



Hako

Instruction manual

Hakomatic B10 (7734) with Power Pack (7732)

Introduction

Preface

Dear customer, It is our desire that the good characteristics of the Hakomatic B10 should justify the confidence you demonstrated by making this purchase. Prior to the first use, read the chapter "Safety Information" carefully as this will ensure safe operation of the machine. Your own safety, as well as the safety of others, depends to a great extent on how the machine is moved and operated. Before using the equipment for the first time, read this original manual thoroughly, act according to the information contained and keep it in a safe place for future reference or subsequent owners. The manual provides valuable information about operation, service and maintenance. The warning symbols as used in this manual identifies items relevant to safety. Please observe the safety provisions (see chapter "Safety Information"). Your authorized Hako dealer will be pleased to answer further questions regarding the machine or the operation and maintenance manual.

Please be advised explicitly that we cannot accept any legal issues out of the contents of this manual. If repair work has to be performed make sure that only genuine spare parts are used; only genuine spare parts may guarantee a dependable machine. We reserve the right for technical improvement..

Valid as of: April 2009

Hako GmbH
D-23843 Bad Oldesloe
Hamburger Str. 209-239
Telefon ++49 (04531) 8060

Proper use

The machine is a vacuum scrubbing machine for wet cleaning of hard-surfaced floors. Using the machine beyond this scope of application will be deemed improper use; The manufacturer cannot be held liable for consequential damages; the user alone bears the risk.

The term of proper use also includes operation, maintenance and repair work to be performed in compliance with the manufacturer's specifications.

The Hakomatic B10 may only be used by persons that are familiar with the machine and aware of possible hazards involved.

If modifications to the machine are made in absence of the manufacturer's prior consent, the latter cannot be held liable for damage resulting from such unauthorized modification.

Introduction

Notes on warranty

The terms of the sales contract apply. Damages are not subject to warranty if they are due to non-compliance with the maintenance and service provisions. The maintenance work has to be performed by an authorized Hako service center and confirmed in the "Maintenance certificate" which is the warranty document.

The following is excluded from warranty: fuses, natural wear, damages caused by overload, inexpert handling and unauthorized modification of the machine. Moreover, any claim for warranty cannot be accepted if damages of the machine are caused by fitting parts or accessories without Hako's prior and explicit consent or by non-compliance with the maintenance instructions.

Acceptance of the machine

Upon arrival, check machine for possible damages in transit. For refund of such damage, have the Deutsche Bahn AG or your freight forwarder confirm such damage. Mail notification and waybill to:

**Hako GmbH
Hamburger Strasse 209-239
23843 Bad Oldesloe**

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Safety information

1 Safety information

1.1 Safety and Warning Symbols

All paragraphs in this manual referring to your personal safety, the safety of your machine and the environment protection are attributed one of the following warning symbols:

Symbol	Hazardous for ...	Description
Safety Provisions 	persons and goods	Safety Provisions in dangerous situation caused by misuse inaccurate adherence of instructions or prescribed work routine.
CAUTION 	the machine	important information on handling the machine in order to maintain operability.
Ecological hazard 	the environment	due to use of substances representing an inherent danger to health of environment

Safety information

1.2 General Provisions

- The machine fulfills all the applicable safety and health requirements stipulated in the EU directives with regard to its planning, constructional design and final construction as introduced by us onto the market. In the case of modifications to the machine not approved by us, the EC Declaration of Conformity enclosed in this operating manual loses its validity.
- Apart from the provisions contained in this instruction manual, the general safety provisions and the accident prevention regulations as imposed by law have to be complied with.
- Before taking your machine into operation, carefully read the instruction manual as well as other separate instructions for accessories or attached implements and comply with all points mentioned there during work.
- Persons being trained by qualified Hako technicians only are authorised to operate, service and repair the machine.
- You are advised to thoroughly study the safety instructions since precise

knowledge only helps avoiding errors during operation of the machine and thus guarantee faultless usage of the machine.

- The operating instructions have to be at hand at the place of use of the machine, and therefore have to be kept readily available at the machine.
- When selling or letting the machine for rent, hand out these documents to the new owner/operator and have the transfer certified!
- The warning and instruction plates attached to the machine contain valuable advice about safe operation. Immediately replace incomplete or illegible labels.
- As far as safety standards are concerned, spare have to equal genuine spare parts!

1.3 Operating information

- Before starting the machine up for the first time, the battery to be used must be fully charged, properly, by implementing the initial battery charge routine. Please pay attention to the operating manual provided with the charging unit as well as the

manual from the battery manufacturer. Hako assumes no liability for damage to the battery caused by a fault when the battery is charged for the first time.

- Check the operational safety of the machine each time before starting it up! Clear any faults immediately! In the case of function faults in respect of the charger and damage to the power cable or battery leads, the battery trolley must not be put into operation. Please contact your nearest authorized Hako service center.
- Before starting work, the operator must be fully familiar with all adjustment, operating and control elements as well as their respective function! It is too late to do this when the machine is actually in operation!
- Always wear heavy duty, non-slip footwear when working with the machine.
- The machine may only be driven on and the equipment used on those surfaces which have been approved by the contractor or person appointed by him.
- When using the machine, it is essential to pay attention to third parties,

Safety information

- especially children.
- Start driving immediately after switching on the brush drive otherwise imprints of the brush could be produced on the floor.
- Only use cleaning agents suitable for the vendor (non-foaming) and observe all the use, disposal and warning information provided by the cleaning agent manufacturer.
- The machine is not suitable for clearing up hazardous, inflammable or explosive fluids, dust or substances.
- It is forbidden to use the machine in potentially explosive atmospheres.
- Directly after beginning a cleaning operation, check that the waste water is cleared up properly. If a floor remains wet, it represents an increased risk of slipping!
- To prevent unauthorized use of the machine, switch off the main switch and disconnect the battery plug.
- When transporting the machine, tip the brush head up from the floor with the shaft.
- The machine has been conceived for use on level surfaces with a maximum gradient of 2%.

1.4 Maintenance information

- Operating personnel must complete the necessary daily and weekly maintenance work. All other maintenance work must be completed at your nearest Hako service center.
- The maintenance work and maintenance intervals prescribed in the operating manual must be adhered to.
- Suitable tools must be used for cleaning and maintenance work.
- The machine must be inspected by a recognized technical expert in respect of operational safety, within the terms of the applicable accident prevention laws, at reasonable intervals (we recommend at least once a year) and following modification or repairs .
- For reasons of safety, always use original spare parts.
- When carrying out cleaning and maintenance work or work on the electrical installation, always switch the machine off at the main switch and disconnect the battery plug and power plug.
- It is not permitted to clean the machine with a pressure washer or steam blaster.

- It is not permitted to use aggressive and corrosive cleaning agents.
- Allow the machine to dry after being cleaned, e.g. over the weekend.
- Only start the machine up when all the safety equipment has been installed and brought to its protecting position.

1.5 Specific Hazards Electric system

- Only use genuine fuses with the specified ratings.
- In case of malfunction of the electric system, immediately shutdown machine and remedy.
- Only qualified personnel are authorized to work on the electrical installations and only according to electro-technical rules.
- Inspect/check the electrical equipment of the machine at regular intervals. Clear up any defects immediately, such as loose connections or damaged cables.

Power Pack

- Observe the information in the operating manual provided by the battery manufacturer.
- Batteries may only be handled and

Safety information

changed by properly skilled maintenance personnel.

- The machine has been set up for operation using maintenance-free batteries. It is not permitted to use other battery types.
- Never lay any metallic objects or tools on batteries - risk of short circuit!
- Ensure sufficient ventilation in the charging area when charging the batteries. – Risk of explosion!
- For further safety information, see supplementary sheet 88-60-2554
- - Notes on driving batteries.
- A charger is installed in the Power Pack and can be used for operation via the mains power.
- The Power Pack must be protected from liquids and damp. It is not permitted to clean the machine with a pressure washer or steam blaster. Risk of electric shock!
- There is a risk of tipping when attaching and detaching the Power Pack. Risk of foot injuries!
- Ensure that the power cable of the Power Pack cannot be damaged by being run over, crushed, tugged etc. The power cable must be checked at

regular intervals for signs of damage and aging.

