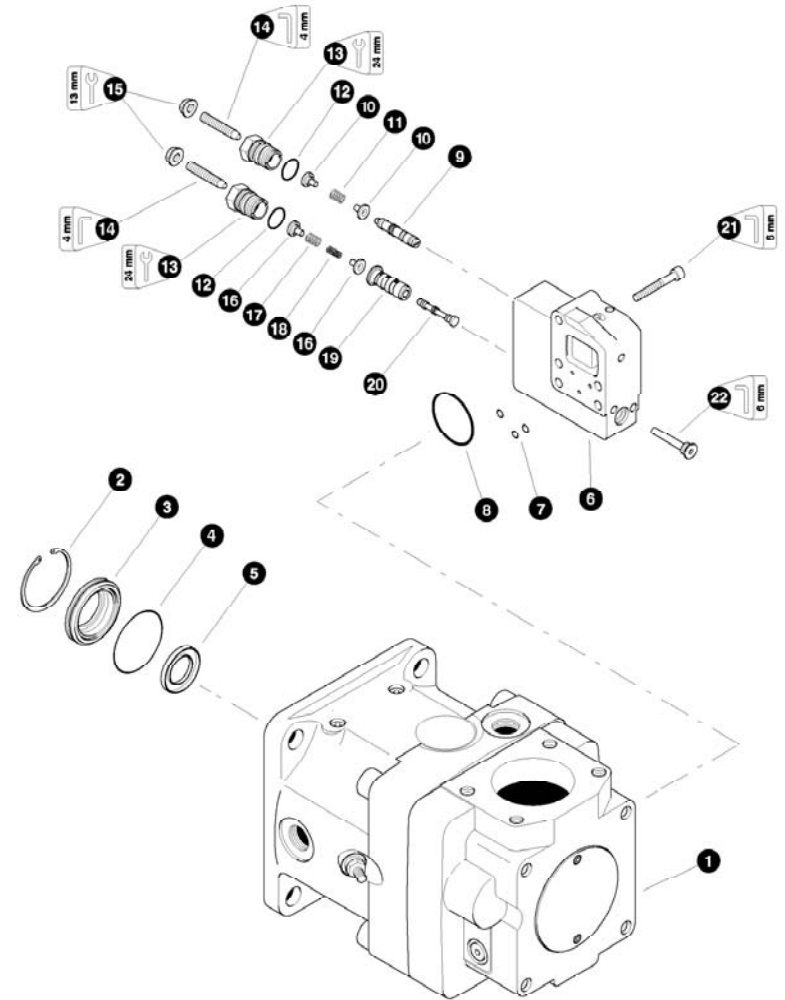


Section LH-1



**Loader Implements (L90LS Valve) -
Loader Pumps**



**LOADER IMPLEMENT PUMP
(Rexroth 95cc)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	22707-LH	1	<input type="checkbox"/> PUMP, implement - Rexroth 95cc	
2	23676-LH	1	RING, seal retaining	
3	23677-LH	1	COVER, front	
4	23678-LH	1	<input checked="" type="checkbox"/> O-RING, front cover	
5	23675-LH	1	<input checked="" type="checkbox"/> SEAL, shaft	
6	18681-LH	1	<input type="checkbox"/> COMPENSATOR	
7	20809-LH	3	<input checked="" type="checkbox"/> O-RING, quad	
8	20808-LH	1	<input checked="" type="checkbox"/> O-RING, compensator	
9	NSS	1	SPOOL, POR pressure	
10	21551-LH	2	RETAINER, spring	
11	21552-LH	1	SPRING	
12	21553-LH	2	<input checked="" type="checkbox"/> O-RING, compensator cap	
13	21554-LH	2	CAP, compensator	
14	20358-LH	2	<input checked="" type="checkbox"/> NUT, seal	
15	21555-LH	2	SCREW, adjusting	
16	21558-LH	2	RETAINER, spring	
17	21556-LH	1	SPRING	
18	21557-LH	1	SPRING	
19	NSS	1	SLEEVE, spool	
20	NSS	1	SPOOL, stand-by pressure	
21	21559-LH	5	BOLT, allen head - 8mm x 50mm	
22	NSS	1	PLUG	
23	21550-LH	1	FLANGE, thru drive	
24	17608-LH	4	BOLT, allen head - 12mm-1.75P x 30mm	
25	17744-LH	1	<input checked="" type="checkbox"/> O-RING, thru drive flange	
26	18843-LH	1	COUPLING, thru drive	
27	18844-LH	1	O-RING, thru drive cover	
28	18414-LH	1	COVER, thru drive	
29	18735-LH	2	WASHER, flat - 12mm	
30	15556-LH	2	BOLT - 12mm-1.75P x 20mm	
--	23679-LH	1	KIT, seal repair (Complete pump)	

- Kit or Assembly - includes all items indented underneath.
- Included in seal repair kit, PN# 23679-LH.

Note:

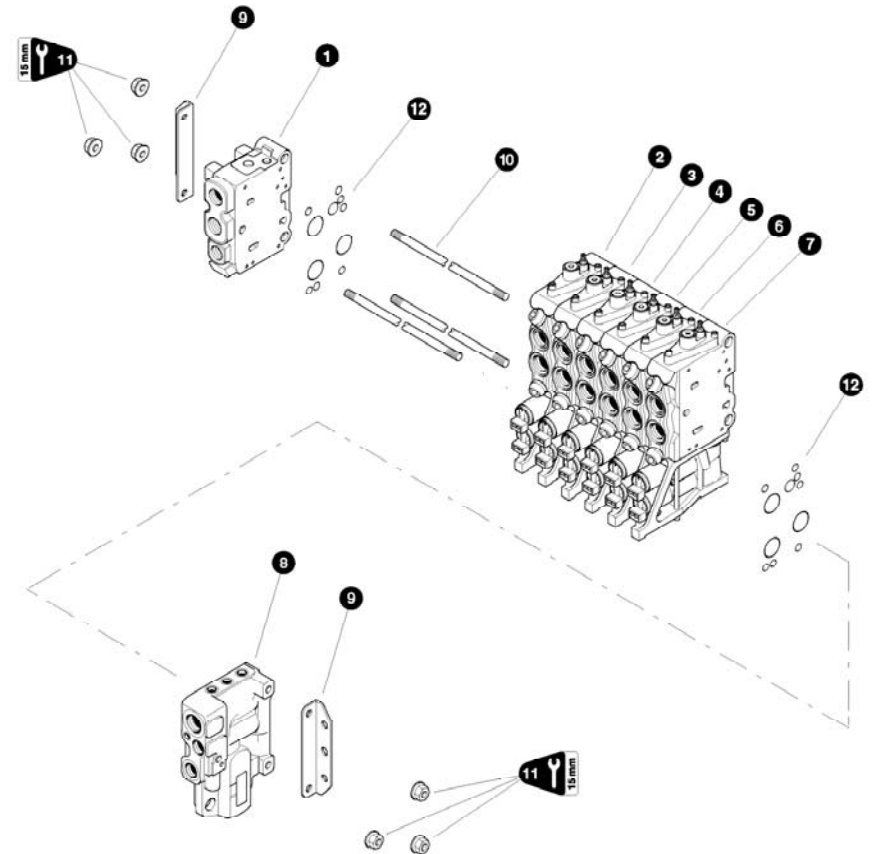
Due to warranty policy restrictions imposed by TimberPro's component suppliers, it is not recommended that the component be disassembled further than is shown in the illustration.

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Section LH-2



Loader Implements (L90LS Valve) - Main Control Valve



MAIN CONTROL VALVE (VOAC L90LS)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	23773-LH	1	☐ MAIN CONTROL VALVE ASSEMBLY(See Note #1 Below)	
1	REF	1	☐ VALVE SECTION - outlet	LH-2
2	23411-LH	1	☐ VALVE SECTION, swing	LH-2
3	23410-LH	1	☐ VALVE SECTION, steer/shear	LH-2
4	23409-LH	1	☐ VALVE SECTION, grapple/accumulator	LH-2
5	23408-LH	1	☐ VALVE SECTION, main boom	LH-2
6	23407-LH	1	☐ VALVE SECTION, grapple rotate	LH-2
7	23406-LH	1	☐ VALVE SECTION, etick boom/tool tilt	LH-2
8	REF	1	☐ VALVE SECTION - inlet	LH-2
9	23402-LH	1	KIT, mounting brackets	
-	23403-LH	1	☐ KIT, tie rod (6 section)	
10	23912-LH	3	ROD, tie	
11	23913-LH	6	NUT (Special torque procedure)(See Note #2 Below)	
12	23404-LH	7	KIT, seal repair - L90LS face seals	

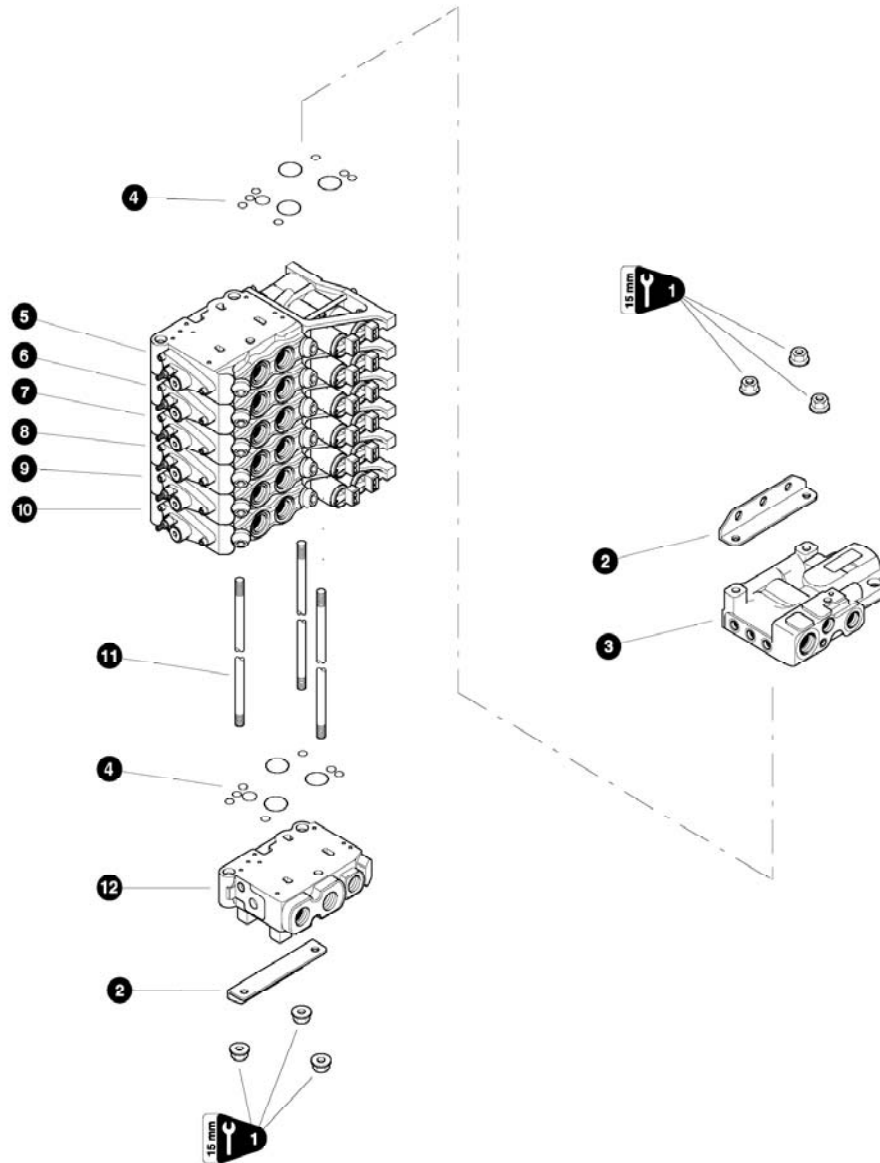
- ☐ Kit or Assembly - includes all items indented underneath.
- ☐ See referenced page for component or assembly breakdown.

Note #1:

Illustration and parts list reflects a standard valve configuration used for a TF or TS 820 Forwarder or Clambunk. Contact your dealer if your valve or machine configuration differs.

Note #2:

Tie rod nuts should be torqued in a clockwise pattern in three steps, 7.5 ft.lbs. (10 Nm), 22.5 ft.lbs. (30 Nm) and 33.5 ft.lbs. (45 Nm).



Parts T2760 07/15/03
25.00

**MAIN CONTROL VALVE
(VERTICAL VOAC L90LS)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	51125-LH	1	☐ MAIN CONTROL VALVE ASSEMBLY(See Note #1 Below)	
1	23913-LH	6	⌘ NUT (Special torque procedure)(See Note #2 Below)	
2	23402-LH	1	☒ KIT, mounting brackets	
3	REF	1	☒ VALVE SECTION - inlet	LH-2
4	23404-LH	7	☒ KIT, seal repair - L90LS face seals	
5	23410-LH	1	☒ VALVE SECTION, steer/shear	LH-2
6	23411-LH	1	☒ VALVE SECTION, swing	LH-2
7	23406-LH	1	☒ VALVE SECTION, etick boom/tool tilt	LH-2
8	23409-LH	1	☒ VALVE SECTION, grapple/accumulator	LH-2
9	23407-LH	1	☒ VALVE SECTION, grapple rotate	LH-2
10	23408-LH	1	☒ VALVE SECTION, main boom	LH-2
11	23912-LH	3	⌘ ROD, tie	
12	REF	1	☒ VALVE SECTION - outlet	LH-2
-	23403-LH	1	☒ KIT, tie rod (6 section)	

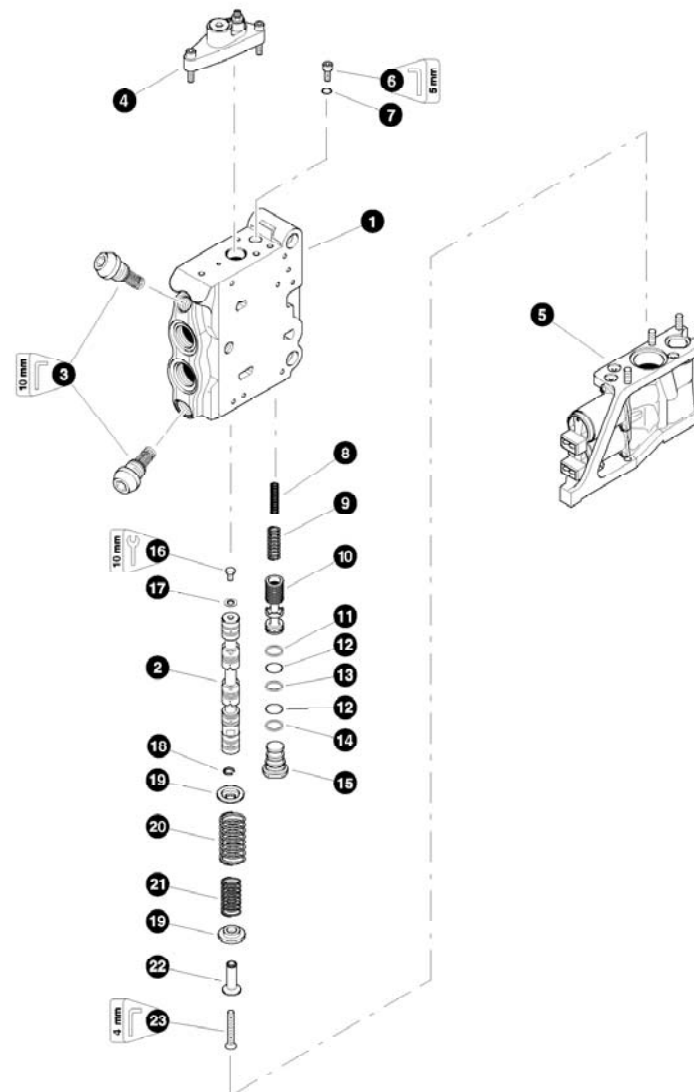
- ☐ Kit or Assembly - includes all items indented underneath.
- ☒ See referenced page for component or assembly breakdown.
- ⌘ Included in Kit #23403-LH

Note #1:

Illustration and parts list reflects a standard valve configuration used for a TF or TS 820 Forwarder or Clambunk. Contact your dealer if your valve or machine configuration differs.

Note #2:

Tie rod nuts should be torqued in a clockwise pattern in three steps, 7.5 ft.lbs. (10 Nm), 22.5 ft.lbs. (30 Nm) and 33.5 ft.lbs. (45 Nm).



