

# **HC-TURBOMULCH**

Notice Originale

**AGRISEM INTERNATIONAL** - 535 Rue Pierre Levasseur CS 60263 – 44158 ANCENIS CEDEX Tél : 02 51 14 14 40 – Fax : 02 40 96 32 36

#### 1. Foreword

We thank you for the confidence you have given us by becoming the owner of AGRISEM INTERNATIONAL equipment.

This manual has been supplied with your machine to enable you to make the best use of the equipment you have acquired and in particular to respect safety conditions.

Purchasers are reminded that the manual is an integral part of the machine and that in the case of resale, Article 1615 of the Civil Code requires that, as an accessory, it be forwarded to the new owner.

It is also recalled that the manual is inseparable from the machine, any owner agrees to leave it physically available with the machine for any user.

This manual contains the features of your new hardware. Please read it and carefully follow the instructions it contains by all users. The following pages will give you the essential information about your machine, read them carefully.

Your AGRISEM INTERNATIONAL dealer will provide you with quality service and any assistance you may need. For maintenance, remember that your dealer knows your machine best and wants to give you complete satisfaction.

All information and features in this manual are current at the time of printing.

However, the policy of continuous improvement of our products obliges us to reserve the right to proceed, at any time and without notice, to modifications.

This operating manual is published for wide distribution and the availability of the indicated equipment, whether on the basic machine or as an accessory, may vary depending on the region where the machine is used. edition of the instructions for use will be described in the latter.

### 2. DECLARATION OF COMPLIANCE

# DECLARATION OF COMPLIANCE WITH THE "MACHINERY" DIRECTIVE



The manufacturer referred to above certifies that the new equipment described below:

#### **TURBOMULCH**

Complies with the provisions of the amended "Machinery" directive (Directive 2006/42/CE) and with the applicable national legislation.

Done to Ancenis,

Le 28/09/17

Michal GUZOWSKI

Président Directeur Général





## TO BE RETURNED ON RECEPTION OF THE MACHINE

Dealer	Purchaser
Name	Name
Address	Address
Tel.	Tel.
Tono of months	
Type of machine:	
Working width: Machine serial number:	
Customer and user delivery date:	
Make, model and power of the tractor used:	
Type of soil, % clay:	
Utilised agricultural area belonging to the farm:	
	Signedin:
Signature and stamp of the purchaser	Signature and stamp of the deal
We acknowledge that we have read the whole o to which we adhere.	f the user manual and the warranty clai

# Imperative return of the "warranty certificate" within 15 days after delivery to the end user.

You have just taken possession of your AGRISEM machine. This one has been designed to give you complete satisfaction.

The equipment has been particularly studied by adopting new solutions to reduce the cost of use.

However, to get the most out of your AGRISEM machine and get the most from it, read this manual carefully before putting it into service and strictly follow the instructions given in this manual. In particular, carefully follow the adjustment, maintenance and safety instructions.

For any information or advice: our distributor is your contact.

This user manual must be read and observed by all persons responsible for performing work on or with the machine, in particular:

- Use (including preparation, troubleshooting during work and maintenance).
- Maintenance (maintenance and inspection).
- Transportation.

AGRISEM INTERNATIONAL declines any responsibility for the bodily as well as material damages and the malfunctions which result from the non respect of the prescriptions enacted by the constructor in this manual.

This operating manual is an integral part of the machine and must always accompany the machine, especially in case of resale.

In order to improve its products, AGRISEM INTERNATIONAL reserves the right to modify or improve its products without being obliged to pass on these modifications or improvements to products already on the market.

The prescriptions contained in this manual are not exhaustive and can not cover all the situations. The user must comply with applicable legislation, particularly with regard to safety, ensure compliance with the rules of prudence and safety dictated by each situation, use common sense and adapt the use of the machine to the circumstances of the case.

It is the responsibility of each Buyer to verify that the AGRISEM machine complies with the laws and regulations of its final destination.

# 3. Identification:

# 3.1. Validity of the instructions for use

This operating manual is valid for the following machines

	Serial number		
Machine	Туре	То	
Top soil Management	TURBOMULCH	17HC01100	19HC01999

### 3.2. <u>Identification plate location and description:</u>

The identification plate is located on the lower link beam



The identification plate contains the following information:

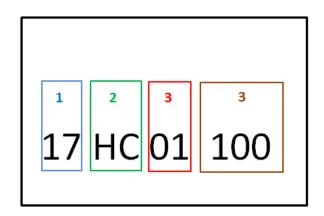
Repère	Désignation	
1	Model	
2	Serial number	
3	Year of manufacture	
4	Empty weight of the material	



Description of the serial number:

The serial number is composed

Repère	Désignation	
1	Year of manufacture	
2	HC=Harrow	
3	Model	
4	Incrementation number	



# **Identification of the machine**

On receipt of the machine, please enter the corresponding information below:

	Type of machine:
	Serial number:
	Year of manufacture:
	Date of first use:
	Accessories:
	Name of the Dealer:
	Address:
Т	elephone number:

#### **AGRISEM INTERNATIONAL**

535 Rue Pierre Levasseur CS 60263 – 44158 ANCENIS CEDEX Tél : 02 51 14 14 40 – Fax : 02 40 96 32 36

Email: agrisem@agrisem.com

## 4. INTRODUCTION

#### 4.1. Purpose of the instructions for use

You have just taken ownership of your AGRISEM machine. It has been designed to give complete satisfaction.

The equipment has been carefully designed using the latest technological solutions to reduce usage costs.

However, for the best and most profitable use of your AGRISEM machine, please read this manual carefully before starting it up and strictly follow the instructions. In particular, follow the instructions for adjusting and servicing the machine, as well as the safety precautions, very carefully.

Please contact our distributor for any information or advice.

The instructions in this user manual must be read and applied by any persons who will be carrying out work on or with the machine, in particular:

- Use of the machine (including preparation, repairs required during work and maintenance).
- Maintenance (servicing and inspection).
- Transport.

AGRISEM INTERNATIONAL cannot be held liable for personal injury or damage to equipment and malfunctions resulting from failure to comply with the instructions given by the manufacturer in this manual.

This user manual is an integral part of the machine and must always be kept with the machine, especially in the event of resale.

AGRISEM INTERNATIONAL is constantly seeking to improve its products and reserves the right to modify or improve its products with no obligation to apply these modifications or improvements to products already on the market.

The instructions in this manual are not exhaustive and cannot cover all eventualities. The user must comply with the applicable legislation, in particular with regard to safety, ensure that the rules of safety and caution dictated by the situation are applied, use common sense and adapt the use of the machine to the circumstances.

It is the Purchaser's responsibility to check that the AGRISEM machine complies with the legislation and regulations applicable to its final destination.

# **SUMMARY**

3. Identification:	7
3.1. Validity of the instructions for use	7
4. INTRODUCTION	10
4.1. Purpose of the instructions for use	10
5. WARRANTY CONDITIONS	
5.1. EXCLUSIVE LIABILITY CLAUSE	15
5.2. COMPLIANT USE OF THE MACHINE	
5.3. SAFETY INSTRUCTIONS	17
5.3.1. Safety instructions	
Safety symbols on the machine	28
6. TECHNICAL INSTRUCTIONS	31
6.1. TURBOMULCH SETTINGS / USE	31
6.1 Technical characteristics	31
6.2 Description de la machine	32
6.1.3. Adjusting the working depth	38
6.1.6. Lubricants	40
7. SERVICING - MAINTENANCE	43
i. Servicing frequency	43
ii. Storage	43
iii. Cleaning	43
iv. Lubrication	43
v. Greasing	44
vi. Maintenance	
vii. Disks	
viii. Lighting system	
ix. Cleaning the folding areas:	
x. Checking the hydraulic system (Clamping and sealing):	50

### 5. WARRANTY CONDITIONS

The warranty conditions applicable to machines fitted exclusively with genuine spare parts from AGRISEM INTERNATIONAL are as follows:

#### > DURATION

• If a defect is observed on a structural part within a period of **12 months** as from the date of delivery of the machine, and if this defect is due to faulty raw materials, or its manufacture at the factory. The parts alleged to be faulty must be returned to the Company's address for an expert inspection.

The following shall be considered to constitute proof of the date of delivery of the equipment:

- the date of the delivery slip and the purchaser's invoice.
- the return of the warranty certificate within 15 days (with the dealer's and purchaser's stamp and signature) following delivery of the equipment.

#### MACHINES AND PARTS CONCERNED

- For the purposes of this warranty, the term "Machine" is exclusively used to designate machines and parts manufactured by AGRISEM INTERNATIONAL. (It does not include external components, in particular tyres, hydraulic hoses, etc. even though these parts are also supplied by the Company)
- The warranty is void if any modifications have been made to the machine without the formal agreement of AGRISEM INTERNATIONAL or if parts other than those manufactured by the Company have been fitted (e.g. counterfeit wear parts).

#### EXTENT OF THE WARRANTY

- The warranty is limited to the reimbursement or repair of parts recognised as faulty with regard to their raw materials or machining, in our factories by our Technical Departments.
- Any costs linked to the dismantling and replacement of the faulty part are not covered by the warranty. The cost of transporting machines or machine parts to the place of repair and their return to their owner is not covered either.
- Wear parts are not covered by the warranty.

#### > PRECONDITIONS

The machine must be maintained and used in accordance with the instructions in this User Manual.

All of the safety measures described in the User Manual and in the manuals of any additional equipment must be complied with.

