Title (en)

METHOD FOR DETERMINING THE THICKNESS OF AN ELECTRICALLY CONDUCTIVE COATING ON AN ELECTRICALLY CONDUCTIVE SUBSTRATE

Title (de)

VERFAHREN ZUM BESTIMMEN DER SCHICHTDICKE EINER ELEKTRISCH LEITFÄHIGEN BESCHICHTUNG AUF EINEM ELEKTRISCH LEITFÄHIGEN SUBSTRAT

Title (fr)

PROCÉDÉ DE DÉTERMINATION DE L'ÉPAISSEUR D'UNE COUCHE DE REVÊTEMENT ÉLECTRO-CONDUCTEUR SUR UN SUBSTRAT ÉLECTRO-CONDUCTEUR

Publication

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Application

**EP 07729503 A 20070525**

Priority

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Abstract (en)

[origin: WO2007137997A1] The invention relates to a method for determining the layer thickness of an electrically conductive coating (52) which is applied on an electrically conductive substrate (50) of a test object. First, the induced voltage (U (air, ?)) of an eddy current sensor is collected in the air as a function of the frequency (?) of an exciter field. The majority of coated reference objects which have been provided each contains a substrate and coating from the same materials, such as the substrate (50) and coating (52) of the test object. The reference objects display various known layer thicknesses. A reference voltage (U(x,?)) can be detected for each reference object as a function of the frequency (?) of the exciter field with the eddy current sensor. Subsequently, a material induced voltage ($U_{mat}(x)$) can be determined from the reference voltage (U(x,?)) and the induced voltage (U(air, ?)) of the eddy current sensor in the air for each reference object. Afterwards, standard amplitude of the material induced voltage ($U_{mat}(x)$) can be generated for each reference object. Thus, a calibration curve results, which represents the standard amplitude of the material induced voltage ($U_{mat}(x)$) as a function of layer thickness ($d_1$) of the coating (52). The standard amplitude is also determined in the same way for test objects. Thus, the layer thickness ($d_1$) of the coating (52) of the test object is determined by the calibration curve.

IPC 8 full level

**G01B 7/06** (2006.01)

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