# Instructions and user manual

# **TC102**







**ANOVA** wishes to congratulate you for choosing one of our products and guarantees the assistance and cooperation that has always distinguished our brand over time.

This machine is designed to last for many years and to be of great use if used in accordance with the instructions contained in the user manual. We therefore recommend that you read this instruction manual carefully and follow all our recommendations.

For more information or doubts, you can contact us through our web supports such as www.anova.es.

## **INFORMATION ABOUT THIS MANUAL**

Pay attention to the information provided in this manual and on the machine for your safety and that of others.

- This manual contains instructions for use and maintenance.
- Take this manual with you when you go to work with the machine.
- The contents are correct at the time of printing.
- The rights to make changes at any time are reserved without affecting our legal responsibilities.
- This manual is considered an integral part of the product and must remain with it in case of loan or resale.
- Ask your dealer for a new manual in case of loss or damage.

## READ THIS MANUAL CAREFULLY BEFORE USING THE MACHINE

To ensure that your machine provides the best results, please read the usage and safety regulations carefully before using it.

## **OTHER WARNINGS:**

Incorrect use could cause damage to the machine or other objects. The adaptation of the machine to new technical requirements could cause differences between the content of this manual and the purchased product.

Read and follow all instructions in this manual. Failure to follow these instructions could result in serious personal injury.

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This manual has been written to help you become familiar with the machine and use it safely and efficiently. Keep in mind that it is an integral part of the machine, so keep it handy for future reference and always pass it on to the end user using the machine.

This new ride-on mower has been designed and built in accordance with current standards, and is safe and reliable if used to cut and collect grass following the instructions given in this manual (proper use). If you use the machine in any other way or ignore the instructions for use, maintenance and repair, it will be considered as "improper use". In that case, the warranty is automatically voided and the manufacturer is not responsible for damage or injury to itself or others.

You may find minor differences between your machine and the descriptions contained in this manual due to later updates and adjustments. Modifications to the machine may be made without notice and without obligation to update the manual, although essential safety and function features will remain unchanged. In case of doubt, do not hesitate to contact your dealer.



## **1. SAFETY INDICATIONS**

Some paragraphs in the manual that contain important safety and operating information are highlighted in the following ways:



**WARNING or IMPORTANT**These provide details or more information on what has already been said, in order to prevent damage to the machine.

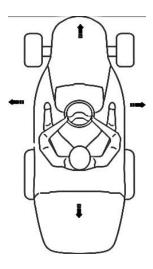


**CAVEAT**Failure to comply will carry the risk of injury to oneself or others.

DANGER Compliance with the instruction carries the risk of serious injury or death to yourself or others.

#### NOTE

Positions on the machine, such as "front", "rear", "left" or "right" hand side, are referred to relative to the direction of travel.



#### **1.2 GENERAL SAFETY REGULATIONS**



**DANGER:** Please read carefully before using the machine.

#### GET FAMILIAR WITH THE MACHINE

1) Read the instructions carefully. Become familiar with the controls and the proper use of the equipment.

2) Never allow children or people who are not familiar with these instructions to use the machine. Local regulations may restrict the age of the user.

3) Never mow when there are people, especially children or pets near or in the work area itself.

4) Please note that the operator or user is responsible for any accidents or hazards that occur to other people or their property.

5) Do not carry passengers on the machine.

6) All drivers should seek and obtain professional and practical instruction. Such instruction should emphasize:

- the need for attention and concentration when working with mounted machines;

- the fact that you cannot use the brake to regain control of a machine that is sliding down a slope. The main reasons for loss of control are:

- insufficient wheel grip;
- speeding;
- inadequate braking;
- the type of machine is not suitable for its task;
- ignorance of the effect of terrain conditions, especially slopes;
- incorrect hitch and load distribution.

#### WORK PREPARATION

1) While mowing, always wear sturdy shoes and long pants. Do not operate the equipment barefoot or with open sandals.

2) Thoroughly inspect the area where the equipment is to be used and remove all objects that can be ejected from the machine.

3) DANGER! Gasoline is highly flammable:- store fuel in containers specifically designed for this purpose;- refuel only outdoors and do not smoke while refueling;- add fuel before starting the engine. Never remove the fuel tank cap or add gasoline while the engine is running or when the engine is hot - if you spill gasoline, do not start the engine and move the machine away from the spill area. Do not create any source of ignition until gasoline vapors have evaporated;

- Replace and securely tighten all fuel tank and container caps.

4) Replace faulty exhaust vents.

5) Before use, always inspect the machine to verify that the blades, blade bolts and cutting deck are not worn or damaged. Replace worn or damaged blades and bolts as a whole to preserve the balance of the cutting system.

6) On multi-blade machines, remember that the rotation of one blade can cause other blades to rotate at the same time

#### WORKING WITH THE MACHINE

1) Do not start the engine in a confined space where dangerous carbon monoxide fumes can accumulate.

2) Cut only in daylight or good artificial light.

3) Before starting engine, disengage blades and shift tractor to neutral.

4) Do not use the machine on slopes of more than 10° (17%)

5) Remember that there is no such thing as a "safe" slope. Working on sloped grass surfaces requires



special care. To protect against overturning:- Do not stop or start suddenly when going up or down;- Engage the drive slowly and always keep the machine running, especially when going downhill;- Machine speeds should be kept low on slopes and in tight turns;

- Be alert for drops and potholes and other hidden hazards on the surface; - Never cut downhill.

6) Take care when pulling loads/trailers or using heavy equipment:- use only approved drawbar hitch points on the machine;

- limit loads to those you can safely control; maximum load 200kg

- do not turn sharply. Be careful when changing direction - use counterweights or wheel weights whenever indicated in the instruction manual.

7) Disable the cutting system before crossing surfaces other than grass.

8) Never use the machine with the guards/covers damaged, or without the guard in place.

9) Do not change engine control settings or exceed engine speed (rpm). Running the engine at excessive speed can increase the risk of personal injury.

10) Before leaving the driver's seat:- deactivate the blades and lower the accessories;- place the machine in neutral gear and apply the parking brake;- stop the engine and remove the ignition key.

11) Deactivate the blades, stop the engine and remove the ignition key:- before cleaning blockages in the grass outlet or unclogging the collector channel;- before cleaning, checking or repairing the machine;- after hitting an object weird. Inspect the machine for damage and make all repairs before restarting and using the machine again - if the machine starts to vibrate abnormally (check the causes immediately).

