

Title (en)

MULTI-TRAIN COOPERATIVE CONTROLLING METHOD AND SYSTEM USING VIRTUAL COUPLING

Title (de)

KOOPERATIVES MEHRZUGSTEUERUNGSVERFAHREN UND -SYSTEM MIT VERWENDUNG VON VIRTUELLER KOPPLUNG

Title (fr)

PROCÉDÉ ET SYSTÈME DE COMMANDE COOPÉRATIVE MULTI-TRAIN À L'AIDE D'UN COUPLAGE VIRTUEL

Publication

EP 3760513 A4 20210512 (EN)

Application

EP 18920691 A 20180813

Priority

- CN 201810551198 A 20180531
- CN 2018100192 W 20180813

Abstract (en)

[origin: EP3760513A1] Disclosed is a multi-train cooperative controlling method and system using virtual coupling; the method comprises: obtaining acceleration of a train adjacent to a controlled train, a speed difference value between the train adjacent to the controlled train and the controlled train, and a redundancy distance between the train adjacent to the controlled train and the controlled train; determining acceleration of the controlled train according to the acceleration of the train adjacent to the controlled train, the speed difference value between the train adjacent to the controlled train and the controlled train, and the redundancy distance between the train adjacent to the controlled train and the controlled train; and adjusting a speed of the controlled train according to the determined acceleration of the controlled train. The mode of making each train closely follow an immediately preceding train implements stable cooperative operation of a train group, and achieves purposes of safety and high efficiency.

IPC 8 full level

B61L 27/00 (2006.01); **B61L 3/00** (2006.01); **B61L 15/00** (2006.01); **B61L 23/34** (2006.01)

CPC (source: CN EP)

B61L 15/0027 (2013.01 - EP); **B61L 15/0062** (2024.01 - EP); **B61L 23/34** (2013.01 - EP); **B61L 27/30** (2022.01 - CN)

Citation (search report)

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- [A] DE 102007050937 A1 20090430 - DEUTSCH ZENTR LUFT & RAUMFAHRT [DE]
- [A] EP 0958987 A2 19991124 - CIT ALCATEL [FR]
- See references of WO 2019227674A1

Cited by

CN115071784A; CN111516735A; CN113415317A; US2021403063A1; US11958518B2; WO2023097839A1

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

DOCDB simple family (publication)

EP 3760513 A1 20210106; **EP 3760513 A4 20210512**; **EP 3760513 B1 20220518**; CN 108791366 A 20181113; CN 108791366 B 20200214; HR P20220662 T1 20220624; HU E059390 T2 20221128; RS 63263 B1 20220630; WO 2019227674 A1 20191205

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EP 18920691 A 20180813; CN 2018100192 W 20180813; CN 201810551198 A 20180531; HR P20220662 T 20180813; HU E18920691 A 20180813; RS P20220517 A 20180813