

SW5X (Battery Version)

Model: PB40BL, PB40BH

Instruction Manual



Minuteman[®]

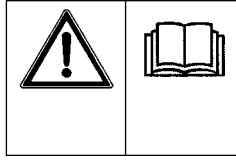
Dear customer,

It is our desire that the good characteristics of the SW5X should justify the confidence you demonstrated by making this purchase.

Before first operation of your SW5X, read these instructions carefully. The manual provides valuable information about operation, service and maintenance.



The symbol as used in this manual identifies items relevant to safety. Please observe the safety provisions (see chapter 1).



Before first operation of the machine, read these instructions and safety information carefully and comply with them.

Please be advised explicitly that we cannot accept any legal issues out of the contents of this manual.

If repair work has to be performed make sure that only genuine spare parts are used; only genuine spare parts may guarantee a dependable machine.

Valid as of: March 2005

Proper Use

The SW5X sweeper has been exclusively designed for collecting dry and moist matter from floor surfaces in e.g. factories, storage buildings, parking ground and pedestrian areas. Using the machine beyond this scope of application will be deemed improper use; The manufacturer cannot be held liable for consequential damages.

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

The SW5X may be used by personnel only that are familiar with the machine and aware of possible hazards involved.

The applicable Accident Prevention Regulations, Road Traffic Regulations, and aspects of safety and working medicine in vigour will have to be complied with.

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



The machine has not been designed for collecting dusts which are detrimental to health or explosive.

Notes on warranty

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

The following is excluded from warranty:

fuses, natural wear, damages caused by overload, inexpert handling and unauthorised modification of the machine. Moreover, any claim for warranty cannot be accepted if damages at the machine are caused by fitting

parts or accessories without prior and explicit consent or by non-compliance with the maintenance instructions.

Inspection

Carefully unpack and inspect your SW5X for shipping damage. Follow unpacking instructions on shipping pallet. Each unit has been tested and thoroughly inspected before shipment. Any damage is the responsibility of the delivery carrier who should be notified immediately.

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1 Safety Information

1.1 General Safety Information

Apart from the instructions contained in this manual, the general safety instructions and accident prevention regulations, as imposed by law will have to be complied with. Do not put the Manual aside without reading it even if you used similar sweepers before. Take the time to read them now and save time later. Machines with known defects must not be used. It will be of essence to make yourself familiar with all accessories and controls and their functions before you start working. Avoid the mess of having to read this book while trying to run the machine.

Using the machine in areas with explosion hazard, on public roads and places is prohibited.

The operator has to use the machine within its design limits.

Shut the motors down before transporting the machine.



Keep clear of hazard zone!

Before commencing work, the operator has to make sure that the SW5X and its accessories are in proper and safe condition.

Warning and instruction labels attached to the machine contain important information about safe operation. Illegible or lost labels have to be replaced.



Make sure that all covers are fitted before starting to sweep.



Provide for sufficient ventilation when sweeping indoors (dust and combustion gas).






Pinching and shearing hazard. Provide for required safe distance before lifting or lowering the dirt hopper.

1.2 Safety and Warning Symbols

1.2.1 Generally Applicable Symbols

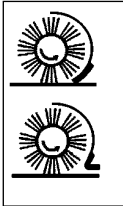
All paragraphs in this manual referring to your personal safety, the safety of your machine and the environment protection are attributed one of the following warning symbols:

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

1.3 Labels at the Machine

The following safety and information signs are legibly attached to the machine. Missing or illegible stickers have to be replaced.

Folding apron (1)

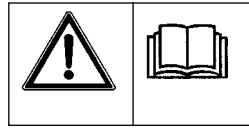


Parking brake (2)

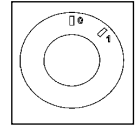


Nameplate
Minuteman/Powerboss/SW5X (3/4/5)

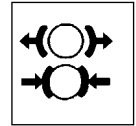
Read and observe operator's Manual (7)



Key switch (8)



Brake (9)



Noise power level (10)
82 dB (A)

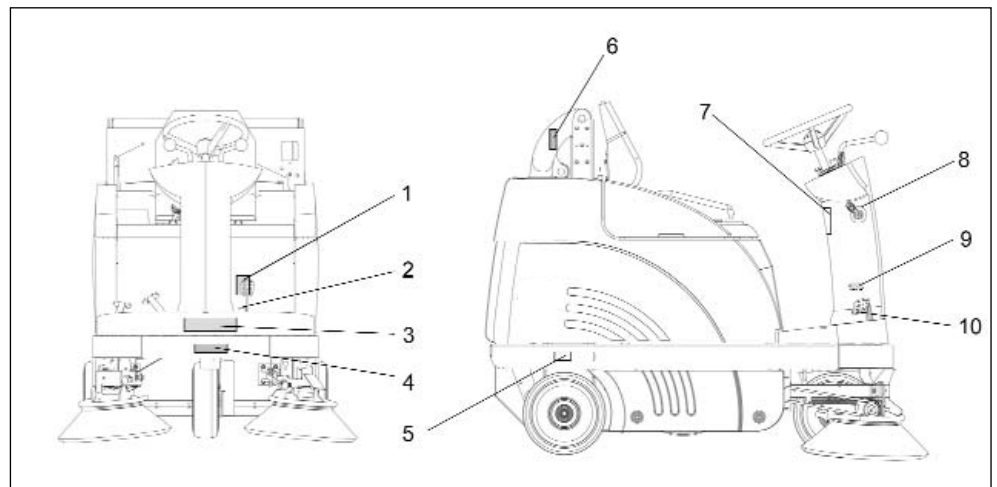


Fig.1

1.3 Labels at the Machine

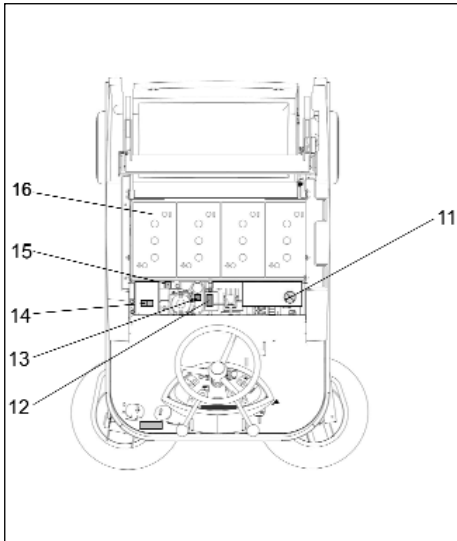
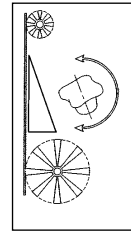


Fig. 2 Safety and information signs

24 V label (15)

Cylinder broom wearing take-up (12)



Battery charging (16)
The label is located under the seat hood.

Rotating parts (14)



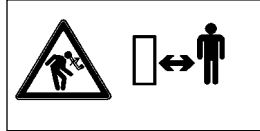
1.3 Labels at the Machine

High-pressure cleaner (11)



Do not clean by means of high pressure cleaner or vapour jet.

Pinching hazard (6)
(Lifted-Up Disposal)



Hydraulic fluid (13)



1.4 Operation/Safety Information

Vacuum sweepers may be run by qualified personnel only; such personnel will have to have evidenced their qualification for running the machine to the owner or his authorized representative; operators explicitly will have to be instructed by the owner or his authorized representative to use the machine.



The machine may be used for cleaning such surfaces approved by the owner or this authorised representative for operation of vacuum sweepers.



Before starting the engine, switch off all drives

Transporting persons on the machine is prohibited. Ride-on machine types are to be started with the driver being seated.

Never leave the machine unattended before the motors are off and the machine is protected against unintended movements.

To prevent the machine from unauthorized use, pull the control key to block all drives.

Shut down the motors before transport of the machine. The driver has to take account of local conditions and when operating the sweeper he has to watch out for other persons, especially children.



Do not open hood or fairings with the machine running.



This machine must not be used as dust-evacuating machine with dust filter insert (separator) to collect dusts which are hazardous to health.



Compared to four-wheeled vehicles, driving stability of three-wheeled vehicles is reduced. We thus recommend:

- do not negotiate curves at high speed.
- do not turn at slopes but on level ground only
- ride up- or downhill straight.



Warning and instruction labels attached to the machine contain important information about safe operation



Provide for sufficient ventilation when sweeping indoors (dust and combustion gas).



Proceed to filter shaking only if the dirt hopper is in closed position.

1.5 Cleaning Information

The machine is splash-proof (IPX3).



Do not clean the SW5X by means of high pressure cleaner or vapour jet.



Proceed to cleaning of the dirt hopper in regular intervals to preclude formation of bacterial deposits.

1.6 Maintenance Instructions

A good approach to prevention of accidents is proper maintenance of the machine.

Before proceeding to repair or maintenance work remove the key.

Use appropriate tools for maintenance, service, setting etc.

As far as aspects of safety are concerned, spare parts will have to be at least of the same quality as the genuine spare parts.



Switch off the motors before maintaining the machine or replacing parts of it. Turn off the machine and pull the key and additionally, disconnect the battery plug.



Check hydraulic hoses and lines for leakage or damages in regular intervals. Replace defective hoses and lines immediately.



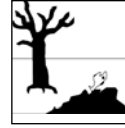
Before changing wheels protect the machine against rolling by placing wedges. Proceed to wheel changing when the machine is on level and solid ground.



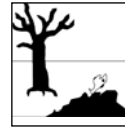
Do not repair the pneumatic tires mounted to the machine yourself. Dismount the wheel and take it to repair to a tire workshop.



Use of other than the cylinder brooms and side brushes approved by the manufacturer is not acceptable (see technical data) since use of other cylinder brooms and side brushes may affect your safety.



When handling lubricating agents, the applicable regulations for protection of the environment and prevention of fire have to be complied with. Provide for disposal of used oil and grease in accordance with the provisions imposed by law.



Collect cleaning agents, oil, fuel oil, grease etc. and provide for adequate disposal. Wipe away spilled substances.



Before commencing any work on the electric system disconnect battery (neg. lead) of the SW5X and pull the ignition key.



Do not keep batteries discharged for a longer period; always recharge them as soon as possible.



Top with distilled water only. Never refill battery acid in battery cells of perfect condition.



Open the hood before charging batteries; explosive gases may occur during the charging procedure.



Keep batteries dry and clean and clear of soiling such as e.g. metallic dust to avoid leakage current.



Do not place metal objects or tools onto batteries. Short-circuit and deflagration hazard.



Spilled (straight) battery acid must not get into the sewage system before having been neutralised. Comply with the regulations imposed by law and observe local provisions.



Battery acid is highly caustic (keep clear of children). When checking the battery acid level, wear safety glasses. If acid splashes get into the eyes rinse with clear water for 15 minutes and contact a doctor immediately. Use appropriate protective means (e.g. protective gloves or finger-stalls) when handling battery acid. Do not use open flames (explosion hazard).



Do not eat, smoke or drink in rooms where batteries are charged to avoid damaging your health. After work with batteries wash your hands thoroughly. Provide for sufficient ventilation.

2 Description

2.1 Functional Description

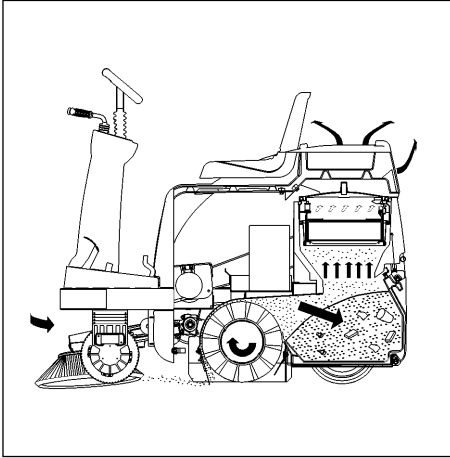


Fig.3

Principle Model: PB40BL

The side brush is used to collect dirt at borders and to enlarge the working width as well as to increase the area performance on large surfaces. The cylinder broom casts the debris overhead into the dirt hopper. The collected fine dust is evacuated by the suction fan and separated by a filter system. The air returned into the environment is clean.

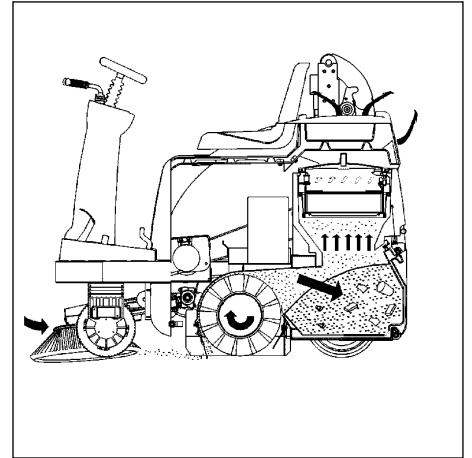


Fig.4

Principle Model: PB40BH

2.2 Cylinder Broom

The cylinder broom is equipped with 12 rows of bristles arranged in V-shape.

The cylinder broom width amounts to 27.6 in. (700mm) and its diameter to 13.6 in. (345mm).

2.3 Side Brush

At the standard version, the side brush is located at the front right of the machine. The operator lifts and lowers it by hand lever.

The side brush has a light inclination. The swinging area of the side brush arm is limited by stop screws. The side brush is driven by V-belt.

For special application, fitting of a second side brush at the left is possible.

2.4 Filter System / Dust Evacuation

The filter system is located in the filter case above the dirt hopper. The suction fan transports the fine dust raised by the cylinder broom to the plate filter where it is separated. The fine dusts sets at the outsides of the filter blades.



In case of heavy dust development, check and clean the plate filter at regular intervals.

2.5 Shaking System

Due to normal working vibration the set dust partly falls off into the dirt hopper. To ensure working in a dust-free environment, however, actuate the shaking system regularly, or after request by the pilot lamp at the latest.

2.6 Steering

Steering is controlled mechanically from steering wheel to front wheel via chain. This chain is to be re-adjusted as required.

2.7 Wheels

Front wheel: solid rubber tires

Rear wheels: solid rubber tires

2.8 Brake

The SW5X is equipped with a service brake.

This brake has been constructed as shoe brake and equally serves as parking brake.

It is located in the rear wheels and is actuated via cables.

A special adjustment screw is situated at the right-hand rear wheel.



Any work at the braking system has to be executed by qualified persons in a qualified workshop only.

2.9 Traction Drive Assembly

The SW5X is equipped with an electric drive assembly with continuous regulation.

2.10 Hydraulic System (Lift-Up Disposal)

The hydraulic system comprises a compact unit (hydraulic pump with hydraulic tank), the hydraulic hoses and a hydraulic cylinder.

Hydraulic fluid: Mobiloil DTE 15 M
The named hydraulic fluid has been filled in the hydraulic system in the factory.

Filling of hydraulic tank: 0.2 gal. (0.76 litre).

2.11 Battery Systems



Before commencing any work on the electric system disconnect the battery plug. Do not use open flames when handling batteries and especially when checking the battery acid level. Provide for sufficient ventilation in rooms where batteries are charged. Spilled (straight) battery acid must not get into the sewage system before having been neutralised. Comply with the regulations imposed by law and observe local provisions. Open the hood before charging batteries; explosive gases may occur during the charging procedure

2.11.1 Low Discharge Signal Sender

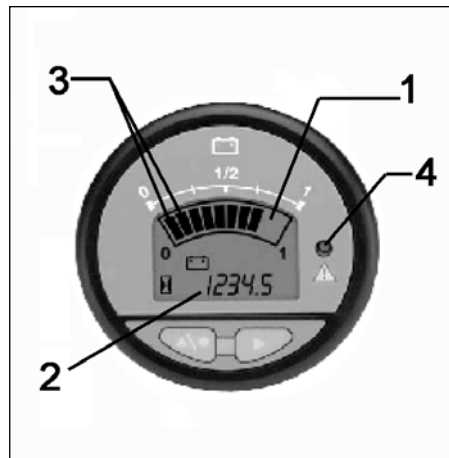


Fig. 5

Battery Charging Status Indicator

Upon turning ON by key switch, battery charging status is shown by display of green bars (Fig. 5/1). As the battery discharges during operation, the lighting green bars extinguish one after another showing thus always the current charge status of battery charge.

Flashing of the last two green bars indicates that operation will be stopped soon. In order to preclude low discharge of batteries, the sweeping units are switched off and riding speed reduced to 50% if battery is discharged. The red LED (Fig. 5/4) than flashes.

Setting Other Battery Types



Have the low discharge signal sender set to other battery types by qualified personnel only and in approved qualified workshops only.

2.11.2 Hourmeter

The operating hours of the machine appear in the display (Fig. 5/2); the hourmeter will count only during working or transport ride; only full hours are displayed).

3 First Operation

The SW5X has been extensively tested and submitted to a functional check before delivery.

Only qualified personnel of your local contract dealer are allowed to proceed to first operation. After shipping of the machine, we advise your contract dealer. He will contact you to make a date for briefing lessons.

3.1 First Operation of Batteries

To achieve the optimum performance and a maximum service life, the batteries must be given the initial charge after filling.

Handling and function of the battery charger is described in detail in the instruction manual supplied with each charger unit.



Since batteries and charger units are matched, we recommend using batteries and chargers as prescribed by Minuteman. We can grant full warranty only if those units are being used.



Do not use the SW5X at ambient temperatures of more than 105°F (40°C). Do not start the machine at temperatures of 32°F (0°C) or less.

3.2 Insert Batteries

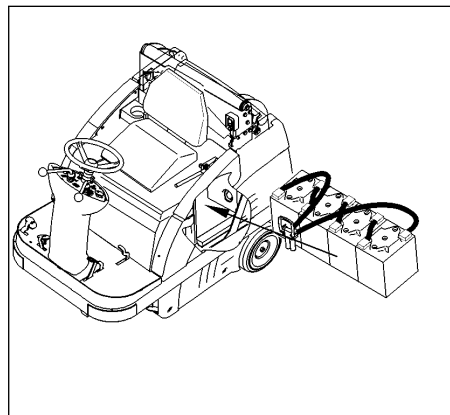


Fig.5a

- Turn machine off and pull key.
- Secure machine by actuating parking brake.
- Fold up seat hood
- Insert battery
- Connect charging plug of the battery connection cable and cable of the charger unit and proceed to initial charging.
- After charging of the batteries, connect charger plug (Fig.5b/2) and device plug for electrical connection.



If the battery type setting at the LDS should be incorrect, have the setting modified by qualified personnel in an approved workshop.



Use admitted lifting and transport devices. Make sure that lifting hooks do not damage cells, connectors or connecting cables.

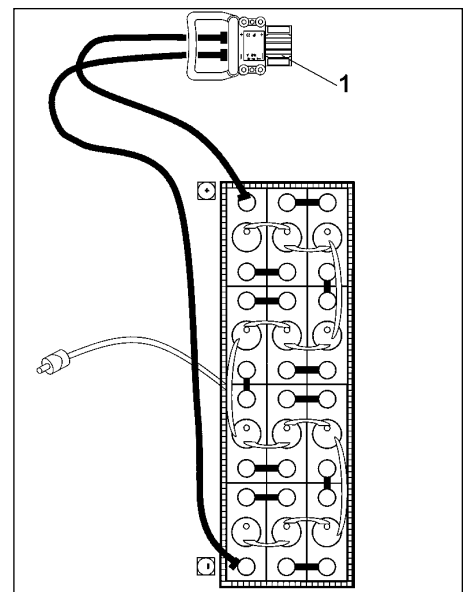


Fig.5b

4 Operation

4.1 Controls

- 1 Actuator for folding apron
- 2 Service brake lock
- 3 Service brake/parking brake pedal
- 4 Drive pedal, reverse
- 5 Drive pedal, forward
- 6 Control panel
- 7 Seat adjustment

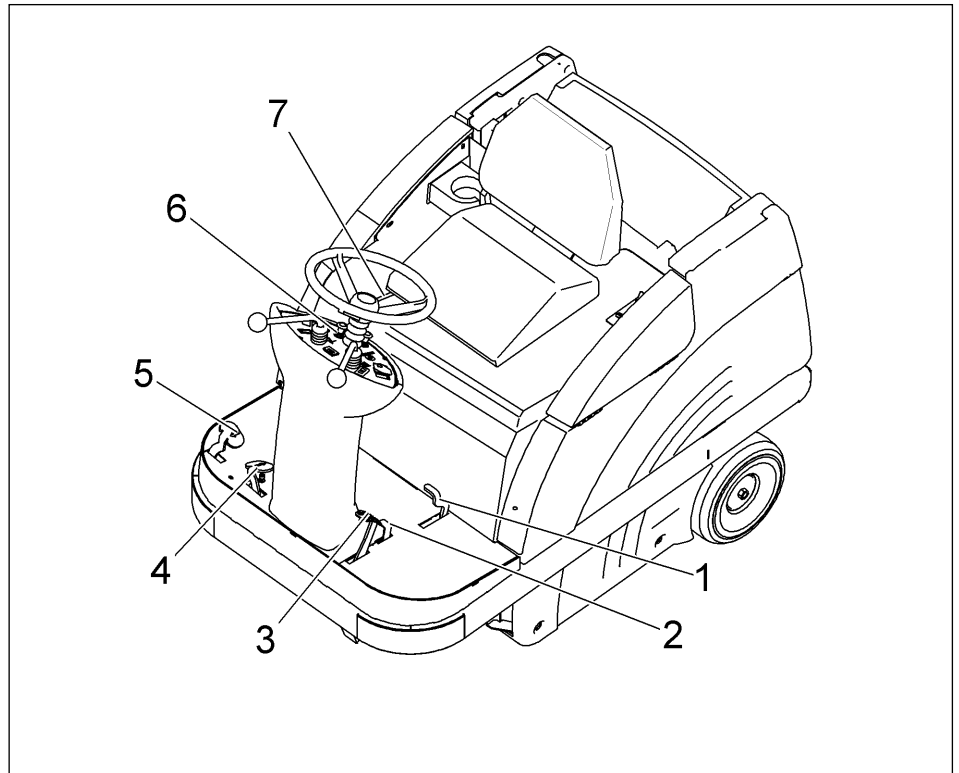


Fig.6

1 Actuator for folding apron

to open and close the folding apron for collecting coarse dirt.

2 Service brake/parking brake lock

to lock the service brake/parking brake. If locked, the service brake works as parking brake. Release the lock by depressing the service brake pedal.

3 Service brake/parking brake pedal

to actuate the service brake at the rear wheels. Before leaving the machine unattended, engage the service brake and lock.

4 Drive pedal, reverse

to change direction to reverse ride with continuous regulation of riding speed at the same time. If the driver releases the pedal it returns to initial position and the machine slows down to standstill.

5 Drive pedal, forward

to change direction to forward ride with continuous regulation of riding speed at the same time. If the driver releases the pedal it returns to initial position and the machine slows down to standstill.

6 Control panel

Refer to chapter "Control panel"

7 Seat adjustment

to adjust the seat position to drivers of different height.

Adjust the seat so as to allow the driver being comfortably seated and attaining all elements required for operation.

- Adjust seat lengthwise: push lever slightly to the right and displace seat forwards or backwards to the required position. Then let the lever catch again.

4.2 Control Panel

- 1 Cylinder broom lever
- 2 Release of lifted-up disposal function
- 3 Horn
- 4 TSG
- 5 Suction fan/shaking system knob
- 6 Flashlight (option)
- 7 Lighting (option)
- 8 Lift and lower (Lift-Up Disposal)
- 9 Side brush lever
- 10 Pilot lamp, parking brake
- 11 Battery charge status indicator/ Hourmeter
- 12 Pilot lamp, fan
- 13 Pilot lamp, shaking system
- 14 Key switch

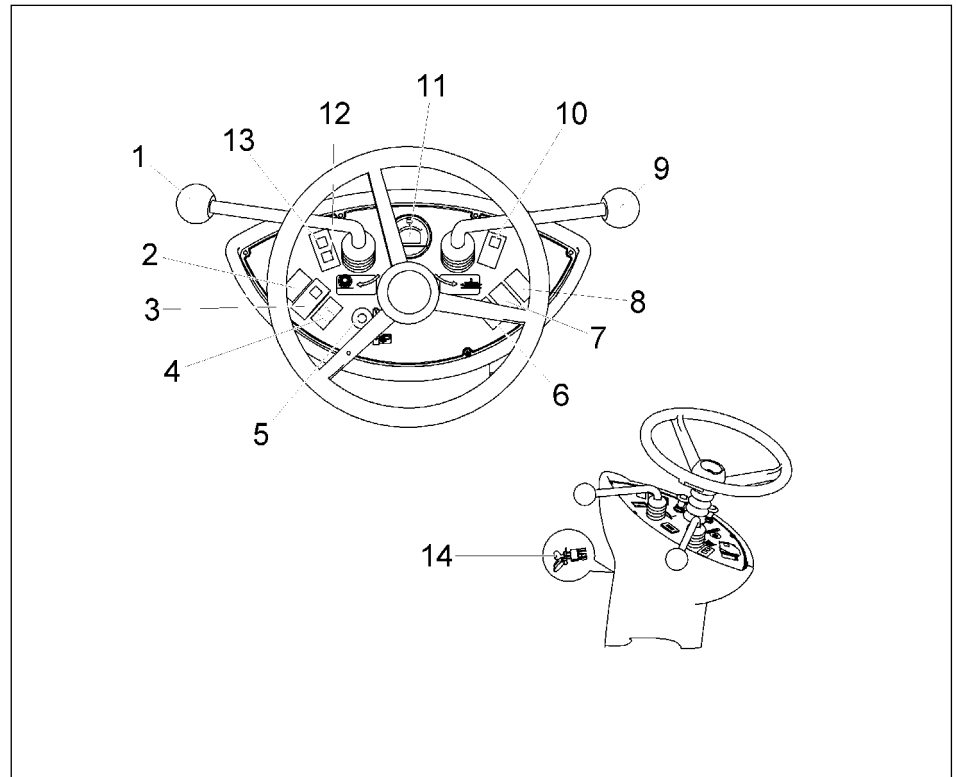
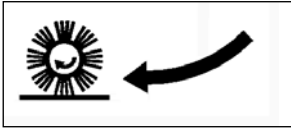


Fig.7



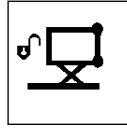
1 Cylinder broom lever
to lift and lower as well as to switch on and off the cylinder broom and the side brush.

