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# Instruction Manual

Hako-Hamster 700 V (6204-10)

Hako-Hamster 700 E (6204-20)

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Please be advised that no legal claims, of whatever sort they might be, can be used upon the information contained in these operating instructions.

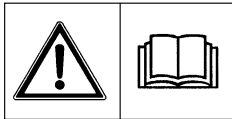
When performing repair work, make sure to use genuine Hako spare parts only. Genuine parts only will guarantee dependability of your machine.

We reserve the right for technical improvements.

Valid as from chassis No:  
Hako-Hamster 700 V  
6204.10.8.0790.5  
Hako-Hamster 700 E  
6204.20.8.0841.5

Hako-Werke GmbH  
D-23843 Bad Oldesloe  
Hamburger Str. 209-239  
Phone (0) 4531-8060

It is our desire that the excellent properties of the Hako-Hamster 700 V/E should justify the confidence you demonstrated by making this purchase. We tried to supply you with an efficient and dependable machine. Before taking your Hako-Hamster 700 V/E into operation, please carefully read these operating instructions. They will advise you in detail about operation of the item and contains valuable information for service and maintenance. The symbol  has been used in this manual at several places and identifies particular areas that are of essence for your safety. Please pass all safety instruction on to other persons operating this machine.



Please comply with the general safety instructions and Accident Prevention Regulations (refer to page 38).

## Proper Use

The Hako-Hamster 700 V/E vacuum sweeper has been designed exclusively for sweeping floor surfaces, e.g. production facilities, warehouses, parking areas, and pedestrian areas, i.e. to collect dry and moist matter. Whatever sort of use beyond the specified range will be deemed improper use; the manufacturer cannot be held liable for consequential damage. The term of proper use also includes compliance with the manufacturer's instructions about operation, maintenance and repair.

The Hako-Hamster 700 V/E may be used, serviced and repaired by persons only that are familiar with the machine and are aware of possible hazards.

The appropriate Accident Prevention Regulations as well as general regulations about safety, health aspects and road traffic regulations will have to be complied with.

Modifications made to the machine in absence of the manufacturer's consent will relieve the manufacturer from a possible liability for consequential damage. Standard version of the machine is cat. U.

## Acceptance of the Machine

Right away after receipt of the machine, check your consignment for possible transit damage. Please have the railway authorities or the freight forwarder confirm such damage and mail your damage report and waybill to

**Hako-Werke GmbH**  
**Hamburger Str. 209-239**  
**D-23840 Bad Oldesloe**

for compensation.

## 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. Any maintenance work has to be performed by an authorized Hako service work-shop and confirmed in the „maintenance certificate“ which is the warranty document. The following is excluded from warranty: natural wear and tear after overload, fuses and damages caused by inexperienced handling and unauthorized modification of the machine. Moreover, any claim for warranty becomes extinct if damages at the machine are caused by fitting of parts or accessories without Hako's prior and explicit consent or by noncompliance with the maintenance instructions.

## First Operation

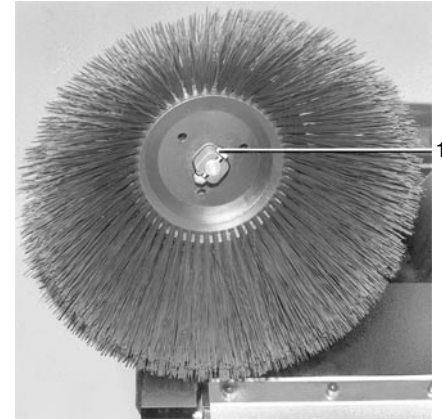
Prior to crating, the Hako-Hamster passed a final inspection and a function test.

## Assemble

To reduce the box volume the handlebar is folded forward and the side broom is packed unassembled.

Assemble these items as follows:

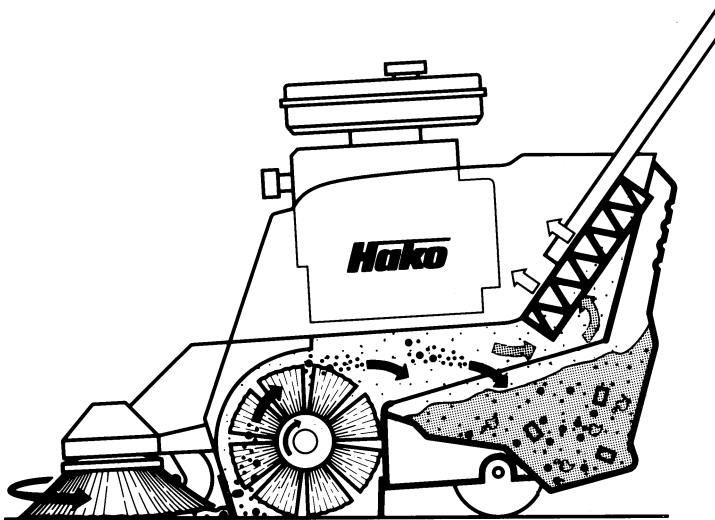
- unfold the handlebar and secure on both sides with the enclosed hex nuts and washers.  
Connect the protective caps.



- tilt machine back until resting on the handlebar. Attach side broom with bolt (1).  
Bolt should be torqued light-tight only to avoid damage to the broom hub.

## Hako-Hamster 700 – How it Works

the side broom is going to collect dirt out of corners & niches and carries it into the track of the main broom. Fine dust involved is extracted by a suction fan and held back by a filter. Dust-free only air will exit the machine.



## Hako-Hamster 700 V Fuel and Oil

### ● Fuel

fill tank with regular gas, unleaded;  
capacity: 0.65 approx US-gal  
(2.5 approx. litres)



Do not fill fuel tank with engine running. Do not smoke or handle open flames in the vicinity of fuel containers or tanks or when filling fuel.

### ● engine oil

engine is filled with oil in the factory;  
check oil level on receipt (refer to page 40).

**Note:** only use clean oil and fuel; store these substances in containers approved for this purpose.

## Hako-Hamster 700 E

### Open the hood

- pull the key
- open the hoodlock (1) at the front-side with a screw-driver
  - slot horizontal = close
  - slot vertical = open
- tilt the hood upwards



## Install battery

- install battery into battery compartment as shown
- connect battery cables (check for right polarity).



