



FH400 Front Hitch

Owner's Manual & Parts Book

Grouser Products

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Purchase Date
Serial Number
Model Number
Tractor Model
Dealer

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Thank you for your recent purchase of a Grouser FH400 Front Hitch. 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 FH400 Front Hitch. 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.

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.
- Inspect all bolts, and tighten any loose bolts to torque specifications on page 3.
- Check hydraulic cylinders and hoses for damage or leaks. For replacement parts, see hydraulic pages 4-6.
- Make sure all non-rotating pins are secured properly.
- Inspect all decals and order replacement decals from your dealer if any are damaged or worn.
- Replace parts with original parts only.

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 FH400 Front Hitch:

1. The FH400 Front Hitch 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 FH400 Front Hitch 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 FH400 Front Hitch:

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 FH400 Front Hitch:

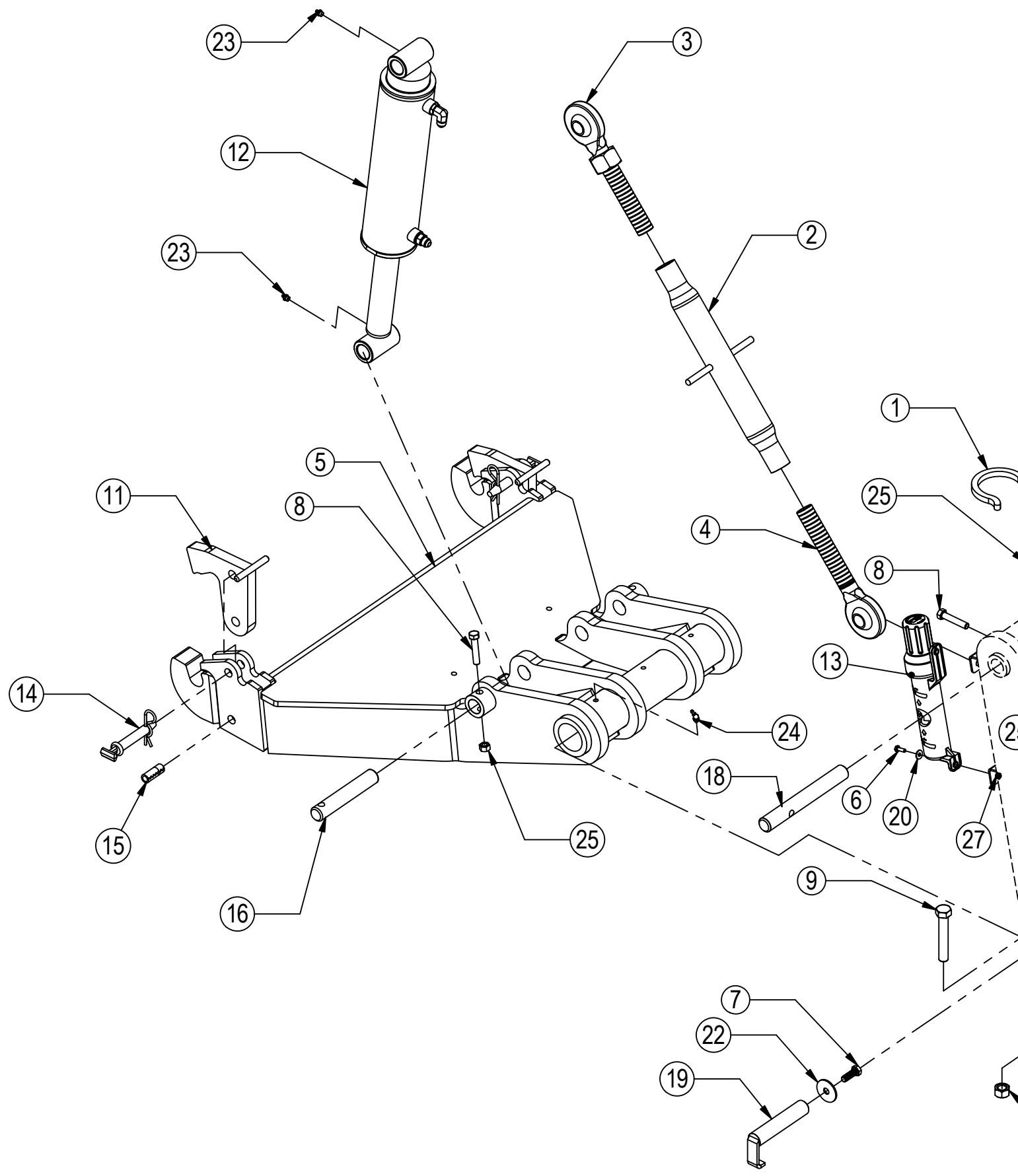
1. Thoroughly clean the FH400 Front Hitch before storage. Use paint where necessary to prevent rust.
2. Check the FH400 Front Hitch for worn or damaged parts. Install new parts as required.
3. Lubricate all pins and joints.

