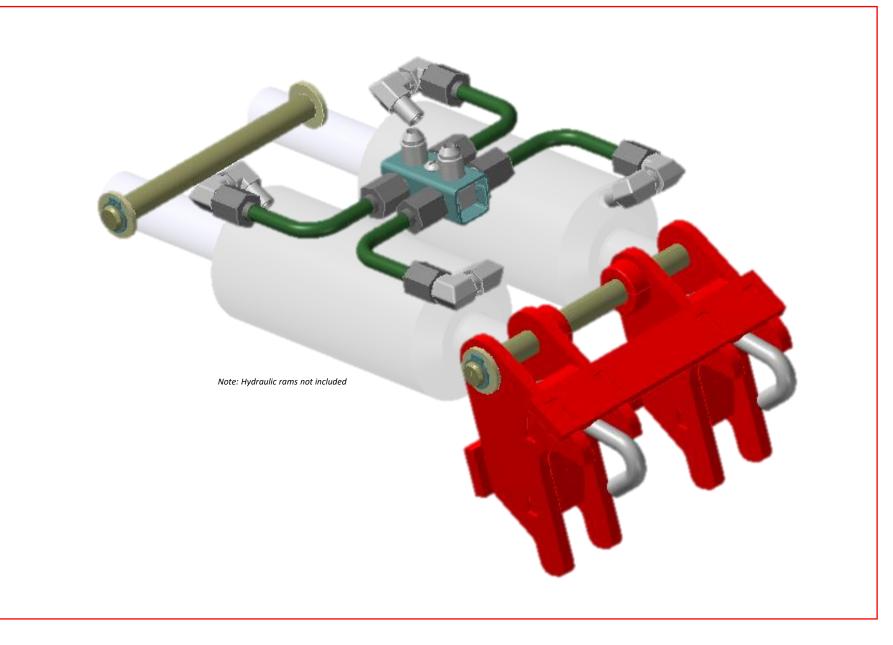




## Assembly & Operator's Manual

Dual Lift Manifold Kit with Lift Bracket Part Number: 1090618-000-000



# Assembly & Operator's Manual Products

Dual Lift Manifold Kit with Lift Bracket

Part Number: 1090618-000-000

### Safety:

- Read all sections of this assembly manual before beginning installation, and follow all safety warnings posted in this manual.
- Always wear proper protective equipment, such as, but not limited to safety glasses and gloves.
- Get assistance, or use lifting device(s) for heavy loads. .
- Read "Marric Products Equipment Operating Safety Precautions" before beginning installation: •

#### **Equipment Operating Safety Precautions**

Marric Products, LLC. takes personal safety very seriously and can not emphasize enough that operators should always keep safety in mind whenever operating their equipment with or without Marric Products.

It is the operators responsibility to read all safety precautions in their equipment manuals and to understand the dangers and associated risks. In general, hydraulic equipment like the type provided by Marric Products, LLC. makes tasks easier to complete, however, not with out risk.

Hydraulic powered equipment can generate tremendous forces that could cause injury or death to operators or bystanders, and damage equipment. Below is a list of safety precautions that must be read. Though the list is not all encompassing, it is a general overview of the risks associated with the use of tractors with lifting devices.

- 1. Follow all of the tractor manufacturers safety instructions and procedures for operating hydraulic valves to avoid damaging equipment and causing injury or death.
- 2. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems.
- 3. Equipment should only be used after reading and understanding all safety instructions and operation manuals supplied by tractor manufacturer, and Marric Products, LLC.
- Minors should not be permitted to operate equipment. 4.
- This is not a toy and can cause injury or death. 5.
- 6. Do not operate under the influence of drugs or alcohol.
- Keep hands and other body parts away from attachment at all times. Stored energy in the attachment can cause injury or death, even if the machine is off. 7.
- Use metal alignment bar if necessary to align attachment mounting points, never use finger(s) or body parts. 8.
- 9. Never crawl under or place any body part under raised attachment with or without a load.
- 10. Never leave a lifted/ raised load unattended. Loads must be lowered to final resting position, and all stored energy relieved before leaving.
- 11. Loads may require counterbalance weights added to the tractor. Refer to the tractors manual for proper counterbalance weight distribution locations and capacities.
- 12. When bucket or attachment is raised, make sure load in bucket cannot roll out onto someone or back onto tractor/ operator. Never stand in front of loaded bucket.
- 13. Hydraulic fluid under pressure is dangerous and can cause injury or death if a hose is ruptured. Shut-off tractor immediately in the event a hose ruptures.
- 14. Do not drop loads into bucket, or any other type of attachment. Loads should be lifted slowly and steadily from the loads resting position. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems.
- 15. Loads should be kept as low as possible during transport.
- 16. Travel on level ground whenever possible. Avoid obstacles such as, rocks, holes or loose fill that could upset the tractor. A raised bucket or attachment with a load, increases the tractors center of gravity making it more susceptible to roll over.
- 17. Avoid traveling on uneven surface if possible. Use caution if traveling across uneven surfaces.
- 18. Do not lift or transport person(s) in the bucket or any other type of attachment.
- 19. Loads must be uniformly distributed.
- 20. Do not push or lift with one side of the bucket or attachment.
- 21. Unbalanced or unstable loads should be secured with properly rated straps or chains.
- 22. All attachment pins should be installed and locked in place as soon as possible and before lifting or moving a load.
- 23. Loads should be raised and lowered slowly and steadily in a controlled manner. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems. Do not use hydraulic lever "Float" position to lower a load.
- 24. Underground utility locations must be marked before digging.
- 25. Approach loads slowly and cautiously. Do not use the loader or any other type of attachment to ram into loads in an attempt to increase bucket fill, or loosen packed materials. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems.
- Exercise caution when under cutting high banks. Dirt slides can be dangerous and cause injury or death. Hydraulic pressure spikes resulting from impact loads to attachments could result in 26. damaged hydraulic systems.

