

Title (en)  
PLUNGER-TYPE CYLINDER

Publication  
**EP 0464356 B1 19930428 (DE)**

Application  
**EP 91108401 A 19910524**

Priority  
DE 4021070 A 19900703

Abstract (en)  
[origin: EP0464356A1] The invention relates to a plunger-type cylinder on whose cylinder jacket (30) a hydraulic signal pick-up nozzle (34) is arranged. The signal pick-up nozzle (34) is connected to the interior of the cylinder via a transverse bore (40). Located on the cylinder inside of the transverse bore (40) is an annular passage (42) which is defined at its opening-side and base-side flanks by guide and sealing rings (60, 62). The sealing ring (62) defining the base-side flank is designed as an open metal ring which is arranged in an annular cylinder recess (50) backing an elastomeric sealing ring (63). The plunger (16) has several control bores (28) which communicate with the base side of the inner space of the cylinder, pass through the plunger skirt (22) at a distance from the base-side plunger end (26) and trigger a control operation via the signal pick-up when crossing over the annular passage (42). <IMAGE>

IPC 1-7  
**F15B 15/14; F15B 15/22; F15B 15/28**

IPC 8 full level  
**F15B 15/14** (2006.01); **F15B 15/22** (2006.01); **F15B 15/28** (2006.01)

CPC (source: EP)  
**F15B 15/2838** (2013.01)

Cited by  
CN103821790A; CN104006023A; CN105156398A; CN102913508A; US11731062B2

Designated contracting state (EPC)  
DE ES FR GB IT NL

DOCDB simple family (publication)  
**EP 0464356 A1 19920108; EP 0464356 B1 19930428**; DE 4119106 A1 19920109; DE 59100097 D1 19930603; ES 2042324 T3 19931201

DOCDB simple family (application)  
**EP 91108401 A 19910524**; DE 4119106 A 19910610; DE 59100097 T 19910524; ES 91108401 T 19910524