COMMONWEALTH OF AUSTRALIA

AUSTRALIAN ADVISORY COMMITTEE ON AERONAUTICS

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MELBOURNE

INTRODUCTORY READING LIST FOR AIRCRAFT MANUFACTURING PERSONNEL

1943

Owing to the great expansion of the aircraft manufacturing industry which has occurred in Australia in the last few years, many men who have had little opportunity to gain training or experience in aircraft work are now engaged in the industry. Though many such men have spent considerable time in other branches of engineering and are well equipped with fundamental engineering knowledge, it has been found that they are in need of some guidance in aeronautical engineering in order to make themselves familiar with practices which are peculiar to it.

The Handbook Panel of A.A.C.A. has therefore prepared this Reading List which is available throughout Australia to all who desire it. It may be obtained by sending a written request, accompanied by a 2½d. stamp, to the Secretary, A.A.C.A., Box 4331, G.P.O., Melbourne.

The list is intended for the use of personnel who have a training in general engineering up to about the equivalent of a technical college diploma or higher and who desire to instruct themselves further in aeronautical work.

It is not intended that users of the Reading List should buy all or even a substantial proportion of the books enumerated. This would involve them in great expense and they would be unlikely to read all of them.

On the contrary, they are advised to study the headings and decide on which aspects of aeronautical engineering they desire to inform themselves. Having done so, they should then read the book titles and inspect most carefully the contents of the actual book before purchasing to determine if it fulfils their need. Whether the book should be bought or borrowed from a library will depend on the borrowing facilities available and the extent to which the book might be used if bought.

In cases where organisations have a library for the use of their staff, or are about to establish one, they may perhaps wish to make use of this list as a guide to book purchases.

Personnel interested in obtaining fuller and more detailed knowledge in aeronautical engineering are reminded that courses already exist for their instruction. They should consult the educational authorities for their State in regard to the courses which have been established.

Where known, this list gives the Australian price of the book or some indication of it, but no responsibility is taken for the correctness of the figure. The year of the latest edition is also given where known.

Under many headings there are several book titles. These may be either to some extent alternatives, overlapping in some chapters, or may cover different aspects of the same subject and be complementary to each other. It is emphasised that the users of the list must investigate each book carefully to determine if it is the book they need.

AERONAUTICAL TERMS

British Standard Glossary of Aeronautical Terms (BS 185) 1940 9/3

AERODYNAMICS

"Mechanics of Flight", by Kermode (Pitman) 1942. Good book on fundamentals.

"Elementary Applied Aerodynamics", by Whitlock (Oxford). Slightly more academic than Kermode, but good. May be difficult to obtain.

"Elementary Aerodynamics" by Wood and Wheatley (Cornell Co-operative Society).

TYPES OF CONSTRUCTION

"Metal Aircraft Construction", by Langley (Pitman). Treats the subject exhaustively with many illustrations. Deals mainly with English practice.

"Airplane Design", by Wood (Cornell Co-operative Society).
Covers American practice.

AIRFRAME STRESS ANALYSIS

"Structures", by Haddon (Pitman).
Contains many of the fundamentals but does not treat the subject very exhaustively.

"Practical Aircraft Stress Analysis", by Adams (Pitman). Quotes largely from AP 970. English practice.

"Fundamentals of Stress Analysis", by Deyarmond and Arslan (of Vultee Aircraft) 1941 25/-
Fuller and more modern than the two above;
American practice.

"Procedure Handbook for Stress Analysis", by Nye, Hamilton, Eames. (Aviation Press) 32/-

"ANC-5, Strength of Aircraft Elements", by Army-Naval-Civil Committee on Aircraft Requirements (U.S. Govt. official) 1940

MATERIALS AND WORKSHOP PRACTICES

"Aircraft Materials and Processes", by Titterton (Pitman).
Covers metals, wood, fabric, dope. American practices.

