



AGRISEM®

Stubble harrow

Turbomulch

EN - Original manual

AGRISEM INTERNATIONAL S.A.
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Table of contents

PREAMBLE	5
1. Introduction	6
1.1. Purpose of the operating instructions.....	6
1.2. Using the instruction manual.....	6
1.3. Ordering the manual.....	7
1.4. Interpreting the version of the manual.....	7
1.5. Description of warning terms.....	7
2. Presentation of the machine	9
2.1. Intended use of the equipment.....	9
2.2. General view of the machine.....	10
3. Identification	12
3.1. Validity of the user manual	12
3.2. Location and description of identification plate.....	12
3.3. Machine identification.....	13
4. Warranty	14
4.1. Warranty conditions.....	14
4.2. Exclusive liability clause	17
5. Safety instructions	18
5.1. Safety requirements	18
5.2. Safety symbols on the machine	32
6. Use.....	37
6.1. Location and description of controls.....	37
6.2. Commissioning.....	42
6.3. Coupling / Uncoupling	43
6.4. Folding / Unfolding	46
6.5. Driving	46
6.6. Setting the working depth.....	47
6.7. Immobilising the tractor unit/machine.....	51
7. Storage - Handling - Transport	52
7.1. Storage.....	52
7.2. Handling	53
7.3. Transport.....	54



8. Servicing - Maintenance	55
8.1. Maintenance advice	55
8.2. Maintenance consumables.....	59
8.3. Maintenance schedule	59
8.4. Maintenance operations	60
9. Faults, causes, and remedies	69
10. Specifications	70
10.1. Turbomulch standard.....	70
10.2. Turbomulch Extra	70
11. Technical terms and abbreviations	71
12. Appendices	73

PREAMBLE

We would like to thank you for the trust you have placed in us with your purchase of AGRISEM INTERNATIONAL equipment.

This manual has been supplied with your machine to help you make the best possible use of the equipment you have purchased, particularly in terms of safety.

All purchasers are reminded that the manual is an inseparable accessory of the machine and that, in the event of resale, article 1615 of the French Civil Code considers that this accessory must be passed on to the new owner.

Because the manual is inseparable from the machine, it should also be noted that owners must undertake to keep it physically available with the machine for all users.

This manual contains the specifications for your new equipment. Please read it and ensure that all users scrupulously follow the instructions. The following pages provide essential information about your machine, so please read them carefully.

Your AGRISEM INTERNATIONAL dealer will provide you with quality maintenance and any assistance that you may require. When it comes to maintenance, remember that your dealer knows your machine best and they would like you to be completely satisfied.

All the information and specifications contained in this manual are current at the time of printing. However, in the context of our policy of constant improvement, we reserve the right to make changes at any time without prior notice.

This user manual has been published for general distribution, and as a result, the availability of the specified equipment for both the basic machine or accessories may vary according to the region where the machine is used. All the combinations available at the time of publication will be described in the user manual.

1. Introduction

1.1. Purpose of the operating instructions

You have just taken possession of your AGRISEM INTERNATIONAL machine. It has been designed to satisfy all of your needs.

The equipment has been specially designed to adopt new solutions that reduce running costs.

However, to correctly operate your AGRISEM INTERNATIONAL machine and maximise its potential, read these instructions carefully before using it and follow them to the letter. In particular, carefully follow the instructions related to settings, maintenance and safety.

Please contact our distributor for additional information or advice.

This user manual is an integral part of the machine and must always be kept with the machine, especially if it is resold.

With its goal of continuous product improvement, AGRISEM INTERNATIONAL reserves the right to modify or improve its products without being obliged to apply these modifications or improvements to products already on the market.

The instructions in this manual are not exhaustive and cannot cover every possible situation. Users must comply with all applicable legislation, particularly in terms of safety, ensure compliance with the preventative safety rules dictated by each situation, use their common sense, and adapt the use of the machine to the particular circumstances of each case.

Each purchaser is responsible for checking that the AGRISEM INTERNATIONAL machine complies with the laws and regulations of its destination region or country.

DANGER



This user manual must be read and observed by all persons who have to work on or with the machine, including for its:

- use (including preparation, troubleshooting during work, and maintenance),
- maintenance (servicing and inspection),
- transport.

AGRISEM INTERNATIONAL accepts no liability for personal injury, material damage or malfunctions resulting from any failure to comply with the manufacturer's instructions contained in this manual.

IMPORTANT



AGRISEM INTERNATIONAL information

Return the warranty certificate within 15 days and attach a copy of the invoice (*without the return of these items, the warranty procedure cannot be implemented*).

1.2. Using the instruction manual

1.2.1. Functional organisation

Where possible, the contents of the user manual are classified by function.

1.2.2. Search help

The table of contents makes it easy to find the information you are looking for.

1.3. Ordering the manual

You can order the user manual by sending your request to:

AGRISEM INTERNATIONAL S.A.

535 Rue Pierre Levasseur

CS 60263

44158 ANCENIS - France

Tel. :02.51.14.14.40 – Fax: 02.40.96.32.36

1.4. Interpreting the version of the manual

The version of the manual is shown on the cover page and is composed as follows.

Description of manual versioning

Example: NOTT-FR-705-A

Characters	Description
NOTT	User manual
FR	French
GB	English
DE	German
PL	Polish
RU	Russian
705	Machine model
A	Manual version

1.5. Description of warning terms



DANGER

This pictogram indicates a risk situation for the user.

Consequences: death or unavoidable serious injury.



WARNING

This pictogram indicates a risk situation for the user.

Consequences: death or serious injury may occur.



ATTENTION

This pictogram indicates a risk situation for the user of the equipment.

Consequences: minor injuries may occur to the user, minor damage may occur on the equipment.



IMPORTANT

This pictogram provides mandatory information.

Consequences: equipment damage, physical risks, financial risks.



NOTE

This pictogram provides advice.

Consequences: more efficient use.



BARRED BIN

Indicates that the waste should not be disposed of in a conventional rubbish bin, but collected by a specific processing network.



MOEBIUS RIBBON

This is the universal symbol for recycling. It indicates that the product or its packaging is technically recyclable, but not that it is or will be recycled.



Products will only be recycled under two conditions:

- the sorting and recycling network exists in your area,
- they have been correctly sorted.

2. Presentation of the machine

2.1. Intended use of the equipment

AGRISEM INTERNATIONAL stubble harrows from the Turbomulch range are designed exclusively for professional use, in accordance with the recognised rules of agricultural work.

Turbomulch stubble harrows are designed and adapted to be coupled to a tractor's lifting arm and rear third-point-hitch in order to:

- cut and spread all types of crop residue after harvesting;
- allow weeds to quickly germinate and reduce the slug population after harvesting;
- optional: mix around stalks and stubble residue.

Turbomulch stubble harrows may only be used, maintained, and repaired by persons who are completely familiar with the machine and who have been informed of the possible risks.

Correct use requires strict compliance with the instructions in the user manual and with the rules for use, maintenance and repair described by the manufacturer.

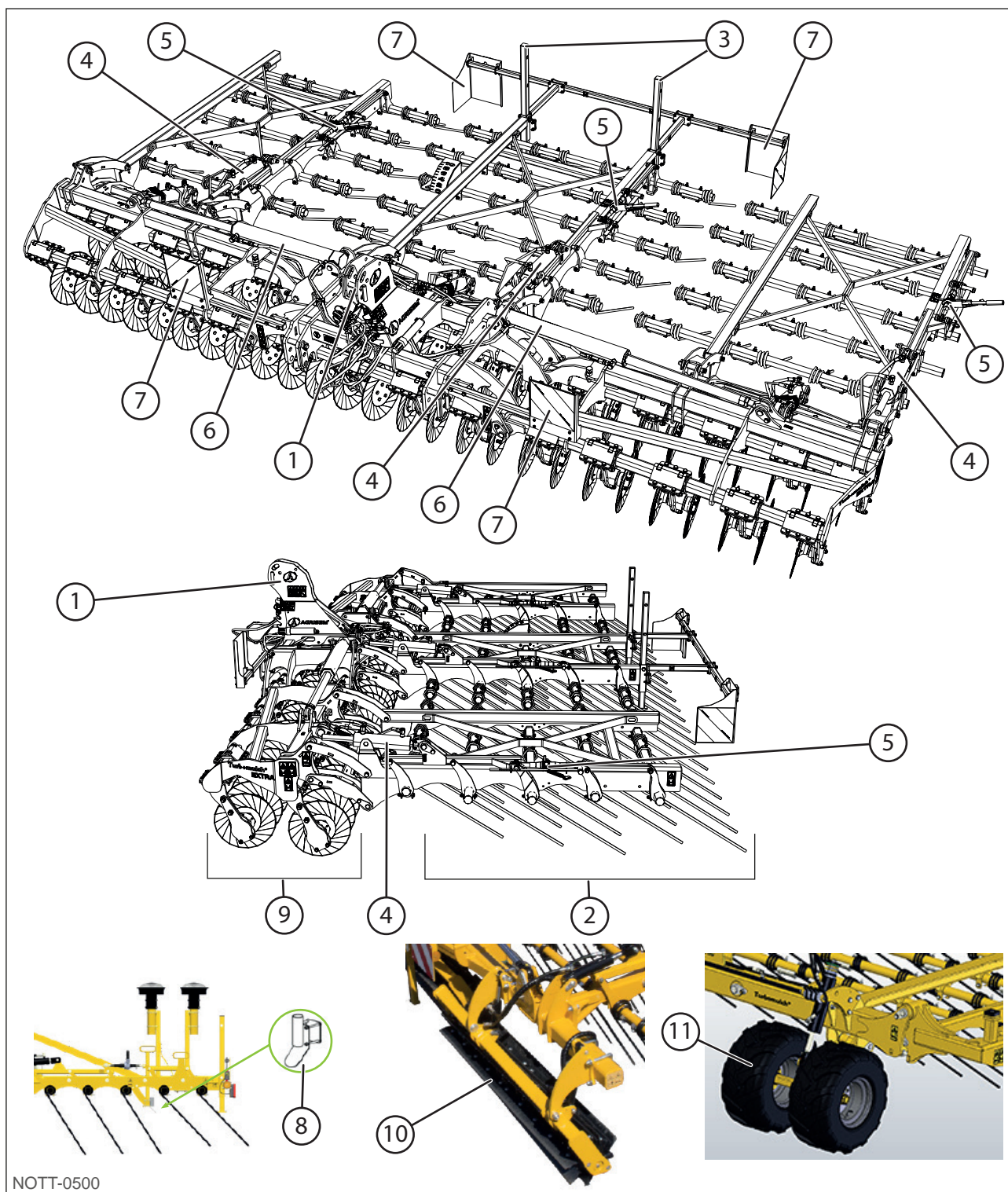
The user and owner are responsible for compliance with the specific instructions regarding accident prevention and the general safety, occupational medicine, and road traffic rules.

Any use other than those specified above will be considered as non-compliant and will release the manufacturer from any liability in the event of prejudice; the user will assume full responsibility for the risks resulting from such use.

Skills and level of training

Activity	Instructed person	Person with specialised training	Person specially trained for this activity
Transport loading	-	x	x
Commissioning	x	x	-
Installation and setting up the equipment	-	x	-
Operation	x	x	-
Maintenance	x	x	-
Finding and resolving faults and problems	x	x	-
Waste reprocessing/disposal	-	-	x

2.2. General view of the machine



NOTT-0500

Fig. 1

Reference marker	Description
1	Coupling
2	5-row harrow
3	Props
4	Uniform hydraulic adjustment of tine inclination

Reference marker	Description
5	Independent mechanical adjustment of the last 2 rows of tines
6	Folding system
7	Road transport signs
8	Spreaders
9	Circular coulters - 2 rows (Turbomulch Extra)
10	Cutter roller (optional)
11	Control wheels

3. Identification

3.1. Validity of the user manual

This user manual applies to the following machines.

Machine	Model	Serial number	
		De	A
Turbomulch 6.2 m - 7.3 m - 8.6 m	Stubble harrow	20HC01MA001	-
Turbomulch 9.8 m - 12.25 m	Stubble harrow	21HC04MA001	-
Turbomulch Extra 6m - 7.5 m - 9 m	Stubble harrow	21HC03MA001	-



IMPORTANT

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3.2. Location and description of identification plate

3.2.1. Location of the identification plate

The identification plate is located on the hitching bar.

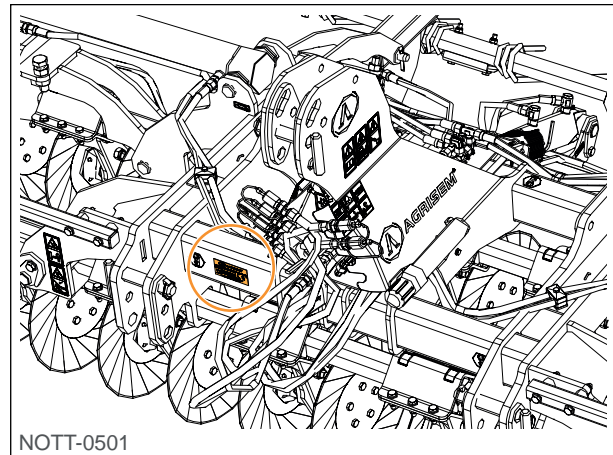


Fig. 2

The identification plate includes the following information.

Reference marker	Description
1	Model
2	Serial or identification number
3	Year of manufacture
4	Unladen weight of equipment

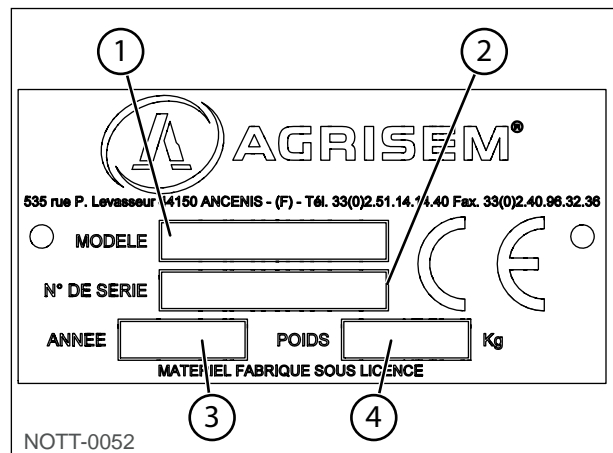


Fig. 3

3.3. Machine identification

When you receive the machine, please enter the relevant details below.

Information	Complete the column with the requested information
Machine model
Serial number
Year of manufacture
Date of first use
Dealer name
Dealer address
Dealer telephone number

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IMPORTANT

This document must remain inside this user manual.

4. Warranty

4.1. Warranty conditions

**NOTE**

Return the warranty certificate within 15 days and attach a copy of the invoice (without the return of these items, the warranty procedure cannot be implemented).

The warranty conditions that apply to machines fitted exclusively with AGRISEM INTERNATIONAL original parts are as follows.

When selling new products to its dealers, the manufacturer gives a guarantee that, subject to certain conditions, the goods are free from defects in material and workmanship. Purchasers of new AGRISEM INTERNATIONAL equipment should request all necessary information from the dealer who supplied the equipment.

As part of its policy to continuously improve its products, the manufacturer reserves the right to modify the characteristics of its equipment without prior notice and declines all responsibility in the event of any differences between the characteristics of its products and their description in its publications.

4.1.1. Term

If a defect is found in a structural part within 12 months from the date of delivery of the machine and if this defect is due to a fault in the primary material or from manufacturing in the factory. The allegedly defective parts are to be returned to the Company's address for expert examination:

AGRISEM INTERNATIONAL S.A. – 535 Rue Pierre Levasseur – CS 60263 – 44158 ANCENIS - France
Tel. :02.51.14.14.40 – Fax: 02.40.96.32.36

The date of delivery of the material shall be evidenced by:

- the date of the delivery note and of the invoice to the buyer.
- the return of the warranty certificate within 15 days (with stamp and signature of the dealer and the buyer) after delivery of the equipment.

4.1.2. Machines and parts concerned

For the purposes of the warranty, the term 'Machine' refers exclusively to machines and parts manufactured by AGRISEM INTERNATIONAL. (It does not include external components such as tyres, hydraulic hoses, etc., although these parts are also supplied by the Company)

**NOTE**

The warranty is void if modifications have been made to the machine without the express consent of AGRISEM INTERNATIONAL or if parts other than those manufactured by the Company have been fitted (e.g. imitation wear parts).

4.1.3. Scope of the warranty

The warranty is limited to the reimbursement or repair of parts that have been found to be defective in material or workmanship, in our factories and by our Technical Services.

The costs related to the dismantling and replacement of the defective part are not covered by the warranty. Also not covered are the costs of transporting the machines or machine parts to the place of repair, or the costs to return them.

Wear parts are not covered by the warranty.

4.1.4. Preconditions

The maintenance and use of the machine must comply with the instructions in the user manual.

All safety measures mentioned in this user manual as well as in the manuals of additional equipment must be observed.

All protective and safety components must be inspected regularly and replaced if necessary, including: cylinders, hydraulic hoses, safety springs and turbines. See chapters "Safety instructions" and "Servicing - Maintenance".

The warranty is only applicable if the customer has fulfilled the general obligations of the contract, in particular the payment conditions.

4.1.5. Pre-delivery checks

On supply of a machine, the dealer is required to perform certain tasks. This includes, on the one hand, a comprehensive pre-delivery inspection to ensure that the machine supplied is ready for immediate use and, on the other hand, the comprehensive instructing of the buyer on the basic principles of operation and maintenance of the machine. This instruction covers instruments and controls, routine maintenance and safety instructions. All those who will be involved in the use and maintenance of the machine must be present during this instruction.

