

# First Flight of Fawcett 120

**This new Australian built aircraft is described here by Keith Robey, CFI of Illawarra Flying School, who test flew the new light plane at Sydney on Nov. 11.**

FAWCETT Aviation's answer to the Tiger Moth replacement problem which is facing most Australian Aero Clubs, the Fawcett 120, flew for the first time on November 11, at Bankstown, NSW. The Fawcett 120—the latest attempt in this country to produce a reasonably priced elementary trainer—is the first in the postwar era to be taken to the prototype stage. It is an all metal, four place, single strut braced highwing monoplane, equipped with a tricycle undercarriage and powered by a Gipsy Major engine. Its designer was an Italian Luigi Pellegrini who is well known in his own country and who intends to make his home here.

The decision to proceed with the design and construction of the "120" was made by Fawcett Aviation after their subsidiary company, the Illawarra Flying School, had surveyed the range of training aircraft available to replace the fleet of Tiger Moths they now operate and found no suitable aircraft available at a reasonable figure. Realising that other training schools in this country were in a similar predicament a specification was agreed upon and the "120" designed around it.

The intention is to produce this new trainer in quantity for the Illawarra Flying School's own fleet to put it on the market at a price between £2700 and £2800.

The first consideration was that it should be a satisfactory trainer. It was felt however, that most Australian Clubs could not afford an expensive new type that will serve only one purpose. The aircraft has been built, therefore, as a four seater so that it will be useful for other purposes such as cross-country flying, joyriding, charter work, etc. This will also extend the potential market for the aeroplane which could in addition, serve the private owner, air taxi service operator, aerial photographer and crop sprayer. It is also thought that, with minor re-design it will be of some interest to the services as an AOP aeroplane or in a light communications role.

The fuselage is of monocoque construction built of DTD390 aluminium alloy. The wings, which are braced by a single streamlined steel tube-strut, are a single spar constant chord structure in two main sections with all metal spars, ribs and skin. The span is 35ft. 8in., the mean aerodynamic chord 4ft. 11in., giving a gross wing area of 185 sq. ft. Simplicity has been the keynote in the design and the flaps and ailerons have been designed to be interchangeable. This will ease the spares problem considerably. One unit carried as a spare could be used as a flap or aileron on either side.

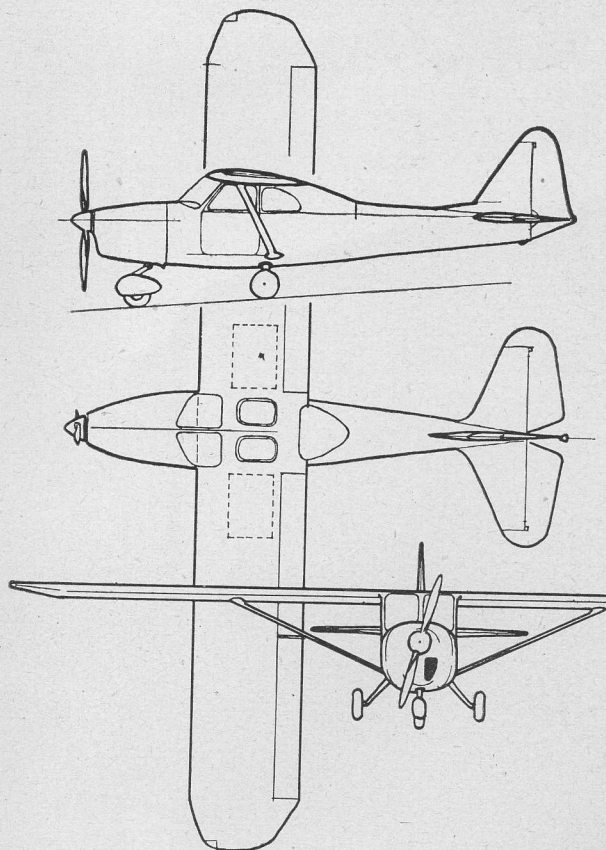
The undercarriage is a fixed tricycle type, the main wheels being carried by single faired legs which are hinged near their upper ends to the lower deges of the fuselage. The extension of the legs within the fuselage are attached to a rubber, inserted parallelogram shock absorber system which is very robust and should stand up well to the heavy punishment it will be called upon to take from time to time in the training school. The nose wheel is steerable, controlled by the sideways movement of the stick. It is intended to produce the "120" with a choice of either stick or wheel, and it is thought that training schools will prefer the former and the private owner or commercial operator the latter. Mechanical brakes are

fitted to the main wheels and are controlled by a single brake pedal; differential brakes, of course, are unnecessary with the steerable nose wheel.

Cockpit layout has been designed to correct mistakes found in other types of trainers. The throttle is situated on the left hand side of the cockpit, as it has been found in the past that pupils have considerable trouble with centre throttles which force them to hold the stick in their left hand. The flap lever has been placed in front of the pilot in the centre and is very accessible compared with previous systems above, behind and unseen. The tail trim works in a natural manner, forward for nose heavy trim and back for tail heavy trim; this is considered a big improvement on trim controls working athwart ships which require the pupil to remember in which direction they operate.

The prototype had flown only five hours up to the time of writing. First impressions indicate performance well up to expectations. Cruising speed is 106 MPH. Maximum speed 127 MPH. Rate of climb, 550 feet a minute. The prototype has not yet attempted to reach its service ceiling but this is estimated at 14,600 and the cruising range 500 miles.

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The new Fawcett 120 trainer is shown, top, outside the hangar with Mr Doug. Fawcett; above, in three view drawing; and, at left, airborne during its first flight with Keith Robey, Illawarra Flying School CFI, at the controls.