

Title (en)  
Hydraulic jack

Title (de)  
Hydraulischer Hubzylinder

Title (fr)  
Vérin hydraulique

Publication  
**EP 0840020 A3 19980826 (EN)**

Application  
**EP 97202841 A 19970917**

Priority  
IT TO960791 A 19960927

Abstract (en)  
[origin: EP0840020A2] A hydraulic jack is disclosed having a variable volume working chamber 26 defined by a piston 14 reciprocable within a cylinder bore and a port 22 for allowing hydraulic fluid to enter and leave the working chamber. In order to avoid accumulation of air within the working chamber 26, an insert 16' is positioned in the cylinder bore to define therewith an annular passage 40 in communication with the port 22, the annular passage also communicating with the working chamber 26 through a gap 42 between the radially outer surface of the insert 16' and the cylinder bore. <IMAGE>

IPC 1-7  
**F15B 21/04; F15B 15/14**

IPC 8 full level  
**F15B 15/14** (2006.01); **F15B 21/044** (2019.01)

CPC (source: EP)  
**F15B 15/1433** (2013.01); **F15B 15/149** (2013.01); **F15B 21/044** (2013.01)

Citation (search report)  
• [X] DE 4419213 A1 19951207 - ZAHNRADFABRIK FRIEDRICHSHAFEN [DE]  
• [A] US 1938772 A 19331212 - HANS ERNST, et al  
• [A] US 2452369 A 19481026 - EVERETT GRAVENHORST, et al

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 0840020 A2 19980506; EP 0840020 A3 19980826**; IT 1284830 B1 19980522; IT TO960791 A1 19980327

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