

# Operator's Manual

## **AMAZONE**

### CityHopper

### CH-085, CH-100



MG 1923  
BAF0003.0 01.09  
Printed in France



Please read this operating  
manual before first  
commissioning.  
Keep it in a safe place  
for future use!



## 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 operator's manual.*

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*Leipzig-Plagwitz 1872.*

**Identification data**

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

Machine identification number:  
(ten-digit)

Type:

CityHopper

Year of manufacture:

Basic weight (kg):

Approved total weight (kg):

Maximum load (kg):

**Manufacturer's address**

---

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**Spare part orders**

---

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Online spare parts' catalogue: [www.amazone.de](http://www.amazone.de)

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

**Formalities of the operating manual**

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## Foreword

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Dear Customer,

You have chosen one of the quality products from the wide product range of AMAZONEN-WERKE, H. DREYER GmbH & Co. KG. 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. Damage can only be rectified if problems are signalled immediately!

Before first commissioning, read and understand this operating manual, and particularly the safety information. 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 commissioning the machine.

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

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Dear Reader,

We update our operating manuals regularly. Your suggestions for improvement help us to create ever more user-friendly manuals. Send us your suggestions by fax.

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# 1 User information

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The User Information chapter supplies information on handling 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

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

## 1.3 Diagrams used

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### Handling instructions and reactions

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

Example:

1. Handling instruction 1  
→ Machine reaction to handling instruction 1
2. Handling instruction 2

### Lists

---

Lists without an essential order are shown as a list with bullets.

Example:

- Point 1
- Point 2

### Number items in diagrams

---

Numbers in round bracket refer to items in diagrams. The first number refers to the diagram and the second number to the item in the figure.

Example: (Fig. 3/6)

- Figure 3
- Item 6



## 2 General Safety Instructions

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This chapter 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 allow 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 pictograms on the machine in a legible state.
- to replace damaged warning pictograms.

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 chapter "General safety information" of this operating manual.
- To read the chapter "Warning pictograms and other labelling on the machine" in this operating manual and to follow the safety instructions of the warning pictograms when operating the machine.
- To get to know the machine.
- To read the chapters 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

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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 immediately, which could impair safety.

## 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, which are subject to wear.
- Improperly executed repairs.
- Disasters through the impact of foreign bodies and acts of God.

## 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 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 (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 agents, 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

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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.

Activity \ People	Person specially trained for the activity <sup>1)</sup>	Trained person <sup>2)</sup>	Person with specialist training (specialist workshop) <sup>3)</sup>
Loading/Transport	X	X	X
Commissioning	--	X	--
Set-up, tool installation	--	--	X
Operation	--	X	--
Maintenance	--	--	X
Troubleshooting and fault elimination	--	X	X
Disposal	X	--	--

Legend: X..permitted --...not permitted

- <sup>1)</sup> A person who can assume a specific task and who can carry out this task for an appropriately qualified company.
- <sup>2)</sup> A person shall be considered as having been instructed, if they have been instructed in the tasks they have to carry out and in the possible risks in the case of improper behaviour and also have been informed about the necessary protective equipment and measures.
- <sup>3)</sup> 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 this work carries the supplement "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 on the machine.

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

## 2.9 Maintenance and repair work, fault elimination

---

Carry out prescribed setting, maintenance and inspection work in good time.

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 carry 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 approval 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 type approval remains valid according to the 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 contusions, cuts, dragging, catching or knocks from support parts.**

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.

Only use **AMAZONE** spare and wear parts released by AMAZONEN-WERKE, so that the type approval remains valid according to the national and international regulations. The use of wear and spare parts from third parties does not guarantee that they have been constructed in a way as to meet the requirements placed on them.

AMAZONEN-WERKE shall accept no liability for damage caused by the use of unreleased spare and wear parts or aids.

### 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 only be operated by one person sitting in the driver's seat of the tractor during mowing operation and standing at the side of the machine during the start/stop procedure and discharging.

### 2.13 Warning pictograms and other signs on the machine



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

#### Warning pictograms - structure

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

A warning pictogram consists of two fields:



#### Field 1

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

#### Field 2

is a pictogram showing how to avoid the danger.



## Warning pictograms - explanation

---

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

1. A description of the danger.  
For example: danger of cutting!
2. The consequence of nonobservance of the danger protection instructions.  
For example: causes serious injuries to fingers or hands.
3. Instructions for avoiding the danger.  
For example: only touch machine parts when they have come to a complete standstill.

