



240 Owner's Manual & Parts Book

Purchase Date
Serial Number
Model Number
Tractor Model
Dealer

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To The Owner

This manual contains information concerning the operation, adjustment, and maintenance of the 240 blade assembly. You have purchased dependable, long lasting equipment, but only by proper care and operation can you expect to receive the performance and long service built into our products. Please have all operators read this manual carefully and keep the manual available for ready reference. If you have any questions or concerns, contact Grouser Products.

Maintenance

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

- Inspect all equipment before operation for existing or potential damages.
- Lubricate all joints with high quality grease.
- Inspect and tighten all bolts to torque specifications on page 3.
- Check replaceable cutting edge for wear ensuring there is enough material to prevent permanent damage to the blade.
- Make sure all non-rotating pins are secured properly.
- Check hydraulic cylinders and hoses for damage or leaks. For replacement parts, see hydraulic pages for your specific system.
- Check skid shoes for wear and replace if necessary. For adjustment, see page 4.
- Inspect all tilt-ways for aggressive wear. See page 4 for tilt plate adjustment.

Safety Precautions

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 to these precautions, please follow all safety and operational instructions of your tractor manufacturer.

The Dozer:

1. The 240 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 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.

Servicing the 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 Dozer:

1. Thoroughly clean the inside and outside of the dozer before storage. Use paint where necessary to prevent rust.
2. Check the dozer for worn or damaged parts. Install new parts as required.
3. Lubricate all pins and joints.

Torque Specifications

All bolts should be tightened to the specifications that are stated. If specifications are not stated, follow torque charts below.

	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

Skid Shoe and Tilt Plate Adjustment

Skid Shoe Adjustment:

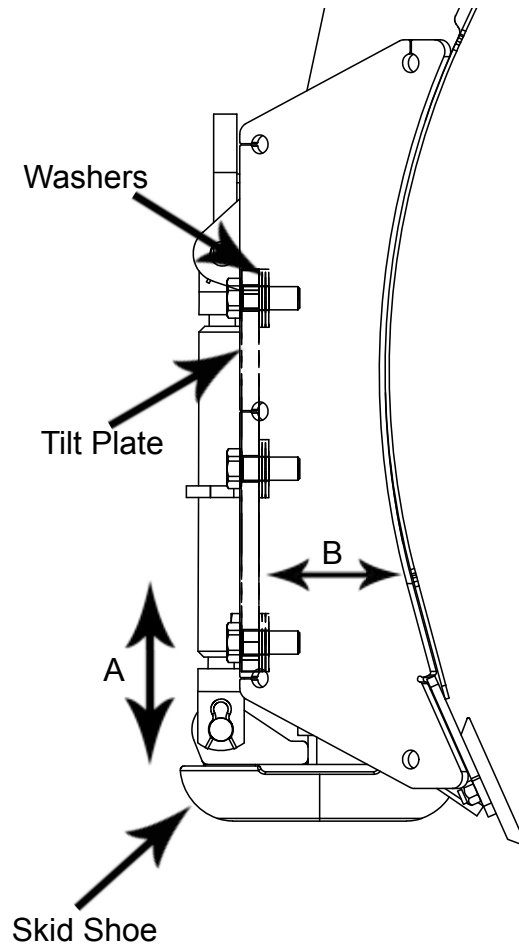
1. Use the ratchet jack to raise and lower the skid shoes in direction 'A'.
2. Store the ratchet jack handle in the manual holder on the top arm.
3. When skid shoes are worn down, replace with new skid shoes.

Tilt Plate Adjustment:

1. Remove bolts and tilt plates.

Note: Don't remove all of the bolts at the same time.

2. Add or remove washers as needed to adjust tilt-way clearance to have 1/16" - 1/8" of clearance in direction 'B' shown.
3. Once the tilt-way clearance is set, tighten bolts to 640 ft-lbs.



Angle / Tilt Function Abbreviation Key

HAHT	Hydraulic Angle - Hydraulic Tilt	6-Way
HANT	Hydraulic Angle - No Tilt	4-Way
NAHT	No Angle - Hydraulic Tilt	4-Way
NANT	No Angle - No Tilt	2-Way

Relief Valve Instructions

Set the safety relief valve at a higher pressure than tractor: To increase the pressure of the relief valve, install a 0-5,000 psi pressure gauge into the base end of right angle cylinder (see page 21). Loosen the jam nut on the safety valve and tighten the Allen screw 1/2 turn. Next, extend the right side cylinder out until the safety valve activates, while the safety valve is in function, record the pressure reading on the gauge. Continue to tighten the Allen screw in 1/2 turn increments and record the pressure until a high enough relief setting is obtained. **Do not exceed the 3,000-psi operating pressure of the cylinders.** Tighten the jam nut and remove the gauge. Follow the same steps for the left side cylinder.

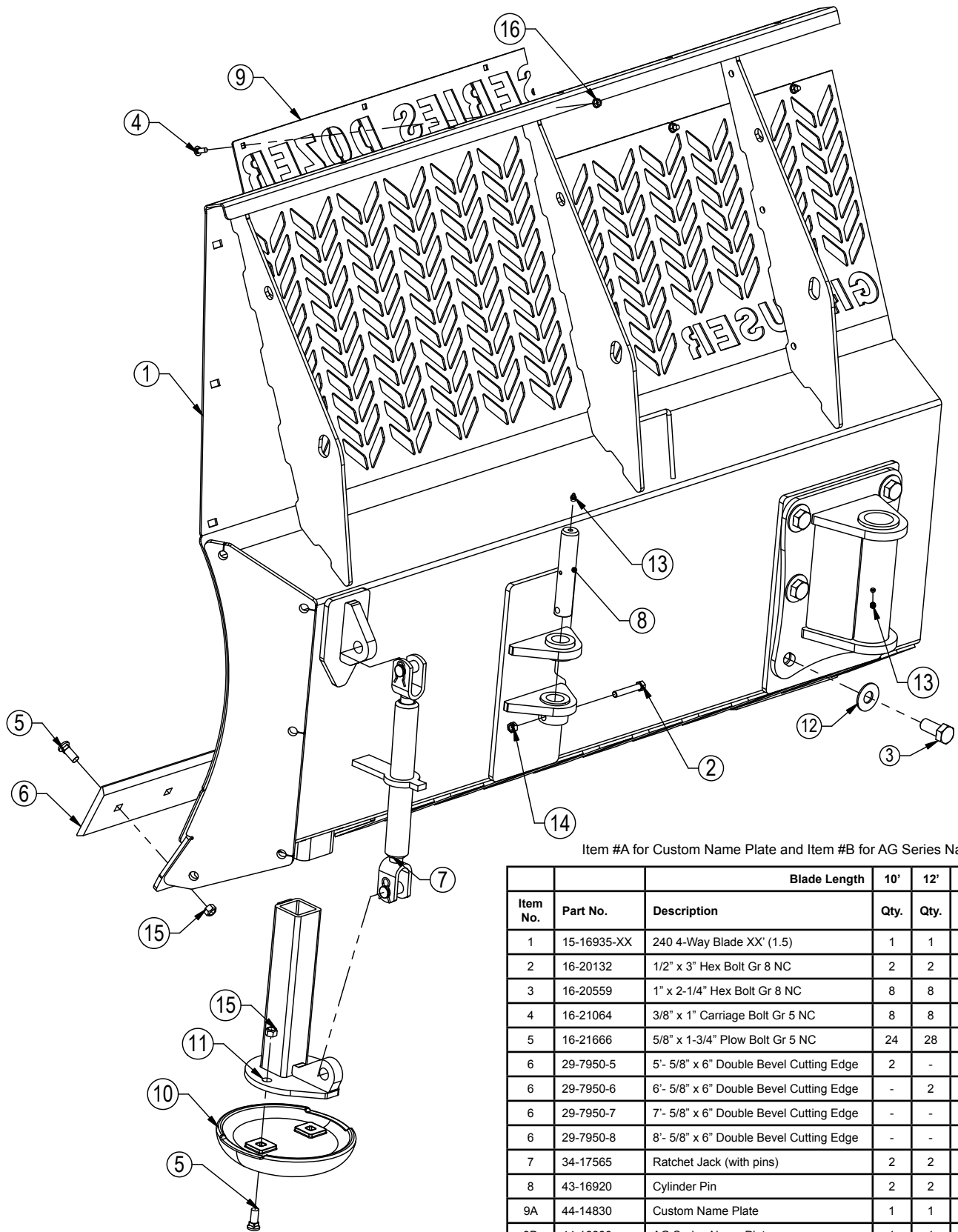
Automatic lever release: In certain newer model tractors, the hydraulic control lever will automatically release and instantly stop oil flow once the end of the stroke is reached.

CAUTION: Do not bypass the safety relief valve and plumb each cylinder to separate valves on the tractor.

