A GENERAL INTRODUCTION TO FRACTURE MECHANICS

A Journal of Strain Analysis Monograph

M

Technische Hochschule Darmstau Fachbereich Mechanik Bibliothek

Inv.-Nr. BM 252/78





MECHANICAL ENGINEERING PUBLICATIONS LIMITED LONDON

Contents

		PAGE
General notation		vii
Foreword		viii
1.	Origins of the energy balance approach to fracture D. J. Hayes	1
2.	Origins of the stress intensity factor approach to fracture D. J. Hayes	9
3.	The fracture toughness of metals J. F. Knott	17
4.	Yielding fracture mechanics C. E. Turner	32
5.	Evaluation of stress intensity factors D. J. Cartwright and D. P. Rooke	54
6.	Experimental methods for fracture toughness measurement A. H. Priest	74
7.	Application of fracture mechanics to the brittle fracture of structural steels	02
8.	R. R. Barr and P. Terry Analysis and application of fatigue crack growth data L. P. Pook	93 114
9.	Environmental effects in crack growth R. N. Parkins	136
10.	Fracture mechanics: a summary of its aims and methods	153
General Reference Section		156
Index		177
Duk	lished by Machanical Engineering Publications I td. London as	nd Naw

Published by Mechanical Engineering Publications Ltd., London and New York for the Institution of Mechanical Engineers (Tel: 01-839 1211) on behalf of The Joint British Committee for Stress Analysis.

Editorial Office: P.O. Box 24, Northgate Avenue, Bury St Edmunds, Suffolk IP32 6BW. Tel: 0284 63277.