Part 01318 09/15/99
37.50

**WORK VALVE SECTION
(VOAC L90LS)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	REF	1	<input type="checkbox"/> VALVE SECTION, L90LS	
1	NSS	1	BODY, valve section	
2	-----	1	SPOOL, stick boom/tool tilt - RCX (393000S226)	
2	-----	1	SPOOL, grapple rotate - MBX (393000S218)	
2	-----	1	SPOOL, main boom - UMX (393000S876)	
2	-----	1	SPOOL, grapple/accumulator - RKX (393000S490)	
2	-----	1	SPOOL, steer/shear - RDX (393000S230)	
2	-----	1	SPOOL, swing - UPD (393000S879)	
3	23413-LH	2	CARTRIDGE, port relief (250 Bar)	
4	REF.	1	<input type="checkbox"/> SECTION END CAP ASSEMBLY - "A" port side	LH-2
5	REF.	1	<input type="checkbox"/> SECTION END CAP ASSEMBLY - "B" port side	LH-2
-	-----	1	<input type="checkbox"/> KIT, compensator - "KX" (main, steer, and stick)(see note #1)	
-	-----	1	<input type="checkbox"/> KIT, compensator - "K" (Rotate & grapple only)(see note #1)	
-	-----	1	<input type="checkbox"/> KIT, compensator - "KH" (swing)(see note #1)	
6	-----	1	SCREW, throttling - 6mm-1.0P x 10mm	
7	-----	1	RING, seal	
8	-----	1	SPRING, small (KX only)	
9	-----	1	SPRING, compensator	
10	-----	1	SPOOL, compensator	
-	-----	1	<input type="checkbox"/> KIT, compensator plug w/seals (393000K171)	
-	-----	1	<input type="checkbox"/> KIT, seals only - compensator plug (393000K811)	
11	-----	2	RING, back-up	
12	-----	1	O-RING	
13	-----	1	O-RING	
14	-----	1	RING, back-up	
15	-----	1	BOLT, spool - 6mm-1.0P x 8mm (0147124203)	
16	-----	1	WASHER, seal (91256300)	
-	23423-LH	1	<input type="checkbox"/> KIT, spool centering spring	
17	NSS	1	RING, lock	
18	NSS	2	RETAINER, spring	
19	NSS	1	SPRING	
20	NSS	1	SPRING	
21	NSS	1	SLEEVE	
22	NSS	1	SCREW, spring assembly	

- Kit or Assembly - includes all items indented underneath.
- See referenced page for component or assembly breakdown.

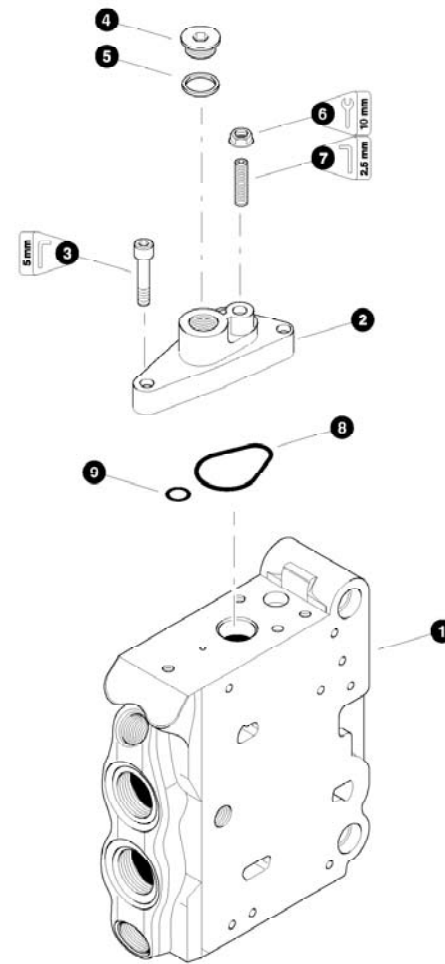
NOTE #1

Each section is color coded for proper fit. A color mark can be found on the "B" port side of the valve section under the end cap labeled #5.

KX - blue (393000K616)
 green (393000K617)
 red (393000K618)

K - blue (393000K169)
 green (393000K469)
 red (393000K669)

KH - blue (393000K169)
 green (393000K506)
 red (393000K507)



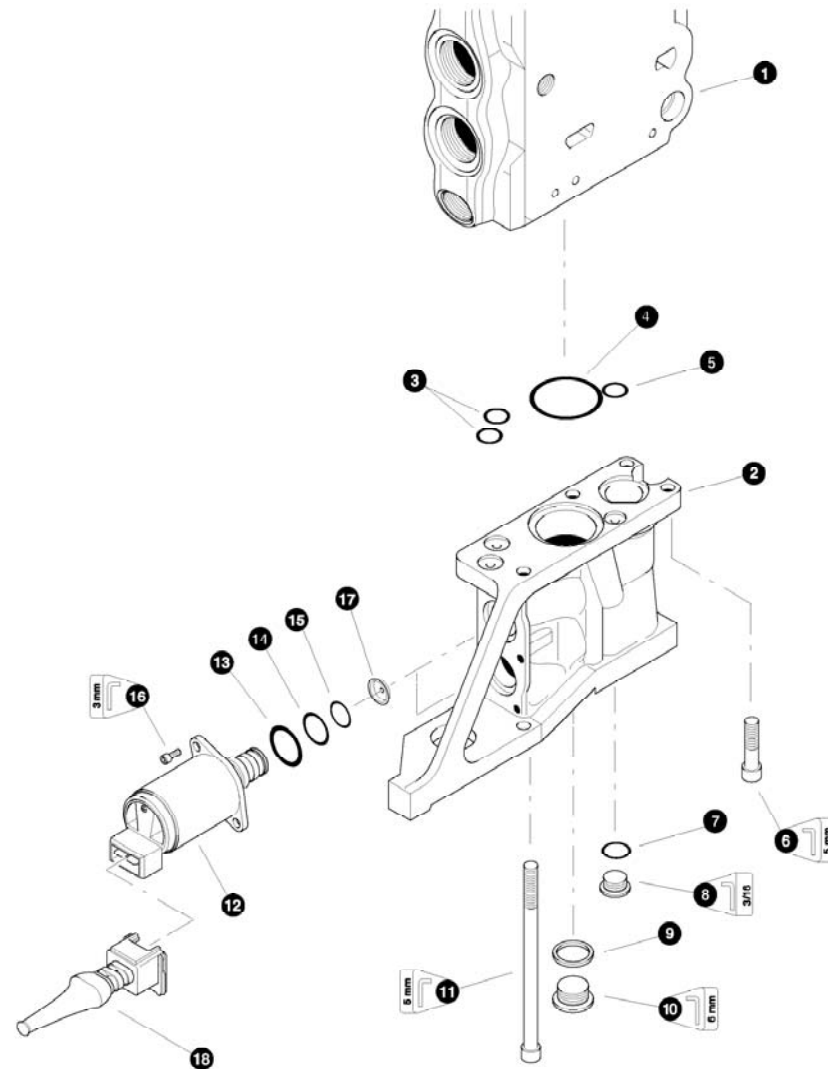
**"A" SECTION END CAP ASSEMBLY
(VOAC L90LS)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	NSS	1	☐ VALVE SECTION BODY	LH-2
-	23414-LH	1	☐ KIT, end cap - "A" port side	
2	NSS	1	CAP, end	
3	-----	3	BOLT, allen head - 6mm-1.0P x 20mm (0211124703)	
4	15412-LH	1	PLUG - 6408-HHP-6	
5	-----	1	⌘ RING, seal (3-906)	
6	-----	1	⌘ NUT, seal - 6mm (3763131)	
7	-----	1	⌘ SCREW, adjustment (3764640)	
-	23415-LH	1	☐ KIT, seal repair - "A" port side end cap	
8	-----	1	⌘ O-RING (Large) (0663210509)	
9	-----	1	⌘ O-RING (Small) (06632114)	

- ☐ See referenced page for component or assembly breakdown.
- ☐ Kit or Assembly - includes all items indented underneath.
- ⌘ Included in seal repair kit PN# 23415-LH.

LH-2-8

T800 Parts Module LH-50922



Parts 01735 02/21/2003
75.00

T800 Parts Module LH-50922

LH-2-9

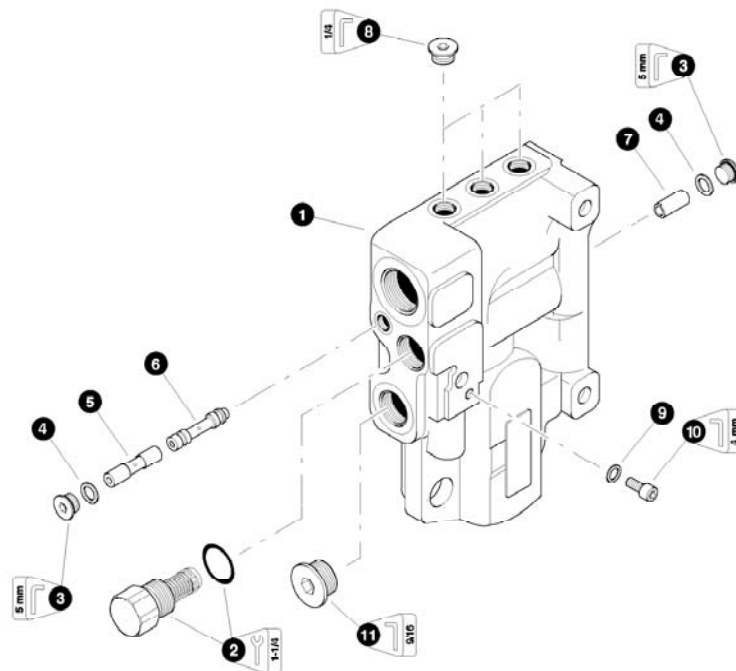
**“B” SECTION END CAP ASSEMBLY
(VOAC L90LS)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	NSS	1	☐ VALVE SECTION BODY	LH-2
-	23416-LH	1	☐ KIT, end cap - “B” port side	
2	-----	1	CAP, end	
3	-----	2	⊗ O-RING (Small)	
4	-----	1	⊗ O-RING (Large)	
5	-----	1	⊗ O-RING (Small)	
6	-----	2	BOLT, allen head - 6mm-1.0P x 20mm (0211124703)	
7	-----	1	⊗ O-RING	
8	11383-LH	1	PLUG - 6408-HHP-4	
9	-----	1	⊗ RING, seal	
10	-----	1	PLUG (0606644203)	
11	-----	2	SCREW, allen head - 6mm-1.0P x 100mm (0211126403)	
12	20976-LH	2	SOLENOID - 24V	
13	-----	2	◆ O-RING (Large)	
14	-----	2	◆ O-RING (Medium)	
15	-----	2	◆ O-RING (Small)	
16	-----	4	SCREW, allen head - 4mm-.75P x 12mm (U21111/103)	
17	-----	2	DAMPER, pilot restrictor orifice (voac solenoid)(see note #1 below)	
18	19179-LH	2	CONNECTOR, (kit) voac controll valve	
-	23417-LH	1	KIT, seal repair - “B” port side end cap	
-	23418-LH	1	KIT, seal repair - solenoid	

- ☐ See referenced page for component or assembly breakdown.
- ☐ Kit or Assembly - includes all items indented underneath.
- ⊗ Included in seal repair kit PN# 23417-LH.
- ◆ Included in seal repair kit PN# 23418-LH.

NOTE #1:

Orifice sizes vary depending upon function.
 #3762396 0.6 mm
 #3762397 0.8 mm
 #3762398 1.0 mm



Parts 01316 09-15-00
62 00

**INLET VALVE SECTION
(VOAC L90LS)**

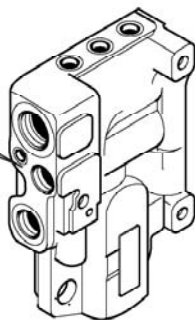
REF	PART #	QTY	DESCRIPTION	SEE SECTION
-	23405-LH	1	□ VALVE SECTION, inlet	
1	NSS	1	BODY, valve section	
2	23428-LH	1	RELIEF (250 bar)	
-	23429-LH	1	□ KIT, load sense copy spool (Green)(see note #1)	
-	23430-LH	1	□ KIT, load sense copy spool (Red)(see note #1)	
3	-----	2	PLUG (0686644103)	
4	-----	2	RING, seal (06611014)	
5	NSS	1	SPACER	
6	NSS	1	SPOOL	
7	NSS	1	SPACER	
8	15412-LH	3	PLUG - 6408-HHP-6	
9	-----	1	RING, seal (91256300)	
10	-----	1	PLUG, M6 X 1mm x 12mm (980034)	
11	15584-LH	1	PLUG - 6408-HHP-12	

□ Kit or Assembly - includes all items indented underneath.

NOTE #1

Each section is color coded to insure proper fit, please check color mark before ordering.

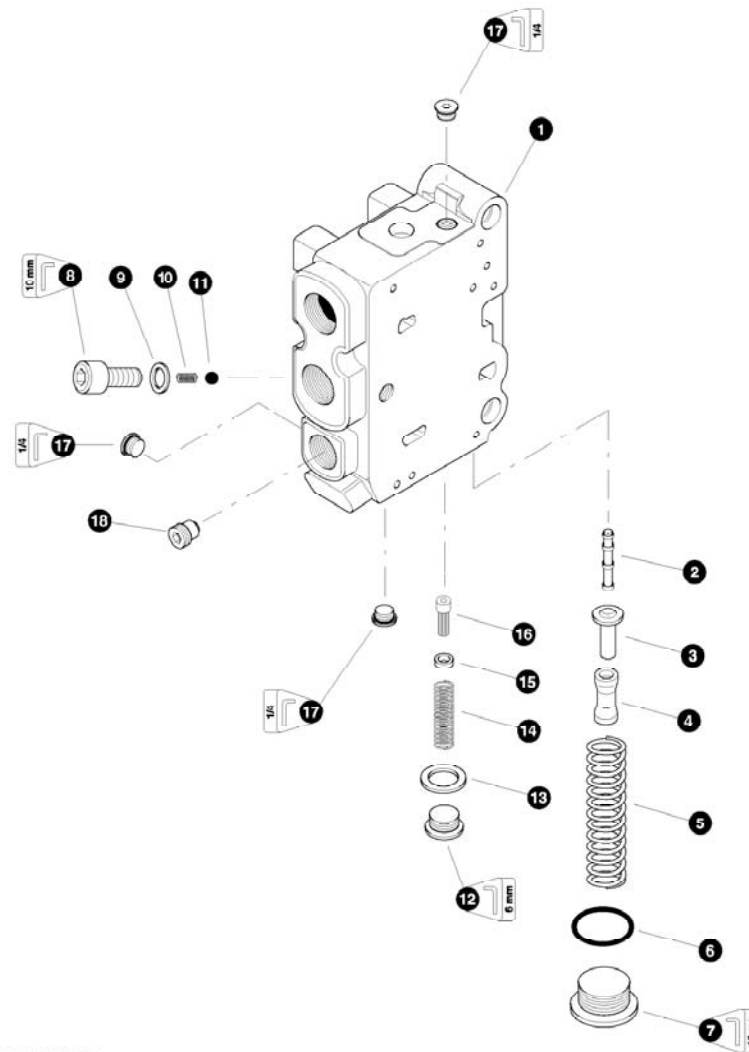
Location of color mark for
Loadsense copy spool



