

Castellari

Imola, Italia, 1976



RY200

CE



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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 RYNO Series electric pruner, 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.

NB: This manual is an integral part of the machine, it must always accompany it in every move or resale. It is recommended to store it in a safe place, of which all possible users must be informed.

1.2. Subject to whom the manual is addressed

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

User:

Person, entity or company that buys or leases the machines and intends to use them for the purposes intended for the purpose. He is responsible for the machines and the training of those who work around them.

Operator:

Person trained in the use of machines.

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

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 machines.

Electrical maintenance technician:

Specialized technician able to operate even in the presence of voltage inside the electronic board or other electronic components.

SYMBOLOLOGY:



Manual reading required



Protective gloves are mandatory



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



Cut hazard



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 always clean and therefore clearly visible in order to allow users to quickly identify possible risk situations during use.



1.3. Intended and unintended uses of machines

Intended use: The cordless electric hacksaw model RY200 is designed and built for pruning work in agriculture and gardening. It can be used to cut the branches of fruit trees, ornamental trees, shrubs, hedges and weeds or cuts branches with a diameter compatible with that indicated under the heading "cutting capacity" indicated in the technical data.

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 electric hacksaw to cut, in a single cut, branches with a diameter greater than the maximum diameter specified in the technical data or very dry branches.
- Use the electric hacksaw in open places with humid weather or in an environment with an explosive atmosphere.
- Use the electric saw without having worn the appropriate PPE required for the type of work to be performed (gloves, ear protectors, protective goggles, helmet, shoes and overalls).
- Touch the e-pruner with damp and/or wet hands.
- Use in an unstable position.

1.4. CONTENTS RY200 CASE

- 1 Pruner
- 2 Bar cover
- 3 Custody
- 4 Maintenance kit
- 5 Quick Start 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 associated with the use of the machine, the safety devices and the general accident prevention rules provided for by the directives and legislation of the country in which the machine is used.

2.1. Protection and safety devices

The machines are equipped with safety devices to protect the operator from internal mechanical and electrical parts.

Body protection casing: Fixed device that prevents direct contact with moving internal parts or dangerous parts of the machines. The protection can only be removed by using appropriate tools. When the machine is in operation, the protective guard must be correctly fitted.

Motor casing: Removable device that prevents direct contact with the motor body, it can be removed only and exclusively during maintenance and cleaning work on the machine.

Sprocket protection casing: Protective shell that allows the machine to operate correctly by keeping the bar adherent to the machine body, assembly and disassembly are carried out by means of two nuts placed above the sprocket protection casing. Removal is allowed only and exclusively for the cleaning of pruning residues.

Handguard: Safety device for protecting hands against impacts and pruning cuts.

Chain cover bar: Safety device superior to the chain bar, protects against pruning cuts and prevents accidents in the event of kickback. Its removal is strictly forbidden

Bar cover: anti-cut bar protection for when the machine is not running.

Electronic ignition device: Allows the machine to be switched on only after two seconds of pressing.



2.2. General safety rules

The staff undertakes to:

- always use the personal protective equipment required by law, at the same time as the intended uses of the electronic pruner, and follow the instructions in this manual;
- follow all the hazard and caution indications indicated on the machines;
- not to carry out operations or interventions on the machines on their own initiative, which are not within their competence;
- report any problem or dangerous situation that may arise to their superior;
- recommended operating temperatures -5°C $+40^{\circ}\text{C}$;
- use the electric hacksaw to cut branches, not too dry, and with a diameter not exceeding the maximum provided (technical data RY200);
- Do not touch the hacksaw with damp or wet hands;
- Do not modify and/or tamper with any parts;
- Do not put your hands near the chain when the machine is running;
- Affix the bar cover whenever the machine is not in use and during each transport;

Machines must only be used for the purpose for which they were designed.

The machines must not be operated with the guards removed and the casings must not be removed or disengaged.

