

120 VOLT ELECTRIC POWERED DUAL COMPARTMENT SUMP SUCKER

THE ANSWER TO FAST, THOROUGH CLEANING OF MACHINE COOLANT SUMPS



SYSTEMS EQUIPMENT DIVISION OPERATION MANUAL

This unit Supplied by The Andersons, Inc.
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SAFETY INFORMATION

SPECIAL NOTE: TO AVOID PERSONAL INJURY, BEFORE OPERATING A 120 VOLT ELECTRICALLY POWERED SUMP CLEANER, THE CUSTOMER MUST CONNECT THE 3-WIRE ELECTRICAL CORD TO A SUITABLE POWER SUPPLY THAT IS ALSO PROPERLY GROUNDED. THE GREEN WIRE IN THE ELECTRICAL BOX OF THE SUMP CLEANER IS THE GROUND WIRE. THE CUSTOMER'S GROUND SOURCE MUST BE IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE (NEC) OR OTHER SUITABLE REGULATION IF IN A COUNTRY OTHER THAN THE UNITED STATES OF AMERICA

1. To avoid possible injury, before operating this cleaner, read this manual for full operating instructions. Also see the manufacturer's pump manual provided with your cleaner.
2. Always block the wheels of the cleaner to prevent unintentional rolling. Even when empty, some models weigh more than 1,500 pounds. Accidental rolling on sloped floor, if bumped, could cause injury or property damage.
3. Wear eye goggles to protect your eyes from splashing liquids. This is important, even when you know the fluids themselves are not caustic or otherwise harmful. Metal particles suspended in the liquid could still cause serious eye injury.
4. Check hose, nozzle, cleaning tool and hose cap connections for leaks. To minimize chances of spilling, handle cleaning tools and hoses carefully during operation, and replace hoses before deterioration results in leaks.
5. Immediately clean up any spilled coolant to avoid slippery floors and dangerous falls.
6. If it is necessary to use the cleaner in an aisle or other traffic area, position it so as to minimize the likelihood of being struck by trucks, forklifts or other equipment in transit. Exercise a reasonable lookout for such hazards during operation.
7. Whenever removing or reseating the filter basket (maximum capacity is 800 pounds), keep hands and fingers out from under the basket lip.
8. Keep clear from beneath the basket when opening the trapdoor and, if necessary, pull out the contents. Use tools of appropriate strength and length to let you perform these operations safely.
9. Frequently check the basket's hoisting rings for signs of rust. If the rings are heavily corroded, replace the basket with a new one.
10. Be sure the suction inlet ball valve is fully closed before operating the cleaner in the discharge mode. The tank is pressurized in this mode, sometimes to as much as 7 PSI

11. After operating engine-driven (LP gas or gasoline) units in the discharge mode and before stopping engine, turn the SUCTION/DISCHARGE lever to the SUCTION position. The engine will “SPEED UP” momentarily and then “SLOW DOWN”; when the engine has slowed down and begun to “labor”, the engine switch may be turned OFF and the suction inlet ball valve opened.
12. Observe “NO SMOKING” rules when operating a gasoline or LP gas engine model. Operate only in adequately ventilated areas.
13. DO NOT use this unit for solvents, flammable (low flash point) or other volatile liquids. Use it only for water-soluble coolants and for cutting or grinding oils.
14. PRESSURIZATION SAFETY ISSUES. Your Yellow Bellied Sump Sucker unit is designed to operate under pressure when discharging fluids. The optimal safe operating pressure is 5 to 7 PSI. and your unit was set at the factory to operate in this range. Your unit should never be operated at pressures in excess of 15 PSI. Tanks or vessels which are pressurized beyond 15 PSI require special certification as "High Pressure Vessels" and the Yellow Bellied Sump Sucker has not been certified for such high pressure operation. Operating a Yellow Bellied Sump sucker at pressures above 15 PSI. creates a serious risk of injury to workers and damage to property.
15. Temperature limit is 150 ° F (the limit of the suction and discharge hoses)
16. “Push-around” units (those equipped with large diameter wheels in the middle of the tank and swivel casters at both ends) are NOT designed for towing. If they must be moved long distances within a plant, pick up the unit with a forklift truck using the brackets provided on the sump cleaner.
17. This equipment is to be operated and maintained by authorized personnel only.

