

Keep with Operators' Manual
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## LOADER MOUNTING KIT

### NEW HOLLAND TB100 & TB110 TRACTORS

MODEL	LESS CAB	2 WD	FWA
TB100	X	X	X
TB110	X	X	X

#### TRACTOR & LOADER GENERAL INFORMATION

Mounting kit can be installed using tools ordinarily available, including a hoist capable of lifting and supporting the loader for initial mounting, standard wrenches and a torque wrench, New Holland 134 hydraulic oil, and a non-sparking drift and hammer (a shot-filled mallet is recommended).

Tractor-supplied hydraulic power is required for loader mounting and operation. Two hydraulic kit options are available for use with this loader:

715828006 (2-7182) is a mid-coupled, single-handle joystick control valve kit, which includes hoses and fittings required to plumb to tractor hydraulics.

716793036 (2-7143) is a hose kit for use with existing tractor hydraulic control valves, which includes hoses and couplings to plumb to tractor rear remote valve couplers.

If optional grille guard 715824076 (2-7181) is to be installed, install it during mid mounting bracket installation, 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 on tractor is not level from side to side, cutting edge on loader bucket or similar loader-mounted attachments will not sit flat on ground.*

When loader mounting is complete, you will need to check front tire clearances and adjust tire track width as necessary. You will also need to verify tractor wheel and axle clearances and adjust steering stops accordingly 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.

Once loader is installed on tractor, check for clearance between loader boom and tractor exhaust stack by slowly raising and lowering loader boom. Adjust tractor exhaust stack as needed.

#### PREPARING TRACTOR

Shut off engine and engage brakes during installation. If tractor is equipped with front weights, remove weights. It is not necessary to remove weight bracket.

#### INSTALLING MID-MOUNTING BRACKETS

**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.*

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

#### INSTALLING LEFT MID-MOUNTING BRACKET (Figure 2)

1. Remove top and bottom hardware that attaches left fuel tank brackets to left side of tractor flywheel casting, removing ONLY bottom spacer located between fuel tank bracket and tractor flywheel casting.

**NOTE:** *Retain top spacer for re-use: top spacer is required for use with left mid mounting bracket.*

2. Raise left mid mounting bracket (1) with overhead hoist. Supporting left fuel tank bracket, slide lower rear of left mid mounting bracket between tractor flywheel casting and fuel tank bracket and position upper rear of left mid mounting bracket to outside of fuel tank bracket. Align mounting holes with holes in left side of tractor flywheel casting and tractor front casting.
3. Locate engine vent tube (1" I.D. hose). Cut hose off approximately three inches from outside edge of mounting surface on tractor flywheel casting. Insert 90° plastic elbow (10) into end of hose attached to tractor. Insert other end of 90° elbow (10) into either end of cut off piece of hose. Rotate elbow to direct hose downward, just in front of fuel tank bracket and platform.

**NOTE:** *Make sure engine oil breather hose is routed so hose is not pinched.*

## INSTALLING LEFT MID-MOUNTING BRACKET (Continued)

- Placing 1-1/32" spacer (3) between left mid mounting bracket (1) and tractor flywheel casting at upper front hole and existing fuel tank spacer at the upper rear hole, attach left mid mounting bracket (1) to left side of tractor flywheel casting using a 3/4 x 3 cap screws (4), flat washers (9) and lock washers (8) in the top two holes, 3/4 x 2-1/4 cap screw (5) and lock washer (8) in the rear bottom hole, and 3/4 x 2 cap screw (6), flat washer (9) and lock washer (8) in the front bottom hole.
- Attach front of left mid mounting bracket (2) to right side of tractor front casting using four 3/4 x 2 cap screws (6), flat washers (7) and lock washers (8).

**NOTE:** If grille guard is to be installed, use hardware provided with grille guard at front-most pair of holes to fasten grille guard and left mid mounting bracket to tractor front casting.

