

Title (en)

METHOD AND PRESS TOOL FOR PRODUCING A COMPLEX SHEET METAL PART WITH HIGH DRAW DEPTH

Title (de)

VERFAHREN UND PRESSENWERKZEUG ZUR HERSTELLUNG EINES KOMPLEXEN BLECHFORMTEILS MIT HOHER ZIEHTIEFE

Title (fr)

PROCÉDÉ ET OUTIL DE PRESSE DESTINÉS À LA FABRICATION D'UN MOULAGE EN TÔLE COMPLEXE À GRANDE PROFONDEUR D'EMBOUITISSAGE

Publication

**EP 3243578 B1 20181003 (DE)**

Application

**EP 17000777 A 20170505**

Priority

DE 102016005902 A 20160513

Abstract (en)

[origin: JP2017202525A] PROBLEM TO BE SOLVED: To provide a method for producing a complex sheet metal part by means of a pressing tool and a pressing tool suited therefor. SOLUTION: An upper tool part 120 is moved downward, and at an end thereof, an inserted sheet metal M is clamped between a die ring 160 and a sheet holder 140. During a further downward movement of the upper tool part, the sheet metal M is drawn on extended insertable punch inserts 131, 132, 133 to thereby generate local material reserves. When the upper tool part is moved further downward until the die ring 160 and the holder 140 are moved to the lower end point, the punch inserts 131, 132, 133 are actively retracted, the local material reserves are released, and the metal sheet M is successfully formed in a region between the die ring 160 and a punch 130. When the upper tool part is moved further downward until a die 150 reaches the lower end point, the flow of the metal sheet material to the border region of the metal sheet is prevented, so that only the material locally reserved between the die 150 and the punch 130 is used to complete the forming. SELECTED DRAWING: Figure 1b

IPC 8 full level

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CPC (source: CN EP US)

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