
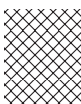





- Tout de suite après l'achat, transcrire dans les espaces prévus les données d'identification (3 - 5 - 6) qui sont indiquées sur l'étiquette d'identification de la machine (☛ 2.1 - IDENTIFICATION DE LA MACHINE).
- As soon as you have purchased the machine, write the machine identification data (3 - 5 - 6) found on the identification label in the spaces provided (☛ 2.1 - IDENTIFICATION OF THE MACHINE).
- Tragen Sie sofort nach dem Kauf die Kennnummern (3 - 5 - 6) in die entsprechenden Felder auf dem Kennungsschild der Maschine ein (☛ 2.1 - KENNZEICHNUNG DER MASCHINE).
- Immediatamente dopo l'acquisto, trascrivere negli appositi spazi i dati di identificazione (3 - 5 - 6) riportati sull'etichetta di identificazione della macchina (☛ 2.1 - IDENTIFICAZIONE DELLA MACCHINA).
- Onmiddellijk na aankoop worden de identificatiegegevens (3 - 5 - 6) genoteerd in de ruimten op het identificatielabel van de machine (☛ 2.1 - IDENTIFICATIE VAN DE MACHINE).

	 LWA  dB	
Model:		
Year	S/N°	

Realizzazione: EDIPROM / bergamo

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71505175/1



102-122

FR **TONDEUSE AUTOPORTÉE**
 MANUEL D'UTILISATION
 ATTENTION! - Avant d'utiliser la machine, lire attentivement le présent manuel.

EN **LAWN-TRACTOR**
 OWNER'S MANUAL
 WARNING!
 Read this manual carefully before using the machine.

DE **RASENTRAKTOR**
 GEBRAUCHSANWEISUNG
 ACHTUNG! - Bevor man die Maschine verwendet lese man das vorliegende Handbuch sorgfältig durch.

IT **TRATTORINO RASAERBA**
 MANUALE DI ISTRUZIONI
 ATTENZIONE: prima di utilizzare la macchina, leggere attentamente il presente manuale.

NL **ZITMAAIER**
 GEBRUIKERSHANDLEIDING
 LET OP! - Vooraleer de machine te gebruiken, lees aandachtig deze handleiding.

GGP ITALY SPA

Via del Lavoro, 6

I-31033 Castelfranco Veneto (TV) ITALY


 GLOBAL GARDEN PRODUCTS

INTRODUCTION

Dear Customer,

thank you for having chosen one of our products. We hope that you will get complete satisfaction from using your new lawn-tractor and that it will fully meet all your expectations.

This manual has been compiled in order that you may get to know your machine and to be able to use it safely and efficiently. Don't forget that it forms an integral part of the machine, so keep it handy so that it can be consulted at any time, and pass it on to the purchaser if you resell the machine.

This new machine of yours has been designed and made in line with current regulations, and is safe and reliable if used for cutting and collecting grass exactly following the instructions given in this manual (**proper usage**). Using the machine in any other way or ignoring the instructions for safe usage, maintenance and repair is considered "**incorrect usage**" which will invalidate the guarantee, and the manufacturer will decline all responsibility, placing the blame with the user for damage or injury to himself or others in such cases.

Since the product is continually being improved, you may find slight differences between your machine and the descriptions contained in this manual. Certain modifications can be made to the machine without prior warning and without the obligation to update the manual, although the essential safety and function characteristics will remain unaltered. In case of any doubts, do not hesitate to contact your Retailer. And now enjoy your work!

AFTER-SALES SERVICE

This manual gives all the necessary instructions for using the machine and the basic maintenance that may be carried out by the user.

Any adjustments or maintenance operations not described in this manual must be carried out by your Dealer or a specialized Service Centre. Both have the necessary knowledge and equipment to ensure that the work is done correctly without affecting the safety of the machine.

If you wish, your Retailer will be pleased to offer a maintenance programme personalised to your needs. Like this you will be able to keep your new acquisition in peak performance, maintaining its value.

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1. SAFETY

1.1 HOW TO READ THE MANUAL

Some paragraphs in the manual containing information of particular importance for safety and operation are highlighted at various levels of emphasis, and signify the following:

NOTE

or

IMPORTANT

These give details or further information on what has already been said, and aim to prevent damage to the machine.

⚠ WARNING!


Non-observance will result in the risk of injury to oneself or others.

⚠ DANGER!

Non-observance will result in the risk of serious injury or death to oneself or others.

This manual describes various versions of the machine, which mainly differ in:

- type of transmission: with mechanical gear-change or with hydrostatic continuous speed adjustment. The models with hydrostatic transmission can be recognised by the word "HYDRO" on the identification label (☛ 2.1);
- the inclusion of components or accessories which may not be available in some areas;
- special equipments fitted.

The symbol  highlights all differences in usage and is followed by the indication of the version to which it refers.

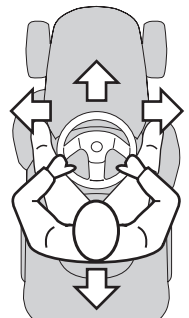
The symbol "☛" makes a reference to another part of the manual where further information or clarification can be found.

NOTE

Whenever a reference is made to a position on the machine "front", "back", "left" or "right" hand side, this is determined by facing the direction of forward travel.

IMPORTANT

For all operations regarding the use and maintenance of the engine or the battery not described in this manual, refer to the relevant manuals which form an integral part of all the documentation supplied with the machine.



1.2 SAFETY REGULATIONS

⚠ WARNING! *Read carefully before using the machine.*

A) TRAINING

- 1) **Read the instructions carefully.** Be familiar with the controls and the proper use of the equipment.
- 2) Never allow children or people unfamiliar with these instructions to use the lawnmower. Local regulations can restrict the age of the operator.
- 3) **Never mow while people, especially children, or pets are nearby.**
- 4) Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- 5) Do not carry passengers.
- 6) All drivers should seek and obtain professional and practical instruction. Such instruction should emphasise:
 - the need for care and concentration when working with ride-on machines;
 - control of a ride-on machine sliding on a slope will not be regained by the application of the brake. The main reasons for loss of control are:
 - insufficient wheel grip;
 - being driven too fast;
 - inadequate braking;
 - the type of machine is unsuitable for its task;
 - lack of awareness of the effect of ground conditions, especially slopes;
 - incorrect hitching and load distribution.

B) PREPARATION

- 1) **While mowing, always wear substantial footwear and long trousers.** Do

not operate the equipment when barefoot or wearing open sandals.

- 2) Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown by the machine.
- 3) **DANGER! Petrol is highly flammable:**
 - store fuel in containers specifically designed for this purpose;
 - refuel outdoors only and do not smoke while refuelling;
 - **add fuel before starting the engine. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot;**
 - If petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until the petrol vapours have dissipated;
 - replace all fuel tank and container caps securely.
- 4) Replace faulty silencers.
- 5) **Before using,** always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- 6) On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.

C) OPERATION

- 1) Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- 2) Mow only in daylight or good artificial light.
- 3) Before attempting to start the engine, disengage all blade attachment clutches and shift into neutral.
- 4) **Do not use on slopes of more than 10° (17%).**

5) **Remember there is no such thing as a “safe” slope.** Travel on grass slopes requires particular care. To guard against overturning:

- do not stop or start suddenly when going up or downhill;
- engage the clutch slowly and always keep the machine in gear, especially when travelling downhill;
- machine speeds should be kept low on slopes and during tight turns;
- stay alert for humps and hollows and other hidden hazards;
- **never mow across the face of the slope.**

6) Use care when pulling loads or using heavy equipment:

- use only approved drawbar hitch points;
- limit loads to those you can safely control;
- do not turn sharply. Use care when reversing;
- use counterweight(s) or wheel weights when suggested in the instruction handbook.

7) Stop the blades rotating before crossing surfaces other than grass.

8) **Never operate the machine with defective guards, or without safety protective devices in place.**

9) **Do not change the engine governor settings or overspeed the engine.**

Operating the engine at excessive speed can increase the hazard of personal injury.

10) Before leaving the operator’s position:

- disengage the power take-off and lower the attachments;
- change into neutral and set the parking brake;
- stop the engine and remove the key.

11) **Disengage drive to attachments, stop the engine and remove the ignition key:**

- before clearing blockages or unclogging chutes;

- before cleaning, checking or working on the machine;

- after striking a foreign object. Inspect the machine for damage and make repairs before restarting and operating the equipment;

- If the machine starts to vibrate abnormally (check immediately).

12) Disengage drive to blades when transporting or not in use.

13) **Stop the engine and disengage drive to the attachment:**

- before refuelling;

- before removing the grass catcher.

14) Reduce the throttle setting during engine run-out and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of mowing.

D) MAINTENANCE AND STORAGE

1) Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.

2) Never store the equipment with petrol in the tank inside a building where fumes may reach an open flame or spark.

3) Allow the engine to cool before storing in any enclosure.

4) To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage area free of grass, leaves, or excessive grease.

5) Check the grass catcher frequently for wear or deterioration.

6) **Replace worn or damaged parts for safety.**

7) If the fuel tank has to be drained, this should be done outdoors.

8) On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.

9) When the machine is to be stored or left unattended, lower the cutting deck.

1.3 SAFETY DECALS

Your machine must be used with care. Therefore, decals have been placed on the machine, to remind you pictorially of the main precautions to take during use. These decals are to be considered an integral part of the machine.

If a decal should fall off or become illegible, contact your Retailer to replace it. Their meaning is explained below.

1 Warning: Read the Operator's Manual before operating this machine.

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

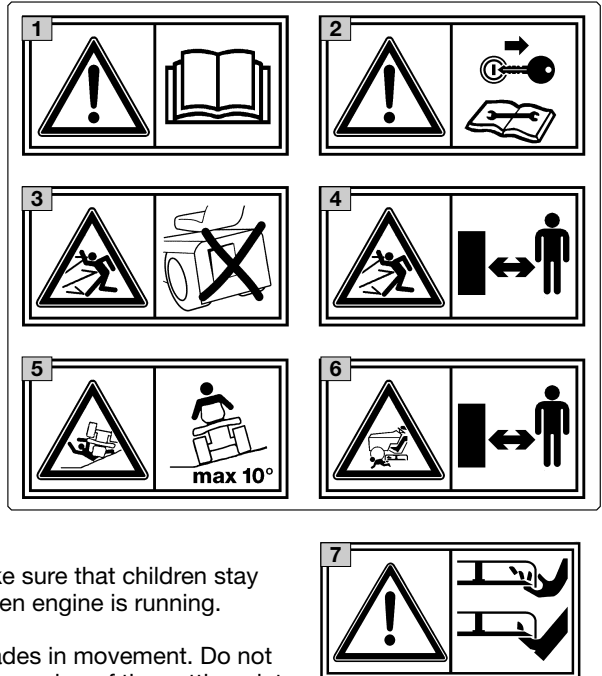
3 Danger! Ejected objects: Do not operate without either the stone-guard or grass-catcher in place.

4 Danger! Ejected objects: Keep bystanders away.

5 Danger! Machine rollover: Do not use this machine on slopes greater than 10° .

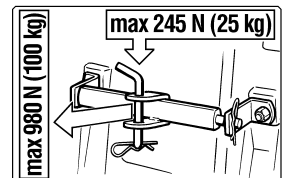
6 Danger! Dismembetment: Make sure that children stay clear of the machine all the time when engine is running.

7 Danger of cutting yourself. Blades in movement. Do not put hands or feet near or under the opening of the cutting plate.



