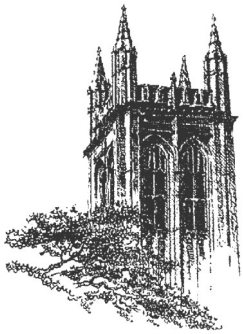

Chime Master - Top Rung Tower Chime

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PROPOSAL FOR THE RESTORATION OF
THE DEAGAN TOWER CHIME SYSTEM
INSTALLED IN THE
ADAMS MUSEUM
DEADWOOD, SOUTH DAKOTA, 1930
Including the Dampers

Work to be done by Chime Master Systems DBA:Top Rung Tower Chime:

1. Provide hoisting equipment for removing the strikers, dampers, ~~and main relay~~.
2. ~~Supervise and assist with the hoisting~~. Chime Master will remove striker and dampers
3. Insure and transport the ten strikers, ten dampers, ~~the main relay~~, and the eighty damper springs to the Top Rung/Chime Master shop in ~~Etowah, TN~~. Lancaster Ohio
4. Disassemble, clean, and recondition all ten Type G striker actions:
   a. Bead blast, prime, and paint the cast iron parts of the strikers.
   b. Replate all plated steel relay parts.
   c. Rewind all twenty striker bobbin coils to Deagan's later improved design to reduce heating, sparking, & contact burning.
   d. Rewind the one suspect strike coil.
   e. Rewind all ten retract coils to reduce overheating of the coils, and possible breaking of the cast iron striker bases.
   f. Replace all plated steel machine screws with brass screws wherever possible.
   g. Replace all ten rawhide striker tips.
   h. Replace the wiring harnesses on all ten strikers.
5. Disassemble, clean, and recondition all ten dampers:
   a. Bead blast, prime, and paint the cast iron parts of the dampers.
   b. Reinsulate the damper coils.
   c. Replace the deteriorated underpads and the top laminated rubber pads with the same materials that Deagan used.
   d. Clean the eighty damper springs.
   e. Replace the forty leather bumpers.
   f. Replace all plated steel machine screws with brass screws.

~~6. Disassemble, clean, and recondition the main relay.~~
   ~~a. Replace all plated steel machine screws with brass screws.~~
   b. ~~Replace the felt bushings in all ten solenoids~~.

7. Insure and transport the restored strikers, dampers, ~~main relay~~, and damper springs from ~~Etowah~~ Lancaster Ohio to Deadwood.
8. ~~Assist with hoisting the restored equipment~~. Chime Master to hoist and install.
9. Connect and lubricate the restored strikers.
10. Install and connect the restored dampers.
11. ~~Connect the restored main relay.~~
12. ~~Connect the keyboard and pilot light~~.
13. ~~Clean, recondition, and lubricate the original Westminster chiming device on site.~~
14. ~~Install new Day/Night relays to shut down the Westminster chiming device for twelve hours each day, so that the mechanism operates 48 times each day instead of 96 times, thereby doubling the life expectancy of the chiming device.~~
15. ~~Clean, recondition, and lubricate the original roll player on site.~~
16. ~~Install a safety timer to automatically shut down the chime system if it is left running for more than a predetermined time (the timer is usually set for a half hour).~~
17. Adjust and lubricate the entire system.
18. Provide a one-year warranty on the restoration of the instrument.
19. Provide modern solid state touch screen chime controller.
20. Provide modern solid-state relays to switch strikers (reduce sparking and reliable)
21. Provide modern solid-state relays to switch damper relays
22. Provide two (2) solid state DC power supplies.
23. Chime Master will digitize the deagan player rolls and install in controller.
24. Chime Master will contract and pay for crane service to lift strikers off and back on the building.

Work to be done by the City of Deadwood or the Adams Museum:

Chime Master will update (simplify) electrical requirements after removal of strikers and dampers (section highlighted in yellow below)

1. ~~Remove the ½" EMT conduit that prevents the doors of the main relay cabinet from opening.~~
2. ~~Repair the 220/240-volt electric service to the motor/generator unit with AWG #10 wire on a dedicated 20-amp circuit breaker.~~
3. ~~Repair the 120-volt electric service to the Westminster chiming device and the roll player. The Westminster chiming device is fused at 6 amps; the roll player is fused at 3 amps.~~
4. ~~Service the motor/generator unit and repair it if/as necessary. Top Rung stocks brushes for the two common types of generator that Deagan used.~~
5. ~~Connect the original 120-volt STOP and START buttons on the keyboard table.~~
6. Install a GFCI duplex service receptacle in or near the chime loft.
7. Install service lighting in the attic and chime loft.
8. Replace both failing bottom/lower base timbers.
    a. Disconnect the main junction box so that the chime rack can be raised three or four inches.
    b. Hoist the chime rack from the window sills or the tops of the chime loft walls.
    c. Repair or replace the decking. Ideally, the decking will have only three penetrations: the hatch, the large D.C. conduit to the chime rack, and a conduit for lighting.
    d. Set the new bottom/lower base timbers on six UV-stable vibration pads. Shim as necessary. The new timbers must have two or more coats of paint on all sides. Pressure-treated timbers are not recommended, as they are likely to warp and/or twist. The vibration pads will be provided by ~~Top Rung Tower Chime~~ Chime Master.

e. Prep & paint the bottoms of the original base timbers.
f. Set the chime rack on six UV-stable vibration pads on the new bottom/lower base timbers. The vibration pads will be provided by Chime Master.

9. Repair or replace the bent main junction box on the chime rack.
10. Install the following wires from the main relay cabinet to the new or repaired main junction box on the chime rack:
    a. One red #6 wire (19-strand if available) (tag with red tape if red #6 is not available). At the balcony end, leave enough length to reach the generator.
    b. One black #6 wire (19-strand if available). At the balcony end, leave enough length to reach the generator.
    c. Thirteen yellow, orange, blue, or pink #14 stranded wires, numbered "1" through "13." At the balcony end, leave enough length to reach the floor of the equipment cabinet. Leave 20' of wire at the chime loft end.
    d. Thirteen yellow, orange, blue, or pink #12 stranded wires, numbered "1" through "13." At the balcony end, leave enough length to reach the floor of the equipment cabinet. Leave 20' of wire at the chime loft end.
11. ~~Provide a crew to help with the hoisting.~~
12. ~~Provide a smoke-free work environment~~.

This proposal does not include the following:

1. Any work on the covers. The covers contain their original asbestos insulation. If you wish to safely abate it, Top Rung can install new asbestos-free insulation. New insulation can be quoted as an addendum.
2. Repairing damage caused by fire, abuse, earthquake, or storm.

Chime Master Top Rung will perform the work described above for $69,790.00 plus any applicable taxes. The following payment schedule is proposed:

Deposit (already paid)	$ 2,191.00
50% upon removal of the strikers, dampers, (estimated to be fall, 2024):	$34,985.00
40% upon delivery of the restored equipment (estimated to be early fall, 2025):	$27,916.00
Balance upon satisfactory completion of the job (estimated to be early fall, 2025):	$ 4,698.00

If the terms of this proposal are acceptable to you, please sign and date.

Proposal submitted by: *Jeffrey A. Crook* Jeff Crook – President, Chime Master Systems

March 28, 2024

Accepted by:

Position: Date: