# **OWNER'S MANUAL**

# 4-Wheel Walking Axle Trailer w/Ball Hitch & BK-20 Boom

Model: TTS-110-WA (5300683-BLK, 5300683-BLU) Model: TTS-150-WA (5300990-BLK, 5300683-BLU)

# **Technical Specifications**

4-Wheel Walking Axle Trailer

110 or 150 Gallon Polyethylene Tank

• 50 GPM at 40 PSI or 10 GPM at 70 PSI

8.0 Gross Torque (5.5 HP) Engine, Cast Iron Centrifugal Pump

18' - 3 Section Boom w/11 Nozzles

No-Drip Diaphragm Check Valve Nozzles

• 3-Way Electric Boom Control

Ball Hitch

# **General Information**

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your trailer sprayer.

Retain a copy of your receipt for your unit,
as it will be required to validate any warranty service

Products are warranted against manufacturer or workmanship
defects for one year from date of purchase for home owner
usage and 90 days for commercial usage.

For technical assistance, visit our website @ www.agspray.com or call: Toll Free to one of the phone numbers below.

Our Technical Support Representatives will be happy to help you. To obtain prompt, efficient service, always remember to give the following information...

- Correct Part Description and/or part number
  - Model #/Serial # of your sprayer

Part descriptions and numbers can be obtained from the illustrated parts list section(s) of this manual.



**WARNING:** To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

TTS-150-WA (5300990)

Shown



WARNING: Cancer and Reproductive Harm www.P65Warnings.ca.gov

Any Questions, Comments or Problems: Call your nearest AG SPRAY Location and speak with one of our Friendly Technical Support Staff.



[5194698 (09/18)]

BAKERSFIELD, CA COLUMBUS, NE HOPKINSVILLE, KY DOTHAN, AL FARGO, ND 701-280-2862 800-637-7172 **VISIT US ONLINE @** 877-724-2236 800-274-1025 800-227-4098 MANKATO, MN NEWTON, KS PASCO, WA TEMPE, AZ WWW.AGSPRAY.COM 507-388-6295 800-394-7662 800-634-2026 877-974-7166

# **Assembly Instructions**

The unit comes fully assembled from the factory.

### Trailer/Axle:

The axle is positioned approx. 18" from the rear of the trailer. This should provide enough balance as you pull the unit. The axle housing assembly can be adjusted forward or backward as needed to change the balance. The axles may be adjusted inward/outward for precise width adjustment. Clevis height adjustment can be obtained by inverting the clevis weldment and repositioning as needed.

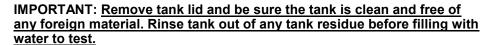
The 150 gallon unit will use the (2) adjustable support plates to secure the back end of the saddle in place.

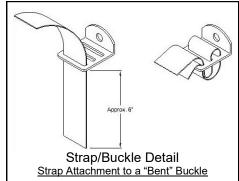
The nylon straps are to be inserted in and out of the slots of the strap buckles as shown in the strap/buckle detail view. Be sure that the straps are snug before tightening the hook bolts. In most cases it will be necessary to retighten the straps after filling the tank with solution.

**Note:** Tank fittings should be tightened (if necessary) before filling the tank. The tightening of fittings on gaskets that have become wet with certain solutions can cause the gaskets to deform and dislocate. If this should happen, it is necessary to dry the gasket completely before tightening the fitting.

#### Boom:

Refer to the boom owner's manual for information on boom adjustment, operation and calibration.





## Information About the Sprayer

In this pumping system, solution is drawn from the tank and forced to a planned source, such as boom nozzles. The pressure is controlled by opening/closing the valve which recirculates solution back into the tank.

## Priming the pump

To help prime the pump, keep the inlet or suction line as short as possible with a minimum of bends, elbows and kinks. Make sure all connections are tight and do not leak air. Make sure the line strainer is free of debris. If pump does not self-prime, disconnect suction hose, fill with water and reconnect to liquid source.

# **Testing the Sprayer**

## IMPORTANT:

It is VERY important that you test your sprayer with plain water before actual spraying is attempted. This will enable you to familiarize yourself with the sprayer and check the sprayer for leaks, without the possibility of losing any expensive chemicals.

#### NOTE:

Add proper oil to the engine crankcase and gasoline to the gas tank. Refer to the engine manual for the correct type and amount.

- 1. Fill the tank about half full with plain water.
- 2. Open the valve in the suction line and allow water to flow to the pump. The valve is located at this point to enable the strainer to be taken apart for cleaning.

Caution: Always be sure that water has reached the pump before starting your sprayer. If the pump is run dry, serious damage to the pump will result.

Pressure may be adjusted by joggling the toggle switch marked "pressure". this switch controls the pressure regulation valve. The switch may be joggled in either direction.

### DO NOT operate at pressure over 100 PSI, so as to prevent damage to the directo valves and pressure gauge.

- 4. You may start the sprayer engine following the engine manufacturers instructions. Let the sprayer run at low pressure until water has reached the boom nozzles and all air has been purged from the boom lines.
- 5. The pressure should now be increased to 30-40 PSI. Operate the sprayer at this increased pressure for 3-5 minutes, thoroughly testing the unit before adding chemicals.
- 6. During this testing period be sure to observe the spray pattern given by the spray nozzles. Each nozzle should overlap the next nozzle approximately 30%. If there is any pattern distortion, it will be necessary to remove and clean the affected tips.

#### Caution:

Never use a metal object or other sharp item for cleaning a nozzle tip. It is better to use a nozzle brush (NOT wire brush) or compressed air for tip cleaning

Conditions of weather and terrain must be considered when setting the sprayer. Do not spray on windy days. Protective clothing must be worn in some cases.

Be sure to read the chemical label(s) before application!!

# **Operation & Calibration**

Operate your sprayer, as you did in the testing procedure.

The performance of any agricultural sprayer depends upon the proper application of the correct amount. Be sure that your equipment has been calibrated before spraying. This spray boom is equipped with 11 nozzles at 20" spacing. The tips supplied as standard with the boom can be used for a wide variety of spraying applications. the speed and pressure charts shown, indicate the rates can be changed considerably by changing speed and pressure.

The proper nozzle height is approx. 20" to 22" above the object being sprayed.

Refer to your boom manual for calibration.

# **Maintenance During/After Spraying**

Periodically close the suction line valve and check the line strainer and clean the screen.

Proper care and maintenance will keep your pump wear at a minimum and will keep it running smoothly and trouble-free for a long time and prolong the life of your sprayer.

After use, fill the sprayer tank part way with water. Start the sprayer and allow the water to pump through the entire plumbing system and nozzles. Drain and then refill half full with plain water, add the recommended amount of good quality tank cleaner such as FIMCO Sprayer Tank Neutralizer and Cleaner. (If no tank cleaner is available, you may substitute dish soap for this step.) Turn sprayer on and circulate through system for 15 minutes and then spray out through boom nozzles. Refill tank half way with clean water and repeat. Follow the chemical manufacturer's disposal instructions of all wash or rinsing water.

Remove the tips and screens from the nozzle assemblies on the boom. Wash these items out thoroughly. Blow the orifice clean and dry. If the orifice remains clogged, clean it with a fine bristle (NOT WIRE) brush or with a toothpick. Do not damage the orifice. Water rinse and dry the tips before storing.

Flush the pump after each use. One of the common causes of faulty pump performance is "gumming" or corrosion inside the pump. Flush the pump with a solution that will neutralize liquid pumped. A rust inhibitor can also be squirted into the ports of the pump. Turn shaft several times to draw protective liquid through pump and coat entire inner surface.

WARNING: Never pump corrosive or abrasive liquids as these will cause rapid wear or deterioration of body, rotor, shaft and seals in the pump. Never run pump dry. Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYSflush the pump as instructed after each use. DO NOT allow chemicals to sit in the pump for extended times of idleness. Failure to follow this warning will void the product warranty.