Order number and explanation

Warning pictogram

MD 075

**Danger from cutting or cutting off fingers and hand through rotating machine parts.**

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

Never reach into the danger area for as long as tractor engine is running with a connected PTO-shaft / hydraulic system.

Only touch machine parts when they have come to a full standstill.



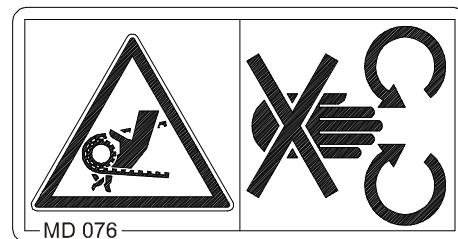
MD 076

**Danger from dragging or trapping for hand or arm through driven, unprotected chain or belt drive.**

This danger would cause extremely serious injury with loss of parts of the body on hand or arm.

Never ever open or remove guards from chain- or belt drives,

- as long as the tractor engine with engaged PTO shaft / hydraulic drive is running,
- or the ground wheel drive is moving.



MD 078

**Risk of contusions for fingers or hands through accessible moving machine parts!**

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

Never reach into the danger area for as long as tractor engine is running with a connected PTO-shaft / hydraulic system.

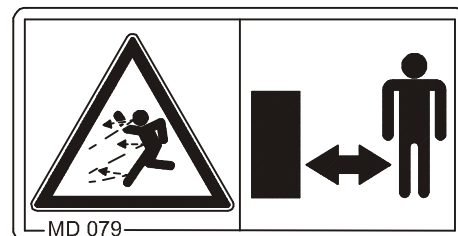


MD 079

**Danger from parts or foreign particles being catapulted out of the machine!**

This danger would cause extremely serious injuries anywhere on the body.

Ensure that persons keep a safe distance from the danger area of the machine as long as the tractor engine is running.





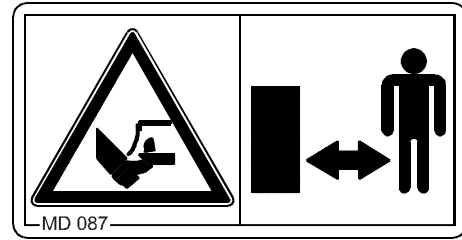


#### MD 087

##### **Danger from cutting or cutting off for toes or foot through driven tools!**

This danger would cause extremely severe injury with loss of parts of the body on toes or foot.

Ensure that persons keep a safe distance from the danger area of the machine as long as the tractor engine is running with engaged PTO shaft/hydraulics system.

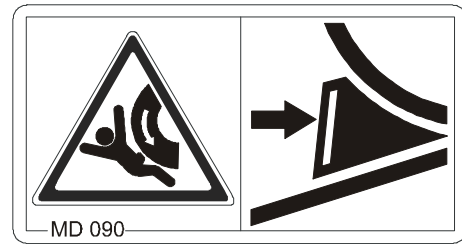


#### MD 090

##### **Danger from contusion through unintended rolling away of the uncouples, unsecured machine!**

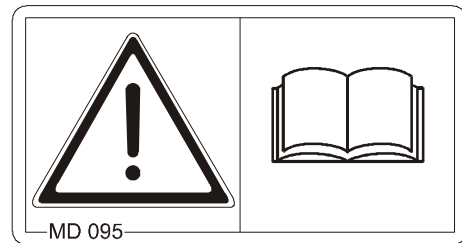
This contusion would cause extremely severe injury anywhere on the body or death.

Secure the machine against unintended rolling before uncoupling the machine from the tractor. For this use the parking brake and/or chock(s).



#### MD 095

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

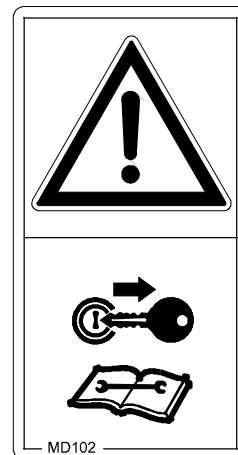


#### MD 102

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

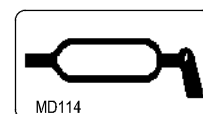
This danger will cause serious injuries anywhere on the body or death.

