



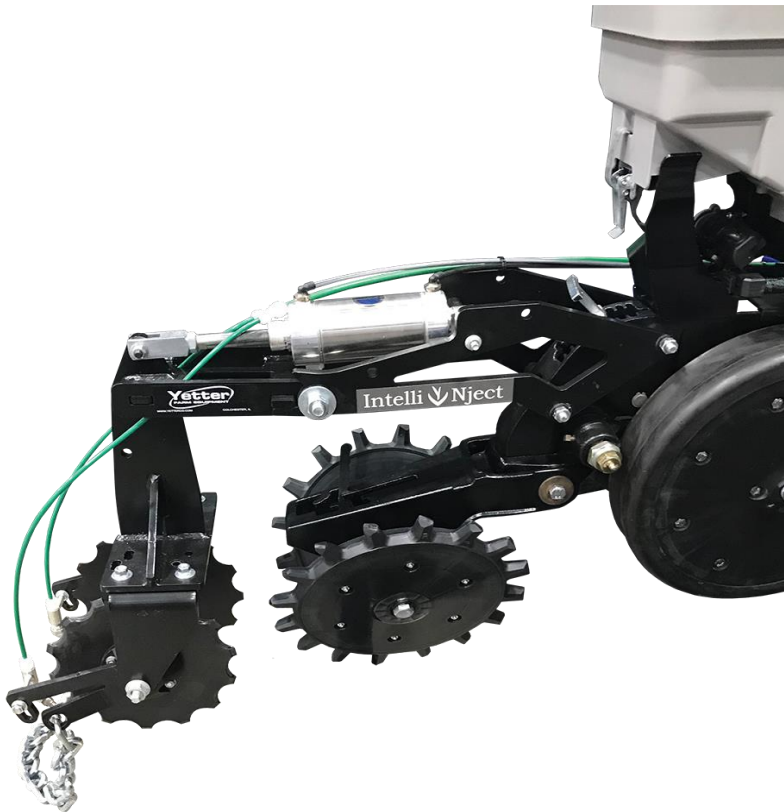
**INTELLI-NJECT™**  
**Model 2969-020, 2969-025, 2969-021**

John Deere 1700, 7200, 7300

White 9000, Kinze 3000/4000

SET UP & PARTS MANUAL

2565-977\_Rev\_G 11/2024



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# FOREWORD


You've just joined an exclusive but rapidly growing club.


For our part, we want to welcome you to the group and thank you for buying a Yetter product.


We hope your new Yetter products will help you achieve both goals-increase your productivity and increase your efficiency so that you may generate more profit.


This operator's manual has been designed into four major sections: Foreword, Safety Precautions, Installation Instructions and Parts Breakdown.

This **SAFETY ALERT SYMBOL** indicates important safety messages in the manual. When you see this symbol, be alert to the possibility of **PERSONAL INJURY** and carefully read the message that follows.

 **DANGER:** Indicates an imminently hazardous situation which, if not avoided "will" result in death or serious injury. This signal word is to be limited to the most extreme situations

 **WARNING:** Indicates a potentially hazardous situation which, if not avoided, "could" result in death or serious injury.

 **CAUTION:** Indicates a potentially hazardous situation, which if not avoided, "may" result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTICE:** Indicates information considered important, but not hazard related (e.g., messages relating to property damage).

It is the responsibility of the user to read the operator's manual and comply with the safe and correct operating procedure and to lubricate and maintain the product according to the maintenance schedule in the operator's manual.

The user is responsible for inspecting his machine and for having parts repaired or replaced when continued use of the product would cause damage or excessive wear to the other parts.

It is the user's responsibility to deliver his machine to the Yetter dealer who sold him the product for service or replacement of defective parts, which are covered by the warranty policy.

If you are unable to understand or follow the instructions provided in this publication, consult your local Yetter dealer or contact:

**YETTER MANUFACTURING CO.**

309/776-4111

800/447-5777

309/776-3222 (FAX)

Website: [www.yetterco.com](http://www.yetterco.com)

E-mail: [info@yetterco.com](mailto:info@yetterco.com)

## WARRANTY

Yetter Manufacturing warrants all products manufactured and sold by it against defects in material. This warranty being expressly limited to replacement at the factory of such parts or products as shall appear to be defective after inspection. This warranty does not obligate the Company to bear cost of labor in replacement of parts. It is the policy of the Company to make improvements without incurring obligations to add them to any unit already sold. No warranty is made or authorized to be made, other than herein set forth. This warranty is in effect for one year after purchase.

DEALER: \_\_\_\_\_

**Yetter Manufacturing warrants its own products only and cannot be responsible for damages to equipment on which mounted.**



## SAFETY PRECAUTIONS



A brief description of signal words that may be used in this manual:

**DANGER:** Indicates an imminently hazardous situation which, if not avoided “will” result in death or serious injury. This signal word is to be limited to the most extreme situations.

**WARNING:** Indicates a potentially hazardous situation which, if not avoided, “could” result in death or serious injury.

**CAUTION:** Indicates a potentially hazardous situation, which if not avoided, “may” result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE:** Indicates information considered important, but not hazard related (e.g., messages relating to property damage).

Consult your implement and tractor operator’s manual for correct and safe operating practices. Be aware of towed implement width and allow safe clearance.

Safety decals are placed on the implement to alert the operator and others to the risk of personal injury or unsafe operation during normal operations and servicing.

1. The safety decals must be kept clean and in good condition to ensure that they are legible.
2. Safety decals must be replaced if they are missing or illegible.
3. When components are replaced during repair or servicing, check that the new components include the necessary safety signs.
4. Replacement safety decals may be obtained from your local dealer.



### WARNING

Read these instructions carefully to acquaint yourself with the Equipment. Working with unfamiliar equipment can lead to accidents.

Never park the equipment on a steep incline or leave the equipment running unattended.

Never clean, lubricate or adjust a machine that is in motion.

Always check that straps are secure.

Make sure latches are in pinned position when moving equipment.

Do not allow children to operate this equipment.

Do not allow riders on the equipment, trailer and/or pick-up.

Use speed and caution dictated by the terrain being traversed. Do not operate on any slope steep enough to cause tipping or loss of control.

Read and understand the operator’s manual and require all other persons who will operate the equipment to do the same.

If operating on public roadways, where legal, be certain all lighting is operating properly and observe all traffic laws.

Beware of increased stopping distances and control effort when operating with implements attached.

Be familiar with all controls and be prepared to stop equipment quickly in an emergency.

**FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.**

# INSTALLATION

## BOLT TORQUE



**NOTICE:** Over-tightening hardware can cause just as much damage as under-tightening. Tightening hardware beyond the recommended range can reduce its shock load capacity.









All hardware on the 2969 Intellinject is either Grade 5 or Grade 8, unless otherwise noted. Grade 5 cap screws are marked with three radial lines on the head. Grade 8 cap screws are marked with six radial lines on the head. If hardware must be replaced, be sure to replace it with hardware of equal size, strength and thread type. Refer to the torque values chart when tightening hardware.

The chart below is a guide for proper torque. Use it unless a specified torque is called out elsewhere in the manual.

Torque is the force applied to the end of the handle or cheater bar, times the length of the handle or bar.

### Use a torque wrench wherever possible

The following table shows torque in ft.-lbs. for coarse thread hardware.

Bolt Diameter and Threads per Inch					Bolt Diameter				
	Grade 2	Grade 5	A-325	Grade 8		4.6	8.8	10.9	12.9
1/4	6	10		14	M4	0.9	2.3	3.2	3.8
5/16	12	20		30	M5	1.8	4.5	6.5	7.6
3/8 - 16	25	35		50	M6	3.0	7.7	11.1	13.0
7/16 - 14	35	55		80	M7	5.0	13.0	18.5	21.7
1/2 - 13	55	85		125	M8	7.3	18.8	26.9	31.4
9/16 - 12	75	125		175	M10	14.4	37.2	53.2	62.2
5/8 - 11	105	170		235	M12	25.2	64.9	92.8	108.5
3/4 - 10	185	305		425	M14	40.2	103.7	148.4	173.4
7/8 - 9	170	445		690	M16	62	161	230	269
1 - 8	260	670		1030	M18	86	222	318	372
1 1/8 - 7	365	900		1460	M20	122	314	449	525
1 1/4 - 7	515	1275		2060	M22	166	428	613	716
1 3/8 - 6	675	1675		2700	M24	211	543	777	908
1 1/2 - 6	900	2150		3500	M27	309	796	1139	1331
1 3/4 - 5	1410	3500		5600					

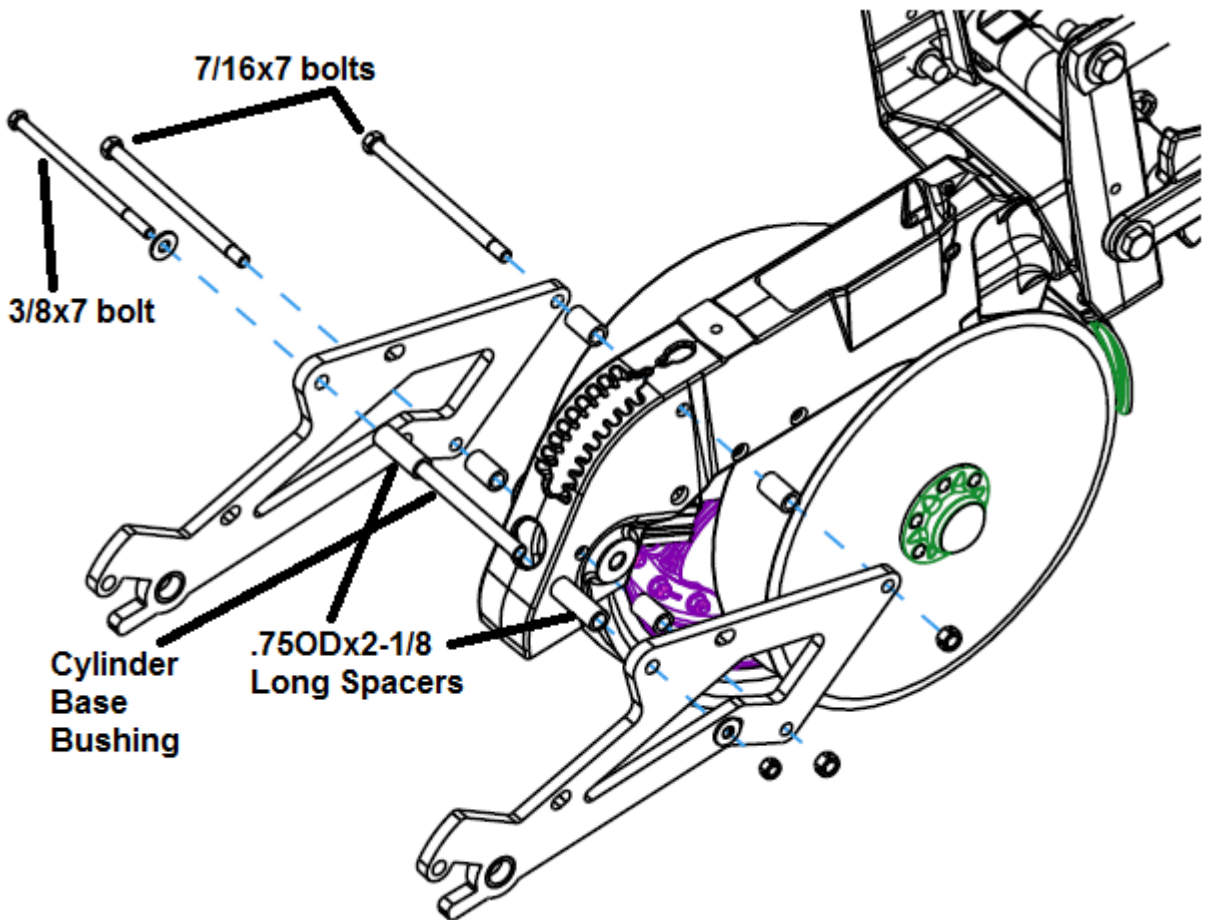
# 2969-020 INSTALLATION

## John Deere Row Unit

**STEP 1:** Attach the 2969-115 side plate assemblies to the row unit using 2) 7/16 – 14 X 7 bolts, 2) 7/16 lock nut, & 4) outer mount bushings. Only hand tighten the 7/16 lock nuts. Assemble the air cylinder (not pictured for clarity) to the side plate assemblies using a 1) 3/8 X 7 bolt, 2) 3/8 flat washers, 2) .750 OD X 2 1/8 Long Spacers (air cylinder anchor goes between each spacer), & 1) 3/8 lock nut.



**NOTICE:** If the John Deere row unit doesn't have the mounting holes shown in the side plate assembly diagram below, use the template on **page 45** to drill holes so that the side plates can be installed.



## 2969-020 INSTALLATION

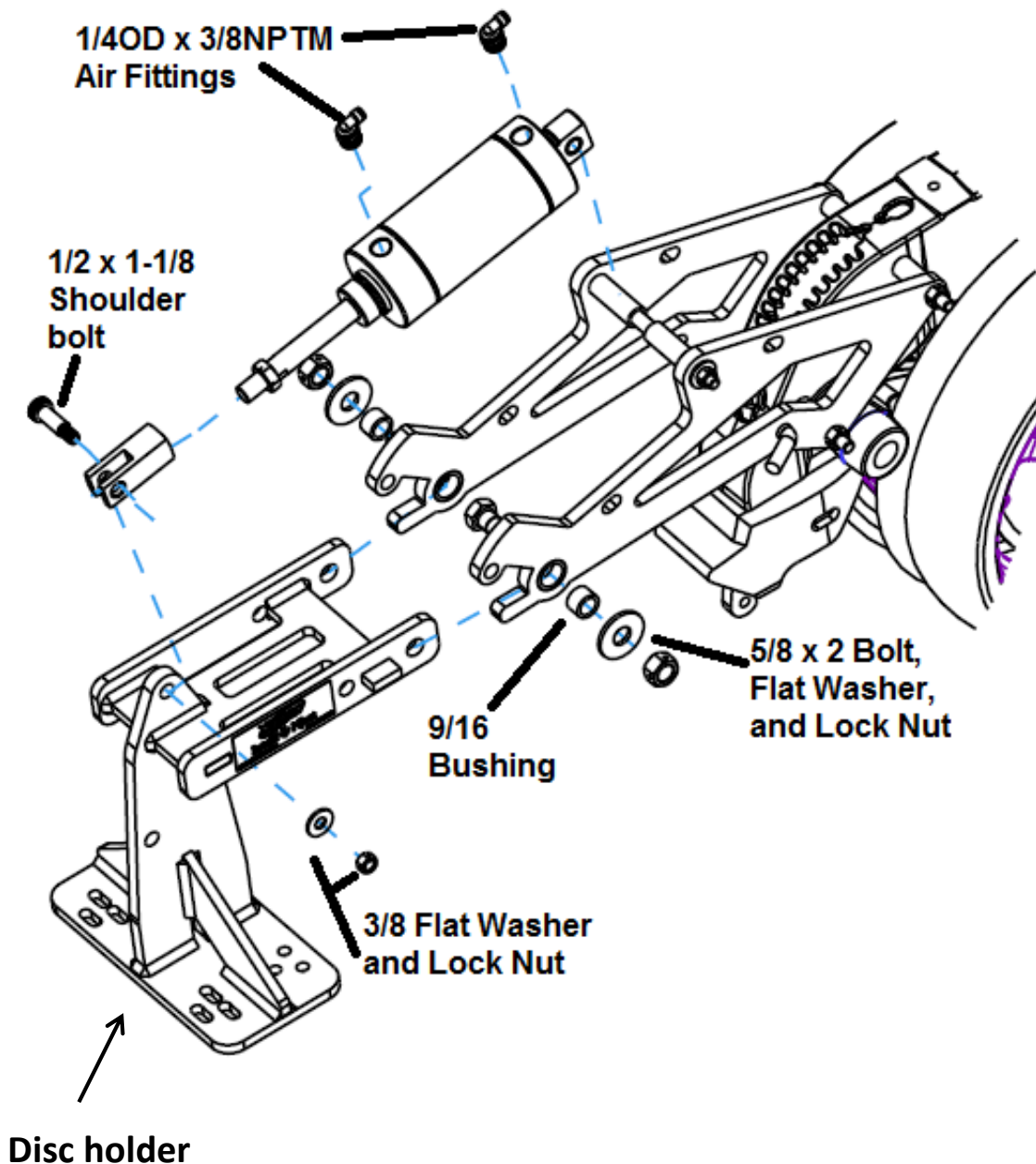
### John Deere Row Unit

**STEP 2:** Attach the 2969-205 disc holder to the rearward most holes of the side plates with 2) 5/8 X 2" bolts, 2) chrome plated bushings, and 2) 5/8 lock nuts. Ensure that the bushings are properly seated in the side plate assemblies before tightening the 5/8" lock nuts.