4.1.6. Warranty exclusions

The warranty will not be valid:

- If the defects are due to normal wear and tear, misuse, lack of maintenance, lack of supervision or negligence.
- If the machine is damaged or defective as a result of using the machine outside the applications specified by AGRISEM INTERNATIONAL.
- In case of improper use of the machine. On this point, please refer to "Intended use of the equipment".
- Failure to comply with the manufacturer's instructions and regulations contained in this manual, in particular with regard to: safety, assembly, commissioning, use, operation and maintenance.
- In the event of incorrect handling by the user.
- Causes due to penetration by foreign bodies.
- In the event of damage resulting from combining the machine with other machines or implements without the prior written consent of AGRISEM INTERNATIONAL, and/or without complying with the specifications of the manufacturers of the tractor and the other implements or machines
- If the machine is used with incorrectly installed or non-operational protective and safety devices.
- If modifications have been made to the machine without the prior written consent of AGRISEM INTERNATIONAL, or if spare parts, accessories or equipment have been fitted to the machine that are not original or not approved by AGRISEM INTERNATIONAL.
- In case of improper repair.
- If the goods are damaged in transit or by any carrier. It shall be the responsibility of the consignee to take any necessary action against the carrier.
- The warranty does not cover the damaging consequences of immobilising the equipment due to a defect or problem in the machine.
- The warranty does not cover personal injury to the owner or a third party, nor does it cover indirect consequences.

Furthermore, AGRISEM INTERNATIONAL shall not be liable to pay any compensation whatsoever in the event of loss of the crop or any damage whatsoever due to a defect, hidden fault or breakdown of the machine.

The buyer is always responsible for the choice of the product, the suitability of the machine and the result expected by him or her. He or she is responsible for its proper use in accordance with the rules of the trade and regulations.

Under no circumstances does AGRISEM INTERNATIONAL have any obligation with regard to the final decision.

4.1.7. Limits of application and liability

The warranty may not be assigned or transferred to any person without the prior written consent of AGRISEM INTERNATIONAL .

Resellers of our machines do not have the right or authority to make any decision, either express or implied, on behalf of the company.

Technical assistance provided by the company or its agents for repairing or operating the equipment shall not give rise to any liability on its part and shall not, under any circumstances, result in novation or derogate from the terms of this warranty.

4.1.8. Procedure for implementing the warranty

MUST BE OBSERVED BY THE DISTRIBUTOR AND THE BUYER

The implementation of the warranty is subject to the dealer's and user's strict compliance with the following provisions:

- 1 - Return of the warranty certificate duly completed and signed by the dealer and the buyer.
- 2 - The claim must be made on a (see appendix) AGRISEM INTERNATIONAL "WARRANTY CLAIM FORM" and sent by registered letter with acknowledgement of receipt by the retailer to the company's technical department within 10 days of the date of the incident. This form must be written legibly by the dealer and must contain the following information:
 - name and address of the dealer, code number,
 - name and address of the buyer,
 - machine model,
 - operating width,
 - machine serial number,
 - date of delivery to the buyer,
 - date of the defect,
 - precise references of the replaced parts, invoice number and date,
 - make and model of the tractor used,
 - detailed description and suspected causes of the incident.
 - area worked with the Disc-O-Mulch,
 - useful agricultural area of the farm,
 - soil type % of clay,
 - proof of invoice for wear parts,
 - stones (yes/no),
 - replaced parts (yes/no) (send photocopy of invoice).
- 3 - The suspected defective parts are to be returned by the dealer to the Company's address for inspection, together with the duplicate warranty claim form provided for this purpose. The dealer must order the replacement part from the spare parts department. The sender shall be responsible for the costs of transporting the returned parts.
- 4 - The final decision on whether or not to accept the warranty is made by the Company's technical or general management. Regardless of the object of the warranty claim, this decision is final and irrevocable and the buyer agrees to accept this decision both in relation to the defect and to the replacement of the part(s).

The Company's sales staff are not authorised to take such a decision, which would be null and void.

**NOTE**

In case of refusal, the part remains at the customer's disposal for eight days; after this period, it will be scrapped without recourse.

Dealers of our machines have no right or authority to make any decision, either express or implied, on behalf of the Company.

4.1.9. Warranty request on my.agrisem.com

To request a warranty on my.agrisem.com, please refer to the following videos:

- in French: <https://youtu.be/vv5CC0fMis8>
- in English: <https://youtu.be/RShENIsiAJA>

4.1.10. Extended warranty

If the warranty extension is taken out, please refer to this contract for the terms and conditions for implementing this warranty extension.

4.2. **Exclusive liability clause**

The AGRISEM INTERNATIONAL Company accepts no liability for damage (and any related indirect consequences) resulting from one or more of the following causes:

- Improper use of the machine.
- Failure to comply with the manufacturer's instructions contained in this manual, in particular with regard to: safety, assembly, commissioning, use, operation and maintenance.
- Improper assembly, commissioning, use and maintenance of the machine.
- Using the machine with defective protective and safety devices or improperly installed or inoperative protective and safety devices.
- Combining the machine with other machines or implements without the prior written consent of AGRISEM INTERNATIONAL, and/or not complying with the specifications of the manufacturers of the tractor and the other implements or machines.
- Modifications made to the machine without the written agreement of AGRISEM INTERNATIONAL.
- Fitting of non-original spare parts, accessories or equipment on the machine that have not been approved by AGRISEM INTERNATIONAL.
- Failure to inspect wear parts of the machine.
- Use of the machine other than for the applications specified by the manufacturer.
- Improper repair and maintenance.
- Accidents resulting from foreign bodies, acts of God and force majeure.

Furthermore, the AGRISEM INTERNATIONAL Company shall not be liable for personal injury to the owner or any third party, nor for any indirect consequences resulting from this, whether or not they were caused by a defect. It should be remembered that a safety radius of 50 m must be respected.

Any claim for compensation for damage that has not occurred directly on the machine is excluded.

The AGRISEM INTERNATIONAL Company cannot be held liable for consequential damage caused by improper conduct or use.

The AGRISEM INTERNATIONAL Company shall not be liable for any compensation for the adverse consequences of the immobilisation of the equipment due to a defect or problem in the machine.

5. Safety instructions

5.1. Safety requirements

5.1.1. Introduction

This user manual must be read and understood before using the machine for the first time.

This user manual has been published for general distribution, and as a result, the availability of the specified equipment for both the basic machine or accessories may vary according to the region where the machine is used.

Always consult your dealer if you do not understand any part of this manual. It is important that these instructions are understood and followed.

This chapter supplements any safety instructions given elsewhere in this manual.

The machine is used in combination with an agricultural tractor. Only careful reading of the user manuals for the 2 items of equipment (tractor + machine/tool) will ensure that work is performed in complete safety for both people and property.

Most accidents that occur during work, maintenance, or travel can be attributed to a simple failure to observe the most basic safety rules. Consequently, it is vital that anyone likely to work with this machine scrupulously observes the following basic rules, as well as the safety instructions on the stickers affixed to the machine.

This machine has been designed for precise work. It must always be in perfect working order and must only be repaired using AGRISEM INTERNATIONAL original parts.

This machine must only be used, maintained, and repaired by competent persons who are familiar with its specifications and methods of use and who have been informed of the accident prevention safety rules and the hazards to which they could be exposed.

This machine must only be used for its intended purpose when in a condition that presents no safety risk. Any malfunctions that could compromise safety must be immediately rectified.

The user is responsible for scrupulously complying with the safety instructions contained in this manual and the stickers affixed to the machine. In some of the illustrations in this manual, the safety signs and guards have been omitted for the sake of clarity. Never use the machine without these parts in place. If any of these components have been removed for repair, they must be replaced before use.

Compliance with current regulations in force is also required for: accident prevention, occupational safety (Labour Code), occupational medicine, road traffic legislation and waste reprocessing.

Before using the machine for the first time, read all the safety instructions in this manual carefully and familiarise yourself with the controls.

The machine must never be entrusted to anyone who has not been trained in its use.

Liability and warranty

In addition to the other cases referred to in this manual, the manufacturer declines all responsibility for damage (physical or material) resulting from one or more of the following causes:

- Failure to comply with the manufacturer's instructions contained in this manual, in particular with regard to: safety, assembly, commissioning, use, operation and maintenance.
- Improper use of the machine.
- Improper assembly, commissioning, use and maintenance of the machine.
- Using the machine with defective protective and safety devices or improperly installed or inoperative protective and safety devices.
- Combining the machine with other machines or implements without the prior written consent of AGRISEM INTERNATIONAL, and/or not complying with the specifications of the manufacturers of the tractor and the other implements or machines.

- List of compatible AGRISEM INTERNATIONAL machines
 - Combiplow: Disc-O-Mulch / Maximulch / Actimulch
 - DSF: Disc-O-Mulch / Maximulch / Actimulch
 - DSA: Disc-O-Mulch / Maximulch / Actimulch
 - DS500/200: Disc-O-Mulch / Maximulch / Actimulch
- Modifications made to the machine without the written agreement of AGRISEM INTERNATIONAL.
- Fitting of non-original spare parts, accessories or equipment on the machine that have not been approved by AGRISEM INTERNATIONAL . Spare parts are available via the online spare parts catalogue (available at <http://parts.agrisem.com/>) or from your authorised after-sales network.
- Failure to inspect wear parts of the machine.
- Use of the machine other than for the applications specified by the manufacturer.
- Improper repair and maintenance.
- Accidents resulting from foreign bodies, acts of God and force majeure.

Similarly, in addition to the other cases referred to in this manual, any warranty claim relating to damage resulting from one or more of the causes listed above is excluded.

5.1.2. Requirements to be respected when using the machine

Wear clothes that fit correctly. Loose-fitting clothing can be caught up in moving objects.

Wear personal protective equipment (PPE) appropriate to the work involved (gloves, shoes, goggles, helmet, ear protectors, etc.).

Be aware that soil-working equipment, even of narrow width, is equipped with very aggressive components (blades, ploughshares, discs, etc.), that can cause serious personal injury in the event of an accident.

Handle the controls with care.

Before each use, check the area around the machine. No-one should be standing within 50 metres of the machine. Guarantee this conditions of use to ensure sufficient visibility.

Before starting any work, ensure that the weight distribution of the equipment on the tractor is stable. The tractor must be sufficiently weighted at the front to avoid the risk of pitching up; if this is not the case, add weights to the front of the tractor.

Before each use, check that all screws, nuts and bolts are tight, in accordance with the maintenance procedure described in this manual. Tighten if necessary.

During unfolding and folding manoeuvres, no person may stand within a radius of less than 50 metres around the machine.

Check that the machine is correctly coupled.

Always fit pins and locking systems.

Check that the machine is safe for people.

Before each use, check that all safety and protection devices (safety devices, emergency stop, wheel chock, fire extinguisher) are in place and operational. Replace any worn or damaged guard immediately.

Keep all people and animals away from the area where the machine is being used or manoeuvred. A safety perimeter of 50 metres must be maintained around the machine.

Check the machine for any external damage and check the condition of the protective devices. Protective devices must be clean, legible and in good condition. If this is not the case, contact the AGRISEM INTERNATIONAL after-sales service to have them replaced.

Only persons who have been trained and instructed by the owner of the machine are authorised to work on and with the machine. The operator is responsible for third parties when working on and with the machine.

Do not use the machine on very uneven ground or on steep slopes.

Do not use the machine during thunderstorms or lightning strikes.

The owner of the machine must :

- Give the operator the user manual.
- Make sure that the operator has read and understood it.
- Ensure that the operator is familiar with the basic instructions relating to work safety and accident prevention.

In the event of a cut or injury caused by contact with the products contained in the machine, disinfect immediately.

5.1.3. Requirements for coupling and uncoupling

Ensure that the tractor/machine coupling is compatible. Only combine equipment that is compatible with each other (machine and tractor). If in doubt, contact the AGRISEM INTERNATIONAL after-sales network.

Check that the tractor has the required characteristics for coupling the machine (see “Specifications”, page 70).

WARNING



If the tractor does not correspond to the coupled machine, the following risks apply:

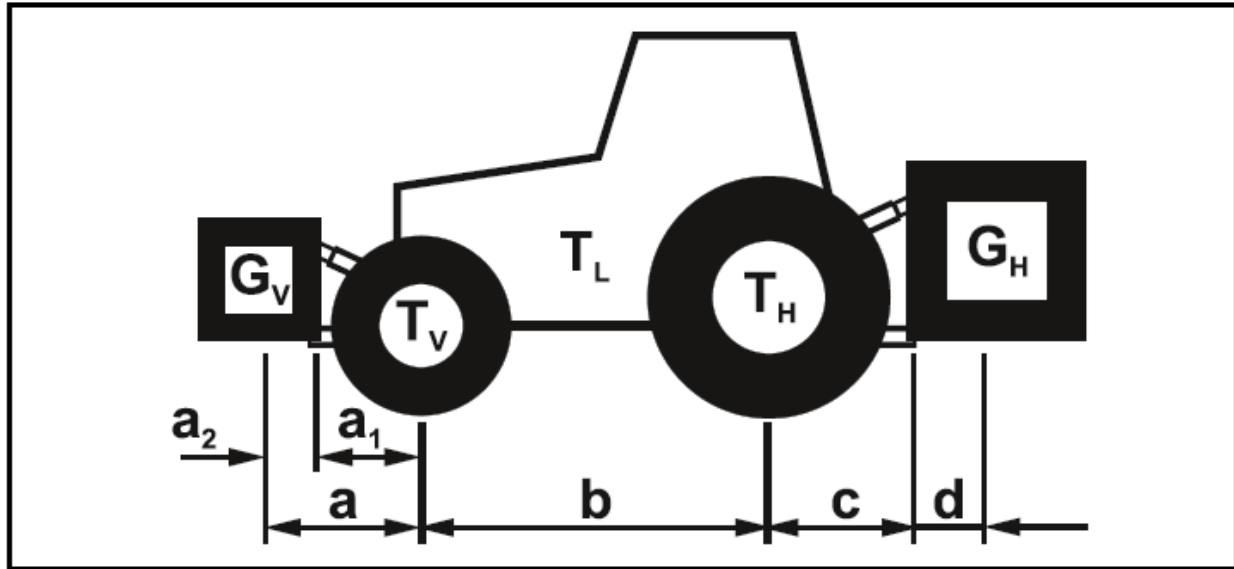
- Breakage of coupling
- Instability under load
- Instability when manoeuvring
- Insufficient braking capacity

Check that the tractor meets the necessary requirements before installing or coupling the machine.

The machine can only be towed by or coupled to a tractor if the tractor meets the necessary requirements.

Perform a braking test to check that the tractor can provide the required deceleration power, even with the machine mounted or coupled.

Refer mainly to the tractor's instruction manual. The references given below are for information only.

Data required for the calculation


NOTT-0222

Fig. 4

Reference marker	Unit	Description	Comment
T_L	[kg]	Unladen weight of tractor	see the instruction manual or the tractor registration document
T_V	[kg]	Unladen tractor front axle load	
T_H	[kg]	Unladen tractor rear axle load	
G_H	[kg]	Total weight of rear-mounted machine or rear ballast	see the technical specifications of the machine or rear ballast
G_V	[kg]	Total weight of front-mounted machine or front weight	see the technical specifications of the front-mounted machine or front ballast
a	[m]	Distance between the centre of gravity of the front-mounted machine or the front ballast and the centre of the front axle (sum $a_1 + a_2$)	see the technical specifications of the tractor and front-mounted machine or front ballast, or measure
a_1	[m]	Distance between the centre of the front axle and the centre of the lower arm coupling point	see the tractor operating manual, or measure
a_2	[m]	Distance between the centre of the lower arm coupling point and the centre of gravity of the front-mounted machine or front ballast (centre of gravity distance)	see the technical specifications of the front-mounted machine or front ballast, or measure
b	[m]	Tractor wheelbase	see the instruction manual or the tractor registration document, or measure

Reference marker	Unit	Description	Comment
c	[m]	Distance between the centre of the rear axle and the centre of the lower arm coupling point	see the instruction manual or the tractor registration document, or measure
d	[m]	Distance between the centre of the lower arm connection point and the centre of gravity of the rear-mounted machine or rear ballast (distance in relation to the centre of gravity)	see the machine's technical specifications

Calculation of the minimum ballast $G_{V \min}$ required at the front of the tractor to ensure manoeuvrability

Enter the value for the calculated minimum ballast $G_{V \min}$, required at the front of the tractor, in the table page 23.

$$G_{V \min} = \frac{G_H \cdot (c + d) - T_V \cdot b + 0,2 \cdot T_L \cdot b}{a + b}$$

NOTT-0223

Fig. 5

Calculation of the actual load on the front axle of the tractor $T_{V \text{tat}}$

Enter in table page 23 the value for the actual calculated front axle load and the permissible front axle load given in the tractor operating manual.

$$T_{V \text{tat}} = \frac{G_V \cdot (a + b) + T_V \cdot b - F_H \cdot c}{b}$$

NOTT-0224

Fig. 6

Calculating the actual total weight of the combined tractor and machine

Enter the value for the calculated actual total weight and the authorised total weight given in the tractor operating manual in the table page 23.

$$G_{tat} = G_V + T_L + F_H$$

NOTT-0225

Fig. 7

Calculation of the real load on the rear axle of the tractor $T_{H\,tat}$

Enter in table page 23 the value for the actual calculated front axle load and the permissible front axle load given in the tractor operating manual.

$$T_{H\,tat} = G_{tat} - T_{V\,tat}$$

NOTT-0226

Fig. 8

Tyre load capacity

Enter the double of the value (two tyres) of the tyres' permissible load capacity in table page 23 (see, for example, the tyre manufacturer's documentation).

Table

	Actual value obtained by calculation	Authorised value as per the tractor's operating manual	Double the load capacity of the tyres (2 tyres)
Minimum front / rear ballast	/ kg	--	--
Total weight	kg	kg	--
Load on front axle	kg	kg	kg
Load on rear axle	kg	kg	kg

**NOTE**

Take the authorised values for total weight, axle loads and tyre load capacities from the tractor's registration document.

The actual values calculated must be less than or equal to (\leq) the authorised values.

**WARNING**

Crushing, cutting, entrapment, and impact hazards due to insufficient stability when loaded and insufficient tractor manoeuvrability and braking power.

