

Title (en)  
IMPROVED SPARK PLUG

Title (de)  
VERBESSERTE ZÜNDKERZE

Title (fr)  
BOUGIE D'ALLUMAGE AMÉLIORÉE

Publication  
**EP 3180824 A4 20180321 (EN)**

Application  
**EP 15831542 A 20150813**

Priority  
• CA 2859488 A 20140815  
• CA 2015050769 W 20150813

Abstract (en)  
[origin: WO2016023127A1] The plug comprises a nut, a coupling extending from the nut and adapted to receive an ignition wire and an insulator extending from the nut and away from the coupling. A positive electrode extends through the insulator. An externally-threaded tubular portion extends from the nut in surrounding relation to the insulator and terminating, short of the insulator end, in a cap that is disposed in spaced relation to the insulator. The cap defines a void having: a central portion into which the positive electrode extends; an annular channel surrounding the central portion; and a plurality of lobes, each positioned with respect to the central portion as the planet gears are positioned with respect to the sun gear in a planetary gear. The cap has a central surface that is axially spaced from the insulator and a convex surface that surrounds and extends to the central surface.

IPC 8 full level  
**H01T 13/46** (2006.01); **H01T 13/32** (2006.01)

CPC (source: EP)  
**H01T 13/32** (2013.01); **H01T 13/467** (2013.01)

Citation (search report)  
• [X] WO 2013010246 A1 20130124 - NANO SPARK INC [CA], et al  
• [XP] US 2014354137 A1 20141204 - FARRELL MARK [CA], et al  
• [A] US 2009241321 A1 20091001 - FARRELL MARK [CA], et al  
• See references of WO 2016023127A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**WO 2016023127 A1 20160218**; CA 2859488 A1 20160215; CN 106797108 A 20170531; EP 3180824 A1 20170621; EP 3180824 A4 20180321; JP 2017529656 A 20171005; KR 20170041895 A 20170417

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**CA 2015050769 W 20150813**; CA 2859488 A 20140815; CN 201580050767 A 20150813; EP 15831542 A 20150813; JP 2017508032 A 20150813; KR 20177006870 A 20150813