



WIZARD

WZ-C

USE AND MAINTENANCE HANDBOOK



IMPORTANT INFORMATION

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.

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1. INTRODUCTION

1.1. PURPOSE OF THE USE AND MAINTENANCE HANDBOOK

This use handbook (or just handbook) provides the user with useful information to appropriately and safely work, enabling the use of the two wheel tractor with planter. 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 and the two wheel tractor handbook must be stored in a safe place and must accompany the machine if it is resold and 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 MAINTAINER) 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 any 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 not 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.

- **OPERATOR:** 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 Operator 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:** the 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 difficult technical works;
- 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 equipment;
- 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 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 Arzene (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-Cxx

SERIAL NUMBER

WZ-Cxx-xxxxx-xx

SERIES

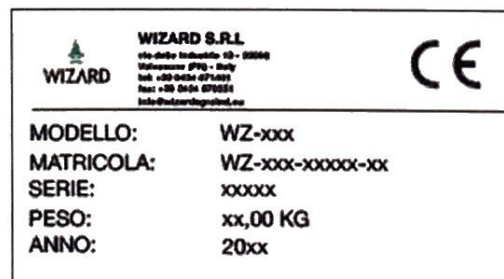
xxxxx

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 in 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 quoted for any necessity of attendance or replacements.

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.).

On demolishing the machine the "CE" mark must be destroyed.

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

2.3. DECLARATIONS

EC DECLARATION OF CONFORMITY

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

THE MANUFACTURER

WIZARD S.r.l.

Company

Via delle Industrie 19

Address

33098

Postcode

PN

Province

Valvasone Arzene

Città

ITALY

State

DECLARES THAT THE MACHINE

PNEUMATIC PLANTER

Machine

WZ-Cxx

Model

WZ-Cxx-xxxxx-xx

Serial number

20xx

Year of manufacture

Pneumatic planter for motocultivator

Commercial name

XXX

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 Machinery for agriculture and forestry – Planters - Safety.

Riferimenti specifiche tecniche

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

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 Florido

Name and surname

Via delle Industrie 19

Address

33098

Postcode

PN

Province

Valvasone Arzene

City

Italy

State

Valvasone, 18/01/2019

Legal representative

Tullio Florido

WIZARD Srl

via delle Industrie 19 - Tel. +39 0434 871461

33098 Valvasone Arzene (PN)

info@wizardaustria.eu

P.IVA 01781020936 - REA N.104042

Technician in charge of Certification:



Tracanelli Gastone



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 18/01/2019

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:

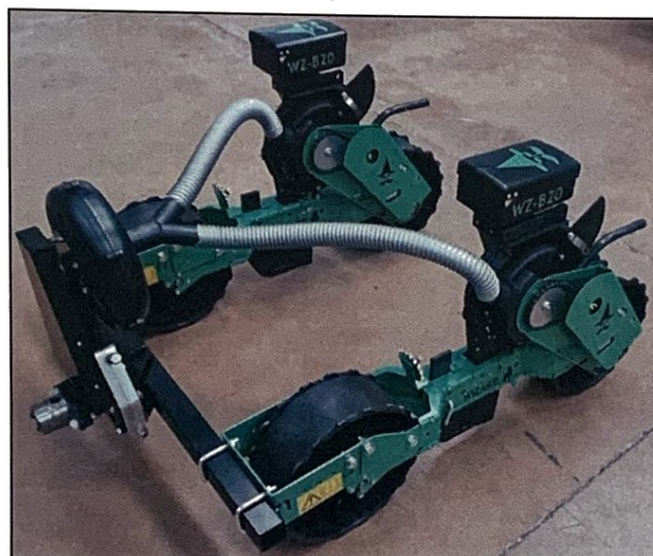
- To force any part of the machine;
- To leave movable parts unattended;
- To use the machine in working order but not completely efficient;
- To modify the machine in order to change the originally specified use without the Manufacturer's explicit authorization or without assuming the full responsibility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

- To handle movable parts with manual operations in case of energy lack.

2.4.2. 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. MACHINE DESCRIPTION

3.1. FUNCTIONING

The machine WZ-C10/C20/C30 is a pneumatic precision planter for two wheel tractors designed for the following crops: maize, chard, soya beans, sunflowers, rape, sorghum, beans, cotton, peanuts, fennel, tomatoes, etc.

The planter comes in three different types:

- WZ-C10: single-row pneumatic planter for two wheel tractors;
- WZ-C20: double-row pneumatic planter for two wheel tractors;
- WZ-C30: triple-row pneumatic planter for two wheel tractors.