It is forbidden to couple the machine to a tractor that has been used as the basis for the calculation:

- even if only one calculated actual value is greater than the authorised value.
- if the tractor is not fitted with front ballast (if necessary) corresponding to the minimum required front ballast ($G_{V \min}$).

Ballast the front or rear of the tractor when its axle load is exceeded on only one axle.

Special cases

If the required minimum front ballast ($G_{V \min}$) is not obtained with the weight of the front-mounted machine (G_V), use additional weights in addition to the front-mounted machine.

If the required minimum rear ballast ($G_{H \min}$) is not obtained with the weight of the rear-mounted machine (G_H), use additional weights in addition to the rear-mounted machine.

Tractor/machine immobilisation**WARNING**

Risk of crushing, shearing, cutting, tearing, entrapment, winding, and impact when working on the machine in the following cases:

- accidental lowering of the unsecured machine, raised via the hydraulic circuit of the tractor's three-point linkage.
- accidental lowering of raised and unsecured machine parts.
- accidental start-up and movement of the combined tractor/machine.

Before performing any work on the machine, take all necessary steps to prevent the combined tractor-machine from starting up or moving accidentally.

Any work on the machine, such as assembly, adjustment, troubleshooting, maintenance and repair work, is prohibited:

- if the machine is driven,
- as long as the tractor engine with the drive shaft/hydraulic circuit connected is running,
- when the ignition key has not been removed and the tractor engine with the coupled drive-shaft/hydraulic system can be started accidentally,
- when the tractor and machine are not secured with their respective parking brakes and/or wheel chocks,
- when moving parts are not blocked to prevent accidental movement.

It is notably these operations that present a risk of contact with moving components.

Lower the machine / machine components that have been raised and not blocked / immobilised.

This is how to prevent accidental lowering:

- 1 - Stop the tractor engine,
- 2 - Remove the ignition key,
- 3 - Apply the tractor parking brake.

4 - Immobilise the machine (uniquely for coupled machines):

- on a flat surface by applying the parking brake (if fitted) or chocks,
- on uneven or sloping ground by applying the parking brake and wheel chocks.

The requirements for the tractor concern:

- the total authorised weight (including ballasting devices),
- the authorised axle loads,
- the authorised drawbar load at the tractor coupling point,
- the permissible load capacities of the fitted tyres,
- a sufficiently high authorised coupling load,
- the power take-off sleeves (6/21 splines),
- the compatibility of coupling devices,
- the tyre load capacity.

This information can be found on the information plate or on the vehicle registration document and in the tractor's operating manual. If they are missing, contact the tractor's after-sales service to confirm this information.

The tractor's front axle must always support at least 20% of the tractor's unladen weight. Please refer to the tractor instruction manual for further details.

Calculation of the actual values for the tractor's total weight, axle load and tyre load capacity, as well as the required minimum ballast

The total authorised weight of the tractor specified on the vehicle registration document must be greater than the sum of:

- the tractor's unladen weight,
- the ballast
- the total weight of the machine being towed or of the drawbar load of the coupled machine.

This instruction applies to Germany only:

If the axle loads and/or permissible total weight are not compliant after all other options have been exhausted, the Land law authority may, on the basis of a report by an expert authorised in the field of motor vehicle traffic and with the manufacturer's agreement, issue an exemption in accordance with Article 70 of the German Road Traffic Licensing Act, as well as the authorisation required under the German Highway Code.

Combining machines: do not combine machines that are incompatible with each other or with the tractor.

List of compatible AGRISEM INTERNATIONAL machines

- Combiplow: Disc-O-Mulch / Maximulch / Actimulch
- DSF: Disc-O-Mulch / Maximulch / Actimulch
- DSA: Disc-O-Mulch / Maximulch / Actimulch
- DS500/200: Disc-O-Mulch / Maximulch / Actimulch

The AGRISEM INTERNATIONAL company declines all responsibility for any damage resulting from a combination of machines which has not been authorised in writing by AGRISEM INTERNATIONAL.

Risk of accidents due to components breaking during operation as a result of unauthorised combinations of coupling devices.

Coupling and uncoupling are operations that involve risks of personal injury.

Before coupling or uncoupling

- Position the machine on stable ground.
- Reduce the pressure in all hydraulically-controlled circuits.
- Before dismounting from the tractor, take any precautions that are required to prevent the tractor from moving accidentally.
- Chock the machine and take any precautions that are required to prevent it from moving accidentally.

The machine must only be coupled at the coupling points that are intended for this purpose and in accordance with the relevant regulations.

5.1.4. Requirements to be respected when using the machine



WARNING

Risk of accidents due to crushing, cutting, catching, entanglement, and impact caused by a safety defect related to movement or operation.

Before starting up, check that the machine and the tractor can be moved and operated in complete safety.

Never ride or stand on the machine while it is in motion.

Never work while reversing.

Do not allow children to ride on the tractor or machine or to play near the equipment, even when the machine is stationary.

When operating or manoeuvring the machine, keep all persons away from the area where the machine is being used or manoeuvred. A safety perimeter of 50 metres must be maintained around the machine.

The machine elements controlled by external power have crushing and shearing zones. Stay away from these high-risk areas.

Be aware of hidden obstacles (stones, roots, pipes, cables, etc.). In the event of collision with an obstacle, it is imperative to stop the drive, switch off the tractor engine, remove the ignition key, and wait for the machine to come to a complete stop. Some parts may be inertial. Wait 5 minutes after switching off the ignition before working on the machine. Before resuming work, check the machine for any damage.

If the obstacle is an electricity cable or a gas pipe, alert the relevant authorities.

Stones or foreign objects can be thrown a considerable distance when the machine is in use. A safety perimeter of 50 metres must be maintained around the machine.

Keep all people and animals away from the area where the machine is being used or manoeuvred.

Do not stand in the machine's work area or in the area where the machine rotates and swivels.

Every time the machine is used, perform a regular visual check to detect any external damage and ensure that the safety and protection devices are working properly. The different settings should also be regularly checked. Protective devices must be clean, legible and in good condition.

Do not use the machine on very uneven ground or on steep slopes.

Do not use the machine during thunderstorms or lightning strikes.

In terms of driving

Adapt your driving style so that you can control the tractor and the towed or coupled machine in all circumstances.

In this respect, you must take into consideration your personal abilities, the conditions of the ground or road, traffic, visibility and bad weather, the driving characteristics of the tractor and the conditions of use when the machine is towed or coupled.

Ensure compliance with the preventive and safety rules dictated by each situation in terms of the regulations in force.

Your speed and driving style must always be adapted to the terrain, roads, and paths.

Reduce forward speed on uneven ground or tight bends.

When cornering, take into account the overhang and inertia mass of the towed machine.

Avoid sudden changes of direction in all circumstances.

Do not leave the driving position until the equipment has come to a complete stop, with the engine switched off and the parking brake applied.

Do not carry people or animals on the machine and its ancillary equipment during work or transport.

When travelling on public roads

Respect the road rules in force in your country.

Before driving on public roads, check the machine's road clearance and remove any parts that exceed this gauge.

Take into account the permissible widths for transport and the transport height depending on the coupled machine, in accordance with current legislation.

Bear in mind that the centre of gravity is higher with a machine that folds vertically, so the stability of the combined tractor/machine will differ between the unfolded and folded positions. Adapt your driving accordingly.

Before driving on the road, make sure that the coupled machine is equipped with the lighting and signalling devices required by the Road Code and any other devices required by the regulations in force.

The rear AGRISEM INTERNATIONAL signage can be dismantled for working, but check that this signage has been correctly reinstalled before any road travel.

Check that the equipment is clean and in good working order. Replace any missing or damaged equipment before any road travel.

The user must not consume alcohol, medicines or any other products that could have an impact on their faculties of perception and result in a loss of vigilance or coordination. Any user taking medication, whether prescribed or not, should seek medical advice on whether or not they are able to safely drive the machine.

Before road travel, secure all pivoting components of the machine in the transport position to avoid dangerous movements and shifts in position. Also check that all screws, nuts, and bolts are tight and that all parts of the machine are securely fastened and cannot be moved or loosened in any way.

If the equipment is a folding machine, the locking system must be engaged.

Follow the instructions in the manual for moving the machine to the transport position.

If necessary, also check:

- the connection of supply lines,
- the braking and hydraulic systems.

Ensure that no unintentional movements are possible.

If the following is not fitted as standard, provide signalling devices: lighting strip, reflectors, reflective plates or adhesive strips. Protective devices must be clean, legible and in good condition. If this is not the case, contact the AGRISEM INTERNATIONAL after-sales service to have them replaced.

Ensure that the machine or additional equipment does not obscure the tractor's lights.

Ensure that the tractor's tyre pressure is correct and appropriate for the situation.

Never drive over 25 km/h when loaded.

Clean any accumulated soil off the machine of before setting off on the road.

After driving on a public road, be sure to clean the road surface and clear away any mud left behind by the tractor and tools.

The driver/owner is solely responsible when driving on public roads. Always comply with the rules and legislation in force.

5.1.5. Requirements to be respected for all work on the machine

This includes cleaning, maintenance, and repair work.

Comply with the machine maintenance requirements contained in this manual.

Before working on the machine

Before performing any work on the machine, make sure that it cannot be started accidentally.

- Always position the machine on stable ground.
- Stop the tractor engine, remove the ignition key, wait for all moving parts to come to a complete stop, and apply the handbrake.
- Rest the machine on the ground, depressurise the hydraulic system, and allow the machine to cool down.
- Secure the machine or its components in the raised position to prevent accidental lowering.
- Couple the machine.

When using a high-pressure or steam cleaner, the following points must be observed:

- Do not clean electrical or hydraulic components.
- Never aim the nozzle of a high-pressure or steam cleaner directly at lubrication points or bearings.
- Always keep a distance between the nozzle and the machine.
- Observe the rules governing the use of high-pressure cleaners.

Wear personal protective equipment that is suitable for the work to be performed. In particular, wear safety shoes and gloves when handling sharp parts.

Take all necessary precautions when fitting workpieces that are both heavy and sharp.

The machine can only be maintained and repaired by competent persons who are familiar with its specifications and methods of use.

The machine must only be repaired using original AGRISEM INTERNATIONAL parts.

Protect bare metal parts by using either an anti-rust product that leaves a greasy film, or thick grease.

Depending on the type of machine: before any work on the electrical circuit or before any welding operation, disconnect the electrical cables coming from the tractor. Disconnect the battery and alternator cables.

Do not weld or use a torch near pressurised fluids or flammable products.

5.1.6. Installation requirements

The machine may be equipped with electronic components whose operation could be affected by electromagnetic emissions from other equipment. This effect could prove to be dangerous to people if the following safety instructions are not followed.

- In the case that electrical equipment and/or components are retrofitted to the machine and are connected to the on-board electrical system, the user must first check that the installation does not interfere with the vehicle electronics or other components.
- Ensure that the retrofitted electrical and electronic components comply with the current version of the Directive 2004/108/EEC on electromagnetic compatibility and that they bear the CE mark.

Before performing any work on the electrical installation, disconnect the negative pole of the battery.

Only use the recommended fuses. Using fuses with the wrong amperage can damage the electrical installation, with a risk of fire.

Always follow the safety rules when working on a machine fitted with a battery. For further details, please refer to the instruction manual for the related machine.

5.1.7. Requirements for the hydraulic system

If your machine is fitted with a hydraulic circuit, please observe the following instructions.

The machine is powered by pressurised hydraulic energy, meaning that any work on the pressurised circuit comports the risk of injury through contamination. All work must be performed by professionals trained in hydraulic technologies.

If you need to replace any hydraulic components, please contact the AGRISEM INTERNATIONAL after-sales service.

Mark the plugs and sockets of the hydraulic connections between the tractor and the machine to avoid any handling errors. See chapter "Use", page 37 for more details.

Before connecting a hose to the tractor's hydraulic circuit, make sure that the circuits on both the tractor and the machine are perfectly clean and depressurised.

Before carrying out any work on the hydraulic system, lower the machine, depressurise the system, switch off the tractor engine, apply the parking brake, and remove the ignition key.

Allow the machine to cool down before performing any work.

Regularly check the hydraulic hoses. Damaged or worn hoses must be replaced immediately. Visually inspect the hydraulic hoses for any signs of tearing or abnormal wear.

When replacing hydraulic hoses, only use hoses with the same specifications and quality as those prescribed by the machine manufacturer. If in doubt, consult the AGRISEM INTERNATIONAL after-sales network.

Each time you have finished using the machine, clean the ends of the hydraulic quick-release fittings and install the protective caps. Replace any fittings that do not lock properly or that leak.

Hydraulic hoses must never be allowed to drag on the ground.

If a leak is located, take every precaution to avoid accidents. Never try to plug the leak with your hand or fingers.

Any pressurised liquid, particularly hydraulic system oil, can puncture the skin and cause serious injury and infection.

Consult a doctor immediately in the event of injury.

To avoid accidents caused by inadvertent hydraulic movements or by unauthorised persons, tractor control valves must be blocked or locked when not in use or placed in the transport position.

5.1.8. Brake system requirements

The braking system must be regularly checked and serviced. Maintenance, repair and adjustment work should only be performed by brake system specialists. Contact the AGRISEM INTERNATIONAL after-sales network.

Immediately stop the tractor if the braking system malfunctions, and have it repaired.

Before performing any work on the braking system, position the machine on stable ground and chock it.

After any adjustment or repairs to braking systems installed on machines, perform a braking test in accordance with the attached procedure.

5.1.9. Specific requirements for AGRISEM INTERNATIONAL seed drills

In addition to the requirements applicable to all machines, users of AGRISEM INTERNATIONAL seed drills must comply with the following requirements.

Never climb onto the machine from any point other than the AGRISEM INTERNATIONAL footbridge provided for this purpose.

Only climb onto the machine when it is stationary.

When working on the AGRISEM INTERNATIONAL seed drill or during flow tests, the seed drill must be parked within a 50 m safety perimeter. The hydraulic system must be depressurised (e.g. turbine stopped) and the rear window of the tractor must be closed, the tractor switched off, and the keys removed.

Ensure that no-one remains on or near the seed drill while the seeds are being loaded. The AGRISEM INTERNATIONAL footbridge is only used when the machine is stationary.

Always ensure that the entire area corresponding to the overall dimensions of the seed drill is clear.

Respect the 50 m safety perimeter:

- when starting up the turbine to avoid any impacts of projections (e.g. earth, oil, stones, metal, etc.).
- when using the machine

Users must comply with the road traffic regulations of their country when using the front hopper.

If the tractor's signage is inadequate (or not visible enough), make sure the front hopper is fitted with lighting and warning signs.

5.1.10. Requirements for machines equipped with spring-assembly safety systems

Many AGRISEM INTERNATIONAL tools are equipped with pre-compressed spring-assembly safety systems. They can be very dangerous during technical work on the machine if all precautions are not taken.



ATTENTION

Written authorisation from the AGRISEM INTERNATIONAL company must be given before any work on the "Spring unit" assembly.

5.1.11. Requirements for machines fitted with cardan transmissions

Refer to the tractor manufacturer's instructions when working on cardan transmissions.

5.1.12. Loading and transport requirements

Unless there is a special transport contract, all loads must comply with the regulations in force in the territories through which the vehicle passes.

- For consignments of less than three tonnes: the carrier is responsible for loading, chocking, stowing and unloading the consignment from the time it is first under its responsibility until it is delivered.
- For consignments over 3 tonnes: loading, securing, stowage, and the subsequent unloading are the responsibility of the ordering party or the recipient respectively. Those that perform these operations are liable for any damage to property.

Therefore, except in the case of special transport contracts and for consignments of more than 3 tonnes, the Purchaser is responsible for unloading the machine.

Similarly, if the Purchaser resells the machine and has it delivered, it shall perform any loading, chocking, and securing operation for the consignment in its role as shipper and under its own responsibility.

If you have any doubts about unloading operations or about loading, chocking and securing the machine, contact the AGRISEM INTERNATIONAL company.

The user must acknowledge receipt of the machine and the official documents once the machine has been put into service by the reseller.

To do this, log on to <https://my.agrisem.com> and follow the instructions found on the site.

5.1.13. User workstation

The machine must be operated by one person only, from the tractor driver's seat. Before each use, check the area around the machine. No-one should be standing within 50 metres of the machine. Guarantee this conditions of use to ensure sufficient visibility.

