

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

OPERATOR'S MANUAL

EcoLine 250 SC

EcoLine 250 SD

EcoLine 300 SC

EcoLine 300 SD

ProfiLine 300 DD

ProfiLine 300 SC

ProfiLine 300 SD

ProfiLine 400 DD

ProfiLine 400 SC

ProfiLine 400 SD

Seed Drill

*PIN KTNKA40*A00002020 and above*

Contents

1 GENERAL INFORMATION

Note to the owner.....	1-1
Intended use.....	1-4
Prohibited usage	1-5
Electro-Magnetic Compatibility (EMC)	1-5
Manual scope and required training level	1-6
Product Identification Number (PIN).....	1-8
Product identification	1-9
Operator's manual storage on the machine	1-10
Implement orientation	1-11
Implement components.....	1-13

2 SAFETY INFORMATION

Safety rules and signal word definitions	2-1
General recommendations	2-2
Illustrations	2-3
Local obligations.....	2-3
Fire or explosion prevention	2-3
Hazardous chemicals.....	2-4
Starting up the implement safely	2-4
Traveling on public roads.....	2-5
Operating the implement safely	2-6
Maintenance.....	2-7
Personal protective equipment (PPE)	2-8
Safety requirements for fluid power systems and components - hydraulic systems	2-8
Noise emission	2-9
Vibration levels	2-9
Implement stability.....	2-10
Ecology and the environment	2-11
Safety signs	2-12

3 CONTROLS AND INSTRUMENTS

Exterior controls

Monitor (if equipped)	3-1
Keypad	3-2

Display

Main work screen.....	3-3
Settings.....	3-3
Language selection.....	3-4
Display brightness	3-4
Machine type	3-5
Number of pulses.....	3-5
Alarms	3-6
Working width	3-7

Hectare counter	3-8
Calibration of the drill	3-8
Tramline control	3-9

4 OPERATING INSTRUCTIONS

Commissioning the unit

Check before use	4-1
------------------------	-----

Starting the unit

Connection to the tractor	4-2
---------------------------------	-----

Parking the unit

Disconnection and parking	4-3
---------------------------------	-----

5 TRANSPORT OPERATIONS

Road transport

Transport position	5-1
--------------------------	-----

6 WORKING OPERATIONS

General information

Implement overview	6-1
Transport the seed	6-2
Filling platform	6-2
Seed level	6-2
Toolbox	6-3

Adjustments

Row distance adjustment	6-4
Markers	6-5
Adjustment of sowing rate	6-6
Calibration of the drill	6-7
Special crops	6-14
Adjustment of working depth	6-15
Track eradicators	6-16
Marker adjustment	6-17
Harrow adjustment (if equipped)	6-18

7 MAINTENANCE

General information

General	7-1
Torque	7-4
Grease fittings and intervals	7-7
Pressure washing	7-8
Fluids, lubricants and capacities	7-9

Maintenance planning

Overview	7-10
----------------	------

After the first 10 hours

Nuts and bolts	7-11
----------------------	------

Weekly

Weekly grease fittings	7-11
------------------------------	------

Every 50 hours

Wheels and tires - check	7-12
--------------------------------	------

Every 50 hours or weekly

Gearbox oil level - Check.....	7-12
--------------------------------	------

Every 100 hours

Nuts and bolts	7-12
----------------------	------

Every year

Chains - Lubricate	7-13
--------------------------	------

Every beginning of the season

Gearbox oil – Change fluid	7-13
----------------------------------	------

Storage

End of season service	7-14
Implement long-term storage and/or disposal	7-15
Ordering parts and/or accessories and / or accessories	7-16

8 TROUBLESHOOTING

Fault code resolution

General	8-1
Troubleshooting	8-1

9 SPECIFICATIONS

Technical data	9-1
Fluids, lubricants and capacities	9-3
Tires	9-4

10 ACCESSORIES

General information	10-1
Transport lights kit	10-1
Seed monitoring system.....	10-1
Loading platform.....	10-1
Hopper level sensor	10-2

Electric manual tramlining	10-2
Hectare counter	10-2
Rear harrow	10-3
Sieves	10-3
Pre-emergence markers	10-4
Upgrade kit for hydraulic markers – Only for EcoLine	10-4
Fertilizer box – Only for EcoLine	10-5
Grass seedbox	10-5
Track eradicators	10-5
Grass coulter tip	10-6
Wheel scraper	10-6
Pressure wheel – Only for Profiline	10-6
Scraper for pressure wheel – Only for ProfiLine	10-7
Soft seed wheels	10-7

11 FORMS AND DECLARATIONS

European Community (EC) Declaration of Conformity	11-1
---	------

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

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

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

Intended use

The implement can only perform the usual work in agriculture. Only connect the implement to agricultural machines that corresponds with the specifications of the implement and is legal to use.

The work must occur under reasonable conditions, or thorough agricultural knowledge and authorised operation.

The implement operates as a solo machine behind the tractor. The lightweight nature of the implement makes it particularly suitable for smaller tractors, and due to the fact that the hopper forms part of the frame the construction of the implement is very robust.

A weight-saving feature of the implement is that the hopper forms part of the frame of the drill, but without sacrificing strength and rigidity.

The implement applies excellent flow of soil and residues through the coulter bar. It features with an accurate seeding precision regardless of coulter position and an highly even germination through exact seed depth placement.

For EcoLine models, the implement is the seed drill ideal for medium and large scale sized farming operations. It

is available in working widths of **2.5 m (98.42 in)** or **3.0 m (118.1 in)** and with a hopper volume of up to **555.0 L (146.61 US gal)**.

For ProfiLine models, the implement is the seed drill ideal for medium and large scale sized farming operations. It is available in working widths of **3.0 m (118.1 in)** or **4.0 m (157.5 in)** and with a hopper volume of up to **1050.0 L (277.38 US gal)**.

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

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

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

Prohibited usage

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

Do not use this implement:

1. To perform other works than farm works based on mechanical row crop cleaning.
2. If you have not read this instruction manual.
3. If you have not learn the structure and operation of the implement.

If you use the unit inconsistently with its destination, KONGSKILDE and/or its representatives shall not be held liable for any damages incurred. In such case, full responsibility for the implement use, transport, maintenance, repairs, etc. shall be borne by the owner/user.

Any and all departures from manufacturer requirements and effective legal regulations, as well as performing any modifications in implement structure without obtaining prior manufacturer's approval, using spare parts other than original ones shall be construed as using the unit inconsistently with the requirements and shall result in a waiver performed by KONGSKILDE with respect to the damages.

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.

aging depending on the kind of shipment and the related procedure to assemble the received components.

Additional documents

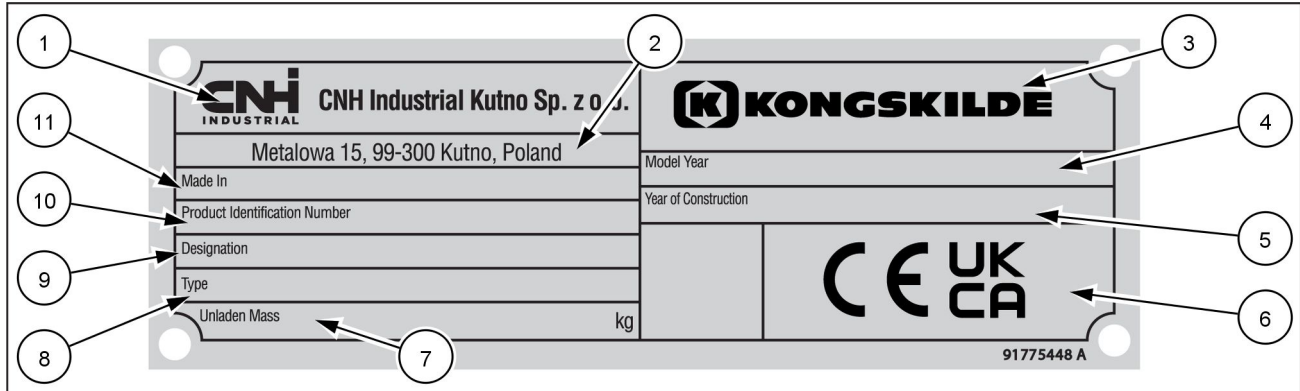
When required, the machine is delivered with an assembly instruction. The assembly instruction shows the pack-

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.



ZEIL22TIL0084EA 1

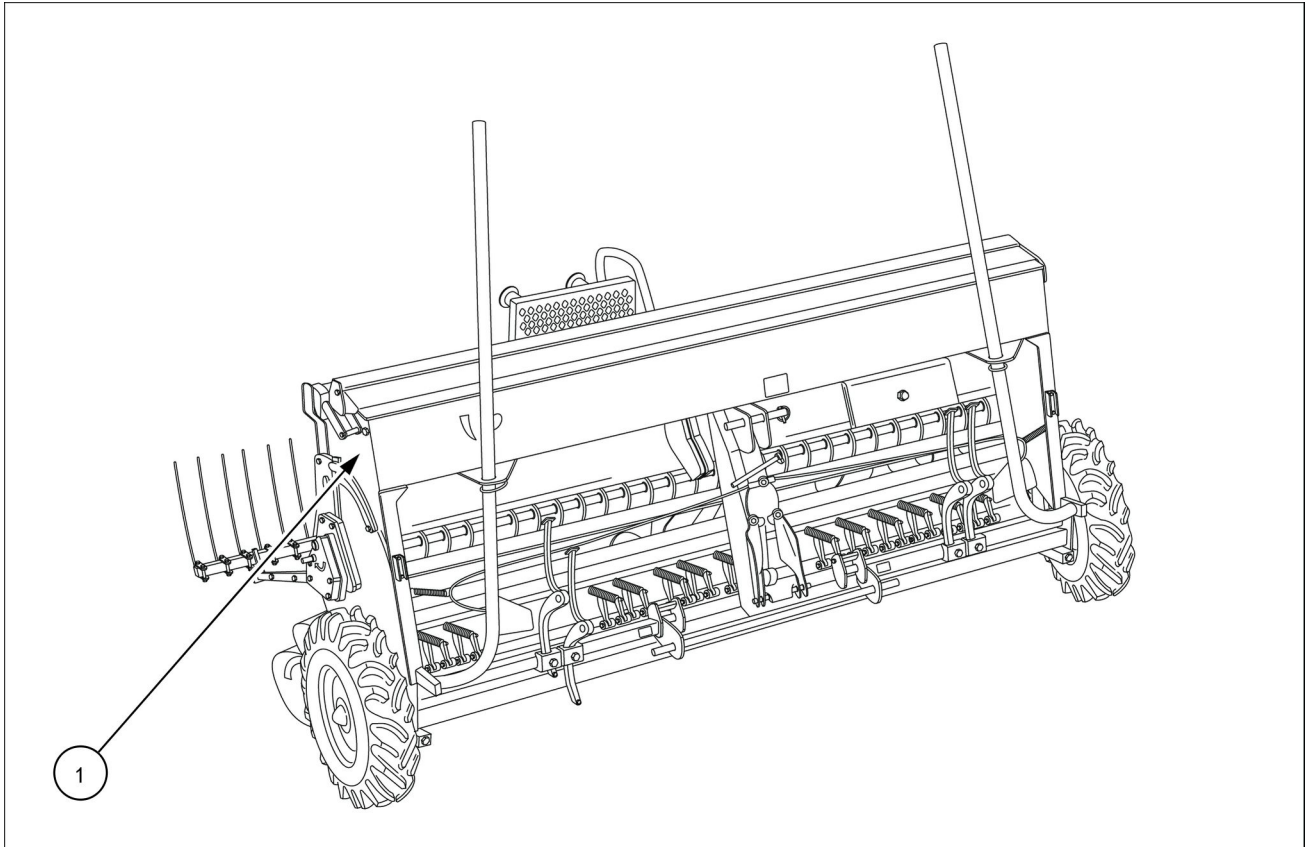
- | | | | |
|------------|---------------------------|-------------|-------------------------------------|
| (1) | Company name | (7) | Unladen mass |
| (2) | Mailing address | (8) | Type / Variant |
| (3) | Brand identification logo | (9) | Designation |
| (4) | Model year | (10) | Product Identification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

Product identification

EcoLine

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

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



ZEIL21SE00087FA 1

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

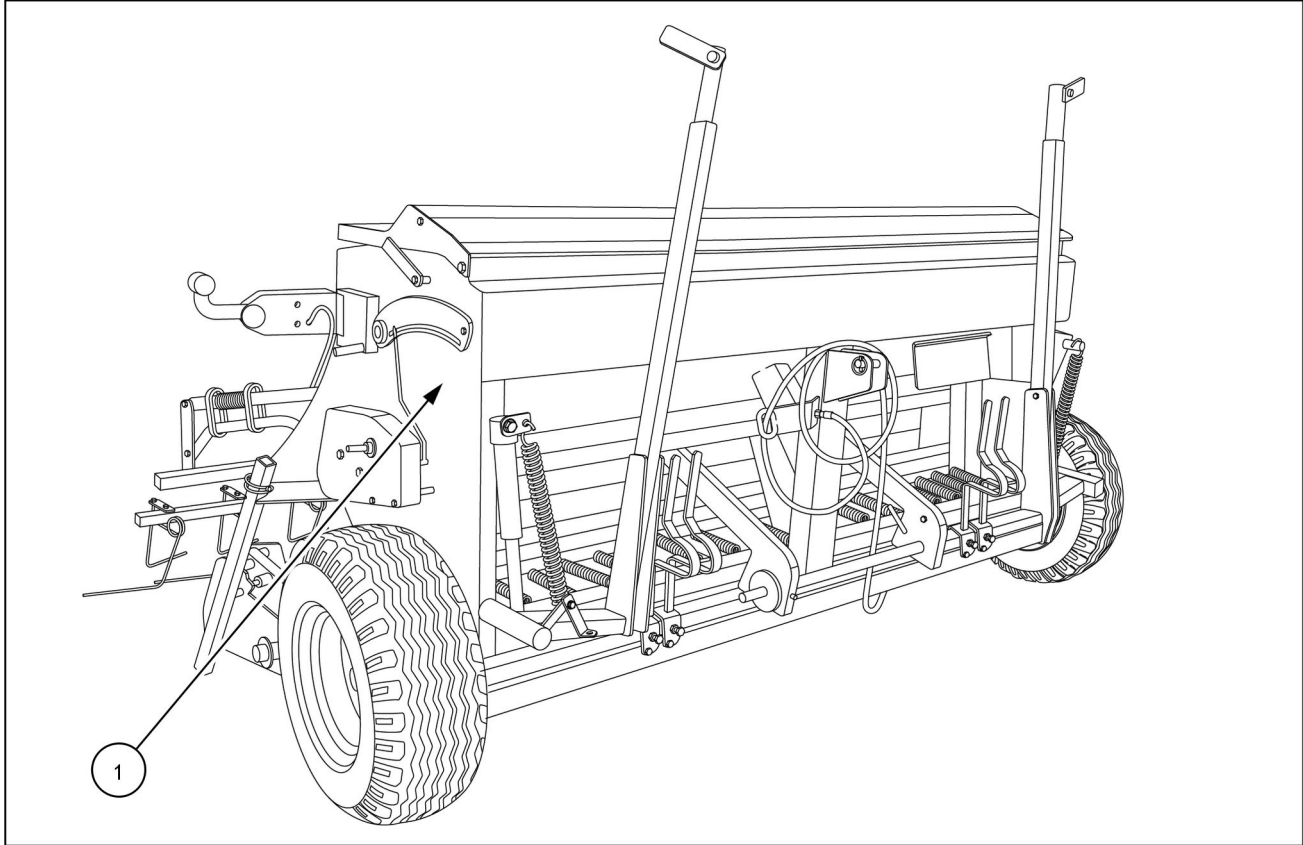
Model

Product Identification Number (PIN)

ProfiLine

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

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



ZEIL21SE00096FA 2

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

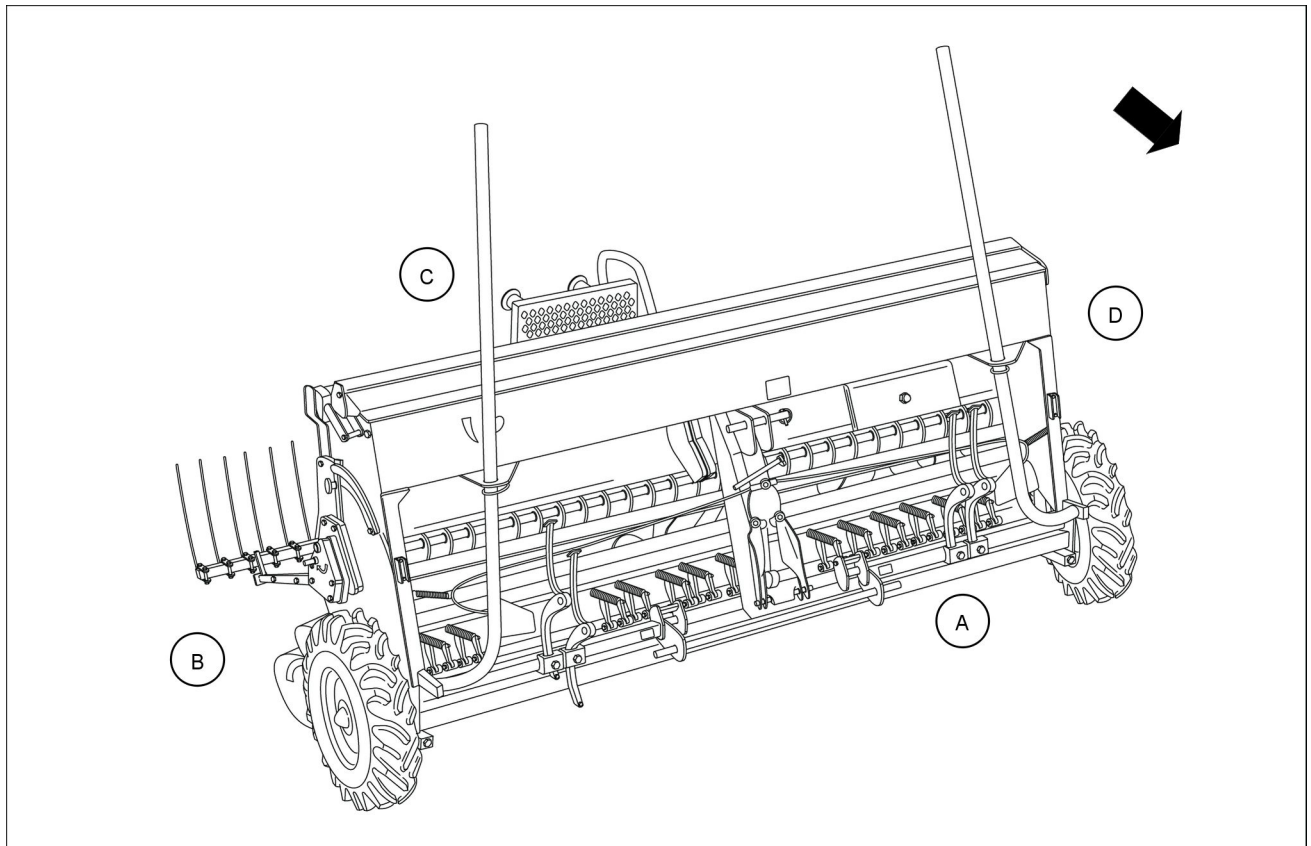
Keep this operator's manual protected and accessible on the tractor whenever you transport or operate the implement.

Implement orientation

EcoLine

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 this operator's manual.



ZEIL21SE00087FA 1

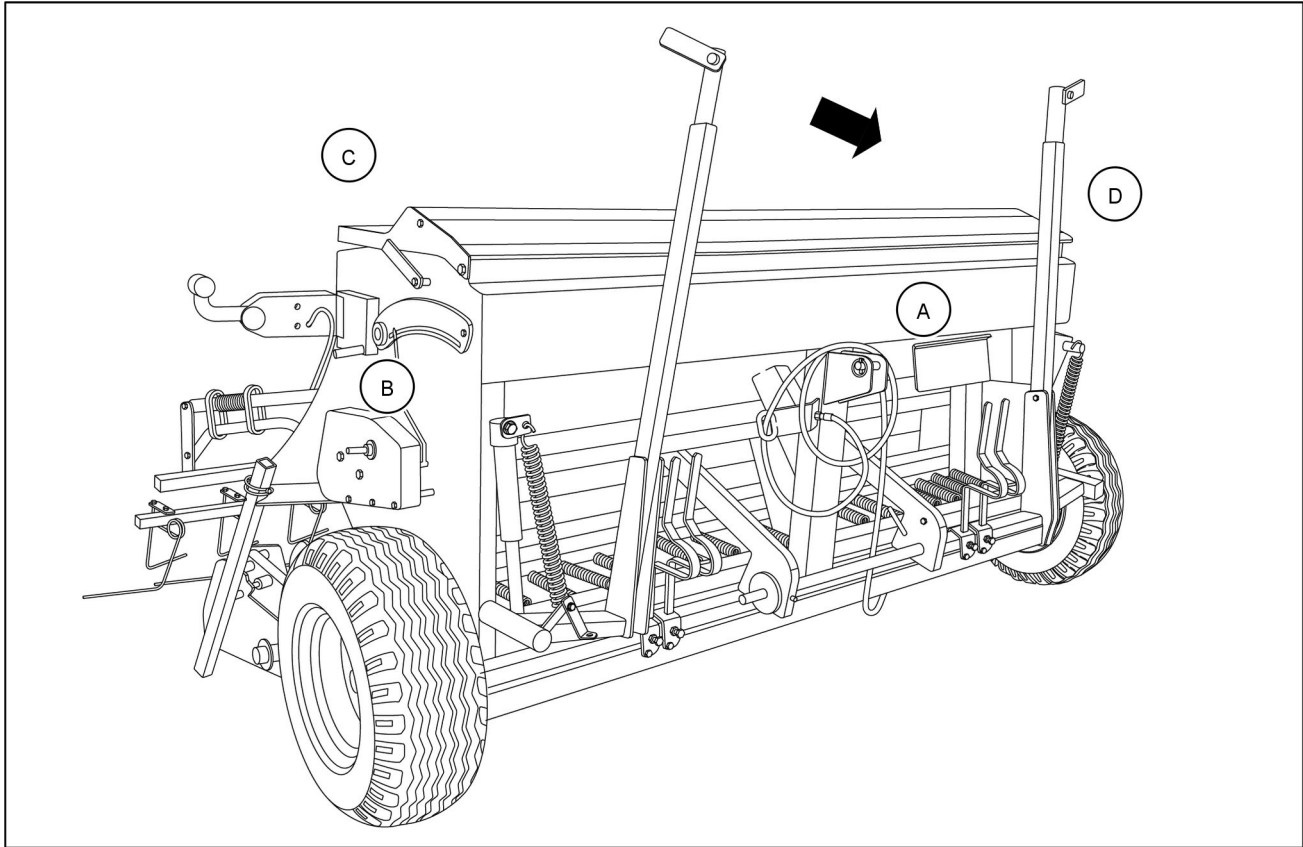
NOTE: The arrow indicates the direction of the implement during working operation.

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

ProfiLine

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 this operator's manual.



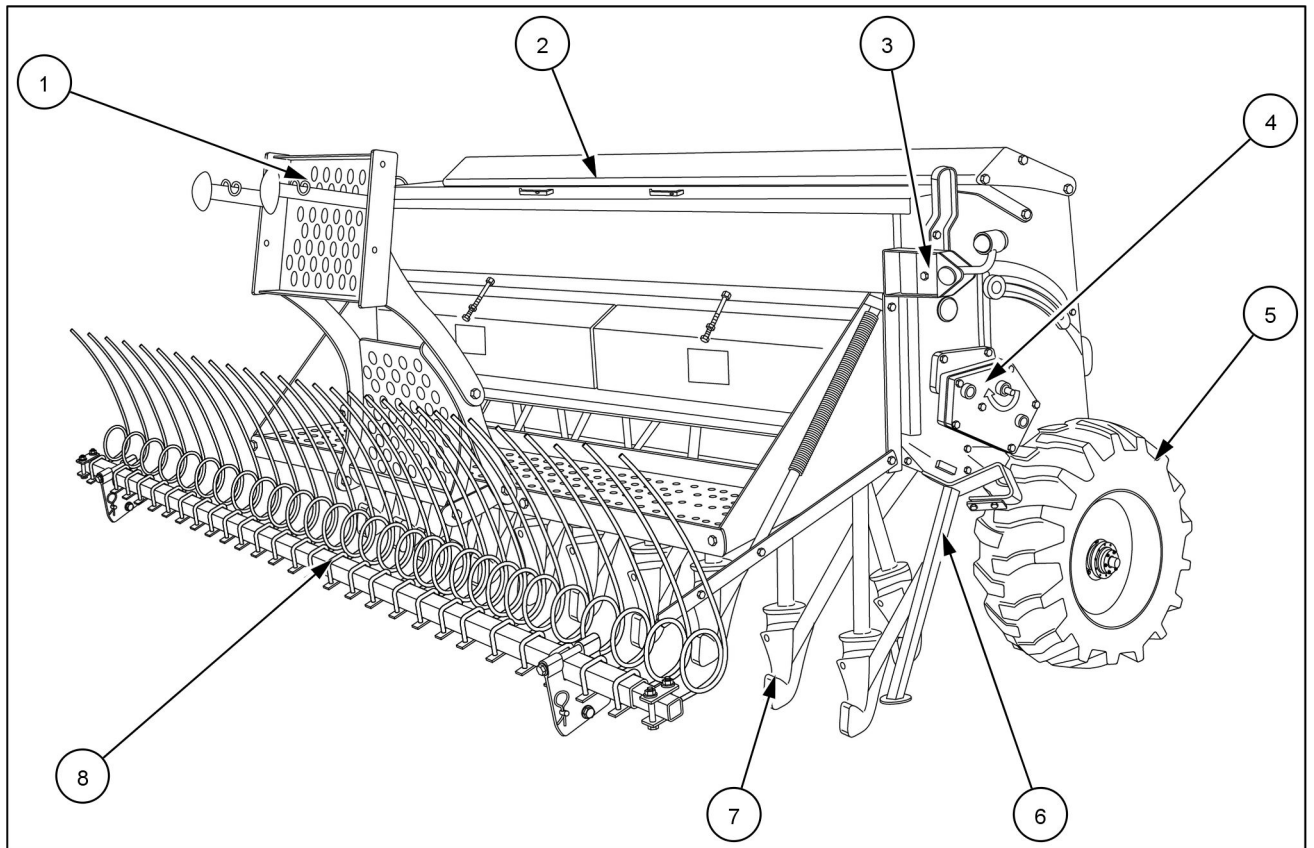
ZEIL21SE00096FA 2

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

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

Implement components

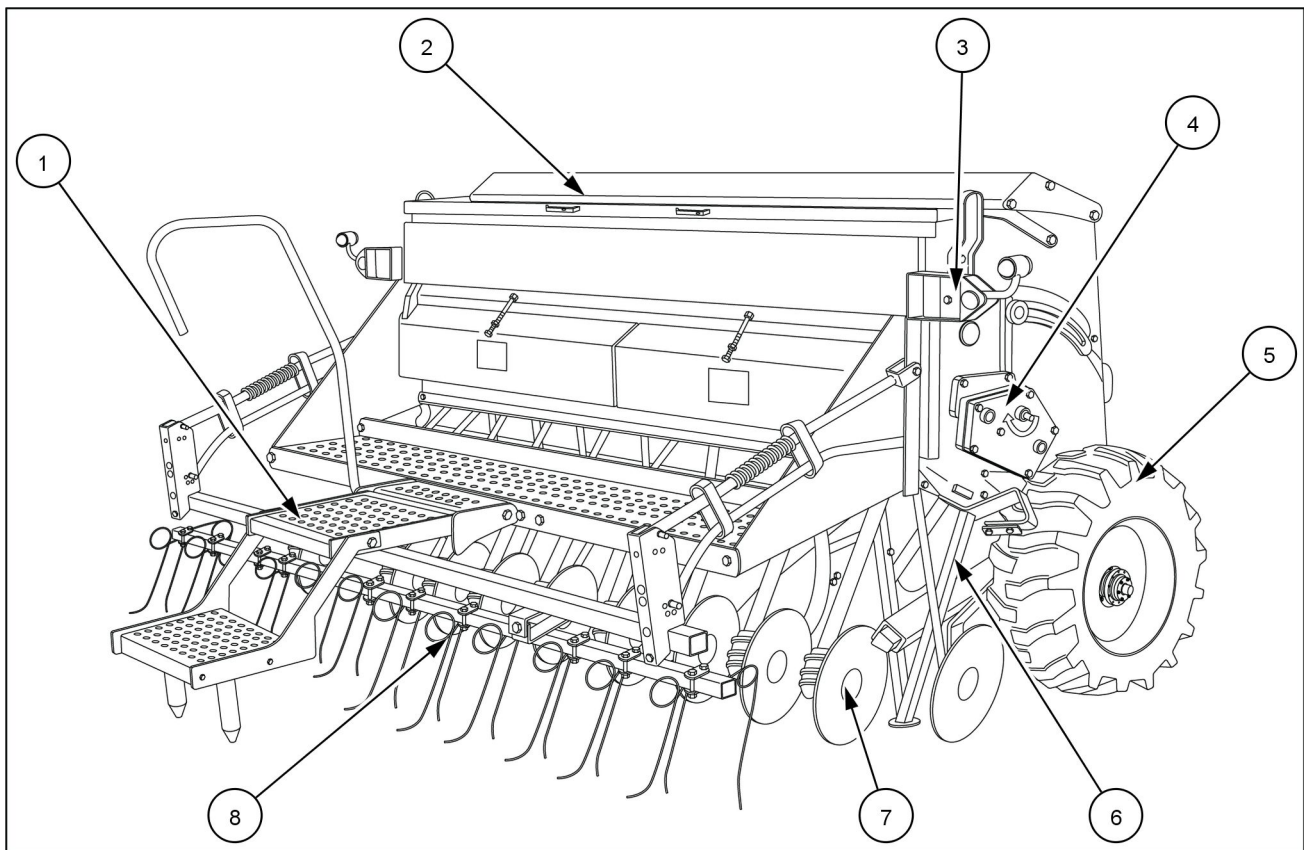
EcoLine models with suffolk coulters



ZEIL21SE00085FA 1

- | | | | |
|-----|------------------|-----|-------------------|
| (1) | Loading platform | (5) | Wheels (x2) |
| (2) | Hopper | (6) | Parking legs (x2) |
| (3) | Light kit (x2) | (7) | Suffolk coulters |
| (4) | Gearbox | (8) | Rear harrow |

