

gross weight of 31,000 pounds and could carry a useful load of 16,000 pounds. The Trojan Horse was 66 feet in length, had a wing span of 105 feet and was the first aircraft to carry a 2½-ton truck and a 155-mm. Howitzer.

The Army Air Corps procurement officer involved in the CG-10 program was General William Knudsen, who Jack describes as "the finest production executive I've known." Knudsen later became president of General Motors. Lewin Barringer was coordinator of the Army Air Corps Glider Division Training Program and also very active in the CG-10 project.

Jack flew the CG-10 and the LK Company completed construction of five. The company had a contract for one thousand CG-10's of which one hundred were on the production line when the war ended. The Government's interest in gliders of any size was to abate until re-entry from space became a problem and the M-2 a possible vehicle.

Jack's son Richard was born in 1946 and now attends college in California. Recent years have found Jack with Aero Commander as vice president in charge of manufacturing operations, at Pacific Air Motors, also as vice president and staff engineer at Weber Aircraft.

His present company, Laister Sailplane Products, is directed by Fred Ireland, a physicist, Murray Freeman, a United Air Lines captain and glider pilot, Jack Jordan, business executive and LK owner, and John W. Laister III. And, of course, Jack himself.

Jack impresses you with his enthusiasm and tremendous vitality. At a period in life when many men are increasingly interested in security and counting the years to retirement, he has renewed his commitment to soaring. In his own words, "now I'm able to devote my time to something I've always wanted to do but couldn't as a younger man — design and produce better and more beautiful sailplanes."

The following technical information on the LP-49 is reprinted from The Thermal.

The wing and empennage of the LP-49 are of all-metal construction. The fuselage is of fiberglass. The kit builder will be supplied with two molded-fiberglass half-shells ready to be bonded together as soon as the controls and gear assembly are installed. The half-shells are quite light, yet very strong. They are also quite smooth and available in a variety of colors.

One main bulkhead transfers the loads from the wing to the wheel. The wheel is mounted with a shock strut and a single door fails the opening or slides up sideways, internally, so as to prevent damage when the wheel is extended. The tail wheel retracts automatically with the main wheel. A shallow wooden skid with a steel shoe is provided from wheel to nose. The release is also cleverly retractable.

The canopy is free blown and provides excellent optics. The latch is forward and the canopy swings aft, up over the wing, fighter style. It can also be jettisoned. A small glass fairing is located above the wing so that visibility aft, over the wing, is possible.

The wing rests on the top of the fuselage. By not cutting away the fuselage to receive the wing the complete shear strength of the fuselage side panels is maintained. A small carry-through is attached to the top of the fuselage, out in the open, to receive the wings. The upper root-spar fitting of each panel has a fixed pin through the spar fore and aft with a large steel bushing on each side of the cap. The carry-through is made of double plates which are made like hooks to receive the bushings of the fitting. The wing is just laid in the hooks and swung down to a stop. This stop, by means of an eccentric, automatically positions the center holes of the lower spar-cap fitting of each panel. A special extending pin is then inserted to finish the job of attaching the wings.

As each wing panel is swung down into position the ailerons automatically engage through an especially designed gear quadrant. The dive brakes also automatically engage. Beyond the expanding pin the only wing-attach hardware required are a pair of pip pins.

The stabilizer is assembled by hooking a leading-edge fitting under a pin and bolting the main spar down to the fuselage in two places. The elevators require one link to connect. The horizontal tail need not be removed for trailering.

It can be seen from the foregoing that ease of assembly has been a prime consideration in the design of the LP-49, quite unique for an American sailplane!

* * *

The NACA 64,618 airfoil provides good contour for stiffness and the .032 and .025 skins are wrapped around the leading edge from the top of the rear spar to the bottom of the rear spar. Rib spacing increases as the tip is approached in order to keep the number of ribs to a minimum. Jack figures it will require four G's to cause the skins to oil can.

The cap angles of the main spars are special extrusions designed to maintain smooth contour over the critical part of the wing. The main spar is a riveted assembly. The rear spars are formed channels and will come in the kit accurately formed. The ribs look professionally made and will be supplied in the kit completely formed. The skins are counter-sunk to receive flush pop rivets. Certification is being applied for using these rivets which will make assembly easier for the home builder.

The wing has two and a half degrees of geometric twist in the outer wing sections. This is accomplished through lofting of the ribs in such a manner as to present no problems in assembly. Contour templates will be provided so that a simple straight jig is all that will be required to assemble the wing.

Dive brakes are located between the rear spar and the trailing edge and are about six feet long. They are terminal-velocity limiting and are aerodynamically balanced so that the operational loads should be light at any speed.

Jack Laister plans to have the prototype on display at the Nationals and available for demonstration.

HOWIE BURR