

OWNER'S MANUAL

Model 675 **100 GALLON SPRAYER**



*Equipment and Products
for Quality Hay.*

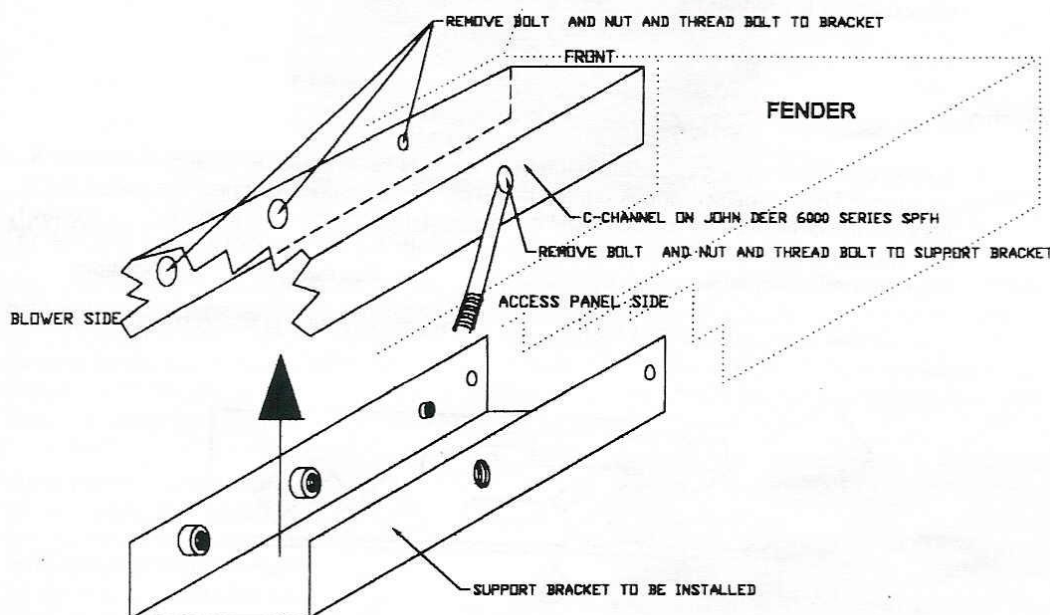
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INSTALLATION INSTRUCTIONS FOR JOHN DEERE 6000 SERIES

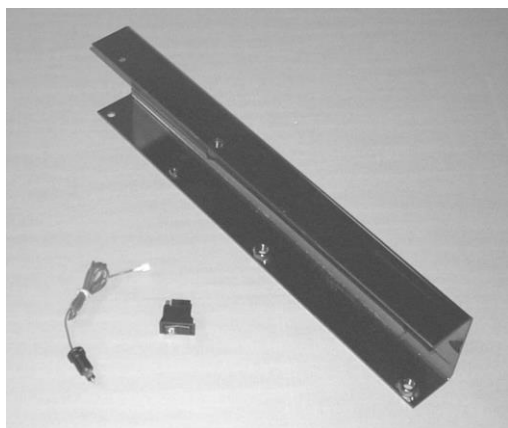
INSTALLATION OF FENDER SUPPORT FOR 10 AND 50 SERIES ONLY

1. Open the right side access door behind and right wheel and underneath the fender. With this access door open, the C channel can be seen looking inside and up.
2. Remove the forward two of the linkage bolts on the wheel side of the C-channel.
3. Remove the bolt holding the cluster of wires on the blower side.
4. Remove the two larger bolts toward the rear.
5. *Note the nuts from these four bolts are not used because the support bracket has the nuts welded directly to it.
6. Raise the support bracket up so the C channels oppose each other.
7. Reinstall bolts, threading them to the support bracket.



INSTALLATION OF THE TANK AND FRAME

1. Locate the holes on the right fender of the machine. The holes may have been pre-drilled at the factory.
2. Lift the tank assembly up onto the fender. The pump assembly will be on the outside and to the back of the fender.
3. Bolt the sprayer in place with $\frac{1}{2}$ " x $1 \frac{1}{2}$ " bolts, nuts, and locks; fender washers should be placed under the fender for extra support.



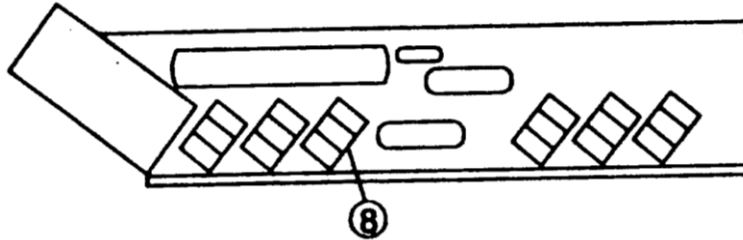
INSTALLATION OF THE CONTROLS

1. Locate the rocker switch provided in the parts box. The switch is to be located in position 8 (shown below.) Knock out the panel plug in position 8. Connect the switch to the connector labeled 534. (If the 534 label is not found, look for the connector having a brown wire #231.) Snap the rocker switch into the panel with tank symbol forward and refer to the operator's manual for the switch operating information. The switch has three positions:

(REAR) ON

(CENTER) OFF

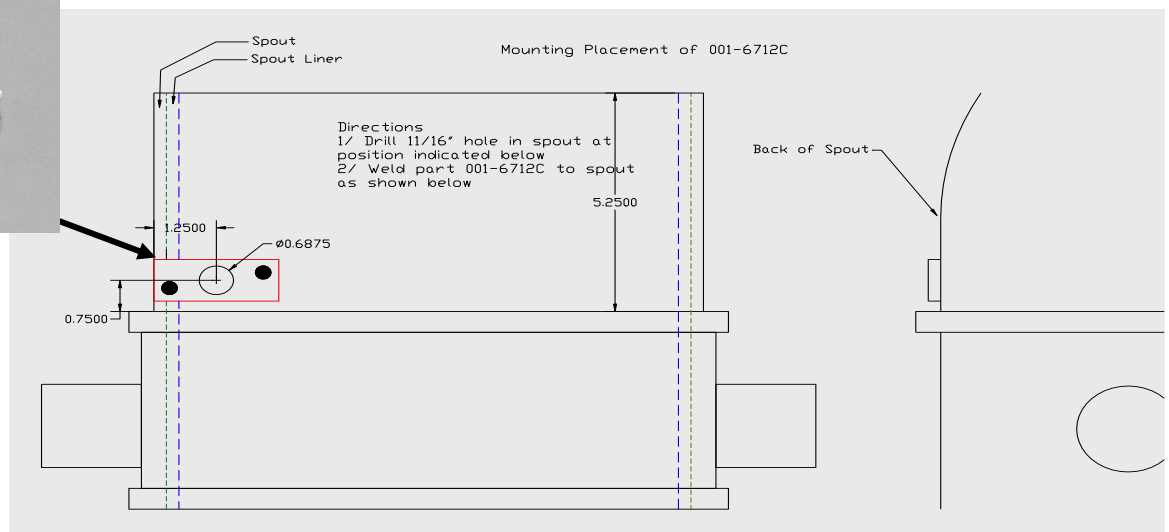
(FRONT) ON WHEN FEED ROLLS ENGAGE



2. Locate a place in the cab to mount the control box (usually between the front and side windows and within easy reach.)
3. Run both wires outside the cab. Connect the plug to the socket behind the cab and the other wire too the connectors on the pump.

