

Title (en)

DEFORMABLE TUBE, COUPLER CUSHIONING ENERGY-ABSORPTION DEVICE FOR RAIL TRANSIT VEHICLE, AND RAIL VEHICLE

Title (de)

VERFORMBARER SCHLAUCH, KOPPLERDÄMPFUNGSENERGIEABSORPTIONSVORRICHTUNG FÜR EIN SCHIENENTRANSITFAHRZEUG UND SCHIENENFAHRZEUG

Title (fr)

TUBE DÉFORMABLE, DISPOSITIF D'ABSORPTION D'ÉNERGIE D'AMORTISSEMENT DE COUPLEUR POUR VÉHICULE DE TRANSIT FERROVIAIRE, ET VÉHICULE FERROVIAIRE

Publication

EP 4190668 A1 20230607 (EN)

Application

EP 21855323 A 20210716

Priority

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- CN 2021106766 W 20210716

Abstract (en)

The present application relates to a deformable tube comprising two or more thin-walled tubes that are nested, the thin-walled tubes being carbon fiber tubes or metal tubes, materials of two adjacent thin-walled tubes being different, and the thin-walled tubes indicating that the wall thickness of the tubes is 20 mm or less. Also provided is a coupler cushioning energy-absorption device for rail transit vehicles, comprising a traction rod (1) used for connecting to a coupler head (7), and a bearing plate (5) used for connecting to a coupler tail base (8). The bearing plate (5) and the traction rod (1) are connected by a guide rod (10); the end of the traction rod (1) facing the coupler tail base (8) is provided with an expansion block (2); a deformable tube is sleeved outside the guide rod (10); one end of the deformable tube abuts against one end surface of the bearing plate (5), and a bevel ring that abuts against the expansion block (2) is formed on the other end of the deformable tube, such that the deformable tube swells radially when the expansion block (2) presses the deformable tube; the end of the guide rod (10) close to the bearing plate (5) is provided with a support stage (11); and the outer peripheral surface of the support stage (11) is attached to the inner wall surface of the deformable tube. Further provided is a rail vehicle.

IPC 8 full level

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CPC (source: CN EP)

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Citation (search report)

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