12) Deactivate the blades and cutting system for transport or when not in use.

13) Stop the engine and deactivate the blades:- before refueling;- before removing the grass catcher.

14) Reduce throttle when starting engine. If the engine is equipped with a fuel cock, turn off the fuel cock when you have finished mowing.

#### MAINTENANCE AND STORAGE

1) Keep all nuts, bolts and screws tight to ensure the equipment works properly and safely.

2) Never store the equipment with gasoline in the tank inside a building where fumes emanate. It may be hit by an open flame or spark and cause a fire.

3) Allow the motor to cool down before storing it in any box or packaging.

4) To reduce the risk of fire, keep the engine, exhaust, battery compartment, and gasoline storage area free of grass, leaves, or excessive grease.

5) Check grass catcher frequently for wear or damage.

6) Replace worn or damaged parts for safety reasons.

7) If the fuel tank has to be drained, this should be done outdoors and in a clear area.

8) On multi-blade machines, remember that the rotation of one blade can cause others to rotate at the same time.

9) When the machine is stored or left unattended, lower the mower deck to the ground.

#### SECURITY LABELS

Your machine must be used with care. This is why picture labels have been

placed on the machine, to remind you of the main precautions to be taken while working and handling the machine. These labels must be considered an integral part of the machine and must be replaced if damaged. If a label becomes detached or illegible, contact your dealer for a replacement. Its meaning is explained below.

**1.** Warning: Please read the instructions before using this machine.

2. Warning: Turn off the ignition key and read the instructions before carrying out any repair or maintenance work.

**3** Danger! Ejected Objects: Do not use without stone guard or grass catcher in place.

**4** Danger! Ejected Objects: Keep bystanders away.

5 Danger! Risk of machine tipping over: Do not use this machine on slopes steeper than 10°.

**6** Danger! Cuts and Injuries – Make sure children are kept away from the machine at all times when the engine is running.

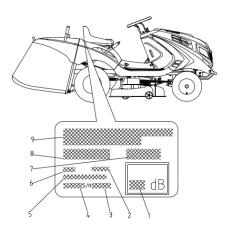
7 Danger of cuts. Moving blades. Do not put your hands or feet near or under the cutting deck opening.



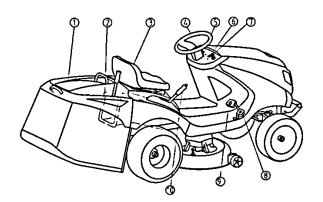
## 2. IDENTIFICATION OF PARTS

#### 2.1 IDENTIFICATION OF THE MACHINE

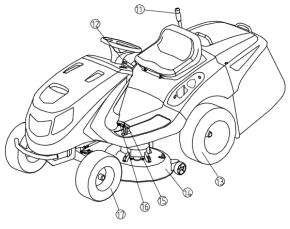
The label located near the battery casing has the essential data of each machine.



Acoustic power level according to directive 2000/14/EC.
Weight in kg3. Serial number4. Year of manufacture5. Cutting width and motor power.6. Engine speed in rpm (if indicated)7. Conformity mark according to Directive 98/37 / CEE8. Machine type9. Name and address of the manufacturer/importer.



- 1. Grass catcher
- 2. Grass discharge tube
- 3. Driving seat
- 4. Front steering wheel
- 5. Light switch
- 6. Blade activation switch
- 7. Engine switch
- 8. Reverse pedal
- 9. forward pedal



- 10. Cutting height adjustment lever
- 11. Collection bag turning lever
- 12. Engine throttle
- 13. Rear wheel
- 14. Cutting deck
- 15. Brake pedal
- 16. Brake lock / parking brake
- 17. Front wheel

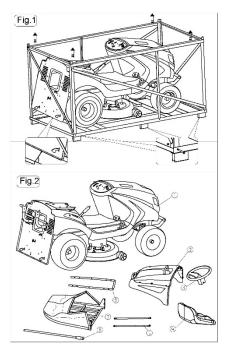
## 3. ASSEMBLY

For storage and transportation purposes, some machine components are not factory installed and must be assembled after unpacking. Follow the instructions below.



**IMPORTANT**The machine is supplied without engine oil or fuel. Before starting the engine, fill it with proper oil and fuel. Consult your sales center.

3.1 UNPACKING When unpacking the machine, be careful to gather all individual parts and accessories, and do not damage the mower deck when removing the machine from the deck.



Remove the 6 bolts at the bottom of the packing shelf at first, then you can lift the top frame to release the machine (the operation will be done by two people). And cut the fixed wire at the front and rear of the tractor frame, then remove the machine from the platform. (Fig.1)

The packaging contains (rfig.2)

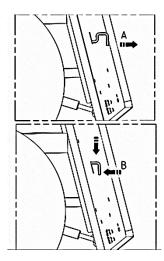
1. The machine2. The grass catcher cover board3. steering wheel

- 4. The seat
- 5. Side retention tube
- 6. The grass catcher
- 7. Front bracket

8. An envelope containing:- the instruction manual and documents- nuts and bolts

- ignition keys - tools

NOTE To avoid damage to the mower deck, set the mower deck to its maximum height on the machine and use extreme care when removing the machine from the deck.



NOTE On Hydrostatic Drive Models: For easy movement or removal of the machine from the platform, place the drive disengagement lever in the "B" position to unlock traction and allow the machine to move freely.

3.2 MOUNTING THE STEERING WHEEL

Place the machine on a flat surface and align the front wheels. Place the steering wheel on the protruding hub with the spokes facing the seat.



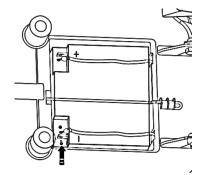
#### 3.3 MOUNTING THE SEAT

Mount the seat on the plate with the screws.



#### **3.4 CONNECT THE BATTERY**

First connect the red cable to the positive (+) pole, using the supplied screws as shown. Apply silicone grease to the terminals and check that the protective cap of the red cable is in place.

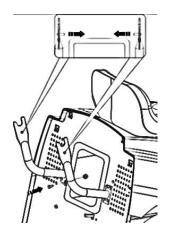


#### 3.5 ASSEMBLE THE COLLECTING BAG SUPPORT

Using the nuts and bolts inside the attached envelope, fit the two brackets onto the rear frame.

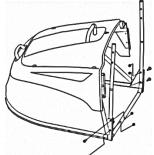


**NOTE:** Pay attention to the difference between the pin on the left bracket and the pin on the right. Improper mounting will result in the grass catcher not being placed correctly on the bracket. Each of the supports has a different shape.