MOUNTING THE SPOUT NOZZLE ASSEMBLY

1. The spout nozzle will mount on the back of the spout.
2. First, locate and mark the location of the hole where the nozzle will fit into the spout.
3. Drill the hole for the spout nozzle, which should be 11/16" in diameter. The material lining in the spout is extremely difficult to drill through so be sure to have a sharp bit.
4. Once the spout nozzle hole is drilled, place the assembly on the spout and weld the plate with the threaded studs to the spout. Only the two outer edges need to be welded to the spout.
5. Be sure to remove excess slag on the welded plate so that the nozzle plate fits securely.
6. The plate containing the nozzle will fit on top of the plate welded to the spout. Fasten the nozzle plate using lock washers and 5/16" nuts. Before fastening, be sure that the nozzle is inserted in the spout so it sprays upward and to the right at approximately a 45-degree angle.

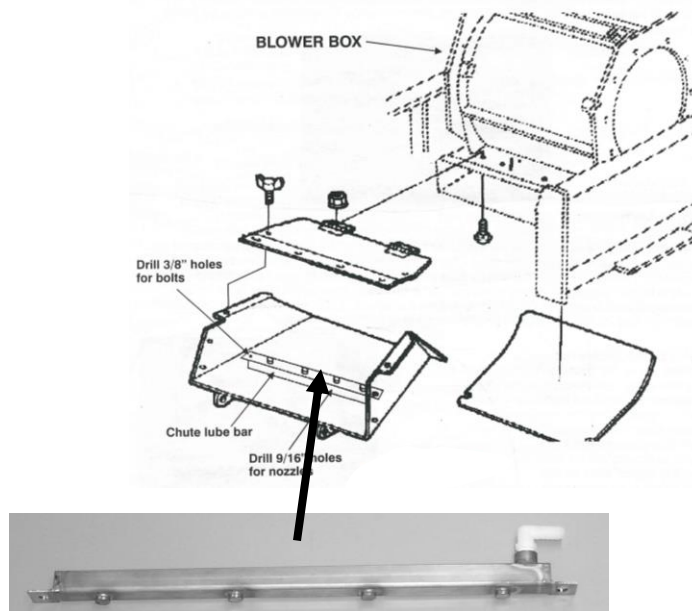


INSTALLATION OF CHUTE LUBE BAR

1. The spray bar will be located in the transition chute before the blower box, similar to the location shown in the diagram. Six holes will have to be drilled in the feed chute- four 9/16" holes for the spray nozzles and two 3/8" holes for bolting the spray bar in place. Place the spray bar on the chute and mark the location for the 9/16" and 3/8" holes. Use the enclosed 5/16" x 1" bolts to hold the spray bar in place. Make sure the bolts are inserted from inside the chute to minimize build-up. Note: the washers (not included) may need to be used on the bolts between the spray bar and chute so the tips of the spray nozzles are flush with inside of the chute.

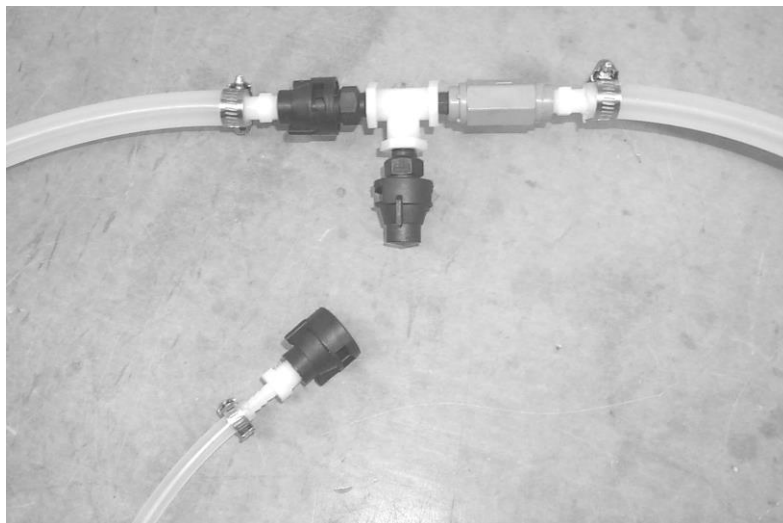
Test the unit:

1. Fill the tank with several gallons of water.
2. Turn the sprayer on and check for leaks.



CONNECTING THE SPOUT AND CHUTE NOZZLE PLUMBING

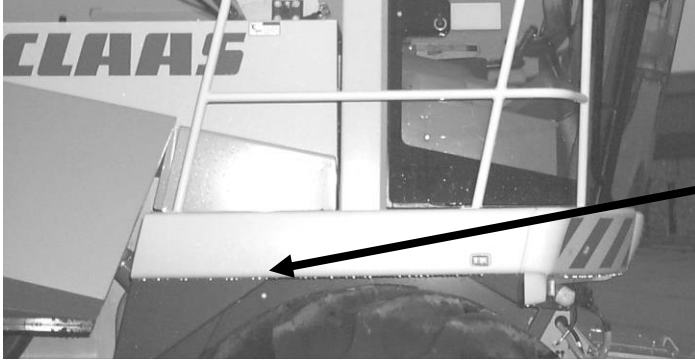
1. The enclosed tee assembly should be placed in the line after the pressure gauge.
2. To run the chute lubricator only, keep the enclosed cap on the tee.
3. To run the spout nozzle only, replace the quick connect that goes to the spout with the quick connect that goes to the chute.
4. To run both chute and spout nozzles, place both quick connects going to the nozzles on the tee.



