



1183 120th Rd
Seneca, KS 66538
www.agsynergy.com

FERTILIZER APPLICATOR OPERATOR'S MANUAL

Trailing Models:

TR430, TR440

Foreword

READ THIS MANUAL carefully to learn how to operate and service your toolbar correctly. Failure to do so could result in personal injury or damage to the applicator.

THIS MANUAL MUST ALWAYS BE KEPT with the applicator and when the applicator is sold.

MEASUREMENTS in this manual are given in only standard units. Use only correct replacement parts and fasteners. Standard fasteners will require a specific inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the applicator will travel when going forward.

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2 - Delivery

When the toolbar is delivered, use the checklist that follows as a guide to explain basic information about the toolbar to the customer.

- [] Use the correct tools when you service or repair the toolbar.
- [] Explain that proper preventative maintenance, as directed by the Operator's Manual, is necessary to achieve the maximum performance and life of the toolbar.
- [] Explain how to adjust the settings of the toolbar per the Operator's Manual.
- [] Review all of the safety precautions associated with the toolbar per the Operator's Manual.
- [] Review the proper precautions associated with transporting the toolbar on a road or highway at night or during the day. Have the customer check the local laws and regulations.
- [] To the best of my knowledge, this toolbar is ready for field use and the customer has been fully informed as to the preventative maintenance and operation.

Signed: _____

Date: _____

3 - Safety

3.1 Operate Safely



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3.1.A Review the list below before operating:

- (1) Make sure there is sufficient room around and above the toolbar before you raise or lower the wings.
- (2) Make sure you bleed the air from the wing fold and row unit hydraulic systems.
- (3) Do not operate with the wings folded.
- (4) Avoid operating in areas with sharp drop-offs.
- (5) Operate at a minimum speed when you turn or when you are on rough ground.
- (6) Put the tractor in PARK and shut off the engine or set the brakes when you leave the tractor.
- (7) Never leave the key in an unattended tractor.
- (8) Never raise or lower the wings while the tractor is in motion.
- (9) Only operate from the tractor seat.
- (10) Follow the safety precautions for Anhydrous Ammonia.
- (11) Use only the recommended tractor size to operate this toolbar.

3.2 Supplying Anhydrous Ammonia Information



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Despite the common odor, anhydrous ammonia properties are dramatically different from those of household ammonia (dilute ammonium hydroxide) cleaning solutions. An uncontrolled release of NH₃ anhydrous ammonia can easily be fatal or cause permanent disabling injury.

3.2.A Please see the attached manufacturers anhydrous ammonia distribution system operators manual.

3.2 Supplying Dry Fertilizer Information



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Dry Fertilizer is a highly caustic material. Contact with unprotected skin or eyes can easily cause permanent disabling injury. Inhalation of dust produced from dry fertilizer can lead to permanent lung damage.

3.2.A Please see the attached manufacturers dry fertilizer distribution system operators manual.

4 - Safety Signs

4.1 Safety Signs and Reflectors

4.1.A Safety words

- (1) DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.
- (2) WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.
- (3) 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.

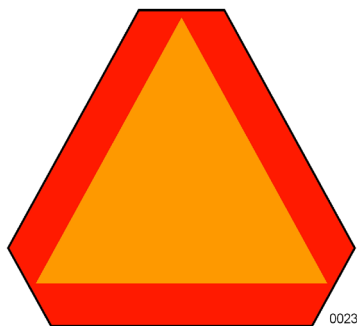
4.1.B Your Applicator comes with all safety signs and reflectors in place. They are provided to help you operate safely.

- (1) Read and follow all safety signs.
- (2) Make sure all safety signs are clean and legible.
- (3) Install new safety signs and reflectors if old ones are damaged, lost or cannot be read. Install a new safety sign and/or reflector when replacing any part that previously had a safety sign and/or reflector.
- (4) Contact your local AgSynergy dealer to order new safety signs and reflectors.

4.1.C To install new safety signs and reflectors:

- (1) Clean the area where the new safety sign and/or reflector will be placed.
- (2) Remove the backing from the back of the new safety sign and/or reflector.
- (3) Press firmly on to the surface.
- (4) Remove any air bubbles.

4.1.D Slow moving vehicle sign.



Slow moving vehicle sign must be attached to the toolbar facing the rear.

4.1.E Reflectors

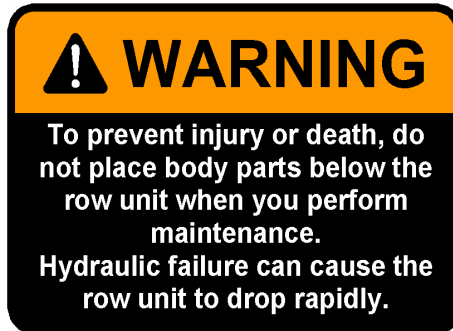


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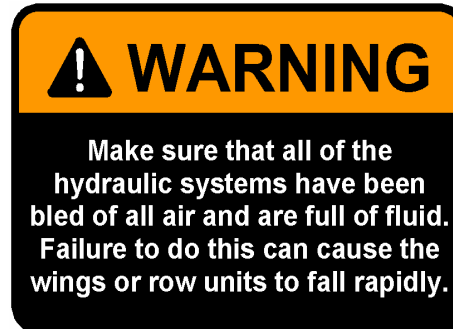
Reflectors are located on the rear of the toolbar.



4.1.F Hydraulics



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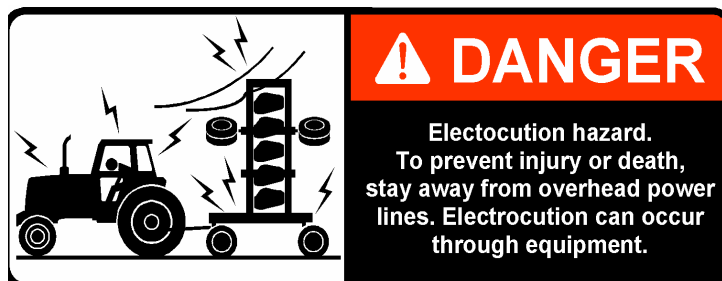
4.1.G Wing Fold



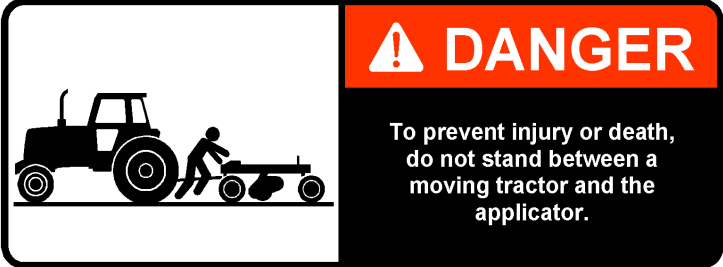
4.1.H Anhydrous Ammonia



4.1.I Power Lines



4.1.J Crush



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5 - Preparation

5.1 Preparing Tractor

5.1.A Tractor Operator's Manual

- (1) Refer to tractor operator's manual for information on operating the equipment. Tractor operating procedures can vary between models and manufacturers.

