

Title (en)

Cooling plate for shaft furnaces

Title (de)

Kühlplatte für Schachtöfen

Title (fr)

Plaque de refroidissement pour fours à cuve

Publication

EP 0705906 B1 20000126 (DE)

Application

EP 94115821 A 19941007

Priority

EP 94115821 A 19941007

Abstract (en)

[origin: EP0705906A1] Cooling plate for a shaft furnace, esp. a blast furnace, equipped with a fireproof lining, consists of copper or a low-alloyed copper alloy and has cooling channels within it. The cooling plate is made from a cast or rolled ingot and the cooling channels are vertical blind bores. The plate is novel in that additional vertical and horizontal blind bores (13,14) of smaller dia than the main bores (3) are provided in the edge regions of the plate.

IPC 1-7

C21B 7/10

IPC 8 full level

C21B 7/10 (2006.01)

CPC (source: EP KR US)

C21B 7/10 (2013.01 - EP KR US)

Cited by

EP0837144A1; EP0741190A1; US5678806A; DE19545984A1; DE19545984B4; EP0816515A1; US5904893A; DE19545048A1; DE19545048C2; DE19727008C1; EP0887428A1; US6132673A; DE19727008C2; EA009005B1; US7537724B2

Designated contracting state (EPC)

AT BE DE FR GB IT LU NL SE

DOCDB simple family (publication)

EP 0705906 A1 19960410; EP 0705906 B1 20000126; AT E189265 T1 20000215; BR 9504314 A 19961008; CA 2159964 A1 19960408; DE 59409106 D1 20000302; JP H08269510 A 19961015; KR 100342274 B1 20021104; KR 960014363 A 19960522; MX 9504260 A 19970131; US 5650119 A 19970722

DOCDB simple family (application)

EP 94115821 A 19941007; AT 94115821 T 19941007; BR 9504314 A 19951006; CA 2159964 A 19951005; DE 59409106 T 19941007; JP 28428395 A 19950927; KR 19950034105 A 19951005; MX 9504260 A 19951006; US 54006195 A 19951221