

D.H. 108 SWALLOW

ROCKET PROPELLED MODEL

SCALE $\frac{1}{2}'' = 1'-0''$

DESIGNED BY :-

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CANOPY MOULDED FROM
CELLULOID ON WOOD
FORMER.

$\frac{1}{4}'' \times \frac{1}{8}''$
NOSE ROUNDED
& THINNED
TO $\frac{1}{16}''$ AT
TOP

$\frac{1}{8}'' \times \frac{1}{16}''$

FORMER J CUT OFF
WHEN MODEL IS
COMPLETED.

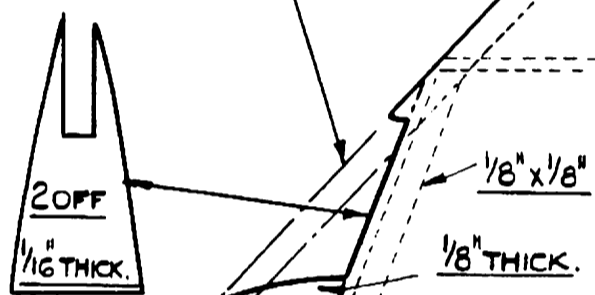
THESE 2 LINES CUT
THROUGH AFTER WING
HAS BEEN COMPLETED.

THE CONTROLLERS MAY BE
HINGED WITH ALUMINIUM FOR
TRIMMING, THEN GLUED AT THE
CORRECT ANGLE.
TRIM THE MODEL FOR A SLOW
BUT STABLE GLIDE WITH A
FULL ROCKET UNIT IN POSITION.

ALL MATERIAL IS BALSAL.

CUT OUT WING RIBS & SPARS & GLUE TOGETHER OVER PLAN VIEW OF MODEL,
BUILDING EACH WING SEPARATELY, USING BLOCKS OF EQUAL THICKNESS BETWEEN THE
RIBS. ROUND THE NOSE & GLUE ON THE UNDERSIDE BALSAL COVERING. PACK UP THE TIP
AT THE TRAILING EDGE $\frac{3}{16}''$ TO GIVE THE WING A TWIST, & GLUE ON THE TOP
BALSAL COVERING. GLUE IN THE SPARS MARKED A, S, BUT DO NOT GLUE THEM
TOGETHER. ADD THEIR $\frac{1}{8}'' \times \frac{1}{16}''$ SUPPORTS.
CUT OUT FUSELAGE FORMERS & BUILD FUSELAGE IN TWO HALVES ON THE TWO
VIEWS, USING $\frac{1}{16}'' \times \frac{1}{16}''$ STRINGERS. THE TWO HALVES ARE GLUED TOGETHER
& THE WINGS ADDED. SOME STRINGERS WILL HAVE TO BE CUT BETWEEN
D & E, TO CLEAR THE MAIN SPARS, BUT THE L.E. & T.E. SPARS WILL REST
ON TOP OF A STRINGER. GLUE THE SPARS TOGETHER AT THE CENTRE
& SUPPORT THE WING TIPS TO MAINTAIN THE WING FLAT WHILE THE
GLUE SETS. GLUE IN THE SPLIT PAPER TUBE & THE ROCKET
STOP. PLANK WITH SHEET BALSAL USING $\frac{1}{16}''$ THICK FORWARD OF
'E' & $\frac{1}{32}''$ AFT. ADD SOLID NOSE & CUT OFF FORMER 'J'.
BUILD FIN FLAT ON PLAN & ADD TO FUSELAGE.
ADD CANOPY, COVER WITH TISSUE & DOPE.
ADD WEIGHT TO NOSE TO BRING C.G. TO POSITION SHOWN.
WEIGHT WITHOUT ROCKET 1.75 ozs.

PORTION OF L.E. REMOVED
AFTER WING IS COMPLETED



CENTRE PORTION OF SPARS
REMOVED TO CLEAR ROCKET.

CG
APPROX. POSITION OF
C.G. WITHOUT ROCKET

SOLID NOSE BLOCK

$\frac{3}{16}'' \times \frac{1}{16}''$ TOP
& BOTTOM

$\frac{1}{16}'' \times \frac{1}{16}''$ FOLLOWING
RIB CONTOUR TOP
& BOTTOM

$\frac{1}{16}''$ THICK.

$\frac{3}{16}'' \times \frac{1}{16}''$ T.E.

$\frac{3}{16}'' \times \frac{1}{8}''$ SHAPED TO SUIT
WING RIB.

AS $\frac{1}{16}''$ THICK
4 OFF.

$\frac{1}{8}'' \times \frac{1}{8}''$
LEADING EDGE
NOSE ROUNDED.

$\frac{1}{8}'' \times \frac{1}{16}''$
LEVEL WITH
E OF RIBS.

$\frac{1}{32}''$ THICK SHEET
COVERING TOP & BOTTOM
FROM LEADING EDGE TO
MAIN SPAR.

THE SPLIT PAPER TUBE FOR HOLDING
THE ROCKET IS MADE BY WINDING
SEVERAL LAYERS OF GUMMED PAPER ROUND
A UNIT OR $\frac{5}{8}''$ DIA. ROD. IT IS THEN SPLIT
& HELD CLOSED WITH A RUBBER BAND SO
THAT IT JUST GRIPS A ROCKET UNIT.

THIS FORMER
USED ONLY FOR
BUILDING.

FUSELAGE FORMERS $\frac{1}{16}''$ THICK
1 OFF EACH REQUIRED.

MAIN SPAR $\frac{1}{16}''$ THICK
2 OFF REQUIRED.

