

Build the Jones S-125

One of the most attractive arrivals on the American light plane tarmac, the Jones S-125 is "the berries" for the rushing businessman or the private pilot. She's a two-seater with dual controls, will hit a top speed of 151 m.p.h., and will come down to an easy three-pointer at 46 m.p.h. Of course, we can't all own an S-125 right away—but we can build a mighty realistic flying model of the ship from the simplified plans and instructions given in this article.

By Louis Garami

TO the steadily growing number of light sports planes in America, the Jones S-125 is one of the most striking additions. This two-seater is a low-wing monoplane of exceptionally clean design, and its high performance places it right at the head of its class.

Equipped with a Menasco four-cylinder in-line engine of 125 h.p., the S-125 has a top speed of 151 m.p.h. and a cruising speed of 136 m.p.h. And in contrast with these speeds, the ship lands relatively slowly. For despite the fact that no landing flaps are employed, the craft "sits down" at 46 m.p.h.

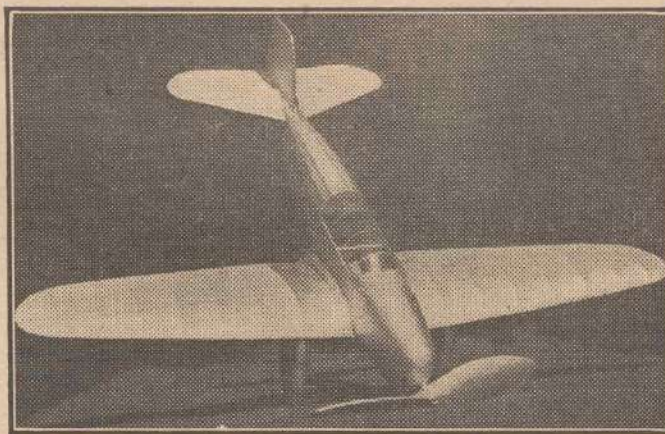
Construction of the ship is strong and sturdy, being based on a steel tubing fuselage, cantilever wings, and husky landing gear with metal fairings. Dual controls are standard equipment on the ship, a feature that makes it feasible for flying schools to use the S-125 as a basic trainer.

The ship is built, incidentally, by the Jones Aircraft Corporation, Schenectady County Airport, Schenectady, New York.

The body construction of our model Jones S-125 has been decidedly simplified, and the tedious job of fillet carving is entirely eliminated. However, the pleasing lines of the original ship haven't been lost or even altered by our omissions, as a single glance at the accompanying picture will show. And now you've looked at the snaps, let's get to work and build *your* Jones S-125.

CONSTRUCTION OF BODY

YOU will notice that the body sides are made from sheet balsa, through which type of design we hope to speed up construction and do away with the crooked bodies that sometimes result from built-up sides. But it is very important to use two sheets of balsa of equal



No, fellows—this model of the Jones S-125 isn't heading through the earth for China. She's merely posing on her nose to let you see her neat lines and general constructional features. The real ship, by the way, is equipped with dual controls.

all the formers with a sharp razor blade. Soft sheet balsa, 1/16" thick, is used for this purpose. Note that Formers 3 and 7 (Plates 1 and 4) have the usual notches, while the others are without cuts. Cement all the formers in place, and then attach the middle stringers on top and bottom.

Now compare the shape of your model with the side view on the plans. If there is any break in the even curve of the stringers you can push them down into the soft formers wherever needed to correct the trouble. The space between the windshield and cowling, at Formers 1 and 2 (Plate 1), is covered with 1/32" sheet balsa.

Since all cabin formers are the same, you can bend a piece of 1/4" wide bamboo into shape above the gas range, and slice three pieces out of it. Then push the pointed ends into the fuselage sides, cement them, and later cover them with celluloid.

Next make the hollowed out nose (Plates 1 and 3), preferably from two blocks of very soft balsa. The thickness of the walls should be decided according to the grade of wood used, since the required weight of the nose—two ounces—balances the plane perfectly.

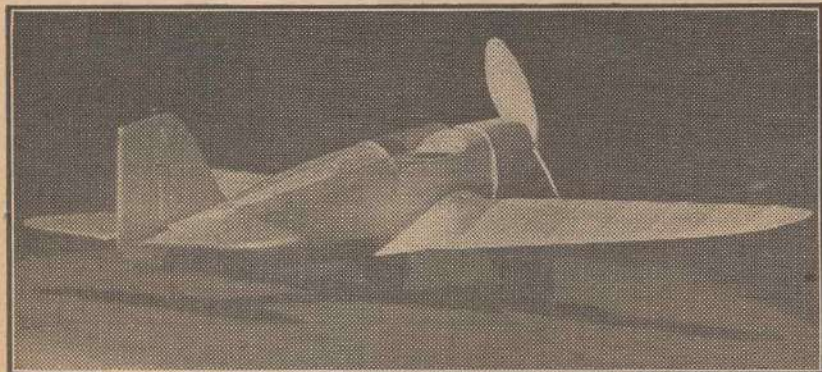
When the nose plug (Plates 1 and 2) has been carved to shape, add the black paper engine details, and glue small eyelets to the front and rear to serve as bearings. And while the glue is drying, you can add a few more balsa shavings to the growing pile by making the prop, following the drawings on Plate 1.

