



Belly Blade

Installation Instructions

Kubota M6060

With or Without Factory Loader

Purchase Date
Serial Number
Model Number
Tractor Model
Dealer

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Bolt Torque Specifications

Bolt Dia. (inch)	Thread per inch	Grade 5	Grade 8
		Torque (ft·lbs.)	Torque (ft·lbs.)
1/4	20	8	12
1/4	28	10	14
5/16	18	17	25
5/16	24	19	29
3/8	16	30	45
3/8	24	35	50
7/16	14	50	70
7/16	20	55	80
1/2	13	75	110
1/2	20	90	120
9/16	12	110	150
9/16	18	120	170
5/8	11	150	220
5/8	18	180	240
3/4	10	260	380
3/4	16	300	420
7/8	9	430	600
7/8	14	470	660
1	8	640	900
1	12	710	990

Bolt Dia. (mm)	Pitch	Grade 8.8	Grade 10.9
		Torque (ft·lbs.)	Torque (ft·lbs.)
4	0.70	2	
5	0.80	4	
5	1.00	7	11
7	1.00	12	
8	1.25	17	26
8	1.00	18	
10	1.50	35	51
10	1.20	37	
10	1.00	39	
12	1.75	59	88
12	1.50	62	
12	1.25	65	
14	2.00	94	139
14	1.50	101	
16	2.00	146	210
18	2.50	210	
20	2.50	292	
22	2.50	398	
44	3.00	503	

Kit Inventory

Qty. With Loader	Qty. Without Loader	PN	Description
2	2	16-1615040	16mm x 1.50mm x 40mm Metric Hex Bolt Gr 10.9 FineZC
4	4	16-1615050	16mm x 1.50mm x 50mm Metric Hex Bolt Gr 10.9 Fine ZC
3	3	16-20062	3/8" x 3/4" Hex Bolt Gr 5 NC
2	2	16-20077	3/8" x 4-1/2" Hex Bolt Gr 5 NC
2	2	16-20136	1/2" x 4" Hex Bolt Gr 5 NC
6	0	16-2015070	20mm x 1.50mm x 70mm Metric Hex Bolt Gr 10.9 Fine
0	6	16-2015050	20mm x 1.50mm x 50mm Metric Hex Bolt Gr 10.9 Fine
4	4	16-20219	3/4" x 2-1/4" Hex Bolt Gr 5 NC
4	4	16-21218	3/4" x 2" Carriage Bolt Gr 5 NC
1	1	18-40887-L	200 Bracket, Kubota M6060 Left Front
1	1	18-40887-r	200 Bracket, Kubota M6060 Right Front
1	1	18-40890-L	200 Bracket, Kubota M6060 Left Rear
1	1	18-40890-R	200 Bracket, Kubota M6060 Right Rear
1	1	18-40895	200 Kubota M6060 Valve Mount
0	1	31-12028-8-8	Straight Thread Elbow 90° JIC x BSPP (3801-8-8)
0	1	31-2406-10-08	JIC Reducer Expander (2406-10-08)
2	1	31-34051	Straight Thread Elbow 90° JIC x O-Ring (6801-08-10)
1	1	31-34050	Straight Thread Elbow 90° JIC x O-Ring (6801-08-08)
0	1	31-34041	Straight JIC x O-Ring (6400-8-10)
0	1	31-34100	Swivel Nut Elbow 90° JIC (6500-8-8)
10	10	31-34149	Straight Thread Elbow 45° JIC x O-Ring (6802-4-8)
1	0	35-10206-0530	53" x 1/2" -8JIC-8JIC Hose
1	0	35-10206-0680	68" x 1/2" -8JIC-8JIC Hose
1	0	35-10207-0545	54.5" x 1/2" -8JIC-10JIC Hose
0	2	35-12633-0670	67 x 1/2" -8FJIC/-8FJIC Hose w/ Cordura (3.5M)
0	1	35-12633-0535	53.5" x 1/2" -8FJIC/-8FJIC Hose w/ Cordura (3.5M)
1	1	44-40891	200 Kubota M6060 Valve Mount Support
1	1	44-40897	200 Kubota M6060 Clamp Plate
1	1	54-40885-A	200 Kubota M6060 LPL UC Assy
1	1	56-10200-5	Belly Blade Valve System
2	2	57-20742	3/8" Flat Washer
12	12	57-20747	3/4" Flat Washer
3	3	57-20762	3/8" Lock Washer
6	6	57-20825	16mm Flat Washer
6	6	57-20827	20mm Flat Washer
2	2	70-20604	1/2" Hex Center Lock Nut Gr 2 NC
8	8	70-20607	3/4" Hex Center Lock Nut Gr 2 NC
2	2	70-20612	3/8" Nyloc Hex Nut Gr 5 NC

Blade Assembly - Shipment includes one of the following		
Qty	PN	Description
1	15-10300-60	6 ft. Moldboard
1	15-10300-70	7 ft. Moldboard
1	15-10300-80	8 ft. Moldboard
1	15-10300-90	9 ft. Moldboard
1	15-10300-100	10 ft. Moldboard

General Information

Locate the Belly Blade assembly identification number and record the information on the front of this manual. This will be needed when contacting any service center or your dealer.



Using Your Manual

Read this manual completely prior to assembling to help you and others avoid injuries. This manual provides information on the proper way of installing the Belly Blade to prevent injuries and any machine damage.

These instructions show the Belly Blade installation process with the tractor on a hoist. All references to the tractor or undercarriage are taken from the view at the tractor's seat.

Your machine may vary slightly from the machine in this manual, but the same installation procedure will be compatible.

