

THE ILLUSTRATIONS ON THIS COVER ARE
TAKEN FROM ORIGINAL PHOTOGRAPHS BY
CHAS. E. BROWN
OVER REDHILL AERODROME ENGLAND.

THE
OLYMPIA EON SAILPLANE
IS PRODUCED & MARKETED ONLY BY

ELLIOTTS of NEWBURY Ltd.,

NEWBURY BERKS,

ENGLAND.

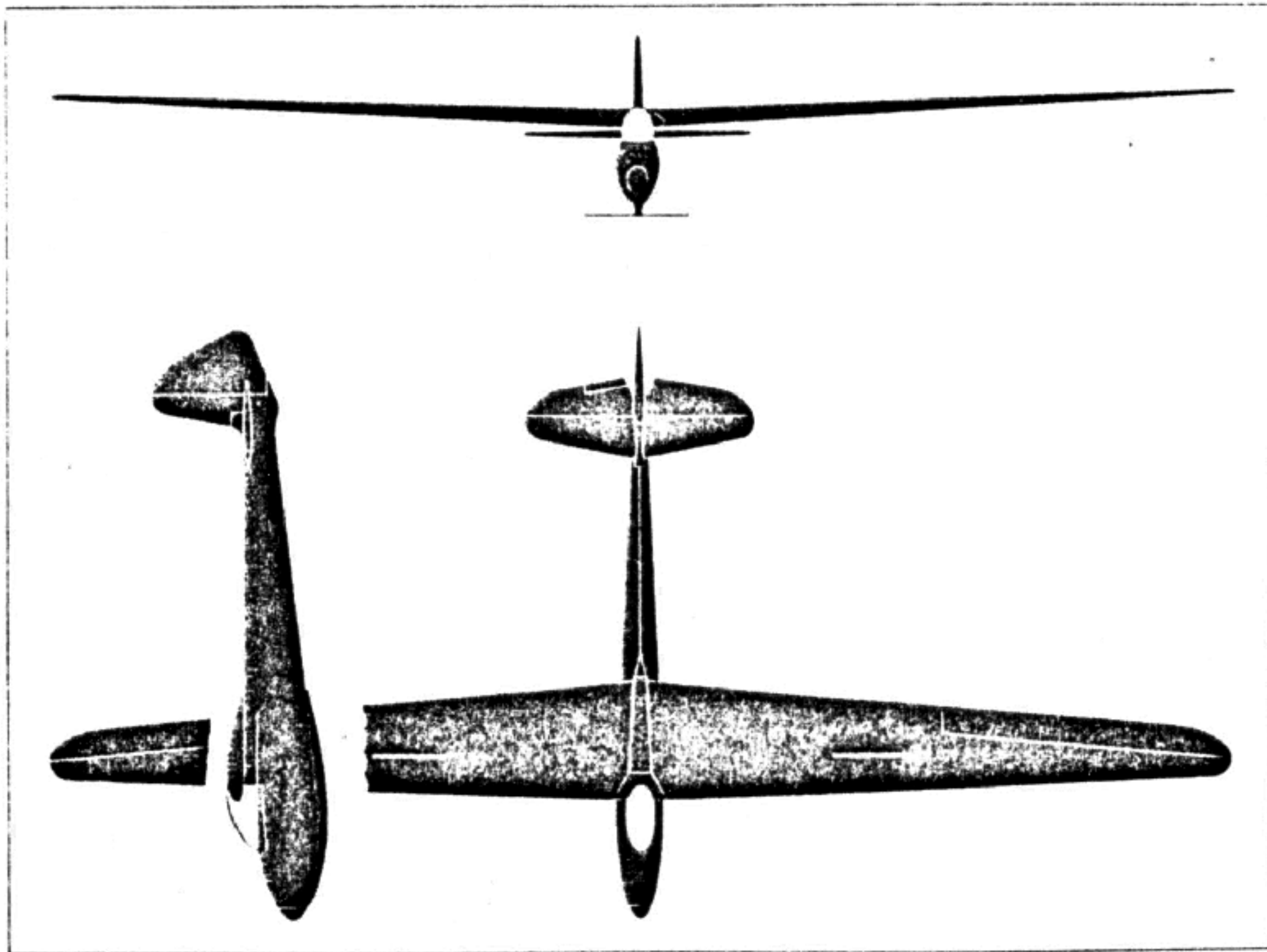
PHONE NEWBURY 312

CABLES & TELEGRAMS
SMOKELESS NEWBURY

DESIGN AND STRESSING CONSULTANTS:-
AVIATION & ENGINEERING PROJECTS LTD:
FELTHAM, MIDDLESEX, ENGLAND.

