



PALADIN LIGHT CONSTRUCTION

INSTALLATION INSTRUCTIONS

FOR



BRADCO

HYDRAULIC LATCH ASSEMBLY

#101585

FOR

GEHL CTL60 / CTL70 / CTL80

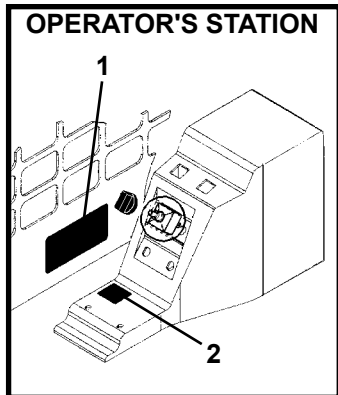
MUSTANG MTL16 / MTL20 / MTL25

TAKEUCHI TL130 / TL140 / T6L150

INSTRUCTIONS NUMBER: 76234

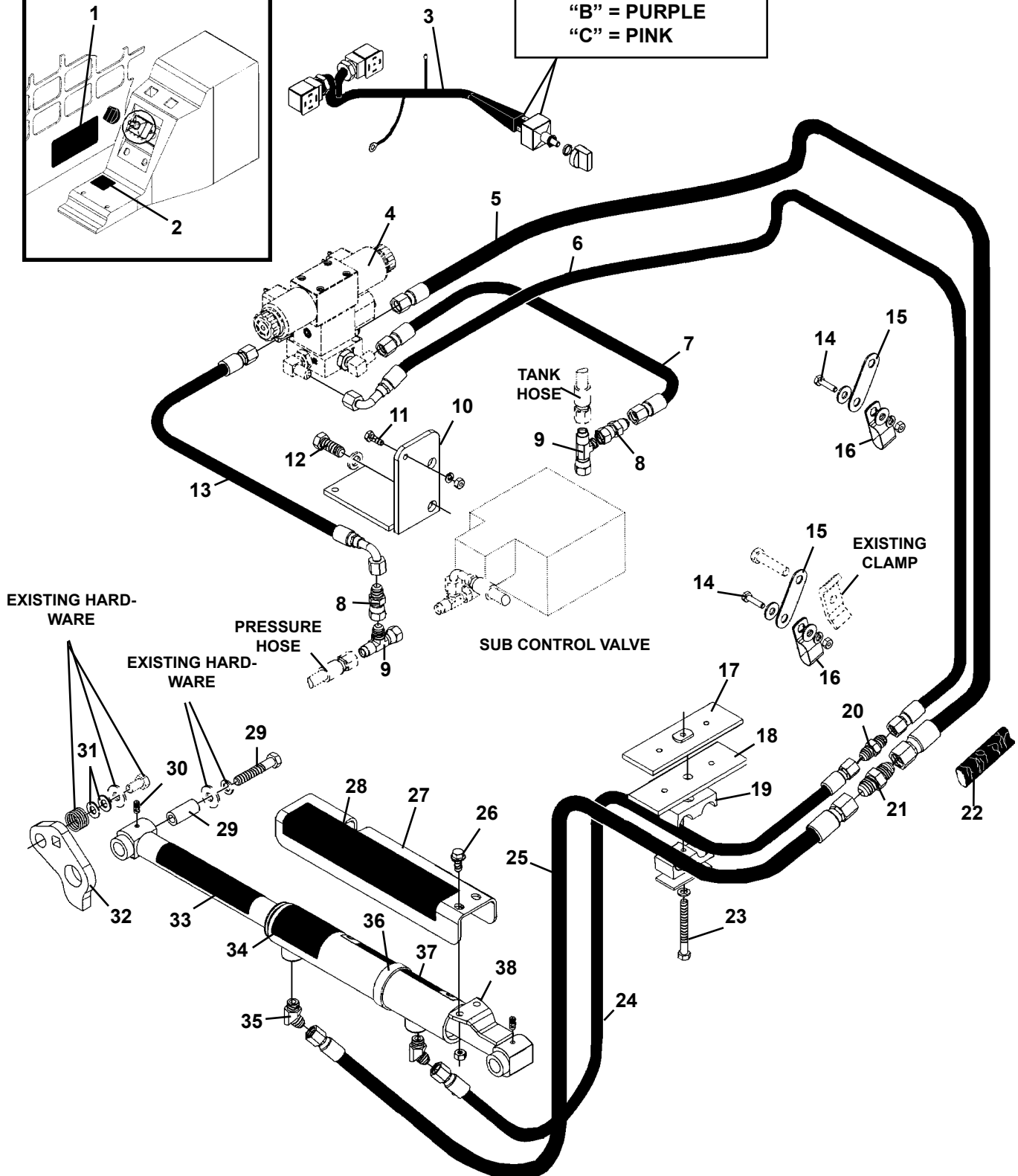
MOUNTING KIT INSTALLATION

HYDRAULIC LATCH ASSEMBLY #101585



SWITCH SCHEMATICS

"A" = RED
 "B" = PURPLE
 "C" = PINK



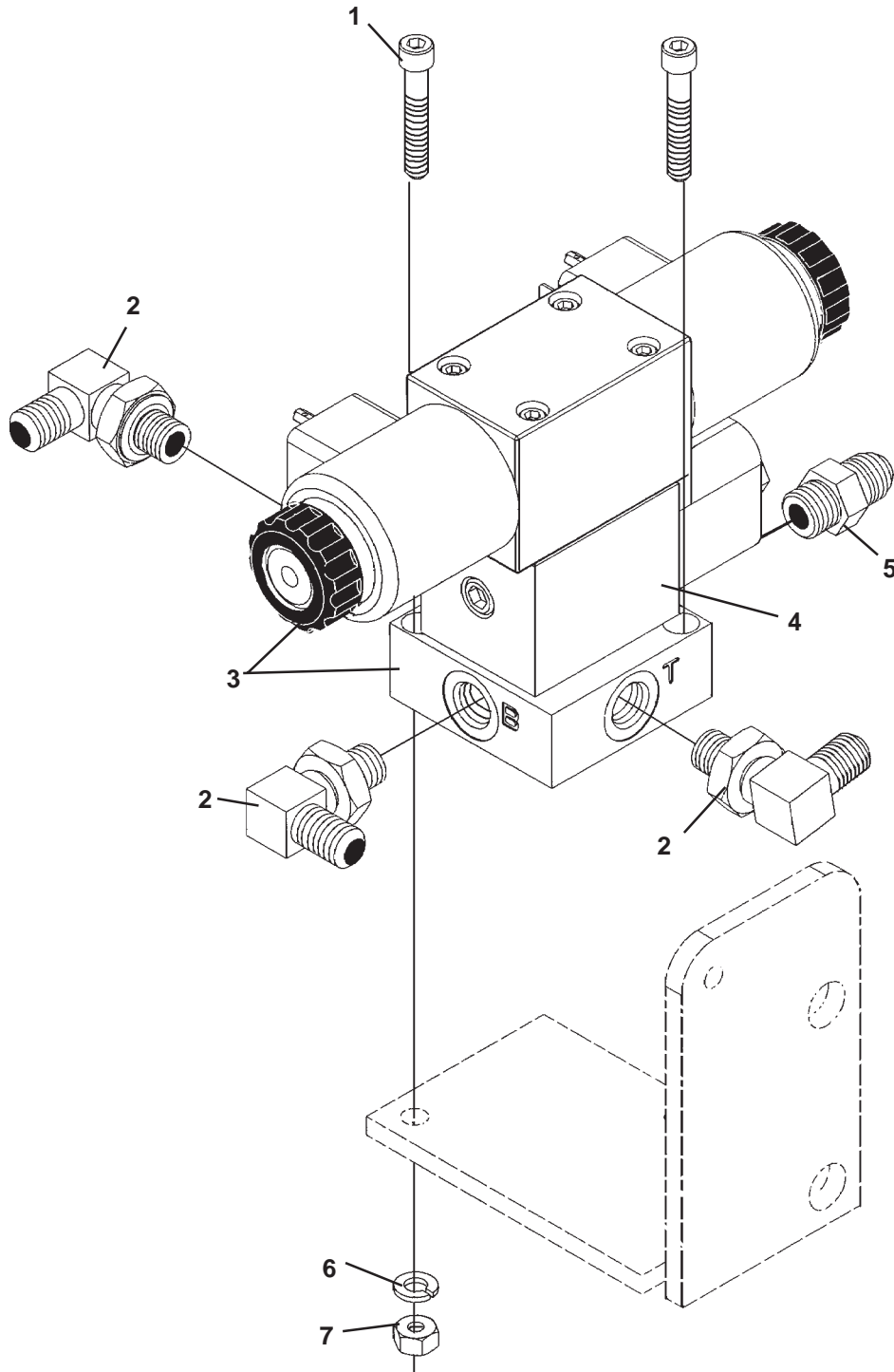
MOUNTING KIT INSTALLATION

HYDRAULIC LATCH ASSEMBLY #101585

<u>ITEM</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	40740	Warning Decal
2	1	40756	Lock/Unlock Decal
3	1	100741	Wiring Harness
