SIMPLE DYNAMIC PRESSURE IMPULSE GAUGES

R V Needham. AWE, Aldermaston.

This paper describes the design and use of simple gauges to measure the impulse delivered by the dynamic pressure within a blast wave. A simple cheap gauge is required so that many may be fielded for each shot. The blast is generated by 250 kg of COMP-B high explosive detonated about 7 m above the ground at AWE Foulness. The ranges of interest from GZ are 10 to 35m, giving impulses to be measured from about 1000 down to 70 Pa.s, which requires several gauges with different strengths.