

8.8.1 BOTTOM TARGET LAMP/LAMP SHIELD INSPECTION AND REPLACEMENT

Inspect and (if necessary) replace the bottom target lamp and lamp shield as follows.

Tools Needed:

- 5/32" hex wrench (Allen wrench)
- medium flat-tip screwdriver

Note

Use the Illustrated Parts List in Chapter 11 of this manual as an aid in inspecting the bottom target lamp and lamp shield. When you see something like "Remove slug bin (143, Fig. 1)" in the following procedure, the number (143) refers to a picture of the slug bin (and how the slug bin is attached to the press) in Figure 1 of the Illustrated Parts List.

1. Pull the lamp shield assembly (141, Fig. 1) out of the front of the press and inspect the lamp shield assembly as follows:

1. (cont.)

- a. Check to see if the lamp shield assembly is covered with slugs. Slugs on the lamp shield assembly block out the light from the bottom target lamp. There are three reasons why the lamp shield assembly can get covered up with slugs. First, the lamp shield assembly was installed upside down. See Figure 8.8 A. If this is the case, reinstall the lamp shield assembly right side up as shown in Figure 8.8 A. Second, large or sticky slugs are being punched. If this is the case, turn the vacuum switch to the "CONTINUOUS" position. Third, the slug vacuum is not working properly. If this is the case, troubleshoot the slug vacuum according to Section 5.2.10.
- b. Check if the glass shield (272A, Fig. 7) in the lamp shield is broken. If it is broken, replace it. A broken glass shield usually means that the bottom target lamp is also broken. Glass shields are usually broken by heavy steel slugs. This problem can be prevented by replacing the glass shield with a steel shield (272B).

