

Title (en)

Partially reinforced aluminium cast construction part and method of manufacturing same

Title (de)

Partiell verstärktes Al-GussBauteil und Verfahren zu dessen Herstellung

Title (fr)

Composant de construction moulé en aluminium renforcé partiellement et procédé de fabrication

Publication

EP 0640759 B1 19970305 (DE)

Application

EP 94112615 A 19940812

Priority

DE 4328619 A 19930826

Abstract (en)

[origin: EP0640759A1] The invention relates to a partially reinforced aluminium cast component comprising an aluminium casting and a spray-compacted aluminium reinforcing part at least partially enclosed, by being cast in, by the base material of the casting. The method for manufacturing such a component comprises the formation of a reinforcing element from spray-compacted material, the insertion of this element into the casting mould, the surrounding of the reinforcing element with an aluminium casting alloy and the solidification of the melt. A component of this kind is distinguished by the fact that a complete, strong material bond is present in the joints between the aluminium casting and the reinforcing part.

IPC 1-7

F02F 3/00; **F02F 3/12**; **B22D 19/00**; **C23C 4/12**

IPC 8 full level

B22D 19/00 (2006.01); **C23C 4/123** (2016.01); **F02F 3/00** (2006.01); **F02F 3/12** (2006.01)

CPC (source: EP)

B22D 19/0027 (2013.01); **C23C 4/123** (2016.01); **F02F 3/00** (2013.01); **F02F 3/12** (2013.01); **F02F 2200/04** (2013.01); **F05C 2201/021** (2013.01); **F05C 2201/028** (2013.01); **F05C 2201/0448** (2013.01); **F05C 2253/16** (2013.01)

Cited by

EP0807750A1; CN103221673A; US6112715A; CN104185529A; FR2849899A1; EP1439301A1; WO2012065661A1; WO9748895A1; US9429100B2; WO2013144072A1

Designated contracting state (EPC)

AT ES FR GB IT NL SE

DOCDB simple family (publication)

EP 0640759 A1 19950301; **EP 0640759 B1 19970305**; AT E149637 T1 19970315; DE 4328619 A1 19950302; DE 4328619 C2 19950810; ES 2098085 T3 19970416

DOCDB simple family (application)

EP 94112615 A 19940812; AT 94112615 T 19940812; DE 4328619 A 19930826; ES 94112615 T 19940812