



Please read carefully before using your machine



RMCB - RMCS - RMHB

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RMCB - RMCS - RM	IHB Mower
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ou are now the proud owner of an Etesia mower!

This extremely reliable and tough machine has been specially designed to give many years of service.

- In order to prolong the life of your mower and keep it in excellent working order, read this manual carefully and always follow the safety recommendations and maintenance instructions.
- As part of our commitment to excellence, we are constantly seeking new ways of improving our products.
- For this reason, your model may differ slightly from the description in this manual.
- Up-to-date technical information can be obtained from your dealer who will be happy to resolve any queries you may have.

### **BEFORE USING YOUR MOWER**

• Prior to use, check that safety labels are present on the mower as indicated in the manual. Read these labels carefully. If any safety labels are missing, inform your dealer immediately, as the mower is required by law to carry them.

- Before using your mower, make sure that you are completely familiar with the controls and operating instructions so that you are able to stop the machine quickly.
- Before mowing, always clear the lawn of stones, pieces of wood or metal, wire, bones, plastic, branches and other debris liable to be thrown out by the mower.
- Low branches liable to cause injury to the user should also be removed.
- Before mowing each time, ensure that the cutting blade is in good condition and tight and that the handlebar is locked.
- Loose clothing and short trousers should not be worn when using the mower. Always wear stout and closed shoes. Always wear stout and closed shoes. Never use the mower barefoot or wearing sandals. Wear ear defenders.

### 1. YOUR SAFETY AND THAT OF OTHERS

- Always follow these instructions when using your mower.
- Never allow children under the age of 16 to drive the mower.
- Never allow anyone who is not familiar with the operating manual to use your mower.
- Never drive your mower too close to embankments or ditches, on soft ground, or where there is a risk of overturning.
- Never operate the machine when feeling tired or unwell, or after consuming alcohol or taking medicine.
- The user is responsible for ensuring the safety of others within the area where the mower is being used.
- Whilst mowing, take care to avoid injury to others caused by flying stones and other objects.
- Keep a safe distance from people and animals when the engine is running. Never start the machine when they are close by.
- Never remove warning labels or safety instructions.
- The mower must have its collection bag and/or its safety shield/deflector. Frequently check that the collection bag shows no signs of wear or deterioration. Never use the mower if the protection is defective.
- · Never place hands or feet under the cutting deck.
- •The mower has to be always equipped with its safety shield / deflector and safety rubber flap.
- Keep your hands and legs clear of rotating or moving parts. Always keep clear of the ejection opening.
- Before removing the grassbox or change the cutting height adjustment, stop the engine or the blade rotation.
- The hydraulic transmission of your mower uses pressurized oil. Never start the mower without the hydraulic transmission cowling.: pressurized hydraulic fluid that could escape could have sufficient force to penetrate the skin and cause serious injuries in which case medical help would be needed right away.
- Avoid obstacles such as mole hills, concrete pedestals, tree stumps and edging, which cannot be cut by the blade and which could damage the cutting mechanism specially the blade.
- Change the blade after any shock.
- Operate the mower only in broad daylight or with good artificial lighting.
- Whenever possible, do not mow wet grass.
- Always stay behind the machine when mowing. Drive particularly carefully by changing direction. Mowing on too steep slopes to be avoided. Work according to the picture 1 page 6. Mow perpendicularly with respect to the slope, never up or down it.

- Never run but advance steadily and minding your step especially on slopes.
- $\bullet$  Be very careful if you reverse the mower or pull it back towards yourself.
- Do not change the motor speed regulation settings or use the motor at too high a speed.
- WARNING: NEVER ALLOW THE ENGINE TO RUN IN CONFINED AREAS.EXHAUST GASES CONTAIN MONXIDE, WHICH IS ODOURLESS AND CAN KILL.
- Stop the engine for any maintenance on the mower.
- The drive and blade clutch levers never have to be locked in working position.
- If the mower has to be lifted or transported, stop the engine and remove the spark plug cap.
- If you drive the mower out of the lawn, stop the engine and the blade rotation.
- You should also comply with any legal requirements relating to self propelled mowers (e.g. insurance, useful life, etc).
- These precautions are vital to your safety. However, the recommendations given are not exhaustive and due care should always be exercised when using your mower.
- By loading and unloading the machine it is recommended to use ramps or to ask help for the loading operation.

#### MAINTENANCE AND STORAGE

- Always maintain the machine and accessories in perfect working conditions.
- Replace worn or damaged parts for greater safety.
- Cleaning or servicing the mower should not be started before having stopped the engine and disconnected the spark plug.
- The spare blades must only be fitted on machines for which they are designed, in accordance with the instructions.
- Switch the engine off before beginning any work on the machine.
- Always use recently purchased petrol. Old petrol could leave gum deposits in the carburettor, lead to leaks or make the engine difficult to start. Only buy unleaded petrol as for maxi one month.
- Store the petrol in a clean container not used for other purposes.
- WARNING: fuel is highly flammable.
- NEVER STORE, OR USE PETROL NEAR A NAKED FLAME or near devices such as stoves, water-heaters with pilot lights or any other device liable to produce sparks.

### 1. YOUR SAFETY AND THAT OF OTHERS

- Always fill in the fuel tank outside a building in an open space. Do not smoke during this operation.
- Add fuel before starting the engine.
- Never remove the fuel cap whilst the engine is running or hot.
- Leave the engine to cool for few minutes before filling.
- Ensure that the fuel cork and fuel tank are replaced correctly.
- If you have tiped over fuel, do not attempt to start the engine remove the mower from the affected area and take care not to ignite any undispersed fuel vapour.
- Do not modify the regulator springs, rods or other parts to increase the engine speed. Operate the engine at the recommended speed.
- Do not check the spark by removing the spark plug. Use an approved checking system.
- Do not pull the starter while the spark plug is removed. If the engine is flooted, turn the fuel control to the Max. position and start the engine until it starts up.
- Do not knock the engine wheel with a hammer or a hard object. Otherwise, the wheel may break during operation. Have all major servicing operations performed by an authorised ETESIA mechanic who has the appropriate tools.
- Do not use the engine without the silencer. Check the silencer regularly and have it replaced if it's damaged or leaking.
- Do not touch the exhaust, cylinder or fins when hot. Otherwise, you may get burnt.
- Do not use the mower in wooded areas, brush fallow or grassy ground if the exhaust is not fitted with a spark arrester (the spark arrester must be kept in good condition by the owner or the user).
- Do not start the engine when the air filter or its cover is removed.
- To prevent the engine from starting accidentally, remove the spark plug cap during servicing operations.
- Clean the cylinder fins and regulator mechanism of any dirt, residue of grass and other materials which could alter the engine speed.
- Pull the starter cord slowly until you feel resistance. Then pull it energetically to prevent recoiling and hurting your hand or arm.
- Check the fuel pipe and connections for cracks and leaks and have them changed if necessary.
- The spare blades must only be fitted on machines for which they are designed, in accordance with the instructions.
- Use only original ETESIA spare parts. The use of inferior quality parts can damage the engine.

