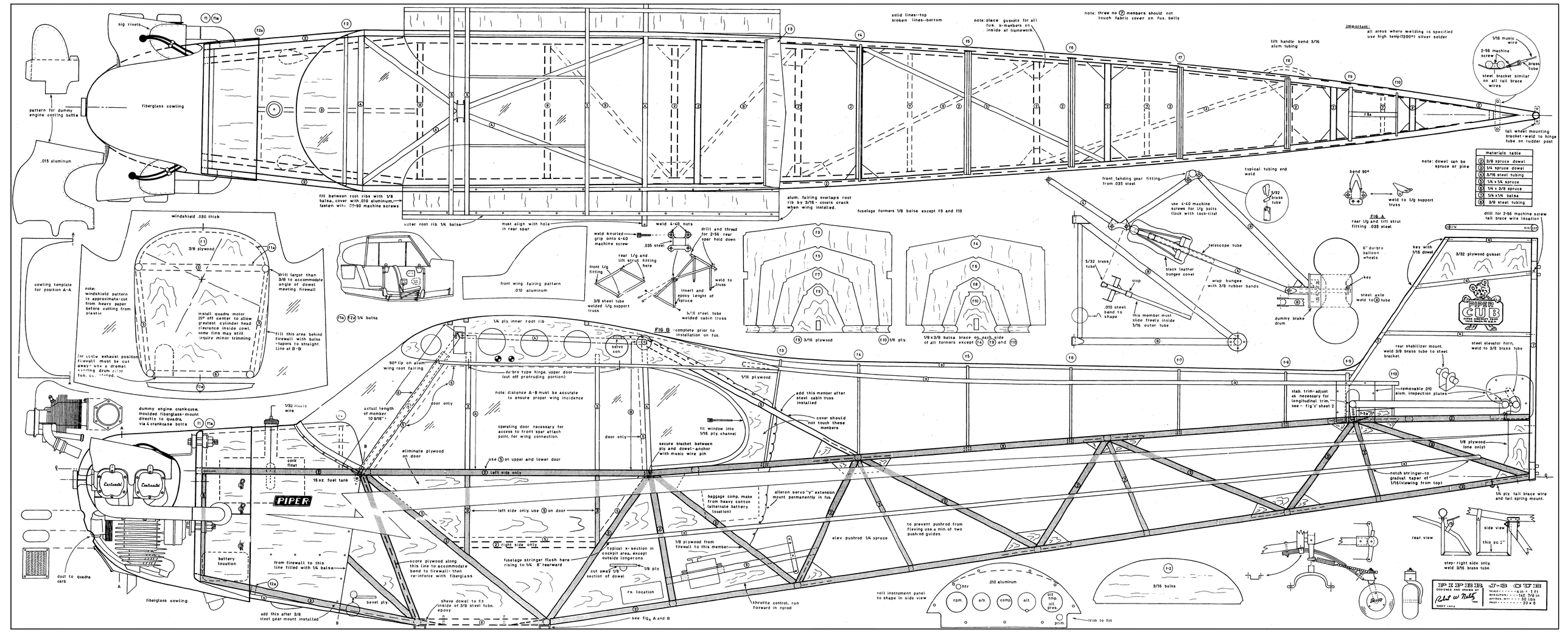

sig rivets
f1 f1a
f2a
f2
f3
f4
f5
f6
f7
f8
f9
f10
f9a
pattern for dummy engine cooling baffle
fiberglass cowling
.015 aluminum
solid lines--top
broken lines--bottom
note: place gussets for all fus. x-members on inside of framework
note: three no (7) members should not touch fabric cover on fus. belly
important:
all areas where welding is specified use high temp(1200°) silver solder
lift handle bend 3/16 alum. tubing
1/16 music wire
2-56 machine screw
brass tube
steel bracket similar on all tail brace wires
tail wheel mounting bracket--weld to hinge tube on rudder post
fill between root ribs with 1/8 balsa, cover with .010 aluminum, fasten with #6-90 machine screws
outer root rib 1/4 balsa
must align with hole in rear spar
alum. fairing overlaps root rib by 3/16 - covers crack when wing installed.
