

tielbürger®

Sweeper attachment tk 520 AD-200-001GI

GB

Operating and installation instructions



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EN – Translation of the Original Operating Instructions

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1 Operating and installation instructions

1.1 General

The operating and installation instructions are intended to help users familiarise themselves with the machine and use it in line with its intended applications.

The operating and installation instructions contain important information on how to operate the machine safely, properly and economically. Observing these operating and installation instructions helps to avert risks, to reduce repair costs and downtime and to increase the reliability and service life of the machine.

The operating and installation instructions must always be available at the location where the machine is used.

The operating and installation instructions must be read and applied by any person in charge of carrying out work with or on the machine, for example:

- Operation, including setting up, fault rectification in the course of work, removal of production waste, maintenance and disposal of operating and auxiliary materials

- Maintenance (servicing, inspection, repair) and/or

- Transport.

The generally recognised rules of technology for safe and proper working must be observed in addition to the operating and installation instructions and mandatory regulations for accident prevention which apply to the country and place of use.

1.2 Warnings and symbols



Read the operating instructions



DANGER!

Indicates an immediate threat of danger. If this instruction is ignored, there is a risk of death or extremely serious injury.



WARNING:

Indicates a potentially hazardous situation. If this instruction is ignored, there may be a risk of death or extremely serious injury.



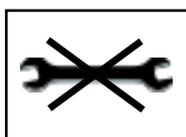
CAUTION:

Indicates a potentially hazardous situation. If this instruction is ignored, there may be a risk of minor injury.



IMPORTANT:

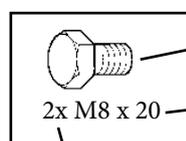
Indicates operating tips and other useful information.



Do not use a tool



Work on a workbench



Symbol

Type

2x M8 x 20

Quantity

Symbol	Type Examples:	Explanation
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 (L)	M = Metric 8 = Inner diameter in mm (L) = Lock nut
Combination spanner Hexagon head screwdriver Screwdriver	8	8 = Size in mm
Crosshead screwdriver	PZ 2 PH 2	PZ 2 = Pozidriv size 2 PH 2 = Phillips size 2

2 Basic safety instructions

2.1 Intended use

The product has been constructed using state-of-the-art technology and in line with the recognised technical safety regulations. However, use of this product may still result in the risk of injury or death to the user or third parties, or of damage to the product and other material assets.

Only use the product in technically perfect working order, for its intended use and with safety and hazards in mind, in compliance with the operating and installation instructions. In particular, you must immediately rectify faults that could impair safety or have such faults rectified immediately by a third party.

The product is exclusively intended to be installed on the machines approved by the manufacturer and is intended for the accessories approved by the manufacturer. Any other or additional form of use, for example use in conjunction with self-constructed accessories, shall be regarded as non-compliant with the intended use. This product is solely intended for sweeping applications as part of grounds maintenance and winter road maintenance. Any other or additional form of use is considered non-compliant with the intended use.

2.2 Organisational measures

The operating and installation instructions must always be kept ready at the location where the machine is used. In addition to the operating and installation instructions, observe and follow the generally valid legal regulations and any other binding regulations for accident prevention and environmental protection.

Such obligations may also include handling hazardous substances or making available/wearing personal protective equipment and complying with road traffic regulations, for example.

Supplement the operating and installation instructions by instructions as well as site management and reporting obligations concerning special operational requirements, for example with regard to work organisation, workflows, personnel used, etc.

Any personnel instructed to perform work on the machine must have read the operating instructions before starting work, specifically the section entitled "Safety instructions". Reading the instructions after work has begun is too late. This applies in particular to personnel who only work on the machine occasionally, for example for set-up and maintenance.

At least occasionally, check that the personnel are working with safety and hazards in mind and are following the operating instructions.

Personnel must not have long hair which is not tied back or wear loose clothing or jewellery including rings. There is a risk of injury from being caught or drawn into the machine, for example.

For example, the product must not be used to sweep animal feed. Bristles can come loose and be consumed by animals, harming the animal. The manufacturer/supplier shall not be held liable for any damage or loss suffered as a result. The risk is borne solely by the user.

Intended use also includes complying with the operating and installation instructions and adhering to the inspection and maintenance conditions.

This sweeper may only be operated with brushes that have been approved by the manufacturer.

The implement is solely intended for clearing dirt on roads, foliage and snow. Any other applications are not permitted.

Unauthorised operators:

Persons who are not familiar with the operating instructions, minors and persons under the influence of alcohol, drugs or medication must not operate the implement.

Wear personal protective equipment if necessary or required by regulations.

Observe all safety and hazard notices on the machine. Ensure that all safety and hazard notices at/on the machine can be read in full at all times.

In the event of any modification to the machine or any change in the machine's performance that may affect safety, shut down the machine immediately and report the fault to the responsible specialist dealer.

Do not modify, convert or attach equipment to the machine without approval from the manufacturer if this could impair safety. This also applies to fitting and adjusting safety equipment and valves, as well as for welding on supporting parts.

Use only genuine spare parts from the manufacturer. These comply with the technical requirements and safeguard your warranty and guarantee rights. Adhere to the prescribed time periods or those indicated in the operating and installation instructions for recurring tests/inspections.

Workshop equipment which is appropriate for the work is mandatory for carrying out maintenance measures. Make personnel aware of the location of fire extinguishers and how to use them.

Comply with the fire alarm and firefighting procedures.

2.3 Personnel selection and qualifications; basic obligations

Work on/with the product may only be carried out by reliable personnel. Observe the legal minimum age.

Only use trained or instructed personnel and clearly define the responsibilities of the personnel for operation, set-up, maintenance and repair.

Ensure that only authorised personnel work on the product.

Only allow personnel who are yet to complete training, instruction and induction or who are still completing a general apprenticeship to carry out work on the product under the constant supervision of an experienced person.

Work on the product's electrical equipment may only

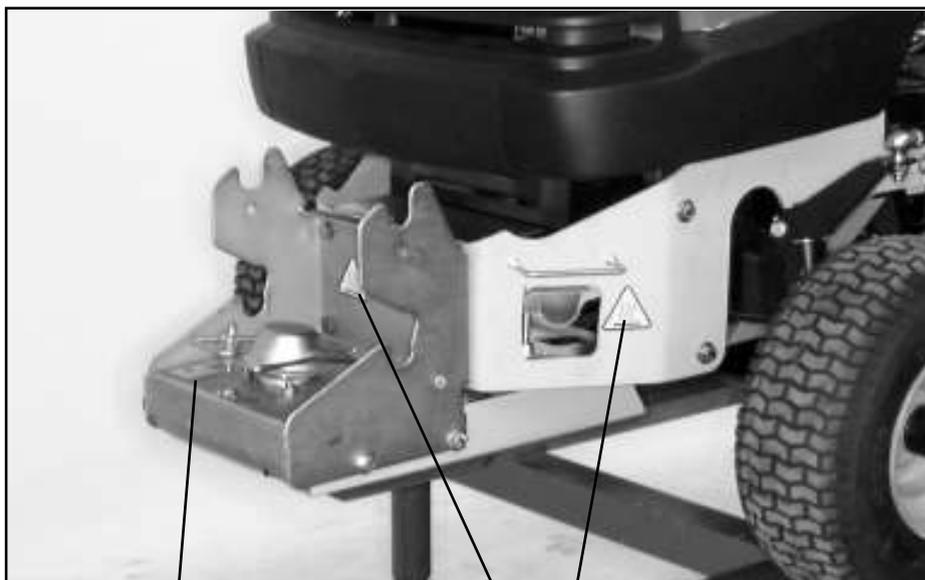
be carried out by a qualified electrician or by trained personnel under the guidance and supervision of a qualified electrician in accordance with electrical engineering regulations.

Work on chassis, braking and steering systems must only be carried out by qualified personnel trained for such work.

Only personnel who possess specific knowledge of and experience in hydraulics are allowed to carry out work on hydraulic equipment.

Clean the implement regularly, particularly in the exhaust and engine area. Otherwise, there is an increased risk of fire.

2.4 Position of safety stickers and labels



Do not open the protective equipment, risk of crushing



Caution:
Hot surface

3 Scope and condition of delivery



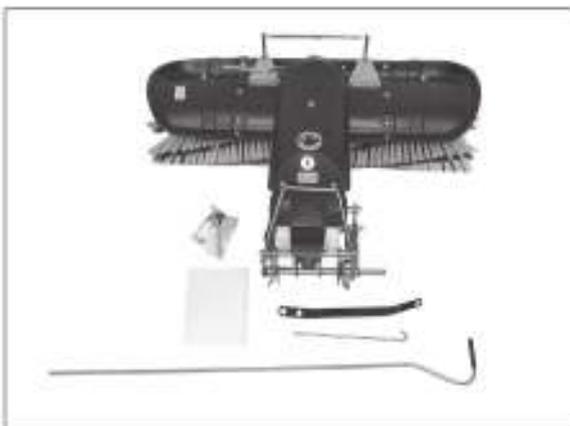
Inspection of the original packaging (drive set)



Inspection of the original packaging (sweeper tk520)



Scope of delivery (drive set)



Scope of delivery (sweeper)

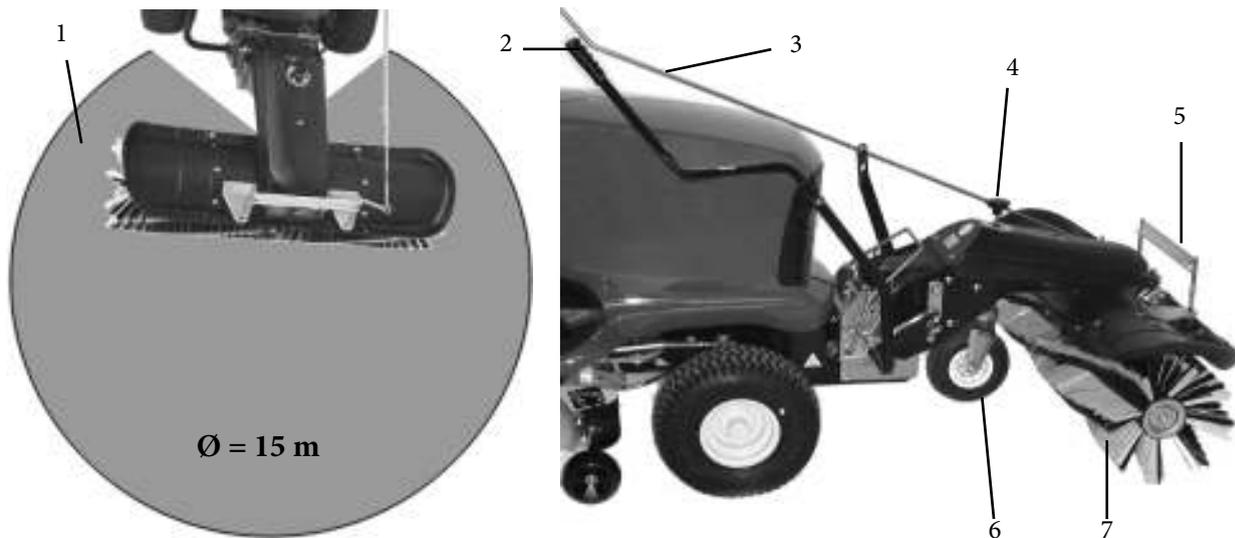


Inspection of the original packaging (debris container)

Scope of delivery

Check the sweeper and drive set supplied to ensure that they match the specified scope of delivery. The transport packaging should be recycled.

