

SNT-500-30E

SNT-500-30



SNT

SOUTHERN NUT 'N TREE
EQUIPMENT, INC.
GOLDTHWAITE, TEXAS



CAUTION!

Only qualified personnel (as noted in operators manual) are allowed to operate this machine or safety factors are void and manufacturer is not responsible for injuries which may result from misuse or abuse.

NOTE! This machine is only as safe as the person operating it.

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INTRODUCTION

This sprayer is designed with care and built with quality materials by skilled workers. Proper assembly, maintenance, and operating practices, as described in this manual, will help the owner/operator get years of satisfactory service from the machine.

The purpose of this manual is to familiarize, instruct, and train. The Parts pages are designed to familiarize the owner/operator with replaceable parts on the sprayer. This sections provides a photograph with the numbered parts of each sprayer component illustrating each piece and the corresponding part number.

Careful use and timely service saves extensive repairs and costly downtime losses. The Operation and Maintenance Sections of the manual instruct the owner/operator how to work the sprayer correctly and attend to appropriate maintenance. The Trouble Shooting Guide helps diagnose difficulties with the sprayer and offers solutions to the problem.

Safety is of primary importance to the owner/operator and to the manufacturer. The first section of this manual includes a list of Safety Messages, that if followed will help protect the operator and bystanders from injury or death. Many of the safety messages will be repeated through out the manual. The owner/operator should know the Safety Messages before operating the sprayer.

Attention owner/operator, before operating this machine:

1. Carefully read the Operator's Manual, completely understand the Safety Messages and instructions, and know how to correctly operate both the tractor and sprayer.
2. Record the Sprayer Model and Serial Numbers on the Warranty page at the end of the Operator's Manual. Keep this as part of the permanent maintenance file for the sprayer.

PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delays and errors in purchasing repair parts.

Find the Model and Serial number of the sprayer. Locate the sections of the sprayer in the Table of Contents. Turn to the page number given. Find the Item number of the repair part(s) needed in the picture. Read the description and Part number.

SOUTHERN NUT 'N TREE EQUIPMENT, INC.
325 SH 16 SOUTH
GOLDTHWAITE, TEXAS 76844
1-800-527-1825
325-938-5460
FAX: 325-938-5490

EXAMPLE

PART# SNT500E74
PART# SNT50073

<u>ITEM</u>	<u>MODEL#</u>	<u>PAGE#</u>
4	SNT500E	7
3	SNT500	7

SAFETY RULES

The safe operation of any machinery is a big concern to consumers and manufacturers. Your sprayer has been designed with many built-in safety features. However, no one should operate this machine before carefully reading this Owners Manual.

1. **DO NOT** allow anyone to operate this machine unless properly trained in safety operations.
2. **DO NOT** let children operate the sprayer.
3. **NEVER** allow passengers.
4. **NEVER** operate the sprayer near people.
5. Before spraying, clear area of objects and debris that could become entangled in the equipment.
6. After striking an object, disengage PTO, shut off tractor, and inspect for damages before continuing.
7. Check the sprayer periodically for loose hardware and tighten if necessary.
8. Travel slowly over rough terrain and be alert to holes and ditches.
9. When traveling on public roads, use necessary lights and devices for adequate warning to operators of other vehicles. Comply with all Federal, State, and Local laws.
10. Be alert to traffic when crossing or spraying near roadways.
11. Always use proper PTO speed or machine damage may result. This sprayer is designed to be used with a tractor having a 540 RPM PTO.
12. In order to maintain steering control, add ballast to tractor. To determine the amount of ballast required refer to your tractor operator's manual.
13. Before performing maintenance, be sure that sprayer is securely blocked on safe supporting stands.
14. **DO NOT** walk in front of volute while fan is running.
15. Keep all safety shields in place at all times.
16. **ALWAYS** stop machine before making adjustments.

SAFETY DECALS

*Your Sprayer comes equipped with all safety decals and anti-slip strips in place. Located on the fenders, are the anti-slip strips. Always keep safety decals and anti-slip strips clean and legible.

*Replace all damaged or missing safety decals and anti-slip strips. To order new safety decals and anti-slip strips contact Southern Nut 'N Tree Equipment.

*To install new safety decals and anti-slip strips:

1. Clean the area where the decal or strips are to be placed.
2. Peel backing from decal and strips, then press firmly onto the clean surface.

CAUTION!

ONLY QUALIFIED PERSONNEL (as noted in operators manual) ARE ALLOWED TO OPERATE THIS MACHINE OR SAFETY FACTORS ARE VOID AND MANUFACTURER IS NOT RESPONSIBLE FOR INJURIES WHICH MAY RESULT FROM MISUSE OR ABUSE.

***NOTE! THIS MACHINE IS ONLY AS SAFE AS THE PERSON OPERATING IT.**

NON-ELECTROSTATIC OPERATIONS

PRE-OPERATION OF SPRAYER

1. Fill your tank with clear water to test your sprayer and make sure that you have all the fittings and connections tight to avoid losing any of your expensive spray solution.
2. If unit is equipped with nozzle check valves. Remove and check for accumulation of sediment. If the check valves are dirty or oily they should be washed in a mild detergent.
3. Check the exact gallonage per acre you are expecting to spray. Use a measured amount of water and actually spray a known acre of ground. By changing the setting on the metering valve, the rate of application can vary greatly. On the metering valve, "0" is off and "180" is opened fully. While changing the setting on the metering valve, adjusting the ball valve is a must in order to maintain the desired amount of pressure. *NOTE: Speeding the tractor or using a higher gear will lower gallonage per acre; slowing the tractor will increase gallonage. However, the tractor should travel at a constant speed. See Nozzle Chart for speed and pressure to get the desired gallons per acre.
4. Check the "Delavan" suction y-strainer for accumulation of sediment around the screen. If screen is dirty or oily it should be washed in a mild detergent.

OPERATION OF THE SPRAYER

1. The SNT-500-30 sprayer is available with either a 24" or 36" wide volute depending on application and pattern of spray.
2. Attach the alligator clamps to tractor battery for use of electric controls.
3. Engage the PTO at the lowest engine RPM, always operate at 540 RPM.
4. Adjust the pressure by regulating the return line ball valve, which is connected to the solenoid valve tee.
5. The rotation of the discharge volute assembly is controlled by the hydraulic hose assembly.
6. Always **STAND CLEAR** of fan housing assembly when operating.
7. Follow the safety rules for spraying chemicals. See labels on chemical containers.
8. When using chemicals that do not dissolve, (suspension type powder) do not let set over 2 hours. The heavy suspension powder goes to the lowest part (being the pump) and compacts there. When the powder compacts, starting the sprayer will result in shearing the impeller from the shaft. Before adding suspension type powders, fill the tank half full of water. Check the by-pass agitation system with the ball valves wide open and the tractor operating at 540 RPM. Water in the tank should be moving in all directions. Add powders and continue to agitate.

MEASURING TRAVEL SPEED

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 100 and 200 feet are recommended for measuring speeds up to 5 and 10 MPH respectively. Determine the time required to travel the test course. To help insure accuracy, conduct the speed check with a loaded sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the times that were measured. Use the following equation or the table below to determine ground speed.

$$\text{Speed (MPH)} = \frac{\text{Distance (feet)} \times 60}{\text{Time(seconds)} \times 88}$$

EFFECT OF SOLUTION DENSITY ON NOZZLE FLOW

WEIGHT OF SOLUTION (Lbs/Gals.)	SPECIFIC GRAVITY	CONVERSION FACTOR
7.0	.84	1.09
7.5	.90	1.05
8.0	.96	1.02
8.34*	1.00	1.00
8.5	1.02	.99
9.0	1.08	.96
9.5	1.14	.94
10.0	1.20	.91
10.5	1.26	.89
11.0	1.32	.87
11.5	1.83	.85
12.0	1.44	.83

*WATER

NON-ELECTROSTATIC MAINTENANCE

SPRAY TIP WEAR

Spray tips are the most critical items concerning application of expensive agricultural chemicals. For example, over application of chemicals could represent a substantial loss. This does not take into account potential crop damage.

DETERMINING TIP WEAR

The best way to determine if a spray tip is excessively worn is to compare the flow rate from the used tip to the flow rate of a new tip of the same size and type. Charts in this manual indicate the flow rates for new nozzles. Check the flow of each tip by using an accurate graduated collection container, a timing device, and an accurate pressure gauge. Compare the flow rate of the old tip to that of the new one. Spray tips are considered excessively worn and should be replaced when their flow exceeds the flow of a new tip by 10%.

SPRAY TIP CARE IS THE FIRST STEP TO SUCCESSFUL APPLICATION

The successful performance of a crop chemical is highly dependent on its proper application as recommended by the chemical manufacturer. Proper selection and operation of spray nozzles are very important steps in accurate chemical application. The volume of spray passing through each nozzle plus the droplet size and spray distribution on the target can influence pest control.

If a tip does clog, use only a soft bristly brush or toothpick to clean it, never use a metal object. Use extreme care with soft tip materials such as plastic. Experience has shown that even a wooded toothpick can distort the orifice. *NOTE: If the y-strainer is clean, there should not be any clogging in the spray tip.

SPRAY TIP INLINE CHECK VALVES

At the nozzle, the check valves equalize the pressure and flow. The check valves also prevent nozzle dripping. Check valves cause the volute hose system to stay full of spray mixture. When the solenoid valve is turned on, all the nozzles start to spray at the same time. When the solenoid valve is turned off, all the nozzles turn off at the same time.

MAINTENANCE OF PUMP

1. Bearings require no lubrication.
2. After use, thoroughly flush pump with clear water. If available, use a solution of one cup of ammonia in 10 gallons of water. This will dissolve most residue remaining in the pump. Drain and then flush pump with light lubricating oil. **CAUTION:** Do not use gasoline, kerosene, or fuel oil.

STORAGE OF PUMP

1. When pump is to remain installed on sprayer during storage: If sprayer has hose quick couplers, disconnect hoses to drain system. Quick coupler plugs can be installed on pump. At the top of the pump, use the vent hole to pour in 50% permanent antifreeze solution. When pump is full, re-install vent hole valve.
2. If sprayer is not equipped with quick couplers, close the suction and pressure valves. Remove top vent hole valve, and pour in 50% permanent antifreeze solution. When pump is full, re-install vent hole valve.
3. When pump is to be removed from sprayer during storage: On the pump, the IN and OUT ports can be used for pouring in the 50% permanent antifreeze solution. When pump is full, plug ports.

MAINTENANCE AND LUBRICATION

Proper servicing and adjustments are the key to the long life of any machine. With careful and systematic inspection of the trailer sprayer, you can avoid costly maintenance, time, and repair.

LUBRICATE DAILY

1. (4) Upper Pillow Boxes
2. (2) Lower Pillow Boxes
3. PTO Shaft (driveline)
4. PTO U-Joints

Disconnect driveline from tractor and pull halves apart. Insert grease into cavity on the half that was attached to the tractor. Install driveline halves together. Re-connect driveline to tractor.

For safety reasons, each maintenance operation must be performed with PTO shaft disengaged, tractor engine shut off, and ignition key removed.

WARNING: When attaching PTO yoke to tractor PTO Shaft, it is important that the spring activated locking pin is seated in groove on PTO Shaft. A loose shaft could slip off and result in personal injury or damage to sprayer.

ELECTROSTATIC OPERATIONS

PRE-OPERATION OF SPRAYER

1. Fill your tank with clear water to test your sprayer and make sure that you have all the fittings and connections tight to avoid losing any of your expensive spray solution.
2. If unit is equipped with nozzle check valves. Remove and check for accumulation of sediment. If the check valves are dirty or oily they should be washed in a mild detergent.
3. Check the exact gallonage per acre you are expecting to spray. Use a measured amount of water and actually spray a known acre of ground. By changing the setting on the metering valve, the rate of application can vary greatly. On the metering valve, "0" is off and "180" is opened fully. While changing the setting on the metering valve, adjusting the ball valve is a must in order to maintain the desired amount of pressure. ***NOTE:** Speeding the tractor or using a higher gear will lower gallonage per acre; slowing the tractor will increase gallonage. However, the tractor should travel at a constant speed. See Nozzle Chart for speed and pressure to get the desired gallons per acre.
4. Check the "Delavan" suction y-strainer for accumulation of sediment around the screen. If screen is dirty or oily it should be washed in a mild detergent.

OPERATION OF THE SPRAYER

1. The SNT-500-30E sprayer is available with either a 24" or 36" wide volute depending on application and pattern of spray.
2. Attach the alligator clamps to tractor battery for use of electric controls and electrostatic system. The green light will burn when the electrostatic system is turned on.
3. Engage the PTO at the lowest engine RPM, always operate at 540 RPM.
4. Adjust the pressure by regulating the return line ball valve, which is connected to the solenoid valve tee.
5. The rotation of the discharge volute assembly is controlled by the hydraulic hose assembly.
6. Always **STAND CLEAR** of fan housing assembly when operating.
7. Follow the safety rules for spraying chemicals. See labels on chemical containers.
8. When using chemicals that do not dissolve, (suspension type powder) do not let set over 2 hours. The heavy suspension powder goes to the lowest part (being the pump) and compacts there. When the powder compacts, starting the sprayer will result in shearing the impeller from the shaft. Before adding suspension type powders, fill the tank half full of water. Check the by-pass agitation system with the ball valves wide open and the tractor operating at 540 RPM. Water in the tank should be moving in all directions. Add powders and continue to agitate.

VOLUTE

Each electrostatic volute is equipped with arrays on the inside, and electrical cable permanently attached. Each cable terminates with a brass plug.

POWER SUPPLY

Small rectangular, white box having extended base with two (2) mounting bolts is the Power Supply. The high voltage RED spray volute wire is inserted through the WHITE nylon connector on the Power Supply. If these wires are pulled out for any reason, when replacing be certain to insert RED wire into Power Supply as far as possible. Replace Neoprene Washer, Conical Spacer, and O-ring exactly as originally installed. If problem is encountered, contact Southern Nut 'N Tree Equipment. The other end of the Power Supply has a female plug to connect the YELLOW wire coming from the Switch Box.

*NOTE: Some sprayers have a connector with two plug prongs of different sizes. Be certain to insert properly. The prongs are slotted and maybe necessary to use a knife to widen for a tight fit. Some sprayers may have a three prong connector.

PLASTIC SWITCH BOX

The controls in tractor includes a plastic box with a pilot light (green) which indicates power is ON. Another light (red) indicates low voltage to the spray volute, possibly caused by dirt or moisture in the volute.

ELECTRICAL CABLE

Must be properly connected to ensure operation of unit. The black positive (+) wire must be connected to the positive (+) terminal of the battery and the white negative (-) wire to the negative (-) terminal or to any convenient 12 volt circuit of the tractor. The positive (+) wire of the switch box has an in-line 1/2 ampere fuse. *NOTE: Owners that have the positive (+) terminal of the battery connected to the chassis (body) of the tractor, connect the black wire (red markings) to the positive (+) terminal and the white wire (green markings) to the negative (-) terminal of the battery. DO NOT connect the white wire to the frame or chassis of the tractor. The use of a Grounding Chain, bolted to the sprayer frame so that it will drag and extend to the ground for at least one (1) foot is necessary for electrostatics to operate properly.

