

## QUESTIONS AND ANSWERS ON THE TECHNICAL SIDE

by Lance Johnson

Do you have any questions?

Send them direct to:

QUIZMASTER  
and Organbuilder

LANCE JOHNSON  
Box 1228  
Fargo, ND 58102

**Q.** Recently, we took over the service contract on a large Wurlitzer theatre organ and immediately had problems. We found about one in five screw inserts in bungs loosened so that we could not torque the bung screws effectively. I have serviced a number of Wurlitzers, including church models, and have never come across a problem of this nature. Can you advise as to why this would happen and what is the easiest method to correct it?

**A.** There are two probable causes for this problem: The most likely would be carelessness on the part of the previous service people. They probably used electric screwdrivers and drove the screws in until they stopped the driver. The ferrule would then pull down and strip out. The second cause could be the screw itself binding in the bung hole, because of expansion and contraction of the bung material. Any time the screw is allowed to bind there will be undue friction between the screw and the ferrule. The bung holes should be reamed another 1/16" in diameter, beginning with the centermost holes,

so that *all* screws can be started by using your fingers. You should check hole alignment by shining a flashlight up the bung hole to see that the hole aligns with the ferrule reasonably well.

If your ferrules have stripped out, you had best order oversize ferrules and screw them into the stripped holes. As oversize ferrules (inserts) are supplied with a smaller diameter screw, you may wish to re-thread the ferrule for a course thread to match Wurlitzer's to maintain the same size of screws throughout the organ. (Order oversize inserts from Arndt Organ Supply, Ankeny, Iowa.)

**Q.** On our Wurlitzer I found that a block of wood which is screwed to the shade and serves as a bearing for the shade rod has ripped out. There is not room for a screwdriver in that position. What is the easiest way to repair it?

**A.** You will have to remove the entire shade to repair the jack cleat to which you refer. You should plug the holes with a 1/8" dowel and glue. After it has set, you can punch new pilot holes and remount the jack cleat. This job is time-consuming, so plan accordingly.

**Q.** We are in the process of recovering the motors on Wurlitzer shade pneumatics with polyon. What do you think of this method?

**A.** Unless you want to do it all over again in five years, I would advise against it. Use instead percussion leather (like the original) or heavy rubber motor cloth.

**Q.** We have a few wooden diaphones in a theatre organ (Robert-Morton) which have become a little slow. What procedure would you recommend to (1) lift the resonators out (two of us can't lift out the bottom five), and (2) correct the slow speech?

**A.** As for lifting out heavy resonators, I recommend the following: Install a 2"-diameter pipe near the ceiling of the chamber over the resonators and about 4" out from the wall, like a giant towel rack. The pipe can be mounted by making brackets out of 2" dimension lumber. Then purchase a small block and tackle and

hang it from the pipe on a piece of chain or polypropylene rope so that the tail hangs out far enough to be fastened. As you move from pipe to pipe, you can slide the block and tackle along, tying down the rigging so that the tackle will be high enough to raise the resonator *without* allowing the resonators to slip out of the rack. You will need 5/16"-diameter screweyes installed at the top of each resonator to hook on the block and tackle.

To check for slow speech, look at the face of the beater valve for particles of dirt or corrosion. Second, inspect the closing action of the valve by pushing it shut with your thumb and trying to slip a piece of paper all around it. If paper will go into one side but not the other, then obviously the valve is bent. You can correct this by loosening the nut clamp and shimming the beater-shaft clamp with paper shims until it is no longer possible to insert paper under the closed beater valve. Another cause for slow speech could be a leaking resonator. Are there water stains on the ceiling above the pipes? If so, look for open glue joints. Then look for a leaking resonator gasket, the leather ring glued to the generator block to receive the resonator toe. If this leaks, replace it. When a pipe is playing, you will hear a buzz from the toe which indicates a leaking gasket.

Lastly, make sure the action is quick in the chest itself. If it is sluggish, you may have a dirty magnet, a binding primary or a leaking secondary pneumatic. □

## NOTE!

Dear Readers,

I look forward to the Questions and Answers Technical Session with you amateur organ builders at the Detroit Convention. The session will be held at the Westin Hotel, beginning at 4:00 p.m. on Monday, July 5.

LANCE JOHNSON