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NOMENCLATURE

- A cross-sectional area of bore of knock-off tube, in²
- E₁ fractional error of true pressure pulse on piezo-electric gage
- \bar{F} body forces per unit mass acting on fluid element, lb/slug
- K_p index of fluid compressibility, in²/lb
- L length of bore, in
- m slope of viscosity-pressure curve, sec
- P transient fluid pressure in compression chamber, psia
- P_a atmospheric pressure, psia
- P_g maximum hydrostatic pressure in pressure chamber prior to release, psig
- Q volume rate of fluid flow through bore of pressure pot, in³/sec
- R₀ radius of bore, in
- r, θ , z radial, circumferential, and longitudinal coordinates, respectively, of cylindrical coordinate system in which longitudinal coordinate is directed along axis of bore through pressure pot, in, rad, in
- t time, msec, sec
- T_R pressure-release time, msec, sec
- u, v, w radial, circumferential, and longitudinal velocities, respectively, of fluid within bore of pressure pot, in/sec
- ∇ operator del
- V₀ volume of pressurized fluid that must escape compression chamber, via the bore, to reduce pressure in compression chamber from P_g to atmospheric, in³