- 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 appropriate chapters of the operating manual.



#### MD 114

This pictogram indicates a lubrication point.



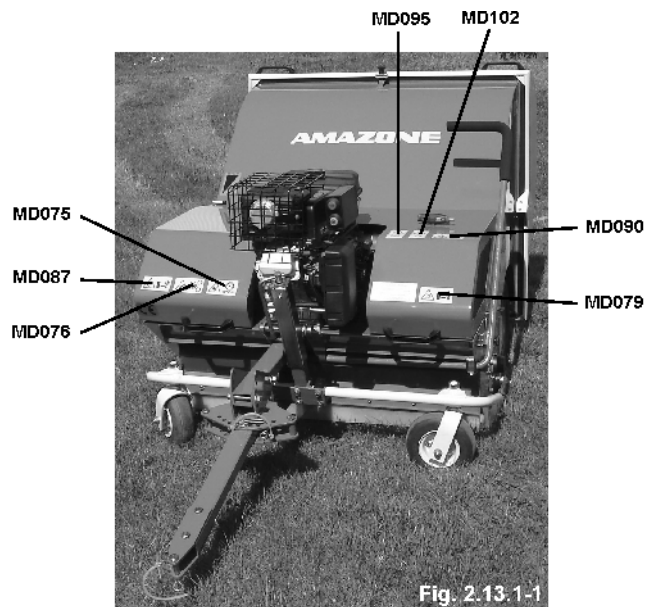
**Please also adhere to the safety advice and pictograms valid for combustion engines!**

**These are separately stated in the appendix of this operator's manual.**

## 2.13.1 Positioning of warning pictograms and other labels

### Warning pictograms

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





## 2.14 Dangers of nonobservance of the safety information

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Nonobservance 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 pictograms.

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

## 2.16 Safety information for users

---



### **WARNING**

**Risk of contusions, cuts, dragging, catching or knocks from insufficient traffic and operational safety.**

Before starting up the machine and the tractor, always check their traffic and operational safety!

### 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 pictograms 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!
- It is forbidden to ride on the machine or use it as a means of transport!
- Drive in such a way that you always have full control over the tractor with the attached machine.

In so doing, take your personal abilities into account, as well as the road, traffic, visibility and weather conditions, the driving characteristics of the tractor and the connected machine.



### Connecting and disconnecting the machine

---

- Only connect and transport the machine with tractors suitable for the task.
- Connect the machine to the prescribed equipment in accordance with the specifications!
- When coupling machines to the front or the rear of the tractor, the following may not be exceeded:
  - The approved total tractor weight
  - The approved tractor axle loads
  - The approved load capacities of the tractor tyres
- Secure the tractor and the machine against unintentional rolling, before coupling or decoupling the machine.
- It is forbidden for people to stand between the machine to be coupled and the tractor, whilst the tractor is moving towards the machine!  
Any helpers may only act as guides standing next to the vehicles, and may only move between the vehicles when both are at a standstill.
- Secure the operating lever of the tractor hydraulic system so that unintentional raising or lowering is impossible, before connecting the machine to or disconnecting the machine from the tractor's three-point hydraulic system!
- Be particularly careful when coupling the machine to the tractor or decoupling it from the tractor! There are contusion and cutting points in the area of the coupling point between the tractor and the machine!
- It is forbidden to stand between the tractor and the machine when actuating the three-point hydraulic system.
- Coupled supply lines
  - Must give without tension, bending or rubbing on all movements when travelling round corners.
  - May not scour other parts.
- Also ensure that decoupled machines are stable!

### 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 of being caught by drive shafts!
- Only start-up the machine, when all the safety equipment has been attached and is in the safety position!
- Comply with the maximum load of the connected machine and the approved axle and support loads of the tractor. If necessary, drive only with a partially-filled hopper.
- It is forbidden to stand in the working area of the machine!
- 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 tractor against unintentional start-up and rolling, before you leave the tractor.  
For this
  - Lower the machine onto the ground
  - Apply the parking brake
  - Switch off the tractor engine
  - Remove the ignition key