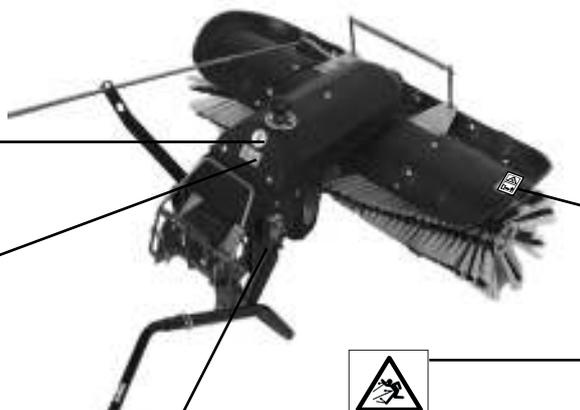
4 Illustration of the machine and danger zone, component description, position of safety stickers and labels



Max. speed 5 km/h



Before putting the machine into operation, read and take note of the operating and safety instructions.



A hazard is posed by ejected particles while the engine is running – keep a safe distance.

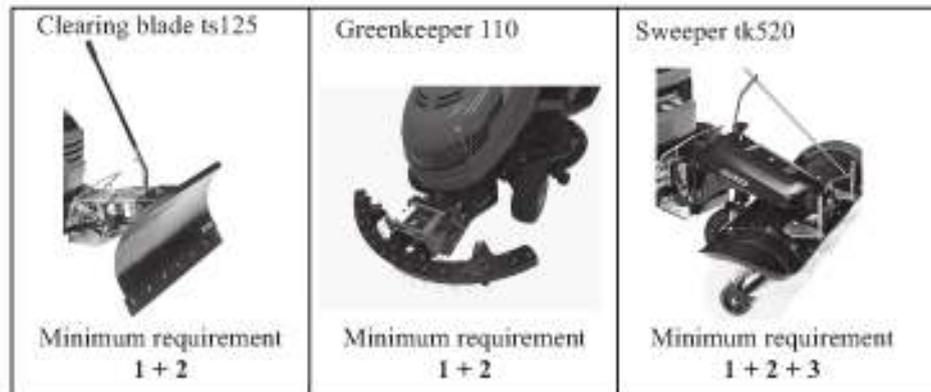


1. Danger zone
2. Lever for raising and lowering the sweeper
3. Swivelling lever for laterally adjusting the sweeper brushes
4. Ball handle for adjusting the height of the brushes
5. Mount for the debris container
6. Support wheel
7. Sweeper brush
8. Serial number
9. Machine designation
10. Manufacturer name
11. Weight
12. Year of construction
13. CE marking
14. Engine power
15. Engine manufacturer
16. Manufacturer address
17. Part number

4.1 Components of the Tielbürger quick-change system



4.2 Accessories



Ask your authorised Tielbürger specialist dealer for the latest implements.

You can find further information on our website: www.tielbuenger.de

5 Installation

5.1 Preparatory measures prior to installation



DANGER!
There is an increased risk of injury near running drives. Follow the safety instructions.



WARNING:
Switch off the engine and allow it to cool down. The machine must be secured to prevent it from being started inadvertently. Remove the ignition key and activate the parking brake.



IMPORTANT:
The construction sets supplied must be checked to ensure that they are complete using the spare parts list in these instructions.
The quick-change system should only be installed by a specialist dealer of engine units.
Before you begin, acquire an overview of the installation sequence and the required parts and tools.
The machine must be clean and in technically correct working order.
Follow the lawn tractor manufacturer's safety instructions and operating instructions.

Installation should be performed on a height-adjustable work platform in accordance with the following instructions.



IMPORTANT:
Comply with the safety regulations for the work platform.

 <p>2x</p>  <p>1x</p>		<p>Lower the mower on to timber. Secure the lawn tractor against rolling away by using wheel chocks.</p> <p> IMPORTANT: Follow the operating instructions provided by the manufacturer for this.</p>
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5.2 Installation

Dear valued customer,

Models are continuously being updated by the lawn tractor and implement manufacturers in line with technological progress. As a result, descriptions or illustrations in these instructions may differ from the actual conditions on the lawn tractor.

Select one of the columns below on the basis of your mounting frame.

Column **A** = Attachment parts **without** quick-change mechanism,
for securely attached accessories

Column **B** = Attachment parts **with** quick-change mechanism,
for non-driven implements (e.g. clearing blade)

Column **C** = Attachment parts **with** quick-change mechanism **with** drive,
for driven implements (e.g. sweepers) and
for non-driven implements

- 1) During installation, only those steps which are marked with a point • in the selected columns have to be carried out. Highlight the column that applies using a highlighter.
- 2) **The sequence given in the installation instructions must be complied with.**



DANGER!

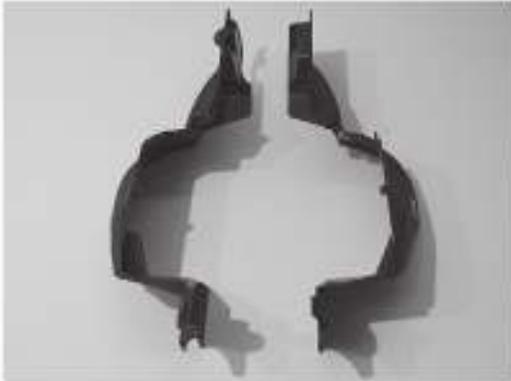
It is necessary to remove protective equipment in order to install attachment parts. You must therefore ensure that this equipment is reattached after installation is complete. This is why none of the following work steps can be ignored.

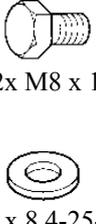
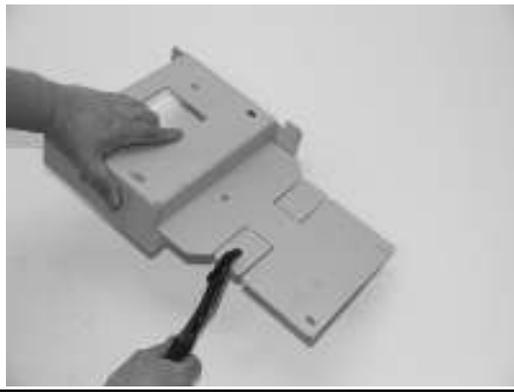
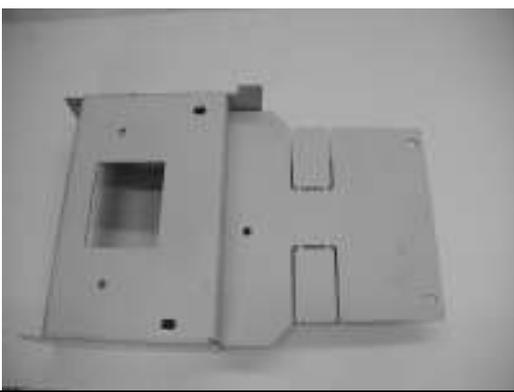


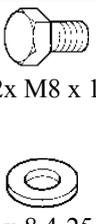
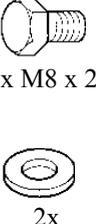
DANGER!

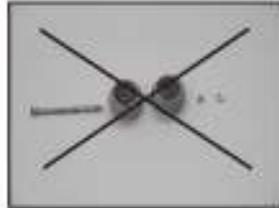
The installation procedure described below must only be performed by the specialist dealer.

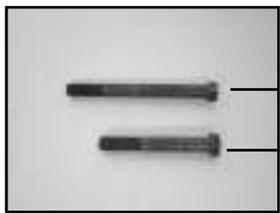
5.3 Drive set installation

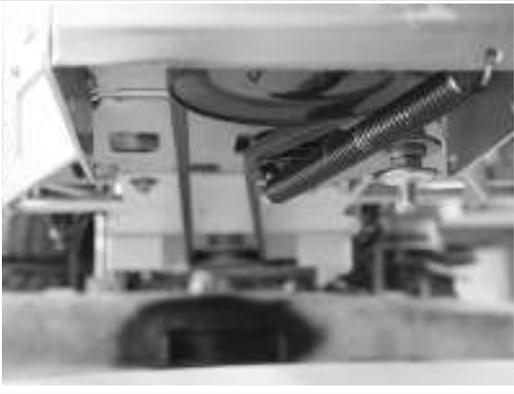
		A	B	C
	 <p>Complete drive set.</p>			●
	 <p>Lower the mower.</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">  Read the operating instructions provided by the lawn tractor manufacturer. </div> <p>Lowered position.</p>			●
	 <p>Undo the guard.</p> 			●
	 <p>Remove the guard (which can be reused).</p>			●
	 <p>Position the spacer.</p>			●

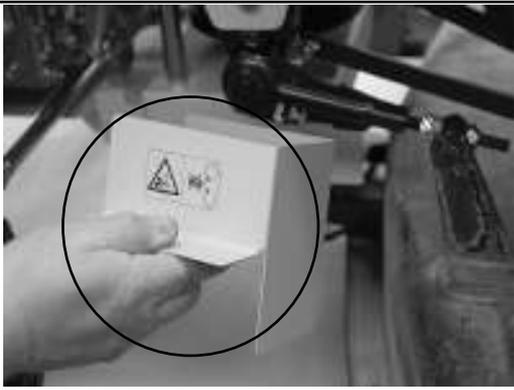
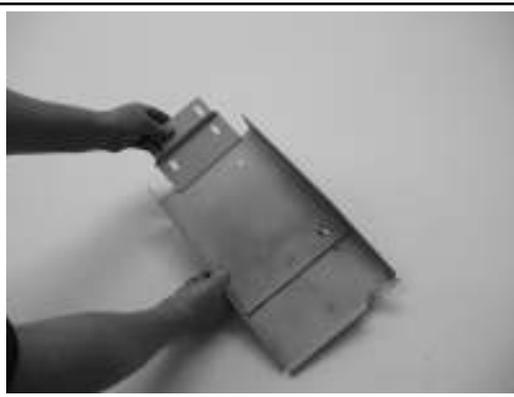
		A	B	C
 <p>2x M8 x 16</p> <p>2 x 8.4-25-2</p>		<p>Push the bolt with washer through the hole.</p> 		<p>●</p>
		<p>Loosely pre-assemble the spacer.</p>		<p>●</p>
		<p>On a (2wd) rear-wheel drive tractor: Remove parts.</p>		<p>●</p>
		<p>On a (4wd) all-wheel drive tractor: Do not remove parts.</p>		<p>●</p>
		<p>Position the bracket.</p>		<p>●</p>

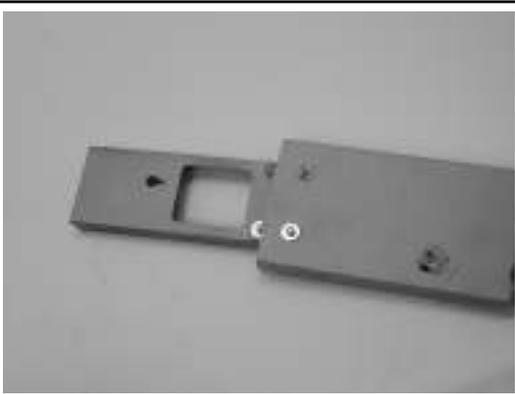
		A	B	C
 <p>2x M8 x 16 2 x 8.4-25-2</p>		<p>Push the bolt with washer through the drilled hole and screw it into the spacer.</p> 		<p>●</p>
 <p>2x M8 x 20 2x 2 x 8.4-25-2</p>		<p>Push the bolt with washer through the hole.</p>		<p>●</p>
 <p>2x M8 2 x 8.4-25-2</p>		<p>Turn the nut with washer on the bolt.</p> 		<p>●</p>
		<p>Tighten all bolts.</p>		<p>●</p>
		<p>Remove the castors.</p>		<p>●</p>