	1	100280	Switch
4	1	100631	Valve Assembly
5	1	38172	Hose .25" x 164" 6FJX-6FJX 90°
6	1	38173	Hose .38" x 160" 6FJX-8FJX
7	1	38153	Hose .25" x 16" 6FJX-6FJX
8	2	30335	Straight Adaptor 4FBP-6MJ
9	2	30334	Tee 4FBP-4MBP-4MBP
10	1	100583	Valve Mounting Bracket
11	1	1002	.25" UNC x .75" Hex Capscrew
	1	1224	.25" UNC Hex Nut
	1	1501	.25" Lock Washer
12	2	2636	12M x 30mm Hex Capscrew
13	1	37571	Hose .25" x 15" 6FJX-6FJX 90°
14	2	1022	.31" UNC x 1.00" Hex Capscrew
	4	1513	.31 Flat Washer
	2	1502	.31" Lock Washer
	2	1225	.31" UNC Hex Nut
15	2	100742	Hose Clamp Extension
16	2	82859	Double Hose Clamp
17	1	101578	Clamp Mount
18	1	101579	Clamp Bar
19	1	17025	Hose Clamp
20	1	3352	Straight Connector 6MJ-6MJ
21	1	3354	Straight Connector 8MJ-8MJ
22	1	100723	Hose Sock
23	1	1030	.31 UNC x 3.00" Hex Capscrew
	1	1502	.31" Lock Washer
24	1	38171	Hose .25" x 68" 6FJX-6FJX
25	1	38185	Hose .38" x 68" 6FJX-8FJX
26	2	1930	.31" UNC x .75" Flange Head Cap Screw
	2	1753	.31" UNC Nylock Nut
27	1	100705	Cylinder Guard
28	1	40742	Non-Slip Decal 3" x 10"
29	2	10087	10M x 60mm Hex Capscrew
	2	100237	Spacer
30	2	6616	Grease Zerk
31	4	1525	.38" SAE Flat Washer
32	2	100236	Link
33	1	40198	Non-Slip Decal 2" x 6"
34	1	40755	Non-Slip Decal 3" x 3"
35	2	30313	45° Elbow 6MBO-6MJ
36	1	100706	Slider Ring
37	1	40698	Locked/Unlocked Decal
38	1	100231	Cylinder Assembly