SPRAY INFORMATION

The most important factor in applying agricultural chemicals - either soluble powders, wettable powders or emulsifiable concentrates is the selection of proper ground speed and pressure. Which will insure desired amount of chemical to be applied. Spraying pressures should be kept at 20 PSI with spray on. For application rates see charts on NOZZLE INFORMATION page.

MEASURING TRAVEL SPEED

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 100 and 200 feet are recommended for measuring speeds up to 5 and 10 MPH respectively. Determine the time required to travel the test course. To help insure accuracy, conduct the speed check with a loaded sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the times that were measured. Use the following equation to determine ground speed.

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ELECTROSTATIC **MAINTENANCE**

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The successful performance of a crop chemical is highly dependent on its proper application as recommended by the chemical manufacturer. The volume of spray passing through each nozzle plus the droplet size and spray distribution on the target can influence pest control.

Careful cleaning of a clogged spray tip or nozzle check valve is part of good maintenance. Even the slightest damage from improper cleaning can cause an increased flow rate or improper operation of the spray tip inline check valves. If a tip does clog, use only a soft bristly brush or toothpick to clean it, never use a metal object. *NOTE: If the Y-strainer is clean, there should not be any clogging in the spray tip or inline check valves. The Y-strainer should be cleaned after each load of sprayed spray mixture. When cleaning the Y-strainer, **ALWAYS** use clean clear water!

VOLUTE ARRAYS

The Arrays are located inside the volute across from the nozzles. The Arrays should be cleaned after each load of sprayed spray mixture. Before cleaning, discharge the Arrays with an insulated wire (bare on each end) between one array and the metal sprayer frame. Clean the Arrays with a mild detergent and water. Wipe dry after cleaning.

MAINTENANCE OF PUMP

1. Bearings require no lubrication.
2. After use, thoroughly flush pump with clear water. If available, use a solutions of one cup of ammonia in 10 gallons of water. This will dissolve most residue remaining in the pump. Drain and then flush pump with light lubricating oil. **CAUTION:** Do not use gasoline, kerosene, or fuel oil.

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2. If sprayer is not equipped with quick couplers, close the suction and pressure valves. Remove top vent hole valve, and pour in 50% permanent antifreeze solution. When pump is full, re-install vent hole valve.
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2. (2) Lower Pillow Boxes
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4. PTO U-Joint

Disconnect driveline from tractor and pull halves apart. Insert grease into cavity on half attached to the sprayer and spread evenly. Install driveline halves together. Re-connect driveline to tractor.

For safety reasons, each maintenance operation must be performed with PTO shaft disengaged, tractor engine shut off, and ignition key removed.

WARNING: When attaching PTO yoke to tractor PTO Shaft, it is important that spring activated locking pin is seated in groove on PTO Shaft. A loose shaft could slip off and result in personal injury or damage to sprayer.

SPRAYER STORAGE

STORAGE

Your sprayer represents an investment from which you should get the greatest possible benefit. Therefore, when the season is over, the sprayer should be thoroughly checked and prepared for storage so that a minimum amount of work will be required to put it back into operation for the next season. The following are suggested storage procedures:

1. Drain pump or fill with antifreeze solution.
2. Thoroughly clean the sprayer.
3. Lubricate the sprayer as covered in Maintenance Section.
4. Tighten all bolts to the recommended torque.
5. Check the sprayer for worn or damaged parts. Make replacements immediately using genuine parts.
6. Store the sprayer in a clean, dry place.
7. Use sprayer touch-up enamel where necessary to prevent rust and maintain the appearance of the sprayer.

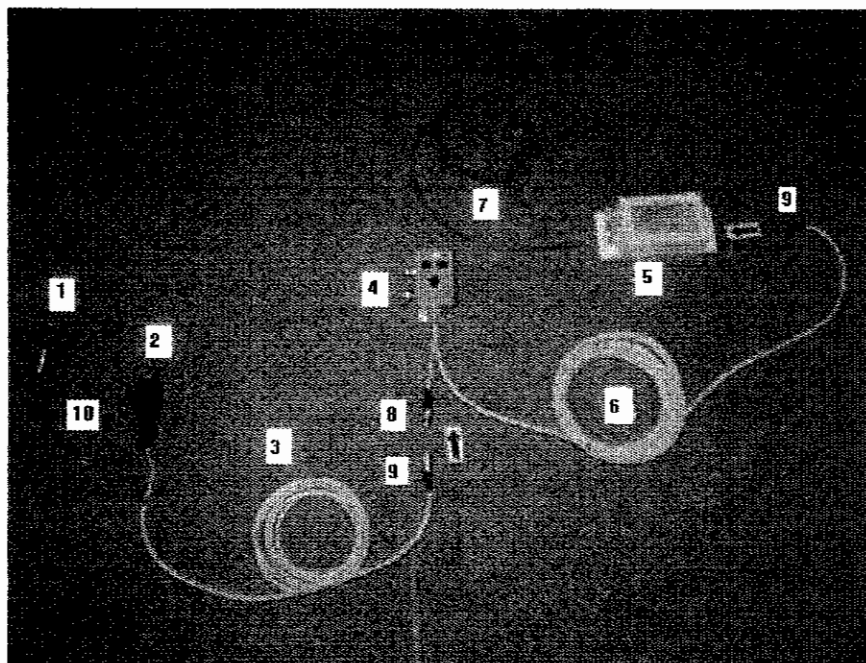
TROUBLE SHOOTING GUIDE

<u>TROUBLE</u>	<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
Loss of pump volume.	Dry powder build up in Intake Hose.	Clean Intake Hose.
	Loose pump belts.	Check belt tension.
	Clogged Y-Strainer	Clean Y-Strainer.
Pump Not Priming	Pump air-locked	Open petcock located in top of pump
Electrostatics not operating properly	No green or red light on Plastic Switch Box.	Check connection to battery. Check fuse. Check bulbs.
	Green or red light on but no power to Volute.	Check all connections from Switch Box to Power Supply. Check that Red wire is inserted in the Power Supply.
	Red light is constantly on.	Check connection to battery. Dirty or wet Arrays (see note).

***NOTE:** When starting sprayer, be sure to engage fan at lowest possible RPM. Then bring operating speed up to 540 RPM. Let fan run for about a minute to insure the arrays are dry. Next, turn the solenoid switch on for the spray mixture to start going through the nozzles. This procedure will prevent the Arrays from getting wet with spray mixture.

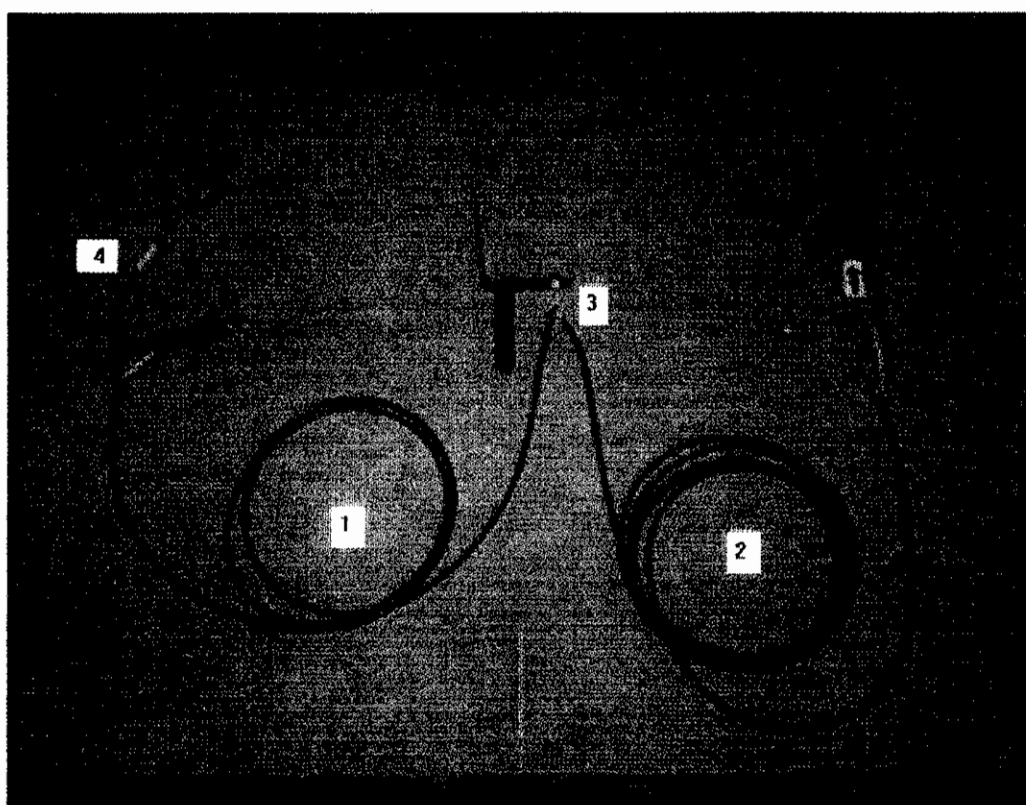
ELECTROSTATIC SYSTEM

1. Positive lead battery clamp.
#SNT500E1601
2. Negative lead battery clamp.
#SNT500E1602
3. Power lead wires. (for static unit)
#SNT500E1603
4. Static control box.
#SNT500E1604
5. Static power supply box.
#SNT500E1605
6. Power lead wires. (control box to power supply box)
#SNT500E1606
7. Static charge wire. (power supply to valute)
#SNT500E1608
8. Male high Z connector.
#SNT500E1608
9. Female high Z connector.
#SNT500E1609
10. Fuse holder.(1 amp. fuse)
#SNT500E1610

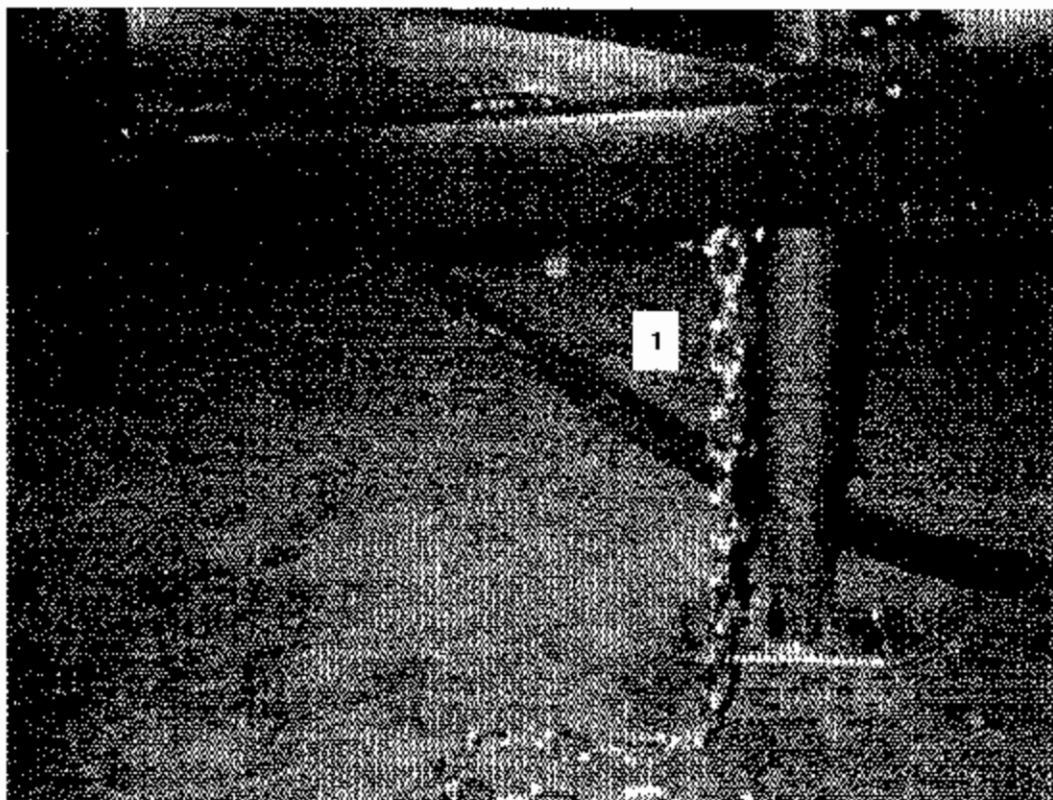


ELECTRICIAL WATER CONTROL

1. Power lead wires.(battery to toggle switch)
#SNT500E1701
2. Soleniod valve wires.(toggle switch to soleniod valve)
#SNT500E1702
3. Toggle switch.(Mounted in static power supply box)
#SNT500E1703
4. Fuse holder.(10 amp fuse)
#SNT500E1704

