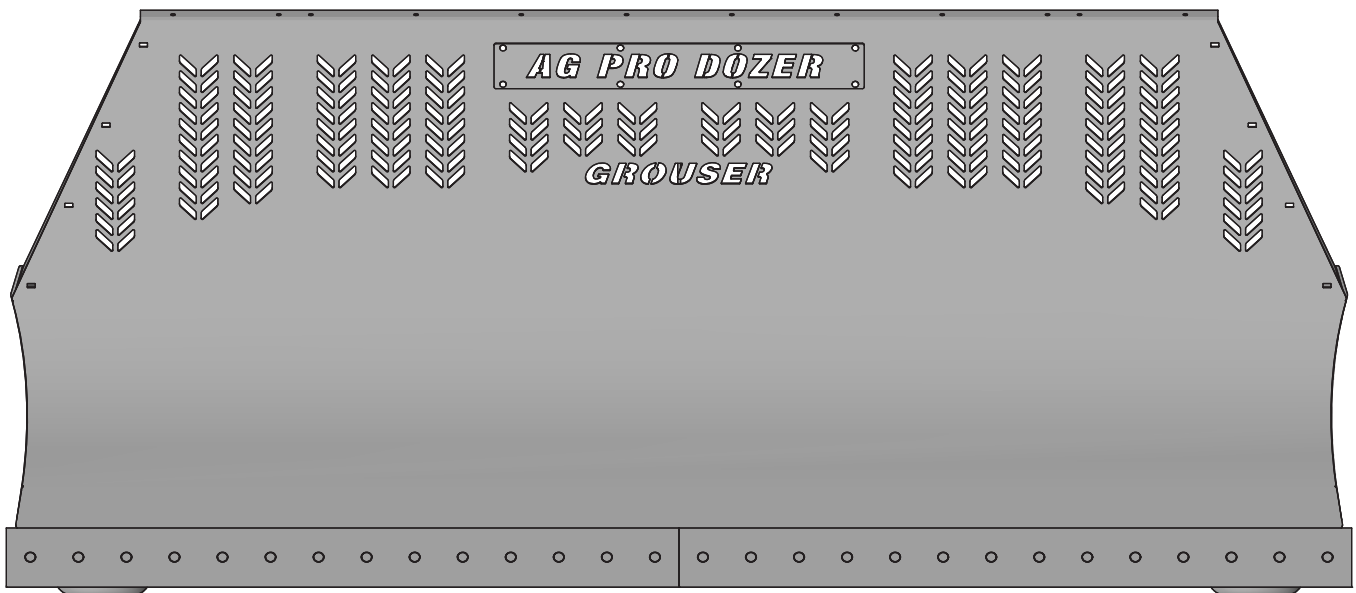




Ag Pro Silage Special

Owner's Manual & Parts Book



Grouser Products

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Purchase Date
Serial Number
Model Number
Tractor Model
Dealer

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<p>Thank you for your recent purchase of a Grouser Ag Pro Silage Special 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.</p> <p>This manual contains information concerning the operation, adjustment, safety and maintenance of the Ag Pro Silage Special 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. You can expect us to respond to your e-mail in a timely manner.</p>							
<table> <tr> <td>HAHT</td><td>Hydraulic Angle - Hydraulic Tilt</td></tr> <tr> <td>HANT</td><td>Hydraulic Angle - No Tilt</td></tr> <tr> <td>NAHT</td><td>No Angle - Hydraulic Tilt</td></tr> </table>		HAHT	Hydraulic Angle - Hydraulic Tilt	HANT	Hydraulic Angle - No Tilt	NAHT	No Angle - Hydraulic Tilt
HAHT	Hydraulic Angle - Hydraulic Tilt						
HANT	Hydraulic Angle - No Tilt						
NAHT	No Angle - Hydraulic Tilt						

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 Silage Special Dozer:

1. The Ag Pro Silage Special 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 Silage Special 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 Silage Special 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 Silage Special:

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

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

	Torque - Dry (ft-lbs)			
	SAE Grade 5		SAE Grade 8	
Size	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

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

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.

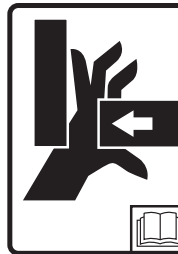
AG PRO 16

SILAGE SPECIAL

PN: 27-14845 PN: 27-14842-XX

PN: 27-40956

XX = Length of Blade



WARNING

PINCH AREA

Keep away

Failure to comply could result in death or serious injury.

27-2409

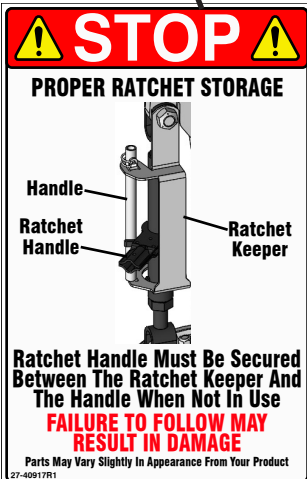
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Left and Right Side



WARNING: This product can expose you to chemicals including lead and lead compounds, mineral oils, and phthalates which are known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to www.P65Warnings.ca.gov

PN: 27-40962

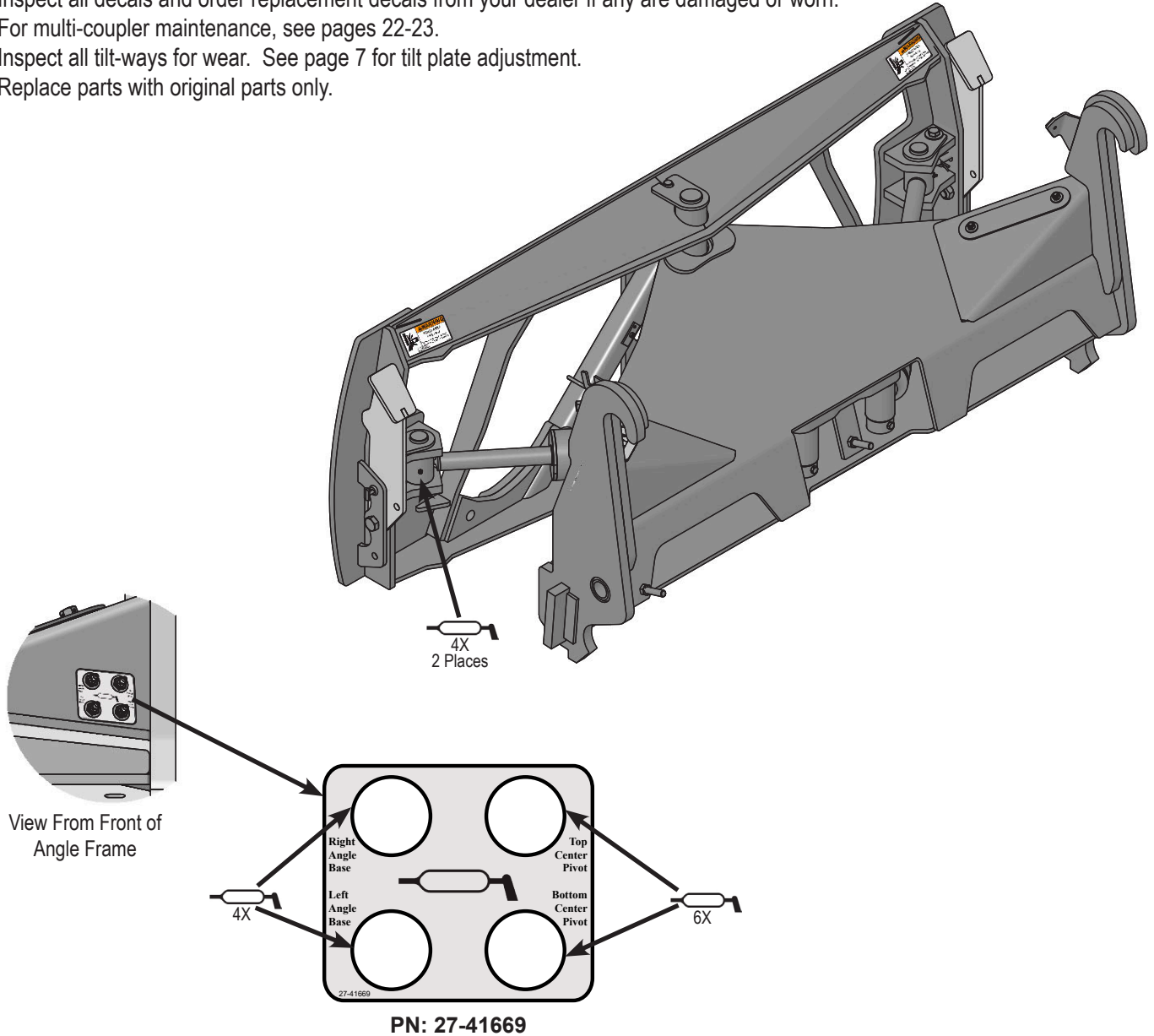


PN: 27-40917

Left and Right Side

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 3.
- Check replaceable cutting edge for wear ensuring there is enough material to prevent permanent damage to the Ag Pro Silage Special Dozer. For cutting edge information, see pages 20.
- Check hydraulic cylinders and hoses for damage or leaks. For replacement parts, see hydraulic pages 12-17.
- 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.
- For multi-coupler maintenance, see pages 22-23.
- Inspect all tilt-ways for wear. See page 7 for tilt plate adjustment.
- Replace parts with original parts only.



NOTE: Prior to connecting the blade, clean the fixed and mobile multi-couplers (refer to pages 22-23). Contamination causes leaks and contamination is not warrantable.

To Connect:

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

1. If necessary, lift locking latch and push quick attach lock handle on left side of lift system to open the quick attach system. Refer to Page #10-11 for further clarification on the quick attach system.
2. Drive tractor forward slowly until top edge of male quick attach is under top hook of female quick attach on the blade assembly.
3. Raise lift system until male quick attach engages female hook. If both sides don't fully engage, reposition. Continue to raise lift system until blade is off ground and female quick attaches are against front of male quick attaches.
4. Shut off tractor engine and set parking brake.
5. Pull quick attach lock handle to engage quick attach pins and lift locking latch to lock handle in place.
6. Clean and connect hydraulic multi-coupler on top arm. Refer to Pages 22-23 for cleaning and connecting information.
7. If initial startup, refer to Page 9 before operating any function of blade.

To Disconnect:

1. Lower blade until cutting edge is off ground a few inches.
2. Shut off tractor engine and set parking brake.
3. Unhook multi-coupler on top arm.
4. Remove multi-coupler covers from the parking stations on blade assembly and install on multi-couplers on top arms.
5. Plug blade side multi-couplers into parking station.
6. Lift locking latch and push quick attach lock handle to disengage quick attach pins.
7. Start tractor, disengage parking brake, and lower blade until cutting edge is on ground.
8. Continue to slowly lower lift system to disengage blade.
9. Slowly back away from blade. When lift system is clear from blade, raise lift system.
10. Shut off tractor engine and set parking brake.

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

Tilt Function:

1. Use a lift or jack to tilt blade system until left side is fully up, loosen fittings on rod and base end of both tilt cylinders.
2. Actuate tilt function to extend right tilt cylinder and supply oil to base end of right cylinder and to rod end of left cylinder.
3. When oil starts to flow from the fittings, stop oil flow, and tighten fitting on base end of right cylinder and rod end of left cylinder.
4. Remove lift or jack.
5. Continue to actuate tilt function until oil flows out of remaining open ports.
6. Actuate tilt function in opposite direction.
7. When all air is removed from tilt system, stop oil flow, and tighten remaining fittings on cylinders.
8. Cycle both cylinders in and out 5 more times.
9. Check tractor oil level and fill if necessary.

Angle Function:

1. Loosen fittings on rod and base end of left angle cylinder.
2. Actuate angle function to extend left angle cylinder and supply oil to base end of left cylinder.
3. When oil starts to flow from fittings, stop oil flow, and tighten fitting on base end of left cylinder.
4. Continue to actuate left angle function in same direction until cylinder is fully extended.
5. Actuate left angle function in opposite direction.
6. When oil starts to flow from rod end fitting, stop oil flow, and tighten rod end fitting on left angle cylinder.
7. Continue to actuate left angle function until cylinder is fully retracted.
8. Loosen fittings on rod and base end of right angle cylinder.
9. Actuate angle function to extend right angle cylinder and supply oil to base end of right cylinder.
10. When oil starts to flow from fittings, stop oil flow, and tighten fitting on base end of right cylinder.
11. Continue to actuate right angle function in same direction until cylinder is fully extended.
12. Actuate right angle function in opposite direction.
13. When oil starts to flow from rod end fitting, stop oil flow, and tighten rod end fitting on right angle cylinder.
14. Continue to actuate right angle function until cylinder is fully retracted.
15. Cycle left cylinder in and out 5 more times and then right cylinder in and out 5 more times.
16. Check tractor oil level and fill if necessary.

