

EcoLiner™ SP Product Manual



1700 Jasper St., Unit F, Aurora, CO 80011 T 800.624.6706 F 303.364.7796 • Newstripe.com

EcoLiner™ SP Manual / 4621.0517

ECOLINER™ SP

ALWAYS wear safety goggles or protective eye-wear when operating the unit!

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Cleaning Procedure Page 4
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Thank you! For your purchase of the Newstripe **ECOLINER™ SP** sprayer.

Please read over the instructions and make sure you understand operating procedures before using the unit.

Please check the serial number on your unit. This Manual is for units with serial number 1016773 and above only. For units with serial numbers below 1016773, please contact Newstripe for the correct manual.



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PRECAUTIONARY WARNING!



- Please read and understand all operation instructions as detailed in this manual. Failure to follow specified instructions may result in equipment damage or serious injury to personnel up to and including death!
- **DO NOT** use oil, petroleum, primer or base coat paints in the **EcoLiner™ SP**.
- Before using paint, fill the paint pail with water to familiarize yourself with the machine.
- **ALWAYS STRAIN THE PAINT**. Field marking paint often has oversized material, lumps, skin, etc., in it. If not strained, these contaminants will be drawn into the pump, shut-off valve, lines, etc., and will cause problems.
- **THIN THE PAINT BEFORE** adding it to the pail for the **ECOLINER**. Almost all field marking paints **MUST BE THINNED** before using them with the **ECOLINER**. These paints are typically thinned at ratios of 1:1 (One-gallon of water to one-gallon of paint) up to 3:1.
- **NEVER** perform maintenance on the machine while the system is running.
- If equipped with fuel shut off, the gas On/Off lever should always be OFF when the machine is not being used
- DO NOT run the pump dry after cleaning.
- Please note that modifying, changing or servicing any portion of the machine, system or components outside of the procedures and parts outlined in the owner's manual will **VOID** the warranty.
- Use only in well-ventilated area.
- Always consult your Facility Safety and/or Personnel Department for specified safety protocols prior to operating this equipment.



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Your EcoLiner SP box should include:

- Support arm for spray gun with left & right side spray shields
- Gun mounting Bar
- Spray gun assembly
- Nozzles, 5002 (2"-3" lines) and 9005 (5"-6" lines)
- Pail paint strainer
- Owner's Manual

ASSEMBLY

1. The **EcoLiner™ SP** is shipped mostly assembled. You are only required to attach the spray gun assembly and paint hose.
2. Slide the Support Arm with side plates through mounting tube on front of chassis.
3. Tighten down the Star Knobs.
4. Mount Spray Gun Mounting Arm on Support Arm with spray hose connection facing rearward.
5. Tighten Star Knob.
6. Line width is adjusted by raising or lowering Spray Gun and selecting the appropriate Spray Nozzle.
7. Connect Paint Hose from Pressure Valve Cross to Spray Gun. Tighten lightly with wrench.
8. **CHECK ENGINE OIL. FILL WITH HIGH QUALITY 10W30 DETERGENT MOTOR OIL.** Fill level is between the cross hatched markings on the dipstick with the dipstick pushed against the fill port. (Not screwed in.)



Pic 1



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OPERATION

1. Adjust spray shields to a 4" width. You may have to raise or lower the spray gun so that the machine will produce a 4" line. To stripe narrower or wider lines, select the proper spray nozzle from the selection guide and adjust the spray shields. Adjust the spray gun as needed to produce the required line width.
2. Move pump engagement lever to "OFF" position, towards the rear of the machine.
3. Disengage self-propelled drive mechanism by pulling the lever back towards the rear of the machine.
4. Add water (for testing or cleaning) or premixed paint to the pail.
5. Move On/Off gas lever to "On" position. Move choke lever to the "choke" position. Move the throttle lever to about the $\frac{3}{4}$ position. Turn the On/Off switch to "On" position. Pull starter chord. Once engine begins to run, move the choke lever to run position. Adjust throttle to just over the $\frac{1}{2}$ position where the engine is running smoothly.
6. Move the pump engagement lever to the "ON" position, all the way forward. Engagement lever should now be in a horizontal position.
7. Move Pump Prime Valve next to the Pressure Valve and Cable, to the open position. Lift the lid slightly on the pail and watch the paint flow from the hose. Once there is a continuous flow from the hose, close the Pump Prime Valve. The unit should now spray when the handle mounted trigger is squeezed.
8. To engage the self-propelled mechanism, simply push the drive lever to the forward most position. Pull back to stop. The speed is controlled by adjusting the engine speed.



