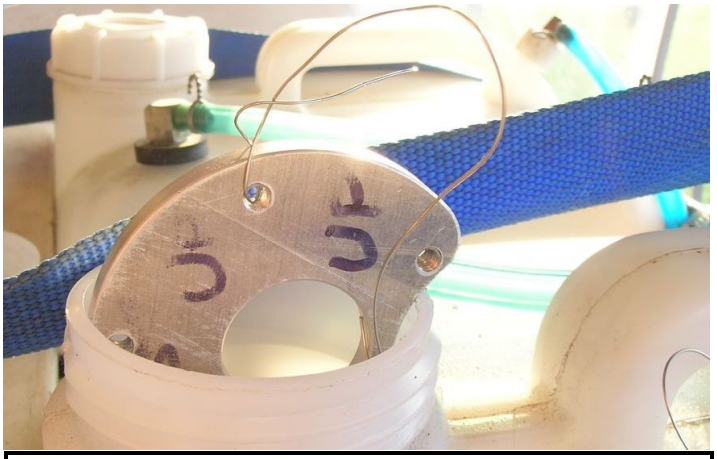
How to seal a fuel gauge sender on a plastic fuel tank

You can't just thread the mounting screws into the plastic, there's no holding strength at all. It needs a back up plate, riv nuts, something. I decided to make a back up plate. Trouble is the screw pattern is larger than the inside of the tank neck by a long shot.

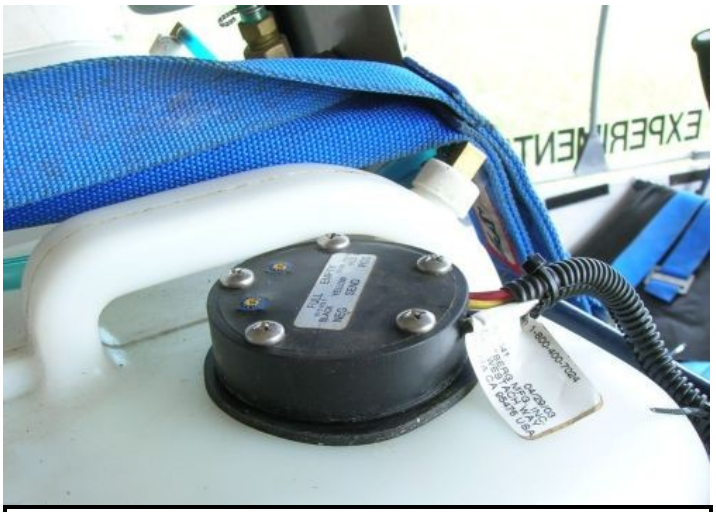
Hmmm. If I cut a divot out of the circle between the screw holes furthest apart and radiused the resulting corners within an inch of their lives it just might fit (and I utilized the hollowed out area under the tank's handle).



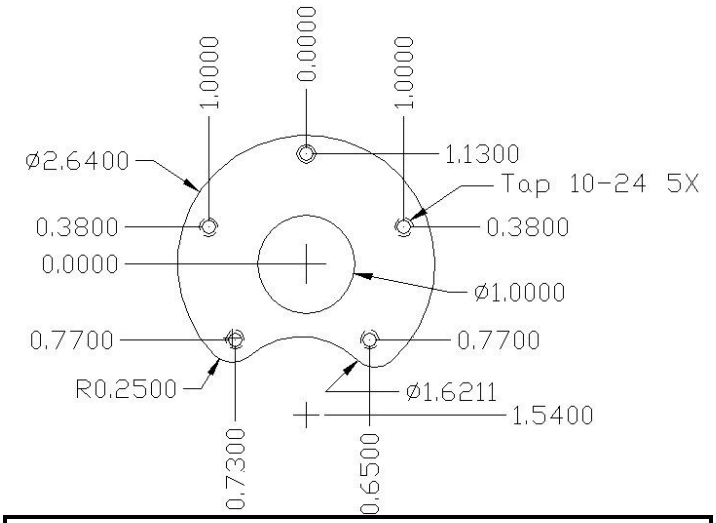
Back up plate with guide wires on its way into the tank

Once I have it actually in the tank I have to get it in position. I used .021 safety wire through two opposing screw holes, caught by a hook and pulled out the tank's neck and looped about the corresponding holes in the plate to control it once I slipped it into the tank. Get a screw into one threaded hole in the plate and pull it up snug with the top of the tank. Get a second very short screw into an adjacent hole and hold the plate snug with it. Remove the first screw and insert sender and sealing washer into the tank.

Just start a mounting screw through sender mount hole, sealing washer and into plate. Pull sender up against this screw head and remove short screw. Insert another mount screw opposite the first and get it started. Tighten these two to pull the plate up snug against the top again and insert the remaining three screws. Tighten the remaining screws until all are equally snug then finish tightening as you would a five lug wheel until sealing washer is compressed. Wire it up per specs and you're done.



All done and ready to take on fuel



Make from .25 6061-T6 aluminum