

# Instructions and user manual

# MTC620



**ALKOVOL®**

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

This machine is designed to last for many years and be very useful if used according to the instructions in the user manual. We therefore recommend that you read this instruction manual carefully and follow all our recommendations.

For more information or questions, please contact us through our web support services, such as [www.Anovamaquinaria.com](http://www.Anovamaquinaria.com).

## **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 working with the machine.
- The contents are correct at the time of printing.
- We reserve the right to make changes at any time without affecting our legal responsibilities.
- This manual is considered an integral part of the product and must remain with it in the event 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 your machine provides the best results, please read the operating and safety instructions carefully before using it.

## **OTHER WARNINGS:**

Incorrect use could cause damage to the machine or other objects. Adapting 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.

This manual contains information on the operation and maintenance of the MTC620 walking tractor, based on the most recent product information available at the time of approval for printing. We reserve the right to make changes and revisions without prior notice and without incurring any further obligations. No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the machine and remain with it, whether it is resold or donated to a third party.

## Safety information

Safety is very important for the user and others. Please read this manual carefully and make sure you understand the instructions described here. This safety information indicates the potential danger to yourself and others when using the machine. Each piece of information marked as safety is indicated by the symbol "!" in addition to the words "danger, warning, caution."

- ◆ Please pay special attention to the meanings of the above-mentioned identifiers.

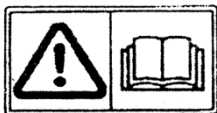
**! Danger:** Serious injuries, including death, may result if the instructions in the manual are not followed.

**! Warning:** Damage to the device and people (injury/death) may be caused if the instructions in the manual have not been followed.

**! Attention:** Damage to the device and injuries may occur if the instructions in the manual are not followed.

Other important information can be seen marked with the word "attention."

**ATTENTION:** Damage to the device may be caused if the instructions in the manual have not been followed.



◆ If the tiller is operated according to the instructions in the manual, it will operate safely and reliably. Before using the machine, please read this manual carefully. Failure to do so may result in injury and damage to the device.

## ◆ Attention

- When starting the engine, the gearshift lever must be in the disengaged position with the belt, in neutral position.
- When the machine is working, please pay attention to your safety!
- Be careful with rotating work blades, as they can hurt you and cause injury!
- The fuel and lubricating oil must be clean and must be as specified in the manual.
- Before shifting gears, you must disengage the clutch (the machine's clutch system consists of a tension roller and a belt). Set the engine speed to low. Shifting gears at low speeds is safer and can prevent damage to the gear system.
- You should not use reverse gear while driving up or down a slope with the power tiller.

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# Chapter I. Safety and Warning Information

## 1. Training

- a) Please read this manual carefully and learn how to operate and use the power tiller.
- b) Do not allow children or anyone without proper training to operate this machine to avoid possible injuries.
- c) Make sure that people (especially children) and animals are kept away from the tillage work area.

## 2. Preparation for work

- a) Remove all other obstacles that may exist in the working area of the power tiller.
- b) Before starting the engine, make sure the clutch is disengaged and the gear lever is in the neutral position.
- c) It is not permitted to operate the power tiller without wearing appropriate work clothing. Wearing non-slip footwear can improve the user's stability.



### **d) Take special care with fuel as it is extremely flammable.**

- 1) Use approved tanks to store fuel.
- 2) Refueling is not permitted while the engine is running. Allow the engine to cool before each refuel.
- 3) Refuel in a well-ventilated area with the engine stopped.
- 4) Before starting, tighten the fuel cap and wipe up any spilled fuel.



### **e) When the engine is running, no adjustments or maintenance on the machine are permitted (except for special adjustments recommended by the manufacturer).**

- f) Please wear safety glasses for any operation, such as: preparation, operation and maintenance.

## 3. Operation

- a) Keep hands and feet away from moving parts while the engine is running.
- b) Take care when using and moving the machine on (or all) cobblestones, pavement, or roads. Be aware of the potential risk of injury and traffic. Passengers are not permitted on the machine.
- c) Please turn off the engine and check the tiller for damage after working on rough or rocky soil. Do not start or operate the machine before it has been repaired if it is damaged or broken.
- d) Pay attention to the floor where you work with the machine, avoid slipping and falling while working.
- e) Any unusual vibration is a sign of a malfunction. You must stop and inspect the machine immediately before continuing to work.
- f) Always stop and turn off the engine: when leaving the workplace, cleaning the blades, performing any maintenance, or making adjustments to the machine.
- g) After use, you should take preventive measures, such as: disengage the gear, place the shift lever in the neutral position, and leave the engine off.
- h) Before cleaning, maintenance and inspection, the engine must be turned off, and ensure that all moving parts have stopped.
- i) Exhaust fumes contain poisonous gas; do not use the tiller in enclosed spaces or without proper ventilation.
- j) If there are no protection devices, do not perform any operation with the machine.
- k) Keep away from children and pets while working.
- l) To avoid over-depth and over-speed when operating the machine, do not overload the machine in daily work.



m) The tiller should not be operated at high speed on slippery ground, be careful of the rear when using the tiller and moving backwards.

n) Keep people away from the machine while working to avoid unforeseen and dangerous situations.

o) Use only manufacturer's parts and accessories or their equivalents on the machine.

p) Do not operate the tiller in low visibility or low light conditions.

q) Be careful when using the tiller on hard ground, as the blades can push the tiller forward. In such cases, let go of the handlebar; do not try to control it.

r) Do not use the power tiller on steep slopes or hillsides.

s) Move the tiller up or down, perpendicular to the slope, to avoid overturning.

