

Near miracle on Arcade Street: How Egan brought joyful noise back to a St. Paul Church.

By John Banttari

Sometimes, the music just, well, it dies. That is what happened late this summer at the First Covenant Church on Arcade Street in St. Paul. The massive pipe organ in the sanctuary was silenced by a failed cranky old electric motor in the basement. The worshippers were saddened by this sudden, but very obvious condition.



First, a little background. Back in the days before electricity flowed to every corner of the city, pianos were widely used as musical accompaniment in churches. Pipe organs date back over 2,000 years, and depend on a source of air to be provided to pipes, each working much like a whistle. Early organists needed to have a second person working foot pedals that were connected to bellows that pumped air to a wind chest, which in turn delivered air to the pipes via valves. The availability of electric motors that would drive fans to pump air to the wind chest resulted in huge pipe organs being built that could shake the rafters of the building.

The pipe organ at First Covenant was built in the 1950s, re-built in the 1980s, and used a five horsepower blower motor made by Century Manufacturing in 1903. Yep, 109 years ago. So when the 109-year-old motor decided to take a little rest, Rob Haarsager, Director of Administration at the church, started asking around to find out who works on pipe organ blower motors. It seems that an organ builder Rob contacted recalled

that another church had a similar problem that was solved by Charlie Wivinius, a service truck electrician with Egan's Weber Electric Group in St. Paul. With that, the call came in. And a visit was made to look at the resting motor. Located under the basement stairs was a huge multi-section fan wheel attached directly to the motor, all enclosed inside a huge sheet metal shroud. The motor, even though only 5 horsepower is as big as and probably heavier than the engine in a Volkswagen. No room for a lift, and not having the right tools and know-how to tear into this old but important piece of machinery, it was decided to make the call to the Egan millwrights.

Marc Beltz, Egan's Millwright Project Manager, who happens to live just down the block from the church, together with Bob Dalske managed to figure out how to remove the fan wheel and get the resting motor out of its mounting cradle and on to the next stop of this motor's long life story.

Egan has a great resource in its suppliers and supporting subcontractors. Electric Motor Repair, near the corner of Broadway



and I-35W in Minneapolis, has a great reputation of taking on repairs on electric motors of all ages and sizes. Their building is packed to the ceiling with all sorts of electric motors and motor parts, and is staffed with skilled craftsmen who know



which end of a tool is which. Sales Manager Mark Stommel (Egan Electrical Construction

PM Gary Stommel's brother), assured a priority placement of the resting motor in the repair schedule. It was found to have a fault to ground in the rotor (the part that spins), which was cured by repeated heat drying, dipping in an insulating varnish, and baking in a curing oven. New brushes, resurfacing of the commutator, and new, custom-machined sleeve bearings returned the motor to nearly-new condition. Motor technician Mark Reed said this motor was the oldest one he ever worked on, and was amazed by how well it was built.

With a new coat of paint, the motor was shrink-wrapped and ready to head back home where Marc Belz and millwright Mark Schneider waited to ease the motor back into place, clean and re-assemble the fan wheel back onto the motor's shaft, and re-install the sheet metal shroud. Once that was done, Charlie re-connected the power and it was wake-up time for the motor. Richard Voth, First Covenant's Minister of Worship and Creative Arts, went up to the organ console and flipped on the power switch. We all watched the motor dutifully spin back to life, and then we went back up to the sanctuary where Richard played a few stanzas of music. A rich, vibrant sound filled the church. The organ music was alive again! "Can I get a halleluia here?"

One of the great joys craftsmen of all trades experience is seeing, or in this case hearing, the fruits of their labor, and having the satisfaction of knowing how it positively impacts the lives of others.

Rob and everyone at the church are very appreciative of how well the project went, and he is letting the organ builder know that we are qualified service providers ready to help. The Electric Motor Repair/Weber/Egan team thanks First Covenant for calling on us to restore good vibrations to their building and its congregation.