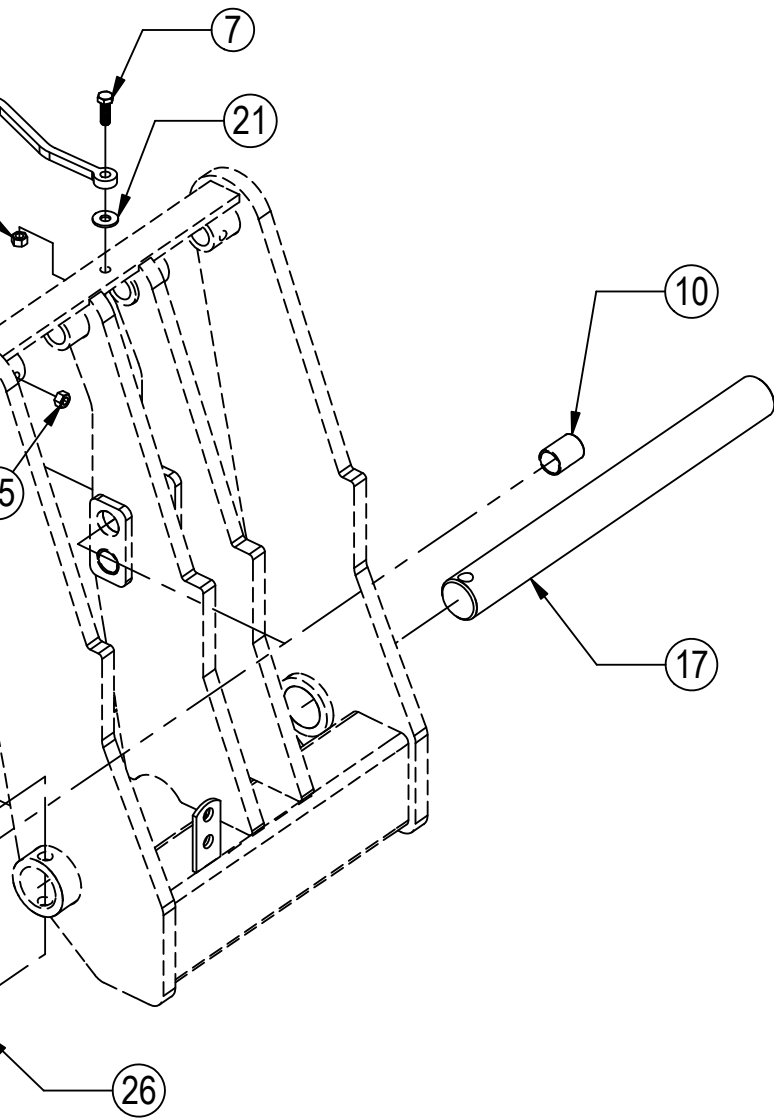
Tighten all bolts to the values listed below unless otherwise noted. Refer to the parts lists for proper length and grade of the bolts.

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

Install undercarriage per the tractor specific mounting instructions.



