



# NewRider 5000 HPA Airless Ride-on Sprayer Table of Contents

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**Thank you!** For your purchase of the Newrider 5000 HPA Ride-on Airless 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 1009154 and above only. For units with serial numbers below 1009154, please contact Pioneer Athletics for the correct manual.



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







#### PRECAUTIONARY WARNING!

- Please read and understand <u>all</u> 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!
- Moving equipment can cause severe injury. Make sure area is clear of all personnel or obstacles before operation.
- **ALWAYS** stay seated while vehicle is in motion.
- ALWAYS keep hands and feet inside the perimeter of the vehicle.
- NEVER operate any moving vehicle under the influence of drugs or alcohol.
- Skin Injection Hazard: High Pressure spray can inject toxins into blood stream. If injection occurs, seek emergency medical treatment.
- **ALWAYS** release pressure in the system before changing or cleaning the spray tip.
- **ALWAYS** use the nozzle tip guard.
- **ALWAYS** engage the **Trigger Lock on the spray gun** before removing the spray gun for hand operation.
- **NEVER** place your hands or any body parts in front of the spray gun.
- NEVER point the spray gun at or spray other persons or animals.
- NEVER clean the spray tip while it is attached to the spray gun.
   Remove the spray tip from the gun to clean the tip guard.
- NEVER remove spray tip while cleaning the pump.
- NEVER use pliers to tighten or loosen high pressure fittings on outlet side of pump.
- Use only in well-ventilated area.
- Always consult your Facility Safety and/or Personnel Department for specified safety protocols prior to operating this equipment.



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

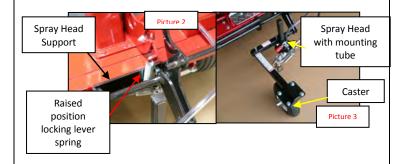
- Check for any damage that may have occurred during shipment. Advise factory immediately if you see any damage. Remove the unit from the crate by removing the top boards, then the boards at the ends of the crate. Remove the tie down straps and then remove any shipping cartons.
- Tilt the seat forward to access the transaxle release lever. (You may have to move the steering column forward to tilt the seat forward). Pull the lever towards the rear of the machine and over in the slot (Picture 1).



- Release parking brake if applied. You should be able to roll the machine out of the crate by pushing on the rear bumper. DO NOT STAND IN FRONT OF THE MACHINE WHILE ROLLING OUT OF CRATE.
- 4. The NewRider 5000 is shipped without the front bumper/spray head support attached. Align the two holes in the bumper bracket with the two holes in the frame. (The lifting lever/pedal should be on the top side of the bumper and on the right hand side as you face the machine).
- 5. Insert the two ½" x 3-1/3" long bolts in the holes from the front. Place one flat washer, one lock washer and one hex nut on each bolt and tighten.
- 6. Cut the tie that secures the lift lever lock spring to the machine. Hook the bottom of the spring in the loop on bottom of the bumper bracket.
- 7. Connect battery. Tilt seat forward and connect the ground cable to the negative side of the battery (Picture 1).
- 8. Unpack spray head caster, spray gun mounting bracket, spray gun and paint hose.
- 9. Press on foot release for the spray head (lever on the left side of the steering column) to lower the spray head support tube.
- 10. Mount the spray head caster assembly by sliding the caster arm onto the spray head support tube and tighten bolts.

- 11. The caster wheel may be adjusted to the left or right so that the rear wheels will clear the striped line when turning (Picture 2).
- 12. Slide the spray gun mounting bracket over the upright on spray head support tube and tighten bolt. Adjusting the spray gun mounting bracket up or down will adjust the spray width (Picture 3).
- 13. Place the spray gun in the holder without the hose attached and secure with the clamp (Picture 4).
- 14. The spray gun may have to be moved forward or backward in the clamp so that there is approximately 1/8" of space between the trigger and the lifting bar. This should also leave enough room to turn the trigger lock sideways.
- 15. If the trigger lock will not turn release the gun clamp and slide gun forward or backward until you can turn the trigger lock. Re-clamp gun.

  NOTE: To release trigger lock push down on lock then turn to spray position. The wings on the trigger will align with the gun body.
- 16. Attach one end of the spray hose to the pump outlet with a 3/4" wrench and the other end to the spray gun. To secure the hose on the spray gun you will need a 3/4" and a 9/16" wrench as it has a swivel fitting.
- 17. Loop the additional hose over the hanger on the left side of the spray tank. Make sure hose does not contact the tire. Route the hose through the snap link and around post at corner of left fender.
- 18. Always check the oil level in the engine before starting (SAE 10W30).
- 19. Make sure the static chain is contacting the ground (on bottom side of transaxle).