#### 3.6 ASSEMBLE THE COLLECTING BAG

3.6.1 Place the front bracket inside the grass catcher, then use the nuts and bolts inside the attached envelope to fit onto the front of the grass catcher.



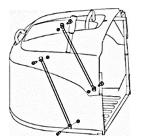
3.6.2 Use the nuts and bolts to fasten the top bracket to the front bracket. Attach the bag to the front support.



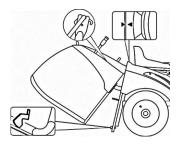
3.6.3 Place the tipping lever on the grass catcher deck board and insert the pin with nut and bolt in place.



3.6.4 Attach the side retaining tube to the grass catcher, use screws to fit it into the upper bracket and lower bracket.



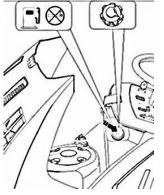
3.6.5 Mounting the outlet guard (grass catcher)





Never use the machine without having installed the outlet protections! Attach the grass catcher to the brackets and center it up with the back plate so that the two reference marks line up. Make sure the bottom tube of the grass catcher opening is engaged with the pawl.

3.7 REFUELING

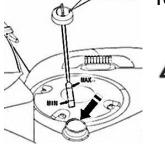


**NOTE** Check your engine manual to see what type of oil and fuel you can use. With the engine off, check the oil level according to the instructions in the engine manual, this should be between the MIN and MAX marks on the engine oil gauge. Refuel with a funnel, but do not completely fill the tank.

The capacity of the tank is about 7.5 liters.

**DANGER** Refueling should be done in an open or well-ventilated area with the engine off. Always remember that gasoline fumes are flammable.

DO NOT USE AN OPEN FLAME (CANDLE OR SIMILAR TYPE) TO LOOK INSIDE THE TANK AND DO NOT SMOKE WHEN REFUELING.



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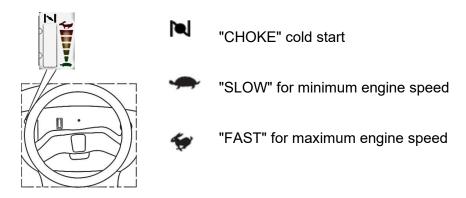
**IMPORTANT** Do not spill gasoline on plastic parts to avoid damaging them. In case of accidental spills or leaks, clean up immediately with water. The warranty does not cover damage to plastic body parts or the engine caused by gasoline.

## 4. CONTROLS AND ACCESSORIES

4.1 STEERING WHEELTurns the front wheels and allows you to steer the machine while working.

#### 4.2 THROTTLE

Regulates the motor the number of rpm and the forward speed. The positions are indicated on a plate showing the following symbols:



- The «CHOKE» position enriches the mixture, so it should only be used for as long as necessary when starting the machine cold.- When moving from one area to another, place the lever in a position between «SLOW» and «FAST ».- When cutting, switch to «FAST» to give full motor power to the cutting system.

4.3 ACTIVATION OF THE CUTTING SYSTEM AND BRAKE CONTROLThe switch allows you to engage the blades using the electromagnetic clutch:



O «A» Pressed = Leaves unhooked

I «B» Pulled = Hooked Sheets

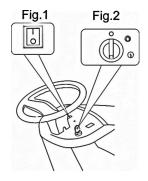
If you activate the blades without taking the necessary safety precautions, the engine will shut down.

4.4 LIGHT SWITCH (Fig1)

To turn on the headlights, turn the key to the «ON» position.



**IMPORTANT** The light on the mower is for supplemental lighting only. Only use the mower in broad daylight.



4.5 IGNITION KEY (Fig2)

It has three positions:

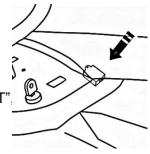


"OFF" everything is off;

"ON" activates all parts;



"START" engages the starter motor. If you release the key at "START" return to "ON".

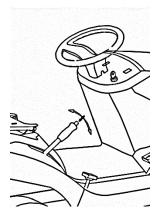


4.6 SOUND WARNINGS

- The audible warning indicates that the grass catcher is full.

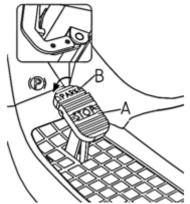
4.7 CUTTING HEIGHT ADJUSTMENT LEVER There are six positions for this lever (shown as "1" to "6" on the label), corresponding to various heights between 3 and 9 cm.

- To go from one height to another, press the release button at the end of the lever



4.8 PARKING BRAKE This brake prevents the machine from moving when it has been parked. There are two positions:





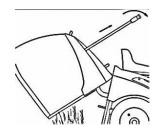
- "A" = Brake off
- 🚺 🚬 «B» = Brake activated

The brake is applied by pressing pedal A down and then pressing pedal B. When you lift your foot off the pedal, the lever will lock it in the down position. To disengage the parking brake, press pedal A. The lever will return to the free position.



**NOTE** The engine can only be started in the parking position.

4.9 GRASS CATCHER RELEASE LEVER This removable lever tilts and empties the grass catcher. This means less work for the operator.

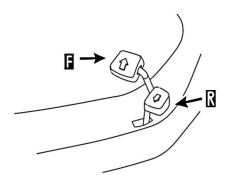


4.10 DRIVE PEDAL This pedal activates the drive of the wheels and controls the forward and reverse speeds of the machine.

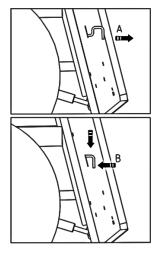
- To activate forward, press towards «F» with your toe. As the pressure on the pedal increases, the speed of the machine increases.- Reverse gear is activated by pressing the pedal towards «R».



**IMPORTANT** Only shift into reverse when the machine has stopped moving. Just push towards "F" or "R" when the parking pedal is off.



4.11 HYDROSTATIC TRANSMISSION DISABLE LEVER This lever has two positions as shown on the label:



«A» = Transmission activated: for all uses, when moving and during cutting;

"B" = Transmission Off – This makes it much easier to move the machine by hand, with the engine off.



**IMPORTANT** To avoid damage to the transmission unit, this operation must be carried out only when the engine has stopped.