1.4 REGULATIONS FOR TOWING

A kit for towing a small trailer is available on request. This accessory is to be fitted as per the instructions provided. When using, do not exceed the recommended drawbar loads stated on the decal and follow the safety instructions, (● 1.2, C-6).

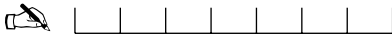


2. IDENTIFICATION OF THE MACHINE AND COMPONENTS

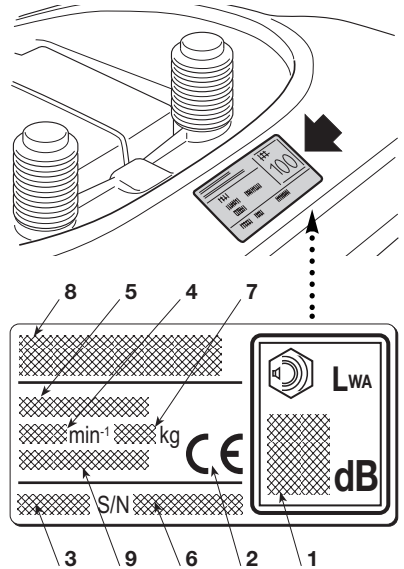
2.1 IDENTIFICATION OF THE MACHINE

The plate located near the battery housing has the essential data of each machine.

1. Acoustic power level according to directive 2000/14/CE
2. Conformity mark according to directive 98/37/EEC
3. Year of manufacture
4. Operating engine speed in r.p.m (if indicated)
5. Type of machine
6. Serial number
7. Weight in kg
8. Name and address of Manufacturer
9. Type of transmission (if indicated)



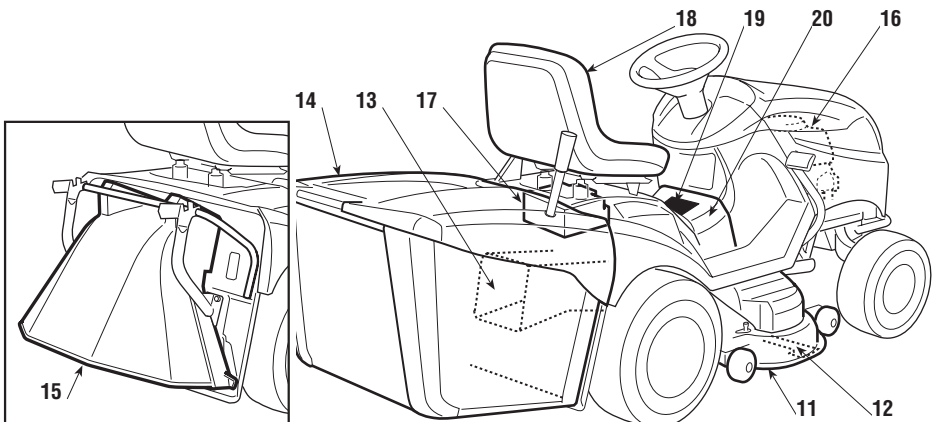
Write your machine's serial number here (6)

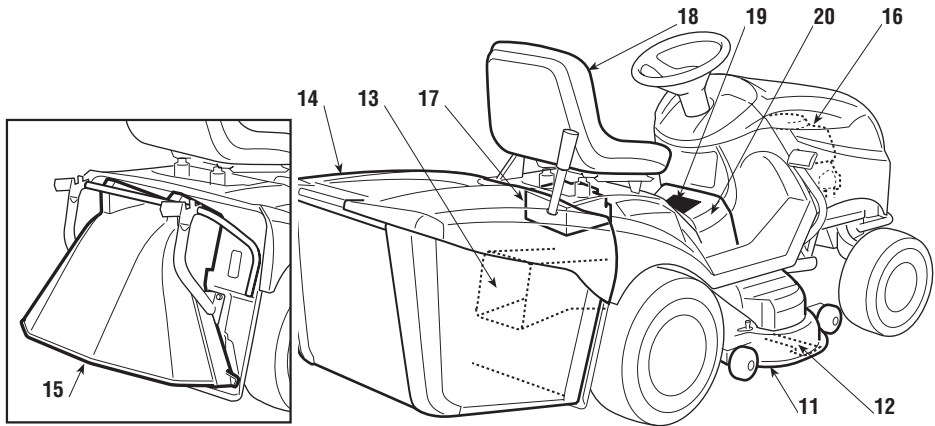


2.2 IDENTIFICATION OF MAIN COMPONENTS

Various main components can be seen on the machine, and these have the following functions:

- 11. Cutting deck:** this is the guard enclosing the rotating blades.





- 12. Blades:** these are what cut the grass. The wings at the ends help convey the cut grass towards the collector channel.
- 13. Collector channel:** this is the part connecting the cutting deck to the grass-catcher.
- 14. Grass-catcher:** as well as collecting the grass cuttings, this is also a safety element in that it stops any objects drawn up by the blades from being thrown outside of the machine.
- 15. Stone-guard or deflector (available as optional part):** this can be fitted in place of the grass-catcher and prevents objects drawn up by the blades from being thrown outside of the machine.
- 16. Engine:** this moves the blades and drives the wheels. Its specifications and regulations for use are described in a specific manual.
- 17. Battery:** provides the energy for starting the engine. Its specifications and regulations for use are described in a specific manual.
- 18. Driver seat:** this is where the machine operator sits. It has a sensor for detecting the presence of the operator which is a safety device.
- 19. Decals for regulations and safety:** give reminders on the main provisions for working safely, each of which is explained in chapter 1.
- 20. Inspection hatch:** for access to make several adjustments.

3. UNPACKING AND ASSEMBLY

For storage and transport reasons, some components of the machine are not directly installed in the factory, but have to be assembled after their removal from the packing. Final assembly is carried out by following these simple instructions.

IMPORTANT

The machine is supplied without engine oil or fuel. Before starting up the engine, fill with oil and fuel following the instructions given in the engine manual.

3.1 UNPACKING

When unpacking the machine, take care to gather all individual parts and fittings, and do not damage the cutting deck when taking the machine off the base pallet.

The packing contents:

- the machine;
- the battery;
- the steering wheel;
- the seat;
- the grass-catcher brackets;
- the grass-catcher components;
- an envelope containing:
 - the operator's manuals and documents,
 - the nuts and bolts including a pin for blocking the steering wheel,
 - 2 starter keys and a spare 10 A fuse.

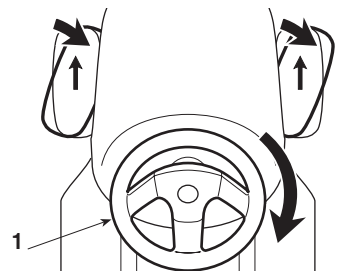
NOTE

To prevent damaging the cutting deck when getting the machine down from the pallet, take it to the maximum height and be very careful. ► For hydrostatic drive models: to make it easier to get the machine off the pallet and to move it, the drive disengage lever should be put in position «B» (☛ 4.33).

3.2 FITTING THE STEERING WHEEL

Put the machine on a flat surface and straighten up the front wheels. Fit the steering wheel (1) onto the protruding shaft (2) so that the spokes are correctly lined up.

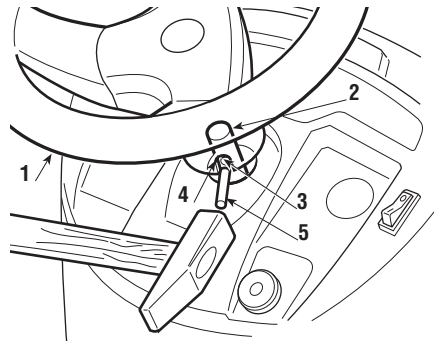
Move the front wheels to turn both the shaft (2) and the steering wheel (1) about a quarter of a turn in order to get to the hole (3) on the shaft.



Line up the hole on the steering wheel hub (4) with the hole on the shaft (3) and insert the pin supplied (5) using a hammer, ensuring that the end comes completely through to the opposite side.

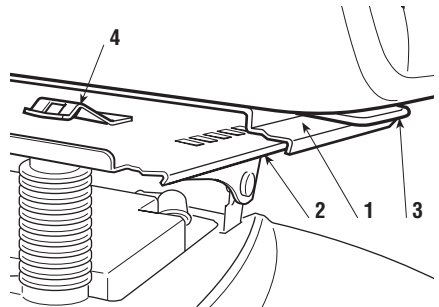
NOTE

To avoid damaging the steering wheel, use a punch or a screw-driver of the same size as the pin when hammering it in the last part

**3.3 FITTING THE SEAT**

Raise the adjustment lever (3) and fit the seat (1) in the slide (2), introducing it from the steering wheel's side, till the seat engages in one of the 6 positions.

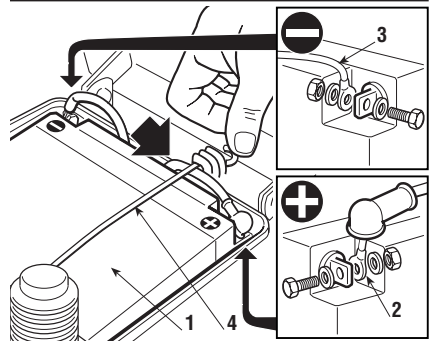
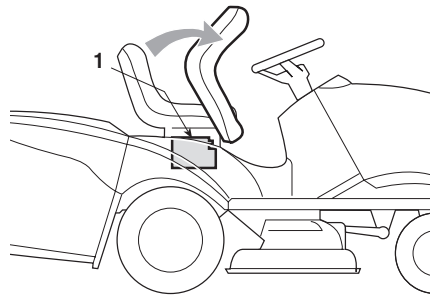
At this point the seat is engaged and cannot be completely removed unless the lever (4) is pressed, freeing it from its retainer

**3.4 ASSEMBLY AND CONNECTING THE BATTERY**

Position the battery (1) in its compartment under the seat.

Connect the red cable (2) to the positive terminal (+) and the black cable (3) to the negative terminal (-) using the supplied screws and following the illustrated sequence.

Fit the spring (4) to hold the battery in place and make sure all the wires are in front of the battery so that they don't get caught in the spring (4).

**IMPORTANT**

Always fully charge the battery according to the instructions in the battery's manual (➔ 6.2.5).

IMPORTANT

To prevent the safety

device in the electronics card from cutting in, never start the engine until the battery is fully charged!

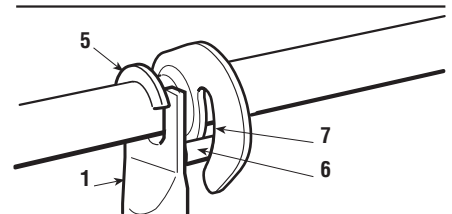
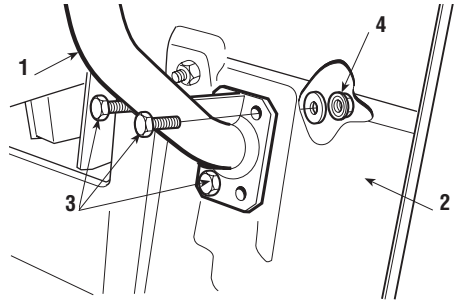
⚠ WARNING! Follow the battery manufacturer's instructions regarding safe handling and disposal.

3.5 GRASS-CATCHER SUPPORT ASSEMBLY

Fit the two brackets (1) on the rear plate (2), using for each bracket three screws (3) which are supplied, as shown, without fully tightening the nuts (4).