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#### DRIVING OPERATIONS

- Before starting, set the brake with the hand lever nearest the seat.
- Go to rear of machine and turn the #7 fuel lever on engine to OPEN position (pointing downwards).
   WARNING: Any time engine is off for extended periods, shut off the fuel lever on the engine. If the fuel lever is left on, gas can drain into engine oil sump. If you check the oil and oil pours out of the sump, STOP!! And call Factory. There are several steps to take before you can start the engine without damage.
- 3. Pull up on choke lever.
- 4. Place throttle lever in FAST position.
- Start engine, when warm or stumbling, move choke lever to OFF position.
- Set throttle at to approximately ¾ open (where engine runs smoothly) Engine does not need to run at full speed to operate the spray pump.

- 7. Release the parking brake and press on the top of the right hand foot pedal to move forward.
- 8. Pushing the base of the pedal will move the machine in reverse.
- 9. To stop, release foot pedal.
  - **NOTE**: If machine does not move set parking brake, exit machine and lift seat. Make sure the transaxle release lever is in forward position. Enter the machine and release the parking brake. It should now move.
- 10. To travel long distances when not spraying, or to load the machine onto a trailer, lift the spray head using the foot lever on the left hand side of the steering column. The spray head will lock in position when fully lifted. This also locks the spray gun so that it may not be activated when the spray head is lifted.
- 11. When loading on a trailer approach the ramp slowly to assure the gun will clear the ramp. You may have to raise the gun or possibly remove it if the ramp is to steep.

#### SPRAY OPERATIONS

First time use or after extended periods of not using the machine use water to test operations and settings. The NewRider 5000 is designed to be used with water based athletic field marking paints.

- 1. Add 10 gallons of water to spray tank and 1-2 gallons of water to the purge tank.
- 2. Push outlet prime button 3 times (Brass button located to the left of the inlet hose fitting at the bottom of the pump block).
- Turn the pressure control knob (brass knob). clockwise until it stops (do not over turn).
- Turn the Spray control knob (black knob) to the Prime/Re-circulating position (Circular arrow symbol in-line with Arrow on side of pump housing).
- Make sure trigger lock on spray gun is released (The trigger lock button is pushed down slightly and then turned so wings are in line with gun).
- 6. Check that spray tip arrow on spray gun points toward the ground.
- 7. Check that the valve below the purge tank is open (valve handle in line with hose).
- 8. Check that the Paint tank feed selector valve (located on bottom left side of tank by white filter) is in the tank feed position (valve handle in line with hose).
- 9. Check that purge tank selector valve is closed (valve handle crosswise to hose).
- 10. Start engine as indicated in steps above driving operations.

- 11. Engage pump by moving engaging lever to ON position (Lift and place in upper notch).
- 12. With spray control knob in prime position, fluid should flow through the re-circulating hose back to paint tank.
- 13. Let sprayer run for one minute or until air bubbles have disappeared from the re-circulating hose.
- 14. Turn Spray Control knob to spray position (Spray gun symbol in line with arrow on side of pump housing). NOTE: When the pump reaches pressure, there will be a knocking noise. This is normal.
- 15. Activate foot pedal trigger and paint will spray from the gun. Releasing pedal will stop spray.
- 16. Adjust pressure by turning pressure control knob counter clockwise until spray pattern decreases, then increase pressure by turning clockwise just to where you get a good even spray pattern.
- 17. Adjust spray gun height for proper line width.
- 18. When finished spraying or if machine will be left unattended for any amount of time, turn Spray Control Knob to Prime/re-circulating position, and pull spray trigger to release pressure from the system.



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- NOTE: If the pump primes and air bubbles continue to appear in the hose after one minute, the suction hose fitting may not be tight enough or the rubber washer may be worn. Turn off machine, turn spray valve to prime position and depress spray trigger to open gun and release pressure.
- Remove garden hose fitting at the inlet side of the pump, depress inlet
  valve stem to make sure it is free, inspect washer to make sure it is seated
  and in good condition. Re-attach garden hose fitting making sure that it is
  tight. You may have to snug it with pliers if you continue to get air bubbles.
  Start engine and repeat first steps for operation.
- If the pump will still not prime, back out the pressure control knob until loose (several turns). Then turn the spray control knob to the prime/recirculate position. Push Outlet Prime Button three (3) times (Button is located at the lower left corner of pump near the bottom). Let the pump run for one minute and then turn in the pressure control knob (clockwise) just until it stops. Pump should now prime. If pump will still not prime, PLEASE CALL THE FACTORY.



