



Electronic Service Manuals

This electronic document is provided as a service to our customers. We do not create the contents of the information contained in this document. Should you have detailed questions pertaining to the information contained in this document, you may contact Michco, or the manufacturer which provided the original information in this electronic deliverable. Michco's only part in this electronic deliverable was the electronic assembly process. By providing this manual on line we are not guaranteeing parts availability.

You may contact Michco through the following methods:

Phone (517) 484-9312 or (800) 331-3339

2011 N. High St. -- Lansing, Michigan -- 48906

Fax: (517) 484-9836

Email: CustServe@Michco.com

Web site: www.Michco.Com

Parts Web site: www.FloorMachineParts.Com

Order Parts on Line at:

www.FloorMachineParts.Com

Directly to Parts & Service:

By Email: **Shop@Michco.com**

By Fax: (517) 702-2041

By Voice: Use numbers above.

Serving the Cleaning Industry Since 1922

Notice: All copyrighted material remains property of original owners, all trademarks are property of respective owners. Manuals are subject to Manufacturer's reproduction limitations. Originals or reproductions were provided by manufacturers through a request. We make no warranty as to the correctness of information provided in this document and you assume all risk. By placing these manuals on line we are not declaring our corporation to be an manufacturer authorized dealer or provider, please check our web site for authorized manufacturers we represent.

SC7730

Battery Sweeper/Scrubber



Operator's Manual

READ THIS BOOK

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. you must have training in the operation of this machine before using it.

All directions given in this book are as seen from the operator's position at the rear of the machine.

American-Lincoln®

C

CONTROLS 1-16

- FRONT CONSOLE 1-16
- KEY SWITCH 1-17
- FORWARD/REVERSE SWITCH 1-17
- BATTERY CONDITION & HOUR METER 1-18
- HEADLIGHT/TAILLIGHT SWITCH (OPTION) 1-19
- HOPPER OPEN WARNING LIGHT 1-19
- FILTER SHAKER SWITCH (DUST CONTROL MODELS) 1-20
- DUST CONTROL SWITCH 1-20
- SCRUB BRUSH SWITCH 1-21
- SQUEEGEE SWITCH 1-21
- LOW SOLUTION & HIGH RECOVERY LIGHTS 1-22
- HOPPER LIFT SWITCH 1-23
- MAIN & SIDE BROOMS SWITCH 1-23
- SPRAY & VAC WAND SWITCH (OPTION) 1-24
- ESP SWITCH (OPTION) 1-24
- MAIN BROOM & SIDE BROOM ADJUSTMENT KNOBS 1-25
- SOLUTION FLOW KNOB 1-26
- HORN BUTTON 1-26
- FOOT PEDAL & PARKING BRAKE 1-27
- SEAT POSITION ADJUSTMENT 1-28
- SEAT SAFETY FEATURES 1-28

D

DISCLAIMER 1-4

M

MACHINE PREPARATION 1-13

MACHINE SPECIFICATIONS 1-10

O

OPERATING INSTRUCTIONS 1-29

- PRE-START CHECKLIST 1-29
- FILLING SOLUTION TANK 1-29
- STARTING MACHINE 1-30
- TRANSPORTING MACHINE 1-30
- THE CLEANING OPERATION 1-30
- STANDARD & ESP SCRUBBING SYSTEMS 1-31
- HINTS FOR THE CLEANING OPERATION 1-32
- POST-OPERATION CHECKLIST 1-33
- DRAINING THE RECOVERY TANK 1-33
- INSPECTING MAIN BROOM & SCRUB BRUSHES 1-35
- INSPECTING THE SQUEEGEES 1-36
- USING THE DUST CONTROL KNOB 1-37
- CHECKING THE HYDRAULIC FLUID LEVEL 1-37

ORDERING PARTS 1-5

S

SAFETY PRECAUTIONS 1-7

SYMBOLS 1-6

DISCLAIMER

DISCLAIMER

The information contained in this manual is believed correct at the time of publication. American Lincoln assumes no responsibility or liability for unauthorized changes made to this manual or pages removed, causing indirect or consequential damages resulting from the use of the information appearing herein.

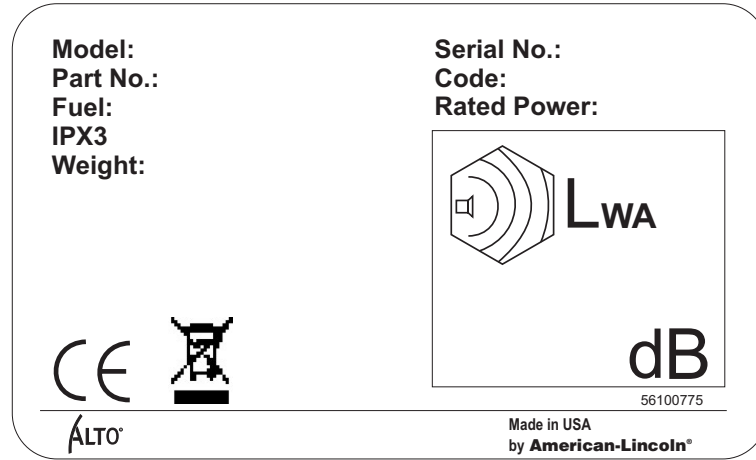
WARNING!

In the event that machinery or controls described herein are modified in any way, or in the event that such machinery or controls are not maintained in a proper manner, the instructional material contained herein may be rendered inaccurate. The information contained herein is to be used only by persons knowledgeable in the operation of machinery such as that described herein, or other persons being directly supervised by such knowledgeable persons.

No portion of this manual may be reproduced without the express written consent of:

AMERICAN LINCOLN
Product Engineering
1100 Haskins Road
Bowling Green, OH, 43402
(419) 352-7511 Fax: (419) 373-4284
Copyright 2003 American Lincoln. All rights reserved.
Printed in USA March 2003

Parts may be ordered from American-Lincoln authorized distributors. Record the information from the American-Lincoln serial plate to avoid delays in filling your order:



1. Use the model number, catalog number, and serial number when ordering.
2. Give the part number, description, and quantity of parts needed.
3. Give shipping instructions for either freight, UPS, or parcel post.

Parts and supplies listed in this manual can be ordered from the following address:





































Nilfisk-Advance, Inc. American-Lincoln Div.	American-Lincoln authorized distributor
14600 21st Avenue North Plymouth, MN 55447 1-800-214-7700	

MACHINE CATALOG NUMBER

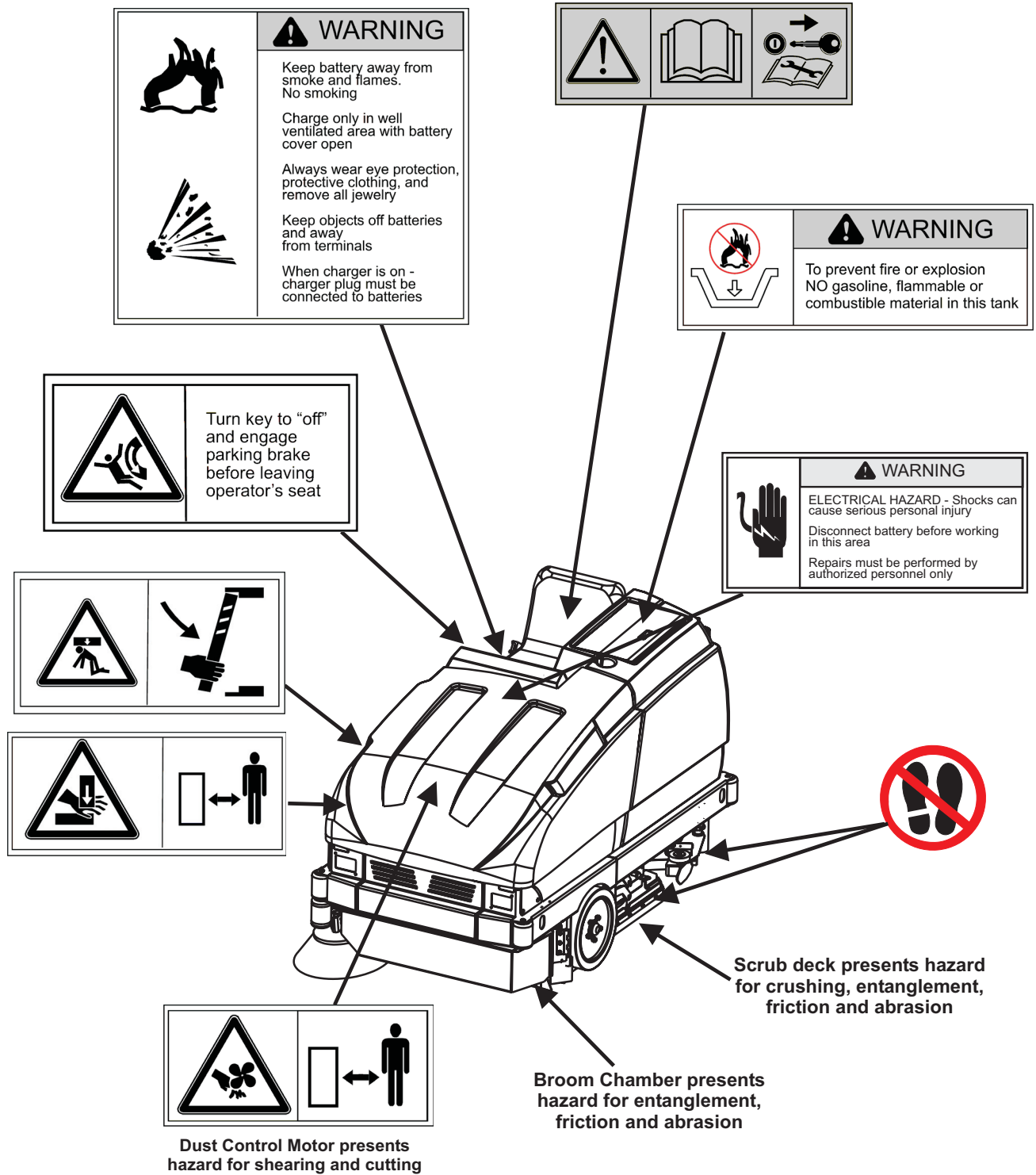
- 505-320 SC7730 (40") SWEEPER/SCRUBBER**
- 505-321 SC7730 (46") SWEEPER/SCRUBBER**
- 505-322 SC7730 (40") SWEEPER/SCRUBBER W/ DUST CONTROL**
- 505-323 SC7730 (46") SWEEPER/SCRUBBER W/ DUST CONTROL**

SYMBOLS

THESE SYMBOLS IDENTIFY CONTROLS, DISPLAYS/FEATURES, AND SAFETY SYMBOLS ON THE MACHINE.

