to the conditions.

The pick-up unit and feed rollers are both protected from overloading. The pick-up unit is protected by means of a friction clutch.

The precision chop forage harvester also has a reverse function, which allows blockages to be cleared without you having to leave the tractor seat.

The FCT 1060MD has been fitted with a metal detector. The purpose of the metal detector is to protect the implement from damage caused by pieces of metal in the crop and to ensure that no metal gets in the chopped material, which could cause disease amongst animals that subsequently eat the fodder.

Friction clutch

To ensure a long life for your tractor and implement, the implement is equipped with a friction clutch on the Power Take-Off (PTO) drive shaft between the tractor and the implement.

The purpose of the friction clutch is to protect the transmission from overload when you work in the field and when you start the implement (connection of the PTO).

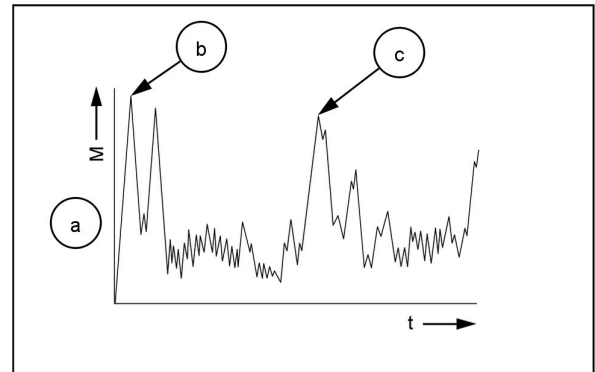
NOTICE: *If the clutch is overloaded by slipping for some time, it will get heated and thus be worn quickly. Overheating will damage the friction plates.*

NOTE: *If the clutch is blocked or partly put out of function in other ways, the factory guarantee will not apply.*

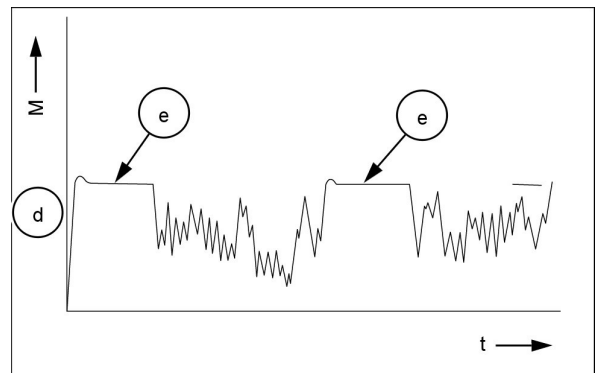
The figures illustrate how the clutch protects the transmission against high torque peaks and at the same time is capable of transmitting the torque while it is in function

(slips).

- (a) Torque without clutch
- (b) Starting torque
- (c) Overload



- (d) Torque with friction clutch
- (e) Adjustment of clutch



Transmission securing against overload

NOTE: The tractor driver can secure the transmission against overload.

When you use the implement, consider the following steps:

1. Always start the implement with the engine running at low speed. This especially applies to tractors with electro-hydraulic connection of the Power Take-Off (PTO) shaft.
2. When you start the work, make sure to place the implement in working position.
3. A sudden increase in the number of Revolution Per Minute (RPM) of the implement, for example when you drive into the field or after you turn in the field should also happen with the implement close to working position.
4. Listen to the RPM of the tractor when you work in the field. If the number of RPM falls slowly or is suddenly reduced it may be a sign of overload of the transmission due to too high driving speed or foreign matter in the header. In this case, the friction clutch will slip and you must disconnect the PTO immediately and let the implement “rest”.

Grinding operation

Always follow this procedure when switching to or from grinding:

- Stop the tractor engine and remove the ignition key.
- Activate the parking brake.
- Wait until all moving parts have stopped.

Unfortunately, it is necessary to remove some of the guards to change the direction of rotation of the rotor when grinding the blades.

As there are chain and belt transmissions, your hands may be injured if the rotating parts have not stopped before the guards are removed.

Before start grinding:

1. Check that the grindstone is free from damage and that the device can move backwards and forwards easily.
2. Lower the guard behind the grinding device to give free access to the blade cylinder.
3. Adjust the stone before replacing the guard on the grinding device.
4. Remove the guard above the blade cylinder transmission and change the direction of rotation of the rotor.
5. Close the guard again and check that no one is near the implement.
6. Start the tractor again and keep the RPM either at idling speed or slightly above.
7. Perform the grinding carefully.

Always use safety glasses when grinding, as small particles may fly off the grindstone.

Following grinding, stop the tractor engine again, remove the ignition key, change the direction of rotation and fasten all guards.

NOTE: Always grind with all guards closed.

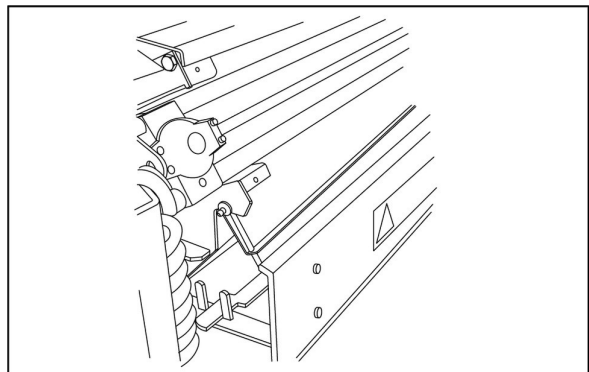
⚠ WARNING

Eye injury hazard!

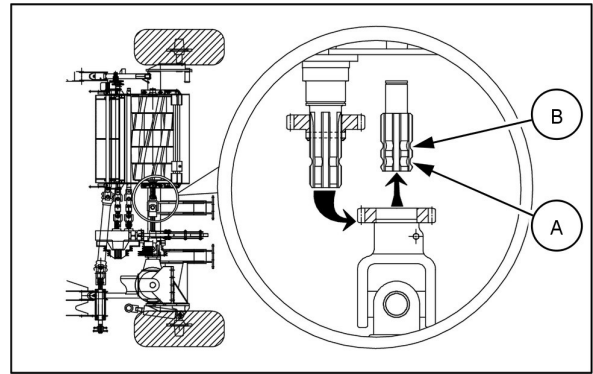
Avoid eye injury when using a drill, hammer, saw, or other tools that may cause chips to fly. Always wear safety glasses when working. Failure to comply could result in death or serious injury

To perform grinding, proceed as follows:

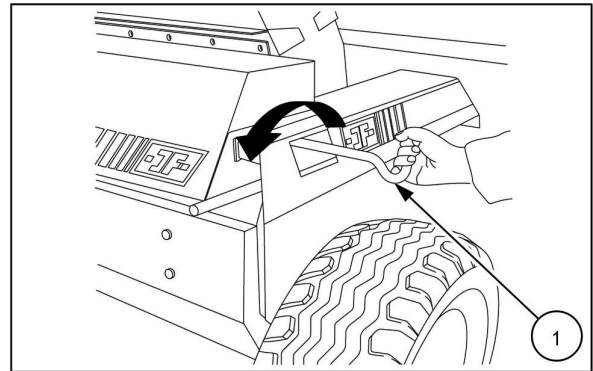
1. Lift the guard above the grinding device.
2. Lower the guard between the grinding device and the rotor so that there is free space between the grinding device and the rotor.
3. Turn the handle (1) in order to adjust the grindstone so that there is **2 – 3 mm (0.08 – 0.12 in)** clearance between the stone and the blades.
4. Mount the PTO drive shaft for the rotor on the free pin on the rotor housing. The PTO drive shaft must be fixed at position (B), where the gear wheels are engaged and the rotor will rotate in the opposite direction.



5. Close all guards.
6. Start the tractor and maintain the RPM at slightly above idling speed.



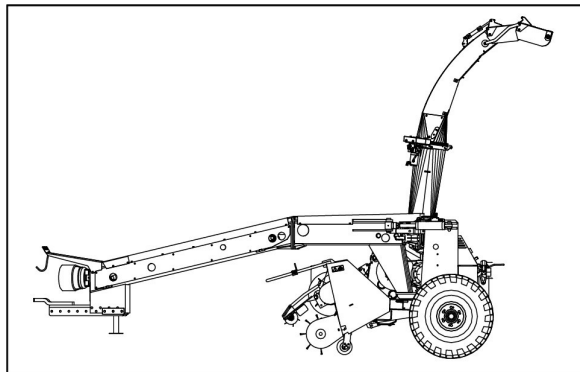
8. Feed carefully by turning the handle **(1)** until the stone just touches the blades. Move the stone in a sliding movement across the whole rotor and back again.
9. Feed a little more and repeat the movement across the full width of the rotor so that the blades across the entire width of the rotor are ground.
10. Push the handle in all the way towards the implement after grinding. Stop the tractor and lift the guard between the device and the rotor into the correct position once the rotor has come to a standstill.



The PTO drive shaft for the rotor must be moved back to the pin for the normal direction of rotation of the rotor.

Fitting chutes

The standard chute that is supplied with the implement is approximately **4 m (149.6 in)** high in the transport position.



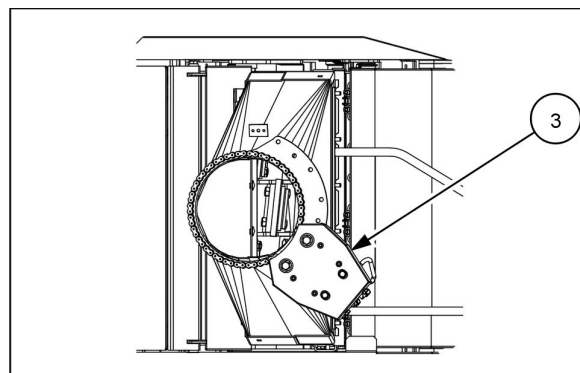
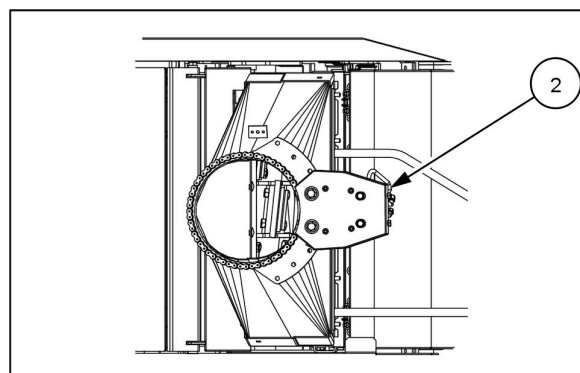
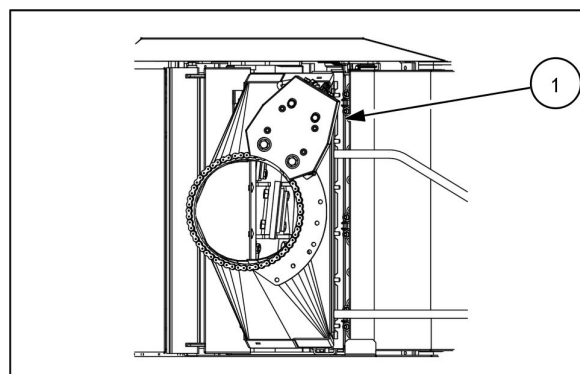
Chute swivelling

There are three different positions of the bracket for chute swivelling bracket, in order to optimize unloading to a selected side:

The three positions are:

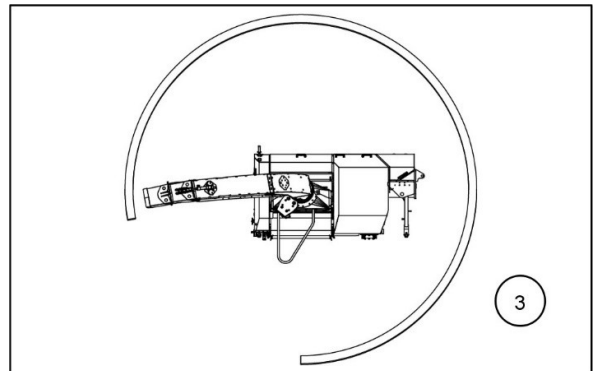
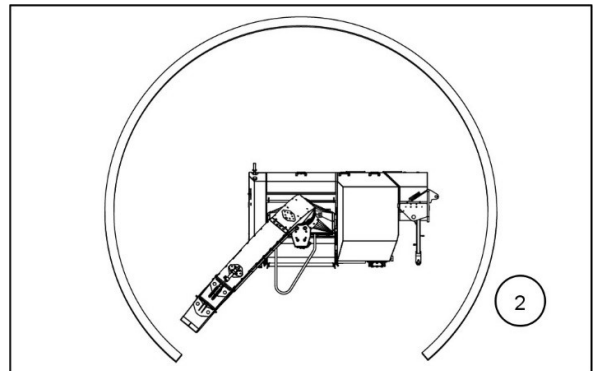
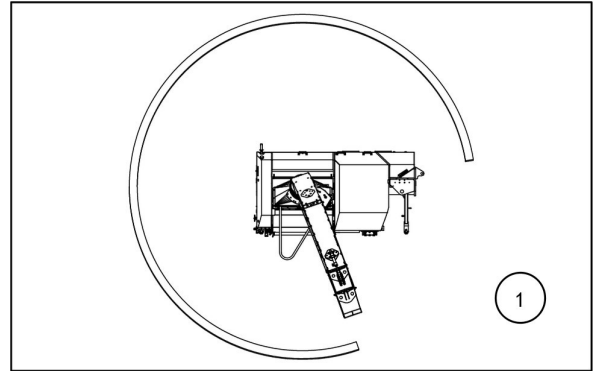
- Position **(1)**: for unloading to the right.
- Position **(2)**: for unloading both sides.
- Position **(3)**: for unloading to the left.

NOTE: Position **(2)** is not available for the foldable chute.



When the chute is fitted, you must turn carefully from outer position to outer position in order to ensure that the hydraulic hoses are fitted correctly and are long enough.

NOTICE: Not all implements offer the option for three positions of the bracket for chute turning. Only position (3) is offered for these implements.



Folding chute

The implement can be fitted with a chute that permits loading of very high trailers.

This chute must be folded down during transport, so that it rests on a stand on the drawbar.

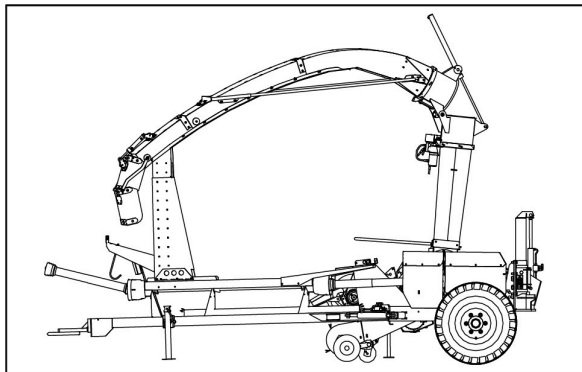
This reduces the transport height to **3.7 m (145.7 in)**.

The chute is folded by a hydraulic cylinder which is connected to a free valve on the hydraulic block.

The cylinder is operated by one of the toggle switches at the front of the control box

The chute is operated electro-hydraulically with the joystick and toggle switch on the control box.

Move the drawbar into the transport position, turn the chute into position above the stand and fold it down until it rests on the stand.



⚠ WARNING

Rotating parts!

Keep clear of all drives and rotating components.

Failure to comply could result in death or serious injury-

DANGER

Electrocution hazard!



Contact with overhead power lines can cause severe electrical burns or death from electrocution. Make sure there is enough clearance between equipment and overhead power lines.

Failure to comply will result in death or serious injury.

NOTICE: *Be careful not to hit the tractor cab.*

NOTICE: *Do not move the drawbar while the chute is resting on the stand and do not turn the chute while it is resting on the stand.*

NOTE: *The chute must always rest on the stand during transport. This is partly due to the Road Traffic Act and also because the chute/delivery chute may get damaged, for instance if you drive fast on uneven ground.*

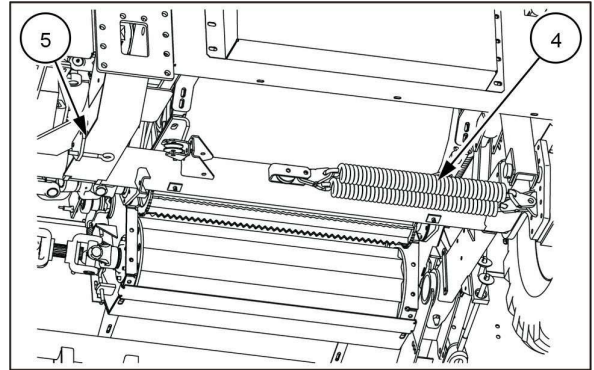
Chute for parallel operation

The implement can be fitted with a chute that has a transport height of **4.4 m (173.2 in)**.

This chute cannot be folded for transport.

When this equipment is fitted, it is important that an extra spring **(4)** is fitted for chute relief, in order to compensate for the added weight of the chute.

Bracket **(5)** must be moved to the indicated position so that the wire is not too short.

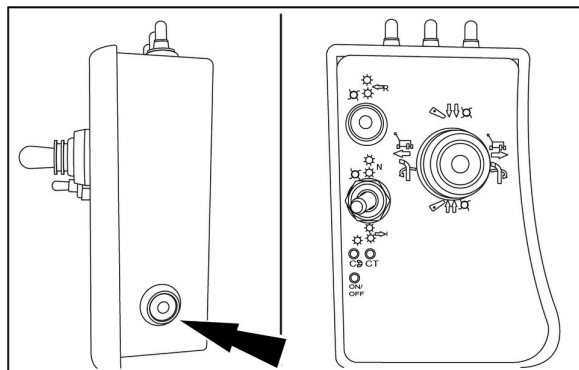


Electro-Hydraulic (EH) controls

The implement is operated from the control box, which controls the electro-hydraulic functions.

Turn on and off the control on the side of the control box.

NOTE: Remember to turn off the control box if the tractor is going to be stopped for some time. Although the implement is not in operation, several electric coils may be activated. These will drain the tractor's battery.



Functions

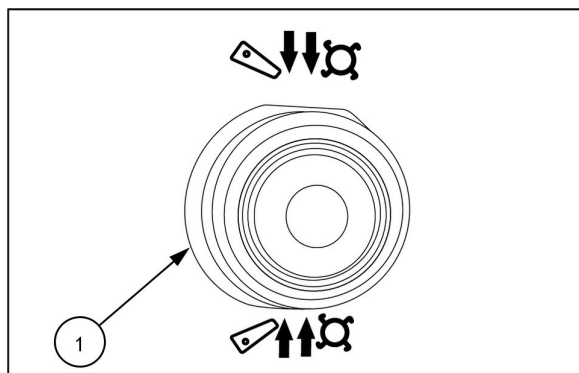
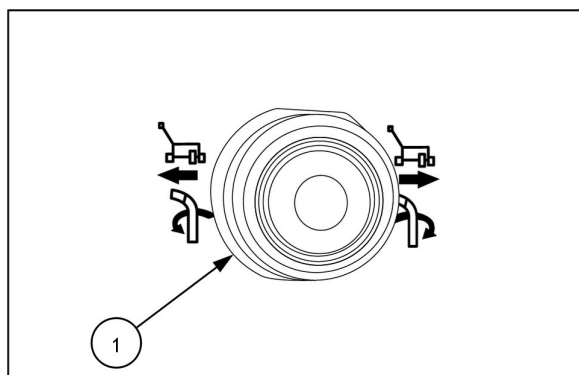
There is a push-button (1) on the top of the joystick and there are four functions steered by this device.

By pushing the joystick left or right:

- Chute: Push to the left: The chute turns anti-clockwise. Push to the right: The chute turns clockwise.
- Drawbar: While pushing the button: Push to the left: The implement moves behind the tractor. Push to the right: The implement moves out to the swath.

By pushing the joystick forwards or back:

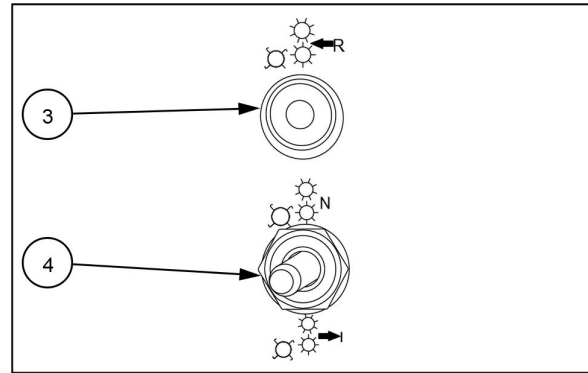
- Chute: Push forwards: The deflector points downward. Pull back: The deflector points upward.
- Pick-up: While pushing the button: Push forward: The pick-up is lowered. Pull back: The pick-up is raised. It takes around two seconds to lower the pick-up completely so that the supporting wheels can follow the ground.



Reverse function to apply to feed rollers and pick-up.

On the joystick, the push-button **(3)** and the toggle switch **(4)**:

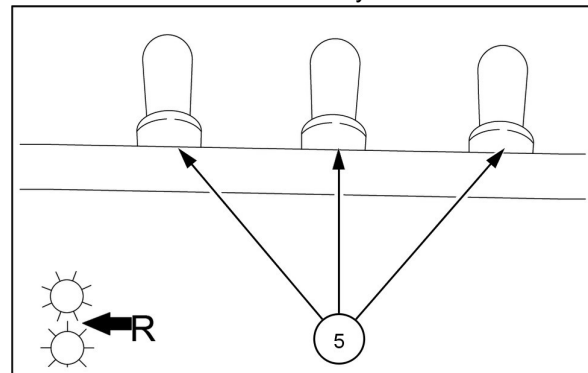
- Feed in: Move the toggle switch **(4)** to the rear.
- Neutral: Move the toggle switch **(4)** forward for around two seconds and then back to the centre position. Feed rollers and pick-up stay in neutral position.
- Reverse: With the toggle switch **(4)** in the centre position, you reverse by holding down the push-button **(3)**. Reversing will stop when you release the button **(3)**.



There are three toggle switches **(5)** at the front of the control box. These switches automatically return to the neutral centre position after being activated.

- Left: Reserved for opening the rear door or similar on the trailer unit.
- Middle: Reserved for bogie lock..
- Right: Not used.

None of the features should be used for the conveyor chain or the trailer unit, as they are not intended for the oil flow it requires.

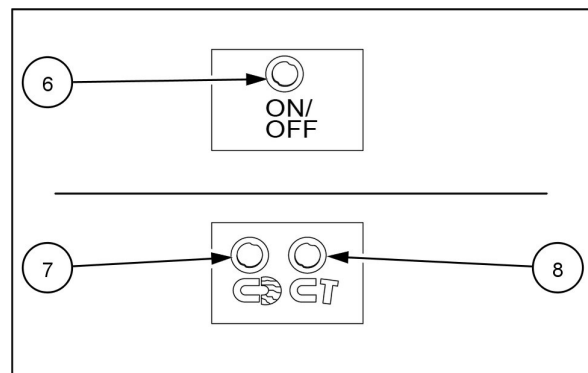


Control lights

The light **(6)** will be illuminated when the control unit is switched on.

