

Keep With Operator's Manual

BACKHOE SUBFRAME KIT RHINO 60C BACKHOE KIOTI LB1914 TRACTORS

Subframe can be installed using tools ordinarily available. Tractor must be equipped with Kioti loader to install subframe and provide adequate counter weight.

NOTE: It may be necessary to drill two 9/16 holes in each side of loader midmounting bracket to accept mounting hooks (3). Refer to Figure 1 for proper dimensions.

Complete backhoe installation requires pump kit (2-6368). Install pump kit before installing backhoe to tractor.

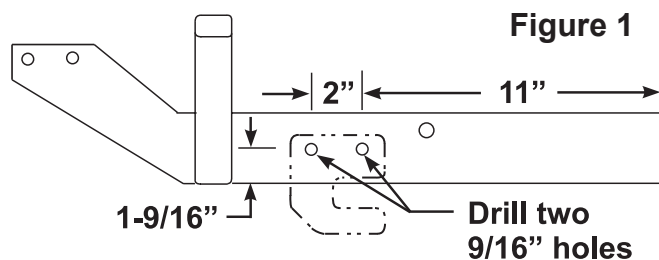
Read 60C operator's manual and become familiar with backhoe controls before installing subframe. Knowing how backhoe functions is necessary to attach subframe and backhoe to tractor.

Install swing lock pin so boom remains straight back.

INSTALLING SUBFRAME TO BACKHOE (Figures 1 & 3)

1. Install mounting hooks (3) to loader midmounting brackets using 1/2 x 1-1/2 cap screws (5) and 1/2 lock nuts (6).

NOTE: Loader midmounting brackets may need to be drilled to accept mounting hooks (3) (Figure 1).



2. Remove and discard two rear bolts which secure ROPS to rear of tractor.
3. Install rear mounting bracket (2) to rear of tractor where ROPS mounting bolts were removed using 14MM x 50MM cap screws (7) and 9/16 lock washers (8).
4. Fasten bottom of rear mounting bracket (2) to underside of tractor using 14MM x 50MM cap screws (7) and 9/16 lock washers (8).

5. Position subframe close to front of backhoe. Fasten subframe rails to backhoe using 3/4 x 3-1/4 cap screws (11) and 3/4 lock nuts (10). Also use 7/8 x 4 cap screw (12), 7/8 lock washer (13) and 7/8 nut (14). Torque to values listed in backhoe owners manual
6. Install braces (4) to subframe (1) and backhoe using 3/4 x 2 cap screws (9) and 3/4 lock nuts (10). Torque to 350 ft-lbs.

60C ONLY: Use support braces 55891 (17) and 55892 (18).



CAUTION: Check all mounting bolts for proper torque every 50 hours of use.

MOUNTING BACKHOE TO TRACTOR (Figures 2 & 3)

1. Back tractor slowly toward backhoe, parallel to subframe assembly until pump can be connected to tractor. Shut off engine, set brakes and make sure PTO is disengaged.
2. Connect pump to tractor PTO. Refer to pump kit instructions for proper installation procedure. Lower 3-point lift arms to level position (see caution below).
3. Start engine and engage PTO. Tractor should be running at low idle RPM. Using backhoe controls lower stabilizers and bucket to ground to provide a base for raising subframe. Using backhoe controls, continue lowering stabilizers and boom to raise backhoe and subframe to proper level height to connect to tractor.
4. Back tractor and position subframe so crosstube engages pocket in rear mounting bracket and front of subframe engages hooks (3).
5. Install pins (15) through rear mounting bracket and secure using lynch pins (16).

NOTE: After backhoe is mounted, swing backhoe full right and full left to be sure there is not interference between swing cylinders and 3-point hitch arms.

CAUTION: Lock 3-point hitch control handle in lowered position so lift arms are not accidentally raised or remove them. Raising 3-point hitch arms could damage backhoe.



2-6505

PARTS LIST - BACKHOE SUBFRAME KIT

Item	Part No.	Description	Qty.
1	45646	SUBFRAME	1
2	45560	REAR MOUNTING BRACKET	1
3	45573	MOUNTING HOOK	2
4	46547	REAR BRACE	2
5	G180177	SCREW, Cap, 1/2-13 x 1-1/2	4
6	G9414074	NUT, Lock, 1/2-13	4
7	6090-5	SCREW, Cap, 14MM-1.50 x 50MM	6
8	G120898	WASHER, Lock, 9/16	6
9	G223527	SCREW, Cap, 3/4-10 x 2, Grade 8 (Torque to 350 ft-lbs)	4
10	G9414076	NUT, Lock, 3/4-10	6
11	G271777	SCREW, Cap, 3/4-10 x 3-1/2	2
12	G271823	SCREW, Cap, 7/8-9 x 4	2
13	G131047	WASHER, Lock, 7/8	2
14	G220087	NUT, Hex, 7/8-9	2
15	44892	PIN, 3/4 x 3-1/4	2
16	44756-1	LYNCH PIN, 5/16 x 1-5/8	2
17	55891	SUPPORT BRACE, Left	1
18	55892	SUPPORT BRACE, Right	1

