Electronic Service Manuals

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Serving the Cleaning Industry Since 1922

SC7750 IC

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®

Form Number OM28600404 2005/Revised English

TABLE OF CONTENTS - OPERATIONS

SPECIFICATIONS

CLEANING PATH	
Scrubbing	46 Inches (116.84 cm) or 53" (134.62cm)
Sweeping	60 Inches (152.40 cm)
Edge Cleaning	6 Inches (15.24 cm) Right Side 53 Inches (134.62 cm) Only
TRAVEL SPEED	0-6 MPH
STEERING	Rack & Pinion 90°-90° Hydraulic Power Steering Adjustable Steering Column
TURNING RADIUS	
Left	74.5 Inches (189.23 cm)
Right	74.5 Inches (189.23 cm)
Aisle "U" Turn	110.0 Inches (279.40 cm)
DIMENSIONS	
Length	102.5 Inches (265.43 cm)
Width	55.0 Inches (132.08 cm)
Height	55.5 Inches (140.97 cm)
Height w/ Overhead Guard	78.75 Inches (197.49 cm)
Wheel Base	50.8 Inches (128.90 cm)
WEIGHT	
Standard Machine	2900 lbs. (1305.0 Kg)
TIRES	Solid Rubber (Front & Rear)
Front	Two (2) 16" (41cm) x 3.75" (8.26 cm)
Rear	One (1) 16" (41 cm) x 4.00" (10.16 cm)
RAMP CLIMBING	
Sweeping	6 Degrees
Transporting	8 Degrees
ENGINE DATA	
Ford TSG416 EFI Engine	
Bore and Stroke	3.23" x 2.97" (82.1 mm x 75.5 mm)
Oil Capacity	4.4 quarts (4.2 liters)
Displacement	4 cylinders, 1.6 liters (97.5 CID)
Fuel	87 A.K.I. (Standard unleaded) ASI grade HD-5 for LP versions
Mitsubishi S4L2 Diesel	
Bore and Stroke	3.07" x 3.62" (78 x 92 mm)
Oil Capacity	5.6 quarts (5.4 liters) - w/standard oil pan
Displacement	4 cylinders, 1.8 liters (107.3 cu. in.)
Fuel	ASTM No. 2-D

MAIN BROOM

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

Length	45 Inches (114 cm)
Diameter	14 Inches (35.6 cm)
Bristle Length	3.25 Inches (8.26 cm)

Optional Bristle Type	Nylon (Herringbone)	Proex and Wire
	High Density Nylon	Poly and Wire
Main Broom Lift	Hard Linkage	
Main Broom Arms	Patented (No-Tool Broom Change)	

SIDE BROOM

Side Broom Size	21-inch (53.34 cm) Diameter
Side Broom Bracket	Swing Away Shock Mount
Side Broom Lift	Cable

INSTRUMENTS AND CONTROLS

Fuel Gauge	Main Broom Lever (Activates Immediately when lowered)
Key Switch	Rectangular Hour Meter
Headlight/Taillight Switch	Side Broom Lever (Activates Immediately when lowered)
2-Position Throttle Switch	Engine Oil Pressure Light
Squeegee Switch	Recovery High Light
Scrub Deck Switch	Clogged Filter Light (OPTION)
Scrub Deck Heavy Load Switch	Horn Button
Hopper Temperature Light (OPTION)	Glow Plug (Diesel)
Solution Low Light	Solution Control
Coolant Temperature Light	Hopper Up/Down
Check Engine Light (Gas, LP)	Dump Door Open/Closed
	Filter Shaker Switch

SCRUBBING SYSTEM

Brush Size-46”	Three (3) 16” (40.64 cm) Diameter Brushes
Brush Size-53”	Three (3) 17.88” (45.42 cm) Diameter Brushes
Brush Drive	Hydraulic Motors, Off in Neutral (after 2-second delay)
Brush Drive Lift	Hydraulic Cylinder Ground Clearance
Scrub Load	250 lbs. (112.50 Kg) or 400 lbs. (180.0 Kg)

SQUEEGEE

Vacuum/Squeegee	55.5-inch (140.97 cm) Wide Swing, Gum Rubber Outer Blade
Side Squeegees (2)	Patented Configuration
Squeegee Lift	Cylinder and Cable, Auto-Lift in Reverse
Squeegee Hose	2-inch (5.08 cm) Diameter

TANKS

Solution Tank	70 Gallon (264.96 Liters) Polyethylene
Recovery Tank	70 Gallon (264.96 Liters) Polyethylene
Solution Metering	Variable to 3.0 GPM

HOPPER

Capacity	10 Cubic Feet (.2832 Cubic Meters), 700 lbs. (315 Kg)
Dump and Lift	Variable Dump with Dump Door
Filter	78 Sq. Ft. (72,464 Sq. Cm)
Dump Height	60-Inch (152.40 cm) Variable Dump
Reach Into Dumpster	11 Inches (27.94 cm)

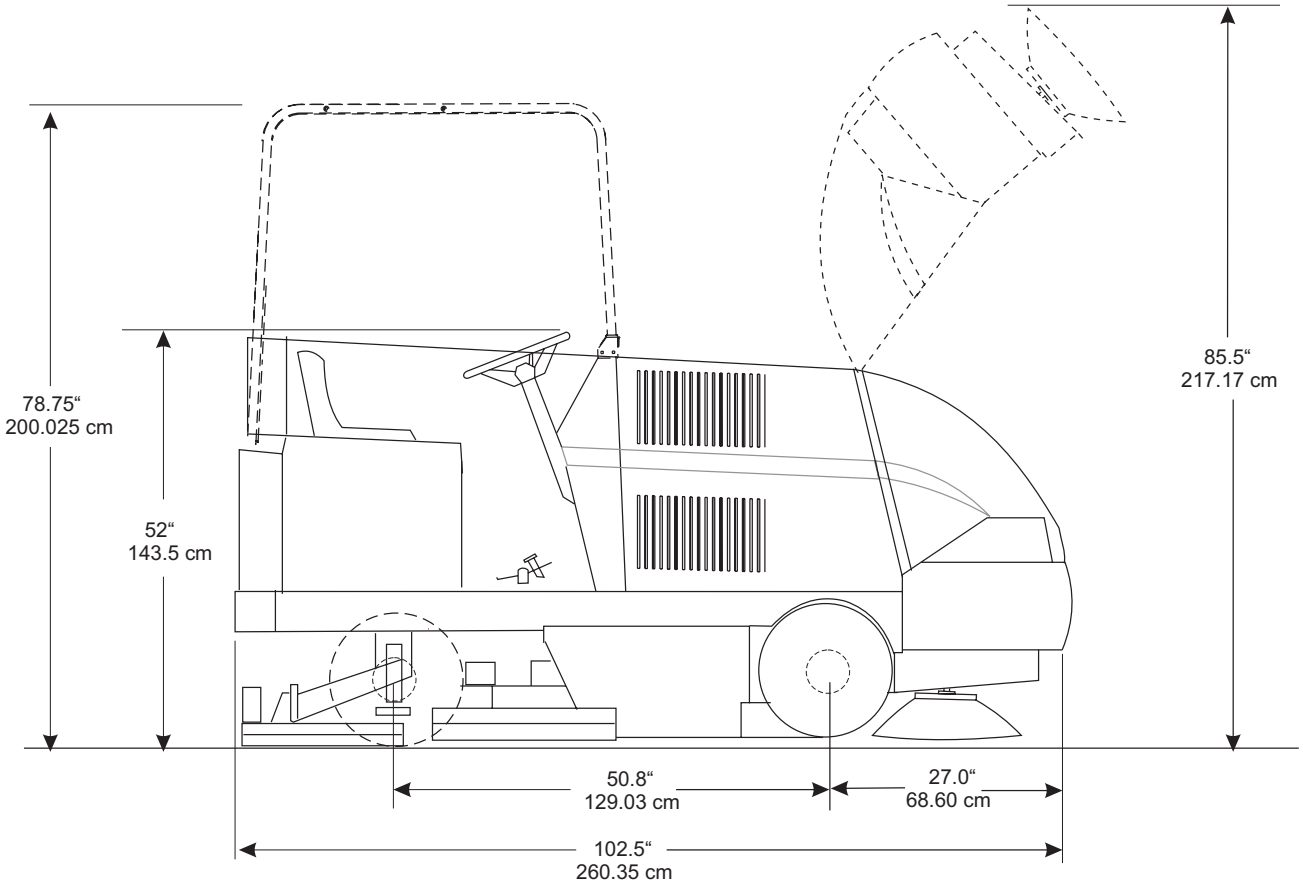
SPECIFICATIONS

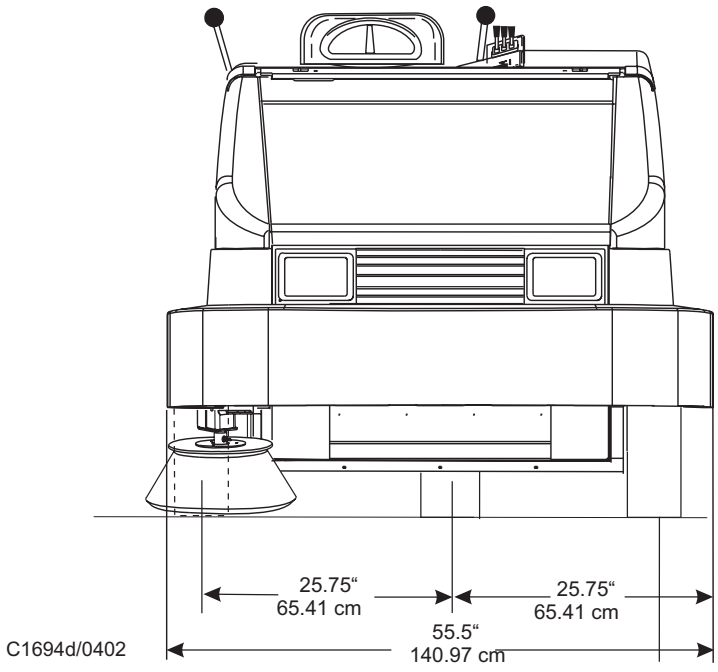
SYSTEM FLUID CAPACITIES

Fuel Tank	10.0 Gallons (37.95 Liters)
Hydraulic System	9.0 Gallons (34.07 Liters), Swing Out for Service

OPTIONAL EQUIPMENT

Seat Belt	Back Up Alarm
Wet Sweep Bypass/Thermo-Sensor	Push-Pull Light Switch (Work Light)
Amber Safety Light	Headlight/Taillight Switch
ESP & Autofil Recycling System	Overhead Guard
Pad Drivers	Non-Marking Tires
Oil Cooler	Scrub Brushes
46” Scrub Option (Field-Installed) (Gas)	53” Scrub Option (Field-Installed)
Spray Wand Option	Vacuum Wand Option
Fire Extinguisher	Clogged Filter Indicator


78.75“
200.025 cm
52“
143.5 cm
85.5“
217.17 cm
50.8“
129.03 cm
27.0“
68.60 cm
102.5“
260.35 cm


25.75“
65.41 cm
25.75“
65.41 cm
55.5“
140.97 cm

C1694d/0402

C1694c FIGURE 1

YOUR SC7750 IC MACHINE HAS BEEN SHIPPED COMPLETE, BUT DO NOT ATTEMPT TO OPERATE WITHOUT FOLLOWING THESE INSTRUCTIONS.

PREPARING THE MACHINE FOR OPERATION

1. Connect and tighten battery cables.
2. Fill the tank with REGULAR GRADE gasoline. (Diesel fuel if equipped with diesel engine.)

WARNING

Never fill the tank while the engine is running. Always be sure the gasoline container and sweeper are electrically connected before pouring gasoline. This can easily be done by providing an insulated wire (permanently attached to container) with a battery clip on the other end.