INSTALLATION INSTRUCTIONS FOR CLAAS JAGUAR SERIES

INSTALLATION OF FENDER SUPPORT

1. Locate the bolts in sided the panel of the fender (behind tire on the right fender.)
2. Remove the two bolts and slide the support up to them.
3. Tighten the bolts back down.
4. For extra support connect the square tube under the fender to the fender support by drilling and bolting them together.



TANK AND FRAME

1. Remove handrail on right fender of machine.
2. Remove and relocate rubber doorstop and top mounted warning light from right hand fender if equipped.
3. Place tank and frame on fender. (Pump assembly will be on the outside and to the rear of the fender.) **Make sure side access door to engine compartment can be opened before drilling holes.**
4. Mark four holes on fender for mounting saddle to fender, (use holes on saddle as a template). Drill 9/16" holes.
5. Bolt saddle to machine using 1/2" x 1 1/2" bolts, nuts and lock washers. (Note: fender washers should be on bottom of fender for maximum support).
7. For older machines (820, 840, 860, & 880) connect mirror support to saddle and replace mirror from handrail if needed.

NOZZLE INSTALLATION

1. Locate air intake on backside of blower (see diagram at right).
2. Loosen one bolt next to the intake hole. Connect the stainless steel strap to that bolt. (Make sure the nozzle is in the center of the opening.)
3. Run 1/2" hose from nozzle inlet to hose on discharge side of gauge. (There is a quick disconnect for this end of hose in parts bag.)
4. Place the nozzle for desired rate into the housing with a tip filter.



CONTROLS

1. Locate the control box on the beam between front and side window.
2. Connect the wires with two quick connects to the pump located on the tank frame.
3. For New Claas choppers (830, 850, 870, 890, and 900, plug power cord into back of control box and the other end into a "T" shaped plug hanging above blower next to the automatic oilier. The plug will have a brown and white wire leading into it. The chopper will turn on the box when the feed rolls are engaged, head down, and the machine is moving forward.)
4. You will need to modify the control box for the following Claas choppers: 820, 840, 860, and 880. These choppers do not have the end of row option. You need to replace the power connection and install a switch.

SWITCH INSTALLATION

1. Remove cover of control.
2. Push out snap bushing plug and install switch in this location.
3. Remove red wire from circuit breaker and slide onto one terminal of switch.
4. Install jumper wire from other terminal of switch to circuit breaker.
5. Replace cover.

POWER PLUG INSTALLATION

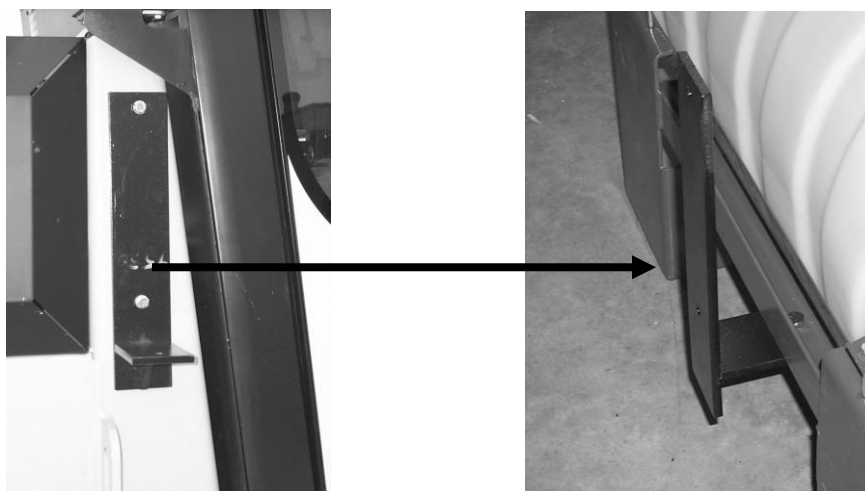
1. Cut off white "T" plug.
2. Strip green and black wire 3/16 of an inch.
3. Connect green wire to round terminal of black and gold plug.
4. Connect black wire to square terminal of black and gold plug.

Run the power wire and plug down into outlet next to the ashtray. The unit will have to be turned on and off from the toggle switch.

INSTALLATION INSTRUCTIONS FOR NEW HOLLAND FX SERIES

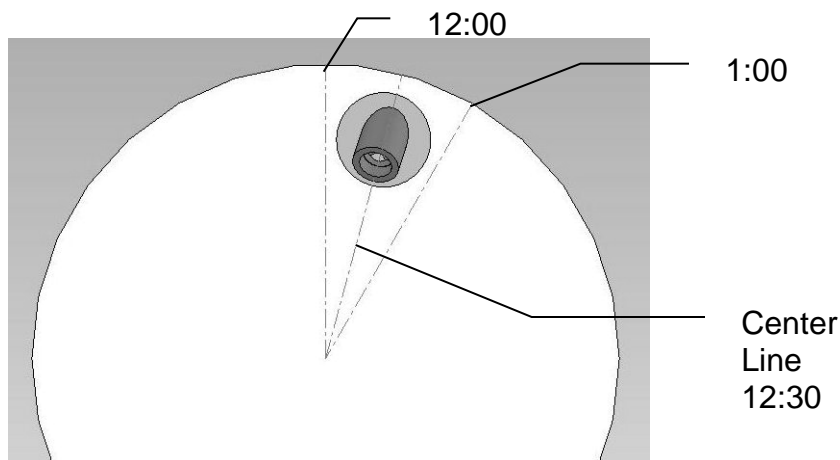
TANK AND FRAME INSTALLATION

1. Remove outer handrail on right hand fender of machine. Note that the front part of handrail will remain on machine.
 2. Drill a hole in the angle iron bracing on backside of tank. Drill $\frac{9}{16}$ " hole in bottom leg of angle iron 15- $\frac{5}{8}$ " back from where the angle iron and tank frame meet.
 3. Bolt the tank support, 6706A, to the hole just drilled with $\frac{1}{2}$ " x 1" bolt, nut, and lock washer provided in kit.
 4. Using help, lift tank assembly onto fender. It will be a tight fit.
 5. Bolt tank support to holes with 1- $\frac{1}{2}$ " x $\frac{3}{8}$ " bolts and lock washers provided.
 6. Bolt front of saddle to machine using $\frac{1}{2}$ " x 1- $\frac{1}{2}$ " bolts, nuts, washers and lock washers.
- Note** that the washer should be on the bottom side of fender for maximum support.