#### 4. Maintenance and storage

a) Keep the cultivator, machine and components in good working order.

b) At set intervals, check that the screws are securely fastened to secure the cultivator part to the machine for safe operation.

c) Store the machine in a sheltered location, away from fire. Allow the engine to cool before storing it indoors.

d) For long-term storage, you should keep this manual together with the machine as well.



e) Do not attempt to repair the machine yourself. Any unauthorized modification will void the warranty. If you do not have the proper tools to disassemble and assemble the parts, follow only the troubleshooting instructions in this maintenance manual.

#### 5. Safety warning indications



A3 – Fire safety



A4 – Blade guard installed: The work guards must be properly installed when the machine is operating.



A7 – Read the manual and pay attention to the safety instructions for this point on the machine.



A6 – Direction of rotation: The maximum rotation speed of the blades is 1800 rpm. Excessive speed is not permitted.



A5 – Keep away from moving work blades. They can cause serious injury.

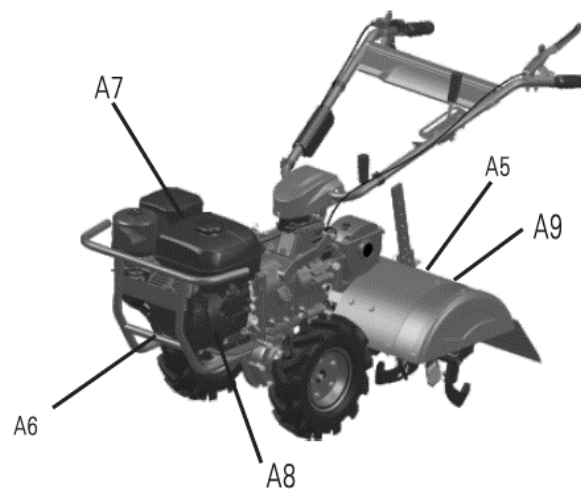
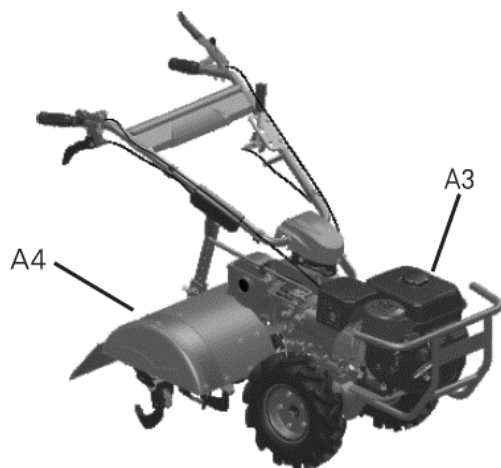


A8 – Keep people away from the operating machine. Pedestrians should remain at a safe distance from the machine.



A9 – Wear eye and ear protection when using the machine.

## 6. Position of warning and safety signs on the machine



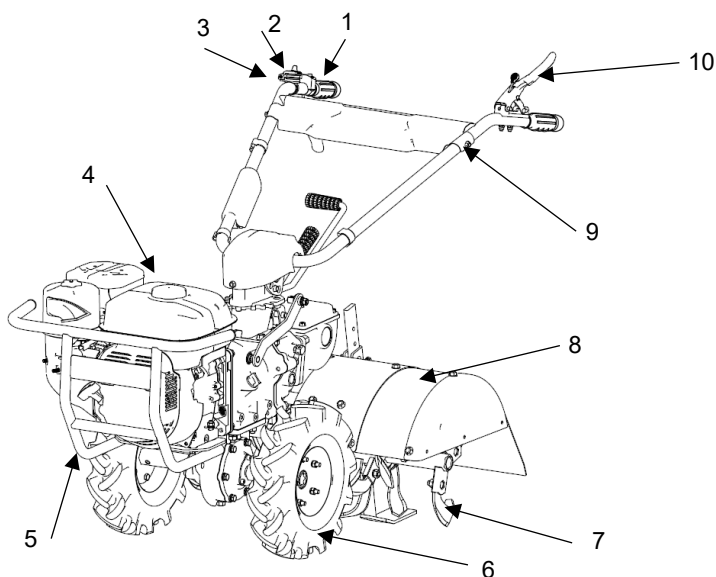
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## Chapter II. Technical data

### ◆ 1. Specifications

Model		MTC620
Cultivator	Dimension (L*W*H) mm	1480x800x1100
	Net/gross weight (kg)	107/117
	Transmission model	Direct with gears
	Working width (mm)	620
	Working depth (mm)	≤150
Engine	Model	MA212
	Opening x time (mm)	70x55
	Cylinder capacity (cc)	212
	Nominal power (kW)	4.0
	Engine speed (r/min)	3600
	Fuel type	Gasoline

### ◆ 2. General diagram



1. Handlebar
2. Off switch
3. Fuel key
4. Gasoline engine
5. Bumper
6. Transport wheels
7. Cultivator blades
8. Blade guard
9. Clutch actuation control
10. Clutch handlebar

## Chapter III. Type of use

The tiller is suitable for cultivating, backfilling, furrowing, and weeding gardens, orchards, greenhouses, etc. on flat terrain, hills, and various fields. Do not use the tiller on slopes greater than 20°.

## Chapter IV. Installation Method

Assembly after purchase:

### 1.1. Wheelset

Fix the body of the tiller, install the wheels on both sides of the hexagonal axle and fix it by the clip B and Pin.

### 1.2 Handlebar chassis

Place the handlebar plate bolt into the hole in the turntable, then lock the bolts by tightening with the press gasket, wave washer, and nut.

