

Title (en)

Hydraulic cylinder-piston unit provided with a mechanical safety device, particularly for pantograph type motor vehicle lifts.

Title (de)

Hydraulische Kolbenzylindereinheit mit einer mechanischen Sicherheitsvorrichtung, insbesondere für Kraftfahrzeughebebühnen mit Scheren.

Title (fr)

Vérin hydraulique comportant un dispositif de sécurité mécanique, en particulier pour ponts de voiture à ciseaux.

Publication

EP 0224914 A1 19870610 (EN)

Application

EP 86116771 A 19861202

Priority

IT 8415985 A 19851205

Abstract (en)

A hydraulic cylinder-piston unit provided with a mechanical safety device, particularly for motor vehicle lifts of pantograph type and comprising a cylinder (1) in which there slides a piston (9) provided with a rod (4) emerging from an end-piece (3) of said cylinder (1), and comprising inside the cylinder (1) a portion (10) provided with toothing extending along the axis of said cylinder and cooperating with at least one deactivatable stop member (17) which during the elongation stage of said cylinder-piston unit moves relative to said toothed portion (10) by yielding elastically in its passage from one tooth to the next, whereas during the retraction stage it engages in the facing notch (11) defined by two successive teeth, to thus form the mechanical safety stop.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] US 2540578 A 19510206 - HALL STANLEY R, et al
- [X] US RE25334 E 19630219
- [XD] GB 211412 A 19240221 - CHARLES FREDERICK WEBB
- [A] GB 1008080 A 19651027 - JARRY HYDRAULICS LTD
- [A] DE 211847 C
- [A] US 3020888 A 19620213 - BRAUN HOWARD E
- [A] US 3104593 A 19630924 - CLIFTON JOHN R, et al
- [A] FR 952142 A 19491109 - C V FABRIEK VOOR AUTO EN MACHB
- [AD] GB 490886 A 19380823 - SERVO FREIN DEWANDRE SA

Cited by

EP0378743A1; WO9636555A3

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EP 0224914 A1 19870610; **EP 0224914 B1 19900307**; AT E53896 T1 19900615; AU 604673 B2 19910103; AU 6831387 A 19870630; CA 1302206 C 19920602; DE 3670888 D1 19900607; EP 0293368 A1 19881207; EP 0293368 B1 19900502; ES 2013593 B3 19900516; GR 3000525 T3 19910731; IL 80838 A0 19870331; IL 80838 A 19910131; IT 1214977 B 19900131; IT 8584159 A0 19851205; WO 8703655 A1 19870618

DOCDB simple family (application)

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