2.2.1. Electrical safety

- The charger socket must be compatible with the wall socket;
- Do not cut the cord or replace the outlet;
- Check the integrity of the cable;
- Do not use in humid environments and/or in rain or thunderstorms;



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

2.3. Safety in use and maintenance

2.3.1. Safety in use and in the working environment

- Before putting the machine into operation, make sure that all its parts are in perfect integrity and state of the art. In addition, check that the chain is not in contact with foreign objects, that the tightening screws are tightened correctly, that the bar is correctly tensioned and that the chain is properly tensioned, not least that the oil tank is full.
- Before charging, make sure that the environment is dry and clean.
- The area in which the machines are 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 that person. This applies in particular in the case of persons who have not been trained in the use of machines.
- The area surrounding the operating area of the machines must always be clean and kept free of any obstacles. Make sure that there are no people or animals in the work area.
- When a person is "exposed" or is in a "danger zone", the operator must immediately intervene by stopping the machines and possibly removing the person in question.
- During the operation of the machines, the operator must maintain a position that allows his full control, so that he can intervene at any time and for any eventuality.
- Before storing the machine in the case, switch off the machine, remove the battery and make sure that the chain is firm, affix the bar cover.
- Periodically check the integrity and that the parts are not worn.
- Check that all protective devices are always tightened, secured and interlocked
- Do not place the machine on wet ground and do not leave it unattended.
- Do not put the machine down until it has come to a complete stop.
- Do not cut any material other than wood.
- Do not point the pruner towards people.
- Keep out of the children's door.
- Keep out of reach of personnel not authorized to use.



3. MACHINE IDENTIFICATION AND TECHNICAL DATA

The RYNO series machine is designed to make pruning work easier.

The cutting head consists of a bar on which the cutting tooth chain is mounted. Sliding on the bar is possible thanks to the toothed pinion on which it is inserted and locked. The integrated battery (plug-in) allows the machine to be operated.

Inside the convenient containment case there is also a first maintenance kit.

Finally, you will find the QUICK START sheet.

3.1. Machine Identification

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

- 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 RY200

Feeding	Electric
Tension	18V
Weight and Length	1.61 kg 49cm
Cutting capacity	160mm
Motor power	600W
Chain speed	18m/s
Bar length	18cm
Chain	1/4" 1.1mm 47 Mesh
Lubrication	Automatic (after tank filling)

NB: BATTERIES AND BATTERY CHARGERS ARE SOLD SEPARATELY



3.2. Risks arising from the use of machines

3.2.1. Noise risk

The sound level was measured by measuring the emission with machines in motion in accordance with the UNI EN ISO 11201: 2010 standard.

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



Average sound pressure L_{pA} (A) dB 85.8

From the values found, it is concluded that the operation of the machine it involves a high noise level.



During the use of the machine, it is therefore mandatory for operators to use ear protectors such as earmuffs or earplugs, to avoid damage to the hearing system over time.

3.2.2. Vibration risk

The vibration level was measured with machines in motion, in accordance with the UNI EN ISO 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: 1.45 m/s^2

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



3.2.3. Cut risk



Cut hazard

Although all safety regulations were applied to the construction, it was not possible to eliminate the risk of cutting.

4. UTILIZATION

4.1. Handling and transport

The machines are easily transportable as they are equipped with a case.

Before Use

Before putting the machines 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 machines for the first time:

- Familiarize yourself with the control devices and their functions,
- Check that all components of machines subject to wear or deterioration are in an intact state.
- Check that the fixed casings are in the correct position: body protection casing, engine casing, sprocket protection casing, handguard, chain cover bar.
- Check that the power button is intact and the display is off.

FILLING THE LUBRICATION TANK

- Before using the machine, make sure that the oil tank is full.
- If to be filled, make sure that the cap and the filling area are clean of impurities, to prevent pruning residues or dust from entering the tank.
- When the machine is started, the oil automatically flows out of the tank, lubricating the chain.
- Once the oil in the tank is finished, turn off the machine before filling.



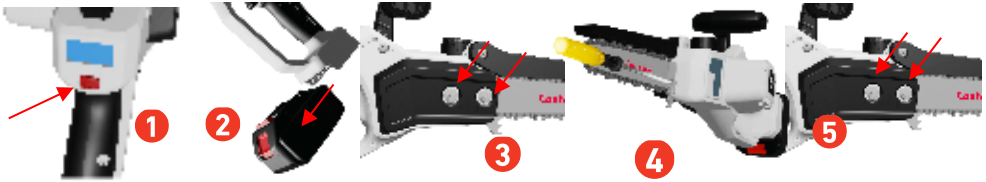
- Greater than 85% biodegradable chain lubricating oil is recommended, with viscosity 100 measured at 40° (ASTM D445 method)
- NB: Use only clean, non-recovered oil for filling the tank. Waste oil can damage the lubrication pump.



