

## Assembly instructions for Morra MH2L

### Tools needed:

Chain hoist  
Impact wrench  
Socket wrench  
17,19,22,24 mm sockets  
17,19,24 mm wrenches  
Common flat head screwdriver  
Grease gun  
Tire chuck  
Pressure gauge  
Rubber hammer  
Sling straps

Thank you for your purchase. If you have any questions concerning assembly of this product please call our Technical Department at **800-345-0169**

1. Components of the crate:



There will also be a bag of parts.

2. Loosen top 3 bolts each side of the central gear box with an 8mm hex key wrench. Then mount gear box cover with the front bolt only, allowing the cover to pivot.

**Note-sometimes if welds are too large attaching the arms to the gear box you may have to grind the edges of the cover for it to fit properly.**



There are three bolt holes on this flange. In this step, only replace front bolt so that it can pivot forward in next step. Then replace other two bolts

3. Remove the 2 bolts from rotor housing on each side and pivot the gear box cover forward so that support can be installed with the bolt holes in the cover aligned on top. Put the 2 bolts back in the flange that goes over the rotor housing.



4. Put the 2 bolts back in the flange that goes over the rotor housing. Install 2 bolts and washer in the rear and top that secures the support to gear box cover using a 19 mm socket (top holes are bolt and nut-bottom threads into cover)

**\*At this point you will need to go back and tighten all bolts in the assembly thus far as well as inserting the other two bolts into the gear box cover**



5. Using a 24 mm socket, attach the tongue to the support with the two 8.8 x 80 mm bolts( one on each side) Do not tighten the nuts tightly - you want to allow the tongue to pivot on the bolts.



6. Attach the jack stand to the tongue with the cotter key provided in the bag of parts. It is a good idea to grease the jack before installing it.

7. Attach the leveling jack to the tongue by first removing the bracket, then inserting the eye in the jack foot over the stud. The jack attaches to the housing by aligning a stud on the jack housing & securing the jack bracket with a 17 mm socket

**\*Caution-when assembling arms-use the jack to keep the weight on the unit shifted forward to the jackstand to prevent the unit from flipping backwards.**



8. Remove the rubber pads with a 13mm socket on each side before attaching the arms to the central unit. Take out the 2 grease able bolts that are in the yokes with a 35 mm socket



Make sure to remove all paint with emory cloth before attaching the arms & be sure that the grease holes are not clogged. It is a good idea to blow them out with an air gun.

9. Install the dust covers and outer tire & wheels onto the spindles the outer arms. The bearings in these wheels are sealed but it is still a good idea to put grease in the dust cap. Align the wheel in the travel position.

There is a left and a right arm. They are easy to recognize by the position of the bracket for the hydraulic cylinder mount.



10. To attach the arm to the central unit, turn the rotor on the central unit until the keyway on the shaft is at 12:00 and install the keyway provided. It is also important to be sure there is no paint on the shaft. You will also need to buff the paint from the yokes (inside of central unit, outside of the arm) so that there is no problem with fitting.

\*This is also a good time to grease the universal joints on the arm. Before installing the arm to the central unit, with the keyway at 12:00 and the arm yoke in line, you will want to notice the "timing" of the unit to be sure that the inner and outer rake teeth will not collide. You will need to start the yokes of the arm onto the shaft & tamp them on with a rubber hammer until it is completely in position.



11. Install the grease bolts back in to hold the arm on the unit and place the rubber covers back into place.



12. Install the outer guard for the unit with the 2 bolts provided in the outer rotor housing- you will need 19mm socket



13. Lift the arm into an upright position & install the hydraulic cylinder assembly.

\*Note-That there may be 2 different kits with unit for hydraulics. Use only the applicable kit.

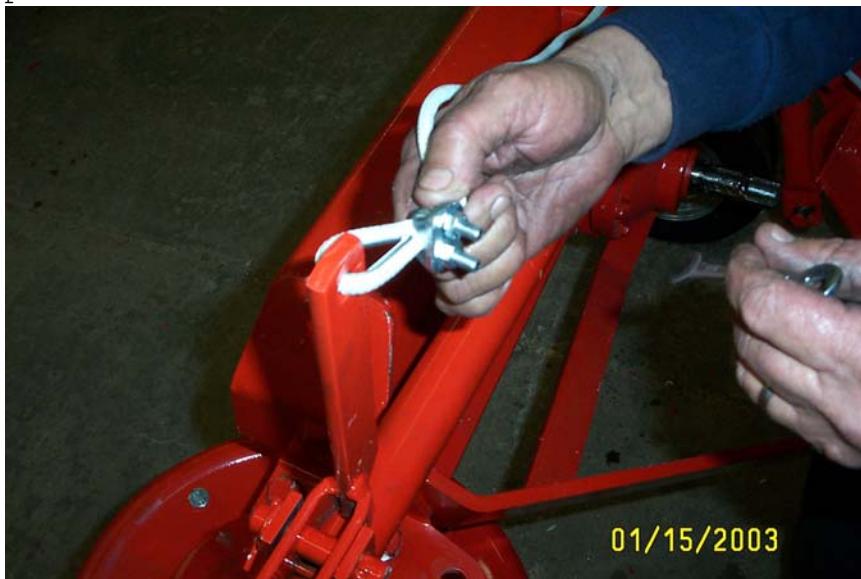
You will need to carefully try to remove any paint from the cylinder shaft. After the cylinder is secure, push upward on the arm and lock into place.



