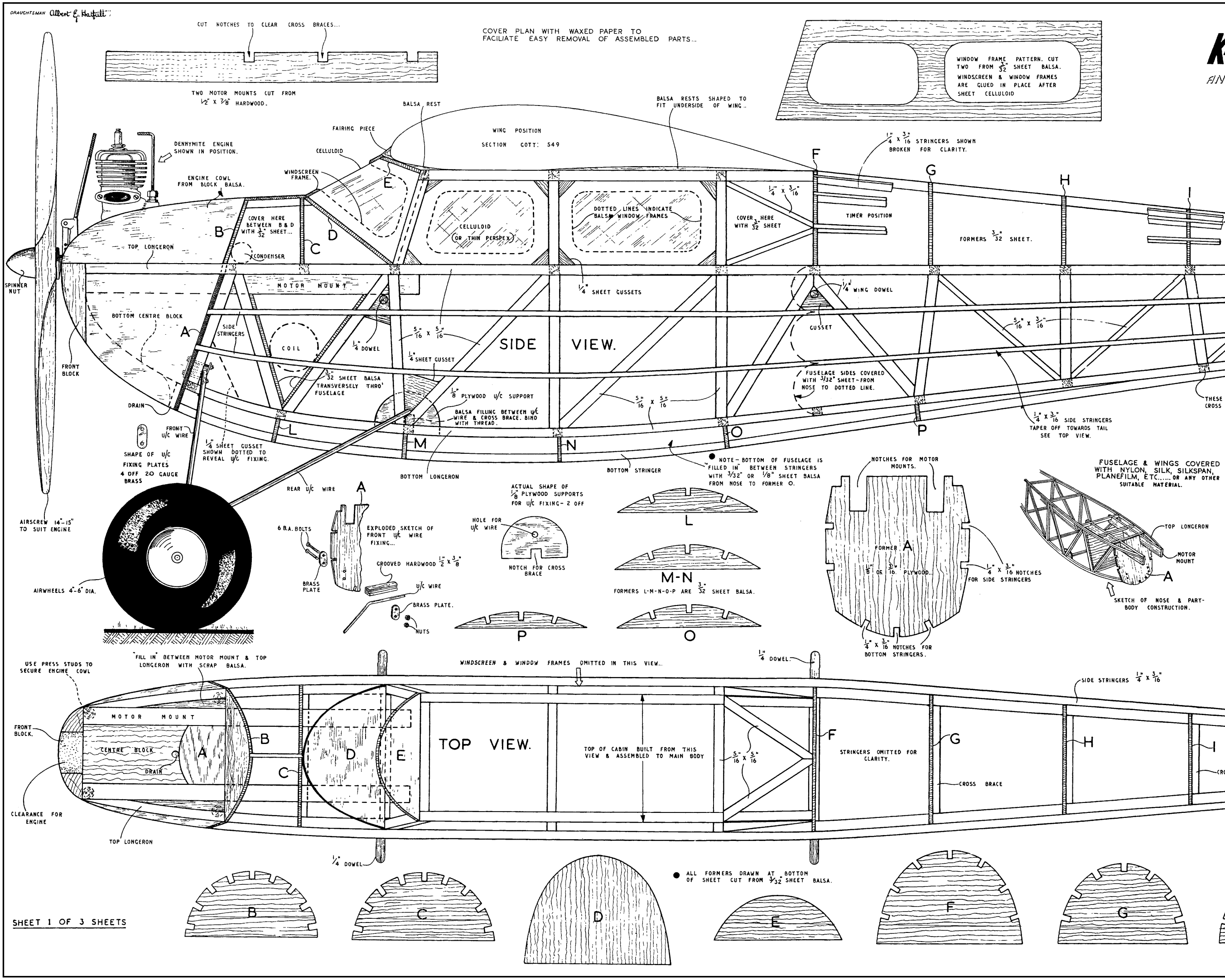
DRAUGHTSMAN Albert E. Hatfull

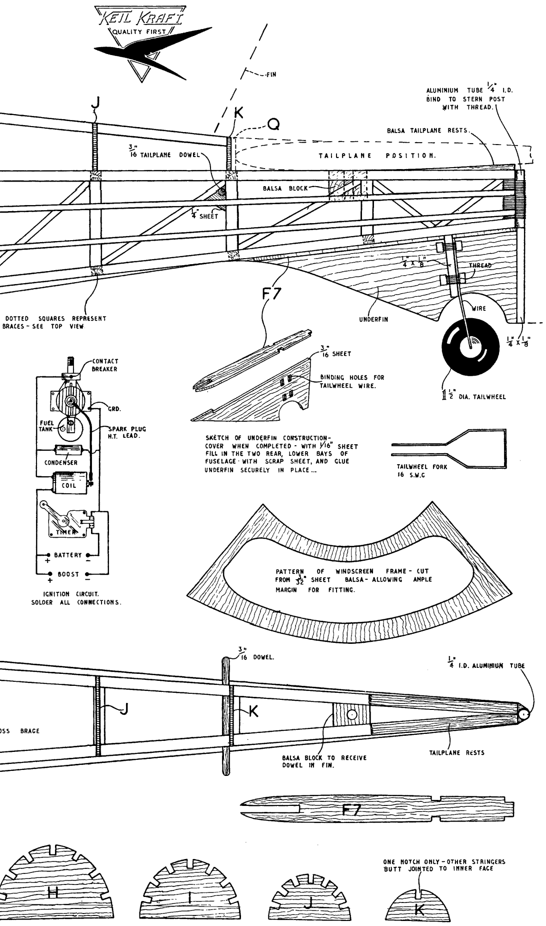

CUT NOTCHES TO CLEAR CROSS BRACES...
TWO MOTOR MOUNTS CUT FROM 1/2" x 7/8" HARDWOOD.
COVER PLAN WITH WAXED PAPER TO FACILIATE EASY REMOVAL OF ASSEMBLED PARTS...
WINDOW FRAME PATTERN. CUT TWO FROM 3/32" SHEET BALSA. WINDSCREEN & WINDOW FRAMES ARE GLUED IN PLACE AFTER SHEET CELLULOID
BALSA REST
BALSA RESTS SHAPED TO FIT UNDERSIDE OF WING..
FAIRING PIECE
WING POSITION
SECTION GOTT: 549
CELLULOID
DENNYMITE ENGINE SHOWN IN POSITION.
ENGINE COWL FROM BLOCK BALSA.
WINDSCREEN FRAME.
E
B
COVER HERE BETWEEN B & D WITH 3/32" SHEET...
D
C
TOP LONGERON
CONDENSER
CELLULOID OR THIN PERSPEX
DOTTED LINES INDICATE BALSA WINDOW FRAMES
COVER HERE WITH 3/32" SHEET
1/4" x 3/16"
F
1/4" x 3/16" STRINGERS SHOWN BROKEN FOR CLARITY.
G
H
I
TIMER POSITION
FORMERS 3/32" SHEET.
SPINNER NUT
MOTOR MOUNT
1/4" SHEET GUSSETS
1/4" WING DOWEL
BOTTOM CENTRE BLOCK
A
SIDE STRINGERS
COIL
1/4" DOWEL
5/16" x 5/16"
SIDE VIEW.
GUSSET
5/16" x 3/16"
FRONT BLOCK
1/4" SHEET GUSSET
3/32" SHEET BALSA TRANSVERSELY THRO' FUSELAGE
1/8" PLYWOOD U/C SUPPORT
FUSELAGE SIDES COVERED WITH 3/32" SHEET-FROM NOSE TO DOTTED LINE.
THESE CROSS
DRAIN
BALSA FILLING BETWEEN U/C WIRE & CROSS BRACE. BIND WITH THREAD.
5/16" x 5/16"
1/4" x 3/16" SIDE STRINGERS TAPER OFF TOWARDS TAIL SEE TOP VIEW.
FRONT U/C WIRE
L
M
N
O
P
