Operating and maintenance manual

AMAZONE

PROFIHOPPER

Model PH04

The universal mower and scarifier



MG2296 BAF0002.2 10.09 Printed in France



Read and observe this operating manual before putting the equipment into operation for the first time!

Keep in a safe place for future reference!







READING THE INSTRUCTION

manual and adhering to it should not appear to be inconvenient and superfluous as it is not enough to hear from others and to realise that a machine is good, to buy it and to believe that now everything should work by itself. The person concerned would not only harm himself but also make the mistake of blaming the machine for the reason of a possible failure instead of himself. In order to ensure good success one should go into the mind of a thing, make himself familiar with every part of the machine and to get acquainted with its handling. Only in this way would you be satisfied both with the machine as also with yourself. To achieve this is the purpose of this instruction manual.

Leipzig-Plagwitz 1872. Zug. Lark!



Identification data

Enter the machine identification data here. You will find the identification data on the rating plate.

Machine identification number:

(ten-digit)

Type: Profihopper

Year of manufacture:

Empty weight kg:

Approved total weight (kg):

Maximum load (kg):

Manufacturer's address

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E-mail: amazone@amazone.de

Online spare parts catalogue: et.amazone.de

When ordering spare parts, always specify the (ten-digit) machine identification number.

Formalities of the operating manual

Document number: MG2296
Compilation date: 10.09

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Foreword

Dear Customer,

You have chosen one of the quality products from our wide range of AMAZONE agricultural machinery. We thank you for your confidence in our products.

On receiving the machine, check to see if it was damaged during transport or if parts are missing. Using the delivery note, check that the machine was delivered in full including the ordered special equipment. Replacement will be made only if a claim is filed immediately!

Please read and follow this operating manual—in particular, the safety instructions—before putting the machine into operation. Only after careful reading will you be able to benefit from the full scope of your newly purchased machine.

Please ensure that all the machine operators have read this operating manual before they put the machine into operation.

Should you have problems or queries, please consult this operating manual or give us a call.

Regular maintenance and timely replacement of worn or damaged parts increases the lifespan of your machine.

User evaluation

Dear Reader

We update our operating manuals regularly. Your suggestions for improvement help us to create ever more user-friendly manuals. Please send your suggestions to:

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1 User information

The "User information" section supplies information on using the operating manual.

1.1 Purpose of the document

This operating manual

- Describes the operation and maintenance of the machine.
- Provides important information on safe and efficient handling of the machine.
- Is a component part of the machine and should always be kept with the machine or the traction vehicle.
- Keep it in a safe place for future use.

1.2 Locations in the operating manual

All the directions specified in the operating manual are always viewed in the direction of travel.

1.3 Diagrams used

Instructions for action and reactions

Tasks to be carried out by the user are presented as numbered instructions. Always keep to the order of the instructions. The reaction to instructions is given by an arrow.

Example:

- 1. Instruction for action 1
- → Reaction of the machine to instruction for action 1
- 2. Instruction for action 2

Lists

Lists without a mandatory sequence a presented as a list with bullet points.

Example:

- Point 1
- Point 2

Item numbers in diagrams

Numbers in round brackets refer to the item numbers in the diagrams. The first digit refers to the diagram; the second digit, to the item number in the illustration.

Example (Fig. 3/6)

- Figure 3
- Item 6



2 General safety instructions

This section contains important information on safe operation of the machine.

2.1 Obligations and liability

Comply with the instructions in the operating manual

Knowledge of the basic safety information and safety regulations is a basic requirement for safe handling and fault-free machine operation.

Obligations of the operator

The operator is obliged only to let those people work with/on the machine who

- Are aware of the basic workplace safety information and accident prevention regulations.
- Have been trained in working with/on the machine.
- Have read and understood this operating manual.

The operator is obliged

- To keep all the warning symbols on the machine in a legible state.
- To replace damaged warning symbols.

If you still have queries, please contact the manufacturer.

Obligations of the user

Before starting work, anyone charged with working with/on the machine is obliged

- To comply with the basic workplace safety instructions and accident prevention regulations.
- To read and understand the section "General safety information" of this operating manual.
- To read the section "Warning symbols and other labels on the machine" (page 14) of this operating manual and to follow the safety instructions represented by the warning symbols when operating the machine.
- To get to know the machine.
- To read the sections of this operating manual, important for carrying out your work.

If the user discovers that a function is not working properly, then they must eliminate this fault immediately. If this is not the task of the user or if the user does not possess the appropriate technical knowledge, then they should report this fault to their superior (operator).



Risks in handling the machine

The machine has been constructed to the state-of-the art and the recognised rules of safety. However, there may be risks and restrictions which occur when operating the machine

- For the health and safety of the user or third persons.
- For the machine,
- For other goods.

Only use the machine

- For the purpose for which it was intended.
- In a perfect state of repair.

Eliminate any faults that could impair safety immediately.

Guarantee and liability

Our "General conditions of sales and business" are always applicable. These shall be available to the operator, at the latest on the completion of the contract. Guarantee and liability claims for damage to people or goods will be excluded if they can be traced back to one or more of the following causes:

- Improper use of the machine.
- Improper installation, commissioning, operation and maintenance of the machine.
- Operation of the machine with defective safety equipment or improperly attached or non-functioning safety equipment.
- Non-compliance with the instructions in the operating manual regarding commissioning, operation and maintenance.
- Independently-executed construction changes to the machine.
- Insufficient monitoring of machine parts that are subject to wear.
- Improperly executed repairs.
- Catastrophic events as a result of the impact of foreign objects or force majeure.



2.2 Representation of safety symbols

Safety instructions are indicated by the triangular safety symbol and the highlighted signal word. The signal word (DANGER, WARNING, CAUTION) describes the gravity of the risk and has the following significance:



DANGER

Indicates an immediate high risk, which will result in death or extremely serious physical injury (loss of body parts or long term damage) if not avoided.

If the instructions are not followed, then this will result in immediate death or serious physical injury.



WARNING

Indicates a medium risk, which could result in death or (extremely serious) physical injury if not avoided.

If the instructions are not followed, then this may result in death or serious physical injury.



CAUTION

Indicates a low risk, which could incur minor or medium level physical injury or damage to property if not avoided.



IMPORTANT

Indicates an obligation to special behaviour or an activity required for proper machine handling.

Non-compliance with these instructions can cause faults on the machine or in the environment.



NOTE

Indicates handling tips and particularly useful information.

These instructions will help you to use all the functions of your machine to the optimum.



2.3 Organisational measures

The operator must provide the necessary personal protective equipment, such as:

- Protective glasses
- Protective shoes
- Protective suit
- Skin protection, etc.



The operation manual

- Must always be kept at the place at which the machine is operated.
- Must always be easily accessible for the user and maintenance personnel.

Check all the available safety equipment regularly.

2.4 Safety and protection equipment

Before each commissioning of the machine, all the safety and protection equipment must be properly attached and fully functional. Check all the safety and protection equipment regularly.

Faulty safety equipment

Faulty or disassembled safety and protection equipment can lead to dangerous situations.

2.5 Informal safety measures

As well as all the safety information in this operating manual, comply with the general, national regulations pertaining to accident prevention and environmental protection.

When driving on public roads and routes, then you should comply with the statutory road traffic regulations.



2.6 User training

Only those people who have been trained and instructed may work with/on the machine. The operator must clearly specify the responsibilities of the people charged with operation, maintenance and repair work.

People being trained may only work with/on the machine under the supervision of an experienced person.

People Activity	Person specially trained for the activity 1)	Trained person 2)	Person with specialist training (specialist workshop)
Loading/Transport	Х	Х	Х
Commissioning		Х	
Set-up, tool installation			Х
Operation		Х	
Maintenance			Х
Troubleshooting and fault elimination		Х	Х
Disposal	Х		

Legend:

X..permitted

--..not permitted

- A person who can assume a specific task and who can carry out this task for an appropriately qualified company.
- Instructed persons are those who have been instructed in their assigned tasks and in the possible risks in the case of improper behaviour, have been trained if necessary, and have been informed about the necessary protective equipment and measures.
- People with specialist technical training shall be considered as a specialist. Due to their specialist training and their knowledge of the appropriate regulations, they can evaluate the work with which they have been charged and detect possible dangers.

Comment:

A qualification equivalent to specialist training can be obtained through long term activity in the appropriate field of work.



Only a specialist workshop may carry out maintenance and repair work on the machine, if such work is specifically designated "Workshop work". The personnel of a specialist workshop shall possess the appropriate knowledge and suitable aids (tools, lifting and support equipment) for carrying out the maintenance and repair work on the machine in a way which is both appropriate and safe.



2.7 Safety measures in normal operation

Only operate the machine if all the safety and protection equipment is fully functional.

Check the machine at least once a day for visible damage and check the function of the safety and protection equipment.

2.8 Dangers from residual energy

Note that there may be residual mechanical, hydraulic, pneumatic and electrical/electronic energy at the machine.

Use appropriate measures to inform the operating personnel. You can find detailed information in the relevant sections of this operating manual.

2.9 Maintenance and repair work, fault elimination

Carry out prescribed setting, maintenance and inspection work in a timely manner.

Secure all media such as compressed air and the hydraulic system against unintentional start-up.

Carefully fix and secure larger subassemblies to lifting gear when carrying out replacement work.

Check all the screw connections for a firm seat. On completing maintenance work, check the function of safety and protection equipment.

