

Keep With Operator's Manual

**SMC 2409  
LOADER MOUNTING KIT  
MASSEY FERGUSON TRACTORS**

MODEL	2WD	4WD	LESS CAB	WITH CAB
231	X		X	
231S	X		X	

Mounting brackets can be installed using tools ordinarily available. Shut off tractor engine and engage tractor brakes during installation.

After loader is installed, check to be sure front tires clear loader and mounting brackets in all possible positions.

**TRACTOR & LOADER GENERAL INFORMATION**

If so equipped, remove weight bracket from front of tractor.

On MF231S it is necessary to relocate the power steering lines on the right side of tractor to make clearance for the right mounting bracket (3). Remove bolt securing oil lines to bracket. Remove bolts securing bracket that the oil lines were secured to. Remove bracket and reinstall bolts into tractor casting. Rotate bracket 180° so that oil lines' new location is toward front of tractor. Remove the next bolt higher than top of original bracket location and attach bracket. Loosen oil lines at tee and rotate up until they can be reattached to the bracket. Fasten oil lines to bracket and retighten oil lines.

**NOTE:** Leave all attaching hardware loose until mounting brackets are completely assembled to facilitate assembly and proper alignment. Tighten all hardware to torque specifications in loader operators manual.

**INSTALLING MOUNTING BRACKETS (Figure 1)**

1. Install front mounting bracket (1) using 5/8" x 1-1/2" cap screws (11) and 5/8" lock washers (20) in upper holes, 5/8" x 4" cap screws (9), 5/8" lock washers (20) and 5/8" hex nuts (22) in lower holes. Fasten bottom of front mounting bracket using 5/16" spacers (7), 5/8" flat washers (21), 5/8" lock washers (20) and 5/8" x 1-3/4" cap screws (19).

2. Install right and left mid mounting brackets (3 & 4) to tractor transmission casting using 3/4" spacers (5), 5/8" flat washers (21), 5/8" lock washers (20) and 5/8" x 2-1/2" cap screws (10) in upper rear holes and 5/8" flat washers (21), 5/8" lock washers (20) and 5/8" x 1-1/2" cap screws (11) in upper front holes. Fasten lower holes in midmounting brackets using 1/2" spacers (6), 5/8" lock washers (20) and 5/8" x 2-1/4" cap screws (18).
3. Remove inspection cover plate on underside of clutch housing.
4. Fasten cross tie (2) to right and left mid mounting brackets (3 & 4) using 5/8" x 1/2" cap screws (17) and 5/8" lock nuts (23).
5. Fasten cross tie to bottom of tractor using 5/8" flat washers (21), 5/8" lock washers (20) and 5/8" x 1-3/4" cap screws (19).

**REPLACING CYLINDERS**



**WARNING:** To avoid injury during installation of quick attach loader, do not permit bystanders within ten feet of loader.

1. Install grease fittings (16) to each end of cylinders (8).
2. Loop chain under each bucket cylinder and hook on loader boom arm.



**CAUTION:** Do not damage grease fitting on end of cylinder. Be sure chain does not pinch lift cylinder.

**REPLACING CYLINDERS  
(Continued on page 2)**

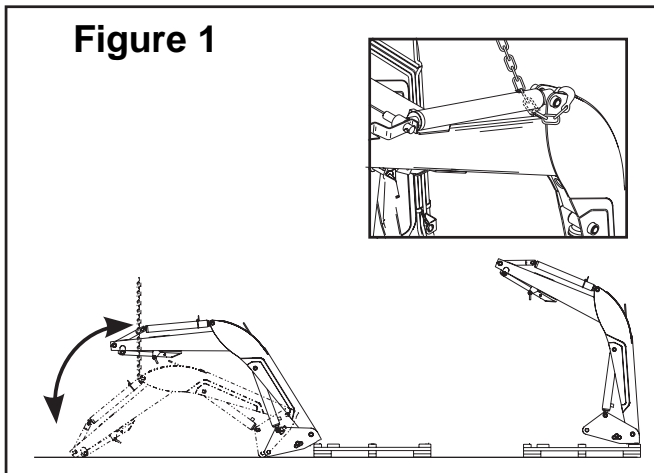
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### PARTS LIST - MOUNTING KIT