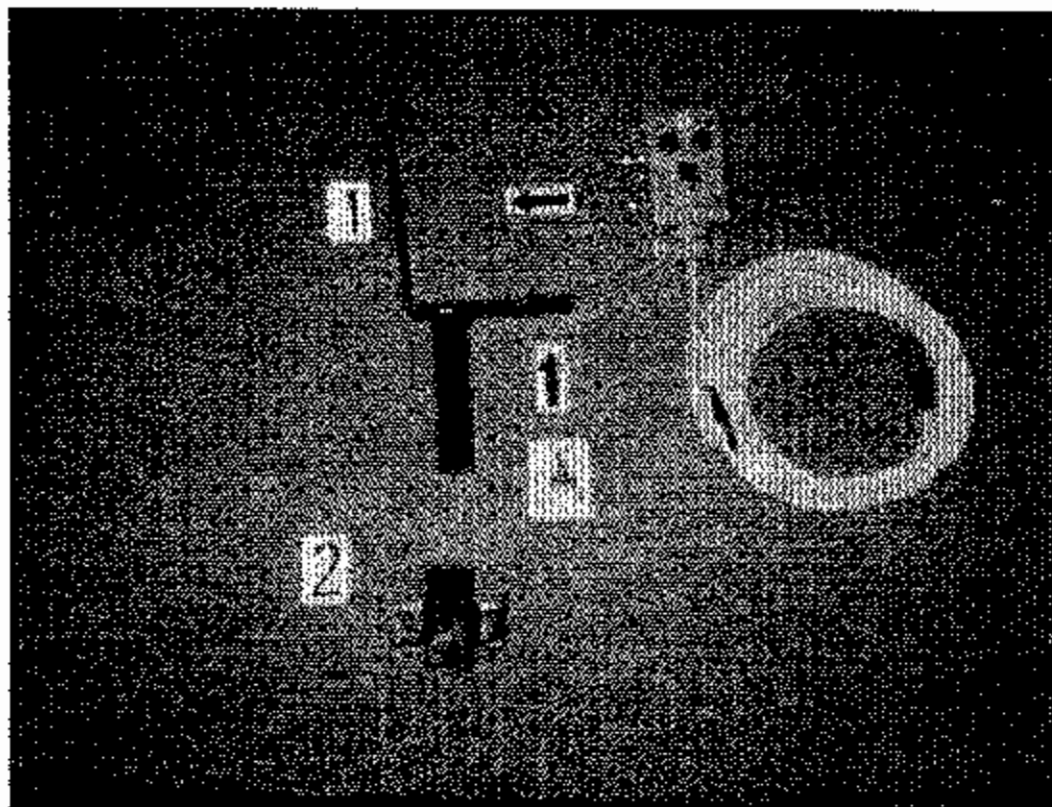


ELECTROSTATIC GROUND



1. Electrostatic grounding chain.
#SNT500E1801

MOUNT FOR ELECTRIC CONTROLS



1. Static control box and toggle switch mount arm.

#SNT500E1901

2. Fender mount socket for (#SNT500E1901)

#SNT500E1902

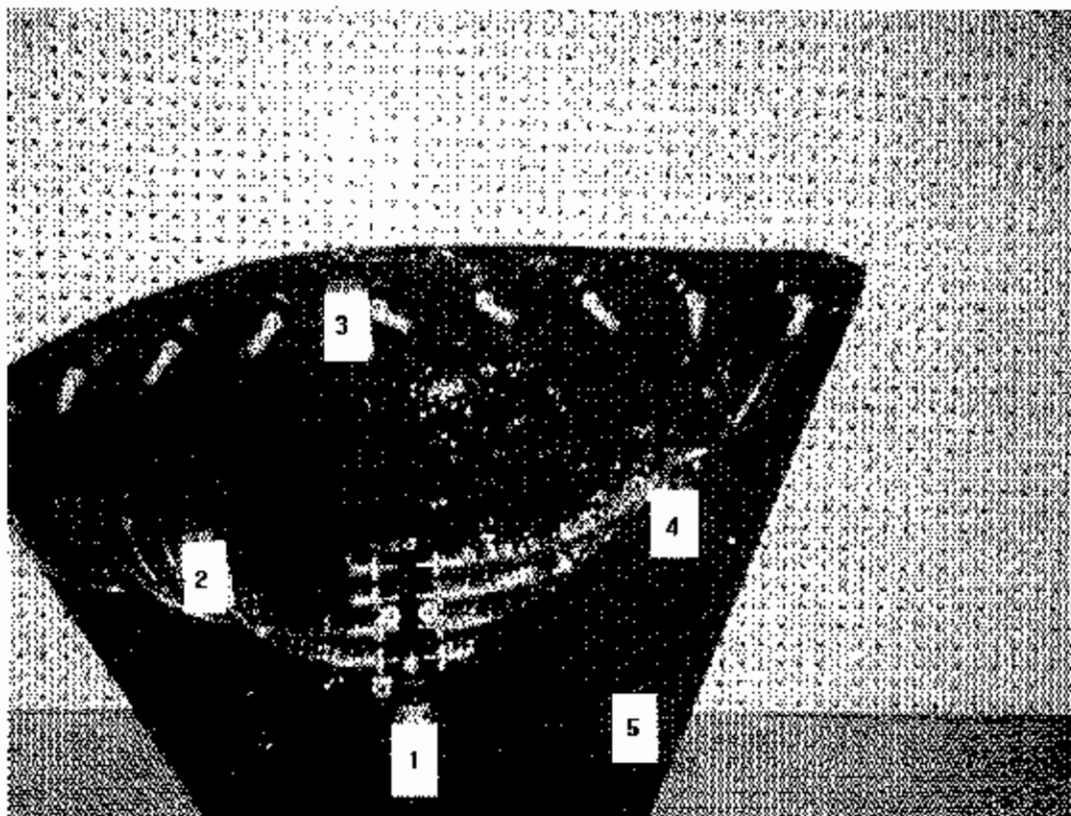
VOLUTE FLOOD LIGHT



1. Optional 12V.D.C. flood light.
#SNT500E2001
2. Not Shown: toggle switch #SNT500E2002
3. Not Shown: wires #SNT500E2003

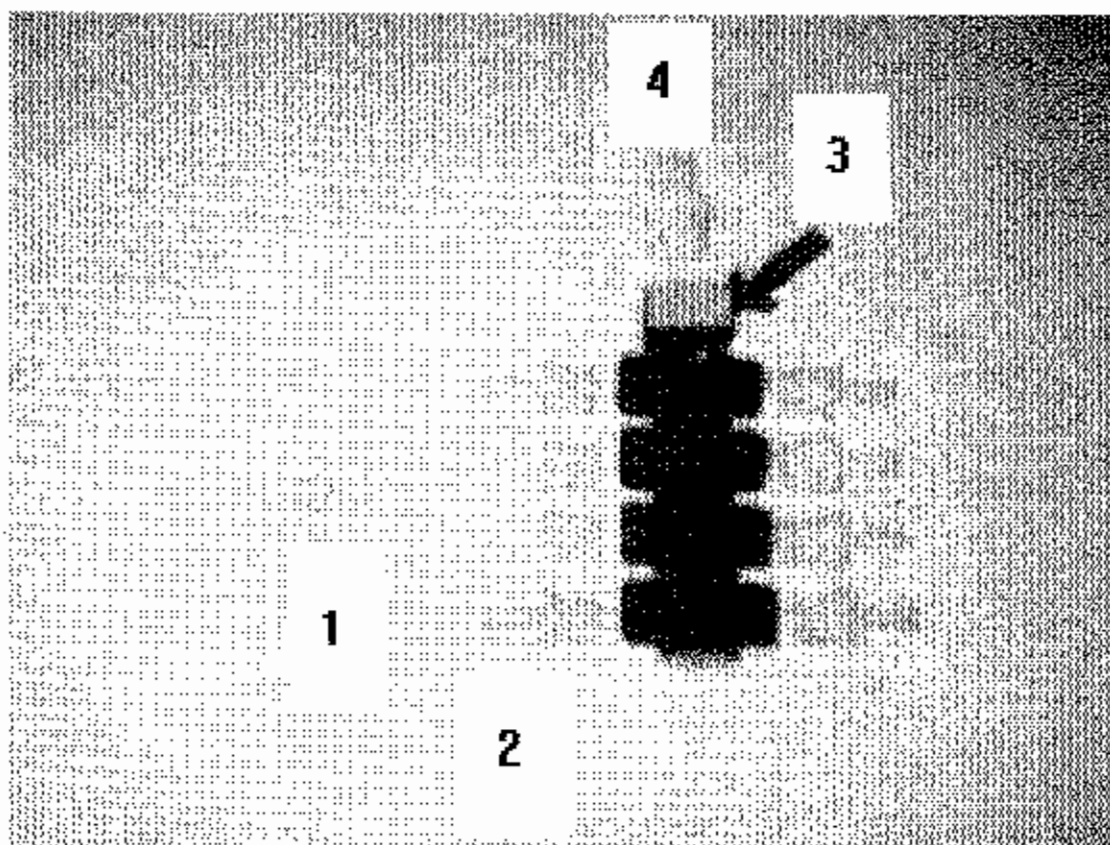
VOLUTE PLUMBING

1. 8- way manifold w/ fittings (see page 22)
2. Clear hose 3/8".
#SNT5002102
3. Nozzle system.
#SNT5002103
4. 3/8" -Y- connector.
#SNT5002104
5. Volute. (fiberglass)
#SNT5002105
6. 3/8" spring hose clamps. (not shown)
#SNT5002106



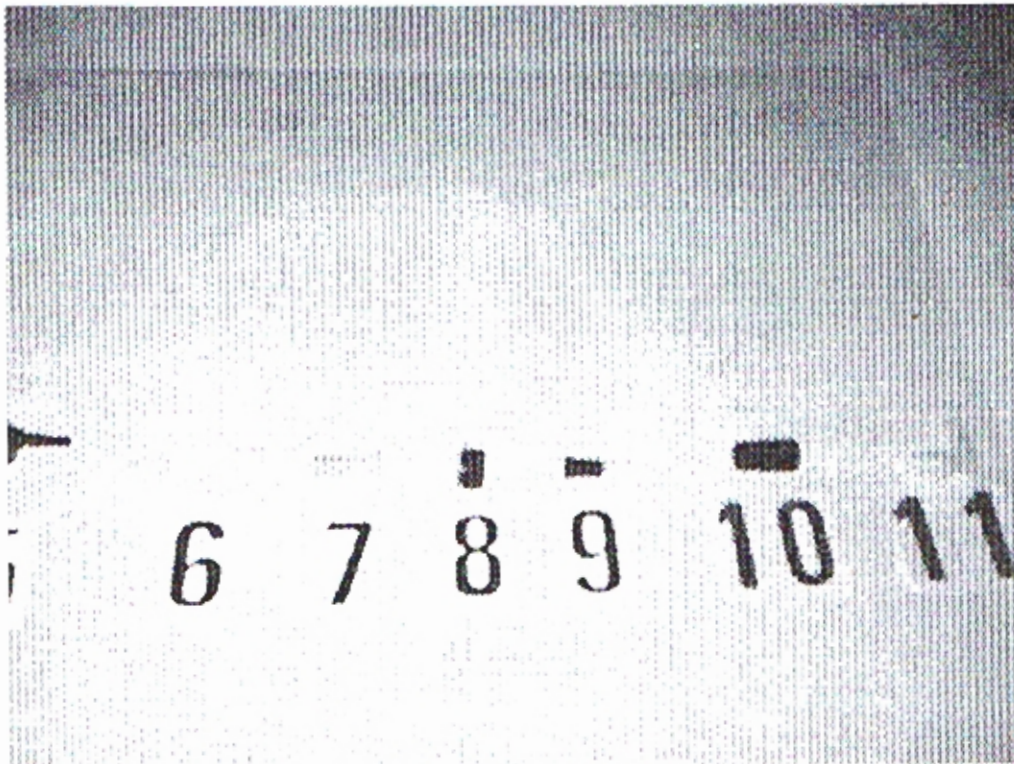
VOLUTE MANIFOLD

1. 1/4" nylon pipe plug.
#SNT500E2201
2. 1/2" x 3/8" nylon barb hose fitting.
#SNT500E2202
3. 8-way manifold.
#SNT500E2203
4. 3/4"x 3/4" nylon barb hose fitting.
#SNT500E2204

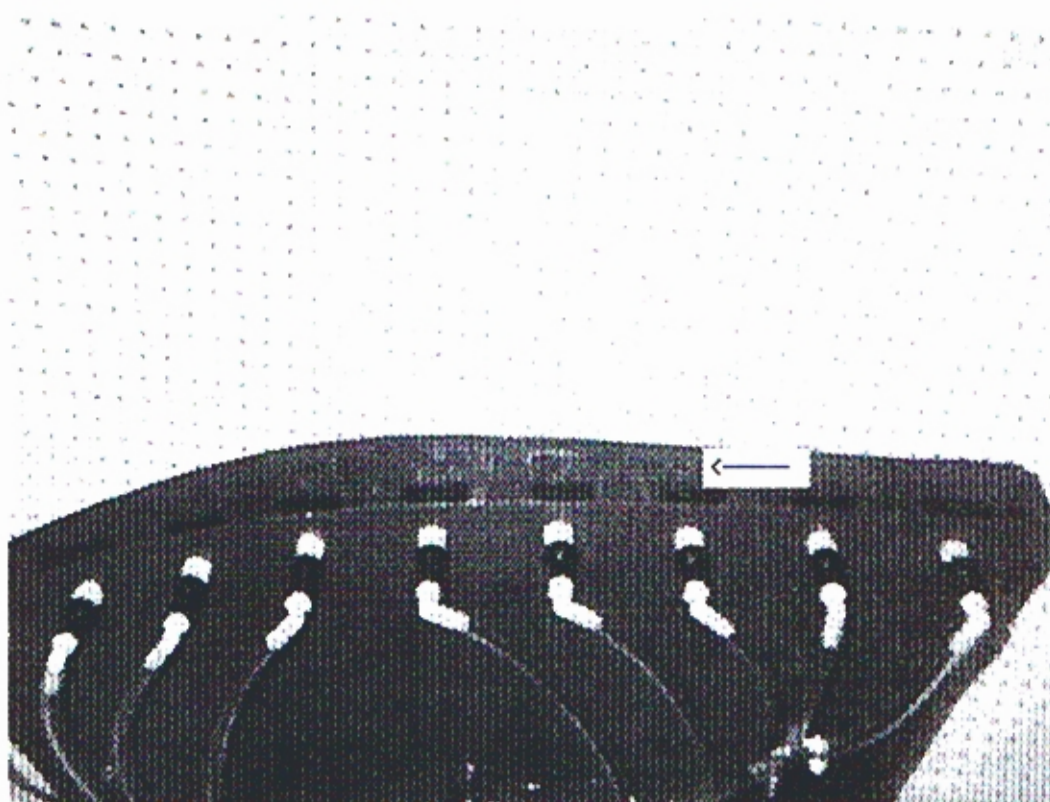


NOZZLE SYSTEM

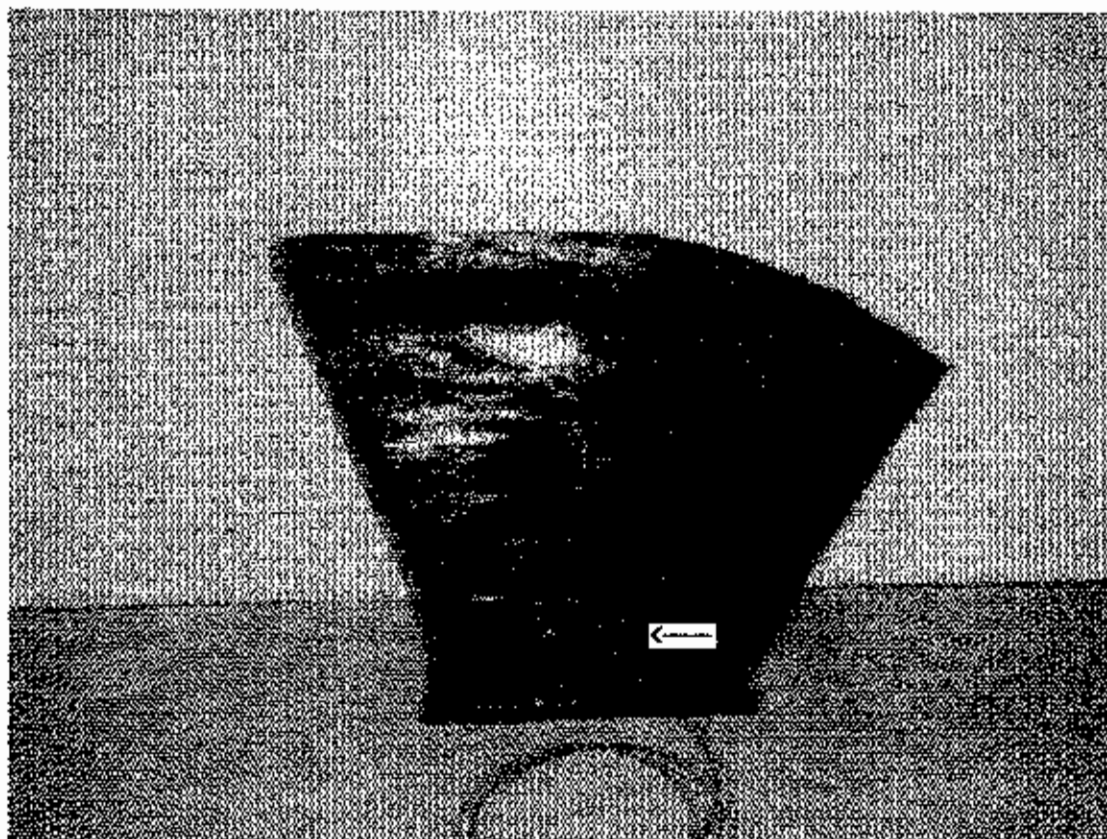
- 5. Spray nozzle.
#SNT500E2305
- 6. 1/2" nylon hex nuts.
#SNT500E2306
- 7. Nylon nozzle extensions.
#SNT500E2307
- 8. 1/4" black nylon nozzle cap.
#SNT500E2308
- 9. 5 psi check valve.
#SNT500E2309
- 10. Black nylon 1/4" check valve body.
#SNT500E2310
- 11. 1/4"x 3/8" nylon barb 90 deg. hose fitting.
#SNT500E2311



