

INTERESTING GLIDERS

by PETER M. BOWERS

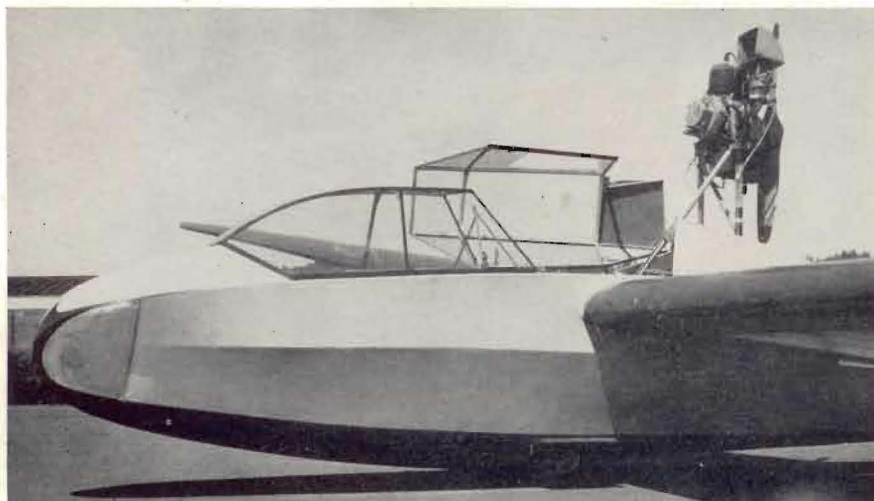


Photo: Peter M. Bowers

Arnold Skopil's Bergfalke II with retractable Nelson 44 HP engine.

The Bergfalke II/55 illustrated this month qualifies doubly for this column in being both an interesting foreign glider and an interesting modification of a standard glider. While the design is a product of the Scheibe-Flugzeugbau of Munich, Germany, this particular ship was built by Arnold Skopil of Hoquiam, Washington. It is licensed experimentally as a home-built although the spars and welded steel tube fuselage were imported from Germany. It seems that factory installation of the spar fittings (with hollow rivets) is a German airworthiness requirement, and you can't buy "Kit" wings any other way.

Arnold's problem, while building his Bergfalke, was one which has stopped many another builder - no established soaring activity in his area. With this in mind, and the consequent problems involved in getting

adequate ground crew help and launching, he decided to eliminate the problems.

The launching is taken care of by a 44 HP Nelson two-stroke engine with pusher propeller, just like on the Nelson "Hummingbird" except that the engine is mounted vertically instead of horizontally, and is extended and retracted manually instead of electrically. At present, it is not fitted with a starter for in-flight starts.

The engine folds neatly into the rear seat, and can be removed in 20 minutes to permit operation as a normal two-seat sailplane. The retraction cycle is interesting. For take-off, the rear canopy is closed. To retract the engine after it is shut off (the prop ALWAYS stops in the same straight-up-and-down position, Arnold says), the rear canopy opens, the engine folds in, and the canopy closes, all in a few seconds.

Arnold Skopil's Bergfalke II showing engine retracted into rear cockpit.

Photo: Peter M. Bowers



Wingtip runners are eliminated by using a double wheel landing gear instead of the conventional single wheel. These wheels are located just inboard of each longeron at a point directly under the leading edge of the wing and are retractable.

The lines of the Bergfalke 11/55 provide an interesting contrast to typical American sailplane form. The steel tube fuselage is practically a slab-sider, the aspect ratio of the vertical tail is extremely low by American standards, the wings sweep forward slightly to allow both crew members to sit ahead of the wing spar, and the canopy is a simple frame with flat sides and top in marked contrast to the moulded or blown canopies of American ships. In spite of the overall boxy appearance, the Bergfalke II has an L/D of 28, which makes it "just a trainer" by current German standards.

Needless to say, Arnold and his powered sailplane have caused quite a stir in an area where there are no other gliders around. On one slope soaring flight he was unable to get the engine retracted, but managed to beat back and forth along the ridge anyhow. Some of the natives were watching from a distance - just too far to make out details. One of them remarked that the durn fool was really crazy now - he was flying it while standing up in the cockpit. The other didn't believe him, but the first was adamant, and pointed to the ship on the return pass, saying: "Sure he is! See, there he goes again!"

Specifications: Span, 54' 6"; Wing Area, 191 Sq. Ft.; Aspect Ratio, 15.6; Empty Weight, 540 lbs.; Gross Weight, 965 lbs.; Limit Speed, 99 mph; Minimum sink, 2.36 FPS at 44 MPH; and L/D, 28 at 50 MPH.

CALL FOR VOLUNTEERS 1960 U. S. National Soaring Competition

The SSA will require volunteers for scoring, turn point identification and related competition duties at the 1960 Nationals in Odessa. If you plan to be on hand for the competition and can help, please write to W. S. Ivans, Jr., Chairman, SSA Contest Board, 2905 Bayside Lane, San Diego 8, California. A brief statement of experience, task preferences and availability will be helpful.

EXCELLENT PUBLICITY

Read "Come Sail in the Sky" by Robert N. Buck, on page 84 of *READER'S DIGEST* for January, 1960 (condensed from *AIR FACTS* for December, 1959).