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

Skid Shoe Adjustment:

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

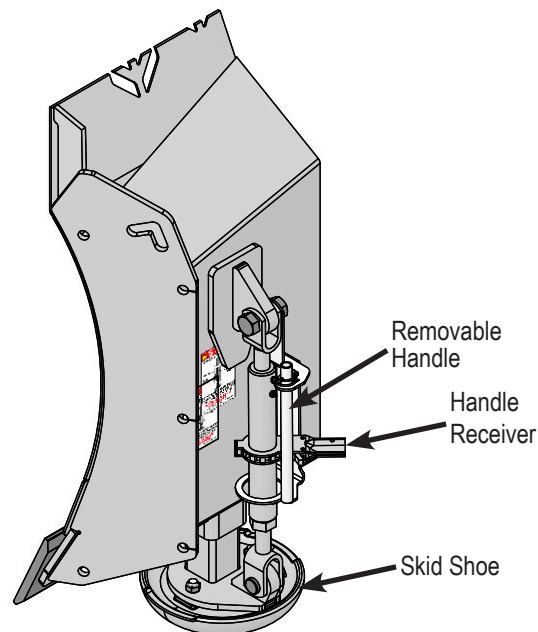


Figure 1

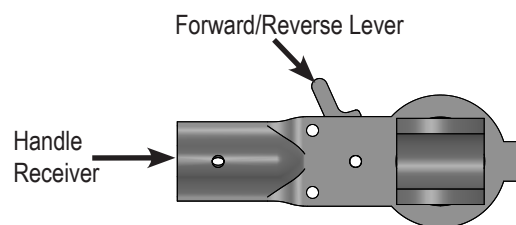


Figure 2

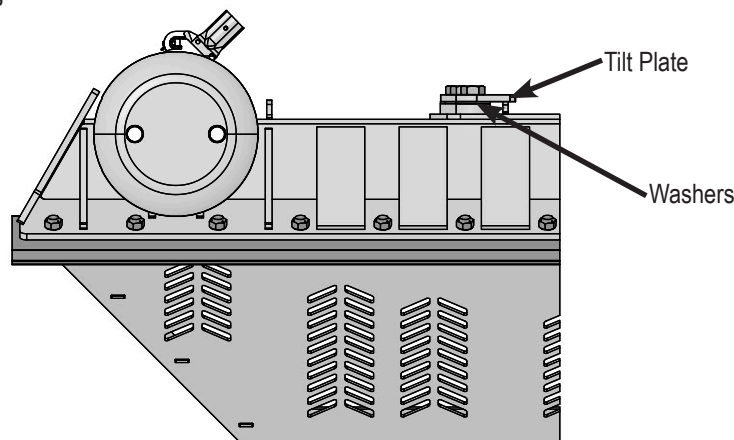
Preferred Method:

1. The preferred blade position for adjusting tilt plates is laying face down on blocks.
2. Remove 6 bolts from right tilt plates.
3. Add or remove washers as needed to adjust tilt-way clearance to 1/16" - 1/8".
4. Reinstall bolts in right tilt plates.
5. Follow Steps #2-4 for left tilt plates.
6. Once tilt-way clearance is set, torque bolts to 640 ft-lbs.

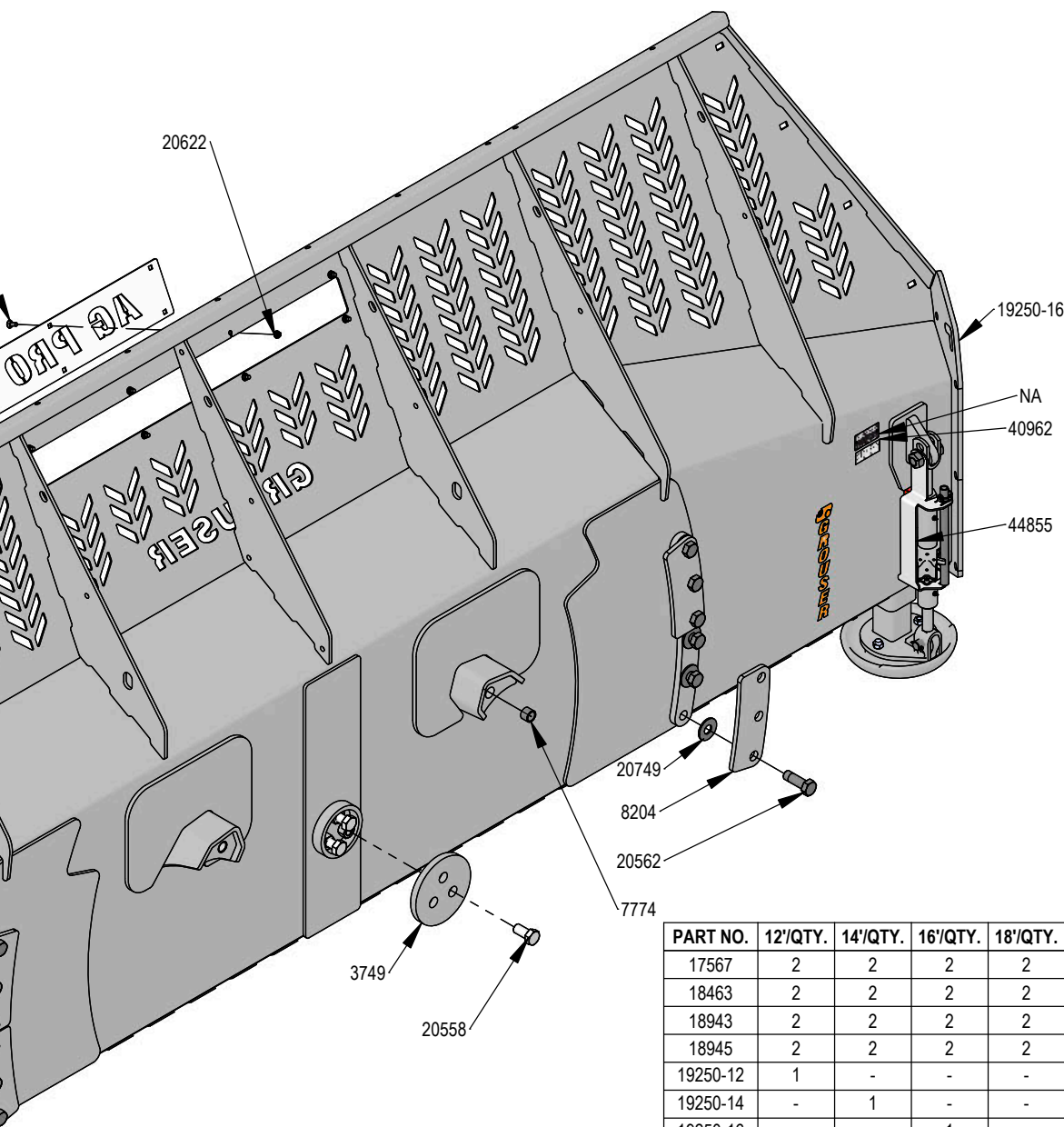
Non-Preferred Method:

Note: Do not remove all of the bolts at the same time if the blade is not laying face down.

1. The non-preferred blade position for adjusting tilt plates is blade in upright position.
2. Remove the 3 bolts from top right tilt plate and bottom left tilt plate.
3. Add or remove washers as needed to adjust tilt-way clearance to 1/16" - 1/8".
4. Reinstall bolts in top right tilt plate and bottom left tilt plate.
5. Follow Steps #2-4 for bottom right tilt plate and top left tilt plate.
6. Once tilt-way clearance is set, torque bolts to 640 ft-lbs.



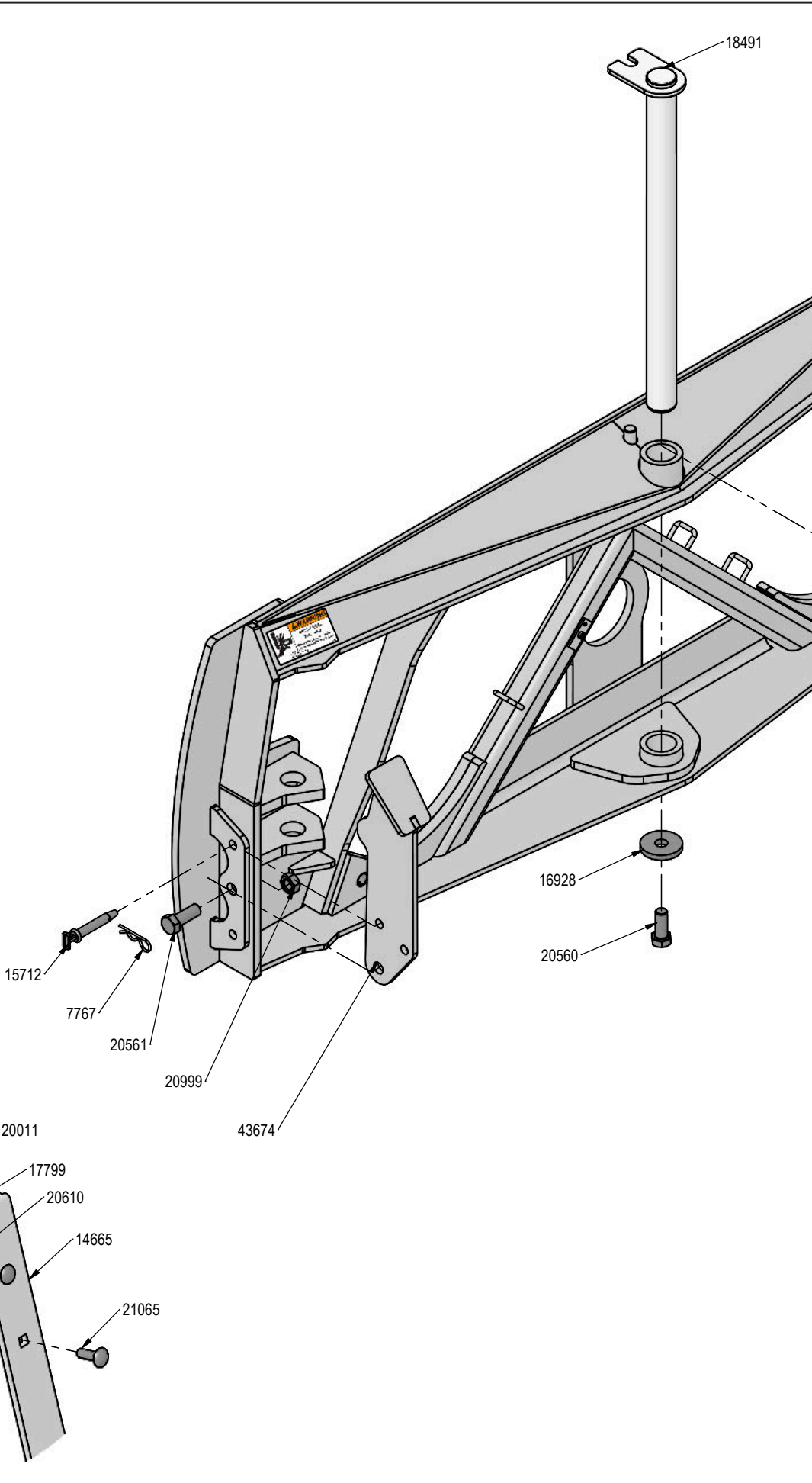




PART NO.	12'/QTY.	14'/QTY.	16'/QTY.	18'/QTY.	DESCRIPTION
17567	2	2	2	2	Handle, Ratchet Jack
18463	2	2	2	2	1" x 2.75" Pin
18943	2	2	2	2	3/16" x 1-1/2" Cotter Pin
18945	2	2	2	2	1" x 3" Hex Bolt Gr 5 NC - Short Thread
19250-12	1	-	-	-	Ag Pro SS Blade - 12'
19250-14	-	1	-	-	Ag Pro SS Blade - 14'
19250-16	-	-	1	-	Ag Pro SS Blade - 16'
19250-18	-	-	-	1	Ag Pro SS Blade - 18'
20558	3	3	3	3	1" X 2" Hex Bolt Gr 8 NC YZ
20562	12	12	12	12	1" X 3" Hex Bolt Gr 8 NC YZ
20622	8	8	8	8	3/8" Flange Hex Nut Gr 5 NC CZ
20646	4	4	4	4	5/8" Hex Top Lock Nut Gr 5 NC CZ
20647	24	28	32	36	3/4" Hex Top Lock Nut Gr 5 NC CZ
20749	12	12	12	12	1" Flat Washer CZ
20999	2	2	2	2	1" Hex Top Lock Nut Gr 8 NC YZ
21064	8	8	8	8	3/8" x 1" Carriage Bolt Gr 5 NC CZ
21666	3	3	3	3	5/8" X 1-3/4" Plow Bolt Gr 5 NC (#3 Flat Head)
21748	24	28	32	36	3/4" X 2" Plow Bolt Gr 8 NC
40917	1	1	1	1	Ratchet Holder Storage Decal
40917	1	1	1	1	Ratchet Holder Storage Decal
40956	1	1	1	1	Silage Special Decal
40962	1	1	1	1	Warning Prop 65 Decal
44660	2	2	2	2	1/4" x 1-9/16" Pipe Lynch Pin
44854	1	1	1	1	Ratchet Keeper - Left
44855	1	1	-	1	Ratchet Keeper
44855	-	-	1	-	Ratchet Keeper
NA	1	1	1	1	Serial Number Tag