#### **5. INSTRUCTIONS FOR USE**

#### 5.1 SAFETY RECOMMENDATIONS



**DANGER** The machine must only be used for the purpose for which it was designed (cutting and collecting grass).

Do not tamper with or remove the safety devices installed on the machine. REMEMBER THAT THE USER IS ALWAYS RESPONSIBLE FOR DAMAGE AND INJURIES TO OTHERS.

Before using the machine:- read the general safety regulations, paying special attention to driving and cutting on slopes;- read the instructions for use carefully, make sure you are familiar with the controls and know how to stop the blades and the motor quickly;- never put your hands or feet next to or under rotating parts and always keep away from the outlet.

Do not use the machine when you are in poor health or under the influence of medication or any other substance that may reduce your reflex actions and your ability to concentrate.

It is the responsibility of the user to assess the potential risk of the area where the work is to be carried out and take all necessary precautions to ensure their own safety and that of others, especially on slopes or uneven, slippery and unstable terrain.

Do not leave the machine on tall grass with the engine running to avoid the risk of starting a fire.

**CAVEAT** This machine should not be used on slopes greater than 10° (17%). If the machine is likely to be used primarily on sloping ground (never more than 10°), place the counterweights under the front wheel support. These improve stability at the front end and reduce the chances of tipping over.



**IMPORTANT**: All references related to the positions of the controls are described in chapter 4.

5.2 IMPORTANCE OF CUTTING SAFETY DEVICES

Safety devices work in two ways: - They prevent the engine from starting if all the safety requirements are not met - They stop the engine if only one of the safety requirements is missing.

# a) To start the engine, it is necessary that:- the transmission is in "neutral";- the blades are not activated;

- the operator is seated and the parking brake is applied.

#### b) The engine stops when the operator leaves his seat.



**NOTE** The blades will stop when the machine goes in reverse, pressing it towards «R». Press the button (to the right of the seat on the rear cover) to make the blades rotate. 5.3 INSTRUCTIONS BEFORE STARTING WORK

Before you start mowing, it is necessary to carry out several checks and operations to ensure that you can work efficiently and in maximum safety.

#### 5.3.1 Seat adjustment



To change the position of the seat, loosen the four fixing screws and slide it along the slots. Once you have found the correct position, tighten the four screws.

5.3.2 Tire pressure Having the correct tire pressure is the main condition to ensure that the mower deck is horizontal and can cut evenly. Unscrew the valve caps and

connect a compressed air line with a pressure gauge to the valve.

The correct pressures are: FRONT 1.0 bar (15 x 6.0-6) REAR 0.8 bar (18 x 8.5-8)

5.3.3 Checking fuel and oil (=3.7)

5.3.4 Checking the safety and efficiency of the machine.

1. Check that the safety devices work as described (=5.2).2. Verify that the brake is in perfect working order.3. Do not start mowing if the blades are vibrating or if you are not sure they are sharp enough. Always remember that: - An unsharpened blade pulls the grass and turns the grass yellow when it is pulled off the ground.- A loose blade causes unwanted vibrations and can be dangerous.

Do not use the machine if you are not sure if it is working safely or efficiently. If in doubt, contact your dealer immediately for necessary checks and repairs.



5.4 USE OF THE MACHINE



DANGER The engine must be started in an open or well-ventilated area! ALWAYS **REMEMBER THAT EXHAUST GASES ARE TOXIC!** 

To start the engine:- open the fuel stopcock (to "I")- deactivate the blades (-4.3);

- operate the parking brake (-4.8);

- keep the transmission pedal in the NEUTRAL position;

- sit in the driver's seat; - when starting cold, move the throttle to the

"CHOKE" position shown on the label; - if the engine is already warm, set

the lever between "SLOW" and "FAST"; - put the ignition key and turn

"ON" to make electrical contact, then turn "START" to start the engine; - release the key once the engine has started. When the engine has started, move the throttle to "SLOW".

**IMPORTANT** The choke should be closed as soon as the engine is running smoothly. Using it when it's already hot can damage the spark plugs and cause the engine to run erratically.

**NOTE**: if there are problems starting the engine, do not insist, as you may run the risk of discharging the battery and flooding the engine. Turn the key to the «OFF» position, wait a

few seconds and then repeat the operation. If the malfunction persists, consult the engine manual or vour nearest technical center.

**IMPORTANT**: Always keep in mind that the safety devices prevent the engine from starting if the safety requirements are not met (=5.2). In these cases, once the situation has been corrected, the key must first be turned to "OFF" before the engine can be restarted.

5.4.2 Starting and movement without cutting



This machine has not been approved for use on public roads. It must be used (as indicated by the highway code) in private areas closed to traffic.

When moving the machine, the blades should be off and the mower deck raised as high as possible. Set the throttle between "SLOW" and "FAST",

Unlock the parking brake and release the brake pedal (#4.8). Press the drive pedal (#4.10) in direction «F» and reach the required speed by gradually increasing the pressure on the pedal and operating the accelerator.



The drive must be activated as described (-4.10) to prevent sudden activation causing the vehicle to overturn and lose control of the vehicle, especially on slopes.

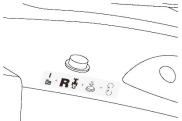
#### 5.4.3 Braking

The machine already slows down considerably simply by releasing the drive pedal. If you release the drive pedal, the machine will stop if it is on a flat area. If there is a gradient or you require more consistent braking, you can press the brake pedal.

#### 5.4.4 Reverse

**IMPORTANT** It should be activated only when the machine has stopped moving. When the machine has stopped moving, begin to back up by pressing the drive pedal in the "R" direction (-4.10).

#### 5.4.5 Cutting To start cutting:



-move the throttle to «FAST»;

- raise the mower deck as high as possible;
- activate the blades (-4.3);

- start moving forwards on the grass very slowly and with the greatest caution, as already described;

- adjust the cutting height and speed taking into account the conditions of the grass (height, density and humidity of the grass).

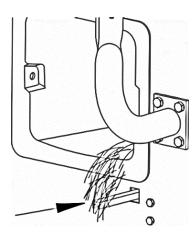
**CAVEAT** When mowing on sloping ground, reduce your speed to ensure safe conditions.

**NOTE**: This machine has not been approved for mowing in reverse. The blades will stop when the machine is in reverse by pressing the drive pedal to "R". Press the button (on the right of the back cover) to make the blades rotate.

Regardless of conditions, always reduce speed if you notice a drop in engine power; if you travel too fast compared to the amount of grass being cut, you will not be able to mow well.

Disengage the blades and raise the mower deck as high as possible whenever you need to clear an obstacle.