5.1.B Tractor Requirements

- (1) For the minimum tractor horsepower requirements, see Section 9.

5.1.C Front End Weight



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INJURY OR DEATH CAN OCCUR IF THE TRACTOR DOES NOT HAVE THE APPROPRIATE AMOUNT OF FRONT-END WEIGHT AND CAN CAUSE THE FRONT OF THE TRACTOR TO TIP UP.

- (1) Make sure the appropriate amount of front-end weight has been installed on the tractor for the field conditions you will be operating in. The tractor must weigh at least 1 1/2 times the weight of the applicator and nurse tank (See tractor operator's manual).

TO PREVENT INJURY OR DEATH, DO NOT STAND BETWEEN A MOVING TRACTOR AND THE APPLICATOR.

- (1) Back the tractor so the pin holes of the tractor's lower lift links are nearly aligned with the hitch pins of the applicator.
- (2) Use the hydraulic lift controls and raise or lower the lift links to match the applicator hitch pins.
- (3) Set the tractor hitch lift controls to float.
- (4) Stop the engine, securely park the tractor, and set the brakes.
- (5) Attach each lift link to the applicator with the hitch pins. Install the hitch pin security clips.



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DO NOT CONNECT THE APPLICATOR TO THE TRACTOR USING A QUICK HITCH COUPLER. INSTALL DIRECTLY TO THE LIFT LINKS.

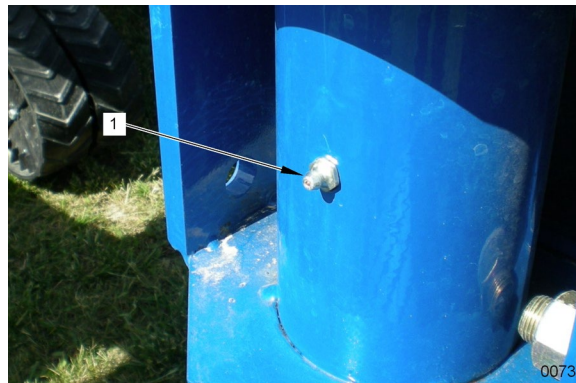
5.1.D Hydraulic Operations

- (1) The tractor hydraulic settings should be in the DETENT or CONSTANT PRESSURE position. This will provide positive pressure to the wings and row units.
- (2) Hydraulic flow on the row unit raise/lower circuit should initially be set to approximately 25 GPM. Increase the flow if the row units raise and lower too slowly. Decrease the flow if the row units raise and lower too quickly.
- (3) Hydraulic flow on the wing fold/unfold circuit should initially be set to approximately 12 GPM. Increase the flow if the wings fold and unfold too slowly. Decrease the flow if the wings fold and unfold too quickly.

5.2 Preparing The Applicator

5.2.A Tool Bar Inspection/Lubrication

- (1) Review the list below before operating:
 - (a) Inspect for any loose, damaged, or missing parts. Repair or replace if required.
 - (b) Make sure the hydraulic hoses and wiring harnesses do not interfere with any moving parts. Relocate hoses and wiring harness and retain with clamps if necessary.
 - (c) Make sure there is sufficient spray lubricant on all locking pins, hairpin cotter pins, and all moving parts.
 - (d) Make sure the grease fittings [1] have sufficient grease installed. Always use a water-resistant multi-purpose grease.
 - (e) Refer to section 10 Maintenance and Service for all grease locations and intervals.



5.2.B Checking Tire Pressure and Inspect

- (1) Check the tire pressure before each use.
 - (a) Check the tire pressure and add air as necessary.

Tires	Tire Size	PSI/Kpa
Toolbar tire	245-70R-19.5	80/550
Integrated cart tire	480/80 R42	35/240

- (2) Visually inspect the tires and wheels before each use.
 - (a) Check tire tread and sidewalls for any damage and dry rot. Replace as necessary.
 - (b) Check the wheels for any damage. Replace as necessary.

5.2.C Checking Wheel Nuts



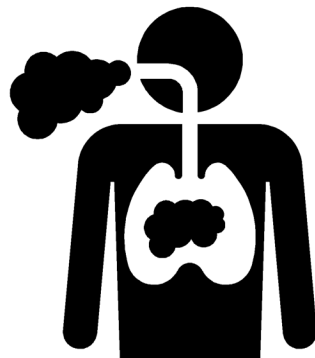
- (1) Make sure all wheel nuts [1] are tight after the first 12-15 hours operation and at the beginning of each operating season. Tighten as necessary.

	Torque LB-FT	Torque N·m
(1) Wheel Nuts	160	216

5.2.D Attaching Hardware

- (1) After the first 12-15 hours of operation, it is recommended that you check all attaching hardware for tightness.

5.3 Anhydrous Ammonia Preparation



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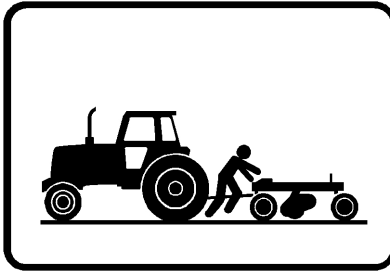


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TO AVOID INJURY OR DEATH, USE PROPER PERSONAL PROTECTIVE EQUIPMENT. ANHYDROUS AMMONIA CAN CAUSE SEVERE BURNING, BLINDNESS, OR DEATH. UNDERSTAND AND FOLLOW ALL ANHYDROUS AMMONIA SAFETY PROCEDURES.

