

Title (en)

Device for restricting the stroke of a hydraulic cylinder.

Title (de)

Einrichtung zur Hubbegrenzung eines Hydraulikzylinders.

Title (fr)

Dispositif pour limiter la course d'un vérin hydraulique.

Publication

**EP 0514748 B1 19940427 (DE)**

Application

**EP 92108021 A 19920513**

Priority

DE 4116842 A 19910523

Abstract (en)

[origin: EP0514748A1] For a hydraulic cylinder, in particular for presses or the like, the working movement is ended by stroke-dependent actuation of a cut-off valve (7) which is advantageously connected to the working cylinder (1) to form a construction unit. A drag rod (13) serves to actuate mechanically the cut-off valve (7), which drag rod (13), before the end position of the stroke is reached, moves the control piston (9) of the cut-off valve (7) in the direction of the open position against an elastic restoring force. In the process, a portion of hydraulic fluid is diverted from the constant delivery quantity fed to the working pressure space (5) and is passed to the tank. Since the working piston (2) is at the same time under a hydraulic counterpressure of an accumulator (35), a stabilised state automatically occurs in which the working piston (2) is held hydraulically in the end position of the stroke. By further opening of the cut-off valve (7), either mechanically or hydraulically, the pressure in the working pressure space (5) continues to drop so that the working piston (2) is moved back into its initial position by the differential pressure force. A particular advantage can be seen in the fact that merely a single component, namely the drag rod (13), is provided for the mechanical transmission from the working piston (2) to the cut-off valve (7), which drag rod (13), moreover, does not come into engagement until just before the end position of the stroke is reached and therefore performs a relatively small adjusting movement. <IMAGE>

IPC 1-7

**F15B 15/24**

IPC 8 full level

**F15B 11/12** (2006.01); **F15B 11/08** (2006.01); **F15B 15/14** (2006.01); **F15B 15/24** (2006.01)

CPC (source: EP US)

**F15B 15/24** (2013.01 - EP US)

Cited by

CN110985479A; AT403219B; CN102996569A; CN103697184A

Designated contracting state (EPC)

CH DE FR GB IT LI

DOCDB simple family (publication)

**EP 0514748 A1 19921125**; **EP 0514748 B1 19940427**; DE 4116842 A1 19921126; DE 59200136 D1 19940601; JP H05180204 A 19930720; JP H0751961 B2 19950605; US 5237905 A 19930824

DOCDB simple family (application)

**EP 92108021 A 19920513**; DE 4116842 A 19910523; DE 59200136 T 19920513; JP 16663392 A 19920518; US 88755092 A 19920521