The seeds are distributed into the furrow in the soil through 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.

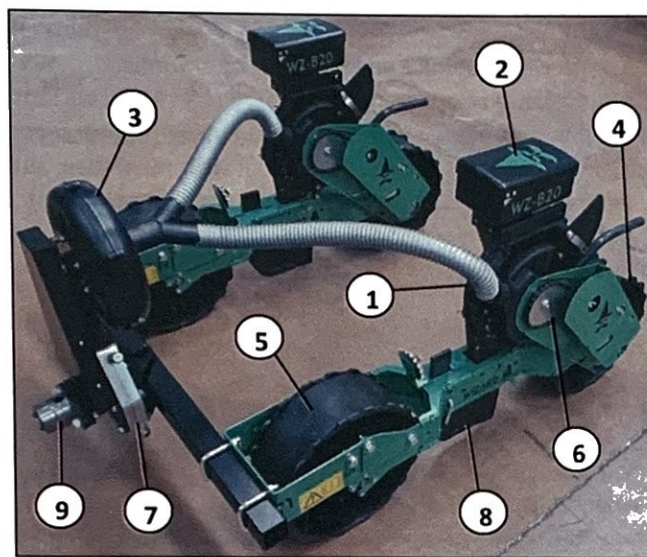
The regular functioning of the planter depends on the correct use and the adequate maintenance. It is therefore advisable to strictly respect what is written in this handbook to prevent any inconvenience that might affect its correct functioning and duration. It is also important to follow what is described 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) Multiplicator;
- 8) Shoe opener;
- 9) (PTO) drive shaft.



Picture 3

Below it is possible to find the data related to planters **WZ-C10/C20/C30**.

MODEL	File N°	Weight	Capacity	Dimensions (mm)
		(Kg)	(liters)	Width. x leng. x H
WZ-C10	1	36	5	400x1250x800
WZ-C20	2	58	5	1000x1250x800
WZ-C30	3	80	5	1000x1250x800

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-A10 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.

4. MACHINE USE

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

4.1. 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.

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.

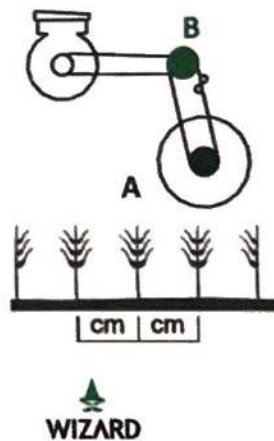
Example:

You wish to plant some beans at a distance of 16 cm with a 18 hole disc.

To find the pair of sprockets to be used you should:

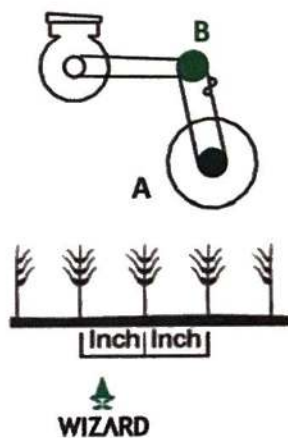
- Find the size closest to the required one in the column of 18 hole disc
(in this case = 15.3 cm);

- obtain the pair of gears 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

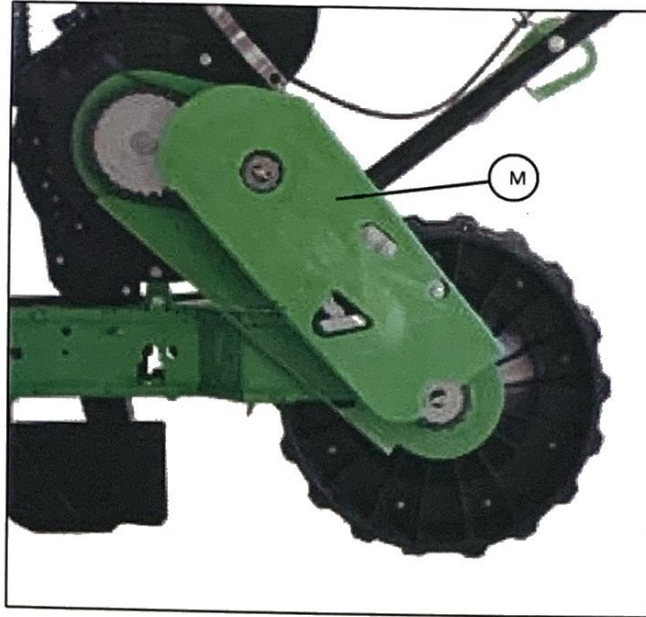
Table 4 (inches)

