

ORIGINAL INSTRUCTIONS- according to Directive 2006/42/EC, Annex I 1.7.4.1

# OPERATOR'S MANUAL

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**Z 665 H**

Tedder

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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 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 and your KONGSKILDE 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 parts and accessories have been specifically designed for KONGSKILDE implements.

We would like to point out that "non-genuine" parts and accessories have not been examined and released by KONGSKILDE. 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 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 parts only. These parts are covered by our warranty and will give you the best performance.

See the parts catalog or browse the KONGSKILDE 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**

Your implement is warranted according to legal rights in your country and the contractual agreement with the selling dealer. No warranty shall, however, apply if the implement has not been used, adjusted and maintained according to the instructions given in this operator's manual.

It is prohibited to carry out any modifications to the implement unless specifically authorized, in writing, by a KONGSKILDE representative.

## **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**

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

The KONGSKILDE rotary tedder can only perform the usual work in agriculture. Only connect the rotary tedder to a tractor which 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 rotary tedder.

The implement may only ted, turn, clear the field boundaries, spread windrows and small night swaths of green forage (alfalfa, clover, grass, etc.), hay and straw.

Consider any other use contrary to the intended use. The manufacturer is not responsible for any damage that re-

sults from the improper use of the implement. The user bears that risk.

Always observe the following safety instructions as well as the common rules concerning technical safety, working practices and road safety.

If you 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 this.



## **Prohibited usage**

Sweeping of for example farmyards with the tine arm assembly or brooms fastened to these is not allowed. There is a risk that for example stones are thrown out from the working area of the implement with danger of personal injury or damage to objects.

Any use beyond the intended use is regarded as foreseeable misuse.

## 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 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 warranty null and void.

## Manual scope and required training level

### Introduction to this manual

This manual gives information about the use of your KONGSKILDE machine as intended and under the conditions foreseen by KONGSKILDE 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 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 machine.

### Normal operation

Normal operation consists of the use of this machine for the purpose KONGSKILDE 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 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 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 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 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 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 in this manual, assembly instructions, and/or other company literature

Repair activities restore proper function to a KONGSKILDE 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 in the service manual.

### Before you operate

Read this manual before you start the engine or operate this KONGSKILDE machine. Contact your KONGSKILDE 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 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 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 PIN plate.

Provide your KONGSKILDE dealer with the model and the PIN when you order parts.



ZEIL18HT00546EA 1

- |     |                           |      |                                     |
|-----|---------------------------|------|-------------------------------------|
| (1) | Company name              | (7)  | Year of construction                |
| (2) | Brand identification logo | (8)  | Made in (country of origin)         |
| (3) | Mail address              | (9)  | Maximum weight                      |
| (4) | Type / Variant / Version  | (10) | Product Identification Number (PIN) |
| (5) | Model year                | (11) | Model                               |
| (6) | Certification mark        | (12) | Designation                         |

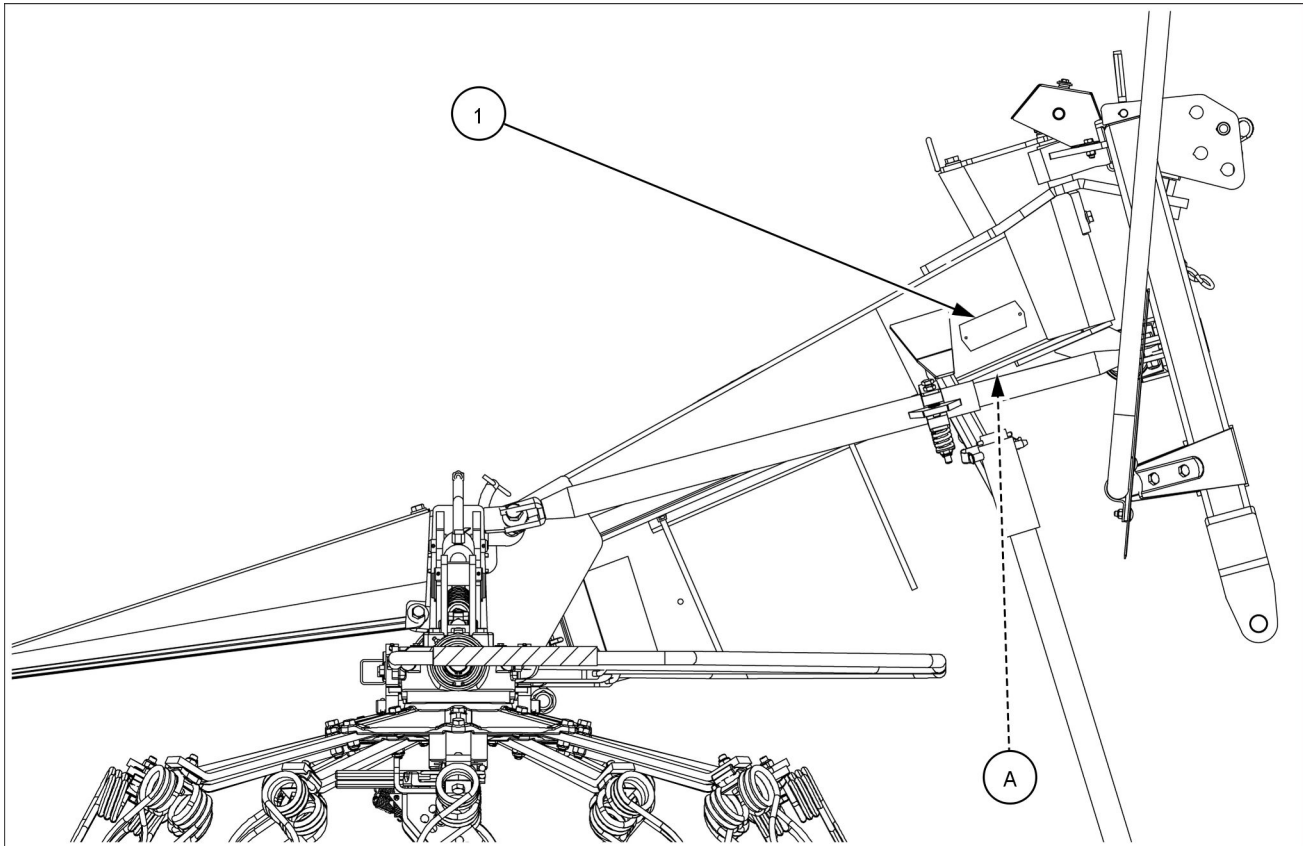
## Product identification

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

**NOTE:** The following figure indicates the PIN plate localization on Z665H.

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

The PIN is also engraved on the chassis at (A) under the frame of the implement.



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

**Model**

\_\_\_\_\_

**Product Identification Number (PIN)**

\_\_\_\_\_

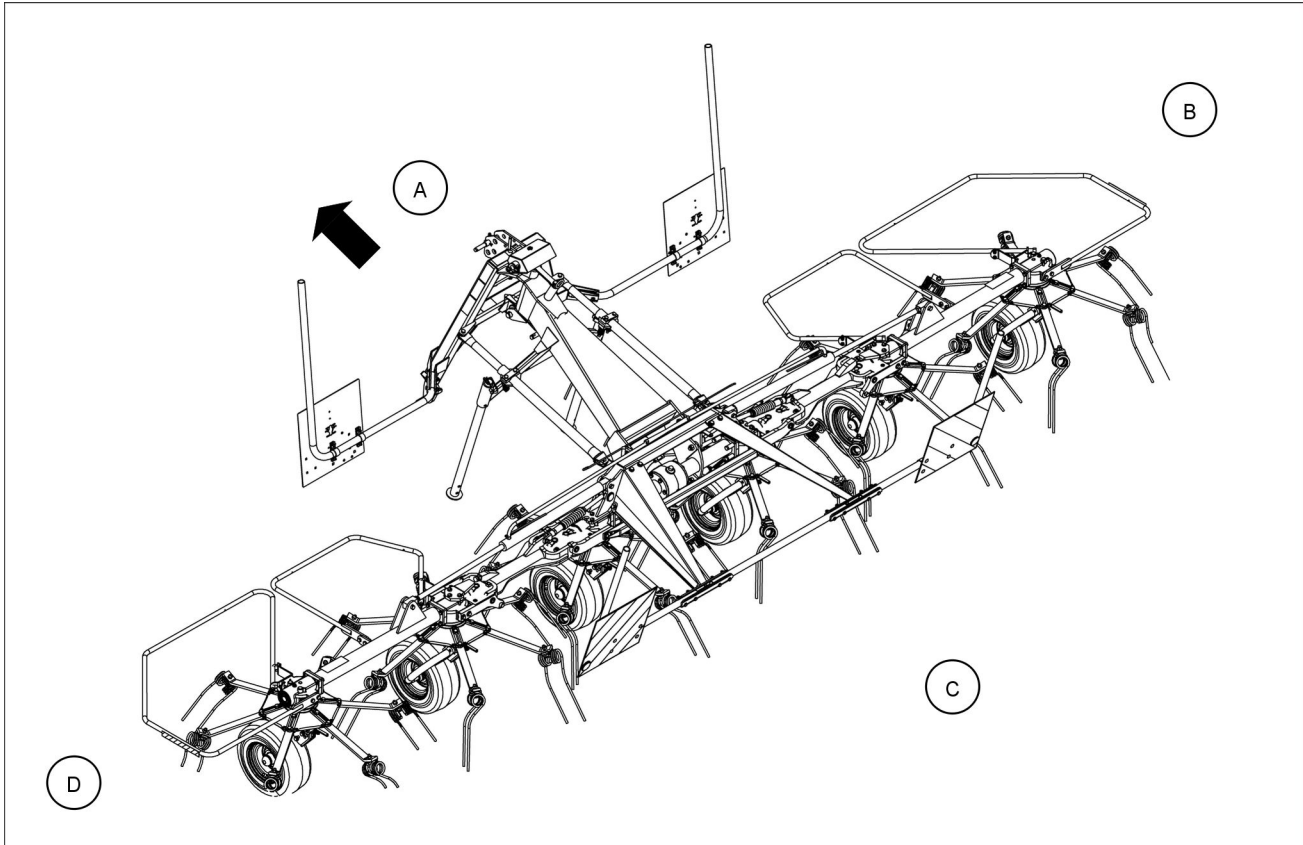
## **Operator's manual storage on the machine**

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.

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 the operator's manual, relevant to the direction of travel during working operation.



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

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



## 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

Most farm machinery accidents can be avoided by 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.
- 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.
- Never let the implement run without supervision.
- Always keep a first aid kit handy.
- Take the necessary precautions (for example assistance) to always be aware of the possible presence of bystanders and pets.
- Keep children away from and off the implement at all times.
- Do not use this implement as a lift, ladder or platform to work at heights.
- Before you work on 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.
- Keep hands away from moving parts of the implement.
- 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.

## 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.

W0012A

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

## Legal 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.

## 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, 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 Take-Off (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

##### **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.**

W0089A

#### 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.**

W0081A

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 the 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.

### 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 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.

Mounted 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**

#### **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.**

W0304A

### **WARNING**

#### **Rotating parts!**

**Keep clear of all drives and rotating components.**

**Failure to comply could result in death or serious injury.**

W1101A

**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.

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

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.

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.

While in operation, the transportation of people on the top of the implement is strictly forbidden.

Never attempt to remove residues from the implement while the implement runs. Such an imprudence could cost life or limb. Always disengage the Power Take-Off (PTO) shaft mechanism, switch OFF the tractor engine and apply the parking brake before you remove residues.

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.

Before you raise or lower the implement with the link arms of the tractor, check that nobody is near the implement or touches the implement.

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 the implement with the 3-point linkage 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 the implement keep a safe distance from steep slopes and similar ground conditions, as the ground may be slippery and pull the implement 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.

## 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.**

W0002A

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) shaft 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 shaft and wait until the implement has completely stopped before you open any of the safety guards. There are rotating parts under the safety guards which may continue rotating after the implement has been stopped. Look and listen for evidence of rotating parts before you open any of the safety guards.

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 would decide to keep the tractor engine running after leaving

the tractor cab, then the following precautions must be followed:

- 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 implement 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 parking stand is secured.

When you detach the implement from the tractor:

- Always detach the implement carefully and on a flat surface to prevent damage.
- Make sure that nobody stands in front of the implement.
- Never allow anyone to stand between the tractor and the implement.
- 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.**

W0004A

- 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.
- 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.  
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.

## 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.



NHIL13RB00001AA 1

## **Safety requirements for fluid power systems and components - hydraulic systems**

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 not damaged. Replace immediately damaged components.

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

## Noise emission

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

The noise level of **70 dB** was measured in the cabin of the tractor where the head of the operator is usually situated.

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 cabin that has not a adequate soundproof cabin.

## Vibration levels

Install all revolving parts correctly before you start the implement. An unbalance can create vibrations that damage the implement.

