

AMAZONE

POWER UNIT OF THE PROFIHOPPER

Machine series PH04

OPERATING MANUAL

and

MAINTENANCE NOTEBOOK mach.-nb: PH04 _ _ _ (*)

Mow, scarify, aerate in all conditions



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(*) Please indicate the machines' number

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PREFACE

The Profihopper is a self-propelled implement for scarifying and mowing from the comprehensive product range of the AMAZONEN-WERKE, H. Dreyer GmbH & Co. KG.

In order to make full use of your newly purchased “AMAZONE-Profihoppers”, please carefully read and adhere to this operation manual before starting to operate your machine.

Especially adhere to the safety advice and warning symbols on your machine.

Ensure that all operators read this operation manual before they operate the machine.

Your Profihopper complies only with the regulations of the agricultural health and safety authorities when in case of repair original spare parts of AMAZONE are used for replacement.

This operating manual is valid for the AMAZONE Profihopper. The operating manual for the mowing unit is delivered separately with the machine.

1. Details about the machine

1.1 Range of operation

The AMAZONE-Profihopper has been designed for mowing and scarifying lawns, sportfields, parks etc. In Autumn it sweeps, collects and chops fallen leaves.

1.2 Manufacturer

AMAZONE Machines Agricoles S.A.

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1.3 Conformity declaration

The Profihopper fulfils the requirements of the EU Guide Line machines 89/392/EC and the corresponding additional guide lines.

1.4 Details when making enquiries and ordering

When ordering options or spare parts, please always state the serial number of your Profihopper.



The safety requirements are only fulfilled when, in the event of repair, original AMAZONE spare parts are used. Using other parts may rule out the liability for resulting damage.

1.5 Identification of the machine

Identification plate on the machine (ill. 1a).



ill. 1a

1



The entire identification is of documentary value and may not be changed or disguised!

1.6 Technical data

Engine:

Lombardini FOCS Diesel; water-cooled; 3 cylinders 1028 cm³;
18 KW (24,5 HP).

Fuel tank volume: 20l

Drive system:

hydro static, 2 hydro static motors and 2 adjustable pumps

Speed:

0 to 10 km/h, steplessly adjustable

Steering system:

Selection of wheel motors (O-Radius steering)

Brake:

hydro static + parking brake

Mowing unit control:

electromagnetic

Tyres:

Front: 20x10,00-10-4 PR or 21x11,00-10-4 PR

Rear: 15x6,00-6-4PR

Dimensions including mowing unit :

Length : 2,67 m

Width : 1,48 m

Height : 1,58 m

Weight including mowing unit:

955 kg empty, 1.250 kg palyload

1.6.1 Noise levels

Sound pressure (value) ratio taken at the workstation is: $L_pA = 90 \text{ dB(A)}$.
Measured at driver's hearing level whilst operating the machine.
Maximum noise level value allowable to conform with the European guideline 2000/14/CE: $L_wA = 105 \text{ dB(A)}$.

1.6.2 Vibration levels

- vibrations measured in accordance to the European norm EN 1033 on the hand and the arm of the operator: $4,6 \text{ m/s}^2$.
- vibrations measured in accordance to the European norm EN 1032 on the body of the operator: $1,0 \text{ m/s}^2$

1.7 Inappropriate use of the machine

The AMAZONE-Profihopper has been designed for use exclusively on turf's. It has been designed for mowing, scarifying and collecting the mown grass and leaves in Autumn.

Any use beyond those stipulated above is not considered designed use and the manufacturer does not accept any liability or responsibility for damage arising from this; therefore the operator carries the full risk.

The concept of "designed use" requires the operator to adhere to the recommended maintenance and repair programmes and to ensure that any spare parts used are **genuine AMAZONE spare parts**.

The AMAZONE-Profihopper should only be operated, maintained and repaired by persons, who are familiar with the machine and aware of the relevant dangers posed.

Observe all advice regarding accident prevention and adhere to the general regulations pertaining to health- and safety and traffic in your country. Strictly follow the warning- and advice signs on the machine, its components and options.

Modifications made to the AMAZONE ProfiHopper by the owner/ user may result in damage and therefore the manufacturer does not accept liability for damage to modified machines.

2. Safety advice

This operators manual contains basic advice that should be observed when mounting, operating and maintaining the machine. Therefore, this operators manual must be read by the operator prior to use and must be made available to him.

All the safety advice given in this manual should be carefully observed and adhered to.

2.1 The risks of not adhering to the safety advice

Not adhering to the safety advice

- may result in endangering persons, the environment and the machine itself.
- may result in the loss of any claim for damage.

Not paying attention to the safety advice may cause the following risks:

- Failure of important functions.
- Failure of prescribed measures for maintenance and repair.
- Danger to persons by mechanical or chemical means.
- Danger to persons or the environment from leaking hydraulic oil or diesel.

2.2 Qualification of the operator

The AMAZONE-Profihopper may only be operated, maintained and repaired by persons, who are familiar with it and have been informed of the relevant danger.

2.3 Specification of “hints” in the operation manual

2.3.1 General danger symbol



Safety advice considered necessary to avoid the risk of personal injury is identified with the general danger symbol (according to DIN 4844-W9).

2.3.2 Attention symbol



Advice to avoid damage to the machine or working environment is identified with the Attention symbol.

2.3.3 Hint symbol

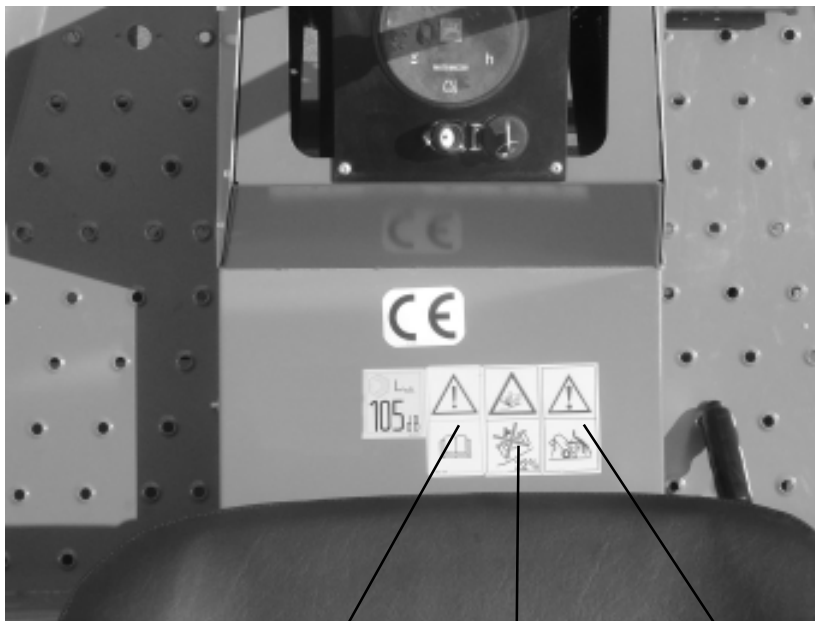


Advice regarding the machine's specific operating functions which should be followed for a faultless performance are identified with the hint symbol:

2.3.4 Warning pictographs and hint symbols on the machine

- The warning pictographs indicate dangerous points on the machine. These pictographs should always be observed for safe operation of the machine. Warning pictographs always appear with safety/warning symbols.
- The hint symbols indicate specific points that have to be observed to ensure maximum performance.
- Strictly observe all warning pictographs and hint symbols!
- Please pass on all safety advice to other users!
- Always keep all warning pictographs and hint signs clean and legible.

- Please replace damaged symbols. These can be ordered from your dealer (picture-number = Order-number).
- The illustrations 1b and 2 show the display points for warning pictographs and hint signs. Please refer to the following pages for relevant explanations.



ill. 1b

MD 095

991675

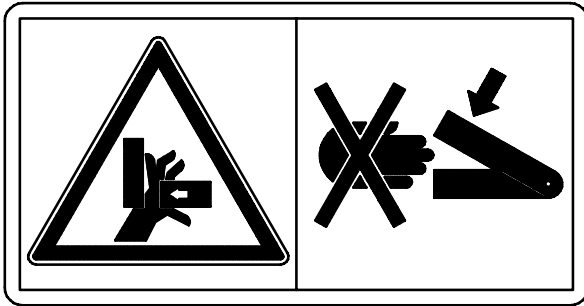
991676



MD 078

MD 081

ill. 2



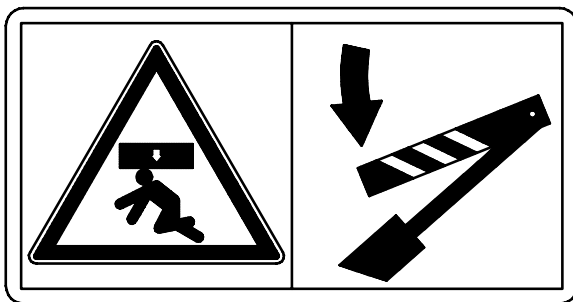
MD078

Fig. No.: MD078

Explanation :

Advise people to leave the danger zone!

Never reach into the crushing area as long as parts may move!



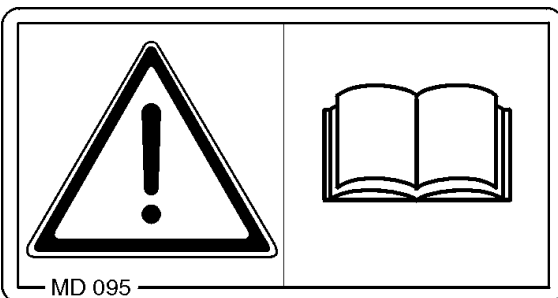
MD081

Fig. No : MD081

Explanation :

Before entering the danger zone, lock the lifting rams !

Secure lifting cylinder with locking device before getting in hazardous area.



MD095

Fig. No.: MD095

Explanation:

Carefully read operator's manual before handling the machine.

Observe instructions and safety rules when operating !

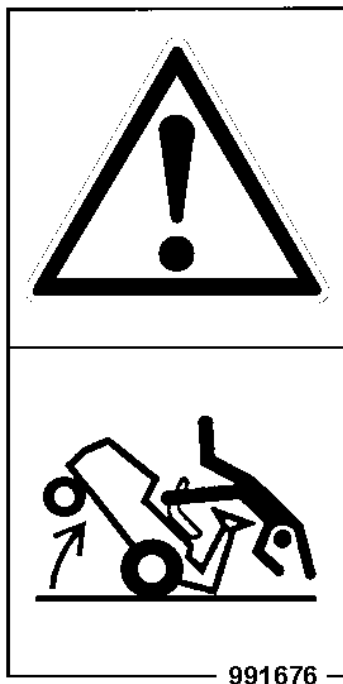


Fig. No. : 991676

Explanation :

Danger of tipping over in driving direction.

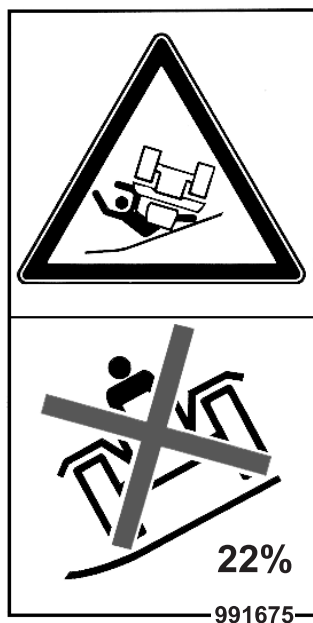


Fig. No.: 991675

Explanation :

Avoid operation on slopes where the machine may slide down or tip over.
Max. inclination : **22%**.

2.4 Safety conscious operation

Besides the safety advice in this operators manual, the national and generally accepted operational safety and accident prevention regulations of the authorised trade association are binding.

The safety advice indicated on the machine stickers must be observed.

2.5 Safety advice for the operator

2.5.1 General safety and accident prevention advice



Basic principle!

Always check traffic and operational safety before putting the machine into operation!

1. Adhere to the general health and safety precautions as well as to the hints in this instruction manual.
2. Follow the warning and hint signs fixed to the machine. They are there for your safety.
3. Become acquainted with all the machine controls before operating the machine. Do not wait until you are using the machine.
4. While working the operator of the machine must wear close-fitting and appropriate safety accessories.
5. Before commencing operation, check to see that nobody is in the way (particularly children) and that you have good all round visibility.
6. Standing on the machine, or carrying passengers, during operation or transport is not allowed.

7. Do not let anybody stand near the machine when operating.
8. Reverse with caution, beware of children!
9. Avoid sudden turning.
10. Do not use on steep hills.
11. Before dismounting the machine, apply the parking brake, stop the engine and remove the ignition key!
12. Being constantly exposed to noise nuisances can damage the hearing aid and even cause deafness.
Therefore it is absolutely necessary for the operator of the machine to wear adequate soundproof protection (ear protectors or soundproof helmet).
A safe operating of the machine requires the whole attention of the operator: so it is necessary to avoid listening music or radio with ear- or headphones while working.