THE FINEST
HIGH PERFORMANCE SAILPLANE
IN THE WORLD

THE OLYMPIA EON



OLYMPIA EON

DIMENSIONS:

SPAN 49.212 FT (15.000 METRES)

LENGTH 23.830 FT (7.263 METRES)

BRITISH C. of A. TO ALL MACHINES PERMITTING
MACHINE TO EXECUTE TIGHT TURNS, STALL-TURNS,
LOOPS, SPINS AND TO UNDERTAKE CLOUD FLYING.

GENERAL INFORMATION ON THE "OLYMPIA EON".

The machine is constructed of selected Aircraft Spruce and Aircraft Specification Plywood. The Spar Booms are of Spruce selected to high special compression and density test figures.

The wing section at the root is Gottingen 549 thickened to 16% of the chord, which allows an immensely deep and strong Spar to be utilised. At the wing-tip the section is modified to Gottingen 676 because of its known very gradual stalling characteristics.

The wing taper ratio is 2.6 to 1, and there is a dihedral angle of $1^{\circ}36'$ on the upper surface at the main spar (30% chord). The "Olympia EON" thus conforms with the latest developments in research, which indicate that the gull type of wing is not quite so efficient on tight turns as had been previously supposed.

The tail-surfaces are slightly larger and at a greater distance from the wing than in most earlier Sailplanes., resulting in improved stability and better control, both of which factors operate to enormous advantage when blind flying in clouds.

THE COCKPIT

The seat is equipped with full aerobatic harness, provision being made for a back type parachute, alternatively as an extra a light weight dummy seat back rest.

Fitted with a robust and quickly detachable cockpit enclosure of a one-piece "bubble" canopy, with sliding ventilation and clear vision panel on port side (only).

The instrument panel can be readily removed from the machine should it be considered undesirable to leave valuable and delicate instruments in the machine after a cross country flight.

The dive-brake lever is on the port side of the cockpit and is operated "throttle" -wise, i.e. when pulled back the dive brakes are applied. On the starboard side, by the pilot's knee is a trimmer control, operating a tab in the elevators.

Aft of the pilot is a compartment with an access door in the side of the fuselage which is fitted with a sponge mounting for a barograph.

The aerodynamic qualities which have put the "Olympia EON" so far ahead can be grouped as follows:-

Semi Aerobatic Category (by British A.R.B. proposed standard).

Approved by A.R.B. to execute tight turns, stall turns, loops, spins, and to undertake cloud flying.

Safe and Efficient Dive Brakes.

High Degree of Manoeuvrability.

Light, Harmonious, and Highly Responsive Controls.

Innate Stability, which inspires Confidence to enter clouds.

Outstanding Performance combined with high Cruising Speed.

Complete freedom from viciousness in the Stall.

We are confident that no other high performance Sailplane can offer all these practical and aerodynamic advantages of the "Olympia EON". We have no hesitation in stating that it is, without any doubt, the world's most advanced practical high performance Sailplane.

This assertion is made against a considerable background of flight testing both in Germany and here in Britain, and reports on flights made by international pilots on the "Olympia EON's" performance.

SALIENT POINTS OF THE "OLYMPIA EON".

Although the description we have given of the machine is comprehensive it may be of advantage to analyse the "Olympia EON's" superiority and the main features have been classified into two groups.

From a practical point of view, we have the following features:-

Ease of Assembly, Rigging, and Maintenance.

"Pip" Quick Release Pins to Elevator, Aileron, Dive Brake circuits.

Rigging with wing tips on ground.

Interchangeability of Spares and Components.

Tail Trimming Adjustable in Flight.

Equipped and Stressed for Aero-Towing.

Fitted with two Release Hooks with automatic override device, one in nose position, and one in belly position.

Relative quietness in flight at all speeds, a point which brings comment from every widely experienced pilot on first flying the aircraft.

Exceptionally robust.

Glued with the modern waterproof synthetic resin.

Small storage space required.

Kit of Rigging and De-rigging tools stowed in permanent tray on cockpit floor.

MK.I. Normal type skid landing with steel sheathed ash skids.

MK.II. Built in wheel for Club work, or alternatively,

MK.III. Jettison undercarriage for competition and recovery landing (saving weight).

