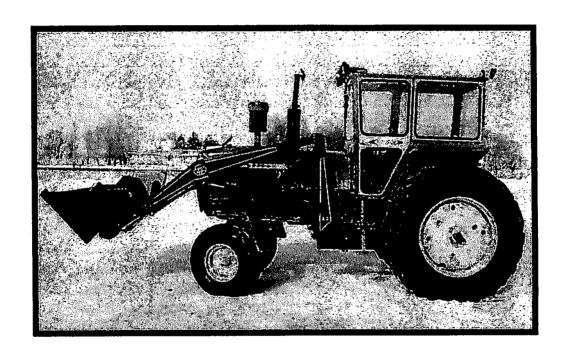
MILLER LOADERS INC.



MODEL 12 LOADER

INSTRUCTIONS & DARKS

1242 ARIZONA AVE. LARCHWOOD, IA 51241 1-800-570-8205

TABLE OF CONTENTS

- Mounting Instructions
- Dismounting Instructions
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- General Parts Listing
- Mainlift Cylinder Parts Listing
- Bucket Cylinder Parts Listing
- Hydraulic Piping and Hose Parts Listing
- Warranty

SERIAL No. of Loader Purchased	
Date Purchased	

DANGER

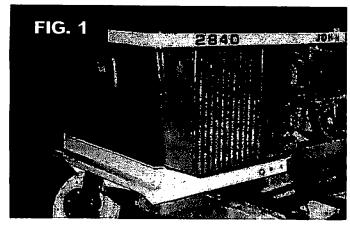
TO PREVENT POSSIBLE ROLLOVER, OBSERVE THE FOLLOWING SAFETY PRECAUTIONS

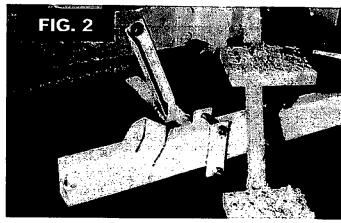
- Carry loads as low as possible
- Drive tractor slowly when turning, operating on hills or inclines, or traversing uneven ground
- Raise load to full height *only* when tractor is on even ground and front wheels are straight ahead

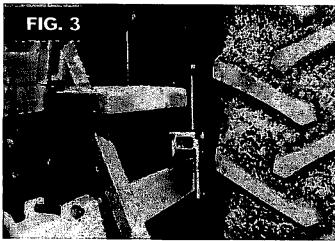
TO PREVENT POSSIBLE PERSONAL INJURY, OBSERVE THE FOLLOWING SAFETY PRECAUTIONS

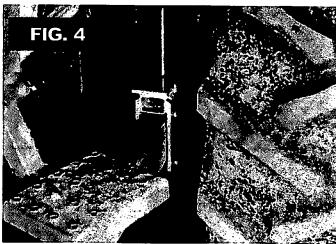
- Never walk or work under a raised loader
- Always bleed the hydraulic system to zero pressure before performing repairs on any component of the hydraulic system
- When mounting or dismounting the loader from the tractor, operate hydraulic controls slowly
- When removing the Quick-tatch bucket, it should be level and no higher than six inches above the ground - any other position would allow the bucket to swing away from the loader when the Quick-tatch pins are lifted from their locked position

MOUNTING INSTRUCTIONS







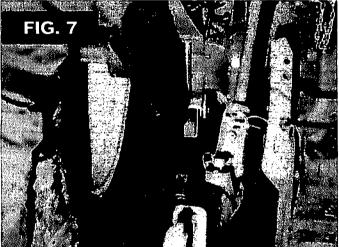


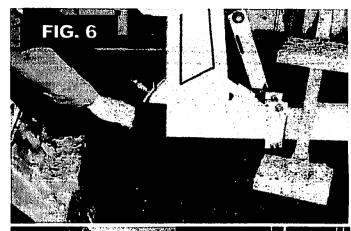
- **Step 1** Attach the front mount to the tractor. Any weight brackets, tool boxes or other items that will interfere with the loader need to be removed at this time. Tighten front mount bolts securely. See Figure 1.
- **Step 2** Attach the belly mount to the tractor. Belly mount styles can either clamp around the axle leg (as shown in Figure 2) or bolt to a tab welded to the leg. Install all of the bolts but do not tighten them. The belly mount will tend to hang straight down or slant to the rear once the legs are installed in Step 4.
- **Step 3** Attach the axle brackets to the tractor. The brackets usually have a flat plate for a top strap (as shown in Fig. 3) but can also bolt directly to the tractor cab mount. Tighten bracket bolts *securely*. The normal inside-to-inside spacing of the axle legs is 36 inches. For a tractor set up for 36 inch crop rows, offset legs can be supplied so that the rear space between the axle legs is reduced to 32 inches.
- **Step 4** Slide axle legs into place between the belly mount and axle bracket. Do not tighten bolts that would secure the legs in place. Adjust leg position so that the front of the leg is approximately 54 inches behind the inside of the front mount channel. The mountings are now ready to receive the upright frame. See Figure 4.
- **Step 5** Place the upright frame into position against the front mount and resting on the axle legs. Large C-clamps can be used to seat the upright frame into position and hold it in place as shown in Figure 5.