Operating on slopes (max. 22%)

1. Do not turn suddenly.
2. Drive slowly.
3. Avoid sudden starting and stopping.
4. **Do not use on slopes with an inclination greater than 22%.**

Filling the Diesel tank

1. Do not remove the filler cap with the engine running.
2. No naked flames or smoking.
3. Clean up spillage's with caution.

Stowage advice for the machine

When strapping the machine for transport, it is advised to use protection hoses on the strap!



ill. 3

Transport and storage

1. When loading onto a trailer, use ramps with a non skid surface and a gentle angle of inclination.
2. When driving the machine onto a trailer or truck, exercise extreme caution.

ATTENTION!



The machine must always be loaded and transported in forward driving direction. The hood of the hopper can be locked (with help of the plastic key) when loading on a trailer (see chap. 5.6 page 33).

3. During transport on a trailer the engine must be switched off, the parking brake applied and the machine must be strapped down.

4. Do not cover the machine until it has completely cooled due to the fire risk.
5. Ensure that the hopper is emptied after use, composting grass is a fire risk!
6. Never push the machine if its motor is switched off !

2.5.2 General safety and accident prevention advice for maintenance, repair and cleaning

1. Repair, maintenance, cleaning operations and adjustments should be conducted with the machine stationary, drives and engine switched off and the ignition key removed.
2. When carrying out maintenance work on the hopper, ensure the rams supports are locked!
3. Dispose of all oil, grease and filters in a responsible manner!
4. Disconnect the power supply before working on the electrical system!
5. Before conducting electric welding, remove the leads from the alternator and battery.
6. Use only genuine **AMAZONE spare parts**. Any spare parts fitted must meet with the manufacturers specification!
7. Never open the radiator when the engine is running or still warm. Wait until the motor has entirely cooled down.
8. Warning! - The hydraulic system is under high pressure.
9. When connecting hydraulic rams the prescribed connection of the hydraulic hoses has to be noted.

10. Regularly check hydraulic hoses for signs of ageing or damage and replace where necessary. Ensure replacement hoses are of an equal specification.
11. When searching for leaks in the hydraulic system – avoid exposing skin to possible contact.
12. Liquids (hydraulic oil) under high pressure may penetrate the skin and cause severe injuries. In case of injury seek medical attention immediately as there is a risk of infection.
13. Before commencing work on the hydraulic system, lower the implement, relieve the system from pressure and switch off the engine.
14. No hose circuit should be used for more than six years, including a maximum of two years storage. Even hoses stored and used correctly will age. Deviations from these guide lines may be made according to experience and an assessment of the risk. For hoses made of thermo plastics, other guide lines may prevail.

3. On receipt of the machine

Check that no damage has been caused in transit and all parts are present, otherwise no responsibility can be accepted by us or the carrier. Check whether all parts listed in the delivery note are present.

Eventual damages must always be specified on the delivery slip in the presence of the lorry driver.

Before commencing work, remove all packing material, wire, etc. and check that all lubrication points are well supplied with grease, oil, etc..

4. Dashboard and controls

4.1 Dashboard (ill. 4)



Never use a high pressure cleaner while cleaning the dashboard !

1. Hopper filling control lamp
The hopper is full when it blinks.
2. Battery charge control
If the charge control lamp does not go out after the engine has been started, check the charge procedure (possibly the control lamp only goes out at a slightly higher motor speed).
3. Collecting system control lamp
When it lights up, the mowing unit switches off automatically, because the feeding augers are no longer turning (because of foreign objects for example).
4. Control lamp parking brake
When the parking brake is disengaged the control lamp goes out.
5. Mowing unit control
Switches on when the mowing unit is functioning.
6. Heater starter indication of the Diesel engine
(Please refer to starting procedure chapter 5.4).
7. Indicator
8. Operating hours counter
9. Cooling water temperature indicator
Green lights = coolant fluid temperature is normal
Red lights = engine overheats.
10. Cooling water overheating indicator
When it lights up, the mowing unit is switched off automatically! Let the engine run at moderate rpm for approximately 5 min. and check the temperature indicator. If the temperature is increasing, cut the engine. Check the coolant fluid level and top up if necessary. Check the cleanness of the radiator and its screen and clean it if necessary. If the warning light does not switch off after the engine has been started again, inform your workshop.

11. Oil pressure control

If it lights up immediately stop the engine and check the oil level. If necessary top up the oil. If the warning lamp does not go out after the engine has been started again, inform your workshop.

12. Control lamp path control system is working (option)

Applies only to machines equipped with the path control system. It lights when the system is switched on.

13. Control lamp

Indicates whether the hopper is in the operational position. A safety switch stops the engine if the hopper is accidentally lifted during operation. In this case the hopper has to be brought into operational position, the engine has to be started again and the mowing unit has to be engaged.

Ignition key

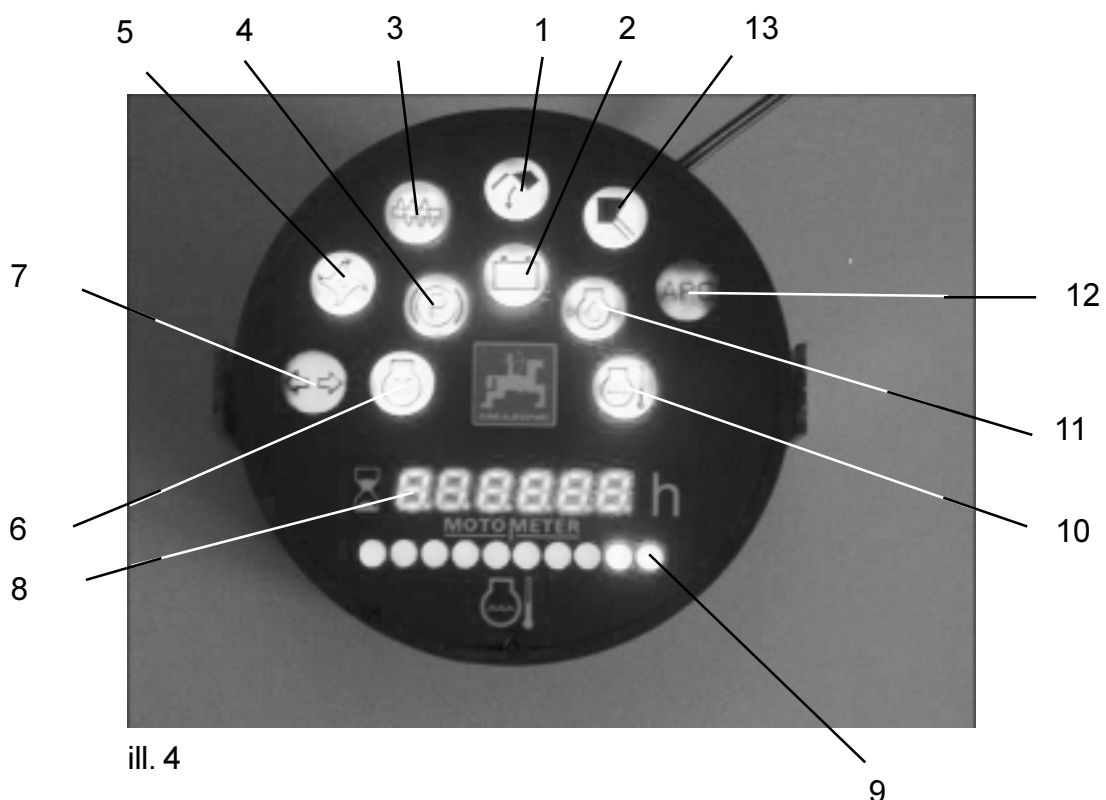
Pos. 0 = Stop

Pos. 1 = Operation, heating

Pos. 2 = Start

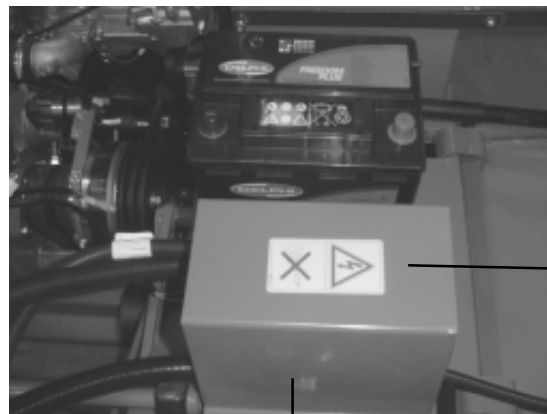


Take off the ignition key and close the flap while cleaning!

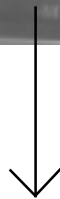


4.2 Fuse box under the seat carrier (ill. 5a + 5b)

Two fuses are in the fuse box. Remove the fixing screws to open the box. The replacement fuses are in the tool box under the seat carrier. In all cases, replace broken fuses.



ill. 5a



ill. 5b

Fuse 15A

Fuse 50A

Rotating
switch

A rotating switch is integrated in the fuse box and can be used to turn the mowing unit control system off (see p. 27 5.1 Safety system).

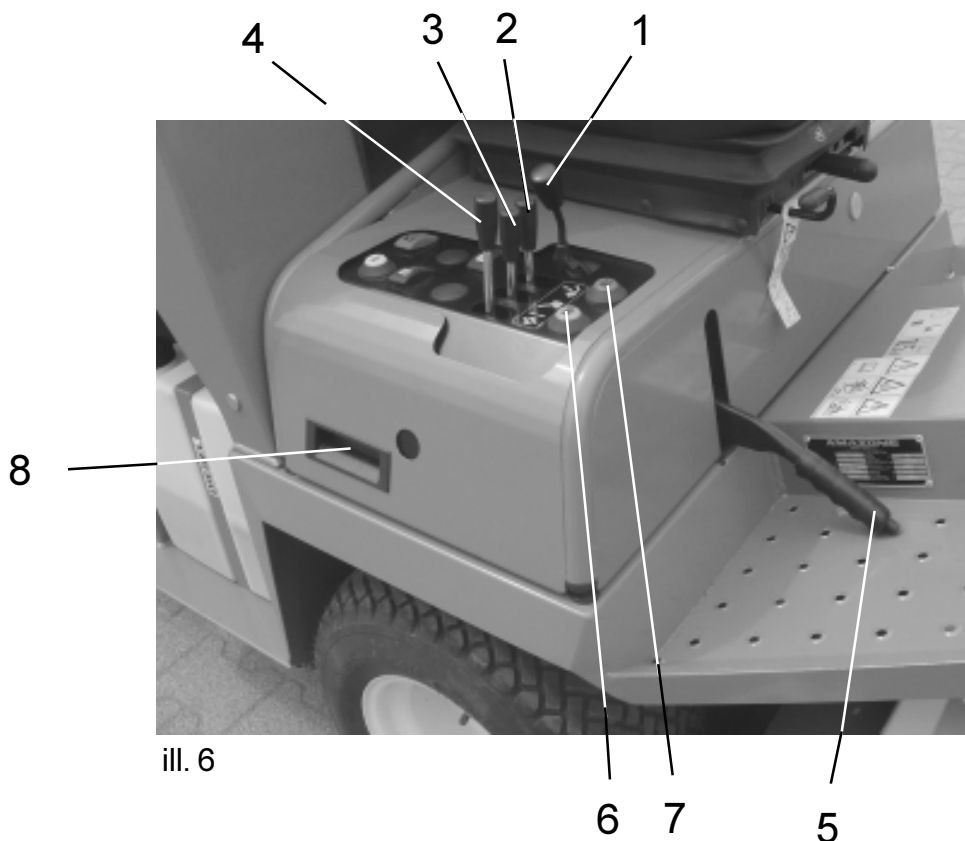
4.3 Control levers (ill. 6)

1. Throttle hand lever
For starting and stopping the engine, bring lever into idling position.
2. Empty hopper
To empty the hopper, pull the lever to the rear in order to bring it into the operational position. Then push the lever forward to reposition.
3. Lowering/lifting the hopper
To lift the hopper, pull the lever to the rear. To lower the hopper, push the lever to the front.



ATTENTION!

**Never drive with the hopper raised.
Danger of tipping over!**



4. Lifting/lowering the mowing unit
To lift the mowing unit, pull the lever to the rear, to lower, push the lever to the front. In operational position (mowing etc. . . .), the lever has to catch in the front position. Hereby the mowing unit remains in a floating position to follow the ground contours.

5. Parking brake

ATTENTION!



Activate the parking brake before leaving the driver's seat!

Never drive with the parking brake activated!

6. Engage mowing unit

For a smoother start of the mowing unit choose a medium engine speed. Push the switch until the mowing unit has reached enough speed. This switch is deactivated when the hopper is lifted.

7. Disengage mowing unit

8. Opening grip of the hood

The seat carrier is mechanically locked and can be unlocked only by pushing the black button (ill. 7).

Tool box

There is a tool box under the seat carrier.



ill. 7

4.4 Speed control, steering

1. Steering arm (ill. 8/1)

To change the drive direction to the left hand side, pull the left hand lever to the rear. To change the drive direction to the right hand side, pull the right hand lever to the rear. It is recommended to operate both levers with one hand for a better control of the steering system (ill. 8).

When driving using the foot pedal both steering levers move parallel in the driving direction.