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#### SPRAY TIP CLEANING DURING USE

- 1. Place the Spray Control Knob in the recirculating position and press spray trigger pedal to release the pressure.
- 2. Turn spray tip arrow on spray gun so that the arrow points toward the gun.
- 3. Turn spray control knob to spray position and trigger gun. This should clear the gun. Turn spray control knob to prime position, press spray trigger pedal to release pressure.
- 4. Reverse the tip so the spray tip arrow on the spray gun points towards the ground.
- 5. Turn the spray control knob to spray and resume spraying.
- If the spray tip appears to be clean and the gun will still not spray, replace the gun filter located in the handle. **DO NOT** attempt to clean clogged gun filter you must replace it.
- 7. If the spray gun is still clogged, proceed to cleaning procedures below.

#### **CLEANING PROCEDURE**

- 1. The NewRider 5000 is equipped with an onboard purge tank that holds up to 2.5 gallons of water. Make sure this has 1-2 gallons of water.
- 2. Check that the ball valve on the bottom of the purge tank is in open position (valve handle in line with hose).
- 3. Turn tank feed selector valve (located below tank on left side) to the closed position (handle crosswise to hose).
- 4. Turn Purge feed valve to open position (handle in line with fittings).
- 5. Turn spray control knob to prime/re-circulating position.
- Start engine and move the pump engaging lever to the ON position (lift and place in upper notch) watch until fluid returning to tank runs clear.
- 7. Turn spray control knob to spray position and trigger gun until spray runs clear.
- Clean spray tip if needed with a nylon bristle brush. **DO NOT** use brushes with metal bristles or any metal object to clean the spray tip of dried paint. Replace the tip if it cannot be cleaned.
- If the spray tip appears to be clean and the gun will still not spray, replace the gun filter located in the handle. **DO NOT** attempt to clean clogged gun filter you must replace it.

- Drain paint tank of any unused paint. You may now rinse the inside of the paint tank.
   NOTE: you may want to place the machine on a
  - slight incline so the drain outlet of the tank is at the lowest point.
- 11. With most of the water drained from the purge tank, (leave about 1" depth) add approximately 4 ounces (1/2 cup) of \*pump protector into the purge tank.
- 12. Start engine, leave spray control knob in prime/re-circulating position and pump engaging lever in the ON position. Watch until you see the liquid protector appear from the return hose.
- 13. Move the pump engaging lever to OFF and turn off machine.
- 14. Check the in-line pump filter once each week. (White plastic filter at bottom of tank near tank selector valve). Turn the tank feed selector valve to OFF position.
- 15. Unscrew bottom half of filter. Clean filter bowl and screen and re-install.
  - **NOTE:** There is a gasket between the lower half of filter housing and the upper portion. Check that this is in-place when installing the bottom half of the filter. **Hand Tighten Only**.



# ALWAYS wear safety goggles or protective eye-wear when operating the unit! CLEANING FOR EXTENDED PERIODS OF NON-USE OR IN FREEZING CONDITIONS

- 1. Clean as indicated in CLEANING PROCEDURES, but drain purge tank then add 16 ounces (1/2 bottle) of pump protector to the purge tank.
- 2. Place the spray control knob in the spray position and activate the spray trigger just until you see the liquid protector spray from the gun.
- Place the spray control knob in the prime/recirculation position and operate pump until you see the liquid protector in the re-circulating hose. Turn off pump engaging lever.
- 4. Remove as much fuel from the engine gas tank as you can, or add fuel stabilizer to fuel.
- 5. Close fuel shut off and run engine until it runs out of gas.
- 6. Trigger spray pedal to remove any pressure in the system.
- 7. Unit may now be stored in freezing temperatures.
- 8. Drain and change engine oil in the spring.

#### PRECAUTIONARY WARNING!



- ALWAYS release pressure in the system before changing or cleaning the spray tip. (Place the Spray Control Knob in the re-circulating position, turn off sprayer and squeeze spray trigger to release pressure)
- **NEVER** use fuels to clean the equipment
- **DO NOT** use solvents containing halogenated hydrocarbons such as methyl bromine, carbon tetrachloride and ethyl iodine
- **DO NOT** attempt to clean a clogged gun filter. You must replace it.
- **DO NOT** use brushes with metal bristles or any metal object to clean the spray tip of dried paint. Replace the tip if it cannot be cleaned.



