

Title (en)

SYSTEM, METHOD AND SUPPORT ELEMENT FOR ACTIVELY DAMPING ACOUSTIC VIBRATIONS OF A RAIL FOR RAIL TRAFFIC

Title (de)

SYSTEM, VERFAHREN UND TRAGELEMENT ZUR AKTIVEN DÄMPFUNG AKUSTISCHER SCHWINGUNGEN EINER SCHIENE FÜR DEN SCHIENENVERKEHR

Title (fr)

SYSTÈME, PROCÉDÉ ET ÉLÉMENT DE SUPPORT POUR L'AMORTISSEMENT ACTIF DES VIBRATIONS ACOUSTIQUES D'UN RAIL POUR LE TRAFIC FERROVIAIRE

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Application

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Abstract (en)

[origin: WO2021073963A1] The invention relates to a system (100) for actively damping acoustic vibrations of a rail (310) for rail traffic, comprising at least one sensor (110) at least for detecting an acoustic vertical vibration of the rail (310), at least one actuator (120) at least for exciting a vertical counter vibration of the rail (310), and at least one control unit (130), which is in communicative connection with the at least one sensor (110) and the at least one actuator (120), for controlling the at least one actuator (120) depending on the vibration detected by the sensor (110), the counter vibration being designed to interfere destructively with the detected vibration, and the at least one actuator (120) being coupled mechanically to the rail (310) and to a support element (200) supporting the rail (310). The invention also relates to a support element (200) for the system (100) and to a method for actively damping acoustic vibrations of a rail (310) for the rail traffic.

IPC 8 full level

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