

Title (en)

METHOD FOR DETERMINING A DEFECT IN A SPARK PLUG OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUR BESTIMMUNG EINES DEFEKTS IN EINER ZÜNDKERZE EINES VERBRENNUNGSMOTORS

Title (fr)

PROCÉDÉ DE DÉTERMINATION D'UN DÉFAUT DANS UNE BOUGIE D'ALLUMAGE D'UN MOTEUR À COMBUSTION INTERNE

Publication

EP 3276156 A1 20180131 (EN)

Application

EP 16181892 A 20160729

Priority

EP 16181892 A 20160729

Abstract (en)

In a method for determining a defect in a spark plug (12) associated with a cylinder (26) of a spark-ignited internal combustion engine (10), an ignition delay from starting a supply of current to a primary winding (16) of an ignition coil (14) associated with the spark plug (12) to reaching a maximum value of the supplied current is determined. When the ignition delay is above a threshold defined in advance for the spark plug (12), it is determined that the spark plug (12) is defective or approaches the end of its service life and should be replaced. A corresponding indication is output to an operator of the internal combustion engine (10) to allow for scheduling a downtime of the engine for exchanging the spark plug (12).

IPC 8 full level

F02P 15/10 (2006.01); **F02P 3/00** (2006.01); **F02P 17/12** (2006.01); **H01T 13/58** (2011.01)

CPC (source: EP)

F02P 17/12 (2013.01); **H01T 13/58** (2013.01); **F02P 3/00** (2013.01)

Citation (search report)

- [XA] US 6766243 B1 20040720 - HAUSSMANN MARTIN [DE], et al
- [X] GB 2257533 A 19930113 - FORD MOTOR CO [GB]
- [A] US 5027073 A 19910625 - KALLER ERNST [DE], et al
- [A] US 2016138553 A1 20160519 - SENIOR RUSSELL [US], et al
- [A] WO 2015179095 A1 20151126 - CATERPILLAR INC [US]
- [A] EP 0893600 A1 19990127 - COOPER IND ITALIA [IT]
- [A] US 6600322 B1 20030729 - NUSSBAUM STEPHEN H [US]

Cited by

CN116073235A; US10995726B2; WO2020239266A1; WO2019190862A3

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

DOCDB simple family (publication)

EP 3276156 A1 20180131

DOCDB simple family (application)

EP 16181892 A 20160729