- 5.3.A Verify anhydrous ammonia hoses are properly routed away from all pinch points.**
- 5.3.B Visually inspect hoses and clamps for damage or wear.**
- 5.3.C Verify hoses and knives are clean and ready for operation.**

6 - Attaching and Detaching



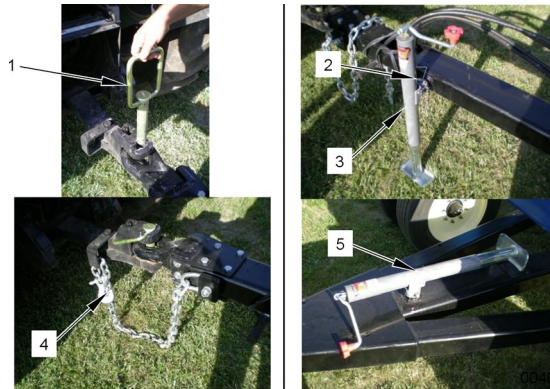
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TO PREVENT INJURY OR DEATH, DO NOT STAND BETWEEN A
MOVING TRACTOR AND THE APPLICATOR.

6.1 Attaching Applicator To Tractor



6.1.A Use the following procedure to attach the applicator to the tractor.

- (1) Back the tractor up to the applicator.
- (2) Attach the tractor hitch to the applicator floating hitch assembly.
- (3) Install the hitch pin [1] and the hairpin cotter pin.
- (4) Remove attaching pin [2] from the jack [3] and mounting area.
- (5) Remove the jack from the side [3] of floating hitch.
- (6) Place the jack in the storage location [5] on top of the floating hitch.
- (7) Install the jack attaching pin [2].
- (8) Install the safety chain [4] to the tractor.
- (9) Connect the hydraulic hoses. Refer to the Connect Hydraulic Hose to Tractor section.
- (10) Connect the applicator electrical plug to the tractor. Refer to the Connect the Applicator electrical Pug to the Tractor section.
- (11) Remove the wheel chocks.

6.2 Making Proper Hose Connections



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DO NOT USE FINGERS OR SKIN TO CHECK HYDRAULIC LEAKS. HIGH PRESSURE FLUIDS CAN EASILY PUNCTURE SKIN. USE PROPER HANDS AND EYE PROTECTION WHEN SEARCHING FOR LEAKS.

6.3 Connect Hydraulic Hoses to the Tractor

Color	Usage
Yellow	Row Unit
Green	Inner Wing-fold
Blue	Outer Wing-fold
Red	Fertilizer Blower / Hydraulic Winch

6.4 Row Unit and Wing-fold Operation Test

6.4.A Use the following procedure to operate and test the toolbar row units. Ensure that toolbar is unfolded before testing row units. See Section 7 for Wing Fold/Unfold Operation.

- (1) Make sure the tractor transmission is in PARK and/or the brakes are set.
- (2) Start the tractor engine.
- (3) Put the tractors hydraulic controls in the NEUTRAL position.
- (4) Move the control lever for the row units back and forth several times while observing operation of the row units. The row units should raise when the control lever is pulled back and lower when the control lever is pushed forward. If the action is reversed, reverse the hose connections, refer to the Install Hydraulic Hoses to Tractor section.
- (5) After cycling the row units, check the tractor hydraulic fluid reservoir. Add hydraulic fluid if necessary. Refer to the Tractors Operation Manual.

6.4.B Use the following procedure to operate and test the wing-fold operation.

- (1) Make sure the tractor transmission is in PARK and/or the brakes are set.
- (2) Start the tractor engine.
- (3) Put the tractors hydraulic controls in the NEUTRAL position.
- (4) Move the control lever to fold/unfold the wings slowly back and forth several times while observing the wing operation. The wings should raise when the control lever is pulled back and lower when the control lever is pushed forward. If the action is reversed, reverse the hose connections, refer to the Install Hydraulic Hoses to Tractor section.

6.4.C Check the following components for possible malfunctions and leaks.

- (1) Damaged, cracked, or charred hoses.
- (2) Cracked, damaged or badly corroded fittings.
- (3) Kinked, crushed, flattened, or twisted hoses.
- (4) Leaking hydraulic cylinders.

NOTE: When replacing hydraulic hoses on the applicator, make sure to use the same high pressure rating and hose diameter, failure to do so can affect the compatibility of this applicator.

6.5 Connect the Applicator Electrical Plug

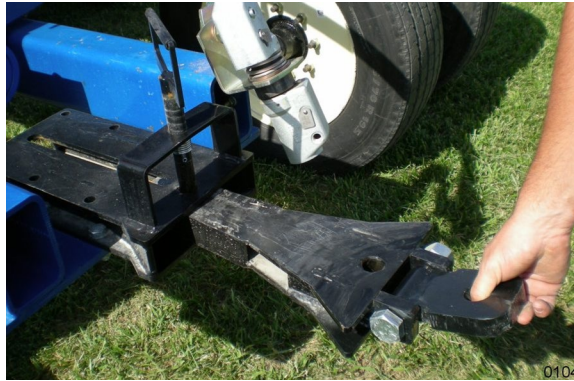
6.5.A Use the following procedure to connect the applicator electrical plug to the tractor.

- (1) Lift the tractor electrical plug cover.



- (2) Connect the applicator electrical plug into the tractor electrical connector.
- (3) Put the tractor electrical plug switch in the ON position.
- (4) Make sure all the lights are operating correctly.

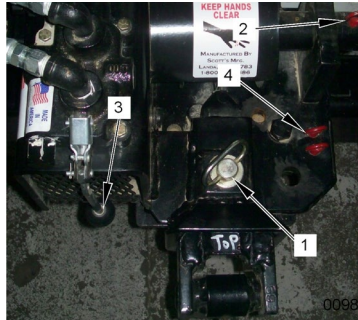
6.6 Attaching Rear Tow Hitch



6.6.A Use the following procedure to attach the applicator to the nurse tank.

- (1) Back the applicator to within 8-10 inches of the rear hitch and the nurse tank tongue.
- (2) Pull up on the rear hitch lock pin handle and pull out the rear hitch.
- (3) Align the rear hitch with the tongue of the nurse tank.
- (4) Install the transport pin.
- (5) Install the hairpin cotter pin into the transport pin hole.
- (6) Back the applicator up until the rear hitch lock pin handle drops into place.
- (7) Connect the safety chain if required.

6.7 Hydraulic Winch (Option)



6.7.A A rugged hydraulic winch assembly is available for the applicator. The hydraulic winch will allow you to attach a nurse tank quickly and safely to the applicator. To operate the winch, see the following procedure.