### Machine transportation

---

- When using public roads, comply with the national road transport regulations.
- Before moving off, check:
  - The correct connection of the supply lines
  - The lighting system for damage, function and cleanliness
  - The brake and hydraulic system for visible damage
  - That the parking brake is released completely
  - The function of the brake system
- Ensure that the tractor has sufficient steering and braking power  
Any machines and front/rear weights connected to the tractor influence the driving behaviour and the steering and braking power of the tractor.
- If necessary, use front weights!  
The front tractor axle must always be loaded with at least 20% of the empty tractor weight, in order to ensure sufficient steering power.
- Always fix the front or rear weights to the intended fixing points according to regulations!
- Comply with the maximum load of the connected machine and the approved axle and support loads of the tractor.
- The tractor must guarantee the prescribed brake delay for the loaded vehicle combination (tractor plus connected machine)!
- Check the brake power before moving off.
- When turning corners with the machine connected, take the broad load and balance weight of the machine into account.
- Before moving off, ensure sufficient side locking of the tractor lower links, when the machine is fixed to the three-point hydraulic system or lower links of the tractor.
- Before moving off, move all the swivel machine parts to the transport position!
- Before moving off, secure all the swivel machine parts in the transport position against risky position changes. Use the transport locks intended for this!



- Before moving off, secure the operating lever of the three-point hydraulic system against unintentional raising or lowering of the connected machine!
- 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.
- Before driving downhill, switch to a low gear.
- Before moving off, always switch off the independent wheel braking (lock the pedals).

### 2.16.2 Electrical system

---

- When working on the electrical system, always disconnect the battery (negative terminal).
- Only use the prescribed fuses. Using unsuitable fuses will destroy the electrical system - risk 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. Accidental grounding poses the risk of an explosion.
- Risk of explosion – Avoid spark formation and naked flames in the area of the battery!
- The machine can be equipped with electronic components, the function of which may be influenced by electromagnetic interference from other units. Such interference can pose risks to people, if the following safety information is not followed.
  - In the case of retrofitting of electrical units and/or components on the machine, with a connection to the on-board power supply, the user must check whether the installation might cause faults on the vehicle electronics or 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 label.



### 3 General information on the machine

#### 3.1 Range of operation

The AMAZONE-CityHopper is designed for mowing and scaryfying greens and sport ground, gardens, etc.  
In autumn it collects and chaffs leaves.

#### 3.2 Conformity

The CityHopper fulfils the EC guide line 89/392/EC and the relevant supplement guide lines.

#### 3.3 Indications in case of queries

When ordering special optional equipment and spare parts please always state the machine number of the CityHoppers.



**Safety technical demands are fulfilled only then when in case of repair original AMAZONE spare parts are used. The use of other parts would rule out the guarantee and liability for resulting damage!**

#### 3.4 Identification of the machine

Type plate on the machine



3.4-1

Fig. 3.4



The entire type plate is of documentary value and should not be damaged or removed!



### 3.5 Technical data

Type CH	085	100
Working width	0,85 m	1,00 m
Total width	0,98 m	1,13 m
Empty weight	250 kg	300 kg
Tyres	front 8x3.00-4..... rear 16x6.50-8	
Tyre air pressure	front 2 bar ..... rear 2 bar	
Total length	2,50 m .....	
Total height	..... 1,15 m.....	
Collecting hopper capacity	390 l	460 l
Engine capacity	13 HP	13 HP

#### 3.5.1 Noise production data

The workplace related emission value (noise level) is:  
LpA = 95 dB(A), measured during operation at the ear of the tractor driver. Maximum noise production: LwA = 108 dB(A).

### 3.6 Designated use of the machine

The Amazone-CityHopper has exclusively been designed for the usual operation on greens and parks (designated use).

Any use beyond these guidelines stipulated above is no longer considered as designated use. The manufacturer does not accept any responsibility for damage resulting from non-compliance and therefore the operator himself carries the full risk.

Under "designated use" also the manufacturer's prescribed operation, maintenance and repair conditions must be adhered to as well as the exclusive use of **original AMAZONE spare parts**

The Amazone-CityHopper must only be operated, maintained and repaired by persons who have been trained and who have been informed about the dangers.

The relevant accident prevention advice and all other approved safety-, medical and road traffic rules have to be adhered to as well as the safety advice indicated on the machine labels..

Any damage resulting from arbitrary changes on the machine rule out the responsibility of the manufacturer **for any resulting damage.**





## 4 On receipt of the machine

---

On receipt of the machine please check for transport damage or missing parts. Only the immediate. Only the immediate reportage of damage will be considered for compensation. Please check whether all parts indicated in the delivery note are present.

