



Case Study
30 MW rotor bend removal and repair

30 Mw turbine rotor repair

Customer Initial Report:

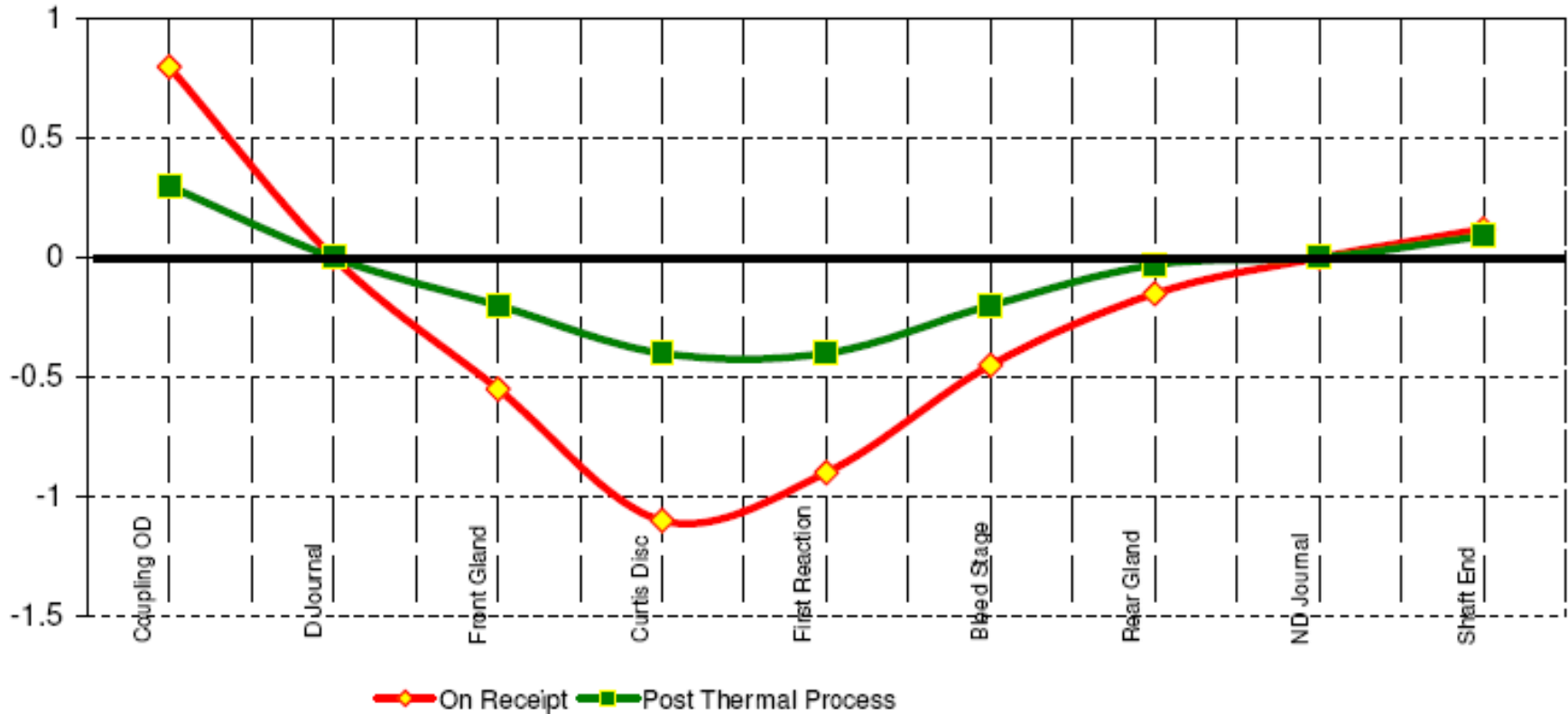
- Turbine overhauled and during re-commissioning the TG experienced high vibrations and was immediately shut down.



Status check at Works

- Rotor removed and transported to Bangalore works and a run out check done
- Rotor Gland areas subjected to heavy rubbing & rotor seized *due to complex bend of 1.8 mm and blade breakages*

30 MW SIEMENS HP ROTOR REPAIR A/C UGAR SUGARS (R-0745)

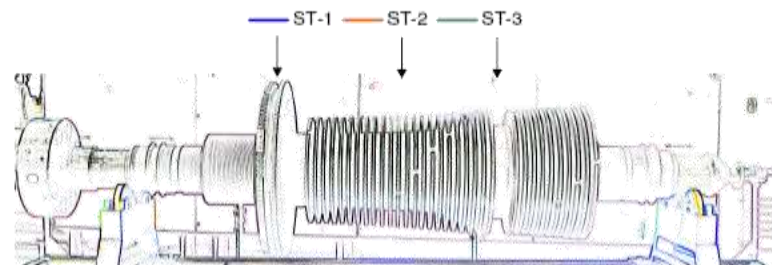
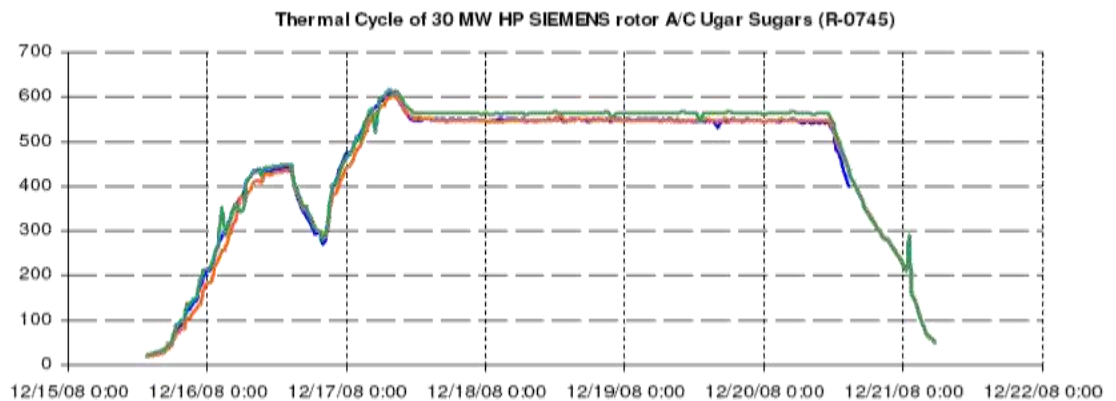


