

Operating Instructions

Sembdner Scarifiers

VR 60 B with front wheel drive

VR 45 A with front wheel drive



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Preface

Thank you for purchasing a SEMBDNER scarifier and for the trust you have thereby shown in our product.

Features of the SEMBDNER Scarifiers:

- i tough steel construction (4 mm metal housing) for continuous professional use
- i front wheel drive (VR 60 B and VR 45 A) provides steady speed across flat and hilly terrain
- i the VR 45 H model (without wheel drive) also facilitates easy operation due to its high net weight
- i cutterhead and wheel drive individually shiftable right from the operator position
- i fully interchangeable cutterheads (slicing versus venting cutterhead)
- i working depth adjustable right from the operator position
- i individually-supported rear wheels for turning in tight confines
- i practical safety covers
- i reliable and efficient technology
- i 9 HP or 5.5 HP HONDA four -stroke engine with oil guard shut -off

1 Technical Information

1.1 Model specifications

Technical specifications / Model VR 60 B VR45A

Working width	cm	60	45
Approx. length/width/height (incl. guide beam)	mm	1360/800/990	1360/650/990
Approx. weight	kg	110	90
Working depth into soil	cm	to 2.5	to 2.5
Approx. area capacity per hour	m	2000	1500
HONDA GX 270 4 -stroke gas engine	kW / HP	6.5 / 9	5.5 / 4
Pneumatic tires		260 x 85	260 x 85
Reduction gear wheel drive (55:1)		z	z

1.2 Identification plate

Sembdner			
Maschinenbau GmbH		CE	
82256 Fürstenfeldbruck			
Model _____	No. _____		
Wt. (kg) _____	Gross power/kW _____		
Year of manufacture _____			

2 Safety Information

2.1 Safety warnings

Before using for the first time, read through this user manual and heed all safety instructions!

Caution sign



This symbol is used throughout this instruction manual to indicate items which concern your safety.

2.2 Intended use

Your new scarifier is designed exclusively for working lawn surfaces (intended use).

Any other use shall not be considered as intended.

The manufacturer is not responsible for any damage resulting from use other than as intended; the user bears all such risk to a sole and exclusive extent. Complying with the intended use also includes heeding the operation, maintenance and servicing conditions stipulated by the manufacturer. This scarifier may only be used, serviced and/or repaired by persons familiar with its operation and aware of its inherent dangers.

Adherence must be paid to the relevant accident prevention regulations as well as all other generally-recognized mechanical and occupational safety and traffic-related regulations.

Unauthorized modifications performed on the machine absolve the manufacturer from any liability attributable to damages resulting from such modifications.

2.3 General safety information

Observe all generally-recognized safety and accident prevention regulations beyond those mentioned in this manual. Provide any other user of this machine with all safety instructions.

Minors under the age of 18 years old may not operate this scarifier.

Users are required to familiarize themselves with all mechanisms and control elements as well as all their functions before beginning operation. By the time the machine is in operation, it will be too late.

The user should wear tight-fitting clothing. Avoid loosely-fitting clothing.

When transporting across areas not to be worked, always switch off and disengage the cutterhead – ensure rear wheels are in the transport position!

Check tire pressure regularly – PSI 2.5 bar max.

2.4 User authorization and qualification

Only responsible and capable personnel are to operate the scarifier. Heed legally permissible minimum age. The owner is responsible for all necessary training of those persons qualified and/or instructed in its authorized operation.

It is recommended that prior to any use the owner be fully convinced of the level of knowledge held by the persons the owner authorizes to operate the scarifier with respect to the following items: x
knowledge of the contents of this manual

x knowledge of all safety regulations and operational procedures contained herein

x knowledge of all applicable accident prevention regulations

Allow only trained or instructed persons to use this machine. Clearly specify personnel responsibilities regarding operation, maintenance and repair.

2.5 Safety information when operating

Strict compliance is to be paid to all references provided regarding operational safety as well as all items of general safety and accident prevention to be implemented or heeded prior to, during and following operation.

The operator must ensure that the scarifier is in proper, stable and safe condition prior to each use.

This scarifier is only to be operated when all protective and safety-related mechanisms including detachable protective devices are in place and functional.

Safety devices may not be disconnected or modified contrary to their intended purpose.

Do not leave the engine running in closed spaces: exhaust fumes may be highly toxic!

Caution is required when handling fuel – increased fire risk.

Never refuel in the proximity of open flames or ignitable sparks.

Never refuel the tank when the engine is running. Gasoline dripped on a hot engine increases the risk of fire or explosion; let the engine cool down first.

