



ANALYSIS OF CONSTRUCTION AND THE CONNECTION OF THE TABLE BETWEEN VIS-À-VIS SEATS

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Abstract – *The purpose of this research is to analyze and define requirements for the design of tables located between facing seats in passenger railcars. Tables between vis-à-vis seats are identified as a safety concern during passenger rail accidents because of the risk of serious thoracic and abdominal injury when passengers impact a table during an accident. Also, tables positioned between facing rows of passenger seats can serve to compartmentalize occupants during a collision, which can limit secondary impact velocity and prevent tertiary impacts with other objects or passengers. This paper contains an analysis of existing tables between vis-à-vis seats, including table geometry, table design, materials, flammability, table edge impact response, table attachment methods, crashworthiness testing, and fulfilling these requirements should result in reduced injuries and fatalities due to table impacts during passenger rail collisions. The main goal of this paper was to determine all the parameters directed to the design of this type of table and the way of its installation chosen, with reference to the existing ways of potential improvement and consideration of the standards, regulations, and rules must be applied.*

Keywords – *Tables, Vis-à-vis seats, Crashworthiness, Occupant injury.*

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