

Title (en)

DEVICE FOR IGNITING AN AIR-FUEL-MIXTURE IN AN INTERNAL COMBUSTION ENGINE BY MEANS OF A HIGH FREQUENCY ELECTRIC ENERGY SOURCE

Title (de)

VORRICHTUNG ZUM ZÜNDEN EINES LUFT-KRAFTSTOFF-GEMISCHS IN EINEM VERBRENNUNGSMOTOR MITTELS EINER HOCHFREQUENTEN ELEKTRISCHEN ENERGIEQUELLE

Title (fr)

DISPOSITIF POUR ENFLAMMER UN MELANGE AIR-CARBURANT DANS UN MOTEUR A COMBUSTION INTERNE AU MOYEN D'UNE SOURCE D'ENERGIE ELECTRIQUE HAUTE FREQUENCE

Publication

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Application

EP 03790742 A 20030825

Priority

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Abstract (en)

[origin: WO2004020820A1] The invention relates to a device for igniting an air-fuel-mixture in an internal combustion engine by means of a high frequency electric energy source. Said device comprises a coaxial waveguide structure (5) into which the high frequency electric energy can be injected and which projects with an end thereof into the respective combustion chamber of a cylinder of the internal combustion engine. One end of the coaxial waveguide structure (5) is embodied as an igniter pin (7a) such that when a voltage potential occurs as a result of rapid and/or gradual cross-section modifications (21) of the inner (7) and/or outer conductor (6), a field structure (22) protruding into the internal combustion chamber and a free-standing plasma in the air-fuel-mixture can be produced on the inner conductor (7, 7a) protruding from the waveguide structure.

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