

Title (en)

Method and apparatus for drawing conical containers and containers so obtained.

Title (de)

Verfahren und Vorrichtung zum Tiefziehen von konischen Behältern und nach diesem Verfahren hergestellter Behälter.

Title (fr)

Procédé et dispositif d'emboutissage de récipients de forme tronçanique, et récipient ainsi embouti.

Publication

EP 0433203 B1 19940413 (FR)

Application

EP 90470068 A 19901205

Priority

FR 8916445 A 19891211

Abstract (en)

[origin: EP0433203A1] The deep-drawing device comprises a frustoconical punch 2 and a die 1. The die comprises concentric rings 8, 9, 10 which move in the direction of the displacement of the punch and pressure means 14, 15, 16 for exerting a predetermined force on the said rings in the direction of the punch, each of the frontal annular surfaces 20, 21, 13 of the said rings having a shape complementary to the annular surface 20', 21', 13' of the punch which faces it axially. According to the method of the invention, intended especially for the production in a single pass of a generally frustoconical container, annular zones 32, 33, 34, which are concentric with the blank are deformed in succession by starting with the zone of smallest dimension, each annular zone 32, 33, 34 being held pressed to the punch by a corresponding ring (respectively 10, 9, 8) from the moment when the said zone is in contact with the punch and until the end of the deep drawing, each annular zone being moreover in bearing contact against a corresponding ring as long as the inner adjacent zone is not applied against the punch. <IMAGE>

IPC 1-7

B21D 22/26; **B21D 51/10**

IPC 8 full level

B21D 24/00 (2006.01); **B21D 22/26** (2006.01); **B21D 51/10** (2006.01)

CPC (source: EP KR)

B21D 22/26 (2013.01 - EP); **B21D 24/00** (2013.01 - KR); **B21D 51/10** (2013.01 - EP)

Cited by

DE19853130A1; DE19853130B4; WO2023245002A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0433203 A1 19910619; **EP 0433203 B1 19940413**; AT E104180 T1 19940415; CA 2031859 A1 19910612; CA 2031859 C 20030617; DE 69008134 D1 19940519; FR 2655576 A1 19910614; FR 2655576 B1 19950106; JP 2834334 B2 19981209; JP H04118122 A 19920420; KR 100191341 B1 19990615; KR 910011355 A 19910807

DOCDB simple family (application)

EP 90470068 A 19901205; AT 90470068 T 19901205; CA 2031859 A 19901210; DE 69008134 T 19901205; FR 8916445 A 19891211; JP 40995790 A 19901211; KR 900020265 A 19901210