All of the protection and safety devices and hazardous parts (e.g. shock absorbers) must be regularly inspected and replaced if necessary.

The warranty is only valid if the customer has met the contract's general obligations, in particular the payment conditions.

#### WARRANTY EXCLUSIONS

The warranty does not of course apply to:

- Faults due to normal wear, incorrect use, lack of maintenance, inadequate monitoring or negligence.
- If the machine is damaged by an accident or develops a fault due to being used for purposes other than those specified by AGRISEM.
- In the event of non-compliant use of the machine. Please consult chapter 3 with regard to this point: Compliant use of the machine.
- If the manufacturer's instructions and requirements given in this manual are not complied with, particularly those regarding safety, assembly, use, operation and servicing.
- In the event of improper handling on the part of the user.
- Causes due to the presence of foreign bodies.
- In the event of damage due to the machine being combined with other machines or instruments without the prior written agreement of AGRISEM, and/or without complying with the instructions given by the manufacturers of the tractor and other instruments or machines.
- If the machine is used with protection and safety devices that are incorrectly fitted or not working.
- If the machine has been modified without prior written permission from AGRISEM, or if spare parts, accessories or equipment have been fitted to the machine which were not recommended by AGRISEM.
- In the event of non-compliant repair.
- If faults are due to the machine being immobilised.
- In the event of damage during transport or handling by a carrier. It is the recipient's responsibility to lodge the necessary complaints with the carrier.
- The adverse consequences of the machine being immobilised due to a fault or incident on the machine are not covered by the warranty.
- Personal injury to the owner or a third party and the indirect consequences resulting from this are not covered by the warranty.

Moreover, AGRISEM INTERNATIONAL shall not be liable for the payment of compensation for any reason whatsoever in the event of the loss of crops or any damage whatsoever due to a fault, hidden defect or machine breakdown.

The purchaser is always responsible for the choice of product and the suitability of the machine for the result that he hopes to obtain. He is responsible for its correct use in line with professional practice and the regulations.

Under no circumstances will AGRISEM INTERNATIONAL have any obligation with regard to the final result.

#### > LIMITATIONS AND LIABILITY

- The warranty cannot be assigned or transferred to any other person without the prior written permission of AGRISEM INTERNATIONAL.
- Under no circumstances do those selling our machines have the right or power to make any decision whatsoever, either express or tacit, in the Company's name.
- The technical assistance given by the Company or its representatives with the repairing or operation of equipment does not make it liable for any costs and in no way alters or leads to the waiving of the conditions of this warranty.

# > WARRANTY ENFORCEMENT PROCEDURE: TO BE STRICTLY ADHERED TO BY THE DISTRIBUTOR AND BY THE PURCHASER

The warranty's enforcement is subject to strict compliance by the dealer and the user with the following requirements:

- A) RETURNING BY THE DEALER OF THE WARRANTY CERTIFICATE DULY COMPLETED AND SIGNED BY THE DEALER AND THE PURCHASER.
- B) Claims must be made without fail using an AGRISEM INTERNATIONAL"WARRANTY CLAIM FORM" (see appendix) and sent by registered letter with acknowledgement of receipt by the dealer to the company's technical department within 10 days of the incident. This form must be completed legibly by the dealer and must include the following information:
  - Name and address of the dealer, code No.,
  - Name and address of the purchaser,
  - Type of machine,
  - Working width,
  - Machine serial number,
  - Date of delivery to the purchaser,
  - Date of breakdown.
  - Precise references of the parts replaced, No. and date of invoice,
  - Make and model of the tractor used,
  - Detailed description and alleged cause of the incident.
  - Surface worked with the Disc-O-Mulch,
  - Utilised agricultural land belonging to the farm,
  - Type of soil in terms of % clay,Proof of wear part invoice

-	Stones	yes	no
-	Parts replaced	yes	no (send the photocopy of the invoice)

- C) Allegedly faulty parts are to be returned by the dealer to the Company's address for an expert inspection, together with the copy of the warranty claim form provided for this purpose. The dealer must order the faulty part from the spare parts department. Any transport costs incurred by the returning of said parts are payable by the sender.
- **D)** The final decision regarding payment under the terms of the warranty shall be made by **the company's technical or general management**. Whatever the reason for the warranty claim, this decision is final and irrevocable and the purchaser undertakes to accept this decision both with regard to the fault and the replacement of the part or parts.

Under no circumstances are the company's salesmen authorised to make such a decision, which would be void.

NOTE: In the event of refusal, the part remains at the customer's disposal for eight days. After this time it will be scrapped with no appeal possible.

Under no circumstances do those selling our machines have the right or power to make any decision whatsoever, either express or tacit, in the Company's name.

#### 5-YEAR WARRANTY AGREEMENT

If the customer subscribes to the 5-year warranty, please see this agreement for the terms and conditions of the warranty's enforcement.

#### **5.1. EXCLUSIVE LIABILITY CLAUSE**

AGRISEM INTERNATIONAL denies any liability for damage (and any indirect consequences linked to it) resulting from one or more of the following causes:

- Non-compliant use of the machine.
- Failure to follow the manufacturer's instructions or those given in this manual, particularly those regarding safety, assembly, start-up, use, operation and servicing.
- Unsuitable assembly, start-up, use and maintenance of the machine.
- Use of the machine with faulty protection and safety devices or safety and protection devices that are incorrectly installed or not working.
- Combining of the machine with other instruments or machines without the written agreement of AGRISEM and/or without complying with the instructions given by the manufacturers of the tractor and other instruments or machines.
- Modifications made to the machine without the written permission of AGRISEM.
- Fitting of spare parts, accessories or equipment on the machine which are not genuine or which have not been recommended by AGRISEM.
- Failure to monitor the wear parts on the machine.
- Use of the machine other than for the purposes specified by the manufacturer.
- Non-compliant repair and maintenance.
- Catastrophes resulting from the presence of foreign bodies, unforeseeable circumstances and cases of force majeure.

Moreover, AGRISEM INTERNATIONAL cannot be held liable for injury to the owner or a third party or for the indirect consequences of such an injury, whether or not it results from a fault. You are reminded that a safe distance of 50 metres must be maintained around the machine.

Any claim for compensation for damage that did not occur directly on the machine is excluded.

AGRISEM INTERNATIONAL cannot be held liable for damage caused by driving or use errors.

AGRISEM INTERNATIONAL cannot be held liable for compensation for the consequences of the instrument's immobilisation due to a fault or an incident on the machine.

#### 5.2. COMPLIANT USE OF THE MACHINE

AGRISEM INTERNATIONAL products must only be used for the work for which they were designed:

#### Work on arable land under normal conditions

In the event of damage linked to the use of the machine other than for the purposes specified by the manufacturer, the manufacturer shall be entirely released from liability.

Only use the machine in good technical condition, in accordance with the purpose for which it was designed and in full knowledge of the risks.

Compliant use of the machine also involves:

- Compliance with the instructions for use, servicing and maintenance issued by the manufacturer
- Compliance with all of the instructions in this manual, particularly including the safety instructions
- The exclusive use of genuine spare parts, accessories and equipment or those recommended by the manufacturer.

AGRISEM machines must not be combined with other machines or instruments without prior written permission from AGRISEM INTERNATIONAL.

For any combinations, the user must also comply with the instructions given by the tractor manufacturer.

AGRISEM machines must only be used, serviced and repaired by competent persons who are familiar with the machine's features and operating procedures. These persons must be informed of the dangers to which they may be exposed.

The user is required to strictly comply with the current legislation with regard to:

- Accident prevention
- Safety at work (labour code)
- Driving on the public highway (Highway code)

He is required to observe the warnings affixed to the machine. Any modifications made to the machine by the user or any other person without the prior written permission of the manufacturer releases the latter from any liability for the damage which may result.

Damage resulting from non-compliant use of the machine:

- > Is entirely the user's responsibility,
- May under no circumstances be assumed by AGRISEM INTERNATIONAL

#### 5.3. SAFETY INSTRUCTIONS

#### 5.3.1. Safety instructions

#### 5.3.1.1. Introduction

Most accidents which occur during work, maintenance or travel from one place to another are due to a failure to observe the most basic safety rules. It is therefore essential for anyone likely to be working with this machine to adhere to the basic rules listed below and to the safety instructions displayed on the stickers affixed to the machine.

This machine has been designed for a specific task. It must always be in good working order and must only be repaired using genuine AGRISEM INTERNATIONAL spare parts.

This machine must only be used, maintained and repaired by competent persons who are familiar with its features and its operating procedures and who are aware of the safety rules for accident prevention and the dangers to which they may be exposed.

This machine must only be used in accordance with its purpose and in a condition that does not present any safety risks. Any malfunctions likely to be detrimental to safety must be corrected immediately.

The user is required to strictly adhere to the safety instructions in this manual and the stickers affixed to the machine.

The user is also required to strictly comply with the current legislation with regard to accident prevention, safety at work (labour code), occupational medicine and highway legislation.

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

The machine must never be entrusted to a person who is not trained to use it.

#### **Liability and warranty:**

In addition to the other cases mentioned in this manual, the manufacturer denies any liability for any injury or damage to equipment resulting from one or more of the following causes:

- Failure to follow the manufacturer's instructions or those given in this manual, particularly those regarding safety, assembly, start-up, use, operation and servicing.
- Non-compliant use of the machine.
- Unsuitable assembly, start-up, use and maintenance of the machine.
- Use of the machine with faulty protection and safety devices or safety and protection devices that are incorrectly installed or not working.
- Combining of the machine with other instruments or machines without the written agreement of AGRISEM and/or without complying with the instructions given by the manufacturers of the tractor and other instruments or machines.
- Modifications made to the machine without the written permission of AGRISEM.
- Fitting of spare parts, accessories or equipment on the machine which are not genuine or which have not been recommended by AGRISEM.
- Failure to monitor the wear parts on the machine.
- Use of the machine other than for the purposes specified by the manufacturer.
- Non-compliant repair and maintenance.
- Catastrophes resulting from the presence of foreign bodies, unforeseeable circumstances and cases of force majeure.