18. **MAGNESIUM CHIPS OR DISSIMILAR METALS.** In the presence of water, magnesium can release hydrogen gas, which is highly flammable and, in the proper proportions with air, can be explosive. When a Yellow Bellied Sump Sucker is used on a metalworking fluid application generating magnesium chips, certain precautions must be taken to ensure that any hydrogen gas is dissipated into the atmosphere and to make sure the hydrogen does not accumulate in the Yellow Bellied Sump Sucker. This is accomplished by promptly removing any magnesium chips from the sump sucker basket. Also, a maintenance schedule should be established by the customer that would eliminate buildup of sludge in the bottom of the Yellow Bellied Sump Sucker. Finally, the unit should be stored in a clean condition with basket empty of chips, the sump cleaner tower lid removed, the coolant discharge nozzle(s) removed and hoses open to atmosphere (on single and twin compartment units). Taking these precautions will minimize the risk of hydrogen gas generation and accumulation.

On an application where dissimilar metals are machined, there is a chance for spontaneous combustion to occur. Typically, metalworking facilities that machine various metals are aware of this and may have experienced problems in chip hoppers due to the presence of two or more metals, water, and tramp oil.

The precautions mentioned in the previous paragraph will minimize or eliminate the potential for spontaneous combustion.

19. The cleaner is to be adjusted and/or repaired only by qualified service personnel. If these personnel need more information than is provided in this manual, they should contact: **THE ANDERSONS, SYSTEMS EQUIPMENT DIVISION - 419-891-2724.**

OPERATOR SAFETY AND CONVENIENCE FEATURES

Safety Features

Although sump cleaners are inherently safe machines, they pose the potential for hand and finger injury when the operator has to remove the filter basket from the unit to empty it of chips and sludge. For this reason, The Andersons has two safety features which are unique to “Yellow Bellied Sump Suckers”.

Filter basket safety guides automatically center the filter basket within the unit’s basket support tower as it is being hoisted out of the machine. This eliminates the need for the operator to physically guide the heavy, full basket as it is being elevated and significantly reduces the opportunity for the operator to receive hand injuries.

Basket “trapdoor” release cables enable the operator to empty the filter basket (the basket can hold up to 800 pounds of chips) from a safe distance without the need for special tools. The basket is removed from the unit, positioned over a chip hopper or similar receptacle and the contents are released through the basket bottom by the operator opening the trapdoor with a sharp pull on the release cable. During the entire operation, the operator is a safe distance away.

Convenience Features

Low rolling resistance, high maneuverability design: Yellow Bellied Sump Suckers feature high impact, fiber reinforced, hard plastic casters and wheels for low rolling resistance, whether the unit is empty or full. The standard wheel configuration places the main wheels in the unit’s middle and swivel casters on each end for high maneuverability; a Yellow Bellied Sump Sucker pivots within its own length while “tricycle gear” units swing in double their length.

Clamped basket lids make lid removal and replacement much faster and easier than it is with the screw clamps used on other makes of sump cleaners.

External, leak-proof, round cleanout doors are faster and easier to remove and replace than the oval, internal “manholes” used by other manufacturers. The thick, pliable gasket bonded to the cleanout door virtually eliminates leaks.

Forklift truck brackets are standard on all “push-around” Yellow Bellied Sump Suckers so that the unit can be safely and easily picked up and moved long distances. (Standard design units are not intended to be towed; special wheel designs are available at extra cost for units which the customer desires to tow.)

Smooth radius basket suction inlet virtually eliminates suction hose “chip jams”.

Float switch overflow protection virtually eliminates pump damage and coolant spills by automatically shutting down the sump cleaner’s motor when the tank is full.

SUMP CLEANER WARRANTY

THE ANDERSONS, SYSTEMS EQUIPMENT DIVISION warrants to the original purchaser, as hereinafter defined, all sump cleaners described below and parts thereof, other than gaskets, hoses, filter basket sleeves, cleaning tools, wheels, casters and batteries which are specifically excluded from this warranty, to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from date of invoice of said equipment to the original purchaser. For the period of this warranty, The Andersons agrees to repair or replace, at its option, with similar part or parts, any part or parts of said equipment which have failed due to defects in factory workmanship and/or faulty material. Any repairs or replacement under this warranty shall be provided without cost to the original purchaser except as noted hereinafter provided.

