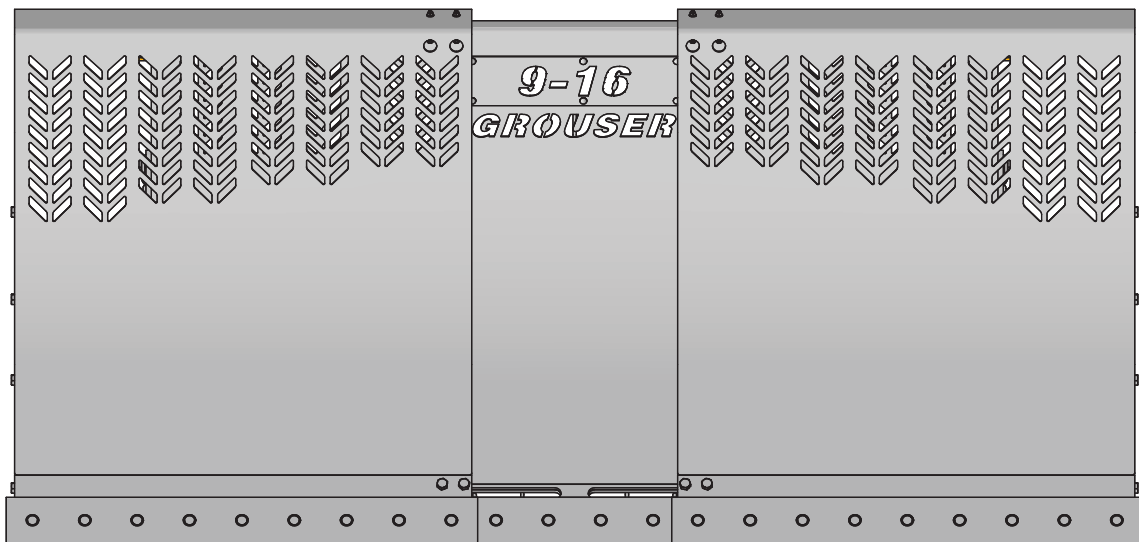




9-16 - AG 240

Owner's Manual & Parts Book



Grouser Products

755 2nd Ave NW - West Fargo, ND 58078

Phone: 1-800-747-6182

Fax: 1-701-282-8131

E-mail: grouser@grouser.com

Website: www.grouser.com

Purchase Date
Serial Number
Model Number
Tractor Model
Dealer

Description	Page
Welcome To The Owner_____	2
Safety Precautions, Torque Specifications & Pre-Installation _____	3
Decals_____	4
Maintenance & Lubrication_____	5
Lift System_____	6
Quick Attach System _____	7
Tractor Side Hydraulics _____	8-9
Connecting and Disconnecting _____	11
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Hydraulic Angle - Hydraulic Tilt System _____	14-15
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Thank you for your recent purchase of a Grouser 9-16 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 9-16 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 toll-free number, 800-747-6182, or send us an e-mail at info@grouser.com. You can expect us to respond to your e-mail in a timely manner.

HAHT	Hydraulic Angle - Hydraulic Tilt
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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 9-16 Dozer:

1. The 9-16 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 9-16 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 9-16 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 9-16:

1. Thoroughly clean the 9-16 Dozer before storage. Use paint where necessary to prevent rust.
2. Check the 9-16 Dozer for worn or damaged parts. Install new parts as required.
3. Lubricate all pins and joints.

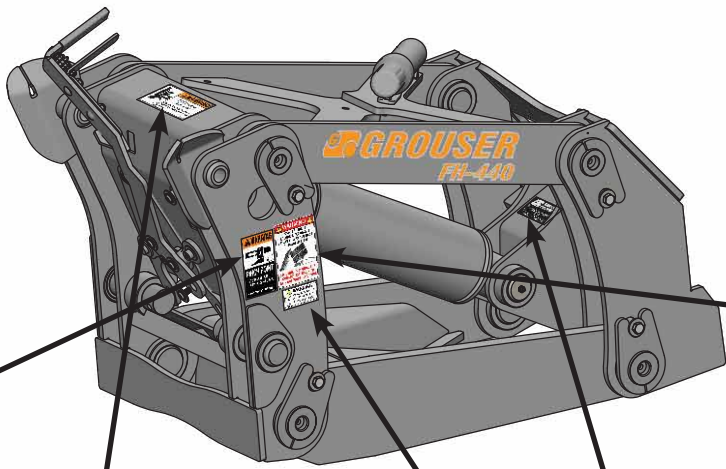
Tighten all bolts to the values listed below unless otherwise noted. Refer to the parts lists for proper length and grade of the bolts.

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

Unstrap and remove any boxes of hardware from the undercarriage. If any components are missing, call Grouser.

Install undercarriage per the tractor specific mounting instructions.



WARNING

PINCH POINT
AVOID INJURY FROM FRAME PIVOT AND STOPS.
• Keep hands and feet away.

27-9503

PN: 27-9503
Left and Right Side

WARNING
Cancer and Reproductive Harm
For more information go to www.P65Warnings.ca.gov

27-40962

PN: 27-40962

WARNING

INSURE THERE IS ADEQUATE CLEARANCE BETWEEN TIRES AND BACK OF BLADE SYSTEM

SEE OWNER'S MANUAL FOR CORRECT EXTENSION TO GAIN ADEQUATE CLEARANCE

27-40425

PN: 27-40425
See Page 11 for Extension

WARNING

PINCH AREA
Keep away
Failure to comply could result in death or serious injury.

27-2409

PN: 27-2409

GROUSER PRODUCTS

755 2nd Ave NW-West Fargo, ND 58078
600-747-5182/701-282-7710
1020XXXX

This product may be protected by one or more of the following patents, and trademarks:
6431288 6422322 2227998 2227996
6827155 6907841 6858229 7131502

STOP

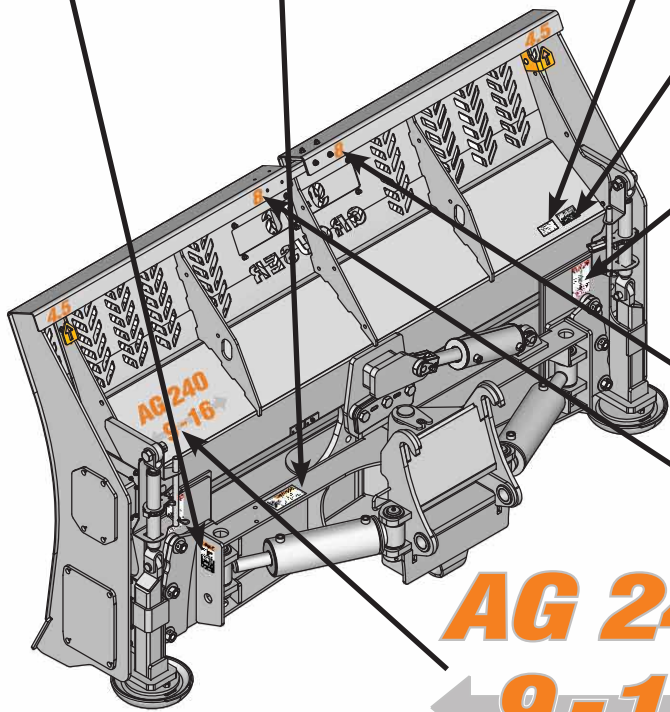
PROPER RATCHET STORAGE

Ratchet Handle Must Be Secured Between The Ratchet Keeper And The Handle When Not in Use
FAILURE TO FOLLOW MAY RESULT IN DAMAGE

Parts May Vary Slightly In Appearance From Your Product

27-40917

PN: 27-40917



8
PN: 27-40970-R

4.5
PN: 27-40970-L

4.5

8

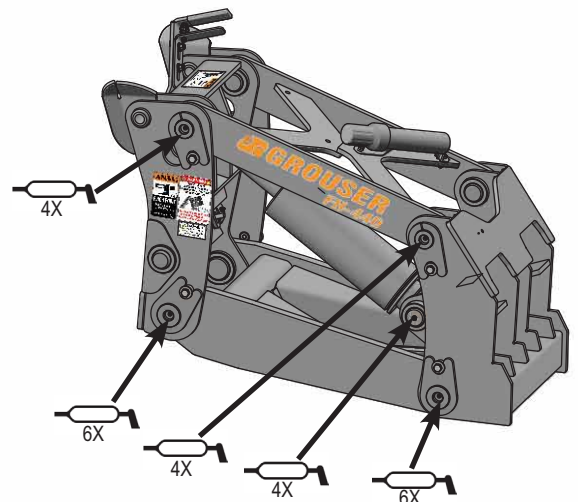
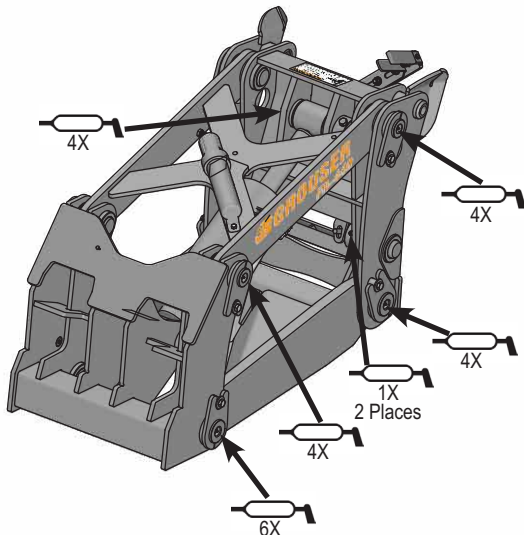
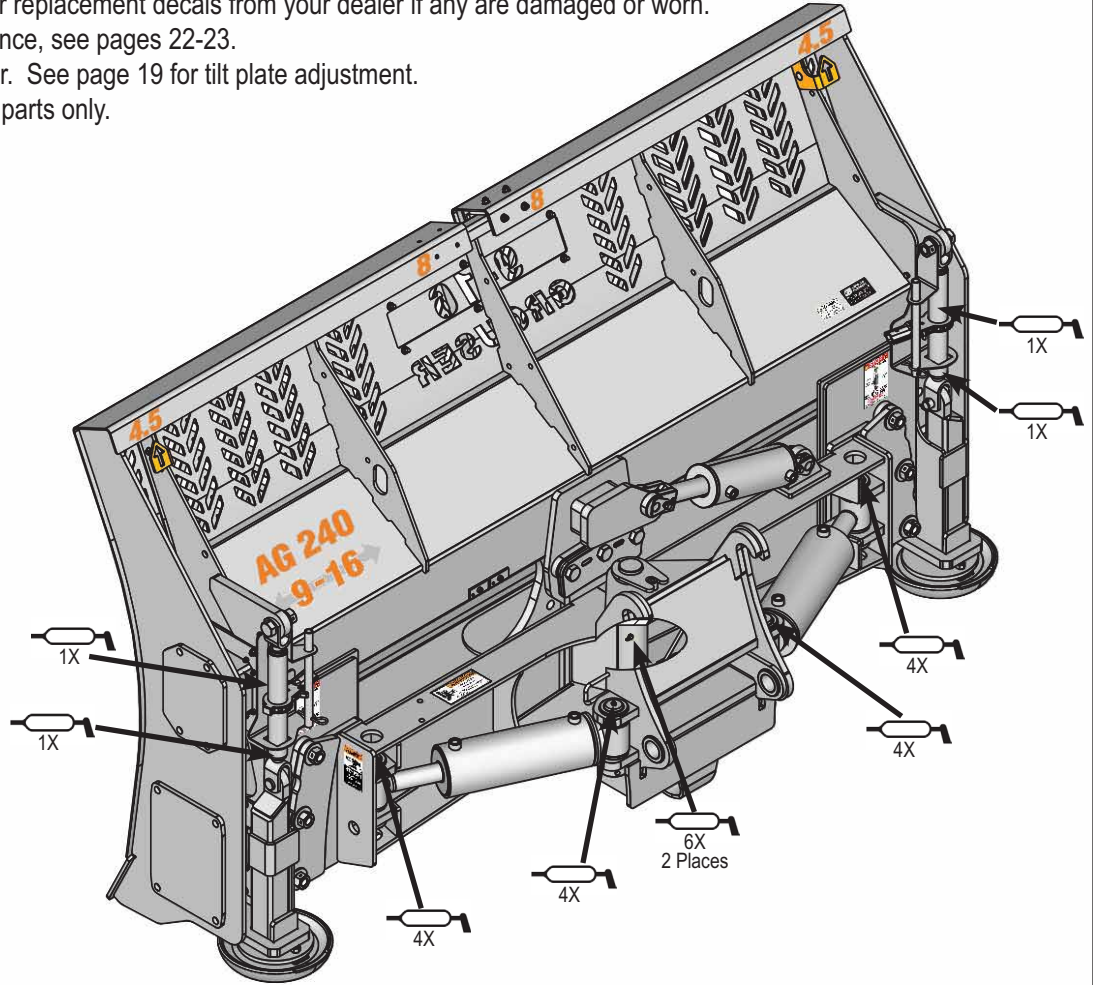
AG 240