#### 5.4.6 Emptying the grass catcher



**NOTE**: this operation can only be carried out with the blades disconnected, otherwise the motor stops.

Do not allow the grass catcher to become too full as this can block the catcher channel. When the grass catcher is full, you will hear an audible warning.

At this point:

- disable the blades (-4.3) and the sound will stop;
- lower the engine speed;
- stop driving;- apply the parking brake on slopes;
- pull the lever and raise the grass catcher to empty it; (#4.9)
- close the grass catcher so that it hooks into the pawl.

NOTE Occasionally, an audible warning may be heard at the time the blade is activated, even when the

catcher has been completely emptied. This is due to grass debris on the micro-switch sensor. To stop the signal, disable the blades and immediately enable them again. If the warning sound continues, stop the engine, remove the grass catcher, and remove any debris in the catcher that is triggering the sensor.

5.4.7 Unlock output channel

Cutting very tall or wet grass, especially at excessively high speeds, can clog the collector channel. If this happens, proceed as follows:

- stop moving forward, disengage the blades and stop the engine;

- remove the grass catcher or guard;

- remove the grass cuttings; can reach them from the outlet of the collector channel.

**CAVEAT** This maintenance work should only be done with the engine off and the blades fully paid off. 5.4.8 End of cut

When you have finished mowing, disengage the blades, lower the engine speed and mount the mower with the mower deck as high as possible.

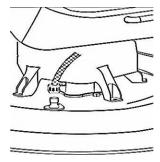
5.4.9 End of work

Stop the machine, move the throttle to "SLOW" and turn the engine off by turning the key to "OFF".

When the engine has stopped, close the fuel cock (-5.4.1)

**CAVEAT** To prevent engine backfire, set the throttle to "SLOW" for 20 seconds before stopping the engine. Always remove the ignition key before leaving the machine unattended! **IMPORTANT** To keep the battery charged, do not leave the key in the "ON" position when the engine is not running.

#### 5.4.10 Cleaning the machine



After use, clean the outside of the machine, empty the grass catcher and shake to remove grass and other debris.

**CAVEAT**: Always empty the grass catcher and do not leave containers filled with grass clippings in a room.

Clean the plastic parts of the body with a damp sponge with water and detergent, being careful not to wet the motor, the electrical parts or the electronic circuit board located under the dash.

**IMPORTANT** Never use hose nozzles or strong detergents to clean the body or engine! When washing the inside of the mower deck and collector channel, the machine must be on firm ground with:- the grass catcher or impact protector fitted;- the operator seated;- the engine running;- the transmission in neutral.- blades activated.

Attach a water hose to each of the pipe fittings at a time and run water through each one for a few minutes, with the blades moving.

When washing, the mower deck must be lowered down. Remove the grass catcher, empty and rinse it, and then put it in a position where it can dry quickly.

5.4.11 Storage and inactivity for long periods

If you are not going to use the machine for a long time (more than 1 month), disconnect the battery cables and follow the instructions in the motor instruction manual.

Drain the fuel tank by disconnecting the tube located at the fuel filter inlet and follow the instructions in the engine manual.



**CAVEAT** Carefully remove any dry grass clippings that may have accumulated around the

engine or exhaust to prevent them from igniting the next time the machine is used!

Store the machine in a dry and protected place, preferably covered with a cloth or cover.

**IMPORTANT** The battery should be kept in a cool and dry place. Before a long storage period (more than 1 month), always charge the battery to the maximum and then recharge it before using it again.

The next time the machine is used, check for fuel leaks from the lines, fuel cock, or carburetor.

5.4.12 Electrical card protection device.

The electronic circuit board has an automatic reset protector that breaks the circuit if there is a fault in the electrical system. It results in stopping the engine and turning off the lamps.

The circuit automatically resets after a few seconds, but the cause of the fault must be determined and treated to avoid reactivating the protection device.

**IMPORTANT** To avoid activating the protection device:- Do not reverse the cables on the battery terminals;- Do not use the machine without its battery, as the charge regulator could be damaged.- Be careful not to cause short circuits.

Start the engine (🖝5.4.1)	Open the fuel cock, make sure all starting conditions are met, then turn the key.
Go forward (🖝 5.4.2)	Push the forward pedal forward
Brake or stop (⊯5.4.3)	Reduce engine speed and depress the brake pedal.
Reverse ( <b>☞</b> 5.4.4)	Stop the machine; step on the reverse pedal
Cut the grass ( <b>☞</b> 5.4.5)	Attach the grass catcher or crash protector and turn up the throttle; engage the blades and adjust the height of cut. Push the drive pedal forward
Empty the grass catcher (🖝5.4.6)	Stop moving forward, disengage the blades and pull the lever to tilt the grass catcher.
Unlock the collector channel (☞5.4.7)	Stop moving forward, disengage blades and turn off engine. Remove grass catcher and clean out catch channel.
Finish cutting ( <b>☞</b> 5.4.8)	Disengage blades and reduce engine speed.
Stop the engine ( <b>•</b> 5.4.9)	Reduce engine speed, wait a few seconds, turn key and close fuel cock.
store machine (☞5.4.10)	Set the parking brake, remove the key and, if necessary, wash the machine, the inside of the mower deck, the collector channel and the grass catcher.

5.4.13 Summary of the main steps to follow when using the machine

#### 5.5 USE OF THE MACHINE ON SLOPES

Only cut on slopes with slopes up to a maximum mentioned



#### → 15° 15° → 10°

Grass on a slope must be mowed moving up and down and never perpendicular to the slope.

When changing direction, be very careful that the wheels facing up the slope do not hit any obstacles (such as stones, branches, roots, etc.) that could cause the machine to slide to the side, tip over, or cause the machine to slide sideways. lose control.



**DANGER**SLOW DOWN BEFORE ANY DIRECTION CHANGE ON SLOPES, and always apply the parking brake before leaving the machine stationary and unattended.

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**CAVEAT**Start moving forward very carefully on sloping ground to avoid the risk of tipping over. Reduce forward speed before going on a slope, especially downhill.

**DANGER**, use reverse to slow down going downhill: this could cause you to lose control of the vehicle, especially on slippery terrain.



**CAVEAT**: If the machine is transported on a truck or trailer, use proper handling equipment and enough people for the weight of the machine and the type of lifting system used. The machine must never be lifted with ropes and tackle. During transport, turn off the fuel stopcock, lower the mower deck, apply the parking brake, and secure the machine securely with ropes or chains to the hauling device.