4.2.2. TRANSMISSION RATIO

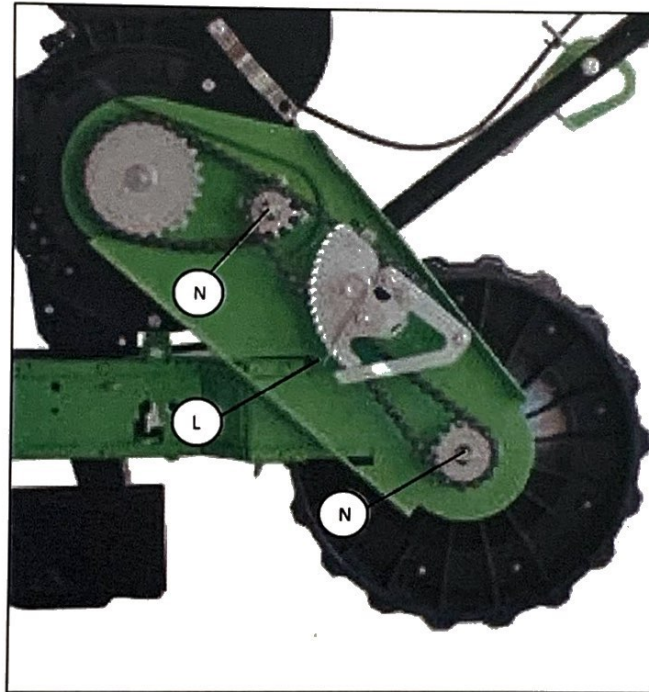
From Table 3 or 4 it is possible to determine the pair of sprockets to be used to obtain the desired planting distance.

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;
- Assemble the selector **F** in the appropriate pins **G**, the selector must raze the disc (Pic. 7);
- Reassemble the metering unit cover on the appropriate pins, securing it with the relevant springs **C**;
- After having assembled the cover check that the small needles **H** (Pic. 8) are against the selector and not on the disc.

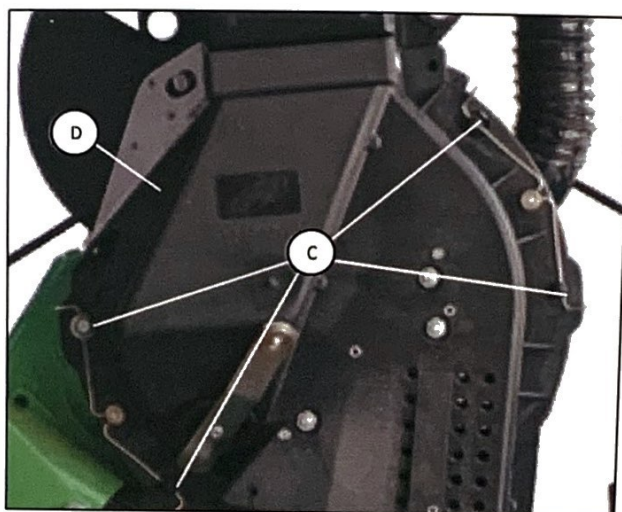
WARNING

If possible, make adjustments in clean, dry and dust-free areas.

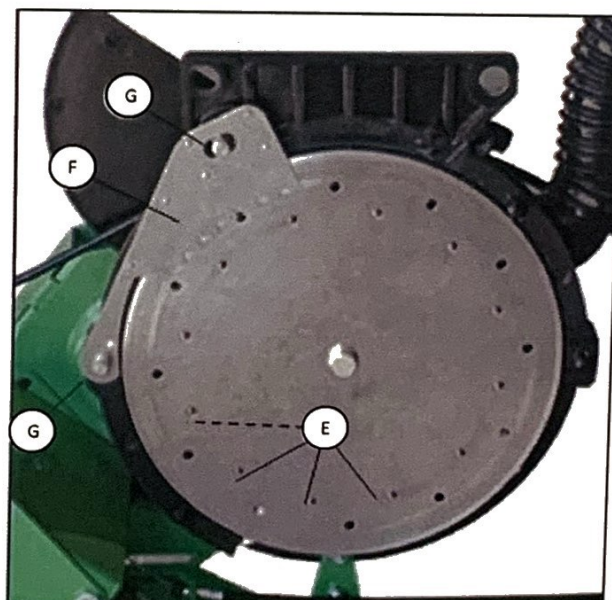
Dust and humidity might cause damages to the discs and the gaskets.