5.2. Safety symbols on the machine



DANGER

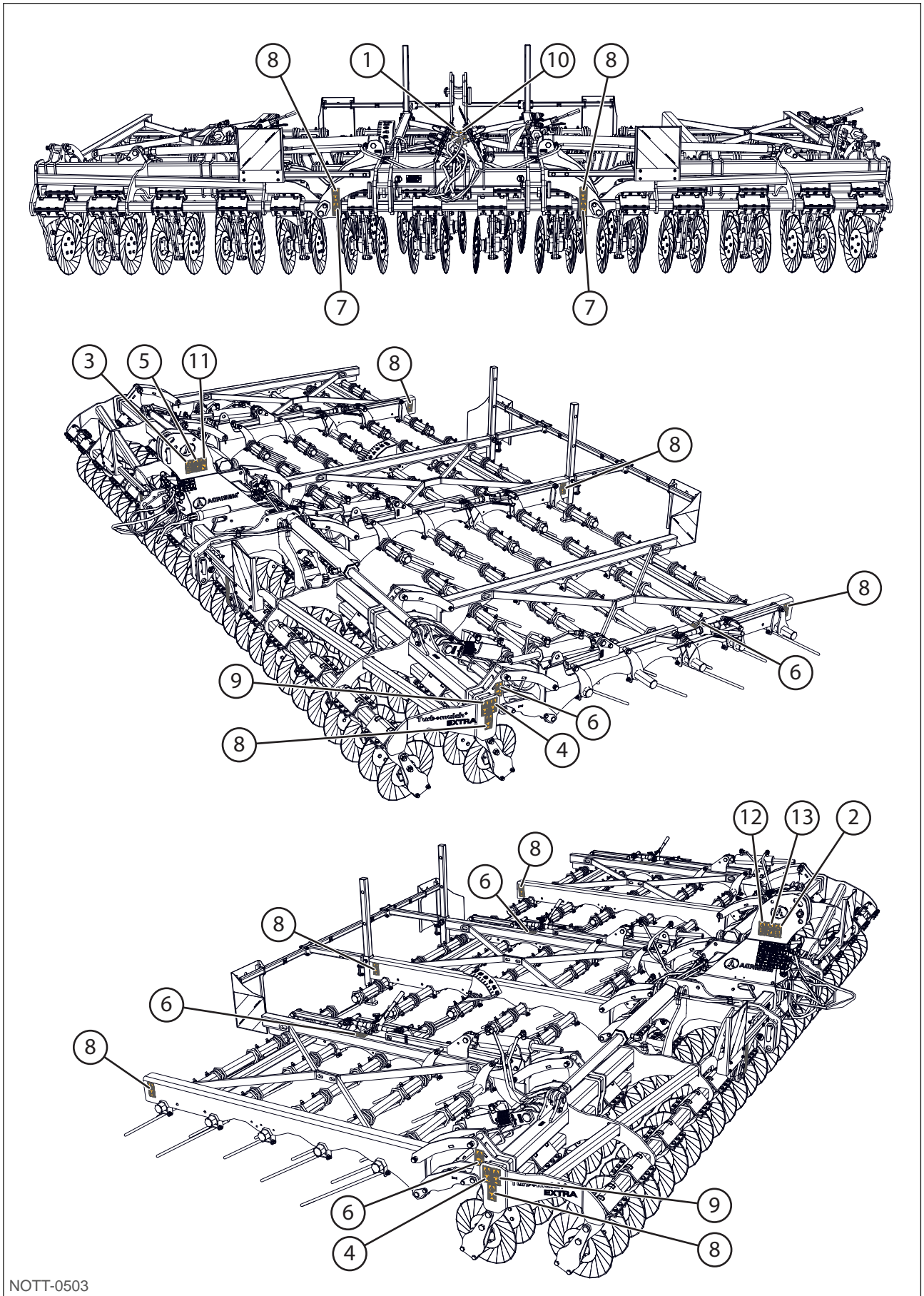
You are the sole guarantor of safety. The correct application of the safety instructions will not only protect you, but also those around you. Before using the machine, carefully study the instructions provided in this manual and all the safety and instruction stickers affixed to the machine: consider them as an integral part of your safety programme. Ensure that you also study all the usual protective measures at work and, above all, don't forget:

Safety depends on you. You can avoid accidents resulting in serious injury or death.








IMPORTANT






These safety symbols must be present on the machine and be clearly legible. If they are absent or damaged, please contact AGRISEM INTERNATIONAL.






NOTT-0503

Fig. 9

Reference marker	Reference	Symbol	Meaning
1	ETIQ01-505		<p>BEWARE OF DANGER</p> <p>Stop the engine and remove the ignition key before carrying out any maintenance or servicing.</p>
2	ETIQ01-601		<p>BEWARE OF DANGER</p> <p>Stop the engine and remove the ignition key before carrying out any maintenance or servicing.</p>
3	ETIQ01-603		<p>BEWARE OF DANGER</p> <p>Read the instruction manual and the safety instructions before starting up and follow them during operation.</p>
4	ETIQ01-605		<p>RISK OF CRUSHING</p> <p>Do not remain in the work area to avoid any risk of crushing.</p>
5	ETIQ01-607		<p>RISK OF CRUSHING</p> <p>Do not remain in the area between the tractor and the machine to avoid the risk of crushing.</p>

Reference marker	Reference	Symbol	Meaning
6	ETIQ01-625		<p>RISK OF PINCHING</p> <p>Keep clear of all moving parts to avoid the risk of pinching.</p>
7	ETIQ01-627		<p>RISK OF CRUSHING</p> <p>Stay clear of the equipment tipping area.</p>
8	ETIQ01-633		<p>RISK OF CRUSHING/CUTTING</p> <p>Keep clear of the machine to avoid crushing or cutting.</p>
9	ETIQ01-637		<p>PROJECTION RISK</p> <p>Risk of projection, do not stand near the machine when working.</p>
10	ETIQ01-641		<p>RISK OF INFECTION BY INJECTION INTO THE BODY</p> <p>Follow the instructions in the servicing and maintenance manual.</p>

Reference marker	Reference	Symbol	Meaning
11	ETIQ01-643		<p>RISK OF ELECTROCUTION</p> <p>Electrocution risk, keep away from power lines.</p>
12	ETIQ01-651		<p>RISK OF FALLING</p> <p>Risk of falling, do not carry anyone on the machine.</p>
13	ETIQ01-657		<p>RISK OF LOOSENING</p> <p>Risk of loosening, regularly check the tightness of components in accordance with the maintenance plan.</p>

6. Use

6.1. Location and description of controls

6.1.1. Coupling

Reference marker	Description
1	Floating position of the pin of the top link arm (3rd point)
2	Pin of the top link arm (3rd point)
3	Fixed position of the pin of the top link arm (3rd point)
4	Pin of the bottom link arm
5	Fixed position of the pin of the lower link arm

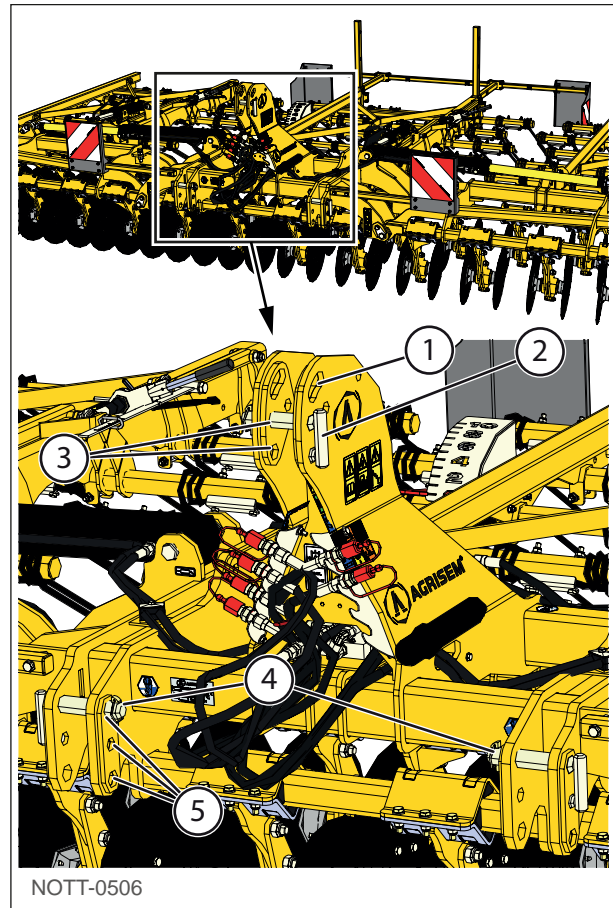


Fig. 10

6.1.2. Hydraulic connection



WARNING

Any pressurised liquid, particularly hydraulic system oil, can puncture the skin and cause serious injury and infection.

The functions controlled by each hydraulic line are colour-coded on the hydraulic hoses and identified by the following pictograms. The pictograms are positioned on the bracket of the coupling clevis.



NOTE

The pictograms are common to the entire range of AGRISEM INTERNATIONAL machines. Some functions may not be available for your machine.

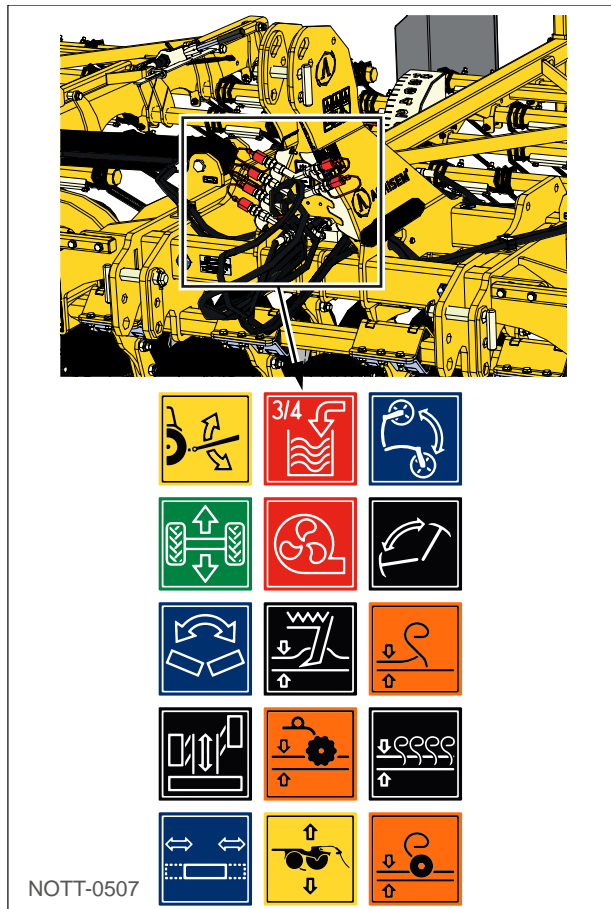





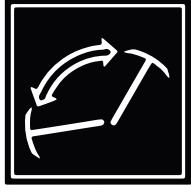


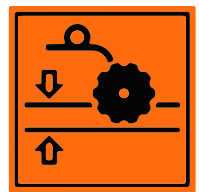
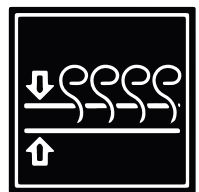
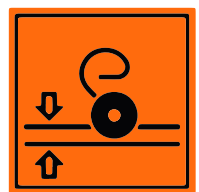
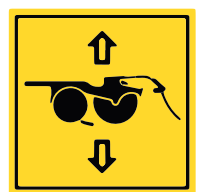
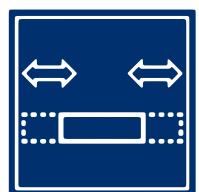


Fig. 11

Reference marker	Description	Hose colour code
 NOTT-0251	Raise / Lower hydraulic drawbar	Yellow
 NOTT-0252	Turbine free return	Red
 NOTT-0253	Roller fold back	Blue

Reference marker	Description	Hose colour code
 NOTT-0254	Raise / Lower the axle	Green
 NOTT-0255	Turbine	Red
 NOTT-0256	Raise / Lower the markers	Black
 NOTT-0259	Crossboard aggressiveness setting	Orange
 NOTT-0258	Blade or tooth depth adjustment	Black
 NOTT-0257	Fold / Unfold	Blue
 NOTT-0260	Extend / Retract extensions	Black

Reference marker	Description	Hose colour code
 <p data-bbox="167 443 287 470">NOTT-0261</p>	Disc depth adjustment	Orange
 <p data-bbox="167 689 287 716">NOTT-0262</p>	Tine depth adjustment	Black
 <p data-bbox="167 936 287 963">NOTT-0263</p>	Coulter depth adjustment	Orange
 <p data-bbox="167 1182 287 1209">NOTT-0264</p>	Raise / Lower the seeding boom	Yellow
 <p data-bbox="167 1429 287 1456">NOTT-0265</p>	Extend / Retract extensions	Blue

6.1.3. Hydraulic controls

Reference marker	Description
1	Folding/unfolding speed adjustment

Turn clockwise to reduce unfolding/folding speed.

Turn anti-clockwise to increase the unfolding/folding speed.

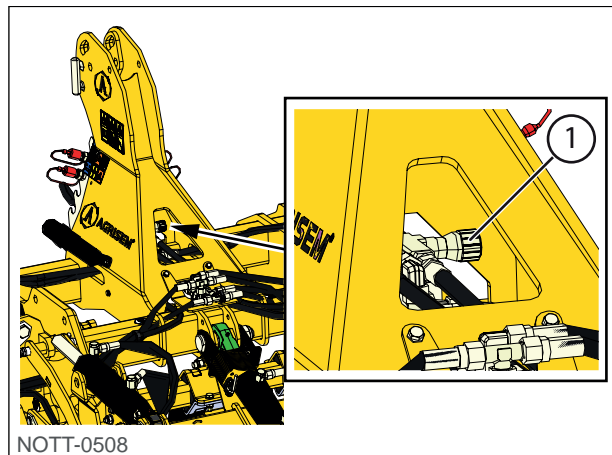


Fig. 12

Reference marker	Description
2	Unfolding/folding valve

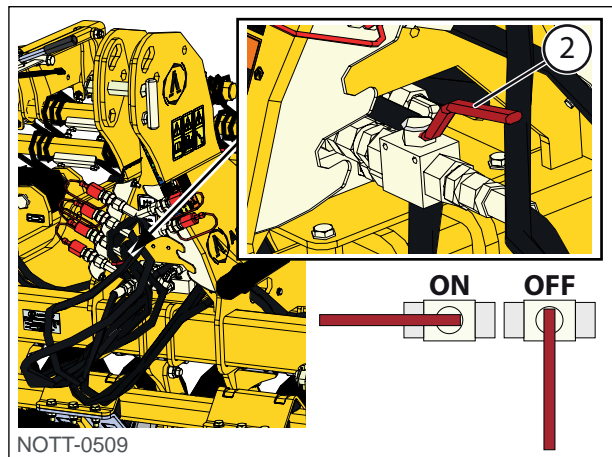


Fig. 13

6.1.4. Lighting and signalling system

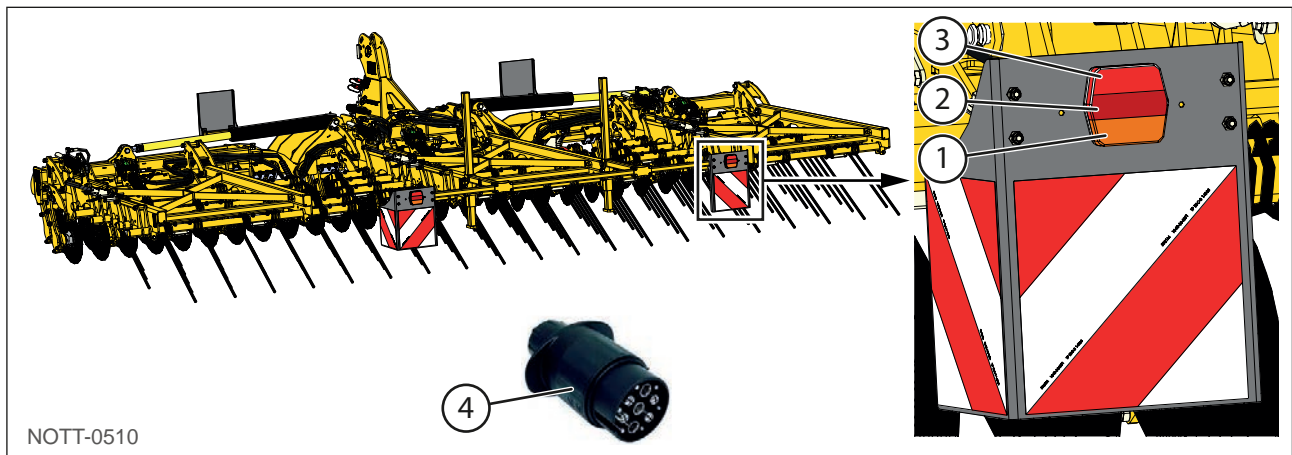


Fig. 14

Reference marker	Description	Specifications
1	Indicator light	12 V 21 W
2	Reflector	-
3	Brake light	12 V 21 W

Reference marker	Description	Specifications
4	Towing socket	

**WARNING**

The signage can be dismantled and must be removed before working.

When using the Turbomulch in the field, it is essential to remove the signal strip.

As the signal strip is designed for transport only, the AGRISEM INTERNATIONAL company declines all responsibility if the signal strip is broken while working.

The correct use of the Turbomulch allows you to safely optimise your work on a crop. The user has sole responsibility for deciding on and assuming all the risks associated with the incorrect or inappropriate use of the Turbomulch.

If these safety rules and instructions for use are not followed, the ground is damaged and the result is contrary to the intended purpose, the liability of AGRISEM INTERNATIONAL cannot be engaged under any circumstances.

6.2. Commissioning

6.2.1. Preamble

**NOTE**

When you receive the machine, check that its specifications are the correct ones. Then perform all the pre-commissioning operations as described in this manual.

6.2.2. Commissioning should be registered on my.agrisem.com

To register your machine on my.agrisem.com, watch the following videos:

- in French: <https://youtu.be/II Du5guX5pc>
- in English: <https://youtu.be/gWlzQebjySg>

6.2.3. Tractor/machine compatibility

**NOTE**

The information listed below is provided for information purposes only and does not in any way replace the installation instructions. Please contact the after-sales service.

**ATTENTION**

Check tractor/machine compatibility.

- Front lifting with sufficient capacity
- Double-acting hydraulic control valve
- Single hydraulic line connected to the free return
- 7-pin 12 V female socket for the signalling kit on the front of the tractor

6.3. Coupling / Uncoupling

**ATTENTION**

Always perform coupling and uncoupling operations carefully and smoothly, without sudden movements.

**ATTENTION**

Before coupling and uncoupling, be sure to read the safety instructions.

**ATTENTION**

No person should be within 50 m of the machine when coupling or uncoupling.

Before coupling or uncoupling the machine, it is important to ensure that you observe the following points.

- The machine is on stable ground and there are no people within a radius of 50 m.
- The tractor props are adjusted to the same length.
- The tractor tyres are inflated to the same pressure.
- The tractor is adapted to the machine it will be coupled to and is ballasted accordingly (see “Specifications”, page 70).
- The tractor is fitted with the right connections (hydraulic, mechanical and electrical) for the machine to be coupled.

6.3.1. Required tractor specifications

**ATTENTION**

Check that the tractor complies with these requirements before coupling the machine:

- Total permissible weight
- Permissible tyre load capacities
- Permissible tractor axle loads

**NOTE**

The tractor's registration/operator's manual provides information on the permissible values for total weight, axle loads, and tyre load capacities.

**ATTENTION**

Take into account the vehicle height, especially when passing under bridges and low power lines.

