

IN-PLACE MACHINING OF STEAM TURBINE ROTOR SHAFT IN FOUR DAYS

ATLAS ENERJI - TURKEY

In-place machining eliminates the logistical and cost-related challenges associated with repairing large equipment and machinery that is not easily moved. Goltens' in-place machining capability is well known when it comes to repairing large diameter crankshafts but this technology is also successfully applied to repair journals of all sorts and dimensions around the world.

As such, machining a damaged 500mm diameter steam turbine generator shaft for Atlas Enerji in Turkey presented no unusual challenges. Goltens sent one of its in-situ managers to the site in Turkey to inspect the damaged shaft. Goltens produced a proposal that met the manufacturer's specific technical process and the customer's repair schedule and was contracted by CPI Engineering Co., Ltd to carry out the repairs.

TURBINE ROTOR SHAFT REPAIR SCOPE

- Complete inspection of the rotor shaft including hardness checks, MPI, measurement etc;
- Machining of journal radius/fillets;
- Machining of the shaft journal to undersize 1.00mm;
- Honing and polishing of rotor shaft journal;
- Fabrication of bluing dummy shell and performance of blue fitting test;
- Post machining inspection

EARLY COMPLETION OF THE REPAIRS

Goltens' experienced in-place machining team completed the repair 2 full days earlier than the 6 days initially proposed allowing the power plant to keep up with its planned maintenance schedule.

The results were inspected and approved by the plant's technical director, manufacturer's surveyor and the project quality control officer.

PROJECT FACTS: ATLAS STEAM TURBINE

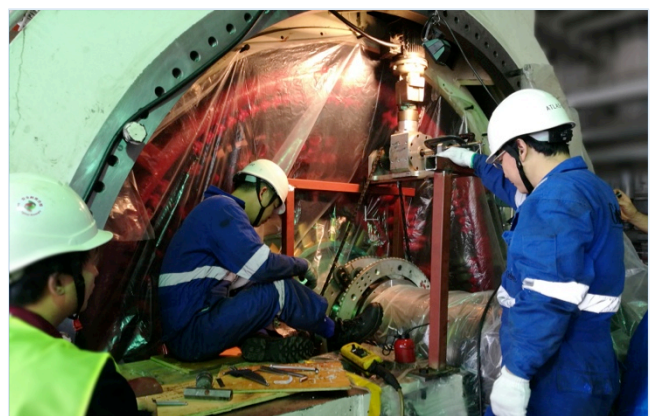
Customer:	CPI Power Engineering Co., Ltd
Location:	Sariseki, Turkey
Plant:	Atlas Enerji Uretim Misafirhane
Plant Capacity:	2 Units - 600MW/unit
Journal Dimension:	500.00mm x 100.00mm



Number one Steam Turbine Generator



Complete inspection of turbine journal



In-place machining of rotor shaft journal