	Battery Charger		Scrub Brush Down Heavy Pressure
	Choke		Squeegee Down & Vacuum On
	Fan On		Squeegee Up & Vacuum Off
	Filter Shaker On		Squeegee Up & Vacuum On
	Forward/Reverse		Solution Tank Low
	Headlights		Solution Flow Control
	Hopper Dump		Throttle
	Hopper Return		Read Machine Manual Before Operating or Servicing
	Horn		No gas or combustibles in tank
	Main Broom & Side Broom Up		Keep Away From Flames/ NO Smoking
	Main Broom & Side Broom Down		Wear Eye Protection
	No Step		Electrical Hazard
	Off		Stay Clear
	On		Moving Fan Blade
	Power		Pinch Point/Crush Hazard
	Recovery Tank High		Cover or Hopper Could Close/ Engage Support
	Scrub Brush Down & On		Turn Key Off/Lock Wheel Before Leaving Seat
	Scrub Brush Up and Off		WARNING! / ATTENTION!

The following safety labels are mounted on the machine in the locations indicated. If the labels become damaged or illegible replace with identical label.



SAFETY PRECAUTIONS

HAZARD SERIOUSNESS LEVEL

Signal words (DANGER, WARNING and CAUTION) are used to identify levels of hazard seriousness. The degree of severity is based on the likely consequences of human interaction with the hazard.

 **DANGER**

To warn of immediate hazards which will result in severe personal injury or death.

 **WARNING**

To warn of hazard or unsafe practices which could result in severe personal injury.

 **CAUTION**

To warn of hazards or unsafe practices which could result in minor personal injury.

 **ATTENTION**

To warn of unsafe practices which could result in extensive equipment damage.

 **NOTE**

To give important information or to warn of unsafe practices which could result in equipment damage.

For the safe operation of this machine, read and understand all WARNINGS, CAUTIONS AND NOTES.

PERSONAL SAFETY

- Read this manual carefully. The following information signals potentially dangerous conditions to the operator or equipment. Know when these conditions can exist then take necessary steps to train machine operating personnel.
- Dress appropriately; loose clothing, jewelry and other accessories may get caught in the machine and cause physical injury.
- Wear OSHA/NIOSH protective eye wear or prescription glasses to protect eyes.
- Wear appropriate gloves when filling and/or draining tanks.
- Before operating machine, test brake mechanism, lights and back up alarm (if applicable).
- Observe maintenance schedule guidelines to assume optimal safe operation of the machine.
- Be aware of pinch points that exist on the machine.
- Do not operate machine if you are tired, upset, ill on medication or intoxicated.
- Be completely aware of your surroundings. STOP, LOOK, and LISTEN for other employees walking in or around your cleaning area.

MACHINE SAFETY

- Operator must be properly trained to operate machine.
- Read this manual before operating machine
- Familiarize yourself with all components and safety features.
- Do not operate machine unless it is completely assembled.
- Do not use machine other than intended use.
- Report damages or maintenance problem immediately. Do not use machine until it has been repaired.
- Repairs should be done by authorized personnel.
- For storage, keep machine in a building.
- This machine is not at tow truck and should not be used for towing.
- Do not use this machine as a step or furniture.
- Do not operate machine on public highways, gravel, sand, grass and other unsafe surfaces.

SAFETY PRECAUTIONS

- Be careful when operating the machine on a ramp or incline. Do not operate machine on incline greater than 8° or longer than 100'. Always move slowly on a ramp. Do not turn this machine on a ramp.
- Do not stop and leave this machine on a ramp. Always stop the machine on a level surface, put the power switch in the on position.
- To prevent injury, and damage to the machine, do not lift the machine or move it to an edge of a stair or loading dock.
- Turn off machine when unattended, filling, fueling or doing maintenance on machine (if applicable).
- Do not operate machine near flammable materials, fire or explosion may occur.
- Solution or recovery tank should not be filled with fuel or chemicals.
- Read label on cleaning solutions to verify it is safe for machine.
- Use a cleaning concentrate recommended by the chemical manufacturer.
- Water solutions or cleaning materials used can leave wet areas on floor surfaces causing dangerous conditions for the operator or other persons. Always put CAUTION signs near area you are cleaning.
- Use care when reversing machine.
- Always empty the solution tank and recovery tank before doing maintenance.
- Unplug the battery first to prevent possible injury when servicing a machine.
- Lead acid batteries generate gases, which can cause an explosion. Keep sparks and flames away from batteries. NO SMOKING. Charge batteries only in area with good ventilation.
- Always wear eye protection and protective clothing when working near batteries. Remove all jewelry.
- Do not put tools or other metal objects across the battery terminals, or the tops of batteries.
- Keep electrical parts of the machine dry.
- Make sure that all labels, decals, warnings, cautions and instructions are fastened to the machine.
- Get new labels and decals from American-Lincoln.

SPECIFICATIONS

CLEANING PATH

Scrubbing	40 in. (101 cm) 46 in. (117 cm)
Sweeping	46in. (117 cm)
Edge Cleaning	6 in.(15 cm) Right Side 46in. 117 cm) only

TRANSPORT SPEED OPERATING SPEED

0-4.6 MPH (0 - 7.4kph)
0-2.7 MPH (0 - 4.3kph)

POWER SUPPLY

(1) 36 Volt Wet Battery, 720 AH
For machine to operate properly, voltage reading should fall within 32-40 vdc.

CHARGER

240 Vac, 3-phase, 60 Hz, 36 Vdc, 150 A

STEERING

Rack & Pinion 90°-90° Hyd. Assist
Adjustable Steering Column

TURNING RADIUS

Left	59 in. (150 cm)
Right	59 in. (150 cm)
Aisle "U" Turn	87 in. (221 cm)

DIMENSIONS

Length	87 in. (221 cm)
Width	46 in. (116.8 cm)
Height	52 in. (132 cm)
Height w/Overhead Guard	79 in. (200.6 cm)
Wheel Base	37.6 in. (95.5 cm)

WEIGHT

Standard Machine (Battery)	1700 lbs. (765 kg.) without battery 720 Ah battery 1990 lbs. (896 kg)
----------------------------	--

TIRES

Front (Battery) Solid Urethane	Two (2) 16 in (41cm) x 3.75 in (8.26 cm)
Rear (Battery) Solid Rubber	One (1) 16 in (41 cm) x 4.00 in (10.16cm)

RAMP CLIMBING

Transporting	8°
--------------	----

MAIN BROOM

One piece plastic core disposable type. Broom position can be set to "restricted down" or "free floating".

Length	36 in (91.4 cm)
Diameter	10 inches (25.4 cm)
Optional Bristle Type	Nylon (High density) Proex Nylon Eight (8) Row

SIDE BROOM

Side Broom Size	16 inches (40.6 cm) Diameter
-----------------	------------------------------

INSTRUMENTS AND CONTROLS

Main/Side Broom Switch	Key Switch
Headlight/Taillight Switch (option)	Hour Meter
Squeegee Switch	Recovery High Light
3 Position Scrub Deck Switch	Dust Control Switch (with certain models)
Horn Button	Solution Low Light
Solution Control Knob	ESP (Option)
Hopper Up/Down Switch	Filter Shaker Switch
Hopper Open Light	Squeegee and Vacuum Wand (Option)

SCRUBBING SYSTEM

Brush Size-46" (116.84 cm)	Three (3) 16" (40.6cm) Diameter
Brush Size-40" (101.4 cm)	Two (2) 20" (51cm) Diameter
Brush Lift	Hydraulic Actuator
Scrub Pressure	
Normal	140 lbs.
Heavy	200 lbs.