**ATTENTION**

The drawbar must be coupled to machines with a base frame via the holes at the top of the lower clevises. This ensures that the machine remains stable during operation.

6.3.2. Coupling a mounted machine

- 1 - Ensure the machine is on stable ground.
- 2 - Bring the tractor up to the machine coupling.
- 3 - Position the lower arms of the linkage in line with the coupling clevises.
- 4 - Couple the lower arms of the linkage using the appropriate devices.
- 5 - Adjust the length of the third point, then secure it using the supplied pin and clip.
- 6 - Lock all the coupling pins with locking handles using the clip pins.
- 7 - Connect the hydraulic hoses if appropriate.
- 8 - Plug in the lighting system and check that it works.
- 9 - Lift the machine.
- 10 - Fold down the side extensions for transport.
- 11 - During transport, lock the machine in the transport position if it can be folded, using the hydraulically-operated or mechanical locks.
- 12 - Ensure that everything is correctly connected and locked and that there are no foreign objects on the machine.

NOTE



Depending on the working conditions, the tractor's push bar can be positioned in the fixed hole (1) or in the light hole (2).

Using the light hole is advisable to better follow the terrain.

When the light hole is used, always ensure that the coupling pin is in the middle of the light.

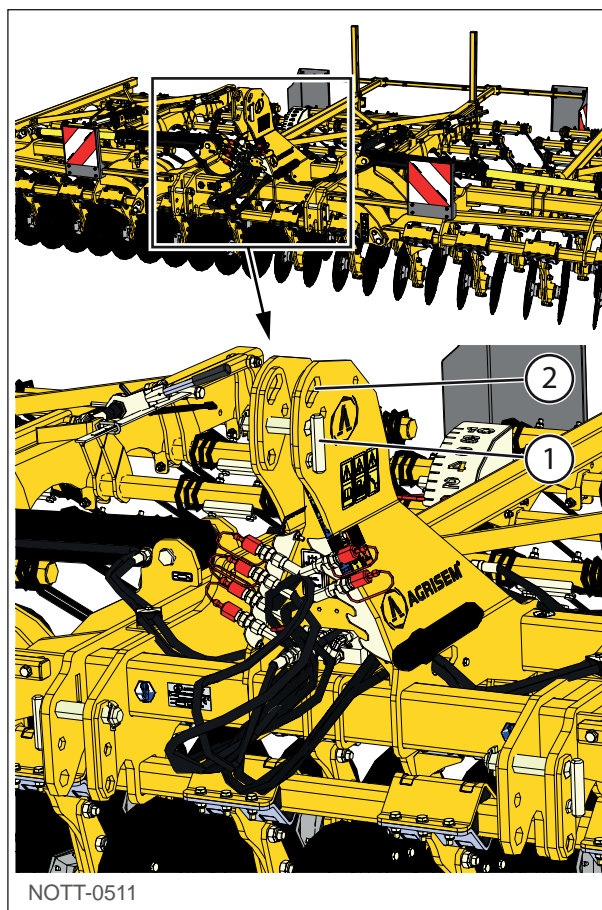


Fig. 15

6.3.3. Point of convergence

By varying the convergence point, the tractor's traction, stability, and grip can be improved.

This also affects the tractor's lifting capacity.

On a 2-wheel drive tractor, the point of convergence must be close to the centre of the tractor.

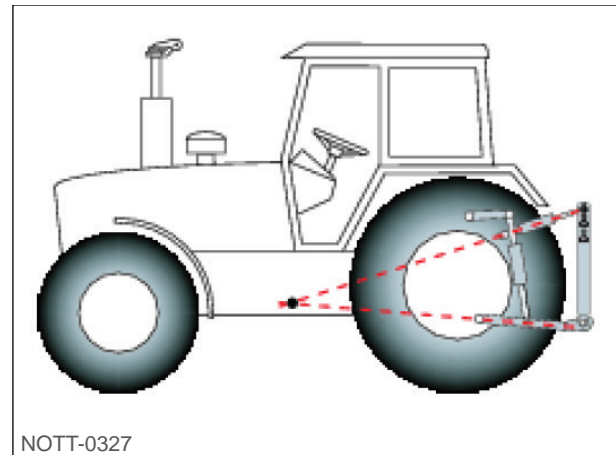


Fig. 16

On a 4-wheel drive tractor, the point of convergence should be closer to the front axle.

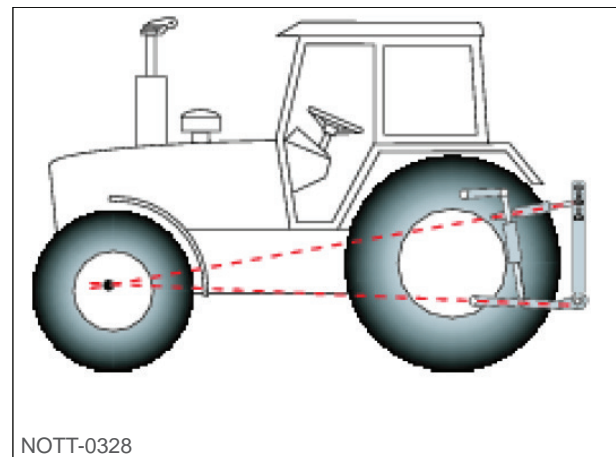


Fig. 17

6.3.4. Uncoupling a mounted machine

- 1 - Ensure that the machine is uncoupled on a stable surface.
- 2 - Unlock the machine before unfolding.
- 3 - Unfold the machine if it is foldable.
- 4 - Disconnect the hydraulic hoses if fitted.
- 5 - Unplug the lighting system.
- 6 - Uncouple the machine.

6.4. Folding / Unfolding



WARNING

Before coupling and uncoupling, it is **ESSENTIAL** to read the safety instructions.



WARNING

Before folding or unfolding, make sure there are no foreign objects that could interfere with the operation.



WARNING

No person should be within 50 m of the machine during the folding or unfolding operation.

Activate the hydraulic control valve in the desired direction.



IMPORTANT

Always clean the folding areas before folding the machine. An accumulation of earth, stones or other obstacles can cause damage to the machine.

Failure to do this will invalidate the warranty.



WARNING

Never drive on the road if the width of the Turbomulch in the folded position exceeds 2.98 m.



WARNING

Never use public roads if the extensions are not locked.

6.5. Driving

When driving on the road, the machine must be converted to the transport position.

Fully raise the machine to prevent working components from dragging on the ground. Never exceed 25 km/h when driving on roads.

6.6. Setting the working depth

6.6.1. Adjusting the tine inclination

The last 2 rows (1) can be adjusted independently of the other rows.

This makes it possible to work superficially with the first rows (2 - 4 cm) and more aggressively with the last two rows to destroy crop residues in summer, for example.

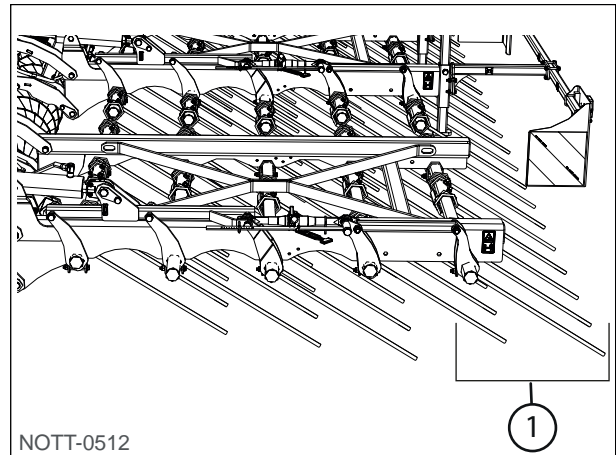


Fig. 18

Setting the first rows

The first 3 rows of tines are permanently adjustable from the cab (hydraulic adjustment).

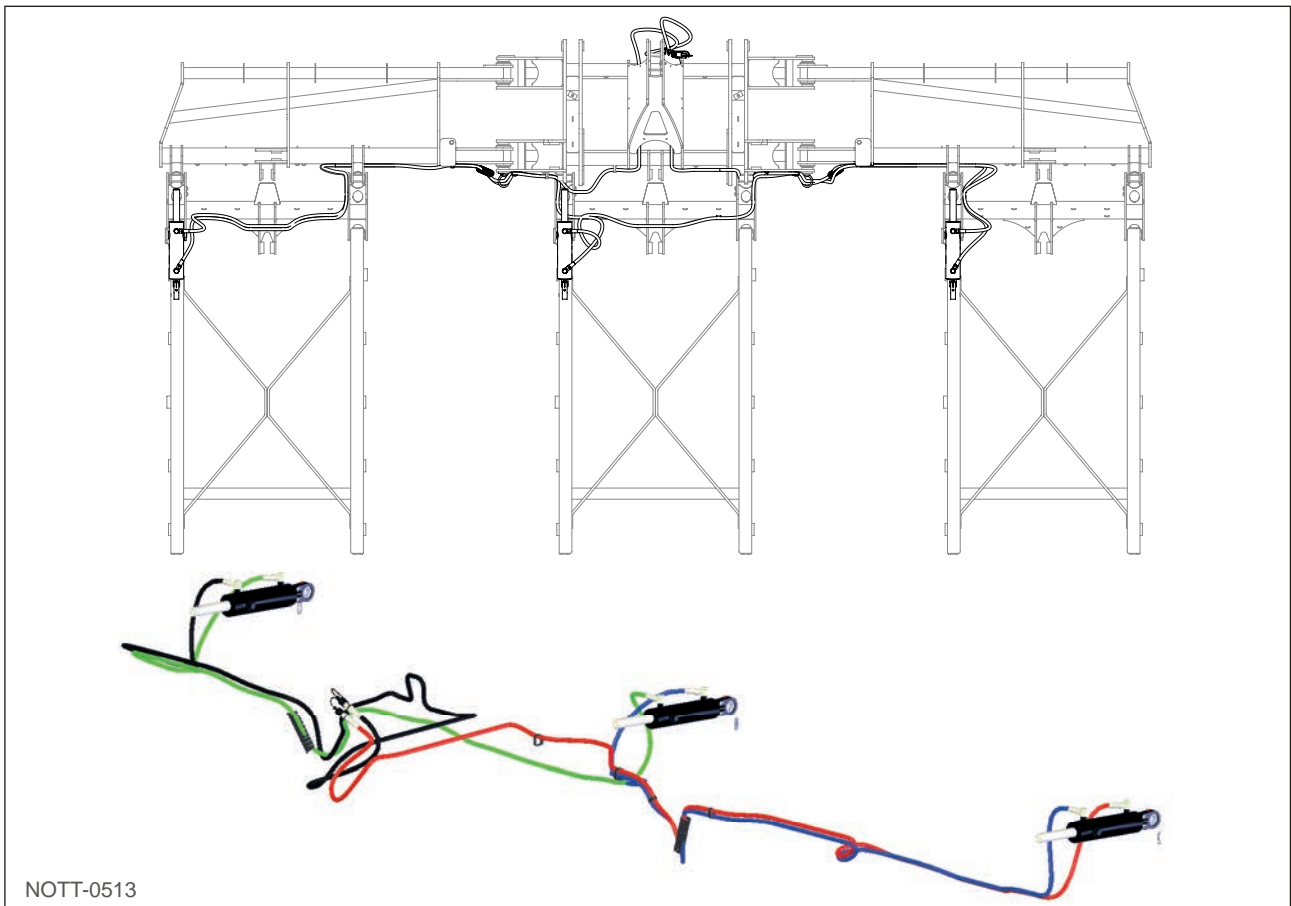
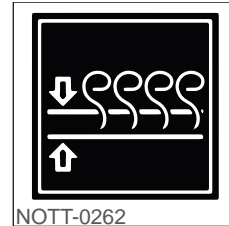


Fig. 19

Activate the hydraulic control valve in the desired direction.

The inclination adjustment is synchronised across the entire width of the machine.



The angle of inclination can be seen on the scale (1).

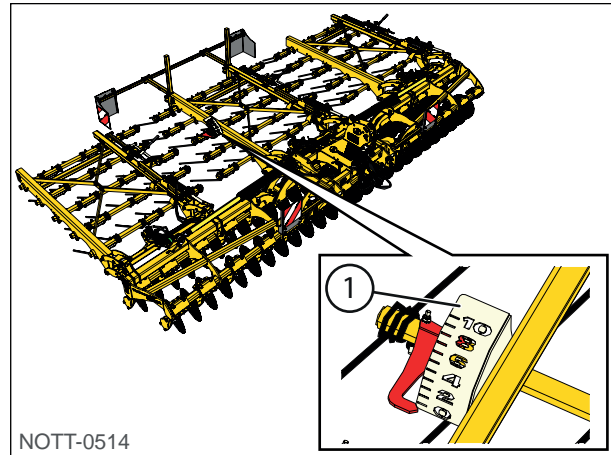


Fig. 20

Setting the last 2 rows

The last 2 rows are adjustable directly on the machine (mechanical adjustment).

Depending on the width of the machine, there are several adjustment points:

- Turbomulch single fold: 3 adjustment points
- Turbomulch double fold: 5 adjustment points

To adjust the inclination, use the ratchet (1).

Use the strap to hold the ratchet in position when working to prevent it from moving and altering the setting.

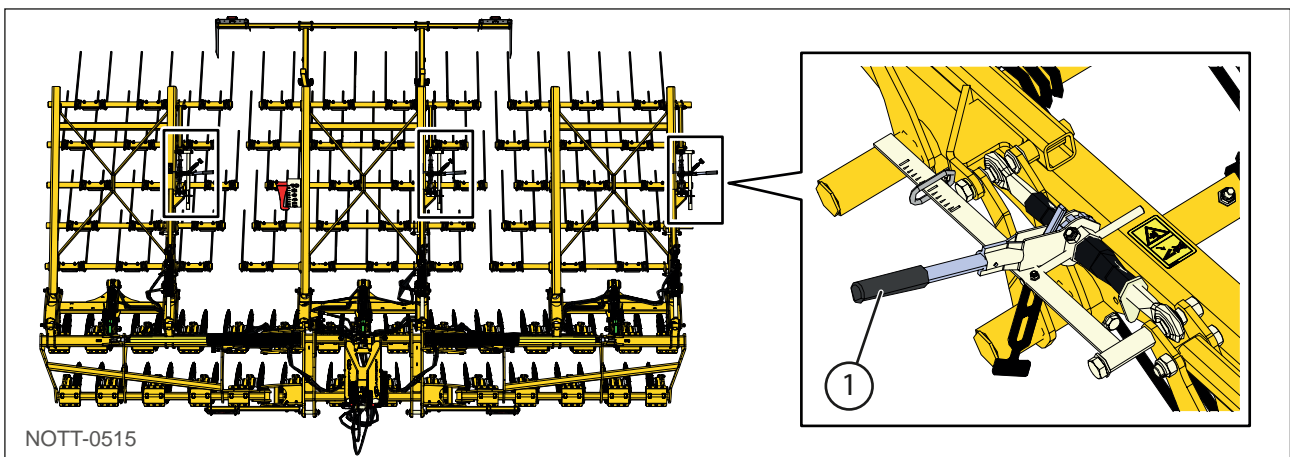


Fig. 21

6.6.2. Coulter depth adjustment

The depth of the circular coulters can be adjusted both from the cab (hydraulic adjustment) and on the machine.

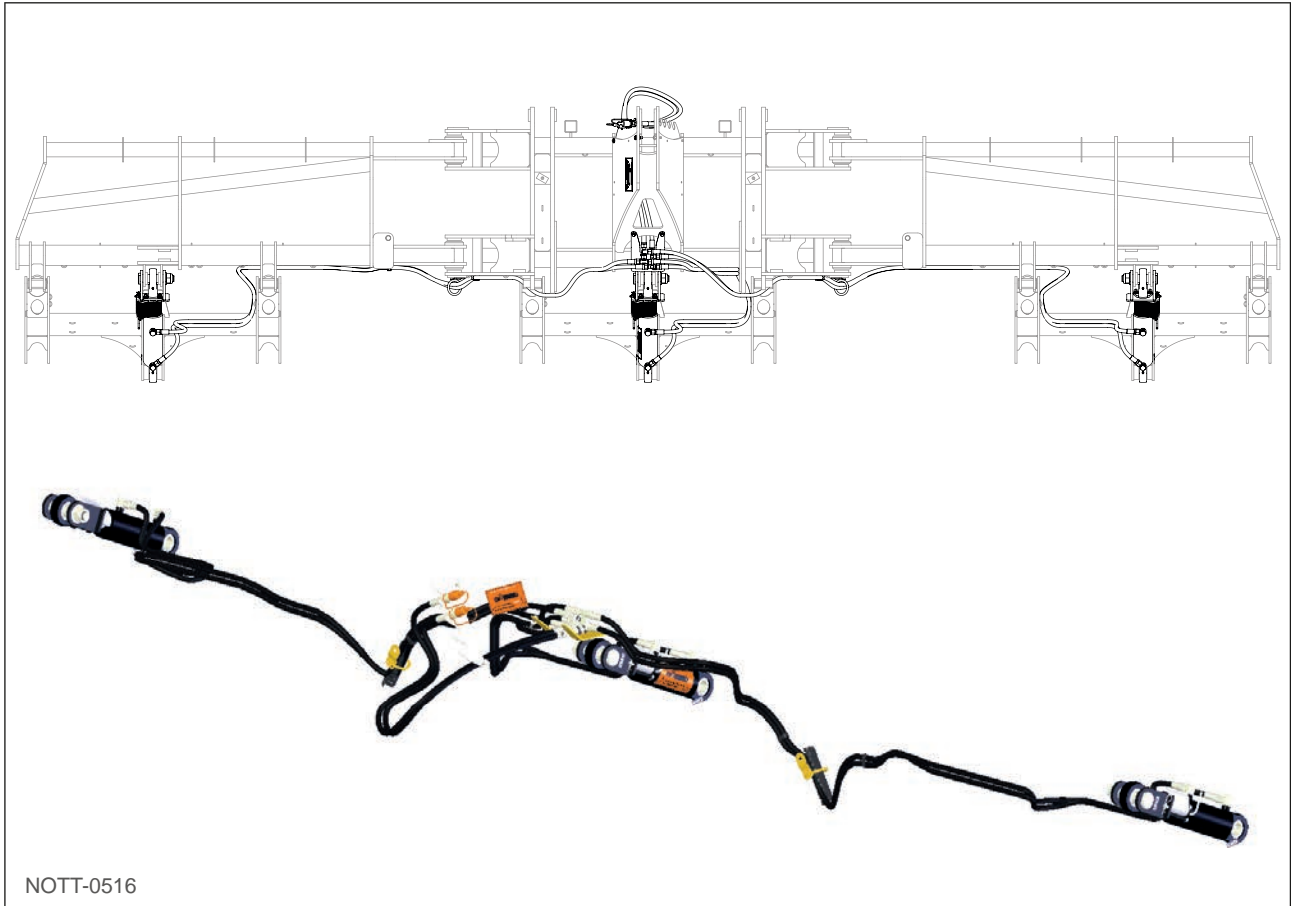
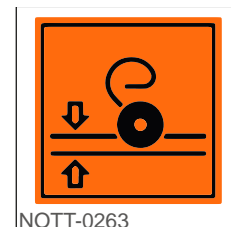


Fig. 22

Adjustments are made using shims located on the cylinders.