**STEP 3:** Attach the rod end of the cylinder to the lug on top of the 2969-205 disc holder using the 2510-311 1/2 X 1 1/8 shoulder bolt. Secure using 1) 3/8 washer and 3/8 lock nut. Use this assembly photo for to ensure correct installation of the anchor end of the cylinder.

**STEP 4:** Tighten the 7/16" mount bolts from **STEP 1** at this time.

**STEP 5:** Install 2) 1/4PTC X 3/8NPTM elbow fittings in the air cylinder.





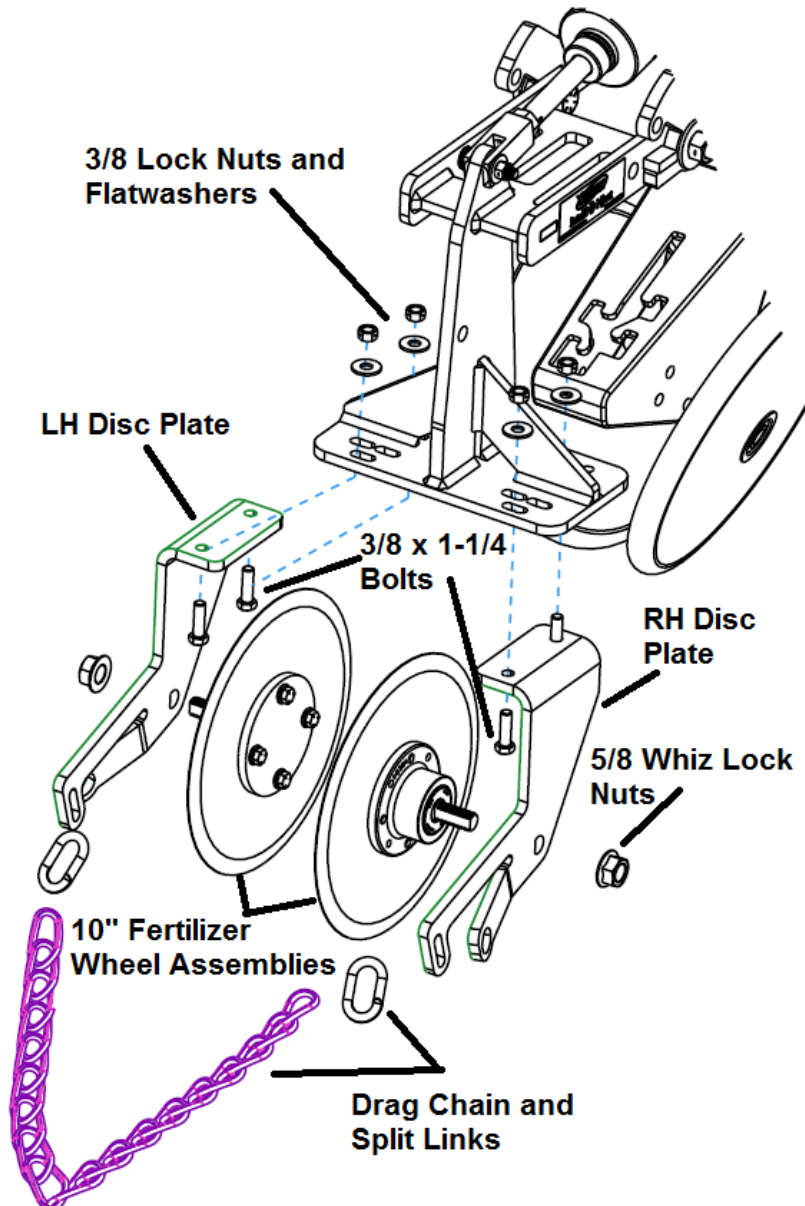
# 2969-020 INSTALLATION

## John Deere Row Unit

**STEP 6:** Install 2969-400/401 disc plates to the 2969-205 disc holder using 4) 3/8 x 1-1/4" bolts, 4) 3/8 flat washers, and 4) 3/8 lock nuts. **NOTE:** Make sure that the bolts are installed from the bottom facing up, with the washer and locknut on the top of the 2969-205 disc holder. There are three width adjustment options ranging from 2"-3" off the row.

**STEP 7:** Put the 2968-132 fertilizer wheels on the inside of the disc plate holders through the 5/8" D-hole and secure with the 5/8 whiz lock nut

**STEP 8:** Attach the drag chains to the bottom round hole of the 2969-400/401 disc plate. Place 1) Split Link on the drain chain mounting hole on each Disc Plate. Attach 1 end of the drag chain on the split link on the LH Disc Plate & 1 end of the drag chain on the split link on the RH Disc Plate. Pinch each spit link together to keep chain attached to Disc Plate.





# 2969-020 INSTALLATION

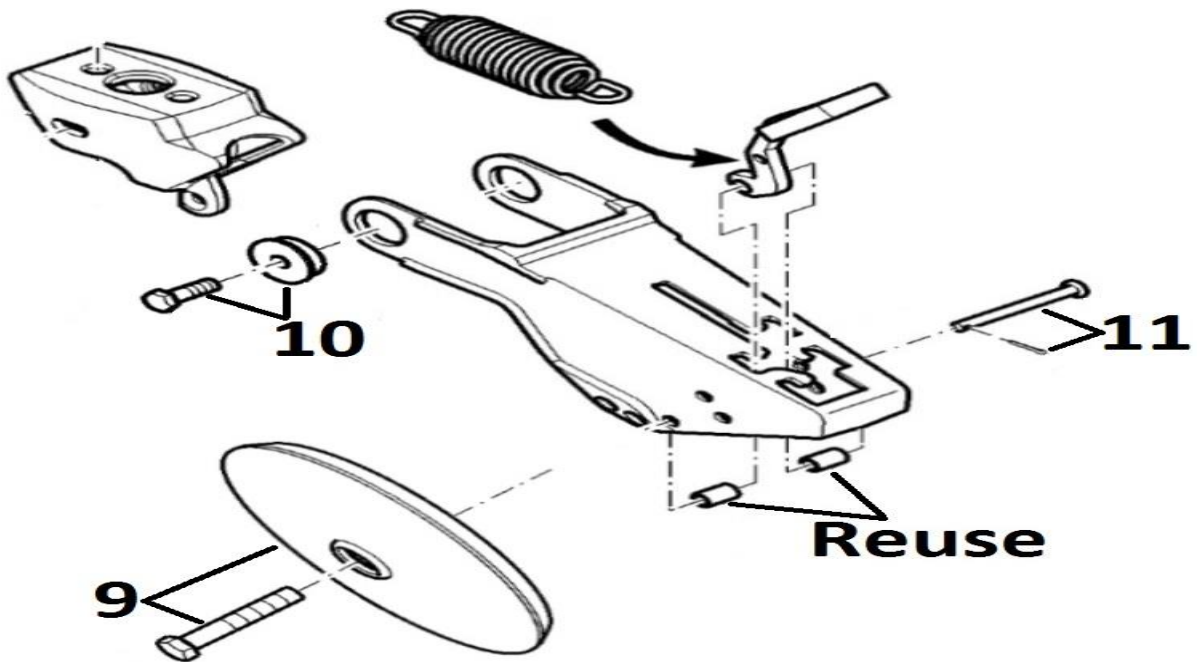
## John Deere Row Unit

**STEP 9:** To remove the closing wheel handle, start by removing both of the closing wheels, by taking out the 5/8" bolt, nut, and lock washer.

**STEP 10:** Then remove the tailpiece by taking out the M12 bolts in the pivot point. This will allow the tailpiece to be twisted so the spring can be removed from the handle.

**STEP 11:** Remove the pin that the handle pivots on by taking out the cotter pin. Do not loose the spacer bushing on each side of the handle, these will be reused.

**STEP 12:** Install the new handle using the OEM pivot pin and cotter pin. NOTE: ensure to install the spacer bushing on both sides of the handle. Make sure that the bend in the handle points up/forward. Reassemble closing wheel tail piece and closing wheels. See picture below.



2969-415 JD  
Close Wheel  
Handle Assembled




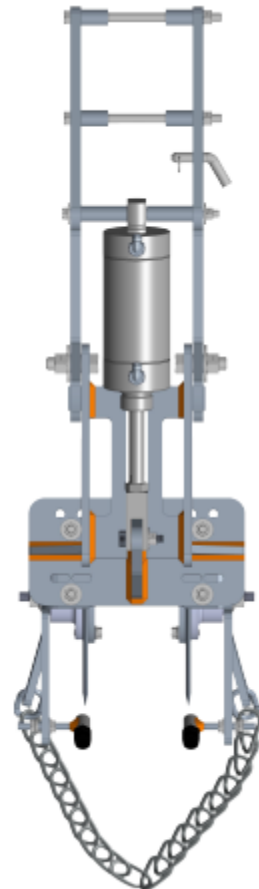
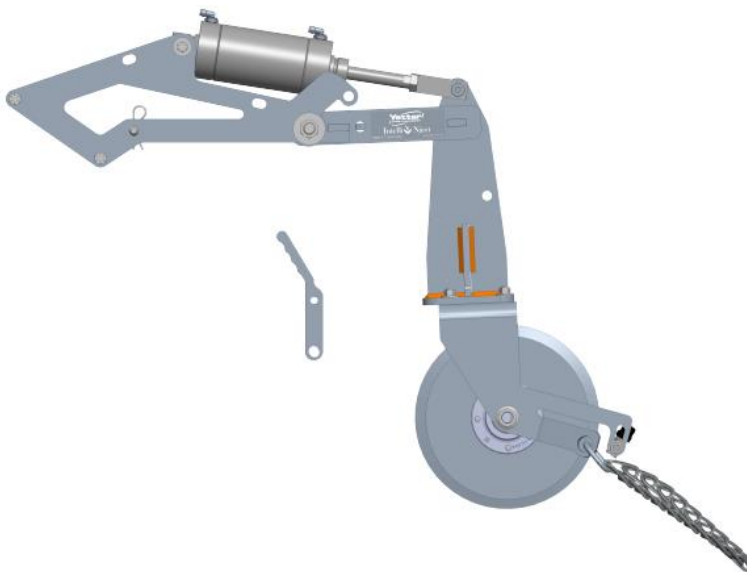
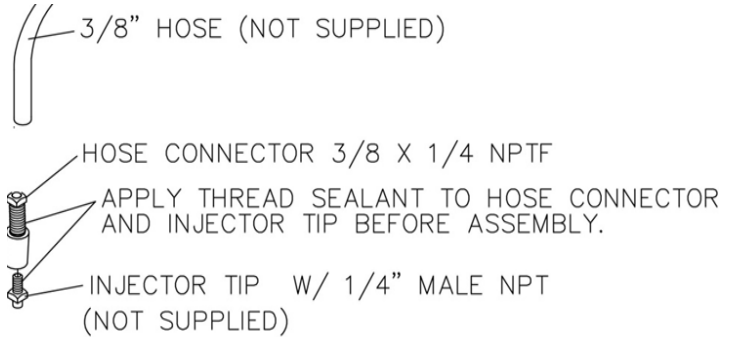
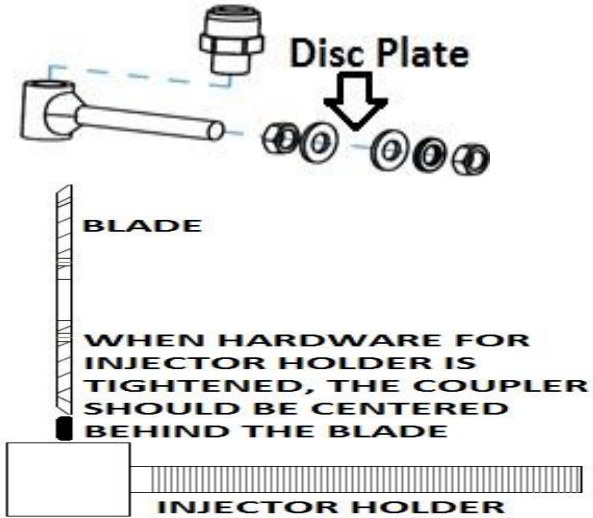
# 2969-020 INSTALLATION John Deere Row Unit

**STEP 13:** Assemble 2968-218 injector holder, 2515-846 hose coupler and nozzle tip (not supplied). Injector tips can be ordered through fertilizer equipment dealer. Calibrate the fertilizer pump and tips to maximum recommended pressure of 30 psi. & minimum 20 psi.

**STEP 14:** Thread on 3/8" nut onto 2968-218 Injector Holder about 2", place a 3/8 flat washer against the nut, & insert the stud through hole on the inside of the arm. Place 3/8 flat washer & 3/8 lock washer on the stud. Install another 3/8" nut onto stud and adjust the nozzle to be directly behind the Fertilizer Wheel. Tighten nuts securely.

**STEP 15:** Plumb your fertilizer lines to the attachment. **Check that hoses do not become pinched as the planter unit and v-close arm bracket moves up and down.**

 **NOTICE:** It is best to consult the fertilizer supplier for optimum placement when placing starter fertilizer in close proximity to the seed.

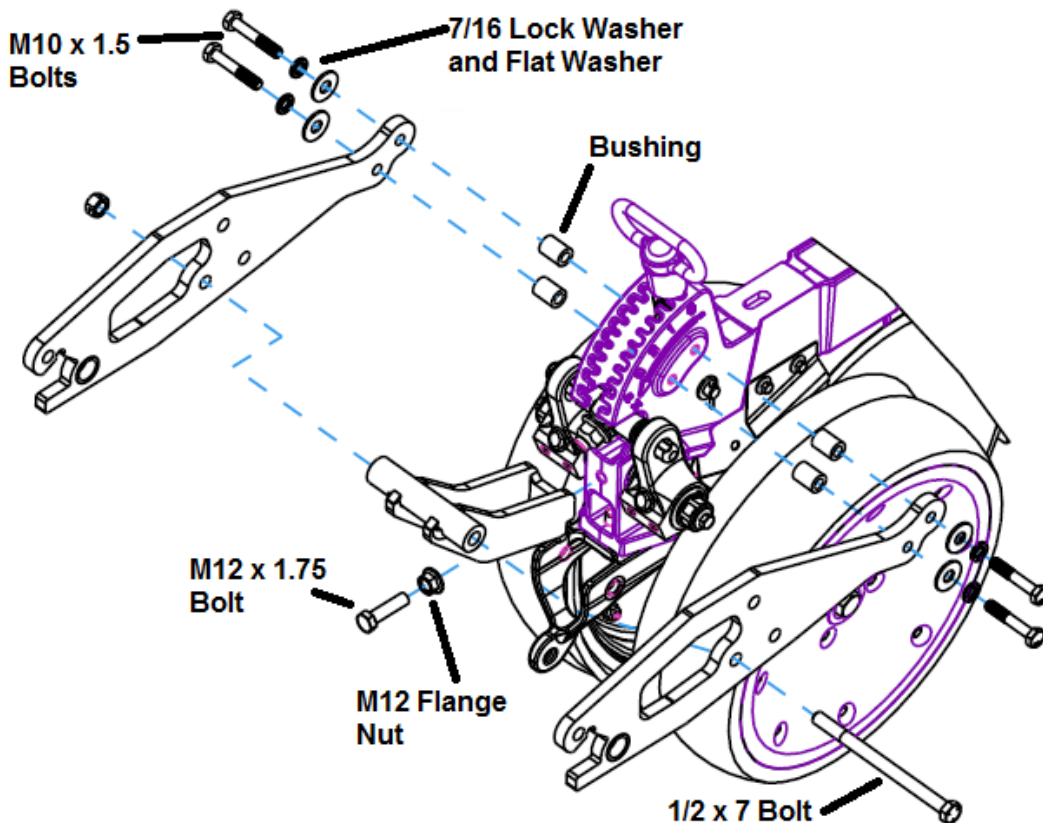
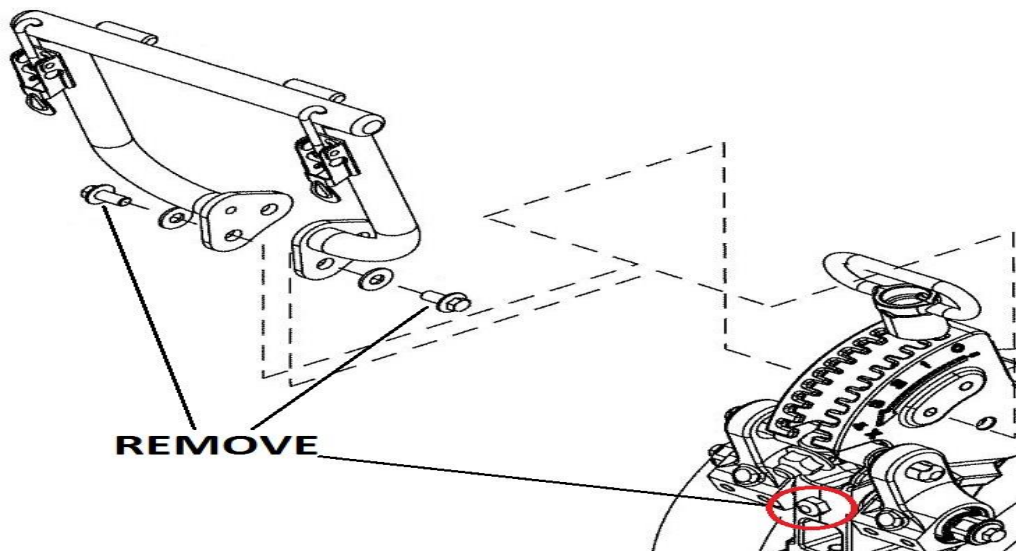


# 2969-025 INSTALLATION – White 9000 Row Unit

**STEP 1:** Remove the 4) M10 seed box mount bolts. The hopper bracket will be reused. Also remove the M12 X 1.75 below the seed depth adjuster holding the gauge wheel arm pivot.