		 <p>Removed parts which cannot be reused.</p>	
		<p>Undo the securing bolt on the V-belt pulley. Tighten the V-belt pulley using a pipe wrench.</p> <div style="border: 1px solid black; padding: 5px;">  <p>DANGER! Serious injuries can occur if the machine starts inadvertently. Remove the ignition key when working on the V-belt.</p> </div>	
		<p>Brace the V-belt pulley and remove the inch bolt.</p> 	
		<p>Removed parts which can or cannot be reused.</p>	
		<p>Selecting the correct V-belt pulley</p> <p>Rear ejector</p> <p>Lateral ejector</p>	

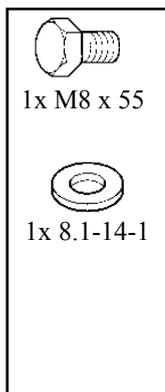
 <p>1x 7/16" x 20 UNF x 3 1/2"</p>		<p>Push the washer onto the bolt.</p>  <p>Lateral ejector Rear ejector</p>			●
		<p>Push the bolt with washer through the hole.</p>			●
		<p> CAUTION! Take care to mount the V-belt pulley correctly.</p>			●
		<p>Install the V-belt pulley using the inch bolt and tighten it.</p> <p> IMPORTANT: Tightening torque: 55-60 Nm. Tighten the V-belt pulley using a hook wrench to prevent it from turning.</p>			●
		<p>Move the V-belt tensioner against the force of the spring and place the V-belt on the quick-release coupling's V-belt pulley.</p> <p> DANGER! Only rotate the V-belt pulley if the ignition key has been removed.</p>			●

			A	B	C
		<p>The V-belt is then placed on the V-belt pulley below the engine.</p>			●
		<p>Release the tension spring so that the V-belt tensioner comes into operation.</p> <p> CAUTION: The spring is tensioned. Risk of crushing.</p>			●
		<p>Start the engine.</p> <p> Read the operating instructions provided by the lawn tractor manufacturer.</p> <p> WARNING: Risk of injury! Do not reach into the V-belt while it is in operation.</p>			●
		<p>Check that the V-belt drive is running correctly (V-belt pulley running true) – see the information on installing the V-belt pulley. Check that the V-belt is running freely and whether the edges of the V-belt are in contact with the V-belt idler pulley, optimising the alignment if necessary.</p> <p> DANGER! Switch the engine off again. Keep a safe distance from hot surfaces.</p>			●
		<p> CAUTION! Sufficient clearance must be maintained between the mower and V-belt pulley.</p>			●

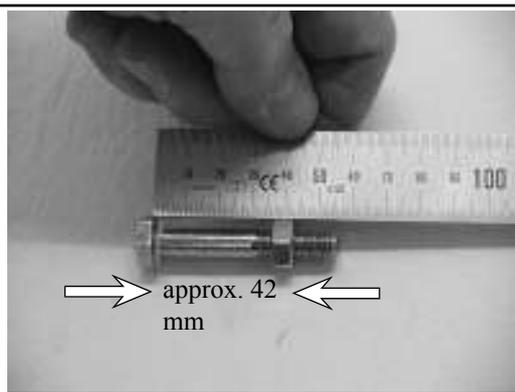
		 <p>CAUTION! Only use on rear ejectors.</p>			●
		<p>On rear ejectors only</p> <p>Position the guard.</p> 			●
 <p>2x M8x16x20</p>  <p>2x 8.4-16-1.6</p>  <p>2x M8</p>		<p>On rear ejectors only</p> <p>Push the bolt with washer through the drilled hole in the bracket.</p>  <p>Turn the nut with washer on the bolt. Tighten the bolts.</p>			●
		<p>Position the finger guard.</p>			●
 <p>2x M8 x 16</p>		<p>Push the bolt through the drilled hole in the finger guard.</p>			●

			A	B	C
 <p>2x M8</p>  <p>2x 9-28-3</p>		<p>Push the nut with washer onto the bolt.</p> 			●
		<p>Position the guard.</p>			●
 <p>2x M8 x 16</p>		<p>Push the bolt through the drilled hole in the guard.</p>			●
 <p>2x M8</p>  <p>2x 9-28-3</p>		<p>Turn the nut with washer on the bolt.</p>			●
					●

A	B	C
		●
		●
		●
		●
		●



Turn the nut on the bolt.



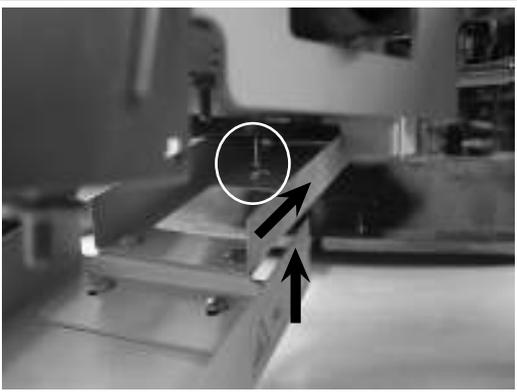
With a clearance of approx. 42 mm.



Push the washer onto the bolt.



Position the bolt.

		A	B	C
		<p>Turn the nut with washer on the bolt.</p>		●
		<p>Tighten the bolt.</p>		●
		<p>Position the guard.</p>		●
				●
		<p>Tighten all bolts.</p>		●

		A	B	C
				●
		<p>Correctly installed finger guard.</p>		●
		<p>Reinstall the removed guard.</p>		●
		<p>Tighten the bolts.</p>		●
		<p>Completely installed mounting frame with drive.</p>		●

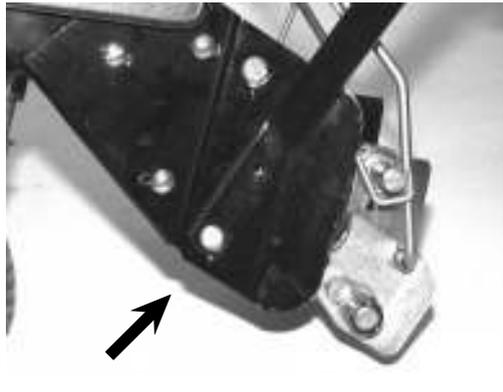
		A	B	C
	 <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>DANGER! Ensure that all protective equipment is securely fitted.</p> </div>			●
	 <p>Assemble the operating lever. To do so, refer to the operating instructions for the attachment.</p>			●
				●
				●
				●

5.4 Sweeper attachment installation

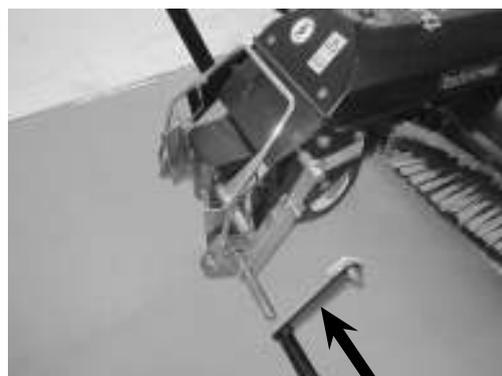


IMPORTANT:
 Follow the safety instructions.
 Before you begin, acquire an overview of the installation sequence and the required parts and tools.

 2x SW 19		Remove the nuts on the right- and left-hand supports.
		Remove the supports on the right and left.
		Sweeper without supports.
		Parts that <u>can</u> be reused, e.g. for storing the sweeper.

		<p>Screw in the ball handle for adjusting the height of the support wheel.</p>
		<p>Ready the guide.</p>
		<p>Position the guide on the support.</p>
	 	<p>Connect the guide to the pin.</p>
 1x M8 x 16  1x 8.4-21-4  1x M8		<p>Secure the guide to the support with a bolt, washer and nut.</p>

 <p>2x SW 13</p>		<p>Tighten the bolt.</p>
		<p>Correctly secured guide.</p>
		<p>Ready the lifting linkage. Note: The lifting linkage is part of the mounting frame.</p>
 <p>1x M12 x 30</p>		<p>Push the bolt through the hole in the tab.</p> 
 <p>1x 13-24-2</p>  <p>1x M12</p>		<p>Turn the washer and nut on the bolt.</p>



Push the linkage onto the pin.



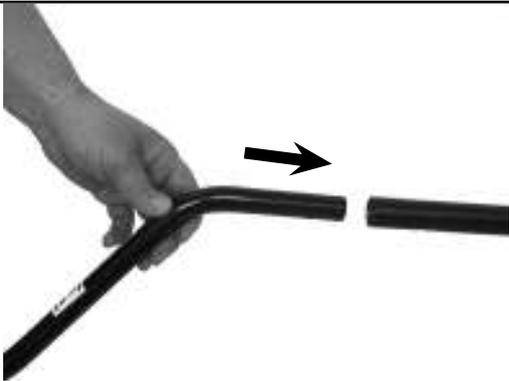
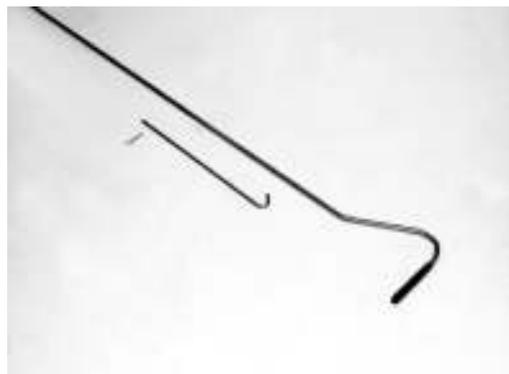
Correctly positioned linkage.

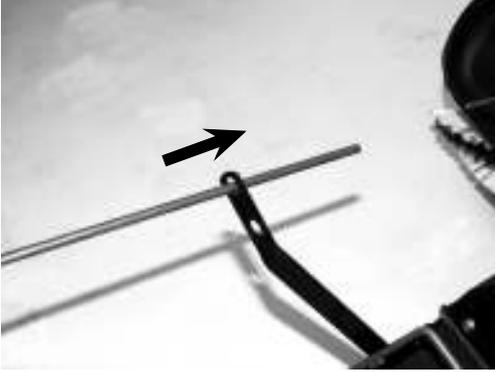
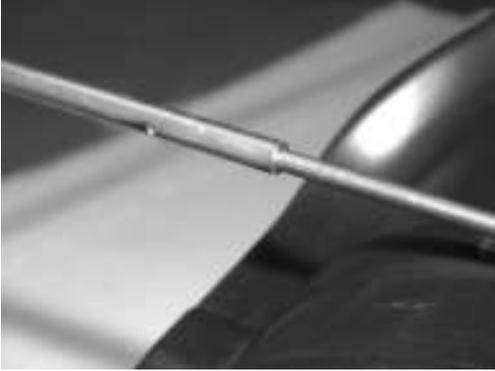


Secure the linkage with an R-pin.



Correctly installed linkage.

		<p>Insert the extension pipe.</p>
		<p>Secure the pipe with a linch pin.</p>
		<p>Correctly installed pipe with linkage.</p>
		<p>Ready the control linkage.</p>
		<p>Insert the hook into the rotary unit from below.</p>

		<p>Hook mounted on the rotary unit.</p>
		<p>Push the control rod through the guide.</p>
		<p>Interlock the hook and control rod.</p>
		<p>Secure the hook and control linkage using an R-pin. The control rod should be within comfortable reach of the driver's seat.</p>
		<p>Correctly installed sweeper.</p>

6 Start-up

6.1 Basic safety instructions for normal operation

Never operate the machine in a manner that could compromise safety.