1.3 Place the handlebar cover on the turntable with the M6x12 screw.

1.4 Check the rotating part of the tiller, all its components, and connections. If there are any defects, repair them before using the machine and then proceed to the next assembly step.

## Chapter V. Working method

Before the tiller is shipped from the factory, its components are adjusted and checked. Before use by the operator, and for comfortable and easy operation, the machine must be inspected and adjusted again before first use.

### ◆ 1. Daily Check

1.1 Check all screws on the connecting part to ensure that all of them are tight.

1.2 Check the handles and handlebars (throttle, clutch, and gear shift lever) to ensure they are flexible and in the correct position.

1.3 Put the gear lever in neutral.



#### 1.4 Add the oil:

Add lubricating oil (SAE10W-30) into the engine crankcase as shown below on the shim plug.

Place the engine in a horizontal position. Insert the dipstick into the filler neck without screwing it in. Check the dipstick and the oil level. The oil level should be as shown below.

Moisten the air filter with the same type of oil; remove the filter cover and refill with approximately 0.1 L of oil.

1.5 Add fuel; add gasoline with an octane rating of 90 or similar to the fuel tank.

1.6 Please make preparation according to the user manual before starting the machine.

Upper level

Minimum level

**Attention!**

Do not turn or modify the oil dipstick. Always ensure the level is between the maximum and minimum levels.

**◆ 2. Handlebar adjustment****Attention!**

Place the tiller on a firm, flat surface to adjust the handlebar to avoid problems when moving to the work area.

**2.1 Adjusting the handlebar frame**

Adjust the height and direction of the handle frame and lock its height.

**2.2 Depth adjustment**

Control the working depth by adjusting the height of the resistance bar. If the bar is lowered, the tilling depth will decrease; if the bar is raised, the tilling depth will increase.

**◆ 3. Starting and stopping the engine****Attention!**

The gear lever must be in the neutral position.

3.1 The gear lever must be in the neutral position before starting the tiller.

3.2 Start the gasoline engine.

3.3 The engine should run at a low speed (1450-1750r/min) for 2-3 minutes without load before performing heavier work.

3.4 Check that the motor is running normally; if you detect any abnormality, turn it off and consult your dealer.

**Attention!**

The tiller should be left running at low speed for a while before starting the job for the first time.

**◆ 4. Operation**

4.1 Starting the tiller: The blade drive must be disengaged and all gear shift levers must be in the neutral position before starting the machine.

4.2 Working position: Put the gear shift into the required speed, squeeze the clutch handle to operate the rotary cultivator.

4.3 Stopping the machine.

a) Loosen the clutch lever.

b) Put the gear lever in the neutral position;

c) Following the user manual, turn off the machine's engine.

**Attention!**

Always park the tiller on a flat, secure surface.

**◆ 5. Attention during use**



### **Attention!**

- 5.1 When using the power tiller, pay attention to the working condition and the sound of each part; check for proper connections and any unusual noises. If any abnormal situation arises, please turn off the machine and check its source.
- 5.2 Never work with heavy loads if the power tiller has not been used for a long time, especially in the case of new or repaired machines.
- 5.3 Pay attention to the oil level in the gasoline engine and gearbox. When the oil level is low, refuel immediately, as operating the machine without adequate lubrication can cause serious damage.
- 5.4 Never cool the gasoline engine with cold water; serious damage can occur due to sudden temperature changes.
- 5.5 Prevent falls from the power tiller when performing its work.
- 5.6 Never install the tiller with the rotating blades when walking on sand or stones to avoid damaging the working blades.
- 5.7 After each job, clean any dirt, such as mud, grass, or oil stains, off the tiller. Keep the machine clean.

## **Chapter VI. Maintenance**

Due to the constant rotation of the blades, abrasion, and changes in the workload on the tiller, bolts can loosen and parts can become worn during operation. These changes will affect the machine's proper functioning, cause components to loosen abnormally, reduce gasoline engine performance, increase oil consumption, and cause various spare parts to become loose, all of which will increase machine malfunction. All of this will seriously affect the tiller's working efficiency. To reduce the frequency of the aforementioned accidents and malfunctions, prevention and maintenance work must be performed rigorously and regularly to maintain the machine in good technical condition and extend its lifespan.

### **◆ 1. Starting the tiller**

◇1.1 Regarding the machine's ignition, please refer to the section above.

◇1.2 Whether the cultivator is new or repaired, it should run without load for one hour before performing more serious work. After operating under light load for five hours, all the oil in the gearbox and crankcase of the gasoline engine should be drained immediately. Afterward, refuel with suitable clean gasoline, pull the starter lever 5 to 10 times, and then discard. Refill with lubricating oil every four hours of operation.

### **◆ 2. Technical maintenance table**

◇2.1 Maintenance and ongoing inspection (before and after work)

1 Listen and check for any malfunctions in each part (such as strange noise, overheating, loose screws, etc.).

2 Check for oil leaks from the gasoline engine, gearbox, and undercarriage.

3 Check whether the oil level in the gasoline engine and gearbox is between the upper and lower limits on the dipstick.

4 Clean the entire machine and spare parts of mud, grass, and oil stains regularly.

5 Do daily checks.

◇2.2 Primary maintenance (every 150 hours)

1 Carry out maintenance work based on all the contents of all maintenance times.

2 Clean the gearbox and operating gearbox and estimate the lubricating oil change.

3 Check and adjust the clutch, rotation system and reverse system.

### ◇2.3 Secondary maintenance (every 800 hours)

1Carry out maintenance work based on all primary maintenance contents.