- Lower cylinder broom as well as switch on cylinder broom and side brush

= push lever

- Lift cylinder broom as well as switch off cylinder broom and side brush

= pull lever



2 Release for lifted-up disposal function
to release the lifted-up disposal function for lowering of lifting.



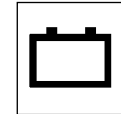
Has to be actuated before pressing the key for lifting/lowering lifted-up disposal function. Hold the key during lifting/lowering.



Before changing lifting to lowering or vice versa, the "Release Lifted-Up Disposal" key has to be released once and pressed again



3 Horn
An acoustic signal sounds upon actuation of this button.

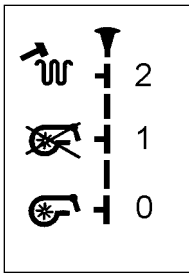


4 Cover with plug connection for battery/LDS programming

Remove this cover to modify setting of battery type. The plugged connections of the programming cable are located there.



Have the programming executed by a contract dealer with qualified personnel at hand.



5 Suction fan/shaking system knob

Knob position (from bottom to top position):

Pos. 0 Activated vacuuming function (close flap before sweeping dry surfaces or collecting dry dirt).

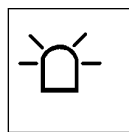
Pos. 1 Deactivated vacuuming function (open flap before sweeping wet surfaces and collecting wet dirt).

Pos. 2 Shaking system ON (pull knob to stop and then release)

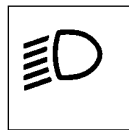


After jolting, the knob is to be kept in position 1 for about 10 seconds (to optimize the cleaning result in case of heavy fine dust load).

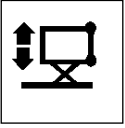
If the yellow pilot lamp (Fig. 7/13) lights, actuate the shaking system (position 2). In this position, the shaking system is operable and proceeds to jolting in 7 repeated intervals.



6 Flashlight (option) to switch the flashlight ON/OFF.



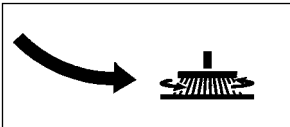
7 Lighting (option) to switch the driving headlight ON/OFF.



- 8 Lift and lower (lifted-up disposal)**
to lift and lower the dirt hopper. Lift the dirt hopper by pressing the key until the desired height for lifting-out is attained. When lowering the dirt hopper make sure to hold the key pressed until the hopper has contact with the frame.



Actuate release key for lifted-up disposal and hold before lifting or lowering.



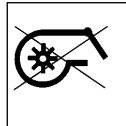
- 9 Side brush lever**
to lift and lower the side brush.
- Lower side brush
= push lever
 - Lift side brush
= pull lever



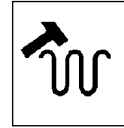
- 10 Pilot lamp, parking brake (red)**
lights upon actuation of the parking brake Extinguishes upon release of the parking brake.

- 11 Battery Charging Status Indicator**
Refer to paragraph 2.11

Hourmeter
Refer to paragraph 2.11



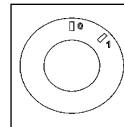
- 12 Pilot lamp, suction fan (orange)**
lights if the suction fan is not activated.



- 13 Pilot lamp, shaking system (yellow)**
Proceed to jolting of the filter system upon lighting of this pilot lamp by actuating the knob (Fig.7/5).



The pilot lamp flashes during the shaking procedure and extinguishes after filter has been cleaned. Jolting is effectuated in 7 intervals.



- 14 Key switch**
to switch ignition on and off, to start and stop engine and to secure it against unauthorised use.

4.3 Empty Dirt Hopper

- Fold bow (Fig. 8/3) up
- = the dirt hoppers (Fig. 8/2) are lowered.
- Use the recessed grip (Fig. 8/1) of one of the hoppers to lift it lightly and extract it.
- Take the hopper at its bow-type handle to disposal and empty.
- Empty second dirt hopper as described above.
- Re-insert dirt hopper (Fig. 8/2) and fold down the bow (Fig. 8/3).

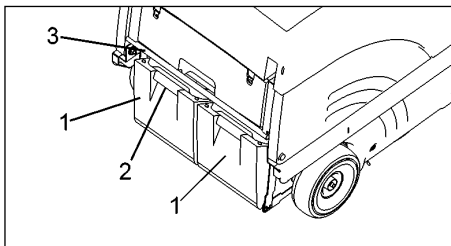


Fig.8

- 1 Recessed grip in dirt hopper
- 2 Dirt hopper
- 3 Bow to lift/lower hoppers



Clean dirt hoppers at regular intervals.

4.4 Empty Dirt Hopper (Lift-Up Disposal)



Lift side brush and cylinder broom before emptying of the dirt hoppers.



Broom and fan will be automatically switched ON upon lowering of the hopper if cylinder broom has been ON before lifting.



The driving speed forward and backwards with dug turning property container is reduced to 50 %, the turning roller is switched off.

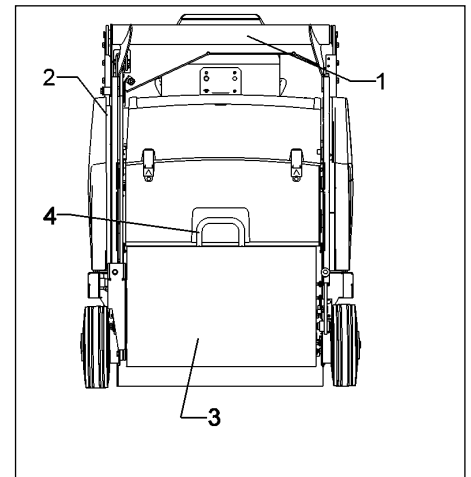


Fig.9

- 1 Lift-out arm
- 2 Lift-out cylinder
- 3 Dirt hopper
- 4 Bow-type handle



Clean dirt hopper at regular intervals.



Lift side brush and cylinder broom before removal of the dirt hopper.



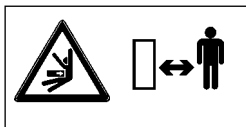
Riding with the lifted hopper reduces stability of the machine significantly. For this reason, do not lift the hopper but just before emptying. Before lifting the hopper, the operator has to make sure that no persons or objects are behind or next to the machine. Stop the machine on level ground before lifting the hopper.



When the hopper is lifted, the operator has to ride the machine slowly.



Keep clear of the hazard zone!



Pinching and shearing hazard. Provide for required safe distance before lifting or lowering the dirt hopper.

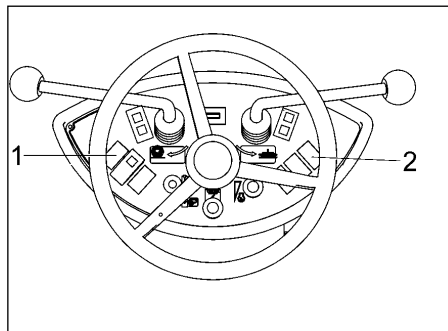


Fig.10

Control panel (Lift-Up Disposal)

- 1 Release switch for lifted-up disposal function
- 2 Dirt hopper, lift and lower

Proceed to emptying of the dirt hopper as follows:

- Lift and switch off side brush and cylinder broom
- Proceed to shaking of the filter system
- Actuate switch (Fig. 10/1) and hold (dirt hopper is released)
- Actuate switch (Fig. 10/2) by pushing = lift dirt hopper
- Dirt hopper (Fig. 9/3) is lifted-out
- Back the SW5X until the dirt hopper is positioned above the container for disposal.
- Pull the safety knob (Fig. 11/1) of the release lever (Fig. 11/2).
- Release swinging of the dirt hopper by release lever (Fig. 11/2).
- Forward the SW5X after emptying.
- Lower dirt hopper by actuating switch (Fig. 10/1) and switch (Fig. 10/2); pull lever = lower dirt hopper



Observe the information given in paragraph 4.2 on releasing of lifted-up disposal.



Sweeping is possible only after the dirt hopper has attained its working position.



Lifted-up disposal function is blocked as long as sweeping function is ON.

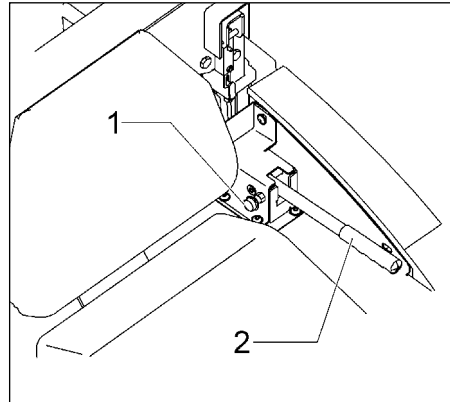


Fig.11

Release lever, swing dirt hopper

- 1 Safety knob
- 2 Release lever, swing dirt hopper



Should the dirt hopper not be completely emptied after swinging, proceed to manual shaking with the handle (Fig. 9/4).



Clean the dirt hopper in regular intervals.



The dirt hopper is approved only for a max. filling of 18.5 gal (70 litres) but not more than a weight of 242.5 lb (110 kg).

4.5 Working with the machine

The driver is requested to carefully read this manual. All controls are marked with easy-to-understand symbols that ease familiarization. First driving attempts should be limited to clear areas until you are familiar with all controls and their functions.



Please comply with the following safety provisions: When working with the SW5X all safety measures generally applicable for handling vehicles have to be observed. No passenger transport is admitted with the SW5X. Warning and instruction labels attached to the machine contain important information about safe operation and guarantee your personal safety. Before commencing work, the operator has to make sure that the machine and its accessories are in proper and safe condition and comply with the provision for safety at work. Do not operate the SW5X without protective devices.

4.5.1 Switch Electro-Motor ON and OFF



For safety reasons, the SW5X is equipped with a seat contact switch. Starting the motor or running the motor is possible only when the driver is seated. If the seat contact switch is activated with the electro-motor running, reset by turning the key switch OFF and ON again.

- Switch all levers and switches to neutral position.
- Actuate parking brake
- Turn key switch to "I"



Check the drive pedal for being in neutral position before switching ON.



If the Hako-Jonas 980 E/EH is not used within the admissible conditions and environments of use, the protective functions may respond and switch off driving function without prior warning. Slow the machine down to standstill by the service brake in that case.



Acknowledge protective function by key switch.



Overheating of the travel drive assembly or control module always entails a cooling phase.



The seat contact switch deactivated all functions, driving function included. Slow the machine down to standstill by the service brake in that case.

4.5.2 Sweep

- Lower cylinder broom.
- Release parking brake.
- Slowly depress drive pedal until desired speed has been attained.
- Regularly actuate shaking device to clean plate filter.
- Check filling level of the dirt hopper and empty if required.

4.5.3 Stop and Park

- Release drive pedal which returns automatically into its neutral position and the machine slows down to standstill.
- Actuate parking brake
- Lift side brush and cylinder broom
- Turn key switch to "0"



When leaving the machine unattended, pull key in order to preclude unauthorized use.

4.5.4 Displace

Make sure that the key switch is in neutral position and the side brush and cylinder broom are lifted up before displacement of the machine.

4.5.5 Transport

Before transporting the machine on other vehicles, engage the parking brake and secure the machine by straps and by placing wedges at the wheels.

5 Technical Data

		SW5X	SW5X (Lift-Up Disp.)
Dimensions and weights			
Length with side brush	in. (mm)	59.8 (1520)	59.8 (1520)
Width without side brush	in. (mm)	39.4 (1000)	39.4 (1000)
Width with 1 side brush	in. (mm)	44.1 (1120)	44.1 (1120)
Width with 2 side brushes	in. (mm)	48.8 (1240)	48.8 (1240)
Height above driver's seat	in. (mm)	51.2 (1300)	51.2 (1300)
Max weight including accessories	lb (kg)	1323 (600)	1367 (620)
Admissible total weight	lb (kg)	1742 (790)	1830 (830)
Driving and sweeping performance			
Forward speed	mph (km/h)	3.7 (6,0)	3.7 (6,0)
Reverse speed	mph (km/h)	2.5 (4,0)	2.5 (4,0)
Sweeping speed up to (4 km/h recommended)	mph (km/h)	3.7 (6,0)	3.7 (6,0)
Sweeping track without side brushes	in. (mm)	27.6 (700)	27.6 (700)
- with 1 side brush	in. (mm)	28.2 (970)	28.2 (970)
- with 2 side brushes	in. (mm)	48.8 (1240)	48.8 (1240)
Theoretical sweeping perf. without side brushes	sq. ft./h (m ² / h)	45210(4200)	45210(4200)
- with 1 side brush	sq. ft./h (m ² / h)	62430(5800)	62430(5800)
- with 2 side brushes	sq. ft./h (m ² / h)	80190(7450)	80190(7450)
Gradability, max.	%	16	16

Technical Data

		SW5X	SW5X (Lift-Up Disp.)
Filter system Filtering surface Plate filter	sq. ft. (m ²) piece	30.1 (2,8) 1	30.1 (2,8) 1
Cylinder broom Length Diameter Wearing limit Speed Sweeping track Quantity of bristle rows Serial bristling	in. (mm) in. (mm) in. (mm) rpm in. (mm)	27.6 (700) 13.6 (345) 11.4 (290) 530 +/- 20 2.0 + 0.2 (50+5) 12 v-shape PES	27.6 (700) 13.6 (345) 11.4 (290) 530 +/- 20 2.0 + 0.2 (50+5) 12 v-shape PES
Ground clearance of sealing strips at broom compartment Sealing strips - left - right - rear Sealing strip, front	in. (mm) in. (mm) in. (mm)	0.04 (1) 0.04 (1) 0.16 (4)	0.04 (1) 0.04 (1) 0.16 (4)
Side brushes Diameter Speed Serial bristling	in. (mm) rpm	460 90 PES	460 90 PES
Dirt hopper Hopper capacity	gal (l)	2x7.9 (2x30)	18.5 (70)

Technical Data

		SW5X	SW5X (Lift-Up Disp.)
Tyres Front drive wheel, bandage Rear, solid rubber tyres	in. (mm) in.	11.81 (300/90) 4.00 - 4	11.81 (300/90) 4.00 - 4
Electric drive Service voltage Travel drive assembly (P2/P1) Suction fan motor/sweeping (P2/P1) Total power consumption (P1)	DC/V KW KW KW	24 0.8/1.0 1.0/1.25 2.4	24 0.8/1.0 1.0/1.25 2.4
Hydraulik system Compact unit (maintenance-free) Voltage Hydraulik fluid, e.g. Hydraulik tank, capacity	V gal (l)		24 DTE 15 M or equivalent 0.2 (0,76)

Technical Data

<p>Noise emission The sound pressure level measured according to DIN EN ISO 11201 and under standard operating conditions at the operator's ear with - operating status - fan, cylinder broom and side brush ON amounts to</p> <p>The sound power level measured according to DIN EN ISO 3744 under standard operating conditions and maximum volume flow amounts to</p>	<p>dB (A)</p> <p>dB (A)</p>	<p>70</p> <p>82</p>
<p>Vibrations The frequency weighted acceleration measured according to EN 1003 which have an effect upon the upper limbs (hand-arm-system) amounts under normal working conditions</p> <p>The frequency weighted acceleration measured according to EN 1032 which have an effect upon the lower limbs (feet and seat) amounts under normal working conditions</p>	<p>ft./s² (m/s²)</p> <p>ft./s² (m/s²)</p>	<p>< 8.07 (< 2,5)</p> <p>< 1.64 (< 0,5)</p>

6 Maintenance/Service

6.1 Maintenance Instructions

Compliance with our recommendations concerning maintenance work will give you the certitude of having an effective and dependable machine at your disposal.

It is better to take precautions than repairing damages - and it saves money!



The SW5X has to be inspected for safe condition by an authorized expert as required, but not less than once a year. Results of such an inspection have to be kept on file at least until the next inspection is performed.

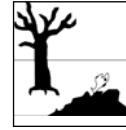
Please contact your local distributor if you cannot do the maintenance works as prescribed in the maintenance schedule in-house. He will have these works done for you and has qualified personnel and genuine spare parts at disposal.



When cleaning or servicing the machine, or replacing parts, have the motors stopped and the key removed, the negative battery pole disconnected and the service brake (parking brake) engaged.

In case of questions or orders for spare parts, please always quote your machine's serial indicated on the nameplate

Refer to chapter 1.3.1 Fig. 2/12 for position of nameplate.



Collect spilled oil and provide for adequate disposal.

Use appropriate tools for servicing, maintenance and adjusting work only.

Spare parts at least will have to be of the same quality as genuine parts are.



Do not remove or install tires or repair a rim. Take the wheel and rim to a workshop where qualified personnel and the required specific tools are available.

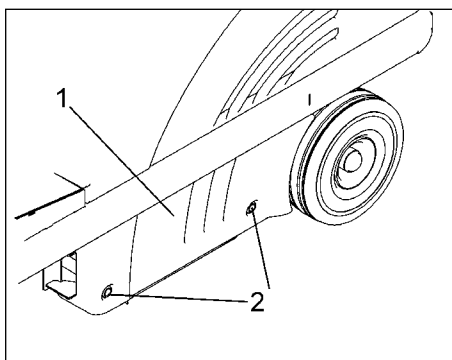


When working at the electric system disconnect the negative pole of the battery.

6.2 Mount/Dismount Cylinder Broom

The cylinder broom is accessible from the left side of the machine and is to be dismantled as follows:

- Lower cylinder broom
- Pull ignition key and protect by engaging parking brake
- Remove cover



Remove cover

Fig.14

- Open locks (Fig. 14/2) by enclosed square spanner (turn counter-clockwise)
- Remove cover (Fig. 14/1)

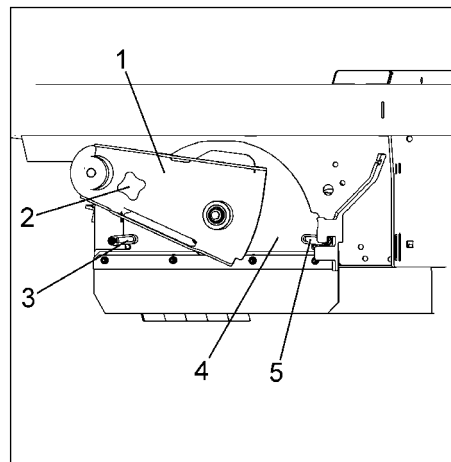


Fig.15

Dismount cylinder broom

- Loosen star-shaped knob (Fig. 15/2) and remove
- Remove cylinder broom seating (Fig. 15/1)

- Turn handle (Fig. 15/3 +5) upwards and unlock
- Remove plate with sealing strip (Fig. 15/4)
- Remove cylinder broom by pulling.

For mounting the cylinder broom proceed in inverse order.

6.3 Adjust Sweeping Track

An adjustment device allows adaptation to different sweeping conditions. The cylinder broom has to be adjusted for normal use and with regard to a low degree of wearing as described in the following. Check the broom adjustment on level ground as follows.

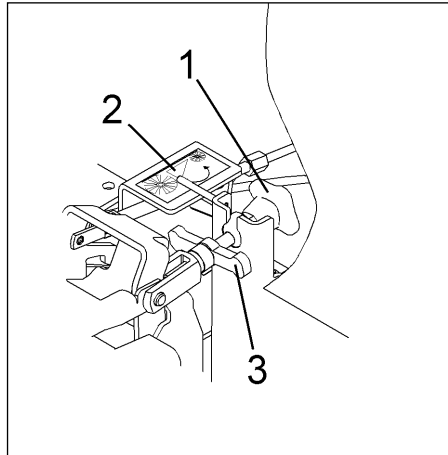


Before checking:
Mark level surface for checking broom adjustment by chalk.

- Secure machine by engaging parking brake.
- Lower cylinder broom and let it run dry.
- Lift cylinder broom and forward the SW5X a bit.
With the correct broom adjustment the parallel sweeping marks have to appear on the floor (sweeping track).

The sweeping track width is to be 1.97 in. (50mm) with the SW5X

The sweeping track width can be adjusted at the star-shaped knob (Fig. 15/2) as follows:



Broom adjustment

Fig.16

- Stop engine and pull key
- Engage parking brake
- Open seat hood
- Loosen handle (Fig. 16/3)
- Turn star-shaped knob (Fig. 16/1) to the left = wider sweeping track to the right = smaller sweeping track
- Fix handle (Fig. 16/3)
- Broom adjustment sticker (Fig. 16/2)



With one full turn of the knob, the track widens or broadens by approx. 0.4 in. (10 mm)



When exceeding the sweeping track width the cylinder broom wearing increases as well as the load of the drive.

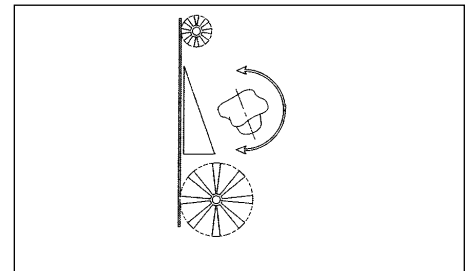


Fig. 17 Broom adjustment sticker (in Fig. 17/2)

Fig.17

6.4 Sealing Strips for Broom Compartment

In order to assure good function of the sweeper, a perfect condition of the sealing strips is required, especially in order to attain the prescribed low pressure in the broom compartment, a clean sweeping result and the less possible wear of the sealing strips (check the sealing strips of the broom compartment for wearing and damages in regular intervals).

Replace defective sealing strips.

The ground clearance of the lateral and rear sealing strips is adjustable (oblong holes in the sealing strips).

Ground clearance

sides: approx. 0.04 in. (1mm)

rear: approx. 0.16 in. (4mm)

Height of the front sealing strip (folding apron) cannot be adjusted.

Being dragged, it has contact with the floor.

6.5 Folding Apron Adjustment

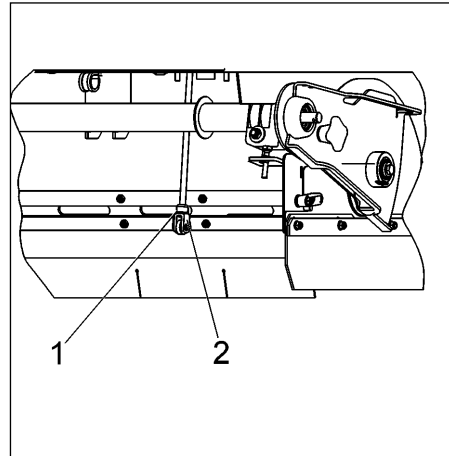


Fig.18

Adjust folding apron

- Turn engine off and pull key
- Secure machine by engaging parking brake
- Remove cover (as described in the paragraph "Mount/Dismount Cylinder Broom").

- Remove bolt (Fig. 18/2).
- Modify adjustment by turning the fork head (Fig. 18/1).



Modify adjustment such that the cylinder broom does not retract the sealing strip of the folding apron during operation.

6.6 Replace Side Brush

The side brush is located at the front right of the machine (standard version). Use the lever (paragraph 4.2, Fig. 7/9) to lift and lower the side brush.

The side brush is to be lightly inclined in forward and in outward direction.

The swinging area of the side brush arm is limited by stop screws.

The side brush is driven by a V-belt. Fitting of a second side brush for specific appliances is possible.

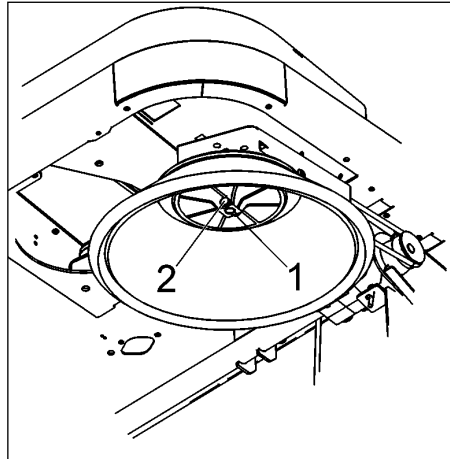


Fig.19

Proceed as follows for dismounting of the side brush:

Replace side brush

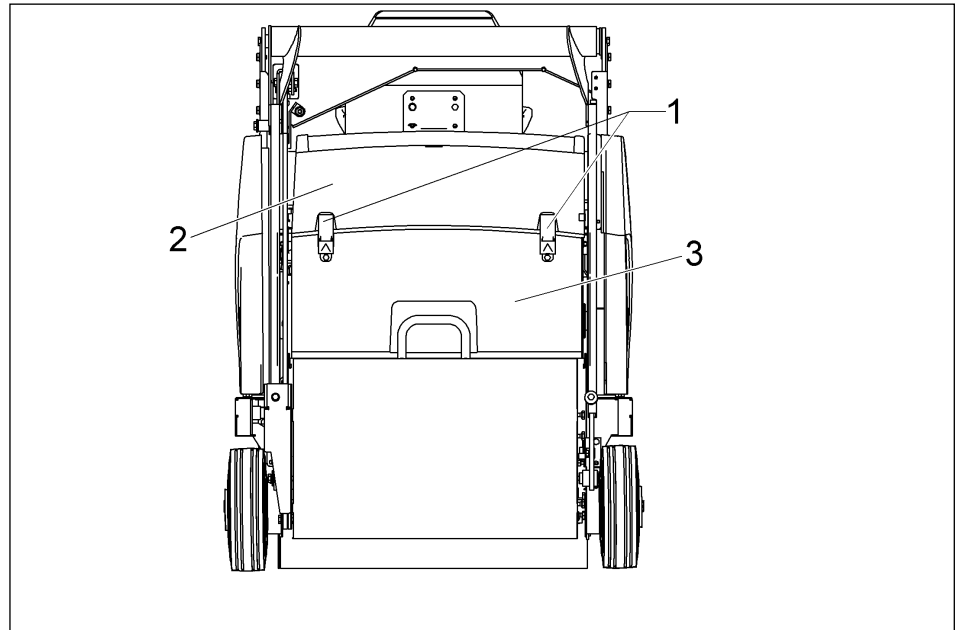
- Turn engine off and pull key.
- Secure machine by engaging parking brake
- Disconnect battery plug
- Side brush lifted
- Loosen hexagonal nut (Fig. 19/1) und remove together with washer
- Remove screw (Fig. 19/2)
- Remove side brush

Proceed in inverse order for mounting of the side brush.

