

Title (en)
GLOW PLUG

Title (de)
GLÜHKERZE

Title (fr)
BOUGIE DE PRÉCHAUFFAGE

Publication
EP 3260779 A1 20171227 (EN)

Application
EP 17176803 A 20170620

Priority
JP 2016123241 A 20160622

Abstract (en)
[Object] To inhibit a metal of which a sheath tube is composed from diffusing into a heating coil. [Solution] A heater (800) included in a glow plug (10) includes a sheath tube (810) and a heating coil (820). The heating coil contains at least one selected from tungsten (W) and molybdenum (Mo) as a main component and contains at least one additional element selected from potassium (K), aluminum (Al), silicon (Si), lanthanum (La), thorium (Th), and cerium (Ce). The sheath tube contains at least one metal selected from nickel (Ni) and iron (Fe). A melt portion (816) that is in contact with an outer surface of a front-end portion of the heating coil is formed at a front-end portion of the sheath tube. The additional element exists at a crystal grain boundary of the main component at least in a surface layer (825) of the front-end portion of the heating coil.

IPC 8 full level
F23Q 7/00 (2006.01)

CPC (source: EP)
F23Q 7/001 (2013.01); **F23Q 2007/004** (2013.01)

Citation (applicant)
• JP 2015099008 A 20150528 - NGK SPARK PLUG CO
• JP 2015078784 A 20150423 - NGK SPARK PLUG CO
• WO 2011162074 A1 20111229 - NGK SPARK PLUG CO [JP], et al
• JP H11237045 A 19990831 - JIDOSHA KIKI CO

Citation (search report)
• [XAY] DE 102013212283 A1 20141231 - BOSCH GMBH ROBERT [DE]
• [YDA] JP H11237045 A 19990831 - JIDOSHA KIKI CO
• [YA] DE 102013211789 A1 20141224 - BOSCH GMBH ROBERT [DE]
• [A] DE 102007013990 A1 20080925 - OSRAM GMBH [DE]

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 3260779 A1 20171227; EP 3260779 B1 20191127; JP 2017227372 A 20171228; JP 6796957 B2 20201209

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EP 17176803 A 20170620; JP 2016123241 A 20160622