EcoLine models with single disc coulters

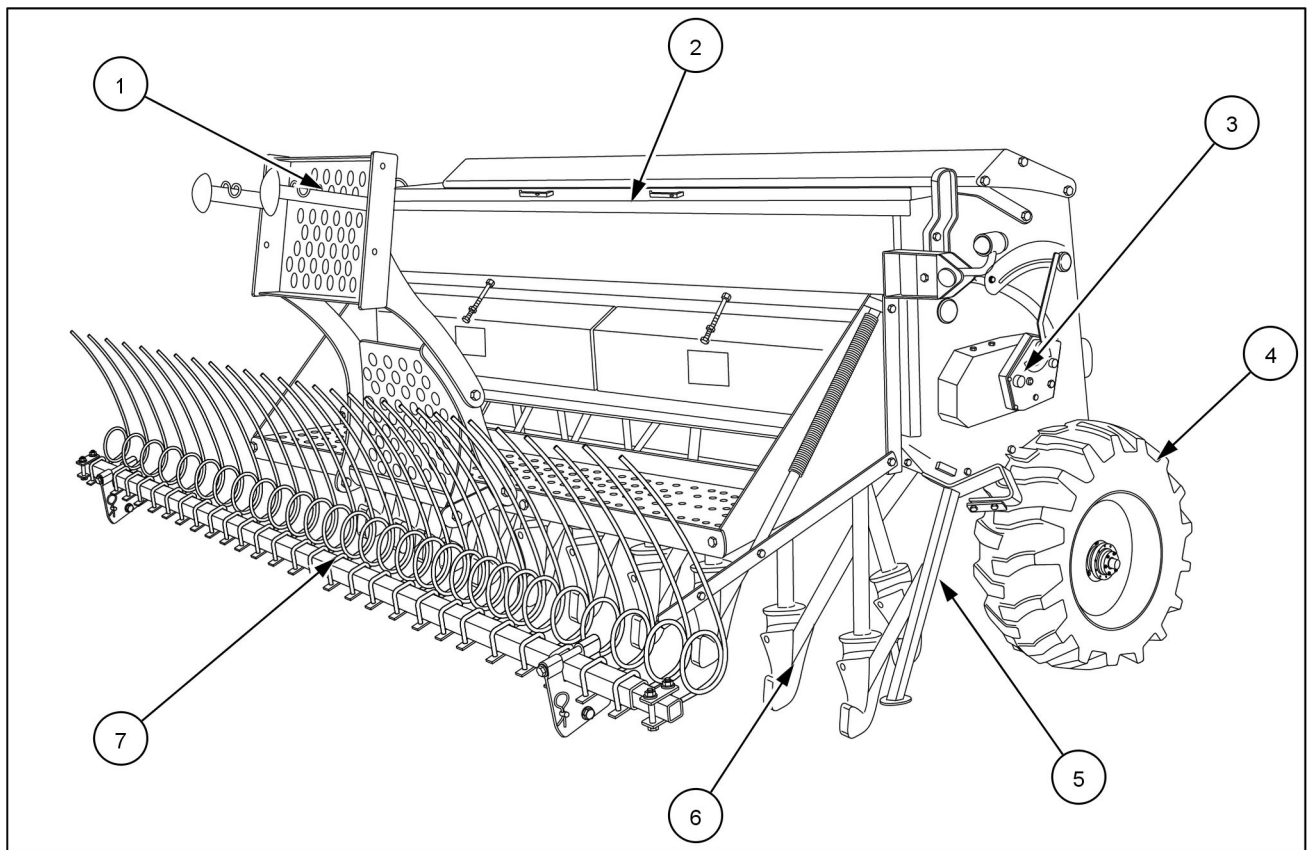


ZEIL21SE00084FA 2

- (1) Loading platform
- (2) Hopper
- (3) Light kit (x2)
- (4) Gearbox

- (5) Wheels (x2)
- (6) Parking legs (x2)
- (7) Single disc coulters
- (8) Rear harrow

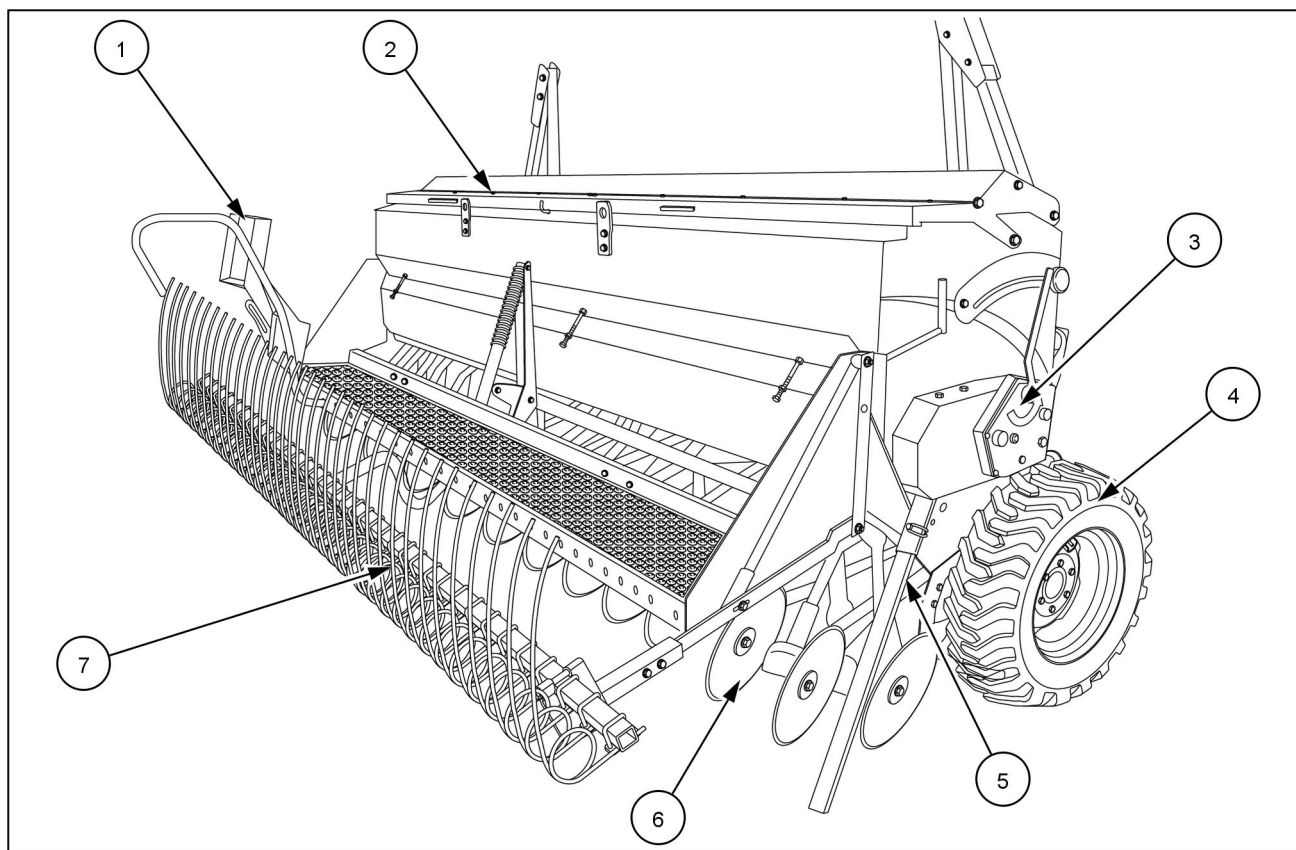
ProfiLine models with suffolk coulters



ZEIL21SE00100FA 3

- | | | | |
|-----|------------------|-----|-------------------|
| (1) | Loading platform | (5) | Parking legs (x2) |
| (2) | Hopper | (6) | Suffolk coulters |
| (3) | Gearbox | (7) | Rear harrow |
| (4) | Wheels (x2) | | |

ProfiLine models with single disc coulters

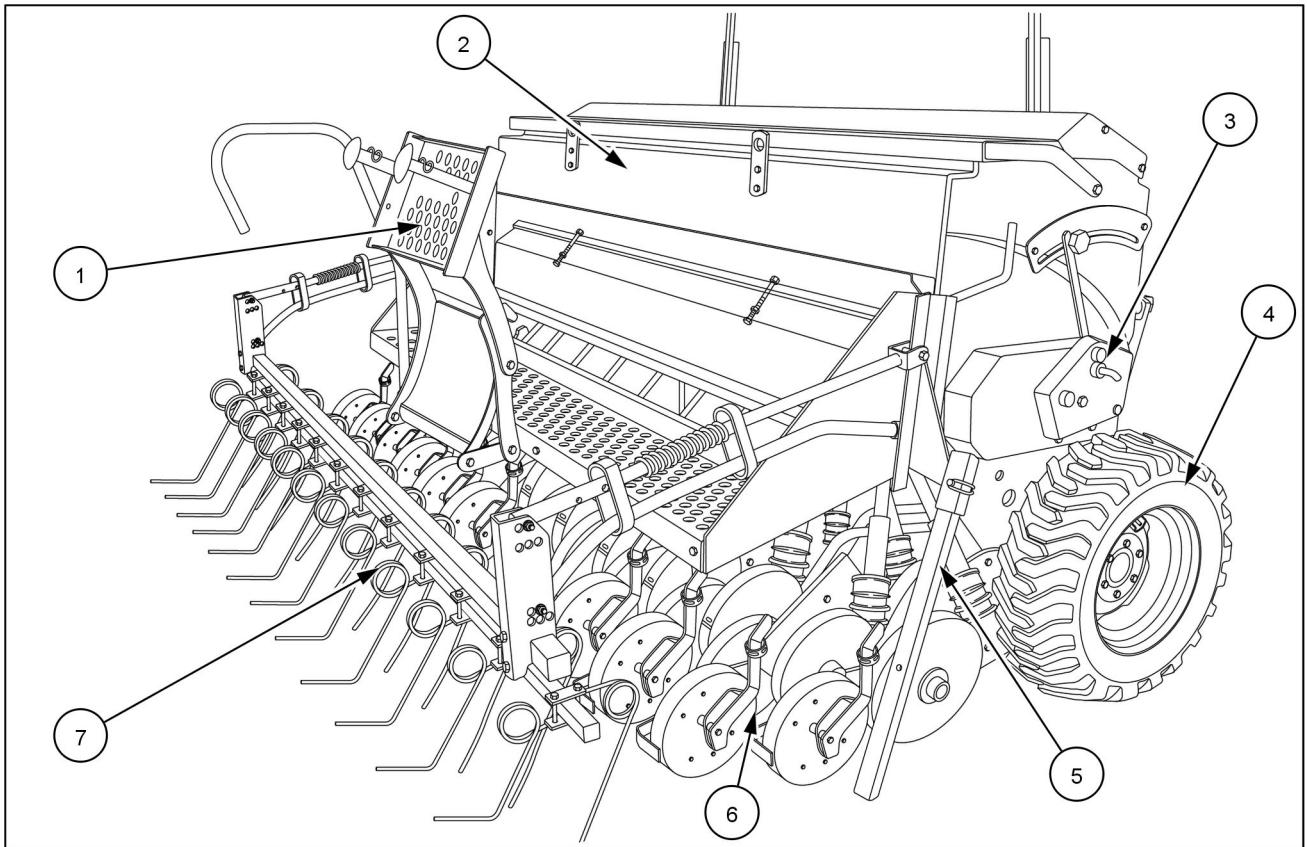


ZEIL21SE00097FA 4

- (1) Loading platform
- (2) Hopper
- (3) Gearbox
- (4) Wheels (x2)

- (5) Parking legs (x2)
- (6) Single disc coulters
- (7) Rear harrow

ProfiLine models with double disc coulters



ZEIL21SE00095FA 5

- | | | | |
|-----|------------------|-----|----------------------|
| (1) | Loading platform | (5) | Parking legs (x2) |
| (2) | Hopper | (6) | Double disc coulters |
| (3) | Gearbox | (7) | Rear harrow |
| (4) | Wheels (x2) | | |

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.
- In case of an accident, stop the tractor, turn off the engine and remove the key from the contact, assess the situation and call emergency services when required.
- 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.
- The implement has only one operator station and this is the cab of the tractor, which is a one man operated implement. Never permit anyone to ride on or in an implement. Do not allow riders on the implement or tractor; do not allow people to stand on the ladder or steps. Your view to the left or right will be obstructed and a rider risks to fall from the implement or tractor during unforeseen or abrupt movements. There is no need for other people on or around the implement during normal operation.
- Do not use this implement as a lift, ladder or platform to work at heights.
- 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.

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.

Local obligations

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

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

Fire or explosion prevention

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

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 maneuver with the tractor may cause serious injury.
- Never go under an unsupported implement.
- Before you start the implement, learn all components of the implement and service equipment.
- Before you start the implement, make sure that all sub-assemblies are fully operational and complete. Pay particular attention to all locks and safety devices.
- Before you start the implement, repair or replace all malfunctioning elements with new ones.
- Never start the tractor until all persons are safely away from the tractor and the implement.
- Make sure that all tools have been removed from the implement before starting the tractor.
- Make sure that all spare part and moving equipment are intact and have been mounted correctly.
- Do not stand near the implement while it is working.

Traveling on public roads

Comply with the relevant traffic regulations

WARNING

Loss of control hazard!
Uneven brake force exists on left-hand and right-hand brakes. Always use brake pedal coupler when traveling on public roads to ensure brakes are actuated together.
Failure to comply could result in death or serious injury.

W0081A

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

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

Roll-over hazard!

Special care is required when operating the machine on slopes or in a tilted position. A wrong maneuver or unexpected event could create a dangerous situation. Failure to comply could result in death or serious injury.

W0207A

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

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.

Before you operate the implement, familiarize yourself with all facilities and operating elements. Once an accident happens it is too late to think about what you did.

Examine the work surface for hidden obstacles. Obstacles pose a risk.

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

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

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

When you operate the implement, always remain seated in the tractor cab. Operate controls only when seated in

the tractor seat, except for those controls expressly intended for use from other locations.

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

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

Do not operate the implement during a thunderstorm. If you are on the ground during a thunderstorm, stay away from machinery and equipment. Seek shelter in a permanent, protected structure.

If a lightning from a thunderstorm should strike during operation, remain in the tractor cab. Do not leave the cab. Do not make contact with the ground or objects outside the machine.

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

When you turn on hillsides always be careful. Adjust the speed to these conditions.

When you work in the soil, never turn the cultivator so sharply that the tines are forced sideways and backward. It may result in loads far in excess of what the tines are designed for.

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, avoid dangerous pitching of the implement.

Never reverse with the tines in the soil. Raise the cultivator to avoid the tines being overloaded, as this can lead to breakage of the tines.

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

Danger of death by electrocution!

Pay special attention to the overhead power lines. Always ask the owner of the field about the presence of

overhead power lines. Make sure the implement has sufficient clearance to pass in all directions (also with raised or opened implement components). Also think of the radio aerial(s) or any other accessory or parts which may have been added afterwards.

High voltage lines may require significant clearance for safety. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines.

Should a contact between the implement and an electric power line occur, then the following precautions must be taken: Stop the implement movement immediately, stop the tractor engine and apply the tractor handbrake.

Check if you can safely leave the cab or your actual position without direct contact with electric wires. If not, stay in your position and call for help. If you can leave your position without touching the lines, jump off the last step or support position and make sure that there is no contact between any part of your body, the tractor and the ground at the same time. Never touch the tractor or the implement afterwards until power to the lines has been shut off. When people approach the tractor or the implement, warn them not to touch the tractor or the implement but to ask the electric power supply company to shut off the power to the lines.

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.
- Stay clear from the area of the three point linkage during maintenance or checking operations.
- 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.
- 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.
- Any leakage of hydraulic oil or fuel under pressure may cause severe harm, so always use a shield, 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.
- Make sure that tires are correctly inflated. Do not exceed any recommended load or pressure. Over pressure could cause explosion hazard, with risk of death or serious injury. Follow the instructions in the manual for proper tire inflation.
- Tires are heavy. Always handle the tires with proper equipment. Failure to comply could cause death or serious injury.
- Never weld on a wheel with a tire installed. Always remove the tire completely from the wheel before you weld.
- Always have a qualified tire technician service the tires and wheels. If a tire has lost all pressure, take the tire

and wheel to a tire shop or your dealer for service. Explosive separation of the tire can cause serious injury.

- Do not weld to a wheel or rim until the tire is completely removed. Inflated tires can generate a gas mixture with the air that can be ignited by high temperatures from welding procedures performed on the wheel or rim. Re-

moving the air or loosening the tire on the rim (breaking the bead) will not eliminate the hazard. This condition can exist whether tires are inflated or deflated. The tire must be completely removed from the wheel or rim prior to welding the wheel or rim.

Personal protective equipment (PPE)

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



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 undamaged. Replace immediately damaged components.

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

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

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

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

Noise emission

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

To enable measurement of noise level at the operator seat produced by the tractor - implement combination, it must be noted that the airborne noise produced by the implement attached to the tractor is measured outside the cabin of an average tractor suitable for operating the implement.

The maximum noise emission is **81.3 dB** (A) with an uncertainty of **1.5 dB**.

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

On tractors without a cab or when you work with the cab doors or windows open, it is recommended to use ear protection equipment.

Check your local legislation for occupational health & safety requirements with regard to noise.

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

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

Vibration levels

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

NOTE: *Check that all the parts are in the correct position before you start the implement.*

NOTICE: *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

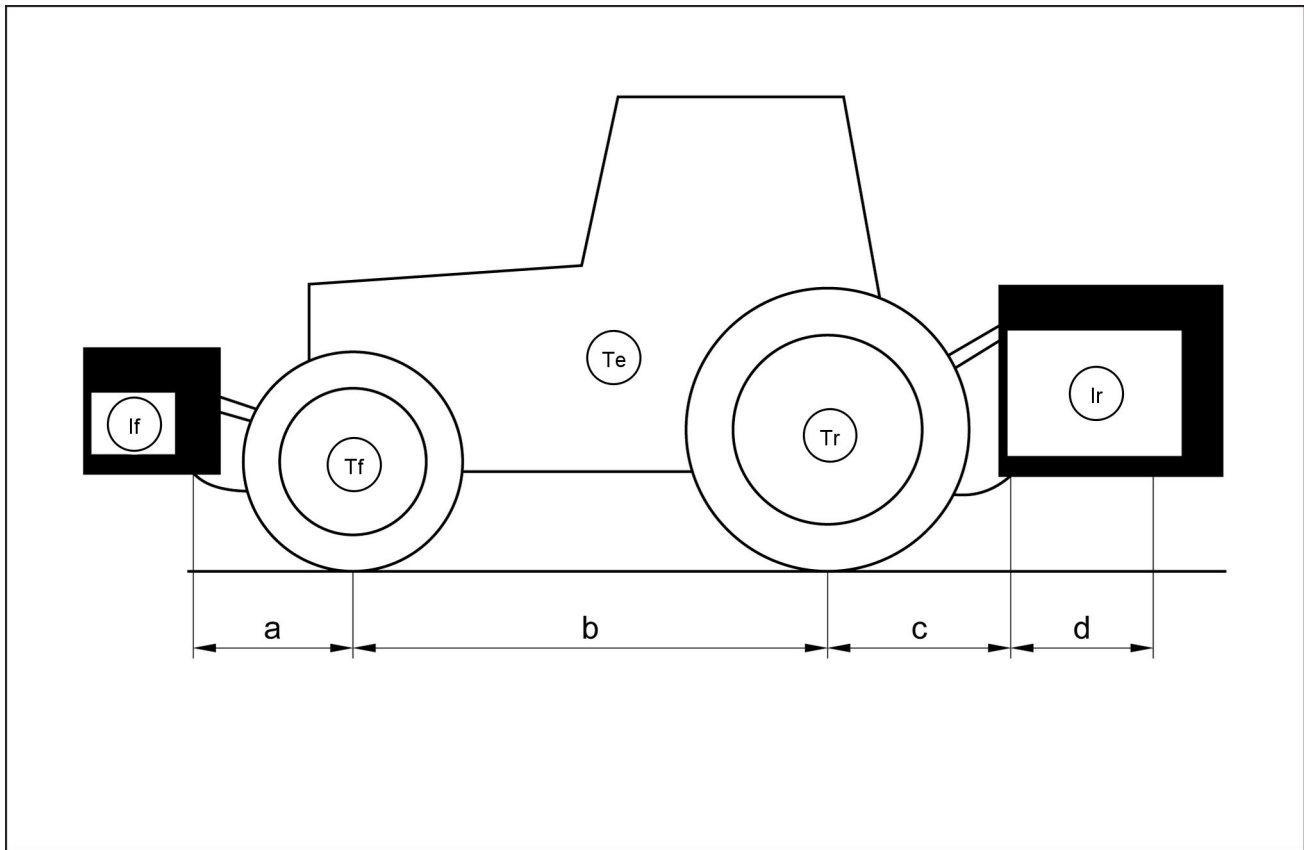
The combination of your tractor and implement can become unstable, due to the additional weight that the implement adds to the tractor.

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 as amended by CONAMA Resolution 424/2010 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 the implement and note the content and location of all safety signs before you operate your implement. Read all the safety decals adhered to the implement and follow the instructions.

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

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

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.

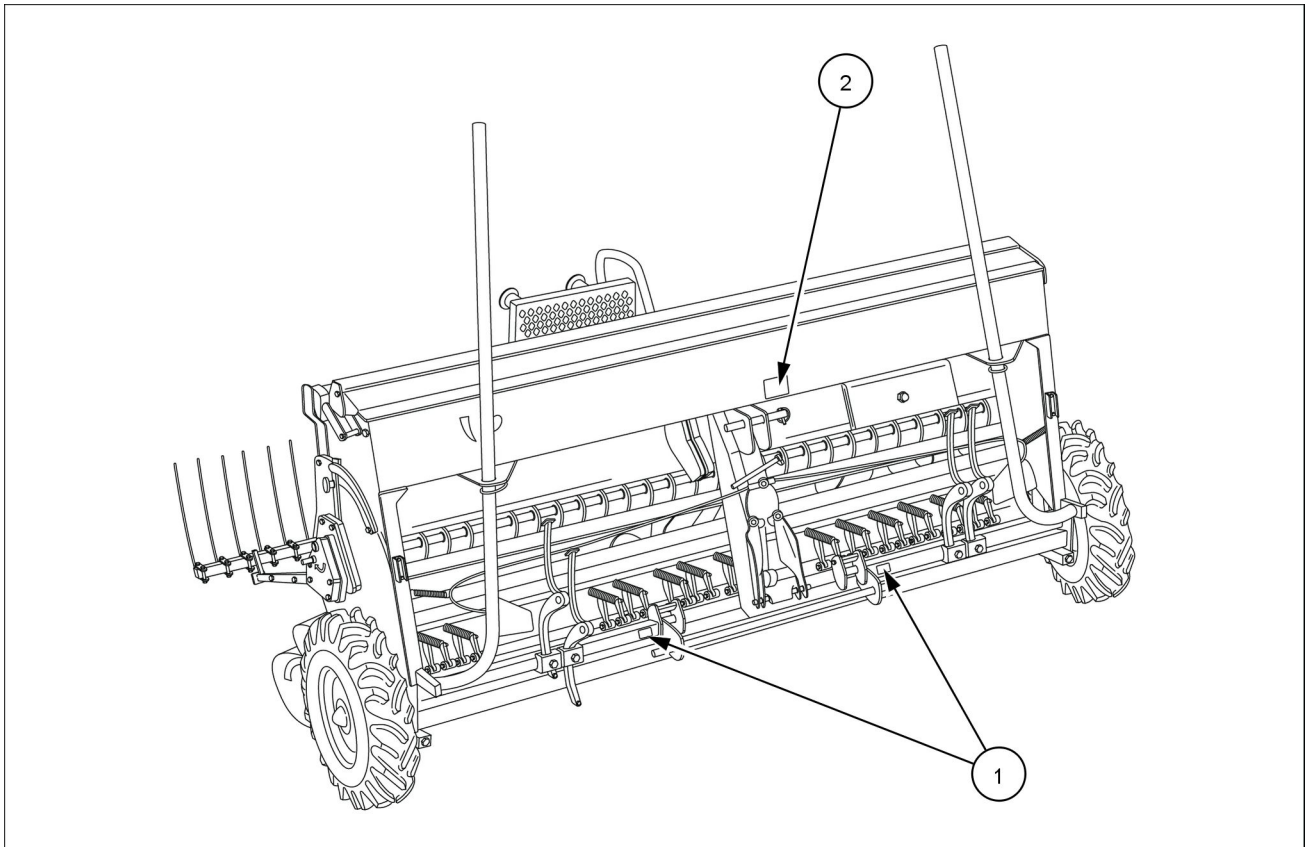
Safety signs that display the “Read operator’s manual” symbol direct you to the operator’s manual for further information regarding maintenance, adjustments, or procedures for particular areas of the implement. When a safety sign displays this symbol, consult the appropriate page of the operator’s manual.



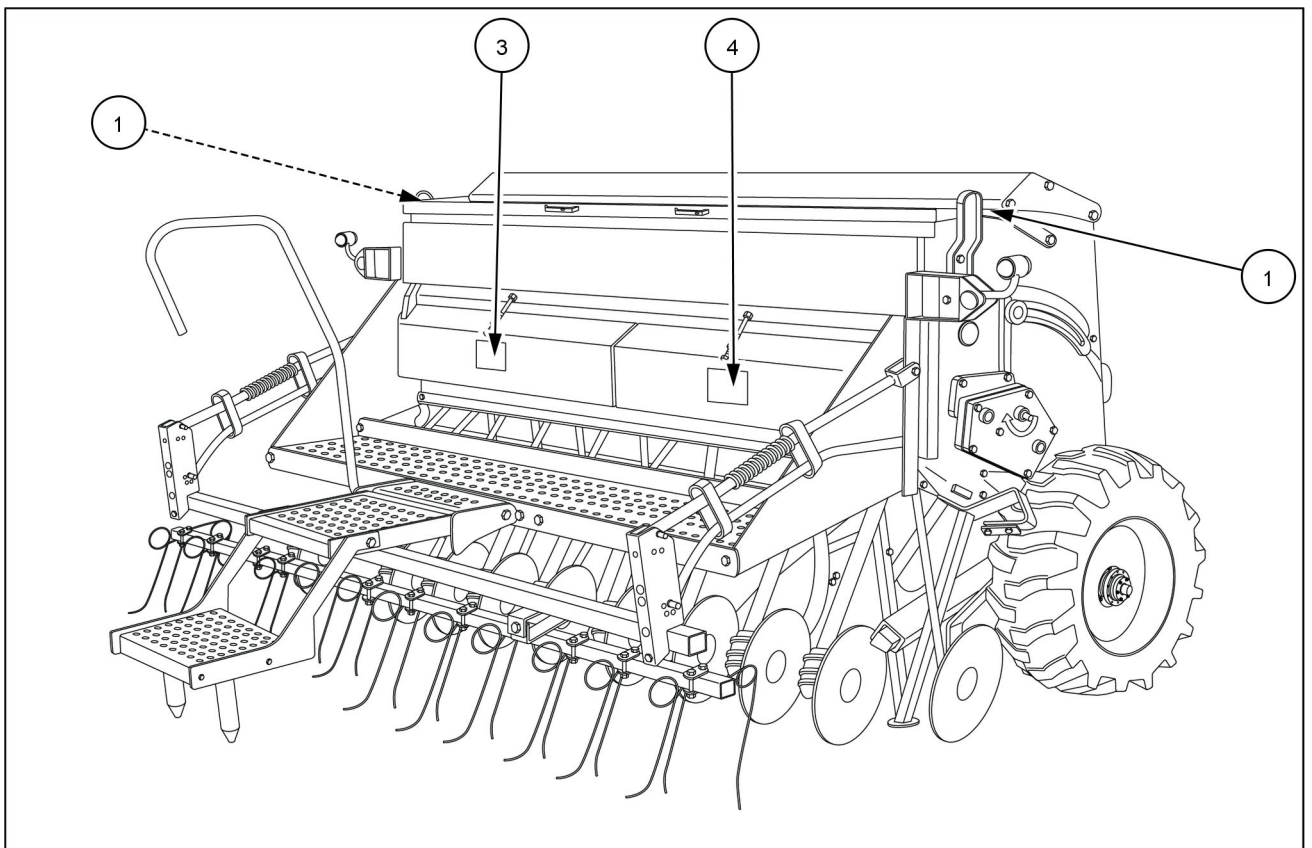
Safety signs that display the “Read service manual” symbol direct you to the service manual. If you doubt your ability to perform service operations, contact your dealer.



EcoLine

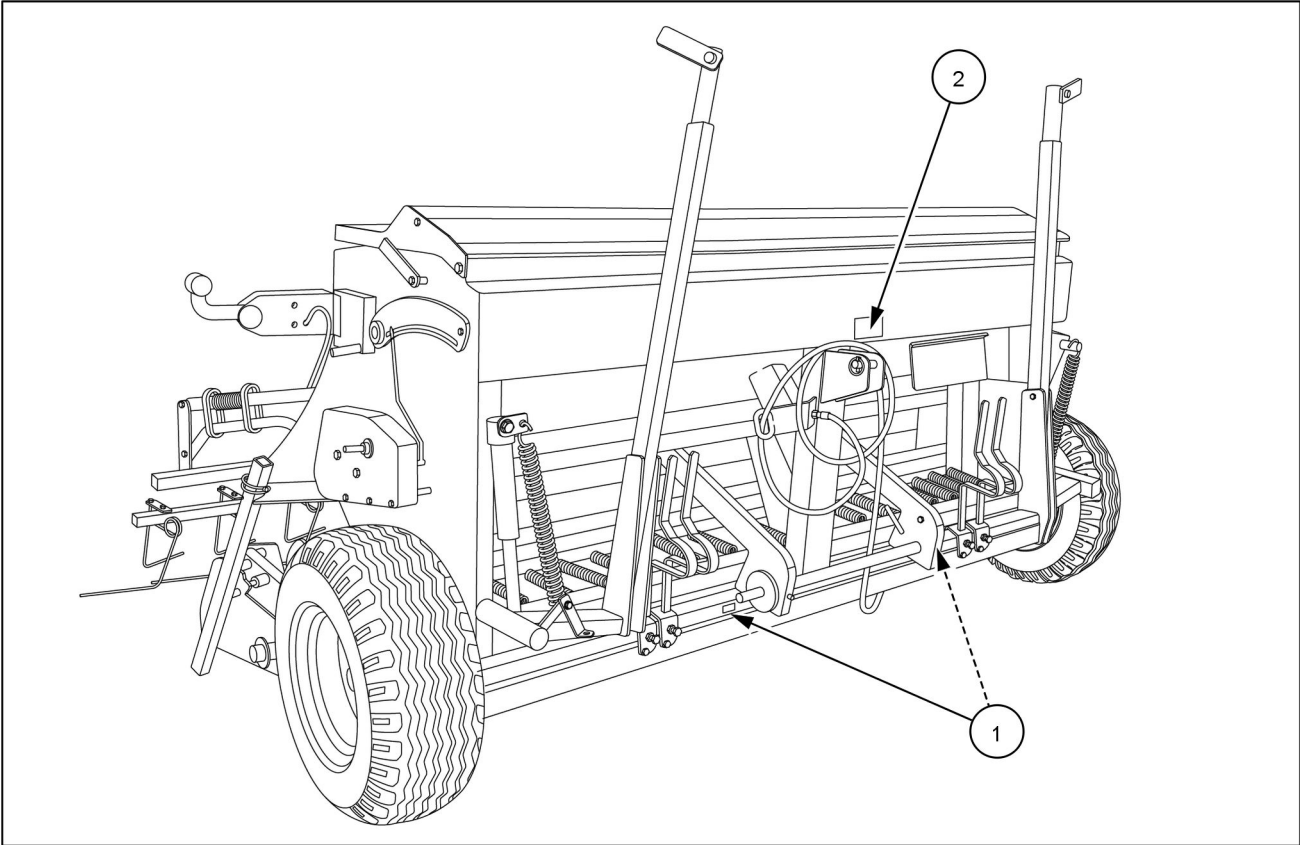


ZEIL21SE00087FA 1

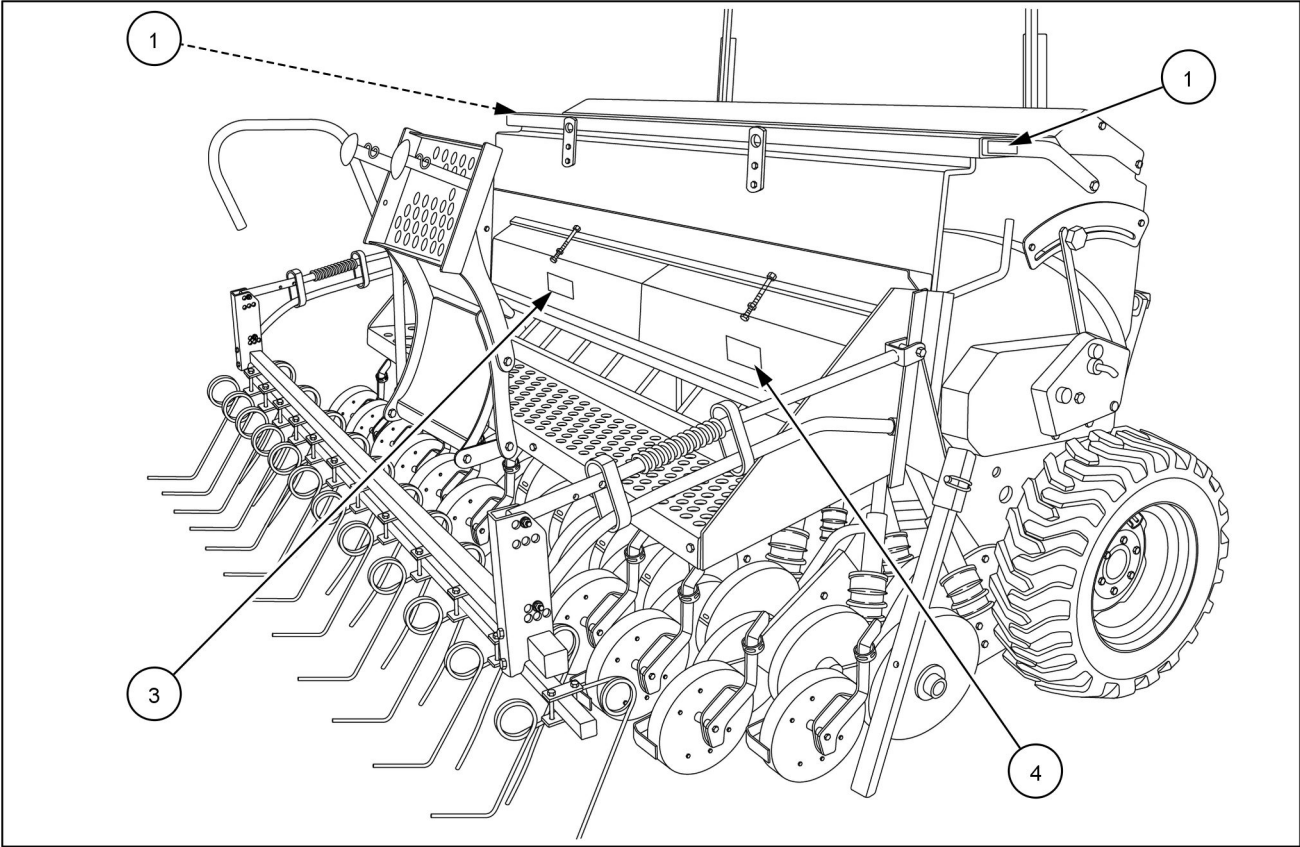


ZEIL21SE00084FA 2

ProfiLine



ZEIL21SE00102FA 3



ZEIL21SE00101FA 4

Safety sign (1)

Keep hands away.

