

Keep With Operator's Manual

BACKHOE HYDRAULIC KIT KUBOTA TRACTORS WITH MID MOUNT VALVE

TRACTOR	ROPS	CAB
L3940, L4240, L4740, L5040, L5240, L5740	X	X

Hydraulic kit can be installed on tractor and backhoe using tools ordinarily available. Tractor must be equipped with sufficient counterbalance at front, such as that provided by a front loader or front blade, to mount and operate backhoe. Tractor must have loader valve mounted under cab/platform.

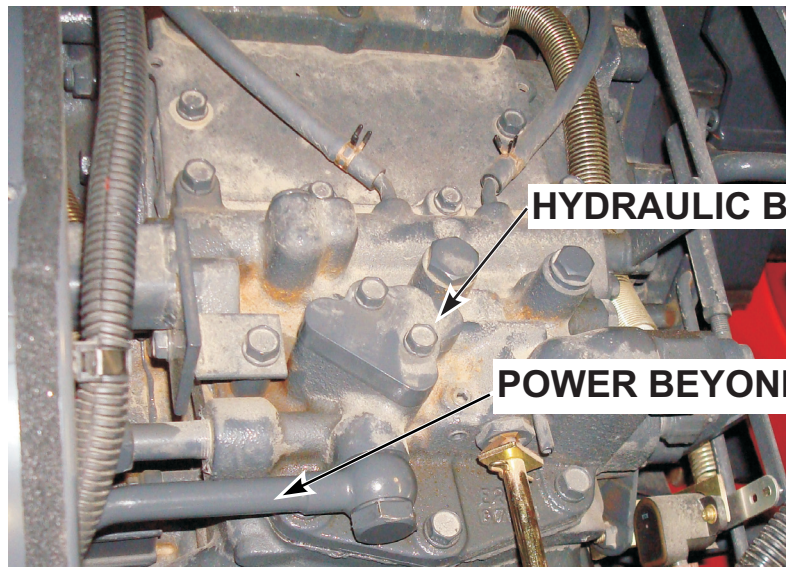


WARNING: Escaping hydraulic fluid under pressure can penetrate skin causing serious injury.

- **DO NOT** use your hands to check for leaks. Use a piece of cardboard or paper to search for leaks.
- Stop engine and relieve pressure before connecting or disconnecting lines.
- Tighten all connections before starting engine or pressurizing lines.
- Make sure hoses are secure and will not rub on ground or tires.

If any fluid is injected into skin, obtain medical attention immediately or gangrene may result.

Figure 1
Installing Hydraulic Kit



HYDRAULIC BLOCK

POWER BEYOND TUBE

INSTALLING HYDRAULIC KIT (Figures 1 & 2)

1. Remove right rear tire, access panel on right rear fender on cab tractors, right rear fender on R.O.P.S. tractors, and operating seat from tractor.

NOTE: Before removing operator seat, disconnect OPC wire harness underneath seat.

2. Remove front loader power beyond tube connected to the loader valve and port located on front of hydraulic block under operator seat location.
3. Install M18 x 3/4" JIC adapter (5) to power beyond port on loader valve. Install M16 x 3/4" JIC adapter (6) to power beyond port of hydraulic block under operator seat location.
4. Install 1/2" x 33" hoses (1) to adapters (5 & 6). Install female coupler (3) to 1/2" x 33" hose connected to power beyond port of loader valve. Install male coupler (4) to 1/2" x 33" hose connected to power beyond port on hydraulic block.
5. Remove backhoe valve cover plate. Install 1/2" x 73" hoses (2) to inlet and outlet ports of backhoe valve. Install male coupler to 1/2" x 73" hose (2) connected to the inlet port. Install female coupler to 1/2" x 73" hose (2) connected to the outlet port. Reinstall backhoe valve cover plate.