**NOTE:** *You must check that the all part are in the correct position before start the implement.*

**NOTE:** *If the vibrations or the noise of the implement increase considerably during the operation, stop the work immediately. Correct the fault before you continue the work.*



## Implement stability

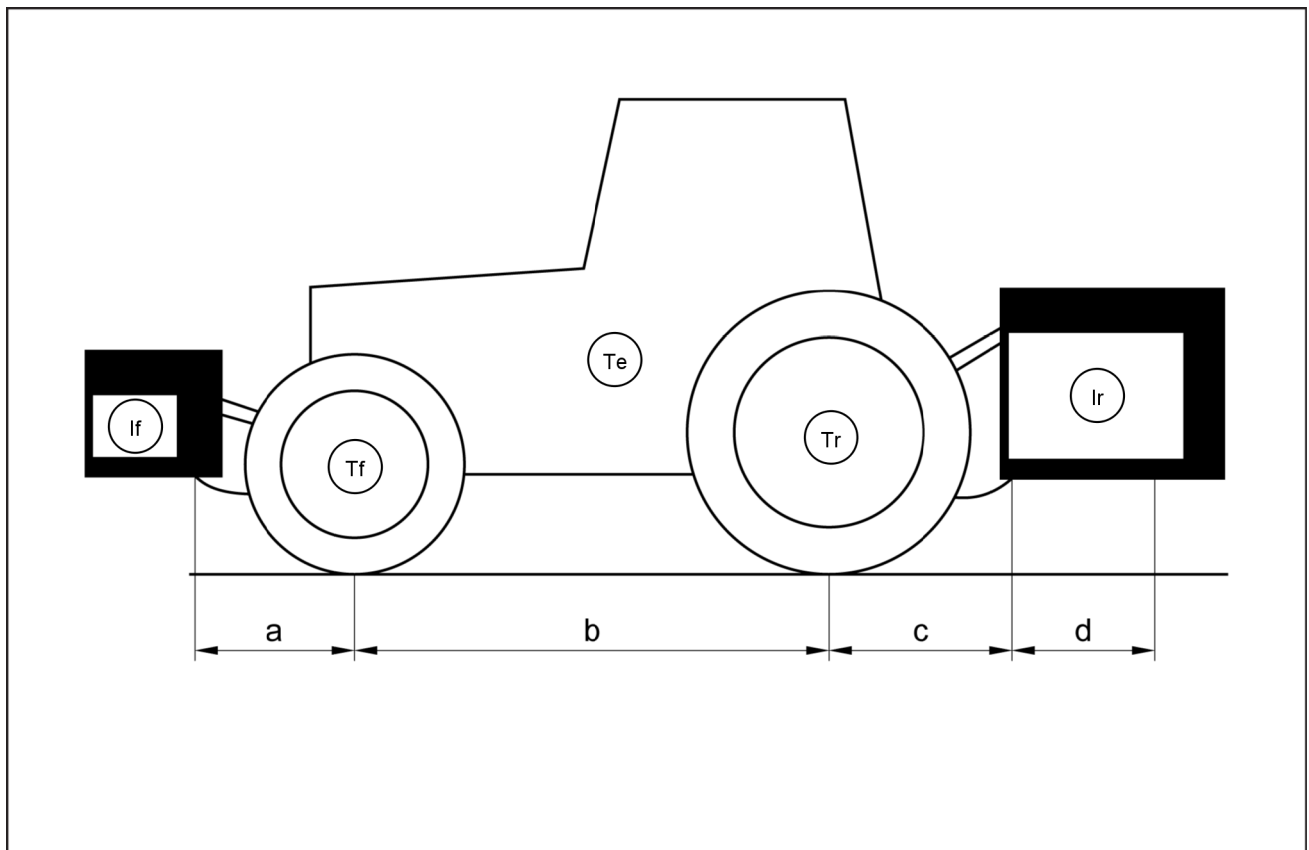
The combination of your tractor and implement can become unstable, due to the additional weight that the implement adds to the tractor.

In order to guarantee stable and safe transport, you must check if you need ballast weights for transport and field work.

You must also check and guarantee that you have at least **20%** from the tractor weight on the front axle.

For rear mounted implements and front-rear combinations, the formula is:

$$I_{f,min} = \frac{[I_r \times (c + d)] - (T_f \times b) + (0,2 \times T_e \times b)}{a + b}$$



ZEIL18HT00277FA 1

**Example of references to stability of the combination tractor – implement**

### List of signs

Te [kg]	The tractor own weight.
Tf [kg]	Front axle load with empty tractor.
Tr [kg]	Rear axle load with empty tractor.
Ir [kg]	Total weight of the rear-mounted implement/rear ballast.
If [kg]	Total weight of the front-mounted implement/front ballast.
a [m]	Distance between the center of gravity of the front-mounted implement/front ballast and the middle of the front axle.
b [m]	The tractor wheel distance.
c [m]	Distance between the middle of the rear axle and the middle of the link arm balls.
d [m]	Distance between the middle of the link arm balls and the center of gravity of the rear mounted implement/rear ballast.

## 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 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 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 strongly recommends that you return all used batteries to a KONGSKILDE dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.



NHIL14GEN0038AA 1

### Mandatory battery recycling

**NOTE:** The following requirements are mandatory in Brazil.

Batteries are made of lead plates and a sulfuric acid solution. Because batteries contain heavy metals such as lead, CONAMA Resolution 401/2008 requires you to return all used batteries to the battery dealer when you replace any batteries. Do not dispose of batteries in your household garbage.

Points of sale are obliged to:

- Accept the return of your used batteries
- Store the returned batteries in a suitable location
- Send the returned batteries to the battery manufacturer for recycling

## 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 your implement and note the significance and location of all safety signs before you operate your implement. Read all the safety signs 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.

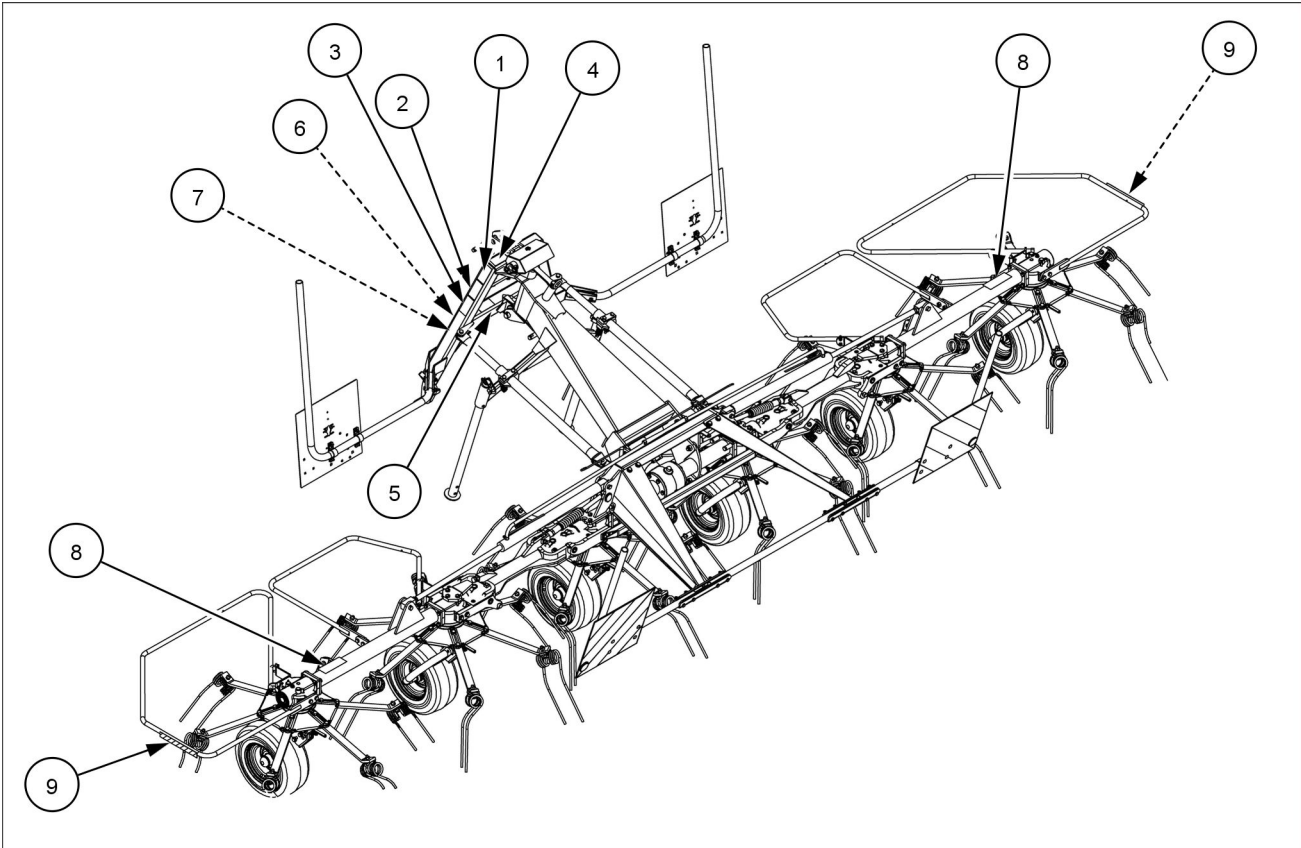
Replace all safety signs that are damaged, missing, painted over, or illegible. If a safety sign is on a part that you or your dealer replaces, make sure that you or your dealer install the safety sign on the new part. Contact your dealer for the replacement of the safety signs.

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.

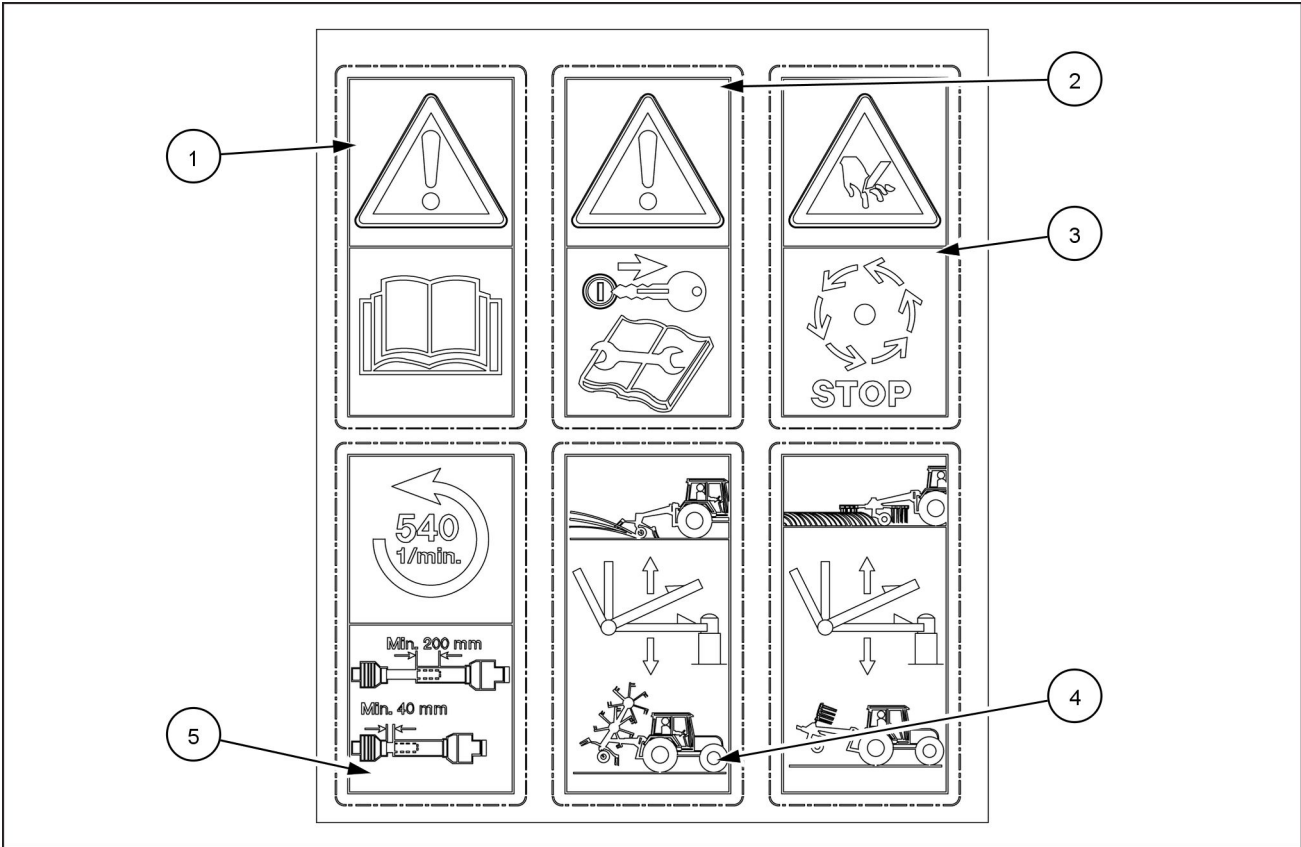


Safety signs that display the “Read service manual” symbol direct you to the service manual. If you doubt your ability to perform service operations, contact your dealer.





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811650220 2

Part number: 1650220

## Safety sign (1)

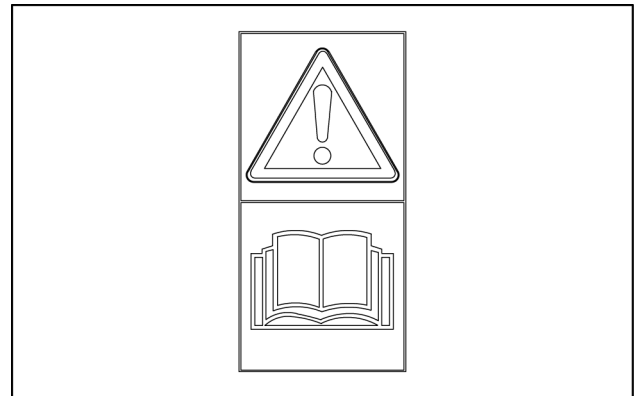
### **⚠ WARNING**

**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.**

W0188A



1650220-01 3

Read the operator's manual and the safety instructions to operate the implement and to avoid unnecessary accidents and damages to the implement.

Part of part number: 1650220

## Safety sign (2)

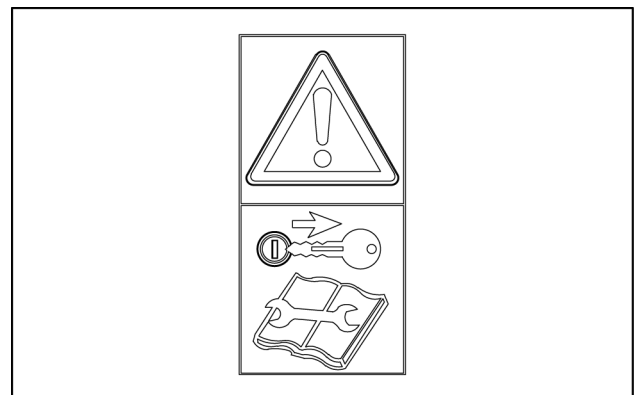
### **⚠ WARNING**

**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.**

W0047A



1650220-02 4

Always stop the tractor engine before 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 of part number: 1650220

### Safety sign (3)

#### ⚠ WARNING

**Pinch hazard!**

**Wait for all movement to stop before you service or adjust the machine or equipment.**

**Failure to comply could result in death or serious injury.**

W1420A

Moving parts are dangerous and if the moving parts come in contact to your body the moving parts can pinch your body.

