
Foreward

This volume of the the book row „Aircraft Turbine Engine Safety“ deals in it's emphasis with themes of assembly, maintenance, and repair. Its understanding is necessary, to avoid preliminary problems and failures. The growing demands on qualification, not only of the lower management level, but also workmen and inspectors demand amongst others the identification of failures and problems, the correlation to specifications and so the assessment of anomalies. This requires the knowledge and the understanding of necessary terms. They are of crucial importance for the safe operation of flight engines.

To get wise by failures, respectively problems says the vernacular. However this is easier demanded than realised. Precondition for the use of the awareness, gathered over a long time is a systematic consulting suitable for analysis and compilation. This should be applied for at least two profession generations, i.e., ca. 40 years. Otherwise we know from experience, even after one generation is to reckon that the gathered experience will be buried in oblivion. All Volumes of this row are issues as pdf-files and can be thoroughly scanned by an integrated search engine in a free pdf-reader.

For this book an important source was the internet. The enormous hidden treasure of specialist informations can be lifted by an experienced expert. For this reason in the literature after every chapter there are also the sources in the internet.

Overhaul Manuals and maintenance manuals are based on experience and are able to minimise with stringent application failures and problems. Those assignments get actualisation, e.g., by AD-notes with measures during acute problems. Naturally is the requirement that the instructions are followed. For this not at least motivation by understanding is needed. This and the correct implementation needs also the comprehension of the back ground and the purpose of the instruction, that means the „know why“. For this purpose it was tried to derive on described cases general lessons. How necessary this is, show the wishes of many attendants of my lectures.

The author is convinced, that to comprehend concrete problem cases, illustrated in detail, enables motivation and learning success.

The volume on hand should give as much as possible back ground informations. Thereby it is pointed to the volumes 1 to 4 of this row. They enable a deepened adaption with the specialist literature at the end of every chapter. Especially important is the volume 4 for the field of repair. The here described processes correlate in many cases with the new parts production.

I thank my wife Dr. Daniela Rossmann for her years of patient understanding and support, and also for her many helpful recommendations concerning design. This book would never have been possible without her support.

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Axel Rossmann

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