### RESPONSIBILITY

- Etesia will not be held responsible in the event of failure to comply with this manual or with current regulations.
- Never attempt to modify yourself your propelled mower without any prior approval from the manufacturer.
- Unauthorized adjustments could be dangerous and result in serious injury to the user. No responsibility will be accepted by the manufacturer in the case of failure to comply with these instructions.

### IDENTIFICATION OF THE MOWER

- The serial number of your mower is on the identification label on your mower on the top of the ejection channel. Always give this number to your Dealer for all servicing on your mower.
- You will only be ready to use this mower after you read the safety instructions.

### 2• KEY TO DIAGRAMS - SAFETY



This symbol appears in the instruction manual alongside those sections which deal with user safety.



This symbol appears in the instruction manual alongside important information on how to prolong the life of your mower

### ENGINE DIAGRAMS



Fuel is highly explosive and inflammable. Stop the engine before fill the fuel tank.

#### DO NOT SMOKE.



Always fill the fuel tank in the open and never pour or use petrol near a naked flame or near devices such as stoves, water-heaters with pilots lights or any other deviceiable to produce sparks.



Exhaust fumes are very toxic and contain carbone monoxide who is a deadly and odourless poison.



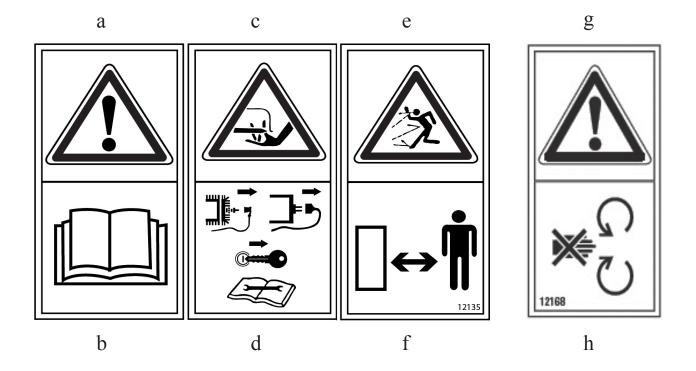
Do not run the engine in confined areas.



To avoid any burn, do not touch the exhaust pipe when it is hot.

### SAFETY LABELS

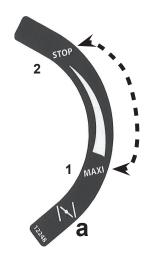
- a. CAUTION!
- b. Before using, please read and follow the safety and maintenance instructions of the instruction booklet
- c. Caution of the cutting blade. The blade continues to rotate after stop of the engine Finger cut risks
- d. Stop the engine, disconnect the spark plug before proceeding any services on the mower
- e. Risk of projected objects
- f. Keep the third person away from the machine
- g.CAUTION!
- h. Do not use the lawnmower if the grass collector and/or the shield deflector are not in position



### 2• KEY TO DIAGRAMS - USE

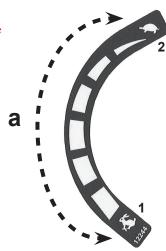
### THROTTLE CONTROL LEVER (RMHB)

- a- START position to start by cold engine.
- b- Engine rate setting range
- 1- Maximum rate
- 2- Engine stop



### **SPEED VARIATOR CONTROL (RMHB)**

- a Speed adjustement range
- 1 Maxi speed
- 2 Mini speed



# DRIVE CONTROL (RMCB-RMCS-RMHB)

- To move forward, push the control lever against the handlebar.
- To stop, release the control lever.



# MOTOR STARTING AND STOPPING CONTROL (RMCB-RMCS)

- 1- Starting
  - 1- Press the safety lever against the handlebars.
  - 2- Pull on the starter handle.
- 2- Stopping
- Release the safety lever.



# BLADE CLUTCH CONTROL START (RMHB)

### **START**

- 1- Swing the blade clutch lever towards top
- 2- Push the blade clutch lever hock towards front
- 3- Fold the blade clutch lever on the handlebar

### STOP

- To stop the blade release the blade clutch lever: The blade is on stop and braked