The Andersons shall not be responsible for any expenses incurred for service or repairs performed by any person or persons other than The Andersons, unless specifically authorized by The Andersons. The Andersons shall not be liable for repairs or replacement of any parts missing or damaged due to service or repairs performed by any person or persons other than The Andersons, unless specifically authorized by The Andersons. Service calls for repair of equipment within the first ninety (90) days of this warranty will be at the expense of The Andersons. Service calls for the repair of equipment after the first ninety (90) days of this warranty will be at the expense of the original purchaser.

Expenses for service calls shall include, but not be limited to, reasonable travel, food and lodging expenses.

Notwithstanding the foregoing, replacement of the suction/discharge pump shall be made by The Andersons without cost to the original purchaser only after return of the suction/discharge pump to The Andersons by the original purchaser; freight prepaid. If upon examination by The Andersons or its authorized representatives, it appears that the suction/discharge pump was defective, The Andersons shall replace the suction/discharge pump without cost to the original purchaser, except for freight.

All of The Andersons obligations pursuant to this warranty are subject to the following additional restrictions, limitations and exceptions.

- 1. Gasoline and LP Gas internal combustion engines are not covered by this warranty, but rather are covered by the standard warranty of the engine manufacturer, which varies from model to model. Copies of the specific warranty of the manufacturer will be shipped with the unit and such warranties and limitations are incorporated by reference herein. Upon request, copies of the engine manufacturer's warranty will be provided in advance of shipment.**

- 2. For units mounted on mobile platforms or other similar sub-assemblies, such as trucks, carts, or self-propelled platforms, The Andersons makes no warranties for such sub-assemblies manufactured by third parties and specifically disclaims any warranties with regard thereto, including implied warranties of merchantability or fitness for a particular use. The only warranties as to such sub-assemblies are those extended to purchaser directly by the third-party manufacturer, and such warranties are subject to all of the terms, conditions, and limitations of the third party's warranties and are enforceable only against said third-party manufacturer; and The Andersons is not underwriting or guaranteeing their warranties, nor is The Andersons an agent of said third-party manufacturers for purpose of pursuing warranty claims or making service arrangements or any other purpose. Copies of such third-party sub-assembly manufacturers' specific warranty information will be shipped with the unit, and such warranties and limitations are incorporated by reference herein. Upon request, copies of sub-assembly manufacturers' warranty information will be provided in advance of ordering or shipment.**

- 3. On all units, including Yellow Bellied Sump Suckers and other sump cleaning equipment, all wheels, casters and batteries are considered expendable or ordinary maintenance items and are expressly exempted from this warranty and are not covered by any other warranty, express or implied. THE WARRANTIES DESCRIBED IN THE ABOVE PARAGRAPHS SHALL BE IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE ANDERSONS SHALL NOT, IN ANY EVENT, BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES; AND TOTAL LIABILITY OF THE ANDERSONS SHALL NOT EXCEED THE COST OF REPAIRING OR REPLACING THE COVERED GOODS OR EQUIPMENT. NOT WITHSTANDING ANY PROVISION OR PURCHASER'S PURCHASE ORDERS OR OTHER CONTRACT DOCUMENTS, ACCEPTANCE AND USE OF THE ANDERSONS PRODUCTS BY PURCHASER CONSTITUTES ACCEPTANCE OF THESE LIMITATIONS OF THE ANDERSONS LIABILITY AND WARRANTIES.**

This warranty neither assumes or authorizes any other person to assume for The Andersons any other liability in connection with the equipment manufactured by The Andersons. This warranty applies only within the boundaries of the United States of America, its territories and possessions, and Canada. This warranty is not assignable.

Original purchaser as used herein, shall mean only such person, persons, association or corporation which purchase the equipment hereinafter described for actual use.

This warranty does not apply to damage of any unit occurring in transit, caused by alteration by unauthorized persons, fire, accident, artificially generated electric current, acts of God, misuse or abuse, or any other cause whatsoever other than defects in factory workmanship and/or material.

The Andersons shall not be liable for any damage to or loss of any cutting fluids or for loss of any income or profits due to the malfunctioning of the equipment hereinafter described, whether the malfunctioning is caused by defects in factory workmanship and/or faulty material, or any other cause whatsoever.

Component parts returned for replacement must show the original unit serial number from which they were removed. Parts returned without the aforementioned serial number will be replaced at established replacement prices. This warranty does not cover equipment damaged by misuse, negligence or accident.

