

Title (en)

HYDROFORMED CAN BOTTOM EXPANSION PROCESS AND APPARATUS

Title (de)

EXPANSIONSVERFAHREN UND VORRICHTUNG FÜR HYDROGEFORMTEN DOSENBODEN

Title (fr)

PROCÉDÉ ET APPAREIL D'EXPANSION D'UN FOND DE BOÎTE MÉTALLIQUE HYDROFORMÉ

Publication

**EP 2976169 A1 20160127 (EN)**

Application

**EP 14769148 A 20140321**

Priority

- US 201361804055 P 20130321
- US 2014031506 W 20140321

Abstract (en)

[origin: WO2014153545A1] An apparatus, and associated process, expands a wall of an associated metal container. The apparatus includes a holder for retaining at least a portion of the metal container. A first tool has a first surface mounted for movement relative to the holder for selective advancement toward and dimensioned to engage at least a portion of the associated metal container. The first tool includes a seal so that fluid received in the associated metal container is pressurized and used to apply an expanding force to the associated metal container as the first tool advances therein. A bubble is formed in the bottom wall, and in a second station, the combination of fluid pressure and metal forming surfaces make the final configuration of the bottom wall.

IPC 8 full level

**B21D 26/02** (2011.01); **B21D 26/033** (2011.01); **B21D 26/049** (2011.01)

CPC (source: EP US)

**B21D 26/049** (2013.01 - EP US); **B21D 51/2669** (2013.01 - US)

Citation (search report)

See references of WO 2014153545A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2014153545 A1 20140925**; EP 2976169 A1 20160127; US 2015101380 A1 20150416; WO 2016036855 A1 20160310

DOCDB simple family (application)

**US 2014031506 W 20140321**; EP 14769148 A 20140321; US 201414474642 A 20140902; US 2015048142 W 20150902