

Castellari

Imola, Italia, 1976



RY10H

CE

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Use and maintenance manual: www.castellarisrl.com
Manuel d'utilisation et de maintenance: www.castellarisrl.com
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USE AND MAINTENANCE MANUAL

1. INTRODUCTION AND USES

1.1 Purpose of the Manual

This manual contains the instructions necessary for the correct and safe use of the RY10H electric olive harvester, hereinafter also referred to as the "machine", distributed by Castellari S.r.l., of Imola (BO). Before using the machine, it is important to read and carefully follow the instructions in this manual as the regular operation and durability of the machine itself depends on compliance with the instructions given, together with proper maintenance.

1.2 Subjects to whom the manual is addressed

This manual is the indispensable guide for all users who, for various reasons, can use or take care of the machine in the performance of various tasks. The following are the possible job profiles:

User:

Person, entity or company that buys or leases the machine and intends to use it for the purposes intended for the purpose. His is the responsibility for the machine and the training of those who work around it.

Operator:

A person trained in the use of the machine.

It is able to drive the machine through the use of the controls arranged on the push-button panel, it can only intervene to make simple adjustments. It is not authorized to carry out maintenance on the electrical or mechanical system of the machine.

Mechanical maintenance technician:

Specialized technician able to intervene on mechanical parts and transmissions to carry out all the necessary maintenance and repairs. He is not authorized to carry out electrical maintenance on the machine.

Electrical maintenance technician :

Specialized technician able to operate in the presence of voltage inside electrical panels or junction boxes. He is not authorized to perform maintenance on mechanical parts.

SYMBOLGY:



Manual reading required



Protective goggles are mandatory



Wearing a protective helmet is mandatory



Wearing safety shoes is mandatory



Wearing hearing protection is mandatory



Prohibition of placing or approaching heat sources



Prohibition of exposure to the sun or hot surfaces



Signal of any residual risks despite the fact that all the required safety standards have been applied for the implementation



Electronic equipment, waste to be disposed of according to the regulations in force in your country



The waste must be collected separately and cannot be assimilated to household



Dangerous situations related to the use of the machine are indicated in the manual by using the symbol above

N.B.: It is important to keep the signs on the machine clean and clearly visible at all times in order to allow users to quickly identify possible risk situations during use.

1.3 Intended and Unintended Uses of the Machine

Intended use: The Model RY10H battery-powered electric rake is designed and built for olive harvesting.

No other use is intended.

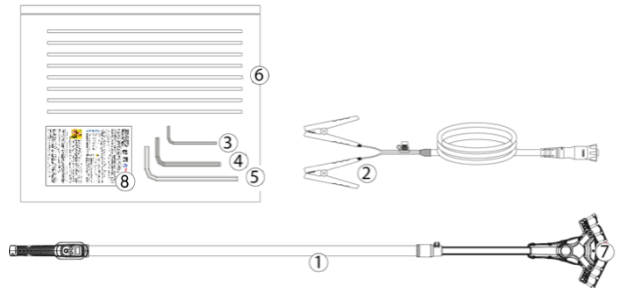
Castellari srl, importers, distributors and retailers are not responsible and will not be liable for injuries, losses or damages resulting from improper use and decline any and all liability for malfunctions and/or damage due to uses other than those indicated in this manual.

In addition to the above, the following uses are prohibited:

- Use the rake in environments with explosive atmospheres
- Given the use of electrical components, do not use in case of bad weather, storms or environments with excess water or humidity
- It is forbidden to touch the moving combs
- Do not operate the machine with damp or wet hands.
- Do not place near or place on heat sources
- Always use the appropriate safety devices listed in the following manual.

1.4 RY10H Machine Packing Content

1. Camera body
2. Connector cable (12m)
3. Allen key M2.5
4. M3 Allen key
5. M5 Allen
6. 8 prongs
7. 2 x Branch Blocker
8. Start-up Manual



2. SAFETY AND PREVENTION

It is very important to read this manual carefully in order to minimize the risks due to careless or incorrect use of the machine covered by the manual. The user must instruct the operator on the risks due to the use of the machine, on the devices designed for safety and on the general accident prevention rules provided for by the directives and legislation of the country of use of the machine

2.1 Protection and safety devices

The machine is equipped with safety devices to protect the operator from all moving parts of the machine.