DWG. NO.: 40910-XX-A

PART NO.	QTY.	DESCRIPTION
2409	2	Pinch Area, Hand
3072	1	Rubber Handle
7767	2	Cylinder Pin Clip
7774	2	1" x 1" Spring Bushing
8490	4	Spacer
14663	1	Latch
14665	1	Handle Weld
15712	2	3/4" x 3-1/4" Pin
16928	1	Plate, Washer
17799	1	Latch Spring
17960	1	Tilt Frame Weld
18480	1	Bell Crank Weld
18486	2	Ag Pro SS QA Lock Pin
18491	1	Angle Pin Weld
20011	1	1/4" X 2-3/4" Hex Bolt Gr 5 NC CZ
20130	2	1/2" X 2-1/2" Hex Bolt Gr 5 NC CZ
20560	1	1" X 2-1/2" Hex Bolt Gr 8 NC YZ
20561	2	1" X 2-3/4" Hex Bolt Gr 8 NC YZ
20604	6	1/2" Hex Center Lock Nut Gr 5 NC CZ
20607	2	3/4" Hex Center Lock Nut Gr 5 NC CZ
20610	1	1/4" Nylock Hex Nut Gr 5 NC CZ
20612	2	3/8" Nyloc Hex Nut Gr 5 NC CZ
20742	2	3/8" Flat Washer CZ
20744	4	1/2" Flat Washer CZ
20999	2	1" Hex Top Lock Nut Gr 8 NC YZ
21065	2	3/8" x 1-1/4" Carriage Bolt Gr 5 NC CZ
21126	4	1/2" x 1-1/2" Carriage Bolt Gr 5 NC CZ
40408	4	3/8" Flat Nylon Washer
40440	2	.378" ID x .503" OD x .375" Spacer
43674	2	Blade Stand
43675	1	Angle Frame
43696	1	Link, Handle To Left Pin
43697	1	Link, Left Pin
43698	1	Link, Right Pin

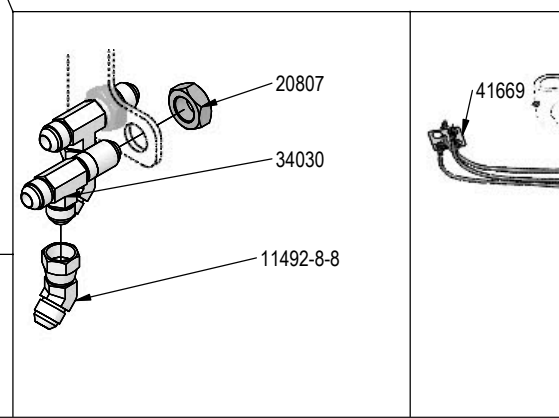
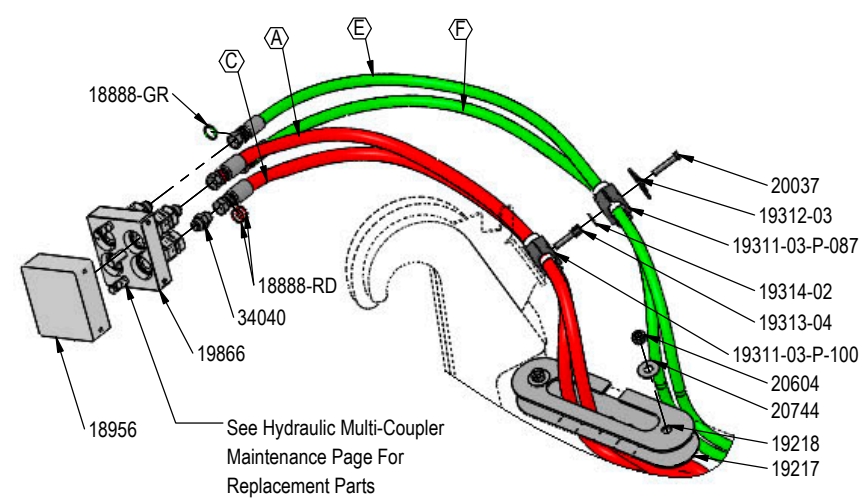
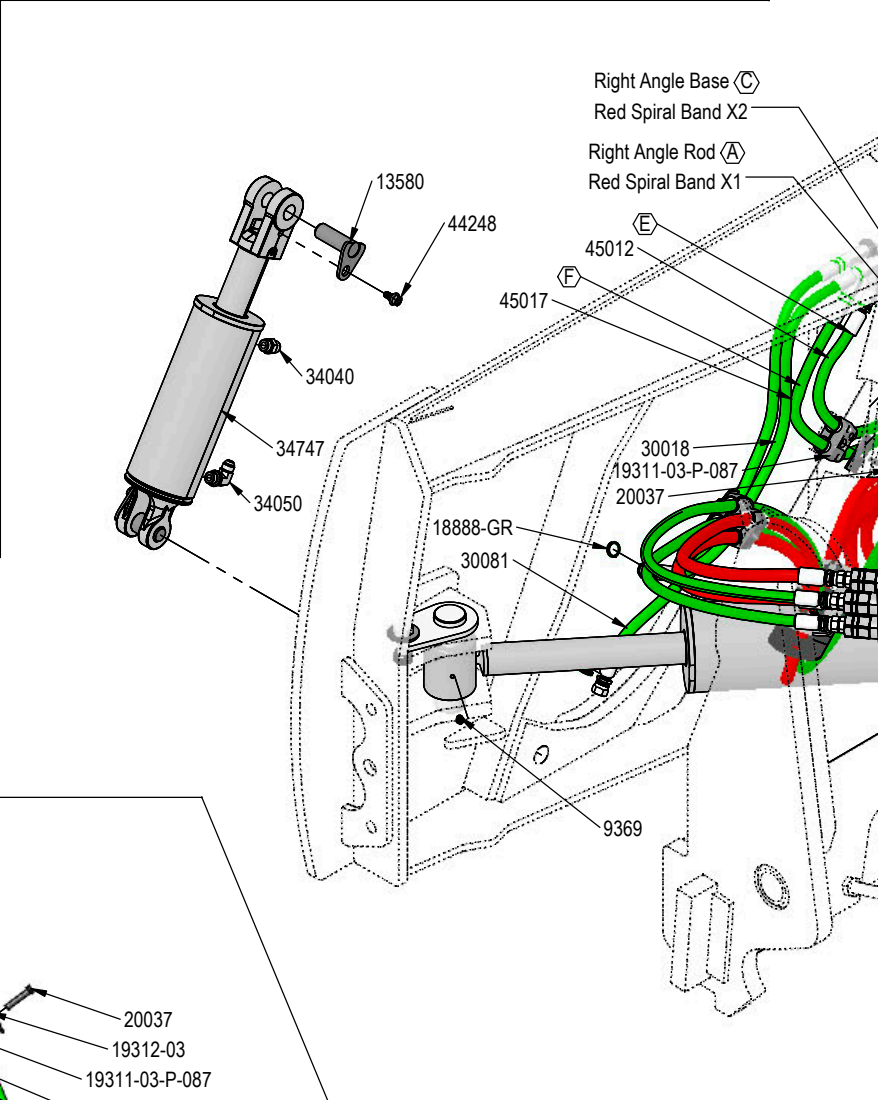
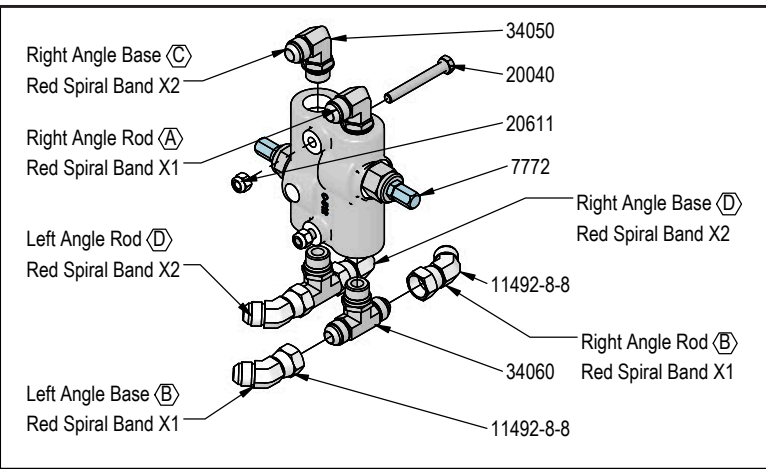


This diagram illustrates the assembly of a mechanical component, likely a bracket or support structure. The main body is a large, L-shaped cast part. Various sub-components are shown in their relative positions, indicated by dashed lines. The parts are labeled with the following numbers:

- 2409: A small rectangular plate or label at the top left.
- 17960: A vertical plate or bracket on the upper left.
- 7774: A small circular component, possibly a pin or bush, located near the upper left.
- 43675: A curved bracket or handle on the right side.
- 21126: A small bracket or pin near the bottom center.
- 18480: A long, thin rod or pin extending from the bottom center.
- 8490: A small circular component near the bottom center.
- 20744: A small circular component near the bottom center.
- 20604: A small circular component near the bottom center.
- 20607: A small circular component near the bottom center.
- 43696: A long, thin rod or pin extending from the bottom center.
- 43697: A small circular component near the bottom center.
- 20607: A small circular component near the bottom center.
- 43698: A small circular component near the bottom right.
- 20130: A small circular component near the bottom right.
- 18486: A small circular component near the bottom right.
- 20604: A small circular component near the bottom right.