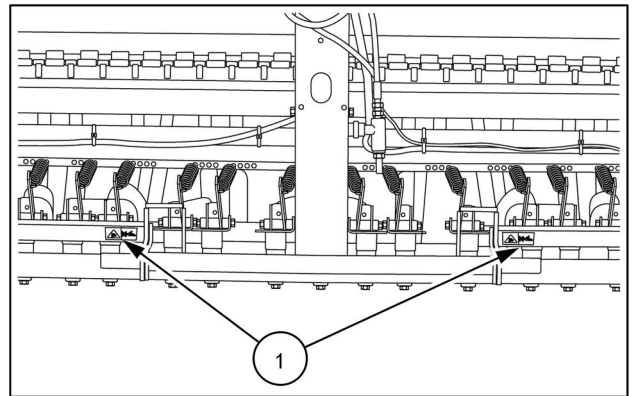
Never move your hand into the danger zone as long as the parts can move. The hazard could result in death or serious injury.

Part number: 7002152848



7002152848 5

Located behind the drawbar.



ZEIL22SE00060AA 6

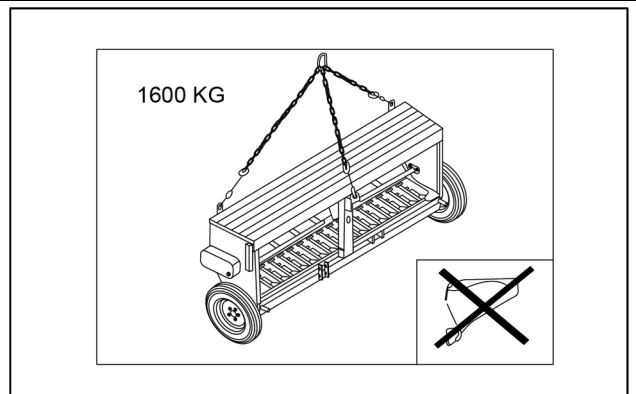
Safety sign (2)

⚠ WARNING

Crushing hazard!

Use the machine lifting points when you lift and/or move the machine with heavy handling equipment. Lift the machine only from the indicated lifting eye hookup points. Always use adequate lifting equipment. Failure to comply could result in death or serious injury.

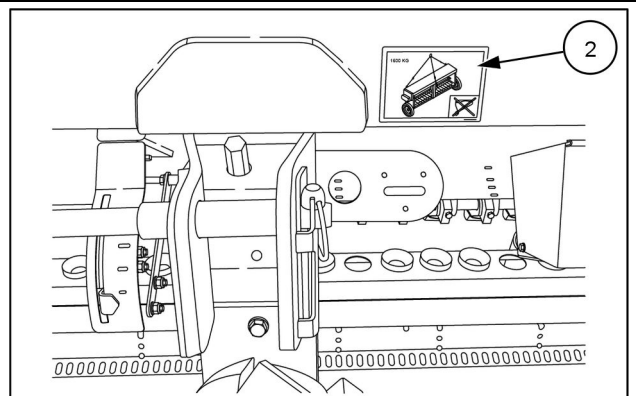
W1432B



700TT30453 7

Part number: 700TT30453

Located near the test sowing handle.



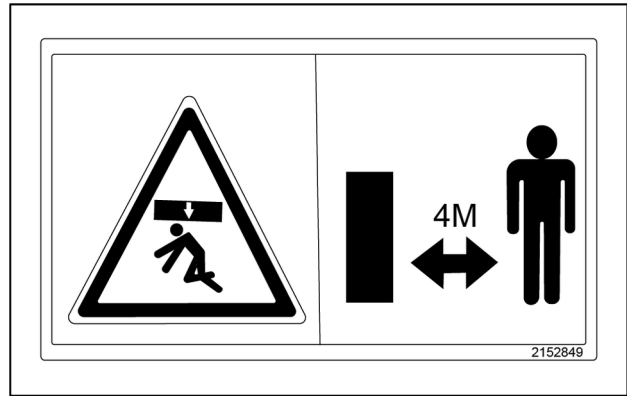
ZEIL22SE00061AA 8

Safety sign (3)**⚠ WARNING****Falling object hazard!**

Loss of hydraulic pressure or movement of a control can cause raised equipment to fall. Never work under an implement or attachment supported only by the hydraulic system. Always use suitable equipment to support an implement or attachment that must be serviced in a raised position.

Failure to comply could result in death or serious injury.

W0325A



2152849 9

A hazard of your body being crushed by lowered unit elements.

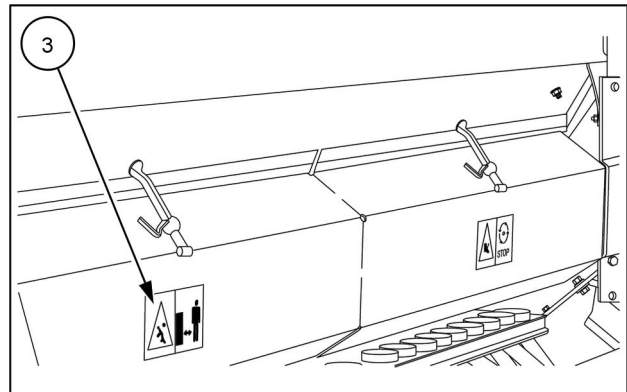
The hazard will result in death or serious injury.

Keep clear of the unit's hazard zone and pay attention to all other people standing next to the unit. Make sure there is no one in the hazard zones before attempting any actions.

The safe distance is at least **4.0 m (13.1 ft)**.

Part number: 2152849

Located on the left-hand side of the calibration tray.



ZEIL22SE00062AA 10

Safety sign (4)

Moving parts.

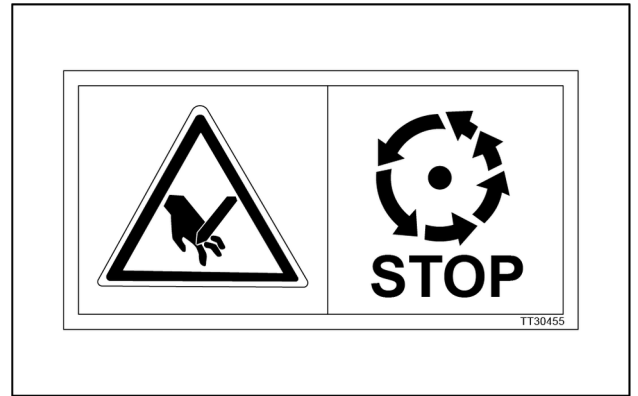
Equipment moves during drill calibration.

Keep the work area clear during the calibration procedure.

Keep hands away.

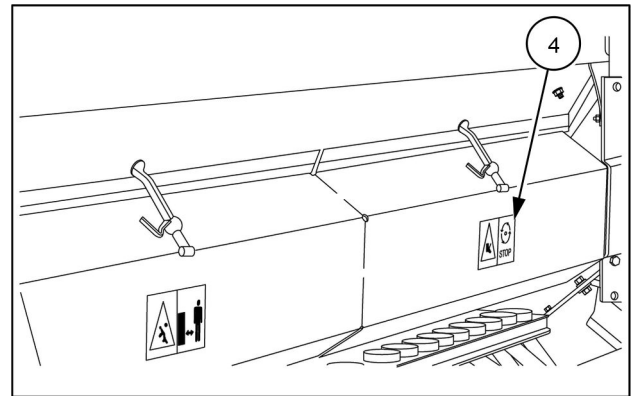
Never move your hand into the danger zone as long as the parts can move. The hazard could result in death or serious injury.

Part number: TT30455



TT30455 11

Located on the right-hand side of the calibration tray.



ZEIL22SE00062AA 12

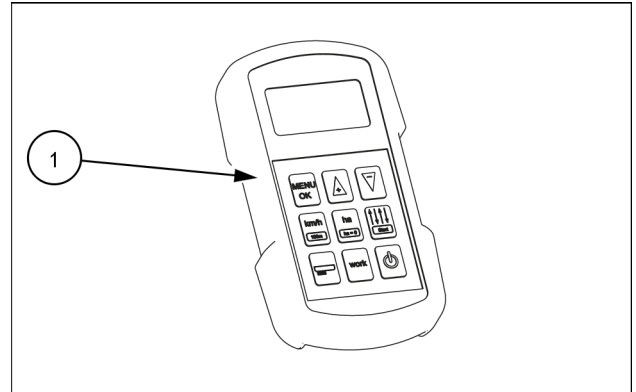
3 - CONTROLS AND INSTRUMENTS

Exterior controls

Monitor (if equipped)

The implement can be equipped with a Konnect 1000 monitor **(1)** to provide data as follow:

- Speed set tractor – seeder
- Value of the area sown
- Rotation of the sowing shaft
- Seed level in the hopper
- Status of tramelines



ZEIL21SE00013AA 1

The Konnect 1000 device is powered using the included cable to the electrical system **12 V** of the tractor. The terminal can be located in the tractor cab at any place. On the back wall is built magnet for easy mounting.

Equipment

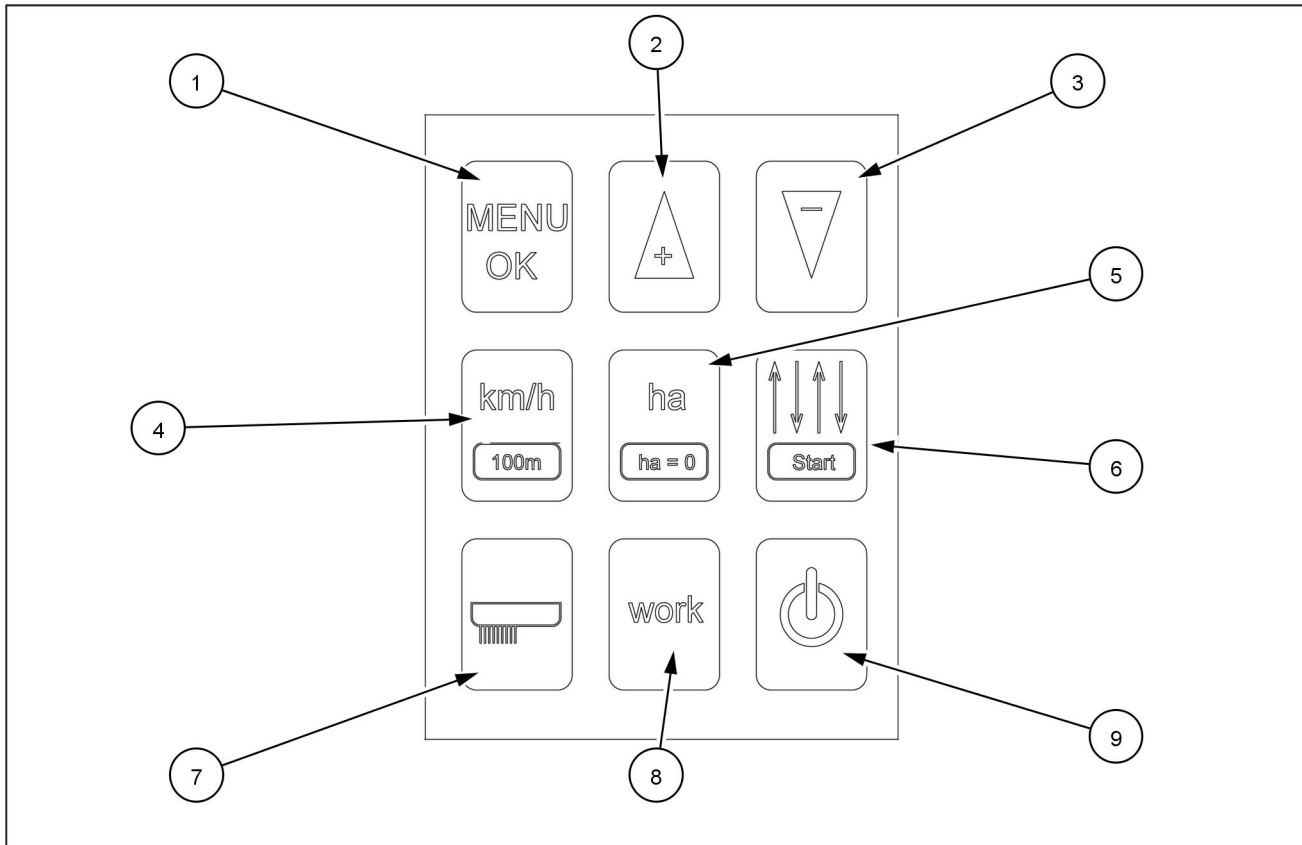
The Konnect 1000 is fitted with the following equipment:

- Operator terminal Konnect 1000 and a **6.00 m (236.22 in)** cable
- Main harness ended plugs
- Two sets to tracks with couplings and connectors
- One set of marker sensors with **1.50 m (59.06 in)** wires

Depending on the configuration, the Konnect 1000 can be equipped with a set of sensor for hopper level control.

Keypad

The handling of Konnect 1000 is possible via keypad with 9 keys.



ZEIL21SE00063FA 1

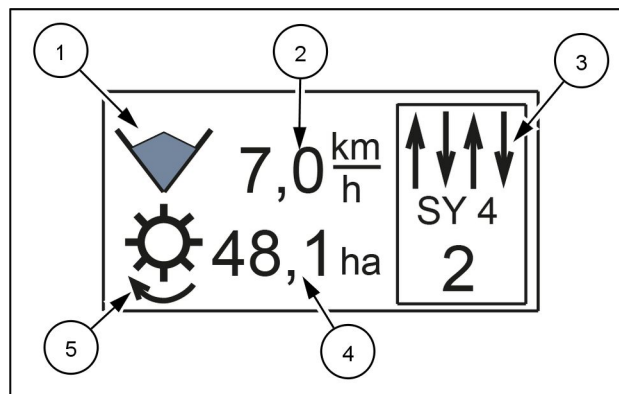
- | | | | |
|-----|---------|-----|-------------------|
| (1) | Menu OK | (6) | Select tramlining |
| (2) | Up | (7) | Half width |
| (3) | Down | (8) | Work |
| (4) | Km-h | (9) | On/Off |
| (5) | ha | | |

Display

Main work screen

On the main screen, it is possible to configure or view during the work the following parameters:

Item	Parameter
(1)	Status of hopper empty or full
(2)	Current speed of the implement
(3)	Selected tramlining system
(4)	Area sown
(5)	Sowing shaft rotation



ZEIL21SE00016AA 1

Settings

On the work screen, it is possible to configure the following parameters:

- Language
- Screen brightness and contrast
- Type of machine
- Number of pulses
- Alarms
- Working width
- Hectare counter
- Calibration of the drill
- Tramline path

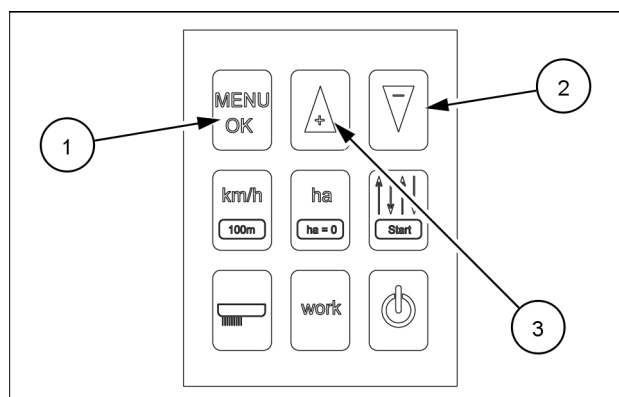
Language selection

It is possible to choose between different languages:

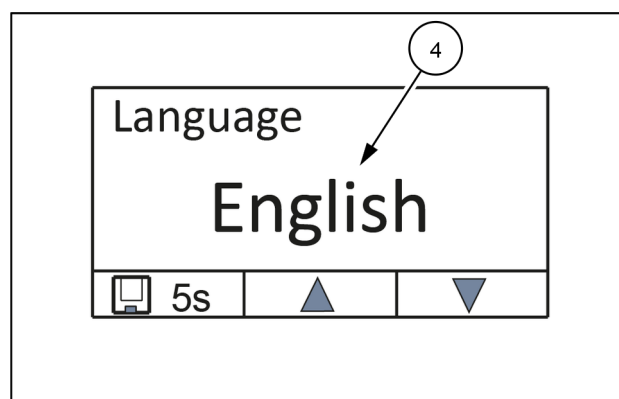
- English
- Polish
- German
- French
- Danish
- Dutch
- Hungarian
- Italian
- Swedish
- Spanish

Proceed as follows:

1. Use the key **(1)** and select the setting “Language” in order to display the language menu **(4)**.
2. Press the key **(2)** or **(3)** to select the desired language.
3. Press the key **(1)** for **5 s** to save and memorize the selection.



ZEIL21SE00037AA 1

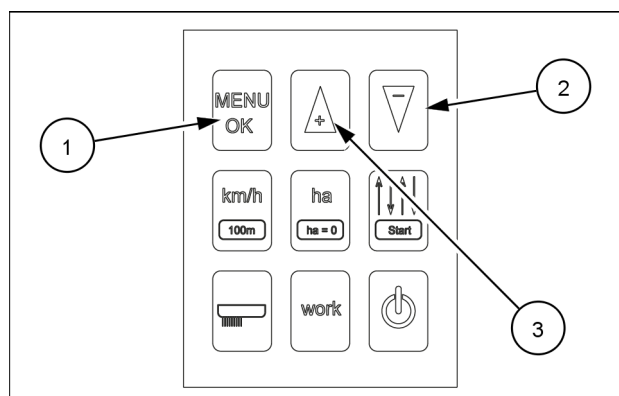


ZEIL21SE00015AA 2

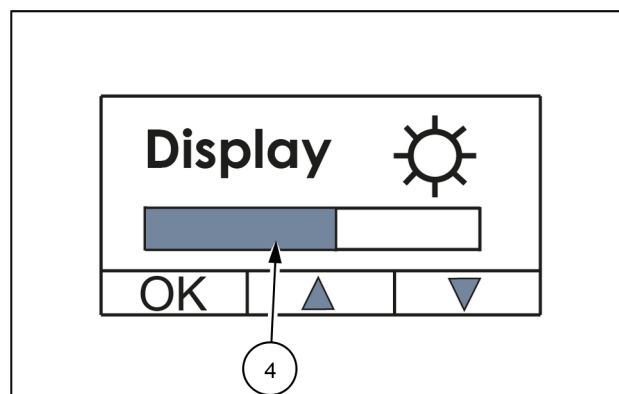
Display brightness

In order to modify the brightness of the display, proceed as follows:

1. Press three times the key **(1)**.
2. Use the keys **(2)** or **(3)** to modify the bar chart **(4)** at desired level.
3. Press the key **(1)** to approve the selected level.



ZEIL21SE00037AA 1



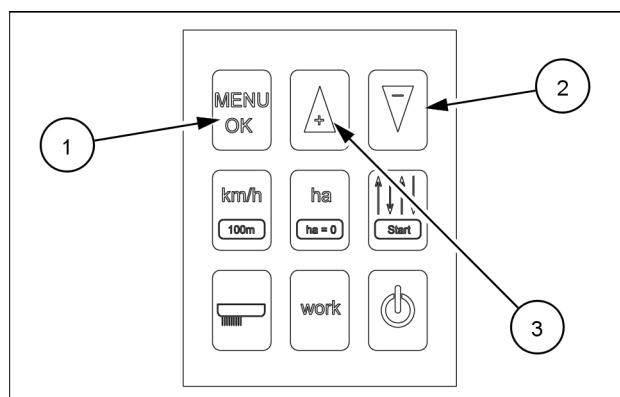
ZEIL21SE00017AA 2

Machine type

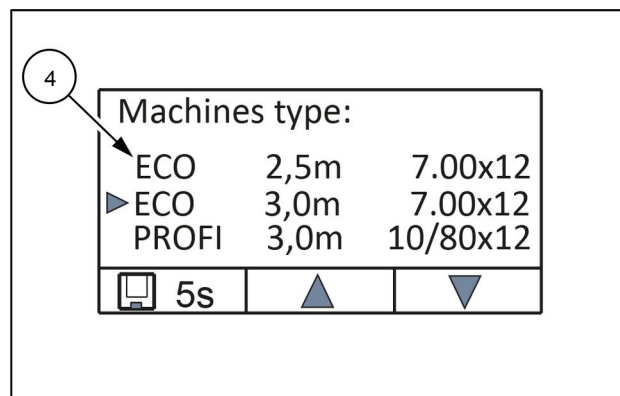
The selection of type of machine is very important because it contains the type of the drive wheel and the working width.

In order to select the type of machine, proceed as follows:

1. Use the key **(1)** and select the setting "Type of machine" in order to display the possible kind of drills **(4)**.
2. Press the key **(2)** or **(3)** to select the type of machine.
3. Press the key **(1)** for **5 s** to save and memorize the selection.



ZEIL21SE00037AA 1



ZEIL21SE00020AA 2

Number of pulses

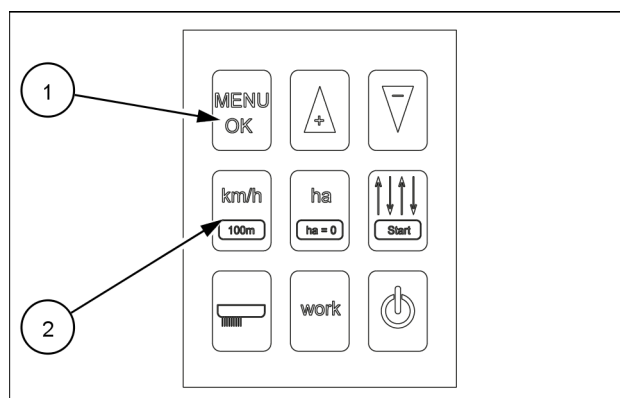
Area meter accuracy of the calculation depends on the number of impulses in the system collects during operation of the drill in the field.

Proceed as follows:

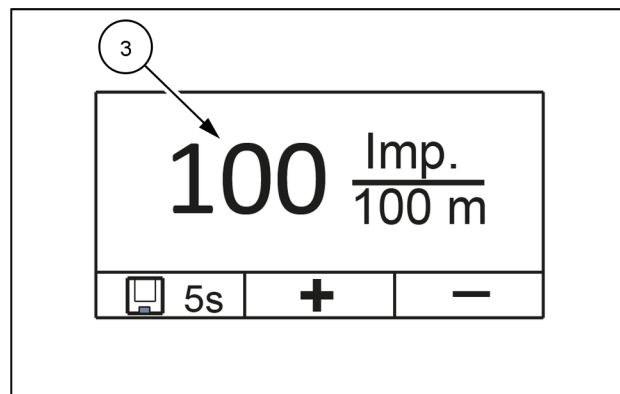
1. Use the key **(1)** and select the setting "Number of pulses" in order to display the impulses **(3)**.
2. Press the key **(2)** in order to enter the number of impulses. See the table below:

Model	Type wheel drive	Wheel impulses per 100 m (3937 in)
EcoLine	7.00 x 12	48
ProfiLine	6.00 x 16	52
ProfiLine	10.0/80 x 12	54

3. Press the key **(1)** for **5 s** to save and memorize the selection.



ZEIL21SE00037AA 1



ZEIL21SE00021AA 2

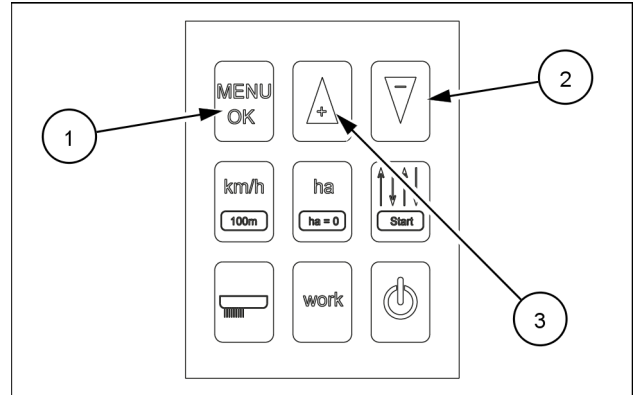
Alarms

The seed level in the hopper and work couplings path-names can be monitored by means of audible alarms. The alarms work at a speed of more than **1.0 km/h (0.6 mph)**. In case of a fault an alarm screen with flashing icon is displayed and five beeps are audible. The alarm can be acknowledged by the work-key. This action returns to the work screen.

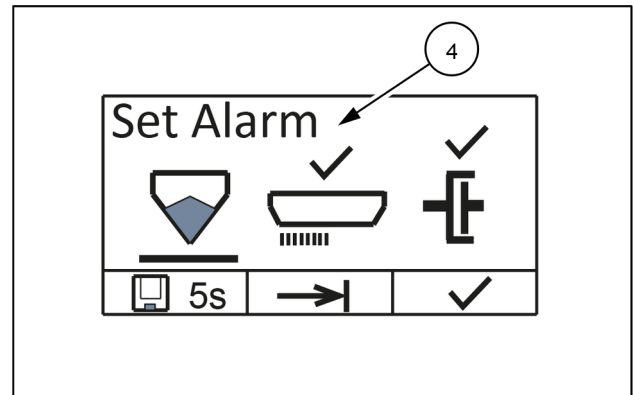
Alarm settings

Activation or deactivation of alarms is possible. Proceed as follows:

1. Use the key **(1)** and select the setting "Alarms" in order to display the alarm set **(4)**.
2. Press the key **(2)** or **(3)** to select the parameter. It is visible an horizontal bar under the selected icon.
3. Press the key **(3)** to put a check mark to activate the alarm.
4. Press the key **(1)** for **5 s** to save and memorize the selection.



ZEIL21SE00037AA 1

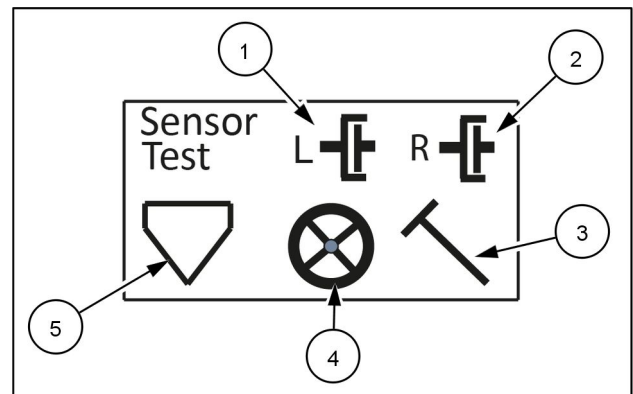


ZEIL21SE00018AA 2

Sensor test

Carrying out the sensor test is to check the condition of electrical connections, the state plugs connecting cables, the technical condition of the sensors.

- State of coupling the left control tramlines **(1)**
- State of coupling the right control tramlines **(2)**
- Position markers **(3)**
- Turns the sowing shaft **(4)**
- Level of seed in the tank **(5)**

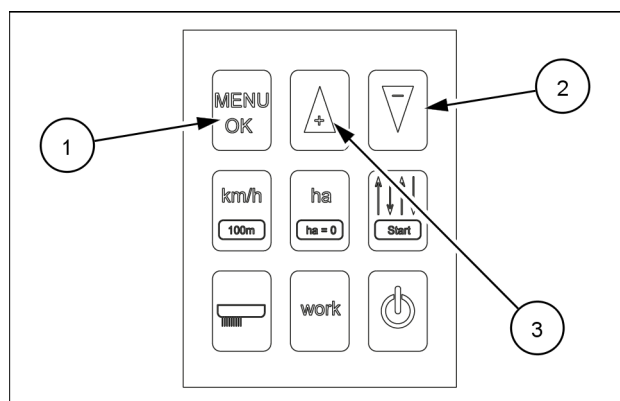


ZEIL21SE00019AA 3

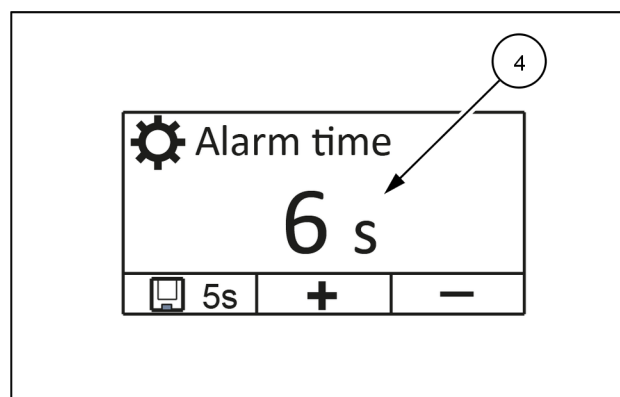
Alarm time

It is possible to determinate the time after which the alarm is activated. This time can be adjusted in the range of **1 – 20 s**.

1. Use the key **(1)** in order to display the alarm time **(4)**.
2. Press the key **(2)** or **(3)** to decrease or increase the alarm time.
3. Press the key **(1)** for **5 s** to save and memorize the selection.



ZEIL21SE00037AA 4



ZEIL21SE00022AA 5

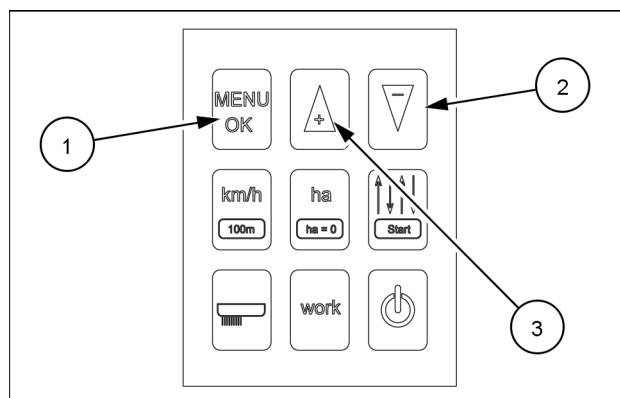
Working width

This option allows changing the working width of the drill.

