

Altamira II Mitsubishi 501F Gas Turbine.

PROJECT SCOPE

The 501F gas turbine was shutdown for a scheduled outage. During the reassembly stage, at the end of the major inspection process, several clearance issues were detected. After a thorough internal alignment check, it was determined that the turbine had a forced outage about 2 years prior to the major inspection performed. The forced shutdown was caused by an explosion on the exhaust end of the turbine, which significantly damaged the exhaust bearing housing and support struts.

ACQUIP'S SOLUTION

ACQUIP was at the job site within 24 hours equipped with a FARO laser tracker system. The turbine was checked for its pre-alignment condition, and an initial set of measurements were quickly and effectively performed. The initial set of data was recorded at the compressor, combustion and turbine casings as well as the bearings and torque tube. The readings enabled the problem to be quickly identified. The exhaust bearing was severely misaligned and upon further inspection, the engineers found that the support struts were slightly bent. ACQUIP was able to calculate the precise and required adjustments in order to correct the clearance issues that the turbine was experiencing.

PROJECT RESULTS

ACQUIP's experience and versatile laser tracking system shortened the outage downtime by quickly getting all the alignment readings. The readings and results were produced in merely two-12hr. shifts. ACQUIP narrowed in on the problem, providing the service provider the data he needed to make the adjustments and end the outage.

