



**Product Manual**

# **EcoLiner™ LT**

## **Field Striping Machine**

**10005159**



**Proudly Made in the USA**  
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# EcoLiner™ LT Field Striping Machine

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**Thank you for purchasing the Newstripe EcoLiner™ LT Field Striping Machine.**

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 with serial number 1022989 and above only. For units with serial numbers below 1022989, please contact Newstripe for the correct product manual.



# EcoLiner™ LT Field Striping Machine



## PRECAUTIONARY WARNINGS

- **PLEASE** read and understand all operation instructions as detailed in this manual. Failure to follow specified instructions may result in equipment damage or severe injury to personnel.
- **DO NOT** use latex paints from hardware stores or home improvement centers in your machine. These types of paints have binders in them that will adhere to the internal parts of the pump, causing damage. You will not be able to clean these substances from the pump. You must use good quality true water based athletic field striping paint in your machine.
- **DO NOT** use solvent based paints in this machine. Use only good quality true water based athletic field striping paint.  
**NOTE:** Damage caused by use of the wrong paint is NOT COVERED UNDER WARRANTY!
- **ALWAYS** thin the paint in accordance with the manufacturer's recommendations prior to use. Most field-marking paints must be thinned before use with the EcoLiner. These paints are typically thinned at a minimum ratio of 1:1.
- **DO NOT** use paint that has not been thinned, as it will clog your machine.
- **ALWAYS** strain the paint before use. Field marking paint often has oversized material, lumps, and debris. If not properly strained, these contaminants will be drawn into the hoses, pump, and spray nozzle or spray gun where they may restrict paint flow.
- **NEVER** perform maintenance on the machine while the system is under pressure.
- **DO NOT** use solvents to clean the system. Solvents will damage internal components. Use only warm soapy water.
- **ALWAYS** consult your Facility Safety and/or Personnel Department for specified safety protocols prior to operating this equipment.

# EcoLiner™ LT Field Striping Machine

## Your EcoLiner LT Box Should Include:

- Chassis assembly with 5 gallon paint pail and lid
- Handle assembly with cable attached spray gun assembly
- Support arm for spray gun

## Inside Your Pail:

- Left & right side spray shield assemblies
- Product Manual with assembly parts bag
- Nozzles 5002 for 2-3" lines, and 9005 for 5-6" lines
- Pail paint strainer

## ASSEMBLY

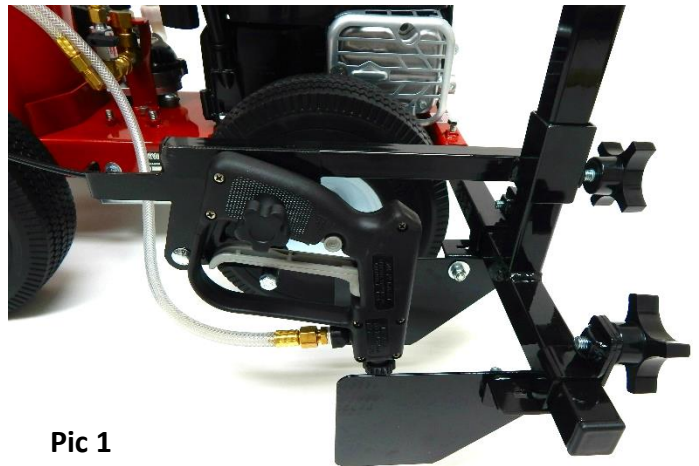
1. Unpack the EcoLiner LT chassis assembly, handles, pail, and parts bags.
2. Set the chassis assembly on a flat surface. Lay the handle assembly behind the unit (pail holder end) with the grips pointing down and the bottom of the handles toward the unit.
3. Mount the bottom end of the handle assembly on the chassis (handles outside of the chassis) with two 5/16" x 1-1/2" hex head bolts from the outside. Secure the handles to the chassis on the inside with flat washers, and lock nuts.

**NOTE:** There are no flat washers on the outside of the handles. Do not tighten completely at this time.

4. Swing the handles up into position. Align the holes in the handle support braces (braces on the outside of handles) with the upper holes in handle and insert 5/16" x 1-1/2" long carriage bolts in holes from the outside. Secure the braces to the handles with locking nuts on the inside and then tighten the nuts on all four of the handle-mounting bolts, using two 1/2" wrenches.
5. Install the left and right spray shield assemblies on the support arm with the shields toward each other. Center them to the upright with 4" between the spray shields. Secure each spray shield assembly by tightening the star knob.
6. Slide the support arm with side plates into the right side of the receiver tube on the front of chassis, until the end is flush with the left side. Secure the support arm by tightening the two hex head bolts in the receiver tube.