Before performing any work on the electrical system, make sure, battery plug (1) is disconnected.

### Battery system A:

Drive battery 7421  
12 V, 60 Ah, GiS  
Battery charger 7438  
12 V, 12 A/I/UA

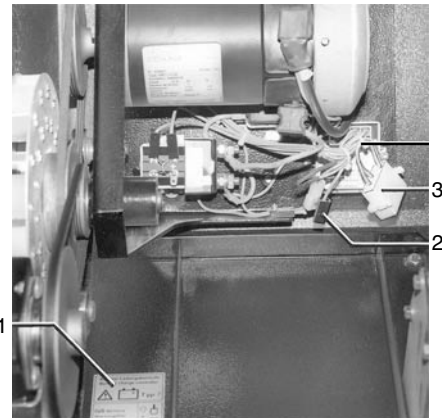
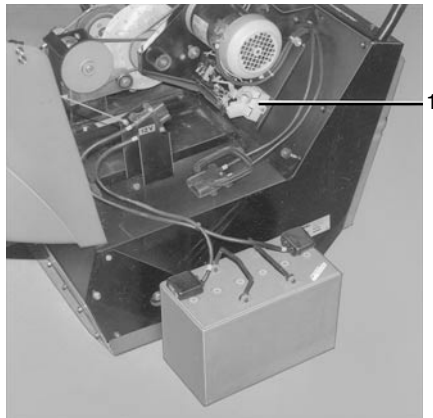
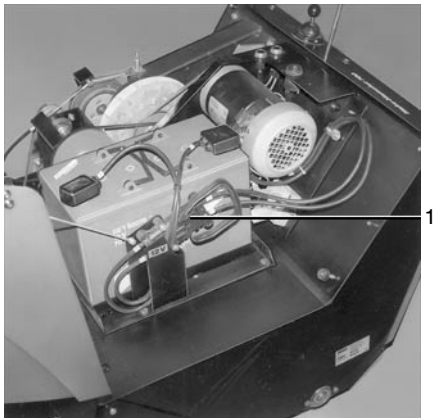
### Battery system B:

Drive battery 7427  
12 V, 70 Ah,  
maintenance-free  
Battery charger 7438  
12 V, 12 AII/UA

Low discharge signal unit  
(must be built-in to protect  
batteries) 6216

## Coding for plug connectors

Instructions for coding the battery-, machine- and chargerplugs see pages 58 and 59.



## First Charging

To guarantee an optimum of power and service life, first charging has to be performed after installation of the battery. Operation and function of every charger are described in the operating instruction packed with every item.

## Install Low-Voltage Sender (TSG)

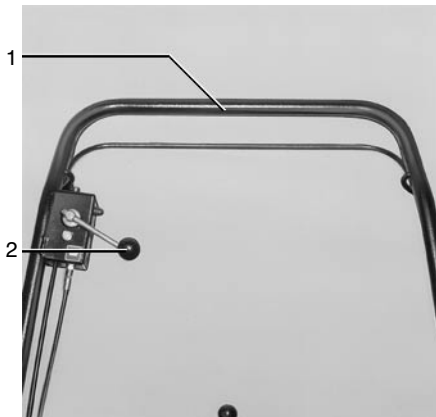
The TSG has to save the battery for low discharge.

Install as follows:

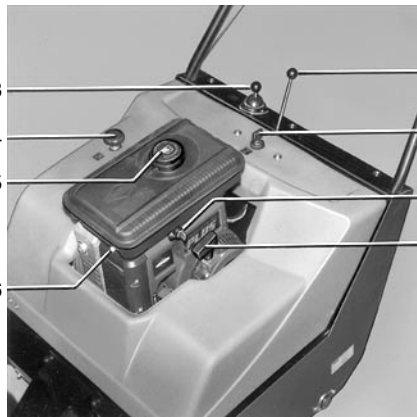
- disconnect battery plug (if battery is installed)
- remove jumper (discard after installation of low-voltage sender)
- secure low-voltage sender (1) with 2 ea. screws, as shown)
- connect plug to low-voltage sender.

- connect/disconnect the X2 (2) plug connector as shown on the sticker (1). The item is delivered with X2 plug connector disconnected, i. e. for maintenance-free batteries.

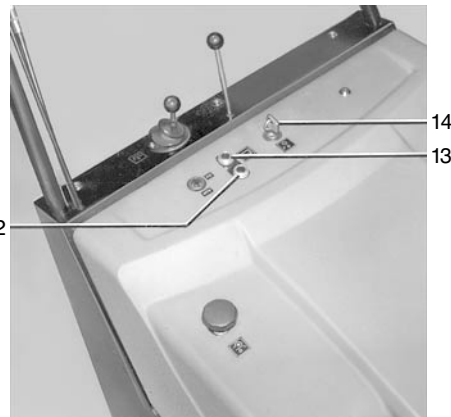
**Note:** In case you haven't a TSG you'll need the bridge connector.



- 1 travel-drive control bow
- 2 control lever for side broom



- 3 control lever for dirt hopper
- 4 rotary knob for suction fan flap
- 5 fuel filler neck
- 6 choke
- 7 pull-type reversing starter
- 8 fuel shut-off valve
- 9 key-switch (Hako-Hamster 700 V)
- 10 lever for vibratory device



- 12 pilot light, RED  
(Hako-Hamster 700 E)
- 13 pilot light, GREEN  
(Hako-Hamster 700 E)
- 14 key-switch (Hako-Hamster 700 E)

## Operation of the Hako-Hamster 700 V/E





15 pedal for parking brake

16 handwheel for broom roller adjustment

## Controls

### 1 Travel drive control bow

to connect / disconnect wheel drive

- pull bow on handlebar up  
= connect
- return bow  
= disconnect

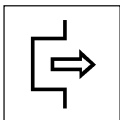
(machine will stop = safety mode)



### 2 Control lever for side broom

to lower and lift the side broom

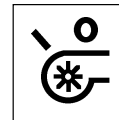
- lever horizontal  
= side broom down
- lever vertical (up)  
= side broom up



### 3 Control lever for dirt hopper

to unlock the dirt hopper

- lever RH = unlocked
- lever vertical (up) = locked



### 4 Rotary knob for suction fan flap

to open and close the suction fan flap

- rotate knob CW = close flap
- rotate knob CCW = open flap

**Note:** keep suction fan flap closed when working on wet floors or with wet matter.

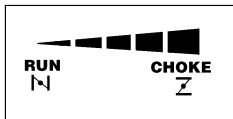


### 5 Fuel filler neck

for upgassing (regular). Capacity is 1 approx US-gal (2.5 approx. litres)

**Note:** Before refueling, allow engine to cool 2 minutes.

Clean around fuel fill before removing cap to refuel. Fill tank to approximately 1-1/2 inches below top of neck to allow for fuel expansion. Be careful not to overfill.