Attach the grass-catcher to the brackets and centre it with the rear plate (2). Adjust the position of the two brackets (1) to the stop (5) so that, when turning the grass-catcher frame, the pin (6) slots into the seat (7) correctly.

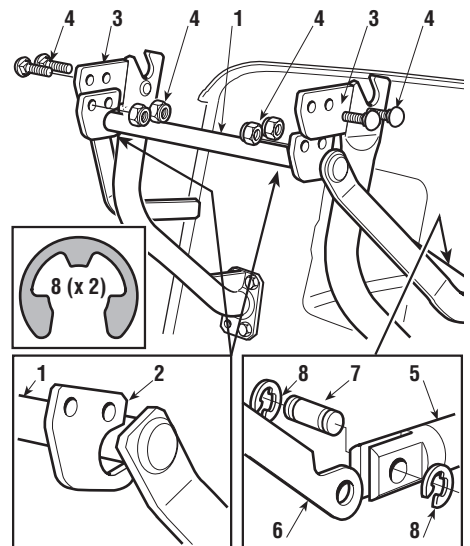
Having checked that the grass-catcher rotates as above, tighten the fixing nuts (4) securely.



3.6 ASSEMBLING THE LEVERS FOR TIPPING THE GRASS-CATCHER (▶ In electric lifting models)

Position the lever axle (1) in the notch of the two plates (2) and attach them on the internal side of the grass-catcher supports (3), using the included screws (4) in the sequence shown.

Connect the end of the rod (5) of the lifting piston to the lever (6) with the pin (7) and attach the two snap rings (8).

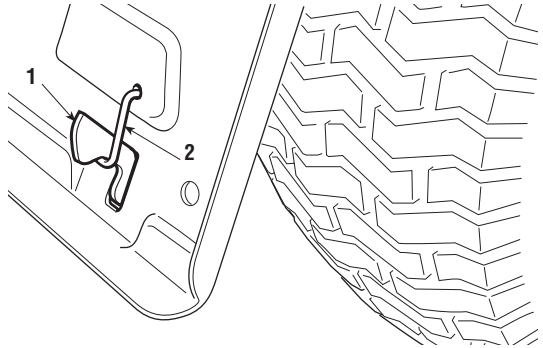


Before attaching the grass-catcher to its supports, make sure that the tipping lever moves properly.

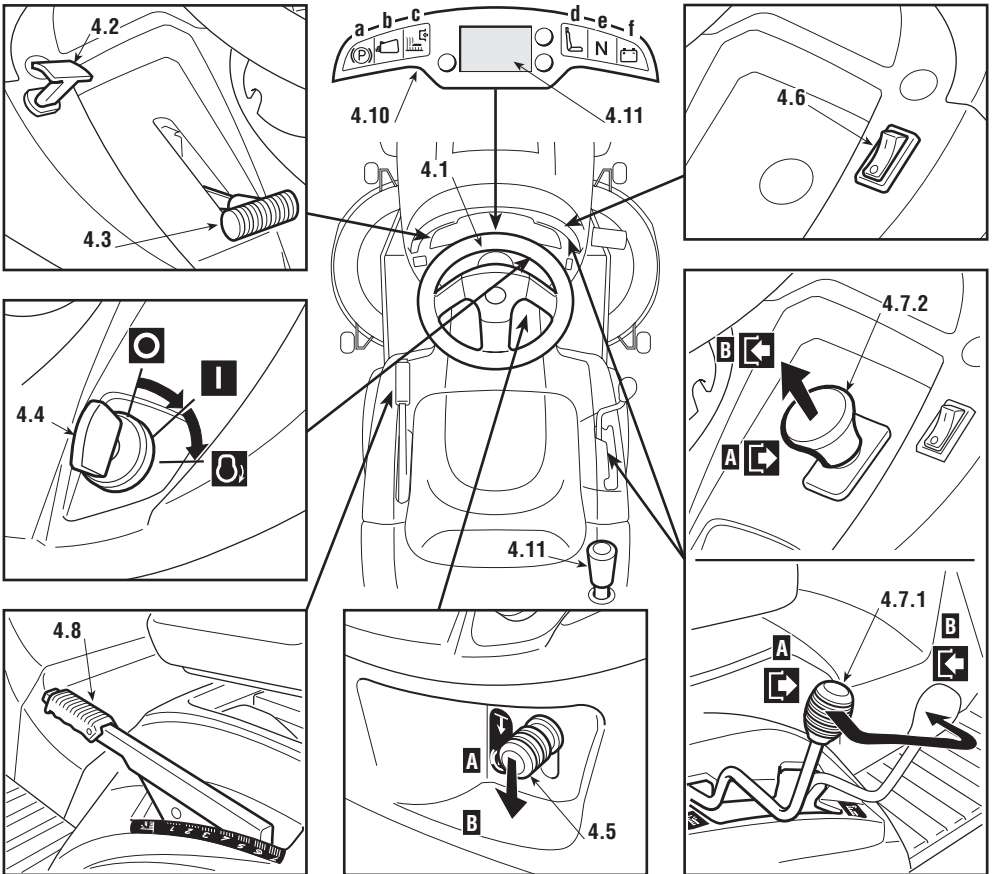
3.7 REMOVAL OF THE STOP FROM THE HOOKING PAWL OF THE GRASS-CATCHER

For transport purposes, the pawl (1) hooking the grass-catcher is held onto the rear plate by a stop (2).

This stop must be removed before fitting the grass-catcher brackets, and is not to be subsequently used.



4. CONTROLS AND INSTRUMENTS



4.1 STEERING WHEEL

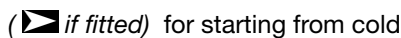
Turns the front wheels.


4.2 CHOKE CONTROL ( if fitted)

This enriches the mixture so must only be used for the time necessary when starting from cold.


4.3 ACCELERATOR LEVER

Regulates the engine's r.p.m. The positions are indicated on a plate showing the following symbols:




 «SLOW» for minimum engine speed

 «FAST» for maximum engine speed


- The «CHOKE» position ( if fitted instead of the 4.2 control) enriches the mixture so must only be used for the time necessary when starting from cold.
- When moving from one area to another, put the lever in a position between «SLOW» and «FAST».
- When cutting, go to the «FAST» position.

4.4 KEY IGNITION SWITCH

This key operated control has three positions:

 «OFF» everything is switched off;

 «ON» activates all parts;

 «START» engages the starter motor.

On being released at the «START» position, the key will automatically return to «ON».

4.5 PARKING BRAKE LEVER

This lever is to stop the machine from moving when it has been parked. There are two positions:

«A» = Brake off

«B» = Brake engaged



- The brake is engaged by fully pressing the pedal (4.21 or 4.31) and moving the lever to position «B». When you take your foot off the pedal it will be blocked by the lever in the down position.
- A pilot lamp will warn that the brake is engaged (4.10.a).
- To disengage the parking brake, press the pedal (4.21 or 4.31). The lever will return to position «A».

4.6 LIGHT SWITCH



For turning on the lights when the key (4.4) is in the «ON» position.

4.7 BLADE ENGAGEMENT AND BRAKE CONTROL

► For models with engagement by lever

- The lever (4.7.1) has two positions, as shown on the label:
 -  «A» = Blades disengaged
 -  «B» = Blades engaged
- – If the blades are engaged when safety conditions have not been complied with, the engine shuts down and cannot be restarted (☛ 5.2).
- – The “Blades engaged” condition is indicated by a pilot lamp (4.10.c).
- – On disengaging the blades (position «A»), a brake is simultaneously activated which stops their rotation in few seconds.

► For models with engagement by electromagnetic clutch

- The mushroom switch (4.7.2) is for engaging the blades by an electromagnetic clutch:
 -  «A» Pressed = Blades disengaged
 -  «B» Pulled = Blades engaged
- – If the blades are engaged when safety conditions have not been complied with, the engine shuts down and cannot be restarted (☛ 5.2).
- – The “Blades engaged” condition is indicated by a pilot lamp (4.10.c).
- – On disengaging the blades, a brake is simultaneously activated which stops their rotation in few seconds.

4.8 CUTTING HEIGHT ADJUSTING LEVER

There are seven positions for this lever, shown as «1» to «7» on the label, which correspond to various heights of between 3 and 9 cm.

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

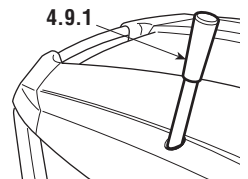
4.9 CONTROL FOR TIPPING GRASS-CATCHER

► In manual tipping models

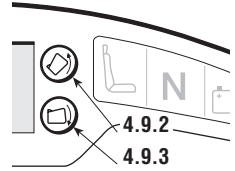
- The grass-catcher may be tipped to empty by pulling the lever (4.9.1), which can be extracted from its housing.

► In electrical tipping models

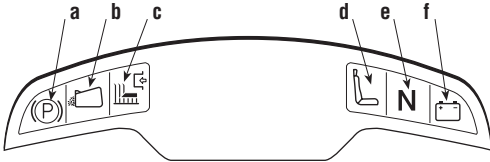
- The grass-catcher may be emptied by pressing the push-but-



- ton (4.9.2), keeping it pressed until the control motor stops.
-
- The grass-catcher returns to the working position by pressing
- the push-button (4.9.3), keeping it pressed until the pawl hooks
- into place and the control motor stops.



4.10 PILOT LAMPS AND AUDIBLE WARNINGS



When the key is turned to «ON», all the lights come on at the same time for about half a second (with a brief sound warning) to indicate that the machine is working properly.

Afterwards, when a warning light comes on, it indicates:

- a) parking brake engaged;
- b) missing grass-catcher or stone-guard;
- c) blades engaged;
- d) seat without operator;
- e) transmission in “neutral” position.
- f) steady = fault in battery charger (with engine running);
flashing before starting the engine = the battery cannot start the engine,
so contact an authorized service centre.

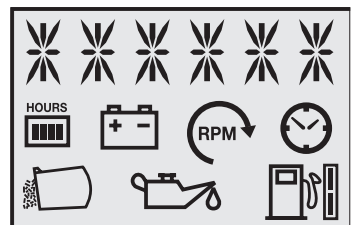
The sound warning can be:

- **continuous:** = the electronic card's protection device has cut in;
= the engine has been off for more than 30 seconds with the key turned to «ON»;
- **intermittent** = grass-catcher full.

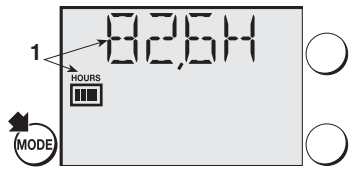
4.11 DASHBOARD DISPLAY (if fitted)

When you turn the key to «ON», all the icons appear at the same time for about half a second (with a brief sound warning) to indicate that the machine is working properly. The display opens the “Hour counter” function.

- The «MODE» button allows you to access all the operating functions in sequence.



a) Operating functions

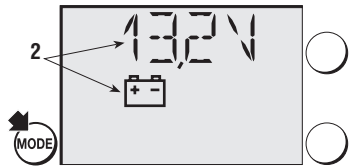


1. Hour counter. Indicates the total number of engine running hours.

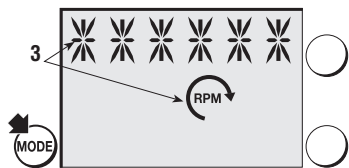
NOTE

The machine needs servicing after a certain number of hours (☛ 6.2.2). This is indicated by the display, which opens the “Hour counter” function and flashes for approx. 2 minutes, regardless

of what functions are running.



