

Do generator rotor fan vanes & blower blades fail?

The potential failure of generator rotor fan vanes and blower blades has been identified as an area for detailed risk assessment in the electric power generation industry. Liberation of fan component has caused catastrophic damage to both the rotor and stator components on a number of units.

Can a generator rotor be changed?

Many options are available to the user in which the rotor can be restored to the original condition, modified to present day design condition or replaced with a new, upgraded design. Modifying or replacing the generator rotors also gives the user the possibility of upgrading the generator. Q. What is the typical lifespan of a generator rotor?

Why do generator fan wheels fail?

Similar to retaining rings, these surfaces are subject to larger interference fits which should periodically be inspected. The failure mechanisms most common to generator fan wheels include: low cycle fatigue, high cycle fatigue, brittle fracture, corrosion and erosion.

Can a GE generator rotor be replaced?

With the average age of the GE generator fleet rapidly approaching the limit of the original intended life, utilities and industrial users are seeking alternatives to replace this aging equipment with new generators. One component of the generator that is typically refurbished, upgraded or replaced is the generator rotor (field).

Do generator rotor fans/blowers have high stress?

Generator rotor fans/blowers are subject to both high steady and fatigue stresses during operation. The fan/blower blade itself is highly stressed. The highest stresses in an axial blower are developed in the base of the blade or in the blade root attachment to the blower hub.

Why are generator rotor fans/blowers important?

Generator rotor fans/blowers are critical, highly-stressed components justifying design scrutiny, proper material selection, quality fabrication techniques, and judicious non-destructive examination. Generator rotor fans/blowers are subject to both high steady and fatigue stresses during operation. The fan/blower blade itself is highly stressed.

disk imbalance within limits when repairing or replacing fan blades a fan blades rearrangement procedure must be applied. In this work various methods of fan blades (re)arrangement are ...

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These direct drive fans are designed to replace your current fans with limited disruption. They're are a drop-in upgrade for belt-driven fans for GE packages and can: Eliminate the squealing belts on startup and the process of properly ...

OEM 0C8096 - Fan, 8" Curved Blade - replacement. We offer authentic parts, and the expert advice you need to complete the repair. ... Fan, 8" Curved Blade 0C8096 \$ ...

This is probably more work than replacing the complete fan and the motor. You have to do the same amount of work to get to the fan blade as you would removing the old fan. There is no other option as you have to remove ...

Follow these steps to properly remove and replace your generator fan. Removal of the Old Generator Fan. Disconnect the generator: Before starting any work, ensure that the generator is completely shut off and ...

Open the stator housing, pull the rotor and clear out all of the debris from the broken fan, reassemble everything sans fan, then attach an electric fan to the "output" end of the generator to pull the air/exhaust out.

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