

Title (en)
METHOD FOR PROVIDING INFORMATION RELATED TO THE COMPRESSION STATE OF A SOIL WHEN PERFORMING A COMPACTION PROCESS USING A SOIL COMPRESSOR

Title (de)
VERFAHREN ZUM BEREITSTELLEN VON MIT DEM VERDICHTUNGSZUSTAND EINES BODENS IN ZUSAMMENHANG STEHENDER INFORMATION BEI DURCHFÜHRUNG EINES VERDICHTUNGSVORGANGS MIT EINEM BODENVERDICHTER

Title (fr)
PROCÉDÉ DE FOURNITURE DES INFORMATIONS ASSOCIÉES À L'ÉTAT DE COMPACTAGE D'UN SOL LORS DE LA MISE EN OEUVRE D'UN PROCESSUS DE COMPACTAGE AU MOYEN D'UN COMPACTEUR

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Application
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Abstract (en)
[origin: US2022106744A1] A method for providing information related to the compaction state of a soil when performing a compaction operation with a soil compactor comprises the operations:a) detecting a vertical acceleration and a horizontal acceleration of a vibratory roller when moving a soil compactor over a soil to be compacted,b) determining a measurement relationship between a ground contact force (Fb) and a deflection (sw) of the vibratory roller for one vibration cycle using the vertical acceleration and horizontal acceleration detected in operation a),c) determining a simulation relationship (ZS) between the ground contact force (Fb) and the deflection (sw) for one vibration cycle using a ground model taking into account at least one simulation parameter,d) comparing the simulation relationship (ZS) to the measurement relationship,e) determining that a default value of the at least one simulation parameter taken into account in the ground model substantially represents a corresponding soil parameter of the soil to be compacted when the simulation relationship (ZS) substantially corresponds to the measurement relationship.

IPC 8 full level
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CPC (source: BR EP US)
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Opponent : BOMAG GmbH
• EP 3981919 B1 20221109 - HAMM AG [DE]
• DE 69423048 T2 20000914 - GEODYNAMIK HT AB STOCKHOLM [SE]
• EP 1516961 B1 20131225 - AMMANN AUFBEREITUNG AG [CH]
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