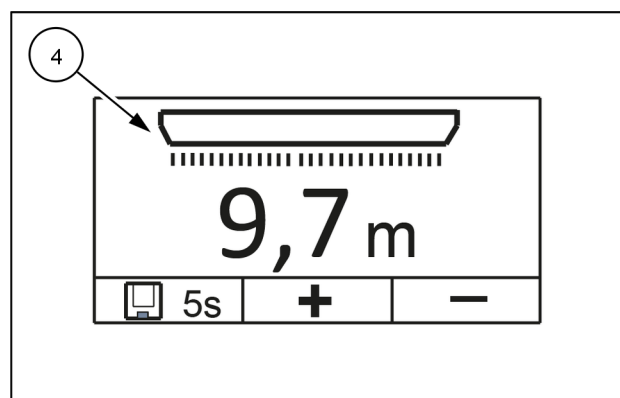
There is a choice of width in the range **2.0 – 12.0 m (78.7 – 472.4 in)** with intervals of **0.1 m (3.9 in)**.

Proceed as follows:

1. Use the key **(1)** and select the setting “Working width” in order to display the working width **(4)**.
2. Press the key **(2)** or **(3)** to select the working width.
3. Press the key **(1)** for **5 s** to save and memorize the selection.



ZEIL21SE00037AA 1

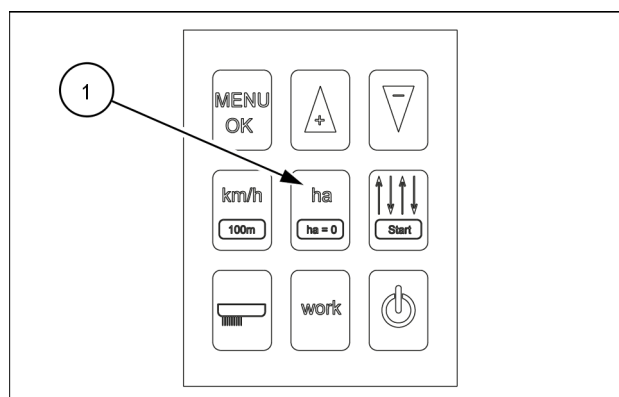


ZEIL21SE00023AA 2

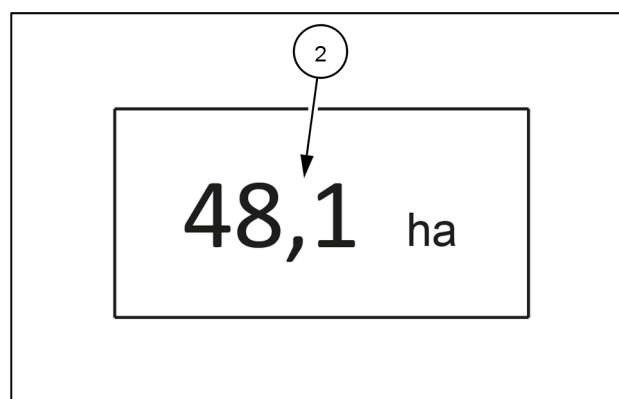
Hectare counter

It's possible to view the sown area. Proceed as follows:

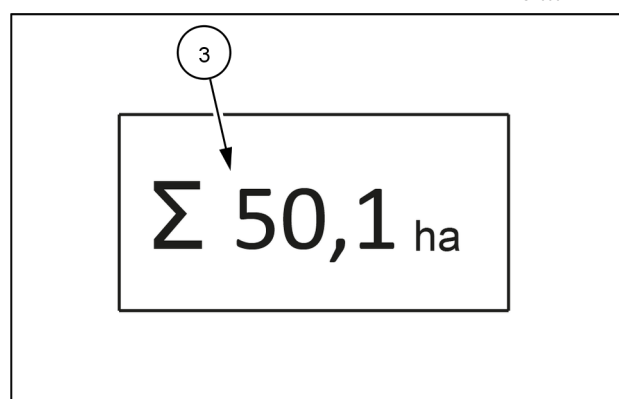
1. Press once the key **(1)** and select the setting "Hectare counter" in order to display a partial result of the count sown area **(2)**.
2. Press the key **(1)** repeatedly to display the total area sown so far **(3)**.
3. Press the key **(1)** for **5 s** to reset the value of sown area.



ZEIL21SE00037AA 1



ZEIL21SE00024AA 2



ZEIL21SE00025AA 3

Calibration of the drill

To find the right seed rate, perform the test to calibrate the drill as described in Page **6-7**.

The results obtained from the test using the Konnect 1000 method should be regarded as indicative. Correct data on the sowing rate can only be obtained by testing using the traditional method.

Tramline control

The choice of methods for creating tramlines is brought to the sequence on the surface of the field so as to create a passage of unsown stripes that will be used in later crop treatments like fertilization and spraying.

The distance between tracks depends on the working width of the drill.

In order to determine the distance between the tracks, turn off two or three metering units on one track path.

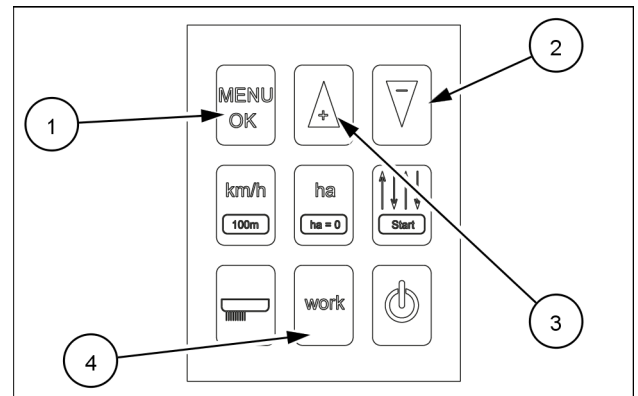
The space between marks and tracks depends on the track of the tractor used in the treatment of fertilization or spraying.

Configuring the tramline control

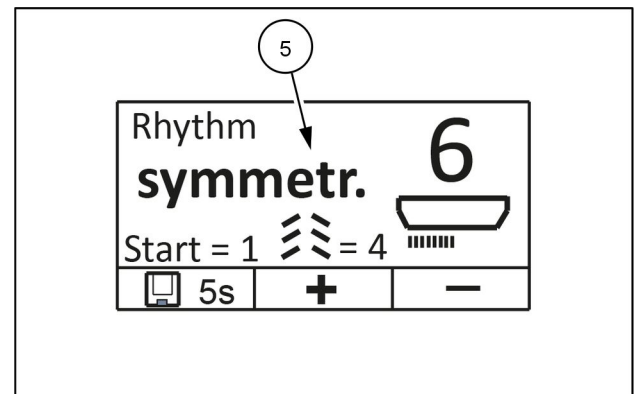
To select the tramline path proceed as follows:

1. Use the key **(1)** and select the setting “Tramline path” in order to display the the tramline path system **(5)**, according to the tramlines tables.
2. Press the key **(2)** or **(3)** to select the right conditions of tramlining system required.
3. Press the key **(1)** for **5 s** to save and memorize the selection.
4. Press the key **(4)**.
5. Set the markers vertically, in the starting position.

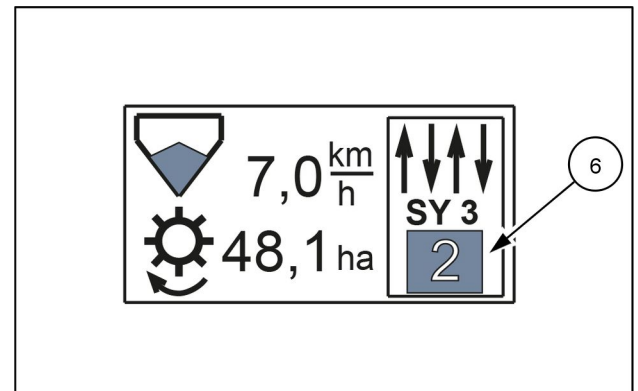
The number **(6)** of the current passage is visible on the screen highlighted in black.



ZEIL21SE00037AA 1



ZEIL21SE00034AA 2



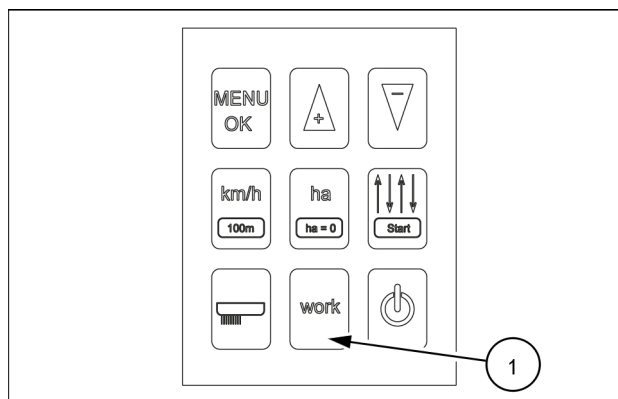
ZEIL21SE00035AA 3

Manually stop the tramlining system

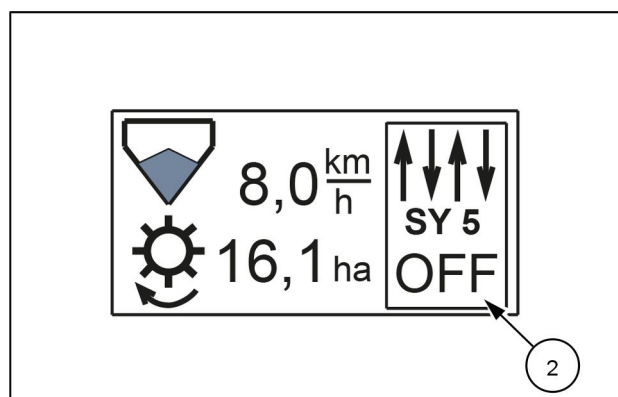
In case of passing an obstacle in the field, it is possible to raise the left or right marker and stop counting paths through the system.

Proceed as follows:

1. Press the key **(1)** in order to freeze the tramlining system.
2. On the screen will be visible "OFF" **(2)**.
3. Press the key **(1)** in order to restore the previous settings.



ZEIL21SE00037AA 4



ZEIL21SE00036AA 5

Tramlines tables for EcoLine models

Table of symmetrical tramlines

Path	Seed drill working width	Sprayer/ Spreader width	Symmetrical tramline placement in one pass
2	2.5 m (98.4 in) 3.0 m (118.1 in)	5.0 m (196.9 in) 6.0 m (236.2 in)	(A)
3	2.5 m (98.4 in) 3.0 m (118.1 in)	7.5 m (295.3 in) 9.0 m (354.3 in)	(B)
4	2.5 m (98.4 in) 3.0 m (118.1 in)	10.0 m (393.7 in) 12.0 m (472.4 in)	(C)
5	2.5 m (98.4 in) 3.0 m (118.1 in)	12.5 m (492.1 in) 15.0 m (590.6 in)	(D)
6	2.5 m (98.4 in) 3.0 m (118.1 in)	15.0 m (590.6 in) 18.0 m (708.7 in)	(E)
7	2.5 m (98.4 in) 3.0 m (118.1 in)	17.5 m (689.0 in) 21.0 m (826.8 in)	(F)
8	2.5 m (98.4 in) 3.0 m (118.1 in)	20.0 m (787.4 in) 24.0 m (944.9 in)	(G)
9	2.5 m (98.4 in) 3.0 m (118.1 in)	23.5 m (925.2 in) 27.0 m (1063.0 in)	(H)
10	2.5 m (98.4 in) 3.0 m (118.1 in)	25.0 m (984.3 in) 30.0 m (1181.1 in)	(I)

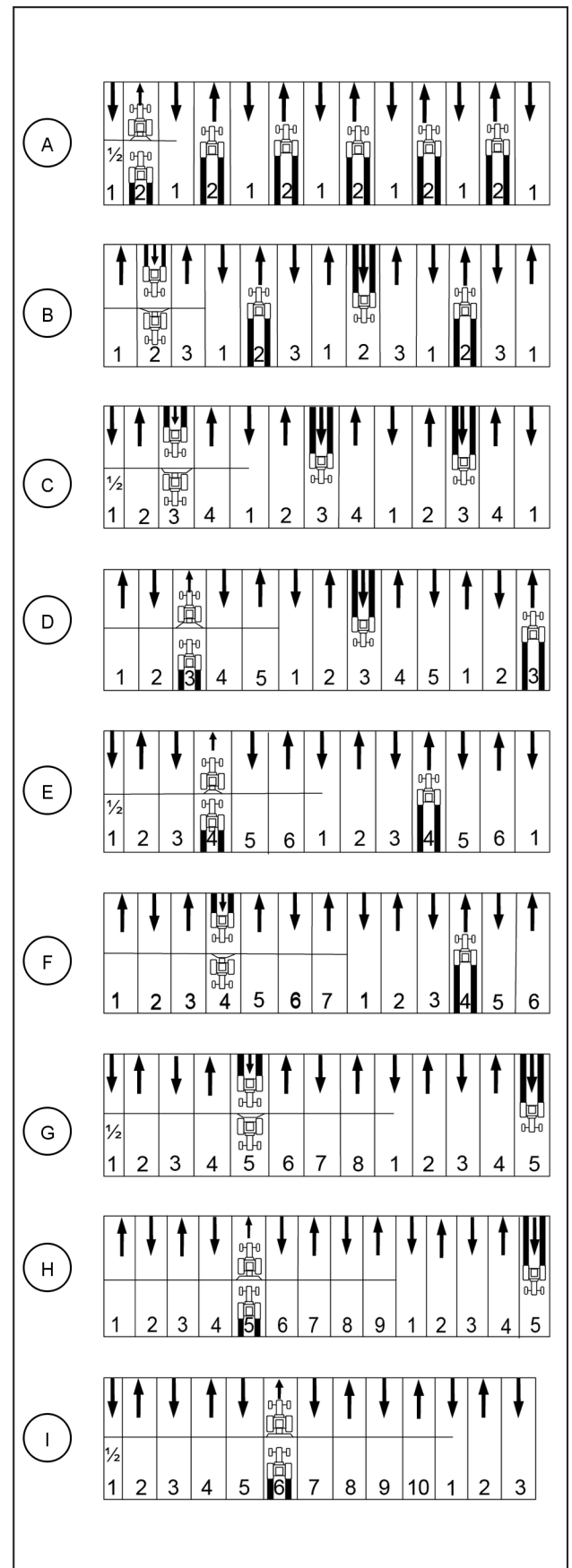


Table of symmetrical tramlines

Path	Seed drill working width	Sprayer/ Spreader width	Symmetrical tramline placement in one pass
11	2.5 m (98.4 in) 3.0 m (118.1 in)	28.0 m (1102.4 in) 33.0 m (1299.2 in)	(A)
12	2.5 m (98.4 in) 3.0 m (118.1 in)	30.0 m (1181.1 in) 36.0 m (1417.3 in)	(B)
13	2.5 m (98.4 in) 3.0 m (118.1 in)	33.0 m (1299.2 in) 39.0 m (1535.4 in)	(C)
14	2.5 m (98.4 in) 3.0 m (118.1 in)	35.0 m (1378.0 in) 42.0 m (1653.5 in)	(D)
15	2.5 m (98.4 in) 3.0 m (118.1 in)	36.0 m (1417.3 in) 45.0 m (1771.7 in)	(E)
16	2.5 m (98.4 in) 3.0 m (118.1 in)	40.0 m (1574.8 in) 48.0 m (1889.8 in)	(F)
17	2.5 m (98.4 in) 3.0 m (118.1 in)	43.5 m (1712.6 in) 51.0 m (2007.9 in)	(G)
18	2.5 m (98.4 in) 3.0 m (118.1 in)	45.0 m (1771.7 in) 54.0 m (2126.0 in)	(H)
19	2.5 m (98.4 in) 3.0 m (118.1 in)	48.5 m (1909.4 in) 57.0 m (2244.1 in)	(I)
20	2.5 m (98.4 in) 3.0 m (118.1 in)	45.0 m (1771.7 in) 54.0 m (2126.0 in)	(J)

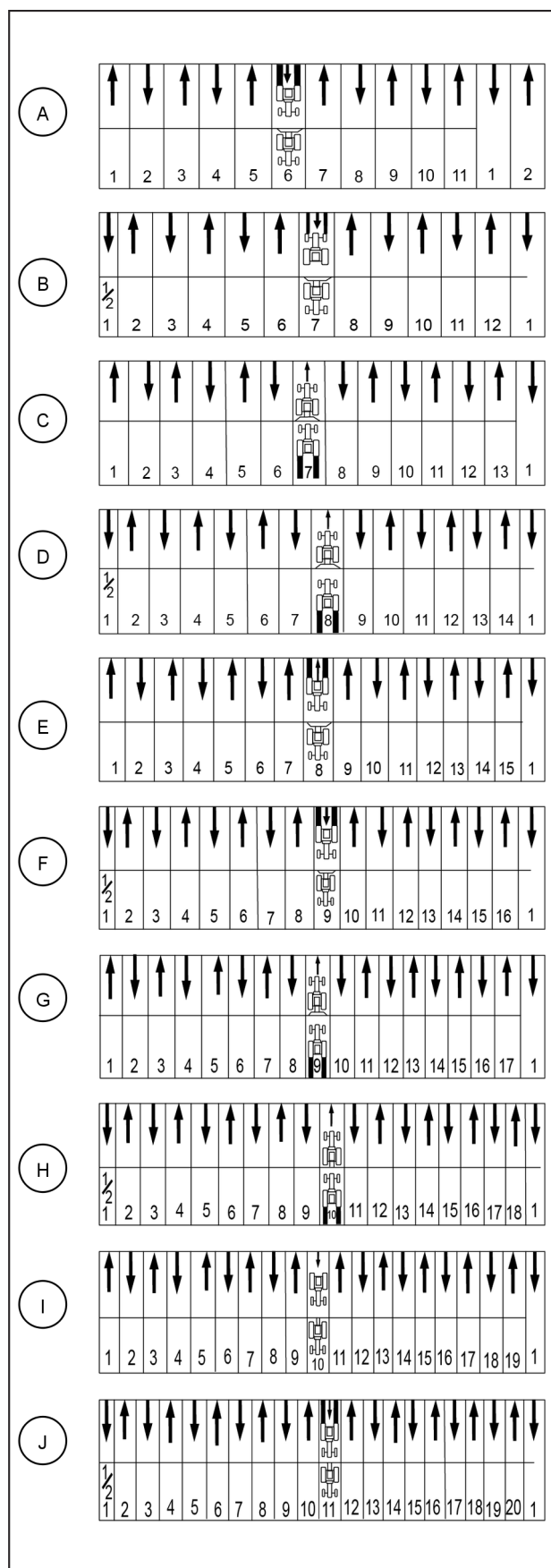
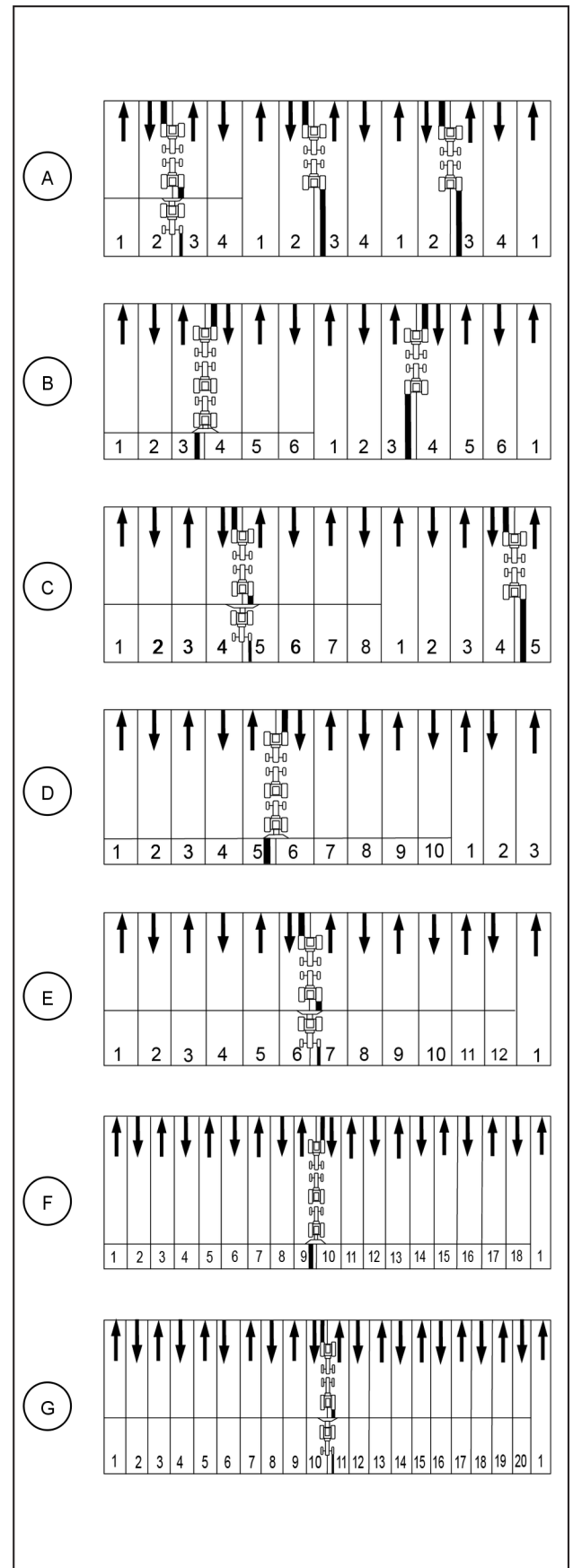


Table of asymmetrical tramlines

Path	Seed drill working width	Sprayer/ Spreader width	Symmetrical tramline placement in one pass
4 2+3	2.5 m (98.4 in) 3.0 m (118.1 in)	10.0 m (393.7 in) 12.0 m (472.4 in)	(A)
6 3+4	2.5 m (98.4 in) 3.0 m (118.1 in)	15.0 m (590.6 in) 18.0 m (708.7 in)	(B)
8 4+5	2.5 m (98.4 in) 3.0 m (118.1 in)	20.0 m (787.4 in) 24.0 m (944.9 in)	(C)
10 5+6	2.5 m (98.4 in) 3.0 m (118.1 in)	30.0 m (1181.1 in) 40.0 m (1574.8 in)	(D)
12 6+7	2.5 m (98.4 in) 3.0 m (118.1 in)	36.0 m (1417.3 in) 48.0 m (1889.8 in)	(E)
18 9+10	2.5 m (98.4 in) 3.0 m (118.1 in)	45.0 m (1771.7 in) 54.0 m (2126.0 in)	(F)
20 10+11	2.5 m (98.4 in) 3.0 m (118.1 in)	50.0 m (1968.5 in) 60.0 m (2362.2 in)	(G)



Tramlines tables for ProfiLine models

Table of symmetrical tramlines

Path	Seed drill working width	Sprayer/ Spreader width	Symmetrical tramline placement in one pass
2	3.0 m (118.1 in) 4.0 m (157.5 in)	6.0 m (236.2 in) 8.0 m (315.0 in)	(A)
3	3.0 m (118.1 in) 4.0 m (157.5 in)	9.0 m (354.3 in) 12.0 m (472.4 in)	(B)
4	3.0 m (118.1 in) 4.0 m (157.5 in)	12.0 m (472.4 in) 16.0 m (629.9 in)	(C)
5	3.0 m (118.1 in) 4.0 m (157.5 in)	15.0 m (590.6 in) 20.0 m (787.4 in)	(D)
6	3.0 m (118.1 in) 4.0 m (157.5 in)	18.0 m (708.7 in) 24.0 m (944.9 in)	(E)
7	3.0 m (118.1 in) 4.0 m (157.5 in)	21.0 m (826.8 in) 28.0 m (1102.4 in)	(F)
8	3.0 m (118.1 in) 4.0 m (157.5 in)	24.0 m (944.9 in) 32.0 m (1259.8 in)	(G)
9	3.0 m (118.1 in) 4.0 m (157.5 in)	27.0 m (1063.0 in) 36.0 m (1417.3 in)	(H)
10	3.0 m (118.1 in) 4.0 m (157.5 in)	30.0 m (1181.1 in) 40.0 m (1574.8 in)	(I)

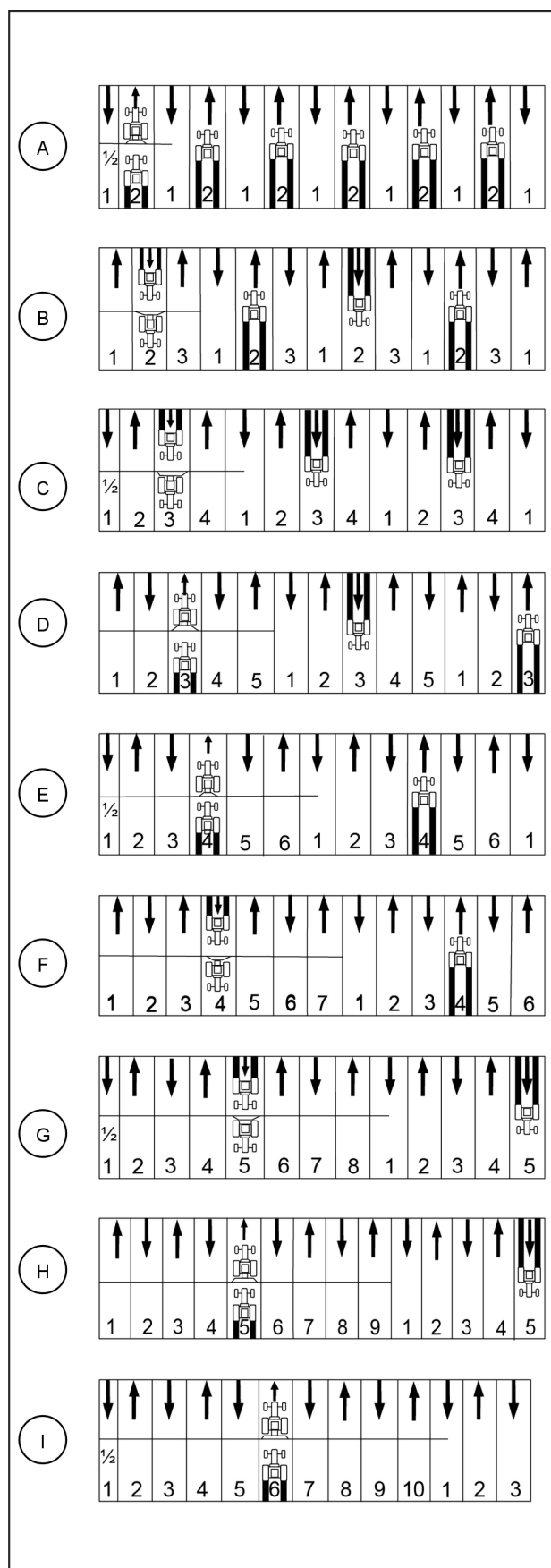


Table of symmetrical tramlines

Path	Seed drill working width	Sprayer/ Spreader width	Symmetrical tramline placement in one pass
11	3.0 m (118.1 in) 4.0 m (157.5 in)	33.0 m (1299.2 in) 44.0 m (1732.3 in)	(A)
12	3.0 m (118.1 in) 4.0 m (157.5 in)	36.0 m (1417.3 in) 48.0 m (1889.8 in)	(B)
13	3.0 m (118.1 in) 4.0 m (157.5 in)	39.0 m (1535.4 in) 52.0 m (2047.2 in)	(C)
14	3.0 m (118.1 in) 4.0 m (157.5 in)	42.0 m (1653.5 in) 56.0 m (2204.7 in)	(D)
15	3.0 m (118.1 in) 4.0 m (157.5 in)	45.0 m (1771.7 in) 60.0 m (2362.2 in)	(E)
16	3.0 m (118.1 in) 4.0 m (157.5 in)	48.0 m (1889.8 in) 64.0 m (2519.7 in)	(F)
17	3.0 m (118.1 in) 4.0 m (157.5 in)	51.0 m (2007.9 in) 76.0 m (2992.1 in)	(G)
18	3.0 m (118.1 in) 4.0 m (157.5 in)	54.0 m (2126.0 in) 72.0 m (2834.6 in)	(H)
19	3.0 m (118.1 in) 4.0 m (157.5 in)	57.0 m (2244.1 in) 76.0 m (2992.1 in)	(I)
20	3.0 m (118.1 in) 4.0 m (157.5 in)	54.0 m (2126.0 in) 72.0 m (2834.6 in)	(J)

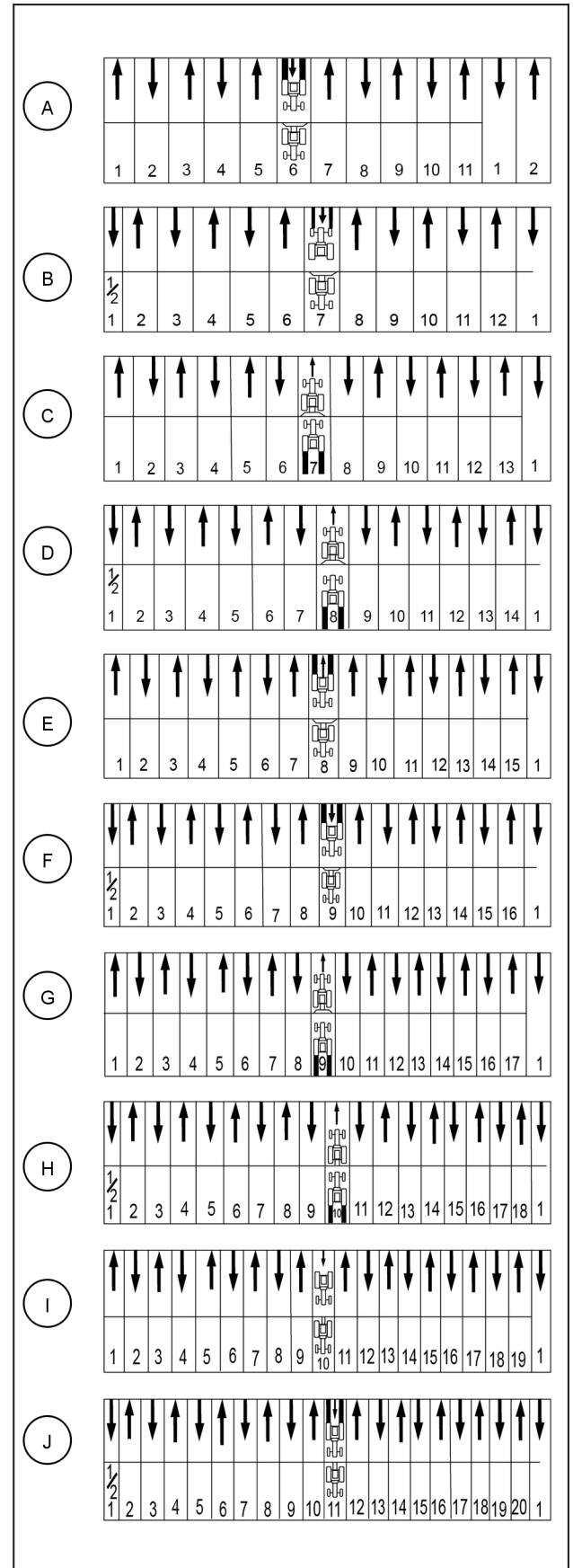
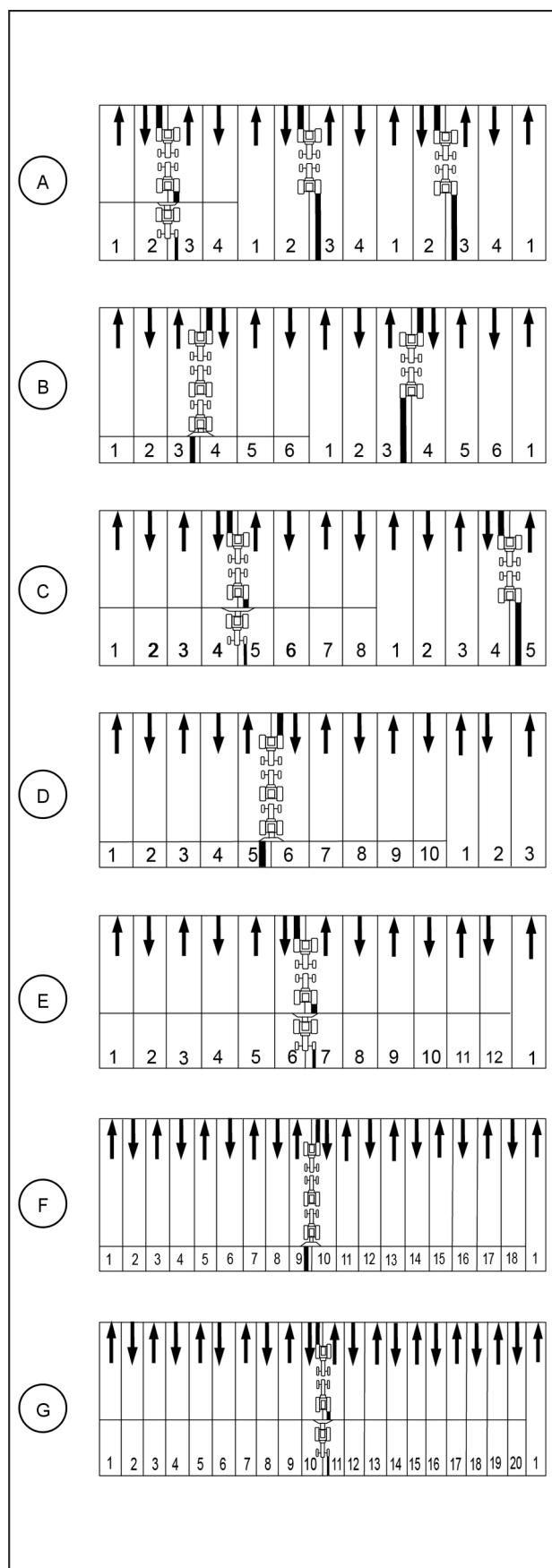


Table of asymmetrical tramlines

Path	Seed drill working width	Sprayer/ Spreader width	Symmetrical tramline placement in one pass
4 2+3	3.0 m (118.1 in) 4.0 m (157.5 in)	12.0 m (472.4 in) 16.0 m (629.9 in)	(A)
6 3+4	3.0 m (118.1 in) 4.0 m (157.5 in)	18.0 m (708.7 in) 24.0 m (944.9 in)	(B)
8 4+5	3.0 m (118.1 in) 4.0 m (157.5 in)	24.0 m (944.9 in) 32.0 m (1259.8 in)	(C)
10 5+6	3.0 m (118.1 in) 4.0 m (157.5 in)	40.0 m (1574.8 in) 50.0 m (1968.5 in)	(D)
12 6+7	3.0 m (118.1 in) 4.0 m (157.5 in)	48.0 m (1889.8 in) 54.0 m (2126.0 in)	(E)
18 9+10	3.0 m (118.1 in) 4.0 m (157.5 in)	54.0 m (2126.0 in) 72.0 m (2834.6 in)	(F)
20 10+11	3.0 m (118.1 in) 4.0 m (157.5 in)	60.0 m (2362.2 in) 80.0 m (3149.6 in)	(G)



4 - OPERATING INSTRUCTIONS

Commissioning the unit

Check before use

Before operating the implement for the first time, perform the following items:

1. Read this operator's manual carefully; especially the chapter headed "Safety information".
2. Check the correct assembly of the implement. Also check that the implement is undamaged.
3. Check that no parts have been tied up inside the implement in connection with the delivery of the implement.
4. Remove all the tools from the implement.
5. Connect the implement to the tractor and check if the subassemblies work properly.
6. Check the correct connection and tightening of the hydraulic components.
7. Check the entire hydraulic system – all pipes, hoses and connections. Upon noticing any traces of damages or even the slightest leaks make sure to replace these parts.
8. Check that the hydraulic hoses are long enough for the movements of the implement in relation to the tractor.
9. Check the length of the hydraulic hoses when the implement is in working position. Check that the hydraulic hoses are not too tense.
10. Grease sufficiently the implement (see Page 7-10).
11. Check the proper tightness of all the nuts and bolts.
12. Check if the electrical installation works properly, including the lights.

