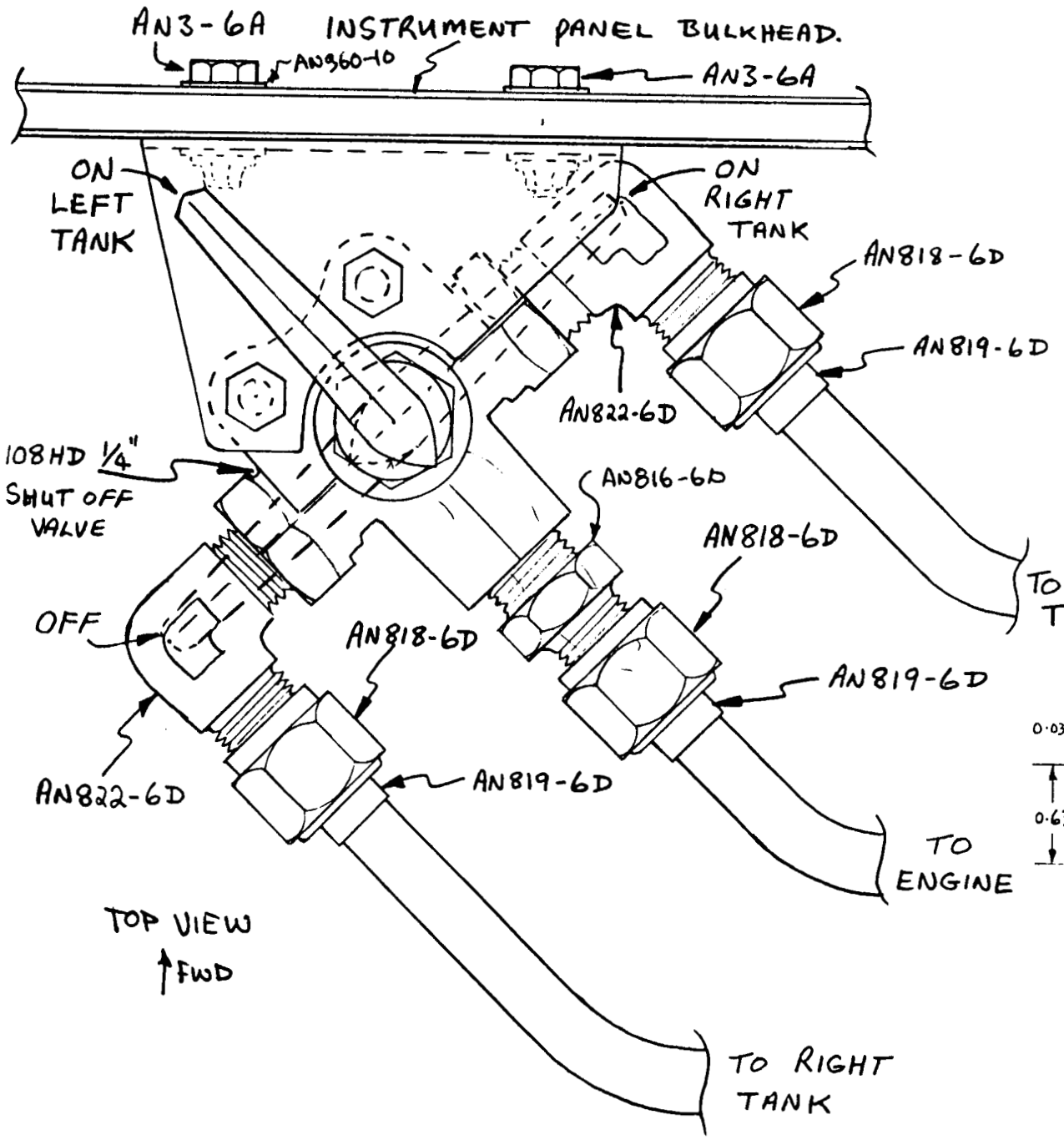
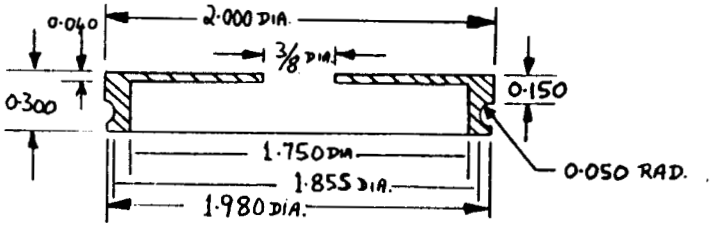
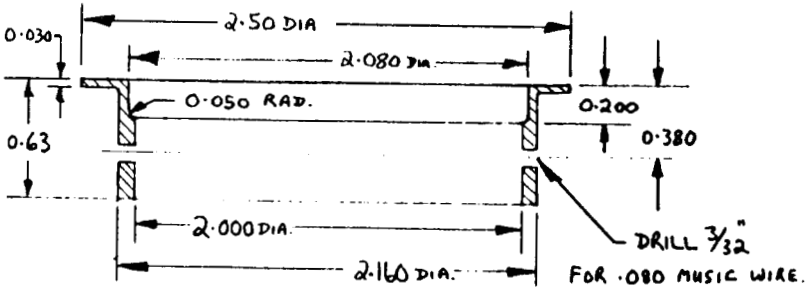




