



Operating Instructions

GS 0900-R





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Machine:

GS 0900-R

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1. General

These operating instructions intend to set forth the correct use of the GS 0900-R.

It addresses all aspects that are of relevance to the operation and daily maintenance of the GS 0900-R. It also pays attention to important aspects of technical maintenance. The operating instructions must be carefully read in order to use the machine correctly and safely.

The text in these operating instructions is printed in the following ways:

Normal text is printed in normal type.

Important information is printed in **bold**.

Options are printed in *italics*.

The following pictograms are used to draw attention to issues that require special attention and/or involve risks for persons, the machine and/or the sweeping process:



Text preceded by this sign requires special attention



Warning

Instructions preceded by this sign warn you about the risk of damage to the machine or malfunctioning if the instructions are not followed carefully.



Physical injury

Text preceded by this sign warns of physical injury if the instructions are not followed carefully.



1.1 User

In these operating instructions, 'user' means: Anyone who is put into contact with the GS 0900-R or parts thereof under normal operating conditions.

The company or user has to make sure that each user is sufficiently qualified to handle this kind of machines and is able to comply with relevant provisions and safety aspects. A clear distinction is made between two groups:

The user is the person who actually operates the machine in preparation or execution of the production process.

The mechanic is the person who carries out repairs or maintenance works to the machine.

The mechanic must be qualified to perform technical operations. The mechanic must have a solid understanding of technical matters and be able to read technical drawings.

Before the operator and mechanic operate or service the machine, they must have been adequately instructed. The first instruction is given by specialists from GS. This does not apply when a company already has several machines of the same type or when there is sufficient knowledge available within a company. GS cannot be held responsible in any way for works that have been carried out by an operator who is not or not sufficiently instructed or qualified.

1.2 Liability

These operating instructions and the data they contain have been drawn up with the utmost care. GS and/or your supplier are not liable for a possible lack of clarity, mistakes and/or damages to the GS 0900-R or personal injuries.

In addition, they are not liable for personal injuries caused by incorrect use or attempts to have the sweeper serviced by others that are not qualified mechanics.



1.3 Warranty conditions

The warranty terms, mentioned in the general terms and conditions of delivery, will lapse immediately by operation of law if:

1. Service activities and/or repairs have not been carried out strictly in accordance with the instructions.
2. Repairs have not been carried out by service mechanics from GS engineering or its official dealer, or have been carried out by the customer's mechanics without written approval from GS.
3. Changes have been made to the delivered product without prior written approval from GS.
4. Other than original GS parts are used.
5. Other than the prescribed lubricants are used.
6. The delivered product is handled improperly, carelessly, incorrectly and/or negligently.
7. The machine is used for other purposes than those it was designed and built for.

1.4 Documentation/accessories

The following is supplied with the machine:

- the operating instructions for the GS 0900-R.
- battery charger for the GS 0900-R
- warranty certificate



1.5 Technical Data

Technical data of the GS 0900-R

Fig. 1

| | |
|---------------------------|-------------------------|
| Sweeping width | 90 cm |
| Engine power | Electrical 12V – 0,45Kw |
| Brush drive | V-belt |
| Brush left/right rotation | Yes |
| Brush diameter | 900 mm |



2. Safety

The GS 0900-R has been manufactured in accordance with the regulations that are currently applicable. Nevertheless, this machine could cause dangers to man and machine if:

- it is not operated in accordance with the operating instructions.
- it is not operated by qualified personnel.
- it is changed or used inexpertly.
- safety instructions are not being observed.

Therefore, anyone who is involved in the operation, maintenance and/or repair of the machine has to read and follow the safety instructions. If so desired, this could be confirmed by the user's signature.

Apart from the requirements and regulations mentioned in these operating instructions, the following apply:

- general safety requirements;
- land specific regulations



2.1 Safety symbols

The safety symbols on the machine must be complete and legible at all times. Damaged and illegible safety symbols must be replaced by new ones.



1. Applied to the machine housing, behind the engine; "read operating instructions before use"



2. Applied to the frame, under the push bar; this is the CE mark and serial number.



3. Applied to the brush casing; "possible physical injury if instructions are not followed correctly"

2.2 Safety Aspects

- The safety aspects and pictograms included in these operating instructions as well as the safety symbols on the machine must always be observed by the operator. The procedures set out in the operating instructions must always be executed in the correct order.
- When operating the machine, the operator must always see to proper visibility so he can see the work area and the machine. He has to make sure that his attention is not distracted from his work and has to act according to circumstances at all times.
- With each movement the machine makes, the operator must be certain that there are no persons near the machine.
- It is not permitted to use the machine to transport people.
- When using the machine, safety glasses must be used.



- The operator's clothing must be tight-fitting, preferably no loose clothing. In addition, the operator must wear sturdy footwear.
- All maintenance, repairs, remedies of defects and other similar activities not mentioned in these operating instructions must be carried out by a mechanic.
- If the operator detects any defect or fault to the machine, a mechanic has to be notified immediately.

2.3 Emergencies

An emergency means a situation in which people, animals and/or the machine are in danger or danger threatens them.

