

Title (en)  
Hand-operated stick device and the shaft thereof

Title (de)  
Handbetriebene Stabvorrichtung und Welle dafür

Title (fr)  
Dispositif bâton manuel et arbre correspondant

Publication  
**EP 2559353 A1 20130220 (EN)**

Application  
**EP 11177762 A 20110817**

Priority  
EP 11177762 A 20110817

Abstract (en)  
A hand-operated stick device (10) includes a gripping portion (14), a working member (16) and an elongated shaft (12) with opposite ends connecting the gripping portion (14) and the working member (16). The shaft (12) has a wall thickness (T) and at least three ribs (13) projected from an inner side (12c) of the shaft (12). The ribs (13) extend from an end of the shaft (12) adjacent to the gripping portion (14) to the other end adjacent to the working member (16). The ribs (13) have a width (W) and a height (H) both of which are greater than or equal to the wall thickness (T). Therefore, it may increase the strength of structure and provide a safe use.

IPC 8 full level  
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Citation (search report)  
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Designated extension state (EPC)  
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