To increase the working depth and aggressiveness, remove the shims and vice versa to reduce working depth.

- 1 - Operate the control valve to extend the cylinder rod and release the shims.
- 2 - Determine the number of shims required.
- 3 - Operate the control valve in the opposite direction to bring the cylinder barrel into contact with the wedges.



ATTENTION

It is essential that the same number of shims are fitted on each cylinder.

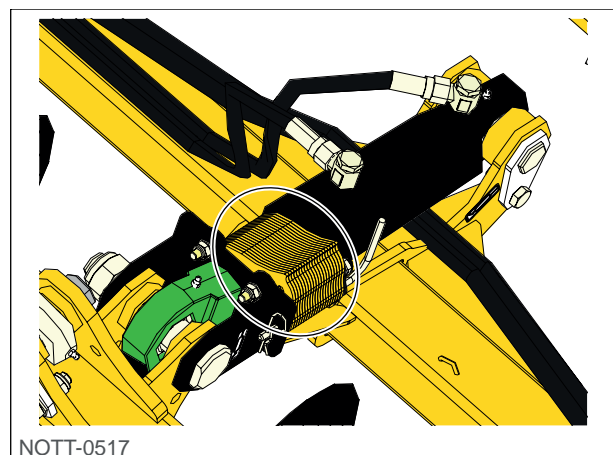


Fig. 23

6.6.3. Wheel adjustment

The control wheels support the working extensions to ensure the correct working depth.

The wheels can be adjusted both from the cab (hydraulic adjustment) and on the machine.

Adjustments are made using shims located on the cylinders.

- 1 - Operate the control valve to extend the cylinder rod and release the shims.
- 2 - Determine the number of shims required.
- 3 - Operate the control valve in the opposite direction to bring the cylinder barrel into contact with the wedges.



Fig. 24



ATTENTION

It is essential that the same number of shims are fitted on each cylinder.

6.7. Immobilising the tractor unit/machine

6.7.1. Precautions



ATTENTION

When parking, it is essential to place the towed tool on the front props with pressure on the towed device's wheels.

To prevent damage from moisture, the machine should be parked indoors or under cover if possible. When operating the machine, take the environment into account. Ensure that no one is in the manoeuvring area.

Place the machine on level, clean, stable ground with the extensions folded back.

Lower the 4 support props (1) and rest the machine on them.

For each prop: remove the pin (3) and the shaft (2), slide the prop (1), refit the shaft and pin. The teeth, coulter, or cutter rollers must not support the machine's weight and therefore must not touch the ground.

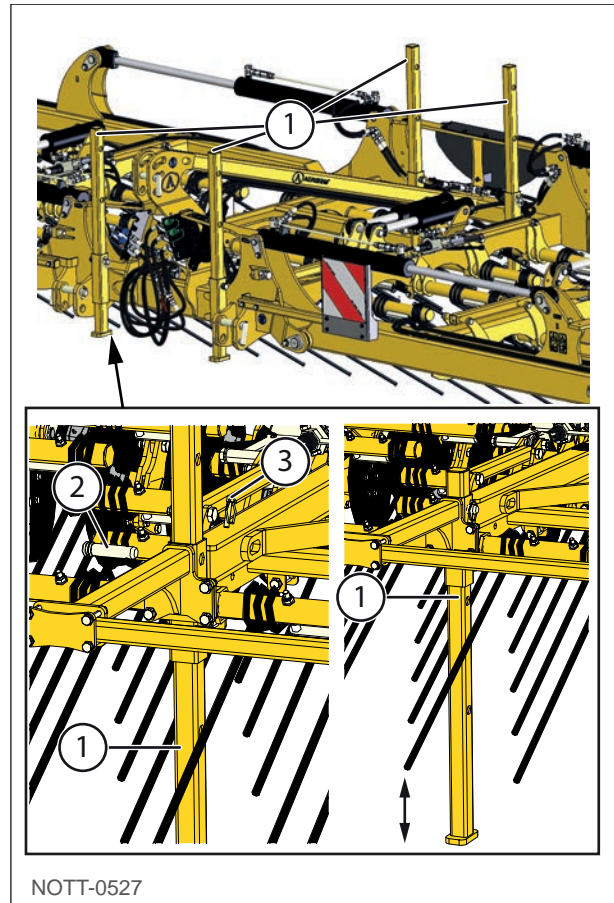


Fig. 25

7. Storage - Handling - Transport

7.1. Storage

If the machine is not to be used for a prolonged period of time:

- Clean the machine by performing this maintenance operation
- Store the machine in a dry place that is protected from adverse weather conditions.
- Position the machine on solid, stable, level ground
- Unplug electrical control equipment and store it in a dry place.
- Protect the machine from rust. Only spray with easily biodegradable oils, e.g. rapeseed oil.
- Remove the wheels using lifting and cabling equipment and accessories that comply with and have been inspected in accordance with the regulations in force. Use standardised and safe wedging systems to prevent any risk of accident due to unstable securing.
- Protect the hydraulic cylinders' piston rods against corrosion.
- Grease in accordance with the maintenance schedule specified in the operating manual.



IMPORTANT

The machine should be stored indoors whenever to avoid premature ageing. However, when stored outside, it must be unfolded to prevent damage from humidity. This prevents rain water from accumulating and penetrating the hubs during storage. This would cause irreparable damage to the hub bearing and consequently reduce its service life. The warranty will not be applied if traces of water or dampness are found during the appraisal in the context of a claim.



ATTENTION

Never work on an elevated machine unless it is secured by appropriate lifting and shoring equipment.



ATTENTION

Do not spray plastic or rubber parts with oil or anticorrosive agents. Otherwise these parts may become brittle and break.

7.2. Handling



ATTENTION

Never stand in the handling area as there is a risk of serious injury or death.



ATTENTION

Lifting points must be used simultaneously to ensure safe handling.



ATTENTION

Parts may be sharp when they are handled. Handle parts using the appropriate personal protective equipment (gloves, goggles, safety shoes).

The machines are equipped with attachment points for the lifting operations. Pictograms help you to visualise them more quickly.

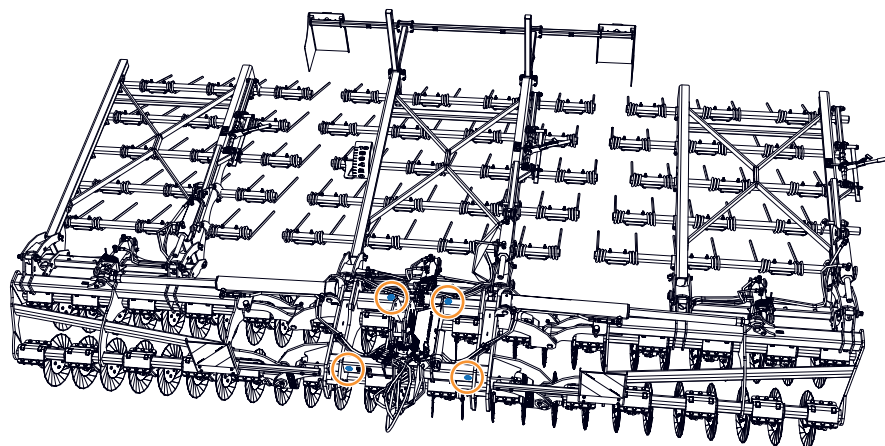
All handling must be performed using lifting equipment, cables, and accessories that comply with and are inspected in accordance with the regulations in force and are appropriate for the load to be moved.

See the Specifications section for the approximate weight of the combined equipment.



NOTT-0381

Fig. 26



NOTT-0504

Fig. 27

7.3. Transport



ATTENTION

Securely fasten the machine onto the platform with straps that comply with the regulations in force.

Ensure that there are no unsecured objects on the platform to prevent material from being projected onto the machine during transport.

The machines are equipped with attachment points for the transport phases. Pictograms help you to visualise them more quickly.

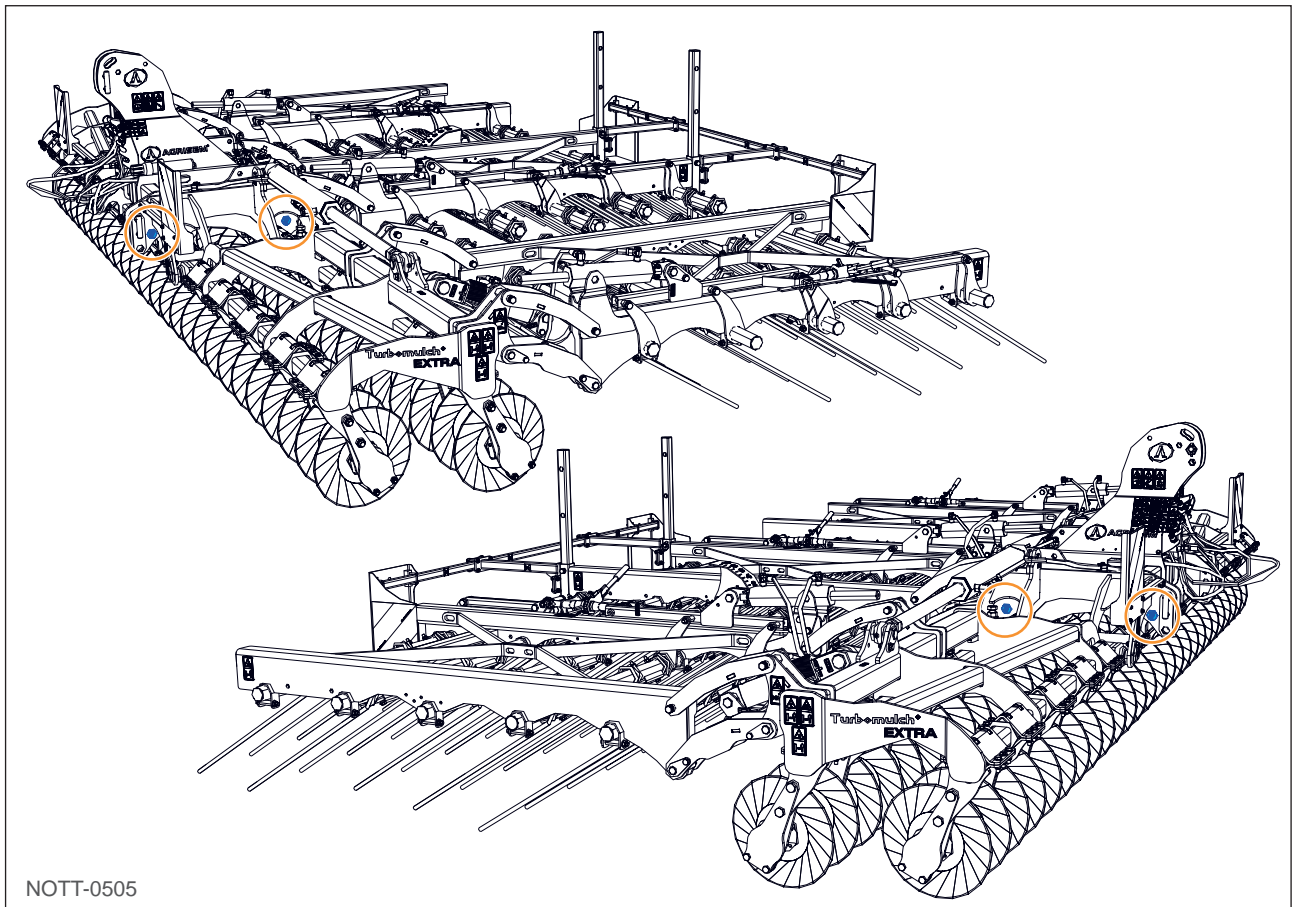
All transport must be performed using securing equipment, cables and accessories that comply with and are inspected in accordance with the appropriate regulations in force.



NOTT-0412

Fig. 28

During transport, the machine must be secured as described below.



NOTT-0505

Fig. 29

8. Servicing - Maintenance

8.1. Maintenance advice

8.1.1. Introduction

Follow the safety instructions relating to servicing and maintenance. The machine is designed and built for maximum efficiency, profitability, and comfort for use in a wide range of operating conditions. It has been inspected at the factory and by the dealer before delivery to ensure that you receive a machine in perfect condition. To keep it in perfect working order, it is important that servicing and maintenance work is performed at the recommended intervals.

To ensure that the machine is operational at all times and provides optimum performance, cleaning and maintenance work must be carried out at regular intervals. Hydraulic components and bearings must not be cleaned with a high-pressure cleaner or directly with a water jet. Housings, screw connections, and bearings are not impervious to VERY high pressure cleaning.

8.1.2. Personal protective equipment (PPE)



ATTENTION

Maintenance operations involve handling loads and materials that require the use of personal protective equipment.

It is essential to wear the appropriate personal protective equipment when performing maintenance operations.

Risk	Examples of personal protective equipment
Cuts	Gloves
Crushing	Gloves, safety shoes, hard hat
Hydrocarbons	Gloves
Dust	Mask
Noise	Hearing protection

8.1.3. Stopping the machine



WARNING

Before any maintenance operation, the machine must be disconnected from all hydraulic, mechanical, and electrical power sources. Chock the machine and take any precautions that are required to prevent it from moving accidentally.

8.1.4. Cleaning the machine



WARNING

Before any maintenance operation, the machine must be cleaned to prevent any risk of accidental injury.

8.1.5. Welding



NOTE

Depending on the type of machine: before any work on the electrical circuit or before any welding operation, disconnect the electrical cables coming from the tractor. Disconnect the battery and alternator cables.



WARNING

Do not weld or use a torch near pressurised fluids or flammable products.



ATTENTION

Wear personal protective equipment appropriate for welding.

8.1.6. Protective devices



WARNING

Check the machine for any external damage and check the condition of the protective devices. Protective devices must be clean, legible, and in good condition. If this is not the case, contact the AGRISEM INTERNATIONAL after-sales service to have them replaced.

8.1.7. Tyres



DANGER

Tyres contain pressurised air. Never exceed the recommended inflation pressure.



WARNING

Regularly check the condition of tyres over their complete surface.



WARNING

Clean all traces of hydrocarbons from the tyres.



WARNING

Never exceed the permissible load capacities of the tractor tyres.

8.1.8. Hydraulic circuit

**WARNING**

The machine is powered by pressurised hydraulic energy, meaning that any work on the pressurised circuit comports the risk of injury through contamination. All work must be performed by professionals trained in hydraulic technologies. In the event of injury caused by hydraulic oil, consult a doctor immediately. Risk of infection.

**DANGER**

Under no circumstances should you attempt to plug a leak in a hydraulic line using your hand or fingers. Use a suitable leak detection tool.

**WARNING**

Fully depressurise the hydraulic system before working on it.

When connecting hydraulic lines to the tractor's hydraulic system, ensure that the hydraulic systems of the tractor and the machine have been depressurised.

**NOTE**

There are no health dangers if lubricants and mineral products are used in accordance with the regulations. However, prolonged skin contact and inhalation of vapours should be avoided.

**WARNING**

Protect yourself from direct contact with oils by wearing gloves or protective creams. Avoid skin contact with oil-soaked clothing. Change your clothes and cleaning cloths when soiled. Carefully wash any traces of oil off your skin with warm water and soap. Do not clean your skin with petrol, diesel, or other detergents.

Oil is toxic. If any oil is swallowed, immediately seek medical advice. Rinse any splashed oil out of your eyes with clean water and seek medical advice if necessary.

**WARNING**

Keep lubricants out of the reach of children.

Never store lubricants in open or unmarked containers.

**WARNING**

Soak up any spilt oil with a binding agent and dispose of it.

Never extinguish fires caused by oil with water; only use authorised and appropriate extinguishing agents and wear respiratory protection.

**WARNING**

Check that the hydraulic lines are connected correctly.

Regularly check that hydraulic hoses and connections are clean and in good condition.

NOTE

Hydraulic hoses must not be used for more than six years, including a maximum storage period of two years. Even when properly stored and used in accordance with the permissible stresses, hoses and fittings are subject to normal ageing, which limits their storage and service life.

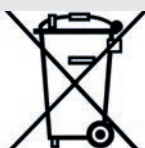


Have the hydraulic lines inspected at least once a year by a specialist to ensure they are in good condition.

Replace damaged or worn hydraulic lines.

Use only original AGRISEM INTERNATIONAL hydraulic hoses.

Nevertheless, the duration of use can be calculated based on empirical values, notably by taking into account potential risks. For thermoplastic hoses and pipes, other reference values may be taken into consideration.



Waste must not be disposed of in normal rubbish bins. It must be collected by a specialised sector in accordance with current standards.

Dispose of used oil in accordance with current regulations. If you have any problems, contact your oil supplier.

Dispose of oil-soaked shoes as hazardous waste.



Products or their packaging that are technically recyclable but are not recycled.