Similarly, in addition to the other cases mentioned in this manual, any claim under the warranty linked to damage resulting from one or more of the above-mentioned causes is excluded.

#### 5.3.1.2. Instructions to be followed before using the machine

Wear close-fitting clothes. Loose clothing may become caught in moving parts.

Wear individual protective equipment corresponding to the work you are planning to do (gloves, shoes, goggles, helmet, ear protection, etc.).

Be aware that tillage equipment, even if not very wide, has very sharp parts (blades, shares, disks, etc.) which can cause serious injury in the event of an accident.

# Whenever the machine is used, check the area around the machine beforehand (presence of children). Ensure you have sufficient visibility.

Before any work, ensure that the tractor is sufficiently weighted at the front to avoid any risk of the front lifting. If not, add weights to the front of the tractor.

Check that screws, nuts and bolts are correctly tightened whenever you use the machine. Tighten if necessary. Also check the condition of the tools and their fastening elements in accordance with the instructions in this manual.

#### No-one must be within 50 metres of the machine when it is being folded and unfolded.

Check that the machine is correctly hitched.

Always install the pins and locking systems.

#### Check that the machine meets personal safety requirements.

Whenever you use the machine, check that the safety and protection devices are in place and working. Replace any worn or damaged protectors immediately.

# Move any people or animals likely to be in the area where the machine is being manoeuvred or used. A 50-metre safety zone must be kept clear around the machine.

Go around the machine looking for any external damage and checking the condition of the protection devices.

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

The owner of the machine must:

- Provide the operator with the user manual.
- Ensure that the operator has read it and understands it.
- Ensure that the operator knows the basic instructions regarding safety at work and accident prevention.

#### 5.3.1.3. Instructions to be followed for hitching and unhitching

Pay attention to the various possibilities permitted for the connecting of the tractor's coupling equipment to that of the machine.

Only combine equipment that is compatible (machine and tractor).

Check that the tractor has the characteristics necessary to hitch the machine.

#### **WARNING:**

Non-compliant implementation may result in a risk of the tractor breaking during operation, being insufficiently stable when loaded and having insufficient manoeuvrability and braking power.

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

The machine must only be mounted on or hitched to a tractor if it meets the necessary requirements.

Perform a braking test to check that the tractor can provide the regulatory deceleration power even with the machine mounted or hitched.

The requirements relating to the tractor include:

- The total authorised weight
- The authorised axle loads
- The authorised vertical load on the tractor coupling point
- The permissible load capacities of the tyres mounted on the tractor
- Sufficient authorised load on the coupling point

You will find this information on the data plate or in the vehicle's registration papers and in the tractor user manual.

The front axle must support at least 20% of the tractor's empty weight at all times.

Calculation of the real values of the total tractor weight, tractor axle load and the load capacity
of the tyres, and of the minimum ballast required:

The total authorised weight of the tractor indicated in the vehicle's registration papers must be greater than the sum of:

- The tractor's empty weight,
- The ballast.
- The total weight of the mounted machine or the vertical load of the hitched machine.

#### This instruction only applies in Germany:

If the axle loads and/or the total authorised weight are not complied with after all the possibilities have been exhausted, the competent authority according to the law of the Land may issue a waiver based on the report of an approved expert in the field of motor vehicle circulation and with the agreement of the manufacturer, in accordance with article 70 of the German law governing the authorisation of vehicles to use the public highway, and the obligatory authorisation under the German highway code.

Combining of machines: do not combine machines that are incompatible or are incompatible with the tractor when combined.

AGRISEM denies any liability in the event of damage resulting from a combination of machines that has not received written authorisation from AGRISEM.

Accidents linked to the breaking of components during operation may result from unauthorised combinations of hitching equipment.

Hitching and ballasting are operations which involve a risk of injury.

#### > Before hitching or unhitching:

- Place the machine on stable ground.
- Chock the machine and take all of the necessary measures to avoid the accidental movement of the tractor.

The machine must only be coupled using the coupling points provided for this purpose and in accordance with the applicable rules.

When hitching, do not exceed:

- The tractor's total authorised weight
- The tractor's authorised axle loads
- The permissible load capacities of the tyres mounted on the tractor.



No one must be standing between the tractor wheels and the tool when hitching or unhitching.

5.3.1.4. Instructions to be followed before using the machine

#### WARNING

A failure to take movement or operating safety measures may result in accidents involving crushing, cuts, entanglement, pinching or impacts.

Before start-up, check that the machine and the tractor are able to move and operate in complete safety.

Never climb onto the machine or stand on it when it is moving.

Never work in reverse.

Never allow children to climb on the tractor or the machine, or to play near the equipment, even if the machine is stopped.

When using or manoeuvring the machine ensure that no-one is within the manoeuvring or working area.

The elements of the machine that are controlled by an external force have crushing and shearing zones. Keep away from these hazardous areas.

Be aware of hidden obstacles (stones, roots, pipes, cables, etc.) in the event of a collision with an obstacle.



In such an event you must stop the drive, stop the tractor engine, remove the ignition key and wait for the machine to stop completely.

Before starting work again, check the machine for any damage.

If the obstacle is an electric cable or gas pipe, inform the appropriate authorities.

When using the machine, stones or other foreign bodies are likely to be thrown a considerable distance.

Move any people or animals likely to be in the danger area around the machine.

Do not stand in the machine's working area or in the area where the machine rotates and pivots.

Each time the machine is used, carry out a careful visual inspection of the machine to detect any external damage and ensure that the safety and protection devices are operating correctly. Also carry out regular inspections of the various adjustments.



Do not approach the machine until all of the moving parts are completely immobile. Enforce a 50-metre safety area around the machine.

#### With regard to driving:

Adapt your driving to ensure that you are in control of the tractor with the machine mounted or hitched under all circumstances.

Take into account your personal faculties, the conditions of the land or road, the traffic, the visibility and the weather, the tractor's driving characteristics and the conditions of use when the machine is mounted or hitched.

Ensure that the rules of safety and caution dictated by each situation are applied.

The speed and driving style must always be appropriate to the land, roads and tracks.

Reduce your speed on uneven ground or tight corners.

On bends, take into account the overhang and the inertia of the mounted tool.

Avoid sudden changes of direction at all times.

Do not leave the driver's seat until the equipment has completely stopped, the engine is off and the parking brake is on.

Do not transport any people or animals on the machine and the additional tools during work or transport.

#### When driving on the public highway:

Comply with the highway code applicable in your country.



Before going out onto the public highway, check the width of the machine and unbolt or remove elements that exceed the regulatory width.

Take into account the widths authorised for transport and the transported height depending on the hitched machine, in line with current legislation.

Before setting off on the road, ensure that the hitched machine is fitted with the lighting and signalling devices required by the highway code and any other devices required by the current regulations.

AGRISEM rear signalling lights and panels may be removed when working. Check that this signalling equipment has been correctly refitted.

Check that the equipment is clean and operating correctly. Replace all missing or damaged equipment.

Before travelling on the road, secure all of the machine's pivoting parts in their transport position to avoid dangerous changes of position. Also check that the screws, nuts and bolts are tightened and that all of the machine parts are correctly attached and cannot move or become detached.

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

Follow the instructions in this manual on how to prepare the machine for transport.

If necessary, also check:

- The connection of the supply pipes;
- The braking system and the hydraulic circuit.

If the equipment does not already have them, fit signalling devices: lighting board, reflectors, reflective plates or adhesive strips.

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

Ensure that the tractor tyres are inflated to the correct pressure.

Ensure that the tractor and additional equipment is correctly balanced.

Install ballast at the front and back to ensure that the brakes and steering are effective.

The tractor's front axle must systematically support at least 20% of the tractor's empty weight to guarantee sufficient manoeuvrability.

#### Never drive at more than 25km/hour when under load.

Clean off any soil stuck to the machine before going out onto the road.

After using the public highway, ensure that the road is cleaned of any mud left by the tractor and tools.

#### The driver/owner has sole responsibility when transporting the machine on the public highway.

5.3.1.5. Instructions to be followed before carrying out any operations on the machine

In particular during cleaning, servicing and repairs.

#### Comply with the instructions in this manual regarding the servicing of the machine.

Before carrying out any operations on the machine:

- Ensure that the machine is on stable ground.
- Stop the tractor engine, remove the ignition key, wait for all of the moving parts to stop and engage the hand brake.
- Set the machine on the ground, depressurise the hydraulic circuit and allow the machine to cool down.
- Secure the machine or elements that are in a raised position to avoid any accidental lowering.
- Chock the machine.

If using a high-pressure washer or steam cleaner, it is essential to comply with the following points:

Do not clean the electrical and hydraulic components.

Never direct the high-pressure washer or steam cleaner nozzle directly at the lubrication points or bearings.

Systematically keep the nozzle a reasonable distance from the machine.

Comply with the rules for using high-pressure washers.

Wear appropriate personal protective equipment for the work to be performed. In particular, wear safety shoes and gloves to handle sharp parts.

