

Ezee-On

MODEL 791 GRAPPLE FORK OPERATOR'S MANUAL

OPERATOR'S MANUAL and PARTS LIST

Manufactured
by

Ezee-On Mfg. Ltd.

Vegreville, Alberta
Canada

Printed in Canada

655D

WARRANTY

EZEE-ON WARRANTY FOR AGRICULTURAL PRODUCTS

EZEE-ON warrants each item of new DEE-ON equipment sold by it to be free from defects in material and workmanship under recommended agricultural use. This warranty is void if equipment is used for other than agricultural purposes. The sole obligation of EZEE-ON under this warranty is limited to the repair or replacement of those part(s) (F.O.B. DEE-ON Factory) of the equipment which DEE-ON in its sole discretion, determines to have failed as a result of defects in material or workmanship occurring prior to the expiration of one year ("Warranty Period") from delivery by DEE-ON or its selling dealer ("Dealer") to the original purchaser ("Purchaser"). Such defective part(s) will, at the option of DEE-ON, be either repaired or replaced only to the Purchaser and must be effected by the selling Dealer.

The Purchaser must, within the Warranty Period, give written notice to the Dealer, from whom the equipment was purchased, of any claimed defect. The Dealer will have a reasonable time under the circumstances then existing, to repair or replace defective part(s). This warranty shall not cover damage to any other part(s) of the equipment caused as a result of delay by the Purchaser to repair or replace defective part(s). EZEE-ON's LIABILITY UNDER THIS WARRANTY SHALL BE LIMITED TO, AND IN NO CASE BE GREATER THAN, THE COST OF THE REPAIR OR REPLACEMENT OF THE PART(S) COVERED. THIS WARRANTY SHALL SPECIFICALLY EXCLUDE ANY OTHER COSTS, INCLUDING BUT NOT LIMITED TO, LOSS AND/OR DAMAGE TO CROPS, LOSS OF USE, LOSS OF PROFIT, REVENUE OR OTHER COMMERCIAL LOSSES, INCONVENIENCE OR COST OF RENTAL OR REPLACEMENT EQUIPMENT, TRANSPORTATION EXPENSE TO AND FROM DEALER'S PREMISES, SERVICE CALLS, NORMAL MAINTENANCE AND UPKEEP COSTS, OVERTIME LABOUR COSTS AND ANY AND ALL INJURIES, CLAIMS OR SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGE OR OTHER ECONOMIC LOSS. THE FOLLOWING ITEMS ARE SPECIFICALLY EXCLUDED FROM WARRANTY:

ALL PRODUCTS -	RUBBER TIRES AND TUBES, EXCLUSIVE OF PACKER WHEEL TIRES WHICH ARE WARRANTED DIRECTLY BY AGENTS OF THE TIRE MANUFACTURERS.
CULTIVATORS/CHISEL PLOWS AND AIR DRILLS -	BENT SHAFTS AND ALL GROUND ENGAGING TOOLS.
AIR SEEDERS -	TANK PAINT IF DAMAGE IS CAUSED BY CHEMICAL AGENTS.
DISCS -	DISC BLADES.
FRONT END LOADERS -	BUCKET TEETH AND GRAPPLE TEETH. MODIFICATIONS TO LOADER MOUNTS TO ADAPT TO CHANGES MADE BY TRACTOR MANUFACTURERS IN TRACTOR DESIGN.
POST DRIVERS -	ENGINE & ENGINE PARTS WHICH ARE WARRANTED DIRECTLY BY AGENTS OF THE ENGINE MANUFACTURER.

This warranty applies only to new equipment, manufactured by DEE-ON. This warranty does not cover damage caused to or by any equipment, accessories or part(s) attached to or utilized in conjunction with DEE-ON equipment. This warranty does not cover damage caused as a result of attachment, modification and incorrect assembly or pre-delivery.

This warranty constitutes the only warranty and is in lieu of any other warranty expressed or implied. There is no warranty of merchantability or of fitness for a particular purpose. No Dealer, salesman or agent has any authority to alter or amend this warranty.

TYPE OF EZEE-ON PRODUCT PURCHASED	_____
MODEL NUMBER	_____
SERIAL NUMBER	_____

This identification should be provided in all correspondence or communication with DEE-ON regarding your implement.

INTRODUCTION

THANK YOU for choosing to purchase this ~~Ezee-On~~ implement, we are confident you will be impressed with its performance.

In addition to the traditional values of simplicity, reliability and durability, your new EZEE-ON implement incorporates a number of operational and safety features. We urge you to familiarize yourself with the maintenance and operation of your implement by reading this Manual thoroughly and completely. Failure to do so ~~could~~ result in personal injury or equipment damage.

THIS MANUAL contains important information regarding assembly, maintenance, operating instructions, and troubleshooting problems, and should be a considered a permanent part of your implement.

Remember that it is the responsibility of the Operator to ensure that any new implement is field ready, prior to first operation. However, should you encounter a problem, please contact your dealer immediately.



READ THIS MANUAL CAREFULLY TO ENSURE THAT YOUR NEW IMPLEMENT IS ASSEMBLED AND ADJUSTED CORRECTLY PRIOR TO FIRST OPERATION.

RIGHT and LEFT is determined by standing behind the machine and facing FORWARD in the direction of travel.



This symbol is used to identify safety messages. When you see this symbol, read the safety message carefully.

INDEX	PAGE
SAFETY	2
ASSEMBLY	4
LUBRICATION	10
MAIIVTEIVANCE	10
OPERATION	11
PARTS LIST INDEX	13

EZEE-ON MFG. LTD. RESERVES THE RIGHT to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice.

SAFETY RECOMMENDATION



WATCH FOR THIS SYMBOL. IT IDENTIFIES IMPORTANT SAFETY MESSAGES. WHEN YOU SEE THIS SYMBOL, READ THE SAFETY MESSAGE CAREFULLY.

GENERAL SAFETY

1. Refer to your loader owner's manual for safety recommendations to assemble, operate and service loader
2. Never allow anyone to ride on any portion of the loader, grapple fork or tractor, the person may fall and be seriously or fatally injured.
3. Machinery should be operated **ONLY** by a person(s) responsible and qualified to do so. In case of a break down or injury, the person(s) should be familiar with repair procedures and temporary first aid.
4. Never allow anyone to climb or play on the grapple fork, loader, or tractor. The person may fall and be seriously or fatally injured
5. Follow all safety precautions in your tractor manual.
6. Keep a first aid kit in the tractor.



ASSEMBLY SAFETY

1. When assembling grapple fork, use a hoist or adequate manpower to lift heavy components into place. Use adequate jacks or support material.
2. When assembling grapple fork, use aligning punch to align holes, keep fingers out of these holes. Any sudden movement of heavy components will severely injure or sever fingers.
3. When assembling grapple fork, be sure all bolts and hydraulic fittings are tight and all cotter pins are installed in pins. Loose bolts, hydraulic fitting and missing cotter pins may result in serious damage to the loader, grapple fork, and tractor, and possible injury or death.
4. Always relieve the pressure in the hydraulic system before making any adjustments or ~~when~~ parking the loader. Hydraulic fluid escaping under pressure can cause personal injury by penetrating the eyes or skin. If injured by escaping hydraulic fluid, see a medical doctor immediately.

MAINTENANCE SAFETY

1. Check all hydraulic hoses periodically for signs of rupture and leaks. Always use wood or cardboard as a backstop, and wear gloves and eye protection when searching the hydraulic system for leaks. Spurting hydraulic fluid can cause injury by penetrating skin or the eyes. If injured by escaping hydraulic fluid, see a medical doctor immediately.
2. DO NOT disassemble or loosen hydraulic components when there is pressure within those components. Hydraulic components ~~under~~ pressure may cause parts and hydraulic fluid to fly out at a high velocity, which could cause serious injury. Always relieve the pressure in the hydraulic system before servicing the hydraulic system.