Vacuum and pressure relief valves are preset at the factory. ALTERATION OF THE SETTINGS EXCEPT WITH THE SPECIFIC AUTHORIZATION OF THE ANDERSONS OR ITS AUTHORIZED REPRESENTATIVES WILL VOID THIS WARRANTY.

ASSEMBLY

1. Refer to the drawings at the end of this manual for location of the items discussed below and the following sections of this manual.
2. **Remove the cover of the basket. Keep hands and fingers from under the filter basket gasket. Take out the following items:**
 - A. filter basket (factory assembled with sleeve)
 - B. discharge hose with nozzle
 - C. suction hose
 - D. cleaning tool
 - E. spare filter sleeve or filter bags
3. **Check the locking pin that holds the filter basket's trapdoor shut. Make sure it is securely in place (fully extended as shown in drawing at the end of the manual).**
4. Keeping hands and fingers from under the basket lip, reseal the filter basket in the tank. Replace the tank lid and clamp it down.
5. Attach the suction hose to the intake connection on the tank lid. Attach the cleaning tool to this hose, then coil the hose around the push handle or hose hangers provided at the basket end of the tank. Place cleaning tool in pipe holder attached to the side of the tank
6. Coil the discharge hose assembly including the discharge nozzle over the push handle or hose hangers provided.

OPERATION

1. Before operating this equipment for the first time, and periodically thereafter, review the SAFETY INFORMATION beginning on Page one of this manual
2. Suction vacuum and discharge pressure are simultaneously applied to both compartments of this twin compartment unit. Select the compartment to be used by attaching the hoses to the appropriate fittings and cap off the other tank fittings.
3. For suction operation to remove dirty coolant and chips from a machine sump:
 - A. Plug the electric cord into a 20 AMP grounded 120-volt receptacle
 - B. Connect the black hose to the suction port on the electrical box where the motor assembly is located
 - C. Open suction inlet valve (S1) fully with suction hose properly attached. **MAKE SURE THAT THIS VALVE IS EITHER FULLY OPEN OR FULLY CLOSED AT ALL TIMES. FAILURE TO DO SO WILL ALLOW PARTICULATE MATTER TO ENTER THE VALVE SEAT, WHICH COULD SEIZE THE VALVE**
 - D. Make sure that the female quick disconnect caps are on the clean side male fittings and on the dirty side discharge port.
 - E. Turn on/on toggle switch to the “filter” position so the float switch in the dirty tank is put into the suction circuit
 - F. Turn on the Sump Cleaner by placing the “on-off-on” switch into the “SUCTION ON” position. **NOTE: THE FLOAT SWITCH WILL ONLY WORK WHEN SUCTION ON IS SELECTED, IT IS NOT WIRED INTO THE DISCHARGE ON CIRCUIT**
 - G. Vacuum coolant, chips, and sludge from the machine sump. An electric float located in the tank will rise with the rising liquid level in the tank and shut off the motor when the tank is full. When this occurs, Sump Cleaner will stop sucking
 - H. When you are done vacuuming coolant and chips, turn off the Sump Cleaner.

4. For suction operation to fill clean coolant compartment:
 - A. Plug the electric cord into a 20 AMP grounded 120 volt receptacle
 - B. Connect the black hose to the suction port on the electrical box containing the motor assembly
 - C. Close valve S-1
 - D. Attach the 1-1/2" hose to the clean coolant compartment inlet port and remove the discharge nozzle
 - F. Attach the nozzle end of this hose to the clean coolant supply tank. Turn on the Sump Cleaner by placing the "on-off-on" switch into the "SUCTION ON" position. NOTE: THE FLOAT SWITCH WILL ONLY WORK WHEN SUCTION ON IS SELECTED, IT IS NOT WIRED INTO THE DISCHARGE ON CIRCUIT and reattach the discharge nozzle to the hose when full.
 - E. Place the on/on toggle switch to the "auxiliary" position so the float switch in the clean side of the unit will be in the suction circuit

5. Discharge Operation to fill a machine tool with clean coolant:
 - A. Plug electrical cord into a 20 AMP grounded 120-volt receptacle
 - B. Close valve S1 and connect the black hose to the discharge port on the electrical box where the motor is located
 - C. Connect the 1 1/2" hose to the discharge port on the clean side, place the discharge nozzle into the machine sump and turn on the unit using the on/off switch. Open the discharge nozzle and fill the coolant sump. Close the nozzle and turn off the sump cleaner when finished.