Do not smoke while refueling.

Do not turn the scarifier off in closed or confined spaces or areas with open heating systems; if there is any fuel still left in the fuel tank – gas fumes!

Stay well clear of the scarifier mechanisms at all times – keep a safe distance!

Beware of spinning and moving parts. All moving parts represent a dragging or crushing danger!

Never leave the machine's operator station at the guide beam unattended when working.

Before starting work, ensure all foreign objects are removed from the area to be worked. Continue to keep an eye out for foreign objects while working.

Before moving with the machine: check your immediate vicinity (children!); ensure your range of vision is sufficient.

Retrofittings and modifications to this machine are prohibited. Non-compliance may result in accidents and thus physical injuries.

2.6 Safety information when servicing

The setting, maintenance and repair procedures specified in this manual are only to be performed by qualified personnel.

To avoid injury, use only reliable and suitable tools/materials when performing adjustments, servicing and repair work.

All adjustments, maintenance and repair procedures may only be performed when the engine has been turned off and the spark plug terminal disconnected.

Wait until the cutterhead has come to a complete stop before working on it.

Replace damaged cutters. Wear protective gloves when working around the cutters.

Regularly check all retaining devices for tightness; tighten as necessary. Reattach all safety devices to the machine once work has been completed.

Ensure safe and environmentally-sound disposal of service fluids and consumable supplies as well as replacement parts!

3 General

3.1 Limited liability

All technical information, specifications and instructions contained in this manual for the operation and maintenance of the scarifier reflect the latest technology and are provided to the best of our knowledge based on our past experience and scope of knowledge.

We reserve the right to make technical changes related to the ongoing development of the scarifier described in this manual.

No claims are therefore to be inferred from the information, illustrations and/or specifications provided in this manual.

We are not liable for any damage or malfunctioning resulting from operational error, non-compliance with this instruction manual or from improper repairs.

The SEMBDNER Maschinenbau GmbH company will assume no liability for any damage resulting from the use of non-original replacement parts and/or accessories.

All translations provided are to the best of our knowledge. As such, we cannot assume liability for any errors in translation, even should we have provided or ordered such translation ourselves. The German language version prevails as the definitive text.

3.2 Warranty

Warranty claims are to be filed immediately after a determination of damage has been made; include all relevant purchasing data. All complaints must be confirmed by our office. Expendable parts are not covered under the warranty.

The warranty becomes void upon:

- improper operation
- use other than as intended
- unauthorized equipment
- use of non-original replacement parts

3.3 Accident prevention regulations

The accident prevention regulations of the Gartenbau-Berufsgenossenschaft {Horticulture Association} are to apply accordingly.

3.4 Testing standards

The sound pressure level measured at the operator's ear does not exceed 85 dB(A).

This decibel measurement complies with the guidelines set forth by the Bundesverbandes der landwirtschaftlichen Berufsgenossenschaft {German Federal Agricultural Association} for manually-guided machines.

4 Transport/Delivery

4.1 Packing

The scarifier is braced to its transport pallet with tension straps.

4.2 Shipping

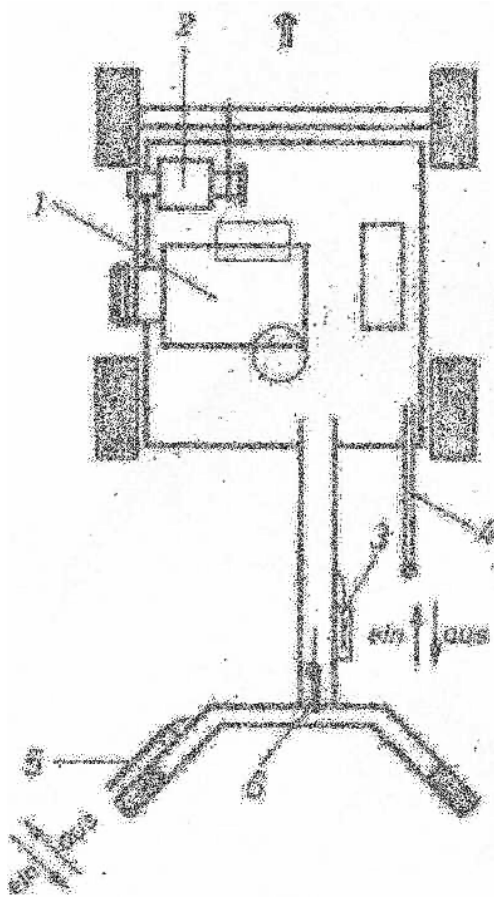
Only use loading planks appropriate for plank shipping.