The hazard may cause severe injuries to the entire body, with possible lethal effect.

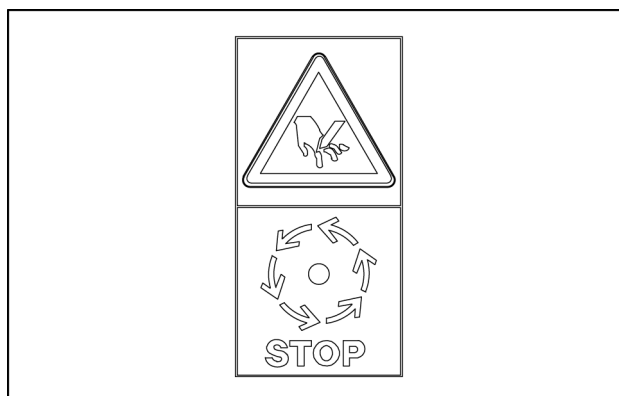
To avoid the hazards, wait until all moving elements have completely stopped before you touch the moving elements.

Part of part number: 1650220

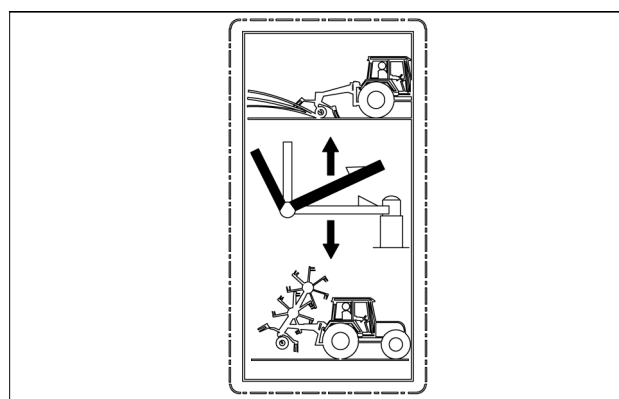
### Safety sign (4)

During the work in the field, open the lock. During the transport, engage the lock.

Part of part number: 1650220



81PR80-0859\_1 5



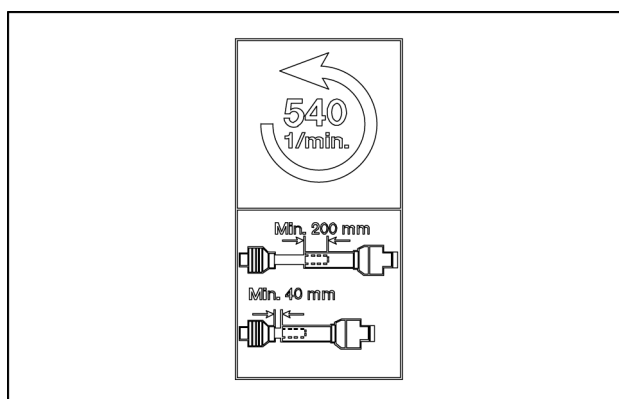
1650220-05 6

### Safety sign (5)

The sign indicates the maximum Revolutions Per Minute (RPM) and the direction of rotation of the Power Take-Off (PTO) shaft.

Reference to the minimum overlapping on the profile tubes and the minimum distance required not to bottom the shaft.

Part of part number: 1650220



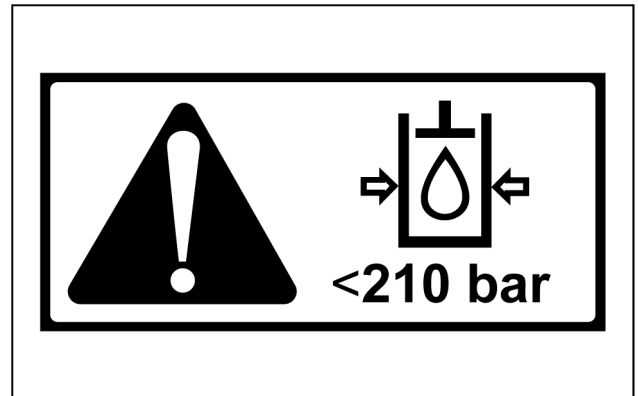
81PR80-0859\_4 7

### Safety sign (6)

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.

Part number: 81PR80-0832

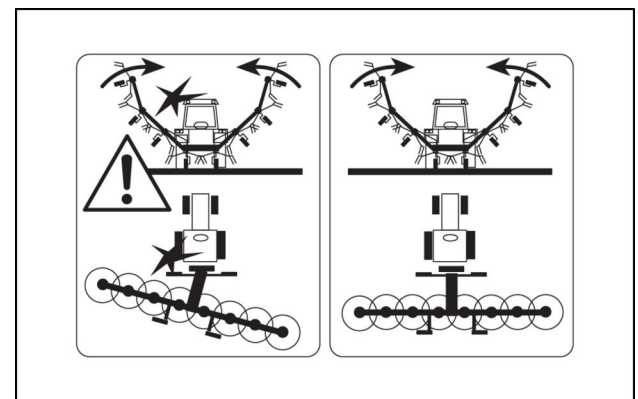


81PR80-0832 8

### Safety sign (7)

Warning: Folding.

Part number: 81PR80-0536



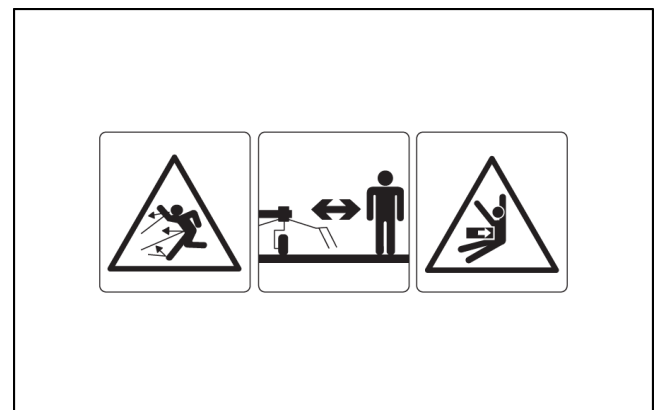
81PR80-0536 9

### Safety sign (8)

Keep a safe distance from the rotating parts of the implement.

Never stand in the swivel and folding area of the rotors.

Part number: PR80-0535

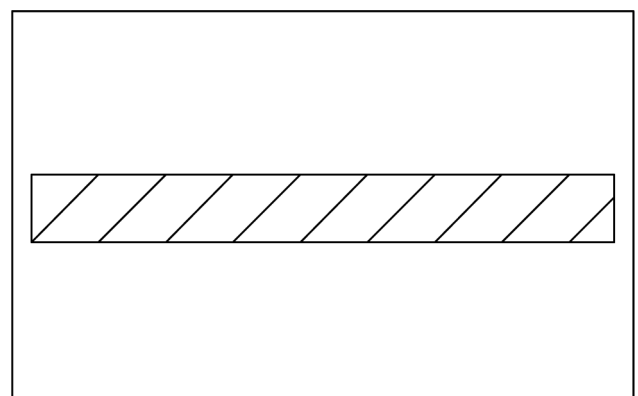


PR80-0535 10

### Safety sign (9)

Safety guard warning

Part number: PR80-6609



PR80-6609 11





## **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

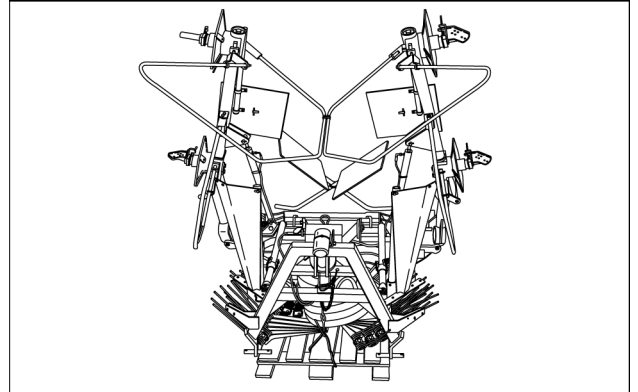
### Commissioning operation

The implement is provided on pallet with:

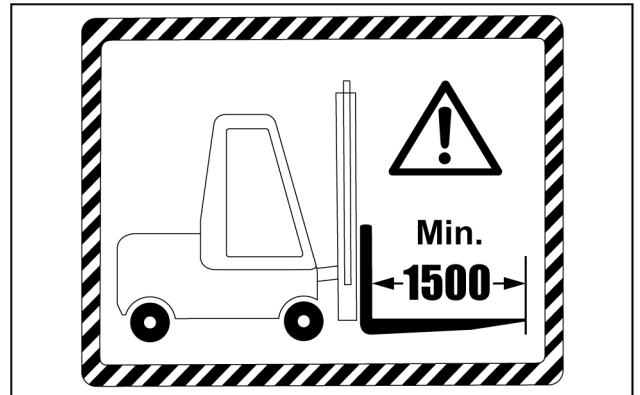
- The right-hand side rotor and left-hand side rotor assembled.
- The support wheel assembled.
- The outer rotor raised.
- The outer guard elements bundled.
- The Power Take-Off (PTO) shaft and outer support wheels loose.
- The hardware in a plastic bag.

The tedder is completely assembled except the frame with warning panels and the tine arms. You can find the loose parts and the plastic bag with hardware wired to either the pallet or machine in a space saving way.

Raise the implement on a smooth surface with a fork lifter with long forks.



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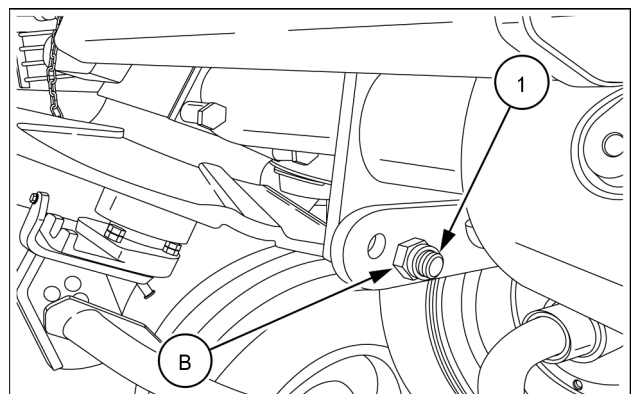
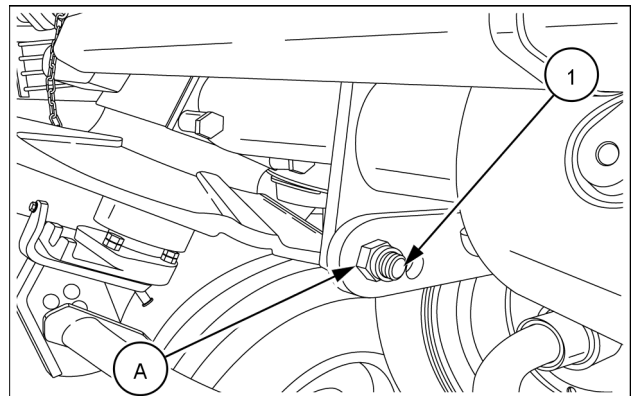


ZEIL17HT00137AA 2

## Set-up instructions

To set-up the implement proceed as follows:

1. Remove the wires that secure all the loose single parts from both the pallet and the implement.
2. Lift the implement at the headstock. Use a suitable lifting device.
3. Remove the pallet from the rear side of the implement.
4. Position the left-hand side and the right-hand side support legs.
5. Lower the implement.
6. Connect the implement to the three-point headstock of the tractor.
7. Connect the hydraulic hoses of the implement to the tractor hydraulic system.
8. Connect one end of the rope to the Hydrostop system.
9. Lift the implement slightly.
10. Act on the tractor hydraulic system to wing out slowly the lateral rotor assembly.
11. Set all the support wheels in working position.
12. Install the safety panels on the left-hand side and on the right-hand side.
13. Move the bolt **(1)** of the arms from the transport position **(A)** to the working position **(B)**.



1. Install the rotor arms. See Page **4-3**.

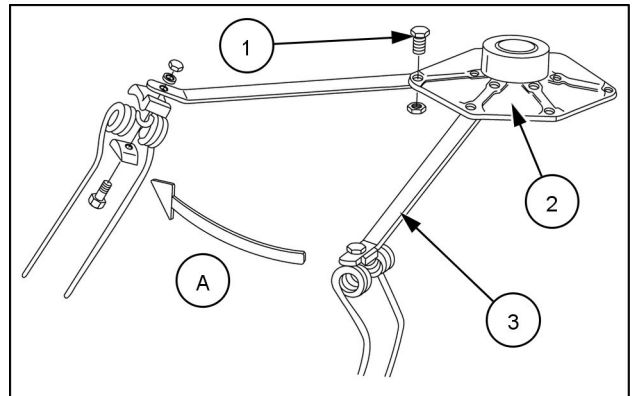
## Installation of the rotor arms

To install the pre-assembled rotor arm (3) on to hub (2), use:

- Install the hexagonal head bolt and the locknuts for each arm.
- Torque the bolt (1) to **85 N·m (752 lb in)**.

**NOTE:** Record the sense of rotation (A) of the rotors.

After the installation of the rotor arms check that the arms of the inner and outer rotors are perfectly aligned to each other.



ZEIL18HT00737AA 1

You can change the tine angle from the standard value.  
See Page **6-2**.

## Starting the unit

### Connection to the tractor

#### WARNING

**Crushing hazard!**

Use care when you connect and disconnect the machines. Never stand between the tractor and the implement when you connect the link arms.

Failure to comply could result in death or serious injury.

W1545A

#### WARNING

**Crushing hazard!**

Do not stand or place any body part between the implement and a moving tractor. Stop the tractor engine and set the parking brake before you attach cables and hoses.

Failure to comply could result in death or serious injury.