7. Slide the spray gun assembly onto the support arm upright, and the spray nozzle at approximately 2" from the surface to be painted. Secure the spray gun assembly by tightening the star knob. (Pic 1)

**NOTE:** The line width is adjusted by raising or lowering the spray gun and selecting the appropriate spray nozzle.



**Pic 1**

8. Coil the excess paint hose from on the right side of the handles and then route it down and across the pressure valve plumbing, to connect to the spray gun, while ensuring that the hose will not drag against the rear tire of the machine. Tighten the hose lightly with a 5/8" wrench while holding the fitting in the spray gun with a 9/16" wrench or use two adjustable wrenches. (Pic 1)
9. Fill the engine with 15 ounces of SAE 5W-30 Full Synthetic Motor Oil. Full oil level is between the cross hatched markings on the dipstick with it pushed against the fill port (not screwed in).

**NOTE:** Do not over fill the engine oil.

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## OPERATION

1. Adjust the spray shields to a 4" width. Raise or lower the spray gun to 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 up or down as needed to produce the desired line width.
2. Fill the fuel tank on the engine with fresh gasoline.
3. Unsnap the pail lid and pour water or properly thinned and strained paint into the pail.
4. Move the throttle lever on the engine to the full or fast position, and then pull the starter cord until the engine starts.
5. Adjust the throttle to about the  $\frac{3}{4}$  position where the engine is running smoothly.
6. Turn the pump prime valve on the outside of the pressure valve, to the open position.
7. Lift the pail lid slightly and watch the water or paint flow from the return hose. Once there is a continuous flow from the hose, close the pump prime valve. The unit will now spray when the lever on the handle is squeezed.
8. To use the spray gun by hand, remove the spray gun from the gun mount and remove the coil of hose from the handle bars. Once you are finished, coil the hose and hang it back on the handle bars. Route the hose back down and across the pressure valve plumbing and then replace the gun in the gun mount.

**NOTE:** The gun actuator bar of the gun mount must be under the gun trigger for proper operation.



### **OPERATIONAL NOTES**

- **BEFORE** using paint, fill the paint pail with water and spray lines to familiarize yourself with the machine.
- **SELECT** the correct nozzle for the line width required.
- **ADJUST** the side spray shields for the line width desired, and then adjust spray gun height up or down as needed to achieve the line width.  
**NOTE:** Water will produce a wider line than paint.
- **ALWAYS** thin the paint in accordance with the manufacturer's recommendations prior to use. Most field-marking paints must be thinned before use with the EcoLiner. These paints are typically thinned at a minimum ratio of 1:1.
- **ALWAYS** strain the paint before use. Field marking paint often has oversized material, lumps, and debris. If not properly strained, these contaminants will be drawn into the hoses, pump, and spray nozzle or spray gun where they may restrict paint flow.
- **ALWAYS** prime the pump before each use and when you run the pail dry. If you need to reduce the spray pressure, unscrew the pressure valve cap until it is where you would like it, and then run the locking ring up against the cap to maintain the pressure setting.

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## CLEANING PROCEDURE

1. When your striping job is complete, pull the paint return hose & prime valve hose out of the lid and point them toward the ground behind the machine or into a separate pail.
2. Remove the paint pail lid, wipe it off, and set it aside. Pull out the suction hose and wipe or rinse it off, and then place it in a clean container of water.
3. Remove the nozzle cap, nozzle, and valve seat from the gun and put them in a container of soapy water to soak.
4. Remove the pail of unused paint from the machine and cover it for use the next time you stripe.
5. Place an empty pail on the machine and add two gallons of clean soapy water. Place the suction hose in the pail on the machine but leave the return and pump prime hoses out of the pail. This allows you to flush all of the hoses of paint.
6. Clean the spray gun parts that have been soaking and then reassemble them onto the spray gun.  
**NOTE:** The cone shaped depression in the gun seat goes toward the spray nozzle.
7. Start the engine and then use the pump prime valve to prime the pump. Activate the spray gun until the spray runs clear with water.  
**CAUTION:** The return hoses will “jump” from the fluid pressure when cycling the prime valve.
8. Clean and rinse the exterior of the machine.  
**Pressure washing is not recommended.** Use warm soapy water once a week.
9. Use soapy water at least once a week to thoroughly clean the pump. Add soap (dish washing detergent) to 2-3 gallons of water, and then run the machine and let it circulate back to the pail as long as desired. Once you have completed this, empty the pail.

