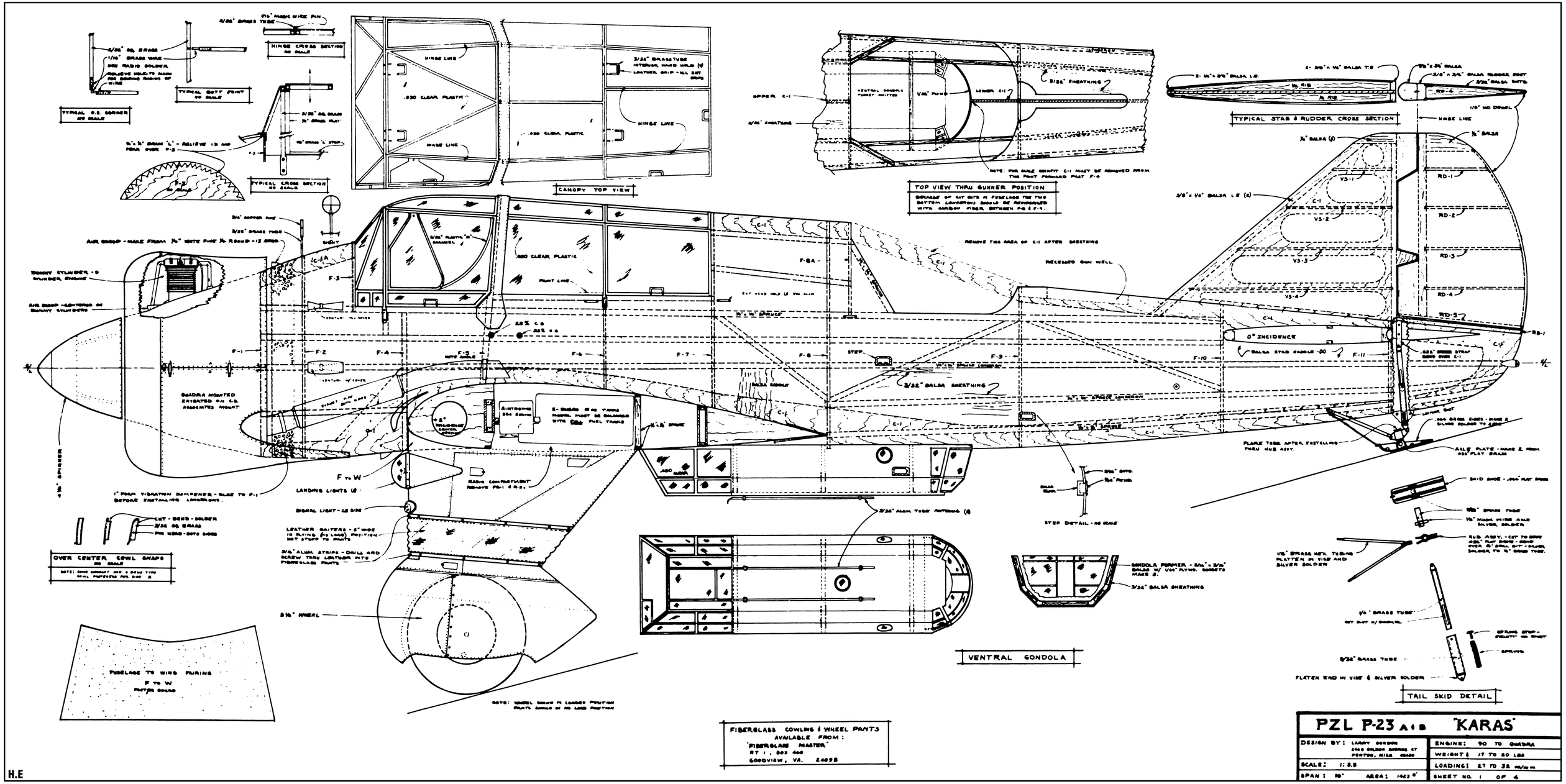
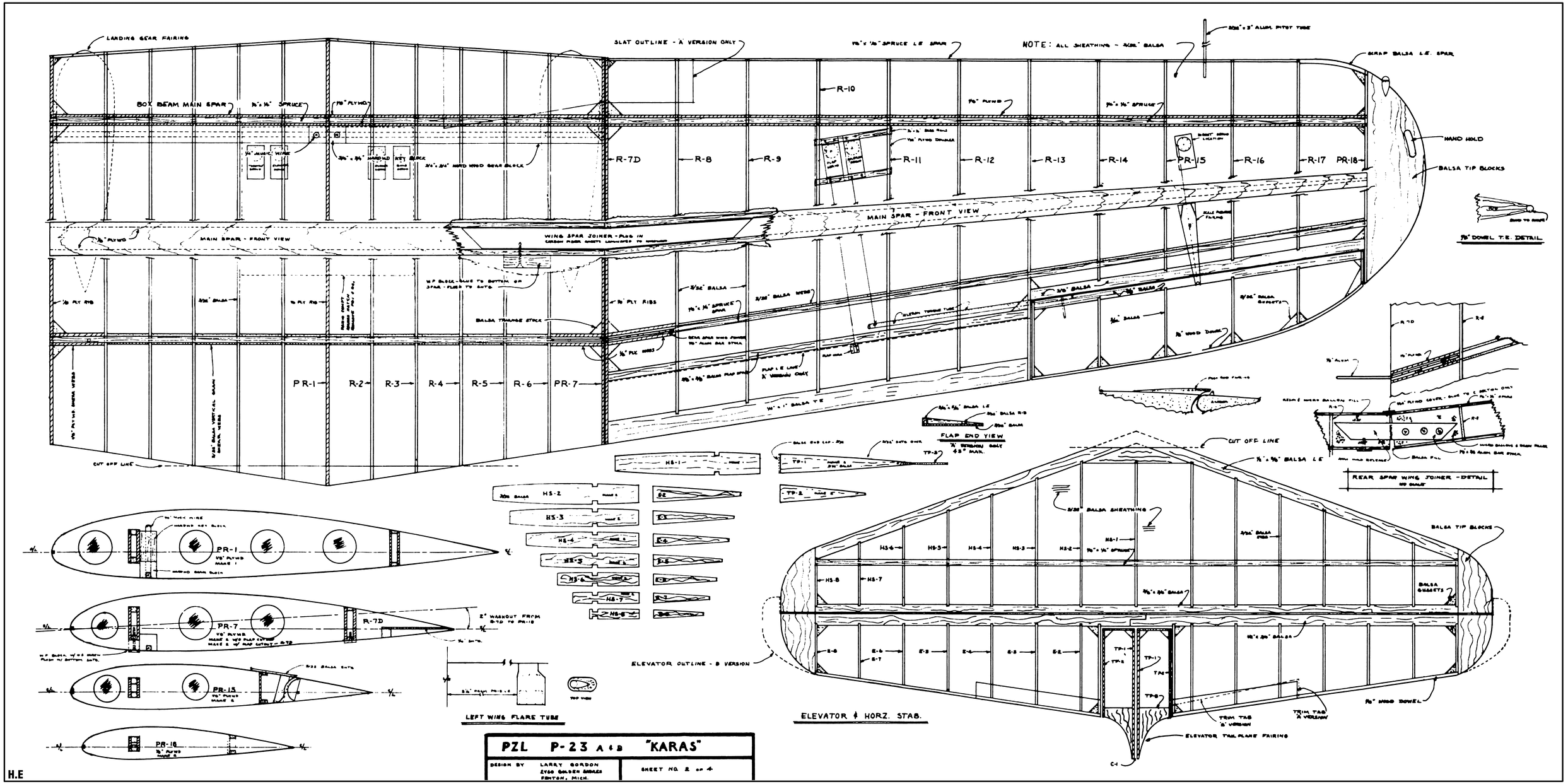
