

Title (en)

SHEATHED-ELEMENT GLOW PLUG FOR INTERNAL COMBUSTION ENGINES.

Title (de)

GLÜHSTIFTKERZE FÜR BRENNKRAFTMASCHINEN.

Title (fr)

BOUGIE-CRAYON DE PRECHAUFFAGE POUR MOTEURS A COMBUSTION INTERNE.

Publication

**EP 0523062 B1 19940928**

Application

**EP 91904691 A 19910301**

Priority

- DE 4010479 A 19900331
- DE 9100181 W 19910301

Abstract (en)

[origin: DE4010479A1] Proposed is a sheathed-element glow plug (10) designed to be fitted in the combustion chamber of air compression type internal combustion engines. As with prior art devices of this kind, the glow plug contains a resistor (17) inside the sheath (13), the resistor (17) being made up of two coils (20, 21) connected in series. While the coil (20) nearest the combustion chamber is a heating coil with substantially constant resistance at all operating temperatures, the resistance-wire coil (21) remote from the combustion chamber, which acts as a control element, has a high coefficient temperature-resistance. The invention calls for the resistance coil (21) acting as the control element to consist of a cobalt/iron alloy whose structure is not destroyed when the alloy is exposed to the temperatures occurring in an internal combustion engine. According to the invention, this alloy is chosen so that it retains a face-centered cubic structure in all operating conditions of the glow plug (10). The iron content of the alloy lies between 6 and 18 % by wt., preferably 12 to 14 % by wt. The coil resistor (17) is embedded, as in prior art devices, in an electrically insulating material (18) which is a good thermal conductor.

IPC 1-7

**F23Q 7/00**

IPC 8 full level

**F23Q 7/00** (2006.01)

CPC (source: EP US)

**F23Q 7/001** (2013.01 - EP US)

Cited by

DE19603059C2; DE10060273C1; DE10310255A1; DE10014526B4; DE19604551C2; DE102004025854A1; DE102004025854B4; DE10314218A1; WO2004040193A1; EP1213540A2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**DE 4010479 A1 19911002**; DE 59103126 D1 19941103; EP 0523062 A1 19930120; EP 0523062 B1 19940928; JP 2936147 B2 19990823; JP H05505669 A 19930819; US 5319180 A 19940607; WO 9115717 A1 19911017

DOCDB simple family (application)

**DE 4010479 A 19900331**; DE 59103126 T 19910301; DE 9100181 W 19910301; EP 91904691 A 19910301; JP 50418791 A 19910301; US 86258992 A 19920626