ITEM	PART NO.	DESCRIPTION	QTY.
1	44570	BRACKET, Front Mounting	1
2	44580	CROSS TIE	1
3	44567	BRACKET, Midmounting, Right	1
4	44566	BRACKET, Midmounting, Left (Not shown)	1
5	42787-1	SPACER TUBE .75"	2
6	42787-2	SPACER TUBE .50"	4
7	42787-3	SPACER TUBE .31"	2
8	44636	CYLINDER, Lift, 2"	2
9	G271731	SCREW, Cap, 5/8"x 4"	2
10	G271725	SCREW, Cap, 5/8" x 2-1/2"	2
11	G271547	SCREW, Cap, 5/8" x 1-1/2"	4
12	G271773	SCREW, Cap, 3/4" x 2-1/2"	4
13	G9414076	NUT, Lock, 3/4"	4
14	44995	YOKE	1
15	39240	DECAL, Do not tow ...	2
16	6075-4	GREASE FITTING, 1/4"	4
17	G271547	SCREW, Cap, 5/8" x 1-1/2"	4
18	G271724	SCREW, Cap, 5/8" x 2-1/4"	4
19	G271548	SCREW, Cap, 5/8" x 1-3/4"	6
20	G121574	WASHER, Lock, 5/8"	18
21	G131016	WASHER, Flat, 5/8"	10
22	G124589	NUT, Hex, 5/8"	4
23	G9414075	NUT, Lock, 5/8"	4

### REPLACING CYLINDERS

(Continued)



- Using overhead hoist to support loader, disconnect and remove angle support strut and install 2 inch lift cylinders (8). Fasten hydraulic hoses to cylinder ports.

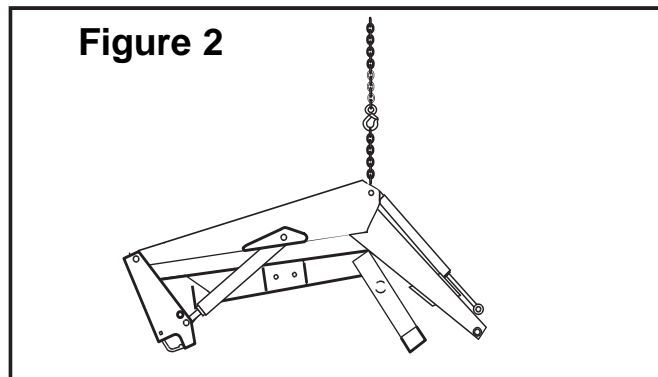
### INSTALLING LOADER TO MOUNTING BRACKETS

- Using overhead hoist to support loader remove hardware securing loader to pallet. Lift loader and remove pallet.
- Using overhead hoist, lower loader from vertical shipping position to horizontal position leaving

enough room to install yoke (scraps of cardboard may be used to protect paint). Install yoke assembly (14) using 3/4" x 2-1/2" cap screws (12) and 3/4" lock nuts (13). Lower loader completely to the ground.

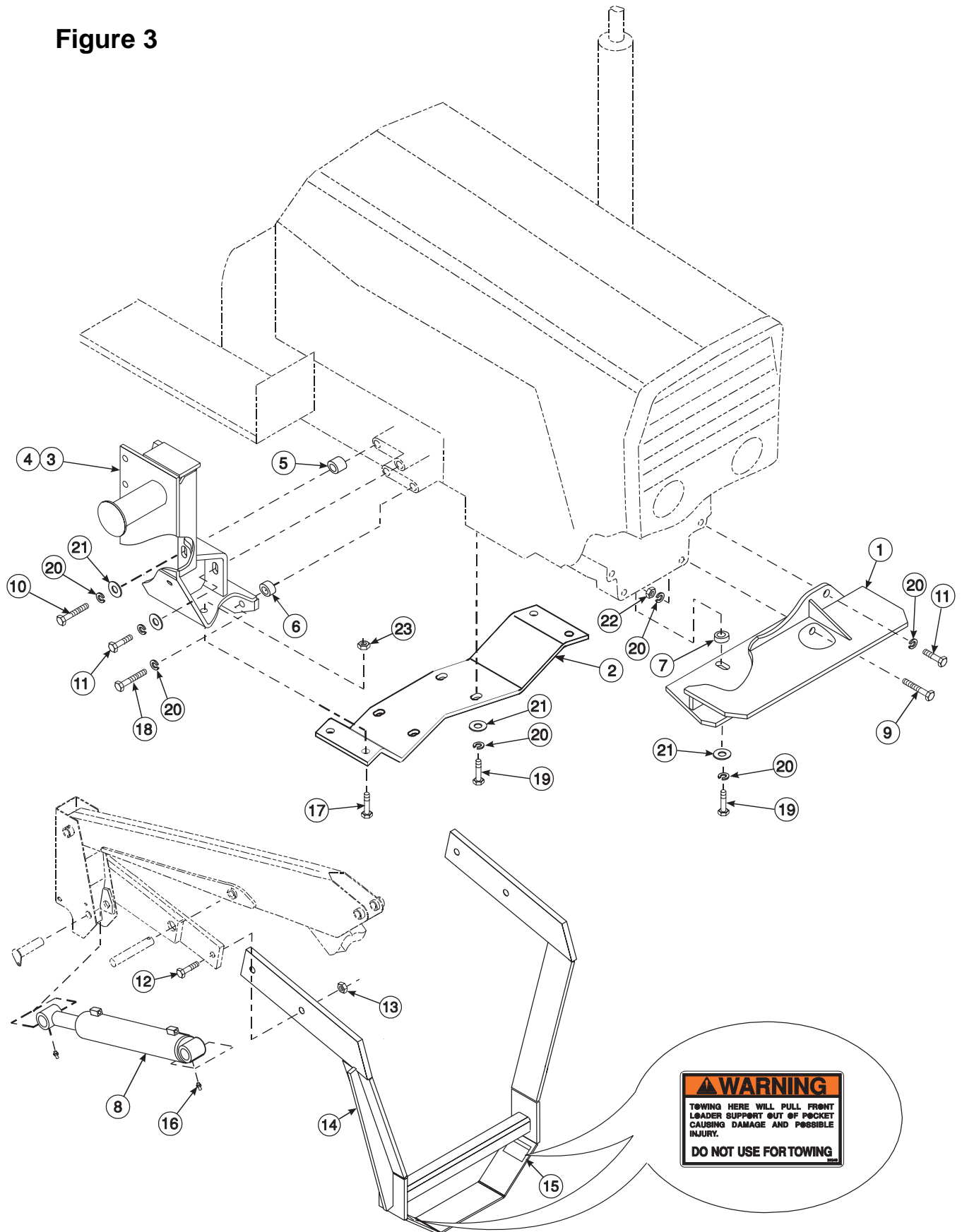
**NOTE:** Hardware connecting yoke to loader sideframes should be snug but do not torque completely. After loader has been mounted to tractor and aligned with midmounting brackets and front mounting brackets, torque hardware to 239-262 ft. lb. (322 N•m).