If an emergency arises, the operator must bring the machine to a standstill and turn off the electromotor.

In case of damages to the machine or other situations in which machine parts might have been affected, the machine must be thoroughly checked. This is the only way to guarantee safe operation of the machine, even after an emergency.

2.4 How the machine should not be used



It is not allowed to sweep materials that affect human health in any way whatsoever.



The sweeper must **never** be put on its side during the sweeping process or when in stop position.



3. The sweeping process

3.1 Recommended use

The sweeper is mainly used for cleaning straight surfaces. The material to be swept will largely consist of leaves, rubbish, snow, sand, gravel or a combination hereof.



The sweeping of certain materials may generate (large) clouds of dust. The use of protective glasses is therefore compulsory.



Particles may fly up due to the sweeping method. The operator has to make sure that there are no persons or animals in the direct surroundings of the machine.

3.2 Brush

3.2.1 Starting and stopping the brush

A control switch has been mounted on the push bar to switch the brush on and off. The GS 0900-R has 3 brush positions: Right rotation, left rotation and neutral.

To activate the brush (right rotation), turn the switch to position 'R'. Turn the switch to position 'L' (see Fig. 1) for left rotation. '0' indicates the neutral position.



Fig. 1



If the brush jams, move the sweeper back. If the brush continues to be jammed, turn it off and have it checked by a mechanic. Never check the brush when the sweeper is running.



Make sure that the brush has come to a complete stop before changing the direction of the brush.

3.2.2 Height adjustment

Depending on the use, the brush hairs are liable to wear. Furthermore, hairs could be pulled out by the sweeping process.

As a result, it could become necessary to adjust the height of the brush. In case of severe wear, various parts of the brush where a lot of hairs are missing or poor sweeping results, the brush must be replaced.

The user can adjust the height of the brush by simply turning the black turn knob (see Fig. 1) on top of the brush. (Release the wing nut first)

Turning to the right: the distance between the surface to be swept and the hairs of the brush is increased.

Turning to the left: the distance between the surface to be swept and the hairs of the brush is reduced.



Fig. 1



Turn the brush up after use (turn to the right). This way, it does not lose its shape.



3.3 Accessories

- Brush speed control
- You can always order parts and accessories. Please contact your dealer for more information.



4. Maintenance and control

4.1 Check before starting to work with the GS 0900-R.

Before starting any activity, several things must be checked first:

- check if the machine is in good condition. For instance: check for parts that may loosened due to vibration.
- check the air pressure of the tyres (2.0 bar)
- check if there are no persons or animals in the immediate surroundings of the G/S 0900-R.

A visual check is enough. After prolonged use, a period of more than 30 days without being used, or unexpected circumstances, the sweeper must be thoroughly checked.



Bolts and nuts must be checked regularly for tightness

4.2 Maintenance after sweeping

After sweeping, the machine can be cleaned; **no** water may be used to clean the machine. Cleaning with a dry or damp cloth is permitted.

4.2.1 Battery charger

A battery charger is supplied with the GS 0900-R as a standard accessory.



Fig. 1



First, connect the battery charger to the GS 0900-R before putting the plug into the socket. Once the battery is full, the charging stops.

The connecting point of the battery can be found at the bottom of the push bar. Put the plug of the battery charger into this point. (see Fig. 2)



Fig. 2



The battery level has to be checked frequently. The minimum and maximum level of the battery are indicated on the side of the battery (see Fig. 3). If necessary, top up with demineralised water.

