

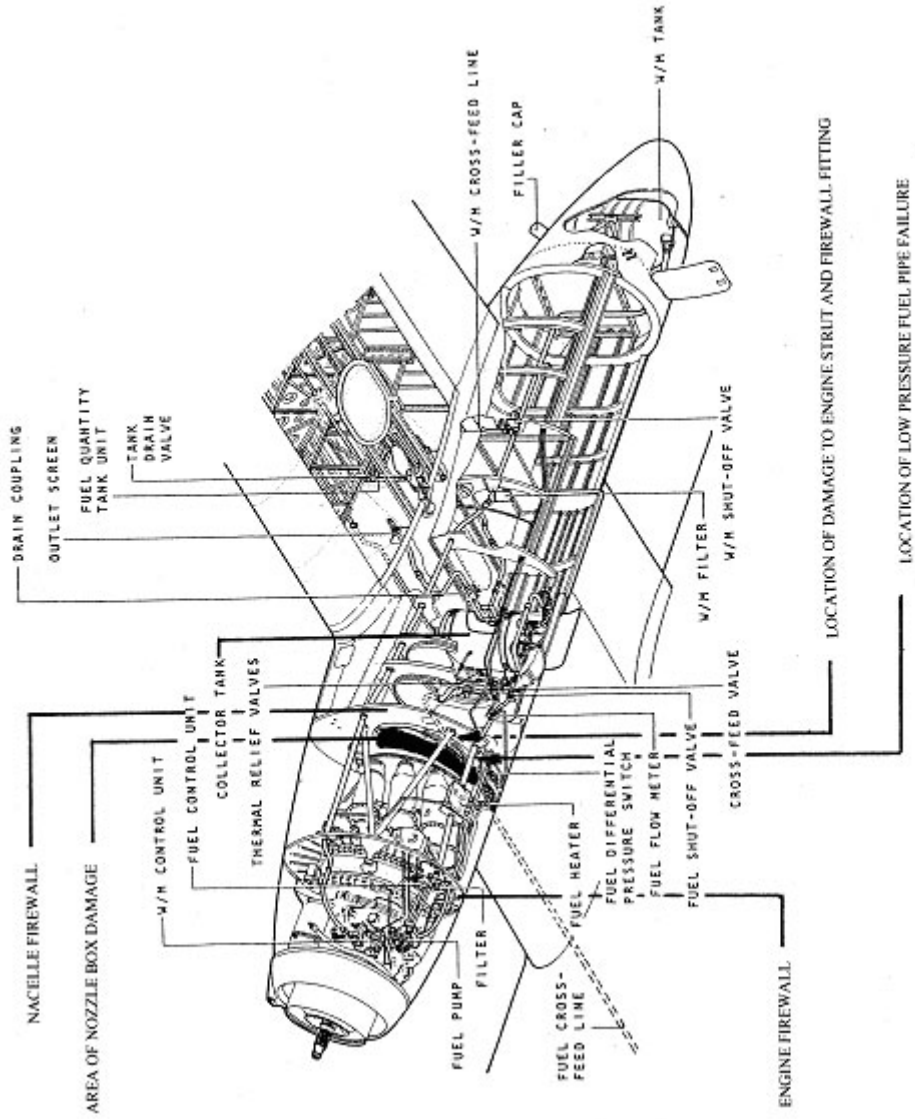
Appendices

Figure 1 General view of left nacelle showing external damage



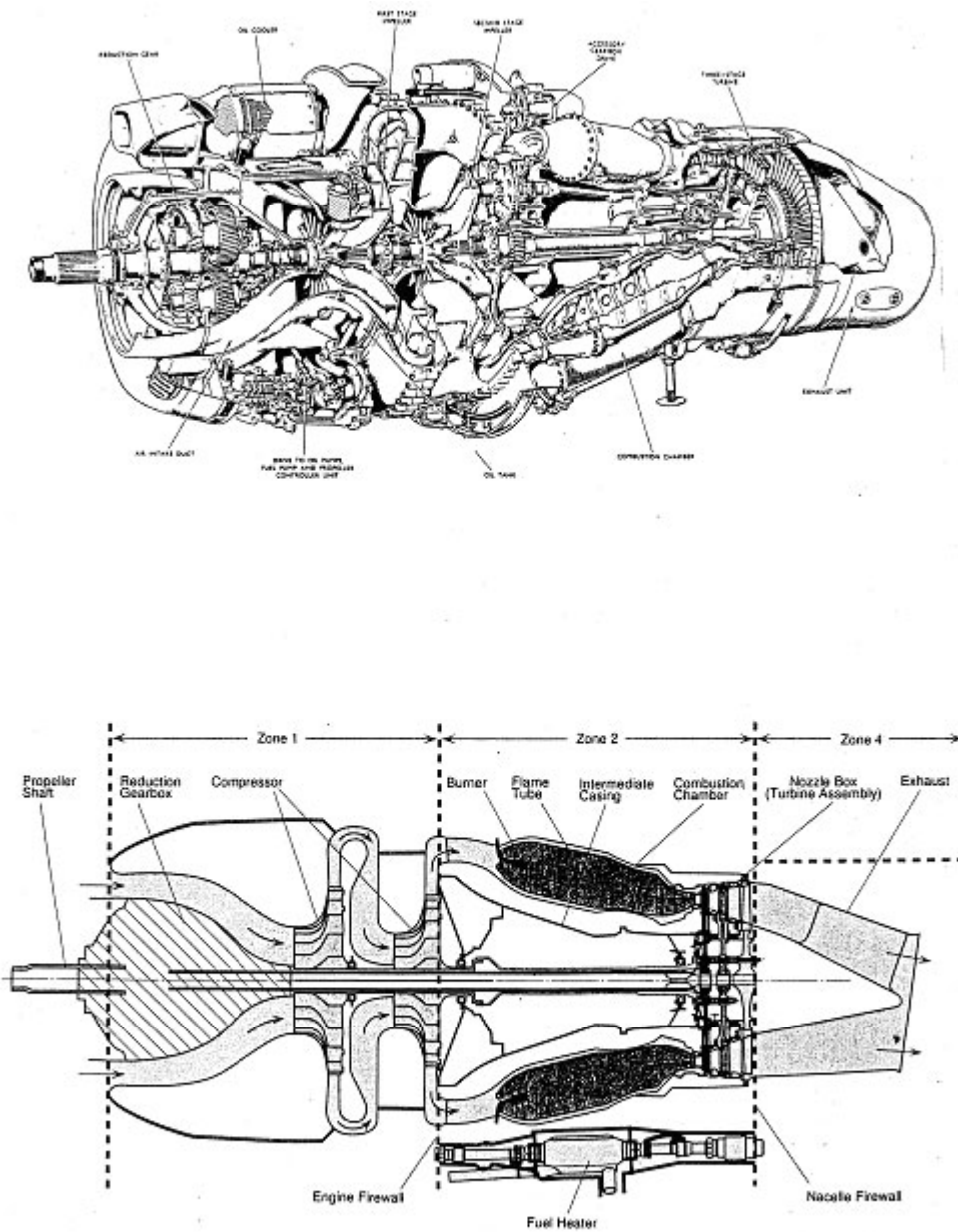
GENERAL VIEW OF LEFT NACELLE SHOWING EXTERNAL DAMAGE

