

Keep with Operator's Manual

## BACKHOE SUBFRAME KIT 65A, 75 & 85 BACKHOE KUBOTA L-SERIES TRACTORS

MODEL	2WD	FWA	ROPS
KUBOTA L2800	X	X	X
KUBOTA L3400	X	X	X

### TRACTOR AND BACKHOE GENERAL INFORMATION

Complete backhoe mounting requires this subframe mounting kit, plus a subframe channel kit. A hose kit is required to plumb backhoe control valve to tractor hydraulic system to power backhoe. (A hose kit is available which is compatible with SMC or Rhino loader valve and plumbing, or which plumbs to tractor rear remotes.)



**CAUTION:** *If backhoe is powered by hose kit to tractor rear remotes or optional auxiliary pump kit, three-point hitch must be disabled. Disable hitch by removing pins from hydraulic control arms.*

This backhoe subframe kit is compatible with SMC and Rhino 2408, 2408FL, 2408TL, and 2409 front-end loaders. It is also compatible with Kubota L463 front-end loader. Tractor must be equipped with front-end loader or sufficient front weight to provide adequate counterweight.

Reference to right or left in these instructions is as viewed while sitting on backhoe seat. Subframe can be installed on tractor and backhoe using tools ordinarily available. Shut off tractor engine and set parking brakes while installing backhoe subframe, mounting kit, and hydraulics.

Read backhoe operator's manual and become familiar with backhoe controls before installing subframe. Knowing how backhoe functions is necessary to attach subframe and backhoe to tractor.

### INSTALLING SUBFRAME MOUNTING BRACKETS TO TRACTOR (Figures 1 & 2)

1. If tractor is equipped with a loader, remove bottom two 16mm bolts from loader mid mounting brackets. Place backhoe front mounting bracket (1) over loader mid mounting brackets. Fasten using 16mm x 55mm cap screws (8) and 5/8" lock washers (13) in top holes and 1/2 x 1-3/4" cap screws (10) and 1/2" lock nuts (15) in bottom holes.

**NOTE:** *If tractor is equipped with a 2408FL or 2408TL loader, remove hardware from rear reinforcement rails and remove rear hanger brackets from rear axle. Retain hardware from rear reinforcement rails for re-use.*

2. If tractor is not equipped with a loader (and front weights are being used as counterweight), place spacer plates (6 & 7) on each side between backhoe front mounting bracket (1) and tractor transmission housing. Fasten using 16mm x 55mm cap screws (8) and 5/8" lock washers (13) in top holes and 1/2 x 1-3/4" cap screws (10) and 1/2" lock nuts (15) in bottom holes.
3. Fasten left and right rear axle hanger brackets (2 & 3) to underside of rear axle and ROPS plate using 14mm x 30mm cap screws (9), 9/16" lock washers (14), 5/8 x 1-1/2 cap screws (11), and 5/8" lock nuts (12).
4. If tractor is equipped with 2408FL or 2408TL loader, refasten rear reinforcement rails of loader mid mounting brackets to rear hanger brackets (2 & 3) using previously-removed 5/8" hardware.

## 2-7416

### INSTALLING BACKHOE SUBFRAME (Figures 1 & 2)

1. Fasten front cross tube (4) and subframe cross shaft (5) to subframe channels (24 & 25) using 1/2 x 1-1/4" cap screws (16) and 1/2" lock nuts (15).

**NOTE:** Install cross tube (4) and cross shaft brackets (5) in forward-most set of holes in subframe channels (24 & 25). (See figure 1.)

