

Title (en)  
HYDRAULIC CYLINDER

Title (de)  
HYDRAULISCHER ZYLINDER

Title (fr)  
CYLINDRE HYDRAULIQUE

Publication  
**EP 1317630 A2 20030611 (DE)**

Application  
**EP 01974212 A 20010824**

Priority  
• DE 10044984 A 20000911  
• EP 0109781 W 20010824

Abstract (en)  
[origin: WO0220997A2] A hydraulic cylinder is disclosed, the housing of which is formed from a cylindrical housing piece and a bottom and top end-piece. Said cylinder contains a piston arrangement mounted in the cylinder in a sealed manner, which extends out of the cylinder through the top end-piece. The cylinder is provided with a displacement monitor comprising an element fixed to the cylinder and an element fixed to the piston and which produces an electrical signal which is a measure of the position of the piston arrangement relative to the housing. On application of said cylinder in a rugged environment there is a risk of damage to components of the displacement monitor, in particular to electronic circuits. According to the invention, damage as above may be avoided, whereby an analytical circuitry, connected to an element of the displacement monitor, is housed in a cup-shaped recess in the bottom end-piece of the housing. Said cylinders are particularly suitable for use in rugged conditions, such as, for example, in vehicle construction.  
[origin: WO0220997A2] A hydraulic cylinder (10) is disclosed, the housing of which is formed from a cylindrical housing piece (13) and a bottom and top end-piece (11, 12). Said cylinder contains a piston arrangement (16) mounted in the cylinder in a sealed manner, which extends out of the cylinder through the top end-piece (12). The cylinder is provided with a displacement monitor comprising an element fixed to the cylinder and an element fixed to the piston (30, 31) and which produces an electrical signal which is a measure of the position of the piston arrangement relative to the housing. On application of said cylinder in a rugged environment there is a risk of damage to components of the displacement monitor, in particular to electronic circuits. According to the invention, damage as above may be avoided, whereby an analytical circuitry (40), connected to an element of the displacement monitor, is housed in a cup-shaped recess (39) in the bottom end-piece of the housing (11). Said cylinders are particularly suitable for use in rugged conditions, such as, for example, in vehicle construction.

IPC 1-7  
**F15B 1/00**

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

CPC (source: EP)  
**F15B 15/2861** (2013.01); **F15B 15/2892** (2013.01)

Citation (search report)  
See references of WO 0220997A2

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**WO 0220997 A2 20020314**; **WO 0220997 A3 20020606**; DE 10044984 A1 20020321; DE 50111992 D1 20070322; EP 1317630 A2 20030611; EP 1317630 B1 20070131

DOCDB simple family (application)  
**EP 0109781 W 20010824**; DE 10044984 A 20000911; DE 50111992 T 20010824; EP 01974212 A 20010824