1.6 Information for Protection of Environment

- For safe use of substances inheriting a danger to health and environment specific knowledge is required.
- Observe the legal directives and local regulations for disposal of detergents, see Water Management Act.
- Used batteries labelled as recyclable contain reusable economic goods. According to the crossed dustbin label these batteries must not be added to the normal waste. Provide for agreement with the Hako contract dealer on return and disposal according to § 8 BattV.

Safety information

1.7 Labels on the machine

The following safety and warning labels are attached to the machine where easily legible. Missing or illegible labels must be replaced immediately.

Hakomatic B10

Company logo (Fig. 1/1)



Rating plate (Fig. 1/2)



Maschinenname (Fig. 1/3)

Hakomatic B10

Read and observe the operating manual (Fig. 1/4)



Drain plug for waste water (Fig. 1/5)



Maximum water temperature for the solution to be filled (Fig. 1/6)



Power Pack

Rating plate (Fig. 1/7)



Read and observe the operating manual (Fig. 1/8)



Do not clean the machine and the Power Pack with a pressure washer (Fig. 1/9)



Safety information

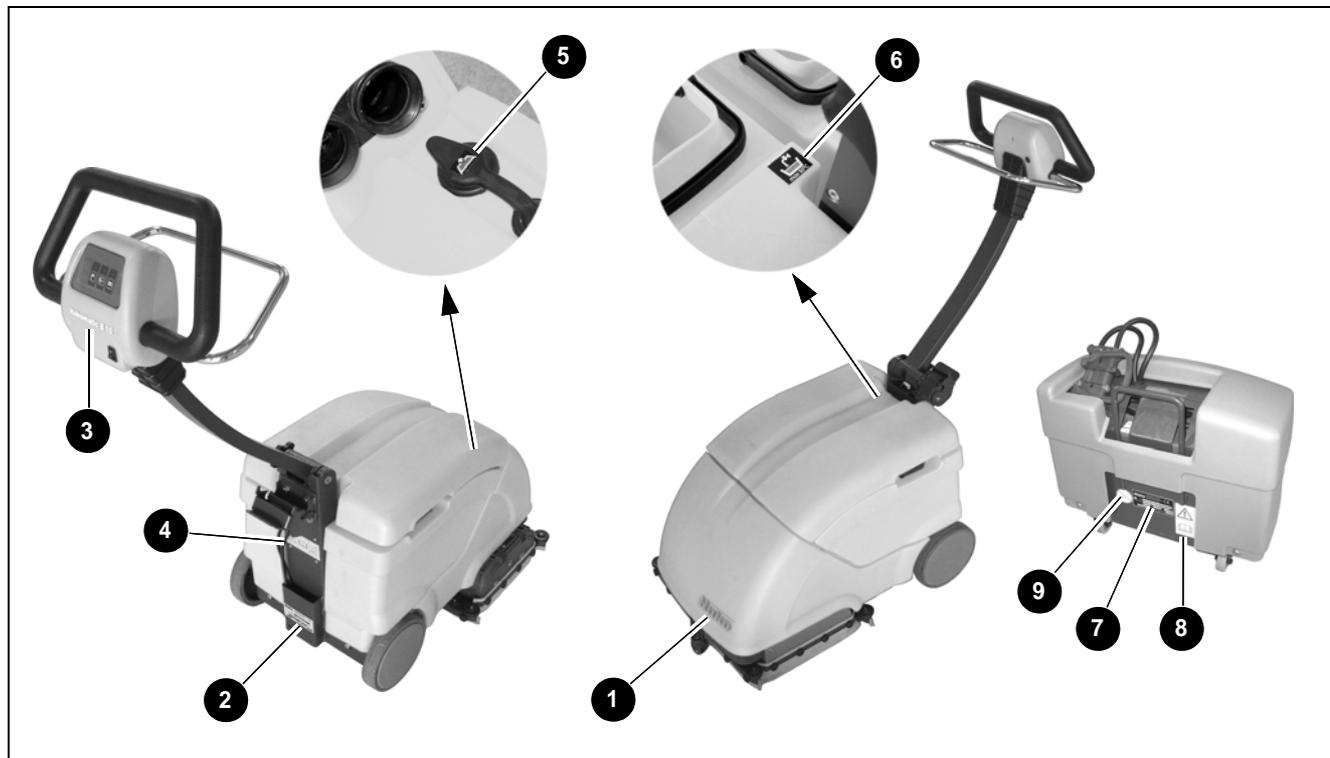


Fig.1

Starting Up

2 Starting Up

2.1 Prior to starting up for the first time

1. Open the box containing the Hako-matic B10 at the bottom and pull upwards. Loosen the plastic bands and remove the machine carefully from the pallet.
2. Remove the insulation blocks (Fig. 2/1).
3. Loosen the adjusting knob (Fig. 2/2) and move the steering shaft to its operating position (guide marks facing each other). Screw the adjusting knob tight again.
4. Remove the battery trolley (Fig. 2/3) from the packaging.



Before starting up the equipment for the first time, you must fully charge the batteries to be used by completing the initial battery charge routine properly, refer to Section 5.4.1. Hako is not deemed liable for damage to the battery resulting from failure to complete the initial battery charge properly.

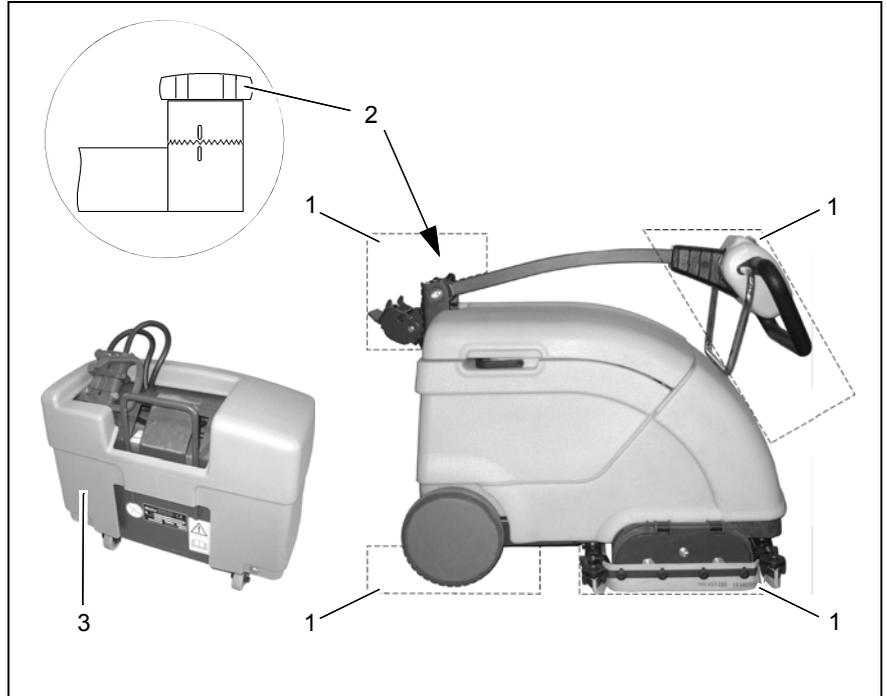


Fig.2

Starting Up

5. Tip the machine back a little using the shaft (Fig. 3/1) so that it is against the battery trolley (Fig. 3/2).
6. Slide the bracket (Fig. 3/3) in the support (Fig. 3/4) of the battery trolley.



Do not hit against the battery trolley. Risk of tipping!

7. Tip the machine forward again with the battery trolley attached.
8. Connect the battery plug (Fig. 3/5) from the battery trolley in the socket (Fig. 3/6) on the Hakomatic B10.