Protective casing: Fixed device that prevents direct contact with moving parts or dangerous parts of the machine. The protection can only be removed by using special tools.

When the machine is in operation, the protective guard must be correctly fitted.

Electrical cut-off device: Allows the immediate interruption of all machine functions in the event of a machine anomaly. Intervention of this guard results in the emergency stop of the machine. In order for it to be reactivated, the device that caused the shutdown (fuse) must be reset by ensuring that the machine is switched off and disconnected from the power supply. See section 6.2.1.

2.2 General Safety Rules

The staff undertakes to:

- always use the personal protective equipment required by law and follow the instructions in this manual,
- follow all the hazard and caution indications marked on the machine,
- not to carry out operations or interventions on the machine on their own initiative that are not within their competence,
- report any problem or dangerous situation that may arise to your superior.
- The machine must only be used for the purpose for which it was designed.
- The machine must not be operated with the guards removed: the safety barriers and casings must not be removed or disengaged.
- Do not tamper with or modify any part of the machine



NB: Avoid wearing loose, fluttering clothing as they may become entangled in moving parts of the machine. It is important to use suitable clothing.

The operator should not carry scissors or sharp tools in the pockets. Please note that it is forbidden to transit and stop within the range of action of the machine outside the operator.

2.3 Safety in use and maintenance

2.3.1 Safety in use and working environment

- Before starting the machine, make sure that all safety devices are perfectly intact.
- The area in which the machine is used is to be considered a "Danger Zone", i.e. an area in the vicinity of which the presence of an exposed person constitutes a risk to the health and safety of said person. This applies in particular if people who have not been trained in the use of the machine.
- The area surrounding the operating area of the machine must always be clean and free of any obstacles. Make sure that there are no people or animals in the area where the machine is used
- Using the machine may cause objects to fall from a height which may result in injury or death. Always use extreme caution, secure the foot support zone and have a plan to retreat from the area where objects are likely to fall ("Danger Zone"). Do not allow others to stand or walk within fifteen meters of this Danger Zone.
- When a person is "exposed" or is in a "danger zone", the operator must immediately intervene by stopping the machine and possibly removing the person in question.

- During the operation of the machine, the operator must maintain a position that allows full control of the machine so that he can intervene at any time and for any eventuality.
- Before relinquishing control of the machine, always make sure that the power supply is disconnected.
- Periodically check the integrity of the machine as a whole, including the protective devices.
- Do not point the machine at people.
- Keep out of reach of children

3. Machine identification and technical data

The RY10H is a machine designed to make olive harvesting easier and easier in complete respect of the plant. The shape and movement of the rake teeth are in fact such as to prevent violent mechanical stresses that could damage the plant.

The fall of the fruit occurs due to the slight shaking caused by the movement of the combs. The drive unit with the reduction gears is positioned at the top of the machine.

The operating head is located at the end of a telescopic pole that allows the head with the comb to reach the crowns of the trees on which to collect the fruits.

The telescopic manoeuvring rod is equipped with a quick-release locking system for an appropriate, quick and easy adjustment of the working length. The machine is equipped with a 12-meter extension cable at the ends of which two pliers are attached for connection to the power battery.

3.1 Machine Identification

The machine is equipped with an identification plate on which the following data are indicated:

- Name of the company responsible for the CE marking and full address;
- Product name;
- Serial number;
- Year of construction;
- Indicators for disposal, "CE" marking;
- Obligation to read the manual.
- Product Origin

TECHNICAL DATA:

Power supply direct current

Length 2.15-3.05 m

Machine weight 2.8kg

Power cable length 12 m

Rpm 700/800/900rpm

Motor power 250 Watt

Recommended battery 70 Ah – 90 Ah depending on usage

3.2 Risks arising from the use of the machine

3.2.1 Noise risk

The sound level was measured by measuring the emission with the machine running in accordance with the with the UNI EN ISO 11201 : 2010 standard. The following values were collected:

- Average sound pressure LpA (A) dB 71.7

From the values found, it is concluded that the operation of the machine does not involve a high noise level.