- Install hose or valve kit to tractor and loader. Refer to assembly manual provided for installation instructions.



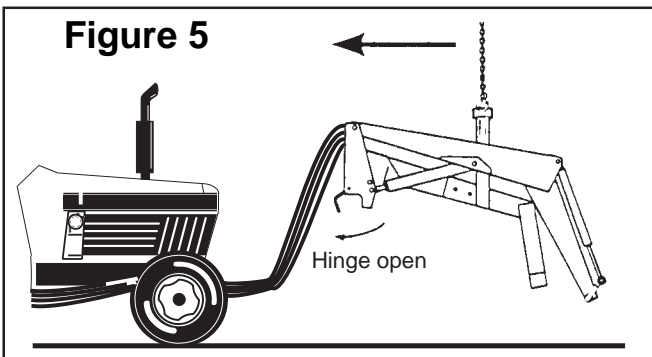
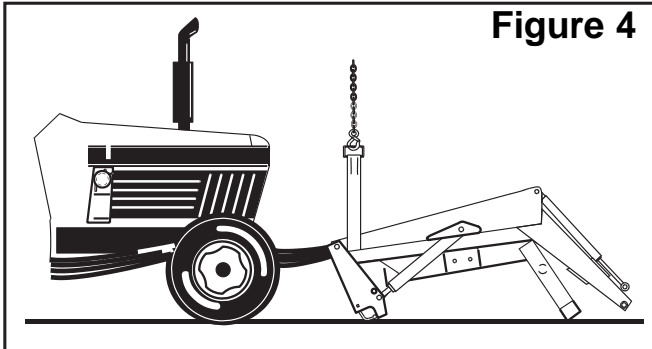
### INSTALLING LOADER TO MOUNTING BRACKETS (Continued on page 4)

Figure 3



## INSTALLING LOADER TO MOUNTING BRACKETS (Continued)

4. Reposition overhead hoist by looping nylon strap around yoke near loader side frames at balance point of loader.
5. Using overhead hoist, raise loader until side frame uprights will clear front tires. Remove locknut and washer from loader hinge and swing each hinge open.



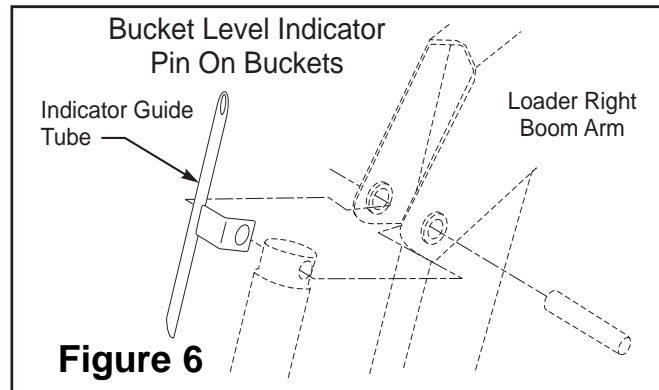
6. Position loader so hinges hook over mid mounting tubes and yoke tube fits inside front mounting bracket.
  7. Clamp hinges to midmounting tubes with 3/4 flat washers and 3/4 flex-lock nuts (supplied with loader).
- IMPORTANT:** *Be sure to use flex-lock nuts to clamp hinge. Tighten flex-lock nuts against hinge securely, but not to more than 125 ft.-lb. torque.*
8. Adjust front wheel tread settings or steering stops, if necessary to prevent interference between tires and

loader. Refer to tractor operator's manual for adjustment procedures.