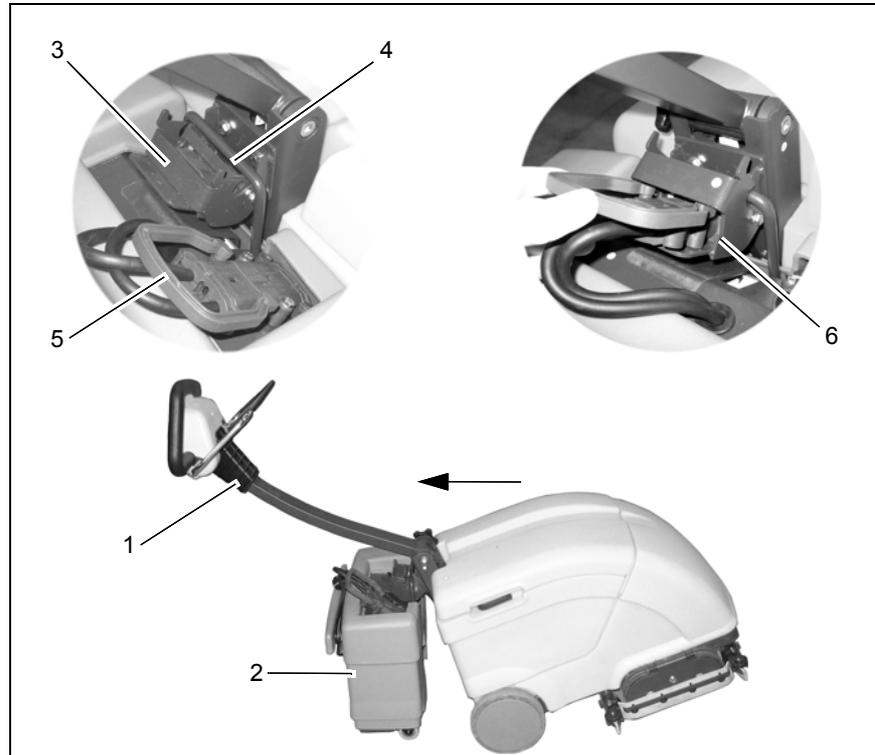


Fig.3

Starting Up

9. Tip the machine a little using the shaft (Fig. 4/1) until the supporting rollers (Fig. 4/2) in can be pushed into parking position (X). Lower the machine onto the supporting rollers.
10. Loosen the slotted-head screw (Fig. 4/3) with a coin and pivot the cover (Fig. 4/4) upwards.
11. Insert the brushes (Fig. 4/5) supplied in the brush head, close the cover and secure it again with the slotted-head screw.

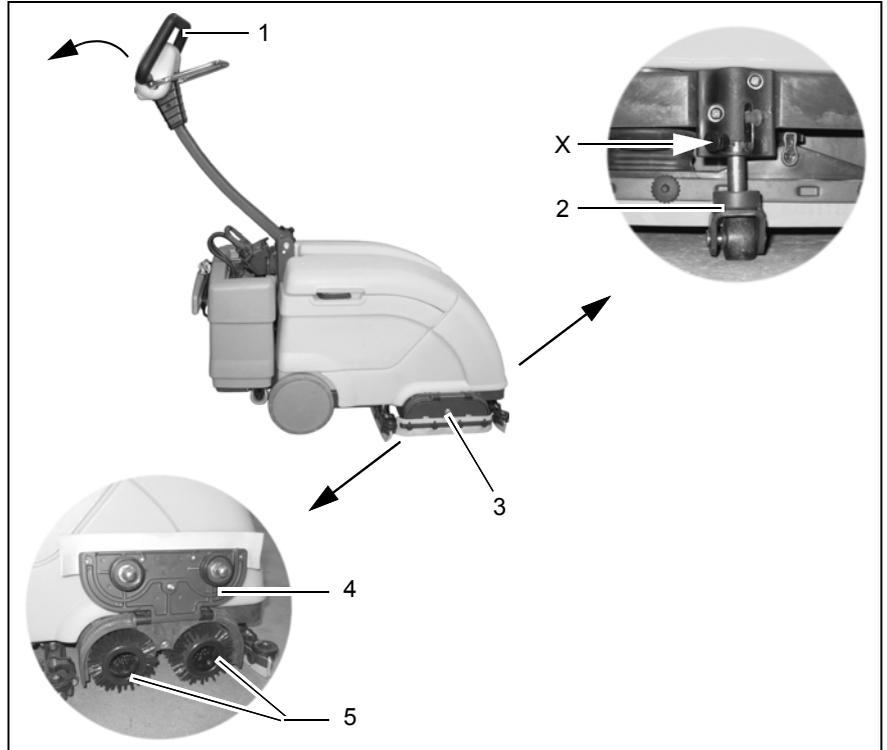


Fig.4

Starting Up

2.2 Before starting up daily

1. Check the following for wear:
 - Brushes in the brush head (Fig. 5/2)
 - Sealing strips on the squeegee (Fig. 5/3)
 - Solution filter, air intake filter and seals in the housing cover (Fig. 5/4).
2. Check the fill level of the solution tank (Fig. 5/5), refill as necessary. Add cleaning agent as necessary, refer to Section 5.5.1.



Only use cleaning agents suitable for the vendor (non-foaming) and observe all the use, disposal and warning information provided by the cleaning agent manufacturer.

3. Check the fill level of the recovery tank (Fig. 5/6), empty as necessary.
4. Raise the brush head by tipping the shaft back and slide the supporting rollers (Fig. 5/8) to the working position (X).

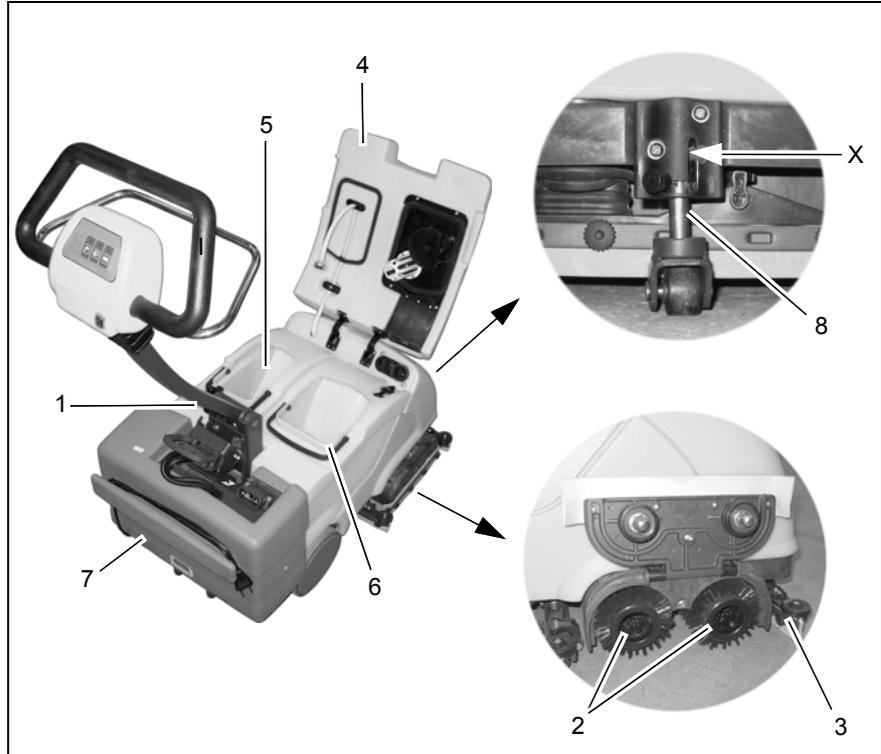


Fig.5

3 Operation

3.1 Method of operation

General information

The Hakomatic B10 is a scrubber drier for wet cleaning hard floors.

3.1.1 Brush head

The rotating brushes in the brush head (Fig. 6/1) scrub the dirt free, thoroughly, with a solution and clean the floor. The brushes can be disassembled for maintenance purposes.

3.1.2 Squeegee

The moving, suspended squeegee (Fig. 6/2) is adjusted for forward and reverse operation by means of a hand lever. The sealing strips on the squeegee adapt perfectly to the floor. A suction turbine vacuums up the dirty solution from the floor.