# Marric Products

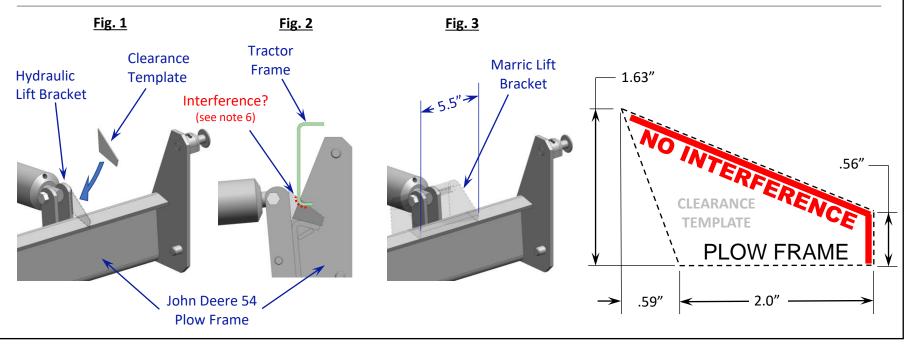
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#### System Requirements:

- John Deere 54 Plow with Marric Plow Conversion (Part Number: 1090615-000-000)
- 1 additional John Deere 54 Plow style hydraulic ram
- Proper Clearance: To ensure that the Marric Dual Lift Bracket fits properly on your John Deere 54 Plow and does not interfere with the tractors frame, follow the directions below:
- 1. Print out these directions in full scale and measure the Clearance Template below to ensure it is printed to the correct scale.
- 2. Cut out the Clearance Template along the dotted lines (*Clearance Template can be transferred to thicker paper stock or cardboard*).
- 3. Mount the John Deere 54 Plow to the tractor.
- 4. Place the cutout Clearance Template directly behind the hydraulic lift bracket as show below (Fig. 1).
- 5. With the Clearance Template in place, verify that there will be no interference(s) between the tractors frame and the Clearance Template. Fig. 2 is an example of an unacceptable interference condition. Note that the Marric Dual Lift Bracket is approximately 5.5 inches wide. If there is no interference in the area that the lift bracket mounts (Fig. 3), the Marric Dual Lift Manifold Kit and Lift Bracket can be installed.
- 6. Please email us at <u>customerservice@marricproducts.com</u> in the event that there is interference between the Clearance Template and the tractors frame.





## Assembly & Operator's Manual

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### Installation Tools Required:

- Ratchet/ sockets: 3/8, 9/16, 3/4
- Wrench: 9/16 (2), 5/8, 3/4
- Philips screw driver
- Retaining Ring Pliers
- Hammer
- Wheel chocks
- Teflon Tape (CAUTION: do not get Teflon tape into hydraulic system) or pipe dope suitable for hydraulic fittings
- Shop rags
- Mobil 1 grease

### Included in this kit:

- Lift Bracket
- 2 "J" Hooks with nuts and washers
- 2 Shafts, 4 washers and 4 retaining clips
- Manifold bracket, top and bottom
- Pan head screw and nut

- 8 90° hydraulic fittings
- 4 Hydraulic formed tubes with sleeves and nuts
- 2 "T" Hydraulic fittings
- Assembly & Operators Manual

### Maintenance:

- Lubricate shafts during assembly and during operation if lubricant is no longer present, Mobil 1 grease recommended.
- Check tightness of "J" Hooks. Replace 3/8-16 nylock nuts with new hardware if "J" hooks do not stay tight, or if hardware is removed.

