Crack Behaviour At Residual Stress Field Of Fillet Welds In Ship Structures



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Motivation

- 1. Limited literature on the residual stress re-distribution at the toe of a fillet weld under cyclic load.
- 2. The conservative assumption during the structure integrity assessment can lead to over-conservative fatigue life predictions.
- **3. Fatigue cracks can initiate at a weld toe** due to the stress concentration effect. Cracks may grow and reach critical size and lead to failures.







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