



# ***Ag Pro Plus HD - NANT*** ***Owner's Manual & Parts Book***

**Grouser Products**

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Purchase Date
Serial Number
Model Number
Tractor Model
Dealer

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Thank you for your recent purchase of a Grouser Ag Pro HD Dozer. Welcome to the family of satisfied Grouser blade owners. Grouser Products is committed to offering quality products to help professionals in their daily jobs. We are also committed to providing you the highest level of customer satisfaction possible. Again, thank you for your patronage. We look forward to serving you.

This manual contains information concerning the operation, adjustment, safety and maintenance of the Ag Pro HD Dozer. You have purchased a dependable, long lasting piece of equipment. You can expect to receive long lasting performance and long service built into our products with proper care and operation. Please have all operators read and understand this manual carefully. Keep the manual available for reference. If, for any reason, you have questions or comments, we would be happy to hear from you. Call our number, 701-282-7710, or send us an e-mail at [info@grouser.com](mailto:info@grouser.com). You can expect us to respond to your e-mail in a timely manner.

Tighten all bolts to the values listed below unless otherwise noted. Refer to the parts lists for proper length and grade of the bolts.

Size	Torque - Dry (ft-lbs)			
	SAE Grade 5		SAE Grade 8	
	UNC	UNF	UNC	UNF
5/16	17	19	24	27
3/8	30	35	45	50
7/16	50	55	70	80
1/2	75	85	110	120
9/16	110	120	150	170
5/8	150	170	210	240
3/4	260	300	380	420
7/8	430	470	600	670
1	640	720	910	1020

Size	Torque - Dry (ft-lbs)
	Grade 10.9
M18 x 2.50	284
M20 x 2.50	401
M22 x 2.50	547
M24 x 3.00	694

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, read and take the following precautions before operating this equipment. In addition, please follow all safety and operational instructions of your tractor manufacturer.

### The Ag Pro Plus HD Dozer:

1. The Ag Pro Plus HD Dozer should be operated only by those who are responsible and instructed to do so.
2. Read the owner's manual carefully before using this equipment. Lack of operating knowledge can lead to accidents.
3. Keep the Ag Pro Plus HD Dozer maintained in reliable and satisfactory condition to ensure your safety.
4. Make sure the area is clear of people before moving any equipment.
5. Do not modify or permit anyone else to modify or alter the equipment and its components without first consulting Grouser Products.
6. Lower the blade to the ground when not in use.

### Servicing the Ag Pro Plus HD Dozer:

1. Read and follow all safety instructions provided by the tractor manufacturer.
2. Always use proper personal safety gear when performing maintenance on equipment.
3. Before servicing, relieve hydraulic pressure, stop engine and fully engage parking brake.
4. Escaping hydraulic fluid under pressure can penetrate skin causing serious injury. If fluid is injected into skin, obtain medical attention immediately.
  - DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks.
  - Stop the engine and relieve pressure before connecting or disconnecting lines.
  - Tighten all connections before starting the engine or pressurizing lines.

### Storing the Ag Pro Plus HD:

1. Thoroughly clean the Ag Pro Plus HD Dozer before storage. Use paint where necessary to prevent rust.
2. Check the Ag Pro Plus HD Dozer for worn or damaged parts. Install new parts as required.
3. Lubricate all pins and joints.

Unstrap and remove the lift frame, hoses, top arms, and any boxes of hardware from the undercarriage. If any components are missing, call Grouser.

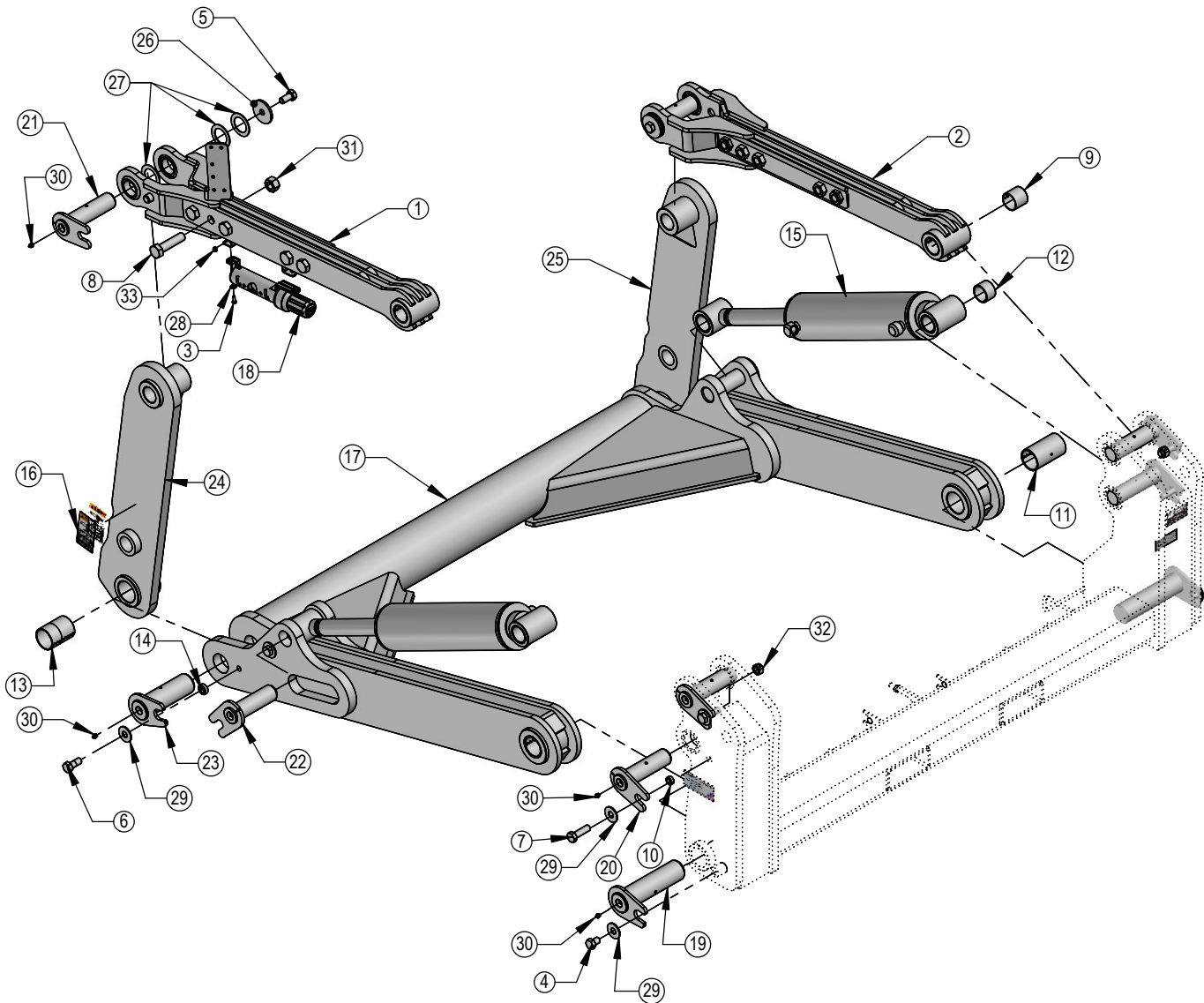
Install undercarriage per the tractor specific mounting instructions.