Fig.6

Operation

3.1.3 Solution tank

The solution tank (Fig. 7/3) for the Hakomatic B10 is located under the housing cover (Fig. 7/2) and has a capacity of approx. 10 liters. The solution supply is activated by a button and flows at a rate of approx. 0.22 liters/min.

3.1.4 Recovery tank

The waste water which is vacuumed up is fed via a suction hose from the squeegee to the recovery tank (Fig. 7/1).

3.1.5 Battery trolley

The battery trolley (Fig. 7/4) is equipped with maintenance-free batteries, a fully automatic battery charger and a total discharge signal transducer (TSG) to protect against total discharge. Pay attention to the safety information with regard to this.

For information on driving batteries, refer to Supplementary Sheet 88-60-2556.



Fig.7

Operation

3.2 Operating and indicator elements

3.2.1 Operating panel

- 1 Battery indicator
- 2 Button for water pump
- 3 Button for suction turbine
- 4 Button for brush drive
- 5 Main switch



Fig.8

Operation

Battery indicator (Fig. 8/1)

This control lamp indicates the charge status of the batteries.

Button for water pump (Fig. 8/2)

When the brush drive is switched on, this button is used to switch the water pump on and off. When the water pump is switched on, the control lamp lights up.

Button for suction turbine (Fig. 8/3)

This button is used to switch the suction turbine motor on and off. When the suction turbine motor is switched on, the control lamp lights up.

Button for brush drive (Fig. 8/4)

This button is used to switch the brush drive on and off. When the brush drive is switched on, the control lamp lights up.

Main switch (Fig. 8/5)

The machine is ready to operate after switching on the main switch.

Operation

3.2.2 Operating elements on the machine

- 1 Squeegee adjustment lever
- 2 Adjustable shaft
- 3 Bracket for battery trolley
- 4 Battery plugs, battery trolley
- 5 Power supply line, charger
- 6 Charge control indicator

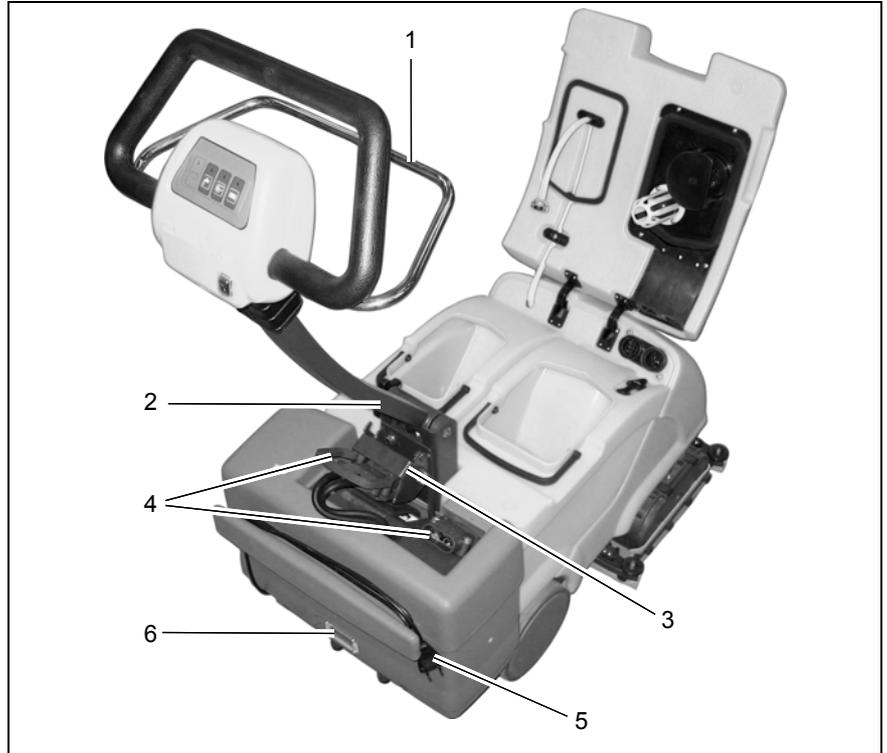


Fig.9

Operation

Squeegee adjustment lever (Fig. 9/1)

The operator can change the squeegee position according to the direction of movement.

Draw lever - reverse operation

Release lever - forward operation

Adjustable shaft (Fig. 9/2)

The shaft must be adjusted to the height of the operator prior to operation.

To adjust the shaft, release the knob.

Bracket for battery trolley (Fig. 9/3)

In order to be able to start a cleaning operation, the battery trolley must be hooked into the bracket on the Hakomatic B10.

Battery plug battery trolley (Fig. 9/4)

The battery trolley battery plug is used to enable power supply to the Hakomatic B10. When in charging mode, the battery plug must be inserted in the socket on the battery trolley.

Power supply line, charger (Fig. 9/5)

The power supply line supplies power to the charger during the charging process. After the charging process has

been completed, the cable must be wound back in the holder.

Charge control indicator (Fig. 9/6)

The charge control lamp indicates the status of the charger

- LED (A) lights up yellow = <80% charge
- LED (B) lights up yellow = >80% charge
- LED (C) lights up green = 100% charge

Errors are signaled by the red LED (D). Contact your authorized Hako service center in the event of an error!

Operation

3.3 Cleaning operation

Please read the safety information in Chapter 1 first and complete the working steps described in Section 2.2.

1. Switch the machine on and ready to operate using the main switch (Fig. 10/5).
2. Check the battery indicator (Fig. 10/1), recharge the batteries as necessary; refer to Section 5.4.2.
3. Press the button (Fig. 10/3) to switch on the suction turbine.
4. Press the button (Fig. 10/2) to switch on the solution supply (with cleaning agent, if necessary).
5. Press the button (Fig. 10/4) to switch on the brushes and move the machine.
 - Forward operation (A):
Release lever (Fig. 10/6) and push the machine.
 - Reverse operation (B):
Pull lever (Fig. 10/6) and draw the machine back.

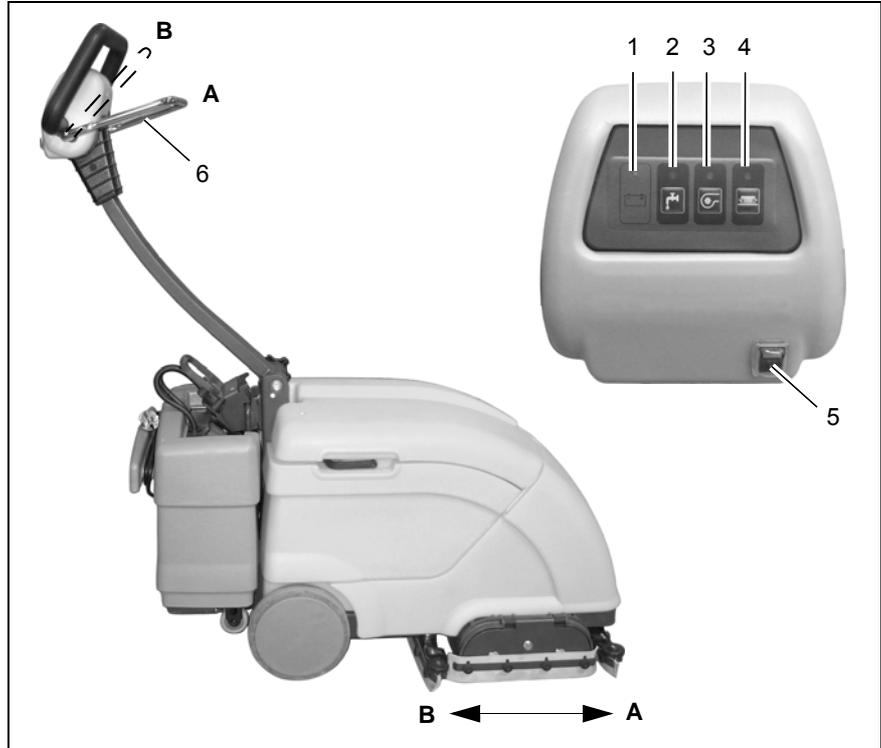


Fig.10

Operation

3.3.1 After completing cleaning

1. Switch the machine off with the main switch (Fig. 11/5).
2. Check the battery indicator (Fig. 11/1), recharge the batteries as necessary; refer to Section 5.4.1.
3. Raise the brush head by tipping the shaft and slide the supporting rollers (Fig. 11/6) to the parking position (X).
4. Transport the machine to an appropriate servicing area.
5. Empty and rinse out the solution tank (Fig. 11/7) and recovery tank (Fig. 11/8).



