

Keep with Operator's Manual

## LOADER MOUNTING KIT 5211 LOADER CASE IH & McCORMICK TRACTORS

MANUFACTURER	MODEL	2WD	FWA	ROPS	CAB
CASE IH & McCormick	CX70, CX80, CX90, CX100	X	X	X	X
McCormick	CX75, CX85, CX95, CX105	X	X	X	X

### TRACTOR & LOADER GENERAL INFORMATION

Mounting kit can be installed using tools ordinarily available, including a hoist capable of lifting and supporting loader for initial mounting, standard and metric wrenches, a torque wrench, additional tractor hydraulic fluid (refer to tractor operator's manual), and a non-sparking drift and hammer (a shot-filled mallet is recommended).

**NOTE:** *Loader is not compatible with front fenders.*

Tractor-supplied hydraulic power is required for loader mounting and operation. An auxiliary valve kit is available to plumb into tractor hydraulics or a hose kit is available to plumb to tractor remote valve couplers.

If optional grille guard is to be installed, install it while installing loader mid mounting brackets, before mounting loader. Refer to instructions provided with grille guard.

Check tractor tire pressure. Refer to tractor operator's manual for recommended pressures. With tractor on a firm, level surface, compare tractor rear axle height from left to right, measuring from axle center to ground. Adjust air pressure in rear tires until axle height measures same for both sides.

**NOTE:** *If rear axle of tractor is not level from side to side, cutting edge of loader bucket or similar loader-mounted attachments will not sit flat on ground.*

When loader mounting is complete, check front tire clearances and adjust tire tread width as necessary. Also verify tractor wheel and axle clearances and adjust steering stops to provide clearance between front tire and tractor hood and loader on full left and right turn with front axle fully oscillated. Be sure lift cylinders are fully retracted when checking tire clearances. Refer to tractor operator's manual for steering stop adjustment.

### PREPARING TRACTOR

Shut off engine and engage brakes during installation.

If FWA tractor is equipped with optional front fenders, they must be removed.

If tractor is equipped with front weights, remove weights. If grille guard is to be installed, temporarily remove front weight bracket and refer to instructions provided with grille guard.

### INSTALLING MID-MOUNTING BRACKETS



**CAUTION:** *Support mid mounting brackets (1 & 2) when removing from shipping materials.*



**CAUTION:** *Front window of cab is very vulnerable to breakage when installing mid mounting brackets. Take precautions to protect glass when attaching loader mid mounting brackets on tractors with cab.*



**CAUTION:** *3/4-10 and 20mm-2.50 threads are very similar. To prevent damage to threaded holes, it is important to match proper cap screws to corresponding holes.*

**NOTE:** *Install all attaching hardware loose until mounting kit is completely assembled, to facilitate assembly and proper alignment, unless noted otherwise. Torque all hardware to torques specified in general torque specifications table when assembly is complete.*

### INSTALLING LEFT MID MOUNTING BRACKET (1)

1. Temporarily remove steps from left side of tractor.
2. Support fuel tank on left side of tractor and loosen hardware which secures fuel tank retainer straps. Swing fuel tank out to access attaching bolts.
3. Remove two bolts forward of rear-most bolts (see Figure 1), then loosen rear bolts until mounting plate of fuel tank housing is loose. Remove 3/4" spacer plate provided with tractor. (Attaching plate of left mid mounting bracket (1) will take the place of removed spacer.)
4. Slide rear of attaching plate of left mid mounting bracket (1) between tractor and fuel tank mounting plate using remaining 3/4" bolts, loosened above, as a guide.
5. Place spacer plates (4) between front of left mid mounting bracket (1) and mounting holes in left side of tractor front frame. Align holes with mounting holes in tractor front frame and loosely fasten left mid mounting bracket (1) and spacer plates (4) to left side of tractor front frame using 20mm x 55mm cap screws (9) and 20mm lock washers (13).

