

Title (en)
Stopper rod

Title (de)
Stopfenstange

Title (fr)
Quenouille

Publication
EP 1736260 B1 20070905 (EN)

Application
EP 05013320 A 20050621

Priority
EP 05013320 A 20050621

Abstract (en)
[origin: EP1736260A1] The invention relates to a stopper rod for controlling the flow of molten metal from a metallurgical vessel like a tundish. The stopper having a gas channel (22) which is larger than the distance defined by a straight line between its ends (22i,22o).

IPC 8 full level
B22D 41/18 (2006.01)

CPC (source: EP US)
B22D 41/186 (2013.01 - EP US)

Cited by
DE102007004958B4; EP3705204A1; WO2017162263A1; WO2024017662A1; WO2020182362A1

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 MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1736260 A1 20061227; EP 1736260 B1 20070905; AT E372182 T1 20070915; BR PI0606500 A2 20090630; CN 100500331 C 20090617; CN 101080293 A 20071128; DE 602005002359 D1 20071018; DE 602005002359 T2 20080529; ES 2292008 T3 20080301; PL 1736260 T3 20071231; RU 2007122472 A 20090727; RU 2374035 C2 20091127; UA 83161 C2 20080610; US 2008106011 A1 20080508; WO 2006136324 A2 20061228; WO 2006136324 A3 20070308

DOCDB simple family (application)
EP 05013320 A 20050621; AT 05013320 T 20050621; BR PI0606500 A 20060616; CN 200680001346 A 20060616; DE 602005002359 T 20050621; EP 2006005775 W 20060616; ES 05013320 T 20050621; PL 05013320 T 20050621; RU 2007122472 A 20060616; UA A200706435 A 20060616; US 71903706 A 20060616