

Keep with Operators Manual

LOADER MOUNTING KIT 5211 LOADERS NEW HOLLAND TL & 35 SERIES TRACTORS

MODEL	2WD	4WD	LESS CAB	WITH CAB
TL70 & TL80	X	X	X	X
TL90 & TL100	X	X	X	X
4835 & 5635	X	X	X	X
6635 & 7635	X	X	X	X

Mounting kit can be installed using tools ordinarily available.

Tractors equipped with mid-mount valves require hydraulic plumbing kit (2-6672). Tractors with rear remotes require plumbing kit (2-6954).

NOTE: *If tractor is to have a loader mounting kit and mid-mount valve kit, install mounting kit first.*

PREPARING TRACTOR

Shut off engine and engage brakes during installation.

Check front tire and fender clearances once loader is installed and adjust tire track width as necessary.

NOTE: *12.4 x 24 and 11.2 x 28 tires, minimum. 63.3" tire track with fenders. 14.9 x 24 tires, minimum 67.5" tire track with fenders.*

Tractor steering stops may have to be adjusted to provide clearance between front tire, fender and loader on full left and right turn with front axle fully oscillated. Be sure lift cylinders are fully retracted when checking tire and fender clearances. Refer to tractor operator's manual for steering stop adjustment.

If tractor is equipped with front weights, they must be removed. The weight bracket can remain.

INSTALLING MID-MOUNT (Figure 1 & 2)

NOTE: *Loosely install hardware until mounting kit is completely assembled to facilitate assembly and proper alignment. All mounting hardware will be torqued later.*



WARNING: *Front window of cab is very vulnerable to breakage when installing mid-mount assemblies. Steps should be taken to protect glass when attaching mid-mounts.*

INSTALLING LEFT MID-MOUNT

1. Support fuel tank and tank support plate assembly with floor jack. Remove fuel tank support strap bolt from tank support channel (near step, see figure 1).
2. Remove tank support bracket hardware from tank support channel.
3. Remove tank support bracket from step (see figure 1).
4. Remove two nuts and flat washers from tank support channel on underside of fuel tank.
5. Lower tank with floor jack enough to access transmission casting, cab/platform support bracket and fuel tank support bracket.
6. Remove 16mm cap screws from front two holes of platform/cab support bracket (discard hardware).
7. Remove plastic thread protectors from three holes in transmission casting and from the four front holes on the front axle support casting (see figure 2).
8. Loosely install 16mm x 90mm cap screw (4), 16mm disc spring lock washer (5) and 5/8 flat washer (7) into lower front hole of cab/platform support bracket. Let hardware extend to accept 1" thick mid-mount plate for positioning.
9. Remove and discard shipping bolts and nuts. Keep spacers (9) (see figure 2).
10. Raise left mid-mount (10), and slide slot of mount onto 16mm cap screw (4). Turn wheel to right for clearance.

NOTE: *If tractor is equipped with manual PTO engagement, it may be necessary to grind bottom edge on rear slotted plate of left mid-mount to provide clearance with PTO spring.*

2-7130

11 Slide spacer (9) behind left mid-mount (10) from underside. Loosely install left mid-mount (10) and spacer (9) to transmission casting with two 20mm x 80mm cap screws (2) and 20mm disc spring washers (6) in two lower holes and a 20mm x 65mm cap screw (3) and disc spring washer (6) in top hole. Loosely install 16mm x 65mm cap screw (1) and 16mm disc spring washer (5) into top rear hole of left mid-mount (10) through cab support bracket.

12. Loosely attach left mid-mount (10) to front axle support casting with four 20mm x 80mm cap screws (2), 20mm disc spring washers (6) and spacer (12). **NOTE:** Spacer (12) not used if tractor is equipped with grille guard.

IMPORTANT: Spring washers (5 & 6) are installed with serrated surface facing bolt head. Individually remove bolts and apply Loctite® 271 (red - high strength), or equivalent. Reinstall and torque bolts within 10 minutes. Torque 16mm bolts to 175 ft. lbs. and 20mm bolts to 325 ft. lbs. **NOTE:** Bolt torque higher than normal recommended torque.

