

Title (en)

METHOD FOR MANUFACTURING AN EXHAUST GAS MUFFLER FOR INTERNAL COMBUSTION ENGINES

Title (de)

VERFAHREN ZUM HERSTELLEN EINES ABGASSCHALLDÄMPFERS FÜR BRENNKRAFTMASCHINEN

Title (fr)

METHODE DE FABRICATION D'UN SILENCIEUX POUR GAZ D'ÉCHAPPEMENT DE MOTEURS À COMBUSTION INTERNE

Publication

EP 2571636 B1 20180314 (DE)

Application

EP 11724995 A 20110517

Priority

- DE 102010020826 A 20100518
- EP 2011057983 W 20110517

Abstract (en)

[origin: WO2011144621A1] The invention relates to a shell muffler (1) for an internal combustion engine that is formed of a first shell (1.1) and at least one second shell (1.2), which shells are connected at their respective edge regions Bs so as to form the shell muffler (1), each edge region Bs having a box-like inner contour KSi, which has four corner regions (E1) - (E4) and a width (B) and a length (L), and an outer contour KSa, and each shell (1.1), (1.2) being produced from a shell blank R, which is formed by deforming a sheet metal strip (2) using a deep drawing tool (3) having the shape of the shell (1.1, 1.2), the blank R, after deforming, having an edge region BR with an outer contour KR, said edge region being removed at least partially after the blank R has been cut to size so as to form the outer contour KSa of the edge region Bs of the shell (1.1, 1.2). In addition to the box-like basic shape G, the inner contour KSi of the edge region Bs of the shell (1.1, 1.2) comprises at least one corner region (E1 - E4) which is expanded beyond the width B and the length L of the box-like basic shape (G) and is thus adapted at least partially to the contour KR of the edge region BR to be cut of the blank R.

IPC 8 full level

B21D 22/20 (2006.01); **B21D 51/18** (2006.01); **B21D 53/88** (2006.01); **F01N 13/18** (2010.01)

CPC (source: EP US)

B21D 22/20 (2013.01 - EP US); **B21D 22/26** (2013.01 - US); **B21D 51/18** (2013.01 - EP US); **B21D 53/88** (2013.01 - EP US); **F01N 13/1872** (2013.01 - EP US); **B21D 22/22** (2013.01 - US); **F01N 13/1861** (2013.01 - US); **F01N 13/1888** (2013.01 - US); **F01N 13/1894** (2013.01 - US)

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)

DE 102010020826 A1 20111124; **DE 102010020826 B4 20130606**; BR 112012029354 A2 20171205; CN 102985194 A 20130320; CN 102985194 B 20151209; EP 2571636 A1 20130327; EP 2571636 B1 20180314; US 2013056298 A1 20130307; US 9440276 B2 20160913; WO 2011144621 A1 20111124

DOCDB simple family (application)

DE 102010020826 A 20100518; BR 112012029354 A 20110517; CN 201180034173 A 20110517; EP 11724995 A 20110517; EP 2011057983 W 20110517; US 201113697956 A 20110517