Title (en)
COMPOSITE PART CONTAINING METALLIC FOAM

Title (de)
METALLSCHAUM ENTHALTENDES VERBUNDBAUTEIL

Title (fr)
PIECE COMPOSITE CONTENANT DE LA MOUSSE METALLIQUE

Publication
EP 1079948 B1 20050511 (DE)

Application
EP 00915140 A 20000307

Priority
- DE 0000670 W 20000307
- DE 19911213 A 19990312

Abstract (en)
[origin: WO0054911A1] The invention relates to a composite part (1) consisting of at least two solid metal sheet parts (4, 5) which face each other with a layer of metallic powder to be expanded between them. The composite part has additional reinforcing elements (9) in individual cross-sectional areas, said elements being connected to the expanded layer of metallic powder (6, 7) that surrounds them with a form fit. Said expanded layer is connected to the outlying solid metal sheet parts in such a way that they cannot be separated non-destructively. The invention also relates to a method for producing the inventive composite part. According to said method, each solid metal sheet part (4, 5) is provided with a metallic powder layer (6, 7). The two sheet parts (4, 5) are then arranged on top of each other with the sides that have been provided with the metallic powder layer (6 and 7) facing towards each other. The thus superposed sheet parts are heated by applying heat in such a way that a joint that cannot be separated non-destructively is produced between the metallic powder layers (6, 7) facing each other by means of a heat-dependent expanding process.

IPC 1-7
B22F 3/11; B22F 7/00

IPC 8 full level
B22F 3/11 (2006.01); **B22F 7/00** (2006.01)

CPC (source: EP US)
B22F 3/1118 (2013.01 - EP US); **B22F 7/006** (2013.01 - EP US); B22F 2998/00 (2013.01 - EP US); Y10T 428/12042 (2015.01 - EP US); Y10T 428/12069 (2015.01 - EP US); Y10T 428/12097 (2015.01 - EP US); Y10T 428/12153 (2015.01 - EP US); Y10T 428/12479 (2015.01 - EP US); Y10T 428/12736 (2015.01 - EP US)

Designated contracting state (EPC)
ES FR GB IT SE

DOCDB simple family (publication)
WO 0054911 A1 20000921; DE 19911213 C1 20001109; EP 1079948 A1 20010307; EP 1079948 B1 20050511; ES 2240077 T3 20051016; US 6444330 B1 20020903

DOCDB simple family (application)
DE 0000670 W 20000307; DE 19911213 A 19990312; EP 00915140 A 20000307; ES 00915140 T 20000307; US 70010500 A 20001212