Important Messages

This manual contains messages that will bring attention to potential safety concerns and machine damage. Read all of the information carefully and thoroughly to avoid injury and machine damage. Below is an example.

⚠Caution⚠

Avoid Injury! This text will explain the possible hazards or death to the bystanders or the operator if the correct procedures are ignored.

Safety Information

1. Wear protective eye wear.
2. Always block tractor safely.
3. Engage parking break before raising the tractor.
4. Follow all tractor manufacturing safety recommendations when working on the tractor.

Accident Prevention

An accident prevention program can be successful when a responsible equipment operator is cooperating. An operator can prevent accidents when they accept a full measure of their responsibility. The designers, manufacturers, and engineers can help, but a single careless act by the operator can outweigh all of their efforts.

No equipment can be safer than the person running the controls. A careful, informed operator is the best safety device.

Preparing Tractor For Installation

1. Park the tractor on a smooth, level surface.
2. Set parking brake and block front tires to keep from rolling.
3. Disconnect the battery.

Note: To ease assembly, remove rear tires and support the tractor safely.

IMPORTANT: Raise the tractor high enough for the undercarriage to fit under the rear axle when installing the undercarriage.

4. The Belly Blade will arrive on a pallet. Unwrap and set the blade aside. Remove the undercarriage assembly from the pallet.
5. Check the inventory and ensure that all parts are included with the Belly Blade Kit. If any parts are missing, contact your dealer.
6. If the rear tires are not removed, raise the back of tractor, and place blocks safely underneath the tractor tires or use an appropriate hoist. Keep enough distance between the blocks, so the undercarriage will fit.
7. If the rear tires are removed, raise the back of the tractor and use jack stands that are recommended for your tractor to support the tractor safely. Keep enough distance between the jack stands, so the undercarriage will fit.

Plumbing

- Note:**
1. Have a catch pan available to collect hydraulic oil when removing hydraulic lines.
 2. Before removing any hydraulic lines, release all hydraulic pressure with the engine off.

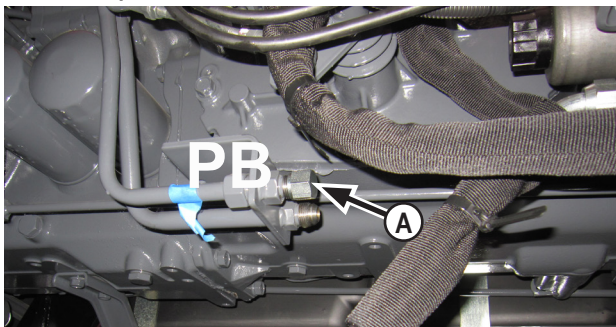


Caution



Avoid injury! Hydraulic oil that is under pressure will penetrate the skin and cause a serious injury. If this occurs, it needs to be surgically removed by a doctor familiar with this type of injury within a few hours or gangrene may result.

Note: If tractor does not have a loader, skip to Step #13 on Page 6. If tractor has a loader, continue with Step #8.

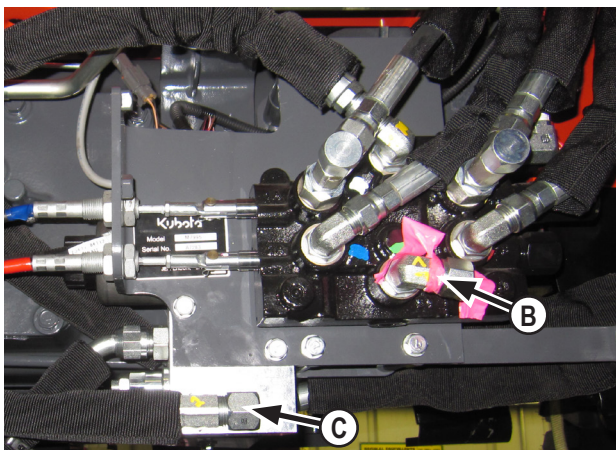


8. Remove the valve cover on the right side of the tractor below the operator platform.

9. Remove hose from the PB port (A) located under the operator platform..

Note: Picture shows a cap on the fitting instead of hose.

10. Attach a 68" hose to the fitting where the hose was removed in Step #9. Set the other end of the hoses aside to be attached to the BBCV later in Step #36 on Page 9.

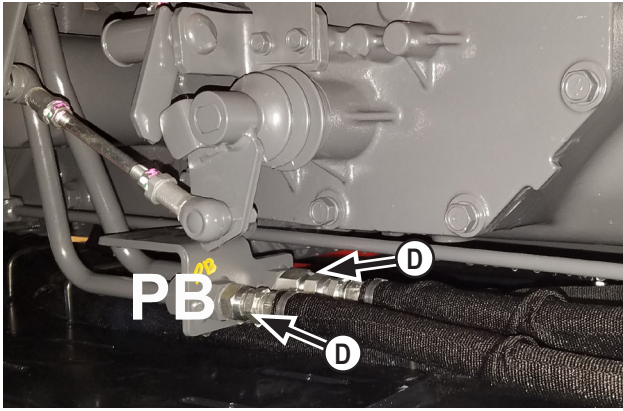


11. Remove the opposite end of the hose that was removed in Step #9. Attach a 53" to the fitting (B). Set the other end of the hose aside to be attached to the BBCV later in Step #35 on Page 9.

12. Remove the cap fitting from the T-fitting on the 3rd function valve. Attach a 54.5" hose on the open end of the fitting (C). Set the other end of the hose aside to be attached to the BBCV later in Step #37 on Page 9.

Note: Continue installation on Page 6 with Step #18.