Follow the chemical manufacturer's instructions on disposal of all waste water from the sprayer.

#### **Pump Maintenance**

- 1. Follow all pump safety precautions and warnings. Following these guidelines will help to ensure many years of smooth and trouble-free service.
- 2. Flush the pump, as directed in routine maintenance, after every use. It is also very important to winterize your pump to prevent freezing and corrosion. Please see Winter Storage below for instructions.

## Winter Storage

Prepare the sprayer for end-of-season storage by draining all water out of your sprayer, paying special attention to the pump and valve(s). These items are especially prone to damage from chemicals and freezing weather.

The sprayer should be winterized before storage by pumping a solution of automotive antifreeze (containing a rust inhibitor) through the entire plumbing system. This antifreeze solution should remain in the plumbing system during the winter months. When spring time comes and you are preparing your sprayer for the spray season, rinse the entire plumbing system out, clearing the lines of the antifreeze solution.

Proper care and maintenance will prolong the life of your sprayer.

It is nearly impossible to drain all of the water from the sprayer and any trapped water can freeze in cold weather and damage parts of the sprayer. Pumping the antifreeze through the system will displace the water and help prevent this damage.

# Tank Care & Maintenance

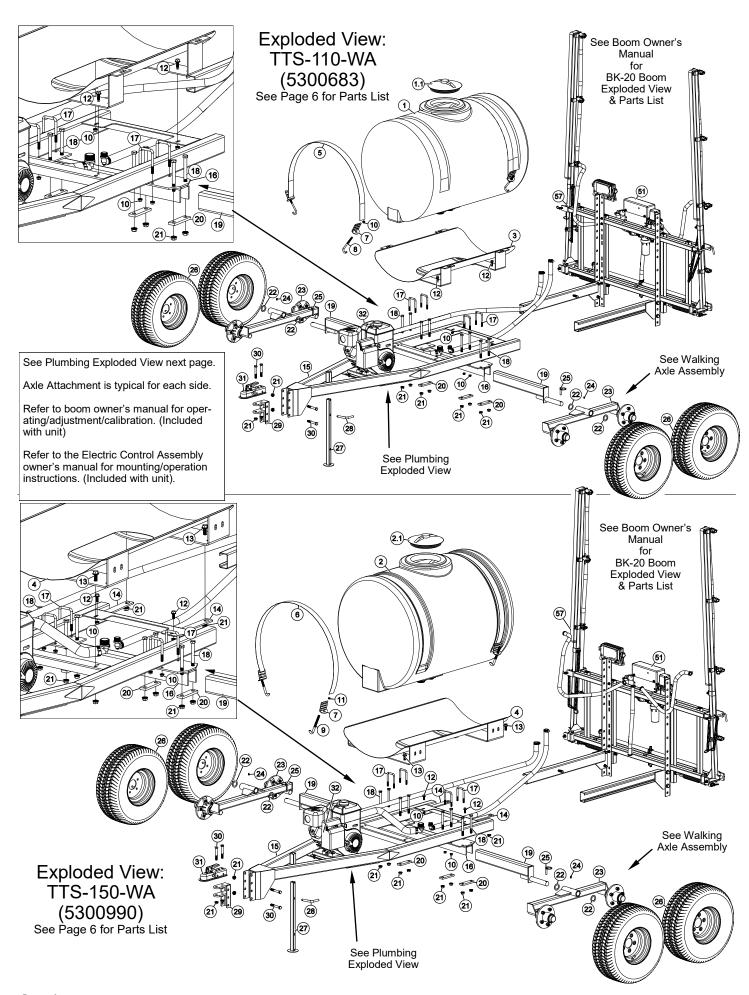
Warning: Do not use the tank as a container for fuel oils, kerosene, gasoline or any other petroleum distillate product. All polyolefins are softened and permeated by such products. In an enclosed area the vaporization of these materials from the outside surface of the tank could create a dangerous condition.