- Torque cap screws (4, 5 & 6) to 240-260 ft.-lbs. of torque.
- Remove backing from one steering stop decal (11) and place decal (11) onto left mid mounting bracket (1) midway between pairs of 3/4-10 x 2 cap screws (6) at front near tractor front axle.

## INSTALLING RIGHT MID-MOUNTING BRACKET (Figure 2)

- Remove top and bottom hardware that attaches right fuel tank brackets to right side of tractor flywheel casting. This includes removal of two spacers.
- Raise right mid mounting bracket (2) with overhead hoist. Position rear of mounting bracket (2) between fuel tank brackets and tractor flywheel casting. Align mounting holes with holes in right side of tractor flywheel casting and tractor front casting.
- Attach right mid mounting bracket (2) to tractor flywheel casting with two 3/4 x 2 cap screws (6), flat washers (9) and lock washers (8) in the front two holes. Attach right mid mounting bracket (2) and right fuel tank brackets to tractor flywheel casting with two 3/4 x 2-1/4 cap screws (5) and lock washers (8) in the rear two holes.
- Attach front of right mid mounting bracket (2) to tractor front casting using four 3/4 x 2 cap screws (6), flat washers (7) and lock washers (8).

**NOTE:** If grille guard is to be installed, use hardware provided with grille guard at front-most pair of holes to fasten grille guard and right mid mounting bracket to tractor front casting.

- Torque cap screws (5 & 6) to 240-260 ft.-lbs. of torque.

- Remove backing from remaining steering stop decal (11) and place decal (11) onto right mid mounting bracket (2) midway between pairs of 3/4-10 x 2 cap screws (6) at front near tractor front axle.

## MOUNTING LOADER (Figures 1, 3, 4, 5, 6, 7 & 8)



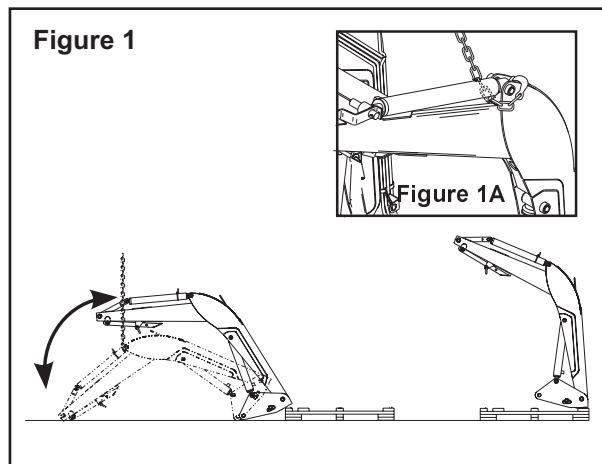
**WARNING:** Loader must be supported before removing hardware securing loader to shipping pallet, or loader will tip over.