In case of implements with a metal detector (1060MD), the control box will have two more lights.

The control light on the left **(7)** is illuminated when the metal detector is active. It turns off when there is a stoppage caused by metal or if the metal detector is turned off. The control light on the right **(8)** will illuminate constantly when there is a stoppage caused by metal. If the light flashes, this indicates that the control box has been turned off or there is a loose connection with the control box on the tractor.



On the implements with a metal detector, the detector turns on each time the control unit is switched on. If you wish to turn off the metal detector, this can be done by pushing the button on the metal detector control unit on the implement.

Hold the button for about **5 s**. The control light on the left of the control box then extinguishes. The control light on the left of the control box will remain illuminated until the metal detector is turned off.

For more info look at Metal detector control unit chapter (See Page 6-12).

Metal detector

The purpose of the metal detector (MD) is to protect the implement from damage caused by pieces of metal in the crop and to ensure that no metal gets in the chopped material. The implement is equipped with a system which can detect and register magnetic metal in the feed intake section, and immediately stops pick-up, auger and feed intake if metal in the crop enters the front rollers.

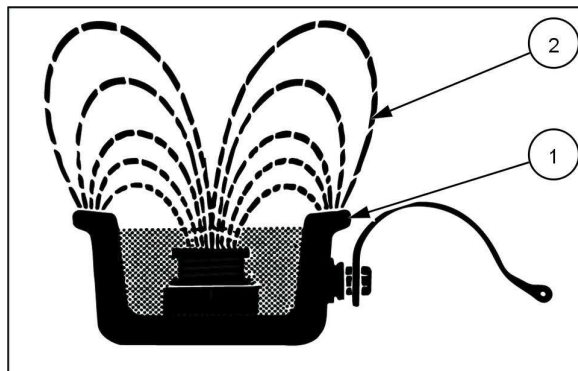
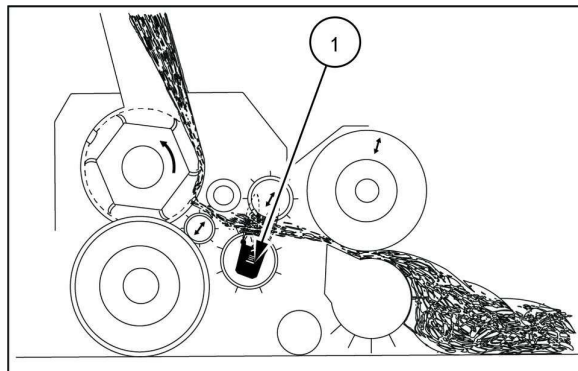
This system is composed by a magnetic tub (1) that is a metal sensor which is mounted in the lower front feed roller. The function of the magnetic tub is to detect magnetic metal.

The magnetic tub (1) has an upward magnetic field (2). This magnetic field covers the entire opening between the front two rollers.

The reliability with which the detector registers the metal is approximately **95%**.

However, several factors influence the reliability of the sensor:

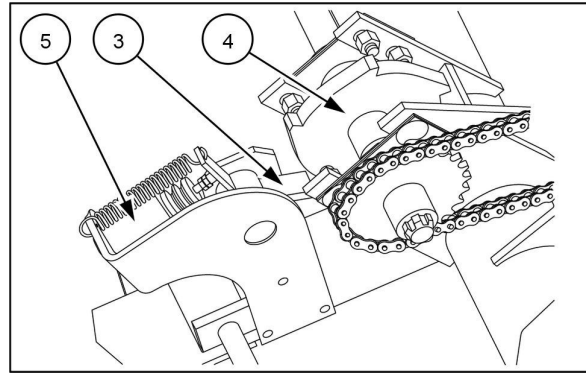
- Size of the metal object.
- Shape of the metal object.
- Position of the metal in the feed intake section.
- Cutting length and thus the feed intake speed.
- Distance between the pawl and the ratchet wheel in the stop system.



Detection of metal

When a magnetic piece of metal passes the magnetic tub, a voltage is induced which is immediately detected by the microprocessor in the control unit, which then triggers a programmed stop sequence.

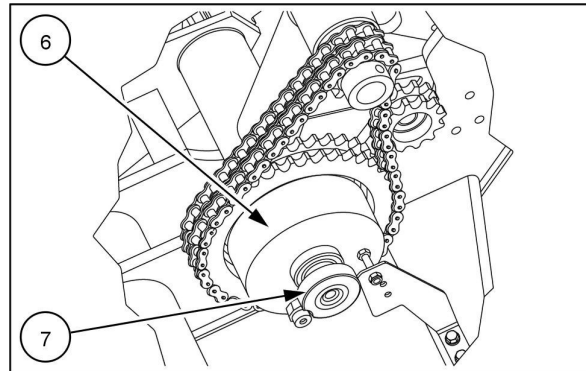
In particular when the metal has been detected, a signal will be sent which causes the voltage on the magnetic coil **(5)** to be disconnected. This then activates pawl **(3)**, which then engages with the ratchet wheel **(4)** and immediately blocks the feed intake. The reverse function simultaneously goes to neutral position.



As the feed intake is blocked faster than the reverse function switches to neutral, the torque in the transmission is increased immediately and the clutch **(6)** is released briefly. This slips until the reverse has disengaged the belt transmission.

The reverse slackens the V-belts, and the drive of the feed intake is deactivated. This means that the feed intake automatically switches to neutral when metal is detected, even though the switch on the control box is in the feed intake position.

Naturally, the system can only operate if there is constant oil flow to the implement and the control unit is switched on.



This neutral position is necessary for any disengagement of the friction clutch, as the friction clutch would otherwise overheat, with a risk of damage to the friction coating and the need for replacement.

⚠ WARNING

Avoid injury!

The feed intake may start when in the Neutral position. Do not approach the implement when the feed intake is in the Neutral position and the rotor is rotating. Wait for all movement to stop before you approach the implement. Failure to comply could result in death or serious injury.

NOTE: Do not approach the implement when the feed intake is in neutral position and the rotor is rotating. Neutral position does not guarantee that the feed intake will not start.

Resetting the metal detector

To safeguard against faulty operation following metal detection and ensure that any metal has been removed before restarting, the electronics do not permit a normal feed intake function until the feed intake has reversed briefly.

The magnetically operated switch **(7)** is operated through clutch **(6)** during the reversing. This sends a signal to the microprocessor that reversing has been completed and the stop system with the pawl will be reset.

NOTE: You must reverse for a minimum of two seconds before the control unit registers it and feed intake is permitted.

NOTE: Always pay particular attention when restarting the implement after metal detection.

NOTICE: When the implement has reversed following metal detection, stop the tractor and check the area in front of the feed roller for any pieces of metal and remove them.

If nothing is found, there is a risk that metal will again enter the feed intake together with the crop when the implement is restarted.

Metal detector control unit

The control unit is located under the left rear guard contains the necessary controls for the metal detector.

It receives a signal from the magnetic tub, and in cases where magnetic metal is detected, it sends a signal to the coil to block the feed intake and to the reverse function to switch to the neutral position.

It also verifies whether the feed intake has reversed via the magnetically operated switch.

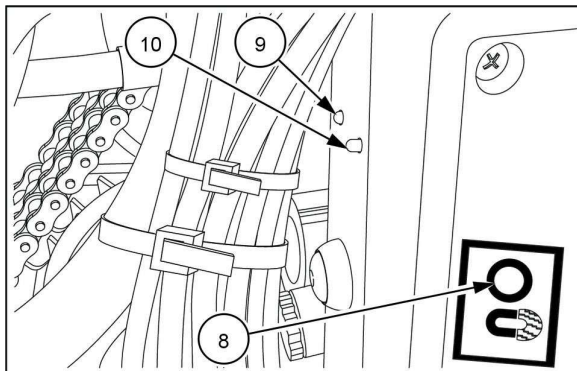
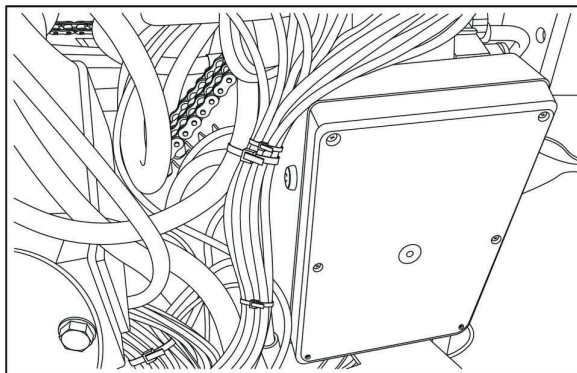
The metal detector is active when the implement is started and requires reversing before it can operate normally.

The metal detector turns on each time the control unit is switched on.

When the control unit is switched on and the metal detector is on, the two control lights **(9)** and **(10)** on the metal detector control unit and the light **(8)** on the control box will be illuminated.

The metal detector is turned on and off by pushing the button on the metal detector control unit.

It is turned off by holding the button down for about five seconds. This extinguishes the yellow control light **(10)** on the metal detector control unit and the light on the control box **(8)**. One single push on the button turns the metal detector on again.



The metal detector must be ready in order that it can be turned off. The red light on the control box must either be illuminated or be flashing.

Although the metal detector may have been turned off, it always turns on when the implement starts when the control unit has been turned off on the control box or when the power supply has been interrupted. This ensures that you do not work without the metal detector active unless you intend to.

WARNING

Avoid injury!

The feed intake may start when in the Neutral position. Do not approach the implement when the feed intake is in the Neutral position and the rotor is rotating. Wait for all movement to stop before you approach the implement. Failure to comply could result in death or serious injury

NOTE: Working without the metal detector, metal can enter in the implement, causing damage and contamination of the crop.

The metal detector control unit controls the reverse system in the following situations:

- When the system is turned on: the reverse moves to neutral position and cannot move to feed intake until the implement has reversed for two seconds.
- When metal is detected and the system is turned on: the reverse moves to neutral position and cannot move to feed intake until the implement has reversed for **2 s**.

NOTE: Do not approach the implement when the feed intake is in neutral position and the rotor is rotating. Neutral position does not guarantee that the feed intake will not start.

Working in the field

Setting the cutting length too short increases the power consumption and also the wear on the blades per volume of crop cut.

Always use sharp blades and a correctly adjusted shearbar (See Page 6-30)

Under difficult conditions it is recommended to carry spare friction discs for the slip clutch on the auger because these wear each time the clutch is activated.

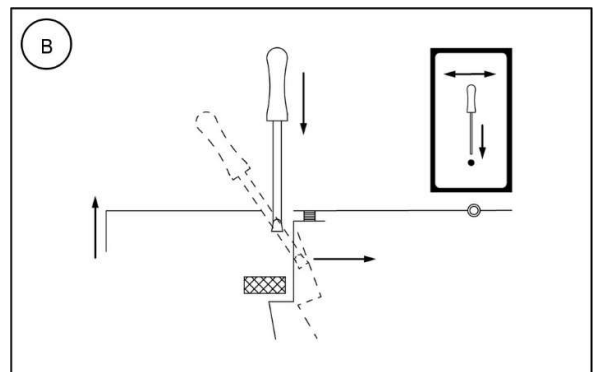
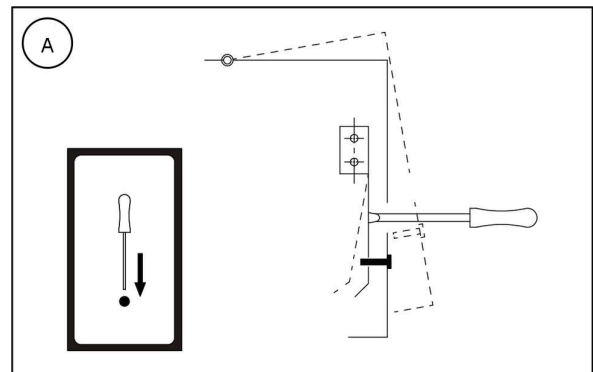
After a certain period, the power that can be transmitted is reduced to such an extent that the capacity of the implement is reduced and the friction discs must be replaced. When replacing discs, remember that they must be of the same quantity and quality so that the desired torque can be applied. This also helps to maximise life.

NOTICE: Adjust the implement to the maximum cutting length acceptable for the crop concerned. This will reduce the stress in the feed intake section and the transmission and increase the possibility of the implement operating continuously without blockages.

Locking of guards

All hinged guards on the implement are fitted with a lock. These locks ensure that the guard cannot be opened without using a tool.

There are two different types of lock, type **(A)** and type **(B)**, with two different locking principles and the corresponding transfers which indicate the locks on the implements.



Swathing before chopping

If it is possible to influence the swath prior to chopping, it is important to emphasise that regular and even swaths are optimal for the subsequent chopping and will spare the operator considerable effort.

The implement is equipped with a wide pickup and, if you want to utilise the capacity of the implement through double swathing, it is a good idea to place two swaths beside each other within the width of the pickup, instead of raking the swaths.

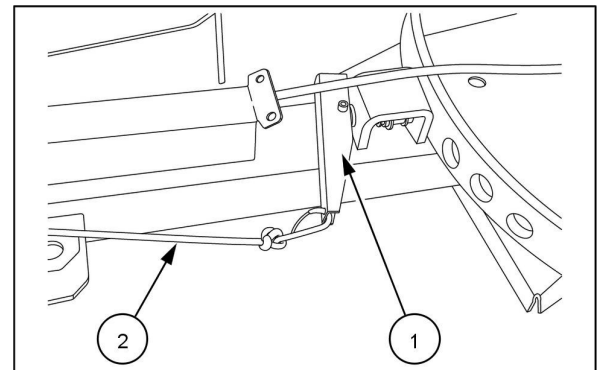
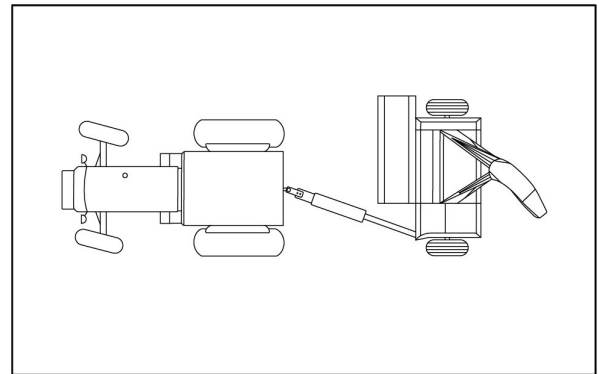
Raked swaths are often irregular and the crop can become entangled, which can cause blockages in the auger and/or feed intake section.

Two swaths beside each other are therefore ideal for a regular flow of crop through the implement.

Transport position

To set the implement in the transport position, proceed as follows:

- Place the implement behind the tractor.
- The delivery chute must not increase the transport width.
- Fold down folding chutes to rest on the stand on the drawbar.
- If the implement is fitted with a mechanical conversion mechanism, remove the pin (1) using cord (2) leading to the driver's seat.



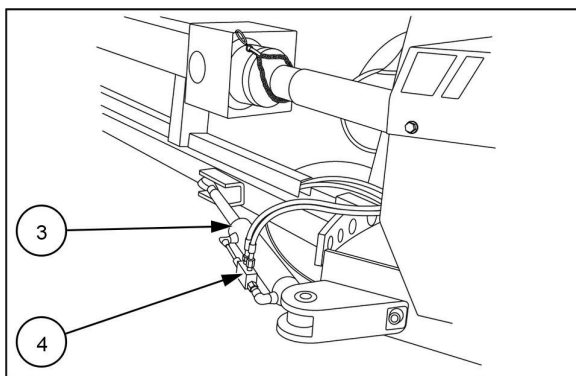
NOTE: Ensure that the pin is fully engaged before driving on public roads and that any lighting for use on public roads is connected.

The implement may be fitted with equipment for hydraulic transport adjustment where the drawbar can be placed in transport position using hydraulic cylinder **(3)**.

The cylinder is fitted with a safety valve **(4)**, which ensures that the machine stays in transport position in the event that a hose becomes damaged.

Once the implement has been prepared for transport, the controls must be turned off using the button on the side of the control box, and the oil supply to the machine must be disconnected.

This prevents faulty operation during transport.



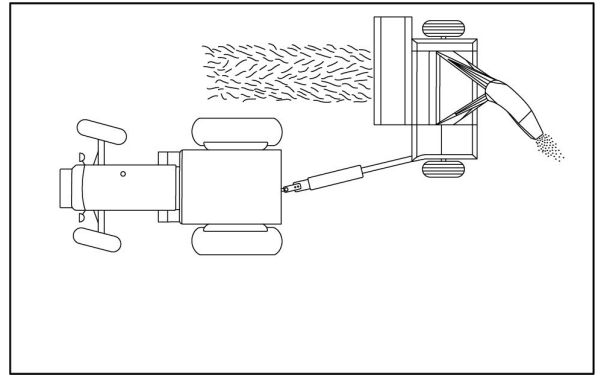
Operating position

For mechanical conversion, the pin locking the stand must be removed using the cord leading to the driver's seat, and the implement will swing out to the right to the desired position.

The drawbar can be continuously adjusted with hydraulic transport conversion. The implement can operate in all positions.

The position of the drawbar can be changed during operation in the field with hydraulic transport conversion to avoid obstacles.

It is recommended that the drawbar be placed in the transport position in order to reduce the angle of the PTO shaft before turning sharply to the right.



Starting in the field

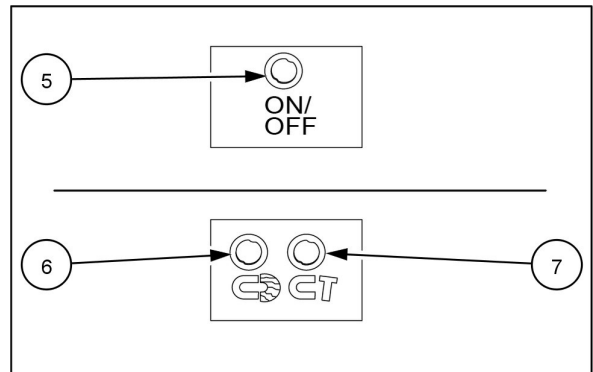
To start working with the implement, proceed as follows:

- Turn on the control box through the button on the side of the control box and turn on the oil flow to the implement.
- Fold up the chute and rotate this to the desired position.
- Move the implement to the operating position.

In the case of a implement with a metal detector (MD), the electronics and the metal detector must be activated and checked before starting.

For FCT 1060MD models, reset and check the metal detector:

- The green light **(5)** on the control box indicates that the control system is on.
- The green light on the left-hand side **(6)** indicates that the implement is operating with normal feed intake and that the metal detector is activated.
- The red light on the right-hand side **(7)** indicates that the implement is in "metal stop". This means that the electronic system has detected metal and the system has responded (the pawl blocks the ratchet wheel and the reverse system switches to the neutral position).
- A flashing light indicates that the power to the control system has been turned off. This may be because the box has been turned off, but may also be due to a loose connection.



When the control system is turned on, it is in the "metal stop" state.

Therefore, the first green light **(5)** and the red light on the right-hand side **(7)** are flashing on, and the reverse system is in neutral position. The control system cannot be set to "feed intake" until the system has registered that you have reversed.

Therefore, connect the power take-off only the blade rotor rotates) and move the feed intake to reverse until the red light **(7)** extinguishes after about two seconds (the control system has registered that you have reversed). The control system may now be set to feed intake. The green light on the left-hand side **(6)** now indicates that the metal detector is activated.

WARNING

Avoid injury!

The feed intake may start when in the Neutral position. Do not approach the implement when the feed intake is in the Neutral position and the rotor is rotating. Wait for all movement to stop before you approach the implement. Failure to comply could result in death or serious injury.

Disconnect the tractor's power take-off again and turn off the engine, but do not turn off the control system. Test the operation of the detector by moving a large piece of magnetic metal across the lower front feed roller.

When the metal detector has detected metal, the reverse system moves to neutral position and the red light **(7)** on the control box will be illuminated again. The detector has now been checked. Reset the detector as described above.

Operation in the field

During operation increase gradually the speed on the Power Take-Off (PTO) to the rated **1000 RPM**, so start, engaging the swath, with approximately **1050 – 1100 RPM** unloaded.

NOTE: Drive slowly into the crop and increase the forward speed as long as the tractor can maintain the required **1000 RPM**.

NOTICE: Adjust the tractor engine speed during operation, if required, to maintain the rated PTO speed of **1000 RPM**.

To obtain optimal pickup function, it is important that:

- The crop enters the implement evenly and you drive in the opposite direction of the mower conditioner wherever possible.
- The forward speed is adjusted to the amount of crop and is not so high that there are frequent blockages.
- You drive as straight as possible into the crop and are aware of this when turning in the field.

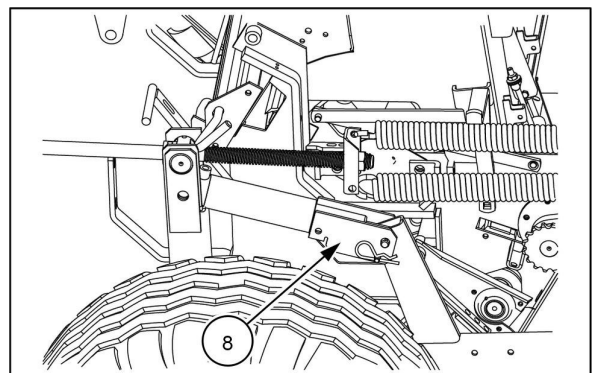
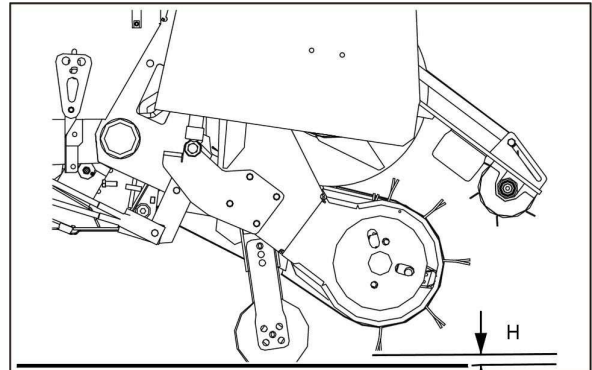
The underside of the pickup is equipped with steel support rollers, which are height adjustable. The wheels have been adjusted at the factory so that there is a distance (**H**) of **15 – 20 mm** between the tines and even and firm ground. Regularly check that the pickup tines do not extend further down than is necessary in order to pick up the swath efficiently. If the tines hit the ground too hard, they will wear quickly and the pickup drive may be overloaded.

Before making any adjustment, the cylinder stop (**8**) must be engaged and secured using the pin.

Lift the pickup completely during transport and when turning. When driving through soft areas in the field, the pickup can be partially raised to avoid picking up earth. The position of the pickup is locked, in both the raised and partially raised position.

The supporting rollers can only follow the ground when the pickup is fully lowered.