11

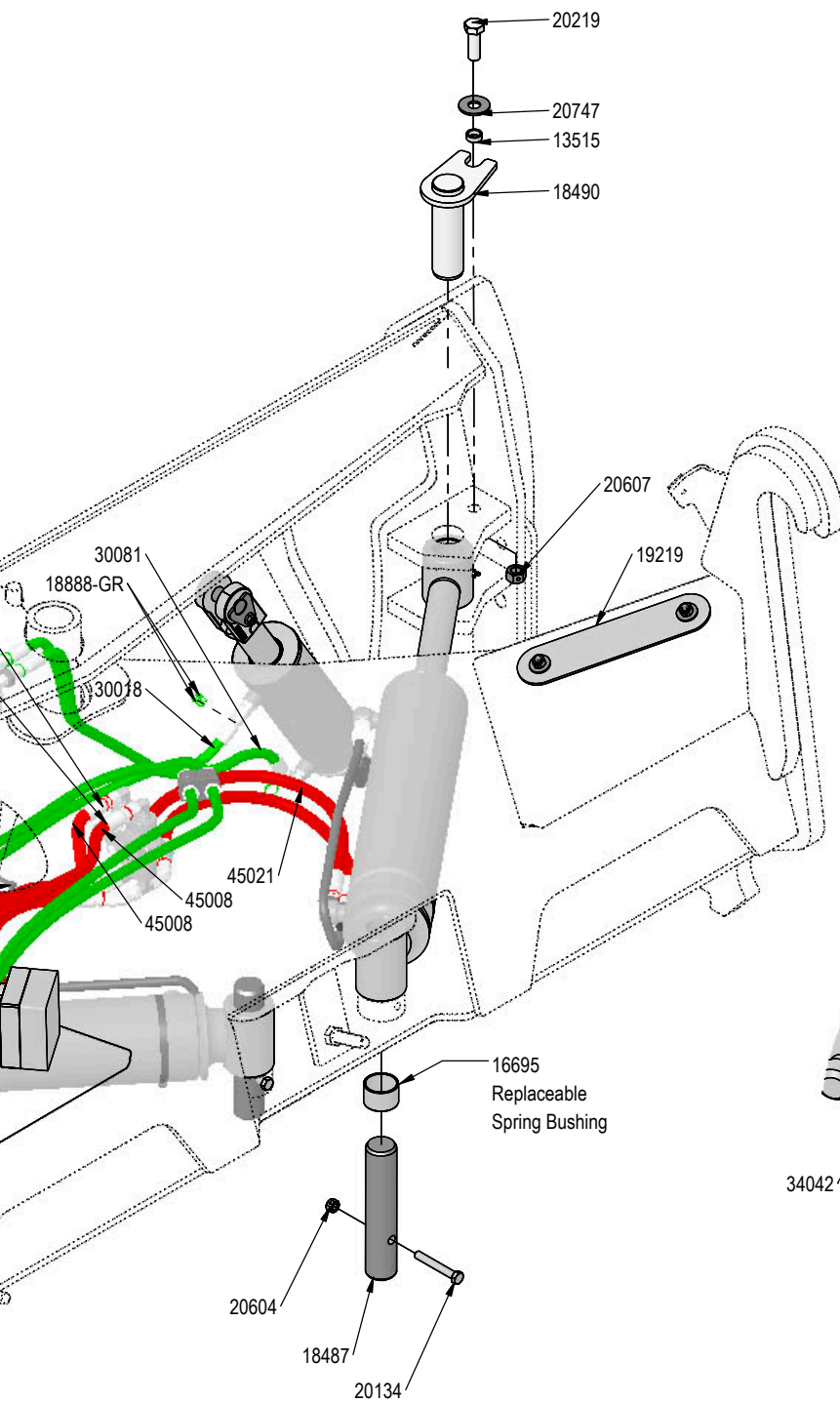
PART NO.	QTY.	DESCRIPTION
7772	1	Valve
9369	2	Straight 1/8" NPT Grease Zerk
11492-8-8	6	Male JIC x Female JIC Swivel Nut Elbow 45°
11699-10-8	2	JIC Union
12931	2	Formed Steel Line
12932	2	Cylinder Saddle
12933	2	Hose Clamp (worm drive - 5.0)
13515	2	Spacer, NR Pin
13580	4	Pin Weld
13933-2-2	2	1/8" NPT Street Elbow
16695	8	2.25" x 2.00" x 1.50" Spring Bushing
18487	2	Angle Cylinder Base Pin
18490	2	Angle Cylinder Rod Pin Weld
18888-GR	18	-12 Green - Spiral Band
18888-RD	18	-12 Red - Spiral Band
18956	1	Multi-Coupling Plate - 4 Port Parking Station
18994-0490	1	49" Grease Hose (w/lock nut and grease zerk)
18994-0570	1	57" Grease Hose (w/lock nut and grease zerk)
18994-0620	2	62" Grease Hose (w/lock nut and grease zerk)
19217	1	Rubber Seal
19218	1	Seal Clamp Plate
19219	1	Cover Plate
19311-03-P-087	3	Hose Clamp
19311-03-P-100	1	Hose Clamp
19312-03	3	Twin Cover Plate
19313-04	1	Twin Stacking Bolt
19314-02	1	Twin Safety Plate
19866	1	Multi-Coupling Plate - 4 Port Mobile (Includes Couplers)



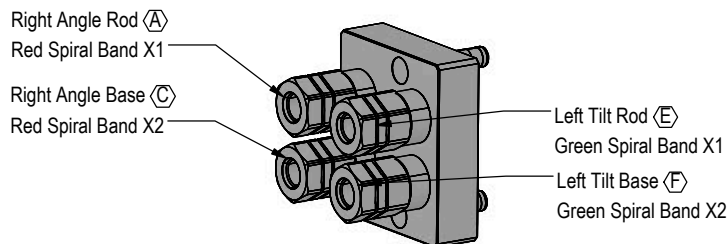
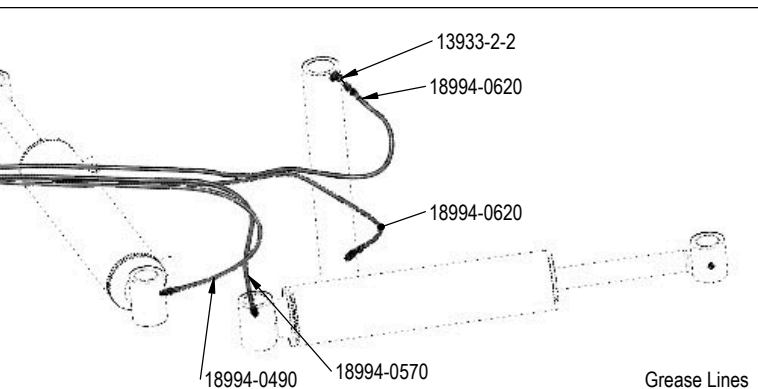
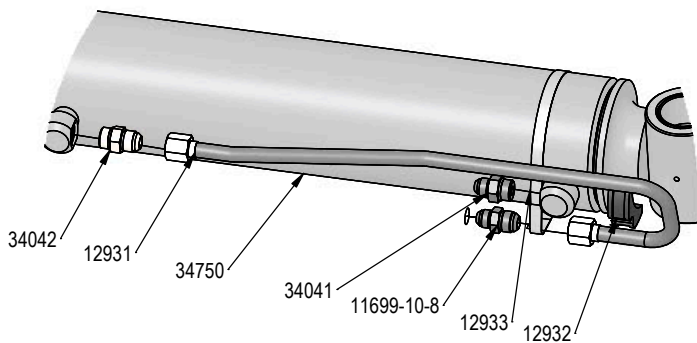
Note: Every hydraulic function from the front to the back of the system is designated by a letter and can also be referenced on the Hydraulic Schematic.

Note: The cylinder part number is stamped on the base end of the cylinder opposite of the hydraulic ports.

Cylinder	Part No.	Description
26-34747	49-12271	Seal Kit 4x8 Nitrided Rod, Clevis Ends
26-34750	49-12275	Seal Kit 5 x 20 Nitrided Rod



PART NO.	QTY.	DESCRIPTION
20037	3	5/16" X 1-3/4" Hex Bolt Gr 5 NC CZ
20040	2	5/16" X 2-1/2" Hex Bolt Gr 5 NC CZ
20134	2	1/2" X 3-1/2" Hex Bolt Gr 5 NC CZ
20219	2	3/4" X 2-1/4" Hex Bolt Gr 5 NC CZ
20604	6	1/2" Hex Center Lock Nut Gr 5 NC CZ
20607	2	3/4" Hex Center Lock Nut Gr 5 NC CZ
20611	2	5/16" Nyloc Hex Nut Gr 5 NC CZ
20744	4	1/2" Flat Washer CZ
20747	2	3/4" Flat Washer CZ
20807	2	3/4" Hex Jam Nut NF CZ
30018	2	33" x 3/8" -8JIC/-8JIC Hose
30081	2	37" x 3/8" -8JIC/-8JIC Hose
34030	2	Bulkhead Run Tee JIC
34040	6	Straight JIC x O-Ring
34041	2	Straight JIC x O-Ring
34042	2	Straight JIC x O-Ring
34050	4	Straight Thread Elbow 90° JIC x O-Ring
34060	2	Branch Tee JIC x O-Ring
34747	2	4 x 8 Cylinder w/ Clevis Ends
34750	2	5 x 20 Cylinder Bushed Tube Ends
41669	1	Grease Location Decal
44248	4	3/8 Flanged Hex Head Shoulder Bolt
45008	2	80.5" x 1/2" -8JIC/-8JIC Hose (w/1 Collar & Cordura)
45012	1	127" x 3/8" -8JIC/-8JIC Hose (w/ 3 Collar & Cordura)
45017	1	133.5" x 3/8" -8JIC/-8JIC Hose (w/ 3 Collar & Cordura)
45021	4	32" x 1/2" -8 JIC/-8 JIC Hose w/ Cordura

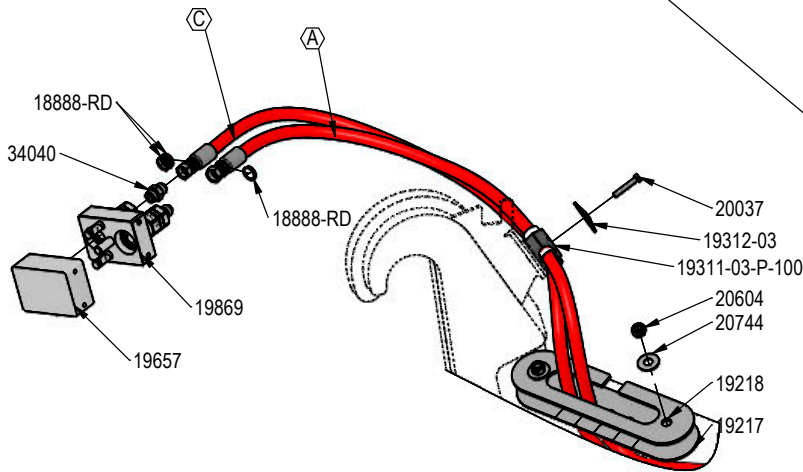
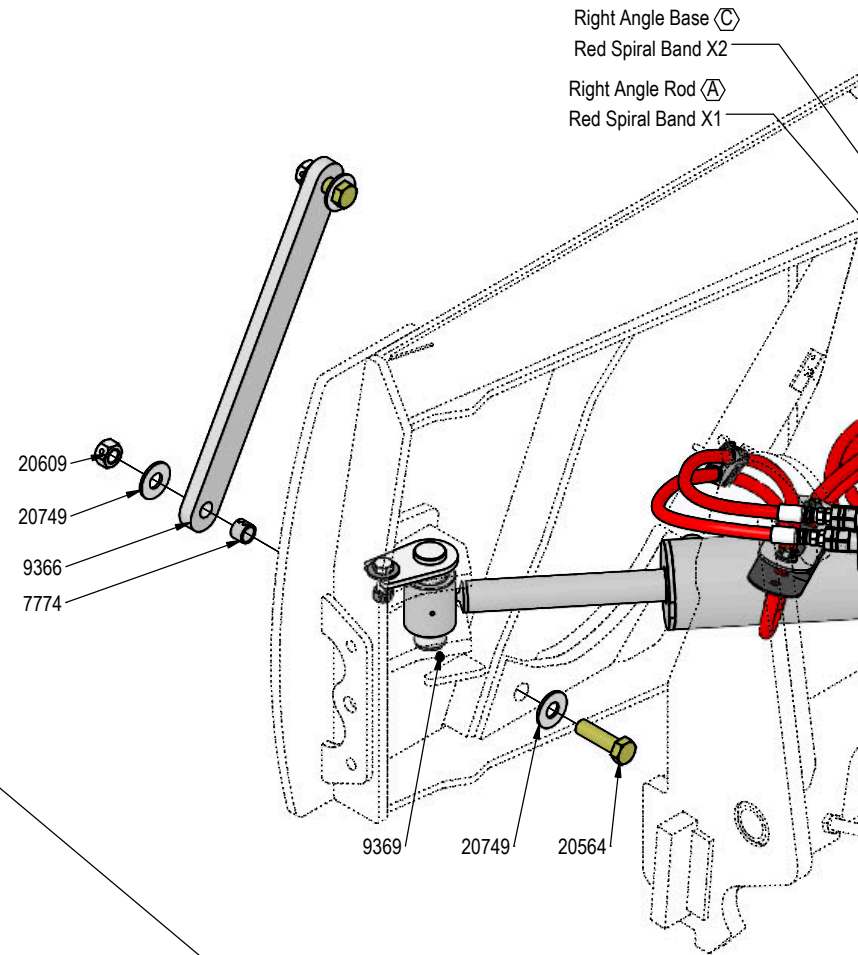
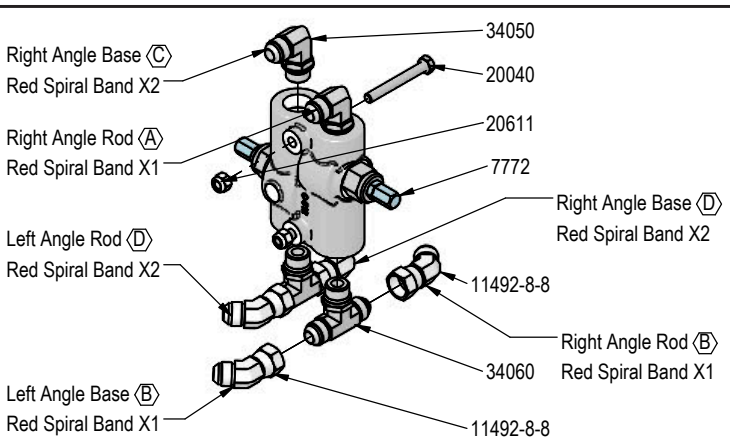


Note: View is from Multi-Coupler Installed on Top Arm.
All hoses are marked with colored spiral bands and should be attached to designated ports on the Multi-Coupler.