SHAPE OF U/C FIXING PLATES 4 OFF 20 GAUGE BRASS
1/4" SHEET GUSSET SHOWN DOTTED TO REVEAL U/C FIXING.
BOTTOM LONGERON
BOTTOM STRINGER
● NOTE- BOTTOM OF FUSELAGE IS "FILLED IN" BETWEEN STRINGERS WITH 3/32" OR 1/8" SHEET BALSA FROM NOSE TO FORMER O.
NOTCHES FOR MOTOR MOUNTS.
FUSELAGE & WINGS COVERED WITH NYLON, SILK, SILKSPAN, PLANEFILM, ETC...... OR ANY OTHER SUITABLE MATERIAL.
REAR U/C WIRE
A
ACTUAL SHAPE OF 1/8" PLYWOOD SUPPORTS FOR U/C FIXING- 2 OFF
L
AIRSCREW 14"-15" TO SUIT ENGINE
6 B.A. BOLTS
EXPLODED SKETCH OF FRONT U/C WIRE FIXING...
HOLE FOR U/C WIRE
NOTCH FOR CROSS BRACE
FORMER A
1/8" OR 3/16" PLYWOOD...
1/4" x 3/16" NOTCHES FOR SIDE STRINGERS
TOP LONGERON
MOTOR MOUNT
A
GROOVED HARDWOOD 1/2" x 3/8"
M-N
FORMERS L-M-N-O-P ARE 3/32" SHEET BALSA.
AIRWHEELS 4"-6" DIA.
BRASS PLATE
U/C WIRE
BRASS PLATE.
NUTS
P
O
1/4" x 3/16" NOTCHES FOR BOTTOM STRINGERS.
SKETCH OF NOSE & PART-BODY CONSTRUCTION.
USE PRESS STUDS TO SECURE ENGINE COWL
"FILL IN" BETWEEN MOTOR MOUNT & TOP LONGERON WITH SCRAP BALSA.
WINDSCREEN & WINDOW FRAMES OMITTED IN THIS VIEW..
1/4" DOWEL.
SIDE STRINGERS 1/4" x 3/16"
FRONT BLOCK.
MOTOR MOUNT
CENTRE BLOCK
A
DRAIN
B
C
D
E
TOP VIEW.
TOP OF CABIN BUILT FROM THIS VIEW & ASSEMBLED TO MAIN BODY
5/16" x 5/16"
F
STRINGERS OMITTED FOR CLARITY.
G
H
I
CROSS BRACE
CRO
CLEARANCE FOR ENGINE
TOP LONGERON
1/4" DOWEL
● ALL FORMERS DRAWN AT BOTTOM OF SHEET CUT FROM 3/32" SHEET BALSA.
B
C
D
E
F
G

SHEET 1 OF 3 SHEETS

EIL KRAFT KITS PRESENT.....

The FALCON

8 FT. SPAN MODEL FOR DIESEL OR PETROL ENGINES 10-15 C.C.


KEIL KRAFT
QUALITY FIRST
FIN
J
K
Q
ALUMINIUM TUBE $\frac{1}{4}$" I.D. BIND TO STERN POST WITH THREAD.
BALSA TAILPLANE RESTS.
$\frac{3}{16}$" TAILPLANE DOWEL
TAILPLANE POSITION.
BALSA BLOCK
$\frac{1}{4}$" SHEET
$\frac{1}{4}$" x $\frac{1}{8}$"
THREAD
F7
UNDERFIN
WIRE
$\frac{1}{4}$" x $\frac{1}{8}$"
$1\frac{1}{2}$" DIA. TAILWHEEL
$\frac{3}{16}$" SHEET
BINDING HOLES FOR TAILWHEEL WIRE.
CONTACT BREAKER
GRD.
FUEL TANK
SPARK PLUG H.T. LEAD.
CONDENSER
COIL
TIMER
BATTERY
+
−
BOOST
+
−
TAILWHEEL FORK 16 S.W.G
$\frac{3}{16}$" DOWEL.
$\frac{1}{4}$" I.D. ALUMINIUM TUBE
J
K
OSS BRACE
BALSA BLOCK TO RECEIVE DOWEL IN FIN.
TAILPLANE RESTS
F7
H
I
J
K

DOTTED SQUARES REPRESENT BRACES - SEE TOP VIEW

SKETCH OF UNDERFIN CONSTRUCTION- COVER WHEN COMPLETED - WITH $\frac{1}{16}$" SHEET FILL IN THE TWO REAR, LOWER BAYS OF FUSELAGE WITH SCRAP SHEET, AND GLUE UNDERFIN SECURELY IN PLACE...

IGNITION CIRCUIT. SOLDER ALL CONNECTIONS.

