

## COMPREHENSIVE ANALYSIS OF A ROTORDYNAMIC PROBLEM

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### ABSTRACT

This paper covers a case history of a generator rotor that went through extensive repair and modifications. Despite a great effort in following the work processes and quality control in the shop and with successful completion of repairs and high speed balancing (solo) in the bunker, the rotor exhibited unusual behavior when installed in the field. Vibration of any machine is only a symptom that in a traditional approach is treated by "balancing," very often without ever discovering the root cause of the vibration. Treating vibration as a symptom, and diagnosing its root cause, is the topic of this paper.

**Keywords:** Vibrations, eccentricities, modal balancing