WIZARD

• VACUUM PRECISON PLANTERS •

WZ-D
WZ-DS

USE AND MAINTENANCE HANDBOOK

IMPORTANT INFORMATION

The planter comes without oil and fuel.

Please read carefully the manual instructions, safety advice and warnings.
The majority of accidents with the machine is due to the non-respect of the basic safety regulations.
It is possible to avoid accidents by identifying in time potential hazardous situations and following appropriate safety regulations.
Essential safety regulations are listed in the section “SAFETY REGULATIONS” and in the section “MACHINE USE”.
Do not use the machine in an inappropriate way but only as suggested by the **manufacturing company**.
The **manufacturing company** reserves the right to update the technical information of this manual without notice.

1. INTRODUCTION

1.1. PURPOSE OF THE USE AND MAINTENANCE HANDBOOK

This user handbook (or just handbook) provides the user with useful information to appropriately and safely work. What follows must not be considered as a long and onerous list of warnings, but as a set of instructions to improve the machine performances and prevent damages to people, objects or animals that can result from wrong procedures.

Every person responsible for the transport, setup, start-up, use, maintenance, reparation and disposal of the machine must carefully read the handbook before doing any operation in order to prevent wrong and inconvenient maneuvers that might affect the machine integrity or might be hazardous for people.

If after reading this manual you still have doubts or uncertainties concerning the machine use, please contact the Manufacturer without any hesitation. The Manufacturing Company is available to assure an immediate and accurate attendance for the better functioning and maximum efficiency of the machine.
Finally, it is important to remind that during all working phases the current regulations on safety, workplace hygiene and environmental conservation must be fully respected. It is therefore the User's responsibility to check that the machine is operated under optimum safety conditions for people and objects as well.
This handbook is to be considered an integral part of the machine and together with the Conformity Declaration must be stored in a safe place and must accompany the machine if it is resold or until it is demolished.
This handbook has been edited according to the regulations in effect at the time of its printing.
The Manufacturing company reserves the right to change the equipment without promptly updating this publication. In case of objection the valid reference text remains the Italian one.
Some images of this handbook show details or accessories that might be different from those of your machine. Parts or protections might have been removed to ensure clarity of representations.
Instructions, drawings and documents contained in the manual are property of the company and remain strictly confidential. They may not be reproduced in any way, neither in whole nor partially.

1.2. HOW TO READ THE HANDBOOK

This handbook is subdivided in autonomous chapters and each of them addresses to a different operator (INSTALLER, CONDUCTOR AND MAINTEINER) for whom have been defined the necessary abilities to safely work on the machine.
The order of the chapters corresponds to the temporal logic of the machine life.
For a better understanding of the text you can find terms, abbreviations and pictograms, whose significance is explained in the paragraph 1.5.
The handbook is made of a cover, a table of contents and a series of chapters.
In the initial page are indicated the identification data, the model and a photo/drawing of the machine described to facilitate the reader in its identification and the related handbook.

1.3. HANDBOOK CONSERVATION

The handbook must be stored with care and must accompany the machine at all stages of property that the same may have in its life. The handbook must be handled with care, with clean hands and it must not be placed on dirty surfaces. Parts of the handbook must not be removed, torn off or arbitrarily modified.
The handbook must be stored in a dry place and/or near the machine it refers to.
The Manufacturer, at the User’s request, can provide him with more copies of the handbook.

1.4. HANDBOOK UPDATING

Information, descriptions and illustrations in this handbook reflect the state of the machine at the moment of its commercialization.
The Manufacturer reserves the right to make changes, at any time, to the machine for technical or commercial reasons. These alterations do no obligate the Manufacturer to intervene on commercial vehicles sold up to that moment nor to consider this handbook an inadequate publication.
Possible additions the Manufacturer considers necessary to make in the future will have to be preserved together with the handbook and considered an integral part of it.
It is the User's responsibility to substitute in all copies the old chapters, the initial page and the table of contents with the new ones, following the directions that come together with the updated documentation.
The Manufacturer is responsible for the Italian descriptions; translations cannot be completely verified, so if there is an incongruity you must pay attention to the Italian version and eventually contact the business office that will edit the text.

1.5. GLOSSARY AND PICTOGRAMS

This section lists those terms which are not common or have a different meaning from the ordinary usage. It also includes the abbreviations used in the handbook and the pictograms significance to help identifying the Operator and the machine state. By using them it is possible to give quickly and in an unequivocal way all the necessary information for using the machine correctly and safely.

1.5.1. GLOSSARY

The following defines the main terms used in the handbook. It is recommended to carefully read it before using the handbook.

• **OPERATER:** The person (people) responsible for the setup, the running, the adjustment, the maintenance, the cleaning, the fixing and the transport of the machine;
• **HAZARD:** a potential source of injury or damage to health;
• **HAZARDOUS AREA:** any area within and/or near the machine in which an exposed person is subject to a risk to his health or safety;
• **HAZARDOUS SITUATION:** any situation in which the User is subject to one or more dangers;
• **RISK:** the combination of probability and the degree of injuries or damages to health that can arise in a hazardous situation;
• **PROTECTION:** safety measures that consist in the use of specific technical devices (Guards and safety devices) to protect Operators from hazards;
• **GUARD:** part of the machine specifically used to protect people with a physical barrier; according to its construction it can be called earphone, cover, screen, door, fence, separation, etc.;
• **EXPOSED PERSON:** any person that is integrally or partially in a hazardous area;
• **USER:** User is the person, the organization or the Company that bought or rented the machine and wants to use it for the intended purposes;
• **QUALIFIED PERSONNEL:** it comprehends people specifically trained and authorized to perform maintenance or fixing operations that require the knowledge of the machine, of its functioning, securities, ways of intervening. They are also able to recognize the machine hazards and avoid them;
• **TRAINED PERSONNEL:** Operators that have been informed and educated about the related tasks and hazards;
• **RESIDUAL RISK:** risk that is not possible to eliminate or sufficiently reduce through planning and against which protections are not (not completely) efficient;
• **AUTHORIZED SERVICE CENTRE:** The authorized Service Center is the structure legally authorized by the Company. The center has the qualified and trained personnel to realize all the operations, even complex, of assistance, maintenance and fixing that are necessary for keeping the machine in perfect order.

1.5.2 PICTOGRAMS

The descriptions preceded by this symbol contain very important information/prescriptions, especially in regards to safety.
Non-observance of the information can result in:
- risks for the Operators' safety;
- loss of the contractual warranty;
- Manufacturer's release from liability.

In *Table 1* are listed the PPE (Personal Protective Equipment) to be used during the phases of life of the machine (in every phase there is an obligation to use and/or to put at the disposal the PPE).
The identification and choice of the adequate and suitable type of PPE is Customer's responsibility.

Phase	Protective clothes	Safety footwear	Gloves	Glasses	Ear protectors	Mask	Helmet
Transport	○	◉	○	○	○	○	○
Movement	●	●	●	○	○	○	●
Unpacking	●	●	●	○	○	○	○
Assembly	●	●	●	○	○	○	○
Ordinary use	●	●	●	○	●	●	○
Adjustments	●	●	●	◉	●	○	○
Cleaning	●	●	●	◉	○	●	◉
Maintenance	●	●	●	○	○	○	●
Disassembly	●	●	●	○	○	○	◉
Demolition	●	●	●	○	○	○	◉

Table 1

○ = PPE not expected ● = PPE expected ◉ = PPE at disposal or to be used if necessary

The **PPE** used must be marked CE and meet the Directive (EU) 2016/425 of the European Parliament and Council of 9 March 2016.
Descriptions of the machine life phases (used in Table 1) are listed below:
• Transport: it consists in the machine transfer from a place to another by a proper mean of transport.
• Movement: the machine transfer from and on the mean of transport used.
• Unpacking: it consists in the removal of all materials used for packing the machine.
• Assembly: all the assembling operations that prepare the machine setting-up.
• Ordinary use: the use for which the machine is intended (or is considered usual) in relation to its planning, construction and function.
• Adjustments: the adjustment, setting-up and calibration of all devices that must be adapted to the normally expected operating condition.
• Cleaning: it consists in the removal of dust, oil and working residuals that might compromise the correct functioning of the machine and the health/safety of the Operator as well.
• Maintenance: it consists in the periodic inspection of the machine parts that can wear out or must be replaced.
• Disassembly: it consists in the complete or partial machinery disassembly for any reason.
• Demolition: it consists in the final removal of all the machine parts that result from the definitive dismantling. In this way it is possible to permit the eventual recycling or the separate collection of the constituents in accordance with the procedures established by current regulations.

WARNING: It is forbidden to wear protective gloves that can get caught on the machine moving parts.

1.6. RESPONSIBILITY

The Company declines all direct and indirect responsibility in case of:

- Improper use of the machine for unexpected activities;
- Use by a non-authorized or non-qualified Operator;
- Serious deficiencies in the planned maintenance;
- Non-authorized modifications or interventions;
- Use of non-specific or non-original spare parts;
- Total or partial failure to comply with the handbook instructions;
- Failure to comply with safety regulations of the handbook;
- Non-application of regulations on safety, workplace hygiene and health.
- Unpredictable exceptional events.

The machine is intended for a professional and non-generalized use. Therefore, its usage has to be committed to qualified people that:

- Have reached the legal age;
- Are physically and psychologically qualified to deal with such machine;
- Have been adequately trained on the use and maintenance of the machine;
- Have been considered qualified to work by the Employer;
- Are capable of understanding and interpreting the Operator's handbook and safety directions;
- Know how to activate emergency procedures;
- Are able to activate the specific type of machine;
- Are familiar with specific regulations;
- Have understood the operating procedures defined by the Manufacturer;
- The Operator is responsible for the examination of the machine working, the replacement and the fixing of those parts subject to wear out that might cause damages;
- The Customer has to educate the workers on the risks of accidents, the devices arranged for the Operator's safety and health, the risks related to exposure to noise and the general rules for accident-prevention envisaged by the international directives and by the norms of the country to which the machine is sent.
- The machine must be used only by qualified Operators that must strictly respect the technical and accident-prevention instructions;
- The specific pictograms have been put in the machine and the Operator must ensure that they are kept in perfect state and are replaced when illegible as requested by the EC regulations;
- It is User's responsibility to verify that the machine is used only in optimum safety conditions for people, animals and objects;
- Any arbitrary change to the machine relieves the Manufacturer of any responsibility for damages to objects or injuries to Operators or third parties;

The Manufacturing Company declines all responsibilities for possible inaccuracies of the handbook, due to printing, translating or transcription mistakes. Possible additions to the handbook the Manufacturer considers necessary to send to the Customer will have to be preserved together with the handbook and considered an integral part of it.

1.7. WARRANTY

The warranty against any defect of the materials is valid one year from the delivery date of the machine.
Verify on delivery that the machine has not been damaged during the transport and that the accessories are integral and complete.
ANY CLAIMS MUST BE MADE IN WRITING WITHIN 8 DAYS FROM RECEPTION AT THE CONCESSIONAIRE'S.
The Buyer can assert his rights on warranty only when he has respected the conditions of warranty that can be found in the supply contract.

The warranty is limited to the repair or replacement of the faulty piece, damages to people or objects are not included. The retailers and the users are not entitled to any indemnification from the Manufacturer for any damages (costs for labor, transport, defective job, direct or indirect incidents, no profit on harvests, etc.).

1.7.1. WARRANTY DECLINE

Beside what is written in the supply contract the warranty declines:

- In case the limits referred to in the technical data table are exceeded;
- In case the instructions described in this handbook have not been followed carefully;
- In case of wrong use, faulty maintenance or other mistakes made by the customer;
- In case of modifications without the Manufacturer's written authorization and in case of non original spare parts use;
- The use of spare parts not approved by the Manufacturer invalidates every guarantee and releases the Manufacturer or the Retailer from every liability due to malfunctioning or incidents.

However, the Manufacturing Company is available to assure an immediate and accurate technical attendance and all that can be necessary for a better functioning and maximum performance of the equipment.