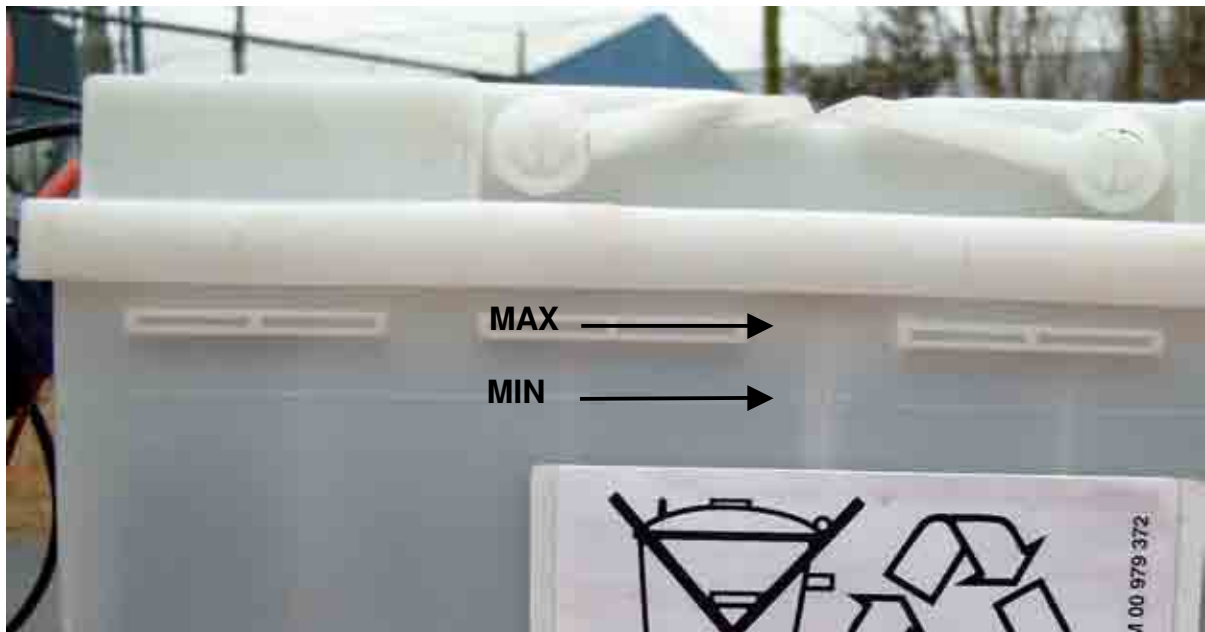


Fig. 3



For further information on the battery of the GS 0900-R, please refer to the battery manual that is also supplied with the sweeper.

4.3 Maintenance and repairs

Maintenance and repairs to the machine must be carried out by a mechanic.

4.3.1 Tensioning of V-belt

The V-belt can be adjusted by the user.

What do you need:

- **(Socket) spanner 7**
- **Spanner 10**
- **Spanner 13**

Follow the procedure below to adjust the tension of the V-belt:

1. Use 'Wrench 7' to loosen the screws on the grey protective cover of the GS 0900-R. The protective cover has four screws (see Fig. 1 & 2).



Fig. 1



Fig. 2

2. Use 'spanner 10' to loosen the bolts (indicated by the arrows). Turn to the left (see Fig. 3 & 4).

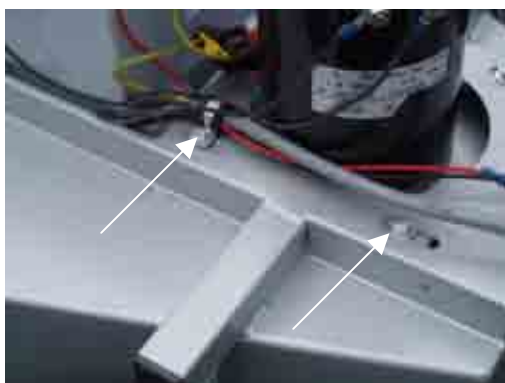


Fig. 3

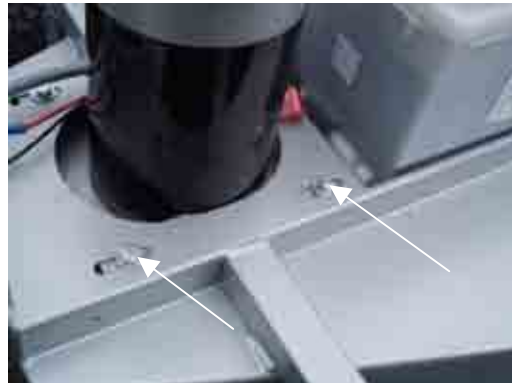


Fig. 4



3. Now you can tension the V-belt using 'Spanner 13' (see Fig. 5). Turn to the right to tighten it.



Fig. 5



The V-belt should not be adjusted too tightly. This could cause damage to the electromotor. This can be tested as follows:

Check if the tensioned V-belt can be pushed in ± 2.5 cm.

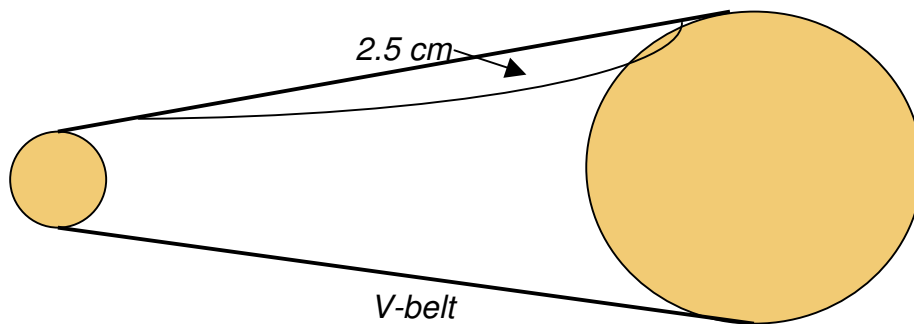


Fig. 6 Schematic bottom view of the GS 0900-R.



4.3.2 Spare fuse

Under the protective cover, an additional fuse has been attached with a tie wrap. First, demount the protective cover (see §4.3.1). Next, cut the tie wrap.



Fig. 1



Maintenance Dates



EC DECLARATION OF CONFORMITY FOR MACHINES
(Directive 89/392/CEE, Annex II, paragraph A)

GS Engineering & Development
Ravenstein

hereby declares that sweeper
GS 0900-R

- conforms to the provisions of the Directive relating to machinery (directive 89/392/CEE, as amended lately) and the national legislation implementing this directive;

and furthermore declares that

- the following (parts of) harmonized standards have been applied:

EN 292-1: Machine safety, part 1

Made in Ravenstein,

29 May 2007

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

A.A.W. Giesbers
Technical director