13. Install fuel tank spacer (11) by positioning tab into notch in fuel tank support bracket (see figure 1).

14. Raise fuel tank and support plate assembly with floor jack.

15. Reinstall fuel tank support channel with two nuts and flat washers on tank support channel bolts on underside of fuel tank.

16. Reinstall fuel tank support bracket and hardware to tank support channel and step.

17. Install fuel tank support strap bolt into tank support channel.

NOTE: Plastic air link on top of tank must not be pinched under the support.

18. Tighten and torque all fuel tank hardware to the torques specified on page 6.

INSTALLING RIGHT MID-MOUNT

1. Remove tool box on cab models to permit better access.

2. Loosen bolts fastening fuel filter assembly to engine block. Slide filter assembly forward as far as slotted holes in filter mounting bracket allows. Retighten bolts.

3. Remove 16mm cap screws from front two holes of platform/cab support bracket.

4. Remove plastic thread protectors from three holes in transmission casting and from the four front holes on the front axle support casting (see figure 2).

5. Loosely install 16mm x 90mm cap screw (4), 16mm disc spring washer (5) and 5/8 flat washer (7) into lower front hole of cab/platform support bracket. Let

hardware extend to accept 1" thick mid-mount plate for positioning.

6. Raise right mid-mount (8), and slide slot on mount onto 16mm cap screw (4). Turn wheel to left for clearance.

7. Slide spacer (9) behind right mid-mount (8) from underside. Loosely install right mid-mount (8) and spacer (9) to transmission casting with two 20mm x 80mm cap screws (2) and 20mm disc spring washers (6) in two lower holes and a 20mm x 65mm cap screw (3) and 20mm disc spring washer (6) in top hole. Loosely install 16mm x 65mm cap screw (1) and 16mm disc spring washer (5) into top rear hole of right mid-mount (8) through cab support bracket.

8. Loosely attach right mid-mount (8) to front axle support casting with four 20mm x 80mm cap screws (2) and 20mm disc spring washers (6) and spacer (12). **NOTE:** Spacer (12) not used if tractor is equipped with grille guard..

IMPORTANT: Spring washers (5 & 6) are installed with serrated surface facing bolt head. Individually remove bolts and apply Loctite® 271 (red - high strength), or equivalent. Reinstall and torque bolts within 10 minutes. Torque 16mm bolts to 175 ft. lbs. and 20mm bolts to 325 ft. lbs. **NOTE:** Bolt torque higher than normal recommended torque.

NOTE: If tractor is equipped with mid-mount valve and couplers, it may be necessary to loosen or remove valve to torque mounting hardware.