fuselage formers 1/8 balsa except f9 and f10
note: dowel can be spruce or pine
materials table
(2) 3/8 spruce dowel
(3) 1/4 spruce dowel
(4) 5/16 steel tubing
(5) 1/4 x 1/4 spruce
(6) 1/4 x 3/8 spruce
(7) 1/4 x 1/4 balsa
(8) 3/8 steel tubing
front landing gear fitting from .035 steel
typical tubing end weld
5/32 brass tube
use 4-40 machine screws for l/g bolts (lock with lock-tite)
bend 90°
weld to l/g support truss
FIG A
rear l/g and lift strut fitting .035 steel
drill for 2-56 machine screw tail brace wire location
windshield .030 thick
f1
3/8 plywood
f1a
drill larger than 3/8 to accommodate angle of dowel meeting firewall
cowling template for position A-A
note: windshield pattern is approximate-cut from heavy paper before cutting from plastic
install quadra motor 25° off center to allow greatest cylinder head clearance inside cowl, some fins may still require minor trimming
fill this area behind firewall with balsa -tapers to straight line at B-B
for low exhaust position firewall must be cut away- use a dremel sanding drum after fus. structure
f2a
1/4 balsa
front wing fairing pattern .010 aluminum
weld knurled grip onto 4-40 machine screw
.035 steel
drill and thread for 2-56 rear spar hold down
rear l/g and lift strut fitting here
front l/g fitting
weld to truss
insert and epoxy lenght of spruce
3/8 steel tube welded l/g support truss
5/16 steel tube welded cabin truss
f9
3/16 plywood
f10
3/8 ply.
1/8 x 3/8 balsa brace on each side of all formers except (f4) (f9) and (f10)
use 4-40 machine screws for l/g bolts (lock with lock-tite)
telescope tube
black leather bungee cover
wrap bungee with 3/8 rubber bands
5/32 brass tube
stop
.010 steel bent to shape
this member must slide freely inside 5/16 outer tube
6" dur-bro balloon wheels
key
steel axle weld to (8) tube
dummy brake drum
key with 1/16 dowel
3/32 plywood gusset
1/4 ply. inner root rib
servo con.
FIG B
-complete prior to installation on fus.
90° lip on alum wing root fairing
dur-bro type hinge, upper door (cut off protruding portion)
note: distance A-B must be accurate to ensure proper wing incidence
1/16 plywood
add this member after steel cabin truss installed
cover should not touch these members
rear stabilizer mount, weld 3/8 brass tube to steel bracket.
steel elevator horn, weld to 3/8 brass tube
dummy engine crankcase, moulded fiberglass-mount directly to quadra, via 4 crankcase bolts
1/32 music wire
actual length of member 10 9/16"
door only
operating door necessary for access to front spar attach point, for wing connection.
fit window into 1/16 ply. channel
secure bracket between ply and dowel-anchor with music wire pin
stab. trim-adjust as necessary for longitudinal trim, see - fig'c' sheet 2
removable .010 alum. inspection plates
eliminate plywood on door
use (5) on upper and lower door
(2) left side only
cork float
15 oz. fuel tank
1/8 plywood (one only)
notch stringer-to gradual taper of 1/16 (viewing from top)
1/4 ply. tail brace wire and tail spring mount.
baggage comp. make from heavy cotton (alternate battery location)
aileron servo "y" extension mount permanently in fus.
left side only, use (5) on door
(2) right side only
typical x-section in cockpit area, except outside longerons
1/8 plywood from firewall to this member
to prevent pushrod from flexing use a min. of two pushrod guides.
elev pushrod 1/4 spruce
battery location
from firewall to this line filled with 1/4 balsa
score plywood along this line to accommodate bend to firewall- then re-inforce with fiberglass
fuselage stringer flush here rising to 1/4 " rearward
cut away 1/8 section of dowel
1/8 ply
rx. location
throttle control, run forward in pyrod
dust to quadra carb.
fiberglass cowling
bevel ply.
shave dowel to fit inside of 3/8 steel tube, epoxy
add this after 3/8 steel gear mount installed
see figs A and B
roll instrument panel to shape in side view
.010 aluminum
htr
rpm
a/s
comp
alt
oil tmp.
oil pres
prim
trim to fit
f-2
3/16 balsa
rear view
side view
this pc. 2"
step- right side only, weld 3/16 brass tube.
PIPER J-3 CUB
DESIGNED AND DRAWN BY
Robt W Nitz
SHEET 1 OF 2
SCALE - - - - - - 4 in = 1 ft
WING SPAN - - - 145 7/8 in
APPROX. WT - - - 30 lbs
PROP - - - - - - - 20 x 8