

Title (en)

HEATER AND GLOW PLUG PROVIDED WITH SAME

Title (de)

HEIZUNG UND GLÜHSTIFT DAMIT

Title (fr)

ÉLÉMENT CHAUFFANT ET BOUGIE À INCANDESCENCE LE COMPORTANT

Publication

EP 2704518 A4 20141022 (EN)

Application

EP 12776164 A 20120427

Priority

- JP 2011099601 A 20110427
- JP 2012061373 W 20120427

Abstract (en)

[origin: EP2704518A1] [Object] To provide a highly-reliable and durable heater in which occurrence of concentration of great stress on an end portion of a junction between a resistor and a lead is suppressed even when a high current flows through the resistor in quick temperature rise or the like, and a glow plug provided with the same. [Solution] A heater (1) includes: a resistor (3) including a heat-generating portion (4); a lead (8) joined to an end portion of the resistor (3); and an insulating base (9) covering the resistor (3) and the lead (8). At a junction between the resistor (3) and the lead (8), the lead (8) has a shape thicker than the resistor (3) and is connected to the resistor (3) such that the end portion of the resistor (3) is inserted into a front end portion of the lead (8), a recess is provided on an end surface of the resistor (3), and a portion of the lead (8) is inserted into the recess.

IPC 8 full level

F23Q 7/00 (2006.01); **H05B 3/14** (2006.01); **H05B 3/48** (2006.01)

CPC (source: EP KR US)

F23Q 7/00 (2013.01 - KR); **F23Q 7/001** (2013.01 - EP US); **F23Q 7/22** (2013.01 - KR); **H05B 3/12** (2013.01 - EP US); **H05B 3/141** (2013.01 - EP US); **H05B 3/148** (2013.01 - EP US); **H05B 3/18** (2013.01 - KR); **H05B 3/48** (2013.01 - EP KR US); **H05B 2203/027** (2013.01 - EP US)

Citation (search report)

- [X] JP 2000130754 A 20000512 - NGK SPARK PLUG CO
- [X] EP 2117280 A1 20091111 - KYOCERA CORP [JP]
- See references of WO 2012147919A1

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)

EP 2704518 A1 20140305; **EP 2704518 A4 20141022**; **EP 2704518 B1 20171018**; CN 103493585 A 20140101; CN 103493585 B 20160302; JP 5766282 B2 20150819; JP WO2012147919 A1 20140728; KR 101504631 B1 20150320; KR 20130137675 A 20131217; US 2014053795 A1 20140227; WO 2012147919 A1 20121101

DOCDB simple family (application)

EP 12776164 A 20120427; CN 201280020674 A 20120427; JP 2012061373 W 20120427; JP 2013512466 A 20120427; KR 20137026554 A 20120427; US 201214114063 A 20120427