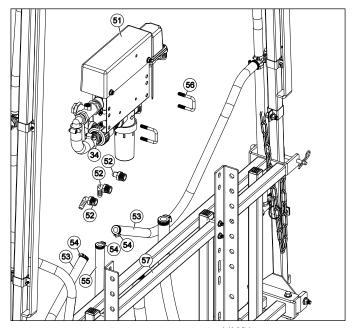
The tank should not be used as a pressure vessel nor used with chemicals or solutions having a weight of more than 12 pounds per gallon.

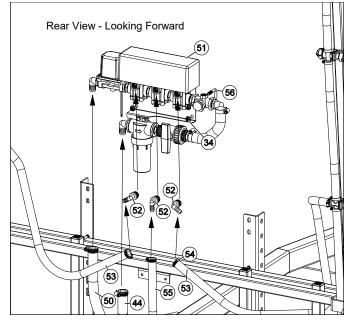
Store the tank in a dry dark place when not in use. Storage out of sunlight will prolong the life of the trailer sprayer.

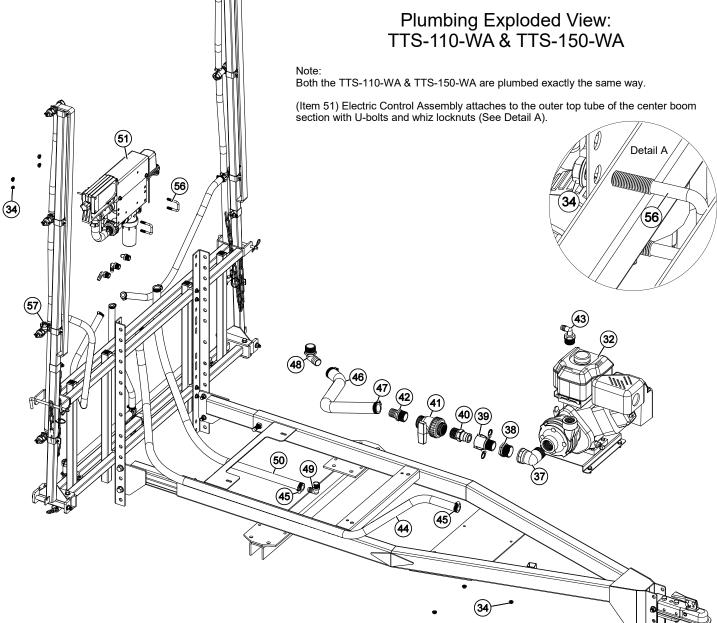
Do not drop, strike or kick the tank, especially at low temperatures. Tanks become brittle and are subject to cracking at temperatures below 20° Fahrenheit.

Always flush the tank with water and a neutralizing agent at the end of each use to prevent contamination of solutions.



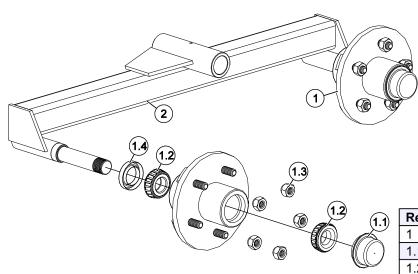






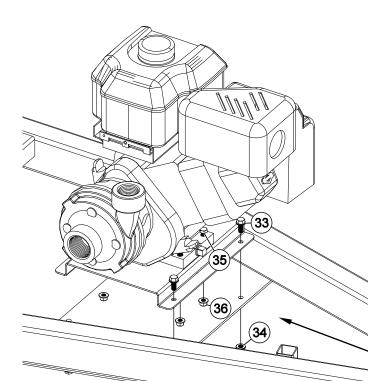
# Parts List: TTS-110-WA (5300683) & TTS-150-WA (5300990)

