



"GREMLIN" Half-A Stunt

By TOM DIXON . . . Build an economy size control line stunt model that need not make excuses to anyone. It will do the complete schedule in a clean manner . . . and at much less cost in materials and fuel.

• Last year, L.M. Cox sponsored an event for their ME-109 Super Stunter at the Nats. I had such a blast that I decided to see what could be done to make a Half-A "really" fly stunt.

When Dick Mathis published the "Pinto," I built one and found it had potential, but suffered in the way as its big brother, the "Oriental." It was too fast, and wobbled some in the squares, due to the straight wing. The Gremlin represents another step forward in Half-A stunt. It uses a thick tapered wing, long moments, and a Cox "stunt special" engine. The result is a small airplane which can be competitive in most local level contests.

Further work could still be done, possibly, and I'm not stopping with this model. I think one could go even larger, such as 40 inch span, if you run a double-port engine.

WING

Construction is very conventional, being merely scaled down "big airplane" style. A few notes concerning some details are in order however.

Use light wood everywhere, except the leading and trailing edge sheeting. Medium weight, long grain wood is used here to avoid sagging under the covering. I would strongly recommend adjustable tip weight, and maybe adjustable lead-outs. I had to cut the covering on the original twice before I got the tip weight

right.

Controls should be set up "slower" than for a large stunter. That is, requiring more handle movement for the same amount of control movement. Half-A models are much more sensitive than large models in this regard. Bushings are not necessary.

Sheet top and bottom of half the wing at a time to avoid warps as the glue dries. Be sure to round off the leading edge adequately.

TAIL

Ultra-light wood is mandatory here. If necessary, cut out center of stabilizer and elevator and use 1/32 ribs.

FUSELAGE

Note that the fuselage is very narrow. It will be necessary to notch out the motor mounts to fit the engine crankcase between them. The tank is made up from a 3/4 oz. Perfect tank with half of another one soldered to the end. This gives runs of seven to eight minutes. Vents are conventional type. Top and bottom blocks should be hollowed aft of the C.G. in order to eliminate as much tail weight as possible. Also, do not eliminate the Nobler style cut-outs in the fuselage sides.

Cover all surfaces with "00" silkspan or Japanese tissue. Use only a minimum (3 coats or so) of clear to tighten and seal the covering. Follow this with 1 filler coat and wet sand with 400 paper. Spray a light coat of silver overall to

block ink marks and fillets. Spray a minimum amount of color and trim and seal with one coat of sprayed clear. This should give a finished weight of about 12 ounces, and require only a small amount of ballast in the nose.

TRIM AND FLYING

Start with the model balanced at the point shown on the plans. This is critical. Any further aft and you will have a handful. I use a Cox plastic handle to which I've added .018 cable and a set screw for adjustment. Use the middle set of holes in the handle to avoid over control. With the engine I use, 42 ft. .008 lines are about right.

The "stunt special" engine is a TEE DEE .049 with Kirm-Kraft needle valve, single port Babe-Bee cylinder, and low compression glow head. On a 6-4 Cox prop, this set-up gives plenty of power and even sort of four cycles like a "real" stunt engine. I run regular 5% Nitro Sig stunt fuel. More nitro only makes the engine hard to set.

You will find the Gremlin capable of doing everything a competition stunter should do. It squares, especially well. Experiment with line spacing at the handle, C.G. position, line length, and props until you get the plane trimmed to suit you. I hope you enjoy it. If you have any comments or questions feel free to write me at 9025 Hurst Court, Jonesboro, Ga. 30236, or c/o MODEL BUILDER.

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