

Title (en)
AD-HOC NETWORK-BASED TRAIN DYNAMIC GROUPING AND UNGROUPING METHOD AND SYSTEM

Title (de)
AD-HOC-NETZWERK-BASIERTES VERFAHREN UND SYSTEM ZUR DYNAMISCHEN GRUPPIERUNG UND ENTGRUPPIERUNG VON ZÜGEN

Title (fr)
PROCÉDÉ ET SYSTÈME DE GROUPAGE ET DE DÉGROUPAGE DYNAMIQUES DE TRAINS BASÉS SUR UN RÉSEAU AD HOC

Publication
EP 4101719 A4 20240221 (EN)

Application
EP 21879015 A 20210708

Priority
• CN 202011099741 A 20201015
• CN 2021105124 W 20210708

Abstract (en)
[origin: EP4101719A1] Disclosed is an ad-hoc network-based train dynamic marshalling and unmarshalling method. The method includes train dynamic marshalling and train dynamic unmarshalling. The train dynamic marshalling includes: after a rear train set enters a U code section, marshalling two train sets if marshalling conditions are met. The dynamic unmarshalling includes: receiving, by two train sets in a group, an unmarshalling command during operation, and unmarshalling the two train sets if unmarshalling conditions are met. The method further includes: when the rear train set has a speed of 0 during operation of the two train sets in the group, unmarshalling the two train sets if the unmarshalling command is received. The method designed in the present invention implements flexible connection by means of an ad-hoc network, such that group trains can be flexibly marshalled, and a plurality of tracks are fully utilized. During departure, a mode of marshalling first and then departing is used to improve the departure efficiency. When the train transport volume is increased, a 5,000 t standard train may be used, thereby avoiding high costs caused by adding effective tracks. Further disclosed is a dynamic marshalling and unmarshalling system.

IPC 8 full level
B61B 1/00 (2006.01); **B61C 17/12** (2006.01); **B61L 15/00** (2006.01); **B61L 17/02** (2006.01); **B61L 23/34** (2006.01); **B61L 27/20** (2022.01); **B61L 27/40** (2022.01)

CPC (source: CN EP)
B61B 1/005 (2013.01 - CN EP); **B61C 17/12** (2013.01 - EP); **B61L 15/0027** (2013.01 - EP); **B61L 15/0072** (2013.01 - EP); **B61L 17/023** (2013.01 - EP); **B61L 23/08** (2013.01 - CN); **B61L 23/34** (2013.01 - EP); **B61L 27/20** (2022.01 - EP); **B61L 27/40** (2022.01 - EP)

Citation (search report)
• [A] CN 110962888 A 20200407 - UNIV CENTRAL SOUTH
• [A] EP 3473523 A1 20190424 - TRAFFIC CONTROL TECH CO LTD [CN]
• [A] WO 2019227674 A1 20191205 - BEIJING NATIONAL RAILWAY RES & DESIGN INSTITUTE OF SIGNAL & COMMUNICATION CO LTD [CN]
• [A] EP 3102474 B1 20180214 - SIEMENS AG [DE]
• See also references of WO 2022077967A1

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 4101719 A1 20221214; EP 4101719 A4 20240221; CN 111923931 A 20201113; CN 111923931 B 20201229; WO 2022077967 A1 20220421

DOCDB simple family (application)
EP 21879015 A 20210708; CN 202011099741 A 20201015; CN 2021105124 W 20210708