3. Always wear safety glasses or goggles and gloves when working on the hydraulic system.
4. Always permit parts which contain hot fluid to cool to a safe temperature before handling or disconnecting these parts
5. DO NOT service or adjust grapple fork while grapple fork, loader, or tractor are in operation. If person(s) doing the servicing are caught by heavy moving components, serious injury or death may occur. Always put all tractor controls in neutral, set the park brake and shut off engine when servicing grapple fork or loader.
6. When assembling (or removing) grapple frame to (or from) uprights, use aligning punch to align holes. Keep fingers out of these holes. Any sudden movement of heavy components will severely injure or sever fingers.
7. When assembling (or removing) grapple fork to (or from) uprights, be sure cotter pins are installed in pins. Missing cotter pins could cause serious damage to grapple fork, loader, and tractor, or possible personal injury or death.
8. When assembling (or removing) grapple frame to (or from) uprights, use a hoist or adequate manpower to lift heavy frame into place. Use adequate jacks or support material.

OPERATION SAFETY

1. Make sure the person(s) nearby are standing clear before you operate loader and grapple fork. The person(s) may be struck or caught by loader or grapple fork resulting in serious injury or death.
2. Use a grapple fork only when carrying round bales with the bucket, or use an approved round bale carrying fork. Use of the bucket only, or unapproved forks attached to the bucket, or any other unapproved attachment to carry round bales may result in personal injury or death, and serious damage to the loader due to bale instability.
3. Always relieve the pressure in the hydraulic system before making any adjustments or when parking the loader. Hydraulic fluid escaping under pressure can cause personal injury by penetrating the eyes or skin. If injured by escaping hydraulic fluid, see a medical doctor immediately.

ASSEMBLY INSTRUCTIONS

1. See ILL. 1. Install (1) 1/4" - 28 grease fitting in cross tube at rear of pivot frame, arrow 1.

See ILL.1. Fasten (1) 2" x 12" hydraulic cylinder, arrow 2, to each pivot frame assembly. Secure barrel end of each cylinder to top pin hole of upright, arrow 3 and arrow 8. Be sure cylinder ports are facing up. Secure barrel end of each cylinder with (1) 1" Dia. X 3-1/2" pin c/w two (2) 3/16" x 1-1/4" cotter pins. Next, extend each cylinder and place shaft end clevis over lug on pivot frame, arrow 1. Secure each shaft end of cylinder with 1" Dia. X 3-1/2" pin c/w two (2) 3/16" x 1-1/4" cotter pins.



CAUTION: WHEN ASSEMBLING GRAPPLE FORK, USE A HOIST OR ADEQUATE MANPOWER TO LIFT HEAVY COMPONENTS INTO PLACE. USE ADEQUATE JACKS OR SUPPORT MATERIAL.

3. See ILL.1. Fasten (1) 3" x 4" x 73" front bar, arrow 4, to front of each pivot frame, arrow 1. Secure each end of bar with (2) 5/8" x 4" U-bolts, c/w nuts, arrow 6, and one angle bracket, arrow 5. Each angle bracket is secured with (4) 5/8" x 5" hex bolts c/w nuts and lockwashers. Before tightening nuts, position mount plate, arrow 7, of each pivot frame, so it is **flush with end of bar**, arrow 4. Tighten 5/8" x 4" U-bolt and 5/8" x 4 1/2" hex bolt.



CAUTION: WHEN ASSEMBLING GRAPPLE FORK, USE ALIGNING PUNCH TO ALIGN HOLES, KEEP FINGERS OUT OF THESE HOLES. ANY SUDDEN MOVEMENT OF HEAVY COMPONENTS WILL SEVERELY INJURE OR SEVER FINGERS.

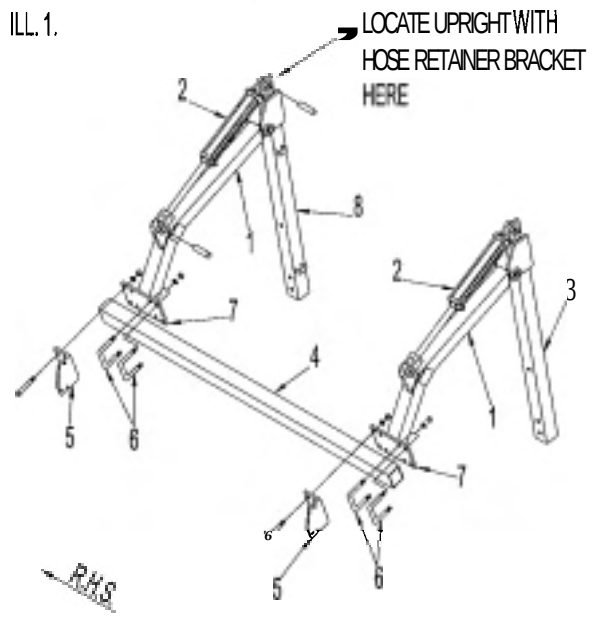
4. See ILL. 2 and 3. Position grapple fork uprights, arrow 3, on rear side of bucket with stop lug resting on top edge of bucket. Grapple assembly should be centered on bucket. Height of grapple from center of pivot pin should be 50-1/2" for 24" high bucket and 48-1/2" for 22" high bucket. Hold grapple in place with clamps. Then using holes in upright as a template, drill (2) 3/4" diameter holes through back of bucket for each arm.

NOTE: Before drilling holes be sure tie bar, arrow 1, shown ILL. 6 can be installed.

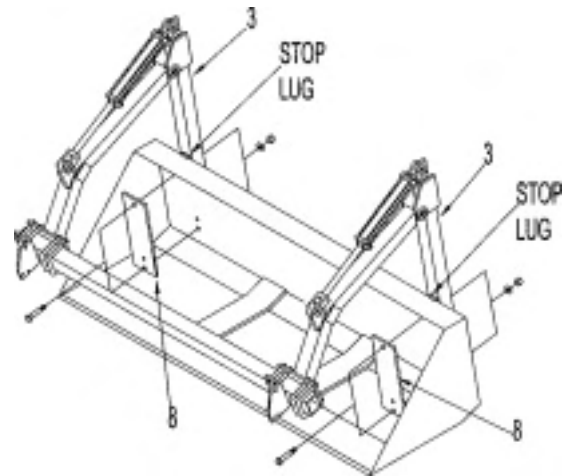
CAUTION: WHEN ASSEMBLING GRAPPLE FORK, BE SURE ALL BOLTS AND HYDRAULIC FITTINGS ARE TIGHT AND ALL COTTER PINS ARE INSTALLED IN PINS. LOOSE BOLTS, HYDRAULIC FITTING AND MISSING COTTER PINS MAY RESULT IN SERIOUS DAMAGE TO THE LOADER, GRAPPLE FORK, AND TRACTOR, AND POSSIBLE INJURY OR DEATH.

5. See ILL. 2 and 3. Fasten each uprights, arrow 3, to back of bucket with (2) 3/4" x 5" N.C. hex bolts c/w nuts and lockwashers and (1) backing plate, arrow 8, be sure the formed end of backing plate is at the bottom of bucket. Tighten all bolts.

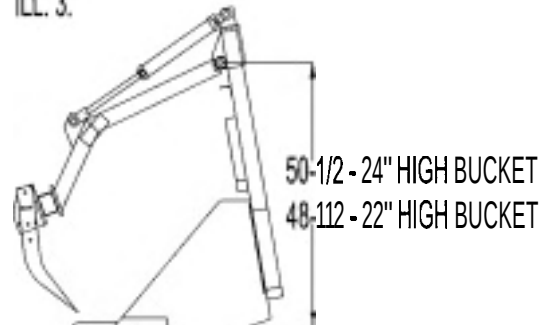
ILL. 1.

