

LOADER MOUNTING KIT
NEW HOLLAND 7312 LOADER
NEW HOLLAND TRACTORS

MODEL	2WD	4WD	Less Cab	With Cab
TS90		X	X	X
TS100		X	X	X
TS110		X	X	X

Mount kit can be installed using tools ordinarily available. Shut off engine and engage brakes during installation.



WARNING: *Front axle tread setting must not exceed 76 inches.*

NOTE: *Leave all attaching hardware loose until loader is completely assembled to facilitate assembly and proper alignment. Torque hardware to torque specifications on page 6.*

FWA tractors are equipped with front axle oscillation stops and must be used with loader installation. Tractor steering stops also must be adjusted to provide a minimum clearance of 3/4" between front tire and any part of tractor or loader on full left and right lock with front axle fully oscillated. Be sure lift cylinders are fully retracted. Refer to tractor operator's manual for steering stop adjustment.

NOTE: *Tractor lights may require mounting adjustment.*

If tractor is equipped with front fenders, they must be removed: fender brackets must be positioned to widest mounting on front axle or removed. Front weights and bracket must be removed before installing mounting. For tractors so equipped, relocate toolbox using relocation kit (716563006).

INSTALLING MOUNTING BRACKETS (Figure 2)

1. Install spacer plate (13) and front mounting bracket (1), with longer flange on top, to tractor using 20MM x 60MM cap screws (18) and 20MM lock washers (22).

NOTE: *Spacer plate (13) is not used with Grille Guard.*

2. Tractors With Cab

Install right mid mount bracket (3) and spacer (14) to upper clutch housing with 20MM x 40MM cap screws (20) and 20MM lock washers (22). Attach mid mount bracket to front casting using 20MM x 55MM cap screws (17) and 20MM lock washers (22).

Tractors With ROPS

Loosen hardware and remove spacer between air intake and tractor clutch casting, on right side of tractor. Install right mid mount bracket (3) and spacer (14) between air intake and tractor clutch casting, using original hardware from tractor and 20MM x 40MM cap screws (20) and 20MM lock washers (22) for lower clutch casting. Attach mid mount bracket (3) to front casting using 20MM x 55MM cap screws (17) and 20MM lock washers (22).

NOTE: *Spacer (14) is replaced by valve mounting bracket when installed on tractors without cab using valve kit (see Figure 2).*

NOTE: *If tractor is equipped with optional radar gun, remove radar gun before installing right midmounting bracket and bolt radar gun to outside of right midmounting bracket using same hardware as shown (see Figure 2).*

3. Install left midmounting bracket (2) to front casting using 20MM x 55MM cap screws (17), and 20MM lock washers (22) and to tractor transmission casting using 20MM x 40MM cap screws (20) and 20MM lock washers (22) on bottom and 20MM x 90MM cap screws (19), 20MM lock washers (22) and spacers (23) on top.

INSTALL STEP (Figure 1)

1. Center lower step (15) on loader crossmember. Position upper step (16) over steel oil lines and hook over rear edge of boom. Fasten upper step to lower step using 5/16 x 1-1/2 cap screws (21) and 5/16 lock nuts (8) clamping step assembly to crossmember.

IMPORTANT: *Be sure step assembly is securely clamped to crossmember.*

2. Peel backing off anti slip strips (7) and apply to top of quick attach channel on bucket.

PARTS LIST - MOUNTING KIT

ITEM QTY.	SMC NO.	NH NO.	DESCRIPTION	
1	46070	SML46070	BRACKET, Front	1
2	46175	SML46175	BRACKET, Midmounting , Left	1
3	46218	SML46218	BRACKET, Midmounting, Right	1
4	46637	SML46637	YOKE, Adjustable, Front Assembly	1
5	G271774	00280173	SCREW, Cap, 3/4-10 x 2-3/4	2
6	G131016	00087365	WASHER, Flat, 5/8	4
7	25820-3	SML258203	ANTI SLIP SURFACE	2
8	G9413447	09635082	NUT, Lock, 5/16-18	2
9	G271724	00088556	SCREW, Cap, 5/8-11 x 2-1/4	4
10	G9414076	09626598	NUT, Lock, 3/4-10	4
11	G121574	00084057	WASHER, Lock, 5/8	4
12	39240	SML39240	DECAL, Warning, Do Not Tow...	2
13	46088	SML46088	SPACER PLATE	1
14	46087	SML46087	SPACER	1
15	40688	SML40688	STEP, Lower	1
16	40660	SML40660	STEP, Upper	1
17	6090-119	86503256	SCREW, Cap, 20MM-2.50 x 55MM, Class 8.8	8
18	6090-70	00374890	SCREW, Cap, 20MM-2.50 x 60MM, Class 8.8	6
19	6090-125	00412346	SCREW, Cap, 20MM-2.50 x 90MM, Class 8.8	2
20	6090-67	09512573	SCREW, Cap, 20MM-2.50 x 40MM, Class 8.8	6
21	G180083	00088044	SCREW, Cap, 5/16-18 x 1-1/2	2
22	G11500166	09847025	WASHER, Lock, 20MM	22
23	43703-2	SML437032	SPACER, Tube, .812 I.D. x 1-1/4 O.D. x 1-11/16	2
24	46262	SML46262	HINGE ASSEMBLY	2
25	46620	SML46620	HITCH PIN ASSEMBLY	2

