Federal Aviation Administration, DOT

§ 23.1337 Powerplant instruments installation.

(a) Instruments and instrument lines.
(1) Each powerplant and auxiliary power unit instrument line must meet the requirements of §23.993.
(2) Each line carrying flammable fluids under pressure must—
   (i) Have restricting orifices or other safety devices at the source of pressure to prevent the escape of excessive fluid if the line fails; and
   (ii) Be installed and located so that the escape of fluids would not create a hazard.
(3) Each powerplant and auxiliary power unit instrument that utilizes flammable fluids must be installed and located so that the escape of fluid would not create a hazard.

(b) Fuel quantity indication. There must be a means to indicate to the flightcrew members the quantity of usable fuel in each tank during flight. An indicator calibrated in appropriate units and clearly marked to indicate those units must be used. In addition:
(1) Each fuel quantity indicator must be calibrated to read “zero” during level flight when the quantity of fuel remaining in the tank is equal to the unusable fuel supply determined under §23.959(a);
(2) Each exposed sight gauge used as a fuel quantity indicator must be protected against damage;
(3) Each sight gauge that forms a trap in which water can collect and freeze must have means to allow drainage on the ground;
(4) There must be a means to indicate the amount of usable fuel in each tank when the airplane is on the ground (such as by a stick gauge);
(5) Tanks with interconnected outlets and airspaces may be considered as one tank and need not have separate indicators; and
(6) No fuel quantity indicator is required for an auxiliary tank that is used only to transfer fuel to other tanks if the relative size of the tank,