2.10 Constructive changes

You may make no changes, expansions or modifications to the machine without the authorisation of AMAZONEN-WERKE. This is also valid when welding support parts.

Any expansion or modification work shall require the written approval of AMAZONEN-WERKE. Only use the modification and accessory parts released by AMAZONEN-WERKE so that the operating permit, for example, remains valid in accordance with national and international regulations.

Vehicles with an official type approval or with equipment connected to a vehicle with a valid type approval or approval for road transport according to the German road traffic regulations must be in the state specified by the approval.



WARNING

Risk of being crushed, cut, caught, drawn in or struck if supporting parts break.

It is forbidden to:

- Drill holes in the frame or on the chassis.
- Increasing the size of existing holes on the frame or the chassis.
- Welding support parts.



2.10.1 Spare and wear parts and aids

Immediately replace any machine parts which are not in a perfect state.

Use only genuine **AMAZONE** spare and wear parts or the parts cleared by AMAZONEN-WERKE so that the operating permit retains its validity in accordance with national and international regulations. If you use wear and spare parts from third parties, there is no guarantee that they have been designed and manufactured in such a way as to meet the requirements placed on them.

AMAZONEN-WERKE accepts no liability for damage arising from the use of unapproved spare parts, wear parts or auxiliary materials.

2.11 Cleaning and disposal

Handle and dispose of any materials used carefully, in particular:

- When carrying out work on lubrication systems and equipment and
- When cleaning using solvents.

2.12 User workstation

The machine may be operated by only one person sitting in the driver's seat

2.13 Warning symbols and other signs on the machine



Always keep all the warning symbols of the machine clean and in a legible state. Replace illegible warning symbols. You can obtain the warning symbols from your dealer using the order number (e.g. MD 075).

Warning symbols - structure

Warning symbols indicate dangers on the machine and warn against residual dangers. At these points, there are permanent or unexpected dangers.

A warning symbol consists of two fields:



Field 1

is a symbol describing the danger, surrounded by triangular safety symbol.

Field 2

is a symbol showing how to avoid the danger.



Warning symbols - explanation

The column **Order number and explanation** provides an explanation of the neighbouring warning symbol. The description of the warning symbols is always the same and specifies, in the following order:

A description of the danger.
 For example: danger of cutting!

2. The consequence of non-observance of the danger protection instructions.

For example: causes serious injuries to fingers or hands.

Instructions for avoiding the danger.
 For example: only touch machine parts when they have come to a complete standstill.

Order number and explanation

MD 075

Risk of fingers and hands being cut or severed by rotating machine parts.

This hazard can cause extremely serious injuries with the loss of body parts such as fingers or hands.

Never reach into the danger area when the tractor engine is running with the PTO shaft/hydraulic system connected.

Do not touch machine parts until they have come to a complete standstill.

STOP

Warning symbols

MD 076

Risk of hands or arms being drawn in or caught by power-driven, unprotected chain or belt drives.

This hazard can cause extremely serious injuries, including loss of parts of the body from hands or arms

Never open or remove protective equipment from chains or belt drives,

- while the tractor engine is running and the PTO shaft is connected/hydraulic drive is engaged
- or the ground wheel drive is in motion



MD 078

Risk of fingers or hands being crushed by accessible moving machine parts.

This hazard can cause extremely serious injuries with the loss of body parts such as fingers or hands.

Never reach into the danger area when the tractor engine is running with the PTO shaft/hydraulic system connected.



MD 079

Hazard from materials or foreign objects that are thrown from or ejected by the machine.

This hazard can cause extremely serious injuries to any part of the body.

Ensure that persons not involved in the operation of the machine maintain a sufficient safety distance from the danger area created by the machine while the tractor engine is running.





Risk of any part of the body being crushed by machine parts descending unintentionally, having been raised via the lifting cylinder.

This hazard can cause extremely serious injuries anywhere on the body, or even death.

If machine parts have been raised, secure the lifting cylinder against lowering unintentionally, before entering the danger area beneath the raised machine parts.

To do this, use the mechanical lifting cylinder support or the hydraulic locking device.



MD 083

Risk of arms or upper body being caught or drawn in by unprotected, moving machine parts.

This can cause severe injury to the arm or upper body.

Never open or remove guard devices from moving machine parts while the tractor engine is running with the PTO shaft connected/hydraulic drive engaged.



MD 084

Risk of contusions over the whole body from machine parts moving down from above!

This hazard can cause extremely serious injuries anywhere on the body, or even death.

It is forbidden to stand in the swivel area of moving machine parts.

Instruct people to leave the swivel area of moving machine parts before the machine parts move down.

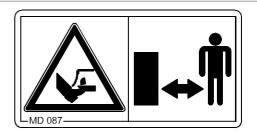


MD 087

Risk of toes or feet being cut or severed by power-driven tools.

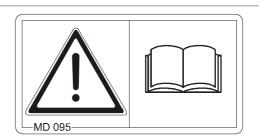
This hazard can cause serious injuries, including loss of parts of the body from toes or feet.

Maintain a sufficient safety distance from the danger area while the tractor engine is running and the PTO shaft/hydraulic system is connected.



MD 095

Read and understand the operating manual safety information before starting up the machine!





Danger of infection to the whole body from liquids escaping at a high pressure (hydraulic fluid)!

This danger will cause serious injuries over the whole body, if hydraulic fluid escaping at high pressure passes through the skin and into the body.

Never attempt to plug leaks in hydraulic lines using your hand or fingers.

Read and understand the information in the operating manual before carrying out maintenance and repair work.

If you are injured by hydraulic fluid, contact a doctor immediately.



MD 100

This symbol indicates lashing points for fastening slinging gear when loading the machine.



MD 101

This pictogram shows application points for lifting gear (jack).



MD 102

Danger from unintentional machine starting and rolling during intervention in the machine, e.g. installation, adjusting, troubleshooting, cleaning, maintaining and repairing.

This hazard can cause extremely serious injuries anywhere on the body, or even death.

- Secure the tractor and the machine against unintentional start-up and rolling before any intervention in the machine.
- Depending on the type of intervention, read and understand the information in the relevant sections of the operating manual.

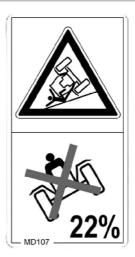




Risk of the machine rolling over if the lateral inclination exceeds 22%.

If the lateral inclination is too great, the machine could tip over and the driver could be trapped or run over by the machine.

This hazard can cause extremely serious injuries anywhere on the body, or even death.



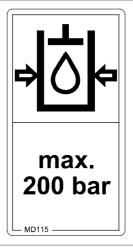
MD 114

This symbol indicates a lubrication point



MD 115

The maximum operating pressure of the hydraulic system is 200 bar.



MD 145

The CE mark signifies that the machine complies with basic health and safety requirements.





Risk to driver if brakes applied too heavily.

This can result in the unrestrained driver being thrown from the seat while braking.



MD 148

The noise level (L_{WA}) is 105 dB.

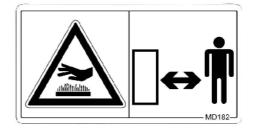


MD 182

Risk of burns from hot surfaces.

This can cause severe burns.

• Do not work on the machine until it has cooled down completely.



MD 184

The driver is advised to wear noise protection in order to prevent hearing damage.

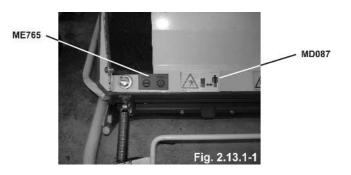




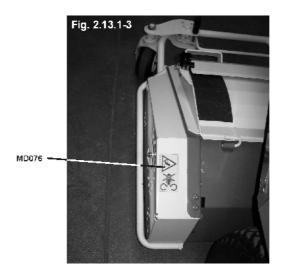
2.13.1 Positioning of warning symbols and other labels

Warning symbols

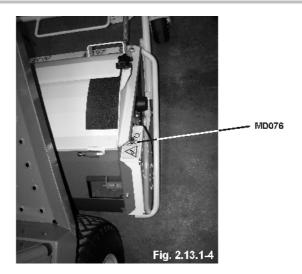
The following diagrams show the arrangement of the warning symbols on the machine.