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#### **MAINTENANCE**

ITEM	СНЕСК	MAINTENANCE ACTION
Engine Oil	Before each use	Change oil after first 20 hours of
10W30		operation and then, every 100 hours.
Spray Pump	Before and after each use	Use pump protector every time you
		store the machine.
Pump inlet hose	Before each use	Replace if nicked or has cuts.
Spray hose	Before each use	Replace if nicked or has cuts.
Bypass (re-circ) hose	Before each use	Replace if nicked or has cuts.
Spark Plug & Air Filter	Every 4 Months	Clean or change as needed.
All pivot points	Before each use	Use light machine oil (like 3 in 1 oil).
Spray Tip	Before each use	Replace if spray pattern becomes
		uneven or if tip becomes worn.
Inline Filter	Clean weekly	Replace if filter becomes clogged.
		Every 50-250 gallons.
Rear axle king pin	Lubricate weekly	Use high quality bearing grease.
Spray Gun Clamp and Cable	Check Weekly	Spray with silicone spray.
Tires	Check weekly	Check air pressure. Axle bearings are
		sealed and do not require service.
Pump Engaging lever	Lubricate weekly	Lubricate with light machine oil (3 in1)
Spray Gun Filter	Check Monthly	Replace if filter becomes clogged.
		Every 50-250 gallons.
Battery	Check monthly	Sealed battery.
Air Filter	Check monthly	Change if blocked off with dirt.
Transaxle filter	Every 12 months	Change transaxle oil and filter the first
		75-100 hours then every 400 hours.
Transaxle oil	Check if performance is off or	Top off with SAE 20W50 motor oil. To
	transaxle is noisy	cold fill line on reservoir under seat.
Suction Filter	Before each use	Replace every 50-250 gallons or if
(10001760)		restricted.
Outlet Push button	Before each use	Replace every 1000-2000 gallons or if
halad (O. Halandar	If a second second second	leaking.
Inlet/Outlet valve	If pump does not prime. Check Inlet washer at same time.	Replace every 1500-2000 gallons. Washer- every 50-250 gallons
Prime/Spray valve	Before each use	Replace every 2000-3000 gallons or if
Fillie/Splay valve	Defore each use	stops working or leaking.
Suction tube	Before each use	Replace if nicked or has cuts.
General cleaning	As needed	DO NOT use high pressure power
		washers.
		DO NOT use solvents.
		Soap and water only.



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#### **PARTS LIST**

Item		Part
<u>Number</u>	<b>Description</b>	<u>Number</u>
1	Battery, YTx20	10003163
2	Transaxle oil reservoir	10003000
3	Transaxle release/engaging lever	10003727
4	Spring, seat	10001756
5	Empty seat safety switch	10002437
Not Shown	Neutral switch (under deck on shift linkage)	10002913
Not Shown	Brake safety switch (under seat console)	10002437
6	Seat retention pins, 2 required	10003214
7	Fuel shut off lever	N/A
8	Air Filter housing	N/A
9	Air filter	10004097
10	Purge tank shut off valve	10002366
11	Purge tank	10003198
12	Spray head	10003746
13	Swivel Caster	10001434
14	Front Bumper	10003276
15	Spray trigger operating cable	10000820
16	Paint hose, 25', 3000 psi with fittings	10000458
17	Spray gun, airless	10000457
18	Spray Gun Release clamp	10001579
19	Spray gun mounting bracket assembly	10003263
20	Lifting bar, spray gun trigger	N/A
21	Spray Trigger	N/A
22	Trigger lock	N/A
23	Spray Tip guard	10003936
24	Hand brake	10003726
25	Choke knob (part of choke cable)	N/A
26	Engine throttle (part of throttle cable)	N/A
27	Ignition Switch	N/A
28	Cable, choke	10001118
29	Cable, throttle	10002414
30	50 gallon polyethylene tank	10003303
31	Fuel Filler Cap	N/A
32	Column release/lock lever	10003729
33	Shifter pedal, forward/reverse	10003730
34	Spray trigger pedal	10003731
Not Shown	Spring, return for trigger pedal	10000692
35	Spray head lifting lever/spray head support	10003751
36	Spray head release/lock lever	10003725
37	Front wheels	10004033
38	4 bolt hub for front wheels	10004032
39	Rear wheels	10002991



# ALWAYS wear safety goggles or protective eye-wear when operating the unit! PARTS LIST CONTINUED

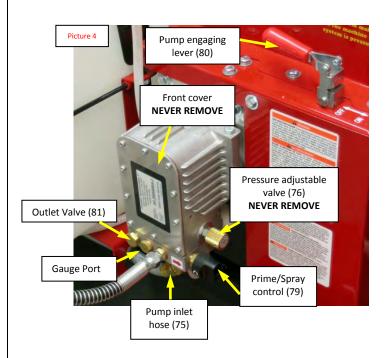
Item		Part
<u>Number</u>	<u>Description</u>	<u>Number</u>
40	Purge Tank feed selector valve	10004110
41	Purge Hose	10004119
42	In-Line filter	10000369
Not Shown	Filter screen for in-line filter	10000100
Not Shown	O'ring gasket for in-line filter	10001543
43	Bulk head fitting, tank drain	10002407
44	Paint Tank Feed Selector Valve	10004110
45	Tank outlet hose	10004118
46	Belt, main drive	10003021
47	Pulley, Tensioner, drive belt	10003197
48	Spring, Tensioner	10003029
49	Pulley, guide	10003046
50	Drag Link	10003716
51	Pulley, drive	10003053
52	Pillow block, 2 required	10002415
53	Tie Rod	10003756
54	Pulley, drive belt idler	10003164
55	Pulley and fan assembly, transaxle	10002999
56	Filter, transaxle oil	10003778
57	Spring, parking brake return	10003029
58	Parking Brake mechanism, transaxle	N/A
59	Pulley, pump drive engagement	10003815
60	Spring, primary drive belt tensioner	10003029
61	Spring, Pump Drive Idler	10002897
62	Pulley, primary drive belt tensioner	10003815
63	Pulley, engine	10003819
64	Gearbox	10002963
65	Pulley, gearbox drive	10003052
66	Belt, primary drive, A27	10003020
67	Pulley, pump drive	10003048
68	Belt, pump drive, 4L320	10003019
69	Valve, Ball, Tank Drain	10002366
70	Steering Wheel	10003241
71	Seat	10003302
72	Rear Bumper	10003277

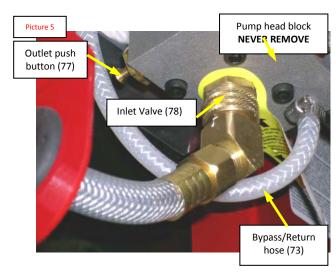


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#### **AIRLESS PUMP PARTS**

Item Pa		Part	Item			
Num	ber <u>Description</u>	<u>Number</u>	Numb	er <u>Description</u>	<b>Number</b>	
73	Return/bypass hose	10003235	77	Outlet Push button	10000806	
74	Spray pump	10000407	78	Inlet/Outlet valve kit	10000694	
75	Pump Inlet hose	10004117	79	Prime spray valve	10004000	
76	Pressure control knob	N/A	80	Pump engaging lever	10001817	





# NEVER REMOVE FRONT COVER, PRESSERE ADJUSTING VALVE OR THE PUMP HEAD BLOCK. THIS WILL VOID THE WARRANTY.

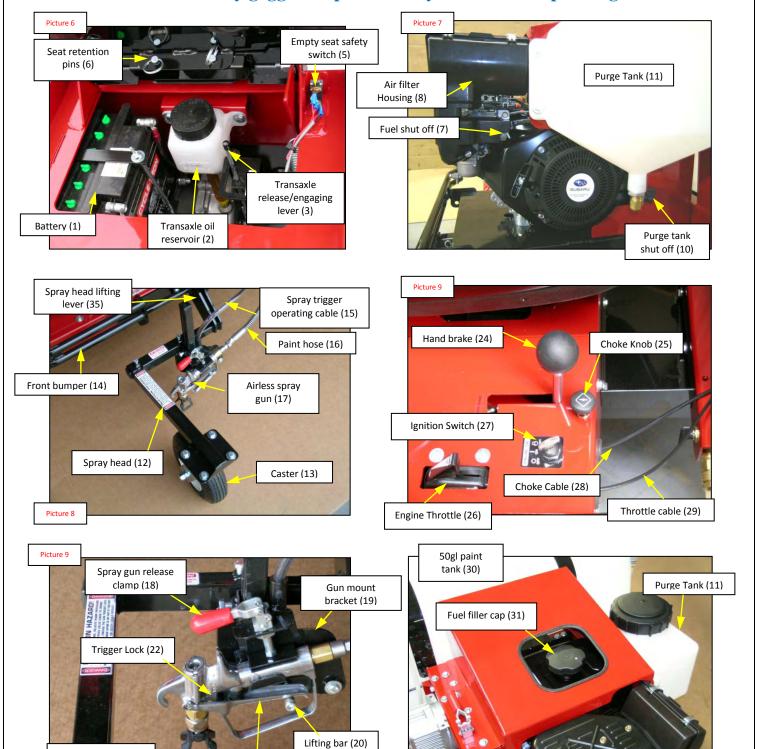
CALL THE FACTORY FOR SERVICE LOCATIONS IF THESE ITEMS REQUIRE SERVICE.