NOZZLE ASSEMBLY

1. Locate the band lubricator nozzle on the front side of the blower band according to the drawing below.
2. Cut a hole in the blower housing to match the inside of the spray nozzle housing.
3. Weld to blower.



GAUGE AND HOSES

1. Mount gauge in a location visible from the operator's seat.
2. Run the hose from the pump to the gauge.
3. Run the hose from the gauge to the nozzle assembly.
4. Place check valve in line between the gauge and the nozzle (arrow pointing to tip).

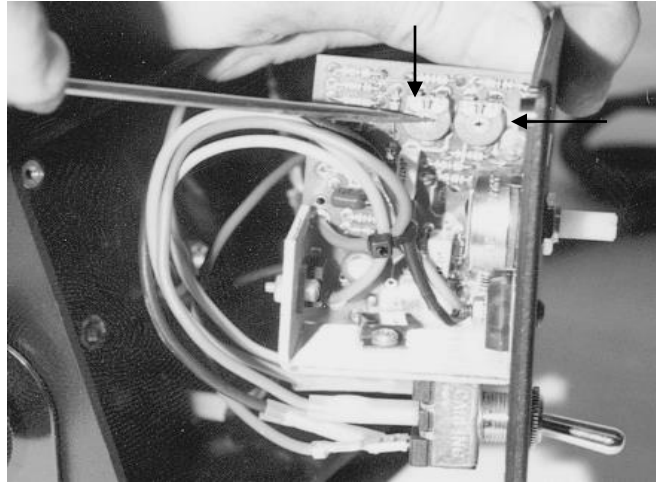
CONTROLS

1. Locate a place for the control box on the beam between the front and right side windows.
2. Run the wire plug out of the cab to the socket under the main fuse box behind the cab.
3. Run the wire with two quick connects outside of the cab to the pump.
4. Plug the black wires together and the green wires together.
5. **Note:** The control box will not come on until the machine is running with it's head down, and the feed rolls are engaged.

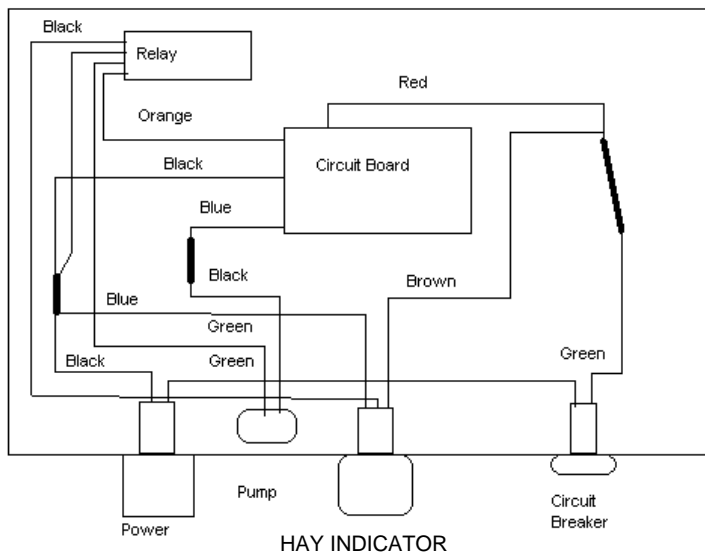
BOX ADJUSTMENT

Electronic units control application rate by regulating pump speed. The control box is factory set, but from time to time may require readjustment. First **TURN OFF POWER**. Second, remove the control box cover. Lastly, turn the power back on and make the following adjustments:

1. **MAXIMUM OUTPUT:** Can be adjusted with the right-hand adjusting dial. Clockwise adjustment will increase output. With speed dial turned up do not exceed **90 PSI** during operation.



2. **MINIMUM OUTPUT:** Set with red tips in and control all the way down. Adjust with the left hand adjusting dial. Counter-clock wise adjustment will decrease output. Set to **10 PSI** at low end. Make adjustments with a small screwdriver. The settings are sensitive and only a small amount of adjustment turn is required.



Relay wiring order:

- 1: Blue
- 2: Black
- 3: Orange
- 4: Green
- 5: Not Used

Hay Indicator wiring order:

- 1: Brown
- 2: Blue
- 3: Black
- 4: White (not used)

OPERATING INSTRUCTIONS

The model 675 is compatible with water, bacterial inoculants, enzymes, and organic acid crop preservatives. All of these liquids are similar to water in weight and viscosity, so the charts below will be accurate within 10% for all products used if the system is functioning properly. Always verify application by checking product used against desired application per hour.

Look over the chart below and select the spray tip that will provide the desired range of application. Adjust the pressure with the control box to the setting from the chart below.

GALLONS PER HOUR					
	PRESSURE				
TIP Number	20 PSI	30 PSI	40 PSI	50 PSI	60 PSI
5002 or 11002	8	10	12	14	15
5004 or 11004	17	21	24	27	29
5008 or 11008	34	41	48	53	59
5015 or 11015	63	78	90	100	110
1/8 KSS 1	8	10	12	14	15
1/8 KSS 2	17	21	24	27	29
1/8 KSS 4	34	41	48	53	59
JD Chute	29	32	35	38	NA

ROUTINE MAINTENANCE

1. **Clean the tip strainers and main strainer every 10 hours of operation or more frequently if required.**
2. When inoculants are being used, the system will need to be drained and flushed with water after each use to prevent residue build up.
3. Although the pump can run dry, extended operation of a dry pump will increase wear. Watch the fluid level in the tank.
4. Pump performance may start to decline after 400 hours of use. Rebuilding the pump is a simple procedure if the motor is not damaged. Order pump rebuilding kit #007-4581.