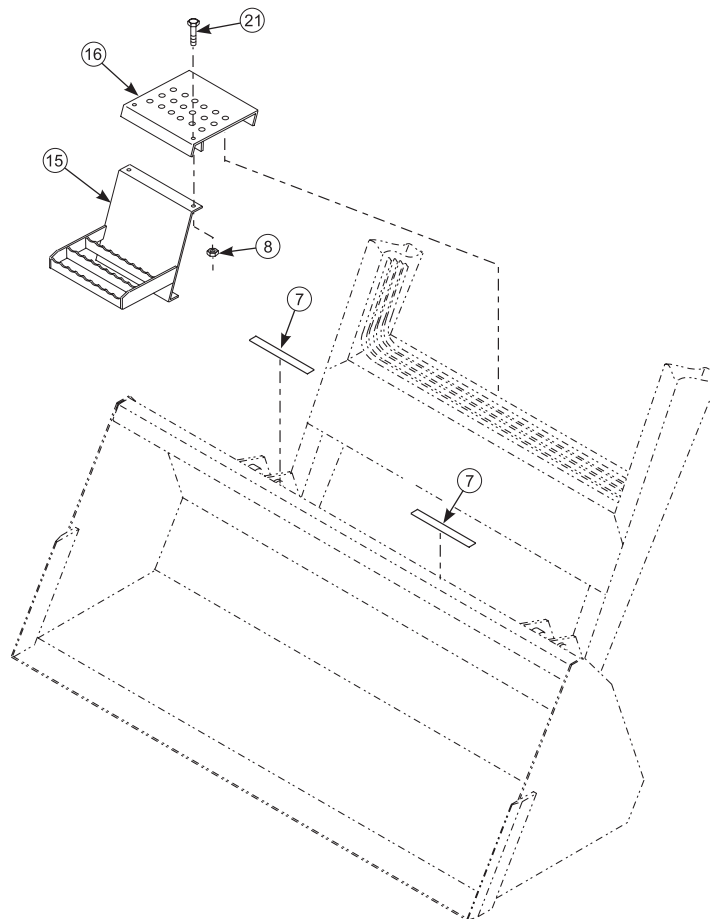
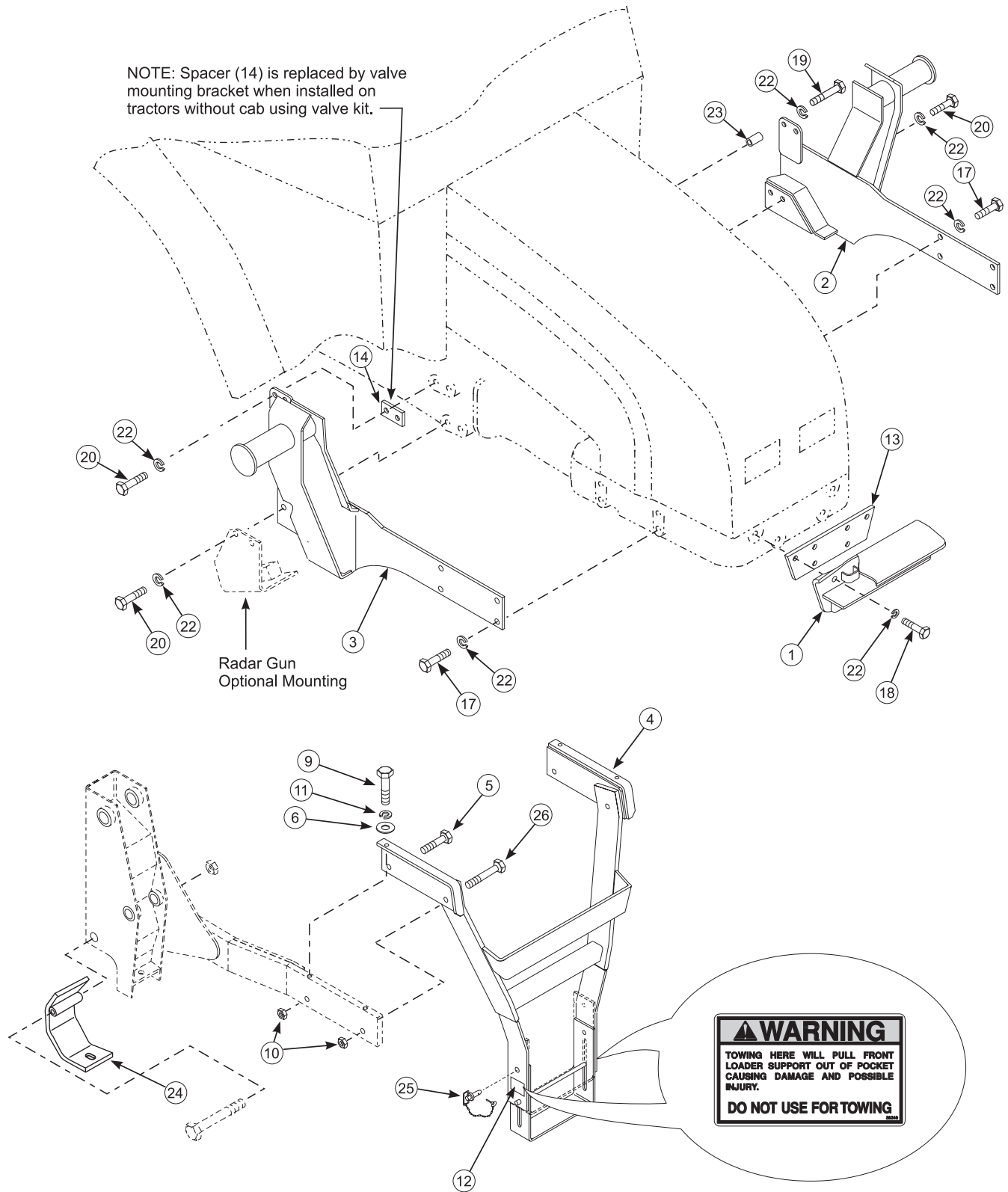