SQUEEGEE

Rear	Accu-Trac™ 46 in(116.8 cm) Swing, break away, w/no tool squeegee replacement
Side	26 in (66 cm) Easy Change

TANKS

Solution Tank	55 Gallons (208 liter)Polyethylene
Recovery Tank	55 Gallons (208liter)Polyethylene
Solution Metering	Variable to 3.0 GPM (11.4 lpm)
Drain Hose	48 in (122 cm)
Clean Out Port	5.7 in (14.5 cm) heavy debris

HOPPER

Capacity	2.5 cu.ft.(71liter)
----------	---------------------

DUMP AND LIFT

Dump Height	14 in (35.6 cm.)
-------------	------------------

SYSTEM FLUID CAPACITIES

Hydraulic System	4.7 Gallons (17.79 Liters)
------------------	----------------------------

OPTIONAL EQUIPMENT

Back-Up Alarm	Headlight/Taillights
ESP System	Fire Extinguisher
Overhead Guard	Squeegee Wand
Spray and Vac Wand	Black Nylon Brush
Linatex Squeegee	Polypropylene Brush
720 Amp Hour Battery	Supergrit Brush
Strobe Light (Amber)	Clean Grit Brush
Strobe Light (Amber) W/ OH Guard	Arm Rest (RH only)
Polyethelyne Panel Filter	Seat Belt
Smart Cart (Battery Roll Out Cart)	

SPECIFICATIONS

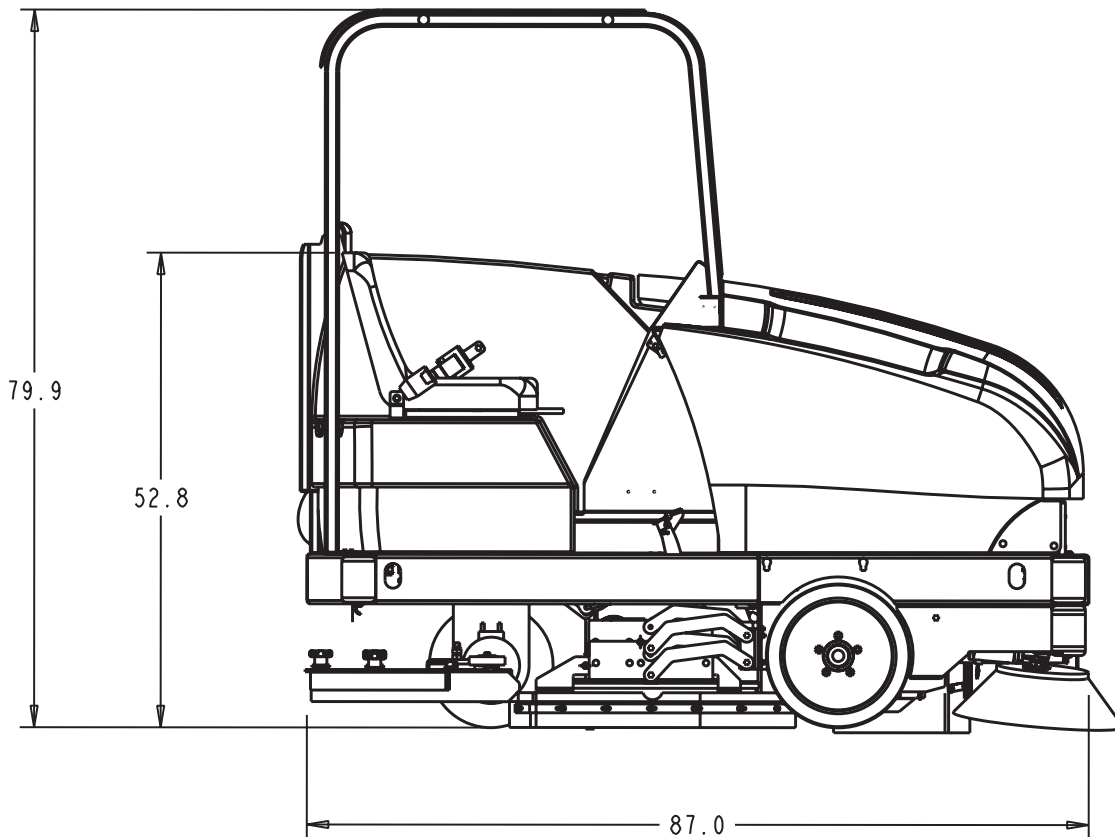
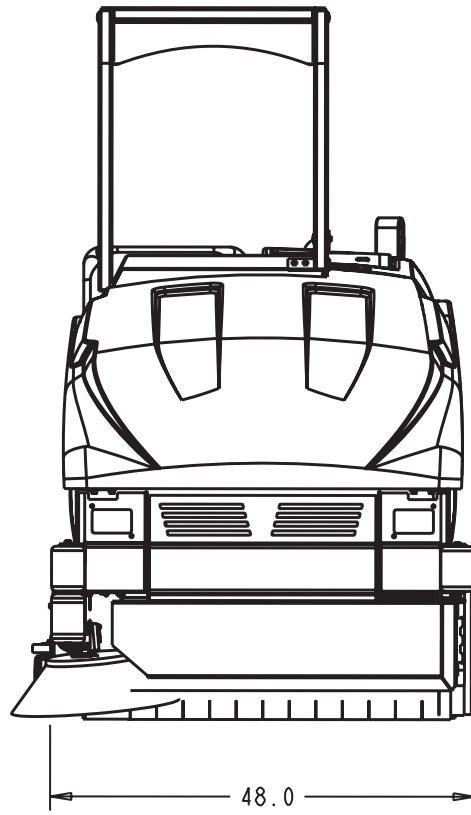




Fig 1

Your SC7730 battery machine has been shipped complete, but do not attempt to operate without reading the following instructions:

UNPACKING AND ASSEMBLING MACHINE

The SC7730 is shipped on a pallet and held in place with wooden blocks to stop the machine from moving.

- 1) Remove wooden blocks holding machine in place.
- 2) Position a 11° and 48" ramp on base of pallet.

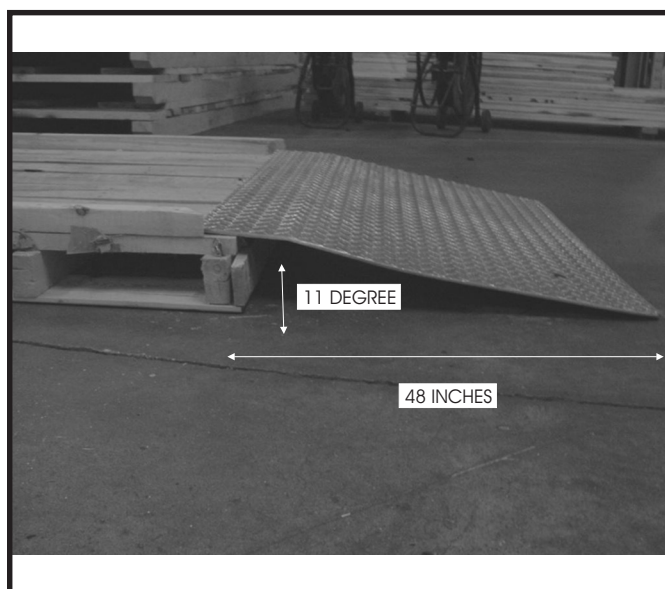


Fig 2

MACHINE PREPARATION

- 3) Push machine down the ramp onto a flat surface.
- 4) Install battery.
 - Turn the key to the “O” position
 - Lift the hood up and pull the battery lever up to the right.
 - Use a battery lifting device with a 2000 LB. (907KG) capacity to place the battery into the battery tray.
 - Push battery lever down to the left to lock the battery into place.
 - Plug the battery power connector into the machine power connector.
 - Lower the hood into place.
- 5) Charge battery as shown in the manual. Read battery manufacturer literature for battery care and maintenance.



WARNING

Do not charge batteries on a concrete grounded surface. Hydrogen gas is formed during the charging operation and is explosive. Only charge batteries in a well ventilated area with the lid open. Avoid any smoking, open flame, or electrical sparks.



Fig 3

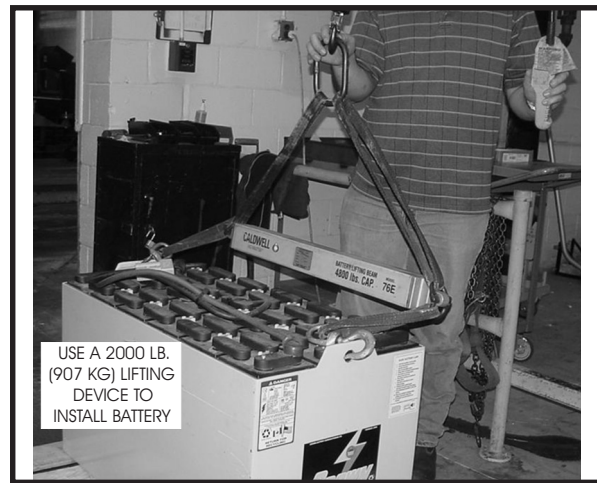


Fig 4

UNPACKING BATTERY

The battery is shipped separately on a pallet wrapped in plastic as shown in figure 3. Remove the plastic and use a 2000 LB. (907KG) capacity lifting device to lower the battery into the battery compartment as shown in figure 4.

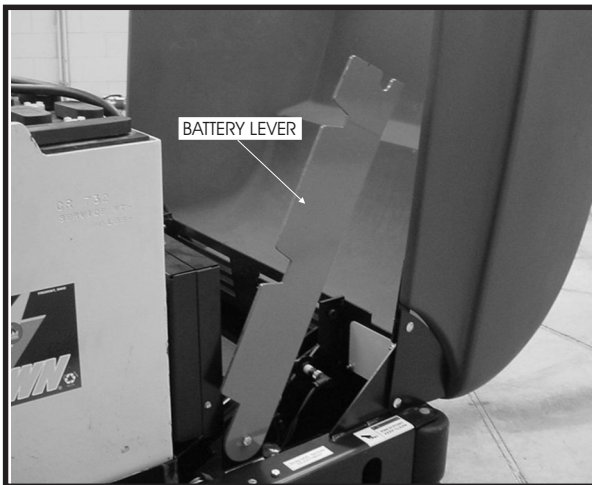


Fig 5

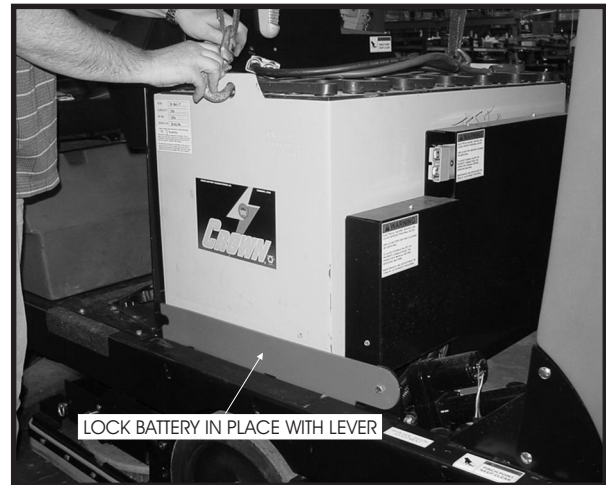


Fig 6



Fig 7

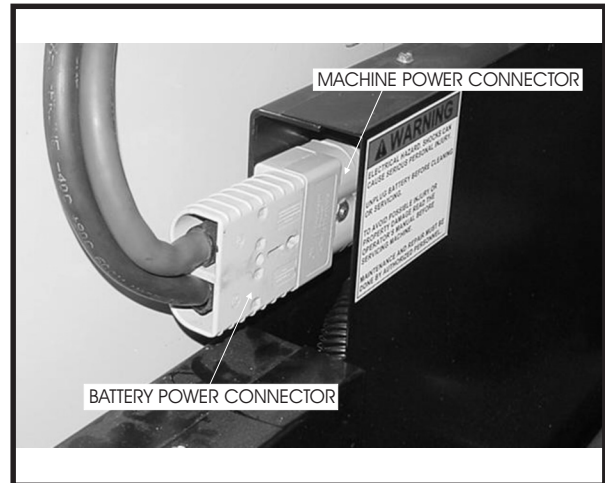


Fig 8

BATTERY INSTALLATION

1. Lift the machine front cover.
2. Rotate the battery lever to the right.
3. Lower the battery into place using a 2000 LB. (907 KG) capacity lifting device.
4. Rotate the battery lever to the left to lock the battery into place.
5. Connect battery wires according to manufacturer's direction.
6. Connect the battery power connector to the machine power connector.
7. Lower the machine front cover into place.



