

Alvis Leonides engine and de Havilland propeller afford exceptional ability to use small fields and waterways.

400-foot take-off run with 6 passengers and fuel for a 700-mile stage.

The latest version of an unusual aeroplane due to give a special demonstration at the 1953 S.B.A.C. Display at Farnborough.

The de Havilland Aircraft and Propeller Companies of Hatfield, together with Alvis Limited of Coventry, have pleasure in announcing details of an aircraft new to this country - the de Havilland Beaver Series 2. This new version of the Canadian de Havilland Company's well-known Beaver light transport is . fitted with the British Alvis Leonides engine of 550 H.P., which gives it a twenty per cent, increase in take-off power. advantage, combined with the benefit of a high-efficiency de Havilland Hydromatic propeller results in an even more striking performance than its predecessor. The conversion has been engineered by the designers of the Beaver, The de Havilland Aircraft of Canada Limited at their base in Toronto (established 1928), and doubtless opens up fresh opportunities for an aircraft already in strong demand for specialised functions in many parts of the world. More than five hundred of the Mark 1 Beaver have already been delivered.

The Alvis engine and de Havilland propeller make the new Beaver an all-British product, incidentally permitting its participation in the S.B.A.C. Display at Farnborough, England (September 7-13) where a special demonstration of its capabilities is due to be given.

The original Beaver's take-off, climb and short landing run, all achieved without any special lifting devices, are already

quite unequalled by any other aproplane of comparable load, range and resistance to harsh treatment. The Beaver Series 1, with the 450 H.P. Wasp engine, can and does regularly get into and out of fields or water strips that no other such aeroplane would attempt, and there is no doubt that the Leonides Beaver, with a hundred horse-power more, will prove of exceptional value for many difficult tasks. Take-off and landing performance for the Leonides Beaver show a twenty to twenty-five per cent. improvement, while rate of climb (feet per minute) and gradient of climb are actually forty to fifty per cent. better. Cruising speed and ceiling are up by ten to twenty per cent. Performance figures are given below.

With a pilot and six passengers or cargo, and fuel (with reserves) for a stage of 700 miles, 1100 kilometres, the new Beaver can unstick in just over 400 feet, 120 metres. This is in still air, i.e. without the assistance of wind. The landing distance also is impressively short - about 200 feet, 60 metres, when lightly loaded. This performance is remarkable in that it is achieved by an aircraft having serious industrial load-lifting ability and range, also an exceptionally strong and simple structure. Rate of climb with six passengers is 1,500 feet per minute, 7,5 metres per second, and cruising speed is 145 m.p.h., 230 kilometres per hour, at 5,000 feet, 1500 metres.

Available with wheels, floats or skis, the Beaver is intended for the same class of duties as the Beaver 1, which is widesly used for liaison and casualty-evacuation, cargo work, crop-dusting, supply dropping, border and coastguard and forestry patrols, aerial survey, and so forth. The United States Army and Air Force have some 200 Beaver 1's and have done excellent work with them in Korea.

The Propeller's Contribution

The de Havilland propeller has been engineered to suit the new installation, and makes a contribution of its own to the improvement in performance. It is larger in diameter (9 ft. against 8 ft. 6 in.) and has three blades against the two blades of the Wasp Junior installation. The effect on the take-off, climb and cruise is very noticeable, and the improved windmilling drag gives superior approach and landing behaviour.

The Beaver is an aeroplane planned for the legendary bush pilot, and it is capable of meeting in every way the demands he makes of an aeroplane - the most exacting in the world.

PERFORMANCE OF THE DE HAVILLAND BEAVER SERIES 2 COMPARED WITH THE BEAVER SERIES 1

Series 1 and 2 with 1,000 lb. payload (6 passengers or cargo) and full military equipment

	Series 2 (Alvis Leonides 550bhp and de Havilland propeller)	Series 1 (P. & W. Wasp Junior 450bhp and Hamilton propeller)
At all-up-weight	4,950 lb. 2245 kg.	4,900 lb. <u>2223 kg</u> .
Take-off over 50 ft. 15,3 m obstacle, still air	700 ft. <u>215 m</u> .	910 ft. <u>280 m</u> .
Maximum Rate of climb at sea level	1,560 ft./min. 7,9 m./sec.	1,100 ft./min. 5,6 m./sec.
Cruising Speed (not over 75% power)	156 m.p.h. 2 <u>50 km./hr</u> .	142 m.p.h. 228 km./hr.
Endurance	6.5 hours .	6.1 hours
Landing distance over 50 ft. 15.3 m still air	760 ft. 230 m.	990 ft. 300 m.

- N.B. 1. Maximum All-Up Weight for both Series is 5,100 lb., 2313 kg.
 - 2. Take-off and landing distances are over 50 ft., 15,3 m. obstacles; unstick and rolling distances are about one third less.