**STEP 2:** Install the 2969-203 Support using 1) 2502-280 M12 X 1.75 bolt & M12 Flange nut. Install each 2969-114 Side Plate Assembly (1 on each side) using 2) M10 X 1.50 bolts, 2) 2525-301 7/16 lock washers, 2) 2526-301 7/16 washers, & 2) 2969-406 outer mount bushings. The bushings go between the row unit and the side plate. Do not tighten the 4) M10 bolts. **NOTE:** For bulk fill planters equipped with a mini hopper, add 1 of the OEM washers between the row unit and each bushing (4).

**STEP 3:** Attach the support to the side plates using 1) ½ X 7 bolt & 1) ½ lock nut.



## 2969-025 INSTALLATION – White 9000 Row Unit

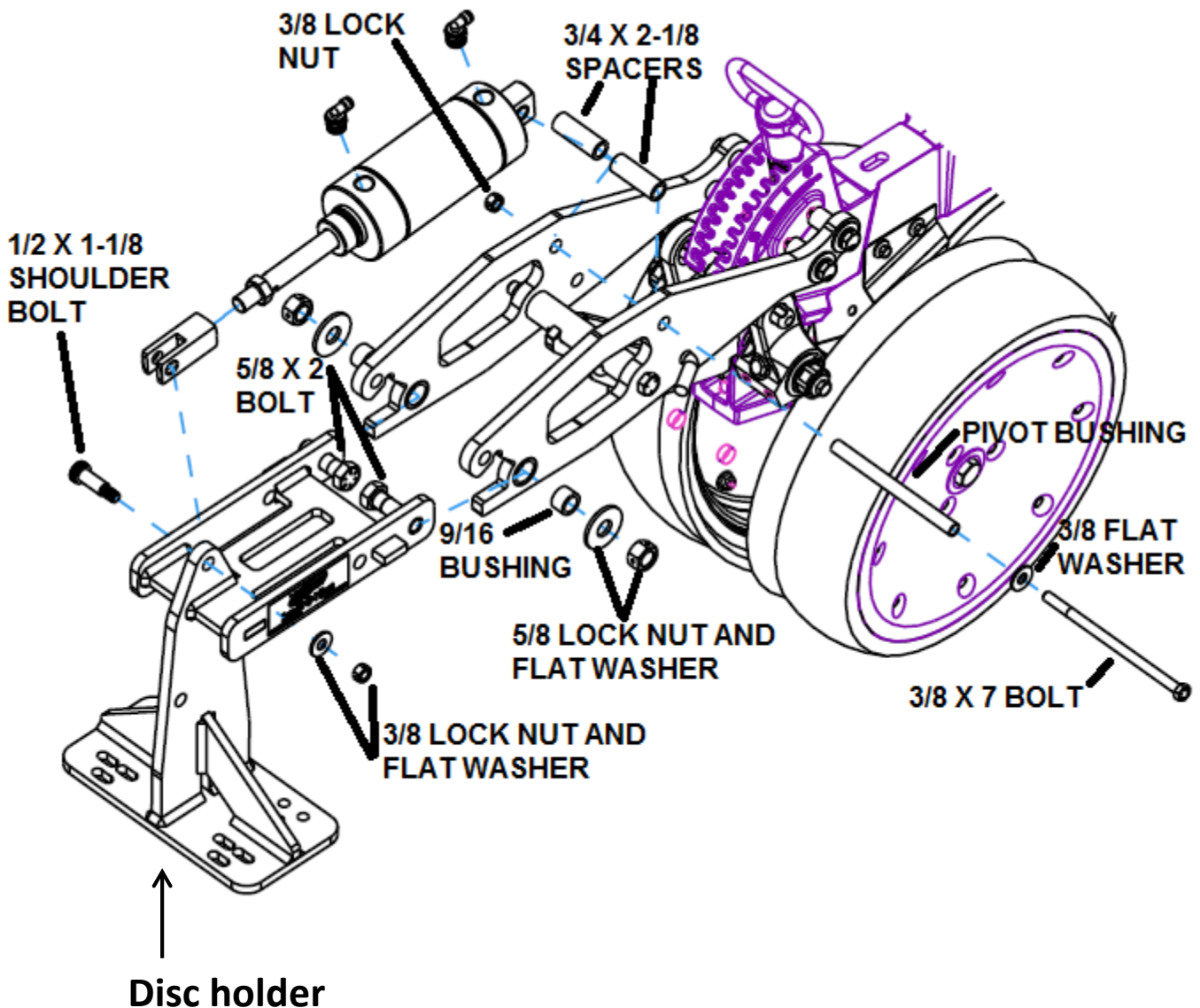
**STEP 4:** Attach the 2969-205 disc holder to the rearward most holes of the side plates using 2) 5/8 X 2" bolts, 2) 5/8 flat washers, 2) chrome plated bushings, & 2) 5/8 lock nuts. Ensure that the bushings are properly seated in the side plate assemblies before tightening the 5/8" lock nuts.

**STEP 5:** Attach the anchor side of the 2515-306 air cylinder to the support using 1) 3/8 X 7 bolt, 2) 3/8 flat washers, 1) pivot bushing, 2) 3/4 X 2 1/8 spacers, & 1) 3/8 lock nut.

**STEP 6:** Attach the rod end of the air cylinder to the disc holder using 1) 1/2 X 1 1/8 shoulder bolt, 1) 3/8 flat washer, & 1) 3/8 lock nut.

**STEP 7:** Install the 1/4PTC X 3/8NPTM air fittings to the air cylinder.

**STEP 8:** Tighten the 4) M10 mount bolts from **STEP 2** at this time.



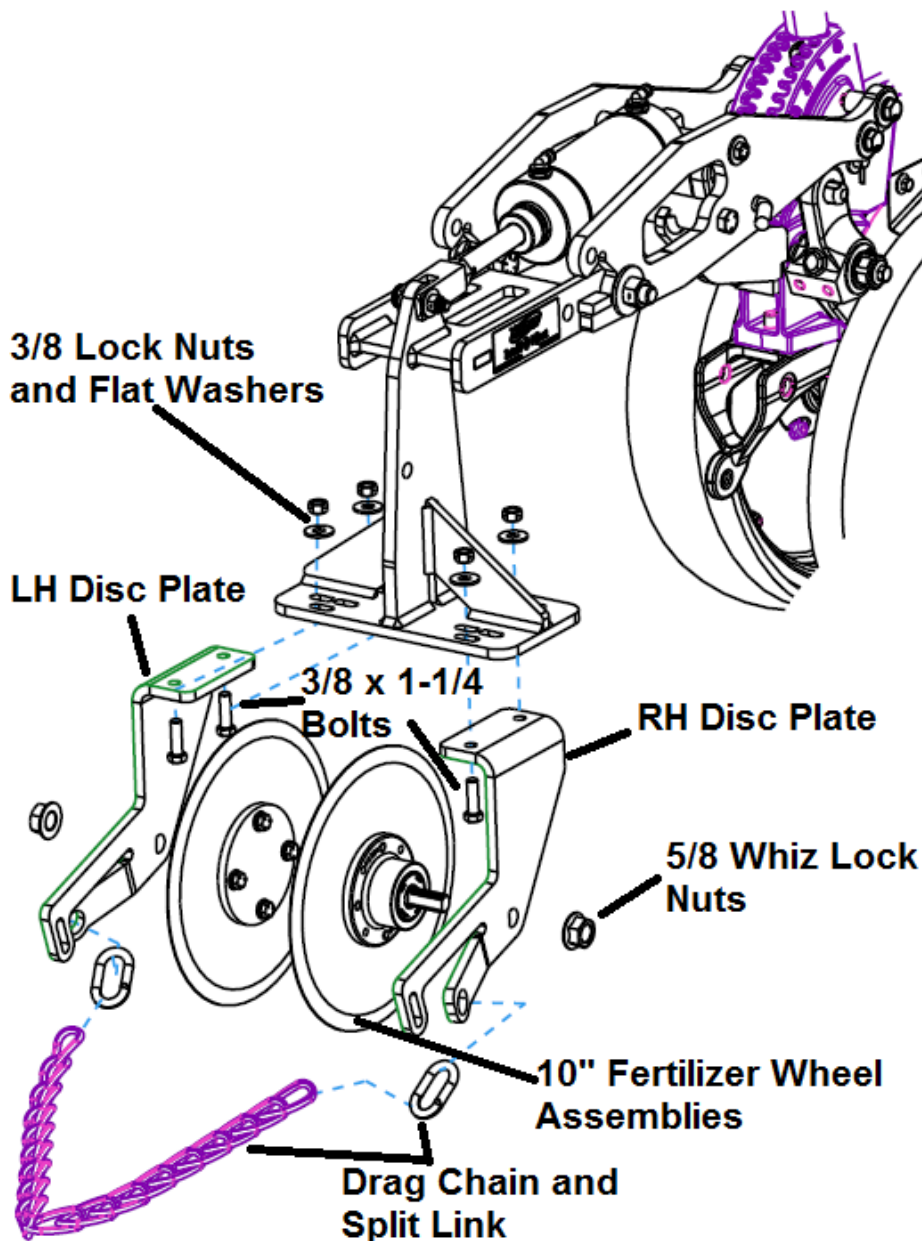


## 2969-025 INSTALLATION – White 9000 Row Unit

**STEP 9:** Install 2969-400/401 disc plates to the 2969-205 disc holder using 4) 3/8 x 1-1/4" bolts, 4) 3/8 flat washers, and 4) 3/8 lock nuts. **NOTE:** Make sure that the bolts are installed from the bottom facing up, with the washer and locknut on the top of the 2969-205 disc holder.) There are three width adjustment options ranging from 2"-3" off the row.

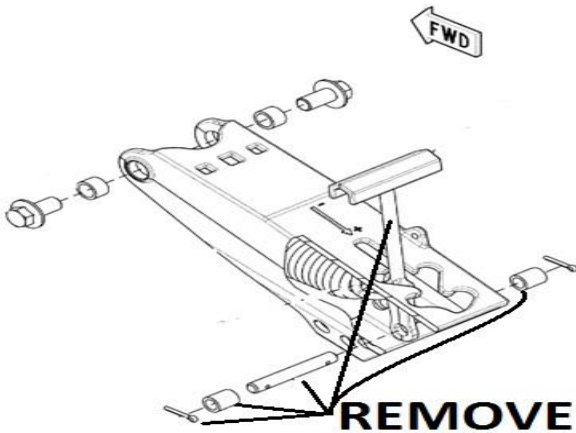
**STEP 10:** Put the 2968-132 fertilizer wheels on the inside of the disc plate holders thru the 5/8" D-hole & secure with the 5/8 whiz lock nut

**STEP 11:** Attach the drag chains to the bottom round hole of the 2969-400/401 disc plate. Place 1) Split Link on the drain chain mounting hole on each Disc Plate. Attach 1 end of the drag chain on the split link on the LH Disc Plate & 1 end of the drag chain on the split link on the RH Disc Plate. Pinch each spit link together to keep chain attached to Disc Plate.

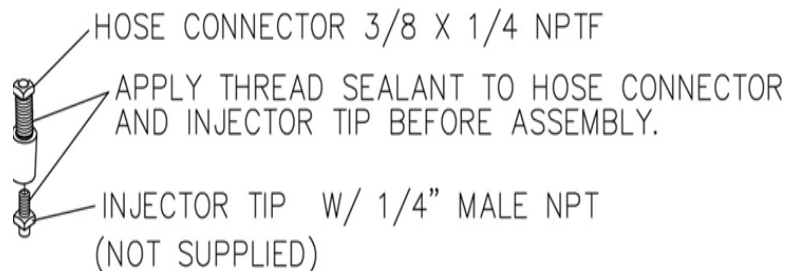
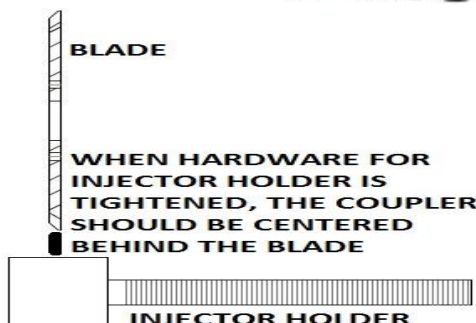
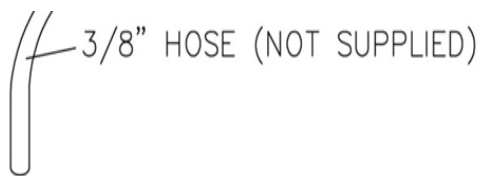


# 2969-025 INSTALLATION – White 9000 Row Unit

- STEP 12:** Remove the old closing wheel down pressure “T” handle by removing 1) 5/8” bolt used to attach 1 of the closing wheels.
- STEP 13:** Remove the 1 roll pin (or cotter pin depending on model) holding the T handle pivot.
- STEP 14:** Remove the pivot pin allowing the T handle to be spun sideways and taken out.
- STEP 15:** Put the 2969-416 close wheel handle in sideways & spin straight to attach to OEM spring.
- NOTE:** Ensure the bend is facing forward(see picture below)
- STEP 16:** Install the pivot pin through the original hole & the new handle, making sure the stock spacer bushing is reinstalled on both sides of the closing wheel handle, reinstall the roll pin (or cotter pin), & reinstall the closing wheel using the 5/8” bolt.

