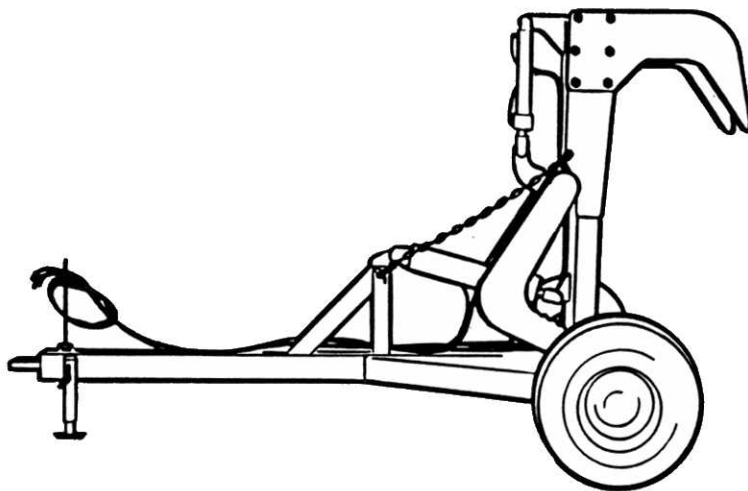


# **Deegelman**

"BEST IN THE FIELD - - - WHERE IT COUNTS"

## **ROCK DIGGER RD320**



## **ASSEMBLY MANUAL**

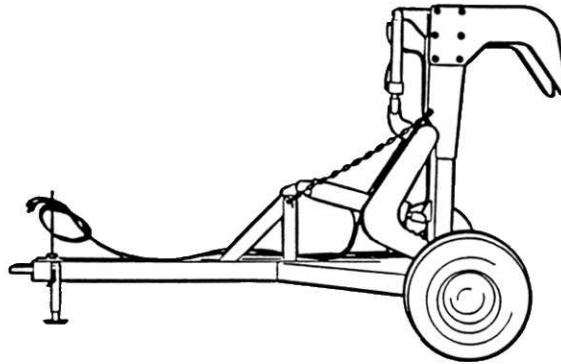
142385

SEPT 90

***farm implements***



# INTRODUCTION



Follow the sequence of steps contained in this manual to assist in setting up machine. Use care and caution when handling components to prevent personal injury.



This Safety Alert Symbol identifies important Safety Messages. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

"Right Hand" and "Left Hand" sides are determined by facing in the direction of forward travel.

This Manual contains both Imperial Units of measure (inches - in./feet - ft.) and SI Metric Units of measure (millimetres - mm/metres - m).

Before operating this machine, be sure to read and understand the OPERATOR'S MANUAL.

If you have any questions related to the assembly of this machine, please feel free to contact the manufacturer. Direct inquiries to:

**DEGELMAN INDUSTRIES LTD.**

P. O. Box 830  
272 Industrial Drive  
Regina, Saskatchewan  
Canada  
S4P 3B1  
Phone: (306) 543-4447  
FAX: 543-2140

**Degelman Industries Ltd.** reserves the right to make alterations and/or improvements to its products at any time without incurring any obligations to make such changes to products previously manufactured.

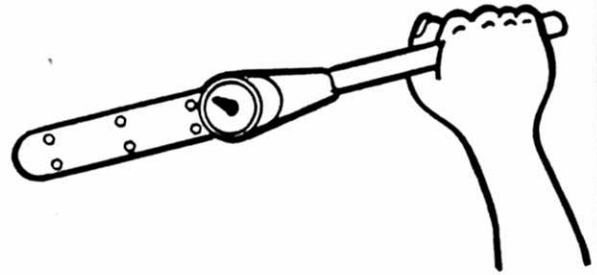
**Printed in Canada**



# ASSEMBLY

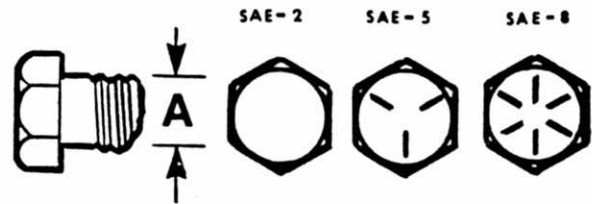
## BOLT TORQUE

The table shown below gives the correct torque values for various bolts and cap screws. Tighten all bolts to the torque specified in chart unless otherwise noted.