Products will only be recycled under two conditions:

- The sorting and recycling network exists in your area,
- They have been correctly sorted.

Waste contaminated with oil and used oil must be disposed of in accordance with current regulations.

Take care not to contaminate the ground or water with hydraulic oil. Follow the instructions on the consumable's container and the regulations in force.

8.1.9. Electricity



WARNING

Depending on the type of machine: before any work on the electrical circuit or before any welding operation, disconnect the electrical cables coming from the tractor.



WARNING

Before performing any work on the electrical installation, disconnect the negative pole of the battery.



WARNING

Ensure that the battery terminals are connected correctly, starting with the positive terminal and then the negative terminal. When disconnecting the terminals, start with the negative terminal, then disconnect the positive terminal.

Always place the cover provided on the battery's positive terminal. Beware of the risk of explosion if earthed.


DANGER

Risk of explosion: avoid sparks and naked flames near the battery.

8.2. Maintenance consumables

Consumable	Specifications	Volume
Grease	lithium grease reinforced with molybdenum disulphide / Grade NLG12	-


NOTE

Only use the specified consumables. The responsibility of AGRISEM INTERNATIONAL cannot be engaged if other types of consumables are used.

8.3. Maintenance schedule


NOTE

Maintenance intervals are determined by a number of factors. For example, different operating conditions, atmospheric influences, driving and working speeds, dust generation and the nature of the ground, etc. all have an influence, but the quality of the lubrication and maintenance products that are used also determines the intervals between maintenance jobs.


NOTE

The indicated maintenance intervals can therefore only be used as a point of reference. When there is a deviation from normal operating conditions, the related maintenance intervals must be adapted to the conditions.

Maintenance operations to be performed before each use

Check the hydraulic lines.

Check the lighting and signalling system.

Check the tyre pressure.

Maintenance operations to be performed before each folding operation

Clean the folding areas.

Maintenance operations to be performed after the first 10 hours of use

Check that the bolts are tight.

Check the hydraulic system (tightness and seals).

Check that the wheels are tight.

Perform a full diagnostic of the machine to ensure that there are no problem areas.

Clean any soil off the machine.

Maintenance operations to be carried out every 50 hours or every 6 months

Check that the bolts are tight.

Check the hydraulic system (tightness and seals).

Check that the wheels are tight.


Perform a full diagnostic of the machine to ensure that there are no problem areas.

Maintenance operations to be carried out every 50 hours or every 6 months
Grease joints with grease nipples.
Clean any soil off the machine.
Maintenance operations after each pressure cleaning
Grease the machine.
Maintenance operations to be carried out every 100 hours or every 12 months
Wear rings
Maintenance operations to be carried out every 6 years
Replace the hydraulic hoses.

8.4. Maintenance operations

8.4.1. Check the hydraulic lines


Inspection criteria for hydraulic hoses

 **ATTENTION**
For your own safety, please observe the following inspection criteria.

If any of the following faults are found, immediately replace the hydraulic hose:


- Damage including from the outer layer to the fittings (e.g. rubbing points, cuts, cracks).
- Fragility of the outer layer (formation of cracks in the envelope).
- Deformations that do not correspond to the natural shape of the hose or pipe, whether they are unpressurised or pressurised, or when they are flexed (e.g. separation of layers, blistering, crushing points, bends).
- Tightness problems.
- Damage or deformation of the end fitting (affecting the tightness); minor surface damage is not a reason for replacement.
- Hose detaches from the end fitting.
- Corrosion of the end fitting, making it weaker and less functional.
- Non-compliance with installation specifications.
- 6-year useful life exceeded. The following information is essential: the manufacturing date of the hydraulic line indicated on the end fitting, plus 6 years. If the date of manufacture on the fitting is "2004", its useful life will end in February 2010.

Installing and removing hydraulic lines

 **WARNING**
The following instructions must be observed when installing and removing hydraulic lines.

- Use only original AGRISEM INTERNATIONAL hydraulic hoses.
- Always keep components clean.

- Always install hydraulic lines by ensuring that, in all operating states:
 - They are not subject to traction forces, apart from that resulting from their own weight.
 - There is no crushing on short lengths.
 - There is no external mechanical action on the hydraulic lines.
 - Prevent hoses from rubbing against machine parts or each other by correctly positioning and securing them. If necessary, protect hydraulic pipes with protective sleeves. Cover elements with sharp edges.
 - The authorised bending radii are not exceeded.
- When connecting a hydraulic line to moving parts, the hose length must be measured so that the total range of movement is not less than the smallest permissible bending radius and/or so that the line is not also subjected to traction.
- Fix the hydraulic hoses in the positions provided. In this respect, avoid supports that could hinder the natural movement of the hose and changes in its length.



WARNING

It is forbidden to paint hydraulic lines.

Marking hydraulic hoses

Hoses must be replaced every 6 years from the date of manufacture.

Hydraulic hoses are marked to identify their year of manufacture.

Reference marker	Description
1	Month of manufacture
2	Year of manufacture
3	Batch number

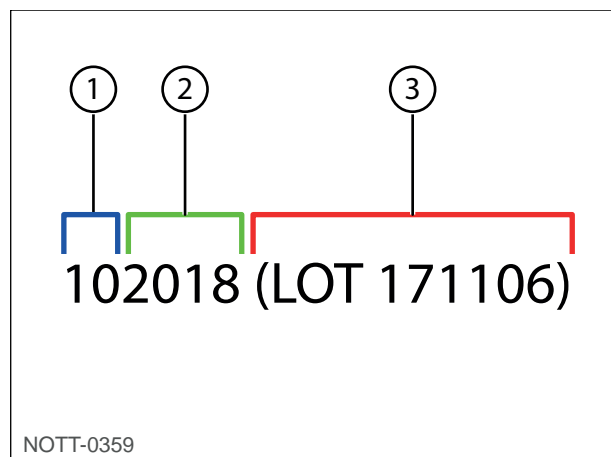



Fig. 30

8.4.2. Check the lighting and signalling system

Before every journey on the road, check that your lighting system is clean and in perfect working order.



WARNING

Never drive on public roads if one of these elements is in poor condition.

Replacing bulbs:

- 1 - Disconnect the signal strip.
- 2 - Unscrew the protective glass.
- 3 - Remove the faulty bulb.
- 4 - Fit the replacement bulb (matching the voltage and amperage).
- 5 - Replace the protective glass and screw it in place.

For machines fitted with LED lighting, replace the complete unit with an original one.

8.4.3. Clean the folding areas

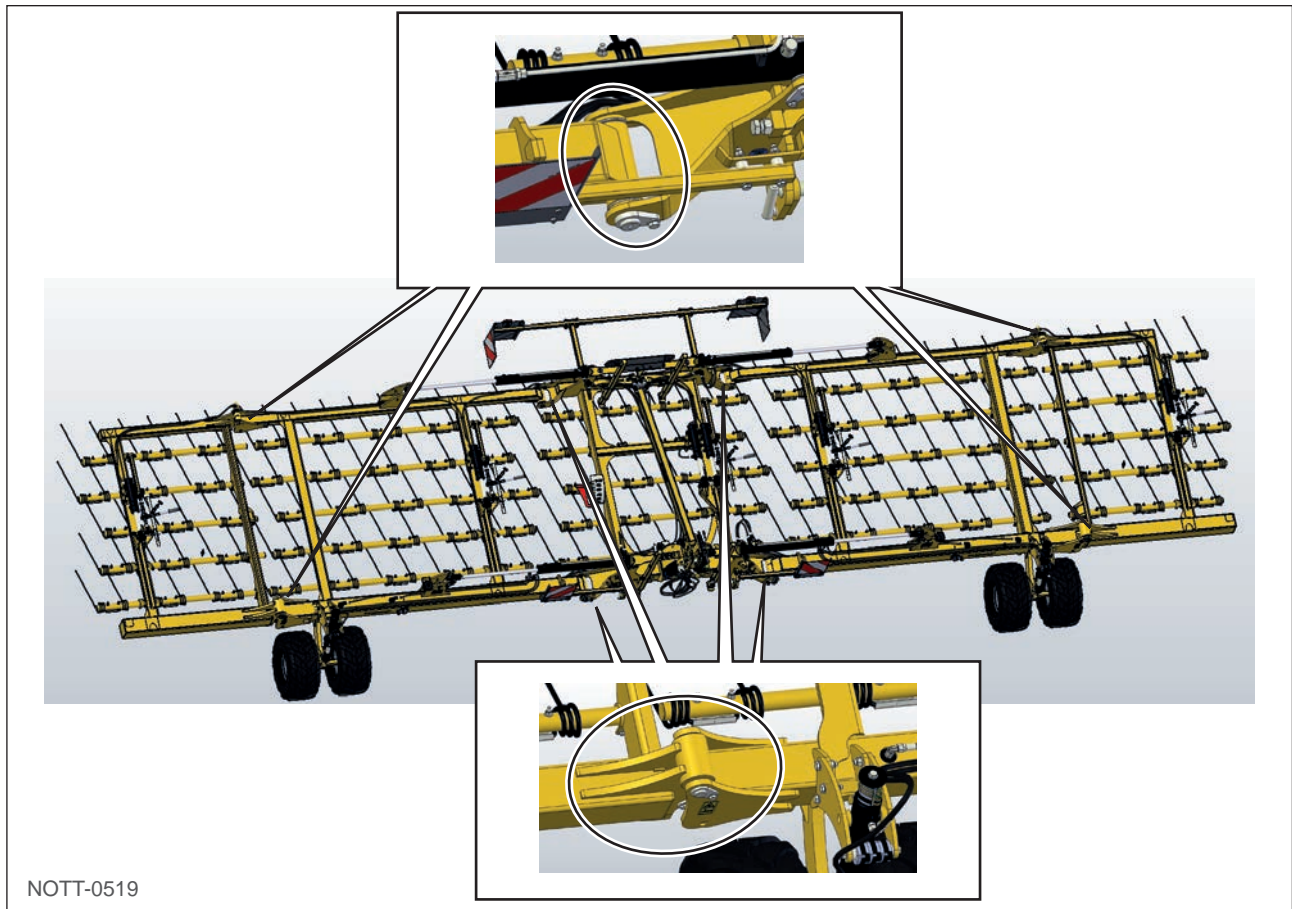


Fig. 31

Always clean the folding areas before folding the machine. An accumulation of earth, stones or other obstacles can cause damage to the machine.

Failure to do so will invalidate the warranty.

8.4.4. Check that the bolts are tight

See table.

ISO 272			Steel bolt quality class ISO898-1													
d mm	ISO mm	mm	5,6		5,8		6,8		8,8		9,8		10,9		12,9	
			Cs	Fo	Cs	Fo	Cs	Fo	Cs	Fo	Cs	Fo	Cs	Fo	Cs	Fo
1,6**	0,35	3,2	0,086	210	0,120	294	0,137	335	0,183	447	0,206	503	0,269	657	0,315	769
2**	0,40	4	0,183	349	0,256	488	0,293	558	0,390	744	0,439	837	0,573	1 093	0,671	1 279
2,5**	0,45	5	0,383	582	0,536	815	0,612	931	0,816	1 242	0,918	1 397	1,20	1 824	1,40	2 134
3	0,50	5,5	0,66	874	0,92	1 224	1,06	1 399	1,41	1 866	1,60	2 099	2,07	2 740	2,43	3 207
4	0,70	7	1,51	1 514	2,11	2 120	2,42	2 422	3,22	3 230	3,66	3 635	4,74	4 744	5,5	5 552
5	0,80	8	3,00	2 481	4,20	3 473	4,81	3 970	6,4	5 293	7,27	5 958	9,4	7 774	11,0	9 098
6	1	10	5,2	3 498	7,2	4 893	8,3	5 598	11,1	7 464	12,57	8 392	16,3	10 962	19,1	12 828
8	1,25	13	12,6	6 426	17,7	8 997	20	10 283	27	13 710	30,62	15 423	39	20 137	46	23 565
10	1,50	16	25	10 238	35	14 334	40	16 382	53	21 843	61	24 575	78	32 082	92	37 542
12	1,75	18	43	14 934	60	20 908	69	23 895	92	31 860	105	35 849	136	46 795	159	54 760
14	2	21	69	20 514	97	28 719	111	32 822	148	43 763	167	49 142	218	64 277	255	75 218
16	2	24	108	28 280	152	39 592	174	45 248	232	60 331	262	67 944	341	88 611	399	103 694
18	2,5	27	149	34 324	209	48 054	239	54 919	330	75 421			469	107 549	549	125 856
20	2,5	30	213	44 188	298	61 863	341	70 700	471	97 253			667	138 456	781	162 023
22	2,5	34	293	55 298	411	77 418	470	88 478	648	121 574			920	173 269	1 077	202 762
24	3	36	366	63 630	513	89 083	586	101 809	809	140 084			1 148	199 376	1 343	233 313
27	3	41	544	83 910	762	117 474	871	134 257	1 201	184 517			1 706	262 920	1 997	307 672
30	3,5	46	737	101 914	1 032	142 679	1 180	163 062	1 628	224 292			2 311	319 331	2 704	373 685
33	3,5	50	1 004	127 210	1 406	178 094	1 607	203 536	2 216	279 953			3 148	398 593	3 684	466 438
36	4	55	1 288	149 174	1 803	208 844	2 060	238 679	2 840	328 236			4 036	467 413	4 723	546 973
39	4	60	1 677	179 487	2 348	251 282	2 683	287 179	3 697	394 919			5 255	562 393	6 150	658 119
42**	4,5	65	2 070	205 323	2 898	287 452	3 312	328 516	4 554	451 710			6 486	643 344	7 590	752 849
45**	4,5	70	2 596	240 641	3 635	336 897	4 154	385 025	5 712	529 410			8 136	754 008	9 520	882 350
48**	5	75	3 130	270 321	4 383	378 449	5 009	432 514	6 887	594 706			9 809	847 006	11 478	991 177
52**	5	80	4 041	324 783	5 657	454 668	6 465	519 620	8 889	714 478			12 661	1 017 590	14 816	1 190 797
56**	5,5	85	5 034	374 739	7 048	524 635	8 054	599 582	11 075	824 426			15 773	1 174 182	18 458	1 374 043
60**	5,5	90	6 266	438 337	8 772	613 672	10 026	701 340	13 785	964 342			19 634	1 373 457	22 976	1 607 237
64**	6	95	7 533	495 676	10 546	693 947	12 052	793 082	16 572	1 090 488			23 603	1 553 119	27 620	1 817 480

*Class 8-8a up to d=16mm, 8-8b from d=118mm.

NOTT-0229

Fig. 32

8.4.5. Check the hydraulic system (tightness and seals)

Check all hydraulic circuit components for leaks. If necessary, retighten the screw connections.

8.4.6. Check that the wheels are tight

Check that the wheels are tight before and after each use.

8.4.7. Perform a complete machine diagnosis

Perform all the operations specified in the start-up section.

Perform all required maintenance operations before each use.

8.4.8. Clean any soil off the machine

Clean any soil off the machine using a high-pressure cleaner.



ATTENTION

When using a high-pressure or steam cleaner, the following points must be observed:

- Do not clean electrical or hydraulic components.
- Never aim the nozzle of a high-pressure or steam cleaner directly at lubrication points or bearings.
- Always keep a distance between the nozzle and the machine.

Observe the rules governing the use of high-pressure cleaners. The machine must be lubricated regularly and after each pressure cleaning.

8.4.9. Lubricate with grease nipple

Lubrication points are identified by this pictogram:

The machine must be lubricated regularly and after each pressure cleaning.



