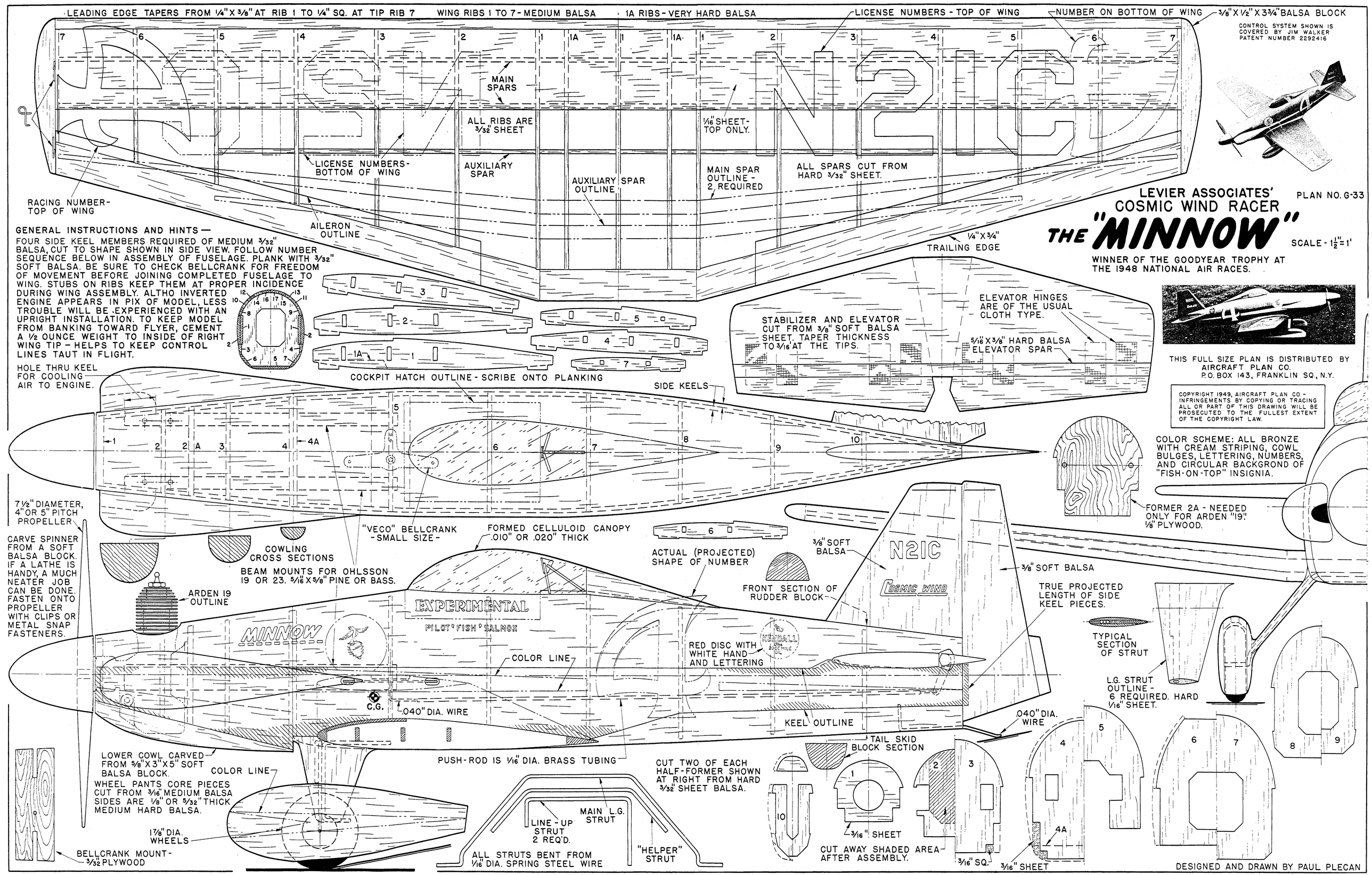
LEADING EDGE TAPERS FROM 1/4" X 3/8" AT RIB 1 TO 1/4" SQ. AT TIP RIB 7
WING RIBS 1 TO 7 - MEDIUM BALSA
1A RIBS - VERY HARD BALSA
LICENSE NUMBERS - TOP OF WING
NUMBER ON BOTTOM OF WING
3/8" X 1/2" X 3 3/4" BALSA BLOCK
CONTROL SYSTEM SHOWN IS COVERED BY JIM WALKER PATENT NUMBER 2292416
MAIN SPARS
ALL RIBS ARE 3/32" SHEET
1/16" SHEET - TOP ONLY.
LICENSE NUMBERS - BOTTOM OF WING
AUXILIARY SPAR
AUXILIARY SPAR OUTLINE
MAIN SPAR OUTLINE - 2 REQUIRED
ALL SPARS CUT FROM HARD 3/32" SHEET.