#### Take all of the necessary precautions when fitting working parts that are both heavy and sharp.

The machine must only be serviced and repaired by competent persons who are familiar with the machine's features and operating procedures.

#### The machine must only be repaired with genuine AGRISEM International spare parts.

For bare metal parts, use either an anti-rust product that leaves a greasy film or thick grease.

According to the type of machine: before carrying out any work on the electrical circuit or before any welding operations, disconnect the wiring harnesses coming from the tractor. Disconnect the battery and alternator cables.

#### Do not weld or use blow torches near pressurised fluids or inflammable products.

#### **5.3.1.6.** Instructions regarding installation

The machine may be fitted with electronic components and elements which may be affected by electromagnetic emissions from other devices. This type of interference may be a source of danger for people if the following safety instructions are not followed:

- ➤ If devices and/or electrical components are installed on the machine and connected to the on-board electrical circuit at a later date, the user must first check that installing these components will not interfere with the vehicle's electronics or other components.
- ➤ Ensure that electrical and electronic components subsequently installed comply with the current version of electromagnetic compatibility directive 2004/108/CEE and that they have a CE marking.

Before carrying out any operations on the electrical system, disconnect the battery's negative terminal.

Only use the recommended fuses. Using fuses which have too high an amperage may damage the electrical system and create a risk of fire.

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

Systematically fit the cover provided for this purpose on the battery's positive terminal. Be aware of the risk of explosion when earthing.

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

#### 5.3.1.7. Instructions regarding the hydraulic system

If your machine is fitted with a hydraulic circuit, you must comply with the following instructions: **Warning! The hydraulic circuit is pressurised.** 

When mounting cylinders and hydraulic devices, take particular care to ensure that the circuits are correctly connected, in accordance with the manufacturer's instructions.

Mark the sockets and connectors of the hydraulic connections between the tractor and the machine to avoid handling errors.

Before connecting a hose to the tractor's hydraulic circuit, ensure that the circuits on both the tractor side and the machine side are perfectly clean and not under pressure.

Before connecting, check that the hydraulic quick connectors on the machine and the tractor are free from impurities.

Before performing any operations on the hydraulic circuit, lower the machine, depressurise the circuit, switch off the tractor engine, engage the parking brake and remove the ignition key.

Before carrying out any operations, allow the machine to cool down and discharge the hydraulic circuits' accumulators.

Check the hydraulic hoses regularly. Damaged or worn hoses must be replaced immediately. Check the appearance of the hydraulic hoses to detect any signs of tears or abnormal wear.

When replacing hydraulic hoses, ensure that you only use hoses of the characteristics and quality recommended by the machine's manufacturer.

Each time the machine is used, the hydraulic quick connectors' end fittings must be cleaned and the protective caps must be fitted afterwards. Replace connectors which do not lock correctly or which leak.

Hydraulic hoses must never trail on the ground.

If you find a leak, take all of the necessary precautions to avoid accidents. Never try to plug the leak with your hand or fingers.

Any pressurised liquid, in particular oil in the hydraulic circuit, can penetrate the skin and cause serious injury and infections.

In the event of injury, consult a doctor immediately.

To avoid accidents caused by unexpected hydraulic movements or by third parties, the distributors on the tractor must be locked or immobilised when they are not being used or in their transport position.

#### 5.3.1.8. Instructions relating to the braking system

The braking system must be checked and serviced regularly. Servicing and repair work and adjustments must only be carried out by brake system specialists.

Stop the tractor immediately in the event of a brake system malfunction and have it repaired.

Before performing any operations on the braking system, place the machine on stable ground and chock it.

After any adjustment or repair work on the braking system, perform a braking test.

#### 5.3.1.9. Instructions specific to AGRISEM seeders

In addition to the instructions applicable to all of machines, AGRISEM seeder users must comply with the following instructions:

Never climb onto the machine elsewhere than on the AGRISEM walkway provided for this purpose.

Only climb onto the machine when it is stopped.

When operations are performed on the AGRISEM seeder or during flow tests, the seeder must be stationary and a 50-metre safety area must be enforced around it. The hydraulic system must be depressurised (e.g. turbine stopped) and the rear window of the tractor must be shut, the tractor switched off and the ignition keys removed.

Ensure that no one is on or near the seeder when the grain is being loaded. The AGRISEM walkway must only be used when the seeder is stationary.

Always ensure that the entire area within the seeder's dimensions is completely clear.

Never stand under the sun wheel when it is in its transport position.

When testing the distribution flow, the user must turn the sun wheel with care to avoid any injury. When the wheel is rotating, no-one must be within 50 metres of the machine. This means that no-one must put their fingers into the distribution grooves unless the transmission system is completely stopped.

When changing the transmission gear ratios, ensure that the gearing and chain are handled with the greatest care to avoid any injury. No-one must be within 50 metres of the machine. Avoid putting yourself in danger when changing the gearing by avoiding climbing on the machine's beams or disks, as this could be dangerous.

Ensure that the sun wheel is protected during transport to avoid it hitting anything or injuring anyone.

Similarly, when the turbine is started up, a safety area must be enforced around the machine due to the risk of objects or liquids being ejected (e.g. soil, oil, stones, metal, etc.).

When travelling on the public highway, always be very careful and alert. As the rear visibility is reduced during transport, ensure that the way is clear before reversing the machine (50-metre safety area).

The user must comply with the highway regulations applicable in his country with regard to the front hopper.

If the tractor's signalling equipment is not sufficient (or not sufficiently visible) ensure that you fit your front hopper with lighting and signalling plates.



When working, a 50-metre safety area must be enforced due to the risk of objects being ejected.

#### 5.3.1.10. Instructions relating to safety systems with spring assemblies

Safety devices with pre-compressed spring assemblies are fitted on many AGRISEM tools. These can be very dangerous when performing technical operations on the machine if all of the necessary precautions are not taken.

WARNING: Written authorisation must be obtained from AGRISEM International before carrying out any operations on the "Spring Assembly".

#### 5.3.1.11. Instructions relating to transmission shafts with universal joints

Consult the tractor manufacturer's instructions when performing any operations on transmission shafts with universal joints.

#### 5.3.1.12. Instructions relating to loading and transport

Unless there is a specific transport agreement:

- For deliveries of less than three tonnes: the carrier is responsible for the loading, chocking, securing and unloading of the equipment from when he takes charge of it until its delivery.
- For deliveries of more than three tonnes: loading, chocking and securing on the one hand, and unloading on the other hand, are the responsibility of the contracting party or the recipient respectively. The responsibility for any equipment damage that occurs during these operations lies with the person carrying them out.

Unless there is a specific transport agreement, and for deliveries of more than 3 tonnes, the Purchaser will therefore unload the machine under his own responsibility.

Similarly, if the Purchaser sells the machine and has it delivered, as the sender, he will be responsible for the loading, chocking and securing of the equipment when it is sent.

In case of doubt regarding the unloading or loading, chocking and securing of the machine, please contact AGRISEM International.

#### 5.3.1.13. The user's workstation

The machine must be operated by one person only, from the tractor driver's seat.

#### 5.3.1.14. Noise data

The sound pressure level is 77 dB(A), as measured at the level of the user's ear during operation with the cab closed.

The sound pressure level mainly depends on the tractor used.

Measuring device: NICETY SL801A.

#### 4.1.1. Safety symbol on the machine

You are the only guarantor of security. Correct application of the safety instructions will not only protect you but also protect your surroundings. Before using the machine, carefully read the instructions given in this manual and all the safety and instruction decals glued to the machine: consider them as an integral part of your safety program. Also study all the usual measures of protection in the work and do not forget:

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



#### **ETIQ-501**



Keep a safe distance from the machine during work. Risk of serious injury. Ensure that no-one is in the danger zone around the machine when the tractor engine is running.

#### **ETIQ-502**



Keep a safe distance from the machine when lowering it. Risk of serious injury. Ensure that no-one is under the machine when lowering it.

#### **ETIQ-503**



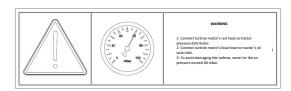
Beware of pinching. Risk of serious injury.

Do not touch the hazardous areas under any circumstances while the tractor engine is running and the universal joint shaft, hydraulic circuit or electronic system is operating.

#### **ETIQ-504**



Keep a safe distance from the rear of the tractor during manoeuvres. Risk of serious injury.



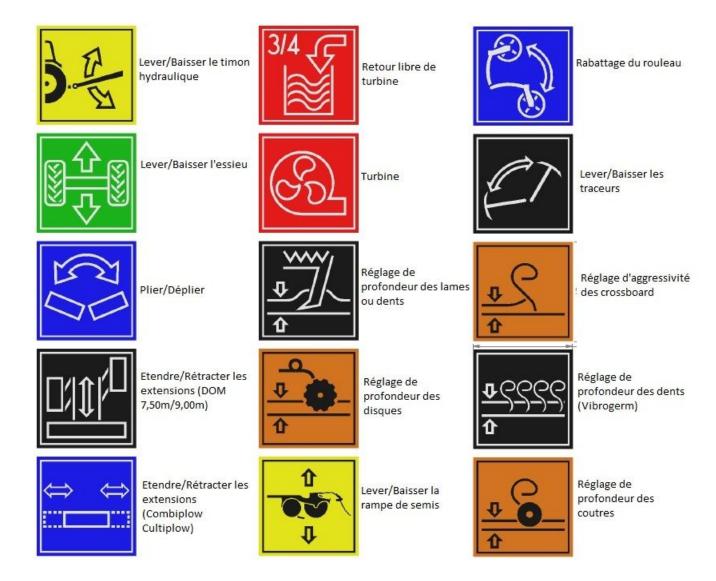
Warning: never exceed a maximum air pressure of 60 mbar as this may damage the turbine.