Figure 2 Location of damage to left engine



LOCATION OF DAMAGE TO LEFT ENGINE

Figure 3 RR Dart Engine - Cutaway and schematic views



**RR DART ENGINE
CUTAWAY AND SCHEMATIC VIEWS**

Figure 4 Schematic of turbine installation and HP turbine disc

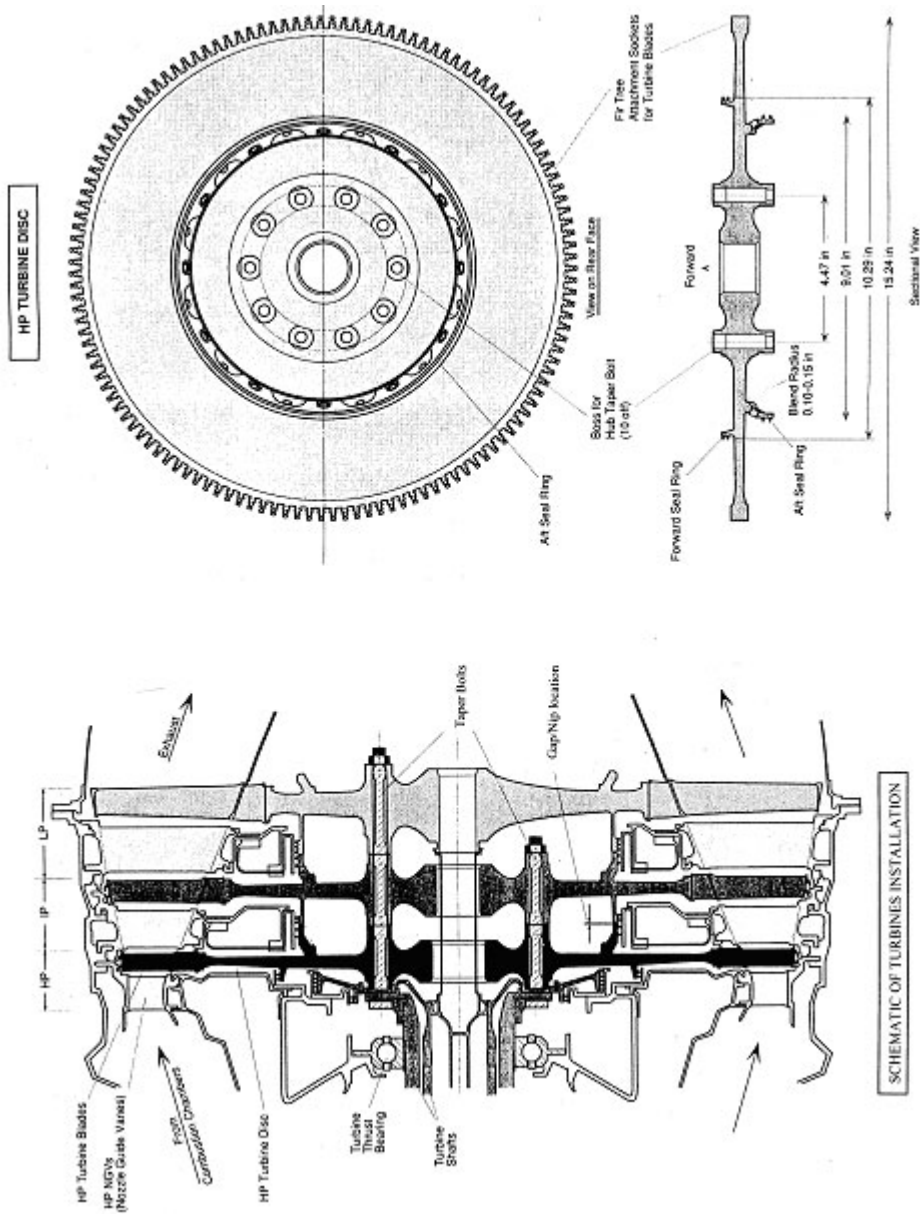


Figure 5 Spectrograph showing the extracted engine rotational speeds