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

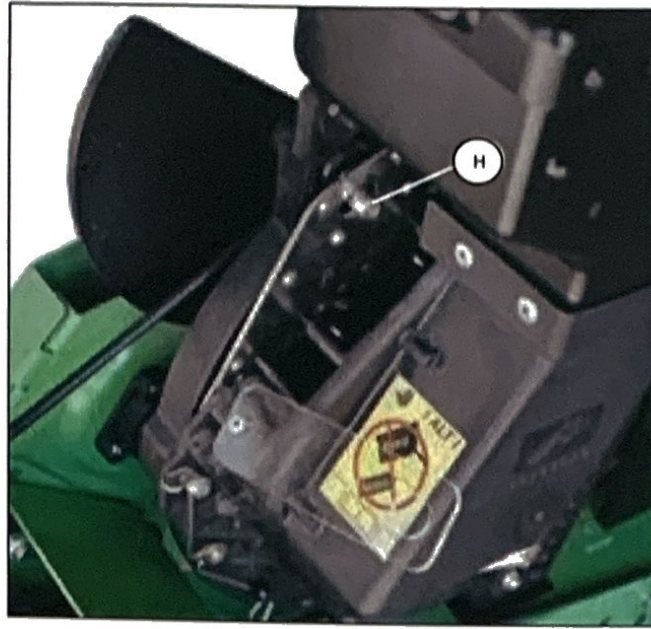
It is important that the disc is correctly assembled in the disc holder pins E (Pic. 7).



Picture 6



Picture 7

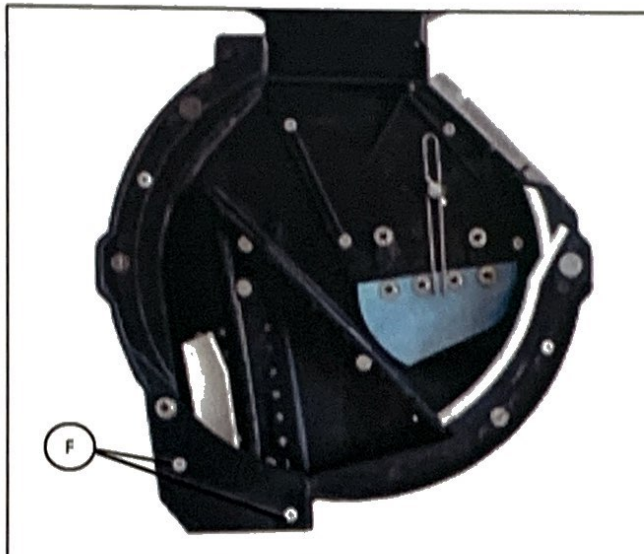


Picture 8

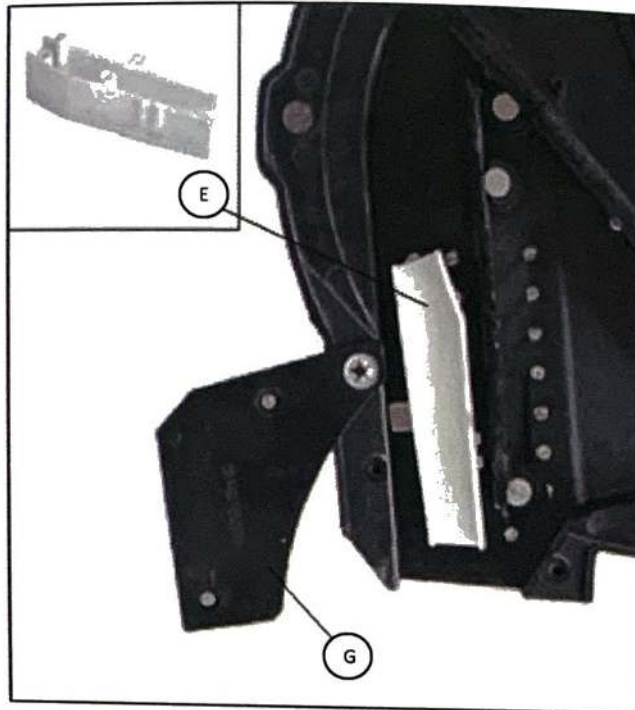
Seed guide assembly

If the diameter of the holes of the seed discs used are less than or equal 3 mm, install seed guide E onto the metering units cover (Pic. 10):

