Title (en)

METHOD OF MEASURING MECHANICAL DATA OF A SOIL, AND OF COMPACTING THE SOIL, AND MEASURING OR SOIL-COMPACTION DEVICE

Title (de)

VERFAHREN ZUR MESSUNG MECHANISCHER DATEN EINES BODENS SOWIE ZU DESSEN VERDICHTUNG UND MESS- BZW. BODENVERDICHTUNGSVORRICHTUNG

Title (fr)

PROCEDE POUR MESURER DES GRANDEURS MECANIQUES D'UN SOL ET DE COMPACTAGE DUDIT SOL, ET DISPOSITIF DE MESURE OU DE COMPACTAGE DE SOL

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Application

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Priority

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Abstract (en)

[origin: WO9817865A1] In this method for achieving optimum, in particular homogeneous, soil compaction, a compaction device (3) acting upon the soil to be compacted, whose oscillations are registered together with those of the soil as a single compaction vibration system by a computing unit (12), is excited by an oscillation-inducing force in such a way that this compaction vibration system oscillates in resonance, or at a frequency (OMEGA) that exceeds the resonance value by a specified frequency value that is only determined by adjustment stabilities. The value of the oscillation-inducing force, its periodic frequency (OMEGA), and the phase angle (phi) to the oscillation of the compaction vibration system are set automatically by the computing unit (12) so that a specified soil rigidity is achieved, taking into account the mass of the compaction device (3) and of the weight pressing on it statically. The compaction device according to the invention can also be used to determine the soil rigidity and/or the soil modulus of elasticity.

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IPC 8 full level

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