

## INTRODUCTION

Dear Customer,

We thank you for having purchased our lawn-tractor and hope 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, and is an integral part of the machine. 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 lawn-tractor has been designed and made in line with current regulations, and is solely for the purpose of cutting and collection of grass, fully complying with the instructions given in this manual (**proper usage**). Using the machine in any other way, 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 there are continual improvements to the product, information contained in this manual may have been subsequently modified without prior warning and without the obligation to update it, although the essential safety and function characteristics will remain unaltered. In case of any doubts, do not hesitate to contact your Dealer.

## AFTER-SALES SERVICE

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


For all information not contained here, contact your Dealer.

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## 1. SAFETY

### HOW TO READ THE MANUAL

This manual describes both the mechanically (*HF2213S - HF2218S - HF2218SL*) and the hydrostatically driven (*HF2213H - HF2218HL*) lawn-tractors. The  symbol highlights all differences in usage and is followed by the indication of the type of drive or version to which it refers.

Some paragraphs in the manual contain information of particular importance and these 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 are aimed at preventing damage to the machine or causing damage.*

**⚠ 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.*

### SAFETY REGULATIONS (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. Learn how to stop the engine quickly.*
- 2) *Only use the lawn-tractor for the purpose for which it was made, that is, the cutting and collection of grass. Any use not specifically indicated in the Operator's Manual can be dangerous and result in damage to the machine, and will also result in the annulling of the warranty and the manufacturer declining all responsibility.*
- 3) *Never allow children or people unfamiliar with these instructions to use the lawn-tractor. Local regulations may restrict the age of the operator.*
- 4) *Never use the lawn-tractor:*
  - *When people, especially children, or pets are nearby.*
  - *If the operator has taken medicine or substances that can affect his ability to react and concentrate.*
- 5) *Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.*
- 6) *Do not carry passengers.*



- 7) *The operator of a lawn-tractor must carefully follow the driving instructions, particularly:*
- *The need for care and concentration when using lawn-tractors;*
  - *That control of a lawn-tractor 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.*
- 8) *The lawn-tractor is equipped with a series of safety microswitches and devices which must never be removed, altered or tampered with. Removing these devices invalidates the warranty and the manufacturer declines any responsibility.*

## **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 may be thrown by the machine (stones, sticks, metal wire, bones, etc.)*
- 3) **WARNING: DANGER!** - *Engine fuel is highly flammable:*
- *Store fuel in containers specifically designed for this purpose.*
  - *Refuel using a funnel and outdoors only. Do not smoke while refuelling or whenever handling the fuel.*
  - *Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot.*
  - *If fuel 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 fuel has evaporated and the fumes dispersed.*
  - *Always replace the caps on the tank and container and tighten securely.*
- 4) *Replace faulty silencers.*
- 5) *Before using, always carry out a visual inspection, particularly of the blades, seeing that the screws and cutter assembly are not worn or damaged. Replace worn or damaged blades and screws in sets to preserve balance.*
- 6) *Before mowing, attach the discharge opening guards (grass-catcher or stone-guard).*
- 7) *Take care as the rotation of one blade can cause the other blade to turn.*

## **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) *Avoid operating the equipment in wet grass, where feasible.*
- 4) *Before starting the engine, disengage the blades, shift the gear (  on models with mechanical drive) or the pedal (  on hydrostatic drive models) into neutral and engage the parking brake.*
- 5) *Do not use on slopes of more than 10° (17%).*
- 6) *Remember there is no such thing as a "safe" slope. Travel on grass slopes requires particular care. To guard against overturning:*
- *It is advisable to use a front counterweight (supplied on request);*
  - *Do not stop or start suddenly when going up or downhill;*
  - *Engage clutch slowly, always keep the machine in gear (  for mechanical drive models) or engage the drive pedal slowly both for forward and reverse movement (  for hydrostatic drive versions), 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.
- 7) Stop the blades rotating before crossing surfaces other than grass and put the cutting plate into the highest position.
  - 8) Never operate the lawn-tractor as a lawnmower with defective guards, or without deflectors and grass-catchers in place.
  - 9) Do not change the engine governor settings or overspeed the engine.
  - 10) Before leaving the operator's position:
    - Disengage the blades.
    - Change into neutral (  on mechanical drive versions) or release the pedal so that it returns to the neutral position (  on hydrostatic drive versions) and set the parking brake.
    - Stop the engine and remove the key.
  - 11) Disengage blades, stop the engine and remove key:
    - Before carrying out any work beneath the cutting deck or unclogging the collector channel;
    - Before checking, cleaning or working on lawn-tractor;
    - After striking a foreign object. Inspect the lawn-tractor for damage and make repairs before restarting and operating the lawn-tractor;
    - If the lawn-tractor starts to vibrate abnormally (immediately check and remove the cause of the vibration)
  - 12) Disengage drive to blades when transporting or not in use. Disengage the blades and wait for them to stop before emptying the grass-catcher.
  - 13) Stop the engine and disengage blades:
    - Before refuelling.
    - Every time the grass-catcher is removed or replaced.
  - 14) Reduce the throttle setting during engine shut down and turn the fuel off at the conclusion of mowing, following the instructions in the manual.
  - 15) Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.

#### D) MAINTENANCE AND STORAGE

- 1) Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition. Regular maintenance is essential for safety and for maintaining performance levels.
- 2) Never store the equipment with fuel in the tank inside a building where fumes may reach a flame or a spark or a source of extreme heat.
- 3) Allow the engine to cool before storing in an enclosed space.
- 4) To reduce the fire hazard, keep the engine, exhaust silencer, battery compartment and fuel storage area free of grass, leaves, or excessive grease. Always empty the grass-catcher and do not leave garden rubbish containers inside a room.
- 5) Check the deflector and grass-catcher frequently for wear and deterioration.
- 6) For reasons of safety, do not use equipment with worn or damaged parts. Parts are to be replaced and not repaired. Use genuine spare parts (blades should always bear the symbol ). Parts which are not of an equivalent quality can damage the equipment and may adversely affect your safety.
- 7) If the fuel tank has to be drained, this should be done outdoors and when the engine is cool.
- 8) Wear strong work gloves when removing and reassembling the blades.
- 9) Check the blades' balance after sharpening.
- 10) Be aware that the rotation of one blade causes the other blade to turn.
- 11) When the machine is to be parked, stored or left unattended, lower the cutting deck.
- 12) The ignition key must never be left inserted in the machine, or where children or persons not familiar with the machine may reach it. Remove the ignition key before any maintenance.

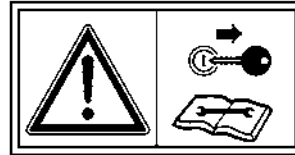
#### E) TRANSPORTING

- 1) If the tractor is transported on a truck or trailer, lower the cutting deck, engage the parking brake and fasten the lawn-tractor securely with ropes, cables or chains to the hauling device.

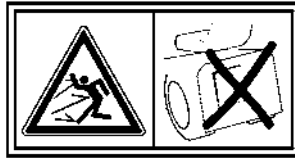
**SAFETY DECALS**

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

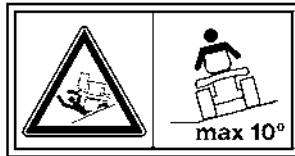
**Warning:** Read Operator's Manual before operating this machine.



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



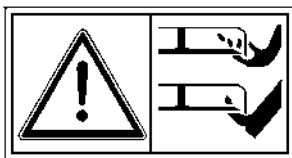
**Danger! Ejected objects:** Do not operate without either stone-guard or grass-catcher in place.



**Danger! Ejected objects:** Keep bystanders away.

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

**Danger! Dismemberment:** Make sure that children stay clear of mower all the time when engine is running.



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

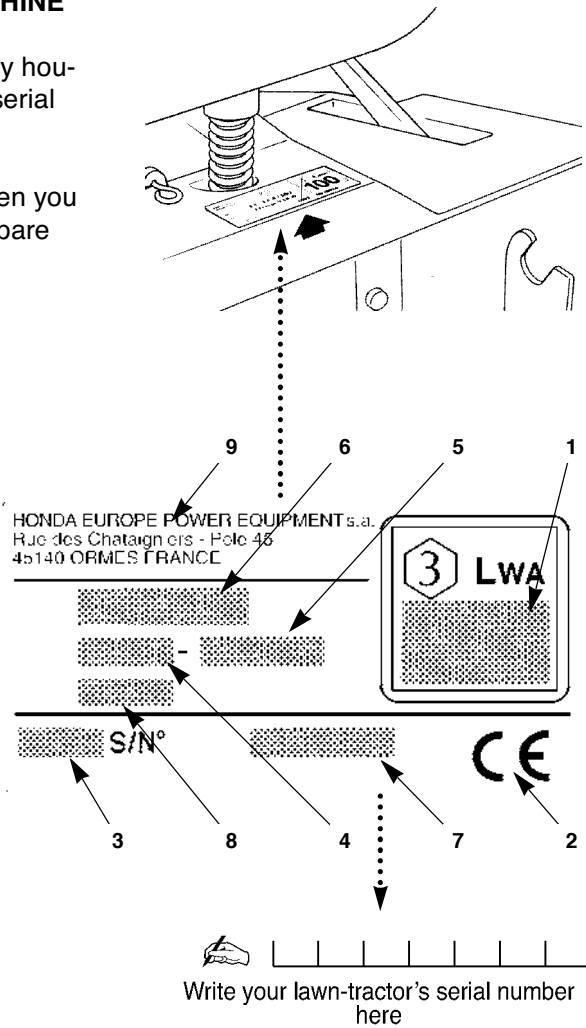
## 2. IDENTIFICATION OF THE MACHINE AND PARTS

### IDENTIFICATION OF THE MACHINE

The plate located near the battery housing has the essential data and serial number of each lawn-tractor (7).

This number must be quoted when you require technical assistance or spare parts.

1. Acoustic power level according to directive 84/538/EEC
2. Conformity mark according to directive 89/392/EEC, modified
3. Year of manufacture
4. Nominal power
5. Operating engine speed in r.p.m
6. Type of lawn-tractor
7. Serial number
8. Weight in kg
9. Name and address of Manufacturer

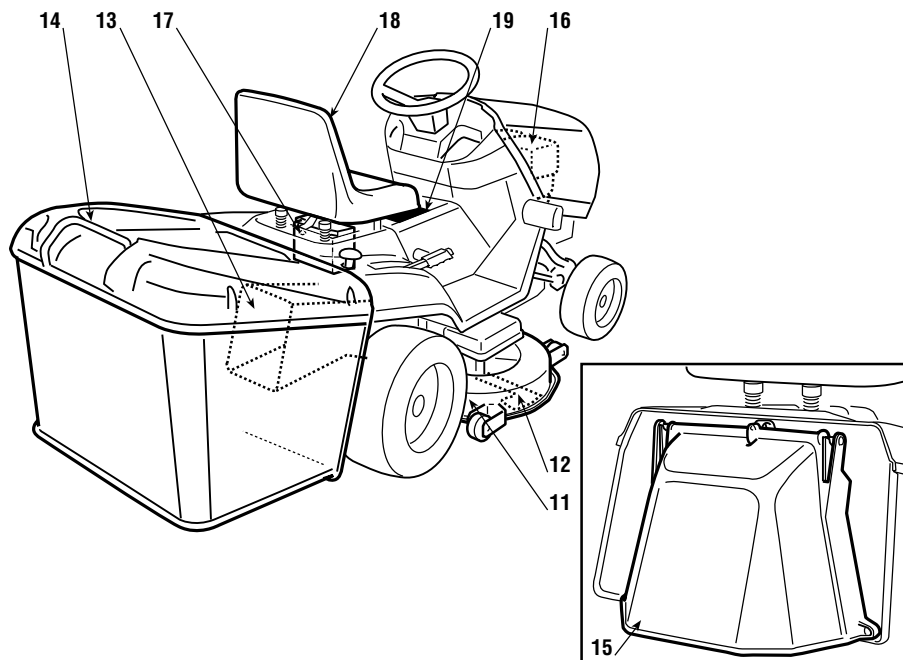


### IDENTIFICATION OF MAIN COMPONENTS

Various main components can be seen on the machine, and these have the fol-

lowing 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 lawn-tractor.
15. **Stone-guard or deflector:** this can be fitted in place of the grass-catcher and prevents objects drawn up by the blades from being thrown outside of the lawn-tractor.
16. **Engine:** this moves the blades and drives the wheels. It is fully described in a specific booklet.
17. **Battery:** provides the energy for starting the engine. It is fully described in a specific booklet.
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.