Before beginning work, familiarise yourself with the work environment at the location where the machine is used. The work environment includes, for example, obstacles in the work and traffic area, the load-bearing capacity of the floor and the required means of cordoning the location where the machine is used off from the public traffic area.

Take appropriate measures to ensure that the machine is only operated in a safe and fully functional condition. Only operate the machine when all protective equipment and safety-critical equipment, for example detachable protective equipment, sound-insulating equipment and extraction equipment, is present and in proper working order.

Always check for externally visible damage and defects before using the machine. Report any changes that may have occurred (including changes in performance) to the specialist dealer immediately. Shut down the machine immediately and secure it if necessary.

In the event of a malfunction, shut down and secure the machine immediately. Have faults rectified immediately.

Only start the machine from the driver's seat.

Switch the machine on and off in accordance with the installation instructions, observing the control displays. Before switching on/starting up the machine, ensure

that no one can be endangered by the machine starting up.

Before travelling with the machine or beginning work, check that the brakes, steering, signal and lighting systems are fully functional.

Before moving the machine, always check that the accessories are securely in place.

When driving on public roads and paths and in public places, comply with the applicable road traffic regulations and bring the machine into a condition which is permitted by road traffic regulations in advance.

In poor visibility or in the dark, always ensure sufficient lighting.

Always maintain an adequate distance from pit edges and slopes.

Prohibit any manner of working that may impair the stability of the machine.

The machine must not be used on slopes with a gradient of more than 10° (17%).

Do not drive across slopes; always transport work equipment and loaded goods close to the ground, particularly when descending hills.

Always adapt your driving speed to the conditions on sloping terrain. Never change to a lower gear on a slope; you should do this before you reach the slope.

Upon leaving the machine, always secure it against accidentally rolling away and unauthorised use.



WARNING:

Before using the lawn tractor without an implement, cover the dog clutch on the quick-release coupling with the guard and secure using the bolt.



1) Close the protective flap.



2) Secure the protective flap using the bolt.

6.2 Coupling and uncoupling the sweeper



DANGER!
Switch off the engine. Secure the lawn tractor against being started inadvertently or rolling away.



Read the operating instructions provided by the lawn tractor manufacturer.



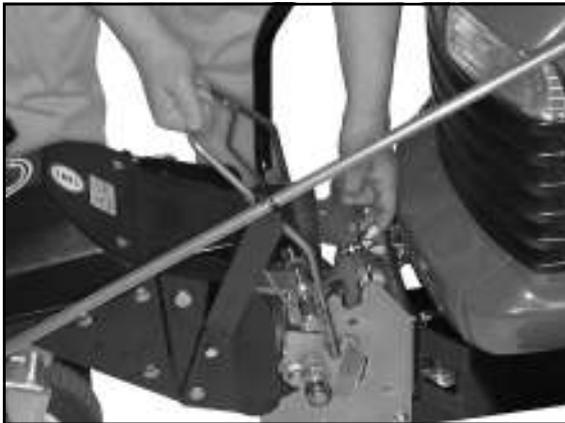
WARNING:
If the drive set is not used, the guard on the quick-change mechanism with drive must be secured using the wing bolt.



1) Undo the wing bolt on the quick-change mechanism guard.



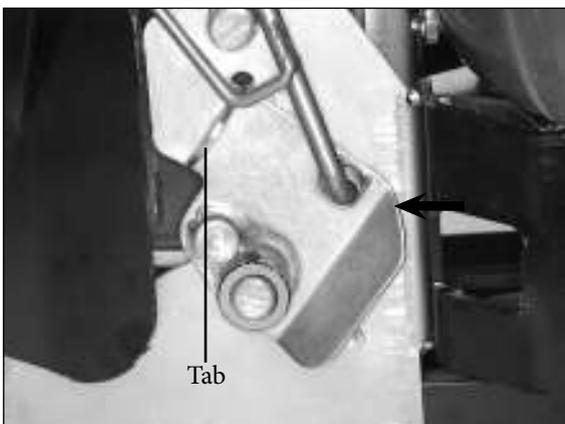
2) Pull the sweeper over to the lawn tractor.



3) Lift the guard and position the sweeper.



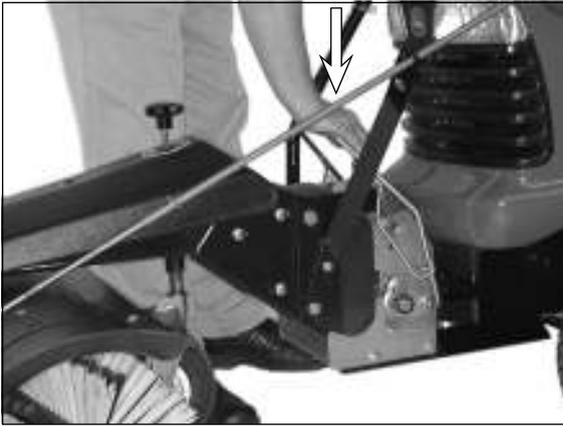
4) Mount the sweeper.



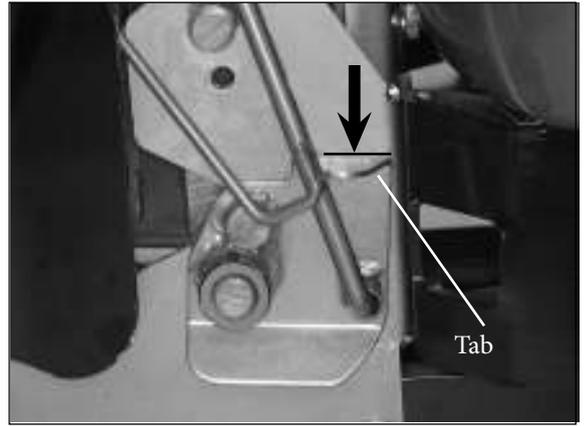
5) Tab before locking.



6) Push the coupler handle down at an angle.



7) Locking the sweeper



8) Correctly locked. The tab must be pushed until the notch is level.



CAUTION:
Before using the sweeper you must always ensure that the quick-change mechanism is safely locked.

To uncouple the sweeper attachment, follow the instructions in reverse order.

6.3 Brush pressure



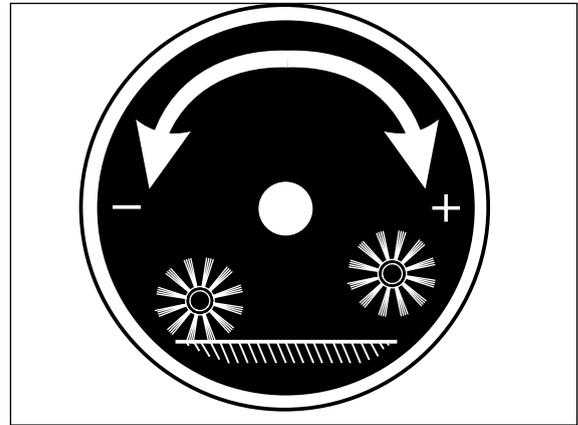
1) The ball handle for adjusting the brush pressure is located above the support wheel.



2) The height of the support wheel is adjusted by turning the ball handle.



3) Optimal brush pressure: Lower the brush until it is just touching the floor. Then turn the handle all the way round three more times in an anti-clockwise direction (towards the (-) arrow).



4) Turning clockwise (+): Raise the brush
Anti-clockwise (-): Lower the brush



IMPORTANT:

If you are using a badly worn brush or working on cobblestones, lower the brush by an additional complete turn. Please note: Excessive brush pressure impairs cleaning effectiveness because the bristles will be too bent.

Reduce the pressure on the brushes after each use. Raise the brushes.

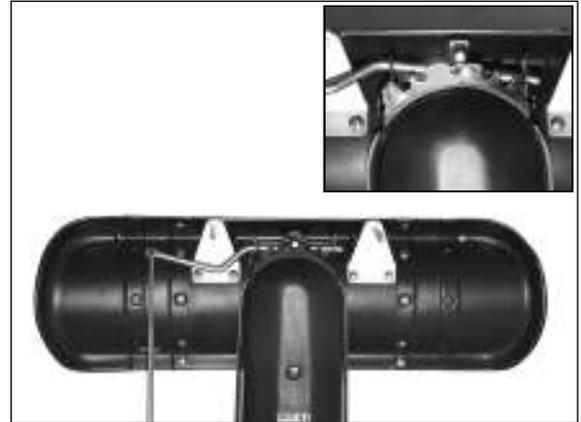
6.4 Setting the ejection direction



WARNING:
Ensure that no persons or property are located in the danger zone, as otherwise this could result in injury or material damage.



1) To adjust the ejection direction with ease, please lift the sweeper.



2) The ejection direction can be set to one of five options. In this example, debris will be ejected at the front. This position means that debris will accumulate in front of the brush. We recommend lateral brush positions.



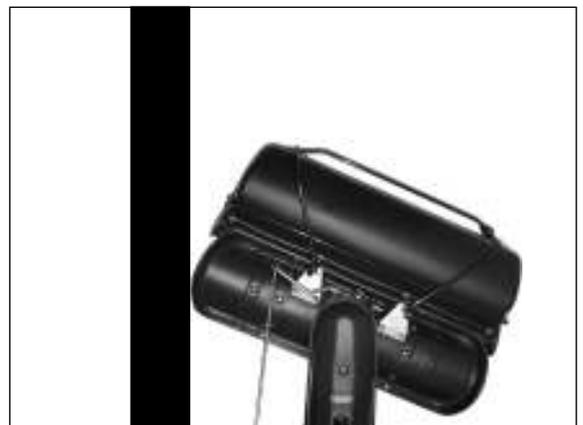
3) Pulling the control rod will change the ejection direction to the left. Allow the rod to lock back into place securely.



4) Pushing the control rod will change the ejection direction to the right. Allow the rod to lock back into place securely.



5) The debris will then be deposited laterally and swept aside. This setting is particularly useful when clearing snow from pavements. In this example, debris will be ejected on the right.



6) We recommend a lateral setting if the debris container is used. This allows the operator to sweep adjacent to a wall (e.g. of a building or against the curb), even with the debris container.

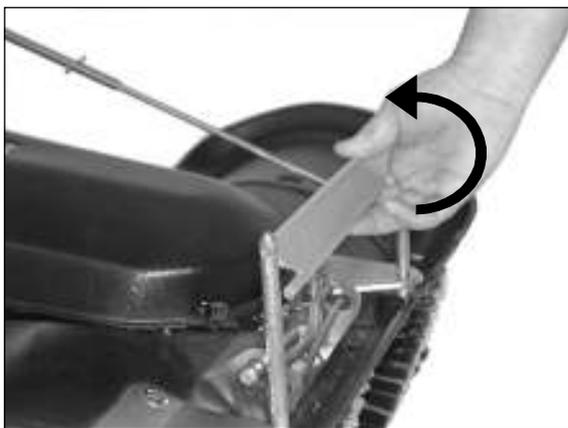
6.5 Debris container



DANGER!
Switch off the engine. Secure the lawn tractor against being started inadvertently or rolling away.



Read the operating instructions provided by the lawn tractor manufacturer.



1) Turn the locking mechanism backwards.



2) Locking mechanism in the back position.



3) Place the debris container on the mounting rods and push it downwards.