6.7 Dismount Plate Filter

Proceed as follows for dismounting of the plate filter:

- Turn engine off and pull key.
- Secure machine by engaging parking brake
- Disconnect battery plug
- Open seat hood
- Open quick-release locks (Fig. 20/1)
- Remove cover, filter case (Fig. 20/2)
- Loosen wing screws (Fig. 21/2) and remove.
- Fold back frame with electric-motor (Fig. 21/3).
- Hook frame at indicated position (Fig. 21/4)
- Remove plate filter (Fig. 21/5).



For mounting of plate filter proceed in inverse order.

Dismount plate filter

- 1 Quick-release locks
- 2 Cover of filter case
- 3 Filter case

Fig.20

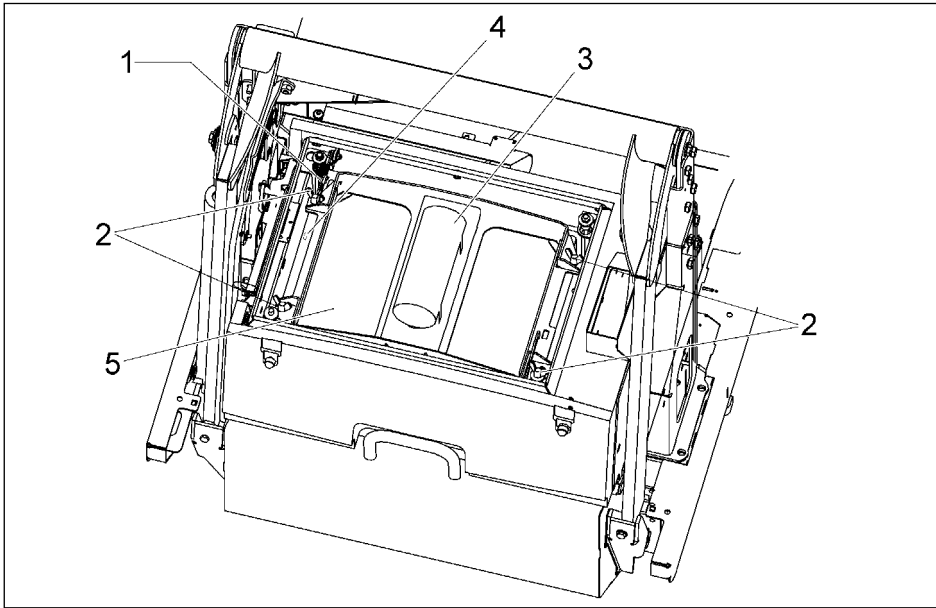


Fig.21

Plate filter

- 1 Detent hook
- 2 Wing screws
- 3 Frame with electric-motor
- 4 Opening for detent lever
- 5 Plate filter

6.8 Basic Cleaning of Plate Filter

Hold the plate filter (Fig. 22/1) in vertical position and drop it from a height of approx. 3 ft. (1 m) to the even floor as represented in Fig. 22.



The soiled side of the filter points to the bottom.

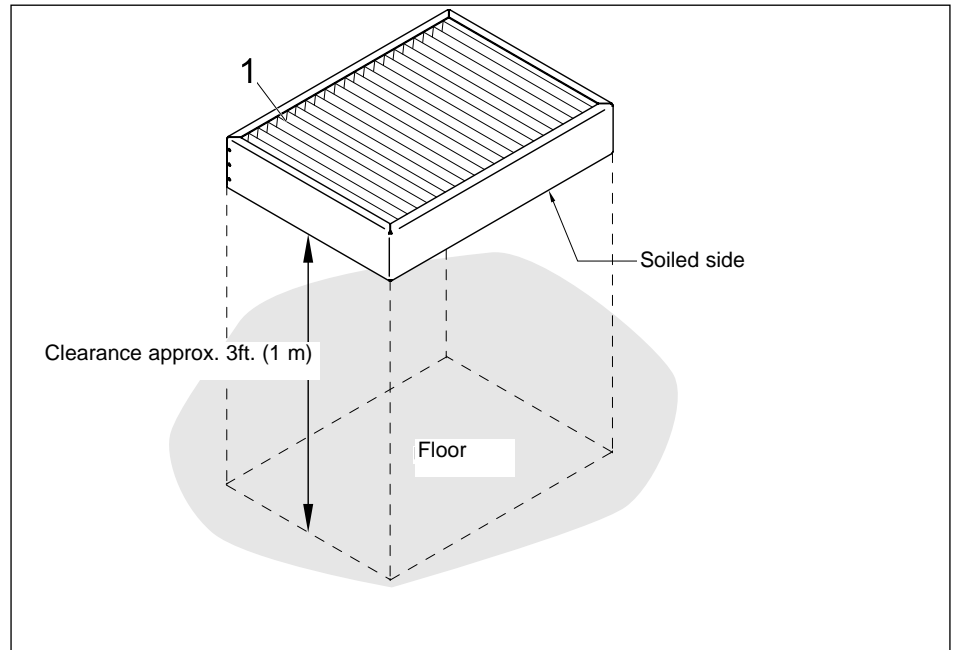


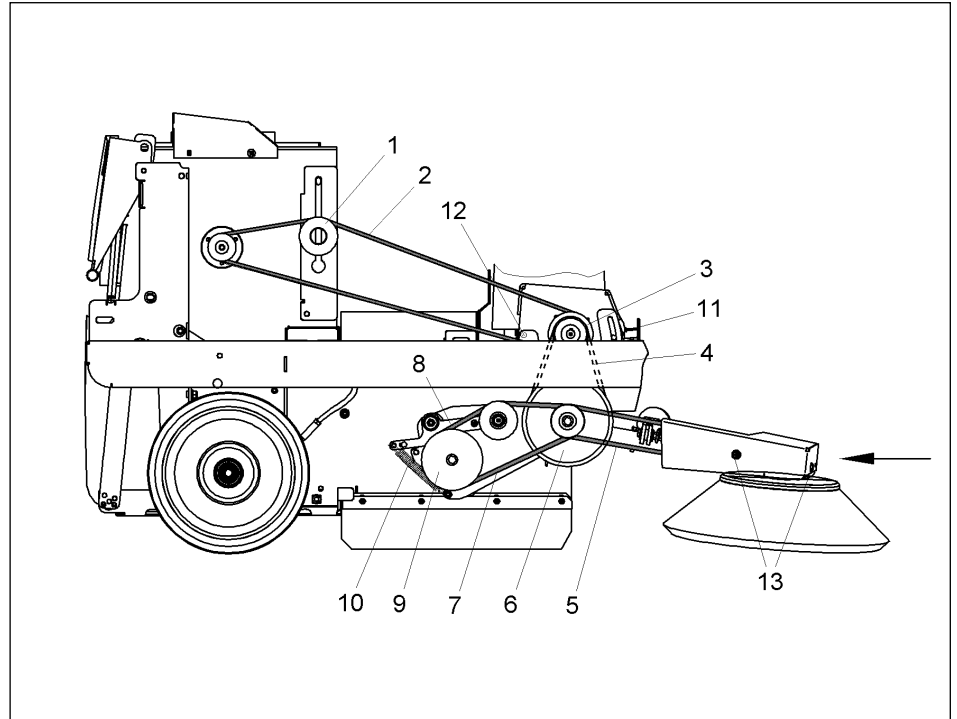
Fig.22

Basic cleaning of plate filter

1 Plate filter

6.9 V-Belt Drive

- 1 Tensioning roller
- 2 Suction fan V-belt (20Hz)
- 3 V-belt pulley
- 4 V-belt for cylinder broom and side brush (130Hz)
- 5 Side brush V-belt
- 6 Belt pulley
- 7 Cylinder broom V-belt
- 8 Tensioning roller lever
- 9 Belt pulley
- 10 Tension spring
- 11 Hexagonal nut
- 12 Hexagon socket screw
- 13 Screws



V-belt drive

Fig.24

6.9.1 Replace Cylinder Broom V-Belt

- Turn engine off and pull key.
- Secure machine by engaging parking brake.
- Disconnect battery plug
- Detent tensioning spring (Fig. 24/10) by left hand while taking the V-belt off the tensioning roller with right hand.
- Remove V-belt (Fig. 24/7).

Proceed in inverse order for mounting.

6.9.2 Replace Side Brush V-Belt

- Turn engine off and pull key.
- Secure machine by engaging parking brake
- Disconnect battery plug
- Remove bottom right cover (turn locks counter-clockwise by square spanner).
- Remove cylinder broom V-belt (as described in paragraph "Replace Cylinder Broom V-Belt")
- Loosen screws (Fig. 24/13) at the cover plate and remove
- Remove cover plate
- Push side brush from the front side in direction of the machine to detent V-belt (Fig. 24/5)
- Remove V-belt (Fig. 24/5)

Proceed in inverse order for mounting.

6.9.3 Replace Suction Fan V-Belt

- Turn engine off and pull key.
- Secure machine by engaging parking brake
- Open seat hood
- Disconnect battery plug
- Open quick-release locks (Fig.21/1)
- Remove filter case cover (Fig.21/3)
- Loosen screws at the inside of the right lateral fairing and remove.
- Tilt lateral fairing lightly to the outside, the remove by pulling upwards.
- Loosen tensioning roller (Fig. 24/1)
- Loosen hexagonal nuts (Fig. 24/11) and hexagon socket screw (Fig.24/12).and detent V-belt (Fig.24/4)
- Remove V-belt (Fig.24/4) from V-belt pulley (Fig.24/3).
- Remove V-belt (Fig.24/2).

Proceed in inverse order for mounting. Do not exceed tension of V-belt.



Observe the following when mounting the V-belt: First adjust tension of V-belt (fig.24/4), then adjust tension of V-belt (fig.24/2).

6.10 Adjust Steering Chain Tension

Check the condition and function of steering chain every 200 hours of operation.

Proceed to adjustment of tension via a spring located in the pedal area and accessible after removal of the cover plate.

We recommend having this adjustment work done by qualified personnel only.



Adjust tension of the steering chain such that rotational movement is possible without jerks.

6.11 Check Hydraulic Fluid and Refill

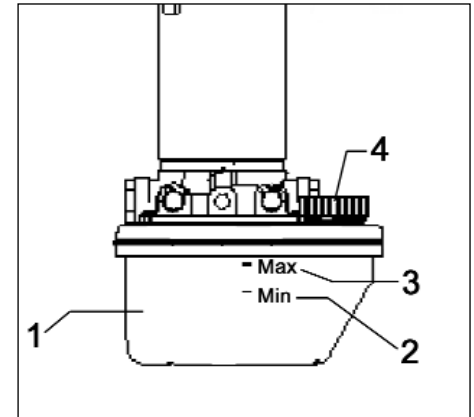


Fig.25

6.11.1 Check Hydraulic Fluid

- Turn engine off and pull key
- Secure machine by engaging parking brake
- Open seat hood
- Check hydraulic fluid level at tank (Fig. 25/1), the level must not fall below the minimum mark (Fig. 25/2). It should read between minimum (Fig. 25/2) and maximum mark (Fig. 25/3).

6.11.2 Refill Hydraulic Fluid

- Remove cover (Fig. 24/4) and refill hydraulic fluid
- Close hydraulic fluid tank with cover

Use DTE 15M hydraulic fluid or a fluid of similar quality.

6.12 Electric System

- 1 F2 Pre-fuse (20A)
- 2 F3 Engine shutdown, hourmeter (5A)
- 3 F4 Indicators control panel, jolter controlling, (front right lighting option, right rear light (5A)
- 4 F5 Horn (10A)
- 5 F7 LPG equipment option (10A)
- 6 F8 Front left lighting option, left rear light (7.5A)
- 7 F9 Lifted-up disposal control (7.5A)
- 8 F10 LPG equipment option (10A)
- 9 F11 Shaking motor (30A)
- 10 F12 Generator charge status indicator (5A)
- 11 F14 Flashlight option (5A)
- 12 LPG option control unit
- 13 K6 Relay, (Lift-Up disposal)
- 14 K7 Relay, (Lift-Up disposal)
- 15 K8 Relay, (Lift-Up disposal)
- 16 K9 Relay, (Lift-Up disposal)
- 17 K10 Relay, (Lift-Up disposal)
- 18 K11 Relay, lower hopper
- 19 K3 Relay
- 20 K4 Relay, filter monitoring
- 21 K5 Relay, impulse relay shaking
- 22 F13 Hydraulik unit for (Lift-Up disposal) 30A

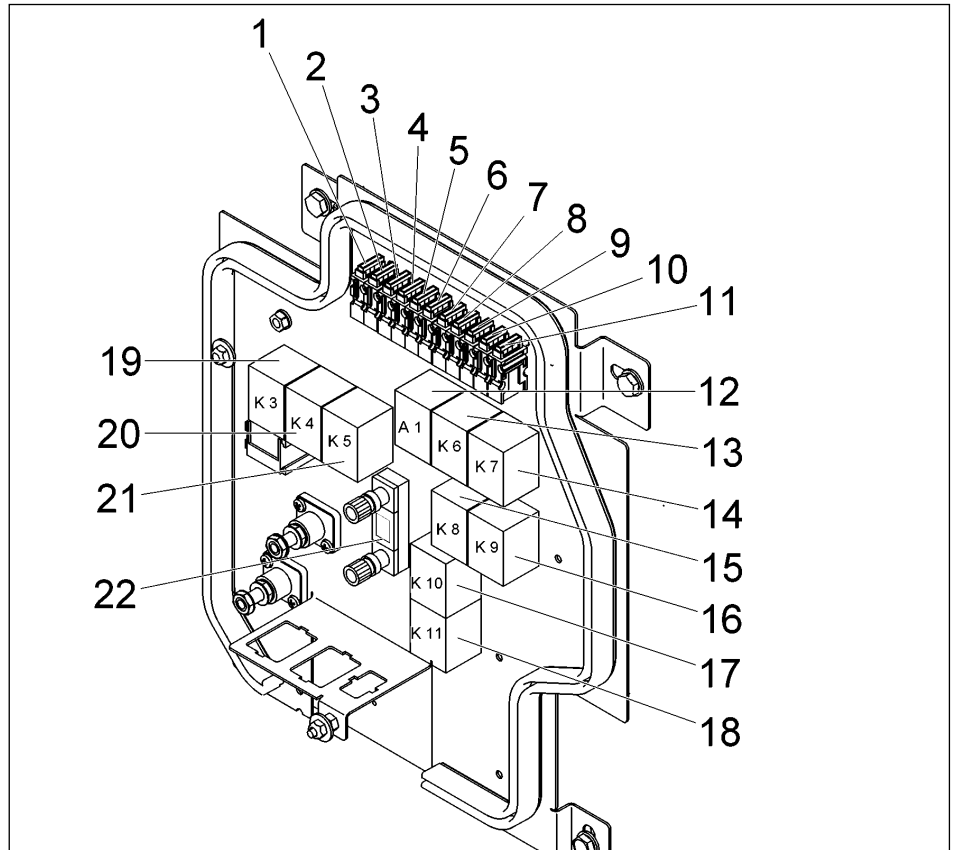
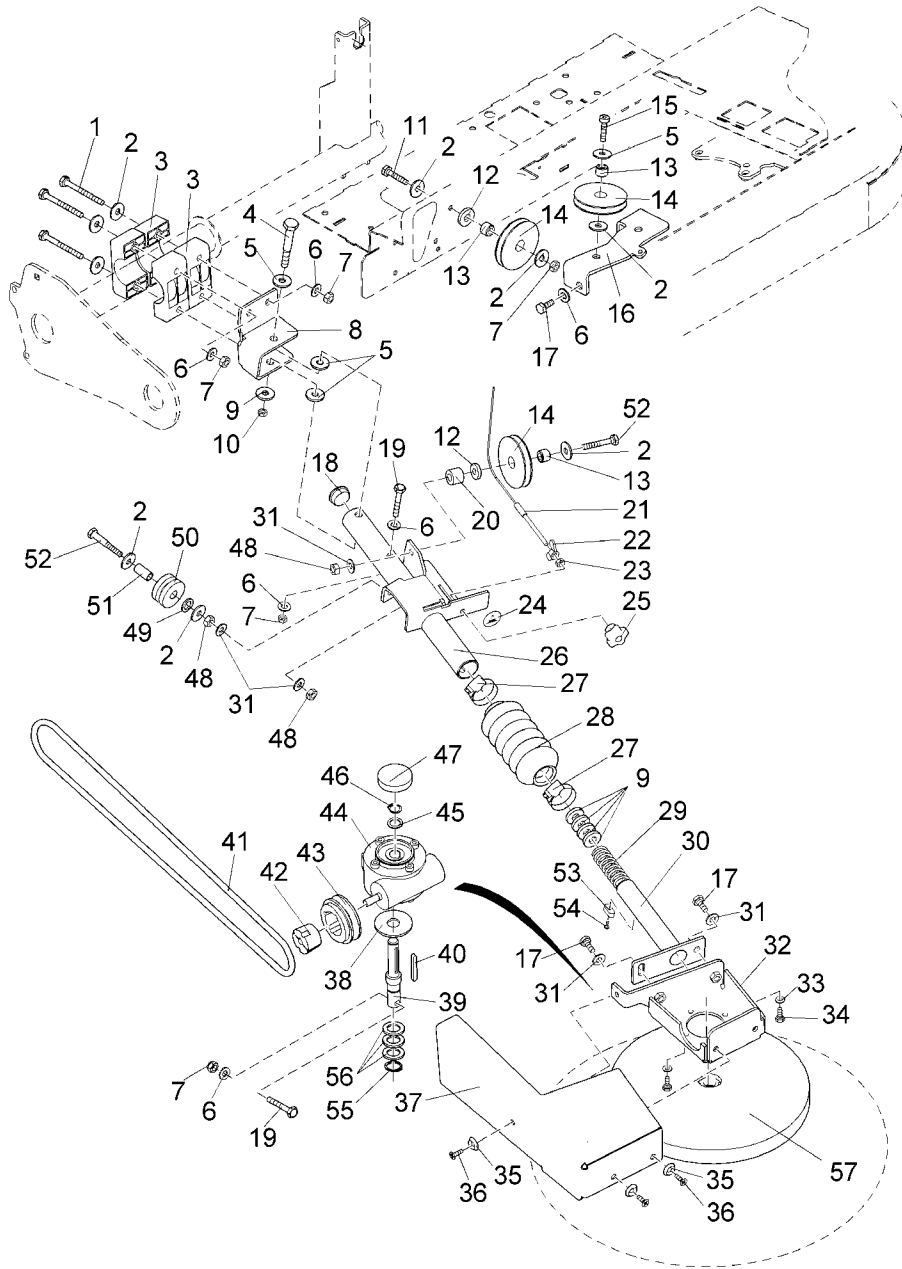


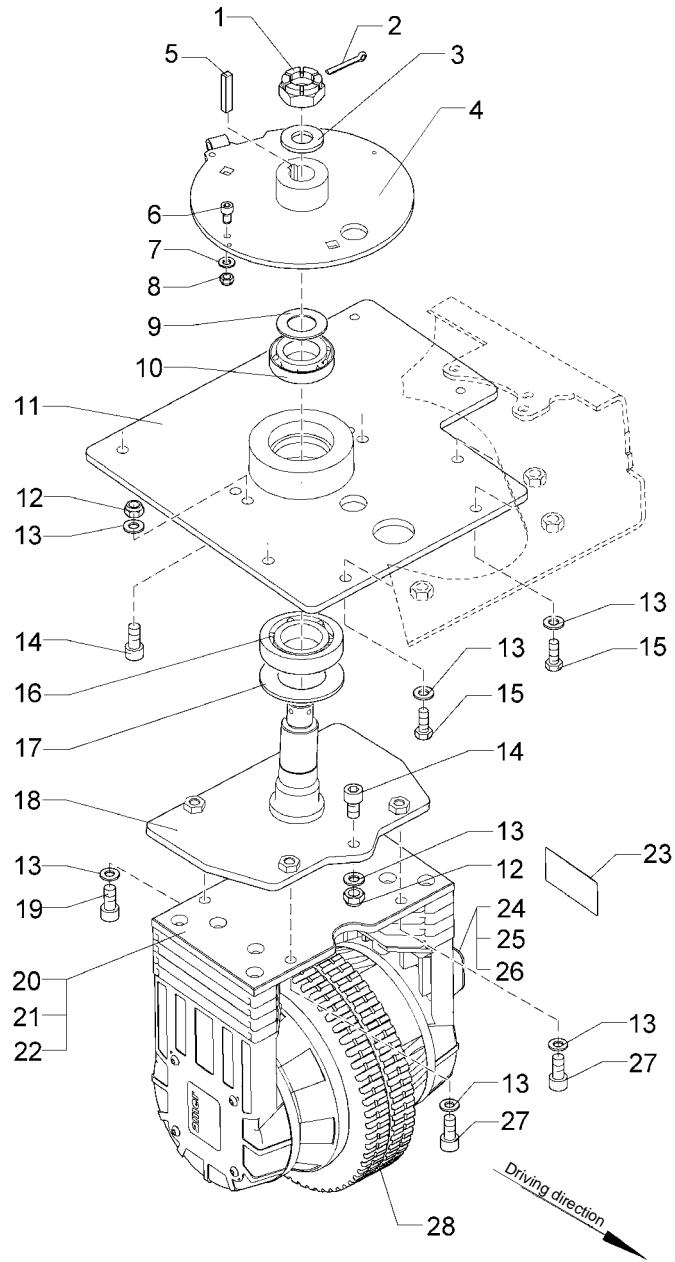
Fig. 25

6.13 Maintenance Schedule	hours of operation				
	Daily	after first	every 100	every 200	every 300
Check batter acid level and top with distilled water if required (with fully charged battery only)	X				
Check acid density of battery			X		
Clean battery poles and grease			X		
Check cables for damages and screwed connections for tight fit				X	
Check function of seat contact switch				X	
Visual check of front tires			X		
Check cylinder broom for wearing or foreign particles (e.g. wire, straps) and replace broom if required	X				
Check sweeping track and adjust if required			X		
Check sealing strips at the broom compartment, adjust if required or replace defective sealing strips			X		
Check sealing strips at dirt hopper, replace defective sealing strips				X	
Check side brush adjustment and brush bristles for wearing, adjust if required or replace side brush			X		
Check V-belt for wearing and correct tension and re-adjust if required		5	X		