3. Check engine crankcase oil level. Although properly lubricated at the factory, check before starting the engine. No special break in oil is used and recommended number of operating hours before the initial oil change is the same as normal. See Maintenance.
4. Check radiator coolant level. Permanent type antifreeze is added at the factory to provide protection to approximately -35°F (37°C). To retain this protection level, always add ½ part water to ½ part antifreeze.
5. Check oil level in the hydraulic reservoir located at the center of the machine beside the engine. The oil fill level should be halfway on sight glass. If oil is needed, add HYDRAULIC FLUID ONLY, automatic transmission fluid FORD type “F.” After the first 50 operating hours, service must be performed on your engine to ensure future high performance and trouble-free operation. See Maintenance.

NOTE

After the first 50 operating hours, service must be performed on your engine to ensure future high performance and trouble-free operation. See Maintenance.

THE FOLLOWING STATEMENTS ARE USED THROUGHOUT THIS MANUAL AS INIDICATED IN THE DESCRIPTIONS:

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

WARNING
To warn of hazards or unsafe practices which could result in severe personal injury or death.

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.

WARNING
THE FOLLOWING INFORMATION SIGNALS POTENTIALLY DANGEROUS CONDITIONS TO THE OPERATOR OR EQUIPMENT. READ THIS MANUAL CAREFULLY. KNOW WHEN THESE CONDITIONS CAN EXIST. THEN, TAKE NECESSARY STEPS TO TRAIN MACHINE OPERATING PERSONNEL. FOR THE SAFE OPERATION OF THIS MACHINE, READ AND UNDERSTAND ALL WARNINGS, CAUTIONS AND NOTES.

WARNING
Machines can ignite flammable materials and vapors. Do not use with or near flammables such as gasoline, grain dust, solvents, and thinners.

WARNING
Heavy machinery. Improper use can cause personal injury.

WARNING
Operate only when lids, doors, and access panels are securely closed.

WARNING
Use care when reversing machine in confined area.

WARNING
When servicing the machine, disconnect the battery first to prevent possible injury.

WARNING
Always empty the hopper and disconnect the battery before doing maintenance.

WARNING
You must have training in the operation of this machine before using it.
READ THE INSTRUCTION BOOK.

WARNING
Do not operate this machine unless it is completely assembled.

WARNING
Do not use this machine as a step or furniture.

WARNING
Stop and leave this machine on a level surface. When you stop the machine, put the power switch in the "OFF" position and engage the Wheel Lock.

WARNING
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.

SAFETY INSTRUCTIONS

WARNING

Always wear eye protection and protective clothing when working near battery. Remove all jewelry. Do not put tools or other metal objects across the battery terminals or across the top of battery.

WARNING

Only authorized personnel must do maintenance and repairs. Tighten all fasteners. Maintain adjustments according to the specifications given in the service manual for the machine. Keep the electrical parts of the machine dry. For storage, keep the machine in a building.

WARNING

Make sure all labels, decals, warnings, cautions and instructions are fastened to the machine. Purchase new labels and decals from American-Lincoln.

WARNING

The operator must exhibit extreme caution when negotiating, turning, and traveling across grades or ramps. Start, stop, change direction, travel and brake smoothly. Slow down when turning.

WARNING

Avoid uneven surfaces and loose materials. Watch for obstructions, especially overhead.

WARNING

Operate only from the designated operator's position. Stay inside the body of the machine. Keep hands and feet on the designated controls. Always operate in well-lighted areas.

WARNING

Do not carry passengers on the machine. Set the Wheel Lock when leaving the machine. Chock (block) the wheels if the machine is parked on a grade (ramp), or is being prepared for maintenance.

WARNING

Never leave the operator's compartment when the engine is running.

WARNING

Report damage or faulty operation immediately. Do not operate the machine until repairs have been completed. Only authorized personnel should do maintenance and repairs.

WARNING

To maintain the stability of this machine in normal operation, the overhead guard, counterweights, rear bumper guard or any similar equipment installed by the manufacturer as original equipment should never be removed. If it becomes necessary to remove such equipment for repair or maintenance, this equipment must be reinstalled before the machine is placed back into operation.

WARNING

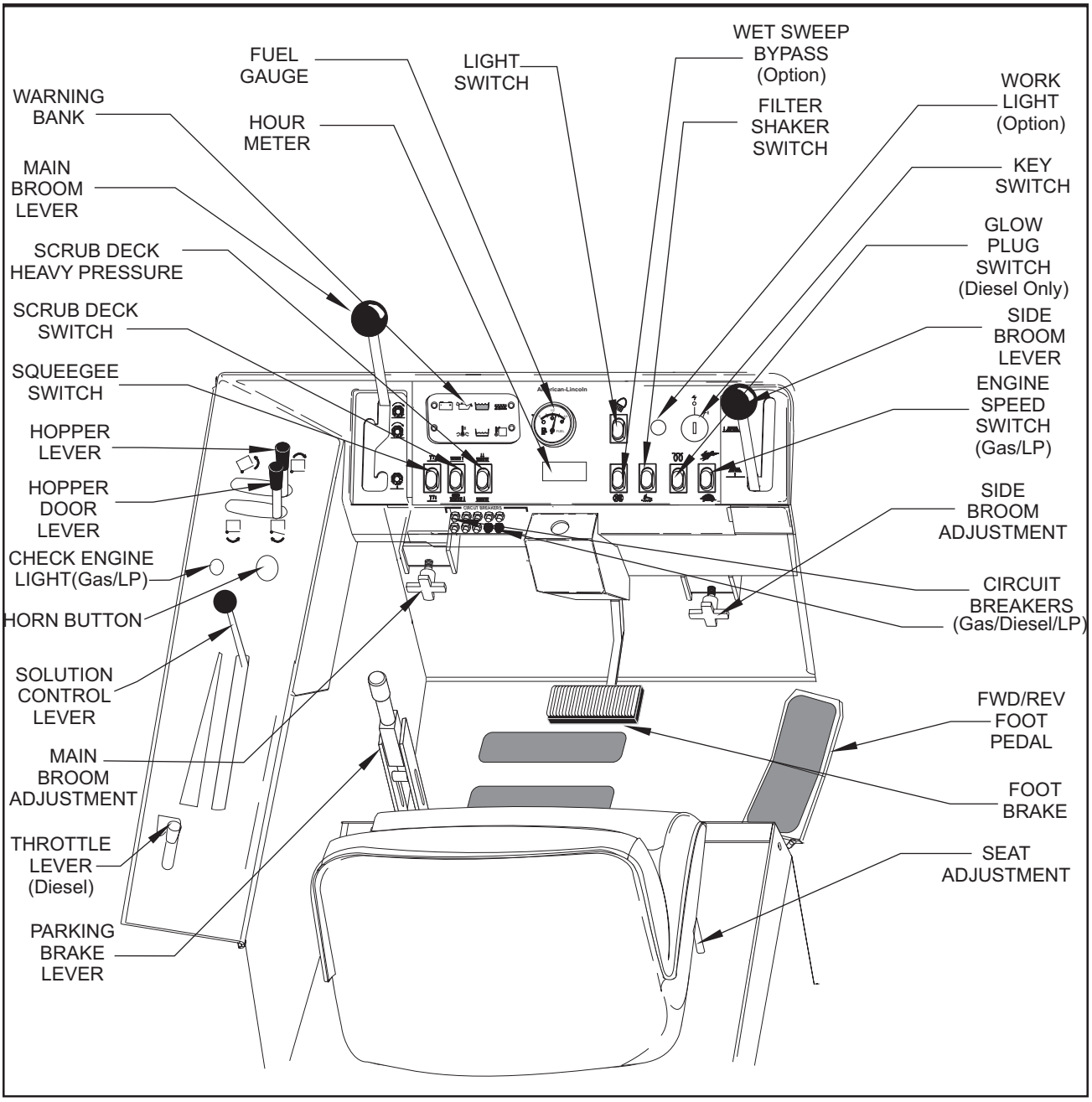
Electrical hazard. Shocks can cause serious personal injury. Unplug the battery before cleaning or servicing. To avoid possible injury or property damage, read the Operator's Manual before servicing the machine. Authorized personnel should do maintenance and repairs.

FOR SAFETY, OBSERVE THE FOLLOWING WARNINGS. FAILURE TO COMPLY MAY CREATE A SERIOUS RISK OF INJURY TO YOU AND OTHERS. THIS MACHINE SHOULD NOT BE USED IN HAZARDOUS LOCATIONS INCLUDING AREAS OF VOLATILE DUST OR VAPOR CONCENTRATIONS.

Operators must be trained and qualified to operate this machine. They must also understand the operator's manual before starting.

Use caution when mounting or dismounting the machine particularly on wet slippery surfaces.

Do not dump the hopper over an open pit or dock. Do not dump the hopper when positioned on a grade (ramp). The machine must be level (horizontal).



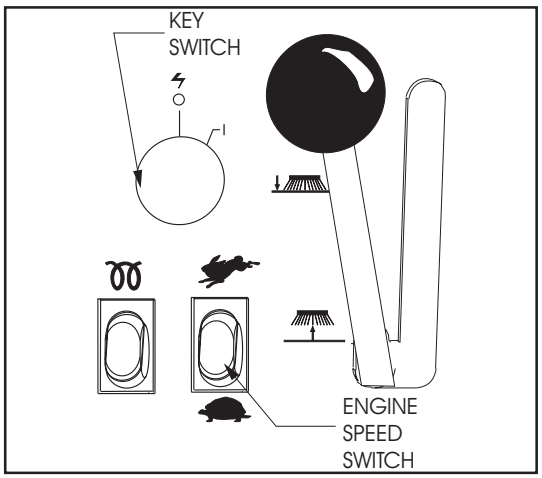
P5034b-1ecp FIGURE 2

LIGHT SWITCH (See Figure 2)
The light switch is located on the front instrument panel to the right of the fuel gauge. It will work various light options that are available for this machine, such as:

* HEAD LIGHTS * TAIL LIGHTS * INSTRUMENT LIGHTS

HORN BUTTON (See Figure 2)
The horn button is located on the left side console. Push the button with your finger to sound the horn. The horn button is always active.

CHECK ENGINE LIGHT (Gas, LP Only) (See Figure 2)
The check engine light is located on the left side console. If the light comes on, it indicates a problem with the engine. Flip the switch located on/near the air cleaner bracket in the engine compartment, count the number of times the panel light flashes, **then go to the "Check Engine Light Codes" pages in the machine Service & Troubleshooting Guide to determine the problem.**



C1631A FIGURE 3

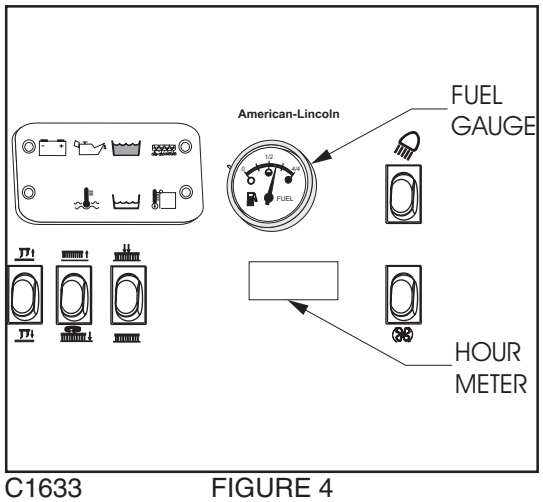
KEY SWITCH (See Figure 3)
The keyed ignition switch is located on the instrument panel to the left of the side broom lever. The key switch is a two-position switch that controls power to the machine systems and accessories.

The “OFF” position (O position) will shut off the engine.

The IGN/ON position (I position) provides power to all machine systems and accessories.

The “START” position (one position clockwise of I position) is momentary and provides power to the starter motor.

NOTE
To re-engage, the starter key must be returned to the “OFF” position.