Starting the unit

Connection to the tractor

⚠ WARNING

Hitching hazard!

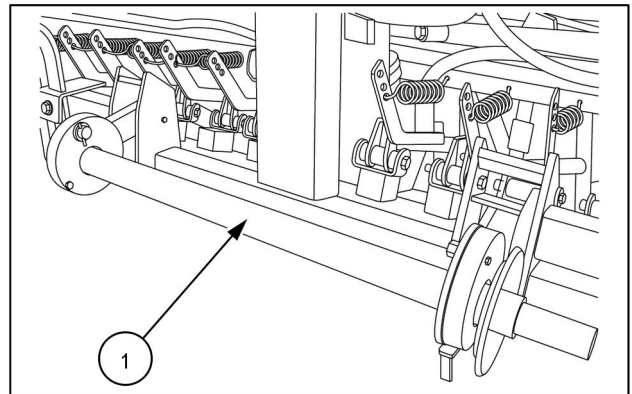
Always keep the area between the tractor and the implement clear of all persons while the tractor or three-point hitch is in motion. Lock the tractor transmission in Park and engage the parking brake(s) before you allow anyone to complete hitching or unhitching.

Failure to comply could result in death or serious injury.

W1540A

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

1. Verify that the implement will not accidentally disconnect from the tractor during field works.
2. Verify that the chains between the driving wheel, gearbox, agitator shaft and sowing shaft are correctly adjusted.
3. Perform all the necessary adjustments if the connection is inconsistent.
4. Verify that the implement stands on a firm ground.
5. Fit the chains or rods for the lift arms.
6. Place the supporting shaft **(1)** in the eyes of the lift arms.
7. Connect the lower linkage.
8. Mount the top link as parallel with lift arms as possible.
9. Connect the hydraulic system for the track markers either to a double or a single acting outlet of the tractor.
10. Adjust the top link length so that the lid of the seed hopper is horizontal with the appliance in working position.
11. Connect the top link.
12. Lift the implement.



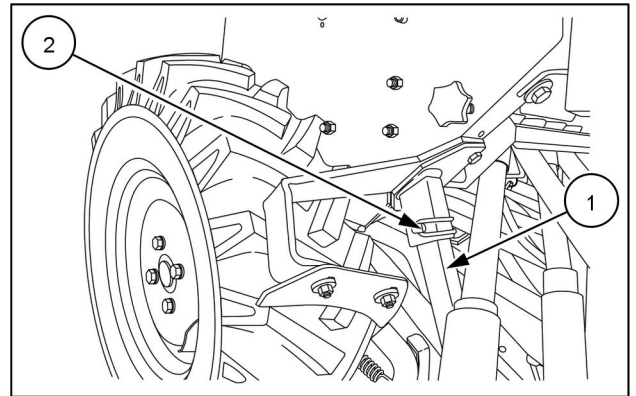
ZEIL21SE00064AA 1

Parking the unit

Disconnection and parking

To disconnect, parking and storage the implement, proceed as follows:

1. Place the implement on a firm and level ground.
2. Mount the support leg **(1)** on both sides of the implement.
3. Secure the support leg with the safety pin **(2)** on both sides of the implement.
4. Disconnect all the hydraulic connections from the tractor.
5. Disconnect the electrical connection.
6. Disconnect the top link.
7. Disconnect the lower linkage.



ZEIL21SE00081AA 1

5 - TRANSPORT OPERATIONS

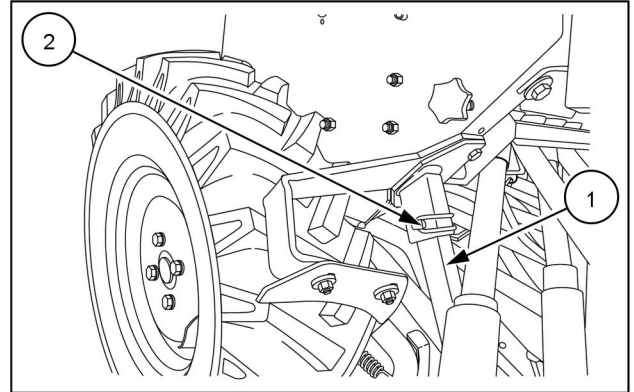
Road transport

Transport position

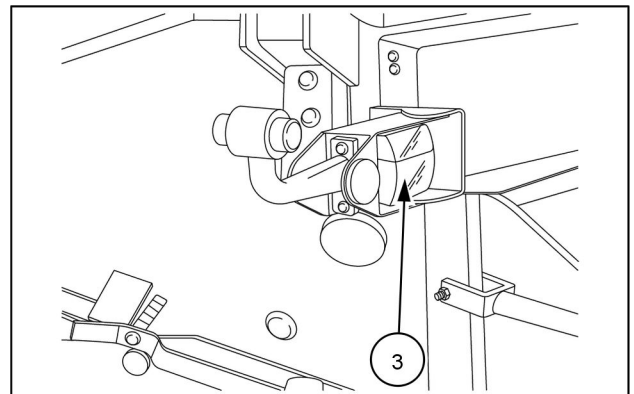
NOTE: Check local road legislation before you drive the implement on public roads.

To prepare the implement for road transport, proceed as follows:

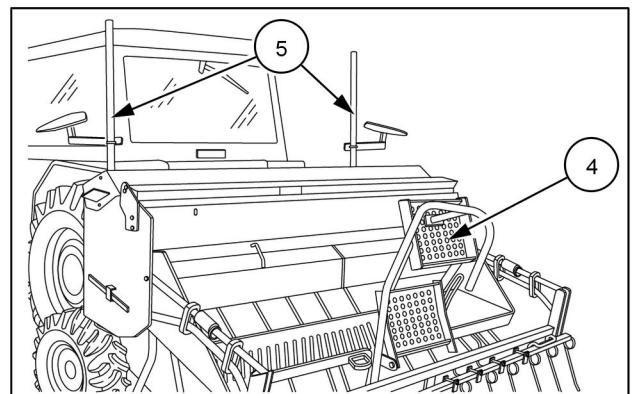
1. Connect the implement to the tractor. See Page 4-2.
2. Open the safety pins (2) and remove the support legs (1) on both sides of the implement.
3. Make sure that the lights (3) are equipped as tractor light will be hidden behind the implement.
4. Check that any light kits and warning plates work properly and are clean.
4. If present, verify that the platform (4) is closed.
5. If present, verify that the marker arms (5) are locked in a vertical position. See Page 6-5.
6. Verify that the implement is secure, that nothing will fall off during transport.
7. Lift the implement.



ZEIL21SE00081AA 1



ZEIL21SE00065AA 2



ZEIL21SE00066AA 3

6 - WORKING OPERATIONS

General information

Implement overview

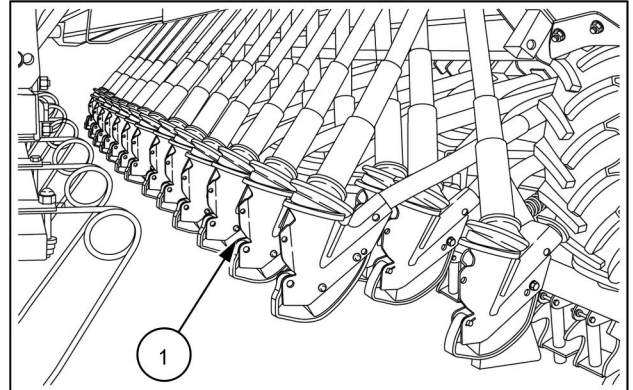
The implement is mounted in the tractors rear linkage.

The implement is fitted with a Continuously Variable Transmission (CVT) gearbox for stepless adjustment of application rate.

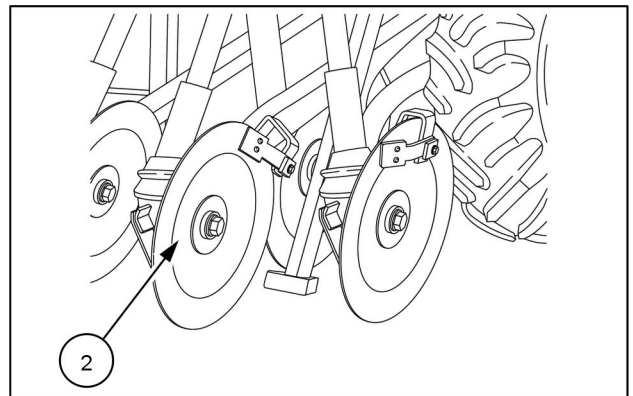
For all the configurations it's possible to adjust the rows distance. For more details see Page **6-4**.

Depending on the model, the implement is fitted with three possible coulters:

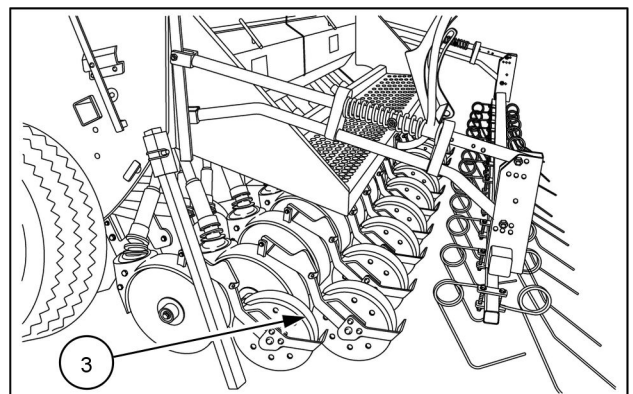
- Suffolk coulters (1)
- Single disc coulters (2)
- Double disc coulters (3) (only for ProfiLine models)



ZEIL21SE00067AA 1



ZEIL21SE00068AA 2



ZEIL21SE00098AA 3

Transport the seed

The seed is transported in the coulter bar by gravity.

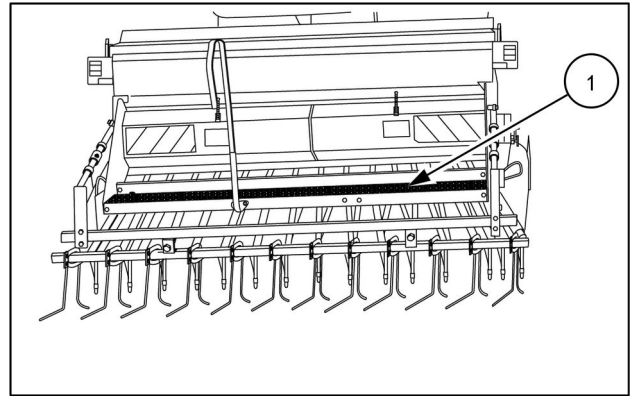
The agitator shaft, continuously stirring the seed, makes the feeding of the seed uniform from the hopper to the distribution bodies.

The wheels of the implement drive the distributors.

The seed comes to the soil through the seed funnels.

Filling platform

To easy access, a loading platform **(1)** is available as an optional. See Page **10-1**.



ZEIL21SE00069AA 1

Seed level

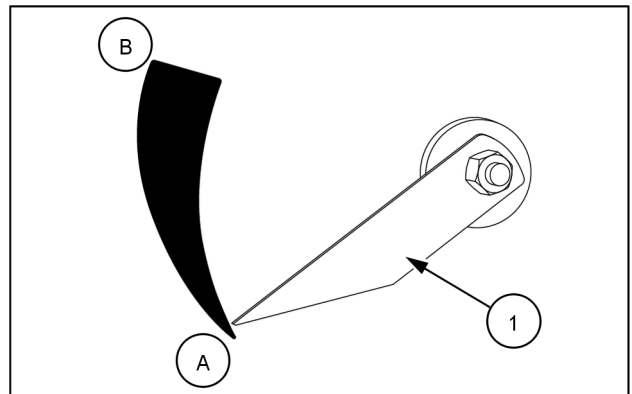
A lever indicator **(1)** is available in front of the implement to monitor the seed level inside the hopper.

The hopper is empty if the lever **(1)** is in position **(A)**.

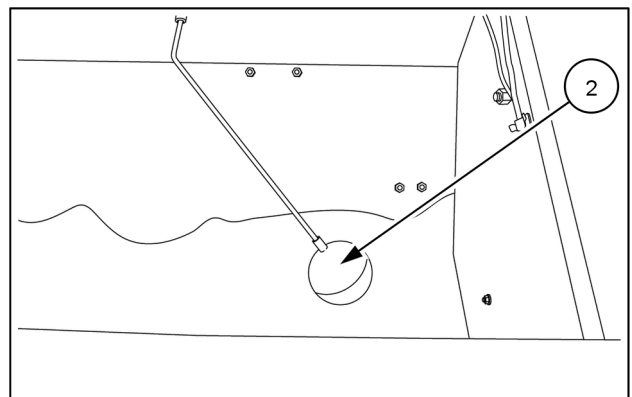
The hopper is full if the lever **(1)** is in position **(B)**.

The lever **(1)** is moved due to the presence of the level sensor **(2)** inside the hopper.

Electric level sensor in combination with Konnect 1000 monitor is available as option.



ZEIL21SE00090AA 1

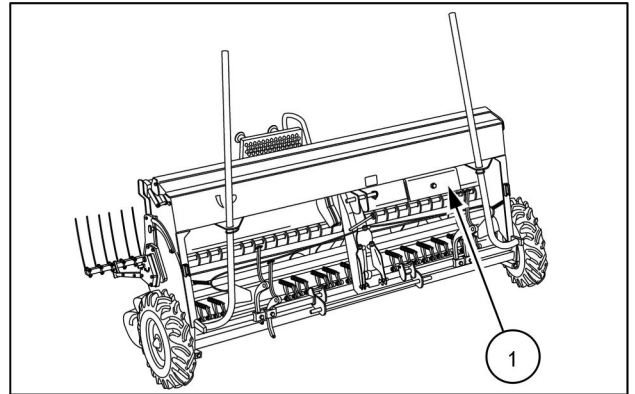


ZEIL21SE00089AA 2

Toolbox

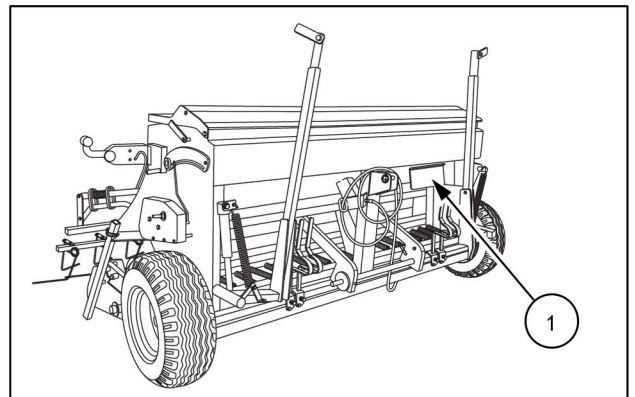
A toolbox (1) is installed on the front side of the implement.

The toolbox is helpful in order to put inside it additional equipment, for adjustments and maintenance operations for which the operator is enabled.



ZEIL21SE00050AA 1

EcoLine



ZEIL21SE00062AA 2

ProfiLine

Adjustments

Row distance adjustment

To change and adjust the row distance proceed as follows:

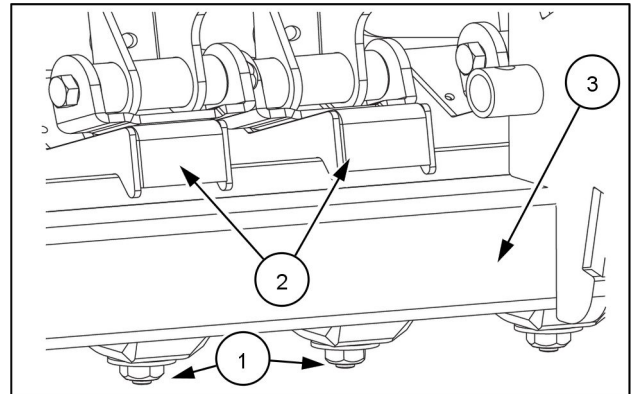
1. Loose the bolts **(1)** under the clamps **(2)**.
2. Move the suspension arms and clamp for each coulter sideways on the coulter bar **(3)**.

NOTE: The use of a measuring implement with the actual row spacing marked is recommended.

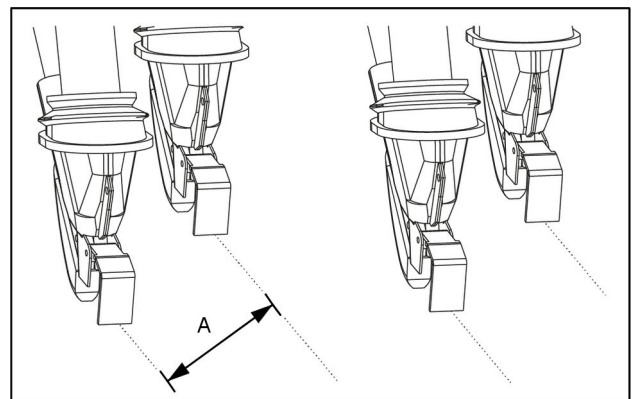
3. Adjust each coulter at desired distance **(A)** from the central coulter.

NOTE: The central coulter is placed in the exact centre of the implement.

4. Tighten the bolts **(1)** under the clamps **(2)**.



ZEIL21SE00038AA 1



ZEIL21SE00039AA 2

Markers

For ProfiLine models

The implement is fitted with hydraulic markers.

A single-acting hydraulic take-off from the tractor is used which activates a shift valve **(1)** in the following way:

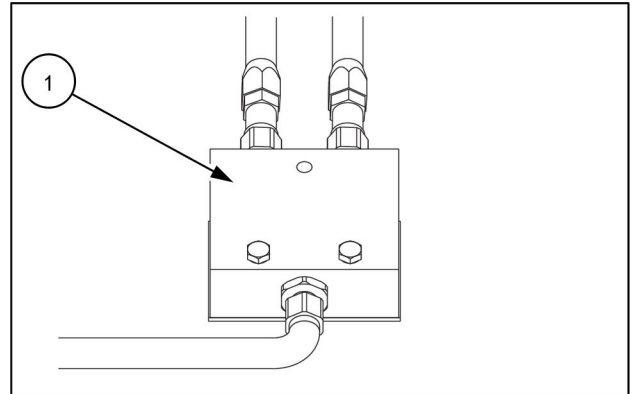
1. Supply hydraulic pressure to the marker system, in order to move both markers in vertical position.
2. Remove hydraulic pressure from the marker system in order to move one marker into its working position.
3. Supply and then remove hydraulic pressure from the marker system in order to switch between left hand and right hand markers into their working positions.

To obtain both markers in working position, proceed as follows:

1. Raise about **1.0 m (39.4 in)** the marker which is in its working position.
2. Remove hydraulic pressure from the marker system. Both markers will move into their respective working positions.

The marker arms are equipped with a shear bolt **(2)** which is released when overloaded.

NOTE: Carrying an extra shear bolt M6 x 75 is recommended during sowing work.

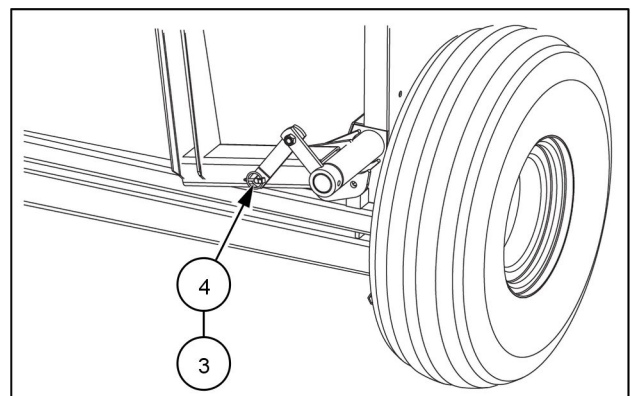


ZEIL21SE00054AA 1



ZEIL21SE00052AA 2

When transporting the implement on public roads, the marker arms must be locked in vertical position. Use the lock pin **(3)** and the ring pin **(4)** in order to secure the marker arms in vertical position.

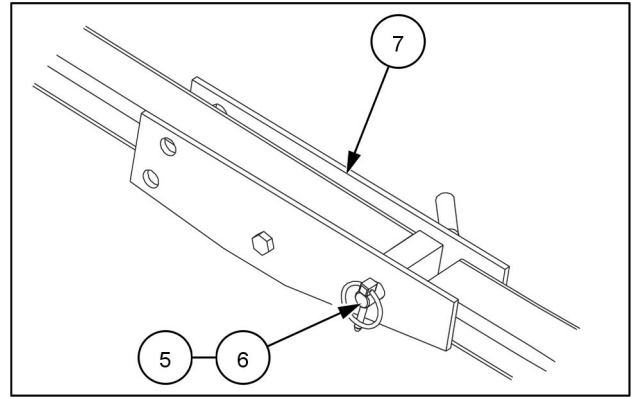


ZEIL21SE00053AA 3

For models with the working width of **4.0 m (13.1 ft)**, the marker arms are articulated in order to reduce their length.

Use the locking pin **(5)** secured with a ring pin **(6)** in order to lock the link **(7)** in the following cases:

- Transport position
- Working position



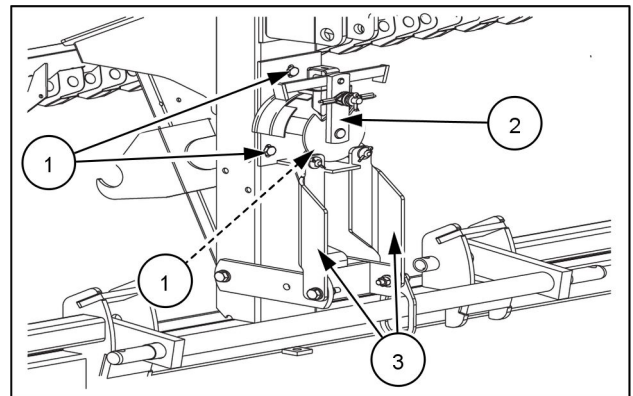
ZEIL21SE00055AA 4

Automatic marker shifter adjustment (only for EcoLine models)

The automatic marker shifter is activated each time the drill is lifted by the tractor.

In order to ensure the correct functions, adjust correctly the marker shifter as follows:

1. Lift the implement by the tractor.
2. Loose the nuts **(1)**.
3. Push the marker shifter **(2)** down in the slotted holes.
4. Ensure that the push rods **(3)** are neither too long nor too short.
5. Ensure that the lifting rocker is in the uppermost position.
6. Verify that the marker **(2)** is locked in its central vertical position.
7. Tighten the nuts **(1)**.



ZEIL21SE00040AA 5

NOTE: If the push rods are too short the marker shifter will not enter its central position.
If the push rods are too long a large stress will arise upon the push rods.

Adjustment of sowing rate

Before sowing begins, the following should be carried out:

1. Calibration of the drill
2. Adjustment of coulter pressure/sowing depth
3. Adjustment of the markers

Calibration of the drill

To calibrate the seed drill proceed as follows:

1. Engage the agitator shaft.

NOTICE: In case of large seeds disengage the agitator shaft.

2. Adjust the bottom flaps using the handle (1) at the left hand side of the hopper so that are as close as possible to the seed wheels without damaging or squeezing the seed.
3. Move the seed housing shutters (2) in order to adjust them according to the seed table below. They have four possible positions.

NOTICE: Ensure that the seed does not flow over the seedhouses.

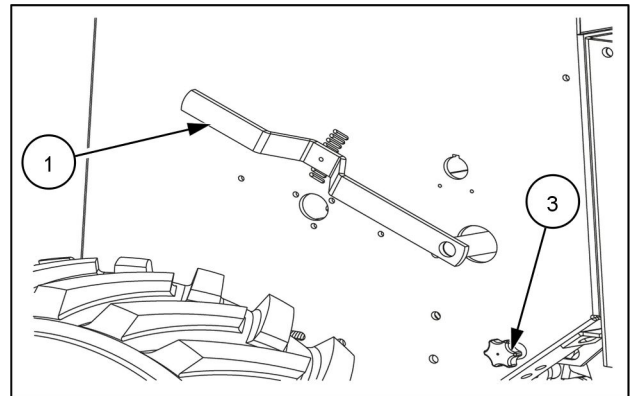
4. Pull outwards the release catch (3) at each end of the rail in order to lower the row of seed funnels (4).

Seed	Barley	Wheat	Peas	Rape-seed
Position of bottom flaps	2	2	4 – 6	1
Seed housing shutters	1	1	1	2
Seed rollers	Standard	Standard	Soft seed wheels	Fine seed fingers

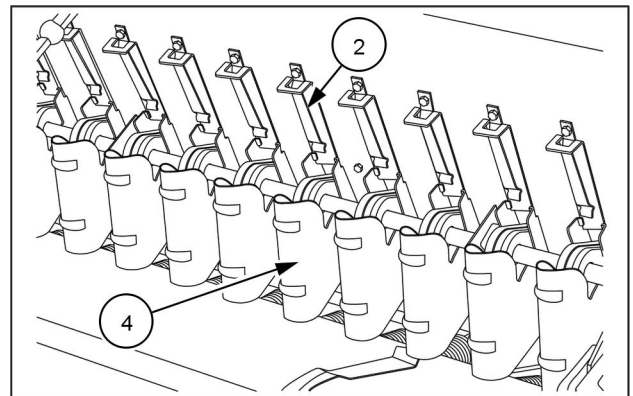
NOTE: The seed housing shutters should all be opened as high as possible, but without the seed running out over the sowing wheels.

The seed housing shutters have four positions and can be adjusted individually by moving them up and down. In the top position (position 1), the shutters (5) are completely open (see Figure 3).

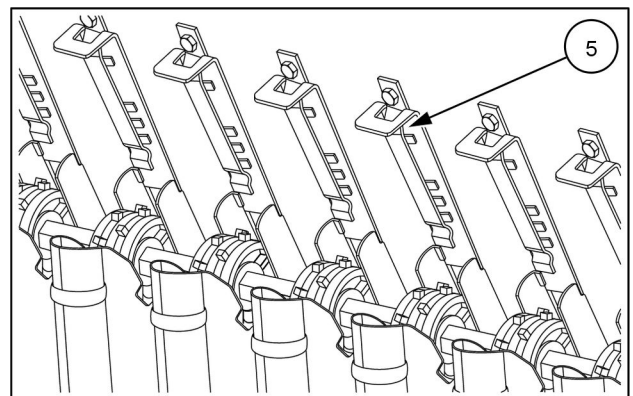
5. Rotate the calibration tray (6) to a horizontal position under the seed funnels.



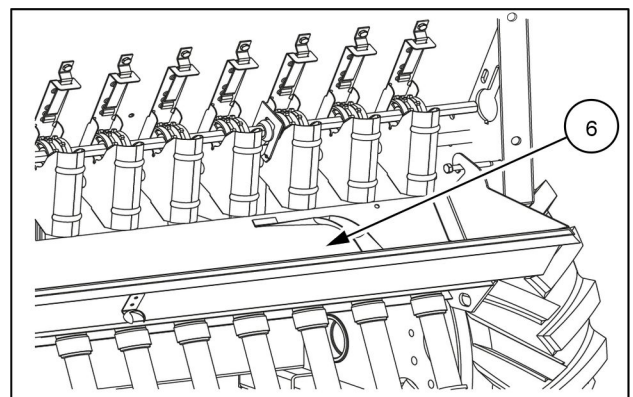
ZEIL21SE00042AA 1



ZEIL21SE00082AA 2



ZEIL22SE00063AA 3



ZEIL21SE00043AA 4

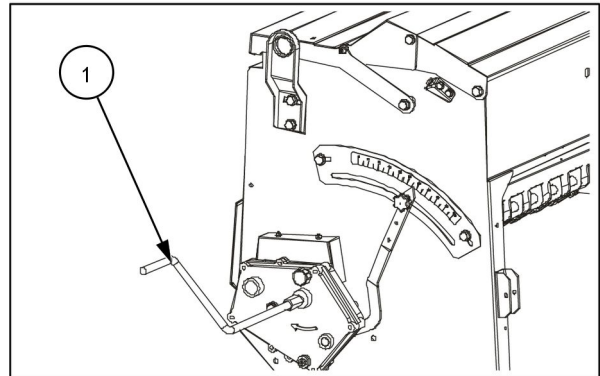
The calibration of the drill continues with the traditional method test or with Konnect 1000 method test (if available).

NOTE: The results obtained from the test using the Konnect 1000 method should be regarded as indicative. Correct data on the sowing rate can only be obtained by testing using the traditional method.