## IMPERIAL TORQUE SPECIFICATIONS

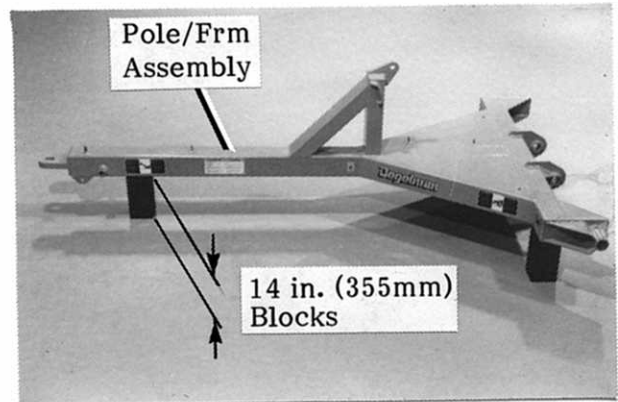
| BOLT<br>DIAMETER | BOLT TORQUE |         |       |         |       |         |
|------------------|-------------|---------|-------|---------|-------|---------|
|                  | SAE 2       |         | SAE 5 |         | SAE 8 |         |
| A                | N.m         | (lb-ft) | N.m   | (lb-ft) | N.m   | (lb-ft) |
| 1/4 in.          | 8           | (6)     | 12    | (9)     | 16    | (12)    |
| 5/16 in.         | 13          | (10)    | 24    | (18)    | 34    | (25)    |
| 3/8 in.          | 27          | (20)    | 41    | (30)    | 51    | (45)    |
| 7/16 in.         | 41          | (30)    | 63    | (50)    | 95    | (70)    |
| 1/2 in.          | 61          | (45)    | 101   | (75)    | 149   | (110)   |
| 9/16 in.         | 95          | (70)    | 150   | (110)   | 210   | (155)   |
| 5/8 in.          | 128         | (95)    | 210   | (155)   | 290   | (215)   |
| 3/4 in.          | 225         | (185)   | 365   | (270)   | 520   | (385)   |
| 7/8 in.          | 230         | (170)   | 590   | (435)   | 840   | (620)   |
| 1 in.            | 345         | (255)   | 895   | (660)   | 1250  | (930)   |



1. Block up the pole/frame assembly at the three locations shown.



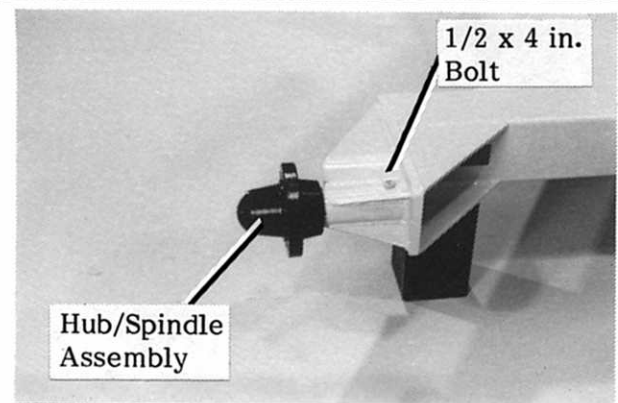
**CAUTION:** Be sure no one is standing near the machine while raising.



2. Slide hub/spindle assembly into axle holder and secure with bolt lockwasher and nut shown.

**Important:** Clean out threaded holes in hub using a 9/16 in. UNF thread tap.

Repeat on opposite side.

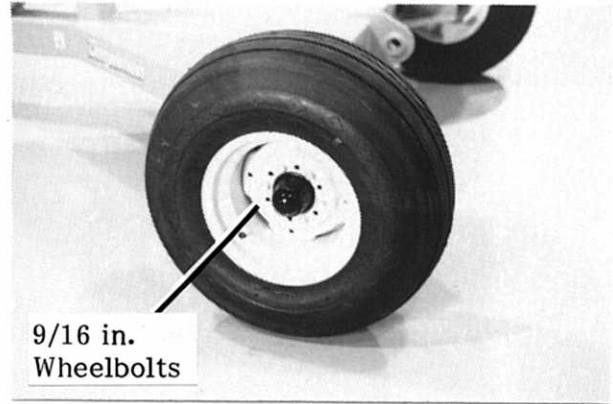


## ASSEMBLY

3. Inflate tires to 36 PSI (250 kPa).

**⚠ WARNING:** Do not exceed recommended tire pressure. Use care and caution when inflating tires to prevent personal injury from blow-outs.