W1544A

#### WARNING

**Hitching hazard!**

Always keep the area between the tractor and the implement clear of all persons while the tractor or three-point hitch is in motion. Lock the tractor transmission in Park and engage the parking brake(s) before you allow anyone to complete hitching or unhitching.

Failure to comply could result in death or serious injury.

W1540A

## Connection of the implement to the tractor

- When you attach the implement to the three-point linkage of the tractor, set the all control levers in a security position. Unintended lifting or lowering must be impossible.
- When you attach the implement to the three-point linkage of the tractor, make sure that the tractor and the implement are compatible.
- The area of the three-point linkage is a danger area for squeezing and shearing.
- When you operate the control levers for the three-point linkage from outside the cabine of the tractor, never stay between the tractor and the implement.
- Make sure that during the transport position of the implement, the three-point linkage of the tractor is lock from the lateral movement.
- When you drive on public roads with the implement lifted, make sure that the lifting control lever is locked against unintentional lowering.

To connect the implement to the tractor:

1. Connect the lower hitch points to the bottom pins of the headstock (category II outside and category I inside).
2. Secure with the safety pin.
3. Connect the upper hitch point to the headstock so the frame is nearly vertical.

## Power Take-Off (PTO) shaft connection

**NOTICE:** To install and remove the PTO shaft, stop the engine.

**NOTICE:** Only use the supplied PTO shaft or the PTO shaft that the manufacturer approve.

Install the PTO shaft with the radial pin clutch toward the tractor.

Adjust the length of the PTO shaft to the tractor before you perform the following steps. If you use the implement with different tractors, check that the PTO shaft has the correct length.

**NOTICE:** The safety guards on the tractor side and on the implement side must be intact.

1. Release the PTO shaft from the support chain.
2. Push the PTO shaft onto the tractor PTO shaft until you engage the locking balls.
3. The safety chain secure the safety guard of the PTO shafts on the tractor side. On the implement side there is a full-covering protection. The clamp secure the full-covering protection.
4. Press the chain pole after the installation of the PTO retaining chain.

**NOTICE:** The chain secure the safety guard of the PTO shaft.

## Hydraulic connections

The hydraulic system works under a high pressure.

Connect the hydraulic hoses to the hydraulic rams and motors according to the advice in the instructions.

When you fit the hydraulic hoses to the tractor hydraulic sockets, always ensure that the hydraulic system at the tractor as well as at the implement side is without pressure.

To avoid wrong hydraulic connection, mark sockets and plugs or use a color code. This helps to prevent contrary function (lifting instead of lowering or vice versa) and reduces the danger of accident.



## Power Take-Off (PTO) shaft – Shorten

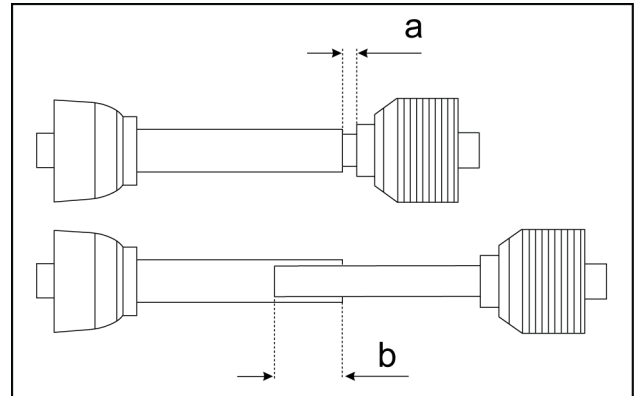
### Power Take-Off (PTO) shaft length

**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 (7.87 in)** during normal operation (Top Safe extension links in the normal position).
- There must be a minimum of **40 mm (1.6 in)** of free PTO shaft length **(a)** to prevent the shaft from bottoming out.



NHIL12HT00307AA 1

### 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 bottom out in this position. If the PTO shaft bottoms out in this position or if the free length is less than **40 mm (1.6 in)**, proceed with the procedure to shorten the PTO shaft.

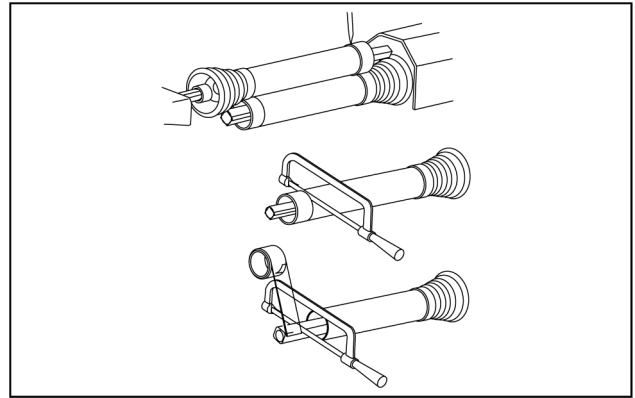
## Shortening the PTO shaft

To shorten the PTO shaft proceed as follows.

1. Fasten the PTO shaft half parts to the PTO (on the tractor) and the PIC (on the implement). The PTO 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 (7.87 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 **40 mm (1.6 in)**. Only cut enough PTO shaft off to achieve this minimum free shaft 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 the tube. Use **NLGI 2**.

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



ZEIL18HT00013AA 2

## Working in the field

To prepare the implement for work in the field:

1. Place the implement on a level ground.
2. Connect the implement to the three-point linkage of the tractor.
3. Connect the hydraulic system to the quick action coupling of the tractor.
4. Raise the outer rotors and pull the rope of the stop valve to allow the oil to flow to the lift rams. Hold taut the rope and set the lever of the tractor control valve to "raising" position.

**NOTE:** *This way the hydraulic system automatically raise the outer rotors and secure them by means of safety hooks.*

5. Lower the outer rotors and pull the rope and keep it taut and set the control lever of the tractor hydraulics to "lowering" position.

## Driving speed and number of revolutions

Choose the driving speed at which the implement picks up the material completely. Choose the number of revolutions on the Power Take-Off (PTO) with you can correctly process the material. This depends on the condition of the material, for example the drier the material, the lower the number of revolutions.

The working speed and the number of RPM during the raking depends on the type and amount of crop, the dry matter content and the ground conditions. The PTO number of revolutions is approximately **540 RPM**

Driving speed on the road never exceed **25 km/h (15.5 mph)** on the road.

Always select the travel speed to allow the implement to take up the crop cleanly. At the same time the correct PTO speed has to be guaranteed in order to avoid damages of the quality of the crop.

In addition the PTO speed must suit at all times the crop to the conditions. The dryer is the crop, the lower should be the PTO speed.

## Tedding / spreading swaths

When you spread swaths make sure that one of the swaths is between the tractor wheels.

Always select the travel speed according to the quality of the crop to be handled. The PTO speed should be approximately **540 RPM**.

To achieve a clean scatter pattern it may be necessary to mount the implement offset on the tractor.

In any case the swaths should be so arranged in relation to the rotor pairs that the tractor wheels do not drive over the crop.

### Turning

To prevent leaf damage losses when you turn the crop already spread, select a low PTO speed while at the same time you increase the forward speed.

To make sure that the ratio between travel and PTO speed is correct, check the scatter pattern achieved. If necessary the ratio has to be modified.

Adjust the driving speed according to the result.

### Clear the edge of the field

You can clear the field boundaries either on the right-hand side or on the left-hand side.

To clear the field boundaries change the position of the running wheels.

- To clear the right-hand side move the lever to the right-hand side position.
- To clear the left-hand side move the lever to the left-hand side position.

### Spreading windrows and small night swaths

To make windrows and night swath, you need to install the dual speed gearbox (optional). See page **10-1**.

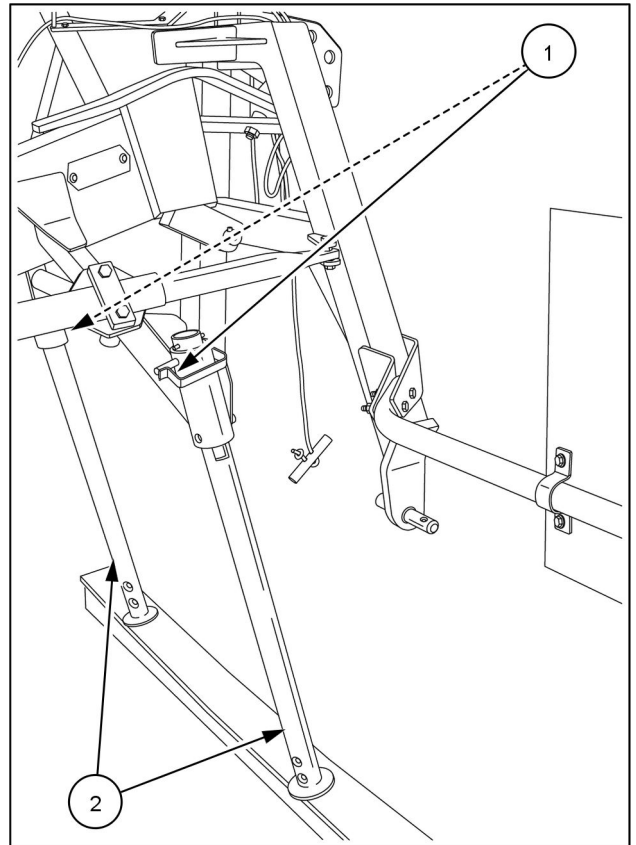
Reduce the PTO speed so that the scattering effect is just given and the crop is handled as gently as possible.

The travel speed depends on the scatter pattern. In case of certain windrow widths it may be necessary to mount the implement offset on the tractor to align the swaths with the rotor pairs.

## Parking the unit

### Disconnection and parking

1. Place the implement on a firm and level ground.
2. Disconnect all the hydraulic couplers.
3. Disconnect the electrical connection.
4. Disconnect the Power Take-Off (PTO) shaft from the tractor. Support the PTO with the chain.
5. Place wheel chocks as follows:
  - On a flat surface: one in front of, and one behind a wheel.
  - On a slope: one chock per wheel, either in front of, or behind the wheel, depending on the incline.
6. Lower the jacks (2). Secure with the latch pins (1).
7. Release the implement from the tractor.



ZEIL18HT00959BA 1



## 5 - TRANSPORT OPERATIONS

### Preparing for road transport

#### Transport position

**NOTICE:** Adhere to the maximum permissible axle loads, total weights.

**NOTICE:** Adhere to the permissible transport measurements.

**NOTICE:** Fit and check transport gear, traffic lights, warning and safety signalization and safety guards.

**NOTICE:** Make sure that in the transport position of the implement, the tractor three-point linkage does not move.

**NOTICE:** When you drive on public roads with a lifted implement, lock the lifting control lever to avoid unintentional lowering.

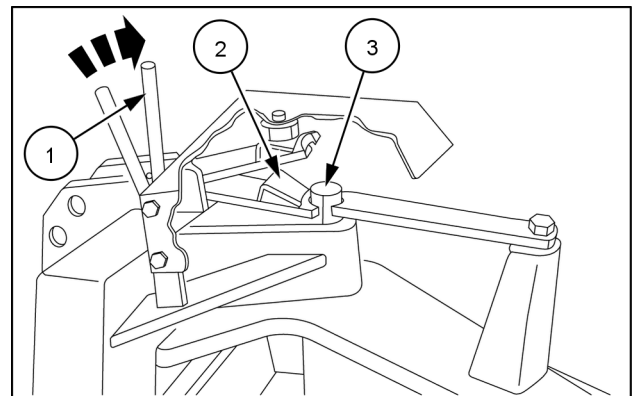
Two independent transport safety equipment are available to secure the implement:

- A mechanical safety system by the mean of a locking lever.
- A hydraulic safety system by the mean of a stop valve which automatically closes when you release the rope.

To set the implement in transport position proceed as follows:

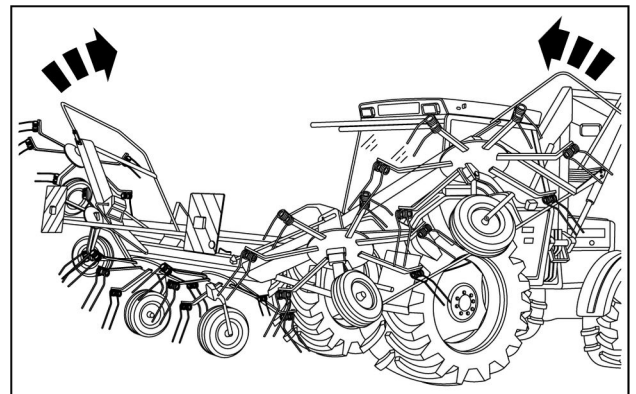
1. Raise the implement.
2. Move the lever **(1)** to the rear to lock the headstock.

**NOTE:** In this position the locking bolt **(3)** locks the latch **(2)**.



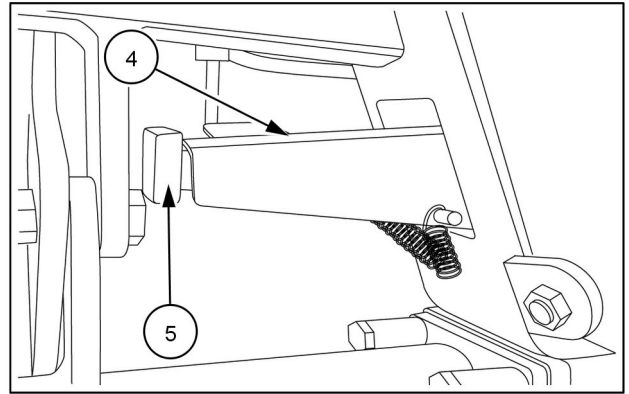
ZEIL17HT00131AA 1

3. Raise the left-hand side rotor assembly and the right-hand side rotor assembly.



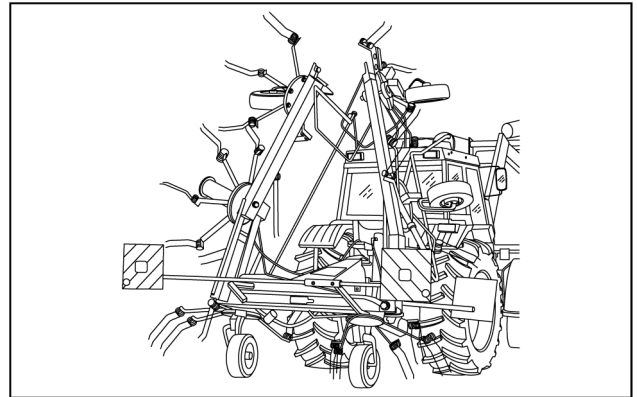
ZEIL17HT00126AA 2

4. Check that the safety hooks **(4)** locks correctly the latch **(5)**.



ZEIL18HT00971AA 3

5. The implement is ready for transport.



ZEIL17HT00125AA 4



## 6 - WORKING OPERATIONS

### General information

### Implement overview

The tedder is an implement for the following operations:

- Tedding.
- Turning.
- Clearing of windrows or small nights swaths.