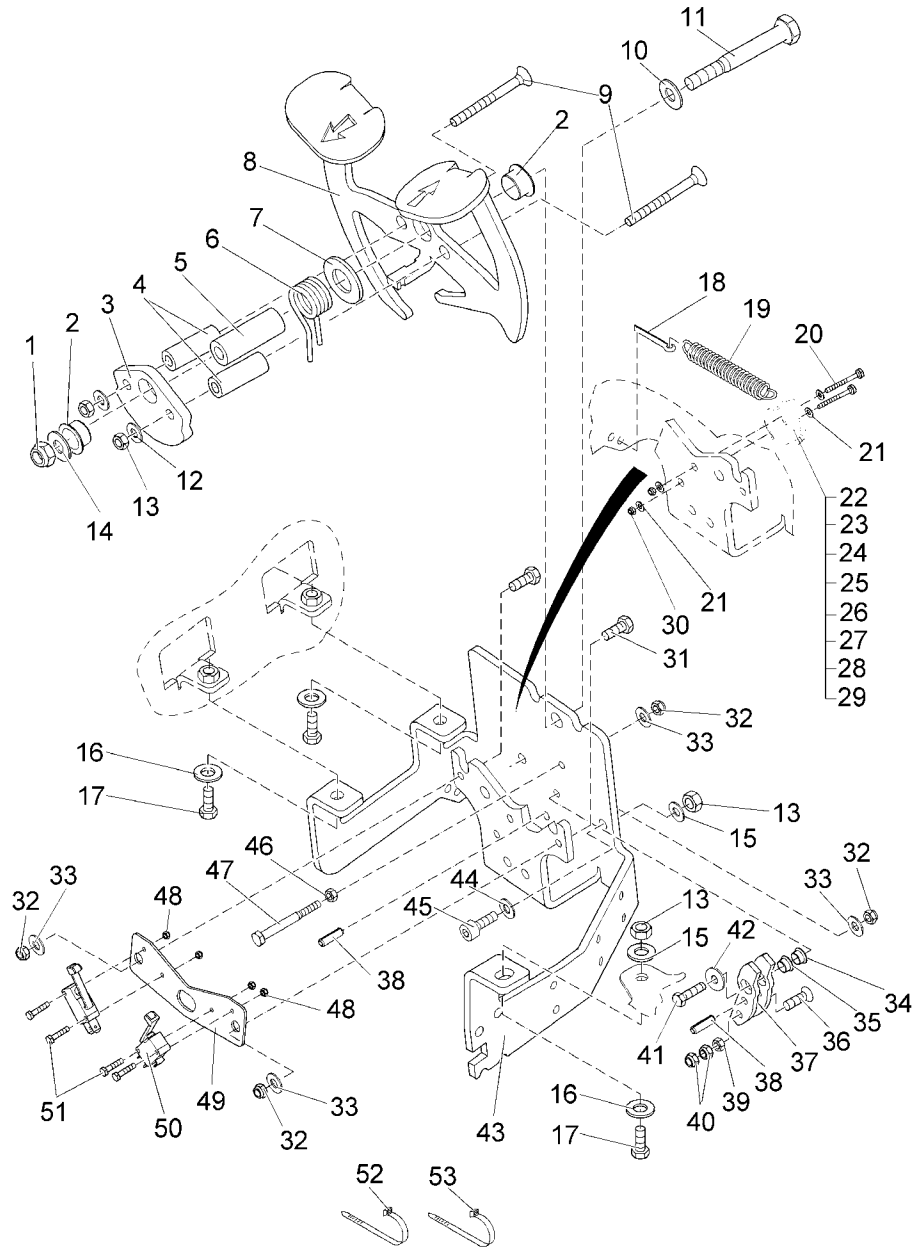
6.13 Maintenance Schedule	Hours of operation				
	Daily	after first	every 100	every 200	every 300
Visual check of V-belts	X				
Check service/parking brake and re-adjust if required			X		
Check filter system for tightness (visual check)			X		
Dismount plate filter and clean if required			X		
Clean travel drive assembly, brush drive, shaking motor			X		
Check tread of wheels				X	
Check function of electric-motor, carbon brushes for smooth operation and wearing; clean motor from carbon dust and replace carbon brushes if required		500		X	
Check carbon brushes of travel drive assembly (to be executed by qualified personnel only)		500		X	
Check hydraulic hoses and replace if required				X	
Check hydraulic fluid level for lifted-up disposal and refill if required			X		
Check tensioning moment of fixing screws for lifted-up disposal facility and re-tighten if required 36 lb. ft. (49 Nm)		5	X		
Check tension of steering chain and re-adjust tension if required				X	



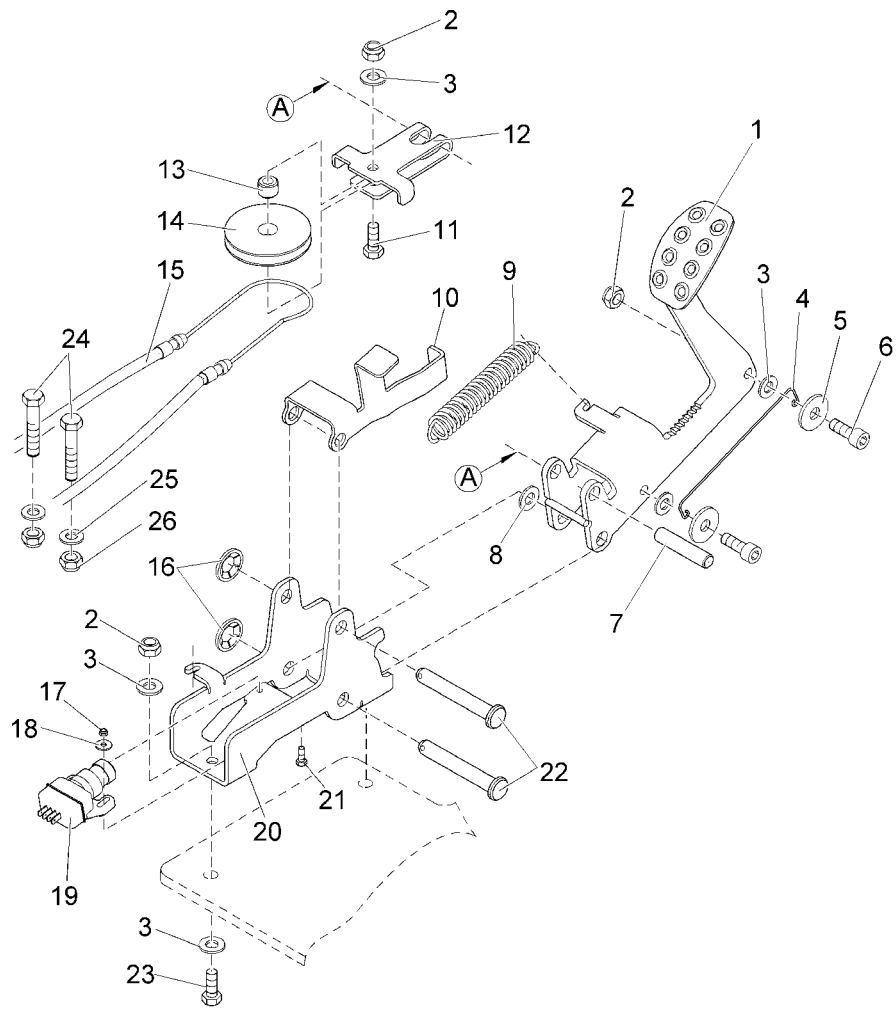
Side brush		
Pos.	Part No.	Description
1	00557600	Hex.bolt
2	00042900	Washer
3	01130610	Bearing
4	00041810	Hex.bolt
5	00046520	Washer
6	00053750	Washer
7	00051510	Hex. Nut
8	01130620	Holder
9	00855380	Washer
10	00132880	Hex. Nut
11	00054690	Hex.bolt
12	00695300	Washer
13	00974400	Bushing
14	00521270	Roller
15	00537390	Cylinder head screw
16	01130630	Holder
17	00553690	Hex.bolt
18	00152850	Drain plug
19	00041600	Hex.bolt
20	00029170	Bushing
21	01130640	Rope
22	00054020	Wing nut
23	00053330	Hex. Nut
24	01130650	Decal
25	00853730	Star handle
26	01130660	Side brush
27	01071480	Hose clamp
28	01130670	Bellows
29	00701250	Pressure spring
30	01130680	Holder
31	00740090	Washer
32	01132360	Gear support R.H.
33	00740280	Washer
34	00104500	Hex.bolt
35	00157690	Washer
36	00154680	Screw
37	01132370	Covering
38	00871350	Washer
39	01132790	Drive shaft
40	00072940	Feather key
41	01130710	Narrow drive belt
42	01130720	Bush
43	01130730	Belt pulley
44	01130740	Gear
45	00020610	Supporting ring
46	00022440	Retaining ring
47	01131530	Cap
48	00053350	Hex. Nut
49	00156720	Washer
50	00740930	Roller
51	00855240	Bushing
52	00138180	Hex.bolt
53	01132380	Fitted key
54	00695680	Fillister-head screw
55	00022230	Retaining ring
56	00041590	Supporting ring
57	01132800	Deflector grey



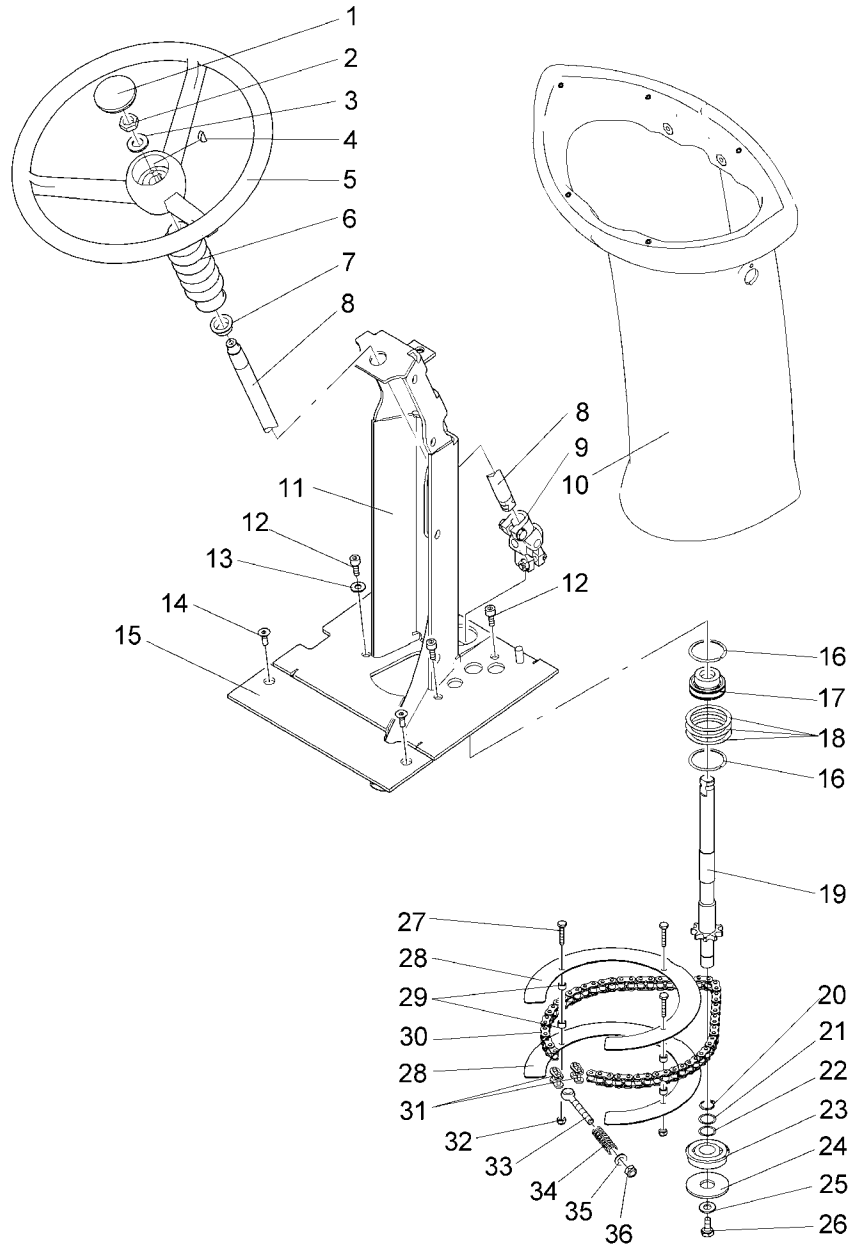
Front wheel drive		
Pos.	Part No.	Description
1	00048400	Slotted nut
2	00027880	Cotter pin
3	00743290	Washer
4	01132770	Parallel key
5	01132760	Guidance disk, cpl.
6	00136910	Cylinder head screw
7	00053730	Washer
8	00051520	Hex. Nut
9	01130030	Nilos ring
10	00048410	Cone roller bearing
11	03002980	Front wheel bearing plate
12	00053360	Hex. Nut
13	00870090	Washer
14	00135030	Cylinder head screw
15	00053310	Hex.bolt
16	00137930	Cone roller bearing
17	00743270	Lever
18	01133800	Wheelmount
19	00108590	Cylinder head screw
20	01131720	Hub
21	00133260	Washer
22	00740310	Washer
23	00133700	Hex.bolt
24	01131730	Hexagon screw
25	01133040	Tyre
26	01133050	Tube
27	01133020	Rim half
28	01133010	Rim half
29	01133060	Valve cap



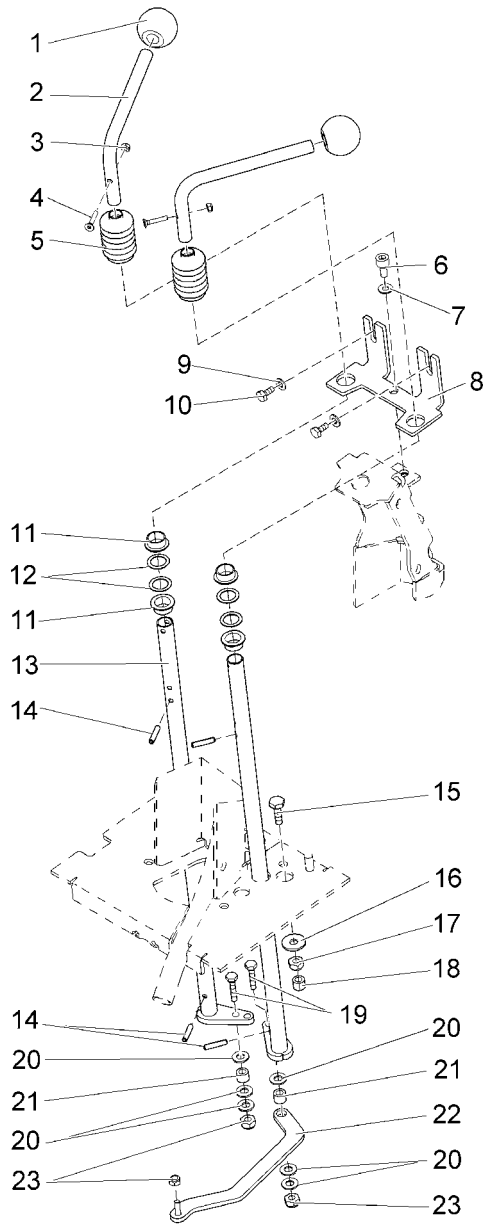
Accelerator		
Pos.	Part No.	Description
1	00051490	Hex. Nut
2	01130490	Bush
3	01130500	Plate
4	01130510	Bush
5	01130520	Bush
6	01130530	Spring
7	00154550	Washer
8	01130540	Accelerator
9	01130550	Countersunk screw
10	00875950	Washer
11	00105390	Hex.bolt
12	00740090	Washer
13	00053350	Hex. Nut
14	00053770	Washer
15	00740310	Washer
16	00053750	Washer
17	00077110	Hex.bolt
18	00054890	Cotter pin
19	01130560	Pull spring
20	01130570	Hex.bolt
21	00874720	Washer
22	00975500	Turn angle transmitter
23	01073530	Transparency
24	01006210	Pin contact
25	01006190	Seal
26	03003250	Pin housing
27	00559670	Case
28	00083640	Plastic cover
29	03003260	Line
30	00133830	Hex. Nut
31	00053020	Hex.bolt
32	00051520	Hex. Nut
33	00053730	Washer
34	01130580	Bush
35	01130590	Bush
36	01073650	Screw
37	01130600	Plate
38	00046440	Dowel pin
39	00053320	Hex. Nut
40	00051340	Hex. Nut
41	00053040	Hex.bolt
42	00135120	Washer
43	03003270	Angel
44	00924700	Washer
45	00045540	Cylinder head screw
46	00053330	Hex. Nut
47	00737680	Hex.bolt
48	00022200	Hex. Nut
49	03003280	Plate
50	00975510	Micro switch
51	00022180	Hex.bolt
52	00967760	Cable tie
53	00121150	Cable tie



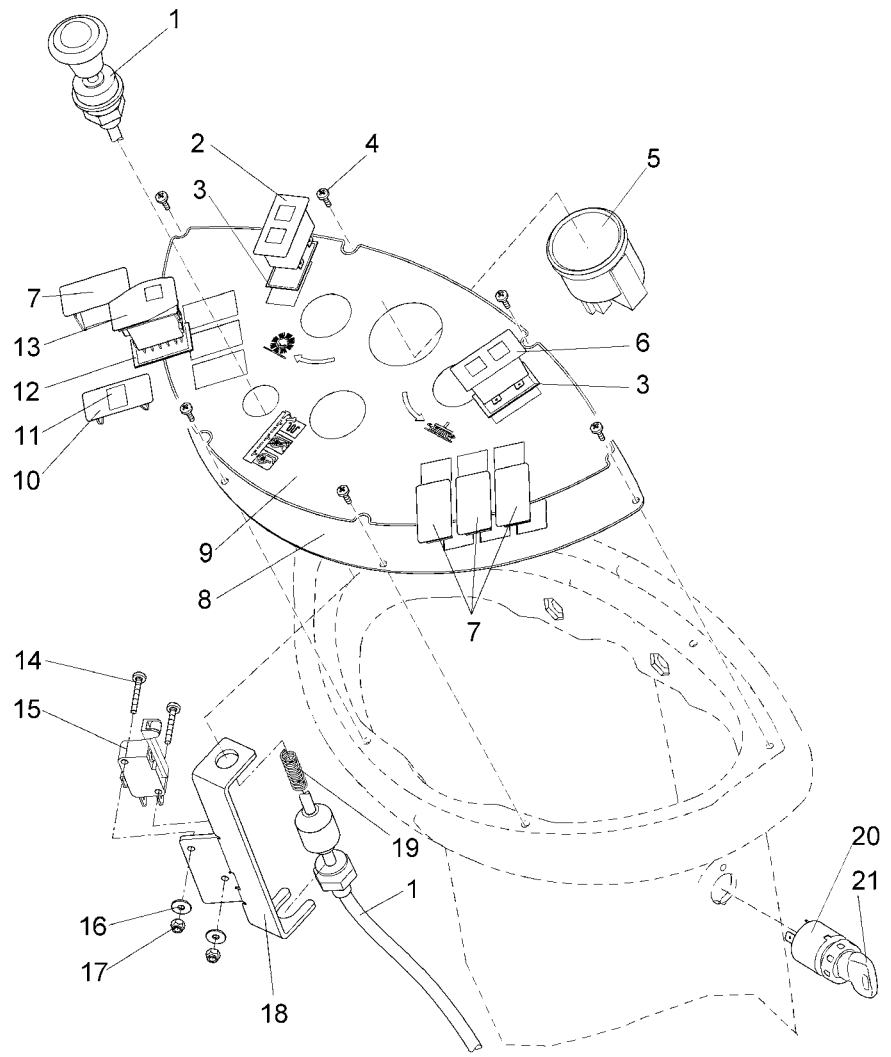
Pedal brake		
Pos.	Part No.	Description
1	01130320	Pedal brake
2	00051510	Hex. Nut
3	00053750	Washer
4	00854270	Handle
5	00042900	Washer
6	00124290	Cylinder head screw
7	01130330	Bolt
8	00555130	Sealing ring
9	01055930	Tension spring
10	01130340	Barrier lever
11	00053110	Hex.bolt
12	03003170	Handle
13	00974400	Bushing
14	00521270	Roller
15	01130350	Bowden cable for brake
16	00706180	Thrust washer
17	00133830	Hex. Nut
18	00557150	Washer
19	00927610	Switch
20	03003180	Bracket
21	00108490	Hex.bolt
22	00879630	Bolt
23	00053100	Hex.bolt
24	00074500	Hex.bolt
25	00740090	Washer
26	00053350	Hex. Nut



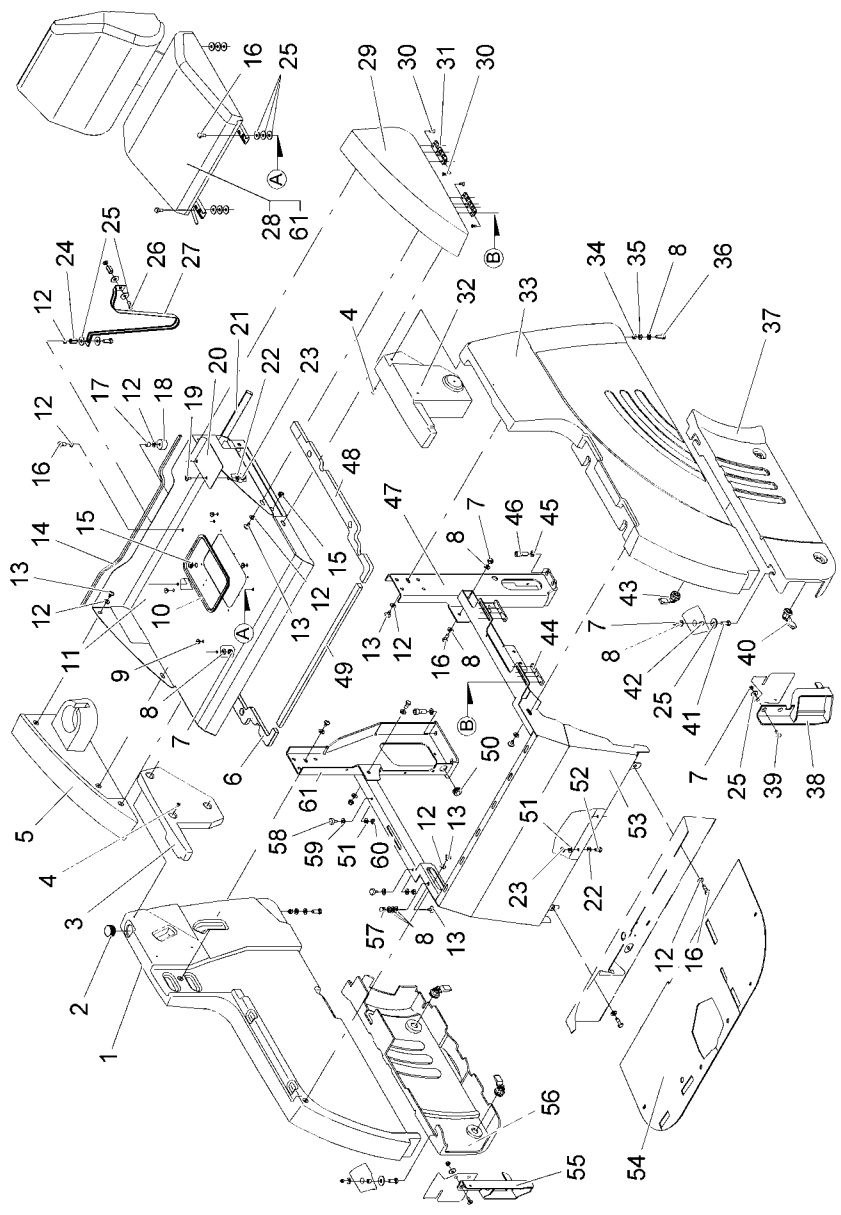
Steering		
Pos.	Part No.	Description
1	00852310	Cap
2	00053740	Hex. Nut
3	00053780	Washer
4	00153600	Woodruff key
5	00770220	Steering wheel
6	01130390	Bellows
7	01130470	Slide bearing bush
8	01132830	Wheelmount
9	00746040	Cardan joint
10	01132840	Steering column, cpl.
11	03004850	Steering carrier, cpl.
12	00045540	Cylinder head screw
13	00740090	Washer
14	00059080	Screw
15	03003240	Plate
16	01001260	Retaining ring
17	01001320	Bearing
18	01132850	Adjusting washer
19	01132860	Handlebar, cpl.
20	00022230	Retaining ring
21	00155180	Adjusting washer
22	00125680	Adjusting washer
23	00901380	Deep groove ball bearing
24	00954200	Washer
25	00740080	Washer
26	00053080	Hex.bolt
27	00053040	Hex.bolt
28	01132870	Plate
29	01006840	Bushing
30	01132880	Roller chain
31	00535820	Section
32	00051520	Hex. Nut
33	01132890	Eyebolt
34	00550410	Pressure spring
35	00053750	Washer
36	00051510	Hex. Nut