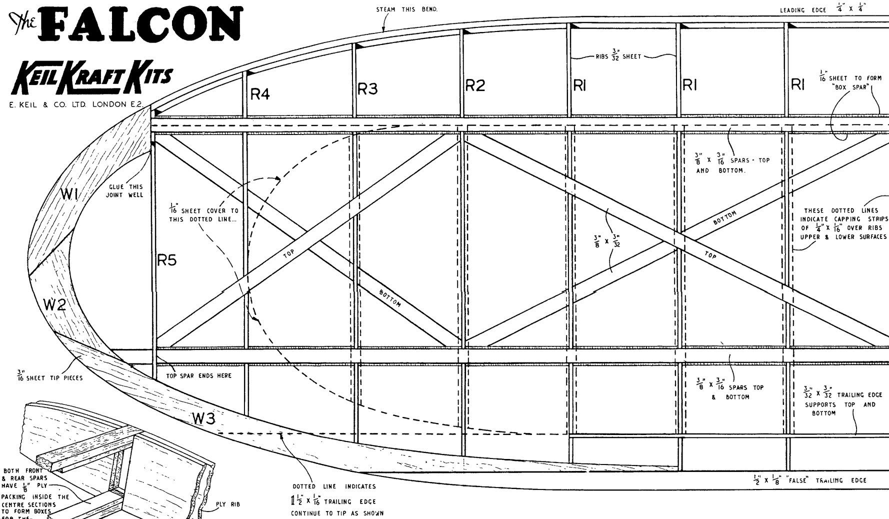
PATTERN OF WINDSCREEN FRAME - CUT FROM $\frac{3}{32}$" SHEET BALSA - ALLOWING AMPLE MARGIN FOR FITTING.

