

Dis-assembly and Service Procedures
Hofbauer MIKROBAND Roll Playing Organ
"20er SELBERBAUEN" Kit Organ

Notes by Wally Venable, April 2012

Based on assembly instructions by Paul Fischer circa 1987

Caution - use these instructions at your own risk.

Keep in mind that the "20er SELBERBAUEN" ("20 Note Self-Build") was produced as a kit organ. While some were assembled before sale by Fischer Organ in Erie, others were assembled by the purchaser who may not have followed the assembly instructions exactly. The German factory built 20er Hofbauer MIKROBAND organs are probably serviced in the same manner, but may differ in details.

Remove the top of the organ.

Remove top front panel from the organ.

Remove the screen panel behind the front pipes.

You may now remove and replace the rewind belt.

The Zauberflute Pipe Board, which carries the brass or bamboo pipes showing on the front, may now be removed from its support across the front of the windchest. This requires a very long Phillips screwdriver. There are two holes at the ends of the board and the screws are about 5 inches below the top surface. Ideally the screwdriver should measure about 14 inches from the tip to the start of the handle!

Inspect the gasket below the Zauberflute Pipe Board. If it is loose, make sure you know its position, and if necessary, mark it for proper re-installation.

When disconnecting the plastic tubes, make sure to check for numbers on them. On the organ I serviced they were nicely marked 1 to 20 on both sides of the couplers. If the tubes are not labeled, it would be prudent to add markers.

The long wood dowel may now be removed. This rod supports the note tubes and fits between the cabinet sides. The dowel is slightly longer than the distance between the upper case sides. In some cases it may be necessary to flex the dowel to remove it. On the machine I repaired there was a shallow hole on the left end and a slot on the right.

Next, the holes in the tracker bar are interconnected with the holes on the wind-chest. Carefully determine the location of hole #1 on the bottom of the tracker bar and tube #1 on the windchest. The proper sequence is illustrated at the bottom of print "300 SPOOL BOX". Study this sequence and be absolutely certain that you connect the tubes in proper order. Do not actually install the tubes yet but rather, be certain that you understand the sequence.

The organ is once again tested for air-tightness. Tape off the row of holes on the tracker bar in the spool box. Close the spool box lid and clamp the latch. When the organ is cranked there should not be any significant loss of air as compared to the previous test. Theoretically there should be no loss of air at all. When you are satisfied that the bellows and spool box are adequately air-tight the 2 flexible air

conductors are to be glued in place in the holes on the bellows only. White glue will work nicely for this.

The smaller flexible wind conductor (21mm OD) may now be installed in the same manner as above. This conductor connects the spool box with the bellows. Note that one end of each wind conductor is supposed to be glued in place and one is not in order to allow for removal for service.

Install the spool box on its supports in the upper case if it was not previously installed as per the last paragraph on page 3-3.

Next, the larger flexible wind conductor (30mm OD) is connected from the bellows to the windchest. Remove the previously installed plug or cover and twist the tube into the proper holes on the bellows and windchest.

The windchest "500" may now be installed. Check to be certain that the gasket is in place and that the air holes are free. Refer to print "500". Fasten the windchest onto its support using the screws.

The bellows may now be tested for air-tightness. Plug or cover the 2 holes on the bellows. When the handle is cranked the bellows should expand to horizontal at which point the pressure relief valve should engage and open, thereby venting excess air. Adjust the relief valve if it does not open at the proper location. The bellows, if adequately air-tight, should take about 4 or 5 seconds or longer to collapse. The longer it remains inflated the more air-tight is the bellows. If the bellows fails to expand fully and open the pressure relief valve then it is leaking air and the leak must be located and corrected.

The connecting rod may now be removed from the crankshaft. Remove the screws from the rod. This will permit you to spring the split rod apart far enough to slip it onto the crankshaft. When reassembling apply a little vaseline or Lubriplate to the crankshaft. Replace the screws and tighten adequately but not so far as to cause the rod to bind on the shaft.

Install the bellows spring in the manner described in the last paragraph on page 6-3. The upper shank of the spring sits in the stop block which is located beneath the spool box support. The lower shank of the spring sits in the slotted block which is located in the center of the top of the storage bellows. The lower block must be positioned in such a way that the expanding spring moves freely and does not interfere with anything else. Reposition the block if necessary.

Once the bass pipe panel is fastened in place the upper case is inverted and the lower case is set on top of it, also inverted, of course. Careful that the sections are front to front. Fasten the lower case to the upper case with the screws #153. The pre-drilled holes for these screws are in the bass pipe panel along the front and back edges as viewed from under the organ. With the cabinet inverted as it is, these holes are to be found from above, of course.

The bass pipe panel may be removed from the lower case on the support bars.

Set the upper case into the lower case keeping it frontward as far as possible. Slide the bass pipe panel forward as far as possible or until the windchest support bar just contacts the inside of the upper case front panel. In this location fasten the bass pipe panel to its support bars in the lower case using the screws.

The bellows "400", with the connecting rod already installed, may now be fastened into place on the

bass pipe panel. Fasten from underneath with 5 screws in such a way that, as viewed from the front, the right and back sides are almost flush with the inner wall of the upper case. This should be somewhere between 1 cm and 2 cm from the edges of the panel. This positioning should result in free movement of the connecting rod on the left side of the bellows.

Please note that some of the steps in the final assembly may have already been indicated in previous steps. Upon reading the steps in the final assembly it will become obvious that certain steps need not be completed in the earlier stages but can be left until this time. For instance the installation of the bellows on the bass pipe panel is referred to in an earlier section of the instructions but you will observe that it may have been set aside until this time. Essentially, each of the completed sub-assemblies can be brought together at this point in time for final assembly. After reading this section it will immediately be obvious which components need not necessarily be assembled earlier.

General Notes

The Hofbauer 20er MIKROBAND organ plays standard German 20 note rolls, 110 mm wide with 3mm holes which are also played on Raffin and many other organs. New rolls are available from many sources, including Mel Wright as well as organ builders. The spools used by Hofbauer have a different hub, having a protruding hex, rather than the inset hex used by Raffin.

Hofbauer also produced 20er organs which play from proprietary electronic cartridges.

There is a bit of discrepancy in the note markings given between the Hofbauer organ and the Mel Wright Tuning & Adjustment roll which is fairly commonly used in the USA for tuning. The actual notes to which the organ is tune run upwards from F, following the German standard. Mel Wright follows the Alan Pell practice of tuning up from G, or two-semi tones higher, and his rolls may be marked accordingly.