MOUNTING KIT INSTALLATION

VALVE ASSEMBLY #100631



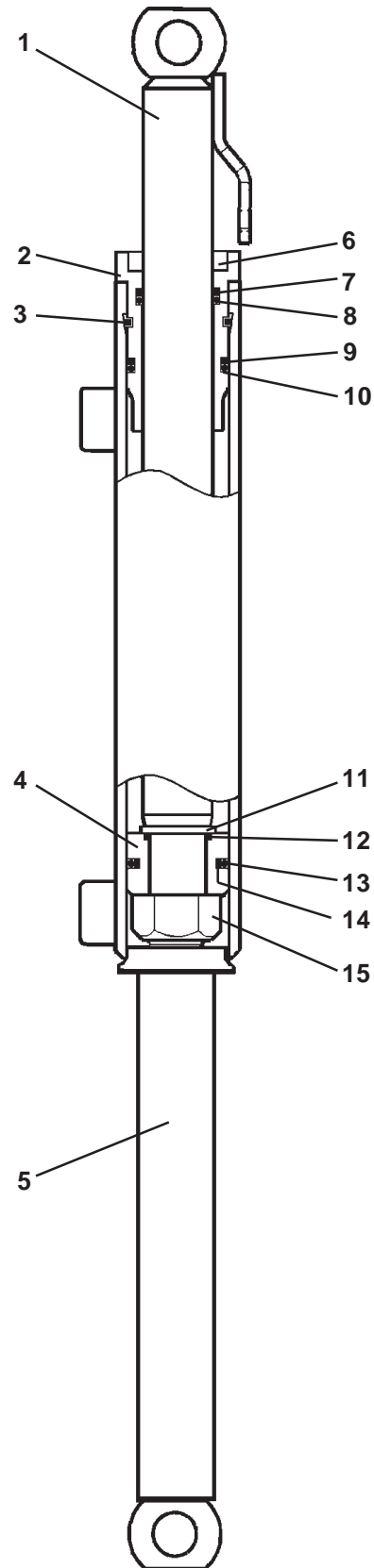
MOUNTING KIT INSTALLATION

VALVE ASSEMBLY #100631

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	10100	.25" UNC x 1.50 Socket Head Capscrew
2	3	3434	90° Elbow 6MBO 6MJ
3	1	101521	Dual Solenoid Valve
	-	101756	Replacement Coil
	-	101757	Replacement Seal Kit
4	1	101522	Check Valve
	-	101758	Replacement Cartridge
	-	101759	Replacement Plate
	-	101760	Replacement Locator Pin
	-	101761	Replacement O-Ring
5	1	3457	Straight Connector 6MBO-6MJ
6	1	1501	.25" Lock Washer (Included in Latch Assembly)
7	1	1224	.25 "UNC Hex Nut (Included in Latch Assembly)

MOUNTING KIT INSTALLATION

CYLINDER ASSEMBLY #100231



MOUNTING KIT INSTALLATION

CYLINDER ASSEMBLY #100231

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	100235	Cylinder Rod
2	1	50547	Gland
3	1	8177*	Gland Retainer
4	1	50546	Piston
5	1	100232	Cylinder Tube
6	1	4981*	Rod Wiper
7	1	4579*	Back-Up Ring
8	1	4580*	O'Ring
9	1	4988*	Back-Up Ring
10	1	4987*	O'Ring
11	1	52644	Washer
12	1	4635*	O'Ring
13	1	4984*	Piston Ring
14	1	4985*	O'Ring
15	1	1482	Hex Nut

NOTE: Seal Kit #4990 includes all parts marked with an asterisk (*). Parts are not sold separately.

MOUNTING KIT INSTALLATION

HYDRAULIC LATCH

The following instructions will assist in the installation of the hydraulic latch kit.