2. GENERAL INFORMATION

2.1. MANUFACTURER'S IDENTIFICATION DATA

MANUFACTURER
WIZARD S.r.l.

LEGAL OFFICE
Via delle Industrie 19 - 33098
Valvasone (PN) – ITALY

CONTACTS
Tel.: 0039 0434 871461
Fax.: 0039 0434 870351
e-mail: info@wizardagroind.eu

2.2. IDENTIFICATION DATA AND PLATE OF THE MACHINE

MODEL
WZ-D

SERIAL NUMBER
WZ-Dxx-xxxxx-xx

SERIES
xxxxx

WEIGHT
xx Kg

YEAR OF MANUFACTURE
20xx

Picture 1

Every single machine is equipped with an identification plate (Pic. 1), containing the following data:
1) CE mark;
2) Manufacturer's mark and address;
3) Machine model;
4) Machine serial number;
5) Machine series;
6) Total Weight… kg;
7) Year of manufacture.
It is recommended to write in the following matriculation the date of purchase (8) and the Concessionaire's name (9).

8) _____
9) _____
These data must be announced for any necessity either for assistance or spare parts.

WARNING

Do not remove, violate or make illegible the machine "CE" mark.
Refer to the data contained in the "CE" mark for eventual relations with the Manufacturer (for instance: to request spare parts, etc.).
In demolishing the planter the "CE" mark must be destroyed.

The plate position on the planter can vary from machine to machine.

2.3. DECLARATIONS

CE DECLARATION OF CONFORMITY

(Enclosure II A DIR. 2006/42/EC)

THE MANUFACTURER

WIZARD S.r.l.		
Company		
via Delle Industrie 19	33098	PN
Address	*Postcode*	*Province*
Valvasone Arzene		ITALY
City		*State*

DECLARES THAT THE MACHINE

PNEUMATIC PLANTER	WZ-D-xxx
Machine	*Model*
WZ-D-xxx-xxxxx-xx	20xx
Serial number	*Year of manufacture*
Self-propelled pneumatic planter	xxx
Commercial name	*Series*
Planting	
Expected use	

IS FULLY IN CONFORMITY WITH

Directive 2006/42/EC of the European Parliament and Council of 17 May 2006 related to machines and that changes the Directive 95/16/EC.

References to harmonized standards
UNI EN ISO 4254-1:2015 Machines for agriculture – Safety – Part 1: General requirements
UNI EN 14018:2010 Manichery for agricolture and forestry – Planters - Safety.

References to technical specifications
UNI EN ISO 11684:1995 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Safety signs and hazard pictorials - General principles

AND AUTHORISES THE COMPILATION OF THE TECHNICAL DOSSIER ON HIS BEHALF

Tullio Fiorido		
Name and surname		
Via Delle Industrie 19	33098	PN
Address	*Postcode*	*Province*
Valvasone Arzene	Italy	
City	*State*	

Valvasone Arzene 18/01/2019

Legal representative
Tullio Fiorido

WIZARD Srl
via delle Industrie 19 - Tel. +39 0434 871461
33098 Valvasone Arzene (PN)
info@wizardagroind.eu
P.IVA 01781020936 - REA N.104042

Technician in charge of Certification: Tracanelli Gastone

ORDINE DEGLI INGEGNERI PROVINCIA DI PORDENONE
Gastone Tracanelli
n. 650 Sez. A

CE

1. This Conformity Declaration is made under the Manufacturer's sole responsibility
2. The object of the Declaration above is in conformity with the relevant Union harmonization legislation

PROHIBITION OF PUTTING INTO SERVICE

The machine can be put into service only if properly installed, maintained efficient and utilized according to its intended use. It is forbidden to use the machine if it has been subject to structural changes or integrations of other parts that are not expected by the ordinary and extraordinary maintenance. Maintenance has not to be again declared in conformity with the requirements of the directive 2006/42/EC and with other reference directives and current regulations.

Date 18/05/2018

The Manufacturer

2.4. SAFETY REGULATIONS AND ACCIDENT PREVENTION

Read carefully all the instructions before using the planter, in case of any doubt contact the Concessionaire's technicians. The Company declines any responsibility, objective or subjective, for non-observance of safety and accident-prevention regulations mentioned below.

The Manufacturer devoted himself in the planning of the machine, INTRINSICLY SAFE as much as possible. The Manufacturer provided the machine with all protections and safety devices considered necessary, together with the information for a safe and correct use.
The User can add to the information provided by the Manufacturer further working instructions that do not have to be in contrast with what written in this handbook to contribute to a safe use of the machine.

When necessary in the handbook additional recommendations about prevention measures, personal protective equipment, information to anticipate human mistakes and prohibitions related to forbidden and reasonably expected behaviors will be specified by the User.

IMPORTANT

The Manufacturer considers himself relieved of any responsibility for damages caused by the machine to people, animals or objects in case of:
- use of the machine by not properly trained personnel;
- improper use of the machine;
- incorrect setup of the machine;
- lack of expected maintenance;
- non-authorized modifications or interventions;
- use of non-specific or non-original spare parts;
- total or partial failure to comply with the handbook instructions;
- use against specific national regulation;
- calamities and extraordinary events.

2.4.1. GENERAL REGULATIONS

1) Use adequate Personal Protective Equipment during the use, maintenance, fixing, movement, transport or storage of the machine.
2) Any work of maintenance, adjustment and cleaning of the machine must be made with the machine on the ground (in a steady condition) and with the engine switched off.
3) An adequate lighting system must be used if working during the night or in conditions of poor visibility.
4) The machine must be used only by one Operator. A different use from the one suggested is considered improper.
5) Pay attention to the symbols of danger shown in this handbook and on the planter.
6) Labels with instructions on the machine give appropriate advice to avoid injuries.
7) Follow the instructions for safety and accident prevention.
8) Do not absolutely touch moving parts of the machine.
9) Interventions and adjustments on the equipment must be made with the engine switched off.
10) It is forbidden to carry people or animals on the equipment.
11) Check the perfect integrity of all transport and use securities before switching on the machine.
12) Make sure that people, in particular children, or pets are not around the machine before starting it and make sure there is a perfect visibility.

13) Use adequate clothes. Avoid wearing embellished clothes or clothes with hems that might be tangled in rotating or moving parts.
14) Before using the machine make sure that all safety devices are perfectly working and correctly placed; replace them in case of damages or malfunctioning. The machine must immediately be replaced in case of evident deterioration.
15) Familiarize with system devices and their functions before starting the machine.
16) Start using the equipment only if all safety devices are intact, installed and in the security position.
17) It is absolutely forbidden to stay in the area in which the machine is operating, where there are moving parts.
18) It is absolutely forbidden to use the machine without protections and container covers.
19) During use the machine might emit dust. Use adequate breathing protection systems, such as anti-dust masks or filter-masks.
20) Check that the machine has not been damaged during the transport and if so, immediately contact the Manufacturing Company.
21) Keep the machine clean from foreign items (fragments, tools or various objects) that might cause damages to it and to the Operator as well.
22) Before starting the equipment check that it is correctly installed and regulated; check that the machine is in perfect order and that all members subject to wear and deterioration are efficient.
23) Always work in conditions of perfect visibility.
24) All operations must be carried out by trained personnel provided with protective gloves in a clean and non-dusty place.

2.4.2 SAFE MAINTENANCE

During operations of work and maintenance, use the adequate Personal Protective Equipment:
1) Regularly check the fittings, screws and wing nuts, and eventually tighten them.
2) Spare parts must correspond to the Manufacturer's requirements. Use only original spare parts.
3) Worn or defective parts must be immediately replaced. The Manufacturer does not assume any responsibility for damages that might derive if an accident occurs.
4) Checking must be made by a qualified person and they have to be functional and visual to ensure the machine safety.
5) Check that all bearing structures do not have any crack, breaking, damage, buckling, corrosion, wear or alteration as to original characteristics.
6) Check all mechanical parts;
7) Functional check of the machine;
8) Check the state of the machine.
The results from these checking have to be stated in a relevant form.

WARNING

If any anomaly is found, it has to be eliminated before starting the machine again. The specialist that checks the machine has to state in the form the occurred modification, giving in this way his approval of using the machine.

If the person that checks the machine finds any crack or anomaly, he must immediately inform the Manufacturer.
Put the machine out of order if any working anomaly occurs and then do the opportune control and/or fixings.
Make sure that in the machine parts there are not objects that could compromise the function.
After any intervention check that there are not objects in the machine moving parts.
However, to ensure the maximum safety in the machine movement it is FORBIDDEN:

- To force any part of the machine;
- To leave movable parts unattended;
- To use the machine in working order but not completely efficient;
- To modify the machine in order to change the originally specified use without the Manufacturer's explicit authorization or without assuming the full responsibility imposed by the Machine Directive 2006/42/EC;
- To handle movable parts with manual operations in case of energy lack.

2.4.3 INDICATION AND SAFETY LABELS

The described labels can be found on the machine (Pic. 2). Keep them clean and replace them if they are loose or illegible. Read carefully what described and memorize their meaning.

1) Before working, read carefully the instruction handbook;
2) Before doing maintenance operations, stop the machine and consult the instruction handbook.
3) Dander! Moving parts. Keep away from moving parts.
4) Equipped yourself with accident-prevention clothes.

Picture 2

3 PLANTER DESCRIPTION

3.1 FUNCTIONING

The planter WZ-D/WZ-DS is a pneumatic precision planter for small tractor designed for the following crops: maize, chard, soya beans, sunflowers, rape, sorghum, beans, cotton, peanuts, fennel, tomatoes, etc.
The seeds are distributed into the furrow in the soil thought a shoe opener. The amount of seeds to distribute are regulated through a gearbox and the wheel drive transmission.
This planter can operate manually with a self-propelled system or animal pulled. It has been constructed to operate in open air, so its performances are not conditioned by atmospheric agents.

WARNING

The equipment is suitable only for the indicated use. Any other use different from that described in this handbook can damage them and cause serious problems for the User. The planter must be used only by the Customer's qualified personnel. The User must wear adequate personal protective equipment (safety footwear, overall and gloves, etc.).
The planter is only for professional use and must be utilized just by personnel previously educated, trained and authorized.

The correct use of the consists in:
- that the planter is maneuvered only by one Operator;
- the respect of all the handbook directions;
- the realization of the inspection and maintenance operations written in the handbook;
- the unique use of original WIZARD spare parts.

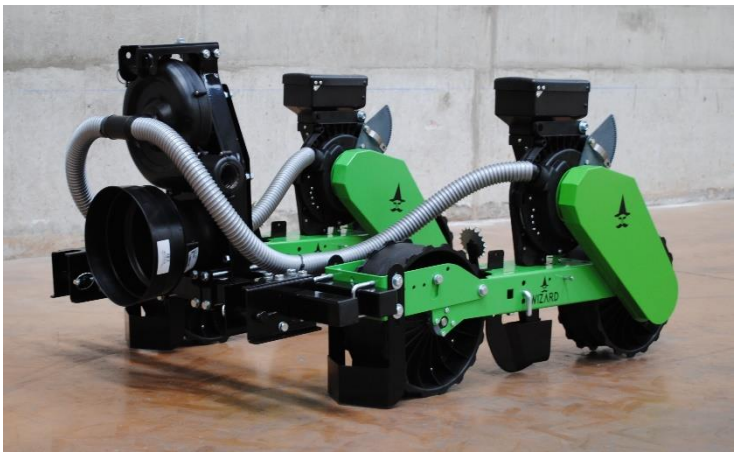
3.1.1. USE PRECAUTIONS

The main precautions for using the planter are:
- make sure that on the ground there are not stones or big rocks;
- make sure that on the ground there are not fragments of tree roots;
- make sure that on the ground there are not metallic elements of any kind, such as wire nets, cables, ropes, tubes, etc..