OPERATIONAL NOTES!

- a) Adjust side spray shields for line width and adjust spray gun height up or down as needed to achieve the line width. (**Note:** water will produce a wider line than paint.)
- b) Fill bucket to about 2" from the top with **PREMIXED** paint. **DO NOT place Non-thinned paint in unit, as this will clog the pump.** Most athletic field marking paint is mixed at a ratio of 1:1, one gallon of water to one gallon of paint. Some paints may be thinned more. See paint manufacturer's directions.
- c) You will need to use the Pump Prime valve each time you run the pail dry and when you switch to water for cleaning to remove air in the system. The spray pressure valve is initially set at the factory for maximum spray pressure. If you feel you are getting too much paint flow from the nozzles, unscrew the Pressure Valve Cap until the flow is where you would like it to be and then run the Locking ring up against the cap to maintain the setting.

ALWAYS Disengage the pump lever when the paint pail becomes empty. Continuing to run the pump when paint has run out will dry paint inside the pump



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CLEAN UP PROCEDURE

CLEAN AFTER EACH USE

1. When your Striping job is complete, pull the Paint Return Hose & Prime Valve Hose out of the lid and point them towards the ground behind the machine or in a separate pail.
2. Remove the pail lid and set aside. Pull out suction hose and place to side of machine or in a separate pail.
3. Empty pail of unused paint, or remove pail completely and cover for the next time you stripe.
4. Place another empty pail on machine.
5. Wipe off or rinse off suction hose, screen, return hose, pump prime hose and pail lid.
6. Remove nozzle cap, nozzle, and valve seat and put in container of water to soak.
7. Place 2-3 gallons of clean water in the pail. Place pick up tube back in pail. Leave return hose out of pail. This allows you to flush all hoses of paint. Start engine. Use Pump Prime valve to prime pump and activate control lever. **CAREFUL:** Return hose will 'jump' from paint pressure. Run until spray runs clear.
8. Clean nozzle parts that have been soaking and reassemble on spray gun.
9. Clean and rinse exterior of machine. Use soapy water (dish washing detergent or Simple Green) once each week to thoroughly clean pump. Add soap to 2-3 gallons of water, run machine and let it circulate back to pail for 10-15 minutes and then empty.

CLEANING PROCEDURE FOR WINTER (FREEZING) STORAGE

1. Clean as instructed in cleaning procedure and then place ½ bottle of pump protector in pail.
2. Remove as much fuel from the engine gas tank as you can. Run engine until it runs out of gas.
3. Disconnect inlet and outlet hoses at pump and drain.
4. Disconnect paint hose from fitting at spray valve and drain hose.
5. Open pump prime valve and place pump prime valve hose on ground to drain valve
6. Unit may now be stored in freezing temperatures.
7. Drain and change engine oil in the spring.



