

## [12] Patent

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### [54] DOWNHOLE PULSER

[57] Abstract: A pulser for generating pressure pulses in a wellbore formed in an earth formation, comprising a housing provided with an internal combustion engine including a cylinder and a piston arranged to perform a combustion stroke upon combustion of a combustible gas mixture in the cylinder, a first spring arranged to induce the piston to perform a compression stroke upon completion of the combustion stroke, the pulser further comprising a hammer connected to the piston, an anvil movable relative to the housing between a first position and a second position in which the pulser has a different volume than in the first position, the anvil being arranged so that the hammer impacts against the anvil during the combustion stroke and induces the anvil to move from the first to the second position, and a second spring biasing the anvil from the second to the first position thereof.

No. of claims: 8

No. of figures: 3

