Title (en)

METHOD OF DETERMINING STRAINS

Title (de)

VERFAHREN ZUR BESTIMMUNG VON MATERIALVERFORMUNGEN

Title (fr)

PROCEDE DE DETERMINATION DE CONTRAINTES

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Abstract (en)

[origin: WO0012962A1] The present invention is related to a method for determining strains as well as deformations related to the same on the surface of objects (1) such as metal containers and the like, in which method a brittle material known as a strain-indicating brittle coating, e.g., brittle lacquer is applied on the surface of the object while the object is still unstrained and, subsequently, the object is strained, advantageously at least up to the strain level corresponding to its operating conditions, whereby the strain-indicating coating develops cracks (4) as the strain exceeds the nominal cracking limit of the coating, thus indicating suitable locations for the placement of a strain gage or a plurality of different types of strain gages (A, B, C) such as rosette strain gages for a more precise stress measurement or determination of strains. According to the invention, on the basis of information gathered from the strain crack (4) of the brittle coating, the measurement value of at least one strain gage is extrapolated in desired directions to desired points representing, for instance, a high probability of fatigue failure.

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