

## *Wurlitzer Style 148 Military Band Organ Serial Number 4166*

**Norm Otto**

**M**y wife, Tana, and I have been caretakers of a Wurlitzer Style 148 Military Band Organ since 1977. I first became aware of this organ in the early 1970s when a mechanical music instrument collector in Murrysville, PA advertised it for sale in *The Antique Trader*. Accompanied by my future wife, I set off for Murrysville. We arrived just in time to see the organ hoisted from the owner's basement and loaded on Herb Brabant's trailer. Fortunately for me, the next few years Herb had his hands full with other projects and offered to sell it in 1977. Since Tana and I were to be married in July, 1977, she thought it would be an appropriate wedding gift and bought it for me (**Figure 1**). Herb delivered it to Evansville, IN, our residence for the next five years, and when we moved to Hudson, OH in 1982, it came along.



Figure 1. The Wurlitzer 148 prior to restoration.

Backing up a little, my father and Jake DeBence share a large part of the blame for the large brass and oak, very loud machine that occupies a portion of our garage. How so? Well, my father loved the kind of music that is usual-

ly played on a band organ, and he enjoyed the band organ sound. He evidently passed these traits on to me. In the late 1960s, Jake introduced us to the Wurlitzer 148, his personal pet, when I took my parents to the DeBences' museum on his and wife Elizabeth's farm near Franklin, PA. At the time, I lived in Mentor, Ohio, and it became almost a ritual to visit the DeBences whenever my parents traveled from their retirement home in Florida. Listening to the W-148 was always a highlight of our trip to the DeBence collection. The thought of eventually owning such an organ, however impractical, was never far from my mind. Nearly 20 years after first entertaining such an unlikely thought, my wish came true. Be careful what you wish for!

### **Early History of W-148 S/N 4166**

Thanks to the help of several people, including Fred Dahlinger and Art Reblitz, I know that our organ was shipped from the Wurlitzer factory on May 6, 1929. The shipping records described it as "Duplex, Golden Oak, Metal unit chest, 238". "Duplex" refers to the duplex tracker frame, "Metal unit chest" to the metal-cased "four-in-one" primary valves (see "Restoration" for discussion regarding these valves), and "238" to the style of snare drum mechanics. The factory description fits our organ exactly.

The consignee was listed as Mary Corse, Dayton, Ohio. Mary Corse was the wife of Sherman Corse, who opened the Sherman Corse Skating Rink in 1929. The rink was located on the second floor of the building at 405 E. Fifth Street in Dayton. There can be no doubt the organ was originally installed at that site. The skating rink remained in operation beyond 1944, but how long the organ remained at that location is unknown.

The condition of the organ when we received it clearly indicated it had been part of a traveling show after it had been retired from the skating rink, and before it showed up in Murrysville, PA. However, approximately 30 years of the organ's lifetime are unaccounted for at this time.

### **Getting the Organ to Play**

When Herb delivered the organ to Evansville on July 2, 1977, it was not in working order. Uninstalled "accessories" included a separate motor-speed reducer assembly, brackets for a countershaft, and a spare pulley.

It was not until 1985 that I could afford the time to put the organ into acceptable playing condition (with no effort towards cosmetics), recognizing that a professional restoration would be necessary in the future. At this time, the pressure pump was restored by Mike Kitner and the accordion pneumatics were rebuilt by Bill Kap. The double roll frame required substantial work resulting partly from the failure of original pot metal.

I decided to power the organ temporarily with the motor speed reducer using a V-belt directly to the crankshaft. A crankshaft speed of about 75 RPM was achieved through judicious choice of pulley sizes.

Tuning was not my forte, so as a result, we suffered through a badly tuned organ until the complete restoration in 2008. My attempt at tuning did turn up several humorous incidents. When working with the brass trumpets and trombones, it was necessary to dump out the accumulation of popcorn and gravel first—which said volumes about the middle lifetime of the organ. And, the tuning effort I did accomplish was based on the pitches marked on the pipes. I found I could not get the trombones to play at the indicated frequencies, so I shut the trombones off. It wasn't until I opened the subject of restoration with Terry Haughwout, that I learned that Wurlitzer 148 organs were tuned to the key of B flat. This is equivalent to a full step below the pitch marked on the pipes.