## CLEANING PROCEDURE FOR WINTER (FREEZING) STORAGE

1. Clean as instructed in the normal cleaning procedure.
2. Remove as much gas from the engine fuel tank as you can. Run the engine until it runs out of gas.
3. Disconnect the paint hoses from the pump and gun and then drain the hoses.
4. Pour some Part Number 10000459, Newstripe Pump Defender (Not Included) into the end of the suction hose. Pull the start cord on the engine to draw the Pump Defender into the pump. The unit may now be stored in freezing temperatures.
5. Check the engine oil in the spring before adding fuel to the tank for the first use.

## MAINTENANCE

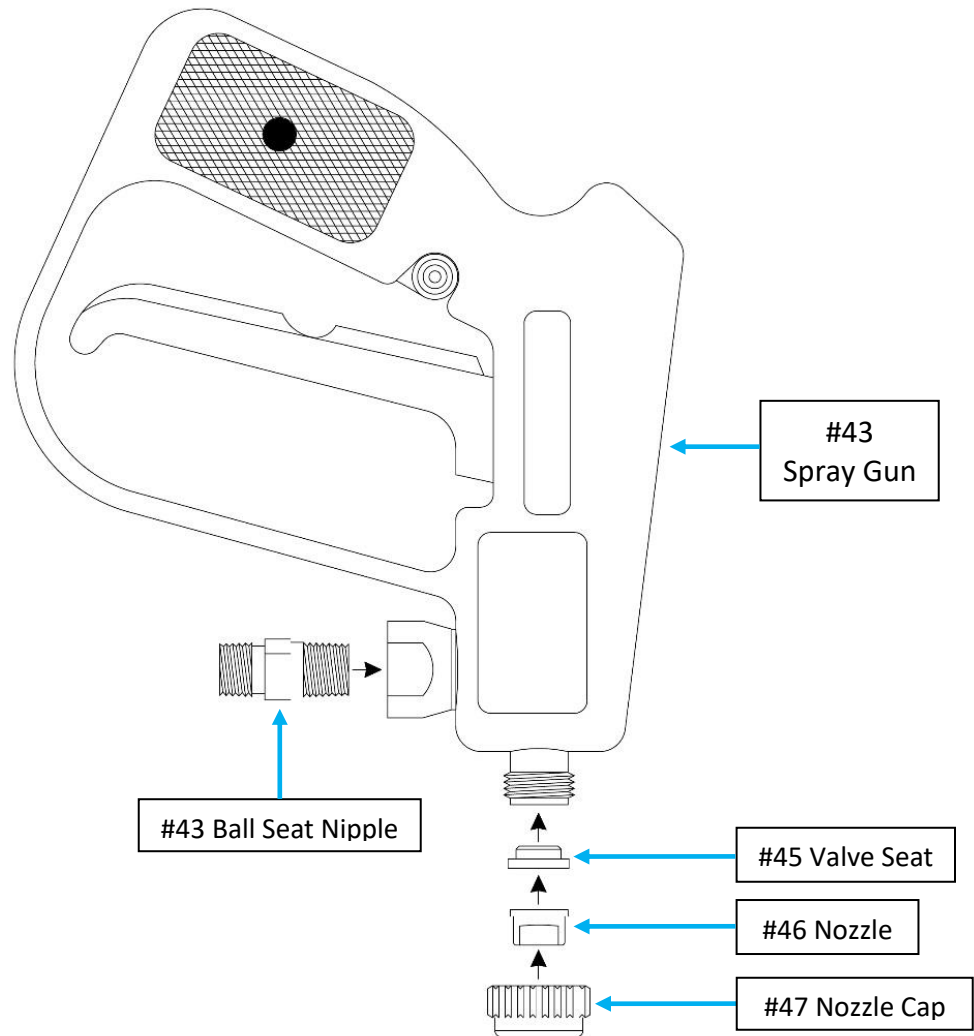
ITEM	CHECK	MAINTENANCE ACTION
Engine Oil Full Synthetic SAE 5W-30	Prior to every use	No oil changes needed per Briggs & Stratton.
Paint System	After every use	Clean the paint pail, hoses, and gun.
Hoses and Pump	After every use	Run soapy water through the pump and hoses for additional cleaning.
Wheels and Tires	Check the air pressure before each use	Fill the tires with air as needed. Grease the wheels monthly.
Handles	Monthly	Check the handle bolts for tightness to the chassis and handle braces.
Engine Air Filter	Monthly	Replace every 4 months