T2724 parts

LH-2-12

T800 Parts Module LH-50922



Parts 01319 08/16/99
62.00

T800 Parts Module LH-50922

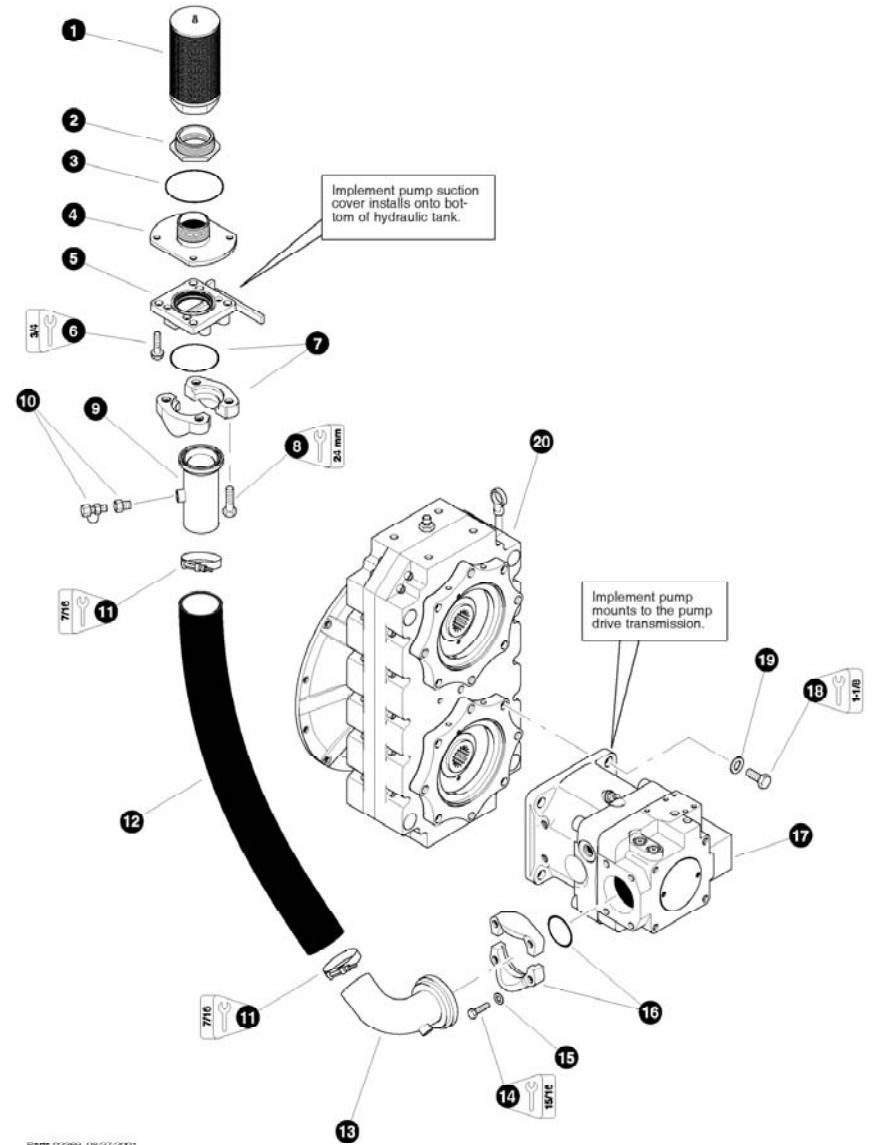
LH-2-13

Section LH-3



Loader Implements - Supply, Tank, Load sense, and Drain Circuits

NOTE: See Section LH-4 for hydraulic circuits from the main control valve to Implement functions.

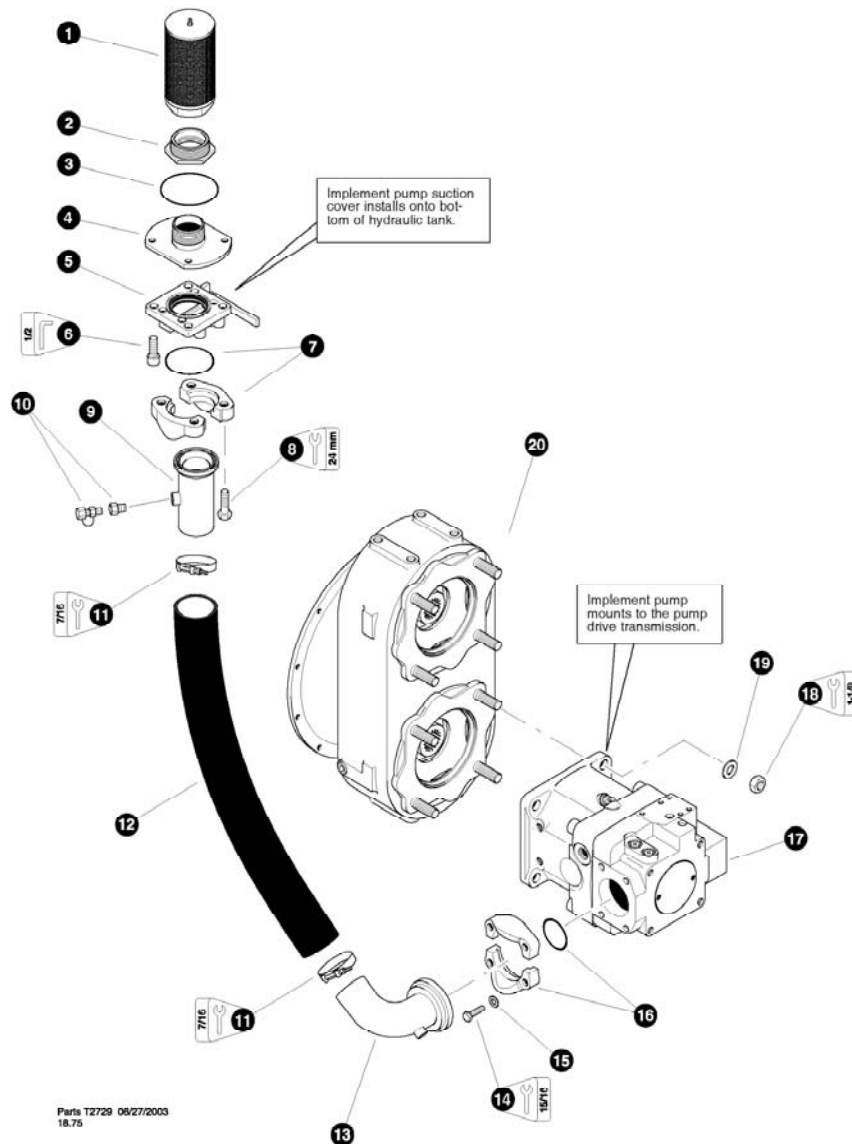


Parts 02099 08/27/2001
18.75

IMPLEMENT PUMP SUCTION LINE (machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	15842-LH	1	FILTER, screen - implement suction	
2	16327-LH	1	BUSHING, black reducer - 3" x 2-1/2"	
3	15448-LH	1	O-RING	
4	REF.	1	IMPLEMENT FILTER COVER (Installed from bottom)	UP-3
5	22441-LH	1	VALVE, shut-off - 3" butterfly	
6	22560-LH	4	BOLT, flange - 1/2" x 2"	
7	18306-LH	1	KIT, split flange - 3" (Code 61)	
	18695-LH	1	O-RING - 3" SF	
8	22561-LH	4	BOLT - 16mm x 40mm	
9	24104-LH	1	TUBE, tank suction straight	
10	15574-LH	1	BUSHING, reducer - 5406-4-2	
	22302-LH	1	VALVE, probalyser (Used to take oil samples)	
11	15190-LH	2	CLAMP, strap band - 3-1/8"	
12	23050-LH	AR	HOSE, suction - 2-1/2"	
13	22857-LH	1	TUBE, suction 90°	
14	18306-LH	1	KIT, split flange - 3" (Code 61)	
	18695-LH	1	O-RING - 3" SF	
15	15502-LH	1	BOLT - 5/8" x 1-1/2"	
16	10771-LH	4	WASHER, SAE flat - 5/8"	
17	REF.	1	IMPLEMENT PUMP	LH-1
18	10840-LH	4	BOLT - 3/4" x 3"	
19	10806-LH	4	WASHER, SAE flat - 3/4"	
20	-----	1	PUMP DRIVE GEAR BOX	

- ☐ See referenced page for component or assembly breakdown.
- ↗ Bulk material - order length required in feet or meters.
- ☐ Kit or Assembly - includes all items indented underneath.

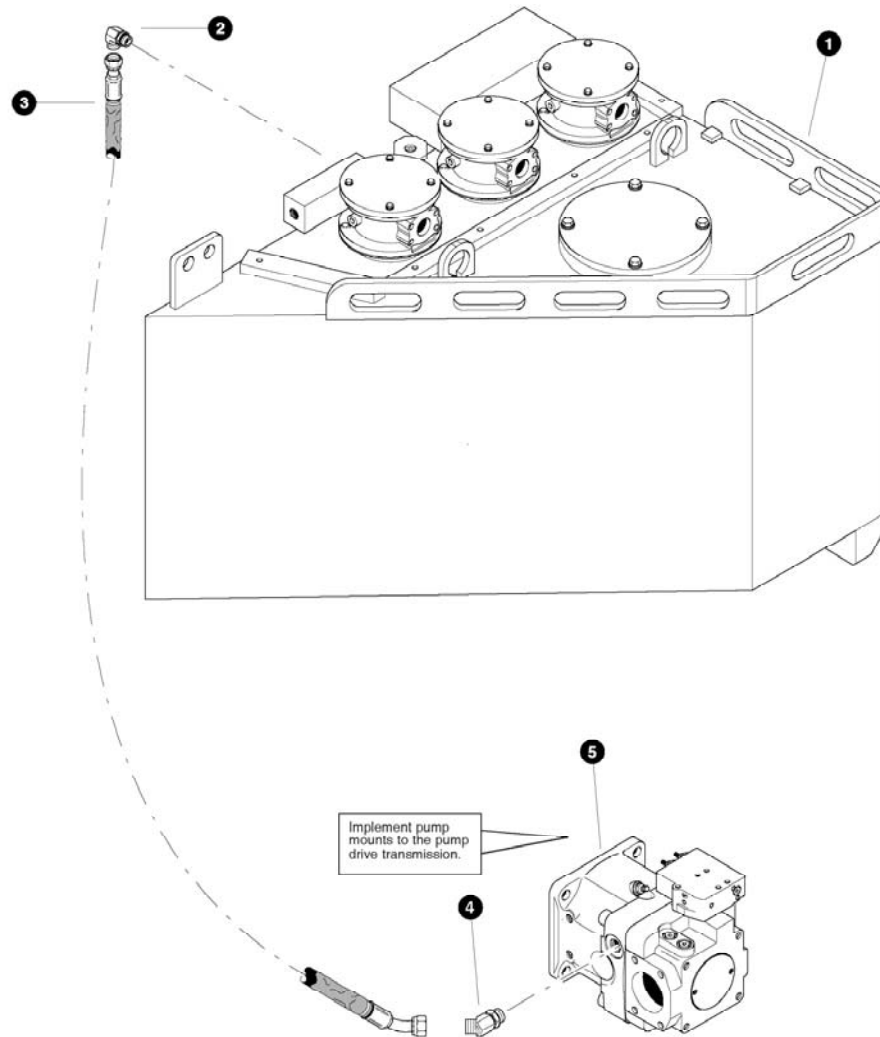


Parts T2729 06/27/2003
18.75

IMPLEMENT PUMP SUCTION LINE (machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	15842-LH	1	FILTER, screen - implement suction	
2	16327-LH	1	BUSHING, black reducer - 3" x 2-1/2"	
3	15448-LH	1	O-RING	
4	REF.	1	IMPLEMENT FILTER COVER (Installed from bottom)	UP-3
5	22441-LH	1	VALVE, shut-off - 3" butterfly	
6	23095-LH	4	BOLT, allen - 5/8" x 2"	
7	18306-LH	1	KIT, split flange - 3" (Code 61)	
	18695-LH	1	O-RING - 3" SF	
8	22561-LH	4	BOLT - 16mm x 40mm	
9	24104-LH	1	TUBE, tank suction straight	
10	15574-LH	1	BUSHING, reducer - 5406-4-2	
	22302-LH	1	VALVE, probalyser (Used to take oil samples)	
11	15190-LH	2	CLAMP, strap band - 3-1/8"	
12	23050-LH	AR	HOSE, suction - 2-1/2"	
13	22857-LH	1	TUBE, suction 90°	
14	18306-LH	1	Kit 1, split flange - 3" (Code 61)	
	18695-LH	1	O-RING - 3" SF	
15	15562-LH	1	BOLT - 5/8" x 2"	
16	10721-LH	4	WASHER, lock - 5/8"	
17	REF.	1	IMPLEMENT PUMP	LH-1
18	10776-LH	4	NUT, 3/4"	
19	10806-LH	4	WASHER, SAE flat - 3/4"	
20	-----	1	PUMP DRIVE GEAR BOX	

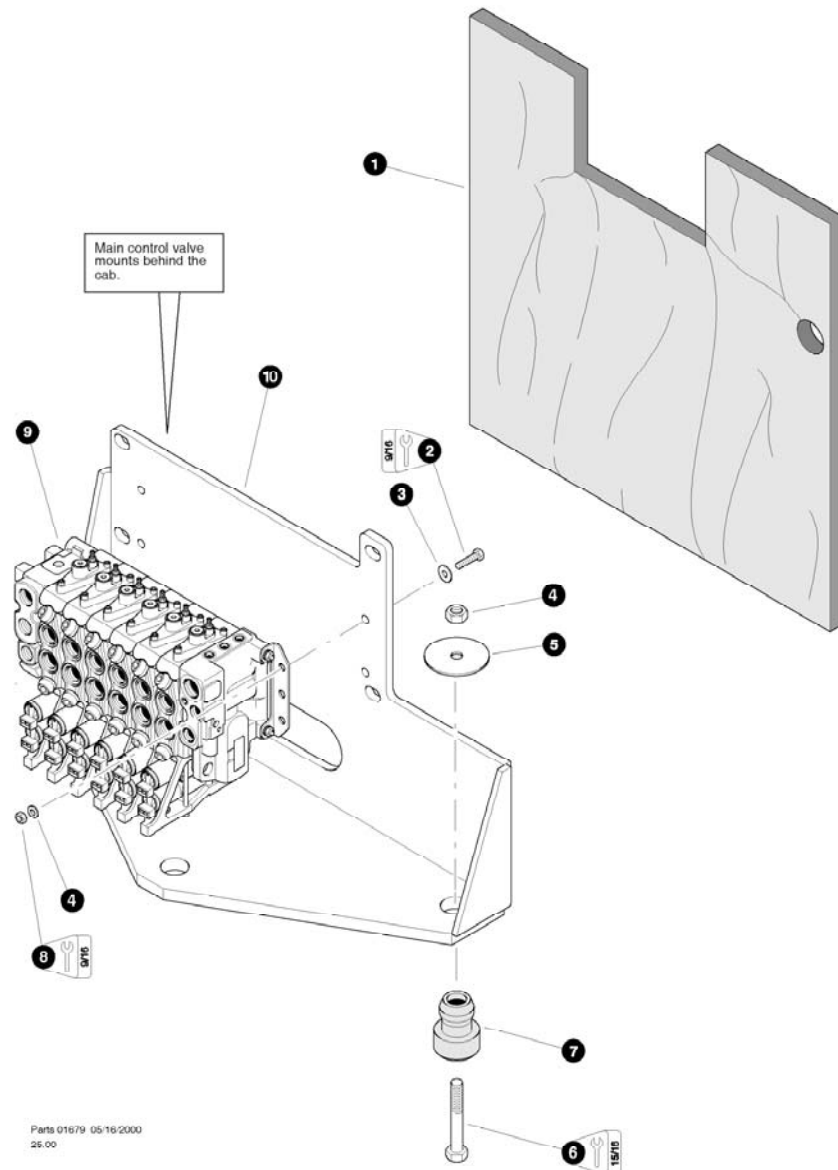
- ☐ See referenced page for component or assembly breakdown.
- ↗ Bulk material - order length required in feet or meters.
- ☐ Kit or Assembly - includes all items indented underneath.



IMPLEMENT PUMP CASE DRAIN LINE

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	HYDRAULIC TANK	UP-3
2	17688-I H	1	FI ROW, 90 - FF1868T-1212S	
3	51417-LH	1	HOSE ASSEMBLY - 2055-12-120S-1204 (Implement pump case drain port to return oil manifold)	
4	15474-LH	1	ELBOW, 45 - 6802-12	
5	REF.	1	IMPLEMENT PUMP	LH-1

☐ See referenced page for component or assembly breakdown.