Plumbing without Loader

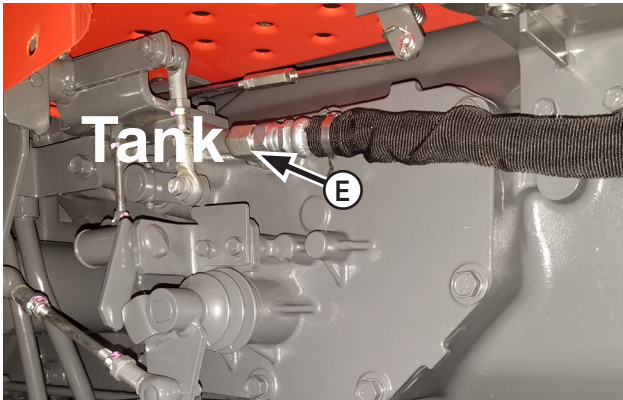


13. Remove caps from the PB and Pump port from outlet block located under the operator platform (D)...

Note: Picture shows hose instead of cap.

14. Attach a JIC Straight reducer fitting to the Pump port (closest to the tractor) (D).

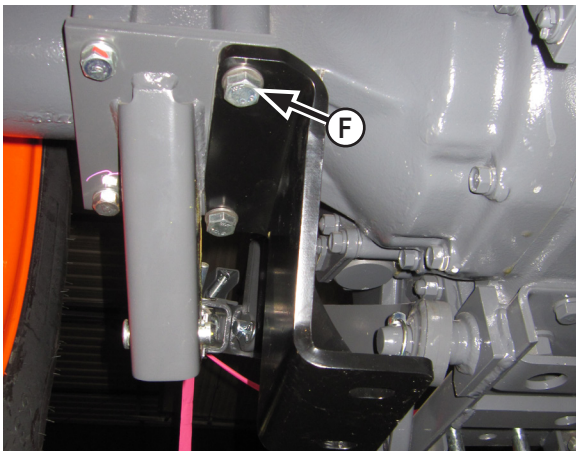
15. Attach a 67" hose to both ports on the outlet block. Set the other end of the hoses aside to be attached to the BBCV later in Step #43 & 44 on Page 9.



16. Remove the plug from the tank port located under the operator platform. Install a 90° BSPP fitting in the port (E).

17. Attach a 53.5" hose on the 90° fitting. Set the other end of the hose aside to be attached to the BBCV later in Step #45 on Page 9.....

Bracket Installation

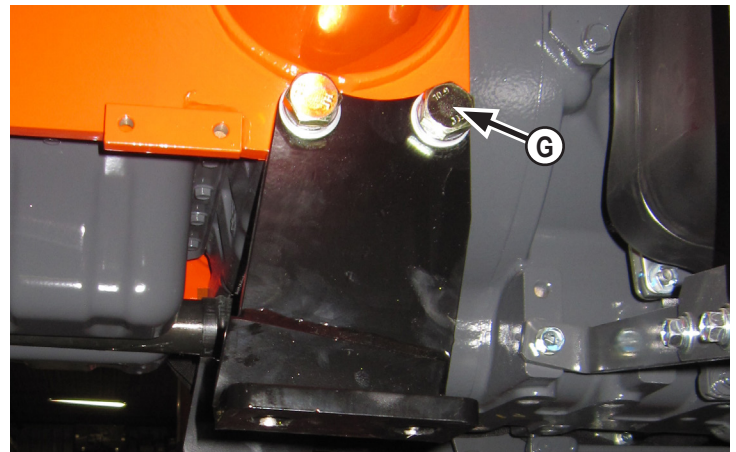


18. Remove two bolts from the 3-point hitch brace from the bottom of the right rear axle. Attach right rear bracket with 2 - 16mm x 50mm bolts and 2 - 16mm flat washers (F).

19. Repeat Step #18 for the left side with the left rear bracket..

Note: Verify the correct orientation of the rear brackets. Refer to diagram on Page 12-13.

Note: If tractor does not have a loader, skip to Step #21. If tractor has a loader, continue with Step #20.



20. Remove the bottom 2 bolts from the loader bracket and attach the left and right front brackets with 2 - 20mm x 70mm bolts and 2 - 20mm flat washers for each side (G).

Note: Continue installation on Page 7 with Step #22.

21. Attach the left and right front brackets with 2 - 20mm x 50mm bolts and 2 - 20mm flat washers for each side (G).

Note: Verify the correct orientation of the front brackets. Refer to diagram on Page 12-13.

Installing Undercarriage

NOTE: When jacking up the undercarriage, make sure to not jack too high or you may hit other parts of the tractor.

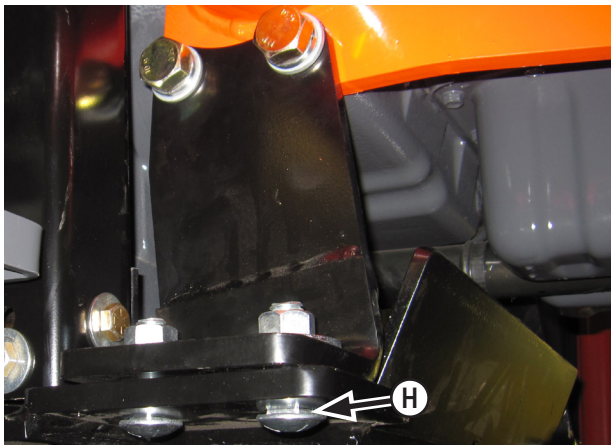
NOTE: When raising the undercarriage, properly guide the hoses to avoid pinching them between the tractor frame and the undercarriage.



22. Align the undercarriage behind the tractor and guide the undercarriage under the tractor.

23. Raise the undercarriage up to the installed tractor brackets and the tractor frame. Line up the undercarriage to the corresponding holes on the installed brackets.

