



Spare Parts

Spare parts for AEG Kanis, Wesel and ABB Nuremberg steam turbines

GE's seamless re-engineering process enables the configuration supply and installation of turbine spare parts during the timespan of a major outage.

Part Supply Improvement

GE provides spare parts for servicing AEG Kanis, Wesel and ABB Nuremberg steam turbines. With GE's approach to steam turbine service, spare parts can be engineered, manufactured, delivered, and installed within the timespan of a regular major turbine outage.

The reduced need to order and store large quantities of spares can result in substantial savings for the customer. The assurance of quality makes GE's re-engineering a very viable option.

Background

When planning a steam turbine outage, the question arises as to whether the required spare parts will be available. Operators often request a set of spares from their service supplier up front if they do not hold them in stock.

However, the spares required are often unknown upfront; they will be determined by a turbine condition assessment that is performed at an early stage of the outage. This means that the spares available will often not match requirements. On-time delivery is essential for the timely completion of tasks. Furthermore, the spares must fit exactly and comply with the customer's specific turbine installation.

Solution

With decades of customer service experience, GE has developed a seamless process which integrates its capabilities in turbine assessment, engineering, supply chain management and field service. Starting with the condition assessment of the turbine components, parts are earmarked for replacement, refurbishment or continued use.

Necessary spare parts are re-engineered based on hardware only by using parametric configuration tools specifically developed for AEG Kanis and Wesel steam turbines. The parts are then manufactured to GE's quality criteria.

They are then delivered to site and installed within the timespan of a major outage. These parts will often include the following:

- Turbine bearings (shells, white metal locks) (Fig. 1. and Fig. 2.)
- Control valve internals (spindles, cages, springs) (Fig. 3. and Fig. 4.)
- Emergency stop valve internals (spindles, steam strainers)
- Steam turbine blading (fixed and moving) (Fig. 5.)
- Sealing components
- Gearbox and oil system components
- Consumables (all consumables needed for an outage)

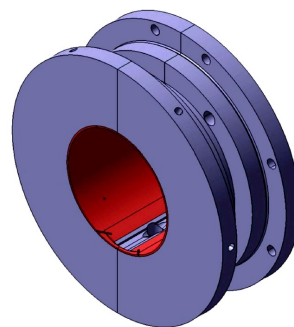


Fig. 1: AEG Kanis Radial bearing

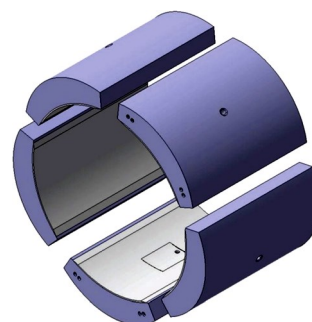


Fig. 2: AEG Kanis tilting pad radial bearing

Benefits

- Better outage planning
- Warehouse savings
- Quality re-engineering scope for configuration improvements
- Reducing the cost of electricity by reducing outage delays of spare parts
- Increasing flexibility and reliability with part improvements

GE's spare part service enables operators to execute their outages to schedule and budget. The scope of spares delivery matches exactly with the requirements identified by the turbine condition assessment.

Spare parts are precisely manufactured to the same quality standards as those of the original OEM. However, minor improvements can be made to the architecture, such as the selection of a superior material. In all cases, we work with the customer to ensure full compatibility with its needs and the needs of its machine.

Applicability

Spare parts solutions are available for all ABB Nuremberg steam turbines as well as SST 200/300/400/500/600 AEG Kanis and Wesel steam turbines.

References

GE has vast engineering experience as a manufacturer of steam turbines, and specifically with inspections and outages on AEG Kanis, Wesel and ABB Nuremberg machines.

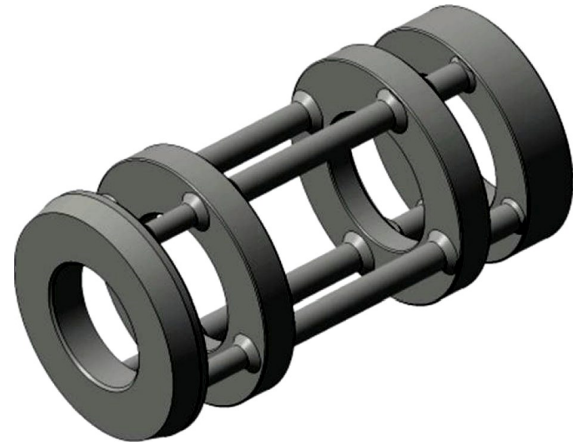


Fig. 3: AEG Kanis valve cage



Fig. 4: AEG Kanis valve spindle



Fig. 5: AEG Kanis blades