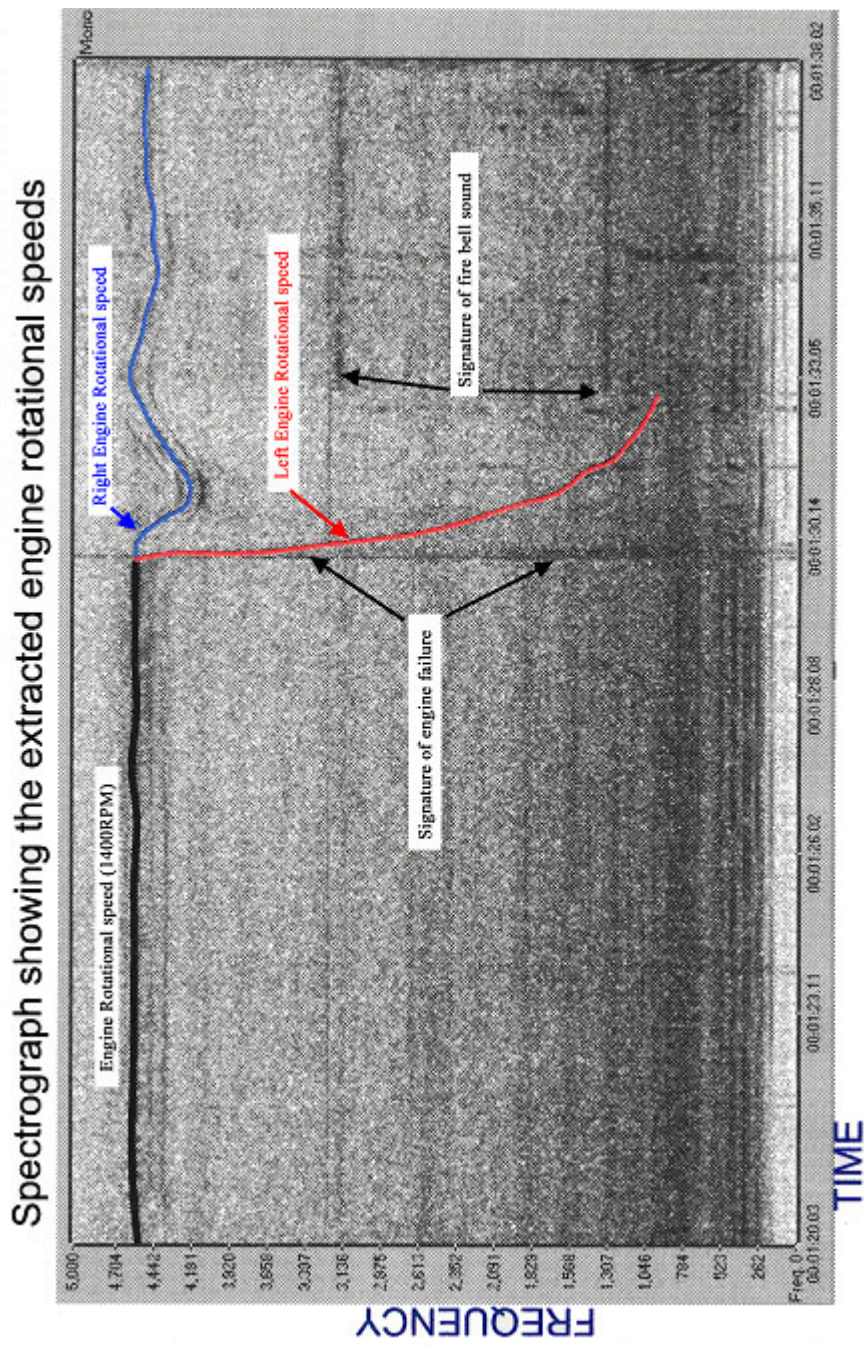


Figure 6 G-CEXF data recorded during accident flight

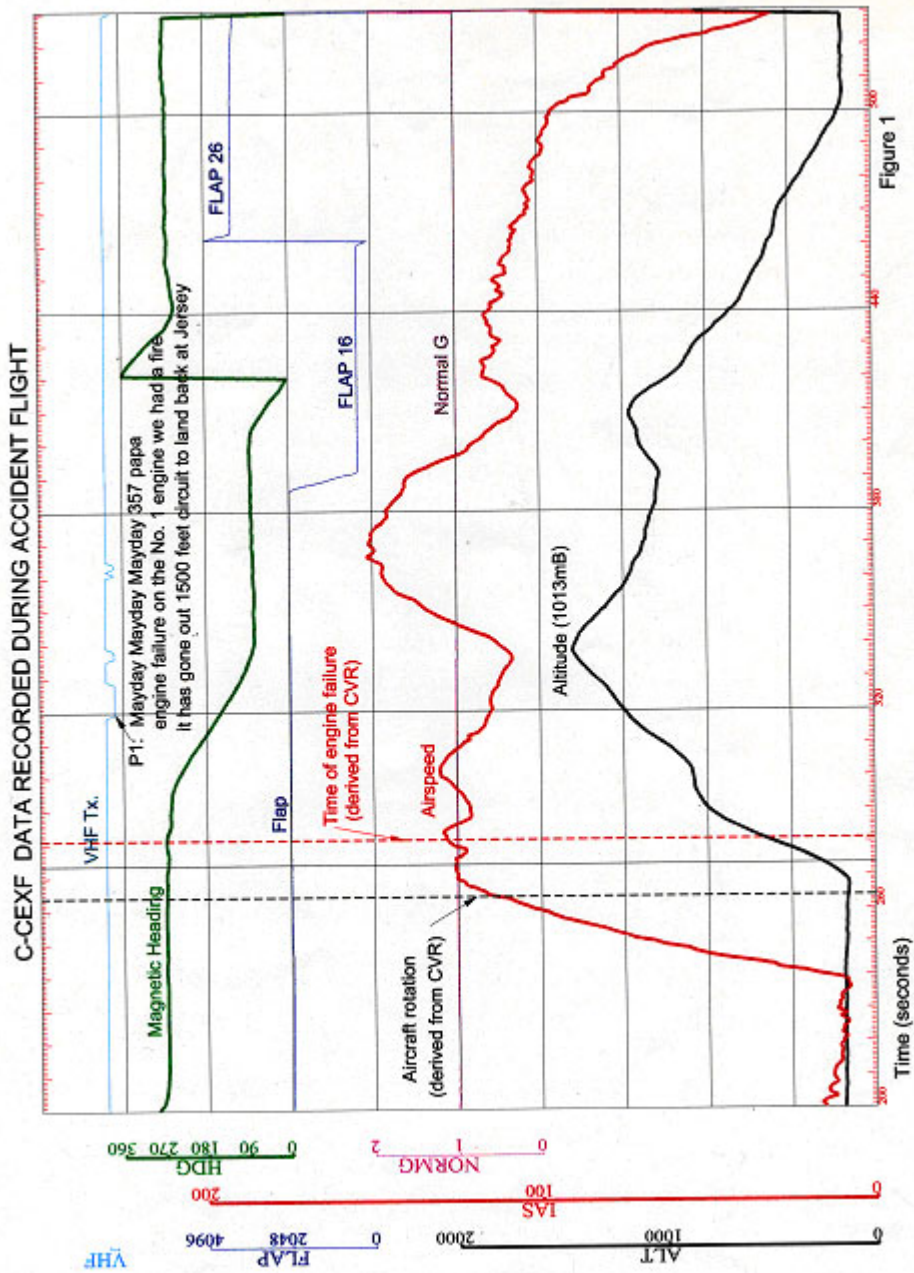


Figure 1

Figure 7 Major segment of HPT disc



MAJOR SEGMENT OF HPT DISC (view on rear face)

Figure 8 HPT disc fracture surface details

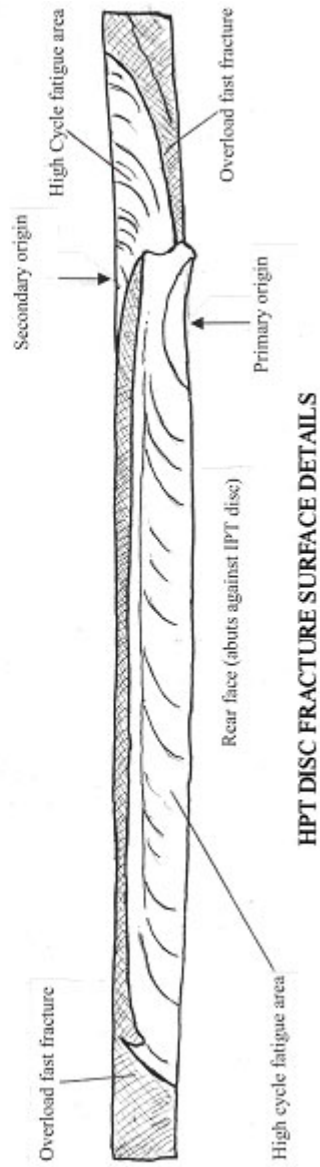
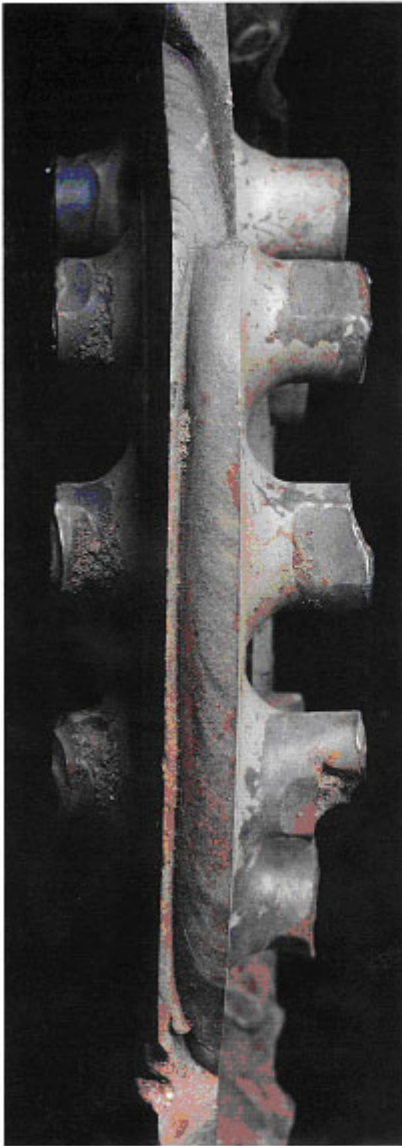


Figure 9 Previous diaphragm failure locations - high pressure turbine

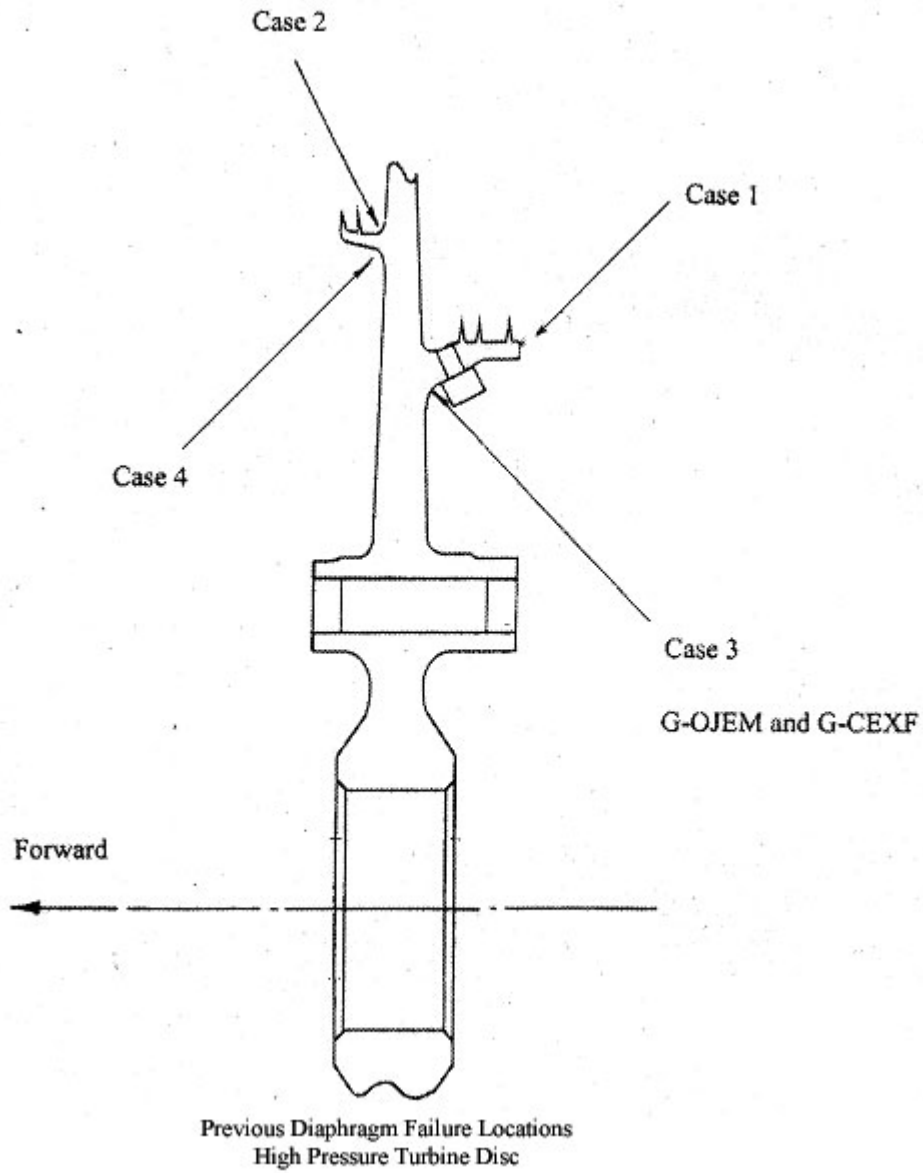


Figure 10 Typical taper bolt draw operation

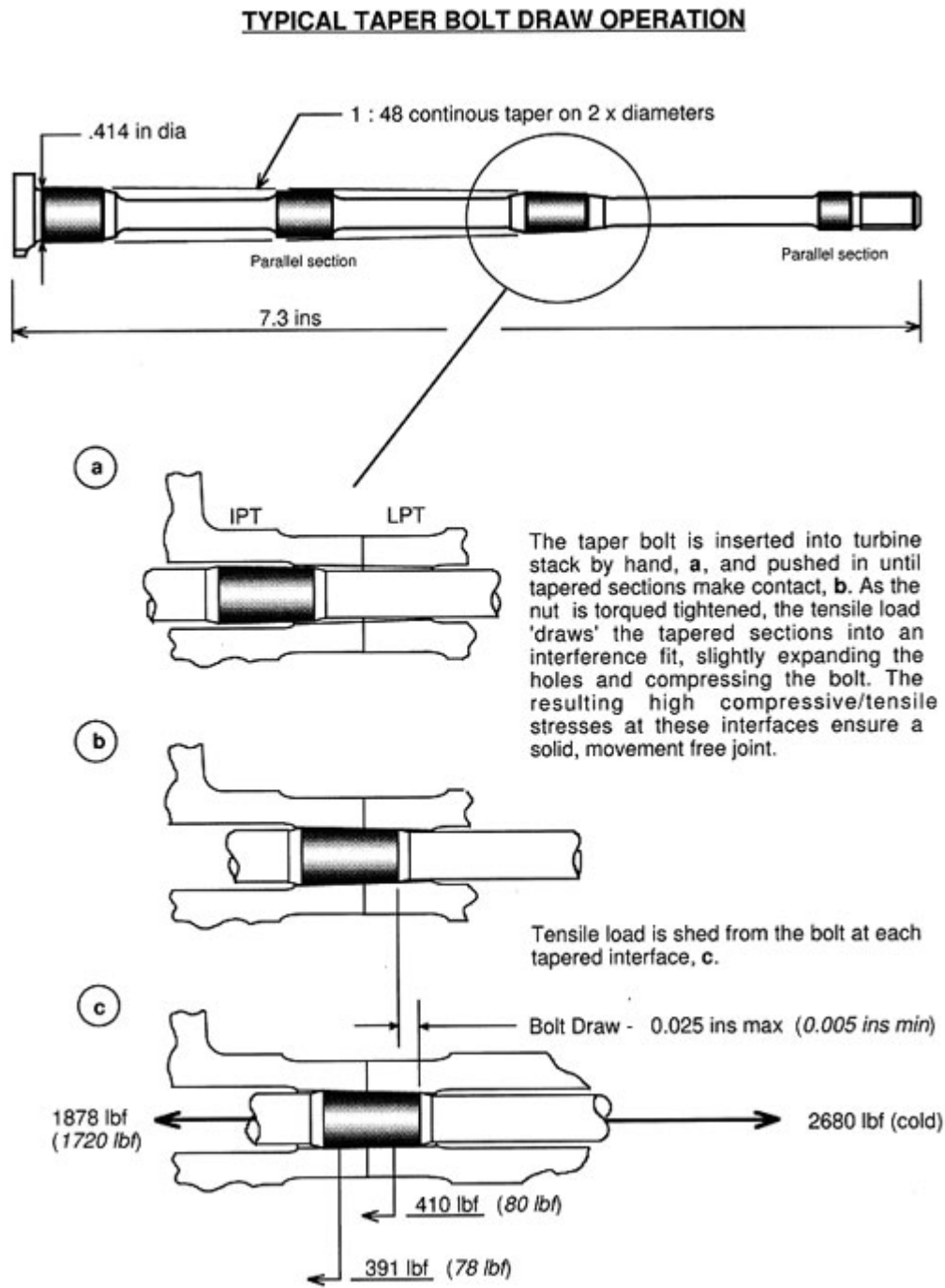