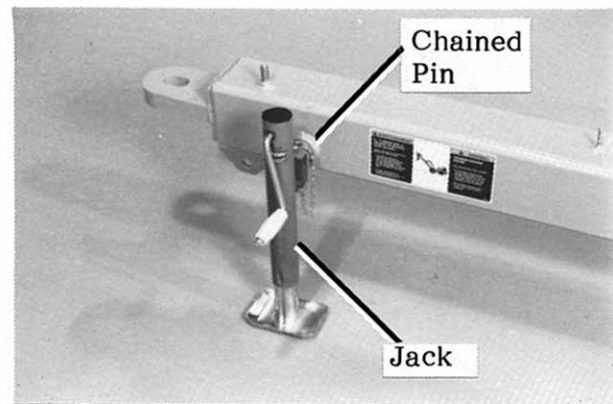
Mount tires to hubs (valve stem faces outward) using the wheel bolts shown. Torque bolts evenly to 110 ft. lbs.



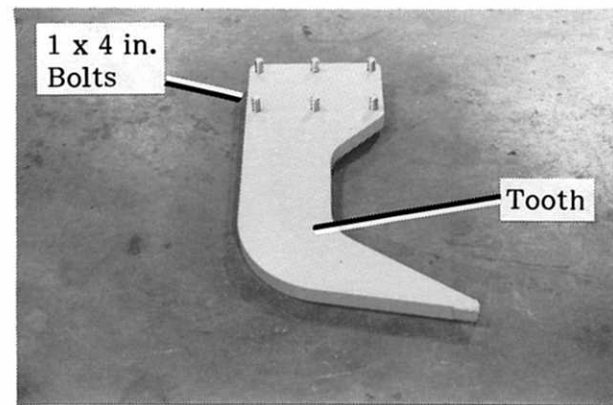
4. Install side wind jack to hitch pole and secure with chained pin.

Carefully raise up machine and remove blocking.

**⚠ CAUTION:** Use care and caution to prevent personal injury when raising up machine to remove blocking.

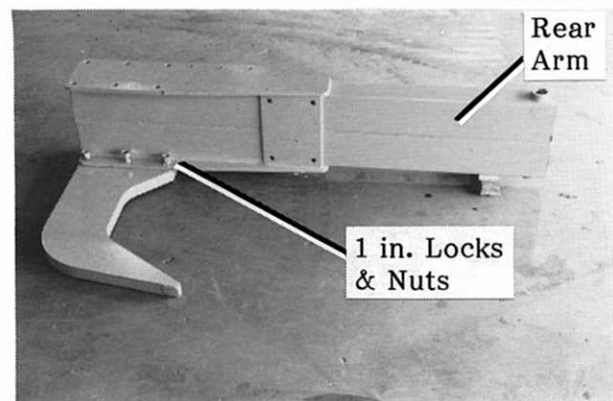


5. Position tooth over the threads of the six bolts shown.



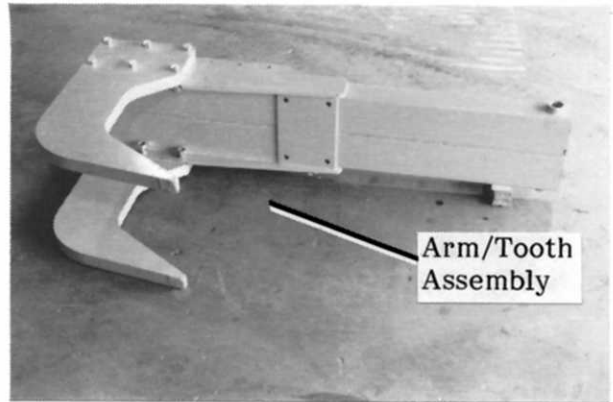
6. Lower the rear arm assembly over the tooth/bolt combination and secure with lockwashers and nuts.