2Check all gears and bearings. If they are loose or damaged, replace them.

3Check other parts of the cultivator, such as the blades or pivot pins. If there is any damage, please replace them.

### ◇2.4 Technical inspection (for 1500-2000 hours)

1Take the machine to a designated maintenance station and perform general maintenance. If spare parts are severely worn, they should be replaced or repaired as appropriate and for each accessory.

## ◆ 3. Technical maintenance

	Daily	Works on half load for 8 hours	Work for 1 month or 20 hours	Work for 3 months or 150 hours	Every year or 1000 hours	For 2 years or 2000 hours
Check and tighten nuts and bolts	√					
Checking and refueling lubrication	√					
Checking and changing the lubricant		√ (1st time)	√ (second half)	√ (third time or more)		
Check for oil leaks	√					
Clean mud, grass and oil stains	√					
Check for possible malfunctions	√					
Adjustment of wearing parts	√					
Gears and bearings					√	

## ◆ 4. Long-term storage

When the machine needs to be stored for a long period, the following measures should be taken to prevent damage to the machine.

◇4.1 Wash and remove dirt from the machine.

◇4.2 Drain the lubricating oil in the gearbox and refill with new oil.

◇4.3 Paint the stripping on non-aluminum parts where the machine does not have paint.

◇4.4 Store the machine in a dry, safe place where there is sufficient ventilation.

◇4.5 Keep the fastening tools, accessories and machine manual properly when storing the machine.

## Chapter VII. Fitting Methods and Data

### ◆ 1. Clutch cable adjustment

Abrasion of the friction plates and shift clutch can cause clutch wear after extended use, in which case you will need to calibrate the clutch accordingly.

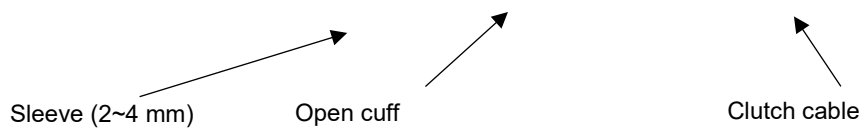
#### ◇1.1 Clutch cable adjustment

◇1.1.1 Each lever must be equipped with a normally open clutch sleeve limit switch, which cannot be replaced by a common clutch cable;

◇1.1.2 When adjusting the clutch, ensure that the small sleeve is within the range of travel. When you loosen the clutch lever, the main output shaft must be stopped.

Replace with a new clutch cable if the small sleeve runs out of the adjustment thread.

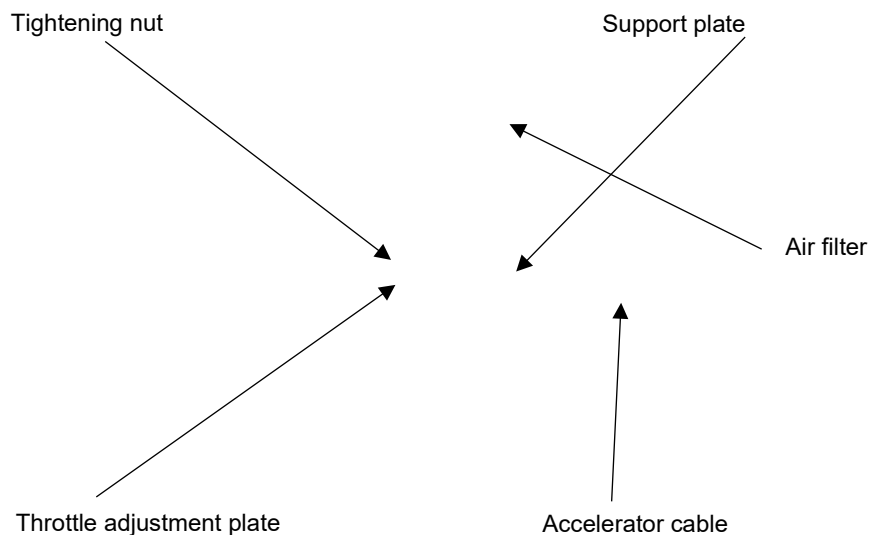
◇1.1.3 When adjusting the clutch cable, make the cable fit the handlebar frame and then tighten the calibration nuts.



#### **Important**

The sleeve must be operational within the indicated range. Do not overtighten the threads or adjustments.

### ◆ 2. Throttle cable adjustment



◇2.1 Adjust the throttle cable, so that it can reach the fastest and slowest position.

## Chapter VIII. Troubleshooting

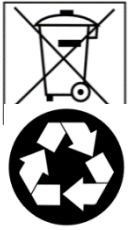
### ◆ 1. Common problems and solutions

Freak	Reason	Solution
Abnormal noise in the gear	Gear abrasion or incorrect connection	Reinstall or replace the equipment
Gear does not run smoothly	Incorrect installation	Reinstall the work equipment
Machine overheating	Less lubricating oil in the tank	Add lubricating oil as needed
	Too narrow gap between gears	Reassemble
	Very narrow space between bearings	Reset
Oil leak in the gearbox	The connecting bolt becomes loose	Tighten the bolt
Oil leak	Broken sealing gasket	Replace the gasket
Oil leak on the output shaft	Worn or broken oil seal	Replace the oil seal
Oil leak at the oil drain hole	Broken O-ring	Replace
	Loose screw cap	Squeeze
Oil leak in the tank	Small holes in the tank	Welding

### ◆ 2. Other problems and solutions

Freak	Reason	Solution
Blades break	Stones or very hard ground	Replace broken units, pay attention to avoid stones or very hard soils
Control cable breaks	Work abrasion due to use	Replace a new cable

## Chapter IX. 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 oceans.

Dispose of your machine in an environmentally friendly manner. Machines should not be disposed of with household waste. Their plastic and metal components can be sorted according to their nature and recycled.