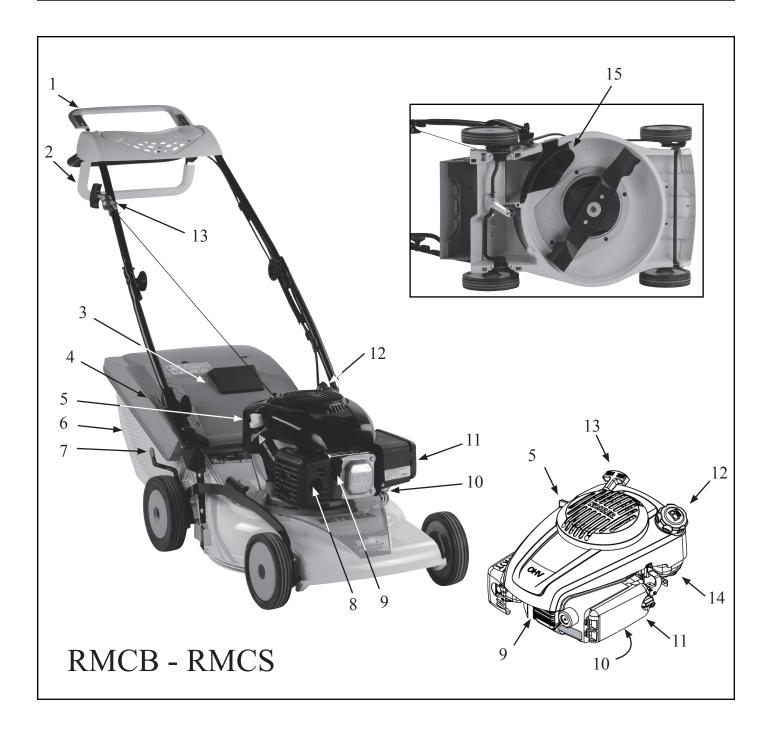


# CUTTING HEIGHT (RMCB - RMCS - RMHB)

- Cutting height indicator in millimetres



## **3• ILLUSTRATIONS**

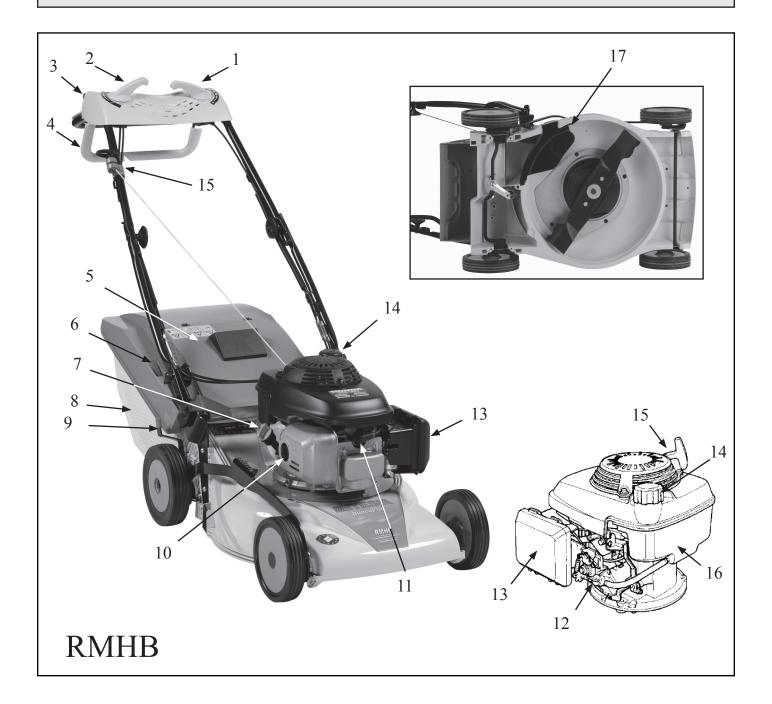


- 1. Safety lever
- 2. Drive control lever
- 3. Deflector
- 4. Filling indicator
- 5. Gauge / Oil filler tube
- 6. Grassbox
- 7. Lever for adjusting the cutting height
- 8. Muffler
- 9. Spark plug
- 10. Fuel tap

- 11. Air filter
- 12. Fuel tank cap 13. Starter handle
- 14. Tank
- 15. Mulching insert

**SPARE PARTS:**Blade: MZ46E

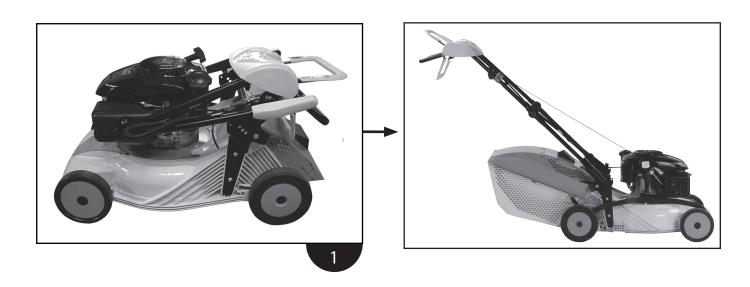
## **3• ILLUSTRATIONS**

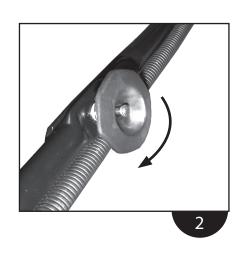


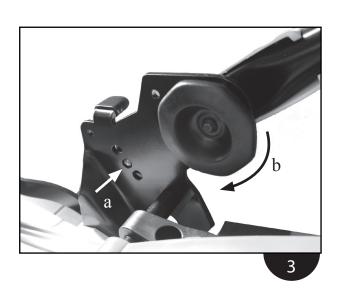
- 1. Variator control lever
- 2. Throttle control lever
- 3. Blade clutch lever
- 4. Drive control lever
- 5. Deflector
- 6. Filling indicator7. Gauge / Oil filler tube
- 8. Grassbox
- 9. Lever for adjusting the cutting height
- 10. Muffler

- 11. Spark plug 12. Fuel tap
- 13. Air filter
- 14. Fuel tank cap
- 15. Starter handle
- 16. Tank
- 17. Mulching insert