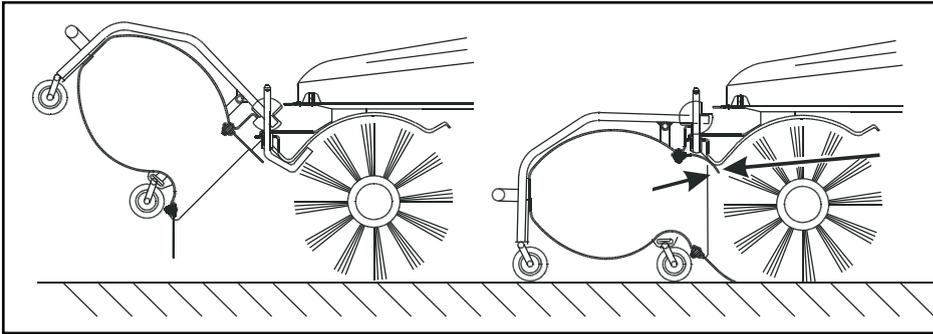
4) Debris container in the bottom position.



5) Turn the locking mechanism forwards.



6) The debris container is locked.



7) Ensure that the top rubber lip of the container is located below the sweeper brush cover.



CAUTION:
Never lift the sweeper when the debris container is full as this may damage the lawn tractor.

6.6 Emptying the debris container



DANGER!
Switch off the engine. Secure the lawn tractor against being started inadvertently or rolling away.



Read the operating instructions provided by the lawn tractor manufacturer.



1) Lift the front of the debris container frame. The debris will fall out.



IMPORTANT:
Please contact the responsible waste disposal services for information on how to properly dispose of the debris.



CAUTION:
Never lift the sweeper when the debris container is full as this may damage the lawn tractor.

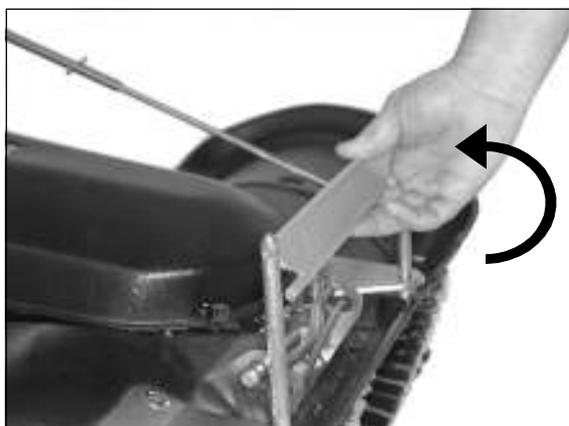
6.7 Removing the debris container



DANGER!
Switch off the engine. Secure the lawn tractor against being started inadvertently or rolling away.



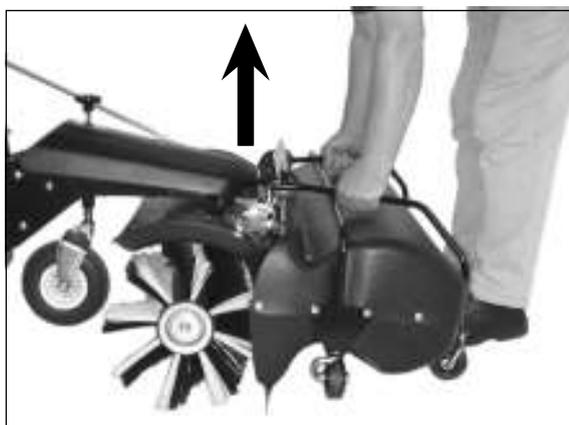
Read the operating instructions provided by the lawn tractor manufacturer.



1) Turn the locking mechanism backwards.



2) Locking mechanism turned backwards.



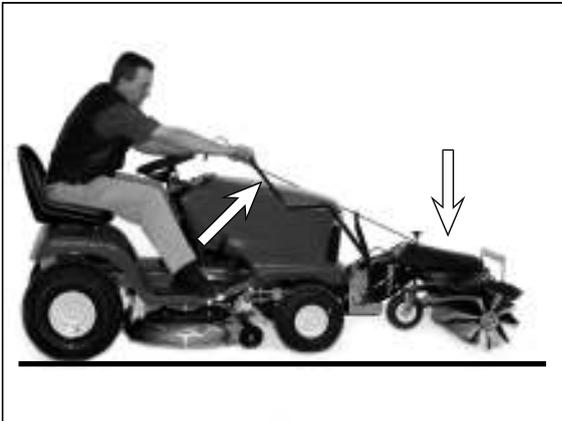
3) Remove the debris container vertically.

6.8 Switching the brush on and off

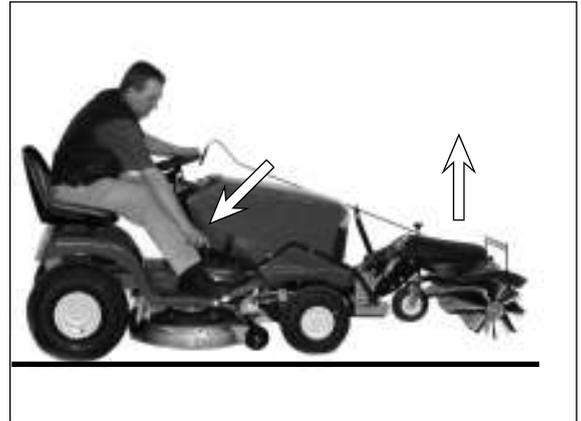
Switch on the engine.



Read the operating instructions provided by the lawn tractor manufacturer.



1) To lower the sweeper, move the lifting lever upwards. The sweeper switches on.



2) To raise the sweeper, push the lifting lever downwards. The sweeper switches off.



DANGER!

Once the lawn tractor engine has been started, lowering the sweeper will automatically drive the sweeper brushes.



IMPORTANT:

The speed of the sweeper brushes depends on the speed of the engine. We recommend using as low a sweeper brush speed as possible in order to minimise dust formation and noise levels. The driving speed is adjusted using the selected gear.

Limited debris	Low engine speed and high driving speed
Average volume of debris or sweeping foliage	Increased engine speed and reduced driving speed
Large amount of debris or sweeping snow	Full engine speed and low driving speed



WARNING:

Ensure that no persons or property are located in the danger zone, as otherwise this could result in injury or material damage.

7 Maintenance and care

7.1 Basic safety instructions



DANGER!

Clean the implement regularly, particularly in the exhaust and engine area. Otherwise, there is an increased risk of fire.

Comply with the adjustment, maintenance and inspection tasks and intervals specified in the user manual, including the information on replacing parts/equipment. These tasks may only be carried out by qualified personnel. See the maintenance schedule.

Inform operating personnel in advance before carrying out special work and maintenance work. Nominate a supervisor.

Switch the machine on and off in accordance with the user manual and comply with the instructions on maintenance work for all work that may affect operation, production adjustment, conversion or adjustment of the machine and its safety-critical equipment, as well as work involving inspection, maintenance and repair. Cordon off a large area for maintenance work if required.

The machine must be secured against being switched back on inadvertently if it is completely switched off for maintenance and repair work:

-Remove the key

-Affix a warning sign to the starter.

Only carry out maintenance and repair work when the machine is parked on a level surface with sufficient load-bearing capacity and when the machine is secured against rolling away and overturning.

During replacement, individual parts and larger assemblies must be carefully attached and secured to lifting gear such that they do not pose any risks. Only use suitable lifting gear in technically perfect condition and load-handling equipment with sufficient load-bearing capacity. Do not stand or work under suspended loads. Do not use machine parts as climbing aids.

Keep all handles and steps free from dirt, snow and ice. Clean oil, fuel or care products from the machine, and the connections and screw connections in this case in particular, before starting maintenance/repair work. Do not use aggressive cleaning agents. Use lintfree cleaning cloths.

Before the machine is cleaned with water, a high-pressure cleaner or other cleaning agents, all openings which must not allow water/vapour/cleaning agents to penetrate for reasons of safety or operational functioning must be covered over or sealed. Electric motors and other live components are particularly at risk.

After cleaning, the covers and seals must be completely removed.

After cleaning, inspect all fuel and oil lines for leaks, loose connections, areas of abrasion and damage. Immediately rectify any defects that have been identified.

Always retighten screw connections that have come loose during maintenance or repair work.

If safety devices need to be removed during set-up or maintenance and repair work, they must be reinstalled and tested immediately after the maintenance and repair work has been completed.

Ensure that operating and auxiliary materials and replacement parts are disposed of safely and in an environmentally friendly manner.

Electrical equipment on a machine must be inspected/ tested on a regular basis. Defects, such as loose connections and burnt cables, must be rectified immediately. When working on high-voltage assemblies, connect the supply cable to earth after the power has been disconnected and short-circuit the components, e.g. capacitors, using an earthing rod.

Never allow combustion engines to run in closed or confined spaces. The exhaust gases contain poisonous carbon monoxide gas.

Comply with the regulations which apply to the site of use in question.

Only carry out welding, open-flame and grinding work on the machine if this has been expressly approved. For example, there may be a risk of fire or explosion. Before welding, open-flame and grinding work is carried out, remove dust and combustible materials from the machine and its surrounding area and ensure that there is sufficient ventilation (risk of explosion). Check all lines, hoses and screw connections regularly for leaks and signs of external damage. Rectify any damage immediately. Oil escaping under pressure may result in injuries and fires.

Noise insulation equipment on the machine must be in the protective position during operation.

Wear the prescribed personal hearing protection.

Observe the safety instructions which apply to the product when handling oils, greases and other chemical substances.

Take care when handling hot operating and auxiliary materials (risk of burning or scalding).



IMPORTANT:

Check to ensure that

- No fuel or oil is leaking, and rectify if necessary
- Bolts and nuts are securely fastened, and tighten if necessary
- All moving parts run smoothly, and lubricate if necessary

7.2 Replacing the sweeper brushes



DANGER!
Switch off the engine. Secure the lawn tractor against being started inadvertently or rolling away.



Read the operating instructions provided by the lawn tractor manufacturer.



IMPORTANT:
The sweeper brushes must be checked at least every 20 operating hours. If your sweeping results become less than satisfactory or the diameter of the brushes is 220 mm or less, the brushes have to be replaced. The proper functioning of the sweeper is only guaranteed if original sweeper brushes with black and white bristles produced by the manufacturer are used.



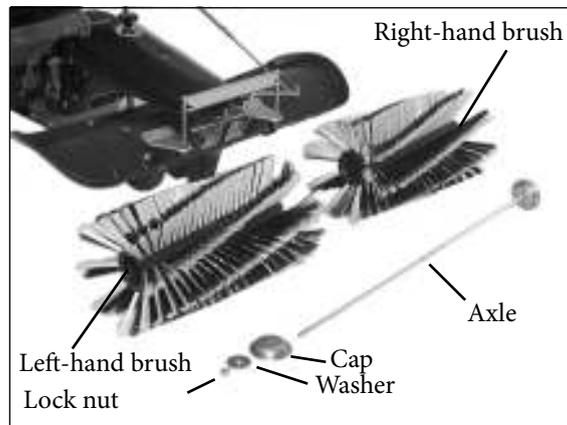
1) Undo the nut on the left-hand sweeper brush using a 19 mm combination spanner (hold the nut on the other sweeper brush still using another 19 mm combination spanner).



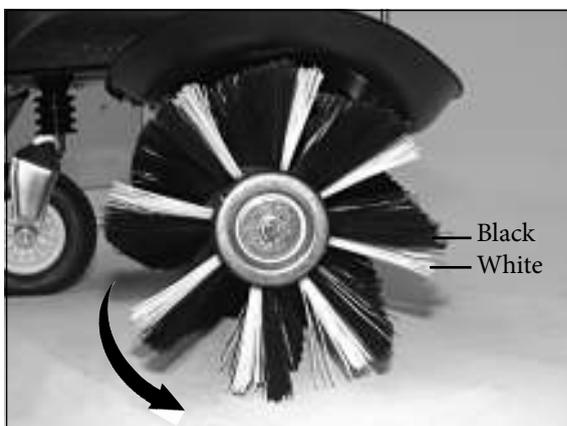
2) Now unscrew the nut and remove the brush.