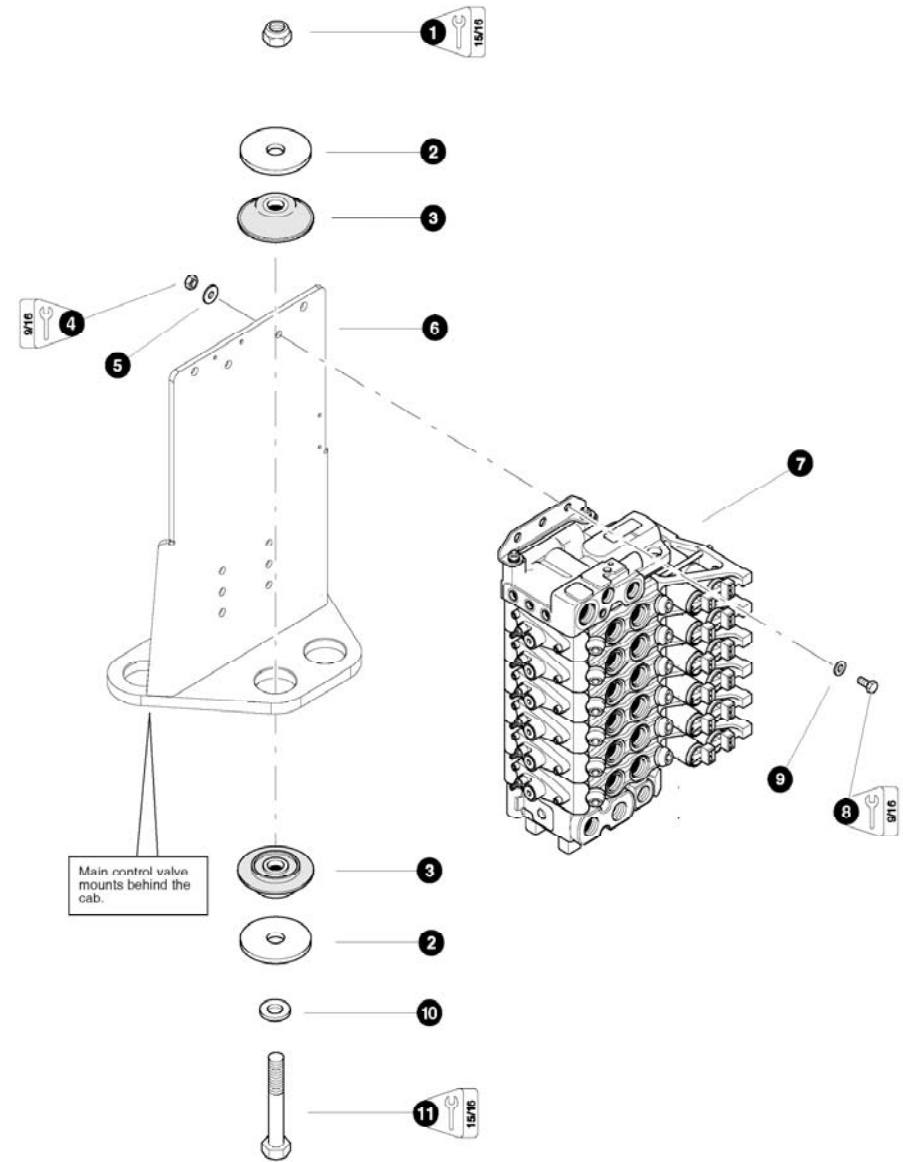


MAIN CONTROL VALVE MOUNTING

(machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	18483-LH	1	INSULATION, soundproof	
2	10402-LH	4	ROI T - 3/8" x 1-1/4"	
3	15528-LH	8	WASHER, SAE flat - 3/8"	
4	10816-LH	3	NUT, lock - 5/8"	
5	15524-LH	3	WASHER, isolator mount	
6	10723-LH	3	BOLT - 5/8" x 4-1/2"	
7	15525-LH	3	ISOLATOR, valve mount	
8	15507-LH	4	NUT, nylock - 3/8"	
9	REF.	1	MAIN CONTROL VALVE.....	LH-2
10	14260-LH	1	BRACKET, main control valve mounting	

See referenced page for component or assembly breakdown.



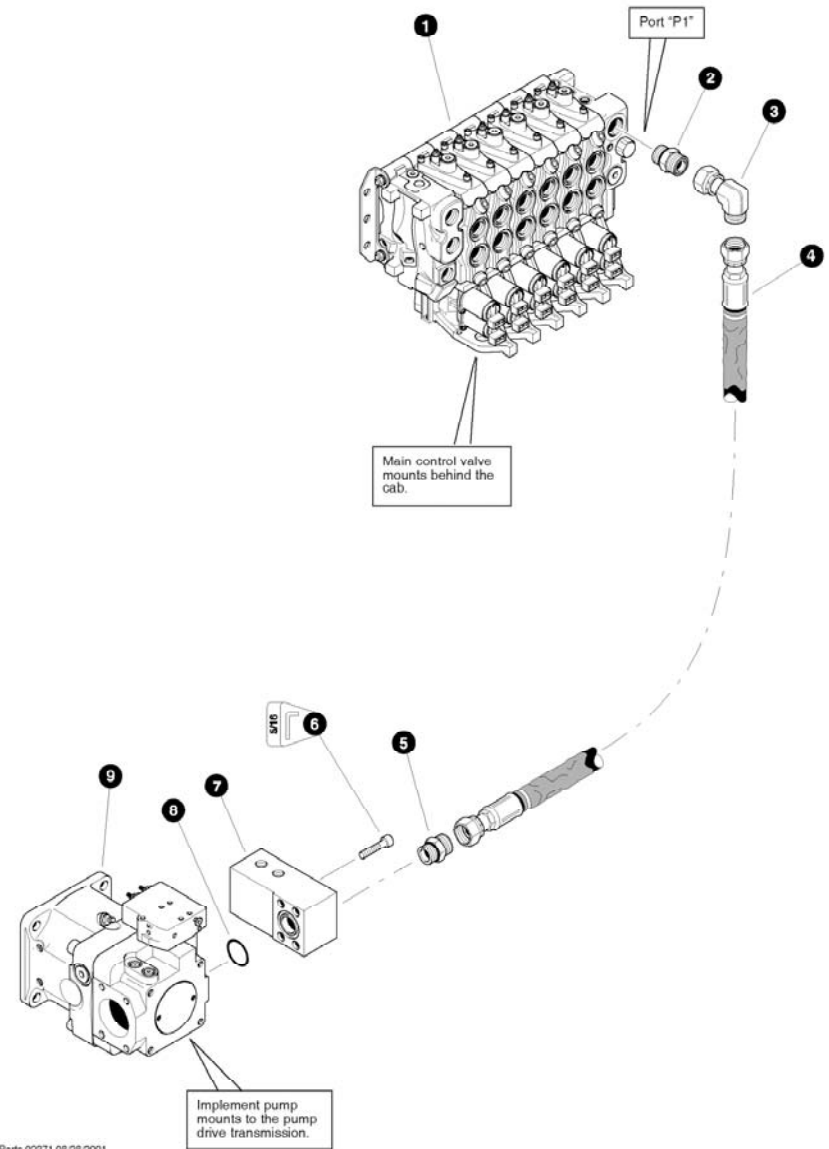
Parts T2730 06/27/03
25.00

MAIN CONTROL VALVE MOUNTING

(machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	10817-LH	4	NUT, lock 3/4"	
2	17918-LH	8	WASHER, isolator .875 x .3.5	
3	17904-LH	4	ISOLATOR, engine mount	
4	10813-LH	4	NUT, lock 3/8"	
5	10802-LH	4	WASHER, flat 3/8"	
6	50900-LH	1	BRACKET, vertical valve mount	
7	REF	1	MAIN CONTROL VALVE.....	LH-2
8	15507-LH	4	BOLT, 3/8 X 1 1/4"	
9	15528-LH	1	WASHER, SAE 3/8"	
10	15528-LH	1	WASHER, SAE 3/4"	
11	10844-LH	4	BOLT, 3/4 X 5"	

See referenced page for component or assembly breakdown.



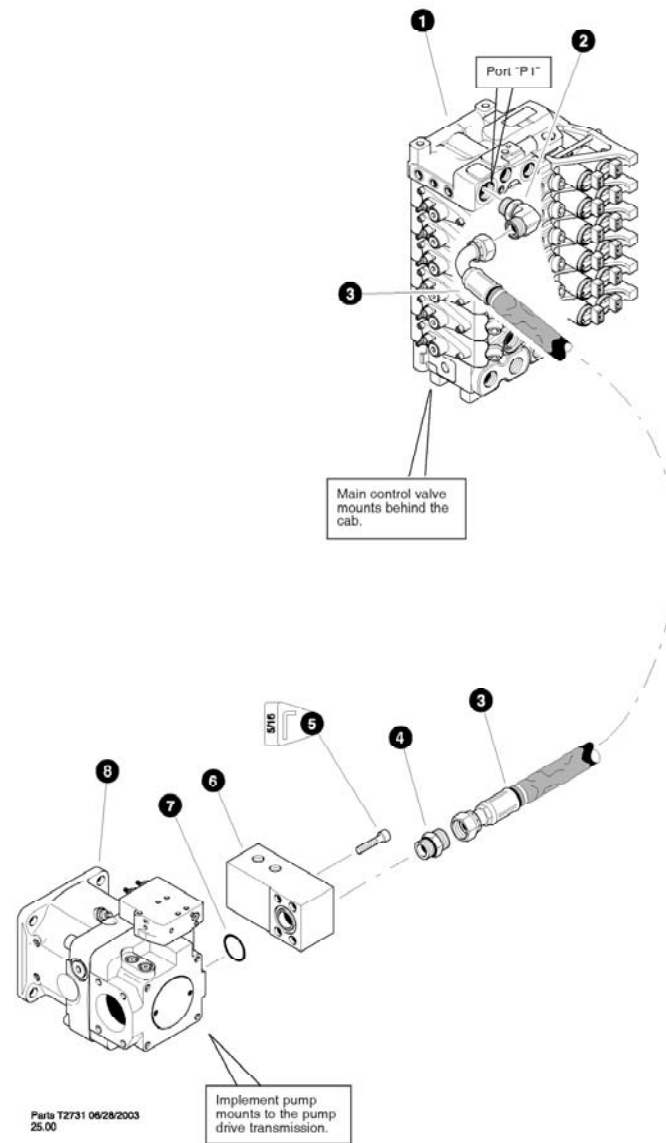
Parts 02371 08/28/2001
25.00

IMPLEMENT PUMP PRESSURE LINE TO MAIN CONTROL VALVE

(machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE	LH-2
2	15152-I H	1	CONNECTOR, straight - FF1852T-1212S	
3	10359-LH	1	ELBOW, 90° swivel - 1501-12-12	
4	24457-LH	1	HOSE ASSEMBLY - 4070-12-120S-120S-W (Implement pump pressure outlet to main control valve pressure inlet port "P1")	
5	15226-LH	1	CONNECTOR, straight - FF1852T-1216S	
6	22729-LH	4	BOLT, allen head - 7/16" x 2-1/2" (Used with 95cc pump)	
7	22704-LH	1	MANIFOLD, valve/clam pressure (Used with 95cc pump)	
8	15377-LH	1	O-RING - 1" SF (Used with 95cc pump)	
9	REF.	1	☐ IMPLEMENT PUMP	LH-1

☐ See referenced page for component or assembly breakdown.



Parts T2731 06/28/2003
25.00

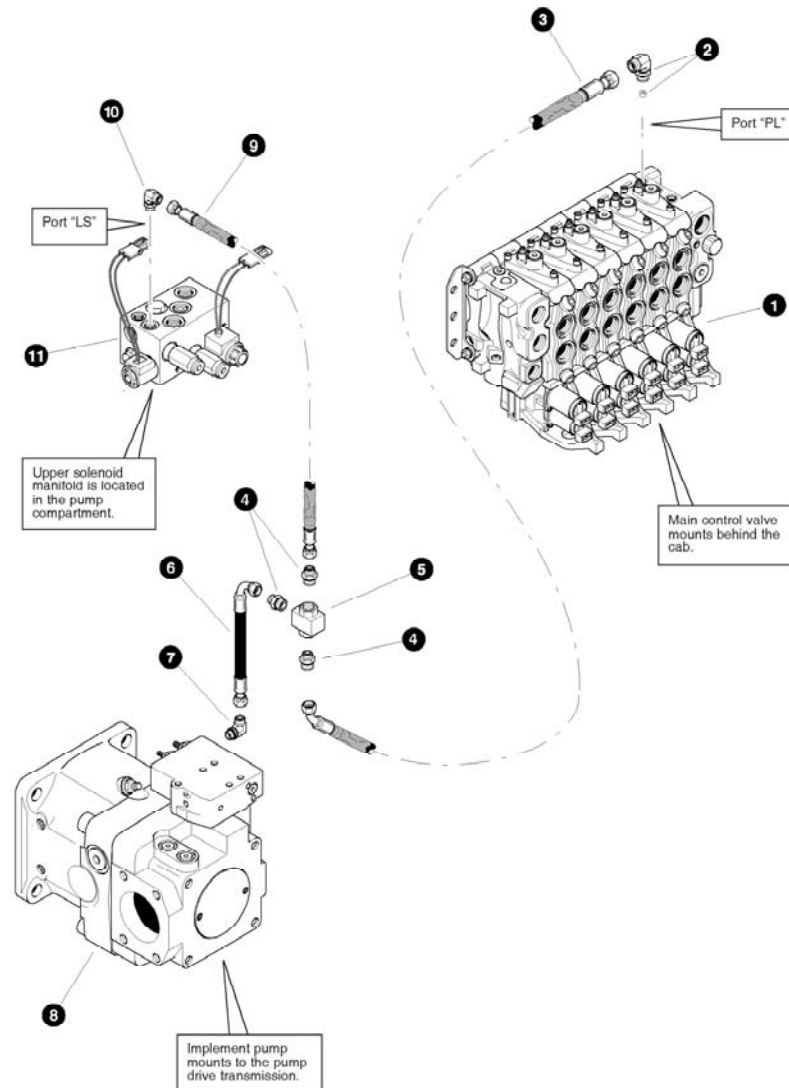
Implement pump
mounts to the pump
drive transmission.

IMPLEMENT PUMP PRESSURE LINE TO MAIN CONTROL VALVE

(machines built AFTER 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN CONTROL VALVE	LH-2
2	17688-I H	1	FI ROW, 90 12-12	
3	50922-LH	1	HOSE ASSEMBLY - 4060-12-120S-1209 (Implement pump pressure outlet to main control valve pressure inlet port "P1")	
4	15226-LH	1	CONNECTOR, straight - FF1852T-1216S	
5	22729-LH	4	BOLT, allen head - 7/16" x 2-1/2" (Used with 95cc pump)	
6	22704-LH	1	MANIFOLD, valve/clam pressure (Used with 95cc pump)	
7	15377-LH	1	O-RING - 1" SF (Used with 95cc pump)	
8	REF.	1	IMPLEMENT PUMP	LH-1

See referenced page for component or assembly breakdown.