The materials used to package this machine are recyclable. Please do not dispose of the packaging with household waste. Dispose of this packaging at an official waste collection point.

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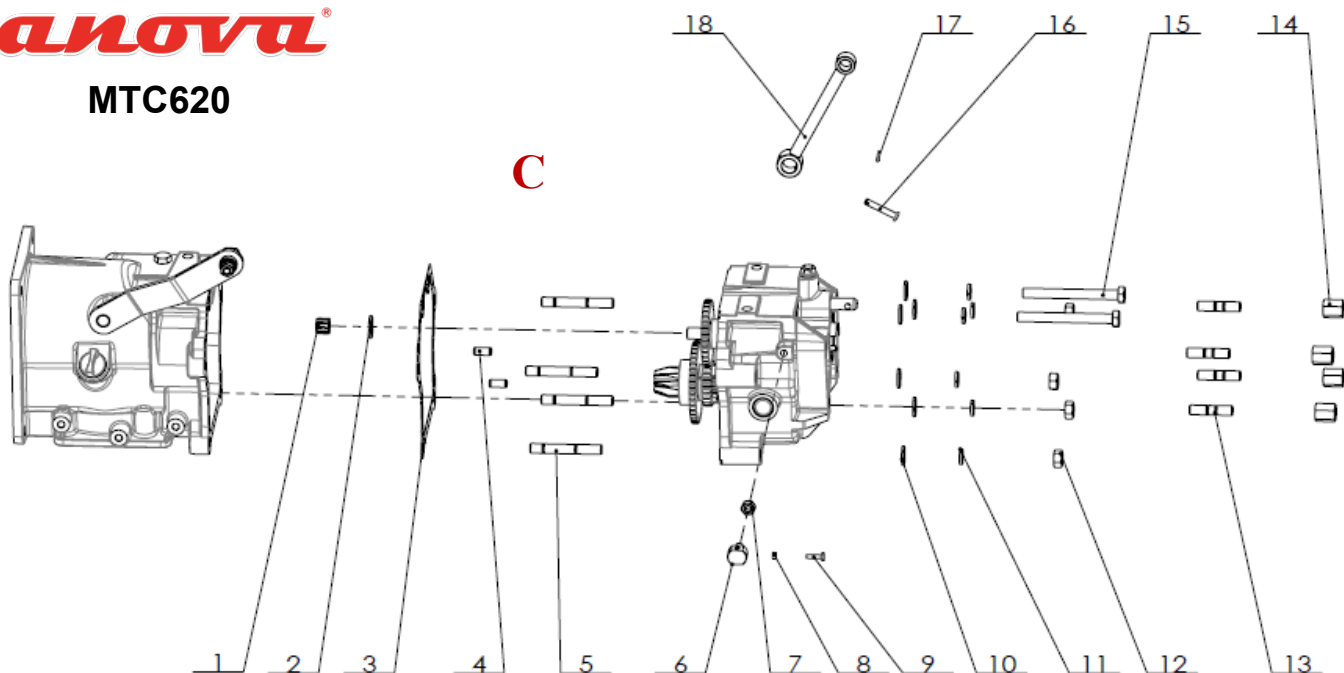
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**MTC620**



