

Title (en)

PRECAST SLAB RAILWAY TRACK STRUCTURAL SYSTEM FOR VIBRATION MITIGATION AND ASSOCIATED CONSTRUCTION METHOD

Title (de)

FERTIGTEILPLATTENGLEISBAUSYSTEM ZUR SCHWINGUNGSVERMINDERUNG UND ZUGEHÖRIGES KONSTRUKTIONSVERFAHREN

Title (fr)

SYSTÈME STRUCTURAL DE VOIE FERRÉE À DALLES PRÉFABRIQUÉES POUR L'ATTÉNUATION DES VIBRATIONS ET PROCÉDÉ DE CONSTRUCTION ASSOCIÉ

Publication

EP 3404142 A4 20190925 (EN)

Application

EP 16884604 A 20160408

Priority

- CN 201610013534 A 20160111
- CN 2016078779 W 20160408

Abstract (en)

[origin: EP3404142A1] A precast slab railway track structural system for vibration mitigation. The system consists of a steel rail (7), a fastener (5), a precast slab (6), an elastic cushion (4), a sealing sleeve (3), a longitudinal connection device (10), and a filling layer (1). The elastic cushion (4) and the precast slab (6) can be manufactured as an integrated body within a factory. The invention further discloses an associated construction method. The precast slab railway track is laid using a track laying equipment such as a slab transporting vehicle, a hoisting vehicle, and precision control vehicle. The invention has simple construction steps, rapid construction speed, high construction accuracy, good railway track levelness and smoothness, and low requirements for physical labor. The invention further addresses issues of inconvenience when replacing a railway track slab or the elastic cushion during actual operations of a railway track.

IPC 8 full level

E01B 1/00 (2006.01); **E01B 29/00** (2006.01)

CPC (source: CN EP)

E01B 1/00 (2013.01 - EP); **E01B 1/002** (2013.01 - CN); **E01B 1/004** (2013.01 - CN); **E01B 29/00** (2013.01 - CN EP); **E01B 29/005** (2013.01 - CN); **E01B 2204/01** (2013.01 - CN); **E01B 2204/06** (2013.01 - CN); **E01B 2204/10** (2013.01 - CN)

Citation (search report)

- [XY] DE 2901283 A1 19800724 - RADLER ERICH
- [XA] EP 1733094 B1 20081210 - PORR TECHNOBAU UND UMWELT AG [AT]
- [YA] EP 1587987 B1 20150211 - MAX BÖGL BAUUNTERNEHMUNG GMBH & CO KG [DE]
- [A] JP H1181201 A 19990326 - KUMAGAI GUMI CO LTD
- See references of WO 2017121044A1

Cited by

CN112580210A; RU2755804C1; WO2022185101A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3404142 A1 20181121; **EP 3404142 A4 20190925**; **EP 3404142 B1 20240124**; CN 105625104 A 20160601; CN 105625104 B 20180824; JP 2019501320 A 20190117; JP 6961898 B2 20211105; WO 2017121044 A1 20170720

DOCDB simple family (application)

EP 16884604 A 20160408; CN 2016078779 W 20160408; CN 201610013534 A 20160111; JP 2018535883 A 20160408