

tielbürger®

Owners Manual Power Sweeper



AD-550-045TS; AD-551-045TS; AD-552-045TS; AD-553-045TS

tk38professional



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EN- Translation of the Original Operating Instructions

Julius Tielbürger GmbH & Co. KG Maschinenfabrik

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1 Operating Manual

1.1 General

This operating manual is intended to help you to get to know the machine and to use it in accordance with the regulations. The manual contains important information about operating the machine safely, correctly and economically. If you observe these instructions, you will prevent hazards, reduce repair costs and breakdown times, and increase the reliability and service life of the machine.

The manual must be amended in accordance with existing national regulations for prevention of accidents and the environment if necessary. The manual must be permanently available where the machine is being used.

The manual must be read and used by every person who will be working with or on the machine, such as for

- operation, including preparation, repair during operation, removal of production waste, care, disposal of operating and auxiliary materials
- repairs (maintenance, inspection, overhaul), and/or
- transport.

All established technical regulations for safety and proper working practice must be observed in addition to this manual and any applicable regulations for the prevention of accidents in the country and location of use.

1.2 Warning information and symbols



Read the instructions for use



DANGER!

describes an immediately occurring danger. Failure to observe this notice can result in death or serious injury.



WARNING!

describes a possibly dangerous situation. Failure to observe this notice can result in death or serious injury.



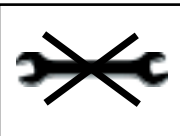
CAUTION!

describes a possibly dangerous situation. Failure to observe this notice can result in minor injuries.



IMPORTANT!

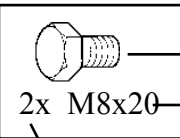
describes tips for operation and other useful information.



Do not use tools



Work on the workbench



Symbol

2x M8x20

Type

Number

Symbol	Type Example:	Description
Bolt	M8 x 16	M = Metric S = Diameter in mm 16 = Length in mm
Washer	8,1 - 58 - 5	8,1 = Inner diameter 58 = Outer diameter 5 = Material thickness in mm
Nut	M8 (S)	M = Metric 8 = Inner diameter (S) = Lock nut
Open-end spanner Nut driver Screwdriver	8	8 = Size in mm
Phillips screwdriver	PZ 2 PH 2	PZ 2 = Pozidrive in mm PH2 = Phillips size 2

2 Basic safety information

2.1 Intended use

The machine is instructed to the current state-of-the-art and recognised safety and technical regulations. Despite this, it is possible that operation will result in danger to life and limb for the operator or third parties, impairments to the machine and other physical assets. Only use the machine in perfect technical condition and according the regulations, taking safety and hazards into account, whilst observing the operating manual! You should always repair faults which could influence the safety of the machine immediately (or have them repaired)!

The machine is intended exclusively for use for brushing operations in property care and snow clearance. Any operation over and above these uses will be considered as a non-intended use. The machine may not be

used for brushing animal feed, for example. Individual brush strands could be released, which could be eaten by animals and lead to injuries. The manufacturer/supplier will not be held liable for any resulting damages. The operator alone is responsible for any risk. Proper intended use also includes observance of the operating manual and keeping to all service and maintenance conditions.

The brushing machine may only be operated with brushes approved by the manufacturer.

2.2 Organisational measures

Always keep the operating manual to hand at the machine's place of work! Observe and pass on any generally applicable supplementary legal or other binding regulations for the prevention of accidents and the environment in addition to this operation manual! These duties can include handling hazardous materials, the provision of/wearing of personal protection equipment or the observance of road traffic regulations. You should supplement this operating manual with instructions covering supervisory and reporting obligations for dealing with special operating circumstances, which could include work organisation, operating sequences, personnel used etc.

Personnel authorised to operate the machine must have read the operating manual before commencing work, especially the chapter dealing with safety information. Doing this during work is too late. This applies especially to personnel who only occasionally work on the machine, such as for fitting and servicing duties. You must check at least occasionally that personnel operating the machine are doing so paying attention to safety and hazards and under observance of this operating manual! Operating personnel may not have long hair, or wear loose clothing or jewellery, including rings.

There is a danger of injury due to catching or pulling

in of such items.

Personal protection equipment must be worn if necessary or required by regulations! Observe all safety and hazard information for the machine!

Keep all safety and hazard information for the machine complete and in readable condition! If the machine is altered with regard to its safety or changes its operational behaviour, stop operation immediately and report the malfunction to the responsible department or person!

Do not carry out any alteration, addition or rebuilding to the machine which could influence its safe operation, without the approval of the supplier! This also applies to addition and alteration to safety devices and valves, and to welding work on load-bearing components.

Any spare parts used must comply with the technical regulations determined by the manufacturer. This condition is always met by original spare parts. Observe any deadlines prescribed or indicated in the operating manual for repeated checks/inspections!

Suitable workshop equipment is necessary for the carrying out of maintenance measures.

Ensure that the location and operation of fire extinguishers is known!

Observe fire reporting and fighting regulations!

2.3 Personnel selection and qualification, basic responsibilities

Work on or with the machine may only be carried out by reliable personnel. Observe statutory minimum legal ages! Only operate the machine with trained or instructed personnel, determine personnel responsibility for operation, fitting, servicing and maintenance clearly! Ensure that the machine is operated only by authorised personnel!

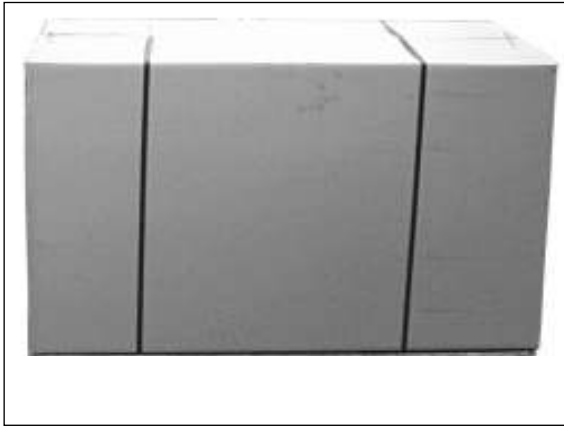
Determine machine operator responsibilities - including road traffic regulations - and make sure the operator ignores any incorrect instructions from third parties! Only allow persons in training, under instruction or participating in apprenticeship schemes to operate

the machine under the continuous supervision of an experienced person!

Work on machine electrical equipment may only be carried out by electrical specialists, or by authorised persons under management and supervision of an electrical specialist in accordance with electrical regulations.

Work on drive mechanisms, brakes and steering equipment may only be carried out by suitably trained persons!

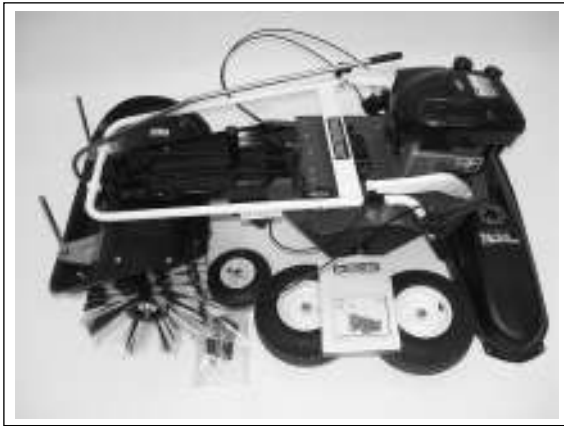
3 Condition on delivery, included in delivery



1) Product packaging



2) Checking the original packaging



3) Equipment as delivered

4) The machine is delivered in a folding carton:

- 1 brushing machine
- 1 extra package with
 - operating manual
 - spare parts list
 - motor operating manual

