

Title (en)  
Expander tool for hollow workpieces

Title (de)  
Aufweitewerkzeug für hohle Werkstücke

Title (fr)  
Outil évasé pour pièces à usiner creuses

Publication  
**EP 0619153 B1 19971112 (DE)**

Application  
**EP 93105592 A 19930405**

Priority  
• EP 93105592 A 19930405  
• DE 4200020 A 19920102

Abstract (en)  
[origin: EP0619153A1] An expander tool (1) for hollow work pieces has a tool main body (2) with a first hand lever (3), a hole (4), an expansion mandrel (5) which can be displaced axially in the latter and projects with an outward-tapering end (5a) into an exchangeable expansion head (12) with radially moveable expansion jaws (12a), and a second hand lever (10), which can be pivoted about a pivoting axis (S) in a recess (8) in the tool main body (2). When the lever is operated, the expansion mandrel (5) is moved in both directions relative to the main body. To increase the opening travel of the expansion jaws while retaining the opening angle of the end (5a) of the expansion mandrel unaltered, the following measures are taken: a) at its other end (5b), the end opposite the hand levers (3, 10), the expansion mandrel (5) is designed as a rack (6) and, on the remainder of its circumference, has a cylindrical surface (7) which is supported in the hole (4), and b) at its end supported in the recess (8) in the tool main body (2), the moveable hand lever (10) is connected to a toothing (9) concentric with the pivoting axis (S) and engaging in the rack. <IMAGE>

IPC 1-7  
**B21D 41/02**

IPC 8 full level  
**B21D 41/02** (2006.01)

CPC (source: EP)  
**B21D 41/026** (2013.01)

Cited by  
CN105327996A; CN105327995A; CN105327993A; EP1369188A1; US6672128B2

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