

Title (en)
A MATERIAL WORKING MACHINE, PARTICULARLY A PAVEMENT PLANER

Publication
EP 0023930 B1 19840215 (EN)

Application
EP 79102867 A 19790808

Priority
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Abstract (en)
[origin: EP0023930A1] Asphalt or concrete pavement is removed from a road bed by an elongated cutter blade (94) that extends in a downward and forward direction along a cutting plane to a cutting edge. The cutting plane forms an acute angle of between 45 DEG and 55 DEG with the surface of the pavement. The cutter blade is intermittently driven with a force parallel to the cutting plane in the forward direction while the cutting edge penetrates the pavement to drive the cutter blade incrementally in a forward direction and plane off the pavement in a chisel-like manner. A source of vibrations (56) is connected to one end of plural spaced apart resonant beams (54). At the other end, the beams drive the cutter blade. The source produces a reciprocating force that is transmitted to the blade by the beams each of which has an output that reciprocates about a neutral position responsive to the force of the source. A continuous unidirectional force is applied to the source by a tool carrier (44). The blade advances intermittently along a work path through the pavement responsive to the continuous unidirectional force and the reciprocating force. A gap is held between the neutral output position of the beams and the blade when the blade is unable to advance through the pavement responsive to the continuous unidirectional force and the reciprocating force. Specifically, the force of the source is sufficiently large relative to the unidirectional force to overcome the latter, and to drive the tool holder back away from the blade when the blade is unable to advance along the work path, thereby establishing a protective gap. Cessation of resonance is prevented when the blade encounters an immovable object by establishing the protective gap in the described manner.

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