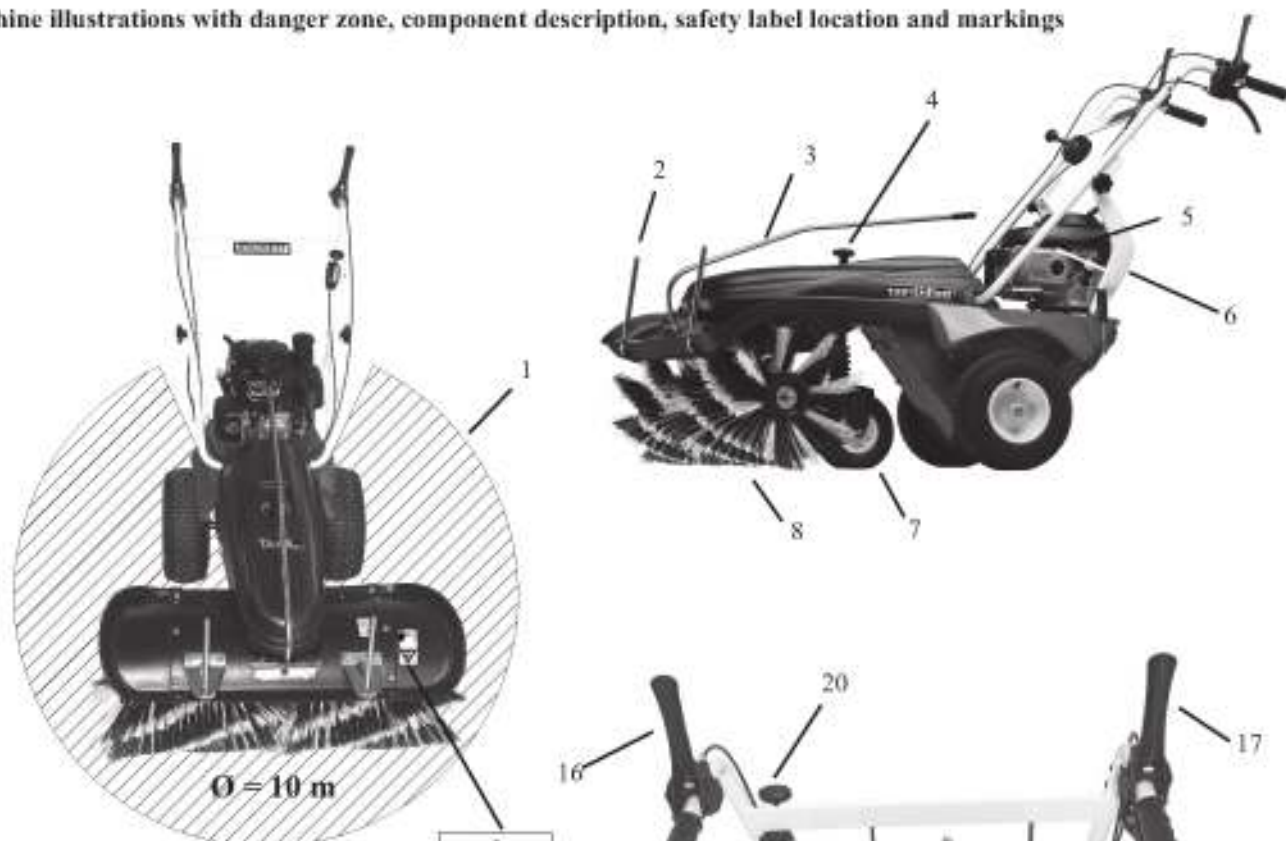
Accessories (to be ordered separately)

- swept material container
- plough blade
- stone impact protection cover
- leaf collector
- snow chains



5) Please dispose of the packaging material as recycling waste.

4 Machine illustrations with danger zone, component description, safety label location and markings



Danger - flying objects; keep safe distance from the machine as long as the engine is running.



9	tielburger	Julius Tielburger GmbH & Co. KG
14	Model:	Postdamm 12
13	Engine:	32351 Sternwede
12	kW:	PIN: MUSTER
21	Weight: kg	SIN: MUSTER
22	Made in Germany 2007	

10

Carefully read operator's manual before handling the machine. Observe instructions and safety rules when operating



1. Danger zone
2. Swept material container retainer
3. Swivel lever for side adjustment of brushes
4. Brush height adjustment
5. Handlebar, height-adjustable
6. Engine
7. Support wheel
8. Brushes
9. Manufacturer's name
10. CE identification
11. Serial number
12. Engine power
13. Engine manufacturer

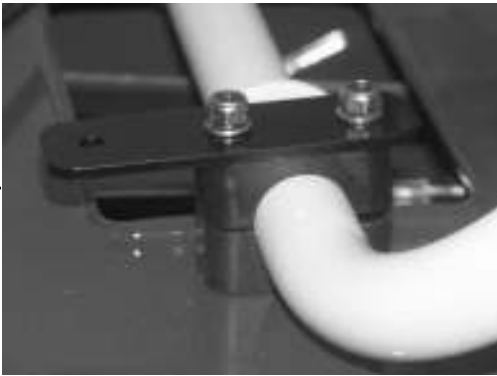
14. Machine type
15. Manufacturer's address
16. Brush drive
17. Movement drive (forwards)
18. Gear selection lever
19. Reverse
20. Throttle lever
21. Weight
22. Construction year
23. Part number

5 Assembly

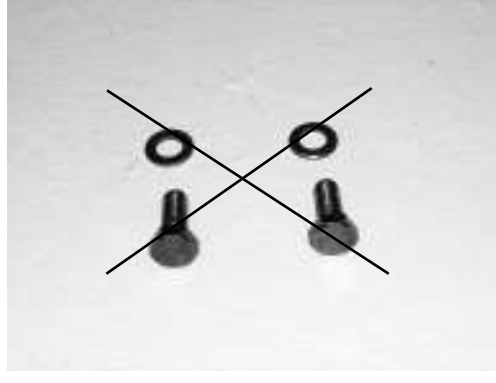
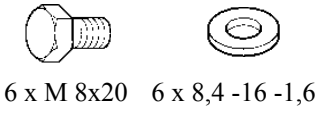
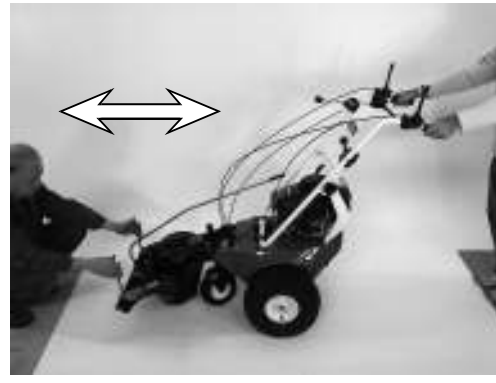


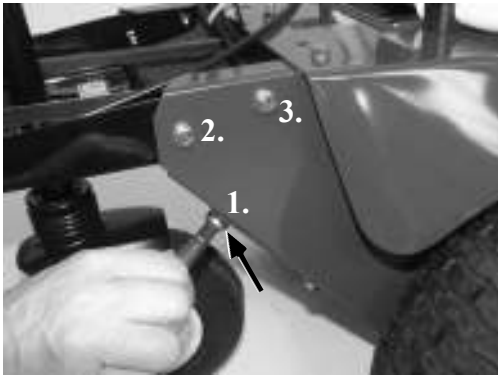
IMPORTANT!
Do not fill the motor with oil or petrol yet.
Before proceeding with assembly, get a general impression of the parts and tools required.

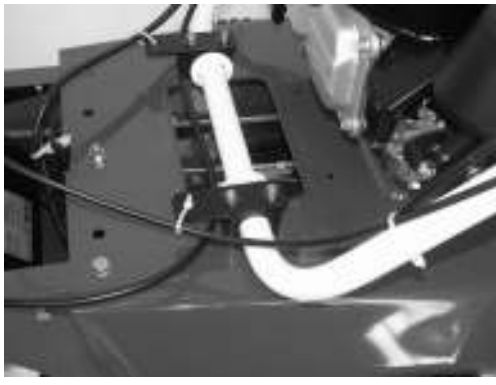
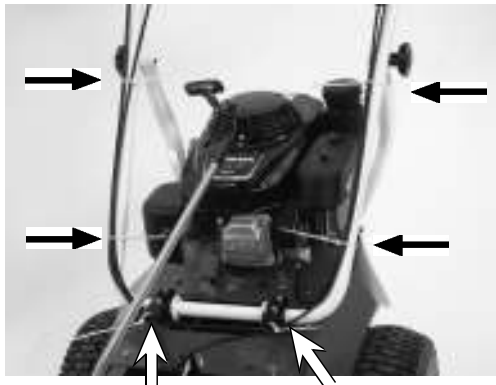
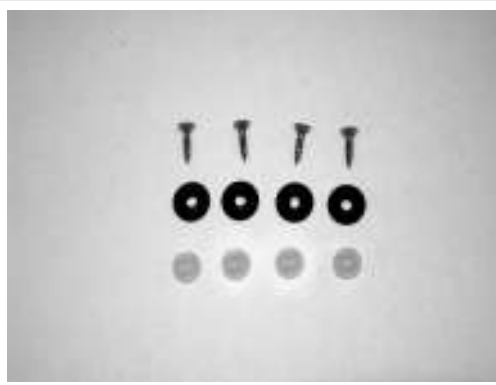
	Rely on the handlebar clamps.
	Handlebar mount with star handle.
	Pipe clamps put on studs.
	Fixing plates positioned. Hole to the front.