FUEL CAP. PART # T8-1

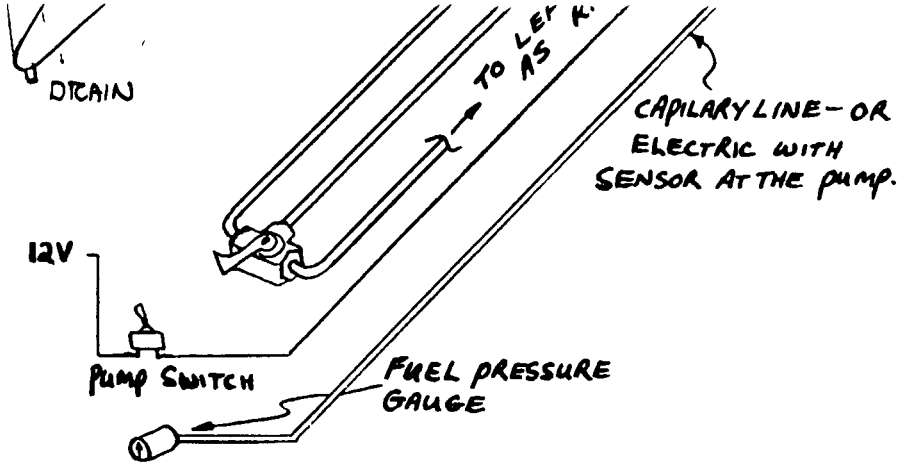
MATERIAL :— 6061-T6 ALUM.

NOTE - ORIENT FUEL CAP SCREW SLOT FORE-AFT — THIS IS CHECKED ON PILOT'S CHECKLIST TO ASSURE ITS' LOCKED.



FUEL CAP RECEPTICAL. PART # T8-3

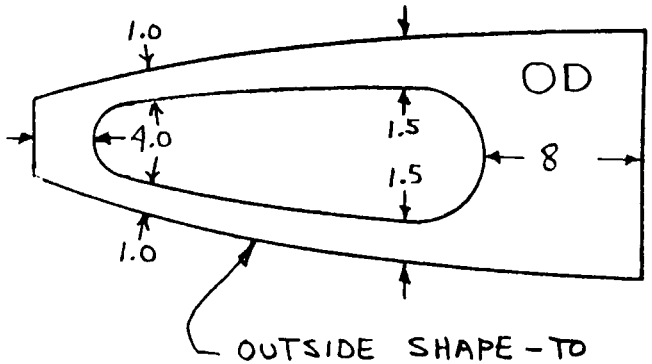
MATERIAL. — 6061-T6 ALUM.

