

Title (en)

Laser ignition device for combustion engine

Title (de)

Laser-Zündeinrichtung für eine Brennkraftmaschine

Title (fr)

Dispositif d'allumage à laser pour moteur à combustion

Publication

EP 1519038 B1 20060823 (DE)

Application

EP 03021446 A 20030923

Priority

EP 03021446 A 20030923

Abstract (en)

[origin: EP1519038A1] The device has a switched pumped solid laser with a light source, and a solid laser crystal enclosed in a resonator (9). A quality switch (4) increases power density, and a focusing device (7) focuses a laser beam into a combustion chamber. The source, resonator, crystal, switch, focusing device, an output mirror and a cooling device (11) that cools the resonator, are integrated into a single unit in a spark plug shaft of an engine.

IPC 8 full level

F02P 23/04 (2006.01); **H01S 3/042** (2006.01); **H01S 3/0941** (2006.01); **F02B 23/08** (2006.01)

CPC (source: EP)

F02P 23/04 (2013.01); **F02B 23/08** (2013.01)

Cited by

DE102013212065A1; DE102009000487A1; DE102011079507A1; WO2013010704A1; WO2012022504A1; EP2522842A1; US8365689B2; DE102013201812A1; DE102013221553A1; US8807107B2; DE102013213714A1; WO2011041805A1; WO2007143769A3; WO2009043608A1; US8833323B2; WO2010086287A1; WO2012069228A3; US9638159B2; DE102010031598A1; DE102013226119A1; WO2014122281A1

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