Figure 2
Mounting Subframe
To Tractor

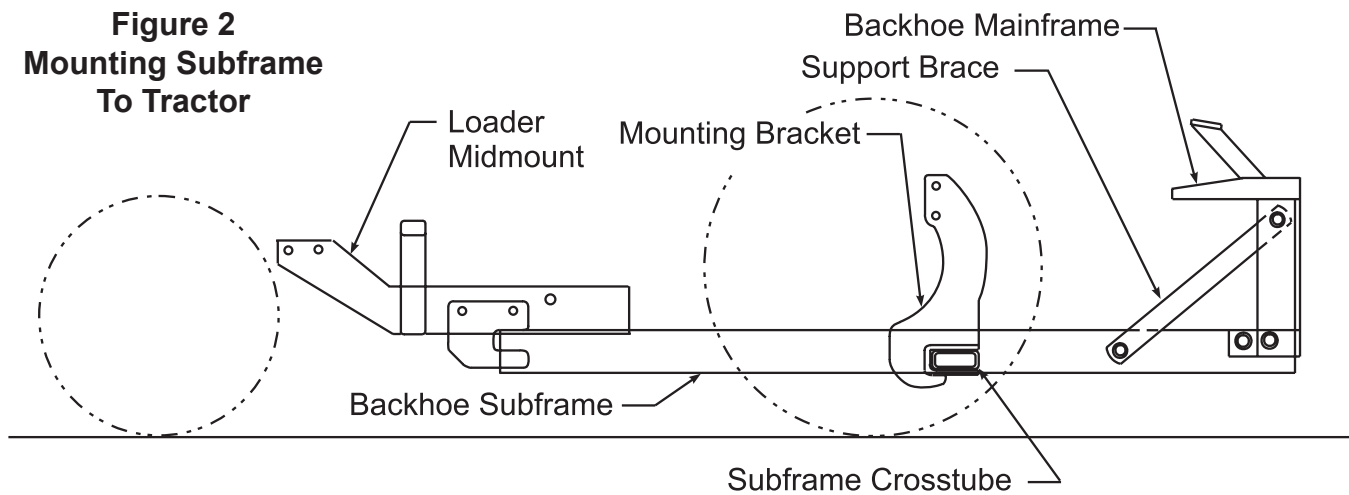
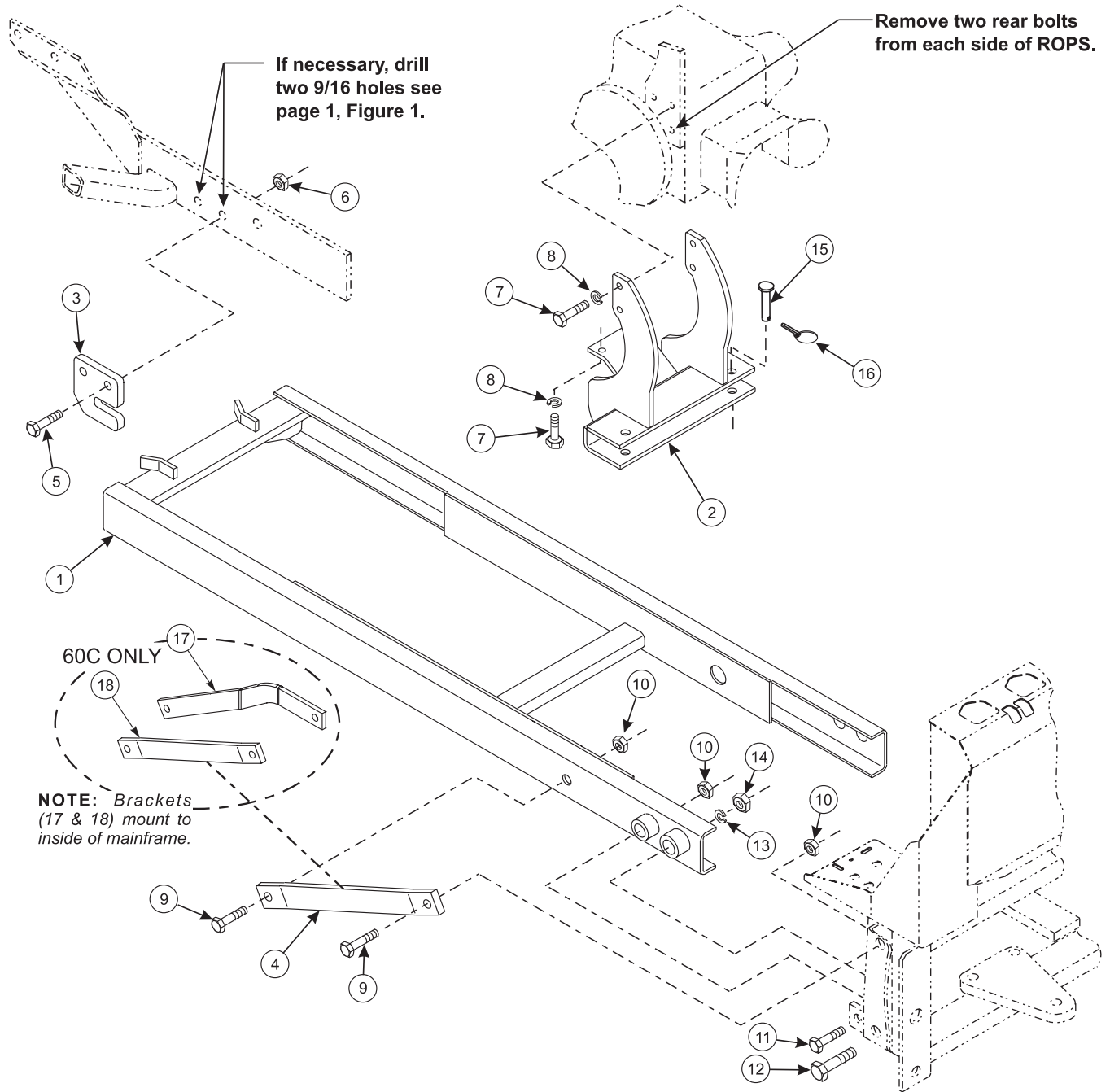