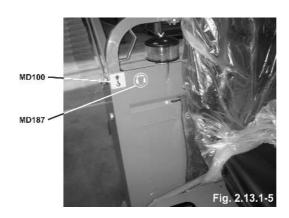


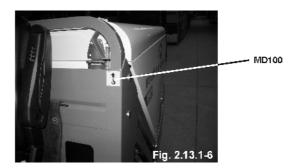








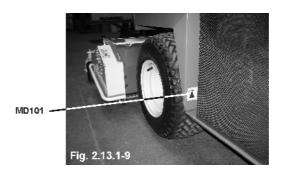


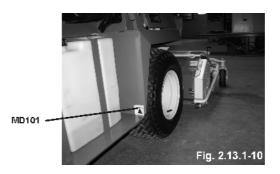


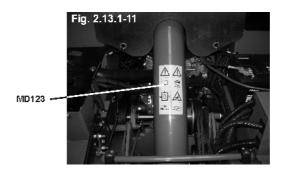


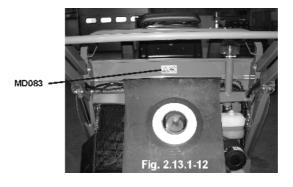




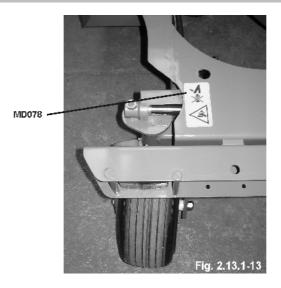


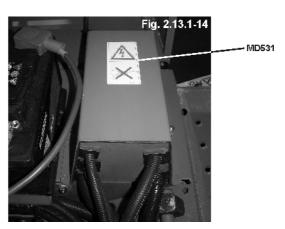


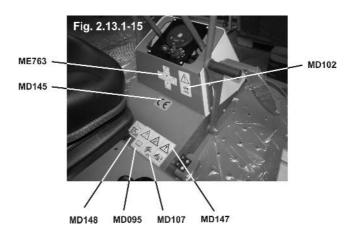


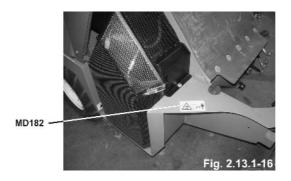














2.14 Dangers if the safety information is not observed

Non-observance of the safety information

- Can pose both a danger to people and also to the environment and machine.
- Can lead to the loss of all warranty claims.

Seen individually, non-compliance with the safety information could pose the following risks:

- Danger to people through non-secured working areas.
- Failure of important machine functions.
- Failure of prescribed methods of maintenance and repair.
- Danger to people through mechanical and chemical impacts.
- Risk to environment through leakage of hydraulic fluid.

2.15 Safety-conscious working

Besides the safety information in this operating manual, the national general workplace safety and accident prevention regulations are binding.

Comply with the accident prevention instructions on the warning symbols.

When driving on public roads and routes, comply with the appropriate statutory road traffic regulations.



2.16 Safety information for users



WARNING

Risk of being crushed, cut, caught, drawn in or struck due to insufficient traffic and operational safety!

Before starting up the machine, always check it is safe to drive and operate.

2.16.1 General safety and accident prevention information

- Beside these instructions, comply with the general valid national safety and accident prevention regulations.
- The warning symbols and labels attached to the machine provide important information on safe machine operation. Compliance with this information guarantees your safety!
- Before moving off and starting up the machine, check the immediate area of the machine (children)! Ensure that you can see clearly!
- Drive carefully so that you are always in control of the machine.
 Always take your own driving ability, the road, traffic, visibility and weather conditions, and the driving characteristics of the machine into account.

Use of the machine

- Before starting work, ensure that you understand all the equipment and actuation elements of the machine and their function. There is no time for this when the machine is already in operation!
- Do not wear loose-fitting clothing! Loose clothing increases the risk over being caught by drive shafts!
- Only start-up the machine, when all the safety equipment has been attached and is in the safety position!
- Do not exceed the maximum machine load and the permitted loads on the axles and drawbars. If necessary, drive only with a partiallyfilled hopper.
- It is forbidden to stand in the working area of the machine (see section 3.7).
- It is forbidden to stand in the turning and rotation area of the machine.
- There are contusion and cutting points at externally-actuated (e.g. hydraulic) machine points.
- Only actuate externally-actuated machine parts when you are sure that there is no-one within a sufficient distance from the machine!
- Secure the machine against unintentional start-up and rolling before you leave it.

For this:

- o Apply the parking brake
- o Switch off the engine
- Remove the ignition key

Machine transportation

 When using public highways, national road traffic regulations must be observed.



- Before moving off, check:
 - o the lighting system for damage, function and cleanliness
 - o the brake and hydraulic system for visible damage
 - that the parking brake is released completely
- Ensure that the machine has sufficient steering and braking power.
- Check the brake power before moving off.
- When driving around corners, allow for the wide overhang and the centrifugal mass of the machine.
- Before moving off, move all the swivel machine parts to the transport position.
- Check that the transport equipment, e.g. lighting, warning equipment and protective equipment, is correctly mounted on the machine.
- Adjust your driving speed to the prevailing conditions.

2.16.2 Hydraulic system

- The hydraulic system is under a high pressure.
- Ensure that the hydraulic hose lines are connected correctly.
- Make sure the hydraulic system is not pressurised when connecting hydraulic hose lines.
- It is forbidden to block the operator controls which are used for hydraulic and electrical movements of components, e.g. folding, swivelling and pushing movements. The movement must stop automatically when you release the appropriate control. This does not apply to equipment movements that:
 - o are continuous or
 - o are automatically locked or
 - o necessarily require an open centre or pressure position to operate correctly
- Before working on the hydraulic system
 - Switch off all machine parts
 - o Depressurise the hydraulic system
 - o Switch off the engine
 - o Apply the parking brake
 - Remove the ignition key
- Have the hydraulic hose line checked at least once a year by a specialist for proper functioning.
- Replace the hydraulic hose line if it is damaged or worn. Only use original AMAZONE hydraulic hose lines.
- The hydraulic hose lines should not be used for longer than six years, including any storage time of maximum two years. Even with proper storage and approved use, hoses and hose connections are subject to natural ageing, thus limiting the length of use. However, it may be possible to specify the length of use from experience values, in particular when taking the risk potential into account. In the case of hoses and hose connections made from thermoplastics, other guide values may be decisive.
- Never attempt to plug leaks in hydraulic lines using your hand or fingers.

Escaping high pressure fluid (hydraulic fluid) may pass through the skin and ingress into the body, causing serious injuries! If you are injured by hydraulic fluid, contact a doctor immediately.



Danger of infection.

 When searching for leakage points, use suitable aids, to avoid the serious risk of infection.

2.16.3 Electrical system

- When working on the electrical system, always disconnect the battery (negative terminal).
- Only use the prescribed fuses. If fuses are used with too high a rating, the electrical system will be destroyed – danger of fire.
- Ensure that the battery is connected correctly firstly connect the
 positive terminal and then connect the negative terminal. When disconnecting the battery, disconnect the negative terminal first, followed by the positive terminal.
- Always place the appropriate cover over the positive battery terminal.
 Contact with earth may cause an explosion
- Risk of explosion: avoid the production of sparks or the presence of naked flames in the vicinity of the battery.
- The machine can be equipped with electronic components and units, whose function may be influenced by electromagnetic interference from other devices. Such influences can lead to personal hazard if the following safety information is not followed.
 - o If electrical units and/or components are retrofitted on the machine, which require a connection to the on-board power supply, the user must assume responsibility for checking whether the retrofit causes faults in the vehicle electronics or in other components.
 - Ensure that the retrofitted electrical and electronic components comply with the EMC directive 89/336/EEC in the appropriate version and carry the CE mark.



2.16.4 Safety check before moving off

Check the function and safety of the following safety-relevant components each time before you move off:

- Tyre pressure and tread condition
- · Seat switch operation
- Oil and hydraulic lines for leaks and/or porosity
- Blade and blade mounts for loose screws and severe wear
- Check safety devices for loose screws or mounts
- Hopper lid must be latched
- Check mulcher flap is in place
- The mower unit must switch off, as soon as the hopper is raised
- Check the alignment of the steering handle. The machine must not move unless the steering handle is used.





3 General description of the machine

3.1 Areas of application

The AMAZONE Profihopper is intended to be used for grass cutting and scarifying in public parks as well as sports fields and gardens, etc. It can be used to collect and chop foliage in the autumn.

3.2 Declaration of conformity

The Profihopper conforms to the EC Machinery Directive 89/392/EC and the relevant amendments

3.3 Details required for enquiries

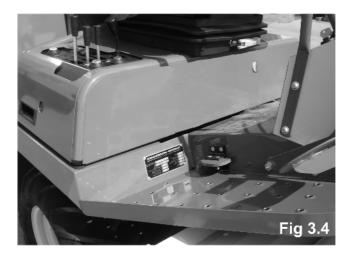
Please always specify the **machine number** when ordering special optional equipment and spare parts, or when making technical enquiries.



Safety requirements are only fulfilled if genuine AMAZONE spare parts are used when a repair is undertaken. The use of other parts may remove liability for any consequences which may occur as a result.

3.4 Identification of the machine

Rating plate on the machine (Fig. 3.4)





The whole identification plate has the status of a certificate and must not be altered or made unrecognisable.



3.5 Technical data

Engine:

Lombardini FOCS diesel; water-cooled; 3-cylinder 1028 cc; 18 KW (24.5 HP).

Tank content: 20 I diesel fuel

Hydraulic fluid: 17 |

Drive:

hydrostatic, 2 hydromotors and 2 adjustable pumps

Travel speed:

forwards 0 to 10 km/h, infinitely adjustable backwards 0 to 5 km/h, infinitely adjustable

Steering:

wheel motor control (O-radius steering)

Brakes:

hydrostatic and parking brake

Mower unit switch:

electromagnetic

Tvres:

front 20x10.00-10-4 PR or 21x11.00-10-4 PR

or 20x12-10-4PR

rear 15x6.00-6-4 PR

Dimensions with AMAZONE mower unit:

length: 2.67 m width: 1.48 m height: 1.58 m

Weight with AMAZONE mower unit:

955 kg empty weight, 1,250 kg permissible total weight

3.5.1 Noise production data

The emission value (noise level) applicable to the working area is: LpA = 90 dB(A). Measurements were taken under working conditions close to the driver's ear. Noise level in accordance with Decree 2000/14/CE: LwA = 105 dB(A).



