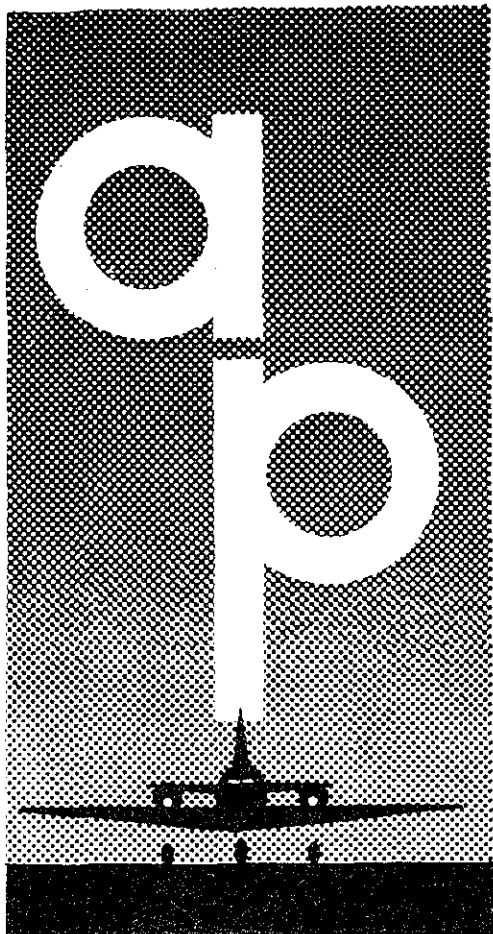


AC65-9A



Airframe & Powerplant
MECHANICS
GENERAL HANDBOOK

CONSOLIDATED
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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

**AIRFRAME AND POWERPLANT
MECHANICS
GENERAL HANDBOOK**



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

Flight Standards Service

First Edition 1970

First Revision 1976

PREFACE

This handbook was developed and first printed in 1970 as one of a series of three handbooks for persons preparing for mechanic certification with airframe or powerplant ratings, or both. It is intended that this handbook will provide basic information on principles, fundamentals, and technical procedures in the subject matter areas common to both the airframe and powerplant ratings. Emphasis in this volume is on theory and methods of application.

The handbook is designed to aid students enrolled in a formal course of instruction as well as the individual who is studying on his own. Since the knowledge requirements for the airframe and powerplant ratings closely parallel each other in some subject areas, the chapters which discuss fire protection systems and electrical systems contain some material which is also duplicated in the Airframe and Powerplant Mechanics Powerplant Handbook, AC 65-12A, and the Airframe and Powerplant Mechanics Airframe Handbook, AC 65-15A.

This volume contains information on aircraft drawings, weight and balance, aircraft materials and processes, physics, electricity, inspection, ground support, and tools. Knowledge gained from the study of this handbook is essential before proceeding in a course of study in either the airframe or powerplant handbooks.

Because there are so many different types of airframes and powerplants in use today, it is reasonable to expect that differences exist in the components and systems of each. To avoid undue repetition, the practice of using representative systems and units is carried out throughout the handbook. Subject matter treatment is from a generalized point of view, and should be supplemented by reference to manufacturers' manuals or other textbooks if more detail is desired. This handbook is not intended to replace, substitute for, or supersede official regulations or the manufacturers' instructions.

Grateful acknowledgement is extended to the manufacturers of airframe and airframe components for their cooperation in making material available for inclusion.

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Fire Extinguishers
Fire Extinguishants
Fire Extinguisher and
Extinguishant Specifications

Fire Extinguishers
Refueling Data
Aviation Fuels
Aviation Fuels
Aircraft Fittings

The advancements in aeronautical technology dictate that an instructional handbook must be under continuous review and brought up to date periodically to be valid. Flight Standards requested comments, from the certificated aviation maintenance technician schools, on the three handbooks. As a result of this survey, the handbooks have been updated to this extent: new material has been added in the areas which were indicated as being deficient, and some material has been rearranged to improve the teachability of the handbooks.

We would appreciate having errors brought to our attention, as well as receiving suggestions for improving the usefulness of the handbooks. Comments and suggestions will be retained in our files until such time as the next revision will be accomplished.

Address all correspondence relating to these handbooks to:

U.S. Department of Transportation
Federal Aviation Administration
Flight Standards National Field Office
P.O. Box 25082
Oklahoma City, Oklahoma 73125

The companion handbooks to AC 65-9A are the Airframe and Powerplant Mechanics Powerplant Handbook, AC 65-12A, and the Airframe and Powerplant Mechanics Airframe Handbook, AC 65-15A.

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