#### **ETIQ-908**



Read the maintenance book and safety instructions before starting up the machine and abide by them during operation.

Pictograms concerning the hydraulic functions available according to the options:



The following illustrations show the locations of the pictograms concerning the hydraulic functions on the flexible support of the drawbar :



	Code couleurs pour flexibles hydrauliques / Colors code of hydraulics tubes		
	Couleurs / Colors	Fonctions / Fonctions	
Plier/Déplier	Bleu / <i>Blue</i>	Repliage / Folding	
Lever/Baisser l'essieu	Vert / Green	Kit trainé / Trailed kit	
	Rouge / Red	Verrouillage / Latch	
Lever/Baisser le timon hydraulique	Jaune / Yellow	Timon / Drawbar	
	Noir / Black	Autres options / Other options	

# **Avertissement**

Risque d'infection provoqué par de l'huile hydraulique projetée sous haute pression.

Lors du Branchement et du débranchement des conduites du circuit hydraulique, veillez à ce que ce dernier ne soit pas sous pression aussi bien coté tracteur, que coté machine.

En cas de blessures provoquées par de l'huile hydraulique, consultez immédiatement un médecin.

# **6. TECHNICAL INSTRUCTIONS**

## 6.1. TURBOMULCH SETTINGS / USE

### 6.1 Technical characteristics

### => TURBOMULCH

	TSM TURBOMULCH
Working width (in meters)	8.5m
Tractor power maximum	KW Ch
Weight (variable according to equipment)	KG
Type of hitch tractor side	linkage



- 1. Three-point hitch frame
- 2. Hitch 3rd point higher
- 3. Hitches 3 points lower
- 5. AV signaling.
- 6. AR signaling.
- 7. Depth adjustment wheels
- 8. Chassis
- 9. Disks
- 10. Combs
- 11.

The TURBOMULCH consists of a central frame (1 Fig. 1), with a three-point hitch, which is attached to a harrow body. The machine only works if it is hitched to a tractor of appropriate power (see technical specifications for speci fi c power).

The TURBOMULCH Stubble Harrow is a machine intended to be used exclusively for agricultural jobs, for the preparation of soil on the plowing and crumbling of the ground. A single operator at the driving position on the tractor is able to carry out the planned operations. Any other use of the machine other than that described in this manual releases the Manufacturer AGRISEM INTERNATIONAL from any responsibility in the case of damage to people, animals ...

#### SECURITY:

The user must instruct the personnel on the risks of accidents, on the devices implemented for the safety of the operator, and on the general rules of prevention of accidents at work, provided for by the directives and by the legislation of the country. of use of the machine. It is therefore mandatory to read this manual very carefully and especially the safety instructions, paying a lot of attention to operations that are particularly dangerous.

AGRISEM INTERNATIONAL declines all responsibility following the non-observance of the safety and prevention instructions described in this manual.

#### 6.1.1. Safety standards and prevention:

Read all the safety and prevention instructions carefully before using the machine. If in doubt, contact the manufacturer directly. AGRISEM INTERNATIONAL declines all responsibility for non-observance of the safety and accident prevention instructions described in this manual.

- Never touch moving parts.
- Interventions and adjustments on the machine must be carried out with the tractor off and the ignition key removed and the parking brake applied.
- It is absolutely forbidden to transport people or animals on the machine.
- It is absolutely forbidden to use or drive the tractor, with the machine, by persons who have the appropriate license, who are inexperienced and who are not in good psychophysical health conditions.
- Observe all accident prevention measures recommended and described in this manual.
- The machine applied to the tractor can be controlled only by means of a cardan shaft equipped with safety devices, and protections fixed with the chains provided for this purpose. Pay attention to the rotating cardan shaft.
- Before starting the tractor and machine, check the integrity of all safety devices for transport and use.
- For road traffic, follow the road regulations in force in the country where the machine is used.
- Observe the maximum weight on the tractor axle.
- Before starting work learn how to use control devices and their functions.
- Put on appropriate clothes. Avoid wearing loose, fl oating clothes, scarves, necklaces, and ties that could get caught in rotating parts and moving parts. It is recommended to wear protective clothing, suitable gloves, anti-cut shoes if they are provided by the legislation in force in the country of use of the machine, or for use on particularly stony ground.
- The machine must be hitched, as expected, to a tractor of appropriate power.
- Be very careful when coupling and uncoupling the machine to the tractor.
- Any transport accessories must be provided with appropriate signs and protections.
- Never leave the driving position when the tractor is running.

When cornering, pay close attention to the centrifugal force exerted in a diff erent position of the center of gravity, with and without the machine carried.

- It is strictly forbidden to park in the radius of 50 meters around the machine, when there are moving parts.
- Before leaving the tractor, lower the machine attached to the tractor hitch, stop the engine, set the parking brake and remove the ignition key from the dashboard.
- It is absolutely forbidden to stand between the tractor and the machine when the engine is running.
- Before coupling or unhitching the machine from the three-point hitch, move the tilt control lever to the lock position.
- The category of the attachment axes of the machine must correspond to that of the hitch of the lift.
- Be careful when working near the lift arms, this is a very dangerous area.
- It is absolutely forbidden to stand between the tractor and the hitch of the machine to operate the control from outside for lifting.
- In the transport phase, secure the side lift arms with the chains and turnbuckles.
- In the road transport phase, with the machine raised, turn the tractor hydraulic lift control lever to the locked position.
- The prolonged use of the machine may cause the heating of the components of the hydraulic circuit as a secondary e ff ement, avoid touching these components during and immediately after use: Danger of burns.
- Do not carry out maintenance and cleaning without turning off the tractor and applying the parking brake and removing the ignition key.
- Regularly check the tightening and holding of the screws and nuts, possibly tightening them.
- During maintenance and replacement of tools with the machine raised, place suitable supports under the machine as a precaution.
- Before working on the cutting tools: disengage the PTO, turn off the tractor, set the parking brake and make sure the tools are secure.
- Respect the conformity of the oils.
- Spare parts must meet the requirements defined by the manufacturer. Use only original spare parts.
- The instructions for use must be kept for the duration of the machine.
- If the Country of Use of the machine provides noise abatement standards, these standards must be complied with by wearing the appropriate protections.
- Respect the laws in force in the country where the machine is used; regarding the use and disposal of products used for cleaning and maintenance of the machine, also observe the recommendations of the supplier of these products.
- In the event of dismantling of the machine, comply with the standards for the protection of the environment in force in the country of use.

Before starting work, check that the machine is in perfect condition, that the lubricating oils are at the correct level, and that all parts subject to wear and deterioration are perfectly ef fi cient. Also check that the guards are fitted correctly.



Adjustment and work preparation operations must always be carried out when the machine is switched off and locked..

#### 6.1.1.1 Hitch - Unhitching



Before the practical instructions of the hitch and the uncoupling of the machines, refer IMPERATIVELY to the safety instructions



During the coupling or uncoupling operation, no person shall stand within 50M of the machine

Before coupling or uncoupling the ACTIMULCH, it is important to ensure that:

- The tool is or will be on a stable ground and no one is present in a perimeter of 50M.
- The tractor's candles are adjusted to the same size
- The tractor tires are inflated to the same pressure
- The tractor is adapted to the tool that will be coupled and that it is weighted accordingly
- The tractor has the appropriate connections to the tool that will be hitched.
- When hitching, do not exceed:
- The permissible total weight of the tractor
- The permissible load capacities of the tractor tires.
- The authorized axle loads of the tractor

### Tractor requirements

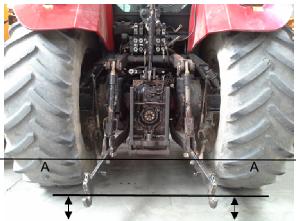


Check that the tractor meets the required requirements before hitching up the machine:

- Total weight allowed
- Permissible load capacities of tires



The tractor registration certificate informs you about the permissible values for the total weight, axle loads and load capacities of the tires.



#### Parallelism of the coupling arms:

- Adjust and lock the tractor lift tails to ensure the parallelism of the lower linkage arms to the ground.

The tractor must be equipped with lateral lift stabilizers



#### Lateral adjustment of the lower linkage arms:

- Distribute the clearance on both sides of the lift and lock the side stabilizers.

#### 6.1.2. Machine worn

- Hitching a machine carried:
- Make sure that the tractor has a proper con fi guration for the machine you need to use.
- Make sure that there are no objects, people or animals near the machine and that the PTO is disengaged.
- Make sure the position of the machine is stable and level and move the tractor towards the machine in reverse.
- Approach the tractor carefully and adjust the height of the lift arms to the height of the hitch pins. (cf figure: 20)
- Approach the lift bars by placing them inside the hitch pins and secure with the pins provided as equipment.
- Stop the tractor.
- Connect the push bar to the tractor and adjust it so that the machine is parallel to the ground. (cf figure: 21)
- Lock the lift arms with the provided chains and parallel turnbuckles on the tractor. This adjustment must be made to avoid any transverse movement of the machine.
- Connect the cardan shaft to the tractor's PTO (see figure 22) and check that it is fully locked and in position. Check that the guard rotates freely. Secure the protection with the chain. Remove the support from the cardan shaft (4 Fig. 1), fi xing it in the hook provided.