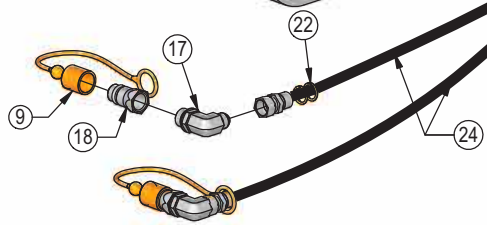
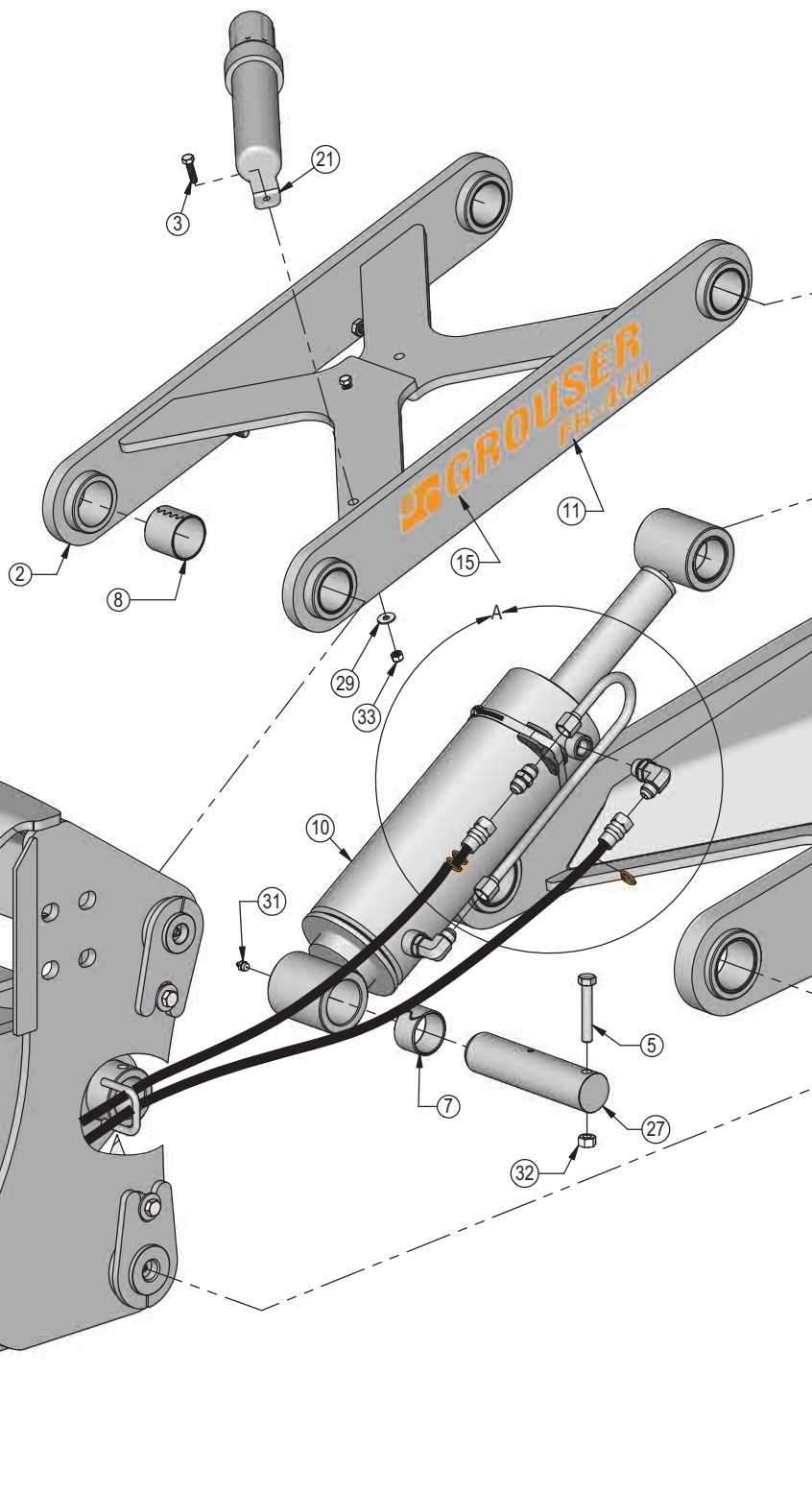
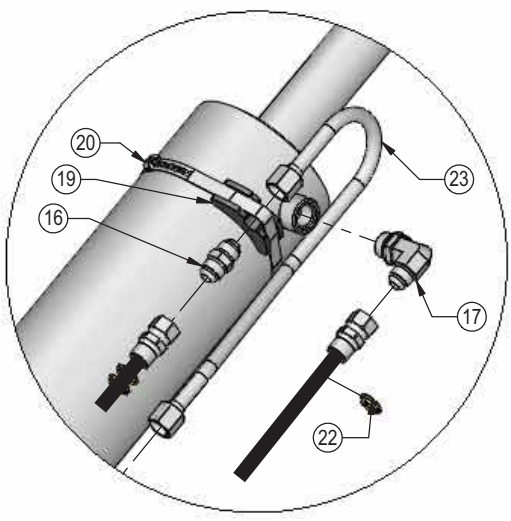
9-16

PN: 27-40969

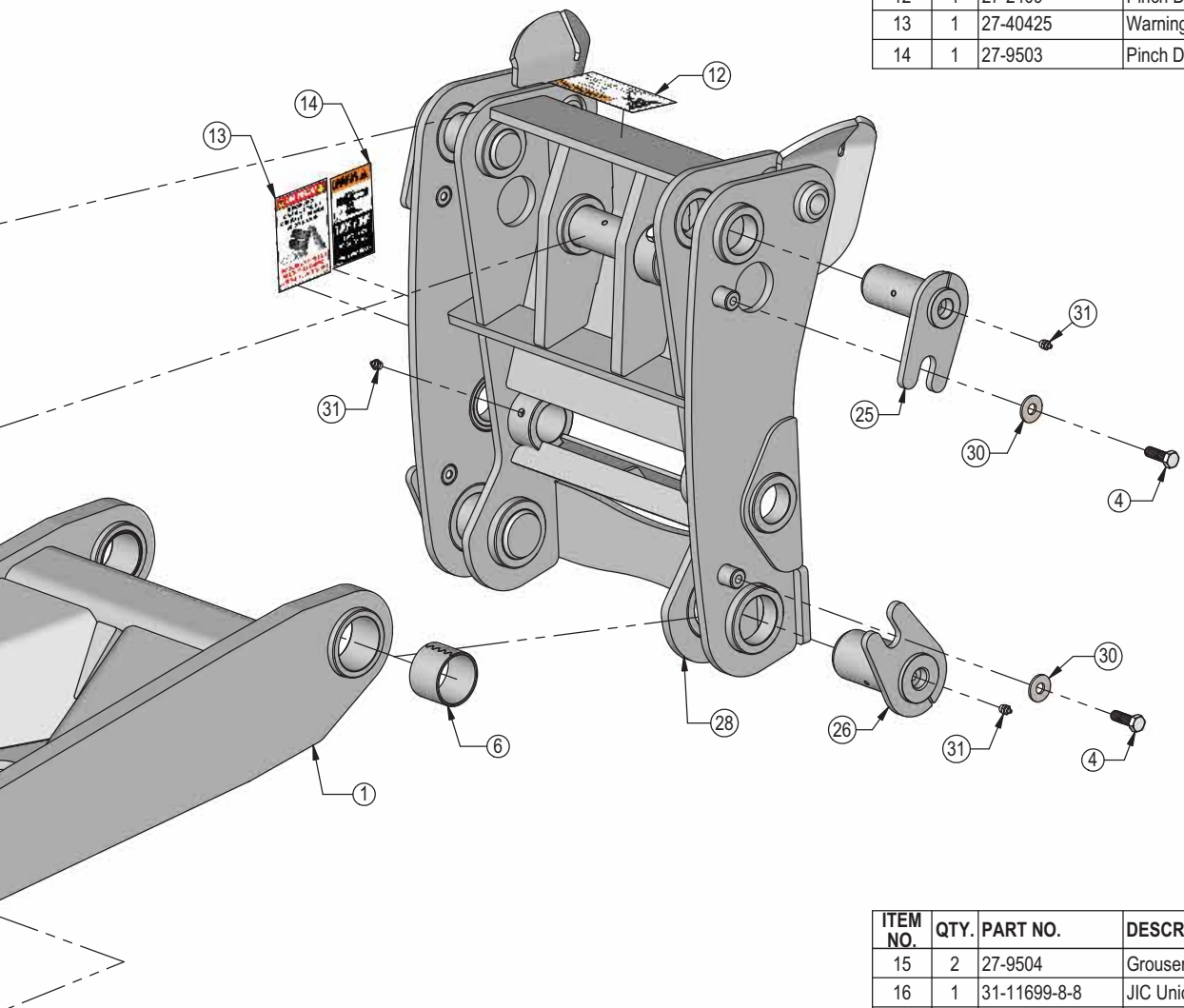
Due to the harsh environment this equipment operates in, the following tasks should be performed every 10 hours or less.

- 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 9-16 Dozer. For cutting edge information, see pages 12-13 and 21 .
- Check hydraulic cylinders and hoses for damage or leaks. For replacement parts, see hydraulic pages 6-7, 9-10 and 14-17.
- 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 19 for tilt plate adjustment.
- Replace parts with original parts only.





