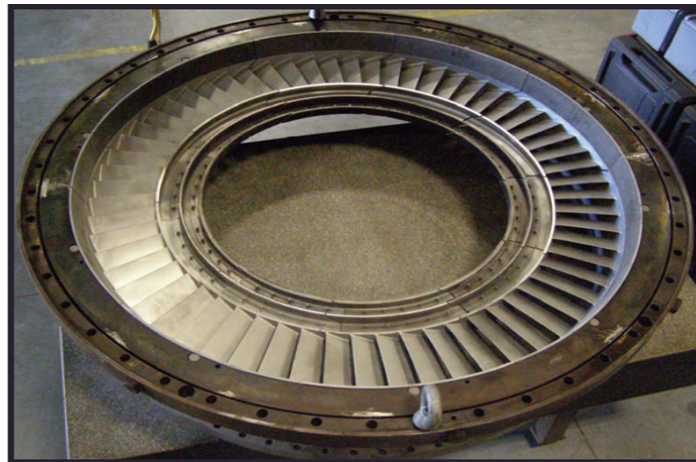


# DRESSER-RAND GT61 POWER TURBINE COMPONENT RESTORATION

By Robert Klova, PE

RMS recently completed a major component overhaul of a 1970's vintage GT61 power turbine for a North American gas pipeline company. The project involved the restoration and repair of the two stage-rotor and all high-temperature nickel-alloy stationary components. A new upgraded Incoloy 901 rotor disk was designed and manufactured by RMS to replace the original A286 second stage disk. Components from the customer's



inventory of used spares, along with parts from the currently operating turbine, were inspected to determine the most suitable components for repair.

To define the work scope, RMS performed dimensional and NDT inspections of all components. A detailed CAD layout of the turbine was created to ensure that proper fit-up and clearances would be maintained during the rebuild, given that components from several sources were used. High-temperature casings were weld repaired, straightened, re-heat treated and remachined. Stators were weld repaired and remachined to re-establish proper axial clearances to the rotor. All new high-temperature fasteners were supplied. A significant portion of the repair work was performed on a rapid-turnaround basis on components removed after shutting down the operating turbine.

The customer expects to be able to operate the repaired power turbine until eventual retirement, using the components manufactured and overhauled by RMS.

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