Please contact Grouser Products with any questions by:
Phone - 701-282-7710 or 800-747-6182; Fax - 701-282-8131

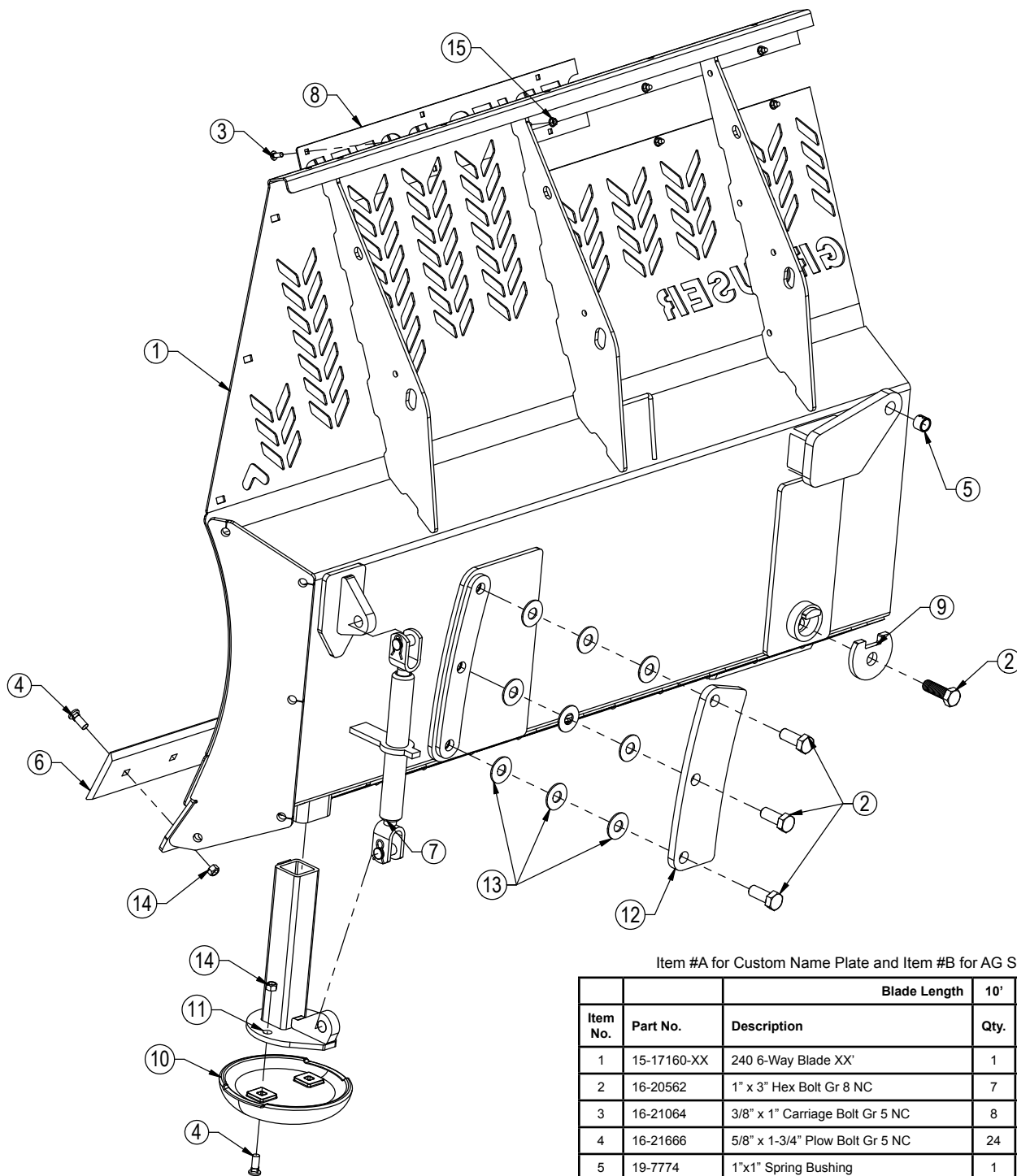


		Blade Length	10'	12'	14'	16'
Item No.	Part No.	Description	Qty.	Qty.	Qty.	Qty.
1	11-11316	Blade Stand Arm	2	2	2	2
2	15-17850-XX	240 2-Way Blade XX'	1	1	1	1
3	16-20558	1" x 2" Hex Bolt Gr 8 NC	2	2	2	2
4	16-21064	3/8" x 1" Carriage Bolt Gr 5 NC	8	8	8	8
5	16-21666	5/8" x 1-3/4" Plow Bolt Gr 5 NC	24	28	32	36
6	29-7950-5	5'- 5/8" x 6" Double Bevel Cutting Edge	2	-	-	-
6	29-7950-6	6'- 5/8" x 6" Double Bevel Cutting Edge	-	2	-	-
6	29-7950-7	7'- 5/8" x 6" Double Bevel Cutting Edge	-	-	2	-
6	29-7950-8	8'- 5/8" x 6" Double Bevel Cutting Edge	-	-	-	2
7	34-17565	Ratchet Jack (with pins)	2	2	2	2
8	43-9582	Bent Claw Pin with Clip Pin	2	2	2	2
9A	44-14830	Custom Name Plate	1	1	1	1
9B	44-16880	AG Series Name Plate	1	1	1	1
10	50-15458	12" Round Mushroom Skid Shoe	2	2	2	2
11	50-17545	240 Skid Shoe Mount - Mushroom	2	2	2	2
12	70-20609	1" Hex Center Lock Nut	2	2	2	2
13	70-20646	5/8" Hex Top Lock Nut Gr 5 NC	24	28	32	36
14	70-20622	3/8" Flange Nut	8	8	8	8



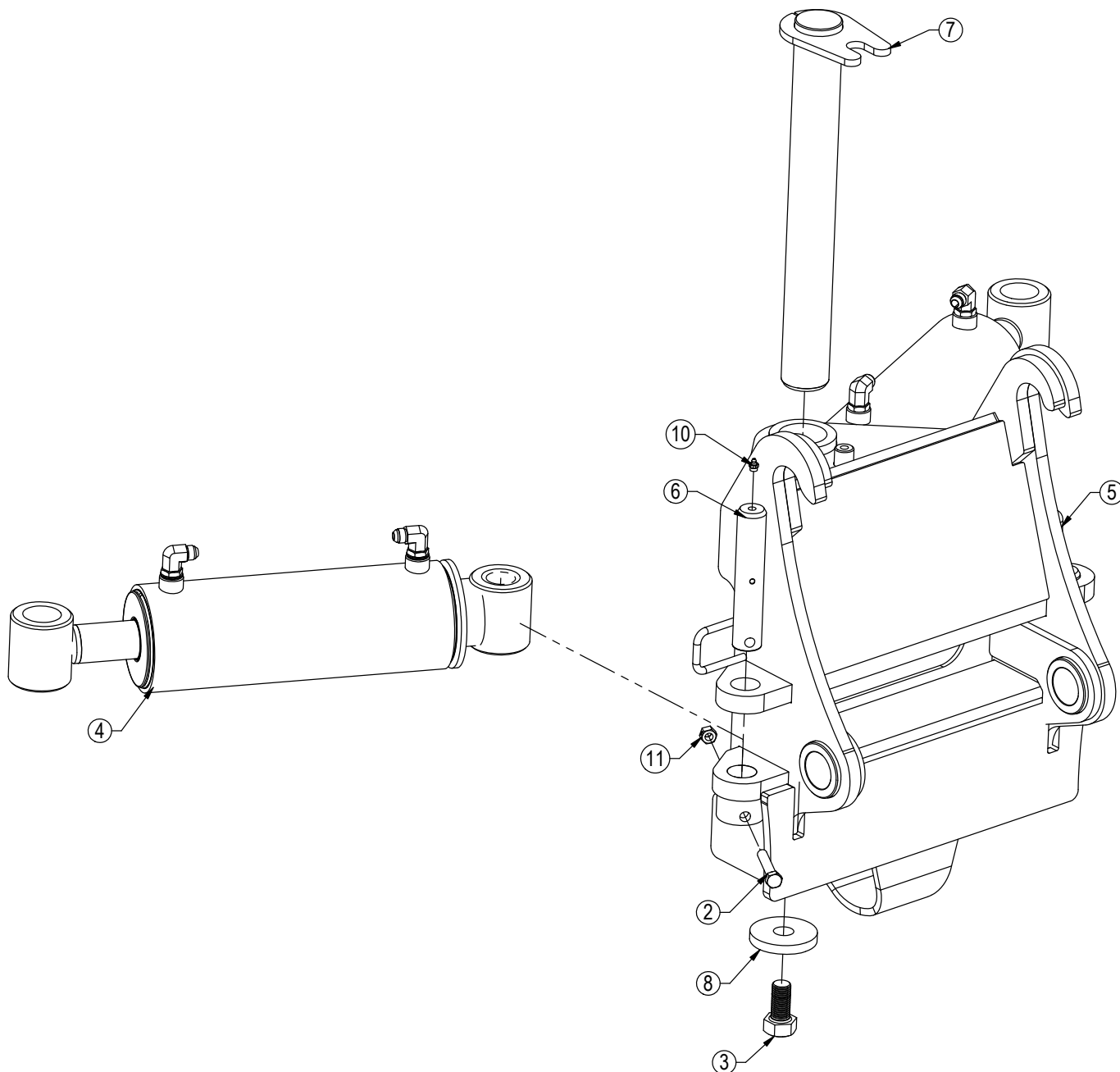
Item #A for Custom Name Plate and Item #B for AG Series Name Plate

