

# EasyGrinder

Grinder for combs and cutters  
for sheepshearing

Instruction manual



# Contents

## **1 Generalities**

- 1.1 Rating plate
- 1.2 Intended use
- 1.3 Guarantee conditions
- 1.4 Customer service
- 1.5 Limitation of liability
- 1.6 Information symbols

## **2 Safety**

- 2.1 Persons
- 2.2 Power supply
- 2.3 Protective equipment
- 2.4 Further measures for avoiding accidents
- 2.5 Children

## **3 Specifications and spare parts**

- 3.1 Specifications
- 3.2 Spare parts list

## **4 Transport and accepting delivery**

## **5 Assembly and function**

- 5.1 Assembly
- 5.2 Disc guard
- 5.3 Disc and pendulum
- 5.4 Fitting the disc on the motor

## **6 Operation**

- 6.1 Grinding combs
- 6.2 When is the comb sharp?
- 6.3 Grinding cutters
- 6.4 When is the cutter sharp?

## **7 Emery setting procedure**

## **8 Maintenance**

## **9 Trouble shooting**

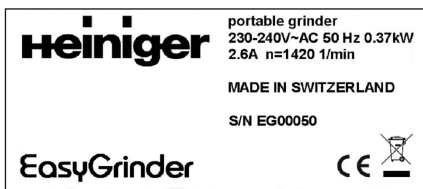
## **10 Disposal and material groups**

## **11 Illustration spare parts**

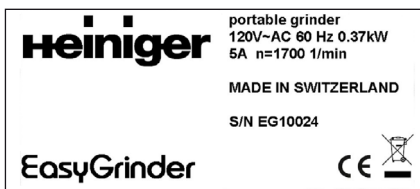
# 1 Generalities

## 1.1 Rating plate

230-240Volt/50Hz



120Volt/60Hz



## 1.2 Intended use

The Heiniger EasyGrinder is designed for grinding combs for sheep, goats and camelids. Any other use is expressly prohibited. This guide is for the safe and efficient handling with the machine. Read these instructions carefully before beginning any work. Basic condition for safe working is the adherence to all indicated safety references and procedural instructions in this guide. As mandatory limitation of use, the data given in 3.1 Specifications is valid. If you hand on the equipment to other persons, provide them with this manual.

## 1.3 Guarantee conditions

Your EasyGrinder has been manufactured by Heiniger, the leading manufacturer of shearing and clipping equipment. Heiniger stands for quality for more than 60 years. Your EasyGrinder is exclusively conceived for grinding combs and cutters for sheep shearing. With just a little care and attention, the EasyGrinder will give you many years of excellent services. The guarantee conditions are included in the general terms and conditions of the manufacturer; for more information on warranty terms and conditions of your Heiniger grinder please contact your local distributor. Claim any damage as soon as possible. Compensation only may be claimed within the valid guarantee periods.

## 1.4 Customer service

For technical information, our customer service and our authorised service centres are at your disposal.

Comment us your experience. Our staff is interested in new information and experience resulting from the operation which could be useful for the improvement of our products.

## 1.5 Limitation of liability

All data and information in this instruction manual were arranged in consideration of the current standards and regulations and state of the art as well as our realizations

and experiences of many years.

The manufacturer assumes no liability for disadvantages due to:

- Non-observance of the instruction manual
- Operation of the equipment for not intended use
- Employment of not instructed personal
- Normal wear and consequential damages
- Technical modifications
- Use of not approved spare parts
- Maintenance work by not authorised service centres

Whilst all care is taken during manufacture and by our agents to ensure your grinder arrives in perfect working order and condition, damage occurring during transit or faulty operation will not be covered by our warranty. Damage is likewise not covered due to inappropriate operation, missing care, accidents.

## 1.6 Information symbols



### **WARNING**

Danger of injury or death.



### **ATTENTION !**

Danger of injury or death.



### **NOTE**

Tips and informations.

## 2 Safety

### 2.1 Persons

The non-observance of the instructions and safety regulations mentioned in this manual can cause operating malfunctions or serious injury to persons. The safe operation of the machine only places minimal requirements on the operating personnel. It is, however, essential that these are observed and complied with.

- The operator shall be able to demonstrate an understanding of the controls and the hazards associated with the equipment.
- The operator must have read and understood the manual or have been instructed in the operation of the grinder by a skilled person and have had the potential dangers pointed out to him.
- Unauthorised persons are not permitted to use the grinder and the pendulum.
- Unauthorised persons are not permitted in the vicinity of the grinder of pendulum when it is operated or maintenance is being carried out.