### Due to the harsh environment this equipment operates in, the following tasks should be performed every 10 hours or less.

- Inspect all equipment before operation for existing or potential damage.
- Lubricate all joints with high quality grease. See below for grease locations.
- Inspect all bolts, and tighten any loose bolts to torque specifications on page 2.
- Check replaceable cutting edge for wear ensuring there is enough material to prevent permanent damage to the Ag Pro HD Dozer. For cutting edge information, see pages 10-11 .
- Check hydraulic cylinders and hoses for damage or leaks. For replacement parts, see hydraulic pages 4 and 6-7 .
- Make sure all non-rotating pins are secured properly.
- Inspect all decals and order replacement decals from your dealer if any are damaged or worn.
- Replace parts with original parts only.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	11-43780-L	Ag Pro Plus Manual Pitch Top Arm Assy
2	1	11-43780-R	Ag Pro Plus Manual Pitch Top Arm Assy
3	2	16-20002	1/4" X 3/4" Hex Bolt Gr 5 NC CZ
4	2	16-20214	3/4" X 1" Hex Bolt Gr 5 NC CZ
5	2	16-20216	3/4" X 1-1/2" Hex Bolt Gr 5 NC CZ
6	4	16-20217	3/4" X 1 3/4" Hex Bolt Gr 5 NC CZ
7	4	16-20220	3/4" X 2-1/2" Hex Bolt Gr 5 NC CZ
8	10	16-20566	1" X 4" Hex Bolt Gr 8 NC YZ
9	4	19-7954	2.25 x 2.00 x 2.00 Spring Bushing
10	6	19-13515	Spacer, NR Pin
11	2	19-13525	2.75 x 2.50 x 4.75 Spring Bushing
12	8	19-16695	2.25 x 2.00 x 1.50 Spring Bushing
13	2	19-18089	2.75 x 2.50 x 3.75 Spring Bushing
14	2	19-43989	.75 x 1.25 NR Pin Bushing
15	2	26-34751	5 x 18 Hydraulic Cylinder
16	2	27-9503	Pinch Point, Foot
17	1	32-44450	HD Lift Frame

ITEM NO.	QTY.	PART NO.	DESCRIPTION
18	1	34-14961	Manual Canister Small
19	2	43-14725	Lift Frame / UC Pin
20	4	43-18120	Top Pin Weld
21	2	43-18127	Top Arm Pin Weld
22	2	43-18175	Lift Cyl Pin Weld
23	2	43-18635	Ag Pro Plus QA Pin
24	1	45-18110-L	Male Quick Attach, Ag Pro S - Left
25	1	45-18110-R	Male Quick Attach, Ag Pro S - Right
26	2	57-1530	3/4" x 3".00 x .25" HD Washer CZ
27	6	57-1811	2" Washer
28	2	57-20740	1/4" Flat Washer CZ
29	10	57-20747	3/4" Flat Washer CZ
30	12	58-9369	Straight 1/8" NPT Grease Zerk
31	10	70-20599	1" Hex Nut Gr 8 NC CZ
32	2	70-20607	3/4" Hex Center Lock Nut Gr 5 NC CZ
33	2	70-20610	1/4" Nylock Hex Nut Gr 5 NC CZ



**Note:** When ordering a cylinder seal kits, the part number on the cylinder is needed. The number is stamped on the base end of the cylinder opposite of the hydraulic ports.

No. On Cylinder	Part No.	Description
26-34751	49-12275	Monarch Seal Kit 5" (658457) Nitrided Rod

DWG. NO.:42440R1

Some assembly of Lift System components is necessary. Follow the steps listed below. See diagram below for the correct hardware and orientation of parts.

1. Remove all pins and fasteners on each side of the undercarriage and set aside for later installation.
2. Position the lift frame between the two plates on both sides of the undercarriage and align to the bottom holes.
3. Insert pins and hardware to attach the lift frame, the base end of the lift cylinders, and the top arms to the undercarriage.
4. Insert pins and hardware to attach the male quick attaches to the lift frame, and to the top arms.
5. Torque all fasteners according to the specifications on Page 2.

**Note: Refer to Pages 6-7 for the correct hose lengths and hose location.**

**Note: All connections are identified by spiral bands. 2 bands are from the base end of a cylinder and 1 band is from the rod end of a cylinder. Orange = Lift**

1. Connect the lift hoses to the lift cylinders.
2. Verify that hoses are not twisted and protected from rubbing on any sharp edges. See Pages 6-7 for proper hose routing.
3. Hoses were plugged into the rear of the tractor during the undercarriage installation.
4. Continue on below initial startup instructions.

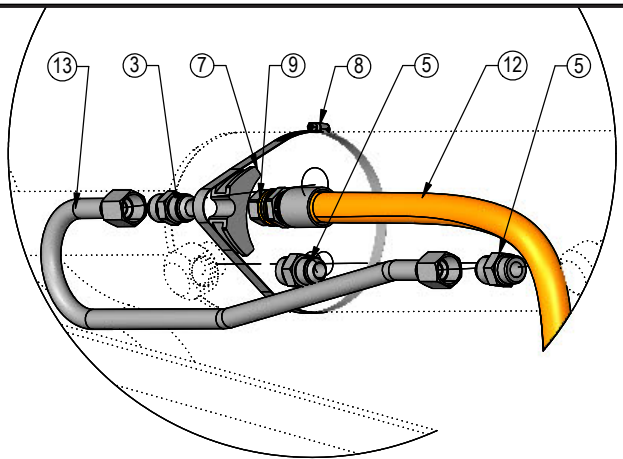
Prior to operating the blade system, all air must be purged from the hydraulic system. Follow the steps below for each function on your blade.

**Lift Function:**

1. With the lift frame down and blocked, loosen the fittings on both ends of the lift cylinders.
2. Actuate the raise function to supply oil to the rod end of the cylinders.
3. When oil starts to flow from the fittings, stop oil flow, and tighten the fitting on the rod end of the lift cylinders.
4. Continue to flow oil until the system is fully raised and then block the lift frame.
5. Actuate the function in the opposite direction to supply oil to the base end of the lift cylinders.
6. When all air is removed from the lift system, stop oil flow and tighten the fittings on the base end of the lift cylinders.
7. Raise lift system and remove blocks. Cycle up and down 5 more times.
8. Check tractor oil level and fill if necessary.
9. Continue with connecting the blade on Page 8.