Ref. #		Description	TTS-110-WA Qty.	TTS-150-WA Qty.
1	5169157	110 Gallon Tank (30" Dia. x 44" x 38") (Yellow)	1	(5.1
1.1		10" Tank Lid	1	
1.2		3/4" Double-Threaded Poly Tank Bulkhead Fitting	1	-
1.3		1-1/4" Double-Threaded Bulkhead Fitting	1	-
2		150 Gallon Tank (32" Dia. x 46" x 35") (Yellow)	.5.	1
2.1	5058041		-	1
2.2	5273736		-	1
2.3		1-1/4" Double-Threaded Bulkhead Fitting	-	1
3		110 Gallon Saddle Weldment (30") (TTS-110-WA)	1	(=)
4	5273925	150 Gallon Saddle Weldment (32") (TTS-150-WA)	-	1
5		2" x 72" Nylon Strap (TTS-110-WA)	2	-
6		2" x 96" Nylon Strap (TTS-150-WA)	-	2
7		Tank Strap Buckle, Bent	4	4
8	5034173	3/8" x 5 1/2" J-Hook Bolt (TTS-110-WA)	4	
9	5034111	1/2" x 6" Hook Bolt (TTS-150-WA)	-	4
10	5006259	3/8-16nc Hex Flanged Whiz Nut Gr. 5	16	10
11	5006011	1/2-13 Hex Nut (TTS-150-WA)	1	4
12	5117307	H.H.C.S. Flanged 3/8"-16nc x 1"	4	2
13		H.H.C.S. Flanged 1/2"-13nc x 1 1/4" (TTS-150-WA)	-	4
14	5017684	Adjustable Support Plate (TTS-150-WA)	-	2
15	5273338	110/150 Gallon Trailer Frame	1	1
16		Axle Mounting Weldment	1	1
17		Square U-Bolt, 3/8" Dia. x 2 1/8" x 3 3/4"	4	4
18		H.H.C.S., 1/2"-13 x 5"	8	8
19	5273339	Axle Weldment (110/150 Gallon)	2	2
20	5028179	Axle Mount Bar	4	4
21	5006337	1/2-13nc Hex Flanged Whiz Nut Gr. 5	12	16
22	5041041	Machinery Bushing, 1 1/4" I.D. x 1 7/8" O.D. x 14 Ga.	4	4
23	5273342	Walking Axle Assembly	2	2
24	5012015	Grease Zerk, 1/4"-28 Thread	2	2
25	5101091	Lynch Pin, 7/16" x 1-1/4"	2	2
26	5021048	PROTOUR Wheel	4	4
27	5274282	Parking Stand Weldment (TTS-110/150-WA)	1	1
28	5101202	Bent Clevis Pin (1/2" Dia.)	1	1
29	5273204	Hitch Clevis Weldment	1	1
30	5034022	H.H.C.S., 1/2"-13 x 3 1/2"	4	4
31	5057155	Ball Hitch	1	1
32	5277913	(B&S) 5.5HP Gas Engine w/1-1/2" x 1-1/4" Centri Pump	1	1
33	5117323	H.H.C.S. Flanged 5/16"-18nc x 3/4"	4	4
34	5006307	5/16"-18 Hex Whiz (Flange) Locknut	8	8
35	5034069	H.H.C.S. 5/16"-18nc x 1 1/2"	4	4
36	5006367	5/16-18nc Hex Flanged Toplock Nut Gr. 8	4	4
37	5010247	Poly Street Elbow, 1 1/2" MNPT x 1 1/2" FNPT	1	1
38	5041083		1	1
39	5057110	Banjo Female Coupler, 1 1/4" MNPT	1	1
40		Banjo Male Adapter, 1 1/4" MNPT	1	1
41		1 1/4" Single Union Ball Valve	1	1
42		Poly Fitting, 1 1/4" MNPT x 1 1/4" HB	1	1
43	5010214	Poly Elbow, 1 1/4" MNPT x 3/4" HB	1	1
44		Hose, 3/4"-1 Brd. x 8 Ft.	1	1
45	5051024	Hose Clamp, 3/4"	4	4
46	5020434	Hose, 1 1/4"-2 Brd. x 24"	1	1
47		Hose Clamp, 1 1/4"	2	2
48		Poly Elbow, 1 1/4" MNPT x 1 1/4" HB	1	1
49	5010209	Poly Elbow, 3/4" MNPT x 3/4" HB	1	1
50		Hose, 3/4"-1 Brd. x 60"	1	1
51		Electric Control Sub-Assembly	1	1
52		Poly Elbow, 1/2" MNPT x 1/2" HB	3	3
53		Hose, 1/2"-1 Brd. x 84" (7 Ft)	2	2
		Hose Clamp, 1/2"	6	6
54				
54 55	5020009	Hose, 1/2"-1 Brd. x 26"	1	1
		Hose, 1/2"-1 Brd. x 26" Square U-Bolt, 5/16" x 1 5/16" x 1 7/8"	2	2