6. Discharge operation to return filtered, chip-free coolant to the machine to wash down the machine or to discharge coolant into your recycling or disposal system:
 - A. Plug electrical cord into a 20 AMP grounded 120-volt receptacle
 - B. Close valve S1 and connect the black hose to the discharge port on the electrical box that contains the motor assembly
 - C. Attach the 1-1/2" hose to the dirty coolant discharge port and place the discharge nozzle into the machine sump
 - D. Turn unit on by using on/off switch

- E. When discharging operation is complete, turn off the sump cleaner using the on/off switch. The sump cleaner will discharge all but about an inch of fluid in the bottom of the tank. This is unimportant if the cleaner is used for one type of coolant only. If different coolants are involved, remove the tank's drain plug to empty it completely.

7. To empty the filter basket:

- A. Remove tower lid.
 - B. Attach lifting device to basket rings. CAUTION: All components used to lift basket (steel cable, hooks, crane, etc.) must have a minimum capacity of 1000 pounds.
 - C. To avoid the basket binding in the tower during removal, position the lifting power source (e.g. crane) directly over the center of the basket.
 - D. Hoist the basket. Keep hands and fingers clear. If the basket is not exiting the center of the tower, return (lower) basket to the sump cleaner tower. Reposition the lifting device so that the basket exits the center of the tower.
 - E. DO NOT TOUCH BASKET DURING REMOVAL.
 - F. Position the basket over the waste receptacle.
 - G. Standing clear, open the basket trapdoor by pulling the locking pin cable.
8. Once the basket is empty, carefully close the trapdoor and slide the locking pin into place.
9. Check the filter sleeve. If it is badly soiled or clogged, turn it inside out and wash it in a suitable cleaner. Replace filter when necessary. (MAINTENANCE section of this manual.)
10. Inspect the basket hoisting rings for signs of rust. Replace the basket with a new one if the rings are heavily corroded.
11. Keeping hands and fingers from under the basket lip, reseal the basket in the tank and lamp down the tank lid.

OPERATING TIPS

Yellow Bellied Sump Suckers have been designed to make the job of proper machine tool coolant sump cleaning as easy as possible for the operator of the sump sucker. They have the power necessary for true, high-performance sump cleaning; they will vacuum from the sump anything that will pass through its two inch diameter suction hose and it will suck up water soluble coolant at nearly 100 gallons per minute. At the same time, all Yellow Bellied Sump Suckers are designed with operator safety and ease of operation and maintenance as foremost considerations.

Although the units are designed for operator safety, before using the sump sucker for the first time (and periodically thereafter for a review), read the section of this Operator's Manual entitled "Safety Information", pages 1-2

Proper Machine Cleaning Procedure

Your Master Chemical Fluid District Manager has been especially trained in machine cleaning techniques and is available to help point out potential problem areas where hidden sludge deposits can accumulate in your machines. Feel free to call on him for assistance.

Operating Efficiency Tips

Here are some tips to improve the operating efficiency of your sump sucker:

- Follow the sump sucker's maintenance schedule carefully. Preventive maintenance is far less expensive than major repairs.
- Clean your sump sucker (or just the filter tank of a twin compartment unit) about once a month or whenever sludge or fines have become noticeable in the bottom of the tank.
- Rinse the unit with plain water and drain it completely by removing the drain plug whenever changing from one brand or type of coolant to another; there can be compatibility problems with some products, so avoid contamination. (Remember to replace the plug.)
- It is better to have one sump sucker for use with water soluble coolants and another for use with cutting oils. If you must use one unit for both, the sump sucker must be thoroughly cleaned when switching products. If at all possible, purchase a filter basket and a set of hoses for each product. (The sump sucker tank is not too hard to clean, but the hoses and filter basket are.) Organize your machine pumping schedule so that during one week you are pumping machines running water solubles and the next week you are pumping machines running cutting oils; this minimizes cleaning the sump sucker.