VOLUTE ARRAYS

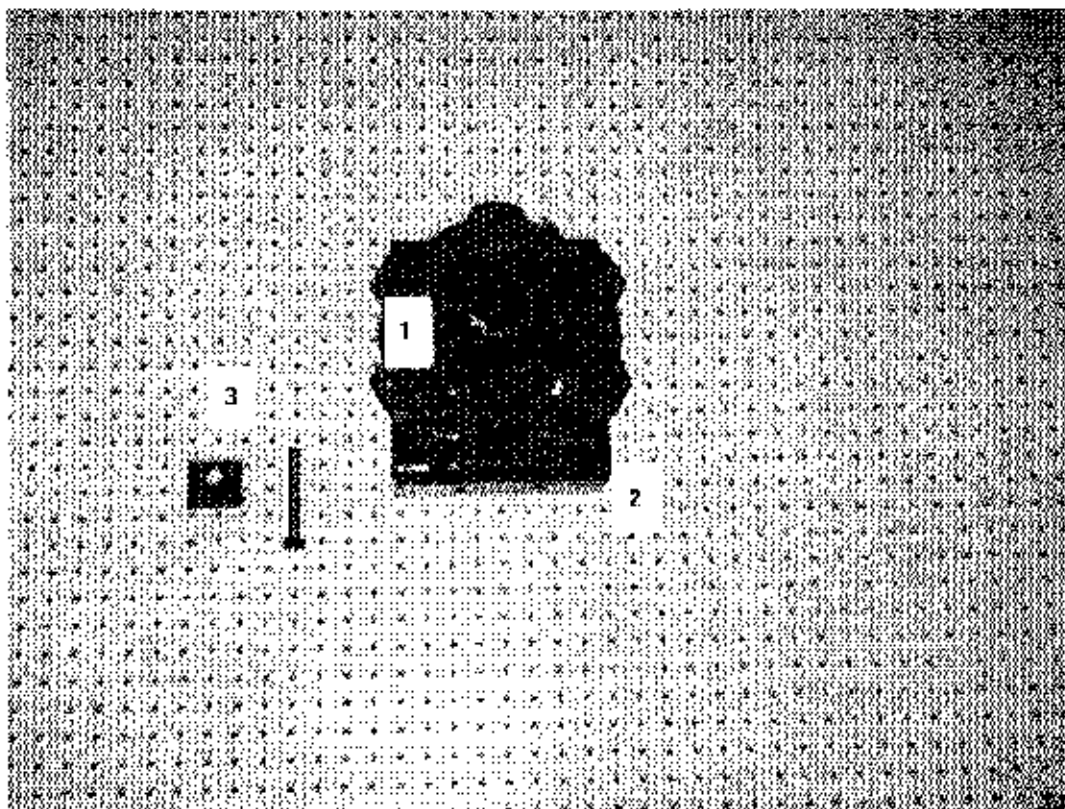


VOLUTE ELETROSTATIC
LEAD WIRE



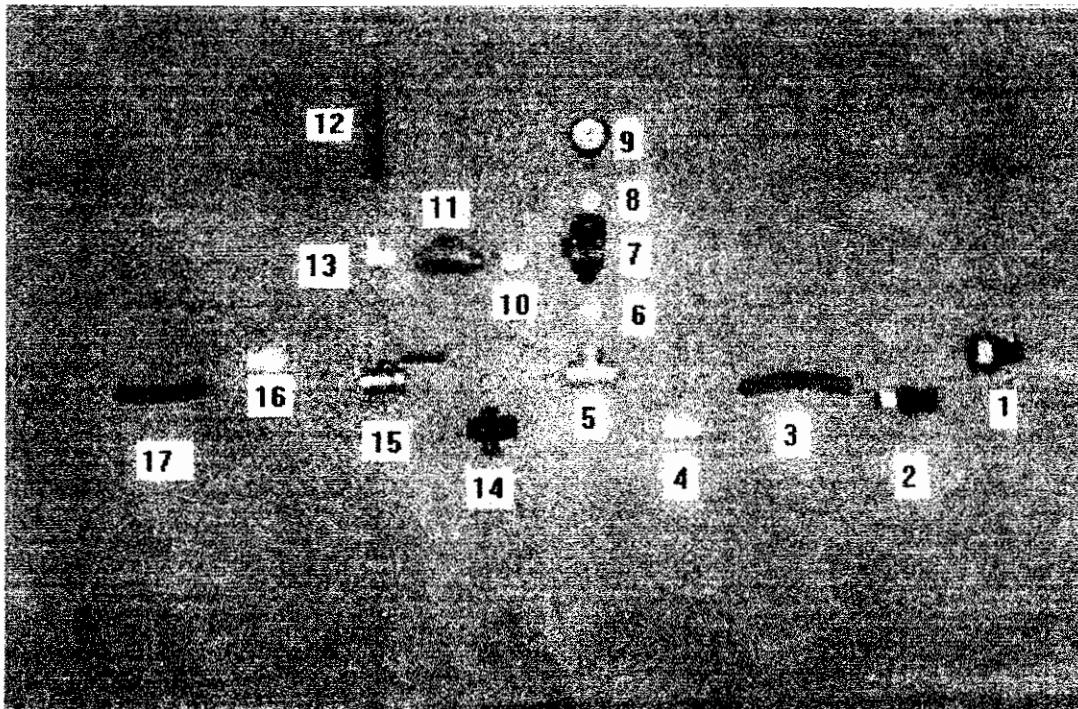
WATER PUMP

1. Tubro 90 water pump.
#SNT500E2601
2. Pump mount bracket.
#SNT500E2602
3. Pump belt tensioner.
#SNT500E2603



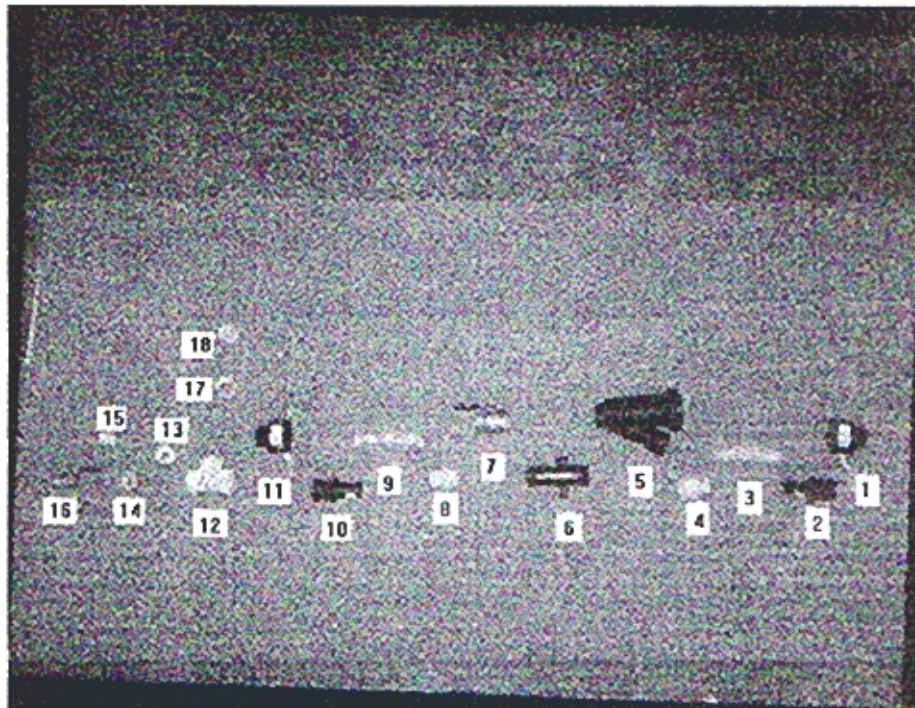
PUMP OUTLET PLUMBING

1. 1" female quick coupler.
#SNT500E2701
2. 1" male adapter.
#SNT500E2702
3. 1" hose.
#SNT500E2703
4. Nylon 1" hose barb to 1" pipe.
#SNT500E2704
5. 1" Galv. pipe tee.
#SNT500E2705
6. Nylon 1"x3/4"bushing.(between #7)
#SNT500E2706
7. Solenoid valve.
#SNT500E2707
8. Nylon 3/4" x 1/4" bushing.
#SNT500E2708
9. Pressure gauge.
#SNT500E2709
10. Nylon 1/2" nipple with 3/4"X1/2" bushing.
#SNT500E2710
11. 1/2" metering valve.
#SNT500E2711
12. 3/4" hose.
#ST500E2712
13. 1/2" nylon elbow to 3/4" hose barb.
#SNT500E2713
14. 1"x 3" pipe nipple w/mount bracket.
#SNT500E2714
15. valve, 3/4 " pressure relief
#SNT500E2701
16. Nylon 1" hose barb to 1" pipe fitting.
#SNT500E2716
17. 1" hose.
#SNT500E2718



PUMP INLET PLUMBING

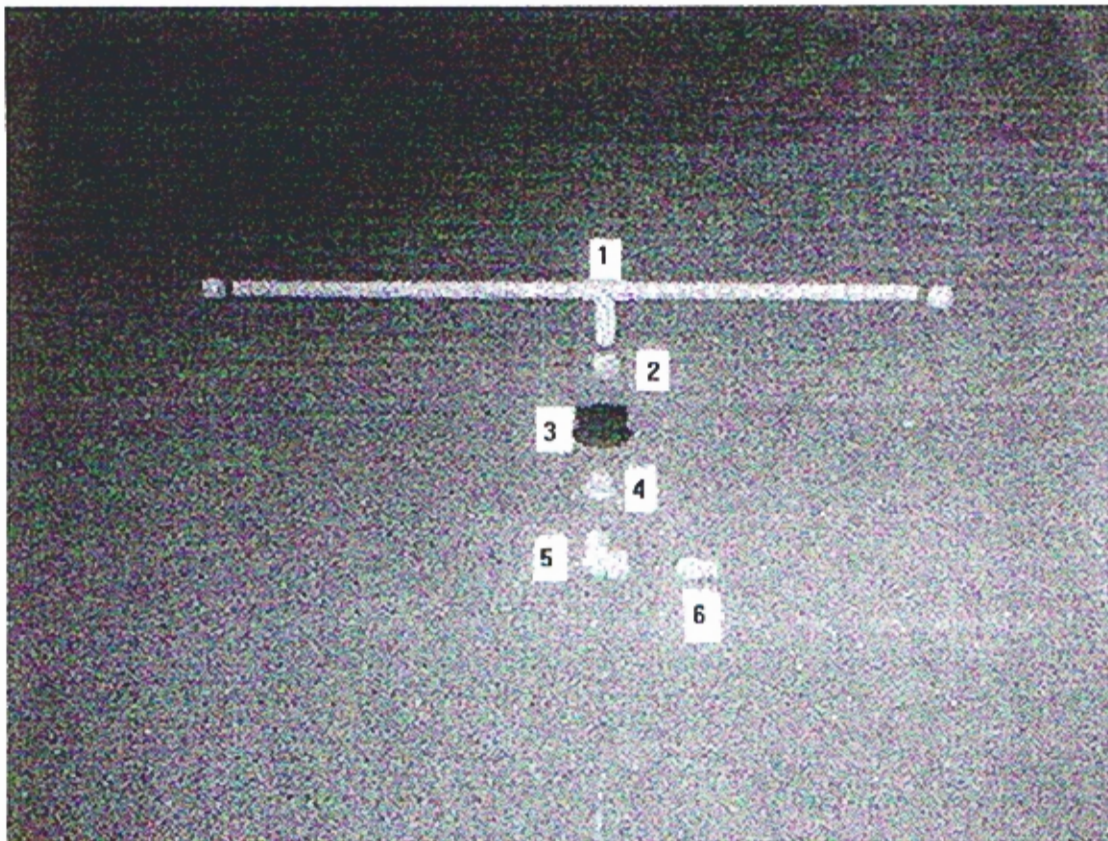
- | | |
|--|---|
| 1. Female quick coupler 1 1/2".
#SNT500E2801 | 10. Male adapter 1 1/2".
#SNT500E2810 |
| 2. Male adapter 1 1/2".
#SNT500E2802 | 11. Female quick coupler 1 1/2".
#SNT500E2811 |
| 3. 1 1/2" clear hose.
#SNT500E2803 | 12. 2" nylon tee with 2"x1 1/2"bushing.
#SNT500E2812 |
| 4. 1 1/2" hose barb.
#SNT500E2804 | 13. 2"x1" nylon bushing
#SNT500E2813 |
| 5. 1 1/2" Y strainer
#SNT500E2805 | 14. 1" x 3/4" nylon bushing.
#SNT500E2801 |
| 6. 1 1/2" x 6" pipe nipple w/ mount.
#SNT500E2806 | 15. 3/4" nylon nipple.
#SNT500E2815 |
| 7. 1 1/2" bronze ball valve.
#SNT500E2807 | 16. 3/4" bronze ball valve.
#SNT500E2816 |
| 8. 1 1/2" hose barb.
#SNT500E2808 | 17. 2" nylon nipple.
#SNT500E2817 |
| 9. 1" hose.
#SNT500E2809 | 18. 2" Anti- Vortex bulkhead fitting.
#SNT500E2818 |



TANK AGITATOR PLUMBING

1. PVC agitator bar.
#SNT500E2901
2. 1 1/4" x 3/4" nylon bushing.
#SNT500E2902
3. Tank bulk head fitting.
#SNT500E2903
4. 1 1/4"x 1" nylon bushing.
#SNT500E2904
5. 1" nylon street elbow.
#SNT500E2905
6. Nylon 1" Female quick coupler.
#SNT500E2906