Note: Do Not tighten bolts until all mounting bolts have been installed.



24. Use 2 - 16mm x 40mm bolts and 2 - 16mm flat washers to attach the middle of the undercarriage to the tractor.

25. Attach the front of the undercarriage to the front brackets with 4 - 3/4" x 2" carriage bolts, 4 - 3/4" flat washers and 4 - 3/4" nuts. Install the bolts from the bottom (**H**).

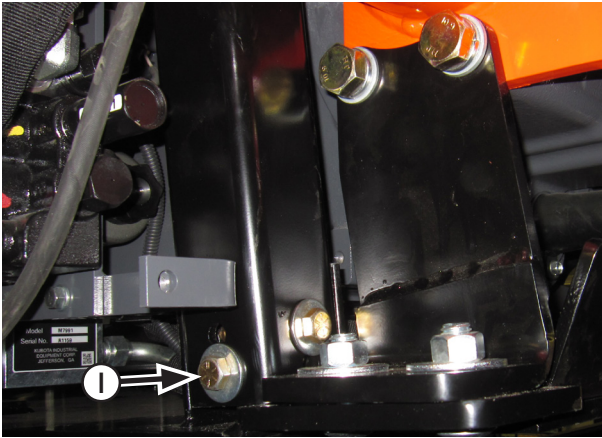
26. Attach the rear of the undercarriage to the rear brackets with 4 - 3/4" x 2-1/4" bolts, 8 - 3/4" flat washers and 4 - 3/4" nuts.

27. Push undercarriage against drawbar mount (1).

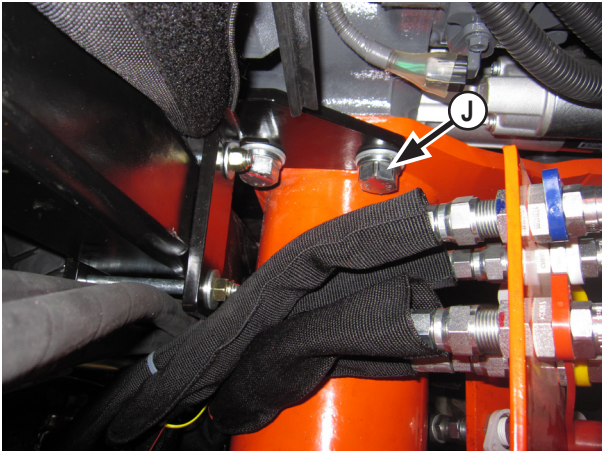
28. Torque all fasteners to the correct specifications listed on Page 2 after all bolts and nuts have been installed.

29. Reinstall tires on the tractor, lower the tractor and remove the jacks.

Valve Stand and Valve Installation

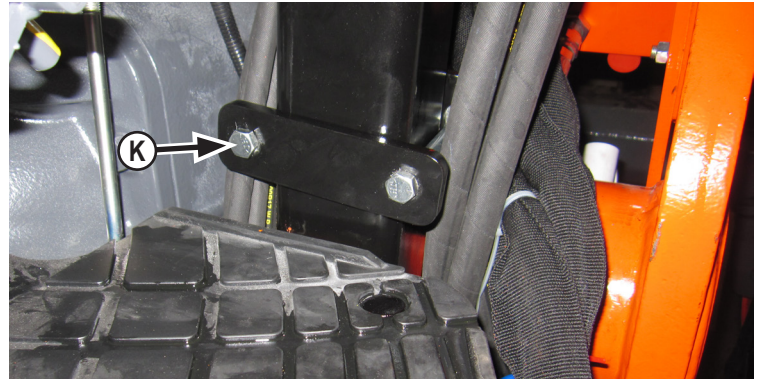


30. Install the valve stand behind the loader valve and next to the front right bracket. Attach to the angle iron with 2 - 1/2" x 4" bolts, 4 - 1/2" flat washers and 2 - 1/2" nuts (**I**).



31. Remove the top 2 bolts from the loader bracket on the right side and attach the new valve support bracket with 2 - 20mm x 70mm bolts and 2 - 20mm flat washers (**J**).

Note: If tractor does not have a loader, skip to use 20mm x 50mm bolts.



32. Clamp the valve stand to the support bracket with the clamp plate, 2 - 3/8" x 4-1/2" bolts, 2 - 3/8" washers and 2 - 3/8" nylock nuts (**K**).