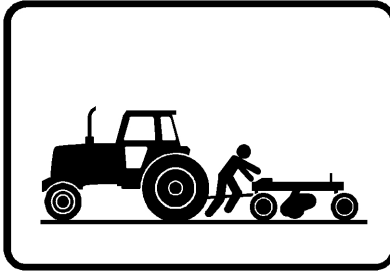
- (1) Connect the hydraulic hoses to the tractor. Refer to the Install Hydraulic Hose to Tractor section.
- (2) Remove the hitch lock pin (1) from the hitch.
- (3) Remove the RED pin (2) from the winch reel shaft and place it in the pin holder (4).
- (4) Pull out the hitch and cable assembly and connect it to the nurse tank.
- (5) To retract the hitch and cable assembly, place the knob (3) in the upright position location and push downward on the knob.
- (6) After the hitch and cable assembly is fully retracted, install the pin (1).
- (7) Install the RED pin (2) in the winch reel shaft hole.

6.8 Attaching and Detaching Anhydrous Ammonia Tank



- 6.8.A Refer to the following information for attaching or detaching the anhydrous ammonia nurse tank and ammonia nurse tank operation.**
- (1) To attach or detach the anhydrous ammonia nurse tank to the applicator, refer to the Rear Tow Hitch procedure above.
 - (2) For the proper safety, setups, bleeder valves, wiring and emergency disconnect information, refer to the appropriate Anhydrous Ammonia Nurse Tank Manual.

6.9 Detaching Applicator Safely



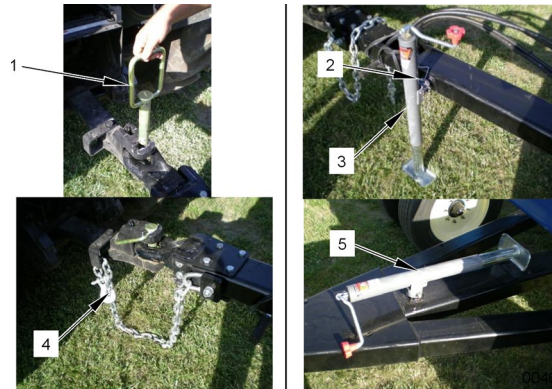
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TO PREVENT INJURY OR DEATH, DO NOT STAND BETWEEN A MOVING TRACTOR AND THE APPLICATOR.

6.10 Detaching Applicator from the Tractor



6.10.A Use the following procedure to Detach the applicator from the tractor.

- (1) Install the wheel chocks.
- (2) Disconnect the applicator electrical plug from the tractor. Refer to the Disconnect the Applicator Electrical Plug from the Tractor section.
- (3) Disconnect the hydraulic hoses. Refer to the Disconnect Hydraulic Hose from Tractor section.
- (4) Disconnect the safety chain [4] from the tractor.
- (5) Remove the jack attaching pin [2].
- (6) Remove the jack from the storage location [5] on top of the floating hitch.
- (7) Install the jack on the side [3] of the floating hitch.
- (8) Install the attaching pin [2] in the jack [3].
- (9) Remove hitch pin [1] and the hairpin cotter pin to disconnect the tractor hitch from the applicator floating hitch assembly.

6.11 Disconnect Hydraulic Hoses From the Tractor

6.11.A Always use proper hand and eye protection when removing hydraulic hoses.

6.12 Disconnect the Applicator Electrical Plug

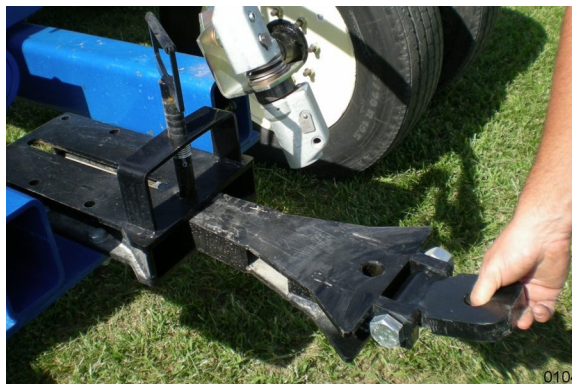
6.12.A Use the following procedure to disconnect the applicator electrical plug from the tractor.

- (1) Put the tractor electrical plug switch in the OFF position.
- (2) Lift the tractor electrical plug cover.



- (3) Disconnect the applicator electrical plug from the tractor electrical connector.

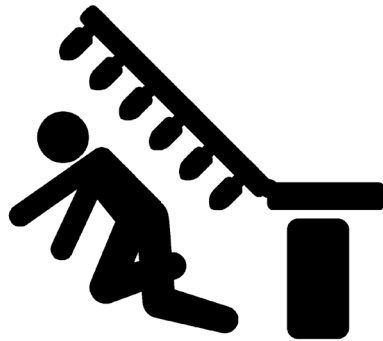
6.13 Detaching the Rear Tow Hitch (Manual and Hydraulic)



6.13.A Use the following procedure to detach the applicator from the manual hitch/hydraulic winch hitch.

- (1) Disconnect the safety chain if necessary.
- (2) Remove the hairpin cotter pin from the transport pin.
- (3) Remove the transport pin from the hitch.

7 – Wing-Fold Unfold Operation



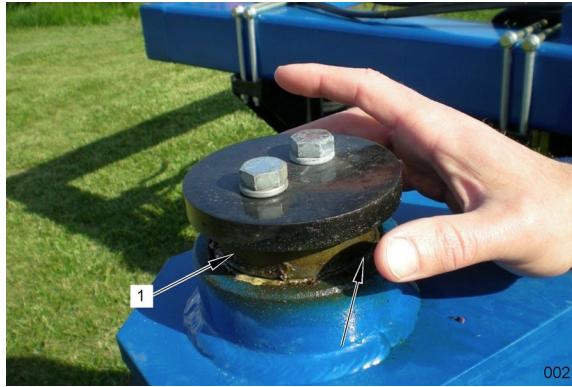
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DO NOT STAND BENEATH THE WINGS WHEN THEY ARE IN THE FOLDED POSITION AFTER THE WING-FOLD TRANSPORTATION PINS HAVE BEEN REMOVED OR WHEN THE WINGS ARE BEING UNFOLDED. SERIOUS INJURY OR DEATH CAN OCCUR.