2. Foot throttle (ill. 8/2)

This pedal allows you to adjust, steplessly, the forward driving speed from 0 to 10 k.p.h. In order to bring the machine to a standstill take your foot from the pedal and do not apply any pressure to the steering levers.

For reverse driving, pull both steering levers parallel to the rear, do not actuate the foot pedal.

ATTENTION!



A sudden actuation of the steering levers causes a heavy acceleration of the machine.

Make yourself acquainted with the steering properties of your machine in a wide area. Danger of accident!



ill. 8



ill. 9

4.5 Regulating the seat (ill. 10)

1. Longitudinal regulation
Turn the lever to the left hand side in order to bring the seat into the desired position.
2. Inclination of the back of the seat
Lift the a.m. lever in order to regulate the inclination.
3. Regulating the seat resilience
The seat has 5 different resilience positions.
Soft resilience: Lift lever and pull to the right hand side.
Hard resilience: Lift lever and pull to the left hand side.



The seat is equipped with a security device that stops the engine in case the operator leaves the machine seat.

A strong setting of the resilience can set off the security device when driving on uneven surfaces.



ill. 10

1

3

2

5. Putting into operation

5.1 Safety system

The mower unit is equipped with 4 safety switches:

- One safety switch on the engine stops the mowing unit deck when the water temperature of the engine reaches 110°C (see p. 39 chap. 7.2.3).
- One safety switch under the seat which stops the engine as soon as the driver leaves the seat.
- One safety switch on the hopper which stops the engine as soon as the hopper is lifted while the mowing unit is still engaged.
- One safety switch under the mowing unit cuts the electromagnetic clutch off when the augers are blocked and are no longer turning.

The mowing unit can only be put into operation under the following 4 conditions:

- No overheating of the engine (for example: fouled radiator).
- The hopper has to be closed and completely lowered.
- The driver has to sit on the seat.
- The augers must turn freely.



The engine can only be started when the driver is sitting on the seat.

5.2 Tyre pressure

Always observe the required tyre pressure. Tyre pressures other than those recommended might have a negative influence on the steering property.

Tyre pressure: front 1,0 bar
 rear 1,0 bar

5.3 Details to be observed before starting

Before any operation ensure that the following control points:

- **Motor oil:**

Check oil level (ill. 11) and top up if necessary (ill. 12).

Oil quality: motor oil 10W40 API-CF

Total quantity: 2,4 litres



ill. 11



ill. 12

- **Hydraulic oil, hydro static motor:**

The oil tank is integrated in the frame and is located on the right hand side of the machine. The two red marks on the lateral filling level indicator show the minimum and maximum level. Check oil level and top up if necessary (ill. 13). Please bear in mind that the oil expands while warming up. Avoid overfilling.

Oil quality: Motor oil 10 W 40 API-CF

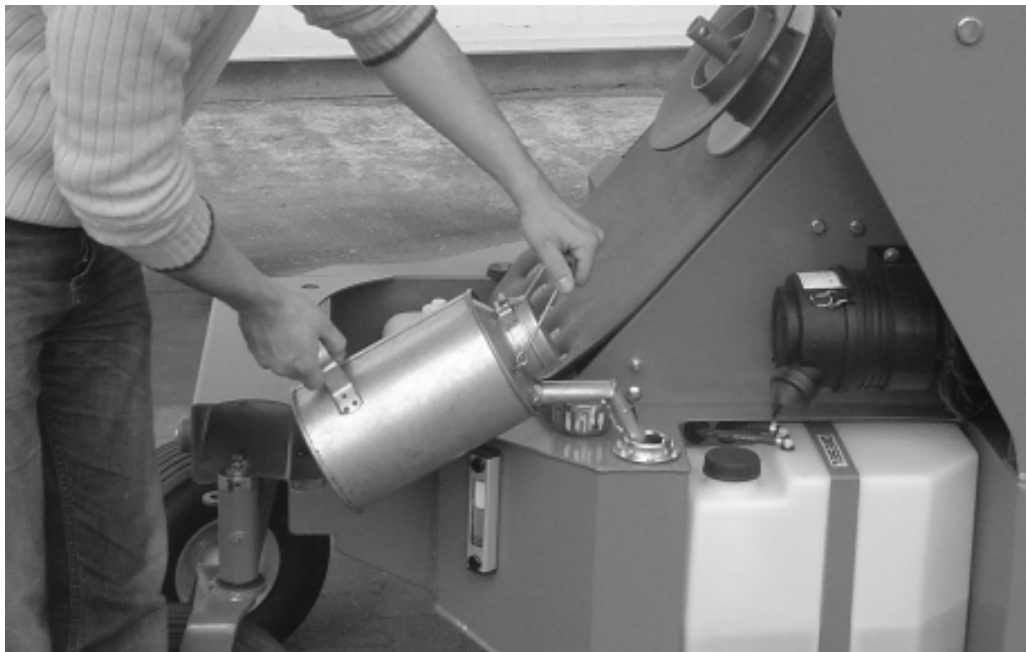
Total quantity: 17 litres



ATTENTION!

Oil becomes very hot during operation!

Only hydraulic oil called HLP68 can be used!



ill. 13

- **Fuel (Diesel)**

The fuel tank is transparent and thus the filling level can easily be controlled.

Fill with Diesel in time. Avoid emptying the tank!

Your Profihopper is equipped with a DIESEL-engine and requires DIESEL-fuel.

Using another fuel (for instance Biodiesel) or a fuel mixture would ruin the engine!

DANGER OF FIRE!



DIESEL flashes easily. Fire, naked flames and smoking are prohibited while handling Diesel. Avoid contact with Diesel. Inhaling Diesel vapours is detrimental to health.

5.4 Starting and stopping the engine

To start the engine proceed as follows:

- Ensure that the parking brake is engaged.
- Do not depress the foot throttle or move the steering levers.
- Turn ignition key to the right until the pre heater symbol is illuminated
- As soon as the pre heater symbol goes out, turn the ignition key to the right, releasing it when the engine starts. Set the hand throttle at no more than medium revs. Do not interrupt the starting procedure, however, do not turn the engine for more than 20 seconds at a time.

ATTENTION!



**Never let the engine run inside a room.
Danger of poisoning.**

To stop the engine proceed as follows:

- Bring machine to a standstill
- Bring throttle hand lever to the idle position
- Engage the parking brake
- Turn ignition key to the left

5.5 Mowing

- Start the engine
- Release parking brake
- Switch on mowing unit. **For a smoother start of the mowing unit choose a medium motor speed.**
- Accelerate the engine with the hand throttle lever (for mowing the maximum engine speed is recommended).
- Slowly press the foot throttle until you have reached the desired driving speed. **Choose the driving speed according to the mowing conditions.**

5.6 Emptying the hopper

As soon as the hopper is full, an audible fill indication sounds. As soon as this signal is given, empty the hopper.



Avoid overfilling the hopper. Danger of damage to the worm auger system!

Emptying at ground level

- Push the lever for tipping the hopper to the rear
- After emptying bring the hopper into the operational position by pressing the lever.

Lift discharge

- Drive backwards until approx. 1 m in front of the discharging point.
- With the control lever bring the hopper to the discharging height.
- Slowly approach the discharging point (ill.14)



ill. 14

- Empty the hopper
- Bring the hopper into the prior position
- Drive approx. 1 m forward from the discharging point
- Lower the hopper into working position



ATTENTION!

**Before finishing mowing work, the hopper should always be emptied completely. The strong heat developed by fermenting grass may cause a fire.
Danger of fire!**

Locking of the hopper's hood

The hood can be locked and opened with the help of the plastic key.



ill. 15

6. Options

6.1 Lighting device

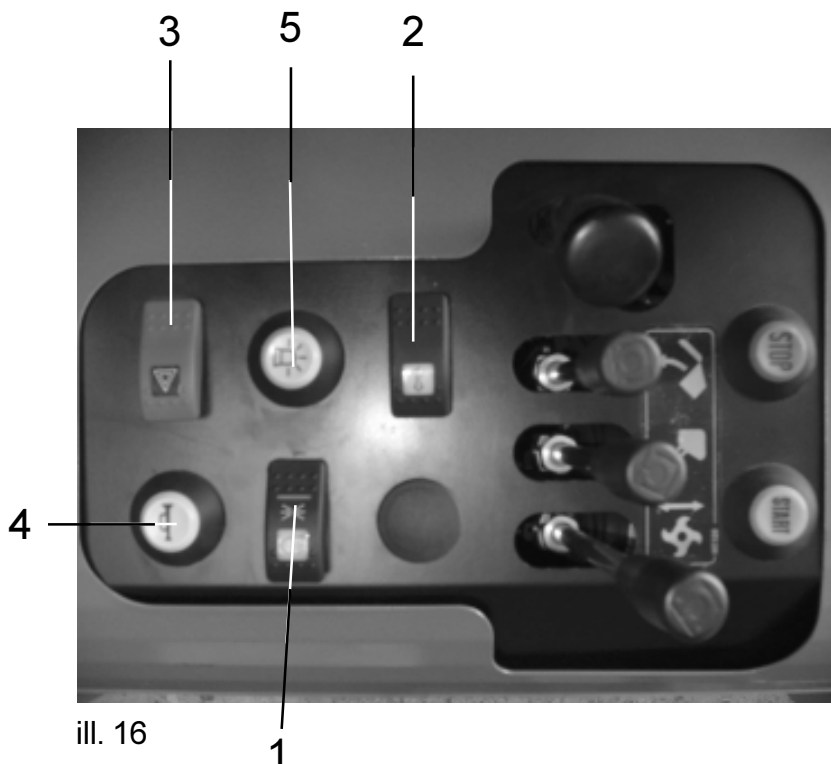
For getting a licence to operate your Profihopper, this option is not necessarily required.

The lighting device includes:

- front indicators
- rear indicators incl. fixing elements
- front head lamps
- rear lights
- 1 horn
- 1 dashboard arranged beside the driver's seat.

Operating the lighting device (ill. 16)

1. Switch for turning on and off the parking lamps and front head lamps.
Press the switch to the right to switch on the lights (three stages - side lights, dipped and main beam).
2. Indicators
3. Warning lamps.
4. Horn
5. Flashing beacon: the flashing beacon must always be switched on when driving the machine on the road (only for France).



6.2 „AMAZONE Path Control“ - Path control

The AMAZONE PROFIHOPPER can be equipped with the optional patented **AMAZONE Path Control**.

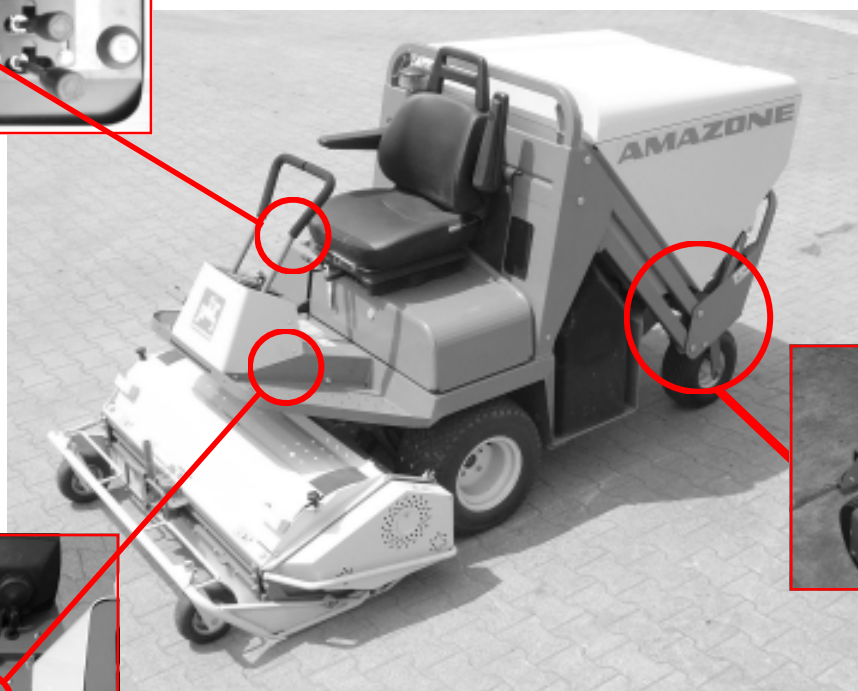
The option includes:

- a push button
- a foot button
- an electronic box with two solenoids
- a hydraulic ram mounted on the rear wheel yokes.

An indicator lights up on the dashboard (see chap. 4.1 Dashboard p. 20), as soon as the push button is activated.

Working principle :

The rear wheels are linked with an hydraulic ram. Wheels are either free to move or blocked in straight line. As soon as a turn is started, the rear wheels are free while they are automatically blocked when you drive in a straight line. Once turned on, the system is fully automatic.