### 3. UNPACKING AND ASSEMBLY

For storage and transport reasons, some components of the lawn-tractor 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**

*For transport reasons the lawn-tractor is supplied without engine oil or fuel. Before starting up the engine, fill with oil and fuel following the instructions given in the engine booklet.*

#### UNPACKING

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

The standard packing contents:

- the lawn-tractor;
- steering wheel;
- seat;
- grass-catcher components;
- grass-catcher emptying kit;
- an envelope containing the instruction manual, documents and the nuts and bolts with two starter keys, a pin for blocking the steering wheel and a spare 6.3 A fuse.

#### FITTING THE STEERING WHEEL

Put the lawn-tractor on a flat surface and straighten up the front wheels.

Fit the steering wheel (1) onto the protruding shaft (2) with the spokes directed towards the seat.

Line up the hole in the steering wheel hub with the hole in the shaft and insert the pin supplied (3).

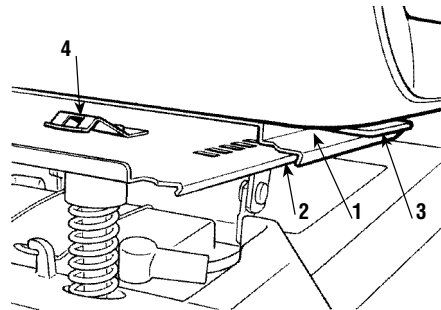
Push the pin in using a hammer, ensuring that it comes completely through to the opposite side.

**NOTE**

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

**SEAT ASSEMBLY**

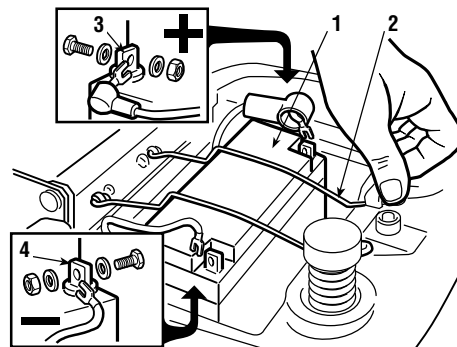
Fit the seat (1) in the slide (2) introducing it from the steering wheel's side keeping the adjusting lever raised (3) till the seat engages in one of the 6 positions. At this point the seat is engaged and cannot be completely removed unless the lever (4) is pressed, freeing it from its retainer.

**CONNECTING THE BATTERY**

The battery (1) is situated in a compartment under the seat and is held in place by two springs (2).

Connect the red cable (3) to the positive terminal (+) and the black cable (4) to the negative terminal (-) using the supplied screws and following the illustrated sequence.

Recharge the battery according to the manufacturer's instructions.

**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.*

**GRASS-CATCHER ASSEMBLY**

First of all assemble the frame, joining the upper part (1), including the opening, to the lower part (2) using the screws you find in the package (3) and following the indicated sequence.

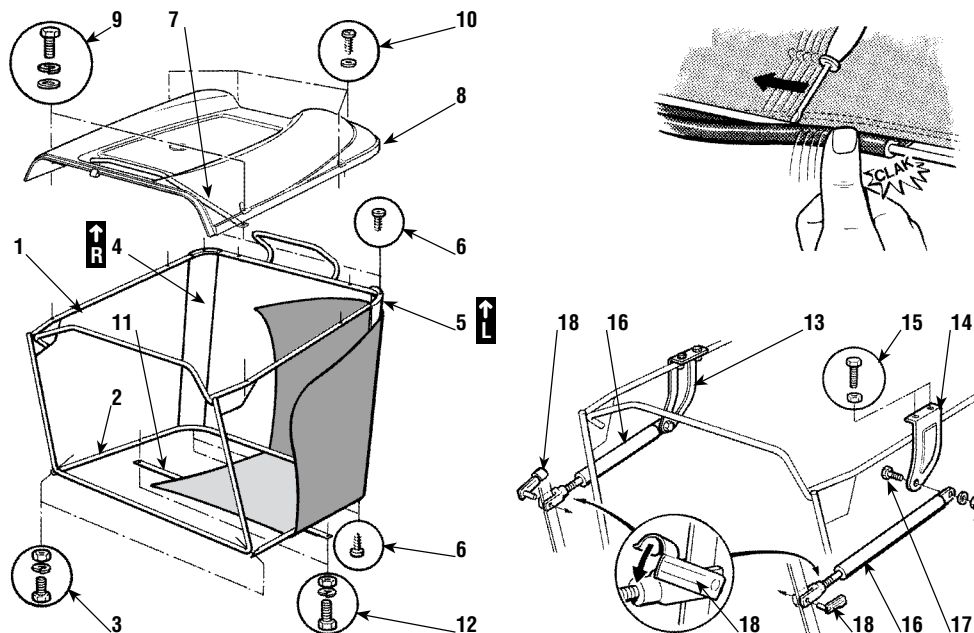
Place the angle supports (4) and (5) respecting in the right (R ↑) and left (L ↑), orientation as indicated and attach them to the frame using the 4 self-threading screws (6).

Insert the frame in the canvas cover. Take care of the correct position on the base perimeter. Hook the plastic profiles to the frame tubes with the aid of a screw-driver.

Mount the right bracket (13) and left bracket (14), making very sure that the assembly positions are not reversed, and fasten using the screws (15).

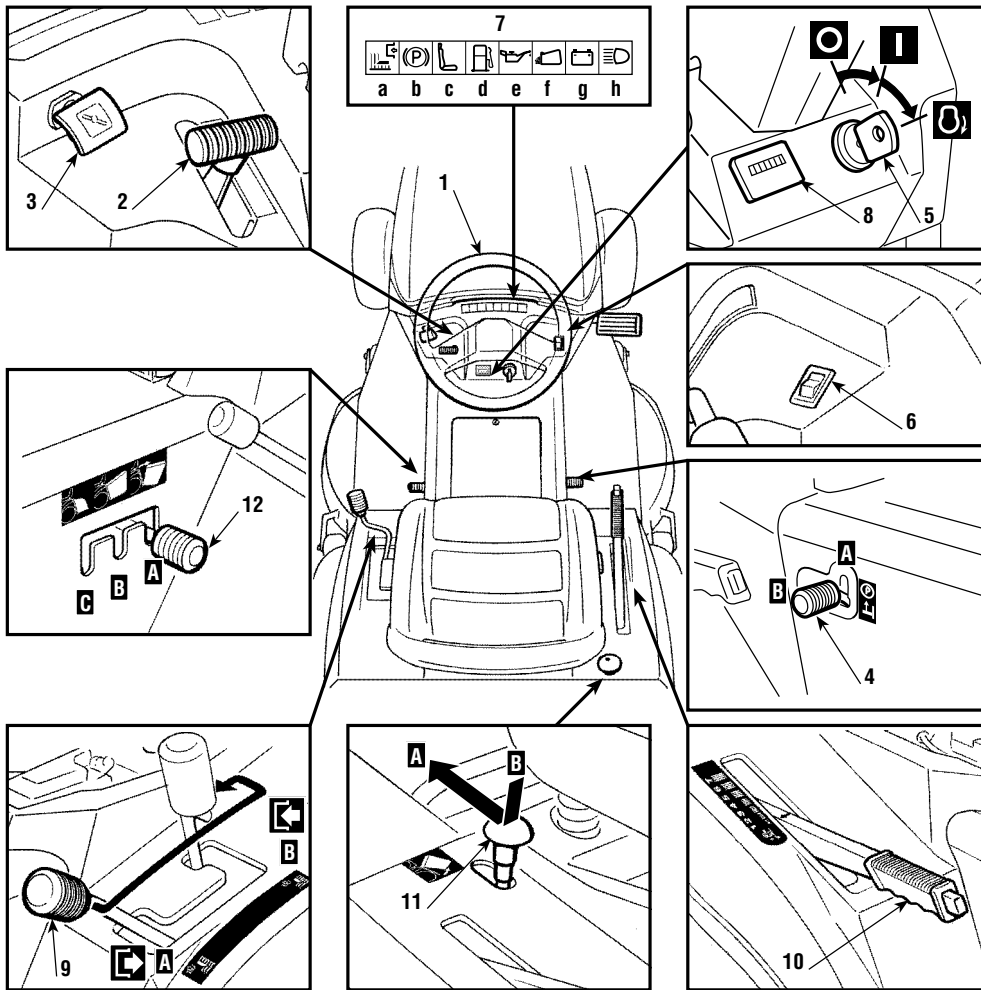
Insert the handle (7) into the holes of the canvas (8). Attach this to the frame using the screws (9), following the indicated sequence, and complete the assembly using the rear self-threading screws (10).

Then fit the stiffening bar (11) on the outside of the frame base keeping the flat part towards the canvas and assemble together using the screws and nuts (12).







Attach the grass-catcher to the supports (as indicated at page 20) and mount the pistons (16) to the brackets (13 and 14) using the screws (17). Then connect to the rear plate using the pins with retaining springs (18), as shown in the figure.

**4. COMMANDS AND CONTROL INSTRUMENTS**



**1. STEERING WHEEL**  
Turns the front wheels.

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

-  Position «CHOKE» for starting up ( HF2213)
-  Position «SLOW» for minimum engine speed
-  Position «FAST» for maximum engine speed

When moving from one area to another, put the lever in a position between «SLOW» and «FAST» When cutting, go to the «FAST» position.

### 3. CHOKE CONTROL ( HF2218)

This enriches the mixture and must only be used for starting from cold.

### 4. PARKING BRAKE LEVER

This lever is to stop the lawn-tractor from moving when it has been parked, and must always be engaged before leaving the machine.

The brake is engaged by fully pressing the pedal (21 or 31) and moving the lever to position «A». When you take your foot off the pedal it will be blocked by the lever in the down position.

To disengage the parking brake, press the pedal again so that the lever returns to position «B»..

### 5. KEY IGNITION SWITCH

This key operated control has three positions:

- «OFF» means everything is switched off
- I «ON» activates all parts
- ⓪ «START» engages the starter motor. On being released, the key will automatically return to «ON» from this position.