10. Reinstall tool box on cab models.

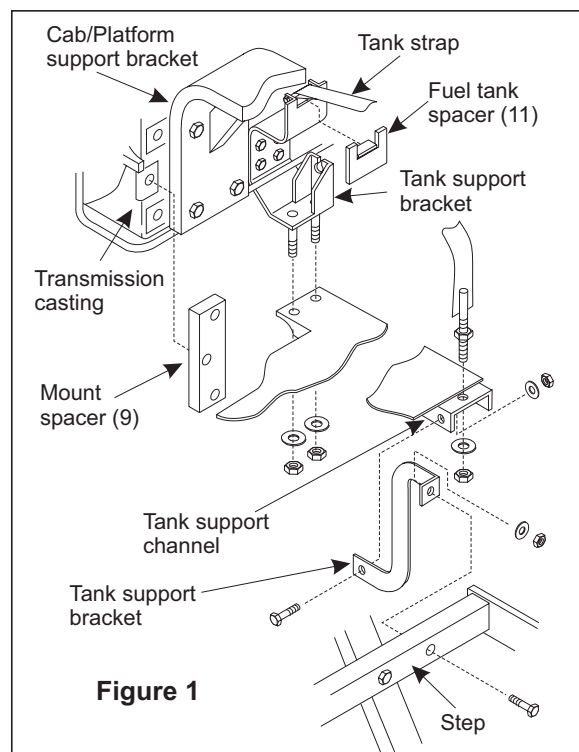
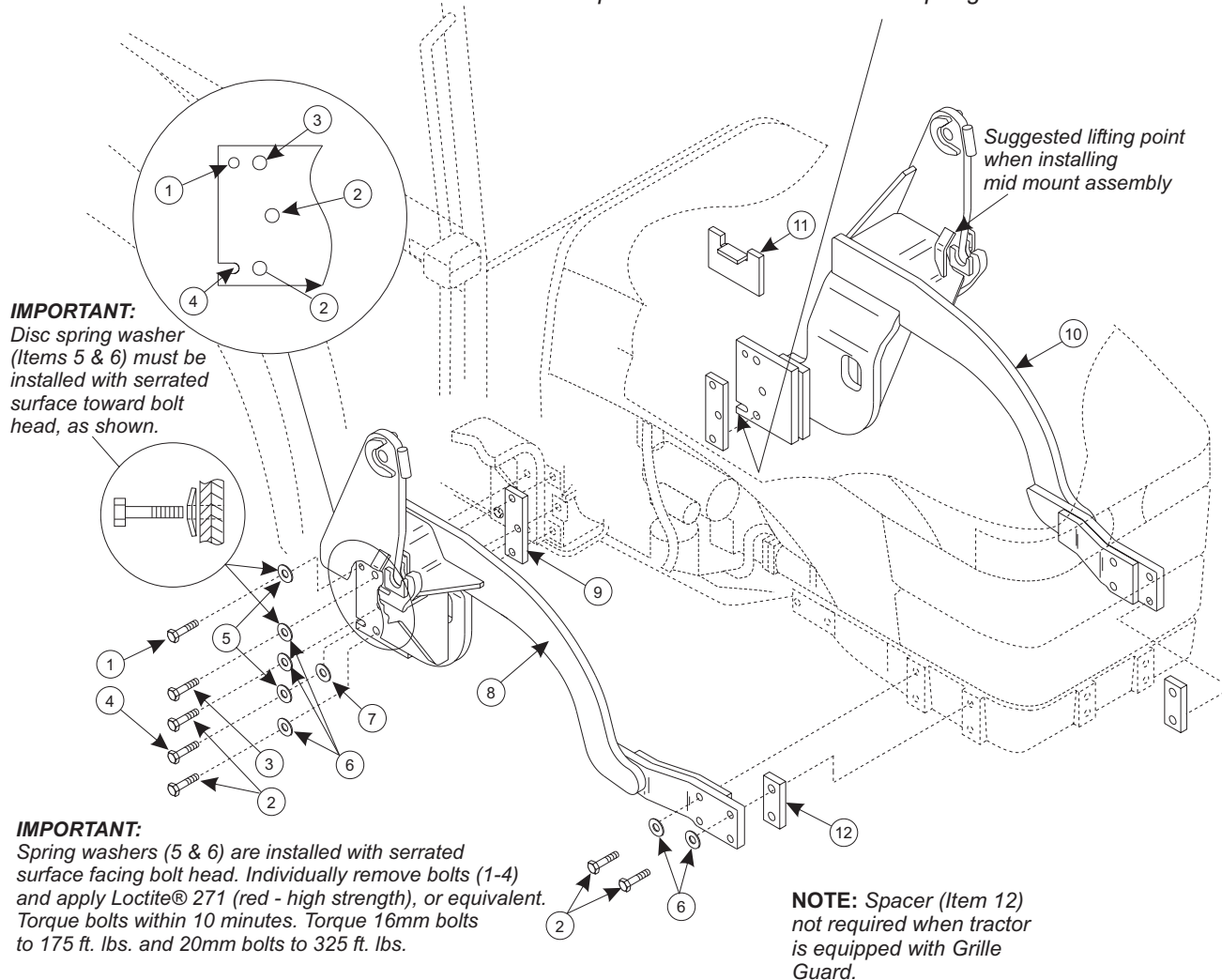


Figure 2
Mounting Kit

NOTE: If tractor is equipped with manual PTO engagements, it may be necessary to grind 1 ½" of bottom edge on rear slotted plate of left mid-mount to provide clearance with PTO spring.