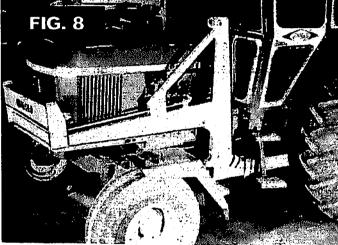
(Continued on the next page)

MOUNTING INSTRUCTIONS



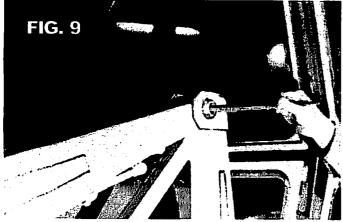


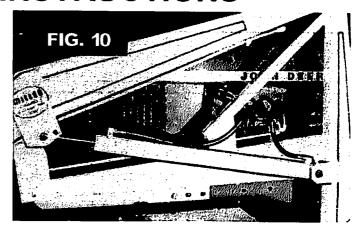


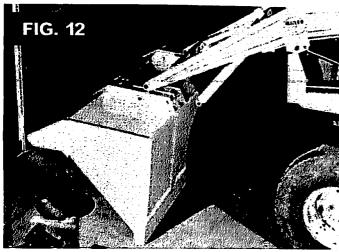


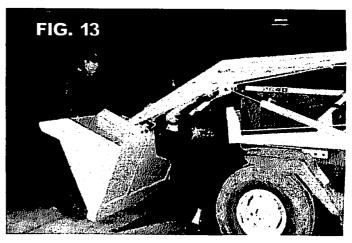
- **Step 6** Insert the head of the $3/4 \times 6$ carriage bolt in the T-slot on the front of the axle leg. Pull the threaded end of the bolt thru the cut-out on the front of the upright frame. Place square upright locking plate, lock washer and nut on end of carriage bolt. Do not tighten the bolts yet. See Figure 6.
- **Step 7** Using a large hammer, tap the axle leg forward into position on the upright frame as shown in Figure 7. Simultaneously tighten the carriage bolts installed in step 6.
- **Step 8** Now tighten all bolts on the belly mounts and axle brackets *securely*. The upright frame is now ready to receive the mainframe. See Figure 8.
- **Step 9** Lift the mainframe up and into the upright frame. Install the rear mainframe pins (6-1/4 inch long) and secure them with a cotter pin. See Figure 9.

MOUNTING INSTRUCTIONS





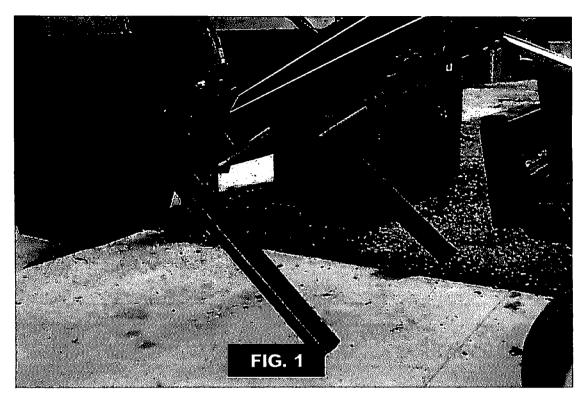


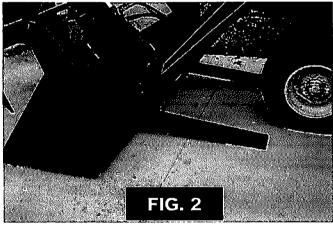


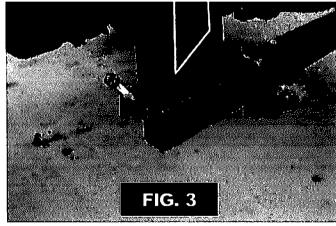
Step 10 - A sawhorse or similar stand is useful in supporting the front of the mainframe during this step. Install the mainlift cylinders with the rod extending forward. The rod cross-eye should attach to the forward-most hole on the mainframe. Use the long carriage bolt and 3/4 inch jam nut on the rear cylinder cross-eye and the short carriage bolt, lock washer and nut on the front cross-eye. The swivel ends of the hoses attach to the cylinder ports. The short hose attaches to the inside pipe on the upright frame and supplies the rear cylinder port. See Figure 10.

- **Step 11** Read this entire step before proceeding. Install bucket cylinders on the mainframe using the short 1 inch diameter pins, rod ends forward. The double-ported cylinder goes on the right side (as viewed from inside the tractor cab). A 25 inch female hose feeds the rear port of the right cylinder from the inside pipe on the mainframe. A 30 inch female hose feeds the front port of the right cylinder from the outside pipe on the mainframe. The ports on the right cylinder that point directly at the left cylinder are used for male, 25 inch cross-over hoses, i.e., right-rear to left-rear and right-front to left-front. Attach the swivel end of all four hoses to the right cylinder. The female hoses from the supply pipes should rest on the rear cross-over hose. Correct the rear cross-over hose if this is not the case.
- **Step 12** Place bucket in position shown in Figure 12 and support it with stand used in Step 10. Drive the loader into the bucket and install the front mainframe pins (6-1/4 long) in the top holes of the bucket. Secure pins with cotter pins.
- **Step 13** Use tractor hydraulics to lift the loader mainframe to the position shown in Figure 13 so that the bucket is free to rotate. Line up the bucket cylinder cross-eyes with the lower holes on the bucket and install pins (6-1/4 inch long with offset hole). Secure pins with cotter pins.
- Step 14 Important! Grease all ten zerk fittings on loader now and on a regular basis.