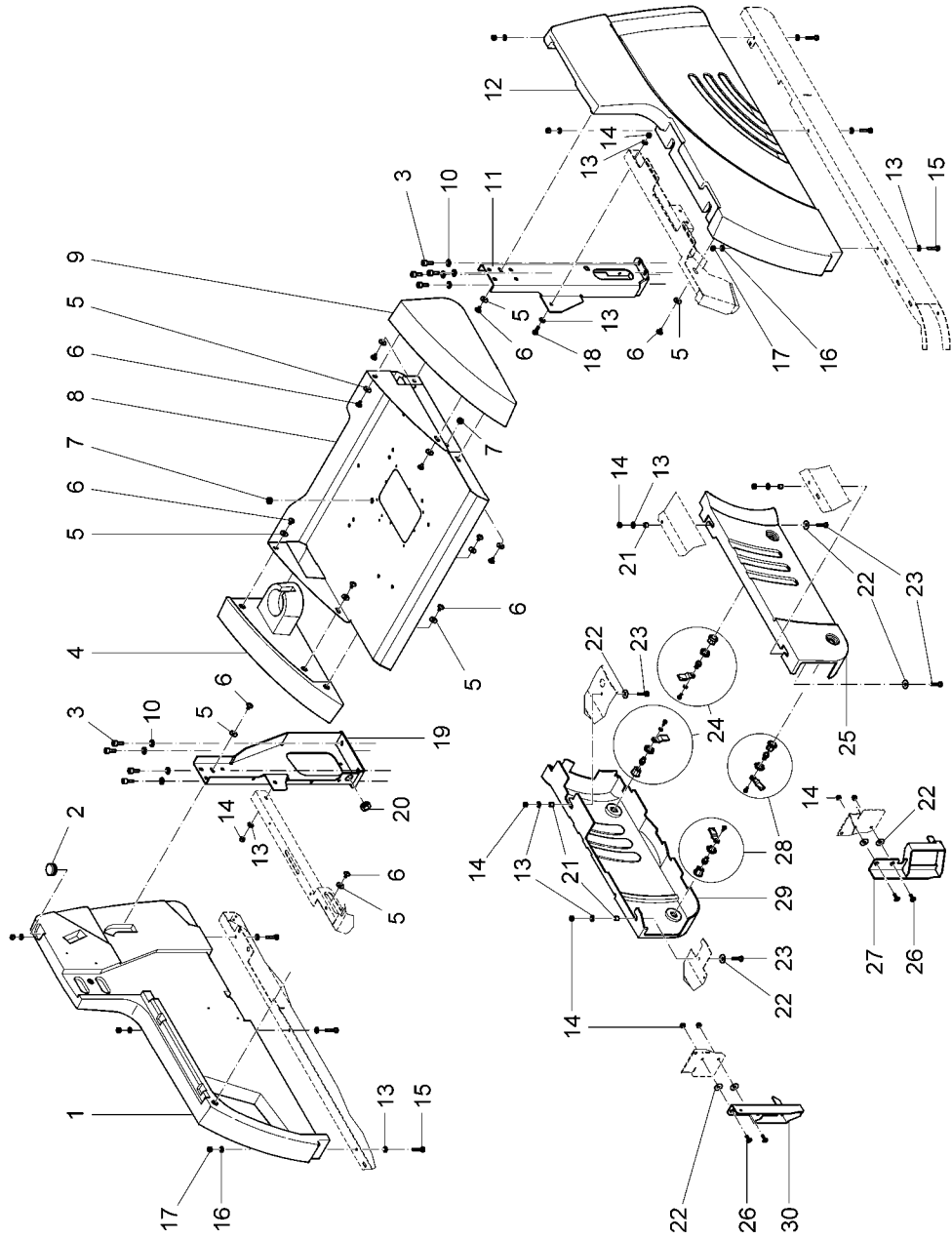
Manipulation for side brush apron and sweeping roller		
Pos.	Part No.	Description
1	01132810	Knob
2	01130410	Arc
3	00051520	Hex. Nut
4	01093180	Screw
5	01132820	Bellow
6	00108590	Cylinder head screw
7	00053760	Washer
8	03004840	Retainer
9	00053080	Hex.bolt
10	00053750	Washer
11	01130470	Slide bearing bush
12	00153700	Adjusting washer
13	01130430	Lever
14	00044160	Dowel pin
15	00053160	Hex.bolt
16	00046520	Washer
17	00051500	Hex. Nut
18	01090960	Hose PVC
19	00054690	Hex.bolt
20	00053750	Washer
21	00733400	Spacer sleeve
22	01130440	Supporting plate
23	00051510	Hex. Nut



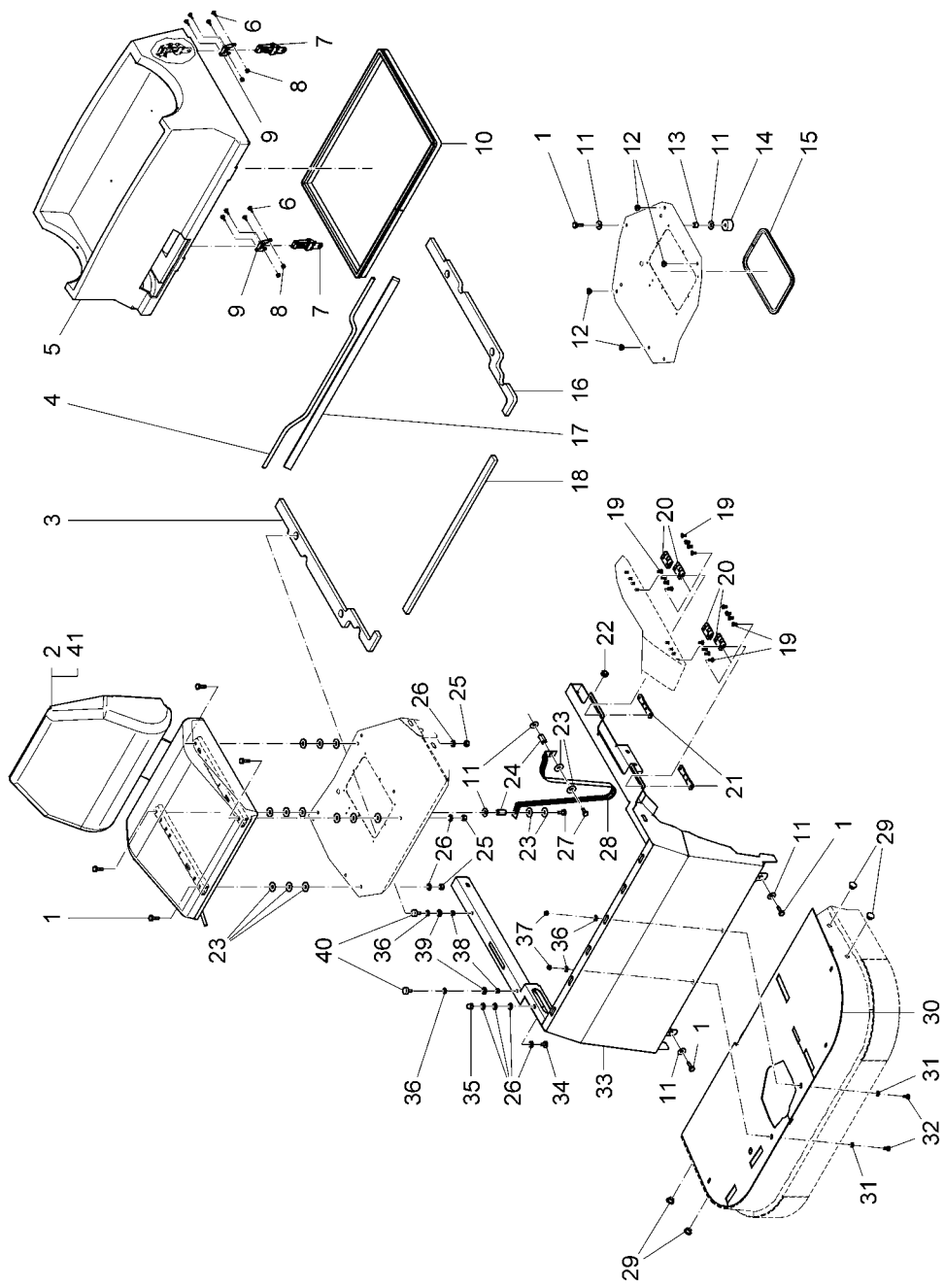
Control panel		
Pos.	Part No.	Description
1	01131520	Actuating cable
2	01132900	Indicator lamp shake/blower
3	01131640	Gasket control-light
4	00052620	Fillister-head screw
5	01132910	Signal transmitter
6	01132920	Indicator lamp brake
7	01132930	Cap
8	03004860	Control panel plate
9	01132940	Control panel foil
10	01132950	Cover
11	01073530	Transparency
12	01132960	Switch gasket
13	01132970	Switch horn
14	00955220	Fillister-head screw
15	00975510	Micro switch
16	00747400	Washer
17	00022200	Hex. Nut
18	03003450	Plate
19	00902200	Pressure spring
20	00021710	Key switch
21	00745890	Set (2pc.) key



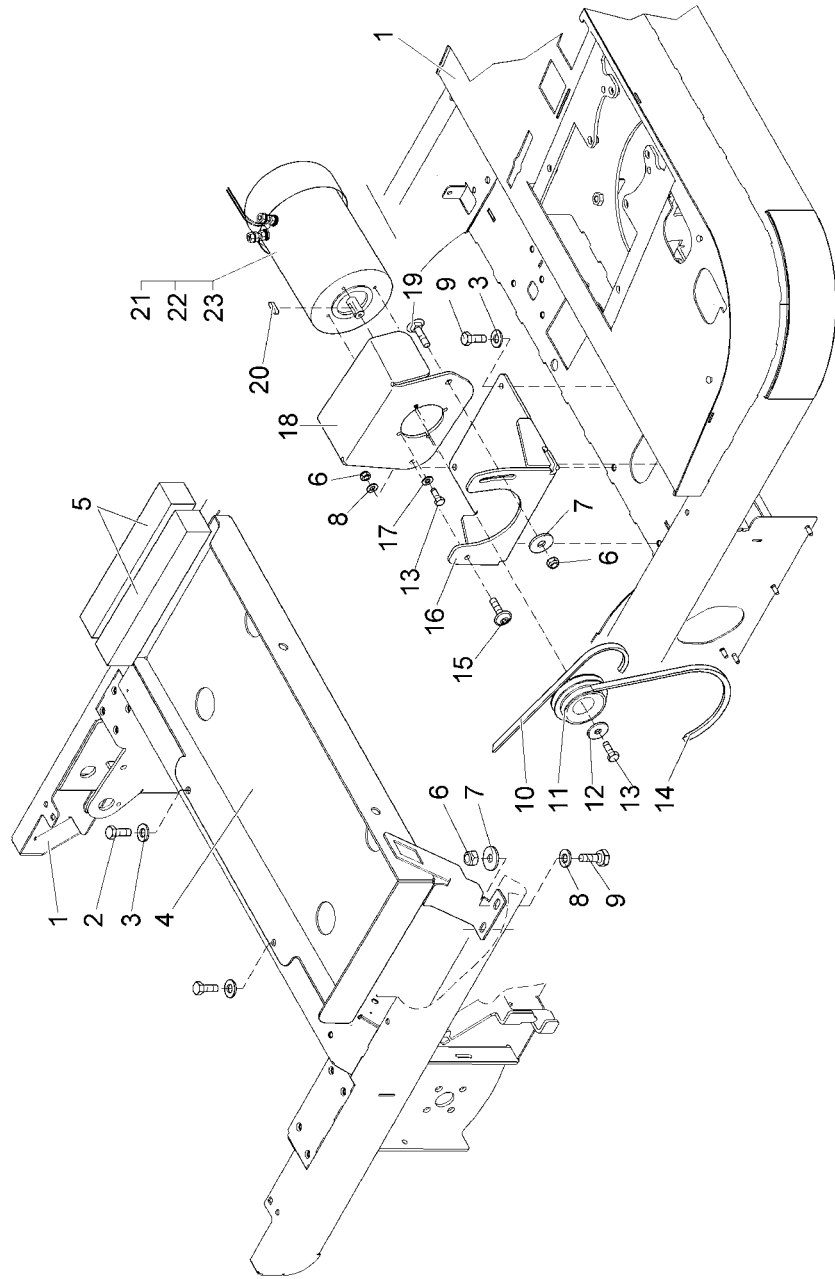
Seat covering		
Pos.	Part No.	Description
1	01075950	Covering R.H. red
2	01133310	Gland
3	01075860	Covering R.H. red
4	01063420	Self tapping screw
5	01075830	Hood R.H. red
6	01133340	Gasket R.H.
7	00051510	Hex. Nut
8	00053750	Washer
9	00906060	Drain plug
10	00721090	Edge protection
11	03005450	Seat flap
12	00740080	Washer
13	01133350	Lens flange screw
14	00721090	Edge protection
15	00740360	Cable sleeve
16	00077110	Hex.bolt
17	00733400	Spacer sleeve
18	00733560	Bumper
19	00102520	Screw
20	01133360	Plate
21	01031010	Sealing tape
22	00053730	Washer
23	00051520	Hex. Nut
24	00744340	Hex. Nut
25	00042900	Washer
26	00053080	Hex.bolt
27	01055740	Belt
28	01071360	Seat
29	01075820	Hood L.H. red
30	01133380	Countersunk screw
31	00029230	Hinge
32	01075870	Covering L.H. red
33	01075810	Covering L.H. red
34	00053350	Hex. Nut
35	00740310	Washer
36	00054690	Hex.bolt
37	01130250	Covering, L.H.
38	01133410	Retainer L.H.
39	00059080	Screw
40	00121730	Sash fastener
41	00053110	Hex.bolt
42	00733400	Spacer sleeve
43	01130270	Casement fastener
44	01072970	Adjusting latch
45	00870090	Washer
46	00135030	Cylinder head screw
47	01133420	Support
48	01133430	Gasket L.H.
49	01031010	Sealing tape
50	00555440	Cable sleeve
51	00730940	Washer
52	00104500	Hex.bolt
53	03005460	Support
54	01133440	Rubber mat
55	01133450	Retainer R.H.
56	01130260	Covering, R.H.
57	00041790	Cap nut
58	00127470	Stop buffer
59	00856290	Washer
60	00053330	Hex. Nut



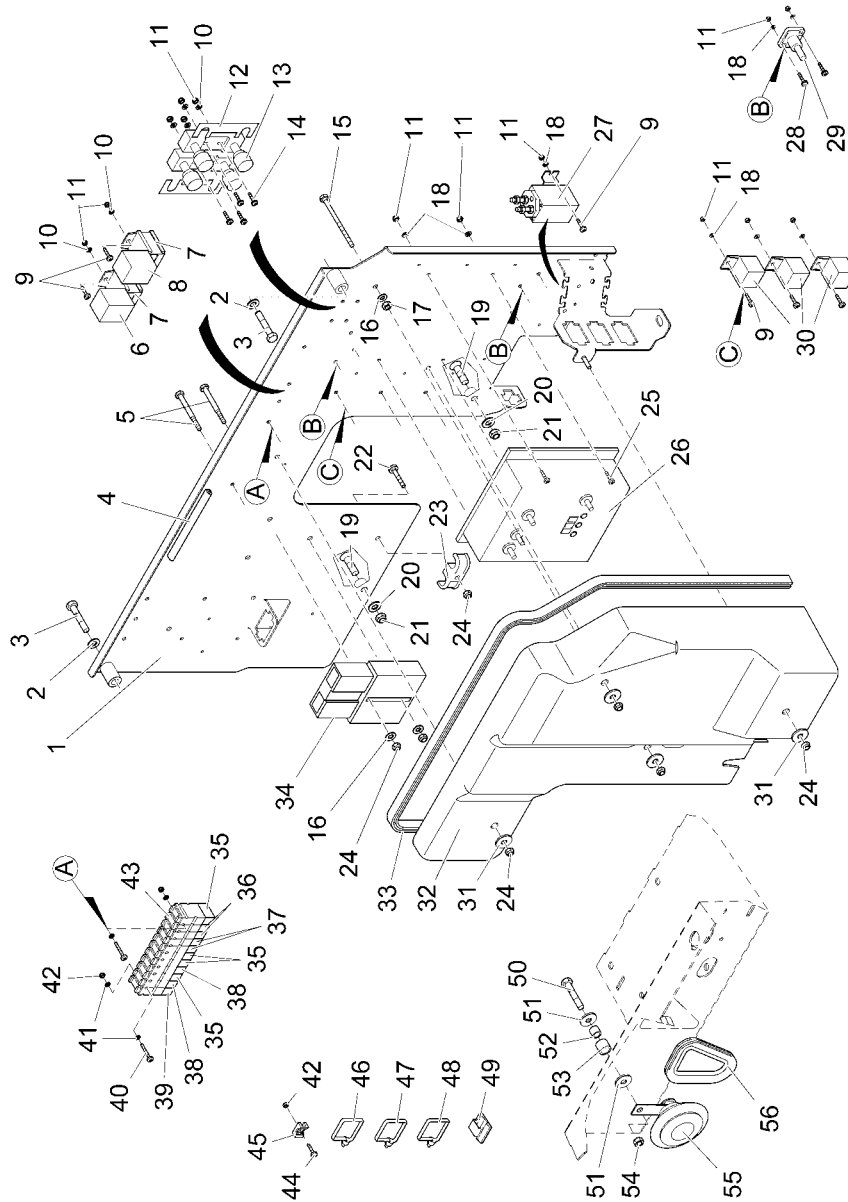
Seat- Covering lift-up disposal (Part 1)		
Pos.	Part No.	Description
1	01075950	Covering R.H. red
2	01133310	Gland
3	00135030	Cylinder head screw
4	01075830	Hood R.H. red
5	00740080	Washer
6	01133350	Lens flange screw
7	00740360	Cable sleeve
8	03005450	Seat flap
9	01075820	Hood L.H. red
10	00870090	Washer
11	01133420	Support
12	01075810	Covering L.H. red
13	00053750	Washer
14	00051510	Hex. Nut
15	00054690	Hex.bolt
16	00740310	Washer
17	00053350	Hex. Nut
18	00077110	Hex.bolt
19	01133460	Support
21	00733400	Spacer sleeve
22	00042900	Washer
23	00053110	Hex.bolt
24	01130270	Casement fastener
25	01130250	Covering, L.H.
26	00059080	Screw
27	01133410	Retainer L.H.
28	00121730	Sash fastener
29	01130260	Covering, R.H.
30	01133450	Retainer R.H.



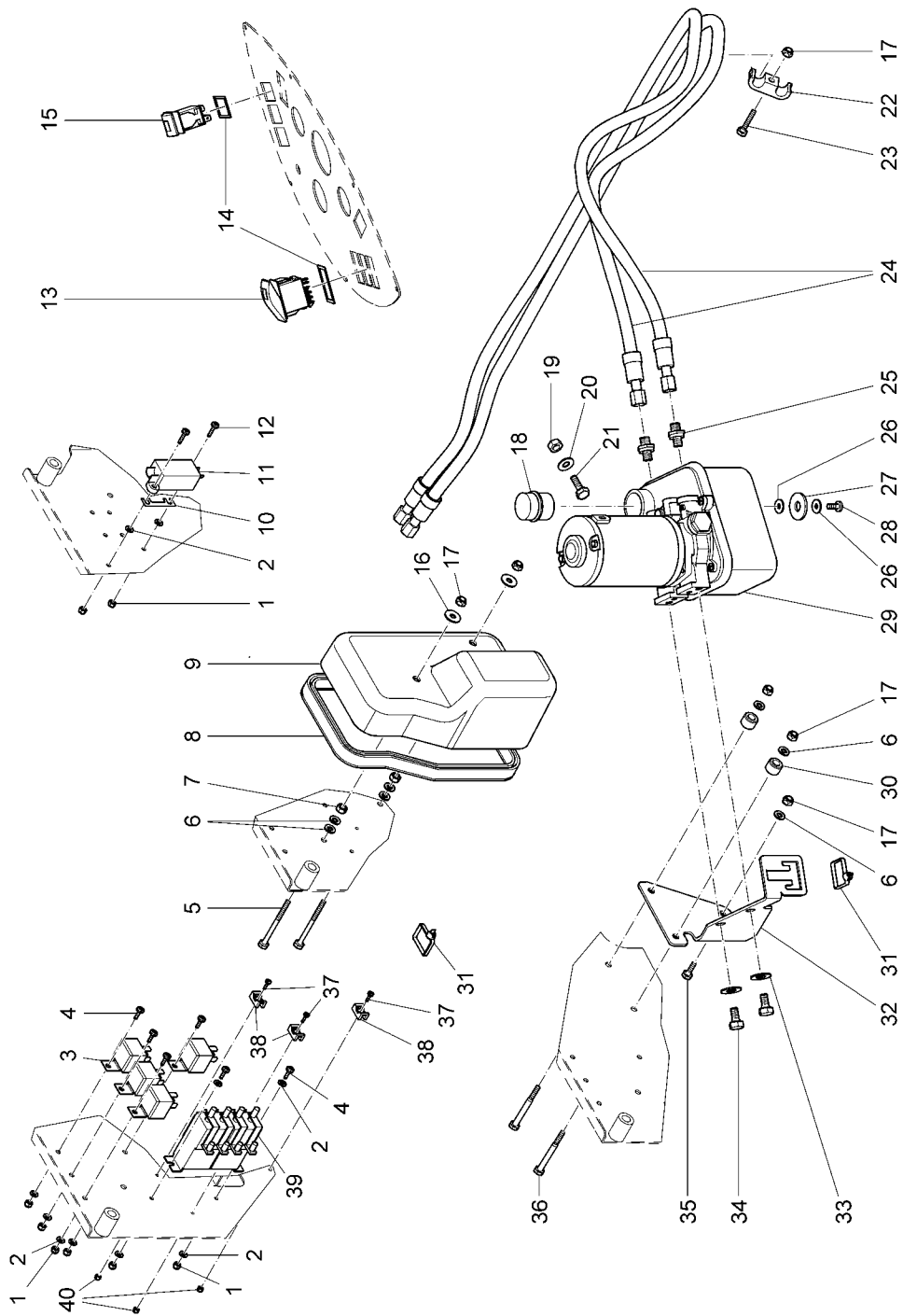
Seat - Covering lift-up disposal (Part 2)		
Pos.	Part No.	Description
1	00077110	Hex.bolt
2	01071360	Seat
3	01133340	Gasket R.H.
4	00721090	Edge protection
5	01075840	Filter cover red
6	00905520	Screw
7	01133090	Catch
8	00053320	Hex. Nut
9	01133100	Plate
10	00752350	Edge protection
11	00740080	Washer
12	00906060	Drain plug
13	00733400	Spacer sleeve
14	00733560	Bumper
15	00721090	Edge protection
16	01133430	Gasket L.H.
17	01031010	Sealing tape
18	01031010	Sealing tape
19	01133380	Countersunk screw
20	00029230	Hinge
21	01072970	Adjusting latch
22	00740360	Cable sleeve
23	00042900	Washer
24	00744340	Hex. Nut
25	00051510	Hex. Nut
26	00053750	Washer
27	00053080	Hex.bolt
28	01055740	Belt
29	00558390	Drain plug
30	01133440	Rubber mat
31	00053730	Washer
32	00104500	Hex.bolt
33	03005460	Support
34	01133350	Lens flange screw
35	00041790	Cap nut
36	00730940	Washer
37	00051520	Hex. Nut
38	00053330	Hex. Nut
39	00856290	Washer
40	00127470	Stop buffer
41	01073290	Micro switch



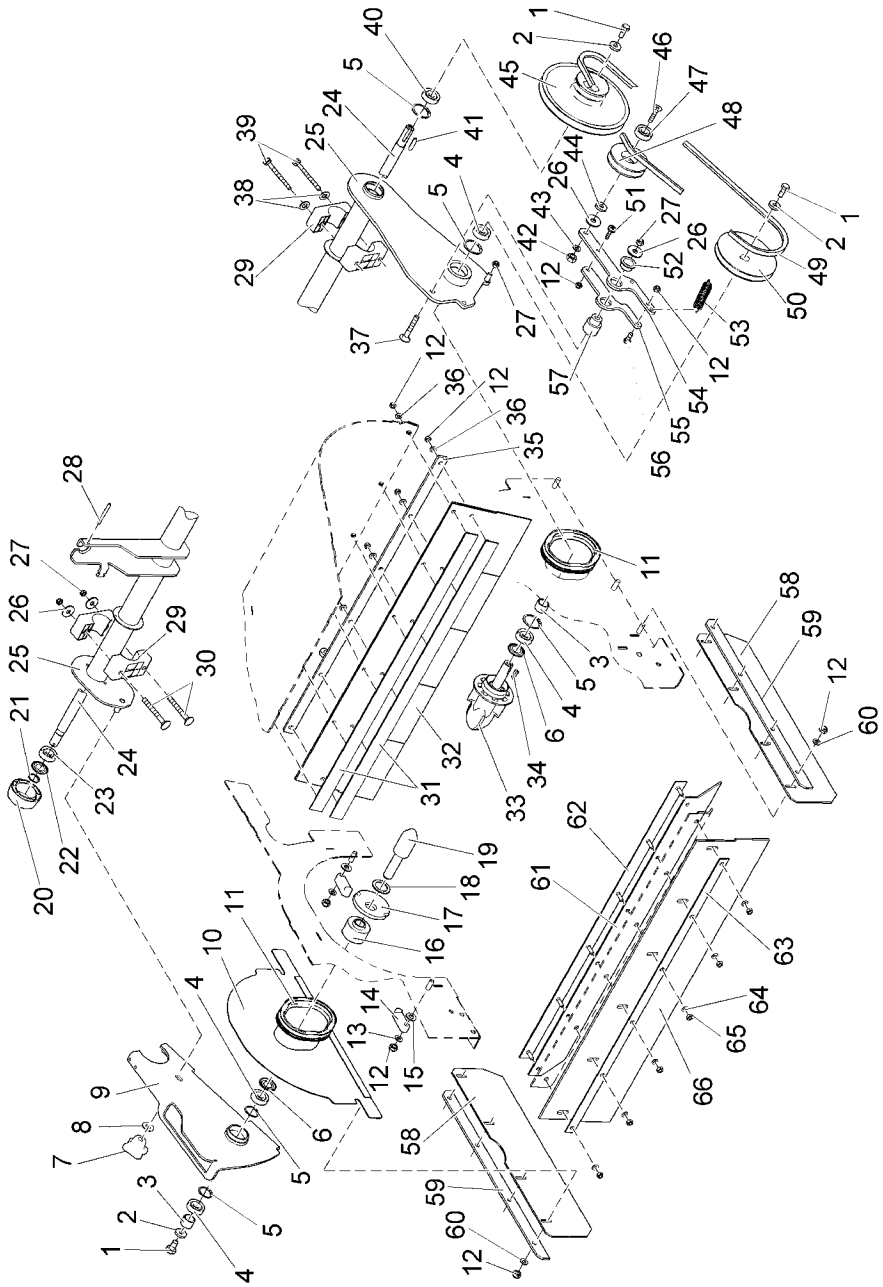
Motor - Chassis		
Pos.	Part No.	Description
1	03003360	Chassis, cpl
2	00053080	Hex.bolt
3	00740090	Washer
4	01133110	Battery console
5	01133120	Block of wood
6	00051510	Hex. Nut
7	00042900	Washer
8	00053750	Washer
9	00053090	Hex.bolt
10	01131280	Drive belt
11	01131290	Drive belt pulley
12	00874340	Washer
13	00053010	Hex.bolt
14	01131300	Drive belt
15	01092910	Fillister-head screw
16	03003380	Bracket
17	00730940	Washer
18	03003390	Holder
19	00864520	Screw
20	00054260	Feather key
21	01133130	Engine
22	01058650	Carbon brush
23	01133140	Temperature switch



