

Title (en)  
PROTECTIVE NOZZLE CAP, ARC PLASMA TORCH HAVING SAID PROTECTIVE NOZZLE CAP AND THE USE OF THE ARC PLASMA TORCH

Title (de)  
DÜSENSCHUTZKAPPE, LICHTBOGENPLASMABRENNER MIT DIESER DÜSENSCHUTZKAPPE SOWIE EINE VERWENDUNG DES LICHTBOGENPLASMABRENNERS

Title (fr)  
CAPOT DE PROTECTION DE BUSE, TORCHE À PLASMA ÉQUIPÉE DE L'UN AINSI QU'UTILISATION DE LA TORCHE À PLASMA

Publication  
**EP 3524038 B1 20230607 (DE)**

Application  
**EP 17783449 A 20171006**

Priority  
• DE 102016219350 A 20161006  
• EP 2017075482 W 20171006

Abstract (en)  
[origin: WO2018065578A1] The protective nozzle cap (7) of the invention for a plasma arc torch (1) is positioned and secured externally on the tip of the plasma arc torch (1) at which a plasma jet exits the plasma arc torch (1) through nozzle-type openings (4a, 7a). The protective nozzle cap (7) is made of an iron alloy containing at least 0.05% sulfur.

IPC 8 full level  
**H05H 1/34** (2006.01)

CPC (source: EP RU US)  
**H05H 1/34** (2013.01 - EP RU US); **H05H 1/3457** (2021.05 - EP); **H05H 1/28** (2013.01 - US); **H05H 1/3457** (2021.05 - US)

Citation (examination)  
• EP 0573653 A1 19931215 - KOMATSU MFG CO LTD [JP]  
• DE 102004049445 C5 20160407 - KJELLBERG FINSTERWALDE PLASMA & MASCHINEN GMBH [DE]  
• WO 2014184656 A2 20141120 - KJELLBERG STIFTUNG [DE]  
• DE 2703644 A1 19770804 - ELECT & MAGN ALLOYS RES INST

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

DOCDB simple family (publication)  
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EP 3524038 B1 20230607; JP 2019535109 A 20191205; JP 7090074 B2 20220623; RU 2019110297 A 20201106; RU 2019110297 A3 20201125;  
RU 2741583 C2 20210127; US 11178746 B2 20211116; US 2020045804 A1 20200206

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JP 2019518962 A 20171006; RU 2019110297 A 20171006; US 201716340220 A 20171006