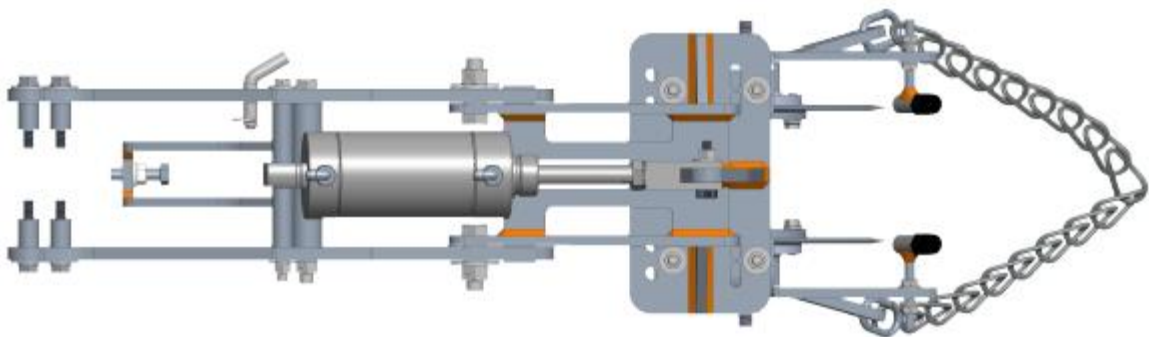
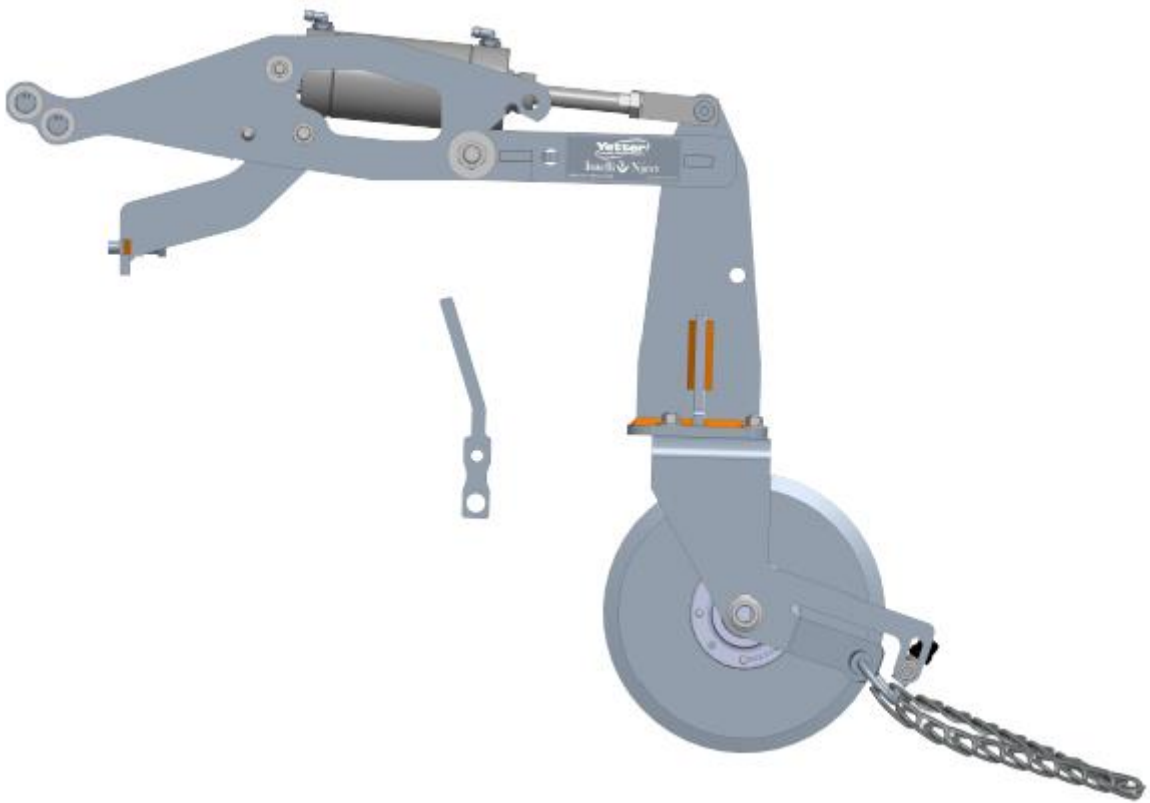


- STEP 13:** Assemble 2968-218 injector holder, 2515-846 hose coupler and nozzle tip (not supplied). Injector tips can be ordered through fertilizer equipment dealer. Calibrate the fertilizer pump and tips to maximum recommended pressure of 30 p.s.i. and minimum 20 p.s.i.
- STEP 14:** Thread on 3/8” nut onto 2968-218 Injector Holder about 2”, place a 3/8 flat washer against the nut, & insert the stud through hole on the inside of the arm. Place 3/8 flat washer & 3/8 lock washer on the stud. Install another 3/8” nut onto stud and adjust the nozzle to be directly behind the Fertilizer Wheel. Tighten nuts securely.
- STEP 15:** Plumb your fertilizer lines to the attachment. **Check that hoses do not become pinched as the planter unit and v-close arm bracket moves up and down.**
- IMPORTANT:** It is best to consult the fertilizer supplier for optimum placement when placing starter fertilizer in close proximity to the seed.





# 2969-025 INSTALLATION – White 9000 Row Unit




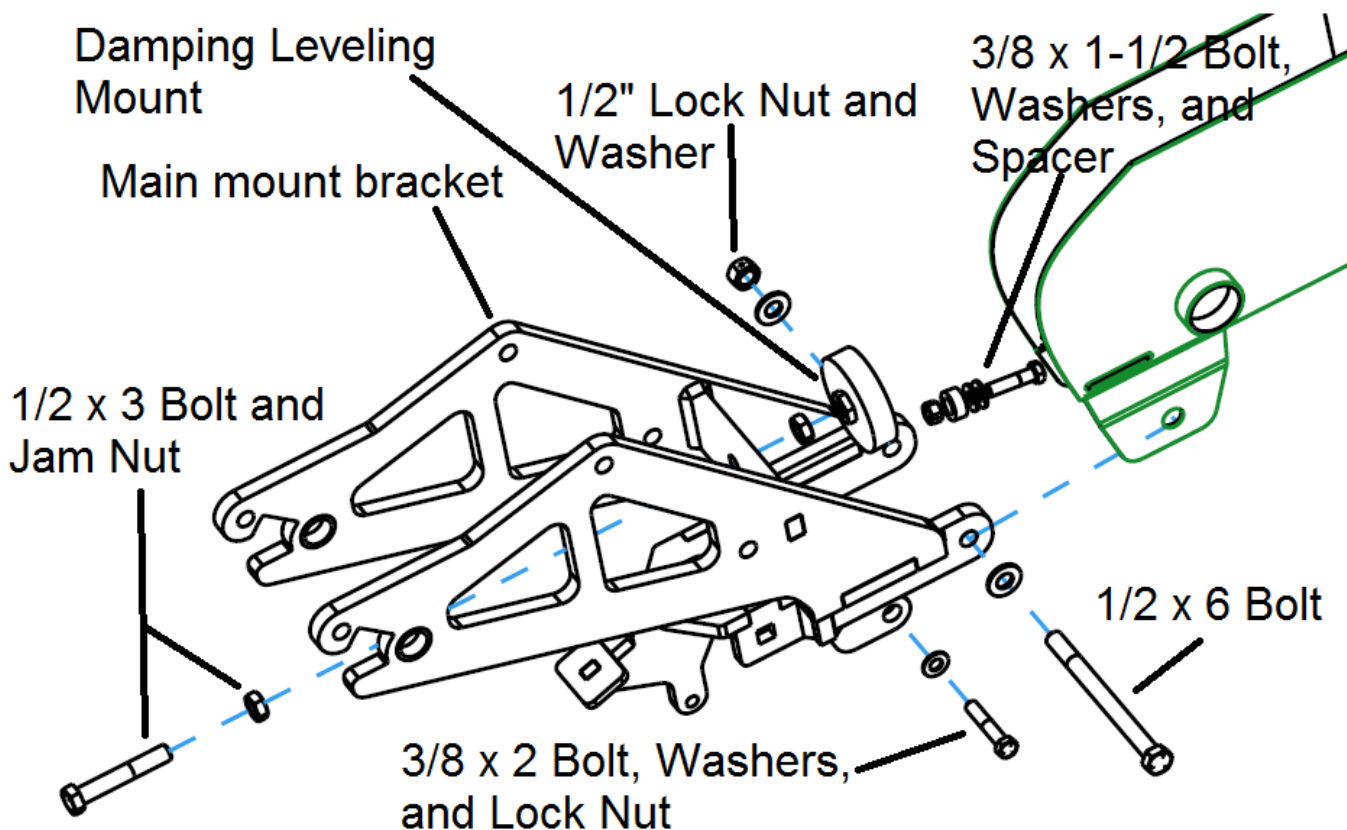
## 2969-021 INSTALLATION Kinze Row Unit

**STEP 1:** Remove the Closing wheel arm from the row unit. Secure the main mount bracket to the row unit. The  $\frac{1}{2}$  bolt goes through the closing arm pivot, and the  $\frac{3}{8}$  bolt goes through the spring anchor.

**NOTE: On 3000 Series Only** The  $\frac{3}{8}$  x 1-1/2 bolt, washer, and spacers will go on the front cast block that holds the closing wheel arm. Remove the original  $\frac{3}{8}$  bolt and replace  $\frac{3}{8}$  x 1-1/2". The washers and spacer will then go between the row unit and the cast block to "shim" it up. Shims can be added or taken out to ensure the bracket is running level with the row unit.

**STEP 2:** Install the  $\frac{1}{2}$  x 3" bolt and Jam nuts into the Damping Leveling Mount, and tighten against the row unit.

 **NOTICE:** It is best to consult the fertilizer supplier for optimum placement when placing starter fertilizer in close proximity to the seed.

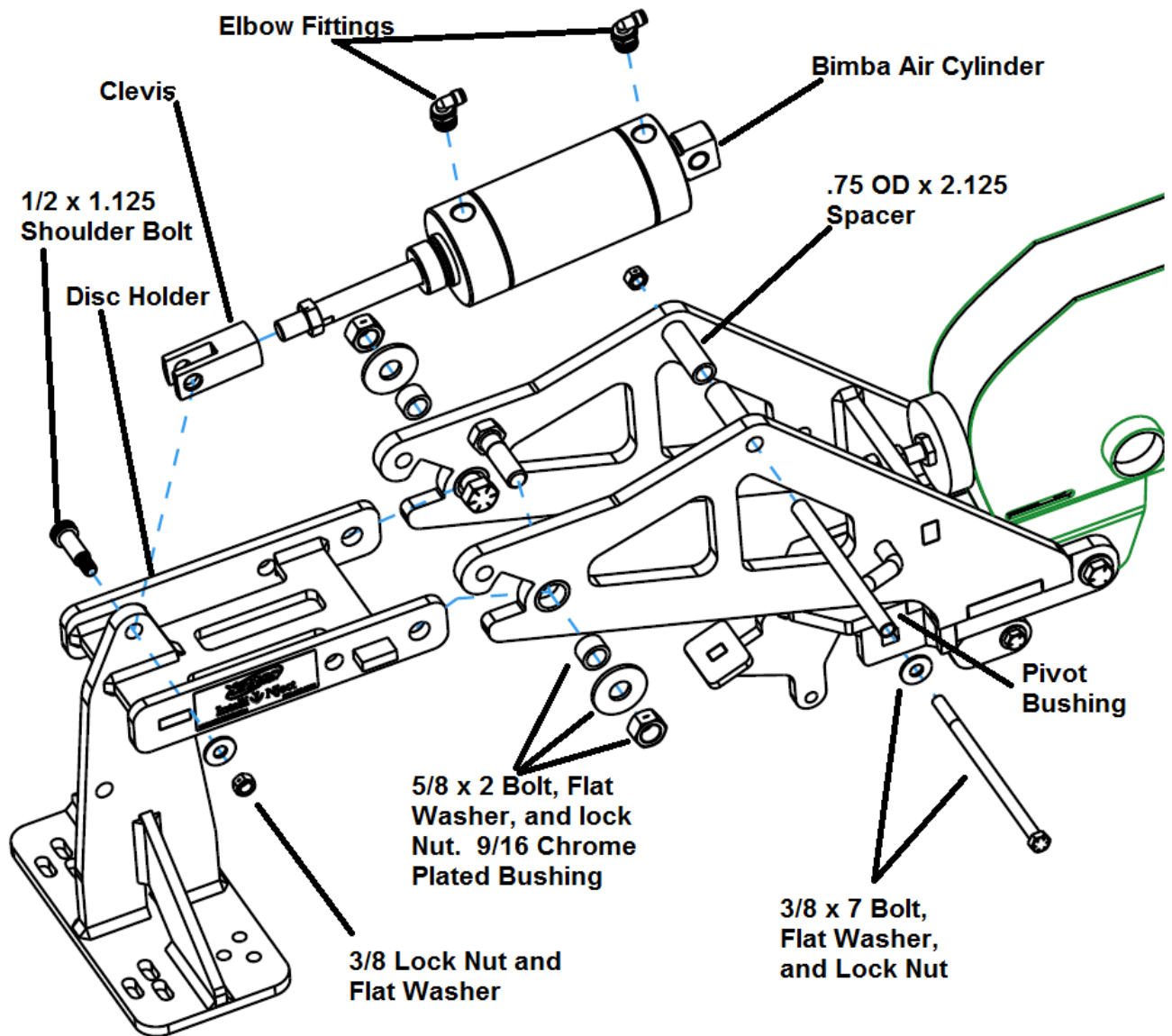


## 2969-021 INSTALLATION Kinze Row Unit

**STEP 3:** Install the disc holder arm using the 5/8 bolt and chrome plated bushing. Secure with flat washer and lock nut.

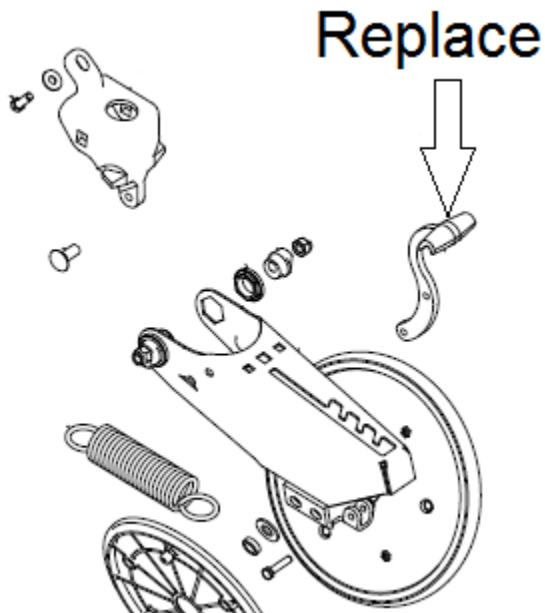
**STEP 4:** To attach the barrel end of the cylinder, put the 3/8 x 7" bolt through the pivot bushing. Put the bolt through the main mount bracket and the barrel end of the cylinder, making sure to put a spacer on each side of the cylinder to keep it centered.

**STEP 5:** Attach the rod end of the cylinder to the disc holder arm using the shoulder bolt, and 3/8" lock nut and flat washer.



## 2969-021 INSTALLATION Kinze Row Unit

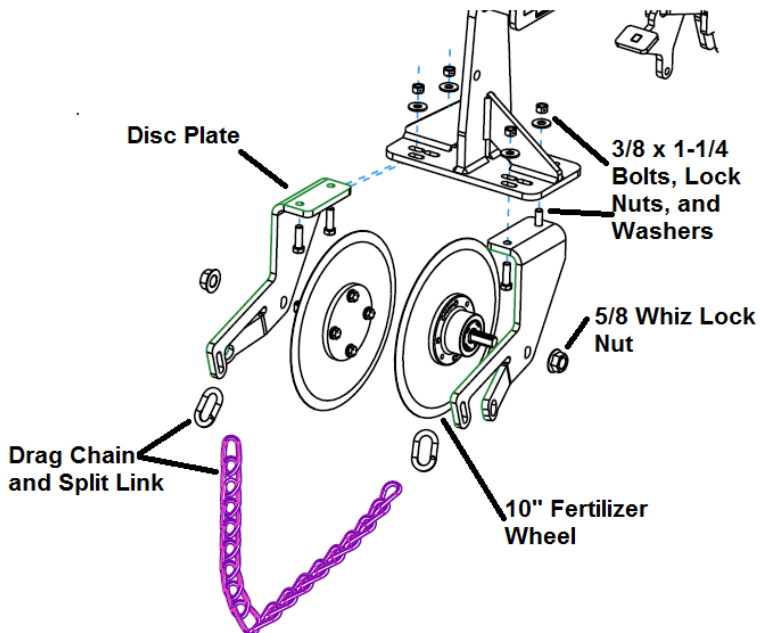
**STEP 6:** Install the closing wheel arm. The stock down pressure handle will need replaced with the one provided in the kit.