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## SPRAY GUN ASSEMBLY (10000809)

Item	Description	Part Number
#43	Low Pressure Spray Gun	10004481
#44	¼" Ball Seat Nipple	10000731
#45	Valve Seat	10000136
#46	8004 Nozzle Included	N/A
#47	Nozzle Cap (4-Pack)	10001890

Nozzle (4-Pack)	Application Description	Part Number
5002	2" - 3" Lines	10001891
8002	4" - 5" Lines (Short Turf)	10001892
8004	4" - 5" Lines	10001893
8005	4" - 5" Lines (Heavy Turf)	10003493
9505	5" - 6" Lines	10001894



Your machine is designed to be simple and safe to operate.

Please call Newstripe at 303-364-7786 if you have any questions during setup, painting or cleaning.

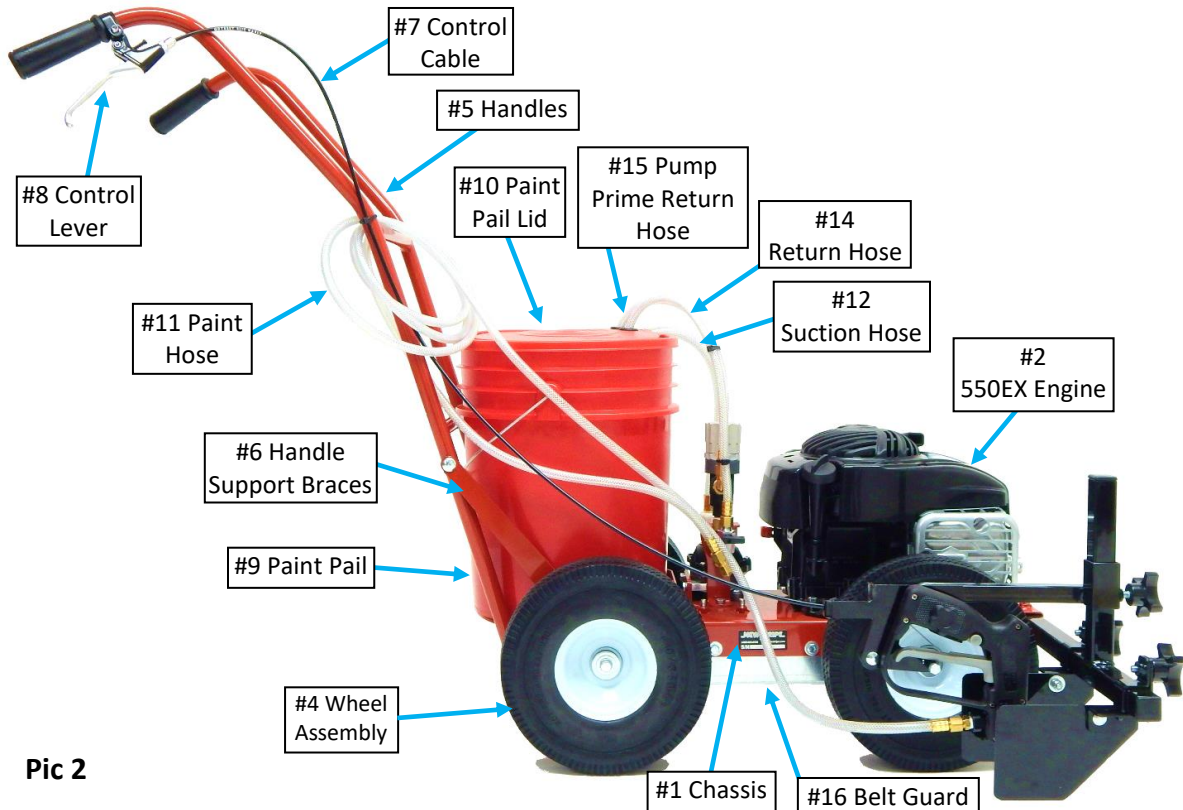


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## PARTS LIST

Item	Description	Part Number
#1	Chassis	10005154
#2	Engine, Briggs & Stratton 550EX	10004608
#3	Engine Air Filter (Not Shown)	10004969
#4	Wheel & Tire Assembly	10004705
#5	Handles	10003949
#6	Handle Support Braces (2 Total)	10004578
#7	Control Cable	10002516
#8	Control Lever	10002951
#9	Paint Pail	10001944
#10	Lid, Paint Pail	10002827
#11	Hose, Paint	10000695
#12	Hose, Suction	10004470