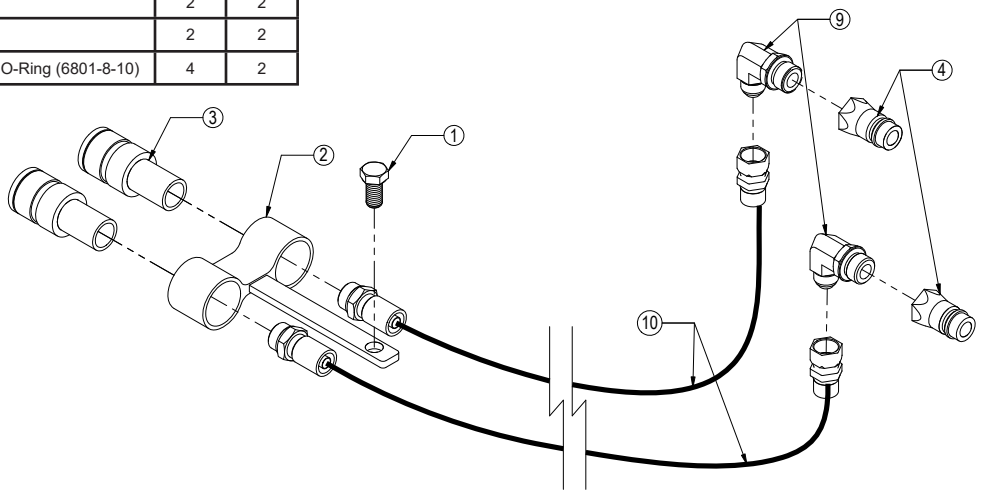


Item No.	Qty.	Part No.	Description
1	1	11-1455	FH-400 Top Arm Hook
2,3,4	1	11-11135	FH-400 Pitch Control Top Arm Link
2	1	11-11137	FH-400 Pitch Control Arm Housing
3	1	11-11136RH	FH-400 Pitch Control Arm Screw Assy- Right Hand
4	1	11-11136LH	FH-400 Pitch Control Arm Screw Assy - Left Hand
5	1	11-15710	FH-400 Solid Lower Arm - V2
6	2	16-20002	1/4" x 3/4" Hex Bolt Gr 5 NC
7	2	16-20126	1/2" x 1-1/2" Hex Bolt Gr 5 NC
8	4	16-20130	1/2" x 2-1/2" Hex Bolt Gr 5 NC
9	1	16-20227	3/4" x 4-1/2" Hex Bolt Gr 5 NC
10	4	19-3774	1.5"x1.25"x2.00" Spring Bushing (150125200)
11	2	22-15701	FH-400 Solid Lower Arm Latch
12	2	26-34728	4 x 12 Cylinder Tube Ends
13	1	34-14961	Manual Canister
14	2	43-15712	3/4" x 3-1/4" Safety Hitch Pin
15	2	43-17905	3/4" x 1/2" x 2" Spring Pin
16	2	43-8234	Rod End Lift Cylinder Pin (1-1/4" x 7.25")
17	1	43-8322	Main Lift Arm Pin (2-7/16" x 25")
18	2	43-9334	Base Cylinder Pin (1-1/4" x 10.03")
19	1	43-11471	Top Arm/UC Pin
20	2	57-20740	1/4" Flat Washer
21	1	57-20744	1/2" Flat Washer
22	1	57-20794	1/2" Fender Washer (2.00" ODx .500"ID x .125")
23	4	58-9369	Grease Zerk 1/8" NPT Straight
24	3	58-9371	Grease Zerk 1/8" NPT 45°
25	5	70-20604	1/2" Hex Center Lock Nut Gr 2 NC
26	1	70-20607	3/4" Hex Center Lock Nut Gr 2 NC
27	2	70-20610	1/4" Nyloc Hex Nut Gr 5 NC

Item No.	Part No.	Description	HAHT Qty.	HANT Qty.
1	16-20126	1/2" x 1-1/2" Hex Bolt Gr 5 NC	2	1
2	18-8973	Coupler Mounting Bracket	2	1
3	25-34321	Tappet Quick Coupler Female	4	2
4	25-34342	Tappet Quick Coupler - Male	4	2
5*	25-3453	Pioneer Dust Cap Tilt (Green)	2	-
6*	25-3454	Pioneer Dust Plug Tilt (Green)	2	-
7*	25-3455	Pioneer Dust Cap Angle (Red)	2	2
8*	25-3456	Pioneer Dust Plug Angle (Red)	2	2
9	31-34051	Straight Thread Elbow 90° JIC x O-Ring (6801-8-10)	4	2