ONE NOTCH ONLY - OTHER STRINGERS BUTT JOINTED TO INNER FACE

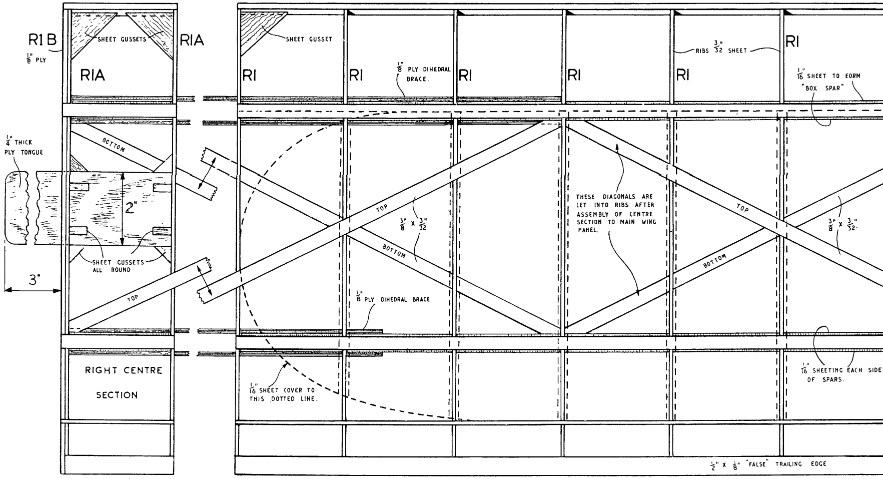
The FALCON

KEIL KRAFT KITS

E. KEIL & CO. LTD. LONDON E.2.

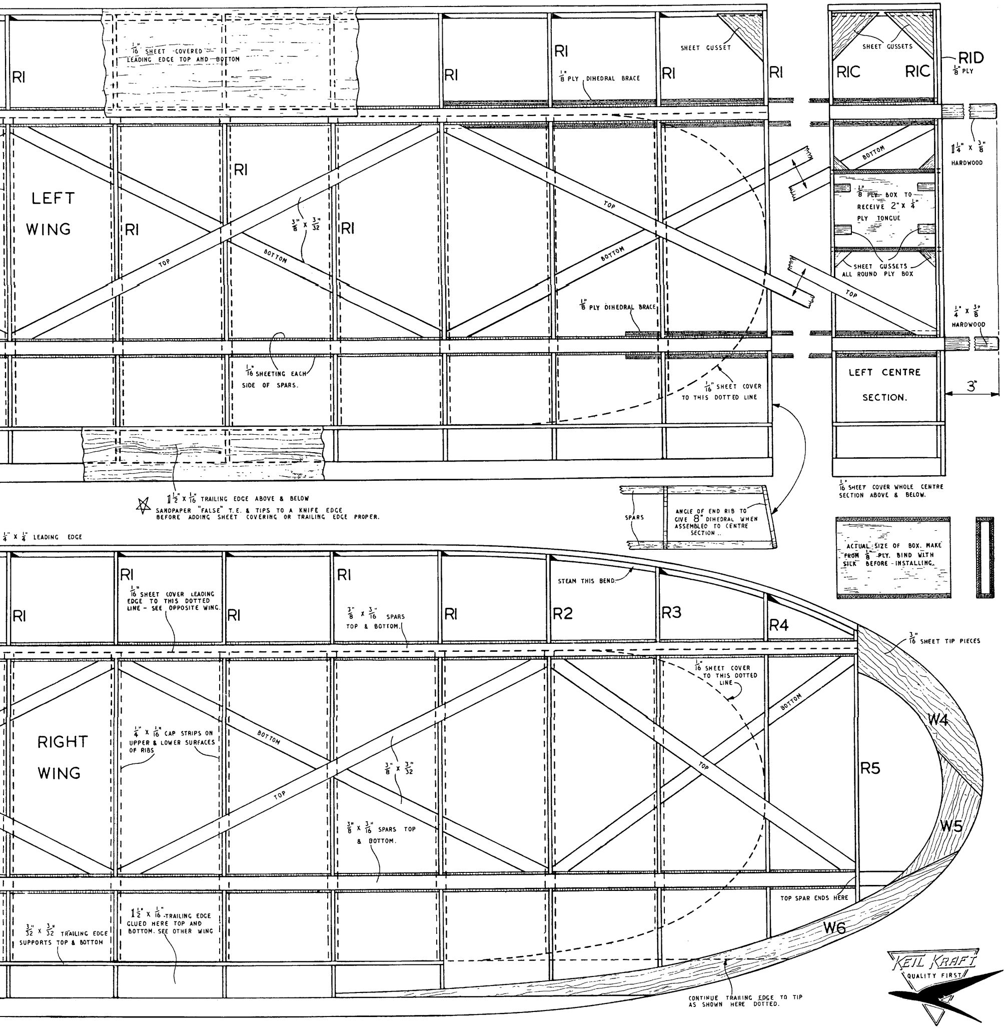

STEAM THIS BEND.
LEADING EDGE $\frac{1}{4}$" x $\frac{1}{4}$"
RIBS $\frac{3}{32}$" SHEET
R4
R3
R2
RI
RI
RI
$\frac{1}{16}$" SHEET TO FORM "BOX SPAR"
W1
GLUE THIS JOINT WELL
$\frac{1}{16}$" SHEET COVER TO THIS DOTTED LINE...
R5
TOP
BOTTOM
$\frac{3}{8}$" x $\frac{3}{16}$" SPARS - TOP AND BOTTOM.
$\frac{3}{8}$" x $\frac{3}{32}$"
BOTTOM
TOP
THESE DOTTED LINES INDICATE CAPPING STRIPS OF $\frac{1}{4}$" x $\frac{1}{16}$" OVER RIBS UPPER & LOWER SURFACES
W2
$\frac{3}{16}$" SHEET TIP PIECES
TOP SPAR ENDS HERE
$\frac{3}{8}$" x $\frac{3}{16}$" SPARS TOP & BOTTOM
$\frac{3}{32}$" x $\frac{3}{32}$" TRAILING EDGE SUPPORTS TOP AND BOTTOM
W3
BOTH FRONT & REAR SPARS HAVE $\frac{1}{8}$" PLY PACKING INSIDE THE CENTRE SECTIONS TO FORM BOXES FOR THE HARD-WOOD TENONS
PLY RIB
DOTTED LINE INDICATES $1\frac{1}{2}$" x $\frac{1}{16}$" TRAILING EDGE CONTINUE TO TIP AS SHOWN
$\frac{1}{2}$" x $\frac{1}{8}$" "FALSE" TRAILING EDGE

SHEET 2 OF 3 SHEETS. SEE SHEET 3 FOR FURTHER INFORMATION - RIBS Etc...


R1B
$\frac{1}{8}$" PLY
SHEET GUSSETS
RIA
RIA
SHEET GUSSET
RI
RI
$\frac{1}{8}$" PLY DIHEDRAL BRACE.
RI
RI
RI
RIBS $\frac{3}{32}$" SHEET
RI
$\frac{1}{16}$" SHEET TO FORM "BOX SPAR"
$\frac{1}{4}$" THICK PLY TONGUE
BOTTOM
2"
SHEET GUSSETS ALL ROUND
3"
TOP
TOP
$\frac{3}{8}$" x $\frac{3}{32}$"
BOTTOM
$\frac{1}{8}$" PLY DIHEDRAL BRACE
THESE DIAGONALS ARE LET INTO RIBS AFTER ASSEMBLY OF CENTRE SECTION TO MAIN WING PANEL.
TOP
BOTTOM
$\frac{3}{8}$" x $\frac{3}{32}$"
RIGHT CENTRE SECTION
$\frac{1}{16}$" SHEET COVER TO THIS DOTTED LINE.
$\frac{1}{16}$" SHEETING EACH SIDE OF SPARS.
$\frac{1}{2}$" x $\frac{1}{8}$" "FALSE" TRAILING EDGE