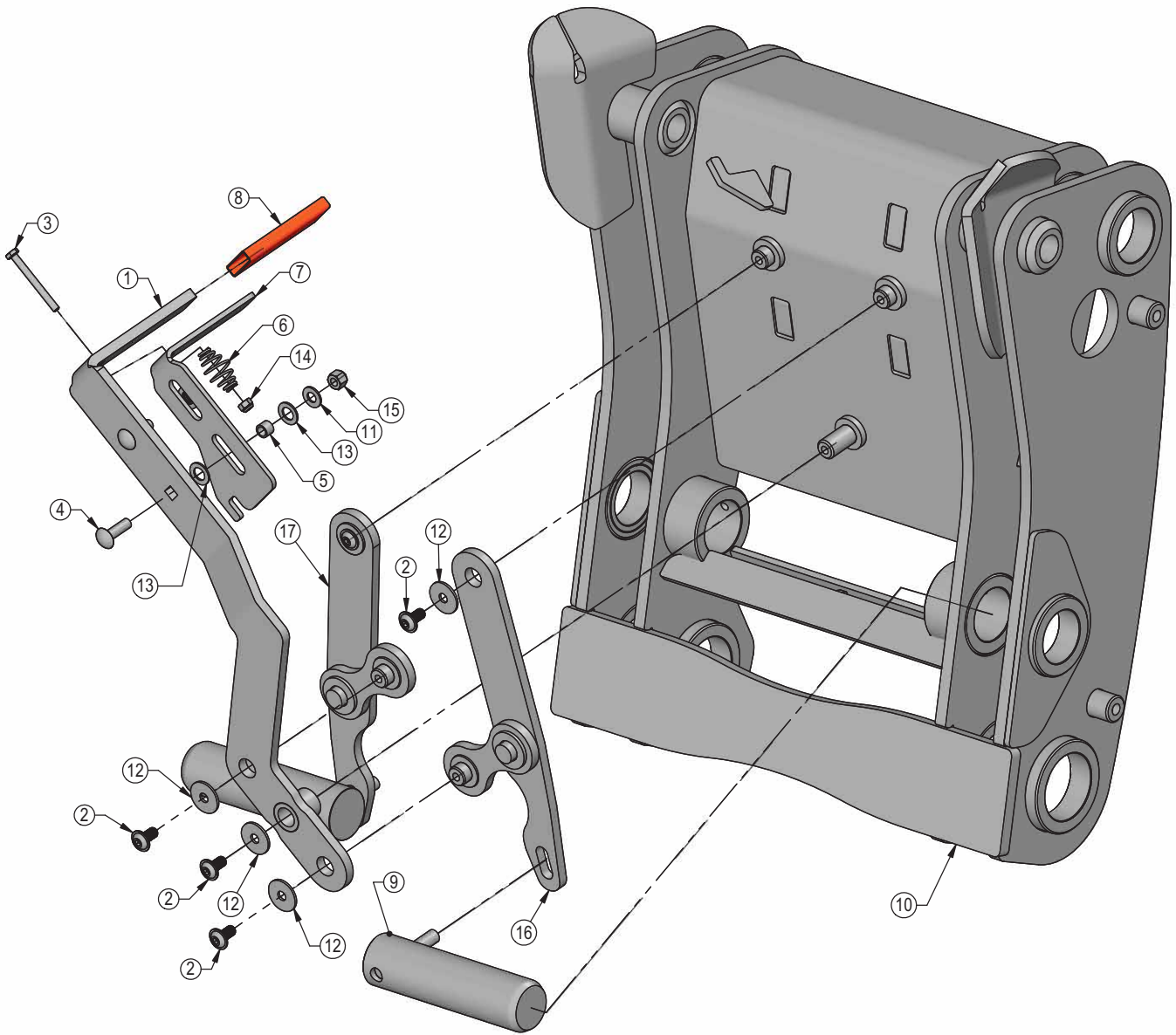
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	11-19000	Lower Arm
2	1	11-19010	Top Arm
3	2	16-20035	5/16" x 1-1/4" Hex Bolt Gr 5 NC
4	8	16-20125	1/2" x 1-1/4" Hex Bolt Gr. 5 NC
5	2	16-20424	1/2" x 3" Hex Bolt Gr 8 NC
6	4	19-16328	2.75 x 2.50 x 2.00 Spring Bushing
7	4	19-40419	2.25 x 2.00 x 1.38 Spring Bushing
8	4	19-7954	2.25 x 2.00 x 2.00 Spring Bushing
9	2	25-3457	Pioneer Dust Cap Lift (Orange)
10	1	26-34748	5 x 12 Hydraulic Cylinder
11	2	27-17263	FH-440 Decal
12	1	27-2409	Pinch Decal (Hand)
13	1	27-40425	Warning Decal - Torque Arm
14	1	27-9503	Pinch Decal (Foot)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
15	2	27-9504	Grouser Horizontal Decal
16	1	31-11699-8-8	JIC Union
17	4	31-34051	Straight Thread Elbow 90° JIC x O-Ring
18	2	31-34322	Tappet Quick Coupler Male
19	1	34-12932	Cylinder Saddle
20	1	34-12933	Hose Clamp (worm drive - 5.0)
21	1	34-14961	Manual Canister Small
22	6	34-18888-OR	-12 Orange - Spiral Band
23	1	35-17260	Tube Assembly
24	2	35-17721-280-1	280" x 1/2" -8JIC/-8JIC Hose W/ 36" Cordura
25	4	43-16385	Top Pin Assy.
26	4	43-16390	Bottom Pin
27	2	43-18405	Cylinder Pin
28	1	45-18300	Quick Attach
29	2	57-20741	5/16" Flat Washer
30	8	57-20794	1/2" Fender Washer
31	12	58-9369	Straight 1/8" NPT Grease Zerk
32	2	70-20604	1/2" Hex Center Lock Nut Gr 2 NC
33	2	70-20611	5/16" Nyloc Hex Nut Gr 5 NC

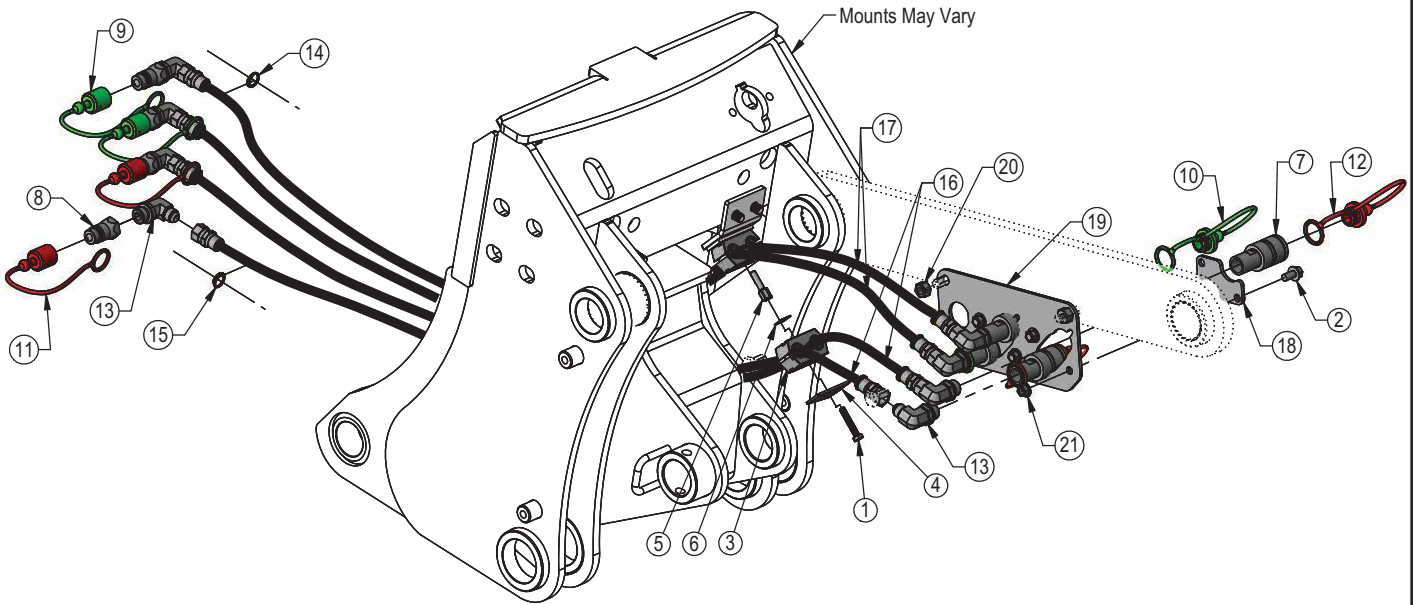
NOTE: When ordering cylinder seal kits, the part number on the cylinder is needed. The number is stamped on the base end of the cylinder opposite of the hydraulic ports.

No. On Cylinder	Part No.	Description
26-34748	49-12272	Seal Kit 5 x 12 - Nitrided Rod

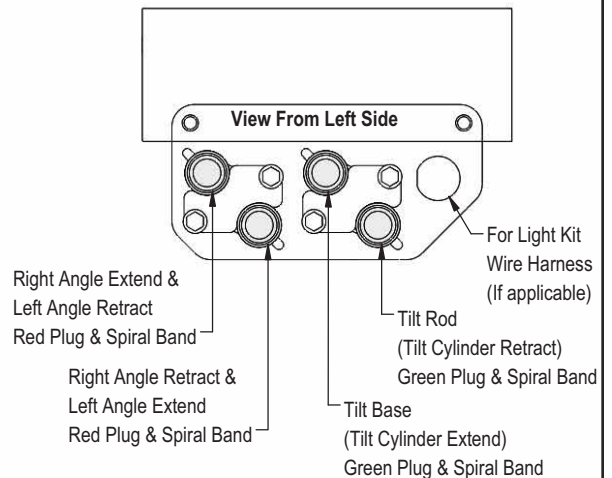


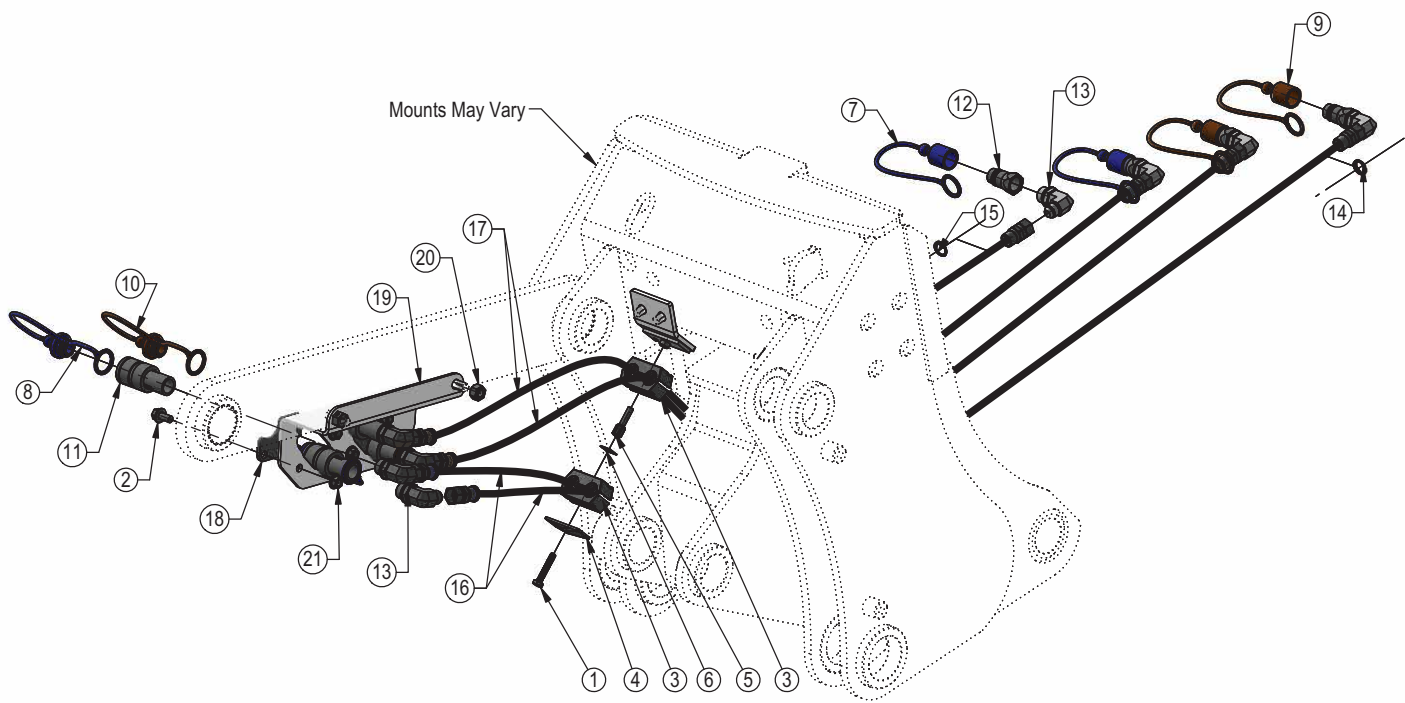
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	11-16918	Pin Pulling Arm Assembly
2	5	16-17266	3/8" x 3/4" Flange Button Socket Cap Bolt
3	1	16-20011	1/4" x 2-3/4" Hex Bolt Gr 5 NC
4	2	16-21065	3/8" x 1-1/4" Carriage Bolt Gr 5 NC
5	2	19-40440	.378" ID x .503" OD x .375" Spacer
6	1	34-17799	Latch Spring
7	1	39-16931	Latch
8	1	39-3072	Rubber Handle
9	2	43-40765	Pin, 240 Lock Out
10	1	45-18300	Quick Attach
11	2	57-20742	3/8" Flat Washer
12	5	57-20792	3/8" Fender Washer
13	4	57-40408	3/8" Flat Nylon Washer
14	1	70-20610	1/4" Nyloc Hex Nut Gr 5 NC
15	2	70-20612	3/8" Nyloc Hex Nut Gr 5 NC
16	1	75-16915-L	Link Assembly
17	1	75-16915-R	Link Assembly

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, Green = Tilt, Red = Angle, Blue = Left Blade Cylinder, and Brown = Right Blade Cylinder.