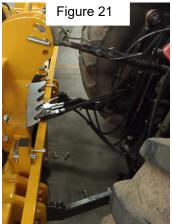


Figure 22



#### · Unhitching a mounted machine

To park the machine and unhitch it from the tractor the operator must:

- Check and make sure that no one is parked or transits in the area where the machine will be parked.
- Check and make sure that the parking area of the machine is appropriate, flat and smooth
- Approach the area where he wants to unhitch the machine
- Braking the tractor
- Fully lower the machine on the floor
- Stop the tractor and apply the parking brake and remove the ignition key.
- With the tractor turned off and the components completely immobile, operate the control levers of the hydraulic system to relieve the pressure of the pipes; this will allow you to reconnect the quick-connect fittings with greater ease
- Disconnect the quick-connect couplings
- Remove the PTO shaft from the PTO and install it on the provided caliper
- catch the tie from the third point
- Detach the lift arms
- Start the tractor and move away

It is important that the parking place of the machine is:

- Dry
- Sheltered from atmospheric agents
- Guarded or closed, to prevent access to the machine by animals, children or persons who have not been trained to use it.

If a long period of inactivity is expected, lubricate the wear parts and store the machine in a sheltered and dry place, covering it with a plastic tarpaulin. At the time of returning to work we will have a machine in ideal operating conditions.

Stopping the machine

At the end of the work the operator must:

- Disengage the tractor PTO
- Place the machine on the floor
- Stop the tractor and apply the parking brake
- Make sure that all working parts of the machine are stopped and in the rest position The operator may leave the tractor only after having carried out the operations described above.



The working depth of TURBOMULCH is hydraulically



Adjusting the inclination of the harrows

- The nature of the soil (medium, sandy, clay, etc.)
- The depth of work
- The speed of the tractor

L the speed of the tractor with the machine at work must not exceed a speed:

from 10 to 18km / h to avoid breaks or other damage.



In the work phase, rollers and combs may lift pebbles or other blunt bodies. Constantly check that there are no people, children or pets within the range of the machine.



When the machine is running, no one should stand within 50M of the machine.

# 6.1.4. Operating Tips

Insufficient depth:

Review the depth setting.
Move forward more slowly, the power of the tractor might be insufficient.

If the terrain is too hard, proceed with other passages.

Excessive loosening of the ground.

Increase the speed of travel of the tractor.
Insufficient filling of the ground

Reduce the speed of advancement.

- Do not work the ground too wet.
   Jam of the combs

- Land too wet to work.

- Raise the leveling bar
  Reduce the speed of advancement.
  Avoid working in the presence of very tall grass.
  The machine jumps on the ground or vibrates

- Foreign bodies blocked between the knives.
  Knives not mounted correctly, without the provision provided.
- Knives worn or broken.
- Deformation of knives due to shocks during work by pebbles or particularly hard terrain.

# 6.1.5. Discs or Harrow Combs TURBOMULCH



#### TIGHTENING TORQUES Nm

Cl.	6.6	8.8	10.9	12.9
M8x1	15	26	36	44
M10x1,25	30	52	74	88
M12x1,25	51	91	127	153
M14x1,5	81	143	201	241
M16x1,5	120	214	301	361
M18x1,5	173	308	433	520
M20x1,5	242	431	606	727
M22x1,5	321	571	803	964
M24x2	411	731	1028	1234

242	ISO 272		Classe de qualité boulonnerie acier ISO898-1													
	<b>3</b> ‡	•I	(5	,6	(5	.8	(6,	8	8,	8	(9	,8)	(1	0,9	(12,	9
d mm	ISO mm	mm	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	324 763	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

Figure 3: from the tightening guide, control

# 6.1.6. Lubricants

- ACTIMULCH 4 meters ...... 28 liters
- For the multiplier group we recommend: SAE 85W / 140 oil, specification API-GL5 / MIL-L-2105C ...... 7.5 liters
- For all greasing points we recommend: LITHIUM GREASE
- The gimbal must be greased every 20 hours of work.Oil levels should be checked every 100 hours of use.

It is necessary to drain the oil from the box once a year, or every 500 hours of work

#### Commissioning

This chapter contains information concerning

- · commissioning of your machine
- how to check whether the machine is to be carried by the tractor or hitched to it.
- Before putting the machine into operation, the user must have read and understood the operating instructions.
- Read the chapter "Settings and use", starting on page 33 concerning
- o coupling and unhitching the machine
- o the transport of the machine
- o the use of the machine
- Only hitch and move the machine with a suitable tractor.
- The tractor and the machine must comply with the rules of the highway code in force in your country.
- The owner of the vehicle (operator) and the driver (user) are responsible for complying with the rules of the highway code in force in their country.





Danger of crushing, shearing, cutting, binding and seizing in the area of hydraulically or electrically controlled components.

Do not block the controls on the tractor when they are used to control elements, eg hydraulically or electrically, directly. folding / deploying, pivoting and sliding process. The corresponding movement must be interrupted automatically when the associated control member is released. This does not apply to movements of devices that

- operate continuously.
- · are regulated automatically or
  - must have a floating position or a pressure position depending on the circumstances



#### Warning

Risk of breakage during operation, insufficient stability under load, as well as insufficient maneuverability and braking power of the tractor in case of non-compliant implementation of the latter.

- Check that the tractor meets the required requirements before setting up or hitching the machine. The machine must only be carried by a tractor or coupled to a tractor if it meets the required requirements.
- Perform a braking test to verify that the tractor can provide the deceleration power even with the mounted / hitched machine.

The requirements for the tractor relate in particular to:

- the total weight allowed
- permissible axle loads
- the permissible support load at the point of coupling of the tractor
- the permissible load capacities of the tires fitted
- a sufficient authorized coupling load. These information can be found on the rating plate or on the vehicle registration card and in the tractor operating instructions.

The front axle of the tractor must always support at least 20% of the empty weight of the tractor.

The tractor shall provide the deceleration (braking) power specified by the manufacturer, also with the mounted or coupled machine.

Calculation of the actual values of the total weight of the tractor, the axle load of the tractor and the load capacity of the tires, as well as the minimum required ballasting



The total authorized weight of the tractor indicated on the vehicle registration certificate must be greater than the sum:

- the empty weight of the tractor,
- ballast and
- the total weight of the mounted machine or the load of the coupled machine.



#### This directive only applies to Germany:

In case of non-compliance with the axle loads and / or the total permissible weight after all the possibilities have been exhausted, the competent authority according to the law of the Land may issue, on the basis of the report of an approved expert in the field of the motor vehicle traffic and with the agreement of the manufacturer, a derogation in accordance with Article 70 of the German Law on Entry to Traffic (StVZO), as well as the compulsory authorization pursuant to Article 29 3 of the German Highway Code (StVO).

#### 7. SERVICING - MAINTENANCE

Comply with the safety instructions regarding servicing and maintenance. Your machine has been designed and built for maximum yield, profitability and comfort under many different usage conditions. Your machine has been checked at the factory and by your dealer before its delivery to ensure that you receive a machine in perfect condition. To maintain it in good working condition, it is important that servicing and maintenance operations are performed at the recommended frequency.

In order to ensure that your machine always operates correctly and to obtain an optimum performance, you must clean and maintain it at regular intervals. The hydraulic components and bearings must not be cleaned with a high-pressure washer or directly hosed down. The units, screwed connectors and bearings are not watertight to VERY high pressure cleaning.

	i. Servicing frequency	
	ii. Storage	
iii.	. Cleaning	
iv.	. Lubrication	

#### Lubricating the machine:

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

This keeps the machine in good working order and reduces the costs of repairs and downtime.

#### Hygiene:

Using lubricants and mineral products in line with the recommendations does not present any health risks. However, avoid prolonged contact with the skin or inhaling the vapours.

Handling lubricants

#### **WARNING:**

Protect yourself from direct contact with oils by wearing gloves or protective cream.

Carefully wash all traces of oil off your skin with soap and hot water. Do not clean your skin with petrol, diesel or other detergent products.

Oil is toxic. If you swallow oil, consult a doctor immediately.

- Keep lubricants out of reach of children.
- Never store lubricants in open containers or containers that are not labelled.
- Avoid your skin coming into contact with clothes that are soaked in oil. Change clothes when they are dirty.
- Do not keep cleaning cloths impregnated with oil in your pockets.
- Dispose of shoes impregnated with oil as dangerous waste.
- If oil splashes in your eyes, rinse with clean water and consult a doctor.
- Soak up spilt oil with a binder product and dispose of it.
- Never extinguish fires caused by oil with water. Only use authorised, appropriate extinguishing products and wear breathing apparatus.
- Waste polluted by oil and used oil must be disposed of in line with current regulations.

Lubricate / grease the machine at the stated frequency.

Carefully clean the lubrication points and the grease pump before lubrication to avoid any dirt getting into the bearings. Drain contaminated grease out of the bearings and replace with new grease!

#### v. Greasing

The cage rollers are attached using two self-aligning bearings with greasers.

To ensure that the self-alignment operates correctly, the bearings must be greased at the start of each new season and then regularly throughout the season.

Use lithium grease reinforced with molybdenum disulphide / Grade NLG12. AGRISEM INTERNATIONAL may not be held liable if another type of grease is used.

#### vi. Maintenance

#### - Hydraulic maintenance

Risk of infection caused by the oil in the hydraulic circuit penetrating the skin under high pressure.