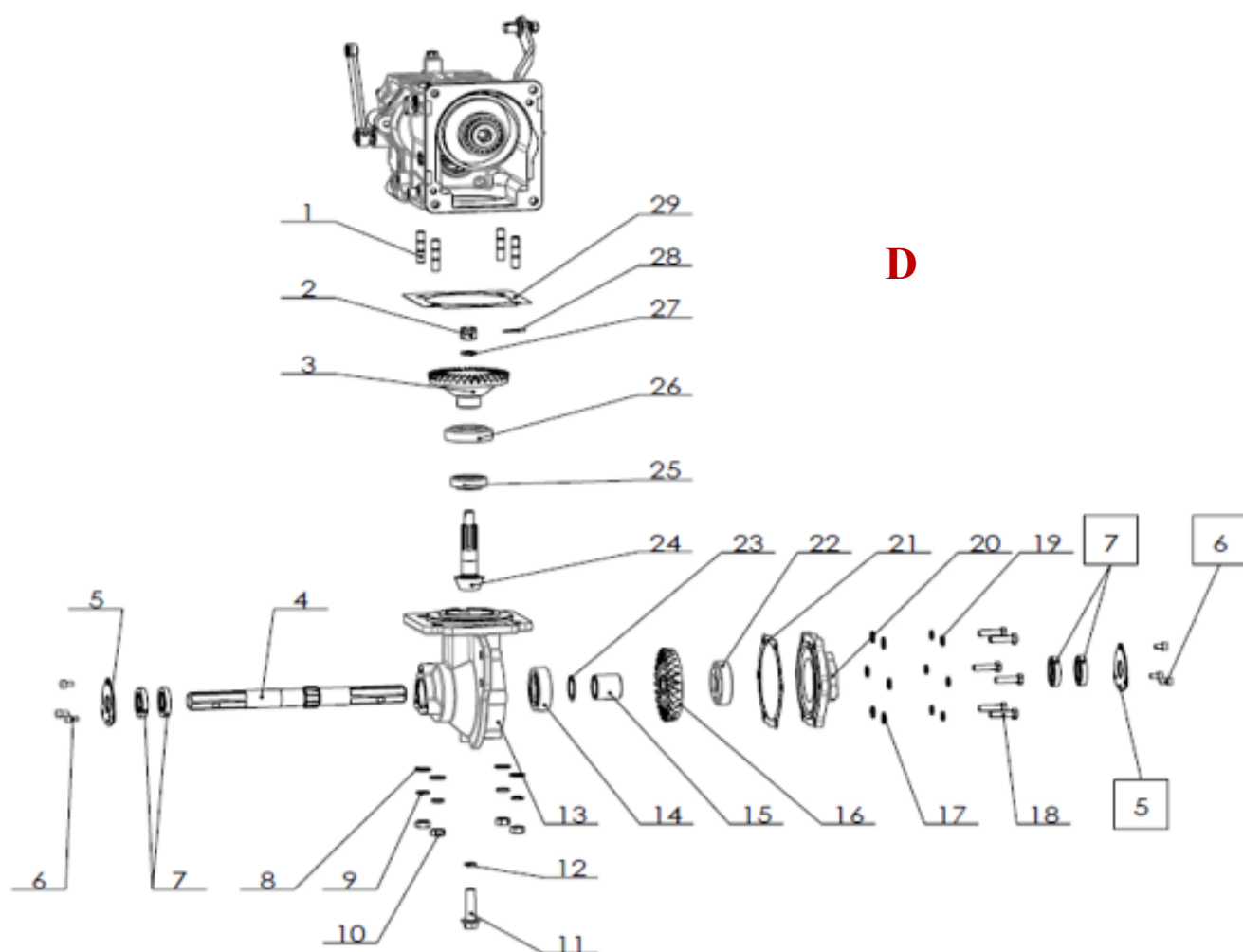
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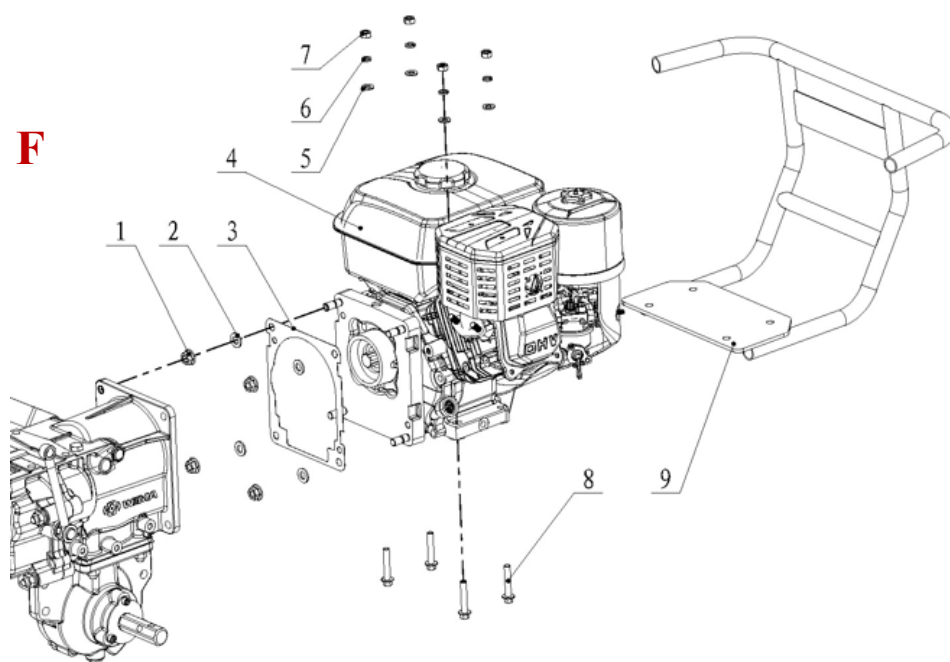
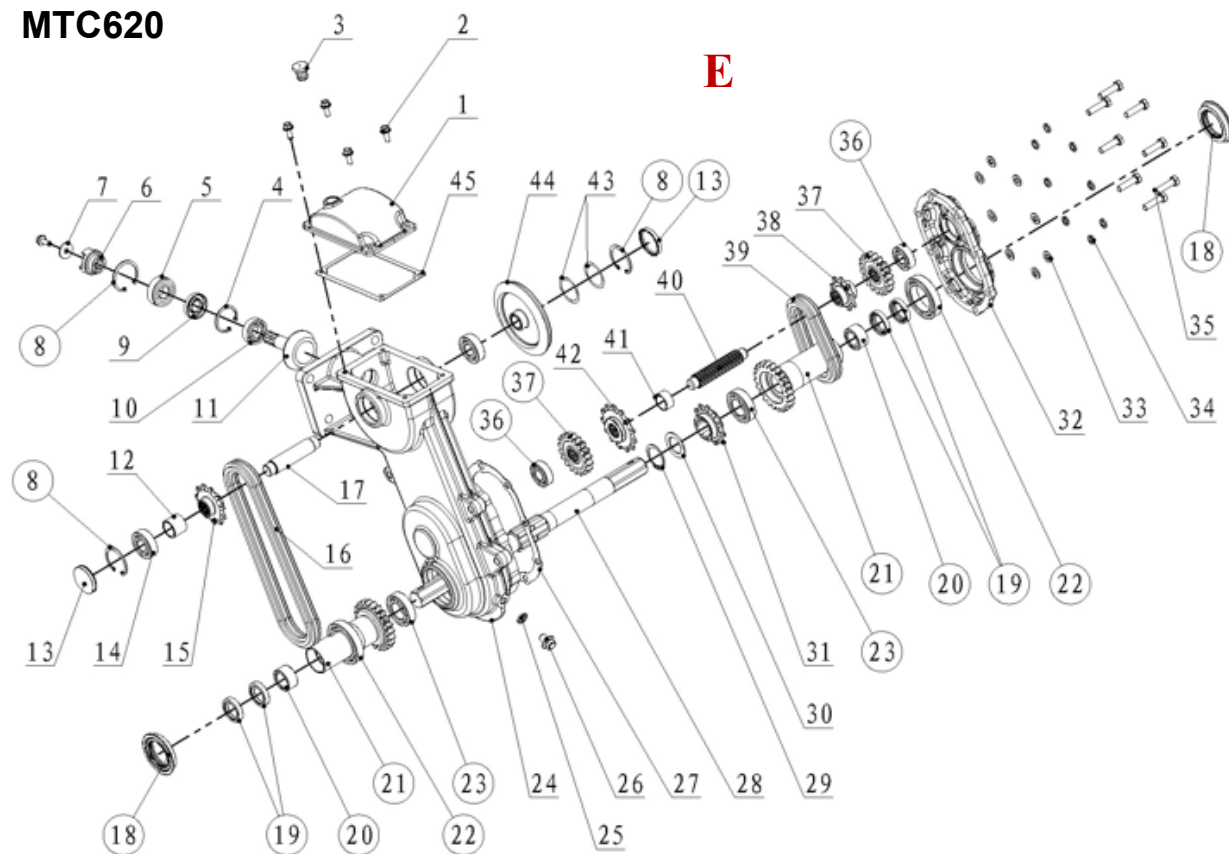
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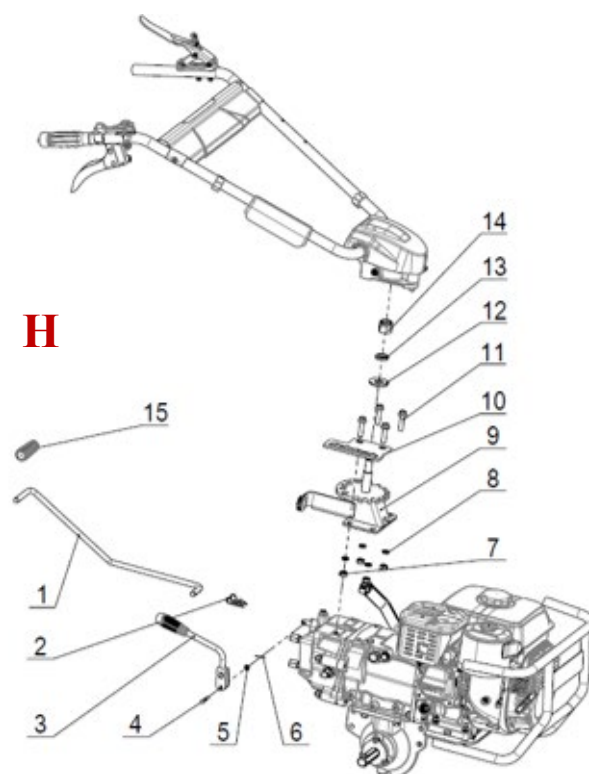
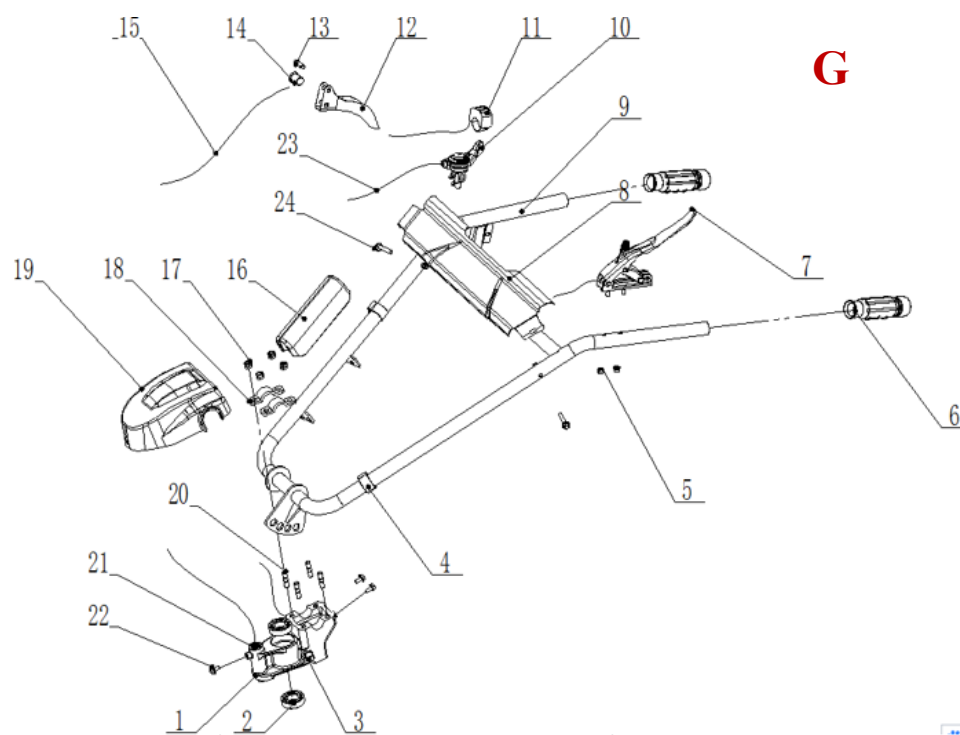