### 6 Choke

use only, when engine is cold

- RUN = butterfly open
- CHOKE = butterfly closed (cold start)

### 7 Pull-type reversing starter

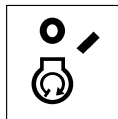
to crank the engine.

Pull rope until starter clutch is engaged, then start engine by pulling rope with one sharp motion, let rope rewind. If engine fails to fire, repeat starting.

**Note:** normal engine speed is controlled by an automatic governor, as soon as engine is running.

### 8 Fuel shut-off valve

to close tank outlet; has to be closed when machine is out of use for an extended period of time only

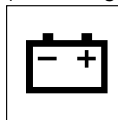


### 9 Key-switch (Hako-Hamster 700 V)

to turn ignition ON/OFF, secure machine against unauthorized use)  
0 = OFF  
I = ON

### 10 Lever for vibratory device

to actuate the vibratory system (dedusting of the filter element).



### 12 Pilot light, RED\* (Hako-Hamster 700 E)

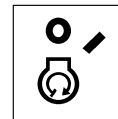
at a battery capacity of 25 approx. % remaining, this light starts flashing, the green pilot light turns OFF. After 3 approx. more minutes, the motor is disconnected automatically; red pilot light will remain ON, until key-switch is turned OFF.

\* this pilot lights will work only, when the low-voltage sender (TSG) is installed.

### 13 Pilot light, GREEN\* (Hako-Hamster 700 E)

turns ON, when:

- key switch is ON
- battery condition is ok

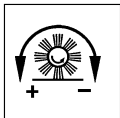


### 14 Key-switch (Hako-Hamster 700 E)

to connect and disconnect the drive motor and to secure the machine against unauthorized use. When key-switch is turned ON, the green pilot light will confirm proper condition of the battery.

### 15 Pedal for parking brake

to actuate the parking brake.



## 16 Handwheel for main broom adjustment

to adjust roller brush load (sweeping track width). Best setting is 50 mm. For more details refer to page 43.

- turn handwheel CW  
= reduced track width  
(low brush load)
- turn handwheel CCW  
= extended track width  
(high brush load)

## How to Use

operating personnel is to carefully read these instructions. All controls bear easy-to-understand markings (symbols) that make it an easy job to get familiar with the machine. First driving attempts should be limited to unobstructed areas until you really are familiar with all controls and their function.



Please comply with the following safety instructions:

all in-force precautions for handling motor vehicles and fuels.

No persons may be carried on the Hako-Hamster. The warning and instruction labels on the machine contain important information about safe operation. Complying with them will enhance your personal safety.

Prior to use, the Hako-Hamster and its accessories will have to be checked for proper condition and operational safety.

Never use the Hako-Hamster without adequate protective equipment.

## Hako-Hamster 700 V

**Prior to starting the engine** perform the following checks:

- engine oil level
- fuel level

### Start engine

- open fuel shut-off valve (does not need to be closed after every mission)
- all controls neutral
- turn key-switch CW to "I"
- actuate choke as required (cold start only)
- pull starter, return choke lever to RUN, as soon as engine is running

### Stop engine

- all controls neutral
- turn key-switch CCW to 0

## Hako-Hamster 700 E

### Turn motor ON and OFF

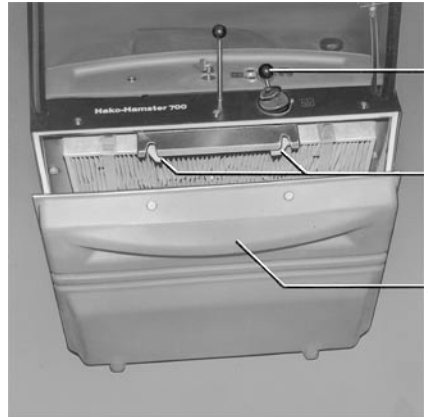
- turn key-switch to "I"  
= electric motor runs
- turn key-switch to "0"  
= electric motor stops



### Sweeping with the Hako-Hamster 700

when sweeping indoor with the Hako-Hamster 700 V, take care of adequate ventilation.

- start / switch-on engine
- open dust extractor fan flap  
**Note:** always keep dust extractor fan flap closed, when sweeping wet areas or wet matter
- lower side broom
- actuate travel drive control bow
- empty dirt hopper as required



- 1 dirt hopper control lever
- 2 latch
- 3 handle

### Empty dirt hopper

- depress lever (1) to the right to unlock
- hold dirt hopper by its handle (3) and pull to the rear, empty hopper
- introduce dirt hopper exert pressure against latch (2) until click is audible, i.e. the dirt hopper is caught in place.



### General Safety Instructions

In addition to the safety instruction contained in this manual, General Safety Rules and Accident Prevention Regulations as provided by law will have to be complied with. Read this operating instruction manual carefully, even if you used a similar machine before. Take time to save time. It will be of essence that you make yourself familiar with all systems and controls before operation. Avoid the hazzle with reading this book while working!

\* vacuum sweepers may be operated by skilled persons only that have been trained accordingly and who can evidence their skills to the holder of the machine or his authorized representative and if explicitly allowed to operate this machine.