**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.)

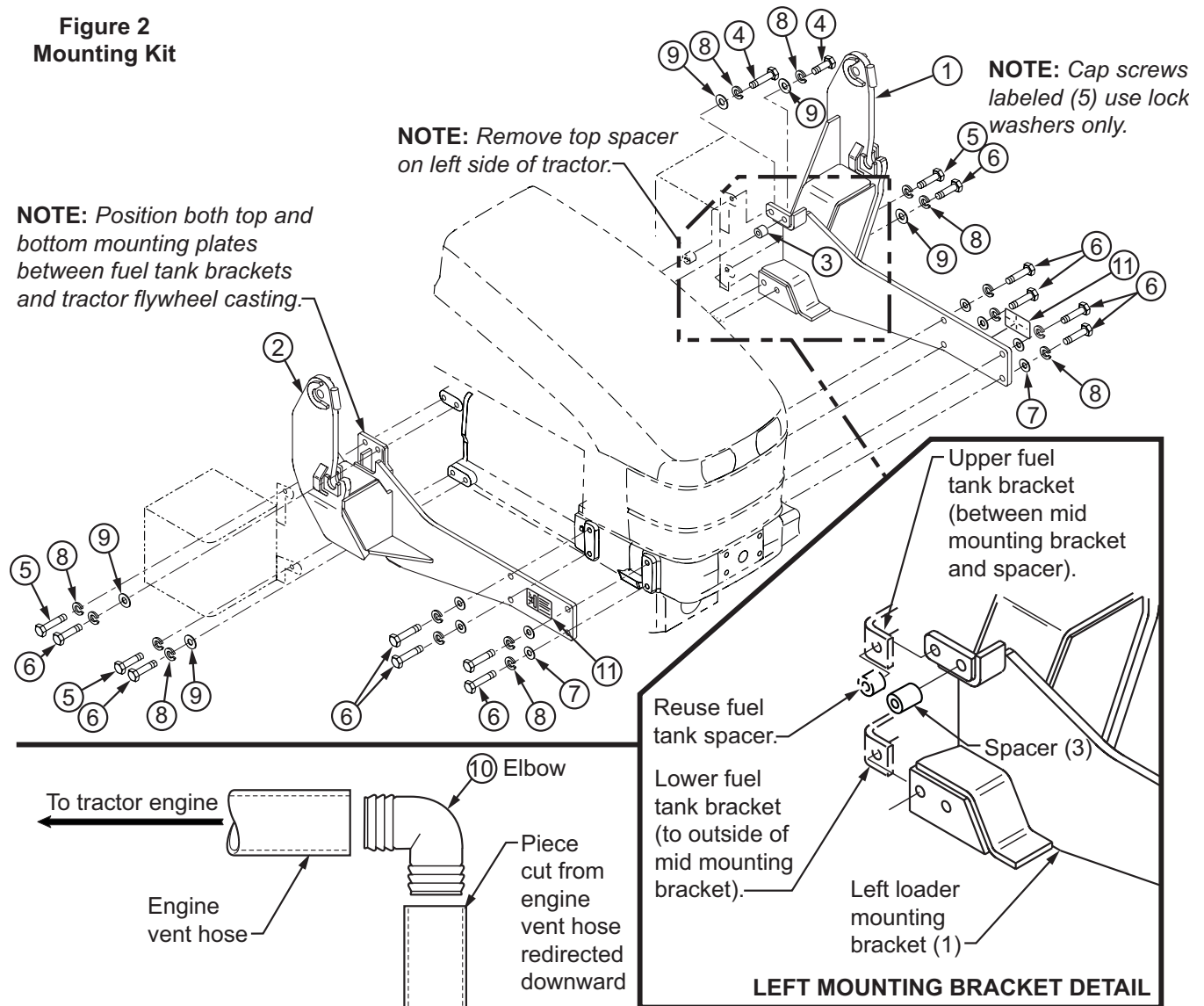


- Loop chain or sling under each bucket cylinder and hook on loader boom arm (see figure 1A). Using overhead hoist to support loader, remove shipping angle braces (C) (figure 3) by temporarily removing linch pins (A) to remove angle braces, then reinstall linch pins which hold parking stands in position.
- Remove nut and washers (B) from shipping braces (C) and discard braces and hardware.
- 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.
- 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.