WARNING

Do not leave charged batteries on concrete surface, they will discharge.

CONTROLS

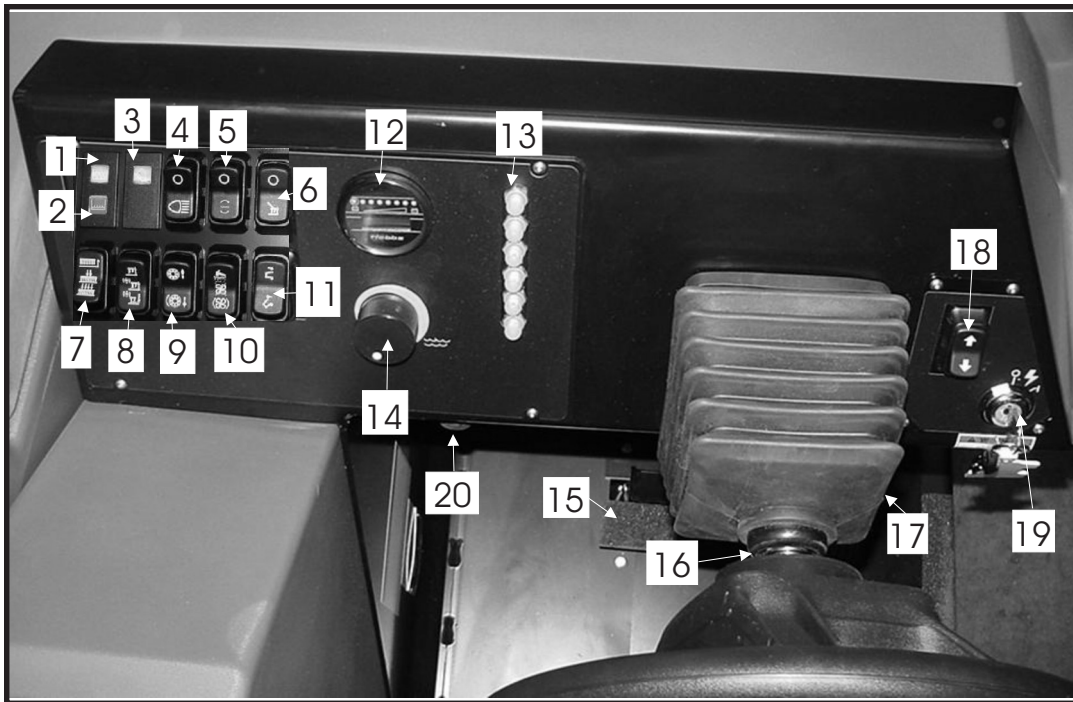


Figure 9

1. High recovery light.
2. Low solution light
3. Hopper open light.
4. Light switch.
5. ESP switch.
6. Spray Vac Wand switch.
7. Scrub brush switch.
8. Squeegee switch.
9. Main side broom switch.
10. Filter shaker/Dust control switch.
11. Hopper switch.
12. Battery condition meter/Hour meter.
13. Circuit breakers.
14. Solution flow knob.
15. Parking Brake.
16. Steering wheel adjustment lever.
17. Foot throttle.
18. Forward/Reverse switch.
19. Key switch.
20. Horn



Figure 10

KEY SWITCH

The keyed ignition switch is located on the operator's console as shown in figure 10.

The "OFF" position (O position) will shut off the machine. The IGN/ON position (I position) provides power to all machine systems and accessories.



Figure 11

FORWARD / REVERSE SWITCH

The forward/reverse switch is located on the operator's console as shown in figure 11. Pressing the upper half of the forward/reverse switch will result in the machine moving forward when the foot throttle is depressed. Pressing lower half of the forward/reverse lever switch will result in the machine moving backward when the foot throttle is depressed.

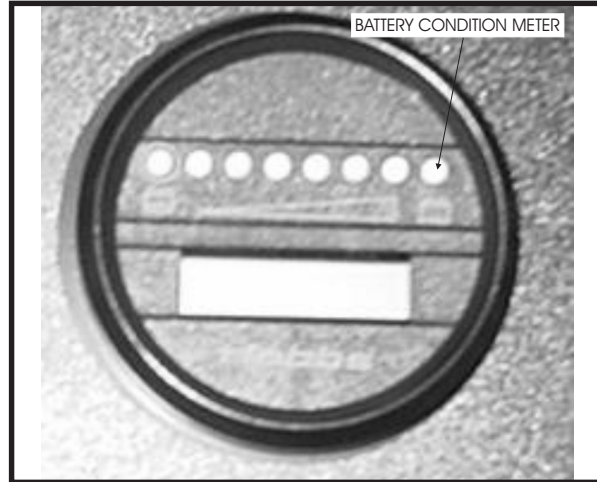


Figure 12

BATTERY CONDITION METER

The battery condition meter is located on the instrument panel as shown in figure 12. The condition meter indicates the level of charge in the batteries. The batteries are sufficiently charged when all of the LED's are illuminated amber as shown on the ramp illustration. Charge the batteries when one red LED is illuminated on the left at the bottom of the ramp diagram and the scrub brushes stop. Do not operate the machine.

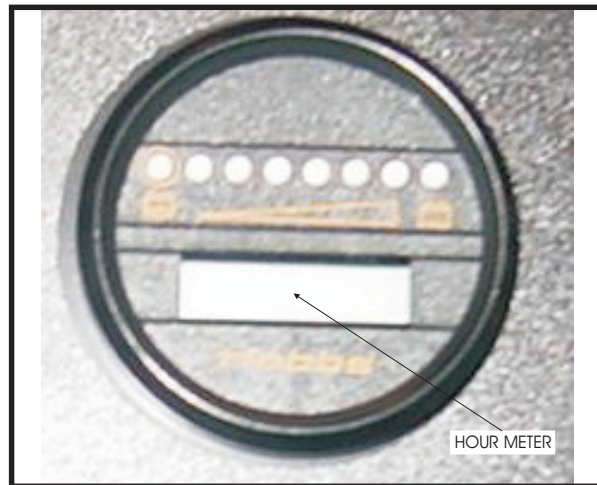


Figure 13



NOTE

To reengage, the key must be returned to the "OFF" position.

HOUR METER

The hour meter is located on the instrument panel as shown in figure 13. The display will show the total hours the machine has been in operation. The meter is activated when the key switch is placed in the ignition position. The meter can be used to determine when maintenance should be done on the machine.



Figure 14

HEADLIGHT/TAILLIGHT SWITCH (Optional)

The light switch is located on the instrument panel as shown in figure 14. By pressing on the lower half of the switch the headlights and taillights will be activated. Pressing the upper half of the switch will turn off the lights.



Figure 15

HOPPER OPEN WARNING LIGHT

The hopper open light switch is located on the instrument panel as shown in figure 15. When the hopper is open, the light is illuminated the broom and the dust control fan will stop.



Figure 16

FILTER SHAKER SWITCH (Only models with dust control)

The filter shaker switch is located on the instrument panel as shown in figure 16. By pressing and holding in the upper half of the switch, it will activate the filter shaker motors for 20 to 30 seconds. Releasing the switch, returns to the off position.

The dust control fan will stop when the filter shaker has been activated. The filter shaker will only operate with the hopper in the “DOWN” position.



Figure 17

DUST CONTROL SWITCH

The dust control switch is located on the instrument panel as shown in figure 17. To turn on the dust control system for normal sweeping, press the lower half of the switch.



WARNING

Turn the dust control switch to the center “OFF” position while wet sweeping. Water will damage the filter and cause premature filter failure.



Figure 18

SCRUB BRUSH SWITCH

The scrub brush switch is located on the left of the instrument panel as shown in figure 18. Pressing the top half of the switch raises the scrub deck and turns off the brushes. The middle switch position lowers the brushes to the normal down position for scrubbing. Pressing the lower half of the switch lowers the scrub deck to the heavy down position, supplying additional downward pressure for extremely dirty surfaces.



NOTE

Lowering the scrub deck does not turn on the brushes. The brushes turn on automatically when the machine moves forward or reverse.



Figure 19

SQUEEGEE SWITCH

The squeegee switch is located on the the instrument panel as shown in figure 19. Pressing the lower half of the switch lowers the squeegee and activates the squeegee vacuum. Pressing the upper half of the switch will turn off the squeegee vacuum and raise the squeegee. In the middle position the switch will raise the squeegee. In this position the vacuum remains on to allow vacuuming the water that is left in the squeegee recovery hose. This prevents water from dripping on the floor with the squeegee raised. If the squeegee is lowered and the direction of the machine is reversed (activated by the FWD/REV pedal) the squeegee will automatically raise. Moving forward the squeegee will automatically return to the lowered position.