All the carved out parts should be clear doped, after first being sanded smooth. Sand them again when the dope has dried.

Next bend the propshaft and rear hook to shape from .028 piano wire. Anchor the rear hook firmly in position, using plenty of cement. The motor shaft is pushed through the nose block and a couple of small washers, and finally it is bent back into the prop. Finish the body by cutting the small hole in the side near the rear, to allow access to the rear hook.

WINGS, TAIL, AND ASSEMBLY

CUT OUT two each of the eight ribs shown on Plate 2. Use 1/16" thick sheet balsa for all ribs but the first, which is of stock 1/4" (Continued on page 79)



Here's another swell shot of Garami's S-125 model. It shows you the taper of the wing and the type of tail surfaces. If you'll use ordinary care and follow these pictures and plans closely while you work, you can build a similar ship that'll give you excellent flying results.

the finest flying training school in the world, plus the added inducement of one to five years active duty as a Reserve officer, with pay and allowances in grade. The Flying Cadet is paid \$75.00 a month and is provided with food, clothing, and shelter while undergoing training.

So there you are again—another very important item buried amid a lot of deep stuff about detailed estimates,

budgets, recommendations, and that sort of thing. In other words, the Army Air Corps is having a hard time getting candidates—at least candidates who have the required education. Which means that that matter of college training is the initial hurdle you've got to cross. And so, fans, we say—

You'd better stay at school. Yes, you'd better stay at school—if you want to get set to fly for Uncle Sam.

Build the Jones S-125

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thick. The 1/8" by 3/16" leading edge is pre-shaped to prevent the framework from warping.

Pin the trailing edge down first and cement all the ribs in place. Now add the leading edge, and set the spar in the notches. The sheet balsa wing tip (Plate 3) completes the framework.

The elevator (Plate 3) is made in one piece. Follow the plans carefully, and see Plate 4 for the rudder. Medium sheet balsa, 3/32" thick, is used. A small block of balsa is carved to the shape of the body, and is installed after the elevator has been cemented in place.

The landing gear legs are carved and hollowed out as shown on Plate 3. Cement small eyelets into the hardwood wheels to serve as bearings. The top of each leg is notched to fit the second rib. The pants are shown on Plate 1.

Cover the top and bottom of the body with silver tissue. All the balsa parts, such as the cowling, landing gear and the fuselage sides, should be painted with silver dope. Then cover the elevator and rudder, and cement them in place with the small balsa block between them.

Next glue the wings to the sides of the body, each tip being raised 1/2"—measuring from the top of the wing

root. The open space between the body and the first rib is filled in with 1/32" thick sheet balsa. When the wings are attached firmly, cement the landing gear in place and cover the wings.

Use six strands of 1/8" flat rubber for motive power. The first trials should be attempted only in high grass, to prevent any possible damage. Adjust the model by warping the rudder slightly to the right for a wide circle. And so—here's luck with your Jones S-125!

BILL OF MATERIALS

Twelve strips balsa 1/16" by 3/32" by 18", for body stringers; three sheets balsa 1/16" by 2" by 36", for body sides, formers and ribs.

One length balsa 1/8" by 3/16" by 2", for leading edges; one length balsa 3/16" by 5/16" by 2", for trailing edges; one piece balsa 1/32" by 3" by 6", for wing fillet and cowling.

One piece balsa 3/4" by 1 1/8" by 7", for prop; two blocks balsa 3" by 3" by 1", for the nose; one piece balsa 3/4" by 1 1/8" by 2 1/2", for the nose plug.

Four pieces balsa 3" by 3" by 1/2", for landing gear. And of course you'll need silver tissue, cement, dope, wire, wheels, pins and rubber.

Sky Fighters of the North

(Continued from page 7)

Swedish service.

Special conditions similar to those noted in the British Fleet Air Arm are enforced by regulations regarding the Naval Cooperation units intended for work with the Swedish Navy. During a part of the year, which is usually divided into one summer and one winter period, Naval Cooperation units of the Second Air Corps are placed under the supreme command of the Admiral commanding the Coastal Fleet for direct Naval Cooperation work, and these units are usually based on ships such as the *Gotland*, Sweden's famed Aircraft-Carrier-Cruiser, or the *Dristigheten*, an aircraft tender.

This Aircraft-Carrier-Cruiser idea is Sweden's own—and most of the larger powers have been watching the work of this unusual ship for some time. You see, many Naval experts believe that this type of ship will eventually out-mode the modern aircraft carrier.

The *Gotland*, which was laid down in 1930, is a distinct new type with a full load displacement of 5,260 tons. In most respects it looks like an ordinary light cruiser, but the aft section is devoted to deck space for a number of folding-wing seaplanes and a suitable hoisting gear for lifting returning planes from the water to the deck. About twelve two-seat Hawker Ospreys are carried under normal conditions, and there are two high-speed catapults and a derrick. As for armament, the vessel carries six 6-inch guns, four 14-pounder anti-aircraft batteries, four machine guns, and six 21-inch torpedoes.

The *Gotland*, with her speed of 27 knots, has shown herself to be a particularly useful type of warship. Two planes can be catapulted at one time, and they can get eight machines into the air in five minutes. All in all, considering her comparatively low cost, she is probably the most efficient

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