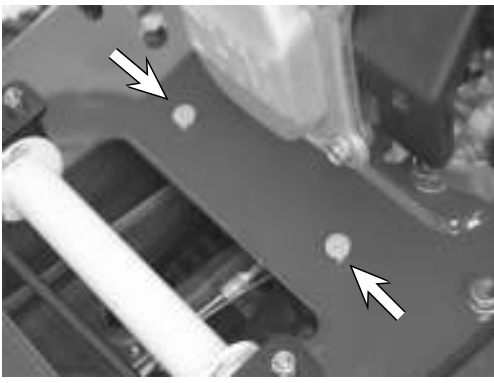
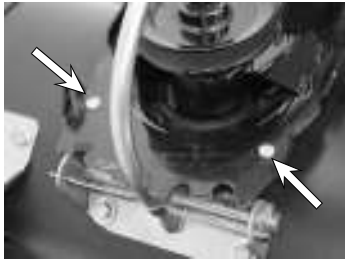
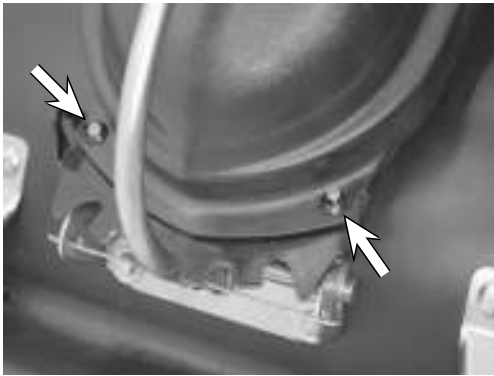
 4 x M6		Mounting plate with washer and locknut
 4x6,4 -16 -1,6		
		Nuts just as hard to move the handlebars, allows but does not fall off by itself.
 1 x M 6x65		Throttle lever with bolt, washer and lock nut. Fix
 1 x M6		
 2x6,4 -12 -1,6		
		Put right and left wheels on the drive axle and secure with hinged pin
 1x M 10x100		Support wheel with fixing material.
 1x M10		
 2x10,5-20-2		

		Support the brushing machine on a wooden block at the front.  Secure the wheels.
		Push the sleeve through the wheel.
		Positioning the support wheel.
 1x M 10x100		Push the hex bolt through and then tighten the nut.
 1x M10		
 2x10,5-20-2		
 SW 17		Hold the bolt head with a ring spanner and tighten the nut with a second ring spanner.

		Completely mounted support wheel.
		Another person holds the tool firmly on the handlebars.
		Remove the screw, right and left.
 2 x M 8x25		Removed parts not to be re-used.  Parts of extra package.  6 x M 8x20 6 x 8,4 -16 -1,6
 2x 8,4 -16 -1,6		Front Pull forward - as level as possible. Take care that the front is not on the cover scrapes.

	 	Front with screws and washers loosely pre-assemble.
		
		IMPORTANT! Only tighten the bottom screws. Finally tighten the screws on the side. Please note the order in which the screws are tightened. Otherwise, the machine is not exactly aligned and the drive belt could run down the brush.
	 	Bowden, as shown in the pictures fixed with cable ties.
	 	

		These ties must form a loop. Do not pull tight. The Bowden cable must be able to rotate when the handlebar is folded.
		 The ends of the cable tie is cut.
		The brush set at an angle. V-belt protection and up to the stop position.
		Torx screws Screw rosettes Snap nuts
		Snap nut position.

		Snap nut in the holes in the engine console and the control segment to introduce. 
		Rosettes screws onto the Torx screws.
 TORX TX 20		V-belt protection with Torx screws and bolts attach rosettes. 
	IMPORTANT! Please ensure that you fill up with motor oil after this.	

6 Start-up

6.1 Basic safety information for normal operation

Do not operate the machine in an unsafe manner! Make yourself familiar with the surroundings before starting work in a new location. The working surroundings include any obstacles in the work area or on roads, the ground load-bearing capacity and any necessary workplace safety precautions in live traffic.

Take precautions to ensure that the machine is only operated in a safe and functional condition! Only operate the machine if all protective and safety devices such as removable protective devices, sound insulation or extraction devices are present and working!

Check the machine for externally visible damage and faults before operation! Report any noticeable changes (including operational behaviour) to the responsible department or person immediately! Stop the machine and secure it immediately if necessary! If malfunctions occur stop the machine and secure it immediately! Always repair malfunctions immediately! Only start the machine from the operator's position! Observe switching on and off procedures, displays etc. in accordance with the operating manual! Ensure that no one can be endangered by starting the machine up before switching it on or operating it!

Check that braking, steering, signal and lighting equip-

ment is fully functional before operation!

Before operating the machine, always check that accessories are fitted correctly! Always observe applicable traffic regulations before operating on public roads, paths or spaces, and ensure that the machine is in a condition suitable for use in live traffic

Always ensure that suitable lighting is available before working in bad light or darkness! Always keep a sufficient distance between the machine and excavation edges or slopes!

Do not permit any method of working which will affect the stability of the machine!

Never traverse across slopes; always operate the machine with working equipment and any loaded materials near to the floor, especially when moving downhill!

Always adjust the speed to suit the conditions on inclines! Always change gear before the incline, not on it! Always secure the machine against unintentional rolling away and unauthorised operation before leaving it unattended!

6.2 Operation of the machine in the winter



DANGER!

Do not spray silicone spray on the hot engine. It could cause a fire. Follow the instructions on the spray can.



CAUTION!

Switch off motor. Secure the machine against unintentional starting.

Check regularly that the air filter is dry. If the filter has become wet with dew, let it dry overnight. Otherwise there is a possibility that the air freezes and not the engine starts. Before operating the throttle cable, the throttle lever and the linkage to the engine spray with silicone spray. Bring the two end positions in each throttle lever,

so that also lubricated the Bowden cable on the engine throttle lever.

This prevents condensation that frozen blocks the mechanism. Care of the Bowden cable to the other lever is also recommended silicone spray.

After the return to free the machine with a brush of snow.



IMPORTANT!

Place the machine into a frost free room. Avoid freezing the machine. It could be damaged if something is frozen solid.

Silicone Spray binds dust. It is therefore only in winter with snow a suitable care.

6.3 Steering height adjustment



CAUTION!

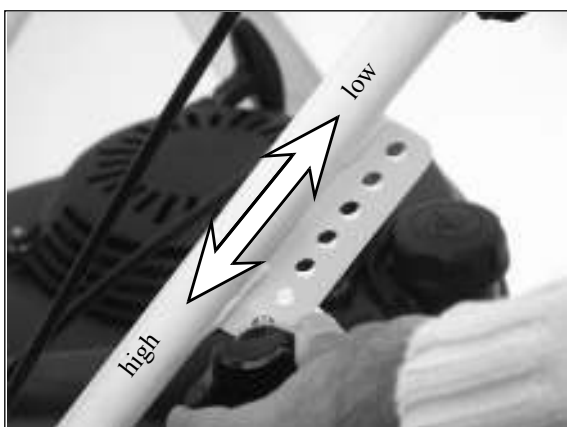
Switch off motor. Secure the machine against unintentional starting.



1) There are seven settings for adjusting the handlebar height. Press the unlocking bar downwards.



2) Loosen the star knob on both sides and choose the desired position



3) Observe the four possible settings.



5) You can fold the handlebar right to the front before putting the machine away or storing it to save space.



CAUTION! Make sure that the star knobs are tight.



DANGER!

For clothes with long sleeves is a risk that the handlebar grip gets into the sleeve. Thereby the shift lever can not be disengaged. Wear appropriate clothing. Possibly, helps you to set the bar lower.

6.4 Brush pressure



1) You can adjust the brush pressure in fine stages. For this reason the support wheel can be adjusted for height.



2) The adjustment knob can be found above the support wheel.



3) Turn clockwise (+) : raise brush
Turn anticlockwise (-) : lower brush



4) Lower the brush until it just touches the floor. Then turn three rotations anticlockwise in the direction of the arrow (-).



IMPORTANT!

If the brushes are heavily worn, or if you are brushing cobblestones, lower the brush one more turn. Please note: if the brush pressure is too heavy, the cleaning effect is decreased because the brush hairs are bent too much.

If you do not intend to use the brushing machine for a long period, please release the pressure on the brush. Raise brush

6.5 Adjusting the ejection direction



DANGER!

Hurling parts at brush-rotation. Make completely sure that there are no persons or objects within the danger zone, otherwise injuries and damage to materials could result. Secure the machine against unintentional starting.



- 1) There are five different settings available for adjusting the ejection direction.
Here: ejection direction forwards. This direction means that the swept material will heap up in front of the brushes. You should give preference to sideways facing brush settings.



