

Title (en)
SWAGING METHOD AND SWAGING APPARATUS

Title (de)
TIEFZIEHVERFAHREN UND TIEFZIEHVORRICHTUNG

Title (fr)
PROCEDE DE MATRIÇAGE ET APPAREIL DE MATRIÇAGE

Publication
EP 1964624 A4 20100804 (EN)

Application
EP 06832569 A 20061114

Priority
• JP 2006322607 W 20061114
• JP 2005330528 A 20051115

Abstract (en)
[origin: EP1964624A1] An upsetting method capable of reducing a molding pressure is provided. The upsetting method uses a receiving die 11 and a guide 20 having an insertion hole 23 for inserting and holding a diameter expansion scheduled portion 2 of the raw material 1 in a buckling prevented state and in an axially slidable manner, the insertion hole being penetrated from the basal end to the tip end of the guide 20. The method includes a step of receiving the diameter expansion scheduled portion 2 of the raw material 1 by the receiving portion 13 of the receiving die 11 and disposing the diameter expansion scheduled portion 2 of the raw material 1 in the insertion hole 23 of the guide 20, and a step of expanding a diameter of the diameter expansion scheduled portion 2 of the raw material 1 exposed between the tip end face 21a of the guide 20 and the receiving portion 13 of the receiving die 11 by moving the guide 20 in a direction opposite to a pressurizing direction of the diameter expansion scheduled portion 2 of the raw material 1 while pressurizing the diameter expansionscheduledportion2 of the rawmaterial 1 withapressurizing means 30 in an axial direction, after the step of disposing the diameter expansion scheduled portion 2 of the raw material 1. At the diameter expanding step, the diameter expansion is performed in a state in which a portion 2a of the diameter expansion scheduled portion 2 of the raw material 1 corresponding to a tip end portion 21 of the guide 20 is locally heated by the heating means 40.

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CPC (source: EP KR US)
B21J 1/06 (2013.01 - EP KR US); **B21J 5/08** (2013.01 - EP KR US); **B21J 9/08** (2013.01 - EP US)

Citation (search report)
• [E] EP 1844876 A1 20071017 - SHOWA DENKO KK [JP]
• [XAI] US 3198926 A 19650803 - MELMOTH ROBERT B
• See references of WO 2007058155A1

Designated contracting state (EPC)
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