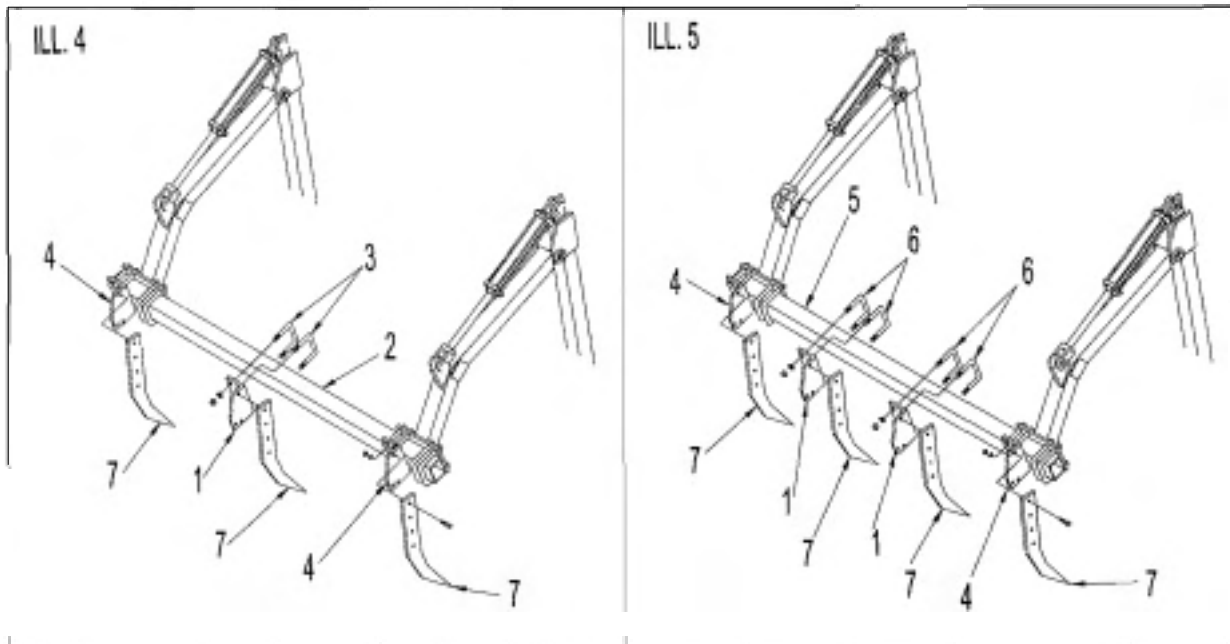


ILL. 2.



ILL. 3.





6. GRAPPLE TEETH INSTALLATION

A. 3 TOOTH MACHINE- See ILL. 4

Fasten one (1) tooth mount bracket, arrow 1, to front bar, arrow 2, with (2) 5/8" x 4" 11-bolts, arrow 3, c/w nuts. Position bracket on center between outer brackets, arrow 4. Tighten both U-bolts.

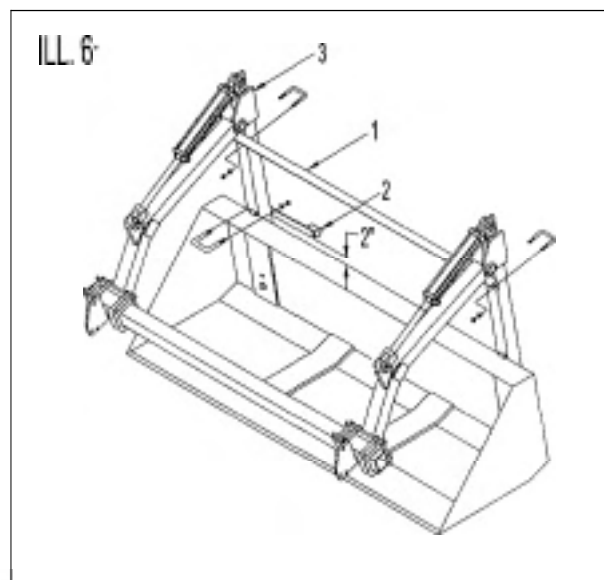
B. 4 TOOTH MACHINE - See ILL. 5

Fasten two (2) tooth mount brackets, arrow 1, to front bar, arrow 5, with (2) 5/8" x 4" U-bolts, arrow 6, on nuts. Space brackets equally between outer brackets, arrow 4. Tighten all U-bolts.

C. See ILL. 4 and 5. Fasten (1) grapple tooth, arrow 7, to each tooth mount bracket arrows 1 and 4. Secure each tooth with (2) 1/2" x 2" N.C. hex bolts c/w nuts and lockwashers. Teeth can be fastened to 3 different angles and 2 different heights, see operating instructions on page 15 before installing teeth.

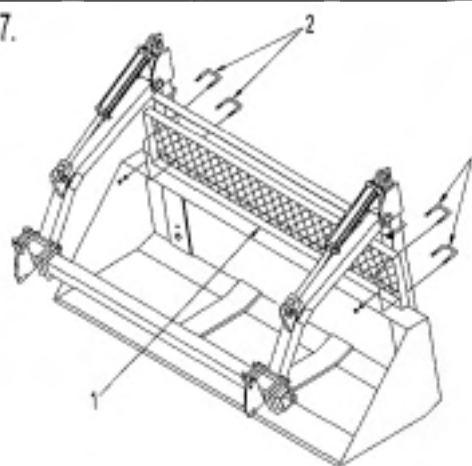
7. See ILL. 6. Fasten (1) One upright Tie Bar, arrow 1, to the inside of each upright. Locate approximately 10" from top of each upright. Secure tie bar with (2) Two 1/2" x 3" x 4" U-bolts c/w nuts and lockwashers. Tighten all U-bolts.

8. See ILL. 6. Fasten (1) one hydraulic hose retainer, arrow 2, to rear side of R.H. upright, arrow 3. Locate as shown with bottom edge of retainer is 2" above top of bucket. Fasten with one (1) 1/2" x 3" x 4" u-bolt c/w nuts and lockwashers. Tighten U-bolt.



9. SILAGE GUARD INSTALLATION, (Optional) See ILL. 7.
Fasten silage guard, arrow 1, to the inside of each upright with (2) Two 1/2" x 3" x 4", arrow 2, U-bolts c/w nuts and lockwashers. Locate approximately 3" above top of bucket. Tighten all U-bolts.

ILL. 7.



10. CONNECTING HYDRAULIC SYSTEM

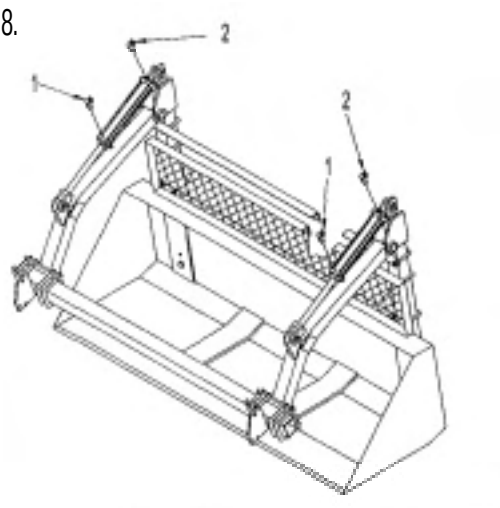
IMPORTANT: DO NOT USE TEFLON TAPE TO SEAL HYDRAULIC HOSES AND FITTINGS. IF PIECES OF TAPE GET INTO THE HYDRAULIC SYSTEM THEY MAY PLUG SMALL ORIFICES.

- A. See ILL.8. Install (1) One 3/8" x 90 Deg. swivel street elbow, arrow 1, in shaft, end port of each cylinder. Fasten (1) one 3/8" x 90 Deg. swivel street elbow, arrow 2, in barrel end port, arrow 2, of each cylinder.

