Title (en)

CONTROL SYSTEM AND METHOD FOR MONITORING THE INTEGRITY OF THE RAILS OF A RAILWAY TRACK

Title (de)

STEUERUNGSSYSTEM UND VERFAHREN ZUR ÜBERWACHUNG DER UNVERSEHRTHEIT DER SCHIENEN EINES EISENBAHNGLEISES

Title (fr)

SYSTÈME ET PROCÉDÉ DE COMMANDE POUR SURVEILLER L'INTÉGRITÉ DES RAILS D'UNE VOIE FERRÉE

Publication

EP 3964420 A1 20220309 (EN)

Application

EP 20305986 A 20200907

Priority

EP 20305986 A 20200907

Abstract (en)

A control system (100) and a method (200) for monitoring the integrity of the rails (A, B) of a railway track (1), wherein a first sensor (10) and a second sensor (11) are positioned close to each other in proximity of a first rail (A) of the railway track (1) and are configured to detect, independently from each other, a first parameter indicative of the intensity of a current (I_A) flowing along the first rail (A) and to provide to at least one control and processing unit (30) first signals (S1_{det}) and respective second signals (S2_{det}) indicative of the actual value respectively detected for the first parameter; a third sensor (20) and a fourth sensor (21) are positioned close to each other in proximity of a second rail (B) of the railway track (1) and are configured to detect, independently from each other, a second parameter indicative of the intensity of a current (I_B) flowing along the second rail (B) and to provide to the at least one control and processing unit (30) third signals (S3_{det}) and respective fourth signals (S4_{det}) indicative of the actual value respectively detected for the second parameter. The at least one control and processing unit (30) is configured to calculate a first value indicative of the intensity (I_A) of the current flowing along the first rail (A) based on at least one of the first and second signals (S1_{det}, S2_{det}) received from the first and second sensors (10, 11), and a second value indicative of the intensity (I_B) of the current flowing along the second rail (B) based on at least one of the third and fourth signals (S3_{det}, S4_{det}) received from the third and fourth sensors (20, 21). The at least one control and processing unit (30) is further configured to calculate the difference between the first and second values calculated and to generate a control signal (S_c) indicative of a defective part of one of the first and second rails (A, B) if the difference calculated exceeds a predetermined threshold.

IPC 8 full level

B61L 23/04 (2006.01); **B61L 1/18** (2006.01); **B61L 27/00** (2022.01)

CPC (source: EP)

B61L 1/186 (2013.01); **B61L 1/188** (2013.01); **B61L 23/044** (2013.01); **B61L 27/53** (2022.01); B61L 1/025 (2013.01)

Citation (search report)

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CN115758528A

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 3964420 A1 20220309

DOCDB simple family (application)

EP 20305986 A 20200907