3.2.2 Vibration risk

The vibration level was measured with the machine in motion in accordance with the UNI EN SO 5349-2 : 2015 standard for the evaluation of vibrations transmitted to the HAND-ARM system.

The following value has been collected:

Hand-arm vibration level: 4.42 m/s² considering the heaviest use of machines open 3 m.

It is advisable to evaluate, according to local laws, the possible use of PPE.

4. UTILIZATION

4.1 Handling and transport

The machine is easily transportable in both packaged and free form. It is recommended to be careful with overhead power lines when transporting it for its use.

Before Use

Before putting the machine into operation, the operator must have read and understood all parts of this manual and in particular what is reported in Chapter 2 dedicated to safety.

Before using the machine for the first time:

- familiarize themselves with the control devices and their functions,
- check that all components of the machine subject to wear or deterioration are in an intact state,
- Check that all safety systems are intact and that the fixed casings are in the correct position.
- Check that the start button is in the stop position
- Check the power cord for damage.

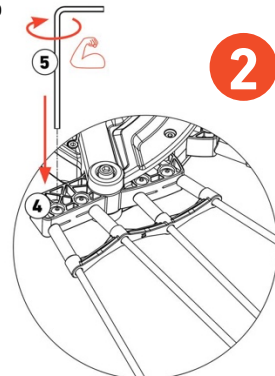
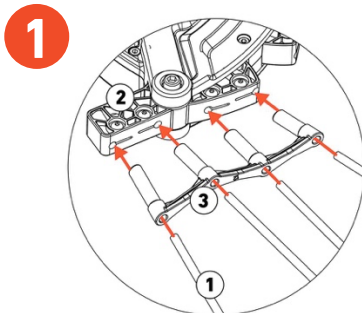
4.2 Assembling and disassembling combs

The machine is shipped with the tines disassembled. To carry out the assembly.

1. Insert the tines (1) into the base of the comb (2) by passing them through the branch lock (3).

Make sure that the prong reaches the end of the stroke.

2. Tighten the (4) Allen screws in the comb base by firmly tightening the corresponding prongs (5). Check the tightness of the screw daily
3. Repeat the operation ① and ② with the other comb



4.3 Connection

Machines should only be connected to a well-charged battery via the terminals at the end of the supplied power cable. For a day's work we recommend a 12V 80A battery (*not supplied*).

Terminal connection mode:

- make sure the power button is in the OFF position.
- connect the RED CLAMP to the battery at the + SIGN
- connect the BLACK CLAMP to the battery at the

MARK -

Check the correct connection before switching on so as not to cause irreversible damage to the machine.

The use of batteries already used in vehicles or other machinery is prohibited.

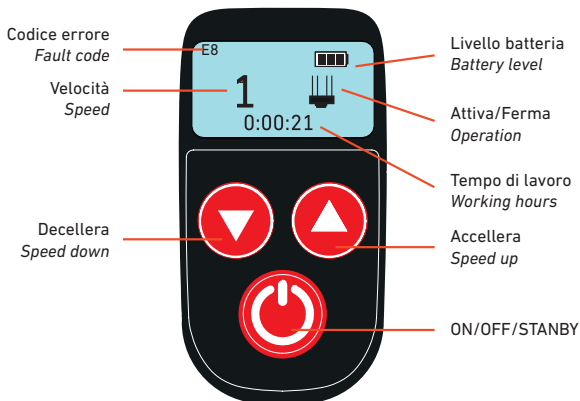


NB:

- Do not connect the terminals to generators, car batteries, agricultural vehicles or charging units that could generate current peaks that could be harmful to the machine. Do not use the machine in contact with water.
- Be sure to screw the screw nuts of the machine and cable connection sockets tightly, to avoid movements on the contacts that would damage the operation of the sockets themselves

4.4 Using the Machine

The machine is started using the switch on the handle. It allows 3 working speeds. To vary the speeds, use the two buttons with arrows. Through the up arrow the speed will increase, vice versa with the down arrow the speed will decrease. If you want to pause the machine, simply click on the start button once.



Once started, approach the branch to be shaken with the combs. Pay attention to branches that are particularly loaded with fruit.

- Hold the machine firmly with both hands and always work in stable condition on your legs.

NB: Avoid touching the moving parts of the machine in any way.