NOTE:

Comply with EC Noise-at-Work Directive (2003/10/EEC) and the German "Occupational Health and Safety Ordinance on Noise and Vibration"

3.5.2 Vibration data

- Hand and arm vibrations (measured in accordance with DIN EN ISO 5349-1 und DIN EN ISO 5349-2: $\frac{1033}{1000}$):
 - a) left 4,59 m/s²
 - b) right 5,0 m/s²
- Whole body vibrations (measured in accordance ISO 2631-1 und DIN EN 14253: EN 1032)

0,55 m/s²



3.6 Intended use

The AMAZONE Profihopper is designed exclusively for use in green spaces. It is intended for grass-cutting, scarifying and collecting mown grass and leaves in autumn.

Any other kind of use is considered improper. The manufacturer is not responsible for any damage arising from improper use. The user assumes full responsibility for any subsequent legal action.

Appropriate and proper use also entails following all instructions and guidelines from the manufacturer in relation to the conditions of use, maintenance and repair.

Intended use also includes the exclusive use of **original AMAZONE spare parts** from the manufacturer.

The AMAZONE Profihopper should only be used, maintained and repaired by trained personnel who should also be informed of the dangers involved.

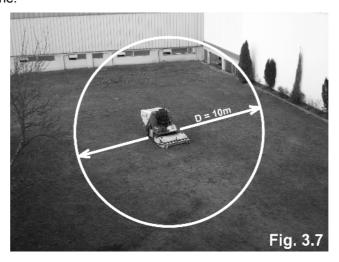
Please follow all instructions in relation to the prevention of industrial accidents and all other safety instructions of a medical nature applying to safety in road traffic. Follow closely the safety recommendations on the labels attached to the machine, its components and accessories.

Any unauthorised modification of the machine will automatically render all warranty claims against the manufacturer for resulting damage invalid.

3.7 Safe distance

It is forbidden to stand in the working area of the machine.

The working area means a radius of 5 metres around the working machine.





4 Transporting the machine

Use protective sleeves for synthetic belts when securing the machine.



Transport, storage

- 2. Drive very carefully and slowly onto a trailer or truck.

CAUTION

The machine must always be loaded and transported facing the direction of travel.

Make sure the hopper cover is well secured. It could break away in a strong wind.



The catch on the cover must be shut firmly

- 3. When transported on a trailer, the machine must be firmly lashed down, with the parking brake on and the engine switched off. Use the securing points shown in Fig. 4-1.
- 4. The machine must not be covered with a tarpaulin before the engine has cooled down. There is a risk of fire.
- 5. The hopper must always be emptied fully after grass-cutting. Fermenting clippings can become very hot and even catch fire under certain conditions. There is a risk of fire.
- 6. The machine must not be pushed with the engine off. The drivetrain could be damaged.





5 Taking delivery of the machine

On receiving the machine, check to see if it was damaged during transport or if parts are missing. Replacements will only be made if claims are submitted promptly to the haulage company. Please check that all the parts listed on the despatch note have been delivered.

Any damage must be noted on the delivery note immediately in the presence of the driver.

Before starting up, completely remove all packaging (including wires) and check lubrication.



6 Instrument panel and controls

6.1 Instrument panel



Never use a high-pressure hose to clean the instrument panel (Fig. 6.1.2).

1 <u>Hopper fill level</u> Flashes when the hopper is full.

2 Battery charge indicator

If the light does not go out when the engine is started, check the battery charging (the light may go out at slightly higher engine speed).

3 Collector system monitor

If this light comes on, the mower unit switches off automatically because the worm conveyor is no longer turning (it may be blocked with foreign matter).

4 Parking brake indicator light

The light goes out when the parking brake is released.

5 <u>Mower unit indicator</u>

Indicates whether the mower unit is engaged.

6 <u>Diesel engine glow-plug light</u>

(see Starting chapter)

7 <u>Turn indicators</u>

8 Working hour meter

9 Coolant temperature light

Green = coolant temperature normal Red flashing = engine overheating.

10 Coolant overheating light

If this light comes on, the mower unit switches off automatically. Allow the engine to cool down while idling for about 5 minutes. If the temperature rises again, the engine switches off automatically.

Check the coolant level and top up if necessary (see section 10.3.5). Check the protective grille and radiator for dirt and clean if necessary. If the warning light does not go out when the engine restarts, or if the engine overheats again, contact Service.

11 Oil pressure light

If this light comes on, switch the engine off immediately, check the oil level and top up if necessary. If the light does not go out when the engine restarts, switch off the engine and contact Service.

12 <u>Amazone Path Control</u> direction lock (Optional)

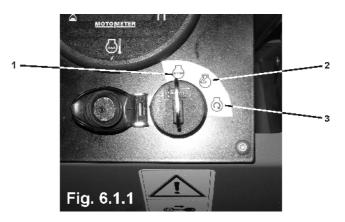
Only for machines fitted with a direction lock. Indicates whether the direction lock is on.



13 Hopper position light

Hopper in working position, light out. Hopper raised or in emptying position, light on.

A safety switch stops the engine if the hopper is raised accidentally while working. It must then be returned to its working position, the engine restarted and the cutting height reset.



Ignition key (Fig. 6.1.1)

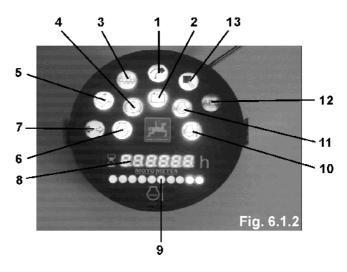
Pos. 0 = Stop

Pos. 1 = On, preheating

Pos. 2 = Start



Remove the key when cleaning the machine and close the dust cap over the ignition.





6.2 Fuse box under seat

Depending on the equipment fitted, there will be between two and seven fuses in the fuse box under the seat. You undo two screws to open the box. There are spare fuses in the toolbox under the seat. Always trace and rectify the reason for the fuses blowing.

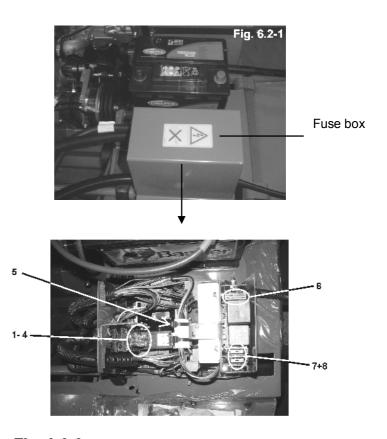


Fig. 6.2-2

- 1-4 15 A fuse
- 5 20 A fuse
- 6 50 A fuse
- 7+8 15 A fuse



6.3 Control levers

Accelerator lever

To start and stop the engine, move the lever to the idle position.

2. Emptying the hopper

To empty the hopper, pull the lever back; to move it to the working position, push it forwards.

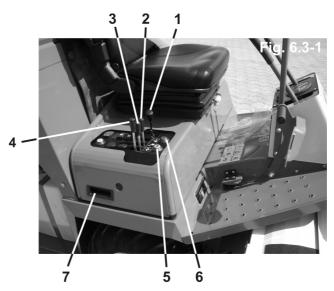
3. Raising/lowering the hopper

To raise the hopper, pull the lever back; to lower the hopper, push the lever forward.



CAUTION

Drive very carefully if the hopper is raised. The machine could overturn.



4. Raising/lowering the mower unit

To raise the mower unit, pull the lever back; to lower it, push the lever forwards. The lever must be locked in the forward position during operation (cutting, etc.) In this way, the mower unit remains in a floating position and can follow ground undulations.

5. Switching the mower unit on

Select a medium engine speed to start the mower unit gently. Press and hold the switch until the mower unit is running evenly. This switch is deactivated when the hopper is raised.

6. Switching the mower unit off

7. Cover handle

The cover has a mechanical lock and is unlocked by pressing the black button (Fig. 6.3-2).

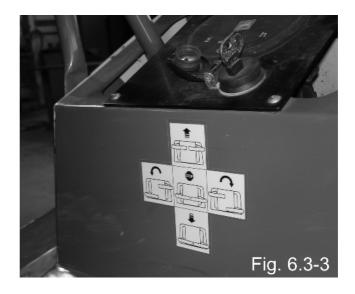
8. Tool box

The tool box can be found under the seat.





10. <u>Steering/control levers</u>
The sticker under the display panel explains how to control the driving direction using the levers (Fig.6.3-3).





6.4 Speed control, steering

1. Steering levers (Fig. 6.4-1/1)

Pull the left lever back to steer to the left. Pull the right lever back to steer to the right. For better control of the steering, we recommend using one hand to control both levers (Fig. 6.4-2). The levers line up parallel when the speed is changed by means of the foot pedal.

2. Accelerator pedal (Fig. 6.4-1/2)

The forward speed can be varied between 0 and 10 km/h using this pedal. To bring the machine to a stop, remove your foot from the pedal and do not put any pressure on the steering levers. The lever can be pulled back slightly for faster braking.

Pull back on both levers in parallel to travel backwards, do not depress the foot pedal.

3. Safety handle (Fig.6.4-1/3)

The driver should use this handle when mounting the Profihopper instead of pulling on the steering bars



CAUTION

Abrupt operation of the steering lever will make the machine accelerate too quickly.

Familiarise yourself with the driving characteristics of the machine in an open area at moderate speed. There is a risk of an accident.

