



## Prediction and Verification of Ductile Crack Growth from Simulated Defects in Strength Overmatched Butt Welds

By National Aeronautics and Space Administration (NASA)

Biblioscholar Mrz 2013, 2013. Taschenbuch. Book Condition: Neu. 246x189x10 mm. This item is printed on demand - Print on Demand Neuware - Defects that develop in welds during the fabrication process are frequently manifested as embedded flaws from lack of fusion or lack of penetration. Fracture analyses of welded structures must be able to assess the effect of such defects on the structural integrity of weldments; however, the transferability of R-curves measured in laboratory specimens to defective structural welds has not been fully examined. In the current study, the fracture behavior of an overmatched butt weld containing a simulated buried, lack-of-penetration defect is studied. A specimen designed to simulate pressure vessel butt welds is considered; namely, a center crack panel specimen, of 1.25 inch by 1.25 inch cross section, loaded in tension. The stress-relieved double-V weld has a yield strength 50% higher than that of the plate material, and displays upper shelf fracture behavior at room temperature. Specimens are precracked, loaded monotonically while load-CMOD measurements are made, then stopped and heat tinted to mark the extent of ductile crack growth. These measurements are compared to predictions made using finite element analysis of the specimens using the fracture mechanics code Warp3D,...



**READ ONLINE**  
[ 3.53 MB ]

### Reviews

*These types of publication is the greatest publication available. It really is filled with knowledge and wisdom Once you begin to read the book, it is extremely difficult to leave it before concluding.*

-- **Prof. Lenna Beatty III**

*A must buy book if you need to adding benefit. I am quite late in start reading this one, but better then never. You may like just how the article writer compose this ebook.*

-- **Prof. Elliott Dickinson**

## You May Also Like



### Children s Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. [Us English]

Createspace, United States, 2013. Paperback. Book Condition: New. 254 x 178 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to expand and inspire young minds; this is...



### Children s Educational Book Junior Leonardo Da Vinci : An Introduction to the Art, Science and Inventions of This Great Genius Age 7 8 9 10 Year-Olds. [British English]

Createspace, United States, 2013. Paperback. Book Condition: New. 248 x 170 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to expand and inspire young minds; this is...



### The Pauper & the Banker/Be Good to Your Enemies

Discovery Publishing Pvt.Ltd. Paperback. Book Condition: new. BRAND NEW, The Pauper & the Banker/Be Good to Your Enemies, Discovery Kidz, This book is part of the Aesops Fables (Fun with 2 Stories) Series, titles in this series include: The Ant & The...



### Welcome to Bordertown: New Stories and Poems of the Borderlands

BRILLIANCE AUDIO, United States, 2015. CD-Audio. Book Condition: New. Unabridged. 170 x 135 mm. Language: English . Brand New. Audie Award Finalist: Best Short Story Collection Bordertown: a city on the Border between the human world and the elfin realm. A place...



### The Pursued: Is That Drum Beats? Lamar Stein Heard Beats Warning of an Evil Set Loose on Piedmont! This Is the Root Hard or Die Story of the Life and Times of My Father and Mother. My Sister and Me, Bystanders on Appalachian Mountains Hillsides. (Paperbac

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Euphoria broke out in the hitching alley by the time my father reached Main Street s boardwalk. Farmer s wives...



### The Poems and Prose of Ernest Dowson

Book Jungle. Paperback. Book Condition: New. Paperback. 200 pages. Dimensions: 9.2in. x 7.5in. x 0.5in.The Poems and Prose of Ernest Dowson The Project Gutenberg EBook of The Poems And Prose Of Ernest Dowson by Ernest Dowson et al Copyright laws are changing...