Traditional method test

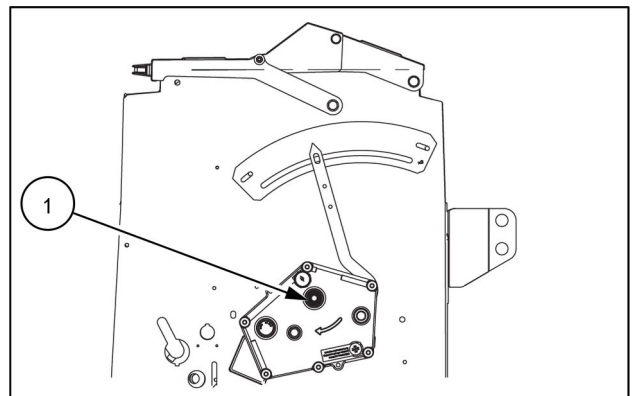
The calibration is carried out to ensure the correct sowing rate. Proceed as follows:

1. Fill sufficient seed in the hopper such that the agitator shaft is still covered after test sowing has been carried out.
2. Set the correct sowing rate according to previous records or to the sowing table.
3. Attach the test sowing handle (1) and turn it clockwise until the seed flows from all of the outlets.



ZEIL21SE00028AA 5

EcoLine



ZEIL21SE00057AA 6

ProfiLine

4. Empty the calibration tray into the hopper.
5. Turn the test sowing handle the following number of revolutions.

	Working width for EcoLine models	
	2.5 m (8.2 ft)	3.0 m (9.8 ft)
1/40 ha	98 revolutions	82 revolutions

	Working width for ProfiLine models	
	3.0 m (9.8 ft)	4.0 m (13.1 ft)
1/40 ha	82 revolutions	62 revolutions

6. Weigh the seed from the sowing tray on an accurate pair of scales.

NOTE: For both EcoLine and ProfiLine models, to obtain the sowing rate for 1 ha, the measured weight must be multiplied by 40 for 1/40 ha.

If the calculated sowing rate corresponds to the required rate, then the machine is correctly adjusted.

If the sowing rate is not correct, change the scale setting. Repeat from Step 2 to Step 6.

NOTE: See Page 8-1 for the check of sowing rate.

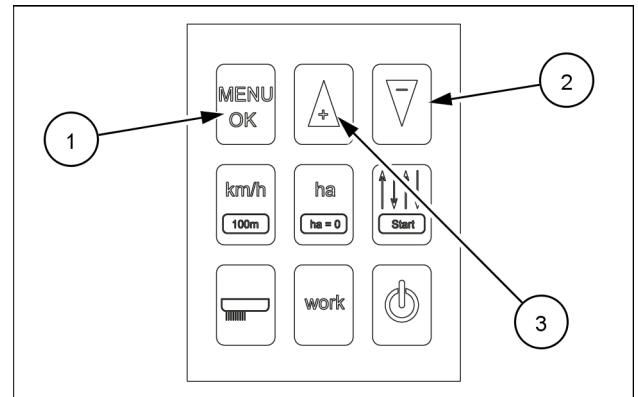
7. Close and rotate the calibration tray to a vertical position.
8. Raise and lock the seed funnels into position under the seed housings.

Konnect 1000 method test

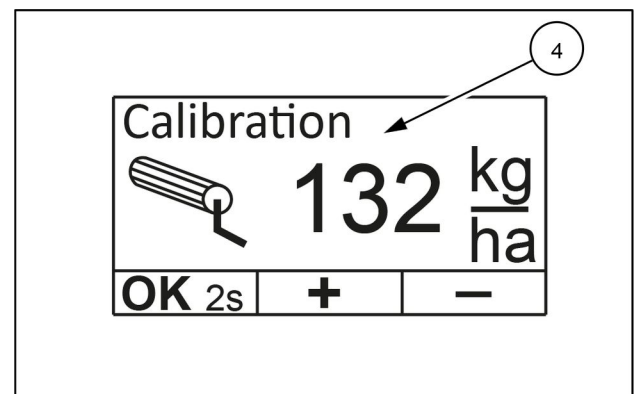
NOTE: Make sure that the correct type of machine is selected. See Page 3-5.

To calibrate the drill proceed as follows:

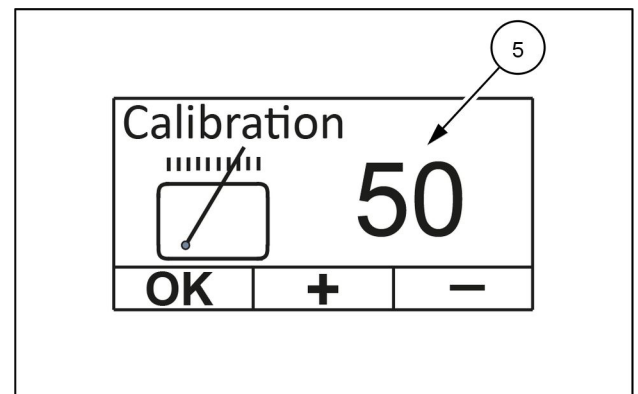
1. Fill sufficient seed in the hopper such that the agitator shaft is still covered after test sowing has been carried out.
2. Use the key (1) in order to display the sowing rate (4).
3. Press the key (2) or (3) to select the desired seed quantity per hectare according to the sowing tables.
4. Press the key (1) for 2 s.
5. Use the key (2) or (3) to choice the position of the lever on the scale gear (5) according to the sowing tables.



ZEIL21SE00037AA 7



ZEIL21SE00026AA 8



ZEIL21SE00027AA 9

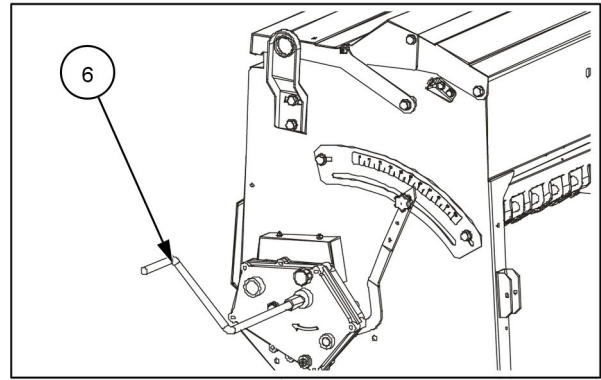
6. Press the key (1). See Figure 7.
7. Move and lock the test sowing handle (6) in line with the following number of revolutions.

	Working width for EcoLine models	
	2.5 m (8.2 ft)	3.0 m (9.8 ft)
1/40 ha	98 revolutions	82 revolutions

	Working width for ProfiLine models	
	3.0 m (9.8 ft)	4.0 m (13.1 ft)
1/40 ha	82 revolutions	62 revolutions

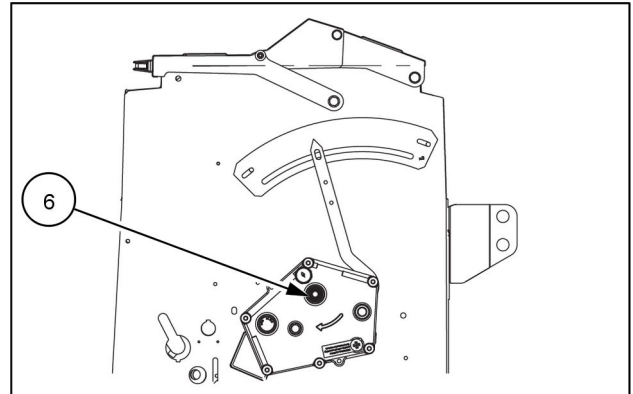
8. The display will show the number (7) of revolutions.
9. Press the key (1) to perform revolutions. See Figure 7.
10. The display will show the number (7) of revolutions still to be made.

NOTE: The last 5 turns are signaled acoustically.
At the end of the turns a continuous signal tone is triggered.



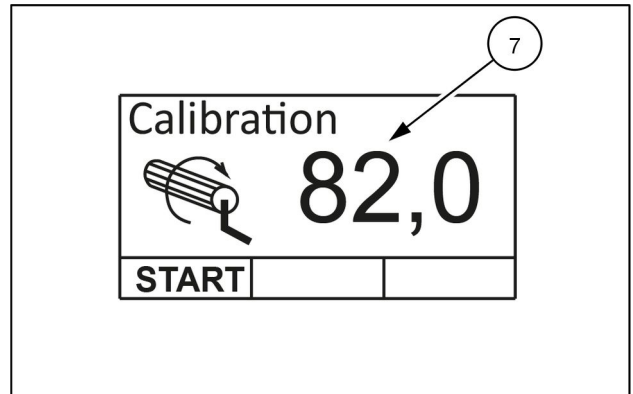
ZEIL21SE00028AA 10

EcoLine



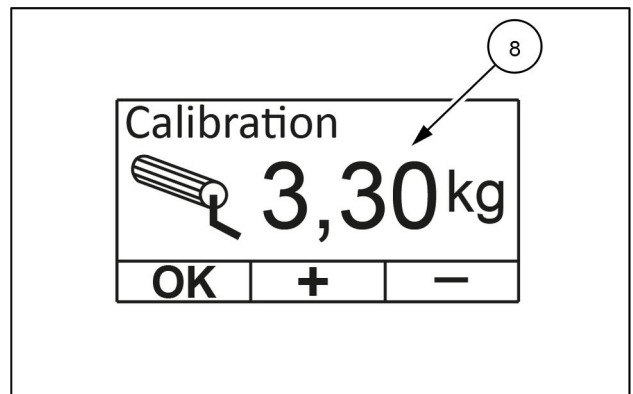
ZEIL21SE00057AA 11

ProfiLine



ZEIL21SE00029AA 12

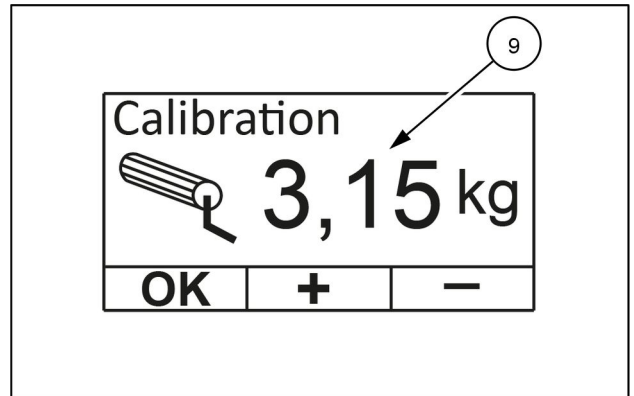
11. Press the key (1) of Figure 7 to see the suggested weight (8) of the sample seed material on 1/40 ha.
12. Weigh the seed from the sowing tray on an accurate pair of scales.



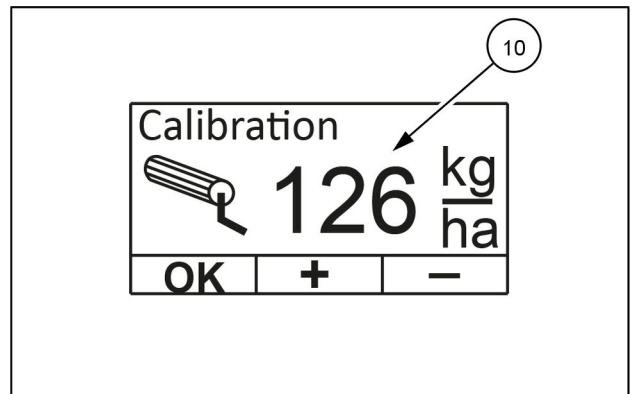
ZEIL21SE00030AA 13

13. If the sample weight of seed material is the same as suggested on the screen:
 1. Press the key **(1)** to see the sowing rate **(4)**. See Figure 7 and Figure 8.
 2. Press the key **(1)** to see the lever on the scale **(5)**. See Figure 7 and Figure 9.
 3. The test is complete.
14. If the sample weight of seed material is not the same as suggested on the screen:
 1. Use the key **(2)** or **(3)** of Figure 7 to enter the actual weight **(9)** of the sample seed material.
 2. Press the key **(1)** of Figure 7 to see the new total amount **(10)** of seed per hectare after weight correction.
 3. Press the key **(1)** of Figure 7 to see the suggested lever position **(11)** on the scale of the drill.
 4. Move the lever to a new position according to the value visible on the screen.
 5. Perform the sowing test again to obtain the expected value of seed per hectare.

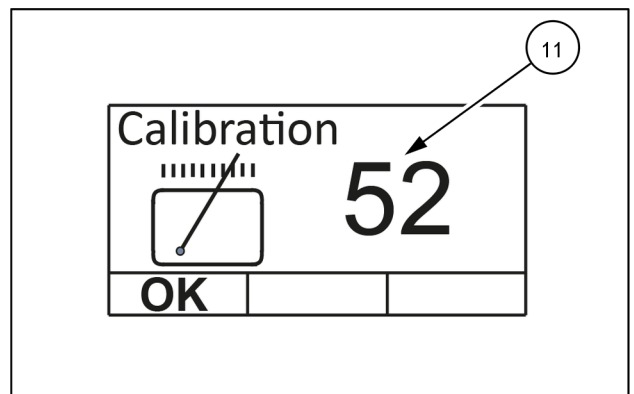
NOTE: To obtain correct results, make several sowing tests.



ZEIL21SE00031AA 14



ZEIL21SE00032AA 15



ZEIL21SE00033AA 16

Sowing tables

Sowing table for BARLEY

Scale setting	Row distance				
	16 cm	14 cm	13 cm	12 cm	10 cm
5					
10					
15					
20					
25					
30					
35					
40	65.0	74.2	79.8	86.7	104.0
45	74.0	84.5	90.8	98.7	118.4
50	84.2	96.1	103.3	112.3	134.8
55	94.7	108.1	116.2	126.3	151.6
60	105.9	120.9	129.9	141.2	169.4
65	117.2	133.8	143.8	156.3	187.6
70	129.7	148.0	159.1	172.9	207.5
75	142.1	162.2	174.3	189.5	227.4
80	156.2	178.3	191.6	208.3	250.0
85	171.2	195.4	210.0	228.3	274.0
90	185.9	212.1	228.0	247.8	297.4
95	202.2	230.8	248.0	269.6	323.5
100	220.0	251.1	269.8	293.3	352.0

NOTE: The unit of measurement of the values in the table is kg/ha.

Sowing table for WHEAT

Scale setting	Row distance				
	16 cm	14 cm	13 cm	12 cm	10 cm
5					
10					
15					
20					
25					
30					
35	66.0	75.3	81.0	88.0	105.6
40	76.5	87.3	93.8	102.0	122.4
45	87.0	99.3	106.7	116.0	139.2
50	99.0	113.0	121.4	132.0	158.4
55	111.0	126.7	136.2	148.0	177.6
60	121.5	138.7	149.0	162.0	194.4
65	135.0	154.1	165.6	180.0	216.0
70	147.0	167.8	180.3	196.0	235.2
75	163.5	186.6	200.6	218.0	261.6
80	180.0	205.4	220.8	240.0	288.0
85	195.0	222.6	239.2	260.0	312.0
90	213.8	244.0	262.2	285.0	342.0
95	232.5	265.4	285.2	310.0	372.0
100	247.5	282.5	303.6	330.0	396.0

NOTE: The unit of measurement of the values in the table is kg/ha.

Sowing table for PEAS

Scale setting	Row distance				
	16 cm	14 cm	13 cm	12 cm	10 cm
5					
10					
15					
20					
25					
30					
35	119.1	135.9	146.1	158.8	190.6
40	138.6	158.2	170.0	184.8	221.8
45	159.8	182.3	196.0	213.0	255.6
50	182.5	208.3	223.8	243.3	292.0
55	204.8	233.7	251.2	273.0	327.6
60	226.6	258.6	277.9	302.1	362.5
65	251.6	287.2	308.7	335.5	402.6
70	276.8	315.9	339.6	369.1	442.9
75	302.3	345.0	370.8	403.0	483.6
80					
85					
90					
95					
100					

NOTE: The unit of measurement of the values in the table is kg/ha.

Sowing table for RAPE

Scale setting	Row distance				
	16 cm	14 cm	13 cm	12 cm	10 cm
3	0.9	1.0	1.1	1.2	1.4
4	1.3	1.5	1.6	1.7	2.0
5	1.7	1.9	2.0	2.2	2.6
6	2.0	2.3	2.5	2.7	3.2
7	2.4	2.7	2.9	3.2	3.8
8	2.8	3.2	3.4	3.7	4.4
9	3.2	3.6	3.9	4.2	5.0
10	3.5	4.0	4.3	4.7	5.6
11	3.9	4.5	4.8	5.2	6.2
12	4.3	4.9	5.2	5.7	6.8
13	4.7	5.3	5.7	6.2	7.4
14	5.0	5.7	6.2	6.7	8.0
15	5.4	6.2	6.6	7.2	8.6
16	5.8	6.6	7.1	7.7	9.2
17	6.2	7.0	7.5	8.2	9.8
18	6.5	7.4	8.0	8.7	10.4
19	6.9	7.4	8.5	9.2	11.0
20	7.3	8.3	8.9	9.7	11.6
21	7.7	8.7	9.4	10.2	12.2
22	8.0	9.2	9.8	10.7	12.8
23	8.4	9.6	10.3	11.2	13.4
24	8.8	10.0	10.8	11.7	14.0
25	9.2	10.4	11.2	12.2	14.6
26	9.5	10.9	11.7	12.7	15.2
27	9.9	11.3	12.1	13.2	15.8
28	10.3	11.7	12.6	13.7	16.4
29	10.7	12.2	13.1	14.2	17.0
30	11.0	12.6	13.5	14.7	17.6

NOTE: The unit of measurement of the values in the table is kg/ha.

Special crops

Depending on kind of seed, certain precautions may have to be taken.

Sowing of grass seed

Sowing of grass seed requires special attention since the seeds can bridge in the hopper, thus affecting the actual sowing rate. This problem will be particularly acute if the hopper is exposed to vibration.

1. Fill the hopper in the field with a limited amount of seeds in the hopper (no more than half full).
2. Make regular stops to manually stir the hopper contents in order to achieve uniform sowing.

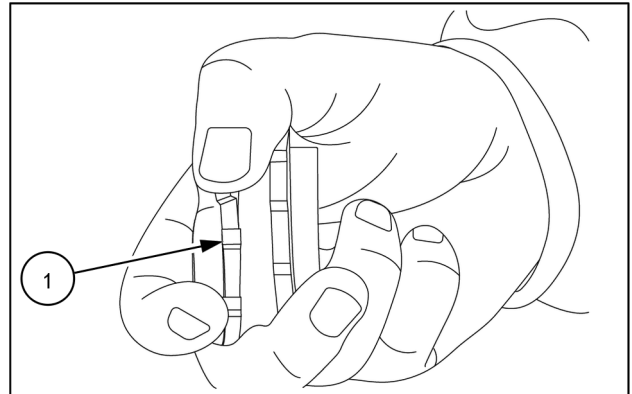
NOTICE: *Stirring of the hopper contents should only be carried out when the machine is switched off at a stand still.*

Sowing of large seed

Sowing of large seeds as peas, beans and maize requires attention because the standard rolls can damage the seed.

1. Use the soft seed rollers (1) in order to avoid damage the seeds and to obtain a more uniform seeding

The soft seed rollers are available as optional equipment.



ZEIL21SE00070AA 1

Sowing of fine seed

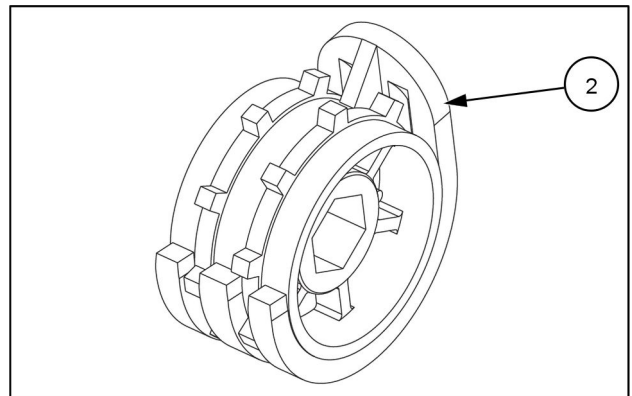
When sowing small, round seeds, use the peg wheels with fine seed fingers.

NOTE: *The fine seed fingers reduce the sowing amount by 1/3.*

To fit the fine seed fingers proceed as follows:

1. Stop the implement.
2. Slide the fine seed finger (2) around the standard sowing wheels.
3. Turn the sowing shaft.
4. Check the fine seed fingers are in the correct place around the rollers.

NOTE: *When fine seed fingers are used the seed housing shutters are placed in position 2. See Page 6-7.*



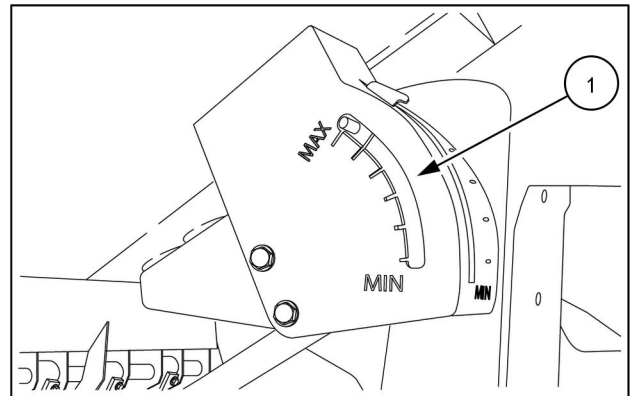
ZEIL21SE00044AA 2

Adjustment of working depth

In order to obtain the desired sowing depth for all coulter it is necessary to adjust the tightness of the coulter springs. The tension of the spring determines the sowing coulter's working depth in the soil.

A coulter pressure indicator (1) is available in front of the implement.

NOTE: A too high forward driving speed can also result in nonuniform sowing depth.

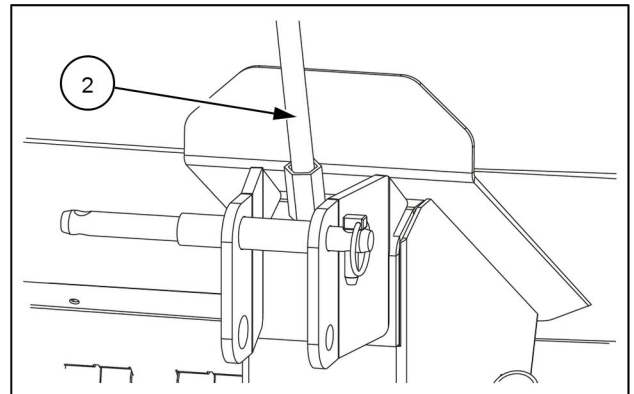


ZEIL21SE0008AA 1

Central coulter tightening

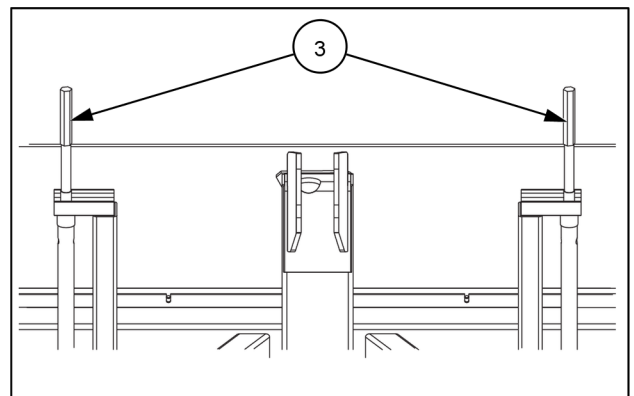
The tension of the coulters can be adjusted centrally. Proceed as follows:

1. Turn the adjusting spindle for the spring bar with the test sowing handle (2).



ZEIL21SE00045AA 2

The ProfiLine implements with a working width of **4.0 m (13.1 ft)** are equipped with two spindles (3).

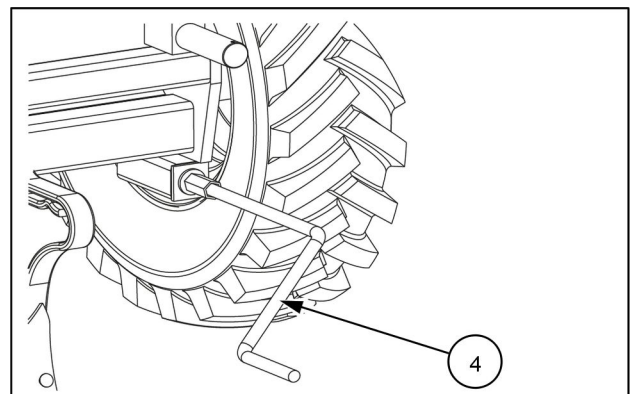


ZEIL21SE00058AA 3

Outer coulter tightening

The tension of the outer coulters can be adjusted separately to a tension of up to **17 kg**. Proceed as follows:

1. Turn the adjusting spindle on the coulter spring with the test sowing handle (4).



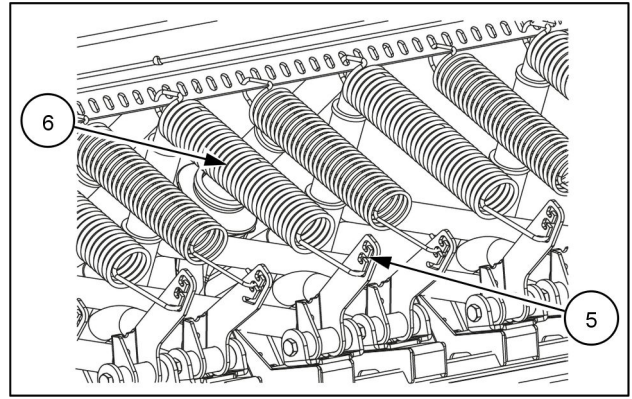
ZEIL21SE00046AA 4

Individual coulter tension

The spring tension can be adjusted individually for all sowing coulters. Proceed as follows:

1. Modify the position **(5)** of the springs **(6)** in the coulter arm.

The greatest tension is obtained by setting the spring in the top position. This ability to individually adjust the tension in each coulter means that it is possible to increase the pressure of the coulters working in the compacted tracks left by the tractor wheel.



ZEIL21SE00047AA 5

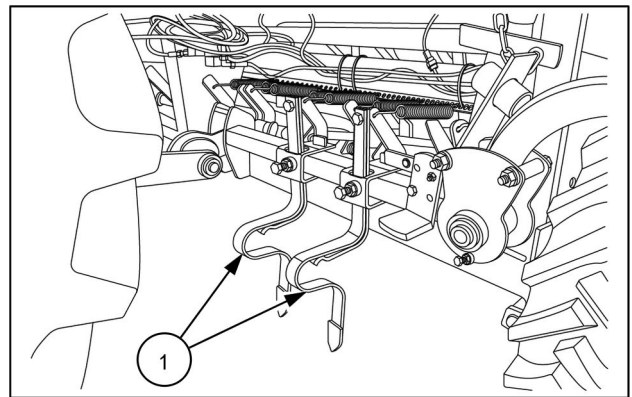
Track eradicators

In order to loosen the soil in the tractor's wheel tracks, two eradicators **(1)** are placed in each wheel track.

The track eradicators are available as optional equipment.

The eradicators are fixed to the cross beam and can be adjusted laterally.

Set the eradicators in such a way that they do not cut too deeply, and preferably locate them between two coulter rows.



ZEIL21SE00071AA 1

Marker adjustment

The marker (1) is used to make a marker track. The track ensures that the outer coulter in one row is both parallel to and correctly spaced with respect to the previous row.

The seed drill has centre marking. Thus the distance from the outer coulter track to the marker track should be half the width of the seed bed plus half a row spacing. This adjustment can be carried out most easily by driving forward a few metres with the markers and the sowing coulters lowered into their working positions, such that the tracks can be clearly seen in the soil.

When front wheel marking is required it is possible to shorten the marker arm and have the marker disc pushed closer to the seed drill.

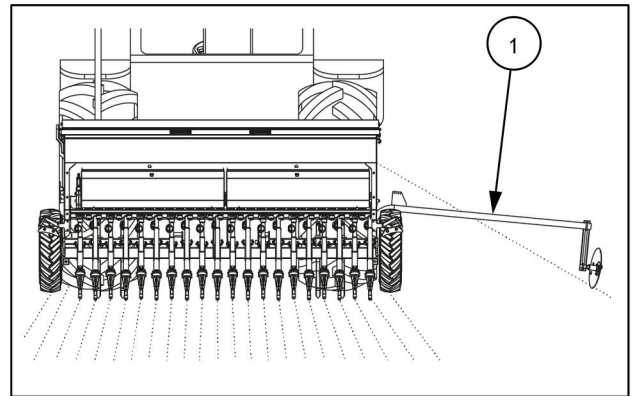
The marking track's width can be regulated by turning the marker shaft.

The narrowest track is obtained by turning the shaft downwards such that the marker is parallel to the direction of travel.

The widest track is obtained by turning the shaft such that the marker is angled backwards with respect to the direction of travel.

NOTICE: The marker shaft should not be directed forwards or upwards as this can damage the shaft and depreciate the track.

NOTE: The markers arms can be locked in a vertical position when driving on public roads or when driving close to fences.

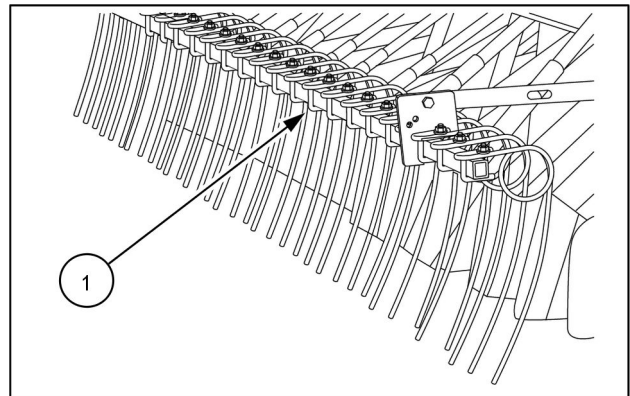


ZEIL21SE00048AA 1

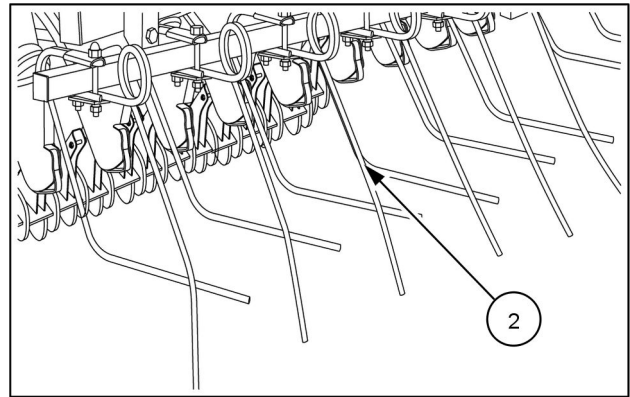
Harrow adjustment (if equipped)

The implement can be equipped with two possible kind of rear harrows listed in the table below:

Item	Harrow	Tines
(1)	Max flow	Straight
(2)	Wing flow	Bended



ZEIL21SE00072AA 1



ZEIL21SE00073AA 2

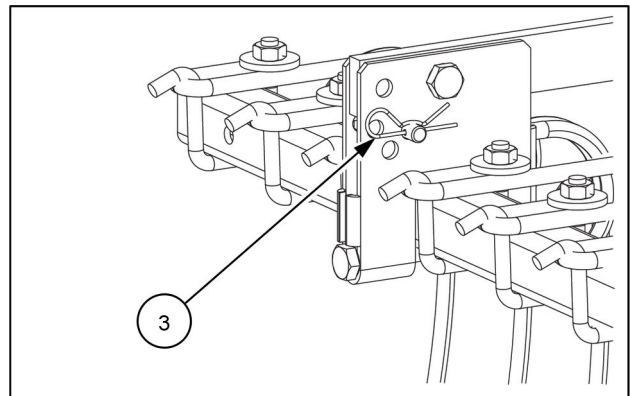
In order to mount the harrow, fix the arms into the brackets fitted on each side of the seed drill.

The harrow can be set to light or heavy harrowing, or placed in transport position.