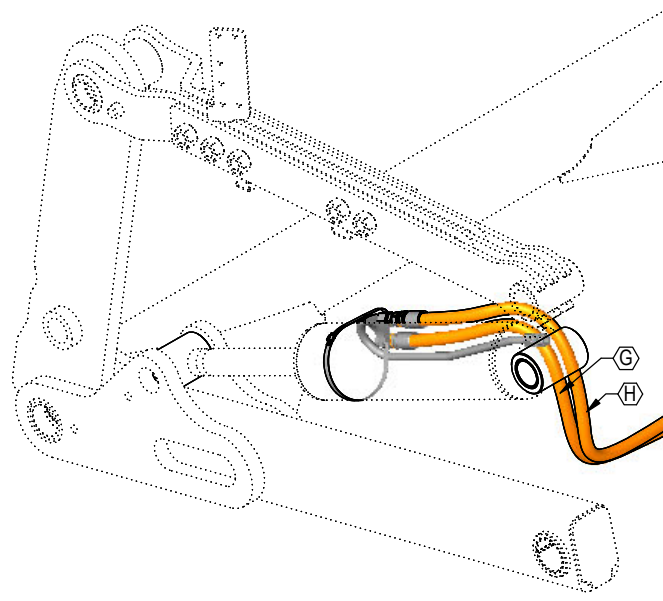
Run the blade through all the functions. If any function does not operate correctly, refer to corresponding section above and re-bleed. If problem still persists, call Grouser Products.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	25-34342	Tappet Quick Coupler Male - Poppet Style
2	2	25-3457	Pioneer Dust Cap Lift (Orange)
3	2	31-11699-10-10	JIC Union
4	2	31-34032	Bulkhead Run Tee JIC
5	4	31-34042	Straight JIC x O-Ring
6	2	31-34059	Straight Thread Elbow 90° JIC x O-Ring
6C	2	31-6802-12-10	Straight Thread Elbow 45° JIC x O-Ring
7	2	34-12932	Cylinder Saddle
8	2	34-12933	Hose Clamp (worm drive - 5.0)
9	15	34-19494-OR	-16 Orange - Spiral Band
10	2	35-12637-3000	300" (25") x 3/4" -12JIC/-12JIC Abrasion Resistant Hose
10B*	2	35-44309-0200	20" x 3/4" -12MJIC/-12FJIC Hose
11	2	35-12641-0535	53.5" x 5/8" -10JIC/-12JIC Abrasion Resistant Hose
12	2	35-12641-0670	67" x 5/8" -10JIC/-12JIC Abrasion Resistant Hose
13	2	35-18240	Lift Cylinder Steel Line
14	2	70-20809	1-1/16" Hex Jam Nut NF CZ