Prior to any operation remove all packing material incl. Wires and check the lubrication.

## 5 Initial putting the machine into operation

### 5.1 Coupling the machine



**Prior to coupling the machine ensure that the coupling devices of machine and tractor are matched..**

- Provide the draw bar with the coupling element suited for the tractor.
- The exchangeable coupling elements are fixed to the draw bar with the aid of two bolts.



Fig. 5.1

In order to ensure a safe coupling and uncoupling of the machine ensure an even and level ground so that unintentional rolling away is avoided. Adjust the draw bar height so that the draw bar head is in the average position of its vertical swivel area when the towing devices of tractor and machine in the same height.

- Put the lever of the lifting mechanic to the rear to ensure a free vertical movement of the draw bar.
- Remove the safety bolt on the setting element of the draw bar and angle the draw bar in such a way that the coupling parts of machine and tractor are in alignment.
- Re-affix the draw bar with the safety bolt.
- Align the draw bar head horizontally.

The draw bar allows for lateral swivelling to allow operation staggered to the tractor. This is especially helpful at tractors which are wider than the working width of the CityHopper or when driving at the side of the areas to be operated. For setting the lateral angling:

- release the lock pin and pull out of the swivel pocket.
- By lateral pushing get the machine into the desired position.
- Lock the draw bar in the swivel pocket and secure.



## 5.2 Starting procedure combustion engine



Please adhere to the operation instruction for the combustion engine attached in the appendix.

## 5.3 Mowing device – switching on and off



When starting the mowing device implicitly ensure that the mowing device is lowered and that the ground is free from loose material (stones, etc.).



During the start – stop procedure stand next to the machine! Ensure a safe distance to the rotor!



The rotor is started via an electromagnetic coupling.

For operating the coupling an operator terminal is attached at the side of the motor with each one start and stop key.



### Starting procedure

- Set the engine to the max. rev. speed
- Actuate the green START-key

When the rotor is switched off it is braked with the aid of the fitted electromagnetic coupling.

### Stop procedure

- Actuate the red STOP-key

If it is intended to switch off the machine completely

- Regulate the engine down to idling mixture
- Switch off the combustion engine via the ignition key

## 5.4 Electric remote control (special option)

---



**Only use the remote control provided by the manufacturer..**

The remote control allows switching on and off the mowing device of the CityHopper from the driver's seat in the tractor. After inserting it is active parallel to the operator's terminal on the CityHopper engine.



**Observe the max. cable length!**



**Route the cable between tractor and machine in such a way that damage, especially when driving into bends is avoided.**



**Attach the remote control on the tractor in such a way that it is secured against unintentional loosening.**

- Attach the supplied retainer on a suited place in the tractor.
- Insert the remote control into the retainer
- Insert the spiral cable into the socket on the switchbox of the City-Hopper.

### **Start procedure**

- Set the motor to the max. rev. speed
- Sit down on the seat of the tractor
- Actuate the green START-key

When the rotor is switched off it is braked with the fitted electromagnetic coupling.

### **Stop procedure**

- Actuate red STOP-key

If it is intended to switch off the machine completely

- Regulate the engine down to idling mixture
- Switch off the combustion engine using the ignition key



## 6 Mowing device

The CityHopper is equipped with a flail type mowing device. Swinging mowing tools are suspended on a tube with large diameter. When the rotor starts turning standard cutting and scarifying blades erect by centrifugal force and thus catch the material to be mown and cut it. The cutting blades made from specially treated steel are arranged in four rows around the rotor by specially shaped hangers.

### 6.1 Fitting the mowing and scarifying tools

Five different tool arrangements are available.

If the standard cutting blades or scarifying blades are worn on one side they can be turned round to be used once more. This is possible due to double edged blades.-

The turning round or exchange of blades is possible without any tool..