2. Voltmeter. Indicates the battery charge level.



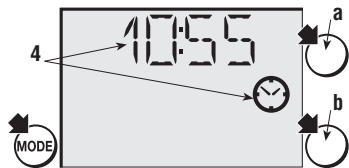
3. Speed indicator. Indicates the engine’s rotation speed with a series of asterisks, i.e.

*	engine at minimum speed
(**)	
**	
***	travelling speed

*****	cutting speed

NOTE

The flashing light indicates that the engine’s rotation speed is not suitable for cutting grass.



4. 24-hour clock (☛ if fitted)

You can change the time with the key turned to «ON» and the engine off, by following the steps below:

- press the «MODE» button several times to bring up the clock icon;
- press the «MODE» button until the first two digits flash (hour);
- press one of the side buttons (a – b) to increase or decrease by a unit;
- press the «MODE» button until the other two digits flash (minutes);
- press one of the side buttons to increase or decrease by a unit;
- press «MODE» to complete your setting.

NOTE

The clock has a buffer battery. When it runs out, contact an Authorized Service Centre.

b) Auxiliary functions

5. Grass-catcher full light. Together with the intermittent sound warning, it indicates that the grass-catcher is full.



6. Oil light (▶ if fitted). It signals an engine lubrication fault. Stop the engine immediately, check the oil level and contact a service centre if the problem persists.

7. Fuel gauge (▶ if fitted). This can come in two types:



a) Level gauge = indicates the fuel level in the tank as follows:



from full to approx. half full



from half full to reserve



in reserve



b) Reserve gauge = starts flashing when fuel is in reserve.

NOTE

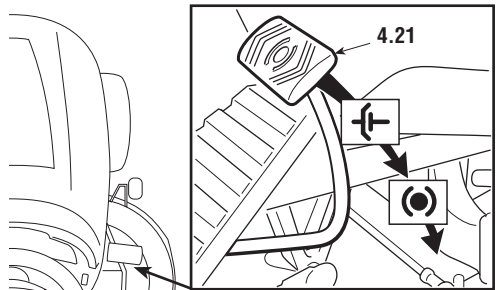
The reserve is approx. 2 litres of fuel, which is enough for 30-40 minutes of normal work.

▶ For mechanical drive models:**4.21 CLUTCH / BRAKE PEDAL**

This pedal has a double function - during the first part of its travel it acts as a clutch, engaging and disengaging drive to the wheels, and in the second part it acts as a brake on the rear wheels

IMPORTANT

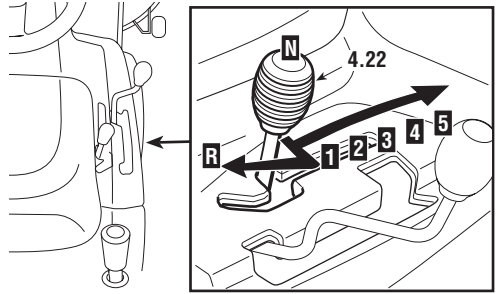
Do not maintain the pedal in half way of clutch



- engagement or dis-engagement; this can cause overheating and damage the transmission belt.

NOTE

When the machine is in movement, keep your foot off the pedal.



4.22 SPEED CHANGE LEVER

This lever has seven positions for the 5 forward speeds, the neutral position «N», and reverse «R». To go from one speed to another, press the pedal (4.21) half way and move the lever as per the indications on the label.

⚠ WARNING!

Reverse must only be engaged when the machine is stopped.

► **For hydrostatic drive models:**

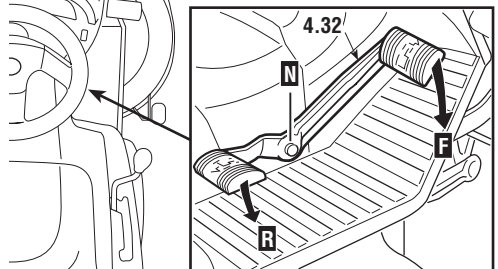
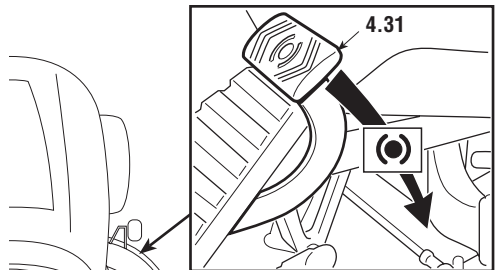
4.31 BRAKE PEDAL

This pedal works the brake on the rear wheels.

4.32 DRIVE ENGAGEMENT PEDAL

This pedal engages drive in the wheels as well as modulating the machine's forward and reverse speeds.

- To engage forward drive just press it in the «F» direction with your toe-cap, noting that increasing the pressure on the pedal progressively increases the speed of the machine
- Reverse is engaged by pressing the pedal with the heel, in the «R» direction.
- The pedal automatically goes into neutral «N» when released.
- The “neutral” condition «N» is shown by the lighting of a pilot lamp (4.10.e).



⚠ WARNING!

Reverse must

only be engaged when the machine is stopped.

NOTE

If the drive pedal is used, whether forwards or for reverse, when the parking brake (4.5) is engaged, the engine stops.

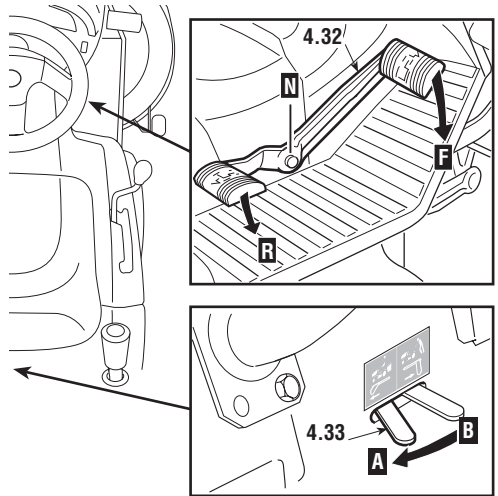
4.33 LEVER TO RELEASE THE HYDRO-STATIC TRANSMISSION

This lever has two positions as shown on the label:

- «A» = Transmission engaged: for all usage conditions, when moving and during cutting;
- «B» = Transmission released: considerably reduces the effort required for moving the machine by hand, with the **engine turned off**.

IMPORTANT

To avoid damaging the transmission unit, this operation must be carried out only when the engine has stopped with the pedal (4.32) at position «N».



5. HOW TO USE THE MACHINE

5.1 SAFETY RECOMMENDATIONS

⚠ DANGER!

The machine must only be used for the purpose for which it was designed (cutting and collection of grass).

Do not tamper with or remove the safety devices fitted to the machine.

REMEMBER THAT THE USER IS ALWAYS RESPONSIBLE FOR DAMAGE AND INJURIES TO OTHERS. Before using the machine:

- *read the general safety regulations (↪ 1.2), paying particular attention to driving and cutting on slopes;*
- *carefully read the instructions for use, become familiar with the controls and on how to quickly stop the blades and engine;*
- *never put your hands or feet next to or beneath the rotating parts and always keep away from the discharge opening.*

Do not use the machine when in a precarious state of health or under the effect of medicines or other substances that can reduce your reflex actions and your ability to concentrate. It is the user's responsibility to assess the potential risk of the area where work is to be carried out, as well as to take all the necessary steps to ensure his own safety and that of others, particularly on slopes or rough, slippery and unstable ground.

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

⚠ WARNING!

This machine must not be used on slopes greater than 10° (17%) (↪ 5.5). If the machine is likely to be used mostly on sloping ground (never above 10°), fit counterweights (supplied on request ↪ 8.1) beneath the cross-member of the front wheels which improve stability at the front and reduce the chance of tipping up.

IMPORTANT

All the references relating to the positions of controls are those described in chapter 4.

5.2 WHY THE SAFETY DEVICES CUT IN

The safety devices work in two ways:

- by preventing the engine from starting if all the safety requirements have not been met;
- stopping the engine if even just one of the safety requirements is lacking.

a) To start the engine it will be necessary that:

- the transmission is in “neutral”;
- the blades are not engaged;
- the operator is seated or the parking brake is engaged.

b) The engine stops when:

- the operator leaves his seat when the blades are engaged;
- the operator leaves his seat when the transmission is not in “neutral”;
- the operator leaves his seat with the transmission in “neutral” but without engaging the parking brake;
- the grass-catcher is lifted or the stone-guard is removed when the blades are engaged
- the parking brake is engaged without disengaging the blades

The table below shows various operating conditions, **highlighting** why the safety device shuts down the engine.

OPERATOR	GR.-CATCHER	BLADES	TRANSMISSION	BRAKE	ENGINE
A) PILOT LAMPS ON (Key in «ON» position)					
Sitting	YES	Disengaged	«N»	Engaged	Stopped
Sitting	NO	Disengaged	«N»	Disengaged	Stopped
B) WHEN STARTING (Key in «START» position)					
Sitting	Uninfluential	Disengaged	1...5 - F / R	Engaged	Does NOT start
Sitting	Uninfluential	Engaged	«N»	Engaged	Does NOT start
Absent	Uninfluential	Disengaged	«N»	Disengaged	Does NOT start
C) WHEN CUTTING (Key in «ON» position)					
Absent	YES	Engaged	Uninfluential	Engaged	Stops
Absent	Uninfluential	Disengaged	1...5 - F / R	Disengaged	Stops
Absent	YES	Disengaged	«N»	Disengaged	Stops
Sitting	NO	Engaged	Uninfluential	Disengaged	Stops
Sitting	YES	Engaged	Uninfluential	Engaged	Stops

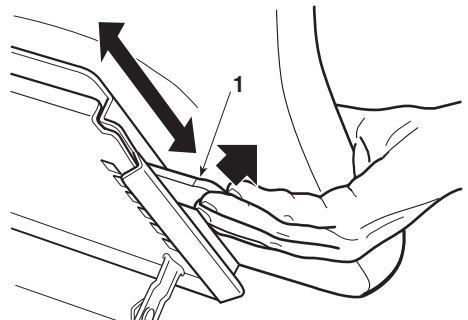
5.3 DIRECTIONS BEFORE STARTING THE WORK

Before starting to work it is necessary to carry out several of checks and operations to ensure that the work gives the best results and is done in maximum safety.

5.3.1 SEAT ADJUSTMENT

The sliding seat can be adjusted into six positions.

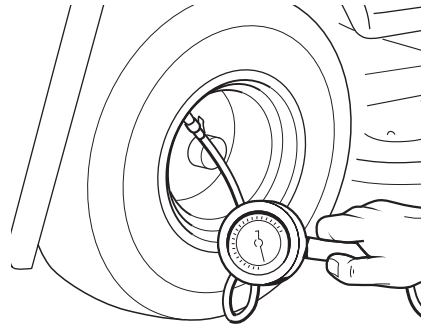
The position is changed by pulling up the handle (1) and sliding the seat along to the notch of the position wanted.



5.3.2 TYRE PRESSURE

Having the correct tyre pressure is the main condition for ensuring that the cutting deck is horizontal and thus mows evenly.

Take off the hubcaps (▶ if fitted), unscrew the valve caps and connect a compressed air line with a gauge to the valves.



The pressures are:

FRONT	1.5 bar (tyres 13 x 5.00-6)
	1.0 bar (tyres 15 x 5.00-6)
REAR	1.2 bar

5.3.3 FILLING WITH OIL AND FUEL

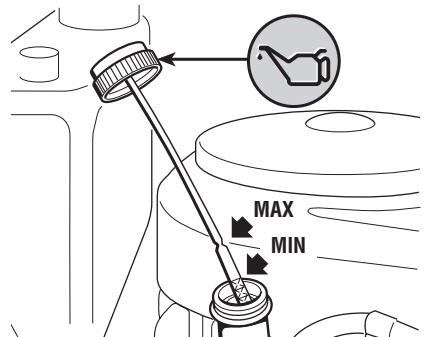
NOTE

The type of oil and fuel to use is given in the engine manual.