It takes around two seconds to lower the pickup completely with the joystick activated.



Blockages in the implement

In cases where a blockage in the auger or feed intake section is established, place the system in the neutral position and reduce the RPM. This stops both the auger and feed in immediately, and enables you to see what has happened.

Now move the reverse system to reverse position at a low RPM (the push-button on the control box). This raises the auger, the feed intake runs "backwards" and the material in the implement is reversed out.

It is recommended reversing slowly with the implement while the material is pushed out. This creates room for the grass being reversed out and leaves it as a regular "swath".

After reversing, increase the implement to the normal RPM setting. Then set the auger and feed intake section to normal feed in (toggle switch on the control box).

NOTICE: *It is important to have a normal RPM setting, as otherwise the chute or the rotor may become clogged*

In the event of a blockage in the rotor, immediately change to neutral position and turn off the power transmission. This stops both the auger and feed in immediately, and enables you to see what has happened.

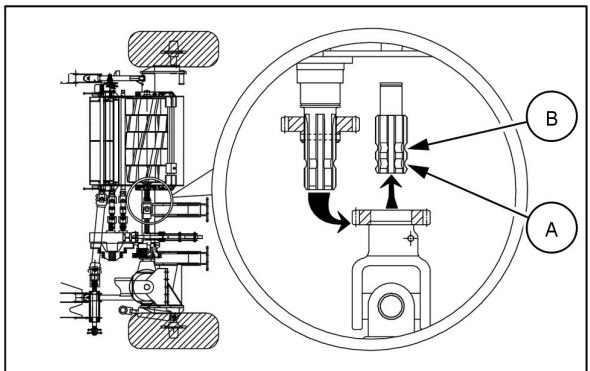
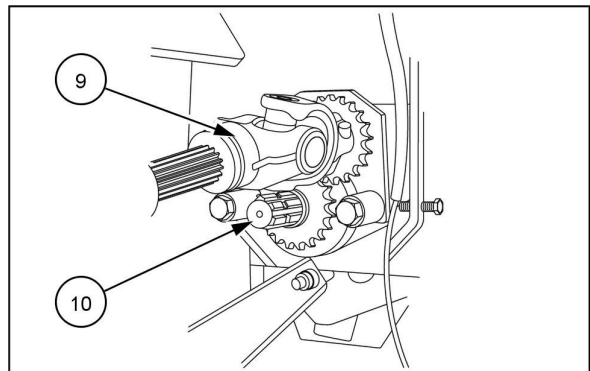
⚠ WARNING

Entanglement hazard!

The pickup auger rotates when the tractor engine is on and the Power Take-Off (PTO) is engaged. Do not reach into an operating pickup for any reason. Do not attempt to unplug the pickup while the tractor engine runs. Turn off the engine and wait for all movement to stop before you unplug the pickup. Failure to comply could result in death or serious injury

To enable the feed rollers to pull the material out of the rotor, first disconnect them during reversing and then proceed as follows:

1. Go to the implement when the power take-off has been disconnected and the engine has stopped.
2. Move the PTO shaft (9) for the rotor to the alternative pin in position (A) where the gear wheels are not meshed. This means that there is no power to the rotor.
3. Connect the power take-off again at a low RPM setting, move the reverse function to reverse position and reverse the material out of the implement.
4. After reversing, disconnect the power take-off again, and when the rotor has come to a complete standstill, move the PTO shaft (9) for the rotor back to the pin (10) for driving the rotor.
5. With the reverse function in neutral, it is now normally possible to "blow" the chopped grass in the rotor housing out of the chute, unless this is also blocked. In order to "blow out the rotor housing", it is necessary to increase the RPM setting to maximum.
6. Move the reverse function back to normal feed intake, and operation can be resumed.



Metal detection during operation

In cases where the magnetic tub in the front lower feed roller detects magnetic metal, the metal detection system ensures that the feed intake stops immediately.

Then the red light on the left-hand side of the control box will illuminate and proceed as follows:

1. Reduce the RPM of the tractor and reverse a couple of metres
2. Reverse the material out of the feed intake. The red lamp will then extinguish.

NOTE: *It is recommended reversing slowly with the implement while the material is pushed out. This creates room for the grass that is reversed out.*

3. Disconnect the power take-off and stop the tractor engine.
4. When the blade rotor has stopped, remove the piece of metal from the reversed material.

NOTE: *Be aware that small pieces may fall out at the rear lower roller.*

5. When the metal has been found, the feed intake section can be started and operation continued.

Alternatively it is possible to raise the pickup and drive forward over the crop which has been reversed out of the implement, then start picking up grass from the swath again. The remaining crop containing metal can be picked up later after the metal has been found.

Adjustments

Grinding adjustment

Adjustment of the Power Take-Off (PTO) drive shaft for the rotor to or from grinding position respectively must only take place when the tractor and the implement have been stopped and the rotor has come to a complete standstill. The rotor must only rotate when the grinding device is in grinding position.

Check before grinding:

- That the grindstone is undamaged.
- That the device slides backwards and forwards easily.
- That the device is parallel with the rotor.

The grinding device is supplied correctly adjusted from the factory and there is therefore normally no need for any adjustment, but adjustments may be made following dismantling using the oblong holes of the lateral guides. The bolts must be tightened firmly following adjustment.

The stone is fed by turning the handle for side movement.

The blades should normally be ground once a day, but excessive grinding should be avoided, as this will reduce the life of the blades.

Check the distance between blades and shearbars again using the gauge.

Check the wear on the grindstone regularly. If the stone has been worn down to a thickness of **10.0 mm (0.4 in)**, it must be replaced.

⚠ WARNING

Eye injury hazard!

Avoid eye injury when using a drill, hammer, saw, or other tools that may cause chips to fly.

Always wear safety glasses when working.

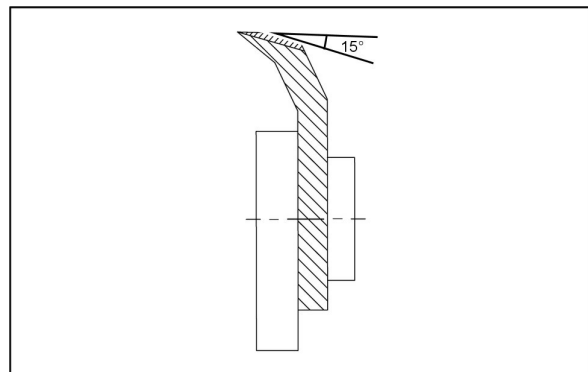
Failure to comply could result in death or serious injury.

Rough grinding

To avoid unnecessary power consumption and excessive wear of the grindstone when operating the harvester, it is necessary to carry out a rough grinding or adjustment of the blades when the cutting edge is **5 mm (0.2 in)** wide or more. Grind the rear edge to an angle of approximately **15°**.

Rough grinding can be performed using an angle grinder with the rotor and blades positioned in the implement.

NOTICE: Be careful not to grind down the cutting edge of the blades. Block the rotor with a solid object during rough



grinding to ensure that the rotor does not move during this operation.

Belt adjustments

The belt is operated and adjusted from the factory to run correctly without load from the crop. As the belt is made of an elastic material, when you operate in the field the first time, the belt may stretch a little when loaded with crop.

NOTE: When you start to operate in the field, check the belt after the first couple of rounds and perform the necessary re-adjustments until the belt runs correctly.

Reverse function

The reverse function can be used at **1000 RPM** on the Power Take-Off (PTO), but it is recommended to decrease the RPM to reduce the strain on the implement as much as possible and reduce the wear of the rubber disc.

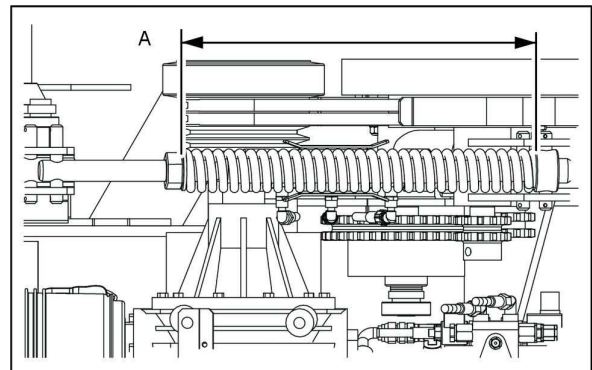
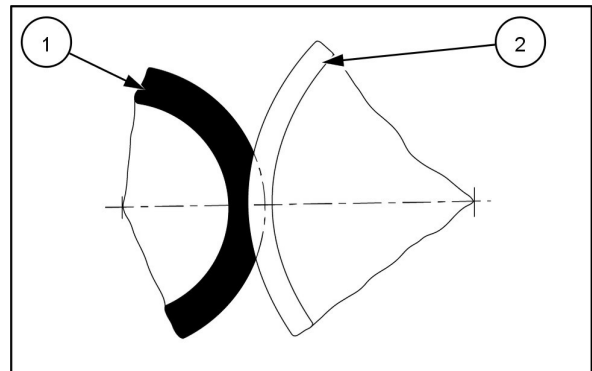
The overlap between the steel friction disk (1) and the rubber disk (2) must be **2 – 8 mm (0.08 – 0.31 in)** during reversing. This must not be adjusted for wear because the cylinder always maintains a constant pressure determined by the pressure relief valve.

NOTE: Only use the reverse function for a short period of time on each occasion to ensure the correct functioning and long life of the rubber disc.

The pickup and feed rollers are powered by the belt drive.

The adjustment of the tension of the belt drive is determined by the spring which is tightened to the length (A) of **480 mm (19 in)**, when the reverse function is in "feed in".

NOTICE: The spring tensioning must not be increased beyond the amounts specified, as this may overload the transmission.



Neutral position

The neutral position is between the reverse function where the rubber disc and the friction disc are in mesh and a normal operating position where the belt drive is tightened by the spring and drives the feed intake.

In neutral position, the belt drive for the feed intake section is slackened so that it does not move.

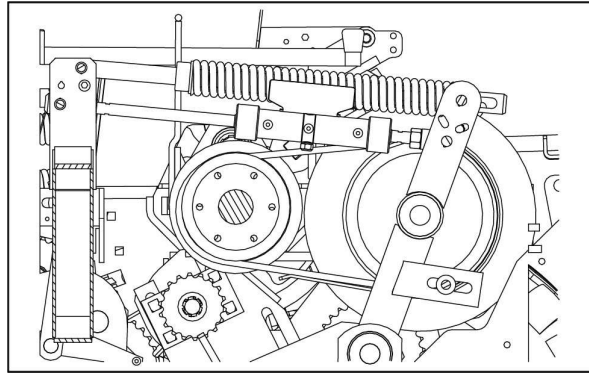
This position should not be considered a standstill position for the implement, partly because the blade rotor is still able to rotate. In addition, an empty, smooth-running feed intake can still be driven by the slight friction from the

slackened belts.

In neutral position, with a new rubber disc, the distance between the rubber disc and the steel friction disc should be approximately. **2 – 3 mm (0.08 – 0.12 in).**

Adjustment of the neutral position is done at the ends of the cylinder. It is not necessary to adjust for wear on the rubber disk.

The cylinder will be without pressure when the reserve is set to "feed in".



⚠ WARNING

Avoid injury!

The feed intake may start when in the Neutral position. Do not approach the implement when the feed intake is in the Neutral position and the rotor is rotating. Wait for all movement to stop before you approach the implement. Failure to comply could result in death or serious injury

NOTE: *Only use the reverse function for a short period of time on each occasion to ensure the correct functioning and long life of the rubber disc.*

Adjustment of hydraulic flow

The implement may be fitted with a hydraulic block allowing the adjustment of the flow to the deflector and drawbar.

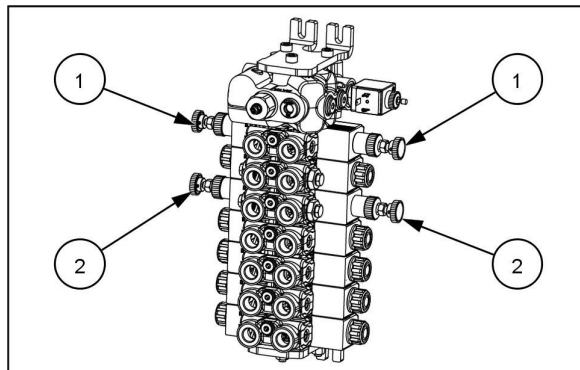
The adjustment screws **(1)** are used to adjust the speed at the drawbar.

The adjustment screws **(2)** are used to adjust the deflector.

The implement is supplied from the factory with the flow adjusted to the recommended rate. Slacken the nuts and turn the adjustment screws to change this.

Adjust the tension of the nuts again when the level of adjustment is correct for your purpose.

NOTICE: *It is possible to adjust the screw to such an extent that the function works in the opposite way. Unscrew the adjustment screw again until the function works correctly if this occurs.*



Adjustment of blade rotor

Before adjusting the implement, it is necessary always:

1. Disengage the Power Take-Off (PTO) on the tractor.
2. Turn off the engine of the tractor.
3. Wait until all moving parts have stopped.

It is important to wait until all rotating parts have stopped before removing the guards. This particularly applies to the delivery chute above the blade rotor.

If the cutting parts in the blade rotor must be adjusted or replaced, it is important to block the blade rotor using a wooden wedge, as the sharp blades can easily cause damage to multiple fingers because it is difficult to stop the rotor if started accidentally by the operator.

Before starting work, check that the feed rollers and blade rotor can move freely. Also check that the blades are intact and without cracks.

Check periodically whether the blades and blade bolts are worn according to the rules in the user manual.

Pickup adjustment

The underside of the pickup is equipped with steel supporting rollers, which are height-adjustable. Keep the pickup at such a height that the tines do not hit the ground and get earth into the crop, but so that the tines can also pick up the grass without waste.

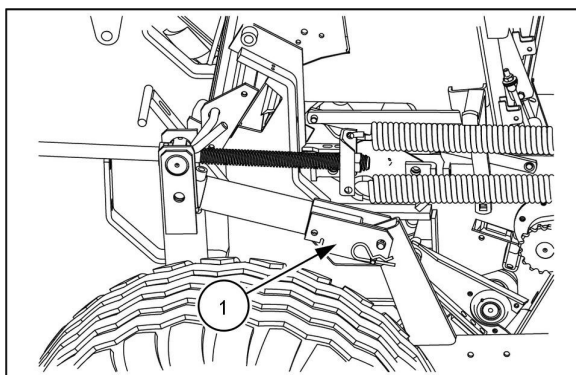
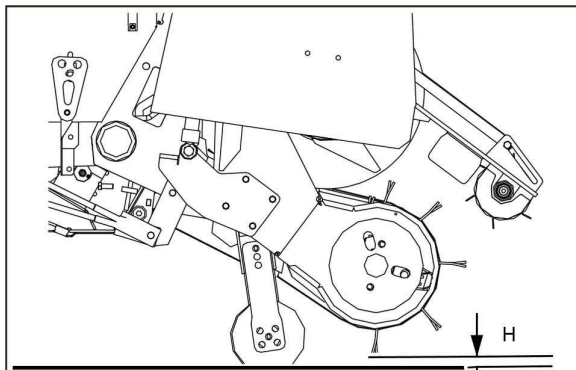
The recommended distance (**H**) between the pickup tines and the ground is **15 – 20 mm (0.6 – 0.8 in)**.

Before making any adjustment, the cylinder stop (**1**) must be engaged and secured using the pin.

The auger on the pickup is equipped with a slip clutch. The slip clutch of the auger is adjusted so that it releases before the other friction clutches in the implement. The highest capacity is obtained by operating at a forward speed without causing blockages in the auger. If there is a blockage around the auger, stop and force the crop out of the implement by using the reverse function.

A continuous and even flow through the pickup and auger is the best way to avoid blockages inside the implement, which can lead to long operational stoppages.

It is recommended always to have spare friction discs for the slip clutch on the auger kept in the tractor. If this clutch has been in operation for a considerable period, the coating on the friction discs will become worn and will be unable to transmit sufficient torque. It may therefore be necessary to replace the friction discs, but always of the same quantity and quality.



Rotor and housing

To open the rotor housing, proceed as follows:

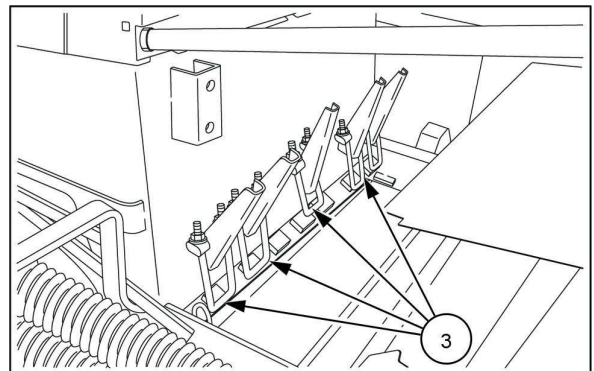
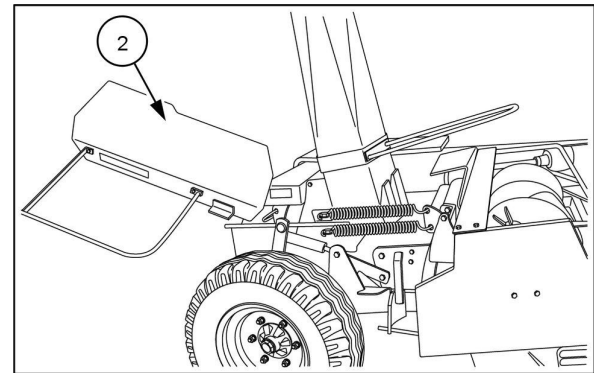
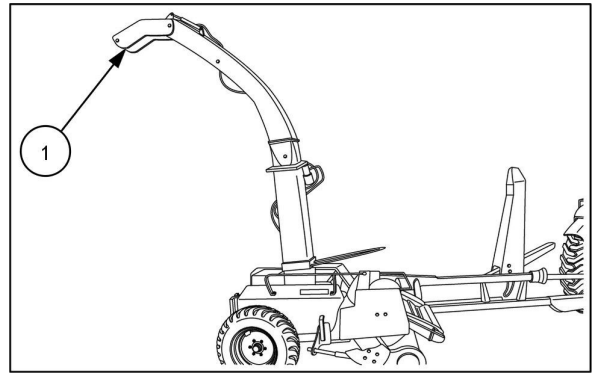
1. Turn the chute to the rear.
2. Turn the deflectors (1) to the center of the operating range.
3. Open the guard above the rotor housing and the right hand guard (2).
4. Open the lock clamps (3) at the front of the rotor housing.
5. Tilt the chute to the rear and down using the handle (4), which will open the rotor housing.

Close the rotor housing following the same procedure in reverse order.

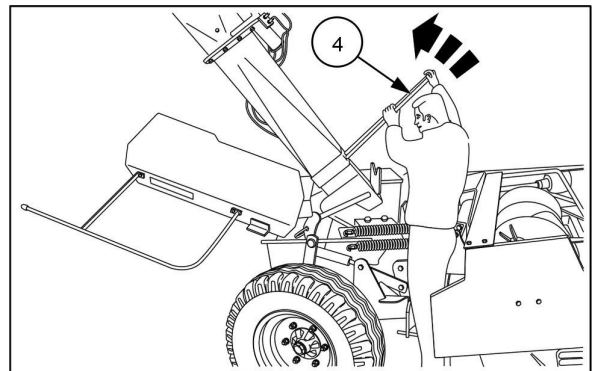
When closing the rotor housing, it is an advantage to lift the chute initially.

NOTICE: The chute is relieved by strong springs.

NOTE: The chute for parallel operation requires two people to open and close the rotor housing, as the weight of this exceeds the permitted amount.



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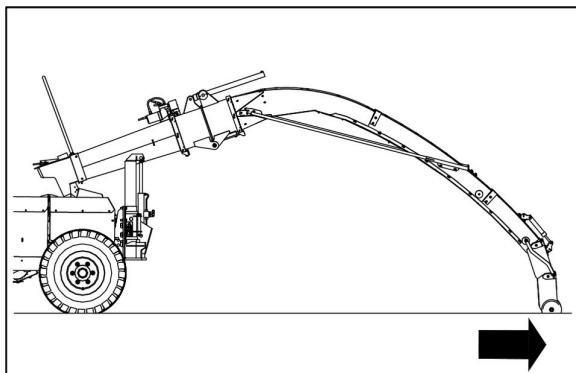
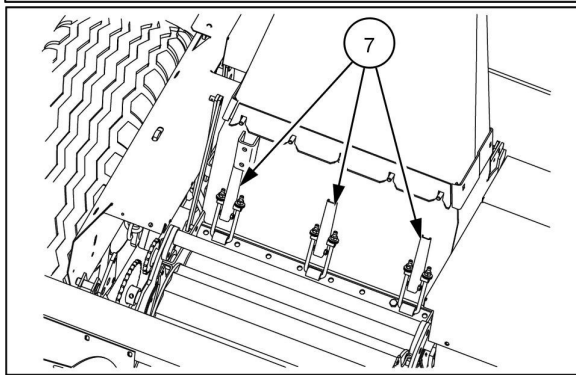
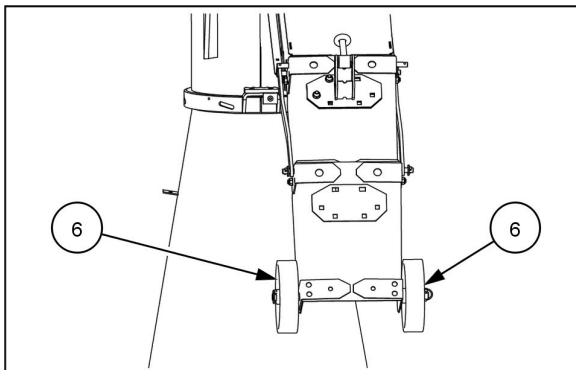
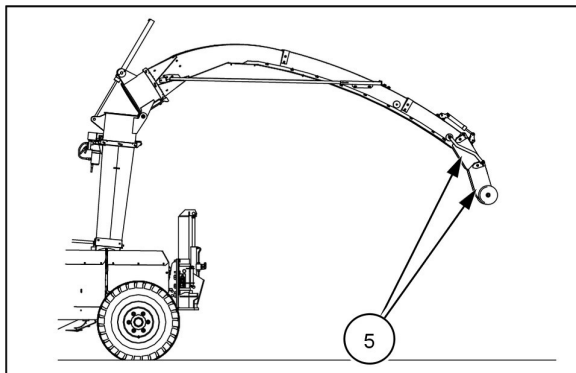
Folding chute

The chute is so heavy that the rotor housing cannot be opened manually for access to the blade rotor. Use the following procedure instead:

1. Turn the chute to the rear.
2. Turn the deflectors **(5)** to the center of the operating range.
3. Fold down the chute to about **1.5 m (59.1 in)** above the ground and mount the wheels **(6)** using the pin and split pins.
4. Fold down the chute until the wheels rest on the ground.
5. The lock clamps **(7)** at the front of the rotor housing can now be opened safely.
6. Move the chute cylinder in direction "Chute closed", which opens the rotor housing.