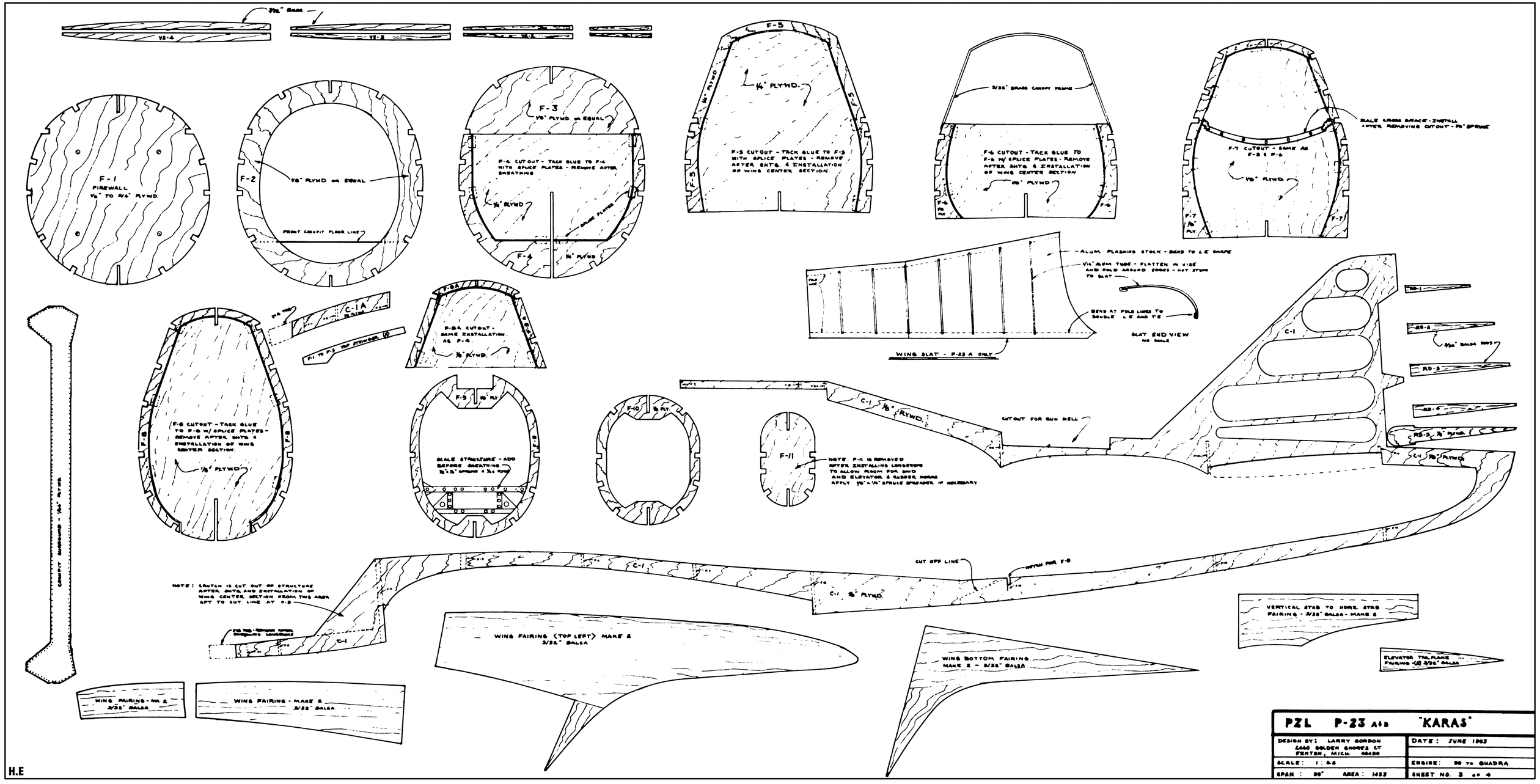
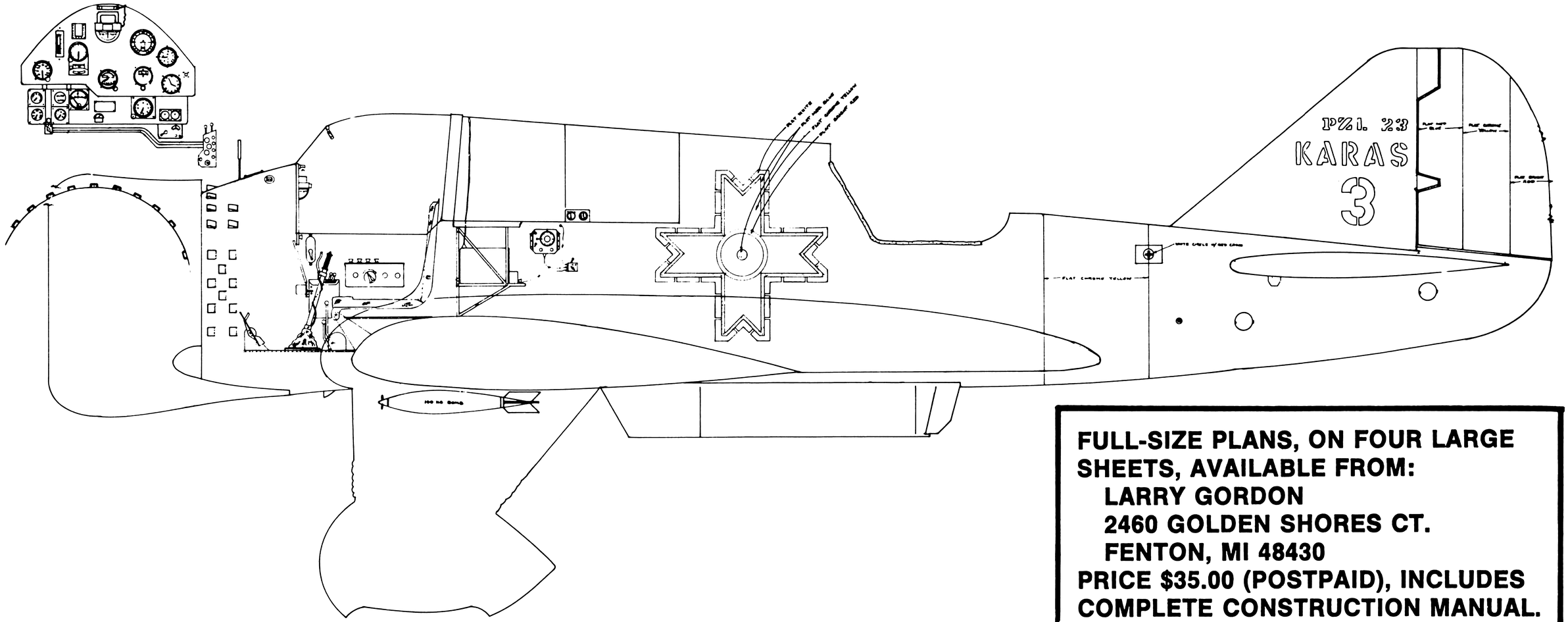