#13	Suction Hose Filter (Not Shown)	10002842
#14	Hose, Return	10003692
#15	Hose, Pump Prime Return	10003692
#16	Belt Guard	10005158
#17	Spray Gun Assembly	10000809
#18	Spray Gun Support Arm	10003550
#19	Pivot Assembly w/ Shield, Left	10004824
#20	Pivot Assembly w/ Shield, Right	10004825
#21	Spray Shield Only (No Pivot Assy.)	10003562

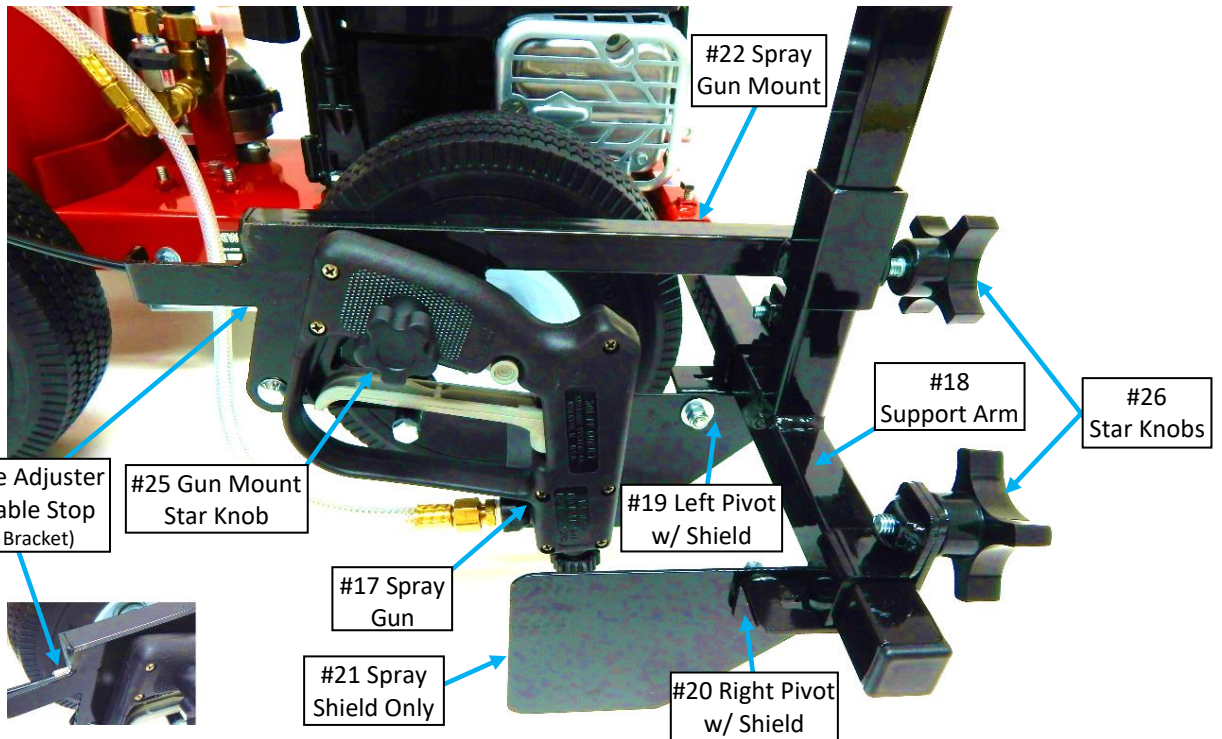
Item	Description	Part Number
#22	Spray Gun Mount	10000808
#23	Cable Adjuster	10000018
#24	Cable Stop	10001577
#25	Gun Mount Star Knob	10004480
#26	Star Knob (3)	10000007
#27	Pressure Valve Adjusting Cap	N/A
#28	Pressure Valve Locking Ring	N/A
#29	Pressure Valve Limiter Collar	N/A
#30	Pressure Valve Assembly	10003478
#31	1/4" Brass Branch Tee	10002490
#32	1/2" FPT - 3/8" MPT Adapter	10000778
#33	3/8" Brass Street Tee	10000777
#34	Pump Prime Valve	10000233
#35	1/4" Male Brass Elbow	10000159
#36	Pressure Valve Support	10005157
#37	3/8" - 1/4" Brass Reducer	10000896
#38	Pump Inlet Fitting	10004459
#39	Pump Assembly	10003367
#40	Drive Belt, 3L320 (Not Shown)	10000775
#41	Pump Shaft (Not Shown)	10003365
#42	Pump Shaft Bearing (2 Not Shown)	10003131