## INSTALLING LEFT MID MOUNTING BRACKET (Continued)

**NOTE:** If grille guard is to be installed, do not use front-most spacer plate (4), as side mounting plate of grille guard (which has equal thickness of spacer plate) replaces spacer plate. Use 10mm x 55mm cap screws (9) and 20mm lock washers (13) to fasten left mid mounting bracket (1) and grille guard to left side of tractor front frame.

6. Install 3/4 x 2-1/2" cap screws (10) and 20mm lock washers (13) in pair of holes at rear of left mid mounting bracket (1).
7. Remove remaining 3/4" bolts, which were loosened earlier and replace them with 3/4 x 2-1/2" cap screws (10) and 20mm lock washers (13).
8. Reinstall fuel tank support channel with original hardware: two nuts and flat washers on tank support channel bolts on underside of fuel tank. Reinstall fuel tank support bracket and original hardware to tank support channel and step. And install fuel tank support strap bolt into tank support channel.

## INSTALLING RIGHT MID MOUNTING BRACKET (2)

**NOTE:** If tractor is equipped with horizontal exhaust, loosen exhaust hanger located on platform (ROPS) and push exhaust pipe inward slightly to gain clearance for attachment plate of right mid mounting bracket (2).

1. Temporarily remove battery from right side of tractor.

**NOTE:** For McCormick tractors, remove alternator shield.

2. Loosen bolts which fasten attaching plate of battery housing. Remove two bolts forward of rear-most pair of bolts. Remove 3/4" spacer plate provided with tractor. (Attaching plate of right mid mounting bracket (2) will take the place of removed spacer.)
3. Slide attaching plate of right mid mounting bracket (2) between battery housing attachment plate and tractor using remaining 3/4" bolts, loosened above as a guide.
4. Place spacer plates (4) between front of right mid mounting bracket (2) and mounting holes in right side of tractor front frame. Align holes with mounting holes in tractor front frame and loosely fasten right mid mounting bracket (2) and spacer plates (4) to right side of tractor front frame using 20mm x 55mm cap screws (9) and 20mm lock washers (13).

**NOTE:** For McCormick tractors, also fasten alternator shield (7) with right mid mounting bracket (2) and spacer plate (4) to right side of tractor front frame.

**NOTE:** If grille guard (2-7123) is to be installed, do not use front-most spacer plate (4), as side mounting plate of grille guard (which has equal thickness of spacer plate) replaces spacer plate. Use 10mm x 55mm cap screws (9) and 20mm lock washers (13) to fasten right mid mounting bracket (2) and grille guard to right side of tractor front frame.

5. Place 3/4 x 2-1/2" cap screws (10) and 20mm lock washers (13) in pair of holes at rear of right mid mounting bracket (2).
6. Remove remaining 3/4" bolts, which were loosened earlier and replace them with 3/4 x 2-1/2" cap screws (10) and 20mm lock washers (13).

## INSTALLING CROSS TIE BRACKET (3)

Place cross tie (3) between left and right mid mounting brackets (1 & 2) and fasten to mid mounting brackets (1 & 2) using 5/8 x 2-1/2" cap screws (11) flat washers (14) and lock nuts (16).

## TIGHTEN ATTACHING HARDWARE

Tighten all attaching hardware to torques specified in general torque specifications table. Tighten all 20mm x 55mm cap screws (9) to 247-301 ft.·lbs. (335-408 N·m) of torque.

