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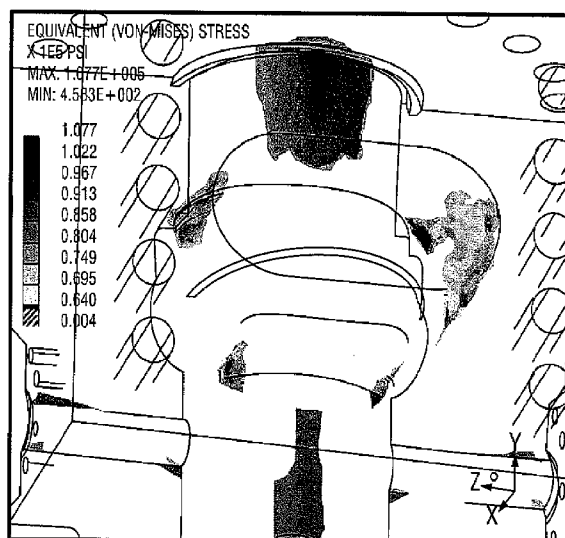
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(54) Title: REINFORCEMENT OF IRREGULAR PRESSURE VESSELS



(57) Abstract: A method of manufacturing a ram blowout preventer including analyzing a first model of a ram blowout preventer, identifying regions of high stress concentrations in the first model at a selected loading condition, constructing the ram blowout preventer, and selectively reinforcing the regions of high stress concentration corresponding to the manufactured ram blowout preventer. Other embodiments include a method to reinforce an irregular pressure vessel, including analyzing the irregular pressure vessel, identifying regions of high stress concentration in the irregular pressure vessel, and selectively reinforcing the regions of high stress concentration. Other embodiments include a ram blowout preventer having a body, a vertical bore through the body, a horizontal bore through the body intersecting the vertical bore, two ram assemblies disposed on opposite sides of the body, wherein the ram assemblies are adapted for controlled lateral movement to and from the vertical bore, and wherein a portion of the body is selectively reinforced.

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