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PARTS LIST

Item	Description	Part Number	Item	Description	Part Number
1	Chassis	10004610	31	Brass T fitting, ½"	10004111
2	Engine, Subaru EX13	10004707	32	Reducer, ½" – ¼"	10002481
3	Air filter element for Engine (Not Shown Briggs & Stratton P/N)	796970	31	Brass T fitting, ½"	10004111
4	Wheel assembly (4 required)	10000012	32	Reducer, ½" – ¼"	10002481
5	Handle, weldment	10003469	33	Pump prime valve	10000233
6	Handle support braces (2)	10004612	34	Brass elbow	10000159
7	Control cable	10000820	35	Cross, brass	10000235
8	Control lever	10002951	36	Brass elbow	10004131
9	Throttle cable	10000696	37	Plug	10000113
10	Drive lever	10002072	38	Ball seat fitting	10000731
11	Drive rod	10002087	39	Pump engagement lever	10001817
12	Hose, paint	10000695	40	Belt guard	10002030
13	Hose, suction with fitting	10004470	41	Pump elbow fittings	10004459
14	Filter screen, suction hose (Not shown)	10002842	42	Pump, diaphragm	10003367
15	Spray gun mounting arm	10004616	43	Drive assembly	10002088
16	Spray gun assembly	10001949	44	Drive rollers (2)	10003387
17	Spray gun support arm	10003550	45	Gun mount star knob	10004480
18	Pivot, Right	10001229	46	Drive belt, engine (4L280)	10001757
19	Pivot, Left	10001228	47	Drive belt, pump (3L260)	10001755
20	Spray shields (2)	10003562	48	Pulley, idler, pump engagement	10001111
21	Star knobs, common (5)	10000007	49	Pulley, idler, drive	10001111
22	Cable adjuster with nut	10000018	50	Pulley, friction drive	10001115
23	Cable stop	10001577	51	Pulley, engine	10001739
24	Pressure valve adjusting cap	N/A	52	Pulley, pump (not shown)	10003368
25	Locking ring	N/A	53	Spring, tension, pump	
26	Pressure limiter collar	N/A		engagement lever	10000649
27	Pressure Valve	10003478	54	Spring, tension, idler arm	10000692
28	Hose, re-circulating	10003692	55	Bearing, pump shaft (2)	10003131
29	Hose, pump outlet with fitting	10004469	56	Pump shaft (Not Shown)	10003365
30	Hose, pump prime valve	10003692			



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SPRAY GUN ASSEMBLY

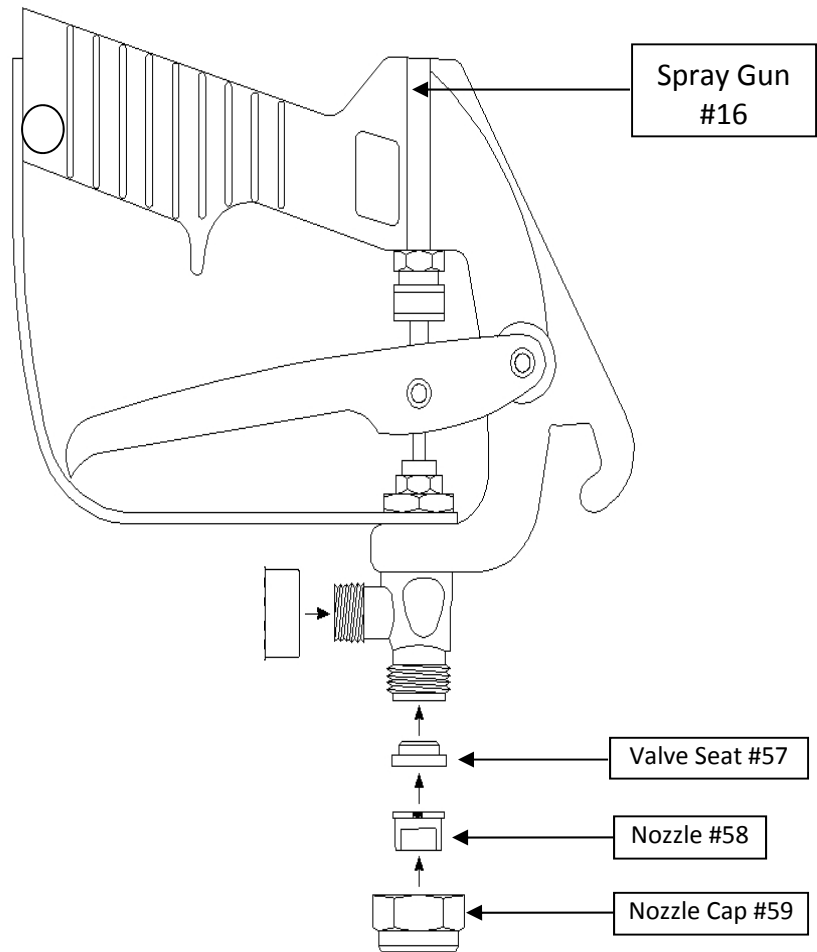
(Item 10001949)

