

DETAILS OF INTERESTING CLAIM

No: DOIC59 (EAR)

Type of Insurance:

EAR

Description of damaged item:

Rotor of a gas turbine

Cause of Loss:

(2) Faulty material or workmanship

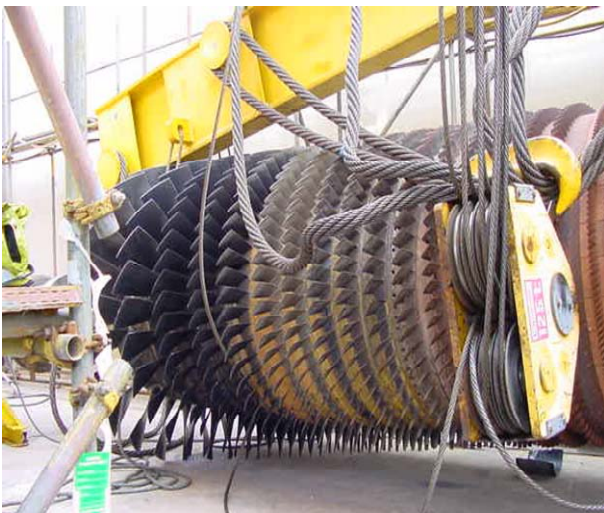
Claim Cost

Description of Incident and Loss Prevention Measures initiated:

A major loss occurred to existing property during a contract for replacing some blades of a gas turbine.

During a planned outage of a gas turbine power plant in order to replace a number of blades, a crane failed while lifting the rotor out of a gas turbine.

The rotor of massive weight sank to the ground with resultant damage to various parts of the rotor. The supports - prepared to receive the rotor - were hit by the coupling flange on one side and by turbine blades of row 1 on the other side and were pushed away a few metres. The balancing beam and the steel ropes of the lifting equipment fell onto the rotor additionally damaging the area of compressor stage 1. The crane trolley hit compressor blades in the area of the stages 14 to 16. On the turbine side, several blades of four rows were affected, and the straightness of the rotor was doubtful.



Compressor section with beam on top



Turbine end hitting the ground

Inspection and repair of the rotor involved a complete disassembly of the blades in order to allow detailed checks on the rotor as well as on the blades. It was necessary to send the rotor and the blades back to the manufacturer.

In the meantime a new rotor including new blades was ordered. This allowed recommissioning of the gas turbo set two months after the accident.

Repair of the damaged rotor was achieved within 4 months, which served then as a spare.

(From [Rehabilitation Works and High Coverage Limits for Existing Property](#)- IMIA Paper WGP53 (07)E)