CHECKING THE CHAIN LINK TENSION

Attention!!!! Before each drive you must ALWAYS check that the chain is under tension and not loose.

- Make sure the machine is switched off and the battery is switched off (picture 1-2).
- If you have just used the machine, wait a few minutes for it to cool down before proceeding to adjust the voltage.
- Loosen the bar guard (picture 3).
- Wearing protective gloves, try to move the chain by means of a link, at the bottom of the bar; If the tension is correct, you should see the guide teeth of the link up to the middle, pulling the link downwards.
- If the chain is too tight, it can be adjusted using the screw located on the opposite side of the front protective casing of the machine. Turning counterclockwise will loosen the chain. (image 4).
- If it is slow, use the screw on the front of the machine to tension it. Turning the screw clockwise will pull the chain.
- Tighten the protective guard and start the machine (picture 5).
- When the tool is tightened, the link must come out halfway from the chain bar



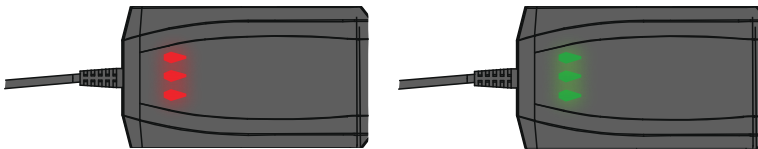
4.2. Preparation for use

Before use:

- 1 - Fully charge the batteries (not supplied)
- 2 - Insert the battery (not supplied) into the appropriate housing;
- 3 - Remove the bar cover;
- 4 - Press and hold the power button until the display turns on. The machine will emit two beeps, the first start-up, the second to signal that the machine is ready for work.
- 5 - The machine is equipped with a safety button to be pressed at the same time as the chain link start trigger, once started, release the safety button.

4.3. Using the Battery Charger and Charging the Battery (Not Supplied):

- Pay attention to the correct operation of the battery charger.
- Once the charger is connected to the battery, insert the plug into the power outlet.
- The battery charger will illuminate red. While charging, DO NOT unplug until the light turns green.



4.4. Use of machines

Directions for use:

- The wear and tear of the mechanical and electronic components of the machine is closely related to the way the machine is used. To avoid causing mechanical and thermal overload of the components that could cause the machines to stall, avoid insisting on cutting the branch if it is too challenging.
- The use of discharged or deteriorated batteries is not recommended.
- It is not recommended to use batteries and battery chargers with signs of damage.
- Make sure that the electric saw is switched off when not in use.
- Make sure that the bar cover is affixed immediately after switching off.
- Always store the electric saw inside the case after use, always removing the battery.
- Always follow the instructions in this manual.
- The use of power supplies other than the battery provided is prohibited.
- It is forbidden to use battery chargers other than those that can be purchased from Castellari srl.



4.4.1. INSTRUCTIONS FOR PROPER CUTTING

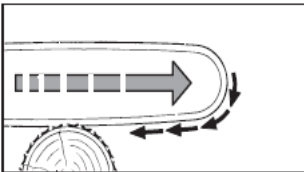
- Before cutting, run the chain for a few seconds empty to allow correct lubrication.
- Make top-to-bottom cuts only.
- If you cut an object that is too hard and the jigsaw is blocked, switch off the machine immediately.
- Hold the electric pruner firmly, with one hand on the handle and the other on the upper knob.
- Operate the hacksaw following the instructions in the manual well.
- Hold the side of the cut away from the user.
- Cut only when the chain reaches maximum speed.
- For large cuts, it is advisable to use the metal support placed in front of the bar casing.

4.4.2. Traction Warning Instructions



WARNING: During cutting, the pulling force of the chain will be opposite to the machine, leading the machine to "move away" from the user.

- Make sure you have a firm grip on the handle and top knob.
 - Always use the pruner as described in the manual.
 - Hold the cutter bar down.
- Remember to make the cut once the chain has reached full speed.



