

Title (en)  
GLOW PLUG

Title (de)  
GLÜHKERZE

Title (fr)  
BOUGIE DE PRÉCHAUFFAGE

Publication  
**EP 3441672 A1 20190213 (EN)**

Application  
**EP 18186372 A 20180730**

Priority  
• JP 2017153847 A 20170809  
• JP 2018111561 A 20180612

Abstract (en)  
[Object] To provide a glow plug that can improve the durability of a heat generating coil while maintaining quick-temperature-increasing ability.  
[Solving Means] A glow plug includes a metal tube that extends along an axial line, and a heat generating coil (50) that is disposed inside the tube and mainly composed of tungsten, an embedded portion in a front end portion (41) of the heat generating coil being embedded in a front end portion of the tube. The heat generating coil includes a helical portion that includes at least a part of the embedded portion and that is continuously formed from the embedded portion to an inside of the tube. In the heat generating coil that is present in a longitudinal section of the glow plug including the axial line, a first average value, which is calculated by dividing a first sum that is a sum of areas of cross sections of the helical portion in the embedded portion by the number of the cross sections of the helical portion in the embedded portion, is smaller than a second average value, which is calculated by dividing a second sum that is a sum of areas of cross sections of the helical portion inside the tube by the number of the cross sections of the helical portion inside the tube.

IPC 8 full level  
**F23Q 7/00** (2006.01)

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

Citation (applicant)  
WO 2014206847 A1 20141231 - BOSCH GMBH ROBERT [DE]

Citation (search report)  
• [Y] DE 102013212283 A1 20141231 - BOSCH GMBH ROBERT [DE]  
• [Y] JP 2016003817 A 20160112 - NGK SPARK PLUG CO  
• [Y] US 5118921 A 19920602 - AOTA TAKASHI [JP], et al  
• [A] DE 102011077239 A1 20111222 - NGK SPARK PLUG CO [JP]  
• [A] DE 10112781 A1 20011004 - DENSO CORP [JP]

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

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DOCDB simple family (application)  
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