7.1 Wing and Caster Wheel Safety



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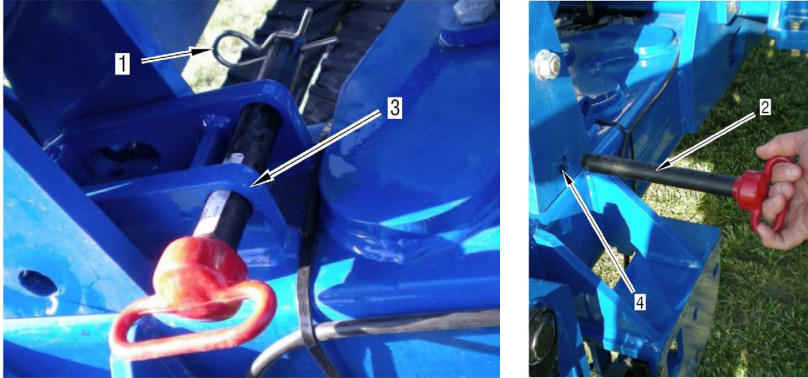
KEEP FINGERS, HANDS, AND OTHER PARTS OF THE BODY AWAY FROM THE WING WHEEL SHAFT AREA. FAILURE TO DO SO CAN CAUSE PERSONAL INJURY.

7.1.A The caster wheel assemblies have two built-in characteristics, wheel rotation and an up-and-down motion. The wing wheel assembly can stick in the full up position (1) with the wing wheels off the ground. If this occurs, any jarring of the wing wheel assembly can cause it to drop, causing personal injury if fingers, hands, or other body parts were in the pinch point. Always keep away from this area.

7.2 Unfold the Wings

7.2.A Remove the wing-fold transportation pins. There are two wing-fold transportation pins, one each located at the inner wing hinge point on the aft side of the applicator.

(1) Remove the hairpin cotter pins [1] from the wing-fold transportation pins [2].



(2) Remove the wing-fold transportation pins [2] from the wing-fold lock bracket [4].

(3) Install the wing-fold transportation pins [2] in the storage location [3].

(4) Install the hairpin cotter pins [1] in the wing-fold transportation pins [2].

7.2.B Unfold inner wing until all wing tires contact the ground.

7.2.C Slightly raise inner wings to reduce pressure on the outer wing wheel pivot arm joint.



7.2.D Activate outer wing circuit to unfold outer wings/extend hydraulic wing wheel pivots outward.

7.2.E Place inner wing remote valve into detent/constant flow to initiate hydraulic weight transfer.

(1) See section **5.1 D** for hydraulic operation.

7.2.F Set the wing-fold hydraulic pressure.

(1) See **Section 5** for tractor hydraulic settings.

(2) See **Section 6** for connecting the applicator hydraulics to the tractor.

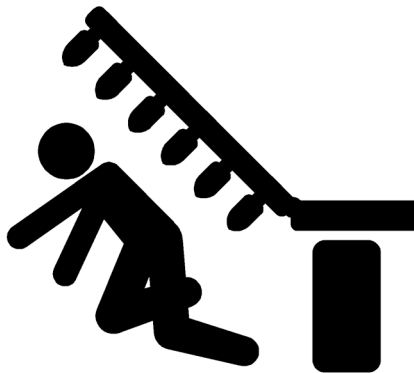
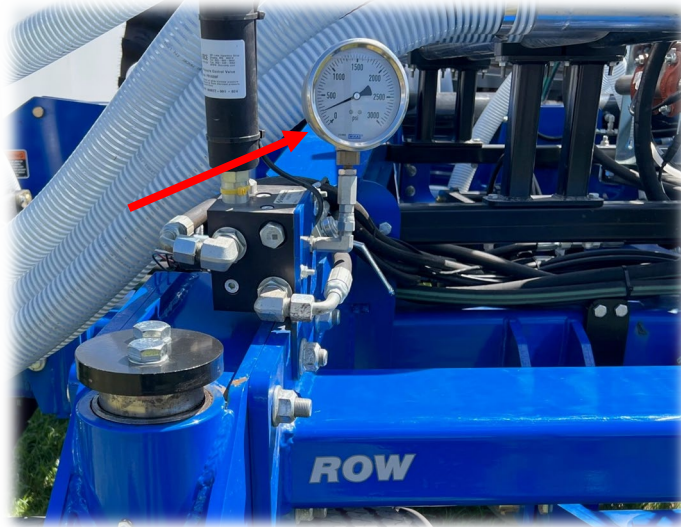
(3) Confirm row unit lockout valve is opened.



(4) Using the in-cab down pressure control box set the wing fold hydraulic pressure to 600-700 PSI (NOT TO EXCEED 1000 PSI)



- (5) Using the in-cab down pressure control box set the row unit hydraulic down pressure to 800-1200 PSI (NOT TO EXCEED 1800 PSI)



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⚠ CAUTION

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DO NOT ATTEMPT TO UNFOLD THE WINGS WITH A TRACTOR HYDRAULIC SYSTEM PRESSURE OF LESS THAN 1500 PSI. TO DO SO CAN CAUSE THE WINGS TO FALL RAPIDLY. SERIOUS INJURY OR DEATH CAN OCCUR.

7.3 Fold the Wings

7.3.A Close Row Unit Lockout Valve.

7.3.B Slightly raise inner wings to reduce pressure on the outer wing wheel pivot arm joint.

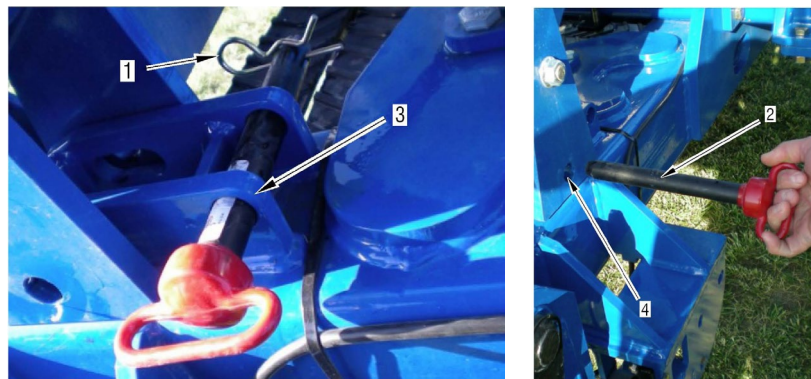


7.3.C Activate outer wing circuit to fold outer wings/retract hydraulic wing wheel pivots inward.

7.3.D Fold inner wing until all wings contact the wing stops.

7.3.E Replace the wing-fold transportation pins. There are two wing-fold transportation pins, one each located at the inner wing hinge point on the aft side of the applicator.

- (1) Remove the wing-fold transportation pins [2] from the storage location [3].
- (2) Install the wing-fold transportation pins [2] in the wing fold lock brackets [4].
- (3) Install the hairpin cotter pins [1] in the wing-fold transportation pins [2].