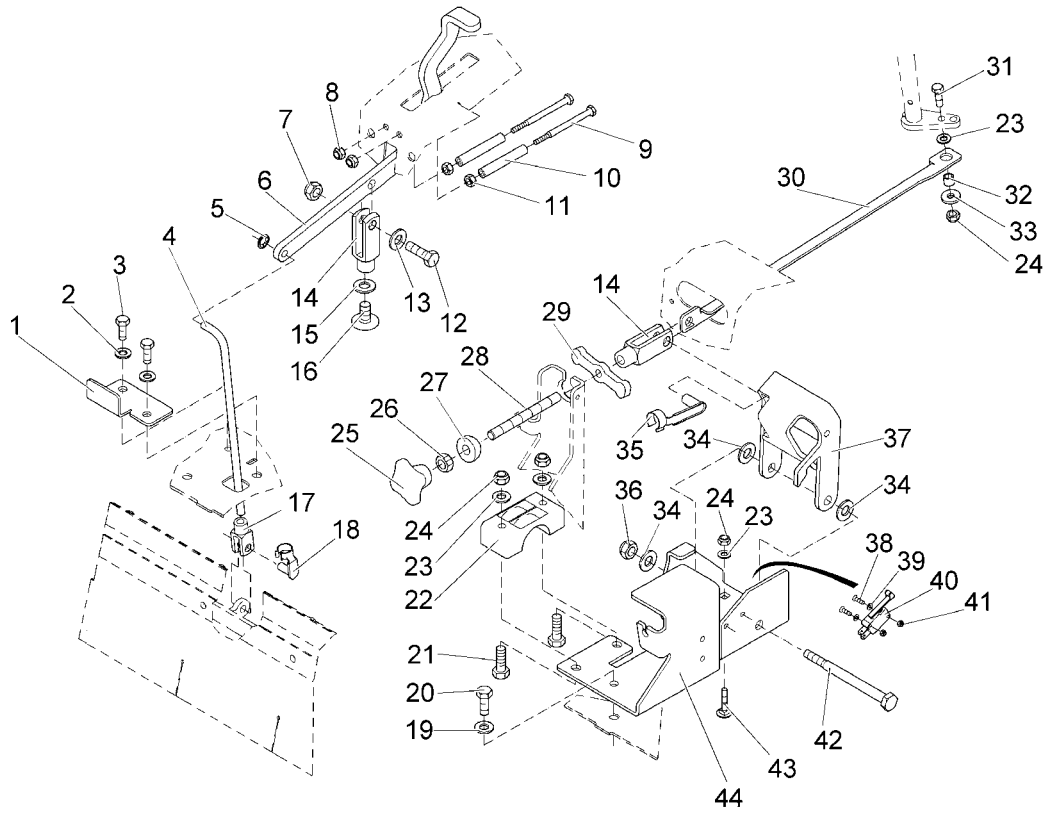
Electrical equipment		
Pos.	Part No.	Description
1	01133160	E-carrier
2	00740090	Washer
3	00041600	Hex.bolt
4	00721090	Edge protection
5	00053050	Hex.bolt
6	01133170	Relay
7	01018100	Housing
8	01133180	Relay
9	00052620	Fillister-head screw
10	00053710	Washer
11	00133830	Hex. Nut
12	01056100	Fuse
13	00121440	Fuse holder
14	00954570	Fillister-head screw
15	00047600	Hex.bolt
16	00053730	Washer
17	00053330	Hex. Nut
18	00053710	Washer
19	00509000	Countersunk screw M8x35
20	00053750	Washer
21	00051510	Hex. Nut
22	00537220	Fillister-head screw
23	00748300	Clamp
24	00051520	Hex. Nut
25	00731550	Fillister-head screw
26	01130760	Control system
27	00750210	Solenoid
28	00731550	Fillister-head screw
29	00744670	Single clamp
30	00965030	Relay
31	00135120	Washer
32	01133190	Cover
33	01132640	Edge protection
34	01075720	Socket
35	00906120	Fuse
36	00152060	Fuse
37	00509550	Fuse
38	00733630	Fuse
39	00500360	Fuse link 20A
40	00101580	Fillister-head screw
41	00553740	Washer
42	00022200	Hex. Nut
43	00733650	Fuse holder
44	00535780	Fillister-head screw
45	00780710	Socket
46	00967760	Cable tie
47	00121010	Cable tie
48	00121150	Cable tie
49	00020650	Cable clip
50	00053110	Hex.bolt
51	00557150	Washer
52	00733400	Spacer sleeve
53	01006200	Sealing plug
54	00053350	Hex. Nut
55	01133200	Horn
56	00161240	Edge protection



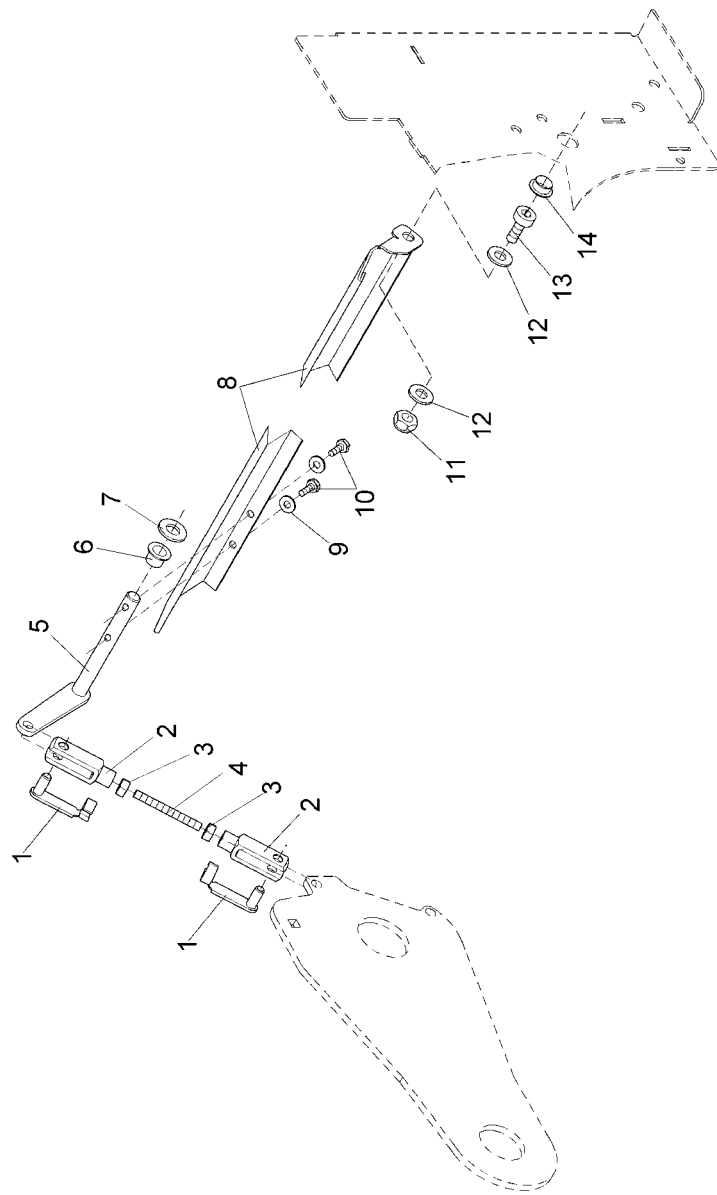
Electrical equipment lift-up disposal		
Pos.	Part No.	Description
1	00133830	Hex. Nut
2	00053710	Washer
3	00965030	Relay
4	00052620	Fillister-head screw
5	01132650	Hexagon screw
6	00053730	Washer
7	00053330	Hex. Nut
8	01132640	Edge protection
9	01134440	Cover
10	01134450	Fuse link
11	00903510	Fuse holder
12	00731550	Fillister-head screw
13	01134360	Switch
14	01132960	Switch gasket
15	01134370	Switch
16	00135120	Washer
17	00051520	Hex. Nut
18	01134410	Oil tank cap
19	00053350	Hex. Nut
20	00740090	Washer
21	00077110	Hex.bolt
22	01073420	Clamp
23	00053040	Hex.bolt
24	01134460	Hose
25	01134430	Straight screw connection
26	00555520	Washer
27	00046520	Washer
28	00053960	Tapping screw
29	01135070	Hydraulic unit
30	00974400	Bushing
31	00967760	Cable tie
32	01134470	Angle
33	00740290	Washer
34	01134400	Hexagon screw
35	00053010	Hex.bolt
36	00526500	Hex.bolt
37	00535780	Fillister-head screw
38	00780710	Socket
39	01134480	Reversion contactor
40	00022200	Hex. Nut



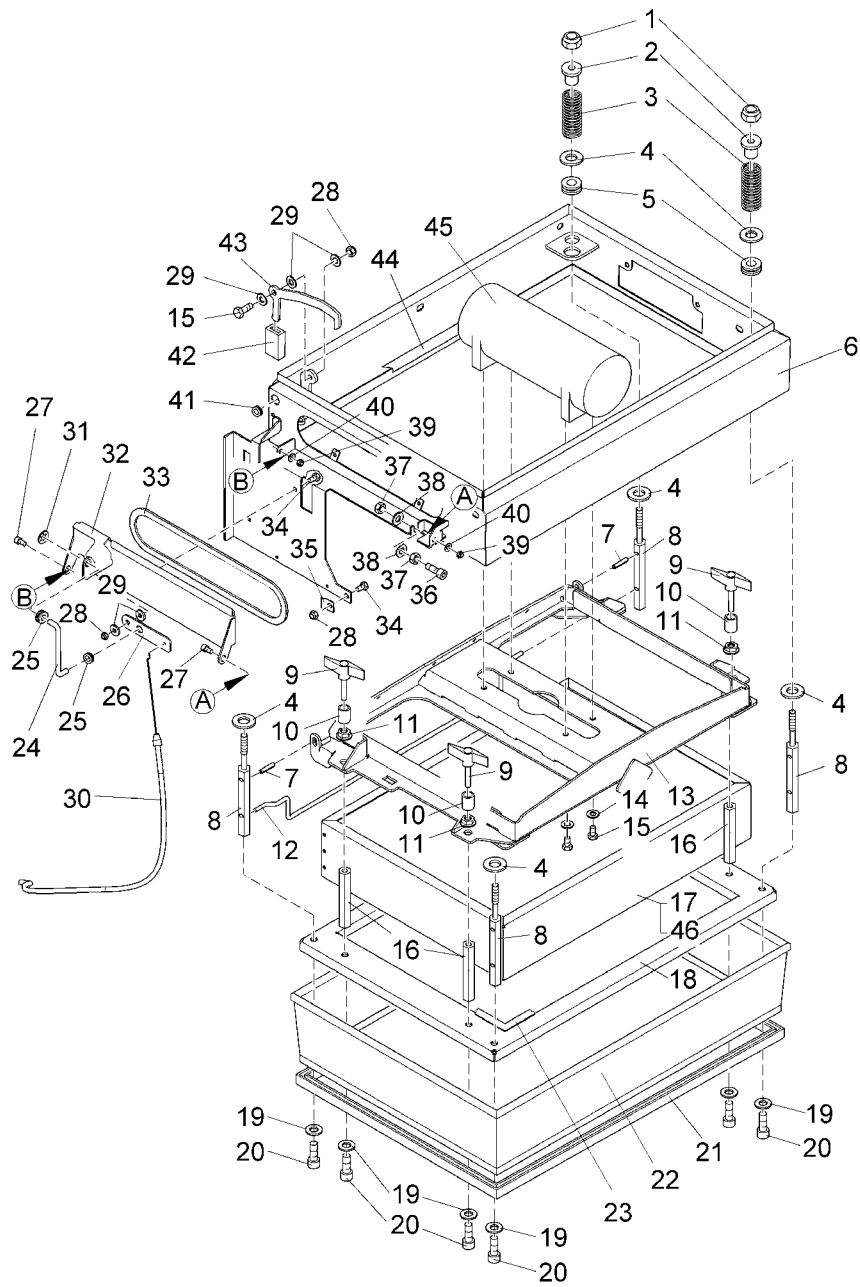
Group of main sweeper roller		
Pos.	Part No.	Description
1	00053080	Hex.bolt
2	00695300	Washer
3	00509180	Sleeve
4	00106300	Deep groove ball bearing
5	00101660	Retaining ring
6	00102410	Ring
7	00866720	Star handle
8	00740290	Washer
9	01130830	Brush rocker, L.H.
10	01130840	Side shield
11	00681570	Edge protection
12	00051520	Hex. Nut
13	00053840	Spring washer
14	00968190	Toggle
15	00053750	Washer
16	01130850	Gasket
17	01130860	Washer
18	00135560	Supporting ring
19	01130870	Carrier
20	01130880	Centering brush
21	00022340	Retaining ring
22	00104480	Ring
23	00706360	Deep groove ball bearing
24	01130890	Shaft
25	03003310	Torque shaft
26	00042900	Washer
27	00051510	Hex. Nut
28	00861020	Dowel pin
29	01130610	Bearing
30	01130900	Cup head square neck bolt
31	01130910	Retaining strip
32	01130800	Brush apron, front
33	01130920	Drag element
34	00054260	Feather key
35	01130930	Strip
36	00053730	Washer
37	01130940	Cup head square neck bolt
38	00740080	Washer
39	00557600	Hex.bolt
40	00538360	Deep groove ball bearing
41	00107380	Feather key
42	00046500	Hex. Nut
43	00740310	Washer
44	01130950	Bushing
45	01130960	Drive belt pulley
46	00509000	Countersunk screw M8x35
47	00126330	Deep groove ball bearing
48	01130970	Idler
49	01130980	Narrow drive belt
50	01130990	Belt pulley
51	00053550	Fillister-head screw
52	01130470	Slide bearing bush
53	01131000	Pull spring
54	01131010	Holder
55	01131020	Holder for idler
56	00053020	Hex.bolt
57	01131030	Bolt
58	01130820	Brush apron
59	01131050	Strip
60	00053730	Washer
61	01131040	Brush apron, rear
62	01130910	Retaining strip
63	00243450	Fitting strip
64	00740280	Washer
65	00053330	Hex. Nut
66	01130810	Brush apron, rear



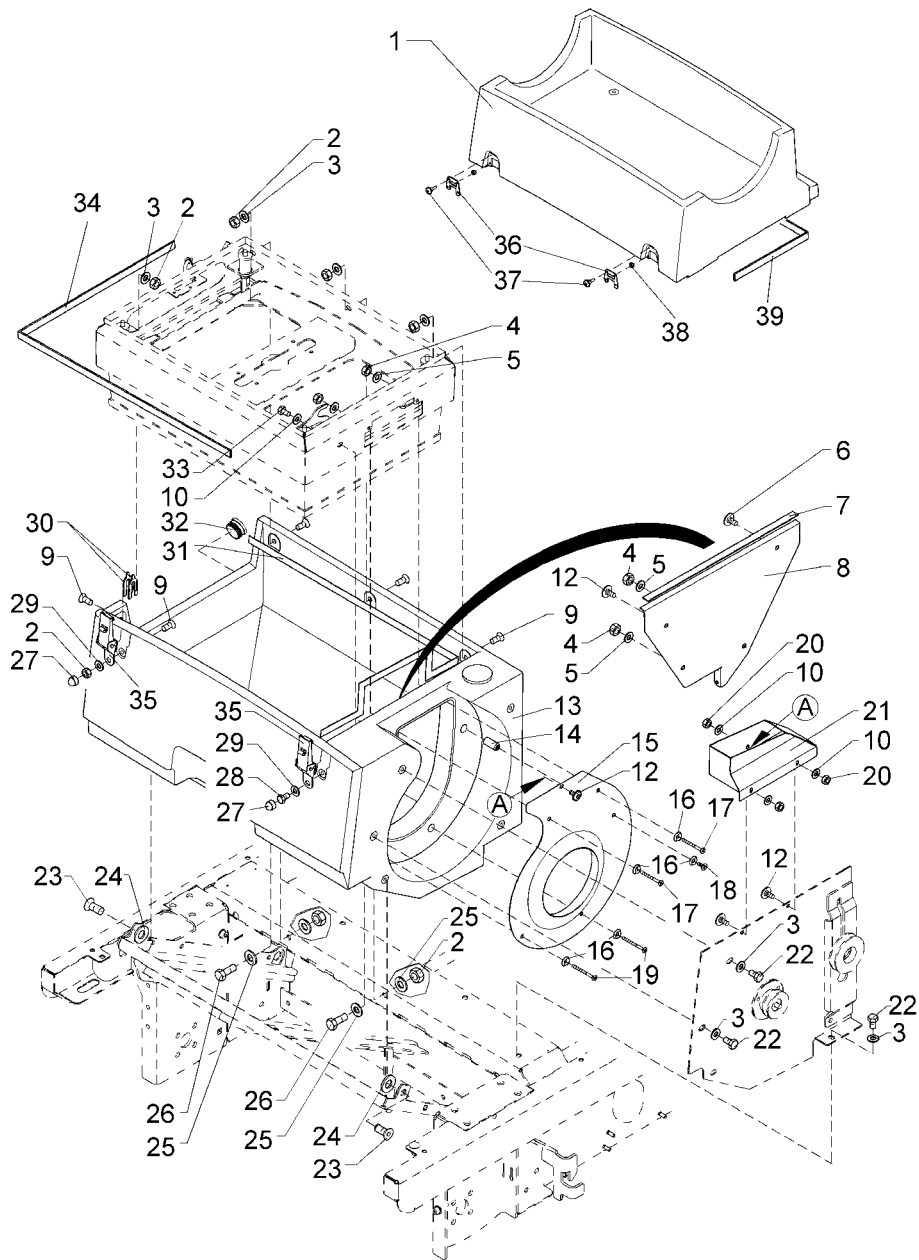
Manipulation for brush apron - Lifter for sweeping roller		
Pos.	Part No.	Description
1	01131320	Stop angel
2	00740090	Washer
3	00053080	Hex.bolt
4	01131330	Bar
5	00854420	Thrust washer
6	01131340	Pedal bar
7	00051500	Hex. Nut
8	00051520	Hex. Nut
9	00526320	Hex.bolt
10	01064890	Hose
11	00053330	Hex. Nut
12	00123690	Hex.bolt
13	00130290	Adjusting washer
14	00925430	Fork yoke
15	00740290	Washer
16	01131350	Fillister-head screw
17	00151440	Fork yoke
18	00151400	Bolt
19	00740080	Washer
20	00053090	Hex.bolt
21	00041600	Hex.bolt
22	01130610	Bearing
23	00053750	Washer
24	00051510	Hex. Nut
25	00866720	Star handle
26	01050160	Hex. Nut
27	01131360	Tap
28	01131370	Spindle
29	01131380	Countering latch
30	01131390	Draw angel
31	00054690	Hex.bolt
32	00733400	Spacer sleeve
33	00695300	Washer
34	00053760	Washer
35	00925420	Bolt
36	00132880	Hex. Nut
37	03003400	Angel
38	00955220	Fillister-head screw
39	00747400	Washer
40	00975510	Micro switch
41	00022200	Hex. Nut
42	00109460	Hex.bolt
43	00878410	Screw
44	03003410	Holder



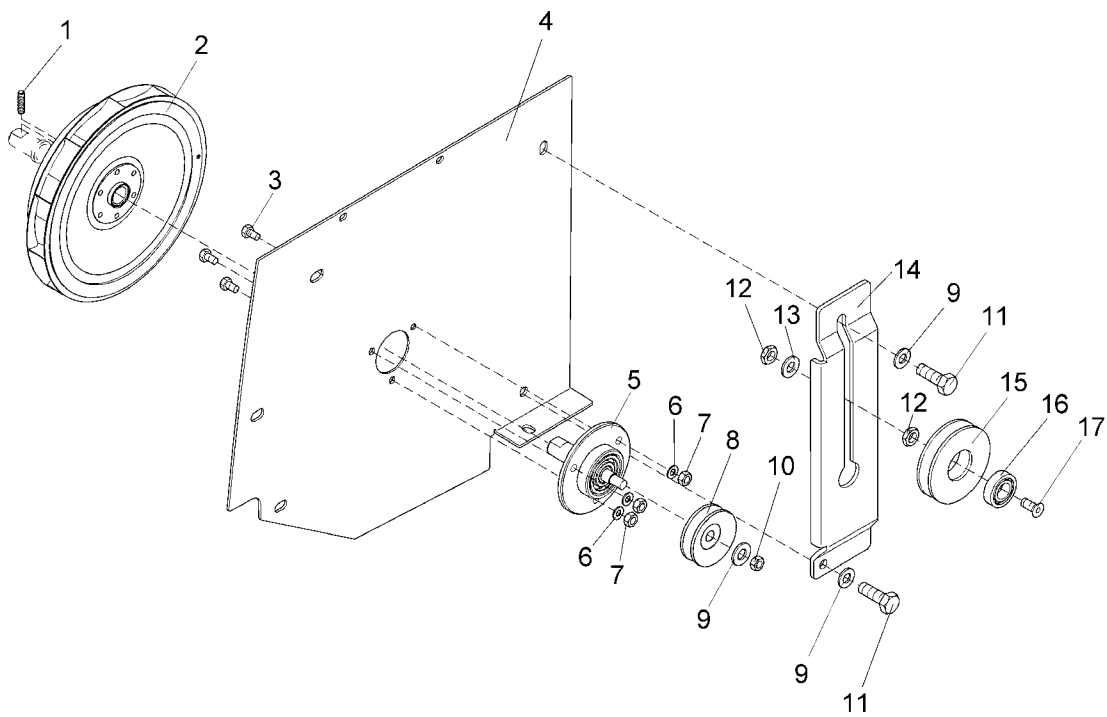
Broom wear compensation		
Pos.	Part No.	Description
1	00706030	Bolt
2	00027110	Fork yoke
3	00053350	Hex. Nut
4	00902600	Threaded bolt
5	03004890	Lever
6	01071440	Plain bearing bush
7	00053770	Washer
8	03004900	Plate
9	00730940	Detend edged washer
10	00053010	Hex.bolt
11	00132880	Hex. Nut
12	00053760	Washer
13	00108590	Cylinder head screw
14	01055290	Plain bearing bush



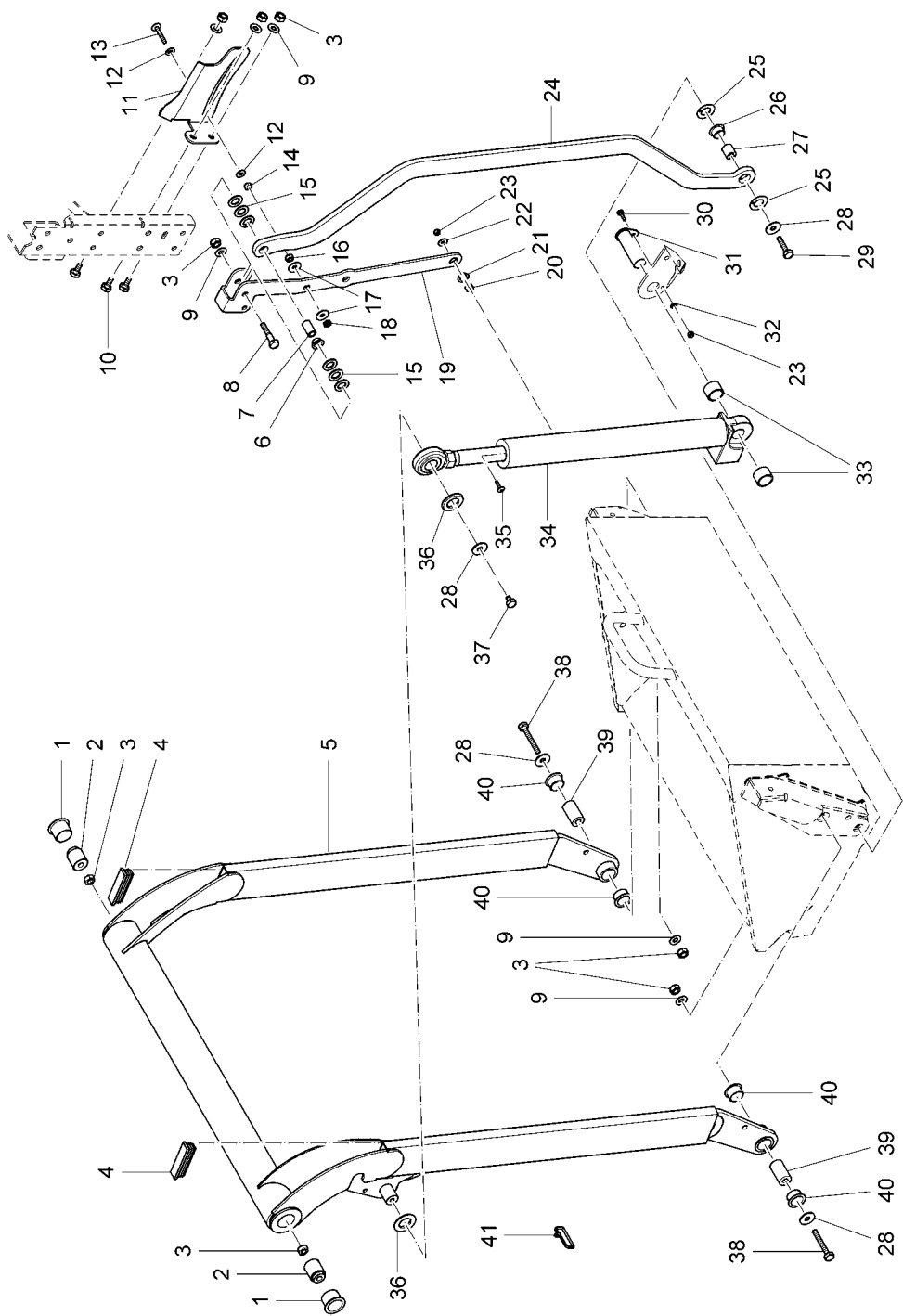
Filter installation		
Pos.	Part No.	Description
1	00051510	Hex. Nut
2	01131100	Bolt
3	01074080	Compression spring
4	00042900	Washer
5	00027190	Cable sleeve
6	01131410	Frame
7	00045620	Dowel pin
8	01131120	Spacer
9	00905560	Wing
10	01130170	Bush
11	01133210	Locknut
12	01131140	Handle
13	01131130	Frame
14	00730940	Washer
15	00053020	Hex.bolt
16	01131170	Spacer
17	01130750	Plate filter
18	01131150	U-panel
19	00740310	Washer
20	00045540	Cylinder head screw
21	00161240	Edge protection
22	01131160	Annular filter
23	00420290	Gasket Tesamoll
24	01131200	Rod
25	01131190	Grommet
26	01131180	Holder
27	01131440	Socket head cap screw
28	00051520	Hex. Nut
29	00135120	Washer
30	01131520	Actuating cable
31	00023290	Thrust washer
32	01131210	Air vent
33	01075290	Gasket TESAMOLL
34	00053010	Hex.bolt
35	00534470	Clamp
36	00071450	Cylinder head screw
37	00053350	Hex. Nut
38	00053750	Washer
39	01017660	Hex. Nut
40	00958770	Washer
41	00740360	Cable sleeve
42	00451220	Hose
43	01131110	Lever
44	00830680	Hose
45	01000890	Vibration motor
46	01133000	Special plate filter