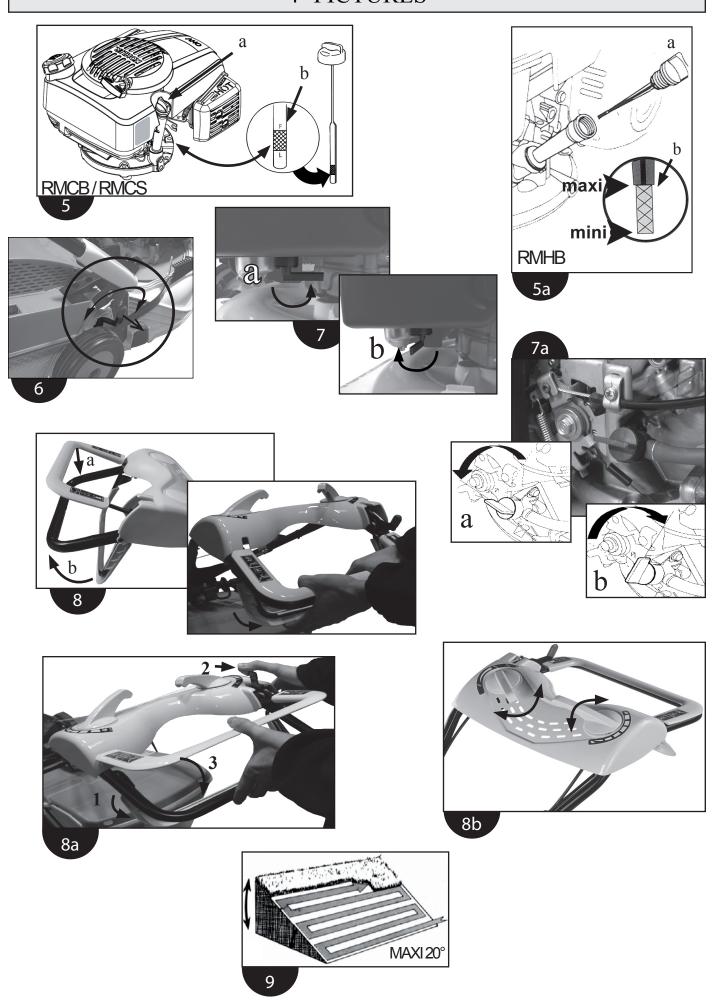
**SPARE PARTS:**Blade: MZ46E

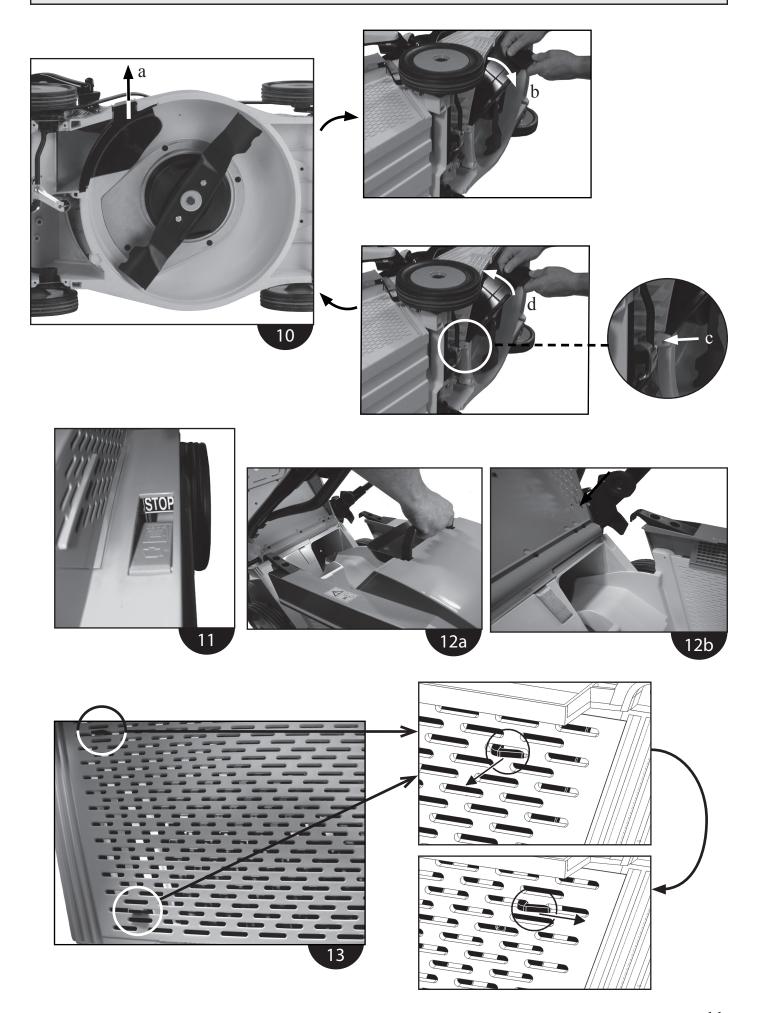


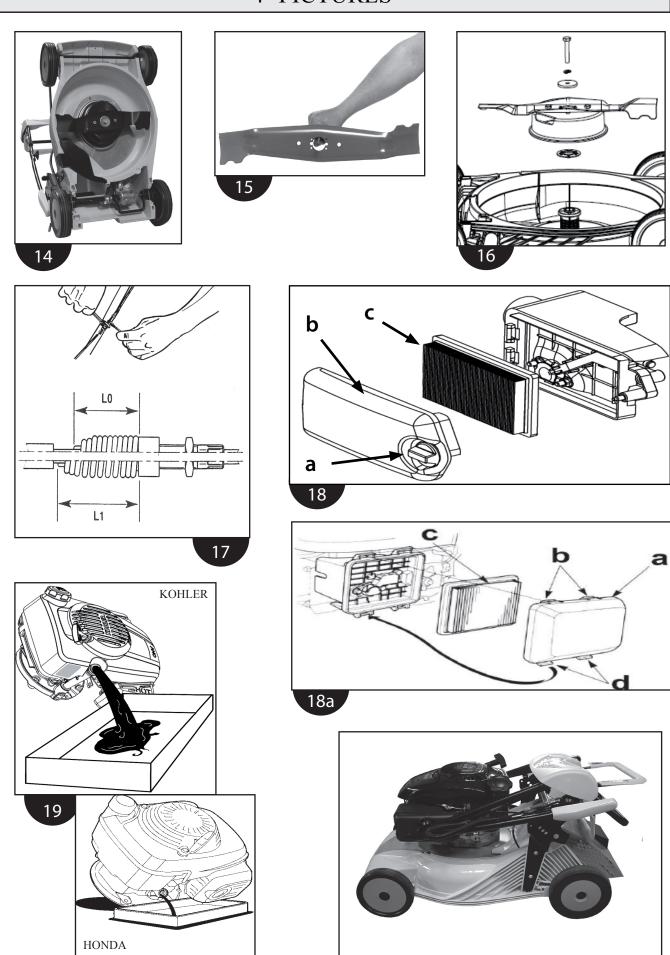












## 5• TECHNICAL SPECIFICATIONS



Modèle	RMCB	RMCS	RMHB
Engine	Kohler Courage XT-6.	75 - 4 stroke OHV	Honda GCV 160 OHC 4 stroke
Piston displacement	149 cc		160 cc
Stroke	45 mi	n	50 mm
Bore	65 mi	n	64 mm
Maximum use rate		300	00 rpm
Motor oil		SAE 30 or	SAE 10W30
Oil tank capacity	0, 60	L	0,55 L
Starter		Re	ecoil
Regulator		Med	hanical
Fuel		Premiu	m unleaded
Tank capacity		1,	1 L
Carburetor	Float-type with "Smart Ch	oke" automatic starter	Float-type with manual starter
Cooling			Air
Air filter		Pape	r cartridge
Ignition	Electronic		
Spark plug (special)	Shell Ø 12 mm - Length of thread 19 mm		Shell Ø 14 mm - Length of thread 19 mm
Spark plug gap	0, 76 mm		0,75 mm
Maximum angle of use (oil level full)	20°		
Maximum power at 3600 rpm	4,3 ch / 3,	2 kW	5,5 ch / 4,1 kW
Transmission	Disc	X	Disc
Forward speed	3,6 kmph	X	3,3 to 4,3 kmph by variator
Theoretical efficiency	1650 m <sup>2</sup> /h	1380 m <sup>2</sup> /h	1970 m <sup>2</sup> /h
Blade safety	Shear washer		Transmission belt
Blade stop	Engine b	rake	Blade brake
Blade	Reference ETES	IA : MZ46E	
Cutting width		4	6 cm
Cutting height	Central height adjustment in mm  28 - 38 - 48 - 58 - 68 - 78 - 88		
Carter de coupe			noy
Box capacity		56 I	Litre
Mulching		Yes (remov	able insert)
Weight	40 kg	36 kg	45 kg
Sound pressure level at operating position*	83 dB (	(A)	85 dB (A)
Level of vibration in handlebar**	4,2 m/s² (a <sub>hw)</sub>		5,2 m/s² (a <sub>hw)</sub>

<sup>\*</sup> Reference standard for the measurements : EN 836

<sup>\*\*</sup> Reference standards for the measurements : EN 836, EN 1033, EN ISO 5349-1

## 6 PREPARATION AND GETTING STARTED

### THE HANDLEBAR

- Unfold the handlebar (picture 1), ensuring the remote control cables are correctly positioned.
- Tighten the 2 wing-nuts (picture 2) of the intermediate handlebar fastening.
- Position the handlebar at the required height according to how tall you are (choice of 3 positions). Insert the positioning lug in the corresponding hole in the handlebar mounting (a picture 3) then screw in and tighten the nut (b picture 3). Important: make sure you fasten both lower parts at the same height.



Keep your fingers away from the joints to avoid injury.





There must no be any play in the handelbar attachement.

Place the starter cord in its guide located in the right-hand sleeve of the handlebars (picture 4). The starter cord must always be held in its guide.