# Walking Axle Assembly #5273342

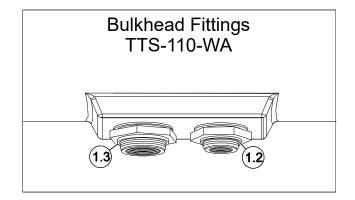
Ref. #	Part #	Description	Qty
1	5085017	Hub Assembly (5-Stud)	2
1.1	5046327	Grease Cap	1
1.2	5031139	Cone Bearing	2
1.3	5006301	1/2"-20 Hex Cone Wheel Nut	5
1.4	5072471	Grease Seal	1
2	5273341	Walker Weldment	1

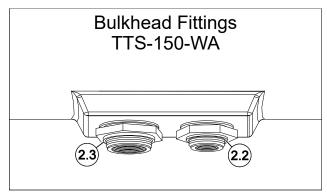


# 8.0 Gross Torque (B&S, 5.5HP) Gas Engine w/1½" x 1¼" Centri Pump #5277913

Ag Spray#	Mfg.#	Description
5152108		B&S 8.0 Gross Torque Engine w/5/8" Threaded Shaft
5277075	.5/1/NUIA	Scot Pump, 1.5 x 1.25 VN-CM 5.50 Impeller Dia.

Engine Mounting to Trailer See Page 6 for Parts List





## **TeeJet 744 Electric Controller:**

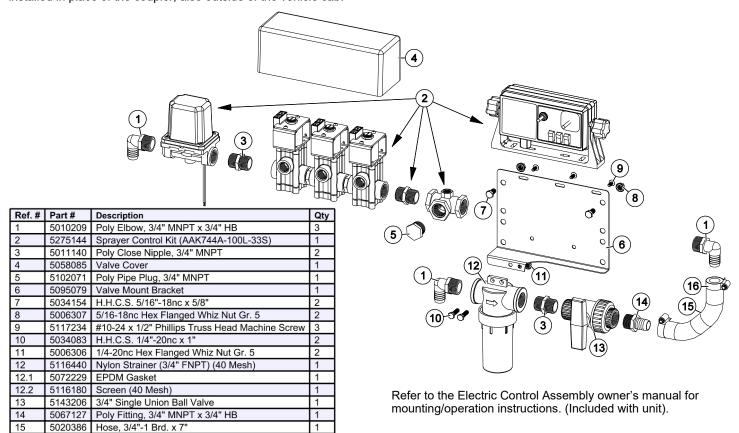
Determine the best location for the 744A Sprayer Control in the vehicle cab According to the following guidelines:

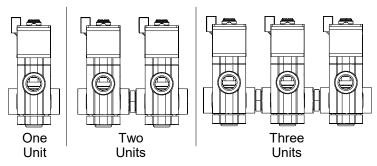
- · Pressure gauge should be readily visible
- Switches should be within easy reach
- · Controller bracket should rest on a flat surface
- 12 volt DC power source must be accessible (maximum draw 10 amps)

# 744 Input Power Cable

The Input Power Cable consists of three wires. The **red wire** should be connected to a 12 volt power supply within the cab of the vehicle (i.e., ignition switch). The **blue wire** should be connected to the headlight system of the tractor. This can be accomplished by connecting the blue wire to the auxiliary terminal of the headlight switch or by splicing into the wire connected to the headlight. The **black wire** is the negative lead and should be connected to a good chassis ground.