33. Attach belly control valve to the valve stand with 3 - 3/8" x 3/4" bolts and 3 - 3/8" lock washers (**L**).

34. Install control handles into belly blade control valve. Tighten lock nut on each handle.

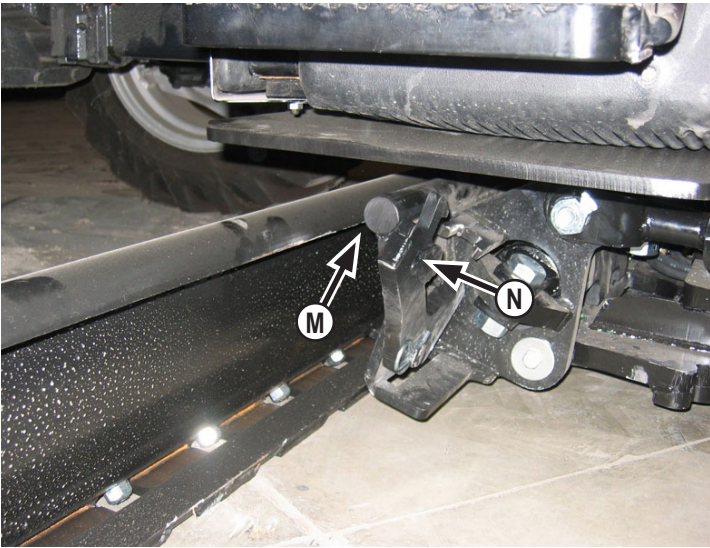
Hose Installation With Loader

35. Attach the 53" hose from the **Pump Port** on the loader valve that was installed in Step #11 to the 90° fitting installed in the **In Port** on the Belly Blade Control Valve.
 36. Attach the 68" hose from the **Power Beyond Port** that was installed in Step #10 to the 90° fitting installed in the **Out Port** on the Belly Blade Control Valve.
 37. Attach the 54.5" hose from the **Tank Port** that was installed in Step #12 to the 90° fitting installed in the **Tank Port** on the Belly Blade Control Valve.
 38. After all hoses are in place, group hoses together and secure hoses with zip ties (PN: 59-34950).
 39. Reinstall the original valve cover on the right side of the tractor.
 40. Reconnect the battery.
 41. Start the tractor and run the controls to check for any leaks.
- Note:** Watch the blade carefully for any collisions when running the controls.
42. Check hydraulic oil level after all cylinders have been cycled. Add hydraulic oil if necessary.
- Note:** Continue installation on Page 10.

Hose Installation Without Loader

43. Attach the 67" hose from the **Pump Port** on the loader valve that was installed in Step #15 to the 90° fitting installed in the **In Port** on the Belly Blade Control Valve.
 44. Attach the 67" hose from the **Power Beyond Port** that was installed in Step #15 to the 90° fitting installed in the **Out Port** on the Belly Blade Control Valve.
 45. Attach the 53.5" hose from the **Tank Port** that was installed in Step #17 to the 90° fitting installed in the **Tank Port** on the Belly Blade Control Valve.
 46. After all hoses are in place, group hoses together and secure hoses with zip ties (PN: 59-34950).
 47. Reconnect the battery.
 48. Start the tractor and run the controls to check for any leaks.
- Note:** Watch the blade carefully for any collisions when running the controls.
49. Check hydraulic oil level after all cylinders have been cycled. Add hydraulic oil if necessary.

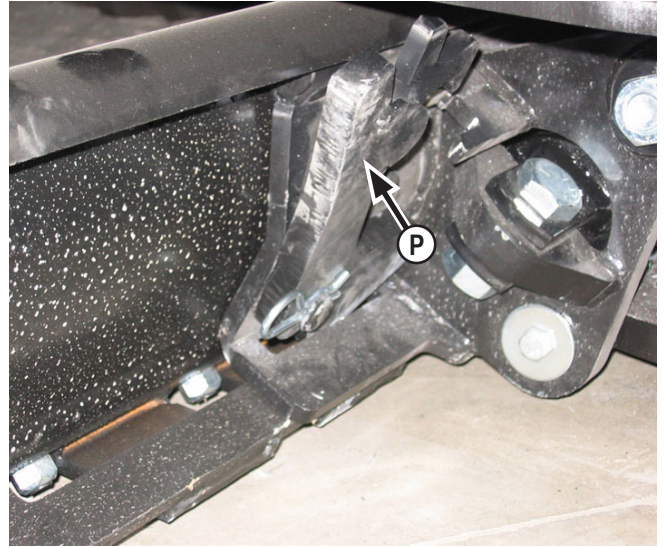
Blade Installation



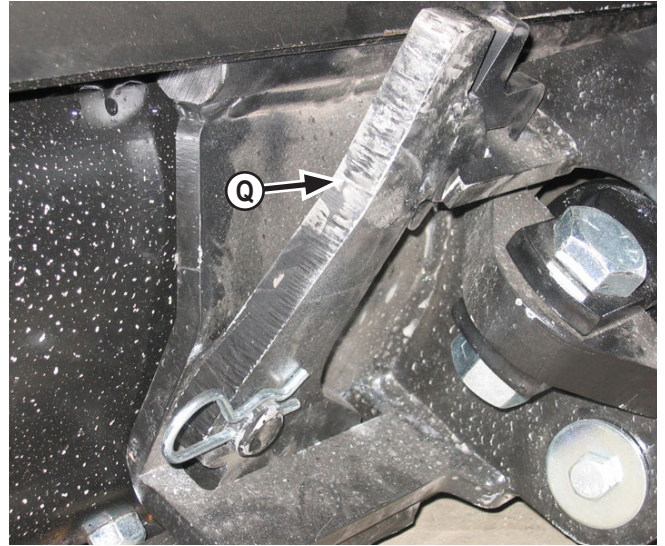
44. Slide blade under tractor until the quick attach is in line with the center of the blade (**M**). Make sure that the quick attach locking levers are still up (**N**).