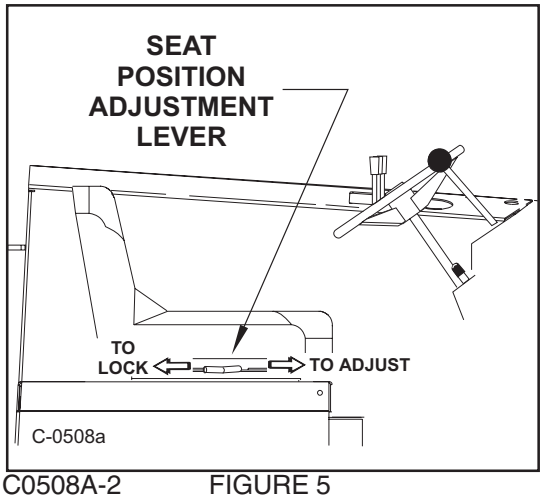
C1633 FIGURE 4

ENGINE SPEED SWITCH (Gas, LP) (See Figure 3)
A two-position switch controls the engine, which is located on the instrument panel to the left of the side broom lever. The switch position determines the governed operating speed of the engine.

Place the speed switch in the “IDLE” position to start the machine.

Place the speed switch in the “FAST” position for transport and when normal sweeping action is desired.

HOUR METER (See Figure 4)
The hour meter is located on the instrument panel above the engine speed switch. The meter is activated when the engine begins running. The meter indicates the actual “run” time of the machine. The meter can be used to determine when maintenance should be done on the machine.

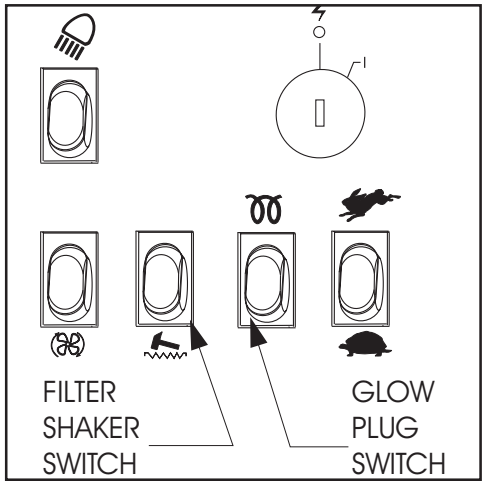


C0508A-2 FIGURE 5

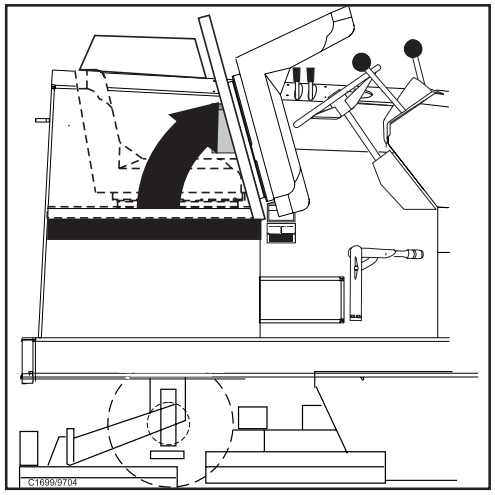
FUEL GAUGE (See Figure 4)
The fuel gauge is located on the instrument panel to the right of the main broom lever and indicates the level of fuel in the tank. The key switch powers the fuel gauge. The key switch must be in the “ON” position for the fuel gauge to work. The fuel gauge is not included on machines that use Liquid Propane fuel.

SEAT POSITION ADJUSTMENT (See Figure 5)
The seat position adjustment lever is located on the right side of the seat base. The lever is spring loaded to the “LOCK” position.

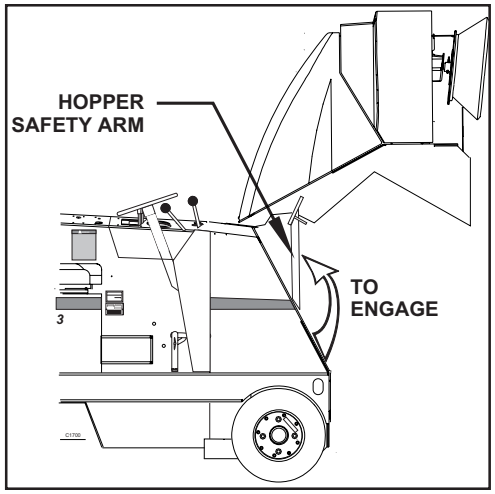
To adjust the seat, push “FORWARD” on the lever and move the seat to the desired position. Then release the lever to “LOCK” the seat into place.



C1640-2 FIGURE 6



C1699a FIGURE 7



C1700 FIGURE 8

FILTER SHAKER SWITCH (See Figure 6)
The filter shaker switch is located on the instrument panel below the ignition switch. This is a momentary switch that will activate the filter shaker motors for 20 to 30 seconds to clear the dust control filter. The Impeller fan will stop when the filter shaker has been activated. The filter shaker will only operate with the hopper in the “DOWN” position.

Use the filter shaker to clear the filter when the dust control light comes on (warning bank) and just before dumping the hopper.

GLOW PLUG SWITCH (Diesel) (See Figure 6)
Under no circumstances should any other unauthorized starting aids be used at the same time as Glow Plugs. The Glow Plug Switch is located to the right of the steering column on the front face of the instrument console. Use the following procedure to operate.

1. Before operating the starter motor, press the “GLOW PLUG” switch for 20 to 30 seconds.
2. With the “GLOW PLUG” switch still depressed, engage the starter motor until the engine starts.
3. Continue to press the “GLOW PLUG” switch for a few seconds after the engine has started until even running has been obtained.
4. If the engine does not start, disengage the starter motor, but keepthe “GLOW PLUG” switch depressed for a further 10 to15 seconds, when a further attempt should be made to start the engine, keeping the Glow Plugs energized while starting and for a few seconds after the engine has fired until it is running smoothly.

SEAT COMPARTMENT PROP LATCH (See Figure 7)
The seat compartment latch is located under the seat compartment cover and is used to hold the cover open.

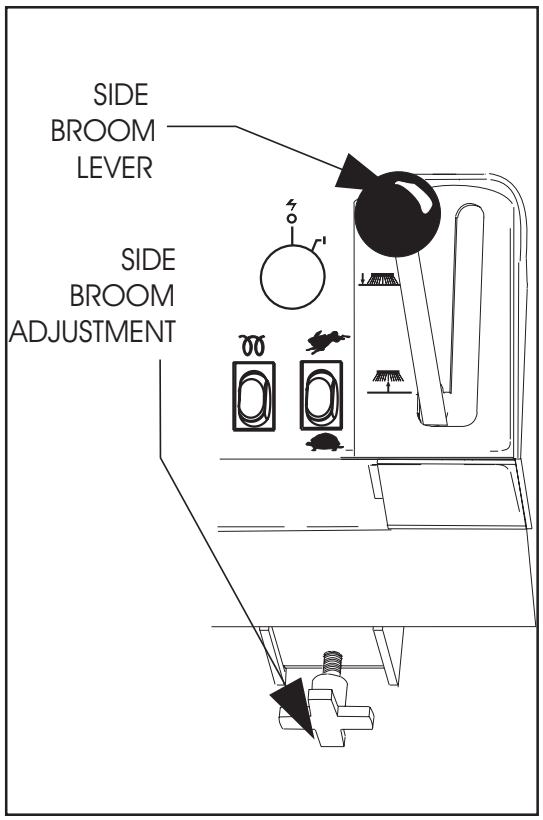
To hold the seat compartment cover open, lift the cover and rotate the latch.

HOPPER SAFETY LOCK ARM (See Figure 8)
The hopper safety arm is located near the right front wheel well. The safety arm will prevent the hopper from dropping unexpectedly during service/maintenance.

TO ENGAGE THE SAFETY ARM:
1. Empty hopper
2. Set the parking brake.
3. Raise the hopper.
4. Lift safety arm to engage the slot on the hopper frame.
5. When work has been completed, replace the safey arm to the stowed position.

WARNING

When the hopper is raised, the safety arm must be engaged before ANY work is done under the hopper.



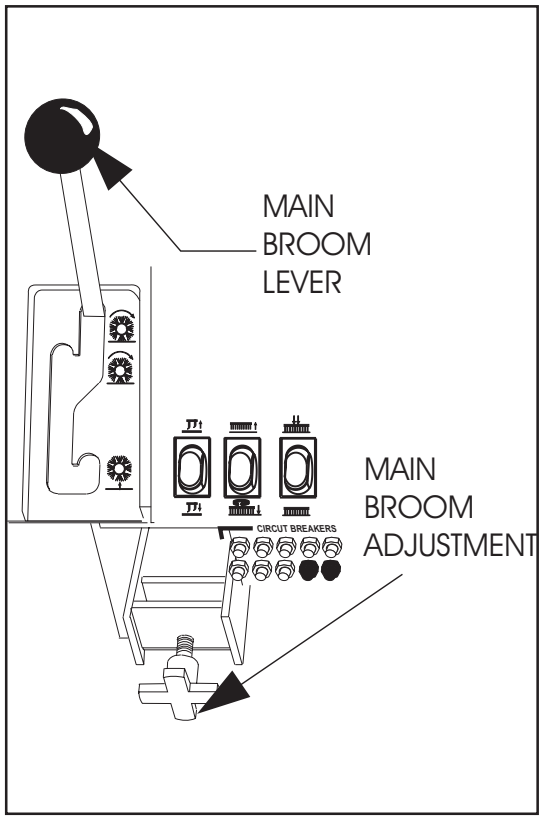
C1641 FIGURE 9

SIDE BROOM LEVER (See Figure 9)
The Side Broom Lever is located to the right of the instrument console. The handle pulled back and turned to the left, will raise the side broom and lock it into position.

To raise the side broom pull the lever back into the “UP” position.
To lower the side broom, move the lever out of the “UP” position and move it forward to the “DOWN” position.

NOTE
IF THE MAIN BROOM IS ENGAGED, THE SIDE BROOM WILL AUTOMATICALLY ENGAGE WHEN LOWERED.

SIDE BROOM ADJUSTMENT (See figure 9)
The side broom lever has an adjustment for changing the sweep height to compensate for broom wear. The side broom adjustment is located under the right side of the instrument panel.



C1642-1 FIGURE 10

MAIN BROOM LEVER (See figure 10)
The main broom lever is located on the left side of the instrument panel. The main broom lever has three positions and controls the main broom sweep height.

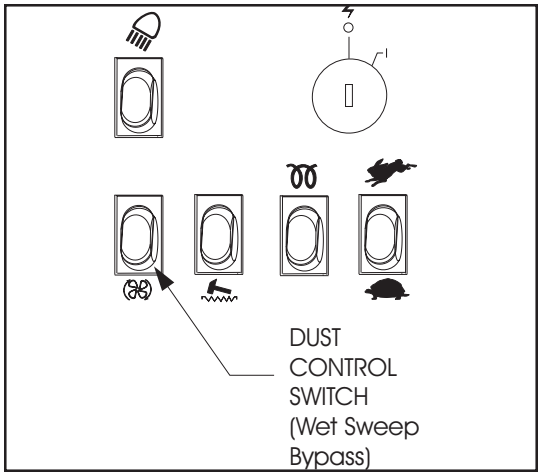
To lower the main broom, grasp the lever and move it to the left out of the “UP” position, and place it in the “SWEEP” or “FLOAT” position.

The “SWEEP” position is used for normal sweeping and should be used under most sweeping conditions (approximately 2” broom pattern).

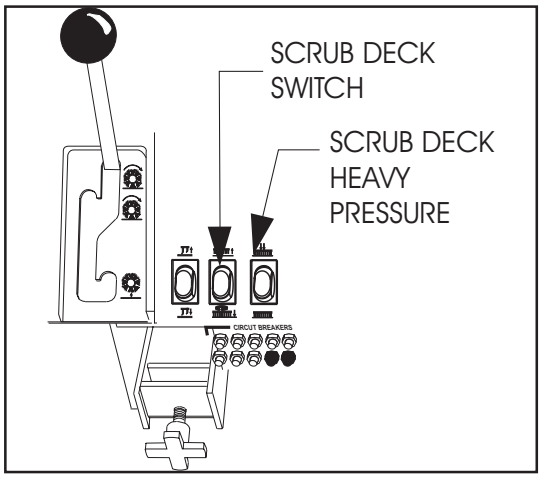
The “FLOAT” position is used for sweeping very uneven surfaces only. Using the float position will cause premature wear on the main broom if used under normal operating conditions for extended periods of time (approximately 4” broom pattern).