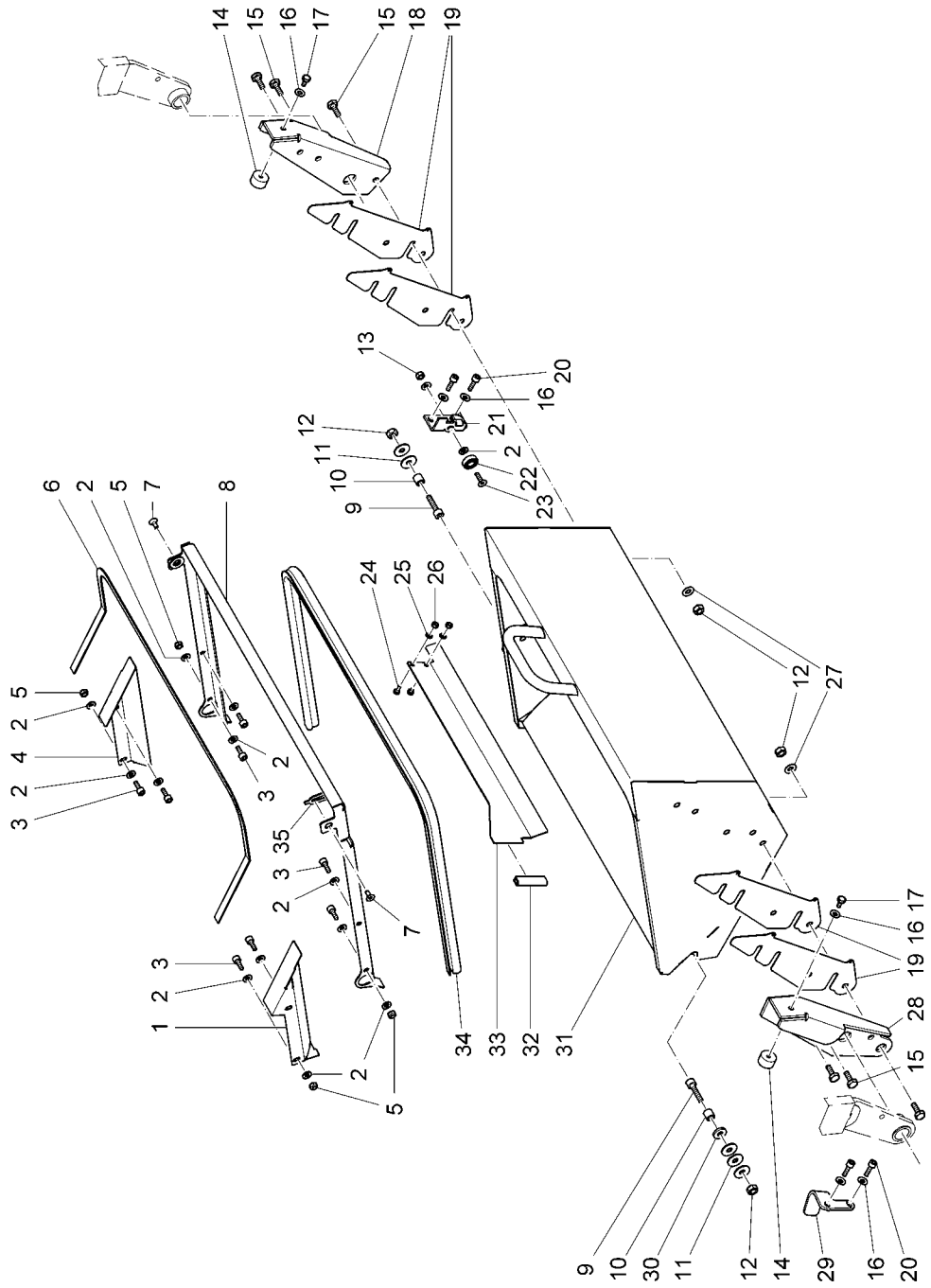
Dust extraction		
Pos.	Part No.	Description
1	01075840	Filter cover red
2	00053350	Hex. Nut
3	00740090	Washer
4	00053330	Hex. Nut
5	00740280	Washer
6	01092780	Lens flange screw
7	00420290	Gasket Tesamoll
8	03003430	Plate
9	00903480	Screw
10	00730940	Washer
12	01131450	Filister head flange screw
13	03003440	Housing
14	01131460	Threaded bushing
15	01131470	Nozzle
16	00157690	Washer
17	00109500	Screw
18	00871440	Screw
19	00120130	Screw
20	00135790	Hex. Nut
21	01131480	Air scoop
22	00864230	Hex.bolt
23	00059080	Screw
24	00070170	Washer
25	00042900	Washer
26	00133700	Hex.bolt
27	00131610	Lens cap
28	00151810	Hex.bolt
29	00053750	Washer
30	01131490	Sheet metal
31	00420290	Gasket Tesamoll
32	01131500	Plug
33	00104500	Hex.bolt
34	01130200	Gasket
35	01133090	Catch
36	01133100	Plate
37	00905520	Screw
38	00053320	Hex. Nut
39	01131840	Gasket band 9x10



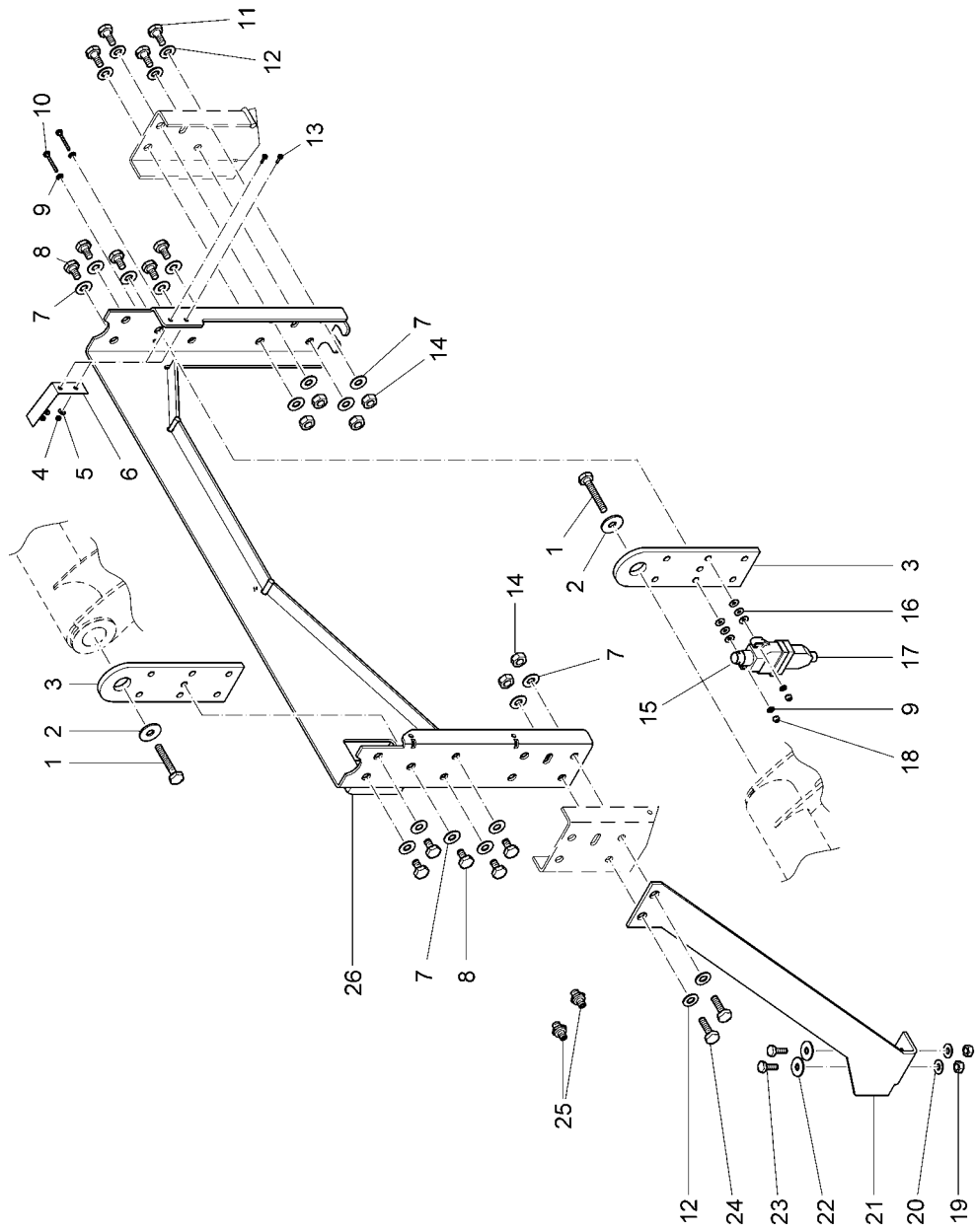
Fan bearing		
Pos.	Part No.	Description
1	00506780	Threaded pin
2	01131220	Rotating fan
3	00053010	Hex.bolt
4	03003350	Plate
5	01131230	Shaft
6	00740280	Washer
7	00053330	Hex. Nut
8	01131260	Belt pulley
9	00740090	Washer
10	00022330	Hex. Nut
11	00553690	Hex.bolt
12	00074710	Hex. Nut
13	00740290	Washer
14	01131270	Holder
15	01130970	Idler
16	00126330	Deep groove ball bearing
17	00021800	Screw



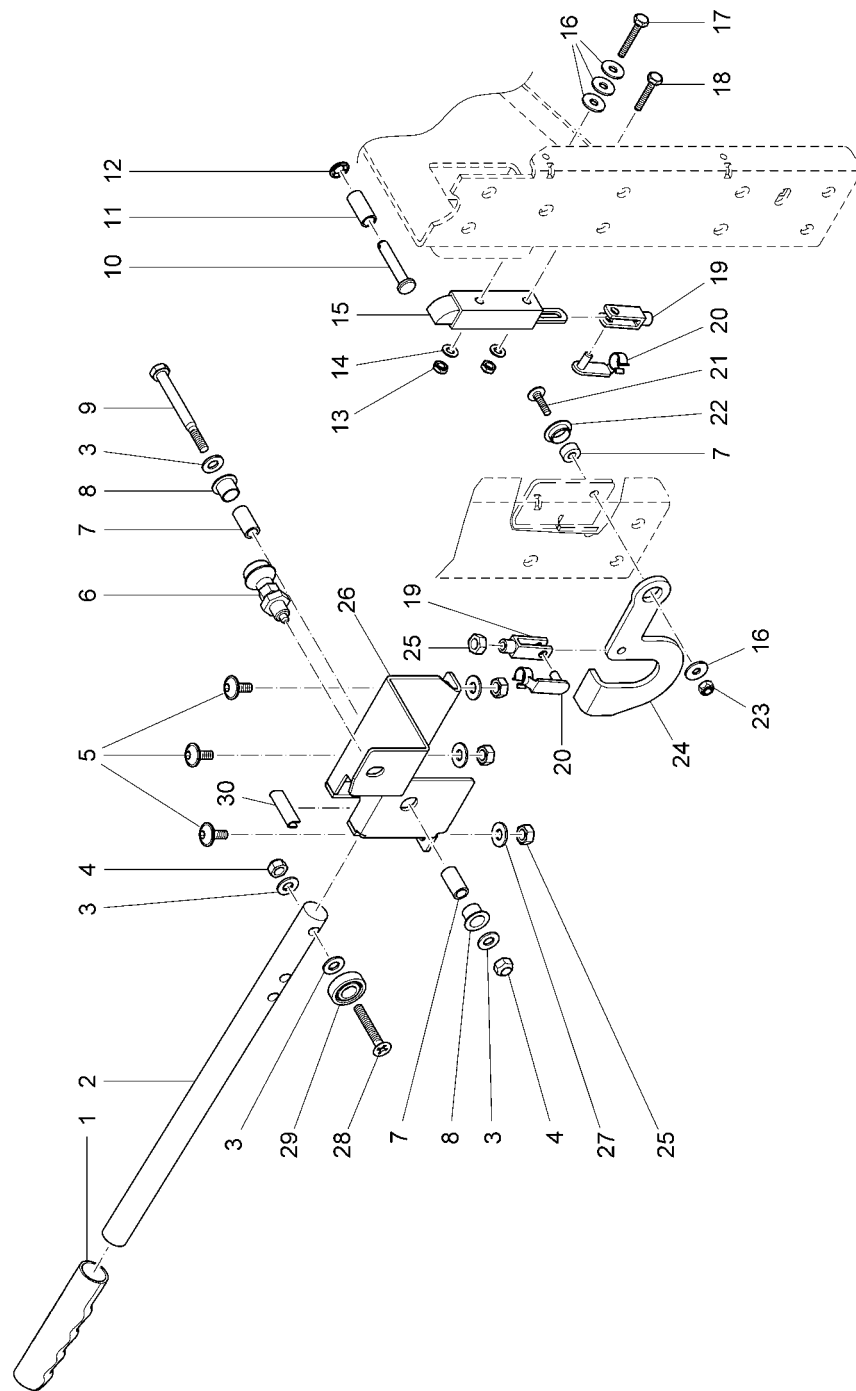
Lift-Up Disposal (Part 1)		
Pos.	Part No.	Description
1	01134680	Plain bearing bush
2	01134690	Bushing
3	00053360	Hex. Nut
4	01134700	Sealing plug
5	03006070	Bracket
6	01055290	Plain bearing bush
7	01134710	Bushing
8	00133450	Hex.bolt
9	00740290	Washer
10	00021130	Hex.bolt
11	01134720	Support
12	01134730	Approach disk
13	01134740	Filister head flange screw
14	00051510	Hex. Nut
15	00127290	Washer
16	00053350	Hex. Nut
17	00042900	Washer
18	00046500	Hex. Nut
19	01134750	Plate
20	01134510	Bushing
21	01130080	Slide bearing bush
22	00135120	Washer
23	00051520	Hex. Nut
24	01134760	Plate
25	01133780	Starting disk
26	01130470	Slide bearing bush
27	01134770	Bushing
28	00046520	Washer
29	00053170	Hex.bolt
30	00154210	Hex.bolt
32	00053730	Washer
33	01134780	Pipe
34	00392250	Hydraulic cylinder
35	01092780	Lens flange screw
36	00743290	Washer
37	00550090	Hex.bolt
38	00051550	Hex.bolt
39	01134790	Bushing
40	00740200	Plain bearing bush
41	00967760	Cable tie



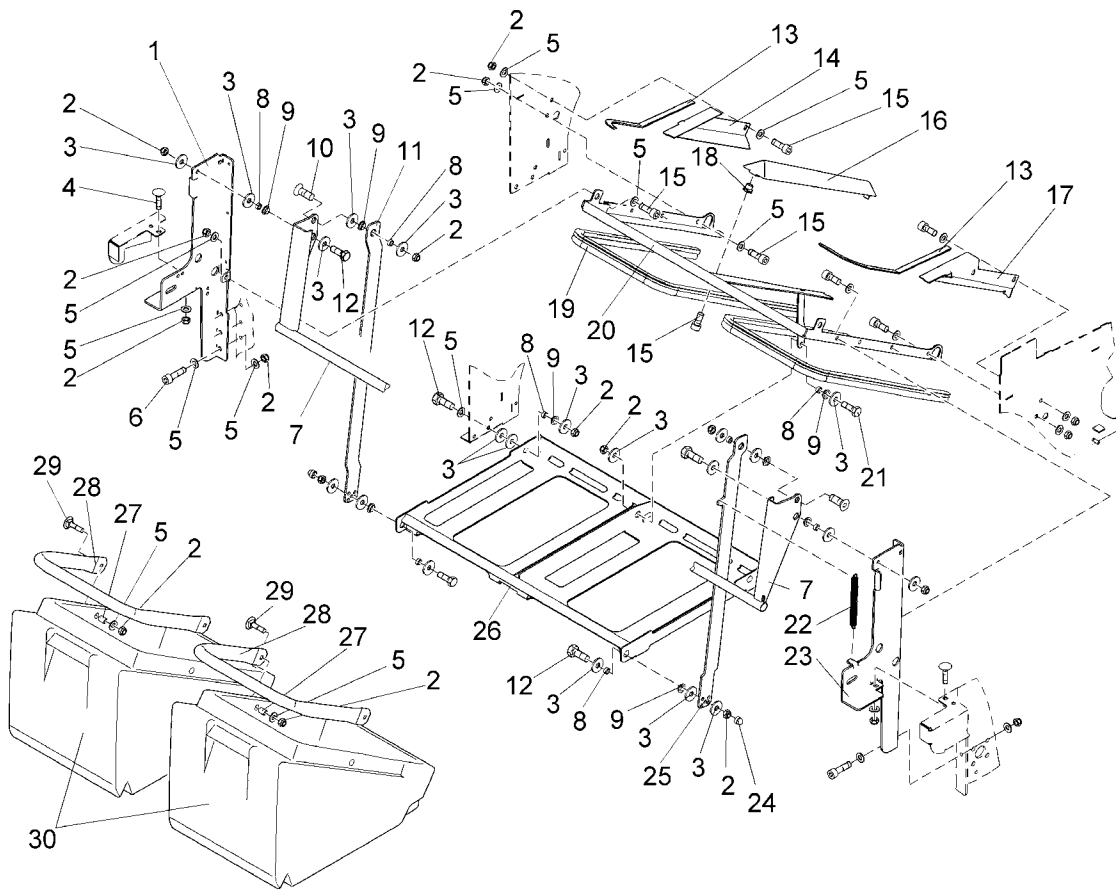
Lift-Up Disposal (Part 2)		
Pos.	Part No.	Description
1	01130300	Angel, L.H.
2	00053750	Washer
3	00045540	Cylinder head screw
4	01130310	Angel, R.H.
5	00051510	Hex. Nut
6	01130200	Gasket
7	00705440	Screw
8	01134590	Sealing plate
9	00045010	Cylinder head screw
10	01134600	Bushing
11	00046520	Washer
12	00053360	Hex. Nut
13	00053350	Hex. Nut
14	00733560	Bumper
15	00053310	Hex.bolt
16	00740090	Washer
17	00536320	Hex.bolt
18	01134610	Sheet metal
19	01134620	Sheet metal
20	00103300	Cylinder head screw
21	01134630	Sheet metal
22	00124830	Deep groove ball bearing
23	00101500	Screw
24	00104500	Hex.bolt
25	00740280	Washer
26	00053330	Hex. Nut
27	00740290	Washer
28	01134640	Sheet metal
29	01134650	Sheet metal
30	00855380	Washer
31	01134660	Dirt container
32	00161240	Edge protection
33	01134670	Sheet metal
34	00750430	Edge protection



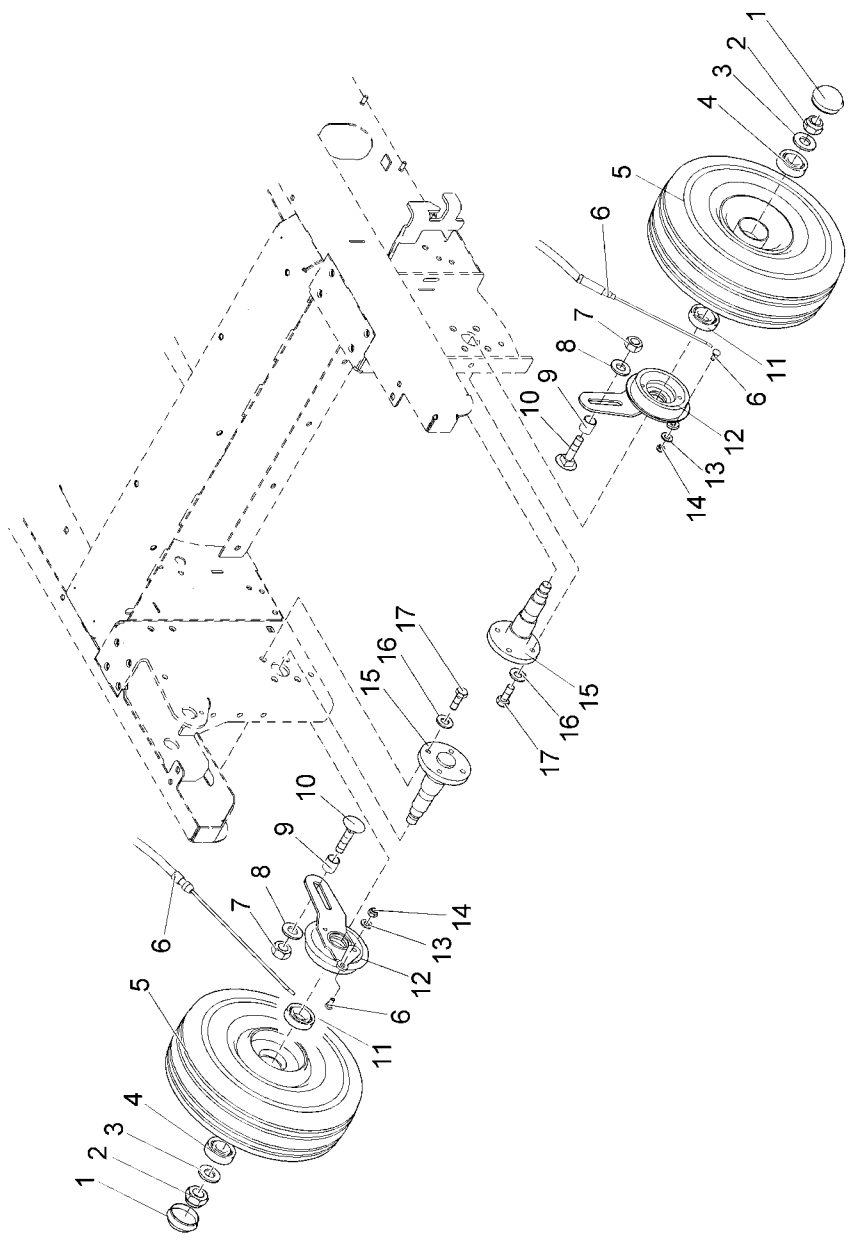
Lift-Up Disposal (Part 3)		
Pos.	Part No.	Description
1	00107100	Hex.bolt
2	00046520	Washer
3	01134560	Retainer
4	00073270	Hex. Nut
5	00747400	Washer
6	01134570	Flat spring
7	00740290	Washer
8	00055460	Hex.bolt
9	00053710	Washer
10	00900590	Hex.bolt
11	00021130	Hex.bolt
12	00053760	Washer
13	00535780	Fillister-head screw
14	00053360	Hex. Nut
15	00927610	Switch
16	00557150	Washer
17	00927630	Cap
18	00133830	Hex. Nut
19	00053350	Hex. Nut
20	00740090	Washer
21	01134580	Sheet metal
22	00042900	Washer
23	00053090	Hex.bolt
24	00053160	Hex.bolt
25	01134430	Straight screw connection