With the engine stopped, check its oil level. Exactly following the methods described in the engine manual, this must be between the MIN and MAX marks on the dipstick.

Refuel using a funnel, but do not completely fill the tank.

The tank's capacity is about 7 litres.



⚠ DANGER!

Refuelling should be carried out in an open or well ventilated area with engine stopped. Always remember that petrol fumes are inflammable. DO NOT TAKE A NAKED FLAME TO THE TANK'S OPENING IN ORDER TO SEE THE TANK'S CONTENTS AND DO NOT SMOKE WHEN REFUELLING.



IMPORTANT

Do not drip petrol onto the plastic parts to avoid ruining them. In the event of accidental leaks, rinse immediately with water.

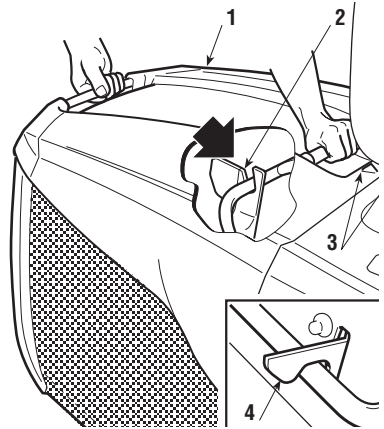
5.3.4 FITTING THE PROTECTION AT THE EXIT (GRASS-CATCHER OR STONE-GUARD)

⚠ WARNING! *Never use the machine without having fitted the exit protection!*

Hook the grass-catcher (1) onto the brackets (2) and centre it up with the rear plate, so that the two reference marks (3) coincide.

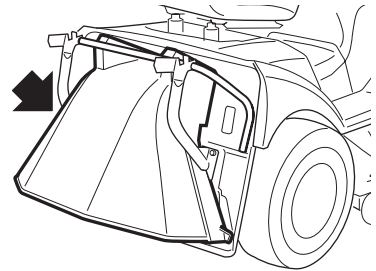
Make sure that the lower tube of the opening of the grass-catcher clicks onto the pawl (4).

If the hook is too stiff or too loose, adjust the return spring (☛ 6.3.6)



If you would like to mow without using the grass-catcher, an optional stone-guard kit (☛ 8.2) is available.

This has to be attached to the rear plate as indicated in the relevant instructions.



5.3.5 CHECKING MACHINE SAFETY AND EFFICIENCY

1. Check that the safety devices function as described (☛ 5.2).
2. Check that the brake is in perfect working order.
3. Do not start mowing if the blades vibrate or if you are unsure whether they are sharp enough. Always remember that:
 - A badly sharpened blade pulls at the grass and causes the lawn to turn yellow.
 - A loose blade causes unwanted vibrations and can be dangerous.

⚠ WARNING! *Do not use the machine if you are unsure whether it is working safely or efficiently. If in doubt, contact your Dealer immediately to make the necessary checks and repairs.*

5.4 USING THE MACHINE

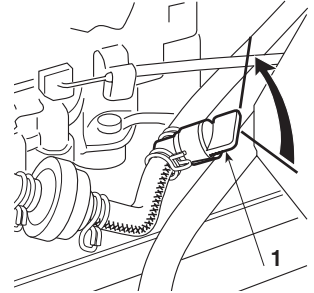
5.4.1 STARTING

⚠ DANGER! *All starting operations have to be effected in an open or well*

ventilated area! ALWAYS REMEMBER THAT EXHAUST GASES ARE TOXIC!

To start the engine:

- open the fuel stopcock (1) (▶ if fitted);
- put the transmission into neutral («N») (☛ 4.22 or 4.32);
- disengage the blades (☛ 4.7);
- engage the parking brake on sloping ground;
- when starting from cold, use the choke (▶ if fitted) or put the accelerator lever in the «CHOKE» position shown on the label;
- if the engine is already warm, put the lever between «SLOW» and «FAST»;
- put in the key and turn to «ON» to make electrical contact, then turn to «START» to start the engine;
- release the key once the engine has started.



When the engine has started, put the accelerator in the «SLOW» position and close the choke (▶ if fitted).

IMPORTANT

The choke must be closed as soon as the engine is running smoothly. Using when the engine is already warm can foul the spark plugs and cause the engine to run erratically.

NOTE

Should you have difficulties in starting do not persist with using the starter motor as this can run down the battery or flood the engine. Turn the key to the «OFF» position, wait for a few seconds and then repeat the operation. If the malfunction continues, refer to chapter «7» of this manual and to the engine manual.

IMPORTANT

Always bear in mind that the safety devices prevent the engine from starting if safety requirements have not been met (☛ 5.2). In these cases, once the situation has been corrected, the key must first be turned back to «OFF» before the engine can be restarted..

5.4.2 STARTING AND MOVING WITHOUT MOWING

⚠ WARNING!

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

NOTE

When moving the machine, the blades must be disengaged and the cutting deck put at its highest position (position «7»).

➤ **For mechanical drive models:**

- Put the accelerator control between the «SLOW» and «FAST» positions, and the gear change lever in the 1st speed position (☛ 4.22).
- Keep the pedal pressed down and disengage the parking brake. Slowly release the pedal which will turn from «brake» to «clutch», thus operating the rear wheels (☛ 4.21).

⚠ WARNING!

The pedal has to be released gradually as a sudden engagement may cause tipping up and loss of control of the vehicle.

- Gradually reach the desired operating speed using the accelerator and gear lever.
- To change the gear speed the clutch must be used pushing the pedal down half way (☛ 4.21).

➤ **For hydrostatic drive models:**

- When moving the machine from one area to another, put the accelerator lever in a midway position between «SLOW» and «FAST».
- Disengage the parking brake and release the brake pedal (☛ 4.31).
- Press the drive pedal (☛ 4.32) in direction «F» and go to the required speed by progressively increasing pressure on the pedal and moving the accelerator appropriately.

⚠ WARNING!

Drive must be engaged in the way already described (☛ 4.32) to prevent sudden engagement from causing tipping up and loss of control of the vehicle, particularly on slopes.

5.4.3 BRAKING

First, reduce the machine's speed by reducing the engine's r.p.m. and then push the brake pedal (☛ 4.21 or 4.31) to further reduce the speed until the machine stops.

➤ **For hydrostatic drive models:**

NOTE

The machine already slows down considerably by just releasing the drive pedal.

5.4.4 REVERSE

Reverse must be engaged ONLY when the machine is stopped.

► For mechanical drive models:

-
- Push down the pedal until the machine stops and then insert reverse by moving the lever sideways and putting it into position «R». (☛ 4.22). Gradually release the pedal to engage the clutch and then begin moving in reverse.

► For hydrostatic drive models:

-
- When the machine is stopped, start the reverse movement by pressing the drive pedal in the «R» direction (☛ 4.32).

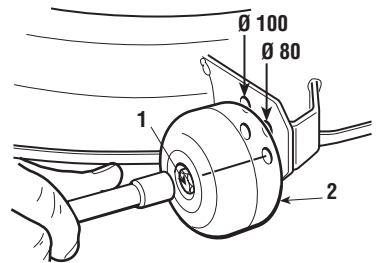
5.4.5 GRASS CUTTING

When you have reached the area to be mowed, make sure that the grass-catcher or stone-guard is correctly fitted and that the cutting deck wheels are positioned at the required height.

Each wheel can be fitted at two different heights: the low position always leaves a space between the ground and the edge of the cutting deck to prevent the deck from damaging the lawn if the ground is uneven.

The higher position excludes this possibility.

To change the position, unscrew and remove the pin (1) then reposition the wheel (2) in the upper and lower hole of the wale corresponding to the wheel diameter.



▲ WARNING! *This work is to be done to all four wheels, WITH THE ENGINE OFF AND THE BLADES DISENGAGED.*

To start cutting:

- put the accelerator into the «FAST» position;
- bring the cutting deck to the highest position;
- engage the blades (☛ 4.9);
- start moving forwards onto the grass area very gradually and with particular caution, as already described;
- adjust the forward speed and the cutting height (☛ 4.10) according to the lawn condition (height, density and dampness of the grass).

▲ WARNING! *When cutting on sloping ground, the forward speed must be reduced to ensure safe conditions (☛ 1.2 - 5.5).*

In any case, the speed should always be lowered if you note a reduction in engine

speed, since a forward speed that is too fast compared to the amount of grass being cut will never mow the grass well.

Disengage the blades and put the cutting deck in the highest position whenever you need to get past an obstacle.

5.4.6 EMPTYING THE GRASS-CATCHER

Do not let the grass-catcher become too full as this may block the collector channel. When the grass-catcher is full there is an intermittent audible warning.

At this point:

- lower the engine speed;
- go into neutral (N) (☛ 4.22 or 4.32) and stop forward movement;
- engage the parking brake on slopes;
- disengage the blades (☛ 4.7) and the audible signal will stop;

▶ **In manual tipping models**

NOTE

Emptying the grass-catcher can only be done with the blades disengaged, otherwise the engine stops.

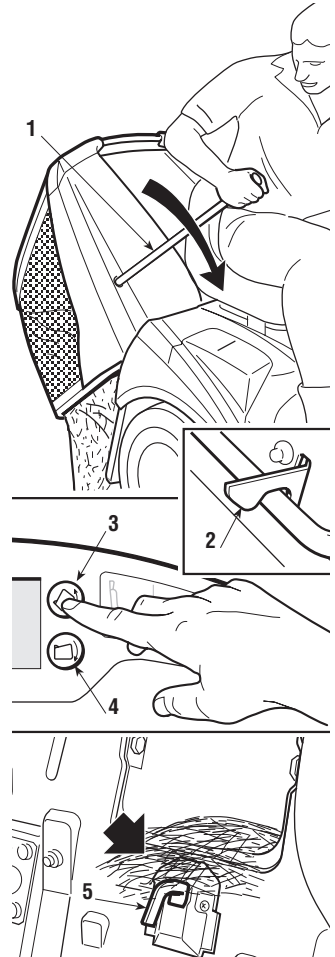
- pull out the lever (1) (☛ 4.9.1) and tip up the grass-catcher to empty it;
- close up the grass-catcher so that it hooks onto the pawl stop (2) and put the lever (1) back into place.

▶ **In electrical tipping models**

NOTE

The dumping switch operates only with the blades disengaged.

- with the operator seated, keep the button (3) (☛ 4.9.2) pressed until the grass-catcher is completely tipped over;
- once emptied, keep the button (4) (☛ 4.9.3) pressed until the grass-catcher has completely gone down while checking that the pawl (2) stays hooked on.



NOTE

At times the audible warning may be heard at the moment of engaging the blade even when the grass-catcher has been emptied (5). This is due to grass-cuttings left on the sensor of the micro-switch. To stop the signal, disengage the blades and then immediately engage them again. If the warning sound continues, stop the engine, take off the grass-catcher and remove any accumulated grass-cuttings from the sensor (5).

5.4.7 UNBLOCKING THE COLLECTOR CHANNEL

Cutting very tall or wet grass, particularly at too high speed, can cause the collector channel to become blocked. Should this happen, it will be necessary to:

- stop forward movement immediately, disengage the blades and stop the engine;
- take off the grass-catcher or stone-guard;
- remove the accumulated cuttings, reaching them from the exit of the collector channel.