**As a matter of principle it has to be ensured that the rotor is evenly equipped with cutting blades. Missing blades or improper fitting would result in unbalance and damage to the complete machine.**

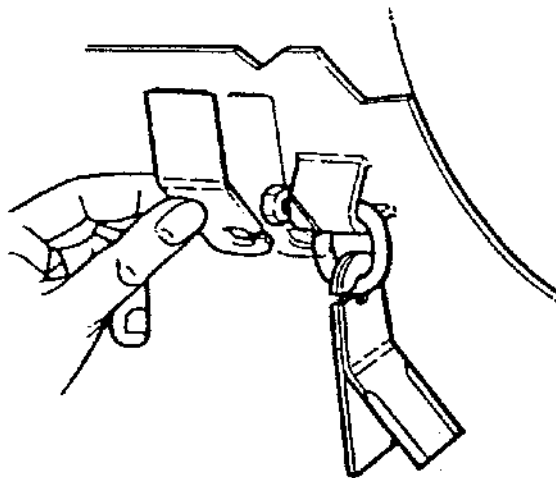


Fig. 6.1-1

Fig. 6.1-2

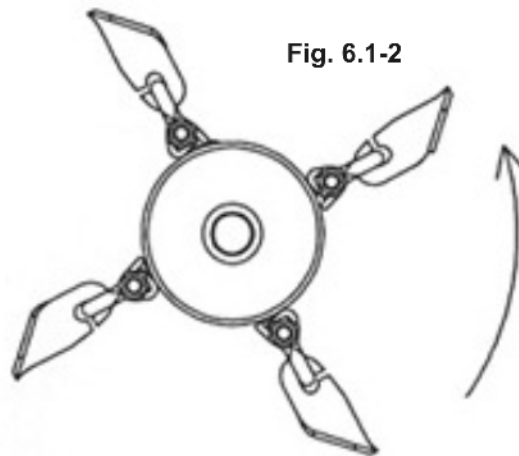


Fig. 6.1-3

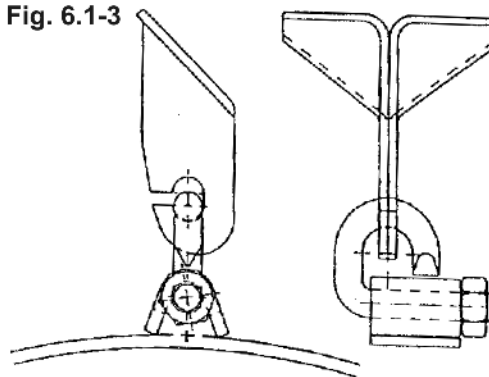


Fig. 6.1-4

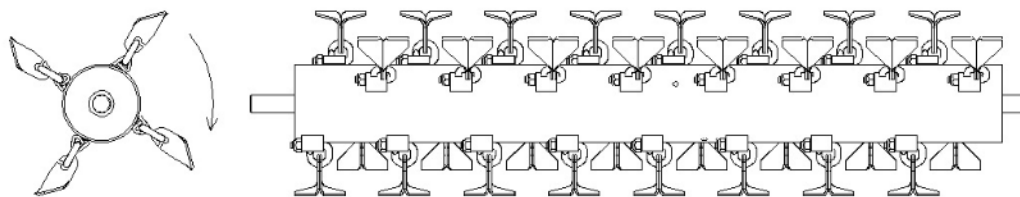

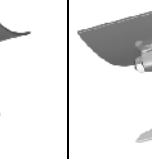
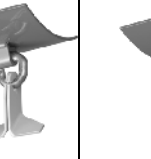




Table					
	A	B	C	D	E
<b>Blade exchange without tools</b>	100% Standard cutting blades	100% Scarifying blades	100% Wing blades + 100% scarifying blades	100% Wing blades long (*)	100% Wing blades short 100% scarifying blades
<b>Mowing + collection in dry conditions</b>		• •	• •		• •
<b>Mowing + collection in wet conditions</b>				• • •	
<b>Scarifying + collection in dry conditions</b>		• • •			
<b>Scarifying + collection in wet conditions</b>		• •			• • •
<b>Collection Aeration material In dry conditions</b>				• • • + 100 % scarifying blades	• •
<b>Collection Aeration material In wet conditions</b>				• • • + 100 % 100 % scarifying blades	• •
<b>Mowing, scarifying + collection in one action in dry conditions</b>			• • •		
<b>Mowing, scarifying + collection in one action in wet conditions</b>				• • • + 100 % scarifying blades	
<b>Leaf collection in dry conditions</b>	• • •			• • • + 100 % scarifying blades	
<b>Leaf collection in wet conditions</b>	• •		• •	• • • + 100 % scarifying blades	
<b>Mowing paddocks + simultaneously collection of droppings</b>			• •	• • •	• • •
<b>Fine mowing + Collection in all conditions</b>				• • • + 100 % wing blades sharpened	

• • • very good result

• • good result

(\*) On each two opposite rows of the rotor standard cutting blades and wing blades

## 6.2 Mowing

For mowing and scarifying the desired mowing tools are used. The operational speed depends on the density and humidity of the lawn and has to be adapted to the prevailing conditions. Always run the drive engine of the CityHopper with its full nominal rev. speed to ensure the proper operation of the mowing device. Discharge the hopper right in time in order to ensure a proper collection. If the hopper would be too full blockage in the delivery chute above the rotor would result which cannot be remedied even when the hopper is discharged.

