

Title (en)
Ignition coil and ignition unit using the same

Title (de)
Zündspule und Zündeinheit mit solcher Spule

Title (fr)
Bobine d'allumage et unité d'allumage avec un tel dispositif

Publication
EP 1182347 A3 20040818 (EN)

Application
EP 01306945 A 20010815

Priority
JP 2000248825 A 20000818

Abstract (en)
[origin: EP1182347A2] An ignition coil 100 includes a coil section 10-which in turn includes a coil case 15, a primary coil 12 and a secondary coil 14 accommodated within the coil case 15, and an insulating molded layer 16 filling the coil case 15-and a coil core C including a center core section 20 and a yoke section 30. The ignition coil 100 is mounted on an engine body EB such that the coil core C is insulated from the engine body EB, by means of a mounting section 70. The mounting section 70, together with an insulating filling section 60 filling at least partially a gap S formed between the coil section 10 and the coil core C, which face each other, is integrally formed of a polymeric material through integral injection molding. That is, the ignition coil 100 is mounted on the engine body EB by means of the mounting section 70, which, together with the insulating filling section 60 filling the gap S formed between the coil section 10 and the coil core C, which face each other, is integrally formed of a polymeric material through integral injection molding. <??>Consequently there is disclosed an ignition coil of excellent durability and reliability that is capable of suppressing occurrence of leakage between a secondary coil and a coil core and suppressing generation of corona discharge across a gap between a coil section and the coil core to thereby suppress erosion of, for example, a coil case, which accommodates the primary and secondary coils, even when the maximum-voltage generation capability of the secondary coil is enhanced as a result of, for example, increase in discharge voltage of a spark plug, and the ignition coil is operated continuously for a long period of time, as well as to provide an ignition unit using the ignition coil. <IMAGE>

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F02P 3/02 (2013.01)

Citation (search report)

- [XA] DE 19829845 A1 19990204 - HITACHI LTD [JP]
- [XPAP] US 6213109 B1 20010410 - SATOO TAKANORI [JP], et al
- [A] GB 2198292 A 19880608 - HITACHI LTD
- [A] DE 19537301 A1 19960411 - MITSUBISHI ELECTRIC CORP [JP]
- [AD] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 04 31 March 1998 (1998-03-31)

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