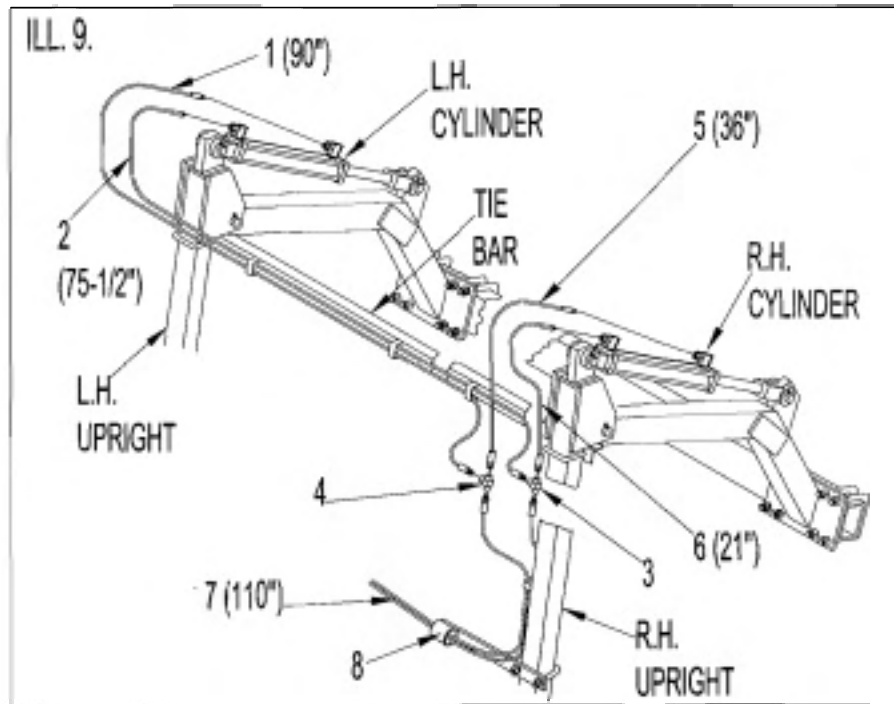


CAUTION: ALWAYS RELIEVE THE PRESSURE IN THE HYDRAULIC SYSTEM BEFORE MAKING ANY ADJUSTMENTS OR WHEN PARKING THE LOADER. HYDRAULIC FLUID ESCAPING UNDER PRESSURE CAN CAUSE PERSONAL INJURY BY PENETRATING THE EYES OR SKIN. IF INJURED BY ESCAPING HYDRAULIC FLUID, SEE A MEDICAL DOCTOR IMMEDIATELY.

ILL. 8.



CONNECTING HYDRAULIC SYSTEM Continued:

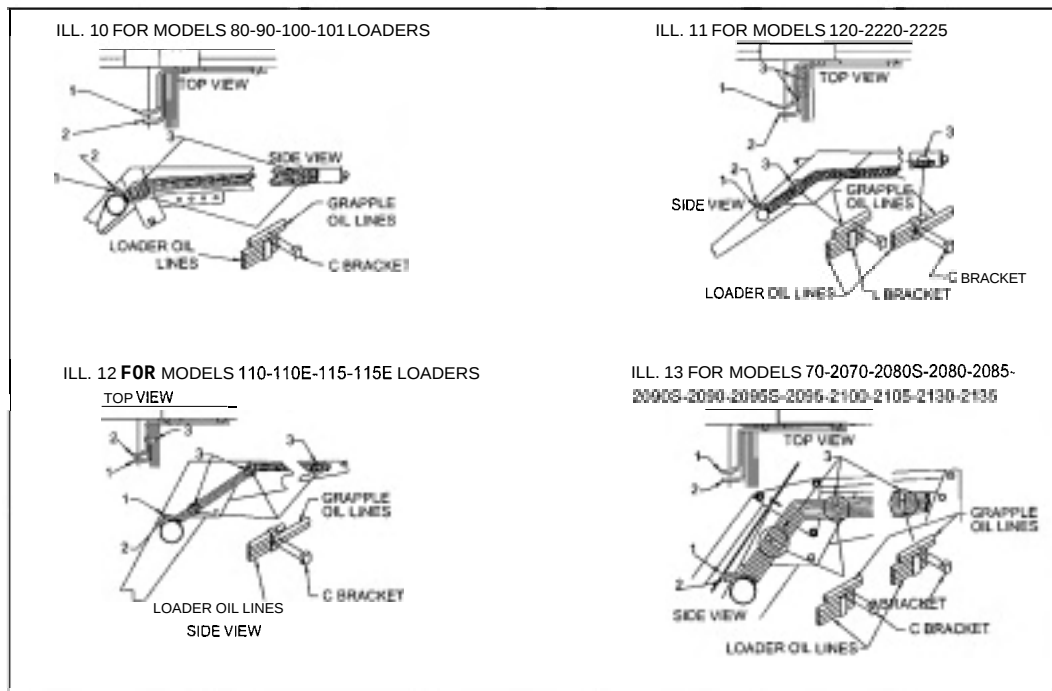


- B. See ILL.9. Connect (1) 1/4" x 90" hose, arrow 1, to front port of L.H. cylinder. Thread hoses through loops on back side of the tie bar.
- C. See ILL. 9. Connect (1) 1/4" x 75 1/2" hose, arrow 2, to rear port of L.H. cylinder. Thread hose through loops on back side of tie bar.
- D. See ILL.9. Install (1) 3/8" tee, arrow 3 and 4, to end of each hose, arrow 1 and 2.
- E. See ILL. 9. Connect (1) 1/4" x 36" hose, arrow 5, to front port of R.H. cylinder. Connect the opposite end of same hose to 3/8" tee, arrow 4.
- F. See ILL. 9. Connect (1) 1/4" x 21" hose, arrow 6, to rear port of R.H. cylinder. Connect the opposite end of same hose to 3/8" tee, arrow 3.
- G. See ILL.9. Thread (2) 3/8" x 110" hoses, arrow 7, through hose retainer, arrow 8, and then through (2) loops on inside of R.H. upright. Connect (1) hose to 3/8" tee, arrow 3, and the other hose to 3/8" tee, arrow 4.

NOTE: THE 21" HOSE, ARROW 6, AND THE 36" HOSE, ARROW 5, ARE ROUTED ALONG THE INSIDE OF R.H. UPRIGHT. HOSES WILL BE TOO SHORT IF THEY ARE ROUTED OVER THE CYLINDER PIN.

11. OIL LINE INSTALLATION (if not factory installed)

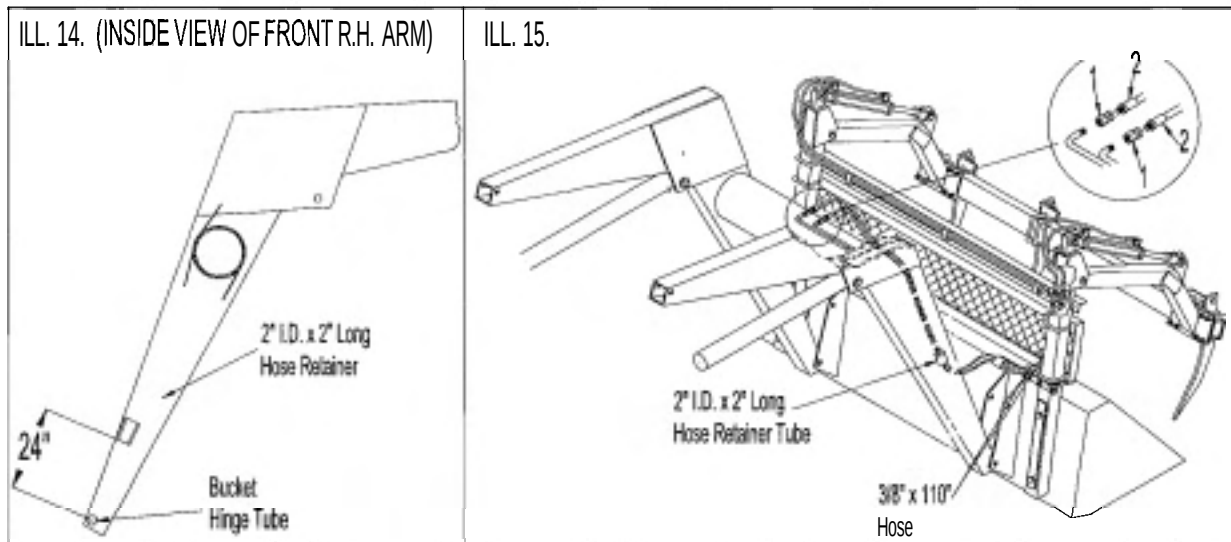
- a) FOR MODEL 80, 90, 100, 101 LOADERS. See ILL. 10. Install (2) two oil lines, arrows 1 and 2, on loaders main frame. Position oil lines above existing loader oil lines and secure lines in place by welding (2) two retainers, arrow 3, over them. The retainers are positioned above existing oil line retainers.
- b) FOR MODEL 120, 125, 2220, 2225 LOADERS. See ILL. 11. Install (2) two oil lines, arrows 1 and 2, on loaders main frame. Position oil lines above existing loader oil lines and secure lines by welding (2) retainers, arrow 3, over them. The retainers are positioned above existing oil line retainers.
- c) FOR MODEL 110, 110E, 115, 115E LOADERS. See ILL. 12. Install (2) two oil lines, arrow 1 and 2, over top two existing oil lines on loader main frame. Secure lines in place by welding (4) four retainers, arrow 3, over them. The retainers are positioned on top of existing oil retainers.
- d) FOR MODEL 70, 2070, 2080, 2080S, 2085, 2085S, 2090, 2090S, 2095, 2095S, 2100, 2105, 2130, 2135 LOADERS. See ILL. 13. Install (2) two oil lines, arrow 1 and 2, above existing oil lines on main frame. Secure lines in place by welding 3 retainers, arrow 3, over them. The retainers are positioned above existing oil line retainers.
- e) FOR LOADERS OTHER THAN EZZE-ON. Specific oil lines for other loader makes are not available.