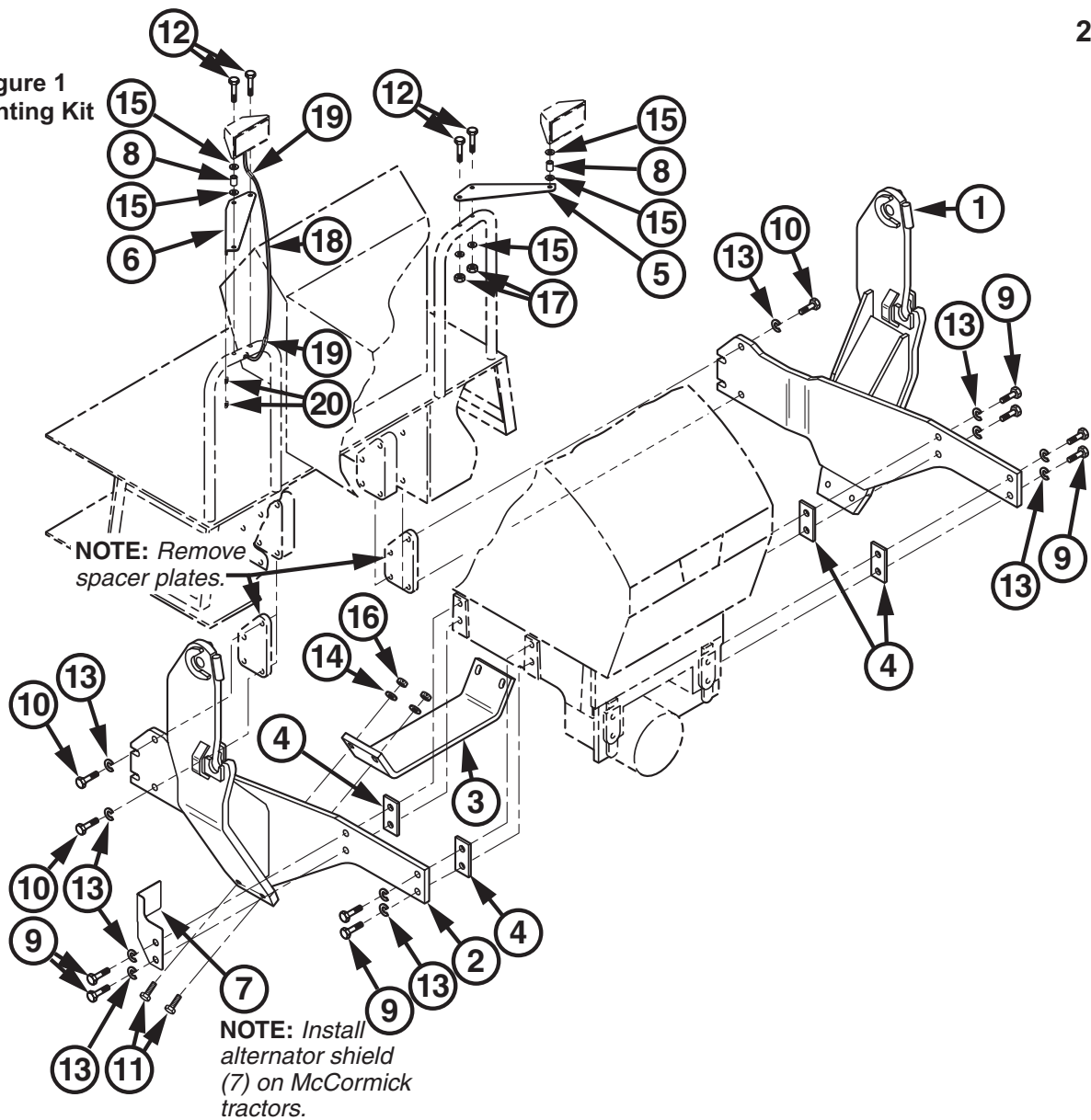
## WORK LIGHT RELOCATION (ROPS Tractors Only)

1. Temporarily remove work lights from platform handrail on each side, retaining attaching hardware to re-use later.
2. Cut wire and splice in a 24" length of double-strand wire (18) using two wire connectors (19) at each end.

**NOTE:** If wire is provided as a single 48" length, cut wire at mid-length to provide two 24" lengths of double-strand wire.

