

The Second and Following Pages

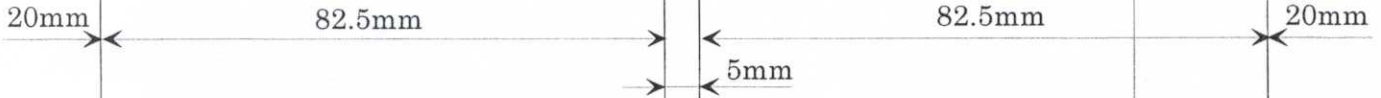
28mm

-----Acoustic emission, AE, signals were monitored during the tests to identify the onset of crack propagation near the notch tip.

3. EXPERIMENTAL RESULTS

3.1 Compact tension tests

A typical load vs. crack-opening displacement curve during a compact tension test is shown in Fig.2. The R curves obtained by use of Eqn.(1) and (2) are shown in Fig.3. The onset of crack extension was estimated at the beginning of the non-linearity in the P-COD curves as shown in the Fig.2.



232mm

----- a high amplitude while damage should have a stabilized one.

3.2 Point stress criterion

For stress distribution near the notch tip, the region with higher stress than static strength -----

- [1] Van Vroonheven, J.C.W. On Path Independent Integrals for Dynamic Fracture, Reliability and Structural Integrity of Advanced Materials, Proc. of 9th Euro. Conf. on Fracture (ECF 9), Bulgaria, (1992), p885
- [2] Nishioka, T., On the Dynamic J Integral in Dynamic Fracture Mechanics, Memorial Book for the Centenary of the Birth of A.A. Griffith, Cherepanov, G.P. Editor, (1994) (in Press)
- [3] Moin, P., Reynolds, W. C. and Ferziger, J. H., "Large Eddy Simulation of Incompressible Turbulent Channel Flow," Report TF-12, Dept. of Mech. Engrg., Stanford Univ., 1978.

37mm