THE PATTERNS FURNISHED HERE ARE FOR REFERENCE ONLY — USE FOR TRACING IN CASE OF LOSS OR DESTRUCTION OF DIE-CUT BALSA PARTS. "T" INDICATES TOP.

SPARS 1/16" — RIBS — TRAILING EDGE E1

WING TIP E2 — 1/16" SQ. STRIPS TO SUPPORT WING STRUT — LEADING EDGE VIEW — LEADING EDGE

TYPICAL WING SECTION AT RIB

F1 F1 F1 F1 F2 F1 F3 F1 F1 F1 F1 F3 F4

E2

WING TIP SPARS 1/16" SQ.

AILERON SEPARATION —TOP AND BOTTOM OF WING (BLACK INK)

NUMERALS - TOP OF RIGHT WING; BOTTOM OF LEFT WING - SEE NOTE BELOW

TRAILING EDGE

E1

LEFT WING LAYOUT

LEADING EDGE AND BOTTOM SPAR 3/32" x 3/16"

ROOT RIB

F4 F3 F1 F1 F1 F1 F3 F1 F2 F1 F1 F1 F1

RIBS — WING SPARS 1/16" SQ.

E2

E1

RIGHT WING LAYOUT

ROOT RIB

LOCATION OF CONTROL ROD, HORN AND HOUSING

TRAILING EDGE VIEW

TEMPLATE FOR DETERMINING WING TIP ANGLE — MAKE FROM SCRAP BALSA

DO NOT CEMENT IN PLACE

FUSELAGE FORMERS

2 OF EACH REQUIRED

B1 B2 B3 B4 B5 B6 B7 B8 B9

CUT OFF THESE "TABS" AFTER SIDE KEELS HAVE BEEN ADDED TO FUSELAGE FRAME

L1 4 REQ.

L2 2 REQ.

BOLT LOCATIONS

TEMPLATE OF 1/8" PLYWOOD FIREWALL. USE ONLY FOR GAS MOTOR MOUNTING

K3 K3A

LANDING GEAR STRUT

2 REQUIRED

SCORE AND CRACK ON DOTTED LINE

WING RIBS

F4 2 REQ.

F3 4 REQ.

F2 2 REQ.

F1 18 REQ.

CEMENT 1/16" SQ. STRIPS TO RIBS F2 TO SUPPORT WING STRUT LEGS - SEE WING LAYOUTS

F3 F2

USE BLACK THREAD FOR RIGGING WIRES

NO. 2 NO. 4 NO. 5 EXHAUST STACK NO. 1 NO. 3 WING STRUTS K1 AND K2 PITOT UNIT

FUSELAGE FRONT VIEW

SCALE WING DIHEDRAL SHOWN - SEE NOTE BELOW ABOUT "FLYING" DIHEDRAL

GEAR AND STRUT BRACES

FULL SIZE TEMPLATES - CUT FROM 1/16" SQ. STRIP STOCK

NO. 5 2 REQ. — NO. 3 2 REQ. — NO. 4 2 REQ. — NO. 1 2 REQ. — NO. 2 4 REQ.

BIND WIRE GEARS WITH THREAD - COVER BINDING WITH CEMENT

WIRE LANDING GEAR

WIRE "B" - 6¾" LONG - 1 REQ.

CUT WIRE TO LENGTH THEN BEND TO SHAPE WITH 2 PAIR OF NEEDLE NOSE PLIERS

WIRE "A" - 5¾" LONG - 1 REQ.

WIRE GEAR TEMPLATES

FOOT REST

2 REQUIRED

WIRE "C" 1¾" LONG

PAPER WRAPPED AROUND WIRE

TOP

2 REQUIRED

FRONT

TOP AT WING

WINDOW AREA TEMPLATES

NOTE

FASTEN ACETATE SHEET OVER WINDOW AREA TEMPLATES AND CUT TO SHAPE WITH POINT OF SHARP KNIFE OR SINGLE EDGE RAZOR BLADE. DO NOT TRY TO CUT THROUGH - SCORE DEEPLY THEN BREAK OUT PARTS.

K2 K1 1/16" x 1/8" STRIP STOCK

WING STRUT LAYOUTS

2 OF EACH REQUIRED

IMPORTANT NOTE

THE WING NUMERAL DECAL FOR BOTTOM OF WING SHOULD BE APPLIED BEFORE WING IS ATTACHED TO FUSELAGE DUE TO STRUT AND STRUT BRACE STRUCTURE

IMPORTANT!

CUT STRUTS HERE FOR A NON-FLYING SCALE MODEL - USE FULL LENGTH FOR A FLYING MODEL. NO ADDITIONAL WING DIHEDRAL REQUIRED. ANY "GAP" CREATED BETWEEN BOTTOM OF WING AT ROOT RIB AND FUSELAGE WHEN ASSEMBLED SHOULD BE FILLED IN WITH CEMENT.

