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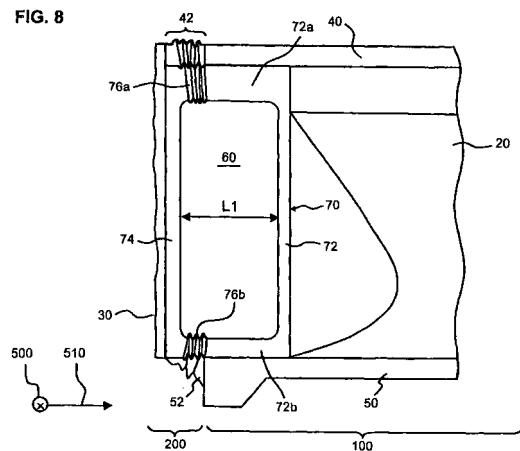
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## (54) Railway vehicle having shock absorbing structures

(57) The invention provides a shock absorbing structure of a railway vehicle capable of ensuring a doorway (escape port) region while absorbing collision energy during collision. The impact caused when a railway vehicle experiences collision is transmitted via an end structure (30) constituting the railway vehicle, a roof structure end section (42), an underframe end section (52) and a second doorway frame (74) to an upper third doorway frame (76a) and a lower third doorway frame (76b). When the impact exceeds a predetermined level, the roof structure end section (42), the underframe end section (52), the upper doorway frame (76a) and the lower doorway frame (76b) disposed in the crushable region (200) are crushed and plastically deformed in the longitudinal direction of the railway vehicle (1), absorbing the shock during the process. A width (L1) of the doorway section (60) after absorbing shock becomes smaller than a width (L0) of the doorway section (60) prior to absorbing shock, but the first doorway frame (72, 72a, 72b), the roof structure (40) and the underframe (50) disposed in the survival region (100) are not crushed, so that the doorway width (L1) can be ensured as an escape port.

FIG. 8





## EUROPEAN SEARCH REPORT

Application Number  
EP 10 25 1349

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The present search report has been drawn up for all claims			
1	Place of search Munich	Date of completion of the search 8 August 2012	Examiner Awad, Philippe
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT  
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