#### **ENGINE LUBRICANT AND PARTS**

ITEM	SPECIFICATIONS
Engine	Subaru Robin EX40 -10003006
Oil Capacity	42-44oz SAE 10W30
Spark Plug	Part number 10004121
Air Filter	Part number 10004097



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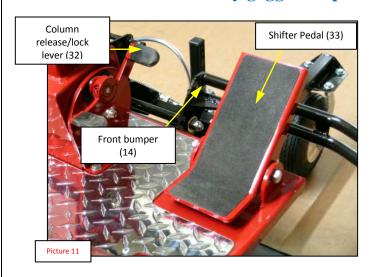


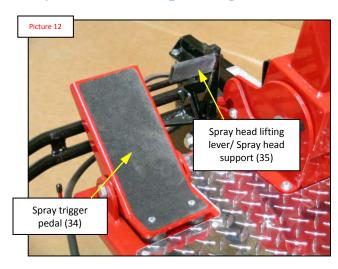
Picture 10

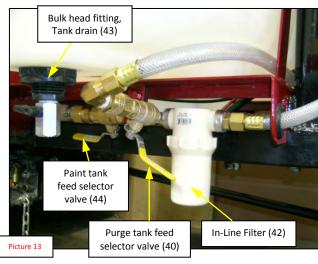
Spray trigger (21)

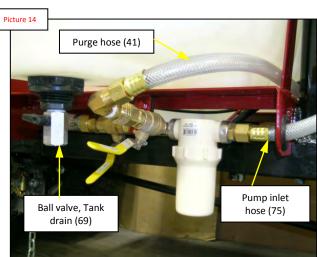
Spray tip guard (23)

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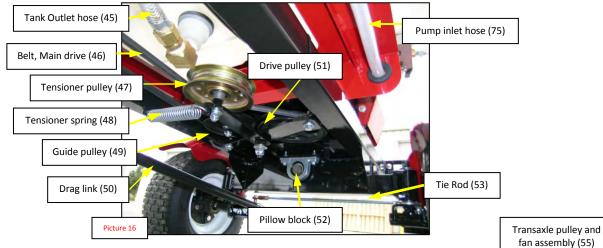


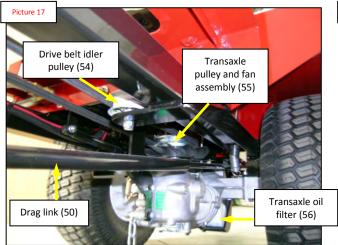


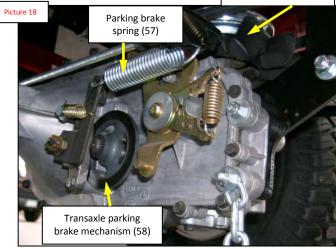


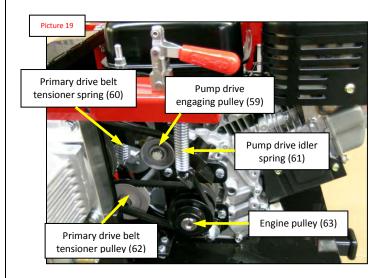


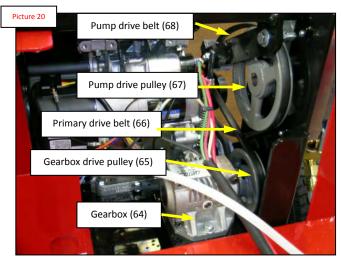
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#### Transaxle service and maintenance