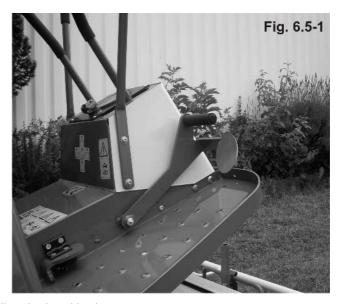






6.5 Hand Brake System

- When the hand brake is pulled on, the steering levers and the foot throttle are locked.
- New programming in the trip computer enables the driver to get off the seat without the engine stopping, provided the hand brake has been applied and the mowing deck has stopped. This enhancement will noticeably increase the lifespan of both starter and battery.



1. Pulling the hand brake:

The Brake lever (which is also part of the foot throttle) makes a clicking sound as it is pulled 'on' and prevents the machine from rolling away. (Fig. 6.5-2)





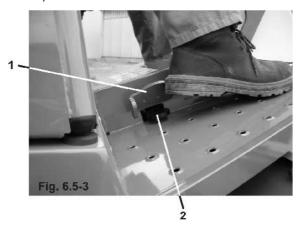
CAUTION:

When the hand brake is applied, the mower deck can't be started.



2. Release the hand brake:

To release the hand brake, lift the cover (Fig.6.5-1) and push the release lever (Fig. 6.5-3/2) with the left heel.



6.6 Adjusting the seat

1. Back and forth

Turn the lever to the left (Fig. 6.6/1) and move the seat to the desired position.

2. Seat back angle

Raise the above lever (Fig. 6.6/2) to adjust the angle.

3. Adjusting the seat suspension

The Seat has different suspension positions according to operator weight – range 50kg to 150 kg (Fig. 6.6/3).

Soft (light weight) Turn the lever to the right.

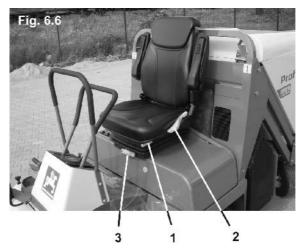
Hard (heavy weight) Turn the lever to the left.



The driver's seat has a safety switch that switches off the engine as soon as the driver leaves the seat.

It takes less than 7 seconds to switch off.

If the seat suspension is too hard, ground undulations can trigger this safety function (engine will sputter).





WARNING

Check the operation of the seat switch every time you use the machine.

Contact Service if there is a fault or delay in the engine switching off.



7 Starting and using the machine

7.1 Safety system

The mower has 4 safety switches:

- One on the engine to switch off the mower unit if the engine temperature exceeds 110 °C (see section 9.2.3).
- One under the seat to switch off the engine as soon as the driver leaves the seat.
- One on the hopper to switch off the engine if the hopper is raised while the mower unit is still in operation.
- One under the mower unit to switch off the electromagnetic clutch if the worms become blocked or jams.

The mower deck can only be put into operation if the following 5 requirements are met:

- No engine overheating (for example: dirty cooler).
- The hopper must be closed and completely lowered.
- The operator is sitting in the drivers seat.
- The auger collection system is not blocked.
- The parking brake must be released



NOTE

The engine can only be started if the driver's seat is occupied.

7.2 Tyre pressure

Always inflate the tyres to the specified pressure. Pressures other than those recommended may impair driving characteristics.

Tyre pressure: front: 1.0 bar

rear: 1.0 bar Mower unit tyres: 1.5 bar

7.3 Before starting

Check the following before every use:

· Engine oil:

Check oil level (Fig. 7.3-1) and top up if necessary (Fig. 7.3-2).

Oil grade: 10W40 API-CF diesel engine oil

Total filling amount: 2.4 I







Hydrostat hydraulic fluid:

The oil tank is integrated into the frame and is located on the right-hand side of the machine. The red lines indicate the minimum and maximum oil levels.

Check the oil level and top up if necessary (Fig. 7.3.-3). Remember that oil expands when it is hot.

Do not overfill.

Oil grade: 10 W 40 API-CF engine oil

Total filling amount: 17 I



CAUTION

The oil becomes very hot during engine operation. When using hydraulic oil, use only HLP68.





Fuel (diesel)

The fuel tank is transparent so you can easily see the level. Make sure there is always enough fuel in the tank so it does not run dry.

Use only DIESEL fuel with Norm ISO 8217 DMX or EN590:96!

The engine will not work if a different fuel (e.g. RME bio-diesel) or two-stroke is used.



DIESEL catches fire easily. Fire, naked flames and smoking are forbidden near diesel.

Prevent diesel from coming into contact with your bare skin.

Breathing in diesel fumes is hazardous for your health.

7.4 Starting and stopping the engine

To start the engine, sit on the drivers seat and proceed as follows:

- · Make sure the parking brake is on.
- Do not operate the accelerator pedal or steering levers. Bring them to the 0 position.
- Turn the ignition key clockwise until the glow-plug light comes on.
- When the glow-plug light goes out, turn the key clockwise and release
 it as soon as the engine is running. Move the accelerator lever no further than the centre position. Do not interrupt the starting procedure
 but do not try to start the engine for more than 5 seconds at a time.



CAUTION

Never start the engine in an enclosed space. There is a risk of asphyxiation.

To switch off the engine, proceed as follows:

- Bring the machine to a stop.
- Move the accelerator lever back to the idle position.
- Apply the parking brake.
- Turn the ignition key anti-clockwise.



Cutting, scarifying and mulching 8



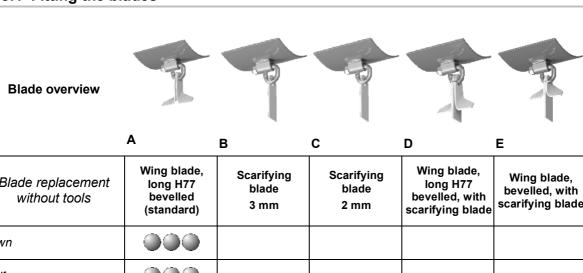
ATTENTION!

The period from the shutdown of the engine to a complete stop of the rotor is approx 5 seconds.

The mower deck cover <u>must only</u> be opened when the rotor has

stopped moving.

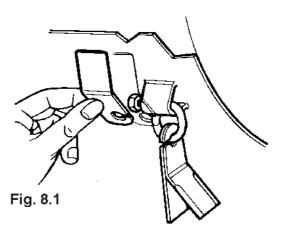
8.1 Fitting the blades



Blade replacement without tools	Wing blade, long H77 bevelled (standard)	Scarifying blade 3 mm	Scarifying blade 2 mm	Wing blade, long H77 bevelled, with scarifying blade	Wing blade, bevelled, with scarifying blade
Lawn	000				
Golf course	000				
Park	000				
Public green spaces	000				
Cutting flowers and eco- meadows	000				
Foliage collection	000			000	000
Scarifying		000			000
Scarifying golf courses / bowling greens			000		900
Weeding lawns					000
Paddocks				000	

excellent result 36 pairs + 36 pairs + Blades nos Required 36 pairs 36 pcs 36 pcs 36 pcs 36 pcs

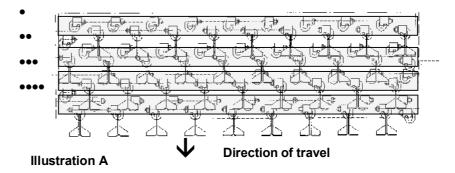




The cutting and scarifying blades can be swapped without using tools (see Fig. 8.1).

MOWING

There are 4 configurations for the mowing and scarifying blades. The Profihopper is fitted with 36 pairs of wing blades as standard. Series • to •••• (see diagram A).



CAUTION



Only fit the long wing blades to the clip bolts that are mounted from left to right on the rotor (in the direction of travel) (see illustration above)

9 pairs blades x 4 rows = 36 pairs blades/rotor

The other clip bolts should only be fitted with scarifying blades (if scarifying over a narrow width, see page 17).

The marking on the rotor makes it very easy to fit the blades.

No tools are needed to hang the blades on the clip bolts. The Profihopper can mow any kind of lawn with this equipment, even in damp conditions.

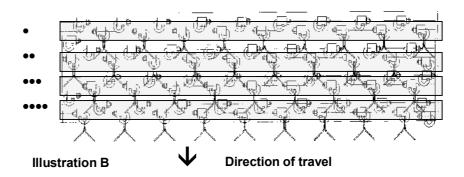
If required, the wing blades can be replaced by "Y"-shaped blades (72x). These require less power from the machine but are restricted in their collection capabilities.

The rotor speed may have to be changed, depending on the grass type



and density.

The "Y"-shaped blades are also suspended on the blade bars (see Illustrations A and B). Only half of each blade bar is used.



SCARIFYING

The Profihopper can be used to scarify the lawn and collect the scarified material as it goes.

There are two ways to scarify:

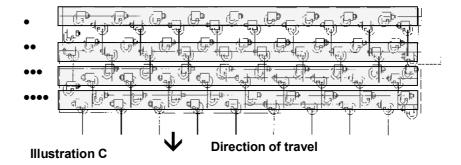
· Wide scarifying, blade spacing 33 mm

Here, rows • to •••• are half fitted with 36 scarifying blades. Only fit the scarifying blades to the clip bolts that are mounted from left to right on the rotor (in the direction of travel) (see Illustration C) 9 blades x 4 rows = 36 blades/rotor This allows the working depth to be increased without engaging too aggressively with the turf.