PARTS LIST - MOUNTING KIT (Figure 2)

ITEM	SMC NO.	DESCRIPTION	QTY.
1	6090-131	SCREW, Cap, 16mm-1.50 x 65mm, Class 8.8	2
2	6090-101	SCREW, Cap, 20mm-2.50 x 80mm, Class 8.8	12
3	6090-130	SCREW, Cap, 20mm-2.50 x 65mm, Class 8.8	2
4	6090-114	SCREW, Cap, 16mm-1.50 x 90mm, Class 8.8	2
5	47786-2	WASHER, Disc spring, 16mm	4
6	47786-3	WASHER, Disc spring, 20mm	14
7	G131016	WASHER, Flat, 5/8	2
8	51343	MID-MOUNT ASSEMBLY, Right	1
9	47317	SPACER	2
10	51344	MID-MOUNT ASSEMBLY, Left	1
11	47578	SPACER, Fuel Tank	1
12	48010	SPACER, Front Mounting	2
13	*	INSTRUCTION SHEET, F-3506, Loctite®	1

* Furnished with mounting kit.

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



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

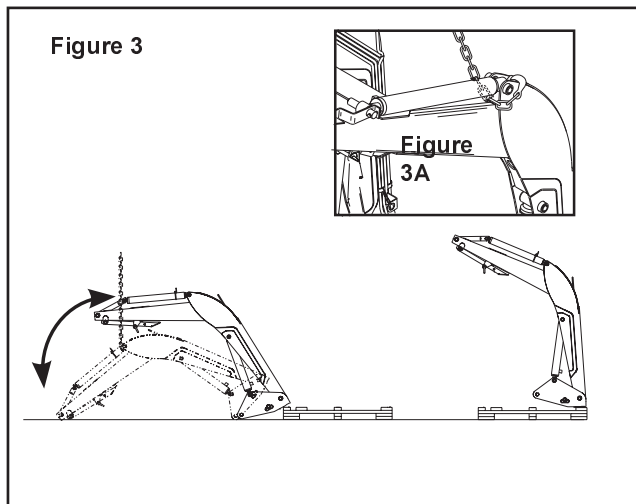


WARNING: To avoid injury during installation of quick attach loader, do not permit bystanders within ten feet of loader.



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 3A). Using overhead hoist to support loader, remove shipping angle braces (C), (figure 4) by temporarily removing linch pins (A) to remove angle braces, then reinstall linch pins which hold parking stands in position.