#### 5.7 LAWN MAINTENANCE

1. To maintain a green, smooth and attractive lawn, it must be mowed regularly. A lawn can be made up of different types of grass. If the lawn is mowed frequently, the grass and roots grow more vigorously, forming a solid grass bed. If the lawn is mowed less often, taller grass and weeds start to grow (more daisies and clovers, etc.).

2. It is always better to mow the grass when it is dry.

3. Blades must be in good condition and sharpened so that the grass is cut straight without a jagged edge causing yellowing at the ends.

4. The engine must be running at the highest speed, both to ensure proper grass cutting and to obtain the necessary thrust to throw the clippings through the collector channel.

5. Mowing frequency should be in relation to the growth rate of the grass. The grass should not be allowed to grow too long between one cut and the next.

6. During hot, dry periods, the grass should be cut a little higher to prevent the soil from drying out. 7. The proper grass height on a well-kept lawn is approx. 4-5cm. With one cut, it is not necessary to remove more than a third of the total height. If the grass is very tall, it should be cut twice in a twentyfour hour period: the first time with the blades at maximum height, possibly reducing the width of cut, and the second time cut to the desired height.

8. The appearance of the lawn will be improved if you alternate cutting in both directions.

9. If the collector system tends to get blocked with grass, you should reduce ground speed as it may be too fast for the grass condition. If the problem persists, the probable causes are dull blades or warped wings.

10. Be very careful when mowing near bushes or curbs as they may distort the horizontal position of the mower deck and damage its edge and blades.

## 6. MAINTENANCE

#### 6.1 SAFETY RECOMMENDATIONS



**CAVEAT** Before cleaning or maintenance work, remove the ignition key and read the instructions. Wear proper clothing and work gloves when your hands are at risk.

**CAVEAT** Never use the machine with worn or damaged parts. Defective or worn parts should always be replaced and not repaired. Use only original replacement parts: parts that are not of the same quality can damage the equipment and affect your safety and the safety of others. **IMPORTANT** Never dispose of used oil, fuel, batteries or other contaminants in unauthorized places!

#### 6.2. MAINTENANCE PROGRAM

task to perform	Hours	Accomplished
1. machine		
1.1. Check tightness/sharpness of blades	25	
1.2. replace blades	100	
1.3. Check drive belt	25	
1.4. Replace drive belt 2)		
1.5. Check belt cutting system	25	
1.6. Replace cutting system belt 2)		
1.7. Transmission Adjustment Check	10	
1.8. Brake system check	10	
1.9 Check screws (looseness)	25	
1.10. Lubrication 3)	25	
2. Engine		
2.1. Oil change		
2.2. Filter cleaning and/or checking		
23. Oil filter replacement		
2.4. Fuel filter check		
2.5. Fuel filter replacement		
2.6. Spark plug check and cleaning		
2.7. Spark plug replacement		

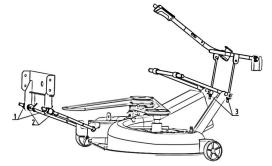
See the engine manual for the complete list of maintenance and their frequency. When the first signs of wear appear, contact your dealer to replace the part. A general lubrication of all joints should also be carried out whenever the machine is not used for a long period of time.

The table above is to help you maintain the safety and performance of your machine. Shows the main maintenance and lubrication operations and their frequency. To the right of each item, there is a box where you can write the date or after how many hours of operation the work was performed.

**CAVEAT** All checks, adjustments and replacements that are not described in chapters 6.3 and 6.4 of this manual must be carried out by your dealer or a specialized Service Center. Both have the necessary knowledge and tools to ensure the job is done correctly without compromising the safety of the machine.

6.2.1 Summary of the main situations in which the service operation may be required

When you need ...Blades vibrate -- Contact your dealer Blades rip grass and grass turns yellow -- Contact your dealer Cut is uneven -- Align mower deck (-6.3.1)Blades activate abnormally -- Contact your dealer. Machine does not brake -- Contact your dealer Forward motion is erratic --Contact your dealer.



6.2.2 Engine

**IMPORTANT** Follow all instructions in the engine manual. To drain the engine oil, unscrew the oil cap when you put the cap back on, make sure the seal is seated correctly.

#### 6.2.3 Battery

The battery must be carefully maintained to ensure a long service life. The battery of the machine must always be charged:- before using the machine for the first time after purchase;- before leaving the machine unused for a long period;- before starting the machine after a long period of disuse

Carefully read and follow the battery recharging instructions in the booklet that came with the battery. Failure to follow instructions or charge the battery may permanently damage the battery cells.

A discharged battery must be recharged as soon as possible.

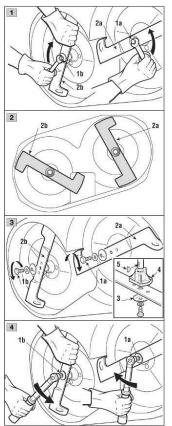
**IMPORTANT** Charging should be done using a constant voltage battery charger. Other recharging systems can irreversibly damage the battery

#### 6.3 CONTROLS AND ADJUSTMENTS

- Place the machine on flat ground and check the tire pressure;- Place 26mm blocks under the front edge of the deck and 32mm blocks under the rear edge.- Tighten nut 1 and nut 2 to keep the platform in contact with the 26 mm blocks.—Adjust nut 3 to keep the platform in contact with the 32 mm blocks.

#### 6.4 DISASSEMBLY AND REPLACEMENT

6.4.1 Replacing wheels Stop the machine on level ground and place a block under a load-bearing part of the frame on the side where the wheel is to be changed. The wheels are held in place by a snap ring that can be removed with a screwdriver .



**NOTE** If you have to replace one or both rear wheels, make sure they are the same diameter, and make sure the mower deck is level to avoid an uneven cut.

**IMPORTANT:** Before remounting the wheel,

apply grease to the axle. Put the snap ring and support washer in place. 6.4.2 Tire replacement and repair.

The tires are "tubeless" and therefore all punctures must be repaired by a tire repair technician following the procedures required for this type of tire. 6.4.3 Replacing the lamps

The bulbs (18W) have a terminal connection and are installed in the socket, which can be removed by turning it counterclockwise.

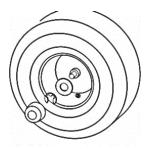
6.4.4 Replacing a fuse The machine is equipped with 15A fuses. When the power is off, the machine stops, the dashboard light goes out, and the battery gradually depletes, the machine will have trouble starting.