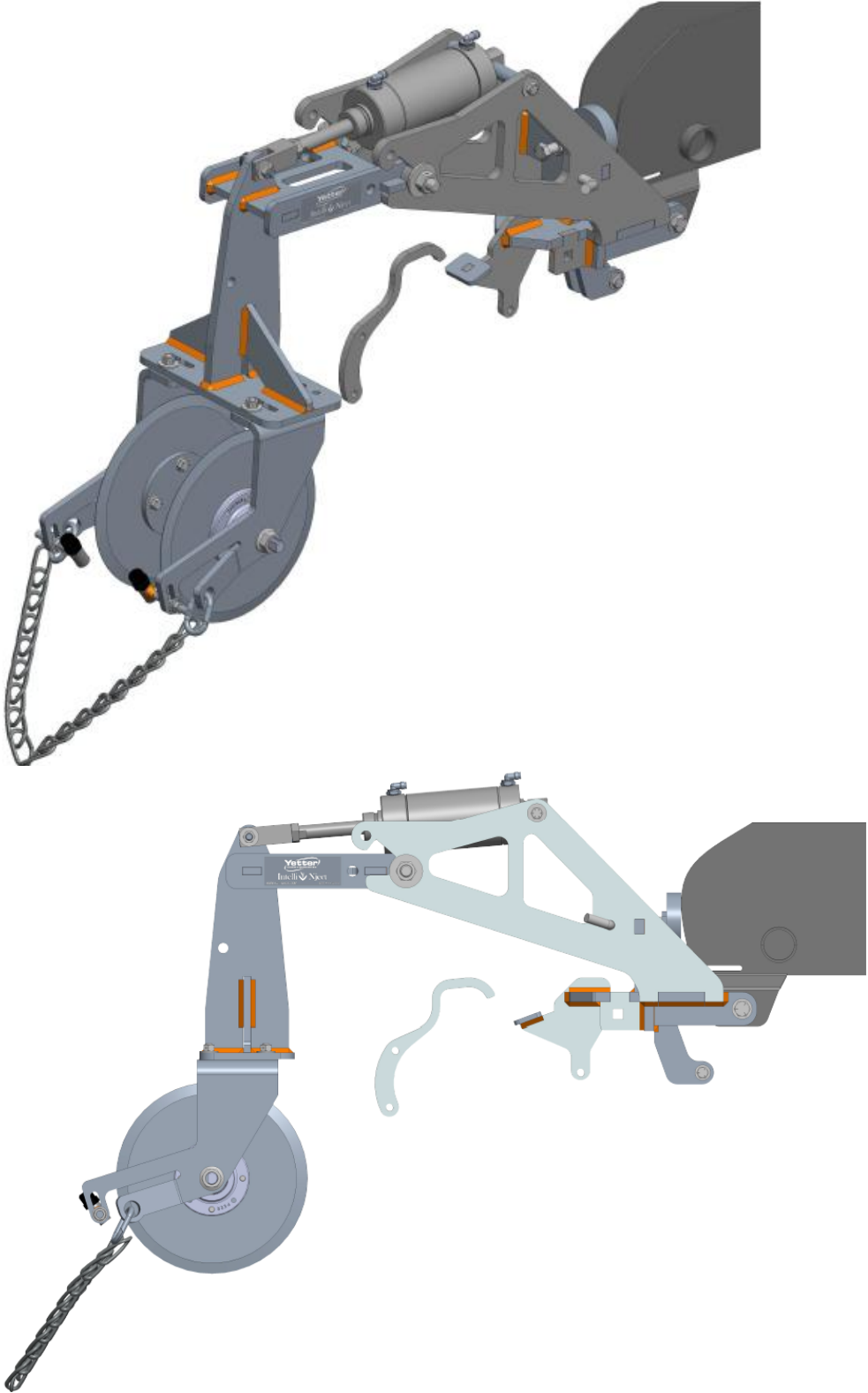
**STEP 7:** Install the disc plate using the 3/8 x 1-1/4 bolts, washers, and lock nuts. Attach the fertilizer wheels using the whiz lock nuts.

**STEP 8:** Attach the injector holders into the slotted 3/8 hole on the back of the arm. It should take a washer and jam nut on both sides, a lock washer on one side. Adjust so the liquid steam lines up with the blade.

**STEP 9:** install the twisted link drag chain to the rear round holes using the split connector link. Use pliers or channel locks to “crimp” the split connector link.



# 2969-021 INSTALLATION – Kinze 3000/4000 Row Unit



## Yetter 1200-350 Compressor Assembly

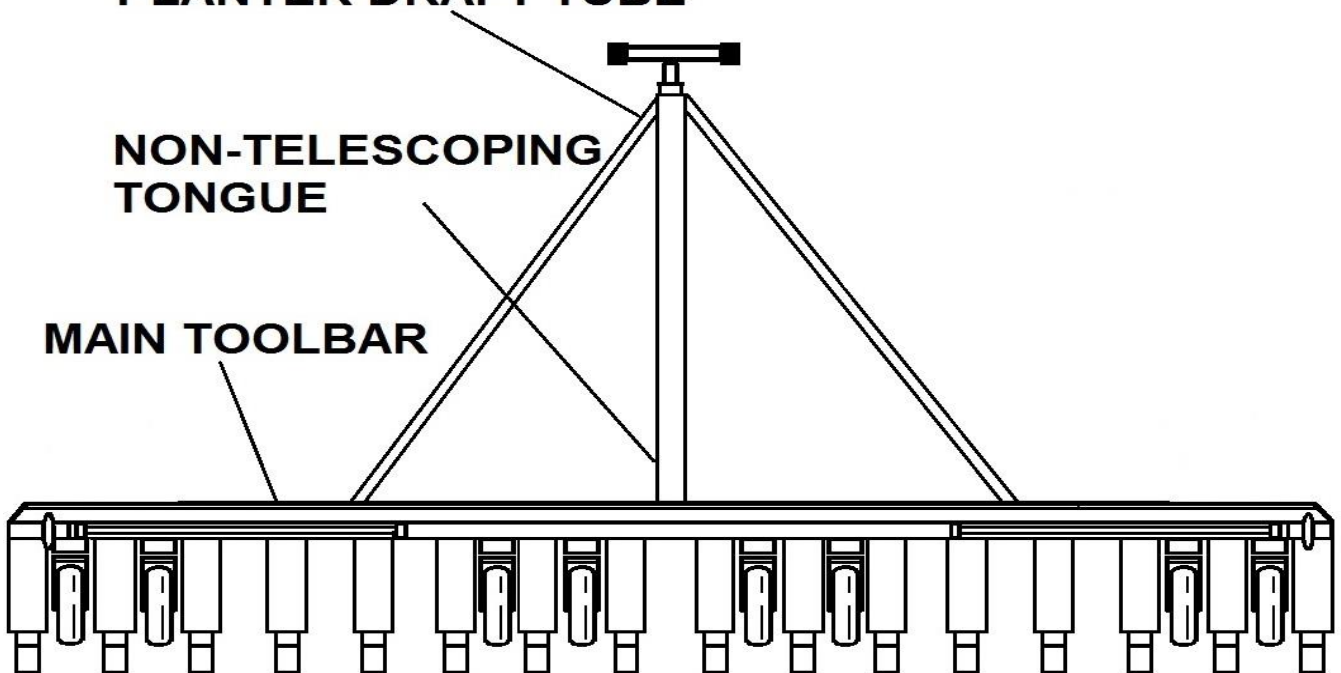
**STEP 1:** Mount the compressor mount kit on the planter in an area with clearance while planting and that also has clearance while folding/unfolding. A few mounting location options would be: A) the **DRAFT TUBE** by the planter hitch, B) the outer **NON-TELESCOPING TONGUE**, or C) the **MAIN TOOLBAR** that the row units are mounted to.

**STEP 2:** Install the 2940-166 on the tractor battery, red cable to the positive post & black cable to the negative post. Mount or secure the breaker to avoid short circuit. Install 2940-167 (10') & 2940-168 (20') power cable extensions from the Anderson connector on the 40A breaker cable to the Anderson connector on the compressor labeled B. Try to have a connection near the hitch for ease of attaching/detaching the planter from the tractor. Zip tie the power cables as needed.

### **PLANTER DRAFT TUBE**

### **NON-TELESCOPING TONGUE**

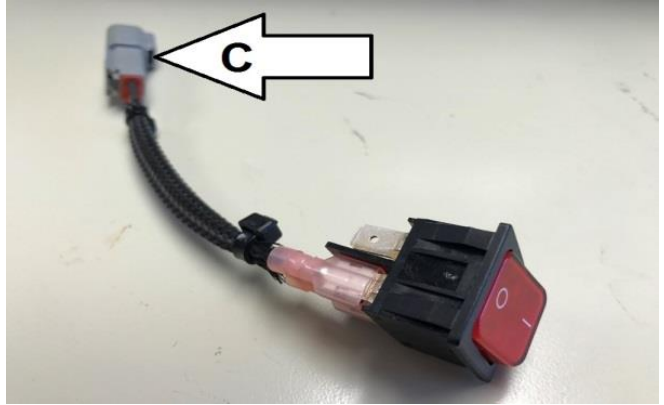
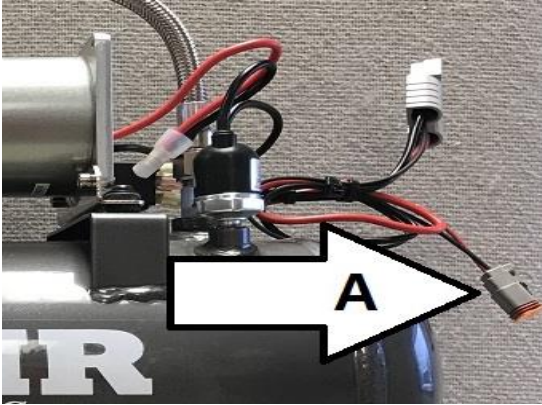
### **MAIN TOOLBAR**





## Yetter 1200-350 Compressor Assembly

**STEP 3:** Install the female connector of the 2940-154 at the compressor (labeled A) & route to the interior of the tractor cab. Find a suitable location in the cab to mount or place the 1200-360 cab switch & harness. Once the cab switch is secured in place, install the male connector of the 2940-154 to the female connector of the switch (labeled C).



### **OEM AIR COMPRESSOR PLUMBING**

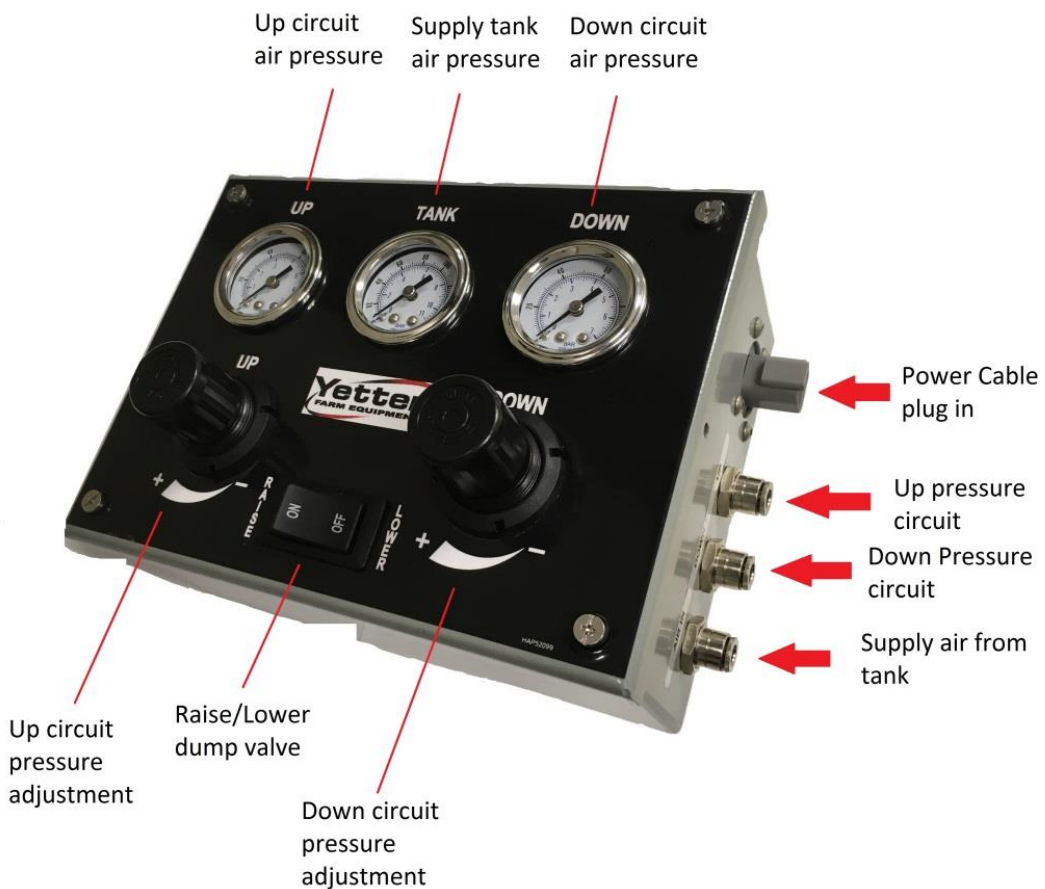
**NOTICE:** If plumbing into the planter's existing air system, place a Tee into the main air supply line. Then route to the cab controller from there. Additional fittings may need purchased to plumb into an OEM compressor.



## Yetter 2969-103 Control Box

**STEP 1:** Mount the 2969-103 control box using the 2984-512 and 2984-513 Ram mount, and the 2940-144 control box mount hardware. Connect air lines from the supply, up, and down pressure circuits to the ports on the right side of the control box. "Air in" should be the line from the supply air tank. "Down" should be to the air line connected to the barrel side of the air cylinder. "Up" should be the air line connected to the rod end of the air cylinder.

**STEP2:** Attach the male 2 pin connector of the 2940-153 to the female 2 pin connector on the 2969-103 Cab Controller. Install the connector (not provided) for your tractor at the bare end of the 2940-153 and connect to tractors switched power source. Connect the black wire on the Yetter harness to the black wire of the switched power harness. Connect the red wire on the Yetter harness to the orange wire on the switched power harness. Connecting the red wire on the Yetter harness to the red wire on the switched power harness will provide constant power to the switch on the Yetter control box and may lead to draining the tractor's battery.



## Control Box Use

The control box has two circuits that are controlled by the raise/lower dump valve. When the dump valve is in the lower position, it controls the cylinder for field use. For the IntelliNject application you will mainly just be using the down pressure circuit. Flip the dump valve switch to the lower position and use the down circuit pressure adjustment knob to set the pressure at 50-80 lbs. The up pressure circuit should be set a 0 psi at this time. There may be times when the unit is operated outside of this range, but this will cover most applications. When the dump valve switch is flipped to the raise position, it will drain the down pressure circuit, and put tank pressure to the up pressure circuit. This will raise the unit for transport, or when not in use.



2969-103



2940-153



2984-512



2984-513

# Airline Installation

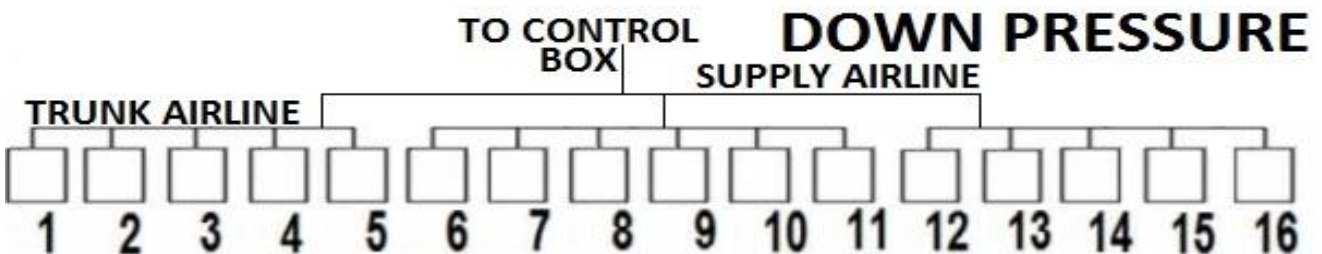
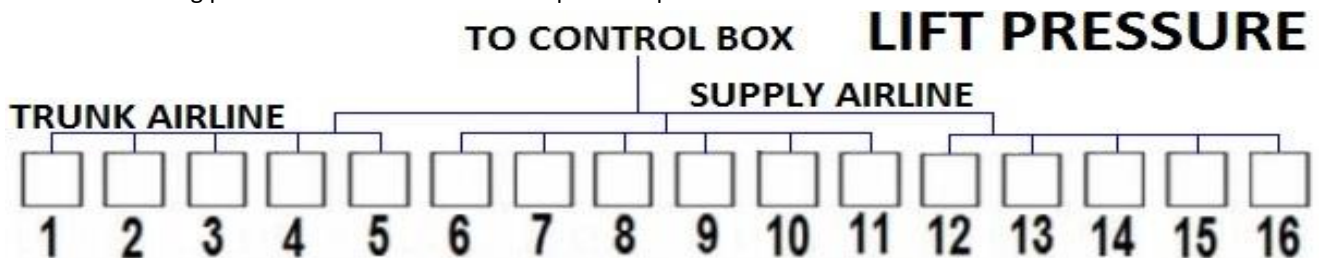
Start by running a “trunk” airline for each circuit on each planter section: left wing up, left wing down, center section up, center section down, right wing up, & right wing down. Example: a 16 row front fold planter with 6 rows on the center section planter, rows 1-5 would be a section, 6-11 would be a section, & 12-16 would be a section. After determining the planter sections & fold points, start by routing airline from the air cylinder on the 1st row in the section to the air cylinder on the last row of the section. Start with the lift circuit (rod end of the air cylinder) for each planter section. When cutting airline, it is very critical to cut the airline straight & clean. Also make sure the airline is firmly seated into the fittings. Failure to do so can result in air leaks causing poor performance and premature air compressor wear.

**STEP 1: LEFT WING TRUNK AIRLINE** Start at the 1<sup>st</sup> row on the left wing, route airline to the last row on the left wing & plug the airline into the lift side of the air cylinder. Be very cautious to leave enough slack for the row unit to travel & the frame to flex **without pinching or stretching the airline**. Using the provided ¼” Tee’s, splice into the trunk airline at every row & install airline from the tee to the up pressure fitting on the air cylinder for that row. At row 1, cut the airline to length & install into the up pressure side of row 1’s air cylinder. Repeat this process when plumbing the down pressure on the left wing. Install the airline into the down pressure fitting on the air cylinder on each row.