D1 D2 D3 D4 D5

NO. 5 STRUT LOCATION — CONTROL HORN POSITION — RIGGING WIRE POSITION — ALL SPARS 1/16" x 3/32"

ELEVATOR AND STABILIZER SEPARATION LINE (BLACK INK)

STABILIZER LAYOUT

SCALE OUTLINE (HALF PATTERN)

SIDE KEEL A4 2 REQ.

FRONT

B1 B2 B3 B4 B5 B6 B7 B8 B9 A1 A2 A3

POSITION OF FORMERS SHOWN BY DOTTED LINES

TOP AND BOTTOM KEEL PARTS

FUSELAGE LAYOUT

VERY IMPORTANT!

COVER RUDDER, STABILIZER, FUSELAGE, STRUT AND WING LAYOUTS WITH WAX PAPER BEFORE STARTING CONSTRUCTION. THIS WILL PREVENT PARTS FROM STICKING TO PLAN WHILE YOU ARE CEMENTING FRAMES TOGETHER. USE THUMB TACKS OR MASKING TAPE TO HOLD WAX PAPER OVER LAYOUTS - SMOOTH OUT ANY WRINKLES.

1/16" SQ. STRIP STOCK — H — 1/16" SQ. STRIP STOCK

FUSELAGE WINDOW AREA LAYOUT

2 REQUIRED — 1 RIGHT AND 1 LEFT

1/16" SQ. STRIP CEMENTED TO INNER SIDE OF PART "H" - SEE DETAIL ON OTHER SIDE OF PLAN

SCORE AND CRACK AT THESE DOTTED LINES BEFORE ATTACHING TO FUSELAGE FRAME

C1 C2 C3 C4 C5 C6

RIGGING WIRE POSITION — ALL SPARS 1/16" x 3/32"

RUDDER LAYOUT

RUDDER AND FIN SEPARATION LINE (BLACK INK)

for a rubber motor replacement, ask for
T-56 Rubber Thread
available in various sizes at your local hobby shop

SPECIFICATIONS

LENGTH	24¾ FT.
ENGINE	CURTISS OX-5 90 H.P.
MAX. SPEED	99 M.P.H.
GROSS WT.	2,175 LBS.

IMPORTANT NOTE ON PAINTS AND ADHESIVES

DO NOT USE REGULAR CLEAR DOPE OVER DECALS BECAUSE IT WILL DAMAGE THEM. USE 410 M CLEAR PLASTIC PAINT WHICH WILL ALSO FUEL-PROOF — AVAILABLE AT YOUR DEALERS. WE ALSO RECOMMEND THE USE OF AMBROID PLASTIC CEMENT FOR BONDING PLASTIC TO PLASTIC AND PLASTIC TO WOOD. USE AMBROID MODEL CEMENT FOR BONDING WOOD PARTS TOGETHER.

COLOR SCHEME

FUSELAGE DEEP BLUE WITH YELLOW TRIM STRIP. LANDING GEAR STRUTS - BLUE. WING, TAIL SURFACES AND WING STRUTS ARE YELLOW. LETTERING AND TIRES - BLACK. PROPELLER - NATURAL WOOD TONE. EXHAUST STACKS - METALLIC. SAME COLOR SCHEME SHOWN ON BOX TOP.

FUEL TANK OUTLINE - TOP ONLY

CONTROL ROD, HORN AND HOUSING

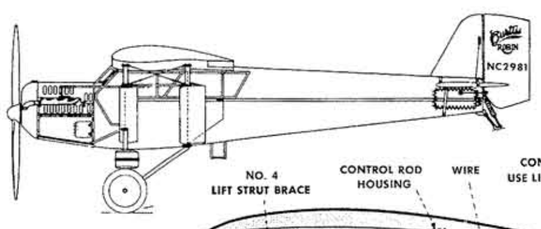
WING NUMERALS OMITTED FOR CLARITY

FULL SIZE WING SPAN 41'-0"

MODELING HINT

WHEN ASSEMBLING MODEL, THE USE OF A PAIR OF TWEEZERS WILL BE FOUND HELPFUL FOR HANDLING SMALL OR DELICATE PARTS.

ADDITIONAL DECALS AVAILABLE AT 50c PER SHEET. SEND STAMPS OR COIN TO PAUL K. GUILLOW, INC., WAKEFIELD, MASS.



COX .020 ENGINE — 1/16" SHEET BALSA FILLER — 1/16" PLYWOOD FIREWALL — B2 — CUT FORMER B1 DOWN TO SIDE KEEL A4 — CUT PLASTIC NOSE COWL ACCORDINGLY. — BOLT LOCATIONS

A 1/4A GAS ENGINE CAN BE INSTALLED IN THIS MODEL FOR GAS POWERED FREE FLYING. FOLLOW THE INSTALLATION AND FLIGHT INSTRUCTIONS CAREFULLY.

