

Title (en)
MACHINE AND METHOD FOR COMPACTING A BALLAST BED OF A TRACK

Title (de)
MASCHINE UND VERFAHREN ZUM VERDICHTEN EINES SCHOTTERBETTES EINES GLEISES

Title (fr)
MACHINE ET PROCÉDÉ POUR COMPACTER UN LIT DE BALLAST D'UNE VOIE

Publication
EP 4179146 A1 20230517 (DE)

Application
EP 21732234 A 20210609

Priority
• AT 505912020 A 20200709
• EP 2021065378 W 20210609

Abstract (en)
[origin: WO2022008151A1] The invention relates to a machine (1) for compacting a ballast bed (9) of a track (4) comprising a machine frame (2) supported on rail bogies (3) and a stabilising assembly (10) connected to same in a height-adjustable manner and having a vibration drive (16) and an axle (17) with flanged rollers (18) that can move on rails (6) of the track (4), wherein the distance between same running perpendicular to the longitudinal direction of the machine can be changed by means of an expansion drive (19), as well as having a roller clamp (21) that can be positioned against the rails (6) by clamping drives (23), wherein the expansion drive (19) and/or the clamping drives (23) are designed to apply the rails (6) with a predefined variable horizontal loading force (F_g), wherein a measuring device (200) is arranged for detecting a rail head deflection ($\Delta S_L/R$) and/or change in track width ($s_1, S_2, \Delta S_1, \Delta S_2$) caused by the variable loading force (FB). In this way, the stabilising assembly (10) can determine whether the track grid (5) is stable.

IPC 8 full level
E01B 27/20 (2006.01); **E01B 27/13** (2006.01)

CPC (source: AT EP KR US)
E01B 27/13 (2013.01 - EP KR); **E01B 27/20** (2013.01 - AT EP KR US); **E01B 35/06** (2013.01 - AT KR US)

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

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2022008151 A1 20220113; AT 523949 A1 20220115; AT 523949 B1 20220315; AU 2021305364 A1 20230119; BR 112023000410 A2 20230131; CA 3186164 A1 20220113; CN 115812117 A 20230317; EP 4179146 A1 20230517; EP 4179146 B1 20240529; EP 4179146 C0 20240529; JP 2023532795 A 20230731; KR 20230037033 A 20230315; US 2024240409 A1 20240718

DOCDB simple family (application)
EP 2021065378 W 20210609; AT 505912020 A 20200709; AU 2021305364 A 20210609; BR 112023000410 A 20210609; CA 3186164 A 20210609; CN 202180048381 A 20210609; EP 21732234 A 20210609; JP 2023501213 A 20210609; KR 20237002332 A 20210609; US 202118014805 A 20210609