

Title (en)

METAL MAKING LANCE TIP ASSEMBLY

Title (de)

LANZETTENSPITZENANORDNUNG ZUR METALLHERSTELLUNG

Title (fr)

ENSEMBLE DE POINTE DE LANCE DE FABRICATION DE METAL

Publication

**EP 2010851 A2 20090107 (EN)**

Application

**EP 07755720 A 20070419**

Priority

- US 2007009551 W 20070419
- US 79425806 P 20060421

Abstract (en)

[origin: US2007246869A1] A metal making lance tip assembly including a tip face member having a plurality of outlets, a plurality of nozzles corresponding in number and in communication with the tip face member outlets, and a coolant flow baffle member for directing coolant flow around the nozzles. The lance tip assembly further includes both a generally centrally disposed coolant fluid diverting protrusion and a plurality of radial vanes at the inner surface of the lance tip face member, which vanes preferably extend essentially the entire axial distance between the inner surface of the lance tip face member and a lower surface of the coolant flow baffle member and essentially the entire radial distance from the central protrusion to an annular coolant fluid return passageway.

IPC 8 full level

**C21C 5/46** (2006.01); **F27D 3/16** (2006.01)

CPC (source: EP US)

**C21C 5/4606** (2013.01 - EP US); **C21C 5/5217** (2013.01 - EP US); **F27D 3/16** (2013.01 - EP US); **Y02P 10/20** (2015.11 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

BA RS

DOCDB simple family (publication)

**US 2007246869 A1 20071025**; CA 2657393 A1 20071101; EP 2010851 A2 20090107; EP 2010851 A4 20090826; MX 2008013184 A 20081027; MX 341804 B 20160905; WO 2007123986 A2 20071101; WO 2007123986 A3 20071221

DOCDB simple family (application)

**US 78825107 A 20070419**; CA 2657393 A 20070419; EP 07755720 A 20070419; MX 2008013184 A 20070419; US 2007009551 W 20070419