4.4.3. Safety for kickback.

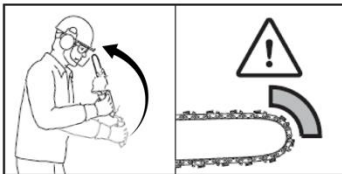


The following notes indicate the cases in which kickback may occur:

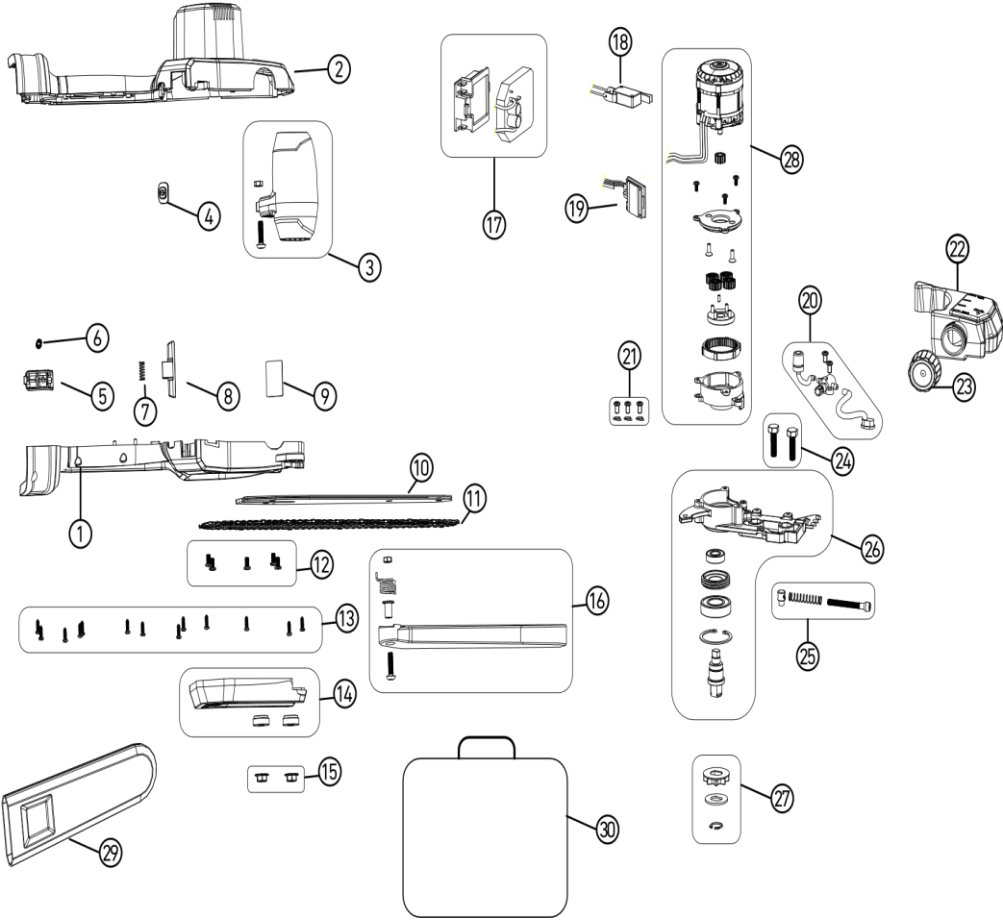
- When the moving machine head comes into contact with objects that are too hard.
- When making cuts with the tip area of the chain bar.
- When the cut wood blocks the chain bar during cutting.
- When cutting a branch thicker than that stated in the manual risks the blade being blocked by the wood.



CAUTION: NEVER MAKE CUTS DIRECTLY WITH THE TIP OF THE BAR.



5. RY200 Components





POS.	COD.	DESCRIPTION	QUANTITY
1	RY20001	RIGHT CRANKCASE	1
2	RY20002	LEFT CRANKCASE	1
3	RY20003	TOP HANDLE SET	1
4	RY20004	POWER BUTTON	1
5	RY20005	TRIGGER	1
6	RY20006	TRIGGER SPRING	1
7	RY20007	SAFETY BUTTON SPRING	1
8	RY20008	SAFETY BUTTON	1
9	RY20009	COVER DISPLAY	1
10	RY20010	CHAIN BAR 8"	1
11	RY20011	47-TOOTH CHAIN	1
12	RY20012	CHAIN BAR SCREW KIT	1
13	RY20013	CRANKCASE SCREW KIT	1
14	RY20014	CHAIN PROTECTION CASING	1
15	RY20015	CHAIN BAR NUT SET	1
16	RY20016	CHAIN GUARD SET	1
17	RY20017	ELECTRONIC BOARD	1
18	RY20018	TRIGGER SENSOR	1
19	RY20019	DISPLAY	1
20	RY20020	LUBRICATION PUMP SET	1
21	RY20021	MOTOR SCREW SET	1
22	RY20022	OIL TANK	1
23	RY20023	TANK CAP	1
24	RY20024	CHAIN BAR AXLE SET	1
25	RY20025	CHAIN ADJUSTMENT SET	1
26	RY20026	COMPLETE DRIVE SET	1
27	RY20027	CROWN SET	1
28	RY20028	MOTOR SET	1
29	RY20029	BAR COVER	1
30	RY20030	BRIEFCASE	1