3. Splice work lights onto other end of wires (18) using remaining wire connectors (19).
4. Attach left light relocation bracket (5) to left platform handrail and attach right light relocation bracket (6) to right platform handrail using 3/8 x 2-1/2" cap screws (12), flat washers (15) and lock nuts (17).
5. Slide a 3/8" flat washer (15), spacer tube (8), and another 3/8" flat washer (15) onto attachment yoke of each work light.
6. Fasten attachment yoke of each work light onto left or right relocation bracket (5 & 6), reusing original nut removed earlier.
7. Secure any loose wire (18) to tabs in underside of relocation brackets (5 & 6) using spring clips (20), two per side.

Figure 1  
Mounting Kit



**PARTS LIST - MOUNTING KIT (Figure 1)**

Item	Part No.	Description	Qty.
1	52557	BRACKET, Mounting, Mid, Left	1
2	52558	BRACKET, Mounting, Mid, Right	1
3	50082	BRACKET, Cross Tie	1
4	50083	SPACER, Plate	4
5	50084-1	BRACKET, Work Light Relocation, Left	1
6	50084-2	BRACKET, Work Light Relocation, Right	1
7	52521	SHIELD, Alternator, McCormick Tractors Only	1
8	50227-1	SPACER, Tube, 7/16" I.D. x 3/4" O.D. x 1" Long	2
9	49040-14	SCREW, Cap, 20mm-2.50 x 50mm, Class 10.9	8
10	42969-12	SCREW, Cap, 3/4-10 x 2-1/2", Grade 8	8
11	41838-64	SCREW, Cap, 5/8-11 x 2-1/2", Grade 5	4
12	41838-54	SCREW, Cap, 3/8-16 x 2-1/2", Grade 5	4
13	48093-2	WASHER, Lock, 20mm	16
14	42502-12	WASHER, Flat, 5/8"	4
15	42502-28	WASHER, Flat, 3/8" W-Std.	8
16	41840-7	NUT, Lock, 5/8-11	4
17	41840-3	NUT, Lock, 3/8-16	4
18	39436	WIRE, Two-Strand, 24" Long	2
19	22727	CONNECTOR, Wire	8
20	50085	CLIP, Spring, Wire/Panel	4

**MOUNTING LOADER (Figures 2, 3, 4, 5, 6 & 7)**

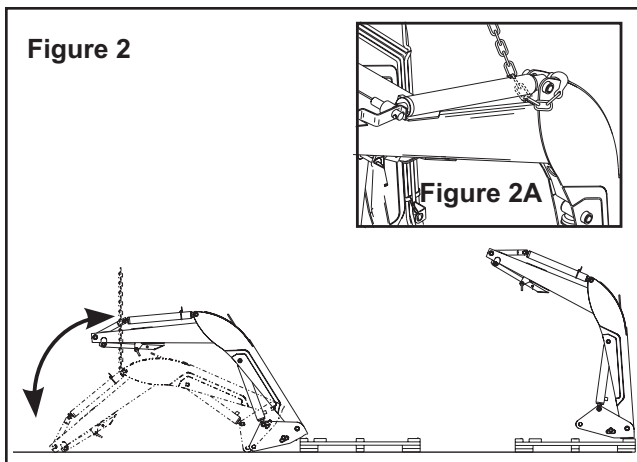
**WARNING:** Loader must be supported before removing hardware securing loader to shipping pallet, or loader will tip over.



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



**WARNING:** To avoid injury during installation of quick attach loader, an overhead hoist must be used for initial mounting. Parking stands are not operational without bucket or heavy attachment mounted. (Bale spear or pallet fork alone do not provide enough weight.)