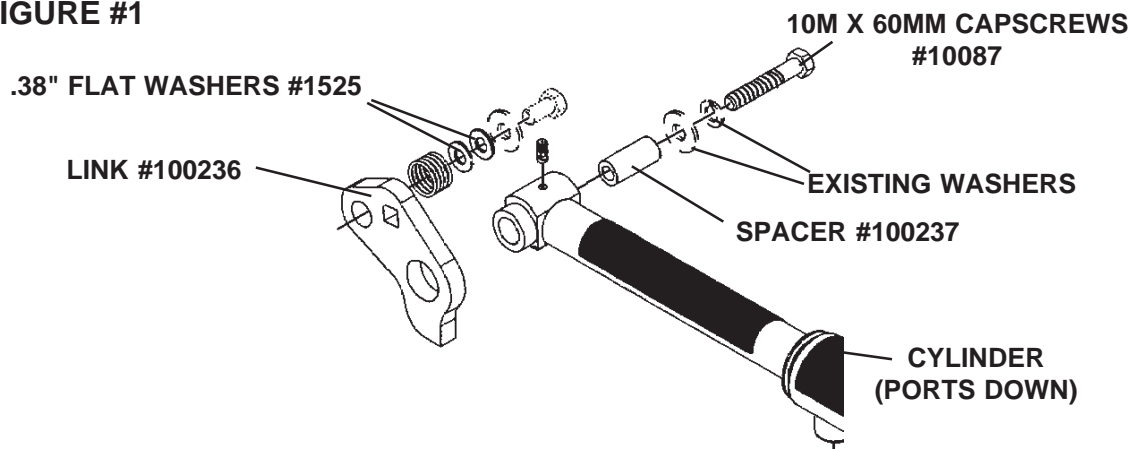
MOUNTING INSTRUCTIONS

Cylinder Installation

To facilitate cylinder installation, position the loader arms completely down and tilt the toolbar out to gain access to the back side of the toolbar. If cylinder decals were not installed at the factory install them now according to the parts diagram.

1. Remove the lock handles by first removing the capscrews, washers and springs securing the lock handles to the toolbar.
2. Install the links (#100236) at the same location followed by the existing spring, and hardware with two of the flat washers provided installed between the spring and washer. See Figure #1

FIGURE #1



3. Install the cylinder with the hydraulic ports pointing down and secure to the links and lock pins with the 10M X 60mm capscrews (#10087) and spacers (#100237) provided along with the existing 10mm flat washers and lock washers. See Figure #1
4. Install both 45° elbows into the cylinder ports, facing the skid-steer and angled to the inside.
5. Connect the .38" x 68" hose (#38185) to the elbow on the tube end of the cylinder and the .25" x 68" hose (#38171) to the elbow on the rod end of the cylinder.

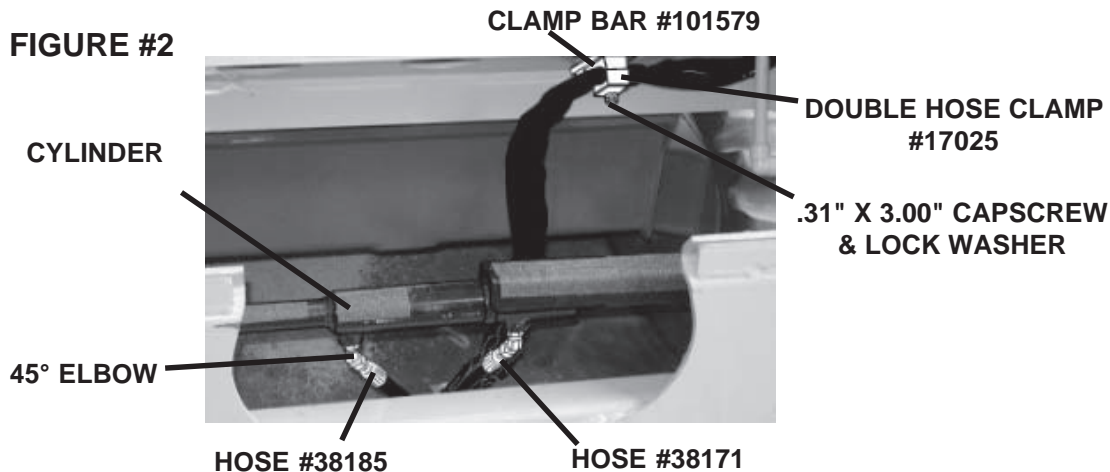
CAUTION The .38" hose **MUST** be connected to the tube end of the cylinder for correct operation of the hydraulic latch.

