

Title (en)

SUB-MUFFLER AND MANUFACTURING METHOD OF SUB-MUFFLER

Title (de)

NACHSCHALLDÄMPFER UND HERSTELLUNGSVERFAHREN EINES NACHSCHALLDÄMPFERS

Title (fr)

SILENCIEUX ET PROCÉDÉ DE FABRICATION D'UN SILENCIEUX

Publication

EP 2942122 A1 20151111 (EN)

Application

EP 15166590 A 20150506

Priority

JP 2014096759 A 20140508

Abstract (en)

A manufacturing method of a sub-muffler (1, 201) includes a tubular body shaping step (S3), a central part spinning machining step (S5, S7, S26, S27), and a diameter reduction machining step (S8, S28). In the tubular body shaping step (S3), a cylindrical body (2, 202) is formed by rolling a plate material (70). In the central part spinning machining step (S5, S7, S26, S27), the cross-sectional shape of a central part (20, 220) of the cylindrical body (2, 202) is machined into a rectangular shape by performing a spinning machining in which a rotating roller (88) is moved along a rectangular trajectory (T3, T6) while pressing the rotating roller (88) onto the central part (20, 220) of the cylindrical body (2, 208). In the diameter reduction machining step (S8, S28), the diameter of an end (80, 81, 280, 281) of the cylindrical body (2, 208) is reduced.

IPC 8 full level

B21D 22/14 (2006.01)

CPC (source: EP US)

B21D 5/12 (2013.01 - EP US); **F01N 13/18** (2013.01 - US); **F01N 13/1872** (2013.01 - EP US); **F01N 2470/26** (2013.01 - EP US);
Y10T 29/494 (2015.01 - EP US)

Citation (applicant)

JP 2002347664 A 20021204 - NISSAN MOTOR

Citation (search report)

- [Y] EP 1245303 A2 20021002 - SAKAMOTO IND CO LTD [JP]
- [Y] JP 2004243354 A 20040902 - JFE STEEL KK, et al

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2942122 A1 20151111; CN 105081039 A 20151125; JP 2015213924 A 20151203; US 2015322842 A1 20151112

DOCDB simple family (application)

EP 15166590 A 20150506; CN 201510205823 A 20150427; JP 2014096759 A 20140508; US 201514706169 A 20150507