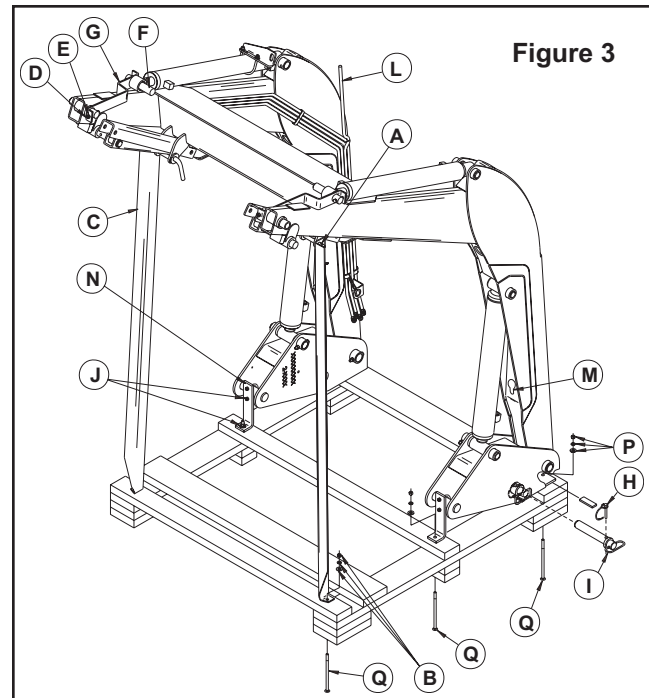


1. Loop chain or sling under each bucket cylinder and hook on loader boom arm (see Figure 2A). Using overhead hoist to support loader, remove shipping angle braces (C) (Figure 3) by temporarily removing linch pins (A), to remove angle braces (C), then reinstall linch pins (A), which hold parking stands in position.
2. Remove nut and washers (B) from shipping braces (C) and discard braces and hardware.
3. Cut tie straps, remove linch pins (H) and hitch pins (I) (See Figure 3) and keep with loader for securing uprights to mid mounting brackets later.
4. Remove hardware (J) from shipping bracket (N). Discard brackets and hardware. Remove nuts and washers (P) from bolts securing loader to pallet. Raise loader.



**WARNING:** Loader uprights may rotate downward when loader is lifted from pallet.

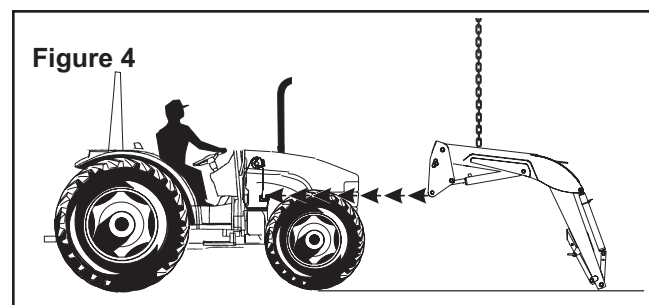
5. Remove all six carriage bolts (Q) from pallet (see Figure 3) and position pallet at rear of loader to facilitate lowering (see Figure 1). Lower loader from



vertical shipping position to horizontal position (scraps of cardboard may be used to protect paint). Remove bucket level indicator rod (L) attached to oil lines for shipment.

6. Install auxiliary valve kit or hose kit. Follow instructions provided with kit for installation. For auxiliary valve, refer to instructions provided with kit for valve coupler function; for hose kit, refer to tractor operator's manual for remote coupler function.
7. Secure a hoist strap around the boom arm assembly or secure with a chain hook into hole (M), on underside of boom arm (see Figure 3). If using a strap, the strap should be located around the boom arm in about the same location as the chain hook hole, similar to Figure 4. Slowly raise loader with overhead hoist until loader upright will clear tractor tires (see Figure 4).

**NOTE:** Before mounting loader onto tractor with cab, rotate work lights, mounted on platform handrails, outward to prevent interference with loader uprights.