### 6. LIGHTS SWITCH

For turning on the lights when the key (5) is in the «ON» position..

### 7. PILOT LAMPS AND AUDIBLE WARNINGS

There is a panel on the dashboard with a set of pilot lamps which can only work when the key (5) is in the «ON» position. They will light in various operating conditions and indicate:

- a) Blades engaged
- b) Parking brake on
- c) Seat without operator
- d) Low fuel
- e) Defect in engine lubrication
- f) Missing grass-catcher or stone-guard
- g) Insufficient battery recharge
- h) Lights on

The audible warning has two meanings:



- 1) **continuous** – the electronic card's protection device has cut in;  
– low oil level (▶ HF2213).
- 2) **intermittent** – warning that the grass-catcher is full.

#### 8. HOUR-COUNTER

This starts working every time the key (5) is put into the «ON» position and shows the number of hours the engine has been running.

#### 9. BLADE ENGAGEMENT AND BRAKE LEVER

This lever has two positions, as shown on the label:

-  Position «A» = BLADES DISENGAGED
-  Position «B» = BLADES ENGAGED

If the blades are engaged when safety conditions have not been complied with, the engine shuts down (see 5.3).

On disengaging the blades (Pos. «A»), a brake is simultaneously activated which stops their rotation in a few seconds.

#### 10. 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.

**11. GRASS-CATCHER RELEASE BUTTON**

This button, when pressed and brought back to the position «A», releases the lower hooking device for the grass-catcher so that it can be emptied. In order to re-hook it, press the button again, returning it to the normal operating position «B».

**12. LOCKING LEVER FOR THE GRASS-CATCHER'S OR STONE-GUARD'S HOOKING DEVICE**

There are three positions for this lever:

- A** to open the grass-catcher's upper hooking system so that it can be completely removed;
- B** working position;
- C** the position for attaching the stone-guard.

**IMPORTANT**

*In normal use, working with the grass-catcher attached, the lever should always be in position «B».*

► **For mechanical drive models:**

**21. CLUTCH / BRAKE PEDAL**

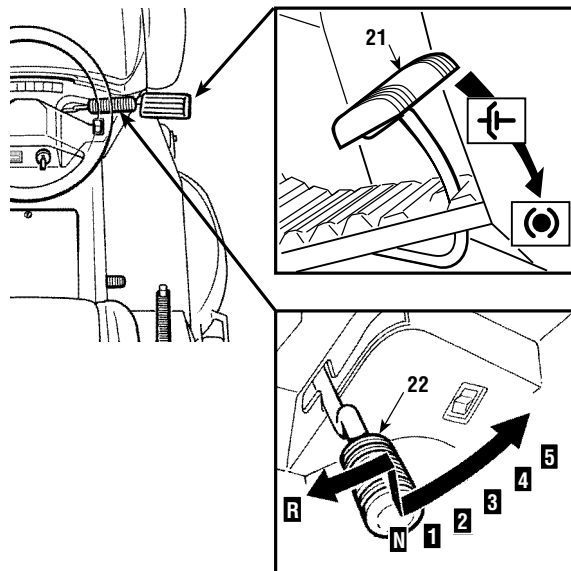
This pedal has a double function - during the first part of its travel it acts as a clutch, engaging and disengaging drive to the wheels, and in the second part it acts as a brake on the rear wheels.

**IMPORTANT**

*It is important not to take too long in using the clutch as this can cause overheating and damage the transmission belt.*

**NOTE**

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





● **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 (21) half way and move the lever as per the indications on the label.

● **⚠ WARNING!** *Reverse must only be engaged when the lawn-tractor is stopped.*

▶ **For hydrostatic drive models:**

● **31. BRAKE PEDAL**

- On hydrostatic drive models this pedal is solely for braking and works on the rear wheels.

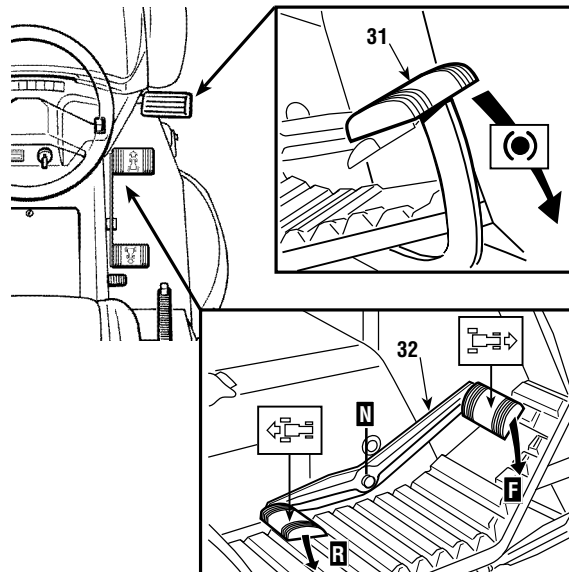
● **32. DRIVE ENGAGEMENT PEDAL**

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

- The pedal automatically goes into neutral «N» when released.

- 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 lawn-tractor.

- Similarly, reverse is engaged by pressing the pedal with the heel, in the «R» direction.



## 5. HOW TO USE THE MACHINE

**⚠ DANGER!** **REMEMBER THAT THE USER IS ALWAYS RESPONSIBLE FOR DAMAGE AND INJURIES TO OTHERS.** Before using the machine, read the safety requirements shown in chapter 2, paying particular attention to driving and cutting on slopes. 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 safe working, particularly on slopes or rough, slippery and unstable ground. This lawn-tractor must not be used on slopes greater than 10° (17%).

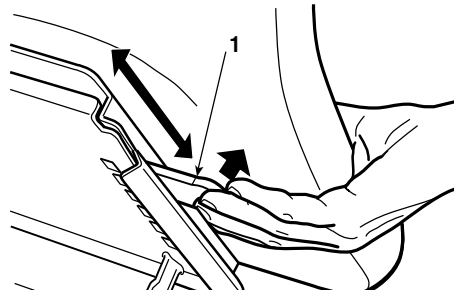
**⚠ WARNING!** If the lawn-tractor is likely to be used mostly on sloping ground (max. 10°), fit counterweights (supplied on request) beneath the cross-bar of the front wheels which improves stability at the front and reduces the chance of tipping up.

**IMPORTANT** All references regarding the positions of controls are shown in chapter 4.

### 5.1 DIRECTIONS BEFORE STARTING

#### SEAT ADJUSTMENT

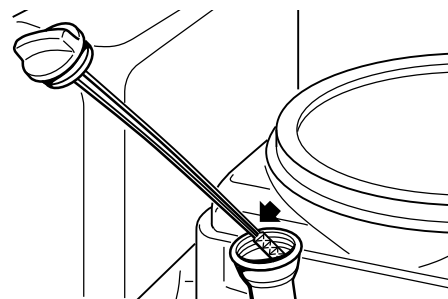
The sliding seat can be adjusted into 6 positions. The adjustments are made by pulling the handle (1) and making the seat slide until the notch of desired position is reached.



#### REFUELLING

**NOTE** The oil and fuel to use are indicated in the engine booklet.

With engine stopped, check its oil level



which 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.



**H 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 USE FLAMES IN ORDER TO SEE THE TANK'S CONTENTS AND DO NOT SMOKE WHEN REFUELLING

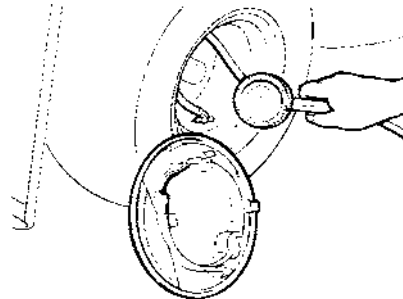
TYRE PRESSURE

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GSPOU UZSFT	2/6!cbs
SFBS!UZSFT	2/3!cbs



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

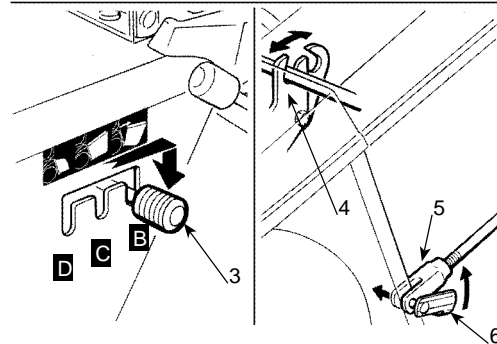
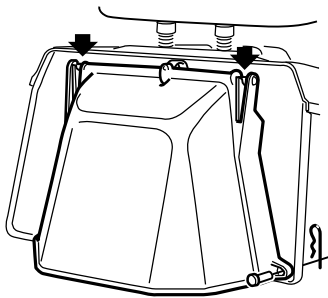
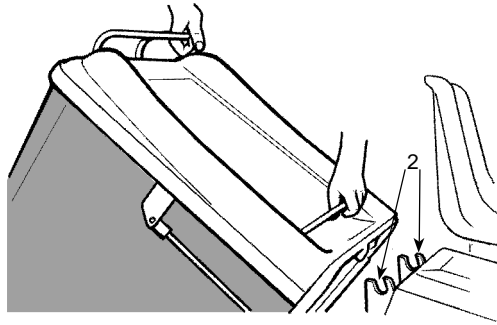
**H WARNING!** Never use the machine without having fitted the exit protection!

Bubdi !ü f !hsbt t .dbudi f sjot f sjoh!ü f !vqqf slwcf !pgü f !gñ f !joup!ü f !t rpuü !pgü f

3!t vqppst !)2\*/

Csjoh!ù f !rfwf sl)3\*!joup!qpt jypo!° BΩ  
 i ppl !ù f !hsbt t .dbudi f slp!ù f !t vq.  
 qpst !)4\*!boe!sf wso!ù f !rfwf sl)3\*!up  
 qpt jypo!° CΩ!