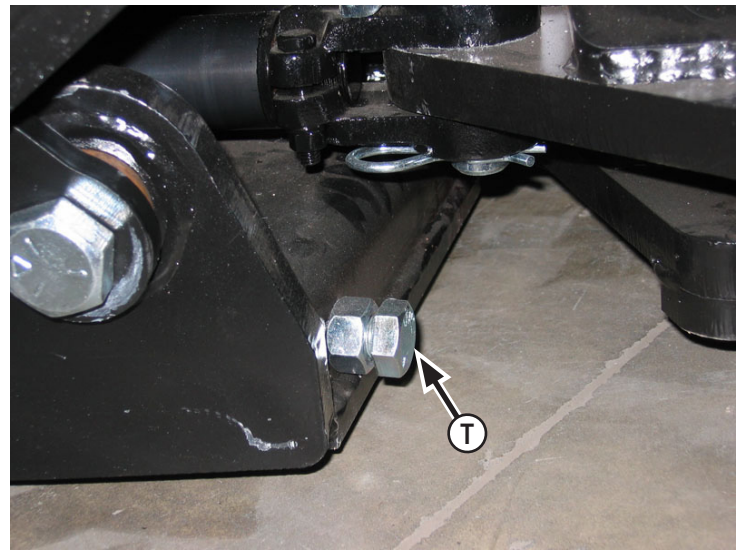
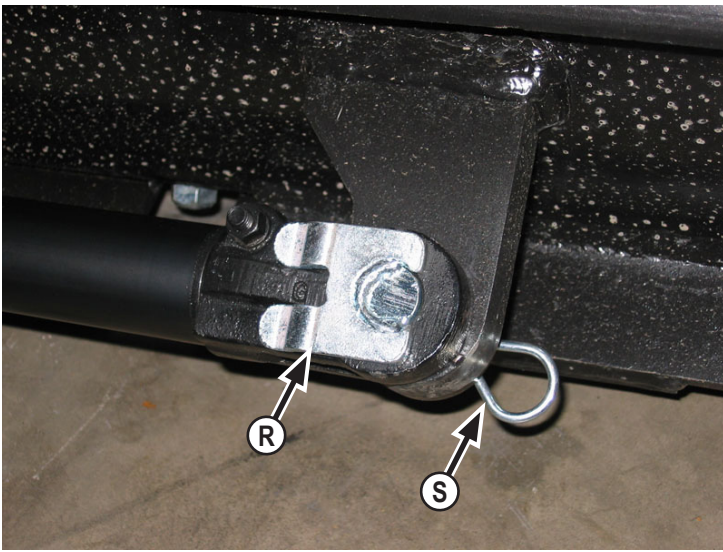
45. Pitch the male quick attach forward. Position the blade so the top round bar will hook under blade lip (**O**).



46. Pitch the male quick attach back to lift the blade off the ground (**P**).



47. Lock the quick attach lever on each side (**Q**). Verify that the lever engaged the corresponding slot on the bottom of the blade.



48. Extend the side shift cylinder out to the cylinder connector. Insert pin **(R)** and the clip pin on the bottom **(S)**.

49. After mounting the blade, apply up and down pressure to verify proper blade installation.

50. Cycle through blade functions checking for interferences.

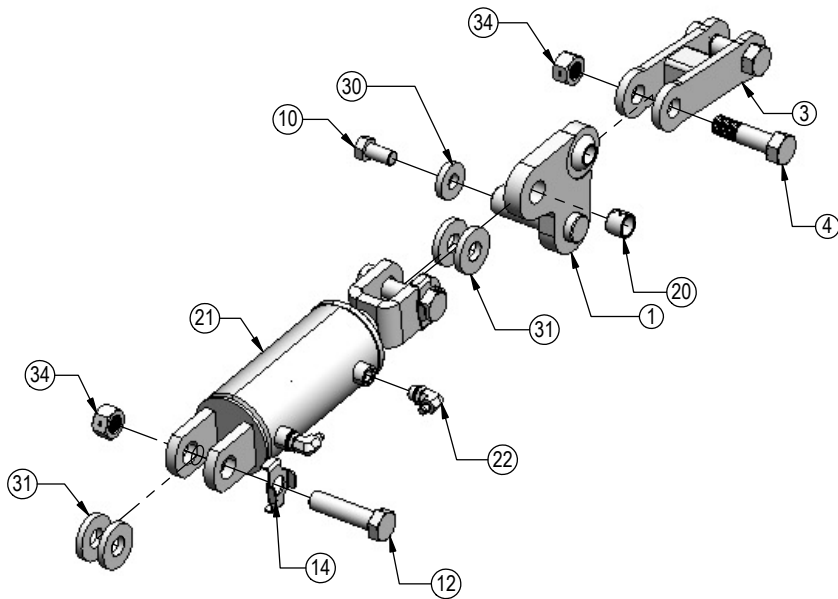
51. Adjust angle stops **(T)** so blade does not interfere with tires during angle of blade. Use a wrench to loosen the nut and to the turn the bolt either in or out depending if the blade is hitting the tire. After adjustment, tighten the nut.

52. Tractor and blade are ready for use. Refer to the blade operator's manual for safety, operation, and maintenance information.