**Figure 2**  
**Mounting Kit**

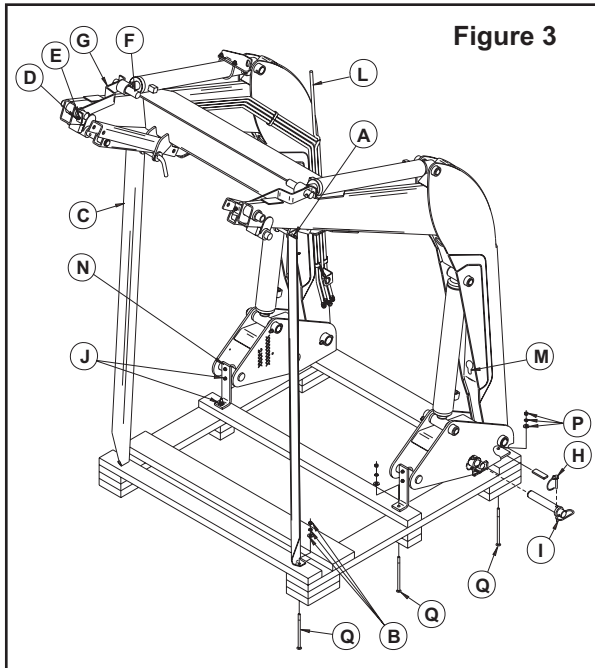


**PARTS LIST - MOUNTING KIT (Figure 3)**

Item	SMC No.	NH No.	Description	Qty.
1	50541	SML50541	MID MOUNT, Left	1
2	50540	SML50540	MID MOUNT, Right	1
3	50141-2	SML501412	SPACER, Tube, 1-1/32	1
4	41838-55	87337	SCREW, Cap, 3/4-10 x 3	2
5	41838-15	87403	SCREW, Cap, 3/4-10 x 2-1/4	3
6	41838-8	88557	SCREW, Cap, 3/4-10 x 2	11
7	42502-33	81543	WASHER, Flat, 3/4, standard (wide)	8
8	41837-8	87340	WASHER, Lock, 3/4	16
9	37259	SML37259	WASHER, Flat, 3/4 x 1-1/2" O.D.	5
10	51262-1	SML512621	ELBOW, 90°, Plastic, 1" I.D. hose, with hose barbs	1
11	51909	SML51909	DECAL, Adjust Front Axle Stops After Changing Tread Spacing	2

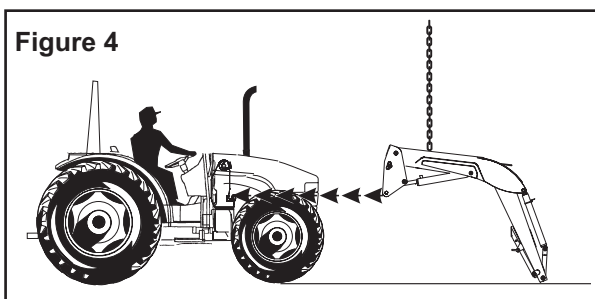
**MOUNTING LOADER (Continued)**

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 hydraulic plumbing for loader to tractor using either hose or valve kit designed for use with this loader. (Refer to the first page of these instructions for compatible kits.) Follow instruction sheets provided with hose or valve kit to install valve to tractor, if applicable, and install hoses, sleeves, couplers, dust caps, and identification bands to loader boom oil lines.

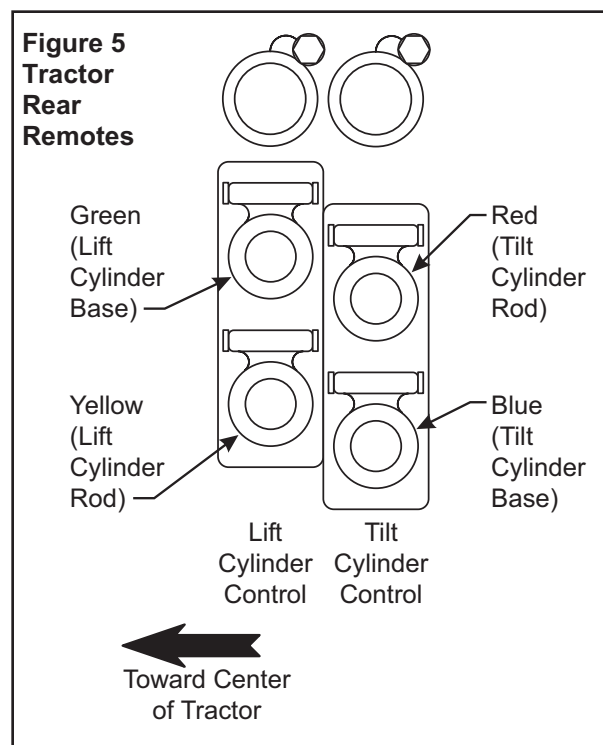
7. Secure a hoist strap around the boom arm assembly or secure with a chain hook into hole (M) on underside of boom arm (see figure 3). If using a strap, the strap should be located around the boom arm near the same location as the chain hook hole, similar to figure 4. Slowly raise loader with overhead hoist until loader upright will clear tractor tires (see figure 4).



