

عنوان مقاله:

A Study of Time-of-Flight Diffraction Technique Using Photoelastic Visualisation

محل انتشار:

دومین کنفرانس بین المللی بازرسی فنی و آزمون غیرمخرب (سال: 1387)

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خلاصه مقاله:

Time-of-Flight Diffraction (ToFD) technique has been part of nondestructive testing (NDT) for over 30 years and provides a useful role in flaw detection and flaw sizing. This paper reviews the principles of ToFD and presents a photoelastic technique for visualization of the waves generated during a ToFD measurement. A sample made of optically fused glass with an embedded target is used in the experiments. The results show the waves which are diffracted from the upper and lower tip of the target as well as the lateral and backwall waves. These results also provide a better understanding of the diffraction phenomenon that takes place during a ToFD measurement.

کلمات کلیدی:

,Nondestructive Testing, Flaw Detection, Time-of-Flight Diffraction (ToFD), Photoelastic Visualization

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