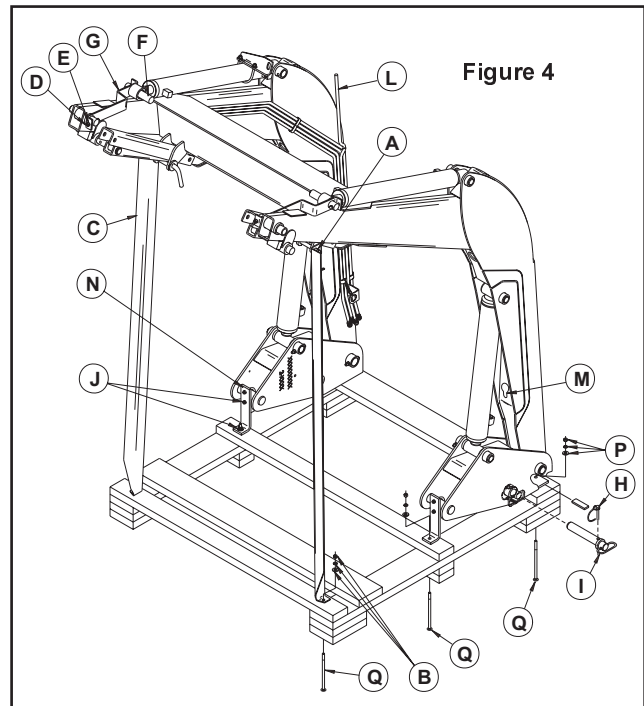


2. Remove nut and washers (B) from shipping braces (C) and discard braces and hardware.
3. Cut tie straps, remove linch pins (H) and hitch pins (I) (See figure 4) and keep with loader for securing uprights to midmounting brackets later.
4. Remove hardware (J) from shipping bracket (N). Discard brackets and hardware. Remove nuts and washers (P) from bolts securing loader to pallet. Raise loader.

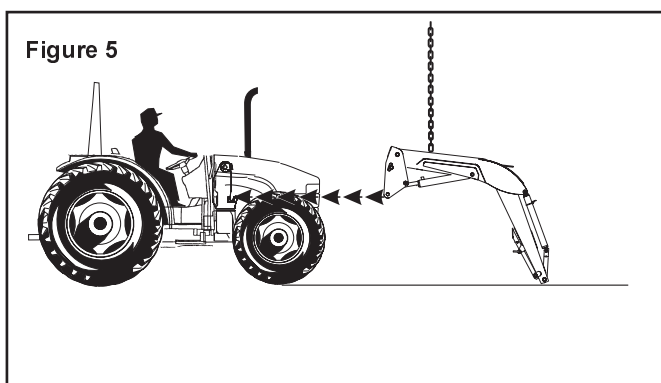


WARNING: Loader uprights may rotate downward when loader is lifted from pallet.

5. Remove all six carriage bolts (Q) from pallet (see figure 4) and position pallet at rear of loader to facilitate lowering (see figure 3). 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.

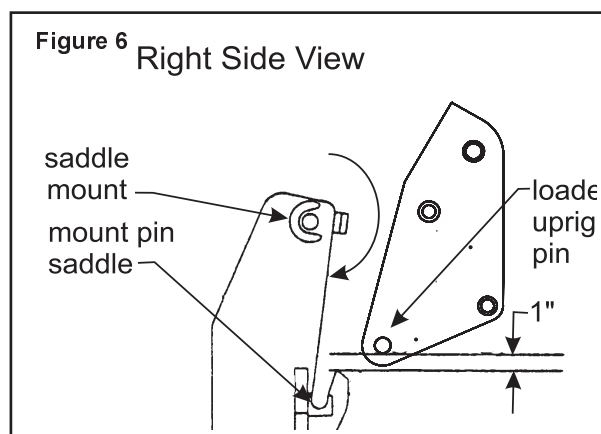


6. Install hydraulic plumbing for loader to tractor using either kit for mid-mount valve or hose kit for rear remotes designed for use with this loader. (Refer to the first page of these instructions for compatible kits.)
7. Secure a hoist strap around the boom arm assembly or secure with a chain hook into hole (M) on underside of boom arm (see figure 4). 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 5. Slowly raise loader with overhead hoist until loader upright will clear tractor tires (see figure 5).
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.

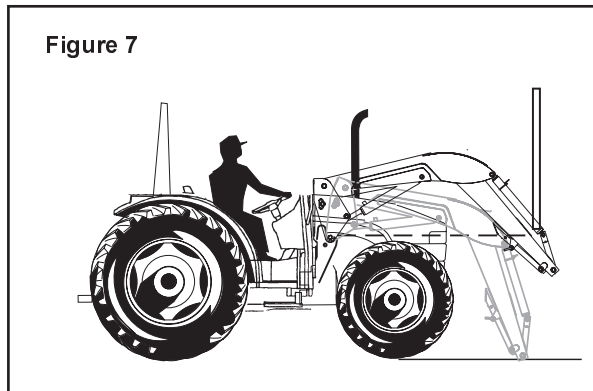


NOTE: It is important to attach lift cylinder hoses (yellow and green spiral band coded) for loader to function properly. Do not connect boom oil line hoses for tilt cylinder control at this time. (Connect these after shipping brackets are removed from attachment pin hubs instruction 12).

