

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

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1519038 A1 20050330; EP 1519038 B1 20060823; AT E337486 T1 20060915; DE 50304768 D1 20061005

DOCDB simple family (application)
EP 03021446 A 20030923; AT 03021446 T 20030923; DE 50304768 T 20030923