8.8.1 BOTTOM TARGET LAMP/LAMP SHIELD INSPECTION & REPLACEMENT

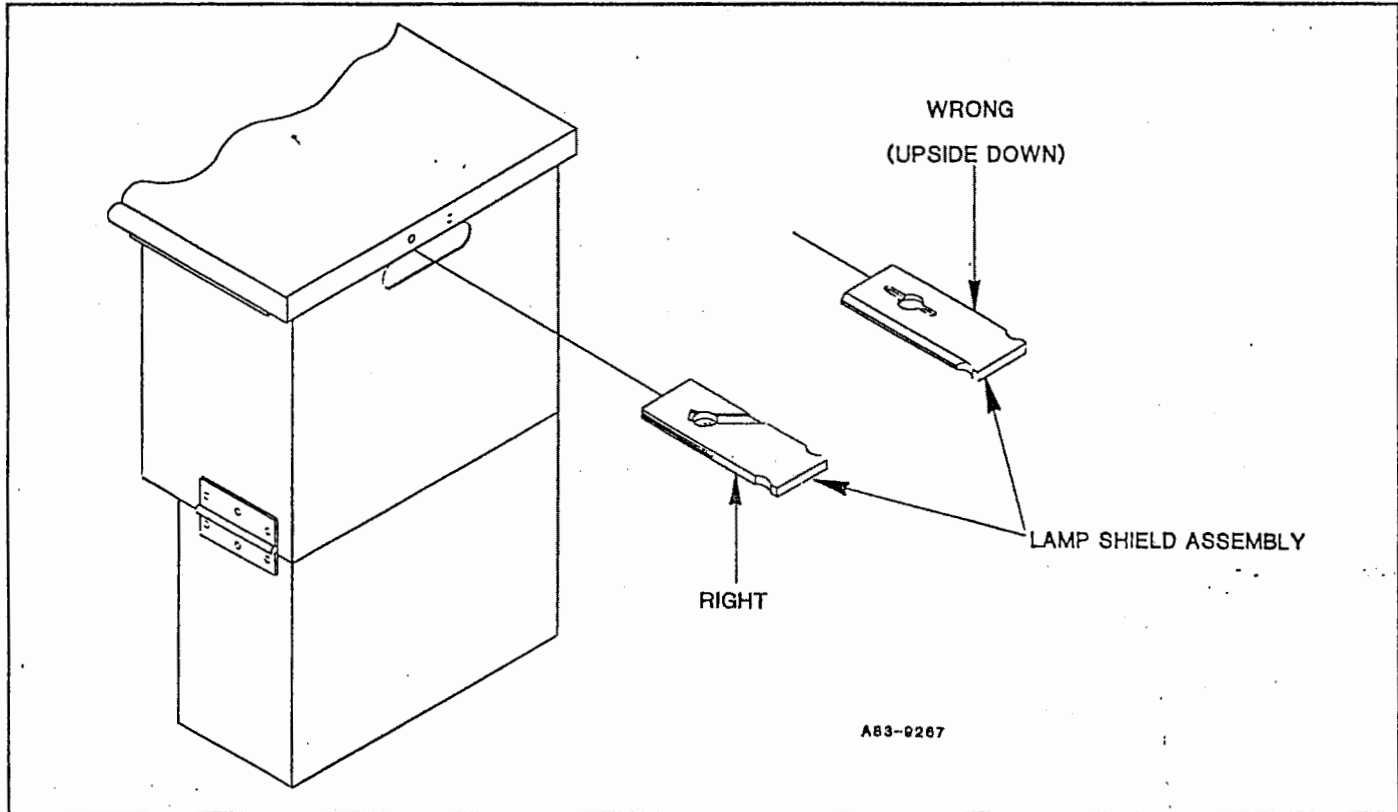


Figure 8.8 A

! WARNING



Turn press off before replacing lamp. You can get fatally shocked if you do not.

2. Press "OFF" button on control panel.
3. After inspecting the lamp shield and correcting any problems, reinstall the lamp shield.
4. Loosen slug bin screws (142 Fig. 1) a few turns with 5/32" hex wrench.
5. Pull slug bin (143) forward and then down to remove bin.
6. Pull bottom target lamp (474, Fig. 13) out of its socket.
7. Push new bottom target lamp into socket.
8. Reattach slug bin (143, Fig. 1) and tighten slug bin screws (142).

8.8.2 SLUG VACUUM AIR TUBING INSPECTION AND REPAIR

Inspect and (if necessary) repair the slug vacuum tubing as follows:

Tools Needed:

- > 5/32" hex wrench (Allen wrench)



1. Press "OFF" button on control panel.

Note

Use Figure 1 of the Illustrated Parts List in Chapter 11 of this manual as an aid in inspecting the slug vacuum air tubing. When you see something like "Remove slug bin (143)" in the following procedure, the number (143) refers to a picture of the slug bin (and how the slug bin is attached to the press) in Figure 1 of the Illustrated Parts List.

2. Loosen slug bin screws (142 Fig. 1) with 5/32" hex wrench.
3. Pull slug bin (143) forward and then down to remove bin.
4. Make sure slug vacuum air tubing is hooked up to slug vacuum and solenoid valve as shown in Figure 8.8 B. If an end of the tube is disconnected, reconnect it and go to step 5.
5. Reattach slug bin (143) and tighten slug bin screws.