- the machine may be used in areas designated by the holder or his authorized representative only
- never leave the machine unattended as long as the engine is running
- the operator may leave the machine only after having stopped the engine, and pulled the ignition key
- to protect the machine against unauthorized use, pull the ignition key
- when hauling the machine, stop the engine
- the operator has to make sure the machine is run under the scope of "proper use" only. While driving, he has to decide by local conditions and watch out for Third Parties, in particular kids, in the zone of work.
- keep clear of the zone of danger
- warning and instruction stickers on the machine contain important information about safe operation
- prior to operation, the machine and its accessories will have to be checked for proper condition. Do not use the machine if any deficiencies are found.
- the machine must not be used under explosive ambient conditions.
- passenger transport is prohibited
- disengage all drive assemblies before starting the engine
- when sweeping in confined areas, provide for adequate ventilation (Hako-Hamster 700 V only)
- fuel tanks may be filled after having stopped the engine only. When filling or handling fuel, do not smoke and keep clear of sparks and open flames
- careful maintenance will be an essential factor of operational safety
- before cleaning and servicing the machine, or replacing parts, stop the engine and pull ignition key
- use adequate tooling for maintenance, installation and repair jobs
- as far as safety is concerned, spare parts used will at least have to comply with current Hako specifications
- when working on the electrical system, disconnect the battery plug
- comply with legal regulations when disposing of oils, fuels and filters

## Special Instructions for Handling Batteries

- never leave batteries sitting around in discharged condition, recharge as soon as practicable
- to avoid leakage currents, keep batteries clean and protect against contamination by e.g. metal dust and the like
- never put metallic items such as tools on the battery (to avoid short circuiting).

More details see leaflet 88-60-2556 "Hints for drive batteries".

## Maintenance and Setting Work

### Engine (Hako-Hamster 700 V)

The engine is an easy-to-maintain 4-cycle model. Regular maintenance work is described below.



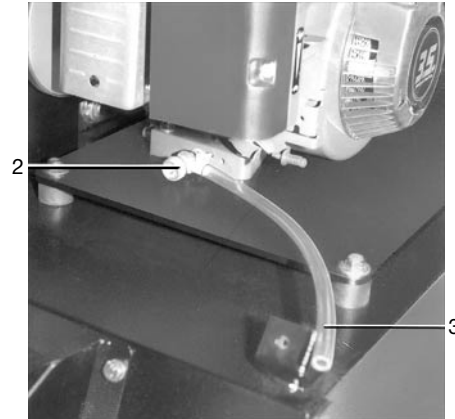
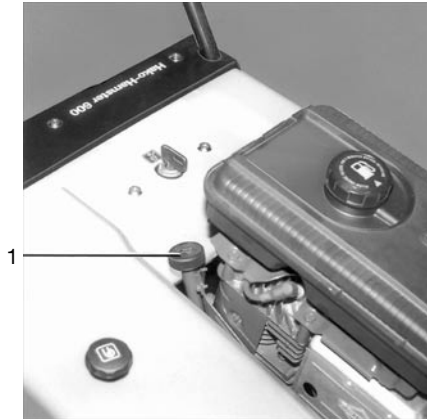
Before cleaning or servicing the machine or replacing parts, shut engine down and pull ignition switch. Use adequate tool for servicing and repair. As far as safety is concerned, spare parts used will at least have to comply with current Hako specifications.

### Engine Oil Level

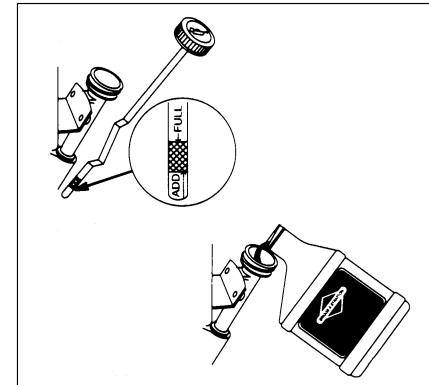
check engine oil level when engine is standing on level ground.

**Note:** It's important why the engine tends to front.

Give the oil a few minutes to collect in the sump after having stopped the engine. Oil level will have to reach the "FULL" mark on the dipstick (1), top as required.



Insert dipstick, rotate dipstick head CW until locked in place. Unlock by rotating CCW, pull dipstick and check oil level by dipstick marks. Some oil foam found in the filler neck will be negligible.  
**Note:** oil level never may drop below the ADD mark.



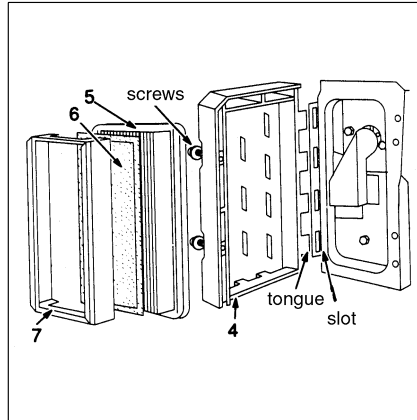
Full = max. oil level

ADD = min. oil level

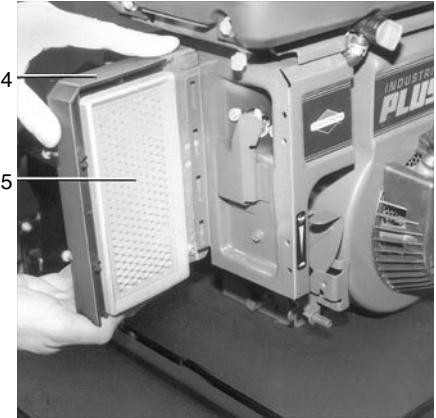
## Engine Oil Change

engine oil is changed after first 5 hours of operation, thereafter weekly or every 50 hours. Oil change is performed at operating temperature as follows:

- open hood
- route drain hose (3) into a container of sufficient volume
- open drain valve (2) CCW, drain the oil
- close drain valve, hook-up drain hose (3)
- fill 0.158 US gal (0.6 litres) of Mobil Delvac 1230 by Mobiloil or a substitute with a different brand of equivalent quality engine oil; check oil level with dipstick (1) (FULL-mark)



- 4 filter box
- 5 filter element
- 6 coarse filter element
- 7 frame



## Air Filter

the air filter has to be cleaned weekly. Remove filter module as follows:

- remove 2 ea. screws from filter box
- open filter box (4)
- remove filter elements (5 & 6) from frame (7)
- carefully beat filter element (5) clean (do not oil)

**Note:** in case of severe soilage or damage, replace right away.

- wash coarse filter element (6) with liquid detergent, squeeze dry in a clean cloth and apply a thin coat of oil. Replace damaged elements right away
- reassemble and install filter module.