MOUNTING BACKHOE AND HYDRAULICS TO TRACTOR (Figures 2 & 3)

1. Back tractor slowly toward backhoe, parallel to subframe assembly, until hoses can be connected to tractor.

IMPORTANT: Shut off tractor.

WARNING: To prevent possible damage to hoses and backhoe valve, always shut off tractor engine when coupling or uncoupling hoses from backhoe. Make sure connections are complete at couplers.

2. Connect inlet and outlet hoses (2) to tractor hoses (1).

NOTE: When backhoe is not mounted, connect hoses from loader valve and hydraulic block together. Failure to do so will disable three-point hitch and cause damage to hydraulic system.

NOTE: Hoses on backhoe can be connected together when backhoe is not mounted, to protect couplers from contamination and corrosion.

3. Using backhoe controls, extend bucket and lower stabilizers to provide a base for raising subframe. Using backhoe controls, raise subframe to proper height to connect to tractor.
4. Slowly back tractor until subframe is engaged in rear mounting brackets and front mounting brackets.

NOTE: Check to be sure hoses are not pinched between tractor and subframe.

Connect subframe to front mounting brackets using pins provided in subframe kit.

5. Secure hoses with tarp strap (7), making sure hoses will not rub on ground or tires.
6. After backhoe has been mounted to tractor, check all hydraulic connections. Slowly cycle backhoe cylinders several times to purge air from hydraulic system. Retract cylinders and shut off engine. Replenish tractor hydraulic system to bring level of hydraulic fluid up to full.