TYPICAL O.S. BORDER NO SCALE
TYPICAL BUTT JOINT NO SCALE
HINGE CROSS SECTION NO SCALE
TYPICAL CROSS SECTION NO SCALE
CANOPY TOP VIEW
.030 CLEAR PLASTIC
HINGE LINE
3/32" BRASS TUBE INTERIOR HAND HOLD (4)
LEATHER GRIP - ALL EXT. EDGE
TOP VIEW THRU GUNNER POSITION
TYPICAL STAB & RUDDER CROSS SECTION
AIR SCOOP - MADE FROM 1/4" WHITE PINE 1/4" ROUND - 12 REQD
RECESSED GUN WELL
REMOVE THIS AREA OF C-1 AFTER SHEATHING
0° INCIDENCE
3/32" BALSA SHEATHING
QUADRA MOUNTED EXPERATED FOR C.G. ASSOCIATES MOUNT
AIRTRONIC 304 SERVO
E-QUADRA 10 OZ TANKS MODEL MUST BE BALANCED WITH FUEL TANKS
RADIO COMPARTMENT REMOVE RIB-1 & R-2.
LANDING LIGHTS (4)
SIGNAL LIGHT - LE 5/32
LEATHER GAITERS - 2" WIDE IN FLYING (NO LOAD) POSITION - NOT STRUT TO PANTS
3/16" ALUM. STRIPS - DRILL AND SCREW THRU LEATHER INTO FIBERGLASS PANTS
5 1/2" WHEEL
NOTE: WHEEL SHOWN IN LOADED POSITION PANTS SHOWN IN NO LOAD POSITION
1" FOAM VIBRATION DAMPENER - GLUE TO F-1 BEFORE INSTALLING LANDING GEAR.
4 1/2" SPINNER
OVER CENTER COWL SNAPS NO SCALE
FUSELAGE TO WING FAIRING
F TO W
PLYWOOD SHEAR
FIBERGLASS COWLING & WHEEL PANTS AVAILABLE FROM: "FIBERGLASS MASTER" RT 1, BOX 400 GOODVIEW, VA. 24095
VENTRAL GONDOLA
GONDOLA FIRMER - 3/16" x 3/16" BALSA W/ 1/64" PLYWD. GUSSETS MAKE 2.
3/32" BALSA SHEATHING
STEP DETAIL - NO SCALE
PLATE TIGHT AFTER INSTALLING THRU HUB ASSY.
AXLE PLATE - MAKE 2 FROM .032" PLAT BRASS
SKID SHOE - .064" FLAT BRASS
1/16" BRASS TUBE
1/16" MUSIC WIRE AXLE SILVER SOLDER
RUD. ASSY. - CUT TO SERVE .032" FLAT BRASS - SERVO OVER 2" SPIRAL CUT - SILVER SOLDER TO 1/8" BRASS TUBE.
1/16" BRASS HEX. TUBING FLATTEN IN VISE AND SILVER SOLDER
1/16" BRASS TUBE
SPRING STOP - FRICTION ON SHAFT
SPRING
3/32" BRASS TUBE
FLATTEN END IN VISE & SILVER SOLDER
TAIL SKID DETAIL
PZL P-23 A & B "KARAS"
DESIGN BY: LARRY GOODRICH 2443 GOLDEN GARDENS CT PORTAGE, MICH. 49002
ENGINE: 90 TO QUADRA
WEIGHT: 17 TO 20 LBS
SCALE: 1:8.5
LOADING: 27 TO 32 oz/sq ft
SPAN: 50" AREA: 1442 in²
SHEET NO. 1 OF 4
H.E