The regular functioning of the planter depends on the correct use and the adequate maintenance. It is therefore advisable to strictly respect what is written in this handbook to prevent any inconvenience that might affect its correct functioning and duration. It is also important to follow what is described in this handbook because the Manufacturing Company declines any responsibility due to negligence and non-observance of these directions.
The Manufacturing Company is available to assure an immediate and accurate technical assistance and all that can be necessary for a better functioning and maximum performance of the equipment.

3.2 STRUCTURAL CHARACTERISTICS

The planter is made up of:
1) Seed metering unit;
2) Seed hopper;
3) Vacuum fan;
4) Seed compression wheel;
5) Frontal wheel soil preparation;
6) Seed distance adjuster;
7) Shoe opener;



Picture 3

Below it is possible to find the data related to planter.

MODEL	Row N°	Weight	Capacity Seeds (liters)	Dimensions (mm) Width. x leng. x H
WZ-D20	2x75	90	5	1000 x 1400 x 750
WZ-D30	3x45	110	5	1200 x 1400 x 750
WZ-D30	3x75	133		1750 x 1400 x 750
WZ-D40	4x45	110	5	1600 x 1400 x 750
WZ-D40	4x75	133		2500 x 1400 x 750

Technical data will not be binding on WIZARD that reserves the right to modify them without any prior notice.

3.2.1. NOISE LEVELS

The only noise emitted from the self-propelled planter WZ-D are from the engine and the fan.
The noise has been measured and the value of continuous acoustic pressure is above 80 db (A).

WARNING

When the limit of 80 db (A) is exceeded it is mandatory for the Operator or anyone who approaches the planter while in function has use suitable ear protections, like, for example, earmuffs, earplugs, etc.

3.3. MOVEMENT AND TRANSPORT

Pay maximum attention to safety during loading and unloading operations.
The planters weight is over 65 kg to lift it; adopt all the necessary safety precautions.
Remember that when lifting weights exceeding 30 kg, more than one Operator is required.
During the machine loading and unloading stages, the Operator must use suitable Personal Protective Equipment (gloves, overall, helmet, etc.). This operation, for its danger, must be made by trained and responsible personnel.
In the instance where the planter is transported via vans, lorries or other such vehicles, it must be blocked into place using cable anchorage.

WARNING

The Customer must apply to what provided by Community Directives EEC 391/89 and 269/90 and following changes regarding the risk of the loads manual transport for Operators during loading and unloading operations.

The planters weight is indicated on the identification plate (Pic. 1).

WARNING

- **Packaging materials (pallet, cartons, etc.) must be discharged by authorized companies according to current regulations.**
- **To lift the planter part is forbidden to hitch on to movable or weak parts as casting, hopper, etc.**
- **It is forbidden to stay under hanging loads, non-authorized personnel must not enter the working areas and it is compulsory to wear overalls, safety footwear, gloves and a helmet.**

3.2 DRIVING ON A PUBLIC STREET

If it is required to drive on a public street, it is mandatory to strictly respect the Driving Code paying particular attention to the speed.
When driving on the street it is fundamental to respect the driving code of the residing Country.
Any accessory used for the transportation must be equipped with specific signals and adequate protections.

- Before starting to drive, install optional lights.
- It is mandatory to equip the machine with a yellow or orange flashing light.
- Before starting to drive on a public street from a nonpaved or dirty surface, it is required to clean the wheels of the tractor carefully from any presence of mud.
- When driving on a public street, the machine must be in the transport position and the power socket of the tractor must be unplugged.
- The weight of the machine modifies the stability of the combination tractor-sower, influencing the steering ability as well as the breaking ability, it is thus important to proceed with a moderate speed.
- In particular, always remember that the front shaft must always be loaded with a weight equal to 20% of the combination tractor-sower.
- It is very important to remember that the road-holding and the steering and breaking abilities may be influenced, even heavily, from the presence of the of any equipment or bear that is being carried.
- On bends, particular attention must be paid to the centrifugal force on the machine with or without the carried equipment, especially on sloping streets or grounds.
- All transports on street must be made with empty tanks and with a maximum speed of 25 km/h.
- When the equipment or other bears obstruct the visibility of the lighting disposals or signals, these must be correctly reproduced on the equipment, as regulated in the driving code of the residing Country.

4 PLANTER USE

To obtain better performances from the equipment please follow carefully the instructions below.

USE OF THE MACHINE

Before using the machine, it is necessary to familiarize with the controls and its operating abilities.

Before coming down from the tractor and before every operation of maintenance and regulation, action the parking brake, switch the engine off, remove the ignition key from the dashboard and wait for all the mobile elements to stop.
The safety of the operator and the people present around the machine depends on the ability of judgment and caution in using of the machine. Therefore, it is necessary to know the position and the functions of all the controls well).
The machine must be always found in perfect state of operation and must be repaired with replacement parts only originates them.

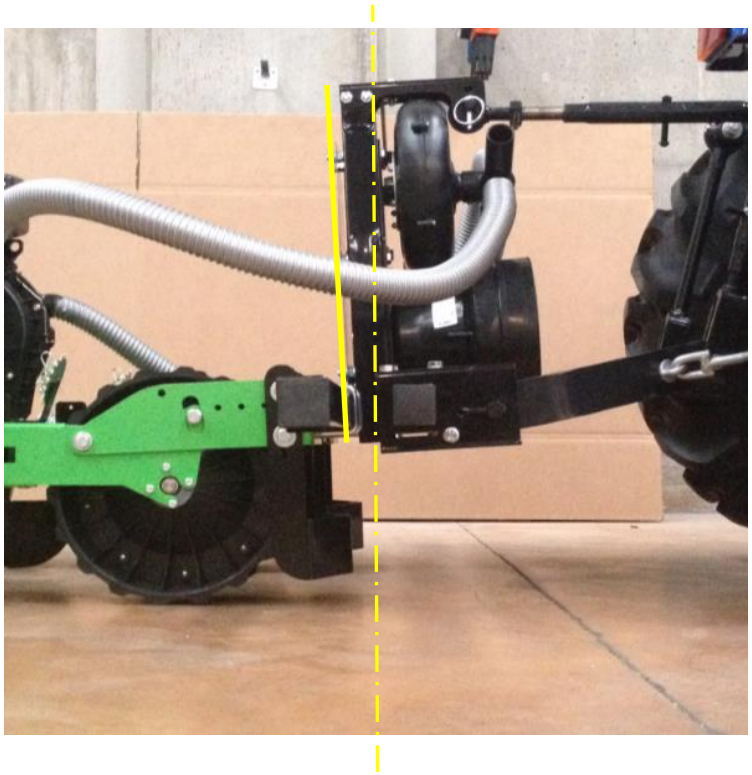
CONNECTION OF MACHINE TO THE TRACTOR

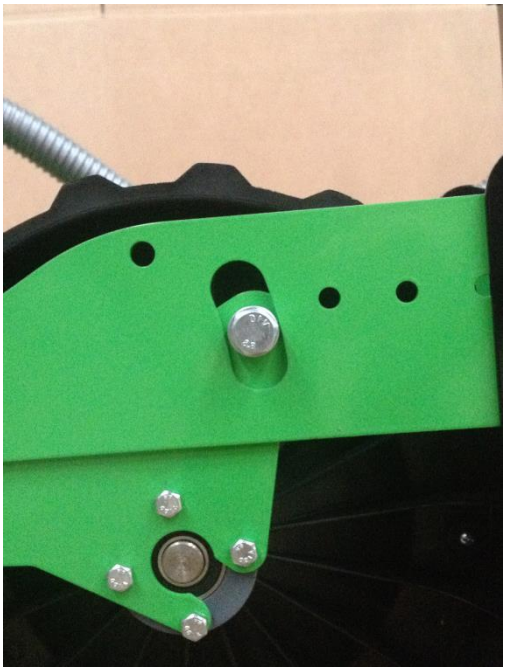
The machine must be connected to the tractor with a power take off activated at 500 rpm, with weight and suitable power, in compliance with the enforced requirements in the country in which the machine is uses.

During the phases of use, regulation, maintenance, repair or movement the operator must use adequate Individual Protection Devices (DPI).

For the coupling of the tractor to the machine, the operator must move the tractor with the reverse gear until it reaches the connections on the machine with the back lifters.
• Action the parking brake of the tractor, switch the engine off, remove the ignition key and step down.
• Insert the hinges and the relative plugs/safety forelocks.
• Connect the third point (tightener) of the machine to the tractor, lift the machine until the power of the machine and tractor are at the same height and register the tightener bringing the machine in the horizontal /slightly tilted back position (pic.4), verify that the pivot is about halfway the buttonhole(pic.4.1).
• Block the lifting bars of the tractors, in order to avoid the machine oscillating laterally, as this compromises the cross-sectional stability of the complex.

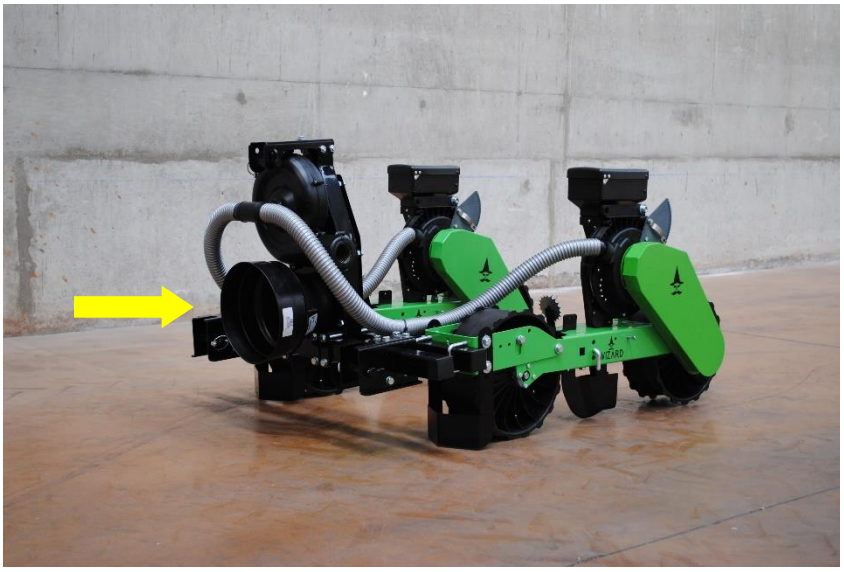
• It could happen that the compression wheels are not in axle with the track left from the plough discs or cutters and therefore they do not compress well. This is due to the fact that the sowing machine is NOT regulated well on the lifting connections. It is necessary then to regulate them without fixing them in a rigid way leaving some millimetres of space. The sowing machine must be connected as shown.





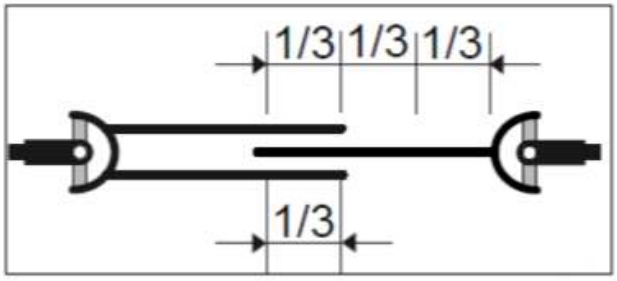
CARDAN SHAFT ASSEMBLY

Before using the cardan transmission read the attached usage norms carefully. The sowing machine provides the use of cardan transmissions certified CE.
The use of not certified cardan transmissions is prohibited.
The non compliance with this norm annuls the safety certification for the sowing machine automatically. Accidents caused by catching and dragging in the transmission units can cause serious and mortal consequences and is due to the default of protections of these units and from the use of fluttering clothes that can be caught by moving parts. The cardan shafts must be equipped with safety pictograms.