ASSEMBLY INSTRUCTIONS Continued:

12. INSTALLING HOSE RETAINER (If not Factory Installed) SEE ILL. 14.

- a) Weld one (1) 2" I.D. x 2" Long hose retainer tube to inside of front R.H. H-frame arm. Locate retainer tube approximately 24" from bucket hinge tube flush with top of arm. One end of retainer tube must point down towards end of arm.



13. CONNECTING GRAPPLE HOSES TO LOADER OIL LINES - See ILL. 14.

- a) Install (2) 3/8" female swivel adapters, arrow 1, to end of grapple fork oil lines.

NOTE: If loader is equipped with Ezee-A-Tach attachment system, quick couplers should be installed on oil lines with male tips installed on hoses, arrow 2. The quick couplers will allow hoses to be quickly disconnected when bucket and grapple are removed (quick couplers not supplied).

- b) Thread the two (2) 3/8" x 110" hydraulic hoses, arrow 2, through the hose retainer welded to the inside of R.H. H-frame arm. Next connect same hoses, arrow 2, to swivel adapters on oil lines.

NOTE: If quick couplers are used between hoses, arrow 2, and oil lines, install males tips on hoses.

- c) Install (2) 3/8" female couplers to grapple lines at rear of loader. Next connect 2 hoses (length as required), to grapple lines. Install male tips on these hoses and connect to tractor hydraulic system.
- d) Pump hydraulic fluid into grapple cylinders. Ensure hydraulic cylinders are completely filled with hydraulic fluid before operating grapple fork.

LUBRICATION

1. Grease the frame pivot points every 25 hours of operation.

MAINTENANCE

1. Check oil lines and hoses periodically for signs of rupture.



CAUTION: CHECK ALL HYDRAULIC HOSES PERIODICALLY FOR SIGNS OF RUPTURE AND LEAKS. ALWAYS USE WOOD OR CARDBOARD AS A BACKSTOP, AND WEAR GLOVES AND EYE PROTECTION WHEN SEARCHING THE HYDRAULIC SYSTEM FOR LEAKS. SPURTING **HYDRAULIC** FLUID CAN CAUSE INJURY BY **PENETRATING SKIN** OR THE EYES. IF INJURED BY ESCAPING HYDRAULIC FLUID, SEE A MEDICAL DOCTOR IMMEDIATELY.



CAUTION: DO NOT DISASSEMBLE OR LOOSEN **HYDRAULIC** COMPONENTS WHEN THERE IS PRESSURE **WITHIN** THOSE COMPONENTS. HYDRAULIC COMPONENTS UNDER **PRESSURE** MAY CAUSE PARTS AND HYDRAULIC FLUID TO FLY OUT AT A **HIGH** VELOCITY, WHICH COULD CAUSE SERIOUS INJURY. ALWAYS **RELIEVE THE** PRESSURE IN THE HYDRAULIC SYSTEM BEFORE SERVICING THE HYDRAULIC SYSTEM.



CAUTION: ALWAYS RELIEVE THE PRESSURE IN THE HYDRAULIC SYSTEM BEFORE MAKING ANY ADJUSTMENTS OR WHEN PARKING THE LOADER. **HYDRAULIC** FLUID ESCAPING UNDER PRESSURE CAN CAUSE PERSONAL INJURY BY PENETRATING THE EYES OR SKIN. IF INJURED BY ESCAPING **HYDRAULIC FLUID**, SEE A MEDICAL DOCTOR **IMMEDIATELY**.

2. Keep bolts and hydraulic fittings tight and be sure all pins are secured with cotter pins



CAUTION: **DO NOT SERVICE OR ADJUST GRAPPLE FORK WHILE GRAPPLE FORK, LOADER, OR TRACTOR ARE IN OPERATION.** IF **PERSON(S)** DOING THE SERVICING ARE STRUCK OR CAUGHT BY **HEAVY** MOVING COMPONENTS, SERIOUS **INJURY** OR DEATH MAY OCCUR. ALWAYS **PUT** ALL TRACTOR CONTROLS IN NEUTRAL, SET THE PARK BRAKE AND SHUT OFF ENGINE WHEN SERVICING GRAPPLE FORK OR LOADER.



CAUTION: ALWAYS WEAR SAFETY GLASSES OR GOGGLES AND GLOVES WHEN WORKING ON THE HYDRAULIC SYSTEM.



CAUTION: ALWAYS PERMIT PARTS WHICH CONTAIN HOT **FLUID** TO COOL TO A SAFE TEMPERATURE BEFORE HANDLING OR DISCONNECTING THESE PARTS.

MAINTENANCE Continued:



CAUTION: WHEN ASSEMBLING (OR REMOVING) GRAPPLE FRAME TO (OR FROM) UPRIGHTS, USE ALIGNING PUNCH TO ALIGN HOLES. KEEP FINGERS OUT OF THESE HOLES. ANY SUDDEN MOVEMENT OF **HEAVY** COMPONENTS **WILL SEVERELY INJURE** OR SEVER FINGERS.



CAUTION: WHEN ASSEMBLING GRAPPLE FRAME TO UPRIGHTS, BE SURE COTTER **PINS** ARE INSTALLED IN PINS. MISSING **COTTER PINS COULD** CAUSE SERIOUS DAMAGE TO GRAPPLE FORKS, LOADER, AND TRACTOR, OR POSSIBLE PERSONAL INJURY OR DEATH.



CAUTION: WHEN ASSEMBLING (OR REMOVING) GRAPPLE FRAME TO (OR FROM) UPRIGHTS, USE A HOIST OR ADEQUATE MANPOWER TO **LIFT** HEAVY FRAME INTO PLACE. USE ADEQUATE JACKS OR SUPPORT MATERIAL.

OPERATION

1. When using grapple fork to handle round bales, it is recommended to have your bucket equipped with extra long teeth. Extra long teeth are available as an option on Ezee-On loaders.



CAUTION: NEVER ALLOW ANYONE TO **RIDE** ON ANY PORTION OF THE LOADER, GRAPPLE FORK OR TRACTOR, THE PERSON MAY FALL AND BE SERIOUSLY **OR** FATALLY INJURED.

