

SLPS PCC 1743 Progress Report

STL PS 1743 Progress Report 12/5 to 12/12/15

12/8/15

1. The following steps were performed to try to get LB1 to energize, removed B6 jumper on top of BC1 and BC2, set dead man with clamp, jumper L-5 on BUC. When door bypass knife switch was closed LB1 energized.
2. Released dead man and LB1 de-energized, set dead man and LB1 energized. Removed BUC L5 jumper and LB1 de-energized, installed BUC L5 jumper and LB1 energized. Removed jumper from C1 3A to B1 3B LB1 remained energized.
3. The reverser moved to the operate position and the PC pedal was pressed by Steve LB1 remained energized. The only way to release LB1 is to open the door bypass knife switch.
4. Traded email messages with Ed Lindstrom trying to figure out why LB1 will not de-energize. Ed said that if I move the BUC from the far right position to the handle removal position L-5 will close and I can remove the jumper.
5. Our connection diagram LL8831510 is not correct for LB1 and C1 wiring. Ed Lindstrom's drawing for MUNI 1170 show the wiring correctly. The connection diagram will be redrawn with all of the changes we find as we continue to check out the wiring.

12/10/15

6. Moved BUC to handle removal position and L-5 closed, the jumper was removed.
7. Examined wiring on C1 aux contacts and found that wire 3 was on same terminal as 3A. This fixed the problem and now LB1 energizes when the PC is pressed.
8. It was also realized that I was looking at the PC aux switches from left to right. That is incorrect; they are numbered from right to left. Verified switch positions as Steve slowly pressed PC the pedal down. The traction motor fields were isolated at the reversing drum with cardboard shims.
9. Turned on the shop 600 volt catenary and raised the pole, turned on battery switch and started MG set. When PC was pressed LB1 energized and a flash was observed below the contactors.
10. Power was shut off and no damage was found.
11. Power was restored and the flash was observed to be closest to the B1 and B2 contactors. Everything was shut down and no damage was found.

12/12/15

12. Steve removed the arc chutes from B1 and B2 and sent the attached photos. B2 clearly shows signs of arcing.

Comments

B2 connected to 600 volts through the armatures on motors 3 and 4 to wire AA3. Since LB1 did not trip there was not a direct short to ground. This suggests that the current went through a resistance. I believe that we will find the cause next week and correct it.