Item No.	Part No.	Description	Blade Length			
			10'	12'	14'	16'
1	15-16935-XX	240 4-Way Blade XX' (1.5)	1	1	1	1
2	16-20132	1/2" x 3" Hex Bolt Gr 8 NC	2	2	2	2
3	16-20559	1" x 2-1/4" Hex Bolt Gr 8 NC	8	8	8	8
4	16-21064	3/8" x 1" Carriage Bolt Gr 5 NC	8	8	8	8
5	16-21666	5/8" x 1-3/4" Plow Bolt Gr 5 NC	24	28	32	36
6	29-7950-5	5'- 5/8" x 6" Double Bevel Cutting Edge	2	-	-	-
6	29-7950-6	6'- 5/8" x 6" Double Bevel Cutting Edge	-	2	-	-
6	29-7950-7	7'- 5/8" x 6" Double Bevel Cutting Edge	-	-	2	-
6	29-7950-8	8'- 5/8" x 6" Double Bevel Cutting Edge	-	-	-	2
7	34-17565	Ratchet Jack (with pins)	2	2	2	2
8	43-16920	Cylinder Pin	2	2	2	2
9A	44-14830	Custom Name Plate	1	1	1	1
9B	44-16880	AG Series Name Plate	1	1	1	1
10	50-15458	12" Round Mushroom Skid Shoe	2	2	2	2
11	50-17545	240 Skid Shoe Mount - Mushroom	2	2	2	2
12	57-20819	1" Flat Washer Heavy Duty Gr 8 (USS)	8	8	8	8
13	58-9369	Grease Zerk 1/8" NPT Straight	3	3	3	3
14	70-20604	1/2" Hex Center Lock Nut	2	2	2	2
15	70-20646	5/8" Hex Top Lock Nut Gr 5 NC	24	28	32	36
16	70-20622	3/8" Flange Nut	8	8	8	8



Item #A for Custom Name Plate and Item #B for AG Series Name Plate

Item No.	Part No.	Description	Blade Length			
			10'	12'	14'	16'
1	15-17160-XX	240 6-Way Blade XX'	1	1	1	1
2	16-20562	1" x 3" Hex Bolt Gr 8 NC	7	7	7	7
3	16-21064	3/8" x 1" Carriage Bolt Gr 5 NC	8	8	8	8
4	16-21666	5/8" x 1-3/4" Plow Bolt Gr 5 NC	24	28	32	36
5	19-7774	1"x1" Spring Bushing	1	1	1	1
6	29-7950-5	5'- 5/8" x 6" Double Bevel Cutting Edge	2	-	-	-
6	29-7950-6	6'- 5/8" x 6" Double Bevel Cutting Edge	-	2	-	-
6	29-7950-7	7'- 5/8" x 6" Double Bevel Cutting Edge	-	-	2	-
6	29-7950-8	8'- 5/8" x 6" Double Bevel Cutting Edge	-	-	-	2
7	34-17565	Ratchet Jack (with pins)	2	2	2	2
8A	44-14830	Custom Name Plate	1	1	1	1
8B	44-16880	AG Series Name Plate	1	1	1	1
9	44-15339	240 Backdrag Brace Plate	1	1	1	1
10	50-15458	12" Round Mushroom Skid Shoe	2	2	2	2
11	50-17545	240 Skid Shoe Mount - Mushroom	2	2	2	2
12	52-17265	240 Tilt Plate	2	2	2	2
13	57-20749	1" Flat Washer	18	18	18	18
14	70-20646	5/8" Hex Top Lock Nut Gr 5 NC	24	28	32	36
15	70-20622	3/8" Flange Nut	8	8	8	8



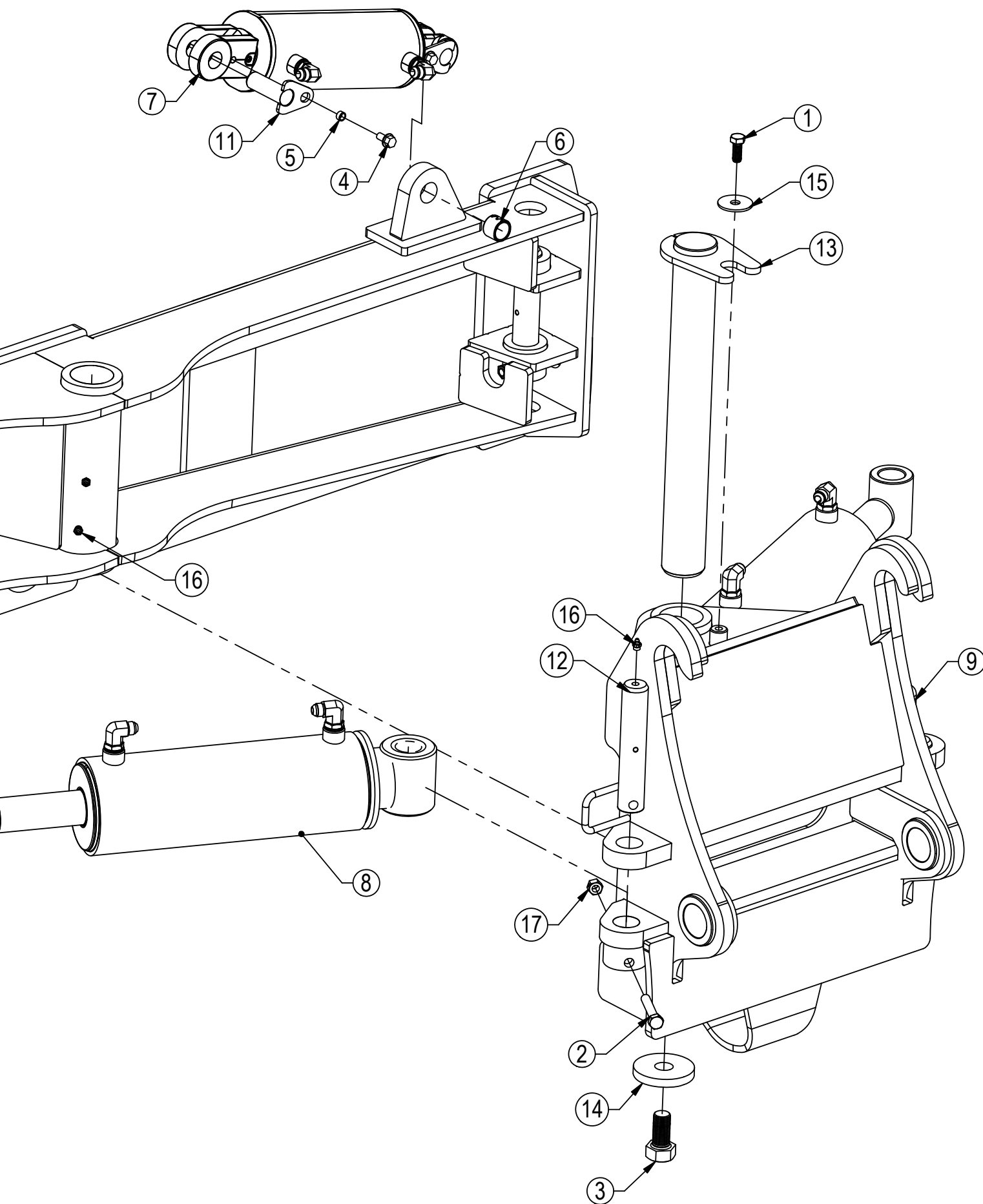
Item No.	Qty.	Part No.	Description
1	2	16-20132	1/2" x 3" Hex Bolt Gr 5 NC
2	1	16-20558	1" x 2" Hex Bolt Gr 8 NC
3	2	26-34744	5 x 12 Cylinder Tube Ends (1.5") (675155)
4	1	32-16365	Angle Frame (1.5")
5	2	43-16920	Cylinder Pin (1.5")
6	1	43-16925	Angle Pin
7	1	57-16928	3.50" OD x 1.06" ID Washer
8	2	58-9369	Grease Zerk 1/8" NPT Straight
9	2	70-20604	1/2" Hex Center Lock Nut NC