For operation from retalled runway.

MAIN DIMENSIONS AND WEIGHTS (FOR MK.I SKID TYPE SHOWN)
 (FOR MK.II BUILT IN WHEELS,
 SHOWN)

Span	49.212	ft.	15	metres.
Length	23.83	ft.	7.27	metres.
Wing Area	161.46	sq.ft.	15	metres ²
Wing Loading	3.90	lb.sq.ft.	19.05	kg/M ²
Aspect Ratio	15		15	
Empty Weight	420	431 lb.	190.5	195.5 kg.
Load	210	199 lb.	95.25	90.25 kg.
Structure Weight: All up weight.	.666	.684	.666	.684
Structure Weight: Area.	2.60	2.67 lb. sq. ft.	12.7	13.03 kg/M ² .

PERFORMANCE

Best Gliding Angle (L/D)
 25: 1 at 45 m.p.h. approx:
 25: 1 at 73 km./hr.

Minimum Sinking Speed.
 2.2 f.p.s. at 39 m.p.h.
 .67 metres/sec. at 63 km./hr.

Stalling Speed.
 32 m.p.h. 51.5 km./hr.

LOAD FACTORS (ULTIMATE)

C.P. Forward.	9.6
Diving at 120 m.p.h.	2
Diving at 138 m.p.h. ($4\frac{1}{2}$ Vs.)	1.5
Pull out of Dive.	9.6
Inverted Flight.	5.5
58 f.p.s. upgust. } 60 f.p.s. downgust. }	at 3 Vs. 1.5

Stressed to land whilst dragging one wing tip on ground.

Date. June 1st, 1947.

Publication
Prefix. US. 1.

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|------|---------------------------|-------------|--|
| A. | STANDARD MK.I. £ 550. | sterling | } Note these prices are nett prices at factory, and increase for delivery charges from factory to shippers, and carriage to Port of entry including insurance and all charges except Import Duty is shown below. |
| | (Skid type). | at factory. | |
| B. * | STANDARD MK.II. £ 565. | " | |
| | (Built in Landing Wheel). | | |
| C. * | STANDARD MK.III. £ 565. | " | |
| | (Jettison Wheel). | | |

The above prices are firm prices for orders placed within period of three months from date at top left corner of this sheet, and thereafter are subject to revision.

* Trial Installations being submitted to test, but models not yet available for sale.

- O. Delivery and all charges to the Port of New York £150. sterling.

This price is liable to fluctuation, due to Shipping Company advancing charges without notice, and is subject to charges ruling at date of delivery.

ON ALL MODELS,
i.e.
MK.I, II and III.

- P. or Towing Charge to Aerodrome of £ sterling.

- Q. British C. of A. £2. 2. 0. sterling.

THE ABOVE STANDARD PRICES INCLUDE:-

- (1) Standard colours and finish as enumerated over.
- (2) Aerobatic Harness.
- (3) Removable Instrument Tray (excluding Instruments), or with Instruments extra, see over.
- (4) Tools for Rigging and De-rigging.
- (5) Single bubble canopy Hood with one sliding window.
- (6) Test Flown by Approved Test Pilots.

STANDARD OPTIONAL COLOURS.

- (1) Cambridge Blue.
- (2) Red.
- (3) Ivory Cream.
- (4) Pastel Green.

WITH STANDARD TRIM LINE AND
INSIGNIA, AS BELOW:-

- (1) Cambridge Blue.
- (2) Red.
- (3) Ivory Cream.
- (4) Pastel Green.
- (5) Royal Blue.
- (6) Black.

The above materials are generally stocked, but if delivery is of primary importance second choice is advised.

INSTRUMENTS, extra:-

(a) Cobb-Slater Variometer.	£6. 12. 0.	} fitted.
(b) K.D.G. Altimeter.	£5. 15. 0.	
(c) K.D.G. A.S.I.	£4. 14. 6.	
(d) Kelvin, Bottomly & Baird. A.S.I.	£7. 10. 0.	
(e) K.D.G. Electric Turn & Bank.	£18. 15. 0.	
(f) K.D.G. Compass.	£6. 15. 0.	

(e) is not available till September.

TERMS.

Home Market and
Aero-Towed.

Nett cash and payment ten days prior to delivery date, or by certified cheque or draft on London when taking delivery.

Export by ship.

Confirmed credit in London through purchaser's own Bank in sterling to be placed at Lloyds Bank London for our account in exchange for shipping documents.