GET THE KEIL KRAFT HANDBOOK

COVER PLAN WITH WAXED PAPER TO FACILITATE EASY REMOVAL OF ASSEMBLED PARTS

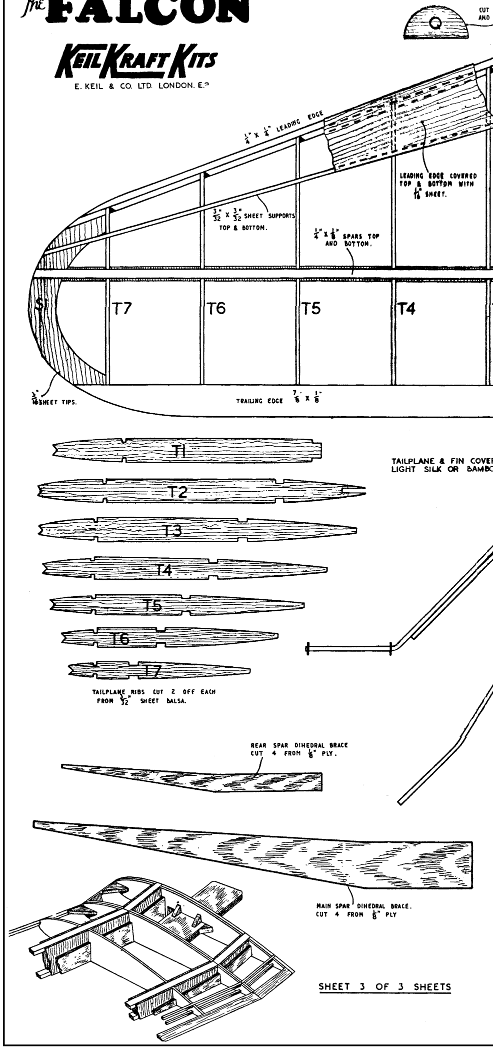

RI
1/16" SHEET COVERED LEADING EDGE TOP AND BOTTOM
RI
1/8" PLY DIHEDRAL BRACE
RI
SHEET GUSSET
RI
SHEET GUSSETS
RIC
RIC
RID
1/8" PLY
1 1/4" x 3/8" HARDWOOD
LEFT WING
RI
RI
3/8" x 3/32"
RI
TOP
BOTTOM
TOP
BOTTOM
TOP
BOTTOM
1/8" PLY BOX TO RECEIVE 2" x 1/4" PLY TONGUE
SHEET GUSSETS ALL ROUND PLY BOX
TOP
1/8" PLY DIHEDRAL BRACE
1/4" x 3/8" HARDWOOD
1/16" SHEETING EACH SIDE OF SPARS.
1/16" SHEET COVER TO THIS DOTTED LINE
LEFT CENTRE SECTION.
3"
1 1/2" x 1/16" TRAILING EDGE ABOVE & BELOW
SANDPAPER "FALSE" T.E. & TIPS TO A KNIFE EDGE BEFORE ADDING SHEET COVERING OR TRAILING EDGE PROPER.
SPARS
ANGLE OF END RIB TO GIVE 8" DIHEDRAL WHEN ASSEMBLED TO CENTRE SECTION ..
1/16" SHEET COVER WHOLE CENTRE SECTION ABOVE & BELOW.
ACTUAL SIZE OF BOX. MAKE FROM 1/8" PLY. BIND WITH SILK BEFORE INSTALLING.
1/4" x 1/4" LEADING EDGE
RI
1/16" SHEET COVER LEADING EDGE TO THIS DOTTED LINE - SEE OPPOSITE WING.
RI
RI
3/8" x 3/16" SPARS TOP & BOTTOM.
RI
STEAM THIS BEND.
R2
R3
R4
RI
3/16" SHEET TIP PIECES
1/16" SHEET COVER TO THIS DOTTED LINE
RIGHT WING
1/4" x 1/16" CAP STRIPS ON UPPER & LOWER SURFACES OF RIBS
BOTTOM
TOP
3/8" x 3/32"
TOP
BOTTOM
W4
R5
3/8" x 3/16" SPARS TOP & BOTTOM.
W5
TOP SPAR ENDS HERE
3/32" x 3/32" TRAILING EDGE SUPPORTS TOP & BOTTOM
1 1/2" x 1/16" TRAILING EDGE GLUED HERE TOP AND BOTTOM. SEE OTHER WING
W6
KEIL KRAFT QUALITY FIRST
CONTINUE TRAILING EDGE TO TIP AS SHOWN HERE DOTTED.