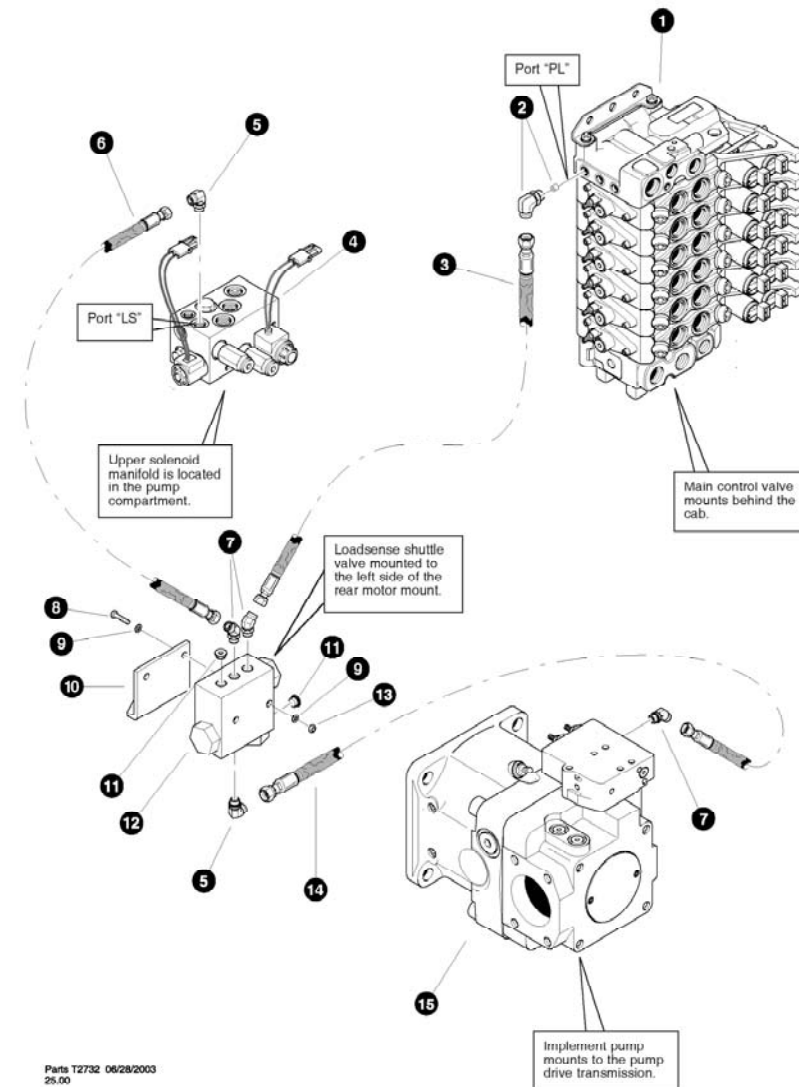
Parts 02372 0020/2001
25.00

MAIN CONTROL VALVE LOAD SENSE LINES
(Without Optional Clam Bunk Installed)

(machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN CONTROL VALVE	LH-2
2	24093-LH	1	FI ROW, 90° - FF1868T-0606 (With 0.024" orifice)	
	24091-LH	1	ORIFICE - 0.024"	
3	23649-LH	1	HOSE ASSEMBLY - 2090-06-060S-0604-W (Load sense shuttle to load sense valve port, hose is looped to provide shock absorber effect on signal)	
4	18034-LH	1	CONNECTOR, straight - FF1852T-0606S	
5	20265-LH	1	VALVE, shuttle - load sense signal	
6	23703-LH	1	HOSE ASSEMBLY - 2006.5-06-060S-0609-W (Load sense valve to implement pump compensator port.)	
7	18481-LH	1	ELBOW, 90° - FF2032T-0606S	
8	REF.	1	IMPLEMENT PUMP	LH-1
9	23646-LH	1	HOSE ASSEMBLY - 2014-06-060S-0604-W (Upper solenoid port "PL" to load sense valve port, load sense shuttle)	
10	REF.	1	UPPER SOLENOID MANIFOLD	UP-4

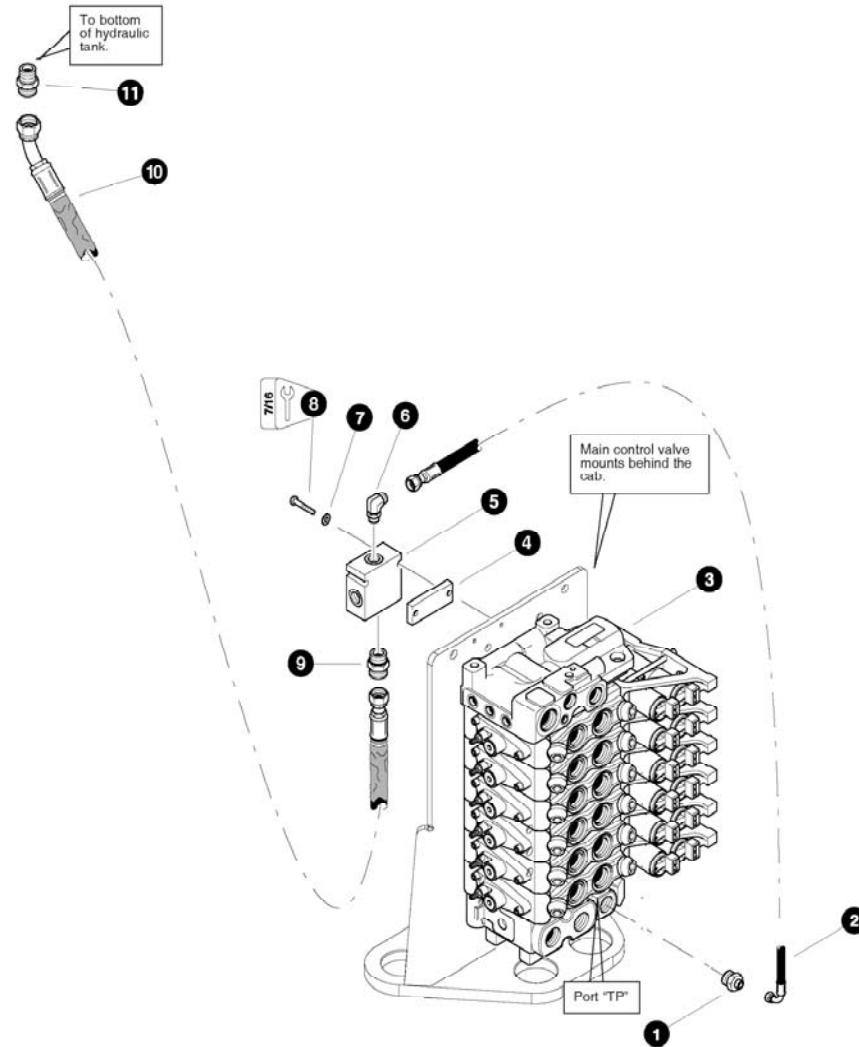
See referenced page for component or assembly breakdown.



MAIN CONTROL VALVE PILOT DRAIN LINE (machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN CONTROL VALVE.....	LH-2
2	15504-LH	1	CONNECTOR, straight - FF1852T-0408S	
3	23641-LH	1	HOSE ASSEMBLY - 2028-04-040S-0409S (Main control valve port "TP" to combined tank manifold)	
4	15568-LH	2	BOLT - 1/4" x 2"	
5	10757-LH	2	WASHER, SAE flat - 1/4"	
6	23502-LH	1	MANIFOLD, combined tank	
7	15133-LH	1	ELBOW, 90° - FF1868T-0406S	
8	23541-LH	1	TEE, 4 56LO-5	
9	15145-LH	1	ELBOW, 90° swivel - FF2098T-0404S	
10	23705-LH	1	HOSE ASSEMBLY - 2075-08-080S-0804-W (Combined tank manifold to bottom of hydraulic tank)	
11	15258-LH	1	CONNECTOR, straight - FF2031T-0808S	

See referenced page for component or assembly breakdown.

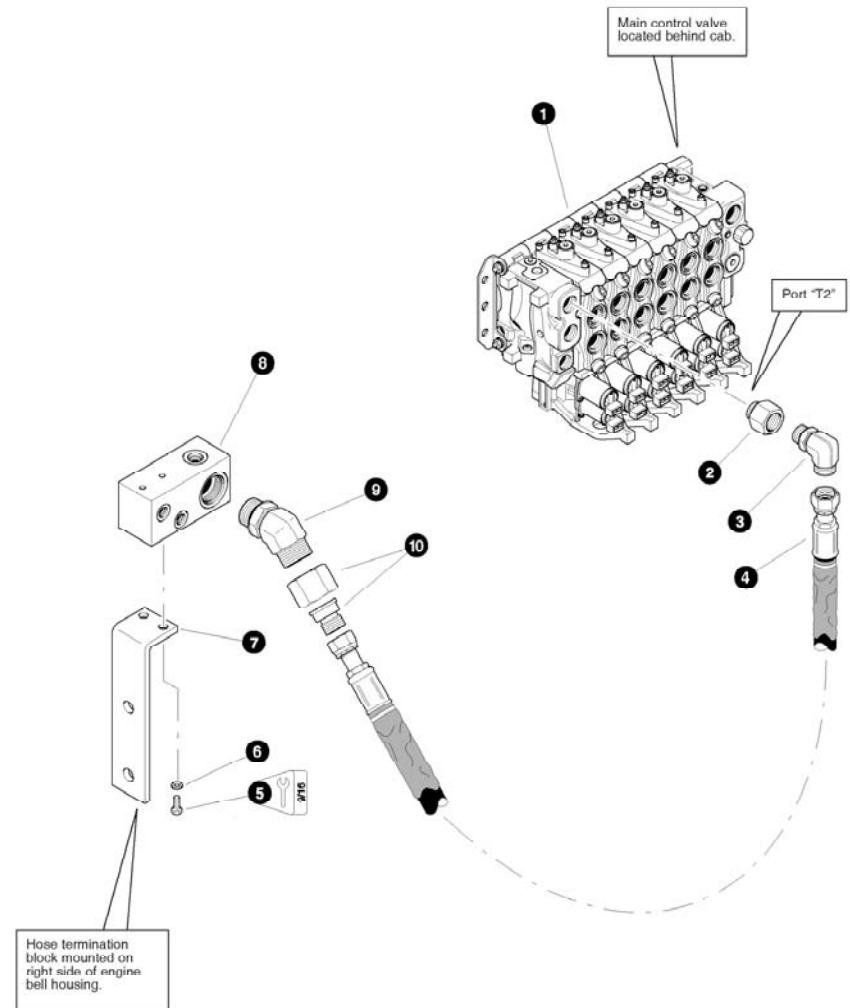


Parts 02733 07/03/2003
25.00

**MAIN CONTROL VALVE PILOT DRAIN LINE
(machines built after 05-13-03)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	15504-LH	1	CONNECTOR, straight - FF1852T-0408S	
2	50704-LH	1	HOSE ASSEMBLY - 2028-04-040S-0409S (Main control valve port "TP" to combined tank manifold)	
3	REF.	1	☐ MAIN CONTROL VALVE.	LH-2
4	22326-LH	1	SPACER	
5	23502-LH	1	MANIFOLD, combined tank	
6	15133-LH	1	ELBOW, 90 04X06	
7	10800-LH	2	WASHER, 1/4	
8	15508-LH	2	BOLT 1/4 X 2,5	
9	15115-LH	1	CONNECTOR, straight -08X10S	
10	50656-LH	1	HOSE ASSEMBLY - 2075-08-080S-0804-W (Combined tank manifold to bottom of hydraulic tank)	
11	15258-LH	1	CONNECTOR, straight - FF2031T-0808S	

☐ See referenced page for component or assembly breakdown.



Parts 01681 07/27/2000
25.00

**MAIN CONTROL VALVE RETURN LINE
(Main Control Valve To Hose Termination Block)**

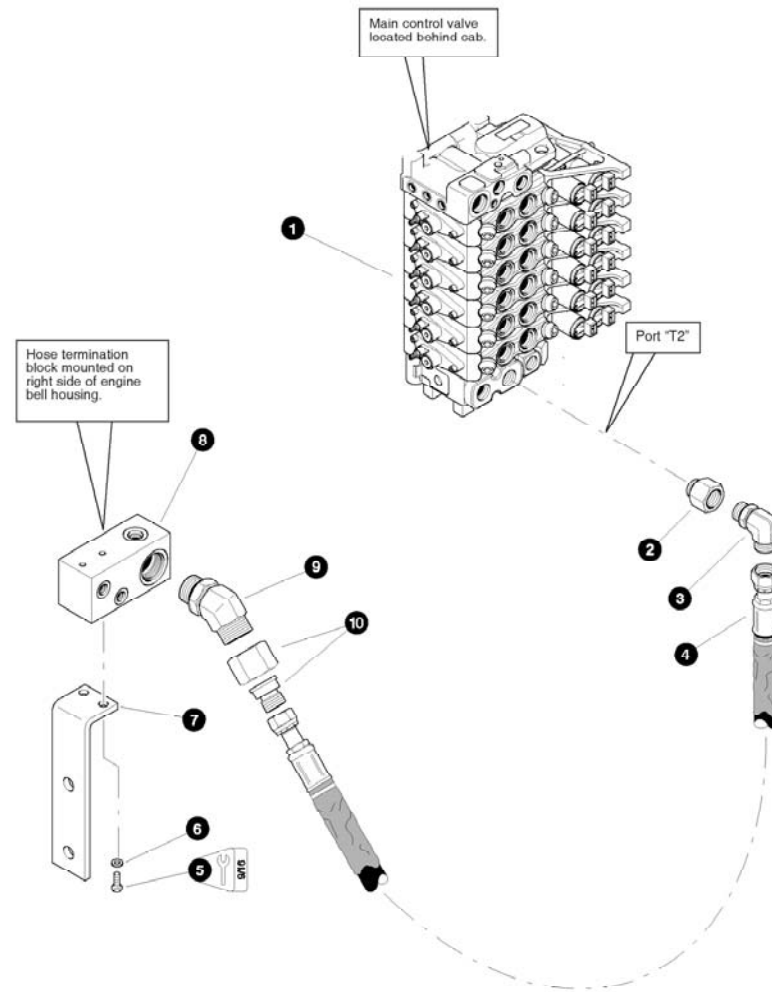
(machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE.....	LH-2
2	22461-LH	1	BUSHING, reducer - 6410-20-16	
3	17688-LH	1	ELBOW, 90° - FF1868T-1616S	
4	23003-LH	1	HOSE ASSEMBLY - 2050-16-160S-160S-W (Main control valve port T2 to hose termination block)	
5	11707-LH	2	BOLT - 3/8" x 1" (See Note Below)	
6	15528-LH	2	WASHER, 3/8"	
7	22911-LH	1	BRACKET, hose termination block	
8	20025-LH	1	BLOCK, hose termination	
9	17056-LH	1	ELBOW, 45° - FF1868T-2020S	
10	20455-LH	1	CONNECTOR, reducer - ORS FF2281T-1620S	

☐ See referenced page for component or assembly breakdown.

Note:

Use Loctite 242 during installation



Parts T2734 07/03/2003
25.00

MAIN CONTROL VALVE RETURN LINE
(Main Control Valve To Hose Termination Block)

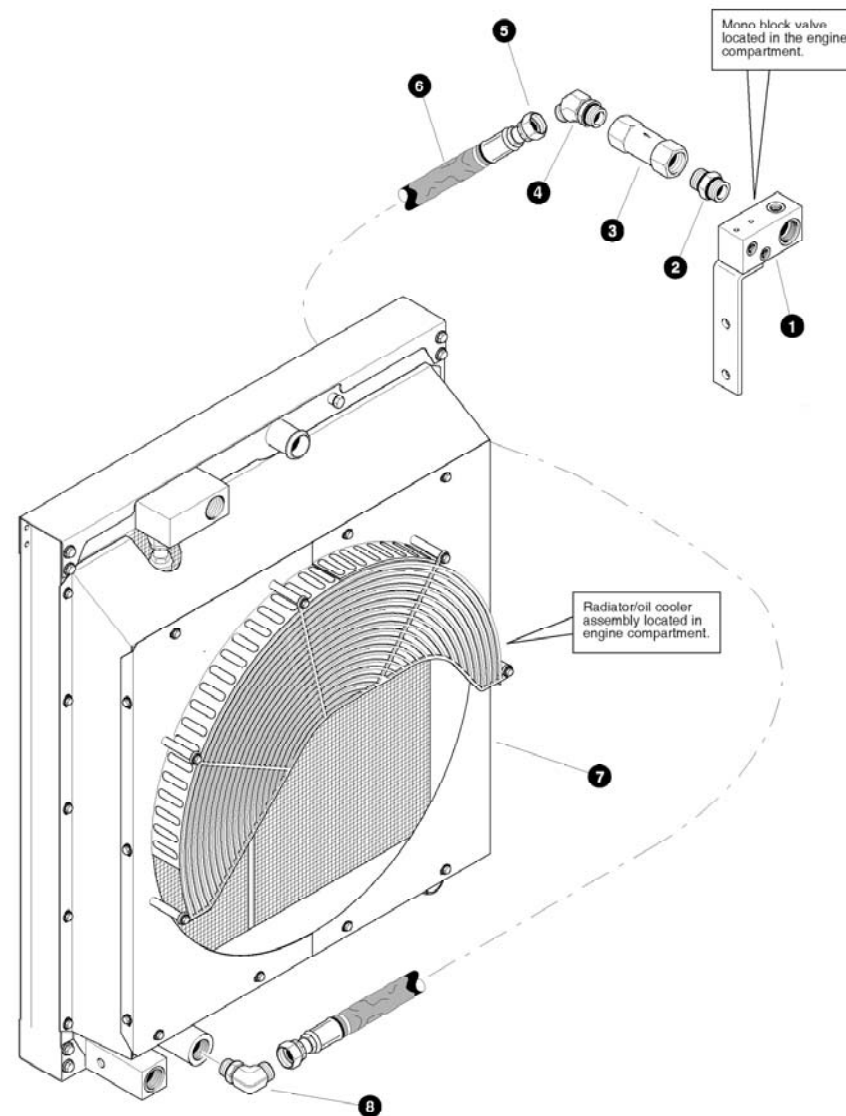
(machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	<input type="checkbox"/> MAIN CONTROL VALVE.....	LH-2
2	22461-LH	1	BUSHING, reducer - 6410-20-16	
3	17688-LH	1	ELBOW, 90° - FF1868T-1616S	
4	50719-LH	1	HOSE ASSEMBLY - 2050-16-160S-160S (Main control valve port T2 to hose termination block)	
5	11707-LH	2	BOLT - 3/8" x 1" (See Note Below)	
6	15528-LH	2	WASHER, 3/8"	
7	22911-LH	1	BRACKET, hose termination block	
8	20025-LH	1	BLOCK, hose termination	
9	17056-LH	1	ELBOW, 45° - FF1868T-2020S	
10	20455-LH	1	CONNECTOR, reducer - ORS FF2281T-1620S	

See referenced page for component or assembly breakdown.