- 2) Lift the pivoted lever out of the front toothing so that the lever is disengaged. Turn the brush in the required direction and allow the lever to engage securely again.
Here: ejection direction to the right.



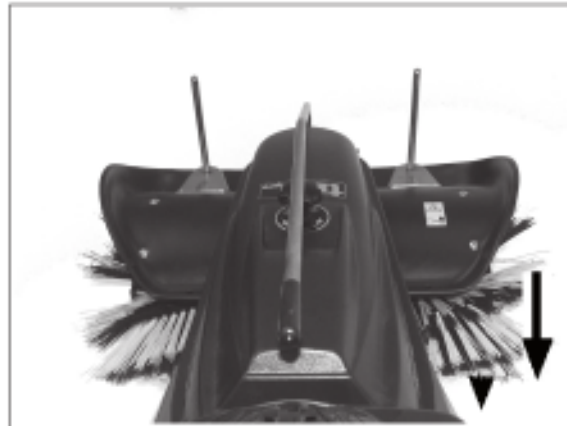
- 3) The swept material will now be placed or brushed to one side. This setting is particularly advantageous in snow for clearing footpaths.
Here: ejection direction to the left.



- 4) If you are using a swept material container, we recommend a sideways setting. This will enable you to work right up to a border (such as a house wall or kerbstone) even with the container attached.



- 5) If you use a plough blade, you have to choose a sideways setting.
Here: ejection direction to the right.



- 6) If backing up with the sweeper, the sweeper always be in good position.

6.6 Swept material container (accessory)



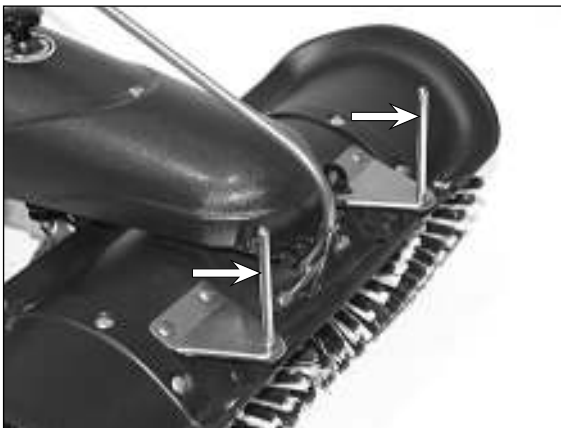
WARNING!
Switch off motor. Secure the machine against unintentional starting.



- 1) The swept material container (accessory) includes:
- 1 Swept material container
 - 2 Pull Handle
 - 3 Fitting instructions



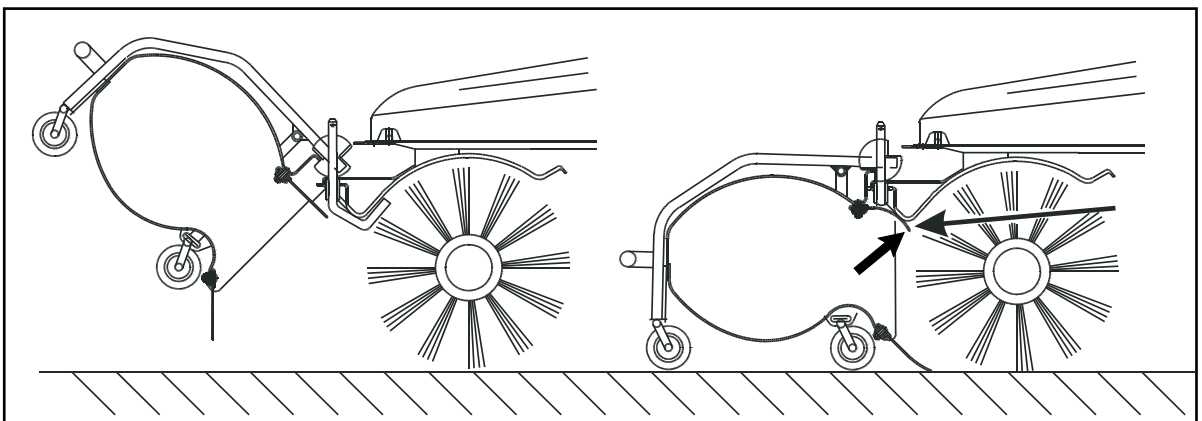
- 2) Insert the pull handle into the eye provided on the swept material container.



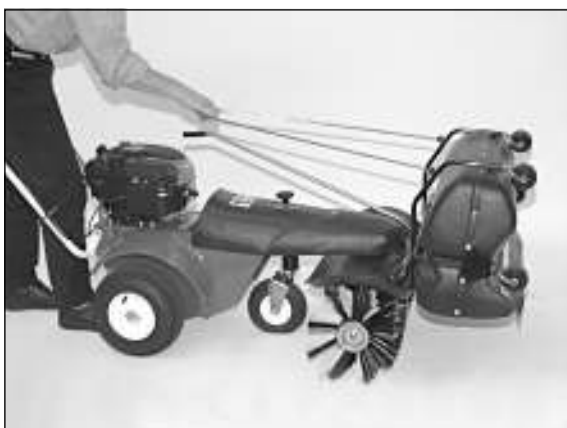
- 3) Both swept material container receiving bars.



- 4) Push the swept material container over the receiving bar.



- 5) When doing so, make sure that the upper rubber lip of the container is located below the sweeping brush cover.



1) To empty the swept material container, just pull the pull handle from the operating position.



2) To empty the swept material into another container (such as a wheelbarrow), remove the container completely.

6.7 Stone impact protection cover (accessory)



WARNING!

Switch off motor. Secure the machine against unintentional starting.

A two-component, non-tearable fabric sheet protects against raising dust and stone impact when sweeping dry materials.



1) Push the fitted frames over the receiving bar.



2) Place the material over the frame.

6.8 Leaf collector (accessory)



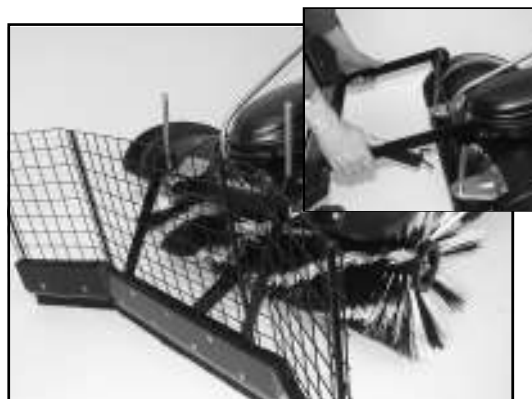
WARNING!

Switch off motor. Secure the machine against unintentional starting.

The leaf collector is held by strips of brush 1-2 cm distance to the ground. The following sweeping brushes to remove the remaining leaves



1) Collecting leaves and bends in one working cycle.



2) The leaf collector rods stuck to the inclusion, then put on the grid.

6.9 Plough blade (accessory)

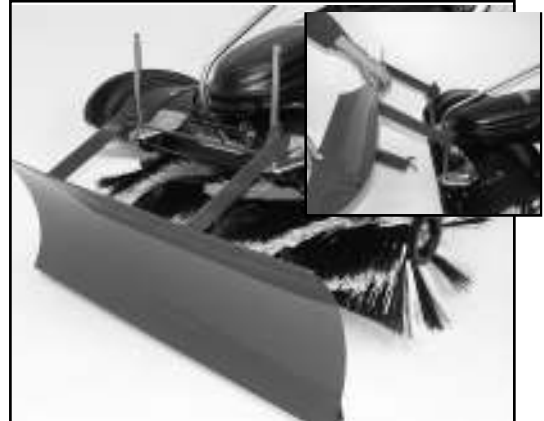


WARNING!
Switch off motor. Secure the machine against unintentional starting.

The plough blade is held between 1 and 2 cm above the ground by rollers. The brushes behind it remove any snow left over without leaving scratch marks.



1) Clearing away and brushing in one working cycle.



2) Locate the plough blade on the receiving bar.

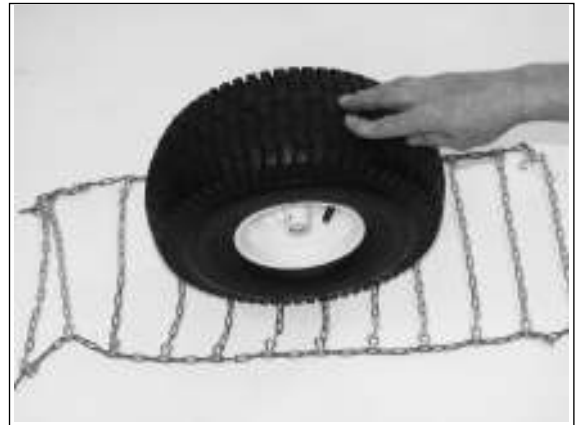
6.10 Snow chains (accessory)



WARNING!
Switch off motor. Secure the machine against unintentional starting.