NOTE

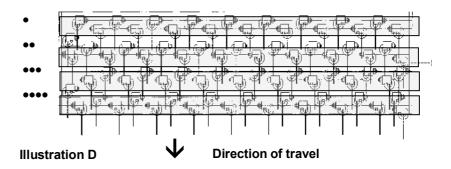
Only one type of scarifying blade may be used at a time. Risk of imbalance.



Narrow scarifying, blade spacing 16 mm

All clip bolts on the rotor must be fitted with scarifying blades (76 x). This type of scarifying is relatively aggressive and is suitable for restorative work on heavily thatched turf (moss) in the spring. This is the only occasion when all bolts on the rotor are fitted with blades (see Illustration D).







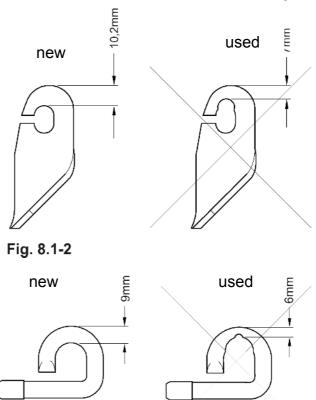
NOTE

It is essential for the rotor to be equipped with one of the above blade arrangements. If mower tools are missing or have been incorrectly fitted, an imbalance is created which, over time, will lead to the whole machine being damaged.

Wear limit of suspended tools:

The blade fasteners and clip bolts must be checked regularly for wear. Heavily worn tools must be promptly replaced.

Figs. 8.1-2 and 8.1-3 show the limits of wear for the mounting brackets.





CAUTION

The blades and the blade fasteners must be checked before the start of every run.

All screw unions must be firmly tightened.

Fig. 8.1-3

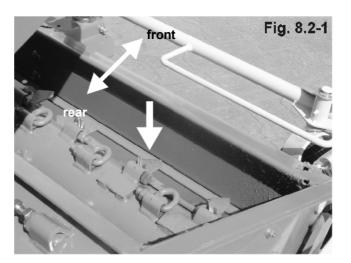


8.2 Adjusting the baffle plate

There is a baffle plate in front of the mowing unit (Fig. 8.2-1) which can be adjusted to improve cut quality when mowing. The baffle plate is set for scarifying at the factory.

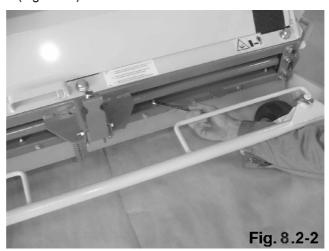
Setting options:

Scarifying push the plate forwards to the stop.Mowing push the plate back to the stop.



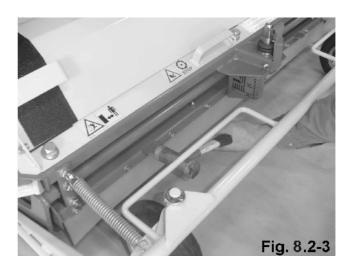
The plate must be in the forward position when scarifying.

Four bolts (Fig. 8.2-2) need to be undone to slide the bar.



You can use a hammer to tap the plate towards the rotor (Fig. 8.2-3).





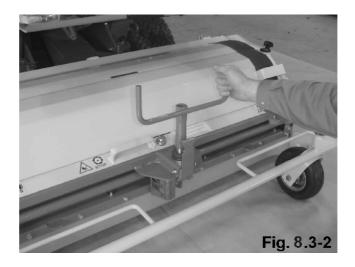
8.3 Adjusting the cutting height

To adjust the cutting height, proceed as follows:

- Open the retaining hook and remove the crank handle (Fig. 8.3-1),
- Turn the lever (Fig. 8.3-2).
- Turn to set the desired cutting height (Fig. 8.3-3),
- Return the lever to the locked position and fix in holder.







The mower unit has a cutting height gauge.





CAUTION

The lever must be returned to the locked position. To do so, turn the lever, place it on the pin and lock with the retaining hook (Fig. 8.3-4).





8.4 Collection system

The cuttings are collected and are conveyed by worm conveyors into the hopper where they are compressed. The drive belts on both worm conveyors are fitted with an overload switch in case they become blocked with foreign bodies.



NOTE:

The warning light on the instrument panel also comes on. Switch off the mower unit as quickly as possible. Risk of damage to the overload clutch.

ATTENTION

After the period, from the shutdown of the engine to a complete stop of the rotor, is ca 5 seconds.

The mowers may only be opened when the rotor hibernation has been achieved.

Clean the worm conveyors as follows:

Cleaning the transverse worm:

- Switch off the mower unit.
- Switch off the engine
- Open the mower unit cover with the crank handle (Fig. 8.4-1).
- Secure the cover with the holding strap (Fig. 8.4-2).









- Open the protective cover on the belt guard (Fig. 8.4-3).
- Insert the crank handle over the end of the transverse worm conveyor (Fig. 8.4-4).
- Release the foreign matter by turning the worm and remove.





Cleaning the longitudinal worm:

- Raise the hopper to the highest position
- Support it with the safety bracket (Fig. 8.4-5).







CAUTION

The safety bracket must be in place any time work is carried out under the hopper.

This prevents the hopper from lowering accidentally.

 Release the foreign matter by turning the worm and remove (Fig. 8.4-6).



- Remove the safety bracket.
- Lower the hopper into the working position.
- Close and lock the mower unit cover.



CAUTION

Before restarting the mower unit, make sure the cover is firmly locked in place. If the lock bolts are faulty, replace them immediately.

You can now continue working.



8.5 Mulching

The mower comes with an attachment that allows you to mow and mulch the cut grass without collecting it.

To do so, take the mulch flap from the cover and place it in the rotor box (Fig. 5.5). This stops the cuttings entering the transverse worm. Instead, they are mulched and returned directly to the ground.





8.6 Starting the rotor

- Start the engine.
- Release the parking brake.
- Switch the mower unit on. Select a medium engine speed to start the mower unit gently.
- Use the accelerator lever to increase the engine speed (the maximum rpm is recommended for mowing).
- Press down slowly on the accelerator pedal until you reach the desired speed. Match your driving speed to the mowing conditions.

8.7 Emptying the hopper

A fill level signal sounds when the hopper is full. Empty the hopper when you hear this signal.



Do not overfill the hopper; you could damage the conveyor system.

Emptying at ground level

- Pull the lever back to tip the hopper.
- Return the hopper to the working position when it is empty by pushing the lever forward.

Emptying from a height

- Back the machine to within about 1 m of the discharge point.
- Use the control lever to bring the hopper to the correct discharge height.
- Slowly back towards the discharge point (Fig. 8.7)





- Tip the hopper
- Swing the hopper back to its original position
- Move forwards to about 1 m from the discharge point
- Lower the hopper into the working position.



CAUTION

The hopper must always be emptied fully after grass-cutting. Fermenting clippings can become very hot and even catch fire under certain conditions. There is a risk of fire.



9 Options

9.1 Lights

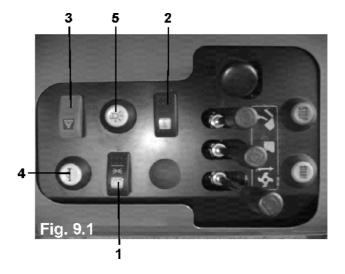
This additional equipment is required before an operator's permit can be issued.

The lighting kit contains:

- front turn indicators
- rear turn indicators, incl. fittings
- front headlamps
- rear lights
- 1 horn
- 1 control unit that is fitted next to the driver's seat

Operating the lights (Fig. 9.1)

- 1. Sidelights, headlamps
- 2. Turn indicators
- 3. Hazard lights
- 4. Horn
- 5. Rotary warning light: This light must be on when driving on public roads (France only).





9.2 AMAZONE Path Control - direction lock

The AMAZONE Profihopper can be fitted with an optional patented system for ensuring stability on a slope and keeping the machine pointing straight ahead - the AMAZONE Path Control.

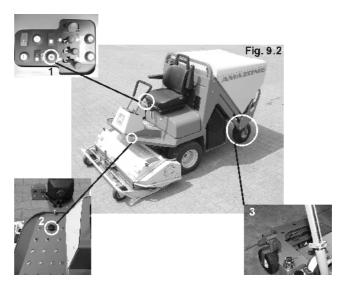
The direction lock kit contains:

- a controller
- a pressure switch (Fig. 9.2/1)
- a foot switch (Fig. 9.2/2)
- an electro-hydraulic valve block
- a hydraulic cylinder for the rear wheel axle (Fig. 9.2/3)
- three sensors

A light on the instrument panel comes on when the system is engaged (pressure switch down).

Operation

A hydraulic system automatically locks the rear wheels in the straightahead position. The wheels are released if you turn or drive in reverse, giving full manoeuvrability to the machine. The system is switched on and off manually but operates fully automatically.



Foot switch for setting the wheels in the straight-ahead position independently of the current operating mode. This can be helpful when using loading ramps, for example.



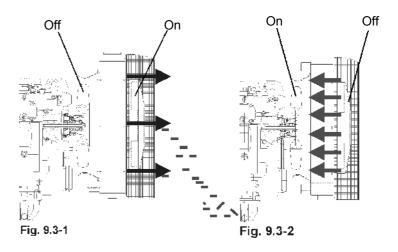
9.3 AMAZONE Cooling System - self-cleaning cooling system

The AMAZONE PROFIHOPPER is available with an optional self-cleaning cooling system (**A**MAZONE **C**ooling **S**ystem) for removing plant material blocking the radiator grill, especially when mulching.