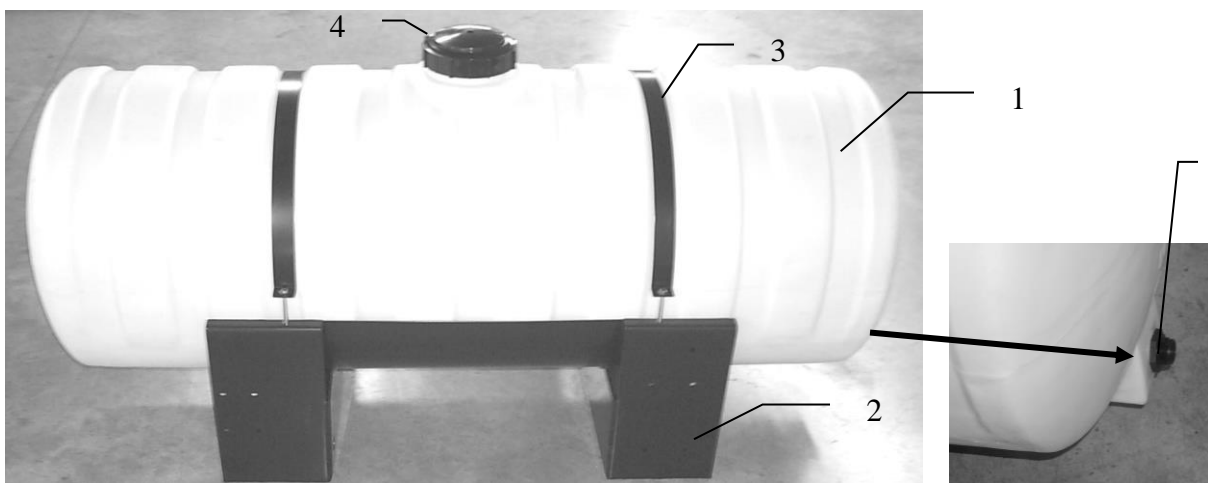
WINTER STORAGE

1. Thoroughly flush the system with water.
2. Remove the filter bowl and run dry until the water has cleared out of the intake side.
3. Remove the red plug from the bottom of the pump, drain, and run the pump for 30 seconds or until it is dry.
4. Drain all lines on the outlet side.
5. Never use oils or alcohol based anti-freeze in the system.
6. For spring start-up, or anytime the pump is frozen, turn off the power immediately to avoid burning the motor out. The pump head can be disassembled and freed or rebuilt in most cases.

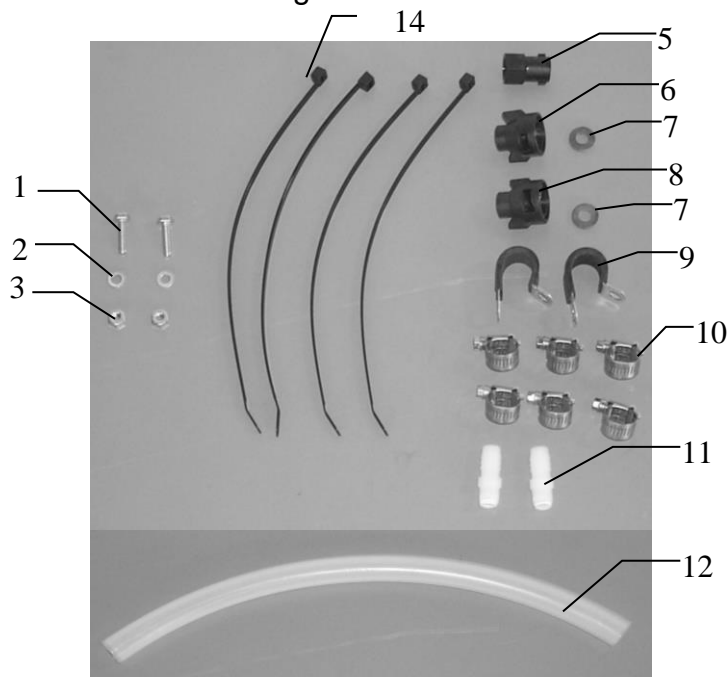
TROUBLE SHOOTING CHECKS

PROBLEM	POSSIBLE CAUSE	SOLUTION
Pump will not run.	1. Circuit breaker tripped on electronic unit.	1. Check for short, low voltage, and reset breaker.
	2. Pump locked up.	2. Clean or rebuild pump if motor is OK.
	3. Damaged wire.	3. Repair damaged wire.
	4. Vapor locked.	4. Loosen hose by check valve at gauge and bleed air.
Pump runs but will not prime.	1. Air leak in intake.	1. Tighten fittings on intake side.
	2. Clogged intake.	2. Clean.
	3. Restricted outlet.	3. Check and clean tips.
	4. Check valve on outlet stuck closed.	4. Clean or repair check valve.
	5. Dirt inside pump.	5. Replace pump check valve.
Pump does not develop enough output.	1. Air leaks or clogs on inlet side.	1. Tighten or clean filter bowl assembly.
	2. Electronic box out of adjustment.	2. Refer to box adjustment page.
	3. Pump worn or dirty.	3. Rebuild pump.
	4. Low supply voltage. (Pump requires 12v minimum)	4. Check voltage at connection with voltmeter.
	5. Bad gauge.	5. Gauge should read less than 10 PSI when not in use. Also tips should lose spray pattern below 10 PSI. Check accuracy.
Pump output varies.	1. Clogged or restricted inlet.	1. Clean
	2. Worn pump parts.	2. Rebuild pump.
	3. Pump not primed.	3. Prime pump.

675 PARTS BREAKDOWN FOR SADDLE, TANK, PARTS BAG, AND HOSE

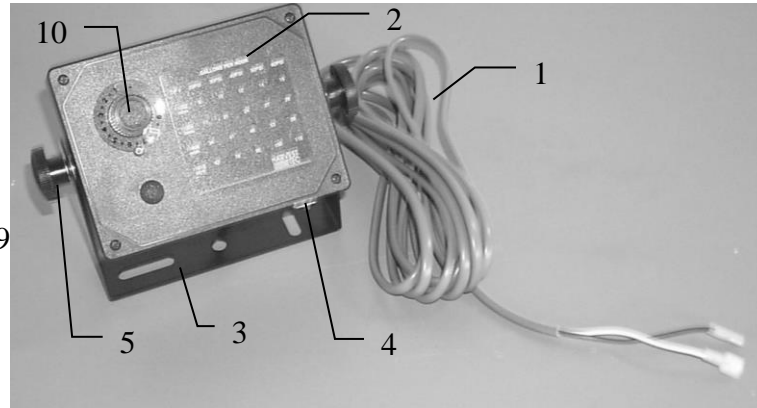
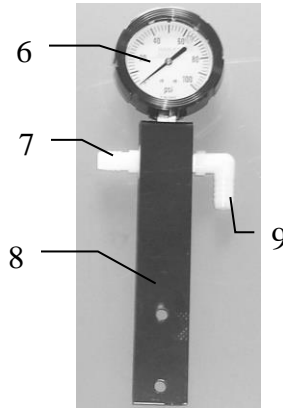


<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	100 Gallon tank	005-9206	1
2	Saddle	001-6701	1
3	Tank strap	001-4402	1
4	Tank lid	005-9022C	1
	Tank lid gasket	005-9022CG	1
5	Tank fitting	005-9100	2

