

Title (en)

Apparatus and method for spin flow necking A and I can.

Title (de)

Vorrichtung und Verfahren zum Einhaseln von Dosen mittels Fließdrücken.

Title (fr)

Dispositif et méthode pour rétreindre des boîtes par emboutissage au tour.

Publication

EP 0582984 A1 19940216 (EN)

Application

EP 93112667 A 19930806

Priority

- US 92993292 A 19920814
- US 92993392 A 19920814

Abstract (en)

A method and apparatus for spin flow necking-in a D&I can (C) is disclosed wherein an externally located free spinning form roll (11) is moved radially inward and axially against the outside wall of the open end of a trimmed can (C). A spring-loaded (20) interior support slide roll (19') moves under the forming force of the form roll (11) as the latter slides along a conical forming surface (24e) of a second free roll (24) mounted axially inwardly adjacent the slide roll (19'). To prevent damage to the metal caused by excessive pressure contact between the form and slide rolls, the slide roll (19') is axially retracted via a cam ring (102) which initially contacts the form roll (11) during radially inward necking movement.

IPC 1-7

B21D 51/26

IPC 8 full level

B21D 22/14 (2006.01); **B21D 51/26** (2006.01)

CPC (source: EP KR)

B21D 19/12 (2013.01 - KR); **B21D 51/2615** (2013.01 - EP); **B21D 51/2638** (2013.01 - EP KR)

Citation (search report)

- [AD] US 4781047 A 19881101 - BRESSAN RENATO J [US], et al
- [A] JP H03165939 A 19910717 - KUWABARA YASUNAGA
- [A] PATENT ABSTRACTS OF JAPAN vol. 15, no. 404 (M-1168)15 October 1991 & JP-A-3 165 939 (YASUNAGA KUWABARA) 17 July 1991

Cited by

CN107433305A; US5813267A; CN111770800A; WO9731730A1; US11931792B2; WO2019168797A1

Designated contracting state (EPC)

AT CH DE ES FR GB GR IT LI

DOCDB simple family (publication)

EP 0582984 A1 19940216; **EP 0582984 B1 19960925**; AT E143298 T1 19961015; AU 4193293 A 19940217; AU 664007 B2 19951026; BR 9303051 A 19940301; CA 2104062 A1 19940215; CA 2104062 C 19960326; DE 69305029 D1 19961031; DE 69305029 T2 19970220; JP H06210379 A 19940802; KR 940003634 A 19940312; MX 9304844 A 19940228

DOCDB simple family (application)

EP 93112667 A 19930806; AT 93112667 T 19930806; AU 4193293 A 19930713; BR 9303051 A 19930810; CA 2104062 A 19930813; DE 69305029 T 19930806; JP 18815993 A 19930729; KR 930015549 A 19930811; MX 9304844 A 19930810