

Title (en)
Refractory nozzle for a metallurgical vessel

Title (de)
Feuerfester Ausguss für ein metallurgisches Gefäß

Title (fr)
Buse réfractaire pour récipient métallurgique

Publication
EP 1332813 A3 20031126 (DE)

Application
EP 02027793 A 20021212

Priority
DE 10204305 A 20020201

Abstract (en)
[origin: EP1332813A2] Refractory outlet comprises: an opening (1) having an upper and a lower end; an inner wall laterally enclosing the opening; and a heater (2) and/or a thermally insulating material which dissolves or combusts on contact with liquid steel. Preferred Features: The thermally insulating material is cardboard or a material with a melting point lying below the melting point of the steel, or has fibers and is applied by spraying. The heater is made from steel.

IPC 1-7
B22D 41/60

IPC 8 full level
B22D 41/50 (2006.01); **B22D 41/60** (2006.01)

CPC (source: EP KR US)
B22D 41/50 (2013.01 - KR); **B22D 41/60** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)
EP 1332813 A2 20030806; EP 1332813 A3 20031126; EP 1332813 B1 20080130; AT E385208 T1 20080215; BR 0300169 A 20030909; BR 0300169 B1 20111116; CA 2413492 A1 20030801; CA 2413492 C 20090929; CN 1286601 C 20061129; CN 1435288 A 20030813; DE 10204305 A1 20030821; DE 10204305 B4 20040429; DE 50211632 D1 20080320; ES 2296871 T3 20080501; JP 2003245772 A 20030902; JP 4316897 B2 20090819; KR 100870162 B1 20081125; KR 20030066342 A 20030809; US 2003146553 A1 20030807; US 6832707 B2 20041221

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EP 02027793 A 20021212; AT 02027793 T 20021212; BR 0300169 A 20030130; CA 2413492 A 20021203; CN 03100156 A 20030103; DE 10204305 A 20020201; DE 50211632 T 20021212; ES 02027793 T 20021212; JP 2003010827 A 20030120; KR 20030003185 A 20030117; US 35571203 A 20030131