Observe the applicable laws and local regulations when disposing of cleaning agents!

6. Clean the machine and check the following for signs of wear:
 - Brushes (Fig. 11/9) in the brush head
 - Sealing strips (Fig. 11/10) on the squeegee
 - Solution filter, air intake filter and seals in the housing cover (Fig. 11/11)

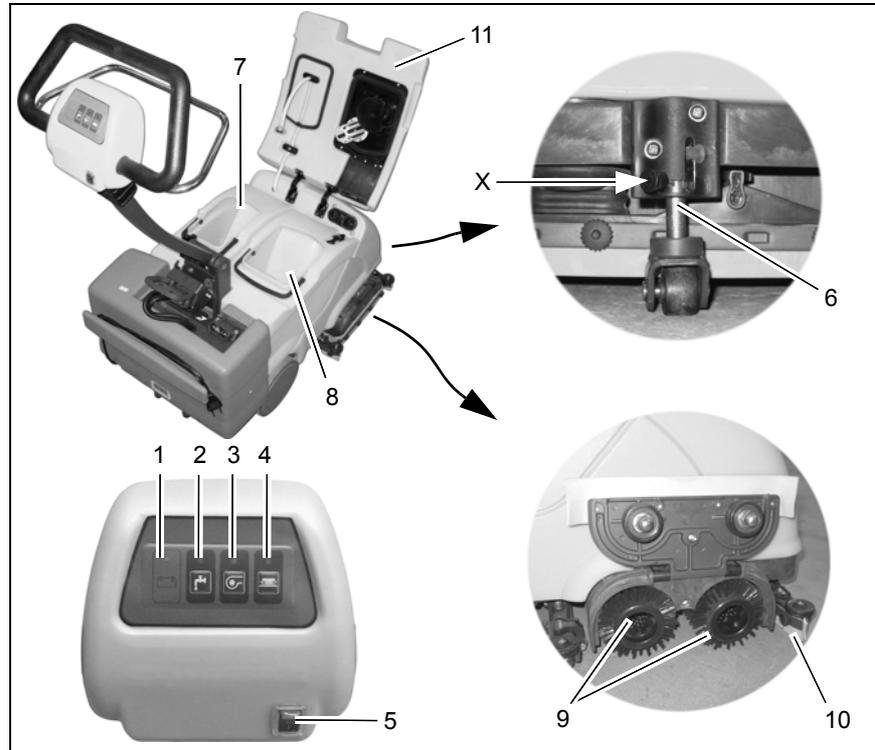


Fig.11

Operation

3.3.2 Troubleshooting

Following poor cleaning results:

- Check the air intake filter (Fig. 12/1) for blockages.
- Check the sealing (Fig. 12/2) of the recovery tank.
- Check the suction hose and squeegee in the brush head (Fig. 12/3) for blockages.
- Empty the recovery tank (Fig. 12/4).

3.3.3 Transport and loading

1. Detach the battery trolley, refer to Section 5.4.3.
2. Only transport the battery trolley in a vertical position, protecting it from tipping and rolling away.
3. Loosen the adjusting knob (Fig. 12/ 5) and move the shaft to its transporting position.
4. Remove the brushes and set the supporting rollers to their working position. Lash the machine housing to the transportation device with appropriate load fixation devices(Fig. 12/6).

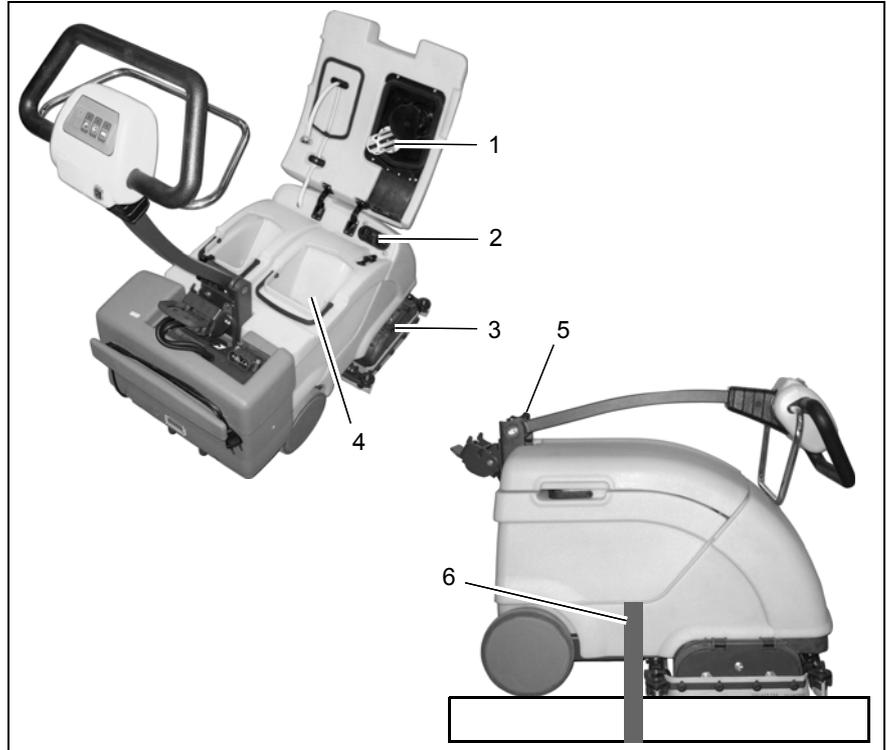


Fig.12

Technical Data

4 Technical Data

Machine length	cm	81
Machine height	cm	54
Machine width	cm	47
Working width	cm	45
Area coverage, theoretic	m ² /h	700
Nominal voltage	V	24
Power consumption, suction turbine	W	370
Power consumption, brush motor	W	350
No. of brushes	Pieces	2
Brush diameter	cm	10
Solution tank	Liter	10
Recovery tank	Liter	11
Dead weight without battery trolley	kg	45
Dead weight with battery trolley	kg	85

Technical Data

Noise emission value The sound pressure level (LpA) (at the ear of the operator) measured according to DIN IEC 60335-2-72 under normal working conditions: Measurement inaccuracy (KpA):	dB (A) dB (A)	65 2
Vibration The weighted effective value of acceleration, measured in accordance with DIN EN ISO 5349, to which the upper parts of the body (hand-arm) are exposed under normal working conditions:	m/s ²	< 2.5

5 Maintenance and Care

General



Before proceeding to maintenance and care work you are advised to read and comply with the Safety Information chapter!

Compliance with the recommended maintenance works will give you the certitude of always having a reliable machine at disposition.

Daily or weekly maintenance and repair works may be executed by the driver/operator having been trained accordingly. Further Hako system maintenance works have to be executed by qualified personnel only. Please contact your local Hako Service Centre or Hako contract dealer. We cannot be held liable for damages resulting from non-compliance with these instructions. Please indicate the machine's serial number with any enquiry or spare part order, see paragraph 1.7 - Nameplate.

5.1 Hako System Maintenance

The Hako System Maintenance:

- guarantees reliable operability of the Hako machines (preventive maintenance)
- minimizes operating costs, repair costs and maintenance costs
- ensures long service life and operability of the machine

The Hako System Maintenance is structured in separate modules and determines specific technical works to be executed as well as the intervals for such maintenance works. For any specific maintenance type, the replacement parts are determined and listed in spare part kits.