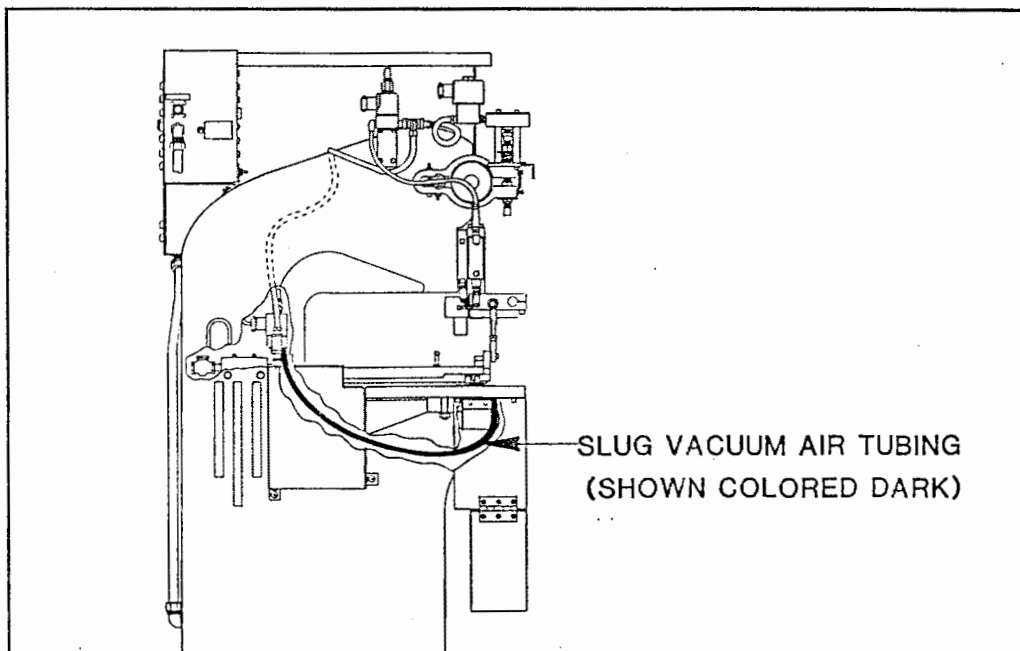


Figure 8.8 B

8.8.3 SLUG VACUUM SOLENOID TEST AND REPLACEMENT

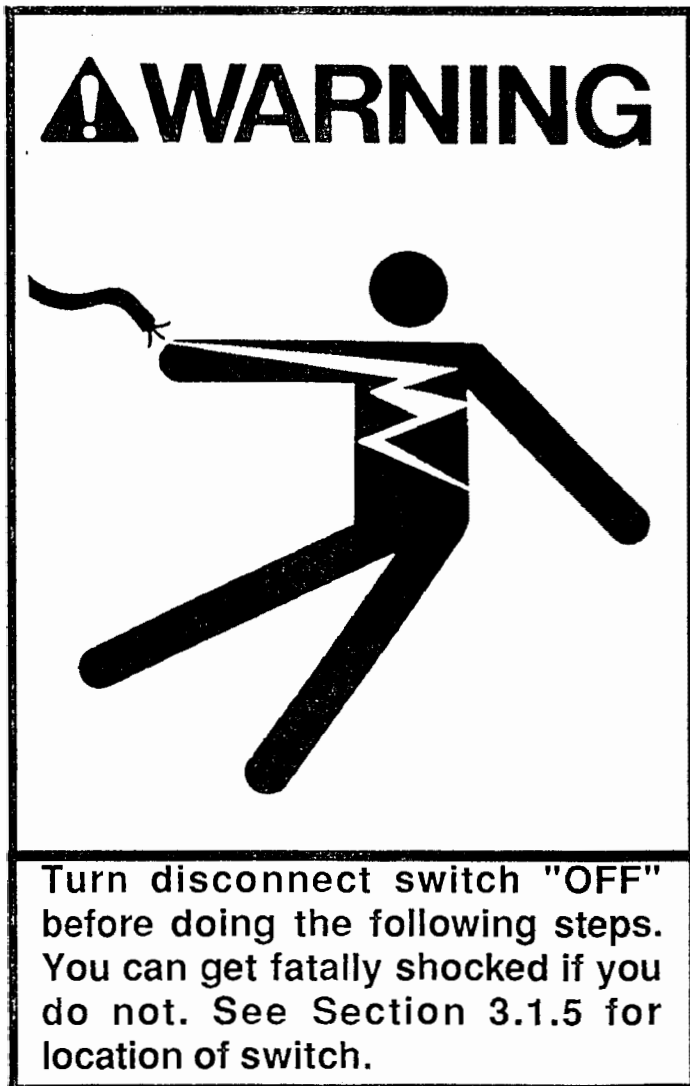
Test and (if necessary) replace the slug vacuum solenoid as follows:

Tools needed to test solenoid:

- > 5/64" hex wrench (Allen wrench)
- > volt/ohm meter

Tools needed to replace solenoid:

- > two 1/2" open-end wrenches
- > adjustable-end wrench
- > medium flat-tip screwdriver
- > pipe joint compound



1. Turn disconnect switch to "OFF" position.

Note

Use the Illustrated Parts List in Chapter 11 of this manual as an aid in testing and replacing the slug vacuum solenoid. When you see something like "Remove back panel (202, Fig. 4)" in the following procedure, the number (202) refers to a picture of the back panel (and shows how the back panel is attached to the press) in Figure 4 of the Illustrated Parts List.

2. Remove back panel screws (201, Fig. 4) with 5/64" hex wrench and remove back panel (202).
3. Check very carefully for broken or loose wires in motor starter box, especially around TB1 terminals 18 and 20 and around vacuum switch (see Figure 8.8 C). If any broken or loose wires are found, repair them and then recheck press.

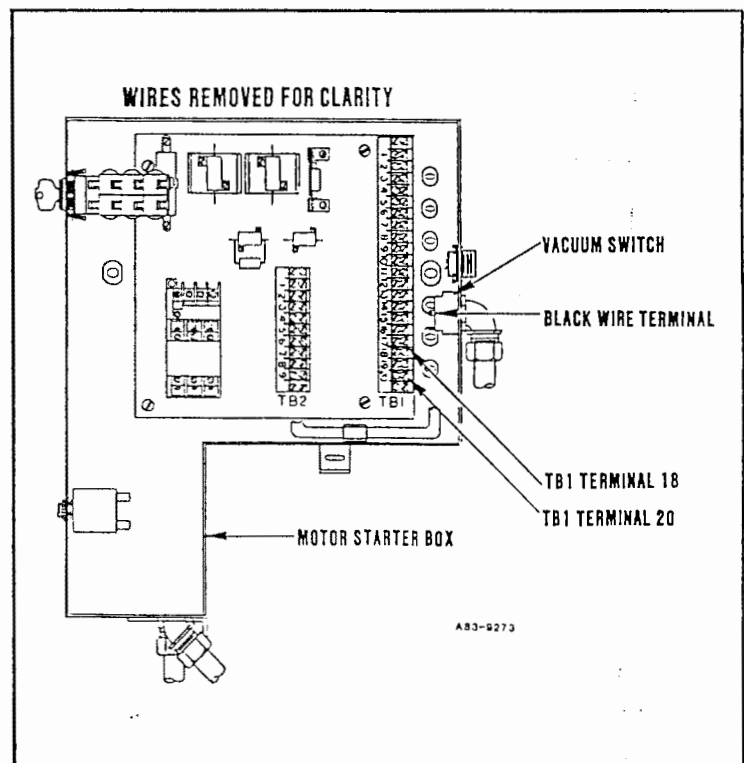


Figure 8.8 C

8.8.3 SLUG VACUUM SOLENOID TEST AND REPLACEMENT

4. Turn disconnect switch to "ON" position.
5. Turn set up switch to "SET UP" position.
6. Press "ON" button on control panel.
7. Turn vacuum switch to "PULSED" position. See Section 3.1.3 for location of vacuum switch.