7. 1" Male Adapter (Not Shown)
#SNT500E2907



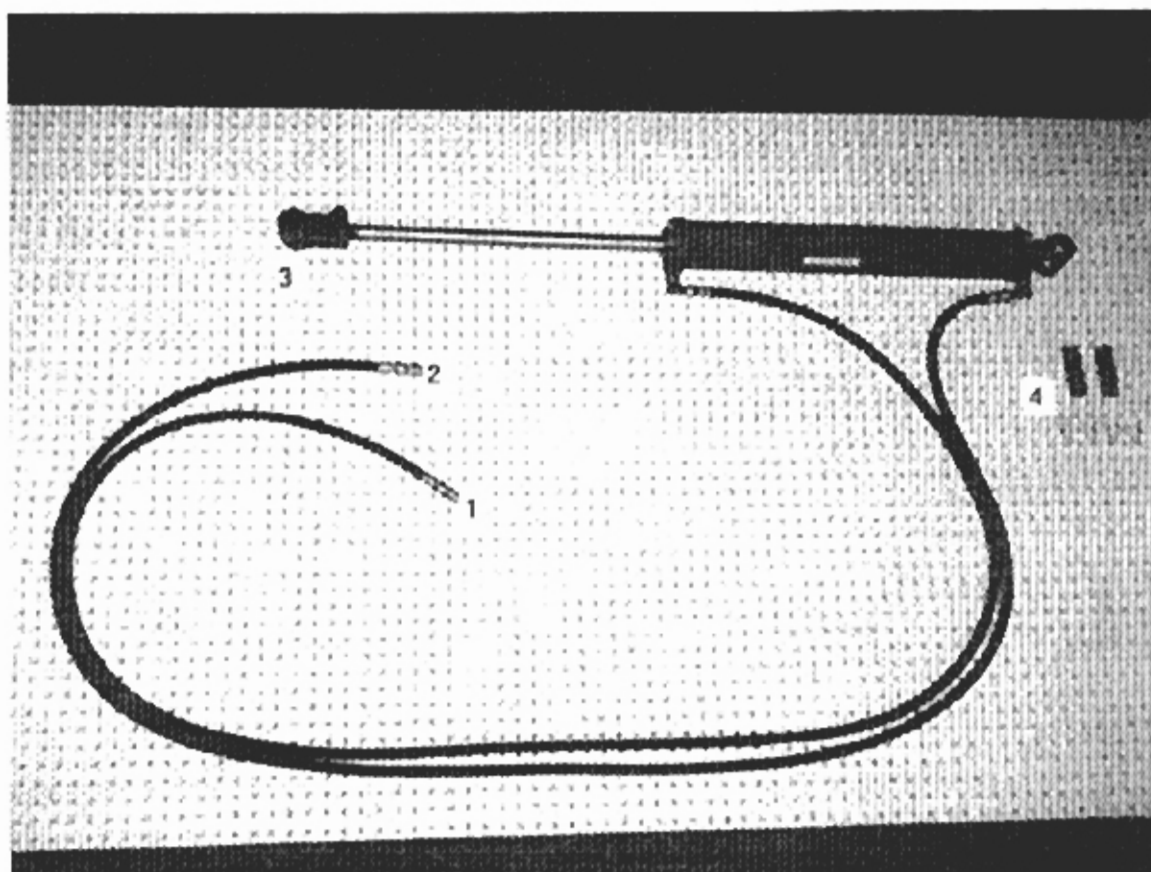
POLY LIQUID TANK

1. 500 gallon poly tank.
#SNT500E3001
2. Tank restraint bands.
#SNT500E3002



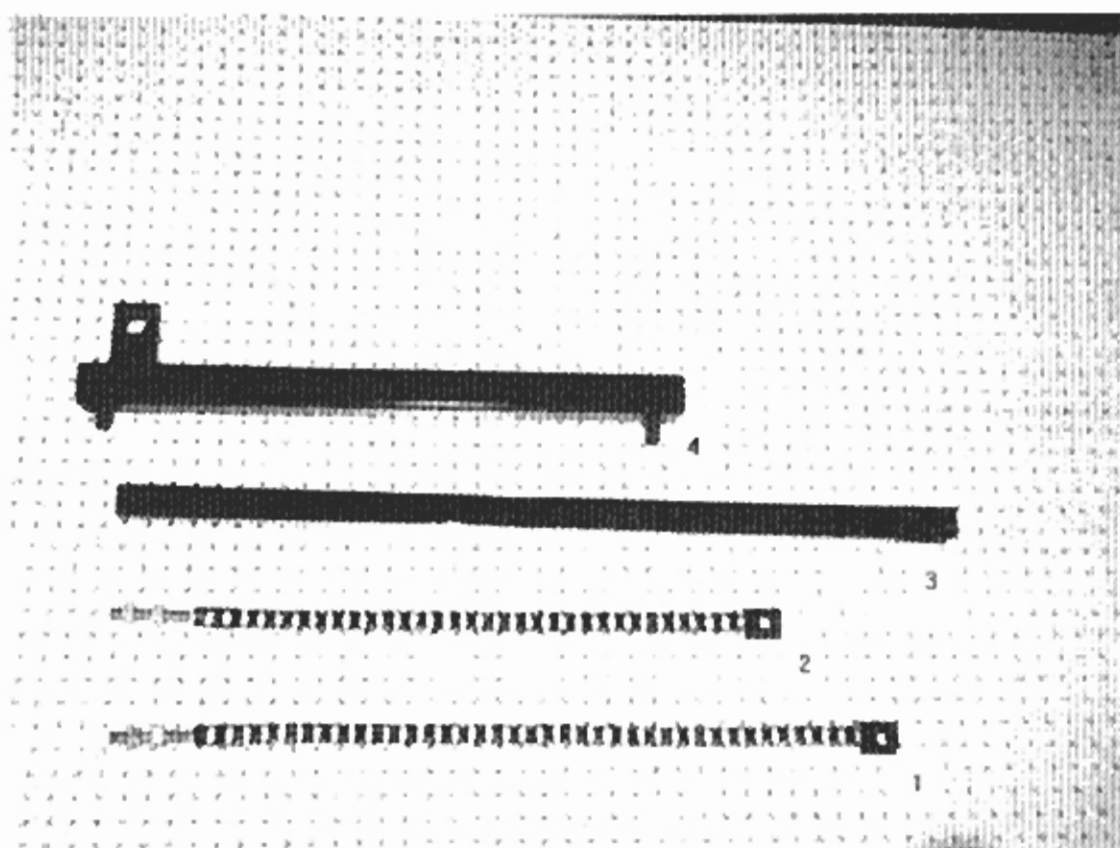
HYDRAULICS

1. Hydraulic hose
#SNT500E3101
2. Hydraulic hose.
#SNT500E3102
3. Hydraulic cylinder
#SNT500E3103
4. Hydraulic cylinder clevis pins and keepers.
#SNT500E3104
5. Hydraulic restrictors (not shown)
#SNT500E3105
6. Male tip couplers for tractor remote hydraulics.
#SNT500E3106



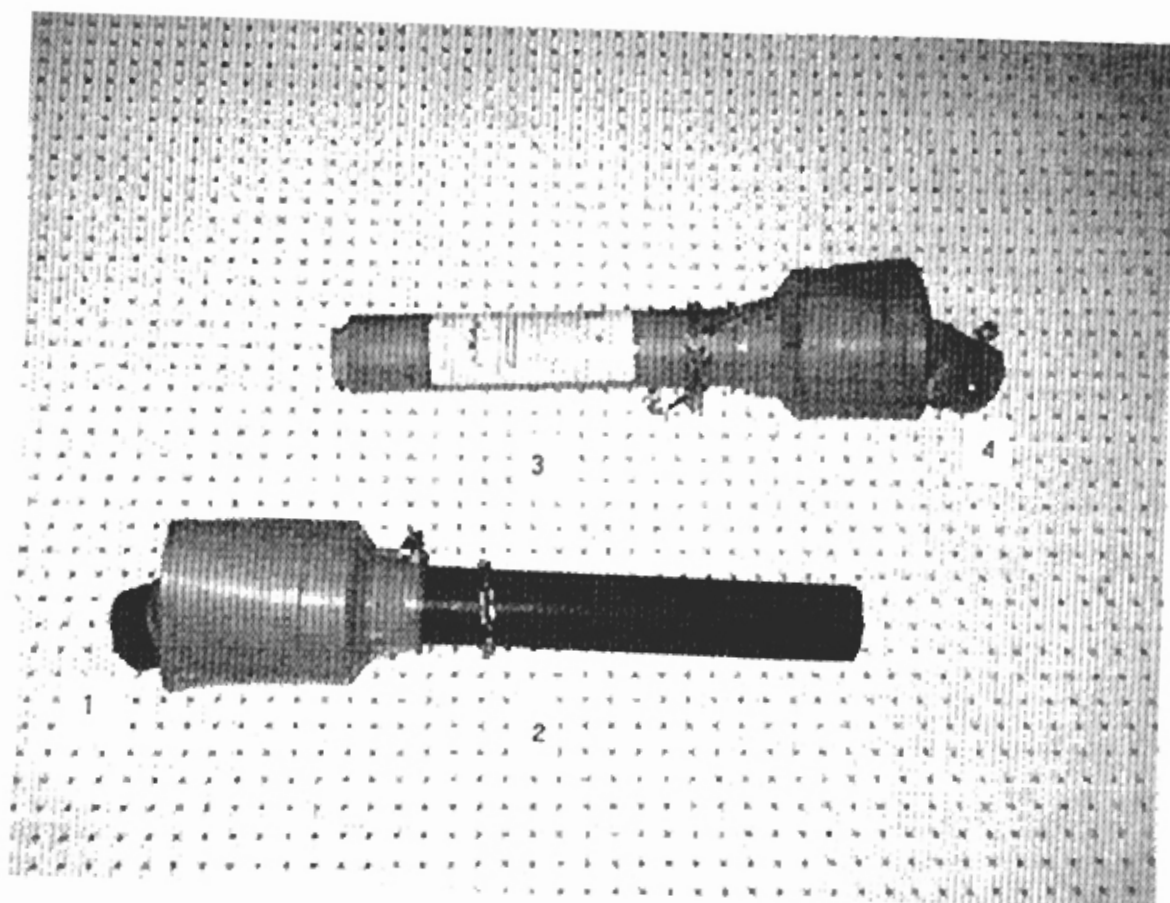
ROTATOR ASSEMBLY

1. Rotator guide. (outer tube)
#SNT500E3201
2. Rotator guide (inter tube)
#SNT500E3202
3. Rotator chain. (short unit)
#SNT500E3203
4. Rotator chain. (long unit)
#SNT500E3204



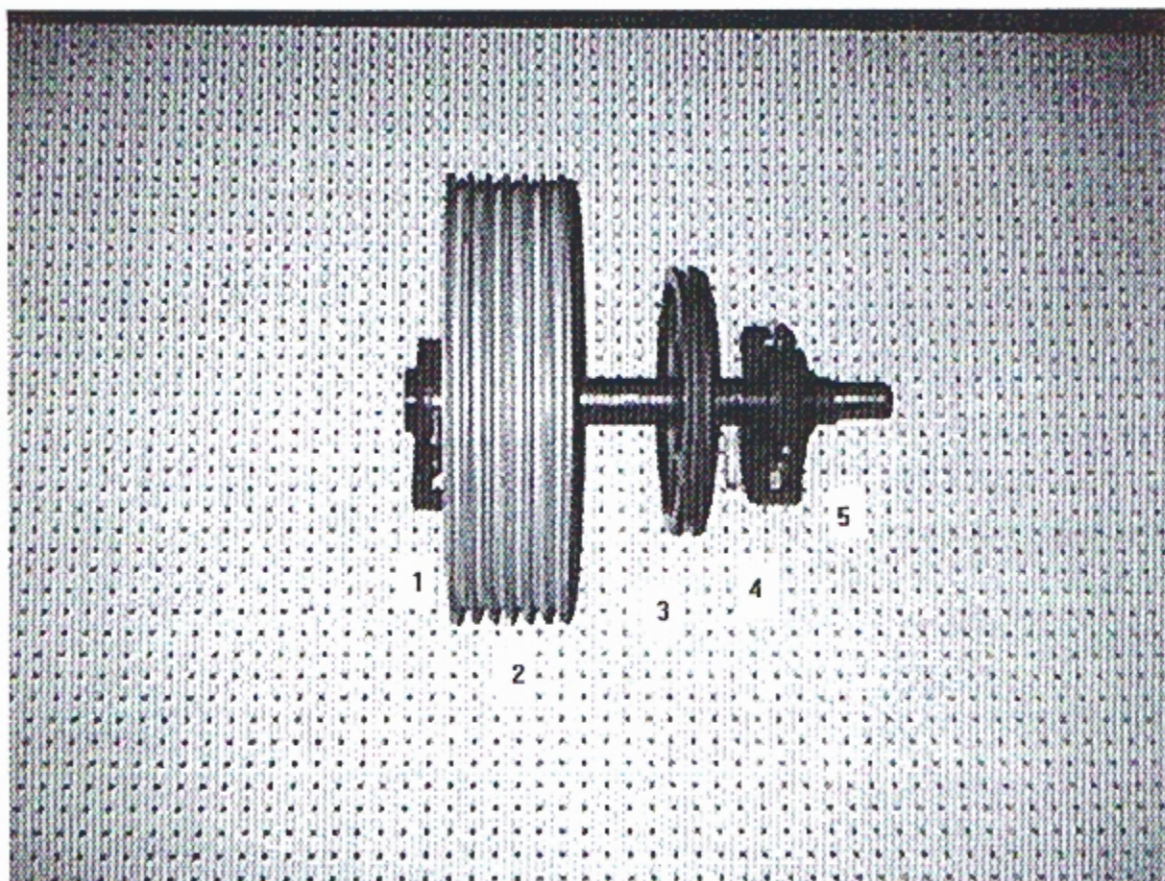
PTO SHAFT

1. Tractor side of pto shaft.
#SNT500E3301
2. Tractor side of pto shaft cover.
#SNT500E3302
3. Sprayer side of pto shaft cover.
#SNT500E3303
4. Sprayer side of pto shaft.
#SNT500E3304