Close the rotor housing following the same procedure in reverse order.

NOTE: The hydraulically folding chute is so heavy that the rotor housing cannot be opened manually for access to the blade rotor.



Adjustment of rotor and roller section

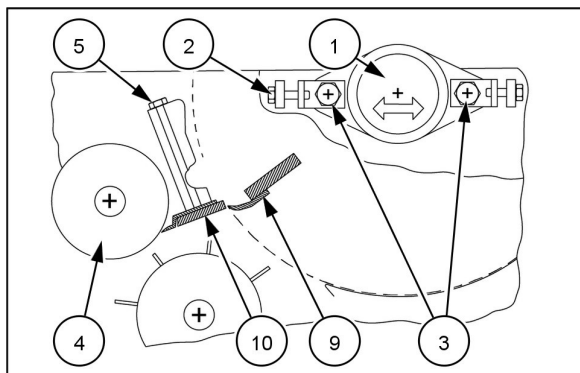
The distance between the blades (9) of the rotor and the shearbar (10) must be checked regularly using the gauge supplied (distance measuring device).

A distance of **0.5 mm (0.02 in)** should be aimed for. If it is necessary to adjust the distance, loosen the two bearing housings (1) and adjust using the screws (2). When the distance has been checked, adjust the tension of the bolts (3) of the bearing housings using a torque wrench to **270 N·m (2390 lb in)**.

The implement is equipped with a scraper for the smooth roller (4). The scraper is fitted together with the reversible shearbar previously mentioned.

The scraper is placed as close to the smooth roller (4) as possible without touching it. Therefore, the distance between the scraper and the smooth roller should be between **0.2 – 0.5 mm (0.01 – 0.02 in)**.

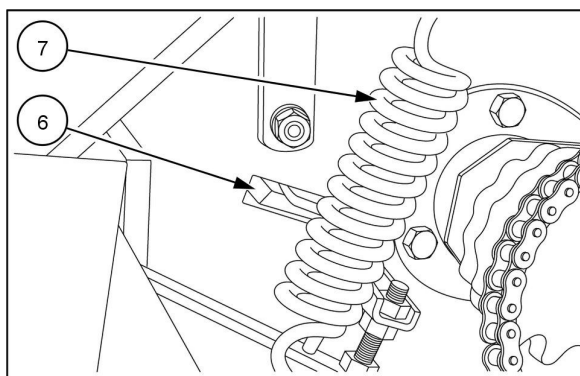
Then adjust the tension of the screws (5) using a torque wrench to **100 – 200 N·m (885 – 1770 lb in)**.



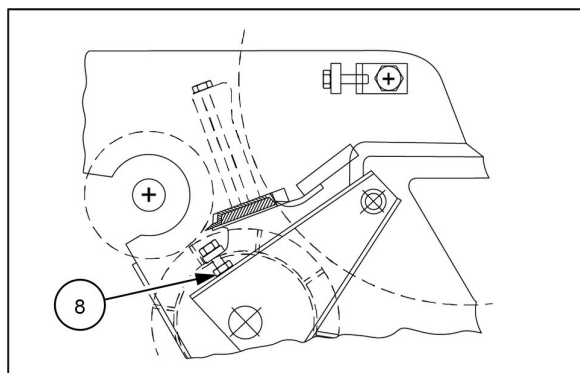
The scraper is dismantled by removing the screws (5), which also secure the shearbar, after which the scraper and shearbar can be pulled out of the opening (6) in the side of the rotor housing.

Incorrect adjustment of the scraper may result in overheating of the smooth roller and an operational stoppage.

The spring (7) for the serrated roller must first be loosened or dismantled to allow sufficient space. If the shearbar has been worn, it can be reversed to obtain a new sharp coulter.



The distance between the smooth roller and the serrated roller should be a maximum of **3 mm (0.12 in)**. Adjustment may be made using the bolts (8) at both sides of the rotor housing.

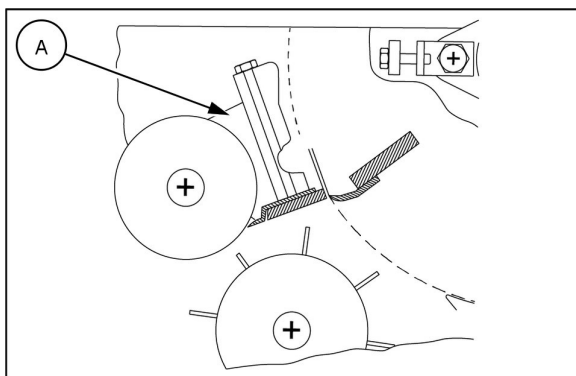


Crop substances (small particles) can accumulate in the shaded area **(A)** under certain circumstances and become so compacted that it causes the transmission driving the rollers to overload.

Check the area after every eight hours of operation and remove any crop residues.

Check, and if necessary adjust, the distance between the scraper and smooth roller.

The frequency of these checks may be reduced when the operator has become familiar with the implement under all conditions.

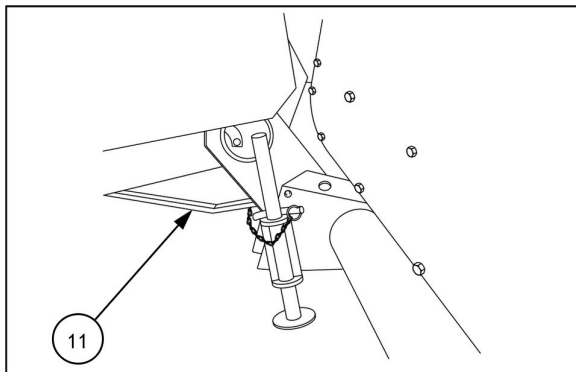


The bottom plate **(11)** may be mounted beneath the roller

section as an additional piece of equipment. This may be mounted when operating in very dry and/or short crops to avoid waste under the rollers.

NOTICE: Under normal conditions, it is recommended to operate without this bottom plate, as material can otherwise accumulate under the rollers, resulting in reduced capacity and unnecessary overloading of the transmission..

NOTE: The bottom plate may be mounted when operating in crops where there is excessive waste beneath the rollers



Cutting lengths adjustment

The cutting length depends on the following two factors:

1. Number of blades on the rotor where there is a six-row blade rotor giving 24 blades in total.
2. Feed intake speed, which is altered using the following sprocket wheels:

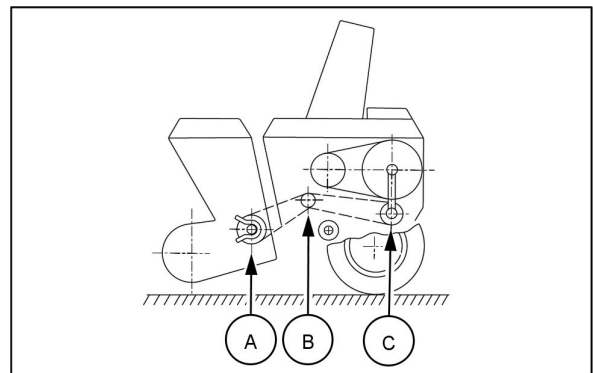
Sprocket wheel number	Number of teeth Z
2064-448X	14
2064-449A	18
2065-460X	21
2064-450A	25
2064-451A	30
2062-442X	36

The table below indicates the theoretical cutting length for various combinations of the above sprocket wheels:

24 blades	(A)	(B)	(C)
5.7 mm (0.22 in)	18	30	14
7.2 mm (0.28 in)	18	30	18
* 8.5 mm (0.33 in)	21	25	18
10 mm (0.39 in)	21	30	25
12 mm (0.47 in)	36	25	25
14.3 mm (0.56 in)	36	25	30
* 16.6 mm (0.65 in)	36	18	25

*Standard cutting length (A) for pickup.

NOTE: All cutting lengths can be doubled by removing every other row of blades.



Metal detector adjustments

Ratchet stop

The metal detector's stop system is integrated in the transmission for the feed intake system.

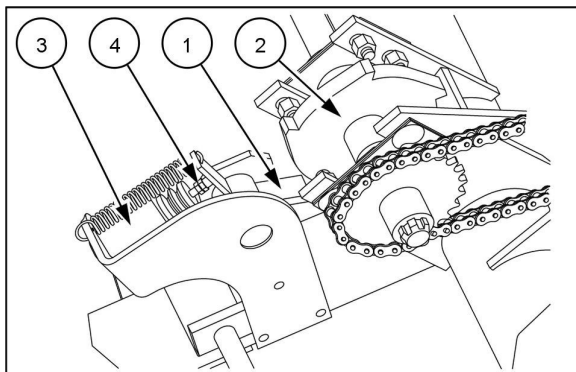
The system consists of a pawl **(1)** and a ratchet wheel **(2)** and is activated by a coil **(3)**.

The system is activated when metal is detected in the feed intake section and the coil gets a signal from the electronics which brings the pawl **(1)** in mesh with the ratchet wheel **(2)** and the feed intake section is blocked.

The distance between pawl **(1)** and wheel **(2)** has been supplied correctly adjusted from the factory. If readjustment is necessary, this is done using adjusting screw **(4)** on the coil **(3)**.

The distance between the pawl and the wheel must be **1 – 2 mm (0.04 – 0.08 in)** because the distance determines the response time of the system in the event of metal detection.

Too great a distance may mean that a metal object can reach the blade rotor before the feed intake stops and cause serious damage to the harvester.



7 - MAINTENANCE

General information

General

⚠ WARNING

Improper operation or service of this machine can result in an accident.

If you do not understand a maintenance procedure, or doubt your ability to perform a maintenance procedure correctly, see your authorized dealer.

Failure to comply could result in death or serious injury

⚠ WARNING

Avoid injury! Always do the following before lubricating, maintaining, or servicing the machine.

1. Disengage all drives.
2. Engage parking brake.
3. Lower all attachments to the ground, or raise and engage all safety locks.
4. Shut off engine.
5. Remove key from key switch.
6. Switch off battery key, if installed.

Wait for all machine movement to stop. Failure to comply could result in death or serious injury

7. ⚠ WARNING

Moving parts!

Some components may continue to run after disengaging the drive systems. Make sure all drive systems are fully disengaged and all movement has stopped before servicing the machine.

Failure to comply could result in death or serious injury

NOTICE park the car safely on firm, level ground, blocking it with chocks to prevent free movement

NOTICE: Be sure that all the service operations in this chapter are carried out punctually at the intervals given, in order to ensure optimum performance levels and maximum safety when using the implement.

Adequate lubrication and maintenance on a regular schedule is vital to maintain your implement. To ensure long service and efficient operation, follow the lubrication and maintenance schedules outlined in this operator's manual. The use of proper, oils, grease, and filters, as well as keeping the systems clean, will also extend the implement and components life.

NOTICE: Failure to complete the required maintenance at the recommended intervals can cause unnecessary downtime.

Use the intervals listed in the maintenance chart as guidelines when you operate in normal conditions. Adjust the intervals when you operate in adverse environmental and working conditions. Shorten the intervals for sandy, dusty, and extremely hot operating conditions.

NOTICE: While any company can perform necessary maintenance or repairs on your implement, KONGSKILDE - SEKO SRL strongly recommends that you use only authorized KONGSKILDE - SEKO SRL dealers and products that meet given specifications. Improperly or incorrectly performed maintenance and repair voids the equipment warranty and may affect service intervals.

When you repair or maintain the implement it is especially important to ensure the correct personal safety. Therefore, always park the tractor (if mounted) and the implement safely (See Page 2-9).

Always disengage the Power Take-Off (PTO) drive shaft, activate the parking brake and stop the tractor engine before you:

- Lubricate the implement.

- Clean the implement.
- Disassemble any part of the implement.
- Adjust the implement.

NOTE: *If the implement is connected to the tractor and raised during the repair and maintenance, secure the link arms with the support chains.*

Observe the recommended greasing, replacement and inspection intervals to prevent secondary damages.

Only use original KONGSKILDE - SEKO SRL spare parts to avoid unintentional risks and damages.

Install the used spare parts correctly and torque all the bolts and nuts to the correct tightening torque.

Always replace worn or frayed belts before they fail.

Always replace canvas on the header that are worn or torn.

Tubes, hoses, electrical wiring, etcetera that are worn or damaged must be replaced immediately.

Hydraulic system

When you replace parts of the hydraulic system, always make sure that the header rests on the ground.

Remember to relieve the oil pressure before you work with the hydraulic system.

Hydraulic hoses must be checked before each use, and minimum once a year. If necessary, replace the hydraulic hoses. All hoses are marked with date of production. The working life of hydraulic hoses should not exceed 6 years, including maximum 2 years of storage.

When you replace hoses, always use hoses which comply with the requirements stated by the manufacturer.

Power Take-Off (PTO) drive shaft

Pay special attention to the sliding profile tubes or splined shafts of the PTO shafts. They must be able to slide back and forth when the torque is heavy. If the profile tubes or splined shafts do not slide easily, the movement of the header is limited and the ground following abilities are reduced.

Always grease the sliding profile tubes or splined shafts sufficiently, to avoid high frictional forces (seizing) which will damage the profile tubes or splined shafts and in time also connecting shafts and gearboxes.

Unless the protective guards, the PTO drive shaft may cause serious injury. Keep all the guards in a proper condition. All the safety guard must be intact. Inspect the guards frequently. Replace the defective guard immediately.

Always make sure that the sliding surfaces of the guard tubes are clean and the guard bearings lubricated.

When you replace worn or damaged sections of the guard, use special tools available from the manufacturer.

Gearboxes

Always clean the area around the gearbox dipsticks, the fill caps, and the check plugs when you check fluid levels. Failure to clean these areas may allow contamination to enter the system. Drain, flush, and refill the system whenever you suspect it is contaminated.

Use the indicated consumable to maintain the oil level in the gearboxes. Oil for the gearboxes is available from your KONGSKILDE - SEKO SRL dealer.

NOTICE: *Failure to use the correct specification of oil may lead to premature failure of the gearbox components.*

Torque

Minimum hardware tightening torques (in N m or lb in /lb ft) for normal assembly applications unless otherwise stated

The minimum hardware tightening torque on drawings, in specifications, etcetera have priority.

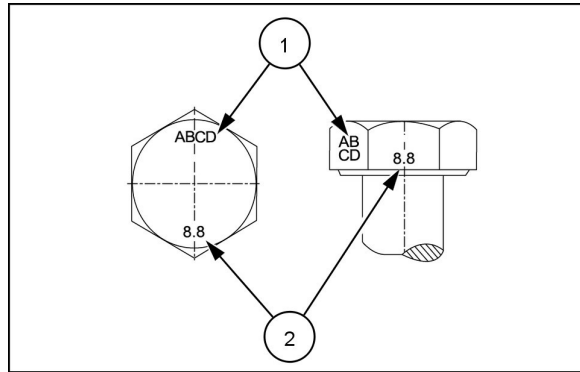
In the following tables, torque specifications are shown following the standard **ENS7001**, applicable for material class 8.8 and material class 10.9.

Hex head bolts

Nominal Size	Class 8.8 in N m (lb in or lb ft)	Class 10.9 in N m (lb in or lb ft)	Class 12.9 in N m (lb in or lb ft)
M8	25 N·m (18.1 lb ft)	33 N·m (24.3 lb ft)	40 N·m (29.5 lb ft)
M10	48 N·m (35.4 lb ft)	65 N·m (47.9 lb ft)	80 N·m (59.0 lb ft)
M12	80 N·m (59.0 lb ft)	120 N·m (88.5 lb ft)	135 N·m (99.6 lb ft)
M12x1.25	90 N·m (66.4 lb ft)	125 N·m (92.2 lb ft)	146 N·m (107.7 lb ft)
M14	135 N·m (99.6 lb ft)	180 N·m (132.8 lb ft)	215 N·m (158.6 lb ft)
M14x1.5	145 N·m (106.9 lb ft)	190 N·m (140.1 lb ft)	230 N·m (169.6 lb ft)
M16	200 N·m (147.5 lb ft)	280 N·m (207 lb ft)	325 N·m (240 lb ft)
M16x1.5	215 N·m (158.6 lb ft)	295 N·m (217.6 lb ft)	350 N·m (258.1 lb ft)
M18	270 N·m (199.1 lb ft)	380 N·m (280.3 lb ft)	440 N·m (324.5 lb ft)
M20	400 N·m (295.0 lb ft)	550 N·m (405.7 lb ft)	650 N·m (479.4 lb ft)
M24	640 N·m (472.0 lb ft)	900 N·m (663.8 lb ft)	1100 N·m (811.3 lb ft)
M24x1.5	690 N·m (508.9 lb ft)	960 N·m (708 lb ft)	1175 N·m (867 lb ft)
M30	1300 N·m (958.8 lb ft)	1800 N·m (1327.6 lb ft)	2300 N·m (1696.4 lb ft)

Identification markings

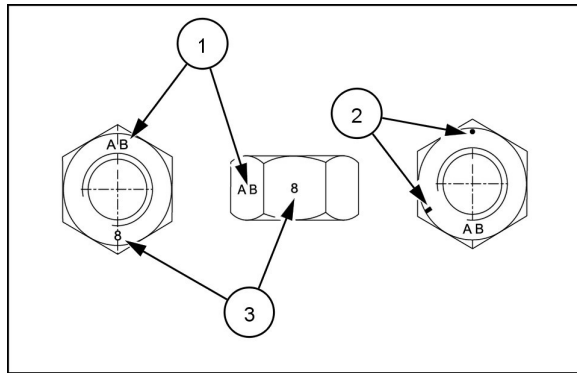
Metric hex head, flange hex head and carriage bolts,
Classes (CL) 5.6 and upward



Metric bolt identification markings

1. Manufacturer's identification
2. Property class

Metric hex nuts and locknuts, Classes (CL) 05 and upward

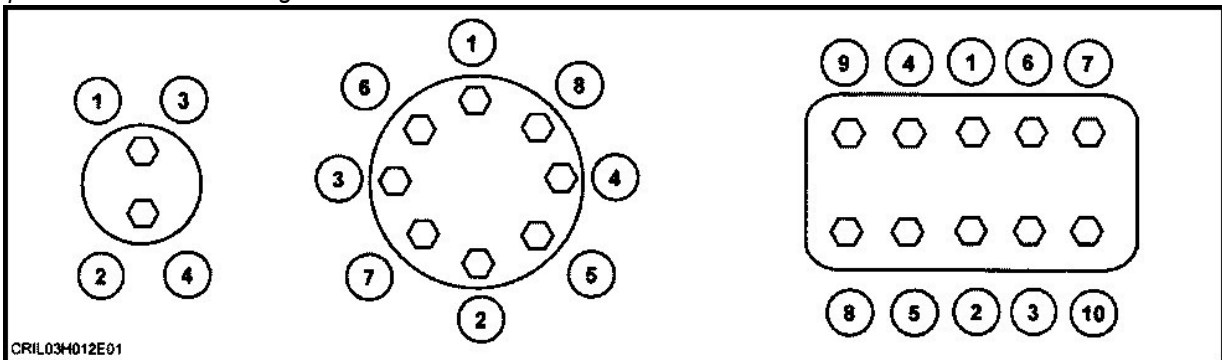


Metric hex nut identification markings

- **(1)** – Manufacturer's identification
- **(3)** – Property class
- **(2)** – Clockwise type markings indicate property class and may include manufacturer identification (if applied), Example: property marks **240°** apart (shown) at the eight o'clock position indicate a Class 8 property, and marks **300°** apart at the ten o'clock position indicate a Class 10 property.

Torque tightening sequence

NOTICE: Shown below is the suggested initial torque tightening sequences for general applications, tighten in sequence from item 1 through to the last item of the hardware.



Grease fittings and intervals

Regular lubrication is the best insurance against delays and repairs. Proper lubrication will extend the life of the implement.

Grease fittings

On new implements, the grease fitting may be covered with paint. Remove the paint to ensure the grease fitting can accept grease.

Wipe the dirt from all of the fittings and from the grease gun nozzle before you grease the implement to minimize the chance of contamination.

Pump fresh grease into the fitting to adequately lubricate the component and force out any contamination from the grease passage. Wipe off any excess grease.

Follow the lubrication schedule outlined in this operator's manual. Refer to the illustrations to identify each grease fitting on this implement.

Not all grease fittings are readily visible. Various grease fittings can only be accessed through the removal of shields or guards. Always install the shields or guards before you operate the implement.

Grease guns

Different types of grease guns provide a different amount of grease per pump of the handle.

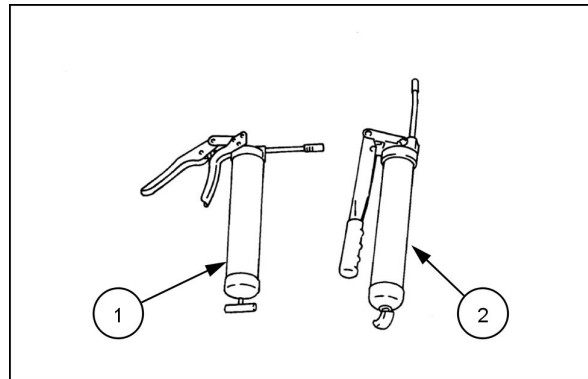
Two commonly used grease gun types are as follows:

- (1) Pistol grip-style grease gun
- (2) Lever-style grease gun

In general, a pistol grip-style grease gun injects half of the amount of grease per pump as a lever-style grease gun.

For listed components to grease on this implement, the number of pumps of grease for each grease location are based on the use of a pistol grip-style grease gun **(1)**.

If you use a lever-style grease gun, use only half of the indicated number of pumps of grease.



Progressive lubrication block

The implement may be equipped with a progressive lubrication block.

This block ensures that the grease points connected receive the correct quantity of grease.

All guards have been fitted with locks for safety reasons.

Lubrication must be performed individually at the interval specified if the implement has not been fitted with a lubrication block.

Regular checks must be made to ensure that the lubrication hoses are intact and fitted correctly.

Grease specification

See Page 7-11 for the correct grease specification.

Pressure washing

WARNING

Flying debris!

Always wear protective clothing and safety glasses or a face shield when using a steam cleaner or power washer. Failure to comply could result in death or serious injury

NOTE: Legislation in certain countries and good practice requires special treatment of waste water through sedimentation and oil separation and controlled removal of residues.

Before you use pressure washing, clean the implement with compressed air.

Avoid pressure washing at ambient temperatures below **10 °C (50 °F)** or when the implement is wet. Place the implement in a heated workshop or dry barn for at least **24 h**. Clean the implement only when fully dry.

Be careful when you clean the implement with a high pressure washing. Avoid to direct water jets on electric equipment, bearings, seals, gearboxes, etcetera.

Grease all grease fittings carefully after you clean the implement to press possible water outside bearings.

