Title (en)

METHOD FOR DETECTING DERAILMENT OF A RAIL VEHICLE

Title (de)

VERFAHREN ZUR ERKENNUNG EINER ENTGLEISUNG EINES SCHIENENFAHRZEUGS

Title (fr)

PROCÉDÉ POUR REPÉRER UN DÉRAILLEMENT D'UN VÉHICULE FERROVIAIRE

Publication

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Application

EP 18727249 A 20180523

Priority

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Abstract (en)

[origin: CA3064653A1] A process for detecting a derailment of a rail vehicle (1), the rail vehicle having two or more rail vehicle parts (2,3,4,5,6) and one or more articulations (10,11,12,13), through which adjacent rail vehicle parts are rotatably connected with one another, this process comprising: a) Determining an angle of rotation (.alpha.,.beta.,.gamma.,.delta.; .theta.), between adjacent rail vehicle parts, and/or a quantity (.alpha.'t , .beta.'t , .gamma.'t , .delta.'t ; .theta.'t) derived from the angle of rotation, or multiple angles of rotation (.alpha.,.beta.,.gamma.,.delta.; .theta.) or multiple quantities (.alpha.'t ,.beta.'t, .gamma.'t , .delta.'t ; .theta.'t) derived from the angles of rotation between different adjacent rail vehicle parts, b) Comparing the angle of rotation (.alpha.,.beta.,µ,.delta.; .theta.) or the derived quantity (.alpha.'t , (.beta.'t , .gamma.'t , .delta.'t ; .theta.'t) from a-1), or multiple angles of rotation or derived quantities from a-2) with at least one reference value or threshold (U), or with at least one reference value range or threshold range (-U to U), and/or multiple angles of rotation (.alpha.,.beta.,.gamma.,.delta.;.theta.) or the multiple quantities (.alpha.'t , .beta.1 , .gamma.'t ,.delta.'t; .theta.'t) from a-2) derived from the angles of rotation, relative to one another, and/or a state value (¦.alpha. (t0) ¦ - ¦ .beta.(t0) ¦), that is determined from multiple angles of rotation (.alpha.,.beta.,.gamma.,.delta.) or multiple quantities (.alpha.'t , .beta.'t , .gamma.'t , .delta.'t) from a-2) derived from the angles of rotation, with at least one reference value or threshold (U), or with at least one reference value range or threshold range (-U to U), a test criterion indicating whether or not there is a derailment being defined on the basis of the reference value / threshold (U), the reference value range (-U to U), and/or the threshold range in b-1) or b-3), and/or an expected relationship (.alpha.* .beta. < 0) of multiple angles of rotation, and/or an expected relationship of the multiple quantities (.alpha.'t * .beta.' t < 0) from b-2) derived from the angles of rotation, relative to one another, c) Determining whether or not the test criterion is valid and whether a derailment is happening or has happened, or is not happening or has not happened.

IPC 8 full level

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CPC (source: EP US)

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