NOTE
The Main Broom will automatically engage when lowered to the sweep position or the float position. The hopper must be completely closed.

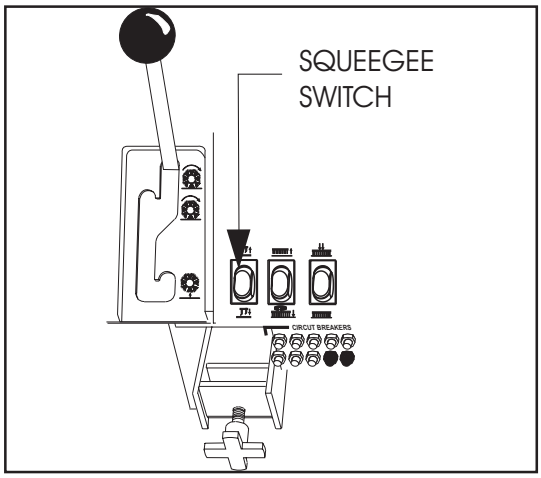
MAIN BROOM ADJUSTMENT (See Figure 10)
The main broom lever has an adjustment for changing the sweep height to compensate for broom wear. The main broom adjustment is located under the left side of the instrument panel.



C1640-1 FIGURE 11



C1642A FIGURE 12



C1642B FIGURE 13

DUST CONTROL SWITCH (Wet Sweep Bypass Option - Option for All Machines) (See Figure 11)
The Dust Control Switch is a two position switch located on the instrument panel next to the filter shaker switch. The switch controls the vacuum fan in the dust control system.

To turn on the dust control system for “NORMAL” sweeping, press on the top portion of the switch. To turn off the dust control system for sweeping in wet conditions, press the lower portion of the switch. This will prevent the filter from being damaged by water pickup while sweeping.

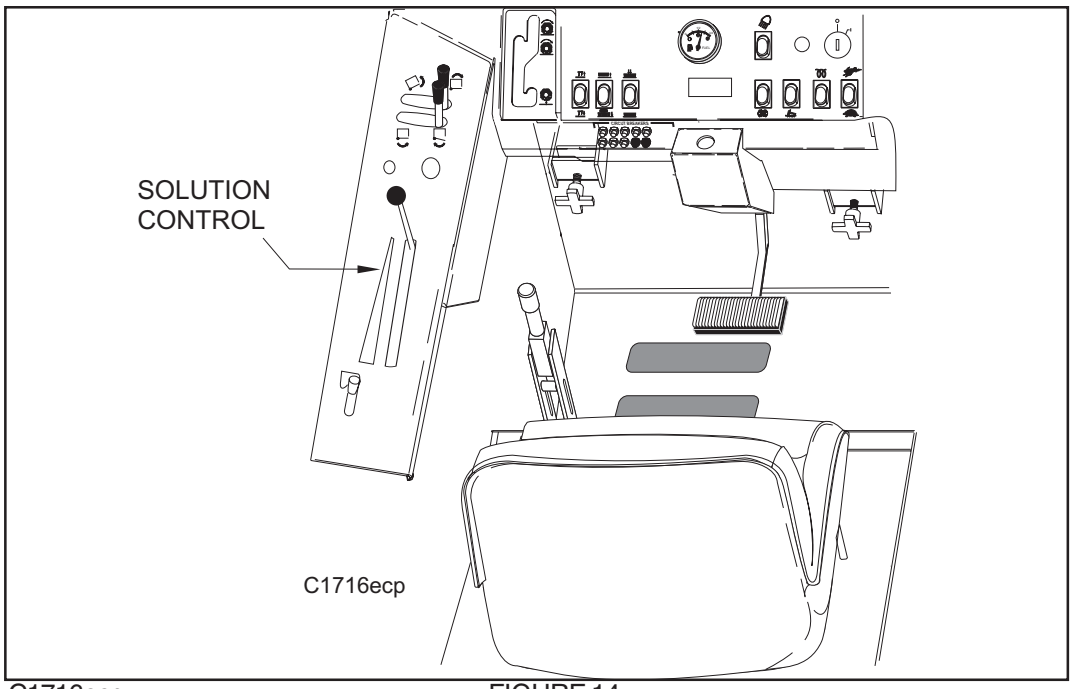
SCRUB DECK SWITCH (See Figure 12)
The brushes switch is located on the console to the left of the steering wheel in the “SCRUBBING” section. This switch in the position marked “LOWER” will lower the scrub brush deck and activate the three scrub brushes. The heavy pressure switch cannot be activated unless this switch is in the ”LOWER” position. This switch in the “RAISE” position will stop the brushes from rotating and raise the scrub brush deck

NOTE
Lowering the scrub deck will not start the brushes rotating the foot pedal must be moved to engage the scrub brushes. If the machine stops moving for 2 seconds or more the brushes will automatically stop rotating until the machine starts moving again.

SCRUB DECK HEAVY PRESSURE SWITCH (See Figure 12)
The scrub deck heavy pressure switch is located on the console to the left of the steering wheel in the “SCRUBBING” section. This switch applies additional downward pressure to the scrub brushes. This switch has two positions down “NORMAL” and up ”HEAVY”. This switch cannot be activated unless the scrub deck switch is in the “LOWER” position, the switch will light when it can be activated.

SQUEEGEE SWITCH (See Figure 13)
The squeegee blade switch is located on the console to the left of the steering wheel in the “SCRUBBING” section. This switch in the position marked “LOWER” will lower the squeegee and activate the squeegee vacuum. This switch in the “RAISE” position will stop the squeegee vacuum and raise the squeegee. A switch activated by the forward-reverse foot pedal will automatically raise the squeegee if it is in the lowered position and the machine is in reverse.

The switch has a center position to raise the squeegee with the vacuum in to allow vacuuming the water left on the squeegee recovery hose. This prevents water from dripping on the floor with the squeegee “UP.”



C1716ecp FIGURE 14

SOLUTION CONTROL (See Figure 14)
To apply solution to the scrub brushes, pull the solution control lever back until the desired setting is reached. The solution rate is continuously variable from off to approximately 1-3/4 GPM at low and 3 GPM at high. To stop application of solution push forward on the lever until it stops at the "off" position. The solution warning light will illuminate when the solution tank is low, marking the end of the scrubbing cycle.

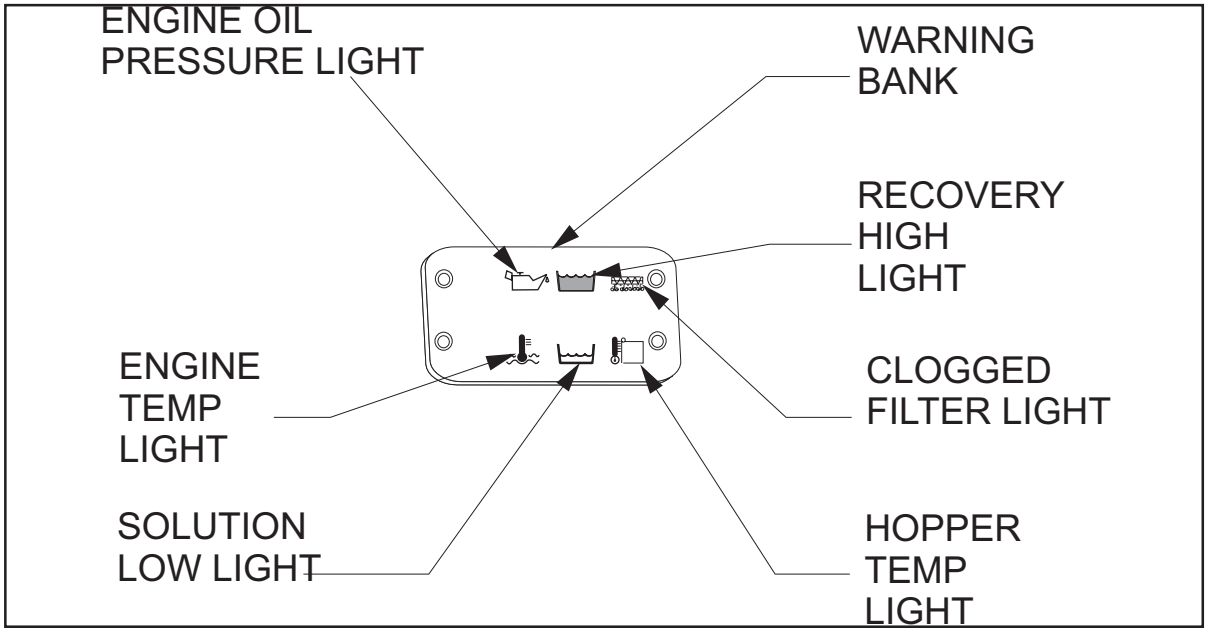
NOTE
For best results, discontinue application of solution 10 feet before stopping or making a 90° or 180° turn.

NON-RECYCLING OR STANDARD SCRUBBING SYSTEM
1. Make sure the solution control lever is in the "off" (FORWARD) position.
2. Open the solution tank cover (Vacuum Assembly)
3. Fill the tank with 70 gallons of water and the correct mixture of American-Lincoln #100 Industrial Cleaner for the job on hand.
4. Close the solution tank cover (Vacuum Assembly).

RECYCLING OR ESP & AUTOFIL SYSTEM
1. Make sure the solution control lever is in the "off" position.
2. Connect hose to autofil coupling.
3. Turn the key switch to the "i" position.
4. Turn on the water hose valve.
5. Fill the detergent tank with American-Lincoln #100 Industrial Cleaner.
6. The system will fill the solution and recovery tank to proper levels and shut off the water flow.

TO DISCONNECT WATER HOSE
1. Leave ignition switch in the "on" position
2. Turn the water off at the source
3. "Tip" the float switch on the solution tank to depressurize the water hose before disconnecting

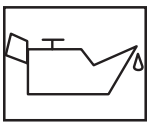
⚠ WARNING
To prevent oversudsing and machine damage, use only AMERICAN-LINCOLN Industrial Cleaner Solution #100. DO NOT put gasoline, combustible or flammable material in the solution, detergent, or recovery tanks.



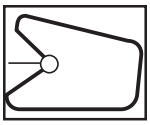
C1636 IC FIGURE 15

WARNING BANK (See Figure 15)
The Warning Bank is located on the instrument panel and provides the operator with seven fault/status indicators for engine and sweeper systems. The operator should monitor the indicators while sweeping. It is very important that the operator be familiar with the meaning of each indicator.

ENGINE TEMPERATURE LIGHT
The engine temperature light illuminates to indicate an engine cooling system fault. When this occurs the operator must turn off the sweeper immediately and have the cooling system serviced by a qualified service technician.

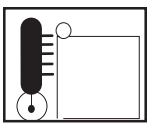


ENGINE OIL PRESSURE LIGHT
When the oil pressure drops below approximately 5 PSI an automatic protection circuit shuts down the engine and illuminates the light to indicate low engine oil pressure. When this occurs, have the machine serviced by a qualified service technician.



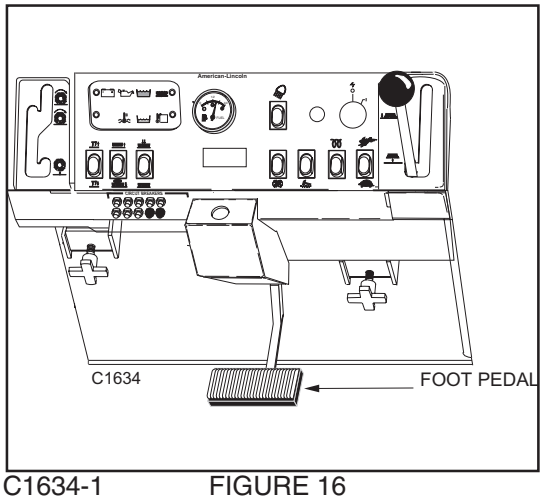
CLOGGED FILTER LIGHT (Option)
The clogged filter light illuminates to indicate that the dust control filter is clogged. When this occurs, stop the machine and use the filter shaker to clear the dirt and debris from the filter. After using the filter shaker, continue sweeping.

