

Title (en)  
RAILROAD CAR OPERATION CONTROL APPARATUS

Title (de)  
VORRICHTUNG ZUR STEUERUNG DES BETRIEBS EINES SCHIENENFAHRZEUGS

Title (fr)  
APPAREIL DE COMMANDE DE FONCTIONNEMENT DE WAGON DE CHEMIN DE FER

Publication  
**EP 4324719 A1 20240221 (EN)**

Application  
**EP 22788202 A 20220414**

Priority  
• JP 2021069292 A 20210415  
• JP 2022017791 W 20220414

Abstract (en)  
A railroad vehicle operation control apparatus according to an embodiment includes a sensor configured to detect an obstacle in a traveling direction of a railroad vehicle in traveling, a maximum detection distance calculation module configured to calculate a maximum detection distance within which the sensor is able to detect the obstacle, a stopping distance calculation module configured to calculate a stopping distance when an emergency brake of the railroad vehicle is applied, a temporary speed limit calculation module configured to calculate a temporary speed limit that is a vehicle speed at which the railroad vehicle is able to stop by the emergency brake at the smaller distance of the maximum detection distance and the stopping distance, a regular speed limit calculation module configured to calculate a regular speed limit corresponding to a position of the railroad vehicle during normal traveling, a traveling pattern setting module configured to calculate and set a traveling pattern representing relationship between the position and a target speed of the railroad vehicle based on the temporary speed limit and the regular speed limit, and a target speed generation module configured to generate the target speed based on the traveling pattern and transmit the target speed to a control device of the railroad vehicle.

IPC 8 full level  
**B61L 23/00** (2006.01); **B61C 17/12** (2006.01)

CPC (source: EP)  
**B61L 15/0062** (2024.01); **B61L 23/041** (2013.01)

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)  
**EP 4324719 A1 20240221**; CN 117120319 A 20231124; JP 2022164064 A 20221027; JP 7458344 B2 20240329; WO 2022220279 A1 20221020

DOCDB simple family (application)  
**EP 22788202 A 20220414**; CN 202280027813 A 20220414; JP 2021069292 A 20210415; JP 2022017791 W 20220414