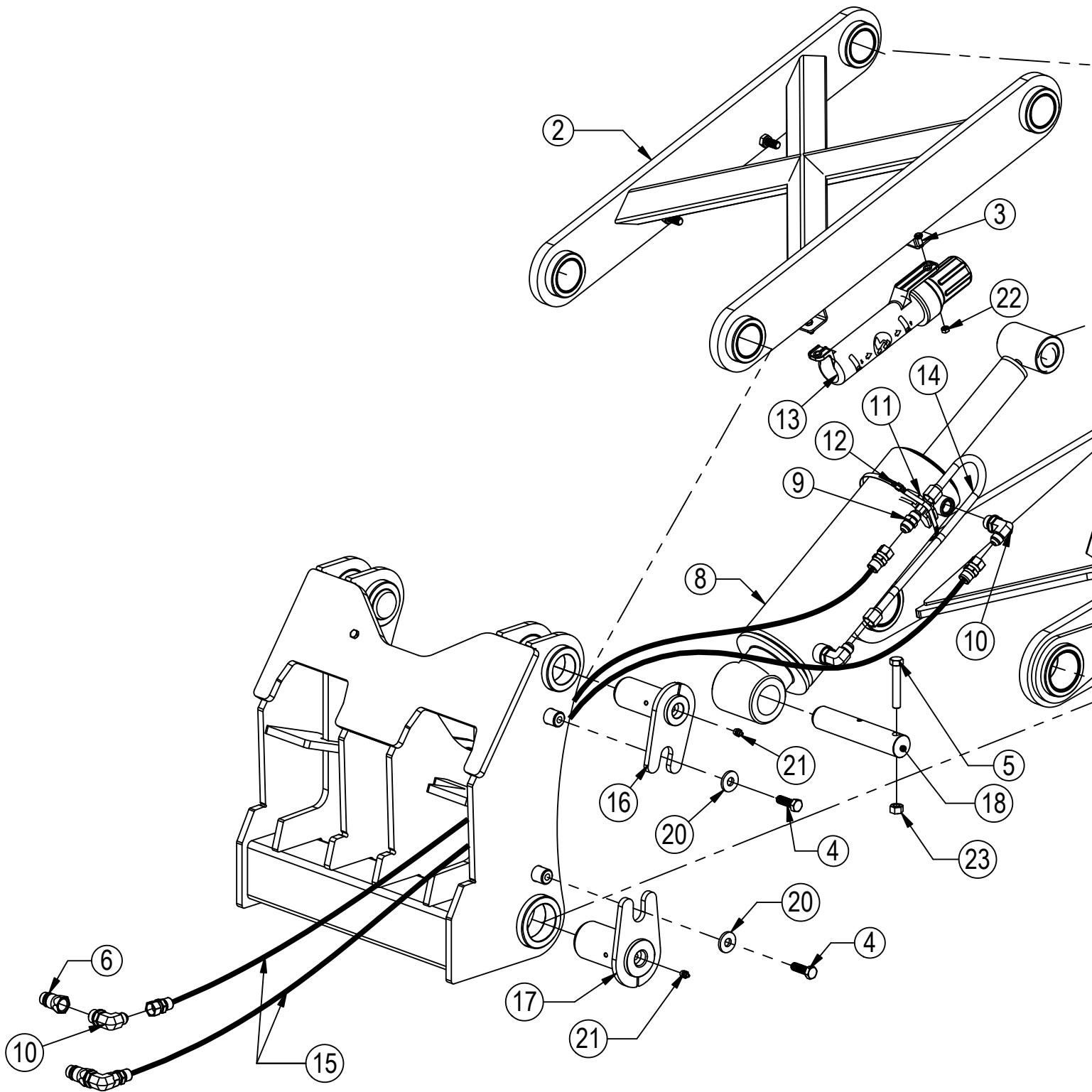
NOTE: When ordering cylinder seal kits, the part number on the cylinder is needed. The number is stamped on the base end of the cylinder opposite of the hydraulic ports.

No. On Cylinder	Part No.	Description
26-34744	49-12272	Monarch Seal Kit 5 x 12 (649246) Nitrided Rod

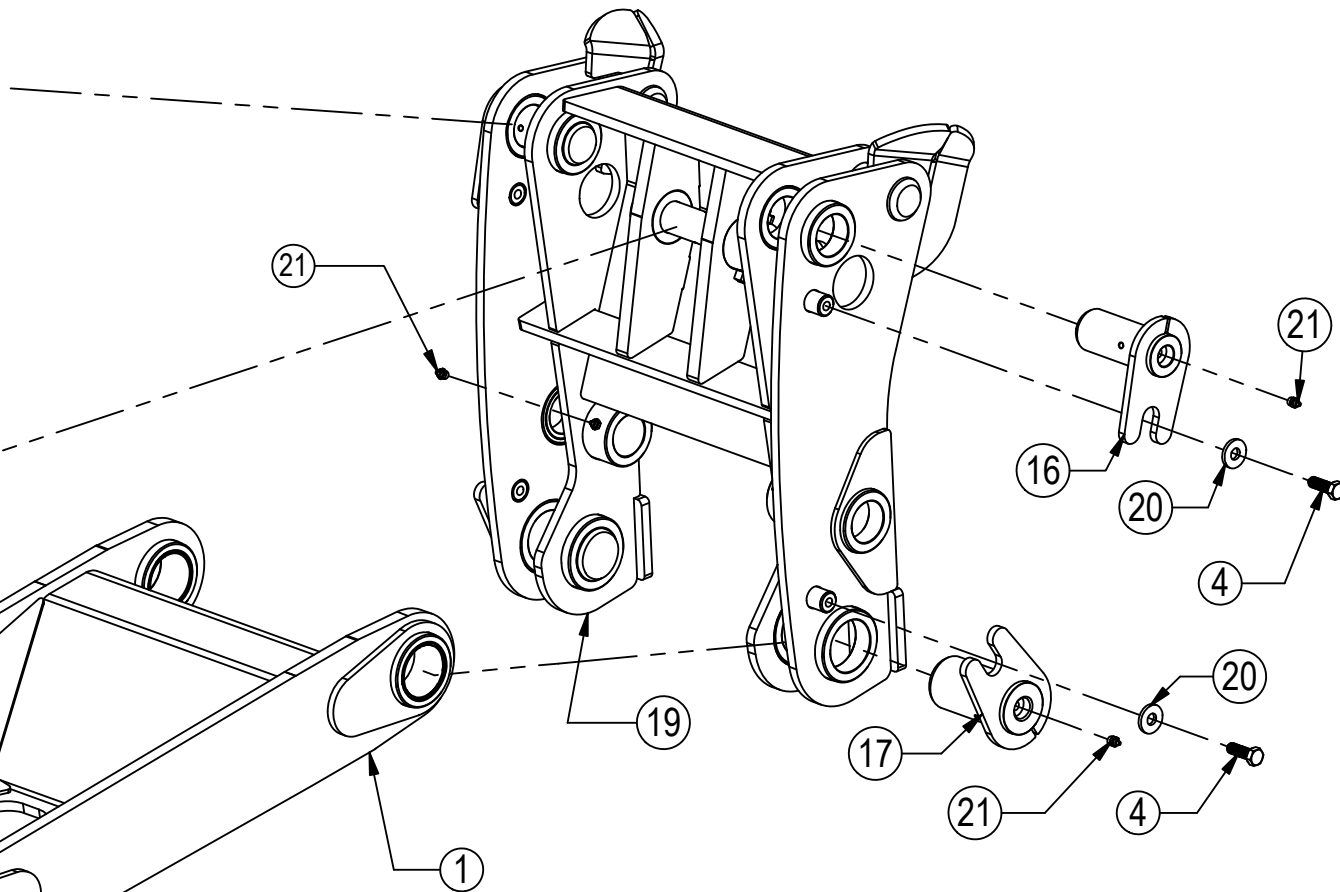
NOTE: When ordering cylinder seal kits, the part number on the cylinder is needed. The number is stamped on the base end of the cylinder opposite of the hydraulic ports.

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Hoses Not Drawn To Scale

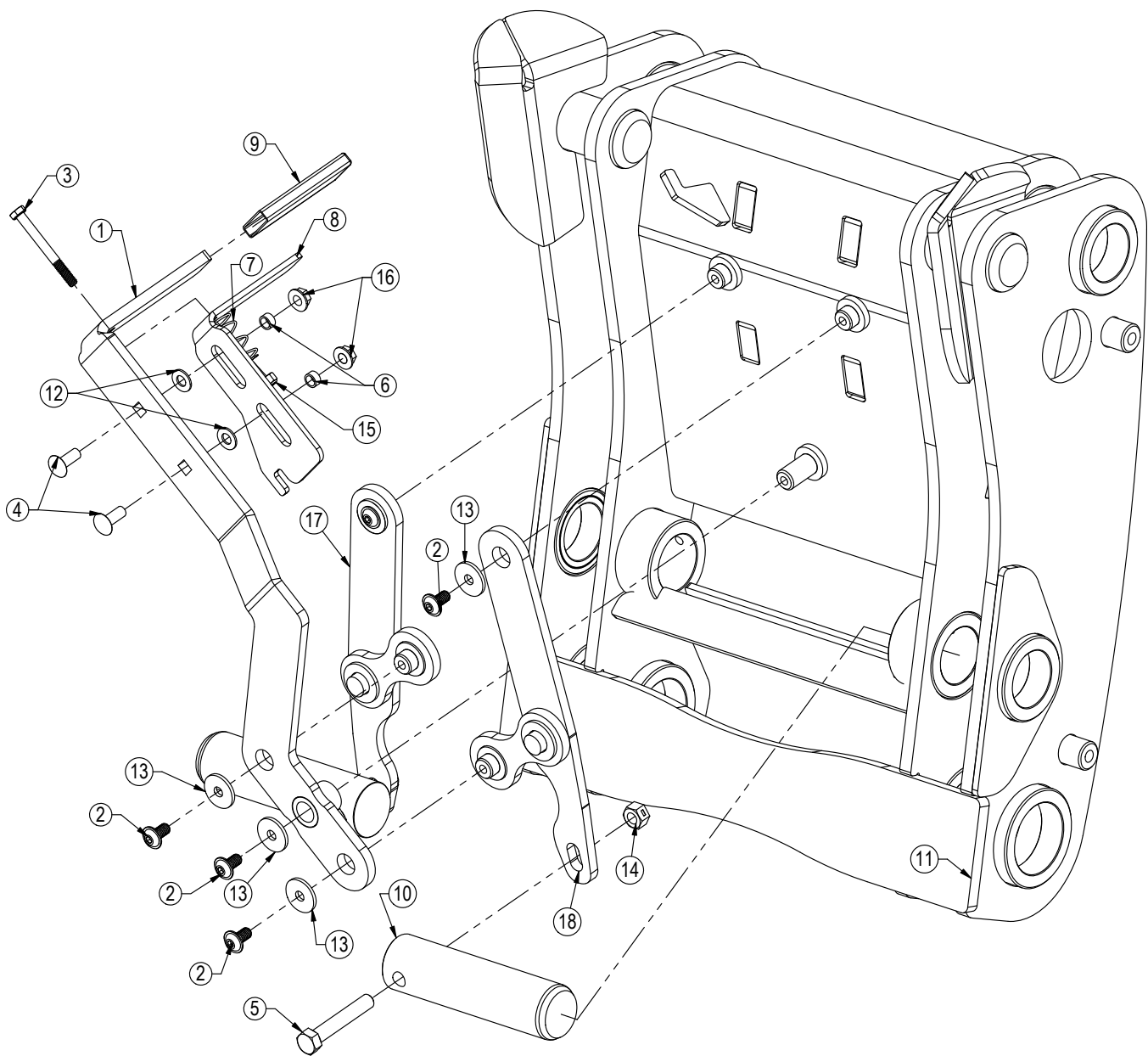


* Parts Not Shown
See Page 21 for hydraulic schematics.