HOPPER TEMPERATURE LIGHT (Option)
When the temperature of the air moving through the hopper dust control system exceeds 140° F, an automatic protection feature shuts down the dust control fan and illuminates the hopper temperature light. When this occurs, shut down the machine and carefully investigate for a possible fire in the hopper, then manually reset the switch.

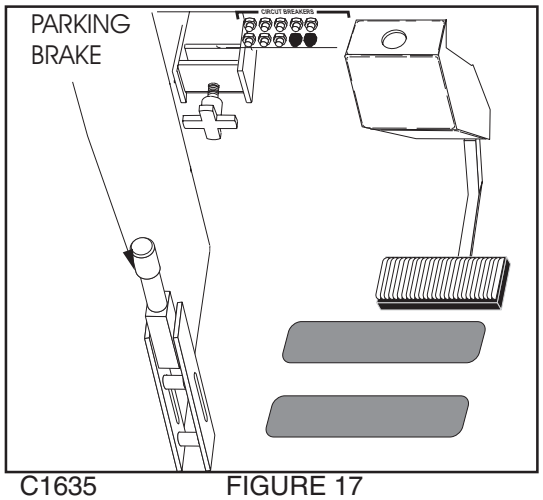


SOLUTION LOW LIGHT
The solution low warning light will illuminate when the solution tank is empty, indicating the end of the scrubbing cycle.

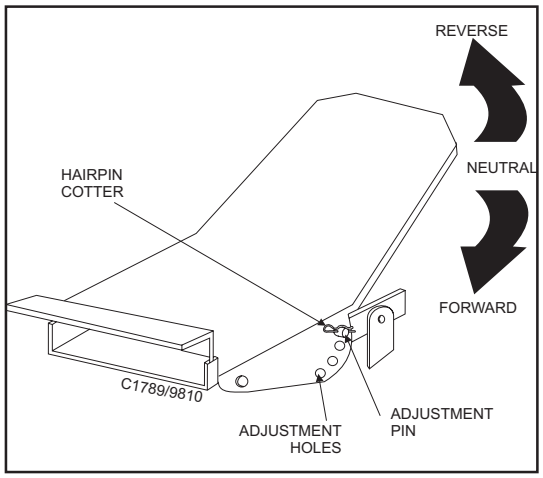
RECOVERY HIGH LIGHT
The recovery high warning light will illuminate approximately 5 minutes before the recovery tank is full, giving ample time to complete the scrubbing cycle, before the mechanical float shuts off the vacuum to the recovery tank.



C1634-1 FIGURE 16



C1635 FIGURE 17



C1789 FIGURE 18

FOOT BRAKE (See Figure 16)
The foot brake pedal is located on the floor of the operator's compartment to the left of the directional control pedal. To stop, use the front wheel brakes, by putting pressure on the brake pedal.

PARKING BRAKE (See Figure 17)
The parking brake lever is located on the operator's compartment left side panel near the floor. When engaged, the parking brake "locks" the foot pedal in the down position.

To engage the parking brake, place lever in the upright position.

To disengage the parking brake, move the lever forward.

To adjust the parking brake "grab", turn the knob on the top of the lever. To increase the "grab", turn the knob in a clockwise direction.

To decrease the "grab", turn the knob in a counterclockwise direction.

FWD/REV FOOT PEDAL (See Figure 18)
The foot pedal is located on the floor of the operator's compartment to the right of the brake pedal. The foot pedal provides control of direction/speed. The pedal height is adjustable to provide for operator comfort.

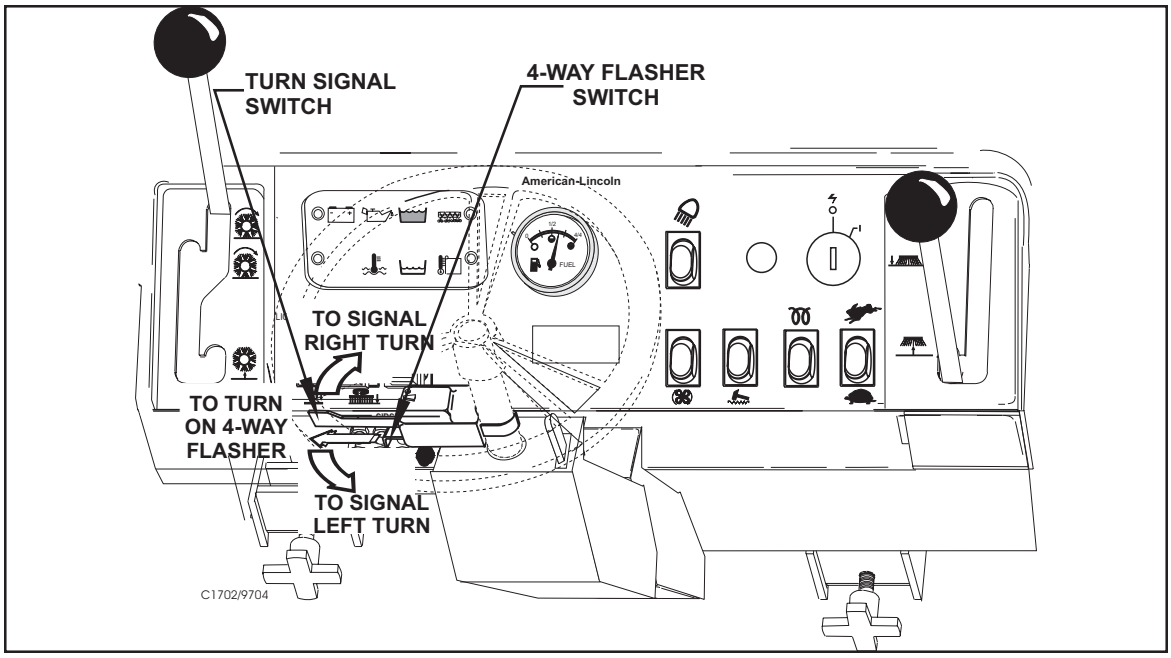
To adjust the foot pedal height for operator comfort;
1. Remove the hairpin cotter from the adjustment pin.
2. Remove adjustment pin from the foot pedal assembly.
3. Align the holes in the lower bracket with one of the four adjustment holes on the foot pedal to set the foot pedal height.
4. With the holes aligned at the desired height, insert the adjustment pin.
5. Re-install the hairpin cotter.

TO GO FORWARD: Place pressure on the upper portion of the pedal. Speed increases when additional pressure is placed on the pedal.

TO GO BACKWARD: Place pressure on the lower portion of the pedal. Speed decreases when additional pressure is placed on the pedal.

TO STOP: Allow the pedal to return to the centered position.

To increase braking action while moving in reverse gently put pressure on the upper portion of the pedal.



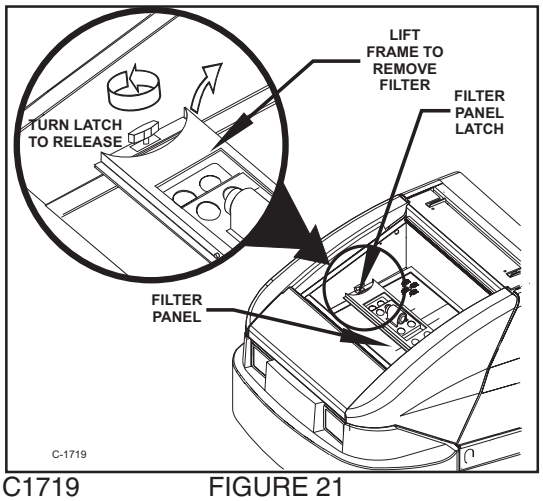
C1702 FIGURE 20

TURN SIGNAL - 4-Way (Option) (See Figure 20)
The turn signal option is located on the steering column and works as automotive turn signals work, forward on the lever for right and back on the lever for left. The 4-way flasher will activate when the turn signal lever is pulled out.

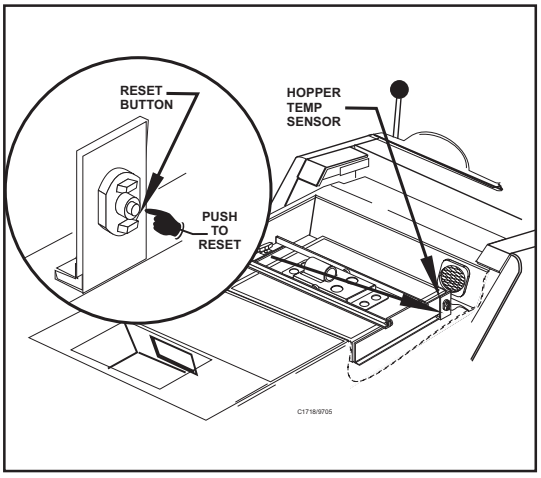
THROTTLE LEVER (Diesel Only) (See Figure 2)
The throttle lever is located on the left side console. There are 2 throttle speed positions - IDLE and FAST. To operate, grasp lever and push up and left to locking notch. To reduce to idle, grasp the lever and push up and to the right (away from locking notch). Let the lever lower until it rests at the bottom of the slot. "Load" (brooms and/or brushes and/or dust control operating) and "No Load" (brooms, brushes & dust control off) RPMs are the same for gas and LP equipment; The will be a slight drop between "Load" and "No Load" RPMs with diesels. Always return the throttle lever to the idle position before turning off the key to stop the engine.

MACHINE			RPMs	
			IDLE	"NO LOAD"
SWEEPER/ SCRUBBER (1 speed)	Gas/LP		950	2050
	Diesel		950	2150
SWEEPER (2 speed levels)	Gas/LP	1st	950	2050
		2nd	950	2450
	Diesel	1st	950	2150
		2nd	950	2550

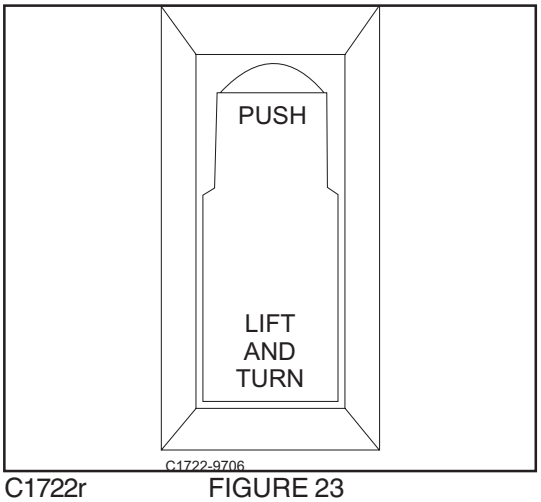
BACK-UP ALARM SWITCH (Option) (See Figure 20)
The back-up alarm is operated by a switch that is located under the lower section of the accelerator and directional control pedal. The alarm makes a loud audible noise when the machine is being driven in reverse.



C1719 FIGURE 21



C1718 FIGURE 22



C1722r FIGURE 23

FILTER PANEL LATCH (See Figure 21)
The filter panel is located in the hopper filter compartment and will need to be removed periodically for cleaning or replacement. Removal of the filter panel requires no tools. The hopper cover must be opened to gain access to the filter compartment. The panel filter is held in place by a hinged frame and latch.

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 (see Filter Cleaning instructions in this manual).

To install the replacement panel filter, lower the frame and turn the knob clockwise to lock the filter in place.

HOPPER TEMP SENSOR (Option) (See Figure 22)
The temp sensor switch monitors the hopper air temperature near the vac fan. When the temperature of the air moving through the hopper exceeds 140°F, the switch is tripped. It turns off the dust control fan and illuminates the hopper temp light on the warning bank.

The hopper temp sensor can be reset thermal switch which is located in the hopper filter compartment near the vacuum fan intake.

When the hopper temp light illuminates, carefully investigate for a possible fire in the hopper.

To reset the temp sensor, press the reset button.

ENGINE COMPARTMENT LATCH (See Figure 23)
The engine cover encloses the entire engine, radiator and hydraulic reservoir assembly. The cover can be lifted to allow easy access to the engine and hydraulics for service and inspection.