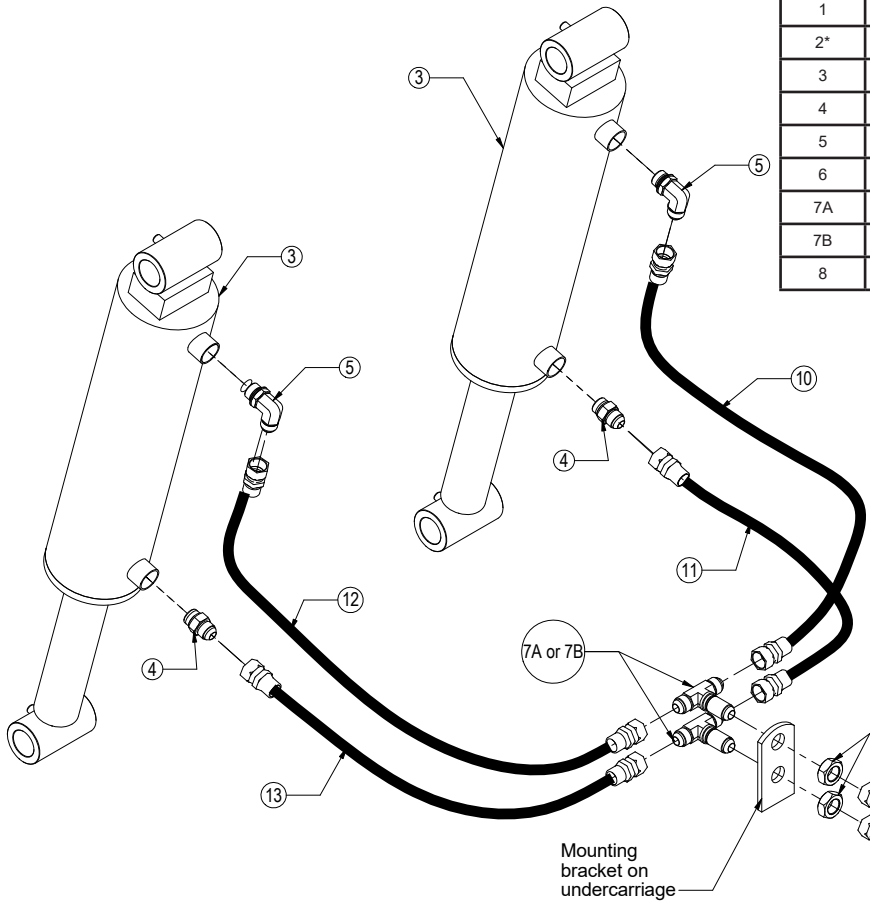
* Parts Not Shown

Hoses Not Drawn to Scale - Lengths of hoses vary per tractor model. Contact Grouser Products if hose length is needed for items #10.



See Page 7 for hydraulic schematic.

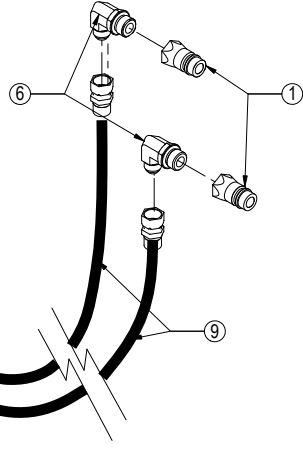
Item No.	Qty.	Part No.	Description
1	2	25-34342	Tappet Quick Coupler - Male
2*	2	25-3457	Pioneer Dust Cap Lift (Orange)
3	2	26-34728	4 x 12 Cylinder W/ Tube Ends
4	2	31-34040	Straight JIC x O-Ring (6400-8-8)
5	2	31-34050	Straight Thread Elbow 90° JIC x O-Ring (6801-8-8)
6	2	31-34051	Straight Thread Elbow 90° JIC x O-Ring (6801-8-10)
7A	2	31-34030	Bulkhead Run Tee JIC (2704-8-8-8)
7B	2	31-34020	Bulkhead Branch Tee JIC (2703-8-8-8)
8	2	70-20807	3/4" Hex Jam Nut NF