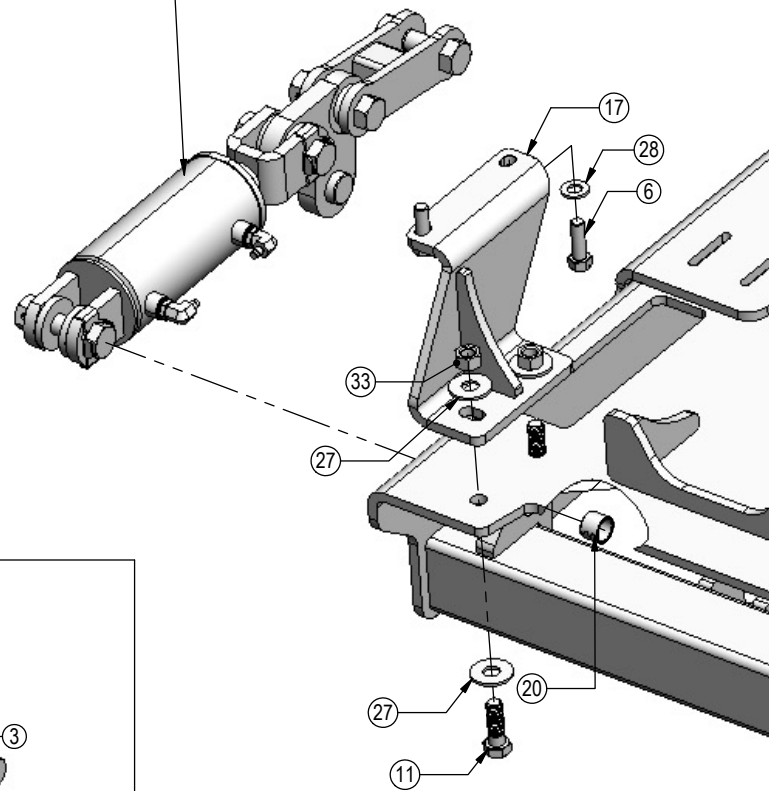
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	11-10400-L	Arm Weld Left
2	1	11-10400-R	Arm Weld Right
3	2	11-10410	Arm Weld
4	4	16-10165	1" x 3-3/4" Hex Bolt Gr.5 NC
5	2	16-1615040	16mm x 1.50mm x 40mm Metric Hex Bolt Gr 10.9 Fine ZC
6	4	16-1615050	16mm x 1.50mm x 50mm Metric Hex Bolt Gr 10.9 Fine ZC
7	2	16-20077	3/8" x 4.50" Hex Cap Screw Gr 5 NC
8	2	16-20136	1/2" X 4" Hex Bolt Gr 5 NC
9	6	16-2015070	20mm x 1.50mm x 70mm Metric Hex Bolt Gr 10.9 Fine
9B	4	16-2015050	20mm x 1.50mm x 50mm Metric Hex Bolt Gr 10.9 Fine
10	2	16-20216	3/4" x 1-1/2" Hex Bolt Gr 5 NC
11	4	16-20219	3/4" x 2-1/4" Gr.5 Hex Bolt NC
12	4	16-20566	1" X 4" Hex Bolt Gr 8 NC
13	4	16-21218	3/4" x 2.00" Carriage Bolt Gr.5
14	4	18-10430	Bracket, NR 1.00" Bolt
15	1	18-40887-L R1	Bracket, Front
16	1	18-40887-R R1	Bracket, Front
17	1	18-40890-L	Bracket, Rear
18	1	18-40890-R	Bracket, Rear
19	1	18-40895	Kubota M6060 Valve Mount
20	4	19-7774	1" x 1" Spring Bushing
21	2	26-34731	4 x 5 Cylinder Clevis Ends
22	4	31-34049	Straight Thread Elbow 90° JIC x O-Ring (6801-4-8)
23	1	44-40891R2	Bracket
24	1	44-40897	Plate, Clamp
25	1	54-40885R1	Kubota M6060 UC Weld
26	2	57-20742	3/8" Flat Washer
27	12	57-20747	3/4" Flat Washer
28	6	57-20825	16mm Flat Washer
29	6	57-20827	20mm Flat Washer
30	2	57-3680	3/4" ID x 2.00 OD x .375" Heavy Washer CZ Plated
31	8	57-3682	1.00" ID x 2-1/2" OD x .375" Heavy Washer CZ Plated
32	2	70-20604	1/2" Center Lock Hex Nut
33	8	70-20607	3/4" Center Lock Hex Nut NC
34	8	70-20609	1" Hex Center Lock Nut Gr.2 NC
35	2	70-20612	3/8" Nyloc Nut

