Questions and Answers on the Technical Side

by Lance Johnson

Do you have any questions?
Send them direct to:
QUIZMASTER
and Organbuilder
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Q. Recently, our club had to dismantle our Spencer blower in order to have new bearings installed at a motor shop. It turned out to be extremely difficult and time-consuming to remove the dividers and fans. Can you offer some help, in case someone else is about to embark on this rather "fun" project?

A. To begin with, your fan dividers are pressed in at the factory and contain a felt bushing for "easy" removal. The top of each divider should contain a pull ring. Attach a piece of 3/16" chain to the ring and wrap it around a tire iron or something similar to use as a pry. By resting the bar against the top of the case, pull outward to break the seal. Once the divider begins to move, you should be able to pull it out by tipping it at a steep angle outward from the top as you draw it out. If you lose some felt in the process, just glue it back with contact cement, which will not be affected by grease which may have soaked the felt gasket.

As for the fans, if after loosening the hub, the fan will not swing loose, use a propane torch to heat the hub, *but be careful to keep the heat away from the shaft.* You may also use some penetrating oil and the heat will help it penetrate even faster. If the fan cannot be rotated with a quick thrust without the shaft turning with it, grip the shaft with "vise-grip" pliers with a rag inside the jaws so as to not scratch the shaft. Another thing to do would be to get a large punch and try to drive the hub back toward the motor just until the seal is broken. When you get ready to replace the fans, make sure there are no scratches on the shaft to catch the hub again. Some fans will have a scratch line on the shaft and an arrow on the hub which are to coincide upon assembly. When you move the motor, do not lift it by the shaft unless your hand is right up against the motor frame, in order to prevent the shaft from getting bent. If the armature is rewound, it must be re-balanced before placing it back into the frame. If this is not done, the motor could vibrate, causing the bearings to pound out in a short time. Have your motor shop check for a leaking oil reservoir after testing is completed. As you fasten the motor to the mounting, replace all shimming washers exactly as they were. Check to see that the shaft is dead on center with the blower casing before tightening bolts. If you start the blower to test it, be sure the discharge is covered so the motor can be run at full speed.

Q. After having stored my Style E 2/7 Wurlitzer for a number of years, I am finally ready to build chambers. I plan to add a room on the back of the house which will extend the length of the house plus the garage for a total of 65 feet. I can make the chambers below grade level so that the height is anywhere from 12 to 16 feet. What would be your recommendation for room sizes, taking into consideration that the relay and switch stack along with the trems would be in a different room? I would want everything easily accessible for servicing.

A. First of all, I do not recommend placing your relay unit in a separate room in this case. If you do this, you will always have a difficult time trouble shooting unless you can hear everything play from the relay location. As for the trems, it is all right to locate them in another room but, again, they will always be hard to set unless you can hear the organ clearly. Rather, I would place your trems in soundproof boxes within the chamber. The ceiling height can be 12 feet, and this would accommodate your 16' extensions easily. Your swell shade frames could start at listening room floor level, and make them the full size of the wall if you can. The Main chamber will have to be the largest, as it contains the two 16' ranks. I would build a room in the Solo chamber for the blower and rectifier (or generator). The blower room must be at least 3'-9" x 4'-6" inside, and the wall with the access door should be removable for getting the blower and/or motor out for servicing. The relay and switch can stand toward the rear of the Solo chamber. By placing your traps assembly and relay on casters, you can swing them out from one end for service. These units then would have flexible conductors. The Main chamber then would be 10'-8" wide by 10'-9" deep and the Solo would be 10'-10" wide by 10'-9" deep, including the blower room in the rear corner. Of course, if you can add a few feet either way, you will have an even more serviceable instrument. There should also be room for one to walk clear through the organ chamber without crawling under or around components when you show off the organ to your friends. The plan will allow for two more ranks per chamber, but with your present console stop arrangement two more ranks are all it will accommodate. □