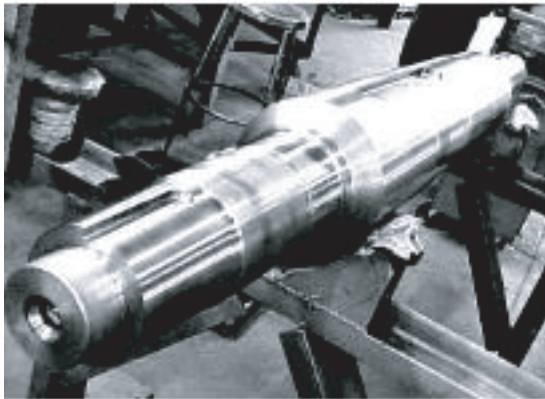




A big bang in Philly



On Wednesday, June 22, 2004 a condensate pump motor in Philadelphia snapped a shaft. Ordinarily that isn't big news. Pull the motor and replace it with a spare. Simple. Only this was a vertical 900 hp/4000 volt motor weighing in at 38,000 lbs; so when the shaft broke it got very ugly, very quickly. The rotor dropped, hit the stator, and basically tore up the motor.

This motor was a vital component for the customer and there was no time to ponder the "what if's," or "how's," etc. It needed to be repaired, repaired right, and put back online very quickly.

Responding to a call from the customer, our VP of Engineering immediately left a meeting in Washington, DC and arrived at the client's site to examine the unit for cause of failure, and developed a tentative plan of action. The unit was trucked to Longo/Wharton and arrived at midnight on the 24th. Disassembly began right away and, with the customer on site, the plan was finalized and immediately implemented. The customer was desperate to have the unit back in service for the 4th of July weekend. Every hour of downtime was costing tens of thousands of dollars. A seven day turnaround was critical to meeting this requirement. Most said it couldn't be done.



In a time when clean rooms and dust free zones are the norm, it was almost medieval to experience the sights and sounds of



four men wielding high intensity acetylene torches, heating the rotor to release the remains of its scored and broken shaft. The ultimate "bang" when the shaft was free is a glorious sound, believe me.

There was no stock replacement shaft for this 50 year old motor, so a new shaft had to be manufactured. An appropriate piece of 4140 hot rolled steel stock was located just outside of Philly. The material was trucked up the turnpike for its final machining. Simultaneously, Longo technicians geared up to wind the stator and repair the damage to the lower end of the motor. Teaming up with our supplier/partner TECO/Westinghouse, we were able to get several critical parts fabricated in 72 hours. Work proceeded around the clock through the