

The D.H. "Puss Moth"

The de Havilland "Puss Moth," or "Moth III," is the latest product of the well-known de Havilland Aircraft Co. Ltd., of Stag Lane Aerodrome. This machine is not intended to supersede the "Gipsy Moth," but is an addition to the de Havilland range. It is a cabin semi-cantilever high wing light monoplane, and is fitted with a new type of de Havilland engine, the inverted 120 h.p. "Gipsy III."

The fuselage of the "Puss Moth" is of rigid and robust welded steel structure, built in sections bolted together for ease of replacement and repair. The wings are of wooden construction and may be folded easily and quickly. The cabin provides comfortable accommodation for two occupants, the pilot normally being seated in front with the passenger seated directly behind him. With this arrangement full dual control is provided, and the machine may be used for instructional purposes. When desired, the controls in the rear seat may easily be detached in order to make room for an additional passenger.

The "Puss Moth" has been specially designed for long range touring at high speed. Ample luggage accommodation has been provided, this including provision for the carriage of golf clubs, fishing tackle, guns, cameras, rations, picnic baskets and the like.

The engine fitted to the machine has been designed to run in all circumstances on ordinary commercial No. 1 petrol and mineral oil of the kind obtainable at any automobile garage. It is an air-cooled four-cylinder inverted unit and represents a direct development of the 100 h.p. "Gipsy I" fitted as standard into the open cockpit "Gipsy Moth." The employment of an inverted type of engine has many advantages, the most important being unrestricted vision ahead, exclusion of fumes from the cabin and a marked degree of silence in operation.

The "Puss Moth" has a remarkably flat gliding angle. While this is a great advantage in the rare event of a forced landing having to be effected, it is inconvenient in making a normal landing, and therefore the undercarriage compression struts may be swivelled broadside on to the wind in order to act as an air brake. This reduces the top speed of the machine by about 35 m.p.h.

The "Puss Moth" has an overall length of 25 ft., which is increased to 26 ft. 3 in. when folded ready for garaging. The wing span is 36 ft. 9 in. open, and 13 ft. when folded. It is 1,150 lb. in tare weight, and the all-up weight is 1,900 lb. A maximum speed of 128 m.p.h. may be attained near the ground: the cruising speed is 100 to 110 m.p.h., and the stalling

speed 45 m.p.h. The rate of climb from ground level is 660 ft. per minute, and the service ceiling 15,000 ft. When fitted with two petrol tanks, each of 11 gallons capacity, the machine has a range of cruising speed of 460 miles. If desired, two tanks of different sizes, one of 11 gallons and the other of 17½ gallons capacity, may be fitted. The cruising range then is increased to 620 miles. If



Courtesy]

[De Havilland Aircraft Co. Ltd.

The de Havilland "Puss Moth," a high-wing monoplane that is specially designed for long range at high speed. The 120 h.p. engine is of the inverted type and is called the "Gipsy III."

the machine is required for still longer flights, two tanks each of 17½ gallons capacity are available. These enable the machine to work with a cruising range of 760 miles.

The petrol consumption of the machine necessarily varies according to wind and other conditions. At a cruising speed of approximately 100 m.p.h. however, an average of 22 m.p.g. is obtained.

The price of the "Puss Moth" with a land undercarriage is £1,000. If desired it may be converted into a seaplane by fitting with floats, when the price is increased by £250.

Automatic "Observer" for R.A.F

The Royal Aeronautical Establishment at Farnborough has conducted a series of experiments with what is described as an "automatic observer." When a test pilot is flying a new machine he usually notes the readings of his instruments on a writing pad strapped to his knee, and naturally it is impossible for him to make simultaneous records of a large number of indications. No trouble of this kind is experienced in aeroplanes carrying the "automatic observer," and the pilot may devote his attention entirely to flying the machine.

In the new apparatus, the instruments are carried at the bottom of a light-proof box, the base of which is well illuminated. At the top of the box, a cinematograph camera is fixed. The film in this is set in motion by pressing an electric push-button that starts the clockwork mechanism operating the camera. At the same instant the lights inside the box are switched on, and thus a perfect photographic record is obtained that afterward may be studied at leisure.

If desired an automatic interrupter may be fitted in order that photographs may be taken at regular intervals instead of continuously.

British Engine Helps to Make Speed Record

A world's speed record for two-seater light aeroplanes weighing up to 800 lb. recently was made by a "D.18" type machine of the Darmstadt Flying Academy, the aeroplane being fitted with a 100-110 h.p. Armstrong Siddeley "Genet Major" engine. A distance of 62.5 miles was covered at a speed of 134.3 m.p.h. A short time previously the same machine had set up new figures for the world's altitude record for machines of this class by attaining a height of 24,819 ft.

An interesting proof of the popularity of British aero engines abroad is given by the fact that five German machines participating in the 1930 Challenge De Tourisme Aérienne are fitted with British engines. Two Junkers "Junior" type A.50 light aeroplanes taking part are equipped with 80-88 h.p. Armstrong Siddeley "Genets," as also are two Klemm machines, the fifth machine being the one that now holds the speed record noted in the previous paragraph.

New Type "Pterodactyl"

An improved form of the "Pterodactyl," or tail-less aeroplane designed by Capt. G. T. R. Hill, is now being manufactured at the Westland Aircraft Works, Yeovil. It is expected that the first machine will shortly be completed. It is of the cabin monoplane type and will be able to seat three people.

THIS MONTH'S AIR STORY

Pilot: "I was just passing over the tops of the mountains, when I found that my engine was missing."
 Listener: "Good gracious! Wao could have stolen it without your knowing?"

Giant Air Beacon at Calgary

The Hudson's Bay Company has decided to erect on the roof of their Calgary store a 3,000,000 c.p. aeronautical beacon, that will be visible from points at distances of up to 130 miles. Forty neon tubes, each 20 ft. in length are employed in it. They will be arranged vertically around a special tower above the store.

A similar beacon was erected on the roof of the Winnipeg store of the Company, a photograph of this being published on page 359 of the "M.M." for May. Others are to be placed on the remaining stores of the Hudson's Bay Company, and these will constitute a remarkable feature in the development of aviation and the air-mail service in western Canada. The intensity of the Calgary beacon exceeds by 1,000,000 c.p. that of the one at Winnipeg, which previously was described as the greatest in the British Empire.