Figure 20

LOW SOLUTION LIGHT

The low solution warning light is located on the instrument panel as shown in figure 20. The low solution warning light illuminates when the solution tank is empty, marking the end of the scrubbing cycle.



Figure 21

HIGH RECOVERY LIGHT

The high recovery warning light is located on the instrument panel as shown in figure 21. The light will illuminate approximately 5 minutes before the recovery tank is full, giving ample time to complete the scrubbing cycle, before the mechanical float shuts off the vacuum to the recovery tank.



Figure 22

HOPPER LIFT SWITCH

The hopper lift switch is located on the instrument panel as shown in figure 22. The switch controls the operation of the hopper lift system. To raise the hopper for dumping, press and hold the lower half of the switch until the hopper reaches the desired height, then release. To close the hopper press in and hold the upper half of the switch until the hopper closes completely then release.

! WARNING

To prevent the hopper from closing while doing maintenance lock the hopper in the open position into place with the safety arm.



Figure 23

SIDE BROOM and MAIN BROOM SWITCH

The side broom and main broom switch is located on the instrument panel as shown in figure 23. By pressing in the upper half of the switch, the side and main broom are raised and turned off. To lower and turn on both brooms, press the lower half of the switch.



Figure 24

SPRAY AND VAC WAND SWITCH (Optional)

The spray and vac wand switch is located on the instrument panel as shown in figure 24. Pressing the bottom half of switch turns on the vacuum motor and the solution pump. Pressing the top half of the switch turns the vacuum motor and solution pump off.



Figure 25

ESP SWITCH (Optional)

The ESP switch is located on the instrument panel as shown in figure 24. The ESP switch transfers water from the recovery tank through a filter and into the solution tank. When the switch is in the down position the pump will operate when the high recovery light is illuminated. Clean the recovery tank when the tank is emptied.



NOTE

Do not place clean water in the recovery tank when using ESP option, the solution tank could become overfilled during operation.

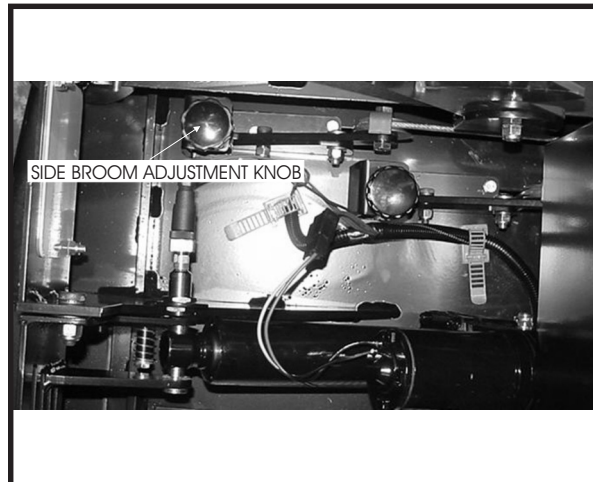


Figure 26

SIDE BROOM ADJUSTMENT

The side broom adjustment knob for changing the sweep height to compensate for broom wear, is located in front of the machine to the right of the dust control filter as shown in figure 26. Turning the knob to the left (counterclockwise) will lower the side broom.

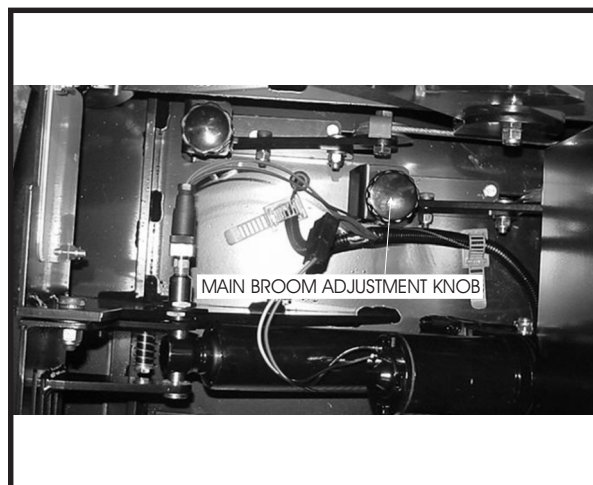


Figure 27

MAIN BROOM ADJUSTMENT

The main broom adjustment knob for changing the sweep height to compensate for broom wear, is located in front of the machine to the right of the dust control filter as shown in figure 27. Turning the knob to the left (counterclockwise) will lower the main broom.

CONTROLS

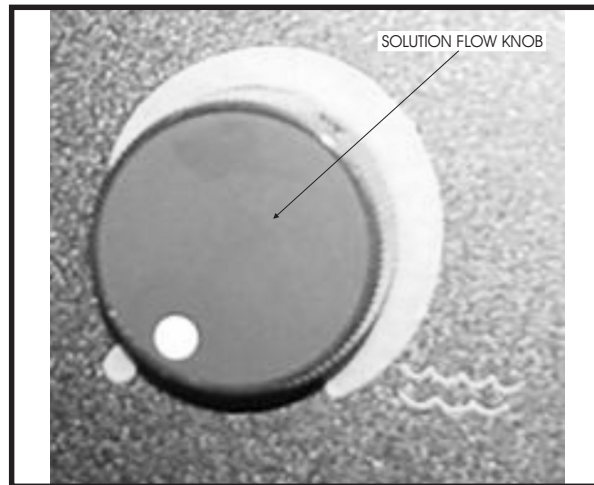


Figure 28

SOLUTION FLOW KNOB

The solution flow knob is located on the instrument panel as shown in figure 28. Turning the knob clockwise will increase the flow of solution and water. The farther the solution control knob is turned the heavier the flow of water and solution will be. Turning the knob counterclockwise will decrease the flow of the water and solution. To turn the water and solution off turn the knob all the way counterclockwise.



NOTE

For best results, discontinue application of solution 10 feet before stopping or making a 90° or 180° turn.

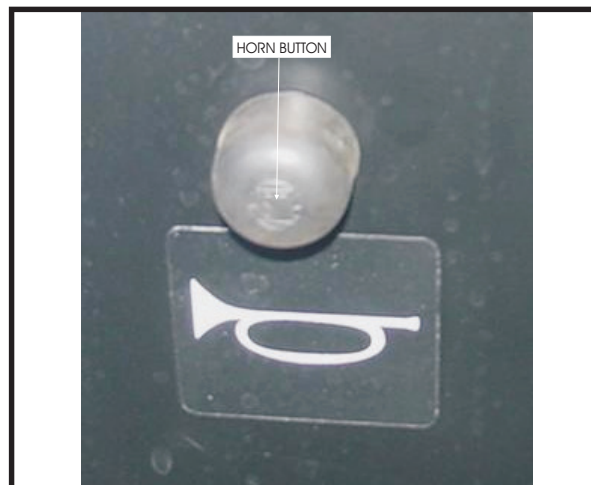


Figure 29

HORN BUTTON

The horn button is located on the instrument panel as shown in figure 29. The horn button is always active. Pressing the horn button will sound the horn.

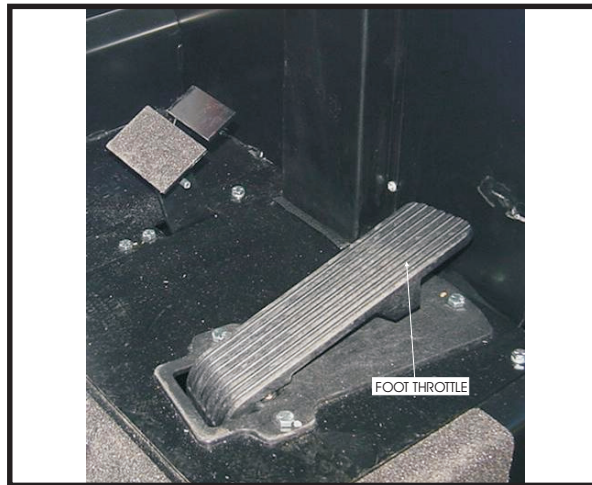


Figure 30

FOOT THROTTLE

The foot throttle is located to the right of the brake pedal on the floor of the operator's compartment as shown in figure 30. This pedal controls the machine travel speed. Press the forward/reverse switch to choose the travel direction, and then press down on the foot throttle to move set the machine in motion. Increase the foot pressure to increase the travel speed.

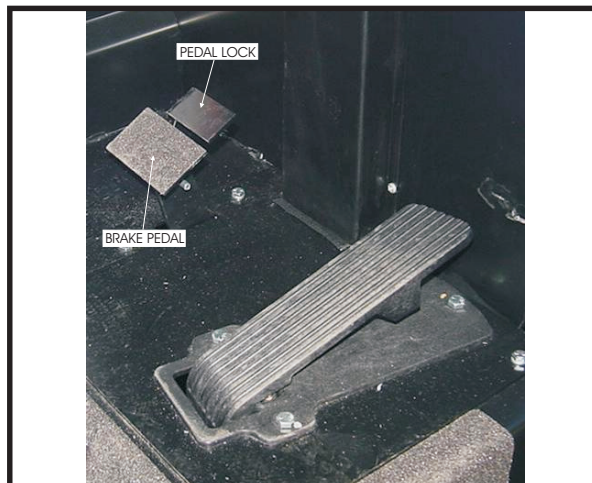


Figure 31

PARKING BRAKE

The parking brake is located on the floor of the machine left of the foot throttle as shown in figure 31. To set the parking brake, press down on the foot pedal and the press down the lock. To unlock the parking brake, push down on the upper portion of the foot pedal and release.



Figure 34

SEAT POSITION ADJUSTMENT

The seat position adjustment lever is located on the front of the seat to the left as seen in figure 34. The lever is spring loaded to the lock position. To adjust the seat, push the lever to the left and move the seat to the desired position and then release the lever to lock the seat into place.