**⚠ CAUTION:** Use care and caution to prevent personal injury when positioning unit.



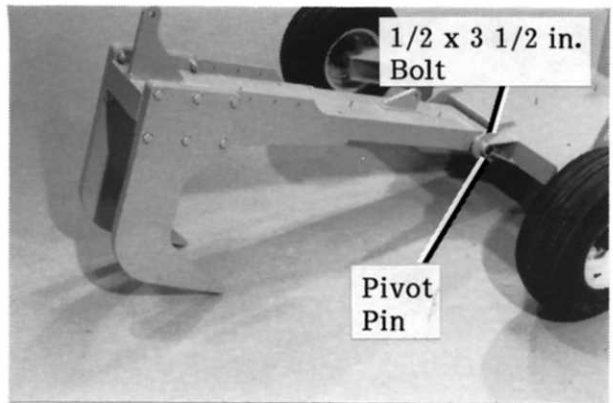
## ASSEMBLY

7. Install bolts through remaining tooth and carefully raise and position as shown. Secure with lockwashers and nuts.

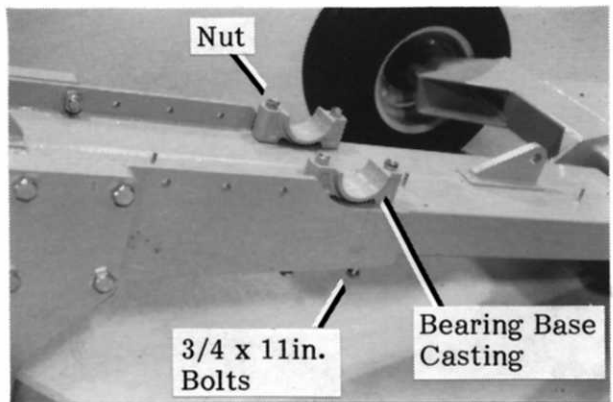


8. Raise the completed rear arm/tooth assembly into position between clevis plates on pole/frame assembly and secure with the pivot pin and a bolt, lockwasher and nut.

**CAUTION:** Be sure no one is standing near the machine while raising.

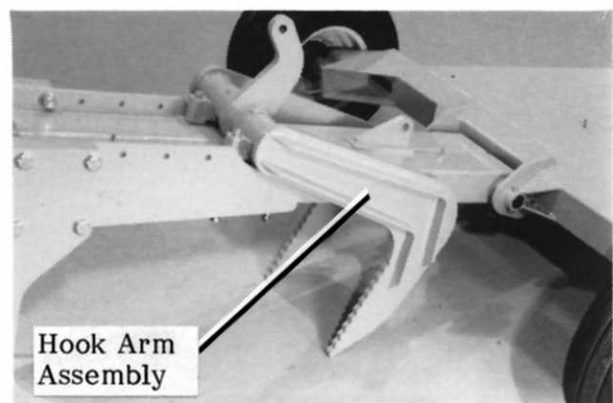


9. Loosely secure both bearing base castings at location shown using bolts from the bottom and temporarily threading nuts on to keep bolts from falling out.



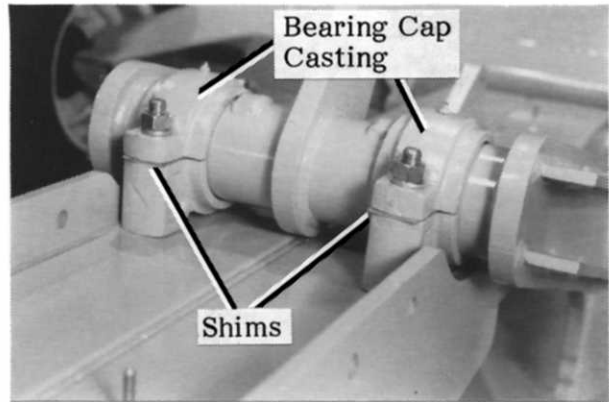
10. Position hook arm assembly between bearing castings.

**CAUTION:** Be sure no one is standing near the machine while raising.

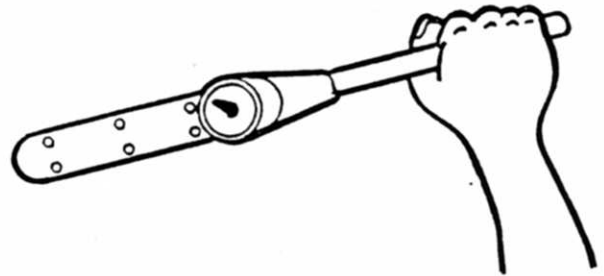


## ASSEMBLY

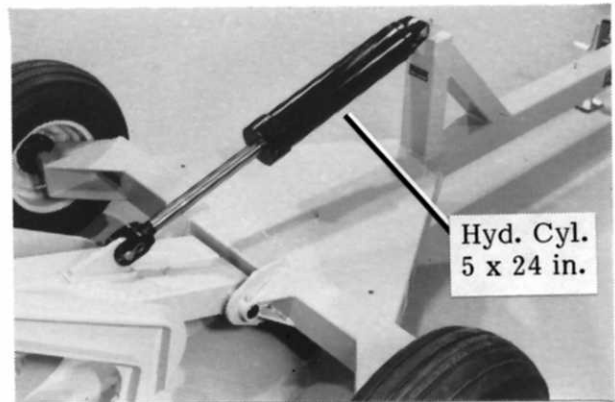
11. Remove nuts from base casting and secure bearing cap casting, along with one shim per side, by reinstalling bolts and nuts along with lockwashers.