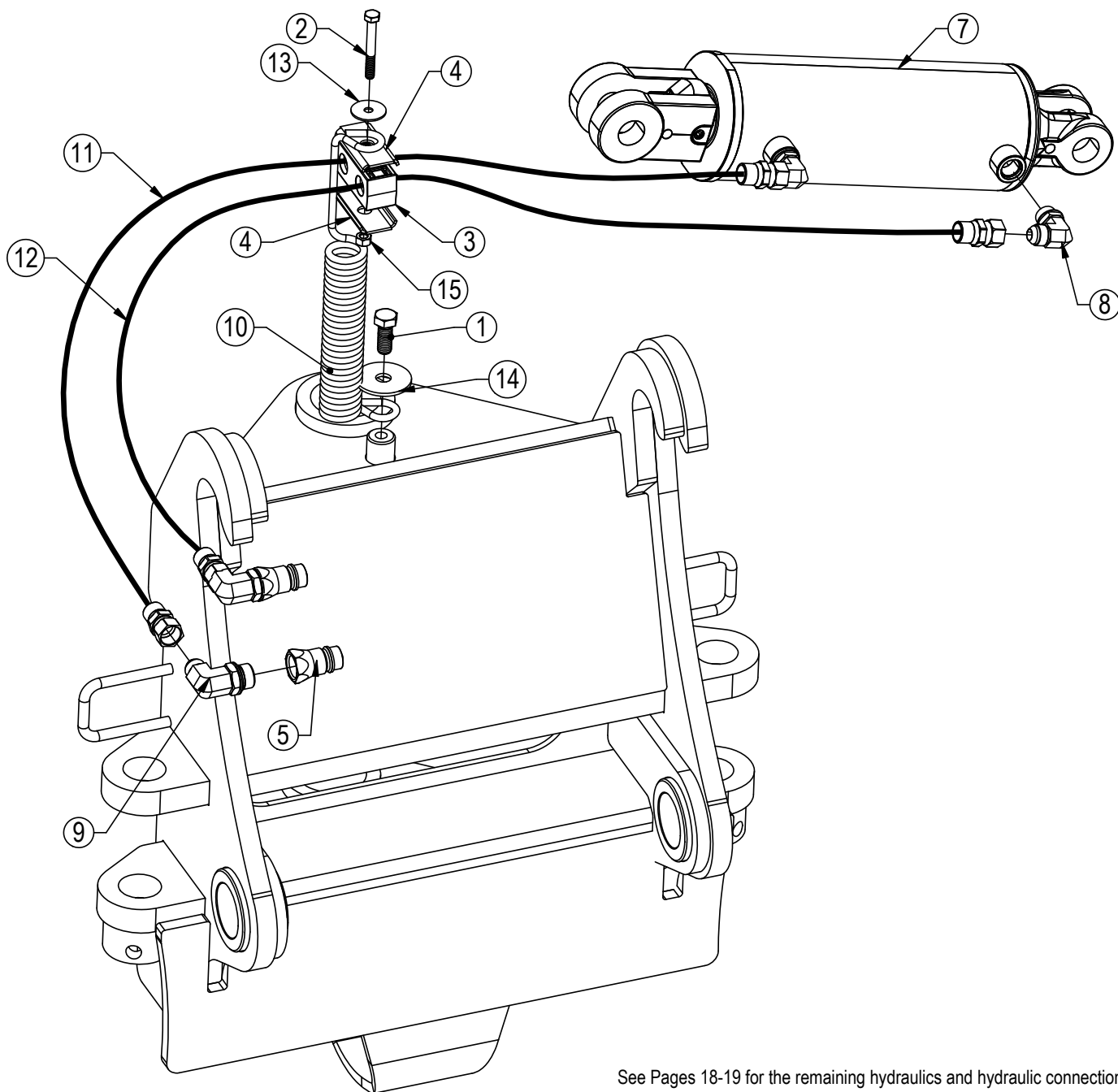
Item No.	Qty.	Part No.	Description
1	1	11-16345	FH-440 Lower Arm
2	1	11-17080	FH-440 Top Arm
3	2	16-20002	1/4" x 3/4" Hex Bolt Gr 5 NC
4	8	16-20125	1/2" x 1-1/4" Hex Bolt Gr 5 NC
5	2	16-20132	1/2" x 3" Hex Bolt Gr 5 NC
6	2	25-34342	Tappet Quick Coupler Male - Poppet Style
7*	2	25-3457	Pioneer Dust Cap Lift (Orange)
8	1	26-34744	5 x 12 Cylinder Tube Ends (675155)
9	1	31-11699-8-8	JIC Union (2403-8-8)
10	4	31-34051	Straight Thread Elbow 90° JIC x O-Ring (6801-8-10)
11	1	34-12932	Cylinder Saddle (ZR518)
12	1	34-12933	Hose Clamp
13	1	34-14961	Manual Canister
14	1	35-17260	240 Formed Steel Line
15	2	35-17721-280-1	280" x 1/2" -8JIC/-8JIC Hose W/ 36" Cordura
16	4	43-16385	240 Upper Pin
17	4	43-16390	240 Lower Pin
18	2	43-16920	240 Cylinder Pin (1.5")
19	1	45-16355	240 Quick Attach (1.5")
20	8	57-20794	1/2" Fender Washer
21	10	58-9369	Grease Zerk 1/8" NPT Straight
22	2	70-20610	1/4" Nyloc Nut
23	2	70-20604	1/2" Hex Center Lock Nut NC

NOTE: When ordering 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
26-34744	49-12272	Monarch Seal Kit 5 x 12 (649246) Nitrided Rod



Item No.	Qty.	Part No.	Description
1	1	11-16918	Pin Pulling Handle Weld
2	5	16-17266	3/8" x 3/4" Flange Button Socket Bolt
3	1	16-20042	5/16" x 3" Hex Bolt Gr 5 NC
4	2	16-21064	3/8" x 1" Carriage Bolt
5	2	16-20132	1" X 3" Hex Bolt Gr 5 NC
6	2	19-13577	NR Pin Spacer
7	1	34-17799	Pin Pulling Latch Spring
8	1	39-16931	Pin Puller Latch
9	1	39-3072	Handle Cover
10	2	43-16923	Pin Pulling Pin
11	1	45-16355	Quick Attach (1.5")
12	2	57-20742	3/8" Flat Washer
13	5	57-20792	3/8 Fender Washer (1.25" OD)
14	2	70-20604	1/2" Hex Center Lock Nut NC
15	1	70-20611	5/16" Nyloc Hex Nut Gr 5 NC
16	2	70-20622	3/8" Flange Nut
17	1	75-16915-R	Link Weld - Right
18	1	75-16915-L	Link Weld - Left



See Pages 18-19 for the remaining hydraulics and hydraulic connections.
See Page 21 for hydraulic schematics.