DISMOUNT INSTRUCTIONS





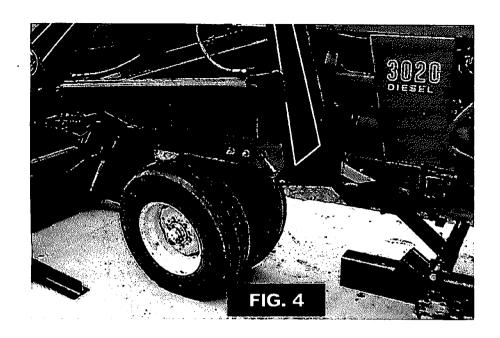


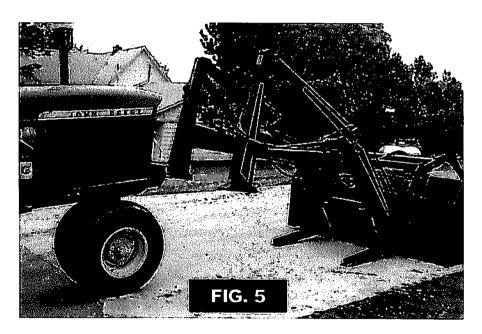
CAUTION! PERFORM DIMOUNTING ONLY WHEN ON SOLID, LEVEL GROUND

- Step 1 With the loader in the raised position, place the stand legs in the position shown and secure them with their own pins. See Figure 1.
- Step 2 Lower the loader until the bucket is flat on the ground. See Figure 2.
- **Step 3** Loosen and remove the 3/4 x 6 carriage bolts from the T-slots on the axle legs. See Figure 3.

(Continued on the next page)

DISMOUNT INSTRUCTIONS

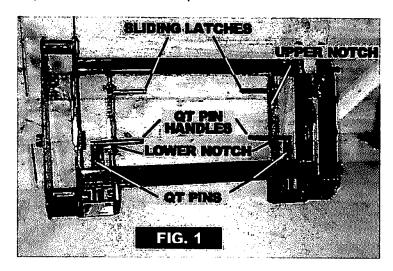




- Step 4 Slowly back the tractor until the points on the rear of the loader upright frame are clear of the straps on the axle legs. Then use the bucket cylinders to raise the loader frame as shown in Figure 4.
- **Step 5** Turn off tractor. Disconnect the loader hydraulic hoses from the tractor and back away as shown in Figure 5.

QUICK-TATCH INSTRUCTIONS

(Quick-tatch Frame Optional on Model 12 Loaders)



Uncoupling

- Step 1 -Position Bucket approximately six inches above and parallel to the ground (Fig. 2).
- Step 2 -Lift up the two sliding latches.
- Step 3 -Rotate the two QT pin handles out of the lower notches.
- Step 4 -Lift the two QT pins and rotate their handles into the upper notches.
- Step 5 -Lower the two sliding latches to secure the QT pins in the upper position.
- Step 6 -Retract the bucket cylinders until the front edge of the bucket touches the ground.
- Step 7 -Lower the loader mainframe until the QT frame is clear of the QT hooks on the bucket (Fig. 3).

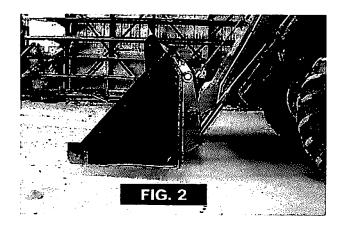
Coupling

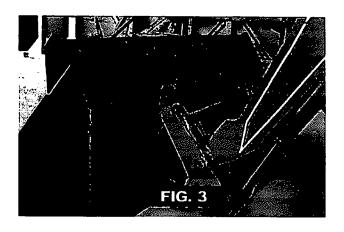
- Step 1 -Approach the bucket with the loader as shown in Figure 3.
- Step 2 Raise the loader mainframe until the QT frame engages the QT hooks on the bucket.
- Step 3 Extend the bucket cylinders to pull the bucket towards the QT frame.
- Step 4 -Lift up the two sliding latches.
- Step 5 -Rotate the two QT pin handles out of the upper notches.
- Step 6 Push the QT pins down so their handles can be rotated into the lower notches.

Note: If the QT pins do not easily slide down into this position, do not force them. Simply roll the bucket back & forth (slowly) with the bucket cylinders and

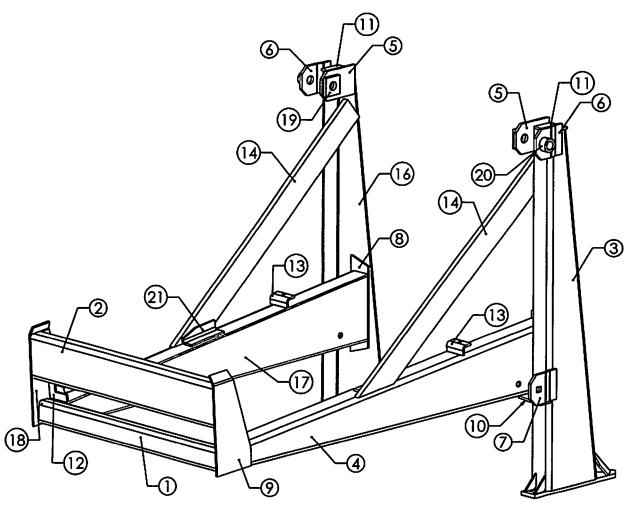
the pins should fall into place. Periodically grease the QT pins and sliding latches.