When you use a high pressure washer:

- Keep a minimum distance of **30 cm (12 in)** between the spray gun and the surface to be cleaned.
- Spray under an angle of minimum **25°** (do not spray straight at the implement).
- Maximum water temperature: **60 °C (140 °F)**.
- Maximum water pressure: **60 bar (870 psi)**.
- Do not use chemicals.

NOTICE: On the cylinders, do NOT direct the stream of a high pressure washer at the wiper seal. Water could come through the rod guide and create corrosion. This corrosion could generate pollution and seizing of the cylinder rod and the rod guide.

Fluids, lubricants, and capacities

Application	Capacity	Product name	Specification(s)
Grease fittings	-	TUTELA MULTI-PURPOSE GR-9 GREASE or TUTELA 75 MD GREASE	M1C 137-A M1C 75-B
Bevel gearbox	4.5 L (1.19 US gal)	TUTELA HYPOIDE EP 80W-90 NT	API GL-5 MIL-PRF-2105E
Rollers	-	TUTELA HYDROSYSTEM 46 BIO-S	ISO VG-46 DIN 51524 PART 2
Chains	-	TUTELA HYDROSYSTEM 46 BIO-S	ISO VG-46 DIN 51524 PART 2

Maintenance planning

Maintenance chart

Tighten						Grease					
Change fluid						Replace					
Check						Adjust					
Maintenance action						Page no.					
After the first 10 hours											
Wheels and tires - check	x					7-13					
Bevel gearbox - oil change		x				7-13					
Daily											
Check bolted connections			x			7-13					
Rotating parts - check	x					7-13					
Hardware - Check	x					7-13					
Every 10 hours											
10 hours grease fittings				x		7-15					
Chains lubrication				x		7-16					
Every 25 hours											
25 hours grease fittings				x		7-17					
Every 50 hours											
Wheels and tires - check	x					7-19					
Every 250 hours											
250 hours grease fittings				x		7-20					
Hydraulic hoses	x					7-20					
Every year											
Bevel gearbox - oil change		x				7-13					
Every six years											
Hydraulic hoses					x	7-22					
As required											
Replacement of blades					x	7-23					
Friction slip clutch – Burnish (resurface)					x	7-25					
Maintaining the friction clutch	x					7-26					

7 - MAINTENANCE

Pickup augers	x						7-26
Rollers						x	7-27
Check the wheel bearing						x	7-27

After the first 10 hours

Wheels and tires - check

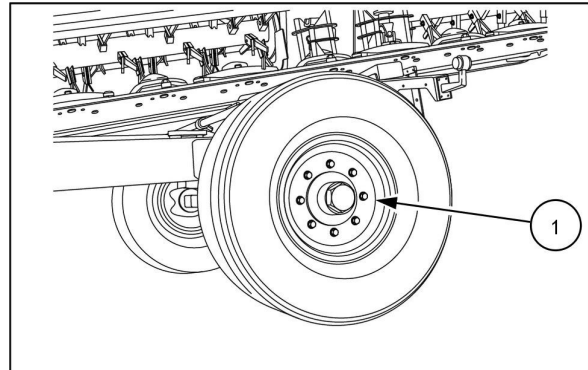
NOTICE: Check the wheels and tires after the first **10 h** of operation. Make sure to torque the wheel hardware any time that you remove and install a wheel.

NOTICE: Do not substitute a tire of a different size. A substitute tire size may compromise the load-carrying capacity.

1. Check the tire pressure and inflate the tires, if necessary. See Page **9-16** to check the recommended tire pressure.
Do not exceed the indicated values to avoid injuries caused by tyre blowouts.

NOTE: Make sure that both tires are set to the same tire pressure.

2. Check the torque of the wheel hardware **(1)**.



Bevel gearbox - oil change

Oil specification

See Page **7-11** for the correct oil specification and capacity.

Daily

Check bolted connections

Torque again all the bolts, the nuts and the fasteners daily.

Rotating parts - check

During the season check daily that no blades, carriers, fingers of the conditioners or bolts are missing. If any of these parts are missing, install the missing parts before you continue the work.

Hardware - Check

Assorted types of hardware such as nuts, bolts, screws, cotter pins, and linchpins secure the assemblies and components of the implement.

Maintenance, service, and operational forces such as vibrations and revolving components can result loosened or missing hardware.

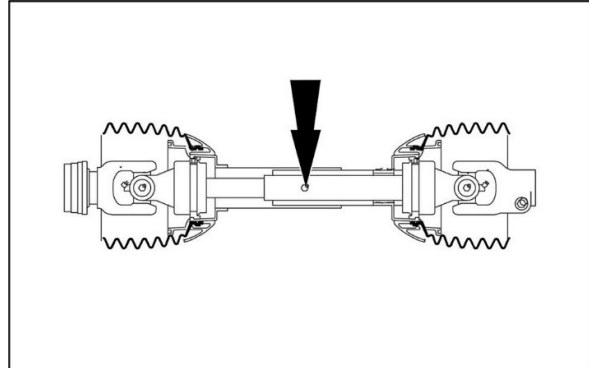
- Prior to daily operation, walk around the implement, and perform both a visual and hands-on check for loose or missing hardware. Wheel bolts and nuts and high-speed revolving disc head assemblies should be given extra attention to the presence and security of the hardware.
- During and after service of the implement, make sure that each piece of hardware that was removed is installed and tightened, as required, to the relevant torque specification.
- Tighten hardware to the nominal torque specification or specified torque specification.

Every 10 hours

10 hours grease fittings

Front side

1. Power Take-Off (PTO) shaft

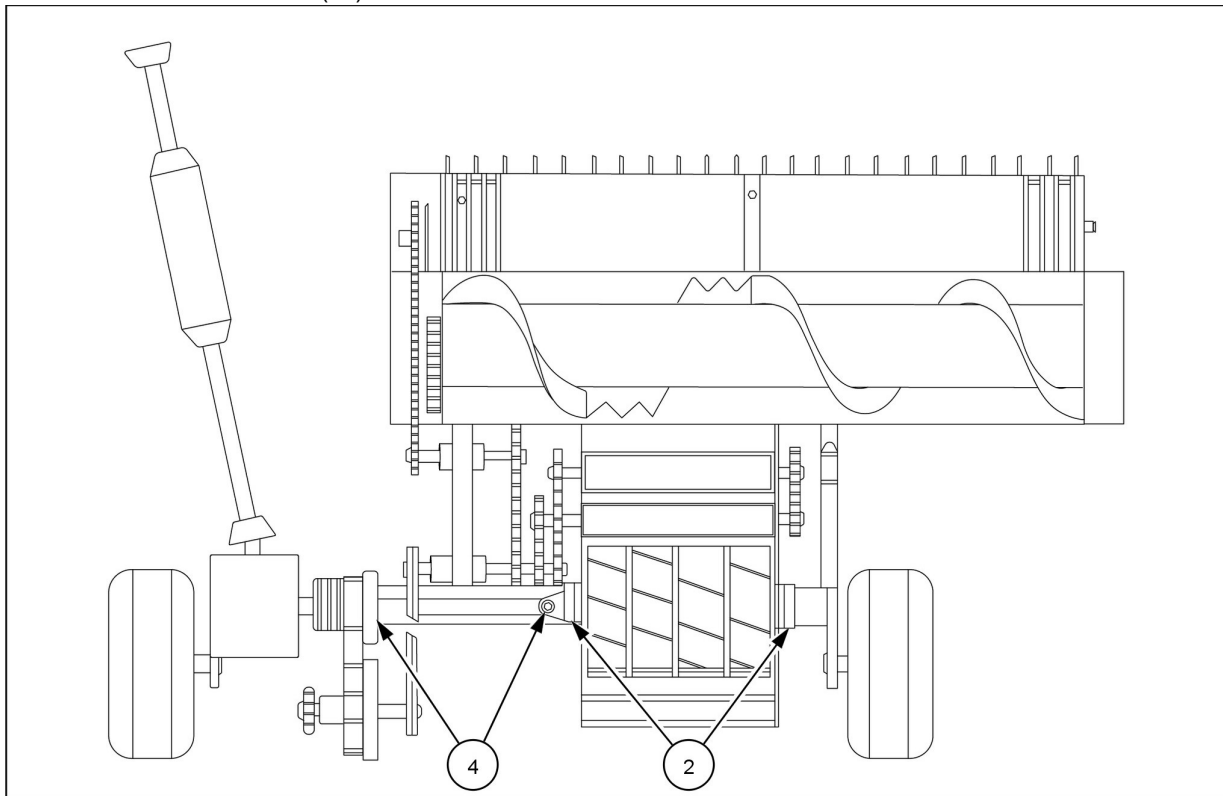


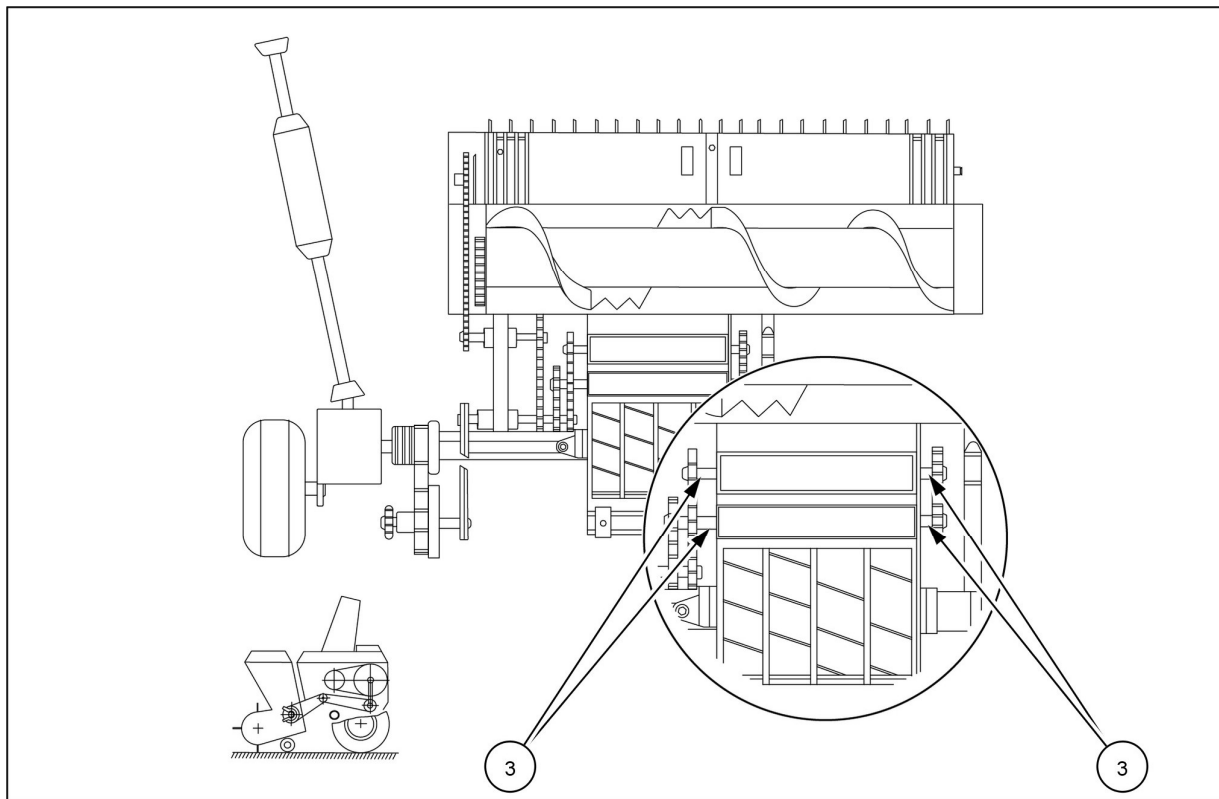
Right-hand side and left-hand side

2. Rotor bearings (x2)

Rear

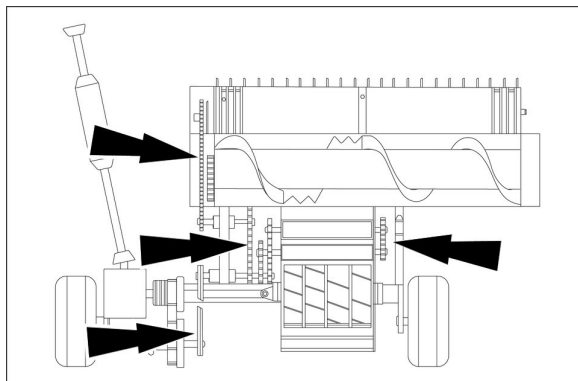
3. Feed rollers (x8)
4. Transmission shaft at rotor (x2)





Chains lubrication

Lubricate the chains of the implement every 10 operating hours.



Oil specification

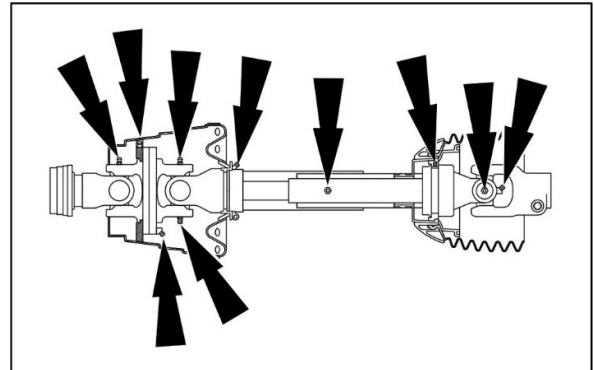
See Page 7-11 for the correct oil specification.

Every 25 hours

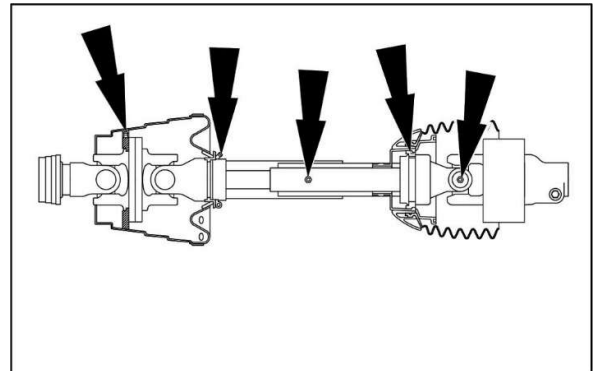
25 hours grease fittings

Front side

1. Primary Power Take-Off (PTO) shaft (x10)



2. Secondary Power Take-Off (PTO) shaft (x5)



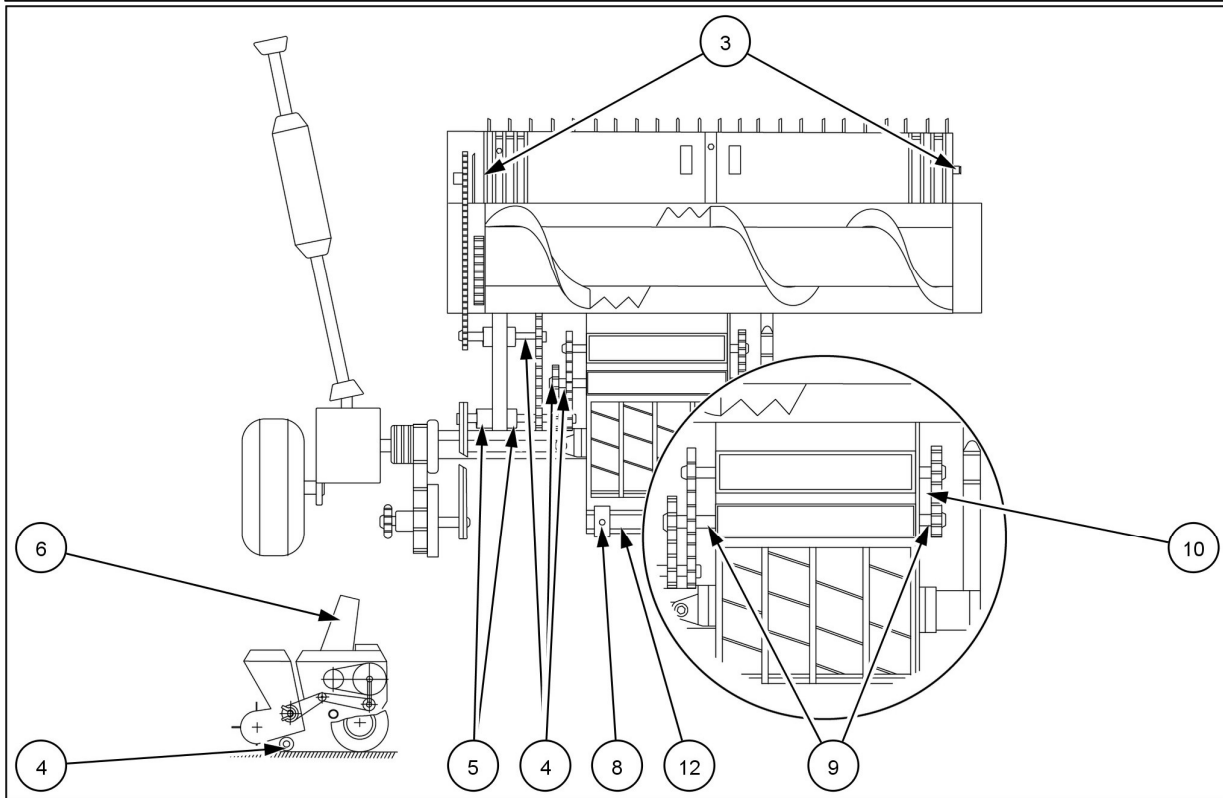
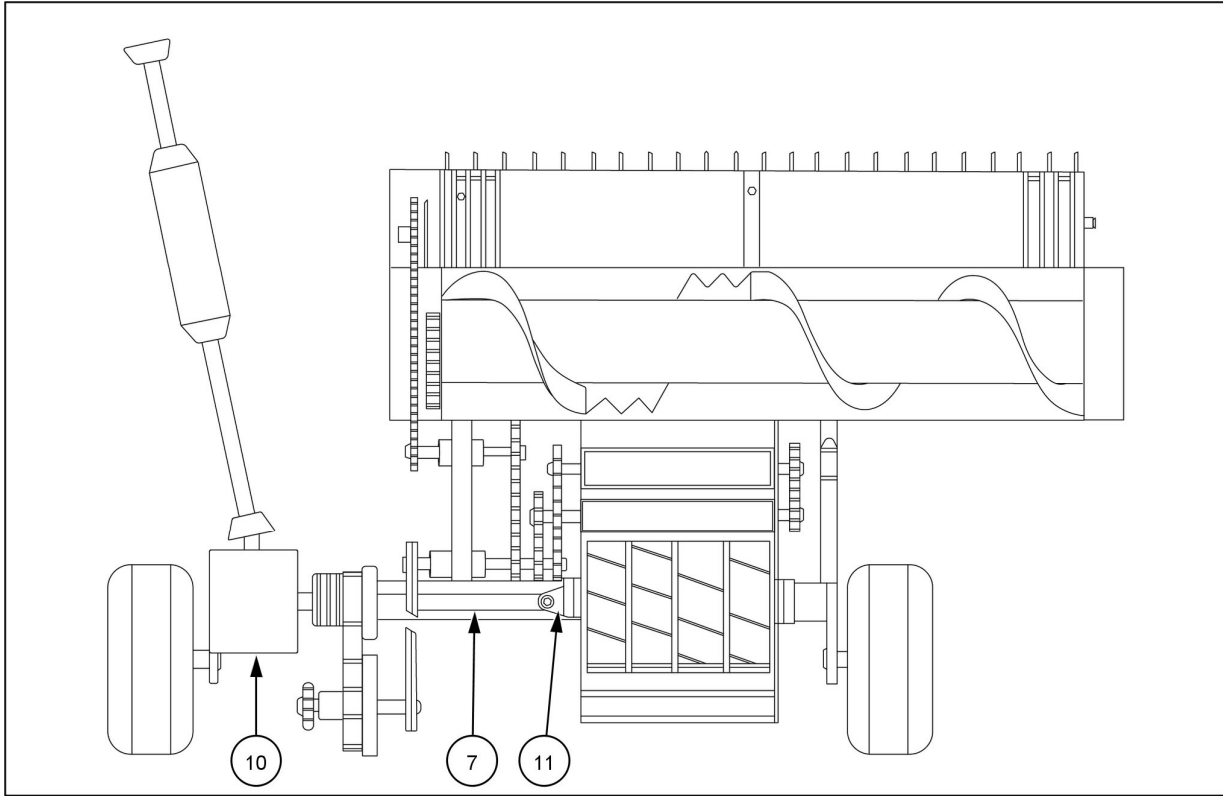
3. Bearings for tube in the pick-up (x2)
4. Support rollers (x3)
5. Axle bearings (x2)

Central

6. Swivel chute (x4)

Rear

7. Profile tubes on PTO shafts
8. Grinding device
9. Link bearings in rocker arms (x2)
10. Hitch (Optional equipment) (x2)
11. Alternative pin for transmission shaft at rotor (grinding/ blocking)
12. Steering device for grindstone (rust-preventing oil) (x2)



Every 50 hours

Wheels and tires - check

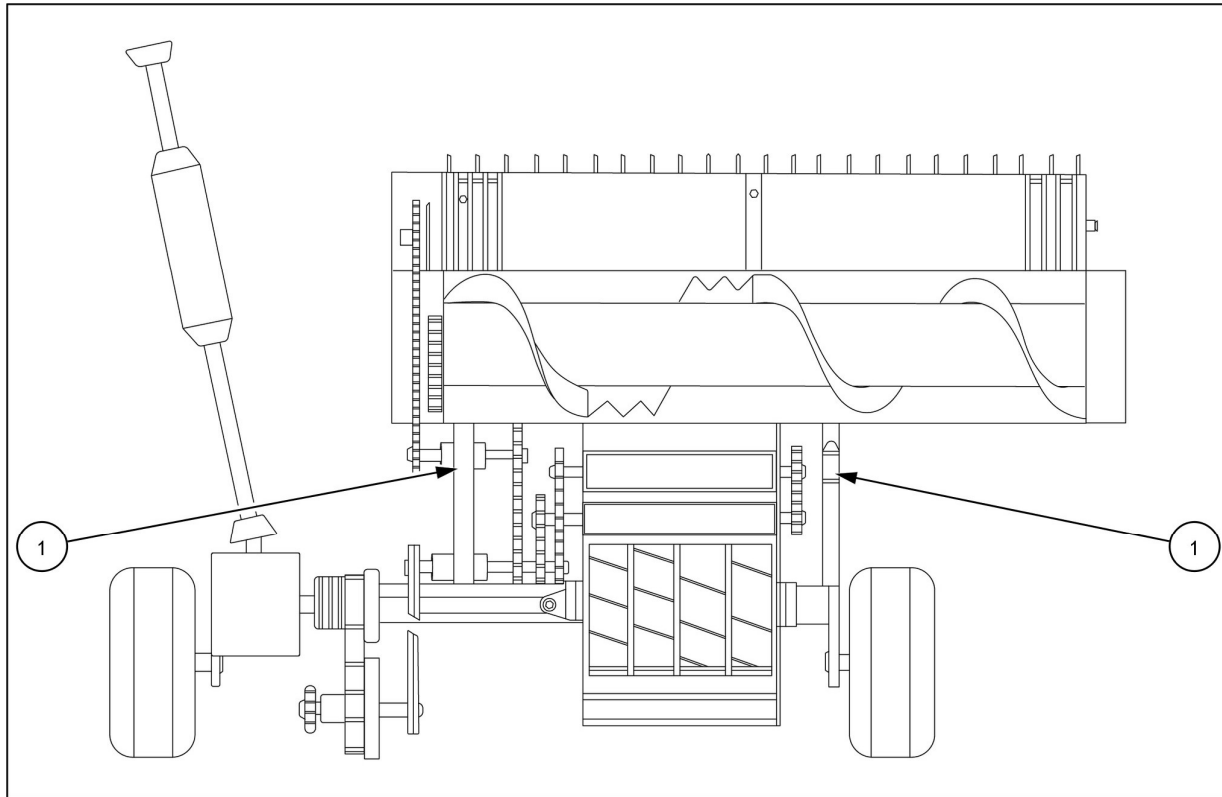
Check the wheels and tires every **50 h** of operation. Perform a follow-up check of the wheel hardware torque after every **50 h** of operation. Make sure to torque the wheel hardware any time that you remove and install a wheel.