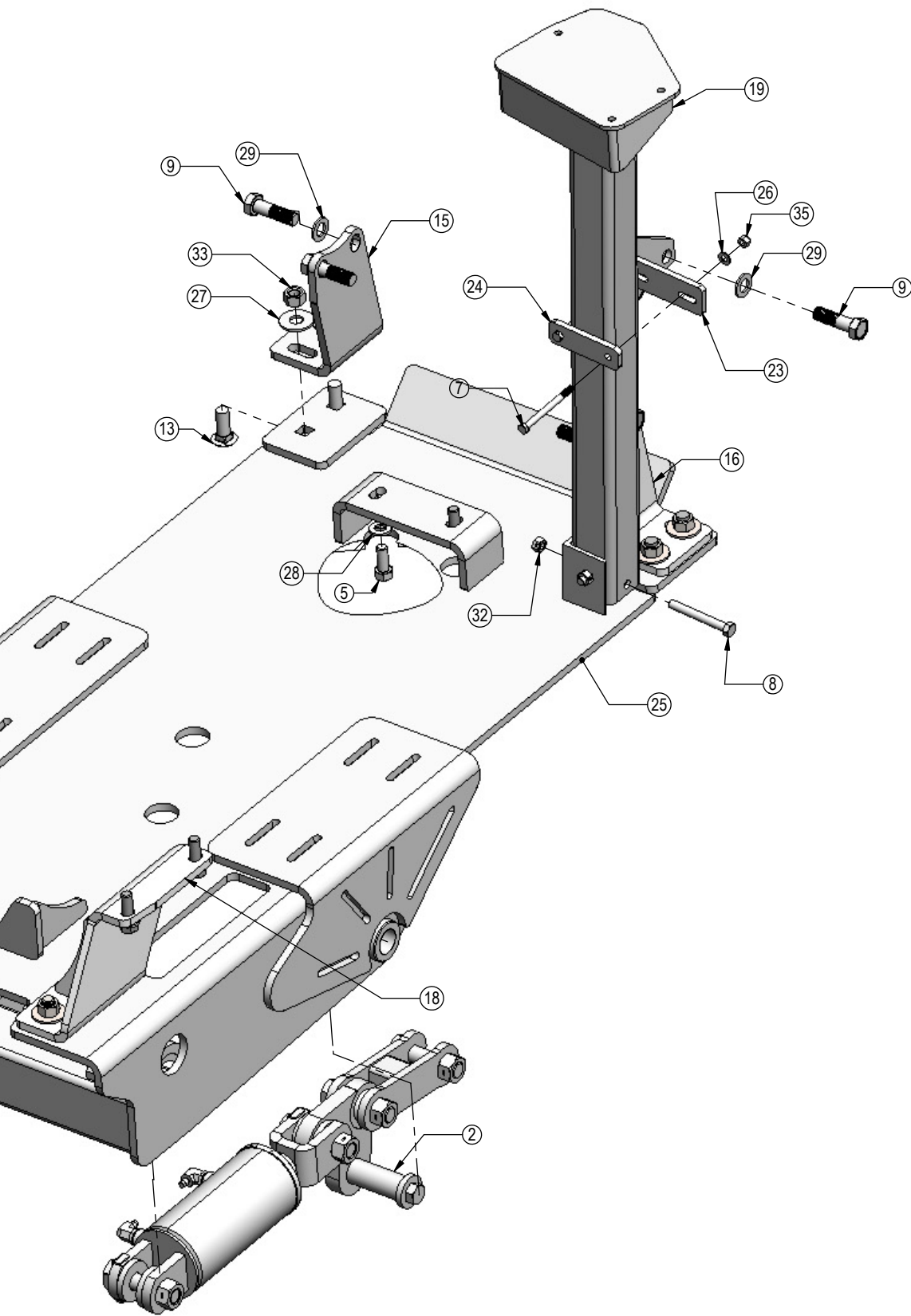
Item B - For system without Loader

Detail View A

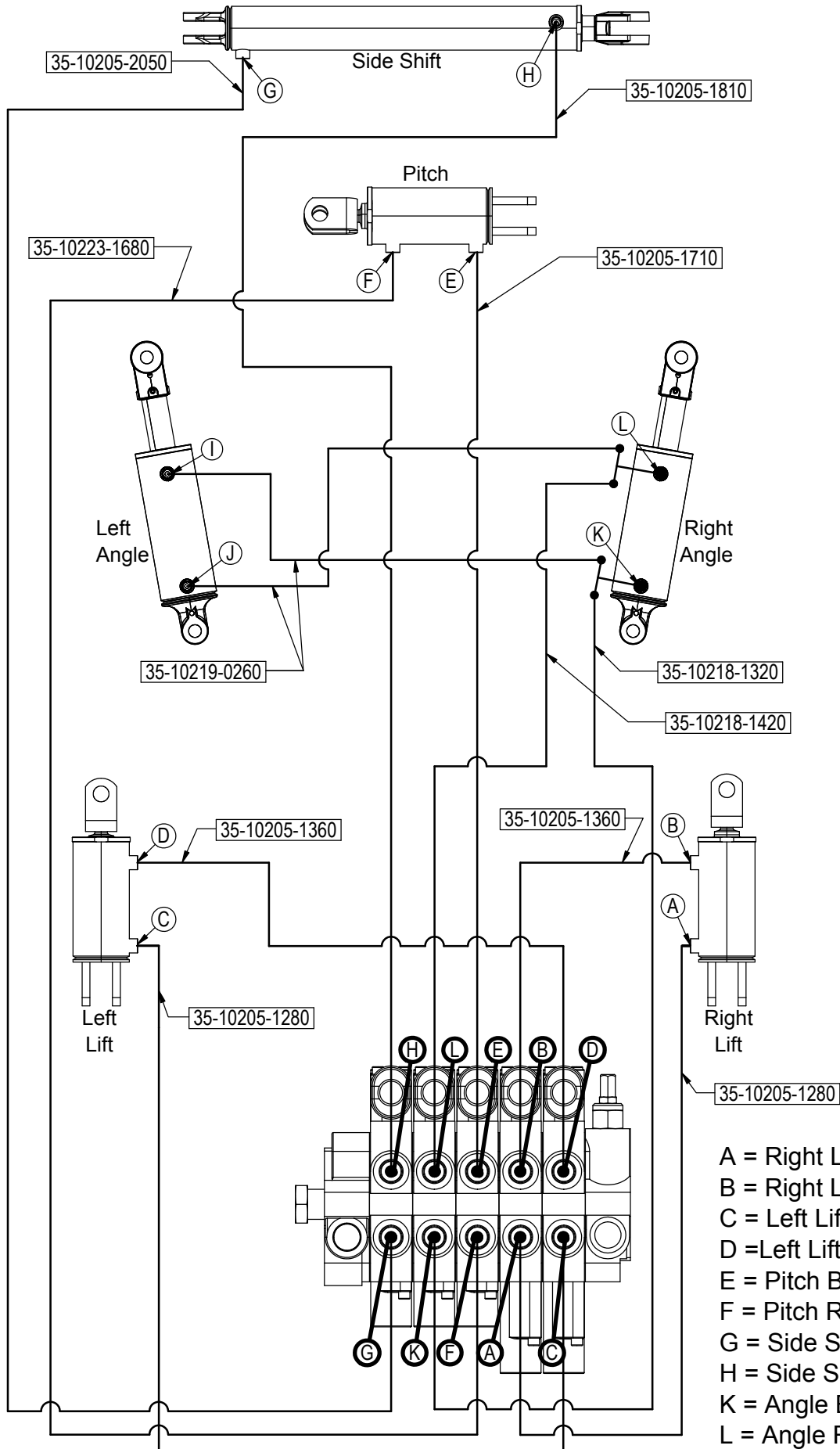


See Detail View A





Hydraulic Schematic



- A = Right Lift Base
- B = Right Lift Rod
- C = Left Lift Base
- D = Left Lift Rod
- E = Pitch Base
- F = Pitch Rod
- G = Side Shift Base
- H = Side Shift Rod
- K = Angle Base
- L = Angle Rod

Contact Us

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

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

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 from date of original retail delivery. 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.