**Note:** make sure that tongues of the filter box are caught by slots in base-plate on engine.

Briggs & Stratton P/N  
filter element P/N 494511  
coarse filter P/N 492889

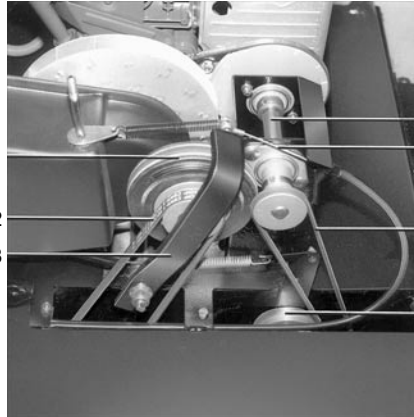
## Carburetor

the carb automatically is controlled by a speed governor which maintains engine speed independent of power requirements. Carb setting was done in the factory. Carb and governor settings may be done by factory trained personnel only.

## Travel Drive

travel drive system uses a friction wheel (1) and a V-belt (2) driving the wheel axle. When actuating the travel drive control lever, the friction wheel arm (3) with its friction wheel (1) is pressed against the drive shaft (7), thus allowing power transmission.

**Note:** dust extractor fan and side broom will rotate as soon as engine is running.



- 1 friction wheel
- 2 V-belt
- 3 friction wheel arm
- 4 cocking roller for broom roller drive
- 5 V-belt for broom roller drive
- 6 control cable for friction wheel arm
- 7 drive shaft for travel drive, broom roller and side broom drive assy's.

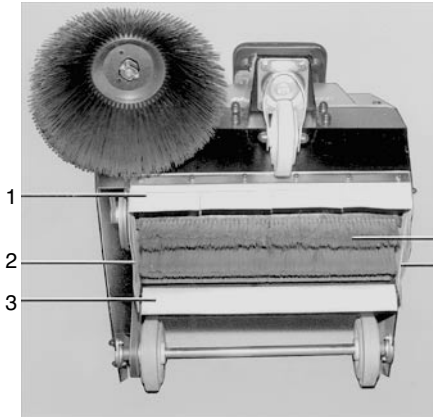
## Replace Broom Roller

the broom roller bears 10 rows of bristles and consists of two halves. Width is 18" at 9.8" dia. (461 mm x 250 mm). The broom roller should be replaced when reaching a dia. of 9" (230 approx. mm). To remove the broom roller, tilt the Hako-Hamster 700 back on the handlebar, as shown. **Note:** the fuel tank of the Hako-Hamster 700 V should not be filled by more than half of its capacity to avoid fuel spillage through venthole in the filler cap.

- remove 3 ea. cylinder Hexagon screws, rotate roller through 180°, and remove cylinder Hexagon screws from the other half. Pull drive pin out of broom shaft.

For installation, reverse the above sequence of operations.





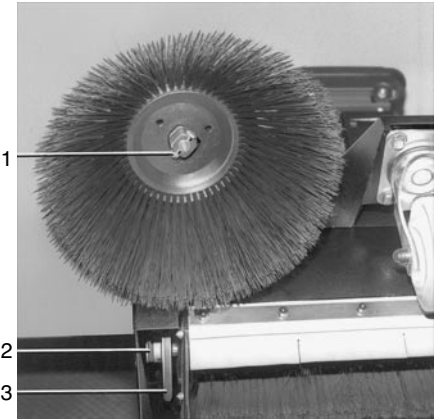
- 1 sealing strip, forward
- 2 sealing strip, RH
- 3 sealing strip, rear
- 4 sealing strip, LH
- 5 broom roller

## Adjust Sweeping Track

In case of broom roller wear and after replacing the roller broom, adjust sweeping pattern as follows:

- start engine and rotate broom roller for a short period of time (static)
- lift forward end of machine and pull back

If adjusted properly, a parallel line of sweep is visible on the ground (sweeping track). This sweeping track width is adjusted to approx. 1.97" (50 mm) by rotating the handwheel CW or CCW. Sealing strips (1 to 4) have to be inspected for wear in regular intervals and replaced as required. Sealing strips slightly should touch the ground.



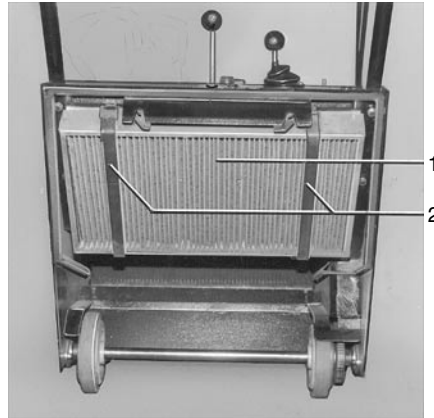
- 1 side broom attaching bolt
- 2 round belt for side broom drive
- 3 V-belt for broom roller drive

## Replace Side Broom

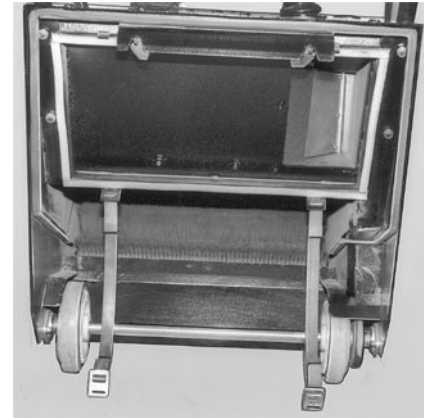
- tilt the Hako-Hamster 700 back on its handlebar (also refer to page 42, "replace broom roller")
- remove attaching bolt (1) underneath side broom
- pull-off side broom
- plug-on new side broom and secure; torque attaching bolt light-tight only, to avoid damage to the broom hub.



4 round belt  
5 pulley



1 filter module  
2 straps



## Replace Side Broom V-belt

- tilt the Hako-Hamster 700 back on its handlebar (also refer to page 42, “replace broom roller”)
  - remove hood (3 ea. screws)
  - lift side broom and uncock round belt
  - remove round belt and assemble new one
- Note:** refer to direction arrow.