Every 250 hours

250 hours grease fittings

Right-hand side and left-hand side

1. Support arm for pick-up (x2)



Hydraulic hoses

Periodically check the hydraulic hoses for leaks, damage, and maintain a hydraulic hose service-life awareness.

Check for the following:

- The dates on the crimped hose end fittings. See Page **7-22**
- Leaks, damaged, or corroded fittings.
- Dry, hard, blistered, crushed, kinked, twisted, conditions along the length of the hose.
- Cuts or tears and/or a softening, loosening, or separation of the hose outer covering
- Excessive dirt and debris collecting on or around the hoses and fittings
- Damaged or missing hose retaining clamps, shielding, guards, or wear protection material or covering

Every year

Bevel gearbox - oil change

Oil specification

See Page 7-11 for the correct oil specification and capacity.

Every six years

Hydraulic hoses

⚠ WARNING

Escaping fluid!

Do not disconnect hydraulic quick coupler under pressurized conditions. Make sure all hydraulic pressure is removed from the system before disconnecting hydraulic quick coupler.

Failure to comply could result in death or serious injury.

⚠ WARNING

Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.

Failure to comply could result in death or serious injury.

Hydraulic hoses are important safety elements in modern machinery. However, over the years, hose characteristics alter under pressure, thermal load and UV light. Therefore, most hoses now have a production date printed on the metal clamp bushing which allows to determine the age.

Legislation in certain countries and good practice require that hydraulic hoses are replaced when they become 6 years old.

As required

Replacement of blades

DANGER

Moving parts!

Install all covers, panels, and guards after servicing or cleaning the machine. Never operate the machine with covers, panels, or guards removed.

Failure to comply will result in death or serious injury.

WARNING

Avoid injury and/or machine damage! After installation or service, make sure you remove all tools from the machine. Failure to comply could result in death or serious injury

CAUTION

Cutting hazard!

Use care handling sharp components. Always wear appropriate Personal Protective Equipment (PPE), including heavy gloves. Failure to comply could result in minor or moderate injury

Blades, blade bolts and the shearbar are made from high alloy, heat-treated materials.

This heat treatment produces a particularly hard and tough material capable of tolerating extreme stress. Damaged blades, blade bolts or shearbars must be replaced by original spare parts to ensure optimal reliability.

Place every single blade at the same distance from the shearbar.

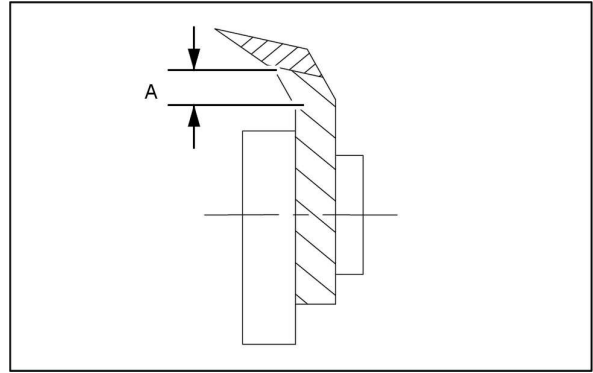
To ensure that the rotor is balanced, it may be necessary to also replace the opposite blade because used blades have different weights compared to new blades. Even if there are no visible signs of damage to the blade bolts, they should always be replaced together with the blades because they may have been overloaded. **NOTE:** *Only use original blade bolts when replacing.*

NOTE: *Damaged blades must be replaced to prevent them from blocking or damaging the implement and to avoid metal parts being thrown out from the delivery chute.*

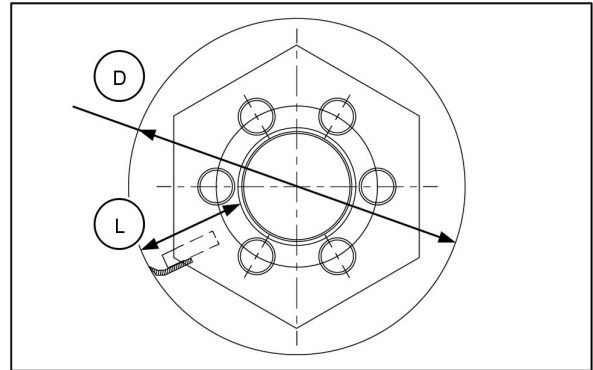
Tighten the blade bolts using a torque wrench to **40 kgm (289 ftlbs.)** or with the spanner supplied using approximately **40 kg (88 lb)** leverage..

Replace the blades when they have been worn by a maximum of **8 mm (0.3 in)** or to the first bend, approximately for a value **(A)** of **12 mm (0.5 in)** above the straight piece of the blade.

NOTICE: When all blades on the rotor have become worn and the rotor has been adjusted towards the shearbar, it must be adjusted back again before new blades are fitted. Otherwise there is a risk that the new blades will collide with the shearbar when the rotor is turned.

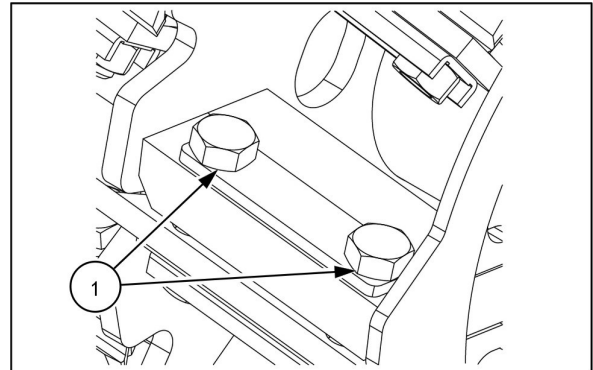


Pull out new blades when they are fitting, so that the outer diameter **(D)** on the rotor is **480 mm (19 in)** and the distance **(L)** from rotor tube to blade point is **178 mm (7 in)**.



Ensure that the area under the bolt heads **(1)** is greased, when replacing blade bolts.

Following the replacement of blades and blade bolts, check that no tools have been left in the implement.



Friction slip clutch – Burnish (resurface)

⚠ WARNING

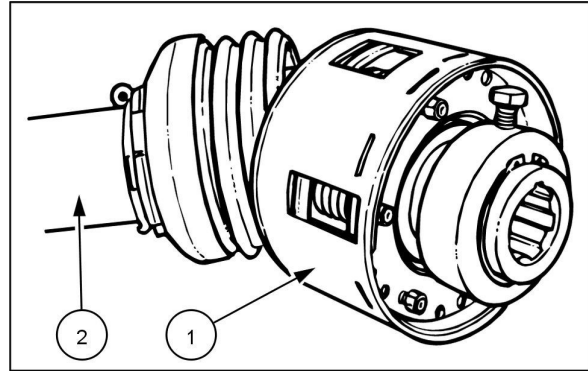
Moving parts!

Disengage the Power Take-Off (PTO), turn off the engine, and remove the key. Wait for all movement to stop before you leave the operator's position. Never adjust, lubricate, clean, or remove a blockage of crop material when the engine is on.

Failure to comply could result in death or serious injury.

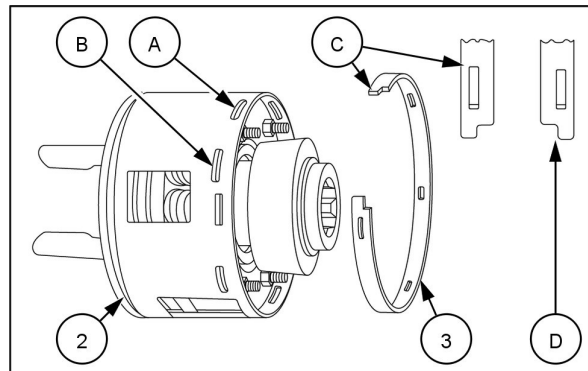
The friction slip clutch (1) is part of the primary Power Take-Off (PTO) drive shaft (2) and mounts on the PTO drive shafts between the tractor and the implement. The difference between these is the direction in which the free-wheeling is running. The clutch protects the transmission against high torque peaks and at the same time is capable of transmitting the torque while it slips.

NOTE: Clean the clutch at regular intervals in order to remove dirt and moisture that may stuck the clutch.



To burnish the friction slip clutch proceed as follows:

1. Rotate the clutch for half a minute to remove dirt and possible rust on the plates.
2. Loosen all of the clutch nuts until they are at level with the threads of the bolts, and the springs can press on the clutch plates.
3. The torque in the friction clutch has four different torque adjustments. Adjust the torque by turning the adjustment ring and by choosing between two different positions in the clutch housing.
 - The adjustment ring has a minimum (C) and a maximum (D) position.
 - The clutch housing has two different sets of slots in the height into which the adjustment ring can be mounted, position (A) and position (B).



NOTE: Make sure the six nuts are tightened during the adjustment. Loosen again all the nuts after the adjustment to the end of the bolt.

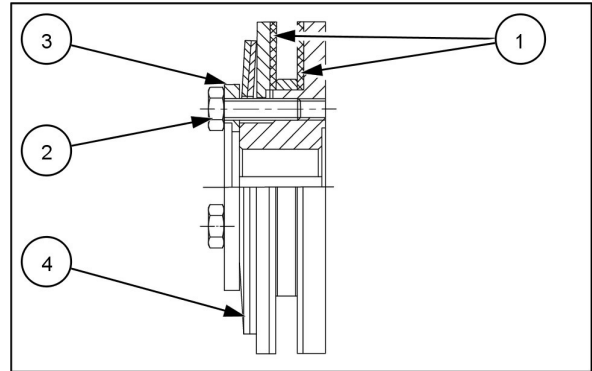
Torque		Adjustment ring	Clutch house
Step	%		Position
I	70	minimum (C)	(A)
II	80	maximum (D)	(A)
III	90	minimum (C)	(B)
IV	100	maximum (D)	(B)

Maintaining the friction clutch

To maintain the friction clutch on the auger, proceed as follows:

1. Disassemble the clutch and clean all parts to remove any rust.
2. Check the clutch discs **(1)** for wear and replace if required.
3. Assemble and refit the clutch again.
4. Tighten the bolts **(2)** with normal torque as the flange **(3)** ensures the correct compression of the springs **(4)** and thus the correct torque setting.

NOTE: If the clutch is overloaded by having longer glide times, it will become hot and quickly become worn.



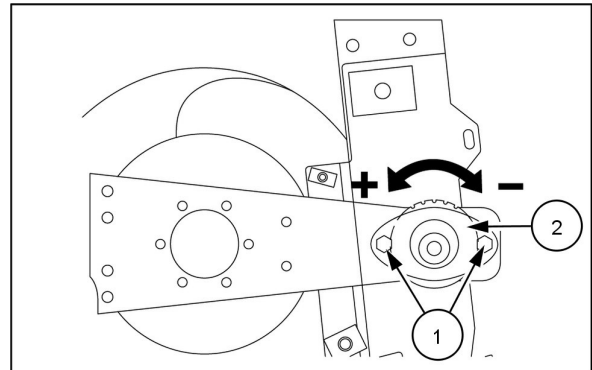
Pickup augers

To maintain the chain tightener for pickup auger, proceed as follows:

Loosen the two bolts **(1)** to allow the eccentric **(2)** to be turned with a screwdriver.

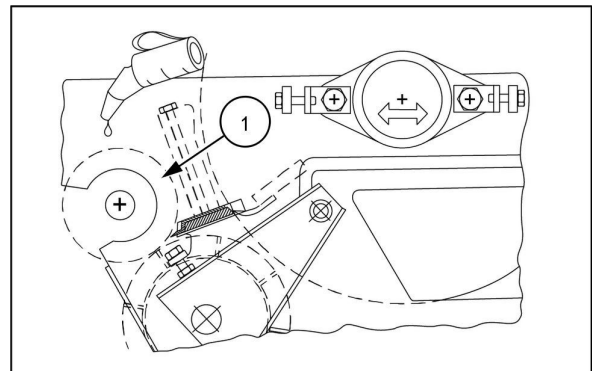
Turn in the "+" direction in order to tighten and in the "-" direction to loosen.

NOTICE: It should always be possible to move the chain at least **20 mm (0.8 in)** up and down in the middle in order to avoid over-tightening.



Rollers

The rear upper feed roller, the smooth roller **(1)**, should be protected from the formation of rust on the surface. The entire surface should be lubricated with a thin layer of oil if the implement is not in use for a period of more than one day.



Oil specification

See Page 7-11 for the correct oil specification.

Check the wheel bearing

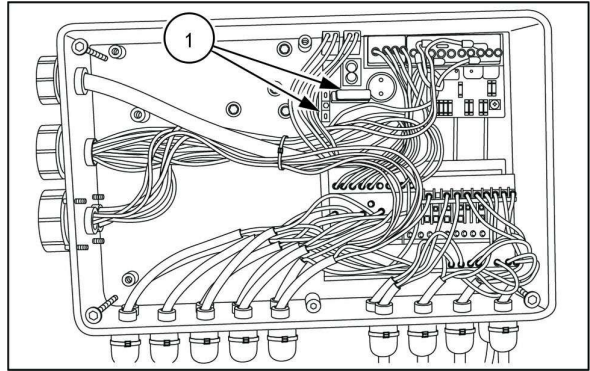
To adjust the play in the wheel bearing, proceed as follows:

1. Raise the axle off the ground until the wheel spins freely.
2. Take off the hub cap, remove the cotter pin and tighten the hub nut until there is noticeable resistance.
3. Rotate the hub nut backwards until the first cotter pin hole lines up.
4. Insert the cotter pin and bend it.
5. Fill up the hub cap 3/4 with new grease and refit.

Fuse and relay locations

Fuses - replacement

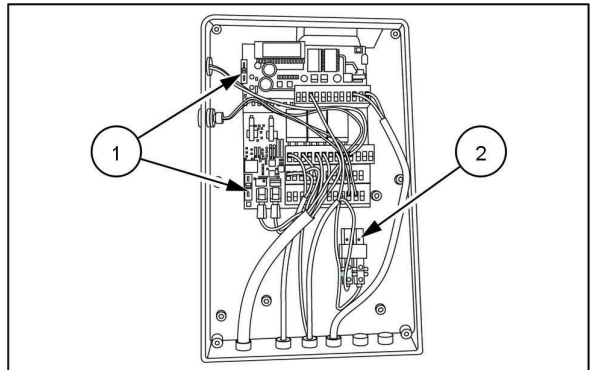
The control system for the implement contains two **10 A** fuses (1) .



Instead in the MD control unit, there are two **10 A** fuses (1) and one **5 A** fuse (2).

NOTE: The fuses must only be replaced with fuses with the same rating. With the exception of the replacement of fuses, servicing must only be carried out by an authorised retailer or service technician.

NOTE: Never use fuses with a higher rating. This may damage the control system. If the fuses blow, there is a fault in the electric system.



Storage

End of season service

When the season is over, prepare the implement for the storage immediately.

To prepare the implement for winter storage:

1. Clean the implement thoroughly. Dust and dirt absorb moisture and moisture increases the formation of rust.
2. Store the implement in a dry place, protected against wind and weather in the best possible way.
3. Grease all grease fittings after you clean the implement, according to the "Maintenance planning".
4. Check the implement for damaged parts, loose screwjoints, leakage, wear and other defects carefully before the storage. If there is any damage, it may be forgotten during the storage and result in problems the following season. Note down the necessary parts you will need before the next season and order the spare parts.
5. Dismount the Power Take-Off (PTO) shafts, grease the profile tubes and keep them in a dry place.
6. Spray the implement with a coat of rust-preventing oil.
7. Parts polished with use and the piston rods of the hydraulic cylinder may get rusty. Clean and brush with grease parts polished with use and the piston rods to protect against wind and weather.
8. Change the oil in the hydraulic system and the gearboxes.
9. Remove the pressure from the drive belt.
10. Park the implement with the header lift lock valves engaged. If the pickup is lowered to the ground, place wood blocks under the pickup to prevent direct ground contact.
11. Check and adjust the tire pressure. See page **9-16**.
12. Support the implement to relieve the weight from the tires. Tire and rubber components life will be extended if protected from sunlight during storage.

NOTE: Periodic checks will help to keep your implement maintenance and repairs to a minimum and avoid costly breakdowns during the season. Therefore, it is good practice to have the implement inspected at the end of the season.

NOTE: To prevent corrosion and seizure of the knives brush a light coat of all purpose grease onto the upper and lower blade surfaces of the blade.

Implement long-term storage and/or disposal

When the implement reaches the end of its useful life, observe the following recommendations for disposal:

- See your KONGSKILDE - SEKO SRL dealer to make an agreement for your dealer to properly dispose of the implement, or
- Sell the implement to a company that specializes in the proper disposal of industrial machinery.

If you want to keep the implement on your premises (for spare parts or other reusable components, etc.) you must observe the following instructions:

1. Park the implement on hard and level ground. Bring all moveable components to the lowest position and/or safest position.
2. Store the implement with the axles on wooden blocks in order to keep the implement upright, as the tires will deflate over time.
3. Drain the oil from gearbox, and hydraulic systems into appropriate containers. Take the oil to your local waste recycling facility. Pay attention to local rules that may require you to store the different types of oils separately. Remove the filters (if available).

NOTE: *The implement is now ready for a long-term storage and/or for scrapping after the removal of reusable components.*

Long-term storage

The assigned storage life for the implement is minimum seven years, during this time the implement must be packed in a dry and clean place without condensation.

NOTE: *All the requirements for the storage of the implement must be met.*

Scrapping

When you scrap the vehicle, you must keep materials apart. Separate the following:

- Plastics
- Rubber hoses
- Belts
- Electric and electronic components
- Tires
- Wiring harnesses
- Sheet metal
- Castings
- Weld assemblies
- Aluminium
- Any other additional category

NOTE: *See your local waste recycling facility for specific rules on how to deliver the scrapped materials.*

When you dismount mechanical systems, make sure that there is no risk of residual energy (such as compressed springs in belt variators). If you do not have the proper tools or instructions to disassemble a system or component, contact your KONGSKILDE - SEKO SRL dealer to perform this service.

NOTE: *Make sure that the implement maintains stability during the dismantling process.*

Ordering parts and / or accessories

When you prepare the implement for storage, check thoroughly for any parts that may have become worn and need replacing.

Order and install the spare parts and/or accessories at once before the next season.

When you order spare parts, always make sure to give your KONGSKILDE - SEKO SRL dealer the model number and the Product Identification Number (PIN) of your implement. See "Product identification" in Chapter 1 of this operator's manual.

Insist on genuine KONGSKILDE - SEKO SRL "quality" spare parts as they will give the best performance and are covered by our warranty.

For best performance, have your implement serviced by an authorized KONGSKILDE - SEKO SRL dealer.

8 - TROUBLESHOOTING

Fault code resolution

General

This chapter describes the easy diagnostic methods for generic problems and the related remedies for them. If you cannot find the cause of a problem or solve a problem, consult the KONGSKILDE - SEKO SRL dealer.

Driving tips and fault finding

Problem	Possible Cause	Correction
The electronics are not activated when the control box is turned on using the switch on the side.	There is no power supply.	Check or establish the power supply from the tractor. The earth connection must be in working order.
	A fuse has blown in the implement's control system.	Replace the fuse(s).
	Damage to one or more of the cables has caused a short circuit.	Check cable connections and repair or correct if necessary.
No metal is detected when the MD system is checked with magnetic metal between the front rollers before starting, or metal passes through the feed intake section without being detected.	Fault or defect on the magnetic tub.	Return the magnetic tub to the dealer for adjustment or replacement.
	The wire connection to the magnetic tub is defective.	Correct or repair defects on the wire connection.
	The metal detector is turned off.	Turn on the metal detector.
Metal reaches the rotor despite being detected and the feed intake stopping.	The distance between the pawl and the ratchet wheel is too great, and the wheel revolves too much before the pawl becomes meshed.	Adjust the distance between the pawl and the ratchet wheel with the adjusting screw above the coil. The distance must be approximately 1 – 2 mm (0.04 – 0.08 in) .
The implement does not respond to the control box.	The control system is not switched on.	Switch on the control system.
	There is no oil flow.	Establish constant oil flow from the tractor.
It is not possible to adjust the reverse system to the position for normal feed in after reversing.	There is a fault on the contact element adjacent to the nylon disc on the automatic clutch. The contact element must reset the electrical system upon reversing so that the machine can operate again.	Replace the contact element on the automatic clutch.
Although normal feed intake position is established, the pawl is still meshed.	Fault in the wire for the coil.	Repair or replace the wire.

