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MOSWEY III

THE history of American soaring has been that those who wanted high performance single-place sailplanes had to either design and build them themselves or buy them from European manufacturers. American manufacturers have not as yet brought out really high performance single-place sailplanes and even the two-place ships do not quite match the performance of the better European two-place ships. (Although out of all fairness the TG series was designed to satisfy the Army rather than for extreme performance.) Undoubtedly, high performance American sailplanes will be built for one cannot imagine that either Laister-Kauffmann or Schweizer, or any others, will be able to resist the temptation and probably are now at work on the problem.

However, in the meantime those who want the best there is must look elsewhere. One former American champion feels that in the future he will be flying against the best pilots there are and the one with the best ship will win; and he feels that the best ships are still being built in Europe.

The Swiss Moswey III is just such a ship and will attract the discriminating pilot. It is now being built on a production basis and its manufacturers have high hopes for its appeal in foreign markets.

The following article is from the December, 1943, issue of the *Swiss Aero Review*, translated from the French by E. W. Boyer.

The Moswey III represents a step in advance of its prototype the well-known Moswey II, whose qualities have been ably demonstrated by the performances of Ernest Spahni, champion pilot. In comparison with the Moswey II, designed more than ten years ago, the new Moswey III is distinguished in particular by an entirely new tail section, slotted ailerons, and the interchangeability of all parts. The basic aerodynamic form of the Moswey II and the resultant happy combination of flying qualities has been retained.

Besides the principles of construction used in building the Moswey II, there were others to be taken into account in designing the Moswey III. To begin with, all the detachable pieces had to be examined from the

angle of their eventual quantity production and their interchangeability. A fuselage cradle, as simple as it is original, consists of a large tube running through the longitudinal axis of the fuselage and is adapted to its internal structure. This arrangement has proven excellent in practice because it permits the turning of the fuselage skeleton about its axis while under construction, thus having it always in the most convenient position. Even a great part of the covering of the fuselage can be applied before removing this tube.

The idea of centralizing the controls, levers, and operating buttons into a compact working group led to a new system of controls in the Moswey III. A central beam is fastened to the fuselage by only two screws and carries the following parts: the pedals and their bearings, the control stick, the levers operating the spoilers and divebrakes, the releases for towing, the latch for releasing the landing gear, the instrument board, the switches for electric turn and bank indicator, the heater, and the oxygen equipment. This arrangement has the advantage of shortening the long task of assembly. The whole group is put together before leaving the mechanics' shop and its placement in the ship, including its connection with controls and releases, takes but a small part of the time required for the mounting of ordinary controls. The ease of handling, the visibility of the whole, and the absence of fragility makes this simple installation much superior to the usual kind. By taking all of the control column and rudder pedal loads on a central structure, the nose of the fuselage has been considerably simplified and lightened. It has been shown by experience that the front of the fuselage is the most threatened in case of a crash landing; this is why it is particularly desirable to free these parts of mechanical accessories. The controls would not be destroyed except in the event of a grave crash and then the parts damaged would be easily replaced. This grouping of the controls is done in the only part of the cockpit where space can be spared.

Rudder control in the Moswey III is done entirely by push pull rods. Cables, usually employed, have been completely eliminated. This is undoubtedly a novelty