

Title (en)
COOLING PIPES, ELECTRODE HOLDERS AND ELECTRODE FOR AN ARC PLASMA TORCH AND ASSEMBLIES MADE THEREOF AND ARC PLASMA TORCH COMPRISING THE SAME

Title (de)
KÜHLROHRE, ELEKTRODENAUFNAHMEN UND ELEKTRODE FÜR EINEN LICHTBOGENPLASMABRENNER SOWIE ANORDNUNGEN AUS DENSELBEN UND LICHTBOGENPLASMABRENNER MIT DENSELBEN

Title (fr)
TUYAUX DE REFROIDISSEMENT, SUPPORT D'ÉLECTRODE ET ÉLECTRODE POUR UNE TORCHE À PLASMA D'ARC ET ENSEMBLE COMPRENANT CES ÉLÉMENTS AINSI QUE TORCHE À PLASMA D'ARC DOTÉE DE CES ÉLÉMENTS

Publication
EP 2417840 A2 20120215 (DE)

Application
EP 10720245 A 20100324

Priority
• DE 2010000325 W 20100324
• DE 102009016932 A 20090408

Abstract (en)
[origin: WO2010115397A2] The invention relates to a cooling pipe for an arc plasma torch, comprising an elongated body having an end arranged in the open end of the an electrode and a coolant channel extending through the same, characterized in that at said end a bead-like inwardly and/or outwardly directly thickened region of the wall of the cooling pipe is present. Furthermore, the invention relates to an assembly made of a cooling pipe for an arc plasma torch, which comprises an elongated body having a rear end that can be detachably connected to an electrode holder of an arc plasma torch and further comprises a coolant channel extending through the same, and an electrode holder for an arc plasma torch, said holder comprising an elongated body having one end for receiving an electrode and a hollow interior, wherein at least one projection for centering the cooling pipe in the electrode holder is provided on the outside surface of the cooling pipe.

IPC 8 full level
H05H 1/34 (2006.01)

CPC (source: CN EP KR US)
H05H 1/28 (2013.01 - CN KR); **H05H 1/34** (2013.01 - CN EP US); **H05H 1/3436** (2021.05 - EP KR); **H05H 1/3442** (2021.05 - EP KR); **H05H 1/3457** (2021.05 - EP KR); **H05H 1/3436** (2021.05 - US); **H05H 1/3442** (2021.05 - US); **H05H 1/3457** (2021.05 - US)

Citation (search report)
See references of WO 2010115397A2

Designated contracting state (EPC)
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 SE SI SK SM TR

DOCDB simple family (publication)
WO 2010115397 A2 20101014; WO 2010115397 A3 20110303; BR PI1016021 A2 20160426; BR PI1016021 B1 20191119; CN 102388681 A 20120321; CN 107018618 A 20170804; CN 107018618 B 20200619; DE 102009016932 A1 20101021; DE 102009016932 B4 20130620; EP 2417840 A2 20120215; EP 2417840 B1 20180221; ES 2669644 T3 20180528; JP 2012523651 A 20121004; KR 101650605 B1 20160823; KR 20110136852 A 20111221; PL 2417840 T3 20180731; RU 2011145039 A 20130520; RU 2524919 C2 20140810; SI 2417840 T1 20180430; US 2012132626 A1 20120531; US 2015083695 A1 20150326; US 9204526 B2 20151201; US 9743504 B2 20170822

DOCDB simple family (application)
DE 2010000325 W 20100324; BR PI1016021 A 20100324; CN 201080015193 A 20100324; CN 201710122878 A 20100324; DE 102009016932 A 20090408; EP 10720245 A 20100324; ES 10720245 T 20100324; JP 2012503857 A 20100324; KR 20117023951 A 20100324; PL 10720245 T 20100324; RU 2011145039 A 20100324; SI 201031660 T 20100324; US 201013320202 A 20100324; US 201414553711 A 20141125