

ADVANCED TURBINE SUPPORT

MS7001FA S-1 Stator Vane Failure

PURPOSE

To inform users of potential stator vane cracking due to high-cycle fatigue.

UNIT TYPE

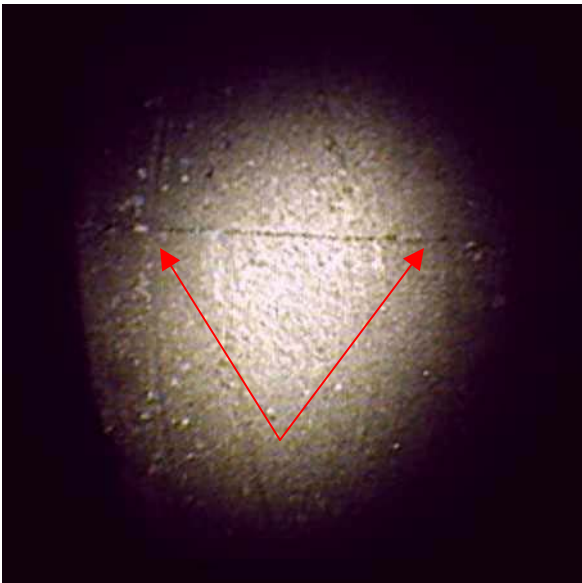
This newsletter addresses the MS7001FA.

HISTORY

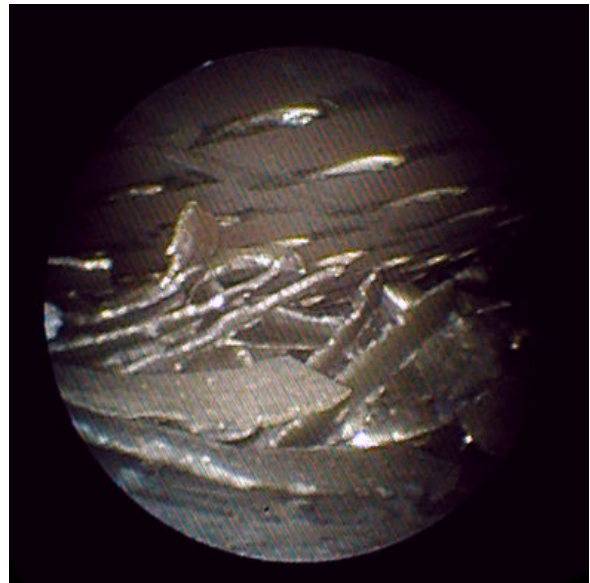
There have several recent total compressor failures related to S-1 stator vane tip liberations. The root cause of these failures appears to be caused by the locking up of the stator vanes in the lower half of the unit due to corrosion. This “lock-up” is causing high-cycle fatigue near the vane tip.

RECOMMENDATION

Users should perform Eddy Current Inspections of the lower stator vanes as soon as possible. The inspection time is approximately 12 hours.



This photograph shows a crack in an S-1 stator vane located approximately 2.2” below the tip. This unit had approximately 500 starts and 6000 hours at the time of inspection.



This shows the damage that can occur when a piece of stator vane goes through the compressor.