⚠ WARNING!

This job must only be performed with the engine turned off.

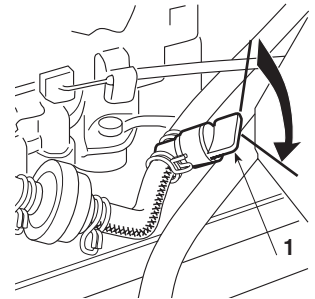
5.4.8 END OF MOWING

When you have finished mowing, disengage the blades, lower the engine speed and ride the machine with the cutting deck in the highest position.

5.4.9 END OF WORK

Stop the machine, put the accelerator lever in the «SLOW» position and turn off the engine by putting the key into the «OFF» position.

When the engine is stopped, close the fuel stopcock (1) (▶ if fitted).



⚠ WARNING!

To avoid backfire, put the accelerator in the «SLOW» position for 20 seconds before stopping the engine.

⚠ WARNING!

Always take out the ignition key if 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 each mowing, clean the outside of the machine, empty the grass-catcher and shake it to remove residual grass and earth.

⚠ WARNING!

Always empty the grass-catcher and do not leave containers full of cut grass inside a room.

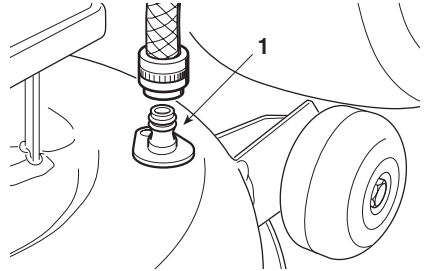
Clean the plastic parts of the body with a damp sponge using water and detergent, taking care not to wet the engine, the electrical parts or the electronic card located under the dashboard.

IMPORTANT

Never use hose-nozzles or harsh detergents for cleaning the body and engine!

For washing the inside of the cutting deck and the collector channel the machine must be on firm ground with:

- the grass-catcher or stone-guard fitted;
- the operator seated;
- the engine running;
- the transmission in neutral;
- the blades engaged.



Connect a water hose to each of the pipe fittings (1) one at a time, and running water through for a few minutes each, with the blades moving. When washing, the cutting deck should be in the fully lowered position. Take off the grass-catcher, empty and rinse it, and then put it in a position where it can dry quickly.

► **For models with electromagnetic clutch**

IMPORTANT

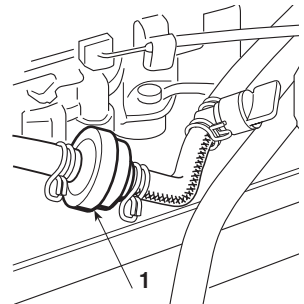
To avoid impairing the efficient working of the electromagnetic clutch:

- prevent the friction from coming into contact with oil;
- do not direct jets of high-pressure water directly onto the clutch unit;
- do not clean the clutch with petrol.

5.4.11 STORAGE AND INACTIVITY FOR LONG PERIODS

If the machine is likely to be unused for a long period (more than 1 month), disconnect the cables from the battery and follow the instructions in the engine manual. Lubricate all joints as directed (☛ 6.2.1).

Empty the fuel tank by disconnecting the tube situated at the inlet of the fuel filter (1) and follow the instructions in the engine manual.

**⚠ WARNING!**

Carefully remove any dry grass cuttings which may have collected around the engine or silencer to prevent their catching fire the next time the machine is used!

Put the machine away in a dry place protected from weather and, if possible, cover with a cloth (☛ 8.4).

IMPORTANT

The battery must be kept in a cool and dry place. Before a long storage period (more than 1 month), always charge the battery, and then recharge before using again (☛ 6.2.5).

The next time the machine is used, check that there are no fuel leaks from the tubes, fuel stopcock or carburettor.

5.4.12 CARD PROTECTION DEVICE

The electronic card has a self-resetting protector which breaks the circuit if there is a fault in the electrical system. It results in the stopping of the engine and an audible signal which can only be stopped by removing the key.

The circuit automatically resets after a few seconds but the cause of the fault should be ascertained and dealt with to avoid re-activating the protection device.

IMPORTANT

To avoid activating the protection device.

- do not reverse the leads on the battery terminals;
- do not use the machine without its battery or damage may be caused to the charging regulator;
- be careful to not cause short-circuits.

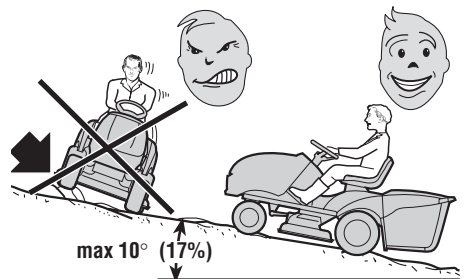
5.4.13 SUMMARY OF THE MAIN ACTIONS TO BE CARRIED OUT WHEN USING THE MACHINE

To ...	You must ...
Start the engine (☛ 5.4.1)	Open the fuel stopcock, ensure that all the conditions allowing starting are met, and then turn the key
Go forward (☛ 5.4.2)	Move the accelerator; ➤ for mechanical drive models: push the pedal right down, engage the gear (☛ 4.22) and then gradually release the pedal; ➤ for hydrostatic drive models: press the drive pedal forward; (☛ 4.32);
Brake or stop (☛ 5.4.3)	Reduce the engine speed and press the brake pedal

To ...	You must ...
Reverse (☛ 5.4.4)	Stop the machine; ☛ <i>for mechanical drive models</i> : put into neutral, push the pedal right down, engage reverse, (☛ 4.22) and then gradually release the pedal; ☛ <i>for hydrostatic drive models</i> : press the drive pedal back (☛ 4.32).
Cut the grass (☛ 5.4.5)	Fit the grass-catcher or stone-guard, adjust the height of the cutting deck wheels and move the accelerator; ☛ <i>for mechanical drive models</i> : push the pedal right down, engage the gear (☛ 4.22) and then gradually release the pedal; ☛ <i>for hydrostatic drive models</i> : press the drive pedal forward; (☛ 4.32); engage the blades and adjust the cutting height.
Empty the grass-catcher (☛ 5.4.6)	Stop forward movement, disengage the blades, and activate the control for tipping up the grass-catcher.
Unblock the collector channel (☛ 5.4.7)	Stop forward movement, disengage the blades and turn off the engine; remove the grass-catcher and clean the channel.
End mowing (☛ 5.4.8)	Disengage the blades and reduce the engine speed.
Stop the engine (☛ 5.4.9)	Reduce the engine speed, wait a few seconds, turn the key and close the fuel stopcock.
Store the machine (☛ 5.4.10)	Engage the parking brake, remove the key and, if necessary, wash the machine, the inside of the cutting deck, the collector channel and the grass-catcher.

5.5 USING ON SLOPING GROUND

Only mowing in any case on the maximum gradients already mentioned (**max 10° - 17%**), lawns on a slope have to be mowed moving up and down and never across them, taking great care when changing direction that the highest wheels do not hit obstacles (such as stones, branches, roots, etc.) that may cause the machine to slide sideways, tip over or otherwise cause loss of control.



⚠ DANGER! **REDUCE SPEED BEFORE ANY CHANGE OF DIRECTION ON SLOPES, and always engage the parking brake before leaving the machine stopped and unattended.**

⚠ WARNING! **Take care when beginning forward movement on sloping**

ground to prevent the risk of tipping up. Reduce the forward speed before going on a slope, particularly downhill.

⚠ DANGER! *Never use reverse to reduce speed going downhill. Control of the machine may be lost, particularly on slippery surfaces.*

► *For mechanical drive models:*

• **⚠ DANGER!** *Never ride the machine on slopes in neutral gear or with the clutch out! Always engage a low gear before leaving the machine stopped and unattended.*

► *For hydrostatic drive models:*

•
• Go down slopes without touching the pedal (➡ 4.32) to take advantage of the braking effect of the hydrostatic drive when the transmission is not engaged.

5.6 TRANSPORTING

⚠ WARNING! *If the machine is transported on a truck or trailer, use suitable equipment for lifting and an appropriate number of people for the weight involved and the type of lifting system used. The machine must never be lifted by rope and tackle. While being transported, close the fuel stopcock (► if fitted), lower the cutting deck, engage the parking brake and fasten the machine securely with ropes or chains to the hauling device.*

5.7 LAWN MAINTENANCE

1. To keep a lawn green, soft and attractive, it should be cut regularly without damaging the grass. A lawn can be composed of different types of grass. If the lawn is cut frequently, grass and roots grow more vigorously, forming a solid grassy bed. If the lawn is cut is less frequently, higher grass and weeds start growing (plus daisies and clovers, etc.).

2. It is always better to cut the grass when dry.

3. The blades must be in good condition and well sharpened so that the grass is cut straight without a ragged edge that leads to yellowing at the ends.

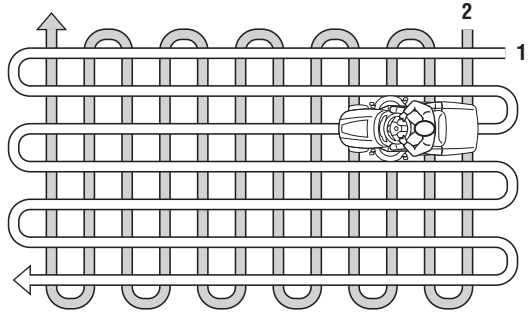
4. The engine must run at full speed, both to ensure a sharp cut of the grass and to

get the necessary thrust to push the cuttings through the collector channel.

5. The frequency of mowing should be in relation to the rate of growth of the grass. The grass should not be left to grow too much between one cut and the next.

6. During hot and dry periods, the grass should be cut a little higher to prevent the ground from drying out.

7. The best height of the grass on a well-kept lawn is approx. 4-5 cm. With one cut, you do not need to remove more than a third of the total height. If the grass is very tall, it should be cut twice in a twenty-four hour period - the first time with the blades at maximum height, possibly reducing the cutting width, and the second cut at the desired height.



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

9. If the collector system tends to get blocked with grass, you should reduce the forward speed as it may be too high for the condition of the grass. If the problem persists, the probable causes are either badly sharpened blades or deformed wings.

10. Be very careful when mowing near bushes or kerbs as these could distort the horizontal position of the cutting deck and damage its edge as well as the blades.

6. MAINTENANCE

6.1 SAFETY RECOMMENDATIONS

⚠ WARNING! *Before cleaning or doing maintenance work, take out the ignition key and read the relevant instructions. Wear adequate clothing and work gloves whenever your hands are at risk.*

⚠ WARNING! *Never use the machine with worn or damaged parts. Faulty or worn-out parts must always be replaced and not repaired. Only use genuine spare parts: those that are not of an equivalent quality may damage the machine or endanger the safety of yourself and others.*

IMPORTANT *Never get rid of used oil, fuel or other pollutants in unauthorised places!*

6.2 SCHEDULED MAINTENANCE

6.2.1 PERIODIC MAINTENANCE

WORK	HOURS	DONE (DATE OR N° OF HOURS)							
1. MACHINE									
1.1 Check of tight fixing and sharpness of blades	25								
1.2 Blade replacement	100								
1.3 Check the transmission belt	25								
1.4 Transmission belt replacement ²⁾	–								
1.5 Check the blade drive belt	25								
1.6 Blade drive belt replacement ²⁾	–								
1.7 Check the belt connecting blades	25								
1.8 Replacement of belt connecting blades ²⁾	–								
1.9 Check and adjustment of brake	10								
1.10 Check and adjustment of drive	10								
1.11 Check engagement and brake of blade	10								
1.12 Check all fastenings for tight fitting	25								
1.13 General lubrication ³⁾	25								
2. ENGINE¹⁾									
2.1 Engine oil change								
2.2 Check and cleaning of air filter								
2.3 Air filter replacement								
2.4 Check fuel filter								
2.5 Fuel filter replacement								
2.6 Check and cleaning of spark plug points								
2.7 Replacement of spark plug								

- 1) See the engine manual for the full list and frequency.
- 2) Replace at the first signs of wear, contacting a Licensed Service Centre.
- 3) General lubrication should also be carried out whenever the machine is to be left unused for a long period.

