

Title (en)  
Expansion device for hollow bodies

Title (de)  
Expansionsvorrichtung für Hohlkörper

Title (fr)  
Dispositif d' élargissement de corps creux

Publication  
**EP 1700648 A1 20060913 (DE)**

Application  
**EP 06001479 A 20060125**

Priority  
DE 102005010494 A 20050308

Abstract (en)

An expansion device for hollow bodies, comprises basic body (1) in which a bore (11) is disposed for axial guidance of a displaceable, tapering spreading mechanism (10); and expansion head (13) which contains a thimble ring (14) with sector-shaped spreading jaws (15). The spreading jaws are guided for radial displacement in the thimble ring by the axial movement of the spreading mechanism. Slide surfaces are provided with an attrition reducing coating of a hard material, where portion(s) of the spreading mechanism acting on the spreading jaws is provided with the coating of the hard material. An expansion device for hollow bodies, comprises basic body in which a bore is disposed for the axial guidance of a displaceable, tapering spreading mechanism; and expansion head which contains a thimble ring with sector-shaped spreading jaws and is releasably fastened to the basic body. The spreading jaws are guided for radial displacement in the thimble ring by the axial movement of the spreading mechanism. Slide surfaces are provided with an attrition reducing coating of a hard material, where portion(s) of the spreading mechanism acting on the spreading jaws is provided with the coating of the hard material.

IPC 8 full level

**B21D 41/02** (2006.01)

CPC (source: EP US)  
**B21D 41/021** (2013.01 - EP US)

Citation (applicant)

- US 3550424 A 19701229 - RAST WLODZIMIERZ
- DE 3826187 A1 19900208 - ROTENBERGER WERKZEUGE MASCH [DE]
- DE 10343869 B3 20040909 - DAIMLER CHRYSLER AG [DE]
- DE 2654102 C2 19840105
- "RÖMPP CHEMIE LEXIKON", vol. T-Z, 1995, GEORG THIEME VERLAG, pages: 4631

Citation (search report)

- [X] EP 0653256 A1 19950517 - WAAL TECHNOLOGY & CONSULTANCY [NL]
- [A] US 5727414 A 19980317 - HALASZ ANDY [US], et al
- [A] DE 19730054 C1 19990318 - WOLTER ECKHARD [DE]

Cited by  
CN105436333A; CN107931460A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1700648 A1 20060913**; DE 102005010494 A1 20060914; JP 2006247747 A 20060921; US 2006201228 A1 20060914

DOCDB simple family (application)

**EP 06001479 A 20060125**; DE 102005010494 A 20050308; JP 2006062947 A 20060308; US 35520306 A 20060215