Item	Description	Part Number
57	Valve Seat	10000136
58	Nozzle	Select nozzle
59	Nozzle Cap	10001890

*8004 Tip preinstalled by the factory

SELECT NOZZLE FOR APPLICATION

Item	Description	Part Number
5002	2" Line (package of 4)	10001891
8005	4" -5" Line (Heavy Turf)	10003493
8004	4" -5" Line (package of 4 **Comes standard on the machine	10001893
9505	5" -6" Line (package of 4	10001894



Pic 1

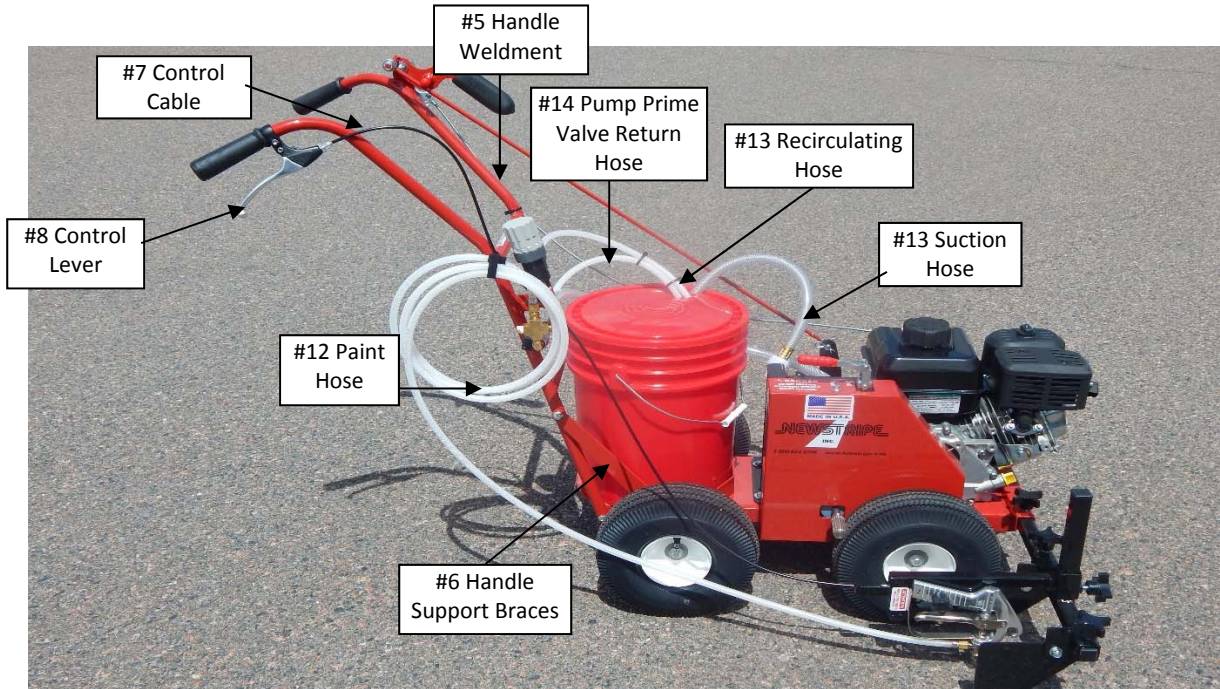


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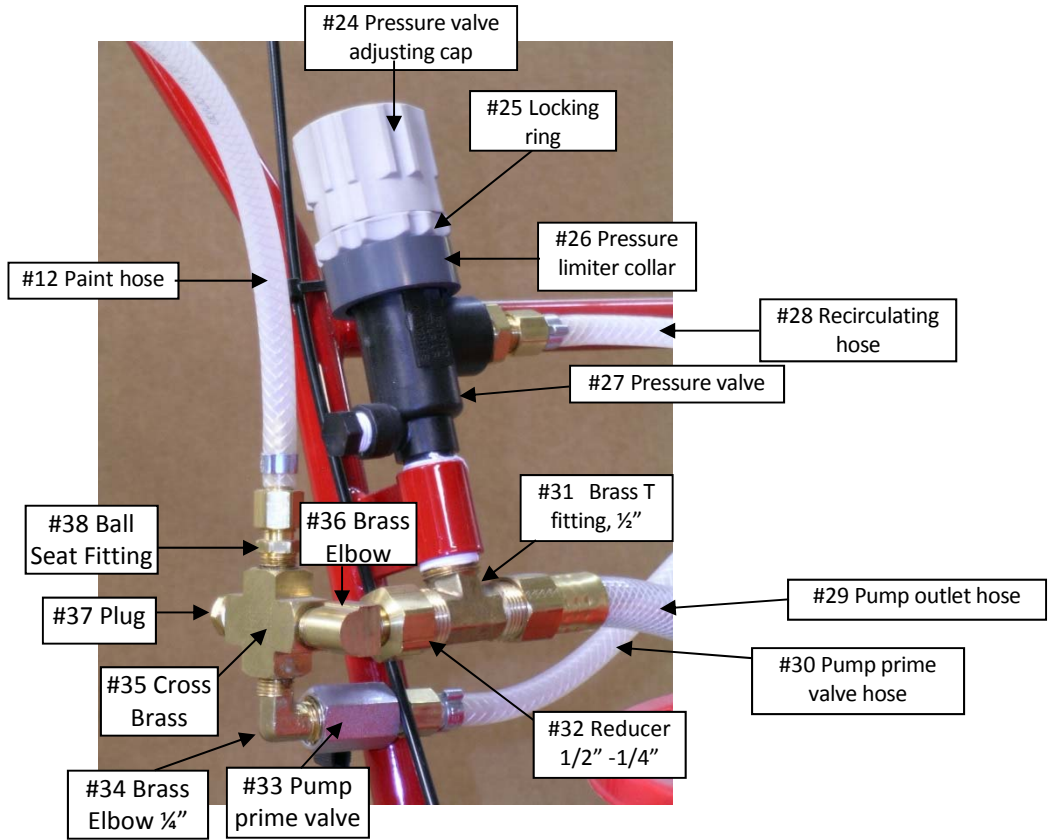
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Pic 2



