



# Quality Inspection Uncovers Impending Short-Term Failure



Often, a simple shortcut or misstep in a pump maintenance procedure or rebuild can lead to unforeseen and excessive life cycle costs, or ultimately catastrophic failure.



1. A tension test can verify 100% perpendicularity and parallelism of components.

When an end-user could not rotate its critical boiler feed pump shaft to align the pump to its driver, a combined cycle plant contacted an aftermarket pump service provider to examine a problematic third-party pump rebuild, as well as remove, inspect, and repair the failing equipment.

Prior to disassembling the recently rebuilt pump, the aftermarket pump service provider performed a visual inspection to see if there was any evidence of incorrect assembly procedures. The most apparent defect was observed on the outboard side of the pump. The shaft sleeve should have .250" minimum clearance between its face and the labyrinth seal, but the sleeve had been rammed into the lab seal making the pump shaft impossible to turn.

Before shipping any rebuilt pump, it's essential to perform a quality assurance check to confirm the shaft turns freely. However, in this case, a few critical steps may have been overlooked during the pump's previous maintenance work.

Read the [full article](#) in the May/June 2022 World Pumps Magazine.