## 6.3 Scarifying

Usually scarifying is carried out at the beginning or the end of vegetation growth.

In order to clean and aerate felted lawns or lawns with a layer of moss mowing, scarifying and collection in one action is possible.

For this purpose, straight scarifying blades are fitted between the bent standard cutting blade pairs. In case the lawn has already been cut short only the straight blades are fitted. The combination of standard cutting and scarifying blades results in the best suction effect. Therefore, in difficult, wet conditions standard cutting and scarifying blades be combined..

### Scarifying with the CH-085 (working width 0,85m)

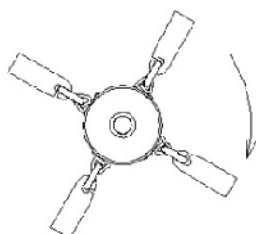
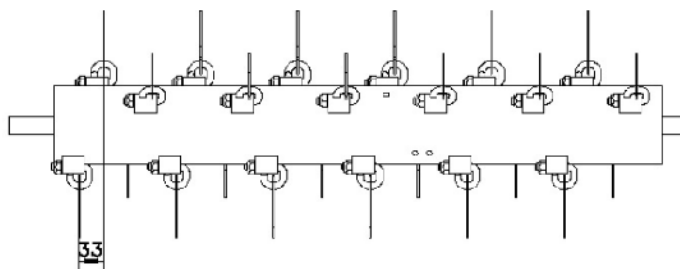


Fig. 6.3-1



### Scarifying with the CH-100 (working width 1,00m)

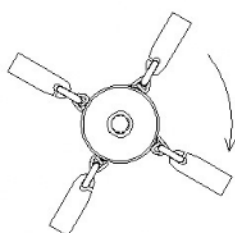
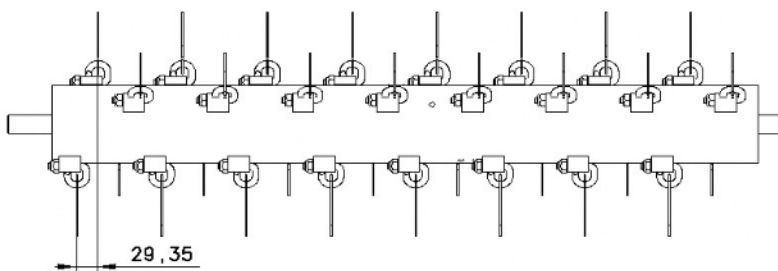


Fig. 6.3-2







### ATTENTION!



1. Implicitly ensure that the rotor is equipped with one of the above mentioned blade arrangements. Missing or wrongly fitted cutting tools would result in unbalance causing damage on the entire machine
2. Only one type of scarifying blades must be used! Danger of unbalance!
3. Ensure sufficient braking action of the tractor with a full hopper and thus a high machine weight.

## 6.4 Mulching

If it is intended to only mow the grass, chaff and deposit it again the hopper can be opened and fixed. In this way the mowing material hits the hopper wall and loosely falls back onto the area mown.

## 6.5 Collection work

Due to the high suction effect caused by the rotor the machine can also be used for the collection of already mown or other loose material. The material is lifted by the air suction, chaffed by the rotating blades and delivered through the chute into the collection hopper.

## 6.6 Discharging the collection hopper, fill level indication

The collection hopper is equipped with an fill level indication showing when the hopper has to be discharged.

As long as the indication is in its lower position cutting material can still be collected. When the pointer starts moving or when it is in the upper position the collection hopper should be discharged. Otherwise danger of blockage in the delivery chute. The sensitiveness of the indicator depends on the kind of cutting material.