Hako System Maintenance Customer:

To be performed by the customer in accordance to the maintenance and care instructions contained in the operating instructions (daily or weekly). The driver/operator will be instructed upon delivery of the machine.

Hako-System Maintenance I:

(six monthly)

To be performed by qualified personnel of authorised Hako Service Centre in accordance with the machine-specific

system maintenance including spare part kit.

Hako-System Maintenance II/S:

(twelve monthly / safety check)

To be performed by qualified personnel of authorised Hako Service Centre in accordance with the machine-specific system maintenance including spare part kit. Execution of all safety-relevant inspections according to UVV-BGV-TÜV-VDE as prescribed by law.

Maintenance and Care

5.2 Maintenance Document

<p style="text-align: center;">Handing over</p> <p>Upgrade Test drive Handing over to the customer</p> <p>carried out on:</p>	<p style="text-align: center;">System-Maintenance I six monthly</p> <p style="text-align: center;">Workshop stamp</p> <p>carried out on:</p>	<p style="text-align: center;">System-Maintenance II/S twelve monthly</p> <p style="text-align: center;">Workshop stamp</p> <p>carried out on:</p>	<p style="text-align: center;">System-Maintenance I six monthly</p> <p style="text-align: center;">Workshop stamp</p> <p>carried out on:</p>
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Maintenance and Care

5.3 Maintenance plan

System maintenance, customer

The following maintenance work must be completed by the customer at the intervals stipulated.

Activity	Interval	
	Daily	Weekly
Check the condition of the power supply line and battery plugs. Defective cables must be repaired by skilled technicians immediately.	o	
Check the battery charge, recharge as necessary	o	
Check the filter sieve in the solution tank, clean as necessary	o	
Empty and clean the recovery tank	o	
Check the air intake filter in the recovery tank, clean as necessary	o	
Check the sealing strips on the squeegee, clean or change as necessary	o	
Check the brushes in the brush head, clean or change as necessary	o	
Check the seal in the housing cover, clean or change as necessary		o
Check the solution feed to the brushes, clean as necessary		o
Test drive and function test		o

Maintenance and Care

System maintenance I

The following maintenance work must be completed by an authorized Hako service center.

Activity	Interval
	Every 6 months
Check the functionality of the operating panel	o
Check the seals in the housing cover, change as necessary	o
Check the sealing strips on the squeegee, change as necessary	o
Check the brushes in the brush head, change as necessary	o
Check the solution feed to the brushes, change the nozzles as necessary	o
Check the suction hose is fitted properly and for signs of damage, change as necessary	o
Check the supporting rollers, change as necessary	o
Test drive and function test	o

Maintenance and Care

System maintenance II/S (safety check)

The following maintenance work must be completed by an authorized Hako service center at least once a year.

Activity	Interval
	Every 12 months
All maintenance work in accordance with system maintenance I	o
Check the condition of the power supply line and battery plugs, change as necessary	o
Check the suction turbine for signs of wear, change as necessary	o
Check the water pump in terms of functionality and for signs of wear, change as necessary	o
Clean any carbon dust from the suction turbine motor and check the carbon brushes move easily and for signs of wear, change as necessary	o
Clean any carbon dust from the brush motor and check the carbon brushes move easily and for signs of wear, change as necessary	o
Test drive and function test	o

Maintenance and Care

5.4 Battery system

The battery trolley (Fig. 13/1) represents the power supply for the Hakomatic B10.



It is not permitted to clean the machine with a pressure washer or steam blaster.

Initial battery charge



Before starting the machine up for the first time, the batteries to be used must be fully charged, properly, by implementing the initial battery charge routine. Hako assumes no liability for damage to the battery caused by a fault when the battery is charged for the first time.

5.4.1 Charging batteries

We recommend charging the battery immediately if the battery indicator (Fig. 14/6) on the Hakomatic B10 lights up red during operation. The batteries are charged using the integrated battery charger.

1. Connect the battery plug (Fig. 13/3) to the battery socket on the battery trolley (as illustrated in the figure).
2. Insert the power plug (Fig. 13/2) in a mains power socket.
3. The charge status is indicated by LEDs A to C.
 - LED (A) lights up yellow = <80% charge
 - LED (B) lights up yellow = >80% charge
 - LED (C) lights up green = 100% charge
4. Following the charging process, disconnect the power plug again. Errors are signaled by the red LED (D). Contact your authorized Hako service center in the event of an error!

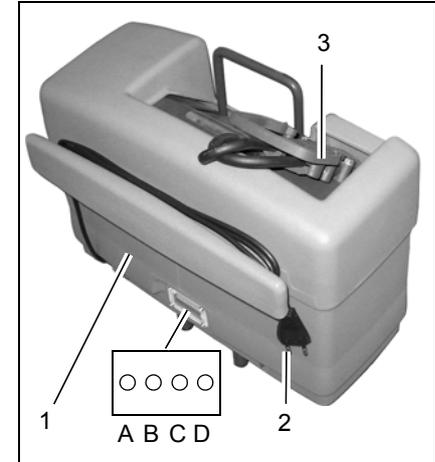


Fig.13

Maintenance and Care

5.4.2 Attaching the battery trolley

Please read the safety information in Chapter 1.

1. Switch off the Hakomatic B10 using the main switch (Fig. 14/1).
2. Pull the Hakomatic B10 against the battery trolley (Fig. 14/2).
3. Tip the machine to the rear until the battery trolley can be installed on the holder (Fig. 14/3).
4. Tip the machine forward again so that it is horizontal on the floor. The battery trolley now hangs in the holder.
5. Slide the safety catch (Fig. 14/4) upwards. Plug the battery plug (Fig. 14/5) in the socket on the Hakomatic B10.

5.4.3 Detaching the battery trolley

The battery trolley is detached in the reverse sequence to which it was installed on the Hakomatic B10.

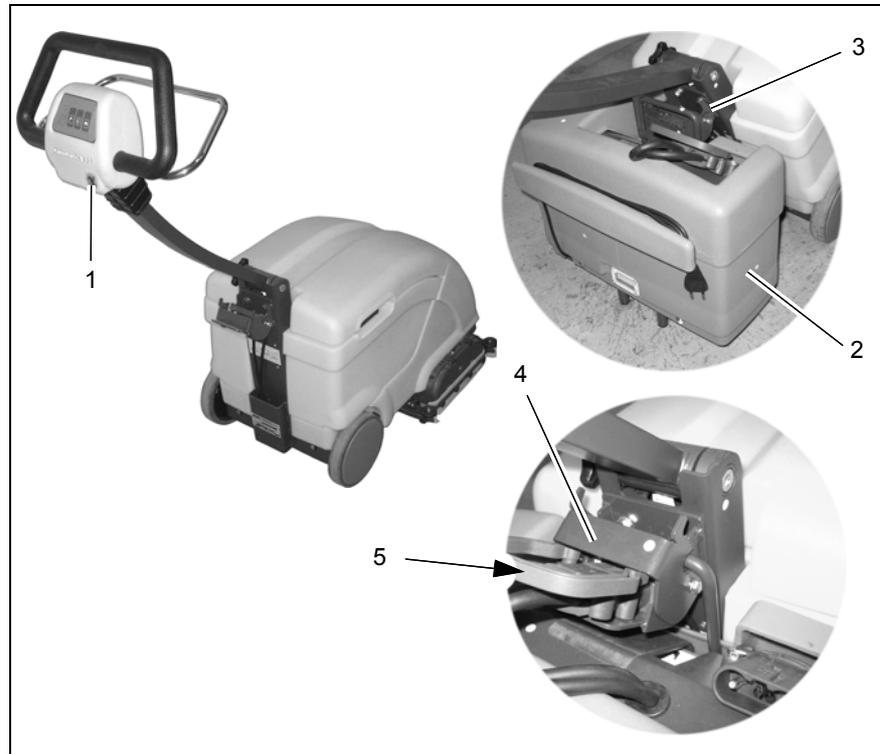


Fig.14

Maintenance and Care

5.4.4 Servicing the driving batteries

For information on servicing driving batteries, refer to operating manual 88-60-2556.