1) First raise the machine on wooden blocks and then remove the wheel.



2) Place the wheel you have removed on the snow chains.



3) The chain put around the wheel and tighten the clamp across the wheel and hook.



4) Push the wheel with fitted snow chain over the axle and then secure with the cotter pin. Fit the second snow chain in the same way.

6.11 Towing eye (accessory)



WARNING!
Switch off motor. Secure the machine against unintentional starting.



1) Remove screws are reused.



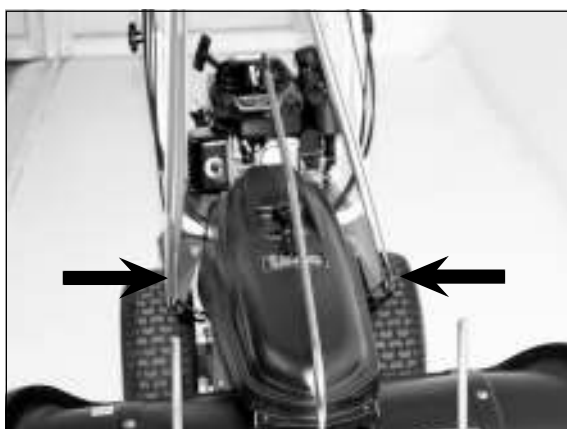
2) Position towing eye.



3) Tighten the screws securely.



4) Properly installed towing eye. On the opposite side, proceed as follows.



6.12 Movement drive and brush drive



DANGER!

For clothes with long sleeves is a risk that the handlebar grip gets into the sleeve. Thereby the shift lever can not be disengaged. Wear appropriate clothing. Possibly, helps you to set the bar lower.



WARNING!

Make completely sure that there are no persons or objects within the danger zone, otherwise injuries and damage to materials could result. Secure the machine against unintentional starting.



CAUTION!

If the brushing machine is switched on with the movement drive switched off, it can roll backwards. The handlebar must be securely engaged at the required height.



1) The switch levers for movement and brush drives are located on the handlebar.



2) Engage the movement drive (forwards) by operating the right-hand top lever.



3) Switch on the brush with your left hand.



4) If you operate both levers, both the brush and movement drives will be switched on.

6.13 Gear selection lever



WARNING!
the machine against unintentional starting.
CAUTION!
Only operate this lever when the machine is standing still.



1) Gear selection lever back: 1st gear = slow



2) Gear selector lever in the middle: 2 Course



3) Gear selection lever to front: 3rd gear = fast

IMPORTANT!

Adjust the speed of the Kehrgutmenge. If the brush throws the refuse in the back, increase the rotation speed and select a lower gear.

6.14 Reverse gear



WARNING!
Secure the machine against unintentional starting.
CAUTION!
Ensure that there is enough space behind you before starting to drive backwards.



1) The bottom switch lever on the right-hand end of the handlebar selects reverse gear.



2) The machine will drive backwards for as long as you hold the switch lever down.

6.15 Turning freewheel



WARNING!

Switch off motor. Secure the machine against unintentional starting.



1) The brushing machine is equipped with a turning freewheel. This makes turning the machine easier.



2) Selecting turning freewheel: Only push the cotter pin through the axle.



3) Deselecting the turning freewheel: push the cotter pin through both axle and groove (e.g. when brushing on inclines)

Tip:

When you remove large amounts of snow with the blade, turn from the turn of freewheel. Thus the lateral forces are on the handlebars reduced.

6.16 Starting/switching off the motor (brief instructions)



Read the motor manufacturer's operating manual



DANGER!

Never run the motor in enclosed or confined spaces. The exhaust fumes contain poisonous carbon monoxide gas. Ensure that the movement and brush drives are switched off.

The handlebar must be securely engaged at the required height.



IMPORTANT!

Before starting the motor, please ensure that the motor crankcase is filled with sufficient oil. The motor is not filled with oil when the machine is delivered for transport reasons.

1. Starting the motor

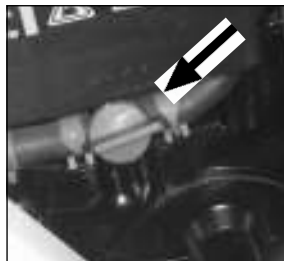
Briggs & Stratton



1) Open throttle lever



Adjust the choke.



2) The fuel valve must be opened (right-hand side looking forwards).

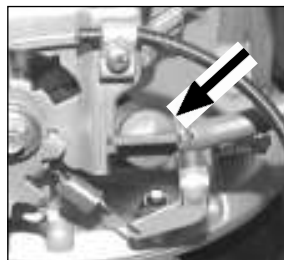
Honda



1) Open throttle lever



Adjust the choke.



2) The fuel valve must be opened (left-hand side looking forwards).



3) Pull the starter coil. Make sure you are standing behind the handlebars and outside the danger zone.



DANGER!

Do not press down a lever while pulling on the rope.

2. Regulating the speed

Briggs & Stratton



slow = close throttle lever

fast = open throttle lever

Honda



IMPORTANT!

If the motor has already warmed up, the throttle lever must be taken out of the choke position. The choke may not be used if the motor is warm or the air temperature is high.

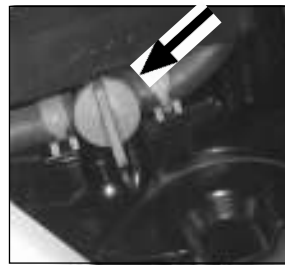
3. Switching the motor off

Briggs & Stratton



1) Open throttle lever

0



2) The fuel valve must be closed (on the right of the motor looking forwards).

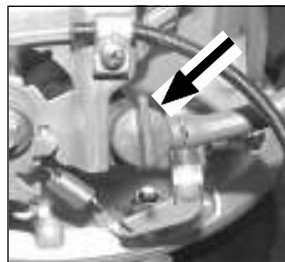
3. Switching the motor off

Honda



1) Open throttle lever

0



2) The fuel valve must be closed (on the left of the motor looking forwards).

6.17 Electric start

The maintenance free battery is already charged on delivery.



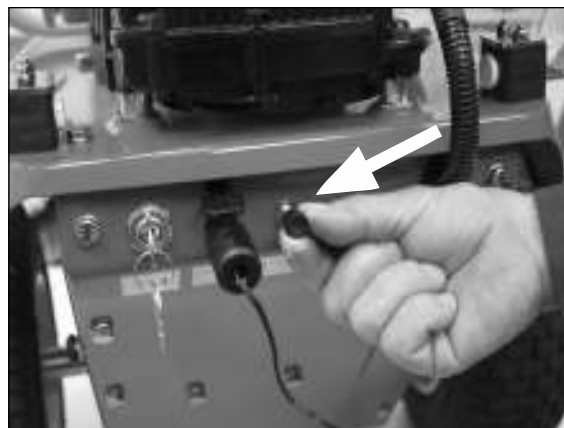
1) If the battery has been discharged, it must be charged up again



2) Connect the charging device supplied to a 230 V power supply and set to 12 V supply.



3) Lift the charging socket cover and plug into the charging device.



4) The pull switch must be pulled out.



5) Charge for between 10 and 12 hours if the batteries discharged. Then remove the charging device.



6) The start the motor, turn the ignition key briefly to the right and then let go.

7 Care and maintenance

7.1 Basic safety information

Keep to the adjustment, maintenance and inspection work or deadlines, including the information about replacement/fitting of parts as prescribed in the operating manual! This work may only be carried out by specialists. See maintenance plan. Always inform operating personnel about special maintenance work in advance! Name those responsible for supervision! Observe all switching on or off processes in accordance with the operating manual and instructions for maintenance work when carrying out any work which affects the operation, production adaptation, conversion or settings to the machine and its safety devices, in addition to inspection, maintenance and repair. Ensure that the service area is secured if necessary!

If the machine has been completely switched off for service and repair work, it must be secured against unexpected switching on:

- remove the key
- attach a warning sign to the starting device.

Only carry out service and maintenance work if the machine is placed on even and load-bearing ground, and is secured against rolling away or tipping!

Individual components and larger subassemblies must be carefully fixed to lifting gear before replacement, and secured so that they cause no hazard. Only use suitable lifting equipment in technically good condition or supporting equipment with suitable carrying capacity! Do not stand or work under suspended loads!

Do not use machine components as aids for climbing! Keep all areas free of dirt, snow and ice!

