

Title (en)  
TAPPING TUBE

Title (de)  
ABSTICHROHR

Title (fr)  
TUBE DE COULEE

Publication  
**EP 1678333 B1 20070620 (DE)**

Application  
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Abstract (en)  
[origin: US2007164491A1] The present invention relates to a tapping pipe for a metallurgical melting vessel, such as a converter or an arc furnace.

IPC 8 full level  
**C21C 5/46** (2006.01); **B22D 41/50** (2006.01); **F27B 1/21** (2006.01); **F27B 3/18** (2006.01); **F27D 3/15** (2006.01)

IPC 8 main group level  
**C21C** (2006.01)

CPC (source: EP KR US)  
**B22D 41/50** (2013.01 - EP US); **C21C 5/46** (2013.01 - KR); **C21C 5/4653** (2013.01 - EP US); **F27B 1/21** (2013.01 - EP US);  
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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)  
**US 2007164491 A1 20070719; US 7556765 B2 20090707**; AR 049903 A1 20060913; AT E365231 T1 20070715; AU 2005250081 A1 20051215; AU 2005250081 B2 20080124; BR PI0511738 A 20080108; BR PI0511738 B1 20130924; CA 2562334 A1 20051215; CA 2562334 C 20100126; CN 100429323 C 20081029; CN 1950523 A 20070418; DE 102004027440 B3 20050616; DE 502005000895 D1 20070802; DK 1678333 T3 20070924; EA 008914 B1 20070831; EA 200602009 A1 20070629; EG 24432 A 20090621; EP 1678333 A2 20060712; EP 1678333 B1 20070620; ES 2287912 T3 20071216; JP 2008501854 A 20080124; JP 4787244 B2 20111005; KR 100861849 B1 20081007; KR 20070020275 A 20070220; MX PA06013067 A 20070214; NO 20064992 L 20061031; PE 20060119 A1 20060402; PL 1678333 T3 20071031; PT 1678333 E 20070814; SI 1678333 T1 20071231; TW 200609357 A 20060316; TW I294464 B 20080311; WO 2005118889 A2 20051215; WO 2005118889 A3 20060406; ZA 200609209 B 20080625

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**US 56816005 A 20050416**; AR P050102280 A 20050603; AT 05730742 T 20050416; AU 2005250081 A 20050416; BR PI0511738 A 20050416; CA 2562334 A 20050416; CN 200580014845 A 20050416; DE 102004027440 A 20040604; DE 502005000895 T 20050416; DK 05730742 T 20050416; EA 200602009 A 20050416; EG NA2006001134 A 20061129; EP 05730742 A 20050416; EP 2005004051 W 20050416; ES 05730742 T 20050416; JP 2007513714 A 20050416; KR 20067025506 A 20061204; MX PA06013067 A 20050416; NO 20064992 A 20061031; PE 2005000629 A 20050603; PL 05730742 T 20050416; PT 05730742 T 20050416; SI 200530061 T 20050416; TW 94117709 A 20050530; ZA 200609209 A 20061106