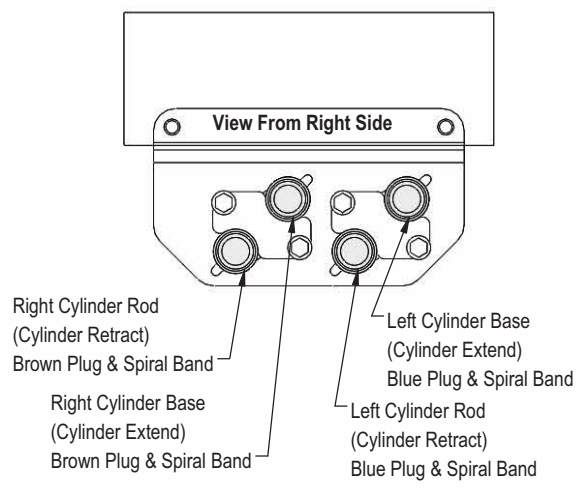
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	16-20038	5/16" x 2" Hex Bolt Gr 5 NC
2	4	16-35C612	3/8" x 3/4" Flange Bolt
3	2	18-19311-03-P-087	Hose Clamp
4	1	18-19312-03	Twin Cover Plate
5	1	18-19313-03	Twin Stacking Bolt
6	1	18-19314-02	Twin Safety Plate
7	4	25-34321	Female Pioneer Coupler
8	4	25-34342	Tappet Quick Coupler Male
9	2	25-3453	Pioneer Dust Cap Tilt (Green)
10	2	25-3454	Pioneer Dust Plug Tilt (Green)
11	2	25-3455	Pioneer Dust Cap Angle (Red)
12	2	25-3456	Pioneer Dust Plug Angle (Red)
13	8	31-34051	Straight Thread Elbow 90° JIC x O-Ring
14	6	34-18888-GR	-12 Green - Spiral Band
15	6	34-18888-RD	-12 Red - Spiral Band
16	2	35-17722-280-1	280" (23.3') x 3/8" -8JIC/-8JIC Hose w/21" Cordura & Collar
17	2	35-17722-280-2	280" (23.3') x 3/8" -8JIC/-8JIC Hose w/18.5" Cordura & Collar
18	2	44-14734R1	Plate, Retainer
19	1	44-16236	Plate, Coupler Mount
20	2	70-20604	1/2" Hex Center Lock Nut Gr 2 NC
21	4	70-20622	3/8" Flange Hex Nut Gr 5 NC





Some Parts Hidden For Clarity

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	16-20038	5/16" x 2" Hex Bolt Gr 5 NC
2	4	16-35C612	3/8" x 3/4" Flange Bolt
3	2	18-19311-03-P-087	Hose Clamp
4	1	18-19312-03	Twin Cover Plate
5	1	18-19313-03	Twin Stacking Bolt
6	1	18-19314-02	Twin Safety Plate
7	2	25-3403	Pioneer Dust Cap Slider (Blue) (Left Cylinder)
8	2	25-3404	Pioneer Dust Plug Slider (Blue) (Left Cylinder)
9	2	25-3405	Pioneer Dust Cap Slider (Brown) (Right Cylinder)
10	2	25-3406	Pioneer Dust Plug Slider (Brown) (Right Cylinder)
11	4	25-34321	Female Pioneer Coupler
12	4	25-34342	Tappet Quick Coupler Male
13	8	31-34051	Straight Thread Elbow 90° JIC x O-Ring
14	6	34-18888-BR	-12 Brown - Spiral Band
15	6	34-18888-BL	-12 Blue - Spiral Band
16	2	35-17722-280-1	280" (23.3') x 3/8" -8JIC/-8JIC Hose w/21" Cordura & Collar
17	2	35-17722-280-2	280" (23.3') x 3/8" -8JIC/-8JIC Hose w/18.5" Cordura & Collar
18	2	44-14734R1	Plate, Retainer
19	1	44-41789	Plate, 9-16 Coupler Mount
20	2	70-20604	1/2" Hex Center Lock Nut Gr 2 NC
21	4	70-20622	3/8" Flange Hex Nut Gr 5 NC



To Connect:

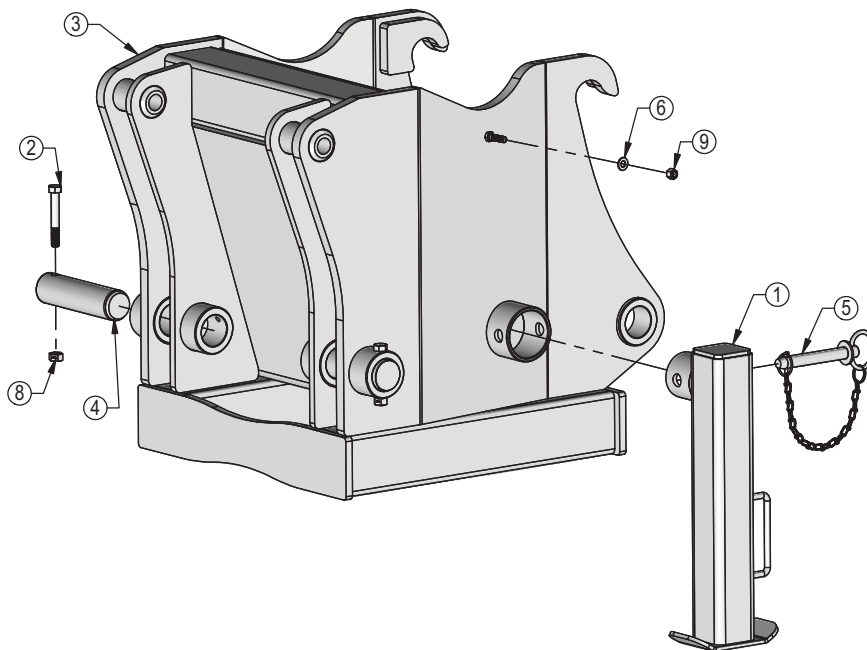
Note: If necessary, use a spotter to help center the blade on the lift system.

1. If necessary, lift the locking latch and push the quick attach lock handle on the left side of the lift system to open the quick attach system. Refer to Page #8 for further clarification on the quick attach system.
2. Drive the tractor forward slowly until the top edge of the male quick attach is under the top angle frame hook.
3. Raise the lift system until the male quick attach engages the angle frame hooks. If both sides don't fully engage, reposition. Continue to raise the lift system until the blade is off the ground and the angle frame is against the front of the male quick attach.
4. Shut off the tractor engine and set the parking brake.
5. Pull the quick attach lock handle to engage the quick attach pins and lift the locking latch to lock the handle in place.
6. Clean and connect hydraulic couplers on the top arm. Refer to Pages 9-10 for proper locations of all functions.

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. Unhook all of the hydraulic couplers on the top arms.
4. Lift the locking latch and push the quick attach lock handle to disengage the quick attach pins.
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.

NOTE: The FH-440 to 240 Extension is an option for tractors equipped with duals. The extension provides extra clearance between the tires and the blade system. Tire size and row spacing will determine if your system will require the extension.



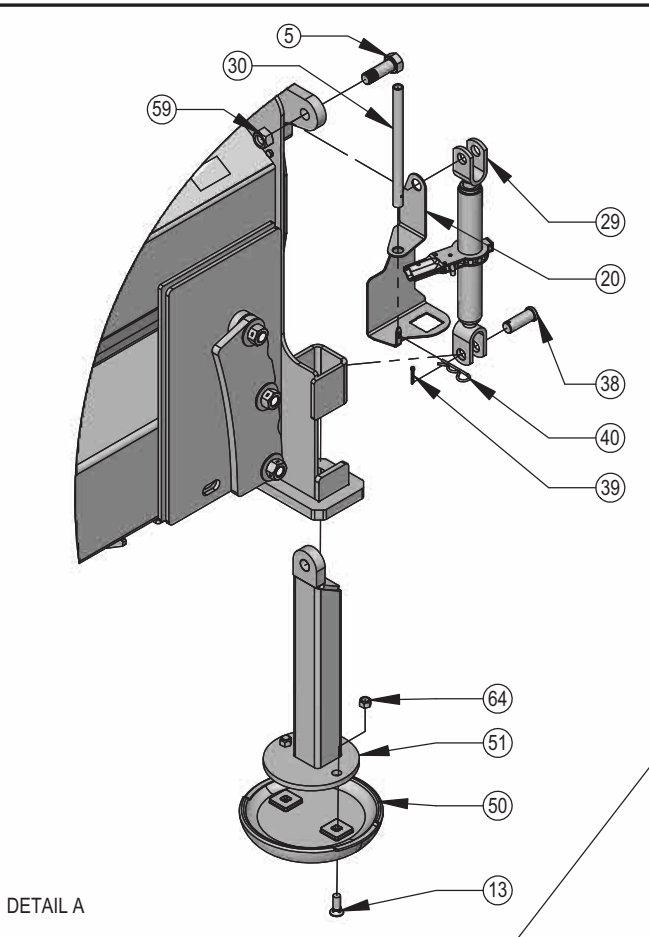
FH-440 to 240 Extension Assy - 40285-A

Item	Qty.	Part No.	Description
1	1	11-40610R1	440 To 240 Adapter Stand
2	2	16-20134	1/2" X 3 1/2" Hex Bolt Gr 5 NC
3	1	32-40285R2	FH-440 to 240 Extension
4	2	43-16923R2	240 Pin Pulling Pin
5	1	43-40453	Hitch Pin with Chain
6	1	57-20742	3/8" Flat Washer
7*	1	59-16899-6	Heavy Duty Velcro Strap
8	2	70-20604	1/2" Hex Center Lock Nut Gr 2 NC
9	1	70-20612	3/8" Nyloc Nut