Figure 1
Installing Step

Figure 2
Mounting Kit





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



INSTALLING YOKE

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

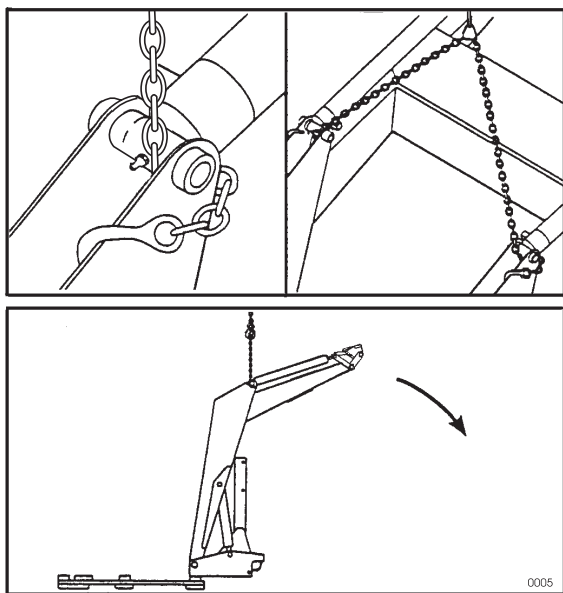
1. Loop chain under each bucket cylinder and hook on loader boom arm. Using overhead hoist to support loader remove hardware securing loader to pallet. Lift loader and remove pallet.



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



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



not pinch lift cylinder hose.

2. Position pallet at rear of loader to facilitate lowering. 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 (4) using 3/4 x 2-3/4 cap screws (5), 3/4 x 3-1/2 cap screws (26) and 3/4 lock nuts (10) in side holes and 5/8-2-1/4 cap screws (9), 5/8 lock washers (11) and 5/8 flat washers (6) in top holes. Adjustable yoke assembly must be extended to mount or dismount loader. To extend yoke (4) remove linch pin from hitch pin (25) and remove hitch pins from yoke (4). Slide yoke foot

to extended position and insert hitch pins (25) and linch pins. Lower loader to the ground.