For the road transport, especially for narrow roads, the implement is equipped with a hydraulic system that moves the outer rotors to the vertical position.

The implement is composed of the following assemblies:

- A central rotor assembly.
- A left-hand side rotor assembly.
- A right-hand side rotor assembly.

Each rotor is composed of six arms equipped with double spring tines which cleanly take up the crop and leave a scatter pattern behind the implement.

A running wheel supports each rotor to compensate jerks caused by the ground irregularities.

The left-hand side assembly and the right-hand side assembly can move in height to follow the ground contours on uneven ground.

This movement assures excellent results in all conditions.

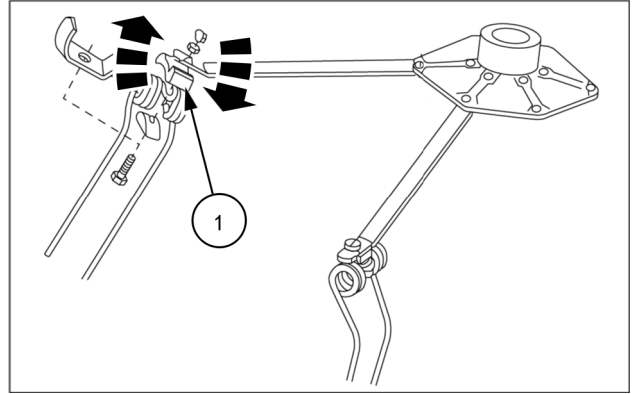
A smooth run of the implement allows, with a high working speed and a large working width, a considerable acreage.

## Basic adjustment

**NOTICE:** Always stop the implement before you perform any adjustments.

### Tine arms adjustment

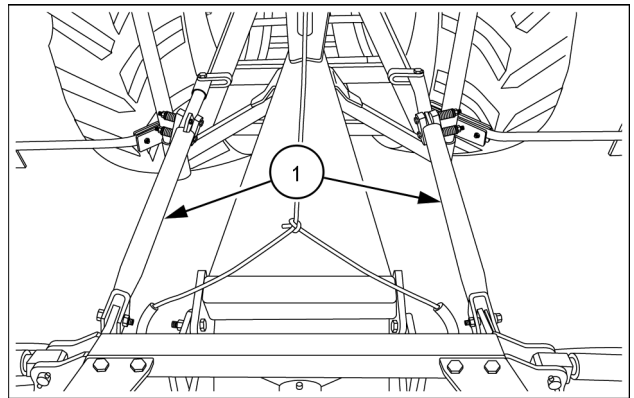
It is possible to change the tine angle from the standard angle of  $8^\circ$  to  $2^\circ$ . Steeper position of tine give more grip on the forage crop. To change the tine angle, release the securing bolts and turn the tine supports **(1)** for  $180^\circ$  on the tine arms.



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### Stabilizers adjustment

Two stabilizers **(1)** stabilize the position of the rotary tedder.

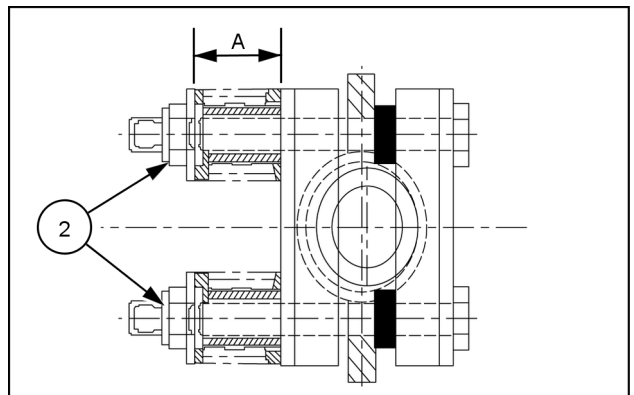


ZEIL18HT00744AA 2

Adjust the damping intensity as follows:

- Torque the bolts **(2)** to increase the damping intensity.
- Loosen the bolts **(2)** to reduce the damping intensity.

Adjusting dimension **(A)**: **32 mm (1.26 in)**.



ZEIL17HT00133AA 3

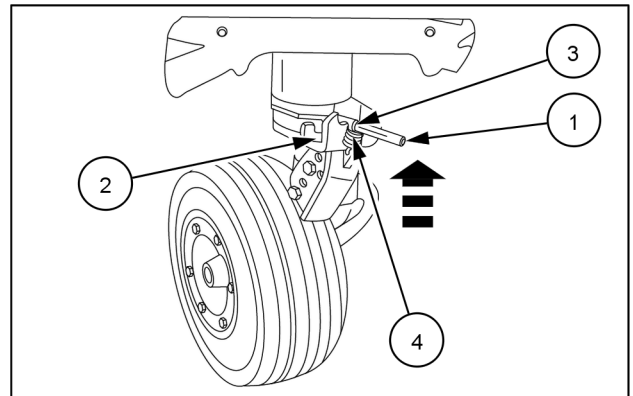
## Adjustment of the support wheels

### Lateral adjustment

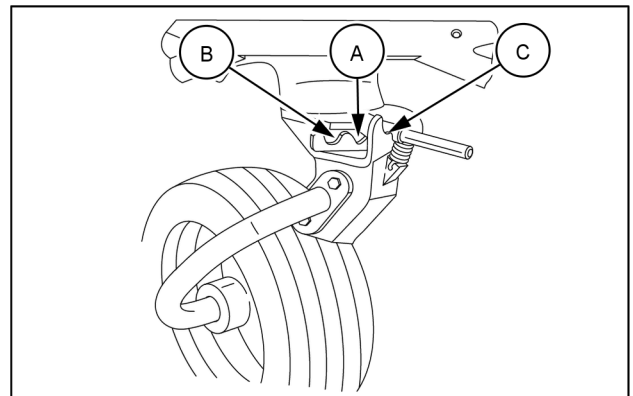
You can set the support wheels of the implement to three different positions by means of lever **(1)** and segment **(2)**.

For standard operation engage the lever in the central catch **(A)** of segment **(2)**. To clear the left-hand side field edge, engage the lever in the left-hand side catch **(B)** and to clear the right-hand side field edge engage the lever in the right-hand side catch **(C)**.

To change over from one position to the other, pull lever **(1)** out of slit **(3)** in the direction of the arrow, i.e. against the pressure of spring **(4)**, turn the wheel so that the segment takes the desired position in relation to lever **(1)** and engage the latter.



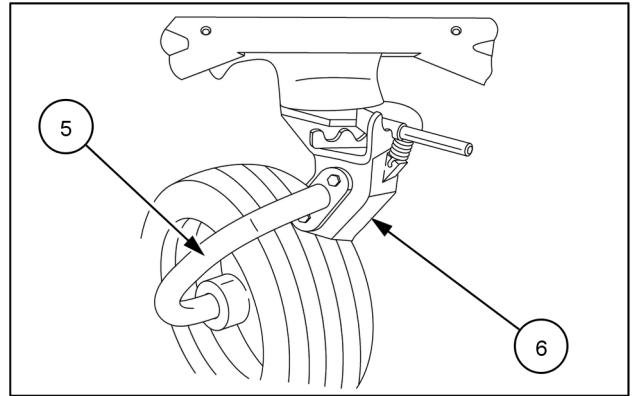
ZEIL18HT00740AA 1



ZEIL18HT00739AA 2

## Adjustment of the spreading angle

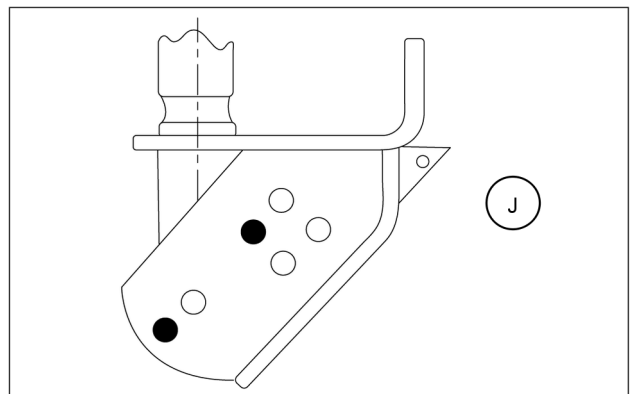
You can set the support wheels to different spreading angles. To change over unscrew wheel bracket **(5)** from wheel holder **(6)**. Lift the implement to adjust the spreading angle.



ZEIL18HT00739AA 3

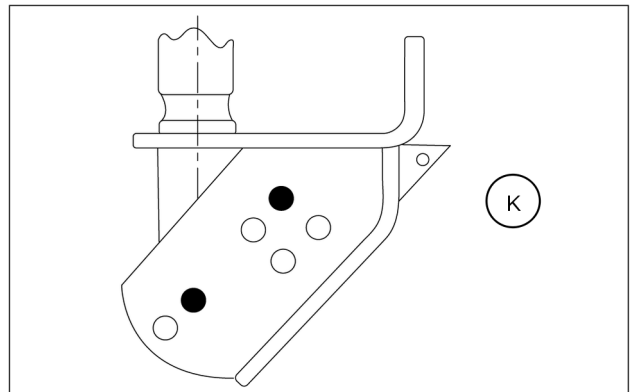
Different spreading angle are available depending on the working conditions:

- Standard spreading angle (factory adjustment). Set of holes **(J)**.



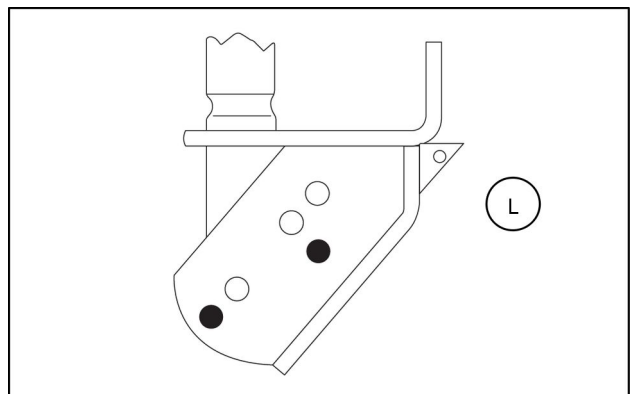
ZEIL18HT00741AA 4

- Flat spreading angle, for dry crops. Set of holes **(K)**.



ZEIL18HT00742AA 5

- Very flat spreading angle, for extremely dry and short crops. Set of holes **(L)**.



ZEIL18HT00754AA 6

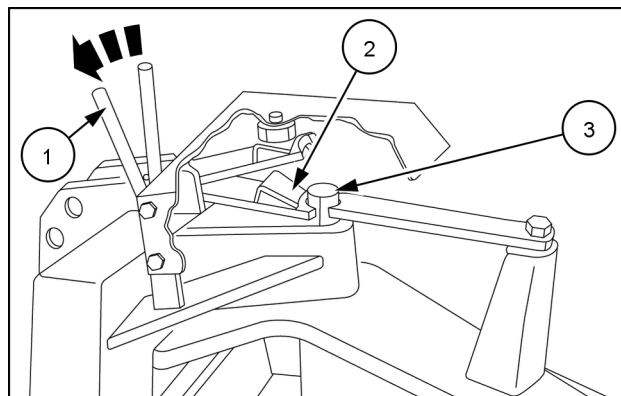
## Working position

### Working position

To set the implement in working position proceed as follows:

1. Raise the implement.
2. Move the lever **(1)** to the front.

**NOTE:** In this position the latch **(2)** is free from the locking bolt **(3)**.



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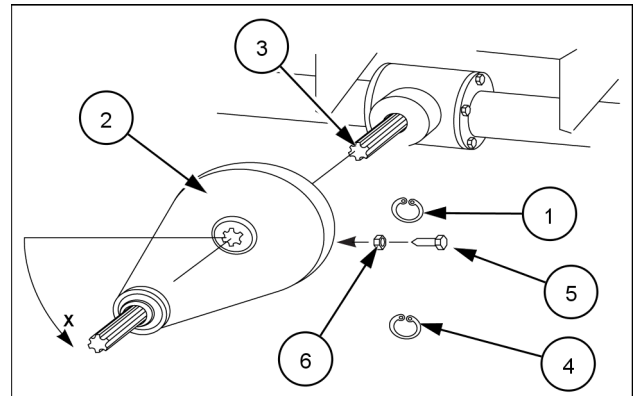
## Windrowing gear - Installation

The windrowing gear is a speed reducer (optional).

To install the windrowing gear proceed as follows:

1. Install the retaining ring **(1)**.
2. Install the gear **(2)** with an angle **(X)** equal to **60°** on the shaft **(3)**.
3. Install the retaining ring **(4)**.

Lock the gear **(2)**. Use the bolt **(5)** and the nut **(6)**.



ZEIL18HT00753AA 1

## 7 - MAINTENANCE

### General information

## Maintenance

### General information

#### **⚠ WARNING**

Avoid injury!  
Follow ALL of the precautions listed below.  
Failure to comply could result in death or serious injury.

W1091A

#### **⚠ CAUTION**

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 minor or moderate injury.

C0104A

**NOTICE:** Do the maintenance, the service, the cleaning, and the repair with the Power Take-Off (PTO) shaft and the engine OFF. Remove the ignition key.