FOR USEFUL DATA ON PETROL MODELS & ENGINES.

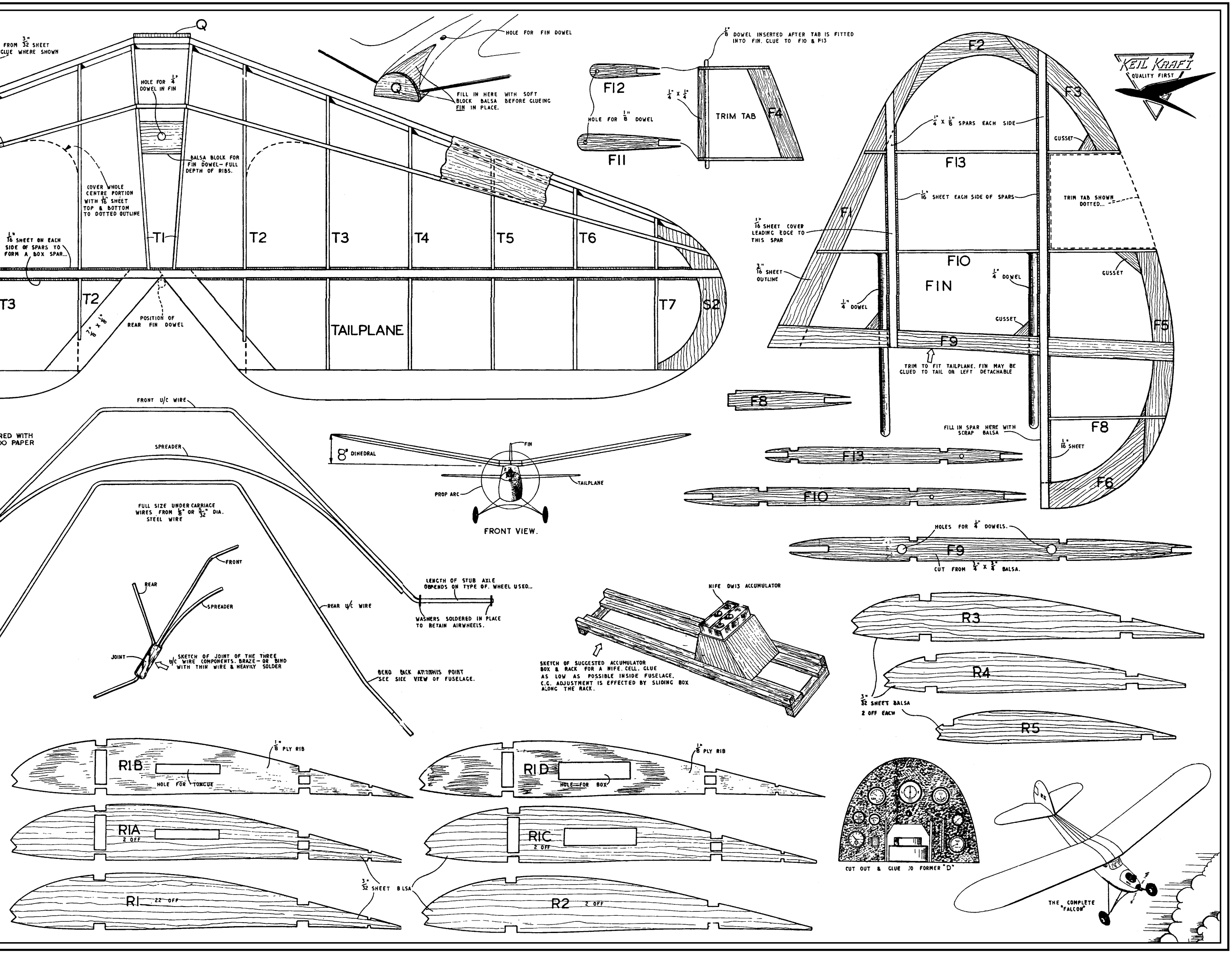
the FALCON

KEILKRAFT KITS

E. KEIL & CO. LTD. LONDON. E.2


CUT
AND
1/4" x 1/4" LEADING EDGE
LEADING EDGE COVERED TOP & BOTTOM WITH 1/16" SHEET.
3/32" x 3/32" SHEET SUPPORTS TOP & BOTTOM.
1/4" x 1/8" SPARS TOP AND BOTTOM.
S1
T7
T6
T5
T4
3/16" SHEET TIPS.
TRAILING EDGE 7/8" x 1/8"
T1
T2
T3
T4
T5
T6
T7
TAILPLANE RIBS CUT 2 OFF EACH FROM 3/32" SHEET BALSA.
TAILPLANE & FIN COVER
LIGHT SILK OR BAMBO
REAR SPAR DIHEDRAL BRACE CUT 4 FROM 1/8" PLY.
MAIN SPAR DIHEDRAL BRACE. CUT 4 FROM 1/8" PLY

SHEET 3 OF 3 SHEETS


FROM 3/32" SHEET
GLUE WHERE SHOWN
Q
HOLE FOR 1/4" DOWEL IN FIN
BALSA BLOCK FOR FIN DOWEL— FULL DEPTH OF RIBS.
COVER WHOLE CENTRE PORTION WITH 1/16" SHEET TOP & BOTTOM TO DOTTED OUTLINE
1/16" SHEET ON EACH SIDE OF SPARS TO FORM A BOX SPAR...
T1
T2
T3
T4
T5
T6
T3
T2
1/4" x 1/8"
POSITION OF REAR FIN DOWEL
TAILPLANE
T7
S2
HOLE FOR FIN DOWEL
FILL IN HERE WITH SOFT BLOCK BALSA BEFORE GLUEING FIN IN PLACE.
Q
F12
HOLE FOR 1/8" DOWEL
F11
1/8" DOWEL INSERTED AFTER TAB IS FITTED INTO FIN. GLUE TO F10 & F13
1/4" x 1/4"
TRIM TAB
F4
F2
F3
KEIL KRAFT
QUALITY FIRST
1/4" x 1/8" SPARS EACH SIDE
GUSSET
F13