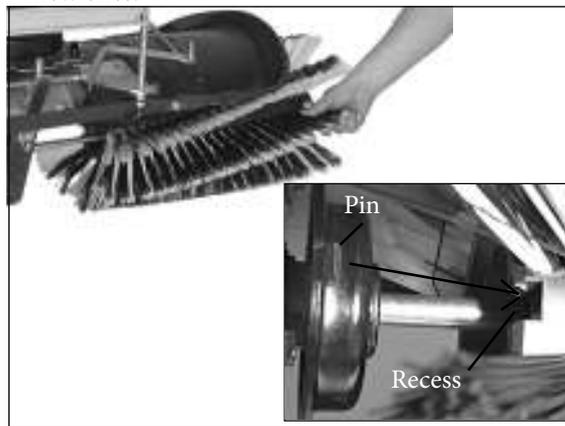
3) Pull out the axle with the second sweeper brush.



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



IMPORTANT: The black brush row must touch the ground before the white brush row when moving in the direction of rotation.



6) When installing the new sweeper brushes, the right-hand brush is attached to the axle first. Observe the above assembly instructions.

7) **Installation information:** The recess on the sweeper brush is placed on the pin on the drive.





8) Push the left-hand sweeper brush onto the axle. Observe the above assembly instructions.



9) Once both of the brushes have been mounted, push the washer and the cap onto the axle.



10) Now secure the sweeper brushes using the lock nut. (Hold the nut at the other end of the axle still)

7.3 Cleaning the implement

You should clean the sweeper regularly to keep it in good condition.

Remove loose dirt or dust using a soft brush. Wash the plastic surfaces using water and soap. Use commercial cleaning agents for vehicles. Any cleaning agent residues must be thoroughly rinsed off with clean water. Please use a plastic care product to make plastic parts shine. Please observe the usage guidelines supplied with the care product. Glycerine can be used to protect heavily loaded parts against corrosion (e.g. the mounting rods for the debris container).



IMPORTANT:

Chemical or aggressive cleaning agents must not be used under any circumstances. Doing so will permanently damage the plastic surfaces and paintwork.

Only use readily biodegradable cleaning agents and care products. This will help to protect the environment and avoid groundwater pollution.

Cleaning the machine using high-pressure cleaners, steam cleaners and similar devices can permanently damage components like ball bearings, seals, engine parts and plastic parts, among others. In addition, this can result in water entering the engine. We therefore recommend keeping any cleaning device hoses a reasonable distance from at-risk components. The water temperature must not exceed 50 °C.

Please observe any relevant operating instructions for the engine as well.

7.4 Additional cleaning instructions



WARNING:
Switch off the engine. Secure the lawn tractor against being started inadvertently or rolling away. Switch off the engine and remove the spark plug connector before repair, maintenance and cleaning work.



Read the operating and installation instructions.

Observe the cleaning intervals accordingly.

		<p>Undo the guard.</p>
		<p>Clean using a hand-held brush.</p>
		<p>Screw back on after cleaning.</p> 

7.5 Checking and correcting the tyre pressure



DANGER!

Switch off the engine. Secure the lawn tractor against being started inadvertently or rolling away. Comply with the permitted tyre pressure. The tyres will burst at excessive pressures.



Read the operating instructions provided by the lawn tractor manufacturer.



IMPORTANT:

If the tyre pressure is too low, the tube may rub against the rim and become damaged.



Support wheel: 2 bar. If you are working on cobblestones, the air pressure can be reduced to 1.5 bar.

Unscrew the valve cap and apply the air tool to check or adjust the pressure. Then screw the valve cap back onto the valve.

7.6 Storage

The sweeper must be properly stored if it will not be required for a longer period of time. If you have additional questions on this subject, please contact your responsible specialist dealer.

 2x SW 19		Install the supplied supports on the right- and left-hand sides.
---	---	--

7.7 Maintenance plan

	Be-fore each use	After the following number of operating hours:					At least every three months	At least once per year	After each clean
		5	10	25	50	100			
Check the bolts and nuts			C						
Check the brush roller for wear; earlier if required				C					
Check the air filter on the engine and clean if required	C								
S = maintenance by a specialist workshop C = check by the operator M = maintenance by the operator									



IMPORTANT:
Observe the maintenance instructions for the lawn tractor.

8 Transport



DANGER!

If the machine is to be transported on a lorry or trailer, loading ramps with a suitable load-bearing capacity, width and length must be used. The machine must only be loaded with the engine switched off, without a driver, by being pushed on to the means of transport by an appropriate number of people. During transport, close the petrol cock (if present), lower the cutting disc, apply the parking brake and appropriately secure the machine on the means of transport with ropes or chains.

9 Potential faults and how to rectify them



IMPORTANT:

If a fault which is not listed in this table occurs, contact the specialist dealer. Once you have tried all of the corrective measures described here with no success, contact the specialist dealer.

Fault	Cause	Corrective measure
V-belt running not OK	V-belt pulley installed incorrectly	Check the centring of the V-belt pulley; the contact surfaces must be clean and free of burr
Grinding sounds	V-belt does not run over the V-belt tensioner	Position the V-belt and V-belt tensioner according to the installation instructions
Premature V-belt wear	The edges of the V-belt and V-belt idler pulley are in contact	Reposition the V-belt tensioner according to the instructions



IMPORTANT:

Only use genuine spare parts from the manufacturer, which you can obtain from your specialist dealer. This ensures that the implement will work reliably.

Fault	Possible cause	How to rectify the fault
Sustained grating noise when the sweeper brush is switched on	- incorrectly installed belt	Have V-belt adjusted by a specialist workshop
The sweeper brushes are not turning or stop under load	- incorrectly installed belt - defective V-belt	Have V-belt replaced by a specialist workshop
The sweeper leaves an unswept strip in the centre	- forward ejection direction when the sweeper brush is worn - worn sweeper brush	Swivel brush to the right or left; lateral ejection direction Replace sweeper brush
Poor sweeping results	- incorrectly installed sweeper brush - excessive brush pressure - not using original brushes	Install sweeper brush correctly, check running direction, adjust support wheel, reduce brush pressure, use original sweeper brushes with black and white bristles
Poor sweeping results with the debris container	- debris container mounted incorrectly, sealing lip above the brush cover	Mount debris container correctly
Snow is pushed back by the brush	- excessive snow depth - solid, packed snow - forward ejection direction, snow accumulates in front of the brush	Only usable up to a max. snow depth of 14 cm Swivel brush all the way to the right or left Swivel brush to the right or left; lateral ejection direction

10 Terms of the guarantee

The terms of the manufacturer's guarantee apply within the territory of the Federal Republic of Germany.

This guarantee applies to the proper operation of the implement in accordance with the intended use, provided that the implement is properly handled and the information in the operating instructions is complied with.

This guarantee does not cover damages arising as a result of normal wear and tear on wear parts such as

filter elements, spark plugs, tyres, bulbs, friction linings, V-belts and blades, or as a result of improper handling, negligent use, installation of non-original spare parts, inadequate care and/or maintenance or failure to comply with the operating instructions.

Outside of the Federal Republic of Germany, the terms of the guarantee as issued by our responsible national representative apply.

11 Exploded drawings



IMPORTANT:

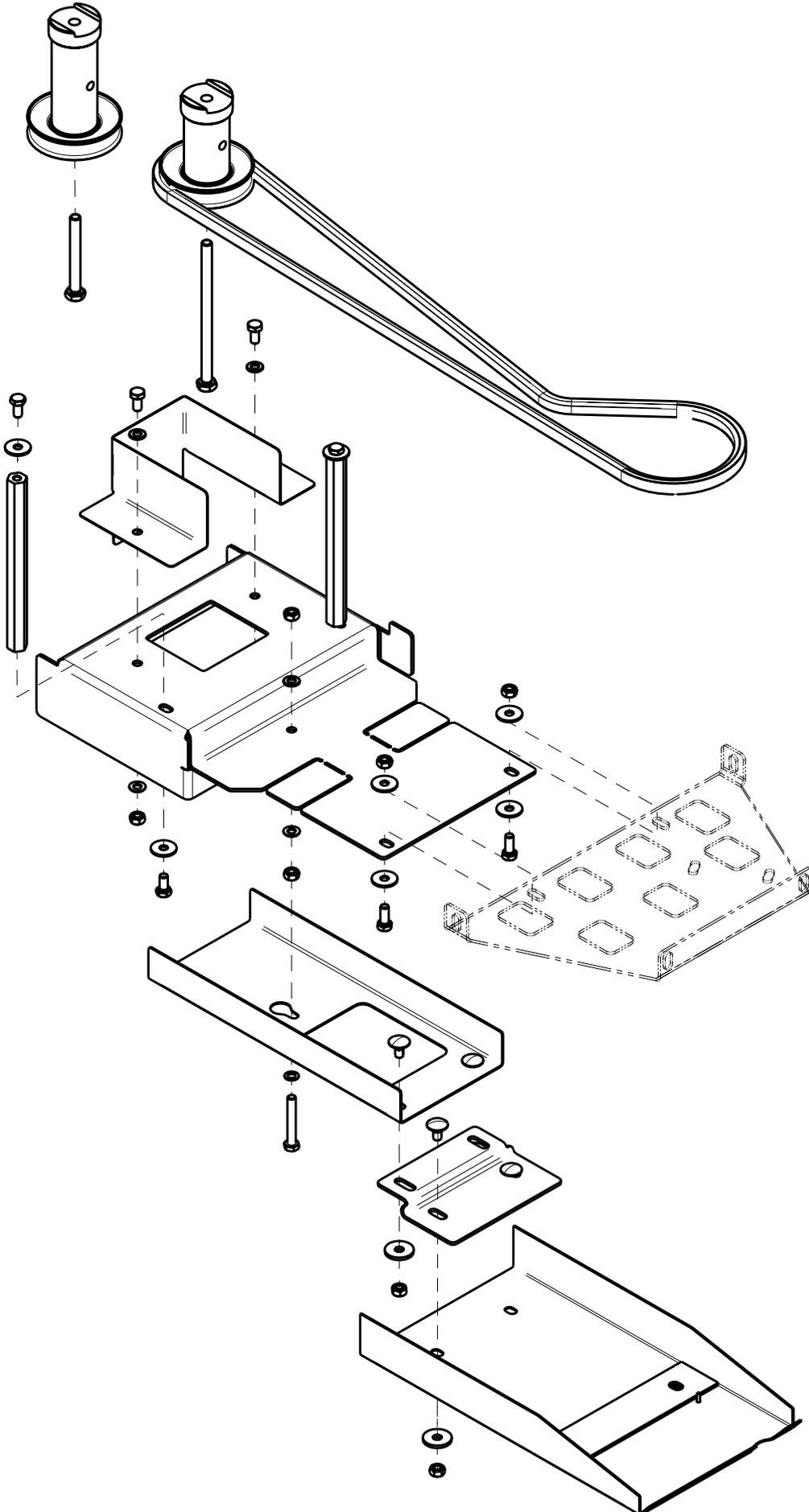
The "Remarks" column helps you to identify parts.

Only use genuine spare parts from the manufacturer. This ensures that the implement will work reliably. Item numbers in brackets are wear parts.