Step 7 -Once the QT pin handles are in the lower notch, secure them by lowering the sliding latches.

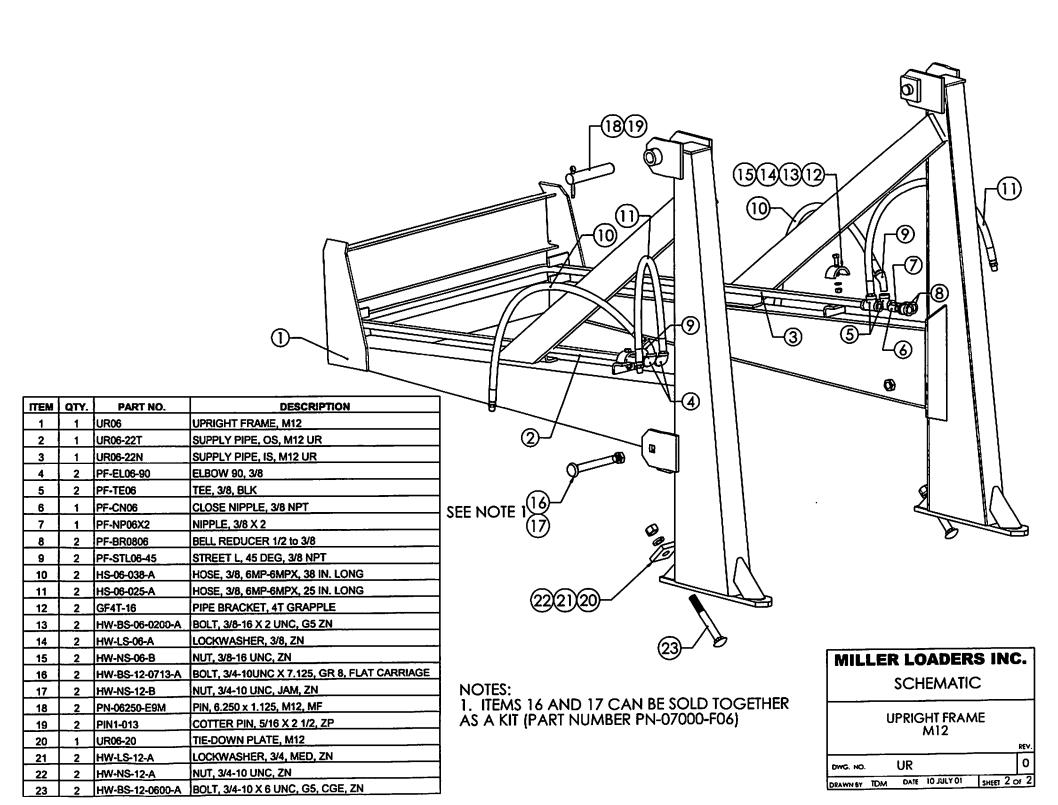


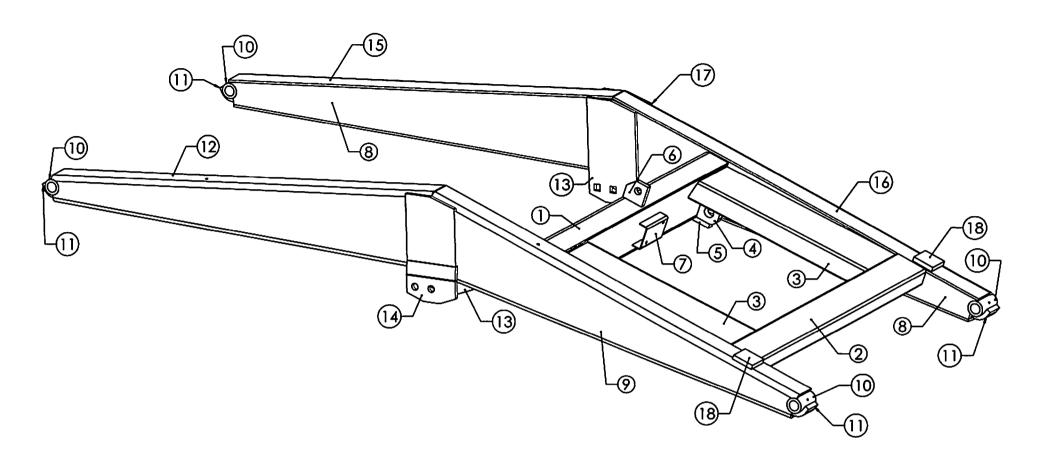


ITEM	QTY.	PART NO.	DESCRIPTION
1_	1	UR06-15	FRONT TUBE, M12 UR
2	1	UR06-16	BUMPER, M12 UR
3	1	UR06-01L	BOX SECT, WELDED LH, M12 UR
	1	UR06-01B	INSERT, 48-IN. UR, M12
	2	GUS-04-2020	GUSSET, 2 x 2 x 1/4
	1	UR06-07	FOOT, M12 UR LEG
	1_	UR01-08	TOE, P-12 UR LEG
	1	UR06-01AL	BOX SECTION, M12, 48-IN, LH
4	1	UR06-13L	BOX SECT, WELDED, HORIZ. LH, M12 UR
	1	UR06-13AL	BOX SECTION, M12, 56-IN, LH
	_ 1	UR06-13B	INSERT, 56 IN. UR, M12
5	_ 2	UR06-03N	EAR, UPPER IS, M12 UR LEG
6	2	UR06-03T	EAR, UPPER OS, M12 UR LEG
7	2	UR06-04	EAR, LIFT CYL, M12 UR LEG
8	_ 2	UR06-24	HORIZONTAL COVER, M12 UR
9	1	UR06-18L	GUIDE, LH, M12 UR
10	2	UR06-05	LIFT CYL EAR BRACE, M12 UR LEG
11	_ 2	UR06-02	TOP COVER, M12 UR LEG
12	2	UR06-11	PIPE GUIDE, M12 UR
13	2	UR06-21	PIPE TAB, WELD-ON, M12 UR
14	2	UR06-17	BRACE, M12 UR
15	1	UR06-23L	ANGLE BRACE, M12 UR, LH
16	1	UR06-01R	BOX SECT, WELDED RH, M12 UR
	1	UR06-01AR	BOX SECTION, M12, 48-IN, LH
	1	UR06-01B	INSERT, 48-IN. UR, M12
	1	UR06-07	FOOT, M12 UR LEG
	1	UR01-08	TOE, P-12 UR LEG
	_ 2	GUS-04-2020	GUSSET, 2 x 2 x 1/4
17	_1_	UR06-13R	BOX SECT, WELDED, HORIZ. RH, M12 UR
	1	UR06-13AR	BOX SECTION, M12, 56-IN, RH
	_1	UR06-13B	INSERT, 56 IN. UR, M12
18	1	UR06-18R	GUIDE, RH, M12 UR
19	2	DBL-1125-A	DOUBLER, 1.125 PIN, SQUARE
20	2	CLH-1750M-1000	COLLAR, 1.75 OD, THRU HOLE
21	_1_	UR06-23R	ANGLE BRACE, M12 UR, RH



MILLER LOADERS INC. SCHEMATIC UPRIGHT FRAME M12 DWG. NO. UR DRAWNBY IDM DATE 10 JULY 01 SHEET 1 OF 2





QTY.

PART NO.

MF06-02TR

MF06-01RN

MF06-01LN

MF06-02TL

MF06-12

ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	Ī
1	1	MF06-06	CROSS BAR ASSEMBLY, M12 MF	14	Ī
	1	MF06-06B	CROSS BAR INSERT, M12 MF	15	Ī
	_ 1	MF06-06A	CROSS BAR CHANNEL, M12 MF	16	Į
2	1	MF06-07	FRONT TUBE, M12 MF	17	I
3	2	MF06-08	COVER PLATE, M12 MF	18	I
4	2	MF06-04A	REAR BUCKET CYLINDER LUG, M12		
5	2	MF06-04B	BUCKET CYLINDER LUG STRAP, M12 MF]	
6	1	MF06-11	LIFT EAR, M12 MF	7	
7	1	HA-BK-01	BRACKET, ELECTRIC VALVE]	
8	4	MF06-01A	INSERT, 48-INCH, M12 MF]	
9	1	MF06-01RH	BOX SECTION, 48-INCH, RIGHT FRONT, M12 MF		
10	4	CI-1750M-3125	CROSS-EYE, 1.75 OD x 1.125 ID x 3.125 LONG]	
11	4	MF06-03D	CROSSEYE DOUBLER, M12 MF]	
12	1	MF06-01LH	BOX SECTION, 48-INCH, RIGHT REAR, M12 MF]	
13	2	MF06-02N	ARCH PLATE, INSIDE, M12 MF]	

MILLER LOADE SCHEMA	
MAINFRAM M12	ΛE
DWG. NO. MF06	REV.
DRAWN BY TOM DATE 11 JULY 01	SHEET 1 OF 1

DESCRIPTION

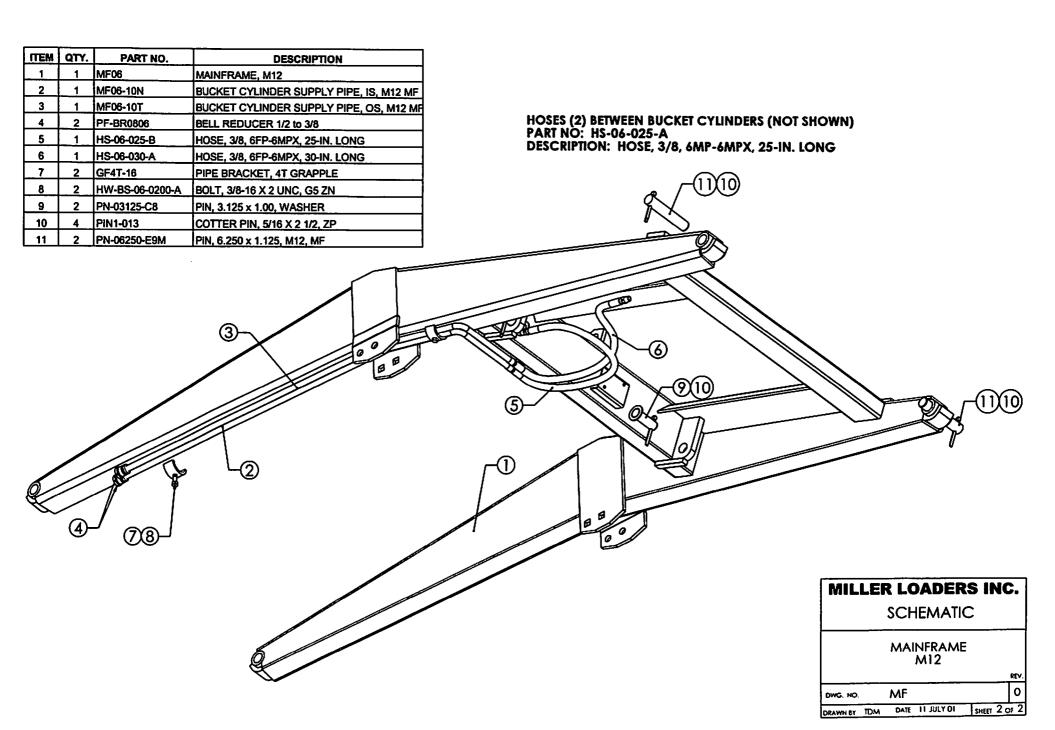
BOX SECTION, 48-INCH, LEFT REAR, M12 MF

BOX SECTION, 48-INCH, LEFT FRONT, M12 MF

ARCH PLATE, OS-RH, M12 MF

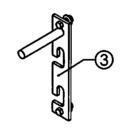
ARCH PLATE, OS-LH, M12 MF

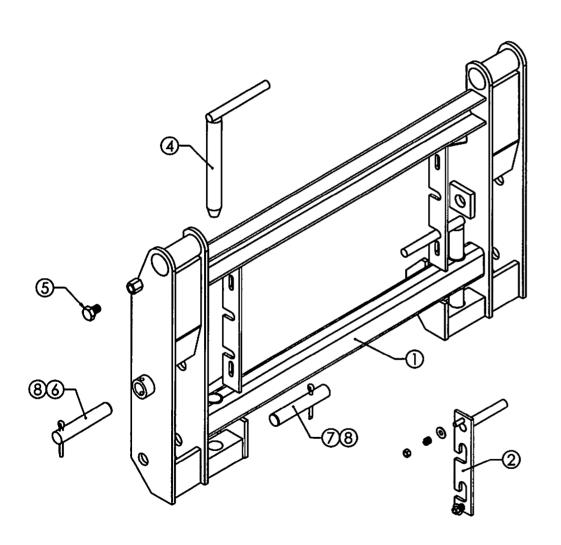
TIP-UP STOP, M12 MF



COMPLETE ASSEMBLY PART NO: QT06

ITEM	PART NO.	DESCRIPTION
1	QT06-W	QT, M-12 WELDED FRAME ONLY
2	QT02-01R	HANDLE-LATCH ASSY, QT, RH
	HW-WS-06-A	WASHER, 3/8, FLAT, ZN
	HW-SP-001	SPRING, QT HANDLE
	HW-NS-06-A	NUT, 3/8-16 UNC, CL, ZN
	QT02-W01R	HANDLE-LATCH WELD ASSY, QT, RH
3	QT02-01L	HANDLE-LATCH ASSY, QT, LH
	QT02-W01L	HANDLE-LATCH WELD ASSY, QT, LH
	HW-NS-06-A	NUT, 3/8-16 UNC, CL, ZN
	HW-SP-001	SPRING, QT HANDLE
	HW-WS-06-A	WASHER, 3/8, FLAT, ZN
4	QT02-14	RETAINING PIN ASSEMBLY, QT
5	HW-BS-10-0100-A	BOLT, 5/8-11 X 1 UNC, G5 ZN
6	PN-06250-E9M	PIN, 6.250 x 1.125, M12, MF
7	PN-06250-E9B	PIN, 6.250 x 1.125, M12, BKT
8	PIN1-013	COTTER PIN, 5/16 X 2 1/2, ZP

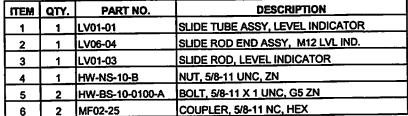


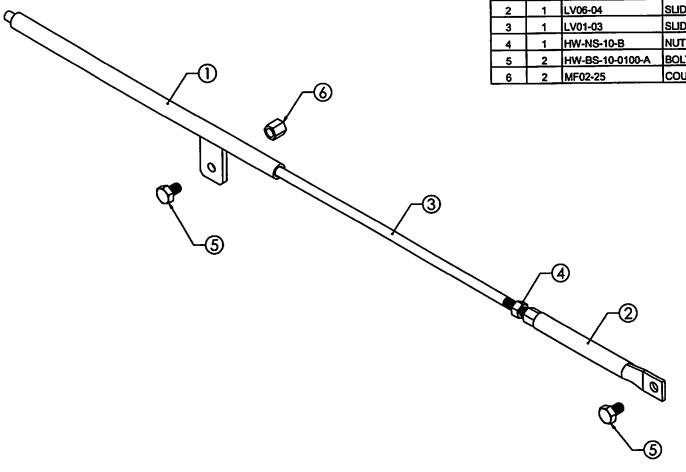


NOTES:
1. ITEMS 5, 6, 7, AND 8 ARE SOLD SEPARATELY.