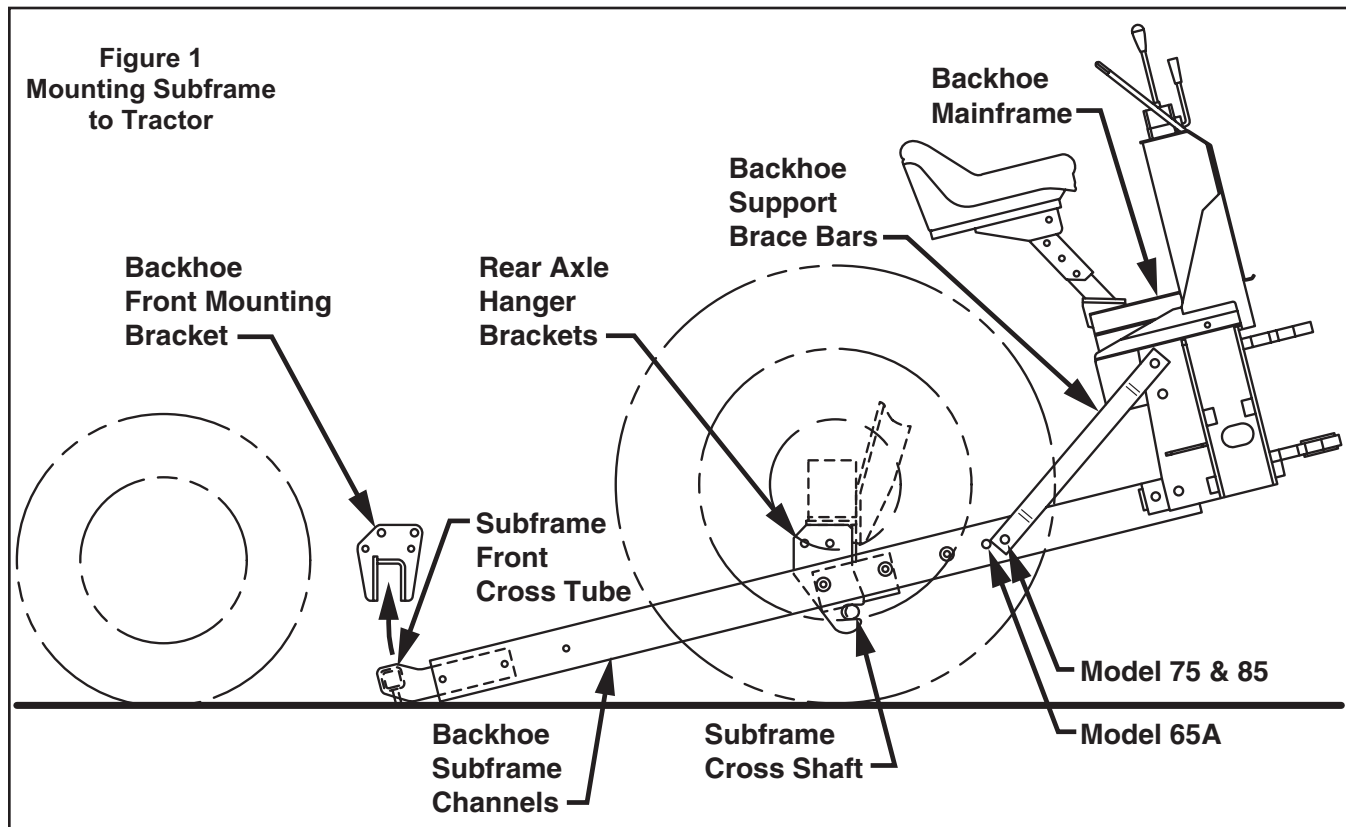
2. Install channel subframe assembly to backhoe main frame using 7/8 x 3" cap screws (19), 7/8" lock washers (21), and 7/8" hex nuts (20) in rear holes, and 3/4 x 2" cap screws (17) and 3/4" lock nuts (18) in front holes.
3. Fasten support braces (26) to backhoe main frame and subframe channels (24 & 25) using 3/4 x 2-3/4" cap screws (28) and lock nuts (27), with double nuts (27) on 3/4 x 2-3/4" cap screws (28) at both ends of each support brace (26).

**NOTE:** For model 75 or 85 backhoe, use rearmost set of holes in subframe channels; for model 65A backhoe, use set of holes just ahead of rear set.

