

by Capt. Keith Laumer

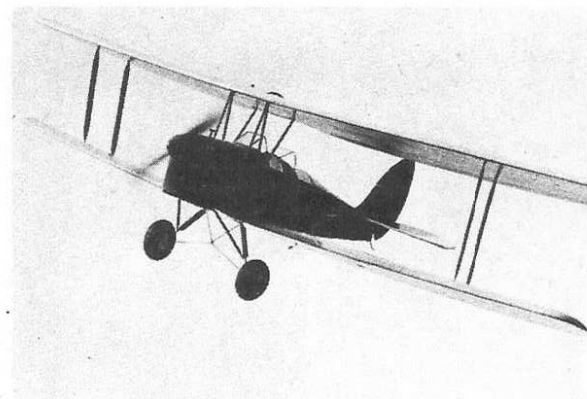
TIGER MOTH"

Full Size "Timely Plan" Available

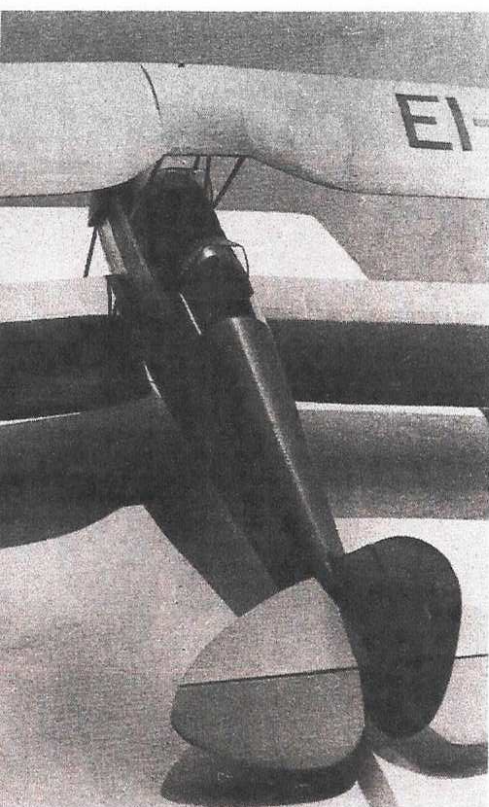
Poised against the sky, structure displays the simplicity. Durable, practical, good airplane.

**32" span 1/2A Scale Replica
Free-flight or Pendulum Trimmed
Could take R/C maybe??**

Pendulum control of elevator trim smooths out flight for scale-like look. Needs gentle heave.



Top wing set high on struts, a good feature on a model biplane. More than chord length between wings is a good rule of thumb to gauge designs.



Tandem cockpits, one for the instructor to chew you out. High aspect ratio, long tail moments.

The ship is a classic. Pilots by the thousands learned to fly them. Slow, safe and simple.

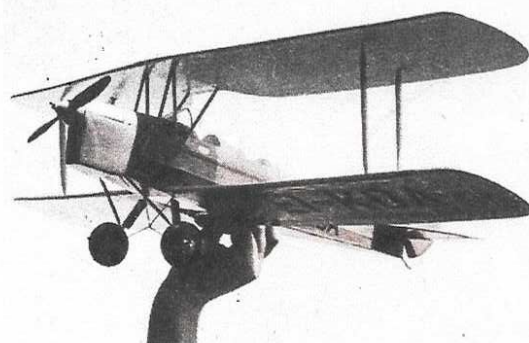
Slight sweepback evident here, but will never exceed sound barrier. Engine is inverted, easy.

FLYING MODELS

► The de Havilland 82 first took to the air thirty-one years ago in the golden age of wind-and-wire flying. It's still one of the best—and most popular—trainers in the world. Some 8,000 "Tiger Moths" were built between 1931 and 1943, of which many hundreds are still in daily use.

Our model is a faithful copy of the original, and shares its prototype's ability in smooth, stable flight. Construction of the 32" replica, like the full-scale ship, is simple, featuring a box fuselage and constant-chord wings; an easy-to-build project with all the

(Continued on Page 50)



1963 AMBROID LINE-UP OF FAMOUS NATIONALS WINNING KIT MODELS!

High point of the model aviation calendar is the National Championships, with this year's big shindig scheduled for July 29 through August 4, at Los Alamitos Naval Air Station, California. If you plan to take in this meet, you still have all time to build one of Ambroid's great contest-proved kit models, which have all won First Place Trophies (in R/C, Stunt, Combat or Glider) at previous Nats...

REGULAR CEMENT
20 cc. 15¢
1-3/4 oz. 30¢
4 ounces, 60¢
Economy cans also available
Pin \$1.75
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"EXTRA-FAST"
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SHAPED FLAYS
52" SPAN
\$9.95

DESIGNED BY BILL DEAN
KIT CC-2

TAKES UP TO .35 ENGINES

SYNTHETIC WOOD-MENDER
WOOD FILLER
In 4 oz. Can - 40¢

JET-PAK SPRAY GUN
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stuka stunt
SPECIAL 'AMBROID' STUKA DECALS PROVIDED
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FOR ALL .25 - .35 ENGINES
MOLDED CANOPY

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WINNER AT LAST FOUR NATIONALS

Jettison
AUTO-RODDER

TOTAL WING AND STAB AREA 269 SQ. INS.