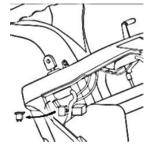
6.4.5 Disassembly, replacement and assembly of the blades.

**DANGER**Always wear work gloves when handling blades.

**DANGER**Damaged or bent blades should always be replaced; Never try to repair them!

ALWAYS USE ORIGINAL BLADES! Make sure the blades are properly balanced. The blades are





different and rotate in different directions, so make sure you put them back in the right place by referring to the code printed on the outside of each blade.

1. Disassembly

1a = screw with right-hand thread (loosen counterclockwise) 1b = screw with left-hand thread (tighten clockwise)

2. Original spare parts

Consult your dealer for the blades and their reference for the correct replacement.

3. Blade assembly

Check that the concave part of the damping disk (3) presses against the blade. Reassemble the axle hubs (4), making sure the keys (5) are firmly in place.

4. Tighten the screws.

1a = screw with right-hand thread (tighten clockwise) 1b = screw with left-hand thread (tighten counterclockwise) Tighten with a torque wrench calibrated at 40-45 Nm. 6.4.6 Changing the belt

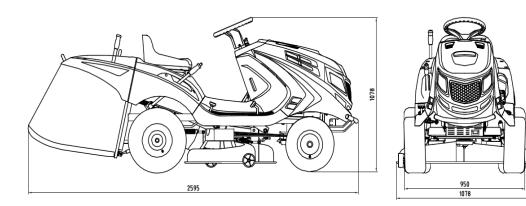
Belt replacement must be done at an Authorized Service Center.

**DANGER**Replace belts as soon as they show obvious signs of wear! ALWAYS USE ORIGINAL REPLACEMENT BELTS!

## 7. TECHNICAL DATA

MODEL	ANOVA TC102
Blade screw tightening screw	40Nm
Electric system	12V
Battery	18 oh
cutting height	3 to 9cm
cutting width	102cm
Front tire size	15 x 6.00-6
rear tire size	18 x 8.50-8
Front tire pressure	1.0 bar
rear tire pressure	0.8 bar
Feed rate (at 3000 min-1)	
Go ahead	from 0 to 8.8km/h
Reverse	from 0 to 3.8km/h
Net weight	220kg

Dimensions:



## 8.WARRANTY

This warranty covers all material or production failures, it does not include defects in normal wear parts, such as bearings, brushes, cables, plugs or accessories for the machine, damages or defects resulting from abuse, accidents or alterations suffered; or transportation costs.

Reserves the right to reject any claim where the purchase cannot be verified or where it is clear that the product was not properly maintained. (clean ventilation slots, lubrication, cleaning, storage, etc.) Your purchase receipt should be kept as proof of purchase date.

Your tool must be returned to your dealer in an acceptable and clean condition, in its original box, if applicable, accompanied by your proof of purchase.

#### 13.1. WARRANTY PERIOD

- The warranty period (Law 1999/44 CE) according to the terms described below is 2 years from the date of purchase, in parts and labor, against manufacturing and material defects.

#### 13.2. EXCLUSIONS

The guarantee does not cover:

- Natural wear and tear.

- Misuse, negligence, careless operation or lack of maintenance.

- Defects caused by incorrect use, damage caused due to manipulations carried out by personnel not authorized by Anova or use of non-original spare parts.

#### 13.4. IN CASE OF INCIDENCE

- The guarantee must be correctly completed with all the information requested, and accompanied by the purchase invoice.

## **9.ENVIRONMENT**

Protect the environment. Recycle the oil used by this machine by taking it to a recycling center. Do not pour used oil into drains, land, rivers, lakes or seas.



Please dispose of your machine in an ecological way. We must not dispose of machines together with household waste. Its plastic and metal components can be sorted according to their nature and recycled.

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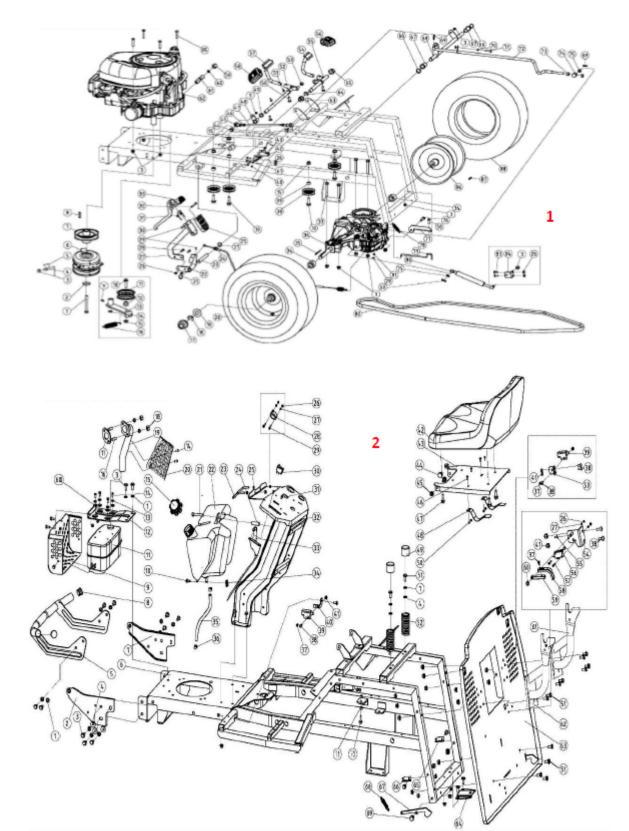
The materials used to pack this machine are recyclable. Please do not dispose of the packaging in household waste. Please dispose of these packages at an official waste collection point.