Fig. 33

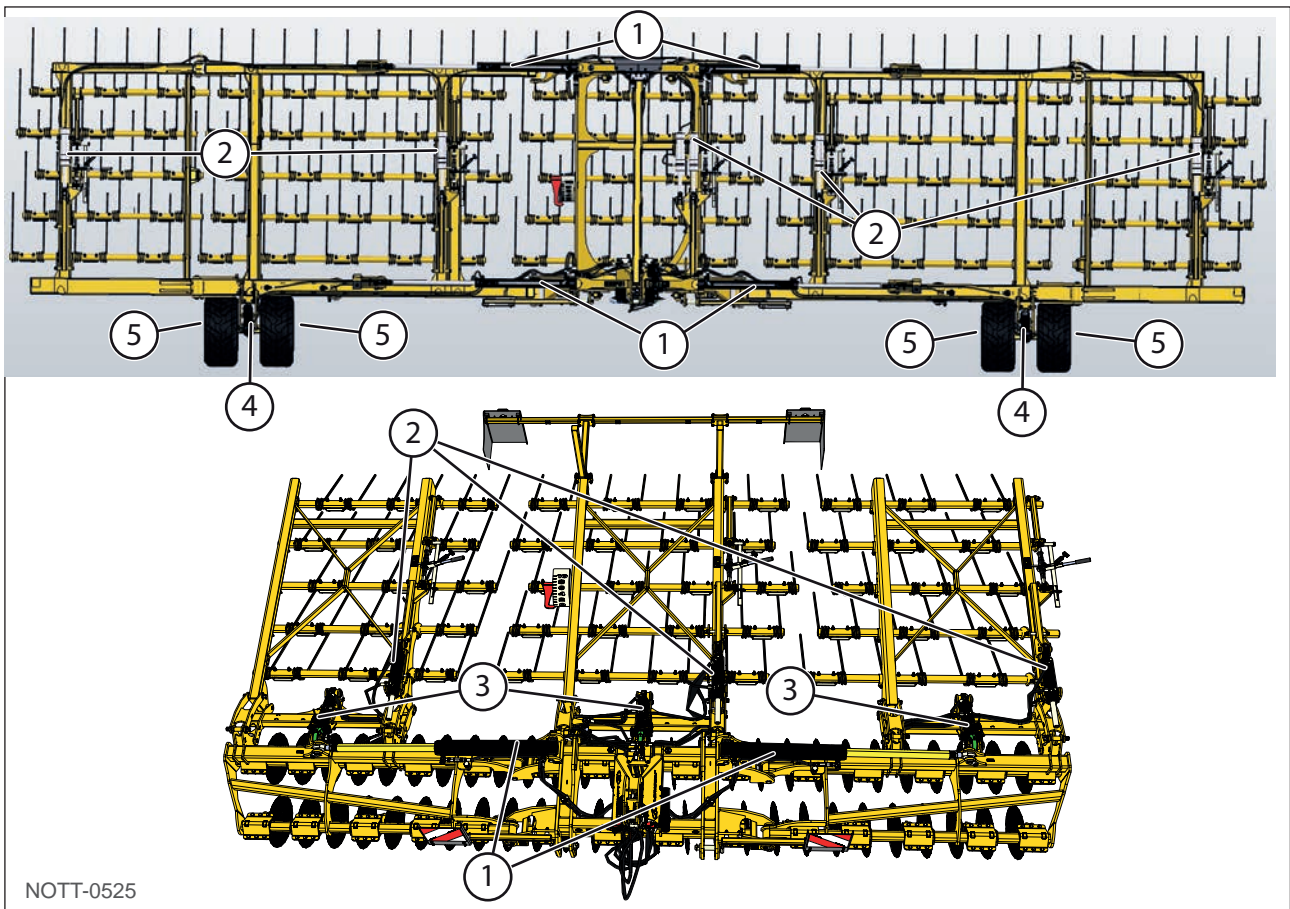


Fig. 34

(1) - Extension folding/unfolding cylinders

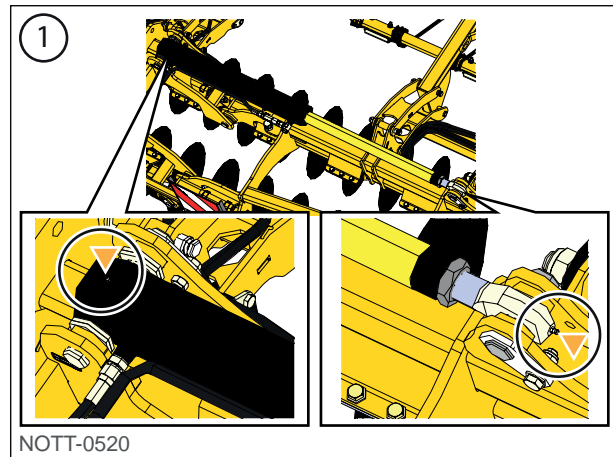


Fig. 35

(2) - Tine inclination adjustment cylinders

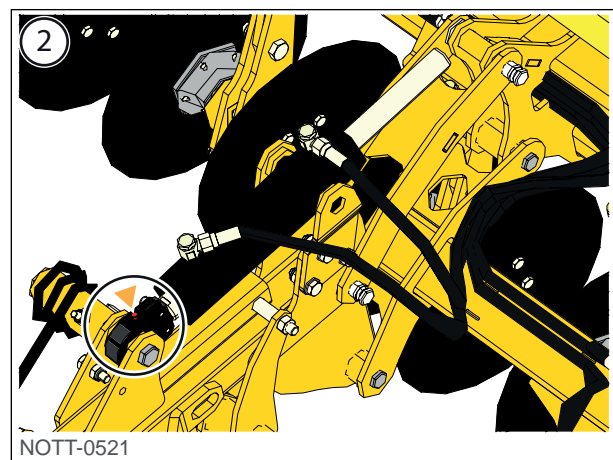


Fig. 36

(3) - Coulter adjustment cylinders

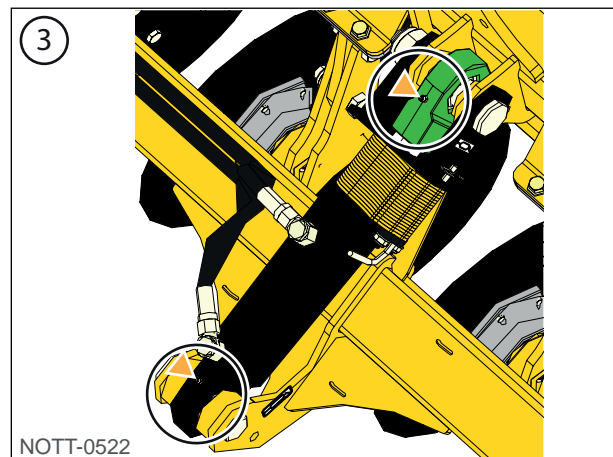


Fig. 37

(4) - Wheel cylinders

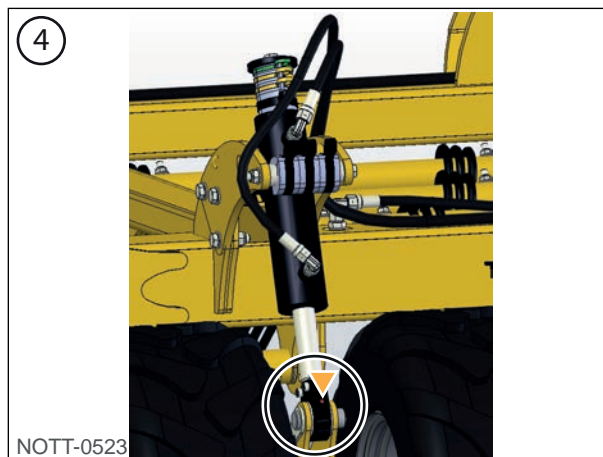


Fig. 38

(5) - Wheels

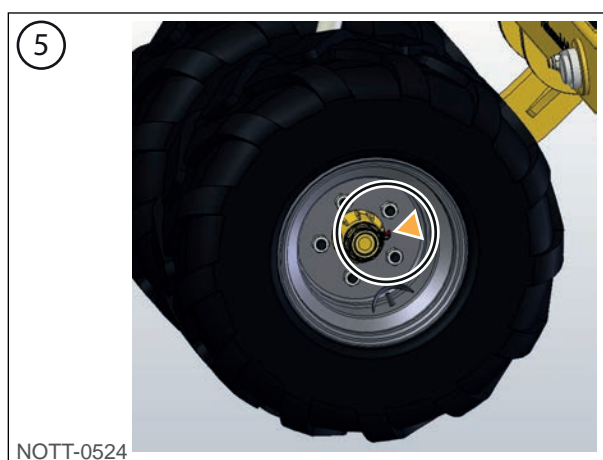


Fig. 39



ATTENTION

The machine must be lubricated regularly and after each pressure cleaning.
This maintains the machine in operational condition and reduces repair costs and downtime.

8.4.10. Replacing hydraulic hoses

After replacing all the hoses on the machine, check all the components of the hydraulic circuit for leaks, see “8.4.5. Check the hydraulic system (tightness and seals)”, page 63.

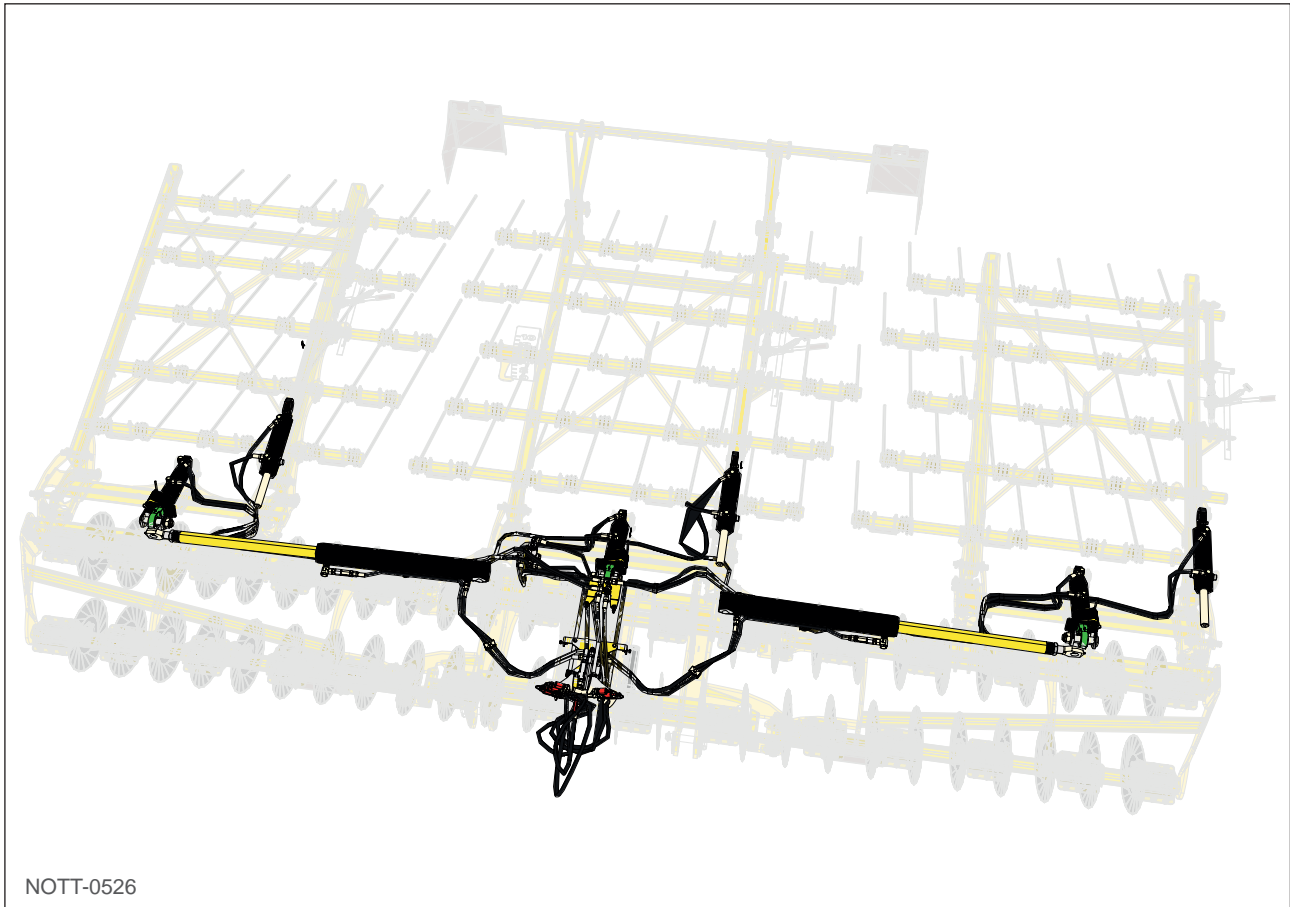


Fig. 40

8.4.11. Wear rings

Wear rings should be replaced when the friction band is completely worn, or when wear causes blocking or hard spots. The friction strip is approximately 1.5 mm thick.

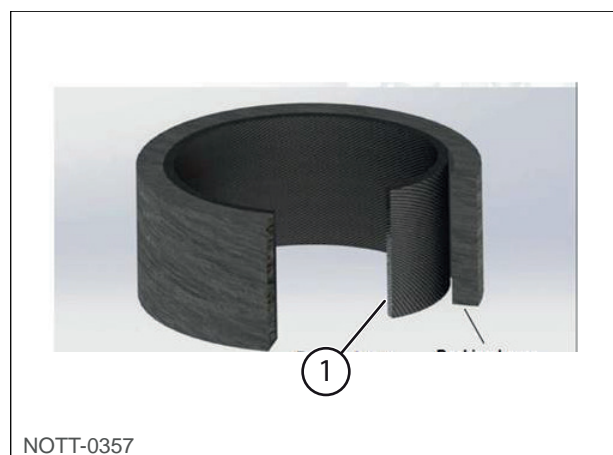


Fig. 41

Depending on the assembly and options, the wear rings are located at the machine's main pivot points.

8.4.12. Tyre pressure

System	Average pressure	Maximum pressure
Main axle	2.5 bar	4.1 bar

9. Faults, causes, and remedies

Problem	Point to check / Solution
Insufficient depth	Review the depth setting
	Drive more slowly. Check that the tractor has sufficient power.
	If the ground is too hard, make further passes.
Excessive loosening of the soil	Increase the tractor's forward speed.
Insufficient loosening of the soil	Reduce the tractor's forward speed.
	Do not work on ground that is too wet.
Clogging of tines	The ground is too wet to work.
	Reduce the tractor's forward speed.
	Do not work in very tall grass.
Machine jumps or vibrates	Foreign bodies trapped between the tines/coulters.
	Incorrectly mounted tines/coulters.
	Worn or broken tines/coulters.
	Deformation of tines/coulters due to impacts from working on stony or particularly hard ground.

10. Specifications

10.1. Turbomulch standard

	6.20 m	7.30 m	8.60 m	9.80 m	12.25 m
Working width (in m)	6.20	7.30	8.60	9.80	12.25
Transport width - without accessories (in m)	3	3	3	3	3
Transport height (in m)	3.141	3.377	4.170	3.840	3.850
Weight (in kg)	1868	1968	2196	2428	2512
Weight - with cutter roller (in kg)	2765	2978	3391	/	/
Weight - with circular coulters (in kg)	3600	3880	4420	/	/
Recommended min-max power (hp)	130 - 180	140 - 190	150 - 200	180 - 230	225 - 275
Type of coupling	3 points Cat 3				
Rows of tines	5				
Number of tines	100	120	140	160	200
Tines - length (in mm)	760				
Tines - diameter (in mm)	16				
Height under chassis (mm)	570				
Spacing between tines (mm)	61				
Working depth (cm)	0 to 5				

10.2. Turbomulch Extra

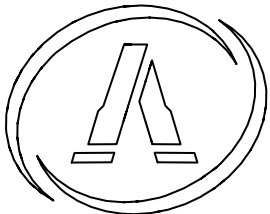
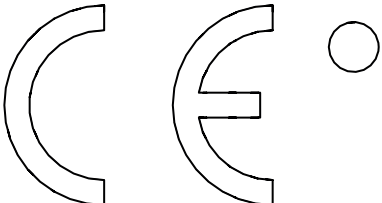
	6 m	7.50 m	9 m
Working width (in m)	6	7.50	9
Transport width - without accessories (in m)	3	3	3
Transport height (in m)	2.772	3.324	4.080
Weight (in kg)	3250	3560	4175
Weight - with circular coulters (in kg)	3254	3564	4174
Recommended min-max power (hp)	130 - 180	145 - 195	180 - 230
Type of coupling	3 points Cat 3		
Rows of tines	5		
Number of tines	100	124	148
Tines - length (in mm)	760		
Tines - diameter (in mm)	16		
Number of discs	53	65	81
Height under chassis (mm)	570		
Spacing between tines (mm)	61		
Working depth (cm)	0 to 8		

11. Technical terms and abbreviations

Term	Meaning
A	ampere - unit of intensity of electric current
bar	bar - unit of pressure
cm	centimetre - unit of length
cm ³	cubic centimetre - unit of volume
PPE	Personal protective equipment
ha	hectare - unit of surface area
ISOBUS	standardised data transfer system
kg/h	kilogram per hour - unit of flow rate
kg/ha	kilogram per hectare - unit of density
km/h	kilometre per hour - unit of speed
l	litre - unit of volume
l/min	litre per minute - unit of flow rate
LS	load sensing - load-sensing hydraulic circuit
m	metre - unit of length
mm	millimetre - unit of length
rpm	revolutions per minute - unit of rotation speed
V	volt - unit of voltage
W	watt - unit of power

12. Appendices

**DECLARATION OF CONFORMITY WITH THE
"MACHINERY" DIRECTIVE**

 AGRISEM®				
535 rue P. Levasseur 44150 ANCENIS - (F) - Tél. 33(0)2.51.14.14.40 Fax. 33(0)2.40.96.32.36				
○ MODELE	<input type="text"/>			
N° DE SERIE	<input type="text"/>			
ANNEE	<input type="text"/>	POIDS	<input type="text"/>	Kg
MATERIEL FABRIQUE SOUS LICENCE				

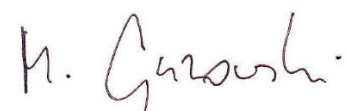
The above-named manufacturer certifies that the new equipment described below:

TURBOMULCH

Complies with the provisions of the amended Machinery Directive (Directive 2006/42/EC) and the national legislation which transpose it.

Signed in Ligné,

21 May 2013



Michal GUZOWSKI
Chief Executive Officer



Register on my.agrisem.com

See the videos:
in French: <https://youtu.be/IIIDu5guX5pc>
in English: <https://youtu.be/gWlZQebjySg>



AGRISEM®

WARRANTY CERTIFICATE NO.

TO BE RETURNED UPON ACCEPTANCE OF
THE MACHINE

Dealer	Buyer
Name	Name
Address	Address
Tel.	Tel.
Code no.	

Machine model	
Working width	
Machine serial number	
Customer and user delivery date	
Make, model, and power of tractor used	
Soil type - % clay	
Useful agricultural area of the farm	

Signed in: _____ on the _____

Signature and stamp of buyer

Signature and stamp of dealer

We acknowledge that we have read the user manual in full and that we accept the terms and conditions of the warranty.

AGRISEM INTERANTIONAL SA - 535 rue Pierre Levasseur - CS 60263 - 44158 ANCENIS - FRANCE
Tel: 02.51.14.14.40 - Fax: 02.40.96.32.36



Register on my.agrisem.com

See the videos:

in French: <https://youtu.be/vv5CC0fMis8>
in English: <https://youtu.be/RSHenIsiAJA>

WARRANTY CLAIM FORM No.			
Dealer name		Dealer stamp	
Case followed by			
Purchase date of the machine		AGRISEM invoice no.	
Name and address of user customer			
Date of delivery to user <i>(enclose a copy of the invoice and dealer delivery note)</i>		UAA of the farm(s)	
Machine serial number		Working width	
Designation of combined equipment (brand and type)			
Make of tractor used			
Model of tractor used		Power	
Detailed description and presumed causes of the incident			
Date of breakdown		Current date	
Part number	Quantity	Description	
Request to send part	YES	Credit request	YES
Attached photos	YES	Parts returned <i>Transport costs at the charge of the sender</i>	YES
Appraisal result AGRISEM INTERNATIONAL			
Comments			
Date		Signature	
Technical manager			
agrisem@agrisem.com			