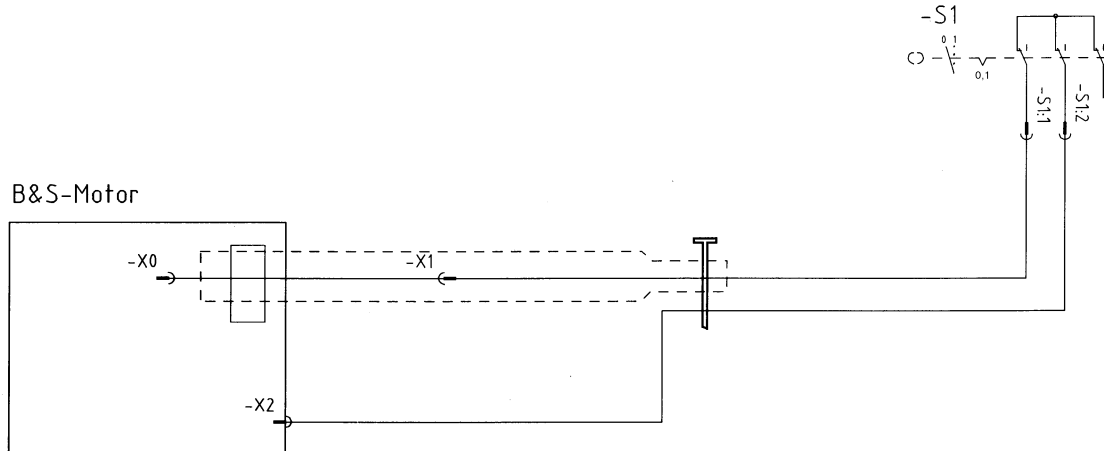
## Filter System – Dust Extractor

fine dust in the broom housing is sucked-off through a filter module by the dust extractor fan. The filter module (1) is located in the rear part of the machine and is removed as follows:

- stop engine
- remove dirt hopper
- unhook straps (2) at top end and remove filter module (1)

- carefully beat filter clean or clean with vacuum cleaner (do not damage filter element)
  - re-assemble filter module in true position (arrow towards machine) and re-attach straps
- Note:** replace defectives right away.
- install dirt hopper

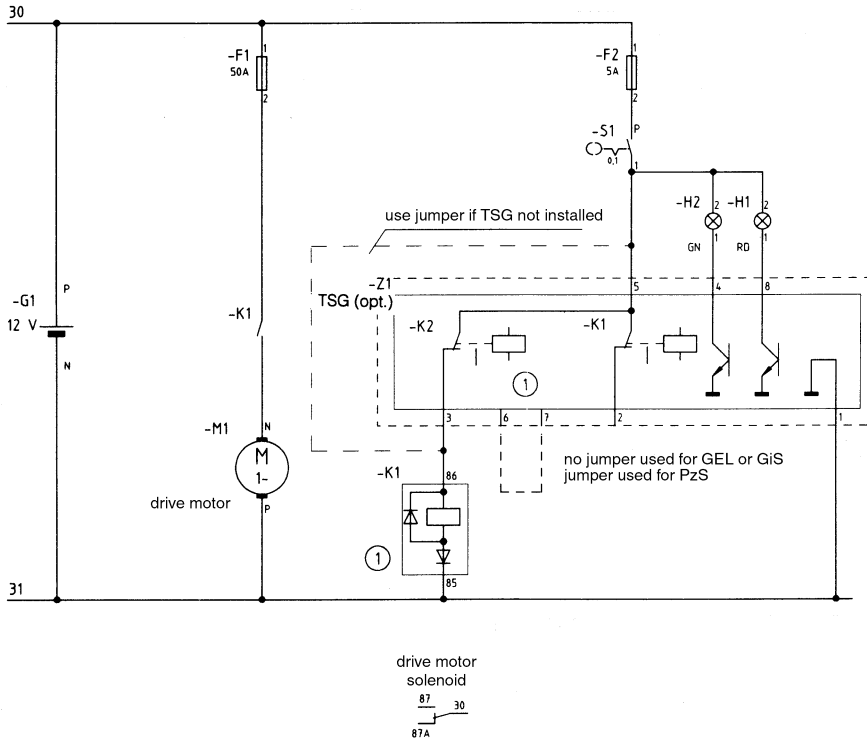
# Terminal Diagram, Hako-Hamster 700 V



Ref.	name
- S 1	key-switch

# Circuit Diagram, Hako-Hamster 700 E

2    3    4    5    6    7    8    9    10    11    12    13    14    15    16    17    18    19