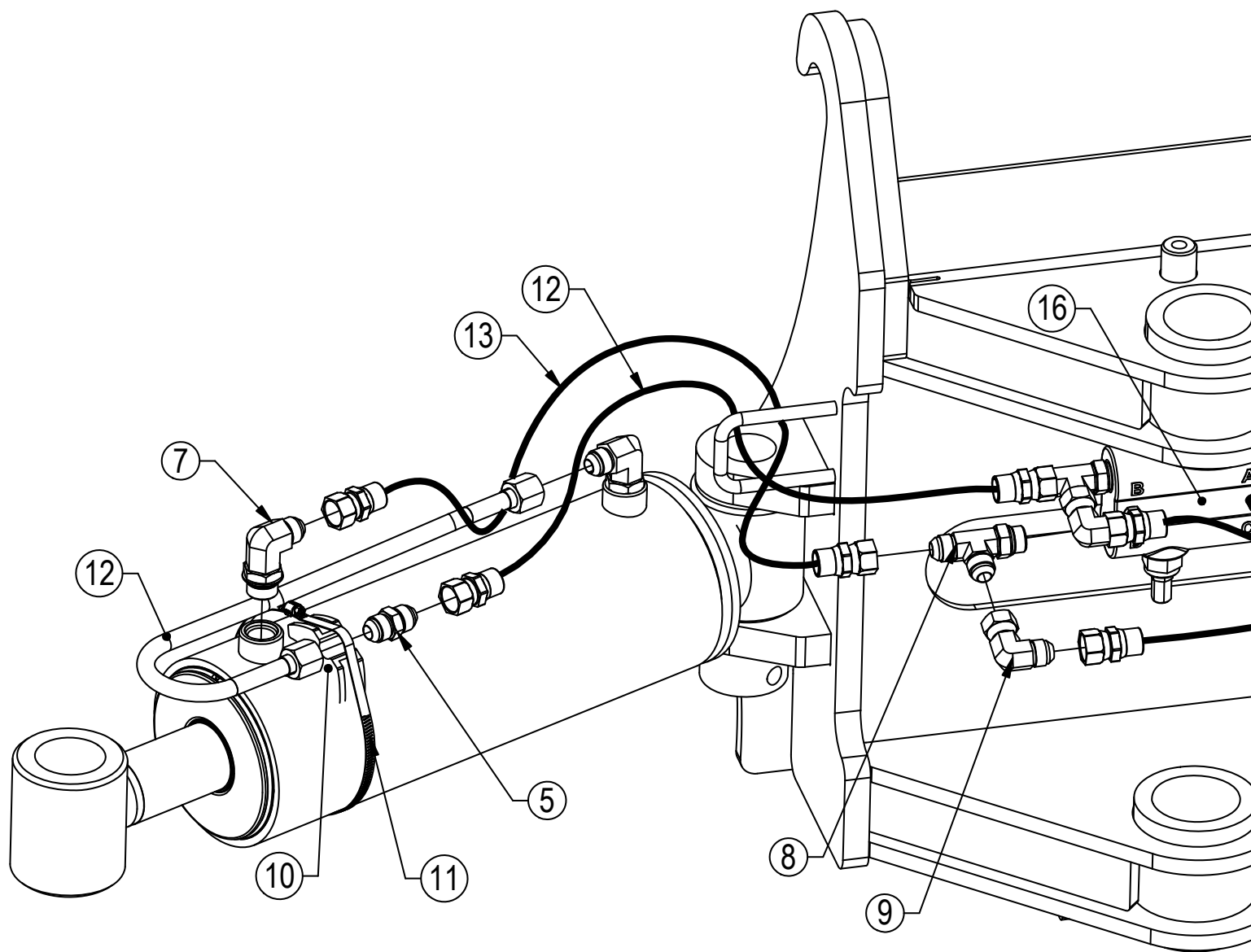
Item No.	Qty.	Part No.	Description
1	1	16-20125	1/2" x 1-1/4" Hex Bolt Gr 5 NC
2	1	16-20040	5/16" x 2-1/2 " Hex Bolt Gr 5 NC
3	1	18-3074	Hose Hold Down Clamp
4	2	18-3075	Hose Hold Down Clamp Plate
5	2	25-34342	Tappet Quick Coupler - Male
6*	2	25-3453	Pioneer Dust Cap Tilt (Green)
7	1	26-34711	4 x 8 Cylinder W/ Cast Clevis Ends
8	2	31-34050	Straight Thread Elbow 90° JIC x O-Ring (6801-8-8)
9	2	31-34051	Straight Thread Elbow 90° JIC x O-Ring (6801-8-10)
10	1	34-13807	Spring, Hose Support
11	1	35-31030	63" x 3/8"-8 JIC/-8 JIC Hose w/ Cordura (4M)
12	1	35-31032	69" x 3/8"-8 JIC/-8 JIC Hose w/ Cordura (4M)
13	1	57-20791	5/16" Fender Washer
14	1	57-20794	1/2" Fender Washer
15	1	70-20581	5/16" Hex Nut NC

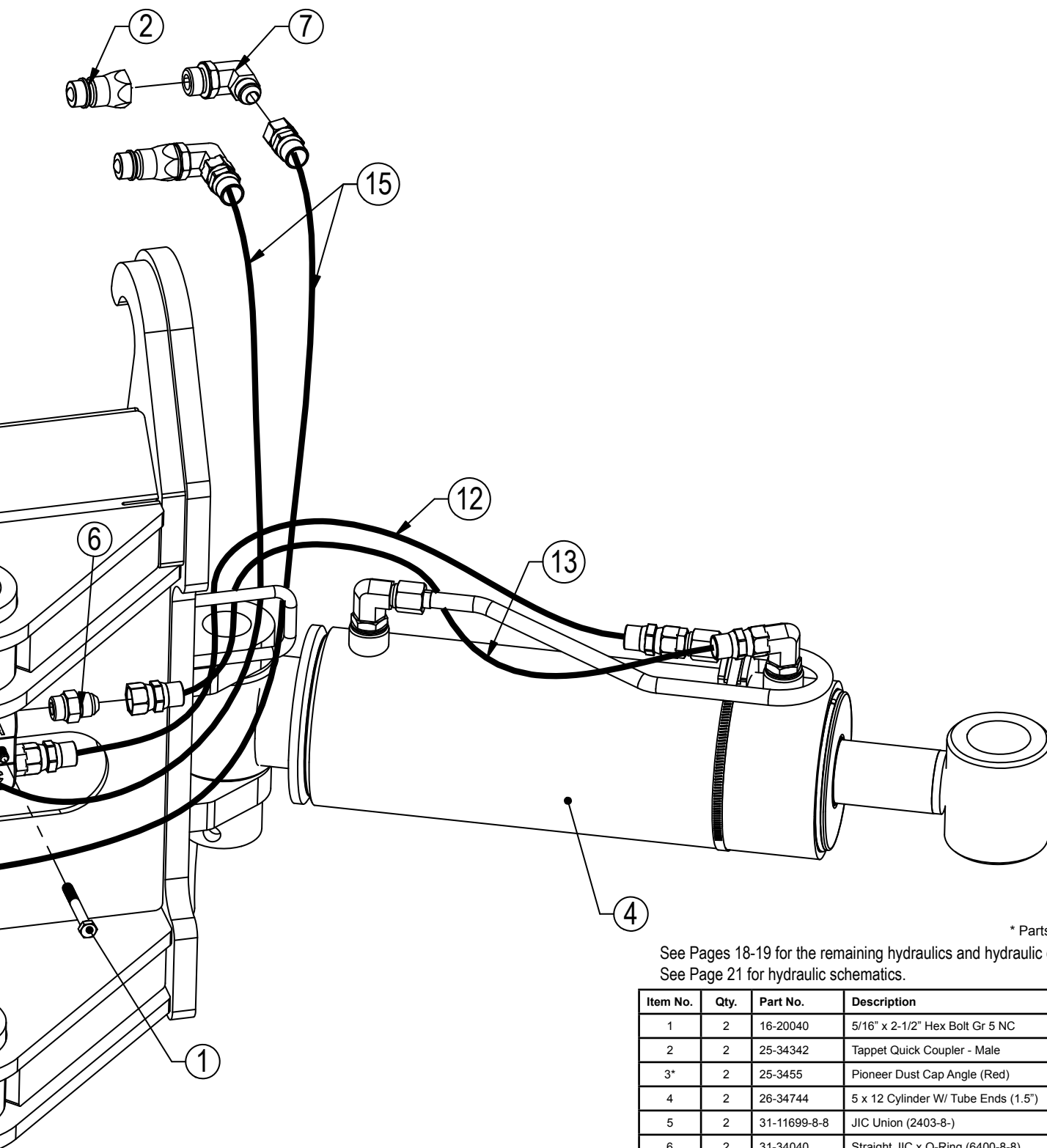
Hoses Not Drawn To Scale

NOTE: When ordering 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
26-34711	49-12271	Seal Kit 4 x 8 (647135) Nitrided Rod, Clevis Ends

Hoses Not Drawn To Scale





* Parts Not Shown

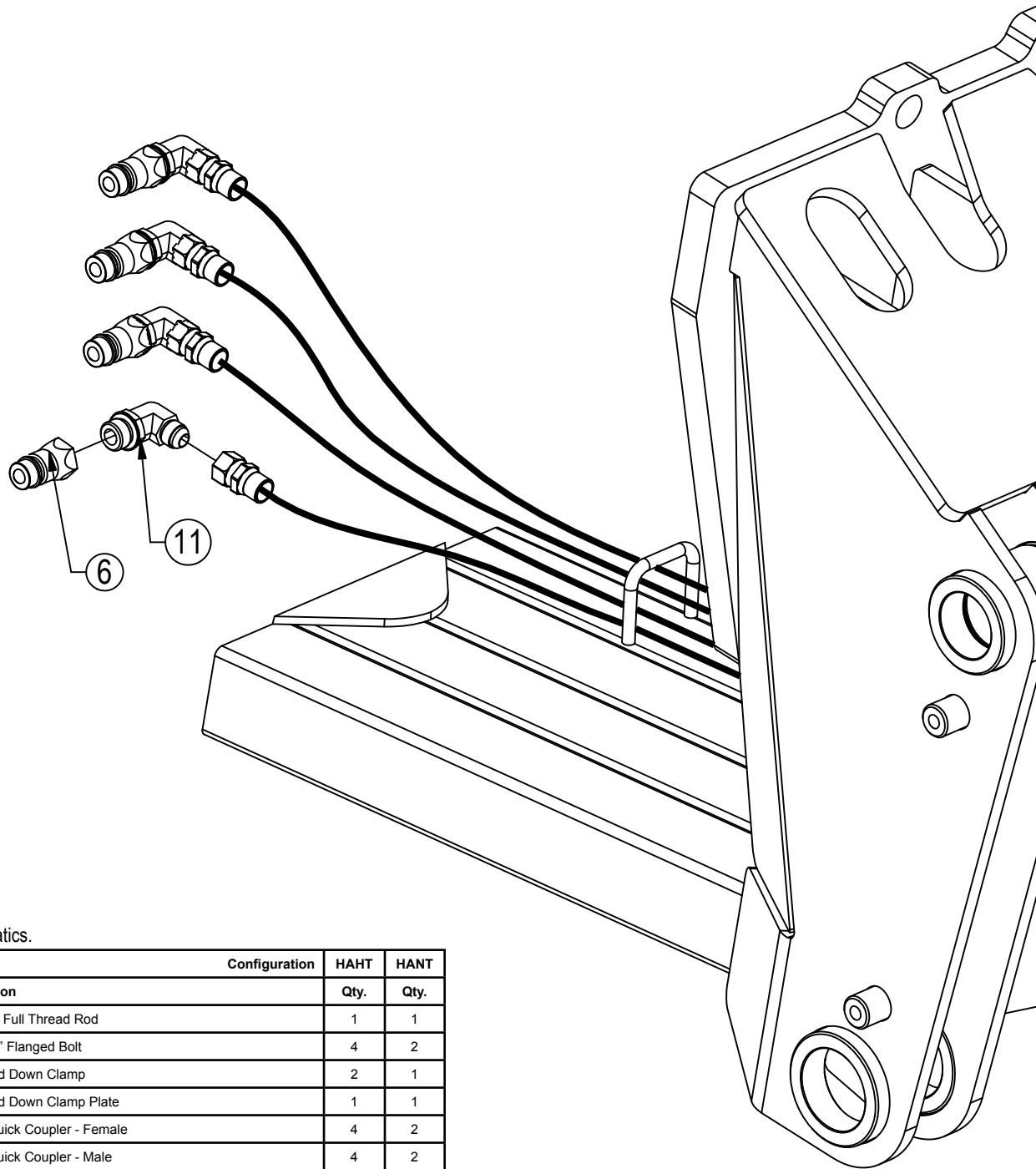
See Pages 18-19 for the remaining hydraulics and hydraulic connections.
See Page 21 for hydraulic schematics.