INSTALLING ¼A GAS ENGINE

1. Sand the firewall smooth and then drill through the bolt locations with a 3/32" drill.
2. Mount motor to firewall with ½" long No. 2 bolts and nuts, (available at your hobby dealer).
3. Thoroughly cement nuts at rear of firewall. When dry, remove motor and cement firewall to former "B2". NOTE: Remove balsa on former "B2" in area where bolts and nuts touch so firewall can be cemented flat to former.
4. Bolt motor to firewall using a washer between motor and firewall on the top left bolt to give the motor a little right thrust.

GAS ENGINE FLIGHT INSTRUCTIONS

1. Balance model exactly as shown on plans by adding clay weight to nose or to tail of model.
2. Test glide model for straight forward glide — adjust with up or down elevator.
3. Adjust rudder for about a 200 foot left circle.
4. Important! Put the 4½" D. x 2½" P. Thimble-Drome Plastic propeller on backwards — the flat of the blade is then forward. Use the propeller mounted backwards for all flying as too much thrust is generated if the propeller is mounted in normal position.
5. Initial flights should be made with very short motor runs and preferably in a large grassy area.
6. If extreme banking is encountered under power to the right, wash the trailing edge of the right wing down to reduce banking and increase climb.
7. Extreme climbing or looping can be corrected by applying down thrust. Insert washers between motor and firewall on the two top bolts to get down thrust. These washers are in addition to the washers used for right thrust. Use very thin washers. Add more washers to increase thrust.

FULL SIZE SCALE PROPELLER — MATERIAL NOT FURNISHED IN KIT

PRE-WORK INSTRUCTIONS

Prepare for building your model by accumulating necessary tools and materials such as pins, cement, single edge razor blade or modelers knife, wax paper, common pins, fine sandpaper, dope, brush, etc. All frames are built on the opposite side of plan. Lay plan on a workboard and pin wax paper over layouts to prevent parts from sticking to plan during assembly. Carefully remove all parts from the die-cut sheets and lay on workboard with the identifying letters face up.

FULL SIZE EXHAUST STACK

MAKE FROM 1/8" x 3/16" STRIP STOCK - 2 REQ. - BOTH SAME STYLE

NOTE

FOR SCALE TYPE FLYING, INSTALL A COX PEE WEE .020 ENGINE AND 5" DIA. x 3" PITCH PROPELLER

NOTE

A SIMPLE METHOD OF REENFORCING THE WING AND FUSELAGE ATTACHMENT IS SHOWN ON INSTRUCTION SHEET, THOUGH NOT ABSOLUTELY REQUIRED, THE ADDITION OF THIS REENFORCEMENT IS MOST DESIRABLE FOR A FLYING MODEL. (NOT REQUIRED FOR A NON-FLYING SCALE MODEL.)

PLASTIC PROPELLER — PROPELLER SHAFT — RUBBER MOTOR BAND — THRUST BEARING — BEAD

DETAIL OF PROPELLER UNIT ASSEMBLY

TYING RUBBER THREAD

THE ENDS OF RUBBER THREAD INCLUDED IN THIS KIT MUST BE TIED TOGETHER AS SHOWN. WHEN INSTALLING RUBBER MOTOR, END WITH KNOT SHOULD BE AT REAR MOTOR MOUNT.

NOTE: ALL FRAMES ARE COVERED WITH TISSUE BEFORE ASSEMBLY

FUEL TANK OUTLINE - TOP ONLY

THIS AREA CUT-AWAY ON DRAWING FOR VISIBILITY — K1 K2 K3 — WHEEL — NO. 1 GEAR STRUT BRACE — NO. 3 STRUT BRACE — 2 PIECE PLASTIC ENGINE COWL

BUTT JOIN HERE — NOSE COWL — PIECE OF 1/8" x 3/16" LEADING EDGE STOCK BETWEEN PARTS "H". — EXHAUST STACK — 1/16" SQ. STRIP STOCK — L1 L2 H A2 — 1/16" SQ.

FULL SIZE TOP VIEW DETAIL OF FUSELAGE NOSE, LANDING GEAR AND WING STRUTS

PITOT TUBE

MAKE FROM 1/16" SQ. STRIP STOCK AND WIRE

DO NOT TISSUE OVER AREA WHERE WINGS ATTACH TO FUSELAGE - LEAVE CLEAR WOOD FOR GOOD CEMENT BOND

1 2 3 4 5 6 7 — TOP 8 9 10 11 — BOTTOM

KEY TO FUSELAGE COVERING

COVER FRAME WITH PIECES OF TISSUE IN ORDER SHOWN

NOTE

FOR A SUPER LIGHT FLYING MODEL, DO NOT USE COLORED DOPE. APPLY ONE COAT OF CLEAR DOPE OVER TISSUE, THEN ADD DECALS.