1/16" SHEET EACH SIDE OF SPARS
TRIM TAB SHOWN DOTTED...
F1
1/16" SHEET COVER LEADING EDGE TO THIS SPAR
F10
3/16" SHEET OUTLINE
1/4" DOWEL
FIN
1/4" DOWEL
GUSSET
GUSSET
F5
F9
TRIM TO FIT TAILPLANE. FIN MAY BE GLUED TO TAIL OR LEFT DETACHABLE
F8
FILL IN SPAR HERE WITH SCRAP BALSA
F8
1/16" SHEET
F13
F10
F6
HOLES FOR 1/4" DOWELS.
F9
CUT FROM 1/4" x 3/4" BALSA.
RED WITH
O PAPER
FRONT U/C WIRE
SPREADER
8" DIHEDRAL
FIN
TAILPLANE
PROP ARC
FRONT VIEW.
FULL SIZE UNDER CARRIAGE WIRES FROM 1/8" OR 5/32" DIA. STEEL WIRE
FRONT
REAR
SPREADER
JOINT
SKETCH OF JOINT OF THE THREE U/C WIRE COMPONENTS. BRAZE— OR BIND WITH THIN WIRE & HEAVILY SOLDER
REAR U/C WIRE
LENGTH OF STUB AXLE DEPENDS ON TYPE OF. WHEEL USED...
WASHERS SOLDERED IN PLACE TO RETAIN AIRWHEELS.
BEND BACK AT THIS POINT SEE SIDE VIEW OF FUSELAGE.
NIFE DW13 ACCUMULATOR
SKETCH OF SUGGESTED ACCUMULATOR BOX & RACK FOR A NIFE. CELL. GLUE AS LOW AS POSSIBLE INSIDE FUSELAGE. C.G. ADJUSTMENT IS EFFECTED BY SLIDING BOX ALONG THE RACK.
R3
R4
3/32" SHEET BALSA
2 OFF EACH
R5
R1B
1/8" PLY RIB
HOLE FOR TONGUE
R1D
1/8" PLY RIB
HOLE FOR BOX
R1A
2 OFF
R1C
2 OFF
3/32" SHEET BALSA
R1
22 OFF
R2
2 OFF
CUT OUT & GLUE TO FORMER "D"
THE COMPLETE "FALCON"