5.4.5 Removing the batteries

1. Park the machine on a level area of floor.
2. Switch the Hakomatic B10 off at the main switch.
3. Disassemble the battery trolley from the Hakomatic B10, refer to Section 2.7.
4. Loosen the four screws (Fig. 15/1) and lift the cover (Fig. 15/2) off.
5. Remove the battery connection cables.
6. Remove the batteries.

5.4.6 Inserting the batteries

1. Install the batteries in the battery trolley.
2. Connect the battery poles in accordance with the connection plan (Fig. 15/3) using the connection cables. Ensure they are connected firmly.
3. Replace the cover (Fig. 15/2) and secure in place with the screws.

5.4.7 Disposing of batteries

Used batteries with the recycling symbol contain reusable commodities. In accordance with symbol with the crossed out bin, these batteries must not be disposed of in domestic waste. Return and recycling must be agreed on with Hako's authorized dealer in accordance with § 8 BattV (Battery Directive)!

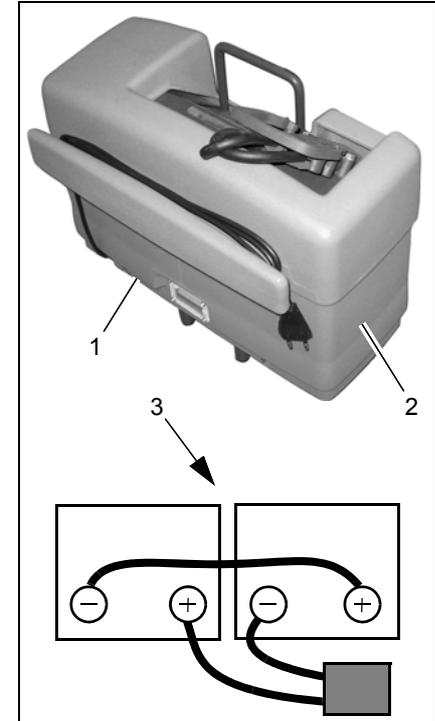


Fig.15

Maintenance and Care

5.5 Solution tank

- 1 Solution tank
- 2 Solution filter
- 3 Seal
- 4 Housing cover



Fig.16

Maintenance and Care

5.5.1 Filling the solution tank

Fill the solution tank (Fig. 16/1) before starting work or as necessary.



The solution temperature must not exceed 50 °C!

1. Switch off the machine using the main switch and disconnect the battery plug.
2. Open the housing cover and remove the solution tank (Fig. 16/1).
3. Fill fresh water up to the marking, approx. 10 liters (add a cleaning agent if necessary).
4. Reinstall the solution tank.



Observe the applicable laws and local regulations when disposing of cleaning agents!

5.5.2 Cleaning the solution filter

Check the solution filter (Fig. 16/2) daily and clean or change it as necessary.

1. Switch off the machine using the main switch and disconnect the battery plug.
2. Open the housing cover and disconnect the solution filter (Fig. 16/2) from the hose.
3. Rinse the solution filter with water or,

if necessary, install a new one.

5.5.3 Check the seal

Check the solution tank seal (Fig. 16/3) weekly and clean or change as necessary.

1. Switch off the machine using the main switch and disconnect the battery plug.
2. Open the housing cover and remove the seal (Fig. 16/3) from the housing cover.
3. Clean the seal and reinstall it or insert a new one.

Maintenance and Care

5.6 Recovery tank

- 1 Recovery tank
- 2 Drain plug
- 3 Seal
- 4 Air intake filter
- 5 Housing cover

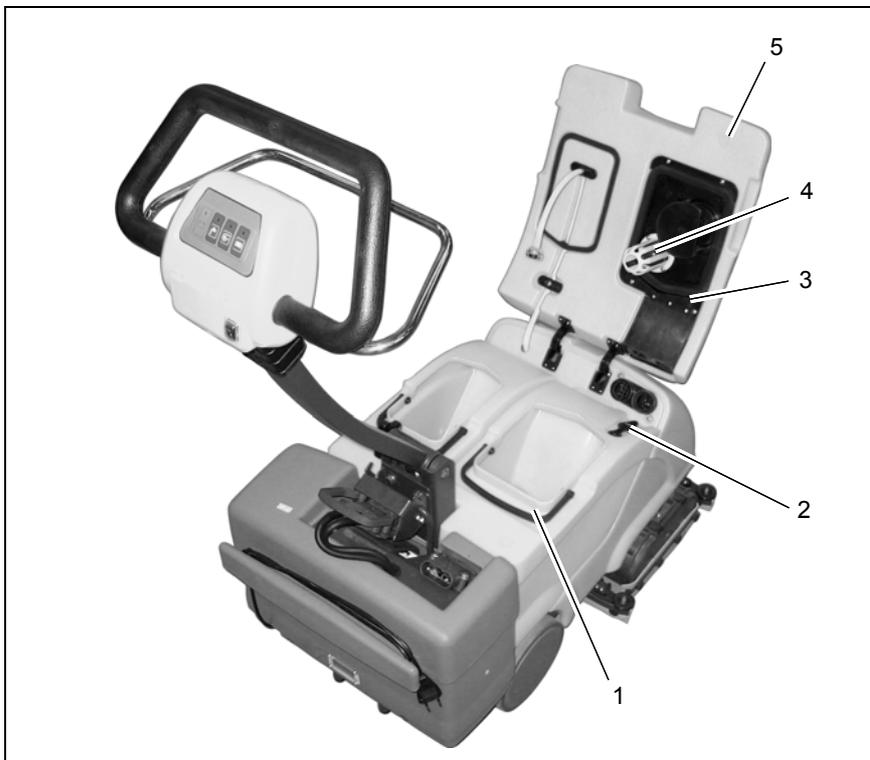


Fig.17

Maintenance and Care

5.6.1 Emptying the recovery tank

Clean the recovery tank (Fig. 17/1) every day or as necessary.

1. Switch off the machine using the main switch and disconnect the battery plug.
2. Open the housing cover and remove the recovery tank (Fig. 17/1).



Observe the applicable laws and local regulations when disposing of cleaning agents!

3. Bring the recovery tank to an applicable disposal point, open the drain plug (Fig. 17/2) and empty the recovery tank completely.
4. Flush out the remaining dirt with fresh water.
5. Replace the drain plug and reinstall the recovery tank.

5.6.2 Checking the seal

Check the recovery tank seal (Fig. 17/3) weekly and clean or change as necessary.

1. Switch off the machine using the main switch and disconnect the battery plug.
2. Open the housing cover and remove the seal (Fig. 17/3) from the housing

cover.

3. Clean the seal and reinstall it or insert a new one.

5.6.3 Cleaning the air intake filter

Check the function of the air intake filter (Fig. 17/4) daily and clean it as necessary. The air intake filter can be disassembled by means of a clip mechanism.

