

$N$  = solenoid turns/cm or number of turns in pickup coil

$\vec{A}$  = magnetic vector potential

$D$  = shock or longitudinal velocity or demagnetizing factor

$V$  = specific volume or oscilloscope voltage

$Z$  = mechanical impedance =  $\rho_0 D$  or transmission line impedance

$P$  = longitudinal stress

$u$  = particle velocity

$E$  = energy

$S$  = entropy

$\Gamma$  = Grüneisen constant

$P_H^0(V)$  = initial Hugoniot

$\eta$  =  $1 - V/V_0$

$P', V', E', \eta'$  = thermodynamic state on initial Hugoniot

$\mathcal{E}(t)$  = emf developed across pickup coils

$b$  = width of pickup coil

$\Phi$  = magnetic flux

$\delta M$  = shock induced change in magnetization

$\mathcal{E}'$  = shock induced emf across solenoid

$\mathcal{E}''$  = emf due to magnetic velocity gauge effect

$\mathcal{E}_{\max}, \mathcal{E}_{\min}$  = defined by maximum and minimum in demagnetization profile