The self-cleaning system contains:

- a controller
- an extra cleaning fan
- an electromagnetic clutch (for the engine fan).

Operation



The main air flow is partly interrupted and reversed by the additional fan. This frees the grill of plant material and dirt (Fig. 9.3-1).

The main cooling air flow is restored to the radiator (Fig. 9.3-2).



10 Maintenance



CAUTION

Before performing any maintenance, make sure the machine is switched off, the parking brake engaged and the key removed from the ignition.

10.1 Cleaning



CAUTION

Never direct the high-pressure hose at drive components, bearings or the electrics.

- Open the mower unit cover.
- Clean the rotor box with a high-pressure hose.
 After cleaning, the dirty water must flow away completely from the worm conveyor system. Clear the drain holes underneath the feeder tube for the longitudinal worm.
- Clean the radiator with compressed air only.

10.2 Rotor condition



NOTE

Missing or wrongly aligned blades can throw the machine out of balance and damage it.

Always check the position/condition of the blades.

There are some spare blades in the machine's toolkit. If the rotor starts to vibrate strongly even though the blades are fitted correctly, contact Service.

10.3 Engine maintenance

Follow the operating and maintenance instructions in the LOMBARDINI operating instructions. These instructions are supplied with the machine.



CAUTION

Make sure you read the LOMBARDINI operating instructions carefully before starting the machine for the first time.



CAUTION

Before working on any parts connected to the engine, switch off the engine, remove the ignition key and allow the engine to cool down.



To access the main drive components:

- Raise the hopper to the highest position
- Put the support bracket in place
- Open the cover
- Open the engine cover

The engine is now easy to reach (Fig.10.3-1)



10.3.1 Oil level - oil change

See LOMBARDINI engine operating instructions.

10.3.2 Engine oil filter

See LOMBARDINI engine operating instructions.

10.3.3 Air filter

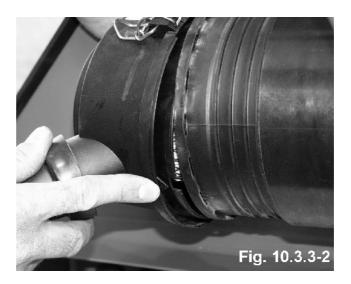
Clean the air filter with compressed air at least once a week. **If conditions are dry and dusty, clean the filter daily.** Replace faulty filter cartridges immediately.

To remove the air filter, proceed as follows:

- Open both retaining clips
- Remove the cover
- Remove the cartridges (2 filters inside each other) (Fig. 10.3.3-1)







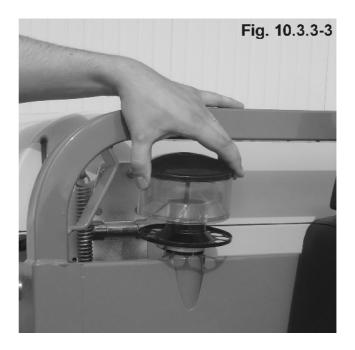
The filter cartridge should be replaced every 300 operating hours or at least once a year.

To fit the filters, proceed in the reverse order (Fig. 10.3.3-2).

The air filter has a pre-filter that must be cleaned each day.

- Remove the wing nut.
- Take off the seal.
- Clean the dust catcher (Fig. 10.3.3-3)
- Reverse the above order to refit the pre-filter.





10.3.4 Fuel filter

The fuel filter should be replaced every 250 operating hours or at least once per year.
For more details, see the LOMBARDINI operating instructions.





10.3.5 Cooling system

The radiator has a protective grille that also serves as a prefilter for the cooling air. This filter and the radiator must **be cleaned regularly with compressed air** to prevent the engine from overheating. Cleaning with water could block the radiator fins. Using a high-pressure hose could bend the fins.

The protective grille can be removed by undoing the retaining clips (Fig. 10.3.5-1).

When replacing the grille, make sure the gasket lips are pressed against the radiator. Damaged gaskets must be replaced to prevent grass and dirt particles from clogging the radiator.

The machine is fitted with a transparent water expansion tank. This does not prevent overheating, but ensures that the overheated water can condense and be returned to the system. The fluid level in the expansion tank should be checked daily.

Refill the radiator if the coolant circuit is empty. To do so:

- Undo and remove the radiator cover (Fig. 10.3.5-2/1)
- Fill the radiator to the lip with coolant (Fig.10.3.5-2/2), then refit the cover
- Open the expansion tank (Fig. 10.3.5-2/4).
- Fill the tank to the MIN/MAX mark
- Close the tank cap (Fig.10.3.5-2/3)
 (The cap has ventilation holes because this is a pressureless equalisation system)
- Start the engine and check the tank level
- Add coolant if the level is below the MIN/MAX mark

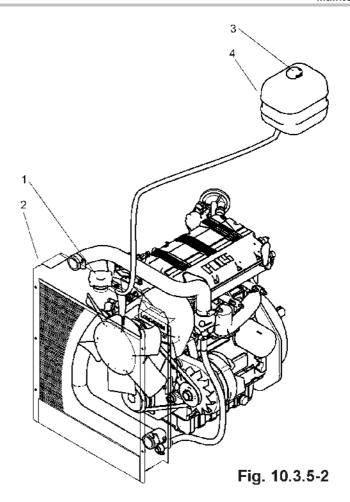


CAUTION

- All covers must be closed when the engine is started.
- Do not open and/or fill the tank with the engine running.
- To avoid the risk of burns, do not open the radiator until it has cooled down.
- THE TANK COULD BE PRESSURISED.







The coolant level should be checked weekly. The coolant remains liquid to - 30°C.

10.3.6 Power transmission belts

See LOMBARDINI engine operating instructions.



10.4 Hydrostatic drive

10.4.1 Hydraulic oil filter

The hydraulic oil filter has a gauge (Fig. 10.4.1/1) that shows how dirty

it is.

Green: Filter OK.

Red: Filter is dirty and should be replaced. Check with the engine at

maximum rpm.

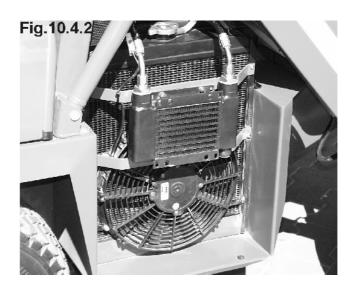
The hydraulic oil filter should be replaced at least once a year, regardless of condition.



10.4.2 Hydraulic oil cooling system



Clean with compressed air only.





10.4.3 Oil changes

The oil in the hydraulic system should be changed every 500 operating hours (Fig. 10.4.3).

Oil grade: 10W40 API-CF

Quantity: 17 I

Consult the manufacturer before using biodegradable hydraulic oil.



Fig. 10.4.3

10.5 Battery



Charging the battery

Refer to the charger operating manual. Detach and remove the battery before charging.

Disconnecting the battery

Do not disconnect the terminal clamps until the engine has stopped. Switch off electrical consumers.

Undo and remove the negative and positive leads in that order.

Reconnecting the battery

Connect the positive and then the negative leads.

Make sure the leads are connected to the correct terminal.

Jump starting

If the battery is flat, the engine can be started using jump leads and a second battery with the same rating. First attach the positive, then the negative jump lead.



Do not allow sparks and flames in the vicinity.



Risk of explosion, explosive gas.

Do not place metal items on the battery. Risk of short-circuits.





Risk of chemical burns.

Battery acid is caustic. It must not come into contact with skin, eyes or clothing.

Rinse away splashed acid with clear fresh water. Consult a doctor if necessary.



Protect eyes and face.

Keep children well away.

The DELCO FREEDOM PLUS battery has a HYDROMETER for fast and simple checking of the battery charge level.

Green:

Battery charge OK (over 65%).

Black:

Battery charge too low (under 65%). Battery needs charging.

Clear:

Electrolyte level too low. Battery needs replacing.



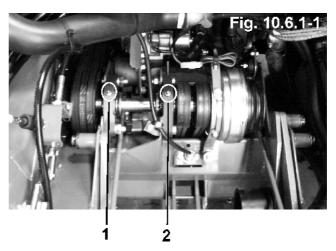
10.6 Lubrication points

The following locations should be lubricated regularly or every time the machine is thoroughly cleaned, in order to keep your Amazone Profihopper working in top condition.

10.6.1 Running gear

Main drive shaft

• Main drive shaft bearings (Fig. 10.6.1-1)



Controls

- Control lever linkages (Fig. 10.6.1-2)
- Accelerator pedal linkages (Fig. 10.6.1-3)

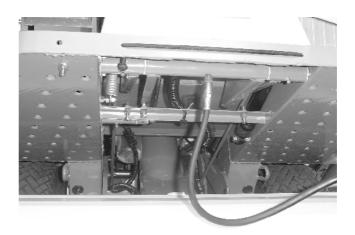


Fig. 10.6.1-2



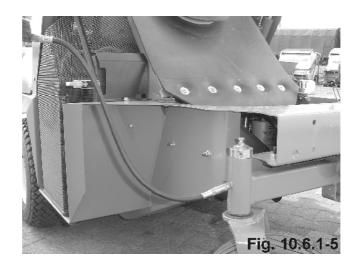


Fig. 10.6.1-3

Rear wheels

- Rear axle centre joint (Fig. 10.6.1-4)
- Rear wheel bearings (Fig. 10.6.1-5)







10.6.2 Mower unit

Overload safety (every 150 operating hours only) (Fig. 10.6.2-1)



CAUTION

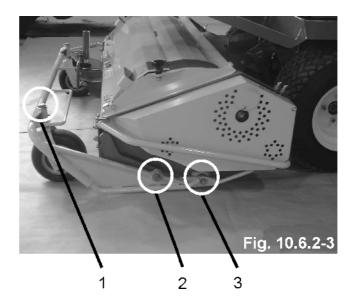
Excess grease can easily reach the lower protection plate on the belt drives and damage it (Fig. 10.6.2-2).