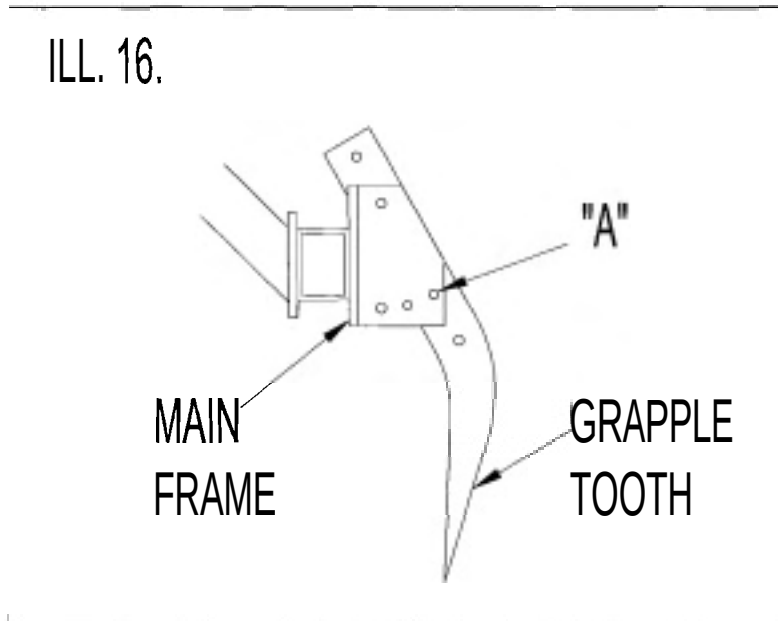


CAUTION: MACHINERY SHOULD BE OPERATED **ONLY** BY A **PERSON(S)** RESPONSIBLE AND QUALIFIED TO DO SO. IN CASE OF A BREAK DOWN OR **INJURY**, THE **PERSON(S)** SHOULD BE FAMILIAR **WITH** REPAIR **PROCEDURES** AND TEMPORARY FIRST AID TREATMENT.



CAUTION: MAKE SURE THE **PERSON(S)** NEAR BY ARE STANDING CLEAR BEFORE YOU OPERATE LOADER AND GRAPPLE FORK. THE **PERSON(S)** MAY BE STRUCK OR CAUGHT BY LOADER OR GRAPPLE FORK RESULTING IN SERIOUS INJURY OR DEATH.

OPERATION Continued:



2. See ILL. 16. When using grapple fork to handle round bales, the grapple teeth should be set in hole "A" the maximum outward position. The teeth should also be raised by bolting bottom hole in teeth to hole "A" in frame as well.
3. Position teeth as required when handling materials other than round bales.



CAUTION: USE A GRAPPLE FORK ONLY WHEN CARRYING ROUND BALES **WITH** THE BUCKET, OR USE AN APPROVED ROUND BALE CARRYING FORK. USE OF **THE** BUCKET ONLY, OR UNAPPROVED FORKS ATTACHED TO THE BUCKET, OR ANY OTHER UNAPPROVED ATTACHMENT TO CARRY **ROUND** BALES MAY **RESULT** IN PERSONAL **INJURY** OR DEATH, AND SERIOUS DAMAGE TO THE LOADER DUE TO BALE INSTABILITY.

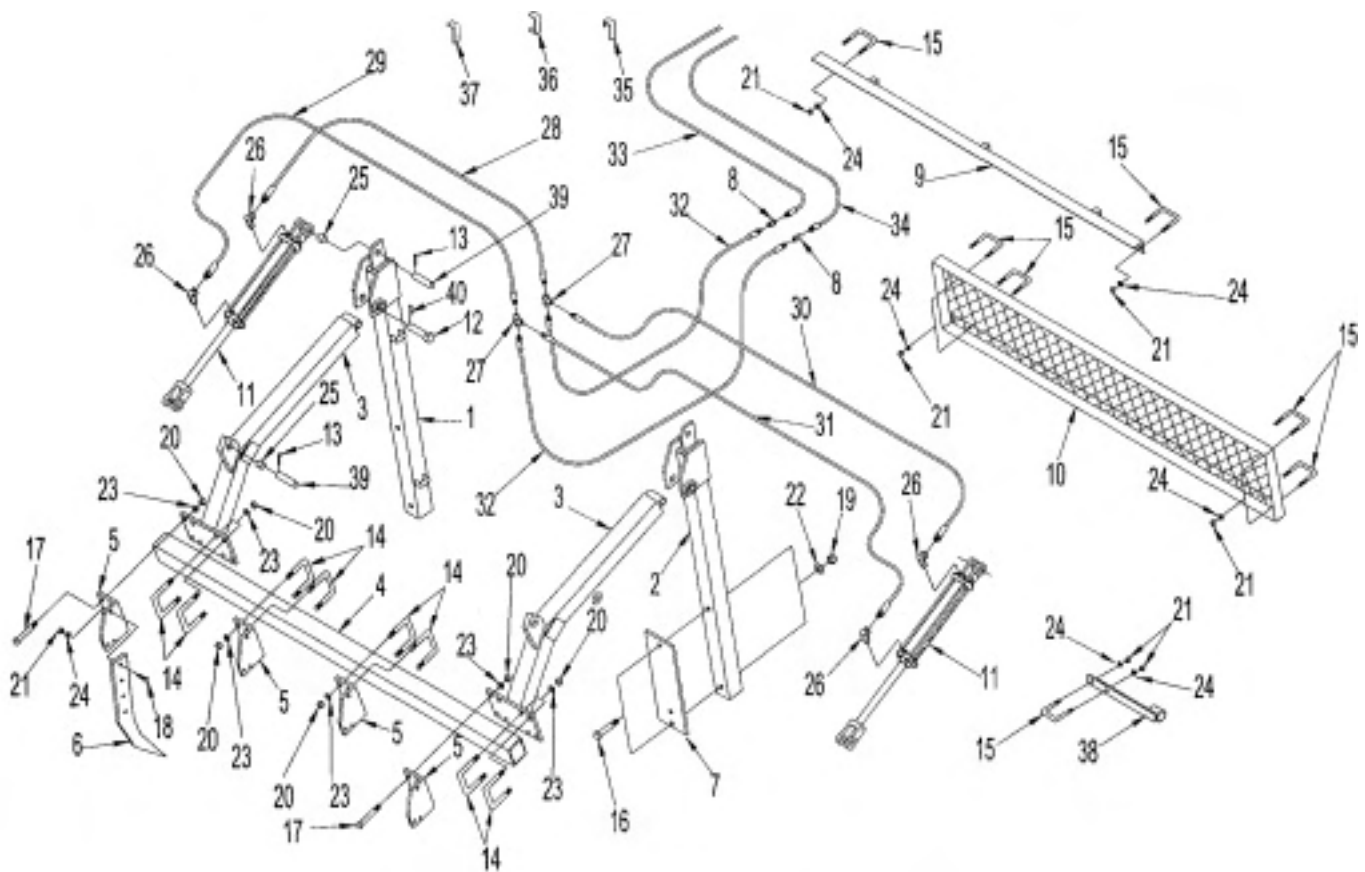


CAUTION: ALWAYS RELIEVE THE PRESSURE IN THE HYDRAULIC SYSTEM BEFORE MAKING ANY **ADJUSTMENTS** OR WHEN PARKING THE LOADER. HYDRAULIC FLUID ESCAPING UNDER PRESSURE CAN CAUSE PERSONAL **INJURY** BY PENETRATING THE EYES OR SKIN. IF INJURED BY ESCAPING HYDRAULIC FLUID, SEE A MEDICAL DOCTOR IMMEDIATELY.