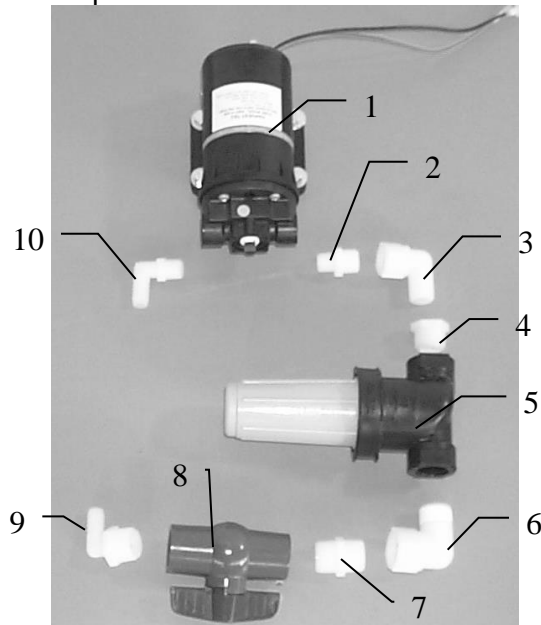


<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>	<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Bolt- 1/4" X 1"			7	Rubber washer	004-1207W	2
2	Lock washer- 1/4"			8	Quick connect shut off	004-1207F	1
3	Nuts- 1/4"			9	Padded jiffy clip	008-9010	2
4	Cable ties- 12"			10	Hose clamp-	003-9003	6
5	Quick connect fitting	004-1207G	1	11	Straight fitting	003-A1412	2
6	Quick connect cap	004-1207H	1	12	Hose- 1/2"	002-9001	20

675 PARTS BREAKDOWN OF THE GAUGE AND CONTROL BOX ASSEMBLY

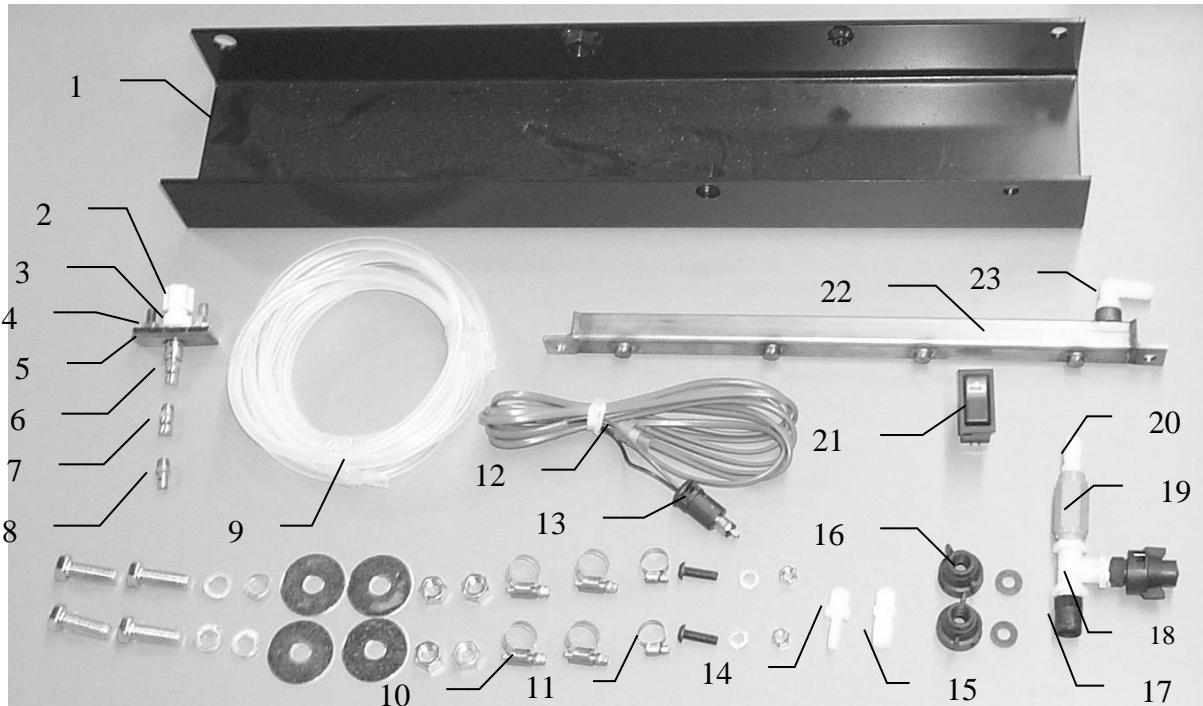


<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Pump lead		1
2	Control box complete	030-0457	1
3	Control box u-bracket	001-2012E	1
4	Circuit breaker	006-2111	1
5	Control box knobs	008-0923	1
6	Gauge	002-2207Z	1
7	Straight fitting	003-A1412	1
8	Gauge holder bracket	001-6704	1
9	Elbow fitting	003-EL1412	1
10	Speed Dial	006-2022A	1



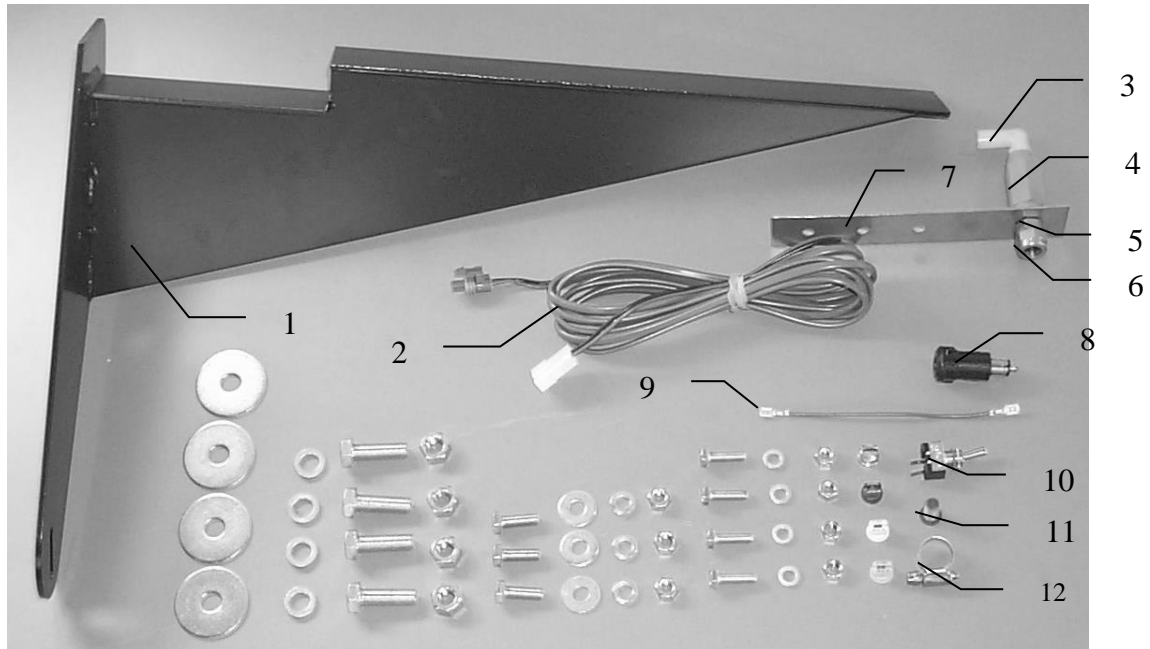
<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Pump	007-4120S	1
2	Nipple fitting	003-M1238	1
3	Street elbow fitting	003-SE12	1
4	Reducing bushing fitting	003-RB3412	1
5	Filter bowl	002-4318	1
6	Street elbow fitting	003-SE34	1
7	Nipple fitting	003-M3434	1
8	Ball valve	002-2200	1
9	Elbow fitting	003-EL3412	1
10	Elbow fitting	003-EL3812	1