DWG. NO.: 44760

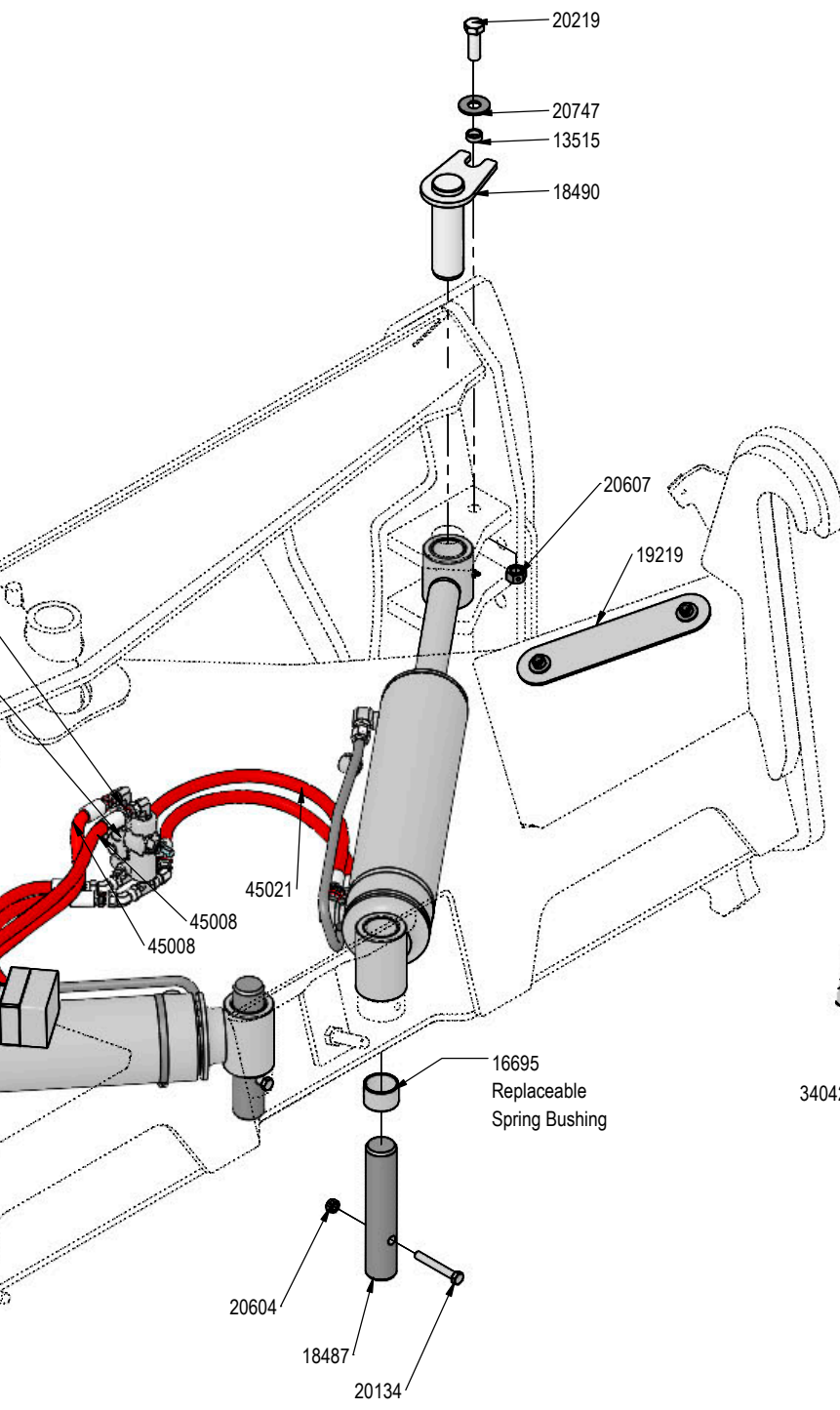
PART NO.	QTY.	DESCRIPTION
7772	1	Valve
7774	2	1" x 1" Spring Bushing
9366	1	Ag Pro Non Tilt Bar
9369	2	Straight 1/8" NPT Grease Zerk
11492-8-8	4	Male JIC x Female JIC Swivel Nut Elbow 45°
11699-10-8	2	JIC Union
12931	2	Formed Steel Line
12932	2	Cylinder Saddle
12933	2	Hose Clamp (worm drive - 5.0)
13515	2	Spacer, NR Pin
13933-2-2	2	1/8" NPT Street Elbow
16695	8	2.25" x 2.00" x 1.50" Spring Bushing
18487	2	Angle Cylinder Base Pin
18490	2	Angle Cylinder Rod Pin Weld
18888-RD	18	-12 Red - Spiral Band
18994-0490	1	49" Grease Hose (w/lock nut and grease zerk)
18994-0570	1	57" Grease Hose (w/lock nut and grease zerk)
18994-0620	2	62" Grease Hose (w/lock nut and grease zerk)
19217	1	Rubber Seal
19218	1	Seal Clamp Plate
19219	1	Cover Plate
19311-03-P-100	1	Hose Clamp
19312-03	1	Twin Cover Plate
19657	1	Multi-Coupling Plate - 2 Port Parking Station
19869	1	Multi-Coupling Plate - 2 Port - Mobile
20037	1	5/16" X 1-3/4" Hex Bolt Gr 5 NC CZ
20040	2	5/16" X 2-1/2" Hex Bolt Gr 5 NC CZ
20134	2	1/2" X 3-1/2" Hex Bolt Gr 5 NC CZ

Note: Every hydraulic function from the front to the back of the system is designated by a letter and can also be referenced on the Hydraulic Schematic.

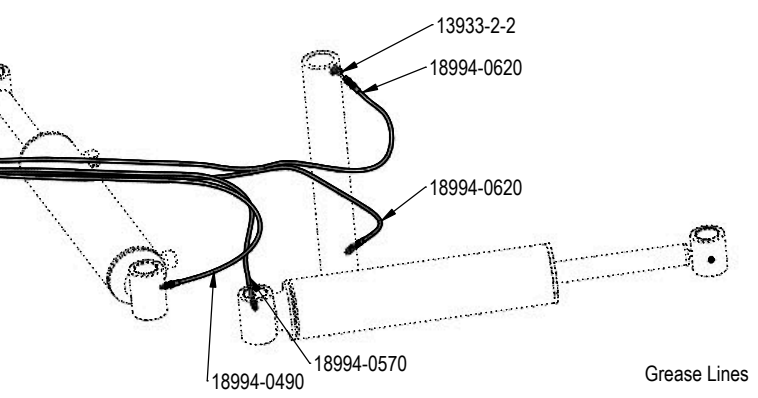
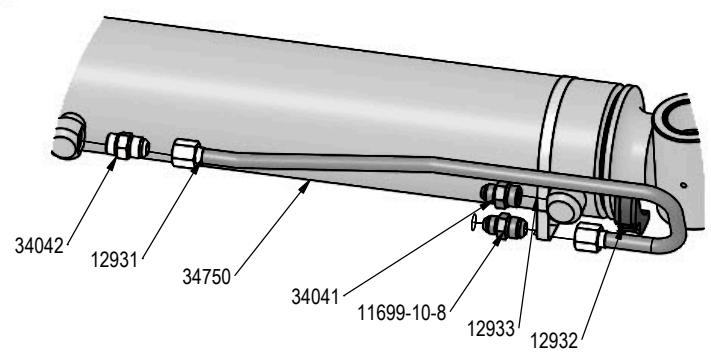


Note: The cylinder part number is stamped on the base end of the cylinder opposite of the hydraulic ports.

Cylinder	Part No.	Description
26-34747	49-12271	Seal Kit 4x8 Nitrided Rod, Clevis Ends
26-34750	49-12275	Seal Kit 5 x 20 Nitrided Rod



PART NO.	QTY.	DESCRIPTION
20219	2	3/4" X 2-1/4" Hex Bolt Gr 5 NC CZ
20564	2	1" X 3-1/2" Hex Bolt Gr 8 NC YZ
20604	6	1/2" Hex Center Lock Nut Gr 5 NC CZ
20607	2	3/4" Hex Center Lock Nut Gr 5 NC CZ
20609	2	1" Hex Center Lock Nut Gr 5 NC CZ
20611	2	5/16" Nyloc Hex Nut Gr 5 NC CZ
20744	4	1/2" Flat Washer CZ
20747	2	3/4" Flat Washer CZ
20749	4	1" Flat Washer CZ
34040	2	Straight JIC x O-Ring
34041	2	Straight JIC x O-Ring
34042	2	Straight JIC x O-Ring
34050	2	Straight Thread Elbow 90° JIC x O-Ring
34060	2	Branch Tee JIC x O-Ring
34750	2	5 x 20 Cylinder Bushed Tube Ends
41669	1	Grease Location Decal
45008	2	80.5" x 1/2" -8JIC/-8JIC Hose (w/1 Collar & Cordura)
45021	4	32" x 1/2" -8 JIC/-8 JIC Hose w/ Cordura



Right Angle Rod (A)

Red Spiral Band X1

Right Angle Base (C)

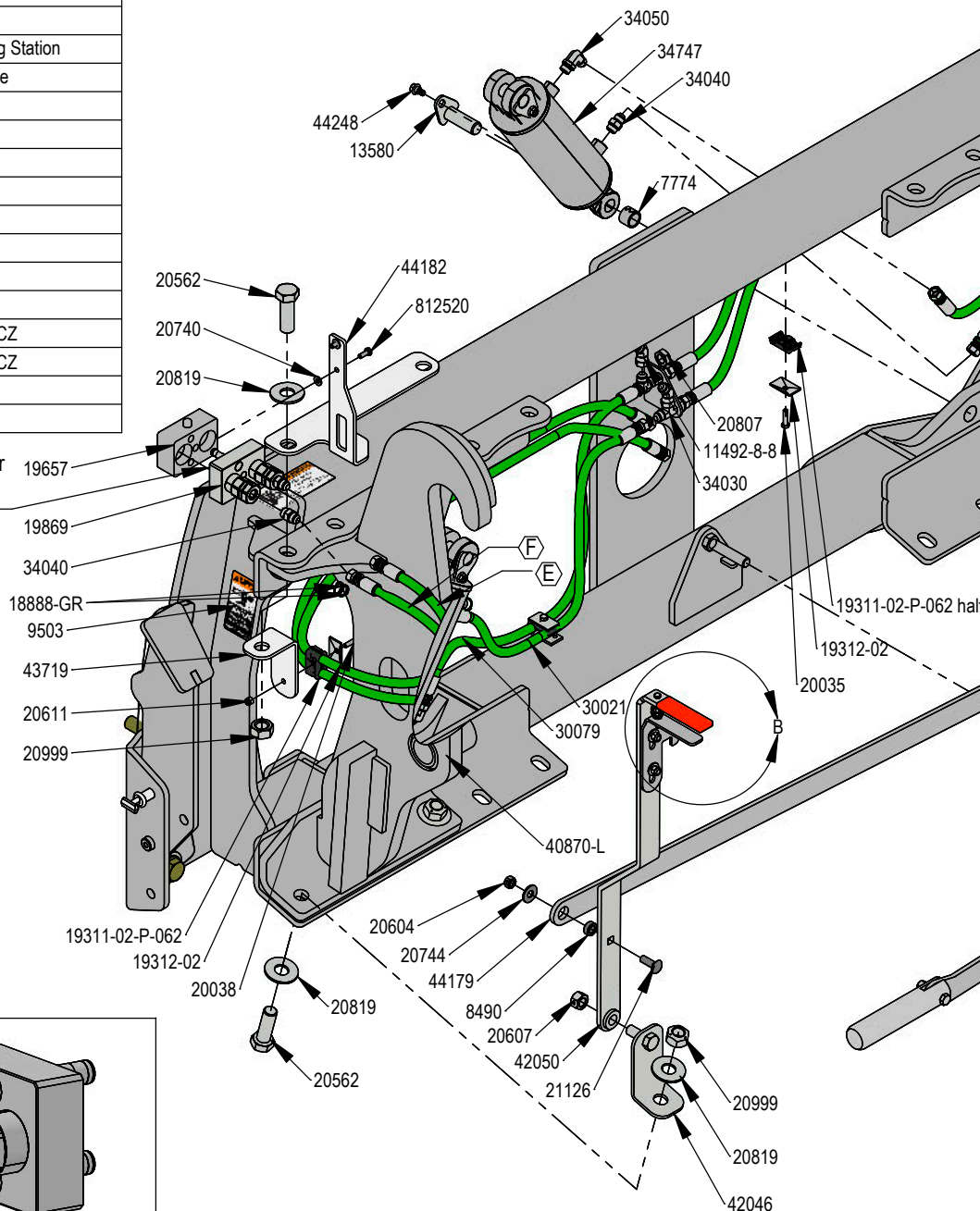
Red Spiral Band X2

Note: View is from Multi-Coupler Installed on Top Arm.
All hoses are marked with colored spiral bands and should be attached to designated ports on the Multi-Coupler.

