THE DON STEVENS BOWLUS BABY ALBATROSS

by JACK LAMBIE

When Don stevens got back into soaring after some years of inactivity, he started by purchasing Dave Garrabrandt's Baby Bowlus and began modifying it with an eye for appearance, safety and control. To begin with the ship is an NC model Baby with the heavy skin leading edge and steel fittings in the fuselage wing fittings. It has metal struts and the extra heavy wing fittings. The pod has the extra strong NC bulkheads and is covered with fabric. A very smooth glasslike white enamel finish has been applied with red and blue trim added.

A long needle nose taken from a real jet is balanced by a chrome plated full swivel tailwheel. The ailerons are bounded by aluminum plates with a strip of carpet between to avoid any turbulence around the edges when the ailerons are moved. Tip plates with wheels make the little ship amazingly easy to shove around. The cockpit came in for special attention with upholstering, radio with two speakers, and fancy control wheel.

With this ship Don Stevens won the class III National championship in 1954 and the trophy for duration at the Torrey Pines 1955 winter contest. Don also made his loop record of 118 consecutive loops in this machine and has given many glider demonstrations with it in the Cole Brothers Air Show last summer.

Don was kind enough to let me fly the little sailplane several times and the ship really is a joy to control compared to other "Babies." The control wheel has a hydraulic damper attached to it which dampens out elevator oscillations, and the aileron plates give a very effective rate of roll when the wheel is turned.

Don acquired two drone two-cycle engines, one an 8 hp and the other 22 hp, and decided to fit one to the glider to see if it would power it sufficiently for travel to and from contests and for retrieves. It was calculated that the 8 hp engine would climb the ship at 50 fps so it was attached first.

A piece of 3/32" by 5" steel sewer pipe was cut lengthwise in half and lugs were attached. A piece of streamlined strut was welded on and the engine was mounted with two torsion struts running to the back of the mount from the engine. The entire mount was chrome plated and polished, and was clamped to the tail boom with four bolts, with ¼" piece of neoprene rubber between it and the boom to take up vibration and prevent shifting of the mount. A gravity fuel tank was fabricated from a piece of aluminum tail boom with streamlined lampshades welded on the ends. This was screwed to the boom over the pod.

The engine weighs 18 lbs., the mount 34 lbs., the gas tank 5 lbs. empty and 29 lbs. when filled. The glider weighs 395 lbs. empty and with the engine installed and all, including pilot, the weight of the whole thing is 625 lbs.

Upon testing it was soon evident there was not enough thrust to push the glider fast enough to take off so car tows with the engine running were tried to 250 ft. A glide angle of about 40 to 1 was obtained with this set-up and a sink of about one foot per second. After much testing it was decided to try the bigger 22 hp engine. This engine was installed farther forward and over the glider so the plane would balance, but no flights have been made with this arrangement yet because the engine is balky and does not turn up well.

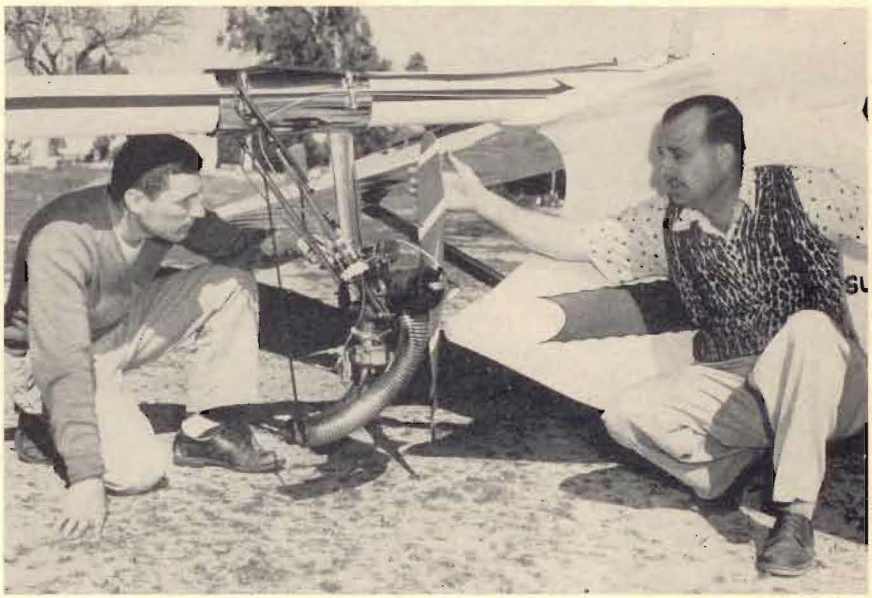

Photo: June Sargent

Jack Lambie and Don Stevens starting the 8 HP engine. The 24" propeller at 4300 RPM developed insufficient thrust for take off.