RACING NUMBER - TOP OF WING
AILERON OUTLINE
1/4" X 3/4" TRAILING EDGE
LEVIER ASSOCIATES' COSMIC WIND RACER
PLAN NO. G-33
THE "MINNOW"
SCALE - 1 1/2" = 1'
WINNER OF THE GOODYEAR TROPHY AT THE 1948 NATIONAL AIR RACES.
GENERAL INSTRUCTIONS AND HINTS —
FOUR SIDE KEEL MEMBERS REQUIRED OF MEDIUM 3/32" BALSA, CUT TO SHAPE SHOWN IN SIDE VIEW. FOLLOW NUMBER SEQUENCE BELOW IN ASSEMBLY OF FUSELAGE. PLANK WITH 3/32" SOFT BALSA. BE SURE TO CHECK BELLCRANK FOR FREEDOM OF MOVEMENT BEFORE JOINING COMPLETED FUSELAGE TO WING. STUBS ON RIBS KEEP THEM AT PROPER INCIDENCE DURING WING ASSEMBLY. ALTHO INVERTED ENGINE APPEARS IN PIX OF MODEL, LESS TROUBLE WILL BE EXPERIENCED WITH AN UPRIGHT INSTALLATION. TO KEEP MODEL FROM BANKING TOWARD FLYER, CEMENT A 1/2 OUNCE WEIGHT TO INSIDE OF RIGHT WING TIP - HELPS TO KEEP CONTROL LINES TAUT IN FLIGHT.
STABILIZER AND ELEVATOR CUT FROM 3/8" SOFT BALSA SHEET. TAPER THICKNESS TO 3/16" AT THE TIPS.
ELEVATOR HINGES ARE OF THE USUAL CLOTH TYPE.
5/16" X 3/8" HARD BALSA ELEVATOR SPAR
THIS FULL SIZE PLAN IS DISTRIBUTED BY AIRCRAFT PLAN CO. P.O. BOX 143, FRANKLIN SQ., N.Y.
COPYRIGHT 1949, AIRCRAFT PLAN CO. - INFRINGEMENTS BY COPYING OR TRACING ALL OR PART OF THIS DRAWING WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE COPYRIGHT LAW.
COCKPIT HATCH OUTLINE - SCRIBE ONTO PLANKING
HOLE THRU KEEL FOR COOLING AIR TO ENGINE.
SIDE KEELS
COLOR SCHEME: ALL BRONZE WITH CREAM STRIPING, COWL BULGES, LETTERING, NUMBERS, AND CIRCULAR BACKGROND OF "FISH-ON-TOP" INSIGNIA.
FORMER 2A - NEEDED ONLY FOR ARDEN "19." 1/8" PLYWOOD.
7 1/2" DIAMETER, 4" OR 5" PITCH PROPELLER
CARVE SPINNER FROM A SOFT BALSA BLOCK. IF A LATHE IS HANDY, A MUCH NEATER JOB CAN BE DONE. FASTEN ONTO PROPELLER WITH CLIPS OR METAL SNAP FASTENERS.
"VECO" BELLCRANK - SMALL SIZE -
FORMED CELLULOID CANOPY .010" OR .020" THICK
COWLING CROSS SECTIONS
BEAM MOUNTS FOR OHLSSON 19 OR 23. 5/16" X 5/8" PINE OR BASS.
ACTUAL (PROJECTED) SHAPE OF NUMBER
3/8" SOFT BALSA
3/8" SOFT BALSA
FRONT SECTION OF RUDDER BLOCK
ARDEN 19 OUTLINE
EXPERIMENTAL
PILOT 'FISH' SALMON
MINNOW
N21C
COSMIC WIND
TRUE PROJECTED LENGTH OF SIDE KEEL PIECES.
TYPICAL SECTION OF STRUT
RED DISC WITH WHITE HAND AND LETTERING
KENDALL
COLOR LINE
C.G.
.040" DIA. WIRE
KEEL OUTLINE
L.G. STRUT OUTLINE - 6 REQUIRED. HARD 1/16" SHEET.
.040" DIA. WIRE
LOWER COWL CARVED FROM 5/8" X 3" X 5" SOFT BALSA BLOCK.
PUSH-ROD IS 1/16" DIA. BRASS TUBING
TAIL SKID BLOCK SECTION
COLOR LINE
WHEEL PANTS CORE PIECES CUT FROM 3/16" MEDIUM BALSA SIDES ARE 1/8" OR 5/32" THICK MEDIUM HARD BALSA.
CUT TWO OF EACH HALF-FORMER SHOWN AT RIGHT FROM HARD 3/32" SHEET BALSA.
1 7/8" DIA. WHEELS
MAIN L.G. STRUT
LINE-UP STRUT 2 REQ'D.
"HELPER" STRUT
3/16" SHEET
CUT AWAY SHADED AREA AFTER ASSEMBLY.
3/16" SQ.
3/16" SHEET
BELLCRANK MOUNT - 3/32 PLYWOOD
ALL STRUTS BENT FROM 1/16" DIA. SPRING STEEL WIRE
DESIGNED AND DRAWN BY PAUL PLECAN