**IMPORTANT:** Double-nut 3/4 x 2-3/4" cap screws (28) with 3/4" lock nuts (27) after torquing first nut to 350 ft.·lbs.

### MOUNTING BACKHOE TO TRACTOR (Figures 1 & 2)

1. Back tractor toward backhoe, with tractor straddling subframe, until positioned so auxiliary PTO pump or hose kit can be connected to tractor. Shut off tractor engine, set brakes, and make sure PTO is disengaged.
2. If auxiliary PTO pump kit is installed onto backhoe, connect pump to PTO. If hydraulic hose kit is installed onto backhoe, connect hoses to tractor hydraulics.
3. Start tractor. Engage PTO if backhoe is equipped with auxiliary PTO pump kit. Tractor should be running at low idle. Using backhoe controls, lower stabilizer and bucket to ground to provide a base for raising subframe. Using backhoe controls, continue lowering stabilizers and backhoe boom to raise subframe to proper level height to connect to tractor.
4. Back tractor and position shaft so rear shaft (5) engages in rear hanger brackets (2 & 3) and front cross tube (4) engages into front mounting bracket (1).
5. Install pins (22) through front mounting bracket (1) to secure subframe in place. Secure pins (22) using linch pins (23).



## PARTS LIST – BACKHOE SUBFRAME MOUNTING KIT

Item	Part No.	Description	Qty.
1	52331	MOUNTING BRACKET, Front	1
2	52364-1	HANGER BRACKET, Rear Axle, Left	1
3	52364-2	HANGER BRACKET, Rear Axle, Right	1
4	52341	BRACKET, Subframe, Front Cross Tube	1
5	52334	BRACKET, Subframe, Rear Cross Shaft	1
6	52338	SPACER, Plate, 1/4"	2
7	52365	SPACER, Plate, 3/8"	2
8	42672-86	SCREW, Cap, Hex Head, 16mm-1.50 x 55mm Class 8.8	4
9	42672-32	SCREW, Cap, Hex Head, 14mm-1.50 x 30mm Class 8.8	4
10	41838-12	SCREW, Cap, Hex Head, 1/2-13 x 1-3/4" Grade 5	4
11	41838-29	SCREW, Cap, Hex Head, 5/8-11 x 1-1/2" Grade 5	4
12	41840-7	NUT, Lock, 5/8-11	4
13	41837-7	WASHER, Lock, 5/8"	4
14	41837-6	WASHER, Lock, 9/16	4
15	41840-5	NUT, Lock, 1/2-13	12
16	41838-2	SCREW, Cap, Hex Head, 1/2-13 x 1-1/4" Grade 5	8
17	41838-8	SCREW, Cap, Hex Head, 3/4-10 x 2" Grade 5	2
18	41840-8	NUT, Lock, 3/4-10	2
19	41838-53	SCREW, Cap, Hex Head, 7/8-9 x 3"	2
20	41836-9	NUT, Hex, 7/8-9	4
21	41837-9	WASHER, Lock, 7/8"	2
22	44892	PIN, Hitch, 3/4" Dia. x 4-13/16" Long	2
23	44756-1	PIN, Linch, 5/16" Dia. x 1-5/8" Long	2

## PARTS LIST – SUBFRAME CHANNEL KIT - 2-6509 - ORDER SEPARATELY

Item	Part No.	Description	Qty.
24	45700-1	CHANNEL, Backhoe Subframe, Left	1
25	45700-2	CHANNEL, Backhoe Subframe, Right	1
26	44836	BAR, Backhoe Support Brace	2
27	47264-8	NUT, Lock, 3/4-10	8
28	42969-4	SCREW, Cap, Hex Head, 3/4-10 x 2-3/4" Grade 8	4