Pic 3

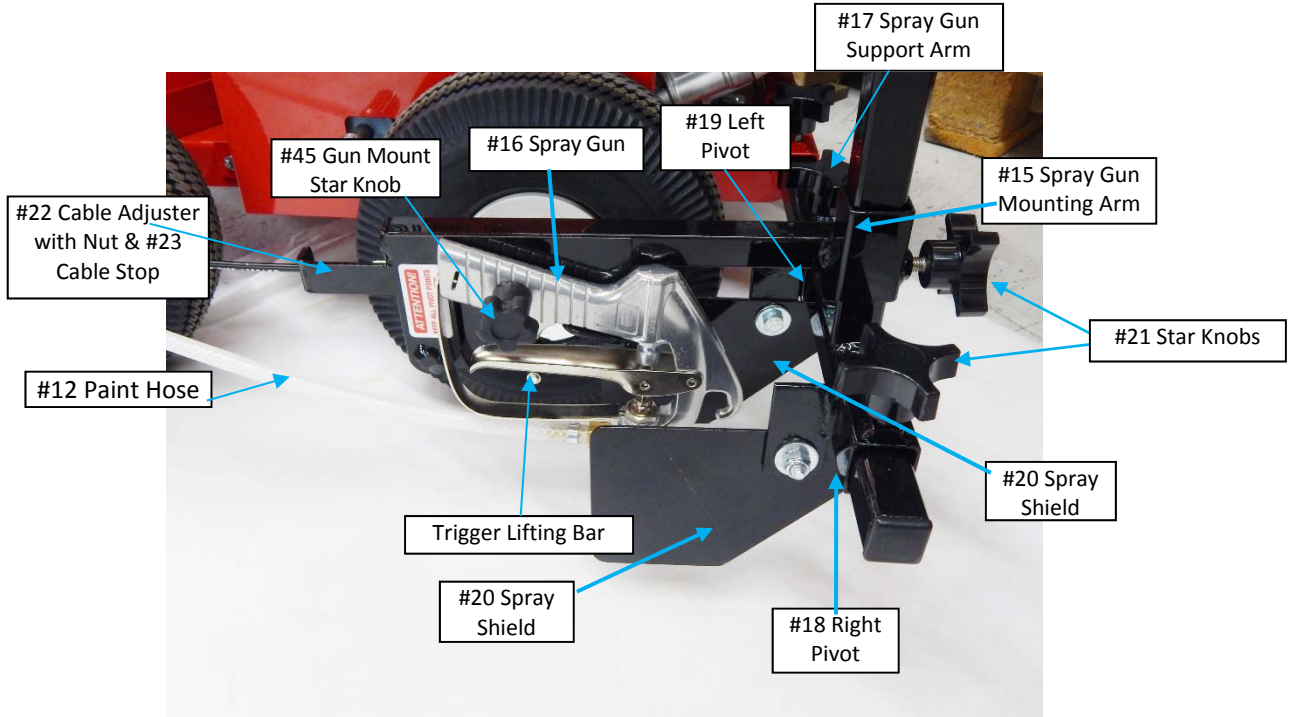


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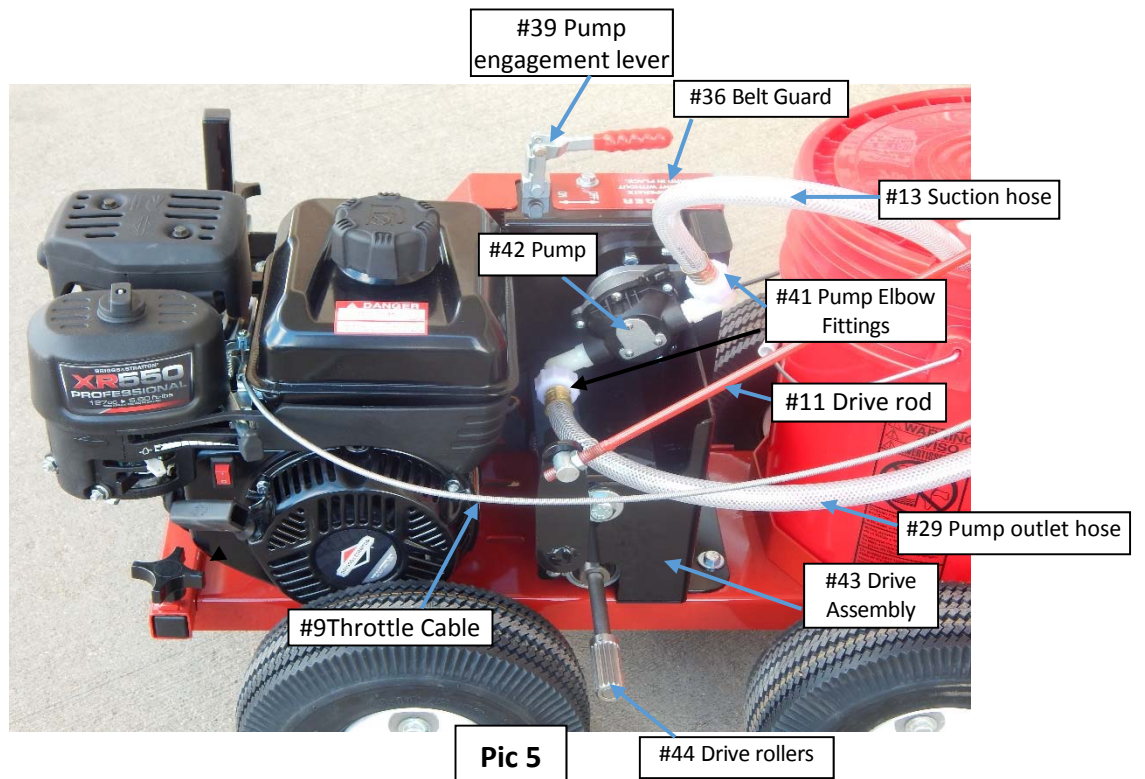
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Pic 4