- Front wheel fork bearings (Fig. 10.6.2-3/1)
- Support bracket linkage (Fig. 10.6.2-3/2)
- Rear cage roller bearing (Fig. 10.6.2-3/3).
- Connecting arm bearing (Fig. 10.6.2-4 and Fig. 10.6.2-5)













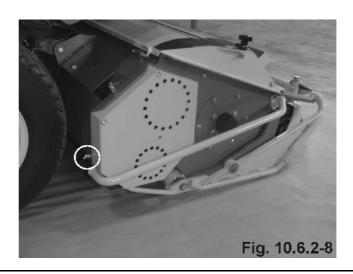
Mower unit drive shaft bearing (Fig. 10.6.2-6 and Fig. 10.6.2-7)
 There are 2 lubrication nipples of the drive shaft bearings.





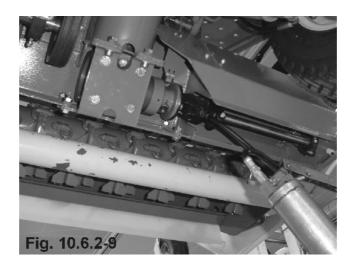


• Longitudinal worm drive shaft bearings (Fig. 10.6.2-8)

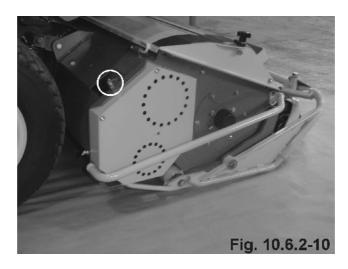




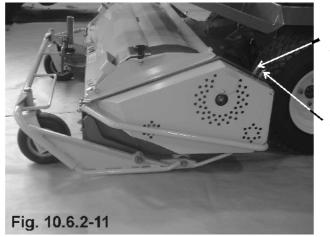
• Longitudinal work drive cross-linkage (Fig. 10.6.2-9)



• Transverse worm bearings (Fig. 10.6.2-10 + Fig. 10.6.2-11)



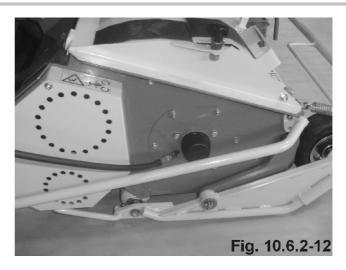
• Rotor bearings (Fig. 10.6.2-11 + Fig. 10.6.2-12)



b (= transverse worm bearing)

a (= rotor)





• Height adjustment (Fig. 10.6.2-13)





10.7 Rear wheel shock absorbers

The rear wheels have a shock-absorber system (not with Amazone Path Control option) that prevents the wheels oscillating at maximum speed. This system is prone to some wear, which can be corrected as follows:

- Tighten the adjuster bolt as necessary (Fig. 10.7).
- Secure the bolt with a lock nut.





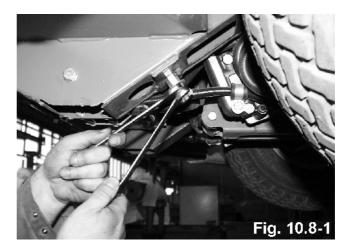
10.8 Checking the belt tension

Check all drive belts regularly for correct tension and damage. **Replace damaged belts.**

The main belts from the engine to the drive shaft can be adjusted by means of a turnbuckle nut.

The V-belt is tensioned as follows:

- Loosen the lock nut (Fig. 10.8-1).
- Turn the turnbuckle nut to the left to tension the V-belt (Fig. 10.8-2).
- Secure the turnbuckle nut with the lock nut.





The V-belts in the engine can be tensioned via the generator.

All other belt drives are self-adjusting, but must match the following table:



DRIVE	NO. BELTS	STATIC INITIAL TENSION	
Main drive (Engine - main shaft)	3	Init. installation After running-in	388 N 330 N
Pump drive (Main shaft - hydropump)	4	Init. installation After running-in	185 N 156 N
Mower unit drive	2	Init. installation	550 N
(Main shaft - mower unit)		After running-in	400 N
Longitudinal worm drive	3	Init. installation	263 N
		After running-in	225 N
Transverse worm rotor	5	Init. Installation	258 N
drive		After running-in	220 N



10.9 Towing the machine

If the unit has to be towed, it is essential to open the bypasses on the hydraulic pumps to avoid damaging the hydraulic system. The bypasses can be opened using the flat spanner supplied with the machine and located in the toolbox.



The pumps can be reached from the underside of the machine (behind the front wheels) (Fig. 10.9-2).



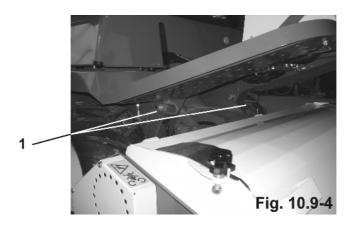


The bypasses on both pumps must be opened for towing (short distances only without own power) or pushing (Fig. 10.9-3).





There are two welded towing eyes at the front of the frame under the footplate (Fig.10.9-4/1).



10.10 Long periods without use, overwintering

- Clean the machine thoroughly.
- Carry out all lubrication.
- Empty the fuel tank.
- Disconnect the battery (see 10.5).
- Store the battery in a dry, cool and frost-free place.
- Check the condition of the V-belts. Contact Service if they need replacing.
- Make sure there is sufficient antifreeze in the cooling system.
- Store the machine in a dry place.

10.11 Maintenance schedule



There is a chart under the seat showing the most important maintenance tasks.



10.12 Maintenance reports

Profihopper / PH04 Entretien - Wartung - Maintenance - Onderhoud 卤 8 C C C C G **R1** 50 G C 125 R 250 R R R R 500 R R 1 bar / 14,5 PSI 1 bar / 14,5 PSI 1,5 bar / 21,7 PSI Graissage NLGI 3 EP Nombre d'heures Schmierung Stundenzahl Greasing Hours Liquide de refroidissement moteur Smering Draaiuren Motorkühlflüssigkeit Contrôle Point de graissage Engine coolant 6L Kontrolle Schmierstelle Koelvloeistof motor Checking Greasing point Huile circuit hydraulique 17L Controle Smeerpunten Hydrauliköl 10W40 Remplacement Rotor de tonte Hydraulic oil API-CF Wechsel Mährotor Hydraulische olie Replacement Mowing rotor Filtre à huile hydraulique Vervanging Klepelas Hydraulikölfilter 1er Remplacement Huile moteur 2,4 L Hydraulic oil filter 1. Wechsel Motoröl 10W40 Oliefilter voor hydraulik olie 1st Replacement Engine oil API-CF 1. Vervanging Filtre à carburant Motorolie Filtre à air Kraftsofffilter Filtre à huile moteur Luftfilter Fuel filter Motorölfilter Air filter Brandstoffilter Engine oil filter Luchtfilter Motoroliefilter



MAINTENAN	ICE REP	ORT	MAINTENANCE REPORT		ORT
Date: Mechan	ic:		Date:Mechanic:		
Report no.:			Report no.:		
Operating hours:			Operating hours:		
	YES	NO		YES	NO
Engine oil change			Engine oil change		
Hydraulic oil change			Hydraulic oil change		
Engine oil filter			Engine oil filter		
Hydraulic oil filter			Hydraulic oil filter		
Air filter (x2)			Air filter (x2)		
Fuel filter			Fuel filter		
Other:			Other:		· · · · · · · · · · · · · · · · · · ·
Next service on:			Next service on:		
Dealer stamp	and sign	ature	Dealer stamp	and sign	ature
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Operating hours:			Operating hours:		
	YES			YES	
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Hydraulic oil change			Hydraulic oil change		
Engine oil filter			Engine oil filter		
Hydraulic oil filter			Hydraulic oil filter		
Air filter (x2)			Air filter (x2)		
Fuel filter			Fuel filter		
Other:			Other:		
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Fuel filter			Fuel filter		
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Hydraulic oil change			Hydraulic oil change		
Engine oil filter			Engine oil filter		
Hydraulic oil filter			Hydraulic oil filter		
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Fuel filter			Fuel filter		
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Fuel filter			Fuel filter			
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Hydraulic oil change			Hydraulic oil change			
Engine oil filter			Engine oil filter			
Hydraulic oil filter			Hydraulic oil filter			
Air filter (x2)			Air filter (x2)			
Fuel filter			Fuel filter			
Other:		 	Other:			
Next service on:			Next service on:	· · · · · · · · · · · · · · · · · · ·		
Dealer stamp and signature		Dealer stamp	o and sign	ature		



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