Maintenance and Care

5.7 Brush head

- 1 Brushes
- 2 Slotted-head screw
- 3 Cover
- 4 Catches

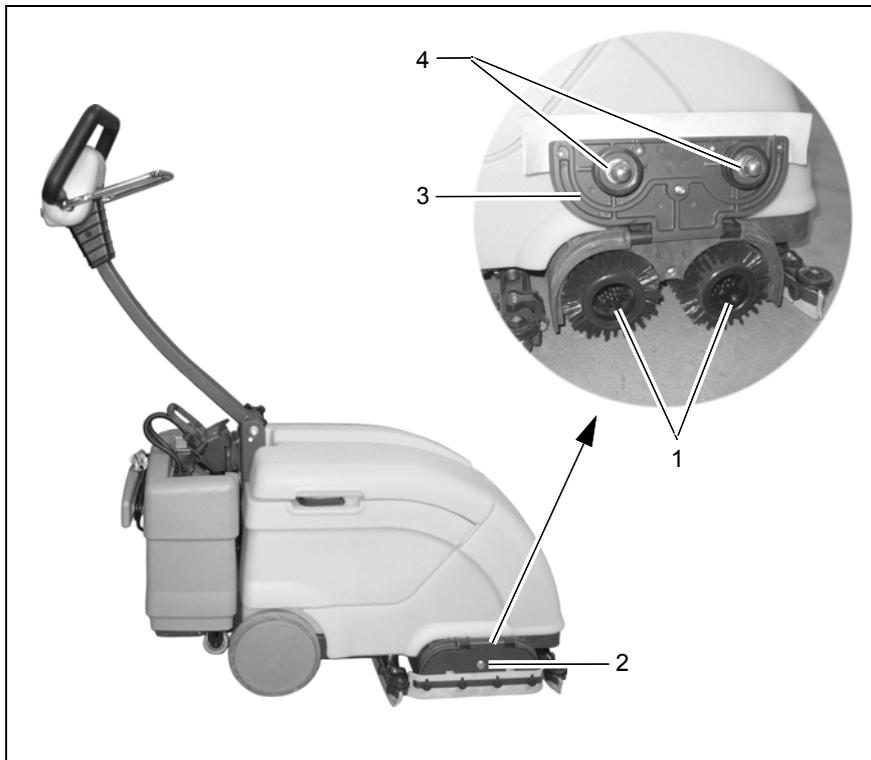


Fig.18

Maintenance and Care

5.7.1 Checking the brush head

Check the brush head daily and clean or change the brushes (Fig. 18/1) as necessary.

1. Switch off the machine using the main switch and disconnect the battery plug.
2. Tip the machine a little using the shaft until the supporting rollers can be pushed into parking position. Lower the machine onto the supporting rollers.
3. Loosen the slotted-head screw (Fig. 18/2) with a coin and pivot the cover (Fig. 18/3) upwards.
4. Remove the brushes (Fig. 18/1) from the brush head.
5. Install the new brushes and secure the cover again with the slotted-head screw.



When installing the brushes, pay attention that they latch securely and properly in the catches (Fig. 18/4) provided.

Maintenance and Care

5.8 Squeegee

- 1 Squeegee
- 2 Rear sealing strips
- 3 Front sealing strips
- 4 Knurled screws
- 5 Support strip

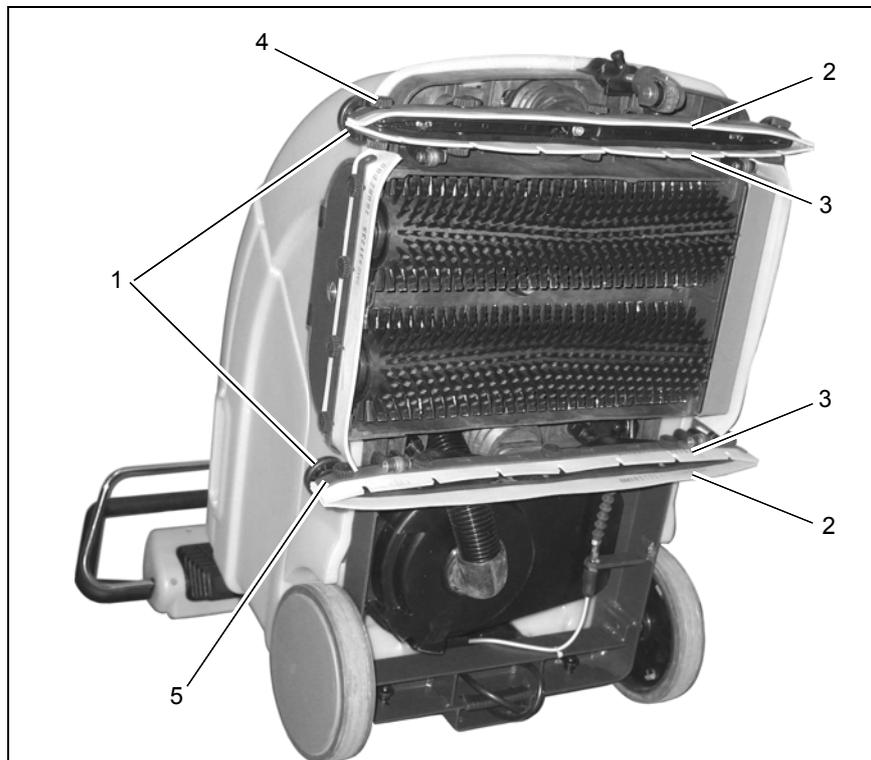


Fig.19

Maintenance and Care

5.8.1 Cleaning the squeegee

Check the squeegee (Fig. 18/1) daily and clean it as necessary .

To clean it, tip the machine to the rear and lay it carefully on the shaft.

5.8.2 Changing the sealing strips

Check the rear (Fig. 18/2) and front (Fig. 18/3) sealing strips on the squeegee weekly for signs of wear. The sealing strips can be changed without the need of tools.

1. Switch off the machine using the main switch and disconnect the battery plug.
2. Tip the machine to the rear and lay it carefully on the shaft.
3. Unscrew the knurled screws (Fig. 18/4) and remove the support strips (Fig. 18/5).
4. Check the rear (Fig. 18/2) and front (Fig. 18/3) sealing strips, change as necessary.



The rear sealing strips (Fig. 18/1) can be turned when worn.

Maintenance and Care

EC Declaration of Conformity (corresponds to EC Directive 2006/42/EC)

Hako GmbH
Hamburger Straße 209-239
D-23843 Bad Oldesloe

declares that the products

Hakomatic B 10, Typ 7734

to which this declaration relates, conform to the relevant provisions of the safety and health requirements stipulated in EC Directive 2006/42/EC and is in accordance with 2004/108/EC.

Reference was made to the following standards and/or norms and/or technical specifications to ensure proper implementation of the safety and health requirements in the EC Directive:

EN 60335-2-72
EN 55012
EN 61000-6-2

Bad Oldesloe, 27.10.2010



Dr. Rainer Bavendiek
Director R&D

Name of the authorized person who compiles technical documents for Hako:

Ludger Lüttel

Hakomatic B 10

Changes Due to Machine Directive 2006/42/EC

Preface

Modified text in paragraph Preface:
Before using the equipment for the first time, read this original manual thoroughly, act according to the information contained and keep it in a safe place for future reference or subsequent owners.

Intended use

Modified text in paragraph Intended Use:

Based on the conception, design and construction of the model introduced onto the market by us, the machine complies with the applicable basic safety and health requirements stipulated in the EC Directive (refer to Declaration of Conformity). This declaration is no longer considered valid in the event of modifications to the machine not authorized by us. The manufacturer is not deemed liable for any damage resulting from unauthorized modifications to the machine.

General safety information

The machine may be used only for operation on plane areas with a maximum inclination of up to 2 %.

Disposal

New text in Chapter Introduction:
Render the machine inoperable. It must not represent a potential source of danger for children.

Dispose of the device according to the applicable local regulations. For further information on handling and recycling, please contact your authorized Hako dealer where you purchased the device.

Used batteries with the recycling symbol contain reusable commodities. The heavy metals contained simultaneously represent a serious risk to health and to the environment. Never open batteries or damage them. Never touch, inhale or swallow any material inside batteries. Health hazard! Never allow batteries to pollute the environment. Risk of contaminating the ground and water! In accordance with the symbol with the crossed out bin, these batteries must not be disposed of in domestic waste. The return and recycling of old batteries must be agreed on with your authorized Hako dealer in accordance with the Battery Law § 6 and § 8 (BattG)

Noise emission value

The sound pressure level (LpA) (at the ear of the operator) measured according to DIN IEC 60335-2-72 under normal working conditions: 72 dB (A)
Measurement inaccuracy (KpA): 2 dB (A)

Vibration

The weighted effective value of acceleration, measured in accordance with ISO 5349-1, to which the upper parts of the body (hand-arm) are exposed under normal working conditions:

< 2,5 m/s²

The weighted effective value of acceleration, measured in accordance with ISO 2631-1, to which the upper parts of the body (feet-seat) are exposed under normal working conditions:

< 0,5 m/s²



Spitzentechnik für eine saubere und schönere Umwelt

Superior technology for a cleaner and better environment



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