The foot switch allows to block the rear axle at your convenience (when driving backwards on the loading ramps, or on the pavement for example)

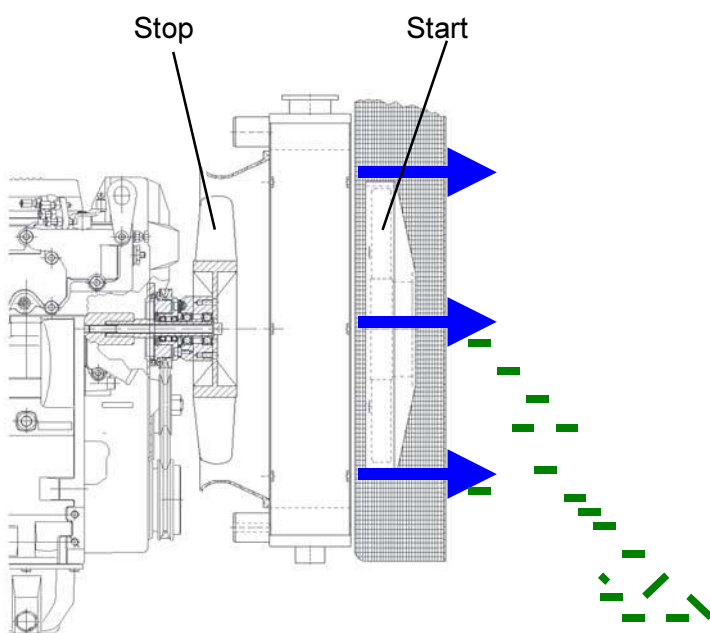
6.3 „AMAZONE Cooling System“ - Automatic radiator cleaning system

An optional radiator's grid self-cleaning system, the **AMAZONE Cooling System**.

The option includes :

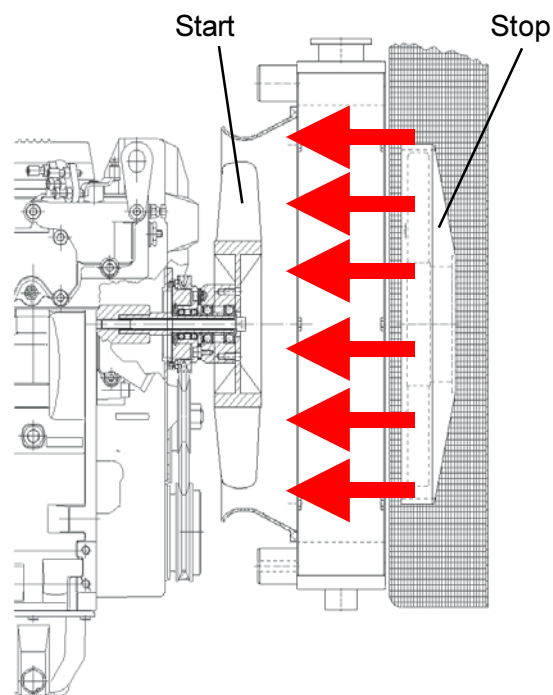
- a control box equipped with a switch (above the engine)
- a supplementary fan
- an electromagnetic clutch (for the main fan).

Working principle :



Drawing A

The main fan motion is interrupted and a secondary fan blows away dusts and plants residues that may stick on the radiator's grid. Thus, the radiator's grid is cleaned up (drawing A).

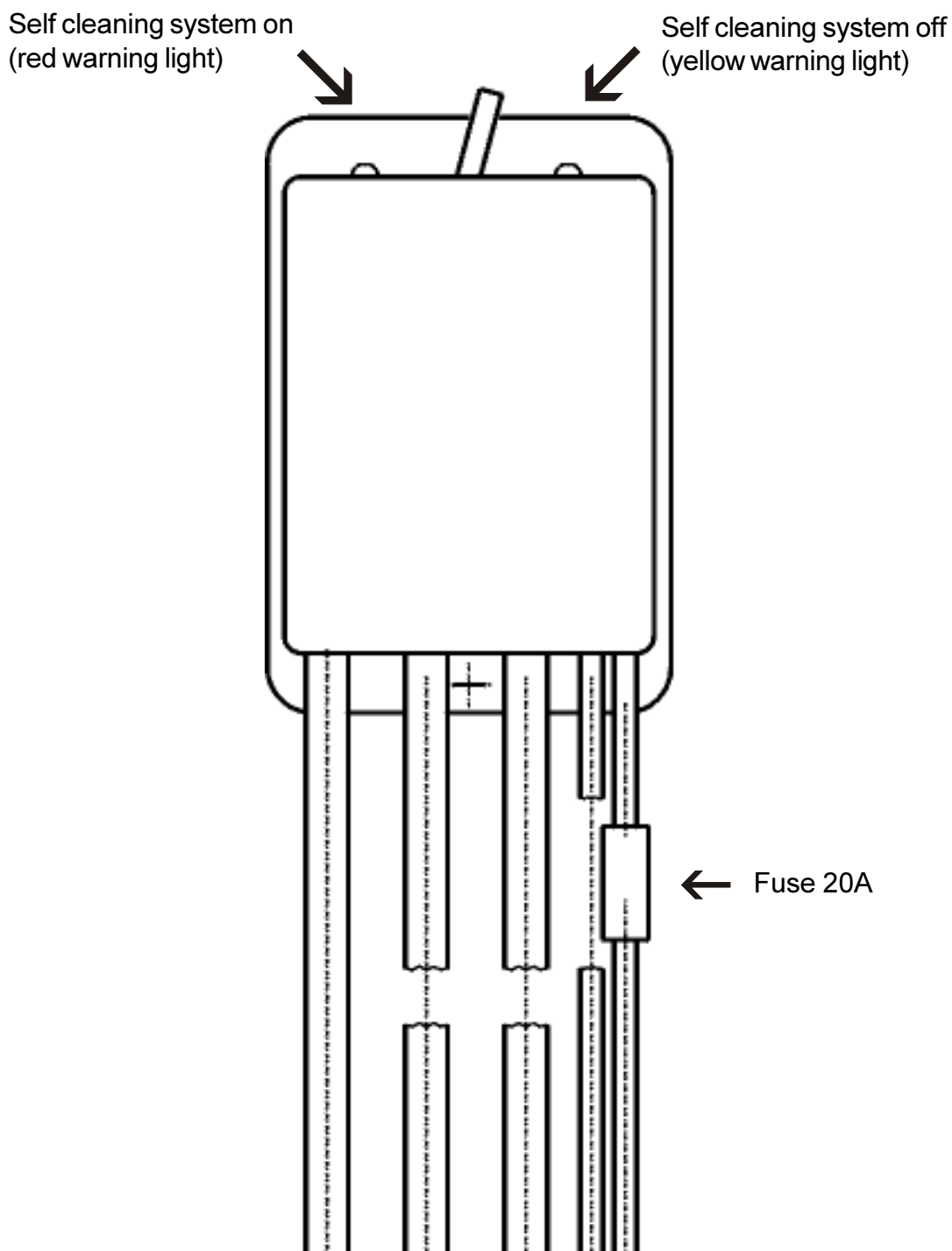


Drawing B

After working like this for a few seconds, the main fan is re-activated, and goes on cooling the engine, while the secondary one is stopped (drawing B).

The system can be switched off. Lift up the seat carrier, the switch is on the control box above the diesel engine :

- Lever backward - red light on = cleaning system is working automatically.
- Lever forward - orange light on = cleaning system is off. Only main fan is working.



7. Maintenance (see maintenance schedule p 56)



ATTENTION!

Stop the engine before any maintenance work. Apply parking brake and remove ignition key!

7.1 Cleaning



ATTENTION!

Never use a high pressure cleaner to clean the transmission elements.

- For opening the hood of the mowing unit.
- Clean only the rotor box with the aid of a high pressure cleaner. Ensure that after cleaning the sloppy water is entirely drained off the worm auger system. Clean the draining bores (for example feed auger tube).
- Only clean the cooling radiator with compressed air!

7.2 Maintenance of the engine

Please adhere to the operating- and maintenance advice of the engine manufacturer LOMBARDINI. The instruction accompanies your machine (brackets)



ATTENTION!

Before the first operation, carefully read and adhere to the instruction manual of the engine manufacturer LOMBARDINI!



ATTENTION!

Before doing any work on parts of the engine, stop the engine, remove the ignition key and let the engine cool down!

In order to access the engine and the main driving elements, please proceed as follows:

- Open the seat carrier
- lift hopper into its highest position
- apply safety support
- open the engine cover

Now the engine is easily accessible.

7.2.1 Oil level – Oil change

Please refer to the instruction manual for the LOMBARDINI engine.

7.2.2 Engine oil filter

Please refer to the instruction manual for the LOMBARDINI engine.

7.2.3 Safety on the engine

One safety switch on the engine cuts the mowing unit deck off when the engine's water temperature reaches 110°C. Let the engine run with half engine speed without switching it off for cooling purposes. Before starting the engine, remedy to the reason of overheating (for ex. fouled radiator, check the coolant fluid level, ...)

7.2.4 Air filter

Please clean the air filter at least once a week.

**In dry and dusty conditions, the filter should be cleaned daily!
Defective filter cartridges have to be changed immediately!**

To remove the air filter, proceed as follows:

- Open the two fixing clamps
- Remove cover
- Remove filter cartridges (2 filters nesting into each other, ill. 17).



ill 17



ill. 17a

Insert a new filter cartridge after every 300 working hours, or at least, however, once a year.

Proceed in the reverse order to fit the air filter (ill. 17a).

The air filter is equipped with a primary filter which should be cleaned daily.

- Remove thumb nut
- Remove cover
- Clean dust container (ill. 18)
- Reassemble the primary filter in the reverse order.



ill.18

7.2.5 Fuel filter (ill. 19)

The fuel filter should be changed every 250 working hours, or at least, however, once a year.

For further hints, please refer to the instruction manual of the engine manufacturer LOMBARDINI.



ill. 19

7.2.6 Radiator

After every emptying of the hopper, or at least, however, once a week, the radiator grille should be checked for grass or other residues and **cleaned with a pressure cleaner** if necessary (never wash it with water!). Under dry, dusty conditions this check has to be conducted daily.

Loosen fixing clamps to remove the grille (ill. 20).

After the engine has cooled down, check the level of the cooling agent and top up if necessary.

The machine is equipped with a see through expansion tank. The tank does not prevent overheating but it allows the overflowing coolant fluid to return back into the system. A daily check needs to be done directly on the expansion tank (level always on „MIN“ mark pic ill. 21). If the coolant circuit is empty, you must first refill the radiator before topping up the expansion tank..

The antifreezing compound is effective up to -30° C.
In case of overheating (over 105°C) a security will stop the engine.



ill. 20



ill. 21

7.3 Hydrostatic drive

7.3.1 Hydraulic oil filter

The hydraulic oil filter is equipped with an indicator (ill.22/1) which shows the state of pollution.

Indication green: filter is in order

Indication red: filter is dirty and has to be changed

This check must be done with the engine running at the max rpm.

Irrespective, the hydraulic oil filter has to be changed at least once a year.



ill. 22

1

7.3.2 Hydrostatic oil cooler



In case of oil cooler blocking, only use air pressure system to clean.



ill. 23

7.3.3 Oil change

Conduct an oil change of the hydraulic system after every 500 working hours (ill. 24).

Oil quality: 10W40 API-CF

Oil quantity: 17l

Don't use any biodegradable hydraulic oil.



ill. 24

7.4

Battery

The battery has been placed underneath the hood.
It is maintenance free.



Charging the battery

Adhere to the instructions for the battery charger.
Before charging, disconnect and take out battery.

Disconnecting the battery

Loosen the pole cables of the battery only after engines
has come to a standstill.
Switch off electric items.
Loosen first the minus- and then the plus-cable.

Attaching the battery

Attach first the plus- and then the minus-cable
Do not mix up the cables!

Starting aid

In case the battery is discharged the engine can be
started with starting aid cables and a second battery.
First connect the plus poles and then the minus poles with
the starting aid cable.



Keep a safe distance from sparks and flames!



**Explosive gas!
Explosion hazard!**

**Do not pose any metal parts on the battery!
Short circuit hazard!**



Warning: highly corrosive!

The battery acid is caustic and should not touch your skin, eyes or clothing. Wash off acid splashes immediately with clear water. If necessary see a doctor!



Avoid contact with eyes and face!

Keep away from children!

Your DELCO FREEDOM PLUS is fitted with an hydrometer on the top that allows you to check quickly and easily the state of the charge.

Green eye: satisfactory state of charge (more than 65%).

Black eye: battery requires charging (less than 65%).

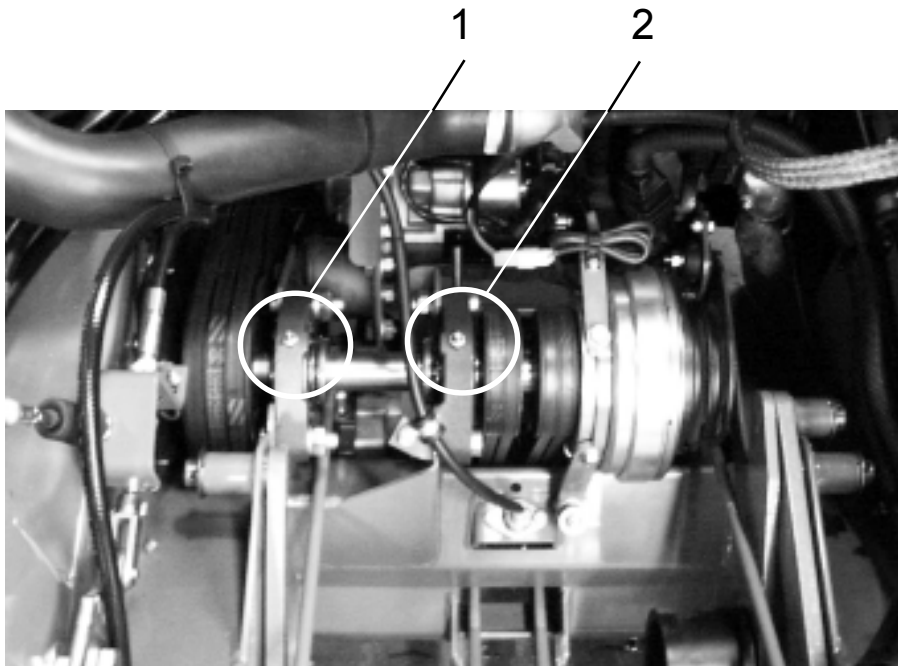
Clear or yellow eye: low electrolyte level. Battery has to be replaced. Do not use it and check the electric circuit of your vehicle.

7.5 Greasing points

In order to ensure that your mower always operates optimally, the following points have to be greased once a week or after a thorough cleaning:

Primary drive shaft

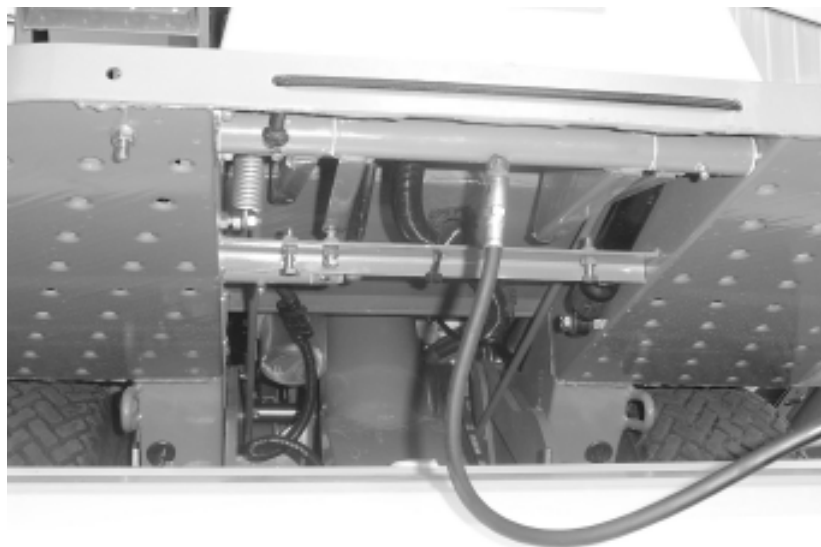
- Bearings of the primary drive shaft (ill. 25)



ill. 25

Steering elements

- Joints of the steering levers (ill. 26)
- Joints of the foot throttle (ill. 27)



ill. 26



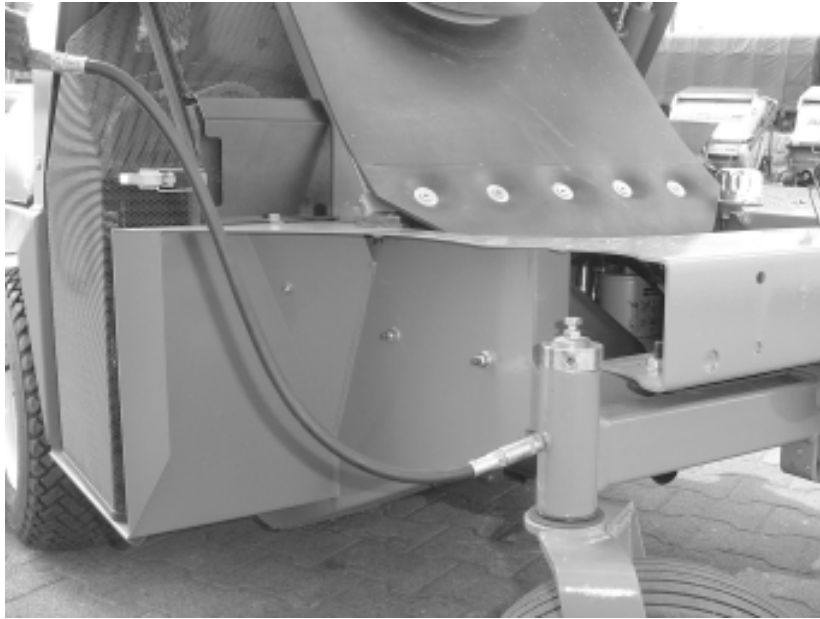
ill. 27

Rear wheels

- Centre joint of the rear axle (ill. 28)
- Bearing of the rear wheels (ill. 29)



ill. 28



ill. 29

7.6 **Vibration absorber of the rear wheels**

The rear wheels are equipped with a vibration absorbing system which avoids a heavy swinging of the wheels when driving at maximum speed.

This system is subject to certain wear which may be corrected as follows:

- Tighten setting bolt as required (ill. 30).
- Secure setting bolt with locking nut.



ill. 30

7.7 Check tensioning of V-belts

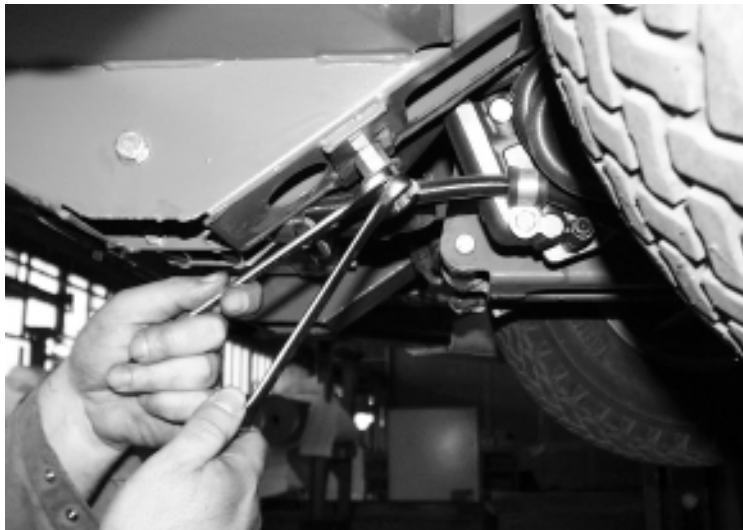
Check all drive belts regularly for correct tensioning and damage.

Change damaged belts!

The main drive belt leading from the engine to the drive shaft can be adjusted by a setting nut.

To retighten the belt:

- unblock the locknut (ill. 31)
- turn to the left the setting nut
- block the locknut (ill. 32)



ill. 31



ill. 32

All other belt drives are self-tensioning but ex-works they are pretensioned according to following values :

TRANSMISSION	BELTS	STATIQUE PRE-TENSIONING
Main drive system (Motor - main shaft)	3	First connection 388N After running in 330N
Pump transm. (main shaft - Hydropump)	4	First connection 185N After running in 156N

7.8 Disengaging of the hydraulic pumps

The hydraulic pumps can be disengaged in case of an engine failure so that the machine can be pushed by hands.

This can be done with the special spanner delivered with the machine in the tools box.



ill. 33

The hydrostatic pumps are accessible either side of the machine from behind the front drive wheels (ill. 34).



ill. 34



To disengage the pumps put the spanner on the locking bolt and unbolt it (ill. 35). The machine can then be pushed by hand.



ill. 35

7.9 Longer pauses of operation, storing over winter

1. Clean the machine thoroughly.
2. Conduct all necessary greasing work.
3. Empty fuel tank.
4. Detach battery (please refer to chapter 7.4).
5. Store the battery in a dry, cool room free of frost.
6. Check condition of V-belts. If they have to be replaced, please contact your service workshop.
7. Ensure there is sufficient antifreeze in the radiator system.
8. Store the machine in a dry place.

7.10 Maintenance schedule (p. 56)

7.11 Maintenance statements (p. 57-60)

MAINTENANCE STATEMENT

Date: _____ Technician: _____

Statement nb: _____

Operating hours: _____

	YES	NO
Engine oil change	<input type="checkbox"/>	<input type="checkbox"/>
Hydraulic oil change	<input type="checkbox"/>	<input type="checkbox"/>
Engine oil filter	<input type="checkbox"/>	<input type="checkbox"/>
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Air filter (x2)	<input type="checkbox"/>	<input type="checkbox"/>
Fuel filter	<input type="checkbox"/>	<input type="checkbox"/>
Pressure relieve valve adjustment*	<input type="checkbox"/>	<input type="checkbox"/>

Miscellaneous: _____

Next maintenance date: _____

Dealer stamp and signature

* AMAZONE Technical info 2002-8

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NOTES

[illegible]

AMAZONE

MOWING UNIT OF THE PROFIHOPPER Machine series PH04

OPERATING MANUAL

Mow, scarify, aerate in all conditions



AMAZONEN-WERKE **H.DREYER** GmbH & Co. KG

Postfach 51
D-49202 Hasbergen-
Gaste
Tel.: (05405) 501-0
Fax: (05405) 501 147

H. Dreyer Str.
D-27798 Hude/Oldenburg
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Fax: (04408) 927 399

AMAZONE **Machines Agricoles S.A.**

17, rue de la Verrerie - BP 90106
F-57602 Forbach/France

Tel: 03 87 84 65 70 Fax: 03 87 84 65 71
Internet : www.amazone.fr E-mail : Forbach@amazone.fr



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PREFACE

The Profihopper is a self-propelled implement for scarifying and mowing from the comprehensive product range of the AMAZONEN-WERKE, H. Dreyer GmbH & Co. KG.

This instruction manual is valid for the AMAZONE-Profihopper mowing unit.

In order to make full use of your newly purchased “AMAZONE-Profihoppers”, please carefully read and adhere to this operation manual before starting to operate your machine.

Especially adhere to the safety advice and warning symbols on your machine.

Ensure that all operators read this operation manual before they operate the machine.

Your Profihopper complies only with the regulations of the agricultural health and safety authorities when in case of repair original spare parts of AMAZONE are used for replacement.

1. Details about the machine

1.1 Range of operation

The AMAZONE-mowing unit has been designed for mowing and scarifying lawns, sportfields, parks etc. In Autumn it collects and chops fallen leaves.

1.2 Manufacturer

AMAZONE Machines Agricoles S.A.

F-57602 Forbach/France

Tél. : 03 87 84 65 70 Internet : www.amazone.fr

Fax : 03 87 84 65 71 E-mail : forbach@amazone.fr

1.3 Conformity declaration

The cutting deck fulfils the requirements of the EU Guide Line machines 89/392/EC and the corresponding additional guide lines.

1.4 Details when making enquiries and ordering

When ordering options or spare parts, please always state the serial number of your Profihopper.



Safety requirements are only fulfilled when, in the event of repair, original AMAZONE spare parts are used. Using other parts may rule out the liability for resulting damage.

1.5 Technical data

Weight, mowing unit only :	240 kg
Weight, complete Profihopper :	955 kg empty

Working width: 1, 25 m, central working height adjustment, hydraulic lifting of the mowing unit

Collecting system:
cross and feed auger

Drive system:
Belts and angular box

Ground follow-up:
Front wheels 8 x 3.00-4-4PR with tyre sealant, rear support roller

2. Safety advice

This operators manual contains basic advice that should be observed when mounting, operating and maintaining the machine. Therefore, this operators manual must be read by the operator prior to use and must be made available to him.

All the safety advice given in this manual should be carefully observed and adhered to.

2.1 The risks of not adhering to the safety advice

Not adhering to the safety advice

- may result in endangering persons, the environment and the machine itself.
- may result in the loss of any claim for damage.

Not paying attention to the safety advice may cause the following risks:

- Failure of important functions.
- Failure of prescribed measures for maintenance and repair.
- Danger to persons by mechanical or chemical means.
- Danger to persons or the environment from leaking hydraulic oil or petrol.

2.2 Qualification of the operator

The AMAZONE-Profihopper may only be operated, maintained and repaired by persons, who are familiar with it and have been informed of the relevant danger.

2.3 Specification of “hints” in the operation manual

2.3.1 General danger symbol



Safety advice considered necessary to avoid the risk of personal injury is identified with the general danger symbol (according to DIN 4844-W9).

2.3.2 Attention symbol



Advice to avoid damage to the machine or working environment is identified with the Attention symbol.

