

*The Journal of*

**THE HELICOPTER  
ASSOCIATION OF  
GREAT BRITAIN**

**CONTENTS include**

**Automatic Pilots for Helicopters**

(Part I) by H Collomosse

(Part II) by M C Curties

**Analogue Computer Development with reference to**

**Helicopter Applications by B H Venning**

**LONDON**

**4, THE SANCTUARY,  
WESTMINSTER, S W 1**

**Vol 11 No 2 APRIL, 1957**



*Photograph by courtesy of  
Helicopter Services Ltd*

## **HELICOPTER ROTOR BLADES...**

*and materials for blade manufacture  
produced to B C A R by*

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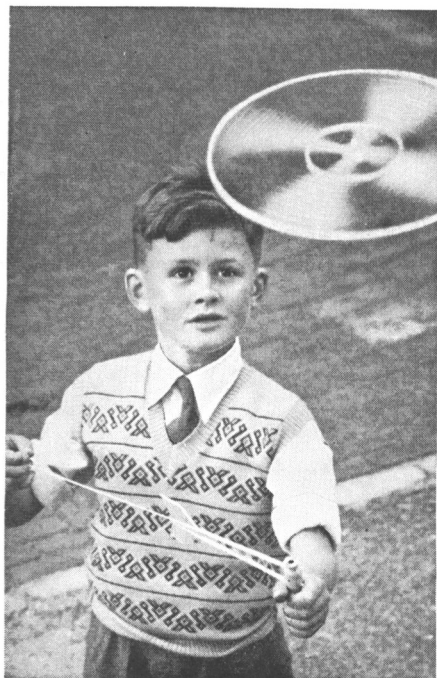
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- Makers of tail rotor blades for Bristol and Westland Helicopters
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### **BELL & HILLER BLADES TO B C A R**

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**BRISTOL 'SYCAMORE'**

**BRISTOL TYPE 192**

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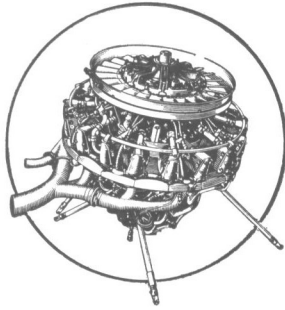
**MADE FOR THE JOB**

**T**HE strong flexible and sensitive trunk of the elephant was thoughtfully provided by nature as a specialised part of the elephant body essential to its way of life. Similar careful thought has been given to every aspect of the Skeeter designed and built by Saunders-Roe to give the finest performance in the many roles which a light helicopter has to fill. The Skeeter is ideal for training, liaison and A O P duties and is now in production for the British Army, the Royal Air Force and the armed forces of West Germany.

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Powered by the Alvis Leonides engine, the Bristol Sycamore was the first all-British helicopter to receive a full C of A. Today the Alvis Leonides engine, proved and developed through a decade of service from the Arctic to the Tropics, is the standard power unit for most British helicopters and now ordered for the new German Air Force.



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# 3 engines of increasing importance to helicopter operators

**ELAND** Fairey's new large transport helicopter, the Rotodyne, is to be powered by two *Elands*—basically similar to the standard *Eland*, but with an auxiliary compressor mounted coaxially at the rear. Power is taken through the auxiliary compressor (in the form of compressed air to the rotor for vertical flight and through the propeller for forward flight).

**ORYX** The Napier *Oryx* 780-950 gas h.p. turbo gas generator provides the hot gas which is ducted to the rotor head for the propulsion of helicopters by jet reaction at the rotor blade tips. This system eliminates all mechanical transmission. The *Oryx* has been officially Type Tested at 780 and 865 gas h.p.

**GAZELLE** *Gazelle* 1 260 2 000 s.h.p. A rugged new free turbine engine for helicopters—selected for the Royal Navy Westland Wessex and the R.A.F. twin rotor Bristol 192. For ease of installation it can be mounted in any position between the vertical and horizontal. Helicopters demand tough, reliable engines—the *Gazelle* is designed for strenuous duty, long service between overhauls, while its outstanding simplicity means economical and speedy maintenance.

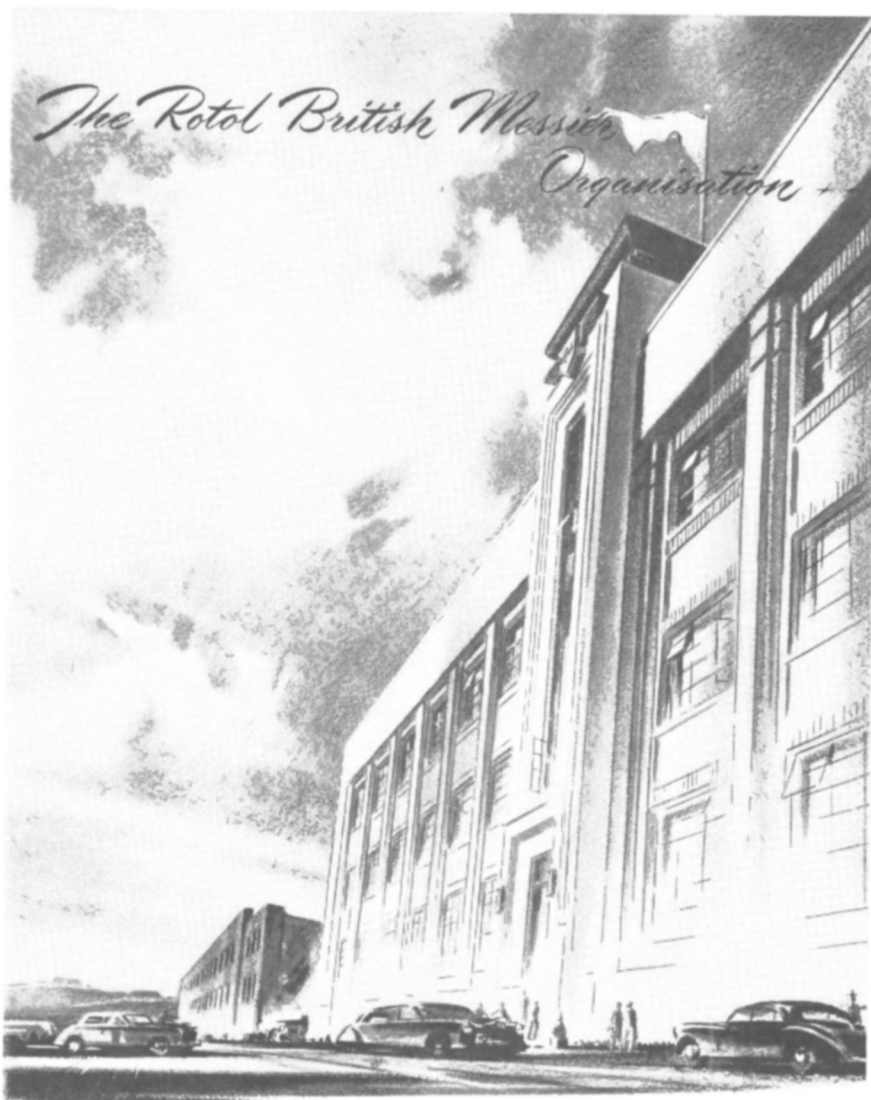
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for the Royal Air Force. Such an aircraft clearly has great potential for commercial passenger services

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**Helicopters**

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# The Journal of THE HELICOPTER ASSOCIATION OF GREAT BRITAIN

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The opinions expressed in papers read before the Association and in the discussions also recorded in this Journal are not necessarily those of the Executive Council or of the Association as a whole

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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

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