

Title (en)

Refractory valve plate for sliding gate valves in metallurgical vessels and process for manufacturing the valve plate

Title (de)

Feuerfeste Verschlussplatte für Schieberverschlüsse an metallurgischen Gefäßen und Verfahren zur Herstellung der Verschlussplatte

Title (fr)

Plaque réfractaire obturatrice pour obturateurs coulissants de récipients métallurgiques et procédé de fabrication de la plaque obturatrice

Publication

EP 0630710 B1 20000906 (DE)

Application

EP 94104659 A 19940324

Priority

DE 4310965 A 19930403

Abstract (en)

[origin: EP0630710A2] The valve plate 1a for the sliding gate valve of a launder for metal melts has a solid, one-piece oval steel frame 2 which is distinguished by a high mechanical strength and high thermal resistance. Recesses 3 of any desired shape and holes 4 for cooling purposes and weight reduction are machined into the frame 2. The steel frame 2 encloses a refractory main body 5 made of cement or a similar material, in which a wearing part 6 designed, for example, as a ring is embedded. This wearing part has a throughflow opening 7 for the steel melt and is composed of a material which is resistant to high temperatures, cracking, peeling, erosion and chemical attack. To produce valve plates 1a, the main body 5 composed of cement or a similar material is cast in the frame 2, which serves as a casting mould. In this process, casting templates with an opening corresponding to the opening in the frame are secured on the top and bottom sides of the frame 2 and the wearing part 6 is held on a locating stud of a bottom plate on which the frame 2 is placed together with the casting templates. The valve plate 1a is then dried at temperatures in a range of from 150 to 400 DEG C. <IMAGE>

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IPC 8 full level

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CPC (source: EP)

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