12. Tighten bolted connections assembled to this stage to torque values shown on Bolt Torque Chart (Page #1).

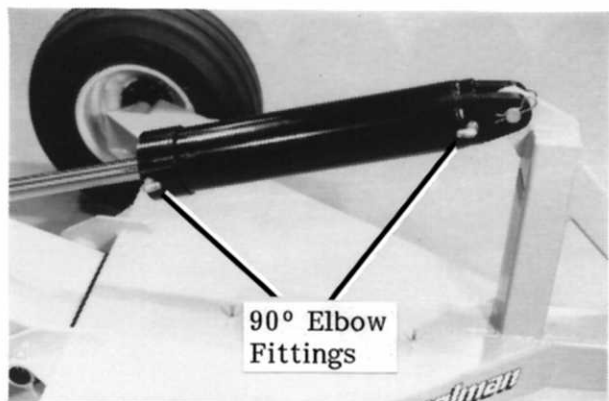


13. Install the hydraulic cylinder as shown.



Thread fittings into ports and face in direction shown.

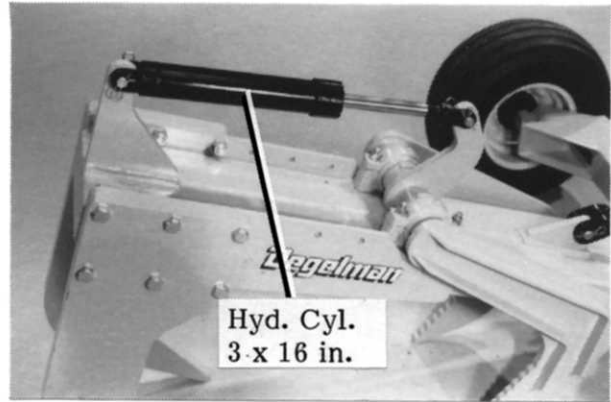
NOTE: O-ring side of elbow fits into cylinder port.





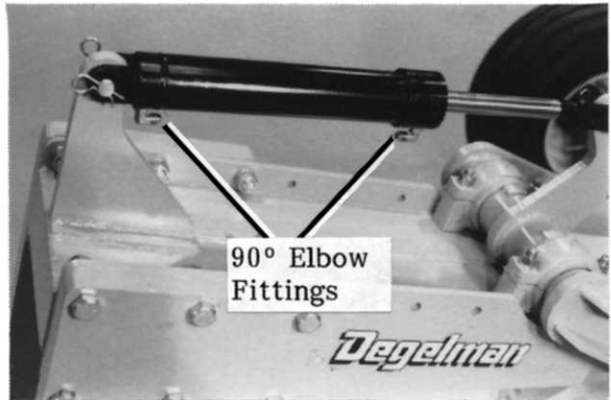
## ASSEMBLY

14. Install the hydraulic cylinder as shown.

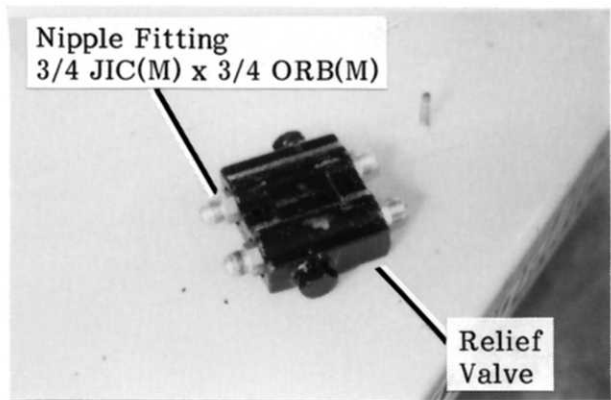


Thread fittings into ports and face in direction shown.

NOTE: O-ring side of elbow fits into cylinder port.