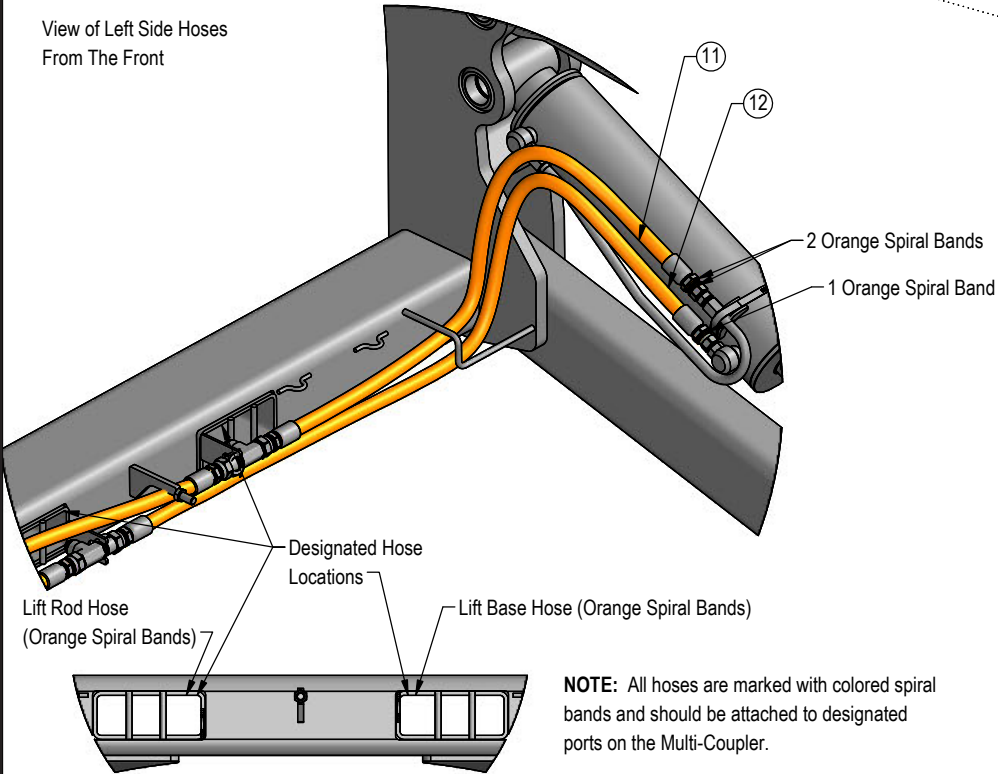


DETAIL A

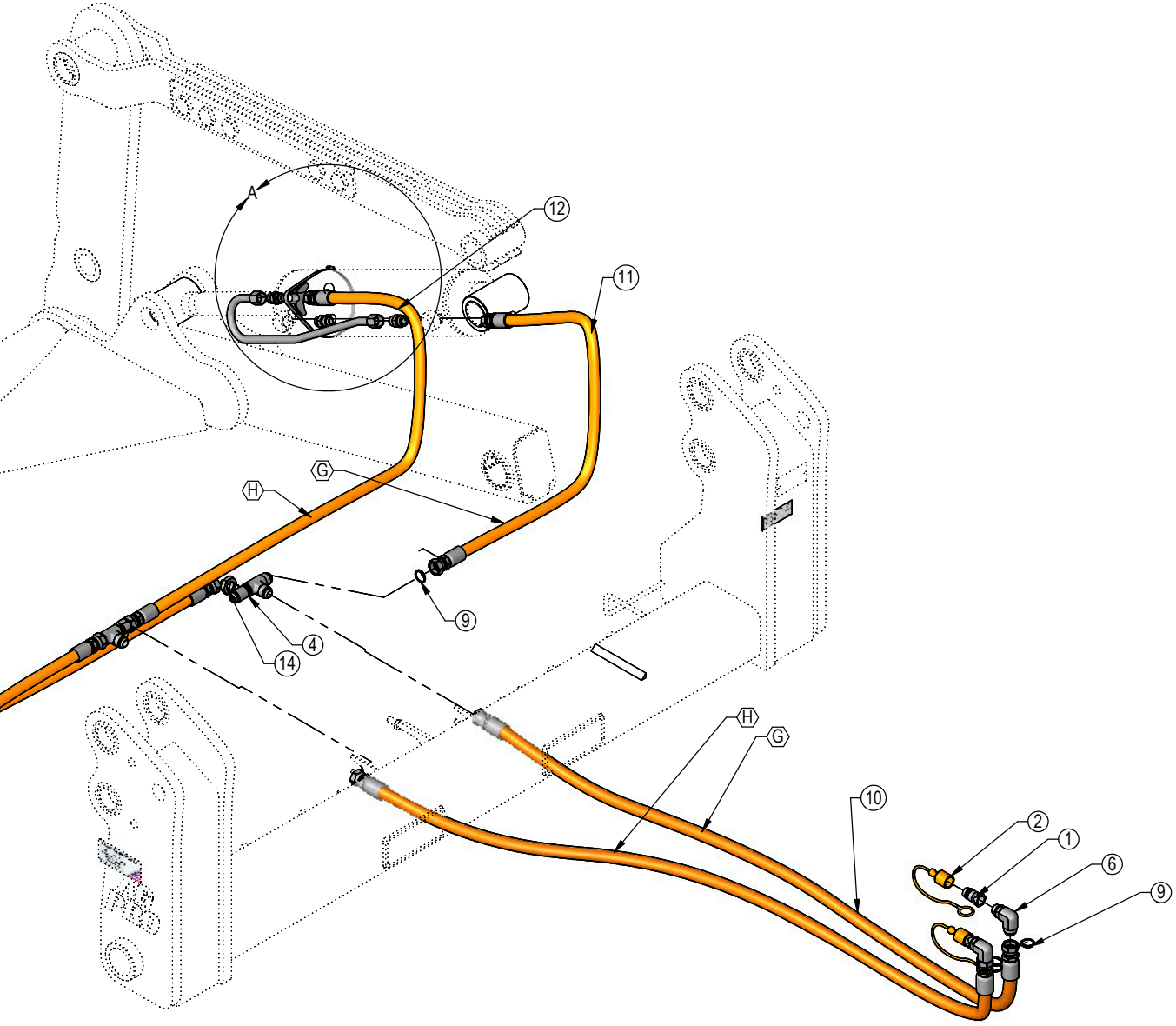
\* Part Not Shown  
 Hoses Not Drawn to Scale  
 Item A for CNH, JD 9R, JD 9030  
 Item B for Versatile, Challenger MT900, and JD 9RX - Extra hose needed to make 300" hose longer  
 Item C for Claas Xerion Tractor  
 Every hydraulic function from the front to the back of the system is designated by a ○ and a letter and can also be referenced on the Hydraulic Schematic.



View of Left Side Hoses From The Front



**NOTE:** All hoses are marked with colored spiral bands and should be attached to designated ports on the Multi-Coupler.





**To Connect:**

**Note: If necessary, use a spotter to help center the blade on the lift system.**

1. Before standing blade upright for initial connection, remove the 3/4" pin (#30 on Page 10) so the skid shoes can move freely. The blade will lean back further for easier connection. Store the pin in the storage location (See Page 9 for location).
2. If necessary, lift the locking latch and pull the quick attach lock handle on the left side of the lift system to open the quick attach system. Refer to Page #12 for further clarification on the quick attach system.
3. Drive the tractor forward slowly until the top edge of the male quick attach is under the top hook of the female quick attach on the blade assembly.
4. Raise the lift system until the male quick attach engages the female hook. If both sides don't fully engage, reposition. Continue to raise the lift system until the blade is off the ground and the female quick attaches are against the front of the male quick attaches.
5. Shut off the tractor engine and set the parking brake.
6. Push the quick attach lock handle to engage the quick attach pins and lift the locking latch to lock the handle in place.
7. Lock the mushroom skid shoe link back in place with the 3/4" pin you removed in Step #1.
8. If initial startup, refer to Page 5 before operating any function of the blade.

**To Disconnect:**

1. Lower the blade until the cutting edge is off the ground a few inches.
2. Shut off the tractor engine and set the parking brake.
3. Lift the locking latch and pull the quick attach lock handle to disengage the quick attach pins.
4. Remove the 3/4" pin so the skid shoes can move freely and the blade can lean back. Store the pin.
5. Start tractor, disengage the parking brake, and lower the blade until cutting edge is on the ground.
6. Continue to slowly lower the lift system to disengage the blade.
7. Slowly back away from the blade. When lift system is clear from the blade, raise the lift system.
8. Shut off the tractor engine and set the parking brake.



### Skid Shoe Adjustment:

1. Remove the handle from the ratchet keeper by pulling the hitch clip pin and insert it into the handle receiver on the ratchet jack.
2. Loosen the locking nut on the ratchet jack.
3. Hold the body of the ratchet jack and rotate the ratchet jack handle to raise or lower the skid shoes.
4. If the skid shoe is not moving in the proper direction, flip the forward/reverse lever on the handle (see Figure 2). Rotate the ratchet jack handle again to move the skid shoe in the desired direction.
5. After the skid shoe is adjusted, rotate the ratchet jack handle until it rests against the ratchet keeper. Return the removable handle to the ratchet keeper ensuring that the ratchet jack handle is captured by the removable handle and the ratchet keeper. Secure the handle to the ratchet keeper with the hitch clip pin.
6. Tighten the locking nut against the ratchet jack body to keep it from moving.
7. When skid shoes are worn up to the bolt heads, replace skid shoes.