"The Materials of Aircraft Construction", by Hill (Pitman). 1942 28/6
More detailed than Titterton; English practice

"Engineering Inspection", by Parkinson (Pitman). 1941 9/6
Inspection is common to all branches of engineering but is particularly rigid and important in aeronautical; hence the inclusion of this title. Need only be read by those desiring detailed knowledge of inspection.

"Mechanical Testing of Metallic Materials", by Beaumont (Pitman) 1940 10/-
The above remarks apply also to this book.

"Aircraft Riveting", by Lear and Dillon (Pitman) 1942 12/6
A small book devoted entirely to this subject.

"Aircraft Spot and Seam Welding", by Kuntz (Pitman) 1942 12/6

"Aircraft Torch Welding", by Von Borchers and Ciffrin (Pitman) 1941 13/6
A small book on gas welding only.

"Airplane Welding and Materials", by Johnson.

"Aircraft Sheet Metal Work", by Boggess (Pitman) 1941 12/-

"Wood in Aircraft", by Trayer.
An American book, one of the very few on wood in aircraft.

S.A.A. reports on Standardisation of Aircraft Materials. Obtainable from Standards Association of Australia, Temple Court, 422 Collins Street, Melbourne.

Manuals and Technical Booklets of O.P.D. Obtainable from Ordnance Production Directorate, 401 Collins St., Melbourne.

"Factory Training Manual", by a Group of Engineers (Management Publications Trust Ltd., Bath, England).
A practical textbook for use in connection with the Ministry of Labour training scheme. Has chapters on turning, boring, planing, shaping, drilling, tapping, grinding, lapping, honing, milling, gear cutting, etc

"Jigs and Fixtures", by Colvin and Haas (McGraw Hill) 1938 28/-

"Production Engineering - Jig and Tool Design", by Jones (Newnes).

"Airplane Lofting", by Nelson (McGraw Hill) 1941 14/6
The practice of lofting is new in aircraft work and very little has been written on it.

DRAWING OFFICE PRACTICE

"Aircraft Drafting Room Manual", by Thompson.
American practice.

"Machine Drawing for Students", by Prior (Pitman).
English practice.

"Australian Standard Engineering Drawing Practice", endorsed by S.A.A. (Institution of Engineers, Australia) 1941 5/-

AEROPLANE DESIGN

"Airplane Design", by Wood (Cornell Co-operative Society).

"Aircraft Layout and Detail Design", by Anderson (McGraw Hill) 1941 24/-

INSTRUMENTS AND ACCESSORIES

"Aircraft Instruments", by Patton (Van Nostrand) 1941 22/-.
A modern American book covering the subject very fully.

"Instruments", by Sloley (Pitman).
Contains descriptions of all the usual aircraft instruments.

"Electricity in Aircraft", by Crook (Pitman).

"Electrical and Wireless Equipment of Aircraft", by Wybrow (Pitman).

"Aircraft Electricity", by Clark and Corbitt (Ronald) 1942 40/-
Current American practice; describes many items of equipment not mentioned in other books.

"Manual for Aircraft Hydraulics", by Thompson and Campbell (Aviation Press) 1942 42/-
Covers modern American practice.

PRINCIPLES OF AEROPLANE MAINTENANCE

"Aircraft Maintenance", by Brimm and Boggess (Pitman)

"Aircraft Engine Maintenance", by Brimm and Boggess (Pitman).
Two books giving principles and details of maintenance generally, but not for specific types. As this list is intended more for manufacturing personnel than those on maintenance work, no attempt is made to give anything more than an introduction to the subject.

ENGINE DESIGN

The above list of books is for personnel engaged on aircraft work as distinct from engine work. They may, however, wish to know some of the broad facts of aero engine design and for this the following books may be consulted:

"Aircraft Engines", Vol. I and II, by Judge (Chapman and Hall) 1941 Vol. I, 27/6 Australian price, Vol. II, 30/- English price.
Vol. I is concerned with the general theory and operation of aircraft engines and Vol. II is devoted principally to the descriptive side of particular engines, and to a lesser extent to certain design and theoretical considerations not dealt with in Vol. I.

By Authority: H. E. Daw, Government Printer, Melbourne.