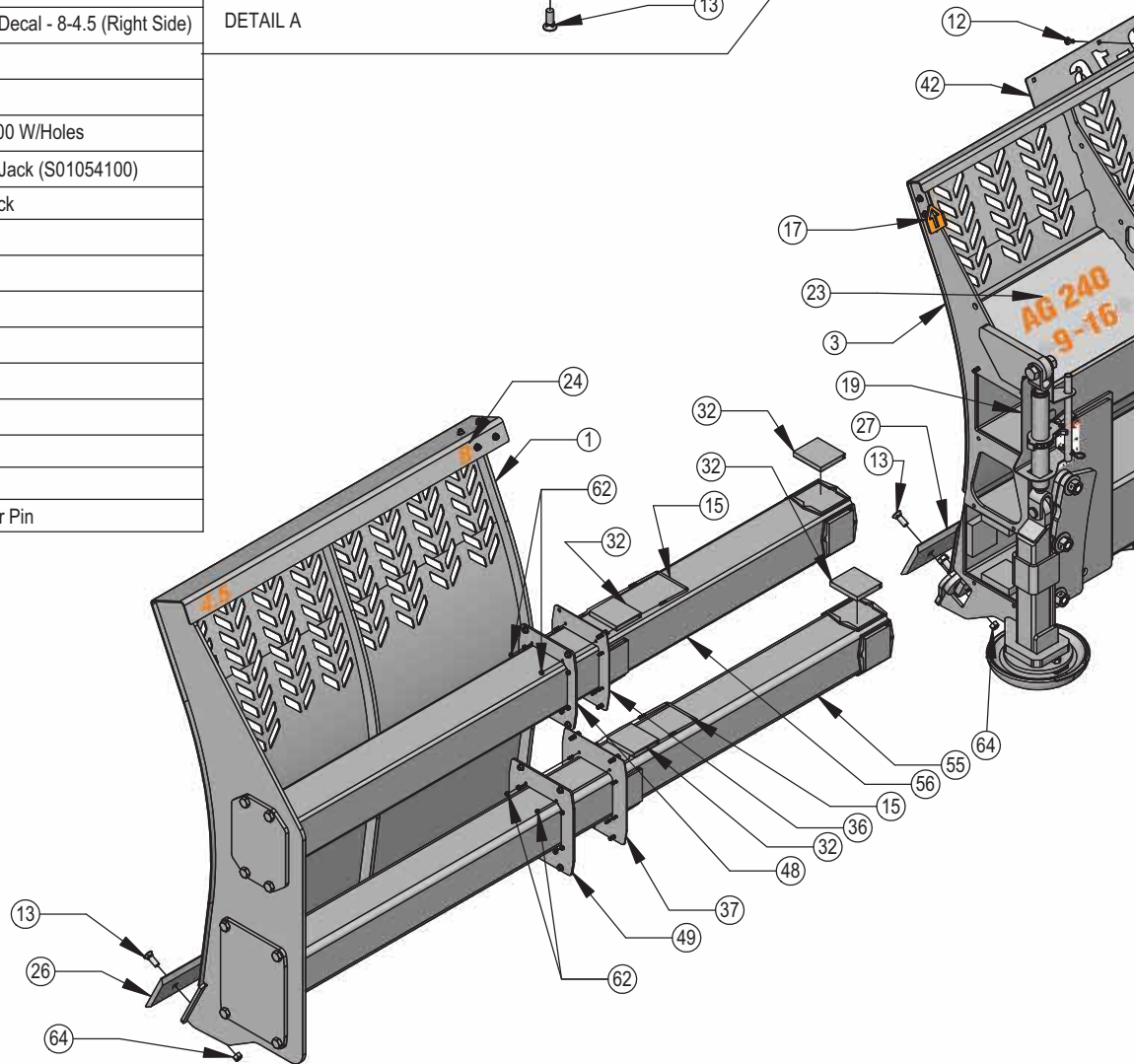
* Parts Not Shown

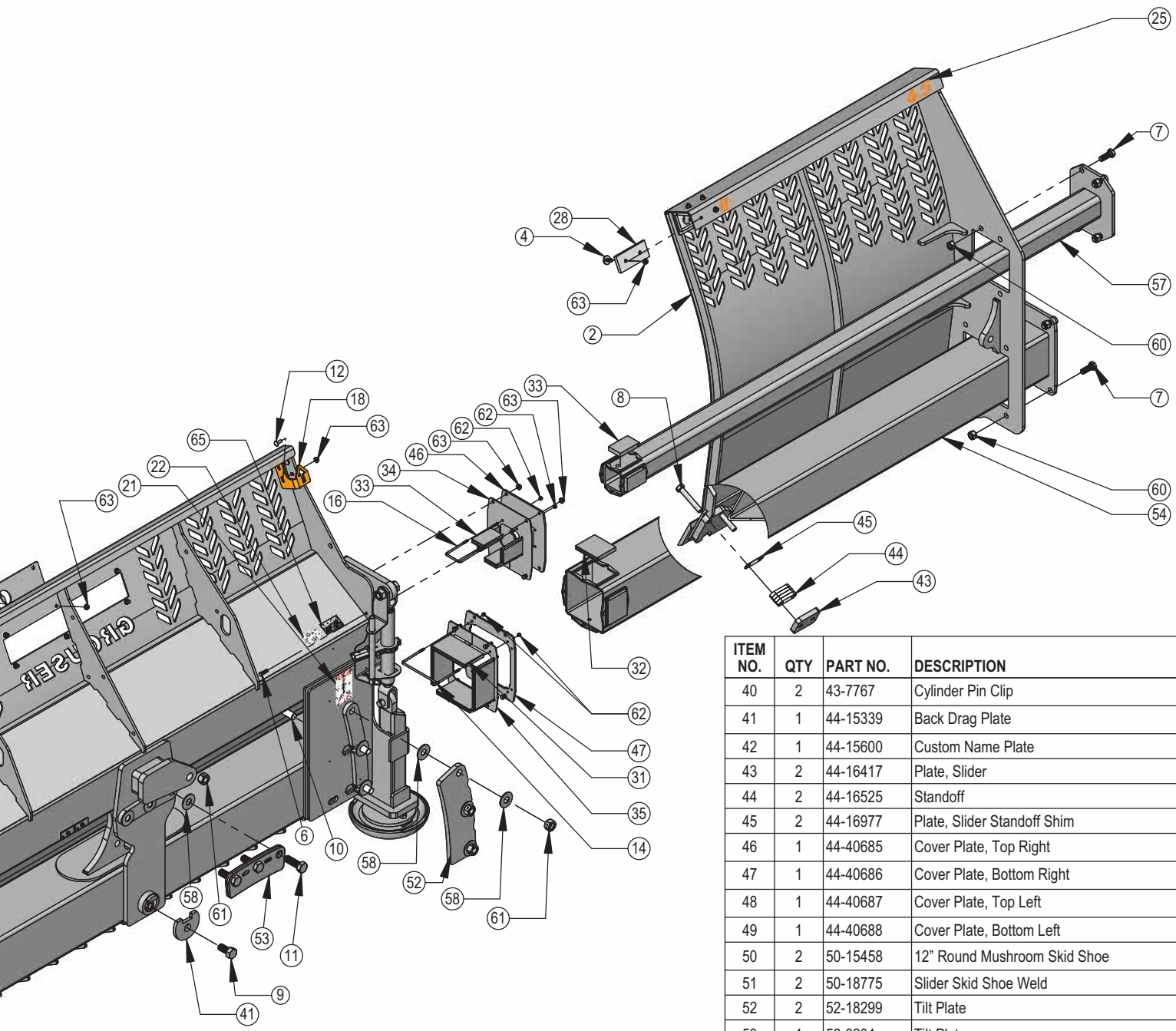
9-16 Blade

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	15-40645-L	9-16 Slider End Weld
2	1	15-40645-R	9-16 Slider End Weld
3	1	15-41780	Blade Weld
4	12	16-16305	3/8" x 1.25" Flanged Elevator Bolt
5	2	16-18945	1" x 3" Hex Bolt Gr 5 NC - Short Thread
6	14	16-20065	3/8" X 1-1/4" Hex Cap Screw Gr 5 NC
7	16	16-20508	3/4" X 2" Hex Bolt Gr.8 NC
8	4	16-20517	3/4" X 4-1/2" Hex Bolt Gr. 8 NC
9	1	16-20558	1" x 2" Hex Bolt Gr. 8 NC
10	6	16-20561	1" x 2-3/4" Hex Bolt Gr.8 NC
11	3	16-20562	1" x 3" Hex Bolt Gr.8 NC
12	10	16-21064	3/8" x 1" Carriage Bolt Gr 5 NC
13	38	16-21666	5/8" x 1-3/4" Plow Bolt Gr 5 NC
14	4	16-40693	.25 x 7.25 x 4.50 Square U-Bolt
15	8	16-40694	.25 x 4.75 x 4.50 Square U-Bolt
16	4	16-40695	.25 x 2.75 x 4.50 Square U-Bolt
17	1	18-16304-L	Bracket, Left Location
18	1	18-16304-R	Bracket, Right Location
19	1	18-19994-L	Ratchet Keeper
20	1	18-19994-R	Ratchet Keeper
21	2	27-40917	Ratchet Holder Storage Decal
22	1	27-40962	Warning Prop 65 Decal
23	1	27-40969	Ag 240 9-16 Decal
24	1	27-40970-L	Ag 240 9-16 Width Decal - 4.5-8 (Left Side)
25	1	27-40970-R	Ag 240 9-16 Width Decal - 8-4.5 (Right Side)
26	2	29-7950-54	Cutting Edge
27	1	29-7950-8	Cutting Edge
28	6	34-16158	Bearing, 2.625 x 6.00 W/Holes
29	2	34-17565	Skid Shoe Ratchet Jack (S01054100)
30	2	34-17567	Handle, Ratchet Jack
31	4	34-40656	7 x 4 Bearing
32	20	34-40657	4.5 x 4 Bearing
33	8	34-40658	2.5 x 4 Bearing
34	1	34-40689	Seal, Top Right
35	1	34-40690	Seal, Bottom Right
36	1	34-40691	Seal, Top Left
37	1	34-40692	Seal, Bottom Left
38	2	43-18463	1" x 2.75" Pin
39	2	43-18943	3/16" x 1-1/2" Cotter Pin



DETAIL A





ITEM NO.	QTY	PART NO.	DESCRIPTION
40	2	43-7767	Cylinder Pin Clip
41	1	44-15339	Back Drag Plate
42	1	44-15600	Custom Name Plate
43	2	44-16417	Plate, Slider
44	2	44-16525	Standoff
45	2	44-16977	Plate, Slider Standoff Shim
46	1	44-40685	Cover Plate, Top Right
47	1	44-40686	Cover Plate, Bottom Right
48	1	44-40687	Cover Plate, Top Left
49	1	44-40688	Cover Plate, Bottom Left
50	2	50-15458	12" Round Mushroom Skid Shoe
51	2	50-18775	Slider Skid Shoe Weld
52	2	52-18299	Tilt Plate
53	1	52-8204	Tilt Plate
54	1	53-40655	8x8 Tube Weld
55	1	53-40660	6 x 6 Tube Weld
56	1	53-40665	6x6 Tube Weld, Top
57	1	53-40670	4x4 Tube Weld
58	15	57-20749	1" Flat Washer
59	2	70-20999	1" Hex Top Lock Nut Gr 8 NC (YZ)
60	16	70-20607	3/4" Center Lock Hex Nut Gr 2 NC
61	9	70-20609	1" Hex Center Lock Nut Gr.2 NC
62	32	70-20610	1/4" Nyloc Hex Nut Gr 5 NC
63	38	70-20622	3/8" Flange Hex Nut Gr 5 NC
64	38	70-20646	5/8" Hex Top Lock Nut Gr 5 NC
65	1	NA	Grouser Dozer Metal Serial Tag

DWG. NO.: 41780-A

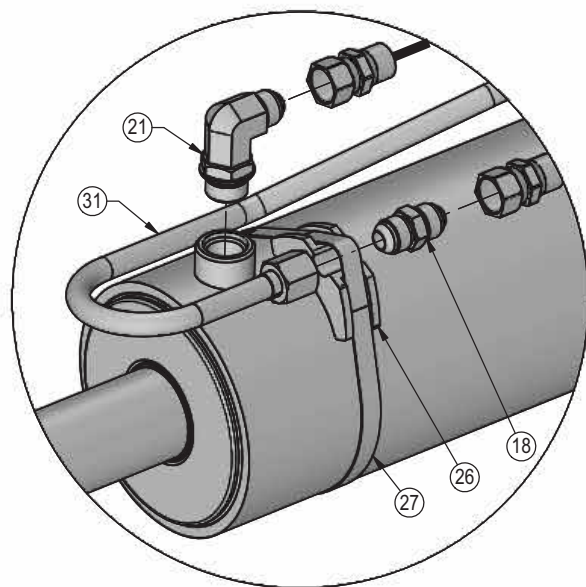
Hydraulic Angle-Hydraulic Tilt System

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	16-20040	5/16" x 2-1/2" Hex Bolt Gr 5 NC
2	1	16-20125	1/2" x 1-1/4" Hex Bolt Gr 5 NC
3	4	16-20134	1/2" x 3-1/2" Hex Bolt Gr. 5 NC
4	1	16-20558	1" x 2" Hex Bolt Gr. 8 NC
5	2	16-35C612	3/8" x 3/4" Flange Bolt
6	1	18-19311-02-P-062	Hose Clamp
7	1	18-19312-02	Twin Cover Plate
8	2	19-13577	NR Pin Spacer Clevis End
9	8	19-40419	2.25 x 2.00 x 1.38 Spring Bushing
10	1	19-7774	1" x 1" Spring Bushing
11	4	25-34342	Tappet Quick Coupler Male
12	2	25-3453	Pioneer Dust Cap Tilt (Green)
13	2	25-3455	Pioneer Dust Cap Angle (Red)
14	1	26-34711	4 x 8 Hydraulic Cylinder
15	2	26-34748	5 x 12 Hydraulic Cylinder
15A	2	26-34759	5 x 10 Hydraulic Cylinder
16	1	27-2409	Pinch Decal (Hand)
17	2	27-9503	Pinch Decal (Foot)
18	2	31-11699-8-8	JIC Union
19	2	31-34040	Straight JIC x O-Ring
20	2	31-34050	Straight Thread Elbow 90° JIC x O-Ring
21	8	31-34051	Straight Thread Elbow 90° JIC x O-Ring
22	2	31-34070	Run Tee JIC x O-Ring
23	2	31-34100	Swivel Nut Elbow 90° JIC
24	1	32-18410	Angle Frame
25	1	32-41775	Tilt Frame
26	2	34-12932	Cylinder Saddle
27	2	34-12933	Hose Clamp (worm drive - 5.0)
28	1	34-13807	Spring
29	6	34-18888-GR	-12 Green - Spiral Band
30	9	34-18888-RD	-12 Red - Spiral Band
31	2	35-17260	Tube Assembly
31A	2	35-40780	Tube Assembly
32	2	35-31010	25" x 3/8" -8JIC/-8JIC Hose w/ Cordura
33	2	35-31013	28" x 3/8" -8JIC/-8JIC Hose w/ Cordura
34	2	35-31022	39" x 3/8" -8JIC/-8JIC Hose w/ Cordura
35	1	35-31030	63" x 3/8" -8JIC/-8JIC Hose w/ Cordura
36	1	35-31032	69" x 3/8" -8JIC/-8JIC Hose w/ Cordura
37	2	43-13580	Pin Weld
38	1	43-16925	Angle Pin Assembly
39	4	43-18405	Cylinder Pin
40	1	56-7772	Valve
41	1	57-16928	Plate, Washer
42	1	57-20794	1/2" Fender Washer
43	4	58-9369	Straight 1/8" NPT Grease Zerk
44	2	58-9371	45° 1/8" NPT Grease Fitting
45	4	70-20604	1/2" Hex Center Lock Nut Gr 2 NC