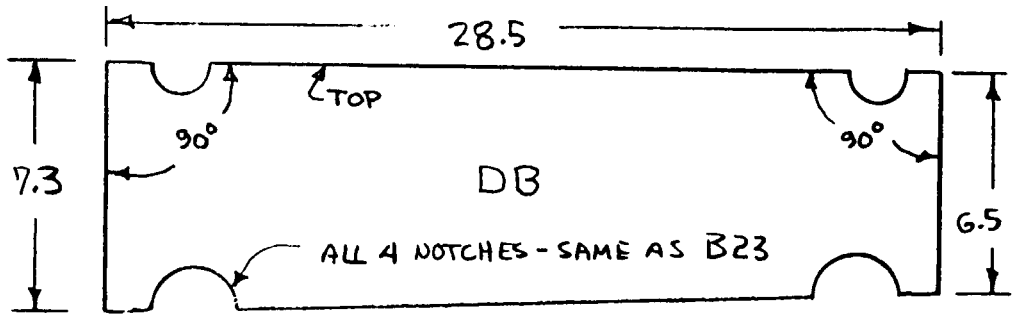


The accompanying sketch outlines the fuel system. It is a two-tank, selectable, pumped (not gravity) system with an engine-driven pump plus an electrical backup pump. This is similar to most low-wing light planes - Grummon, Piper and Beech.

The selection valve (left-right-off) is located on the lower front floor, just below the instrument panel. The gascolator and electric pump are mounted on the firewall. Each tank has a sump to provide continuous fuel flow during unusual attitudes, descents and nose-down parking with low fuel levels.

STEP I Mark and cut fuselage and make parts. Fabricate the parts shown below and the R23 and R45 ribs shown full size on page A14. These are all made from type 45 PV core (dark blue) foam. On the outboard skins layout the 22.4 and "A" dimension before cutting off the 32 x 4.9 diagonal. The T.E. bevel is to fit under and over the bevels on the centersection spar. You will need 6 32" x 48" sheets of type 45 PV core. Butt together with micro any necessary joints. Refer to the drawing showing fuselage dimensions. Left side is shown, right is similar. Layout the lines shown, inside and outside lines of the fuel tank skin (0.35" apart). Using a sabre saw or pin router, cut the large holes in the fuselage side. The aft edge of the forward hole is flush with the face of the front seat bulkhead. A 2 inch diameter drum sander with coarse drum on your drill motor is great for final shaping of these cutouts.





WING STRAKE PARTS — ALL TYPE 45 PV CORE BLUE FOAM 0.35" THICK.
R23 AND R45 — SEE Pg. A14
ALL CORNERS 90° ON TLE, BLE & B23.

ABOVE DRAWINGS NOT TO SCALE.

CHAPTER 21

WING STRAKES - BAGGAGE, FUEL TANKS, AND FUEL SYSTEM

Overview - This chapter is late in the construction so other things can be built without having to lean over the large wing strakes. The strakes provide several functions - (1) torsional stiffness and strength for centersection spar, (2) crew accessable map stowage and baggage areas, (3) two 25.5 gallon selectable fuel tanks with sumps, and aerodynamic lift.

In this chapter you will jig and build the baggage areas and fuel tanks out of glass and type 45R rigid PV core, install fuel sumps (to provide fuel in unusual attitudes including sideslips, nose-down parking, and steep descents), plumb fuel lines forward to a valve and back to the pumps and gascolater, and plumb vent lines. The complete fuel system shown supercedes information in Section IIA and IIC - do not use engine installation details from these sections for fuel system. The location of all components and plumbing is important to the correct operation of the fuel system. Do not modify. The instructions refer to only the right side - left is similar except where indicated. Start by studying the plan view drawing, and all section views to aquaint yourself with the strakes. Exact planform accuracy is not required. If in doubt just trim or shim to fit. Do use care to set the incidence by setting the 17.4 waterline correctly.