

Title (en)

Resonantly driven pavement crusher.

Title (de)

Mit Resonanzschwingungen arbeitendes Strassenaufbruchgerät.

Title (fr)

Défonceuse actionnée par des oscillations de résonance.

Publication

EP 0086240 A1 19830824 (EN)

Application

EP 82101032 A 19820211

Priority

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Abstract (en)

A pavement breaker including a mobile carrier vehicle is disclosed. A beam (38) is provided having a resonant frequency with a pair of nodes spaced from the input and output ends of the beam and anti-nodes at each end and at the center. An oscillator (46) is fixed to the input end of the beam to vibrate the beam at at least near its resonant frequency. The beam is mounted to the carrier vehicle at the node near the input end of the beam. A weight (54) is superimposed over the beam at the node near the output end and has a bearing surface adapted to bear downwardly against the beam at that node. The weight is coupled to the vehicle to control the vertical position of the weight. A tool (76) depends from the output end of the beam, and strikes surface (22) on which the vehicle rests at the vibration frequency of the beam as the tool vibrates responsively to vibrations of the beam. The reaction force generated by the tool is substantially absorbed by the weight and not transmitted to the carrier vehicle. The tool is preferably provided with three segments, a middle segment which lies substantially horizontally while the beam is stationary, and forward and rear segments which are inclined upward. The forward section allows the tool to follow the ground, while the orientation of the rear tool enhances the breaking action of the tool.

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E01C 23/12

IPC 8 full level

E01C 23/12 (2006.01)

CPC (source: EP)

E01C 23/122 (2013.01)

Citation (search report)

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