

Title (en)  
HEATER PLUG FOR INTERNAL-COMBUSTION ENGINES WITH EXTERNAL IGNITION

Publication  
**EP 0106232 B1 19860618 (DE)**

Application  
**EP 83109726 A 19830929**

Priority  
DE 3237922 A 19821013

Abstract (en)  
[origin: EP0106232A1] 1. Glow plug for internal-combustion engine with applied ignition, with a heater (11) which can be fitted tightly into the cylinder of the internal-combustion engine, is surrounded by a tubular metal casing (13) and has a tubular, electrically insulating ceramic carrier (20) which is provided with a base on the combustion chamber side and is for a conductor track-like electrical heating element (37), which is arranged on the outer surface of the ceramic carrier (20), is connected via conductor track-like connecting conductors (38, 39) to the end section of the ceramic carrier (20) on the connection side and is covered by a dense, electrically insulating protective layer (40), the connecting conductors of the heating element (37) being in electrical connection with additional means of connection which can be connected to a power source, characterized in that a metal core is arranged in the section of the longitudinal bore (30) of the ceramic carrier (20) on the combustion chamber side as a heat sink (46), which metal core, on account of its expansion behaviour owing to temperature effect, is in contact over a considerable part of its surface with the ceramic carrier (20, 34) at operating temperatures above about 850/950 degrees C, but below the said operating temperature has at least partially a gap (47) with respect to the ceramic carrier (30, 34).

IPC 1-7  
**F02P 19/02**

IPC 8 full level  
**F02P 19/02** (2006.01); **F23Q 7/00** (2006.01)

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

Citation (examination)  
• GB 2092670 A 19820818 - BOSCH GMBH ROBERT  
• DE 2748711 B2 19790426

Cited by  
DE10228077A1; EP0194535A3; WO2006000489A1; WO9704974A1

Designated contracting state (EPC)  
DE FR GB IT SE

DOCDB simple family (publication)  
**EP 0106232 A1 19840425; EP 0106232 B1 19860618**; DE 3237922 A1 19840419; DE 3364202 D1 19860724; ES 526443 A0 19840616; ES 8405920 A1 19840616

DOCDB simple family (application)  
**EP 83109726 A 19830929**; DE 3237922 A 19821013; DE 3364202 T 19830929; ES 526443 A 19831013