6. Using the .31" UNC X 3.00" capscrew and lock washer, install the clamp mount (#101578), clamp bar (#101579 and double hose clamp (#17025) to the loader frame. See Figure #2

MOUNTING KIT INSTALLATION

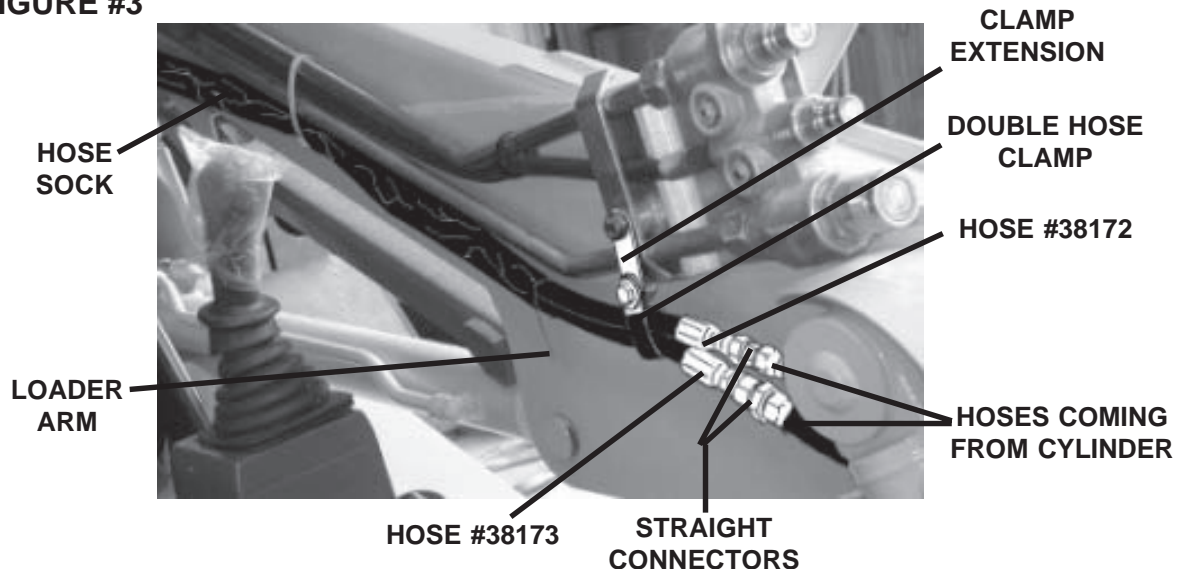
HYDRAULIC LATCH

FIGURE #2



7. Route hoses coming from the cylinder through the hose clamp and tighten the clamp leaving a small loop in the hoses to accommodate attachment rollout.
8. Route the hoses along side of the left bucket cylinder and in front of the hydraulic tube on the cylinder and secure in place with hose ties supplied.
9. Connect straight connector (#3352) to the end of the .25" hose (#38171) coming from the cylinder and straight connect (#3354) to the .38" hose (#38185) coming from the cylinder. See Figure #3

FIGURE #3



10. Position the 90° end of .25" x 164" hose (#38172) with the 6FJX end of .38" x 160" hose (#38173) and thread through hose sock (#100723).
11. Connect the hoses to the straight connectors and route them along side the left loader arm (beside the auxiliary hydraulic lines) and into the engine compartment. See Figure #3
12. Install the two double hose clamps to the left loader arm using the clamps and clamp extensions provided. See Figure #3