Pic 5

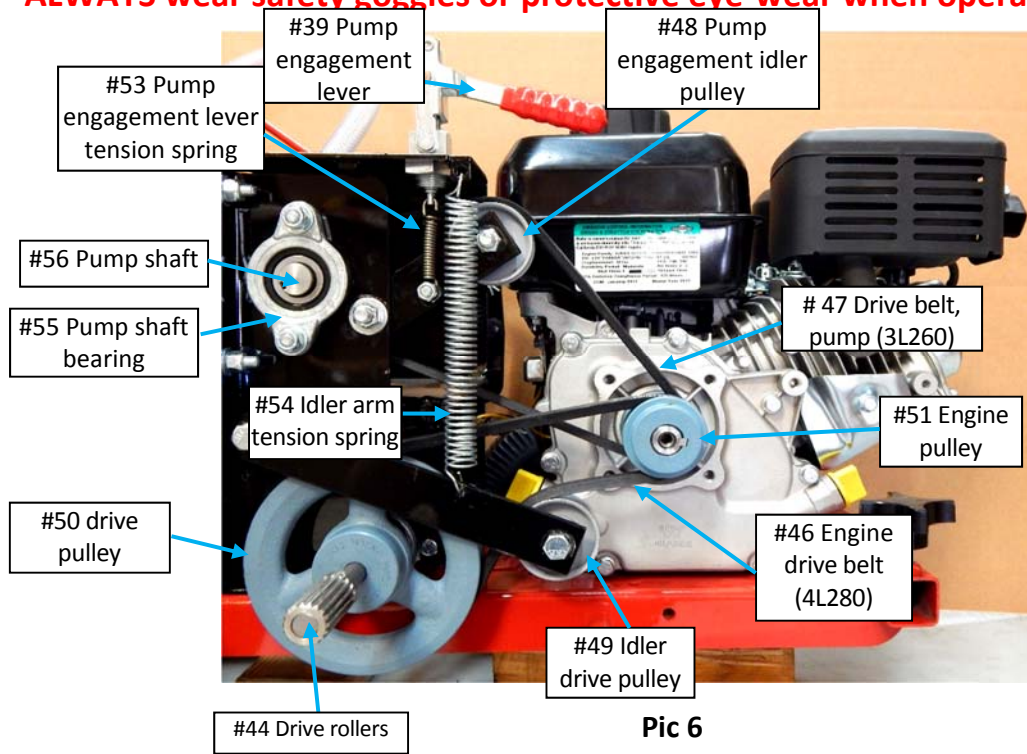


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Pic 6

MAINTENANCE

ITEM	CHECK	MAINTENANCE ACTION
Engine oil level	Prior to every use	Change engine oil after first 20 hours of operation and then every 100 hours thereafter.
Paint Pail/Tank	After every use	Clean paint pail/tank hoses and nozzle
Hoses and pump	After every use	Run soapy water through pump and hoses for additional cleaning
Wheels	Check air level before each use	Fill with air as needed. Grease weekly.
Handles	Monthly	Check handles for tightness to frame.
Engine air filter	Monthly	Clean monthly. Replace every 4 months