Operation of the equipment is only permitted by personal expected to do their work reliably. Persons, whose reactivity is affected by drugs, alcohol or pharmaceuticals are not permitted to operate the equipment.

## 2.2 Power supply

The voltage specified on the rating plate and in this manual and that of the local power supply must match. The grinder may only be connected to an AC power supply. In the event that the grinder is operated from a generator, the supply voltage must not exceed that specified on the makers sticker. Never plug the grinder into damaged sockets. Observe the relevant regulations applicable in your country. Completely unroll the power cable before plugging in.

## 2.3 Protective equipment

Safety glasses for the eyes, ear plugs, gloves and antislip shoes for protection against slipping on slippery underground.

## 2.4 Further measures for avoiding accidents

- The operating instructions must be kept safely and accessible at all times.
- Never use the grinder on an unsafe or unstable stand, pedestal or bench.
- These disc guard must remain in place at all times unless performing maintenance, in which case the grinder must be unplugged from the power source.
- Wear suitable work clothes. Never use the grinder and pendulum with loose fitting clothing, open long hair, or anything else that could reach the moving disc.
- Always ensure adequate working room around the grinder.
- Never leave the grinder unsupervised when in operation or connected to the power.
- Avoid kinks and tight coils in the cable when storing, this can damage the cable.
- Store the grinder in a dry inside area when not in use.
- Never use the grinder or any part of a grinder, i.e. discs, pendulum when it is worn or damaged.

Any damage or failure to the grinder which may constitute a risk to the health and safety of any person shall be immediately reported by the operator to the owner/manager who shall take appropriate measure.

Examples of the type of damage, which would constitute such a risk include:

- Frayed or damage insulation on electrical wiring.
- Failure or wear of any control or component, i.e. switch, discs, disc guard or pendulum.
- Damaged or loose fasteners, nuts, bolts, screws, etc.
- Incorrectly or badly set emeries.



## 2.5 Children

### **WARNING!**

Never leave the equipment unsupervised and use it very carefully when children or persons who cannot judge the dangers are nearby.

## 3 Specifications and spare parts

### 3.1 Specifications

Designation	Grinder for combs for sheep, goats and camelids
Type	EasyGrinder
RPM	see rating plate
Voltage	see rating plate
Rating	0.37 kW
Power input	see rating plate
Frequency	see rating plate
Dimensions	Hight 740 mm with / 475 mm without cross arm Width 400 mm / Depth 320 mm Disc Ø 370 mm
Weight	23 kg

### 3.2 Spare parts list (Illustration at the end of the manual)

POS	DESCRIPTION	TOTAL
	<b>Spare parts to EasyGrinder</b>	
1	Motor to EasyGrinder with switch and flange	1
2	Fixation flange	1
3	Support EasyGrinder	1
4	Pendulum hook	1
5	Pendulum upright	1
6	Mounting bracket	3
7	Collar Ø10	2
8	Threaded pin M 5 X 8	2
9	Washer Ø 5.3/15/1.5 stainless	4
10	Cable ONE/EVO with plug	1
10a	Converter SCHUKO/GB-plug 5A	1
11	Wing screw M6X8	1
12	Wing screw M6X25	2
13	Hexagonal screw Verbus Ripp M6x16	6
14	Hexagonal rip nut M6	6
15	Rubber foot Ø22/4x10	4
16	Cup screw M4x8	4
17	Countersunk head screw with ISK M6x30	3

POS	DESCRIPTION	TOTAL
	<b>Spare parts to EasyGrinder</b>	
18	Guard ring	1
19	Cover behind	2
20	Guard cover	1
21	LS-screwTORX M5 x 16 KAFLOK	4
22	PH-screw M5x10	4
23	Spacer hexagonal M5x35	4
24	Hexagonal screw Verbus Ripp M8x25	4
25	Hexagonal rip nut M8	4
26	Centerin bush complete	1
27	Grinding disc Ø370	1
28	Emery paper self-adhesive medium	1
29	EasyPendulum	1
	<b>Spare parts to EasyPendulum</b>	
	Intermediate pipe	1
	Handle	1
	Base body with magnet	1
	Ring screw M6x20	1
	Hexagonal nut M6	1
	LS screwTORX M6 x 30 KAFLOK	1
	Cylinder pin Ø3x30 h6	2
	Cylinder pin with ISK M3x16	2
	Plastic disc Ø6.4/18x1.6	4
	Countersunk head screws TORX M4 x 12	2
	Disc to countersunk head screw M4	2

## 4 Transport and accepting delivery

Check the delivery on receipt immediately on completeness and damage in transit.