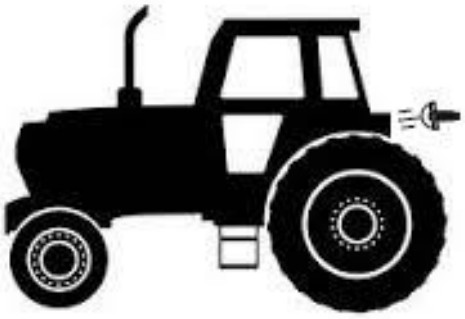


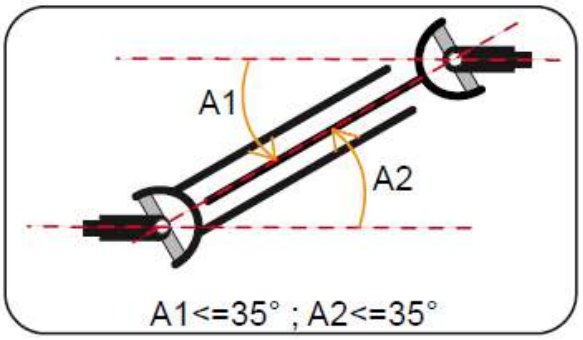
• The cardan shaft must be fixed correctly to the P.D.P, respecting the direction of assembling indicated on it and fixing the chains in order to avoid the spinning of the protection.
• Before inserting the power take-off, ensure that there are no people or animals in the operating area and that the chosen regime corresponds to the one that is allowed. Never exceed the provided maximum.
• Insert the cardan shaft on the grooved shaft of the sowing machine holding the safety plug, release the safety plug and withdraw with the cardan until the plug engages making a “clack” sound in its seat. If the release of the plug is not perceived, repeat the procedure.
• The protection must not show ruptures.
• Avoid in any way to jump over the area comprised between the tractor and the machine with or without the moving cardan.
• If the machine is connected for the first time to the tractor, make sure that: In the conditions of maximum steering the cardan is not completely closed in order to avoid causing damages to the multiplier. In the event that the cardan is too long, it is necessary to shorten it by cutting it as much as necessary.

- In any operating condition the telescopic tubes must overlap for at least 1/3 of their length (pic.A).
- Work with contained and equal joints corners.
- Disconnect the movement bite when the corners of the joints exceed 35°.
- Always reduce the number of revolutions when they exceed 10°.
- After disassembling the cardan shaft, replace the protection cap on the power take off shaft.



picture A





PRELIMINARY OPERATIONS

Before starting the planter load the seed container.

WARNING!

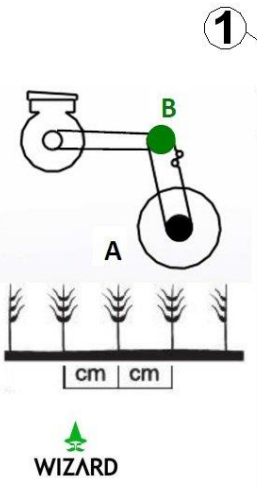
Fill the seed container, taking care that no foreign bodies are introduced into the aforementioned.

4.2. CONFIGURATION

To obtain a correct planting it is necessary to properly adjust the organs of transmission and processing, as the gearbox, the metering unit and the shoe opener.
Knowing the type of seed (maize, beets, etc.), from the planting table (Tab. 2) it is possible to deduce the approx. seed distance on the row.

4.2.1. SEED DISTANCE

Under the seed hopper lid there is a table similar to the one here below.



1		2	3		
A	B	4 Fori	18 Fori	36 Fori	72 Fori
18	10	34,7	7,7	3,9	1,9
18	11	38,2	8,5	4,2	2,1
18	12	41,7	9,3	4,6	2,3
18	13	45,1	10,0	5,0	2,5
13	10	48,1	10,7	5,3	2,7
13	11	52,9	11,8	5,9	2,9
13	12	57,7	12,8	6,4	3,2
13	13	62,5	13,9	6,9	3,5
10	11	68,8	15,3	7,6	3,8
10	12	75,0	16,7	8,3	4,2
10	13	81,3	18,1	9,0	4,5
13	18	86,5	19,2	9,6	4,8
12	18	93,8	20,8	10,4	5,2
11	18	102,3	22,7	11,4	5,7
10	18	112,5	25,0	12,5	6,3

Table 2

The data specified in the table are purely theoretical and might change based on the conditions of the soil and the wheels.

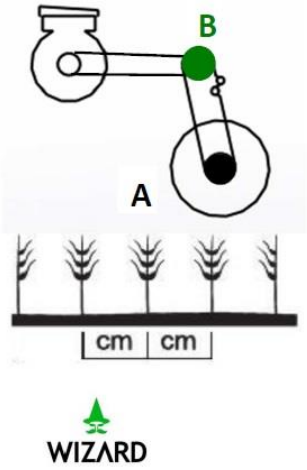
The table is divided as follows:

- Part 1 shows the different combinations that can be obtained from sprockets A and B;
- Part 2 shows some types of discs that can be used;
- Part 3 shows the planting distances that can be obtained based on the ratio and the types of discs used.

Example:

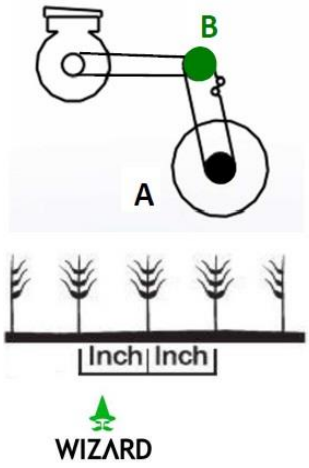
You wish to plant some beans at a distance of **16 cm** with a **18 hole** disc.
Find the pair of sprockets to be used, you should:

- Find the distances closest to the required one in the column of **18 hole** disc (in this case = **15.3 cm**);
- Obtain the pair of sprockets to be used on the same line in the two columns marked (A) and (B) (in this case **A = 10** e **B = 11**).



A	B	4 Fori	18 Fori	36 Fori	72 Fori
18	10	34,7	7,7	3,9	1,9
18	11	38,2	8,5	4,2	2,1
18	12	41,7	9,3	4,6	2,3
18	13	45,1	10,0	5,0	2,5
13	10	48,1	10,7	5,3	2,7
13	11	52,9	11,8	5,9	2,9
13	12	57,7	12,8	6,4	3,2
13	13	62,5	13,9	6,9	3,5
10	11	68,8	15,3	7,6	3,8
10	12	75,0	16,7	8,3	4,2
10	13	81,3	18,1	9,0	4,5
13	18	86,5	19,2	9,6	4,8
12	18	93,8	20,8	10,4	5,2
11	18	102,3	22,7	11,4	5,7
10	18	112,5	25,0	12,5	6,3

Table 3 (cm)



A	B	4 Fori	18 Fori	36 Fori	72 Fori
18	10	13,7	3,0	1,5	0,8
18	11	15,0	3,3	1,7	0,8
18	12	16,4	3,6	1,8	0,9
18	13	17,8	3,9	2,0	1,0
13	10	18,9	4,2	2,1	1,1
13	11	20,8	4,6	2,3	1,2
13	12	22,7	5,0	2,5	1,3
13	13	24,6	5,5	2,7	1,4
10	11	27,1	6,0	3,0	1,5
10	12	29,5	6,6	3,3	1,6
10	13	32,0	7,1	3,6	1,8
13	18	34,1	7,6	3,8	1,9
12	18	36,9	8,2	4,1	2,1
11	18	40,3	8,9	4,5	2,2
10	18	44,3	9,8	4,9	2,5

Table 4 (inches)

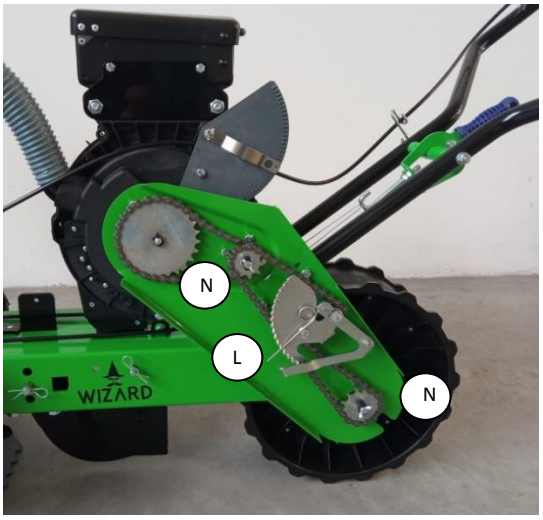
4.2.2. TRANSMISSION RATIO

From Table 3 or 4 it is possible to determine the pair of sprockets to be used to obtain the desired planting distance.

To set the ratio on the gearbox proceed as follows:

- Remove cover **M**;
- Release the spring of the chain tightener **L**;
- Release the sprockets **A** and **B** from the chain;
- Unscrew wing nut **N** that holds the sprockets**;**
- Extract the sprockets and mount those selected for planting distance required;
- Pay attention not to invert their positions;
- Screw in wing nut **N** again and check that the sprocket fastener is set to its correct position;
- Re-assemble the chain on the two sprockets and tighten the chain tightener, turn the drive wheel forward to tension the chain, and finally further tighten the chain tightener's spring.

Picture 4



Picture 5

4.2.3. SEED DISC AND GUIDE ASSEMBLY

Seed disc assembly

To assemble the seed disc correctly, follow these instructions:

- Release the springs **C** from the fixed slots (Pic. 6);
- Remove the metering unit cover **D** (Pic. 6);
- Assemble the seeding disc on the metering unit disc holder **E**; (Pic.7)
- Assemble the selector **F** in the appropriate pins **G**, the selector must raze the disc (Pic. 7);
- Reassemble the metering unit cover by inserting the bottom first (Pic.8) and then on the appropriate pins, securing it with relevant springs (C).

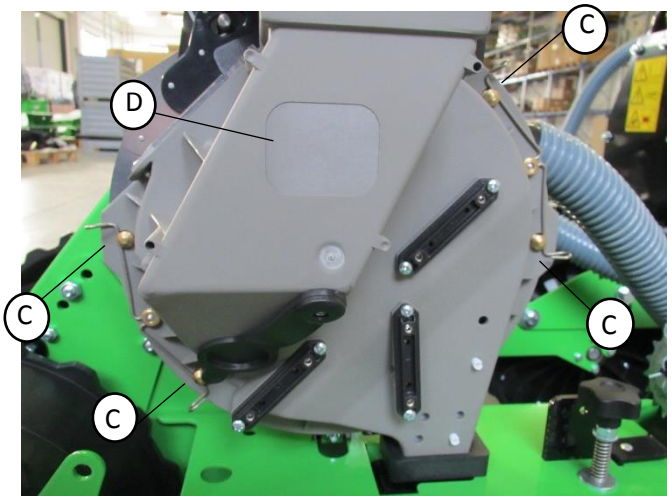
N.B. The seeds singulator is magnetic (H) and this will keep it in constant contact with the disc while working (PIC.9).

WARNING

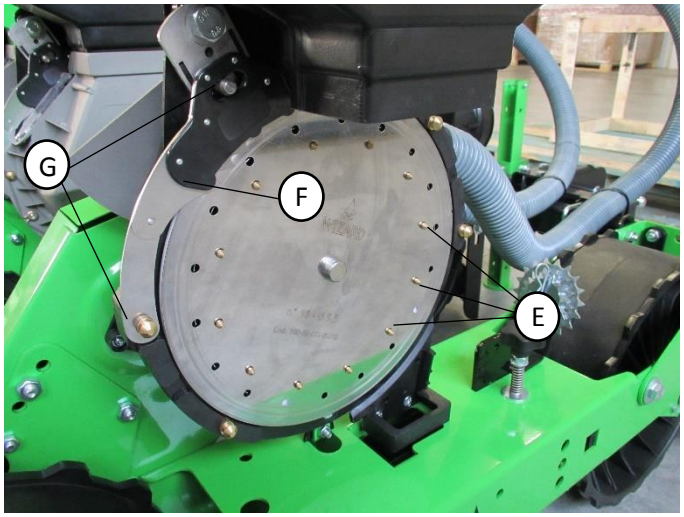
If possible, make adjustments in clean, dry and dust-free areas. Dust and humidity might cause damages to the discs and the gaskets.

