

Title (en)
METHOD AND SYSTEM FOR TUNING OF INDUCTIVE SENSORS FOR DETECTION OF THE PRESENCE OF RAILWAY VEHICLE WHEELS

Title (de)
VERFAHREN UND SYSTEM ZUR ABSTIMMUNG VON INDUKTIVEN SENSOREN ZUR ERKENNUNG DER ANWESENHEIT VON SCHIENENFAHRZEUGRÄDERN

Title (fr)
PROCÉDÉ ET SYSTÈME DE SYNTONISATION DE CAPTEUR INDUCTIF POUR LA DÉTECTION DE LA PRÉSENCE DE ROUES DE VÉHICULES FERROVIAIRES

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PL 41875916 A 20160919

Abstract (en)
[origin: EP3296181A2] The method of inductive sensor tuning for detection of the presence of railway vehicle wheels, with the sensor including a generator system (G), a resonance circuit (LC), a detection system (UD), an amplifier system (WW) and an output stage (ZP), wherein internal signal (XD) and output signal (Y) are generated in the inductive sensor (C), wherein a reference value (XDref) is stored in internal signal values (XD), used in order to obtain a reference value (Yref) in the output signal (Y), characteristic for the absence of wheel over the inductive sensor according to the invention, characterised in that basic tuning of the internal signal value (XD) to the reference level (XDref) is performed by setting a frequency of the generator system (G), with the generator system being preferably numerically controlled, and subsequently, additional tuning is performed periodically by setting at least one internal threshold in the amplifier system (WW), which is in turn used to separate large changes of the internal signal (XD) compared to the reference level (XDref), caused by the presence of a wheel, from small changes of the internal signal (XD) compared to the reference level (XDref), caused by sensor ageing processes and by changes to the working environment of the sensor. System for tuning of inductive sensors for detection of a railway vehicle wheel according to the invention is characterised in that an oscillator system (OSC) with a constant first output frequency (F1) and a system setting a variable output frequency (USC) on the level of the second output frequency (F2) are installed in the generator system, wherein the system setting a variable output frequency on the level of the second output frequency is controlled numerically, by entering a binary word (S), or voltage-controlled, by providing a voltage signal (V) from the control unit (JS).

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Citation (search report)

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