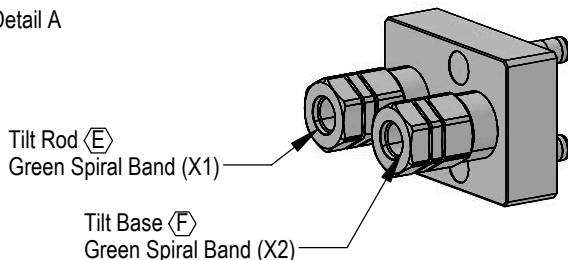
DWG. NO.: 44765

PART NO.	QTY.	DESCRIPTION
2409	2	Pinch Area, Hand
3072	1	Rubber Handle
7767	2	Cylinder Pin Clip
7774	2	1" x 1" Spring Bushing
8490	4	Spacer
9503	2	Pinch Point, Foot
11492-8-8	2	Male JIC x Female JIC Swivel Nut Elbow 45°
13580	4	Pin Weld
14663	1	Latch
15712	2	3/4" x 3-1/4" Pin
17799	1	Latch Spring
18486	2	Ag Pro SS QA Lock Pin
18888-GR	12	-12 Green - Spiral Band
19311-02-P-062	5	Half Hose Clamp
19311-02-P-062	1	Hose Clamp
19312-02	6	Twin Cover Plate
19657	1	Multi-Coupling Plate - 2 Port Parking Station
19869	1	Multi-Coupling Plate - 2 Port - Mobile
20011	1	1/4" X 2-3/4" Hex Bolt Gr 5 NC CZ
20035	5	5/16" X 1-1/4" Hex Bolt Gr 5 NC CZ
20038	1	5/16" X 2" Hex Bolt Gr 5 NC CZ
20126	2	1/2" X 1-1/2" Hex Bolt Gr 5 NC CZ
20130	2	1/2" X 2-1/2" Hex Bolt Gr 5 NC CZ
20560	6	1" X 2-1/2" Hex Bolt Gr 8 NC YZ
20562	2	1" X 3" Hex Bolt Gr 8 NC YZ
20563	4	1" X 3-1/4" Hex Bolt Gr 8 NC YZ
20604	6	1/2" Hex Center Lock Nut Gr 5 NC CZ
20607	2	3/4" Hex Center Lock Nut Gr 5 NC CZ
20610	1	1/4" Nylock Hex Nut Gr 5 NC CZ
20611	1	5/16" Nylock Hex Nut Gr 5 NC CZ

See Detail A for correct hose locations



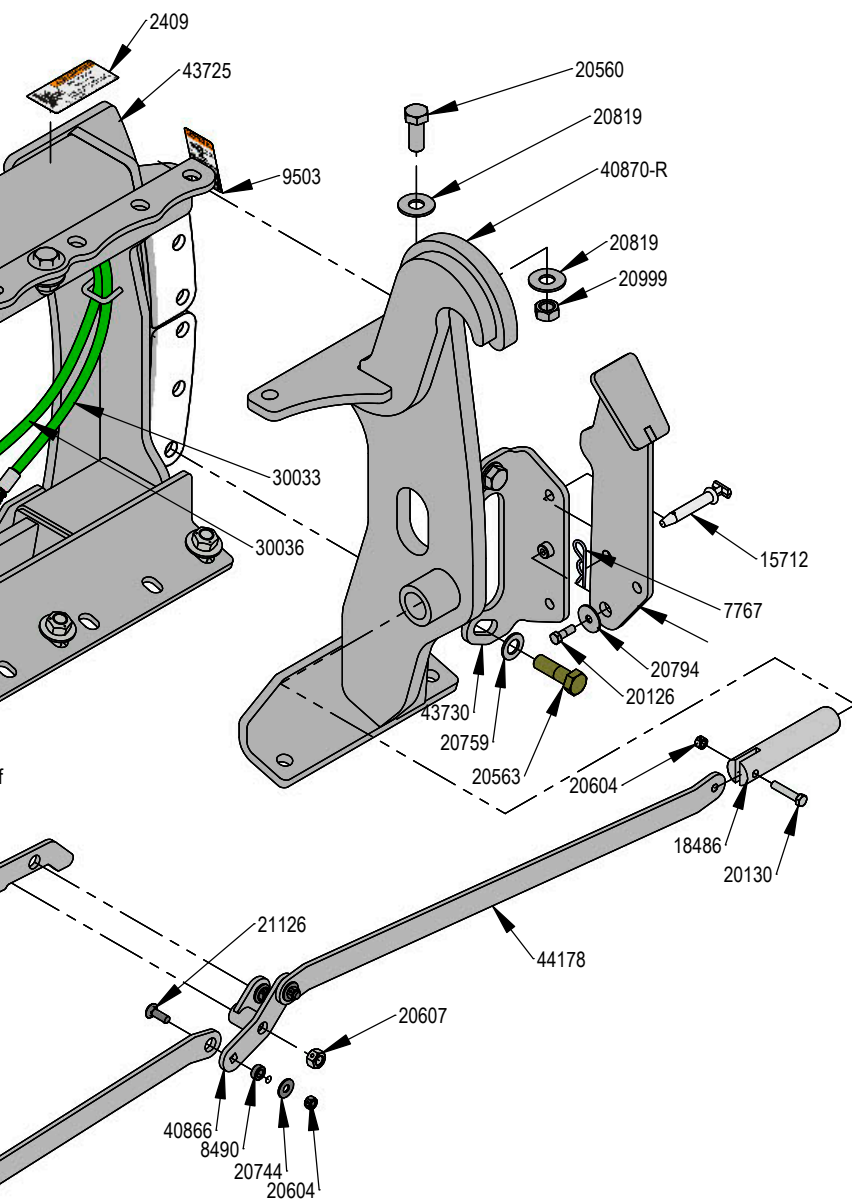
Detail A



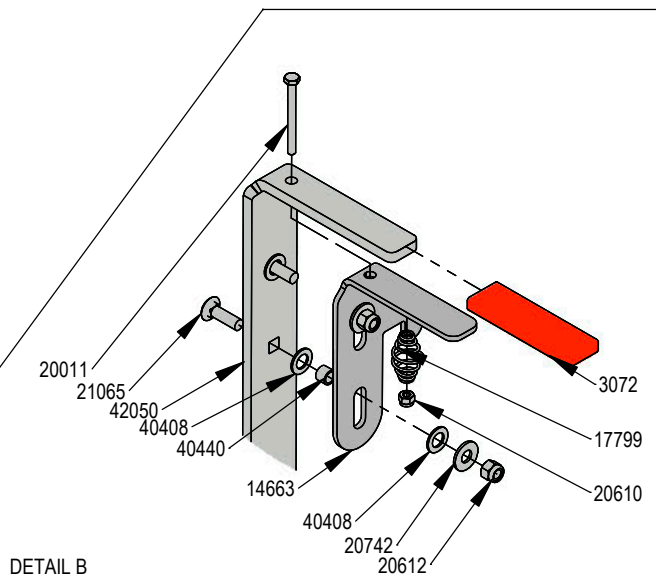
Note: View is from Multi-Coupler Installed on Top Arm. All hoses are marked with spiral bands and should be attached to designated ports on the Multi-Coupler.

Note: The cylinder part number is stamped on the base end of the cylinder opposite of the hydraulic ports.

Cylinder	Part No.	Description
26-34747	49-12271	Seal Kit 4 x 8 Nitrided Rod, Clevis Ends



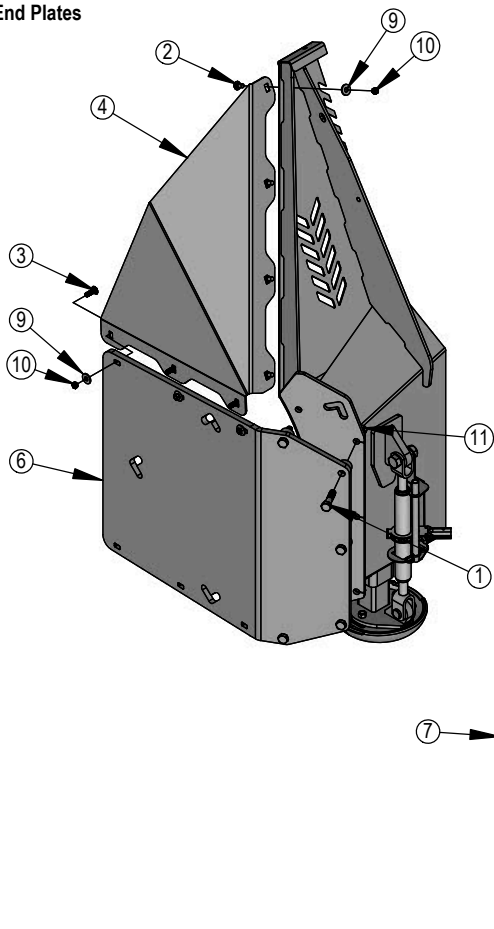
PART NO.	QTY.	DESCRIPTION
20612	2	3/8" Nyloc Hex Nut Gr 5 NC CZ
20740	2	1/4" Flat Washer CZ
20742	2	3/8" Flat Washer CZ
20744	4	1/2" Flat Washer CZ
20759	4	1" SAE Hardened Flat Washer - 2" OD
20794	2	1/2" Fender Washer (2.00" OD x .500" ID x .125")
20807	2	3/4" Hex Jam Nut NF CZ
20819	16	1" Flat Washer Heavy Duty Gr 8 (USS) YZ
20999	8	1" Hex Top Lock Nut Gr 8 NC YZ
21065	2	3/8" x 1-1/4" Carriage Bolt Gr 5 NC CZ
21126	4	1/2" x 1-1/2" Carriage Bolt Gr 5 NC CZ
30021	1	36" x 3/8" -8JIC/-8JIC Hose
30033	1	72" x 3/8" -8JIC/-8JIC Hose
30035	2	78" x 3/8" -8JIC/-8JIC Hose
30036	1	80" x 3/8" -8JIC/-8JIC Hose
30079	1	40" x 3/8" -8JIC/-8JIC Hose
34030	2	Bulkhead Run Tee JIC
34040	4	Straight JIC x O-Ring
34050	2	Straight Thread Elbow 90° JIC x O-Ring
34747	2	4 x 8 Cylinder w/ Clevis Ends
40408	4	3/8" Flat Nylon Washer
40440	2	.378" ID x .503" OD x .375" Spacer
40866	1	Bell Crank
40870-L	1	SS Bolt in Quick Attach - Left
40870-R	1	SS Bolt in Quick Attach - Right
42046	1	Bottom Bracket
42050	1	Handle Weld
43674	2	Blade Stand
43719	1	Bracket, Hose Mount
43725	1	Tilt Frame Weld
43730	2	Blade Stand Mount
44178	2	Link, Bell Crank To Pin
44179	1	Link, Handle to Bell Crank
44182	1	Bracket, Latch Stop
44248	4	3/8 Flanged Hex Head Shoulder Bolt
812520	2	M8-1.25 x 20mm Class 10.9 Hex Bolt CZ