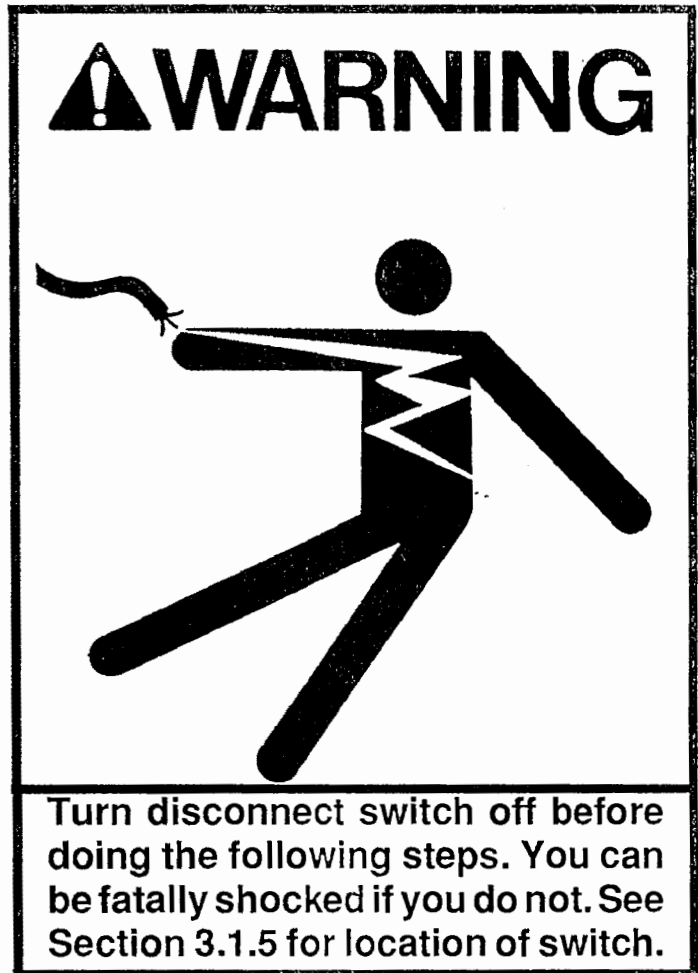


*** Never do live electrical tests when you are alone. Always make sure someone is present to help you in case you get shocked.**

*** Do no touch live electrical terminals when doing live electrical tests.**

8. While pressing down on foot switch, test for 40-55 volts DC across TB1 terminal 18 (18 is ground) and black wire terminal on vacuum switch with volt/ohm meter (see Figure 8.8 C). If 40-55 volts DC are not present, contact Spartanics or your service representative for help. If 40-55 volts DC are present, replace the slug vacuum solenoid as follows:

9. Turn disconnect switch to "OFF" position.



Turn disconnect switch off before doing the following steps. You can be fatally shocked if you do not. See Section 3.1.5 for location of switch.

10. Loosen screws on TB1 terminals 18 and 20 with screwdriver. See Figure 8.8 C.
11. Pull wire lugs off of TB1 terminals 18 and 20.
12. Pull slug vacuum solenoid wire harness out of motor starter box.
13. Remove air tubing (630, Fig. 17.) from slug vacuum solenoid elbow (631) by pinching black coupler arm on end of tube and then pulling tube out of elbow.
14. Unscrew air filter assembly mounting bolts (228, Fig. 4) with two 1/2" wrenches. Removes nuts (225), lock washers (226), and flat washers (227).

8.8.3 SLUG VACUUM SOLENOID TEST AND REPLACEMENT

15. Pull air filter assembly out of press.
16. Unscrew muffler (629, Fig. 17) from solenoid with adjustable-end wrench.
17. Unscrew elbow (631) from solenoid with adjustable-end wrench.
18. Unscrew solenoid (632) from nipple (633) with adjustable-end wrench.
19. Apply pipe joint compound to threads of muffler (629), elbow (631), and nipple (633).
20. Screw new solenoid (632) onto nipple (633).
21. Screw elbow (631) into solenoid (632).
22. Screw muffler (629) into solenoid (632).
23. Reattach air filter assembly to press with bolts (228, Fig. 4), flat washers (227), lock washers (226) and nuts (225).
24. Reconnect air tubing to elbow.
25. Feed solenoid wire harness into motor starter box.
26. Connect slug vacuum solenoid wire lugs to TB1 terminals 18 and 20 (see Figure 8.8 C). It does not matter which lug goes on which terminal.
27. Tighten terminal screws with screwdriver.
28. Reattach back panel (202).