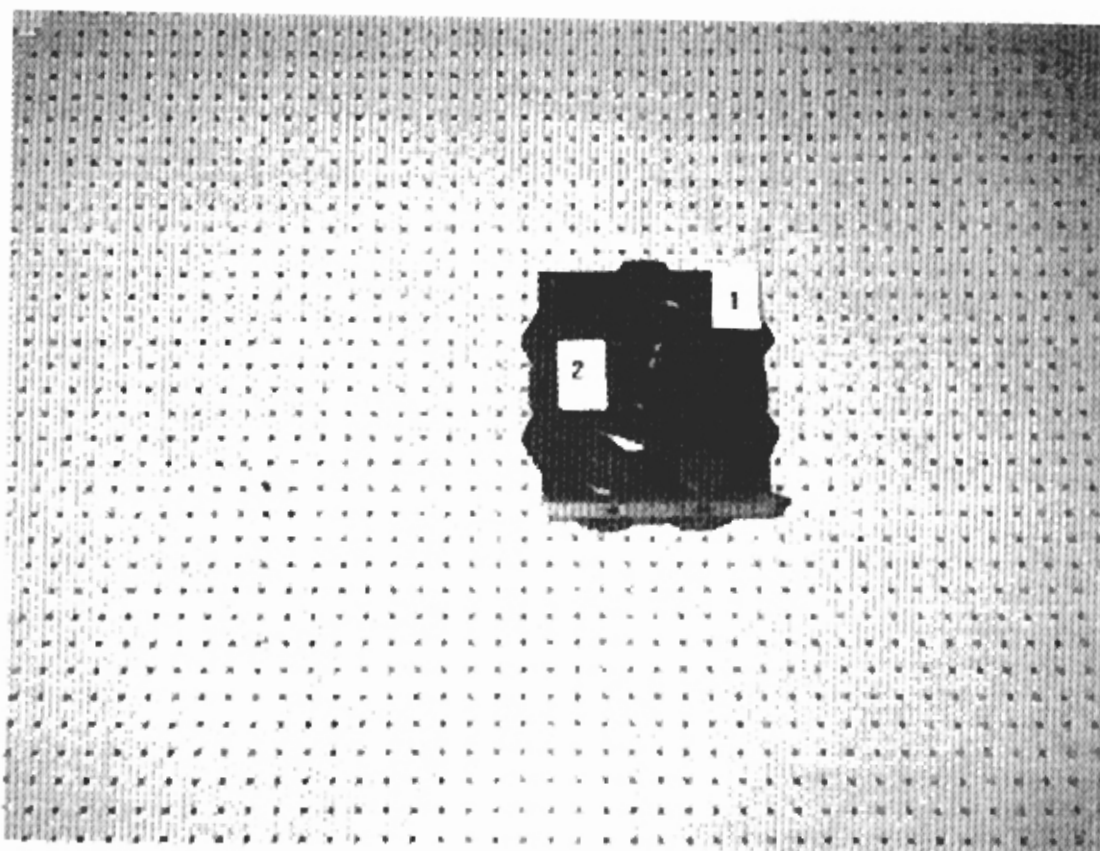
AUXILIARY SHAFT ACCESSORIES

1. Aux. shaft pillow block bearing.
#SNT500E3401
2. Aux. shaft pulley and hub fan drive.
pulley: #SNT500E3402a
hub: #SNT500E3402b
3. Aux. shaft pulley and hub pump drive.
pulley: #SNT500E3403a
hub: #SNT500E3403b
4. Aux. shaft pillow block bearing.
#SNT500E3404
5. Auxiliary shaft.
#SNT500E3405



PUMP PULLEY

1. Pump pulley.
#SNT500E3501
2. Pump hub.
#SNT500E3502



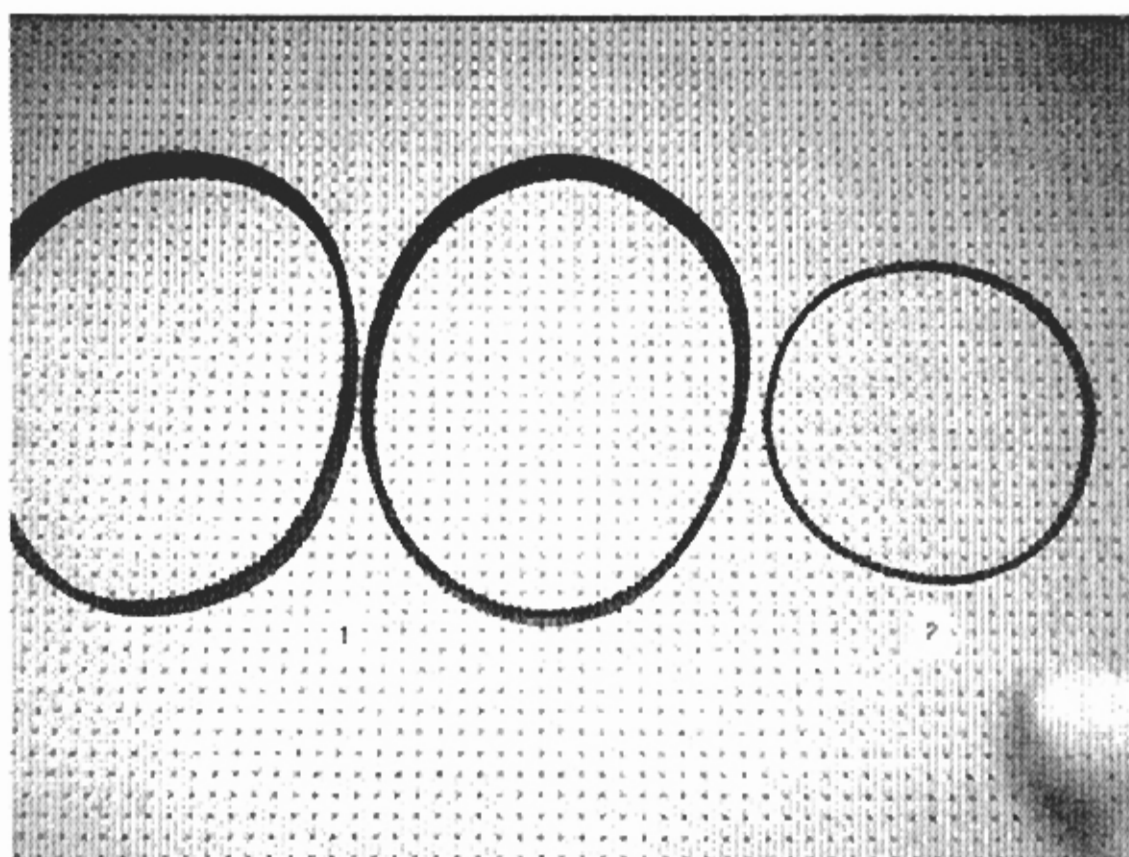
V-BELTS

1. Power band belt (fan).

#SNT500E3601

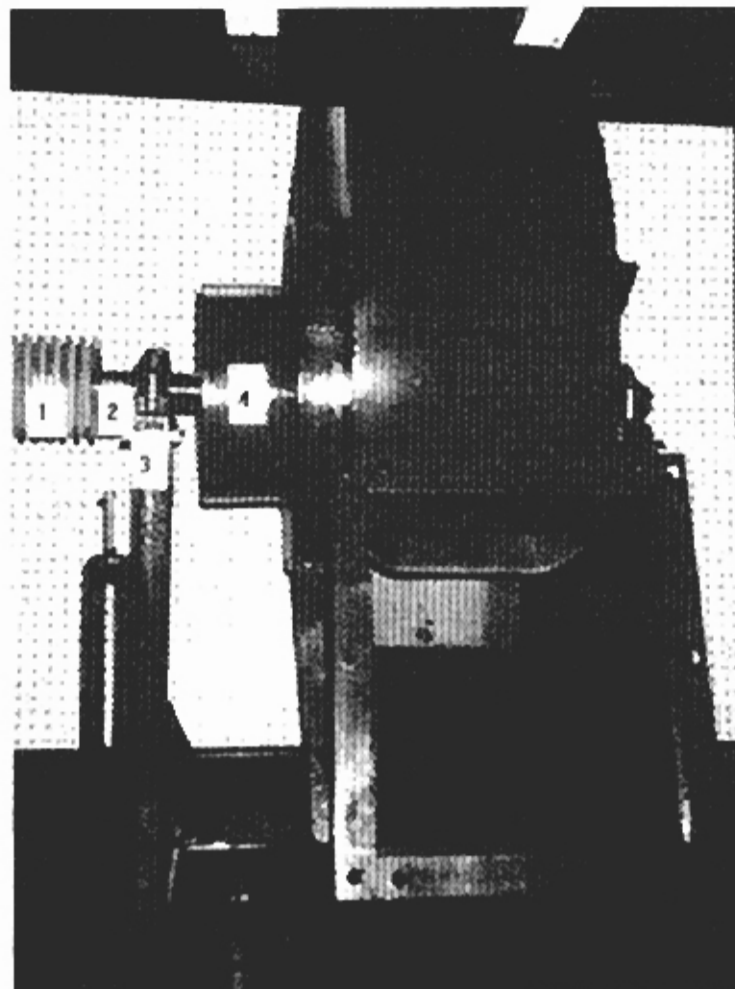
2. V-belt (pump)

#SNT500E3602

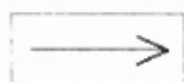


FAN AND HOUSING ASSEMBLY

1. Fan shaft pulley and hub.
pulley #SNT500E3701a
hub #SNT500E3701b
2. Fanshaft.
#SNT500E3702
3. Outer fan housing support bearings.
#SNT500E3703
4. Fan housing and fan.
housing #SNT500E3704a
fan #SNT500E3704b
5. Inter fan housing support bearings(not shown).
#SNT500E3705



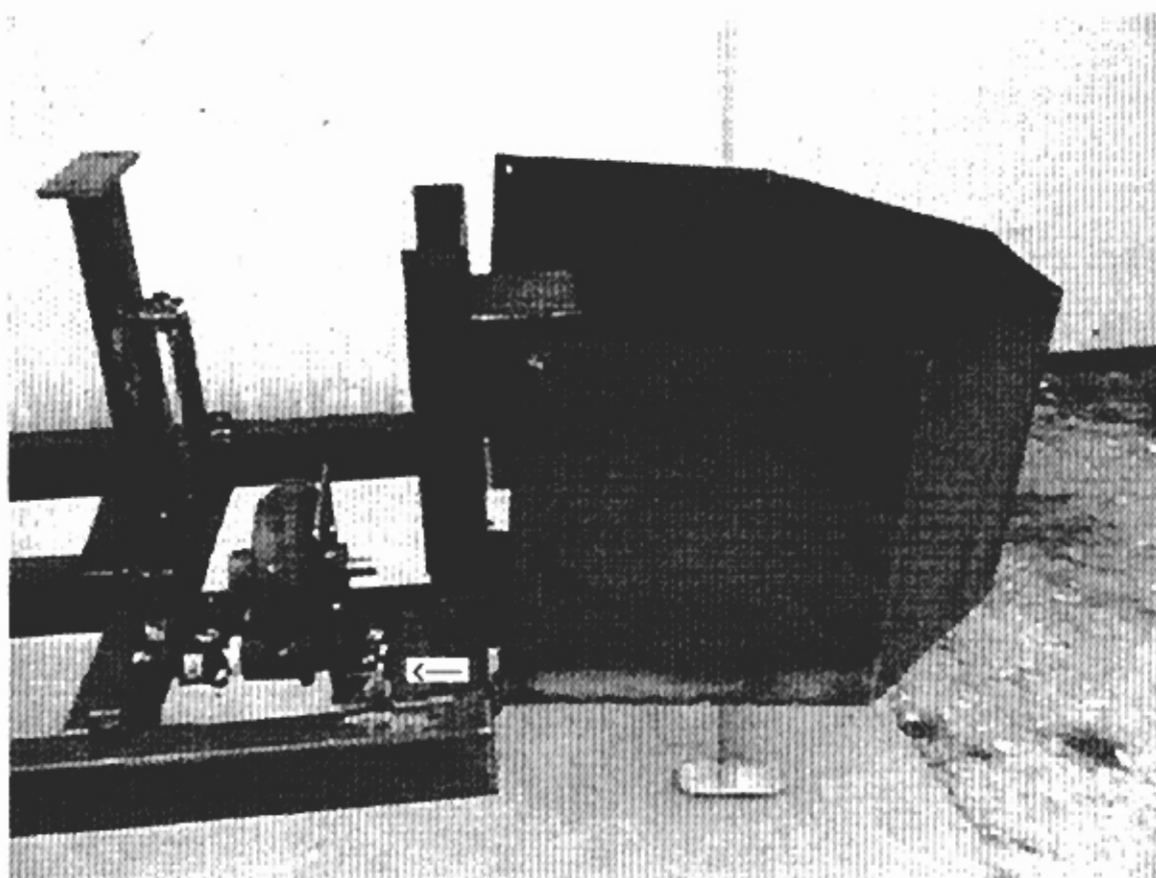
PUMP BELT ADJUSTMENT



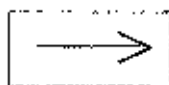
Pump belt adjustment screw.

To adjust tension of belt. Loosen pump bracket bolts
Turn adjustment screw clockwise to tighten belt. Check
alignment of pulleys. Tighten pump bracket bolts.

Warning Do not over tighten belt . This may cause damage to pump



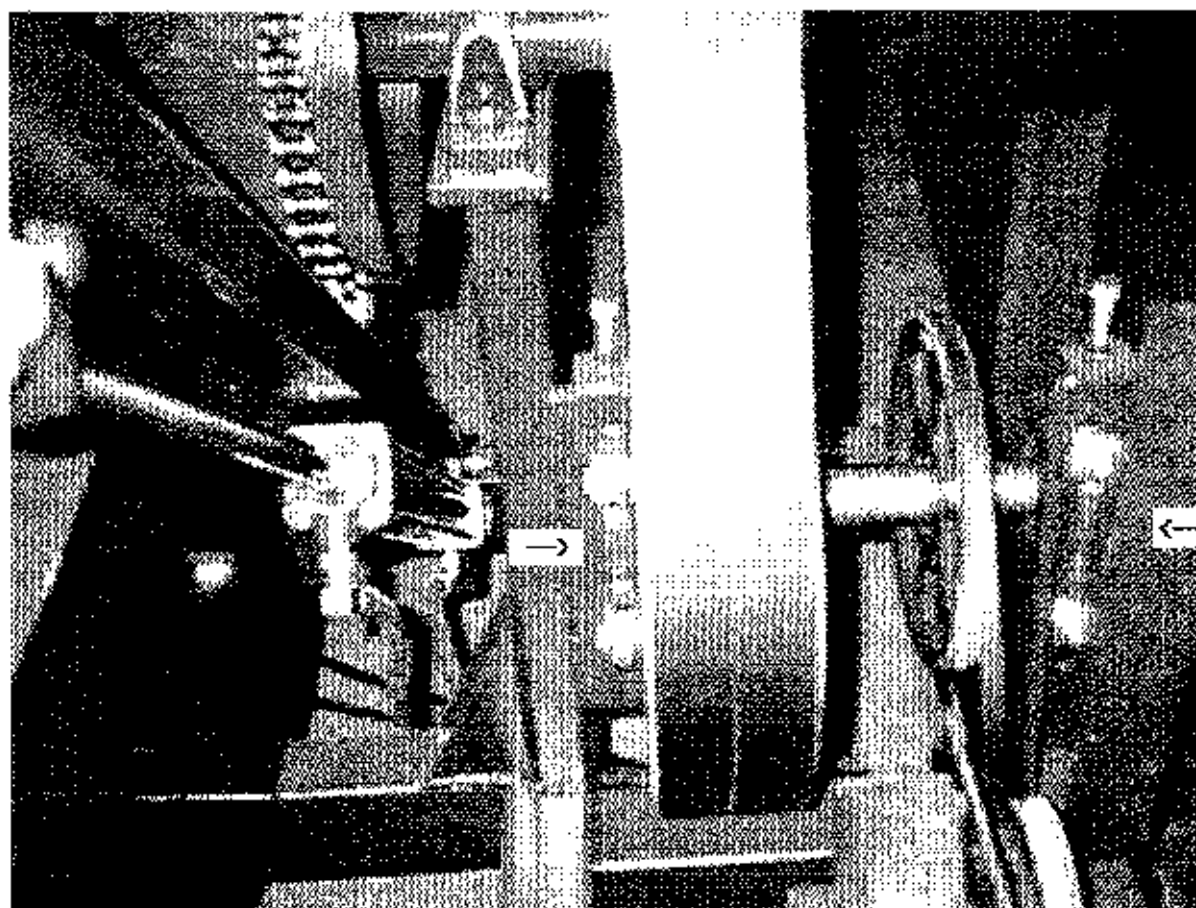
FAN BELT ADJUSTMENT

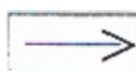


Aux. shaft bearing bolts.