Figure 3
Backhoe Subframe Kit



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>NOTE: 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										

37° JIC Fittings

Size	Thread Size	Assembly Torque		Tube Connection F. F. F. T.	Swivel Nut or Hose Connection F. F. F. T.
		in.·lb.	ft.·lb.		
-4	7/16 - 20	140 ± 10	12 ± 1	2	2
-5	1/2 - 20	180 ± 15	15 ± 1	2	2
-6	9/16 - 18	250 ± 15	21 ± 1	1 1/2	1 1/4
-8	3/4 - 16	550 ± 25	45 ± 5	1 1/2	1
-12	1 1/16 - 12	1000 ± 50	85 ± 5	1 1/4	1
-16	1 5/16 - 12	1450 ± 50	120 ± 5	1	1
-20	1 5/8 - 12	2000 ± 100	170 ± 10	1	1
-24	1 7/8 - 12	2400 ± 150	200 ± 15	1	1
-32	2 1/2 - 12	3200 ± 200	270 ± 20	1	1

O-Ring Face Seal Tube/ Hose Swivel Nut

Metric Tube O.D. (mm)	Dash Size	Thread Size (in.)	Swivel Nut Hex Size (in.)	Swivel Nut Torque	
				N·m	lb·ft
5	-3	--	--	--	--
6	-4	9/16 - 18	11/16	16	12
8	-5	--	--	--	--
10	-6	11/16 - 16	13/16	24	18
12	-8	13/16 - 16	15/16	50	37
16	-10	1 - 14	1-1/8	69	51
20	-12	1-3/16 - 12	1-3/8	102	75
22	-14	1-3/16 - 12	--	102	75
25	-16	1-7/16 - 12	1-5/8	142	105
32	-20	1-11/16 - 12	1-7/8	190	140
38	-24	2 - 12	2-1/4	217	160
50.8	-32	--	--	--	--

SAE O-Ring Fittings

Size	Swivel Nut or Hose	Assembly Torque		F. F. F. T.
		in.·lb.	ft.·lb.	
2	5/16 - 24	90 ± 5	7.5 ± 0.5	1 ± .25
3	3/8 - 24	170 ± 10	14 ± 1	1 ± .25
4	7/16 - 20	220 ± 15	18 ± 1	1 ± .25
5	1/2 - 20	260 ± 15	22 ± 1	1 ± .25
6	9/16 - 18	320 ± 20	27 ± 2	1.5 ± .25
8	3/4 - 16	570 ± 25	48 ± 2	1.5 ± .25
10	7/8 - 14	1060 ± 50	90 ± 5	1.5 ± .25
12	1 1/16 - 12	1300 ± 50	110 ± 5	1.5 ± .25
14	1 3/16 - 12	1750 ± 75	145 ± 6	1.5 ± .25
16	1 5/16 - 12	1920 ± 125	160 ± 6	1.5 ± .25
20	1 5/8 - 12	2700 ± 150	225 ± 12	1.5 ± .25
24	1 7/8 - 12	3000 ± 150	250 ± 12	1.5 ± .25
32	2 1/2 - 12	3900 ± 200	325 ± 15	1.5 ± .25

INSTALLATION INSTRUCTIONS