To adjust the harrow proceed as follows:

1. Turn the entire harrow on the drawbar.
2. Secure the required position with pins (3) through the drawbar and with flanges in the suspension.
3. Retain the pins with the clips.

NOTE: The harrow can be equipped with pressure tension springs such that it can be forced into the ground even in wet and difficult conditions.



ZEIL21SE00049AA 3

7 - MAINTENANCE

General information

General

⚠ WARNING

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

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

Failure to comply could result in death or serious injury.

W0157A

⚠ 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

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

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

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

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

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

Always disengage the hydraulic pressure and power, activate the parking brake and stop the tractor engine before you:

1. Lubricate the implement.
2. Clean the implement.
3. Disassemble any part of the implement.
4. Adjust the implement manually.
5. Connect and disconnect electronics and electrical equipment.

When you repair or maintain the implement it is especially important to ensure the correct personal safety. Therefore, always park the tractor (if mounted) and the implement safely (see Page 4-3).

Turn off the tractor engine before repair, maintenance and cleaning the implement, to solve any problems related to any malfunctions of the implement.. Always turn off engine, take out the key from the ignition and pull the hand brake.

Secure the implement by applying suitable supports before performing maintenance works with the implement in the raised position.

Check and torque all the bolts regularly.

Switch off the electric power supply before doing anything with the electrical system.

Disconnect the cables from the alternator and battery of the tractor before electrically welding of parts of a tractor and the drill implement installed on it.

Used and destroyed parts must be unconditionally replaced with the next possible opportunity in order to ensure that the implement operates correctly and safely.

Use only original spare parts and consumables, manufactured by KONGSKILDE.

Cleaning and maintenance

After you finish to work with the implement, clean it thoroughly.

Before you clean the implement:

1. Turn off the drive.
2. Turn off the engine.
3. Remove the key from the ignition.
4. Disconnect the power supply from the implement.

Before you clean the implement, make sure that the implement is properly secured against unintentional rolling.

To protect your health, always wear adequate protective equipment when you clean the implement.

Do not clean hydraulic cylinders, bearings, or any other electrical elements using high-pressure implements.

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

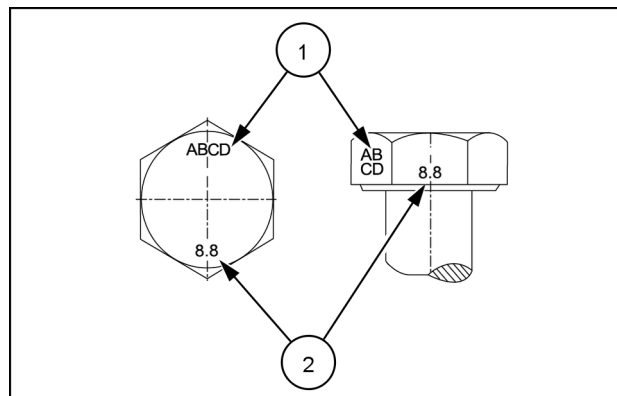
Nominal Size	Class 8.8 in N m (lb in or lb ft)			Class 10.9 in N m (lb in or lb ft)		
	Plated nut	Lock nut	Hardened nut/Oiled plated nut	Plated nut	Lock nut	Hardened nut/Oiled plated nut
M3	1.3 N·m (11.5 lb in)	0.7 N·m (6.2 lb in)	1.2 N·m (10.6 lb in)	1.8 N·m (15.9 lb in)	0.9 N·m (8.0 lb in)	1.6 N·m (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

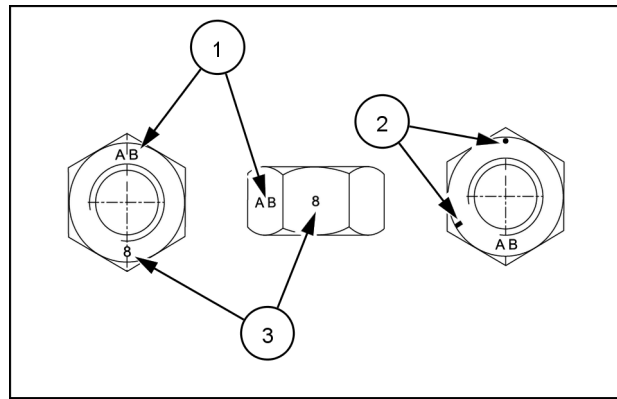


NHIL14RB00662AA 1

Metric bolt identification markings

1. Manufacturer's identification
2. Property class

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



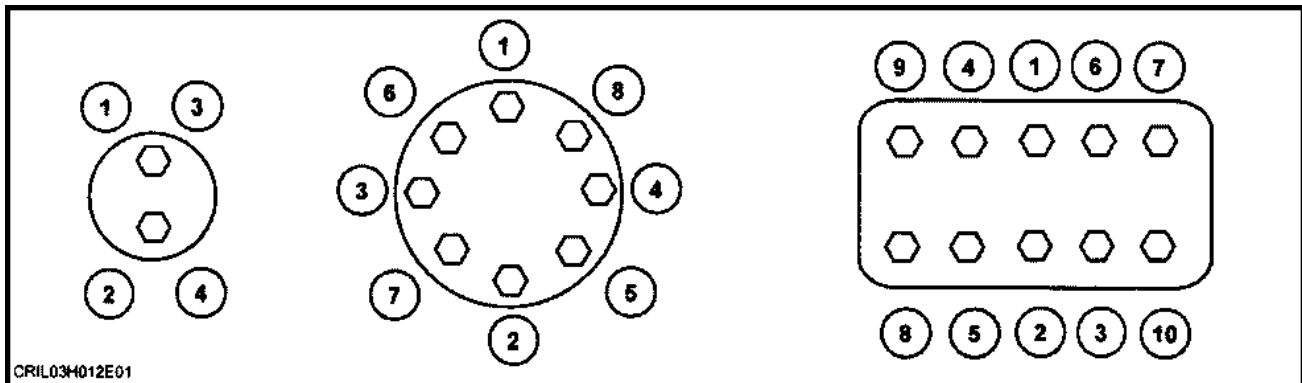
NHIL14RB00663AA 2

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

Grease fittings and intervals

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

Grease fittings

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

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

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

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

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

Grease guns

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

Two commonly used grease gun types are as follows:

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

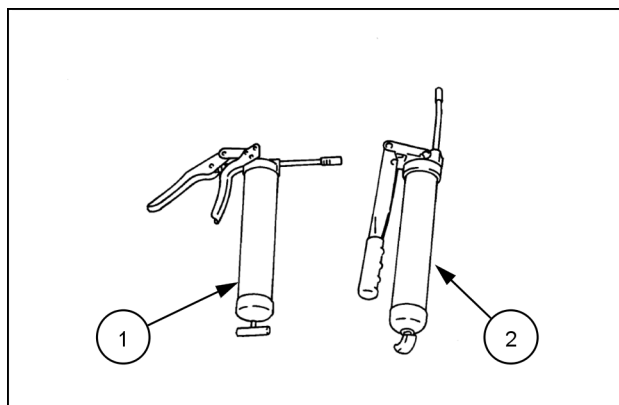
In general, a pistol grip-style grease gun injects half of the amount of grease per pump as a lever-style grease gun.

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

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

Grease specification

See Page **7-9** for the correct grease specification.



1431-2-58N 1

Pressure washing

WARNING

Flying debris!

Always wear protective clothing and safety glasses or a face shield when using a steam cleaner or power washer.

Failure to comply could result in death or serious injury.

W0314A

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

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

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

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

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

When you use a high pressure washer:

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

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

Fluids, lubricants and capacities

Application	Capacity	Product name	Specification(s)
Grease fittings	-	- PETRONAS GREASE LI 0 EP	M1C 137-A
Chains	-	TUTELA HYPOIDE EP 85W-140 NT	MAT3511
Gearbox oil	-	TUTELA HYDROSYSTEM HI-TECH 46	ISO VG-46

Maintenance planning

Overview

Maintenance action	Grease				Check			
	Tighten				Lubricate			
					Change fluid			
					Page no.			
After the first 10 hours								
Nuts and bolts	x							7-11
Weekly								
Weekly grease fittings		x						7-11
Every 50 hours								
Wheels and tires - Check			x					7-12
Every 50 hours or weekly								
Gearbox oil level - Check			x					7-12
Every 100 hours								
Nuts and bolts	x							7-12
Every year								
Chains - Lubricate				x				7-13
Every beginning of the season								
Gearbox oil – Change fluid					x			7-13

After the first 10 hours

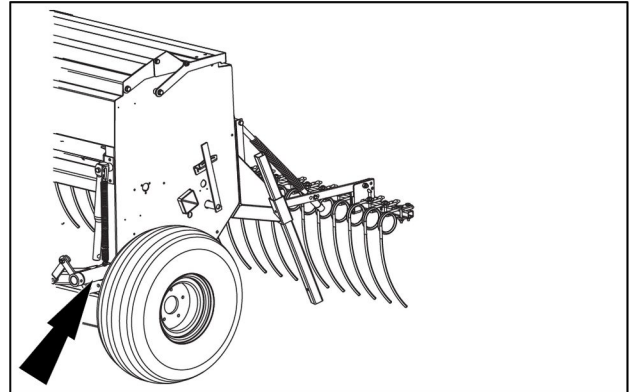
Nuts and bolts

Torque again all the bolts, the nuts and the fasteners after the first **10 h** of work.

Weekly

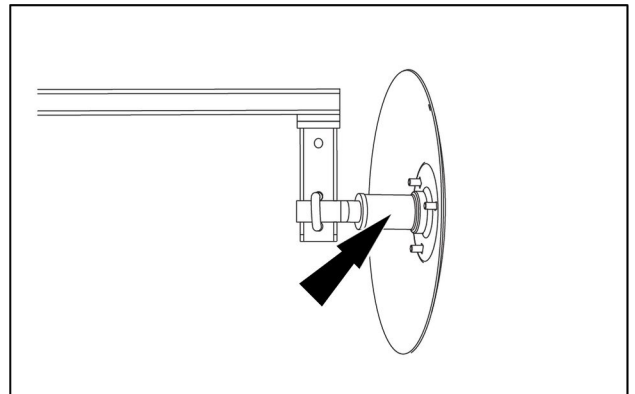
Weekly grease fittings

1. Marker arms pivot point.



ZEIL21SE00059AA 1

2. Marker hub discs.



ZEIL21SE00060AA 2

Every 50 hours

Wheels and tires - check

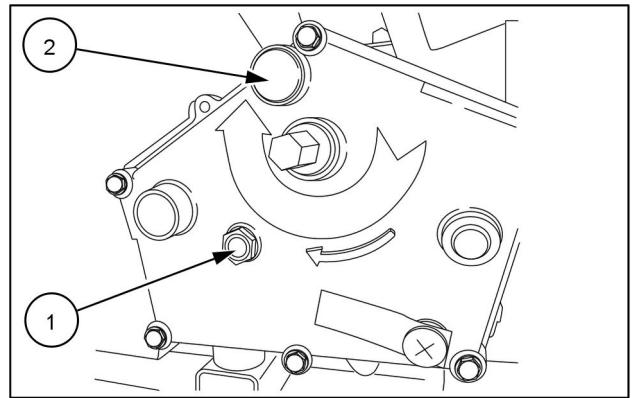
Check the wheels and tires every **50 h** of operation. Perform a follow-up check of the wheel hardware torque after every **50 h** of operation. Make sure to torque the wheel hardware any time that you remove and install a wheel.

Every 50 hours or weekly

Gearbox oil level - Check

Check the gearbox oil level as follows:

1. Park the implement on level ground.
2. Check through the sight glass **(1)** that the oil level is above the normal level mark.
3. If necessary, remove the filler cap **(2)** and fill up with oil as necessary. For fluids and lubricants specifications, see Page **7-9**.



ZEIL22SE00025AA 1

Every 100 hours

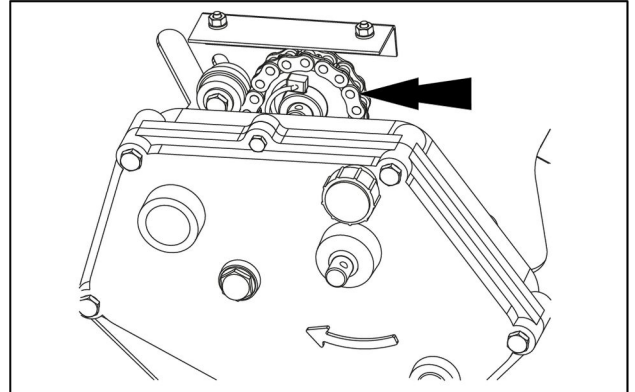
Nuts and bolts

Torque all the bolts, the nuts and the fasteners every **100 h** of work. If necessary, tighten all loosened elements you come across.

Every year

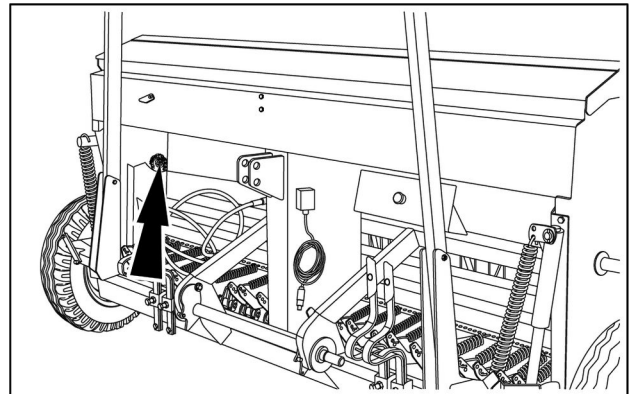
Chains - Lubricate

1. Agitator shaft chain.



ZEIL21SE00061AA 1

2. Gearbox drive chain.



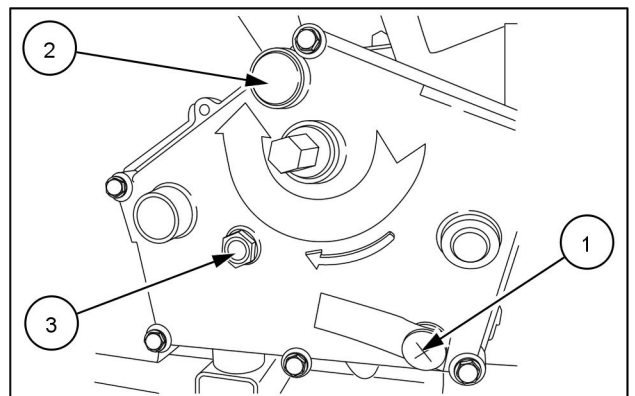
ZEIL21SE00104AA 2

Every beginning of the season

Gearbox oil – Change fluid

The gearbox oil should be replaced before every season. Proceed as follows:

1. Remove the drain plug **(1)** and drain the gearbox oil into a suitable container.
2. Install the drain plug **(1)**.
3. Remove the filler cap **(2)**.
4. Refill the oil as necessary. For oil specifications, see Page **7-9**.
5. Check through the sight glass **(3)** that the oil level is above the normal level mark.
6. Insert the filler cap **(2)**.



ZEIL22SE00025AA 1

Storage

End of season service

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

To prepare the implement for winter storage, proceed as follows:

1. Clean the implement thoroughly. Dust and dirt absorb moisture and moisture increases the formation of rust.
2. Store the implement in a dry place, protected against wind and weather in the best possible way.
3. Grease all grease fittings after you clean the implement, according to the "Maintenance chart".
4. Lubricate all chains, according to the "Maintenance chart".
5. Check the implement for damaged parts, loose screw-joints, leakage, wear and other defects carefully before the storage. If there is any damage, it may be forgotten during the storage and result in problems the following season. Note down the necessary parts you will need before the next season and order the spare parts.
6. The piston rod of the hydraulic cylinders may get rusty. Clean with brush and grease the components in order to protect them against wind and weather.
7. Dismount the hydraulics and electronic cables and wires. Leave the hydraulic components on the machine and secure the camera and the monitor.
8. 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.

Implement long-term storage and/or disposal

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

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

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

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

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

Long-term storage

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

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

Scrapping

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

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

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

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

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

Ordering parts and/or accessories 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

General

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

Troubleshooting

Problem	Possible Cause	Correction
High sowing rate.	Wrong calibration.	Adjust the regulating handle's indicator to correspond to a smaller value on the scale and make a new sowing test. See Page 6-7 .
	Soil conditions.	Make a supplementary calibration test in the field. See Page 6-7 .
	Wrong tires pressure.	Set the correct tires pressure. See Page 9-4 .
Low sowing rate.	Wrong calibration.	Adjust the regulating handle's indicator to correspond to a higher value on the scale and make a new sowing test. See Page 6-7 .
	Soil conditions.	Make a supplementary calibration test in the field. See Page 6-7 .
	Wrong tires pressure.	Set the correct tires pressure. See Page 9-4 .

9 - SPECIFICATIONS

Technical data

EcoLine

Models types:

- Suffolk Coulters (SC)
- Single Disc (SD)

Name	EcoLine 250 SC	EcoLine 250 SD	EcoLine 300 SC	EcoLine 300 SD
Working width	2.50 m (8.20 ft)	2.50 m (8.20 ft)	3.00 m (9.84 ft)	3.00 m (9.84 ft)
Overall height	1.39 m (4.56 ft)	1.39 m (4.56 ft)	1.39 m (4.56 ft)	1.39 m (4.56 ft)
Overall width	2.47 m (8.10 ft)	2.47 m (8.10 ft)	2.97 m (9.74 ft)	2.97 m (9.74 ft)
Overall length	1.13 m (3.71 ft)	1.13 m (3.71 ft)	1.13 m (3.71 ft)	1.13 m (3.71 ft)
Overall length with following harrow	1.57 m (5.15 ft)	1.57 m (5.15 ft)	1.57 m (5.15 ft)	1.57 m (5.15 ft)
Filling height	1.28 m (4.20 ft)	1.28 m (4.20 ft)	1.28 m (4.20 ft)	1.28 m (4.20 ft)
Hopper capacity	446 L (118 US gal)	446 L (118 US gal)	556 L (147 US gal)	556 L (147 US gal)
Hopper capacity with wheat	334 kg (736 lb)	334 kg (736 lb)	417 kg (919 lb)	417 kg (919 lb)
Total weight	465 kg (1025 lb)	465 kg (1025 lb)	508 kg (1120 lb)	508 kg (1120 lb)
Total weight with wheat	789 kg (1739 lb)	789 kg (1739 lb)	927 kg (2044 lb)	927 kg (2044 lb)
Number of suffolk coulters	21	–	25/29	–
Distance between rows with suffolk coulters	12.0 cm (4.7 in)	–	12.0 cm (4.7 in) 10.0 cm (3.9 in)	–
Number of disc coulters	–	19	–	23
Distance between rows with disc coulters	–	13.0 cm (5.1 in)	–	13.0 cm (5.1 in)
Distance between coulter rows	33.0 cm (13.0 in)	33.0 cm (13.0 in)	33.0 cm (13.0 in)	33.0 cm (13.0 in)
Tires	7.00 x 12	7.00 x 12	7.00 x 12	7.00 x 12
Hitch category	2	2	2	2
Tractor's lift requirements	880 kg (1940 lb)	880 kg (1940 lb)	1080 kg (2381 lb)	1080 kg (2381 lb)

ProfiLine

Models types:

- Suffolk Coulters (SC)
- Single Disc (SD)
- Double Disc (DD)

Name	ProfiLine 300 SC	ProfiLine 300 SD	ProfiLine 300 DD	ProfiLine 400 SC	ProfiLine 400 SD	ProfiLine 400 DD
Working width	3.00 m (9.84 ft)	3.00 m (9.84 ft)	3.00 m (9.84 ft)	4.00 m (13.12 ft)	4.00 m (13.12 ft)	4.00 m (13.12 ft)
Transport width	3.12 m (10.24 ft)	3.12 m (10.24 ft)	3.12 m (10.24 ft)	4.19 m (13.75 ft)	4.19 m (13.75 ft)	4.19 m (13.75 ft)
Height	1.46 m (4.79 ft)	1.46 m (4.79 ft)	1.46 m (4.79 ft)	1.46 m (4.79 ft)	1.46 m (4.79 ft)	1.46 m (4.79 ft)
Transport height	2.16 m (4.79 ft)	2.16 m (4.79 ft)	2.16 m (4.79 ft)	2.16 m (4.79 ft)	2.16 m (4.79 ft)	2.16 m (4.79 ft)
Overall length	2.98 m (9.78 ft)	2.98 m (9.78 ft)	2.98 m (9.78 ft)	2.98 m (9.78 ft)	2.98 m (9.78 ft)	2.98 m (9.78 ft)
Filling height	1.35 m (4.43 ft)	1.35 m (4.43 ft)	1.35 m (4.43 ft)	1.35 m (4.43 ft)	1.35 m (4.43 ft)	1.35 m (4.43 ft)
Hopper capacity	741 L (196 US gal)	741 L (196 US gal)	741 L (196 US gal)	1052 L (278 US gal)	1052 L (278 US gal)	1052 L (278 US gal)
Hopper capacity with wheat	555 kg (1224 lb)	555 kg (1224 lb)	555 kg (1224 lb)	789 kg (1739 lb)	789 kg (1739 lb)	789 kg (1739 lb)
Total weight	1041 kg (2295 lb)	1041 kg (2295 lb)	1041 kg (2295 lb)	1080 kg (2381 lb)	1080 kg (2381 lb)	1080 kg (2381 lb)
Total weight with wheat	789 kg (1739 lb)	789 kg (1739 lb)	789 kg (1739 lb)	927 kg (2044 lb)	927 kg (2044 lb)	927 kg (2044 lb)
Number of suffolk coulters	25/29	–	–	33	–	–
Distance between suffolk coulters	12.0 cm (4.7 in) 10.0 cm (3.9 in)	–	–	12.0 cm (4.7 in)	–	–
Number of single disc coulters	–	23	–	–	31	–
Distance between single disc coulters	–	13.0 cm (5.1 in)	–	–	13.0 cm (5.1 in)	–
Number of double disc coulters	–	–	23	–	–	31
Distance between double disc coulters	–	–	13.0 cm (5.1 in)	–	–	13.0 cm (5.1 in)
Number rows of coulters	2	2	2	2	2	2
Distance between coulter rows	33.0 cm (13.0 in)	33.0 cm (13.0 in)	33.0 cm (13.0 in)	33.0 cm (13.0 in)	33.0 cm (13.0 in)	33.0 cm (13.0 in)
Tires	6.00 x 16 10/80 x 12	6.00 x 16 10/80 x 12	6.00 x 16 10/80 x 12	10/80 x 12	10/80 x 12	10/80 x 12
Hitch category	2	2	2	2	2	2
Tractor's lift requirements	1380 kg (3042 lb)	1380 kg (3042 lb)	1380 kg (3042 lb)	1430 kg (3153 lb)	1430 kg (3153 lb)	1430 kg (3153 lb)
Pulling force	1.4 kN	1.4 kN	1.4 kN	2.0 kN	2.0 kN	2.0 kN
Working speed	5 – 8 km/h (3 – 5 mph)	5 – 8 km/h (3 – 5 mph)	5 – 8 km/h (3 – 5 mph)	5 – 8 km/h (3 – 5 mph)	5 – 8 km/h (3 – 5 mph)	5 – 8 km/h (3 – 5 mph)

Fluids, lubricants and capacities

Application	Capacity	Product name	Specification(s)
Grease fittings	-	- PETRONAS GREASE LI 0 EP	M1C 137-A
Chains	-	TUTELA HYPOIDE EP 85W-140 NT	MAT3511
Gearbox oil	-	TUTELA HYDROSYSTEM HI-TECH 46	ISO VG-46

Tires

The implement is as standard equipped with driving wheels.

The tire pressure is stated in the table below:

EcoLine

Tire dimension	Recommended tire pressure
7.00 x 12	1.2 bar (17.4 psi)

ProfiLine

Working width	Tire dimension	Recommended tire pressure
3.0 m (9.8 ft)	6.00 x 16	1.2 bar (17.4 psi)
	10/80 x 12	2.4 bar (34.8 psi)
4.0 m (13.1 ft)	10/80 x 12	2.4 bar (34.8 psi)

NOTICE: Since the tire pressures influence the sowing rate, using the tire pressure specified above is recommended.

NOTE: Check the tire pressure regularly.

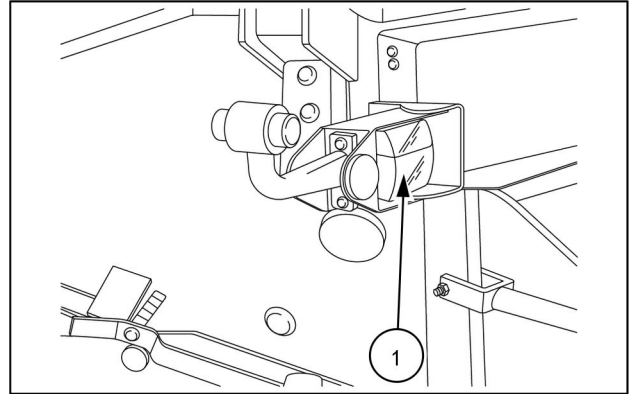
10 - ACCESSORIES

General information

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

Transport lights kit

An optional light kit (1) is available, on each side of the implement. It is a light kit for road transport.

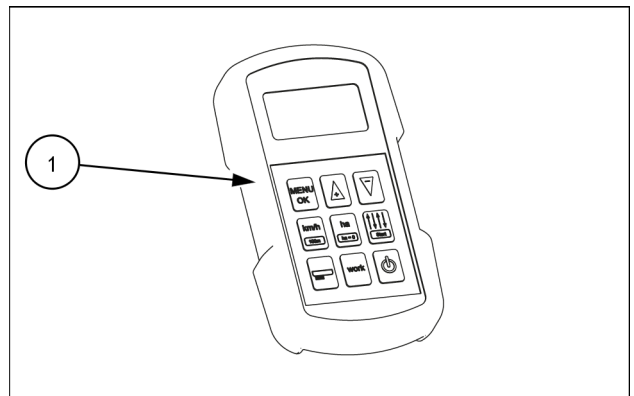


ZEIL21SE00065AA 1

Seed monitoring system

The Konnect 1000 monitor (1) is available as an option.

The available functions are tramline, hectare counter, and optional sensor for hopper seed level.

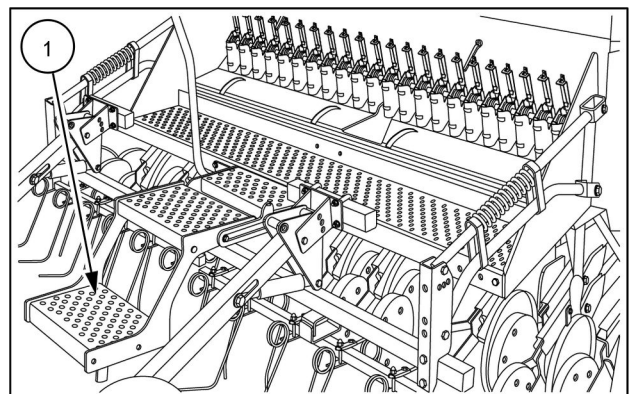


ZEIL21SE00013AA 1

Loading platform

A loading platform (1) can be chosen to have easy access to the hopper.

NOTE: The handrail is included in the steps of the platform.



ZEIL21SE00074AA 1

Hopper level sensor

The implement can be equipped with an optional hopper level sensor. It is only available in combination with Konnect 1000 monitor.

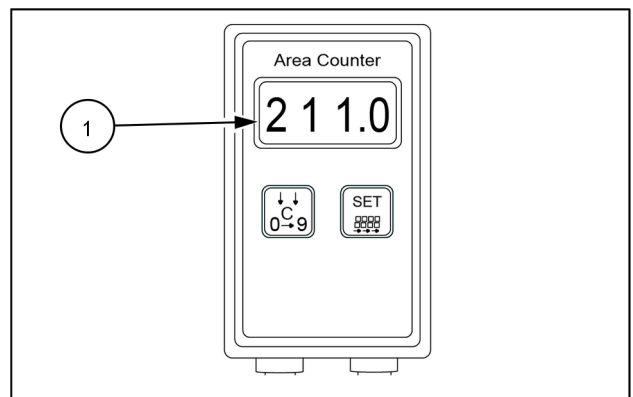
Electric manual tramlining

Electric tramline is done with Konnect 1000 monitor. When a monitor is not available and tramline needs to be used for sprayer tracks, tramlining can be done manually. Manual tramline is also electric but it is a manually operated switch to turn the function on and off in the tractor cab instead of monitor driven.

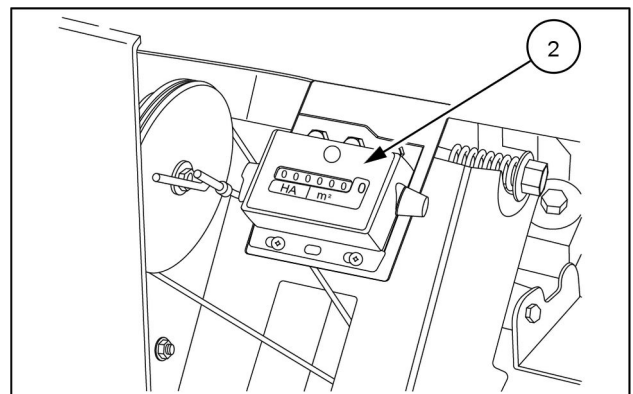
Hectare counter

The area counter can be monitored by the following methods:

- Electric area counter with Konnect 1000 monitor. See Page 3-8.
- Electric area counter without Konnect 1000 monitor. It is available a separate small display (1) only used for the area counting function.
- Mechanical area counter. It is equipped with a mechanical counter (2).



ZEIL21SE00075AA 1



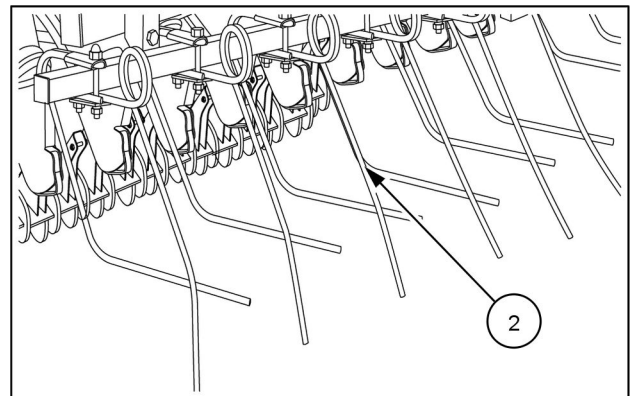
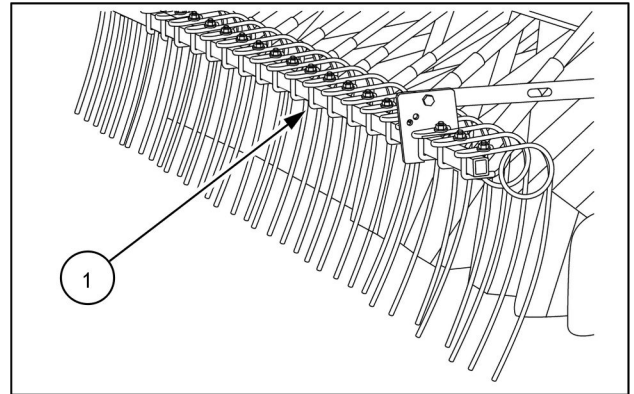
ZEIL21SE00076AA 2

Rear harrow

The implement can be equipped with two possible kind of rear harrows listed in the table below:

Item	Harrow	Tines
(1)	Max flow	Straight
(2)	Wing flow	Bended

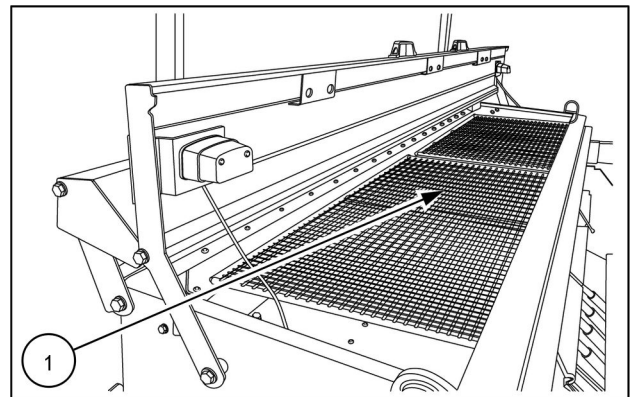
NOTE: The harrow can be equipped with pressure tension springs such that it can be forced into the ground even in wet and difficult conditions.



