Numerical Simulation and Experimental Investigation for Shock Initiation of Bulkhead Initiator

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Abstract: The numerical simulation was employed to the design of a mone reliable bulkhead initiator. The explosion transimission was simulated using LS-DYNA code. The simulation results show that when the thickness of bulkhead is between 2.0 mm and 5.0 mm, the bulkhead will transmit shock wave well without being penetrated, and the bulkhead initiator can perform its normal function when the thickness of bulkhead is between 1.5 mm and 2.4 mm. The simulation result agrees with the test result.

Key words: mechanics of explosion shock initiation; bulkhead initiator; numerical simulation; LS-DYNA

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中国化学会第十五届全国化学热力学和热分析学术会议定于2010年8月21－24日在西安召开。本届会议由中国化学会化学热力学和热分析专业委员会主办,西北大学和陕西省化学会承办。本次会议将邀请国内从事化学热力学和热分析研究的著名科学家、中青年学者和仪器生产厂商参加学术交流和技术探讨。欢迎从事化学热力学和热分析的科技工作者踊跃投稿,积极参加。

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