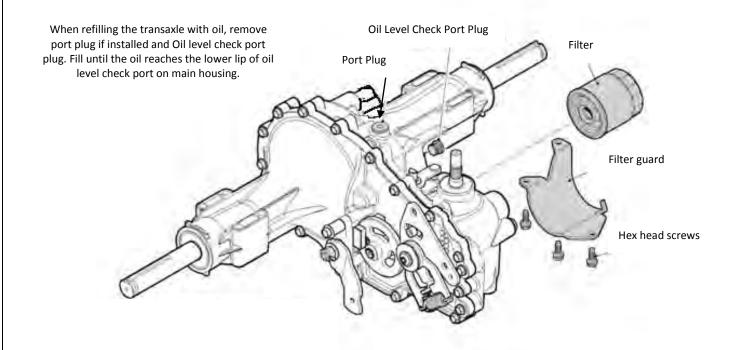
#### **External Maintenance**

- 1. Check oil level in accordance with "Fluid Change Procedure," See page 15 of this manual.
- 2. Inspect the vehicle drive belt, idler pulleys, and idler springs. Insure that no belt slippage can occur. Slippage can cause low input speed to the transaxle.
- 3. Inspect the vehicle control linkage to the directional control arm on the transaxle. Also insure that the control arm is securely fastened to the trunnion arm of the transaxle.
- 4. Inspect the bypass mechanism on the transaxle and the vehicle linkage to insure that both actuate and release fully.

#### Filter and filter guard removal

- 1. Remove the hex head screws, and filter guard.
- 2. Remove the filter and discard.

- 3. Reassemble all parts in the reverse order of disassembly.
- 4. Fill transaxle with oil.





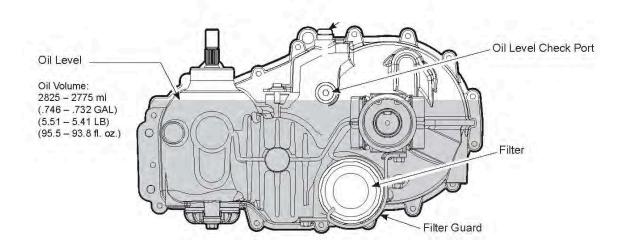
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#### Transaxle service and maintenance

#### Fluid change

This transaxle is designed with an external filter for ease of maintenance. To ensure constant fluid quality levels and longer life, an initial oil and filter change at 75-100 hours, then every 400 hours thereafter is recommended. The following procedure can be performed with the transaxle installed in the vehicle, and the vehicle on level ground. Apply the bypass valve and lock the vehicle parking brake.

- 1. Remove the three 1/4" filter guard screws and filter guard. Clean any loose debris from around the perimeter of the filter. See filter and filter guard removal Page 15 of this manual.
- 2. Place an oil drain pan (12" or more diameter and 8 qt. capacity is optimal) beneath the oil filter. Remove the oil filter from the transaxle.
- 3. After the oil has drained, wipe the filter base surface off and apply a film of new oil to the gasket of the new replacement filter (Hydro-Gear part number 52114).
- 4. Install the new filter by hand, turn 3/4 to one full turn after the filter gasket contacts the filter base surface.
- 5. Re-install the filter guard with three 1/4" screws (Torque screws to 65 in. lbs. (7.35Nm) each).
- 6. Drain old oil filters of all free flowing oil prior to disposal. Place used oil in appropriate containers and deliver to an approved recycling collection facility.
- 7. Remove the oil level check port plug from the transaxle prior to filling with oil. This will allow the transaxle to vent during oil fill.
- 9. Fill with 20W50 motor oil through the reservoir bottle under the seat until oil just appears at the bottom of the oil level check port. Install the oil level check port plug into transaxle. Torque to 180 in. lbs. (20.34 Nm).
- 10. Install and torque the top port plug to 180in. lbs.
- 11. Proceed to the purge procedure.
- 12. Top off the reservoir with 20w50 motor oil to the "FULL COLD" mark.





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#### Transaxle service and maintenance

#### **Purging**

Due to the effects air has on efficiency in hydrostatic drive applications, it is critical that it is purged from the system. Air creates inefficiency because its compression and expansion rate is higher than that of the oil approved for use in hydrostatic drive systems. These purge procedures should be implemented any time a hydrostatic system has been opened to facilitate maintenance or the oil has been changed. The resulting symptoms in hydrostatic systems may be:

- 1. Noisy operation.
- 2. Lack of power or drive after short term operation.
- 3. High operation temperature and excessive expansion of oil. Before starting, make sure the transaxle is at the proper oil level. If it is not, fill to the specifications outlined in this manual.

#### **Purging Procedures**

The following procedures are best performed with the vehicle drive wheels off the ground. Then repeated under normal operating conditions. If this is not possible, then the procedure should be performed in an open area free of any objects or bystanders.