Clean the machine, especially connections and unions, so that it is free of oil, fuel or cleaning materials before beginning maintenance or repairs! Do not use aggressive cleaning materials! Use fibre-free cleaning cloths! Cover or stop up all openings which must be protected from water/steam/cleaning materials for safety or functional reasons before cleaning the machine with water, high-pressure cleaners or other cleaning materials. Electrical motors and other voltage-carrying components are particularly at risk.

You must remove all covers or stoppers completely after cleaning!

Check all fuel and oil hoses for leaks, loose unions, abraded areas or damage after any cleaning work! Repair any malfunctions found immediately! Always

retighten loosened screw connections after service and maintenance work! If the removal of safety devices was necessary during fitting, service or repairs, such devices must be refitted and checked immediately after completion of maintenance and repair work. Ensure that fuel and oil is properly disposed of for safety and environmental protection reasons! The machine's electrical equipment must be regularly inspected/checked. Any faults such as loose connections or melted cables must be repaired immediately.

When working on high-voltage components, connect the power supply cable to ground and discharge components such as capacitors with an earthing spike after switching on the power! Never run internal combustion motors in enclosed or confined spaces. The exhaust fumes contain poisonous carbon monoxide gas. Follow the regulations applying to the place of work!

You may only carry out welding, burning or grinding work on the machine if this has been expressly approved. It is possible that fire or explosion hazard will occur! Clean the machine and the surroundings from dust and flammable materials and provide sufficient ventilation before carrying out any welding, burning or grinding work on the machine (explosion hazards). Check all piping, hoses and the unions regularly for leaks and other externally visible damage! Repair all damage immediately! Spraying oil can lead to injuries and burns. All machine sound insulation devices must be set to safety during operation. Wear the prescribed personal hearing protection! Observe the safety regulations for handling oils, greases, and other chemical substances which apply to the product concerned!

Take care when handling hot fuels and oils (danger of burns or scalding)!



IMPORTANT!

Take care of

- fuel and oil discharge, dispose of if necessary
- tightening of screws and nuts, tighten if necessary
- smooth running of all moving parts, lubricate if necessary

7.2 Filling with fuel



Read the motor manufacturer's operating manual



DANGER!

Switch off motor and allow to cool down. The machine must be secured against unintentional starting. Petrol is very easily inflammable and can be explosive under certain conditions.

Only fill with fuel in well-ventilated surroundings with the motor turned off. Do not smoke while filling or in locations where fuel is stored, and keep naked flames or sparks away.

Do not overfill the tank. Do not fill with fuel so that the filler neck is full. Ensure that the fuel tank cap is properly closed after filling with fuel.

Ensure that no fuel is spilt during filling. Petrol fumes or spilt fuel can ignite. If petrol has been spilt, you must make sure that this area has dried out and that the petrol fumes have dispersed before starting the motor.

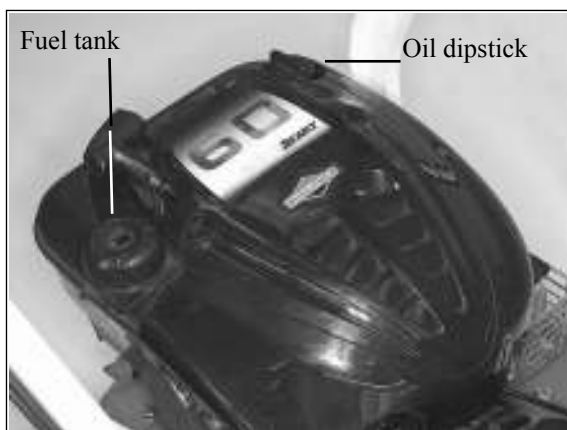
Avoid repeated or long-term contact with the skin and breathing-in of vapours.

ALWAYS STORE PETROL OUT OF THE REACH OF CHILDREN.

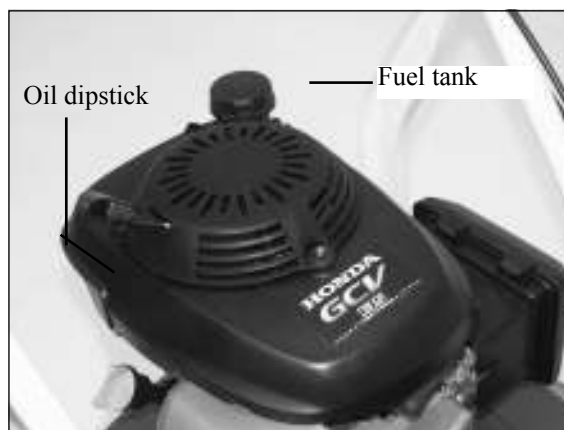


IMPORTANT!

Always use vehicle fuel. Never use a petrol-oil mixture or contaminated petrol.



1) Fuel and oil tanks on B&S motor



1) Fuel and oil tanks on Honda motor



2) Hold the canister as pictured above. Only ever fill with small quantities and check the fill height each time.



2) Hold the canister as pictured above. Only ever fill with small quantities and check the fill height each time.

7.3 Checking the oil



Read the motor manufacturer's operating manual



WARNING!

Switch off motor and allow to cool down. The machine must be secured against unintentional starting.

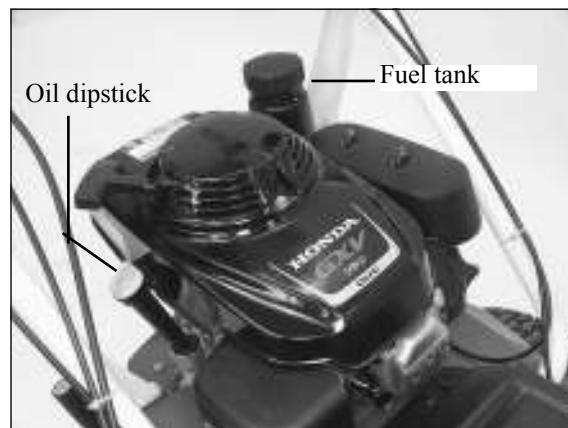


IMPORTANT!

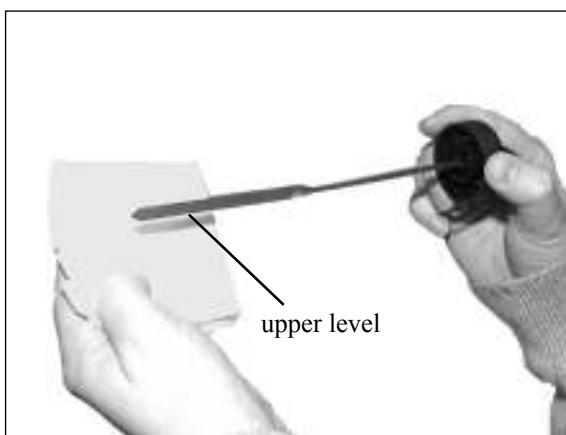
Severe damage can result to the motor if it is operated with insufficient oil.
Only oil recommended by the manufacturer may be used.



1) Fuel and oil tanks on B&S motor

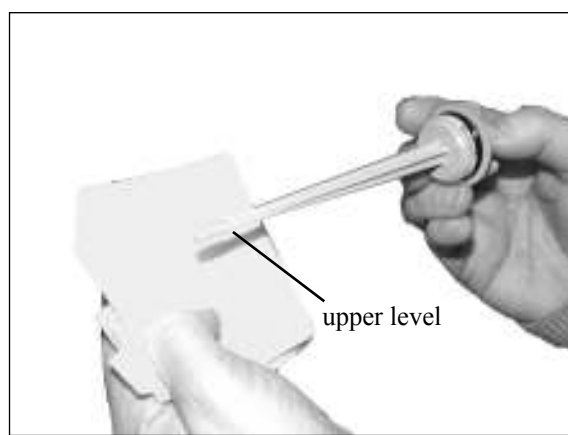


1) Fuel and oil tanks on Honda motor



2) B&S-Motor oil dipstick.

- Remove oil filler cover, wipe oil dipstick clean.
 - Replace oil dipstick in the oil filler neck and screw down. Remove oil dipstick and check oil level. The oil should be up to the FULL marking.
 - If the oil level is low, fill up the oil as far as the FULL making on the dipstick.
- See marking on the dipstick for fill level.



2) Honda-Motor oil dipstick.

- Remove oil filler cover, wipe oil dipstick clean.
 - Replace oil dipstick in the oil filler neck and do **not** screw down. Remove oil dipstick and check oil level. The oil should be up to the upper marking.
 - If oil level is low, fill up to the upper marking on the dipstick with the recommended oil.
- See marking on the dipstick for fill level.