Warren Kurth and his JETSTREAM - AMA Record breaker - and Open Winner at the '59, '60 & '61 Nationals

SHAPED WING & STAB L.E.'s & T.E.'s
JIG-BUILT WINGS

KIT G-1
47" SPAN

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SCRAPPER
Nats Combat event

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SPAN 36"

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JIG-BUILT

KIT SETS NEW STANDARD WITH EASY-TO-BUILD PLANS BY BILL DEAN

CHARGER
America's best R/C rudder model design, by Bill Boone, took 1st and over 36 at the Nats, Alhambra, California, National

KIT RC-1
FOR SINGLE CHANNEL R/C

390 SQ. IN. W/AREA

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58" SPAN

\$14.95

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SHAPED L.E.'s AND T.E.'s

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Also 5 gal. dope size \$35

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TIGER MOTH

(Continued from Page 19)

old-time beauty of open cockpits and strut-mounted wings. Optional pendulum control adds extra realism to the flight pattern, or a bellcrank may be installed for control line sport flying on .09 power.

Start construction by laying out the fuselage sides on the waxed-paper-covered plan. While the cement is setting, cut out bulkheads 1 and 3, bend landing gear components from 1/16" piano wire, solder joints, lace wire to bulkheads. (Pendulum assembly must be installed now, if used). Bore engine mounting holes in 1, and attach tin-plate mounted nuts to back.

Crack sides carefully at stations 3, 5 and 7 and join on bulkhead 3 and former 5, then cement remaining formers and 1/8" sq. bottom spacers in position. Bend cabane struts and attach to part 8 and install. Next, fuelproof interior of forward section of fuselage, and sheet-plank top of fuselage, using medium soft 1/16" balsa. Add remaining fuselage planking and filling, doping all interior surfaces before closing off. Sand well, then build up cowl with engine in place, and shape.

Cut tail surfaces from feather-light straight-grained balsa, and round leading and trailing edges. Clear dope and sand lightly. Install horn in elevator, and join flippers on 1/32" wire axle, then hinge to stabilizer as shown on plan. Use soft copper wire for rudder hinges.

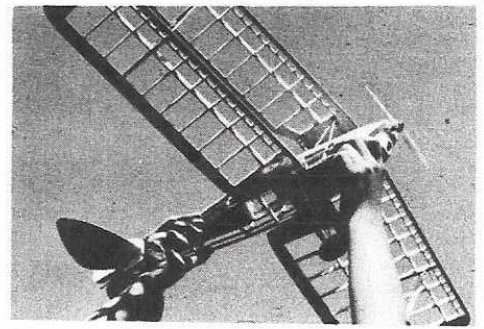
Place spacer to represent thickness of stabilizer, tack-cement 1/4" tail fairing block in place, and shape. Remove, and lay aside until tail assembly is installed.

Cut all wing parts, and build wing spars over plan; cut lower wing main spar and part N in center, then assemble lower wing panels over plan, placing spars and trailing edge first, then adding ribs. Add leading edge, then riblets. Assemble upper wing one panel at a time, placing left panel against plan, then when dry, right panel. Note that part N is fitted to ribs L, G, etc., before ribs are placed. O may be added before the leading edge is installed.

Sand leading edges and tips to shape, and daub entire wing structure with 50-50 cement-dope mixture. Add center-section planking, noting raised contour of tank.

Paint interior of cockpit; then cover wings and fuselage with lightweight Jap tissue or Silkspan, wet, and fuelproof; then insert lower wings in fuselage, join spar and N and cement in position. Install elevator pushrod, link to elevator horn, and cement elevator in place; add fairing block and rudder.

Make up interplane struts, check length by temporary assembly of upper wing to cabane struts, then add fairings, dope, and sand. Add cabane



Plenty of wing area, well stressed for rough and tumble flying. Sheet tail, light, simple.

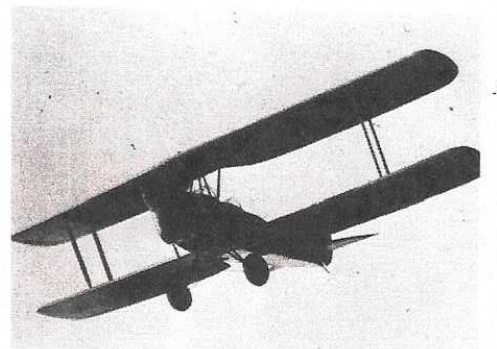
strut- and landing gear fairings, tail-skid, elevator struts, etc.

If a two-color paint job is desired, mask off elevator and lower wing, and spray with the bright color of your choice. "Tiger Moths" have been finished in every color known to man, so you can't miss. Two coats should be plenty. Remove tape carefully, and mask fuselage for painting of wings and elevator. Cabane struts and LG are fuselage color. (For a single-color finish, masking is of course not necessary.)

Now install top wing, and add balsa panels to cover H and J. Sand smooth and touch up with paint brush. Add interplane struts and windshields. Install wheels and solder retaining washers in place. Cut removable portion of cowl free, remove engine, and fuelproof interior of engine compartment. Trim a plastic spinner to size shown on plan, or make one up from balsa and cement in place. Sand, and paint to match fuselage. Add decal numerals and decorations to suit your taste.

Model should balance as shown on plan; add ballast if necessary. Try your first test glides over tall grass. If pendulum is installed, use a long, easy launch to avoid swinging pendulum back and diving model in. Use care with rudder offset, since a little goes a long way. About 1/32" is usually enough. When proper trim is achieved, cement rudder rigidly.

If pendulum-equipped model tends to dive in under power, add weight to pendulum. And use a large field; the "Tiger Moth" is a floater in the glide. ●



No difficult scale detail required. Basic configuration is all the realism you could ask for.