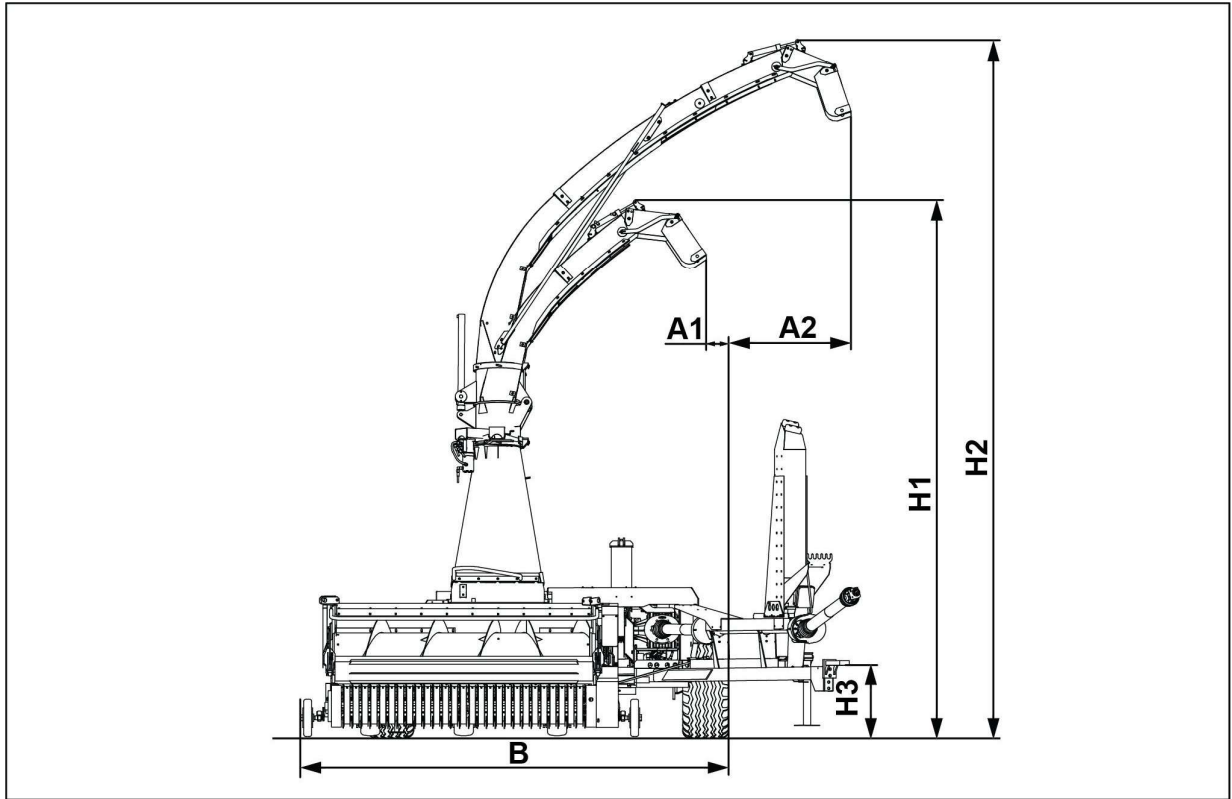
Metal is detected, but there is no metal in the feed intake section.	The adjustment of the magnetic field from the magnetic tub has been altered.	Disconnect the magnetic tub and send it to the dealer for adjustment. .
	There are loose metal parts or swarfs in the roller which are disturbing the magnetic field.	Clean the roller and the tub of loose metal parts or swarfs.

Problem	Possible Cause	Correction
	The power supply from the tractor is insufficient. The MD system "consider" reduced voltage drops (under 8 V) to be interference, that is metal detection.	Check if the voltage supply from the tractor is correct about 12 V when the tractor is turned off. The earth connection must be checked.
	The implement indicates a stoppage caused by metal at a specific RPM.	One or several rollers have become magnetic. Disconnect the rollers individually until the roller in question has been identified. The roller must be demagnetised.
	Fault in the electronics, wiring to the magnetic tub or the magnetic tub itself.	A process of elimination must be used. Disconnect the wiring to the magnetic tub in the electronics box. a) The implement runs without a stoppage caused by metal. The wiring or magnetic tub is defective. The wiring must be tested by laying an extra wire from the box to the entry to the magnetic tub and connecting the wire to the existing wire. b) The implement continues to run with a stoppage caused by metal. The electrical control system is defective and must be replaced. Contact your dealer.

9 - SPECIFICATIONS

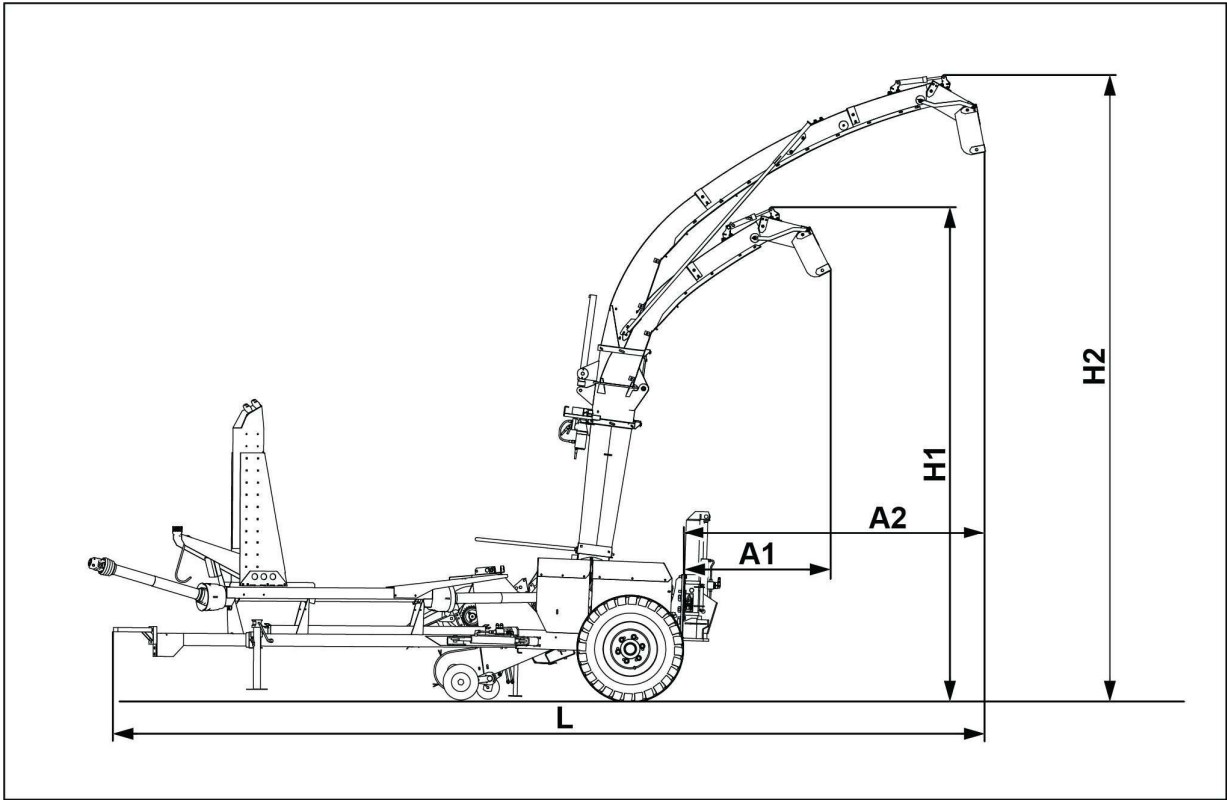
Dimensions

FCT 1060 and FCT 1060MD



Standard and foldable chute

Dimension	Value
B	3.1 m (122.0 in)
H1 - Standard chute	4.2 m (165.4 in)
H2 - Foldable chute	5.46 m (215.0 in)
H3	570 mm (22.4 in)
A1	177 mm (7.0 in)
A2	956 mm (37.6 in)



Chute for parallel operation

Dimension	Value
L	6.3 m (248.0 in)
H1 - Standard chute	4.0 m (157.5 in)
H2 - Foldable chute	5.15 m (202.8 in)
A1	1.2 m (47.2 in)
A2	2.5 m (98.4 in)

Technical data

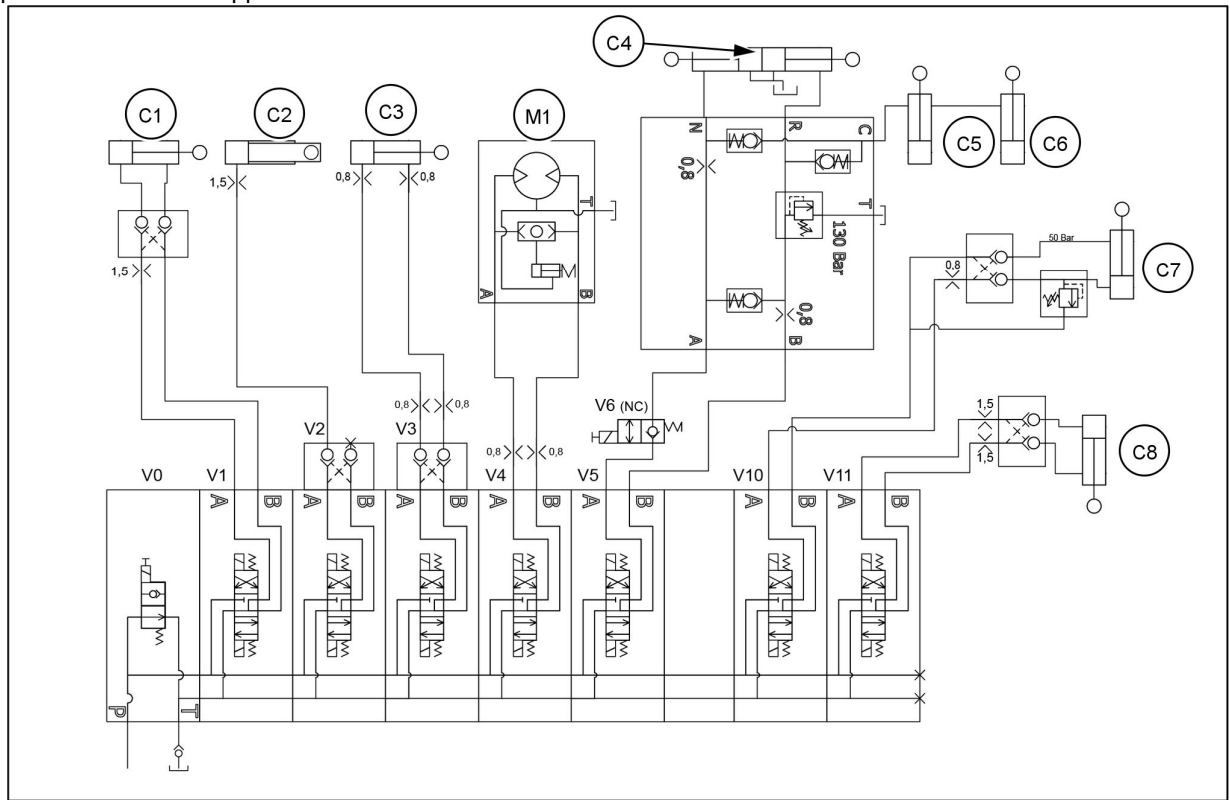
Type	FCT 1060	FCT 1060MD
Power requirement	88 – 140 kW (120 – 188 hp)	
Pick-up width	1.8 m (70.9 in) or 2.1 m (82.7 in)	
Width of blade rotor	0.72 m (28.3 in)	
RPM for rotor	1800 RPM	
Number of blades	24	
Theoretical maximum cutting length	8 – 16 mm (0.31 – 0.63 in)	
Reversible shearbar	Standard	
Number of feed rollers	4	
Feed reversal	Electric	Electro-hydraulic
Turning angle for chute	175°	280°
Maximum weight	2300 kg (5070.6 lb)	
Standard tyre size	14/65 x 16	
Tyre size (Accessory)	19/45 x 17	
Free-wheeling clutch in PTO shaft	Standard	
Steel wheels on pick-up	Standard	
Hitch for trailer: drawbar load/ total weight	2.000 – 15.000 kg (4.409 – 33.069 lb)	
Folding chute	–	Accessories

Fluids, lubricants, and capacities

Application	Capacity	Product name	Specification(s)
Grease fittings	-	TUTELA MULTI-PURPOSE GR-9 GREASE or TUTELA 75 MD GREASE	M1C 137-A M1C 75-B
Bevel gearbox	4.5 L (1.19 US gal)	TUTELA HYPOIDE EP 80W-90 NT	API GL-5 MIL-PRF-2105E
Rollers	-	TUTELA HYDROSYSTEM 46 BIO-S	ISO VG-46 DIN 51524 PART 2
Chains	-	TUTELA HYDROSYSTEM 46 BIO-S	ISO VG-46 DIN 51524 PART 2

Hydraulic diagram FCT 1060

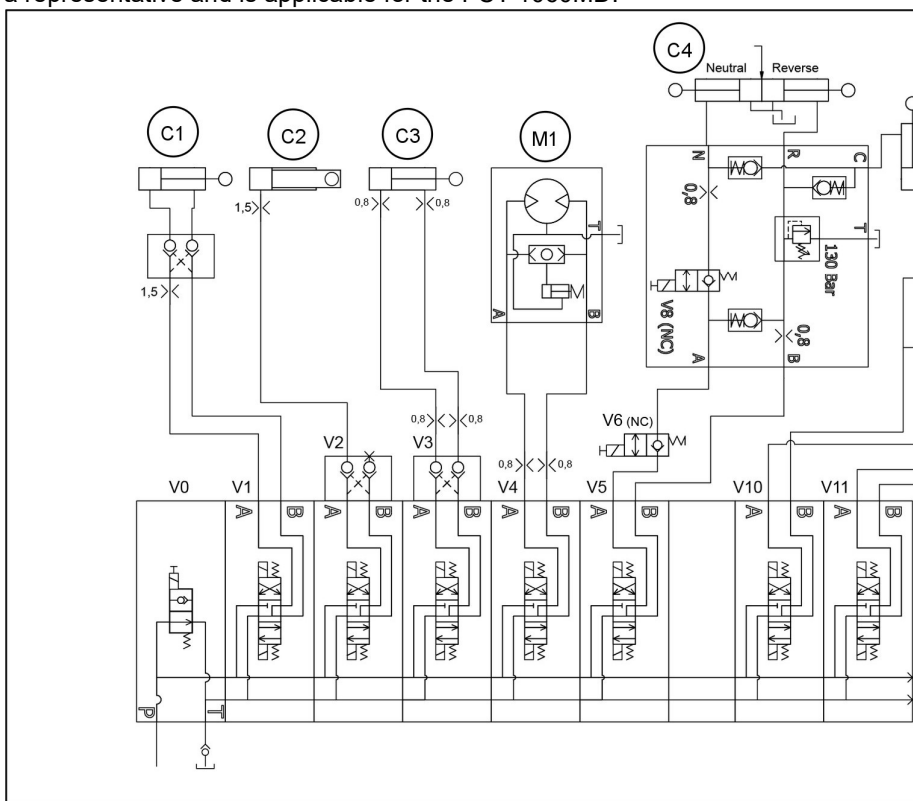
The following scheme of the hydraulic diagram is present as a representative and is applicable for the FCT 1060.



Item	Description
(C1)	Turn drawbar
(C2)	Pick Up (PU) lift
(C3)	Deflector up/down
(C4)	Intake section
(C5)	Lift auger and roller
(C6)	Lift auger and roller
(C7)	Foldable chute
(C8)	Autohitch (optional equipment)
(M1)	Swivel chute with brake

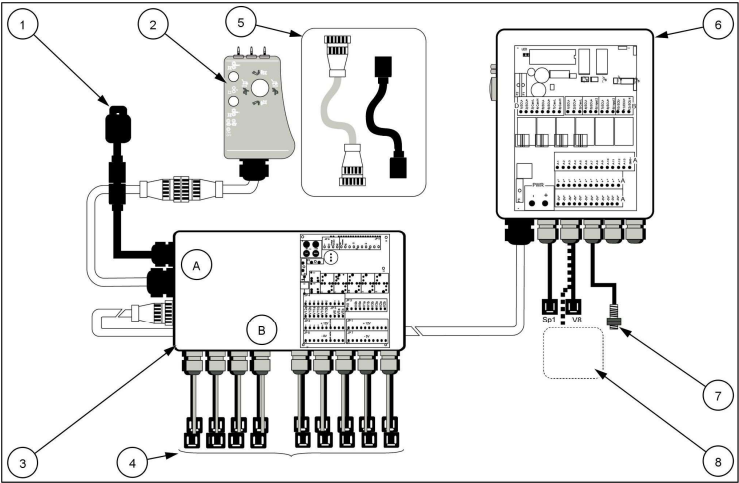
Hydraulic diagram FCT 1060MD

The following scheme of the hydraulic diagram is present as a representative and is applicable for the FCT 1060MD.



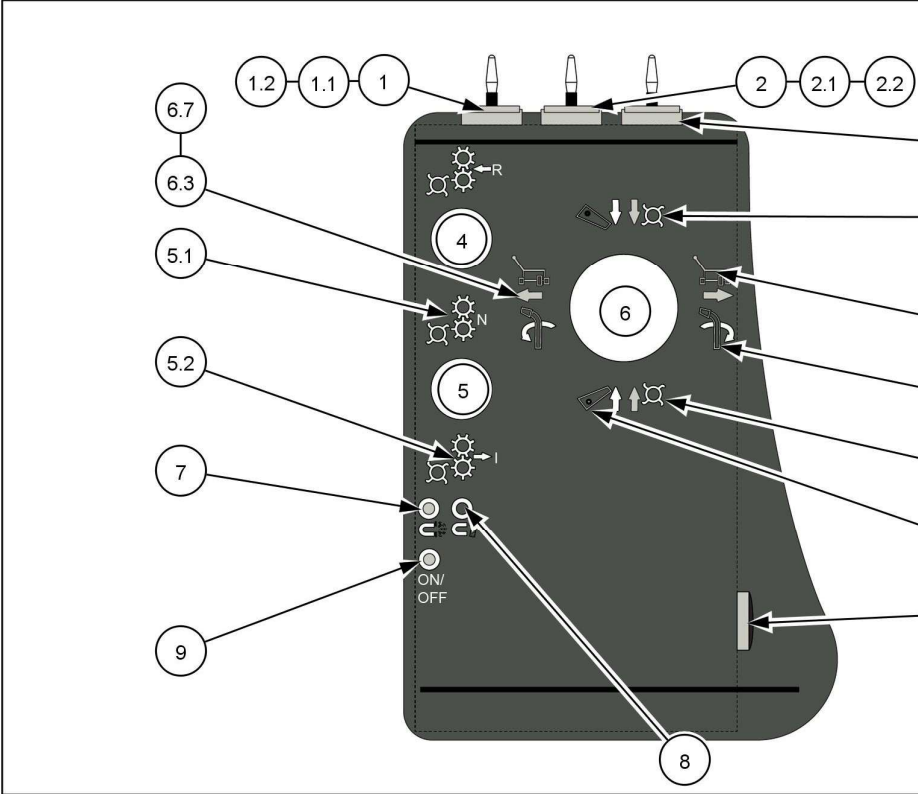
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ol system



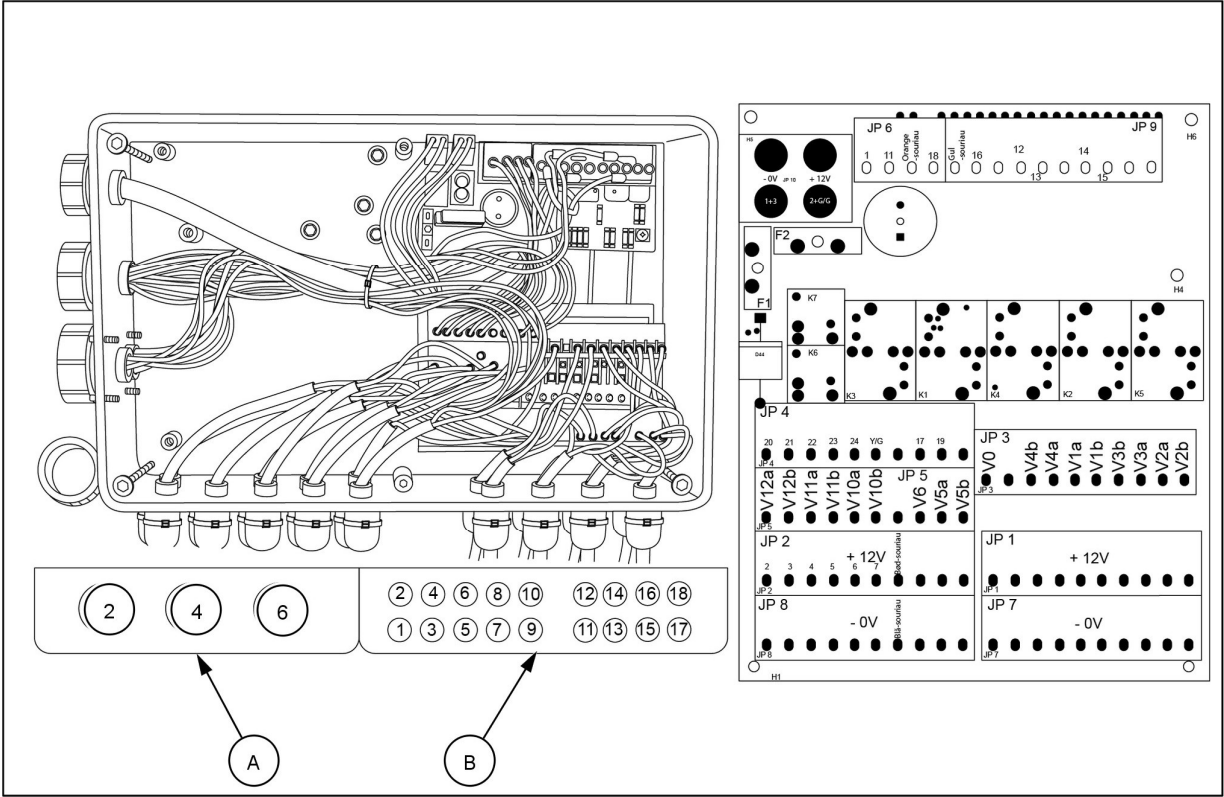
Item	Description
(1)	Power supply 12 V DC (COBO plug)
(2)	Control box (Joystick)
(3)	Connection box
(4)	Cable with valve plug
(5)	Extension cable (accessories)
(6)	Metal detector
(7)	Reverse sensor S1 (Reed)
(8)	Metal detector (accessories)
(A)	Gland position left (L)
(B)	Gland position bottom (Z)