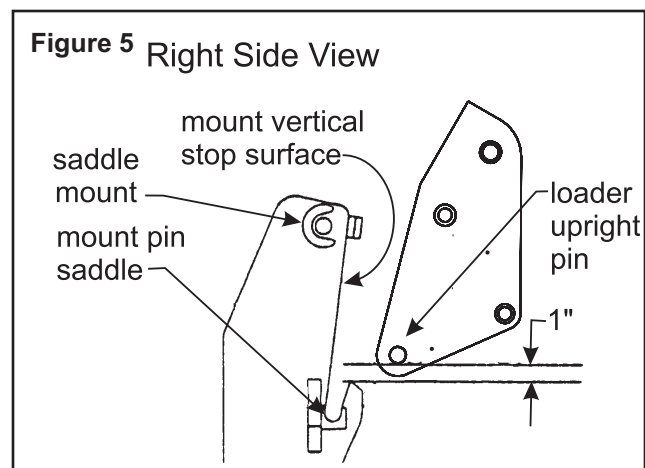


**MOUNTING LOADER (Continued)**

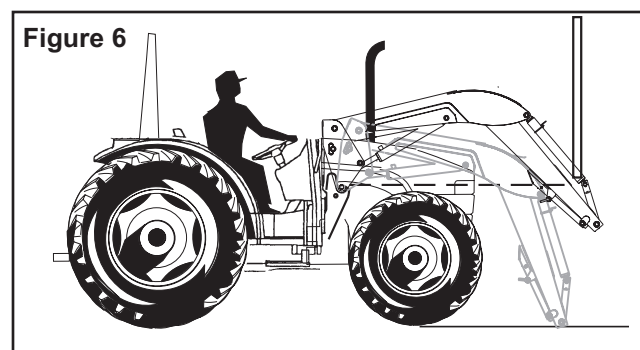
8. Drive tractor into loader until uprights of loader mounting brackets are within 12" to 18" of loader uprights. Shut off engine. Attach lift cylinder function hoses (color coded green and yellow) to corresponding tractor couplers.

**NOTE:** It is important to attach lift cylinder hoses (yellow and green spiral band coded) for loader to function properly. Do not connect boom oil line hoses for tilt cylinder control at this time. (Connect these after shipping brackets are removed from attachment pin hubs in instruction 12.)

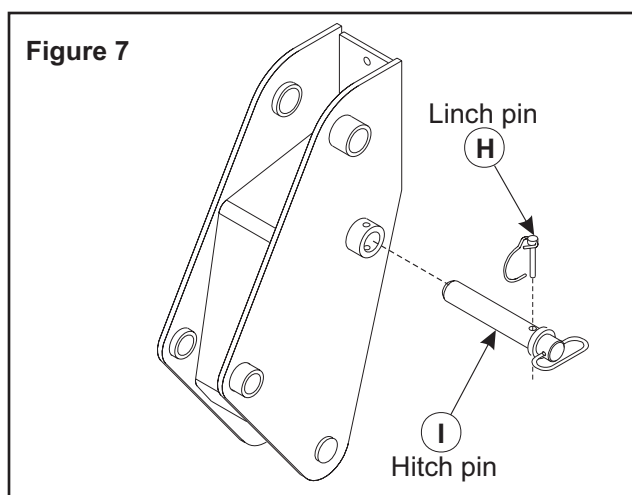
9. Start engine. Retract lift cylinders fully and continue to activate control lever for approximately 10 seconds. Cycle cylinders several times to remove air. Extend lift cylinders 10" to 12" from the fully closed position to ensure loader upright pin will be first part of loader upright to make contact with mount vertical stop surface. Shut off engine.



10. With overhead hoist, position loader upright pin to clear mount pin saddle by 1" (see Figure 5). Move tractor forward until both loader upright pins come to rest against the flat vertical stop surface of both mounts. Lower loader with overhead hoist until both loader upright pins rest into mount pin saddles.