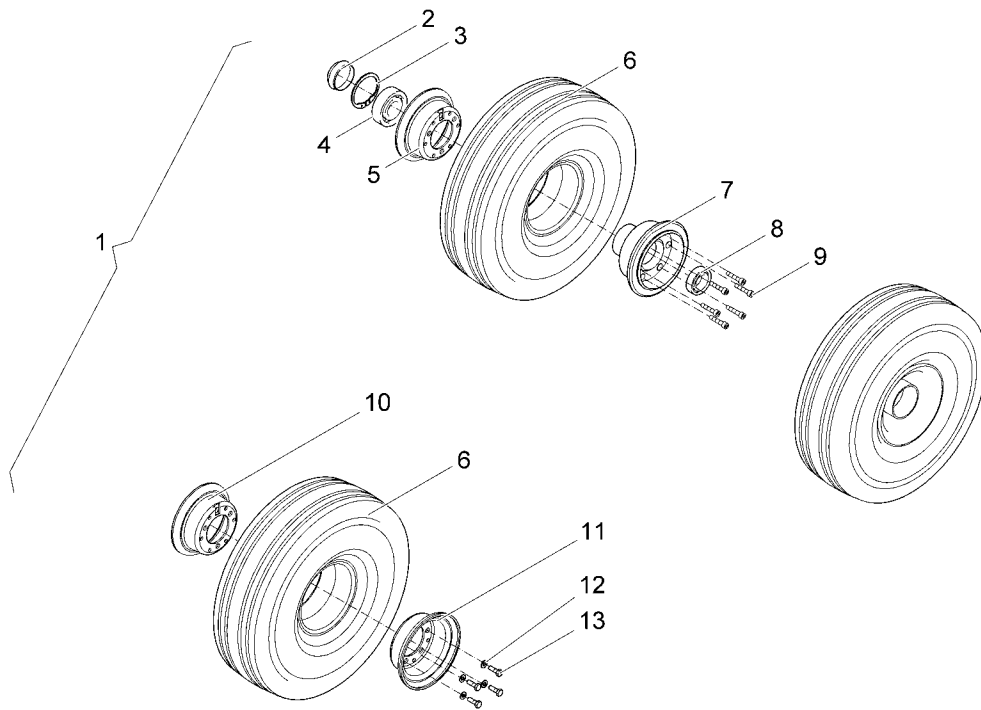
Lift-Up Disposal (Part 4)		
Pos.	Part No.	Description
1	00552970	Handle
2	01134490	Lever
3	00053750	Washer
4	00051510	Hex. Nut
5	01006820	Lens flange screw
6	01134500	Locking bolt
7	01134510	Bushing
8	01071440	Plain bearing bush
9	00534440	Hex.bolt
10	00706200	Bolt
11	01134520	Pipe
12	00854420	Thrust washer
13	00135790	Hex. Nut
14	00740280	Washer
15	01070220	Spring lock
16	00135120	Washer
17	00053290	Hex.bolt
18	00053040	Hex.bolt
19	00851570	Fork yoke
20	00851590	Bolt
21	01092780	Lens flange screw
22	01130080	Slide bearing bush
23	00051520	Hex. Nut
24	01134530	Sheet metal
25	00053350	Hex. Nut
26	01134540	Retainer
27	00740090	Washer
28	01134550	Countersunk screw
29	00124830	Deep groove ball bearing



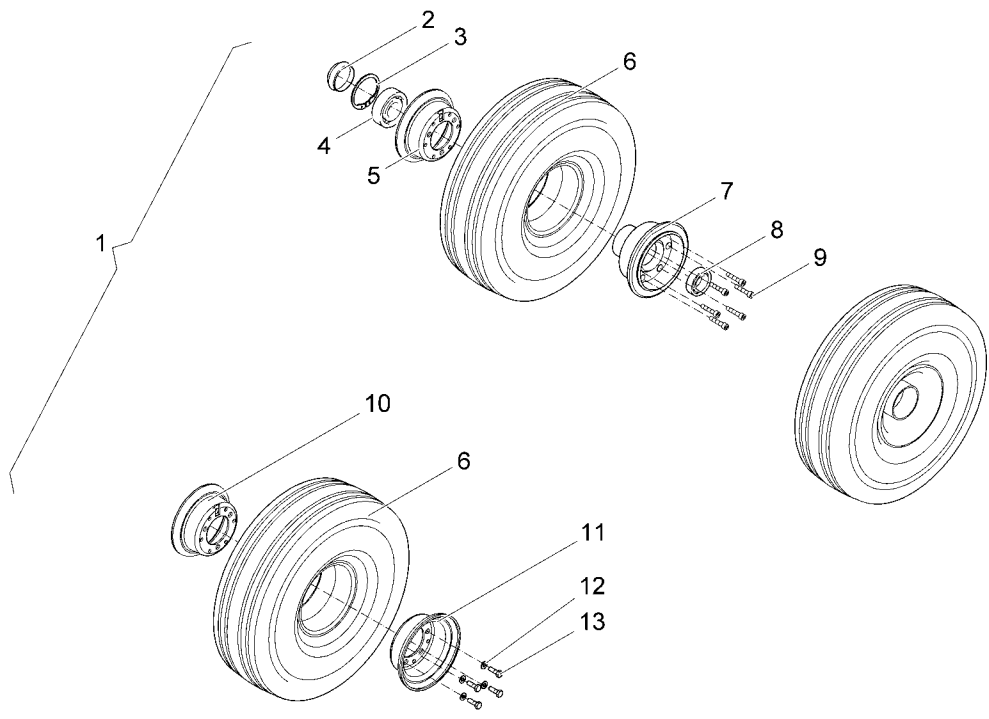
Dirt hopper		
Pos.	Part No.	Description
1	01130050	Holder, L.H.
2	00051510	Hex. Nut
3	00042900	Washer
4	00878410	Screw
5	00053750	Washer
6	00103300	Cylinder head screw
7	01130060	Handle
8	01130070	Bush
9	01130080	Slide bearing bush
10	00101500	Screw
11	01130090	Holder, L.H.
12	00053100	Hex.bolt
13	01130200	Gasket
14	01130300	Angel, L.H.
15	00045540	Cylinder head screw
16	01130100	Plate filter
17	01130310	Angel, R.H.
18	01130110	Nut
19	00750430	Edge protection
20	01130120	Sealing plate
21	00077110	Hex.bolt
22	01130130	Pull spring
23	01130140	Holder, R.H.
24	00874930	Lens cap
25	01130150	Holder, R.H.
26	01130160	Plate filter
27	01130170	Bush
28	01130180	Handle
29	00078920	Screw
30	01130190	Dirt hopper



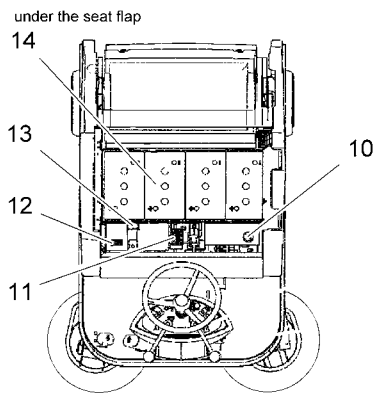
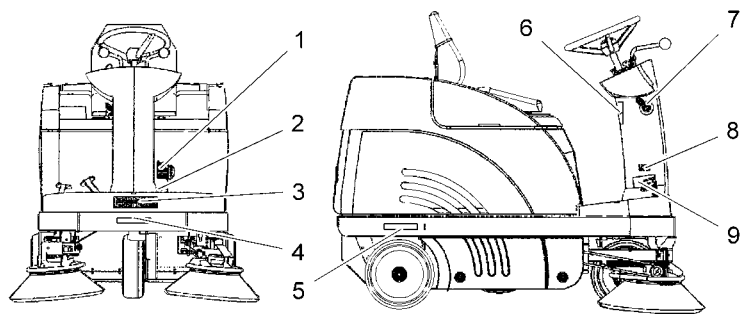
Rear-wheel - Brake		
Pos.	Part No.	Description
1	01131060	Cap
2	00135350	Hex. Nut
3	01131070	Washer
4	00706370	Deep groove ball bearing
5	01130770	Rear wheel
6	01130350	Bowden cable for brake
7	00074710	Hex. Nut
8	00053760	Washer
9	01130780	Bush
10	01130790	Cup head square neck bolt
11	00281050	Deep groove ball bearing
12	01131080	Brake
13	00053730	Washer
14	00051520	Hex. Nut
15	01131090	Axle with flange
16	00740290	Washer
17	00021130	Hex.bolt



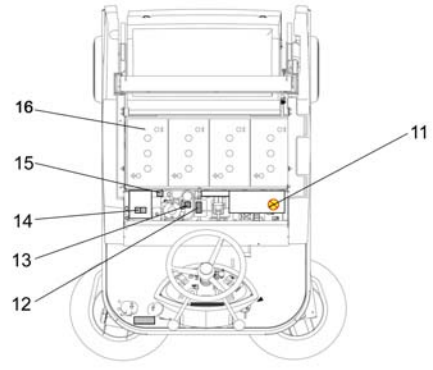
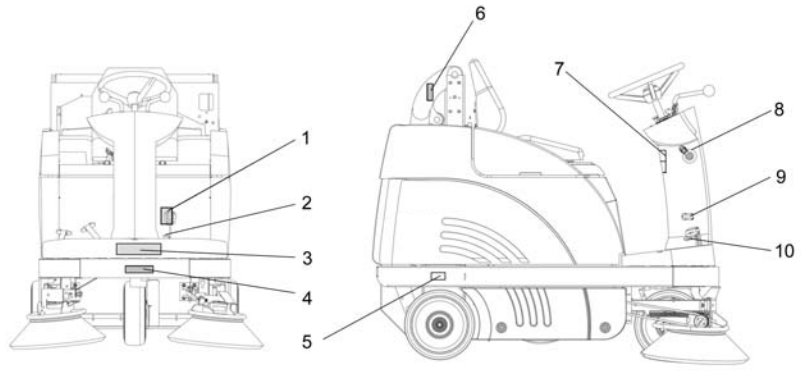
Set of SE-solid wheels		
Pos.	Part No.	Description
1	99651600	Set solid rubber tires
2	01131060	Cap
3	00054230	Retaining ring
4	00706370	Deep groove ball bearing
5	01133010	Rim half
6	01133030	Tyre
7	01132990	Brake drum
8	00281050	Deep groove ball bearing
9	00137020	Cylinder head screw
11	01133020	Rim half
12	00053730	Washer
13	00053010	Hex.bolt



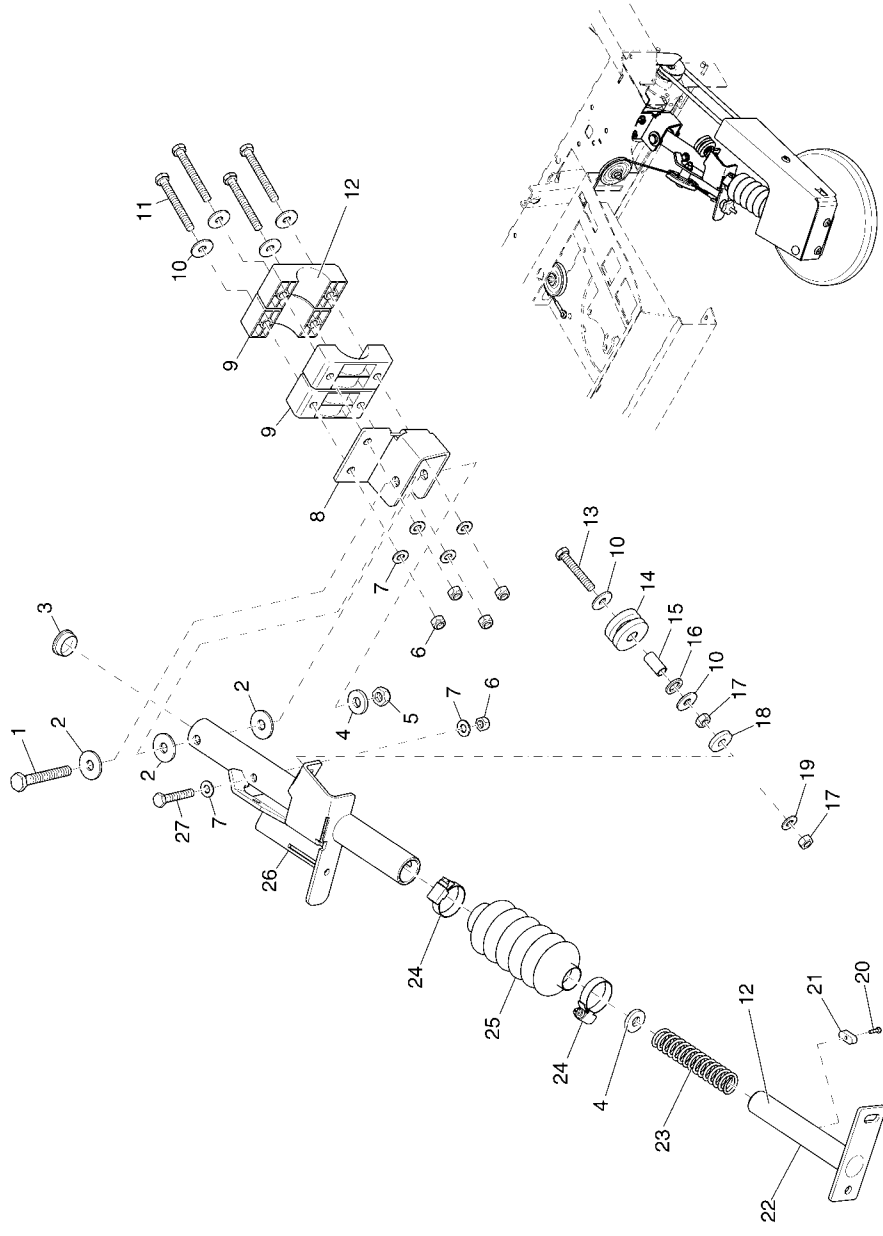
Set of SE-solid wheels, not marking		
Pos.	Part No.	Description
1	99651200	Solid tyres, non marking
2	01131060	Cap
3	00054230	Retaining ring
4	00706370	Deep groove ball bearing
5	01133010	Rim half
6	01132980	Tyre Solid, non marking
7	01132990	Brake drum
8	00281050	Deep groove ball bearing
9	00137020	Cylinder head screw
11	01133020	Rim half
12	00053730	Washer
13	00053010	Hex.bolt



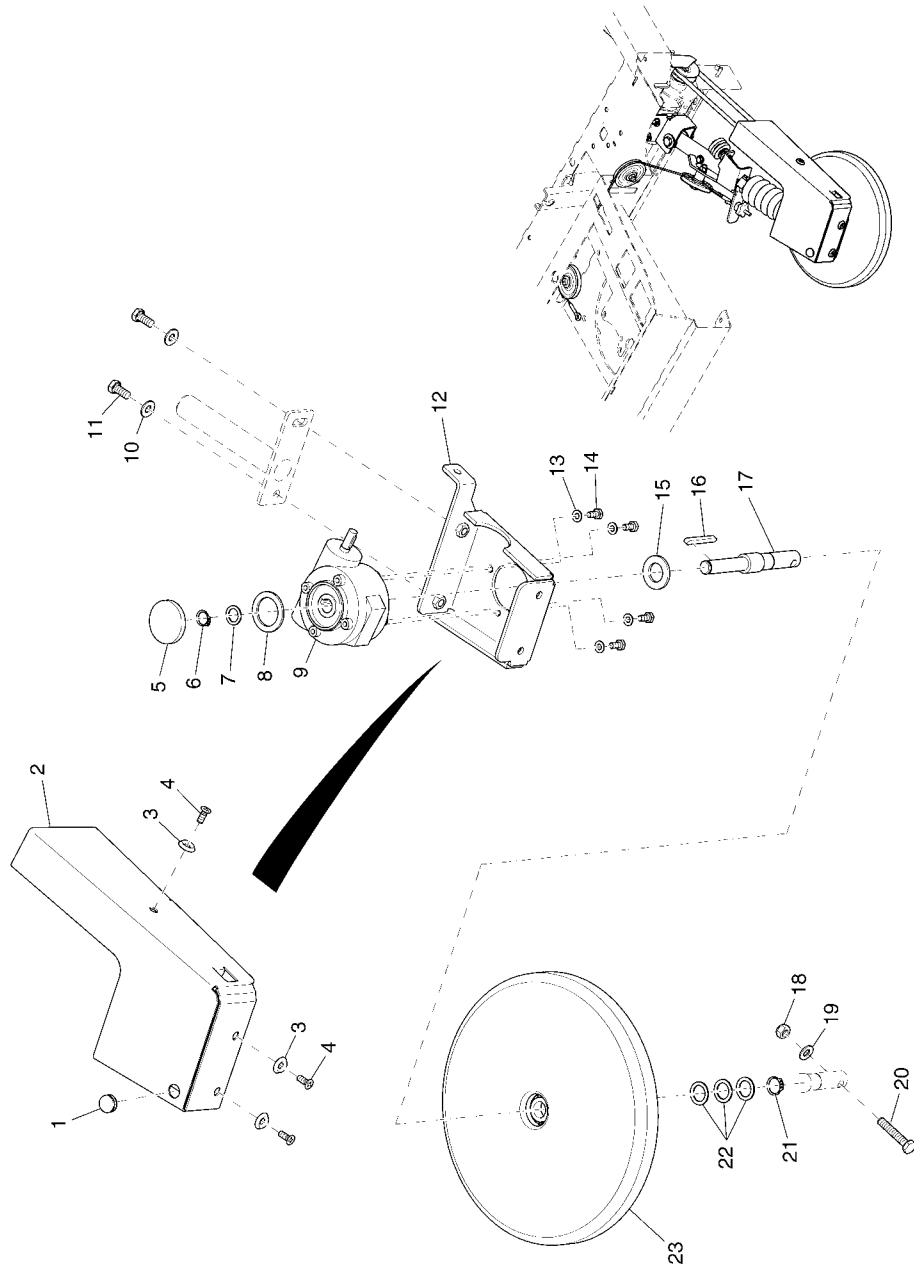
Decal		
Pos.	Part No.	Description
1	01131540	Decal brush apron
2	01131550	Decal brake
3		Decal Minuteman
4		Decal Powerboss
5		Decal SW5X
6	01071710	Decal instruction manual
7	01133270	Decal start
8	01131560	Decal brake
9	01073530	Backing film
10	01131570	Decal high-pressure cleaner
11	01133940	Decal adjustable sweeper roller
12	01131590	Decal rotating parts
13	00871160	Decal 24V
14	01133290	Decal battery charge



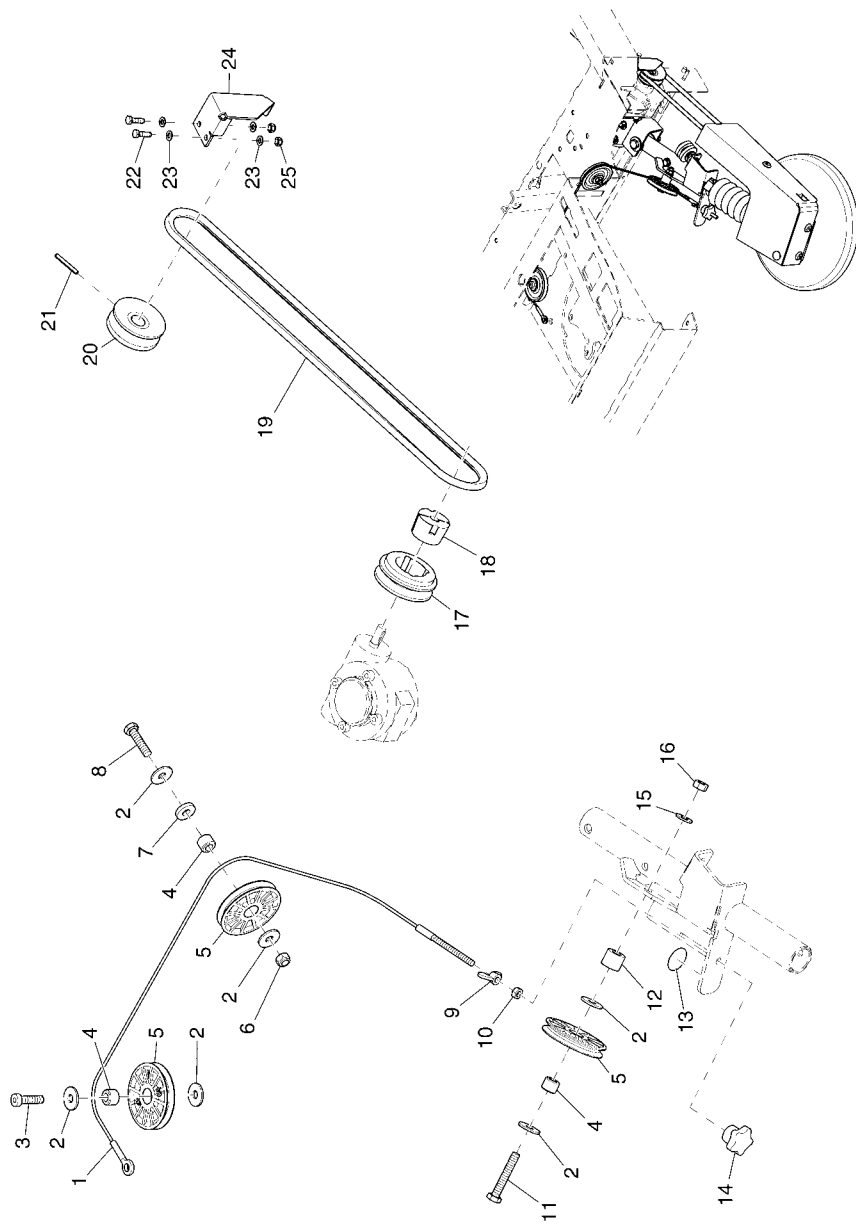
Decal lift-up disposal		
Pos.	Part No.	Description
1	01131540	Decal brush apron
2	01131550	Decal brake
3		Decal Minuteman
4		Decal Powerboss
5		Decal SW5X
6	01142760	Decal squeezing danger
7	01071710	Decal instruction manual
8	01133270	Decal start
9	01131560	Decal brake
10	01073530	Backing film
11	01131570	Decal high-pressure cleaner
12	01073530	Backing film
13	01132710	Decal hydraulic oil
14	01131590	Decal rotating parts
15	00871160	Decal 24V
16	01133290	Decal battery charge



Side Brush l.h. Part 1		
Pos.	Part No.	Description
1	00041810	Hex. Bolt
2	00046520	Washer
3	00152850	Drain plug
4	00855380	Washer
5	00132880	Hex. Nut
6	00051510	Hex. Nut
7	00053750	Washer
8	01135020	Holder, l.h.
9	01130610	Bearing
10	00042900	Washer
11	00557600	Hex. Bolt
13	00138180	Hex. Bolt
14	00740930	Roller
15	00855240	Bushing
16	00156720	Washer
17	00053350	Hex. Nut
18	00047990	Disk wheel
19	00740090	Washer
20	00695680	Filister-head screw
21	01132380	Fitted key
22	01135040	Holder
23	00701250	Pressure spring
24	01071480	Hose clamp
25	01130670	Bellows
26	01135050	Side brush arm
27	00041600	Hex. Bolt



Side Brush I.h. Part 2		
Pos.	Part No.	Description
1	00740360	Cable sleeve
2	01135030	Covering
3	00157690	Washer
4	00154680	Screw
5	01131530	Cap
6	00022440	Retaining ring
7	00020610	Supporting ring
8	00155120	Supporting ring
9	01130740	Gear
10	00740090	Washer
11	00553690	Hex.bolt
12	01135060	Gear holder
13	00740280	Washer
14	00104500	Hex.bolt
15	00871350	Washer
16	00072940	Fitted key
17	01132790	Drive shaft
18	00051510	Hex.nut
19	00053750	Washer
20	00041600	Hex.bolt
21	00022230	Retaining ring
22	00041590	Supporting ring
23	01132800	Deflector grey



Side Brush I.h. Part 3		
Pos.	Part No.	Description
1	01135000	Rope
2	00042900	Washer
3	00537390	Hex.bolt
4	00974400	Bushing
5	00521270	Roller
6	00051510	Hex.nut
7	00695300	Washer
8	00054690	Hex.bolt
9	00054020	Wing nut
10	00053330	Hex.nut
11	00138180	Hex.bolt
12	00029170	Bushing
13	01130650	Decal
14	00853730	Star handle
15	00740090	Washer
16	00053350	Hex.nut
17	01130730	Belt pulley
18	01130720	Bushing
19	01134320	Narrow V-belt
20	01134990	Belt pulley
21	00052420	Dowel pin
22	00054410	Hex.bolt
23	00053720	Washer
24	01135010	Angle
25	00051340	Hex.nut

Minuteman[®]

declares under our sole responsibility
that the product

SW5X

Type: PB40BL, PB40BH

to which this declaration relates, corre-
sponds to the relevant basic safety and
health requirements of the Directives
98/37/EEC, and to the requirements of
the relevant Directive

- 89/336/EEC.

For the relevant implementation of the
safety and health requirements mentio-
ned in the Directives, the following stan-
dard(s) and/or technical specification(s)
has (have) been respected:

EN 60335-2-72

EN 61000-6-3

EN 61000-6-2

Addison (Illinois), 30th Sept. 2004



Gregory J. Rau
President

LIMITED WARRANTY

Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of one year from date of purchase. In addition, Minuteman International, Inc. will, at its option, honor labor warranty claims for the first 6 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts not manufactured by Minuteman International, Inc. such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International, Inc. for procedures in warranty claims against these manufacturers.

Special warning to purchaser -- Use of replacement filters and/or prefilters not manufactured by Minuteman International, Inc. or its designated licensees, will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

All warranted items become the sole property of Minuteman International, Inc. or its original manufacturer, whichever the case may be.

Minuteman International, Inc. disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman International, Inc. assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman International, Inc. is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman International, Inc. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

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