

Title (en)

An improved glow plug having a resistive surface film heater.

Title (de)

Glühkerze mit einem schichtförmigen Heizwiderstand.

Title (fr)

Bougie à incandescence comprenant une résistance chauffante stratiforme.

Publication

EP 0129676 A1 19850102 (EN)

Application

EP 84104882 A 19840502

Priority

US 50725483 A 19830623

Abstract (en)

A glow plug (10) having a hollow cylindrical metal shell (12), an axial electrical terminal (36), and a heater member (20) protruding externally from the shell. The heater member (20) has a surface film heater element (24) disposed on at least one surface of an electrically nonconductive cylindrical substrate (22). Electrical connections between the heater element (24), the shell and the axial electrode are made by conductive surface films (56, 58). A first conductive surface film (56) disposed on the external surface of the cylindrical substrate (22) makes electrical contact with the shell (12). A second conductive surface film (58) disposed on the internal surface of the cylindrical substrate (22) makes electrical contact with the axial electrical terminal (36). The heating element (24) is preferably a transition metal surface film which catalytically reacts with the air/fuel mixture to enhance combustion at lower temperatures. The thermal response time of the surface film heater element (24) from ambient to an operating temperature exceeding 800 is less than 5 seconds.

IPC 1-7

F23Q 7/00

IPC 8 full level

F23Q 7/00 (2006.01)

CPC (source: EP)

F23Q 7/001 (2013.01)

Citation (search report)

- GB 2092670 A 19820818 - BOSCH GMBH ROBERT
- DE 2900984 A1 19800717 - HERAEUS GMBH W C
- DE 1194201 B 19650603 - MASCHF AUGSBURG NUERNBERG AG

Cited by

EP0194535A3; EP0191347A3; DE3607888A1; US4816643A; EP0244619A1

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DOCDB simple family (publication)

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DOCDB simple family (application)

EP 84104882 A 19840502; AU 2795084 A 19840511; BR 8402891 A 19840613; CA 456162 A 19840608; DE 3464660 T 19840502; ES 533650 A 19840622; JP 12772684 A 19840622