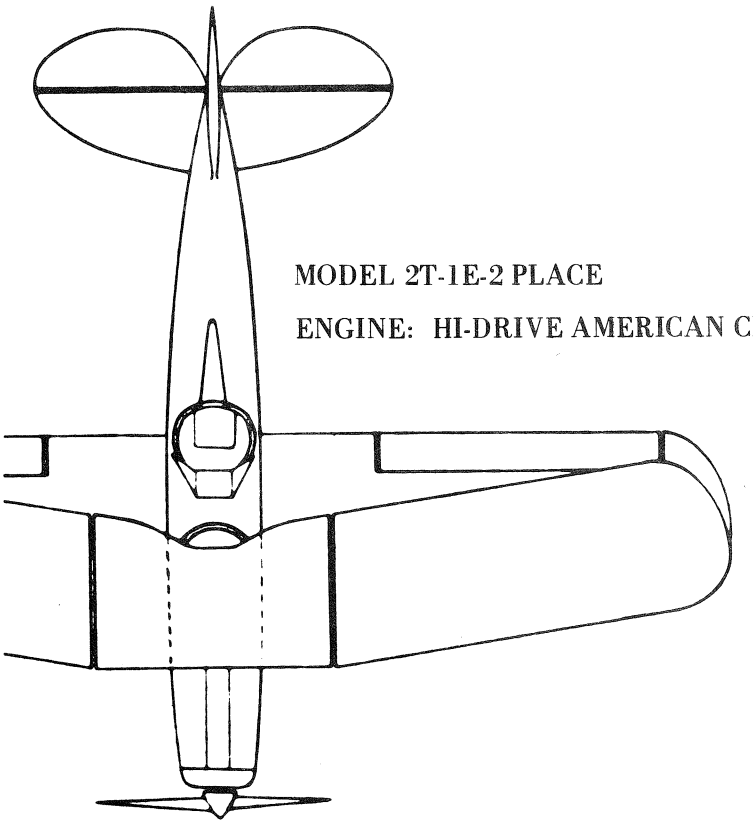

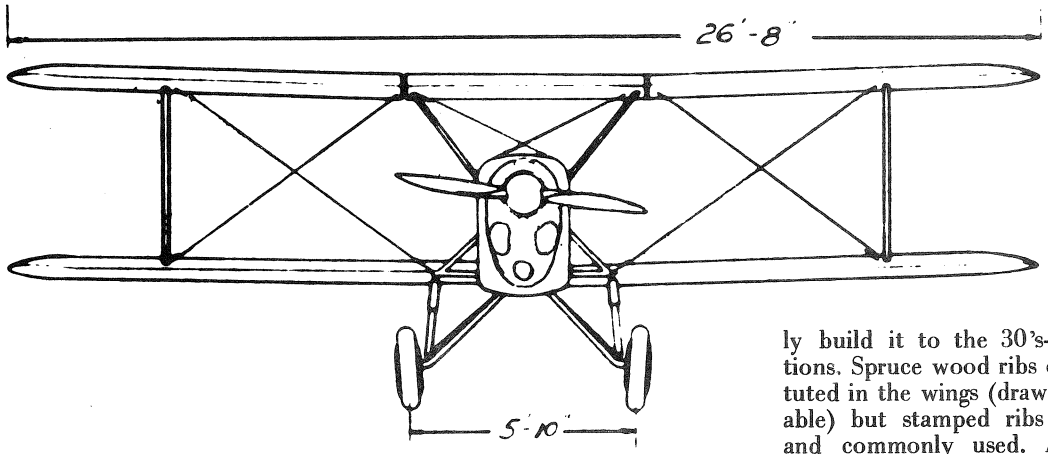

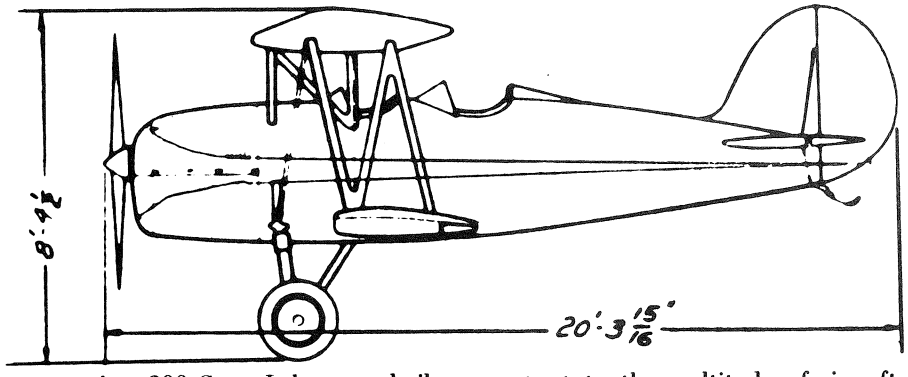

more than 200 Great Lakes were built during its heyday, less than 50 are left – most of them now undergoing restoration at the hands of dedicated antiquers.

The modern Great Lakes is a homebuilding project, utilizing the original factory engineered plans and drawings. Harvey R. Swack, coordinator for Great Lakes Aircraft Company, makes a particular point of the design's thoroughly engineered and tested status in contrast to the multitude of aircraft design plans available for homebuilders' choice. "It's a totally engineered aircraft," he says, "which means that nothing in the structure is any heavier than is required to handle the limitations on any kind of aerobatic maneuver or any maximum speed. Remember, this airplane was engineered to meet civil and military aviation specifications by a crack team of dive bomber specialists," he adds.

Today's homebuilders even have access to Charlie Meyers, a key figure in the original Great Lakes design effort and its first test pilot, and Robert Nightingale, an engineer responsible for development of its wings and large tail group, should any problems arise in construction. The 2T-1A Sport Trainers were built under ATC 288 and the final versions, with the inverted Cirrus and known as the 2T-1E, had ATC No. 354.

One of the secrets of the Great Lakes' abilities was its M-12 airfoil, a design developed by Dr. Max Munk, which permitted the plane to fly upside down almost as well as rightside up. Construction of the plane, however, is entirely conventional, made up of welded steel tube fuselage, light tubing tail structure, stamped aluminum wing ribs, spruce wing spars, aluminum leading edge skins, and fabric covering. The landing gear is a split axle oleo-strut design with a steel-shoed tailskid at the rear.

Modern builders substitute a tailwheel and, sometimes, a Cessna 180-type spring steel gear, but normally build it to the 30's-era specifications. Spruce wood ribs can be substituted in the wings (drawings are available) but stamped ribs are available and commonly used. A variety of engine mount blueprints also are available and the horizontal aircooled engines of today often are preferred – the 145-hp Continental, for instance, weighs only two pounds more than the original 90-hp Cirrus.

Swack warns potential builders to expect to be swamped by drawings and information. Just the list of individual drawings for the Sport Trainer covers four tightly typed legal size pages. The entire folio, all drawings plus original factory parts manuals and lists, weight and balance data, large three-view drawings and standard engine mount diagrams, goes for $150 postpaid ($3 extra airmail). Drawing sets for wings, fuselage and landing gear, or tail group, as well as those for other specific engine mounts, can be purchased separately.

An almost exhaustive information packet about either the Great Lakes or the Baby Great Lakes sells for $2 each. Orders should be sent to Great Lakes Aircraft Company, at Post Office Box