Di f dl !ù blù f !gpd !ú sn jobrt)5\*!pgù f  
 qjt upot !jt !dpsf duz!dpoof dñ e!up!ù f  
 f ehf !pgù f !qrñf !x ju !ù f !qjot !)6\*/



Ti pvra!zpv!n px !x ju pvuvt joh!ù f !hsbt t .dbudi f s!gùù f !pqjopobrñ upof .hvbse!! ju  
 x i jdi li bt !up!cf !jot ubñe!bt !joejdbuf e/

.blpsef slp!bubdi !ù f !t upof .hvbse!ù f !rfwf sl)3\*!t i pvra!cf !cspvhi up!qpt jypo!° DΩ

**H WARNING!** *There is a micro-switch which stops the engine or prevents starting when the blades are engaged if the grass-catcher or stone-guard are not in position. IT IS VERY DANGEROUS TO TAMPER WITH OR LIMIT THE EFFECTIVENESS OF THIS DEVICE!*




BLADE CHECK

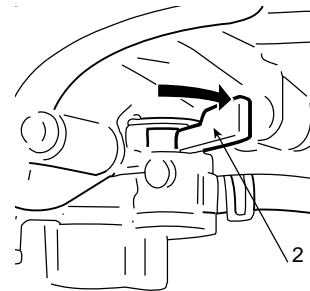
Di f dl !ù bucrñef t !bsf !t i bsqf of e!qspqf sz!boe!gñ rz!gyf e!up!ù f !sf rñwbodi vct !/B  
 cberz!t i bsqf of e!crñef !qvrñ!blù f !hsbt t !boe!dbvt f t !ù f !rñx o!up!wso!zf rñpx/



5.2 STARTING AND MOVING


STARTING

**H DANGER!** *All starting operations have to be effected in an open or well ventilated area! ALWAYS REMEMBER THAT EXHAUST GASES ARE TOXIC!*

- Cf gsf !t uhsjoh!ù f !f ohjof ;
- ≈ P qf o!ù f !g/f rñ upq.dpd! !)2\*(  HF2213)<
- ≈ Qvulù f !t qf f eldi boh f !rñw f s(  for mechanical drive models) psù f !esw f !qf ebrt!  for hydrostatic drive models) jop!of v!sbrt!° OΩ<
- ≈ Qvulpo!ù f !qbs joh!csbl f <
- ≈ Qvulù f !cñef !f ohbh f n f oufñw f sjop!ù f !ejt f ohbh f qpt jppo!° BΩ/



- Bgf sx bset ;
- ≈ Jt uhsjoh!gn !dpre-lqvmù f !di pl f !( HF2218) psn pwf !ù f !bddf rñsbpsrñw f s up!ù f !° DI PLFΩqpt jppo!t i px olpo!ù f !rñcf rñ  <
- ≈ Jù f !f ohjof !jt !brf bez!x bsn -!qvulù f !rñw f scf ux f f o!° TMP X Ωboe!° GBTUΩ<
- ≈ Qvuljo!ù f !f z!boe!wso!up!° P OΩup!n bl f !f rñdusjdbrt!poubdu!ù f o!wso!up ° TUBSUΩup!t uhsù f !f ohjof !/Sf rñbt f !podf !ù f !f ohjof !i bt !t uhsf e/

X i f olù f !f ohjof !jt !svoojoh-lqvulù f !bddf rñsbpsrñw!ù f !° TMP X Ωqpt jppo!boe ejt f ohbh f !ù f !di pl f !( HF2218)/

**NOTE** *The choke must be disengaged as soon as the engine is running normally. Using it when the engine is warm dirties the spark plugs and makes the engine run erratically.*

**NOTE** *Should you have difficulties in starting do not continue to use the starter motor for a long time 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 booklet.*

**IMPORTANT**

Always bear in mind that the safety devices prevent the engine starting when:

- the parking brake is not on;
- the blades are engaged;
- the gear lever (▶ for mechanical drive models) or the drive pedal (▶ for hydrostatic drive models) is not in neutral («N»).

In these cases, once the situation has been corrected, the key must first be turned back to «OFF» before restarting the engine.

**NOTE**

▶ In hydrostatic drive models, if the drive pedal is used for forward or reverse movement when the parking brake is on, the engine stops..

## MOVING WITHOUT MOWING

**H! WARNING!**

**The lawn-tractor 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 lawn-tractor, the blades must be disengaged and the cutting deck put at its highest position (position «7»).

▶ **For mechanical drive models:**

- Qvu!ù f !bddf rñsbupslrñw! scf ux f f olù f !° TMPX Ωboe!°GBTUΩqpt jypot -!boe!ù f
- hf bsdi boh! rñw! sljolu! f !2t ut qf f e!qpt jypo/

- Lf f q!ù f !qf ebr!qsf t t f e!epx olboe!ejt f ohbh! !ù f !qbs joh!csbl f !/!T rpx rñ!sf rñb.
- t f !ù f !qf ebr!x i jdi !x jñw!sol!gn !° csbl f Ωup!° dñw!di Ω!ù vt !pqf sbjoh!ù f !sf bs
- x i f f rñ/

**NOTE**

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

- Hsbvbrñ!sf bdi !ù f !ef t j!f e!pqf sbjoh!t qf f e!vt joh!ù f !bddf rñsbupslboe!hf bs
- rñw! s!Up!di boh! !ù f !hf bst qf f elù f !dñw!di !n vt ucf !vt f e!qvt i joh!jdep!o!i brg
- x bz/

▶ **For hydrostatic drive models:**

- 
- Qvluü f !bddf rñsbupsl dpousprñjo!b!qpt jüpo!cf ux f f o!° TMP X Ωboe!°GBTUΩ
- Lf f qjoh!ü f !csbl f !qf ebrñqs f t t f e-lejt f ohbhf !ü f !qbsl joh!csbl f !boe!ü f o!sf rñb.
- t f !ü f !qf ebrñ
- Qsf t t !ü f !esjwf !f ohbhf n f ouqf ebrñjo!ü f !° GΩejsf djpo!boe!hp!up!ü f !sf r vjsf e
- t qf f elcz!qspñs t t jwf rñ!jods f bt joh!qsf t t vsf !po!ü f !qf ebrñboe!n pwjoh!ü f !bddf .
- rñsbupsl bqspqsjbñf rñ/
- 
- Ui f !qsf t t vsf !po!ü f !qf ebrñ vt ucf !hsbevbrñ!bqqññ e!bt !bt veef olf ohbhf n f ou
- pgesjwf !up!ü f !xi f f rñ!n bz!dbvt f !jqjoh!boe!rpt t !pgdpousprñpñü f !rñx o.übdups/

BRAKING

▶ **For mechanical drive models:**

- 
- Up!csbl f -!gñ usf evdf !ü f !t qf f el!po!ü f !bddf rñsbupsl up!bwpje!pwf spbejoh!ü f
- csbl f !bt t f n crñ!boe!ü f o!qvt i !ü f !dpn cjo f el!dmudi @csbl f !qf ebrñepx o!gñrñ/

▶ **For hydrostatic drive models:**

- 
- Up!csbl f -!sf rñbt f !ü f !esjwf !qf ebrñ i jdi !x jññp!jop!ü f !° OΩqpt jüpo-l dbvt joh
- ü f !rñx o.übdups!t rñx lepx o!dpot jef sbcrñ!!Ui f o!qsf t t !ü f !csbl f !qf ebrñp
- gñsü f !sf evdf !ü f !t qf f el!vojññi f !rñx o.übdups!t upqt /

REVERSE

▶ **For mechanical drive models:**

- 
- Sf wf st f !dbolcf !f ohbhf e!POMZ x i f o!ü f !rñx o.übdups!jt !t upqqf e!/Qvt i !epx o
- ü f !qf ebrñvojññi f !übdups!t upqt !boe!ü f oljot f s!sf wf st f !cz!ññjoh!ü f !rñwf sboc
- qvujoh!jop!qpt jüpo!° SΩ!Hsbevbrñ!sf rñbt f !ü f !dmudi !qf ebrñp!cf hjo!n pwjoh!jo
- sf wf st f /

▶ **For hydrostatic drive models:**


- 
- Sf wf st f !dbolcf !f ohbhf e!POMZ x i f o!ü f !rñx o.übdups!jt !t upqqf e!/X i f o!ü f
- rñx o.übdups!jt !t upqqf e-lt übsü f !sf wf st f !n pwñ n f oucz!qsf t t joh!ü f !esjwf !qf ebrñ
- jo!ü f !° SΩejsf djpo/

### 5.3 GRASS CUTTING

#### ENGAGING BLADES AND FORWARD MOVEMENT

X i f olzpvli bwf !sf bdi f elu f !bsf b!up!cf !n px f e-


≈ qvlu f !bddf rnsbups!joup!u f !°GBTUQ!qpt jypo<  
 ≈ f ohbhf !u f !crbef t !cz!qvujoh!u f !rnf s!joup!qpt jypo!°CQ<  
 ≈ t ub!n pwjoh!gsx bset !wf sz!hsbevbm!boe!x ju !qbsjdvrs!dbvypo!bt !brf bez  
 ef t dsjcf e/

Fohbhf !u f !crbef t !x ju !u f !dvujoh!ef dl !jo!u f !i jhi f t dqpt jypo!boe!u f o!hsbevbm  
 r!hpl!up!u f !i f jhi usf r vjsf e!Up!bdi jf wf !hppe!dprndjpo!boe!f wf o!dvujoh!pgu f  
 hst t -!di ppt f !b!gsx bset!qf f e!up!t vjuu f !r vbojuz!pghsbt t !up!cf !dvu)i f jhi uboe  
 ef ot juz\*!boe!u f !r!x o(t !i vn jejuz!jo!rjof !x ju !u f !gmpx joh!joejdbjpot !! (  for  
*mechanical drive models*):

- High and dense grass - wet lawn      1st speed
- Average condition grass                2nd - 3rd speed
- Low grass - dry lawn                      4th speed


#### NOTE

*The fifth gear is solely for moving from one area to another on horizontal surfaces.*

 For hydrostatic drive models, u f !t qf f eljt !hsbevbm!boe!qsphf t t jwf r!bekv.  
 • t uf e!up!u f !dpoejypot !pgu f !r!x o!cz!u f !bn pvoupgqsf t t vsf !polu f !esjwf !qf ebr!

B rpx f st qf f el!t i pvra!brn bzt !cf !t f rhd f eljgzpv!opu !b!sf evdypo!jo!f ohjof !t qf f e-  
 t jodf !b!gsx bset!qf f e!u bujt !upp!qpt dx jntopudvu f !hst t !x f r!h  
 Ejt f ohbhf !u f !crbef t !boe!qvlu f !dvujoh!ef dl !jo!u f !i jhi f t dqpt jypo!x i f of wf s  
 zpv!of f e!up!hf dqbt ubo!pct ubdrf/

#### **H** WARNING!

 *In hydrostatic models, when in use (particularly when working extra hard) it is in the nature of the hydrostatic unit to get up to high temperatures which are, however, quite normal and have no adverse effect on the machine's functioning. For this reason it is forbidden, as well as being a waste of time and dangerous, to remove the side and upper doors in the hope of improving ventilation. Moving or high temperature parts inside CAN CAUSE BURNS AND INJURIES IF THESE PROTECTIVE COVERS ARE REMOVED.*

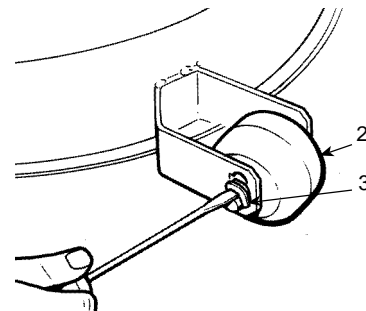


CUTTING HEIGHT ADJUSTMENT

Ui f li f jhi djt !bekvt uf elcz!pqf sbjoh!ú f !rhwf sx jú !8! f jhi dqpt júpot !/

LEVELLING SMALL WHEELS

Ui f !pckf dúpgú f !rhwf rjoh!t n brhx i f f rnl)2\*!jt !up n bjobjoh!b!df sbjoh!ejt ubodf !cf ux f f o!ú f !hspvoe boe!ú f !f ehf !pgú f !dvujoh!ef dl !x i f o!jdt !jo!ú f rpx f t úi f jhi dqpt júpo-!up!qsf wf odjdebh bhjoh!ú f rax o!!b!ú f !i jhi f sqpt júpo!ú f z!i bwf !op!f gú du/



Up!di boh f !ú f !qpt júpo-!voi ppl lú f !t qshoh!)3\* x jú !b!t dsf x .eswf slup!bl f !pvúú f !qjo!boelú f o sf bt t f n crh!bt !qsf gú sf e/