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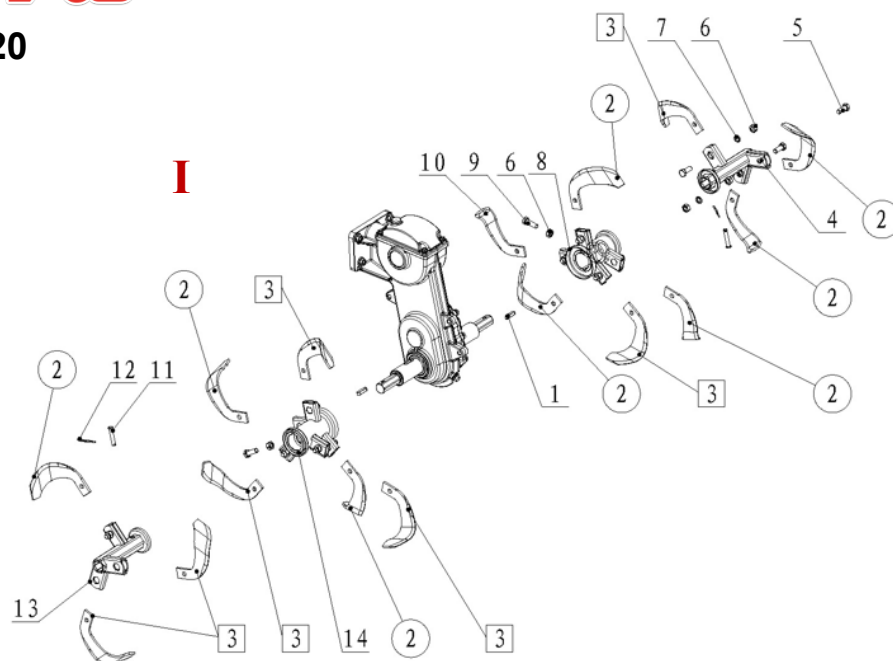