### **ENGINE PREPARATION**



**CAUTION!** Petrol is highly inflammable.

- Do not smoke while filling with petrol. The tank should always be filled with the engine switched off.
- Never remove the fuel tank cap while the engine is running.
- If petrol has been spread, do not try to start the motor. Take the machine away from the spoiled area and make sure there is no form of ignition as long as the petrol vapour is not dispersed.
- Put the fuel tank cap and the fuel can properly.
- Avoid fuel overflow while filling the fuel tank. In spite of these precautions should it happen, please:
- a) Clean, as good as you can, all the contaminated parts.
- b) Don't start the machine as long as you're not sure that all the spread fuel has been eliminated.



Petrol is highly flammable.

Do not smoke while filling with petrol.



Never add oil to the petrol

### BEFORE TO START THE ENGINE

#### **ENGINE OIL**

• To enable transport make sure, the casing of your mower does not contain oil. Never run the motor without oil, even for brief periods.



To avoid wear or serious damage to the engine, never run the engine with the oil level above or below the limits marked on the dipstick.

- Before starting the engine, fill it up with oil (picture 5). Use excellent oil quality, duty class SJ for RMCB and RMCS or duty class SG,SF for RMHB and viscosity SAE 30 or 10W30.
- Place the mower on a horizontal and unencumbered area.
- · Check that the engine is cold.
- Clear the dipstick area of any debris.
- Pull out the dipstick (a picture 5 or 5a) and wipe off the oil with a clean cloth.

### RMCB/RMCS

Insert the dipstick back into the tube, pushing it in as far as it will go, and turn a quarter of a turn.

### **RMHB**

Place the plug on the tube without screwing it.

- Take off the gauge and check the oil level. For RMCB/RMCS the oil must reach the [F] mark (b picture 5), for RMHB the upper limit (b picture 5). Top up if necessary.
- In the event of excess oil, remove the surplus by laying the mower on its side. Do not fill the oil sump beyond the mark on the dipstick.
- Screw the filler neck cap firmly.
- Then top up with fuel.
- Clean the area around the fuel cap.
- Remove the fuel cap. Fill to the bottom of the filler neck. Do not over-fill the fuel tank, to allow the fuel to expand.
- Replace the fuel cap and tighten firmly.

### 7• OPERATING INSTRUCTIONS

### **CUTTING HEIGHT ADJUSTMENT**



Proceed only after engine has been switched off and blade has come to a complete standstill.

Set the cutting height according to the height of the grass to be cut.

• Pull the centralised adjustment lever outwards to release it from its notch, then turn it to the desired position and release it into its new notch (picture 6). The numerical values on the indicator correspond to the cutting height in millimetres.

Adapt the cutting height to the height and density of the grass and the weather conditions. If the grass to be cut is very dense or wet, the cutting height will need to be raised.

### STARTING AND STOPPING THE ENGINE

Before starting the engine, make sure that the blade is properly installed and properly tightened.

# STARTING AND STOPPING THE ENGINE AND THE CUTTING BLADE

### RMCB/RMCS/RMHB

- Before starting the engine, ensure that the blade is correctly tightened. The cutting blade is linked directly to the engine and starts to rotate as soon as the engine is started.
- Do not start the engine when the cutting blade is in contact with long, uncut grass as this would cause difficulties when starting. Never lift your mower when starting it or when the cutting blade is rotating.
- Open the fuel tap (a picture 7).
   Pull the safety lever on the handlebar (a picture 8).
- Stand behind the handlebar.
- Slowly pull on the starter handle until you feel a compression.
- Go back to the starting position before pulling the starter handle firmly to start the engine. Keep hold of the starter handle. The engine and blade start simultaneously.
- To stop: release the blade clutch lever; the blade is then on stop and braked.
- Close the fuel tap (b picture 7).

### **RMHB**

- Open the fuel tap (a picture 7a).
- Place the throttle lever on start (the choke valve will shut automatically).
- Slowly pull on the starter handle until you feel a compression.
- Go back to the starting position before pulling the starter handle firmly to start the engine. Keep hold of the starter handle.
- Hold on and follow the starter handle back to first position.
- When the engine has started, put the throttle lever on position "MAXI".
- If attempts to start the engine are unsuccessful, repeat the operation after putting the throttle in position "MAXI".
- Do not use the choke to restart an engine which has just been running (hot engine).
- To stop the engine and the cutting blade, move the gas lever to the "STOP" position.
- Close the fuel tap (b picture 7a).



Do not change the original settings of the engine, do never increase the engine rate. In the event of adjustment, contact your specialist approved by ETESIA.

Disengageable blade system (RMHB):

This safety arrangement enables to drive the machine without blades rotation, when cut is not required (during transport).

- Stand behind the handlebar and start engine
- Push the blade clutch lever hock towards front and fold the bladeclutch lever on the handlebar (see picture 7)
- To stop : release the blade clutch lever ; the blade is then on stop and braked.

### **MOWING**



Wear strong shoes and trousers. Remove all objects such as stones, wood, iron, string, bones, plastic, etc... from the lawn.



Never put your hand or foot under the mower while the engine is running.



Mow preferably when the grass is dry. If the grass is very long or wet, cut it twice: firstly at maximum cutting height, and then at the final height.



When you are mowing on slopes, you must be particularly careful and exercise a great deal of caution when changing direction. You should not mow on slopes that are too steep. When mowing slopes proceed as shown in the diagram (fig. 9).



If the grass starts to clog under the deck, switch the engine off and disconnect the plug lead before thoroughly cleaning the cutting system.

As the wheel gauge corresponds to the width of the cutting deck, you can easily visualise the cutting width. Furthermore, this allows you to mow close up walls and flowerbeds and to go round trees. To obtain a beautifully mown lawn, we recommend that you mow in parallel lines overlapping slightly with the wheel each time.

#### FORWARD SPEED

**NOTE:** Do not try to change the governor setting to increase the engine's maximum speed. Racing the engine is dangerous and invalidates the warranty.

### FORWARD MOVEMENT

- To move forwards, pull the advance lever back firmly against the handlebars (b picture 8).
- To stop release the forward movement lever.



Be particularly careful when you have to pull the machine towards yourself.

### SPEED CONTROLLER (RMHB)

With its continuous speed variation the speed controller enables you to adapt the speed of the lawnmower to all types of cut and use.

To change the driving speed start the motor then operate the variator control (see picture 8b).

Your lawn will guide you in your choice of optimum speed:

- Select a slow speed if the conditions of shearing require it: high, dense or wet grass, or inclined ground.
- Choose a faster speed if the conditions of shearing allow it : dry grass, neither too high or too dense, and fl at ground.



Avoid moving the speed control knob when the engine is stopped, because there is the danger of loosening the drive belt. If it has been moved, put it in position.

### CONTROL OF THE MOWER

### MOWING

- Never touch the blade when it is rotating. Take special care when changing directions on slopes. Never mow up or down the slope, always mow across (picture 9). Always keep a safe distance away from the lawnmower cutting deck.
- Stop the engine and disconnect the spark plug before removing any jams, or clear the cutting deck volute.
- If you can not stop the engine with the main control, turn off the petrol cock (this will stop the engine to within 3 minutes).

