### The Journal of

## THE HELICOPTER ASSOCIATION OF GREAT BRITAIN

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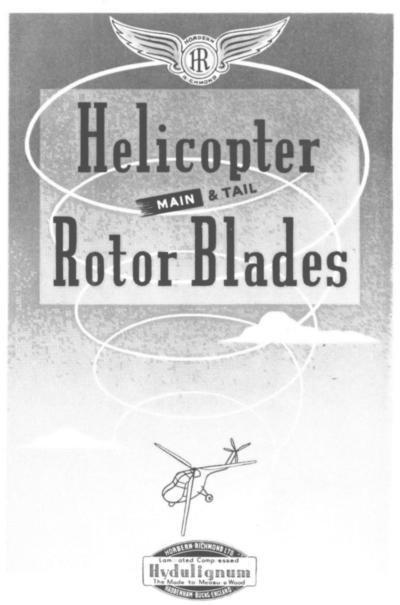
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LONDON LONDONDERRY HOUSE 19 PARK LANE LONDON W 1

Vol 7 No 3 JANUARY 1954



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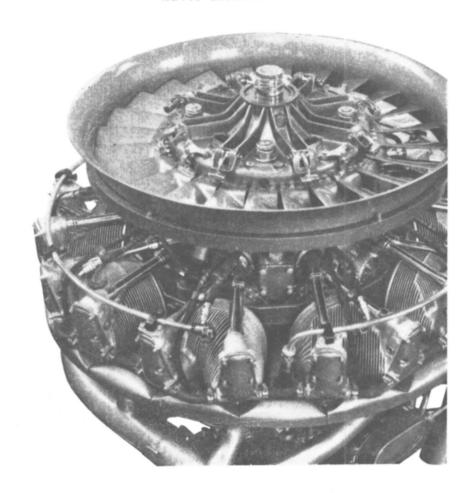
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### LEONIDES

The Alvis Leonides Helicopter Engine, a 520 b.h.p. 9-cylinder air-cooled radial engine. Weight complete 645 lb. Power/weight ratio 1 24 lb. (0.562 kg.) per b.h.p. Overall diameter 41.5 in. (105 cm.). In quantity production for the Bristol 171 and 173, also in extensive use by the Royal Navy in the Westland Dragonfly.

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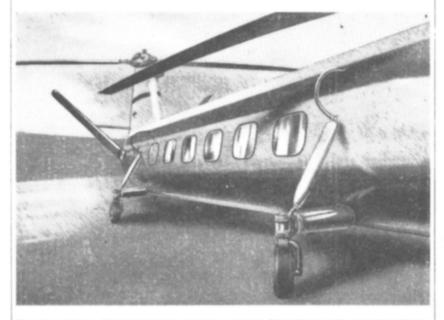
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### Westland 5-55 Helicopter



### Westland 5-51 Helicopter



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### The Journal of

### HELICOPTER ASSOCIATION THE OF GREAT BRITAIN

Offices Londonderry House 19 Park Lane, London W 1 Tel Grosvenor 1771

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### OBJECTS OF THE ASSOCIATION

The objects of the Association are to collect compile and disseminate information of a technical and semi technical nature pertaining to Helicopters and all other types of Rotating Wing Aircraft. The Association aims to work in close co operation with existing Aeronautical Bodies on matters affecting its objects and it may act as an Advisory Body in the promotion of legislation calculated to be of benefit to the development of Rotating Wing Aircraft



### **BOOK REVIEWS**

### The Observer's Book of Aircraft, 285 pp Price 5s

Messrs William Green and Gerald Pollinger have prepared a new edition of "The Observer's Book of Aircraft" and the Publishers, Messrs Frederick Warne & Co, have kindly sent the Association a copy for its library

This pocket-sized, yet most comprehensive reference book, will already be known to many of our Members and to those that do not know it we can only say that the book is a most handy volume that gives photographs, silhouettes and general descriptions of all the aircraft that are likely to be seen in the Western Hemisphere

At first sight it was disappointing to find only six helicopters represented On reflection, however, we agree that only this number would be of interest to general "Observers"—a fact which surely bears food for thought

### The Helicopter Association of Great Britain

### Lecture Programme

1774	
February 18th	Helicopter Research, by F O'HARA (A & A E E, Boscombe Down) A Joint Section Lecture with the Royal Aeronautical Society
March 5th 6 p m	The Design of the Drive, by J L Norton (Bristol Aeroplane Co Ltd (Engines)
April 9th 6 p m	Navigation of Helicopters, by D M DAVIES (British European Airways)
	will be held in the Library of the Royal Aero-4 Hamilton Place, London, W 1, unless Members

Association of Gt Britain

1954

are notified to the contrary

### THE HELICOPTER ASSOCIATION OF GREAT BRITAIN

Londonderry House, 19 Park Lane, London, W 1

### GRADES OF MEMBERSHIP

### FOUNDER MEMBERS

Founder Members shall comprise every person who on August 31st, 1946, was on the Register as a properly qualified Member of the Association