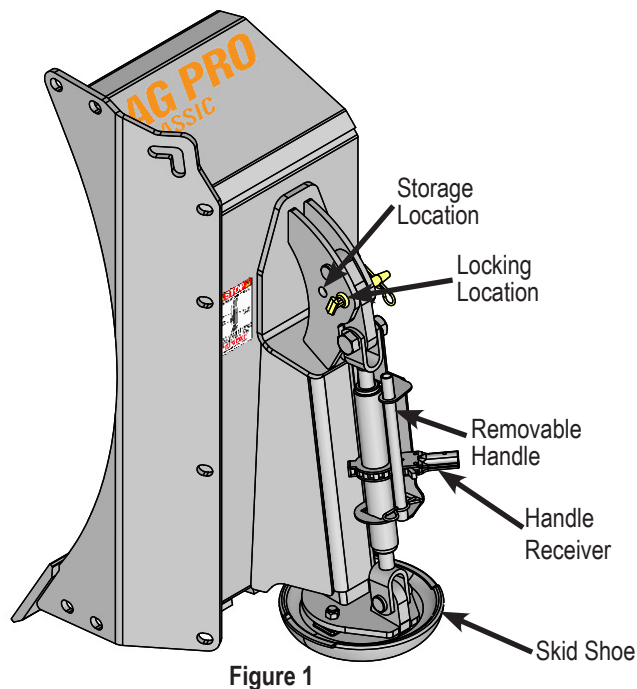


Figure 1

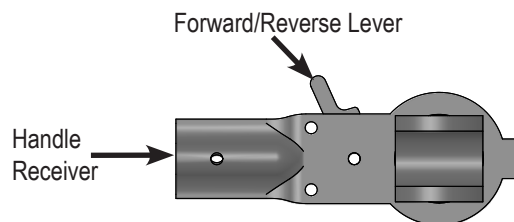
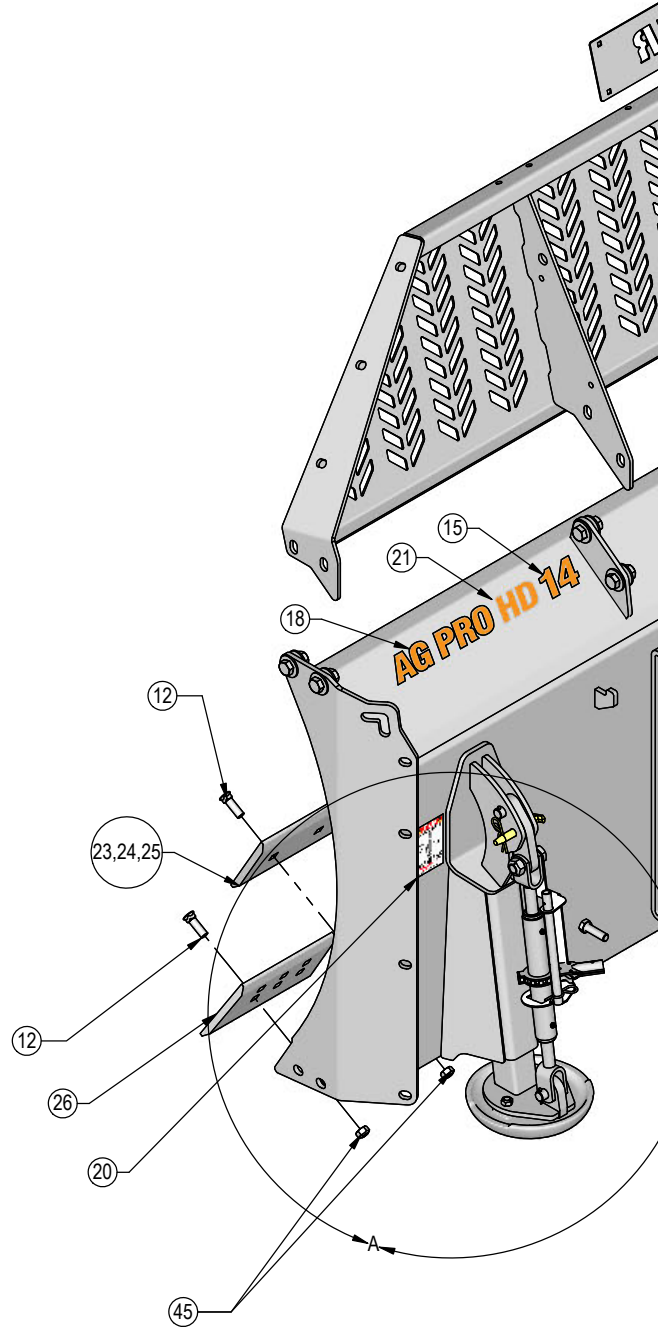
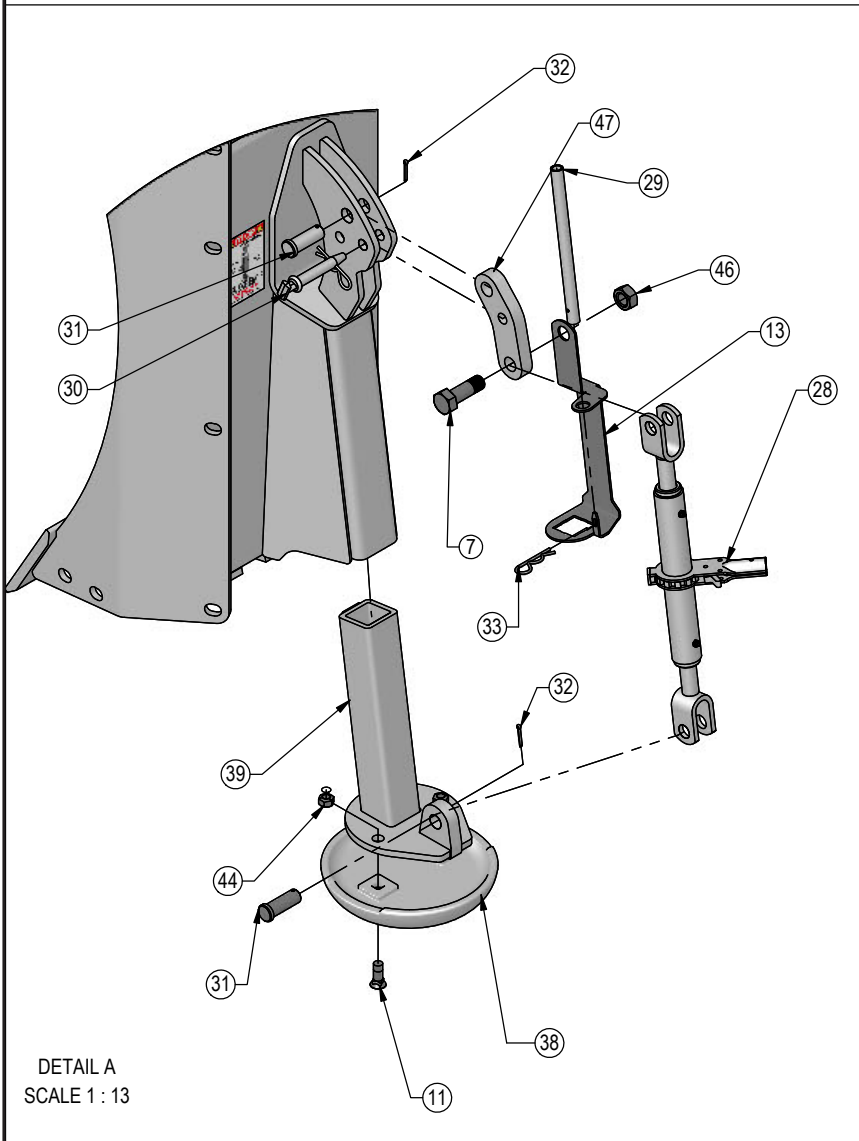
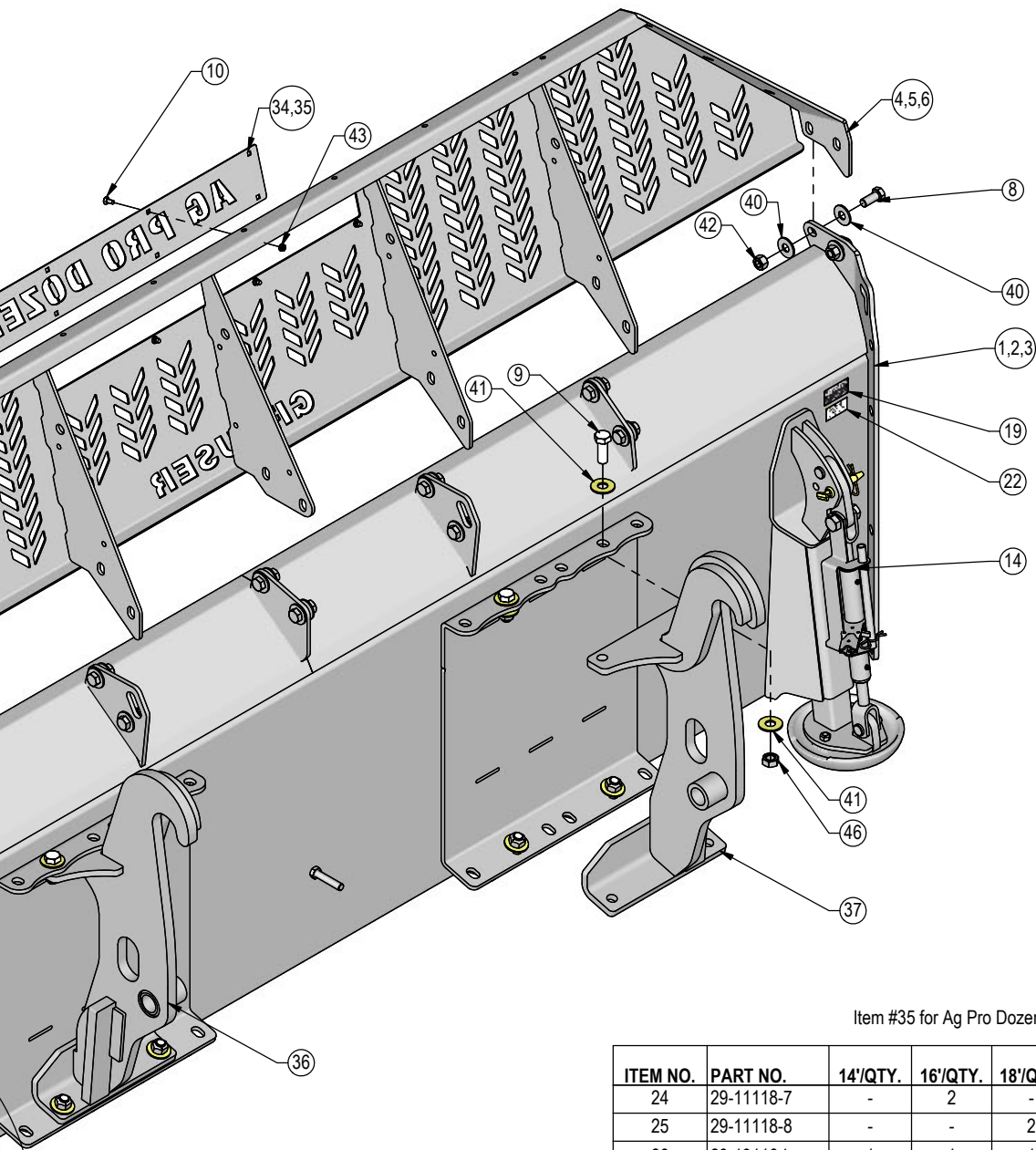