- 1. Disengage the brake if activated.
- 2. With the bypass valve open (Transaxle release lever towards rear and over in slot) and the engine running, slowly move the directional control in both forward and reverse directions (5 or 6 times).
- 3. With the bypass valve closed (Transaxle release lever in forward position) and the engine running, slowly move the directional control in both forward and reverse directions (5 to 6 times). Check the oil level, and add oil as required after stopping the engine.
- 4. It may be necessary to repeat Steps 2 and 3 until all the air is completely purged from the system. When the transaxle operates at normal noise levels and moves smoothly forward and reverse at normal speeds, then the transaxle is considered purged.

Please call us, if you have any questions regarding any of the above procedures.



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

Oil flows out at dipstick when checking oil.  Engine will not turn over  Engine turns over but will not start  STOP! DO NOT START ENGINE. Call Factory immediately.  Fuel lever was left in on position and drain has drained into sump.  Check that the battery is connected and charged.  Operator out of seat and brake not set.  Check that there is fuel in the tank and fuel is turned on.
Engine will not turn over Check that the battery is connected and charged.  Operator out of seat and brake not set.
Operator out of seat and brake not set.
Engine turns over but will not start. Check that there is fuel in the tank and fuel is turned on
Make sure throttle lever is in full forward (choke) position.
Check oil level. Engine is equipped with oil safety switch and will not start
oil level is too low. Engine will also shut off if oil level becomes too low.
Engine will still not start Call factory for assistance.
Engine starts, but runs rough  Check that the choke is turned off (throttle back from full forward position)
Choke off but still runs rough Check for proper fuel.
Check spark plug for fouling, clean or replace.
Check air filter, clean or replace if dirty.
Machine will not move when pedal is Check under the seat, that transaxle release lever is in engaged
pressed (forward) position.
Machine will still not move  Check that hand brake is released. Note: If you changed transaxle oil, you
will need to purge the system. See Transaxle Fluid Change Procedure.
Machine will still not move Call Factory for assistance.
Pump will not prime Check that the pump engaging lever is in ON position.
(No fluid returning to pail)
Lever engaged, but Pump will not prime Check that spray control knob is in Prime position (Circular arrows aligned with arrow on housing).
Spray control Knob in prime position, still Check that spray pressure control knob is in the high pressure position
will not prime (knob turned clockwise all the way).
Knobs are set correct, still will not prime Push outlet button 3 times (brass button).
Outlet button pushed, still will not prime
(Counterclockwise several Turns until loose) and let pump run for one
minute. Then turn pressure control knob all the way in.
Knobs correct, button pushed, still will  Turn spray knob to prime position, turn off engine and activate spray
not prime trigger to release pressure.  NOTE: A loose inlet fitting years or Remove garden bese fitting from inlet side (Rettom) of nump. Depress inlet.
NOTE: A loose inlet fitting, worn or missing rubber washer on the inlet hose valve stem so it moves freely. Reconnect inlet hose. MAKE SURE inlet hose
is the #1 reason for the pump failing to fitting is tight and rubber washer is present. Restart engine & prime as
prime. above.
Pump will still not prime Call factory for assistance.
Pump now primes, bubbles continue to Check inlet hose is tight. If tight and washer present, call factory.
appear In return hose after one minute



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PROBLEM	REMEDY
Pump primes and is running, but gun	Check spray control knob is in spray position, check pressure control knob is
does not spray	turned to high pressure (clockwise until it stops). Do not force!
Knobs are set correctly, still does not	Check that trigger lock on spray gun is turned to operating position (Wings
spray	parallel to gun body) Check spray tip arrow is pointing towards ground.
	Check that lifting bar is operating gun trigger.
All of above correct, gun will still not	Turn spray control knob to prime position, turn off engine, pull trigger to
spray	release pressure. Check spray gun filter, replace if plugged. Restart.
Gun will still not spray paint	Call factory for assistance.
Over spray or too much paint	Lower spray pressure. Turn spray pressure control knob counter clockwise
	several turns, then increase pressure just until spray pattern is full width.
Too little paint	Increase the spray pressure. Paint may need to be thinned. Change spray
	tip to larger size.
Uneven spray pattern or stringing	Increase the spray pressure. Spray tip may be chipped or clogged. Reverse
	tip and clean.
Pressure increased, tip is clean, spray still	Worn tip, (sprayed more than 100 gallons) replace tip.
not correct	
Replaced tip, spray is still not correct	Call factory for assistance.

Please call us! If you have any questions during setup, painting or cleaning.

Your machine is designed to be simple and safe to operate: 1-800-877-1500

