

HOSE KIT TO MID MOUNTED VALVE 2491 LOADER KIOTI DK45S

TRACTOR AND HOSE KIT GENERAL INFORMATION

This kit can be installed using tools ordinarily available. References to left and right used in these instructions refer to position when seated in operating position on tractor. Shut off tractor engine and engage parking brake during installation.

NOTE: Apply sealant only to all tapered threads unless coupled with swivel adapters. When using teflon tape, wrap tape clockwise (as viewed from end) and wrap only twice. Keep sealant away from first two threads of tapered end to prevent contamination of hydraulic fluid. Do not use sealant on o-ring or flare adapter threads.



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

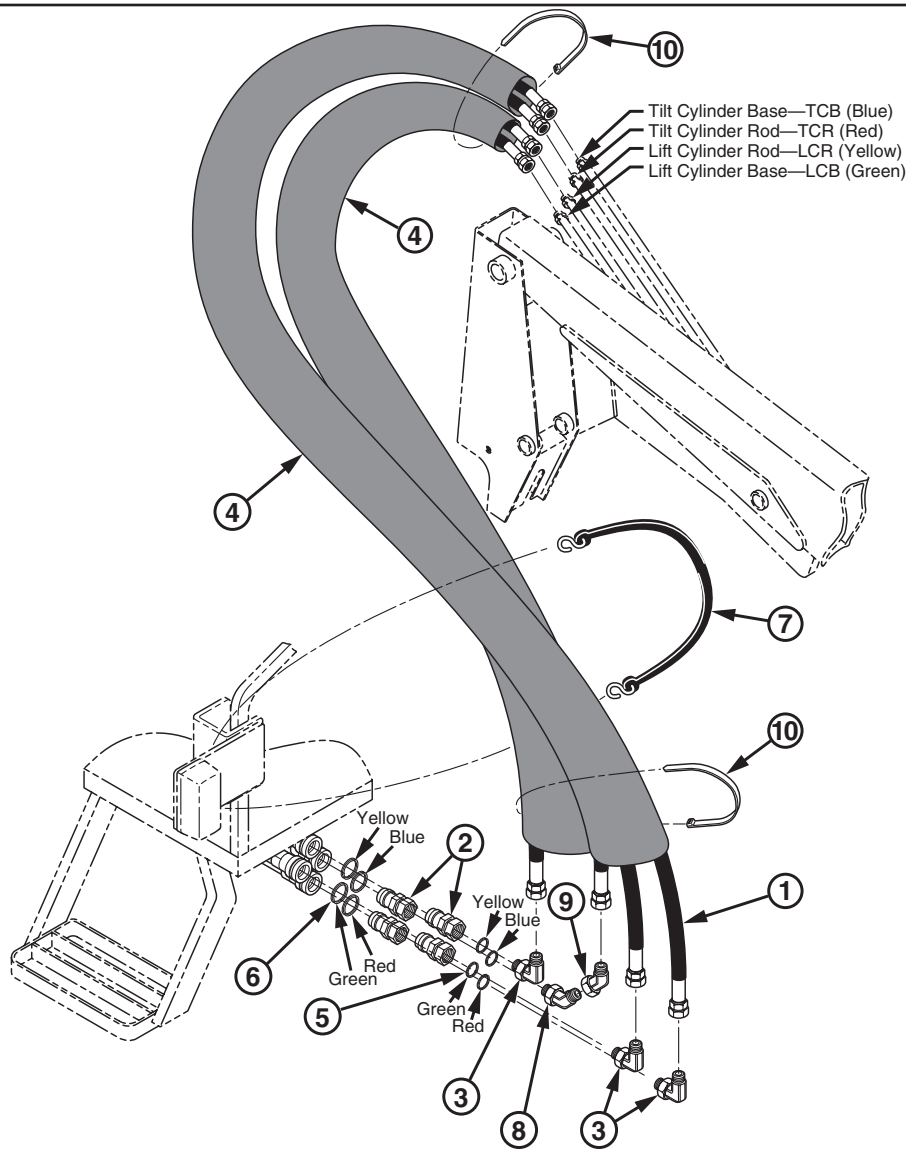
- Do not use your hands to check for leaks. Use a piece of cardboard or paper. Always wear eye protection when searching for leaks.
- Stop engine and relieve pressure before connecting or disconnecting lines.
- Tighten all connections before starting engine or pressurizing lines.

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

INSTALLING HOSE KIT TO LOADER AND TRACTOR (Figure 1)

1. Install 3/8 x 50" hoses (1) to steel oil line tubes on loader boom, one at a time from bottom up. Refer to general torque specifications table to tighten fittings to specified torque. Mark free ends of hoses (1) LCB, LCR, TCR, or TCB, to identify each hose by function.
2. Slide one 52" nylon hose sleeve (4) over lower two hoses (lift circuit hoses) and slide remaining 52" nylon hose sleeve (4) over upper two hoses (tilt circuit hoses).
3. Install 90° elbow fittings (3) to ends of lower two hoses (LCR & LCB) and top hose (TCB) from loader boom oil line tubes. Install 45° JIC swivel elbow fitting (9) to remaining hose (TCR) from loader boom oil line tube second from top (color coded red) and install 45° elbow fitting (8) onto 45° JIC swivel elbow.
4. Install 5/8" color plastic identification bands (5) and male quick couplers (2) onto 90° and 45° elbow fittings (3 & 8) to identify coupler function as shown in Figure 1.
5. Install 1" color plastic identification bands onto female quick couplers of tractor mid mounted valve to correspond with color coding of male couplers.
6. Connect male quick couplers to female quick couplers of tractor mid-mounted valve, matching colors of spiral identification bands.
7. Use plastic tie straps (10) to secure nylon sleeves over hose crimps at boom oil line tubes and at quick couplers. Using tarp strap (7), bundle hoses together and secure to tractor to avoid interference with moving parts.
8. After all plumbing has been completed, slowly cycle lift and tilt cylinders several times to purge air from hydraulic system. Retract cylinders and shut off engine. Refer to tractor operator's manual to replenish tractor hydraulic system.

Figure 1
Hose Kit



PARTS LIST – HOSE KIT

Item	Part No.	Description	Qty.
1	36844-11	HOSE, 3/8 x 50"	4
2	6137-13	COUPLER, Quick, Male, 3/4-16 O-Ring B	4
3	32845-2	ELBOW, 90°, 3/4-16 SAE O-Ring Male x 3/4-16 JIC Male	3
4	34853-26	SLEEVE, Nylon, Hose, 52"	2
5	36240-5	BAND, Plastic, Spiral Identification, 5/8", Blue	1
	36240-6	BAND, Plastic, Spiral Identification, 5/8", Red	1
	36240-7	BAND, Plastic, Spiral Identification, 5/8", Yellow	1
	36240-8	BAND, Plastic, Spiral Identification, 5/8", Green	1
6	36240-9	BAND, Plastic, Spiral Identification, 1", Blue	1
	36240-10	BAND, Plastic, Spiral Identification, 1" Red	1
	36240-11	BAND, Plastic, Spiral Identification, 1", Yellow	1
	36240-12	BAND, Plastic, Spiral Identification, 1", Green	1
7	7438-1	STRAP, Tarp, Rubber, S-Hook	1
8	31213-7	ELBOW, 45°, 3/4-16 SAE O-Ring Male x 3/4-16 JIC Male	1
9	36226-2	ELBOW, 45°, 3/4-16 JIC Female Swivel x 3/4-16 JIC Male	1
10	8137-1	STRAP, Plastic, Adjustable, 3/16 x 11"	2

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 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									

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