NOTE: It may be necessary to clamp side frames together to align 5/8 inch holes in top of yoke with holes in side frames.

CHANGE HINGE ASSEMBLY

NOTE: To prevent interference between hinges and fuel tank during mounting or removal of loader, replace loader hinges with those supplied with this mounting.

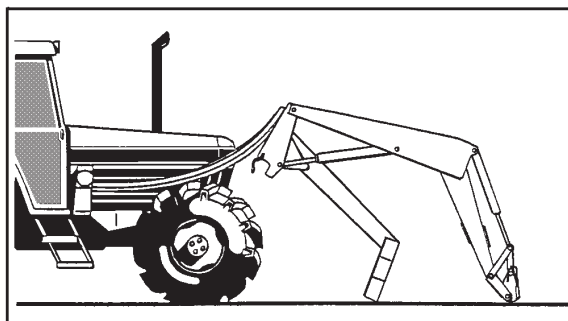
1. Remove 3/4 lock nuts, 3/4 x 7 cap screws, and hinge assemblies from loader side frames. Discard hinge assemblies and save 3/4 lock nuts and 3/4 x 7 cap screws for later use.
2. Attach new hinge assemblies (24) to loader side frames using existing 3/4 x 7 cap screws and lock nuts.

INSTALL HYDRAULIC KIT TO LOADER

Install hydraulic kit to loader. Refer to instruction sheet packed with kit.

MOUNTING LOADER

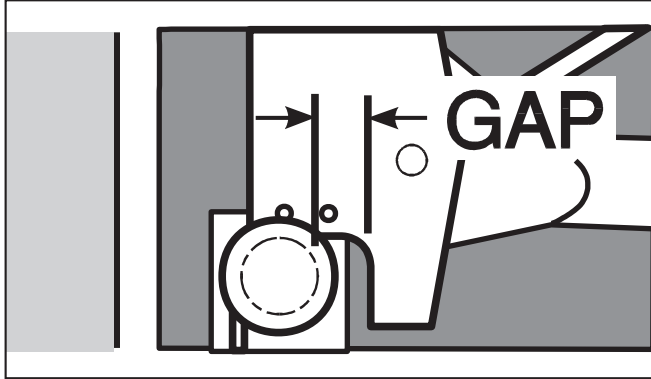
1. Back tractor directly behind loader facing in opposite direction.
2. Connect hoses from loader to tractor rear remotes.



3. Using overhead hoist to steady loader, slowly cycle lift and bucket cylinders several times to purge air from system. Retract cylinders and shut off engine. Replenish fluid in tractor hydraulic system.
4. Disconnect hoses from tractor. Turn tractor around and position behind loader. Secure tractor brakes.
5. Route hoses loosely to allow maximum reach. Extend lift cylinders until loader will clear front tires. Shut off engine and engage brakes. Remove hardware and swing hinges open. Block hinge open using 3/4 x 3-1/2 cap screws and 3/4 flat washers. Store 3/4 flex lock nuts on extra threads of hinge bolts.
- 6.

MOUNTING LOADER (Continued)

IMPORTANT: Position loader uprights so mid mounting tubes are tight against hinges until loader has finished rotating so loader front bumper tube does not hit lower flange of front mounting channel.



2. With tractor in neutral, retract lift cylinders, bringing side frame up so yoke tube contacts upper flange of front mounting bracket channel. Move tractor ahead until yoke tube engages in front mounting channel and hinges can clamp around mid mounting tubes. Engage brakes and shut off engine.

3. Clamp hinges to midmounting tubes using 3/4 x 3-1/2 cap screws, 3/4 flat washers and 3/4 flex-lock nuts.

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.







4. Connect hoses to tractor hydraulics. Refer to hydraulic kit instructions for proper connections.
5. Secure hoses under cab or platform to avoid interference with tires or other moving parts.
6. 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 tractor operator's manual for tread setting and steering stop adjustment procedures.
7. After all plumbing has been completed, start engine and slowly cycle cylinders several times to purge air from hydraulic system. Replenish hydraulic system using New Holland 134 hydraulic oil.

INSTALLING BUCKET OR ATTACHMENT

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

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		Nm		FT-LBS		Nm		Size	FT-LBS		Nm		FT-LBS		Nm	
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	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	215	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	MM24 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>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.</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									

NOTES

2-6534
2-7018

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INSTALLATION INSTRUCTIONS