Item #A or Item #B - Depends on location of bulkhead bracket on undercarriage

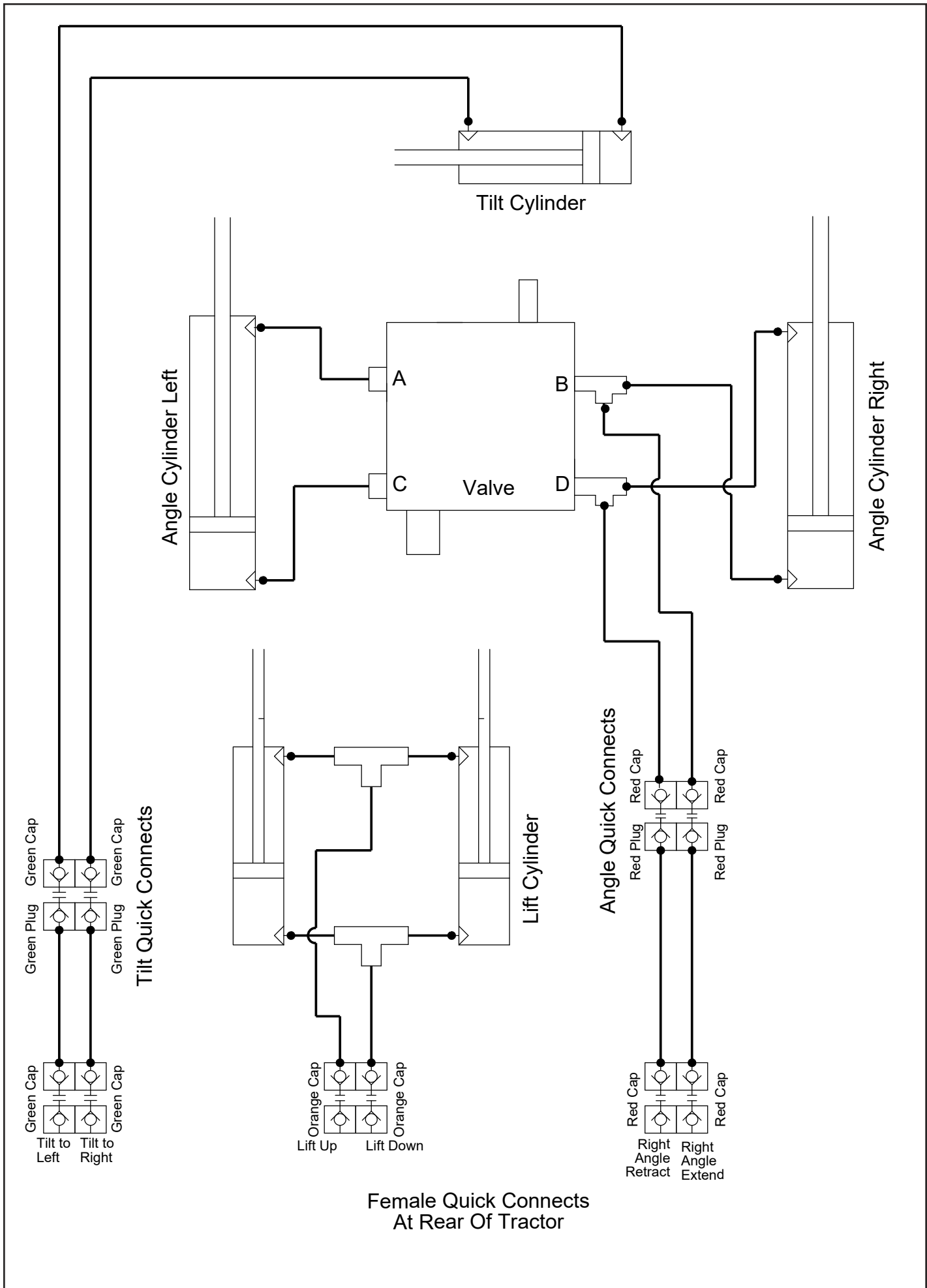
* Parts Not Shown

Hoses Not Drawn To Scale - Lengths of hoses vary per tractor model. Contact Grouser Products if hose length is needed for items # 9-14.



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
26-34728	49-12272	Seal Kit 4 x 2 (647204) Nitrided Rod



Green Cap
Green Plug
Green Cap
Green Plug
Tilt to Left
Tilt to Right

Tilt Quick Connects

Orange Cap
Orange Plug
Orange Cap
Orange Plug
Lift Up
Lift Down

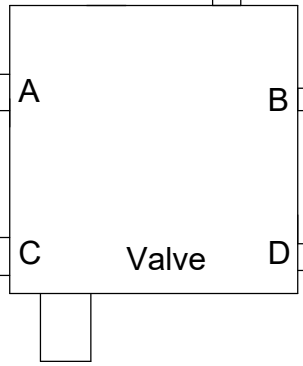
Lift Cylinder

Angle Quick Connects

Red Cap
Red Plug
Red Cap
Red Plug
Right Angle Retract
Right Angle Extend

Female Quick Connects
At Rear Of Tractor

Angle Cylinder Left



Tilt Cylinder

Angle Cylinder Right

Contact Us

As always, if you have any questions about your Ag 240I & 241I 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.