The grinder is supplied in a case without the fitted disc. It is essential that the disc is protected in transit. If the grinder is not transported in the case, ensure that it cannot tip or slide.

All units are transported at the owner's risk. Before accepting delivery, thoroughly inspect the Grinder for damage. If any has occurred you should note the nature and extent of the damage in view of any insurance claim you may wish to make.

The following areas should be checked carefully:

- Disc guard; it should be located securely in place
- Electrical components, disc and emery, pendulum

## 5 Assembly and function

### 5.1 Assembly

1 Grinding disc with emery papier, 1 EasyPendulum, 1 safety glasses, ear plugs, 1 allen key, 1 instruction manual.

The actual scope of delivery can differ from specially designed models, from additional ordering options or due to the latest state of the art from the here described annotations and illustrations.

The EasyGrinder is dispatched fully assembled, however it must be set up before being used for grinding, for full setup instructions refer to chapter 6 Operation.

### 5.2 Disc guard

The EasyGrinder is fitted with a guard enclosing the disc to protect the user during use. It is necessary to remove the outer part of the guard to remove or to change the emery papier. The guard is secured with four screws. When refitting the guard, always use all four screws, tightened securely.

### 5.3 Disc and pendulum

The special light weight aluminium alloy discs and pendulum are precision tools and will ensure the best possible edge on your gear and will give you years of great service provided that you treat them with care. It is important that the disc is not damaged or neglected, this can make it unusable.



#### **ATTENTION !**

The discs may be hazardous if used in a damaged condition. If the disc becomes damaged it must be replaced. Just use original emery paper and discs of Heiniger. The grinding disc is not fixed at delivery und must be fitted correctly onto the motor. The disc must be protected at any time of crushes, hits and falling. Do not use to much force to take off the disc and emery paper of the grinder.

### 5.4 Fitting the disc on the motor

Unplug the grinder from power before proceeding. The disc must be free of dirt, dust or any other foreign matter.

Slide the disc onto the shaft of the motor. Fit the disc washer and nut on the shaft with the enclosed spanner.



#### **NOTE**

The discs fitted to the grinder have been individually checked for balance. It must be noted that it is possible for the emery to throw the balance off (see 9, Troubleshooting).



## 6 Operation

Grinder setup, grinding technique and using the grinding pendulum.



### NOTE

Do not start the grinder before have read and understood this instruction manual completely. Ensure the disc is fitted and tightened. Ensure that the switch is in the OFF position before connecting the grinder to a power source. Do not start the grinder before having fit the disc guard and first put the safety glasses and ear protection. Do not attempt to grind until the grinder is at full speed.



### ATTENTION !

Always ensure that the disc guard is securely fitted before setting up and using the grinder. Ensure the emeries are stuck to the disc and have no air bubbles between the emery and disc. When the grinder is running do not allow anything to come into contact with any part of the discs.