RADIATOR CAP — BUTT JOIN HERE — PITOT UNIT — NO. 4 LIFT STRUT BRACE — CONTROL ROD HOUSING — WIRE — CONTROL HORN - USE LIGHT CARDBOARD — PLASTIC NOSE COWL — PLASTIC ENGINE COWL — EXHAUST STACK — ACCESS PANELS - USE BLACK INK — NO. 3 GEAR STRUT BRACE — NO. 1 GEAR STRUT BRACE — K1 K2 K3 — DOOR OUTLINE - BOTH SIDES OF FUSELAGE

SIDE VIEW DETAIL

BRIEF HISTORY

FROM 1928, WHEN IT WAS FIRST PRODUCED, UNTIL THE LATE '30'S, THE CURTISS ROBIN PROVED ITSELF TO BE ONE OF THE MOST RELIABLE AIRPLANES OF THE ERA. MANY NOTEABLE PILOTS, INCLUDING COL. CHARLES A. LINDBERGH, FLEW AND ADMIRED THE ROBIN FOR ITS INHERENT FLIGHT CHARACTERISTICS. DURING THE LATE '20'S AND EARLY '30'S THE ROBIN WAS USED TO ESTABLISH ENDURANCE RECORDS OF NOTE BY MEANS OF IN-FLIGHT REFUELING. THE MOST FAMOUS OF THESE WAS A 17½ DAY RECORD SET IN JULY 1929.

BEAD — PLASTIC PROPELLER — THRUST BEARING — DO NOT CEMENT IN PLACE — PLASTIC NOSE COWL — PROPELLER SHAFT — WHEEL — WIRE "A" — WIRE "B" — WIRE "C" — FOOT REST — WIRE AXLE — 1/16" SQ. STRIP STOCK — WIRE "B" IS CEMENTED TO BOTTOM OF FORMER B5 BEFORE FUSELAGE IS COVERED — DOOR OUTLINE

POINT OF BALANCE — L1 L2 H — WING — CELLOPHANE — YELLOW STRIPE — A1 A2 A3 A4 — FORMERS — ALL STRINGERS 1/16" SQ. — B1 B2 B3 B4 B5 B6 B7 B8 B9 — L3 — USE WIRE OR MATCH STICK FOR REAR MOTOR MOUNT — NO. 5 STRUT — USE BLACK THREAD FOR CONTROL WIRES — NON-OPERATING — TAIL SKID — K4 K5 — CONTROL HORNS — STABILIZER — 2 REQ. RUDDER — 1 REQ. ELEVATOR — CONTROL HORNS MAKE FROM LIGHT CARDBOARD

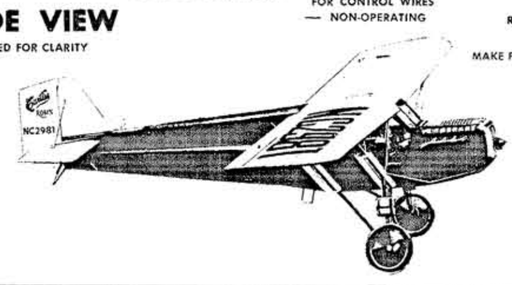
RUDDER — SCALE RUDDER OUTLINE — Curtiss ROBIN — NC2981

FULL SIZE SIDE VIEW

WING AND GEAR STRUTS OMITTED FOR CLARITY

CUTTING OUT THE LIGHT PLASTIC PARTS

FIRST USE THE POINT OF A MODEL KNIFE OR SINGLE EDGE RAZOR BLADE TO SCORE THE PLASTIC LIGHTLY AROUND EDGE OF FORMED PARTS—SCORE AGAIN AND THEN BREAK THE EXCESS MATERIAL AWAY BY FLEXING BACK AND FORTH. DO NOT ATTEMPT TO CUT ALL THE WAY THROUGH MATERIAL ON FIRST CUT TO AVOID SPOILING FORMED PARTS. USE PLASTIC CEMENT FOR JOINING MATCHING HALVES TOGETHER. SAND FINISHED JOINTS LIGHTLY AFTER CEMENT HAS DRIED.



Guillow's

KIT NO. 305

CURTISS ROBIN

Balsa flies BETTER

AUTHENTIC SCALE FLYING AIRCRAFT

Wing Span—24" Approx. Scale 7/8" = 1'-0" Length — 15-1/4"

manufactured by PAUL K. GUILLOW, INC., WAKEFIELD, MASS.

2 PIECE PLASTIC ENGINE COWL — PLASTIC NOSE COWL

DETAIL OF FUSELAGE NOSE