- To switch off the machine, simply turn the switch back to the opposite position to the on/off position.

In the event that the machine is temporarily not in use, it is important to place it in a stable horizontal position in order to avoid risky falls. Obviously turned off.

Directions for use:

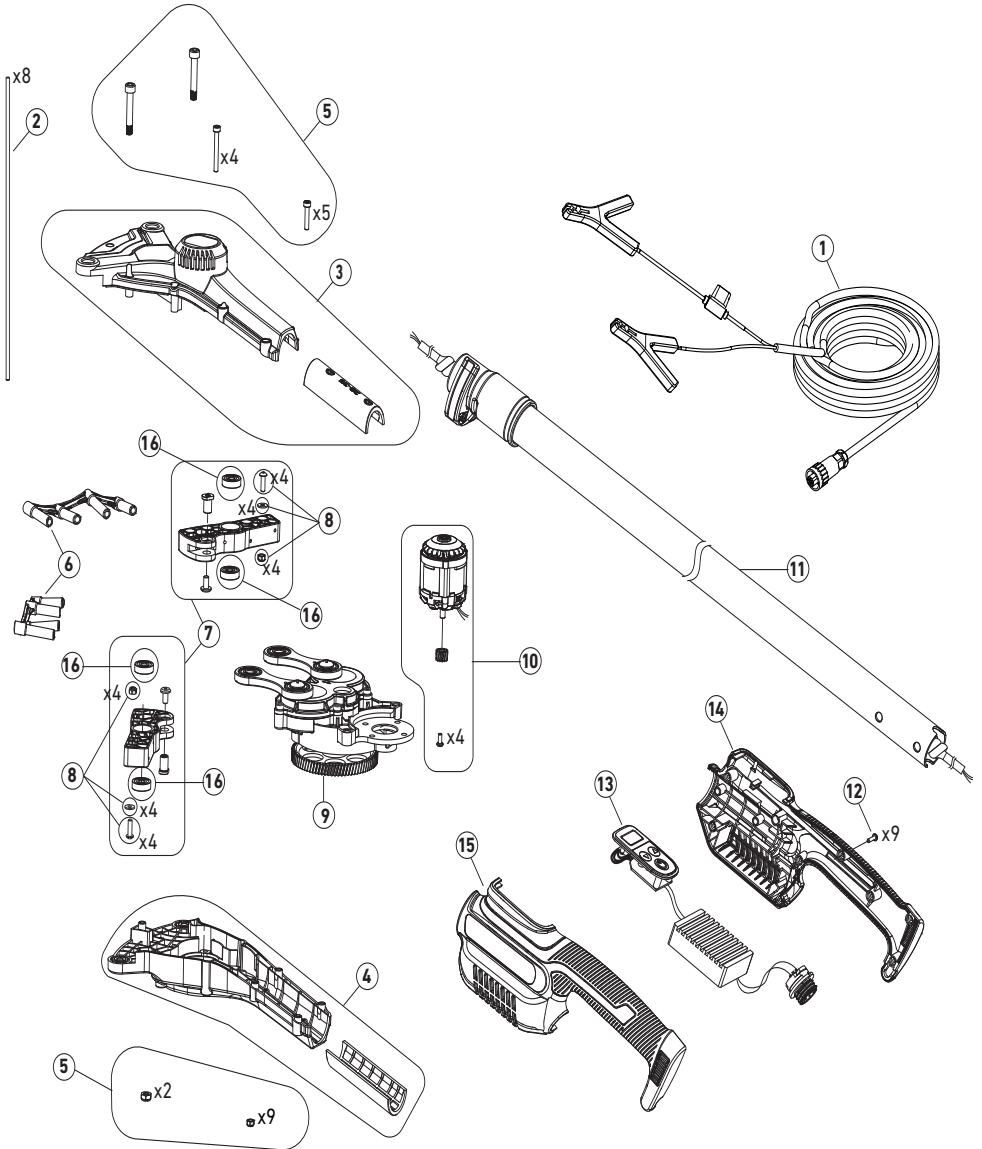
- The wear and tear of the machine's mechanical and electronic components is closely related to the way the machine is used. Therefore, avoid insisting on the branch to be shaken until the machine stops, this would lead to a mechanical and thermal overload of the components. Try to limit these blockages as much as possible, so you will extend the life of your tool!