Note:

Use Loctite 242 during installation

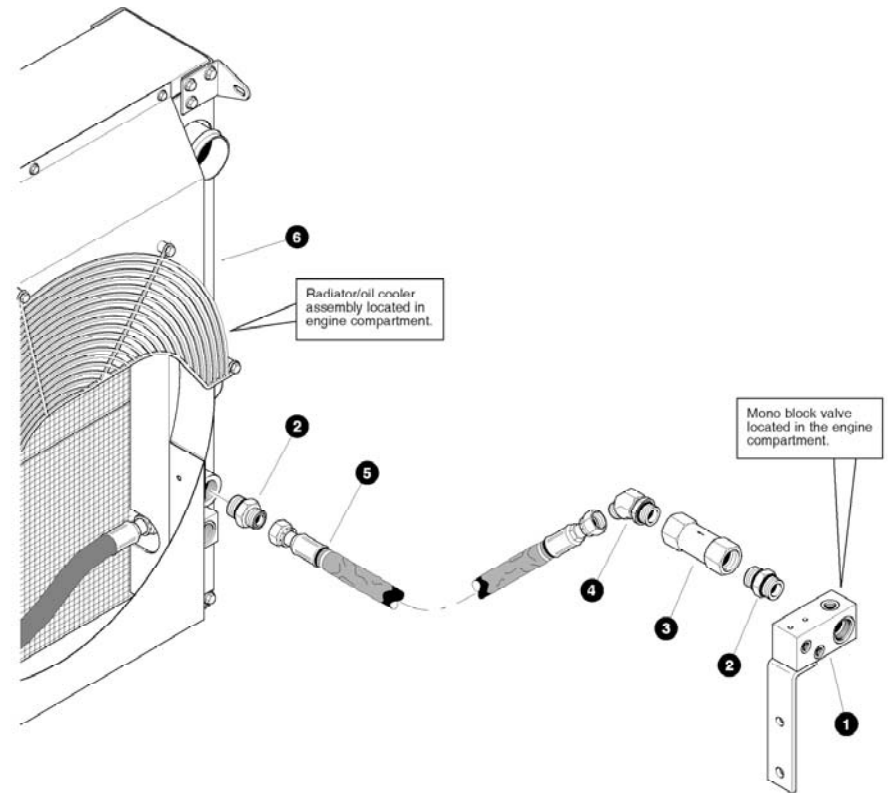


Parts 02374 08/30/2001
18.75

MAIN CONTROL VALVE RETURN LINE
(Hose Termination Block To High Cool Oil Cooler)
(non-electronic engine)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	20025-LH	1	BLOCK, hose termination (used before 6-1-04)	
-	51450-LH		BLOCK, hose termination (no swing ports)	
2	19450-LH	1	CONNECTOR, straight - 16-20 F50L0-S	
3	21145-LH	1	VALVE, check - 150 psi	
4	16543-LH	1	ELBOW, 45 - FF2098T-1620S	
5	19291-LH	1	BUSHING, reducer - 6410-12-16	
6	24509-LH	1	HOSE ASSEMBLY - 2061-16-160S-160S-W (Hose termination block outlet check valve to oil cooler bottom port)	
7	REF.	1	 RADIATOR/OIL COOLER ASSEMBLY.....	EN-1
8	22941-LH	1	ELBOW, 90 - 16-20 CSOLO-S	

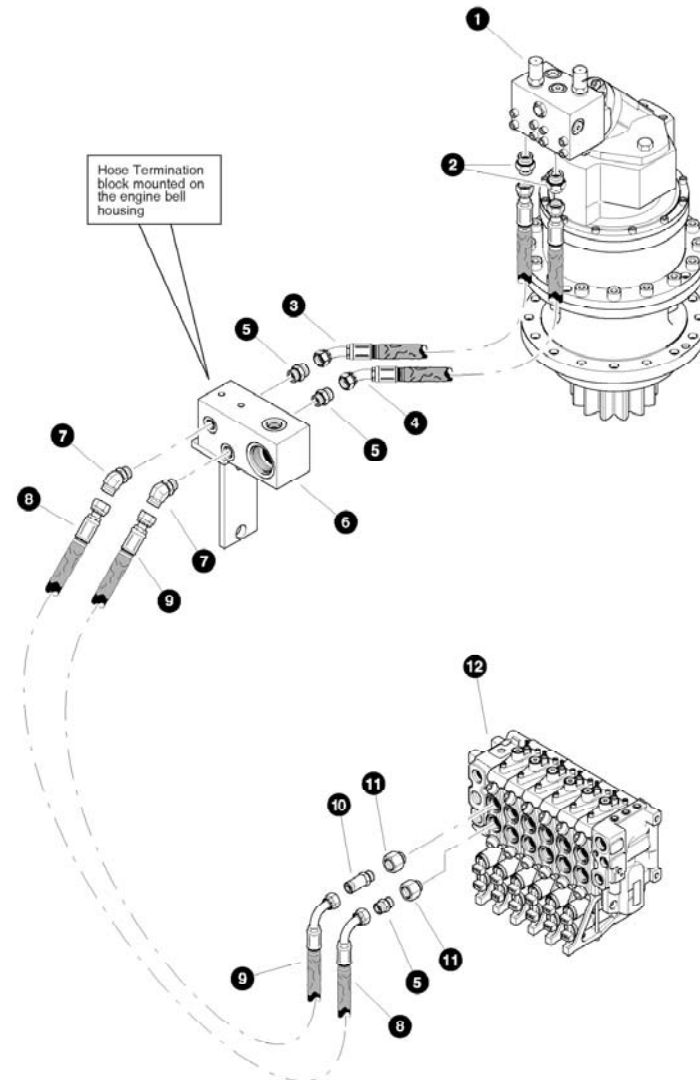
 See referenced page for component or assembly breakdown.



Section LH-4



Loader Implements Valve Connections

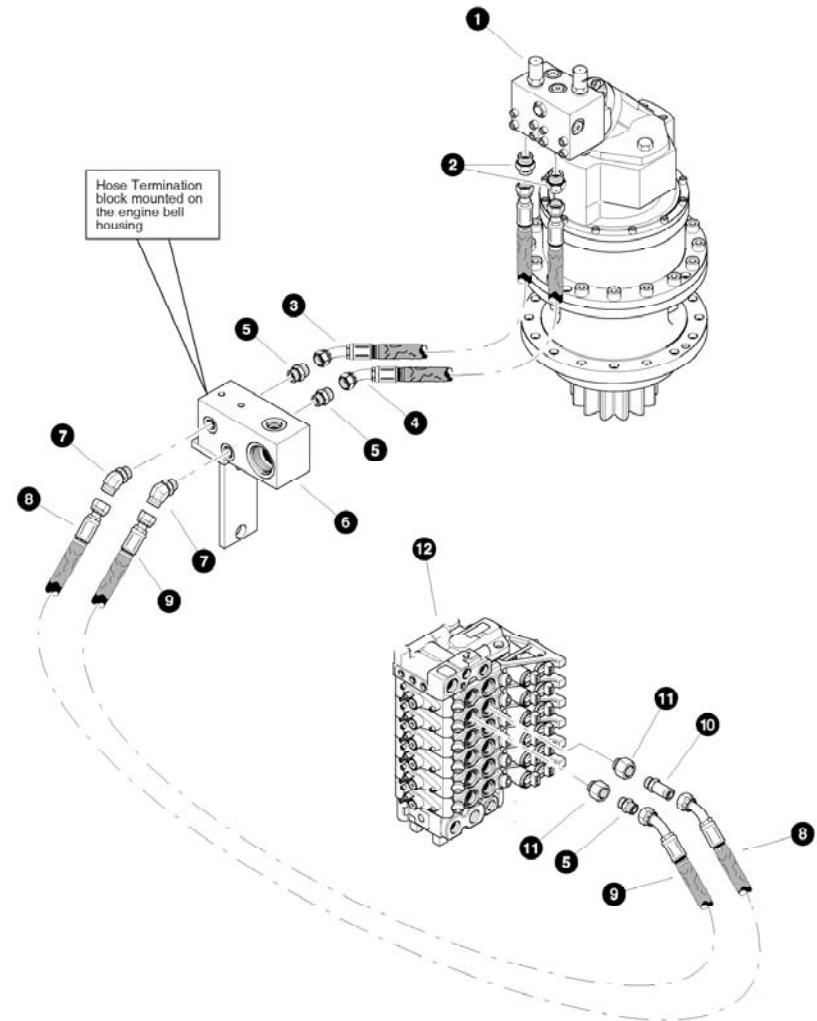


Parts T2735 07/03/2003
18.75

SWING FUNCTION LINES
(machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MOTOR/GEARBOX - SWING	UP-2
2	15238-LH	2	CONNECTOR, straight - FF1852T - 0812S	
3	50712-LH	1	HOSE ASSEMBLY - 4050-08-080S-0804	
4	50711-LH	1	HOSE ASSEMBLY - 4046-08-080S-0804	
5	15117-LH	3	CONNECTOR, straight - FF1852T-0808S	
6	REF.	1	BLOCK, Hose termination	LH-3
7	19126-LH	2	ELBOW, 45° - FF2068T-0808S	
8	50714-LH	1	HOSE ASSEMBLY - 4059-08-080S-0809	
9	50713-LH	1	HOSE ASSEMBLY - 4056-08-080S-0809	
10	19091-LH	1	CONNECTOR, straight long- FF1852T - 0808S	
11	19290-LH	2	BUSHING, reducer - 6410-8-10	
12	REF.	1	MAIN CONTROL VALVE	LH-2

See referenced page for component or assembly breakdown.

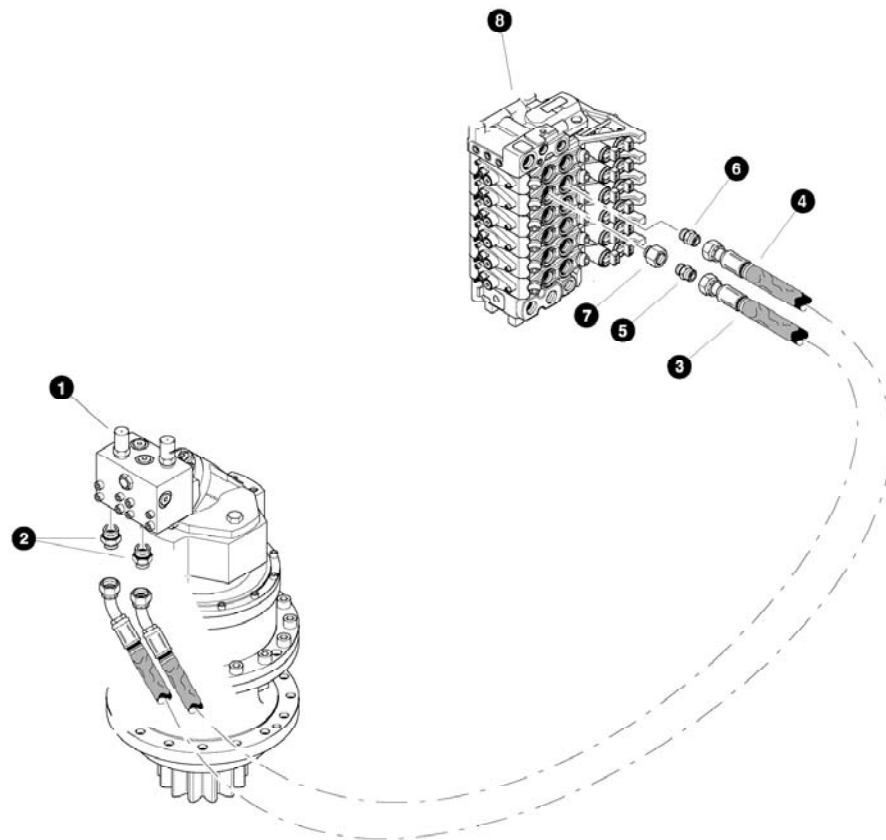


Parts T2736 07/07/2003
18.75

**SWING FUNCTION LINES
(machines built before 08-30-03)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MOTOR/GEARBOX - SWING	UP-2
2	15238-LH	2	CONNECTOR, straight - FF1852T - 0812S	
3	50712-LH	1	HOSE ASSEMBLY - 4050-08-080S-0804	
4	50711-LH	1	HOSE ASSEMBLY - 4046-08-080S-0804	
5	15117-LH	3	CONNECTOR, straight - FF1852T-0808S	
6	REF.	1	BLOCK, Hose termination	LH-3
7	19126-LH	2	ELBOW, 45° - FF2068T-0808S	
8	50923-LH	1	HOSE ASSEMBLY - 4067-08-080S-0804	
9	50923-LH	1	HOSE ASSEMBLY - 4067-08-080S-0804	
10	19091-LH	1	CONNECTOR, straight long- FF1852T - 0808S	
11	19290-LH	2	BUSHING, reducer - 6410-8-10	
12	REF.	1	MAIN CONTROL VALVE	LH-2

☐ See referenced page for component or assembly breakdown.

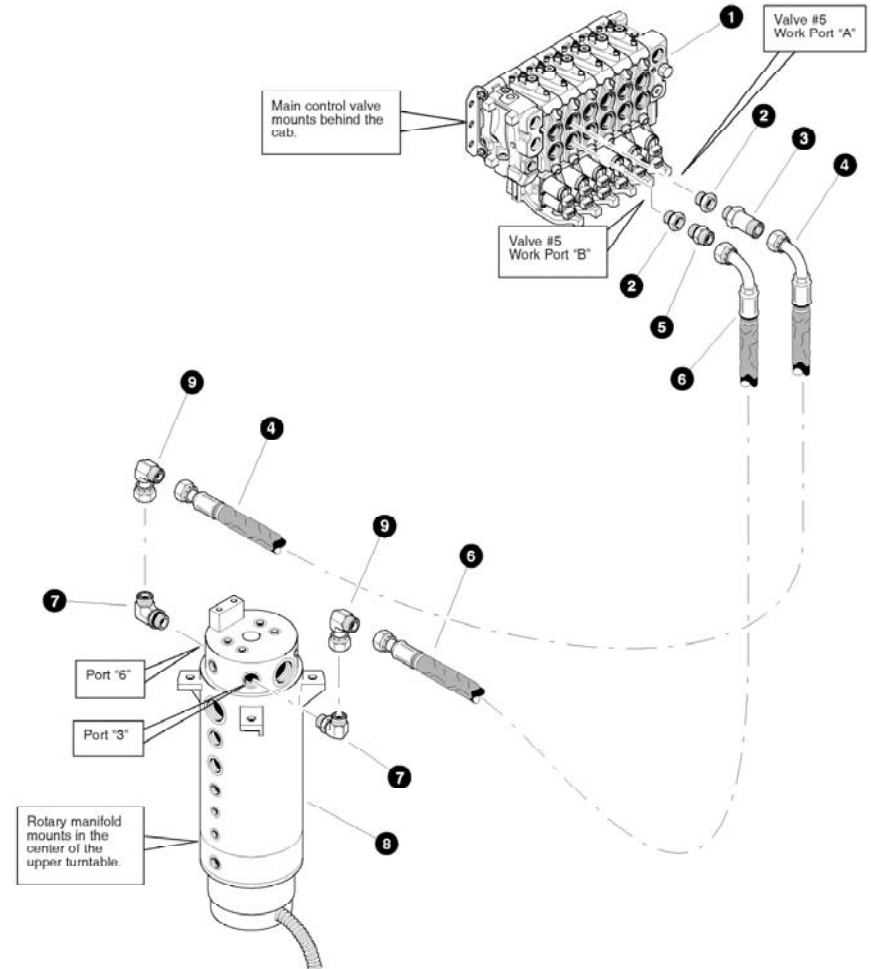


Parts T3004 05/07/2004
18.75

**SWING FUNCTION LINES
(machines built after 08-30-03)**

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MOTOR/GEARBOX - SWING	UP-2
2	15238-LH	2	CONNECTOR, straight - FF1852T - 0812S	
3	51416-LH	1	HOSE ASSEMBLY - 4114-08-080S-0804	
4	-LH	1	HOSE ASSEMBLY - 4119-08-080S-0804	
5	15117-LH	1	CONNECTOR, straight - FF1852T-0808S	
6	15115-LH	1	CONNECTOR, STR - 848-TTO-08X10	
7	19290-LH	1	BUSHING, reducer - 6410-8-10	
8	REF.	1	MAIN CONTROL VALVE	LH-2

See referenced page for component or assembly breakdown.