The above table is there to help you maintain your machine's safety and performance. It 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 operating hours the work was carried out.

⚠ WARNING! *All checks, adjustments and replacements not described in chapters 6.3 and 6.4 of this manual must be carried out by your Dealer or a specialized Service Centre. Both have the necessary knowledge and tools to ensure that the work is carried out correctly without affecting the safety of the machine.*

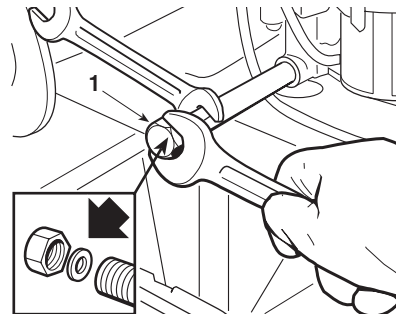
6.2.2. SUMMARY OF THE MAIN SITUATIONS WHERE WORK MAY BE REQUIRED

Every time that ...	You will need to ...
The blades vibrate	Contact Your Dealer
AThe blades tear the grass and the lawn becomes yellow	Contact Your Dealer
The cut is uneven	Adjust the alignment of the cutting deck (☛ 6.3.2).
The blades engage in an abnormal way	Contact Your Dealer
The machine does not brake	Contact Your Dealer
Forward movement is erratic	Contact Your Dealer
The grass-catcher jumps around and tends to open up.	Adjust the spring (☛ 6.3.6)

6.2.3 ENGINE

IMPORTANT *Follow all the instructions in the engine manual.*

To empty the engine oil, unscrew the oil plug (1). When refitting the plug, make sure the seal is positioned correctly.



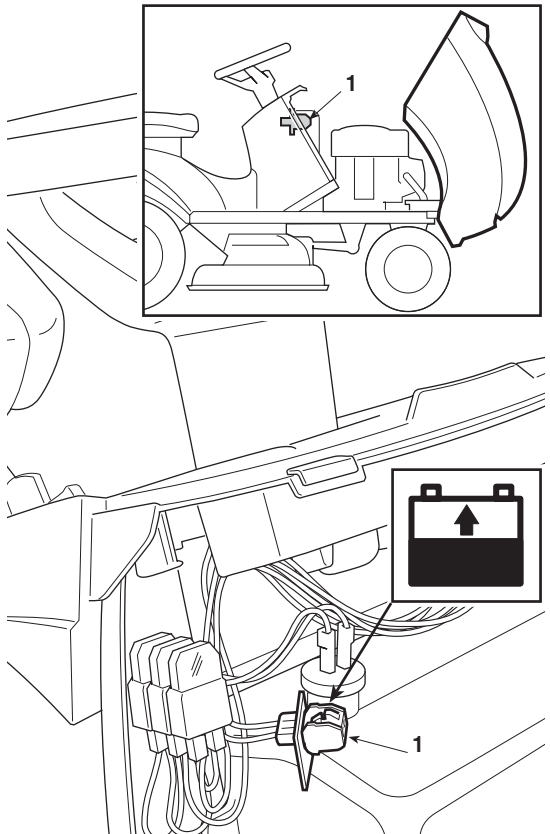
6.2.4 REAR AXLE

This is a sealed single unit which does not require maintenance. It is permanently lubricated and this lubricant does not need changing or topping up.

6.2.5 BATTERY

To ensure long life to the battery it is essential to keep it carefully maintained. The machine battery must always be charged:

- before using the machine for the first time after purchase;
 - before leaving the machine for a prolonged period of disuse;
 - before starting up the machine after a prolonged period of disuse.
- To ensure long life to the battery it is essential to keep it carefully maintained. The battery on your machine must be charged before using for the first time and, subsequently, if the machine is stored, before the next time of starting up.
- A flat battery **must** be recharged as soon as possible.



IMPORTANT *Recharging must be done using a battery charger at **constant voltage**. Other recharging systems can irreversibly damage the battery.*

The machine has a connector (1) for recharging, to be connected to the corresponding connector of the special “CB01” maintenance battery-charger supplied (▶ if included) or available on request (☛ 8.5).

IMPORTANT *This connector must only be used for connection to the CB01 maintenance battery-charger. For its use:*

- follow the instructions given in the relative instruction booklet,
- follow the instructions given in the battery booklet.

6.3 CHECKS AND ADJUSTMENTS

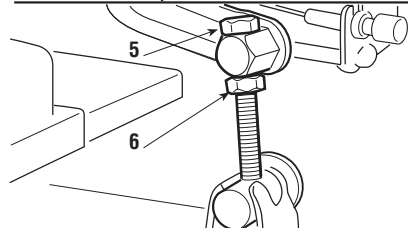
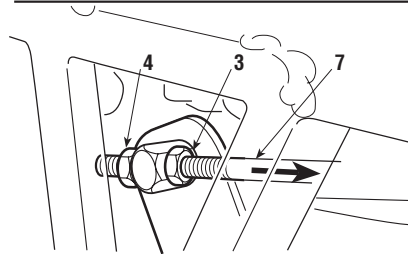
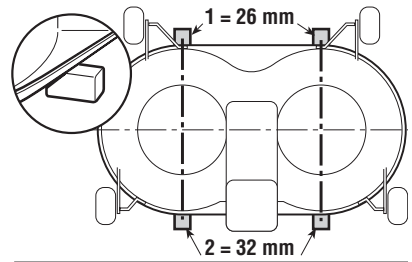
6.3.1 CUTTING DECK ALIGNMENT

The cutting deck should be properly set to obtain a good cut.

NOTE

For achieving good results from cutting, the front part should always be 5 - 6 mm lower than the rear.

- Put the machine onto a flat surface and check the tyre pressures;
- put 26 mm blocks (1) under the front edge of the deck and 32 mm blocks (2) under the rear edge, and then put the lifting lever into position «1»;
- loosen the nuts (3), the screws (5) and the lock-nuts (4 - 6) on both the right and left side, so that the deck is resting firmly on the blocks;
- push the two connecting rods (7) to the back and screw down the two nuts (3) on each rod until the front part of the deck just begins to rise both at the right and the left, and then tighten the relevant locknuts (4);
- turn both the rear screws (5) until the rear of the deck begins to rise both at the right and the left, and then tighten the relevant locknuts (6).

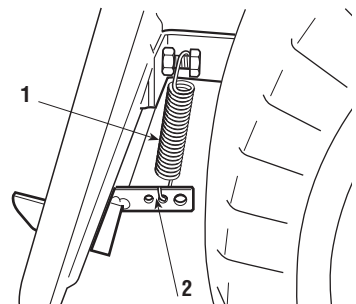


In case of any doubts, do not hesitate to contact your Retailer.

6.3.2 ADJUSTMENT OF THE SPRING OF THE PAWL FOR HOOKING THE GRASS-CATCHER

If the grass-catcher tends to jump about and to open up when going over rough ground, or if it has difficulty in hooking back on after being emptied, the tension of the spring will need to be adjusted (1).

Change the hooking point by using one of the holes (2) until the required result is achieved.

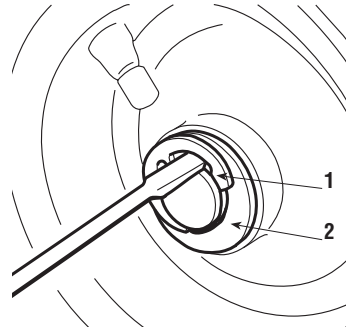


6.4 DISMANTLING AND REPLACEMENT

6.4.1 REPLACING WHEELS

Stop the machine on a flat surface and put a block under a load-bearing part of the frame on the side that the wheel is to be changed.

The wheels are held by a snap ring (1) which can be eased off with a screwdriver. The rear wheels are directly coupled to the differential axle shaft and fastened by a key that forms part of the wheel's hub.



NOTE

Should you substitute one or both rear wheels, ensure that they are of the same diameter, and check that cutting deck is horizontal to prevent an uneven cut.

IMPORTANT

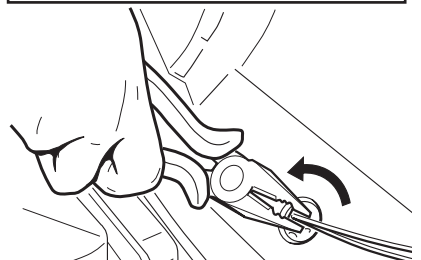
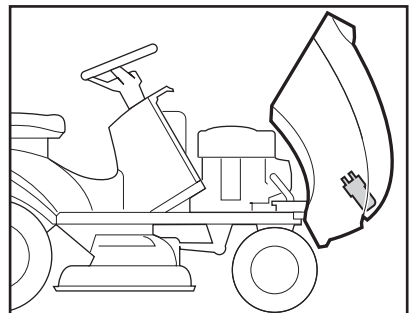
Before re-fitting a wheel, smear some waterproof grease on the axle and carefully re-fit the snap ring (1) and washer (2).

6.4.2 REPLACING AND REPAIRING TYRES

The tyres are of the «Tubeless» type and therefore all puncture repairs will have to be carried out by a tyre-repair expert in accordance with the methods for this kind of tyre.

6.4.3 REPLACING BULBS

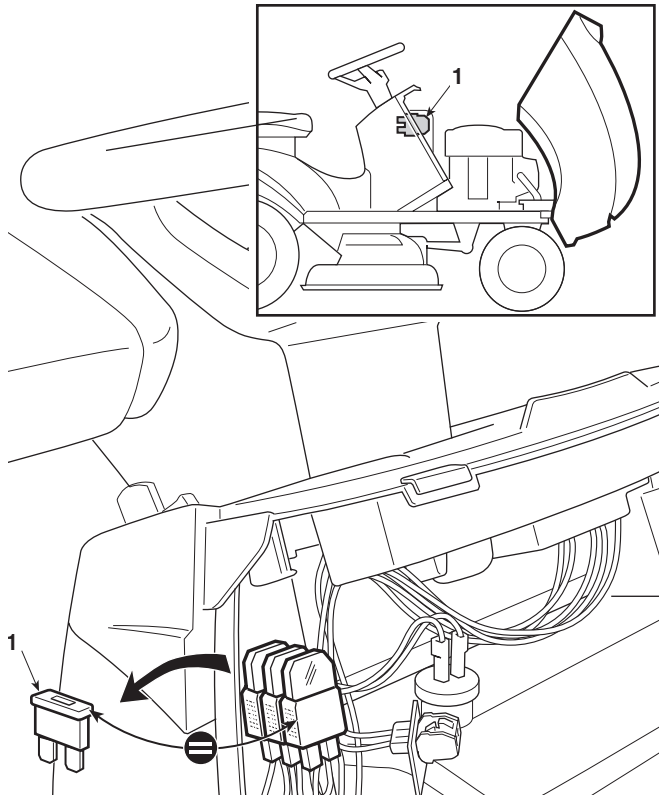
The bulbs (18W) have a bayonet fitting and are installed in the bulb holder which can be taken out by turning it anti-clockwise, using pliers.