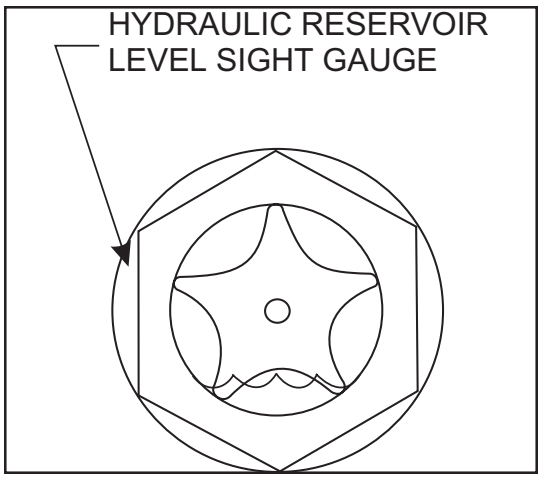
WARNING
Operate Only When Lids, Doors, and Access Panels Are Securely Closed.

To open the cover, lift the cover latch lever up and turn the latch ¼ turn. Lift the cover open.

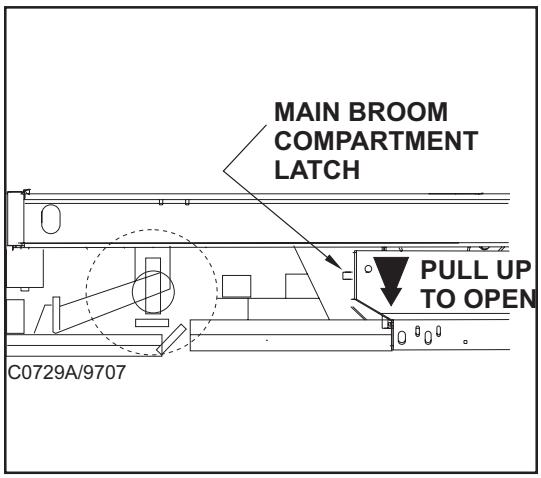
NOTE
The overhead guard option has a safety latch for storing open cover.

After closing the engine cover, check it to be certain the latch has fully engaged and is latched.

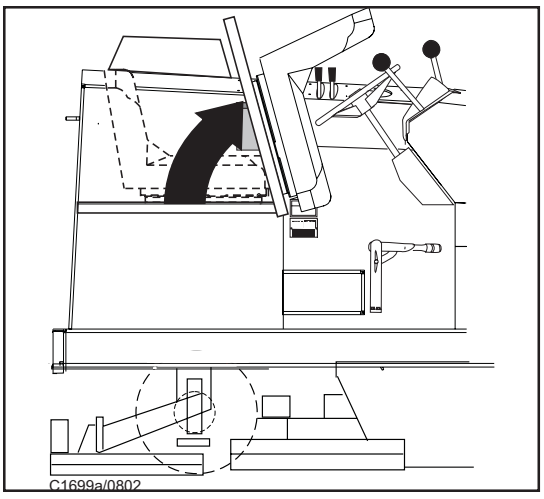
NOTE
Side covers can be removed for service.



C1730 FIGURE 24



C0729A FIGURE 25



C1699a FIGURE 26

HYDRAULIC RESERVOIR LEVEL SIGHT GAUGE
(See Figure 24)
The sight gauge is located on the inside of the hydraulic reservoir in the engine compartment. 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.

MAIN BROOM COMPARTMENT DOORS (See Figure 25)
The main broom compartment doors are located behind the front tires on both sides of the machine. The doors provide access to the main broom for service or inspection.

WARNING
Operate Only When Lids, Doors, And Access Panels Are Securely Closed.

Open the right side door to remove or replace the main broom. The right side door is an integral part of the main broom drive system and must be closed for operation.

Open the left side broom door for inspection. Check the drive hub for banding and shrink-wrap which have a tendency to get tangled in the broom driver.

To open the main broom door, reach inside the hole in the door and lift up on the latch handle.

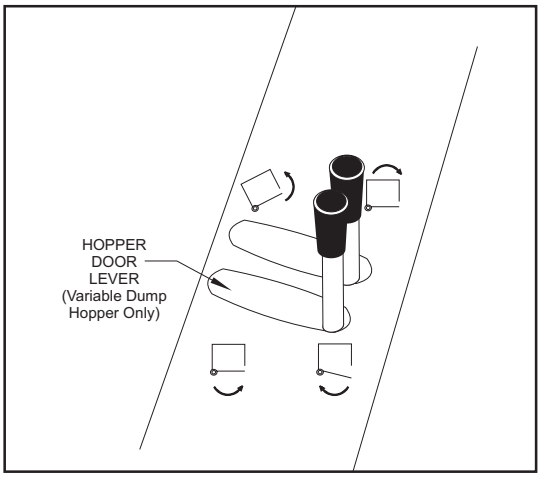
The door latch will automatically engage when the door is closed.

NOTE
Side squeegees mount on doors and the scrub deck must be lowered to slide the doors and squeegees into place.

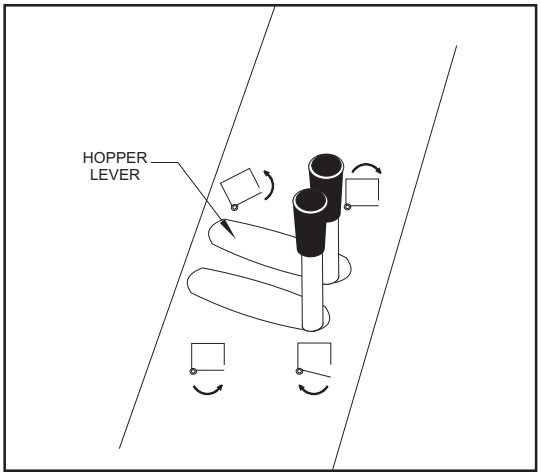
NOTE
For proper function of side squeegees, side squeegees must be positioned so the lift strap is above the scrub deck lift brackets. Damage to the side squeegees could occur if not in the correct position.

SEAT COMPARTMENT COVER (See Figure 26)
The seat compartment cover opens to allow easy access to various components that will need to be inspected or serviced periodically. The cover opens forward and has a safety latch to hold the cover in the open position.

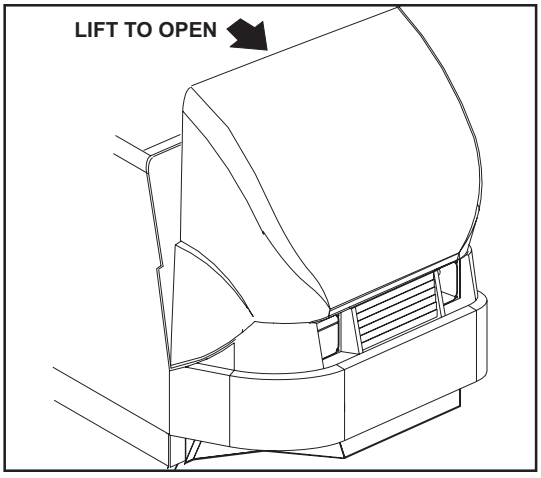
On Gas/Diesel/LP powered machines, the seat compartment contains the fuel tank.



C1717A FIGURE 27



C1717B FIGURE 28



C1725A -IC FIGURE 29

HOPPER DUMP DOOR LEVER (See Figure 27)

The hopper door lever is located on the operator's compartment and is used to close and open the hopper dump door. The lever is a two position hydraulic valve that is spring loaded to the center position which "HOLDS" the hopper door in position.

To open the hopper dump door for sweeping or dumping, push the lever to the "OPEN" direction.

To close the hopper dump door for dumping or transporting, push the lever fully back in the "CLOSE" direction, and hold for 3 seconds or until you hear the door close.

NOTE

The dump door will automatically open when the main broom is engaged and the hopper is lowered.
The main broom, side broom, dust control and filter shaker turn off automatically when the hopper is dumping and/or the dump door is in a closed position.
A switch triggered by the hopper and dump door's position control the sweeping functions, main broom, side broom, dust control, and filter shaker. The hopper must be down and the dump door open to allow these to function.

HOPPER LIFT LEVER (See Figure 28)

The hopper lift lever is located on the operator's compartment console. The lever is a two position hydraulic valve that controls the operation of the hopper lift system. The lever is spring loaded to the center position which stops hopper movement and "HOLDS" the hopper at the present position.
To raise the hopper for dumping, move the lever to the "RAISE" position and hold until the hopper reaches the desired height, then release.

WARNING

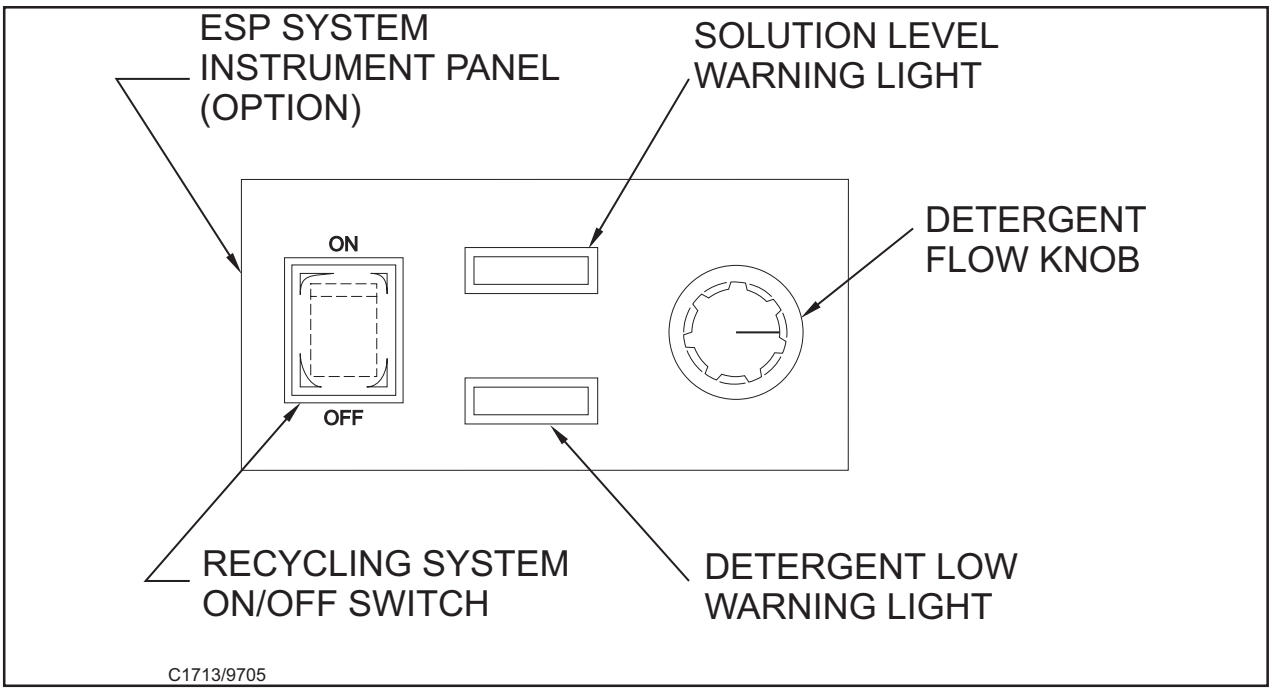
The hopper may drop unexpectedly and cause injury, always engage the safety arm before working under the hopper.

To lower the hopper after dumping, move the lever to the "LOWER" position until the hopper is fully lowered and seated in the machine, then release.

HOPPER FILTER COMPARTMENT COVER (See Figure 29)

The hopper filter compartment cover is located on the top of the hopper and opens forward for access to the filter compartment for service and inspection of the dust control filter and optional hopper temp sensor.

Inspect the cover gaskets daily. Replace any cover gaskets that show signs of deterioration. Failure to maintain the gaskets in serviceable condition will degrade dust control at the floor and will result in less than optimal sweeping performance.



C1713 FIGURE 30

THE ESP RECYCLING CONTROL PANEL (See Figure 30)

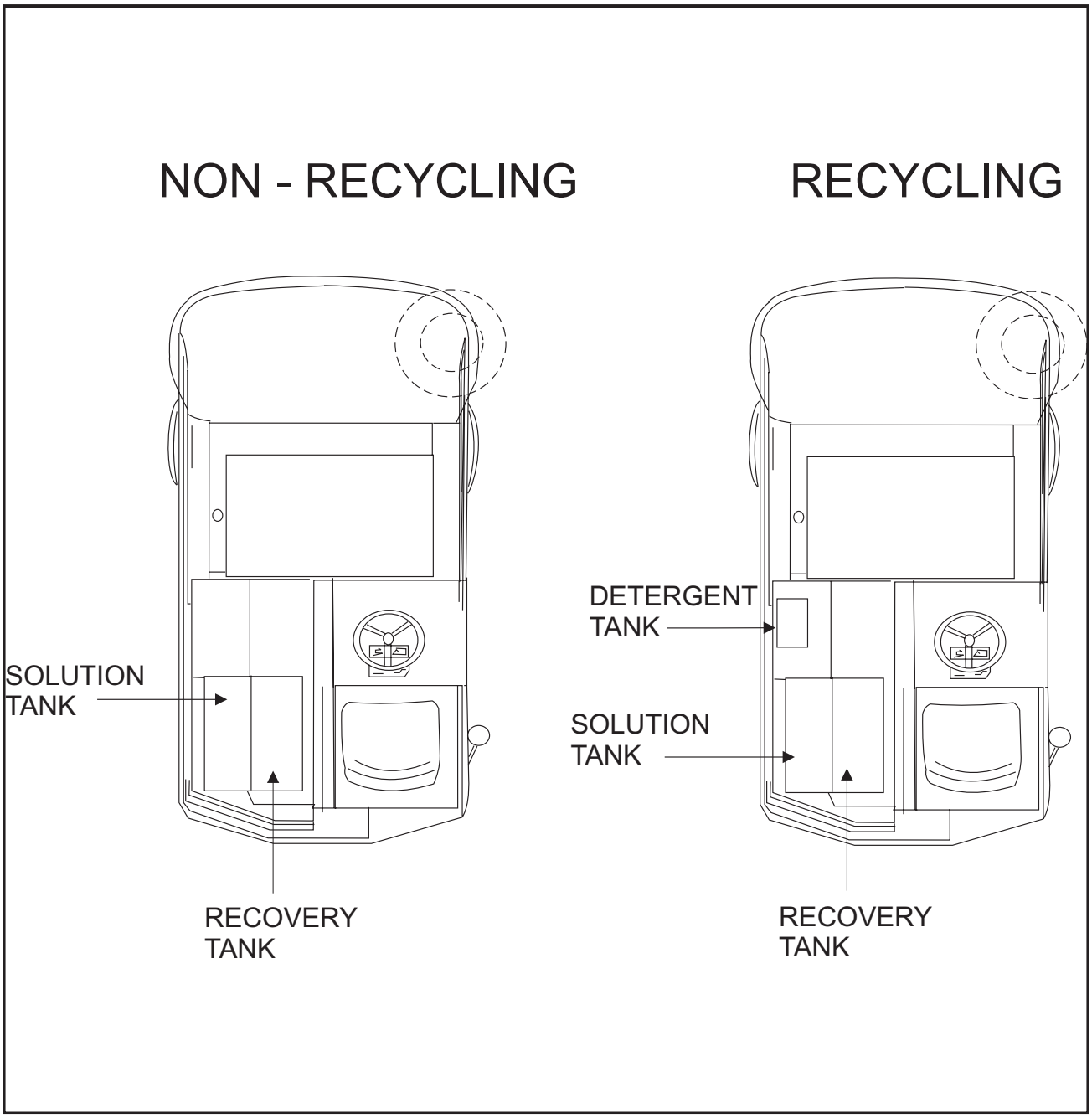
THE ESP RECYCLING SYSTEM ON/OFF SWITCH
This switch turns the ESP recycling system on and off.

NOTE
The solution control lever must be on "FULL" for ESP operation.

SOLUTION LEVEL WARNING LIGHT
The solution level warning light will go out when the solution tank is empty. Some solution will remain in the recovery tank at the end.

DETERGENT LOW WARNING LIGHT
The detergent light will illuminate when the detergent tank is low, warning the operator to add detergent.

DETERGENT FLOW KNOB
This rotary knob controls the detergent flow into the scrubbing solution. The operator may choose from any detergent setting, for light to heavy cleaning applications. The detergent light will illuminate when the detergent tank is low, warning the operator to add detergent.



C1728 FIGURE 32

THE SCRUBBING SYSTEM - HOW IT WORKS

There are two scrubbing systems available for the SC7750 machine, the non-recycling or standard scrubbing system and the recycling or ESP scrubbing system.

THE NON-RECYCLING OR STANDARD SCRUBBING SYSTEM - HOW IT WORKS

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.

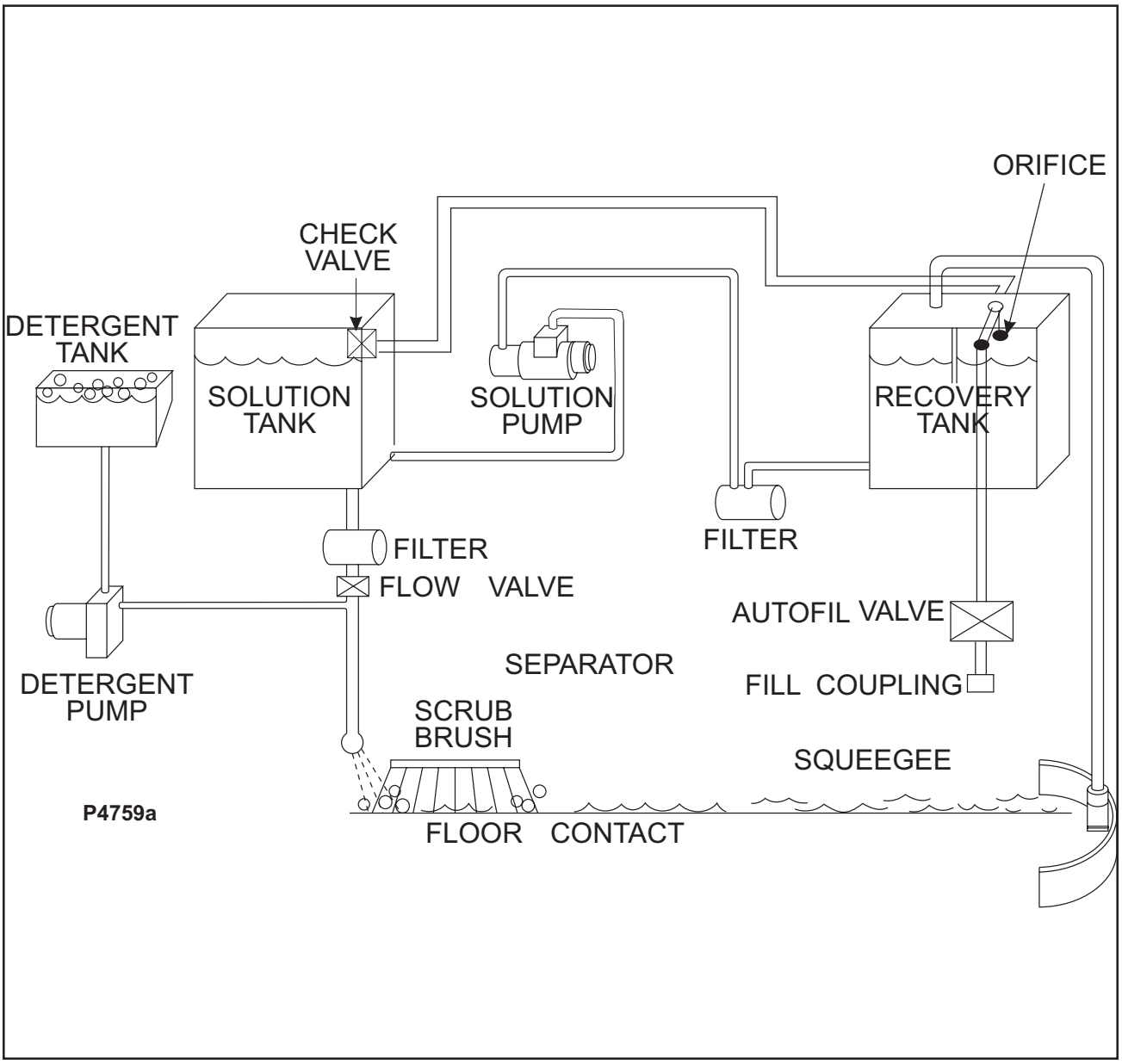
THE RECOVERY OR ESP AND AUTOFIL SYSTEM - HOW IT WORKS

During the scrubbing process, filtered water from the solution tank is fed to the solution line, where it combines with detergent from the metering pump. This mixture is then 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 recovery tank. At intervals, a float switch activates the recycling pump, which sends filtered solution from the recovery tank to the solution tank. Detergent is added continuously to solution water from the flow valve.

The autofil system distributes water from the supply hose into the recovery and solution tanks. Then a solenoid valve is closed when the proper level in the solution tank is reached.

NOTE
Both tanks must be drained and cleaned before filling.
Tuck solution tank drain hose behind bumper during operation hose

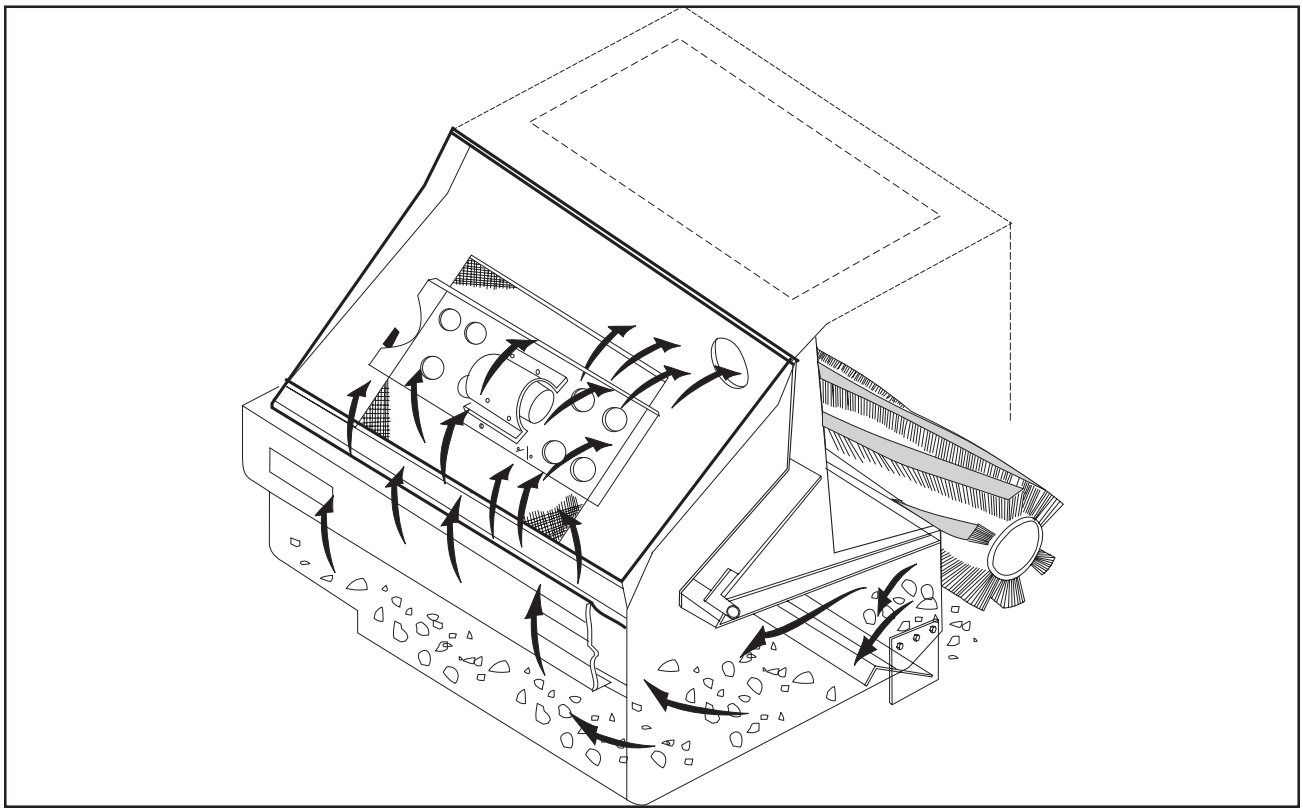


P4759A FIGURE 33

THE VARIABLE DUMP SWEEPING AND DUST CONTROL SYSTEMS-HOW THEY WORK

Variable Dump SC7750 machines are equipped with a sweeping and dust control system. (See Figure 34)

DUST CONTROL



C1731 FIGURE 34

BEFORE STARTING THE ENGINE

1. Set parking brake.
2. Make sure all controls are in the “OFF” position.
3. Be sure the directional control pedal is in neutral.

