

Title (en)  
METHOD FOR THE PRODUCTION OF A SHEET METAL PART BY FORMING

Title (de)  
VERFAHREN ZUM HERSTELLEN EINES BLECHFORMTEILES DURCH UMFORMEN

Title (fr)  
PROCEDE POUR PRODUIRE UNE PIECE FACONNEE EN TOLE PAR FORMAGE

Publication  
**EP 0946311 A1 19991006 (DE)**

Application  
**EP 97954916 A 19971215**

Priority  
• DE 19653543 A 19961220  
• EP 9707029 W 19971215

Abstract (en)  
[origin: DE19653543A1] The invention relates to a method for the production of a sheet metal part (2) having various material thicknesses depending on the strength and/or stiffness requirements, by forming, preferably deep-drawing. A particularly inexpensive and, as regards the shaping process, problem-free method is possible, in accordance with the invention, when a steel sheet billet (1), as known per se, is heated in the shaping range, whereby the heating is carried out only partially or with varying intensity for the purpose of attaining a variable elongation coefficient over the whole surface of the steel sheet billet (1).

IPC 1-7  
**B21D 22/00**; **B21D 53/88**; **B62D 65/00**

IPC 8 full level  
**B21D 22/00** (2006.01); **B21D 22/20** (2006.01); **B21D 22/26** (2006.01); **B21D 53/88** (2006.01); **B62D 65/00** (2006.01)

CPC (source: EP US)  
**B21D 22/20** (2013.01 - EP US); **B21D 22/26** (2013.01 - EP US); **C21D 1/673** (2013.01 - EP US); **C21D 2221/00** (2013.01 - EP US); **C21D 2221/02** (2013.01 - EP US)

Citation (search report)  
See references of WO 9828097A1

Cited by  
DE102013010919A1; DE102013010919B4; DE102021132658A1; WO2023104239A1

Designated contracting state (EPC)  
DE ES FR GB

DOCDB simple family (publication)  
**DE 19653543 A1 19980625**; DE 59702545 D1 20001130; EP 0946311 A1 19991006; EP 0946311 B1 20001025; ES 2151299 T3 20001216; JP 2001506543 A 20010522; US 6185977 B1 20010213; WO 9828097 A1 19980702

DOCDB simple family (application)  
**DE 19653543 A 19961220**; DE 59702545 T 19971215; EP 9707029 W 19971215; EP 97954916 A 19971215; ES 97954916 T 19971215; JP 52833498 A 19971215; US 33154499 A 19990618