

Title (en)
A spark plug

Title (de)
Zündkerze

Title (fr)
Bougie d'allumage

Publication
EP 0758152 B1 20021127 (EN)

Application
EP 96112882 A 19960809

Priority
JP 22597095 A 19950809

Abstract (en)
[origin: EP0758152A1] The spark plug 100 comprises a center electrode 3 , an insulator 2 arranged outside of the center electrode 3, a metal shell 1 which is arranged outside of the insulator 2 and from one end of which the center electrode 3 protrudes, a protruding portion 11 which is formed on the inner surface of the metal shell 1 at the end portion thereof and protrudes toward the insulator 2, and a ground electrode 4 one end of which is joined to the metal shell 1 and another end of which is arranged facing to the side surface of the center electrode 4. A first spark gap g1 is formed between the tip 41 of the ground electrode 4 and the side surface of the center electrode 3. A second spark gap g2 is formed between the end surface 22 of the insulator 2 and the inner surface 42 of the ground electrode 4. An auxiliary gap g3 is formed between the protruding portion 11 and the corresponding outer surface 23 of the insulator 2. The amount of the second gap g2 is less than that of the first gap g1. In such spark plug 1, a spark is generated at the second spark gap g2 when the spark discharge voltage becomes lower at the second gap g2 than at the first gap g1 due to a deposition of electrically conductive substance onto the surface of the insulator 2, thereby removing said deposition by combustion. Furthermore, a spark is generated also at the auxiliary gap g3 when the spark discharge voltage becomes lower at the auxiliary gap g3 than at the first gap g1. <IMAGE>

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Cited by
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