MOUNTING KIT INSTALLATION

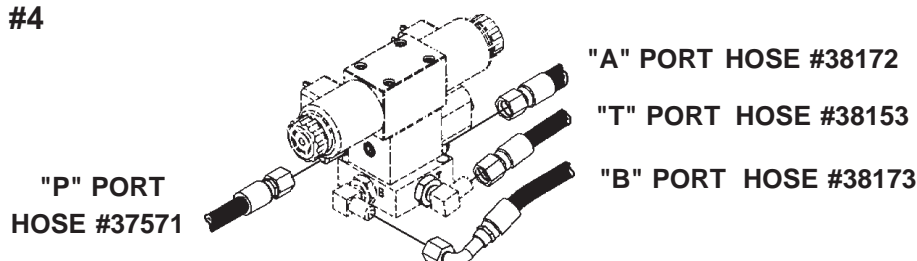
HYDRAULIC LATCH

Valve Installation

13. Locate the sub-control valve in the engine compartment of your skid-steer loader. Remove the front two bolts and lock washers securing the valve to the mounting plate.
14. Install the valve mounting bracket to the sub-control valve using the 12M x 30mm capscrews provided along with the existing lock washers.
15. Ensure that the 90° elbows and the straight connector are tight and in the correct orientation on the valve assembly #100631 and then connect one end of the 16" hose (#38153) to the elbow in the "T" port of the valve and connect the straight end of the 15" hose (#37571) to the elbow in the "P" port of the valve. See Figure #4

VALVE ASSEMBLY #10631

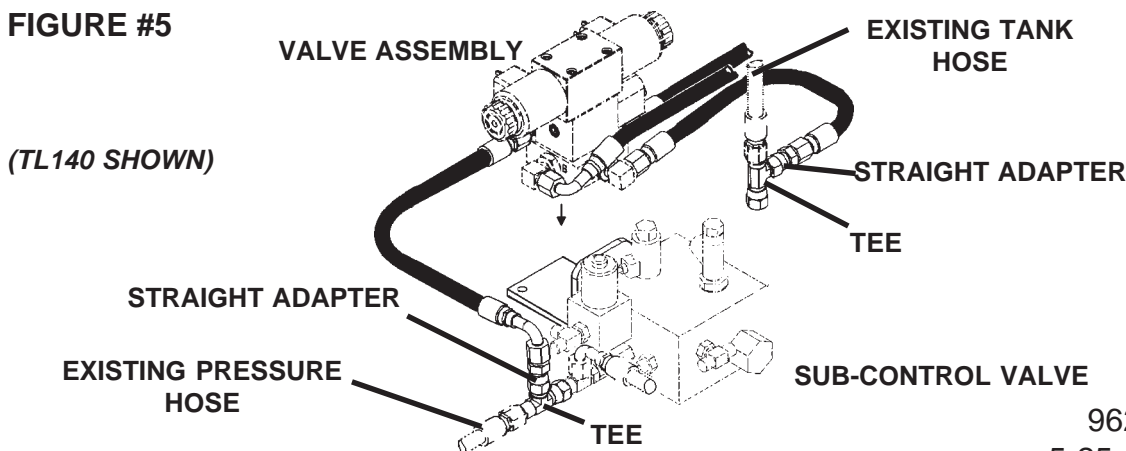
FIGURE #4



16. Connect the 90° end of the 164" hose coming from the cylinder to the "B" port of the valve and the straight end of the 160" hose coming from the cylinder to the "A" port of the valve.
17. Secure the valve assembly with hoses to the valve mounting bracket installed in step #14 using the lock washers and hex nuts provided.
(NOTE: The socket head capscrews should be installed in the valve assembly at the factory since they are installed before installing the check valve.)
18. Disconnect the pressure hose from the front of the sub-control valve and install tee (#30334) with the branch of the tee pointing up. Reconnect the pressure hose to the end of the tee. See Figure #5

NOTE: See Figure #6 for fitting and hose orientation on the various skid-steers.

