

Title (en)
STAVE PROTECTION SYSTEM

Title (de)
PLATTENKÜHLERSCHUTZSYSTEM

Title (fr)
SYSTÈME DE PROTECTION DE DOUVE

Publication
EP 3540080 A1 20190918 (EN)

Application
EP 18161897 A 20180315

Priority
EP 18161897 A 20180315

Abstract (en)
A stave protection system for a metallurgical furnace comprises: a stave (300) comprising a front face (302) having an X direction and a Y direction which is perpendicular to the X direction such as to define an X-Y plane, the front face (302) comprising rows of grooves (312) which extend in the X direction; and inserts (100) which are slidably received by the grooves (312), the inserts (100) so received by each respective groove (312) being spaced apart from each other along the groove (312), the centres of the inserts (100) which are received by one of the grooves (312) being offset in each of the X and Y directions from the centres of the inserts (100) which are received by an adjacent groove (312), each of the inserts (100) projecting from the front face (302) of the stave (300) and comprising flow guiding surfaces (102c1, 102c3, 102c4, 102c6) which are inclined with respect to each of the X and Y directions in the X-Y plane.

IPC 8 full level
C21B 7/02 (2006.01); **C21B 7/10** (2006.01); **C21C 5/46** (2006.01); **F27B 1/24** (2006.01); **F27B 3/24** (2006.01); **F27D 1/00** (2006.01); **F27D 1/12** (2006.01); **F27D 9/00** (2006.01)

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Citation (applicant)
WO 2009147192 A1 20091210 - WURTH PAUL SA [LU], et al

Citation (search report)
• [XAI] DE 7331936 U
• [A] WO 2017139900 A1 20170824 - HATCH LTD [CA]

Cited by
EP3995224A1; US2022018600A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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DOCDB simple family (application)
EP 18161897 A 20180315; CN 201910198047 A 20190315; CN 201920330503 U 20190315; EP 19709512 A 20190313; EP 2019056289 W 20190313; JP 2020548927 A 20190313; JP 2022181152 A 20221111; KR 20207026130 A 20190313; RU 2020127871 A 20190313