### 6.1 Grinding combs (fig. 1 - 4)

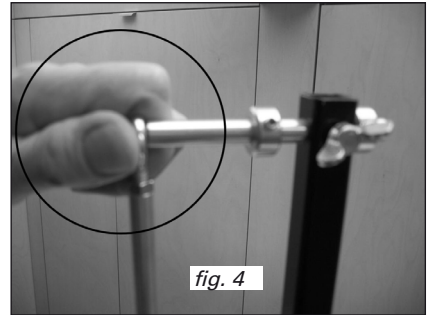
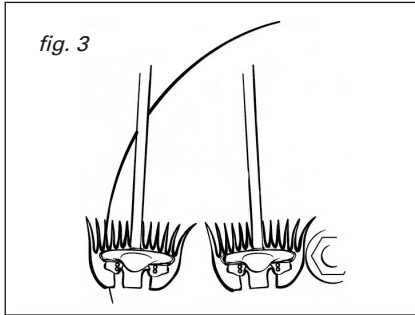
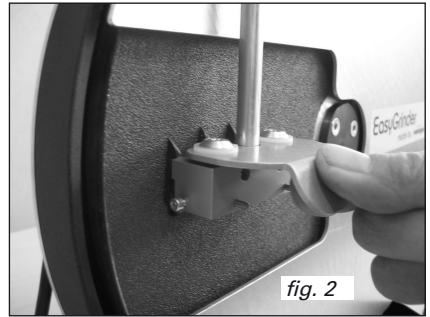
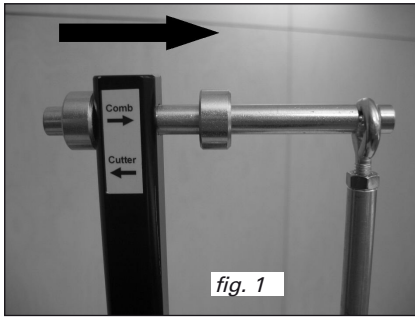
The grinder must be switched off. Hang the pendulum with placed comb on the pendulum hook. Move the pendulum upright away from the disc according to the mark «Comb» (fig. 1). Move the pendulum upright towards disc until the comb is placed on the disc. The adjustment is correct when the heel of the comb touches first the disc and between the top of the comb and the disc is a distance of 1.5 mm (thickness of a match) (fig. 2).

Holding your pendulum with the knuckle of your index finger directly under your thumb, land your comb onto the rotating disc. Move the comb immediately from side to side by firm and even pressure, about 2 - 3 times (fig. 2). Move the comb as far to the outer edge of the disc as three teeth are off the edge. Then return the comb to the motor shaft by a even movement, without any pressure unilateral, until the comb touches the fixation flange (fig. 3). To finish the grinding (when the comb is sharp), move the comb as far to the outer edge of the disc as the comb just rests with all the teeth. Finish the grinding by a little bit stronger pressure, and take the comb off the disc by a even and continuous backward movement.



### NOTE

- Always hold the upper part of the pendulum at the pendulum hook with your spare hand (fig. 4)
- Use the whole width of the emery paper.
- Always take 3 teeth off the edge of the disc (fig. 3)
- Use very firm even pressure during the whole grinding.



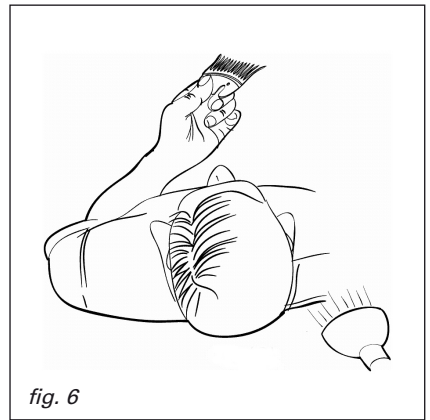
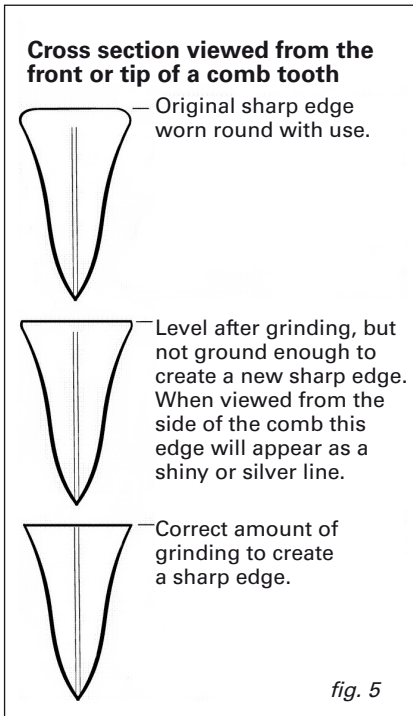
## 6.2 When is the comb sharp?

The whole surface of the comb must be ground, especially where the cutter has been cutting on the teeth. With good light, look carefully at the cutting edges of the tooth once you have ground because these are blunt edges (fig. 6). The light will shine on a rounded/blunt edge but will not shine on a sharp edge.