SAFETY FEATURES

SEAT SAFETY SWITCH - Machine will not move and parking brake will set if this switch is not activated.

SPEED INTERLOCK - Maximum machine speed will be reduced while scrub brushes are in use.

BRUSHES OFF IN NEUTRAL - Scrub brushes automatically disengage when machine is idle.

AUTOMATIC RECOVERY VACUUM SHUT-OFF - Vacuum fans will shut down when recovery tank is full.



NOTE

Before starting the engine, perform the pre-start checklist. Before starting the engine, perform the pre-start checklist.

PRE-START CHECKLIST

- Check hydraulic fluid level.
- Check all systems for leaks.
- Check brakes and controls for proper operation.
- Check broom patterns.
- Check hydraulic fluid level.
- Check hydraulic connections for leaks.
- Check brakes and controls for proper operation.
- Check broom pattern.
- Check to ensure that all covers, panels and access doors are securely closed.



Figure 35



Figure 36

TO FILL SOLUTION TANK

Open the solution lid located on the top left side of the machine as shown in figure 36. Fill tank with 55 gallons of water and the correct mixture of American Lincoln Commercial cleaner for the job on hand. Close the solution tank.

OPERATING INSTRUCTIONS

TO START MACHINE

Turn key to "I" position.

TO TRANSPORT MACHINE

1. Make sure the brushes and squeegees are in the up or raised position with all other controls in the off position.
2. Release the parking brake.
3. Push the forward/reverse switch to desired position (up for forward and down for reverse)
4. Push down on the foot throttle to obtain desired travel speed.
5. Release the foot throttle to slow down or stop when on a flat surface. To slow the machine when descending down an inclined surface reduce foot pedal pressure.



NOTE

The pedal proportional braking system is designed to regulate machine speed according to the foot throttle position. This system is designed to bring the machine to a stop in controlled manner. When driving down an inclined surface, reduce foot pedal pressure rather than releasing the foot throttle. This will provide a controlled stop and prevent the drive wheel from locking.



WARNING

Do not turn the steering wheel sharply when the machine is in motion. The sweeper is very responsive to movement of the steering wheel. Do not make sudden turns.



Figure 38

TO BEGIN THE CLEANING OPERATION

1. Select the operating mode
NORMAL = ESP
2. Lower brushes to the desired position.
SCRUB DECK = NORMAL RANGE OR HEAVY
3. Place the squeegee switch in the lower position.
SQUEEGEE BLADE = LOWER
4. Move solution control knob to the desired setting and begin operation.

SCRUBBING THE AVERAGE FLOOR WITH LIGHT TO MEDIUM SOILAGE

In this operation, cleaning is accomplished in one pass, with simultaneous solution feed, scrubbing and dirty water pick up. The rate of solution feed and the speed of travel required will vary with floor condition. This knowledge will come with operator experience.

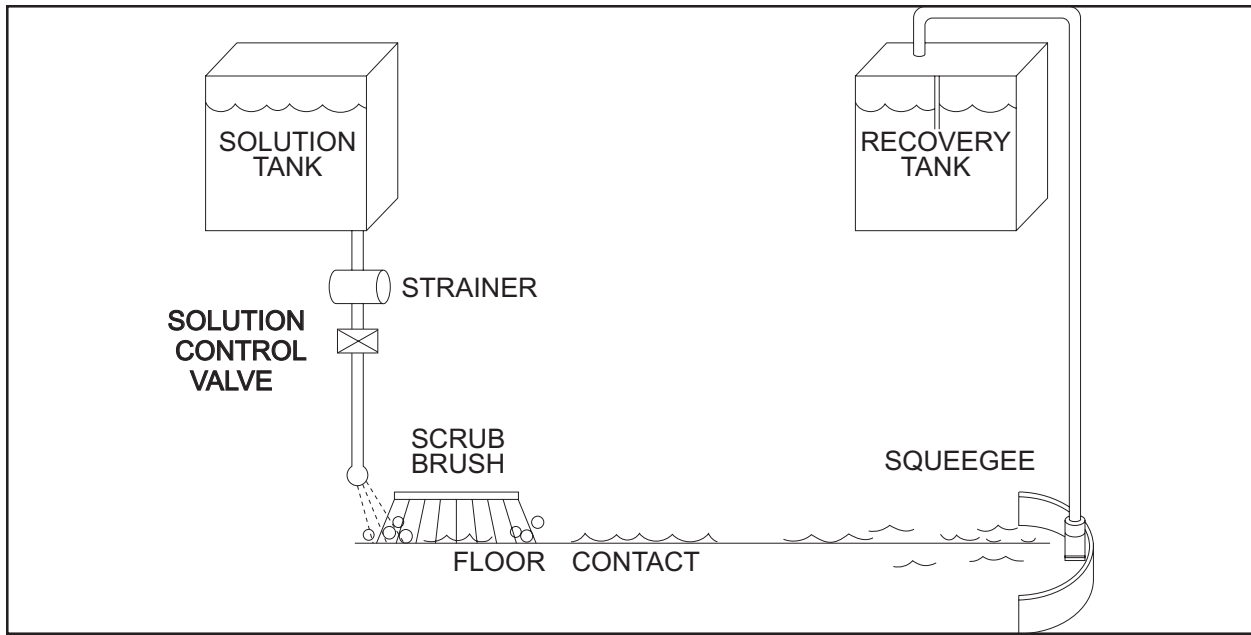


Fig. 39

THE NON-RECYCLING OR STANDARD SCRUBBING MODE

During the scrubbing process, detergent solution water from the solution tank is fed to the solution line. There it is fed to the floor where three disc scrubbing brushes work to dislodge soil. After scrubbing, the dirty solution is vacuumed from the floor and discharged into the containment chamber in the forward portion of the recovery tank, where a system of baffles helps to clarify the solution. Sensors in each tank will indicate, by lights on the control panel, when the water in the solution tank is too low or when the water in the recovery tank is too high.

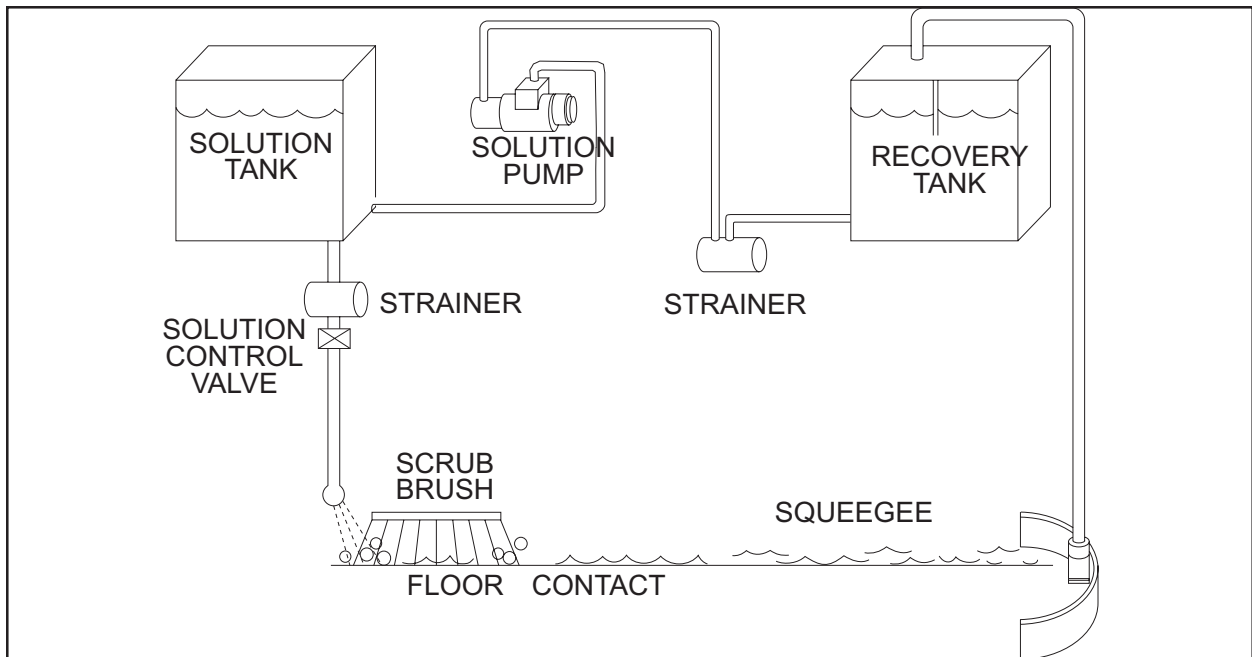


Fig. 40

ESP OPERATING MODE

During the scrubbing process, filtered water from the solution tank is fed to the solution line, where it combines with detergent. This mixture is then fed to the floor where two or three disc scrubbing brushes work to dislodge soil. After scrubbing, the dirty solution is vacuumed from the floor and discharged into the recovery tank. At intervals, a float switch activates the recycling pump, which sends filtered solution from the recovery tank to the solution tank.