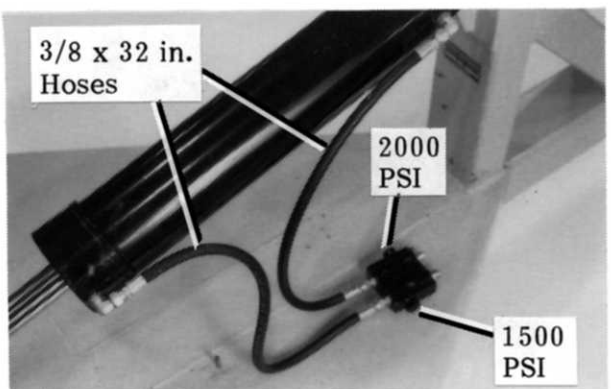


15. Thread fittings into relief valve.



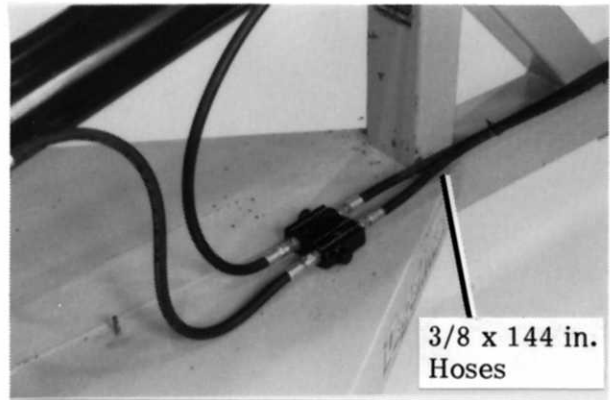
16. Connect the hoses shown to cylinder and relief valve.

**Important:** Be sure that the hose coming from the cartridge side stamped 1500 PSI goes to the rod side cylinder port and vice versa.



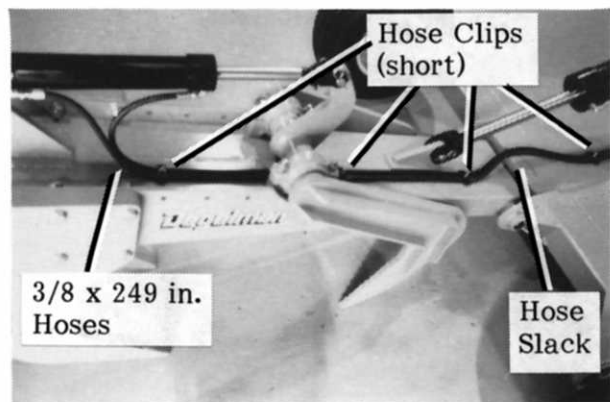
## ASSEMBLY

17. Install the two hoses shown from the relief valve toward front of machine.

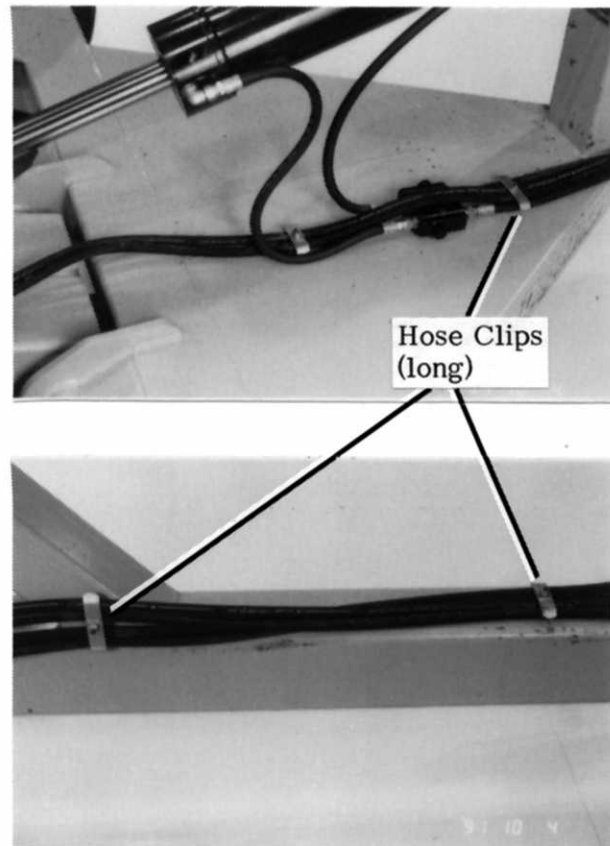


18. Install the appropriate length of hoses to cylinder and secure hoses at stud location on frame using the hose clips, 5/16 in. lockwasher and nuts as shown.

**Important:** Be sure to leave 2 - 3 in. (50-75mm) of hose slack where hoses cross over at pivot point.

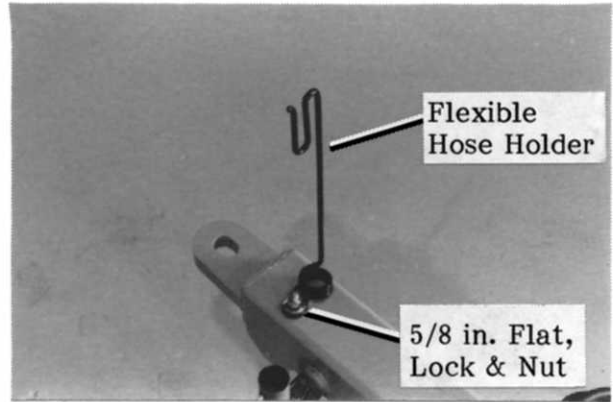


Lay both hoses from rear cylinder over relief valve and secure with hose clips.