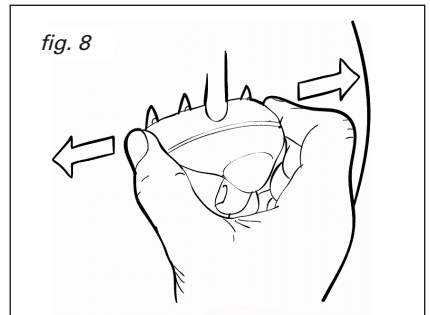
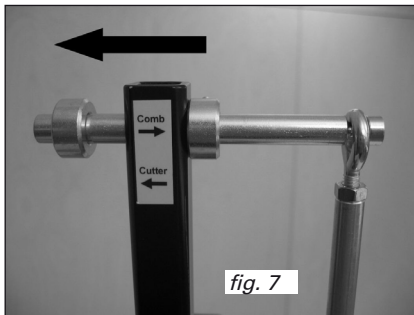
### NOTE

You must grind your combs until the blunt edge is sharp (fig. 5). If in doubt, grind it again.



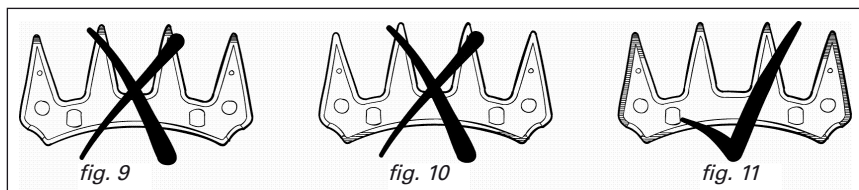
### 6.3 Grinding cutters

The grinder must be switched off. Hang the pendulum with placed cutter on the pendulum hook. Move the pendulum hook towards the disc according to the mark «Cutter» (fig. 7).



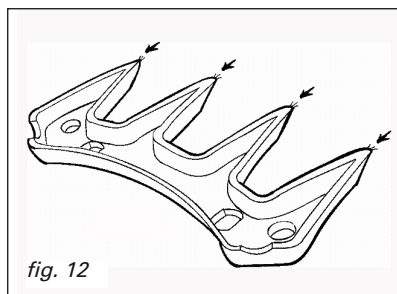
Move the cutter several times over the disc with the grinding movement (fig. 8). If the pendulum hook is too far inside, the cutter will rub on the upper side (fig. 9). If the

pendulum hook ist to far outside, the cutter will rub on the heel (fig. 10). Adjust the pendulum hook until the cutter rubs on both sides, above and on the heel (fig.11).



Holding the pendulum with the knuckle of your index finger directly under your thumb, land your cutter on the rotating disc. Move the cutter immediately from side to side by firm and even pressure, about 2 - 3 times. Move the comb as far to the outer edge of the disc as about 2 - 5 mm of the cutter are over the edge. Then return the comb to the motor shaft by a even movement, without any pressure unilateral, until the comb touches the fixation flange (fig. 8). To finish the grinding (when the cutter is sharp), move the cutter up to 25 mm to the outer edge of the disc. In this position keep the pressure on the cutter for one or two seconds . Finish the grinding by a little bit stronger pressure, and take the cutter off the disc by a even and continuous backward movement.

#### 6.4 When is the cutter sharp?



Check that you have a slight burr on the four tips of your cutter that move up or down when you touch them (fig. 12), check that the whole surface of the cutter is ground and there are no dull patches. If in doubt, grind it again.

## 7 Emery setting procedure

1. Take off the disc guard.
2. Remove the used up or damaged emery paper carefully and without any aggressive equipment off the disc.



3. Clean the disc of glue and other contamination.  
**NOTE:** Do not use any form of petroleum based solvents when cleaning discs.
4. Ensure disc is dry and completely free from any foreign matter. If necessary clean disc only with warm soapy water and a scrubbing brush, allow to dry.
5. Place the centering bush on the fixation flange of the disc.
6. Take a new original Heiniger emery paper and take off the protective film.
7. Put the new emery paper by the glue side inside, on the fitted centering bush, on the cleaned grinding disc.



8. Pat the emery paper firmly with the flat hand evenly on the disc.  
**NOTE: No adhesion of the disc at under 5° Celsius and when the emery paper has been stored at frost temperature.**
9. Control the whole surface of the emery paper for bubbles and consistency of the adhesion. Therefore, pat the surface with the back of the finger and observe the sound for irregularities.



10. The disc is now ready to grind.  
**NOTE:** Treat the disc and emery paper very carefully.

## 8 Maintenance

Use only genuine replacement parts. All parts are available through Heiniger dealers. Use only qualified personnel for electrical repairs. Always contact an authorized service centre if you are unsure how to rectify a problem or in case of any malfunctions not being contained in this manual. Only perform maintenance when the grinder is disconnected from the power.