To adjust tension of belt. Loosen the (4) bolts. Tighten adjustment screws (see on page 40) clockwise to tighten belts. Tighten (4) bearing bolts securely. Check alignment of pulleys. This is very important to keep belt wear the same.

Note: After adjustment of fan belts, pump belt may need adjustment.



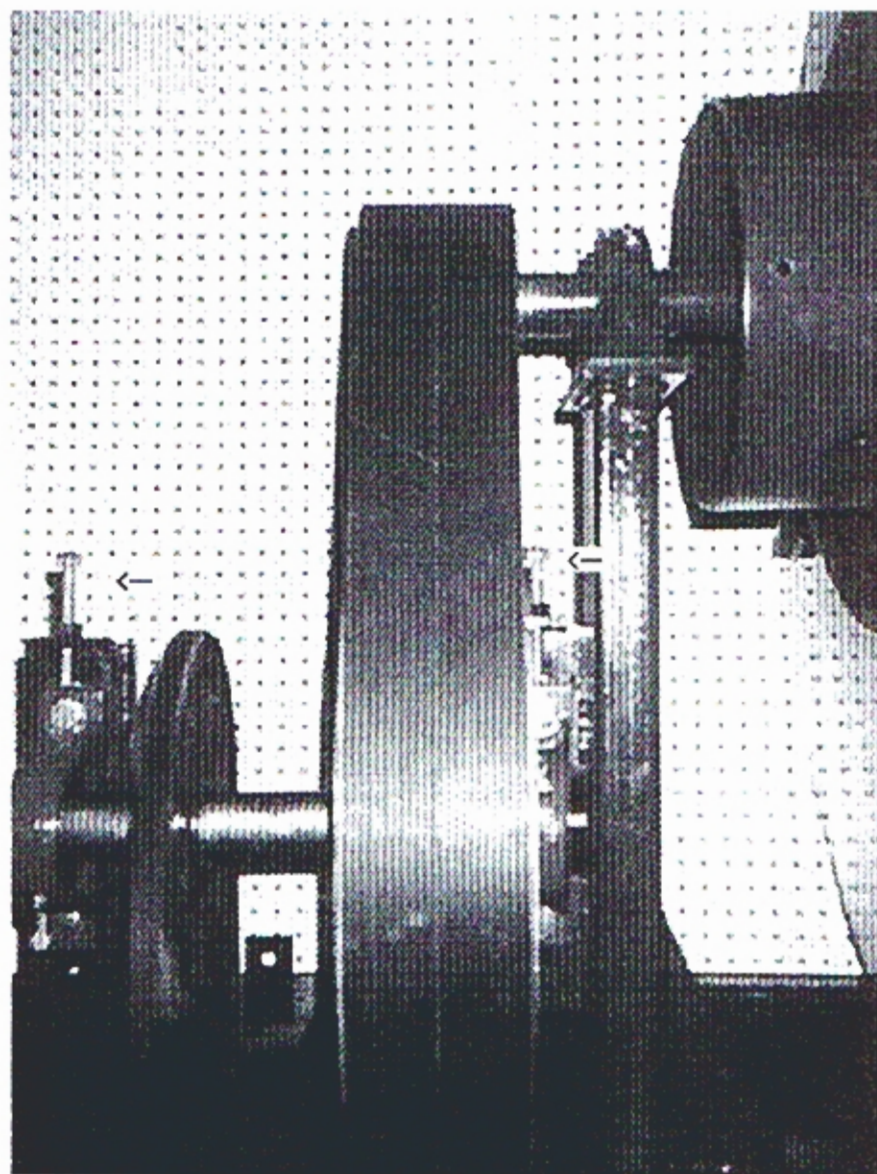


Aux. shaft adjustment screws.

NOTE: Fan belts should be kept tight. To prevent excessive wear to pulleys and belts.

Run sprayer up to speed for a few minutes. STOP MACHINE

If pulleys are hot to the touch, then belts need to be adjusted.



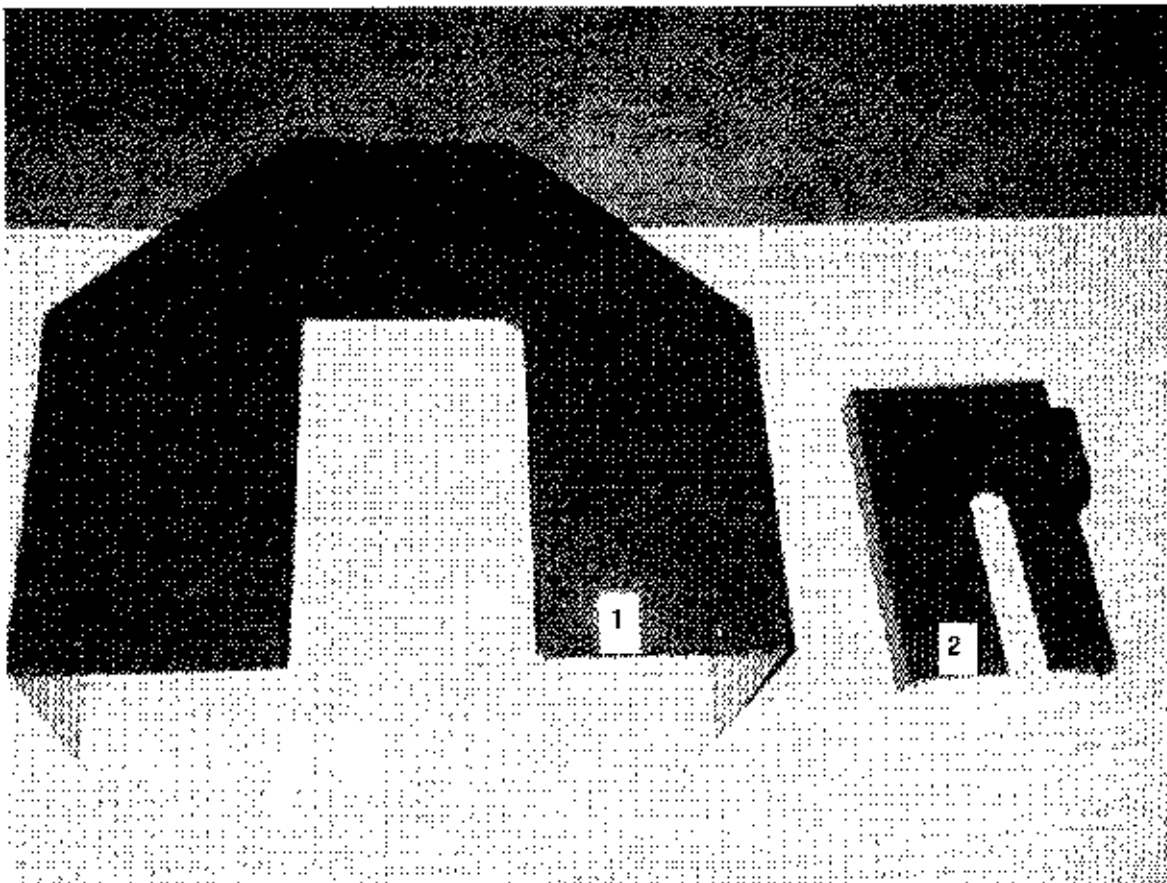
SAFETY SHIELDS

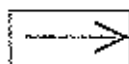
1. Outer front pulley cover shield.

#SNT500E4101

2. Inter front PTO cover shield.

#SNT500E4102

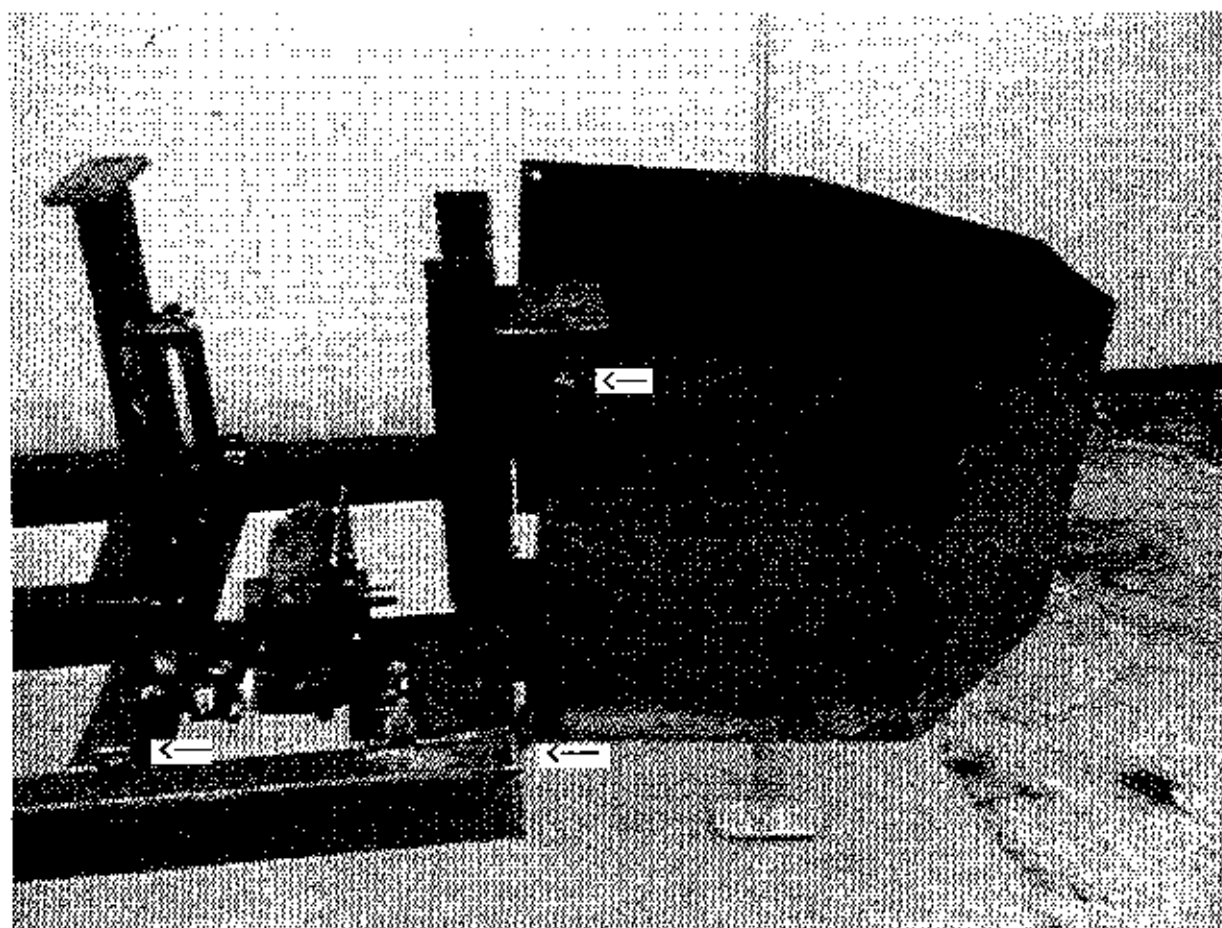




To tilt shield remove (2) bolts.

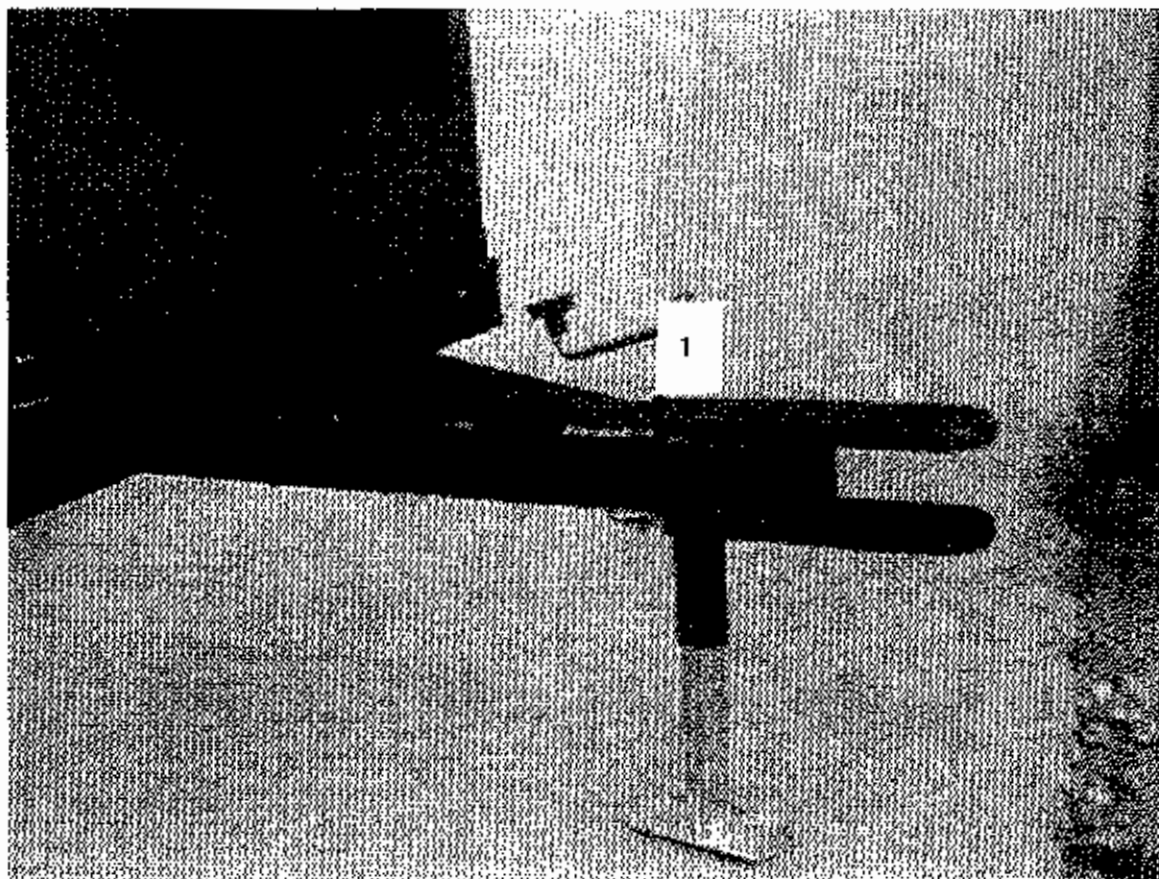
To remove shield. Remove (2) bolts and hinge pins.

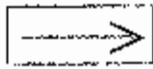
To keep your sprayer safe. Always keep shields in place.