6. MAINTENANCE AND CLEANING

6.1. Maintenance safety

- Before carrying out any maintenance work on the machines, make sure that the battery is not inserted into the housing of the machine.
- 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



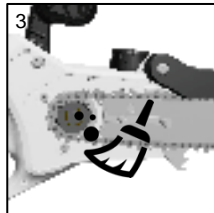
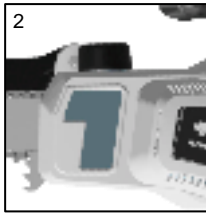
Adjustments, with safety devices disengaged or without casing, must be made by a single operator; During these operations, access to the machine is prohibited to non-professionals. Avoid dust deposits on the machine, especially on the electric motor and electrical parts.

6.2. Routine maintenance

The long service life of the machines and the lower operating costs depend on compliance with this standard.

Periodic checks to be carried out:

- 1) Always with the machine switched off and the battery switched off, check the following daily:
 - 1 It is recommended to check the chain tension.
 - 2 Check the oil level.
 - 3 At the end of the working day, clean the chain and check its sharpness. Clean the bar including the pin by disassembling the protective sprocket cover and closing it again, clean the area of the oil tank cap.



NB: FURTHER MAINTENANCE OPERATIONS CAN ONLY BE CARRIED OUT IN AN AUTHORIZED CASTELLARI CENTER.

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). Under heavy use, it may be necessary to increase the number of maintenance interventions.



Before proceeding with any operation, make sure that the machine is switched off and the battery is disconnected.



For lubrication, follow the instructions in the safety data sheets of the products used



To sharpen the chain, contact an authorized center.



6.3. Set-aside

In the event that a long period of rest of the machines is envisaged, the following operations must be carried out:

- Disconnect the battery from the machine;
- Clean the machine, freeing it from any dirt residues deposited under the bar and motor protective casing, including other parts.
- Carry out a check and replace the parts damaged/worn by use at a specialized Castellari service center;
- Store the machine in the case and keep it in a closed and dry place.



During long periods of non-use, remember to recharge the battery every 3 months. Then repeat the operations described above for set-aside.

Carry out the maintenance operations described above carefully.

7. ERROR CODING AND SPARE PARTS

7.1. Errors

Error Code Meanings	Error code
Overvoltage/Under Voltage	E02
Startup Issues	E03
Electronic board short circuit	E05
Overheating of the electronic board	E06
Class 1 surge surge	E11
Class 2 surge surge	E12
Class 3 surge surge	E13
Class 4 surge surge	E14
Guard lock	E15
Rotor stuck	E16
Low-speed operation	E17
Fault in the electronic board or disconnected motor.	E18

7.2. Spare parts

In order to ensure the safety and long life of the product, we recommend the use of only original spare parts. Specialized repairs or maintenance must be carried out by specialized and authorized Castellari personnel.

8. ECOLOGY AND POLLUTION

8.1. Disposal of machines

Hand over your discarded machines 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 instrument, in an environmentally friendly way.



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

8.2. Waste management

The use and maintenance of the machines 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 machines is obliged to comply with any recommendations of the manufacturers regarding the use of the products for the normal operation, cleaning and maintenance of the machines.

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". If the machine is disposed of, see section 8.1



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 www.registroaee.it website

9. WARRANTY CONDITIONS

Castellari srl guarantees the new factory product for a period of 24 (twenty-four) 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 made within 7 days of receipt of the machines. The warranty involves the repair or replacement free of charge of those parts that are found to be defective.

To activate your warranty, visit the www.castellarisrl.com/registra-prodotto page

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 installation 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, president of Castellari S.r.l., "Construction of scissors for agriculture", Via Lasie 15/a – 40026 IMOLA (BO) ITALY, declare under my sole responsibility that the RY200 hacksaw complies with the essential health and safety requirements required by Directive 2006/42/EC of the European Parliament and of the Council.



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