Item No.	Qty.	Part No.	Description
1	2	16-20040	5/16" x 2-1/2" Hex Bolt Gr 5 NC
2	2	25-34342	Tappet Quick Coupler - Male
3*	2	25-3455	Pioneer Dust Cap Angle (Red)
4	2	26-34744	5 x 12 Cylinder W/ Tube Ends (1.5")
5	2	31-11699-8-8	JIC Union (2403-8-)
6	2	31-34040	Straight JIC x O-Ring (6400-8-8)
7	6	31-34051	Straight Thread Elbow 90° JIC x O-Ring (6801-8-10)
8	2	31-34070	Run Tee JIC x O-Ring (6804-8-8-8)
9	2	31-34100	Swivel Nut Elbow 90° JIC (6500-8-8)
10	2	34-12932	Cylinder Saddle
11	2	34-12933	Hose Clamp (SAE 96)
12	2	35-17260	240 Formed Steel Line
13	2	35-31010	25" x 3/8" -8 JIC/-8 JIC Hose w/ Cordura (4M)
14	2	35-31013	28" x 3/8" -8 JIC/-8 JIC Hose w/ Cordura (4M)
15	2	35-31022	39" x 3/8" -8 JIC/-8 JIC Hose w/ Cordura (4M)
16	1	56-7772	Relief Valve

NOTE: When ordering 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.

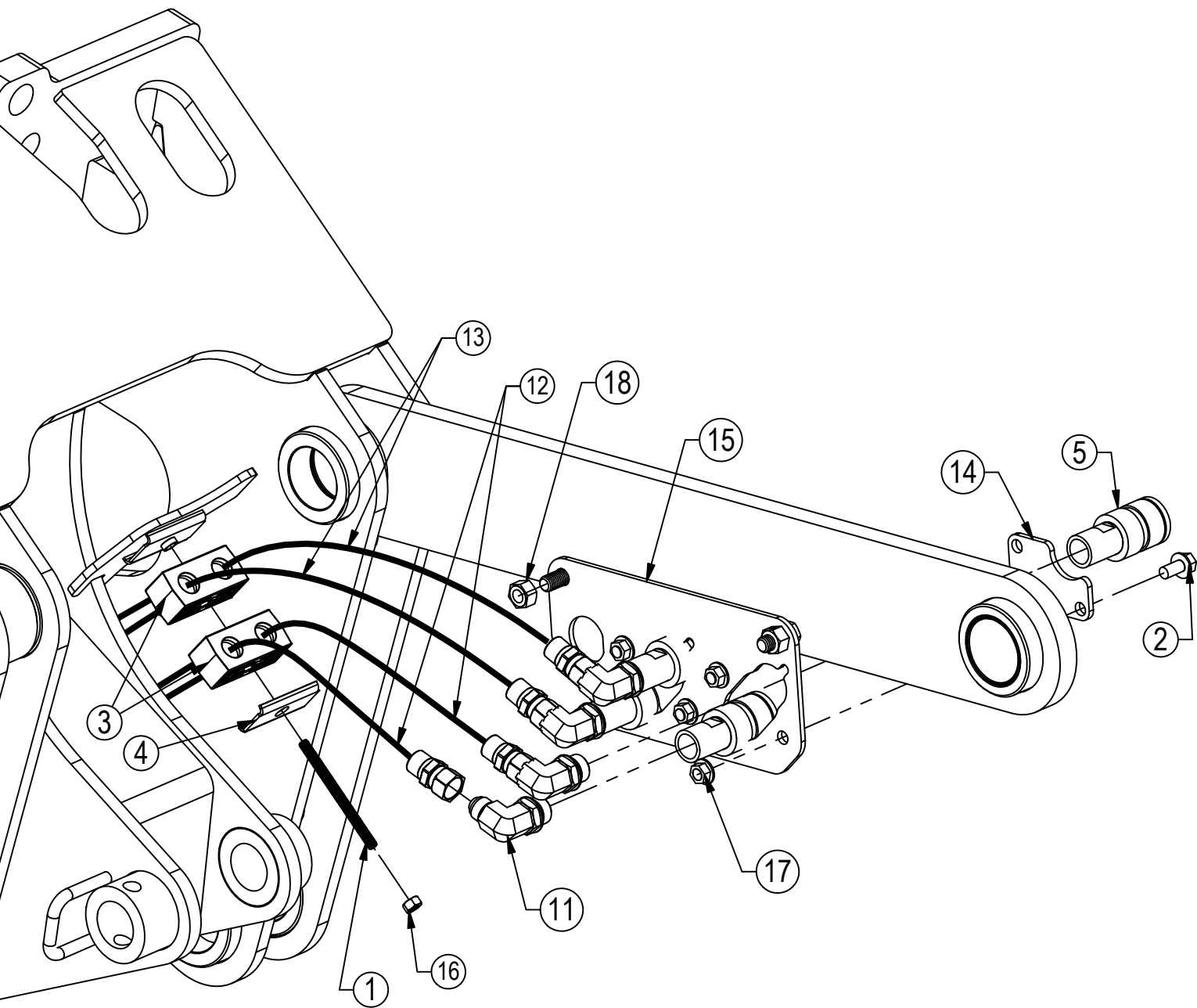
No. On Cylinder	Part No.	Description
26-34744	49-12272	Monarch Seal Kit 5 x 12 (649246) Nitrided Rod

Hoses Not Drawn To Scale



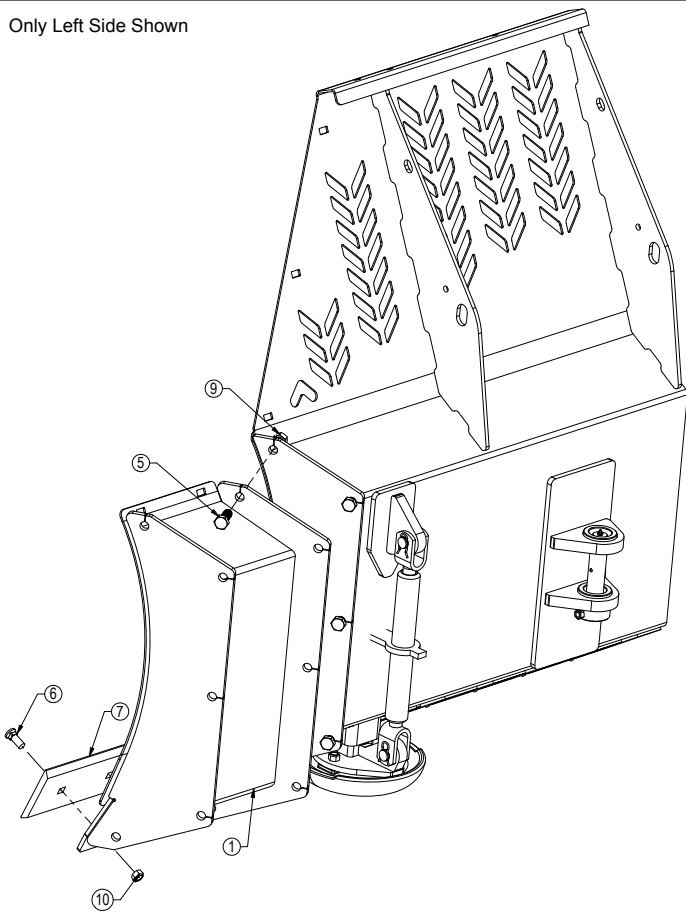
See Page 21 for hydraulic schematics.