- When vacuuming out machines using water soluble coolants, put the cleaning tool on the bottom of the sump and remove coolant and chips together.
- When vacuuming out machines using cutting or grinding oil, remove the oil first and then vacuum up the chips and fines.
- **Do NOT alter the unit's vacuum relief valve settings.** You will not improve your sump sucker's performance and you will void its warranty.
- **Do NOT use your unit for solvents, volatile or low flash point fluids of any type.** It is designed for use with coolants, cutting oils, water soluble machine cleaning solutions and parts washing compounds only.
- When pumping out of floor pits you can increase the efficiency by drilling a 1/4" hole in the cleaning tool below where the hose is attached. By keeping this hole above the fluid level, you allow more air to enter the hose which helps move the fluid up the hose faster and possibly allow pumping out of deeper pits. If you have any questions about your unit or its suitability for a particular job, please contact your Master Chemical (TRIM® coolant) distributor, your Master Chemical District Manager or The Andersons.

MAINTENANCE

1. Check the filter basket's polypropylene mesh filter sleeve frequently. If it is badly soiled or clogged, remove the retaining ring beneath the lifting rings, and take off the gasket snugged over the basket's top ring. Lift out the sleeve, turn it inside out and wash it in a suitable cleaner.
2. If the filter sleeve is torn, or if it is soiled or clogged to the point where simple cleaning is inadequate, replace the sleeve with a new one (P/N 60-1460).
3. To install a new sleeve: With the basket gasket and retaining ring removed; fit the sleeve inside the basket. Fold the top edge out over the basket's top ring, and snug down the gasket to hold the sleeve in place. Make two small holes in the sleeve over the basket's lifting rings. Pull the rings through. Fit the retaining ring into the basket beneath the lifting rings and tighten it out securely against the basket.

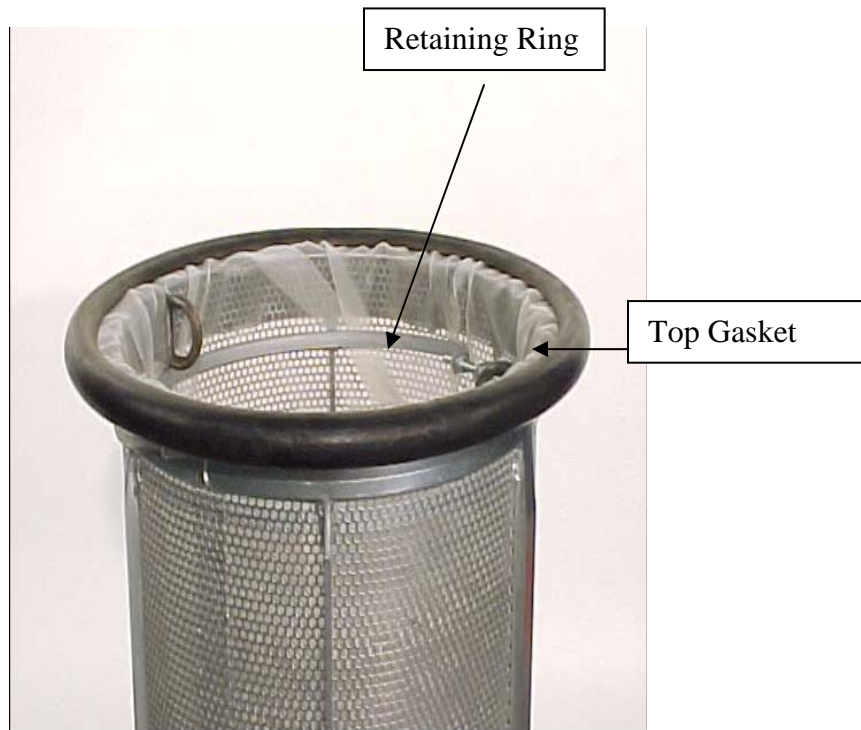


Figure III-A

4. Frequently check the basket lifting rings for signs of rust. If the rings become badly corroded, replace the basket with a new one.

5. If the filter sleeve is maintained in good condition, only fine particles should normally settle out in the bottom of the tank. Remove these periodically by opening the drain plug and with the filter basket out of the sump cleaner, flush the tank with a water hose.
6. Periodically, while the basket is out of the tank, check the tank interior for sludge buildup. If such a buildup starts to thicken, use an appropriate tool to scrape it off the tank walls and out of the cleanout door.
7. Periodically, check hoses for deterioration and replace with new ones if leaks have developed or appear imminent. Always coil hoses properly over the supports provided when not in use.
8. Other than the routine maintenance operations specified above, adjustments and/or repairs to this equipment should be undertaken only by authorized service personnel. If these personnel need more information than is provided in this manual, they should contact The Andersons, Inc., Maumee, OH - 419-891-2724.

