

Title (en)
METHOD FOR LINING METALLURGICAL UNITS

Title (de)
VERFAHREN ZUM AUSKLEIDEN VON METALLURGISCHEN EINHEITEN

Title (fr)
PROCÉDÉ DE GARNISSAGE D'APPAREILS MÉTALLURGIQUES

Publication
EP 4113044 A4 20240327 (EN)

Application
EP 20921982 A 20201016

Priority
• RU 2020108280 A 20200226
• RU 2020000546 W 20201016

Abstract (en)
[origin: EP4113044A1] The present technical solution, in general, relates to the field of metallurgy, more particularly to technologies for lining metallurgical units and other thermal units by the shotcrete method and to the realization thereof in apparatus terms. The method for lining metallurgical units comprises cleaning the surface to be lined with shotcrete concrete of contaminating elements; mixing the shotcrete concrete with water using equipment for preparing a concrete mix; directing the concrete mix produced in the previous step to a concrete pump and then, via a pipeline, further to the work site where the mix is applied on the lining, wherein a nozzle for applying the concrete mix is fitted at the end of the pipeline; applying the concrete mix on the prepared surface for lining with shotcrete concrete by mixing the concrete mix with a hardener at the nozzle. The technical result consists in reduced consumption of refractory materials used for lining the working layer of walls of metallurgical units.

IPC 8 full level
F27D 1/16 (2006.01); **B22D 13/10** (2006.01); **B22D 41/02** (2006.01); **C21B 7/06** (2006.01); **C21B 9/06** (2006.01); **C21C 5/44** (2006.01); **F23M 5/00** (2006.01); **F27D 1/10** (2006.01)

CPC (source: EP RU)
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Citation (search report)
• [X1] WO 9601700 A1 19960125 - RENO AND SON INC [US], et al
• [X1] US 6004626 A 19991221 - NOONE KENNETH [US], et al
• [A] RU 2433981 C1 20111120 - G OBRAZOVATEL NOE UCHREZHDIENIE VYSSHEGO PROFESSIONAL NOGO OBRAZOVANIJA SANKT PETERBURGSKIY G TI TEKH [RU]
• [A] US 2015376060 A1 20151231 - WERZ JENNIFER [DE], et al
• See also references of WO 2021173031A1

Designated contracting state (EPC)
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EP 4113044 A1 20230104; **EP 4113044 A4 20240327**; RU 2735014 C1 20201027; WO 2021173031 A1 20210902

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