OPERATING INSTRUCTIONS

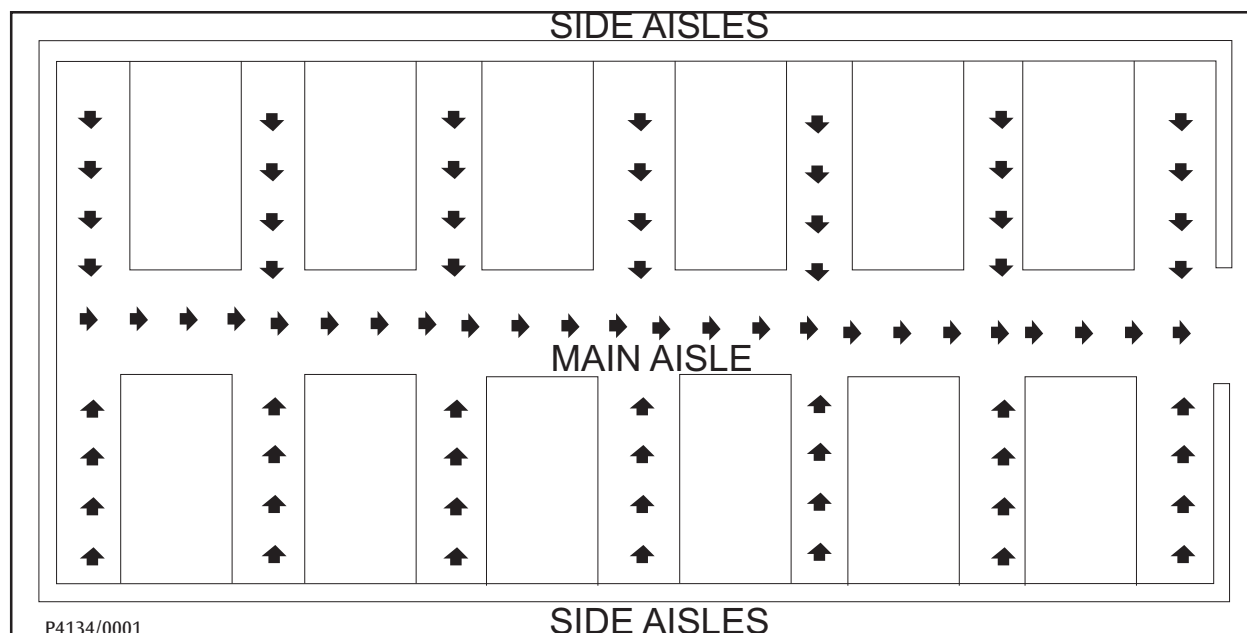


Fig. 41

SCRUBBING PATH

- Scrub in straight paths. Do not bump posts. Do not scrape the sides of the machine.
- When the machine is in motion, do not push the directional/speed control pedal all the way forward. This is the same as starting in “high” and will put a strain on the motor and drive system.
- Plan your sweeping and scrubbing in advance. Try to arrange long runs with minimum stopping and starting. Sweep debris from narrow aisles out into main aisle ahead of time. Do an entire floor, or section at on time.
- Pick up oversize debris before sweeping.
- Allow a few inches of overlap of sweep and scrub paths. This will eliminate leaving dirty patches.
- Allow a few inches of overlap of sweep and scrub paths. This will eliminate leaving dirty patches.
- Don’t turn steering wheel to sharply when machine is in motion. The machine is very responsive to movement of the steering wheel; so avoid sudden turns.
- Try to follow as straight a path as possible. Avoid bumping into posts or scraping the sides of the machine.
- When placing the machine in motion, avoid slamming the directional control pedal all the way forward suddenly. This is equivalent to starting out in “HIGH” and puts needless strain on the drive system. Periodically, turn the sweeping broom end for end to prevent the bristles from “settling” in one direction.

TO STOP THE CLEANING OPERATION

Discontinue the cleaning operation when the low solution light or the high recovery light illuminates, this indicates the solution tank is empty or recovery tank is full. Discontinue the scrubbing cycle, put all controls in the forward position for transport and drive to the drain area.



NOTE

After stopping, perform these post operation checks.

POST OPERATION CHECKLIST

Check Battery Condition and recharge if necessary.

1. Check all flaps for wear, damage and adjustment.
2. Drain and clean recovery tank.
3. Clean recovery tank screen and float.
4. Check scrub brushes for wear or damage.
5. Check rear and side squeegee for wear, damage and adjustment.
6. Clean the debris in hopper
7. Check main and side broom for wear or damage.

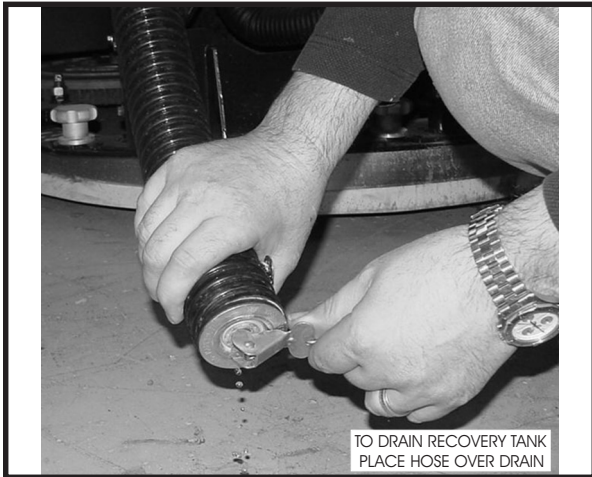


Fig. 42

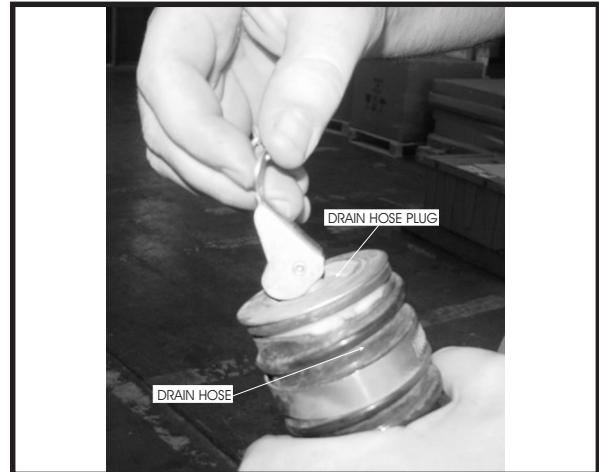


Fig. 43

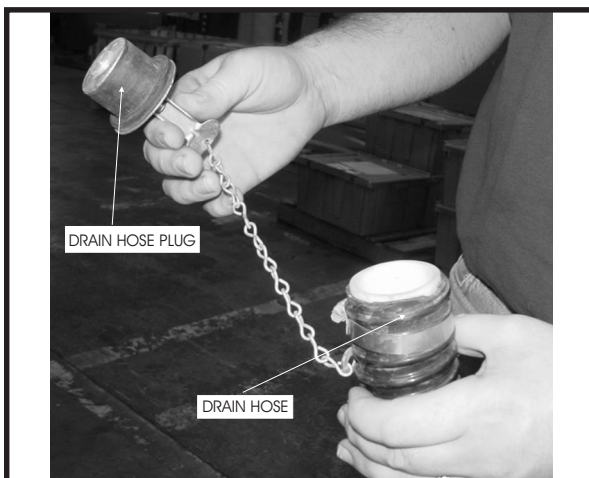


Fig. 44

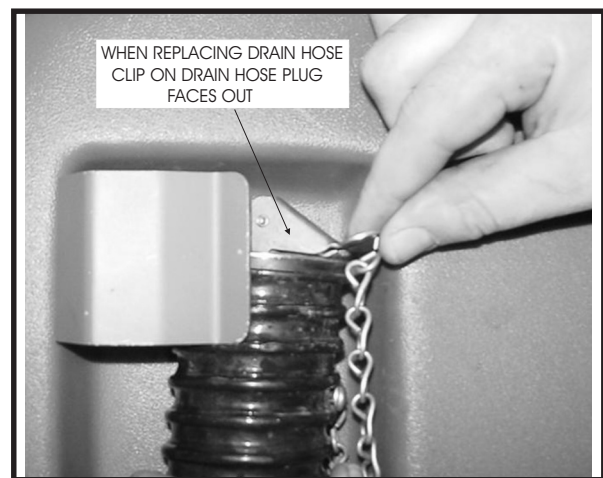


Fig. 45

TO DRAIN RECOVERY TANK

The drain hose for the recovery tank is located on the back of the machine. To drain the tank, remove and lower the hose and place in a suitable floor drain as shown in figure 42. Open the drain hose plug as shown in figure 43 and 44.



IMPORTANT

Improper discharge of wastewater will damage the environment and is illegal. The U.S. Environmental Protection Agency has established certain regulations regarding discharge of wastewater. The local city and state regulations regarding wastewater discharge may be in effect in your area. Understand and follow the regulations in your area. Be aware of the environmental hazards associated with the substances you dispose of.