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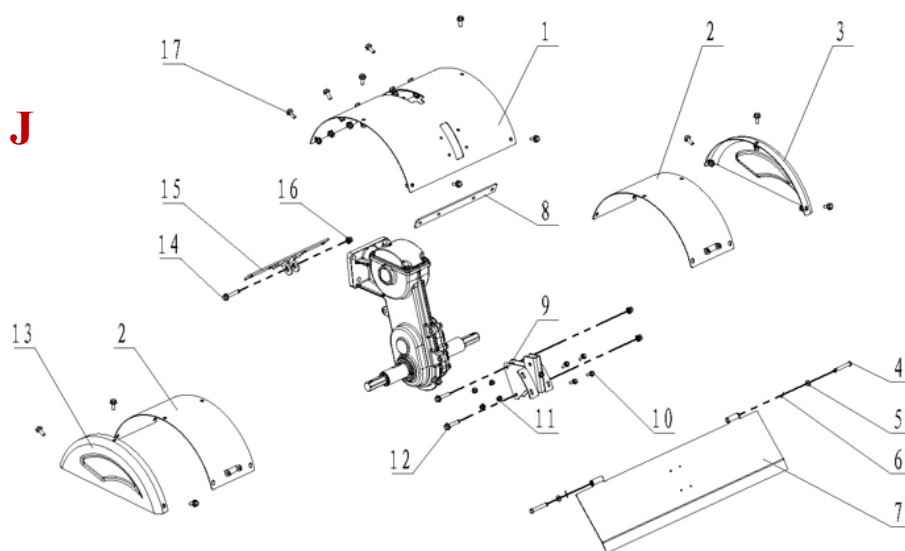




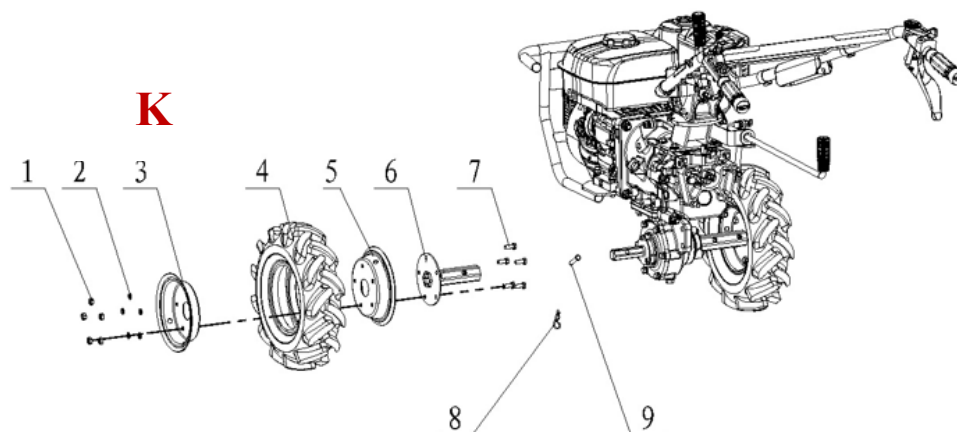
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## Chapter XI. EC Declaration of Conformity

### DISTRIBUTION COMPANY

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



**ALNOVA**

## EC DECLARATION OF CONFORMITY

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

If 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: MOTOR CULTIVATOR

Model: **MTC620**

Recognized and approved standard to which the following are adapted:

**Directive 2006/42/EC**

**Tested according to standards:**

**EN 709:1997/A4:2009**

Test report no.: 70.403.12.133302-02

Company seal

**millasur**

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