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The influence of boss welding on ERW line pipe

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ABSTRACT

Station and valve chamber is an essential part of oil and gas storage and transportation. In order to meet installation needs of valves flanges and other instruments. Station and valve chamber design often encounter the situation of drilling hole at the main pipeline and welding boss-backing to connect the branch pipe. Boss hole location should generally be at least 100 mm away from the longitudinal weld or spiral weld. However, because the electric resistance weld is difficult to distinguish in practice, some bosses mounting position coincide with electric resistance weld or close to. In this paper, the effects of the boss welding thermal cycles on ERW pipe body and weld are studied by welding thermal simulation. The tensile and impact properties of pipe body and weld after welding thermal simulation were measured.

KEYWORDS: boss welding, ERW line pipe, thermal simulation, tensile property, impact property