**Pressure Gauge:** The tubing for the pressure gauge is supplied as part of the wiring harness. To avoid chemical leakage into the vehicle cab, the tube coupler should be installed outside of the vehicle cab. If a gauge isolator is used with the system, it should be installed in place of the coupler, also outside of the vehicle cab.

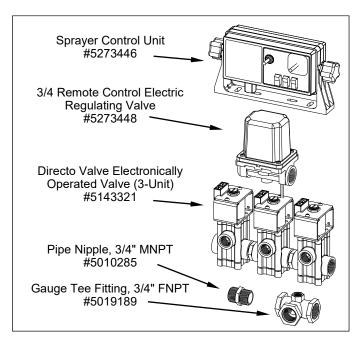




5051024 Hose Clamp, 3/4"

Description	Ag Spray#	Mfg. #
One Unit	5143319	AA144A-1
Two Unit	5143320	AA144A-2
Three Unit	5143321	AA144A-3

Pipe Nipple, 3/4" MNPT #5010285 is used to connect units. Designed for remote "ON-OFF" control of spray booms and nozzles from operator's location. Operates on a 12 Volt DC system (2 Amp Current Draw). For pressure to 100 psi.



# Warranty Info

#### LIMITED WARRANTY FOR NEW AG SPRAY EQUIPMENT

WHO MAY USE THIS LIMITED WARRANTY. This limited warranty (the "Limited Warranty") is provided by Fimco, Inc. ("Ag Spray Equipment") to the original purchaser ("you") of the Equipment (as defined below) from Ag Spray Equipment or one of Ag Spray Equipment's authorized dealers. This Limited Warranty does not apply to any subsequent owner or other transferee of the Equipment. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

WHAT THIS LIMITED WARRANTY COVERS AND FOR HOW LONG. Ag Spray Equipment warrants that any registered new Equipment will be free from defects in material and workmanship for a period of **one (1) year** (homeowner), **90 days** (commercial user), after delivery of the Equipment to you (the "Warranty Period"). The Warranty Period is not extended if Ag Spray Equipment repairs or replaces the Equipment.

WHAT IS NOT COVERED BY THIS LIMITED WARRANTY. This Limited Warranty does not apply to: (1) used Equipment; (2) any Equipment that has been altered, changed, repaired or treated since its delivery to you, other than by Ag Spray Equipment or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Ag Spray Equipment's operator's manual, specifications or other written instructions, or improper storage, operation, maintenance, application or installation of parts; (5) defects or damage due to misuse, accident or neglect, "acts of God" or other events beyond Ag Spray Equipment's reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Ag Spray Equipment, whether or not sold or operated with the Equipment; or (7) rubber parts, such as tires, hoses and grommets.

HOW TO OBTAIN WARRANTY SERVICE. To obtain warranty service under this Limited Warranty, you must (1) provide written notice to Ag Spray Equipment of the defect during the Warranty Period and within **thirty (30)** days after the defect becomes apparent or the repair becomes necessary, at the following address: Ag Spray Equipment, 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Ag Spray Equipment or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: **800-274-1025** 

WHAT REMEDIES ARE AVAILABLE UNDER THIS LIMITED WARRANTY. If the conditions set forth above are fulfilled and the Equipment or any part thereof is found to be defective, Ag Spray Equipment shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Ag Spray Equipment will pay for shipping and handling fees to return the repaired or replacement Equipment or part to you.

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