Figure 2

# Ag Pro HD NANT Blade

ITEM NO.	PART NO.	14'/QTY.	16'/QTY.	18'/QTY.	DESCRIPTION
1	15-42080-14	1	-	-	HD AG Pro Blade, NANT
2	15-42080-16	-	1	-	HD AG Pro Blade, NANT
3	15-42080-18	-	-	1	HD AG Pro Blade, NANT
4	15-18520-14	1	-	-	Top Extension Weld
5	15-18520-16	-	1	-	Top Extension Weld
6	15-18520-18	-	-	1	Top Extension Weld
7	16-18945	2	2	2	1" x 3" Hex Bolt Gr 5 NC - Short Thread
8	16-20538	14	18	18	7/8" X 2" Hex Bolt Gr 8 NC YZ
9	16-20561	8	8	8	1" X 2-3/4" Hex Bolt Gr 8 NC YZ
10	16-21064	8	8	8	3/8" x 1" Carriage Bolt Gr 5 NC CZ
11	16-21666	4	4	4	5/8" X 1-3/4" Plow Bolt Gr 5 NC (#3 Flat Head)
12	16-21752	36	40	44	3/4" X 2-1/2" Plow Bolt Gr 8 NC
13	18-18498-L	1	1	1	Ratchet Keeper - Left
14	18-18498-R	1	1	1	Ratchet Keeper - Right
15	27-14842-14	1	-	-	14' Decal
16	27-14842-16	-	1	-	16' Decal
17	27-14842-18	-	-	1	18' Decal
18	27-14845	1	1	1	Ag Pro Blade Decal
19	NA	1	1	1	Serial Number Tag
20	27-40917	1	1	1	Ratchet Holder Storage Decal
21	27-18208	1	1	1	HD Decal
22	27-40962	1	1	1	Warning Prop 65 Decal
23	29-11118-6	2	-	-	6' - 3/4"x 8" Cutting Edge