2.3.3 Hint symbol



Advice regarding the machine's specific operating functions which should be followed for a faultless performance are identified with the hint symbol:

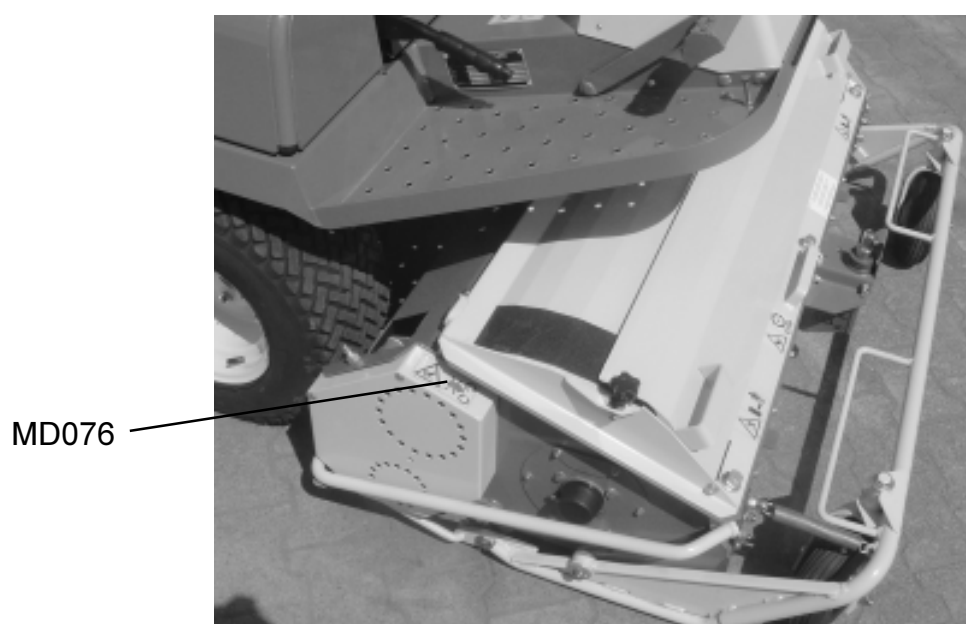
2.3.4 Warning pictographs and hint symbols on the machine

- The warning pictographs indicate dangerous points on the machine. These pictographs should always be observed for safe operation of the machine. Warning pictographs always appear with safety/warning symbols.
- The hint symbols indicate specific points that have to be observed to ensure maximum performance.
- Strictly observe all warning pictographs and hint symbols!
- Please pass on all safety advice to other users!
- Always keep all warning pictographs and hint signs clean and legible.

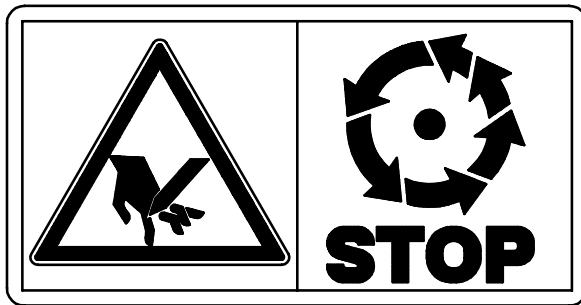
- Please replace damaged symbols. These can be ordered from your dealer (picture-number = Order-number).
- The illustrations 1a and 1b show the display points for warning pictographs and hint signs. Please refer to the following pages for relevant explanations.



ill. 1a



ill. 1b

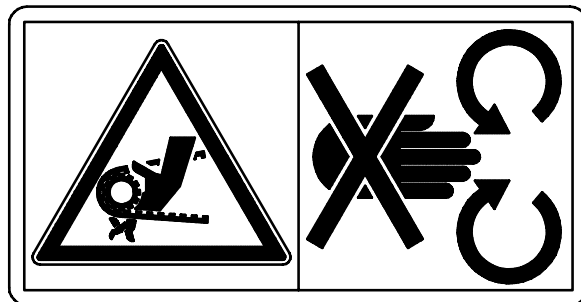


MD075

Fig. No.: MD075

Explanation :

Do not stay within the zone of spinning mowing units!
Do not touch moving implement parts!
Await their absolute standstill!
Wait until all machine components have completely stopped before touching them!

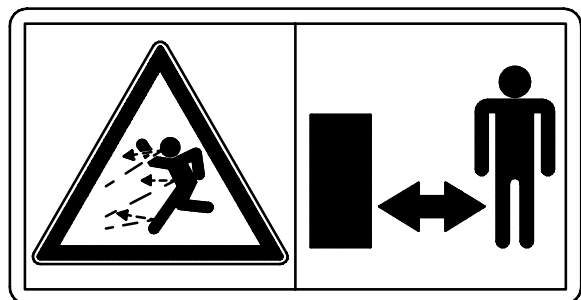


MD076

Fig. No.: MD076

Explanation :

Only start to operate your machine with all guards fitted!
Do not open or remove safety shields while engine is running!
Before removing the guard, stop the engine and remove the ignition key.

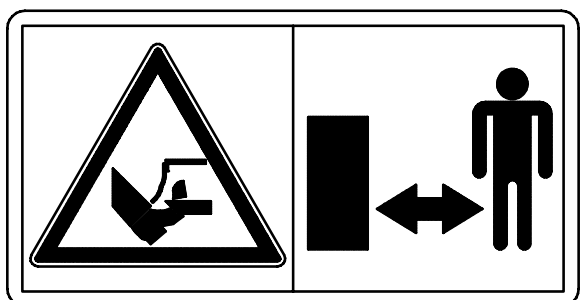


MD079

Fig. No.: MD079

Explanation :

Keep a safe distance from the machine while the mowing unit is running!



MD087

Fig. No.: MD087

Explanation:

Keep clear of the cutting rotor while the machine is running !
Stay clear of mower knife area as long as engine is running with cutting rotor connected!

2.4 Safety conscious operation

Besides the safety advice in this operators manual, the national and generally accepted operational safety and accident prevention regulations of the authorised trade association are binding.

The safety advice indicated on the machine stickers must be observed.

2.5 Safety advice for the operator

2.5.1 General safety and accident prevention advice



BASIC PRINCIPLE!

Before operating your machine, you must carefully read the operating manual and follow the stipulated instructions.

Always check traffic and operational safety before putting the machine into operation!

1. Adhere to the general health and safety precautions as well as to the hints in this instruction manual.
2. Follow the warning and hint signs fixed to the machine. They are there for your safety.
3. Become acquainted with all the machine controls before operating the machine. Do not wait until you are using the machine.
4. While working the operator of the machine must wear close-fitting and appropriate safety accessories.
5. Before commencing operation, check to see that nobody is in the way (particularly children) and that you have good all round visibility.

6. Standing on the machine, or carrying passengers, during operation or transport is not allowed.
7. Do not let anybody stand near the machine when operating.
8. Reverse with caution, beware of children!
9. Avoid sudden turning.
10. Do not use on steep hills.
11. Before dismounting the machine, apply the parking brake, stop the engine and remove the ignition key!
12. Being constantly exposed to noise nuisances can damage the hearing aid and even cause deafness.
Therefore it is absolutely necessary for the operator of the machine to wear an adequate soundproof protection (ear protectors or soundproof helmet).
Safe operation of the machine requires the whole attention of the operator: so it is necessary to avoid listening music or radio with ear- or headphones while working.

2.5.2 General safety and accident prevention advice for maintenance, repair and cleaning

1. Repair, maintenance, cleaning operations and adjustments should be conducted with the machine stationary, drives and engine switched off and the ignition key removed.
2. When carrying out maintenance work on the hopper, ensure the ram support are locked!
3. Dispose of all oil, grease and filters in a responsible manner!
4. Disconnect the power supply before working on the electrical system!
5. Before conducting electric welding, remove the leads from the alternator and battery.
6. Use only genuine **AMAZONE spare parts**. Any spare parts fitted must meet with the manufacturers specification!

7. Do not open the radiator cap nor the expansion tank filler cap whilst the engine is running or the radiator still hot. Wait until the engine has completely cooled down.
8. Warning! - The hydraulic system is under high pressure.
9. When connecting hydraulic rams the prescribed connection of the hydraulic hoses has to be noted.
10. Regularly check hydraulic hoses for signs of ageing or damage and replace where necessary. Ensure replacement hoses are of an equal specification.
11. When searching for leaks in the hydraulic system – avoid exposing skin to possible contact.
12. Liquids (hydraulic oil) under high pressure may penetrate the skin and cause severe injuries. In case of injury seek medical attention immediately as there is a risk of infection.
13. Before commencing work on the hydraulic system, lower the implement, de-pressurise the system and switch off the engine.
14. No hose circuit should be used for more than six years, including a maximum of two years storage. Even hoses stored and used correctly will age. Deviations from these guide lines may be made according to experience and an assessment of the risk. For hoses made of thermo plastics, other guide lines may prevail.

3. On receipt of the machine

Please check for damage or missing parts upon receipt of the mowing unit or the machine. Only immediate claim to the trailer company with mention of the damage on the delivery note can lead to the replacement of the damaged parts.

Check whether all parts listed on the international consignment note and/or delivery slip are supplied.

Before commencing work, remove all packing material, wire, etc. and check that all lubrication points are well supplied with grease, oil, etc..

4 Cutting and scarifying blades

4.1 Assembly



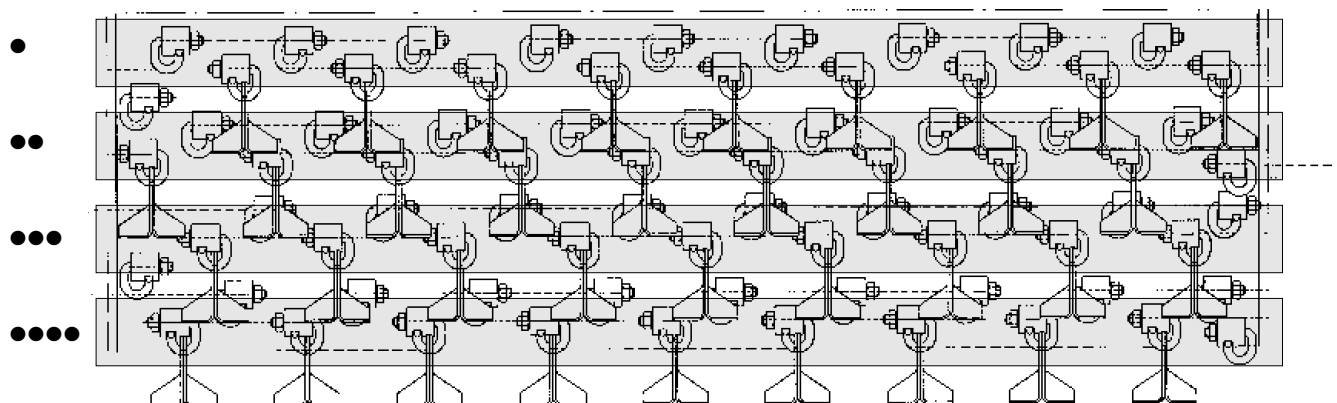
BLADE SELECTION	Cutting	Wing blade	Wing blade sharpened (standard)	Scarifying blade	Scarifying blade and short wing blade
Mowing lawns		● ●	● ● ●		
Mowing fairways		● ●	● ● ●		
Mowing parks		● ● ●			
Mowing public grassland areas		● ● ●	● ●		
Mowing flower residue and environmental sites	● ●	● ● ●			
Leaf collection		● ● ●			
Scarifying				● ● ●	● ● ●

● ● ● Very good results

● ● Good results

MOWING

The wing and scarifying blades can be mounted in 4 different ways. 36 pairs of sharpened wing blades (no.: 991628) are fitted as standard on the Profihopper. These knives are mounted on half of the hook-bolts rows from ● to ●●● (see drawing A).



Drawing A

↓ Driving direction

ATTENTION !

Wing blades should be fitted to the correct hooks. These hooks are open to the right hand side of the cutting rotor (in direction of travel).



9 pairs of knives x 4 rows = 36 pairs of knives / rotor

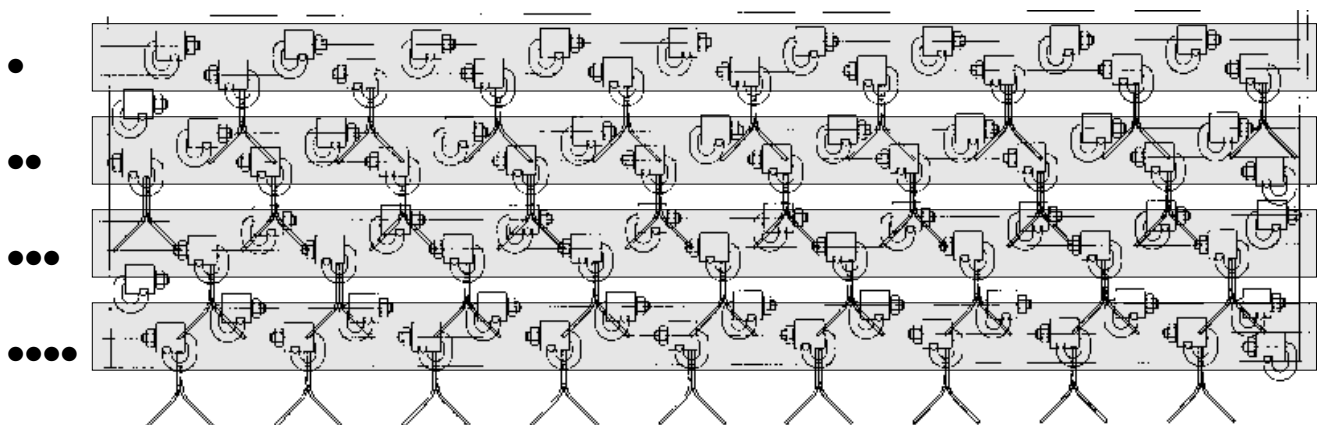
The hooks that are open to the left hand side of the cutting rotor should only be used for the addition of scarifying knives needed when narrow scarifying (see page 17).