The disc must be assembled to the part featuring the WIZARD brand name and the disc specification data (code, hole diameter) facing the cover.

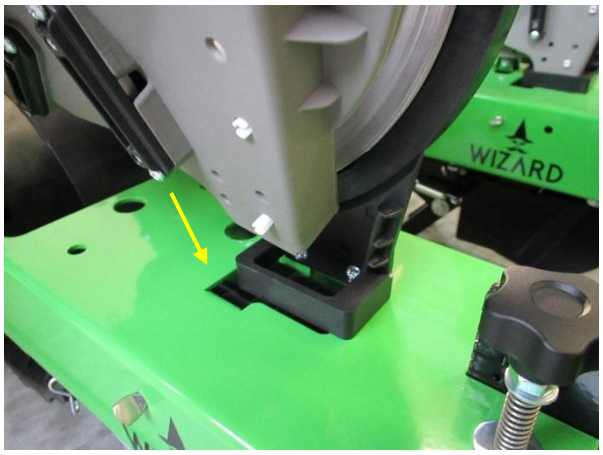
☞ **It is important that the disc is correctly assembled in the disc holder pins E (Pic. 7).**



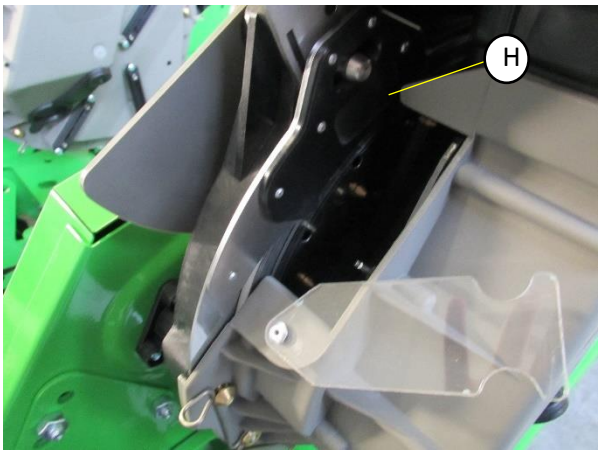
Picture 6



Picture 7



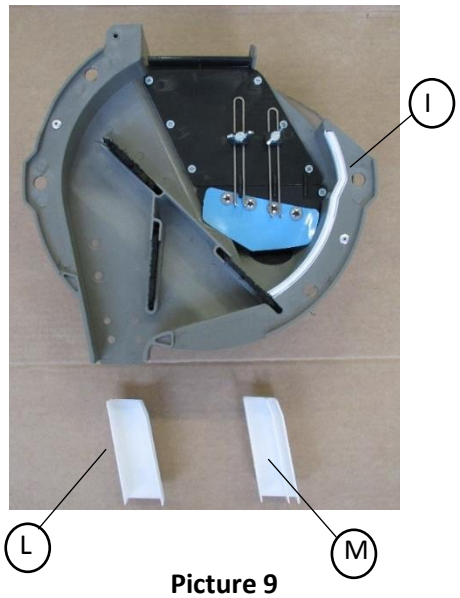
Picture 8



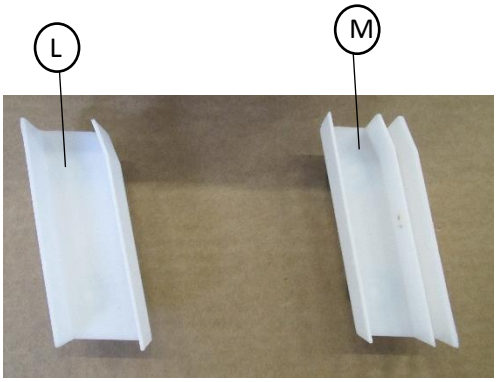
Picture 9

Seed guide assembly

- The seed guides that can be used are 2, based on the size of the seeds (PIC.10).
- The seed guide (L) is used for medium-large seeds and the guide (M) is used for small seeds with dimensions less than or equal to 3 mm.

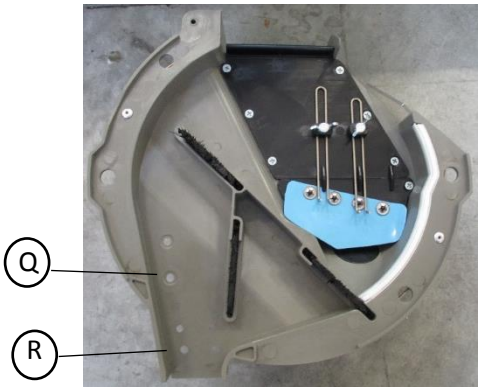


Picture 9

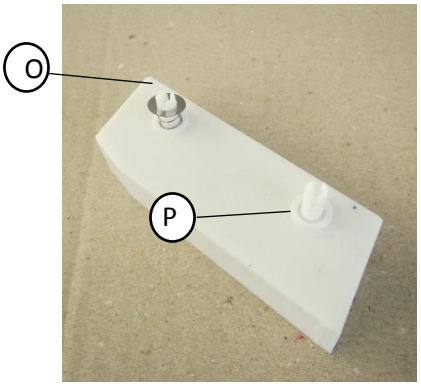


Picture 10

It's possible to use the cover without any guide (PIC.12) for larger seeds.
The seed guides both have 2 couplings in the rear that are used for the assembly (PIC. 13.).
The upper coupling with the spring (O) must be inserted in its housing (Q) and the lower coupling (P) in its respective housing (R).

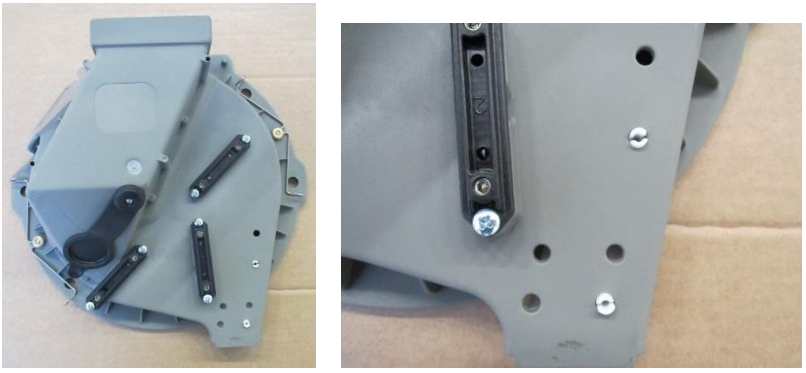


Picture 12



Picture 13

Once assembled, control the correct position. (PIC 14)

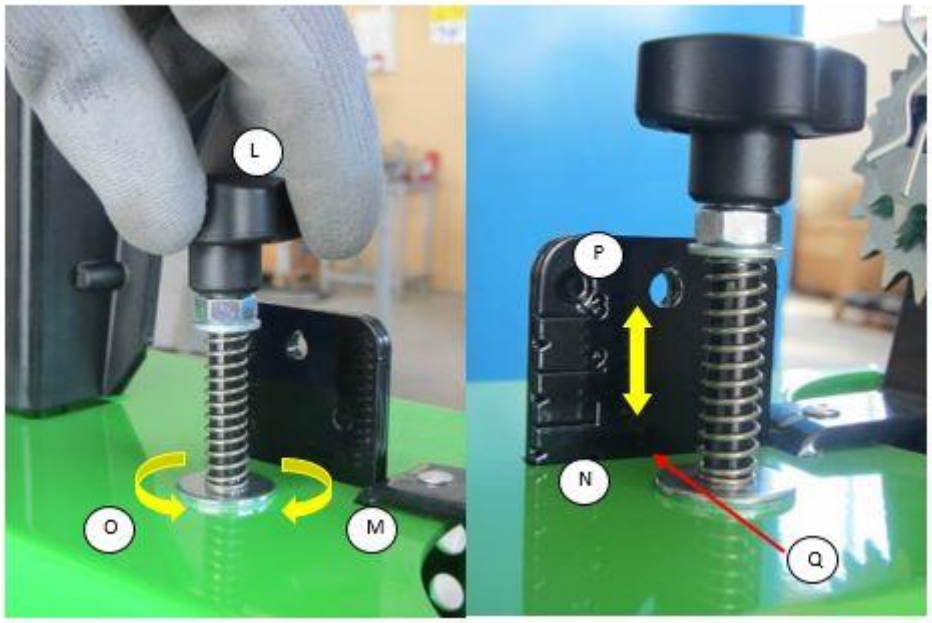


Picture 14

4.5.3. SHOE OPENER ADJUSTMENT

For a good sprout emerge it is important to place the seed at the correct depth in the soil. To adjust the shoe opener following the instructions (Pic. 12):

- Rotate the knob (L)to adjust the depth of the shoe opener;
- Rotate clockwise (M) to decrease the depth. The position 0 (ground level) (N) is the minimum depth possible.
- Rotate counterclockwise (O) to increase the depth. The position 3 (3 cm) (P) is the maximum depth possible.
- The depth regulation position is referred to the surface of the planting unit (Q)

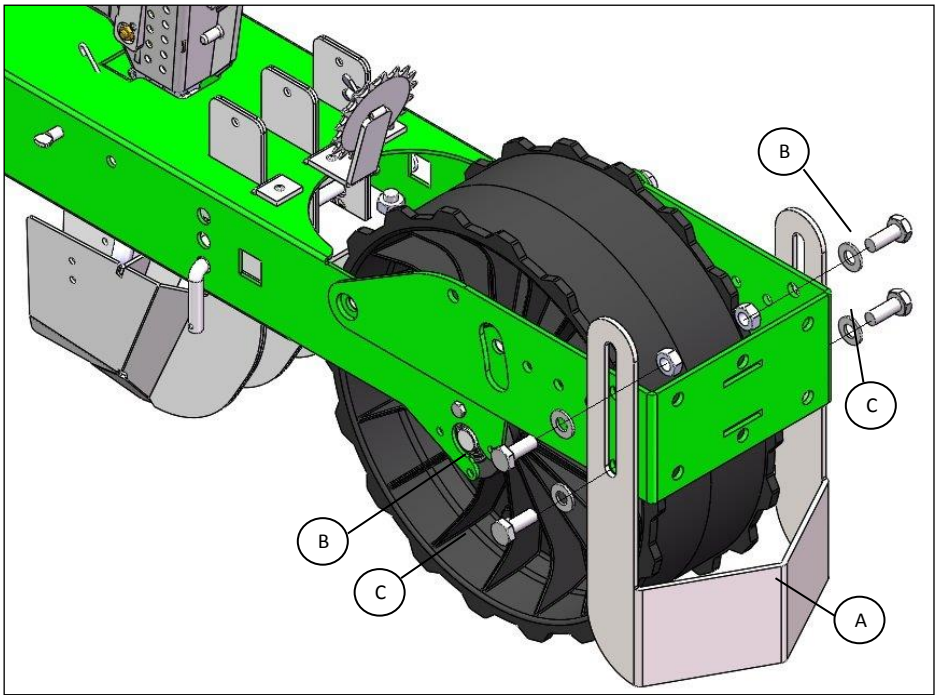


Picture 15

4.2.3. CLOD REMOVER ASSEMBLY

To assemble the clod remover follow the instructions:

- Adjust the clod remover slots **A** with the holes in the chassis (Pic. 16);
- Insert the given screws **B** and **C** (Pic. 16) and adjust the clod remover height;
- Tighten the screws checking that the clod remover **A** is well-fixed to the required working height.



Picture 16

4.3 START-UP

Once the planter is connected to the two wheel tractor, it is possible to start-up the machine.
Follow the directions given in the two wheel tractor handbook.

