

Title (en)  
Hydraulic actuator with piston rod positioning means.

Title (de)  
Hydraulischer Zylinder mit Vorrichtung zum Anzeigen des Kolbenhubes.

Title (fr)  
Vérin hydraulique à positionnement de tige mobile asservi.

Publication  
**EP 0305306 A1 19890301 (FR)**

Application  
**EP 88420290 A 19880825**

Priority  
FR 8712106 A 19870827

Abstract (en)  
1. Hydraulic jack with servo-controlled rodpositioning, of the type comprising a shaft (12) which is oriented transversely to the longitudinal axis of the body (1) and which bears, besides a spiral return spring (24) and an absolute encoder (23) associated with a control automat, a central drive drum (13) controlled by a supple tie (14) which is attached to the piston (5) and which winds in a helicoidal groove (13a) made in the wall of said drum, characterized in that the free end of the tie (14) is rendered fast with the rear face of the piston (5) by means of a fastener (16) comprising a tab (17) which is shaped to ensure fixation of the free end of the tie and which pivots freely on a shaft (18) oriented longitudinally with respect to said piston and supported by an ear (19\_a) of a sleeve (19) which itself pivots freely on a pin (21) axially plugged in the rear face mentioned above, this double-articulation system enabling the tie, as it winds and unwinds on the drum, always to remain oriented in a plane parallel to the axis of the body of the jack as well as to the plane passing through all the groove bottoms (13\_a) of the drum, without any extension or contraction of the length, whatever the winding of this tie in said groove.

Abstract (fr)  
Au niveau de son extrémité le corps du vérin comporte un carter (9) équipé d'un arbre transversal (12) dont la partie centrale est pourvue d'un tambour d'entraînement (13) creusé d'une gorge (14a) à profil hélicoïdal pour l'envidage et le dévidage d'un câble (14) attaché au piston, (5) par l'intermédiaire d'une attache (16) comportant deux axes parallèles de pivotement (18, 21) dont l'un (21) coïncide avec l'axe du piston. Un tel agencement convient particulièrement pour les vérins à course longue.

IPC 1-7  
**F15B 15/28**

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

CPC (source: EP)  
**F15B 15/283** (2013.01)

Citation (search report)  
• [XD] US 4121504 A 19781024 - NOWAK ANDREW  
• [Y] US 4286386 A 19810901 - LONG IRVIN E  
• [A] DE 3229945 A1 19840216 - REXROTH MANNESMANN GMBH [DE]  
• [A] DE 8507512 U1 19850523  
• [A] DE 3205773 A1 19830825 - VDO SCHINDLING [DE]  
• [A] DE 3106156 A1 19820909 - POHLE & REHLING GMBH [DE]

Cited by  
FR2794196A1; CN100359190C; FR2741400A1; CN107218267A; WO2057112A1; WO2012151708A1

Designated contracting state (EPC)  
AT BE CH DE ES GB GR IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0305306 A1 19890301; EP 0305306 B1 19900926**; AT E57000 T1 19901015; DE 3860698 D1 19901031; FR 2619870 A1 19890303; FR 2619870 B1 19921113

DOCDB simple family (application)  
**EP 88420290 A 19880825**; AT 88420290 T 19880825; DE 3860698 T 19880825; FR 8712106 A 19870827