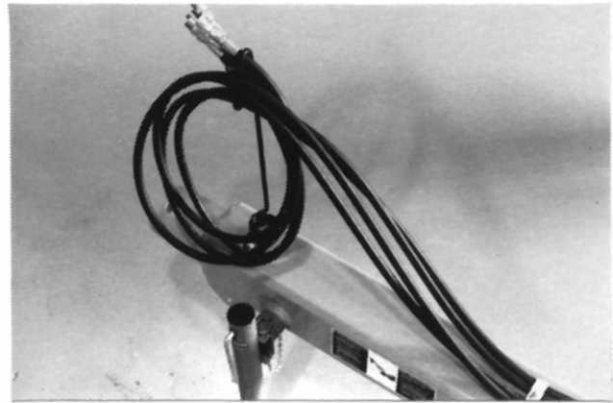


## ASSEMBLY

19. Mount the flexible hose holder to stud at front end of pole using a flatwasher, lockwasher and nut.



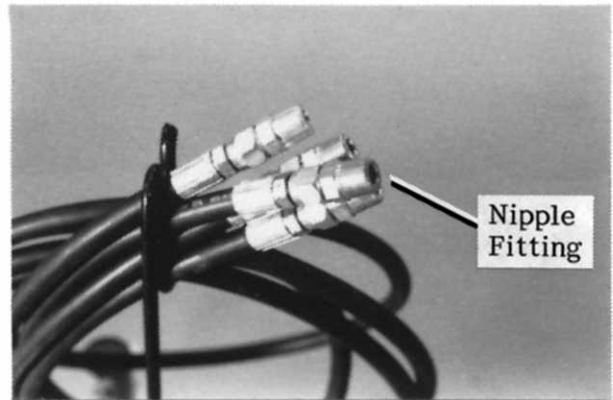
20. Wedge hoses into holder.



Install the four nipple fittings shown onto hose ends.

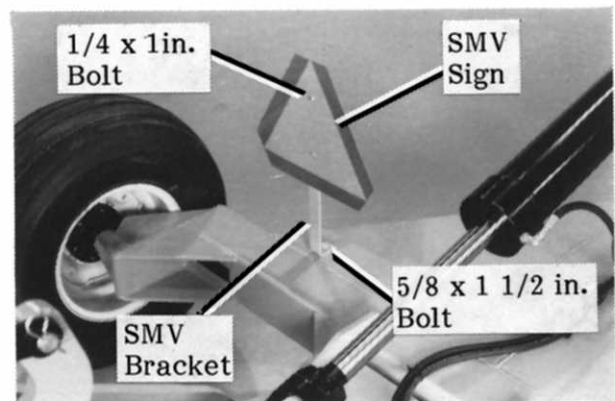
Attach the appropriate quick couplers (not supplied) to match tractor outlets.

Check and tighten all fitting connections.



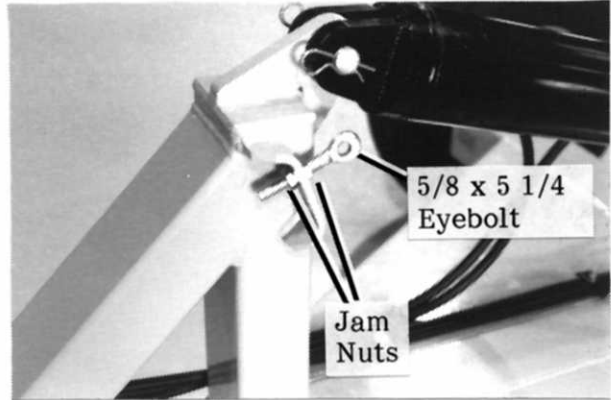
21. Mount the SMV sign bracket over the hole on the left hand side of frame using the bolt, lockwasher and nut shown.

Mount the SMV sign to bracket using the bolts, lockwashers and nuts shown.