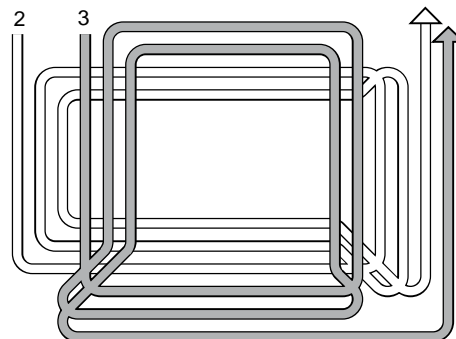
**⚠ WARNING!** *This operation must always be done to the 4 wheels WITH THE ENGINE STOPPED AND BLADES DISENGAGED.*

HOW TO OBTAIN A GOOD CUT

1. Ui f !rhx o(t !bqqf bsbodf !x jmhcf !cf t djgzpv!dvujoh!brh sobú !ejf djpot -!brx bzt !bu ú f !t bn f !i f jhi u

2. Jú f !dprndpsst zt uf n !crpdl t !vq!zpv!t i pvre!sf evdf !ú f !gpx bse!t qf f elbt !ju dpvre!cf !upp!i jhi !gstu f !rhx o!dpoejúpot / Jú jt !epf t !oput pwh !ú f !qspcrhn -!jdt !qspcbrz!evf !up!vot i bsqf of elcrbef t !psú f x joht !polú f !crbef t !i bwjoh!cf dph f !ef gsn f e!)t f f !di bqú s8\*/

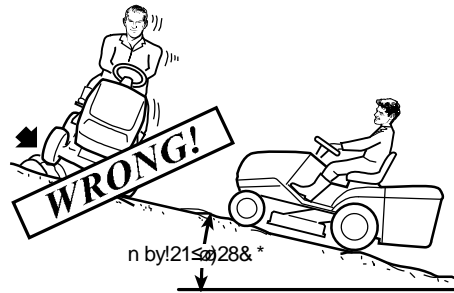
3. Jú f !hsbt t !jt !wf sz!ubnjut i pvre!cf n px f elx jdf !.!podf !buú f !n byjn vn !dvvujoh!i f jhi u!boe!qf si bqt !sf evdjoh!ú f dvujoh!x jeú -!gmpx f elcz!b!t f dpoel!dvubu ú f !sf r vjsf e!i f jhi u



4. Cf !wf sz!dbsf gntx i f o!n px joh!of bs cvt i f t !psl f sct !x i jdi !dpvre!brh slú f i psj{pobrtqpt júpo!pgú f !dvujoh!ef dl !ps ebn bhf !jt !f ehf !psú f !crbef t /

## SLOPES

Dpn qrzjoh!x jü !ü f !t rpaqf !rjm jü !brsf bez  
 n f oypof e-lrax ot !po!b!t rpaqf !i bvf !up  
 n px f e!n pwjoh!vq!boe!epx o!boe!of wf s  
 bdspt t !ü f n -!ubl joh!hsf budbsf !x i f o  
 di bohjoh!ejf djpo!ü bulü f !i jhi f sx i f f rn  
 ep!opüi jlpct ubdrft !t vdi !bt !t upof t -  
 csbodi f t -!sppü -!f ud/\*-!ü buln bz!dbvt f !ü f  
 rax o. usbdups!up!t rjef !t jef x bzt -!üq!pwf slps  
 pü f sx jt f !dbvt f !rpt t !pgdpousprh



**H DANGER!** **REDUCE SPEED BEFORE ANY CHANGE OF DIRECTION ON SLOPES and always engage the parking brake and a low gear before leaving the lawn-tractor stopped and unattended.**

▶ **For mechanical drive models:**

- 
- 
- **H DANGER!** **Never ride the lawn-tractor on slopes in neutral gear or with the clutch disengaged! Always engage a low gear before leaving the lawn-tractor stopped and unattended.**
- 
- 

▶ **For hydrostatic drive models:**

- 
- Npwf !po!t rpaqf t !x jü !ü f !eswf !qf ebrtjo!ü f !° OΩqpt jüpo-!)up!ubl f !bewboubhf !pg
- ü f !i zespt ubjd!voju!t !csbl joh!f g! du!boe!ü f o!gysü f slf evdf !ü f !t qf f e!vt joh
- ü f !csbl f -!jgof df t t bsz/
- 
- **H DANGER!** **Never use reverse for reducing speed going downhill.**
- **Control of the machine could be lost particularly on slippery surfaces.**

## EMPTYING THE GRASS-CATCHER

**NOTE** *This operation can only be done with the blades disengaged, otherwise the engine stops.*

Ep!opurfnú f !hsbt t .dbudi f slcf dpn f !upp!gym  
 bt !ú jt !n bz!crpd! !ú f !dprndupslci boof rh  
 B gmnhsbt t .dbudi f sljt !t jhobrfne!cz!bo!jouf s.  
 n ju! oubvejcrh!x bsojoh. Blú jt !qjou

- ≈ hpl!joup!of v!sbrh)O\*!boe!t upq!gpx bse!n pwf .  
n f ouk
- ≈ ejt f ohbhf !ú f !crbef t !boe!ú f !t jhobrtx jrm  
t upq<
- ≈ rpx f slú f !f ohjof !t qf f e/

Up!f n quz!ú f !hsbt t .dbudi f s;

- ≈ qsf t t !ú f !cvupo!)2\*x i jdi !sf rrbt f t !ú f  
f n quzjoh!t zt ú f n !Esbx !ú f !cvupo!cbd! !t p  
ú búj!jt !i f ræ!epx o<
- ≈ rjg!ú f !hsbt t .dbudi f slcz!i præjoh!ú f !i boerh!)3\*/



Up!f ot vsf !ú blú f !hsbt t .dbudi f sli ppl t !qspqf s!z!joup!qpt jypo!j!jt !of df t t bsz!up  
 sf rrbt f !ú f !cvupo!cf gsf !sf wsojoh!ú f !hsbt t .dbudi f sljoup!ú f !x ps! !qpt jypo/

SAFETY DEVICE INTERVENTIONS

Sf n f n cf slú blú f !f ohjof !t upqt !x i f o;

- ≈ X JI !CMBEFT!FOHBHFE!psX I FO!O!HFBS!ú f !vt f shf ú !vq!gpn !ú f !t f but
- ≈ X JI !CMBEFT!FOHBHFE!ú f !hsbt t .dbudi f sljt !rjg! e!ps!ú f !t upof .hvbse!jt  
sf n pwf e/

SUMMARY OF THE CONDITIONS WHEREBY THE SAFETY DEVICES PERMIT OR STOP WORK

OPERATOR	GRASS-CATCHER	BLADES	GEAR	BRAKE	ENGINE	LAMPS
<b>A) STARTING</b>						
Sitting	YES	ENGAGED	1-5 - F/R	ON	Does NOT start	MMmmmmMm
Sitting	NO	ENGAGED	-/-	ON	Does NOT start	MMmmmmMMm
Sitting	NO	ENGAGED	-/-	OFF	Does NOT start	MmmmmMMm
Sitting	NO	DISENGAGED	1-5 - F/R	ON	Does NOT start	mMmmmmMMm
Sitting	NO	DISENGAGED	«N»	ON	Starts	mMmmmmmm
Absent	YES	DISENGAGED	«N»	ON	Starts	mMMmmmmmm
Absent	NO	DISENGAGED	«N»	ON	Starts	mMMmmMmm

**B) WHILE CUTTING**

Sitting	YES	ENGAGED	1+5 - F/R	OFF	Running	Mmmmmmmm
Absent	YES	DISENGAGED	«N»	OFF	Running	mMmmmmmm
Sitting	NO	ENGAGED	-/-	OFF	Stops	MmmmmMmm
<b>Absent</b>	YES	ENGAGED	1+5 - F/R	OFF	Stops	MMmmmmmm

**BOARD PROTECTION DEVICE**

Ui f !f rñduspojdcpbæli bt !b!t f rñsf t f ujoj!qspuf dupsx i jdi !csf bl t !ù f !djsdvjùjgù f sf jt !b!ðvrdjo!ù f !f rñdusjdbri zt uf n /!J!sf t vrd !joloù f !t upqjoh!pgù f !f ohjof !boe!bo bvejcrñ!t jhobrñ i jdi !dbo!porz!cf !t upqf elcz!sf n pwjoh!ù f !f z/

Ui f !djsdvjùsf t f ut !bgf sb!g x !t f dpoet !cvluù f !dbvt f !pgù f !ðvrdit i pvre!cf !bt df s ubjof e!boe!ef brñx jù !p!bwpe!sf .bdjwbjoh!ù f !qspuf djpo!ef wjdf /

**IMPORTANT**

*To avoid activating the protective device:*

- do not reverse the battery terminals' polarity;
- do not use the lawn-tractor without its battery or damage may be caused to the charging regulator;
- be careful to not cause short-circuits.

**WARNING LIGHTS**

Ui f !gyf rñ bsojoh!rñi djogsn t !zpv!ù bujo!ù f !ubol !ù f sf !bsf !porz!3!rñsf t !pgyf m x i jdi !jt !f opvhi !ps41.51!n jovuf t !pgx ps /

**NOTE**

*If the following pilot lamps light while running:*

- battery: see chapter 7 of this booklet;
- oil: means that there is no oil so the engine must be stopped immediately.

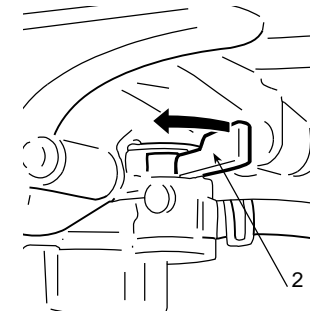
END OF MOWING

X i f olzpv!i bwf !gojt i f e!n px joh-lejt f ohbf !ü f !crnef t !boe!sjef !ü f !rbx o. usbdups x jü !ü f !dvujoh!ef dl !jo!ü f !i jhi f t dqpt jüpo/

T upq!ü f !rbx o. usbdups!f ohbf !ü f !qbs! joh!csbl f !boe!wso!pgü f !f ohjof !cz!wsojoh ü f !jhojüpo!! f z!up!° P GGQ

X i f olü f !f ohjof !jt !t upqf e-!drpt f !ü f !g/f r!dpdl !)2\*!  
(▶ HF2213)/

**H WARNING!** *Always take out the ignition key if leaving the lawn-tractor unattended!*



5.4 CLEANING AND STORAGE

CLEANING

Bgf slf bdi !n px joh-!drnbo!ü f !pvü jef !pgü f !rbx o. usbdups!f n quz!ü f !hsbt t .dbudi f s boe!t i bl f !j!up!sf n pwf !sf t jevbr!nsbt t !boe!f bsü /

Drnbo!ü f !qr!bt yd!qbst !pgü f !cpez!x jü !blebn qlt qpohf !vt joh!x bü sb!boe!ef ü s hf ou!ubl joh!dbsf !opul!x f üü f !f ohjof -!ü f !f r!ndusj!dbr!qbst !psü f !f r!nduspoj!d!dbse r!p!dbuf elvoef slü f !ebt i cpbæ/

