Title (en)

IGNITION DEVICE FOR A INTERNAL COMBUSTION ENGINE

Title (de)

ZÜNDEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

Title (fr)

DISPOSITIF D'ALLUMAGE POUR UN MOTEUR À COMBUSTION INTERNE

Publication

EP 4264037 A1 20231025 (DE)

Application

EP 21838993 A 20211207

Priority

- DE 102020215994 A 20201216
- EP 2021084503 W 20211207

Abstract (en)

[origin: WO2022128603A1] The invention relates to an ignition device (1) for an internal combustion engine, more particularly for a hydrogen fuelled internal combustion engine, comprising a primary circuit (2.1) and a secondary circuit (2.2), wherein - the primary circuit (2.1) has a primary coil (3), wherein - the secondary circuit (2.2) has a secondary coil (4) inductively coupled to the primary coil (3), a diode (5) for suppressing a start-up spark and a high-voltage connector (6) for connection to a spark plug (7), characterised in that a parallel path (10) is formed electrically in parallel to the diode (5) of the secondary circuit (2.2), in which parallel path there is arranged an ohmic load resistor (11) or an electric switch (20) and by means of which parallel path residual energy, in particular residual voltage, which remains in the secondary circuit (2.2) following discharge of the ignition device (1), can be extinguished, in particular by feeding the residual energy in the secondary circuit (2.2) past the diode (5), bypassing the diode (5).

IPC 8 full level

F02P 3/055 (2006.01); **F02P 11/00** (2006.01)

CPC (source: EP KR US)

F02P 3/0552 (2013.01 - EP KR US); **F02P 11/00** (2013.01 - KR); F02P 11/00 (2013.01 - EP)

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022128603 A1 20220623; CN 116601383 A 20230815; DE 102020215994 A1 20220623; EP 4264037 A1 20231025; JP 2024500421 A 20240109; KR 20230117441 A 20230808; US 2024093664 A1 20240321

DOCDB simple family (application)

EP 2021084503 W 20211207; CN 202180085266 A 20211207; DE 102020215994 A 20201216; EP 21838993 A 20211207; JP 2023537213 A 20211207; KR 20237023858 A 20211207; US 202118257252 A 20211207