

Title (en)
Method and apparatus for the making of a connection for a lambda sensor in an exhaust pipe

Title (de)
Verfahren und Vorrichtung zur Herstellung einer Anbindung eines Lambda-Sondenhalters an ein Abgasrohr

Title (fr)
Procédé et dispositif pour la fabrication d'un raccord d'une sonde lambda dans un tuyau d'échappement

Publication
EP 0894951 A3 20030115 (DE)

Application
EP 98113617 A 19980722

Priority
DE 19733473 A 19970802

Abstract (en)
[origin: EP0894951A2] The exhaust pipe (4,5) which has an opening for biasing the sensor (10) with exhaust gas is formed through internal high pressure into the desired end shape from a tubular blank. During the internal high pressure forming a contact bearing face is formed on the exhaust pipe by an inward curvature with a negative shape to the bearing contour of the sleeve face (7) of the holder (6). The bearing face can be formed by an imprinting ram whereby the tubular material is pressed against the printing contour of the ram through the inner high pressure. After shaping out the bearing face the opening of the exhaust pipe is stamped out under the internal high pressure biasing of the exhaust pipe.

IPC 1-7
F01N 7/08

IPC 8 full level
B21D 26/02 (2011.01); **B21D 26/033** (2011.01); **F01N 13/00** (2010.01); **F01N 13/08** (2010.01); **F01N 13/18** (2010.01)

CPC (source: EP US)
B21D 22/025 (2013.01 - EP US); **B21D 26/033** (2013.01 - EP US); **F01N 13/008** (2013.01 - EP US); **F01N 13/08** (2013.01 - EP US); **F01N 13/1883** (2013.01 - EP US); **Y10T 29/49375** (2015.01 - EP US); **Y10T 29/49389** (2015.01 - EP US); **Y10T 29/49391** (2015.01 - EP US); **Y10T 29/5199** (2015.01 - EP US); **Y10T 29/53122** (2015.01 - EP US)

Citation (search report)
• [DA] DE 3409045 C1 19851017 - DAIMLER BENZ AG
• [A] DE 19510602 C1 19960411 - DAIMLER BENZ AG [DE]
• [A] US 5349817 A 19940927 - BEKKERING MARK W [US]

Cited by
FR2805481A1; EP1134047A3

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 0894951 A2 19990203; **EP 0894951 A3 20030115**; DE 19733473 A1 19990204; DE 19733473 C2 20000706; US 6092285 A 20000725; US 6470546 B1 20021029

DOCDB simple family (application)
EP 98113617 A 19980722; DE 19733473 A 19970802; US 12791698 A 19980803; US 59470600 A 20000616