DETAIL B

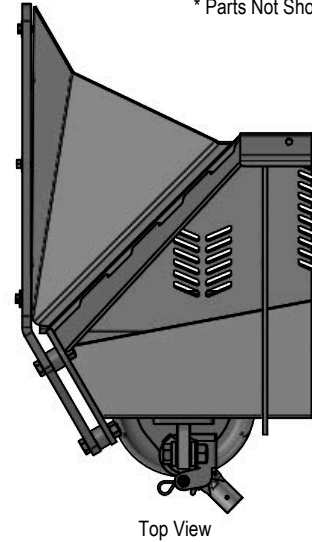
DWG. NO.: 44770

End Plates



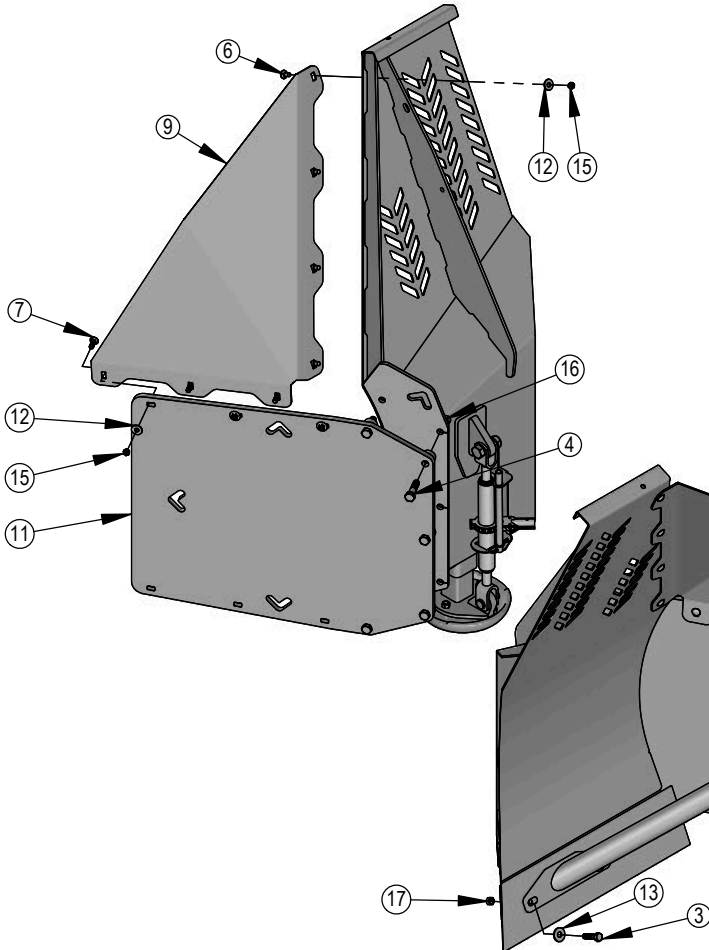
ITEM NO.	PART NO.	19265-K Qty.	41710-K Qty.	DESCRIPTION
1	16-20222	10	10	3/4" x 3" Hex Bolt Gr.5 NC
2	16-21124	8	8	1/2" x 1" Carriage Bolt Gr 5 NC
3	16-21126	6	6	1/2" x 1-1/2" Carriage Bolt Gr 5 NC
4	44-19262-L	1	1	Box End Plate, Top
5*	44-19262-R	1	1	Box End Plate, Top
6	44-19265	2	-	Ag Pro SS Box End Plates
7	44-41710-L	-	1	Ag Pro SS Silage End Plates, Left
8*	44-41710-R	-	1	Ag Pro SS Silage End Plates, Right
9	57-20744	14	14	1/2" Washer
10	70-20604	14	14	1/2" Center Lock Hex Nut
11	70-20607	10	10	3/4" Center Lock Hex Nut Gr 2 NC

* Parts Not Shown



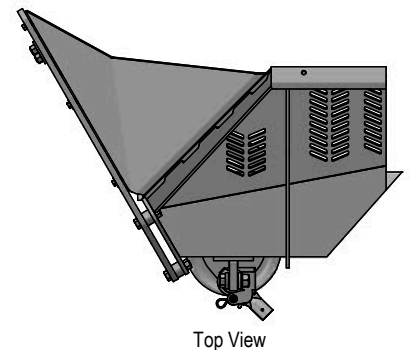
Top View

U'd End Plates

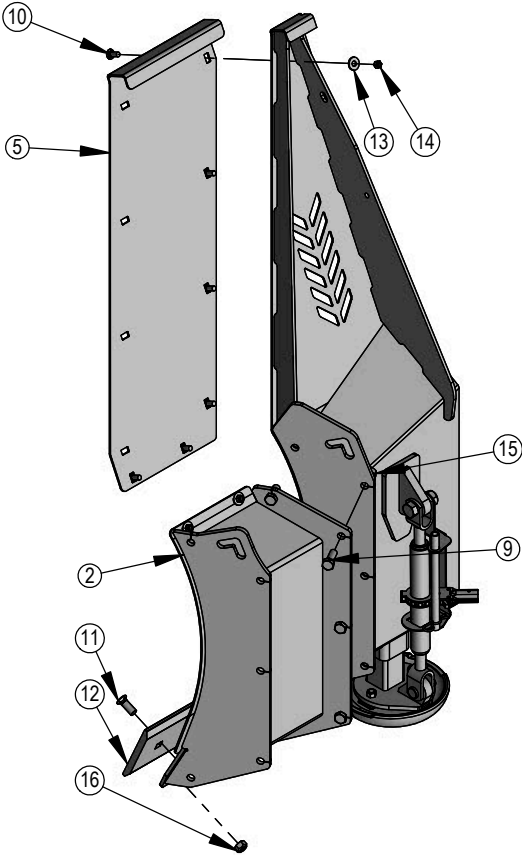


ITEM NO.	PART NO.	19248-K Qty.	DESCRIPTION
1	11-18640-L	1	End Plate Brace
2*	11-18640-R	1	End Plate Brace
3	16-20190	4	5/8" X 2-1/2" Gr.5 Hex Bolt
4	16-20222	10	3/4" x 3" Hex Bolt Gr.5 NC
5	16-20509	6	3/4" x 2-1/4" Hex Bolt Gr 8 NC
6	16-21124	8	1/2" x 1" Carriage Bolt Gr 5 NC
7	16-21126	6	1/2" x 1-1/2" Carriage Bolt Gr 5 NC
8	44-18645	2	Lift Hook Washer
9	44-19247-L	1	U'd End Plate, Top
10*	44-19247-R	1	U'd End Plate, Top
11	44-19248	2	Ag Pro SS U'd End Plates
12	57-20744	14	1/2" Washer
13	57-20816	4	5/8" Flat Washer Grade 8 (USS) Plated
14	70-20597	6	3/4" Hex Nut Gr 8 NC
15	70-20604	14	1/2" Center Lock Hex Nut
16	70-20607	10	3/4" Center Lock Hex Nut Gr 2 NC
17	70-20646	4	5/8" Hex Top Lock Nut Gr 5 NC

* Parts Not Shown

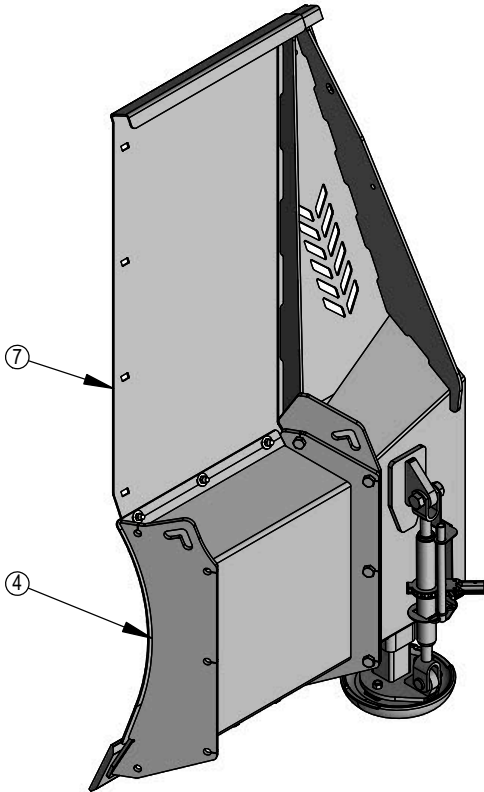


Top View



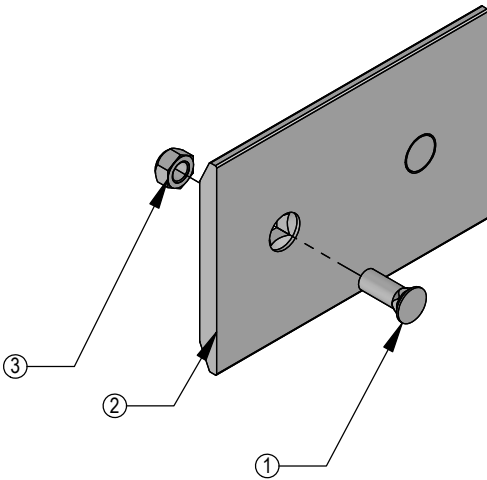
ITEM NO.	PART NO.	40925-1-A Qty.	40925-2-A Qty.	DESCRIPTION
1*	15-17525-R-1	1	-	1' End Extensions - Right
2	15-17525-L-1	1	-	1' End Extensions - Left
3*	15-17525-R-2	-	1	2' End Extensions - Right
4	15-17525-L-2	-	1	2' End Extensions - Right
5	15-19305-L	1	-	1' End Ext. Top Extensions - Left
6*	15-19305-R	1	-	1' End Ext. Top Extensions - Right
7	15-19306-L	-	1	2' End Ext. Top Extensions - Left
8*	15-19306-R	-	1	2' End Ext. Top Extensions - Right
9	16-20218	10	10	3/4" x 2" Hex Bolt Gr.5 NC
10	16-21125	12	14	1/2" x 1-1/4" Carriage Bolt Gr 5 NC
11	16-21748	4	8	3/4" x 2" Plow Bolt Gr 8 NC
12	29-11118-1	2	-	1' - 3/4" x 8" Cutting Edge
12	29-11118-2	-	2	2' - 3/4" x 8" Cutting Edge
13	57-20744	12	14	1/2" Washer
14	70-20604	12	14	1/2" Center Lock Hex Nut
15	70-20607	10	10	3/4" Center Lock Hex Nut Gr 2 NC
16	70-20647	4	8	3/4" Hex Top Lock Nut Gr 5 NC

* Parts Not Shown

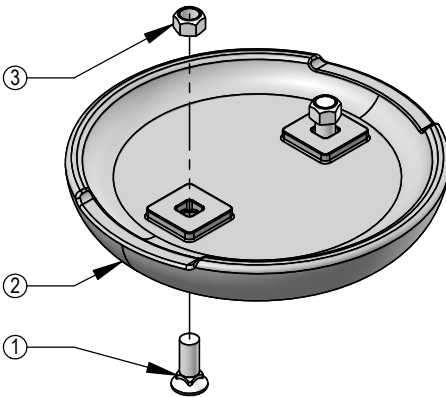


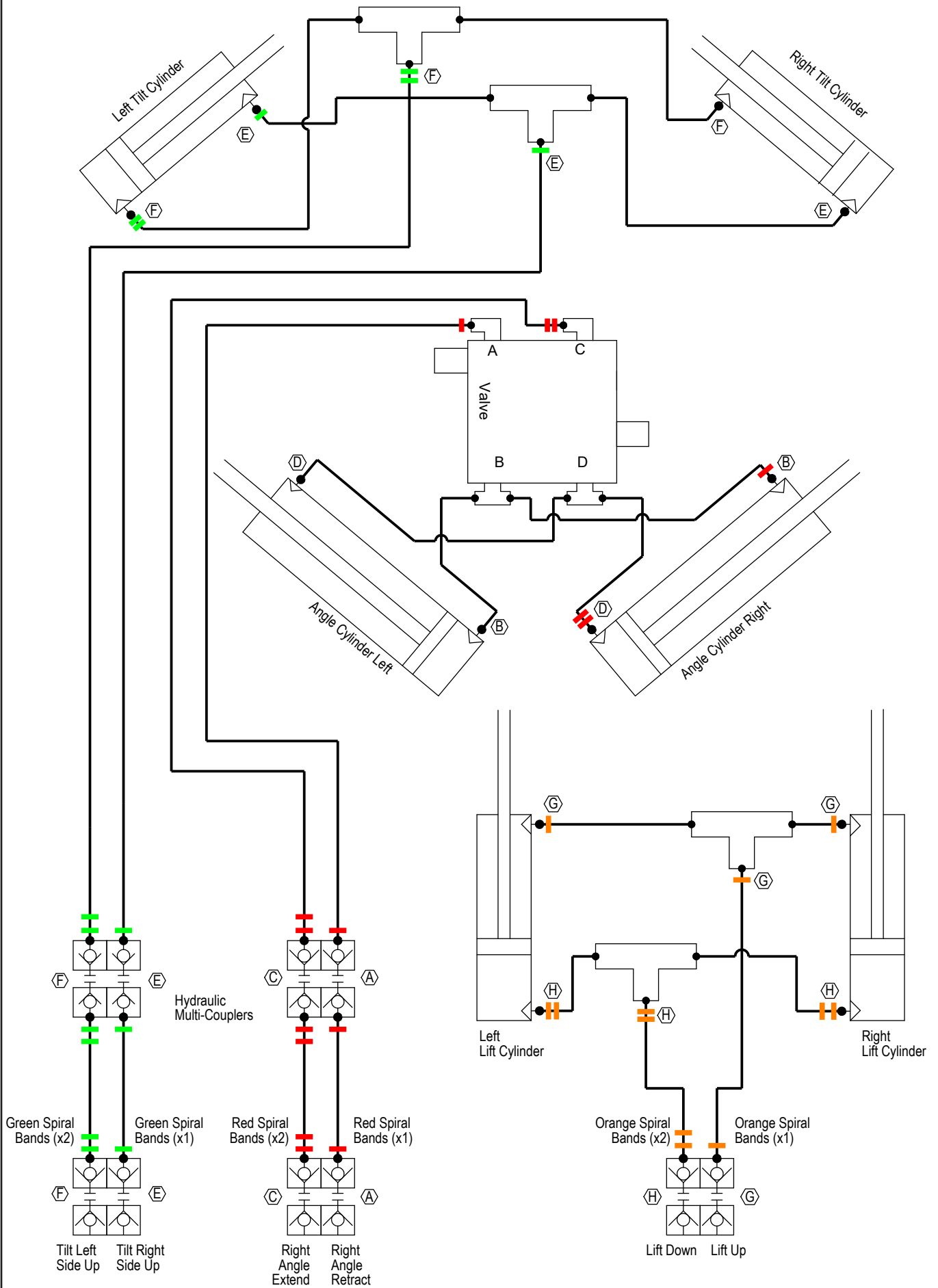
ITEM NO.	PART NO.	DESCRIPTION	11118-1K QTY.	11118-2K QTY.	11118-3K QTY.	11118-4K QTY.	11118-5K QTY.	11118-6K QTY.	11118-7K QTY.	11118-8K QTY.
1	16-21748	3/4" x 2" Plow Bolt Gr 8 NC	2	4	6	8	10	12	14	16
2	29-11118-1	1' - 3/4" x 8" Cutting Edge	1	-	-	-	-	-	-	-
2	29-11118-2	2' - 3/4" x 8" Cutting Edge	-	1	-	-	-	-	-	-
2	29-11118-3	3' - 3/4" x 8" Cutting Edge	-	-	1	-	-	-	-	-
2	29-11118-4	4' - 3/4" x 8" Cutting Edge	-	-	-	1	-	-	-	-
2	29-11118-5	5' - 3/4" x 8" Cutting Edge	-	-	-	-	1	-	-	-
2	29-11118-6	6' - 3/4" x 8" Cutting Edge	-	-	-	-	-	1	-	-
2	29-11118-7	7' - 3/4" x 8" Cutting Edge	-	-	-	-	-	-	1	-
2	29-11118-8	8' - 3/4" x 8" Cutting Edge	-	-	-	-	-	-	-	1
3	70-20647	3/4" Hex Top Lock Nut Gr 5 NC	2	4	6	8	10	12	14	16