MODEL 791 GRAPPLE FORK PARTS LIST

INDEX

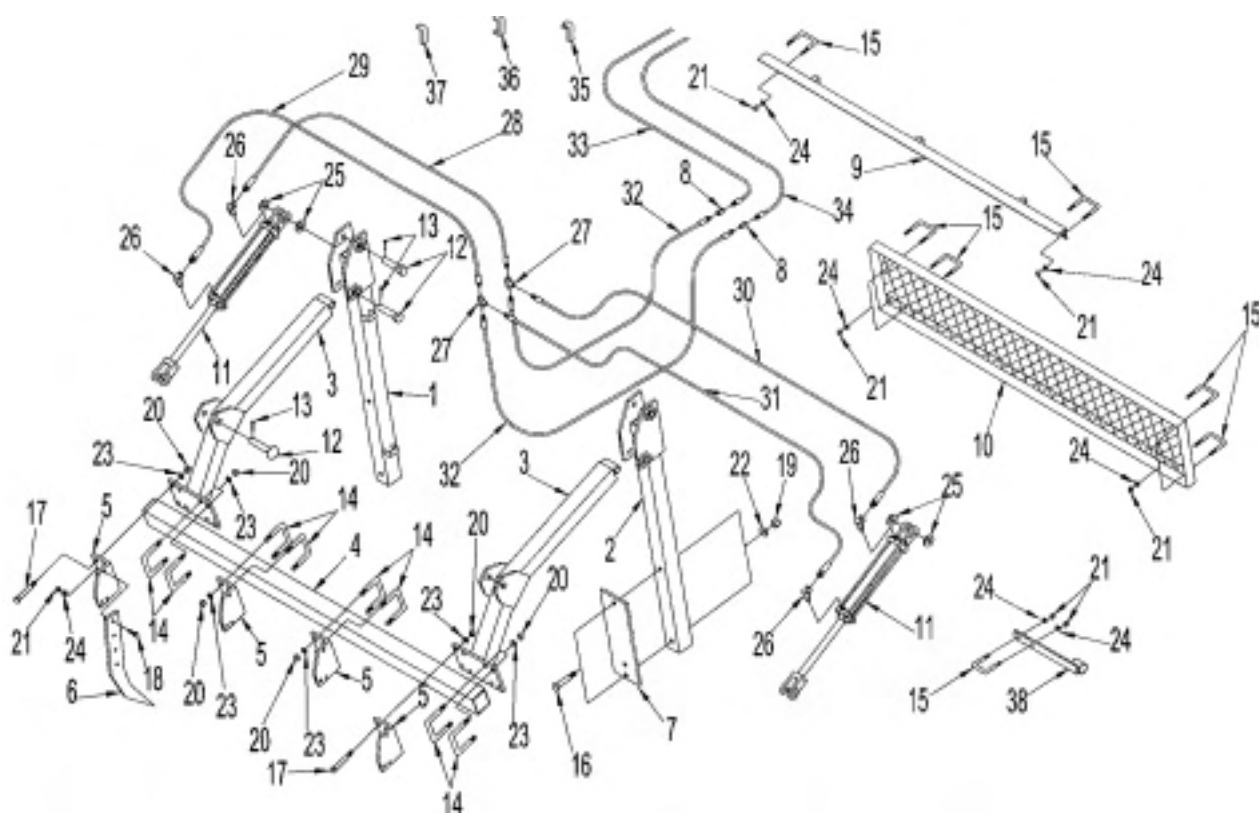
DESCRIPTION	PAGE
Grapple Frame and Hydraulic System - For grapples shipped July 1/03 and Later	14
Grapple Frame And Hydraulic System - For grapples shipped prior to July 1/03	15
Hydraulic Cylinder - Monarch-	16



GRAPPLE FRAME AND HYDRAULIC SYSTEM - PARTS LIST
(For Grapples Shipped July 1/03 and Later)

Ref. No.	Part No.	Description	Qty. Req'd	Ref. No.	Part No.	Description	Qty. Req'd
1	LA3829	R.H. UPRIGHT ASSEMBLY	1	25	L3806	1" I.D. x 1" LONG STEEL BUSHING	4
2	---	114" x 1-1/2" COTTER PIN	2	26	DL5769	318° x 90 DEG SWIVEL STREET ELBOW	4
3	LA3831	PIVOT FRAME	2	27	DL5282	3/8" FEMALE x 318" FEMALE x 318" FEMALE TEE (STEEL)	4
4	L3819	FRONT BAR (3" x 4" x 73")	1	28	L2942	114" x 21" HYDRAULIC HOSE (W/ 3/8" ENDS)	1
5	L3820	TOOTH MOUNT	3	29	L4350	1/4" x 36" HYDRAULIC HOSE (W/ 3/8" ENDS)	1
6	L1161	GRAPPLE TOOTH (518" x 3" MAT'L)	3	30	L3804	114" x 75 1/2" HYDRAULIC HOSE (W/ 318" ENDS)	1
7	L3821	UPRIGHT BACKING PLATE	2	31	L3803	1/4" x 90" HYDRAULIC HOSE (W/ 3/8" ENDS)	1
8	L29	318" FEMALE SWIVEL ADAPTER	2	32	L3802	318" x 100" HYDRAULIC HOSE (W/ 3/8" ENDS)	2
9	LA3823	HOSE SUPPORT	1	33	11773	BOTTOM OIL LINE-MODEL 70, 2070 LOADER	1
10	L3824	SPILL GUARD (OPTIONAL)	1		L10253	BOTTOM OIL LINE-MODEL 80, 90, 100, 101 LOADER	1
11	307	2" x 12" HYDRAULIC CYLINDER (SEE CYLINDER PARTS LIST ON PAGE 16)	2		L10286	BOTTOM OIL LINE-MODEL 120, 125, 2220, 2225 LOADER	1
12	L3826	1" x 4-5/16" HEX PIN - Pin length measured under head to center of hole.	8		L1198	BOTTOM OIL LINE-MODEL 110, 110E, 115, 115E, LOADER	1
13	---	3/16" x 1-1/4" COTTER PIN	8		L3439	BOTTOM OIL LINE-MODEL 2080s, 2085s, 2090s, 2095s, LOADER	1
14	380531	5/8" x 4 11/16" C-C x 4 1/2" LONG U-BOLT	6		L3336	BOTTOM OIL LINE-MODEL 2080, 2085, 2090, 2095, LOADER	1
15	A70628	112" x 3- 9116" C-C x 4 1/8" LONG U-BOLT (4 MORE REQUIRED IF SPILL GUARD IS USED)	3		L3279	BOTTOM OIL LINE-MODEL 2100, 2105, 2130, 2135, LOADER	1
16	---	3/4" x 5" N.C. HEX BOLTS (PLATED)	4	34	L1772	TOP OIL LINE-MODEL 70, 2070 LOADER	1
17	---	5/8" x 5" N.C. HEX BOLTS (PLATED)	8		L1054	TOP OIL LINE-MODEL 80, 90, 100, 101, LOADER	1
18	---	112" x 2" N.C. HEX BOLTS (PLATED)	6		L1087	TOP OIL LINE-MODEL 120, 125, 2220, 2225 LOADER	1
19	---	3/4" N.C. HEX NUTS (PLATED)	4		L1197	TOP OIL LINE-MODEL 110, 110E, 115, 115E, LOADER	1
20	---	5/8" N.C. HEX NUTS (PLATED)	20		L3430	TOP OIL LINE-MODEL 2080s, 2085s, 2090s, 2095s, LOADER	1
21	---	1/2" N.C. HEX NUTS (PLATED) (8 MORE REQUIRED IF SPILL GUARD IS USED)	12		L3335	TOP OIL LINE-MODEL 2080, 2085, 2090, 2095 LOADER	1
22	---	314" LOCKWASHER (PLATED)	4		L3290	TOP OIL LINE-MODEL 2100, 2105, 2130, 2135 LOADER	1
23	---	518" LOCKWASHER (PLATED)	30	35	L3297	I-BRACKET - OIL LINE RETAINER (WELD-ON)	1
24	---	1/2" LOCKWASHER (PLATED) (8 MORE REQUIRED IF SPILL GUARD IS USED)	12	36	L3295	C-BRACKET - OIL LINE RETAINER (WELD-ON)	1
				37	L3296	I-BRACKET - OIL LINE RETAINER (WELD-ON)	1
				38	L83827	HYDRAULIC HOSE RETAINER	1
				39	640091	1" DIA. x 3-11" CYLINDER PIN	4