6.4.4 REPLACING A FUSE

The machine is fitted with fuses (1) with different capacities and functions. Specifically:

- 10 A fuse = protects the main and power circuits of the electronic board. When it blows, the machine stops and the dashboard switches off.
- 25 A fuse = protects the battery charger circuit. When it blows, the battery light comes on to indicate that the battery is going to run out and the machine will have problems starting.



▶ **In electric tipping models:**

-
- - 15A fuse = protects the control motor circuit. If it trips, the tipping system stops working electrically, so you can empty the grass-catcher using the manual lever (if fitted).
-
-

The fuse capacity is indicated on the fuse.

IMPORTANT

A blown fuse must always be replaced by one of the same type and ampere rating, and never with one of another rating.

If you cannot find out why the fuse has blown, consult a Licensed Service Centre.

6.5 INFORMATION FOR SERVICE CENTRES

Below is a list of specifications for machine adjustments and instructions for dismantling and replacing the blades.

⚠ WARNING! *These operations must be carried out by a specialized Centre only. Remove the ignition key before doing any adjustments or maintenance.*

6.5.1 ADJUSTMENTS

Element	Position	Position of controls	Adjustment
a) Brake: ▶ Mechanical transmission:			
▶ Hydrostatic transmission:			
b) Drive: ▶ Mechanical transmission:			
▶ Hydrostatic transmission:			
c) Blade engagement: ▶ Lever engagement:			
▶ Electromagnetic engagement:			

6.5.2 DISMANTLING, REPLACING AND REMOUNTING THE BLADES

⚠ WARNING! Always wear work gloves when handling the blades.

⚠ WARNING! Damaged or bent blades must always be replaced; never try to repair them! ALWAYS USE MANUFACTURER'S GENUINE REPLACEMENT BLADES BEARING THE SYMBOL **▲**! The blades differ, are at 90° to one another, and are contra-rotating. When installing them, make sure that they are correctly positioned by referring to the code number marked on the outside of each one.

1. Dismantling

1a = screw with right thread (loosen anti-clockwise)

1b = screw with left thread (tighten clockwise)

2. Original spare parts

Only the following pairs of blades can be used on this machine:

Mod.102: 2b **▲** 82004341/1 82004340/1 **▲** 2a

Mod.102: 2b **▲** 82004348/0 82004347/0 **▲** 2a

Mod.122: 2b **▲** 82004350/0 82004349/0 **▲** 2a

3. Remounting

Check that the concave part of the cushion disc (3) presses against the blade.

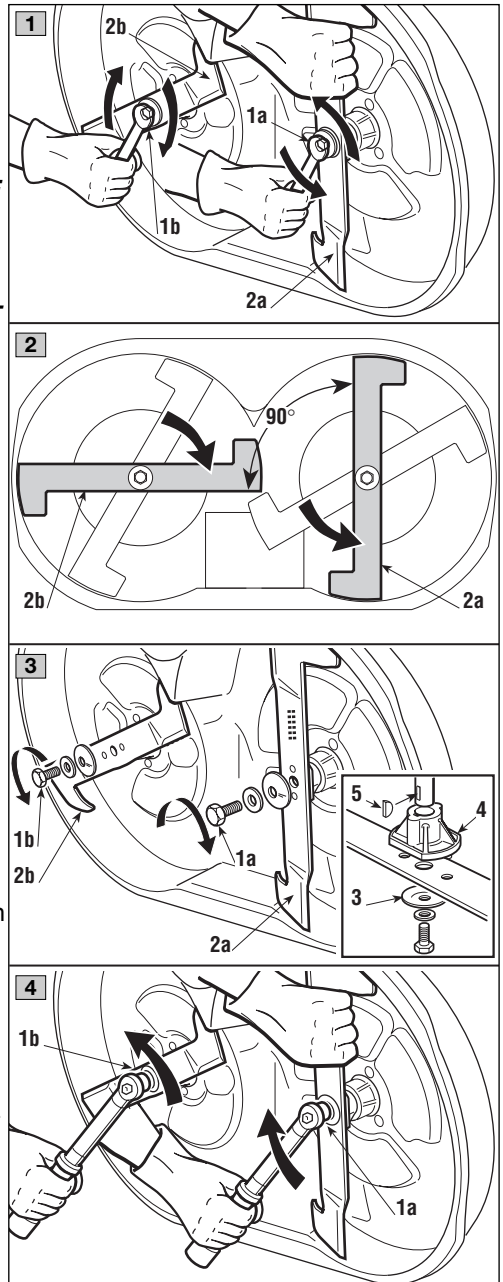
Remount the shaft hubs (4), making sure that the keys (5) are securely lodged in place.

4. Tightening the screws

1a = screw with right thread (tighten clockwise)

1b = screw with left thread (tighten anti-clockwise)

Tighten with a **torque wrench** calibrated to 40-45 Nm.



PROBLEM	LIKELY CAUSE	SOLUTION
7. Engine stops when blades are engaged	– you are not ready to engage the blades	– check that the conditions allowing starting are met (☛ 5.2.c)
8. The battery warning light does not turn off after a few minutes' work	– recharging of the battery insufficient	– Contact your dealer
9. The oil warning light comes on while working (☛ if fitted)	– problems in lubricating the engine	Turn the key immediately to «STOP»: <ul style="list-style-type: none"> – top up the oil level (☛ 5.3.3) – replace the filter (if the problem continues, contact your dealer)
10. The engine stops and an audible signal is heard	The protection of the electronic card has cut in due to: <ul style="list-style-type: none"> – battery contains electrolyte but is not charged – overvoltage caused by the charge regulator – badly connected battery (poor contact) 	Turn the key to «STOP» and look for the cause of the problem: <ul style="list-style-type: none"> – recharge battery (☛ 6.2.5) – Contact your dealer – check connections i (☛ 3.4)
11. The engine stops with no audible warning	– battery disconnected – problems in the engine	– check connections (☛ 3.4) – Contact your dealer
12. The blades warning light stays lit when the blades are disengaged	– the lever does not return to the disengaged position due to accumulated grass cuttings at the end of its stroke	– free the joint of all the grass (accessed from the inspection hatch)
13. The blades do not engage (☛ models with lever operated engagement)	– cable lengthened or belt loosened	– Contact your dealer

PROBLEM	LIKELY CAUSE	SOLUTION
(▶ <i>models with electromagnetic clutch</i>)	<ul style="list-style-type: none"> - belt loosened - problems in the electromagnetic clutch 	<ul style="list-style-type: none"> - Contact your dealer - Contact your dealer
14. Uneven cut and poor grass collection	<ul style="list-style-type: none"> - cutting deck not parallel to the ground - blade cutting badly - forward speed too high compared to height of grass (☛ 5.4.5) - collector channel is blocked - cutting deck full of grass 	<ul style="list-style-type: none"> - check the tyre pressures (☛ 5.3.2) - re-align the cutting deck to the ground (☛ 6.3.1) - Contact your dealer - reduce forward speed and/or raise the cutting deck - wait for the grass to dry - remove the grass-catcher and empty the collector channel (☛ 5.4.7) - clean the cutting deck(☛ 5.4.10)
15. Unusual vibrations while working	<ul style="list-style-type: none"> - the blades are imbalanced - blades loose - fixing bolts loose 	<ul style="list-style-type: none"> - Contact your dealer - Contact your dealer - check and tighten all the fixing bolts of the engine and frame
16. With the engine running, the machine does not move when the drive pedal is pressed. (▶ <i>for hydrostatic drive models</i>)	<ul style="list-style-type: none"> - disengage lever in position «B» (☛ 4.33) 	<ul style="list-style-type: none"> - put into position «A»

If problems continue after having carried out these operations, Contact your Dealer.

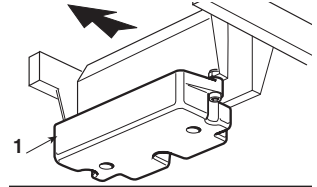
⚠ WARNING!

***Do not take on complicated repair work if you don't have the necessary equipment and the technical knowledge.
The guarantee is automatically revoked and the manufacturer declines all responsibility for any repairs which are badly done.***

8. ACCESSORIES ON REQUEST

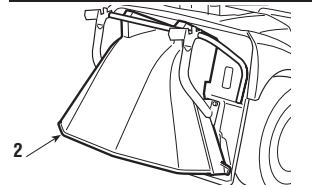
1. FRONT COUNTERWEIGHTS

These improve stability at the front of the machine, particularly when being used on ground which is mostly sloping.



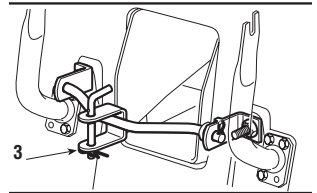
2. STONE-GUARD KIT

For use in place of the grass-catcher when the cuttings are not to be collected.



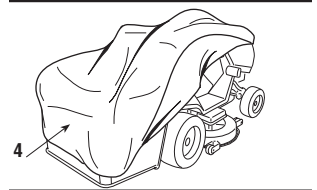
3. TOWING HITCH

For towing a small trailer.



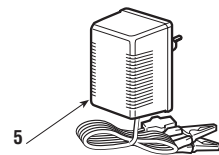
4. CLOTH COVER

Protects the machine from dust when not in use.



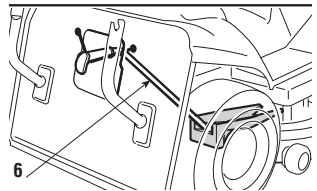
5. "CB01" MAINTENANCE BATTERY-CHARGER

This makes it possible to keep the battery in good working order when the machine is in storage, guaranteeing an optimum level of charge and a longer life to the battery.



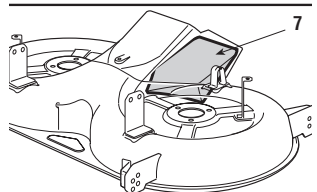
6. KIT FOR "MULCHING" (only on prearranged models)

It finely chops the grass cuttings and leaves them on the lawn, instead of collecting them in the grass-catcher.



7. DEFLECTOR CHUTE KIT (only for mod. 102)

Improves grass collecting when the cutting deck is close to the ground.



9. SPECIFICATIONS

Electrical system 12 V
 Battery 18 Ah
 Front tyres 13 x 5.00-6
 or 15 x 5.00-6
 Rear tyres 18 x 8.50-8
 Front tyre pressure
 tyres 13 x 5.00-6 1.5 bar
 tyres 15 x 5.00-6 1.0 bar
 Rear tyre pressure 1.2 bar

► **For mechanical drive models:**

- Forward speed (approximate) at 3000 min.⁻¹:
- in 1st 2.2 km/h
- in 2nd 3.8 km/h
- in 3rd 5.8 km/h
- in 4th 6.4 km/h
- in 5th 9.7 km/h
- in Reverse 2.8 km/h

Overall weight from 216 to 240 kg

Inside turning circle (minimum diameter of uncut grass - left side):

tyres 13 x 5.00-6 1.5 (1.3) m
 tyres 15 x 5.00-6 1.7 (1.5) m
 Cutting height from 3 to 9 cm
 Cutting width 101 (121) cm
 Grass-catcher capacity 300 litres

► **For hydrostatic drive models:**

- Forward speed (at 3000 min.⁻¹):
- in Forward from 0 to 8.8 km/h
- in Reverse from 0 to 4.5 km/h

The data in the brackets (.....) refer to the model "122".