ITEM NO.	PART NO.	DESCRIPTION	11118-12K QTY.	11118-14K QTY.	11118-16K QTY.	11118-18K QTY.	11118-20K QTY.
1	16-21748	3/4" x 2" Plow Bolt Gr 8 NC	24	28	32	36	40
2	29-11118-4	4' - 3/4"x 8" Cutting Edge	3	2	4	3	5
2	29-11118-3	3' - 3/4" x 8" Cutting Edge	-	2	-	2	-
3	70-20647	3/4" Hex Top Lock Nut Gr 5 NC	24	28	32	36	40



ITEM NO.	PART NO.	DESCRIPTION	15458-1K QTY.	15458-K QTY.
1	16-21666	5/8" x 1-3/4" Plow Bolt Gr 5 NC	2	4
2	50-15458	12" Round Mushroom Skid Shoe	1	2
3	70-20646	5/8" Hex Top Lock Nut Gr 5 NC	2	4





Tractor Service Valve

Before Each Use:

- 1. Disconnect the mobile half from the parking station and the cap from the fixed half.
- 2. Check that there is no contamination (salt, sand, dirt, etc.):
 - A. On the pins.
 - B. Inside the cam.
 - C. In the locking mechanism area.
 - D. On the face of the plates and couplings.
- 3. In case of contamination, remove it with a cloth and/or compressed air.
- 4. Check that there is still a lubricant/anti-corrosion (grease or silicone - see Note 1):
 - A. On the pins.
 - B. Inside the cam.
 - C. In the locking mechanism area.
- 5. Connect the mobile and fixed halves together.

After Each Use:

- 1. Disconnect the mobile half from the fixed half.
- 2. Clean all contamination (salt, sand, dirt, etc.) from the following areas:
 - A. On the pins.
 - B. Inside the cam.
 - C. In the locking mechanism area.
 - D. On the face of the plates and couplings.

*Use a cloth or compressed air. It is advised to not use water to clean these surfaces
- 3. Apply a lubricant/anti-corrosion (grease or silicone - see Note 1):
 - A. On the pins.
 - B. Inside the cam.
 - C. In the locking mechanism area.
- 4. Connect the cap to the fixed half and the mobile half to the parking station.

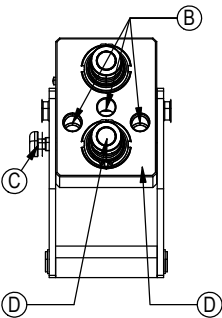
Note 1:

When sand and salt are present, or the plates under go a washdown, a heavy duty silicone spray lubricant should be used to replace grease from the factory. The lubricant should help protect from corrosion without collecting dust and contaminants, and will resist washing off when exposed to water.

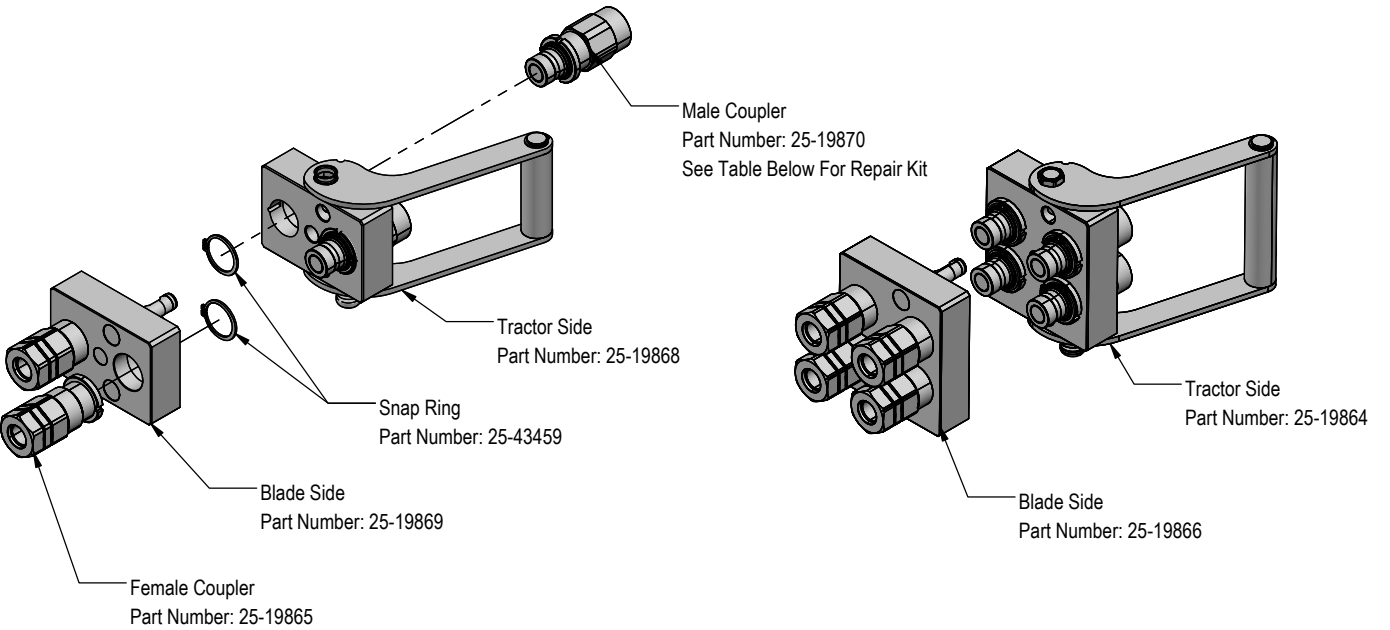
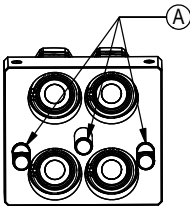
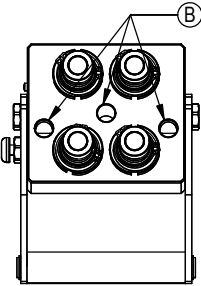
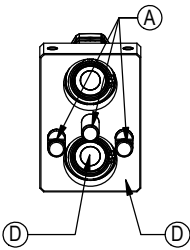
Recommended Lubricant Brands:

Fluid Film (Aerosol or Non-Aerosol), LPS-2 Heavy Duty Lubricant, or CRC 3-36.

Fixed Half



Mobile Half



PN	Description
25-43425	Male Coupler O-Ring Repair Kit

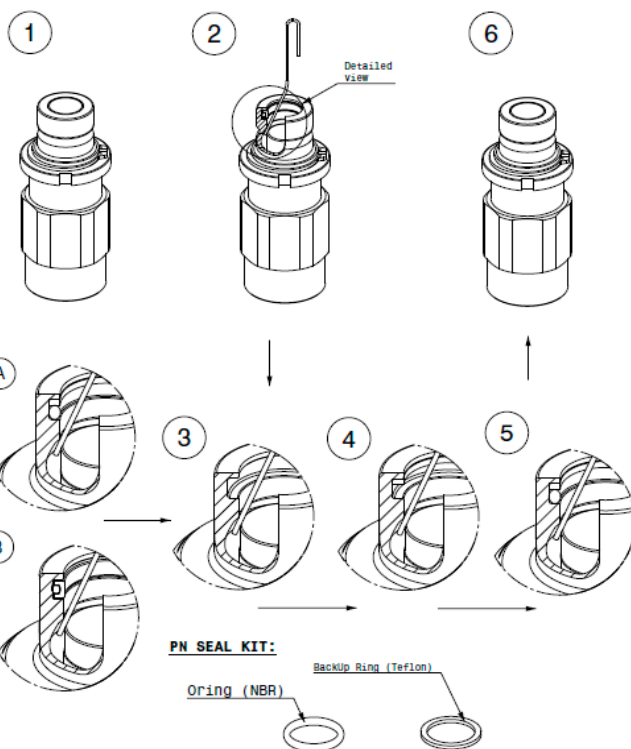
Cleaning The Male Interface Seal:

1. Make sure the coupling is securely fastened into the plate or place in a vice.
2. Using a blunt, non-marring tool, depress the valve face until the seal is exposed. Insert a bent metal wire between the valve face and the body of the coupling. Use caution not to damage or scratch the seal when inserting the wire.
3. Inspect the seal and interior surfaces for contamination.
4. In case of contamination, carefully wipe surfaces with a soft cloth, or use compressed air to blow the contamination out. Do Not press hard on the seal as contamination can scratch the seal surface.
5. Using a non-marring tool, depress the valve face and remove the metal wire. Release the valve to the flush position.

Cleaning The Female Bushing:

1. Make sure the coupling is securely fastened into the plate or place in a vice.
2. Using a non-marring tool, depress the outer ring to expose the bushing. There is no need to expose the valve seal, so stop pressing before the valve is opened.
3. Inspect the interior body and bushing surfaces for contamination.
4. In case of contamination, carefully wipe surfaces with a soft cloth, or use compressed air to blow the contamination out.
5. Release the outer ring so that it returns to the flush position.

MALE FAP - REPAIR KIT INSTRUCTIONS



DISASSEMBLING STEPS (see figures)

1. Place the coupling in a vice.
2. Bend positioning clip as shown. Using a blunt, non marring object, depress valve face until seals are exposed. Insert the positioning clip between valve face and body, captivating the valve face.
3. Using an O-ring pick or similar device, remove the seal from retaining groove. Clean properly the retaining groove with a clean cloth.

Note: Some M FAP are originally assembled with different seal technologies (see figures A and B) but both used O-ring and backUp ring as replacement kit.

ASSEMBLING STEPS (see figures)

4. Insert the backup ring (4) in the seat and even with the use of a non sharpen tool. Place the BackUp ring on the superior shoulder of the seat in order to leave space for the O-ring (see figure 4).
5. Lubricate the O-ring with a fluid compatible with the seals compound. **Warning: using non compatible fluid would compromise the efficiency of the coupling.**
6. Push the piston with a blunt, non marring tool and take the metal clip out. Release the piston.

FUNCTIONING CHECK

Assemble the male coupling with the female in order to check the functioning and check for leaks.

BY REPLACING THE SEALS, YOU REMOVE THE WARRANTY AND BECOME RESPONSIBLE FOR THE SAFETY AND THE EFFICIENCY OF THE COUPLING!

Improvements

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

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

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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