

Assessing the manufacturer's quality control system

Incoming inspection of hot gas path components

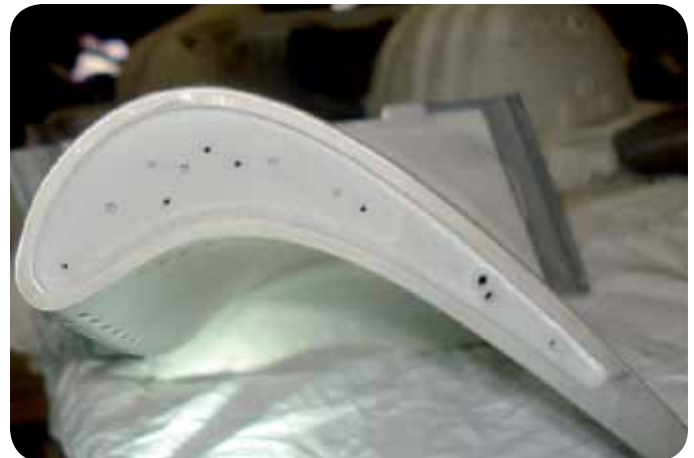
WHY PERFORM AN INCOMING INSPECTION?

Hot gas path components of a gas turbine are considered to be among the most expensive components of a gas turbine. As such, the last thing you want is an important quality issue on a set of new or repaired components. However, several critical quality issues have been found in the past, illustrating the importance of a proper inspection of the parts. Typically, all findings have one thing in common: they should have been detected during the manufacturer's quality control process. The added value of Laborelec's incoming inspections is to avoid machine damage by preventing that components with quality issues are installed in the gas turbine.



A VAST EXPERIENCE WITH GAS TURBINE COMPONENTS

Over the years, Laborelec has had the opportunity to gather a vast experience with the incoming inspections of both new and repaired gas turbine components from all major parts manufacturers, from blades and vanes to combustor parts. The main goal of these inspections has always been two-fold: on one hand checking the quality of the delivered parts, but on the other hand also checking the robustness of the quality system of the parts provider. This vast experience with incoming inspections has allowed Laborelec to assist several of the GDF-Suez CCGT plants with the quality issues that were found on their components. If the quality issues are critical, our inspection can even result in a complete swapping of the set of components.



INCOMING INSPECTION PROGRAM

In the past, an incoming inspection simply consisted of a 100% visual check of the delivered parts. With component designs that become increasingly more complicated due to the increasing use of high-temperature coatings and film cooling holes to lower the temperature of the component as much as possible, coating thickness and/or adhesion measurements, and fiberscope inspection of the internal geometry are also included in a typical incoming inspection scope. If requested by the customer, Laborelec can also foresee a training of local personnel in the field of incoming inspection of hot gas path components.



REFERENCES

Incoming inspection of Frame 7FA+e and 9FA+e capital spare parts for Marafiq IWPP, Saudi-Arabia and Al-Dur IWPP, Bahrein. Both missions included training of local personnel

Incoming inspection of combustor parts and hot gas path components for the Frame 9FA+e and 9FB power plants in Belgium and Luxembourg

Incoming inspection of Mitsubishi M701F3 combustor parts of the Castelnou power plant, Spain

Development of incoming inspection guidelines for Alstom GT26 gas turbine components



FIVE REASONS FOR YOU TO CHOOSE LABORELEC:

- > One-stop shopping for your energy related services
- > 50 years of experience
- > Increased profitability of your installations
- > Independent and confidential advice
- > Recognized and certified laboratory

CONTACT

Kurt Boschmans

T: +32 2 382 02 65

F: +32 2 382 02 41

Cell: +32 475 77 04 69

Sigrid Gijbels

T: +32 2 382 05 25

F: +32 2 382 02 41

Cell: +32 478 65 26 33