MILLER LOADERS INC. SCHEMATIC				
QT FRAME (OPTIONAL) M12 PART NO: QT06				
DWG. NO. QT	REV.			
DRAWN BY TOM DATE 11 JULY 01 SHEET 1	os 1			

COMPLETE ASSEMBLY PART NO: LV06





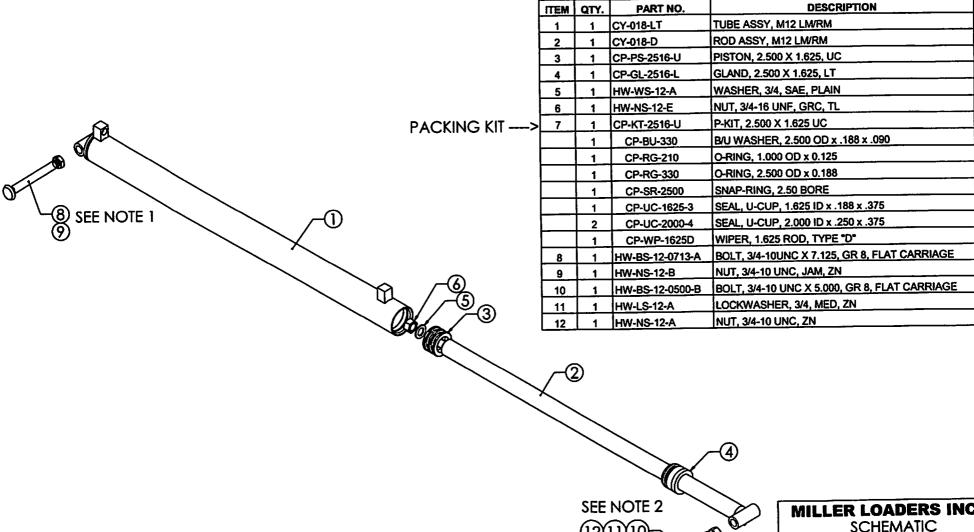


MILLER LOADERS INC. SCHEMATIC

> LEVEL INDICATOR KIT M12 PART NO: LV06

DWG. N	ю.		LV			rev. O
RAWN	BY	TDM	DATE	12 JULY OI	SHEET 1 O	# 1

COMPLETE CYLINDER PART NO: CY-018-L (FRONT & REAR BOLTS AND HARDWARE NOT INCLUDED, SEE NOTES 1 & 2)



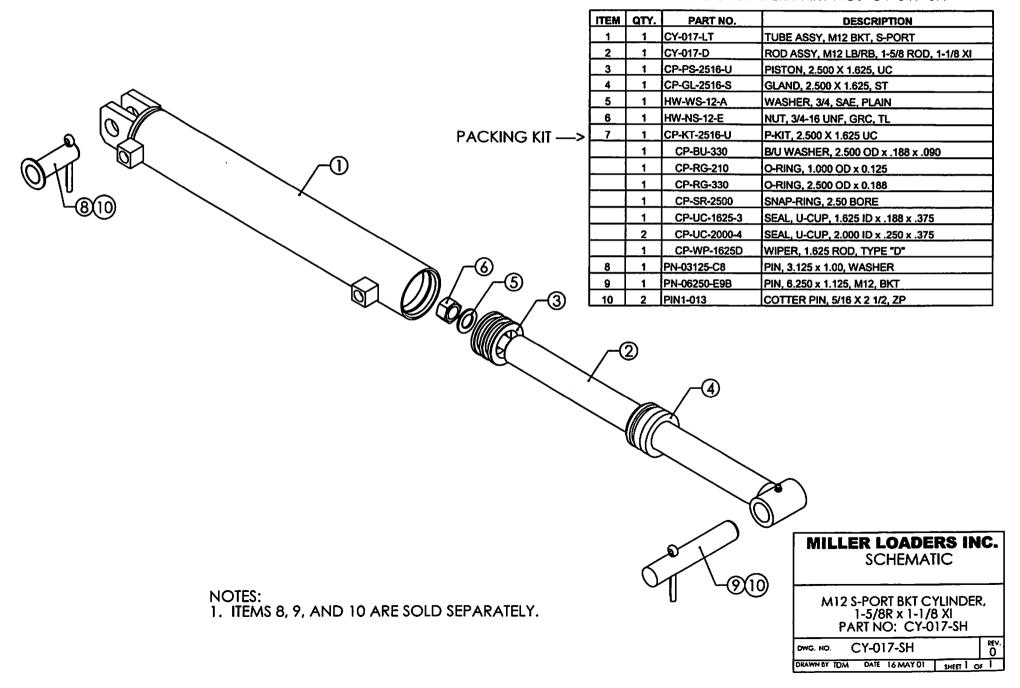
1. ITEMS 8 AND 9 CAN BE SOLD TOGETHER AS A KIT (PART NUMBER PN-07000-F06)
2. ITEMS 10, 11, AND 12 CAN BE SOLD TOGETHER AS A KIT (PART NUMBER PN-05000-F06)

MILLER LOADERS INC.