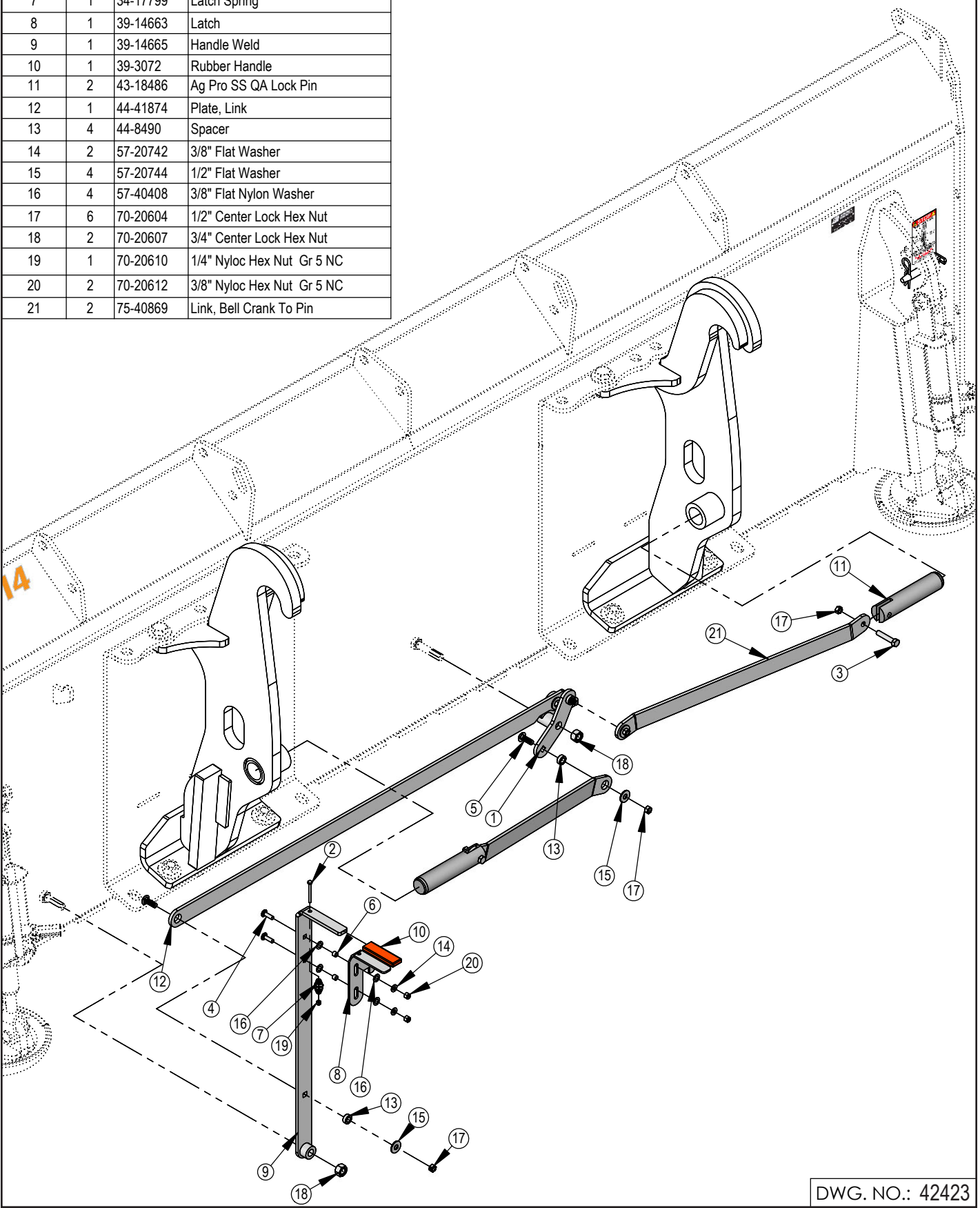




Item #35 for Ag Pro Dozer Name Plate and Item #34 for Custom Name Plate

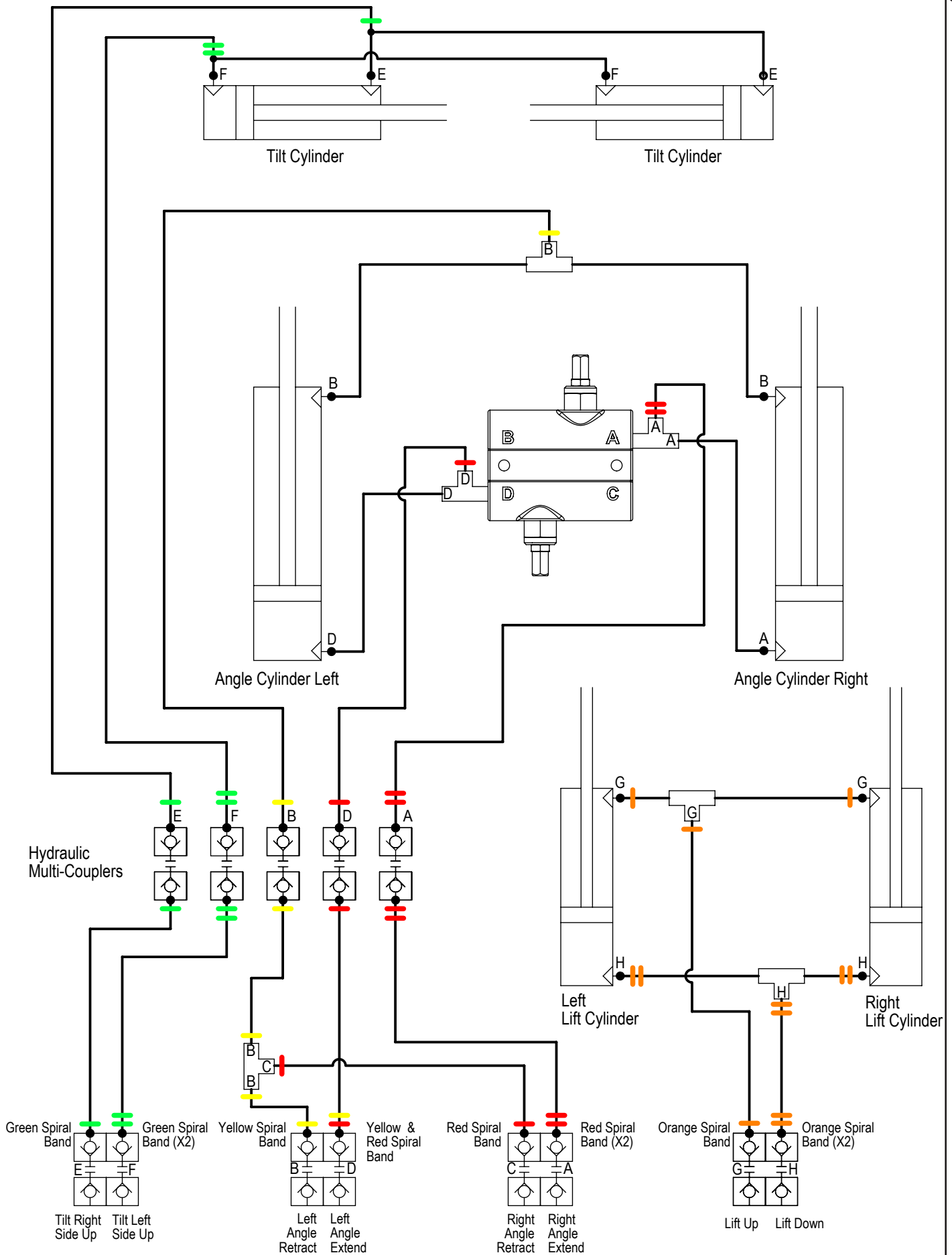
ITEM NO.	PART NO.	14'/QTY.	16'/QTY.	18'/QTY.	DESCRIPTION
24	29-11118-7	-	2	-	7' - 3/4"x 8" Cutting Edge
25	29-11118-8	-	-	2	8' - 3/4"x 8" Cutting Edge
26	29-19116-L	1	1	1	8" End Bit
27	29-19116-R	1	1	1	8" End Bit
28	34-17565	2	2	2	Skid Shoe Ratchet Jack
29	34-17567	2	2	2	Handle, Ratchet Jack
30	43-15712	2	2	2	3/4" x 3-1/4" Pin with Hitch Pin Clip
31	43-18463	4	4	4	1" x 2.75" Pin
32	43-18943	4	4	4	3/16" x 1-1/2" Cotter Pin
33	43-7767	2	2	2	Cylinder Pin Clip
34	44-14830	1	1	1	Custom Name Plate
35	44-15150	1	1	1	Ag Pro Dozer Name Plate
36	45-40870-L	1	1	1	SS Bolt in Quick Attach - Left
37	45-40870-R	1	1	1	SS Bolt in Quick Attach - Right
38	50-15458	2	2	2	12" Round Mushroom Skid Shoe
39	50-18470	2	2	2	Mushroom Skid Shoe Mount
40	57-20818	28	36	36	7/8" Flat Washer Heavy Duty Gr 8 (USS) YZ
41	57-20819	16	16	16	1" Flat Washer Heavy Duty Gr 8 (USS) YZ
42	70-20598	14	18	18	7/8" Hex Nut Gr 8 NC CZ
43	70-20622	8	8	8	3/8" Flange Hex Nut Gr 5 NC CZ
44	70-20646	4	4	4	5/8" Hex Top Lock Nut Gr 5 NC CZ
45	70-20647	36	40	44	3/4" Hex Top Lock Nut Gr 5 NC CZ
46	70-20999	10	10	10	1" Hex Top Lock Nut Gr 8 NC YZ
47	75-18479	2	2	2	Skid Shoe Link