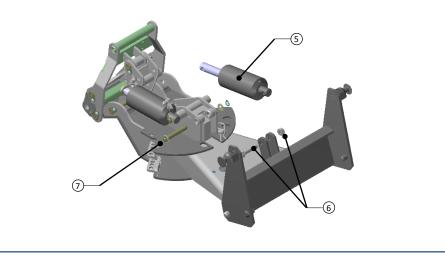
### Technical Support:

- Email: Customerservice@marricproducts.com
- Telephone: 610-368-2933

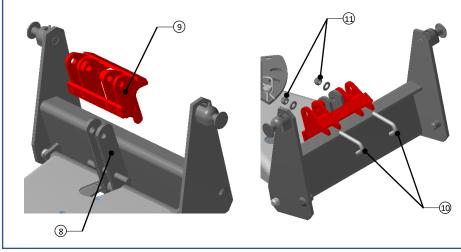


#### Assembly & Operator's Manual Marric Products Dual Lift Manifold Kit with Lift Bracket Part Number: 1090618-000-000 6. Disconnect the hydraulic hoses from the tractor and remove the two hydraulic hoses (3) and the hydraulic 1. Install the plow, with the Marric Plow Conversion System installed, and connect the hydraulic hoses to the tractors hydraulic ports. fittings (4). 2. Start the tractor and raise the lift frame (1) high enough to access the bottom of the frame with a ratchet. ▲ 3. For safety, place a block(s) of wood under the lift frame (1), to keep it in the raised position. ▲ 4. Turn tractor off and set parking brake and place wheel chocks under wheels, relieve the hydraulic system pressure by actuating hydraulic levers back and forth several times. 5. Remove the angle bracket (2) and the mounting hardware. Note: The following images shown without hydraulic hoses for clarity. Parking Brake Wheel Chocks Wood Block(s) Keep area clear for tool access

- 7. Remove the hydraulic lift ram (5) by removing the nut and bolt (6) from the fixed end.
- 8. Remove the retaining clip, washer and shaft (7).



- 9. Inspect for weld splatter around the plows hydraulic ram mount (8). Remove any splatter.
- 10. Slide the lift bracket (9) over the plows hydraulic ram mount (8).
- 11. Install the two "J" hooks (10) with 3/8-16 nylock nuts (11) and washers supplied in the kit. DO NOT TIGHTEN UNTIL AFTER HYDRAULIC RAMS ARE INSTALLED, STEP 14.

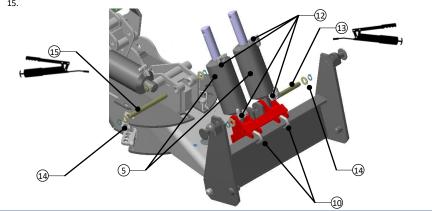


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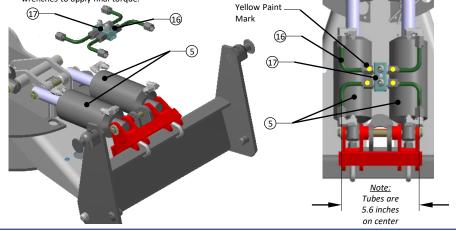
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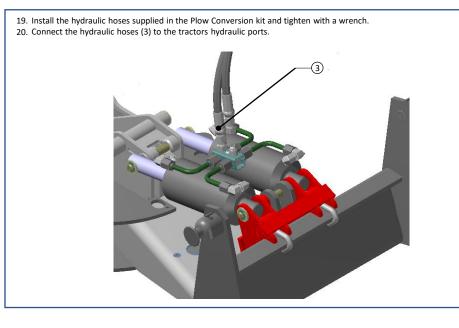
Part Number: 1090618-000-000

- 12. Install the hydraulic fittings (12) supplied in the kit. Use pipe dope on the NPTF fittings. Install the hydraulic rams (5) with the longer of the two shafts (13) supplied in the kit, and secure with washers and retaining clips (14) on each end of shaft.
- 13. Tighten the two "J" hooks (10) until any play or movement has been removed, then turn 1/2 turn clockwise and stop, DO NOT OVER TORQUE.
- 14. Lower the hydraulic rams and align the rams eyelets with the Marric Plow Conversion System and insert the front shaft (15) and secure with washers and retaining clips (14) on each end of shaft.
- 15.



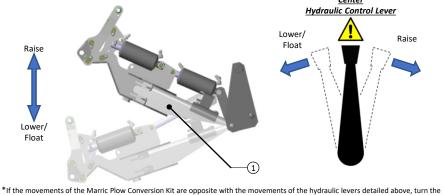
- 16. Start the threads of the four formed hydraulic tubes (16) on the hydraulic "T" fittings in the manifold (17). Note the yellow paint mark on the hydraulic nut attaches to the "T" fitting.
- 17. Place the hydraulic manifold (17) over the hydraulic rams (5) and start the first 2 3 threads of each fitting, loosen manifold hydraulic tube (16) threads if necessary.
- 18. Turn each of the hydraulic nuts incrementally and equally by hand. Once all the fittings are snug, use a pair of wrenches to apply final torque.





#### CAUTION: HYDRAULIC PRESSURE CAN GENERATE FORCES RESULTING IN BODILY INJURY OR DEATH. STAND CLEAR WHILE IN OPERATION.

- A 21. Start the tractor, using the tractors center hydraulic lift lever, *slowly* pull back to raise the lift frame (1) while verifying that the unit is functioning properly\*.
- ▲ 22. Remove the wood block(s) placed under the lift frame (1), now lower and raise the lift frame several times verifying that the unit is functioning properly\*. Center



tractor off, relieve the hydraulic system pressure by actuating the hydraulic levers back and forth several times, switch the quick disconnect hydraulic hoses attached to the tractor hydraulic ports, and restart the tractor verifying proper function.





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