**NOTICE:** Take care that oil and grease do not get in contact with your skin.

**NOTICE:** You must always block the tractor wheels before you work on the implement.

**NOTICE:** During greasing, the implement must be in working position and parked safely and firmly on the ground.

**NOTICE:** During maintenance on a lifted implement, you must always place suitable supports underneath.

Only use original spare parts and equipment. There is no warranty on non-original components. The manufacturer is not responsible for any damage resulting from such use.

**NOTICE:** To replace any tools with cutting edges always use suitable tools and protective gloves.

**NOTICE:** Always make sure that all the safety guards of the implement are in place and functional. Immediately replace the safety guards worn or damaged. Do not operate the implement until you replace all the worn or damaged safety guards.

Before to start the repair work on the hydraulic system, relieve the system from pressure and lower the implement to the ground and stop tractor engine.

Dispose of old oils, grease and filters as prescribed by law.



## **Grease fittings and intervals**

Before greasing the implement always wipe any dirt from the grease fittings.

All points, except those with special notations, should be lubricated until the grease is forced out around the bearings and then the excess grease should be wiped off.

## **Grease specification**

Use Multipurpose grease **NLGI 2**.

## 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

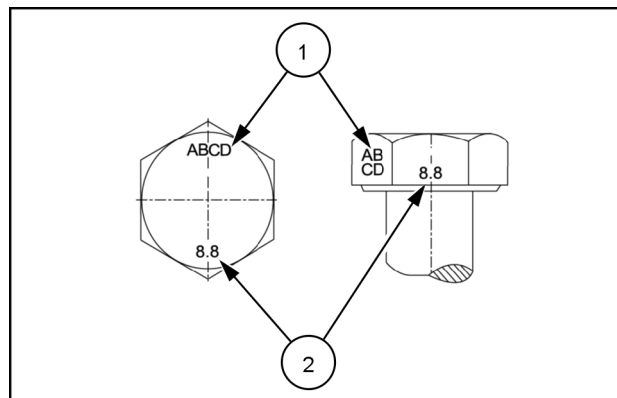
Nominal Size	Class 8.8 in N m (lb in or lb ft)			Class 10.9 in N m (lb in or lb ft)		
	Plated nut	Lock nut	Hardened nut/Oiled plated nut	Plated nut	Lock nut	Hardened nut/Oiled plated nut
M3	1.3 N·m (11.5 lb in)	0.7 N·m (6.2 lb in)	1.2 N·m (10.6 lb in)	1.8 N·m (15.9 lb in)	0.9 N·m (8.0 lb in)	1.6 N·m (14.2 lb in)
M4	2.9 N·m (25.7 lb in)	1.6 N·m (14.2 lb in)	2.6 N·m (23.0 lb in)	4.2 N·m (37.2 lb in)	2.3 N·m (20.4 lb in)	3.7 N·m (32.7 lb in)
M5	5.9 N·m (52.2 lb in)	3.2 N·m (28.3 lb in)	5.3 N·m (46.9 lb in)	8.5 N·m (75.2 lb in)	4.6 N·m (40.7 lb in)	7.6 N·m (67.3 lb in)
M6	10.1 N·m (89.4 lb in)	5.5 N·m (48.7 lb in)	9.1 N·m (80.5 lb in)	14.5 N·m (10.7 lb ft)	7.9 N·m (69.9 lb in)	13 N·m (9.6 lb ft)
M8	24.5 N·m (18.1 lb ft)	13.5 N·m (10.0 lb ft)	22 N·m (16.2 lb ft)	35.1 N·m (25.9 lb ft)	19.3 N·m (14.2 lb ft)	31.5 N·m (23.2 lb ft)
M10	48.7 N·m (35.9 lb ft)	26.8 N·m (19.8 lb ft)	43.8 N·m (32.3 lb ft)	69.5 N·m (51.3 lb ft)	38.2 N·m (28.2 lb ft)	62.5 N·m (46.1 lb ft)
M12	85 N·m (62.7 lb ft)	46.7 N·m (34.4 lb ft)	76.5 N·m (56.4 lb ft)	121 N·m (89.2 lb ft)	66.5 N·m (49.0 lb ft)	108.9 N·m (80.3 lb ft)
M14	135 N·m (99.6 lb ft)	74.2 N·m (54.7 lb ft)	121.5 N·m (89.6 lb ft)	193 N·m (142.3 lb ft)	106.1 N·m (78.3 lb ft)	173.7 N·m (128.1 lb ft)
M16	210 N·m (154.9 lb ft)	115.5 N·m (85.2 lb ft)	189 N·m (139.4 lb ft)	301 N·m (222 lb ft)	165.5 N·m (122.1 lb ft)	270.9 N·m (199.8 lb ft)
M18	299 N·m (220.5 lb ft)	164.4 N·m (121.3 lb ft)	269.1 N·m (198.5 lb ft)	414 N·m (305.4 lb ft)	227.7 N·m (167.9 lb ft)	372.6 N·m (274.8 lb ft)
M20	425 N·m (313.5 lb ft)	233.72 N·m (172.4 lb ft)	382.5 N·m (282.1 lb ft)	587 N·m (432.9 lb ft)	322.8 N·m (238.1 lb ft)	528.3 N·m (389.7 lb ft)
M22	579 N·m (427 lb ft)	318.4 N·m (234.8 lb ft)	521.1 N·m (384.3 lb ft)	801 N·m (590.8 lb ft)	440.5 N·m (324.9 lb ft)	720.9 N·m (531.7 lb ft)
M24	735 N·m (542.1 lb ft)	404.2 N·m (298.1 lb ft)	661.5 N·m (487.9 lb ft)	1016 N·m (749.4 lb ft)	558.8 N·m (412.1 lb ft)	914.4 N·m (674.4 lb ft)
M27	1073 N·m (791.4 lb ft)	590.1 N·m (435.2 lb ft)	967.5 N·m (713.6 lb ft)	1486 N·m (1096 lb ft)	817.3 N·m (602.8 lb ft)	1337 N·m (986.1 lb ft)
M30	1461 N·m (1077.6 lb ft)	803.5 N·m (592.6 lb ft)	1315 N·m (969.9 lb ft)	2020 N·m (1489.9 lb ft)	1111 N·m (819.4 lb ft)	1818 N·m (1340.9 lb ft)

**Flange head bolt/Flange nut**

Nominal Size	Class 10.9 in N·m (lb ft)
M3	2.0 N·m (1.5 lb ft)
M4	4.6 N·m (3.4 lb ft)
M5	9.4 N·m (6.9 lb ft)
M6	15.9 N·m (11.7 lb ft)
M8	38.7 N·m (28.5 lb ft)
M10	76.5 N·m (56.4 lb ft)
M12	134 N·m (98 lb ft)
M14	213 N·m (157 lb ft)
M16	331 N·m (244 lb ft)
M18	455 N·m (336 lb ft)
M20	645 N·m (476 lb ft)
M22	881 N·m (650 lb ft)
M24	1118 N·m (824 lb ft)
M27	1635 N·m (1206 lb ft)
M30	2222 N·m (1639 lb ft)
M36	3880 N·m (2862 lb ft)

**Identification markings**

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

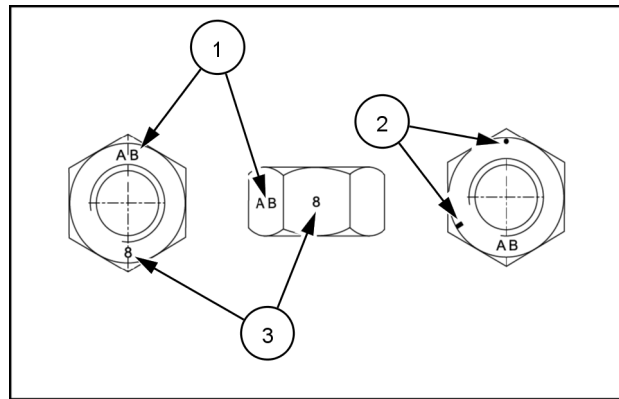


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**Metric bolt identification markings**

1. Manufacturer's identification
2. Property class

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



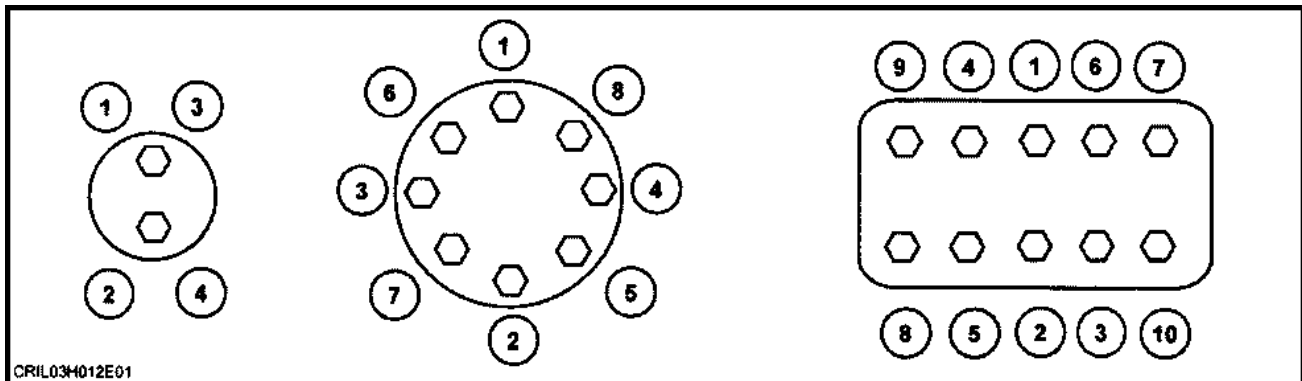
NHIL14RB00663AA 2

### 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.



CRIL03H012E01

DF5019-1 3

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## Fluids and lubricants

Item	Capacity	KONGSKILDE brand name	KONGSKI- LDE specifi- cation	Lubricant grade	International specification
Grease fittings	-	-	-	NLGI 2	M1C 137-A
Power Take-Off (PTO) shaft	-	-	-	NLGI 2	M1C 137-A
Universal joints	-	-	-	NLGI 2	M1C 137-A
Headstock	-	-	-	NLGI 2	M1C 137-A

## Maintenance planning

## Maintenance chart

Maintenance action	Grease			Check	
	Tighten			Replace	
					Page no.
After the first 5 hours of operation					
Nuts and bolts	x				7-9
After the first 10 hours of operation					
Hydraulic screw joints	x				7-9
Every day					
Power Take-Off (PTO) shaft		x			7-10
Universal joints		x			7-11
Daily grease fittings		x			7-12
Every week					
Weekly grease fittings		x			7-14
Every 50 hours					
Nuts and bolts			x		7-16
Every year					
Hydraulic hoses			x		7-17
Nuts and bolts	x				7-17
Every 6 years					
Hydraulic hoses				x	7-18

### **After the first 5 hours of operation**

## **Nuts and bolts**

Torque again all the bolts and the nuts after the first **5 h** of work.

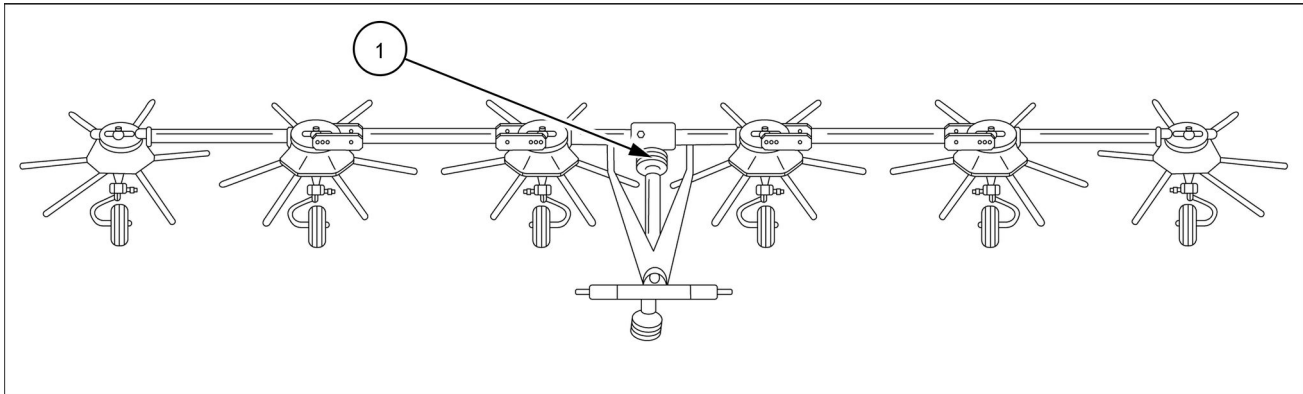
### **After the first 10 hours of operation**

## **Hydraulic screw joints**

Torque again all the hydraulic screw joints after the first **10 h** of work.

Every day

## Power Take-Off (PTO) shaft



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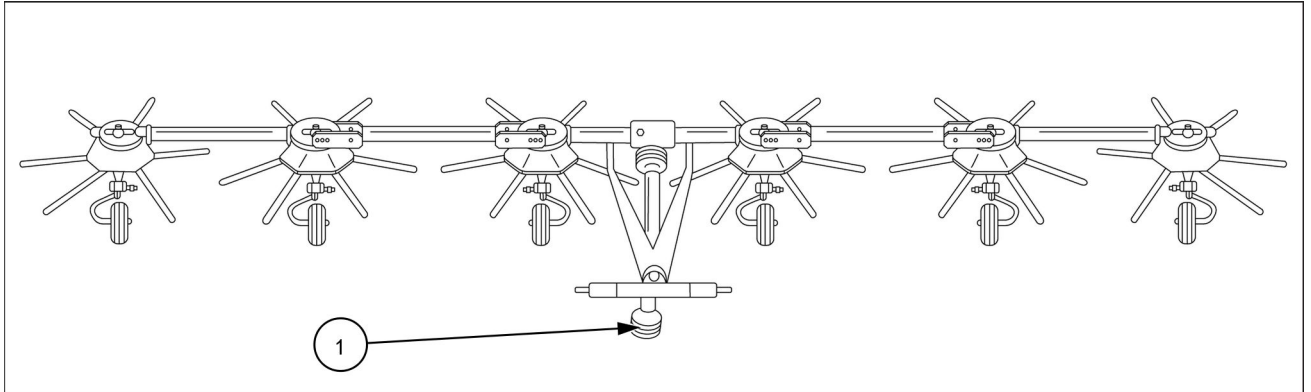
Lubricate the PTO shaft (1). Use the grease: **NLGI 2**.