4.3 Scope of delivery

Check for completeness of all parts and accessories upon taking delivery of your scarifier.

All claims regarding parts which may have become damaged or lost during transport are to be filed with the shipping firm.

5 Description and operation of the scarifier



- 1 4-stroke engine
- 2 55:1 reduction gear unit (wheel drive)
- 3 Cutterhead shift lever
- 4 Quick depth adjuster (cutter working depth)
- 5 Wheel drive control lever (concurrently locks cutterhead drive)
- 6 Throttle regulator

5.1 Engine

The engine 1 is an air-cooled four-stroke engine which runs on normal unleaded gasoline. A triple V-belt pulley mounted on the motor shaft drives two lower belts for the cutterhead and one forward for the reduction gear of the wheel drive.



Do not leave the engine running in a closed or confined space: exhaust fumes may be highly toxic!

Startup:

When starting the engine, the wheel drive and cutterhead must always be set to their off positions at shift levers 3 and 5 on the guide beam (don't touch the lever!). Set throttle regulator 6 on the guide beam to max.

Choke control: Shift the engine start lever into the Choke position.

Gently pull on the choke grip until you feel a slight resistance, then pull firmly all the way. Don't let the choke grip snap back against the engine. Carefully ease the grip back in order to avoid damaging the starter.

While the engine is warming up, gradually push the choke grip back. A warm engine requires less choke control than a cold engine.

Oil warning system:

The oil warning system serves to help avoid damaging the engine. Should there be an insufficient volume of engine oil in the crankcase, the oil warning system will switch the engine off automatically. Therefore, in the event the engine stops and will not restart at all, it is advisable to first check the oil level before undertaking any further troubleshooting.



Never perform any maintenance work while the engine is running!

In order to avoid unintentional starts: disconnect spark plug terminal!

Air filter:

Never run the engine without the air filter since this leads to accelerated engine wear. Regularly examine the air filter elements to ensure they are clean and in good condition. Clean the air filter as necessary and replace it when a heavy accumulation of dirt has built up.

Oil change:

First oil change after 5 hours, then after each 50 hours of operation or on a seasonal basis, using SAE 30 motor oil. Major maintenance and repairs should only be performed by specialist repair shops.

The engine was built by another manufacturer.
For exact information about its operation and maintenance,
referto the accompanying engine manufacturer's operating instructions!

5.2 Reduction gear unit (55:1) – VR 60 B and VR 45 A Reduction gear 2 reduces the engine speed of the front wheel drive.

The transmission features a permanent-lubrication synthetic oil and is thus maintenance-free.

5.3 Cutterhead/Front wheel drive

The V-belt drives for the cutterhead and for the front wheels can be engaged individually by the two levers 3 and 5 on the guide beam. The respective V-belt drive is thereby tensioned/slackened. The cutterhead drive is locked from the wheel drive by concurrently pulling up the control lever. For safety reasons, the cutterhead drive cannot be switched on once front wheel drive has been engaged. Before switching on/off the wheel drive or cutterhead when the engine is running, first let up on the gas – this avoids excessive wear to the belts.

Cutterhead drive:

~ To turn on – Push shift lever 3 forward in the direction of travel.

~ To turn off – Release the shift lever or automatically by shifting out of front wheel drive.

Front wheel drive for VR 60 B and VR 45 A:

~ To turn on – Pull up on red control lever 5.

~ To turn off – Release the control lever.



Warning: The cutterhead will continue to run briefly due to inertia delay!

Check the functioning of the automatic cutterhead drive shut-off by releasing the wheel drive control lever before each use!

5.4 Manual transport

First put the rear wheels into their transport position (see 5.5).

Bear down on the guide beam to raise the front wheels so that the scarifier is then pushed along solely on its rear wheels without engine drive.

5.5 Cutterhead depth adjustment

The cutterhead operating depth can be set incrementally and/or the cutterhead raised completely right from the operator position using setting lever 4.

This will raise/lower the rear wheels.

- ~ Greater digging depth – push the setting lever forward in the direction of travel and engage.
- ~ Less digging depth or to raise the cutterhead – pull the setting lever back opposite the direction of travel or push it all the way down and engage => rear wheels in transport position.



When transporting across areas not to be worked, always raise the cutterhead completely and switch it off!

6 Operation

6.1 Preparation

Before working the lawn with the scarifier, the lawn should be cut as short as possible.