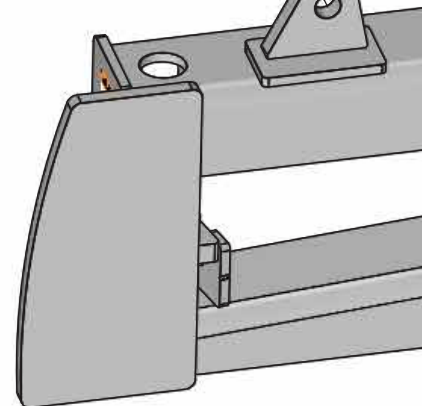
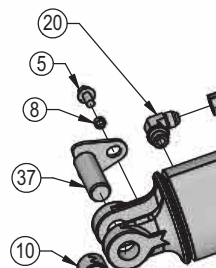
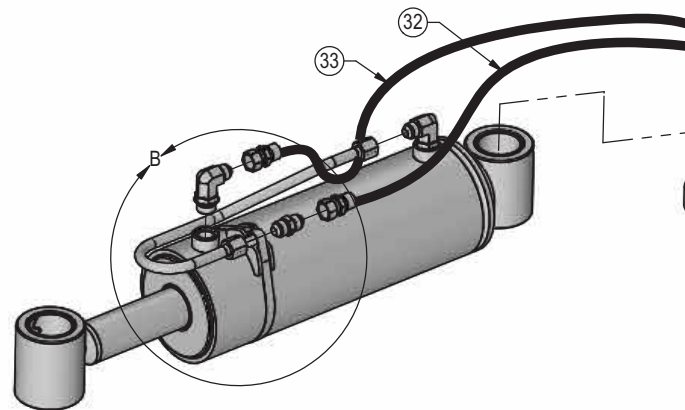
Item A: For Challenger 1000 and Fendt 1000 Tractors

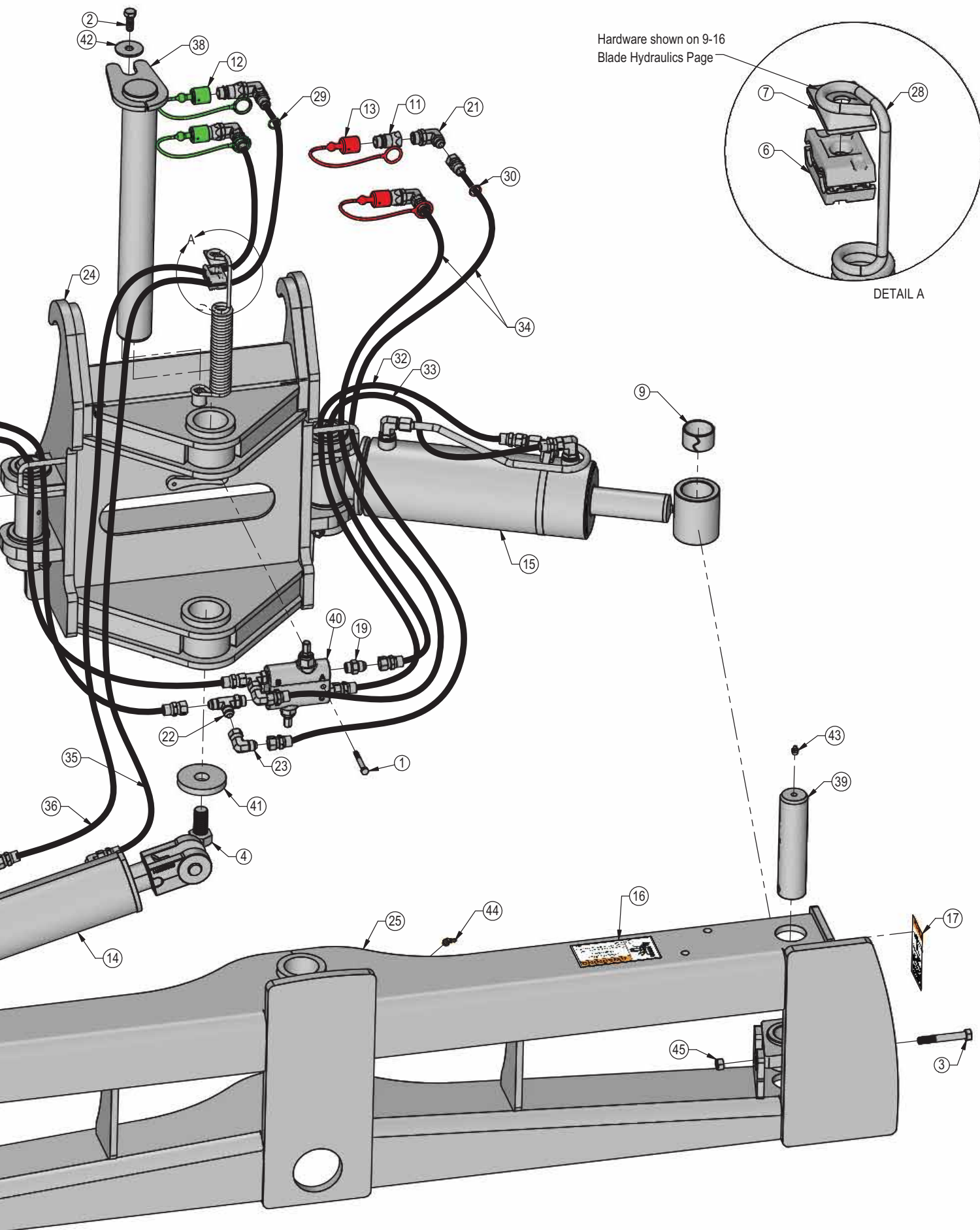
NOTE: When ordering cylinder seal kits, the part number on the cylinder is needed. The number is stamped on the base end of the cylinder opposite of the hydraulic ports.

No. On Cylinder	Part No.	Description
26-34748 or 26-34759	49-12272	Seal Kit 5 x 12 Nitrided Rod
26-34711	49-12271	Seal Kit 4 x 8 Nitrided Rod, Clevis Ends



DETAIL B



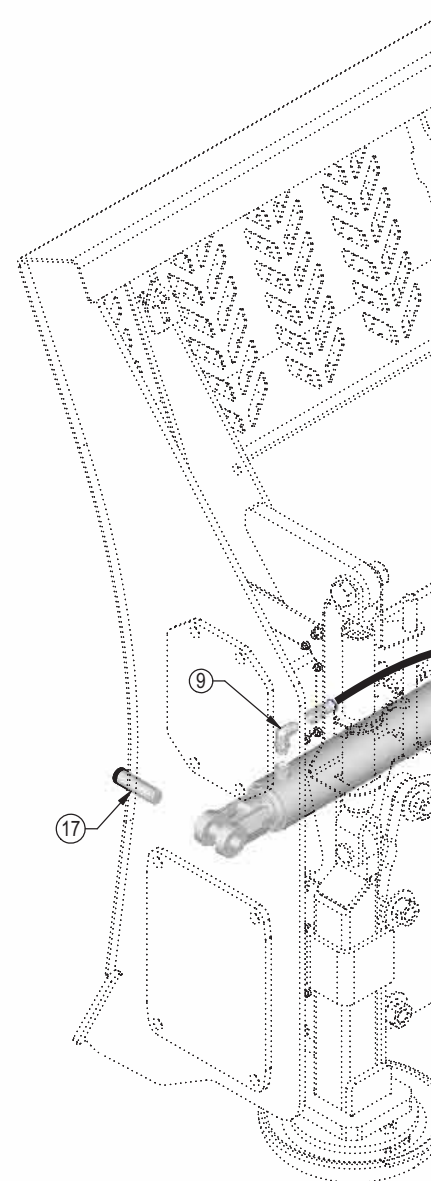


Hardware shown on 9-16
Blade Hydraulics Page

DETAIL A

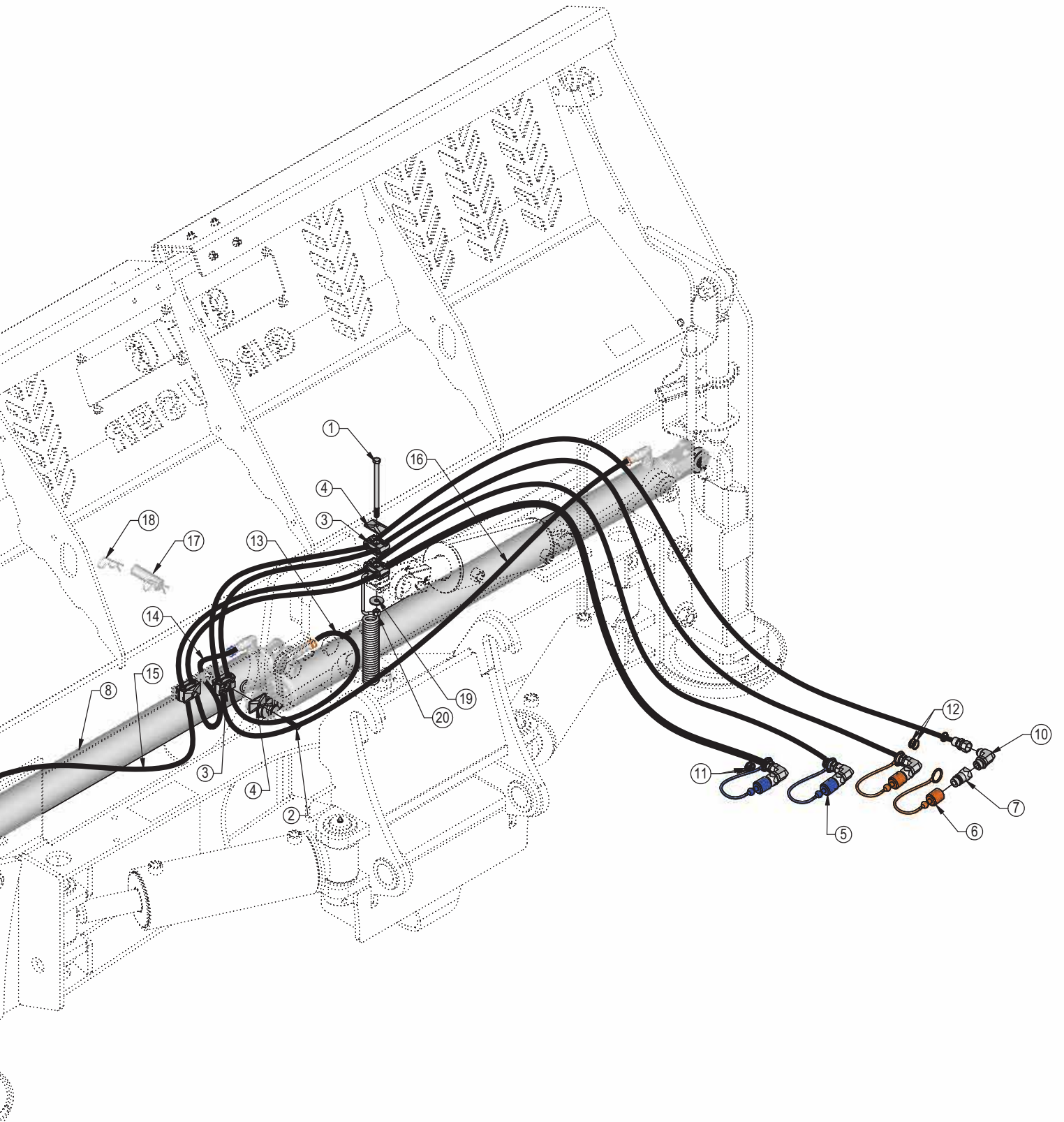
9-16 Blade Hydraulics

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	16-20080	3/8 x 6 Gr.5 Hex Bolt
2	2	16-20037	5/16" x 2" Hex Bolt Gr 5 NC
3	4	18-19311-02-P-062	Hose Clamp
4	3	18-19312-02	Twin Cover Plate
5	2	25-3403	Pioneer Dust Cap Slider (Blue) (Left Cylinder)
6	2	25-3405	Pioneer Dust Cap Slider (Brown) (Right Cylinder)
7	4	25-34342	Tappet Quick Coupler Male
8	2	26-34760	3 x 42 Hydraulic Cylinder
9	4	31-34050	Straight Thread Elbow 90° JIC x O-Ring
10	4	31-34051	Straight Thread Elbow 90° JIC x O-Ring
11	6	34-18888-BL	-12 Blue - Spiral Band
12	6	34-18888-BR	-12 Brown - Spiral Band
13	1	35-40949-1000	100" x 3/8" -8JIC/-8JIC Hose W/Cordura
14	1	35-40949-1050	105" x 3/8" -8JIC/-8JIC Hose W/Cordura
15	1	35-40949-1100	110" x 3/8" -8JIC/-8JIC Hose W/Cordura
16	1	35-40949-1390	139" x 3/8" -8JIC/-8JIC Hose W/Cordura
17	4	43-16306	Cylinder Pin w/ Cotter Pins
18	4	43-7767	Cylinder Pin Clip
19	1	57-20792	3/8" Fender Washer
20	1	70-20612	3/8" Nyloc Hex Nut Gr 5 NC