- Operations on the hydraulic circuit must only be performed by a specialised workshop.
- Depressurise the hydraulic circuit completely before carrying out any operations on it.
- Only use appropriate tools to look for leaks.
- Under no circumstances must you try to plug a leak in the hydraulic hoses with your hand or fingers.
- Liquid leaking under high pressure (hydraulic oil) can penetrate the skin and cause serious injury.
- In the event of an injury caused by hydraulic oil, consult a doctor immediately. Risk of infection.
- When connecting hydraulic hoses to the tractor's hydraulic circuit, ensure that the hydraulic circuits on the tractor and machine are not under pressure.
- Check that the hydraulic hoses are correctly connected.
- Regularly check that the hydraulic hoses and connections are in good condition and are clean.
- Have the hydraulic hoses checked by a specialist at least once a year to ensure that they are in good condition.
- Replace damaged or worn hydraulic hoses.
- Only use genuine AGRISEM hydraulic hoses.
- Hydraulic hoses must not be used for more than six years, including a possible storage time of
  two years maximum. Even under appropriate storage and usage conditions in line with
  permissible stresses, it is completely normal for hoses and connectors to age, which is why
  they have a limited storage time and service life. Nevertheless, the duration of use can be
  established in line with empirical values, in particular taking potential risks into account. Other
  reference values can be taken into consideration for thermoplastic hoses and pipes.
- Dispose of used oil in accordance with current regulations. If this poses a problem, contact your oil supplier.
- Keep hydraulic oil out of reach of children.
- Ensure that you do not contaminate the soil or water with hydraulic oil.

# After 10 hours of service, and then every 50 hours of service

- 1. Check that all of the hydraulic circuit's components are sealed.
- 2. If necessary, tighten screwed connectors.

#### Before each start-up

- 1. Visually check the hydraulic hoses for faults.
- 2. Remove any friction points on hydraulic hoses and tubes.

3. Replace damaged or worn hydraulic hoses immediately.

Inspection criteria for hydraulic hoses.

For your own safety, comply with the following inspection criteria.

Replace the hydraulic hoses if you notice any of the following when examining them:

- Deterioration of the outer layer down to the lining (e.g. friction points, cuts, splits).
- Embrittlement of the outer layer (formation of cracks on the outer layer).
- Distortions which do not correspond to the natural shape of the hose or pipe, whether or not they are under pressure or bent (e.g. separation of the layers, bulges, crushed areas, bending).
- Areas that are leaking.
- Damaging or distortion of the end fitting (affecting its leaktightness). Slight superficial damage does not warrant replacement.
- Hose becoming detached from the end fitting.
- Corroded end fitting leading to reduced solidity and function.
- Non-compliance with mounting specifications.
- Exceeding of the 6-year usage period. The following information is vital: the date of manufacture of the hydraulic hose marked on the end fitting, to which you must add 6 years. If the date of manufacture indicated on the connector is "2004" the usage period will end in February 2010. See the "Marking of hydraulic hoses" section for further information.

Fitting and removing hydraulic hoses

When fitting and removing hydraulic hoses, the following instructions must be strictly adhered to:

- Only use genuine AGRISEM hydraulic hoses.
- Pay particular attention to cleanliness.
- You should always fit hydraulic hoses so that in all operating conditions,
  - ✓ They are not subject to traction, apart from that caused by their own weight.
  - ✓ No short lengths are flattened.
  - ✓ There are no external mechanical stresses on the hydraulic hoses.
  - ✓ Avoid hoses rubbing against parts of the machine or against each other by arranging and attaching them correctly. Protect hydraulic hoses with protective sheaths if necessary. Cover parts with sharp edges.
  - ✓ The authorised bending radii must not be exceeded.
- If hydraulic hoses are connected to moving parts, measure the length of the hose to ensure that the total range of movement is no less than the smallest authorised bending radius and/or that the hose is not subject to traction.
- Attach hydraulic hoses at the places intended for this purpose. Avoid mountings that may hinder the natural movement of the hose and modifications to its length.
- Hydraulic hoses must not be painted.

#### Wear ring maintenance:

Some joints on AGRISEM tools have wear rings. These must be changed at the first sign of lateral play.

#### Tyre maintenance:

The tyres must always be inflated to a pressure appropriate to their use. The pressure may need to be changed when moving between the road and the field. The average pressure of all Flexi-Pack tyres is 2.5 bars.

#### vii. Disks

⇒ The disks must be replaced as soon as their diameters reach the values given below.

AGRISEM INTERNATIONAL cannot be held liable if the DISC-O-SEM is used with disks presenting greater wear than that specified above.

# **Hubs of discs:**



When wintering, if the machine is stored outside, it is important to put the machine in working position. That is to say unfold. This is to prevent water stored by the weather-related disc from entering the hubs during storage time. This will irreparably damage the bearing of the hub and therefore its longevity. The warranty will not apply if traces of water or moisture are found during the assessment as part of a claim.

#### viii. Lighting system

Always check that your lighting system is in full working order, clean and operational before driving on the road.



Never set out on the public highway if one of these elements is not in good condition.

#### Replacing bulbs:

- 1. Unscrew the protective glass.
- 2. Remove the faulty bulb.
- 3. Fit the replacement bulb (ensure that the voltage and amperage are correct).
- 4. Refit the protective glass and screw on.



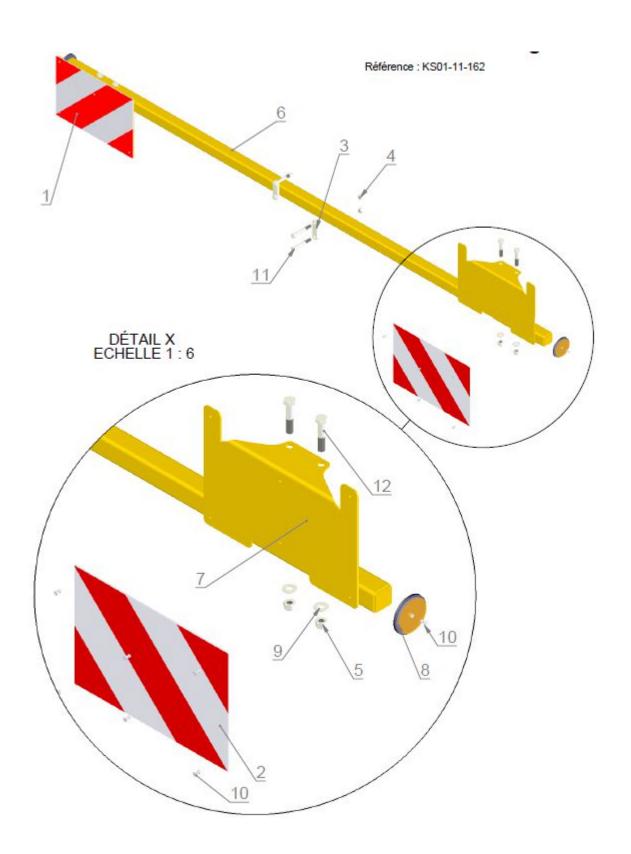
# THE LIGHTING IS REMOVABLE AND MUST BE REMOVED BEFORE WORKING

The lighting board must be removed when using the DISC-O-MULCH in the field.

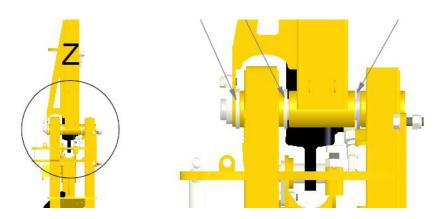
As the lighting board is designed solely for transport, AGRISEM INTERNATIONAL cannot be held liable if the lighting board breaks due to being used during work.

Using the DISC-O-MULCH correctly ensures that work on crops takes place safely under optimum conditions. It is up to the user to decide on and take full responsibility for the risks linked to the incorrect or inappropriate use of the DISC-O-MULCH.

AGRISEM INTERNATIONAL cannot be held liable under any circumstances for soil damage or a result that does not meet the user's expectations if the use and safety instructions have not been complied with.



# ix. Cleaning the folding areas:



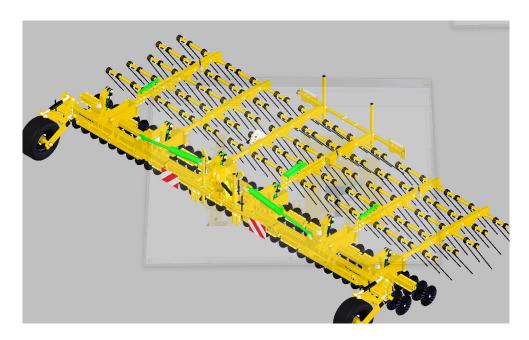
Before each folding of the machine, it is imperative to clean the folding areas as shown. Accumulation of soil, stones or other obstacles can cause damage to the machine.

Failure to comply with this recommendation will void the warranty.

#### x. Checking the hydraulic system (Clamping and sealing):

Check the tightness of all components of the hydraulic system.

If necessary, tighten the screwed connections.



#### 7.1.11. Checking the tightness of the wheels:

Refer to the enclosed axle supplier's manual

#### 7.1.12. Complete diagnosis of the machine:

Performed all the operations of the getting started section

Perform all the maintenance operations to be performed before each use

#### 7.1.13. Clean the earth on the machine:

Clean the soil on the machine with a pressure washer

When using a high-pressure cleaner or steam cleaner, it is imperative to observe the following points:

- Do not clean the electrical and hydraulic components.
- Never point the nozzle jet from the pressure washer or steam cleaner directly to the lubrication points and bearings.
- Always keep a distance between the nozzle and the machine.