## **10. EXPLODING**

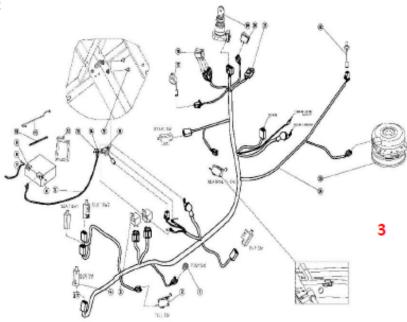
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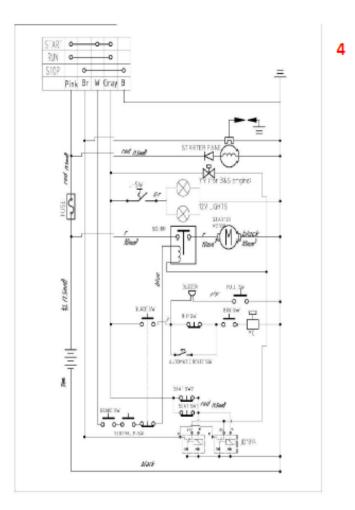
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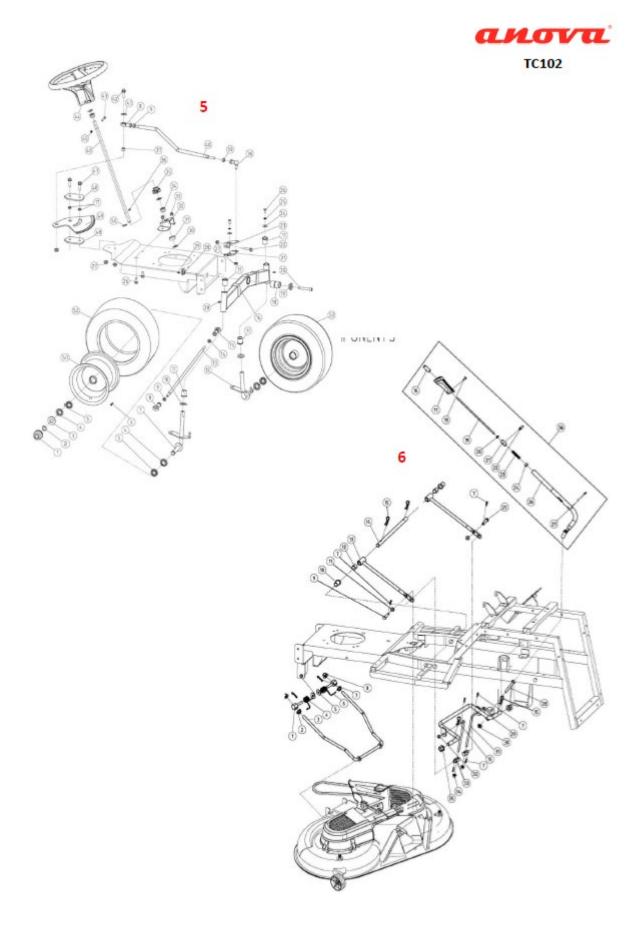




TC102

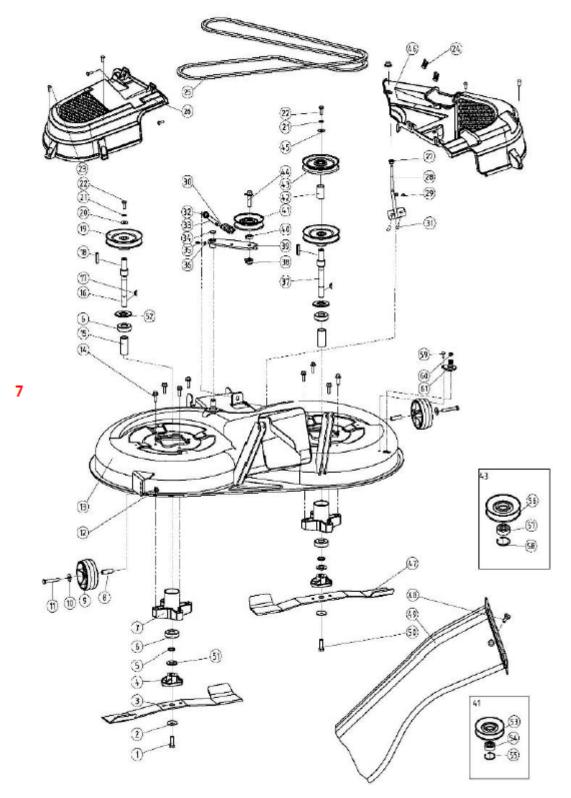


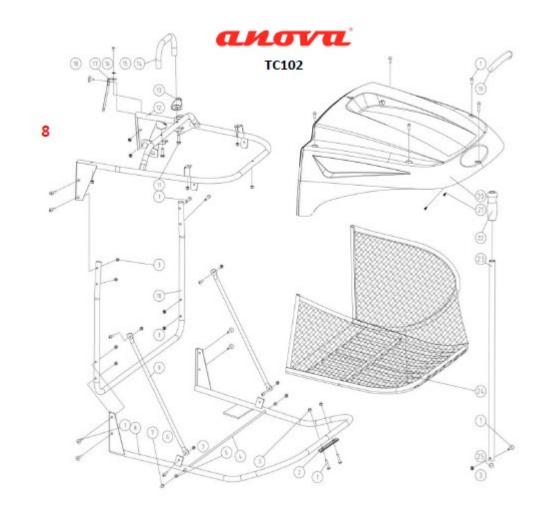


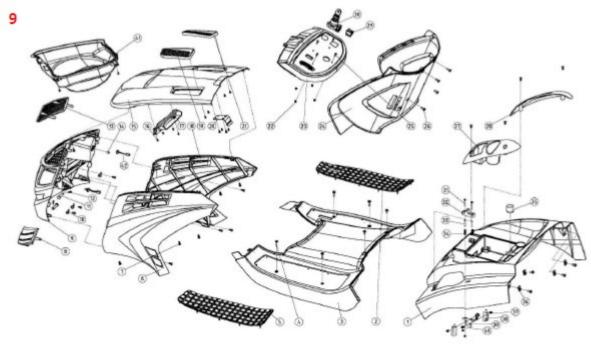












## **11. CE DECLARATION OF CONFORMITY**

### **DISTRIBUTION COMPANY**

MILLASUR, SL RUA EDUARDO PONDAL, Nº 23 PISIGÜEIRO 15688 OROSO - A CORUÑA SPAIN



## EC DECLARATION OF CONFORMITY

In compliance with the different CE directives, it is hereby confirmed that, due to its design and construction, and according to the CE mark printed by the manufacturer on it, the machine identified in this document complies with the relevant and fundamental health and safety requirements. of the aforementioned EC directives. This declaration validates the product to display the CE symbol.

In the event that the machine is modified and this modification is not approved by the manufacturer and communicated to the distributor, this declaration will lose its value and validity.

Machine name: LAWN TRACTOR

Model:TC102

Recognized and approved standard to which it conforms:

Directive 2004/108/EC Directive 2014/30/EU

Tested according to standards:

ISO 14982:2009

(engine) EN ISO 5395-1:2013 EN ISO 5395-3:2013