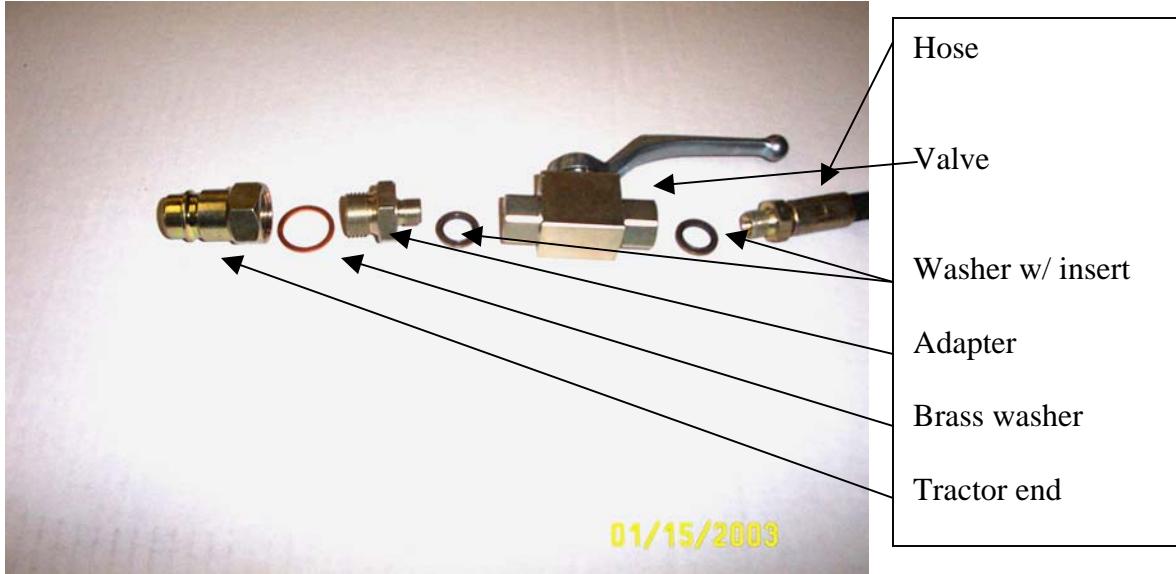
Release

Lock

13. Attach the manual rope release with the rope, thimbles and rope clamps provided. One rope is longer than the other. After each is attached to either side, simply pull taut and clamp together for one pull.



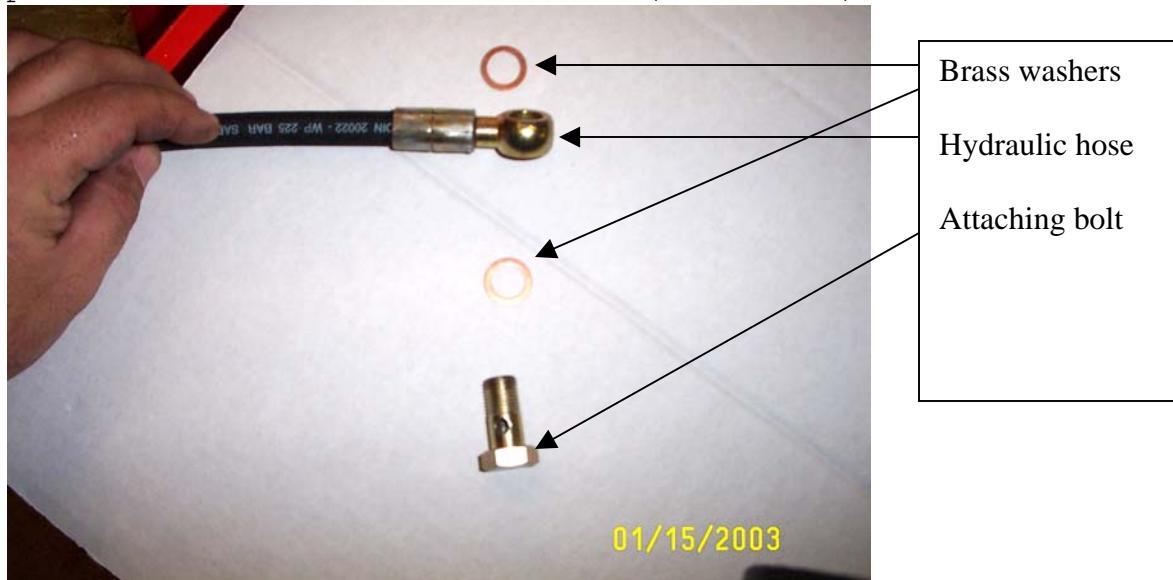
14. Hooking up the hoses: Install hydraulic valve onto the longest hydraulic hose using a 19 mm wrench. Be sure to insert brass washer w/rubber insert. Screw hose adapter into the adapter into the other end of the on/off valve using a 27mm wrench. There is a brass fitting that goes between the adapter and the tractor end fitting.



15. Attach the short hoses to the main hose using the compression tee fitting. (19mm wrench) Be sure to apply the pipe dope to the threads of the compression fitting.



16. Attach the other end of short hoses to the cylinders. Be sure to put brass washer on either side of bolt (19mm wrench).



16. Be sure to attach the safety cover around the input shaft before attaching the pto shaft. The unit is now ready to attach the tines.

17. The tines are already mounted on the arms. You will need to make sure that the arms are mounted so that the tines are facing the right direction

