

Title (en)

LASER-INDUCED SPARK IGNITION UNIT FOR AN INTERNAL COMBUSTION ENGINE

Title (de)

LASERINDUZIERTE FREMDZÜNDUNG FÜR EINE BRENNKRAFTMASCHINE

Title (fr)

ALLUMAGE INDUIT PAR LASER POUR MOTEUR A COMBUSTION INTERNE

Publication

EP 2577040 A1 20130410 (DE)

Application

EP 11711518 A 20110325

Priority

- DE 102010029347 A 20100527
- EP 2011054614 W 20110325

Abstract (en)

[origin: WO2011147607A1] Laser spark plug for an internal combustion engine (10), comprising at least one means (26) for directing, forming and/or producing laser radiation (24), further comprising a combustion chamber window (58) and a housing (38), characterized in that the housing (38), on the side of the combustion chamber window (58) opposite the means (26), especially at a combustion chamber end (381) of the housing (38), comprises an orifice (74) allowing the passage of the laser radiation (24) that is directed, formed and/or produced by the means (26) to a combustion chamber (14), the length (L) of the orifice (74) being 4 mm or more, especially 6 mm or more.

IPC 8 full level

F02P 23/04 (2006.01)

CPC (source: EP US)

F02P 23/04 (2013.01 - EP US); **F02P 13/00** (2013.01 - EP)

Citation (search report)

See references of WO 2011147607A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

DE 102010029347 A1 20111201; CN 102947580 A 20130227; CN 102947580 B 20161026; EP 2577040 A1 20130410;
JP 2013528257 A 20130708; JP 5784111 B2 20150924; US 2013152893 A1 20130620; US 9377003 B2 20160628;
WO 2011147607 A1 20111201

DOCDB simple family (application)

DE 102010029347 A 20100527; CN 201180026005 A 20110325; EP 11711518 A 20110325; EP 2011054614 W 20110325;
JP 2013511581 A 20110325; US 201113700274 A 20110325