11. Remove hoist chain or strap from loader boom and secure to each bucket cylinder shipping brackets (G) (Refer to Figure 3). Using overhead hoist raise front of loader to rotate loader upright into upper mount saddle (see Figure 6). Continue to rotate loader upright until upright has fully seated into back of mount saddle. Insert two 1-1/4 x 7" pins (I) and linch pins (H) which were removed from loader uprights in instruction 3. Remove hoist chain or strap from shipping brackets.



**NOTE:** In some cases a small amount of additional force may be required to insert the pins. If necessary, use a drift and hammer made of non-sparking material (a shot-filled mallet is recommended) to seat loader uprights into mount saddle.

12. Remove 3/8" cap screws (D), lock nuts (E), pins (F), and shipping brackets (G) (see Figure 3). Discard shipping brackets, retain hardware for further use when installing bucket or attachment.
13. Attach tilt cylinder function hoses (color coded blue and red) to corresponding tractor couplers. For auxiliary valve, refer to instructions provided with kit for valve coupler function; for hose kit, refer to tractor operator's manual for remote coupler function.
14. Adjust front wheel tread settings or steering stops, if necessary, to provide a minimum 3/4" clearance between front tires and any part of loader with lift cylinders fully retracted and front axle fully oscillated. Be sure lift cylinders are fully retracted. Refer to page 1 under tractor and loader general information. Refer to tractor operator's manual for tread setting and steering stop adjustment procedures.

**NOTE:** Axle oscillation is 12° unless equipped with Case IH oscillation stops.

**INSTALLING BUCKET OR ATTACHMENT**

Refer to loader operator's manual to install bucket or optional attachments.



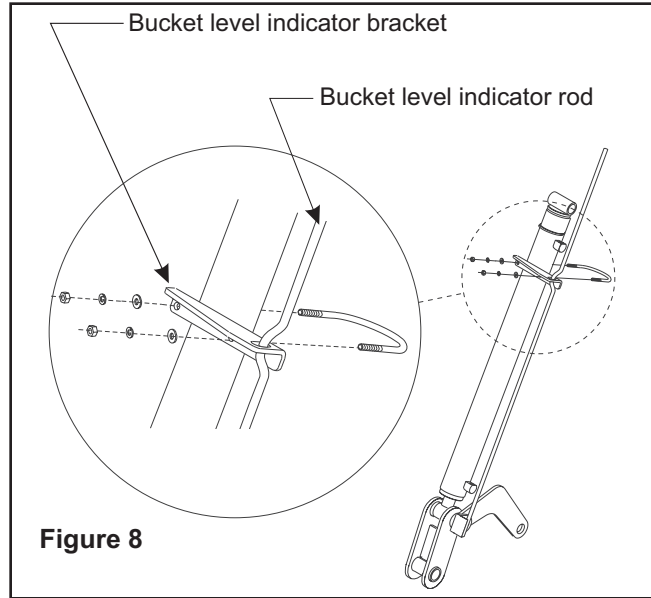
**WARNING:** Always have a bucket attachment mounted to loader when it is removed from tractor. Pallet fork, bale spear, or similar attachments are too light to safely counterbalance loader boom arms when loader is dismantled from tractor.

**ATTACH LEVEL INDICATOR FOR BUCKET OR ATTACHMENT (Figure 8)**

Refer to assembly instructions provided with bucket or optional attachment to attach level indicator rod.

**NOTE:** Attachment level setting varies for each loader attachment. It is important to make sure level indicator is adjusted to indicate level whenever a different attachment is mounted, or else level indicator will not indicate true level.

To adjust level indicator properly, locate tractor and loader attachment on a firm, level surface with attachment resting on level surface in level operating position. Loosen u-bolt that fastens level indicator bracket to right tilt cylinder and position it so it is centered on the offset in level indicator rod, the retighten u-bolt hardware.



**Figure 8**

**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	<p><b>NOTE:</b> 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.</p>								
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									

# INSTALLATION INSTRUCTIONS