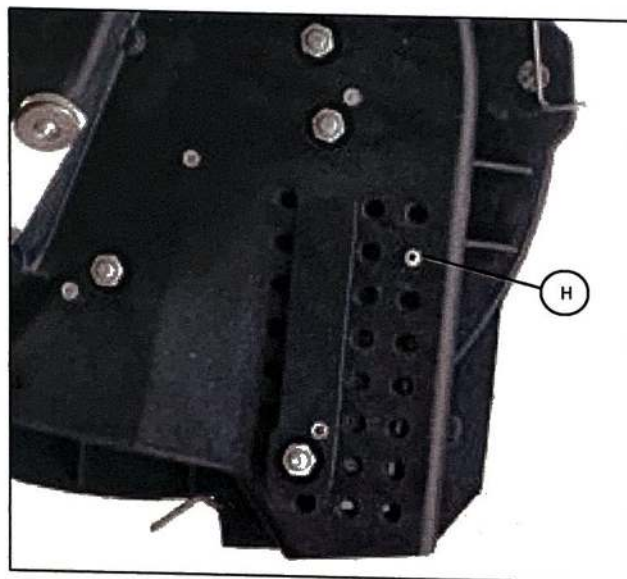
- Unscrew screws F (Pic. 9);
- Turn cover G (Pic. 10);
- Mount guide E, the guide pin has to be inserted in point H of the cover (Pic. 11);
- Replace the cover;
- Assemble the cover G with screws F (Pic. 9).



Picture 9



Picture 10

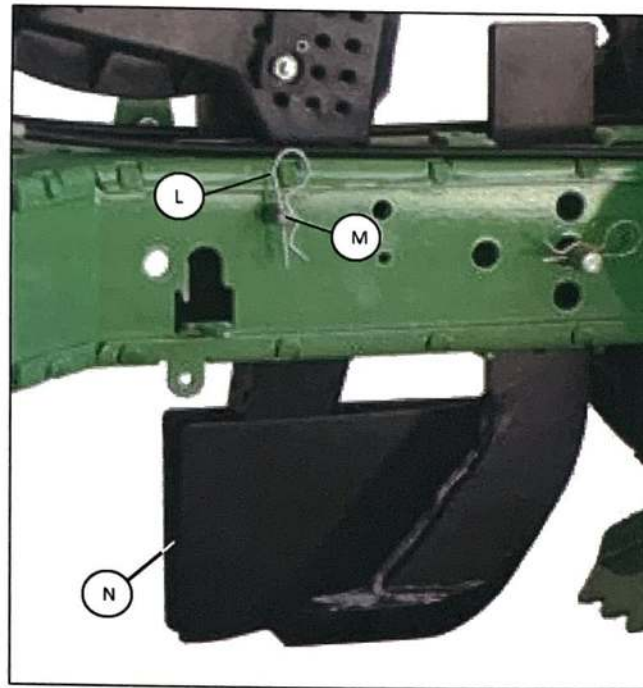


Picture 11

4.2.4. 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):

- Remove the pins L-M;
- Raise/Lower the shoe opener N based on your requirements;
- Re-mount the pins L-M.

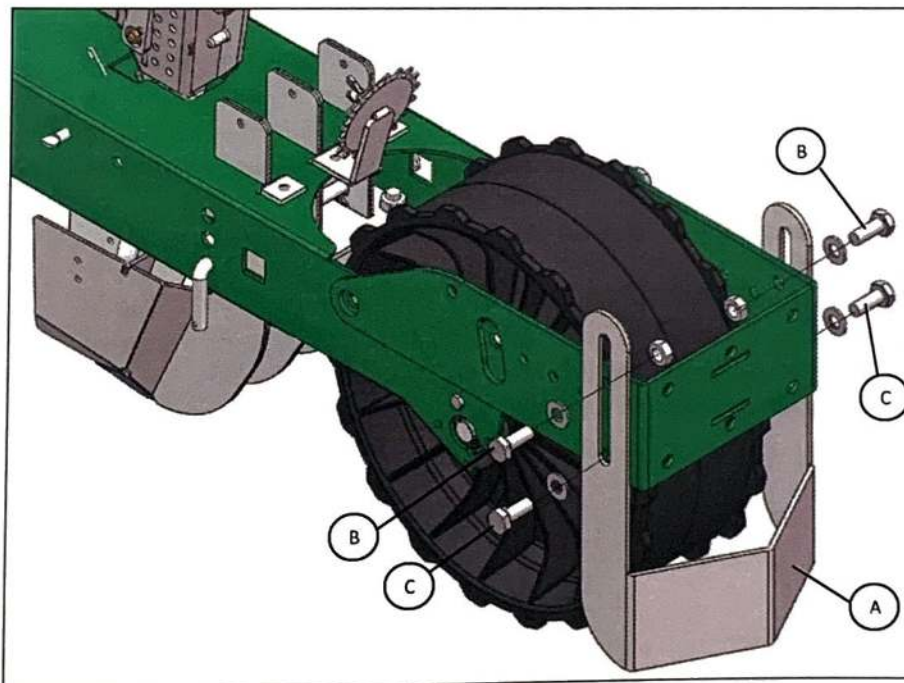


Picture 12

4.2.5. CLOD REMOVER ASSEMBLY

To assemble the clod remover follow the instructions:

- Adjust the clod remover slots **A** with the holes in the chassis (Pic. 13);
- Insert the given screws **B** and **C** (Pic. 13) and adjust the clod remover height;
- Tighten the screws checking that the clod remover **A** is well-fixed to the required working height.



Picture 13

4.3. CONNECTION OF THE PLANTER TO THE TWO WHEEL TRACTOR

After having made all the configuration operations, the planter can be connected to the two wheel tractor. This operation must be made by qualified and provided with Personal Protective Equipment personnel. For the connecting procedure of the planter to the two wheel tractor please follow the instructions in the enclosure A.

The planter can be connected to any two wheel tractor having the engine off (PTO).

The planter assembly to the two wheel tractor must be made with the engine switched off and the machine fixed steady.

To assembly the planter it is necessary to:

- Connect the planter to a two wheel tractor provided with adequate power and configuration through the relevant device (connection), in conformity with regulations;
- The category of the connecting pins of the planter must correspond to that of the two wheel tractor;
- Pay maximum attention during the connecting and the unhooking operations;
- It is absolutely forbidden to interpose between the two wheel tractor and the planter with the engine switched on, without having activated the hand brake and having put a brake lock of adequate dimensions under the wheels;
- Check the compatibility of the two wheel tractor performances with the planter weight.

When the power is switched off (PTO) will be activated for the first time, after having assembled the planter, activate really slowly the clutch lever to allow the simple insertion of the connection between the two wheel tractor and the planter.

WARNING



The connection to the two wheel tractor is a very dangerous operation. Pay maximum attention during this phase and follow the instructions given.

The correct position twowheel tractor/planter is determined by putting the equipment on a horizontal line.

Once the planter is connected to the two wheel tractor, fasten the pins with the special pegs.

WARNING



To transport the planter always follow the Manufacturer's directions.

To unhook the planter is a very dangerous operation. Pay maximum attention during this phase and follow the instructions given. For a correct unhooking of the planter it is important to work on a horizontal line.

4.4. 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.

4.5. PLANTING ADJUSTMENTS

4.5.3. SEED SELECTOR 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.

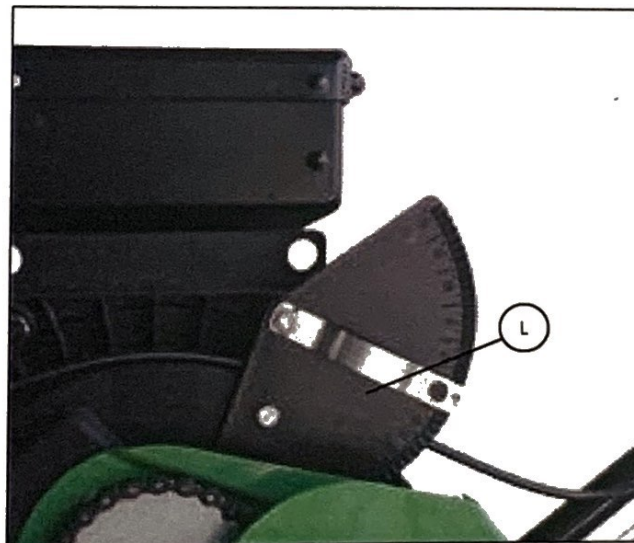
- 1) Adjust the selector lever L in the intermediate position;
- 2) Rotate one or two full turns the seed disc by rotating the press wheel;
- 3) Check through the inspection window on the cover that the seeds are distributed on the disc.
- 4) Pay attention to moving parts and adjustments carefully.