## Universal joints

For the special design of the PTO shaft, the wide angle joint requires daily lubrication of the centering disc between the universal joints.

**NOTE:** The picture shows PTO shaft with normal joint and wide angle joint.



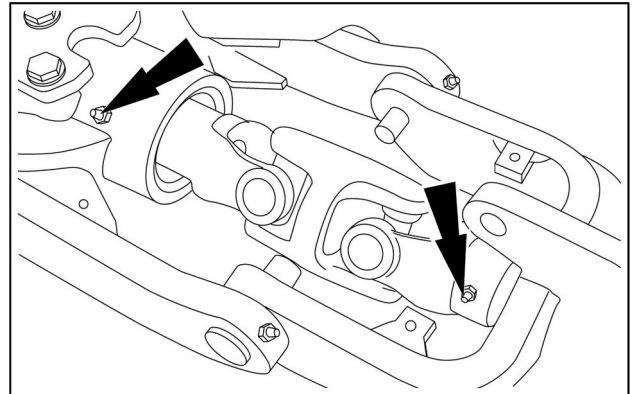
ZEIL18HT00745EA 1

Lubricate universal joint of the PTO shaft (1). Use the grease: **NLGI 2**.

## Daily grease fittings

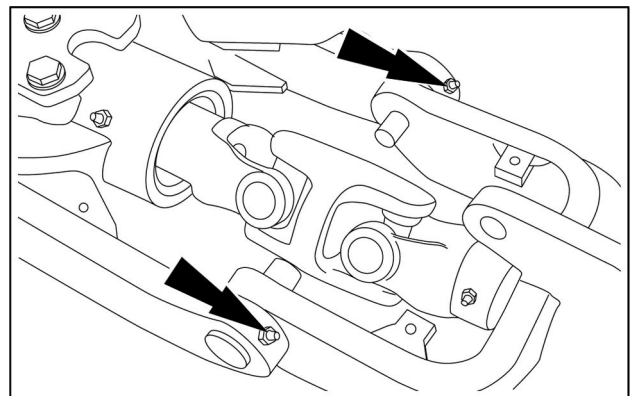
### Left-hand side

1. Center rotor shaft (on both sides).



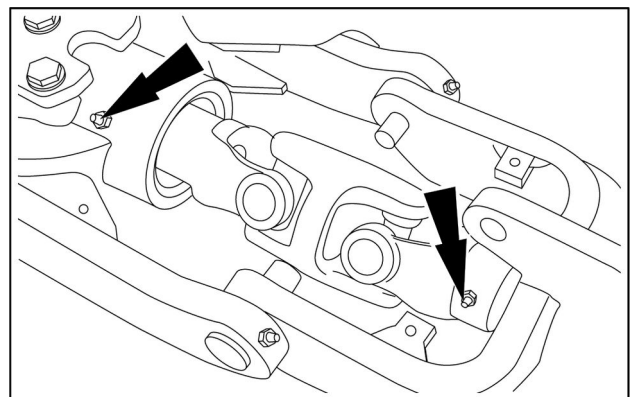
ZEIL18HT00973AA 1

2. Center rotor hinge (on both sides).



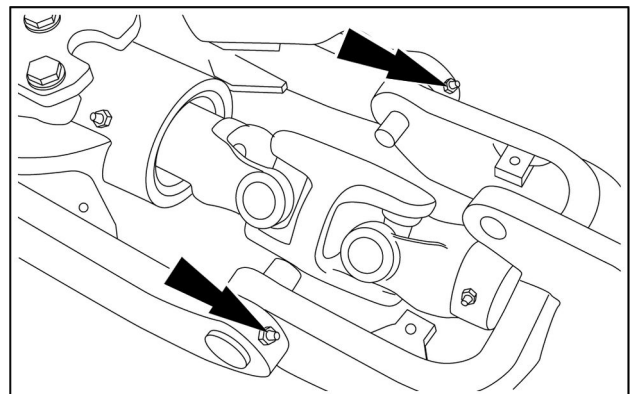
ZEIL18HT00973AA 2

3. Inner rotor shaft (on both sides).



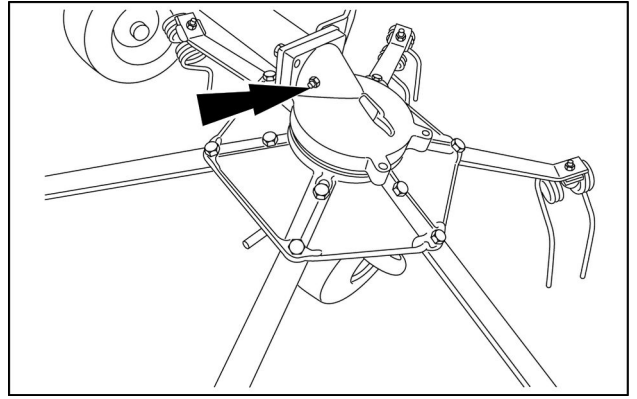
ZEIL18HT00973AA 3

4. Inner rotor hinge (on both sides).



ZEIL18HT00973AA 4

5. Outer rotor (on both sides).



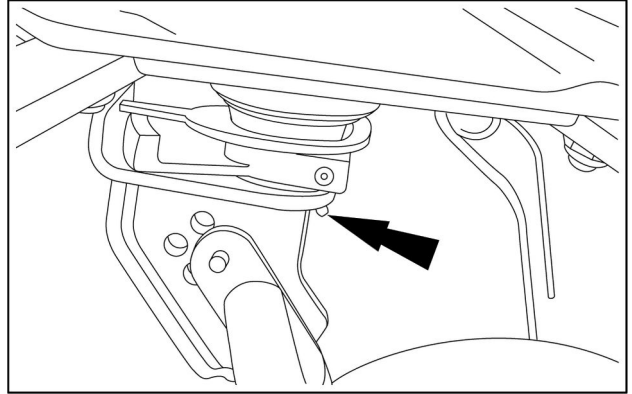
ZEIL18AI00169AA 5

**Every week**

## Weekly grease fittings

### Outer rotors

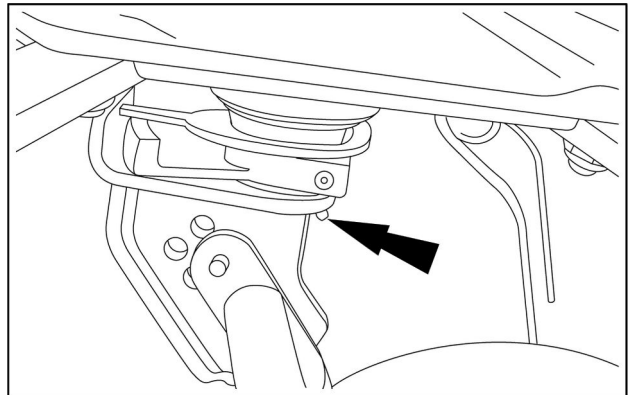
1. Wheel (both sides).



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### Inner rotors

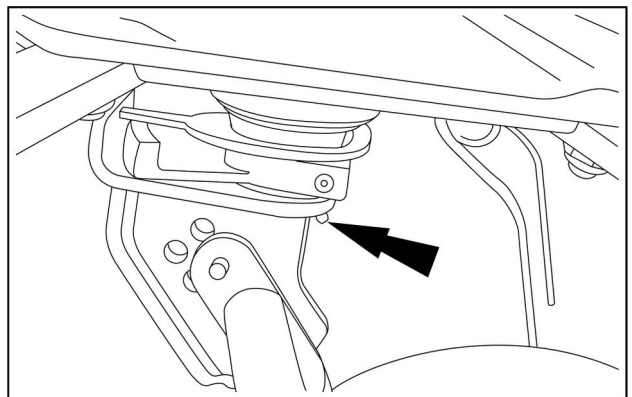
2. Wheel (both sides).



ZEIL18HT00972AA 2

### Center rotors

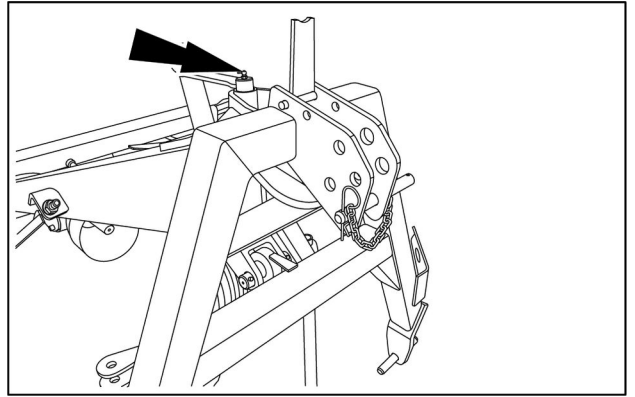
3. Wheel (both sides).



ZEIL18HT00972AA 3

## Headstock

4. Pin.



ZEIL18AI00154AA 4

## Every 50 hours

### Nuts and bolts

Check all the bolts and the nuts every **50 h** of work.

Torque again if necessary. See Page **7-4**.

**NOTE:** *It is particularly important to check the fixing bolts of the implement.*

**Every year**

## **Hydraulic hoses**

Check all hoses every year and replace if necessary.

## **Nuts and bolts**

Torque again all the bolts and the nuts every year.

Every 6 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.**

W0095A

### **⚠ 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.**

W0178A

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.



## Storage

### Pressure washing

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

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

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.

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

**NOTE:** *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 **25 cm (9.8 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: **50 °C (122 °F)**.
- Maximum water pressure: **80 bar (1160 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.*

## 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 according to the "Maintenance chart".
4. Before the storage of the implement, check carefully for damaged parts, loose screw-joints, leakage, wear and other defects. 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. Disconnect the Power Take-Off (PTO) shafts, lubricate the profile tubes and keep them in a dry place.
6. Spray the implement with a coat of rust-preventing oil.
7. Parts polished and the cylinder rods of the hydraulic cylinder may get rusty. Clean and brush with grease parts polished and the cylinder rods to protect against wind and weather.
8. Change the oil in the hydraulic system and the gear-boxes.
9. Support the implement to relieve the weight from the tires. Leave tires inflated. 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.*

## 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 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 "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 dealer.



## 8 - TROUBLESHOOTING

### Fault code resolution

### Troubleshooting

Problem	Possible Cause	Correction
The implement does not follow the ground.	The implement is in transport position.	Set the implement in working position. See Page <b>6-5</b> .
The tine breaks too easy.	the installation position of the tine is wrong.	Turn the tine. See Page <b>6-2</b> .
There is too much soil in the crop.	The tine goes too deep in the soil.	Raise the lower link arm.
The implement moves sideways constantly.	The stabilizer is too loose.	Tighten the spring to the correct distance.



## 9 - SPECIFICATIONS

### Technical data

Model	Number of rotors	Number of arms per rotor	Power Take-Off (PTO) speed	Acreage	Power requirements, approximately
Z665H	6	6	540 RPM	7 Ha/hr (17.3 Ac/hr)	25 kW (34 Hp)

### Fluids and lubricants

Item	Capacity	KONGSKILDE brand name	KONGSKILDE specification	Lubricant grade	International specification
Grease fittings	-	-	-	NLGI 2	M1C 137-A
Power Take-Off (PTO) shaft	-	-	-	NLGI 2	M1C 137-A
Universal joints	-	-	-	NLGI 2	M1C 137-A
Headstock	-	-	-	NLGI 2	M1C 137-A

### Tire pressure

Model	Tire	Recommended pressure
Z665H	16/6.50-8	2 bar (29 psi)

### Dimensions

Model	Working width	Transport width	Rotor diameter
Z665H	6.6 m (259.8 in)	2.95 m (116.14 in)	1.48 m (58.27 in)

### Weights

Model	Weight *	Maximum total weight
Z665H	620 kg (1367 lb)	750 kg (1653 lb)

\* Weight approximately without Power Take-Off (PTO) shaft





## 10 - ACCESSORIES

### General information

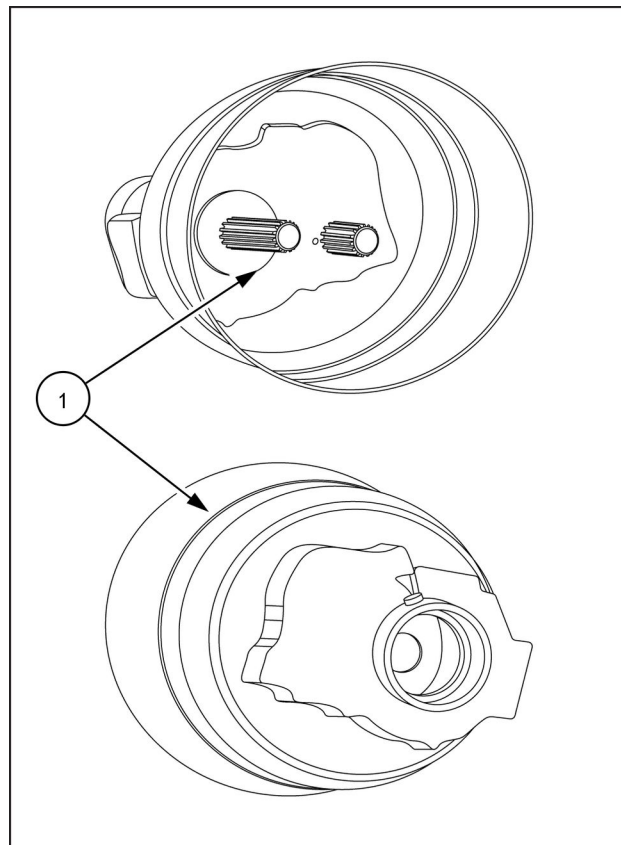
Accessories or optional equipment listed hereafter may be part of the standard equipment for certain countries. Some of these accessories or options may not be available in certain markets.