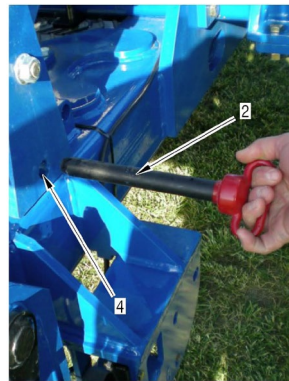
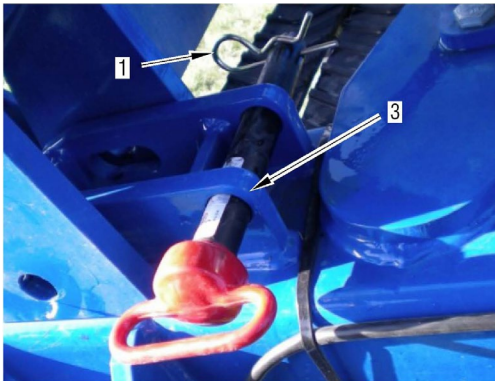


8 -Transporting

8.1 Safety Checks Before Transportation

8.1.A Before you transport the applicator on the road or highway, verify the following items:

- (1) Applicator is securely hitched to the tractor.
- (2) Safety chains are installed with sufficient slack for turning.
- (3) Raise applicator.
- (4) Turn the valve on the row unit hydraulic block to the OFF position.
- (5) Make sure the slow-moving vehicle sign is visible and in good condition. Replace as necessary.
- (6) Make sure the reflectors are visible and in good condition. Replace as necessary.
- (7) Make sure the taillights are operating. Replace the bulbs as necessary.
- (8) If necessary, fold the wings.
- (9) Make sure the wing-fold transportation pins and safety clips have been installed. If not, do the steps that follow:
 - (a) Remove the hairpin cotter pins [1] and remove the transportation pin [2] from the storage location [3].
 - (b) Install the wing-fold transportation pin (2) into the wing-fold lock bracket (4) and install the hairpin cotter pins (1).

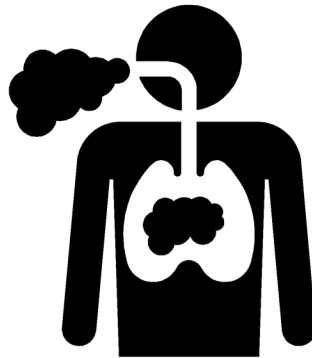


8.2 Safety During Transportation

8.2.A Review and follow all of the items listed below:

- (1) Do not exceed a maximum speed of 20 mph (32 km/h) on smooth surfaces. Reduce speeds on rough surfaces.
- (2) Reduce speed when turning.
- (3) Be aware of overhead power lines.
- (4) Do not raise or lower the wings when moving.

8.3 Transporting Anhydrous Ammonia Tank



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! DANGER

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TO AVOID INJURY OR DEATH, USE PROPER PERSONAL PROTECTIVE EQUIPMENT. ANHYDROUS AMMONIA CAN CAUSE SEVERE BURNING, BLINDNESS, OR DEATH. UNDERSTAND AND FOLLOW ALL ANHYDROUS AMMONIA SAFETY PROCEDURES.

8.3.A Before you transport the tank on the road or highway, verify the following items:

- (1) Tank is securely hitched to the transport vehicle.
- (2) Safety chains are installed with sufficient slack for turning.
- (3) Slow moving vehicle sign is installed on the rear of the tank.
- (4) Anhydrous ammonia supply hose is secured.

9 - Operating Applicator

9.1 Tractor Requirements

9.1.A Tractor horsepower (HP) requirements are generally 20-25 HP per row, but can vary depending on terrain and speed. Refer to the tractor's manual.

9.2 Operating Rules

9.2.A Make sure the wing wheels are set in the correct position. Refer to Section 7.2.

9.2.B Raise row units off the ground before making turns.

9.2.C Avoid making sharp turns that may cause tractor tires to make contact with the applicator.

9.2.D Never raise or lower the wings while applicator is in motion. Refer to Section 5.

9.2.E Never operate in the field with wings raised.

9.2.F Make sure the applicator is on level ground before raising or lowering wings.

9.2.G Make sure tractor and applicator have been properly prepared. Refer to Section 5 and 6.

9.3 Prepare To Operate Applicator In Field

9.3.A Verify the following procedures are completed:

- (1) Set the row unit down pressure to 800-1200 PSI (NOT TO EXCEED 1800 PSI) using the in cab pressure control box.



9.3.A Continued Verify the following procedures are completed:

- (2) Set the wing down pressure to 600-700 PSI (NOT TO EXCEED 1000 PSI) using the in cab pressure control box.



- (3) For rate controller and anhydrous ammonia applicator, refer to manufacturer's operation manual.

9.4 Adjust Row Unit Down Force**9.4.A The row unit down pressure should not exceed 1800 psi. The wing wheels can be off the ground during row unit down pressure setting.**