- In order to avoid dangerous overloads of effort that could cause damage to the comb, it is advisable to intersperse the shaking action with regular pauses in order not to stress the tool beyond the standards for which it was designed and tested.

- It is forbidden to use discharged or deteriorated batteries.

- Always follow the instructions of the following manual

5. RY10H Components



POS.	COD.	DESCRIPTION	QUANTITY
1	RY10H01	12 MT CABLE	1
2	RY10H02	CARBON SPOKES 35CM	1
3	RY10H03	UPPER CARTER	1
4	RY10H04	LOWER CARTER	1
5	RY10H05	CARTER SCREW KIT	2
6	RY10H06	LOCKS SPOKES	1
7	RY10H07	SPOKES SUPPORT SET	2
8	RY10H08	ROD SUPPORT SCREW KIT	1
9	RY10H09	COMPLETE DRIVE SET	1
10	RY10H10	MOTOR SET	1
11	RY10H11	ROD SET COMPLETE WITH CABLE	1
12	RY10H12	HANDLE SCREW KIT	1
13	RY10H13	COMPLETE ELECTRONIC BOARD	1
14	RY10H14	RIGHT HANDLE CARTER	1
15	RY10H15	LEFT HANDLE CARTER	1
16	VE300135	626Z BEARING	1

6. MAINTENANCE AND CLEANING

6.1 Safety in Maintenance

- Before carrying out any maintenance work on the machine, make sure that the power supply is disconnected.
- Maintenance operations must always be carried out by personnel qualified for these specific functions.
- At the end of the maintenance and repair operations, before restarting the machine, the technical manager must make sure that the work is completed, the safety devices are restored and that the guards have been refitted.

During maintenance or repair operations, the use of suitable protective clothing is mandatory, such as:

Gloves Protectors



Protective goggles Helmet



Non-slip shoes
and anti-crush



Adjustments, when the safety devices are disengaged or without casing, must be carried out by a single specialised operator; During these operations, access to the machine is prohibited to non-professionals. Avoid dust deposits on the machine, especially on the electric motor and suction filters.

NB: Do not direct jets of water at the machine (e.g. for cleaning), they could generate a short circuit!



6.2 Routine Maintenance

The long service life of the machine and the lower operating cost depend on compliance with these standards.

Periodic checks to be carried out:

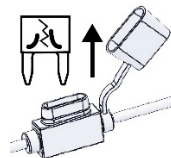
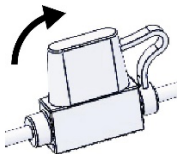
1. Check the tightness of the screws that lock the prongs daily.
2. Check the tightness of the screws on the casing and on the rod supports every 15 days.
3. Every 15 days, blow the air inlets located on the handle and in the casing on the head of the shaft

The intervention times shown are to be considered indicative and are defined considering normal conditions of use of the machine. They may vary according to the way the machine is used and in relation to the characteristics of the environment in which it is used, e.g.: humidity level, air cleanliness (presence of dust). In conditions of intense use, it is necessary to increase the number of maintenance interventions. Before proceeding with any operation, make sure that the machine is switched off and the terminals are disconnected from the battery.

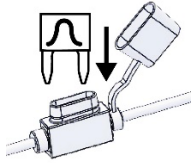
6.3 Fuse Replacement

If the machine has stopped due to an emergency or fault, replace the fuse, to replace it will be necessary to disconnect the machine from the power supply and follow the steps below:

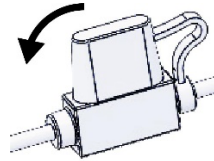
- 1) Open the fuse holder cover
- 2) Remove the blown fuse.



3) Insert the new fuse securely.



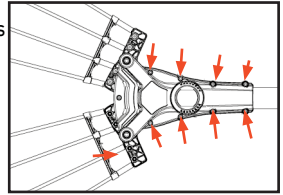
4) Close the fuse holder cover.



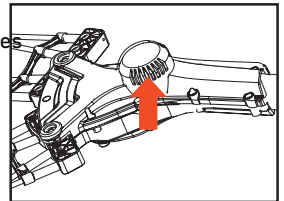
Once these simple steps have been carried out, it will be possible to connect the machine to the battery again and resume its use. If the machine does not start again, take it to an authorized Castellari center for repair.