NOTE: ALL SHEATHING - 3/32" BALSA
LANDING GEAR FAIRING
SLAT OUTLINE - 'A' VERSION ONLY
BOX BEAM MAIN SPAR
MAIN SPAR - FRONT VIEW
WING SPAR JOINER - PLUG IN
BALSA TRIANGLE STICK
CUT OFF LINE
R-7D
R-8
R-9
R-10
R-11
R-12
R-13
R-14
PR-15
R-16
R-17
PR-18
PR-1
R-2
R-3
R-4
R-5
R-6
PR-7
HAND HOLD
BALSA TIP BLOCKS
7/8" DOWEL T.E. DETAIL
FLAP END VIEW
REAR SPAR WING JOINER - DETAIL
ELEVATOR OUTLINE - B VERSION
ELEVATOR & HORZ. STAB.
ELEVATOR TAIL PLANE FAIRING
TRIM TAB 'B' VERSION
TRIM TAB 'A' VERSION
7/8" WOOD DOWEL
BALSA SHEATHING
BALSA GUSSETS
LEFT WING FLARE TUBE
2° WASHOUT FROM R-7D TO PR-18
PR-1
PR-7
PR-15
PR-18
PZL P-23 A & B "KARAS"
DESIGN BY LARRY GORDON
2760 GOLDEN EAGLES
FENTON, MICH.
SHEET NO. 2 OF 4
H.E