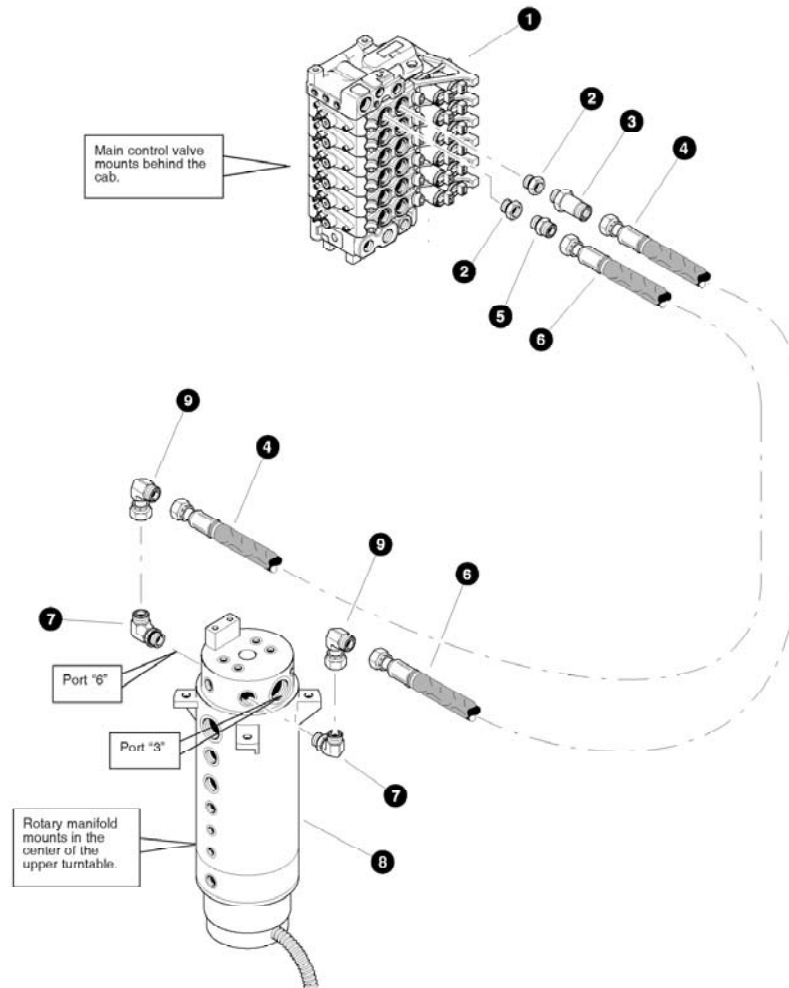
Parts T2737 07/07/2003
18.75

STEER FUNCTION LINES
(Main Control Valve To Upper Rotary Manifold Ports)

(machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN CONTROL VALVE	LH-2
2	19289-I H	2	RUSHING, reducer - 6410-10-12	
3	19092-LH	1	CONNECTOR, straight long - FF1854T-1212S	
4	23048-LH	1	HOSE ASSEMBLY - 4063-12-120S-1209-W (Steer valve section #5 work port "A" to upper rotary manifold port #6)	
5	15152-LH	1	CONNECTOR, straight - FF1852T-1212S	
6	23146-LH	1	HOSE ASSEMBLY - 4054-12-120S-1209-W (Steer valve section #5 work port "B" to upper rotary manifold port #3)	
7	17688-LH	1	ELBOW, 90° - FF1868T-1212S	
8	REF.	1	ROTARY MANIFOLD	UP-1
9	17670-LH	1	ELBOW, 90° swivel - FF2098T-1212S	

See referenced page for component or assembly breakdown.



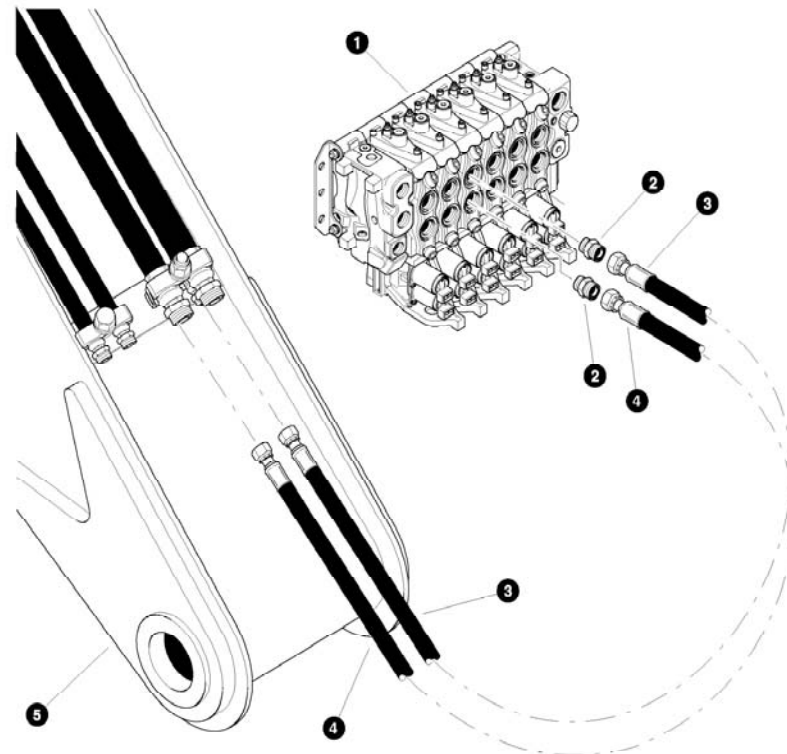
Parts T2738 07/07/2003
10.75

STEER FUNCTION LINES
(Main Control Valve To Upper Rotary Manifold Ports)

(machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE	LH-2
2	19289-I H	2	RUSHING, reducer - 6410-10-12	
3	19092-LH	1	CONNECTOR, straight long - FF1854T-1212S	
4	51236-LH	1	HOSE ASSEMBLY - 4083-12-120S-1209 (Steer valve section #5 work port "A" to upper rotary manifold port #6)	
5	15152-LH	1	CONNECTOR, straight - FF1852T-1212S	
6	51235-LH	1	HOSE ASSEMBLY - 4075-12-120S-1209 (Steer valve section #5 work port "B" to upper rotary manifold port #3)	
7	17688-LH	1	ELBOW, 90° - FF1868T-1212S	
8	REF.	1	☐ ROTARY MANIFOLD	UP-1
9	17670-LH	1	ELBOW, 90° swivel - FF2098T-1212S	

☐ See referenced page for component or assembly breakdown.

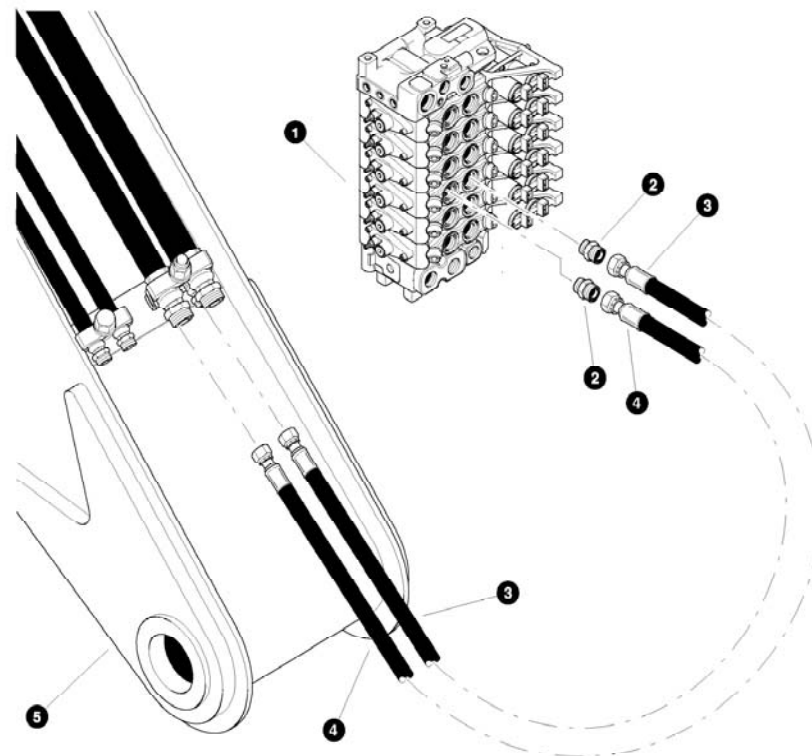


Parts T2741 07/06/2003
25.00

GRAPPLE OPEN/CLOSE FUNCTION
 (Main Control Valve To Main Boom Hoselines)
 (machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE	LH-2
2	15115-1R	2	CONNECTOR, straight - FF1852T-0810S	
3	16816-LB	1	HOSE ASSEMBLY - 4072-08-080S-080S (Grapple valve section work port "A" to main boom lower cab-side hoseline)	
4	22926-LB	1	HOSE ASSEMBLY - 4075-08-080S-080S (Grapple valve section work port "B" to main boom lower engine-side hoseline)	
5	REF.	1	☐ MAIN BOOM ASSEMBLY	LB-1

☐ See referenced page for component or assembly breakdown.

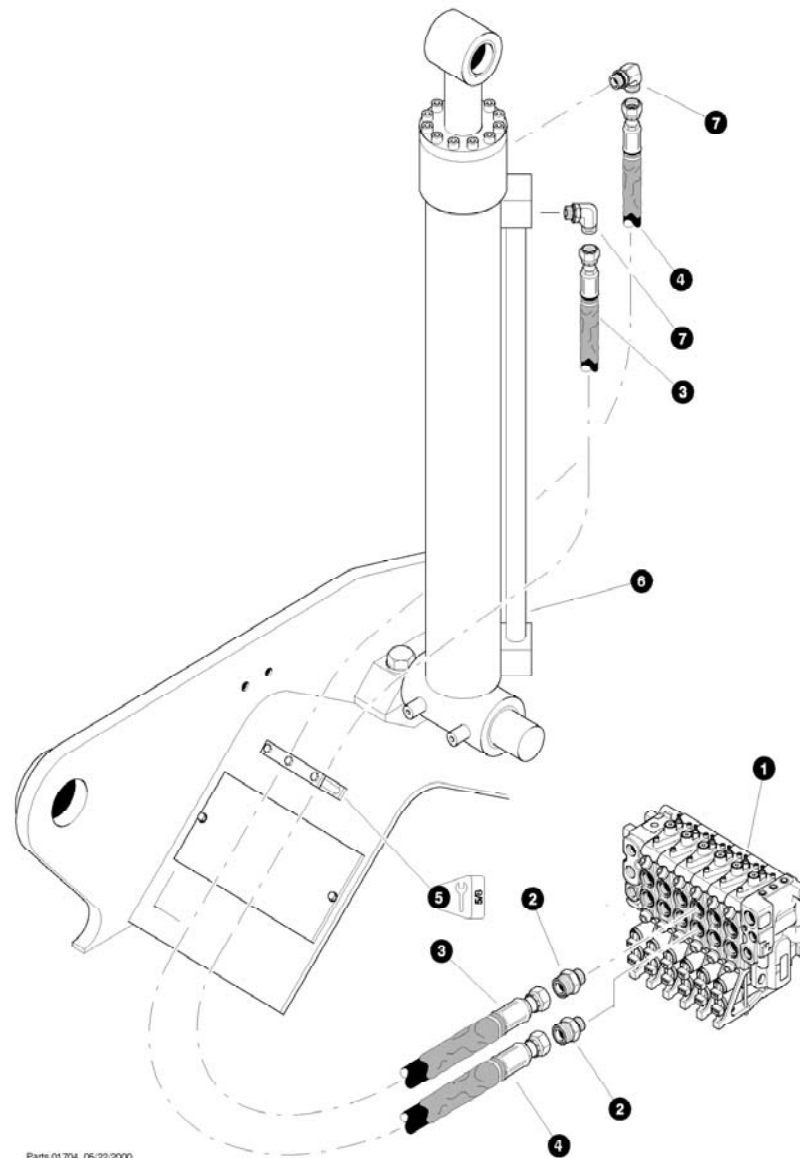


Parts T274C 07/06/2003
25.00

GRAPPLE OPEN/CLOSE FUNCTION
 (Main Control Valve To Main Boom Hoselines)
 (machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN CONTROL VALVE	LH-2
2	15115-1R	2	CONNECTOR, straight - FF1852T-0810S	
3	50928-LB	1	HOSE ASSEMBLY - 4057-08-080S-080S (Grapple valve section work port "B" to main boom engine-side hoseline)	
4	50928-LB	1	HOSE ASSEMBLY - 4057-08-080S-080S (Grapple valve section work port "A" to main boom lower cab-side hoseline)	
5	REF.	1	MAIN BOOM ASSEMBLY	LB-1

See referenced page for component or assembly breakdown.

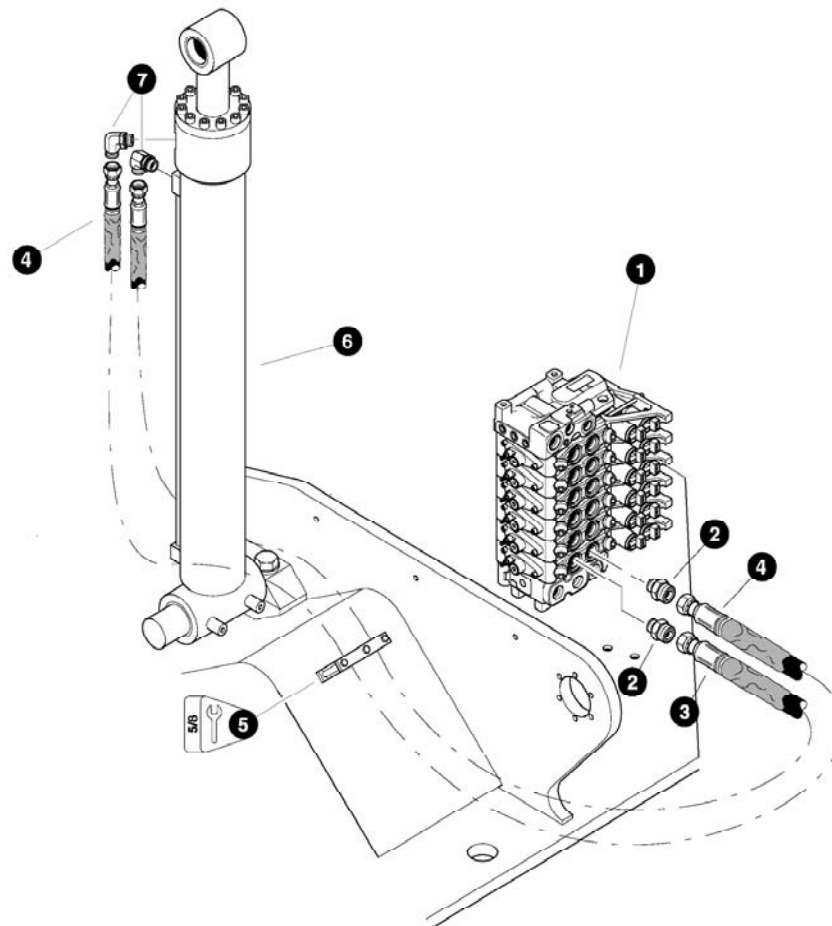


Parts 01704 06/20/2000
18.75

MAIN BOOM CYLINDER FUNCTION
 (Main Control Valve To Main Boom (Hoist) Cylinder)
 (machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN CONTROL VALVE	LH-2
2	16851-LB	2	CONNECTOR, straight - FF1852T-1210S	
3	23041-LB	1	HOSE ASSEMBLY - 4128.5-12-120S-120S-W (Main boom valve section #3 work port "A" to main boom cylinder base port)	
4	23042-LB	1	HOSE ASSEMBLY - 4130.5-12-120S-120S-W (Main boom valve section #3 work port "B" to main boom cylinder rod port)	
5	12270-LB	1	CLAMP, vermatic - 1-1/2" x 1-1/2"	
6	REF.	1	MAIN BOOM (HOIST) CYLINDER	LB-4
7	17688-LB	2	ELBOW, 90° - FF1868T-1212	

See referenced page for component or assembly breakdown.

