

Title (en)

METHOD AND DEVICE FOR DETECTING THE OCCUPIED OR FREE STATUS OF A SECTION OF TRACK

Title (de)

VERFAHREN UND VORRICHTUNG ZUR DETEKTION DES BELEGT- ODER FREIZUSTANDES EINES GLEISABSCHNITTES

Title (fr)

PROCÉDÉ ET DISPOSITIF PERMETTANT DE DÉTERMINER SI UNE PARTIE DE VOIE FERRÉE EST OCCUPÉE OU LIBRE

Publication

**EP 2019771 B1 20100630 (DE)**

Application

**EP 07729054 A 20070511**

Priority

- EP 2007054602 W 20070511
- DE 102006024692 A 20060519

Abstract (en)

[origin: US2009194643A1] A method and a device for detecting the occupied or free status of a section of track by way of a track current circuit, into which a transmitted signal is introduced and from which at least one detection signal is extracted. A longer maximum possible track length is achieved in that the track current circuit is divided into part sections overlapping over half the length thereof. The transmitted signal is introduced in the middle of each part section into which a rail vehicle enters, detection signals being extracted at both ends of the part section or further transmitted over adjacent part sections to the track circuit ends and extracted there. Each part section is provided in the center and the ends thereof with transceiver devices. The central transceiver device functions as a transmitter and the end transceiver devices function as receivers.

IPC 8 full level

**B61L 1/18** (2006.01)

CPC (source: EP KR NO US)

**B61L 1/181** (2013.01 - EP NO US); **B61L 3/12** (2013.01 - KR); **B61L 3/22** (2013.01 - KR)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**US 2009194643 A1 20090806; US 7975968 B2 20110712;** AT E472454 T1 20100715; AU 2007253431 A1 20071129;  
AU 2007253431 B2 20111103; BR PI0711762 A2 20111206; BR PI0711762 B1 20181218; CA 2652414 A1 20071129;  
CN 101448691 A 20090603; CN 101448691 B 20110615; DE 102006024692 A1 20071122; DE 102006024692 B4 20080529;  
DE 502007004264 D1 20100812; EP 2019771 A1 20090204; EP 2019771 B1 20100630; ES 2346261 T3 20101013; KR 101450257 B1 20141013;  
KR 20090018958 A 20090224; MX 2008014301 A 20090210; NO 20084765 L 20081111; NO 340184 B1 20170320; RU 2008150328 A 20100627;  
RU 2433929 C2 20111120; WO 2007134995 A1 20071129

DOCDB simple family (application)

**US 30156407 A 20070511;** AT 07729054 T 20070511; AU 2007253431 A 20070511; BR PI0711762 A 20070511; CA 2652414 A 20070511;  
CN 200780018282 A 20070511; DE 102006024692 A 20060519; DE 502007004264 T 20070511; EP 07729054 A 20070511;  
EP 2007054602 W 20070511; ES 07729054 T 20070511; KR 20087030595 A 20070511; MX 2008014301 A 20070511;  
NO 20084765 A 20081111; RU 2008150328 A 20070511