4.4 PLANTING ADJUSTMENTS

4.4.1 SEED SINGULATOR ADJUSTMENT

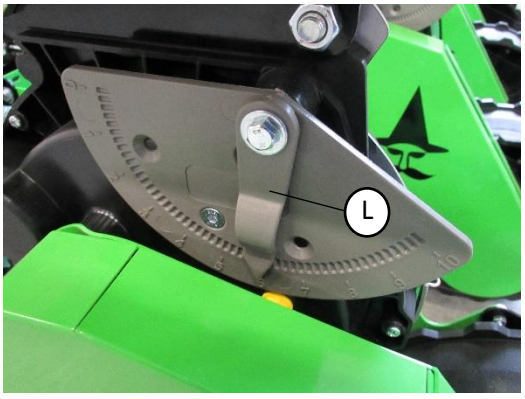
The seeding selector adjustment has to be made after the seed hopper has been filled (ENSURE THE SEED DISCHARGE TAP IS CLOSED).

It is then possible to adjust the selector.
1) Adjust the selector lever **L** in the intermediate position;
2) Rotate one or two full turns the seed disc by rotating the press wheel;
3) Check through the inspection window on the cover that the seeds are distributed on the disc.
4) Pay attention to moving parts and adjustments carefully.

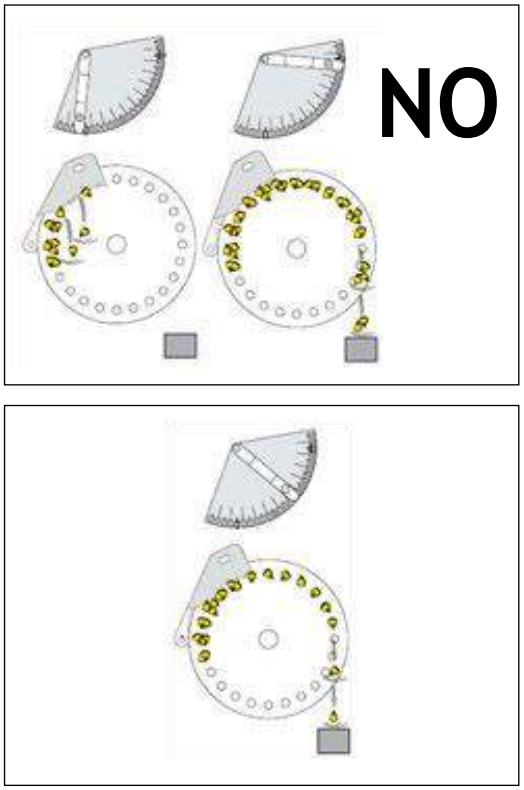
From this control there can be three different situations:
A) The holes of the seeding disc after passing the selector may have no seeds or very few. The selector is adjusted at a too low value, shift the lever L towards higher values and start again from point 2).
B) The holes on the distributor disc downstream the selector have more than one seed (generally two or three). The selector is adjusted at a too high value, shift the lever towards lower values and start again from point 2).
C) After the selector adjustment each hole of the disc has to have only one seed. The selector is correctly adjusted. However, it is recommendable to move the lever some notches in both directions to find the range in which the adjustment is considered satisfying. Then place the lever at the center of this range.

WARNING

The regulation of the selector has to be made each time there is a change of the seed disc or of the seed (type and seed size). However, it is advisable to adjust the selector at every important change of the planting conditions.



Picture 22



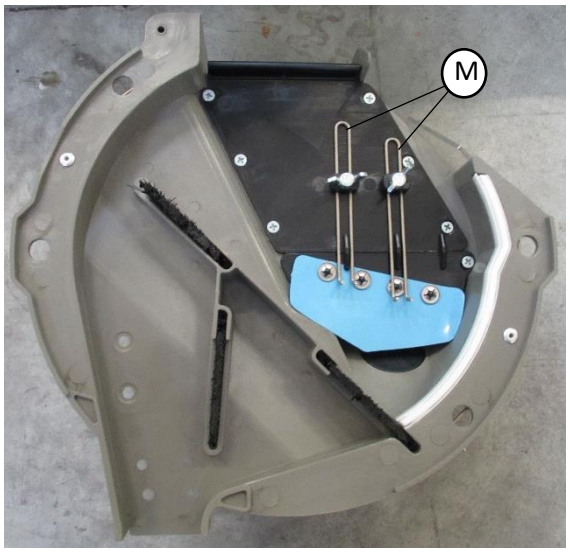
Picture 23

4.4.2 SEED BULKHEAD ADJUSTMENT

The bulkhead helps regulating the level of seed in unusual ground conditions, such as when the land is sloping.

- This bulkhead adjusts the seed outlet in order to prevent the seed from coming out of the metering unit in case of overflow);
- The bulkhead adjustment is made through the spring **M** on the cover (Pic.24);

A rigid bulkhead is employed in case of small seeds or rape seeds.



Picture 24

Should the adjustable bulkhead NOT be enough to prevent the overflow, it should be replaced by the rigid one after making an opening in it as shown by the picture below.

Picture 25

WARNING

For the correct functioning of the metering unit it is recommendable to keep all gaskets, bulkhead, brushes, guide pins, seed disc and selector clean and in good working conditions.

4.4.3 BRUSH ADJUSTMENT

In case of small seeds, such as tomato seed or rape, check that the brush inside the metering unit fits closely to the seed disc all over its surface. Follow the instructions under to check and adjust the brush:

- Open the inspection window **N** to check the brush.

If brush **O** does not fit closely to the seed disc surface, then adjust it as follows:

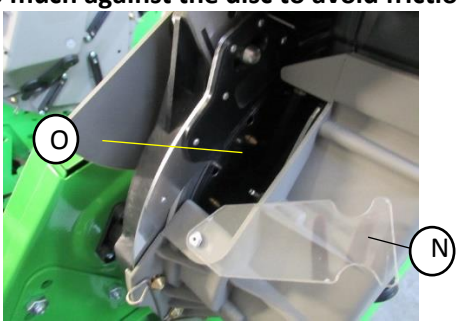
In case of small seeds, such as tomato seed or rape, check that the brush inside the metering unit fits closely to the seed disc all over its surface. Follow the instructions under to check and adjust the brush:

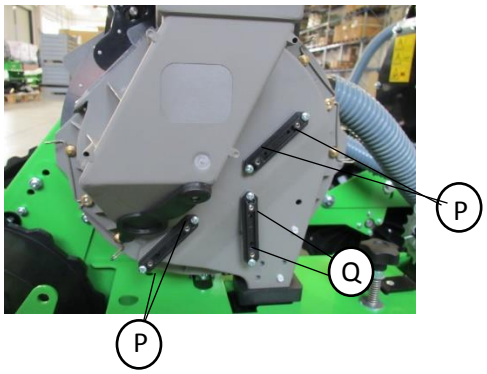
- Open the inspection window **N** to check the brush.

If brush **O** does not fit closely to the seed disc surface, then adjust it as follows:

Screw in the screws **P** with an Allen key until the brushes are in contact with the seeding disc.
Also adjusts the vertical brush **Q**

N.B. Do not compress the brushes too much against the disc to avoid friction.





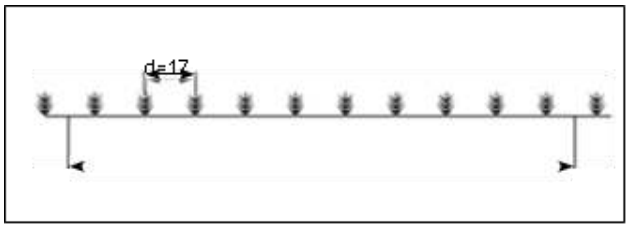
Picture 26

4.4.4 MONITORING OPERATIONS DURING PLANTING

Once all the previous operations have been made, the planter is ready to work.
For a more precise seeding, it is advisable to try at first, doing some meters to verify that the seeding is realizing as desired.
In particular:

- Make sure that the number of seeds per linear meter corresponds to the required one.

Example:
If the set distance is d=17cm it means that there should be 10 seeds in 170 cm, counted as shown in the picture below.



Picture 27

- In case of safety pin, screw breakage, etc., stop the planter immediately, remove the broken parts and replace them;
- The use of not original items, may seriously damage the planter;
- Check the metering unit frequently during seeding operations: adjust the selector if the seed distribution is irregular;
- If the vacuum falls, check the pipes if plug or broken. If so, replace or clean them. If necessary, check the vacuum fan belt as well.

4.5 CHECKING OPERATIONS DURING WORKING STAGES

Beginning to seed

- Accurately check the moving parts, transmission and metering unit;
- Register the metering unit as described in the previous chapters;
- Test the metering unit as previously described;
- Start seeding: after some meters check the regular distribution of the seeds.

For a good result it is important to distribute seeds in a small section and check that the seed distribution is regular.

During seeding

For a good quality of seeding follow these instructions:

- Check that operating parts are not enveloped in vegetal residues or so blocked with soil, that can restrain the seeds;
- Check the cleaness of the metering unit, the presence of foreign objects inside the hopper may compromise normal functioning of the planter;
- In any case check that the planter vacuum pipes are not blocked;
- Maintain a speed that allows seeding correctly on the ground to avoid breakages or damages;
- Periodically check the result of the seeding in the soil;
- Do not turn with the planter while working or in working position. Always lift the planter to change or invert direction

WARNING

The machine can transport chemical substances with seeds. Do not allow people, children, pets to get closer to the planter.
No one has to get nearer the seed tank, nor try to open it when the planter is on or is about to start working.

End of seeding

When the seeding is completed, safely stop all the moving mechanical parts and switch off the engine.

R2-R3 Solutions (Accessories)

Configuration

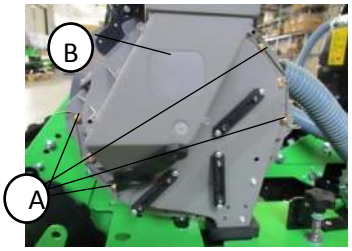
Multiline systems R2 & R3 allow to sow 2 and 3 sowing lines per row respectively. In the R2 system the sowing distance between the lines is 9 cm while in the R3 system it is 4.5 cm.

They are specific systems for sowing small seeds, mainly vegetables.

N.B. The compatible sowing discs are for small seeds (DS2 and DS3). The maximum size of the holes in the discs is Ø1.5 mm and the size of the seeds about 3 mm.

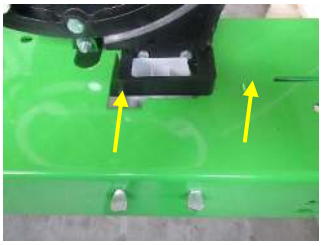
The preliminary phase is the replacement of the seed tube following the instructions:

- Release the springs A from fixed slots (Pic.1)
- Remove the metering unit cover B (Pic.1)
- Remove the single row seed tube C (Pic. 2)
- Insert the multiline seed tube D (Pic.2) always from the bottom then mount the 2 pins E (Pic.3)



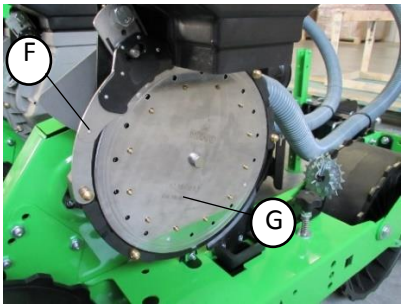
Picture 1

Picture 2



Picture 3

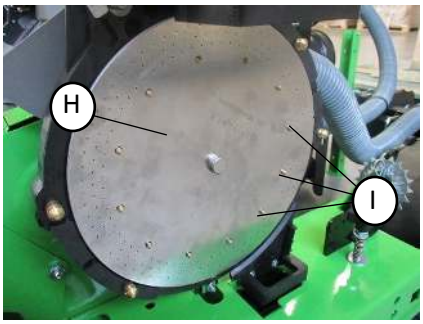
Once the seed tube has been replaced, before mounting the R2 or R3 multina system, you must first remove the singulator F and then the seeding disc G (Pic.4)