3/32" BALSA
VB-4
VB-3
F-1
FIREWALL
1/8" TO 3/16" PLYWD.
F-2
1/8" PLYWD OR EQUAL
FRONT COCKPIT FLOOR LINE
F-3
1/8" PLYWD OR EQUAL
F-4 CUT OUT - TACK GLUE TO F-4 WITH SPLICE PLATES - REMOVE AFTER SHEATHING
1/8" PLYWD
SPLICE PLATES
F-4
1/8" PLYWD
F-5
1/4" PLYWD.
F-5 CUT OUT - TACK GLUE TO F-5 WITH SPLICE PLATES - REMOVE AFTER SHTG. & INSTALLATION OF WING CENTER SECTION.
3/32" BRASS CANOPY FRAME
F-6 CUT OUT - TACK GLUE TO F-6 W/ SPLICE PLATES - REMOVE AFTER SHTG & INSTALLATION OF WING CENTER SECTION
1/8" PLYWD
F-7 CUT OUT - SAME AS F-5 & F-6
1/8" PLYWD
SCALE CROSS BRACE - INSTALL AFTER REMOVING CUTOUT - 1/8" SPRUCE
ALUM. FLASHING STOCK - BEND TO L.E. SHAPE
1/16" ALUM TUBE - FLATTEN IN VISE AND FOLD AROUND EDGES - HOT STUFF TO SLAT
BEND AT FOLD LINES TO DOUBLE L.E. AND T.E.
SLAT END VIEW
NO SCALE
WING SLAT - P-23 A ONLY
C-1A
PLANE
F-1 TO F-3 TOP STRINGER
F-8A
P-8A CUTOUT - SAME INSTALLATION AS F-4
1/8" PLYWD.
F-8 CUT OUT - TACK GLUE TO F-8 W/ SPLICE PLATES - REMOVE AFTER SHTG. & INSTALLATION OF WING CENTER SECTION.
1/8" PLYWD
F-9
1/8" PLY
SCALE STRUCTURE - ADD BEFORE SHEATHING 3/8"x3/8" SPRUCE & 3/16" PLYWD
F-10
1/8" PLY
F-11
NOTE F-11 IS REMOVED AFTER INSTALLING LONGERONS TO ALLOW ROOM FOR SKID AND ELEVATOR & RUDDER HORNS APPLY 1/8"x1/8" SPRUCE SPACERS IF NECESSARY
C-1
1/8" PLYWD.
CUTOUT FOR GUN WELL
C-1
RD-1
RD-2
3/32" BALSA RIBS
RD-3
RD-4
RD-5
1/8" PLYWD
C-1
1/8" PLYWD
CENTER SHROUD - 1/16" PLYWD
NOTE: CRUTCH IS CUT OUT OF STRUCTURE AFTER SHTG. AND INSTALLATION OF WING CENTER SECTION FROM THIS AREA AFT TO CUT LINE AT F-8
F-10 TO F-11 REMOVE AFTER INSTALLING LONGERONS
C-1
C-1
C-1
1/8" PLYWD.
CUT OFF LINE
BOTTOM PER F-8
WING FAIRING (TOP LEFT) MAKE 2
3/32" BALSA
WING BOTTOM FAIRING
MAKE 2 - 3/32" BALSA
VERTICAL STAB TO HORIZ. STAB FAIRING - 3/32" BALSA - MAKE 2
ELEVATOR TAIL PLANE FAIRING - MAKE 2 3/32" BALSA
WING FAIRING - MAKE 2
3/32" BALSA
WING FAIRING - MAKE 2
3/32" BALSA
PZL P-23 A&B "KARAS"
DESIGN BY: LARRY GORDON
2440 GOLDEN SHORES CT.
FENTON, MICH. 48430
DATE: JUNE 1983
SCALE: 1:2.5
ENGINE: 90 TO QUADRA
SPAN: 50" AREA: 1433
SHEET NO. 3 OF 4
H.E