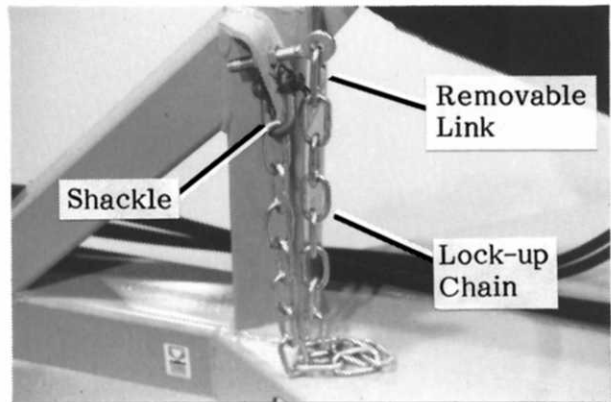
## ASSEMBLY

22. Install the eye bolt/jam nut combination as shown into the upper hole of lug.

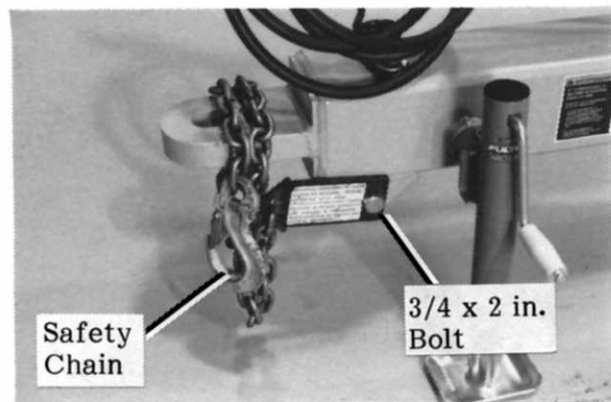


Install the lock-up chain to eye bolt (removeable link to be secured to eye bolt).

NOTE: Lower hole is for shackle storage when machine is in operation.



23. Install safety chain (if purchased) using the bolt, lockwasher and nut shown.



24. The machine is now fully assembled.

Check that all bolted connections have been properly torqued (refer to Bolt Torque Chart on Page #1).

Check to make sure that all hydraulic connections have been tightened.



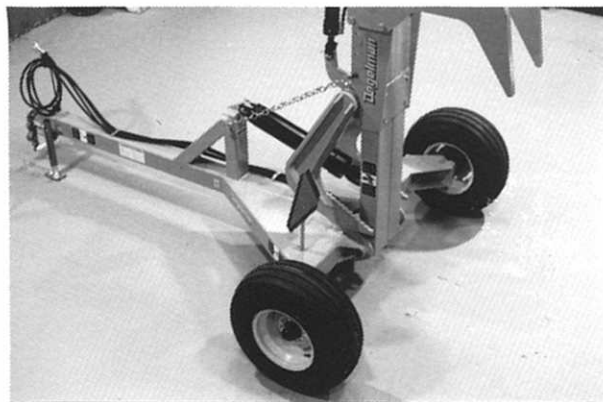
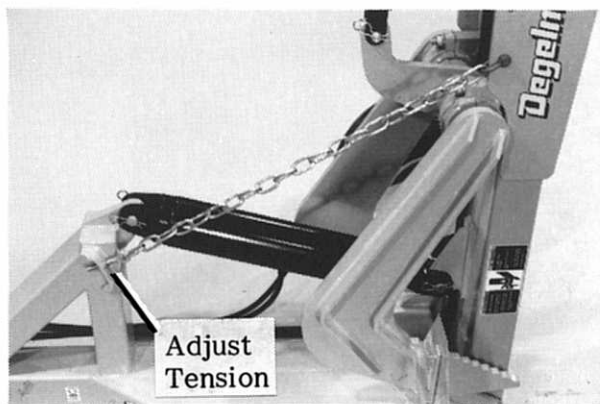
## ASSEMBLY

25. Hitch and pin the machine to tractor and install the hydraulic hoses to tractor outlets. Load up and cycle the hydraulic cylinders several times to remove any air in system.

Raise hook arm fully to see if lock-up chain can be installed almost tight at this location. (Make this adjustment by using the jam nuts on the eye bolts.)



**DANGER:** Be sure no one is standing near the machine when raising and lowering the hook arm.



26. Lubricate the machine at this time. Refer to the Lubrication Section of the Operator's Manual to aid in identifying each location.



GREASE

27. Read and understand the Operator's Manual before operating this machine.



# NOTES

# ***DeGelman***

## **WE PROVIDE**

- **complete operating instructions.**
- **complete repair parts lists.**
- **written warranty protection.**
- **ten year parts availability.**

**————— Quality in Equipment —————**

**BEST IN THE FIELD WHERE IT COUNTS . . .**

**DEGELMAN INDUSTRIES LTD.**

**272 INDUSTRIAL DRIVE**

**REGINA, SASK.,**

**CANADA S4P 3B1**

**PHONE (306) 543-4447**

**FAX (306) 543-2140**