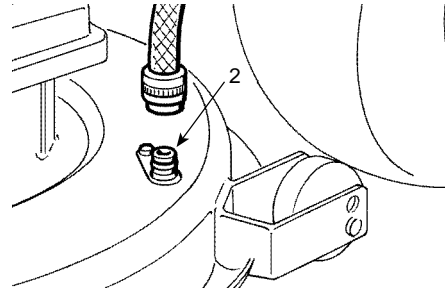
**IMPORTANT** *Never use hose-nozzles or harsh detergents for cleaning the body and engine!*

WASHING THE INSIDE OF THE CUTTING DECK

Ui f !rbx o. usbdups!i bt !up!cf !qv!upo!g!sn !hs!pvoe!x jü !ü f !t upof .hvbse!ps!hsbt t .dbu di f sjo!qpt jüpo!/X bt i joh!ü f !jot jef !pgü f !dvujoh!ef dl !boe!ü f !dpr!ndups!di boof m

jt !lepof !cz!dpoof d!joh!b!x b!f s!i pt f !p!f bdi !pg!f f !g!joh!t!)2\*!pof !b!b!l!j!n f -!boe  
svoojoh!x b!f sl! s!pvh! !g!sb!g x !n jov!f t !f bdi -!x j! ;

- ≈ !f !pqf sb!p!st f b!f e<
- ≈ !f !f ohjof !svoojoh<
- ≈ !f !hf bs!jo!of v!sb!r!
- ≈ !f !qbs! joh!c!sbl f !po<
- ≈ !f !c!r!b!ef t !f ohb!hf e/



X i f o!x bt i joh-!u f !dvujoh!ef dl !t i pv!r!e!cf  
jo!u f !g!r!n!r!p!x f s!f e!qpt j!p!o/  
Ubl f !p!g!u f !hsbt t .dbud! f s!f n qz!boe  
s!ot f !ju!boe!u f o!q!v!j!j!o!b!q!pt j!p!o!p  
bt t jt !r v!jdl !eszjoh/

STORAGE AND INACTIVITY FOR LONG PERIODS

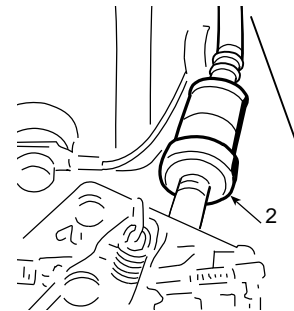
T!p!s! !u f !r!b!x o. !s!bd!p!s!j!t!b!lesz!q!r!b!d!f !p!q!s!p!f d!j!j!g!p!n !c!b!e!x f b!u f s!boe-!j!d!q!pt t j.  
c!r!n-!d!p!v!f s!x j! !b!d!r!p!u /  
J!j!u f !r!b!x o. !s!bd!p!s!j!t !r!j!h f r!z!p!c!f !v!ovt f e!g!s!b!r!p!oh!q!f s!j!p!e!)n p!s!f !u bo!2!n poui \*-  
e!jt d!p!oof d!u! f !s!f e!d!b!c!r!n!g!p!n !u f !c!b!u!f s!z!boe!g!r!p!x !u f !j!ot !s!v!d!j!p!ot !j!o!u f !f ohjof  
c!p!pl r!h!u!M!w!c!s!d!b!u!f !b!m!p!j!ou! !bt !e!j!s!f d!u!f e!j!o!di b!q!f s!7/

**H 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!*

F!n qz!u f !g!y!f r!h!bol !cz!e!jt d!p!oof d!joh!u f !w!c!f !t j!w!b!u!f e  
b!u!f !j!or!h!p!g!u f !g!y!f r!h!j!n!d! s!)2\*!boe!g!r!p!x !u f !j!ot !s!v!d!j!p!ot  
jo!u f !f ohjof !c!p!pl r!h!u!

Q!f s!j!p!e!j!d!b!r!n!d!i f dl !u b!u!f !c!b!u!f s!z!w!p!r!b!h!f !j!t !op!u!r!p!x f s  
u bo!23!V!p!r!e!p!u f s!x j!t f !s!f di b!s!h!f !u f !c!b!u!f s!z/

U!i f !of y!u!j!n f !u f !r!b!x o. !s!bd!p!s!j!t !v!t f e-!di f dl !u b!u!f f s!f  
b!s!f !op!g!y!f r!h!r!n!bl t !g!p!n !u f !w!c!f t -!g!y!f r!h!p!dl !p!s!d!b!s!c!v!s!f u  
p!s!



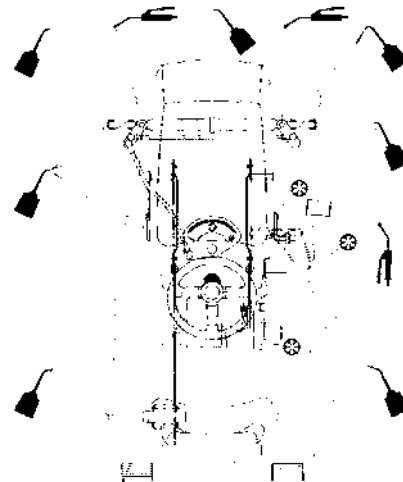
## 6. MAINTENANCE

**⚠ WARNING!** Before cleaning, maintenance or repair work, take out the ignition key and read the relevant instructions. Wear suitable clothing and strong gloves.

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

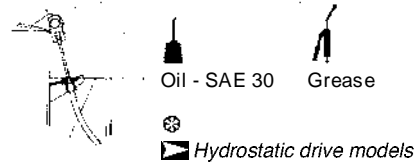
### GENERAL LUBRICATION

Comptu f lejhsbn !ti px oli f sf lü buljoejdb. uf t !bnqjout !p!cf !mcsjdbuf elboe!ü f !uzqf pdmcsjdbou!p!cf lvt f e/ Hf of sbmcsjdbüpo!ti pvr!cf !dbssjfe!pvubu rñbt upodf !b!n pou !psx i f of wf slü f !n bdi j. of !jt !p!cf !rñglvovt f e!psb!poh!qf sje/



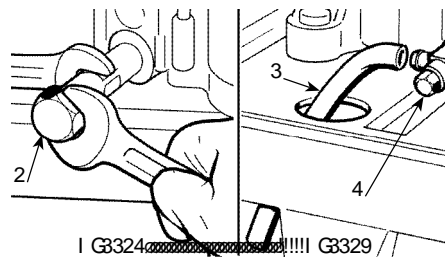
### ENGINE

Comptu f !jot usvdjpot !jolu f !f ohjof !cppl . rñusf hbsejoh!n f ü pet !boe!gf r vf odz!pg n bjouf obodf !)bjs!pjrñboe!gf rñjñ st -!di bo. hjoh!pjrñdrñbojoh!t qbs !qmrñt -!f ud\*/



- ▶ up!f n qz!ü f
- f ohjof !pjrñvot dsf x !ü f !qmrñ!)2\*/!X i f o
- sf gujoh!ü f !qmrñ!dbsf gmrñsf .qpt jypo!ü f
- tf brñ

- ▶ On the model HF2218, up!f n qz!pjrñü f
- t vqqrñe!wcf !)3\*/!i bt !p!cf !dpoof dñ e!p
- ü f !t qf djbrñgujoh!Üi f olpqf olü f !ubq!)4\*/
- Drpt f !ü f !ubq!bhbjopodf !ü f !pjrñ bt
- cf f olf n qjñ e/



### GEAR BOX AND DIFFERENTIAL (▶ for mechanical drive models)

Ui f t f !bsf !qf sn bof ouz!mcsjdbuf elx jü !hsf bt f !ü bñepf t !op!of f eldi bohjoh/

HYDROSTATIC UNIT (▶ *for hydrostatic drive models*)

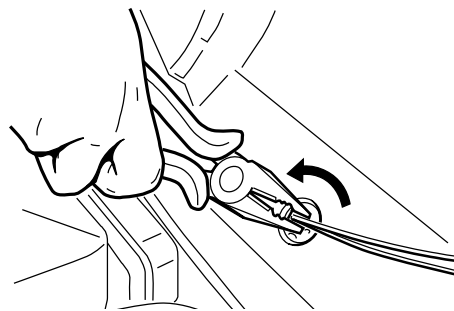
Ui jt !jt !bln bjoúf obodf .gf f !t johrh!t f brne!crpdl /

BATTERY

Gpmpx !ú f !jot usvdjpot !jo!ú f !cbuf sz!cppl rñu

CHANGING BULBS

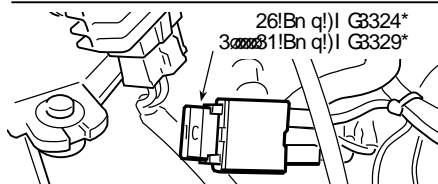
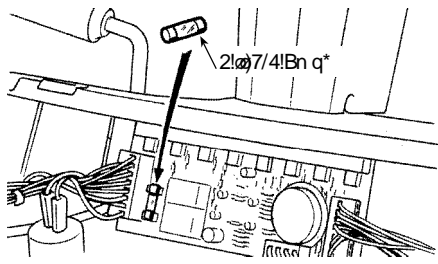
Cvrat !)27X \*!i bwf !b!cbzpod ugujoh!boe  
bsf !jot ubrñe!jo!ú f !cvra!i pref slx i jdi !dbo  
cf !ubl f olpgcz!wsojoh!jubouj.drpd x jt f  
vt joh!qrñ st /



ELECTRICAL SYSTEM

Ui f !f rñduspoj!dbse!boe!ú f !f rñdusjdbm  
t zt ú n !bsf !qspuf dú e!cz;

- ≈ B t f rñsf t f ujoh!ef wjdf !x i jdi !csf bl t !ú f  
djsdvjux i f o!ú f sf !jt !b!grodjpo!gvrñ  
boe!jt !bddpn qbojf e!cz!bo!bvejcrñ  
t jhobrñ x i jdi !dpojovf t !vojrhñ i !f z!jt  
sf n pwf e!X i f o!ú f !qspcrñn !i bt !cf f o  
sf t pñv elú f !t zt ú n !bvupn bjdbrñ  
sf t f ú !bgf sb!g x !t f dpoet /
- ≈ B 7/4B ef rñzf elgt f !)2\*!gñstú f !qspuf d.  
jpo!pgú f !hf of sbrñboe!qpx f sdjsdvjút !pg  
ú f !t zt ú n !Ui jt !n vt ucf !sf qñrñdf e!bgf s  
i bwjoh!f rñm jobúf e!ú f !gvrñ



X i f olboz!pgú f t f !ef wjdf t !bsf !bdjwbuú e-lú f !rñx o. usbdpslt upqt /

B gyt f !)3\*-!pg26B (▶ HF2213) ps!31B (▶ HF2218), jt !brñp!qspwef e!gñsqsp.  
úf djoh!ú f !sf di bshf !djsdvju

**IMPORTANT** A blown fuse must always be replaced by one of the same type and ampere rating, and never one of a different rating.

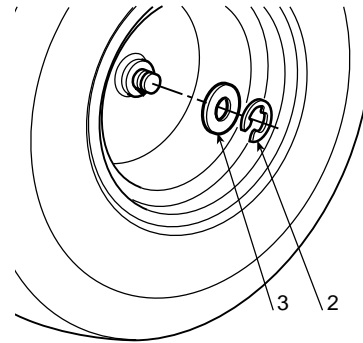
Jjzpv!dboopúgoe!ú f !dbvt f !pgú f !qspuf djpo!ef wjdf (t !bdjwbuújpo-lspot vrdzpvv  
Ef brñs



CHANGING WHEELS

Turn the tractor off and disconnect the battery. Remove the old wheel by loosening the axle nut and washer. Insert the new wheel, ensuring it is the correct size and type. Tighten the axle nut and washer to the correct torque.