8. Drive tractor into loader until uprights of loader mounting brackets are within 12" to 18" 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 instruction 12).

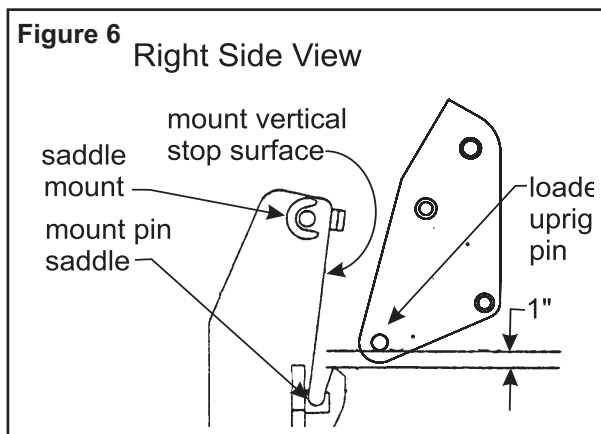
**NOTE:** If using hose kit 716793036 (2-7143), connect lift cylinder hoses to tractor rear remote valve couplers according to the following illustration.



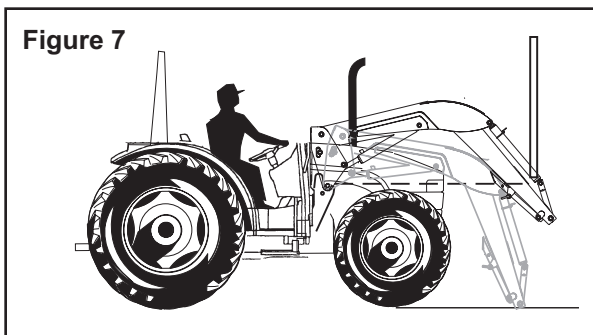
9. Start engine. Retract lift cylinders fully and continue to activate control lever for approximately 10 seconds. Cycle cylinders several times to remove air. Extend lift cylinders 10" to 12" from the fully closed position to ensure loader upright pin will be first part of loader upright to make contact 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 6). 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.

## MOUNTING LOADER (Continued)



11. Remove hoist chain or strap from loader boom and secure to each bucket cylinder shipping brackets (G) (see figure 3). Using overhead hoist raise front of loader to rotate loader upright into upper mount saddle (see figure 7). 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 step 3. Remove hoist chain or strap from shipping brackets.

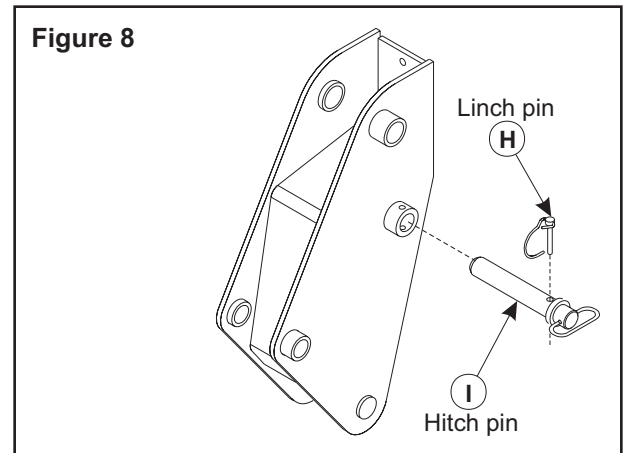


**NOTE:** In some cases a small amount of additional force may be required to insert the pins. If necessary, use a drift and hammer made of non-sparking material (a shot-filled mallet is recommended) to seat loader uprights into mount saddle.

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.

**NOTE:** If using hose kit 716793036 (2-7143), see figure 5 to connect tilt cylinder hoses to tractor remote valve couplers. If using valve and plumbing kit 715828006 (2-7182) refer to instructions provided with kit.