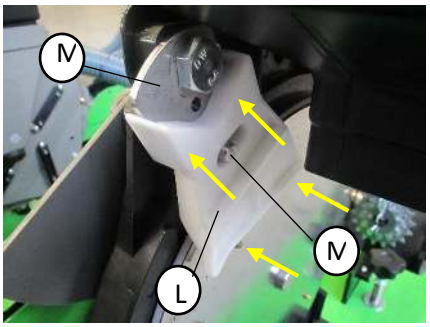
Picture 4

Steps to follow for assembling the R2 & R3 multiline system:

- Assemble the multiline seeding disc H on the metering unit older I (Pic.5)
- Assemble the multiline singulator L in its appropriate pin and housing M and press it carefully as in the picture to make sure it adheres completely to the distributor and the 3 toothed sectors to the disc (Pic.6)



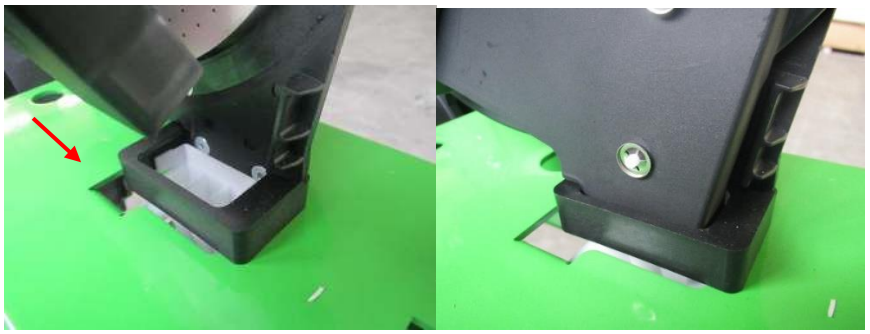
Picture 5



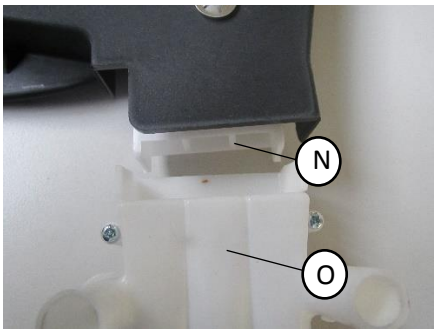
Picture 6

- Assemble the multiline metering unit cover (dark cover) by inserting the bottom first (PIC.7)

N.B. When inserting the cover, make sure that the seed guide of the cover N fits correctly the lower seed guide O (Pic.8).

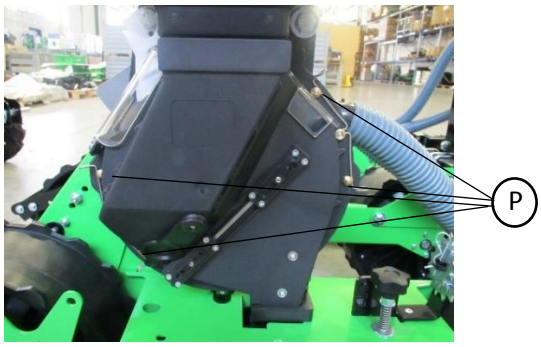


Picture 7



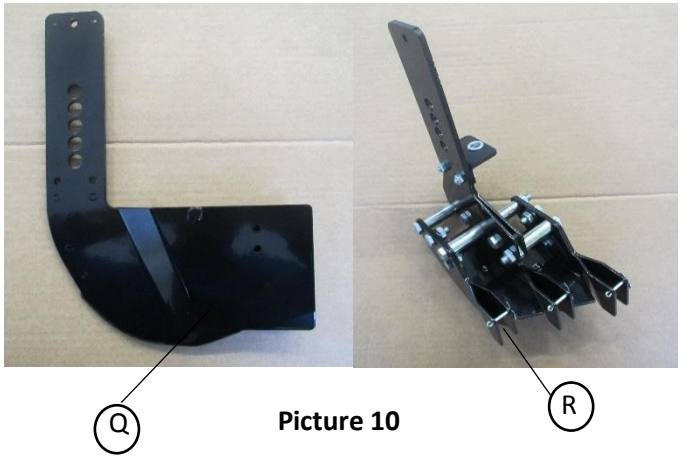
Picture 8

- Replace the appropriate pins in close position, securing it with relevant springs (P) (Pic.9)



Picture 9

N.B. Remember to also replace the single row shoe opener Q with multi-row shoe opener R.



Picture 10

PLANTING ADJUSTMENTS

SEED SINGULATOR ADJUSTMENT

The seeding selector adjustment has to be made after the seed hopper has been filled (ENSURE THE SEED DISCHARGE TAP IS CLOSED).

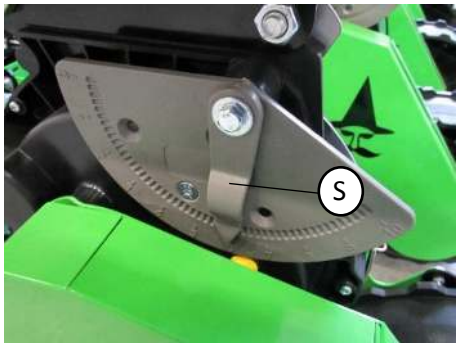
It is then possible to adjust the selector.
1) Adjust the selector lever **S** in the intermediate position; (Pic.11)
2) Rotate one or two full turns the seed disc by rotating the press wheel;
3) Check through the inspection windows **T** on the cover that the seeds are distributed on the disc. (Pic.12)

From this control there can be three different situations:
A) The holes of the seeding disc after passing the selector may have no seeds or very few. The selector is adjusted at a too low value, shift the lever **S** towards higher values and start again from point 2).
B) The holes on the distributor disc downstream the selector have more than one seed (generally two or three). The selector is adjusted at a too high value, shift the lever towards lower values and start again from point 2).
C) After the selector adjustment each hole of the disc has to have only one seed. The selector is correctly adjusted. However, it is recommendable to move the lever some notches in both directions to find the range in which the adjustment is considered satisfying. Then place the lever at the center of this range.

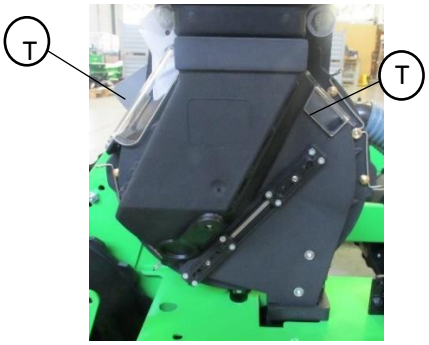
WARNING

The regulation of the selector has to be made each time there is a change of the seed disc or of the seed (type and seed size). However, it is advisable to adjust the selector at every important change of the planting conditions.

N.B. Once the multiline singulator has been adjusted satisfactorily, check that the toothed sectors raze the seed disc. If not, press the singualator again (Pic.13)



Picture 11



Picture 12

Picture 13

BRUSH ADJUSTMENT

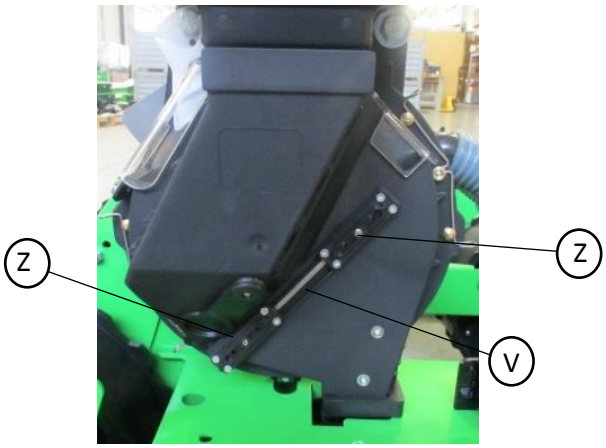
In case of small seeds, such as tomato seed or rape, check that the brush inside the metering unit fits closely to the seed disc all over its surface. Follow the instructions under to check and adjust the brush:
- Open the inspection window **U** to check the brush.

If brush **V** does not fit closely to the seed disc surface, then adjust it as follows:
In case of small seeds, such as tomato seed or rape, check that the brush inside the metering unit fits closely to the seed disc all over its surface. Follow the instructions under to check and adjust the brush:
- Open the inspection window **U** to check the brush.

If brush **V** does not fit closely to the seed disc surface, then adjust it as follows:

- Screw the screws **Z** with an Allen key until the brush is in contact with the seeding disc.

N.B. Do not compress the brush too much against the disc to avoid friction



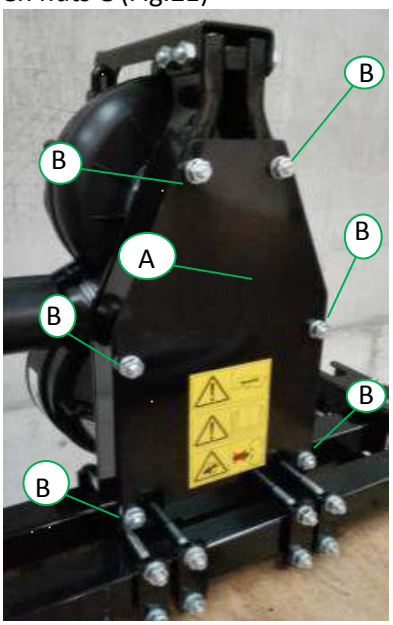
Picture 14

CHECK OF WEAR AND TENSION

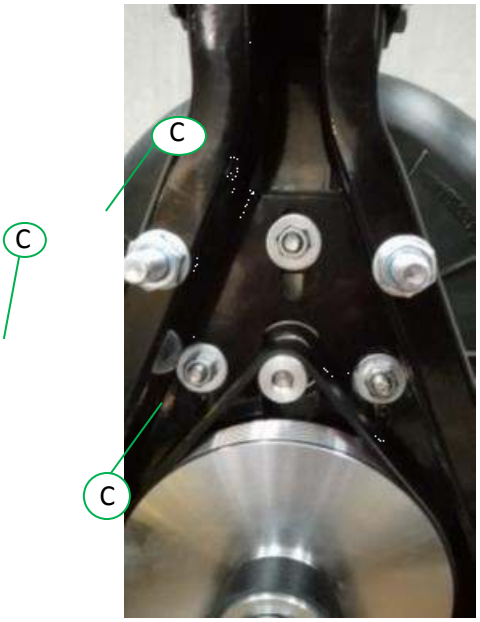
The vacuum pump performance is mostly connected with the level of wear and with the stretch of the belt
Therefore at the beginning of each sawing season it will be necessary to check the belt conditions.
The operations to be carried out are the following:

Note: The operations shall be carried out the machine at rest (detached from tractor).