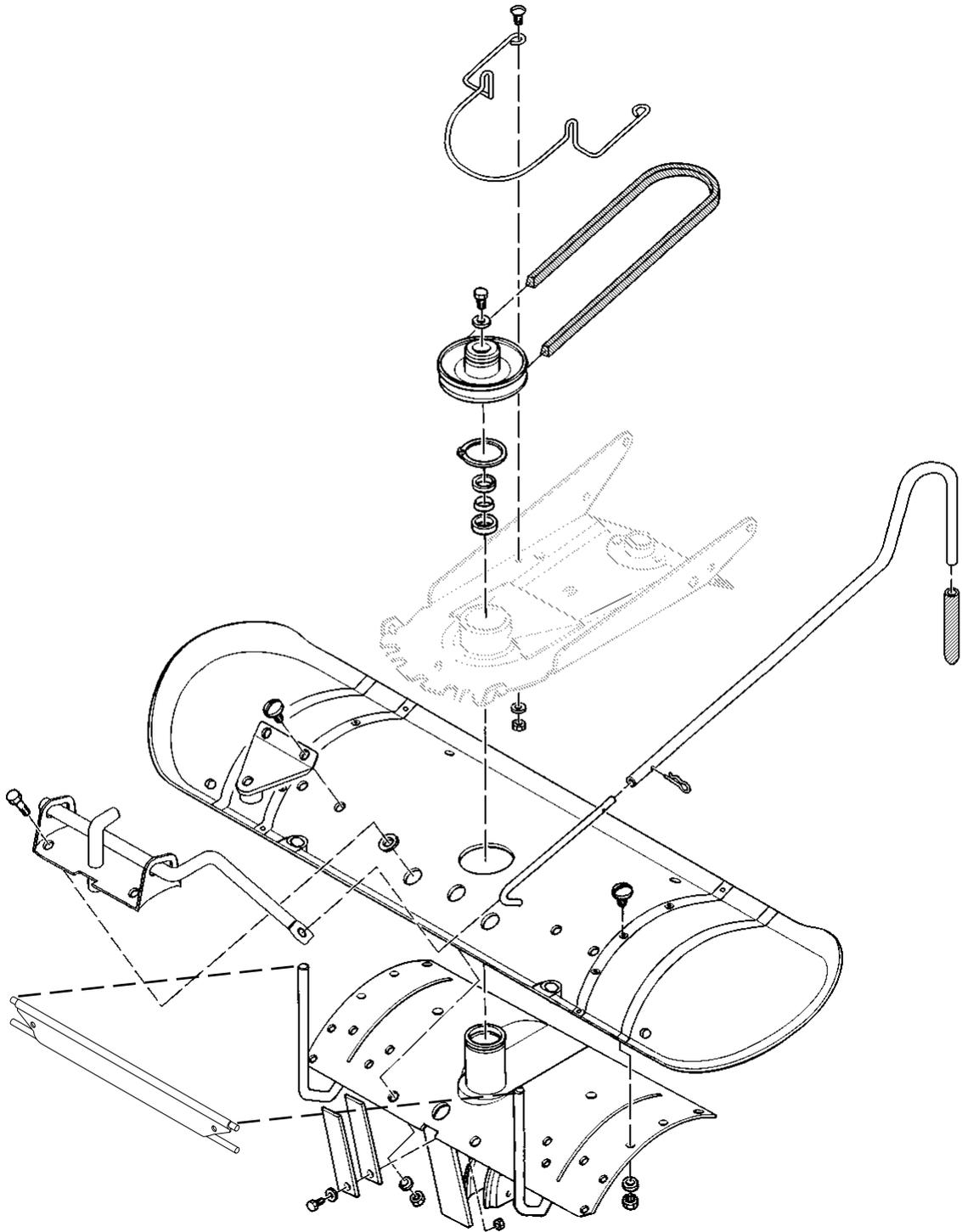
IMPORTANT:

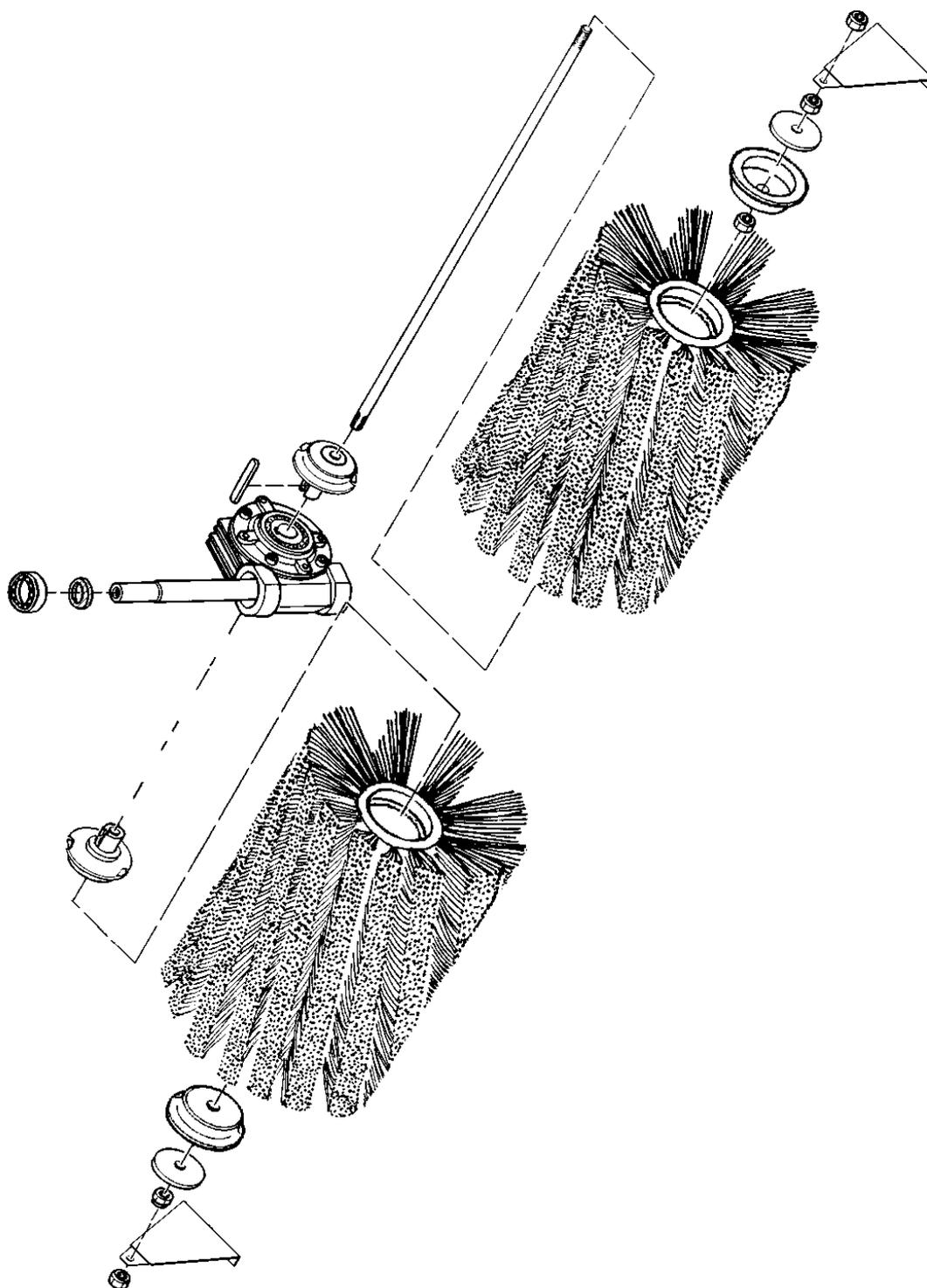
You can identify the parts under "Remarks". Please only use genuine spare parts supplied by the manufacturer. This is the only way to guarantee the safe operation of the machine.