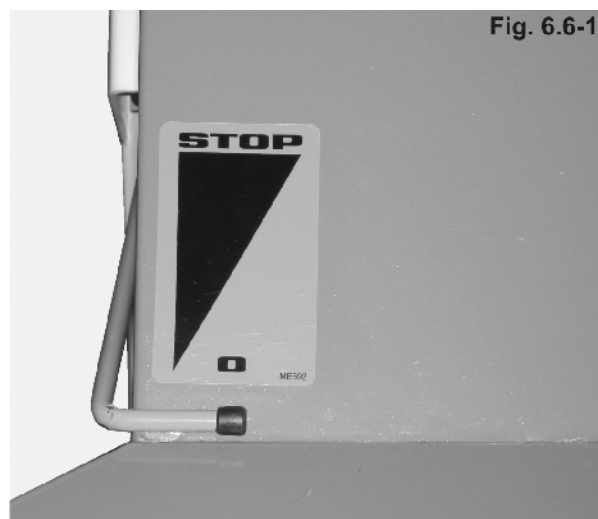


Fig. 6.6-1

- For discharge back up to the place of discharge.
- Unlock the collection hopper by pulling the fixing pin swivel to the front and secure in opened position in the fixing bracket
- Leave the place of discharge
- Unlock the fixing pin
- Close the collection hopper
- Secure the collection hopper using the fixing pin

Fig. 6.6-2



**Prior to discharging always stop the drive engine of the City-Hopper!**



## 7 Setting the cutting height

On the CityHopper the cutting height is adjusted via the central setting spindle above the draw bar.

- Swivel the lever upwards
- Select the desired working position by turning the spindle.



## 7.1 Transport travel



**Attention:** By releasing the swivel lever it can deflect to the rear automatically. !



**Attention:** For the special option wide angle swivel draw bar get the draw bar in a straight position and secure! Danger of accident at transport travel due to staggered machine.

For transport travel the front wheels of the CityHopper can be lifted. In this way the machine is provided with a better road holding and increases the pressure on the drive wheels of the tractor. At the same time the front castor wheels are saved when driving in rough terrain (e.g. kerbs).

For lifting:

- Swivel the swivel lever of the draw bar to the front
- Ensure that the lever is locked in lifted position

Lowering:

- Release the locking of the swivel lever
- Guide the lever to the rear by hand allowing the machine to slowly lower.





## 8 Cleaning the machine



**Prior to any servicing on the machine always stop the combustion engine and remove the ignition key!**

Especially when mowing and scarifying wet grass which is then also mixed with earth the machine will get very dirty. We recommend the careful cleaning of rotor and hopper with a jet of water.

Rotor and hood are accessible as follows:

- Switch off the machine and remove the ignition key
- Discharge the collection hopper completely
- Unlock the machine hood with the aid of the supplied
- Tilt the hood to the rear until the collection hopper is supported by the ground

## 9 Maintenance and care

### 9.1 Combustion engine

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**Please adhere to the supplied operating instructions for the combustion engine in the appendix!**

### 9.2 Lubrication points

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**Prior to carrying out any servicing on the machine always stop the engine and remove the ignition key!**

Depending on operational strain the following points should be lubricated using multipurpose lubricating grease in regular intervals:

- Bearing of the steering wheel yoke
- Rotor bearings (for this remove the belt guard on the right hand side of the machine)
- Bearing V-belt tensioner
- Drive shaft bearings

### 9.3 V-belt tensioner, electromagnetic coupling

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The V-belt tensioner is provided with a spring and re-adjusts automatically. In case a re-adjustment should be necessary please proceed as follows:

- Remove the V-belt guard
- Adjust the spring to the desired tension with the aid of the setting screw
- Fit the V-belt guard

### 9.4 Prolonged periods of standstill

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If the machine is not operated for a prolonged period it is recommended to clean it and to apply a bit of spray oil.

Observe the advice for prolonged periods of standstill of the engine manufacturer.

### 9.5 Tyre pressure

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Front castor wheels: 2 bar

Rear wheels: 2 bar



**Prior to carrying out any work on the tyres ensure that they are pressure-less (at dismounting a divided rim may burst).**



## **10 Operator's manual & maintenance instructions engine**

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**Please consider the enclosed original Operator's Manual from Briggs & Stratton!**



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Manufacturers of mineral fertiliser spreaders, field sprayers, sowing machines, soil cultivation machines, multipurpose warehouses and communal units

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