

Title (en)

Railway vehicle with energy absorbing structure

Title (de)

Schienenfahrzeug mit einer energieabsorbierenden Struktur

Title (fr)

Véhicule ferroviaire avec structure absorbeuse d'énergie

Publication

EP 1897775 B1 20120704 (EN)

Application

EP 07250099 A 20070111

Priority

JP 2006243544 A 20060908

Abstract (en)

[origin: EP1897775A1] The invention provides a car body of a railway vehicle capable of absorbing the energy caused when collision occurs to the end of the car body. The present invention comprises a strength member 15 disposed along the circumferential direction of the car body on the end of the car body, a strength member 16 disposed along the circumferential direction at a position rearward from the member 15, rib members 17 disposed along the longitudinal direction of the car body and connecting the two strength members, and an outer panel 18 covering the same. The longitudinal direction of the rib member 17 corresponds to the longitudinal direction of the car body. The rib member 17 is composed of two flanges 17c, 17d and a web 17b connecting the two flanges, and the side having the web 17b is welded to the outer panel 18 via fillet welding. A notch 21 opened to the edge of the flange is formed on the flange at the center of the longitudinal direction of the rib member 17. When collision load is applied, the notch 21 is valley-folded, by which the rib member is bent toward the direction opposite from the side to which the outer panel 18 is attached, so that the collision load can be absorbed sufficiently since the outer panel 18 will not interfere with the buckling of the rib member 17.

IPC 8 full level

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CPC (source: EP KR US)

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Cited by

GB2515422B; EP2774823A4; CN108657211A; DE112013002238B4; US9434392B2; EP3670286A1; DE102018132455A1

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DOCDB simple family (publication)

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