Sieves

The tank can be equipped with a sieve (1) to prevent for instance the seed bag breaking and portions falling in the tank.

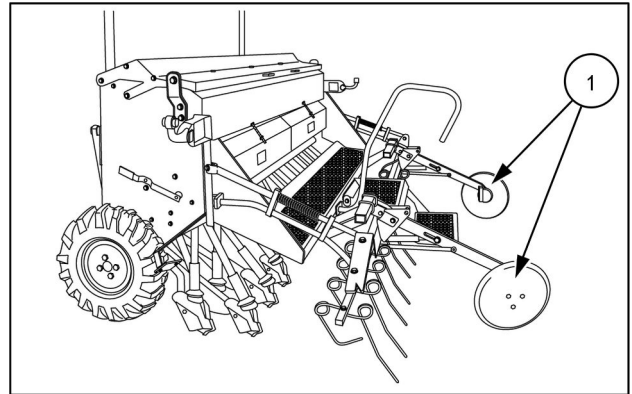
A sieve is a set of two parts, one for left hand side and one for right hand side of the implement.



Pre-emergence markers

The implement can be equipped with pre-emergence markers **(1)** mounted in the back.

The markers are composed by discs that make a mark for the tramlines made.



ZEIL21SE00078AA 1

Upgrade kit for hydraulic markers – Only for EcoLine

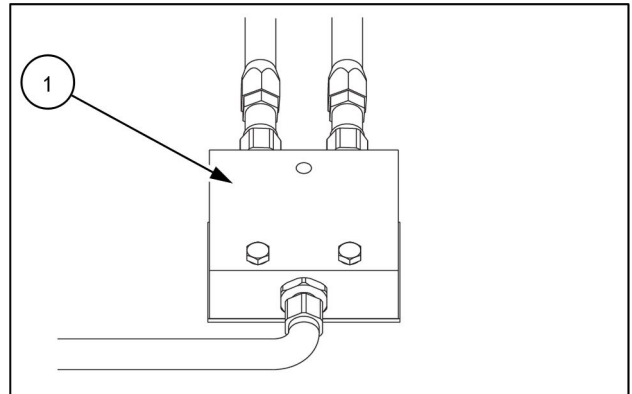
The implement can be optionally equipped with an upgrade kit for hydraulic markers.

A single-acting hydraulic take-off from the tractor is used which activates a shift valve **(1)** in the following way:

1. Supply hydraulic pressure to the marker system, in order to move both markers in vertical position.
2. Remove hydraulic pressure from the marker system in order to move one marker into its working position.
3. Supply and then remove hydraulic pressure from the marker system in order to switch between left hand and right hand markers into their working positions.

To obtain both markers in working position, proceed as follows:

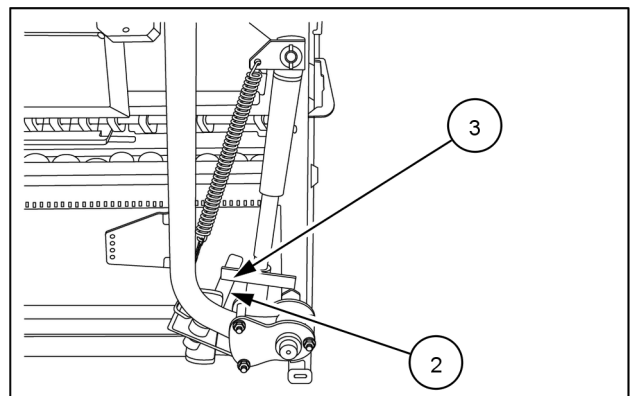
1. Raise about **1.0 m (39.4 in)** the marker which is in its working position.
2. Remove hydraulic pressure from the marker system. Both markers will move into their respective working positions.



ZEIL21SE00054AA 1

Marker arms in transport position

When transporting the implement on public roads, the marker arms must be locked in vertical position. Use the flat bar **(2)** to lock the pin **(3)** in order to secure the marker arm in vertical position.



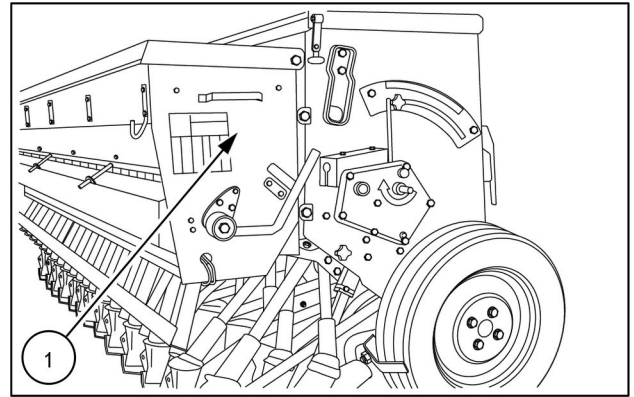
ZEIL22SE00046AA 2

Fertilizer box – Only for EcoLine

A fertilizer box (1) is available to be able to spread fertiliser while seeding.

The fertilizer box capacity is stated in the table below:

Working width	Capacity
2.5 m (8.2 ft)	263.0 L (69.5 US gal)
3.0 m (9.8 ft)	324.0 L (85.6 US gal)

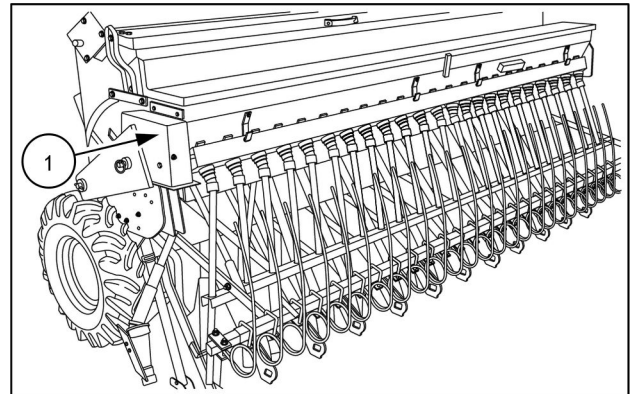


ZEIL21SE00086AA 1

Grass seedbox

The grass seedbox gives the possibility to seed grass at the same moment as seeding cereals.

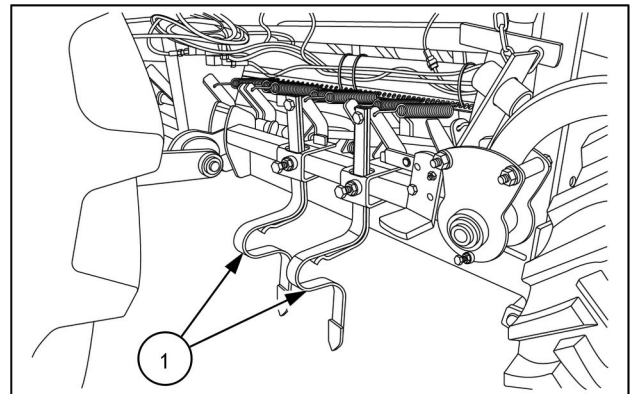
The grass seed is then distributed between the coulters to optimize the spread.



ZEIL21SE00079AA 1

Track eradicators

In order to loosen the soil in the tractor's wheel tracks, an extra set of eradicators (1) can be mounted in addition to the two standard eradicators.

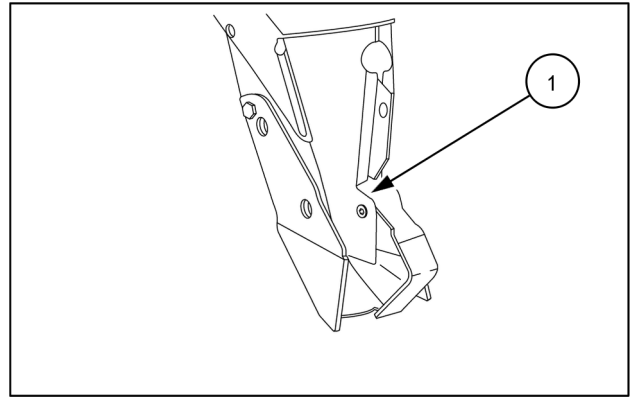


ZEIL21SE00071AA 1

Grass coulter tip

The implement can be equipped with optional grass coulter tips **(1)**.

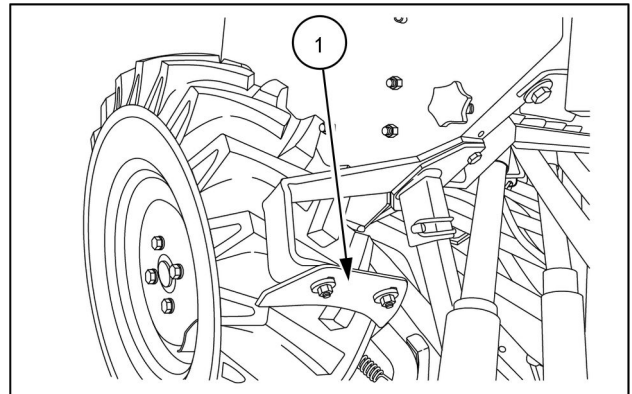
A grass coulter tip has a wide outlet, to spread out the grass seed efficiently.



ZEIL21SE00080AA 1

Wheel scraper

The wheel scraper **(1)** consists of a metal blade that keeps the depth wheel clean and mud-free allowing to keep an even and consistent seed depth.

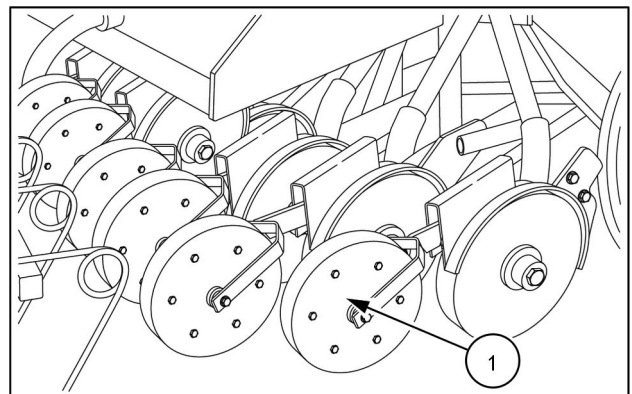


ZEIL21SE00081AA 1

Pressure wheel – Only for Profiline

NOTE: This equipment is available only for the models with double disc coulters.

The pressure wheels **(1)** are available as optional equipment behind the double disc coulters. The option can be ordered if it is required to press the coulter furrow after the seed is seeded.

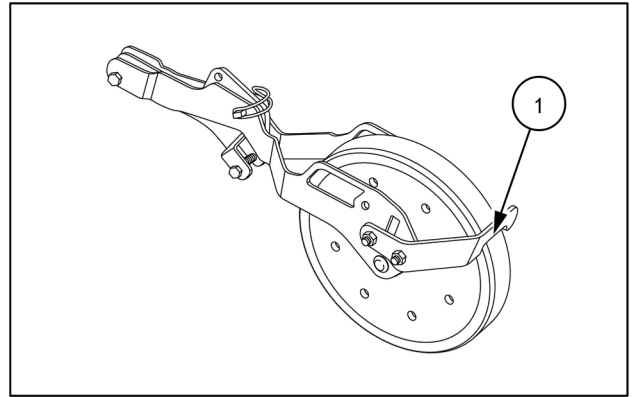


ZEIL22SE00031AA 1

Scraper for pressure wheel – Only for ProfiLine

NOTE: This equipment is available only for models with double disc coulters equipped with pressure wheels.

The scraper (1) for pressure wheel consists of a metal blade that keeps the pressure wheel clean and mud-free.

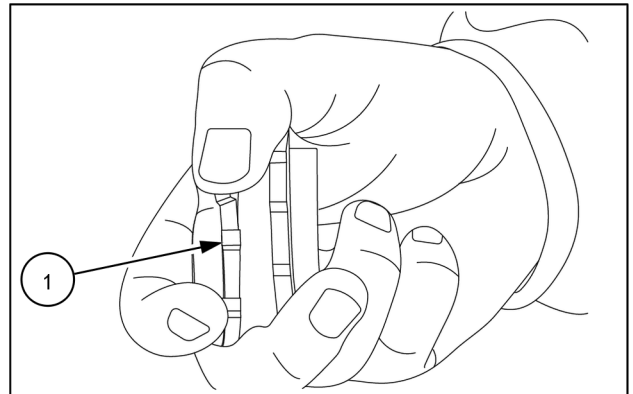


ZEIL22SE00030AA 1

Soft seed wheels

The implement can be equipped with optional soft seed rollers (1).

Use the soft seed rollers (1) in order to avoid damage to the seeds and to obtain a more uniform seeding.



ZEIL21SE00070AA 1

11 - FORMS AND DECLARATIONS

European Community (EC) Declaration of Conformity

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

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

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

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

Class of 2006/42/EC Annex I	BG ЕОЕС Декларация за съответствие съгласно Директивите 2006/42/ЕО и 2014/30/ЕО	CS EÚEU Prohlášení o shodě podle směrnice 2006/42/EU a 2014/30/EU	DA EØEU overensstemmelseserklæring efter direktivene 2006/42/EF & 2014/30/EU	DE EØEU Konformitätserklärung Gemäß den Richtlinien 2006/42/EG & 2014/30/EG	EL ΕΚΕΣ Δήλωση συμμόρφωσης Σύμφωνα με τις οδηγίες 2006/42/ΕΚ και 2014/30/ΕΚ
1.A.1	Имя: [1] декларация под мою собственную ответственность, на основании:	Meno: [1] prohlášení na vlastní odpovědnost, že výrobek:	Vej: [1] erklærer hermed at nedennævnte bestemte produkt:	Wk: [1] erkläre hermit in eigener Verantwortung, dass das Produkt:	Επώνυμο: [1] Συμμόρφωσις επί προσωπική μου ευθύνη, κατόπιν:
1.A.3	Свойство товара: наименование и модель: [2] Обозначение: [3] Тип (или наименование вариантов): [4] Серийный номер: [5]	Identifikace zboží: Oznáčení výrobku a model: [2] Označení: [3] Typ (nebo jméno varianty/verze): [4] Sériové číslo: [5]	Leadschreibweise: Kennzeichen name og Model: [2] Beskrivelse: [3] Type (ingen variant/versjoner): [4] Serienummer: [5]	Leadschreibweise: Kennzeichen name og Model: [2] Beschreibung: [3] Typ (Eine beliebige Variante/Variation angeben): [4] Seriennummer: [5]	Τύπος προϊόντος: Επώνυμο, μοντέλο και ποσοτικός [2] Ονομαστικό: [3] Τύπος (Εάν επιλεγεί Variante/Variation): [4] Κατασκευαστικός [5] Σειριακός αριθμός: [5]
1.A.4	за кого се издава настоящата декларация, съгласно на която съответността декларирани са Директивите 2006/42/ЕО и 2014/30/ЕО, означава от: [7]	Identifikace toho, pro koho se prohlášení týká, podle příslušné přílohy směrnice 2006/42/ES a 2014/30/EU, obsahuje: [7]	hvadtil denne erklæring henholder sig til, og/eller alle de relevante bestemmelser i direktivene 2006/42/EF & 2014/30/EF, angiver ved: [7]	auf das sich diese Erklärung bezieht, allen einschlägigen Bestimmungen der Richtlinien 2006/42/EG & 2014/30/EG entspricht, abgedeckt durch: [7]	από οποίο επιλαμβάνεται η παρούσα Δήλωση, κατόπιν της, η οποία, κατόπιν, περιγράφει, για οδηγίες 2006/42/ΕΚ και 2014/30/ΕΚ, είναι, περιεχομένη από: [7]
1.A.7	да съответното съответствие на декларацията на Директивите на Европейския съюз е гарантирано от декларирания оператор (или оператори): [8]	implementace příslušných částí týkajících se harmonizace a vzájemnosti ustanovení: [8]	for at oplynde de nævnte bestemmelser i direktivene om følgende (harmoniserende) standarder anvendes: [8]	bei der Umsetzung der Vorschriften der jeweiligen Richtlinien wurden die folgenden (harmonisierenden) Normen angewendet: [8]	Για τη σφύρα, υποθέτω, ότι η Δήλωση της συμμόρφωσης της Οδηγίας, περιλαμβάνει τα εκδιδόμενα (προστατευτικά) πρότυπα: [8]
1.A.2	Имя: [9] Должность: [10] и адрес: [11] на место, уполномоченное на составление технического документа:	Jméno: [9] Pozice: [10] a adresa: [11] dále, touto se uplatňuje a uplatňuje technické dokumentace:	Síling: [10] og adresse: [11] for den kompetente person der har tilkendelse til at udarbejde de tekniske dokumenter:	Name: [9] Position: [10] und Anschrift: [11] der Person, die befähigt ist, die technischen Unterlagen auszufertigen:	Όνομα: [9] Επίσημο: [10] και διεύθυνση: [11] να εξουσιοδοτημένο πρόσωπο να τη, σύνταξη του τεχνικού εγγράφου:
1.A.5	Имя: [12] и адрес: [13] на составление декларации:	Jméno: [12] a adresa: [13] prohlášení:	Síling: [12] og adresse: [13] for erklæringen:	Ort: [12] und Adresse: [13] der Erklärung:	Όνομα: [12] και διεύθυνση: [13] της Δήλωσης:
1.A.10	Подпись: [14] Имя: [15] и адрес: [16] на место, уполномоченное на составление Декларации о соответствии:	Podpis: [14] Jméno: [15] a adresa: [16] dále, touto se uplatňuje a uplatňuje příloha směrnice 2006/42/ES:	Underskrift: [14] Navn: [15] og adresse: [16] på den person der har beføjelse til at udarbejde denne EU overensstemmelseserklæring:	Unterschrift: [14] Name: [15] und Adresse: [16] der Person, die befähigt ist, die Konformitätserklärung auszuarbeiten:	Υπογραφή: [14] Όνομα: [15] και διεύθυνση: [16] να εξουσιοδοτημένο πρόσωπο να τη, Δήλωση της Συμμόρφωσης, εκδίδεται: [16]
Class of 2006/42/EC Annex I	EN EC Declaration of Conformity According to Directives 2006/42/EC & 2014/30/EU	ES Declaración CE de conformidad según las directivas 2006/42/CE y 2014/30/UE	IT Dichiarazione CE di conformità secondo le direttive 2006/42/CE e 2014/30/UE	PT Declaração CE de conformidade segundo as diretivas 2006/42/CE e 2014/30/UE	FR CE Declaration de Conformité Conformément aux Directives 2006/42/CE et 2014/30/UE
1.A.1	Wk: [1] I declare under our sole responsibility, that the product:	Nombre: [1] Declaro bajo nuestra única responsabilidad, que el producto:	Meno: [1] kérlekem az alábbiakat igazolom, az adott termék:	Mo: [1] declaramos em nome exclusivo da nossa empresa, esse item:	Noni: [1] déclare sous notre seule responsabilité, que le produit:
1.A.3	Аgricultural machine Commercial Name and Model: [2] Designation: [3] Type (Specify all variants/versions): [4] Serial Number: [5]	Машина селскостопанска Назив и модел: [2] Обозначение: [3] Тип (Укажете всички варианти/версии): [4] Сериен номер: [5]	Poljoprivredna mašina Kazivanje i model: [2] Naziv: [3] Tip (Navesti sve varijante/verzije): [4] Serijski broj: [5]	Mašinazustroj Kazivanje i model: [2] Naziv: [3] Tip (Navesti sve varijante/verzije): [4] Serijski broj: [5]	Maquina agrícola Designação Comercial e Modelo: [2] Designação: [3] Tipo (Especificar todas as variantes/versões): [4] Número de série: [5]
1.A.4	When this declaration relates, fully or in part, to the provisions of Directives 2006/42/EC & 2014/30/EC, amended text:	Al que se refiere la presente declaración, completamente o parcialmente, a las disposiciones de las Directivas 2006/42/CE y 2014/30/UE, texto modificado por: [7]	Ala kellel jelen nyilatkozatom kitétele, részben vagy teljesen a 2006/42/EK és a 2014/30/EK irányelv módosított szövegére vonatkozik:	Ala kellel jelen nyilatkozatom kitétele, részben vagy teljesen a 2006/42/CE e 2014/30/UE direktívák módosított szövegére vonatkozik:	Alors qu'elle se rapporte, totalement ou partiellement, aux dispositions des Directives 2006/42/CE et 2014/30/UE, amendées par: [7]
1.A.7	For the implementation of the provisions of the respective Directives, the following harmonized standards have been applied: [8]	Con el fin de implementar las disposiciones de dichas directivas, se han aplicado las siguientes normas armonizadas: [8]	Celovekto kellel jelen nyilatkozatom kitétele, részben vagy teljesen a 2006/42/EK és a 2014/30/EK irányelv módosított szövegére vonatkozik:	Celovekto kellel jelen nyilatkozatom kitétele, részben vagy teljesen a 2006/42/CE e 2014/30/UE direktívák módosított szövegére vonatkozik:	Pour la mise en œuvre des exigences de ces directives, les normes (harmonisées) suivantes ont été appliquées: [8]
1.A.2	Name: [9] Position: [10] and address: [11] of the person authorized to compile the Technical file	Nombre: [9] Puesto: [10] y dirección: [11] de la persona autorizada para elaborar el expediente técnico:	Název: [9] Pozice: [10] a adresa: [11] osobu, která je oprávněna sestavit technický soubor:	Sen henkilö: Név: [9] Állás: [10] és cím: [11] aki a vállalkozás technikai fájliját elkészíti:	Noni: [9] Puesto: [10] et adresse: [11] de la personne habilitée à rédiger le Dossier Technique:
1.A.5	Place: [12] and date: [13] of the declaration	Lugar: [12] y fecha: [13] de la declaración:	Ausloht: [12] ja kuulus: [13] kui jäteti deklaratsiooni koostati:	Vaakuskoht: aika: [12] ja päevä: [13]	Lieu: [12] et date: [13] de la déclaration:
1.A.10	Signature: [14] Name: [15] and address: [16] of the person empowered to draw up the EC Declaration of Conformity	Firma: [14] Nombre: [15] y puesto: [16] de la persona autorizada para redactar la declaración CE de conformidad:	Allus: [14] Název: [15] ja adresa: [16] kes on volitatud EÜ vastavusdeklaratsiooni koostamiseks:	Sen henkilö: Aleksyus: [14] Név: [15] ja cím: [16] aki on volitatud EÜ vastavusdeklaratsiooni koostamiseks:	Signature: [14] Noni: [15] et adresse: [16] de la personne habilitée à rédiger la déclaration de conformité CE:

11 - FORMS AND DECLARATIONS

[illegible]

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

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

We,

declare under our sole responsibility, that the product:

Agricultural machine

Commercial Name KONGSKILDE and Model: ...

Denomination: Planter

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

Planning key: ...

Serial Number: ...

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

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

- EN ISO 4254-1: 2015
- EN ISO 4254-9:2018

Name, position, and address of the authorized person to compile the
Technical Construction File:...

Place and date of the declaration:

Signature, name and position of person empowered to draw up the EC
Declaration of Conformity:

NOTE: Only for United Kingdom.

	Declaration of Conformity of the Machinery according to Supply of Machinery (Safety) Regulations 2008 n.1597 and Electromagnetic Compatibility Regulations 2016 n.1091	[1]
1.A.1	We, [1] declare under our sole responsibility, that the product:	[2] [3] [4] [5] [6]
1.A.3	Agricultural machine Commercial Name and Model: [2] Denomination: [3] Type (Specify any variant/version): [4] Planning key: [5] Serial Number: [6]	[7] [8] [9] [10] [11] [12] [13] [14] [15] [16]
1.A.4	to which this declaration relates, fulfills all the relevant provisions of these Regulations.	[17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48] [49] [50] [51] [52] [53] [54] [55] [56] [57] [58] [59] [60] [61] [62] [63] [64] [65] [66] [67] [68] [69] [70] [71] [72] [73] [74] [75] [76] [77] [78] [79] [80] [81] [82] [83] [84] [85] [86] [87] [88] [89] [90] [91] [92] [93] [94] [95] [96] [97] [98] [99] [100]
1.A.7	For the relevant implementation of the provisions of these Regulations, the following published (designated) standards have been applied: [8]	[101] [102] [103] [104] [105] [106] [107] [108] [109] [110] [111] [112] [113] [114] [115] [116] [117] [118] [119] [120] [121] [122] [123] [124] [125] [126] [127] [128] [129] [130] [131] [132] [133] [134] [135] [136] [137] [138] [139] [140] [141] [142] [143] [144] [145] [146] [147] [148] [149] [150] [151] [152] [153] [154] [155] [156] [157] [158] [159] [160] [161] [162] [163] [164] [165] [166] [167] [168] [169] [170] [171] [172] [173] [174] [175] [176] [177] [178] [179] [180] [181] [182] [183] [184] [185] [186] [187] [188] [189] [190] [191] [192] [193] [194] [195] [196] [197] [198] [199] [200]
1.A.2	Name: [9] Position: [10] and address: [11] of the person authorized to compile the Technical File:	[201] [202] [203] [204] [205] [206] [207] [208] [209] [210] [211] [212] [213] [214] [215] [216] [217] [218] [219] [220] [221] [222] [223] [224] [225] [226] [227] [228] [229] [230] [231] [232] [233] [234] [235] [236] [237] [238] [239] [240] [241] [242] [243] [244] [245] [246] [247] [248] [249] [250] [251] [252] [253] [254] [255] [256] [257] [258] [259] [260] [261] [262] [263] [264] [265] [266] [267] [268] [269] [270] [271] [272] [273] [274] [275] [276] [277] [278] [279] [280] [281] [282] [283] [284] [285] [286] [287] [288] [289] [290] [291] [292] [293] [294] [295] [296] [297] [298] [299] [300]
1.A.9	Place: [12] and date: [13] of the declaration.	[301] [302] [303] [304] [305] [306] [307] [308] [309] [310] [311] [312] [313] [314] [315] [316] [317] [318] [319] [320] [321] [322] [323] [324] [325] [326] [327] [328] [329] [330] [331] [332] [333] [334] [335] [336] [337] [338] [339] [340] [341] [342] [343] [344] [345] [346] [347] [348] [349] [350] [351] [352] [353] [354] [355] [356] [357] [358] [359] [360] [361] [362] [363] [364] [365] [366] [367] [368] [369] [370] [371] [372] [373] [374] [375] [376] [377] [378] [379] [380] [381] [382] [383] [384] [385] [386] [387] [388] [389] [390] [391] [392] [393] [394] [395] [396] [397] [398] [399] [400]
1.A.10	Signature: [14] Name: [15] and position: [16] of the person empowered to draw up the UKCA Declaration of Conformity.	[401] [402] [403] [404] [405] [406] [407] [408] [409] [410] [411] [412] [413] [414] [415] [416] [417] [418] [419] [420] [421] [422] [423] [424] [425] [426] [427] [428] [429] [430] [431] [432] [433] [434] [435] [436] [437] [438] [439] [440] [441] [442] [443] [444] [445] [446] [447] [448] [449] [450] [451] [452] [453] [454] [455] [456] [457] [458] [459] [460] [461] [462] [463] [464] [465] [466] [467] [468] [469] [470] [471] [472] [473] [474] [475] [476] [477] [478] [479] [480] [481] [482] [483] [484] [485] [486] [487] [488] [489] [490] [491] [492] [493] [494] [495] [496] [497] [498] [499] [500]

90498853 rev.A

Index

A

Adjustment of sowing rate	6-6
Adjustment of working depth	6-15
Alarms	3-6

C

Calibration of the drill	3-8, 6-7
Chains - Lubricate	7-13
Check before use	4-1
Connection to the tractor.	4-2

D

Disconnection and parking	4-3
Display brightness	3-4

E

Ecology and the environment.	2-11
Electric manual tramlining	10-2
Electro-Magnetic Compatibility (EMC)	1-5
End of season service	7-14
European Community (EC) Declaration of Conformity	11-1

F

Fertilizer box – Only for EcoLine	10-5
Filling platform	6-2
Fire or explosion prevention	2-3
Fluids, lubricants and capacities	7-9, 9-3

G

Gearbox oil – Change fluid	7-13
Gearbox oil level - Check	7-12
General	7-1, 8-1
General information	10-1
General recommendations	2-2
Grass coulter tip	10-6
Grass seedbox	10-5
Grease fittings and intervals	7-7

H

Harrow adjustment (if equipped)	6-18
Hazardous chemicals	2-4
Hectare counter	3-8, 10-2
Hopper level sensor.	10-2

I

Illustrations	2-3
Implement components	1-13
Implement long-term storage and/or disposal.	7-15
Implement orientation	1-11
Implement overview.	6-1
Implement stability	2-10
Intended use	1-4

K

Keypad	3-2
------------------	-----

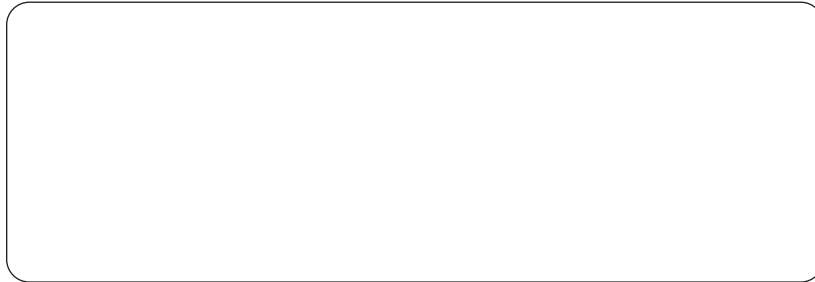
L	
Language selection	3-4
Loading platform	10-1
Local obligations	2-3
M	
Machine type.	3-5
Maintenance	2-7
Main work screen	3-3
Manual scope and required training level	1-6
Marker adjustment	6-17
Markers	6-5
Monitor (if equipped)	3-1
N	
Noise emission	2-9
Note to the owner.	1-1
Number of pulses	3-5
Nuts and bolts	7-11, 7-12
O	
Operating the implement safely	2-6
Operator's manual storage on the machine.	1-10
Ordering parts and/or accessories and / or accessories	7-16
Overview	7-10
P	
Personal protective equipment (PPE)	2-8
Pre-emergence markers	10-4
Pressure washing.	7-8
Pressure wheel – Only for Profiline	10-6
Product identification	1-9
Product Identification Number (PIN).	1-8
Prohibited usage	1-5
R	
Rear harrow	10-3
Row distance adjustment	6-4
S	
Safety requirements for fluid power systems and components - hydraulic systems	2-8
Safety rules and signal word definitions	2-1
Safety signs	2-12
Scraper for pressure wheel – Only for ProfiLine	10-7
Seed level	6-2
Seed monitoring system	10-1
Settings	3-3
Sieves	10-3
Soft seed wheels	10-7
Special crops	6-14
Starting up the implement safely	2-4
T	
Technical data	9-1
Tires	9-4
Toolbox	6-3
Torque	7-4
Track eradicators	6-16, 10-5
Tramline control	3-9
Transport lights kit	10-1
Transport position.	5-1
Transport the seed	6-2
Traveling on public roads	2-5
Troubleshooting	8-1

U	
Upgrade kit for hydraulic markers – Only for EcoLine	10-4

V	
Vibration levels	2-9

W	
Weekly grease fittings	7-11
Wheels and tires - check	7-12
Wheel scraper	10-6
Working width	3-7

Dealer's stamp



The manufacturer and its authorized representative reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at the time of publication, but are subject to change without notice.

Availability of some models and equipment builds varies according to the country in which the equipment is being used. For exact information about any particular product, please consult your Kongskilde dealer.



© 2022 CNH Industrial Kutno N.V. All Rights Reserved.

Kongskilde is a trademark registered in the United States and many other countries, owned by or licensed to CNH Industrial N.V., its subsidiaries or affiliates.

Any trademarks referred to herein, in association with goods and/or services of companies, other than owned by or licensed to CNH Industrial N.V., its subsidiaries or affiliates, are the property of those respective companies.