Following the marks on the rotor the configuration is easily arranged. The blades are easily swapped over without tools by simply hooking the blades on the hook-bolts.

With its variable blade configuration the Profihopper can mow any kind of lawn, even in rainy weather.

If required the flail knives can be replaced with "Y"-shaped mowing knives (72 pieces, order-No. 1205200). The machine requires less power with these knives, however, its collection performance is reduced.

The "Y"- knives are hooked onto the hook-bolts in the same way (see below drawing A and B). Depending on conditions the rotor speed may need to be adjusted slightly.



Drawing B

↓ Driving direction

SCARIFYING

The Profihopper can also scarify lawns and collect the debris.

Two ways of scarifying are provided:

- **wide scarifying, knives spacing 33mm,**

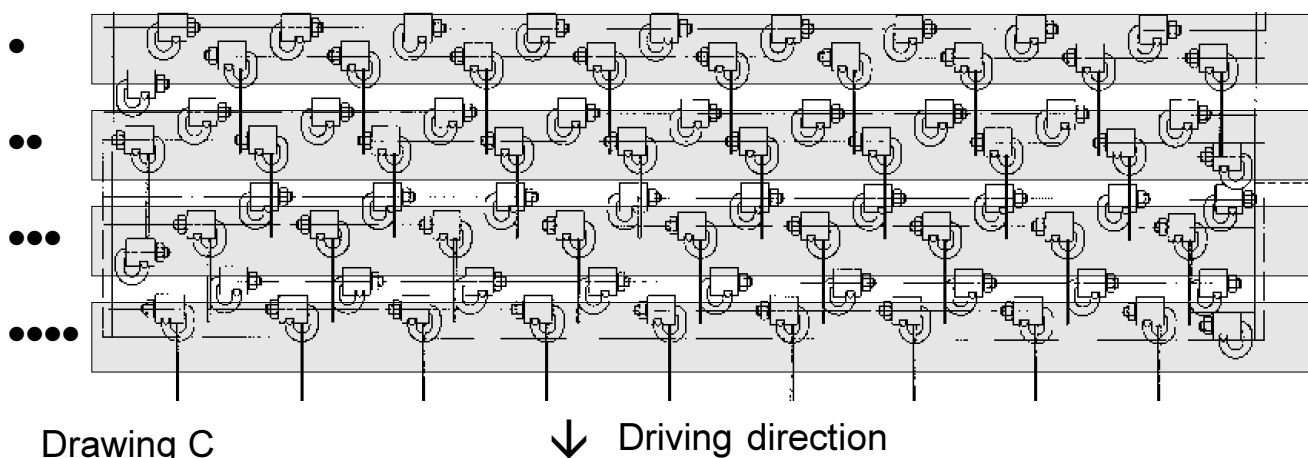
Half of the hook-bolts are therefore equipped with 36 pairs of scarifying knives (n°: 8356000 (3 mm) or 8746000 (2 mm)). These knives are only to be fitted on the hooks which are mounted left to right (driving direction) (see drawing C).

9 knives X 4 rows = 36 knives / rotor. This allows deeper work without affecting the turf too much.



ATTENTION:

Never mix used knives with new knives: this would cause an unbalance rotor!



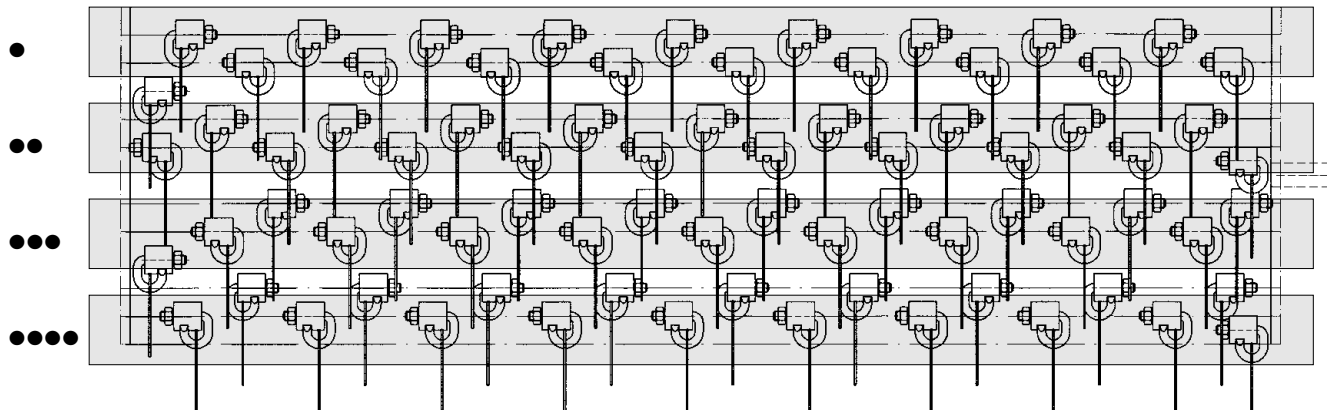
Drawing C

↓ Driving direction

- **narrow scarifying, knives spacing 16mm,**

All hook-bolts on the rotor have to be equipped with scarifying knives (76 knives, see drawing below).

This method of scarifying is more aggressive and suited for regeneration work of heavily felted lawn (moss) in spring.



Drawing D

↓ Driving direction

ATTENTION:

The rotor must be equipped absolutely as described on the drawings A, B, C and D.

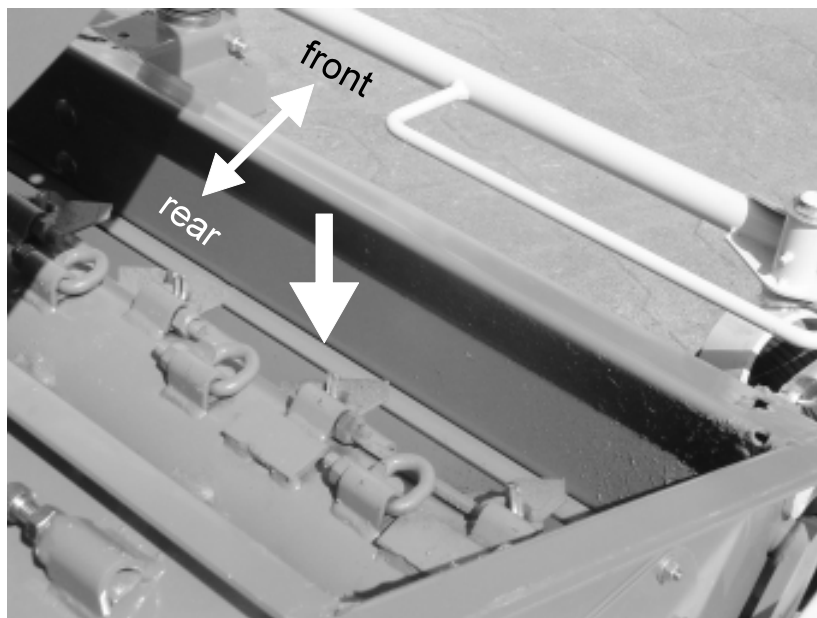
Missing flails or wrong placed flails will provide an unbalance of the rotor which will cause failure and damages on the machine.

4.2 Adjustment of the stripping plate

The so-called “stripping plate” is placed on the front side of the mowing unit (ill. 2) and can be set differently allowing optimum cutting quality of the mown material when mowing and scarifying. The stripping plate is set for scarifying when leaving the factory.

Settings possibilities:

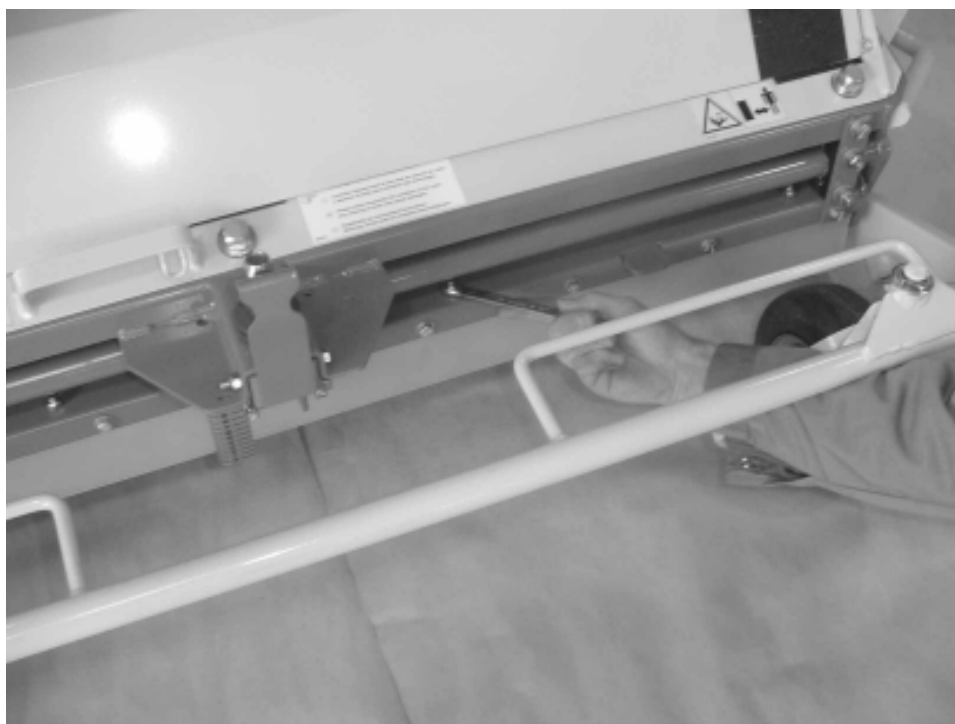
- Scarifying Push plate to the front until stop
- Mowing Push plate to the rear until stop



ill.2

With scarifying knives, the stripper plate must obligatorily be set forward.

Prior to setting the stripping plate slacken the four fixing bolts (ill. 3).



ill. 3

The plate can be pushed forward to the rotor with the help of a mallet (ill. 4)



ill. 4

4.3 Setting the cutting height

To set the cutting height, proceed as follows:

- Pull the release catch back and remove the adjusting handle (ill. 5a),
- Place the handle on the height adjuster and turn (ill. 5b),
- Set height (ill. 5c),
- Replace the adjusting handle making sure the release catch is locked.



ill. 5 a



ill. 5 b

The mowing unit is equipped with a cutting height indicator (in cm).



ill. 5c

4.4 Collecting system

Grass cuttings, leaves etc. are collected and, by means of the worm auger, delivered into the hopper where it is compacted.



CAUTION!

When one of both augers is blocked, the clutch starts to work: a specific noise is audible and the transmission of the mowing deck must be immediately released otherwise the clutch can be damaged!



ATTENTION!

Do not open the mowing unit unless the machine has come to a total standstill!

The mowing unit mounted on a Profihopper series 04 is equipped with an automatic cut-out system (see power unit operating manual).

When the worm augers declutches during mowing, please proceed as follows:

Cleaning the lateral worm auger:

- Switch off mowing unit
- Stop engine
- Open the hood of the mowing unit by using the hand crank (ill. 6)
- Hook the hood into the fixing loop (ill. 7).



ill. 6



ill. 7

- Open the protective cover of the V-belt guard (ill. 8)
- Fix hand crank to the end of the lateral worm auger (ill. 9)
- By turning the worm auger loosen and remove foreign particles.

ill. 8



ill. 9



Cleaning the longitudinal worm auger:

- Lift the hopper into its highest position
- Apply safety support (ill. 10)



ill.10



ATTENTION!

While doing any work underneath the hopper, the safety support must be applied!

This way, unintended lowering of the hopper is avoided.

- Loosen and remove foreign particles by turning the worm auger (ill. 11)



ill. 11

- Remove safety support
- Lower the hopper into operational position
- Shut hood of mowing unit and lock.

ATTENTION!



Before starting to operate again, ensure that the hood of the mowing unit has been locked properly. Defective locking bolts should be exchanged immediately!

Now, you may continue to operate.

4.5 Mulching

The Profihopper is able to mow and chop without collecting (mulching).

The mulch flap is removed from its storage position on top of the cutting deck cover and inserted inside the cutting deck in front of the cross auger. This flap stops material entering the cross auger (ill. 12) and is thus it is chopped and distributed back on the ground.



ill. 12

5. Maintenance (see maintenance schedule p 34)



ATTENTION!

Stop the engine before any maintenance work. Apply parking brake and remove ignition key!

5.1 Cleaning



ATTENTION!

Never use a high pressure cleaner to clean the transmission elements.

- For opening the hood of the mowing unit,
- Clean only the rotor box with the aid of a high pressure cleaner. Ensure that after cleaning the dirty water is entirely drained off the worm auger system. Clean the draining bores. **After each cleaning with high pressure water, grease the mowing unit (especially the bearings).**

5.2 Care of the rotor



Missing mowing knives or incorrect configuration of the knives will cause a heavy balance error and thus damage the machine!