MAINTENANCE LOG

	W E E K L Y	M O N T H L Y	6 M O N T H S	1 2 M O N T H S	MAINTENANCE SCHEDULE FOR 120-VOLT ELECTRIC MOTOR SUMP CLEANER	MAINTENANCE LOG Date placed into service: _____ Record date of service below: _____
	<input checked="" type="checkbox"/>				INSPECT SUCTION & DISCHARGE HOSES; REPLACE AS NEEDED	
					INSPECT FILTER BASKET SLEEVE; REPLACE AS NEEDED; <u>INSPECT BASKET LIFTING RINGS FOR CORROSION</u>	
		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	INSPECT TANK FOR SLUDGE BUILDUP; CLEAN AS NEEDED	
			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	GREASE WHEELS & CASTERS; USE NO.2 BEARING GREASE	

SPARE PARTS LIST

PART #	DESCRIPTION
52-1400	120-volt Vacuum Motor
54-1420	Set of Motor Brushes for 54-1400 vacuum motor
41-2090	Orange Discharge Hose, 1-1/2" Dia. Sold by the foot
41-2110	Orange Suction Hose, 2" Dia. Sold by the foot
42-1140	1-1/2" Male QD X Hose Shank
42-1200	1-1/2" Fem QD X 1" Fem NPT
42-1220	1-1/2" Hose Barb
42-0133	2"Female QD X Hose Shank
42-0132	2" Male QD X Male NPT
60-1960	1" NPT Discharge Nozzle (Also see assemblies)
60-1520	Manhole/Cleanout Gasket - 14: dia Round
60-1140	Basket Retaining Ring
60-1560	Top Gasket - Basket
60-1460	Poly Filter Sleeve
60-1480	Paper Filter Bag
43-1060	Swivel Caster - 4" Dia X 2"W
43-1240	Wheel - 12" Dia X 3"W X 1-1/4"
60-1260	18" Suction Tool - 2" Dia.
60-1220	36" Suction Tool - 2" Dia.
60-1360	36" Crevice Tool - 2" Dia.
38-1160	15 AMP Float Switch
60-1980	1" Discharge Nozzle Assembly
60-1100	24" Sludge Basket Assembly used on 65 and 100 gallon tanks
60-1080	36" Sludge Basket Assembly used on units above 100 gallon tanks

OPTIONAL EQUIPMENT - SUMP SUCKER:

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Spare Parts For Tow Around Sump Cleaner

- 43-1140 Wheel/Caster - 8" diameter x 3" wide rigid (400 total gallons or less)
- 43-1160 Wheel/Caster - 8" diameter x 3" wide swivel (400 total gallons or less)
- 43-1180 Wheel/Caster - 10" diameter x 4" wide rigid (500 total gallons or more)

SUMP CLEANER TROUBLESHOOTING CHART

PROBLEM	PART TO CHECK	POSSIBLE SOLUTION
Does not start/does not run	1. Power supply	1. Make sure that the plug is fully seated in a wall outlet of proper voltage
	2. Fuses	2. Check electrical supply system fuses or circuit breakers; replace if necessary
	3. Motor brushes	3. Check brushes; replace as needed
Insufficient suction or no suction	1. Basket	1a. Check for full basket; empty
		1b. Check if basket is blinded off; clean or replace
	2. Hoses	2a. Check for obstructions; physically remove
		2b. Check for cracks or holes; replace
	3. Air leakage	3. Check all hose connections for tightness; make sure female quick disconnect fittings have gaskets in place; check top basket on filter basket and repair or replace.
	4. Discharge nozzle	4. Check that discharge nozzle is fully closed and in place
	5. Motor	5. Make sure that bolts holding motor or mounting lugs are tight and motor flush against gasket
Insufficient discharge pressure	1. Suction valve	1. Check that suction inlet ball valve is fully closed
Will not discharge	1. Discharge hose	1. check hose for blockage physically remove obstruction
	2. Tank	2. Check for build up of fines and swarf in bottom of tank; clean as necessary
	3. Discharge Nozzle	3. Check to see if nozzle is plugged; physically remove obstruction
	4. Suction valve	4. Be sure suction inlet ball valve is fully closed
Portability	1. Hard to push	1a. Check for worn wheels or casters; replace
		1b. Check wheel and caster bearings; grease or replace
		1c. Rough floors; use a forklift truck for transport

This unit Supplied by The Andersons, Inc.

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