****For additional instructions please contact Newstripe, Inc. at 800-624-6706**



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TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	REMEDY
Pump will not prime	Air in pump system	Open prime pump valve and check flow from hose into pail. When flow is continuous. Close valve.
Pump will not prime after relieving air in system	Pump is probably clogged with paint	Disconnect supply and discharge hoses. Clean out hoses. Pour hot water into opening of pump and let soak. Reconnect hoses and start pump again.
Pump won't prime due to clog in the system	Spray system not properly cleared after previous use.	If hot water alone does not remove the clog, pour liquid dish soap or "Simple Green" product into the pump inlet. Jog the pump by pulling the starter cord several times with engine off to get the soap in to the pump and let it soak 15-30 minutes, then try pumping water. The pump does not need to be rinsed of all the soap as the soap will mix easily with the paint. If still not working call factory. Disassembly of pump will VOID the warranty.
Pump will not run	Loose or broken drive belt	Inspect, adjust or replace. Belt should deflect approximately ½" between pulleys.
Paint leaving nozzle in stream, not spraying	Paint too thick	Thin the paint
Pressure too low		See step C in operational notes (Page 3)
Spray Inconsistent	Obstruction in gun Nozzle	Remove gun Nozzle. Clean or replace.
	Obstruction on suction hose screen or clogged	Remove pick up tube and filter screen. Filter paint before putting in pail. Clean screen and suction hose.
Spray pattern too narrow or uneven	Wrong nozzle or spray head height is incorrect	Adjust spray head height up or down. Nozzle slot must be crosswise to the gun body.
	Paint is too thick	Thin Paint
Paint drips after being shut off	Control cable out of adjustment	Check cable at spray gun mount. Adjust or replace
	Clogged or worn spray control valve	Disassemble and clean, or replace
	Gun not mounted in holder correctly	Adjust gun position so lifting bar allows spray trigger to release
	Faulty control lever	Replace
Drive unit will not move machine	Drive rollers turning, but no movement	Clutch rod out of adjustment. Adjust by removing hair pin, turning adjustment nut clockwise & reinstall in drive unit are. MAKE sure both tires are inflated equally.
Drive rollers not turning		Worn belt or broken idler spring. Replace belt or spring as needed



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THE NEWSTRIPE WARRANTY – 18 MONTH

NEWSTRIPE, INC., WARRANTS TO THE ORIGINAL PURCHASER, FOR 18 (EIGHTEEN) MONTHS AFTER DATE OF PURCHASE, THAT THE EQUIPMENT* HEREBY SOLD SHALL BE FREE OF DEFECTS IN MATERIALS AND WORKMANSHIP. THIS WARRANTY DOES NOT EXTEND TO ANY DAMAGE OR MALFUNCTION RESULTING FROM MISUSE, NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, OR NORMAL WEAR AND TEAR.

Damage incurred in shipment from Newstripe, Inc. to the customer is the total responsibility of the carrier. The CUSTOMER MUST NOTE DAMAGES on the Bill of Lading of Trucking Company or Railroad; and Newstripe, Inc. will furnish to the customer the cost of parts and labor. The customer can then bill the common carrier for the damages by placing his signature on the documents.

The Newstripe, Inc. obligation under this warranty and any implied warranties is limited to replacement or repair of defective parts of its manufacture without charge for 18 (Eighteen) months from date of purchase. For service under this warranty, buyer shall ship the defective part or parts of the equipment, transportation prepaid, to Newstripe, Inc. together with a written description of any claimed defect and proof of purchase date of the materials being returned. **Prior to retuning any part or machine, the CUSTOMER must obtain a Return Materials Authorization number. Call 1-800-624-6706.**

***Gasoline engines, compressors, pumps (including airless) and Transaxles are furnished with their respective manufacturer's warranties only. Such components are not covered by any warranty of Newstripe, Inc. Where Newstripe elects to extend manufacturers' warranties, the warranty shall be prorated as to cover 100% of the cost to replace or repair materials and parts for the first 12 months of ownership and 60% for the remaining 6 month period.**

The responsibilities described above are the only responsibilities of Newstripe, Inc. under this written warranty or any implied warranty, and may be exercised only within 18 (Eighteen) months from the date of purchase. In no event shall Newstripe, Inc. be liable for incidental or consequential damages and no person had any authority to bind it to any representation or warranty, not be responsible for work done, materials furnished or repairs made by others without its' specific written authorization.

THIS WARRANTY SHALL BE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND THERE IS NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND WITH RESPECT TO THE GOODS SOLD HEREBY EXCEPT AS SET FORTH HEREIN. IT IS EXPRESSLY AGREED THAT THIS WARRANTY SHALL BE LIMITED TO THE ADJUSTMENT, REPAIR OR REPLACEMENT OF PARTS AND THE LABOR AND SERVICES REQUIRED THEREBY. IN NO EVENT, INCLUDING ANY CLAIM FOR NEGLIGENCE, SHALL NEWSTRIPE, INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Sincerely,
Newstripe, Inc.



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