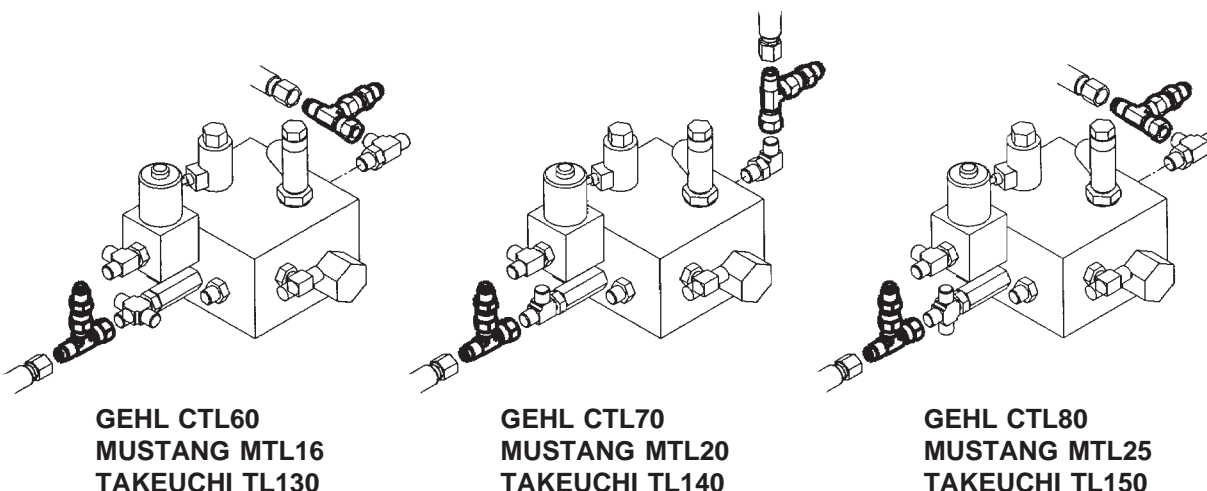
FIGURE #5



MOUNTING KIT INSTALLATION

HYDRAULIC LATCH

FIGURE #6 FITTING AND HOSE ORIENTATION



19. Connect straight adapter #30335 to the middle of the tee followed by the 90° end of hose (#37571) from the "P" port of the valve assembly. See Figure #5
20. Disconnect the tank hose from the back of the sub-control valve and install tee (#30334) with the branch of the tee pointing to the rear of the loader. Reconnect the tank hose to the end of the tee. See Figure #5
21. Connect the remaining straight adapter #30335 to the middle of the tee followed by hose #38153 from the "T" port of the valve assembly. See Figure #5
22. Route hoses along the loader arm with sufficient clearance from hot or moving parts and secure in place with the hose ties provided.

Wiring Installation

23. Connect the red wire of the wiring harness #100741 to the "A" terminal of the switch #100280, connect the purple wire to the "B" terminal of the switch and the pink wire to the "C" terminal. **IMPORTANT: Cover all exposed connections with electrical tape to prevent grounding.**
24. Inside the operator's station, remove the left side control box cover and remove the cap from one of the unused switch holes. Mount the switch #100280 in this location and install the knob pointing upward.
25. Remove the metal plate from under the left side control box cover to access loader wiring harness and connect the red wire on the wiring harness to the female bullet connector on the yellow/green or brown wire in the loader wiring harness.
26. Route the wire harness to prevent kinks or twists and secure the first DIN connector receptacle to the rear DIN plug on the valve assembly and the second DIN connector receptacle to the front DIN plug.

MOUNTING KIT INSTALLATION

HYDRAULIC LATCH

27. Secure the black wire of the wire harness #100741 to the top hole in the valve mounting bracket using the .25" x .75" capscrew, lock washer and hex nut. Ensure there is sufficient metal exposed for a good ground. Remove paint around the hole if necessary. Reinstall the metal plate and control box cover.
28. Place one of the warning decals #40740 on the toolbar facing the operator and the other on the inside left of the canopy near the control box.
29. Place the lock/unlock decal #40756 on the flat surface of the control box. Refer to the parts diagram for location.

Grease the fittings on each end of the cylinder and following all safety practices, start the loader and check the hydraulic system for leaks. Check hose routing for pinching or chafing of the hydraulic hoses.

Operate the switch back and forth to purge any air from the hydraulic system. Note the movement of the lock cylinder relative to the switch position. If the locking operation is reversed from the decal, shut off the engine and switch the two DIN connector receptacles on the valve assembly.

Hydraulic latch installation is now complete. Grease the fittings on each end of the cylinder every 40 hours.