Challenges

- Budget constraints not allowing for a new rotor to be ordered.
- Old generation rotor with design constraints of root design
- Time for completion limited to ensure start up in the season to avoid accumulated losses.
- **In complete faith customer did not even look for option other than Triveni. This put immense pressure to ensure Engineering & manufacturing skills of Triveni perform.**

Solutions

- Triveni reviewed all option and decided on the following solution
- Thermal cycle to ensure removal of stresses and bend and skin cut to ensure that run out is brought within 0.05 mm
- Changed the complete blade design to standardize with Triveni design



Project completion



After machining



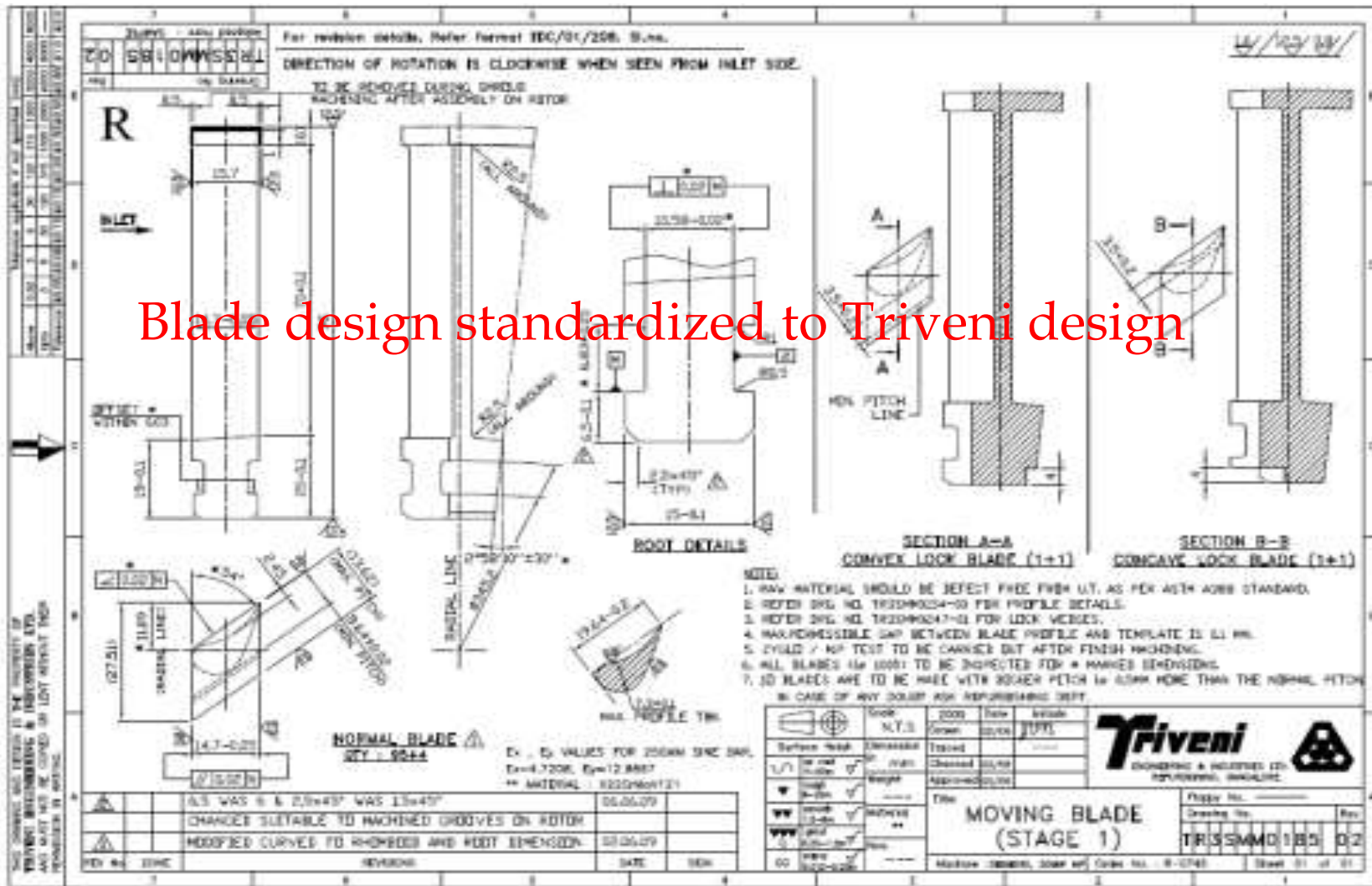
New blade design as Triveni design



Ready for despatch

- The job was completed on time and within the budget defined by the customer.
- The customer is operating the turbine for the past 3 years without any issues.
- *The standardization also has given immense confidence to the customer on the capability of Triveni*

Blade design standardized to Triveni design



Customer speak

Current Status

“Triveni has displayed a lot of engineering skills in being able to bring our turbine into operation.

We had complete confidence in Triveni and hence on the forced stoppage we put our faith in Triveni to complete the job for us and they have reposed the faith.”

Currently operating for the past 3 years.

WE CARE