Use the correct size and type of wheel. Use the correct size and type of axle nut and washer. Use the correct torque for the axle nut and washer. Use the correct torque for the axle nut and washer.



**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 and washer (2).

CHANGING AND REPAIRING TYRES

Use the correct size and type of tyre. Use the correct size and type of tyre. Use the correct size and type of tyre. Use the correct size and type of tyre.

CHAIN TENSION

Use the correct size and type of chain. Use the correct size and type of chain. Use the correct size and type of chain. Use the correct size and type of chain.

**H DANGER!** The lawn tractor is equipped with a maintenance-free automatic double chain tensioner. However, it is essential to periodically check its efficiency and check that the pinions are in good condition, and also the state of wear of the chain, to eliminate the risk of the chain becoming dislodged causing the loss of control of lawn-tractor **ESPECIALLY ON SLOPES.**

CHANGING BELTS

Ui f !n p!p!o!gpn !u f !f ohjof !p!u f !sf bsbyr!n!boe!gpn !u f !n p!p!o!p!u f !c!r!b!ef t !jt p!c!b!j!of e!c!z!x p!u!s!b!q!f { p!j!e!b!r!c!f r! !boe!b!e!p!v!c!r!n!d!p!h!h!f e!c!f r!

**NOTE** Belts must always be replaced as soon as they are seen to be worn! ALWAYS USE GENUINE SPARE BELTS!

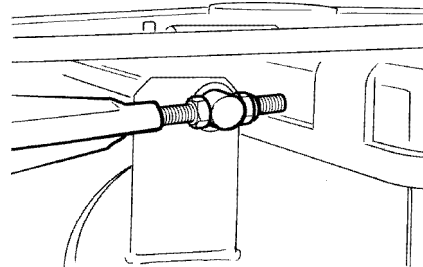
Sf q!r!b!d!j!o!h!c!f r! !jt !r v!j!f !b!d!p!n q!r!b!d!b!u!f e!q!s!p!d!f t t !p!g!e!j!t n b!o!u!j!o!h!b!o!e!l!t v!c!t f r v!f o!u b!e!k!v!t u!n f o!u!b!o!e!n v!t !p!o!r!z!c!f !d!b!s!s!j!f e!l!p!v!u!c!z!z!p!v!s!E!f b!r!n!s!

BELT ADJUSTMENT

B!e!k!v!t !j!o!h!u!f !c!f r! !jt !r v!j!f !b!e!j!g!d!v!n!p!q!f s!b!j!p!o!b!o!e!t p!l!j!j!t !c!f u!f s!r!n!g!l!p!z!p!v!s!E!f b. r!n!s!

ENGINE - BLADE BELT

Ti p!v!r!z!p!v!l!o!p!u!f !u f !c!f r!d!t u!f u!d!i j!o!h!-!s!f t v!n!j!o!h j!o!r!p!t t !p!g!f g!j!d!j!f o!d!z!b!u!u!f !d!v!u!f s!z!p!v!d!b!o b!e!k!v!t u!u!j!t !c!z!t i j!g!j!o!h!u!f !x i p!r!n!d!v!u!j!o!h!e!f d!l g!s!x b!s!e!t !p!s!c!b!d!l x b!s!e!t !c!z!f r v!b!r!n!l!w!s!o!j!o!h!u!f o!v!t !p!g!u!f !5!g!t u!f o!j!o!h!q!p!j!o!u!t /



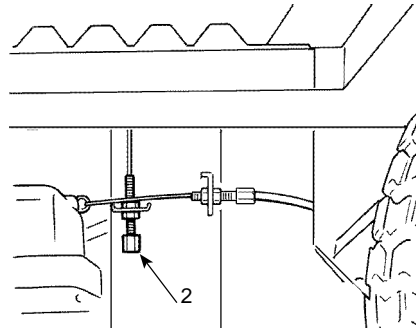
BLADE CONNECTING BELT

Ui f !u!f o!t j!p!o!p!g!u!j!t !c!f r!d!i b!t !u!p!c!f !f g!f d!u!f e!l!c!z u!w!s!o!j!o!h!u!f !t d!s!f x !)2\*!b!t !n v!d!i !b!t !o!f d!f t t b!s!z b!g!f s!l!i b!w!j!o!h!s!f r!n!b!t f e!u!f !g!y!j!o!h!o!v!u!t !)3\* x i j!d!i !l!i b!w!f !u!p!c!f !j!h!i u!f o!f e!l!b!h!b!j!o!b!g!f s!l!u!f b!e!k!v!t u!n f o!u!

CUTTING DECK ADJUSTMENT

Ui f !dvuf slef dl !ti pvra!cf !qbsbrnrtx ju !u f hspvoe!p!pcubjo!b!hpe!dvu

Qvuü f !rbx o.übdps!po!b!gult vsçdf !boe f ot vsf !ü f !dpsf duzsf !qsf t t vsf !ü f o!n pwf ü f !shi uboe!rfng!bekvt uf st !2\*!jrtü f !f ehf t !pg ü f !ef dl !bsf !ü f !t bn f !ejt ubodf !gpn !ü f hspvoe!polcpu !t jef t /



Ui jt !ejt ubodf !i bt !p!cf !di f dl f elbux pü sf f !ejgf sf oudvujoh!i f jhi ut !boelx ju !ü f pqf sbupst f bü e/

**NOTE** For achieving good results from cutting, the front part should always be 2 - 4 mm lower than the rear.

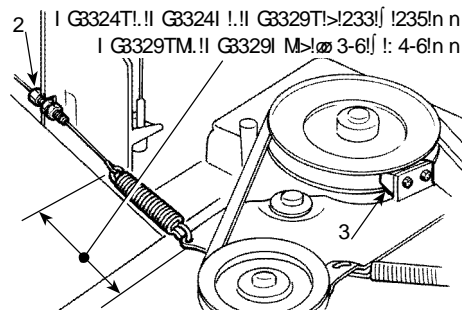
Üzpv!bsf !vobcrn!p!hf üü f !dvujoh!ef dl !qbsbrnrtx!dpot vnzpvs!Ef brns!

ADJUSTMENT TO BLADES ENGAGEMENT AND BRAKE

X i f olzpv!pqf sbü f !ü f !rfwf slup!ejt f ohbf !ü f !crbef t !zpv!pqf sbü f !buü f !t bn f ün f !ü f !csbl f !ü but upqt !ü f !crbef t !x ju jo!b!g x !t f dpoet /

B cberz!gyodypojoh!csbl f !jt !vt vbmz!evf !p!x f bsjo!ü f !csbl f !rjo!joh!)3\*/

B t uf üü f eldbcrn!dbo!cf !dpn qf ot bü e!cz wsojoh!ü f !bekvt yoh!ovü)2\*!jrtü f !dpsf du t qsjoh!ü ot jpo!)n f bt vsf e!gpn !ü f !pvü s f oet !pgü f !t qsjoh!x ju !ü f !crbef t !f ohb. hf e\*!jt !pcubjof e/



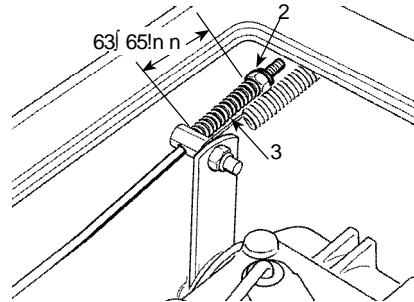
SETTING THE BRAKES

**NOTE**

Do not exceed the spring tensions shown to avoid overloading the brake unit.

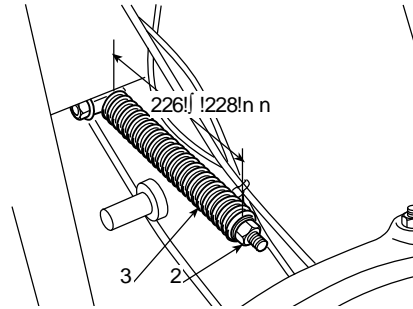
**For mechanical drive models:**

- Ui jt !t f ujuh!jt !n bef !po!ú f !ovd)2\*x i jdi
- dbo!cf !sf bdi f e!cz!ubl joh!pgú f !eppspo
- ú f !woof r!bu f !cbt f !pgú f !t f bu
- Tdsf x joh!ú f !ov!epx o!po!ú f !spe!hjw t
- hsf bu scsbl joh!dbqbdjz/
- X jú !ú f !qf ebr!dpn qrfú r!qsf t t f e!boe
- qbs joh!csbl f !f ohbhf e-!ú f !t qjoh!r!nohú
- )3\*!t i pvra!cf !pg63! 65!n n /



**For hydrostatic drive models:**

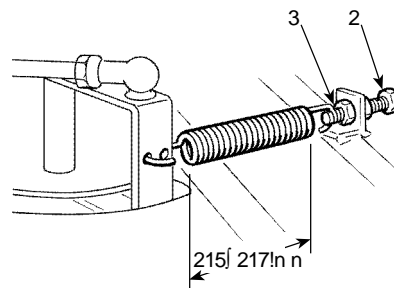
- Ui f !t f ujuh!jt !n bef !po!ú f !ovd)2\*x i jdi
- dbo!cf !sf bdi f e!cz!esbx joh!pvlu f !gvf m
- ubol !t jef x bzt !bgf si bwjoh!voepof !ú f !ux p
- t dsf x t /!X jú !t pn f !f ohjof !uzqf t !jun bz!cf
- of df t t bsz!p!brnp!sf n pwf !ú f !dpwf s!psú f
- f r!ndu!poj!dbse!boe!ú f !x jsf !dpoof d!jpot /
- Tdsf x joh!ú f !ov!epx o!po!ú f !spe!hjw t
- i jhi f scsbl joh!dbqbdjz/
- X jú !ú f !qf ebr!dpn qrfú r!qsf t t f e!boe
- qbs joh!csbl f !f ohbhf e-!ú f !t qjoh!r!nohú !3\*!t i pvra!cf !226! 228!n n -!n f bt v.
- sf e!gpn !ú f !joof sqbs!pgú f !x bt i f s'



ADJUSTING THE DRIVE ENGAGEMENT

**For mechanical drive models:**

- Ti pvra!zpv!opú !b!esq!jol!qpx f s!ubot n jt .
- t jpo-!zpv!dbo!bekw t ú f !t qjoh!f ot jpo!p
- ú f !dpssf d!bn pvod)215! 217!n n \*!cz!rpp.
- t f ojuh!ú f !r!pd joh!ovú !3\*!boe!vot dsf x joh
- ú f !t dsf x !2\*!bt !n vdi !bt !of df t t bsz!!Sf .