### Dual speed gearbox

The dual speed gearbox **(1)** permits to reduce the speed of the rotors by 1/3. With this speed reduction the implement will form small “swaths” to obtain a smaller crop surface that will collect moisture/dew during night time. Use this function in areas where heavy dew or rain occurs during temperature drops at night.

To change the ratio, move the primary Power Take-Off (PTO) from one shaft to another on the gearbox.

**NOTICE:** The swath with the dual speed gearbox is not uniform enough. Use the dual speed gearbox only for small swath or small crop surface.

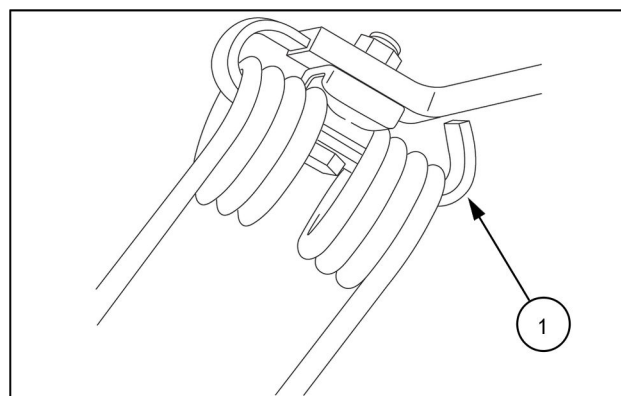


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### Tine safety lock

You can fit the tine safety lock **(1)** to prevent the tine loss if a tine should break during work.

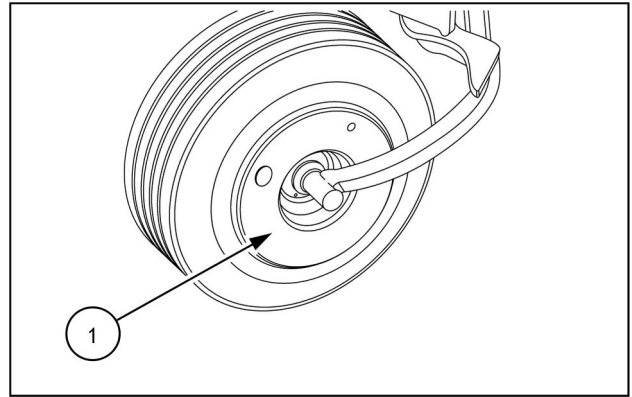
This option is recommended in rough terrain where the tines risk to hit soil when runs across the field. Also, if you use the implement in extreme heavy silage crops, you can fit the tine safety lock.



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## Anti-wrap disc for the wheel rim

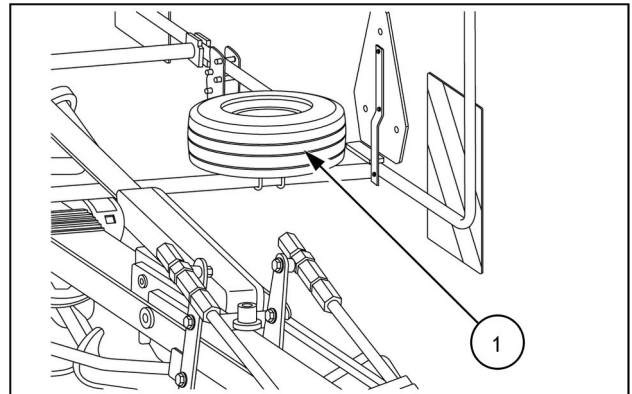
In moist conditions the crop can stick/wrap around the wheel arm and lead to damage of the wheel bearings or block the wheel rotation. The anti-wrap disc **(1)** prevents the crop to wrap around the wheel arm and cause damage to the bearings or blockage of the wheel. The anti-wrap disc **(1)** is on the wheel arm and covers the rim of the tire.



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## Spare wheel kit with holder

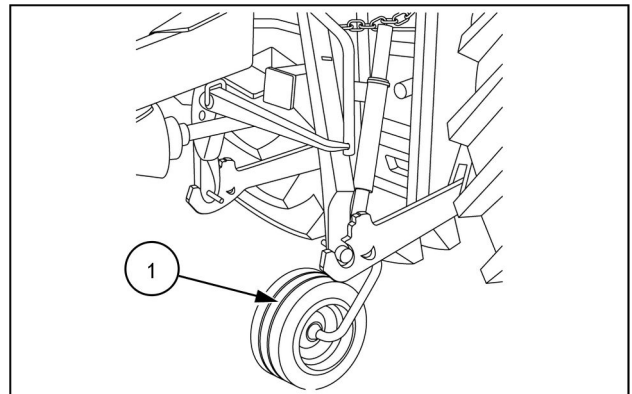
The kit includes a spare wheel **(1)** (size 16x6.5-8) and a holder to mount the spare wheel on the frame. The spare wheel **(1)** allows the operator to replace a wheel while the implement is out on the field.



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## Front gauge wheel

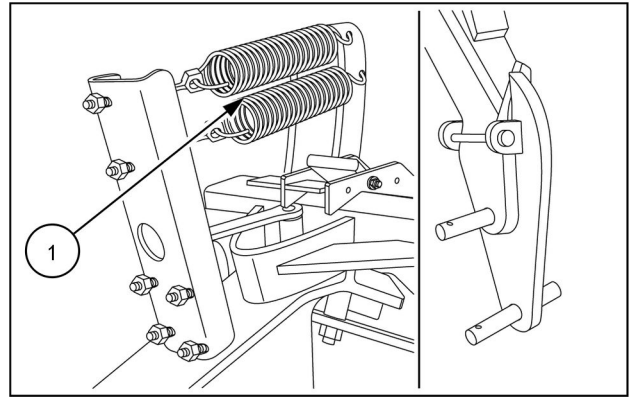
To increase the ground following of the implement and get the optimal work application, the implement can be equipped on the headstock with a front gauge wheel **(1)**. The front gauge wheel **(1)** reduces the risk of crop soil contamination, especially in rolling field conditions.



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## Linkage equipment for steep slopes

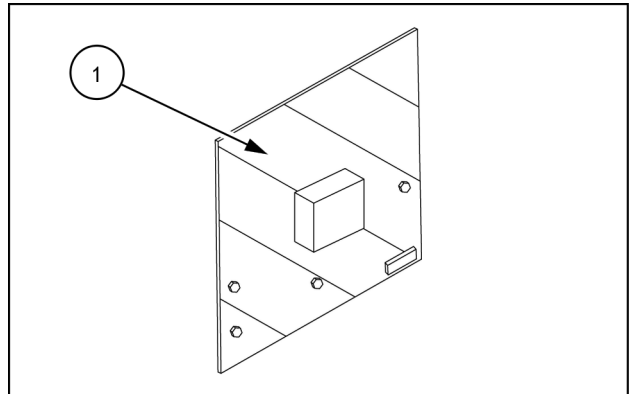
To prevent the implement to “roll up” during working in fields with very steep slopes, the linkage equipment **(1)** kit will lower the linkage point and give a better angling of the bearing arms in relation to the implement.



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## Traffic light kit

Standard traffic light kit and warning plates **(1)**. Some countries may require this kit by law for the transport of the implement on public roads.



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# 11 - FORMS AND DECLARATIONS

## EC Declaration of Conformity

EF-overensstemmelseserklæring/ EG-Konformitätserklärung/ EC Declaration of Conformity/ Déclaration CE de conformité/ Dichiarazione CE di conformità/ EG Verklaring van Overeenstemming/ EG-försäkran om överensstämmelse/ EY-vaatimustenmukaisuusvakuutus/ Declaración de conformidad CE/ Deklaracja Zgodności WE./ Декларация за съответствие EO/ EK Megfelelőségi Nyilatkozat /ES Prohlášení o shodě/ EB Atitikties deklaracija/ ES prehlásenie o zhode/ Declarația de conformitate CE/ Vastavuse Deklaratsioon EÜ /ES Izjava o skladnosti/ Δήλωση πιστότητας EK/ Declaração de fidelidade CE/ Dikjarazzjoni ta' Konformità tal-KE/ EK Atbilstības deklarācija/


F abrikant/ Hersteller/ Manufacturer/ Fabricant/ Produttore/ Fabrikant/ Fabrikant/ Valmistaja/ Fabricante/ Producent/ Производител/ Gyártó/ Výrobce/ Gamintojas/ Výrobca/ Producător/ Tootja/ Proizvajalec/ Κατασκευαστής/ Fabricante/ Fabbrikant/ Ražotājs

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B8210 Zedelgem, Belgium

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Maskine:	La máquina:	Masin:	 <b>KONGSKILDE</b> Model/Type: Designation: Tedder TVV: Serial:
Maschine:	Maszyna:	Stroj:	
Machine:	Машината:	Η μηχανή:	
Machine:	Gép:	Máquina:	
La macchina:	Stroj:	Il-magna:	
Machine:	Mašina:	Mašina:	
Maskin:	Stroj:		
Laite:	Mašina:		

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- er i overensstemmelse med Maskindirektivets bestemmelser (Direktiv 2006/42/EF) og hvis relevant også bestemmelserne i EMC-direktivet 2014/30/EU

- In übereinstimmung mit den Bestimmungen der Maschinen-Richtlinie 2006/42/EG und wenn erforderlich auch mit der EMC-Richtlinie 2014/30/EU hergestellt wurde.

- is in conformity with the provisions of the Machinery Directive 2006/42/EC and if relevant also the provisions of the EMC Directive 2014/30/EU.

- est conforme aux dispositions de la Directive relatives aux machines 2006/42/CE et également aux dispositions de la Directive sur la Directive EMC 2014/30/UE

- é in conformita' con la Direttiva Macchine 2006/42/CE e, se pertinente, anche alla Direttiva alla Direttiva EMC 2014/30/UE.

- in overeenstemming is met de bepalingen van de Machine richtlijn 2006/42/EG en wanneer relevant ook met de bepalingen van de EMC richtlijn 2014/30/EU.

- är i överensstämmelse med Maskindirektivets bestämmelser (Direktiv 2006/42/EG) och om relevant också bestämmelserna i EMC-direktivet 2014/30/EU.

- täyttää Konedirektiivin (Direktiivi 2006/42/EY) määräykset ja oleellisilta osin myös EMC-direktiivin 2014/30/EU.

- es conforme a la Directiva de Maquinaria 2006/42/CE y, si aplica, es conforme también a la Directiva EMC 2014/30/EU.

- pozostaje w zgodzie z warunkami Dyrektywy Maszynowej 2006/42/WE i jeżeli ma to zastosowanie również z warunkami Dyrektywy dot. kompatybilności elektro magnetycznej EMC 2014/30/UE.

- отговаря на изискванията на Директивата за Машините 2006/42/ЕО и ако има приложение на изискванията на Директивата за електромагнитна съвместимост 2014/30/ЕС.

- Megfelel a 2006/42/EK Gépi Eszközökre vonatkozó előírásoknak és amennyiben felhasználásra kerül, a 2014/30/EU Elektromágneses kompatibilitás Irányelv feltételeinek.

- odpovídá základním požadavkům Strojní směrnice 2006/42/ES a jestliže to její uplatnění vyžaduje i s podmínkami Směrnice 2014/30/EU týkající se elektromagnetické kompatibility.

- atitinka Mašinų direktyvos Nr. 2006/42/EB ir, jeigu taikoma, Elektromagnetinio suderinamumo direktyvos Nr. 2014/30/ES reikalavimus.

- je v súlade s podmienkami Smernice 2006/42/ES o strojných zariadeniach a pokiaľ si to jeho uplatnenie vyžaduje aj s podmienkami Smernice 2014/30/EÚ o elektromagnetickej kompatibilite.

- îndeplineşte prevederilor Directivei de Maşini 2006/42/CE şi dacă este utilizată de asemenea cu prevederile Directivei referitoare la compatibilitatea electro-magnetică EMC 2014/30/UE.

- on vastavuses Masinate Direktiivi tingimustega 2006/42/EÜ ning sammuti juhul, kui on tegemist sammuti on vastavuses Elektromagnetilise kokkusobivuse Direktiivitingimustega EMC 2014/30/EL.

- z določili Direktive o strojih 2006/42/ES ter, če je to relevantno, tudi z določili EMC Direktive 2014/30/EU.
- παραμένει σύμφωνη με τους όρους της Οδηγίας περί Μηχανών 2006/42/EK και σε περίπτωση που αυτό εφαρμόζεται και με τους όρους της Οδηγίας περί ηλεκτρομαγνητικής συμβατότητας (ΗΜΣ) 2014/30/ΕΕ.
- Está de acordo com exigências das Directivas das Maquinarias 2006/42/CE e no caso em que tiver igualmente aplicação com as exigências das Directivas referentes a compatibilidade electromagnética EMC 2014/30/UE.
- tikkonforma mad-dispożizzjonijiet tad-Direttiva dwar il-Makkinarju 2006/42/KE u jekk rilevanti wkoll mad-dispożizzjonijiet tad d-Direttiva EMC 2014/30/EU.
- atbilst mašīnu direktīvai 2006/42/EK, kā arī nepieciešamības gadījumā elektromagnētiskās saderības direktīvai EMC 2014/30/ES.

Zedelgem,

Antoon Vermeulen





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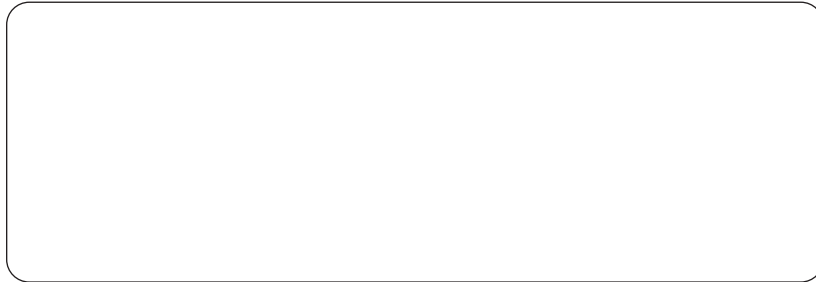
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Dealer's stamp



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