

Title (en)  
FORGING APPARATUS AND METHOD

Title (de)  
SCHMIEDEVORRICHTUNG UND -VERFAHREN

Title (fr)  
APPAREIL ET PROCÉDÉ DE FORGEAGE

Publication  
**EP 3403740 A1 20181121 (EN)**

Application  
**EP 18167755 A 20180417**

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Abstract (en)  
The present invention provides a method of upset forging comprising inserting a stock material into a die, the stock material having a free axial portion with upper and lower surfaces. Next, a punch is used to apply an axial (e.g. horizontal) compression force against the free axial portion of the stock material whilst constraining the upper and lower surfaces of the free axial portion. The constraining position restricts movement of the free axial portion in a direction substantially perpendicular (e.g. vertical) to the axial compression force thus preventing buckling of the free axial portion.

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Citation (search report)  
• [XY] EP 1844875 A1 20071017 - SHOWA DENKO KK [JP]  
• [X] US 4970887 A 19901120 - LORIEUX HENRI A G [FR]  
• [XY] US 4571977 A 19860225 - UENO KEII [JP], et al  
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