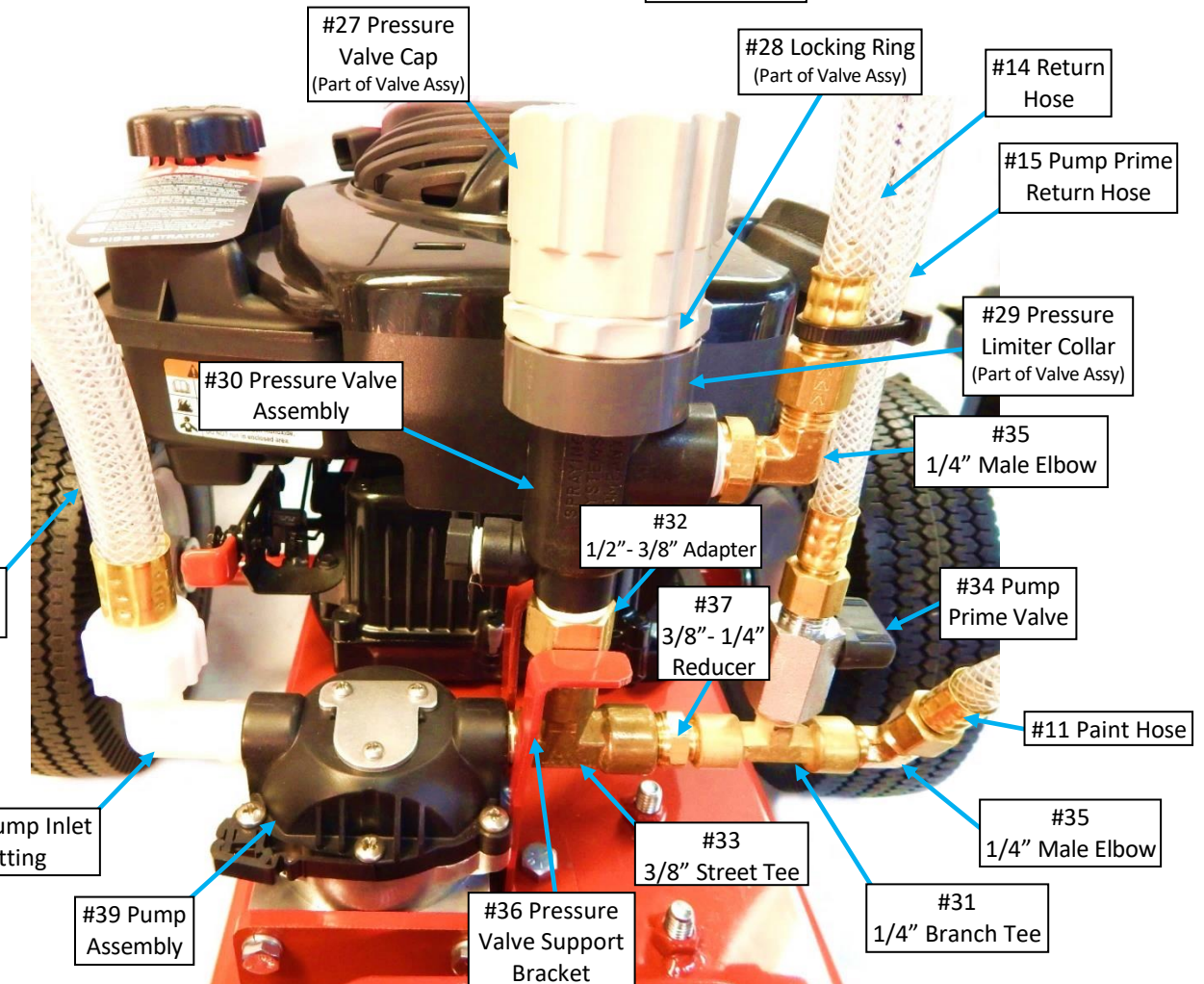
Pic 2



# EcoLiner™ LT Field Striping Machine



**Pic 3**



**Pic 4**

# EcoLiner™ LT Field Striping Machine

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	REMEDY
The pump will not prime	Air in the spray system	Open the pump prime valve and check the flow from the return hose into the pail. When the flow is continuous, close the valve.
The pump will not prime after relieving the air in the system	The pump may be clogged with paint.	Disconnect the supply and discharge hoses. Clean out the hoses. Pour hot soapy water into the opening of the pump and let it soak. Reconnect the hoses and start the pump again.
The pump still will not prime	The spray system was not thoroughly cleaned after the previous use.	Pour more hot soapy water into the pump inlet. Jog the pump by pulling the starter cord several times with the engine off to get the solution into the pump. Let the pump soak 15-30 minutes, and then try pumping water. If the pump starts pumping water, let it circulate the water for 5-10 minutes before adding paint. The pump does not need to be rinsed of all of the soap as the soap will mix easily with the paint. If it is still not working call the factory. <b>Disassembly of the pump will void the warranty.</b>
The pump will not run	Loose or broken drive belt	Inspect and adjust or replace the belt. The belt should deflect approximately ½" between pulleys.
The paint is leaving the nozzle in a stream, and not a spray pattern.	The paint too thick.	Thin the paint
The pressure is too low.	The engine speed is too slow. The pressure valve is incorrectly adjusted.	Move the throttle lever on the engine to increase the engine speed. Turn the pressure valve cap clockwise to increase pressure.
The spray stream is inconsistent.	The nozzle screen is obstructed. The suction hose screen is clogged or obstructed.	Remove the nozzle screen and clean or replace it. Remove suction hose and screen. Filter the paint, clean the screen, and remove any clogs.
The spray pattern is too narrow or is uneven.	The spray gun height is incorrect. The nozzle may be the wrong size, or misaligned. The paint viscosity may be too thick.	Adjust the spray gun height up or down to achieve the desired line width. See the Nozzle Assembly Guide. The nozzle slot must be at 90 degrees to the direction of travel. Thin the paint in accordance with the manufacturer's recommendations.