### 7• OPERATING INSTRUCTIONS

### MOWING WITH THE GRASSBOX

• First undo and remove the removable mulching insert (picture 10a & b). When mowing with the grass collector, get used to working out when it is full. Stop before the grass starts to accumulate under the chassis. The grass collector has an indicator on top (photo 11) which signals that the grass is no longer going into the grass collector, by indicating STOP. When this happens, the grass collector needs to be emptied.

### ATTACHING THE GRASS COLLECTOR



Always do this with the motor stopped.

- Lift the safety shield/deflector by its handle and introduce the mouth of the grass collector into the outlet duct (picture 12a).
- Hook the grass collector onto the lawnmower frame with its front hooks (picture 12b) and replace the safety shield/deflector on top of the grass collector.



Before you start mowing, check that the grass collector and safety shield/deflector are correctly positioned and that they are in good condition: have them replaced as soon as they show any sign of deterioration.

#### EMPTYING THE GRASSBOX.



Always perform this operation with the motor turned off.

- Raise the deflector and take the grassbox by its handle. This operation can be done either from any side of the mower.
- · Empty the grassbox by the frontal opening.

### **DUST GRILL (PICTURES 13A)**

To reduce the amount of dust and cut grass escaping through the sides of the grass collector, attach the extra grills supplied with your lawnmower.

- Put the extra grills inside the grass collector, supported by the top edge of its side walls, with the hooks facing the walls.
- Insert the mounting hooks into the corresponding openings in the grass collector grill.
- Slide the extra grills forward to fasten them in place.

# MOWING WITH THE INSERT (MULCHING CONFIGURATION)

- Insert the removable "mulching" insert: insert its end into its slot (c picture 10) at the back under the sump and push down firmly on its retaining clip in the slot on the sump skirt (d picture 10).
- Always adjust the cutting height according to the height and density of the grass to be cut and the weather conditions.
- Look at the mown area: there should be no grass clippings on the surface. If there are grass tracks visible, the cutting height should be raised high enough to achieve the result sought.



If you need to tilt your lawnmower for maintenance and inspection make sure that you lay it on its side so that the carburettor is facing upwards.

### MOWING WITH REAR EJECTION

For the occasional mowing of tall grass, you can use your lawnmower without the grass collector or the removable mulching insert. The deflector is designed to protect you. So only lift when you need to remove the grassbox. It automatically repositions itself afterwards.

**ADVICE:** after initially changing to the high position, you can reinstall the housing insert (mulching configuration) and finish off mowing by a second run at the required cutting height.

## 8• MAINTENANCE



Before performing any maintenance operation, turn off the engine, disconnect the power cable, close the fuel tap and remove the spark plug cap.

The best maintenance is above all the regular cleaning of your mower after each use (frame, wheels, transmission system...).

#### **CLEANING**

- Once the engine has been switched off and allowed to cool, unhook the grass collector, undo the lower fastening nuts on the handlebar as far as the screw collar so as to be able to straighten the handlebar, and lift the chassis from the front to put it into the vertical position (photo 14).
- **TIP:** Do not undo the two middle fastening nuts: the upper part of the handlebar stays aligned with lower parts.
- If you prefer to lay the lawnmower on its side, make sure that the air filter is always facing upwards.

- After stopping the engine and having allowed it to cool, clean the lawnmower particularly the inside of the cutting deck. Remove all debris of cut grass, preferably using a scraper and a brush.
- Avoid turning the cutting blade when cleaning to ensure easier starting later.
- If you are using a water jet, and particularly when using a high pressure washer, take care not to splash water on engine elements such as the carburettor, air filter, ignition, silencer. Never use hot water pressure washers.

### CHECK SAFETY DISPOSITION

- Regularly check the condition of the safety scuttle, the collecting bin and the anti-projection fl aps. Replace them as soon as they show signs of deterioration.
- Ensure that the safety control works properly: safety lever released = stoppage of cutting blade in less than 3 seconds.
- If you notice abnormalities in operation, have the safety system checked by a service engineer approved by ETESIA.

### **8• MAINTENANCE**

### MAINTENANCE OF THE CUTTING SYSTEM



Before each use, check that the blade, the blade attaching screw and the cutting assembly are not worn or damaged. A blade deformed or showing excessive wear (chipping on the blade edges) must be replaced.

- All shocks against obstacles, or abnormal wear, may cause unbalance and deterioration of the bearings or indeed of the engine as a whole. In such cases the warranty becomes invalid. Use a new blade rather than risk damage to the motor due to excessive unbalance of a poor blade.
- Regularly make sure that the blade is well balanced (picture 14).

### REMOVAL OF THE BLADE

- Change absolutely the blade after any shock.
- Some microcracks provoked by a shock can lead to the rupture of the blade if it's not replaced.



Wear gloves to avoid any accidents when handling the cutting blade, which is extremely sharp on the sharpened side. Remove the spark plug cover.

The engine crankshaft drives the cutting blade by means of a coupling washer. In the event of an impact of the blade against an obstacle, the tabs are sheared off and the blade is no longer driven normally.

This washer is a wear piece and it is normal to have to replace it.

- Loosen the cutting blade fastening screw.
- Replace the cutting blade and the coupling washer, respecting the direction of assembly (picture 15).

Check that the two cutting points are turning in the same plane. Measure the distance between the end of the blade and the edge of the cutting deck skirt. This distance must stay the same when you move the other end of the blade to the measuring point and must not be less than 3mm.

After an impact to the cutting blade, it must be replaced immediately. Micro cracks caused by such an impact can lead to the blade breaking subsequently, if it is not replaced.

# SERVICING THE FORWARD GEAR TRANSMISSION SYSTEM (PICTURE 17)

After each use, clean the transmission system by removing any grass that may have accumulated on it.

**IMPORTANT!** regularly check the correct adjustment of the drive clutch cable.

### Checking and adjusting the tension:

L0 = length of the spring at rest.

L1 = length of the spring when the corresponding control is activated.

The tension applied to the spring connecting the cable to the control levers (Value L1-L0) must be maintained, in gear and with the engine off, at a value of between 4 and 5 mm for the forward gear clutch cable.

Any adjustments that are needed can be made by moving the screw thrust bearings on the tightening screws on the sheathing on the handlebar:

• Loosen the lock-nuts, unscrew the thrust bearings by the necessary value, then tighten the lock-nuts again and check.

While the control levers are not being used, the spring should not exert any tension on the cable.

### **ENGINE MAINTENANCE**



Before any maintenance operation and in order to avoid any risk in case of accidental start of the mower, take out the plug top and empty the engine outside.

#### **ENGINE EMPTYING**

- The first emptying has to be done after the 5 first working hours. These hours have to be considered like a burn in period during the one you have to run the engine carefully.
- Next emptying has to be done every 50 hours or once a year. If the mower is used in difficult conditions (high temperature), plan more frequent emptying.



