

Title (en)  
HYDRAULIC DRIVE

Publication  
**EP 0471695 B1 19930825 (DE)**

Application  
**EP 90906855 A 19900504**

Priority  
DE 3914860 A 19890507

Abstract (en)  
[origin: WO9013747A1] A hydraulic drive (10) for the adjustment, feed and return movements of a tool head of a machine tool comprises a hydraulic motor (11) and an after-running adjustment valve (12). The reference value of the position is set and the actual value indicated by means of a threaded spindle (39) and spindle nut (37) in the form of a hollow shaft. One of these two elements can be driven by an electric motor (41) in order to set the reference value of the position. The other of these two elements can be driven in order to indicate the value of the actual position. A rotational and angular position indicator system (68, 74, 75 and 69, 77) produces an output which is a direct measure of the total number of revolutions executed by the preset reference value shaft and of the azimuthal position of the preset reference value shaft within each revolution. An electronic position sensor system (71, 78 and 71', 78'; 71") produces an output which is a measure of the contouring error DELTA S. The actual position of the tool head or of the drive element of the hydraulic motor (16) is therefore phase-retarded in relation to its reference position by said contouring error.

IPC 1-7  
**F15B 9/09; F15B 15/28**

IPC 8 full level  
**B23Q 5/26** (2006.01); **B23Q 15/24** (2006.01); **F15B 9/09** (2006.01); **F15B 15/28** (2006.01)

CPC (source: EP US)  
**F15B 9/09** (2013.01 - EP US); **F15B 15/28** (2013.01 - EP US); **Y10T 82/2533** (2015.01 - EP US); **Y10T 408/6757** (2015.01 - EP US);  
**Y10T 409/407** (2015.01 - EP US)

Citation (examination)

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- Hydraulics & Pneumatics, volume 39, No. 5, May 1986, (Cleveland, Ohio, US), E. Jacobs: "Making fluid power cylinders 'smart'", pages 56-63, 106, 107, see page 56 - page 58, paragraph 1; figures
- Hydraulics & Pneumatics, volume 40, No. 1, January 1987, (Cleveland, Ohio, US), R. Schneider: "Digital hydraulic cylinder enhances compacting press", page 18, see page 18, figures

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Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI SE

DOCDB simple family (publication)  
**WO 9013747 A1 19901115**; DE 3914860 A1 19901108; DE 59002490 D1 19930930; EP 0471695 A1 19920226; EP 0471695 B1 19930825;  
JP H04507066 A 19921210; US 5192174 A 19930309

DOCDB simple family (application)  
**DE 9000319 W 19900504**; DE 3914860 A 19890507; DE 59002490 T 19900504; EP 90906855 A 19900504; JP 50654890 A 19900504;  
US 77722692 A 19920107