

THE SOPWITH GORDON BENNETT RACER

PART OF THE "FAST FLIGHT" AT HENDON, EARLY 1915
SCALE 1/8, FOR GEARED ELECTRIC MOTORS IN THE SP 280 - 400 RANGE
ORIGINAL RESEARCH, MODEL DESIGN AND DRAWING BY MIKE ROACH

ALL MATERIALS ARE MEDIUM/SOFT BALSA WOOD UNLESS STATED
ALL DIMENSIONS ARE IN MM. 2.0 = 3/32" LP = LIGHT PLY

WARP IDLER WIRE RUNS FROM BOTTOM OF REAR STRUT THROUGH SPLIT PINS UNDER C/S TO BOTTOM OF OPPOSITE REAR STRUT.

WARP POWER WIRES RUN FROM SERVO THROUGH GROMMETS TO TOP OF REAR STRUTS.
FIXED FLYING AND LANDING WIRES RUN FROM SPLIT PINS IN FUSELAGE AND C/S TO TOP AND BOTTOM OF FRONT STRUTS.

BUT MODEL FLIES ON R/E WITH 15 MM DIHEDRAL!

COLOUR SCHEME.
NATURAL FABRIC WITH PLY PANELS AND ALLOY COWL. WHITE CHEAT LINE IMPLIES PANELS MAY HAVE BEEN PAINTED RED. SERIAL IS BLACK ON WHITE

OPTION 1. BUILD WINGS AND C/S SEPARATELY AND USE WIRE PEGS LOCATING INTO PLY FACING RIBS

OPTION 2. BUILD WINGS IN ONE PIECE. STRENGTH DEPENDS ON RIGGING IN EACH CASE

STRUTS FROM 5.0 OD ALLOY TUBE, SQUASHED TO SECTION
ENDS FILLED WITH 2.0 LP, SPLIT PINS EPOXIED IN DURING ASSEMBLY

WARP WIRE SPLIT PIN

CABANE SPLIT PINS

WARP WIRE SPLIT PIN

LOWER WING ROOT RIBS

PORT WING SHOWN DASHED

FRONT SPAR 1.5 X 8.0 BASSWOOD (REAR SPAR 1.5 X 6.0) BOTH MADE IN ONE PIECE

LE 5.0 BALSA DOWEL

RED

BLUE

THE UNION JACK IS SHOWN AS MARKED ON THE UNDERSURFACE OF THE LOWER WINGS

WHITE

SPLIT PIN

RED

TE 1.5 X 15.0,
EDGED WITH 1.0 X 1.0

3.0 DOWEL JOINER

LE FROM 3 LAMS 1.0 X 3.0

RIBS FROM 1.5 X 3

3.0 X 6.0

3.0 SHEET CUT TO CLEAR REAR FUZ

SEWN HINGES

SIDE FAIRING 1.0 Δ

C OF G

C3

a

b

WIRE CABANES AND U/C. FAIR WITH 5.0 OD SQUASHED ALLOY TUBE DURING BENDING. SECURE WITH DAB OF EPOXY

CABANE STRUTS SPRING INTO SPLIT PINS

WARP IDLER WIRE SPLIT PINS
CABANE/LANDING WIRE SPLIT PINS

REAR CABANE

FRONT CABANE
SEW BOTH TO MOTOR PLATE
TOP STRINGERS 1.0 X 3.0

SECTION AT F1A

OPTIONAL WIRE PEGS SEWN TO SPARS. THEY PLUG STRAIGHT INTO PLY RIBS OR FUZ SIDES

SECTION AT C2

SECTION AT b

SECTION AT d

SCALE DIHEDRAL 10.0 AT TIP

SP400/2.33:1 GBOX
7 CELLS, 10 x 8 PROP
700 GRAMS MAX.

SP 400 MOTOR PLATE

SCALE SPINNER

SP280/3:1 GBOX
8 CELLS, 8 x 6 PROP
500 GRAMS MAX

GAYMER'S 3 LITRE OLD ENGLISH CIDER BOTTLE PROFILE

SCALE COWL IS A WRAP OF 0.4 PLY IN 2 LAMS ROUND F7, FAIRED WITH 6.0 BALSA SHEET OR BLOCK. FINISH WITH F8 IN 0.4 PLY, OR MOULD FROM ACETATE

6.0 SOFT
TUBE BEARING
0.4 PLY RFT AND WHEEL DISCS
1.0 "SPOKES"
10.0 OD SPONGE RUBBER TYRES

BIND AND SOLDER U/C LEG JOINT, THEN SEW 1.5 PLY LAMINATED AXLE PLATE TO JOINT

TOP AND SIDE FAIRINGS FROM 1.0

2.0 LP CABANE DOUBLERS

FUSELAGE SIDES FROM 2.0 MEDIUM

SP 280 MOTOR PLATE 2.0 LP

F1B

GROMMET

LOCATION

OF LOWER WING SPARS (CUT AWAY FRONT SPAR FOR BATTERY ACCESS IF REQD)

HEADREST FROM SOFT BLOCK

ALL REAR FUSELAGE 2.0 SQ

ADD OUTER LONGERON DOUBLERS AFTER BUILDING SIDES.

SIDE STRINGERS AND FORMERS 1.0 SHEET: ALL TO SHOW THROUGH COVERING

WHITE CHEAT LINE

C9 1.5

0.8 PLY DOUBLERS AND TREBLERS

F1A

F1B

VELCRO PADS

SP 280 MOTOR PLATE 2.0 LP

F1B

VELCRO PADS

SERVO TRAY 2.0 LP

SERVOS LINKED TO CONTROL SURFACES BY 15 LB PIKE LINE SECURED WITH DRENNAN SLIM CRIMPS

FLYING WIRE SPLIT PIN

WARP WIRE GROMMET

SIDE STRINGERS FROM 1.0

FINN FROM 2.0 MED

1.5 SHEET FLUSH WITH TOP STRINGER

FILL WITH 1.5

2.0 SQ GUIDES

2.0 LP INSET

CURVE OF WING TIP. MAKE EDGE < 1 MM THICK

CARVE LE TO PROFILE

C OF G (TOP WING)

LINE OF COVERING MAKES NEAT TRAILING EDGE
40 RIBS FROM 1.5 OR 1.0
6 FROM 3.0 (OR FACE END RIBS WITH 0.4 PLY)

SKID AND 3 CONTROL HORNS FROM 2 LAMS 0.4 PLY

RUDDER OUTLINE FROM 3 LAMS 1.0 X 2.0

68
90
101
130

U/C IS DRAWN HALF FULL SIZE DIMENSIONS IN MM.

1.5 SHEET (2.0 LP UNDER)

215
SOPWITH
AVIATION Company Ltd
KINGSTON ON THAMES

HEADREST COVERS JOIN