**STEP 2: RIGHT WING TRUNK AIRLINE** Start at the 1<sup>st</sup> row on the right wing, route airline to the last row on the right wing & plug the airline into the lift side of the air cylinder. Be very cautious to leave enough slack for the row unit to travel & the frame to flex **without pinching or stretching the airline**. Using the provided ¼” Tee’s, splice into the trunk airline at every row & install airline from the tee to the up pressure fitting on the air cylinder for that row. At row 1, cut the airline to length & install into the up pressure side of row 1’s air cylinder. Repeat this process when plumbing the down pressure on the right wing. Install the airline into the down pressure fitting on the air cylinder on each row.

**STEP 3: CENTER SECTION TRUNK AIRLINE** Start at 1 end row on the center section, route airline to the last row on the center section & plug the airline into the lift side of the air cylinder. Be very cautious to leave enough slack for the row unit to travel & the frame to flex **without pinching or stretching the airline**. Using the provided ¼” Tee’s, splice into the trunk airline at every row & install airline from the tee to the up pressure fitting on the air cylinder for that row. At row 1, cut the airline to length & install into the up pressure side of row 1’s air cylinder. Repeat this process when plumbing the down pressure on the right wing. Install the airline into the down pressure fitting on the air cylinder on each row.

**STEP 4: SUPPLY AIRLINE** Install a Tee in the up pressure trunk airline on the left wing & the right wing. Install airline from the remaining port on each tee to the center of the planter. Connect each of these airlines at the center of the planter using a Tee. Install a Tee in the up pressure trunk airline on the center section. Install airline from the remaining port on that tee to the open port on the tee that connects the left wing & right wing trunk airlines. Install a 2<sup>nd</sup> Tee 6 inches to the side of the Tee that connects all 3 sections trunk airline. Install airline from the remaining port of this Tee to the up pressure port on the in-cab controller. Repeat this same process using the down pressure trunk airlines. Install airline from the remaining port on the 2<sup>nd</sup> tee to the down pressure port on the in-cab controller.





# OPERATION

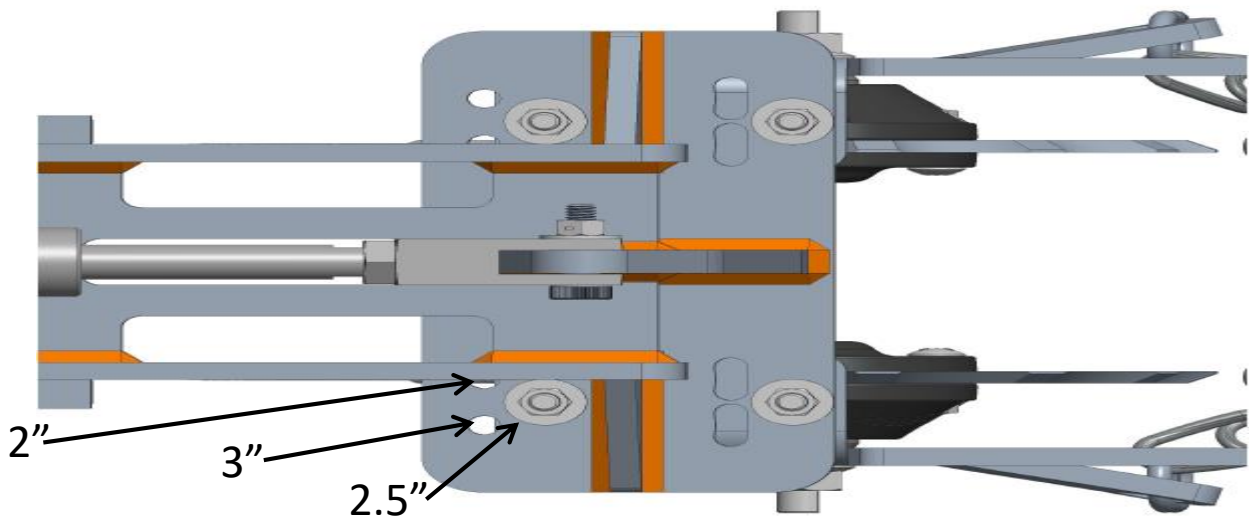
**AIR SYSTEM CHECK:** Apply 50psi of pressure to the up pressure circuit. All of your 2969 Intellinject units should raise to the up position. Check all up pressure tees, fittings, and cylinders for leaks & replace parts as needed. Return up pressure circuit pressure to 0psi. Apply 50psi of pressure to the down pressure circuit. All of your 2969 Intellinject units should be in the down position and take extreme effort to raise by hand. Hit the raise switch to test its function, all row units should raise to the transport position. Check all down pressure tees, fittings, and cylinders for leaks & replace parts as needed. Return down pressure circuit pressure to 0psi.

**FIELD USE:** As field conditions change, cab control adjustments can be made. If the blades aren't penetrating at the depth trying to achieve, apply more down pressure. If the soil conditions are mellow/wet, lessen down pressure or apply some up pressure to achieve desired results.



**NOTICE:** For proper operation, the planter frame must operate level (for, aft and side to side) and at the correct height, typically 20"-22".

## ADJUSTMENTS



Distance off row adjustment: 2", 2.5", 3"

# LIQUID FERTILIZER APPLICATION RATE AND PRESSURE CHART

TABLES ARE BASED ON 30" NOZZLE SPACING

TIP #	LIQUID PRESSURE IN PSI	CAPACITY 1 NOZZLE IN GPM	GALLONS PER ACRE (USING WATER)					
			4 MPH H2O	5 MPH H2O	5.5 MPH H2O	6 MPH H2O	7 MPH H2O	8 MPH H2O
#00015	20	0.11	5.45	4.36	3.96	3.63	3.11	2.72
	25	0.12	5.94	4.75	4.32	3.96	3.39	2.97
	30	0.13	6.44	5.15	4.68	4.29	3.68	3.22
	40	0.15	7.43	5.94	5.40	4.95	4.24	3.71
	50	0.17	8.42	6.73	6.12	5.61	4.81	4.21
	60	0.18	8.91	7.13	6.48	5.94	5.09	4.46
#0002	20	0.14	6.93	5.54	5.04	4.62	3.96	3.47
	25	0.16	7.92	6.34	5.76	5.28	4.53	3.96
	30	0.17	8.42	6.73	6.12	5.61	4.81	4.21
	40	0.20	9.90	7.92	7.20	6.60	5.66	4.95
	50	0.23	11.39	9.11	8.28	7.59	6.51	5.69
	60	0.25	12.38	9.90	9.00	8.25	7.07	6.19
#0003	20	0.21	10.40	8.32	7.56	6.93	5.94	5.20
	25	0.24	11.88	9.50	8.64	7.92	6.79	5.94
	30	0.26	12.87	10.30	9.36	8.58	7.35	6.44
	40	0.30	14.85	11.88	10.80	9.90	8.49	7.43
	50	0.34	16.83	13.46	12.24	11.22	9.62	8.42
	60	0.37	18.32	14.65	13.32	12.21	10.47	9.16
#0004	20	0.28	13.86	11.09	10.08	9.24	7.92	6.93
	25	0.32	15.84	12.67	11.52	10.56	9.05	7.92
	30	0.35	17.33	13.86	12.60	11.55	9.90	8.66
	40	0.40	19.80	15.84	14.40	13.20	11.31	9.90
	50	0.45	22.28	17.82	16.20	14.85	12.73	11.14
	60	0.49	24.26	19.40	17.64	16.17	13.86	12.13
#0005	20	0.35	17.33	13.86	12.60	11.55	9.90	8.66
	25	0.40	19.80	15.84	14.40	13.20	11.31	9.90
	30	0.43	21.29	17.03	15.48	14.19	12.16	10.64
	40	0.50	24.75	19.80	18.00	16.50	14.14	12.38
	50	0.56	27.72	22.18	20.16	18.48	15.84	13.86
	60	0.61	30.20	24.16	21.96	20.13	17.25	15.10
#0006	20	0.42	20.79	16.63	15.12	13.86	11.88	10.40
	25	0.47	23.27	18.61	16.92	15.51	13.29	11.63
	30	0.52	25.74	20.59	18.72	17.16	14.71	12.87
	40	0.60	29.70	23.76	21.60	19.80	16.97	14.85
	50	0.67	33.17	26.53	24.12	22.11	18.95	16.58
	60	0.74	36.63	29.30	26.64	24.42	20.93	18.32
#0008	20	0.57	28.22	22.57	20.52	18.81	16.12	14.11
	25	0.63	31.19	24.95	22.68	20.79	17.82	15.59
	30	0.69	34.16	27.32	24.84	22.77	19.52	17.08
	40	0.80	39.60	31.68	28.80	26.40	22.63	19.80
	50	0.89	44.06	35.24	32.04	29.37	25.17	22.03
	60	0.98	48.51	38.81	35.28	32.34	27.72	24.26
#0010	20	0.71	35.15	28.12	25.56	23.43	20.08	17.57
	25	0.79	39.11	31.28	28.44	26.07	22.35	19.55
	30	0.87	43.07	34.45	31.32	28.71	24.61	21.53
	40	1.00	49.50	39.60	36.00	33.00	28.29	24.75
	50	1.12	55.44	44.35	40.32	36.96	31.68	27.72
	60	1.23	60.89	48.71	44.28	40.59	34.79	30.44
#0015	20	1.06	52.47	41.98	38.16	34.98	29.98	26.24
	25	1.19	58.91	47.12	42.84	39.27	33.66	29.45
	30	1.30	64.35	51.48	46.80	42.90	36.77	32.18
	40	1.50	74.25	59.40	54.00	49.50	42.43	37.13
	50	1.68	83.16	66.53	60.48	55.44	47.52	41.58
	60	1.81	89.60	71.68	65.16	59.73	51.20	44.80
ROW SPACING MULTIPLIER		10" X 3.3	15" X 2.0	18" X 1.66	20" X 1.5	36" X .83	38" X .79	40" X .75

Values in this chart area based on using water. To calculate nozzle size required for your fertilizer application, the weight of the fertilizer solution must be accounted for by using a conversion factor for specific gravity. The Conversion factor for 28% liquid nitrogen is 1.13. Example: desired rate of application is 10 GPA of 28% N multiply 10 gallons per acre of fertilizer you want to apply x the conversion factor for 28% N (1.13) to get an equivalent rate for water. 10 x 1.13 refers to the chart for 11.13 gallons per acre at your desired speed/MPH.

$$\text{GPA (Per Nozzle)} = \frac{5940 \times \text{GPM}}{\text{MPH} \times \text{W}}$$

$$\begin{aligned} \text{H2O} &= \text{WATER} \\ \text{GPA} &= \text{GALLON PER ACRE} \\ \text{GPM} &= \text{GALLON PER MINUTES} \\ \text{MPH} &= \text{MILES PER HOUR} \\ \text{W} &= \text{WIDTH} \end{aligned}$$

$$\begin{aligned} \text{SOLUTION} \\ 28\% &= \text{H2O}/1.13 \\ 32\% &= \text{H2O}/1.15 \end{aligned}$$


This table is a reference only. Please calibrate your equipment to insure proper rate of application. The information contained in this issue is offered in good faith by Yetter Mfg. Co. to further the understanding of liquid fertilizer application.

However, the use of the information provided is beyond the control of Yetter Mfg. Co. and in no case shall Yetter Mfg. Co. or any seller of its products be responsible for any damages that may occur from the use of this information.

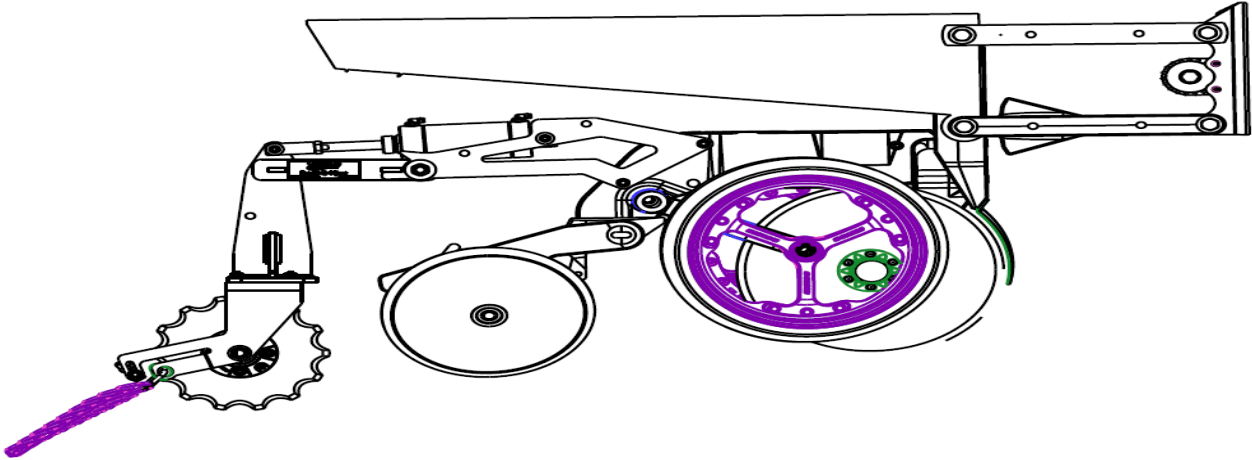



# MAINTENANCE

## Lubrication Symbols

 Lubricate with grease at hourly interval indicated on symbol.

### Lubrication Intervals



 **NOTICE:** The recommended service intervals are based on normal conditions; severe or unusual conditions may require more frequent lubrication.

Perform each lubrication and service procedure at the beginning and end of each season.

Clean grease fittings before using grease gun, to avoid injecting dirt and grit into the bearing.

Replace any lost or broken fittings immediately. If a fitting fails to take grease, remove and clean thoroughly, replace fitting if necessary. Also check for failure of adjoining parts.

### Storing the Equipment

Store the machine in an area away from human activity

Store machine in RAISED position.

Install service locks on all wheel cylinders.

At the end of the season, the machine should be thoroughly inspected and prepared for storage.

Repair or replace any worn or damaged components to prevent down time at the start of the next season. Store machine under cover with all parts in operating condition.

- Clean machine thoroughly to remove all dirt, debris and crop residue, which would hold moisture and cause rusting.
- Inspect machine for worn or broken parts. See your Yetter Farm Equipment dealer during the off-season so that parts or service can be acquired when machine is not needed in the field.
- Lubricate bearings as outlined in the Lubrication section
- Paint all parts which are chipped or worn and require repainting.
- Store machine in a clean, dry place with the planting unit out of the sun.
- If the machine cannot be stored inside, cover with a waterproof tarpaulin and tie securely in place.
- Do not allow children to play on or around the machine

# MAINTENANCE

## Lubrication



**CAUTION:** To help prevent serious injury or death to you or others caused by unexpected movement, service machine on a level surface. Lower machine to ground or sufficiently lock or block raised machine before servicing. If machine is connected to tractor, engage parking brake and place transmission in "PARK", shut off engine and remove key. If machine is detached from tractor, block wheels and use shop stands to prevent movement. |



**CAUTION:** Do not clean, lubricate, or adjust machine while in motion.

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

Use a **multi-purpose polyurea**, **water resistant**, **moderate speed**, and **NLGI grade #2** grease.

**IMPORTANT:** Some types of grease thickener are not compatible with others. Consult your grease supplier before mixing different types of grease.

### Alternative Lubricants

Conditions in certain geographical areas may require special lubricants and lubrication practices which do not appear in the operator's manual. If there are any questions, consult Yetter Manufacturing Co. to obtain latest information and recommendation.