MODEL 6704 FOR JOHN DEERE 6000 SERIES



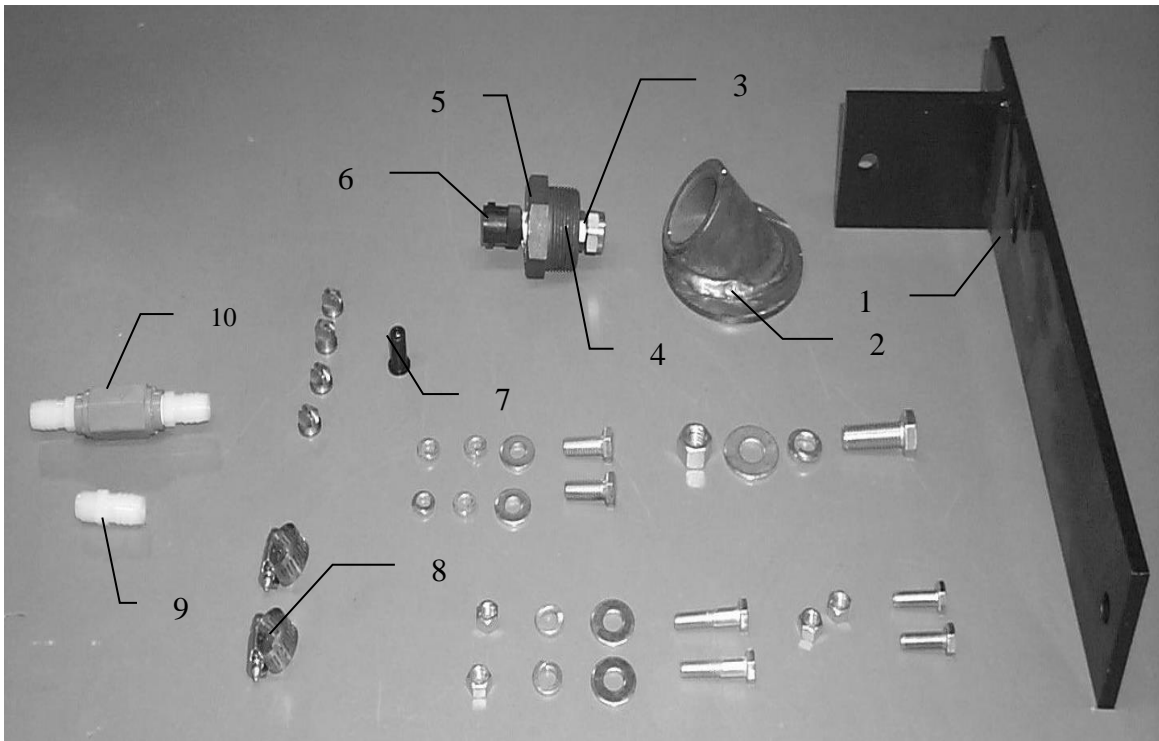
<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>	<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Fender support	01-6705F	1	13	Plug	006-6763	1
2	Jaco nut	003-JN14	1	14	Straight fitting	003-A1414	1
3	Jaco straight	003-JA1418	1	15	Straight fitting	003-A1412	1
4	Nozzle holder	001-6712A	1	16	Female disconnect	004-1207H	3
5	Nozzle base	001-6712B	1	17	Quick connect	004-4710	2
6	Tip	004-K2-SS	1	18	Tee	003-TT14	1
7	Tip	004-K4-SS	1	19	Check valve	002-4564F	1
8	Tip	004-K1-SS	1	20	Straight fitting	003-A1412	1
9	1/4" Hose	002-9006	15ft	21	Switch	006-6762	1
10	Hose clamp	003-9003	4	22	Chute lube bar	001-6711	1
11	Hose clamp	003-9002	2	23	Elbow fitting	003-EL1412	1
12	Power lead	006-4580	1				