From this control there can be three different situations:

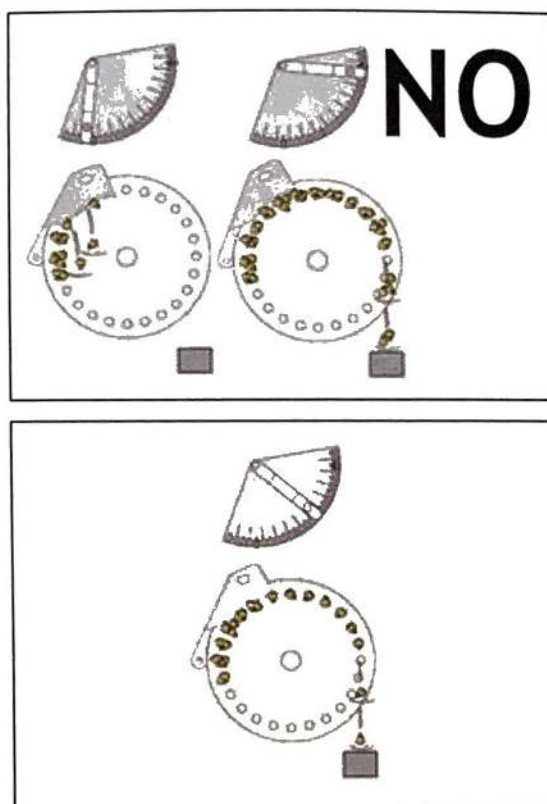
- A) The holes of the seeding disc after passing the selector may have no seeds or very few.
 - The selector is adjusted at a too low value, shift the lever L towards higher values and start again from point 2).
- B) The holes on the distributor disc downstream the selector have more than one seed (generally 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 14



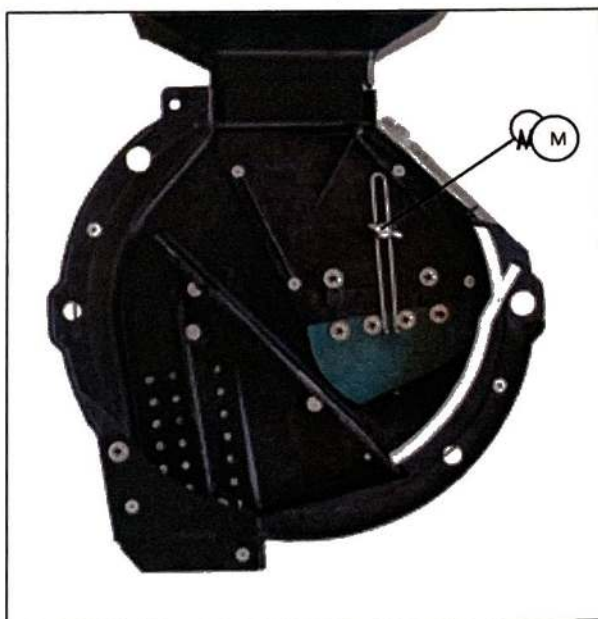
Picture 15

4.5.2 SEED BULKHEAD ADJUSTMENT

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

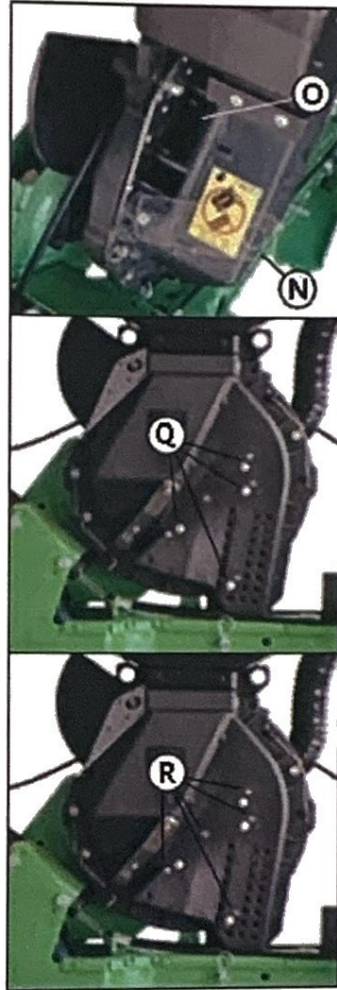
- This bulkhead adjusts the seed outlet in order to prevent the seed from coming out of the metering unit in case of overflow);
- The bulkhead adjustment is made through the spring **M** on the cover (Pic.21);

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



Picture 16

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 17

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.

