

Abstract Submitted
for the SHOCK13 Meeting of
The American Physical Society

The use of lateral gauges in the assessment of shear strength in a carbon fibre composite DAVID WOOD, GARETH APPLEBY-THOMAS, MICHAEL GOFF, Cranfield University, NICHOLAS BARNES, AWE, PAUL HAZELL, The University of New South Wales, JAMES WILGEROTH, Imperial College London — Laterally orientated manganin stress gauges have been used in obtaining the strength measurements in multiple materials, most commonly polymers and metals. Composites such as carbon fibre provide an interesting challenge for lateral gauges as any long range order within the composite will be broken up by the inclusion of the gauge. This study has investigated the shear strength of multiple orientation of a carbon fibre composite (TWCP) also compared with the matrix material of the composite investigated alone. From this data it can be ascertained whether the lateral gauge technique of measuring lateral strength is appropriate for composites with long range order.

David Wood
Cranfield University

Date submitted: 21 Feb 2013

Electronic form version 1.4