Always ensure the correct configuration of the knives.

You will find some spare knives in the tool box. Should the rotor vibrate heavily, in spite of a correct knife configuration, please contact your service centre.

5.3 Greasing points

In order to ensure that your mower always operates optimally, the following points have to be greased once a week or after a thorough cleaning:

Mowing unit

- Clutch (**every 150 working hours**) (ill. 13a)



CAUTION!

Grease surplus can easily reach and damage the belt transmission located under the belts drive guard (ill. 13b)

- Bearings of the front wheels (ill. 14/1)
- Joints of the height adjustment frame (ill. 14/2)
- Rear roller bearings (ill. 14/3)
- Universal ball joints of the coupling arms (ill. 15 a+b)



ill. 13a



ill. 13b



ill. 14

1

2

3



ill. 15a



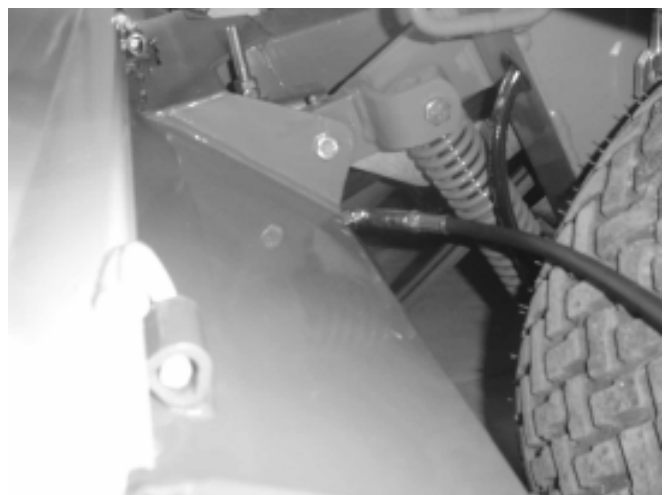
ill. 15b

- Bearings on the mowing unit drive shaft (ill. 16 a+b).

There are two grease nipples on the drive shaft's bearings.

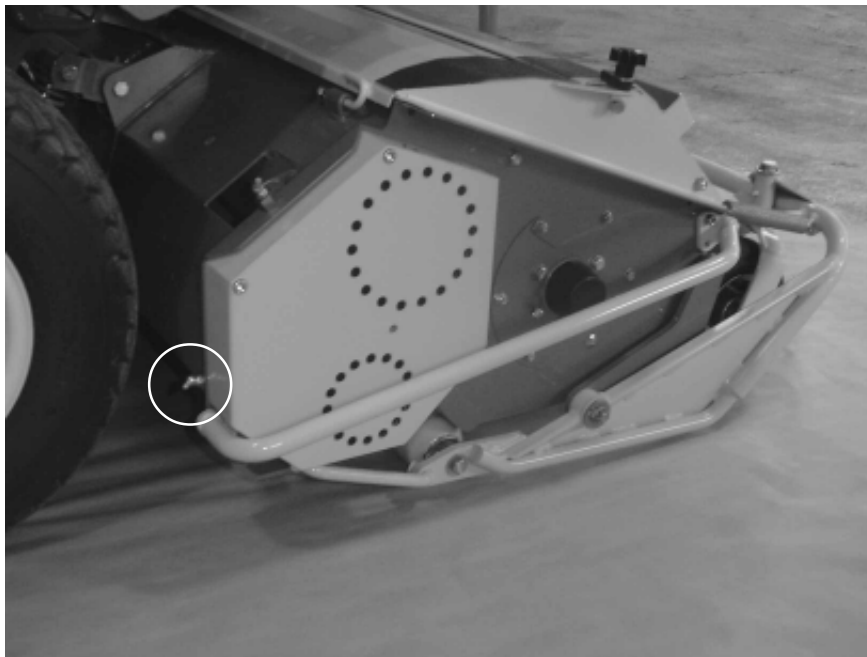


ill. 16a



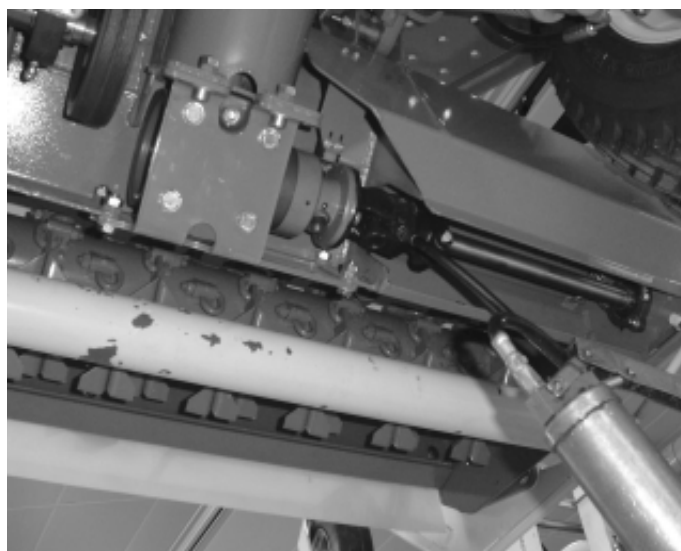
ill. 16b

- Bearings of the transmission shaft of the second auger (ill. 17)



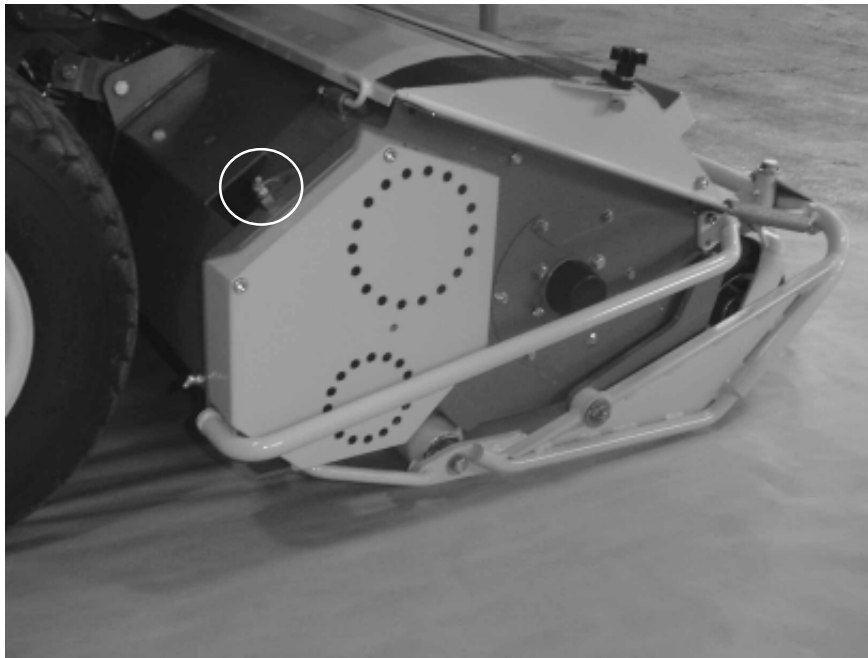
ill. 17

- Joint of the transmission shaft of the second auger (ill. 18)



ill. 18

- Bearings of the cross auger (ill. 19 + 20)



ill. 19

- Bearings of the rotor (ill. 20+ ill. 21)



b (= bearings
of the cross
auger)

a (= rotor)

ill.20



ill. 21

- High adjustment (ill. 22)



ill. 22












All other belt drives are self-tensioning but ex-works they are pretensioned according to following values :

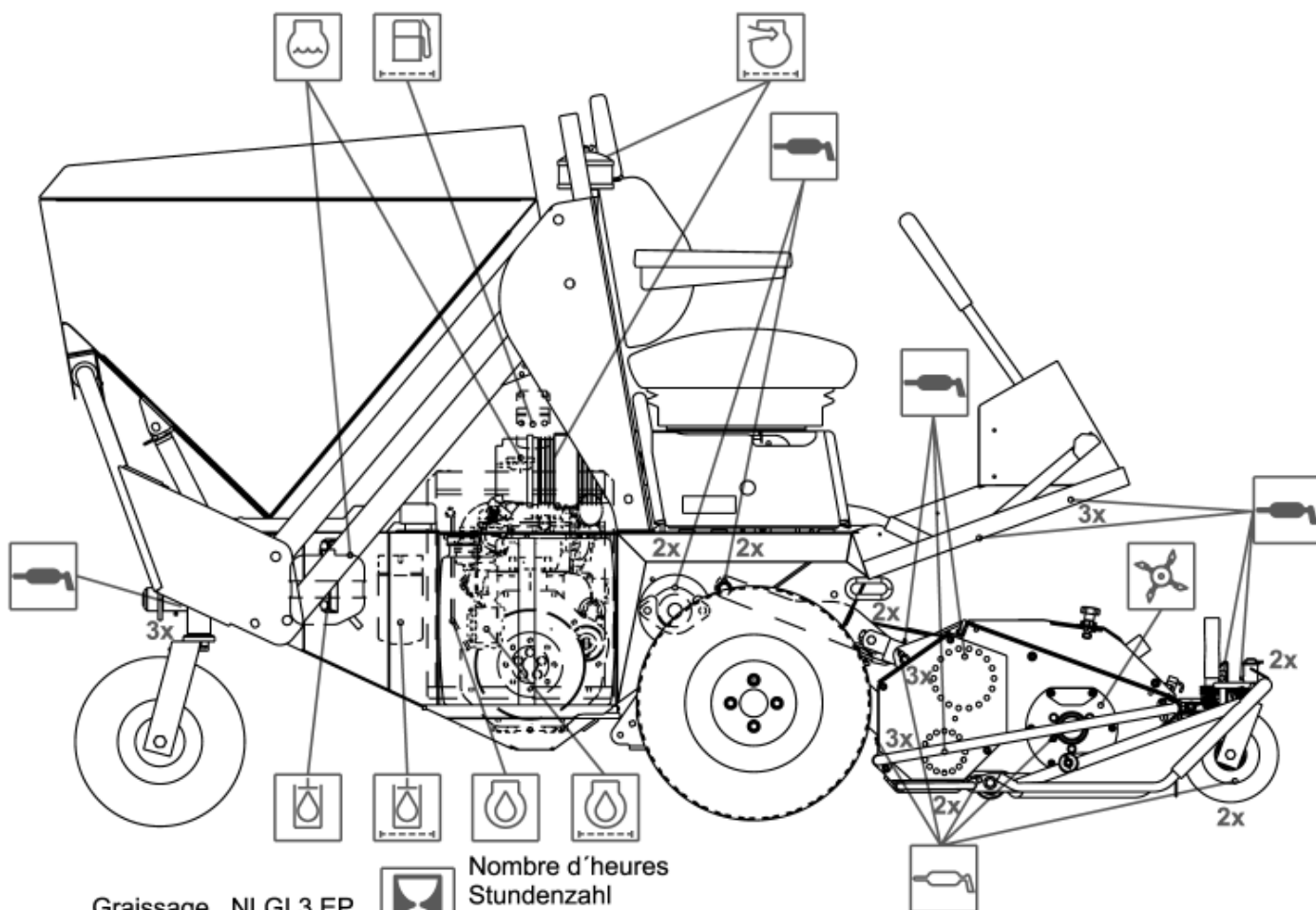
TRANSMISSION	BELTS	STATIQUE PRE-TENSIONING
Mowing unit (main shaft - mowing unit)	2	First connection 550N After running in 400N
Longitudinal screw transmission	3	First connection 263N After running in 225N
Transversal screw rotor transmission	5	First connection 258N After running in 220N

5.4 Longer pauses in operation, storing over winter

1. Thoroughly clean the mowing unit.
2. Carry out all the necessary greasing.
3. Check V-belts condition. If they have to be replaced, please contact your workshop service.
4. Store the mowing unit in a dry place.

Profihopper / PH04 Entretien - Wartung - Maintenance - Onderhoud

										
8	G		C	C		C	C			C
50		G						C		
125				R						
250					R			R	R	R
500						R	R			



G

Graissage NLGI 3 EP
Schmierung
Greasing
Smering

C

Contrôle
Kontrolle
Checking
Controle

R

Remplacement
Wechsel
Replacement
Vervanging



Filtre à air
Luffilter
Air filter
Luchtfilter



Nombre d'heures
Stundenzahl
Hours
Draaiuren



Point de graissage
Schmierstelle
Greasing point
Smeerpunten



Rotor de tonte
Mährotor
Mowing rotor
Klepelas



Huile moteur 2,4 L
Motoröl 10W40
Engine oil API-CF
Motorolie



Filtre à huile moteur
Motorölfilter
Engine oil filter
Motoroliefilter



Liquide de refroidissement moteur
Motorkühlflüssigkeit
Engine coolant 6L
Koelvloeistof motor



Huile circuit hydraulique 17L
Hydrauliköl 10W40
Hydraulic oil API-CF
Hydraulische olie



Filtre à huile hydraulique
Hydraulikölfilter
Hydraulic oil filter
Oliefilter voor hydraulik olie



Filtre à carburant
Kraftstofffilter
Fuel filter
Brandstofffilter



ME527

NOTES

This image shows a full page of white paper with horizontal dotted lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.