14. Start engine and fully extend and retract cylinders several times to purge air from hydraulic system. Replenish hydraulic system using New Holland 134 hydraulic oil.



15. Adjust front wheel tread settings or steering stops\*, if necessary, to provide a minimum 3/4 inch 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:** Tractor has two steering stops on each side of tractor, one on front of axle and one on rear of axle.

## INSTALLING BUCKET OR ATTACHMENT

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



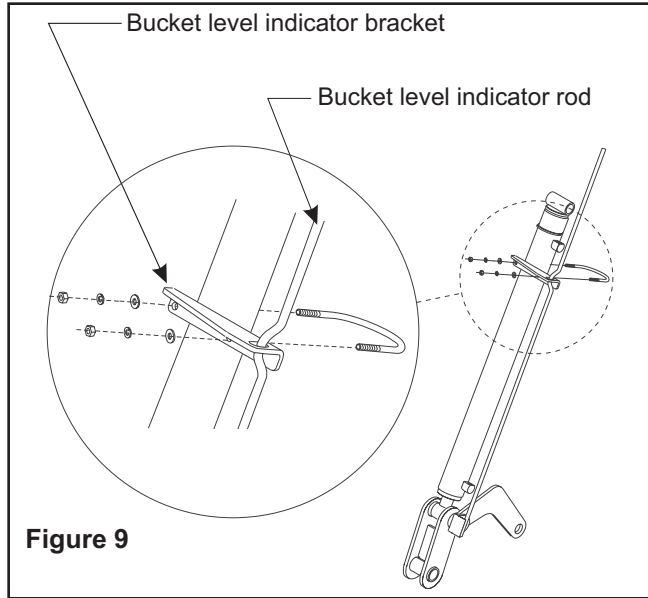
**WARNING:** Always have a bucket attachment mounted to loader when loader is removed from tractor. Pallet fork, bale spear or similar attachments are too light to safely counterbalance loader boom arms when loader is dismantled from tractor.

## ATTACH LEVEL INDICATOR FOR BUCKET OR ATTACHMENT (Figure 9)

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

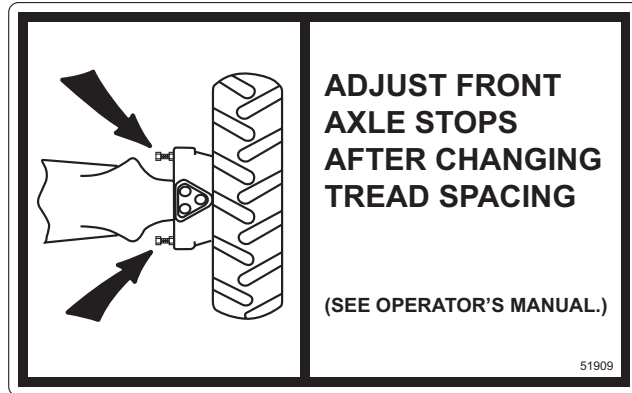
**NOTE:** Attachment level setting varies for each loader attachment. It is important to make sure level indicator is adjusted to indicate level whenever a different attachment is mounted, or else level indicator will not indicate true level.

To adjust level indicator properly, locate tractor and loader attachment on a firm level surface with attachment resting on level surface in 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, then retighten u-bolt hardware.



**DECALS**

**NOTE:** The following decal is to be placed onto each side mid mounting bracket, midway between front mounting hardware, near tractor front axle. Replace decals if they are damaged or illegible. Replacement decals are available from your dealer.



**DECAL P.N. SML51909**  
Location: Left and Right Mid Mounting Brackets Near Front Axle

**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								
5					8				8.8				10.9				
TORQUE					TORQUE				TORQUE				TORQUE				
Cap Screw	FT·LBS		N·m		FT·LBS		N·m		Cap Screw	FT·LBS		N·m		FT·LBS		N·m	
Size	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	Size	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Inches									Millimeters								
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