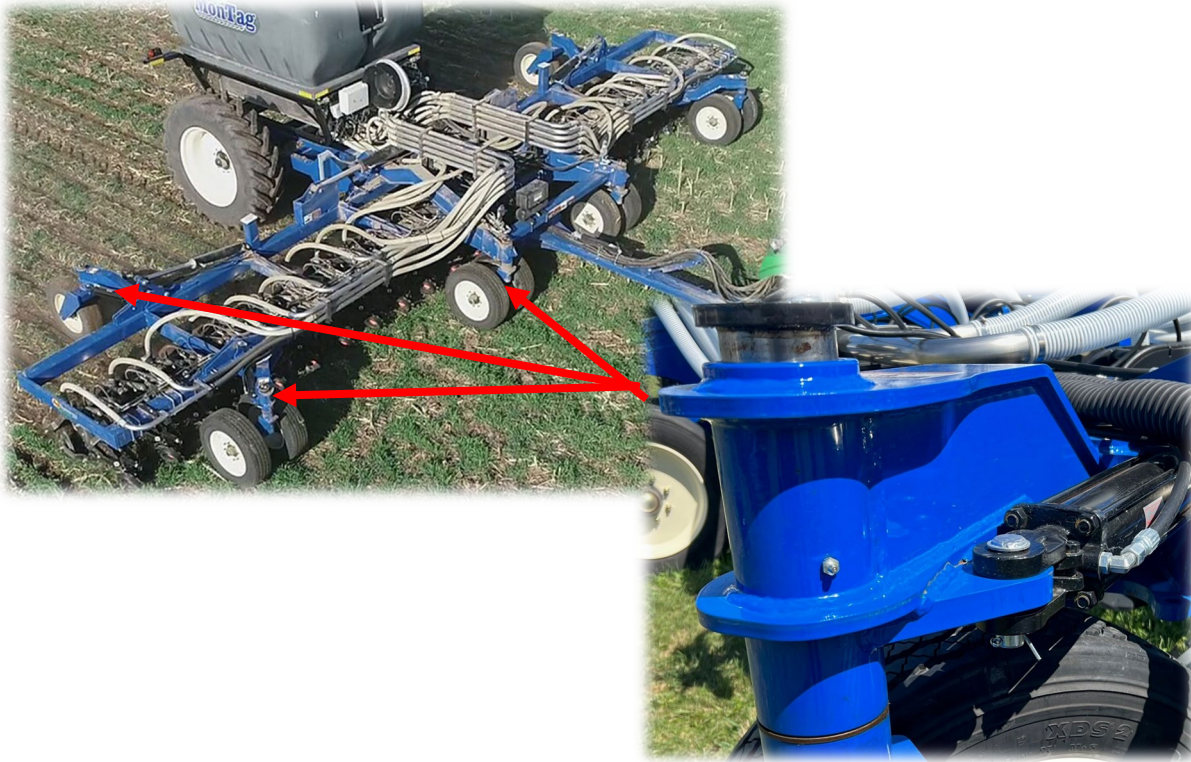
- (1) Do not add suitcase weights to the wings. Only hang suitcase weights on the rear of the tool bar on the weight rack.
- (2) Begin operating and observe that the row units are making full contact to the ground and that the wing wheels are making contact to the ground without excessive compacting.
- (3) After setting the pressure gauge, make a trial pass in the field (20-40 yards). If the penetration is not satisfactory, adjust hydraulic pressure as necessary.

9.5 Adjust the Wing Down Force**9.5.A Once the row unit down pressure is set, adjust the wing down force pressure. Wing down force pressure should not exceed 1000 PSI.****9.5.B Adjust the wing down force at the hydraulic pressure block until the wing wheels and center section wheels are on the ground when the toolbar is in motion.****9.5.C Pull the toolbar forward 50 to 100 feet and adjust the pressure as needed.**

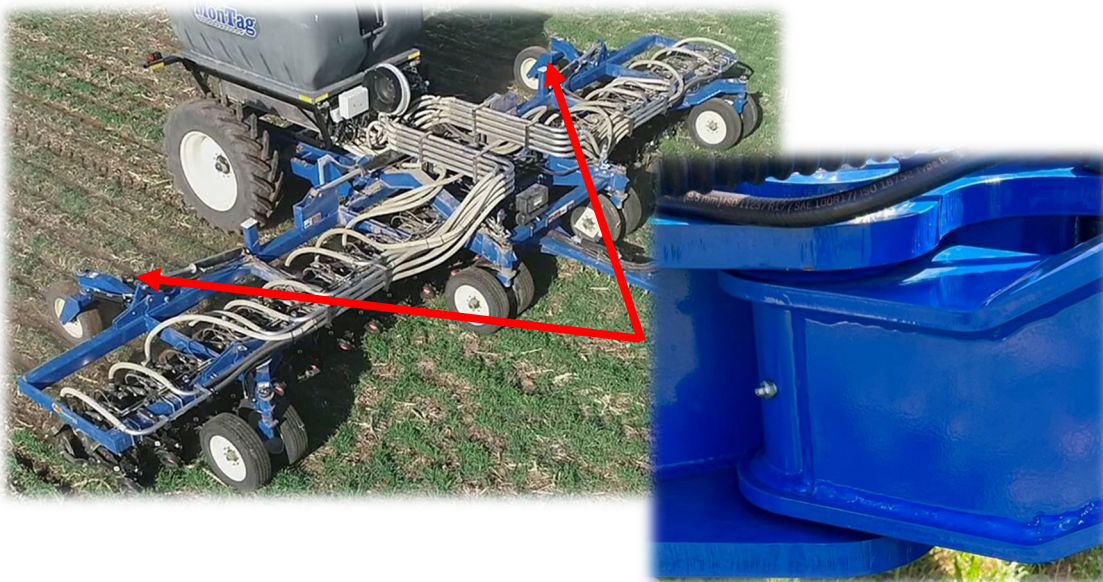
10 – Maintenance/Service

10.1 Daily Maintenance

10.1.A Grease front (4) and rear (2) vertical caster shafts.



10.1.B Grease outer wing caster folding pins (2)



10.1.C Grease Horizontal Cart Shaft (2 Zerks per side)