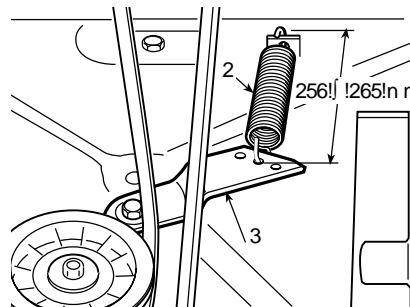
- yjhi úf olú f !ovú !bgi sli bwjoh!n bef !ú f !bekvt un f ou
- Fydf t t jwf !t qsjoh!úf ot jpo!n bz!dbvt f !ú f !t veef olf ohbhf n f oupgú f !dmudi
- x i jdi !n bz!dbvt f !ú f !tox o. usbdups!p!yq/
- Úp!sf bdi !ú f !t qsjoh!lbi f !pgú f !eppspgú f !woof r!bú f !cbt f !pgú f !t f bu

**NOTE**

When replacing the belt, take great care when using for the first few times as the engagement may be sudden until the belt is sufficiently run in.

**For hydrostatic drive models:**

- Újút f n t !ú bú f !gpx bæ!eswf !jt !opu
- x ps! joh!qspqf sz!evf !p!b!di boh! !jo!r!nohú
- pgú f !cf r!bgi sli bwjoh!cf f o!sf qrbdf e!ps
- bgi sbl!poh!qf sjpel!pgvt f -!zpv!d!bo!bekvt u
- ú f !úf ot jpo!pgú f !t qsjoh!)2\*!cz!vt joh!pof
- pgú f !ú sf f li prft !qspwef e!polú f !úf ot jp.
- of slrhvf s!)3\*!voj!r!ni f !joejdbúf e!r!nohú !)256
- Á 265!n n \*!jt !bdi jf wf e!n f bt vsf e!gn !ú f
- pvúf slqbs!pgú f !f zf r!ú



**SHARPENING BLADES**

Cr!ef t !ú búsf !cberz!t i bsqf of e!úf bsbú f !hsbt t -!sf evdf !dpr!ndjpo!boe!n bl f ú f !tox ol!ws!zf mpx /!Úp!sf n pwf !b!c!ref -li pr!j!ugsn rz!x f bsjoh!t uspoh!h!pwf t !boe voeplú f !df ousbr!n dsf x !)2\* in the direction indicated by the arrow for each blade, noting that one of the fixing screws has a right-hand thread and the other one has a left-hand thread.

Ti bsqf olú f !ux pl!dvujoh!f ehf t !vt joh!b!n f ejvn !hsbef !hsjoejoh!x i f r!boe!di f dl ú f !cbr!odf !cz!i pr!joh!ú f !c!ref !vq!x jú b!spvoe!29!n n !ejbn f úf slcbs!jot f sáf e!jo ú f !df ousbr!n prf/

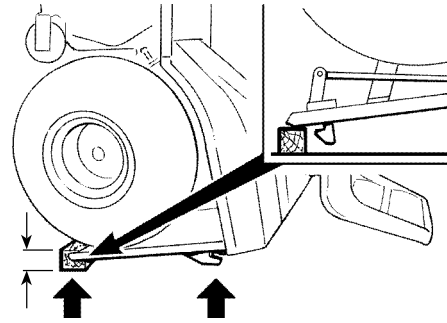
**H WARNING!**

**Damaged or bent blades must always be replaced; never try to repair them! ALWAYS USE MANUFACTURER'S GENUINE SPARE BLADES BEARING THE SYMBOL ▲!**



joejdbuf e!qpjou !tbl joh!dbf !opulplebn b.  
hf !u f !hst t .dbudi f st vqqpst /

**H DANGER!** *Be sure of the good stability of the lawn-tractor before carrying out any type of work on the machine and avoid operations which may cause it to fall over.*



## 7. TROUBLESHOOTING

PROBLEM	SITUATION	LIKELY CAUSE	SOLUTIONS
1. No panel lights and no audible warning	Key in «ON» position, engine stopped	Electronic board in safety alert <ul style="list-style-type: none"> <li>– misconnected battery</li> <li>– completely flat battery or eroded battery plates</li> <li>– battery terminals crossed</li> <li>– fuse blown</li> <li>– badly earthed</li> </ul>	Put key into «OFF» and look for cause of problem <ul style="list-style-type: none"> <li>– check connections</li> <li>– recharge battery</li> <li>– connect properly</li> <li>– replace fuse (6.3A, delayed)</li> <li>– check connections</li> </ul>
2. No panel lights, but audible warning	Key in «ON» position, engine stopped	Electronic board in safety alert <ul style="list-style-type: none"> <li>– wet electronic board</li> <li>– earthed micro-switches</li> </ul>	Put key into «OFF» and look for cause of problem <ul style="list-style-type: none"> <li>– blow-dry</li> <li>– check connections</li> </ul>
3. Oil warning light and audible warning	Key in «ON» position, engine stopped	– Low oil level (▶ HF2213)	Put key into «OFF» <ul style="list-style-type: none"> <li>– top up with oil</li> </ul>
4. Starter motor not working	Key in «START» position and panel lights on	<ul style="list-style-type: none"> <li>– insufficiently charged battery</li> <li>– badly earthed</li> <li>– you are not ready for starting</li> </ul>	<ul style="list-style-type: none"> <li>– recharge battery</li> <li>– check connections</li> <li>– put on the parking brake (if the relevant light is not lit, check the micro-switch)</li> <li>– disengage the blades (if the problem continues, check relevant micro-switch)</li> <li>– put the gear (▶ <i>mechanical</i>) or the pedal (▶ <i>hydrostatic</i>) into neutral (N)</li> </ul>
5. Engine does not start	Key in «START» position	<ul style="list-style-type: none"> <li>– insufficiently charged battery</li> <li>– faulty fuel supply</li> <li>– faulty ignition</li> </ul>	<ul style="list-style-type: none"> <li>– recharge battery</li> <li>– check fuel level</li> <li>– open fuel stop-cock (▶ HF2213)</li> <li>– check the wire system assembly of carburettor opening (▶ HF2218)</li> <li>– check fuel filter</li> <li>– check spark plug hoods fitted properly</li> <li>– check cleaning and correct distance of the electrodes</li> </ul>



PROBLEM	SITUATION	LIKELY CAUSE	SOLUTIONS
6. Starting is difficult or the engine works erratically	Key in «ON» position, engine running	– fuel fault	<ul style="list-style-type: none"> <li>– clean or replace air filter</li> <li>– flush out the float chamber</li> <li>– empty fuel tank and refill with new fuel</li> <li>– check and, if necessary, replace fuel filter</li> </ul>
7. Weak engine performance during cutting	Key in «ON» position, engine running	– forward speed too high relative to grass to be cut	– reduce the forward speed and/or raise the cutting deck
8. Engine stops when blades engaged	Key in «ON» position, engine running	– you are not ready to engage blades	<ul style="list-style-type: none"> <li>– sit firmly on seat, if problem continues, check micro-switch</li> <li>– check that the grass-catcher or stone-guard are correctly positioned. If problem continues, check micro-switch</li> </ul>
9. The battery warning light does not go out after several minutes of work	Key in «ON» position, engine running	– battery insufficiently charged	<ul style="list-style-type: none"> <li>– check connections</li> <li>– check the fuse of the charging circuit</li> <li>– check the relay of the charging circuit</li> </ul>
10. Oil warning light on, and ... ... audible warning (▶ HF2213) ... no audible warning (▶ HF2218)	Key in «ON» position, engine running	<ul style="list-style-type: none"> <li>– low oil level (▶ HF2213)</li> <li>– low oil pressure (▶ HF2218)</li> </ul>	Put the key in «OFF» position <ul style="list-style-type: none"> <li>– top up oil</li> <li>– replace oil filter</li> <li>– top up oil</li> <li>– replace oil filter</li> </ul>
11. Engine stops with audible warning	Key in «ON» position, engine running	Electronic board in safety alert due to: <ul style="list-style-type: none"> <li>– earthed micro-switch</li> <li>– battery chemically active but not charged</li> <li>– overload caused by the charge regulator</li> <li>– battery misconnected (poor contact)</li> <li>– engine badly earthed</li> </ul>	Put key into «OFF» and look for cause of problem: <ul style="list-style-type: none"> <li>– check connections</li> <li>– recharge battery</li> <li>– contact your Dealer</li> <li>– check battery connections</li> </ul>

PROBLEM	SITUATION	LIKELY CAUSE	SOLUTIONS
12. Engine stops without audible warning	Key in «ON» position, engine running	<ul style="list-style-type: none"> <li>– unconnected battery</li> <li>– no earth connection to engine</li> <li>– engine problems</li> </ul>	<ul style="list-style-type: none"> <li>– check battery connections</li> <li>– check engine earth connection</li> <li>– contact your Dealer</li> </ul>
13. Blade warning light remains lit when blades disengaged	Key in «ON» position, engine running	<ul style="list-style-type: none"> <li>– the lever does not return to the disengaged position due to grass cuttings blocking the lever</li> </ul>	<ul style="list-style-type: none"> <li>– clean the joint of all grass deposits (access via inspection cover)</li> </ul>
14. Uneven cut and poor grass collection	Key in «ON» position, engine running	<ul style="list-style-type: none"> <li>– cutting deck not parallel to the ground</li> <li>– blades cutting badly</li> <li>– forward speed too high compared to height of grass</li> <li>– collector channel is obstructed</li> <li>– cutting deck full of grass</li> </ul>	<ul style="list-style-type: none"> <li>– check tyre pressures</li> <li>– re-align the cutting deck to the ground</li> <li>– check the direction in which blade is assembled</li> <li>– sharpen the blades or replace them</li> <li>– check the tension of the belt and the clutch cable</li> <li>– reduce the forward speed an/or raise the cutting deck</li> <li>– wait for grass to dry</li> <li>– remove the grass-catcher and empty the collector channel</li> <li>– clean cutting deck</li> </ul>
15. Unusual vibrations whilst cutting	Key in «ON» position, engine running	<ul style="list-style-type: none"> <li>– the blades are unbalanced</li> <li>– blades not securely tightened</li> <li>– loosened screws</li> </ul>	<ul style="list-style-type: none"> <li>– balance or replace damaged blades</li> <li>– check tight fitting of blades (careful of left pitch on righthand blade)</li> <li>– check and tighten the fastening screws of engine and frame</li> </ul>

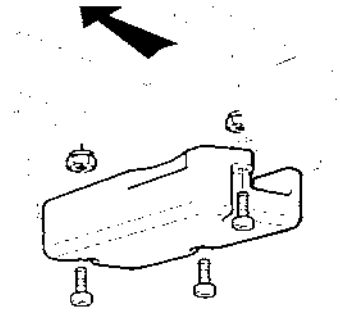
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**H ATTENTION!** *Do not take on complicated repair work if you don't have the necessary equipment and the technical knowledge. The guarantee is automatically revoked and the manufacturer declines all responsibility for any repairs which are badly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

## 8. ACCESSORIES ON REQUEST

### 1. FRONT COUNTERWEIGHTS

Ui f t f !jn qspw !t ubcjrjz!bulü f !gpoulpgü f !rtax o.usbd.  
ups!qbsjdvrbz!x i f olcf joh!vt f e!po!hsvoelx i jdi  
jt !n pt uz!t r!qjoh/



### 2. STONE-GUARD KIT

Gpsvt f !jo!qr!bdf !pgü f !hsbt t .dbudi f slx i f olü f !dvu  
yoh!t !bsf !opul!cf !dpr!ndü e/

