

Keep With Operator's Manual

THIRD FUNCTION PLUMBING KIT FOR MONTANA MODEL ML8090 LOADER

Plumbing kit can be installed using tools ordinarily available.

Shut off engine and engage brakes during installation.

PLUMBING THIRD FUNCTION KIT TO REAR REMOTE VALVE (Figure 1)

- Position the bulkhead assembly (1) on top of loader crossmember on rear side of hydraulic oil lines, 9" from where crossmember meets left side boom arm (see figure 1). Square with rear of crossmember. Using bracket (1) as template, drill two 3/16 holes into crossmember. Fasten bulkhead assembly bracket (1) to crossmember using 1/4 x 3/4 self tapping screws (2).

NOTE: Loaders equipped with cover over loader oil lines may require removal of cover to install bulkhead assembly (1). Bulkhead bracket should be placed so that center of bulkhead assembly is aligned with left edge of oil line cover. Using bulkhead assembly (1) as template, drill two 3/16 holes into crossmember. Fasten bulkhead assembly to crossmember using 1/4 x 3/4 self tapping screws (2). Reinstall oil line cover.

- Assemble couplers (6 & 7) to bulkhead fittings (5) and fasten to bulkhead assembly (1) using nuts supplied with bulkhead union fittings (5). Assemble 90° adapter fitting (8) to bulkhead fitting (5) and attach female end of hoses (4) to 90° adapter fittings (8).
- Install colored dust caps (9 & 10) to couplers (6 & 7) as illustrated in figure 1.
- Route 3/8 x 242" hoses (4) from bulkhead assembly (1) to rear remote.

- Install color coded dust caps (11 & 12) and male couplers (13) to the male end of hoses (4). Attach colored spiral bands (14 & 15) to corresponding female couplers on tractor rear remote.

NOTE: It is important to make sure color coding corresponds between dust caps and spiral bands on each hose.

- Using adjustable plastic straps (3), bundle hoses together to avoid interference with moving parts.
- After all plumbing has been completed slowly cycle third function attachment several times to purge air from hydraulic system. Retract cylinders and shut off engine. Replenish tractor hydraulic system.

NOTE: When cycling third function, operate loader according to operation decal for valve. If direction of control lever is wrong, reverse hose connections and recheck operation.



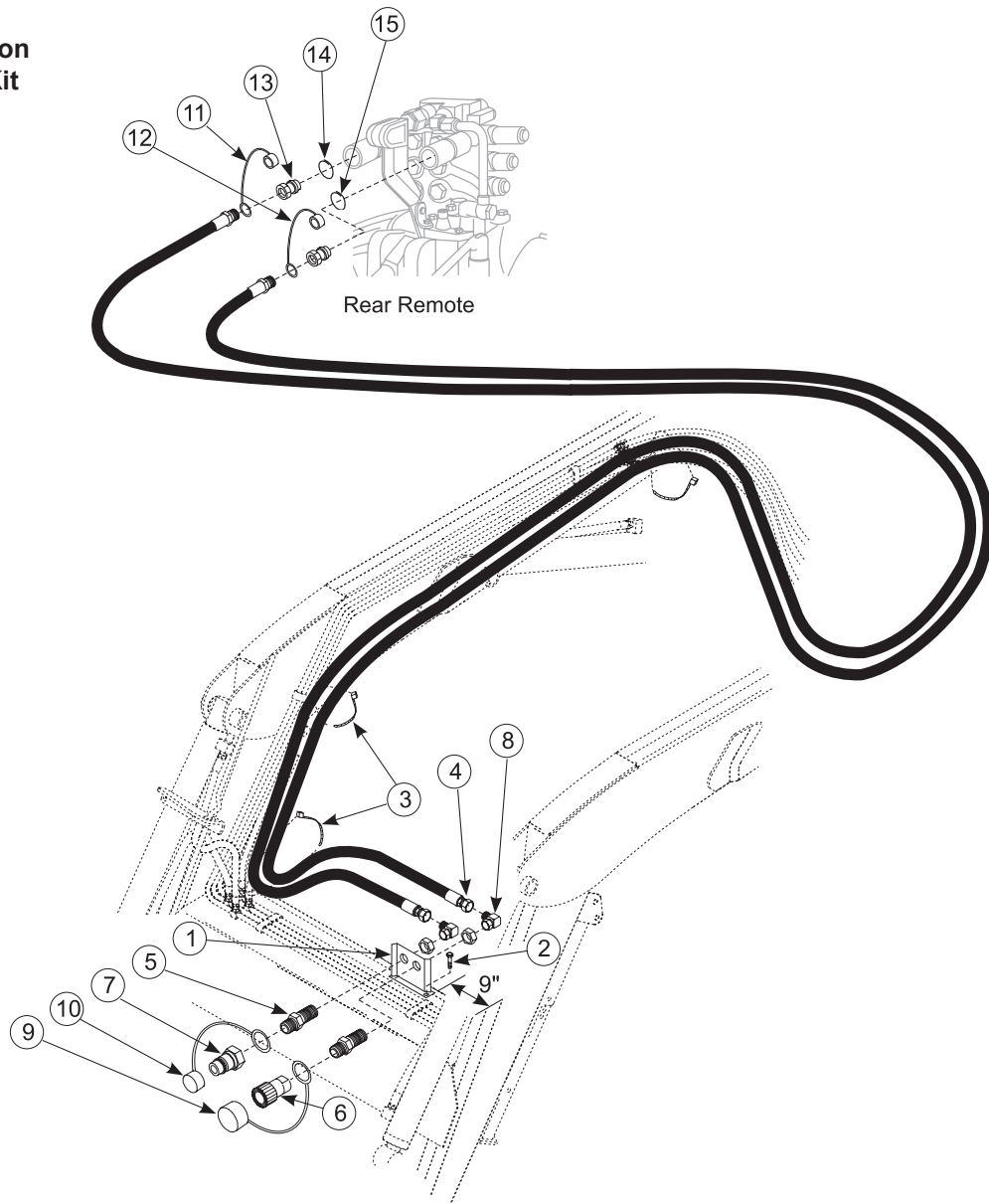
WARNING: Escaping fluid under pressure can penetrate skin causing serious personal injury.

- 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 and disconnecting lines.
- Tighten all connections before starting engine or pressurizing lines.

PARTS LIST - THIRD FUNCTION PLUMBING KIT (Figure 1)

Item	Part No.	Description	Qty.
1	MT47580	BULKHEAD ASSEMBLY	1
2	MT363542	SCREW, 1/4-14 x 3/4, Self tapping	2
3	MT81371	STRAP, Adjustable, .19 x 11	6
4	MT475791	HOSE, 3/8 x 242	2
5	MT472971	FITTING, Bulkhead Union, O-ring, 3/4-16	2
6	MT452912	COUPLER, Flat face, Female	1
7	MT452922	COUPLER, Flat face, Male	1
8	MT341282	FITTING, Elbow, 90°, 3/4-16 x 3/4-16	2
9	MT483815	DUST CAP	1
10	MT483816	DUST CAP	1
11	MT48383	DUST CAP, Red	1
12	MT48388	DUST CAP, Blue	1
13	MT613710	COUPLER, Male	2
14	MT3624010	SPIRAL BAND, Red, 1"	1
15	MT362409	SPIRAL BAND, Blue, 1"	1

Figure 1
Third Function
Plumbing Kit



Torque Specifications for
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

Torque Specifications for
SAE O-Ring Fittings

Size	Swivel Nut or Hose	Assembly Torque		
		in.·lb.	ft.·lb.	F.F.F.T.
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