### Restoration

Our W-148 was totally restored, cosmetically and functionally, in 2008, by Terry Haughwout and crew at Haughwout Music Co. in Bloomdale, Ohio (**Figure 2**). Considering the suspected rough life of this organ, it was amazingly intact. It had the original finish. No major components were missing, and moderate damage was limited to the case and brass horns. The only major component that had been rebuilt prior to our ownership was the vacuum pump.



Figure 2. The Wurlitzer Style 148 as seen in the Haughwout Music Company workshop.

### The Case

The organ case was the subject of substantial attention due to obvious abuse and neglect during the years of service after it left the skating rink in Dayton and before it was rescued by the first collector. The organ, during this period was almost certainly used in a traveling show as evidenced by the battered 2" x 12" skids attached to the organ bottom. At some point, six inches were cut from the bottom of the case, most likely to fit into a truck. In order to reestablish the original contours, a tracing was made of the base of the W-148 in the DeBence Musical World Museum" in Franklin, PA. This is the same organ that aroused my interest over 40 years ago. All new molding was made of quarter-sawn oak. Molding cutters were made from samples of original molding, and the new moldings are undetectable from the original moldings. Several other case parts were re-fabricated, using the originals as patterns; these included the front instrument shelf, the rear doors, and the base.



Figure 3. The leg contour after restoration.

The veneer was repaired and the case was stripped and refinished. A sample of pristine original finish was found under one of the front columns. The color of the refinished case matches that sample.

### Instrumentation

The trumpets, trombones, piccolos and clarinets were straightened, polished and re-lacquered (**Figure 4**). All wooden pipes were refurbished. The drums were recovered in sheepskin and were refinished including re-nickeling.

### Operating Components

All operating assemblies were rebuilt, with the exception of the pressure pump. This pump was rebuilt by Mike

Kitner in 1985, as mentioned earlier. The pressure pump had not been restored prior to that time. The sheet of newspaper that had been used to seal the bottom of the pump was still in one piece and legible. The page is from the *Buffalo Courier Express* for Wednesday, June 29, 1927. It contained a cartoon strip “The Gumps” and advertisements, among others, for “Blue Plate Spec., Chicken—\$.45, and “Lehigh Valley Train Service”.

The original tin/lead alloy tracker bar tubing was still in serviceable condition, so it was reused.

The “four-in-one” valves were completely rebuilt. Interestingly, they had not been previously serviced. Each of these valve assemblies consists of four valves within a single zinc alloy case. The use of these valves, rather than the more familiar unit valves, is attributed to the fact that this is a relatively late organ.

The drive system was returned to the top of the organ where it had obviously been originally as evidenced by bolt holes in the top and belt marks on the back. Flat belts were used, again in the interest of originality.

## MIDI

The Haughwout Music Co. installed a MIDI (Musical Instrument Digital Interface) on the organ at the time of restoration. This system was provided by the Mills Novelty Co. through the auspices of Mike Ames and



Figure 4. The polished trumpets, trombones, piccolos and clarinets present an impressive array of display pipes on this Wurlitzer Style 148.

Bob Brown. To my knowledge, this is the first application of MIDI to any organ using the W-150 roll. Mills has a library of over 850 tunes scanned from W-150 rolls. This entire repertoire was downloaded to our laptop hard drive which has the appropriate Mills-generated software. The organ can be operated wirelessly from a substantial distance. The MIDI system does not interfere with normal operation from rolls.



Figure 6. The motor and countershaft assembly sits on top of the organ.