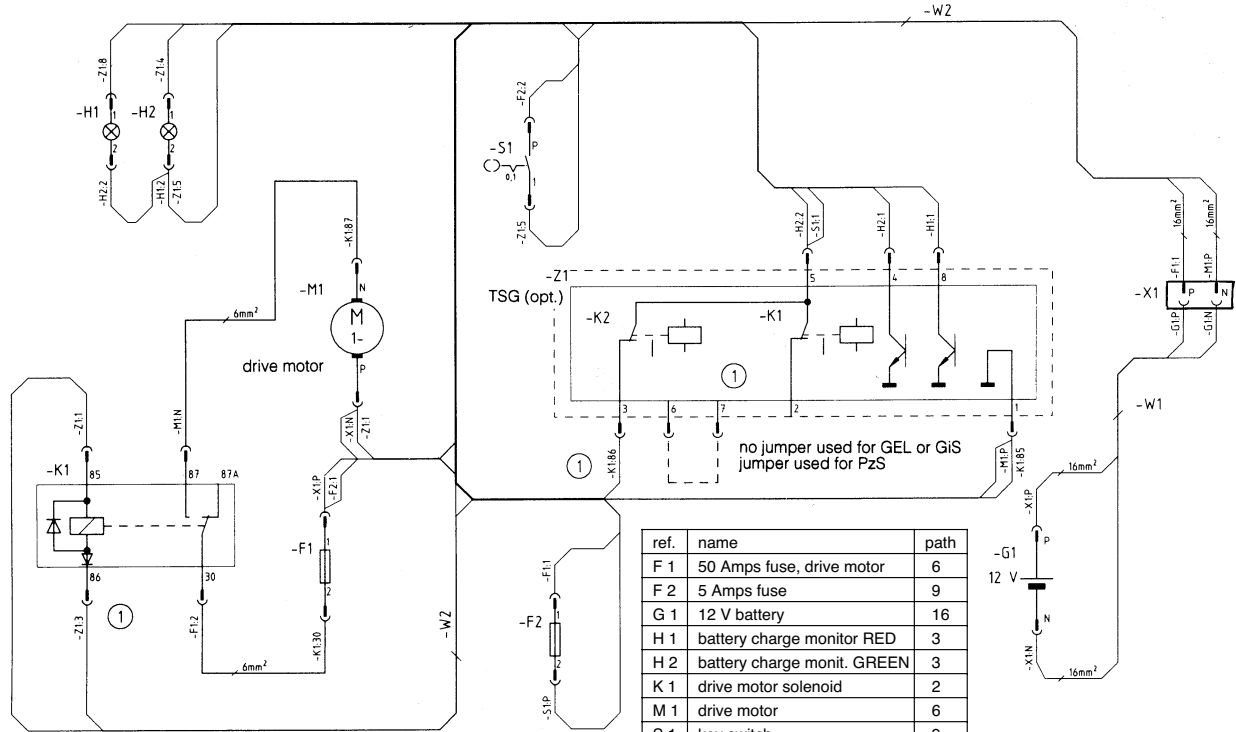


ref.	name	path
F 1	50 Amps fuse, drive motor	6
F 2	5 Amps fuse	11
G 1	12 V battery	3
H 1	battery charge monitor RED	14
H 2	battery charge monit. GREEN	13
K 1	drive motor solenoid	9
M 1	drive motor	6
S 1	key switch	12
Z 1	TSG (opt.)	8

**Note:**  
F1 & F2 fuses are located underneath the drive motor and are accessible after having removed the battery.

# Current Pathes, Hako-Hamster 700 E

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



ref.	name	path
F 1	50 Amps fuse, drive motor	6
F 2	5 Amps fuse	9
G 1	12 V battery	16
H 1	battery charge monitor RED	3
H 2	battery charge monit. GREEN	3
K 1	drive motor solenoid	2
M 1	drive motor	6
S 1	key switch	9
Z 1	TSG (opt.)	10

## Technical Data

<p><b>Dimensions and Weight</b></p> <p>length, total width, total height over handlebar track width, rear deadweight, ready to go (6204-10) deadweight, ready to go (6204-20) deadweight, drive batteries not incl. (6204-20) weight of battery (12 V, 70 Ah) or 12 V/60 Ah</p>	<p>in (mm) in (mm) in (mm) in (mm) lbs (kg) lbs (kg) lbs (kg) lbs (kg)</p>	<p>53.94 (1,370) 28.0 (740) 39 (990) 21.3 (540) 191 (87) 246 (112) 178 (81) 68 (31)/44 (20)</p>
<p><b>Travelling and sweeping performance</b></p> <p>speed, forward sweeping width, w/o / w. side broom theoretic sweeping capacity: w/o / w. side broom, max. max. rate of climb</p>	<p>mph (km/h) in (mm) square ft/h (m<sup>2</sup>) %</p>	<p>3 600/750 25.1 (2400/3000) 15</p>
<p><b>Filter System</b></p> <p>filter area number of filter elements</p>	<p>square ft (m<sup>2</sup>) pieces</p>	<p>1.5 1</p>
<p><b>Dust Extractor Fan</b></p> <p>speed suction pressure in broom housing</p>	<p>rpm CW (mm WS)</p>	<p>2,500 0.55" (14)</p>
<p><b>Broom Roller (6204-10/6204-20)</b></p> <p>length / dia. wear limit (approx.) speed sweeping track width rows of bristles standard bristle type</p>	<p>in (mm) in (mm) rpm in (mm)</p>	<p>23.3/9.84 (570/250) 9 (230) 510 1.9 ± 0.4 (50 ± 10) 10 K 901</p>

<b>Ground clearance of sealing strips of broom housing</b> sealing strip, front / rear sealing strip, LH / RH	in (mm) in (mm)	0 (0) 0 (0)
<b>Side broom</b> diameter speed	in (mm) rpm	12.2 (310) 94
<b>Dirt hopper</b> capacity ground clearance	US gal (litres) in (mm)	11.08 (42) 1.42 (36)
<b>Tires</b> caster wheel, front, dia. / width (tread) rear wheels, dia. / width (tread)	in (mm) in (mm)	4.92/0.98 (125/25) 5.9/0.98 (150/25)
<b>Engine – Hamster 700 V (6204-10)</b>		
make / model  type / cylinders bore / stroke displacement ratingkW (HP) no-load speed fuel capacity engine oil / fill – Delvac 1230 (Mobiloil) ignition system – magnetron, spark plug float-type carb coarse filter filter cartridge tappet clearance (intake & exhaust), cold engine	in (mm) cu. in. (cm <sup>3</sup> ) kW (HP) rpm US gal (litres) US gal (litres) Champion  P/N (Briggs & Str.) P/N (Briggs & Str.) in (mm)	Briggs & Stratton 93432-0036-01 4-cycle/1 2.56/1.75 (65.1/44.4) 9 (148) 2,6/3,5 2,500 0.65 (2.5) 0.16 (0.6) RC 14 YC  492889 494511 0.005–0.007/0.009–0.011 (0.13–0.18/0.23–0.28)

<b>Electric Drive System – Hako-Hamster 700 E (6204-20)</b>		
DC-motor / voltage power rating / speed current dissipation battery compartment (l/w/h)	V W (rpm) A in (mm)	12 550 (2,500) 57 13/7/9.5 (333/175/240)
<b>Noise Emission</b> sound pressure level LpA, DIN EN 11201 (Hako-Hamster 700 V) sound pressure level LpA, DIN EN 11201 (Hako-Hamster 700 E)	dB (A) db (A)	77 64
<b>Vibrations</b> The frequency weighted acceleration measured according to EN 1033 which have an effect upon the upper limbs (hand-arm system) amounts under normal working conditions Hako-Hamster 700 E Hako-Hamster 700 V	m/s <sup>2</sup> m/s <sup>2</sup>	< 2,5 < 2,7



## Maintenance work

compliance with our recommended maintenance and service schedule will guarantee a dependable machine all the time. It is better and cheaper to take precautions instead of facing costly repair work.

If your in-house facilities are unable to perform the work per maintenance schedule, your authorized distributor will be glad to conclude a maintenance agreement with you. For all inquiries or parts orders, always specify chassis and engine numbers as printed on the data plate.

The data plate is located on the left side under the hood of the handlebar.



When performing cleaning or service work or replacing parts, stop the engine and pull ignition key. Use adequate tooling for maintenance, servicing and adjustment jobs only. As far as safety is concerned, spare parts will at least be of the same quality as genuine parts. When working on the electrical system, disconnect battery plug.