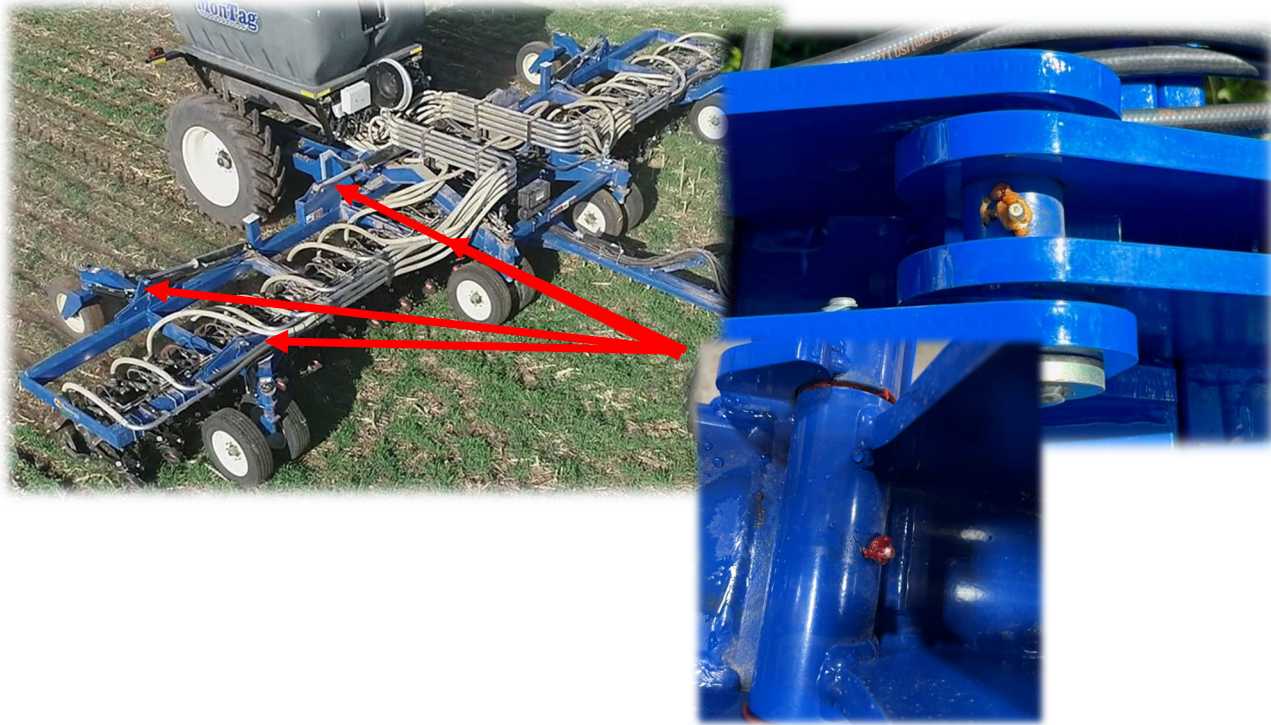


10.2 40 Hour Maintenance

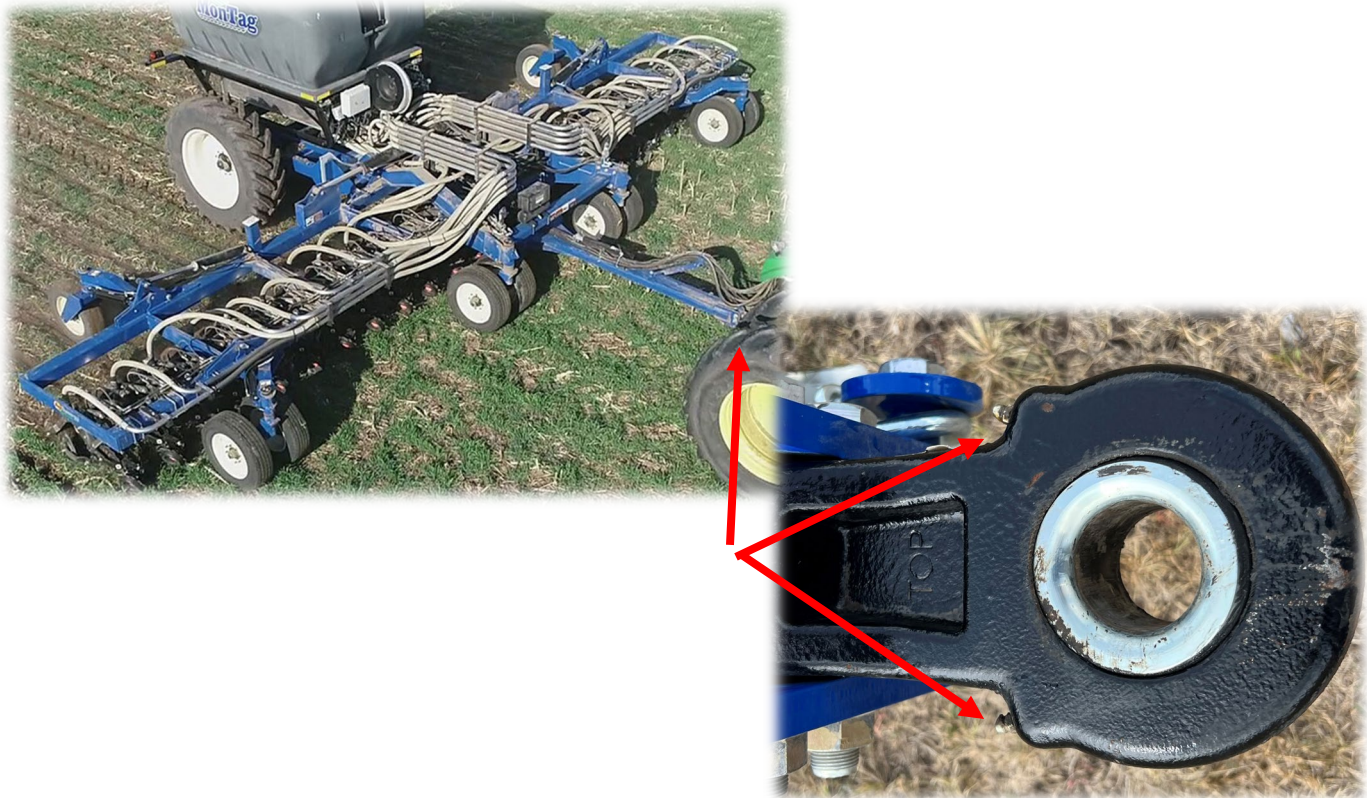
10.2.A Grease Inner Wing Cylinder Pins (4).



10.2.B Grease Inner Wing (4) and Outer Wing Pivots (4).



10.2.C Grease Bull Pull Pin Collar.



10.3 Wheel and Tire Removal/Installation

(1) Wheel and tire removal.

- (a) Make sure the tractor is in PARK or the applicator is chocked.
- (b) Use a safe method to lift the caster wheel assembly off the ground.
- (c) Single caster wheel assembly:



Single Wheel Caster

- (1) Remove the bolt and nut from the caster wheel arm.
 - (2) Remove the tire, rim, and wheel hub as an assembly.
 - (3) Remove the bolts from the wheel hub.
 - (4) Remove the wheel from the hub.
- (d) Dual caster wheel assembly:



Dual Wheel Caster

- (1) Remove the nuts
- (2) Remove the wheel from the hub.

(2) Wheel and tire installation.

- (a) Make sure the tractor is still in PARK or the applicator is still chocked.
- (b) Make sure the lifting method is still secure.
- (c) Single caster wheel assembly:



Single Wheel Caster

- (d) Install the wheel hub in the wheel.
- (e) Install the bolts that attach the wheel hub to the wheel. Torque the nuts to 160 ft-lbs.
- (f) Install the wheel and wheel hub assembly in the caster wheel arm.
- (g) Install the bolt through the caster wheel arm and the wheel and hub assembly. Install the nut and torque to 160 ft-lbs.
- (h) Dual caster wheel assembly:



Dual Wheel Caster

- (i) Install the wheel on the wheel hub.
- (j) Install the nuts and torque to 160 ft-lbs.