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Behavioral Study Circumferential and Longitudinal Cracks in a Steel Pipeline X65 and Repair Patch

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Abstract : The mechanical behavior of cracks from several manufacturing defect in an oil pipeline, is characterized by the fact that defects'm taking several forms: circumferential, longitudinal and inclined crack that evolve over time. Increased lifetime of the constructions and in particular cylindrical tubes under internal pressure requires knowledge improving these defects during loading. From this study we simulated various forms of cracking and also their pipeline repair patch.

Keywords : stress intensity factor, pressure, Young's modulus, Poisson's ratio, Shear modulus, Longueur du pipeline, the angle of crack, crack length
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