Figure 2
Mounting Subframe to Tractor

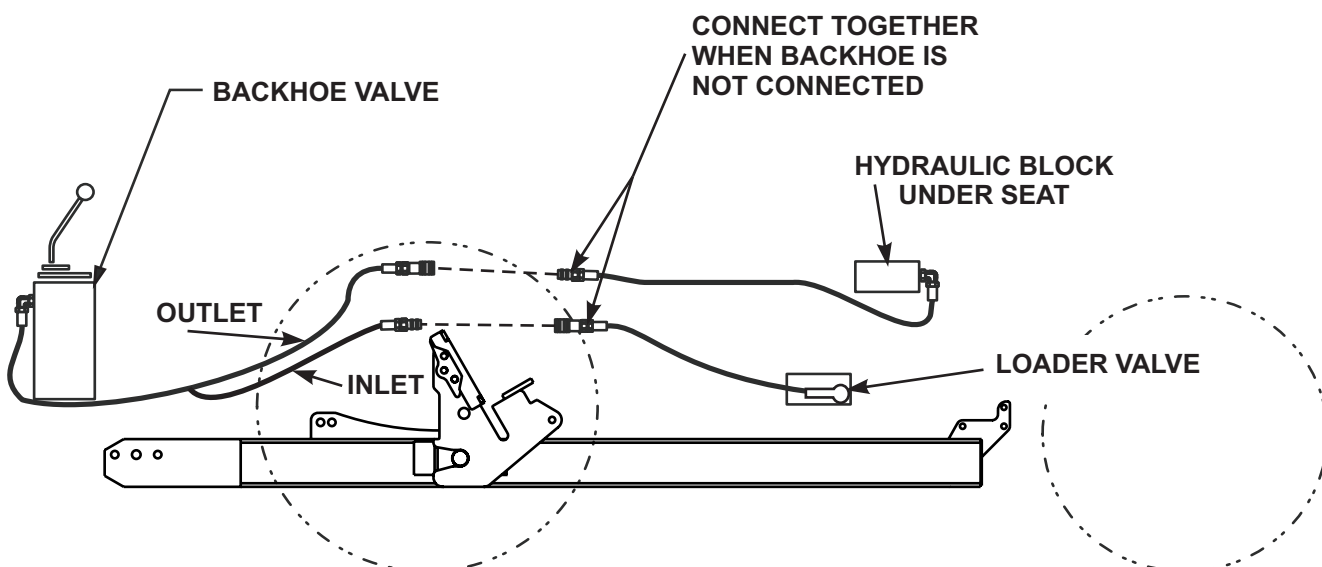
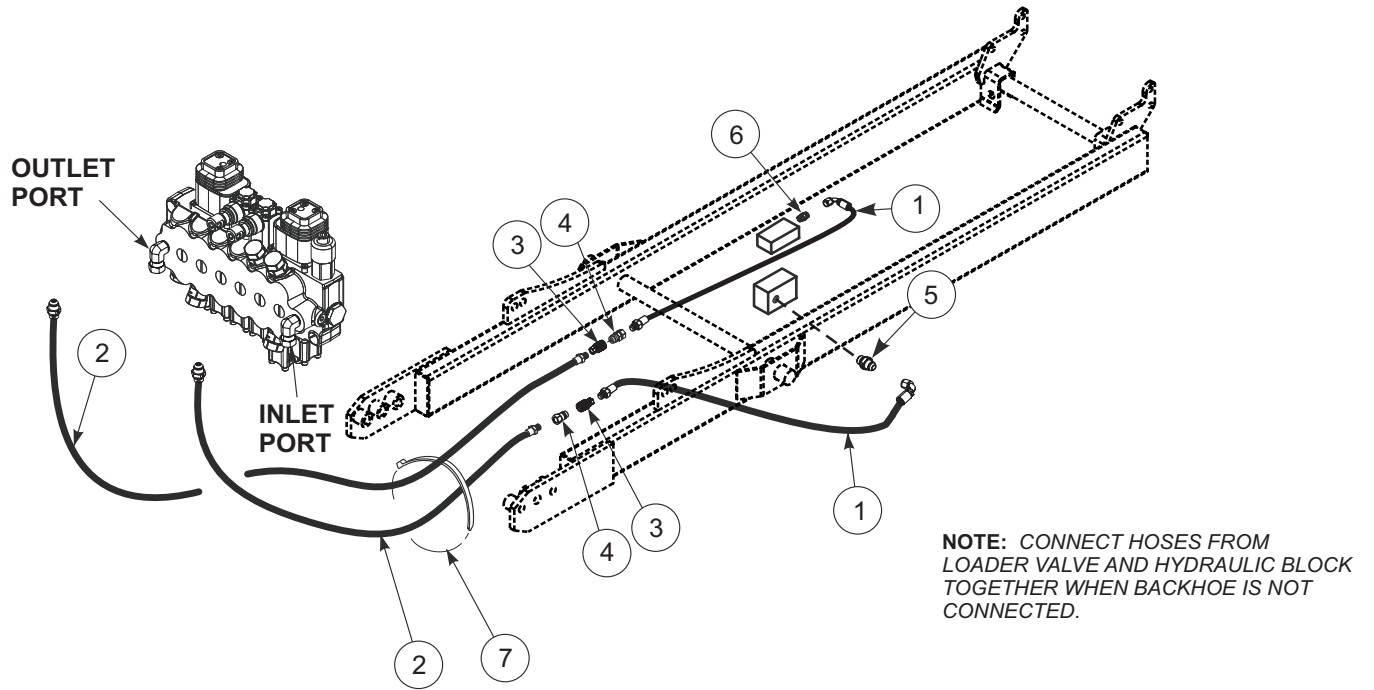


Figure 3
Hydraulic Kit Assembly



PARTS LIST - HYDRAULIC KIT

ITEM	PART NO.	DESCRIPTION	QTY.
1	52308-3	HOSE, 1/2 X 33" LG	2
2	42837-3	HOSE 1/2 X 73" LG	2
3	6147-10	COUPLER, Female 1/2"	2
4	6137-10	COUPLER, Male 1/2"	2
5	55947-1	ADAPTER, M18 X 3/4" JIC	1
6	55947-2	ADAPTER, M16 X 3/4" JIC	1
7	7438-1	STRAP, Tarp	1

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	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.								
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