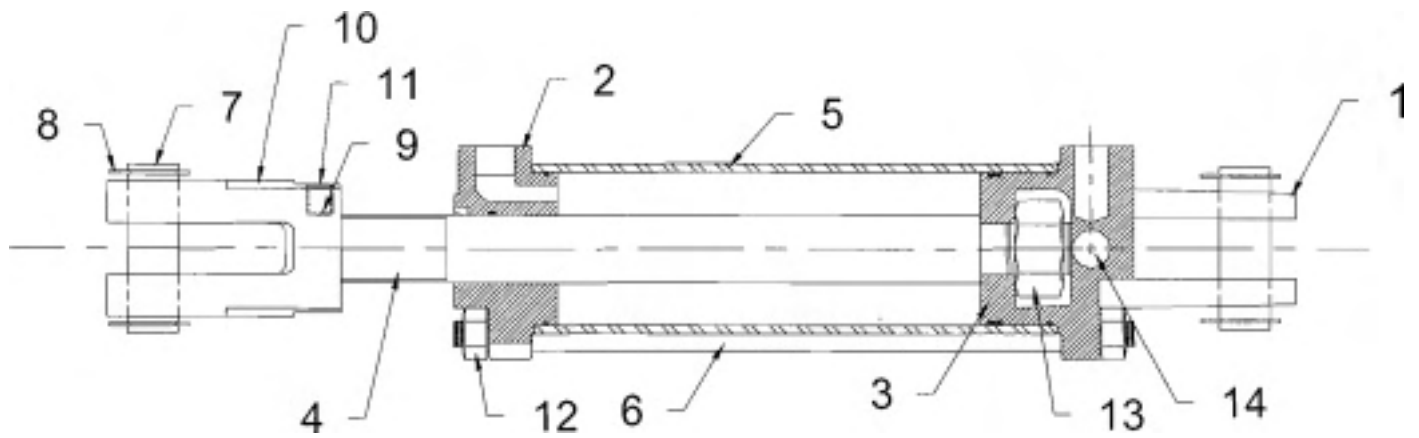
* As Required



GRAPPLE FRAME AND HYDRAULIC SYSTEM - PARTS LIST
(For Grapples Shipped Prior to July 1/03)

Ref. No.	Part No.	Description	Qty. Req'd	Ref. No.	Part No.	Description	Qty. Req'd
1	LA3816	R.H. UPRIGHT ASSEMBLY	1	25	--	2" O.D. x 1-1/2" I.D. x 1/4" FLATWASHER	4
2	LA3817	L.H. UPRIGHT ASSEMBLY	1	26	DL5769	3/8" x 90 DEG. SWIVEL STREET ELBOW	4
3	LA3818	PIVOT FRAME	2	27	DL5282	3/8" FEMALE x 3/8" FEMALE x 3/8" FEMALE TEE (STEEL)	4
4	L3819	FRONT BAR (2" x 4" x 72")	1	28	L2942	1/4" x 21" HYDRAULIC HOSE (W/ 3/8" ENDS)	1
5	L3820	TOOTH MOUNT	3	29	L4350	1/4" x 36" HYDRAULIC HOSE (W/ 3/8" ENDS)	3
6	L1161	GRAPPLE TOOTH (5/8" x 3" MNT'L)	3	30	L3084	1/4" x 75" 1/2" HYDRAULIC HOSE (W/ 3/8" ENDS)	1
7	L3821	UPRIGHT BACKING PLATE	2	31	L3083	1/4" x 90" HYDRAULIC HOSE (W/ 3/8" ENDS)	1
8	L29	3/8" FEMALE SWIVEL ADAPTER	2	32	L3082	3/8" x 100" HYDRAULIC HOSE (W/ 3/8" ENDS)	2
9	LA3823	HOSE SUPPORT	1				
10	L3824	SPILL GUARD (OPTIONAL)	1	33	L1173	BOTTOM OIL LINE-MODEL 70, 2070, LOADER	1
11	303	2" x 12" HYDRAULIC CYLINDER (SEE CYLINDER PARTS LIST ON PAGE 10)	2		L1053	BOTTOM OIL LINE-MODEL 80, 90, 100, 101, LOADER	1
					L1096	BOTTOM OIL LINE-MODEL 120, 125, 2230, 2235, LOADER	1
12	L4	1" x 4- 1/2" CARRIAGE HEAD PIN - USED ON EARLIER PRODUCTION	6		L1196	BOTTOM OIL LINE-MODEL 110, 110E, 115, 115E, LOADER	1
	L3826	1" x 4-5/16" HEX HEAD PIN - Pin length measured under head to center of hole	6		L3430	BOTTOM OIL LINE-MODEL 2080s, 2085s, 2090s, 2095s, LOADER	1
					L3336	BOTTOM OIL LINE-MODEL 2080, 2085, 2090, 2095, LOADER	1
					L3291	BOTTOM OIL LINE-MODEL 2100, 2105, 2130, 2135, LOADER	1
13	--	1/4" x 1 1/2" COTTER PIN	10	34	L1172	TOP OIL LINE-MODEL 70, 2070, LOADER	1
14	S81530	5/8" x 4-11/16" C-C x 4-1/2" LONG U-BOLT	6		L1054	TOP OIL LINE-MODEL 80, 90, 100, 101, LOADER	1
15	426628	1/2" x 3-5/16" C-C x 4-1/8" LONG U-BOLT (8 MORE REQUIRED IF SPILL GUARD IS USED)	3		L1087	TOP OIL LINE-MODEL 120, 125, 2230, 2235, LOADER	1
					L1197	TOP OIL LINE-MODEL 110, 110E, 115, 115E, LOADER	1
16	--	3/4" x 5" N.C. HEX BOLTS (PLATED)	4		L3438	TOP OIL LINE-MODEL 2080s, 2085s, 2090s, 2095s, LOADER	1
17	--	5/8" x 5" N.C. HEX BOLTS (PLATED)	8		L3335	TOP OIL LINE-MODEL 2080, 2085, 2090, 2095, LOADER	1
18	--	1/2" x 2" N.C. HEX BOLTS (PLATED)	6		L3290	TOP OIL LINE-MODEL 2100, 2105, 2130, 2135, LOADER	1
19	--	3/4" N.C. HEX NUTS (PLATED)	4	35	L3297	I-BRACKET - OIL LINE RETAINER (WELD-ON)	*
20	--	5/8" N.C. HEX NUTS (PLATED)	20	36	L3295	C-BRACKET - OIL LINE RETAINER (WELD-ON)	*
21	--	1/2" N.C. HEX NUTS (PLATED) (8 MORE REQUIRED IF SPILL GUARD IS USED)	12	37	L3296	L-BRACKET - OIL LINE RETAINER (WELD-ON)	*
22	--	3/4" LOCKWASHER (PLATED)	4	38	LA3827	HYDRAULIC HOSE RETAINER	1
23	--	5/8" LOCKWASHER (PLATED)	20				
24	--	1/2" LOCKWASHER (PLATED) (8 MORE REQUIRED IF SPILL GUARD IS USED)	12				

*As required



HYDRAULIC CYLINDER-MONARCH - PARTS LIST

Ref. No.	Monarch Part No.	Description	Monarch 2" x 12" Qty. Req'd
1	492805	Clevis Cap (for 1" Pin)	1
2	492806	Rod Cap	1
3	492548	2" Dia. Piston	1
4	492853	Rod (12" Stroke)	1
5	491612	Tube (12" Stroke)	1
6	492222	Tie Rod (12" Stroke)	4
7 & 8	640091	Pin (2) (for 1" Dia.)	2
9	498006	Thread Lock	1
10	492650	Rod Clevis (for 1" Pin)	1
11	148390	Set Screw	1
12	128230	Nut- Tie Rod	8
13	129090	Nut-Piston	1
14	196530	Plug	1
**	639572	Seal Kit (Rod Dia. 1 1/8")	1