### **MEMBERS**

Fully qualified Members shall comprise every person who was on the register as a Member of the Association on the date of adoption of these Rules by the Association, and every person thereafter elected or transferred into the grade of Member

Every candidate for election into the grade of Member shall possess the following qualifications  $\,-\!-\!$ 

- (a) He shall be twenty-five years of age or over
- (b) He shall be actively engaged at the time of his application for election in the design or in the production or operation of such works as are comprised within the science of rotating wing aircraft, or in the application to rotating wing problems of special branches of science, mathematics or engineering
- (c) He shall produce satisfactory evidence of his technical knowledge and standing in the profession of aeronautics

Every such candidate shall moreover possess one at least of the following qualifications —

- (a) He shall have had four years experience in the practical or scientific development or operation of rotating wing aircraft
- (b) He shall possess an honours degree or its equivalent, in engineering, mathematics or physics and shall have had two years' experience in the practical or scientific development of rotating wing aircraft
- (c) He shall hold a professional pilot's licence issued by a recognised authority or be an officially approved Test Pilot or a fully qualified Service Pilot, and with these qualifications, have been actively engaged in flying rotating wing aircraft for a period in excess of two years
- (d) He shall have made some other contribution to the advancement of the science of rotating wings which in the opinion of the Council qualifies him as a Member

### ASSOCIATE MEMBERS

Associate Members shall comprise every person who was on the register as an Associate Member of the Association on the date of adoption of these Rules by the Association, and every person thereafter elected or transferred into the grade of Associate Member

Every candidate for election into the grade of Associate Member shall possess the following qualifications -

- (a) He shall be twenty-one years of age or over
- (b) He shall be actively engaged at the time of his application in such works as are comprised in the development of flight operations of rotating wing aircraft
- (c) He shall produce satisfactory evidence of his technical knowledge and standing in the profession of aeronautics

Every such candidate shall moreover possess one at least of the following qualifications —

- (a) He shall have had two years' experience in the practical or scientific development or operation of rotating wing aircraft
- (b) He shall possess an honours degree or its equivalent in engineering, mathematics or physics and shall have had one year's experience in the practical or scientific development of rotating wing aircraft
- (c) He shall be a qualified pilot and have been actively engaged in flying rotating wing aircraft for a period in excess of one year
- (d) He shall be a qualified aircraft engineer with more than two years experience in rotating wing aircraft

### **COMPANIONS**

Companions shall be those persons, who being ineligible for the technical grades, have contributed or are likely to contribute to the development of rotary wing science or rotary wing engineering, or to the furtherance of the objects of the Association

### STUDENT MEMBERS

Every candidate for election into the grade of Student Member shall possess the following qualifications —

- (a) He shall be at least eighteen years of age but shall not be more than twenty-five years of age (except in such cases as the Council may determine)
- (b) He shall satisfy the Council that he is receiving training in connection with the science or development of rotating wing aircraft, or that he is interested in the development of rotating wing aircraft and wishes to use the Association as a means of qualifying technically in the science of rotating wings

### MEMBERS SUBSCRIPTION RATES

ANNUAL SUBSCRIPTIONS

	Resident in G B	Resident Outside G B	
	£, s d	£, s d	
Founder Members	3 3 0	2 2 0	
Members	3 3 0	2 2 0	
Associate Members	2 2 0	1 11 6	
Students	1 1 0	1 1 0	
Companions	2 2 0	1 11 6	

Entrance Ffes (To be paid by all new Members residing inside or outside Great Britain, and in addition to Subscriptions for the current year)

					£	S	a
To	the	class	of	Member	1	1	0
,,	,,	,,	,,	Associate Member	1	1	0
,,	,,	,,	,,	Companion	1	1	0
,,	,,	,,	,,	Student		$N\iota$	l

TRANSFER FELS

Students on transfer to any other grade shall pay the appropriate fee

APPLICATION FOR MEMBERSHIP should be made to the Hon Secretary of the Association at its Offices

Londonderry House, 19 Park Lane, London, W 1

Tel Grosvenor 1771



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### EDITORIAL NOTICES

Papers submitted for publication in the Journal should be submitted to the Chairman, Publications Committee, Londonderry House, Park Lane, W  $\bf 1$ 

None of the papers or articles must be taken as expressing the opinion of the Council of the Association, unless such is definitely stated to be the case

The submission of matter for publication will be understood to imply that it is offered to this Journal alone

If accepted for publication, the copyright of papers becomes the property of the Association , but they may be re-published by permission of the Council, provided due acknowledgement be made of their having appeared in the JOURNAL

Papers should, if possible, be typewritten, they should be concisely written with subject matter logically arranged and sub-divided, and with indications of the position, in the text, of illustrations, tables, etc

TITLES should be as brief as consistent with clarity, and in many cases the value of a paper is enhanced by a short Summary

Charts, Graphs and Drawings should be, if possible, in Indian ink on white board or strong paper, with detail and essential lettering large enough to be clearly legible after reduction if necessary

ILLUSTRATIONS—if the number sent in is considered excessive, the author may be informed and given the opportunity of contributing to the cost

COLOURED PLATES are made only at the author's expense