FULL-SIZE PLANS, ON FOUR LARGE SHEETS, AVAILABLE FROM:
LARRY GORDON
2460 GOLDEN SHORES CT.
FENTON, MI 48430
PRICE $35.00 (POSTPAID), INCLUDES COMPLETE CONSTRUCTION MANUAL.

PZL P-23 A&B "KARAS"	
DESIGN BY: LARRY GORDON	ENGINE: 30 TO 60 CUBIC
SCALE: 1:3.5	WEIGHT: 17 TO 20 LBS.
SPAN: 30" AREA: 1463 SQ"	SHEET NO: 4 OF 4

H.E

PZL P-23A & B ‹Karaś›

POLISH RECONNAISSANCE AND LIGHT-BOMBER

(MAIN 3-VIEW DRAWING SHOWS VERSION A)

DIMENSIONS
P-23A & P-23B

SPAN . . 45 FT 9·5 IN
LENGTH . 31 FT 9·5 IN
HEIGHT . . 10 FT 10·25 IN
WING AREA 287·9 SQ. FT

POWER PLANT:
P-23A – PZL BRISTOL PEGASUS II M2 590 HP
P-23B – PZL BRISTOL PEGASUS VIII 680 HP

INSTRUMENT PANEL

1.– OIL TEMPERATURE
2.– OIL PRESSURE
3.– ALTIMETER
4.– INCIDENCE INDICATOR
5.– AIRSPEED INDICATOR *
6.– COMPASS
7.– ARTIFICAL HORIZON
8.– COURSE INDICATOR
9.– RATE OF CLIMB INDICATOR
10.– CLOCK
11.– TACHOMETER
12.– AMMETER
13.– FUEL GAUGE

U – UPPER INSTRUMENT PANEL
L – LOWER ——— ,, ———

* – INCLUDING TURN AND SLIP INDIC.

