

Paper title: Effects of UOE Manufacturing Process on Pressurized Bending Response of Offshore Pipes

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Abstract: Thick-walled steel pipes manufactured through the UOE process are used in deep-water pipeline applications for the safe and cost-effective transmission of hydrocarbon energy resources. Such pipes are subjected to bending loads in the presence of high external pressure during their installation stage. The combination of bending and external pressure often triggers the development of structural instability due to excessive ovalization of the pipe with catastrophic effects. In the present study, the effect of UOE line pipe manufacturing process on the bending response of externally-pressurized thick-walled pipes is examined, using finite element simulation tools.

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