# Report on the examination of fracture of Cardon Shaft of R-11 engine and the examination of components from R-25 engine

**Abstract:**
This report deals with the examination of fracture of a cardon shaft of an R-11 engine and the examination of components of an R-25 engine involved in an accident. The failure of the cardon shaft was found to be due to torsion although it was not possible to establish the exact cause or origin of torsional failure due to severe rubbing of the fracture surface.

Several components from an R-25 engine such as compressor blades, nozzle guide vanes and turbine blades and also metal scappings were examined. No material foreign to the engine was found in these components. It was found that the H.P. and L.P. turbines had experienced excessive overheating.