Paint drips after being shut off	The control cable is out of adjustment. The valve seat in the spray gun is dirty or worn. The control lever is stuck or worn.	Check the cable at the gun. Adjust the cable at the gun or lever. Replace the cable if necessary. Disassemble the gun and clean or replace the valve seat. Lubricate the control lever or replace it if necessary.

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10005159

## 24 Month Warranty

Newstripe, Inc. ("Newstripe") warrants to the original purchaser, for 24 (Twenty Four) 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 in misuse, neglect, accident, improper operation, or normal wear and tear.

\* Gasoline engines, compressors, low pressure pumps, and transaxles are furnished with their respective manufacturers' warranties only and are not covered by any warranty of Newstripe. High pressure pumps manufactured by Newstripe (excluding wear items like diaphragms and valves) are warranted for materials and workmanship for 12 Months after the date of purchase.

Damage incurred in shipment from Newstripe to the purchaser is the total responsibility of the shipping carrier. The purchaser is responsible for noting any damages on the Bill of Lading of the shipping carrier and Newstripe will work with the shipping carrier to resolve any damages incurred.

The Newstripe obligation under this warranty and any implied warranties is limited to replacement or repair of defective parts of its manufacture without charge for 24 (Twenty Four) Months from date of purchase. For service under this warranty, the purchaser shall obtain an approved Return Materials Authorization (RMA) from Newstripe and then ship the defective part or parts of the equipment, transportation prepaid by the purchaser, to Newstripe together with a written description of any claimed defect and proof of purchase date of the materials being returned. To review Newstripe's complete guidelines for warranty claims and returns, please visit our website at [www.newstripe.com](http://www.newstripe.com).

The responsibilities described above are the only responsibilities of Newstripe under this written warranty or any implied warranty and may be exercised only within 24 (Twenty Four) Months from the date of original purchase. In no event shall Newstripe be liable for incidental or consequential damages and no person had any authority to bind it to any representation or warranty. Newstripe is not 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 of negligence, shall Newstripe be liable for incidental or consequential damages.



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