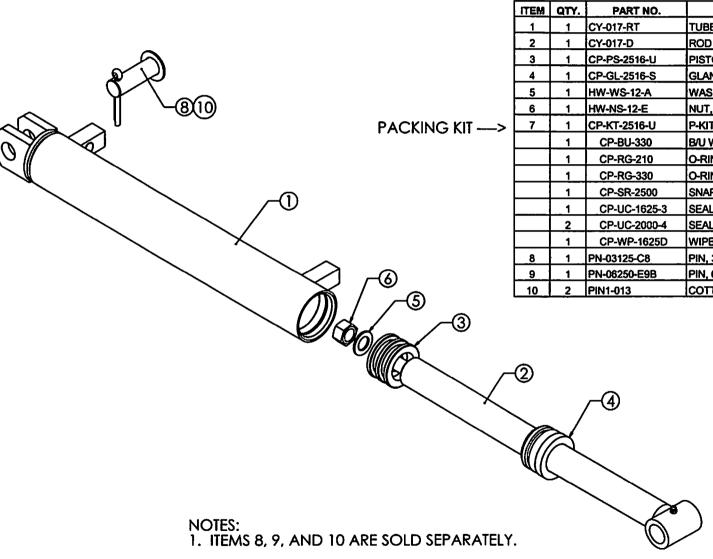
LEFT/RIGHT MAINLIFT CYLINDER M12, 1-5/8 ROD PART NO: CY-018-L

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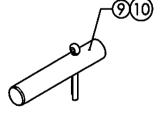
COMPLETE CYLINDER PART NO: CY-017-SH



COMPLETE CYLINDER PART NO: CY-017-LG



ITEM	QTY.	PART NO.	DESCRIPTION
1	_ 1	CY-017-RT	TUBE ASSY, M12 BKT, L-PORT
2	1_	CY-017-D	ROD ASSY, M12 LB/RB, 1-5/8 ROD, 1-1/8 XI
3	1	CP-PS-2516-U	PISTON, 2.500 X 1.625, UC
4	1	CP-GL-2516-S	GLAND, 2.500 X 1.625, ST
5	1	HW-WS-12-A	WASHER, 3/4, SAE, PLAIN
6	1	HW-NS-12-E	NUT, 3/4-16 UNF, GRC, TL
7	1	CP-KT-2516-U	P-KIT, 2.500 X 1.625 UC
	1	CP-BU-330	B/U WASHER, 2.500 OD x .188 x .090
	1	CP-RG-210	O-RING, 1.000 OD x 0.125
	1	CP-RG-330	O-RING, 2.500 OD x 0.188
	1	CP-SR-2500	SNAP-RING, 2.50 BORE
	. 1	CP-UC-1625-3	SEAL, U-CUP, 1.625 ID x .188 x .375
	2	CP-UC-2000-4	SEAL, U-CUP, 2.000 ID x .250 x .375
	1	CP-WP-1625D	WIPER, 1.625 ROD, TYPE "D"
8	1	PN-03125-C8	PIN, 3.125 x 1.00, WASHER
9	1	PN-06250-E9B	PIN, 6.250 x 1.125, M12, BKT
10	2	PIN1-013	COTTER PIN, 5/16 X 2 1/2, ZP



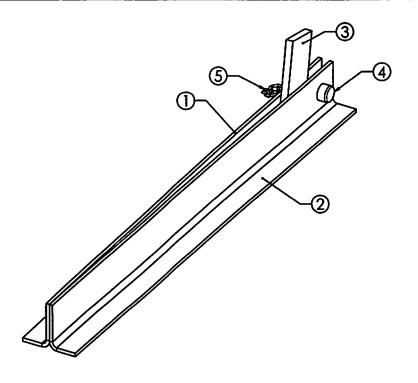
MILLER LOADERS INC. SCHEMATIC

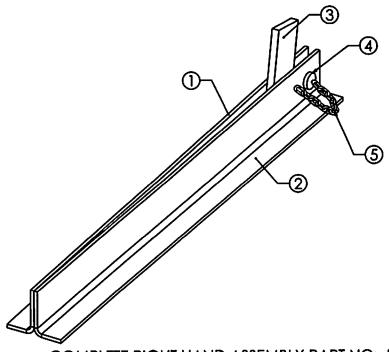
M12 L-PORT BKT CYLINDER, 1-5/8R x 1-1/8 XI PART NO: CY-017-LG

DWG. NO. CY-017-LG CO

COMPLETE LEFT HAND ASSEMBLY PART NO: \$L06-L

ITEM	QTY.	PART NO.	DESCRIPTION
1	1_	SL06-01L	ANGLE, M12 STAND LEG, LH
2	1	SL06-01R	ANGLE, M12 STAND LEG, RH
3	1	SL06-02	STOP TAB, M12 STAND LEG
4	1	SL06-03	LOCK PIN, M12 STAND LEG
5	1	SL06-04	LOCK PIN CHAIN, 6-IN. #3 CHAIN, M12 STAND LEG





COMPLETE RIGHT HAND ASSEMBLY PART NO: SLO6-R

ITEM	QTY.	PART NO.	DESCRIPTION
1	_ 1	SL06-01L	ANGLE, M12 STAND LEG, LH
2	1	SL06-01R	ANGLE, M12 STAND LEG, RH
3	1	SL06-02	STOP TAB, M12 STAND LEG
4	_ 1_	SL06-03	LOCK PIN, M12 STAND LEG
5	1	SL06-04	LOCK PIN CHAIN, 6-IN. #3 CHAIN, M12 STAND LEG

MILI	SCHEMA		C.
	STAND LEG M12 KIT PART NO:		
DWG, NO.	SL		REV.
DRAWN BY TO	M DATE "Date"	SHEET 1 O	ī