Follow the rules for using high pressure cleaners.

The machine must be greased regularly and after each cleaning under pressure.

Grease the joints with grease nipples:

The greasing points are marked with the pictogram opposite



The machine must be greased regularly and after each cleaning under pressure.

This keeps an operational machine and reduces repair costs and downtime.





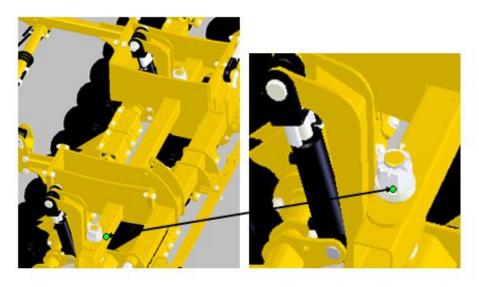
The machine must be greased regularly and after each cleaning under pressure. This keeps an operational machine and reduces repair costs and downtime.

# 7.1.11. Replacement of hydraulic hoses:

After replacing all hoses on the machine, carry out the operation "Checking the hydraulic system (Tightening and sealing)

# 7.1.12. Rings of wear:

On the AGRISEM tools, some joints have wear rings. These must be changed as soon as there is any lateral play.

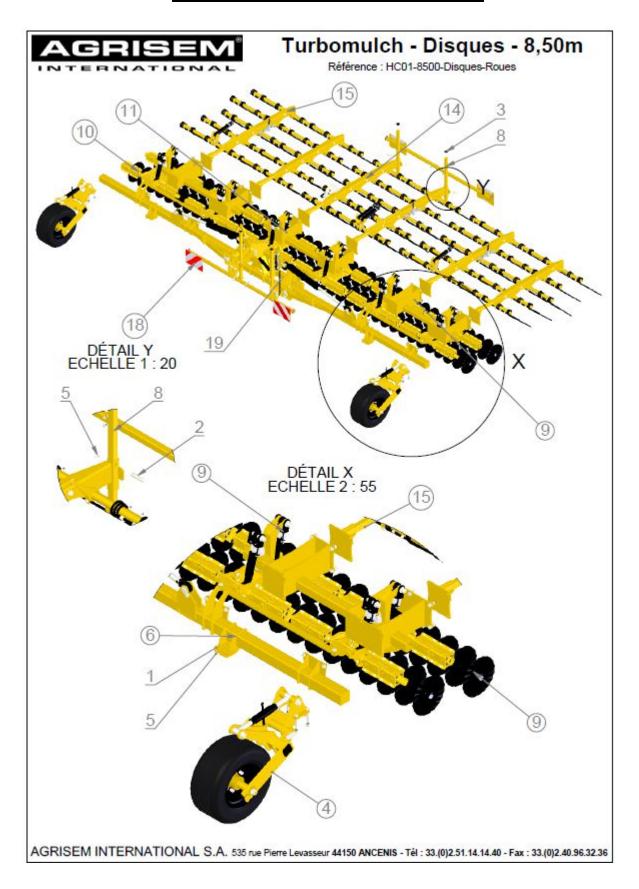


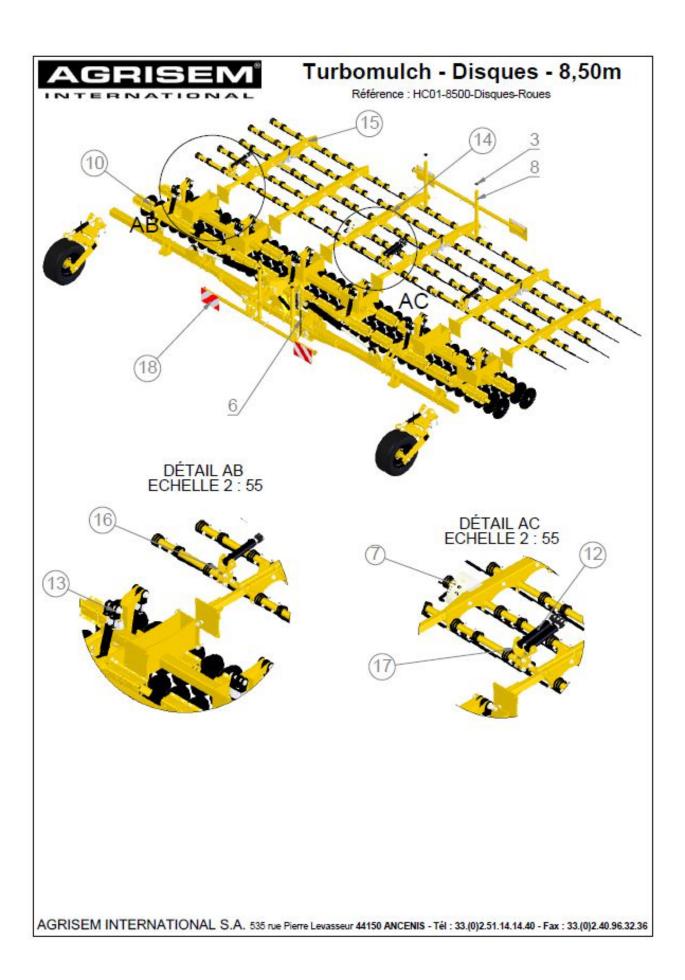
# 7.1.11. Tire pressure

The tire pressure must respect the value range below:

Système	Pressure Middle	Pressure maximum
front mug axle	2,5 bar	4,1 bar

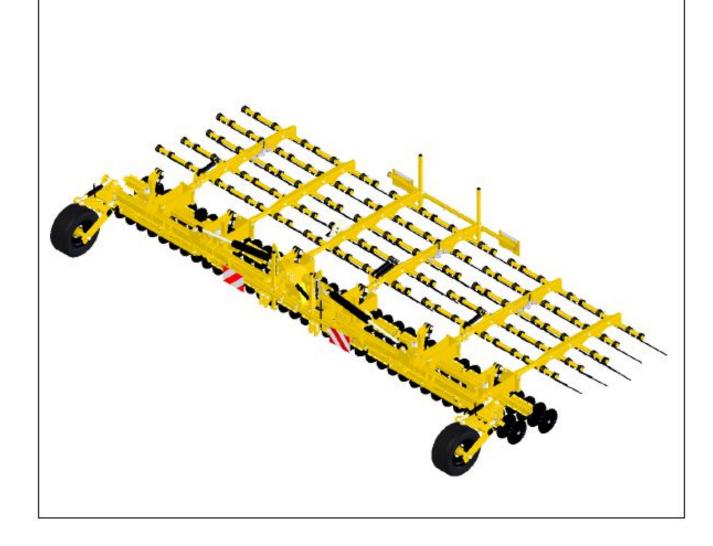
# ii. Nomenclature of the machine:





# Turbomulch - Disques - 8,50m Référence : HC01-8500-Disques-Roues

					Poids: 5073.25 Kg		
Rep	Référence	Désignation	Qté	Poids	Observation		
1	19-052	Axe d'attelage Ø19 x 52	4	0.19			
2	25-075	Axe d'attelage Ø25 x 75	2	0.41			
3	CT50505	Cache tube 50x50x5	2	0.02			
4	DOM43-05-004	Kit roue stabilisatrice simple fixation sur platine	2	191			
5	GC-10	Goupille Clips Ø10	6	0.05			
6	HC01-01-001	Kit châssis repliable pour 8,50m	1	771.87			
7	HC01-02-001	Kit echelle graduée inclinaison dents	1	3.19			
8	HC01-07-501	Béquille	2	7.34			
9	HC01-10-001	Kit disque pour extension gauche 8,50m	1	921.94			
10	HC01-10-002	Kit disque pour extension droite 8,50m	1	906.85			
11	HC01-10-003	Kit disque base centrale	1	845.86			
12	HC01-20-002	Kit hydraulique réglage inclinaison herse	1	34.56			
13	HC01-20-003	Kit hydraulique réglage profondeur des disques	1	83.82			
14	HC01-35-001	Kit herse base centrale	1	320.75			
15	HC01-35-002	Kit herse extension pour 8,50m	2	359.01			
16	HC01-35-003	Support vérin réglage herse	2	6.46			
17	HC01-35-015	Support deux vérins pour réglage herse	1	6.82			
18	KS01-11-162	Kit signalisation av/ar pour herse à chaume - sans éclairage	2	23.94			
19	LEV-PM	Levier	1	0.70			





WAR	RANTY	CLAIM F	ORM N	0		
Dealer's name :					Dealer'	s stamp
File followed by :	-			-		
Date of purchase of the machine :			N° Invoice	e AGRISEN	M	
Customer's name and addre	ess:					
Delivery date : (join a copy of	f invoice and deal	ler's delivery note)		Are	a of farm:	
Serial Number of the n Description of the equipmen combination (make and type Type of tractor used : Model of tractor :	nt		H	orse Power	Working wide	h:
Detailed description and presumed causes of incident : Date of problem : Reference of Defective part	Quantity	Désignation	Date present :	Price List	Coef SAV	TOTAL (€)
	VES	Parts retur	ned:		VEC	
Pictures attached:	YES	Freight costs paid	by the sender		YES	
RESULT OF A		eplacement of defective par				ATION
Comments :					i N	
Date: The after-sales service to yoann.jaunasse@agriser				Signa	ture :	

AGRISEM INTERNATIONAL - 535 Rue Pierre Levasseur CS 60263 - 44158 ANCENIS CEDEX - Tél : 02 51 14 14 40 - Fax : 02 40 96 32 36