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	11-40866	Bell Crank
2	1	16-20011	1/4" x 2-3/4" Hex Bolt Gr 5 NC
3	2	16-20130	1/2" x 2-1/2" Hex Bolt Gr 5 NC
4	2	16-21065	3/8" x 1-1/4" Carriage Bolt Gr 5 NC
5	4	16-21126	1/2" x 1-1/2" Carriage Bolt Gr 5 NC
6	2	19-40440	.378" ID x .503" OD x .375" Spacer
7	1	34-17799	Latch Spring
8	1	39-14663	Latch
9	1	39-14665	Handle Weld
10	1	39-3072	Rubber Handle
11	2	43-18486	Ag Pro SS QA Lock Pin
12	1	44-41874	Plate, Link
13	4	44-8490	Spacer
14	2	57-20742	3/8" Flat Washer
15	4	57-20744	1/2" Flat Washer
16	4	57-40408	3/8" Flat Nylon Washer
17	6	70-20604	1/2" Center Lock Hex Nut
18	2	70-20607	3/4" Center Lock Hex Nut
19	1	70-20610	1/4" Nyloc Hex Nut Gr 5 NC
20	2	70-20612	3/8" Nyloc Hex Nut Gr 5 NC
21	2	75-40869	Link, Bell Crank To Pin



DWG. NO.: 42423

Colored Lines = Quantity of Colored Spiral Bands



Tractor Service Valve







# Improvements

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Grouser Products Inc. is continually striving to improve its products. We reserve the right to change prices, specification, or equipment at any time without notice. We also reserve the right to make improvements or changes when it becomes practical and possible to do so without incurring any obligation to make changes or additions to the equipment sold previously.

## Warranty

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Grouser Products warrants to the original purchaser of each item that the product be free from defects in material and workmanship under normal use and service for a period of **two (2) years for Agriculture Series Blades and one (1) year for Heavy Duty Series from date of original retail delivery.**

### **The obligation of the consumer under this warranty:**

1. To read the operators manual and to operate, lubricate, maintain and store equipment in accordance with the instructions listed in the operators manual.
2. To inspect equipment and if any part needs repair or replacement when continued use would cause damage or wear to other parts or safety.
3. All equipment or parts claimed to be defective in material or workmanship must be made available for inspection at the place of business of a dealer authorized to handle the equipment covered by this warranty, or, upon request by Grouser Products, shipped to the Grouser Products factory in West Fargo, North Dakota.

### **The obligation of the dealer under this warranty:**

1. Complete warranty registration form and submit within 30 days of sale.
2. Contact Grouser Products for authorization prior to performing any warranty repairs or part replacement.
3. Complete warranty request form and submit with photos and supporting documentation.

### **The obligation of Grouser Products under this warranty:**

1. Repair or replace, any equipment or parts, in the judgment of Grouser Products to be defective in material or workmanship.
2. Grouser Products will cover the cost of parts and ground shipping at dealer invoice only.
3. Grouser Products shall have no obligation to bear the cost of labor or transportation in connection with replacement or repair of any such defective parts.

### **This warranty does not cover:**

1. Depreciation or damage caused by normal wear, accident, improper assembly, improper adjustments.
2. Improper maintenance including lack of proper lubrication, or improper use. Including loose bolts, nuts, or fitting due to over tightening or vibration after 20 hours of operation.
3. Repairs or alterations without authorization from a Grouser Products representative.
4. Grouser Products shall have no liability if the equipment has been altered or reworked without the written authorization of Grouser Products.

Grouser Products' parts, which are furnished under this warranty and properly installed, shall be warranted to the same extent as the original parts under this warranty if, and only if, such parts are found to be defective within the original warranty period covering the original equipment.

**NO EMPLOYEE OR REPRESENTATIVE OF GROUSER PRODUCTS IS AUTHORIZED TO CHANGE THE WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY.**

## Contact Us

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As always, if you have any questions about your system or other products made by Grouser, feel free to contact us.



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