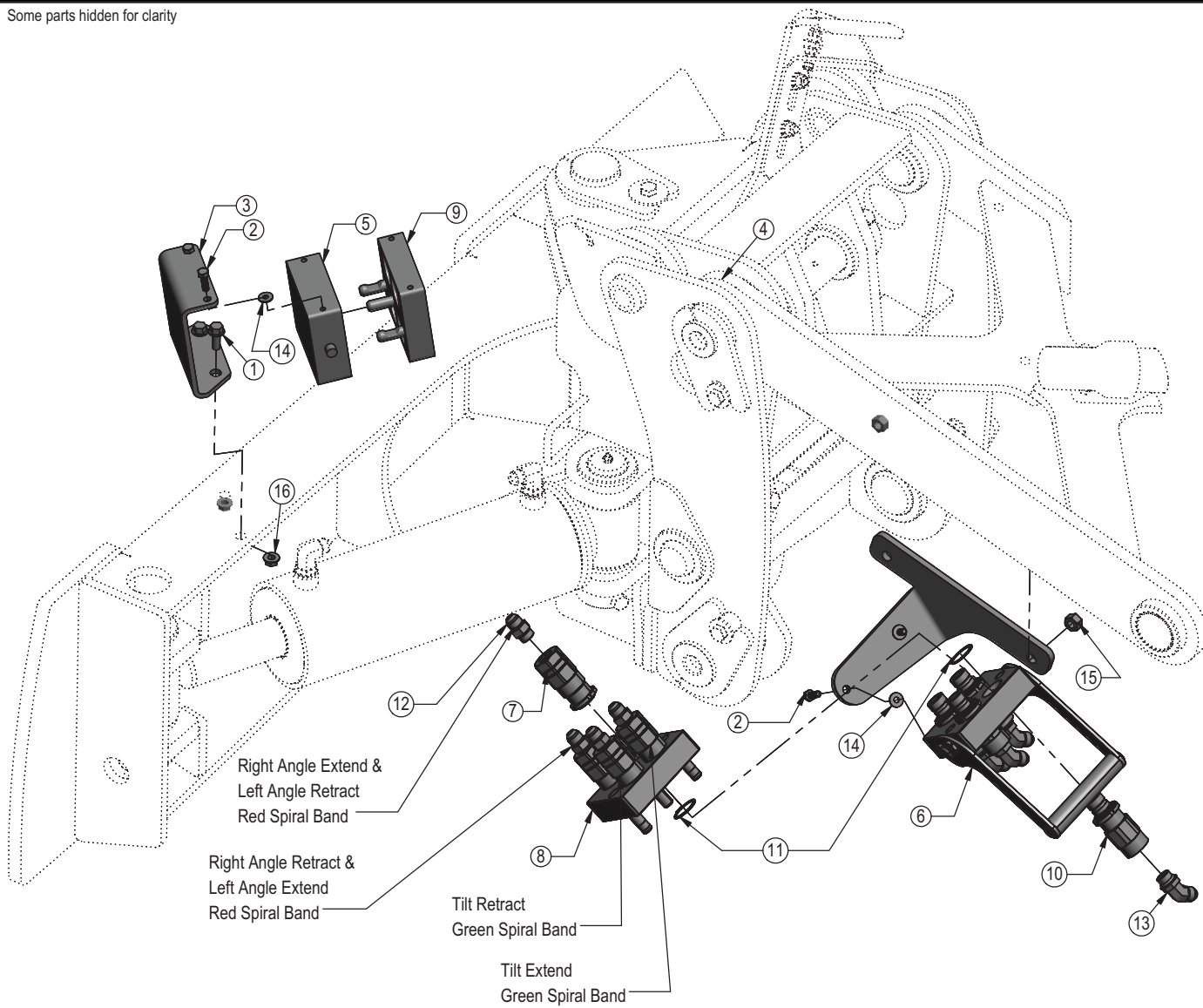


NOTE: When ordering cylinder seal kits, the part number on the cylinder is needed. The number is stamped on the base end of the cylinder opposite of the hydraulic ports.

No. On Cylinder	Part No.	Description
26-34760	49-17797	Seal Kit 3 x 42



Some parts hidden for clarity



Notes:
 1. Follow the multi-coupler maintenance steps for connecting and disconnecting on pages 22-23.
 2. After any maintenance, verify that hoses are in their correct position during reinstallation.

Item No.	Qty.	Part No.	Description
1	2	16-35C616	3/8" x 1" Flanged Bolt
2	4	16-812525	8mm x 1.25mm x 25mm Metric Hex Bolt Gr 10.9
3	1	18-19008	240 Quick Coupler - Parking Station Mount
4	1	18-19011	240 Quick Coupler Mount
5	1	25-18956	Multi-Coupling Plate - 4 Port Parking Station
6	1	25-19864	Multi-Coupling Plate - 4 Port Fixed
7	4	25-19865	Multi-Coupling Plate - Coupler - Female
8	1	25-19866	Multi-Coupling Plate - 4 Port Mobile
9	1	25-19867	Multi-Coupling Plate - 4 Port - Cap
10	4	25-19870	Multi-Coupling Plate - Coupler - Male
11	8	25-40407	Multi-Coupling Plate - Snap Ring
12	4	31-34040	Straight JIC x O-Ring (6400-08-08)
13	4	31-34150	Straight Thread Elbow 45° JIC x O-Ring (6802-8-8)
14	4	57-20740	1/4" Flat Washer
15	2	70-20604	1/2" Hex Center Lock Nut Gr 2 NC
16	2	70-20622	3/8" Flange Hex Nut Gr 5 NC

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.

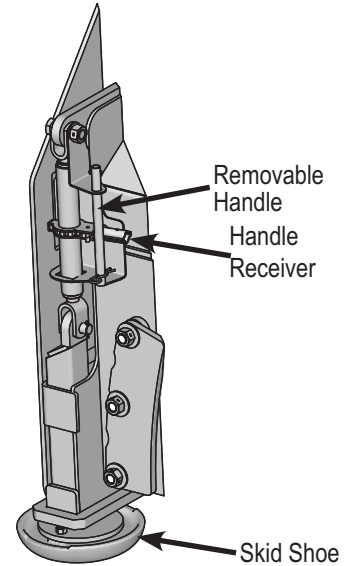


Figure 1

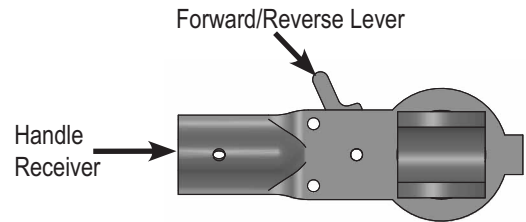


Figure 2

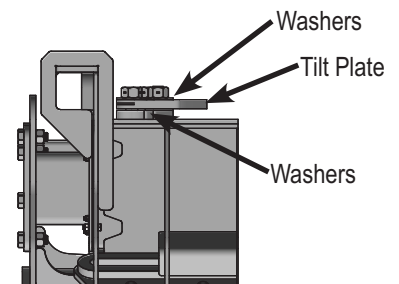
Preferred Method:

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

Non-Preferred Method:

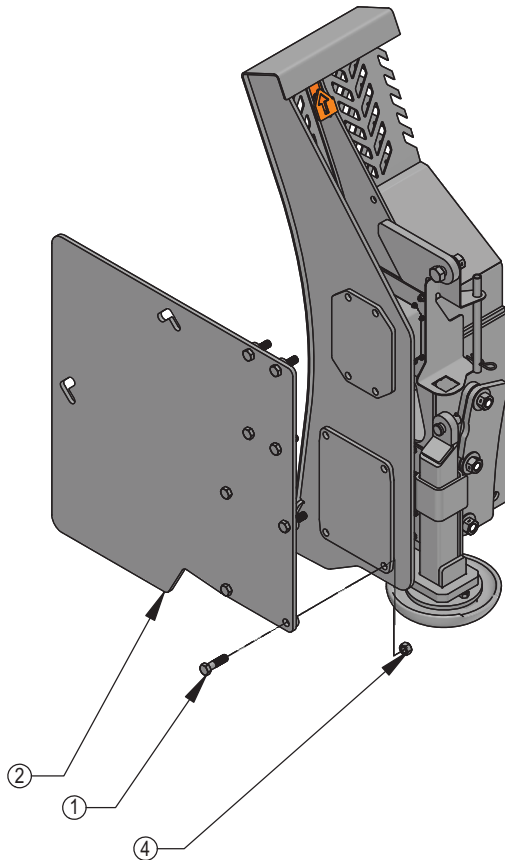
Note: Do not remove all of the bolts at the same time if the blade is not laying face down.

1. The non-preferred blade position for adjusting the tilt plates is the blade in the upright position.
2. Remove the 3 nuts from the right tilt plate.
3. Add or remove washers as needed to adjust tilt-way clearance to 1/16" - 1/8".
4. Reinstall the nuts in the right tilt plate.
5. Follow Steps #2-54 for the left tilt plate and the top tilt plate.
6. Once the tilt-way clearance is set, torque bolts to 640 ft-lbs.