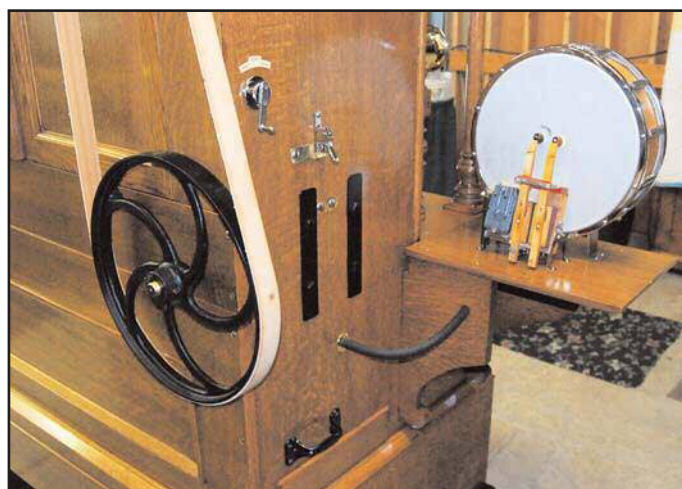


Figure 7. Powering the organ is performed by a wide leather belt as seen here. The “four-in-one” valve can be seen with the snare drum.



Figure 7. A Wurlitzer 1929 catalog illustration of the Style No. 148.

### Wurlitzer Style 148 Characteristics

Acquiring the organ prompted a heightened interest in learning more about W-148's in general. Understanding the W-150 music roll also got my attention since the capability of the roll and the music arranging share equal stage with the organ itself. The obvious present day parallel is the compatibility of electronic hardware and software.

### Wurlitzer Style 148 Organ Configuration

Figure 7, copied from a 1929 catalog reprinted by Vestal Press, gives the W-148 specifications. Our organ conforms to this specification except that there are 23 pipes in the bottom rather than 28. See below. The stops mentioned in the catalog description are all draw stops. As is reiterated in a later part of this article, the W-150 roll which this organ uses has automatic register capability;



Figure 8. The duplex tracker frame.

the W-148 organ does not. The piccolos and clarinets (clarionets) play from the melody register unless their stops are pulled.

The catalog states there are 28 pipes in the organ bottom. Ours has 23 with no indication any are missing. These consist of 16 melody, three bass and four accompaniment pipes. Our organ has the Duplex Tracker Frame (Figure 8), which I suspect was the case in most, if not all W-148's. In a single roll tracker frame, the roll will activate rewind at the end of the roll, and when rewound, will play again. In the case of the duplex tracker frame, the rewind hole will cause the roll to rewind and the opposite roll to play, providing essentially continuous music. It also facilitates changing one roll while the other is playing.

It was intended, per the Wurlitzer catalog, to be used in static locations—primarily skating rinks of up to 10,000 square feet in area.

### Wurlitzer Style 148 Band Organ Shipping Data

The Wurlitzer Style 148 Military Band Organs were shipped from the factory beginning in 1916 or possibly slightly earlier, until 1939. It's known, from existing shipping records, that 48 were shipped from 1916 to 1939, and it's possible that several more were shipped earlier. This data was taken from *Encyclopedia of Automatic Musical Instruments* by Q. David Bowers.

When reviewing the available shipping information, it would appear that the Style 148 was meant to supersede the Style 150, since nearly all the W-150s were shipped prior to 1916, and almost all, if not all of the W-148s were shipped after 1916. The Wurlitzer Styles 148 and 150 had identical instrumentation. The difference between the two is the substantial variation in facades. The W-150 has an elaborate artistic look which contrasts greatly to the W-148s simpler appearance (Figure 9).



Figure 9. Wurlitzer's 1916 catalog featured the Style 150 as well as the Style 148.

I believe that approximately a dozen Style 148s survive to this day. This is based on personal knowledge of ten of these organs and there are surely several more.

The Wurlitzer Style 148 Military Band Organ utilized the Style 150 paper music roll. The use of this roll is shared by Styles 146, 147, 148, 150 and 153 organs. Many organs built by other manufacturers were converted at the Wurlitzer factory to play this roll.

### Wurlitzer Style 150 Music Rolls

The tracker bar layout for the Style 150 music rolls is shown in **Figure 10**. As can be seen from the layout, the roll has five musical segments—melody, accompaniment, bass, trombone, and trumpet. It also has holes for bass and snare drums, rewind, coin trip, three automatic registers, and “all registers off”, for a total of 54 holes. The Style 148 uses all of the notes, the bass and snare drums,

and rewind for a total of 49 tracker bar holes (or “keys”). It does not use the three automatic stops, “all registers off” or coin trip holes. Only the Wurlitzer Style 153 band organ utilizes the roll’s capability for activating automatic stops.

