

Title (en)

Magnetic yoke for a crucible induction furnace.

Title (de)

Magnetischer Rückschluss für einen Induktionstiegelofen.

Title (fr)

Culasse magnétique pour un four à induction à creuset.

Publication

EP 0563802 B1 19950927 (DE)

Application

EP 93104986 A 19930325

Priority

DE 4210374 A 19920330

Abstract (en)

[origin: EP0563802A2] A magnetic yoke for a crucible induction furnace is proposed, having a rod-shaped laminate (sheet-metal) stack (9, 19), which is suitable for guiding the magnetic flux produced by the furnace coil (3) of the crucible induction furnace (1) and consists of a multiplicity of individual laminates which are electrically insulated from one another. On its main surface facing the furnace coil (3), the laminate stack (9, 19) is shaped such that it is divided into three parts in such a manner that a central region of the laminate stack can be positioned very close to the furnace coil, while the distance between the edges of the individual laminates of the laminate stack and the furnace coil in the two side regions adjacent to the central region of the laminate stack increases towards the edge, so that acute-angled sectors which are free of laminates are formed parallel to the furnace axis in the two edge regions of the yoke pointing towards the furnace coil. This prevents high specific power being introduced at points in the edge regions of the magnetic yoke and makes the temperature distribution within the yoke uniform. <IMAGE>

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