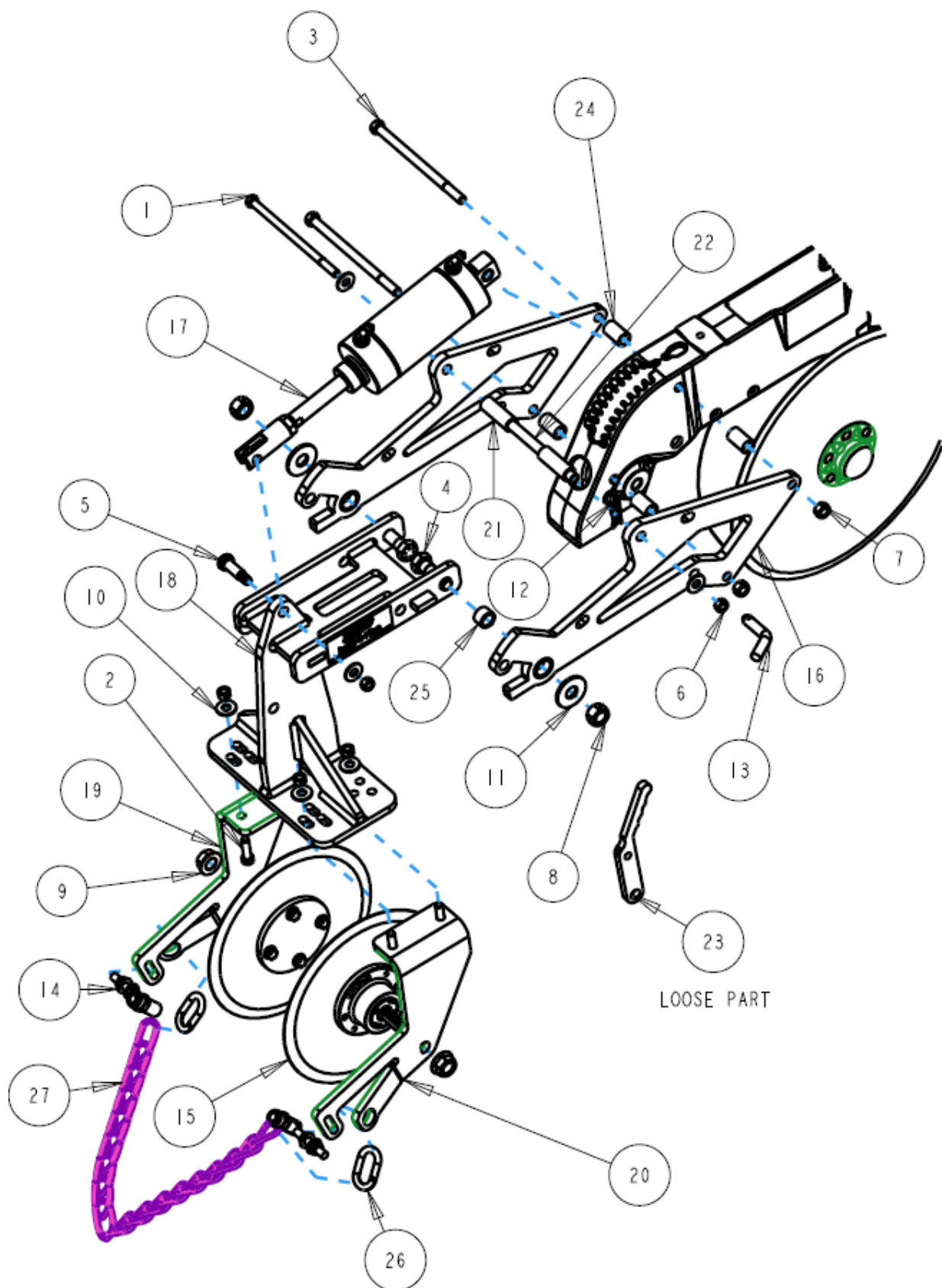
## Storing Lubricants

Your machine can operate at top efficiency only if clean lubricants are used.

Use clean containers to handle all lubricants.

Store them in an area protected from dust, moisture and other contaminants.

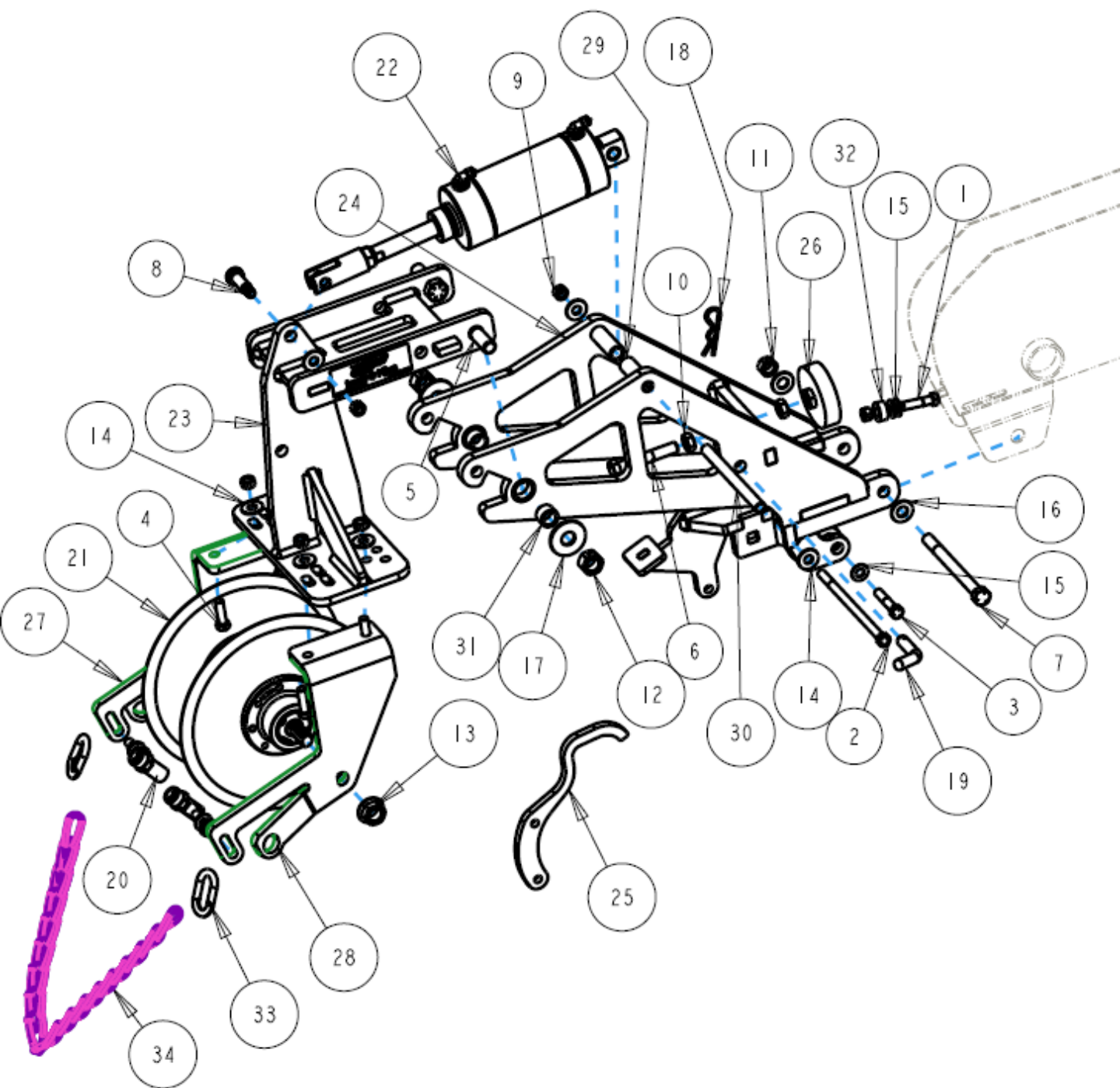
# 2969-020A – PARTS IDENTIFICATION JOHN DEERE



**PARTS IDENTIFICATION JOHN DEERE  
2969-020A**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	2502-236	3/8- 16 X 7 HHCS GR 8 ZP.	1
2	2502-244	3/8-16 X 1-1/4 HHCS GR 5 ZP	4
3	2502-263	7/16-14 X 7 HHCS GR8 ZP	2
4	2502-322	5/8-11 x 2 HHCS GR 8	2
5	2510-311	1/2 X 1.125 ALLOY SHLD BLT 3/8-16 THD	1
6	2520-255	3/8-16 LOCK HEX NUT, GR A, ZP	6
7	2520-267	7/16-14 LCK HX NT ZP	2
8	2520-459	5/8-11 LOCK HEX NUT, GR B, ZP	2
9	2520-465	5/8-11 SER. FLANGE NUT, GR 8, ZP	2
10	2526-251	3/8 STANDARD FLATWASHER ZP	7
11	2526-451	5/8 STD FLATWASHER ZP	2
12	2570-446	.125 HAIRPIN COTTER ZP	1
13	2967-381	COMBO ADJUSTMENT PIN, ZP	1
14	2968-091	INJECTOR KIT, ONE SIDE	2
15	2968-134	10" SMOOTH FERTILIZER WHEEL ASS'Y	2
16	2969-115	SIDE PLATE ASSEMBLY, JOHN DEERE	2
17	2969-153	AIR CYLINDER ASSEMBLY, INTELLINJECT	1
18	2969-205	DISC HOLDER W.A.	1
19	2969-400	DISC PLATE, LH	1
20	2969-401	DISC PLATE, RH	1
21	2969-412	SPACER, .75 OD X 2.125 LONG	2
22	2969-413	PIVOT BUSHING	1
23	2969-415	CLOSE WHEEL HANDLE, JOHN DEERE	1
24	2969-417	OUTER MOUNT BUSHING, JOHN DEERE	4
25	2984-330	9/16" BUSHING CHROME PLATED	2
26	6200-339	5/16 SPLIT CONNECTING LINK	2
27	6200-340	HD TWISTED LINK DRAG CHAIN KIT	1

# 2969-021A – PARTS IDENTIFICATION KINZE 3000/4000

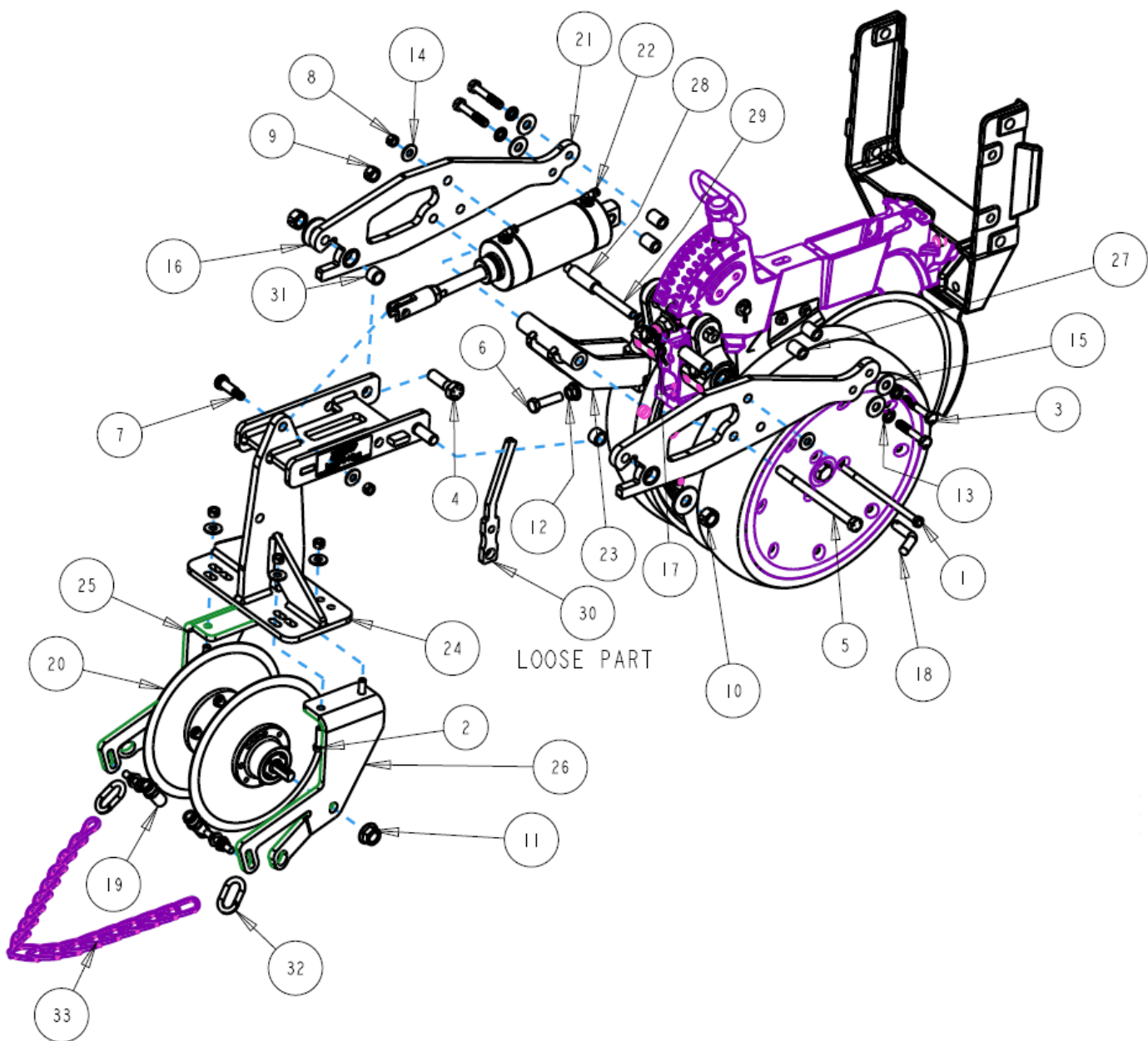




**PARTS IDENTIFICATION KINZE  
2969-021A**

ITEM	PART NO.	DESCRIPTION	QTY
1	2502-232	3/8-16 X 1 1/2 HHCS GR 5 ZP	1
2	2502-236	3/8- 16 X 7 HHCS GR 8 ZP.	1
3	2502-240	3/8-16 X 2 HHCS GR5 ZP	1
4	2502-244	3/8-16 X 1-1/4 HHCS GR 5 ZP	4
5	2502-322	5/8-11 x 2 HHCS GR 8	2
6	2502-355	1/2-13 X 3 (2-1/4THD)HHCSGR5ZP	1
7	2502-373	1/2-13 X 6 HHCS GR. 5 ZP	1
8	2510-311	1/2 X 1.125 ALLOY SHLD BLT 3/8-16 THD	1
9	2520-255	3/8-16 LOCK HEX NUT, GR A, ZP	8
10	2520-356	1/2-13 JAM HEX NUT ZP	2
11	2520-357	1/2-13 LOCK HEX NUT, GR A, ZP	1
12	2520-459	5/8-11 LOCK HEX NUT, GR B, ZP	2
13	2520-465	5/8-11 SER. FLANGE NUT, GR 8, ZP	2
14	2526-251	3/8 STANDARD FLATWASHER ZP	7
15	2526-253	3/8 SAE FLATWASHER ZP	4
16	2526-352	1/2 SAE FLATWASHER ZP	2
17	2526-451	5/8 STD FLATWASHER ZP	2
18	2570-446	.125 HAIRPIN COTTER ZP	1
19	2967-381	COMBO ADJUSTMENT PIN, ZP	1
20	2968-091	INJECTOR KIT, ONE SIDE	2
21	2968-134	10" SMOOTH FERTILIZER WHEEL ASS'Y	2
22	2969-153	AIR CYLINDER ASSEMBLY, INTELLINJECT	1
23	2969-205	DISC HOLDER W.A.	1
24	2969-214	MOUNT BRACKET W.A., KINZE 3000/4000	1
25	2969-321	KINZE 3000/4000 HANDLE	1
26	2969-322	DAMPING LEVELING MOUNT	1
27	2969-400	DISC PLATE, LH	1
28	2969-401	DISC PLATE, RH	1
29	2969-412	SPACER, .75 OD X 2.125 LONG	2
30	2969-413	PIVOT BUSHING	1
31	2984-330	9/16" BUSHING CHROME PLATED	2
32	6200-319	3/8" SPACER ZP	1
33	6200-339	5/16 SPLIT CONNECTING LINK	2
34	6200-340	HD TWISTED LINK DRAG CHAIN KIT	1