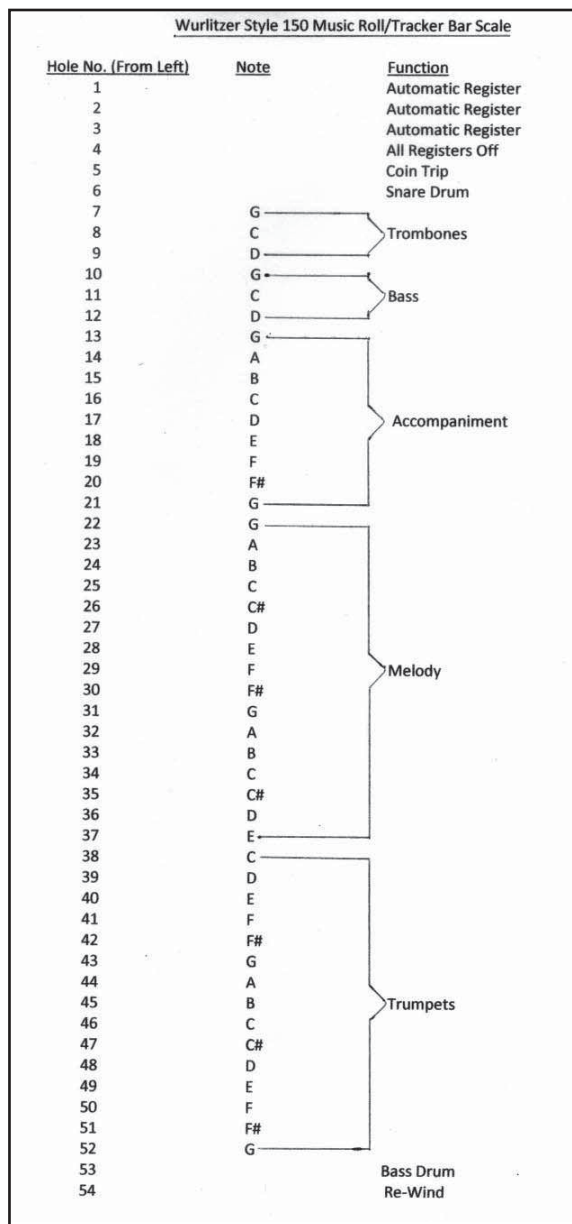


Figure 10. The tracker bar layout for the Style 150 music roll.

The Wurlitzer factory arrangements for this roll are heavily biased towards marches, waltzes, fox trots, and one and two-step dances. Most of the organs that utilize this roll were destined to be played on carousels or in skating rinks and dance halls so the choice of music on factory rolls was predictable. Medium size American band organs were not generally regarded as a source of entertainment in themselves, but usually occupied a sec-

ondary role—that of enhancing the fun of a midway ride or providing rhythm for skaters or dancers.

As indicated on the tracker bar layout, Figure 10, the trumpets and trombones play solo. This provides the possibility of trumpet counter-melody. The factory arrangers generally neglected this opportunity and, in fact, usually scored the two registers, trumpet and melody, in unison. A fellow W-148 owner has opined that being paid by the meter of arranged music may have been the deciding factor in this sort of arrangement.



Figure 11. The completed Wurlitzer Style 148 Military Band Organ, serial number 4166.

In the past, W-150 rolls were arranged and produced by others, notably BAB (Borna, Antoniazzi, Brugnolotti). Although these rolls have been criticized regarding quality issues, they tend to be more imaginative in arranging style. Today, W-150 rolls are available from several manufacturers and are a mix of re-issues of original factory rolls and newly arranged rolls.

### An Open Invitation

Since we don't trailer the organ to rallies or other events, it doesn't get the exposure that it warrants. For anyone who plans to be in northeast Ohio, and who would like to see and hear an 82 year old brass trumpet organ, please consider visiting us.

Norm Otto is a retired engineer. He started collecting mechanical musical instruments in 1965. His wife, Tana, is a retired teacher.