Title (en)

PROCESS FOR DEFORMING A METAL PIECE

Publication

EP 0374094 B1 19930519 (DE)

Application

EP 89810916 A 19891205

Priority

US 28404688 A 19881214

Abstract (en)

[origin: EP0374094A1] In the process for producing thin metal parts, in particular thin sheets, preferably by mechanical hot forming, a metal piece (20) to be protected from corrosion is packed into a frame (22) and covered by two cover plates (28 and 28'); a parting compound (34) is interposed between metal piece (20) and cover (28,28'). The pack (36) thus produced is clamped together and welded along its edges. The stratified structure now present is mechanically formed, for example rolled down to a certain thickness. <??>The parting compound (34) is flowable at the forming temperature and forms a coherent parting layer between the cover plates (28,28') and the metal piece (20), which prevents a metallurgical binding between the two metals (20,28,28'). <??>After the hot forming the deformed pack is cooled down. Its edges are cut off and the envelope can be easily removed from the final product due to the parting compound intermediate layer, since, after cooling down, the parting compound is brittle and the metal surfaces pooly wettable. <??>Since the metal piece (20) is enclosed by an envelope (28,28',22), oxidation and/or other losses of quality of the metal piece (20) are prevented during the hot forming. <IMAGE>

IPC 1-7

B21B 1/38; B21B 3/00

IPC 8 full level

B21B 1/40 (2006.01); **B21B 1/38** (2006.01); **B21B 3/00** (2006.01); **B21D 33/00** (2006.01)

CPC (source: EP US)

B21B 1/38 (2013.01 - EP US); **B21B 3/00** (2013.01 - EP US); Y10T 29/304 (2015.01 - EP US); Y10T 29/305 (2015.01 - EP US); Y10T 29/308 (2015.01 - EP US); Y10T 29/4981 (2015.01 - EP US)

Citation (examination)

DD 1501161 A

Cited by

CN105458004A; EP0631829A1; US5658623A; EP0568754A1; US5301403A; WO0025949A1

Designated contracting state (EPC)

CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0374094 A1 19900620; **EP 0374094 B1 19930519**; CA 2002714 A1 19900614; CA 2002714 C 19990302; DE 58904435 D1 19930624; ES 2042066 T3 19931201; JP H02263504 A 19901026; JP H082451 B2 19960117; US 5121535 A 19920616

DOCDB simple family (application)

EP 89810916 A 19891205; CA 2002714 A 19891110; DE 58904435 T 19891205; ES 89810916 T 19891205; JP 31742589 A 19891206; US 28404688 A 19881214