

Title (en)  
METHOD AND DEVICE FOR LOCALLY THICKENING A HOLLOW BODY

Title (de)  
VERFAHREN UND VORRICHTUNG ZUM INSBESONDERE ABSCHNITTWEISEN VERDICKEN EINER PLASTISCH VERFORMBAREN HOHLKÖRPERWAND EINES HOHLKÖRPERS SOWIE FERTIGUNGSVERFAHREN UND MASCHINE ZUM FERTIGEN EINES HOHLKÖRPERS

Title (fr)  
PROCÉDÉ ET DISPOSITIF POUR ÉPAISSIR LOCALEMENT UN CORPS CREUX

Publication  
**EP 3345694 B1 20240522 (DE)**

Application  
**EP 17150435 A 20170105**

Priority  
EP 17150435 A 20170105

Abstract (en)  
[origin: US2018185901A1] In a method for thickening a plastically deformable hollow body wall of a hollow body, with effective radial support of the unthickened hollow body wall on an outer supporting face of an outer mold and with effective radial support of the hollow body wall on an inner supporting face of an inner supporting body, the hollow body is acted on by a compressive force by two application members at application points by moving the application members towards one another in the axial direction with a compressing movement. The application points on the hollow body are distanced from one another in the axial direction. An expansion space of the outer mold is arranged between the application points. Due to the compressing movement of the application members, material of the hollow body wall between the application points is plasticised in the region of the expansion space of the outer mold, and plasticised material of the hollow body wall flows into the expansion space of the outer mold, thus thickening the hollow body wall.

IPC 8 full level  
**B21K 21/12** (2006.01); **B21J 5/08** (2006.01); **B21K 1/06** (2006.01)

CPC (source: CN EP KR US)  
**B21J 5/025** (2013.01 - KR US); **B21J 5/08** (2013.01 - EP KR US); **B21J 5/12** (2013.01 - KR); **B21J 9/06** (2013.01 - KR US); **B21J 9/20** (2013.01 - KR US); **B21J 13/02** (2013.01 - KR); **B21J 13/06** (2013.01 - KR); **B21K 1/063** (2013.01 - CN EP US); **B21K 21/12** (2013.01 - EP KR US)

Citation (examination)  
• US 2013040161 A1 20130214 - GERLACH LARS [DE], et al  
• DE 102005050946 A1 20070426 - IFUTEC INGENIEURBUERO FUER UMF [DE]

Cited by  
WO2021180608A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3345694 A1 20180711**; **EP 3345694 B1 20240522**; CA 2990655 A1 20180705; CA 2990655 C 20201229; CN 108356207 A 20180803; CN 108356207 B 20210219; JP 2018108606 A 20180712; JP 6698713 B2 20200527; KR 102190176 B1 20201211; KR 20180080997 A 20180713; US 11007564 B2 20210518; US 11890667 B2 20240206; US 2018185901 A1 20180705; US 2021229160 A1 20210729

DOCDB simple family (application)  
**EP 17150435 A 20170105**; CA 2990655 A 20180102; CN 201810010668 A 20180105; JP 2018000196 A 20180104; KR 20180000318 A 20180102; US 201815860878 A 20180103; US 202117232276 A 20210416