Title (en)

METHOD FOR FORMING A SHEET METAL COVER

Title (de)

VERFAHREN ZUM AUSFORMEN EINES BLECHDECKELS

Title (fr)

PROCEDE POUR FORMER UN COUVERCLE EN TOLE

Publication

EP 1583620 B2 20101027 (DE)

Application

EP 03808249 A 20031223

Priority

- DE 0304282 W 20031223
- DE 10300914 A 20030113
- DE 10319971 A 20030505
- DE 10325561 A 20030521

Abstract (en)

[origin: US2006277966A1] The invention relates to a method for forming a sheet metal lid. At least one projection (20,21 a, 21 b) is formed twice. Firstly for shaping a pre-form (20 *) of the projection out of a panel (10) of said sheet metal lid, said pre-form being located near an attaching portion (31) of a tab (30), but at a distance from said mounting place (11). Secondly for re-forming at least a front edge (20'',21 b') of said pre-form (20 *) of said at least one projection. No score line (16) is provided in said panel, neither during shaping, nor during re-forming. An improved blocking for an outer edge portion (31 c) of the attaching portion is thus obtained, said outer edge portion being associated with said front edge.

IPC 8 full level

B21D 1/00 (2006.01); **B21D 51/38** (2006.01); **B65D 17/32** (2006.01); **B65D 17/34** (2006.01)

CPC (source: EP US)

B21D 51/383 (2013.01 - EP US); **B65D 17/4012** (2017.12 - EP US); B65D 2517/0014 (2013.01 - EP US); B65D 2517/0071 (2013.01 - EP US)

Citation (opposition)

Opponent :
- US 3191564 A 19650629 - FRAZE ERMAL C
- US 3871314 A 19750318 - STARGELL DONALD E
- US 5119664 A 19920609 - SCHUBERT JAMES R [US]
- US 5918499 A 19990706 - LANGLASSE JEAN [FR], et al
- EP 1055468 A2 20001129 - SHOWA SEIKI CO LTD [JP]

Cited by

CN110666036A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

US 2006277966 A1 20061214; **US 7384227 B2 20080610**; AT E357982 T1 20070415; AU 2003303754 A1 20040813; AU 2003303754 A8 20040813; BR 0317991 A 20051206; BR 0317991 B1 20140722; DE 10300914 A1 20040729; DE 10300914 B4 20100304; DE 10325561 A1 20050414; DE 50306935 D1 20070510; EP 1583620 A2 20051012; EP 1583620 B1 20070328; EP 1583620 B2 20101027; PL 202693 B1 20090731; PL 376209 A1 20051227; RU 2005125722 A 20060110; RU 2340522 C2 20081210; WO 2004065033 A2 20040805; WO 2004065033 A3 20040916

DOCDB simple family (application)

US 54184603 A 20031223; AT 03808249 T 20031223; AU 2003303754 A 20031223; BR 0317991 A 20031223; DE 0304282 W 20031223; DE 10300914 A 20030113; DE 10325561 A 20030521; DE 50306935 T 20031223; EP 03808249 A 20031223; PL 37620903 A 20031223; RU 2005125722 A 20031223