			Configuration	HAHT	HANT
Item No.	Part No.	Description	Qty.	Qty.	Qty.
1	16-18207	5/16" x 4" Full Thread Rod	1	1	
2	16-35C612	3/8" x 3/4" Flanged Bolt	4	2	
3	18-3074	Hose Hold Down Clamp	2	1	
4	18-3075	Hose Hold Down Clamp Plate	1	1	
5	25-34321	Tappet Quick Coupler - Female	4	2	
6	25-34342	Tappet Quick Coupler - Male	4	2	
7*	25-3453	Pioneer Dust Cap Tilt (Green)	2	-	
8*	25-3454	Pioneer Dust Plug Tilt (Green)	2	-	
9*	25-3455	Pioneer Dust Cap Angle (Red)	2	2	
10*	25-3456	Pioneer Dust Plug Angle (Red)	2	2	
11	31-34051	Straight Thread Elbow 90° JIC x O-Ring (6801-8-10)	8	4	
12	35-17722-280-1	280" (23.3') x 3/8" -8JIC/-8JIC Hose w/21" Cordura & Collar	2	2	
13	35-17722-280-2	280" (23.3') x 3/8" -8JIC/-8JIC Hose w/18.5" Cordura & Collar	2	-	
14	44-14734	Remale Coupler Retainer	2	1	
15	44-16236	Female Coupler Mount	1	1	
16	70-20581	5/16" Hex Nut	1	1	
17	70-20622	3/8" Flange Hex Nut	4	2	
18	70-20604	1/2" Hex Center Lock Nut	2	2	



End Extensions

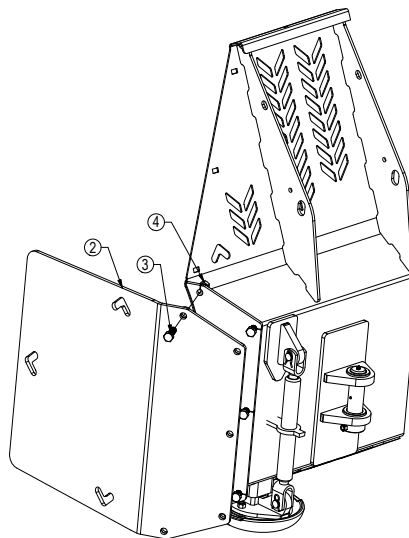
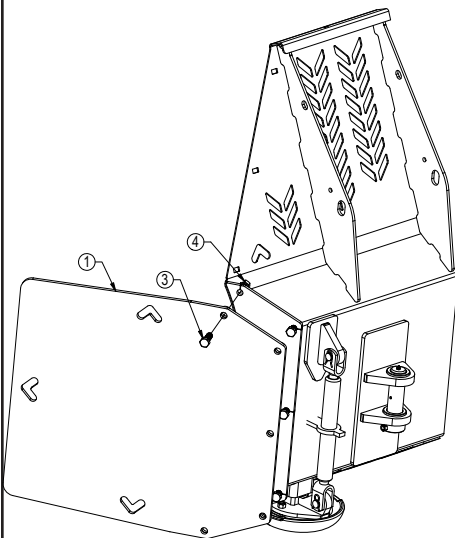
Only Left Side Shown



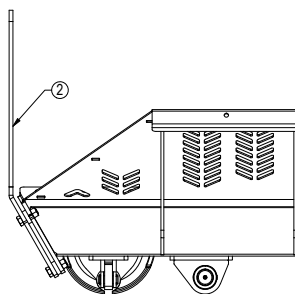
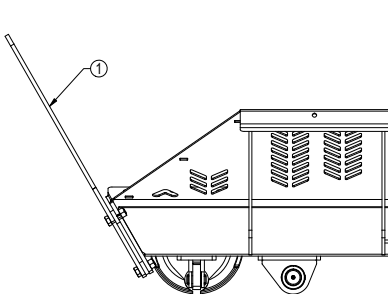
End Extension Length			1'	2'
Item No.	Part No.	Description	Qty.	Qty.
1	15-17525-1-L	1' End Extension - Left	1	-
2*	15-17525-1-R	1' End Extension - Right	1	-
3*	15-17525-2-L	2' End Extension - Left	-	1
4*	15-17525-2-R	2' End Extension - Right	-	1
5	16-20218	3/4" x 2" Hex Bolt Gr 5 NC	10	10
6	16-21666	5/8" x 1-3/4" Plow Bolt Gr 5 NC	4	8
7	29-7950-1	1'- 5/8" x 6" Double Bevel Cutting Edge	2	-
8*	29-7950-2	2'- 5/8" x 6" Double Bevel Cutting Edge	-	2
9	70-20607	3/4" Hex Center Lock Nut Gr 2 NC	10	10
10	70-20646	5/8" Hex Top Lock Nut Gr 5 NC	4	8

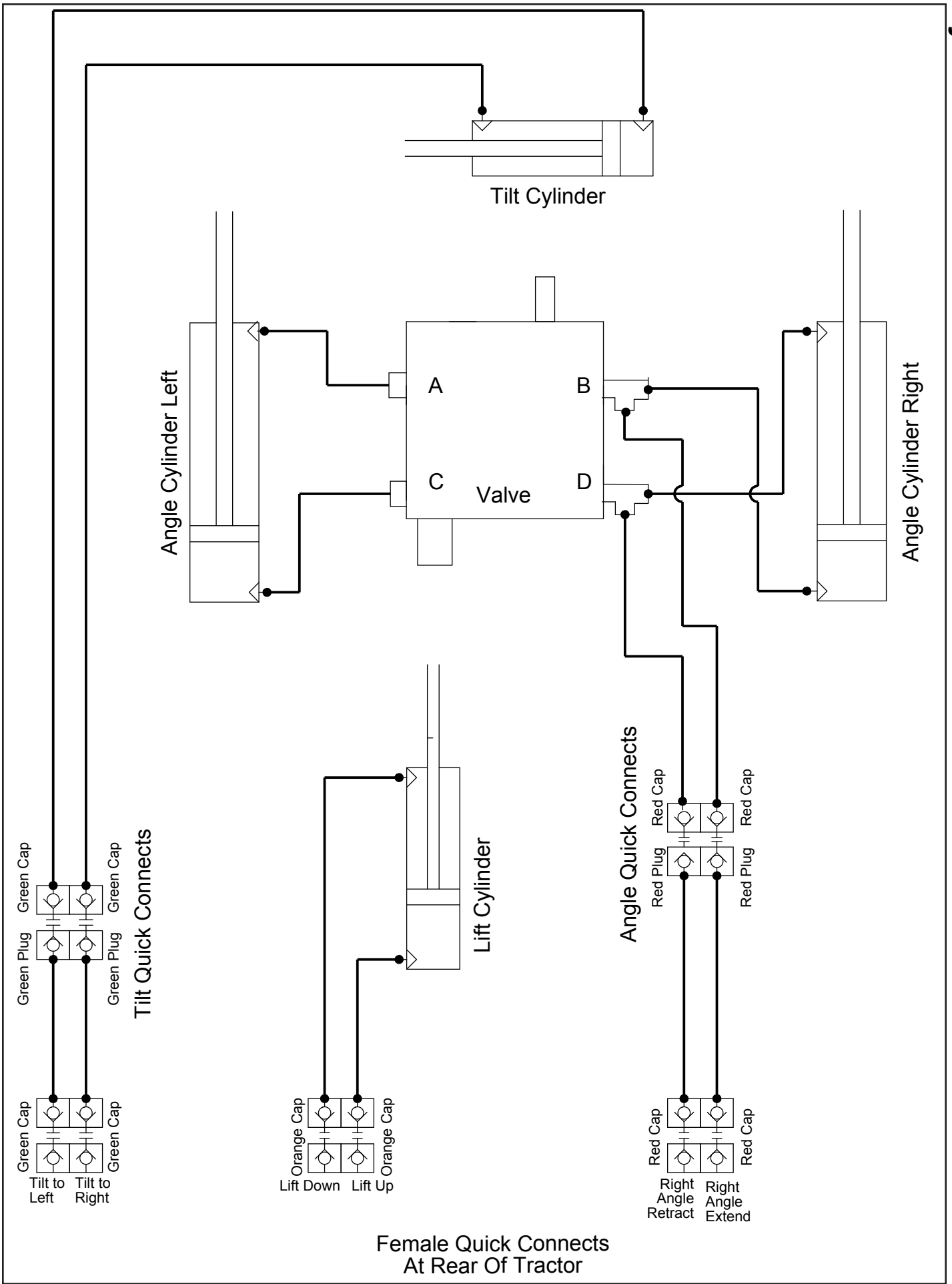
* Parts Not Shown

End Plates



Item No.	Qty.	Part No.	Description
1	2	44-17175	240 - 1/2" Box End Plates (U-End)
2	2	44-17197	240 - 1/2" Box End Plates (Straight)
3	10	16-20219	3/4" x 2-1/4" Hex Bolt Gr 5 NC
4	16	70-20607	3/4" Hex Center Lock Nut Gr 2 NC





Notes

Notes

Contact Us

As always, if you have any questions about your 240 Dozer or other products made by Grouser, feel free to contact us.

Grouser Products

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Fax: 1-701-282-8131

E-mail: grouser@grouser.com

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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 one year. If such equipment is found to be defective within one year, it is the obligation of Grouser Products under this warranty to repair or replace (exclusive of the cost of labor and transportation), any equipment or parts, in the judgment of Grouser Products to be defective in material or workmanship.

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. 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 in the setup process.

This warranty covers only defects in material and workmanship. It does not cover depreciation or damage caused by normal wear, accident, improper assembly, improper adjustments, improper maintenance including lack of proper lubrication, or improper use. Therefore, Grouser Products liability under this warranty shall not be effective or actionable unless the equipment is assembled, maintained and operated in accordance with the operating instructions accompanying the equipment. 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.