7.4 Replacing the brushes



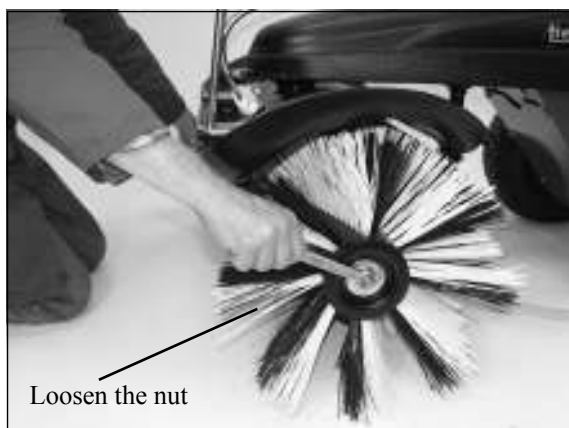
WARNING!

Switch off motor and allow to cool down. The machine must be secured against unintentional starting.



IMPORTANT!

All brushes must be checked after 20 operating hours at the most. The brushes must be replaced if you are no longer satisfied with the brushing results, or if the brush diameter is below 220 mm. Correct functioning of the brushing machine can only be guaranteed if original brushes with black and white bristles are used.



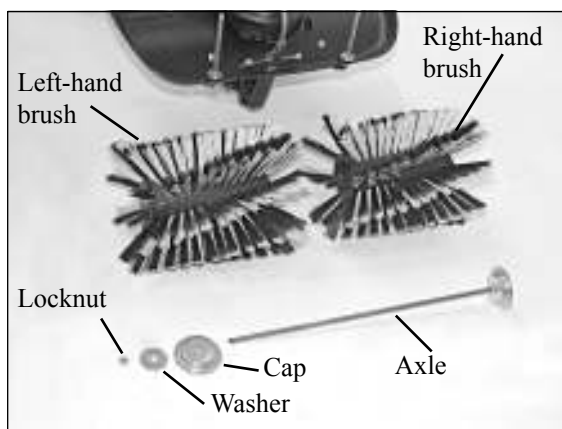
1) Loosen the nut on the left-hand brush with a 19 mm ring spanner (prevent the nut on the other brush turning with another 19 mm ring spanner).



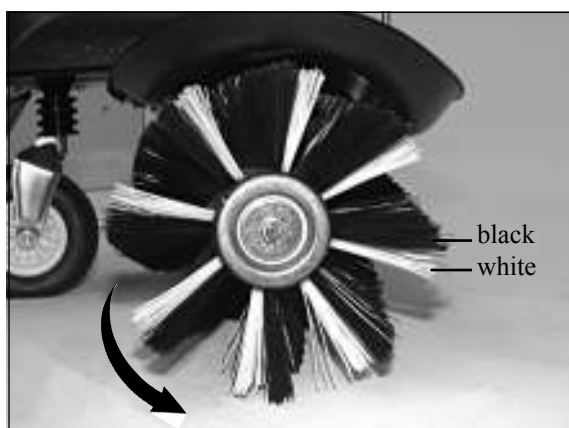
2) Now remove the nut and pull off the brush.



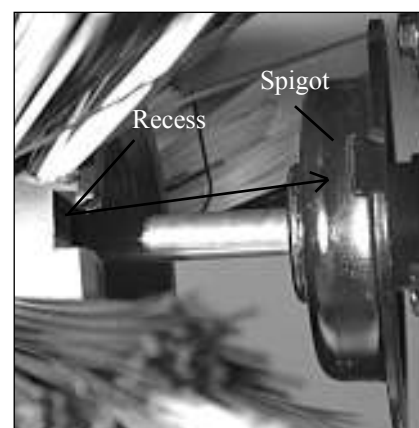
3) Pull out the axle with the second brush on it.



4) Parts after disassembly. Replace the old brushes with new ones.



5) **IMPORTANT!** The black row of bristles must touch the floor before the white row in the brush rotation direction.



6) **Assembly information** The recess on the brush must locate in the gearbox spigot.



7) When installing new brushes, first position the left-hand brush with the axle. Please refer to previous fitting instructions.



8) Push the right-hand brush onto the axle. Please refer to previous fitting instructions.



9) After you have located both brushes on the axle, pushed the cap and washer onto the axle.



10) Now fix the bushes in place with the locknut. (Hold them that on the other end of the axle secure)

7.5 Cleaning the device

To keep the brushing machine in good condition, you should clean it regularly.

Remove loose dirt or dust with a soft brush. Wash plastic surfaces with water and soap. Use normal commercial car cleaning agents. Make sure you rinse off all cleaning agents well with clear water. To give plastic parts and gloss finish, please use a plastics care material. Please observe the instructions for use provided with these materials. You can also use glycerine as corrosion protection for heavily soiled parts (e.g. the swept material container receiving bar).



IMPORTANT!

Do not use chemical or aggressive cleaning agents under any circumstances. Plastic surfaces and paintwork will be permanently damaged.

For this reason you should only use easily biologically degradable cleaning and care materials. By doing this you help preserve our environment and to keep the groundwater clean!

If you clean the machine with high-pressure cleaners, steam jet cleaners or similar devices, you can permanently damaged components such as bearings, seals, motor parts and plastic parts etc! It is also possible that water will penetrate into the motor. For this reason you should ensure that there is a large gap between the sprayer nozzles and components at risk. The water temperature may not exceed 50° Celsius. Please observe the motor manufacturer's operating manual!

7.7 Adjusting or resetting the Bowden cables



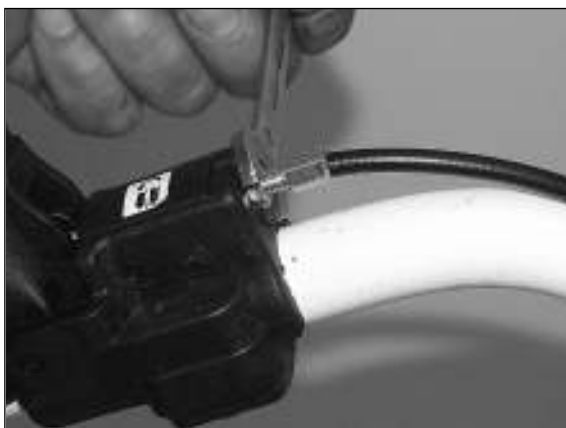
WARNING!

Switch off motor and allow to cool down. The machine must be secured against unintentional starting.



IMPORTANT!

It may be necessary to reset the Bowden cables after machine has been operating for a few hours. If the adjustment is not the Bowden enough, you should contact your local dealer.



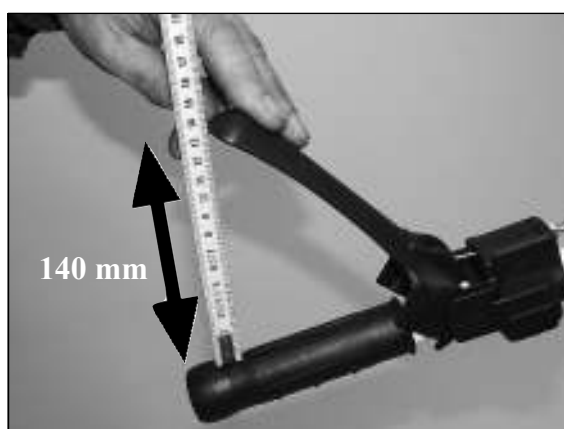
1) Loosen the top nut with a 10 mm ring spanner (approx. one turn).



2) The throttle cable with an 80 mm ring spanner set.



3) Then tighten the nut. Check the adjustment you have made by pressing the lever down.



4) Brush drive - Movement drive (forwards)
After 140 mm empty run you must be able to feel a distinct resistance.



4) Reverse gear:
After 80 mm empty run you must be able to feel a distinct resistance.

If the adjustment has not been made correctly, please repeat steps 1) bis 3).

7.8 Checking and correcting tyre pressure



WARNING!

Switch off motor and allow to cool down. The machine must be secured against unintentional starting. Observe the permissible tyre pressures. The tyre can burst if the pressure is too high.



IMPORTANT!

If the tyre pressure is too low, the inner tube will rub against the wheel rim and be damaged.



- 1) Please check the tyre pressure for both the support and drive wheels regularly.

Unscrew the valve cap and use a tyre inflation device to check or inflate the tyre as necessary. Always replace the valve cap when you have finished inflating.



- 2) Support wheel: 2 bar. You can decrease the tyre pressure to 1.5 bar on cobblestones.



- 3) Drive wheels: 1.5 bar.

7.9 Cleaning the air filter

Please refer to the motor manufacturer's information when cleaning the air filter (motor manufacturer's operating manual).