6.2 Scarifier function and operating tips

With venting cutterhead: The venting cutterhead scarifies the surface of your lawn without penetrating down to the roots of the grass plants. Moss, cutting remnants and creeping weeds are dislodged. When scarifying the lawn with the venting cutterhead, it is therefore recommended to adjust the blades to a depth at which the rotating cutters just graze the soil surface between the grass plants without penetrating.

With slicing cutterhead: The rigid rotary cutters slit the soil to the desired depth (down to 2.5 cm), resulting in intensive soil aeration. The spread of creeping weeds is curtailed and moss, cutting remnants and creeping weeds are dislodged in the same manner as with the venting cutterhead. A lawn prepared in this way is ready for interseeding. If you plan to interseed, it is recommended to use a slicing cutter penetration depth of 2 cm when slitting the lawn.



Stay well clear of the scarifier mechanisms at all times, keep a safe distance!

You only need to work the lawn in one direction. Working the lawn crosswise to your first direction is unnecessary since the venting cutterhead's 1.5 cm spacing already provides the necessary result.

When turning, the cutterhead is to be raised completely off the ground by bearing down on the guide beam and the machine turned on its supporting rear wheels.

7 Servicing/Maintenance

7.1 Maintenance information



All maintenance, servicing and modifications are only to be performed when the engine is off and the spark plug terminal disconnected!

Check engine oil level before each start-up. In addition, observe all maintenance and servicing instructions in the accompanying instruction manual from the engine manufacturer.

The condition of the V-belts is to be visually checked on a regular basis. Promptly replace damaged belts in order to ensure the machine's reliability over the course of the season.

Check the cutterhead for any damage prior to each use. Replace any damaged cutterheads or cutters (see 7.3).

On the VR 60 B and VR 45 A models, regularly clean and lubricate the front wheel drive chains.

Bearings with greased fittings were lubricated prior to delivery and are to be kept lubricated on a regular basis.

The tiltable rubber shield is to be checked for intactness and anchoring before each machine use.

The sliding foot guard mounted on the right side near the cutterhead should always move smoothly.

Check tire pressure regularly (PSI 2.5 bar max.).

7.2 Troubleshooting

Scarifier malfunctions requiring any greater degree of effort should always be performed by specialist repair shops. Improper repairs can cause greater damage.

The reversing starter will not turn the engine over:

Is there fuel in the tank?

Is there sufficient oil in the engine (automatic oil guard shut-off!)? Is the kill switch in the " ON" position?

Check spark plug for ignition spark.

Should the engine still not start, please visit an authorized engine repair shop!

7.3 Replacing the cutterhead

To replace the cutterhead:

first remove the cover from the V-belts,

dismantle the V-belt tensioning device/guide for the cutterhead drive by releasing the springs and loosening the fixing bolts,

unhook the cutterhead drive's two V-belts,

disengage the fixing bolts for the two cutterhead supports,

press down on the machine's guide beam and walk the machine backward until the cutterhead is exposed – individual cutters or blade sets can now also be replaced on the disassembled cutterhead by releasing their fixing bolts or cotter pins.

To reassemble, simply reverse the procedure.



After any maintenance, servicing or modification work:

reaffix all protective chain/belt covers and foot guards!

7.4 Replacement parts

Use only genuine original replacement parts from the SEMBDNER company – you will otherwise void your warranty. When ordering replacement parts, please provide your model and machine number as well as the technical data from the identification plate.

7.5 Customer service

Technical information can be requested from our own qualified personnel or our retailers, agricultural machinery dealers and engine specialists.

Our foreign customers can call on our authorized national representatives/repair shops. If necessary, you can also contact our factory for fast and friendly assistance.

7.6 Customer service addresses

A list of the engine manufacturer's customer service centers for engine maintenance and repair work also accompanies this manual.

8 Accessories

Slicing cutterhead/Venting cutterhead

One venting or slicing cutterhead comes standard on your scarifier.

The respective other cutterhead is available as an additional accessory.

Cutterheads are fully interchangeable (see 7.3).

9 Declaration of Conformity

Declaration of Conformity

in compliance with the EC guidelines

Sembdner Maschinenbau GmbH
Liebigstr. 16
D - 82256 Fürstenfeldbruck

herewith declares that the products

Scarifiers Machine Model VR 60 B
Scarifiers Machine Model VR 45 A

to which this declaration relates
are in conformity with the relevant safety and health
provisions stipulated by EC Directive 98 / 37 / EC.

München, Dec. 14, 2014



Olaf Stauß
Managing Director