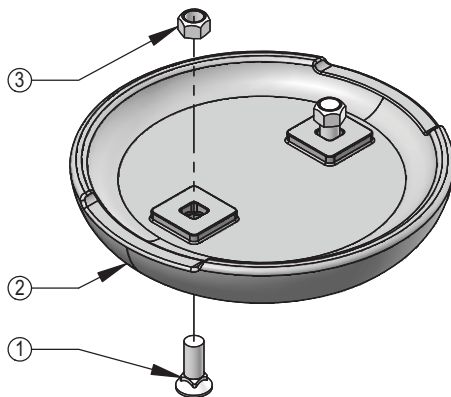


ITEM NO.	41779-K QTY.	PART NO.	DESCRIPTION
1	16	16-20511	3/4" x 2-3/4" Hex Bolt Gr 8 NC
2	1	44-41779-L	9-16 Box End Plate, Left
3*	1	44-41779-R	9-16 Box End Plate, Right
4	16	70-20597	3/4" Hex Nut Gr.8 NC

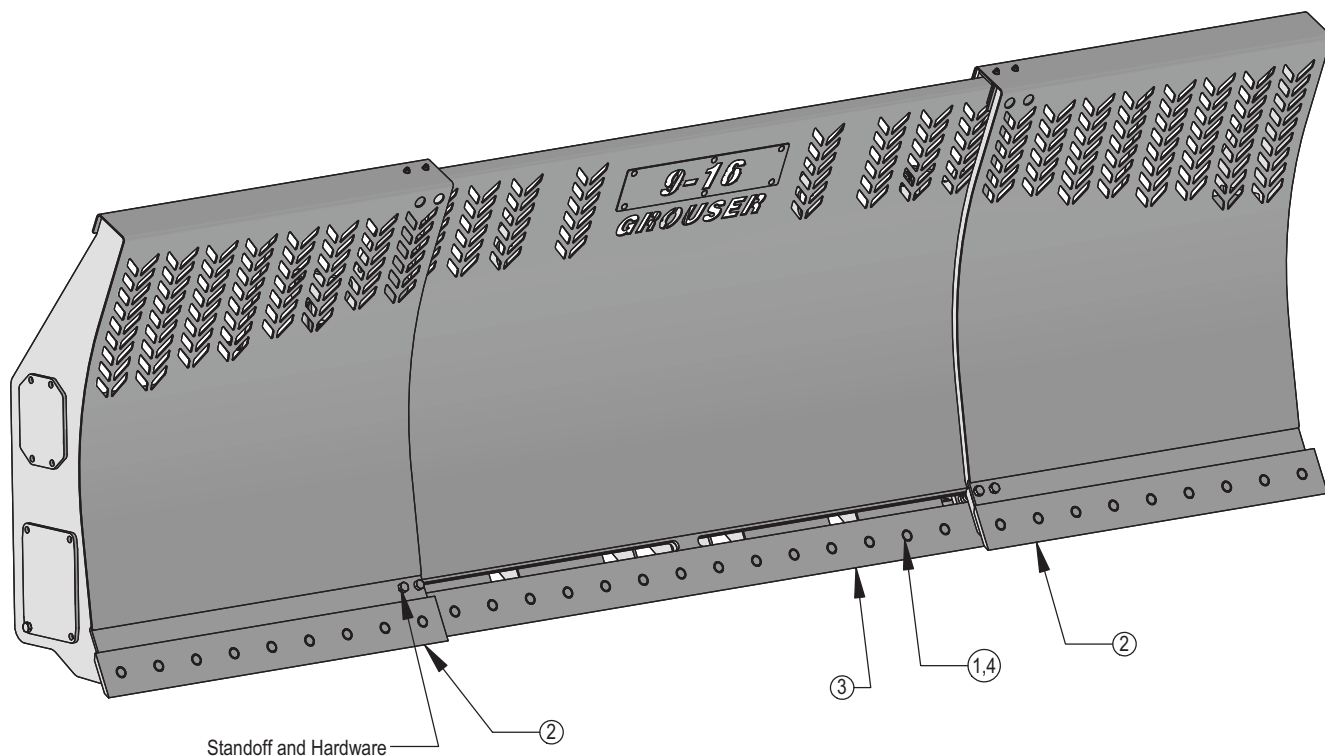
* Part Not Shown



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



1. Lift the blade a comfortable distance off the ground for working on removing the cuttings edges. Block the lift system to prevent the blade from lowering while working on the blade.
2. Extend the ends out to gain access to the nuts.
3. Set parking bracket and shut off the engine.
4. Remove standoffs and hardware to allow the ends to be pulled away from the center blade section to gain access to the last 2 nuts on the blade ends
5. Remove all cutting edge hardware for the center section and both ends.
6. Either turn the cutting edges around, if it's the first time, or replace the cutting edges.
7. Reinstall all cutting edge hardware for the center section first and then reinstall hardware for the ends.
8. Reinstall the standoffs and hardware that were removed in Step #4.

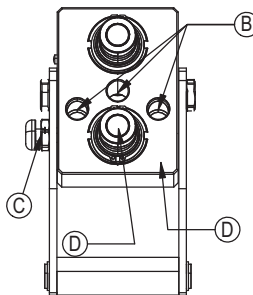


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	34	16-21666	5/8" x 1-3/4" Plow Bolt Gr 5 NC
2	2	29-7950-54	Cutting Edge
3	1	29-7950-8	Cutting Edge
4	34	70-20646	5/8" Hex Top Lock Nut Gr 5 NC

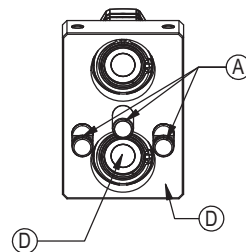
Before Each Use:

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.

Fixed Half



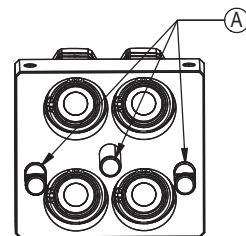
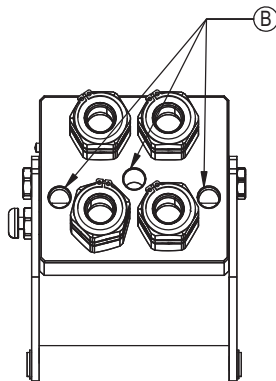
Mobile Half



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.

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.



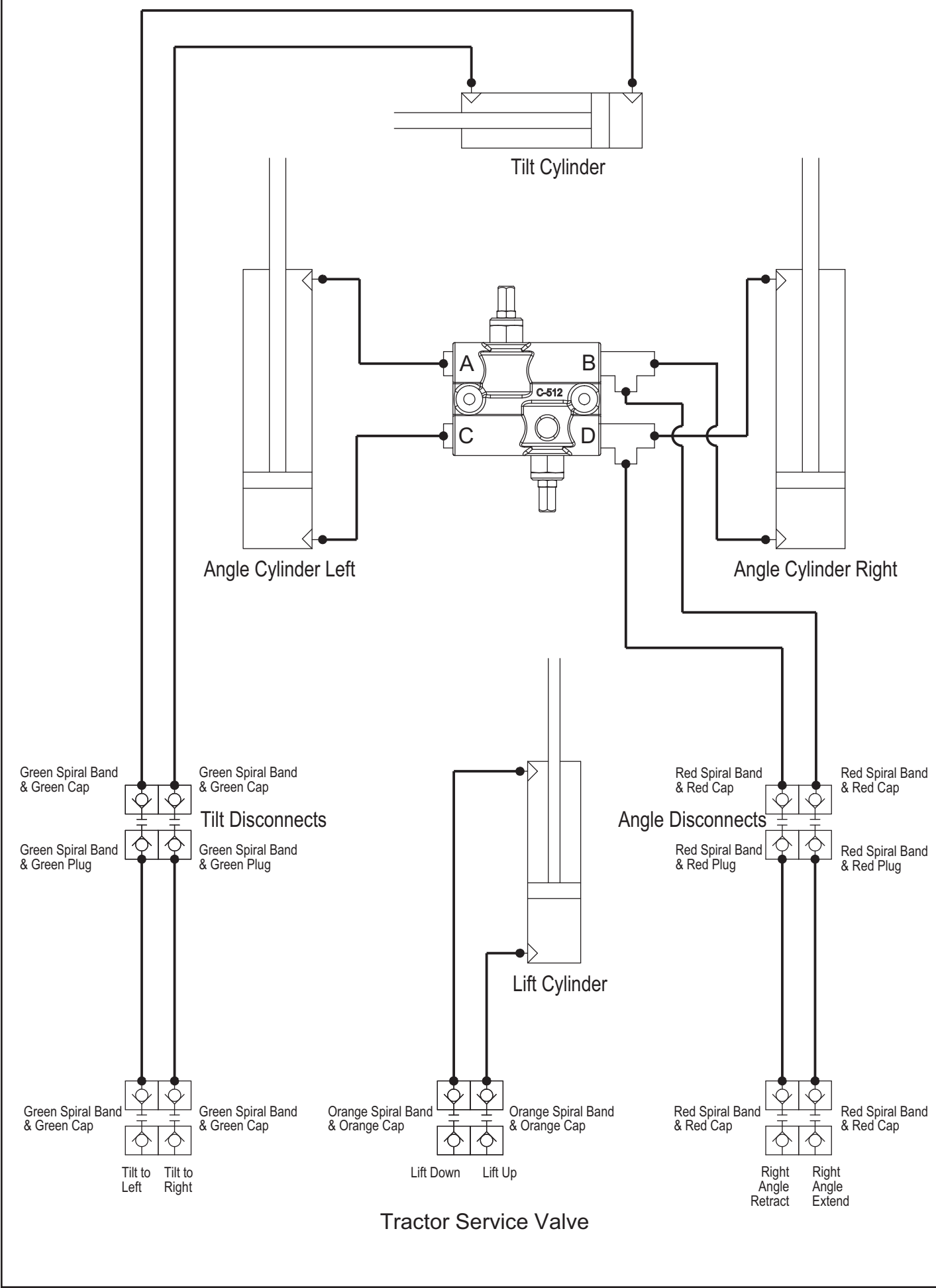
3. Inspect the interior body and bushing surfaces for contamination.

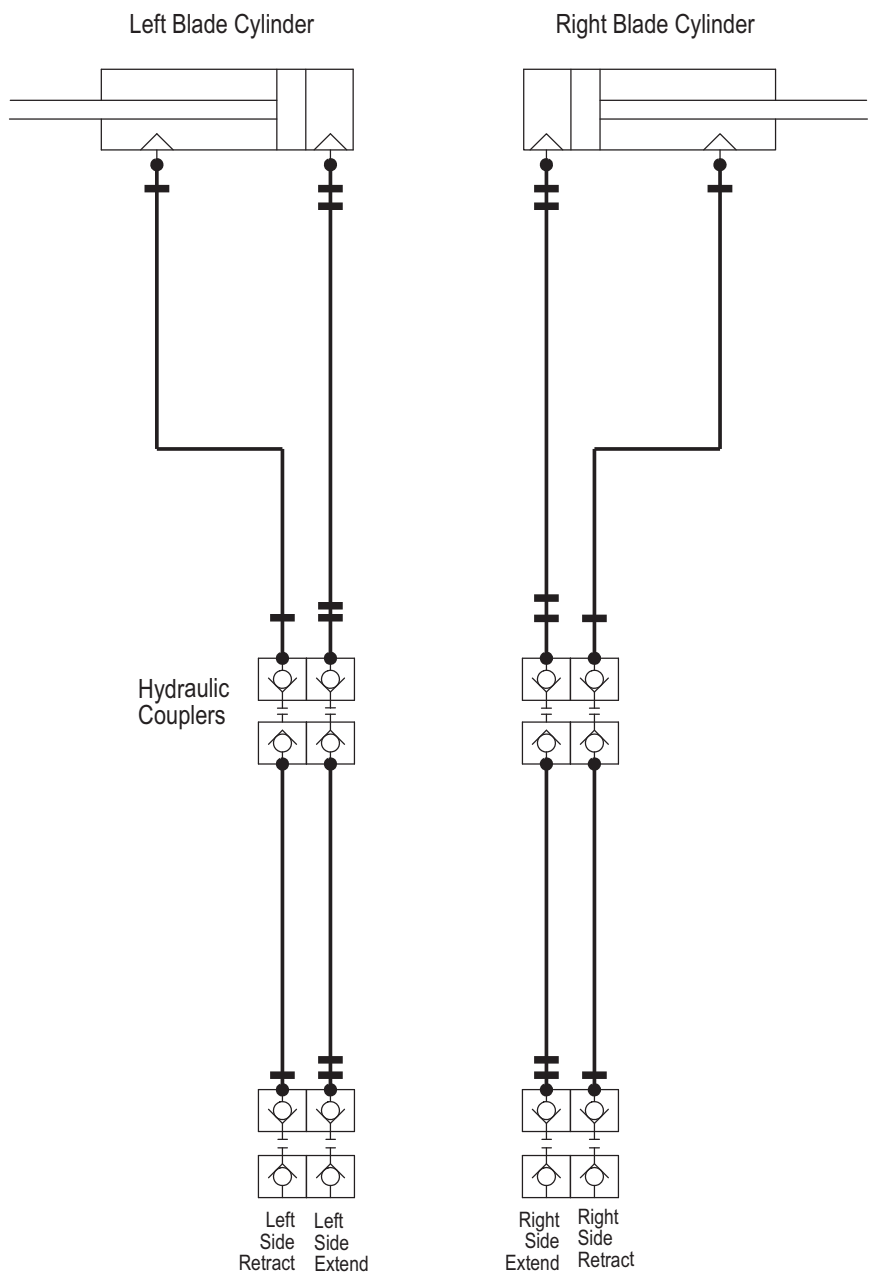


4. In case of contamination, carefully wipe surfaces with a soft cloth, or use compressed air to blow the contamination out.



5. Release the outer ring so that it returns to the flush position.





Contact Us

As always, if you have any questions about your 9-16 Dozer or other products made by Grouser, feel free to contact us.

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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 two years. If such equipment is found to be defective within two years, 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.

