

to insert properly over the wire when the wire is folded over in its groove to take up the slack after the sample holder is assembled.

Shearing of the leads between the closure plug and terminal block was prevented by the short lengths of thick walled 3/16" tubing through which the electrical leads passed. The same shearing possibility exists between the closure plug and sample holder and is prevented by 3/8" lengths of ~ 10 mil wall stainless steel tubing which has been sawed twice or milled to leave a 1/8" wide lengthwise gap in the side of the tubing through which the electrical lead will pass (this gap is obviously oriented toward the outside wall of the sample holder). The leads pass through notches which are filed or sawed in the narrow area where the 1/4" drilled hole is adjacent to a milled groove. Care should be taken to remove all burrs or sharp edges from the short lengths of split tubing and from the notches or other access holes through which the electrical leads will pass. As an added precaution against electrical shorting or failure of the electrical connections by flexing, short lengths (~ 3/8") of ~ 3/16" O.D. teflon tubing which has been cut down the side can be inserted between the 1/8" sleeve over the stem and the 1/4" O.D. stainless steel tube. By correctly orienting the lead relative to its solder joint and wrapping the lead once around the sleeve before passing it through the slots in the teflon and stainless tubes the probability of failure due to flexing or pulling will be greatly reduced.

The completed sample holder does not extend to the bottom of the chamber in the pressure vessel. In the five sample holder of the prototype gauge, which was surrounded by a sleeve of brass shim stock, great