Maintenance schedule, Hako-Hamster 700 V/E	type	daily	W	service hours		
				II every 125	III every 250	S every 500
check engine oil level and top	V	●				
check fuel level, fill as required (regular)	V	●				
empty dirt hopper	V/E	●				
charge batteries	E	●				
change engine oil (0.16 US gal/0.6 litres of Mobil Delvac 1230), change the oil after the first 5 hours	V		●	●	●	
clean air filter, replace as required	V		●	●	●	
visually inspect for oil leaks	V		●	●	●	
check broom roller and side broom for wear and foreign matter (e.g. wire, tape), replace as required	V/E		●	●	●	
check sweeping track width, adjust as required	V/E		●	●	●	
check all sealing strips for appearance, replace as required ground clearance 0"/0 mm; adjust as required	V/E		●	●	●	
We recommend to remove the cylinder head and clean the combustion chamber of combustion deposits . (Otherwise the engine might quit and won't re-start). Replace cylinder head packing with Briggs & Stratton P/N 272694.					●	

Maintenance schedule, Hako-Hamster 700 V/E	type	daily	W	service hours		
				II every 125	III every 250	S every 500
replace spark plug (Champion RC 14 YC)	V			●	●	
check drive belts for wheel, extractor fan, broom roller and side broom for appearance and wear, adjust tension or replace as required	V/E			●	●	
check travel drive control cable, adjust as require	V/E			●	●	
check dust extractor and filter system for good seal, replace worn out filter modul	V/E			●	●	
check dust extractor fan and flap for function	V/E			●	●	
check dirt hopper loc	V/E			●	●	
clean motor, check carbon brushes for ease of movement and wear, clean as required	E					●
V=Hako-Hamster 700 V E=Hako-Hamster 700 E						

## Coding for different types of batteries

From now on, all plugs and sockets at machines, batteries and charging units have to be coded with the coloured coding pins according to the battery type and nominal voltage. The battery plug must always be coded on the battery type. The charging unit plugs will be coded according to the factory setting charging characteristics such that the plug coding must be changed if the charging characteristics (corresponding to the battery type) has been modified.

### Plug case of **charging unit**:

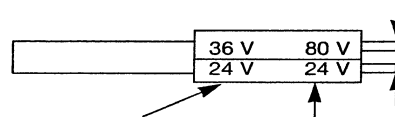
Grey for wet batteries  
Green for maintenance-free 'Gel'-batteries

### Plug case of **machines**:

Only yellow for both battery types

### Socket case of **battery**:

Grey for wet batteries  
Green for maintenance-free 'Gel'-batteries



Nominal voltage for plug written on each side of the hexagon (letters upside down)

Inscription for nominal voltage for sockets accordingly

Remove the coding pin by pressing the ends together with the help of pliers.

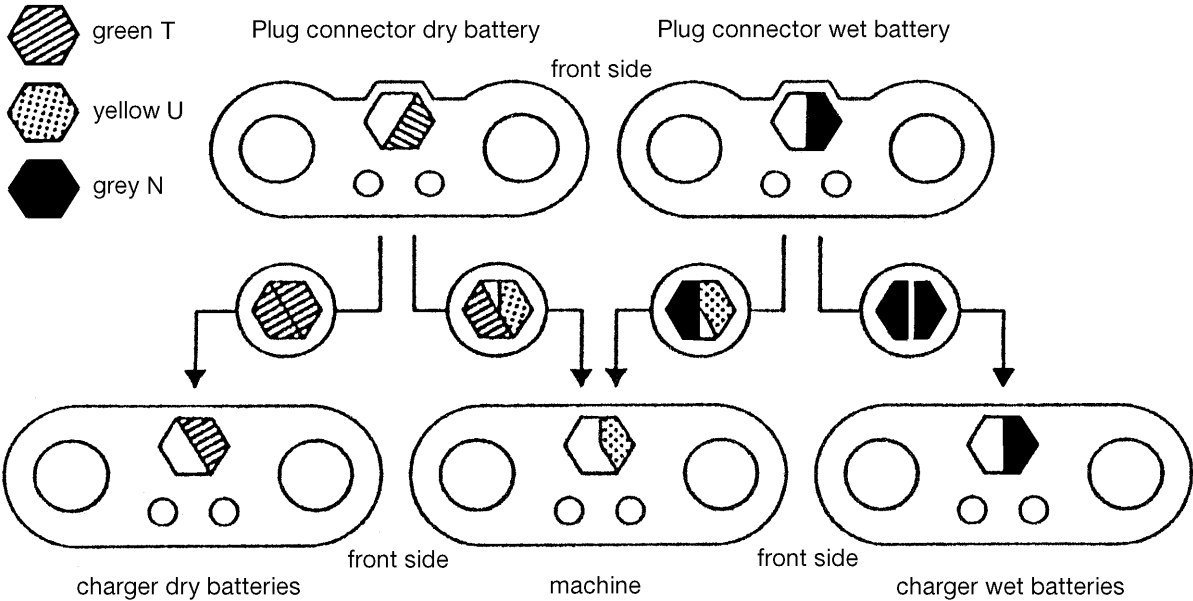
Press together for removal

Insert pin such that the nominal voltage inscription is visible through the case window. Plug and socket always the same voltage number!

The following three requirements have to be met for the complete system:

- 1) Voltage coding for all plugs and sockets has to be the same
- 2) Coding pin colour in the machine = yellow
- 3) Coding pin colour in the charging unit = the same as in the battery plug according to battery type

**Coding system in plug connectors for wet and dry batteries  
(example for 24 V)**



# Hako Hamster 700 V/E

## Changes Due to Machine Directive 2006/42/EC



Clean ahead

### 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 15 %.

### 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: 79 dB (A)  
Measurement inaccuracy (KpA): 2 dB (A)  
Sound power level (LwAd) measured according to DIN EN 60335-2-72 under maximum working conditions: 95 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/s<sup>2</sup>  
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/s<sup>2</sup>

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

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

declares that the products

**Hako Hamster 700 V, Typ: 6204.10**  
**Hako Hamster 700 E, Typ: 6204.20**

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

# *Hako*

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## Spitzentechnik für eine saubere und schönere Umwelt

Superior technology for a cleaner and better environment



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