6.4 Cleaning and lubrication of the machine

1) Check the tightness of the head screws on the crankcase every 15 days



2) Every 15 days blow the engine air intakes from outside the crankcase



6.5 Putting to rest

If the machine is to be resting for a long time, the following steps must be carried out:

- disconnect the machine from the power supply;
- Clean the machine, freeing it from any dirt residues.
- check and replace the parts damaged/worn by use at a specialised Castellari service centre.
- Cover the machine to avoid the deposit of dust and dirt.

7. TROUBLESHOOTING

The machine does not turn on:

- Check that the battery is charged.
- Check that you have connected the cable to the battery properly.
- Check that the connectors are securely connected to each other.
- Check that the safety fuse is functional.

If all this is not enough, take the machine to a Castellari service center.

The machine runs slowly/the combs do not move:

- The engine or the moving parts may have a malfunction, take the machine to a Castellari service center.
- The comb support is disconnected from the connecting rod, take the machine to a Castellari service center.

The machine makes abnormal noises:

- Probably problems with the moving parts, take the machine to a Castellari service center.

7.1 Spare parts

In order to ensure the safety and long life of the product, we recommend the use of only original spare parts. It is recommended to have specialized repairs or maintenance carried out by specialized and authorized personnel.

8. ECOLOGY AND POLLUTION

8.1 Disposal of Machines

Disconnect the machine from the power supply and cut off the connection cable.

The machine is made up of materials that can be recovered; in particular, it is possible to recover iron, aluminum and copper. Hand over your discarded machine to an official material recycling center. You actively contribute to environmental protection by applying disposal and recovery methods also in relation to the packaging materials used to package the machine. Your local authority will be able to inform you about the most effective ways and possibilities to dispose of the old tool in an environmentally friendly way.



8.2 Waste Management

The use and maintenance of the machine generates waste products that must be disposed of in accordance with the laws in force in the country where the machine is used. The user of the machine is obliged to comply with any recommendations from the manufacturers regarding the use of the products for the normal operation, cleaning and maintenance of the machine.

Any special waste must be disposed of by contacting specialized companies authorized for this purpose. Make sure that the waste is disposed of correctly by requesting the receipt of "successful disposal".

8.2.1 Information to users



The crossed-out wheeled bin symbol on the appliance indicates that the product at the end of its useful life must be collected separately from other waste and may not be disposed of as household waste.

The user who must/wants to get rid of this machine can refer to a person authorized to collect and recover this equipment or, alternatively, contact the manufacturer of the equipment that manages its end-of-life and follow the system indicated by the latter to allow separate collection. If you are disposing of it in a foreign country, please contact your local authority. Professional users will have to agree on the disposal of the product at the end of its life. Please also refer to the website [at](#)

9. WARRANTY CONDITIONS

The manufacturer guarantees the new product for a period of 12 (twelve) months from the date of purchase.

NB: Check, at the time of purchase, that the machine is intact and complete in its components. Any complaints must be submitted within 7 days of receipt of the machine. The warranty involves the repair or replacement free of charge of those parts that are found to be defective.

NB: Replacement or repair of parts under warranty does not in any way extend the term of the same. The purchaser may only assert his rights if he has complied with the conditions relating to the provision of the warranty.

9.1 Disclaimer of Warranty

The warranty is void in the following cases:

- A manoeuvring error occurs attributable to the operator,
- The damage is attributable to insufficient or incorrect maintenance,
- Damage caused by the assembly of non-original parts or as a result of repairs carried out by the user without the consent of the manufacturer,
- If you do not follow the instructions detailed in this manual.

10. DECLARATION OF CONFORMITY

Directive 2006/42/EC of the European Parliament and of the Council.

I, the undersigned, Castellari Enrico, production manager Castellari S.r.l., "Construction of scissors for agriculture", Via Lasie 15/a - 40026 IMOLA (BO) ITALY

I declare under my sole responsibility that the "RY10H" electric rake complies with the essential health and safety requirements required by Directive 2006/42/EC of the European Parliament and of the Council.



Castellari

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