Control box - J



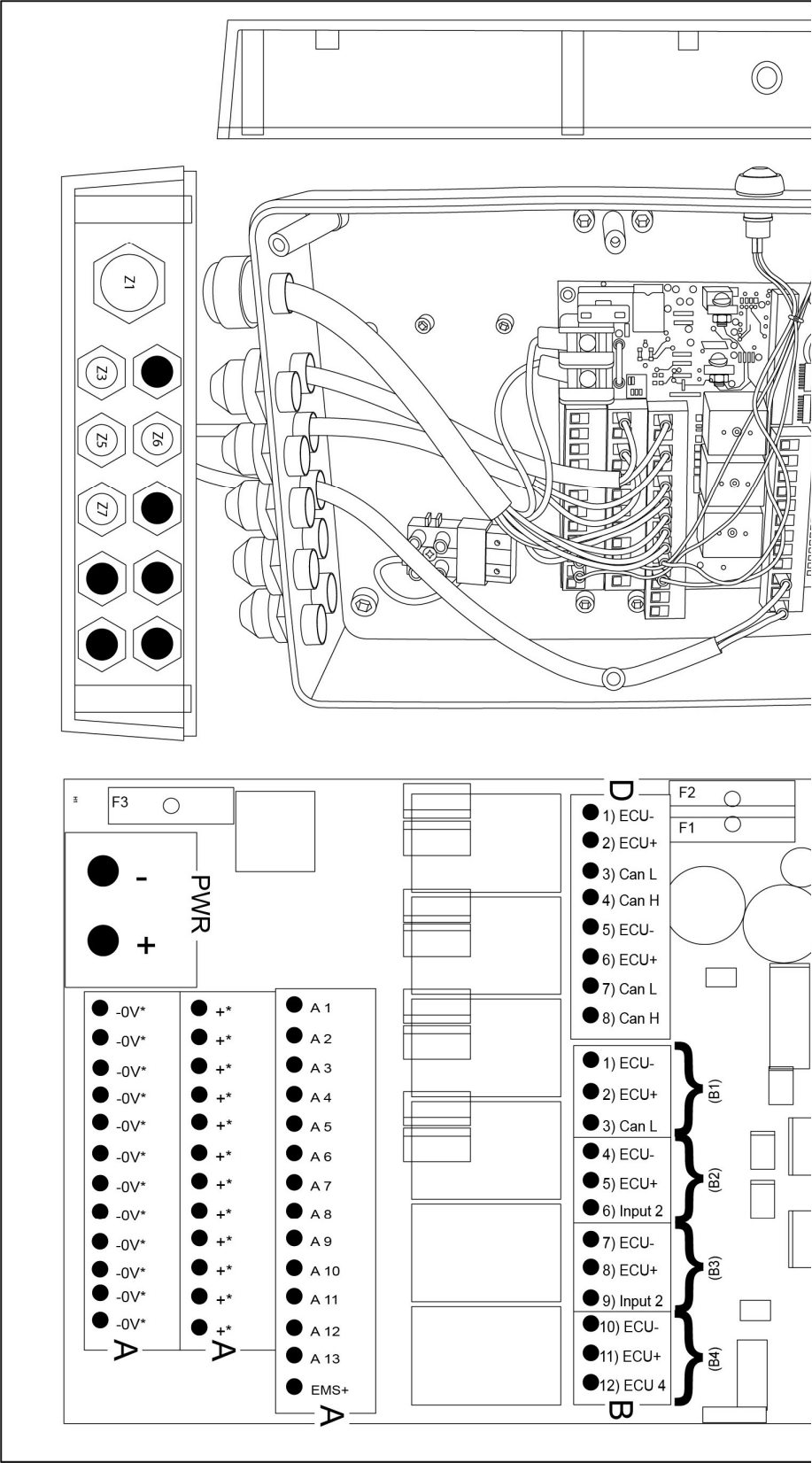
Item	Description
(1)	Switch
(2)	Switch
(3)	Switch
(4)	Switch
(5)	Switch
(6)	Joystick
(7)	Led
(8)	Led
(9)	Led
(10)	Switch

x - Electrical Schematic



Item	Description
(A)	Gland position left (L)
(B)	Gland position bottom (Z)
Connector (2)	Power
Connector (4)	Multicable
Connector (6)	Cable of the Metal Detector (MD)

Metal Detector (MD) control system



n of the implement - Wiring

Function category	Functional description	Multi-cable wire number	Souriau connection	Connection print PCB number IN	Signal type				Wire connections					Comment	Previred	
					In-Dig	In-Ana	Out-D	Out-A	Connection print PCB number OUT	Signal terminal wire colour	Positive terminal wire colour	Negative terminal wire colour	Length			Gland Position
Joystick LED 9	Led Power ON - System Power indicator														Mounted on joystick PCB	
Internal power	0 V power supply for Metal Detector (MD)										JP8_7				Souriau plug - pin A	
Internal power	+ 12 V power supply Metal detector (ON/OFF switch via main relay)										JP2_7				Souriau plug - pin B	
MD input	V5a input from Metal Detector							JP6_3 Orange							Double function MD/Onboard - Souriau plug - pin C	
MD input	V0 input from Metal Detector							JP9_1 Yellow							Double function MD/Onboard - Souriau plug - pin D	
Joystick power	0 V power supply	1	A								JP6_1					
Joystick power	+ 12 V power supply (main relay)	2	B								JP2_1				Multiple cores to ensure power supply	
Joystick power	+ 12 V power supply (main relay)	3	C								JP2_2					
Joystick power	+ 12 V power supply (main relay)	4	D								JP2_3					
Joystick power	+ 12 V power supply (main relay)	5	E								JP2_4					
Joystick power	+ 12 V power supply (main relay)	6	F								JP2_5					
Joystick power	+ 12 V power supply (main relay)	7	G								JP2_6					
Joystick Led 7	MD ON Green LED placed in Joystick Cabinet	8	H												Status LED from MD -Souriau plug - pin E Coverage for LED when delivered without MD	
Joystick Led 8	MD STOP Red LED placed in Joystick Cabinet	9	J												Status LED from MD -Souriau plug - pin E Coverage for LED when delivered without MD	
	Clutch Guard - Yellow LED placed in Joystick	10	K												Status LED from MD - Souriau plug - pin G	
Joystick switch 10	FCT Onboard ON/OFF (main relay)	11	L					JP6_2							Supply for JP1 & JP2	
Joystick 6.3 / (6.7)	Joystick Left V4B / (V1A)	12	M			2		JP9_4	JP3_3 / (5)	Brown		Blue	1 m (39 in)	Z11 / (Z18)	V4B / (V1A)	2x0.75 mm² with valve connector
Joystick 6.4 / (6.8)	Joystick Right V4A / (V1B)	13	N			2		JP9_5	JP3_4 / (6)	Brown		Blue	1 m (39 in)	Z12 / (Z17)	V4A / (V1B)	2x0.75 mm² with valve connector
Joystick 6.2 / (6.6)	Joystick Down V3B / (V2A)	14	P			2		JP9_7	JP3_7 / (9)	Brown		Blue	1 m (39 in)	Z13 / (Z16)	V3B / (V2A)	2x0.75 mm² with valve connector
Joystick 6.1 / (6.5)	Joystick Up V3A / (V2R)	15	R			2		JP9_8	JP3_8 / (10)	Brown		Blue	1 m (39 in)	Z14 / (Z15)	V3A / (V2R)	2x0.75 mm² with valve connector

9-13

Metal Detector (MD) control - Wiring

Function category	Functional description	Souriau connection	Signal type				Terminal number	Signal terminal wire colour	Positive Terminal wire colour	Negative Terminal wire colour	Wire connections				Label	Comment	Prewired
			In-Dig	In-Ana	Out-D	Out-A					Type comment	Length	Gland Position				
Machine	SP1 - MD release					1	Blue	Brown			4 m (157 in)	Z3	SP1	2x0.75 mm² with valve connector	Yes		
Hydraulic	V8 hydraulic valve					1	Blue	Brown			1 m (39 in)	Z5	V8	2x0.75 mm² with valve connector	Yes		
					1												
Joystick	Green LED placed in Joystick Cabinet (7)	E			1		5					Z1		7x1.5 mm² with Souriau plug - pin E	Yes		
Joystick	Red LED placed in Joystick Cabinet (8)	F			1		6							7x1.5 mm² with Souriau plug - pin F	Yes		
Joystick	Yellow LED placed in Joystick Cabinet (Clutch alarm)	G			1		Yellow with Green				1.5 m (59 in)			7x1.5 mm² with Souriau plug - pin G	Yes		
Hydraulic	V5a - Valve	C			1		3							7x1.5 mm² with Souriau plug - pin C	Yes		
Hydraulic	V0 - Valve	D			1		4							7x1.5 mm² with Souriau plug - pin D	Yes		
Job computer box	Metal detector function activated LED				1									LED placed in Job computer blackbox	Yes		
Job computer box	De-activation of metal detector-function		1											Push switch placed in Job computer blackbox	Yes		
Machine	Clutch sensor (S3)		1				Black	Brown	Blue		5 m (197 in)	Z9	S3	Inductive Sensor	N		
			1														
Machine	Metal detector		1				Brown		Blue (exterior fuse)		5 m (197 in)	Z6	MD	2x0.75 mm² with connectors and shield	No		
Machine	Metal detector/ Rock detector 2		1														
Machine	Clutch sensor reference (S2)		1				Black	Brown	Blue		5 m (197 in)	Z8	S2	Inductive Sensor	No		
Machine	Reverse sensor (S1)		1				Brown				5 m (197 in)	Z7	S1	REED Sensor	Yes		
Power	Supply power Wire 1	A					Power -				1.5 m (59 in)	Z1		7x1.5 mm² with Souriau plug - pin A	Yes		
Power	Supply power Wire 2	B					Power +							7x1.5 mm² with Souriau plug - pin B	Yes		
Power	0 V power supply for monitor																
Power	+ 12 V power supply for monitor																
COM	CAN Low						CAN Low										
COM	CAN High						CAN High										
Fuse	Fuse 10 A for sensor input B1-4						F2										
Fuse	Fuse 10 A for output A1-10						F3										

Tires

The implement is as standard equipped with wide tires which provide extra large carrying capacity and thus a low ground pressure.

The tire pressure for your forage harvester is stated in the table below:

Tire dimension	Standard 14.0/65 – 16/10	Optional 19.0/45 – 17/10
Recommended tire pressure with trailer	Maximum 2.8 bar (40.6 psi)	Maximum 2.25 bar (32.6 psi)
Recommended tire pressure without trailer	Minimum 0.8 bar (11.6 psi)	

The tire pressure for your forage harvester with rubber wheels for pickup is stated in the table below:

Tire dimension	3.50-6/ 4
Recommended tire pressure	3.0 bar (43.5 psi)

NOTICE: *If a lower tire pressure is used than recommended the life of the tires will be reduced.*

Minimum tire pressure can be used when you drive in areas where extra large carrying capacity is required (meadows, sandy areas or the like).

NOTE: *Check the tire pressure regularly.*

10 - ACCESSORIES

General information

Accessories or optional equipment listed hereafter may be part of the standard equipment for certain countries. Some of these accessories or options may not be available in certain markets.

Tow hitch

Implements can be supplied with a hydraulic hitch for the connection of trailers. The maximum draw eye pressure is **2000 kg (4409 lb)**. The maximum total weight of trailer being towed is **15000 kg (33069 lb)**.

The hydraulic hitch (2) has been fitted with a tow hitch eye (1), that can be hydraulically raised and lowered by the double acting cylinder (3). The hoses from the cylinder (3) must be connected to a vacant valve on the valve block. The hydraulic hitch (2) is then operated using one of three toggle switches located at the front of the control box.

The implement must be reversed up to the drawbar of the trailer in cases where a trailer is being connected. The tow hitch eye (1) must be lowered to pick up the hitch eye of the trailer.

The trailer is raised using the hydraulic cylinder (3) until it reaches its block position. A hydraulic lock valve (5) fitted to the cylinder (3) ensures that the tow hitch eye (1) remains in its raised position.

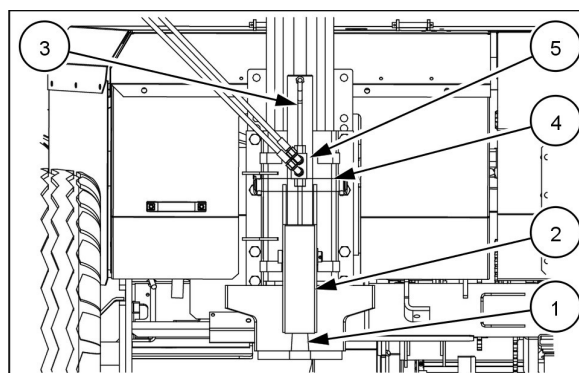
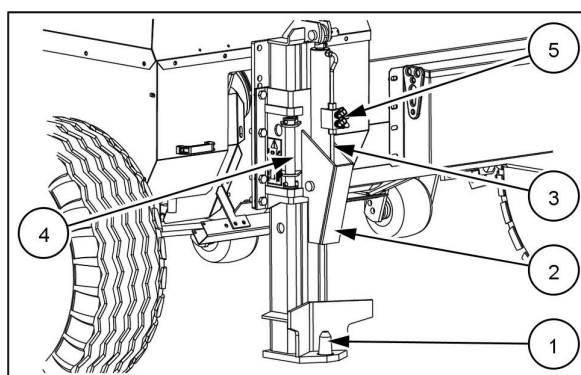
If the trailer has been fitted with a connector for lighting and hoses for tipping and braking, these must be fitted subsequently.

NOTE: When driving on public roads with a trailer connected to the hydraulic hitch (2), the locking pin (4) must be removed from its holder and be placed through the frame on the hydraulic hitch (2), so that tow hitch eye (1) is mechanically locked. This must be done in order to comply with the applicable road traffic legislation. The

trailer is unhitched in the following way:

1. Position locking pin (4) so that it locks the tow hitch eye (1).
2. Remove the locking pin (4) and place it in the holder of the hydraulic hitch (2).
3. Lower tow hitch eye (1) by activating cylinder (3). Then the trailer will be released.

NOTE: Remove any connectors for lights and hoses for tipping and braking where fitted.



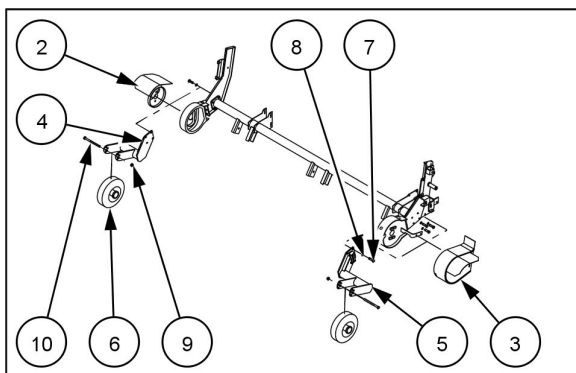
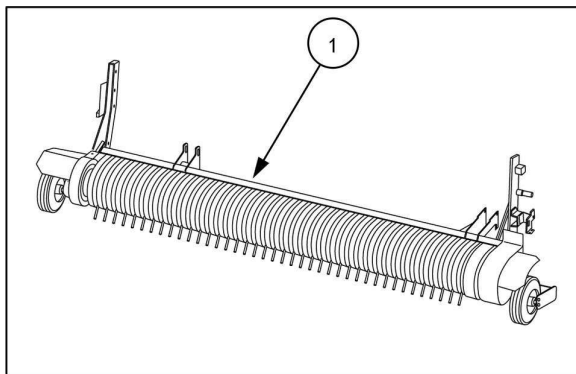
Side mounted support wheels for pick-up

This accessory (1) is composed by side mounted rubber wheels to provide better ground following during pick-up operation.

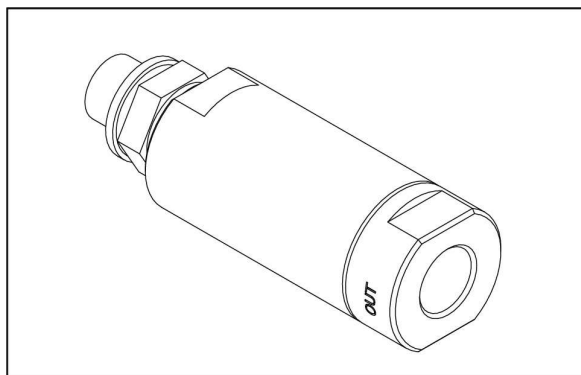
It is composed by the following parts:

- 1x 3750-853x (2)
- 1x 3750-854x (3)
- 1x 3750-856x (4)
- 1x 3750-857x (5)
- 2x 3060-940x (6)
- 8x 1213-5424 (M16-45) (7)
- 8x 1242-5421 (17-26)(8)
- 2x 1220-5321 (M16) (9)
- 2x 1214-5626 (M16-220) (10)

Assembly the side mounted support wheels as shown in the image.



Inline hydraulic filter The Inline hydraulic filter is an additional **40 µm** filter, which shall be mounted before tractor connector, to provide additional protection for hydraulic system.



Slow-Moving Vehicle (SMV) sign

▲ WARNING

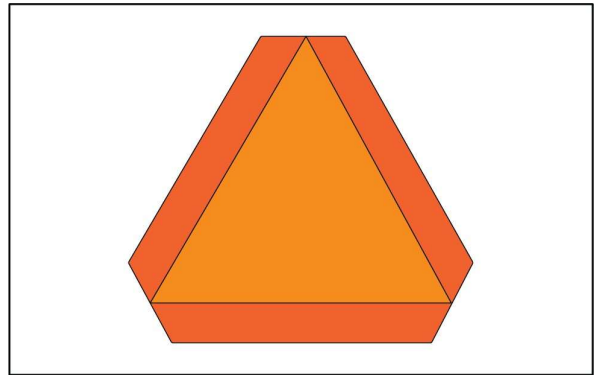
Collision hazard!
Collision of high speed road traffic and slow moving machines can cause death or personal injury. On roads use transport lighting according to local laws. Make sure the Slow Moving Vehicle (SMV) emblem is visible. Failure to comply could result in death or serious injury.

The Slow-Moving Vehicle (SMV) emblem and the mounting bracket are furnished as optional equipment.

Used for extra visibility and width definition to passing vehicles and to indicate a possible slower rate of speed than the posted speed limit.

Some states and provinces require SMV emblem on machines traveling at speeds under **40 km/h (25 mph)**.

Consult local regulations for specific information and mounting requirements.



Load sensing kit

The Load Sensing (LS) kit (1) is a hydraulic system that controls the quantity and pressure of oil fed to the receiver. The LS kit gives an impulse to the tractor system, when the implement needs the right pressure and the right amount of oil.

The benefits of the load sensing kit are:

- Fuel saving.
- Reduction of pump wear.
- Oil overheating prevention.

The LS kit is composed by the hose for the LS control with the fittings for mounting it, and couplers for mounting the hoses on the tractor.

The hoses for pressure (P) and tank (T), which shall be mounted in LS port P and T, are with 1/2" couplers for the tractor.

The couplers have to be changed to fit the LS couplers on the tractor.

In the kit there are fittings and couplers for P and T. If your tractor is using a different coupler, it should be possible to get it at your dealer.

NOTICE: The control box has to be switched off in transport on roads to avoid movement of implement by accident.

To mount the Load Sensing kit, proceed as follows:

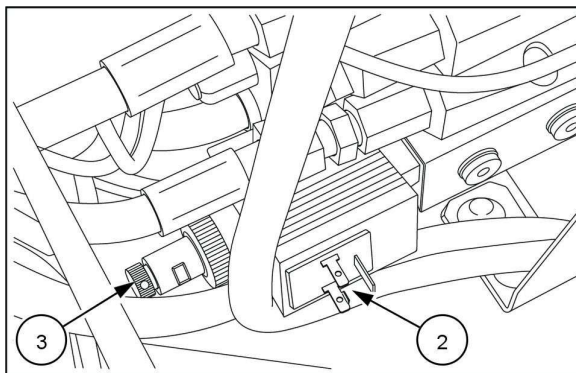
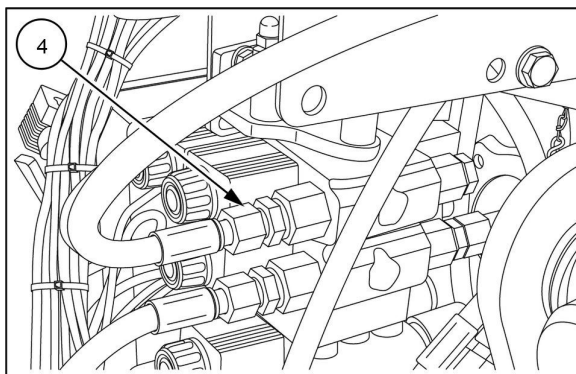
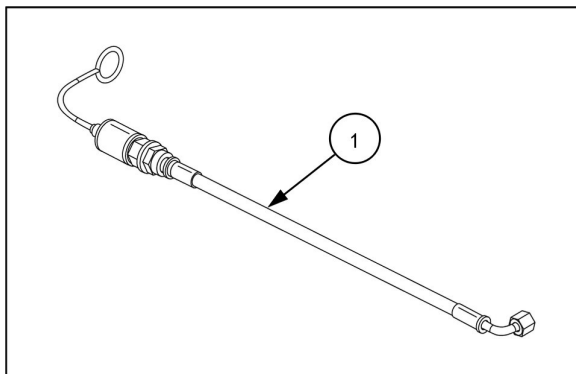
1. Mount the hose of the LS kit on the free valve (4) of the hydraulic block of the implement.

NOTE: Start by the tractor with the long hose and if it is not long enough, extend it with the short hoses in the kit.

2. Remove the Hirishman connector (2) from the start valve.
3. Place the Hirishman connector (3) on the valve block where the hose has been mounted.

NOTE: It has to be mounted opposite the hose.

4. Make sure that the screw (3) on the start valve is turned in.
5. Turn on the control box and activate the button on it to start work with the implement.



11 - FORMS AND DECLARATIONS

European Community (EC) Declaration of Conformity

ACCORDING TO DIRECTIVES 2006/42/EC & 2014/30/EU

Inside the European Community and for some specific countries, an EC Declaration of Conformity is separately delivered with your implement. The EC Declaration of Conformity is the manufacturer's declaration about equipment compliance to relevant European Union (EU) provisions.

Store the EC Declaration into a safe place like the storage box for your operator's manual. Local authorities may require you to show this document in order to assure compliance of your equipment.

Translation of this declaration in your own country language is provided on the original document.

For your better and easier understanding of the document, you will find the text reproduced hereafter.

EC/EU Declaration of Conformity
According to Directives 2006/42/EC & 2014/30/EU

We, declare under our sole responsibility, that the
product:

Agricultural machine

Commercial Name KONGSKILDE - SEKO SRL and Model: ...

Denomination: Harvester

Type (Specify any variant/version): ...

Planning key: ...

Serial Number: ...

to which this declaration relates, fulfills all the relevant provisions of
Directives 2006/42/EC & 2014/30/EU, amended by: -

For the relevant implementation of the provisions of the Directives, the
following (harmonized) standards have been applied:

- EN ISO 12100:2010

Name, position, and address of the authorized person to compile the
Technical Construction File:...

Place and date of the declaration:

Signature, name and position of person empowered to draw up the EC
Declaration of Conformity:

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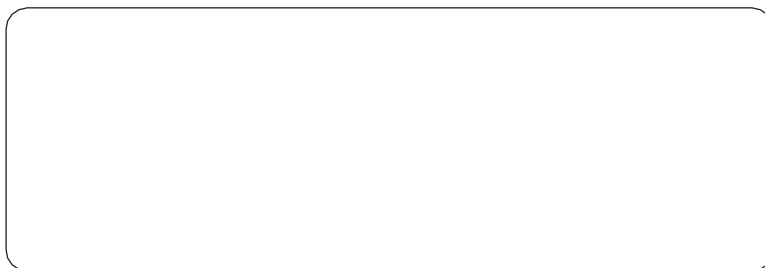
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The manufacturer and its authorized representative reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at the time of publication, but are subject to change without notice.

Availability of some models and equipment builds varies according to the country in which the equipment is being used. For exact information about any particular product, please consult your Kongskilde - Seko Srl dealer.



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