OPERATING INSTRUCTIONS

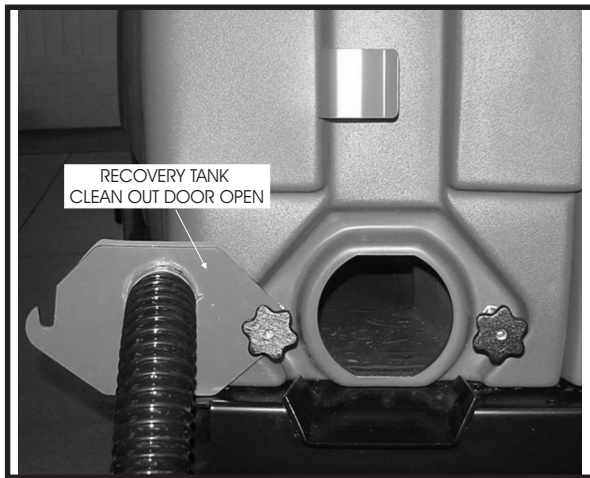


Fig. 46

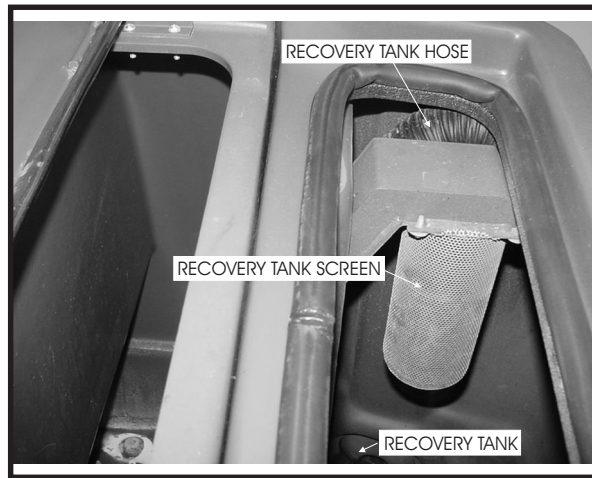


Fig. 47

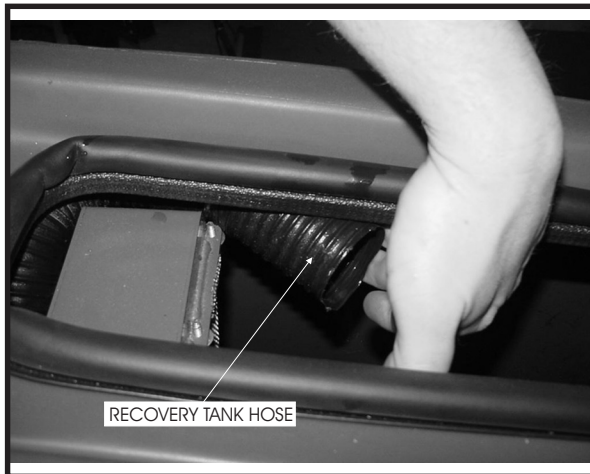


Fig. 48

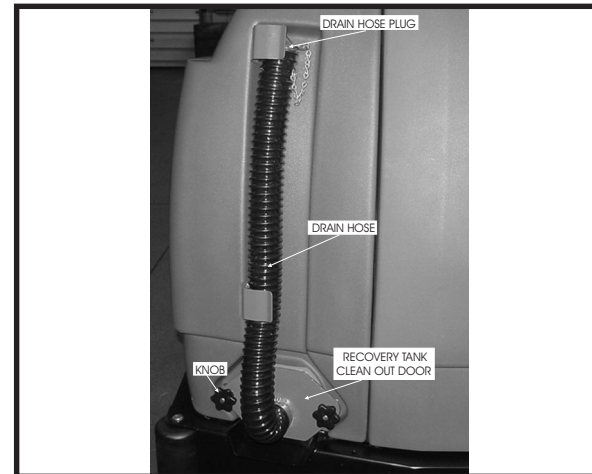


Fig. 49

When the draining operation is complete, open the recovery tank clean out door as shown in figure 46 and flush the recovery drain hose as shown in figure 47. Clean the recovery tank and recovery tank screen as shown in figure 48. Close the recovery tank clean out door, drain hose plug, the recovery tank lid and clip the drain hose into place as shown in figure 49.

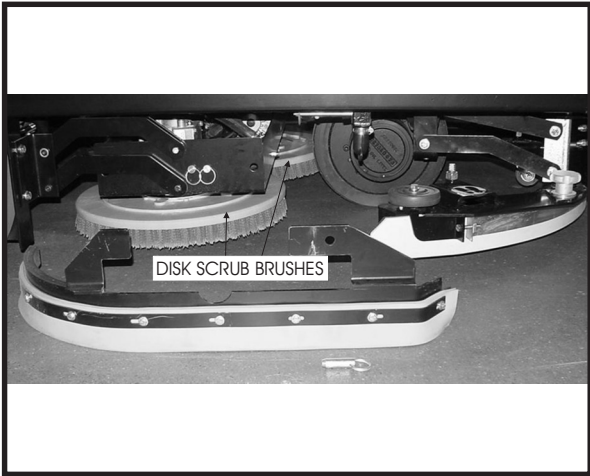


Fig. 50



Fig. 51

Inspect the disk scrub brushes and replace when the bristles are reduced to 3/4 inch length as shown in figure 50 and 51.

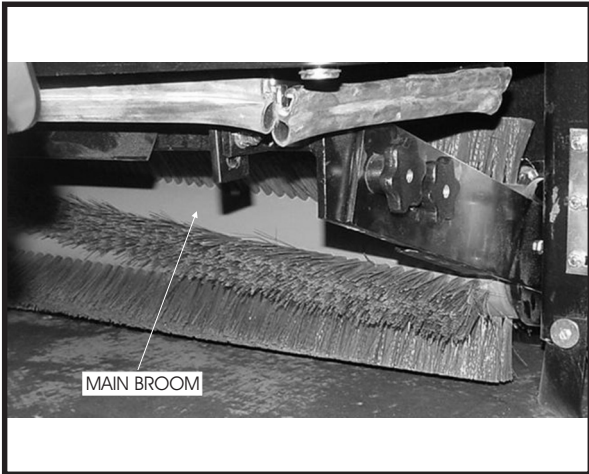


Fig. 52



Fig. 53

Inspect the main and side brooms. When the bristles are worn to 1.5 inches in length, replace the main broom as shown in figure 52. Replace the side broom when bristles are worn to 3.5 inches as shown in figure 53.

OPERATING INSTRUCTIONS



Fig. 54

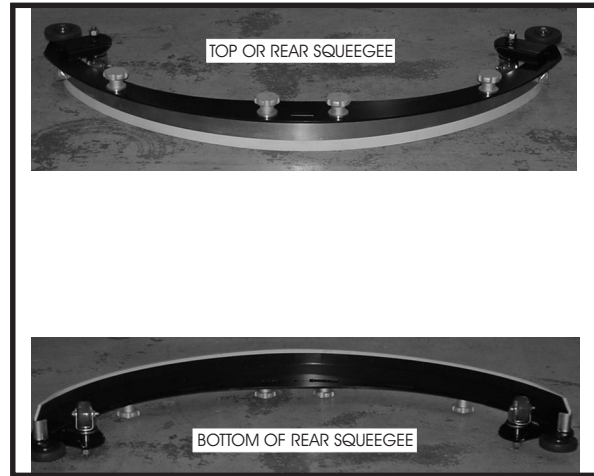


Fig. 55



Fig. 56

Inspect the rear and side squeegee blades for wear. If the wiping edge becomes rounded, remove and reinstall so the unworn edge is now the wiping edge. This process can be repeated until all four edges are worn. If the squeegee blade has become rippled, it will need to be replaced.

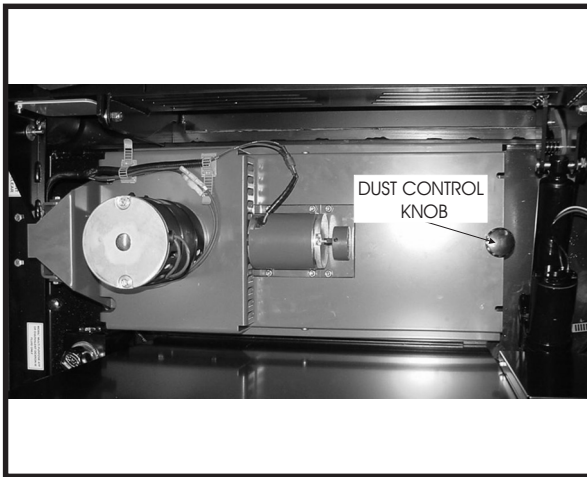


Fig. 57

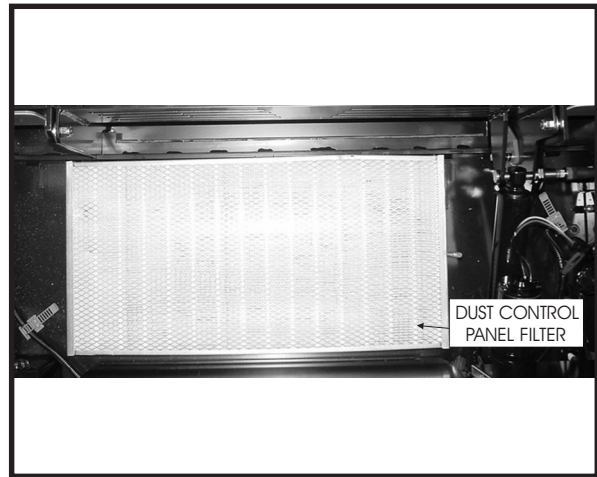


Fig. 58

DUST CONTROL KNOB

The dust control knob is used to hold the dust control filter cover down as shown in figure 57. The dust control filter is located under the front cover and will need to be removed periodically for cleaning or replacement. Removal of the filter panel requires no tools. The front cover must be opened to gain access to the filter compartment. The panel filter is held in place by a hinged frame and knob. To remove the panel filter, turn the knob counterclockwise and lift the hinged frame. The panel filter can now be lifted out and cleaned or replaced. To install the replacement panel filter, place a new filter in the machine, lower the frame and twist the knob clockwise to lock the filter in place.

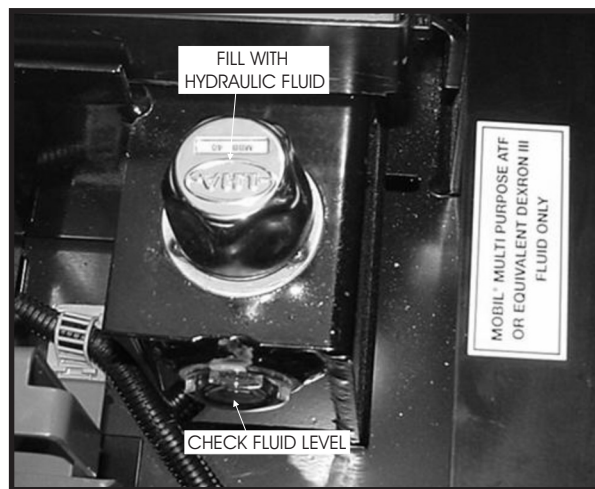


Fig. 59

HYDRAULIC RESERVOIR FLUID LEVEL SIGHT GAUGE

The fluid level sight gauge is located on the right side of the machine under the front cover as shown in figure 59. The sight gauge is used to indicate the level of fluid in the reservoir. The fluid level must be visible in the sight gauge when the hopper is in the down position.