Be careful with used hot oil.

### **EMPTYING METHOD**

Empty the oil out when the engine is still hot.

- · Clean around the dipstick cap.
- Remove the dipstick cap. Turn the engine on its side, with the air filter facing upwards. Drain the oil into an appropriate vessel.
- Once the sump is completely empty, put the engine upright again. The oil level must reach the [F] mark of the gauge.

Remove the used oil in an approved recuperation station (fig 19).

### AIR FILTER

### RMCB/RMCS (SEE PICTURE 18)

It is inevitable that impurities will get into the air filter. Maintain the engine filter regularly: every 25 working hours or once a year. In case of use in dust atmosphere, the number of cleaning has to be increased.



Running the engine with loose or damaged air filter components may cause premature wear or engine failure. Replace all bent or damaged components.



Do not clean the fi lter with petrol or compressed air.

- Unscrew the button (a) and remove the air filter cover (b).
- Remove the paper element (c) from the bottom and replace it.
- Insert the element with the folded side facing outwards and place the rubber seal around the edge of the base.
- Replace the air filter cover and fasten with the button.

### RMHB (SEE PICTURE 18A)

- Remove the cover of the air filter (a) by unhooking the two upper tabs (b) situated on the air filter cover, then the two lower tabs (d).
- Remove the filter element (c). Check carefully that it is not perforated or torn. Replace it if necessary.
- Tap it gently several times on a hard surface so that the execess dirt drops off. Never try to remove dirt with a brush; brushing would force the dirt inside the fibres.
- Replace the element if it is necessary dirty.
- Replace the element, then the cover of the air filter.
   Do not use solvents or petrol or compressed air to clean the air filter.
   Do not oil the cartridge.

#### **SPARK**



Always use a spark plug with the right thermal value.

Clean the spark plug well. Remove the spark plug and replace it.

- Check the gap with a gauge. Adjust the gap (see Technical Specifications page 13).
- Insert the spark plug into the cylinder head.
- Tighten the spark plug to a torque of 27 Nm.

### **8• MAINTENANCE**

### **COOLING SYSTEM**

Suitable cooling is essential. To prevent overheating, clean the filters, cooling fins, and other external surfaces on the engine. Avoid spraying water on the cable bundle or the electronic components. Check the periodic maintenance summary table.

### **TRANSPORT**



If the machine has to be raised or transported, turn off the motor. Allow it to cool for at least 15 minutes before loading the mower into a vehicle. By precaution, disconnect the spark plug cover.



Never transport the mower with petrol in the tank or with the petrol tap open. The mower must be kept horizontal.

It is advisable to use a loading ramp or to have somebody help you load and unload the mower.

### **QUICK HANDLE FOLDING**

To reduce the mower space requirement in order to make storage easier, the handle has to be folded.

- · Remove the grass collector.
- Remove the starter cord from its guide and keep hold of the handle as the cord reels in towards the engine.
- Loosen the middle fastening nuts on the handlebar as far as the screw collar, and allow the upper part of the handlebar to fold backwards.
- Loosen the lower mounting nuts on the handlebar, move the lower parts of the handlebar outwards at their lower mounting points to release the positioning lugs and to be able to raise them.
- Fold the lower parts of the handlebar forward on your lawnmower and rest the upper part of the handlebar on top of them, taking care not to damage the cables.

### 9• WINTER STORAGE - LONG STOP

### **PREPARATION**

- Carefully clean the machine and in particular the underneath of the cutter housing.
- Clean the air filter.
- Empty the petrol tank and turn the engine over until all the fuel still in the pipes and the carburettor is used.

This operation must be carried out outdoors (in the open air).

- Whilst the engine is still hot, empty the oil from the oil sump and fill up again with new oil of the right viscosity.
- Remove the spark plug and pour about 15 ml of engine oil into the cylinder. Pull gently on the starter until you feel a compression: the valves are then closed and protected against corrosion.
- Store the mulching mower in a clean, dry place, on planks or a sheet of metal.

### STARTING UP AGAIN

- Unscrew the spark plug, clean it with petrol and leave it to dry.
- Pull several times on the starter to eliminate the excess oil in the cylinder
- Put back the dry spark plug.
- Fill up with fuel.
- Start the engine.

Of course you may leave this seasonal maintenance work to your ETESIA dealer if you wish. He will check that your mulching mower is in good condition...so that it starts first go the following spring.

## 10. DAY TO DAY MAINTENANCE – BREAKDOWNS AND SOLUTIONS

Most functioning troubles are due to bad uses and / or maintenance of the machine. Should breakdown remain, please contact your ETESIA dealer.



Before doing anything, disconnect the spark plug cap and close the fuel valve.

PROBLEM	ORIGIN	SOLUTION	
Machine does not want to start	Lack of fuel	Fill the tank and open the fuel tap	
	Spark is full of dust	Clean and replace the spark	
	Too much fuel	Remove the spark and dry the engine by pulling the rocket	
	Air filter needs cleaning	Clean or replace the filter	
Irregular operation, strong vibration	Cutting blade off centred Cutting blade loose	Balance or replace it Tighten the attaching screws	
Bad cutting, grassbox does not fill itself correctly	Blunt blade	Sharpened or replace the blade	
	Blade does not turn on an horizontal plan	Replace the blade	
	Cutting height is too low	Lift it slightly	
	Too quick drive	Drive more slowly	
	Engine run is too low	Put the gas lever on [MAXI] position	
Grass remains	Height adjustment too low	Lift the cutting height	
	Cutting deck clogged with grass remains	Clean the deck	
Blade clutch not working properly	Long distance control trouble	Adjust the cable tension	
Reduce forward speed slot	Long distance control trouble	Adjust control cables	
Does not rest on disengaged position	Dead point stop needs adjustment	Ask your ETESIA dealer to adjust dead point	

**IMPORTANT**: should you need to replace parts, please use original ETESIA ones. It will ensure the longevity of your machine. The use of any non ETESIA part is at user risk and has for consequence the refusal of all warranty claims. ETESIA can not be responsible in case of accident with non ETESIA parts.

### 11 • REGULAR MAINTENANCE SUMMARY

Page	Element	Before each cutting	After the 5 first hours	Every 50 h or each season	Periodically	Observation
17	Engine oil	Check the level and adjust	Empty the frame	Empty the frame (*)		Necessary to be able to claim for warranty
18	Air filter			Replace the cartridge	Clean every 25 hours	
18	Spark			Clean-adjust electrodes	Replace if used too much	Replace every 100 hours
18	Cooling system	Cleaning around the muffler			Check and clean	
17	Transmission forward				Clean and check tension of the cable	Keep it perfectly clean

<sup>(\*)</sup> Apply these procedures more frequently if the mower is used in difficult conditions (dust, heat, heavy loads).