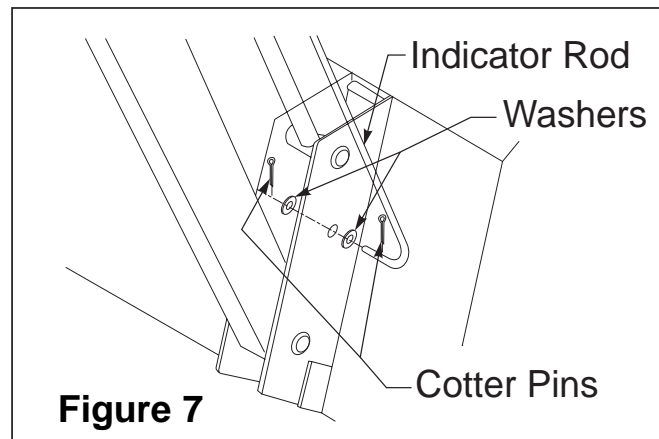
## INSTALLING BUCKET

Refer to instruction sheet for instructions on installing bucket.

## INSTALLING BUCKET LEVEL INDICATOR



1. Attach indicator guide tube to cylinder pin. Guide tube is positioned to outside of boom.
2. Slide bucket level indicator rod through guide tube.







Attach other end of rod with 1/8 x 1 cotter pins and 3/8 flat washers.

3. Locate tractor and loader on level surface. With bottom of bucket resting on surface, cut off excess rod flush with end of guide tube or paint exposed rod a contrasting color.

## GENERAL TORQUE SPECIFICATIONS

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

### Standard American and Metric Cap Screws

AMERICAN STANDARD CAP SCREWS									METRIC CAP SCREWS								
SAE Grade	5				8				Metric Class	8.8				10.9			
Typ. Head Markings									Typ. Head Markings								
Cap Screw	TORQUE				TORQUE				Cap Screw	TORQUE				TORQUE			
Size	FT·LBS		N·m		FT·LBS		N·m		Size	FT·LBS		N·m		FT·LBS		N·m	
Inches	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	Millimeters	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1/4 - 20	6.25	7.25	8.5	10	8.25	9.5	11	13	M6 x 1.00	6	8	8	11	9	11	12	15
1/4 - 28	8	9	11	12	10.5	12	14	16	M8 x 1.25	16	20	21.5	27	23	27	31	36.5
5/16 - 18	14	15	19	20	18.5	20	25	27	M10 x 1.50	29	35	39	47	42	52	57	70
5/16 - 24	17.5	19	23	26	23	25	31	34	M12 x 1.75	52	62	70	84	75	91	102	123
3/8 - 16	26	28	35	38	35	37	47.5	50	M14 x 2.00	85	103	115	139	120	146	163	198
3/8 - 24	31	34	42	46	41	45	55.5	61	M16 x 2.50	130	158	176	214	176	216	238	293
7/16 - 14	41	45	55.5	61	55	60	74.5	81	M18 x 2.50	172	210	233	284	240	294	325	398
7/16 - 20	51	55	69	74.5	68	75	92	102	M20 x 2.50	247	301	335	408	343	426	465	577
1/2 - 13	65	72	88	97.5	86	96	116	130	M22 x 2.50	332	404	450	547	472	576	639	780
1/2 - 20	76	84	103	114	102	112	138	152	M24 x 3.00	423	517	573	700	599	732	812	992
9/16 - 12	95	105	129	142	127	140	172	190	M27 x 3.00	637	779	863	1055	898	1098	1217	1488
9/16 - 18	111	123	150	167	148	164	200	222	M30 x 3.00	872	1066	1181	1444	1224	1496	1658	2027
5/8 - 11	126	139	171	188	168	185	228	251									
5/8 - 18	152	168	206	228	203	224	275	304									
3/4 - 10	238	262	322	355	318	350	431	474									
3/4 - 16	274	305	371	409	365	402	495	544									
7/8 - 9	350	386	474	523	466	515	631	698									
7/8 - 14	407	448	551	607	543	597	736	809									
1 - 8	537	592	728	802	716	790	970	1070									
1 - 14	670	740	908	1003	894	987	1211	1337									

**NOTE:** These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphite or moly sulphide greases or other extreme lubricants are used.

# **INSTALLATION INSTRUCTIONS**