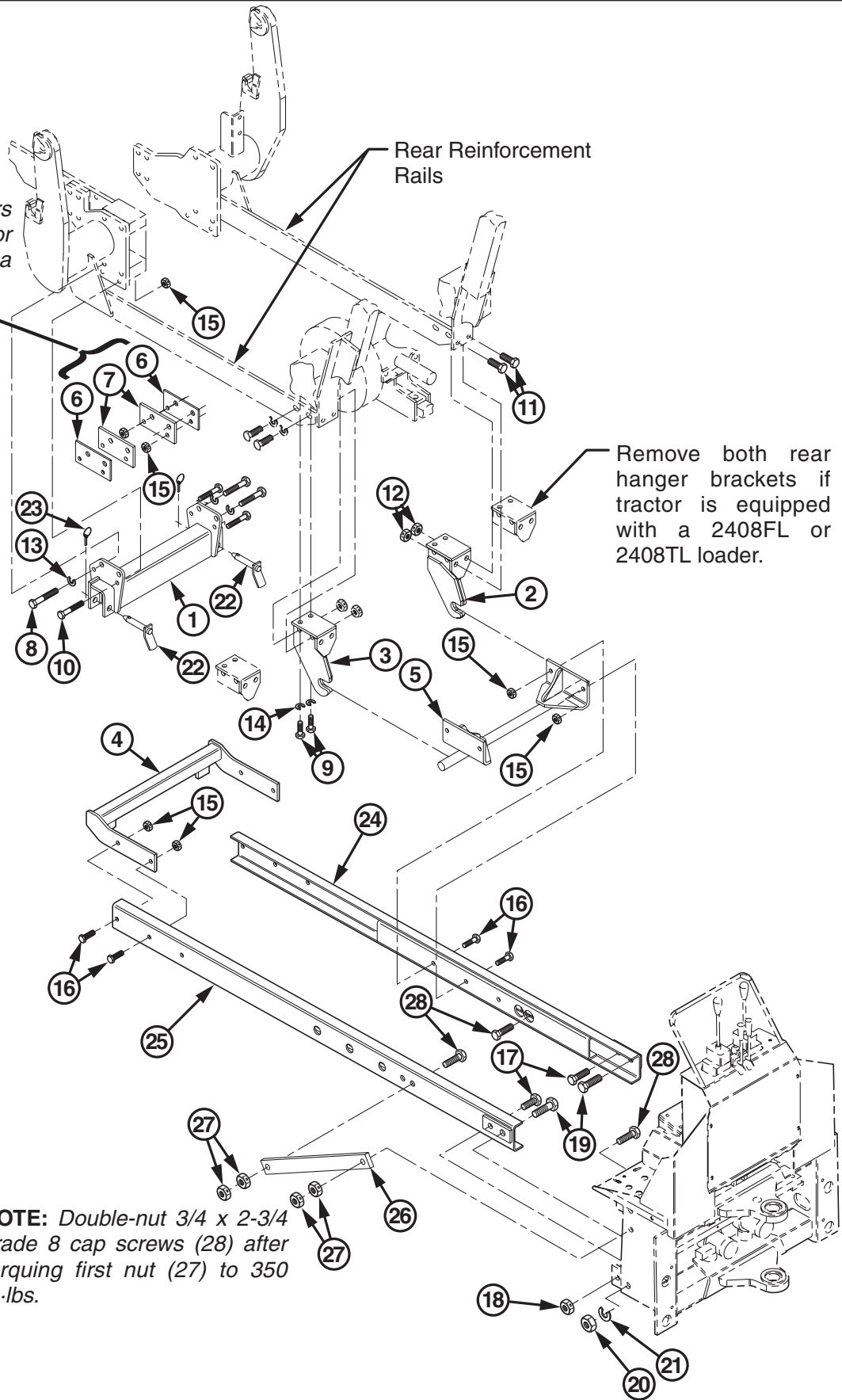
**Figure 2**  
**Mounting Subframe**  
**to Tractor**

**NOTE:** Use spacers (6 & 7) only if tractor is not equipped with a loader.

Rear Reinforcement Rails

Remove both rear hanger brackets if tractor is equipped with a 2408FL or 2408TL loader.





**NOTE:** Double-nut 3/4 x 2-3/4 grade 8 cap screws (28) after torquing first nut (27) to 350 ft.-lbs.



**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 molysulphide 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