STRESS INTENSITY FACTOR ANALYSIS AT BARST SEMI ELLIPSE WITH VARIATION INSTRUCK CRACK (a) AT THICK AND (c) WIDE OF SPECIMENT USING METHOD OF ELEMENT TILL

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Abstract

A material will experience of an fatigue which can be defined by as its breaking is material after experiencing of recurring encumbering in number the cycle. In general a material experience of broken the fatigue covering three step that is early the happening of barst, fracture mechanic and broken static. One of parameter for barst analysis crack which can be analytically with analyzing factor of intensity of tension by using method element till.

In this case used by analysis of appearance which have been determined to stress intensity factor at barst surface in form of elliptical half. Appearance tridimensional semi shares because symmetrical of geometry and burden. To know influence of stress intensity, hence specimen to influence of cart differentiated by there spesiment that is T-1, T-7, T-14 modeled with variation of early crack a=c, a<c, and a>c

This final duty executed compared toly result of validasi got with analysis modeled use element method till pursuant to experiment result by Siyi Chen and Zhenyuan
Cui. In stress intensity factor spesiment aluminium type LY12R. Prosentase error which got from result validasi which is in analysis modeled come near with experiment where big result error there are at spesiment T-7 equal to 12.08%.

Keyword: factor of tension intensity, method of element till