

Title (en)
Spark plug

Title (de)
Zündkerze

Title (fr)
Bougie d'allumage

Publication
EP 2477286 A3 20140430 (EN)

Application
EP 12151260 A 20120116

Priority
JP 2011006987 A 20110117

Abstract (en)
[origin: EP2477286A2] [Objective] To realize performance superior in both ignitability and wear resistance. [Means for Solution] A spark plug 1 includes a center electrode side tip 31 and ground electrode side tip 32, wherein a spark discharge gap 33 is formed between the ground electrode side tip 32 and center electrode side tip 31. An area SA1 (mm²) of a region, on a projection plane onto which the ground electrode side tip 32 and the leading end face of the center electrode side tip 31 are projected on a virtual plane perpendicular to an axis CL1, bounded by a first tangent line TL1, a second tangent line TL2, a projection line of another end face of the ground electrode side tip 32, and a projection line of the outer periphery of the leading end face of the center electrode side tip 31, an area SA2 (mm²) of a region in which projection regions of the two tip 31 and 32 overlap when the center electrode side tip 31 and the other end face of the ground electrode side tip 32 are projected onto a virtual plane parallel to the other end face of the ground electrode side tip 32, and a size G (mm) of the spark discharge gap 33, satisfy $0.12 \leq SA1 \times SA2 / G (\text{mm}^2) \leq 0.49$.

IPC 8 full level
H01T 13/20 (2006.01); **H01T 13/16** (2006.01); **H01T 13/39** (2006.01)

CPC (source: EP)
H01T 13/16 (2013.01); **H01T 13/20** (2013.01); **H01T 13/39** (2013.01)

Citation (search report)
• [I] JP 2009200002 A 20090903 - NGK SPARK PLUG CO
• [ID] JP 2009151984 A 20090709 - NGK SPARK PLUG CO

Cited by
CN115064938A; CN110676694A; EP2767706A3; US11990731B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2477286 A2 20120718; EP 2477286 A3 20140430; EP 2477286 B1 20171018; JP 2012164644 A 20120830; JP 5622991 B2 20141112

DOCDB simple family (application)
EP 12151260 A 20120116; JP 2012005756 A 20120116