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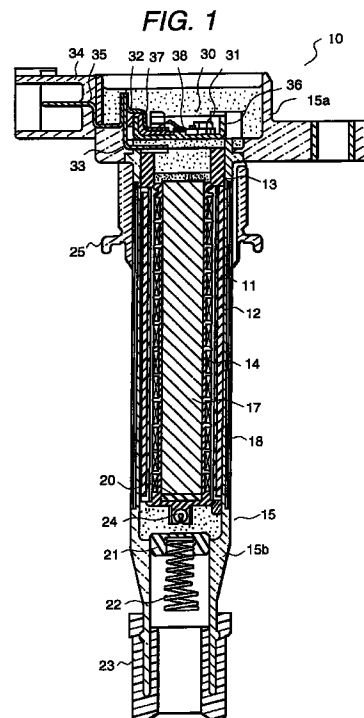
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(54) Ignition apparatus for use in internal combustion engine

(57) An ignition apparatus is received in a plug hole (43a) which is formed by a cylinder head (41a) and a cylinder head cover (42a) of an internal combustion engine. A side core (18) has a slit between two horizontally extending side wall ends. The side core (18) comprises one selected from a laminated sheet structure comprised of two grain oriented silicon steel sheets, each having a slit between two horizontally extending side wall ends, and the plural slits align at a substantially same position. The slit prevents an one-turn short of a magnetic flux of the side core (18), thereby a predetermined secondary voltage more than an engine requirement secondary voltage is obtained. An ignitor reception portion comprises an independent and individual ignitor reception portion and an independent and individual coil reception portion, and the ignitor reception portion and the coil reception portion are combined.



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EUROPEAN SEARCH REPORT

Application Number
EP 97 10 4865

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X	US 4 903 675 A (HUNTZINGER DWAYNE A ET AL) 27 February 1990 (1990-02-27) * figure 2 *	1	TECHNICAL FIELDS SEARCHED (Int.Cl.6) F02P
Y	* column 2, line 60 - column 3, line 10 *	2	
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		7 July 1999	Lapeyronnie, P
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 97 10 4865

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A	US 5 315 982 A (WARD MICHAEL A V ET AL) 31 May 1994 (1994-05-31) * figures 1,4,10,21 * * column 2, line 31 - line 68 * * column 5, line 63 - column 6, line 25 * * column 9, line 30 - column 10, line 34 * * column 13, line 29 - line 57 * * column 32, line 62 - column 33, line 29 * * ---	1,3,5,7, 9,11,14, 15	
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CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

EPO FORM 1503, 03.92 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-13

Ignitor apparatus with a silicon steel side core, and details of the latter

2. Claims: 14-20

Ignitor apparatus with connectors for plug and coils

3. Claims: 21-24

Ignitor apparatus with plug and rubber fitting,

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 97 10 4865

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-07-1999

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