7.10 Storage

If you are not intending to use the machine for a long time it should be properly stored. For more information, please contact your local dealer. He will advise you which measures to take.

7.11 Maintenance plan

	before every use	after the following operating hours					after 3 month min.	at least annually	after every cleaning
		5	10	25	50	100			
Check screws and nuts			C						
Check motor oil level, refill if necessary	C								
First motor oil change		S							
All further motor oil changes					S			S	
Check air filter	C								
Clean air filter element, earlier if necessary				M			M		
Replace air filter element, earlier if necessary					M				
Renew fuel hoses								S (2 years)	
Clean cool air screen	M								
Clean baffle plate, cooling ribs earlier if necessary						S			
Clean spark plugs, adjust gap					S				
Renew spark plugs						S*			
Clean exhaust		M							
Lubricate all moving parts								M	M
Check hand lever play setting kontrollieren	C								
Check btush wear, earlier if necessary				C					
Stretch chain-drive			C	S					
S = Maintenance by specialists C = Check by operator M = Maintenance by operator									



*

Caution if using B&S XTS

The spark plugs supplied by Tielbürger are suppressed for electrical noise. Do not use spark plugs which are not suppressed!

8 Troubleshooting and fault elimination

Fault	Possible cause	Fault remedy
Motor will not start	- Fuel tank empty - Throttle lever not set to choke when motor is cold - Spark plug leads not connected - Fuel line blocked - Motor receiving wrong air due to loose carburettor - Fuel valve closed on Honda motor	Fill fuel tank Set throttle lever to choke Connect spark plug leads Send fuel lines to workshop for cleaning Tighten fixing screws Open fuel valve on Honda motor
Motor will not start, petrol smell	- Motor is receiving too much fuel - Air filter soiled	Set throttle lever to full speed, not to choke Clean air filter
Motor running badly, misfires	- Motor running with choke activated - Spark plug leads loose - Air filter soiled - Air bleed hole in fuel tank filler cap blocked - Fuel line blocked - Carburettor not correctly adjusted - Motor overheating	Move throttle lever out of choke position Allow motor to cool and connect spark plug leads firmly Clean air filter Replace fuel tank filler cap Send fuel lines to workshop for cleaning Send carburettor to workshop for adjustment See fault „Motor overheating“
Motor misfires at high speed	- Spark plug gap not correct - Carburettor not correctly adjusted	Send spark plugs to workshop for adjustment Send carburettor to workshop for adjustment
Motor overheating	- Oil level too low - Air cooling system restricted - Air filter soiled - Carburettor not correctly adjusted	Refill motor oil Send air cooler grille and cooling ribs to workshop for adjustment Clean air filter Send carburettor to workshop for adjustment
Motor often stops during tickover	- Throttle lever not set to choke when motor is cold - Spark plug gap not correct - Air filter soiled	Set throttle lever to choke Send carburettor to workshop for adjustment Clean air filter
Motor has lost power	- Air filter soiled - Compression too low	Clean air filter Send to workshop for adjustment

8 Troubleshooting and fault elimination

Fault	Possible cause	Fault remedy
Motor will not stop	- Motor stop lever misadjusted	See motor operating manual, contact your workshop
Permanent squeaking when brushes switched on	- Switch lever not completely pressed down - Bowden cable not correctly adjusted	Press switch lever completely down Readjust Bowden cable
Brushes do not turn, or stop moving under load	- Switch lever not completely pressed down - Bowden cable not correctly adjusted - Toothed belts defective	Press switch lever completely down Readjust Bowden cable Send to workshop for toothed belt replacement
Movement drive does not work, or machine will not move forward	- Bowden cable not correctly adjusted - Toothed belt tension between motor and gearbox too low	Readjust Bowden cable Send to workshop for toothed belt adjustment
Machine leaves unbrushed central ship	- Ejection direction forwards with worn brushes - Brushes worn	Turn the brushes to the right or left, ejection direction to the side Replace brushes
Bad brushing results	- Brushes wrongly mounted - Brush pressure too high - Brushes not original manufacturer`s	Mount brushes correctly, observe working direction Readjust castor wheel, reduce brush pressure Use only original brushes with black/white bristles
Bad brushing results with swept material container	- Swept material container not fitted correctly, sealing lip above brush cover	Mount swept material container correctly
Snow is brushed to the rear by brush	- Snow is too deep - Snow is packed too hard - Ejection direction forwards, snow piling up in front of machine	Can only be used in snow up to 14 cm deep Swivel brush fully to left or right Swivel brush to left or right, ejection direction to side
Low traction in winter	- Tyre pressure too high - Ground too slippery, complete brush width being used for sweeping	Check tyre pressure, decrease if necessary Use only part brush width to sweep

9 Transport

**WARNING!**

Switch off motor and allow to cool down. The machine must be secured against unintentional starting. Wear sturdy shoes. Please remove the swept material container if one is fitted. The handlebars must be engaged properly.



1) Position of lashing strap at front.



2) Use the rear axle as a fixing point.



3) Always use both fixing points.



4) Fold the handlebars fully forwards.

10 Specifications

Motor:	see spare parts list
Wheelbase:	360 mm
Tracking:	520 mm
Width:	approx. 800 mm
Height to motor:	approx. 680 mm
Handlebar height:	adjustable between approx. 860 mm and approx. 1050 mm
Total length:	max. 1820 mm (lower handlebar position)
Brushing width:	800 mm
Brush diameter:	350 mm
Forwardspeed:	2.7 - 4.9 km/h
Backwardspeed:	3.5 km/h
Weight:	93 kg
Tyre pressure:	drive wheels: 1.5 bar
	Support wheel: 2.0 bar (lower to 1.5 bar on cobblestones)

Motor	Cubic capacity	Max. power	Effective power
Honda GCV 135	135 ccm	3,4 KW/3600 rpm	3,1 KW/3000 rpm
B&S Ready Start	190 ccm	2,6 KW/3200 rpm	2,6 KW/3000 rpm

Motor	Oil fill quantity	Fuel tank capacity
Honda GCV 135	0.65 l	2,0 l
B&S Ready Start	0.6 l	1.5 l

Brushing machine hand-arm vibrations

comply with VDI 2057, Sheet 2

1. Measurement description

The measurement was carried out on asphalted road.

Vibrations were measured in three axes on the handlebars: X, Y and Z axes, see DIN 45675, Part 8. The value for 60 seconds duration was determined.

2. The measuring instrument used complies with DIN 45675.

3. Machine in operating condition:

Warmed up, retracted machine under full load.

Brush height adjustment: standard

Fuel tank: approx. 50% full

Brush axle: middle position

4. Measurement results: 60 s effective value = 7,6 m/s² (Honda GXV 135)
60 s effective value = 4,8 m/s² (B&S Ready Start)

Machine noise emission values

comply with EC guideline 98/37//EWG or 2006/42/EG

1. Measurement description

Measurement was carried out with the machine at standstill with driven brushes on an asphalted road.

1.1 sound pressure level at ear $L_{p\text{ user}} = 83\text{ dB}$ (Honda GCV 135)
sound pressure level at ear $L_{p\text{ user}} = 84\text{ dB}$ (B&S Ready Start)

1.2 sound power level $L_w = 97\text{ dB}$ (Honda GCV 135)
sound power level $L_w = 99\text{ dB}$ (B&S Ready Start)

2. Measuring devices used comply with DIN 45634.

3. Machine in operating condition:

Warmed up, retracted machine under full load.

Brush height adjustment: standard

Fuel tank: approx. 50% full

EC-Declaration of Conformity

according to the EC-directives 2006/42/EG

Manufacturer: **Julius Tielbürger GmbH & Co.KG**
 Maschinenfabrik
 Postdamm 12
 D-32351 Stemwede-Oppenwehe

Owner of Technical Documentation Notified Body
 Herr Jörg Tielbürger
 Julius Tielbürger GmbH & Co.KG
 Maschinenfabrik
 Postdamm 12
 D-32351 Stemwede-Oppenwehe

We hereby declare, that the product

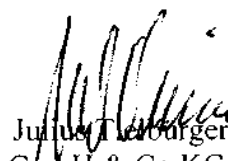
Sweeper tk38prof. AD-550-045TS, AD-551-045TS (B&S)
AD-552-045TS, AD-553-045TS (Honda)

conforms to the specifications of the EC directives 2006/42/EG, 2004/108EG

The following harmonized standards were applied (or only parts):

EN ISO 12100:2004, EN 294:1992. DIN EN 9001:2000

Stemwede, den 15.07.11


Julius Tielbürger
GmbH & Co.KG

KR-332-037TS