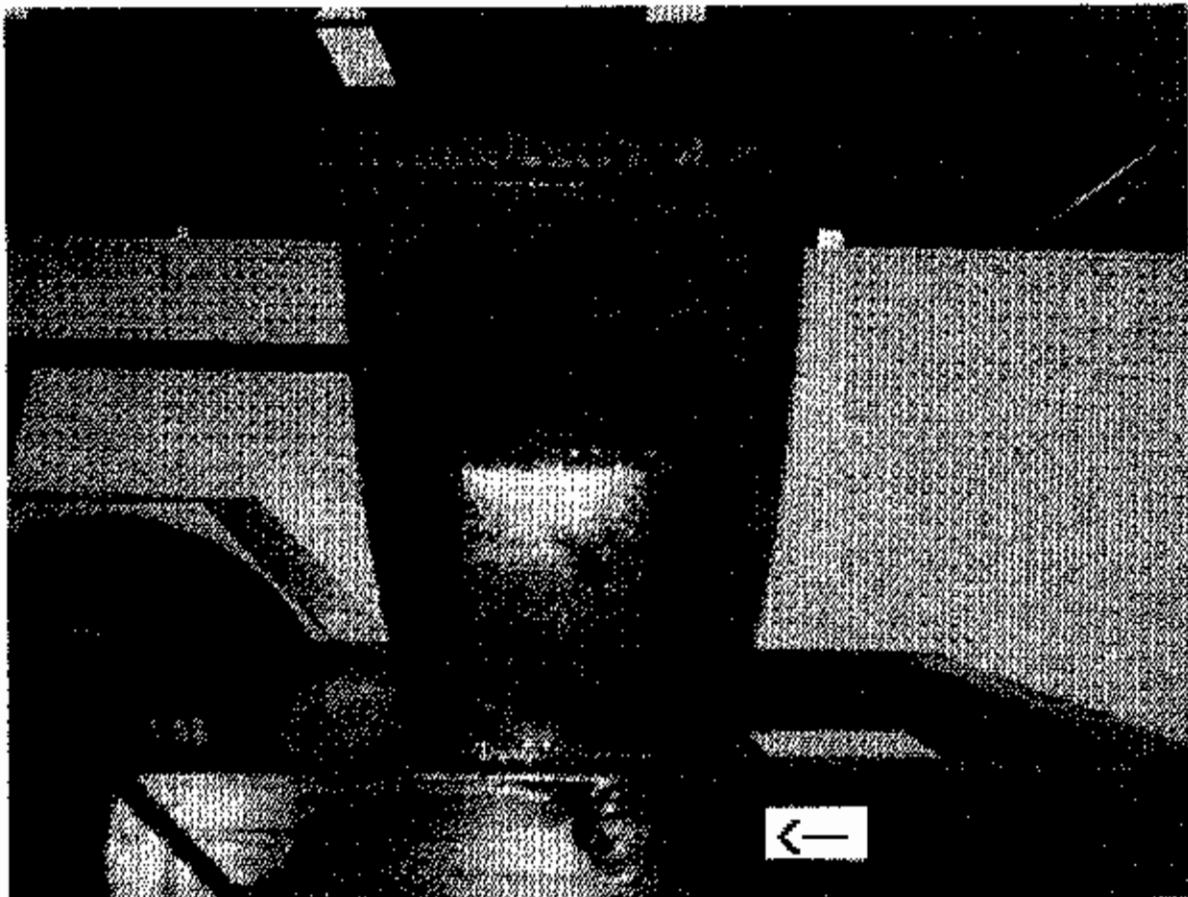
TONGUE JACK

1. Topwind 15" jack.
#SNT500E4301



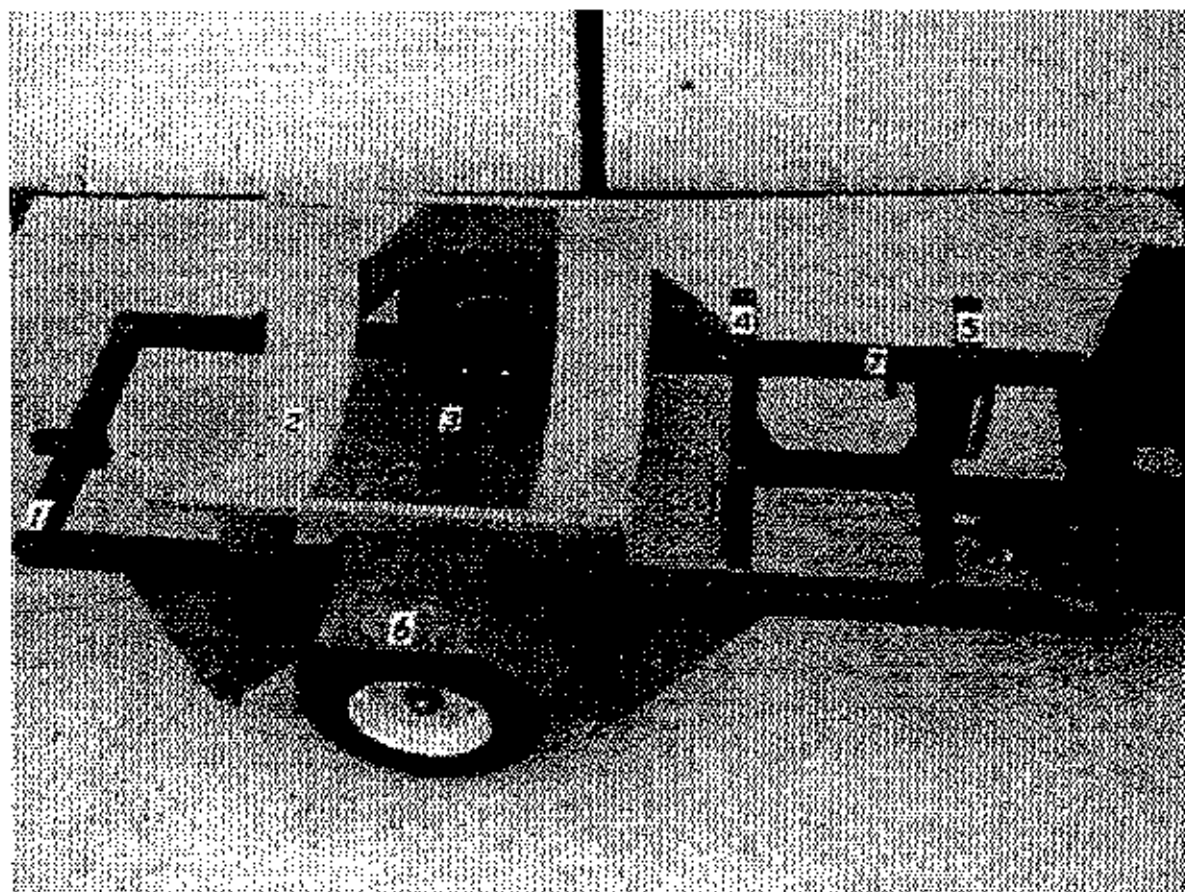


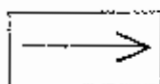
Rear relocation mount for tongue jack while sprayer is in operation.



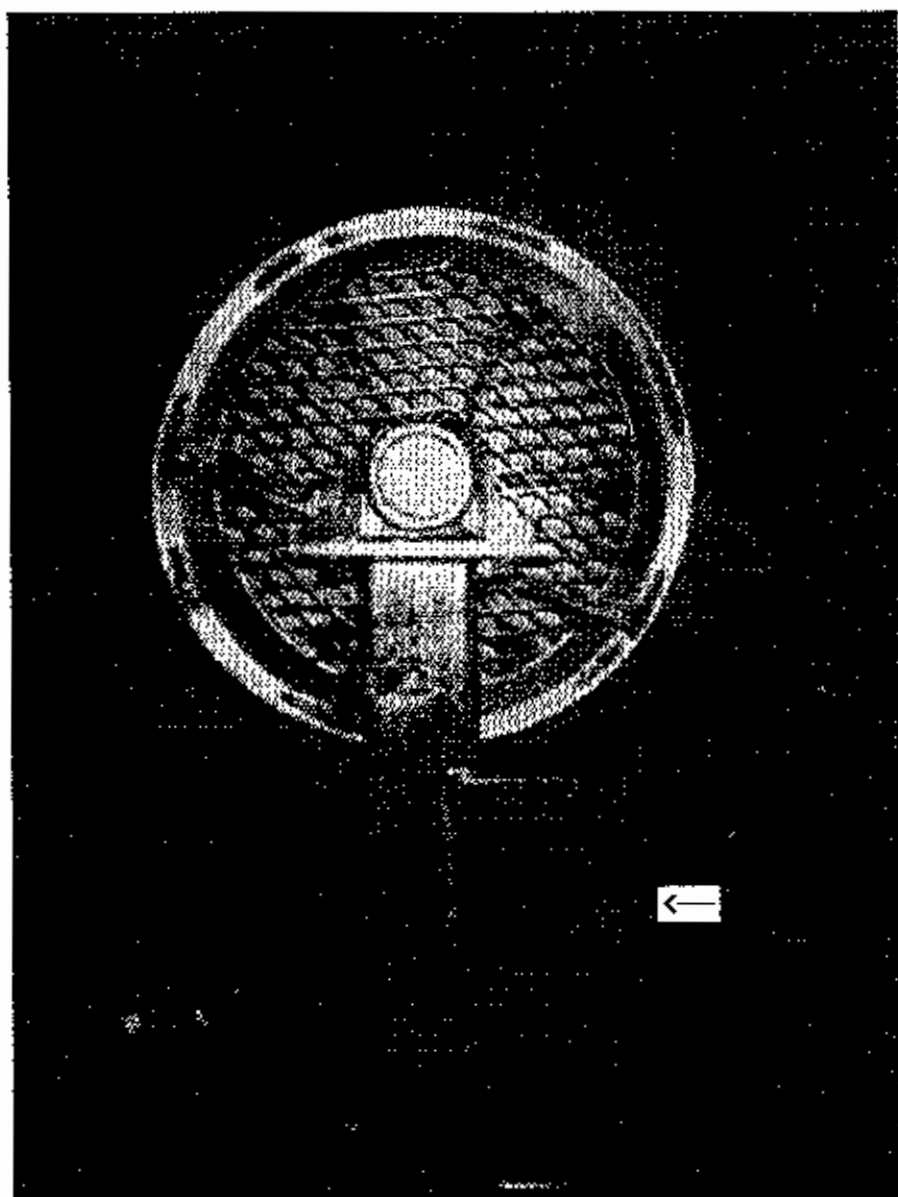
FRAME

1. Frame.
- 2a. 500 gallon tank saddles.
 - b. Tank saddle foam liner.
- #SNT500E4502
3. Frame axle.
4. Rear fan shaft bearing mount.
5. Front fan shaft bearing mount.
6. Fenders.
7. Rotator cylinder frame connection.



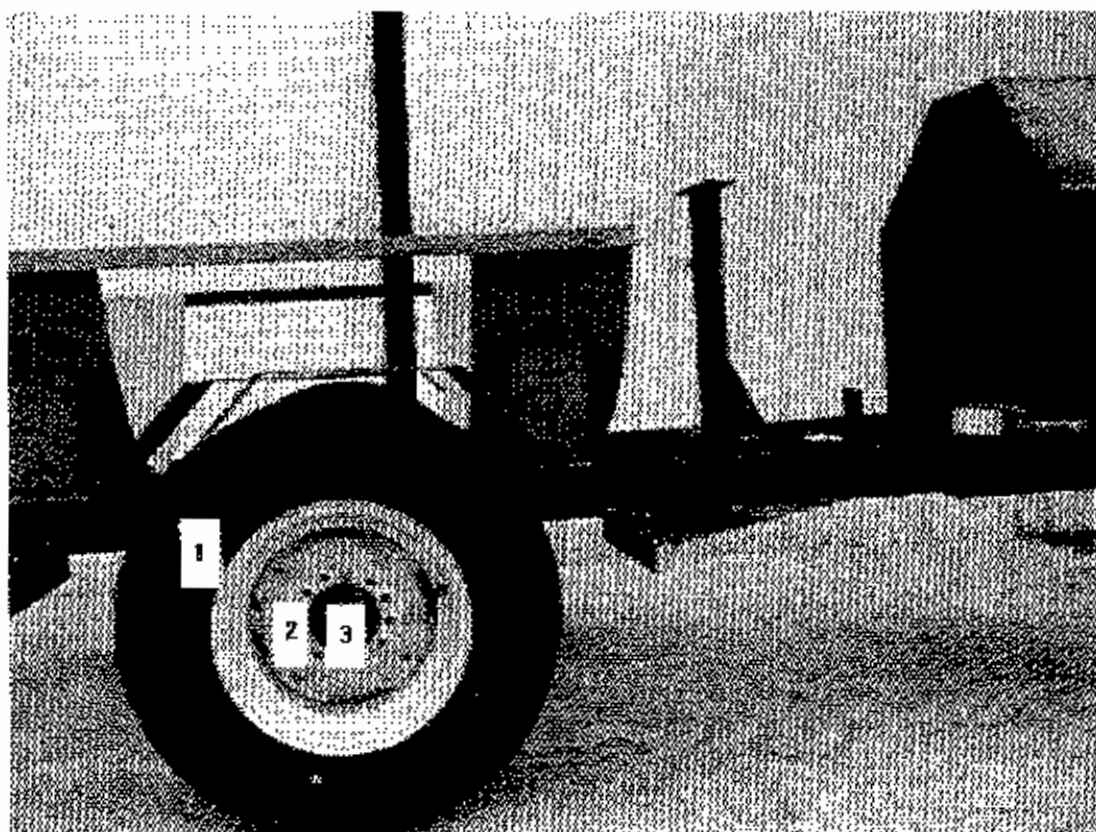


Static power supply box mount.



WHEELS

1. 8 ply tire.
#SNT500E4701
2. Implement wheel.
#SNT500E4702
3. Hub.
#SNT500E4703



WARRANTY

Southern Nut 'N Tree Equipment warrants to the original purchaser of new Southern Nut 'N Tree Equipment products, that they are free of defects in material and workmanship. This warranty is applicable only for the normal life expectancy of the unit or individual components for a period of one year from the date of original purchase. Warranty coverage is limited to replace any part, at no charge to the original purchaser, that in our judgment shows evidence of a defect: provided that upon written request, any such defective part is returned to Southern Nut 'N Tree Equipment within 30 days of failure.

This Warranty does not apply to any part or product which in Southern Nut 'N Tree Equipment's judgment has been subject to negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong oil or lubricants, has served its normal life, or which has been used for a purpose for which the product is not designed.

Southern Nut 'N Tree Equipment reserves the right to make changes in material or design of the product at any time without notice.

This Warranty shall not be interpreted to render Southern Nut 'N Tree Equipment liable for damages of any kind, direct, consequential, or contingent, to property. Furthermore, Southern Nut 'N Tree Equipment shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to any expense due to loss for labor, supplies, or for any other reason. This Warranty does not apply to any part of any internal combustion engine, driveline component, or expendable items such as blades, shield, guards, or pneumatic tires as specifically found in your Operator's Manual.

Except as provided herein, no employee, agent, or other person is authorized to give any warranties of any nature on behalf of Southern Nut 'N Tree Equipment. No other Warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written Warranty are hereby disclaimed and excluded from this sale.

If any provision of this limited warranty shall violate any applicable law, and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provision herein.

PERSONAL INFORMATION

<u>MODEL#:</u>	<u>SERIAL#:</u>	<u>DATE OF PURCHASE:</u>	<u>NOTES:</u>
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