MODEL 6705 FOR CLAAS JAGUAR SERIES



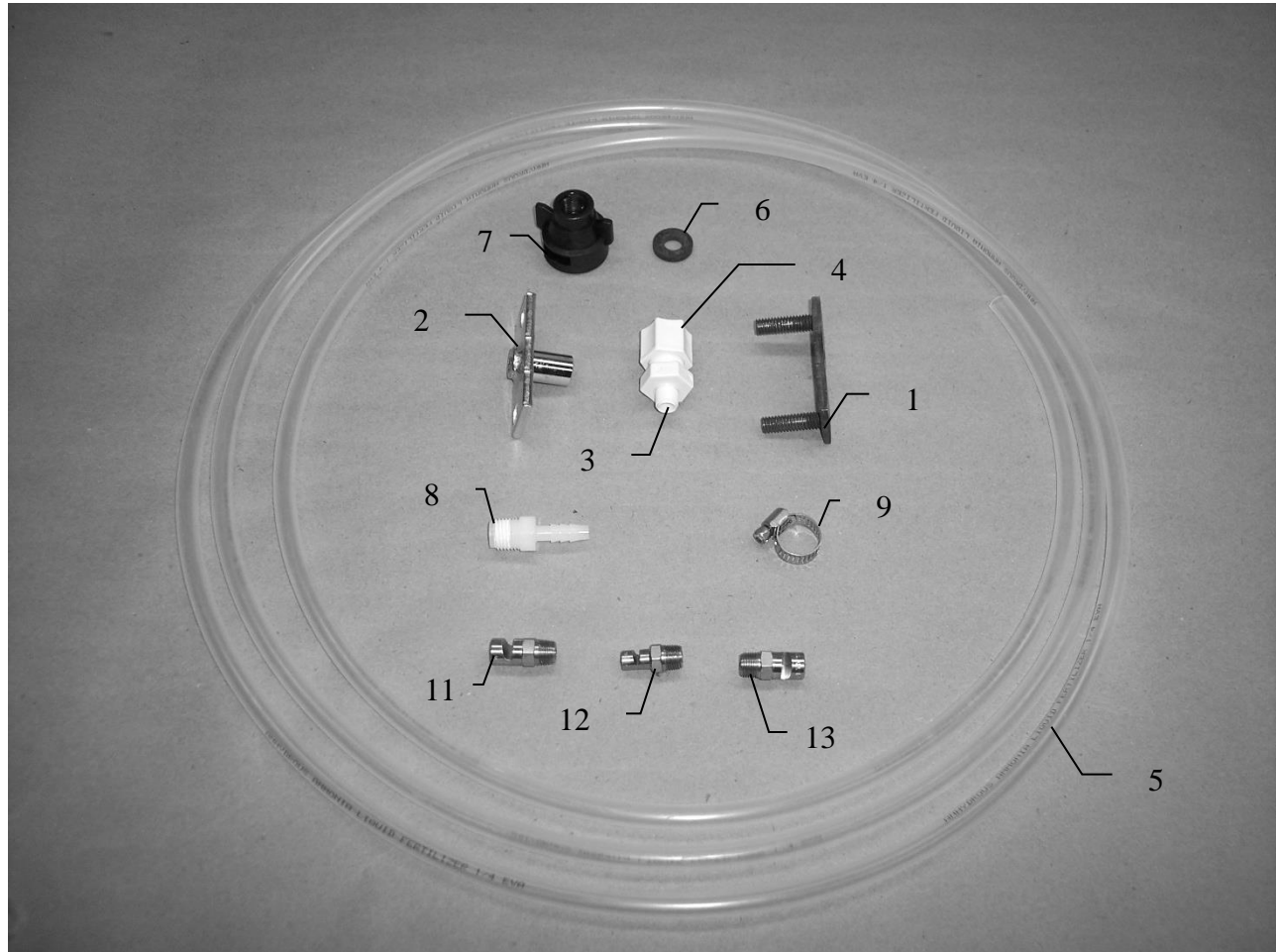
<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Fender support	001-6705Z	1	Tip	004-XR11002VS	1
2	Power lead - modified	006-4580	1	Tip	004-XR11004VS	1
3	Elbow fitting	003-EL1412	1	Tip	004-XR11008VS	1
4	Check valve	002-4564F	1	Tip	004-11015-SS	1
5	Nozzle body	004-4744	1			
6	Nozzle cap	004-4745	1			
7	Strap	001-4216	1			
8	Plug	006-6763	1			
9	Jumper wire	006-4582	1			
10	Toggle switch	006-2196	1			
11	Tip screen	004-1203-80	1			
12	Hose clamp	003-9003	1			

MODEL 6706 FOR NEW HOLLAND FX SERIES



<u>Ref</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Tank support	001-6606B	1	Tip	004-5002-SS	1
2	Lube nozzle holder	001-6501A	1	Tip	004-5004-SS	1
3	Nozzle cap	004-4745	1	Tip	004-5008-SS	1
4	Nozzle body	004-4744	1	Tip	004-5015-SS	1
5	Lube nozzle insert	001-6501B	1			
6	Quick disconnect	004-4710	1			
7	Tip check	004-4468	1			
8	Hose clamp	003-9003	2			
9	Straight fitting	003-A1412	3			
10	Check valve	002-4564F	1			

OPTIONAL SPOUT NOZZLE ASSEMBLY FOR JOHN DEERE 6000 SERIES



<u>Ref.</u>	<u>Description</u>	<u>Part #</u>	<u>Qty</u>
1	Nozzle holder	001-6712A	1
2	Nozzle base	001-6712B	1
3	Jaco fitting	003-JA1418	1
4	Jaco nut	003-JN14	2
5	Hose	002-9006	10
6	Washer	004-1207W	1
7	Female disconnect	004-1207H	1
8	Straight fitting	003-A1414	1
9	Hose clamp	003-9002	1
11	Tip	004-K1-SS	1
12	Tip	004-K4-SS	1
13	Tip	004-K2-SS	1
1-13	Complete assembly	030-6712	1

Harvest Tec, LLC. Warranty and Liability Agreement.

Harvest Tec, LLC. will repair or replace components that are found to be defective within 12 months from the date of manufacture. Under no circumstances does this warranty cover any components which in the opinion of Harvest Tec, LLC. have been subjected to negligent use, misuse, alteration, accident, or if repairs have been made with parts other than those manufactured and obtainable from Harvest Tec, LLC.

Our obligation under this warranty is limited to repairing or replacing free of charge to the original purchaser any part that in our judgment shows evidence of defective or improper workmanship, provided the part is returned to Harvest Tec, LLC. within 30 days of the failure. Parts must be returned through the selling dealer and distributor, transportation charges prepaid.

This warranty shall not be interpreted to render Harvest Tec, LLC. liable for injury or damages of any kind, direct, consequential, or contingent, to persons or property. Furthermore, this warranty does not extend to loss of crop, losses caused by delays or any expense prospective profits or for any other reason. Harvest Tec, LLC. shall not be liable for any recovery greater in amount than the cost or repair of defects in workmanship.

There are no warranties, either expressed or implied, of merchantability or fitness for particular purpose intended or fitness for any other reason.

This warranty cannot guarantee that existing conditions beyond the control of Harvest Tec, LLC. will not affect our ability to obtain materials or manufacture necessary replacement parts.

Harvest Tec, LLC. reserves the right to make design changes, improve design, or change specifications, at any time without any contingent obligation to purchasers of machines and parts previously sold.

Revised 6/22

HARVEST TEC, LLC.
P.O. BOX 63
2821 HARVEY STREET
HUDSON, WI 54016
PHONE: 715-386-9100
1-800-635-7468
FAX: 715-381-1792
Email: info@harvesttec.com