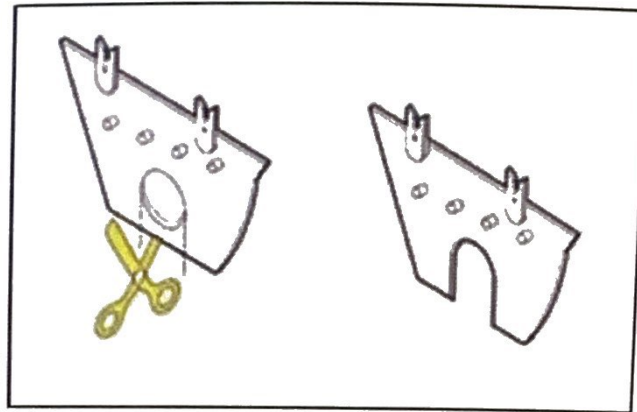
4.5.3. BRUSH ADJUSTMENTS

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:

- Loosen the screws **Q**;
- Adjust the brush by either tightening or loosening Allen wrench screws **R** in sequence;
- Tighten the screws **Q**.



Picture 18

4.5.4. MONITORING OPERATIONS DURING PLANTING

Once all the previous operations have been made, the planter is ready to work.

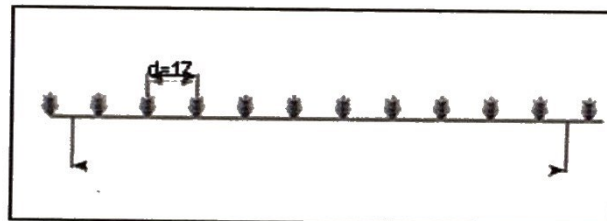
For a more precise seeding, it is advisable to try at first, doing some meters to verify that the seeding is realizing as desired.

In particular:

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

Example:

If the set distance is $d=17\text{cm}$ it means that there should be 10 seeds in 170 cm, counted as shown in the picture below.



Picture 19

- 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.

4.4 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 cleanness 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.**

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 20

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.

5.1. MAINTENANCE PLAN

The maintenance described in the following paragraphs do not require a technical specialization.

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	INTERVENTION
NEW MACHINE	<ul style="list-style-type: none"> - Check that all screws and wing nuts are tightly secured, check that all levers and transmissions operate freely.
BEGINNING OF PLANTING SEASON	<ul style="list-style-type: none"> - Check and verify the correct connection of the planter with the two wheel tractor; - Check the condition of the two wheel tractor; - 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	<ul style="list-style-type: none"> - 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. - Check the correct connection of the planter to the two wheel tractor.
LONG-TERM STORAGE	<p>At the end of the season or when the machine will not be used for a long time, it is advisable:</p> <ul style="list-style-type: none"> - 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 metering unit.

6. DEMOLITION AND DISPOSAL

Operations to be carried out by the Customer.

Before carrying out the machine demolition, it is recommended to carefully verify its physical 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 carried out with the machine stopped .

Before starting the demolition it is recommended to render innocuous all the parts susceptible of danger and then:

- scrap the structure thanks to specialized Companies,
- recover separately oils and greases for disposal. This operation must be done by authorized Companies in accordance with the regulations of the country in which the machine is used.

On demolishing the machine 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

Repair work and part replacement should be carried out 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:

- machine type;
- machine series/serial number;
- spare part item code available from the Spare Parts Catalogue.

8. ENCLOSURE A

The planter can be connected to any two wheel tractor when the power off (PTO, see Pic. 21). The type of connection can vary based on the two wheel tractor typology. To know which is the type of connection appropriate to connect the planter to the two wheel tractor consult the Manufacturer's handbook.



Picture 21

The planter assembly to the two wheel tractor must be made with the engine switched off and the machine has to be put in a fixed and steady position.

To assembly the planter it is necessary to:

- Connect the planter to a two wheel tractor with adequate power and configuration through the relevant device (connection), in conformity with regulations;
- The category of the connecting pins of the planter must correspond to that of the two wheel drive tractor;
- Pay maximum attention during the connecting and the unhooking operations;
- It is absolutely forbidden to be between the two wheel tractor and the planter with the engine switched on, without having activated the hand brake and having put a brake lock of adequate dimensions under the wheels ;
- Check the compatibility of the two wheel drive tractor performances with the planter weight.

When the power is off (PTO) will be activated for the first time, after having assembled the planter, activate really slowly the clutch lever to allow the simple insertion of the connection between the two wheel tractor and the planter.

WARNING



The connection to the two wheel tractor is a very dangerous operation. Pay maximum attention during this phase and follow the instructions given.

The correct position two wheel tractor/planter is determined by putting the equipment on a horizontal line.

Once the planter is connected to the two wheel tractor, fasten the pins with the special pegs.

WARNING



To transport the planter always follow the Manufacturer's directions.

To unhook the planter is a very dangerous operation. Pay maximum attention during this phase and follow the instructions given. For a correct unhooking of the planter it is important to work on a horizontal line



WIZARD