NOTE

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

PRE-START CHECKLIST

1. Clean engine air filter element.
2. Check engine oil level.
3. Check radiator coolant level.
4. Check hydraulic fluid level.
5. Check fuel level.
6. Check all systems for leaks.
7. Check brakes and controls for proper operation.
8. Check to ensure that all covers, panels and access doors are securely closed.

NOTE

To prevent possible fire, never fill fuel tank while the engine is running. Always be sure gasoline container and machine are grounded before dispensing gas. This can be done by permanently attaching an insulated wire with a battery clip on the end to the gasoline container.

⚠ WARNING

When the machine has been stored in below freezing temperatures, run the engine at not over ½ throttle with the machine standing still for 5-10 minutes to warm the engine and hydraulic oil.

STARTING GAS ENGINES

Turn key clockwise until engine starts, then release. (Key switch will return to the "I" position.)

STARTING PROPANE ENGINES

Perform these checks in addition to the Pre-Start checklist

1. Check connections for leaks.
2. Open the LP storage tank valve.
3. Check the regulator.
4. Set the engine speed control to the "IDLE" (low) speed setting.
5. Turn key clockwise until engine starts, then release. (Key switch will return to the "I" position.)

STARTING DIESEL ENGINES

When starting the diesel engine, it should be noted that under no circumstances should ether or any other starting fluids be used in conjunction with the glow plugs. Do not use the glow plugs for more than 20 seconds at a time or damage to the plugs may result. The key switch must be placed in the "I" position before using the glow plug switch.

1. Perform the pre-start checks.
2. Turn the key switch to the "I" position and place the engine speed switch on the high speed position.
3. Push and hold the glow plugs switch for 5-10 seconds. Under cold starting conditions, the glow plug switch may be held longer, but do not hold the switch for more than 20 seconds to prevent damage to the glow plugs.
4. Turn the key switch clockwise and hold until the engine starts. If the engine does not start immediately, release the key switch after 15 seconds to prevent damage to the starter.

POST-START CHECKLIST (Engine Running)

1. Check main and side brooms to make sure they are free of debris which will inhibit rotation & pick-up.
   NOTE: Always wear eye and hand protection when cleaning debris from brooms and/or brushes.
2. Check squeegees to make sure there is no damage and they meet the floor.

EMPTYING THE DEBRIS HOPPER

1. Place the engine speed switch in the "Fast" position.
2. Engage the parking brake.
3. Move the hopper dump door lever to the "CLOSE" position until the door is closed.
4. Move the hopper lift lever to the "RAISE" position until the hopper reaches the desired height.
5. Disengage the parking brake.
6. Drive forward slowly with hopper raised to clear the refuse container before opening hopper dump door.
7. Engage the parking brake.
8. Push the hopper dump door lever forward to the "OPEN" position. This will allow debris in the hopper to fall out into the refuse container.
9. Move the hopper dump door lever to the "CLOSE" position until the door is closed.
10. Disengage the parking brake.
11. Drive in reverse slowly to clear the refuse container.
12. Engage the parking brake.
13. Move the hopper lift lever forward to the "LOWER" position and hold until the hopper is closed.
14. Move the hopper dump door lever to the "OPEN" position until the dump door opens.

⚠ WARNING

Do not turn off the engine with the hopper in the lifted position.

NOTE
After stopping the engine, perform these post-operation checks.

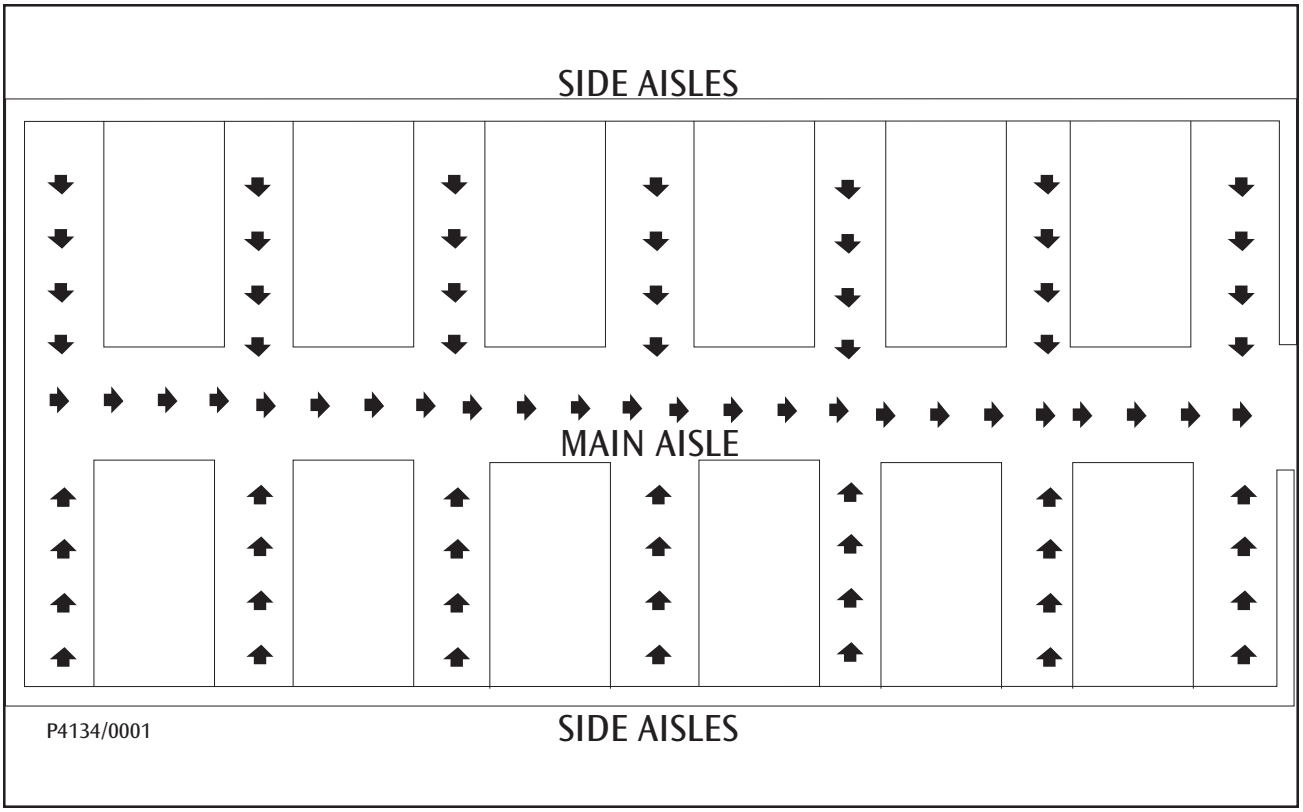
POST-OPERATION CHECKLIST
1. Clean the debris hopper.
2. Check sweeping brooms for wear or damage.
3. Check all flaps for wear, damage and adjustment.
4. Fill the fuel tank.
5. Check all systems for leaks.
6. Close the LP storage tank valve (LP-powered machines only).
7. Check squeegees for damage.

WARNING
The gasoline tank fill cap is located behind the driver's seat.
Do not mistake the hydraulic reservoir for the gasoline tank.

GASOLINE-POWERED MACHINES
Machines to be stored over 30 days should be completely drained of fuel to prevent gum deposits from forming on essential engine parts, fuel filter, and tank.

The use of a fuel additive, such as STA-BIL, or an equivalent, will minimize the formation of fuel gum deposits during storage. Such an additive may be added to the gasoline in the fuel tank of the engine.

The following procedures should be used to prepare the machine for storage:
1. Remove all fuel from the tank. Run the engine until it stops from lack of fuel.
2. While the engine is still warm, drain oil from the crankcase. Refill with fresh oil.
3. Remove spark plug, pour approximately ½ ounce (15 grams) of engine oil into the cylinder and crank slowly to distribute oil. Replace spark plug.
4. Store in a clean and dry area.



P4134 FIGURE 35

WARNING

Do not turn the steering wheel sharply when the machine is in motion. The machine is very responsive to movement of the steering wheel. Do not make sudden turns. Scrub in straight paths. Do not bump posts. Do not scrape the sides of the machine.

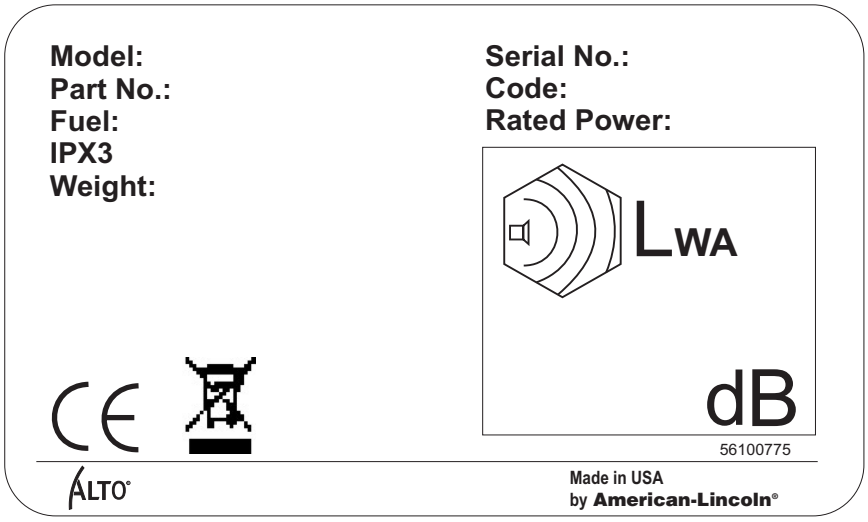
When the machine is in motion, do not push the directional/speed control pedal all the way forward. This is the same as starting in “High” and will put a strain on the motor and drive system.

1. Plan your sweeping and scrubbing in advance. Try to arrange long runs with minimum stopping and start ing. Sweep debris from narrow aisles out into main aisles ahead of time. Do an entire floor or section at one time.
2. Pick up oversize debris before sweeping.
3. Allow a few inches of overlap of sweep and scrub paths. This will eliminate leaving dirty patches.
4. Do not turn steering wheel too sharply when the machine is in motion. The machine is very responsive to movement of the steering wheel, so avoid sudden turns.
5. Try to follow as straight a path as possible. Avoid bumping into posts or scraping the sides of the machine.
6. When placing the machine in motion, avoid slamming the directional control pedal all the way forward quickly. This is equivalent to starting in “High” and puts needless strain on the engine and drive system.
7. Always allow the machine to warm up before operating in cold temperatures.
8. Periodically turn the sweeping broom end-over-end to prevent the bristles from “setting” in one direction.

NOTE

Replace the sweeping broom when the bristles are worn to 3 inch (8cm) length. Replace disc brushes when bristles are reduced to ½ inch (1.3 cm) in length. Replace squeegee rubbers when all usable edges have become rounded with wear, impairing the wiping action.

Parts may be ordered from American-Lincoln® authorized distributors. Record the American-Lincoln® serial plate information 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 NUMBERS

505-825	46” GAS VARIABLE DUMP
505-826	46” LP VARIABLE DUMP
505-827	46” DIESEL VARIABLE DUMP
505-828	53” GAS VARIABLE DUMP
505-829	53” LP VARIABLE DUMP
505-830	53” DIESEL VARIABLE DUMP