### Motor

Failure to keep the motor dust free may reduce the cooling ability of the motor and cause it to cut out due to overheating. Periodically check the condition of the power cord, replace if worn or damaged.

### Rubber feet

Ensure that feet are fitted and secure; failure to do so may lead to the grinder becoming dangerously unstable.

### Switch

Replace damaged switches immediately.

### Pendulum hook

If the pendulum hook is damaged replace it before the grinder is used.

### Pendulum upright

Control the pendulum upright everytime before use for fixed fitting.

**Disc guard**

The grinder is fitted with a guard that enclose the disc; these guards are integral to the safe use of the grinder. It must fit the grinder correctly and securely. In the event of damage they must be repaired or replaced before the grinder is used.

**Grinding disc**

Keep the surface of the disc dry and free of dirt, grease and damages.

**Pendulum**

Remove periodically the grinding dust and keep the supporting surface clean. Protect the pendulum from dirt and damages. Replace a damaged pendulum before use of the grinder.

## 9 Trouble shooting

For all electrical faults qualified persons only may undertake fault finding and repairs.

Problem	Cause	Solution
Motor doesn't start	No power	Check the plug is correctly connected to the socket. Check that power is available at the socket. Call an electrician.
Grinder vibrates	Disc out of balance: 1. Bad quality or used emery 2. Disc has residues or dirt on the adhesive surface 3. Disc buckled 4. Motor shaft deformed	1. Replace emery 2. Take off the emery and clean the surfaces. Stick new emery. 3. Replace disc 4. Replace motor
Emeries won't stick to discs	1. Wrong emery used 2. Processing temperature under 5°C. 3. Dirty surface (grease, oil, dirt, old glue, etc.)	1. Use only original Heiniger emery paper. 2. Augment processing temperature. 3. Clean the disc with hot soap water or nitro-dilution.

## 10 Disposal and material groups



### ATTENTION !

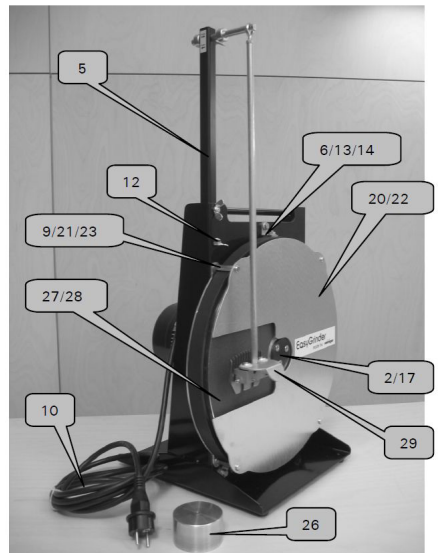
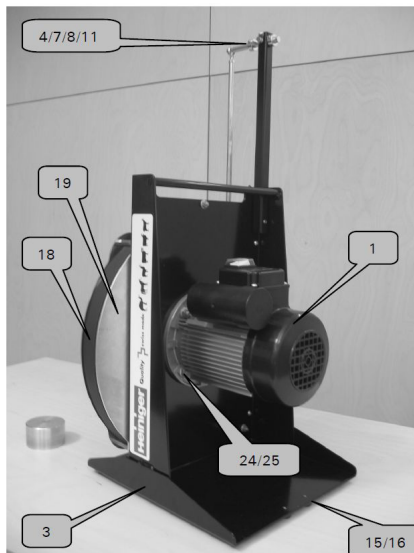
Environmental damages when disposing incorrectly!

Electronic waste, batteries, lubricants and other additives are subject to the treatment of hazardous waste and only may be disposed by specialised centres!

Please be aware of the relevant regulations applicable in your country when disposing of discarded parts.

Material	Contained in position (see 11, Illustration spare parts)
Iron/steel	1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 21, 22, 23, 24, 25, 26, 29
Aluminium	1, 19, 20, 26, 27, 29
Copper	1, 10
Polyethylene	1, 10
Rubber	10, 15

## 11 Illustration spare parts



warranty

Item	
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Serial no.	
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Date of purchase	
------------------	--

Stamp and signature	
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In case of claim, please return your Heiniger machine with the instruction manual and the warranty card at the end directly to your local distributor. Please do not cut off the warranty card from the instruction manual, or do not send it directly to Heiniger.

We reserve the right to make technical changes and improvements without notice.



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