# 2969-025 – PARTS IDENTIFICATION WHITE 9000

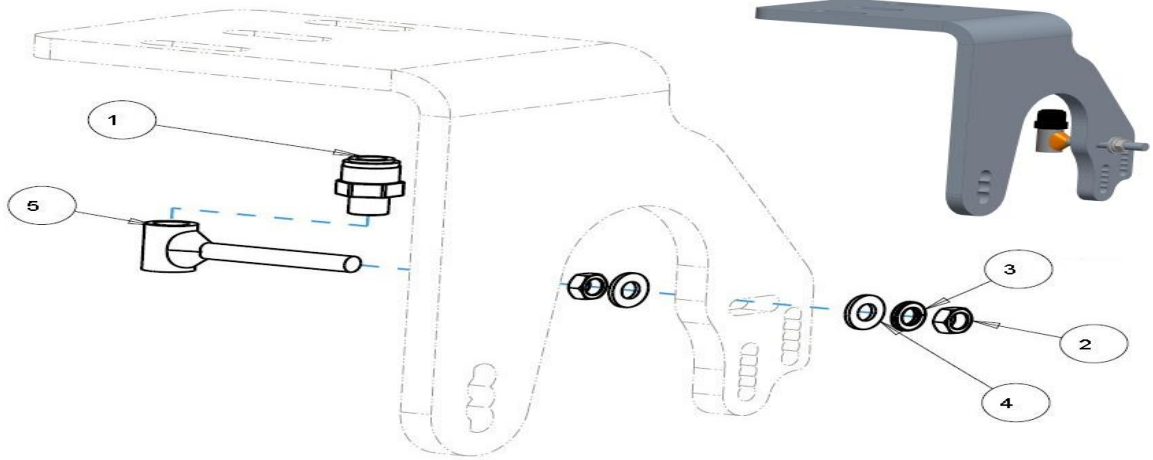


## 2969-025 – PARTS IDENTIFICATION WHITE 9000

ITEM	PART NO.	DESCRIPTION	QTY
1	2502-236	3/8- 16 X 7 HHCS GR 8 ZP.	1
2	2502-244	3/8-16 X 1-1/4 HHCS GR 5 ZP	4
3	2502-280	M10 X 1.50 X 60MM HHCS GR 10.9 ZN.	4
4	2502-322	5/8-11 x 2 HHCS GR 8	2
5	2502-371	1/2-13 X 7 HHCS GR5 ZP	1
6	2502-800	12MM X 1.75 X 45 HHCS GR 8.8 ZP	1
7	2510-311	1/2 X 1.125 ALLOY SHLD BLT 3/8-16 THD	1
8	2520-255	3/8-16 LOCK HEX NUT, GR A, ZP	6
9	2520-357	1/2-13 LOCK HEX NUT, GR A, ZP	1
10	2520-459	5/8-11 LOCK HEX NUT, GR B, ZP	2
11	2520-465	5/8-11 SER. FLANGE NUT, GR 8, ZP	2
12	2520-701	NUT-HX FL M12 X 1.75 10, CLASS 8, ZP	1
13	2525-301	7/16 MED. LOCKWASHER ZP.	4
14	2526-251	3/8 STANDARD FLATWASHER ZP	7
15	2526-301	7/16 STD. FLATWASHER ZP	4
16	2526-451	5/8 STD FLATWASHER ZP	2
17	2570-446	.125 HAIRPIN COTTER ZP	1
18	2967-381	COMBO ADJUSTMENT PIN, ZP	1
19	2968-091	INJECTOR KIT, ONE SIDE	2
20	2968-134	10" SMOOTH FERTILIZER WHEEL ASS'Y	2
21	2969-114	SIDE PLATE ASSEMBLY, WHITE 9000	2
22	2969-153	AIR CYLINDER ASSEMBLY, INTELLINJECT	1
23	2969-203	SUPPORT W.A.	1
24	2969-205	DISC HOLDER W.A.	1
25	2969-400	DISC PLATE, LH	1
26	2969-401	DISC PLATE, RH	1
27	2969-406	OUTER MOUNT BUSHING, WHITE	4
28	2969-412	SPACER, .75 OD X 2.125 LONG	2
29	2969-413	PIVOT BUSHING	1
30	2969-416	CLOSE WHEEL HANDLE, WHITE 9000	1
31	2984-330	9/16" BUSHING CHROME PLATED	2
32	6200-339	5/16 SPLIT CONNECTING LINK	2
33	6200-340	HD TWISTED LINK DRAG CHAIN KIT	1

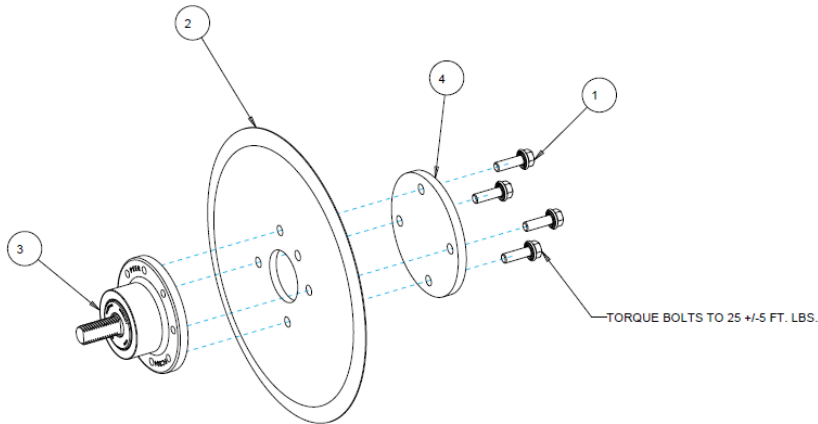
# PARTS IDENTIFICATION

## 2968-091



ITEM	PART #	DESCRIPTION	QTY
1	2515-846	MALE CONNECTOR – 3/8 X ¼ NPTF	1
2	2520-253	3/8 – 16 JAM HEX NUT ZP	2
3	2525-251	3/8 MEDIUM LOCK WASHER ZP	1
4	2526-253	3/8 SAE FLAT WASHER ZP	2
5	2968-218	INJECTOR HOLDER	1

## 2968-134 10” WHEEL ASSEMBLY



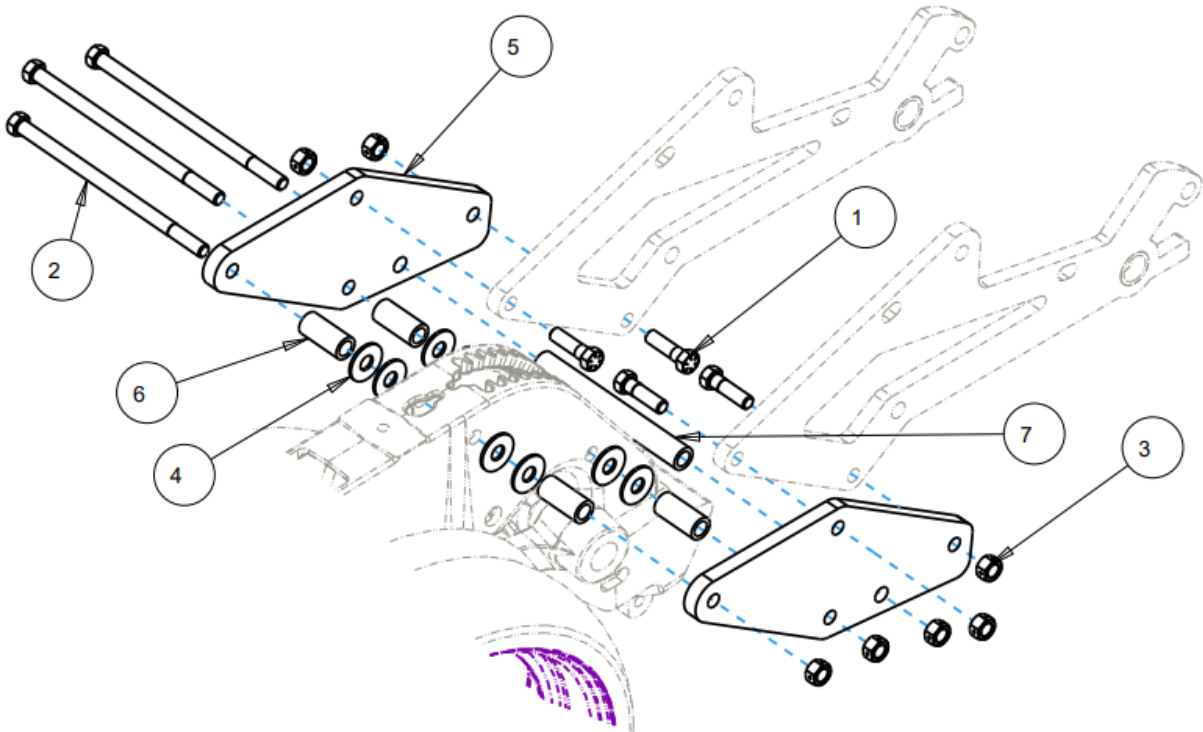
ITEM	PART NO.	DESCRIPTION	QTY
1	2502-221	5/16-18 X 1 HHFS GR5 ZP	4
2	2571-320	10.05 X .256 BLADE, SMOOTH	1
3	2965-500	HUB ASSEMBLY, 1.406 SPINDLE	1
4	2965-503	HUB CAP	1

# PARTS IDENTIFICATION

## 2969-050

### (Required with Precision Planting Furrow Force)

ITEM	PART NO.	DESCRIPTION	QTY
1	2502-269	7/16-14 X 1-1/2 HHCS GR8 ZP	4
2	2502-270	7/16-14 X 8 HHCS GR8 ZP	3
3	2520-268	7/16-14 HEX LOCK NUT GR 8 ZP	7
4	2526-301	7/16 STD. FLATWASHER ZP	8
5	2969-310	SET BACK MOUNT PLATE	2
6	2969-311	SET BACK OUTER BUSHING, JOHN DEERE	4
7	2969-312	SETBACK SUPPORT BUSHING, JOHN DEERE	1

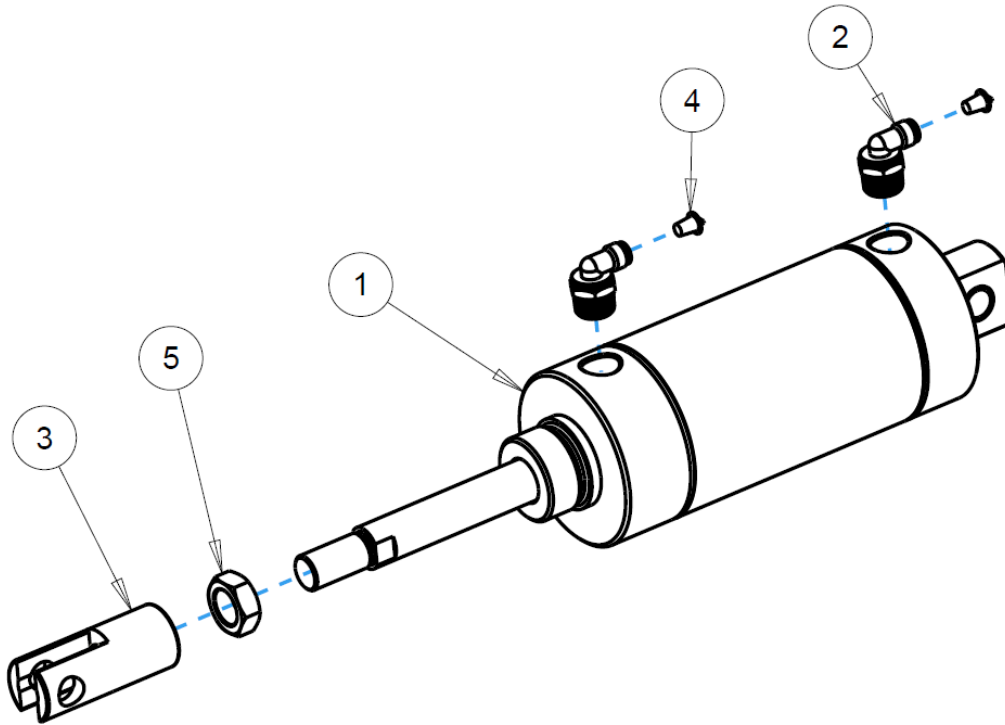




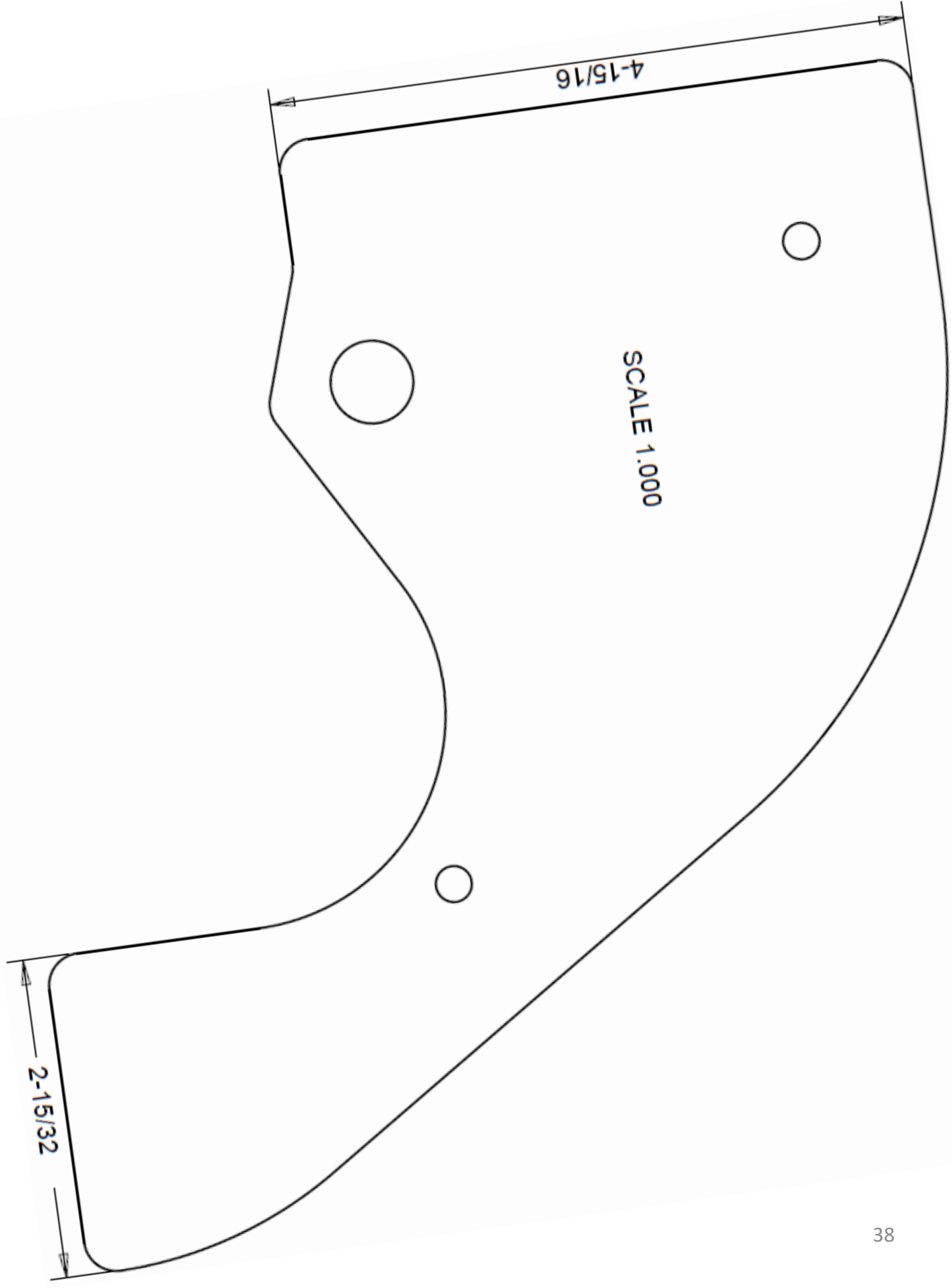
# PARTS IDENTIFICATION

## 2969-153

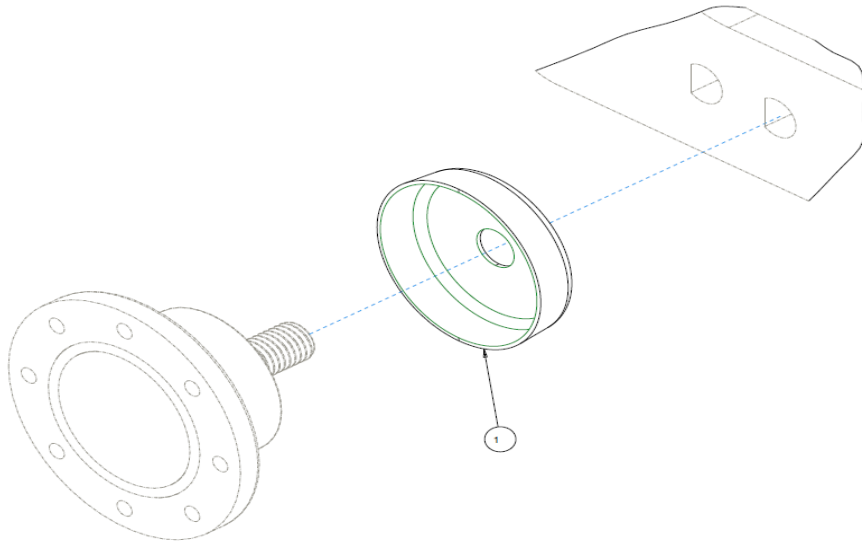
### Air cylinder assembly



ITEM	PART NO.	DESCRIPTION	QTY
1	2515-306	3" BORE X 3" STROKE AIR CYLINDER	1
2	2515-307	90 DEG SW ELBOW, 1/4" OD TUBE X 3/8 NPTM	2
3	2515-853	CLEVIS, 2515-306	1
4	2515-856	1/4" AIR FITTING PLUG	2
5	2520-460	5/8-18 JAM HEX NUT ZP	1



# OPTIONAL



ITEM	PART NO.	DESCRIPTION	QTY
1	2965-550	BEARING SHIELD	1



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