- Remove crankcase **A** by loosening the six screws **B** (Fig.20);
- Loosen nuts **C** (Fig.21)

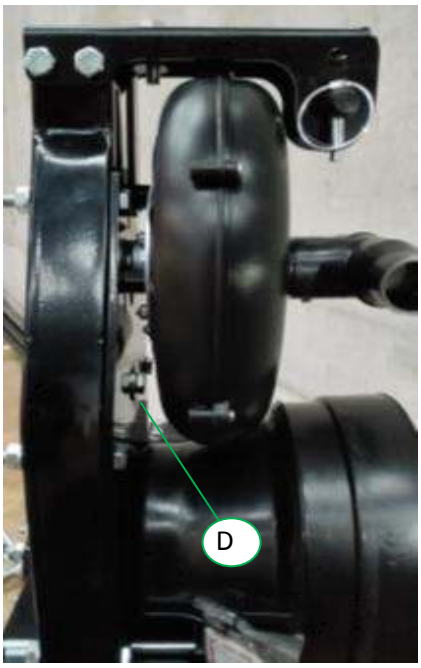


Picture 20



Picture 21

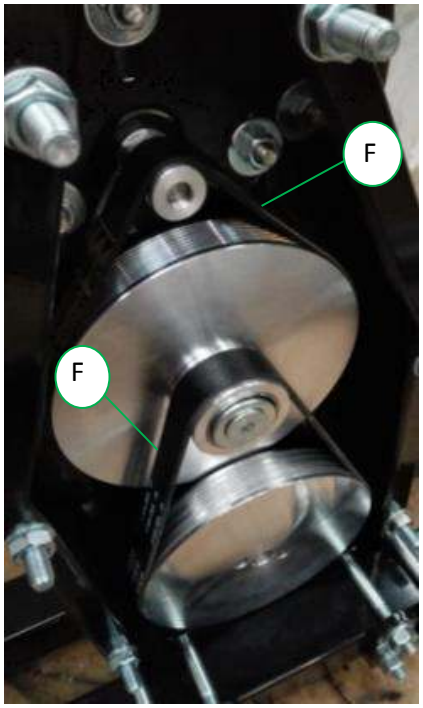
- Loosen screw **D** (Fig.22);
- Loosen screw **E** of belt tensioning device (Fig.23);



Picture 22

Picture 23

- Check the state of the belt **F**, if it is worn or damaged, replace it with a new one (Fig.24);



Picture 24

A correctly stretched belt shall not give way when pressed manually

4.4 SWITCH CHASSIS (ONLY IN THE WZ-DS SERIES)

The SWITCH chassis present in the WZ-DS series allows rapid passage from one sowing distance to another.
This allows a complete crop change also in the configuration of the seeder as well as in the adaptation of the sowing vacuum metering unit.
The sowing units are completely independent so, if desired, the machine can also be configured with different sowing distances at the same time.
For example, in a seeder with 4 sowing units, 2 units at one distance and another 2 at another.
The pitch of the distance between the rows is 2.5 cm in the even-row planters and 1.25 in the odd-row planters.
This step is given by the combination of the holes in the SWITCH frame and the holes in the carriages that are part of the sowing units

CHANGE OF SOWING DISTANCE

Phase 1: Remove the pin **A** that locks the carriage position to the SWITCH frame

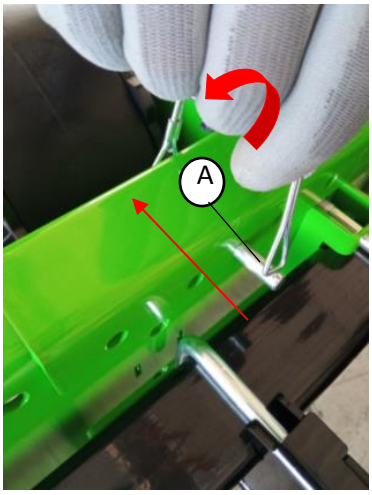


Photo 25

Phase 2: Now use a tape measure to identify the new correct location.

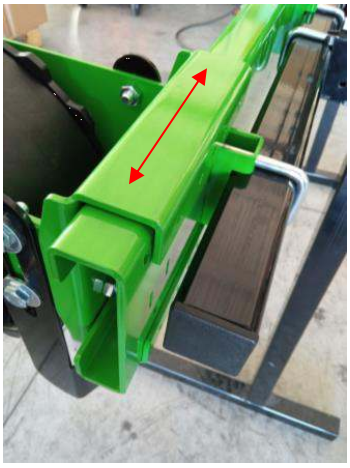


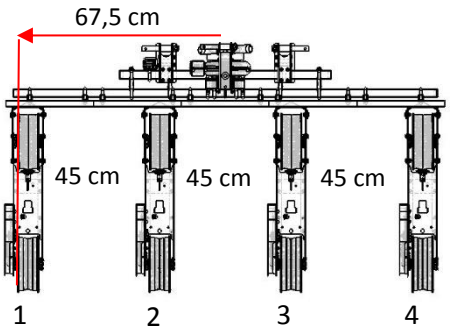
Photo 26

Equal File

Find the position of the external seeding unit by multiplying the number of spaces by the new distance and then dividing by half the machine.

Example:

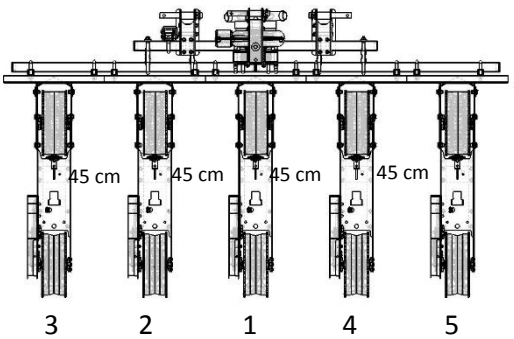
4 rows 45 must be multiplied 3 spaces x 45 cm = 135 cm and divided by 2 = 67.5 cm



This is the distance from the center of the external seeding unit to the center of the seeder.
Once the first is in place, add 45 cm for each sowing unit **2 - 3 -4**.

Odd File

In the odd rows, with one sowing unit positioned in the center **1**, the second unit is positioned from the center to the left and then continues to the outermost one **3**. Repeat from center **1** to right **4-5**.



Phase 3: Use the supplied lever **B** by inserting the screw into one of the free holes of the SWITCH frame and slide the sowing unit by pressing on the side of the SWITCH sowing unit carriage. Perform for all sowing units

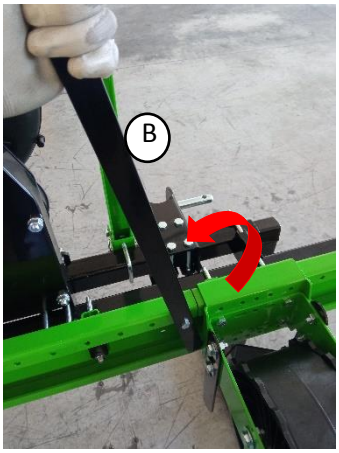


Photo 27

Phase 4: Once all the sowing units have been positioned, refit the pins **C** that lock the position.

N.B: In some positions it is possible to have more than one free hole, use whichever one you prefer.

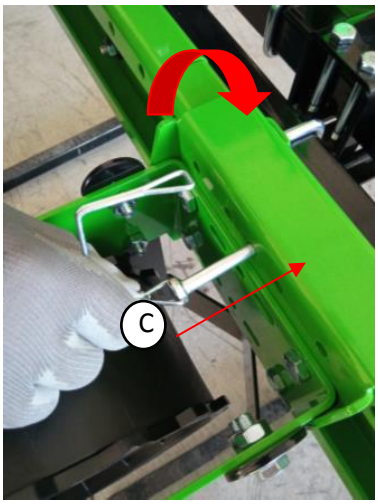


Photo 28

ATTENTION

Clean the SWITCH frame exclusively with water whenever the use of the seeder is completed.

DO NOT USE ANY TYPE OF CLEANING PRODUCT

5. MAINTENANCE

Various maintenance operations that need to be periodically made have been listed below. The minor cost of working and the longer duration of the planter also depend on the constant and methodic observance of these regulations. The terms of maintenance listed in this handbook are only for information and they relate to normal using conditions, so they can vary in relation to the type of service, the more or the less dusty workplace, seasonal factors, etc. In case of more demanding service conditions, maintenance assistance have to be logically increased. Please note that all maintenance operations must be made by qualified and trained persons when the machine is off. Moreover, the maintenance or reparations must be made outside but in a specific equipped area. During the adjustments, regulation, maintenance, repair or movement, the user must wear Personal Protective Equipment.

Picture 29

Before starting all maintenance operation, the instructions below must be followed:
- Use the accident-prevention means relative to the operation under way;
- Where using compressed air to clean the planter, it is necessary to use protective eye wear;
- Do not make unfamiliar reparations;
- Always follow instructions and where they are missing, contact the Manufacturing Company or expert personnel;
- Avoid prolonged and repeated contact of skin with combustibles/oils/fluids, as they might incite skin irritation or other symptoms.

Oils and greases use
- Before using lubricating oil clean accurately all the constituents to prevent mud, dust or foreign objects blending with oil and reducing, or even cancelling, the lubricating effect;
- Always keep oils and greases out of reach of children;
- Always carefully read warnings and precautions on containers;
- Avoid skin contacts;
- After using them rinse thoroughly;
- Use the oils according to current regulations.

5.2. MAINTENANCE PLAN

The maintenance described in the following paragraphs do not require a technical specialization. The user must know and precisely follow the indications and must have engine turned off.
Periodical check-ups and maintenance operations must be made in the periods and modalities described. This is followed by the user.
Not observing the periods and modalities of maintenance will endanger the correct functioning of the planter, thus breaking the warranty validity.
Intensify the frequency of maintenance interventions in case of hard use (frequent stops and start-ups, very hard soils, etc…).
Maintenance to be made are:
- Regularly check the condition of painted and galvanized parts of the seeder. Avoid leaving residues from chemical products on the planter;

- Regularly check that all connecting parts and fixtures (tie rods, screws, wing nuts, etc.) are intact;
- Check that they are tight and in the correct position;
- Do not use the planter if all the attachments are not in order or correctly made;
- It is good practice to keep the planter clean, it is advisable to wash it with water, including all the individual parts after using it each time;
- Do not bring the nozzle in contact with equipment parts in case of clearing with pressure water. Keep at a distance of at least 30 cm from the surface that has to be cleaned;
- Accurately lubricate the equipment, especially after having cleaned it with pressure clearing systems.

Table on frequency of interventions

Below there are some information on intervention time frames for some operations to be carried out in order to prolong the perfect operation of the seeder. The frequency suggested is purely used by way of example and is subject to change dependent on the type of service, environment, seasonal factors, etc.

PERIOD	MAINTENANCE
NEW PLANTER	- Check that all screws and wing nuts are tightly secured, check that all levers and transmissions operate freely; - Fill the tank with fuel (read the engine handbook). - Fill the engine with oil (read the engine handbook).
BEGINNING OF SEEDING SEASON	- Check the engine condition (Oil – Filters – Fuel); - For engine maintenance read the handbook; - Check the condition of the vacuum fan; - Check the condition of the fan belt; - Check the condition of the shoe opener; - Check the condition of the seed discs; - Check the condition of the metering unit's gaskets; - Check the condition of the vacuum pipes.
DAILY	- Wash the planter with water, particularly all the parts that have been in contact with chemical products, hoppers, metering units, seed tubes; - Check that there are not residues from chemical products inside the transmissions – they might cause blockages and/or bad functioning.
LONG-TERM STORAGE	At the end of the season or when the machine will not be used for a long time, it is advisable: - To wash the equipment with water and then dry it; - To accurately check all parts and then replace those damaged or worn; - To fully tighten all screws and bolts; - To protect the equipment with a cover and place it stably in a dry place, out of reach of those not qualified to use it; - To empty the machine from fuel; - To remove any seed residue from the seed distributor.

6. DEMOLITION AND DISPOSAL

Operations to be made by the Customer.
Before demolishing the planter, it is recommended to carefully verify its state, evaluating the presence of parts subject to structural failures or breakages during demolition.
The Customer shall operate in compliance with the current regulations on respect and protection of environment in force in his country.

WARNING

Demolition operations must be done only by qualified personnel, provided with adequate personal protective equipment (safety footwear and gloves), tools and auxiliary means.

All dismantling operations must be made with the engine off.
Before starting the demolition, it is recommended to render innocuous all the parts susceptible of danger and then:
- the demolition must be made by a specialized structure.
- recover separately oils and greases for disposal. This operation must be done by authorized structures in accordance with the regulations of the country in which the machine is used.

On demolishing the planter, the CE mark must be destroyed together with the handbook.
Finally, it is recalled that the Manufacturing Company is available for any necessity of attendance and replacements.

7. SPARE PARTS

Repairs and part replacement should be made using original spare parts requested from an authorized Dealer. It is important to remember that any request for spare parts should be accompanied by the following information:
- model of planter;
- planter series/serial number;
- spare part item code available from the Spare Parts Catalogue.

8. ATTACHED DOCUMENTS

8.1. HANDBOOK

Engine use and maintenance handbook.

8.2. EC DECLARATION OF CONFORMITY

WIZARD

Via delle Industrie 19—33098 Valvasone Arzene (PN)
tel: +39 0434 871461
www.wizardplanters.com
e-mail: info@wizardagroind.eu
P.Iva: 01781020936