

# OUR SCHWEIZER 1-26

It is quite possible that such a large number of the 1-26 kits are now in the hands of builders (or more properly—assemblers) the information presented herein will serve little purpose except for comparison. However, others may like to have a report on the construction and financial effort required to complete a 1-26 kit in order to evaluate it with regard to projected sailplane projects, be they kits or rebuild jobs.

Messrs. Jon Carsey and E. J. Reeves, who need no introduction to any soaring enthusiast, mentioned one fine day that they had purchased a 1-26 kit and might need some help in the assembly. I immediately asked if a share of the kit was for sale and could arrangements be made to have a fourth member join in the construction. It was agreed that the kit would be built in my "garage"—a 20 by 26 foot building built more than less for the purpose of sailplane repair or construction. Also, it was agreed that the additional member was acceptable. We were fortunate in having Mr. Paul Schroeder, a former Purdue Glider Club President and Goodyear Class Midget Racer builder, join as the fourth partner and co-builder. Paul had designed and built two midget racers, and I had served for a time as an A and E mechanic in World War II with an artillery battalion and also completely rebuilt a J-3 cub and had a small hand helping Paul with the finishing touches on the second midget.

The kit arrived on June 14, 1955—with the transit company verbally expressing their wonderment at a piece of porch furniture—that is, a glider—weighing several hundred pounds.

The first effort was devoted to the fuselage. After approximately fifty per cent of the fuselage work was accomplished, work was started on the tail surfaces and ailerons. These were completed, to the covering stage. The wings were then brought to the point of being ready for covering. Attention was returned to the fuselage and when it was completed, the Civil Aeronautics Administration was requested to inspect all of the work prior to covering. Their approval

by MARSHALL CLAYBOURN

was received without difficulty. In fact, it should be mentioned somewhere, and no time is better than now, that the CAA people were most cooperative throughout. The project was outlined to them prior to beginning, then it was inspected prior to covering and upon completion. No difficulty whatever was encountered, and their few suggested changes were logical and fair.

As most anyone will do with this type of a project, changes were incorporated which we felt were improvements. The upper surface of

supporting structure. This was to prevent foreign matter from being thrown into the aft fuselage by the wheel.

The wing root-fuselage intersection was modified by eliminating the wood butt plate provided by the factory and replacing it with bulb angle contoured to the airfoil. The bulb of the angle was positioned outboard and the other leg was turned down on the upper surface and up on the lower surface. This fabric was "Pli-o-bonded" to the inboard side of the bulb angle. This allows the skin on the wing root to slide over the bulb angle giving a tight fit, and like all 1-26 kits, eliminating any wing root fairing problems. The fairing stringer from the wing root aft was made of



Photo: Bell Helicopter Corp.

The whole family gets into the act. Left to right are Marshall Claybourn, his wife Bettye, father Mr. Guy R. Claybourn, brother Jon and, controlling the whole operation, son Hank.

the wing was covered with .020 24ST Alclad. The aft fuselage turtle deck was also covered with the same material. The Texas sun is rather hard on these surfaces, and it was thought these changes would reduce maintenance. The wing skin was flush riveted, utilizing the same size rivets and spacing used on that portion of the wing metal-covered at the factory. Metal "J" stringers were bolted to plywood formers to form the structure for the turtle deck and the skin then flush riveted to the "J" stringers. The transition from the metal turtle deck to the vertical fin was accomplished by use of a tube over which fabric was placed, forming a fillet.

Additional fabric fairing tubes were added to the nose section too.

The wheel was sealed off with an aluminum well attached to the wheel

metal tubing and this was bent inboard at the wing root and then aft, thus reducing the width of the aft fuselage as compared with the standard ship.

These changes were not major in nature, but it appears they will reduce maintenance and deterioration—the only wood in the entire ship being that used for formers in the aft fuselage modifications—and, of course, they did increase the cost of the sailplane and required additional man hours of effort. We feel the time was well spent.

All modifications were noted on ACA337 forms for certification purposes.

A fairly accurate log was kept of the working time and cost. A total of 835 man hours was expended on the construction. We did not find