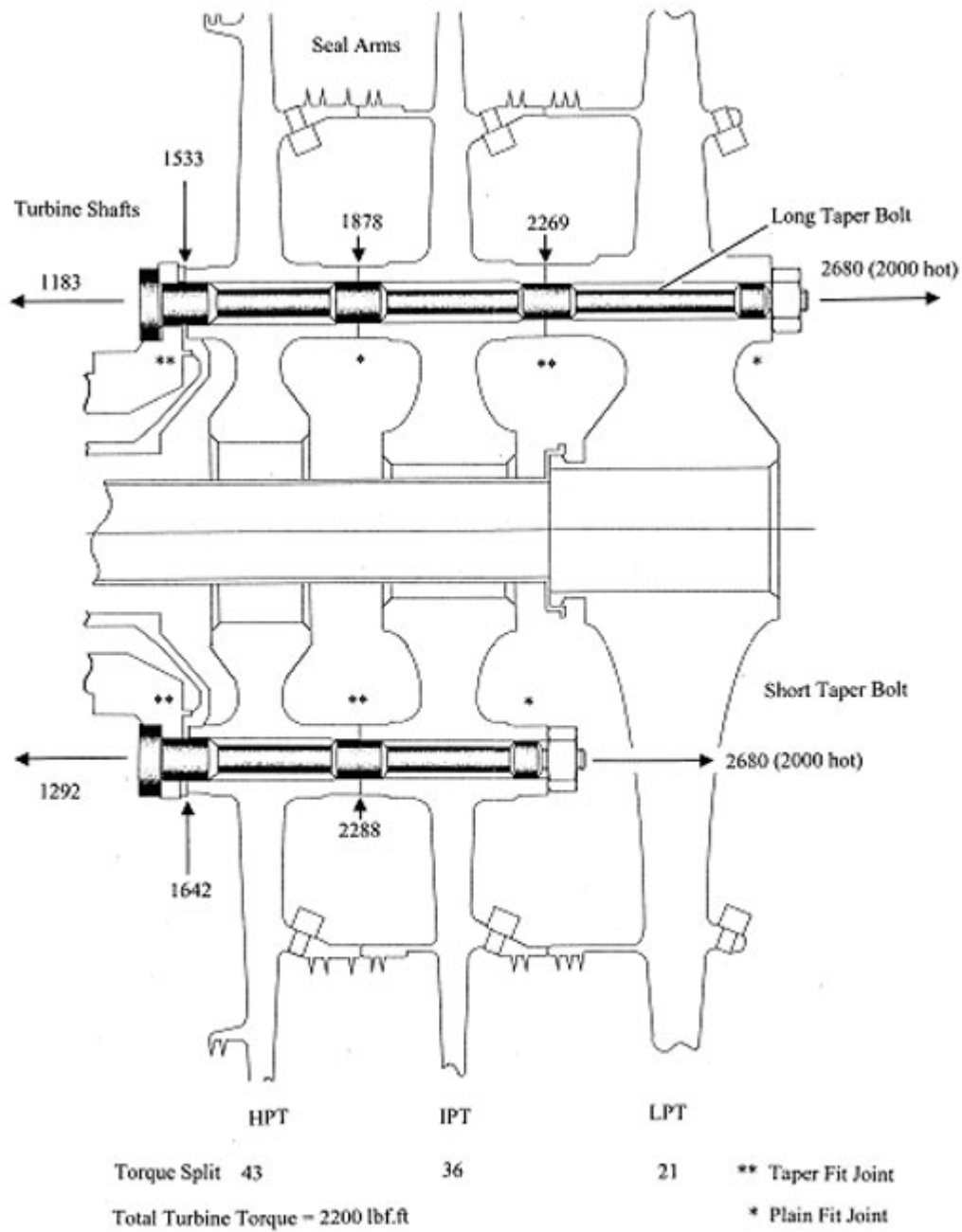
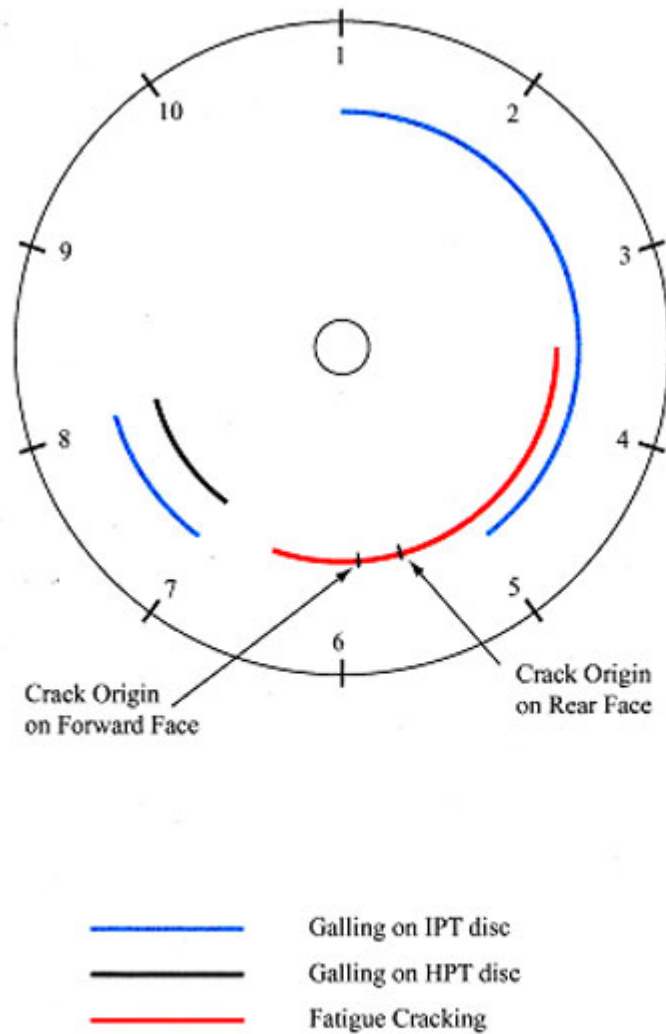


Figure 11 Taper locations in turbine assembly and loads analysis



TAPER LOCATIONS IN TURBINE ASSEMBLY AND LOADS ANALYSIS

Figure 12 Relative damage locations HPT / IPT seal arm abutment faces / Fatigue Cracking



Relative Damage locations HPT / IPT seal arm abutment faces / Fatigue cracking