YANKEE FLEA

By ROY L. CLOUGH JR

W3 — COVERING OMITTED TO CLARIFY DETAILS OF INTERNAL CONSTRUCTION — W2 — 3/16" SQ. LEADING EDGE — W1 — HARD 1/8" BALSA REINFORCEMENTS (2 REQ.) — W2 — W3

1/4" SQ. SPAR

2" DIHEDRAL UNDER EACH WING TIP

1/8" X 1/4" TRAILING EDGE (TAPERED)

NOTE - "ELEVONS" ON REAR WING ONLY (BOTH WING TIPS)

"ELEVONS" ARE LIGHTLY CEMENTED TO TRAILING EDGE OF WING

ALL FUSELAGE FORMERS CUT FROM 3/32" SHEET

SOFT WIRE CEMENTED TO UNDER SIDE OF WING

1/16" BALSA

ALL RIBS CUT FROM 1/8" BALSA

W1 2 REQ. W2 4 REQ. W3 4 REQ.

ENTIRE MODEL IS COVERED WITH 1/32" SHEET BALSA OR ART CONSTRUCTION PAPER

A B C D

B1 & B2 SIMILAR, BUT NOTCH BACK OF B1 & FRONT OF B2 TO ACCEPT L.G. STRUT

TAPERED 1/8" SHEET BALSA "WEDGE", 1-1/2" SQ. PROVIDES ABOUT 4° DOWN-THRUST WHEN ENGINE IS MOUNTED

TOP COVERING FITTED TO WING AFTER ASSEMBLY (SEE PHOTO)

APPROX. 2" WIDE

OPTIONAL "PILOT" MADE FROM ART PAPER, HEAD IS A PING-PONG BALL.

TAPER — 1/8" X 1/4" — TAPER

1/8" X 3/8"

ART PAPER OR SHEET BALSA RUDDER COVERING IS CEMENTED TOGETHER AT T.E.

B1 B2 INCIDENCE BLOCK - 3/32" OR 1/8" SHEET

LANDING GEAR IS SANDWICHED BETWEEN B1 & B2 (USE CEMENT GENEROUSLY IN JOINING B1 TO B2)

C1 D1

COVERING OMITTED TO CLARIFY DETAILS OF INTERNAL CONSTRUCTION

IF STIFF ART PAPER COVERING IS USED, COVER FROM REAR TOWARDS FRONT, OVER-LAPPING AT ALL FORMERS

1/8" X 3/8"

1/8" X 1/4" — TAPER

USE COX .020 OR SIMILAR ENGINE FOR REALISTIC FLIGHTS

NOTE - FASTEN ENGINE TO A SEPARATE PIECE OF 1/16" PLYWOOD AND CEMENT TO FORMER "A"

1-3/8" TO 1-5/8" WHEELS

HARD WOOD BUMPER

THIS IS A SCALE MODEL OF A PROJECTED FULL-SIZE SINGLE-SEATER, SCALED AT 1.5" = 1'

DIMENSIONS OF FULL-SCALE AIRCRAFT:

WING SPAN - - - 16'
LENGTH - - - - - 13'
DRY WEIGHT - 350 LBS.
GROSS " - 520 LBS.

POWERED BY TARGET-DRONE ENGINE OF APPROX. 75 H.P.
CRUISING SPEED - 100 M.P.H. +
LANDING SPEED - - 28 M.P.H.

DESIGNED AND DRAWN BY ROY L. CLOUGH, JR.
TRACED AND INKED BY PAUL PLECAN

C1 D1

SCALE IN INCHES
0 1 2 3 4 5 6

1/16" STEEL WIRE L.G. STRUT

FUSELAGE CRUTCH - 1/8" SHEET BALSA

CUT OUT TO CLEAR WING CENTER SECTION

FORMER POSITIONS MARKED ON BOTH TOP AND BOTTOM OF FUSELAGE CRUTCH

REAR WING INCIDENCE IS GEOMETRICALLY POSITIVE TO THAT OF FRONT WING

NORMAL INCIDENCE POSITION

FRONT WING IS PIVOTED

REAR WING IS FIXED

WING ARRANGEMENT OF ORIGINAL MAN-CARRYING "FLYING FLEA"