12 Drive set – exploded drawing

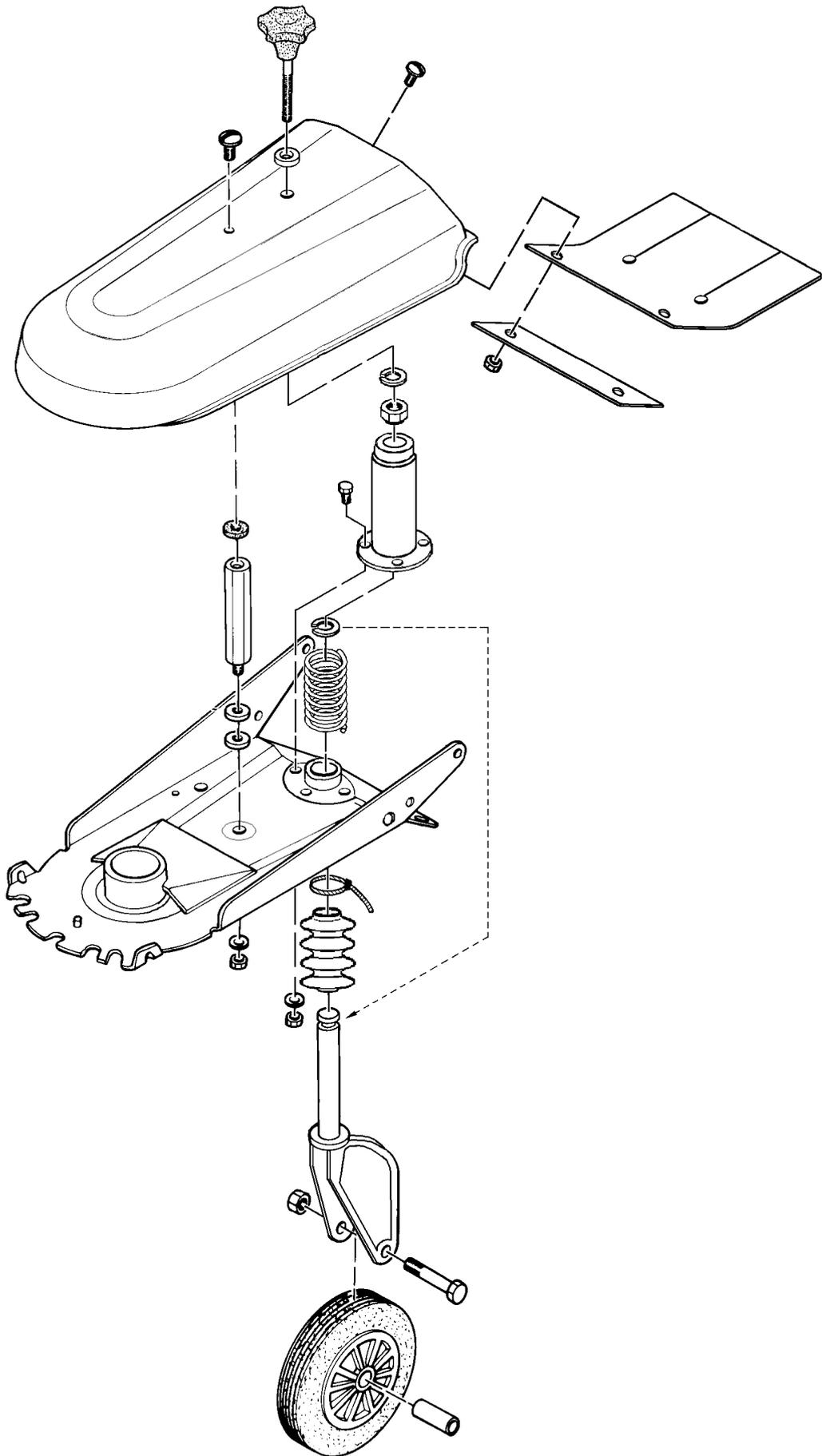


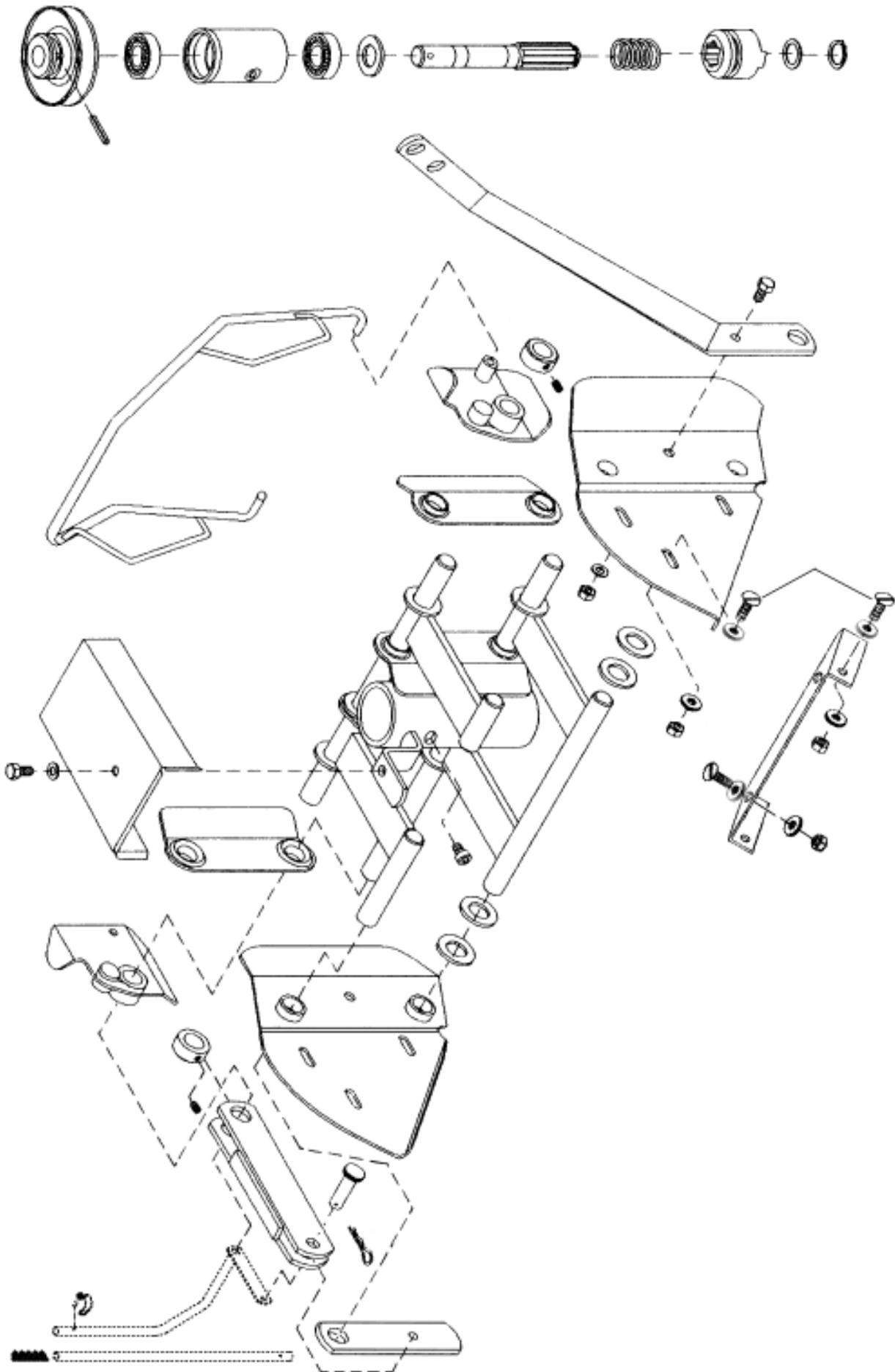
13 Sweeper attachment – exploded drawing

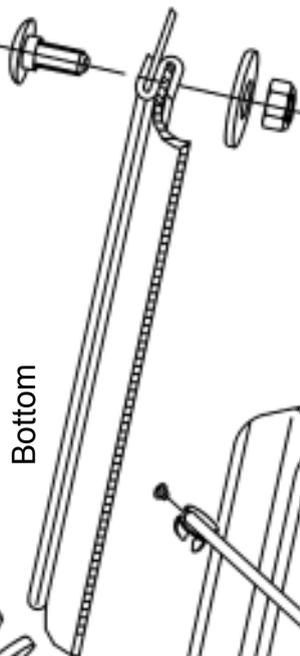
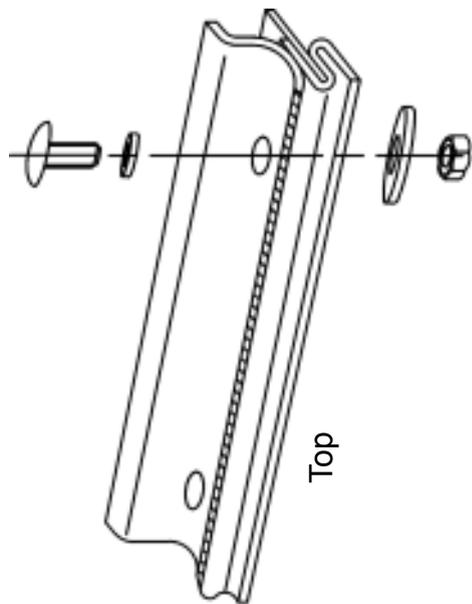
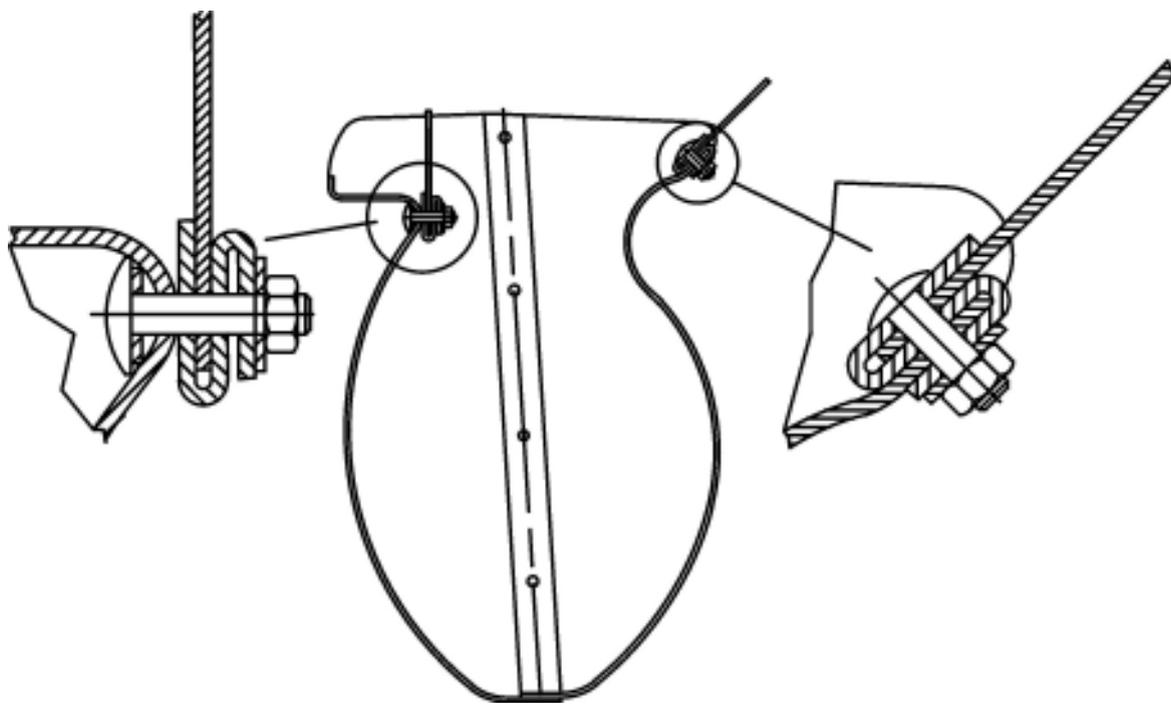




 Vor Inbetriebnahme Bedienungsanleitung und Sicherheitshinweise durchlesen und beachten
Before running the equipment read the owners manual and follow the Safety Instructions
Avant mise en marche lisez et regardez attentivement les Instructions d'Entretien

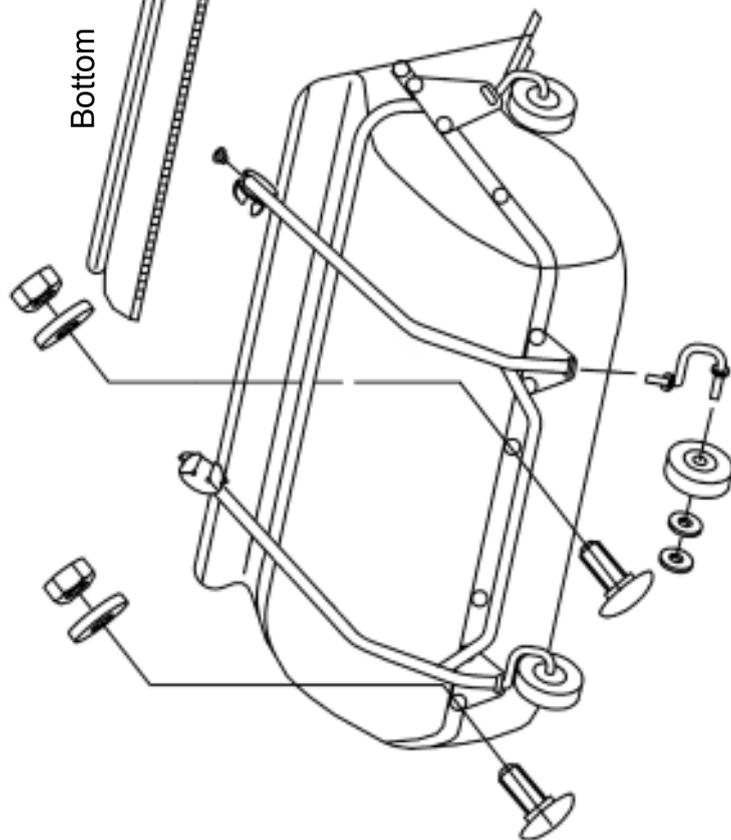
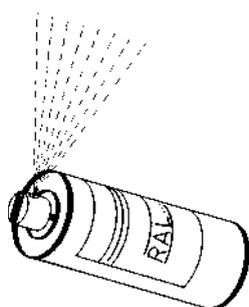






Top

Bottom



EC Declaration of Conformity (in accordance with EC Directive 2006/42/EC)

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

Authorised representative for technical documentation:
Mr Jörg Tielbürger
Julius Tielbürger GmbH & Co. KG
Maschinenfabrik
Postdamm 12
D-32351 Stemwede-Oppenwehe, Germany

We hereby declare that the **Tielbürger Sweeper,**

Sweeper

Type: AD-200-001GI

from Serial no.: 4526817

the device described in this manual, in combination with the Tielbürger system AN-156-001GI which corresponds to interchangeable equipment in according to the EC Machinery Directive 2006/42/EC.

The device may only be used in accordance with this operating instructions.

Any use of the machine not specified on these operating instructions is not permitted.

The components to be used with this device are listed in the declaration of conformity for the associated Tielbürger attachment system

Stemwede, 12.10.16

Julius Tielbürger
GmbH & Co.KG



.....
L. Tielbürger
(Managing Director)