

Title (en)

Method and apparatus for making bulged hollow profiles

Title (de)

Verfahren und Einrichtung zur Herstellung von ausgebauchten Hohlprofilen

Title (fr)

Procédé et dispositif de fabrication de profilés creux bombés

Publication

**EP 0876860 A3 20001011 (DE)**

Application

**EP 98107665 A 19980428**

Priority

DE 19719628 A 19970509

Abstract (en)

[origin: EP0876860A2] A profile is changed from a long thin linear blank into a shorter end form with a bulge, using an internal high pressure forming process. Before this stage, the profile (1) is flattened in the area of the bulge (8) to be formed. After this, the internal forming of the residual part of the profile is carried out at this spot, while the flat section is retained. The flattened area is formed before the profile is placed in a forming tool. Alternatively, the flat section is formed when a part of the tool surrounding the bulge area is closed.

IPC 1-7

**B21D 26/02**; **B21D 53/90**

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [Y] US 1501023 A 19240708 - GOODSPEED ELVIN S
- [Y] US 5070717 A 19911210 - BOYD DAVID B [US], et al
- [A] DE 1908729 A1 19690918 - NAKAMURA MASANOBU
- [A] PATENT ABSTRACTS OF JAPAN vol. 005, no. 172 (M - 095) 31 October 1981 (1981-10-31)
- [A] TERUMORI UEDA: "differential gear casings for automobiles by liquid bulge forming processes", SHEET METAL INDUSTRIES, vol. 60, no. 4, April 1983 (1983-04-01), london, pages 220 - 224, XP002145142

Cited by

DE102005036419B4; CN103801593A

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