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.

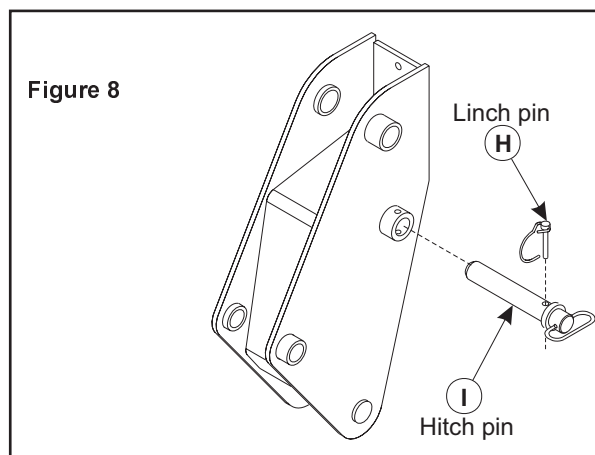


11. Remove hoist chain or strap from loader boom and secure to each bucket cylinder shipping brackets (G) (see figure 4). Using overhead hoist raise front of loader to rotate loader upright into upper mount saddle (see figure 7). Continue to rotate loader upright until upright has fully seated into back of mount saddle. Insert two 1-1/4 x 7" pins (I) and lynch 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 4). 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.
14. Start engine and fully extend and retract cylinders several times to purge air from hydraulic system. Add additional tractor hydraulic fluid as specified in tractor operator's manual to bring level of hydraulic fluid up to full.
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 preparing tractor. Refer to tractor operator's manual for tread setting and steering stop adjustment procedures.

INSTALLING BUCKET OR ATTACHMENT

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



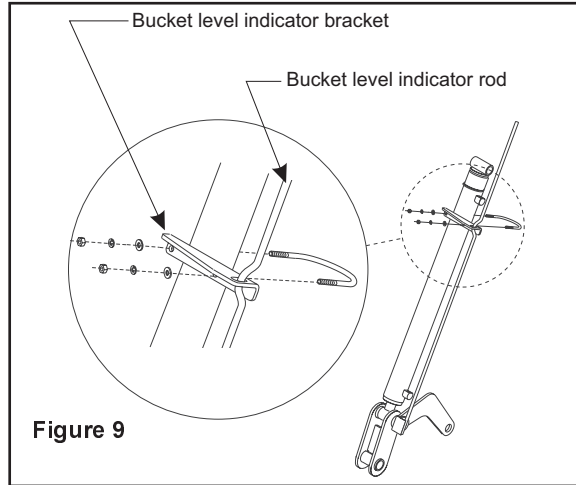
WARNING: Always have a bucket attachment mounted to loader when it is removed from tractor. Pallet fork, bale spear or similar attachments are too light to safely counterbalance loader boom arms when loader is dismantled from tractor.

ATTACH LEVEL INDICATOR FOR BUCKET OR ATTACHMENT (Figure 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.



GENERAL TORQUE SPECIFICATIONS

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

AMERICAN STANDARD CAP SCREWS										METRIC CAP SCREWS											
SAE Grade 5					8					Metric Class 8.8				10.9							
Cap Screw		TORQUE				TORQUE				Cap Screw		TORQUE				TORQUE					
Size	FT-LBS	MIN		MAX		FT-LBS	MIN		MAX		Size	FT-LBS	MIN		MAX		FT-LBS	MIN		MAX	
Inches	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	Millimeters	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1/4-20	6.25	7.25	8.5	10	8.25	9.5	11	13	M6x100	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 the supplier, dry or when lubricated with normal engine oil. They do not apply if special graphite or molydisulphide greases or other extreme pressure lubricants are used.

INSTALLATION INSTRUCTIONS