### 12• WARRANTY

### **DEFINITIONS**

- Dealer, importer = Distributor linked to ETESIA by an agreement (dealership or importer contract). The dealer and the importer are in charge of selling and servicing ETESIA machines.
- User, buyer = physical or moral person, company, collectivity or association having bought legally a machine new or second hand from a dealer.
- Domestic use = use of a machine on a private ground. Machine is owned by the user and just use to clear its private piece of ground (main or secondary residence).
- Professional use = use of an ETESIA machine, in exchange of money or not, on public areas to maintain companies or institutions like: hospitals, associations,....or on private fields being owned by a third person.
- The user completes the warranty card indicating the type of use for every machine. This declaration engages its responsibility and defines the legal warranty period.
- Should ETESIA discover that the machine is not used in the use initially declared, ETESIA allows itself to cancel the warranty.
- Wear parts/Consumable parts: parts needing to be changed inevitably to enable an optimal normal use of the machine.
- Normal use: use of the machine according to all instructions mentioned in the instruction book (including safety and maintenance).

### **GENERAL WARRANTY CONDITIONS**

 In addition to the legal warranty, ETESIA offers a contractual warranty.

The ETESIA warranty concerns the exchange of parts free of charge in case of material, production or conception fault. This warranty applies on the product as he leave ETESIA production line

- The delivery company is the only responsible in case of transport damage. It is however the addresse responsibility when damages occurs during transport to mention reserves on the delivery note when receiving the goods and to inform ETESIA within 48H by registered letter.
- The instruction book delivered with every machine contents all information regarding machines use.
- Any different use from the one described in the instruction book can be dangerous for the user and reduce machine life. In such cases, ETESIA can not be held responsible.

### **CONTRACTUAL WARRANTY**

- The ETESIA contractual warranty is allowed for one year in professional use and for 3 years on domestic use (warranty period starting the first day when the machine is purchased by the user). This warranty is just valid if:
- 1) Instructions from the instructions book have been respected.
- 2) The warranty card has been returned to ETESIA immediately after the machine purchase or completed on the extranet site.
- A revision is recommended after periods indicated in the instruction book.
- 4) To require a repair under warranty claim, the buyer will contact first the ETESIA dealer. Should it not be possible, he could contact ETESIA who would propose an alternative solution.
- Just repairs done in ETESIA dealers workshops can be taken under warranty.
- 6) Any material, production or conception fault recognized by ETESIA as such will be eligible to warranty (parts and labour). It will therefore be paid back to the dealer according to charge scale mentioned in the agreement. It is dealer responsibility to make sure that the end user does receive the complete warranty allowed

by ETESIA. Should ETESIA not recognize any fault, the dealer will be held responsible. ETESIA reserves the right to cancel the decision with no compensation no warning.

Transportation cost for machines and parts are at user cost.

- Any intervention done within warranty time, in particular in case of parts exchange, will not give right to any new warranty period.
- 8) In case of parts exchange under warranty, ETESIA reserves the right to use either new or second hand parts. Parts given free of charge by ETESIA can required at any time by ETESIA. They need to be sent back on simple request. Should ETESIA not

receive these parts, warranty claim would automatically be cancelled.

- 9) This warranty however does not cover:
  - parts damaged during a repair action
  - machines not having been serviced according to the repair schedule mentioned in the instruction book
  - parts with normal wear.

Please find a list (not complete) of wearing parts: spark plugs, filters, exhaust, seals, membranes, blades, blade coupling parts, belts, clutchs, batteries, battery electrolytes, control cables, sheath, fuel pipes, durits, cooling liquid, hydraulic and lubrication liquids, fuel, seat, bonnets, grassbox material, grassbox frame, mudguards, pedal covers, running board cover, anti scalp kit, roll axle.

- 10) Warranty right is cancelled in the following cases:
- damages due to non respect of safety, maintenance use and storage instructions. ETESIA will not be held responsible, legally in particular, for damages resulting from other uses than the ones described in the instruction book
- damages due to accident or collision
- damages due to a modification of the original machine or use of non original spare parts
- damages on machines not having been maintained by the ETESIA dealer network.
- 11) In case of owner change, the outstanding warranty period can be transferred to the new owner. However to enable this transfer a written request need to be sent to ETESIA after sales department. This request needs to attest as well that the new end user has received the instruction book for the machine as well as the warranty terms.
- 12) ETESIA keeps the right to check that preliminary conditions for warranty have been respected by the buyer.
- 13) When warranty application is requested, ETESIA does deliver the parts as soon as possible. However an immediate delivery can not be requested. A delay in delivery would in no case give right to compensation or to warranty extension..
- 14) Any additional claims to ETESIA is excluded.
- 15) Any breakdown suspected as being a fault subject to warranty has to be brought to attention to an ETESIA dealer. The ETESIA dealer is in fact the only contact able to submit a warranty claim to ETESIA. Should a dispute occur the competent tribunal is the one mentioned in the ETESIA dealership.

### **IMPORTANT NOTE:**

As soon as a machine purchase takes place, the warranty cards needs to be:

- completed, signed and sent back to

### ETESIA WARRANTY SERVICE 67165 WISSEMBOURG CEDEX or

- completed on line on the extranet.

### CE DECLARATION OF CONFORMITY

In accordance with Directive EEC 2006/42/CE



13, Rue de l'Industrie, 67165 WISSEMBOURG CEDEX

declare under our responsibility that the petrol lawnmower, type RMCB - RMCS - RMHB, to which this declaration refers, fulfil all the relevant terms of directive 2006/42/CE applicable to them as well as to the provisions of all other applicable European directives:

- EC 2004/108

- EC 2000/14

Electromagnetic compatibility

Sound emissions in the environment by equipment intended for use outside buildings

And guarantee that petrol lawnmower, type RMCB - RMCS - RMHB, meet the requirements of Directive 2000/14/EC regarding noise emissions in the environment, and are subject to the internal production control procedure, with evaluation of the technical documents and periodic inspection by a notified body, the CETIM, F-60304 SENLIS CEDEX.

Average acoustic power level measured : 96 dB(A)
 Acoustic power level guaranteed : 96 dB(A)

Mr Treger Claude

13, rue de l'industrie 67165 Wissembourg CEDEX

is the person authorized to constitute the technical file:

Assessment of conformity ti in-house inspection of machine manufacture according to Annex VIII of directive 2006/42/EC.

Modell : Serial number:			

Done in Wissembourg, the 18/07/2013

Mr. Patrick VIVES

The President

Due to their permanent improvement policy, ETESIA reserves the right to modify specifications, text and pictures without prior notice.

ETESIA SAS - F - 67165 WISSEMBOURG CEDEX - Strasbourg Trade & Commerce Register B343 510 996

		Stamp here please
	ETESIA  SERVICE GARANTIE  13 rue de l'Industrie 67165 WISSEMBOURG CEDEX	
	France	
\		



This card has to be returned completed to ETESIA upon the first setting up.

WARRANTY CE	RIFICALE		Serial number
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