GREEN N.L.
AILERON LEADING EDGE
OIL COOLER SHOWN WITHOUT COVER
E
NATIONAL INSIGNIA ON UNDERSIDE
SECTION E
WING LEADING EDGE
INTEGRAL WITH THE FUSELAGE TWO-SPAR CENTRE-SECTION PART OF THE WING
SLAT BRACKET
F
FIXED TAILPLANE
ELEVATOR HINGE
FIXED FILLET CONFORMS TO ELEVATOR IN CROSS SECTION
CONTROLLABLE ELEVATOR TRIM TAB
OIL FILLER
VENTURI
AUTOMATIC SLAT OPENING AT SPEEDS BELOW 75 MPH
WINGWALK
DURAL COVER
ELEVATOR AND LEADING EDGE OF CENTRAL PART OF THE WING P-23, VERSION B
FUEL FILLER
OUTER WING PANEL
HAND OPERATED SPLIT FLAPS
AILERON CONTROL FAIRING
AIRSPEED PITOT AHEAD
SLOTTED AILERONS
WHITE
RED
AILERON INSET HINGE
SECTION F
RED N.L.
HAND GRIP
WING FLAP IN EXTENDED POSITION (MAX. DEFLECTION 45°)
BOMB RACK

THANKS TO HISTORICAL COMMISSION OF THE POLISH NATIONAL AEROCLUB IN WARSAW, AND MR. T. ŻYCHIEWICZ FOR USE OF PHOTOGRAPHS.

0 1 2 3 4 5 6 7 8 9 10 11 12 FT

2946

1,2 – JETTISONABLE CANOPY HINGING TO STARBOARD

EXHAUST COLLECTOR RING
REMOVABLE ENGINE COWLING
SIGHT RING
A
1
TURNOVER PYLON
FIXED CANOPY COWL
2
B
C
HAND GRIP
LEATHER PADDED
D
FIRST AID
BADGE OF THE NATIONAL AIRCRAFT FACTORY IN WARSAW AND IN MIELEC
WHITE
P23
A
5
WHITE N.L.
INSPECTION PANEL
SWIVEL TAIL SKID
HOLE FOR HANDLING TUBE
STEPS
VENTRAL GONDOLA
LEATHER COVER
ANTENNA FAIRLEAD (VERSION B ONLY)
EXHAUST MANIFOLD
FIXED PITCH WOODEN PROPELLER
LANDING LIGHT
SIGNAL LIGHT (L.H. SIDE ONLY)

VICKERS F·33 MOVABLE MACHINE GUN
VENTURI
MACHINE GUN PORT
ENGINE OIL COOLER COVER
X
FIXED PART OF THE LANDING GEAR FAIRING
REMOVABLE BOTTOM PART OF THE FAIRING

RIGHT SIDE VIEW

OLEO-PNEUMATIC SHOCK ABSORBER
PIVOT
RUBBER CORD
PIVOT
PIVOT

WING STRUCTURE
OLEO PNEUMATIC SHOCK STRUT
STEEL FORKED STRUT
LOW PRESSURE TYRE

DETAILS OF TAIL SKID AND MAIN LANDING GEAR

FLARE CARRIER ON THE TIP OF STARBOARD WING (X)

B
D
A
C

FUSELAGE SECTION

EVOLUTION OF AIRCRAFT PZL P-23
(NOT TO SCALE)

1-ST PROTOTYPE PZL P-23.
FIRST FLEW AUGUST 1934
POWER PLANT: BRISTOL-PEGASUS 590 HP.

P43

VERSION P-43 BUILT FOR BULGARIAN AIR FORCE.
POWER PLANT: GNOME & RHÔNE 970 HP.

EXPERIMENTAL VERSION P-42 WITH TWIN FIN AND RUDDER, AND RETRACTABLE VENTRAL GONDOLA.

PZL P-46 "SUM", OF WHICH TWO PROTOTYPES WERE BUILT WITH ENGINES PZL-PEGASUS XX 925 HP AND GNOME & RHÔNE 14 NO21 980 HP. IT NEVER CAME TO THE SERIAL PRODUCTION OF THIS AIRCRAFT BECAUSE OF THE WAR.

COLOUR SCHEME

ENTIRE AIRCRAFT, – OLIVE GREEN.
LOWER SURFACES OF WINGS, TAILPLANE VENTRAL GONDOLA, – LIGHT BLUE GREY.
COLLECTOR RING, PROPELLER AND TYRES – BLACK.

DRAWN BY F. PAWLOWICZ, Melbourne

2946