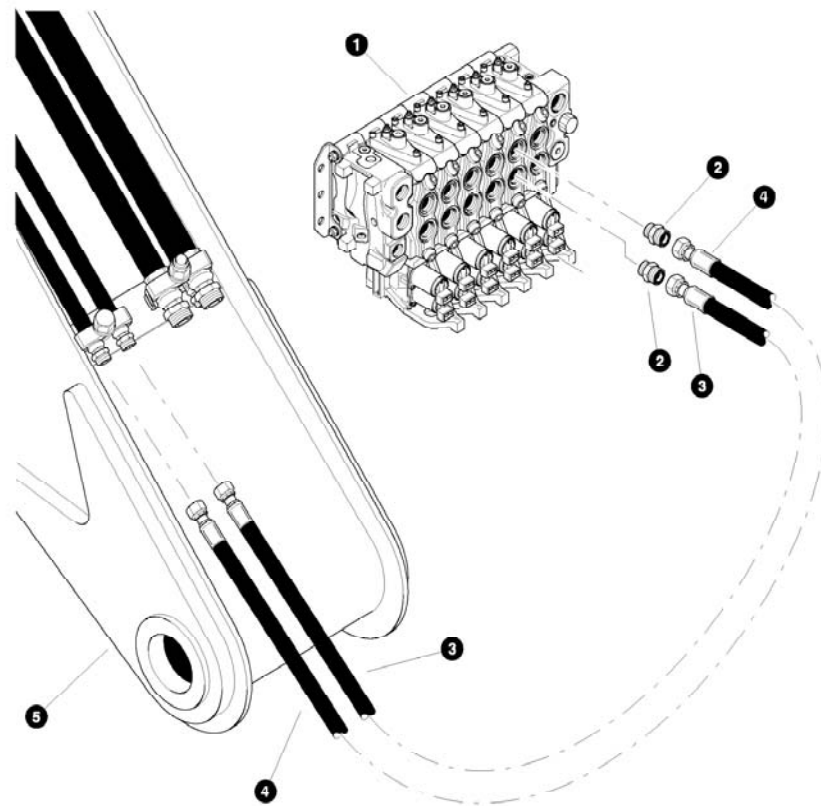


Parts T2743 07/00/2003
12.50

MAIN BOOM CYLINDER FUNCTION
 (Main Control Valve To Main Boom (Hoist) Cylinder)
 (machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE.....	LH-2
2	16851-LB	2	CONNECTOR, straight - FF1852T-1210S	
3	50824-LB	1	HOSE ASSEMBLY - 4128.5-12-120S-120S-W (Main boom valve section work port "A" to main boom cylinder base port)	
4	50825-LB	1	HOSE ASSEMBLY - 4130.5-12-120S-120S-W (Main boom valve section work port "B" to main boom cylinder rod port)	
5	12270-LB	1	CLAMP, vermatic - 1-1/2" x 1-1/2"	
6	REF.	1	☐ MAIN BOOM (HOIST) CYLINDER.....	LB-4
7	17688-LB	2	ELBOW, 90° - FF1868T-1212S	

☐ See referenced page for component or assembly breakdown.

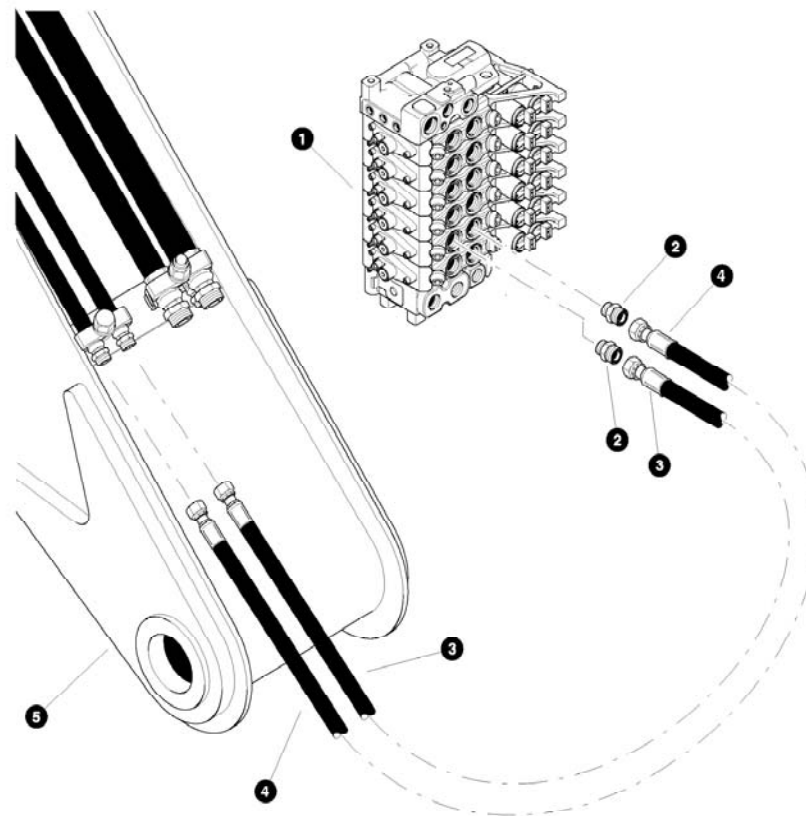


Parts T2739 07/06/2003
25.00

GRAPPLE ROTATE FUNCTION
 (Main Control Valve To Main Boom Hoselines)
 (machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE.....	LH-2
2	15115-LB	2	CONNECTOR, straight - FF1852T-0810S	
3	22991-LB	1	HOSE ASSEMBLY - 4074.5-08-080S-080S (Grapple rotate valve section work port "B" to main boom cab-side hoseline)	
4	22992-LB	1	HOSE ASSEMBLY - 4078.5-08-080S-080S (Grapple rotate valve section work port "A" to main boom engine-side hoseline)	
5	REF.	1	☐ MAIN BOOM ASSEMBLY.....	LB-1

☐ See referenced page for component or assembly breakdown.

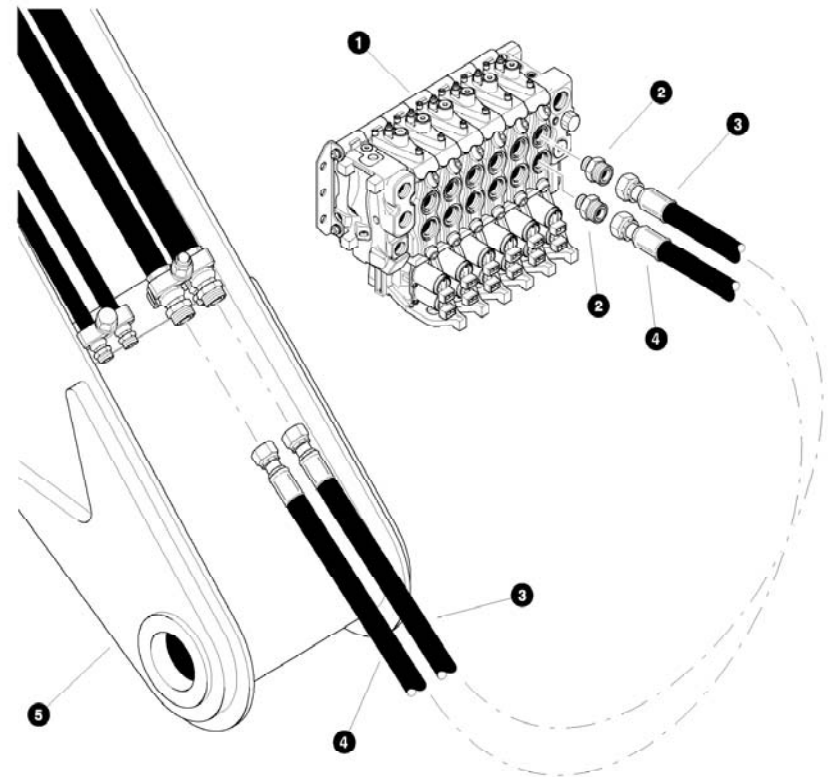


Parts T2740 07/06/2003
25.00

GRAPPLE ROTATE FUNCTION
 (Main Control Valve To Main Boom Hoselines)
 (machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE.....	LH-2
2	15115-LB	2	CONNECTOR, straight - FF1852T-0810S	
3	50927-LB	1	HOSE ASSEMBLY - 4061-08-080S-080S (Grapple rotate valve section work port "A" to main boom cab-side hoseline)	
4	50927-LB	1	HOSE ASSEMBLY - 4061-08-080S-080S (Grapple rotate valve section work port "B" to main boom engine-side hoseline)	
5	REF.	1	☐ MAIN BOOM ASSEMBLY.....	LB-1

☐ See referenced page for component or assembly breakdown.

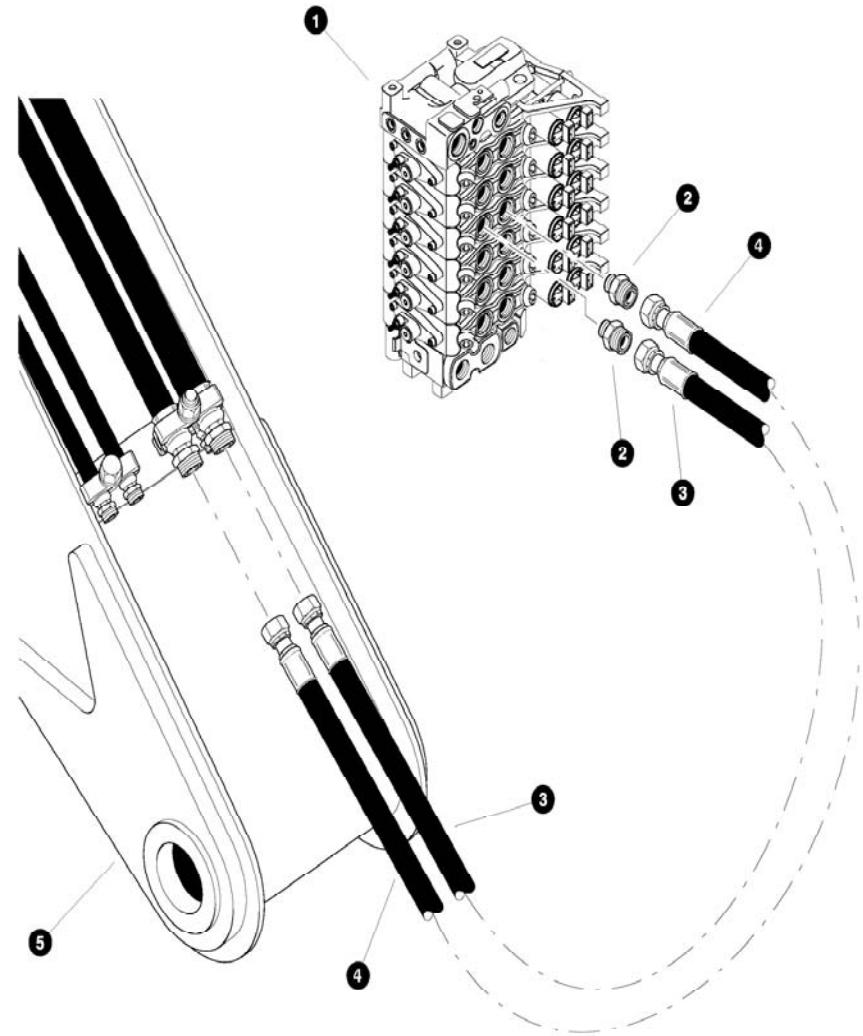


Parts 01701 0522/2000
25.00

STICK BOOM CYLINDER FUNCTION
(Main Control Valve To Main Boom Hoselines)
(machines built before 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	MAIN CONTROL VALVE.....	LH-2
2	16851-LB	2	CONNECTOR, straight - FF1852T-1210S	
3	18613-LB	1	HOSE ASSEMBLY - 4079-12-120S-120S (Stick boom valve section work port "A" to main boom upper cab-side hoseline)	
4	23040-LB	1	HOSE ASSEMBLY - 4080.5-12-120S-120S (Stick boom valve section work port "B" to main boom upper engine-side hoseline)	
5	REF.	1	MAIN BOOM ASSEMBLY.....	LB-1

See referenced page for component or assembly breakdown.

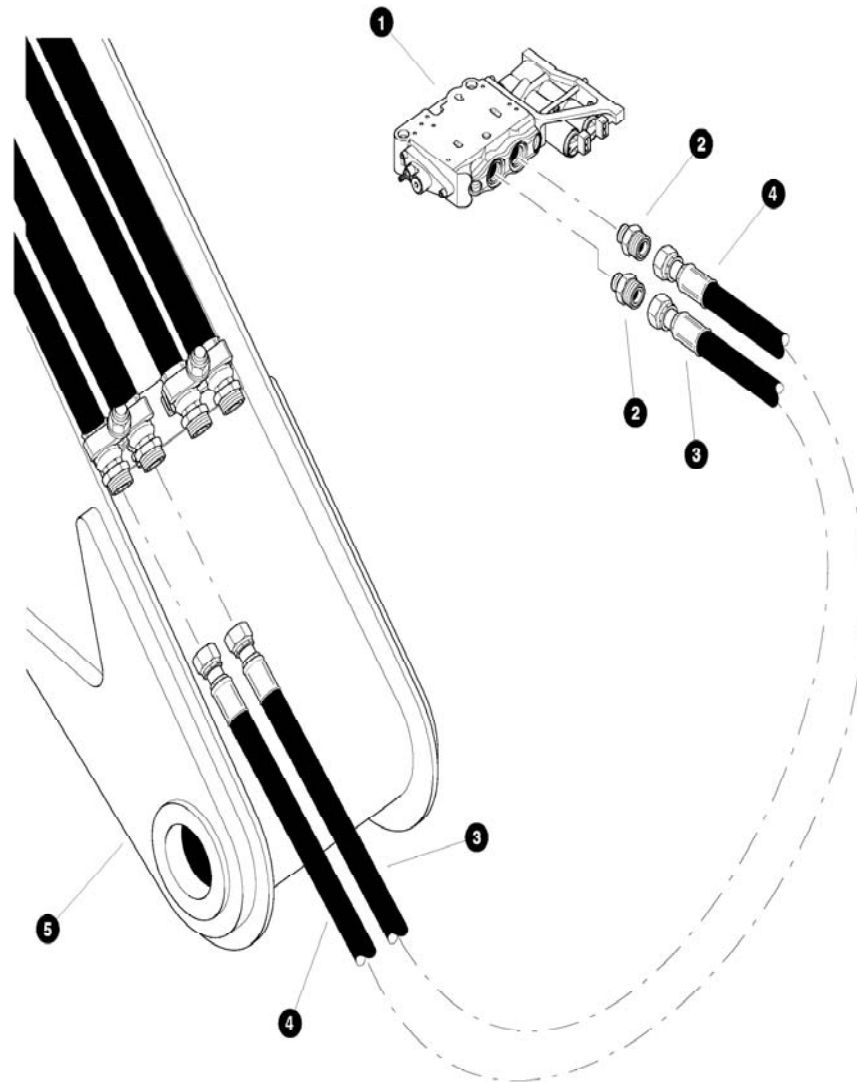


Parts T2744 07/08/2003
25.00

STICK BOOM CYLINDER FUNCTION
 (Main Control Valve To Main Boom Hoselines)
 (machines built after 05-13-03)

REF	PART #	QTY	DESCRIPTION	SEE SECTION
1	REF.	1	☐ MAIN CONTROL VALVE.....	LH-2
2	16851-LB	2	CONNECTOR, straight - FF1852T-1210S	
3	50931-LB	1	HOSE ASSEMBLY - 4056-12-120S-120S (Stick boom valve section work port "A" to main boom upper cab-side hoseline)	
4	50930-LB	1	HOSE ASSEMBLY - 4059-12-120S-120S (Stick boom valve section work port "B" to main boom upper engine-side hoseline)	
5	REF.	1	☐ MAIN BOOM ASSEMBLY.....	LB-1

☐ See referenced page for component or assembly breakdown.



Parts T3006 05/28/2004
25.00

