Title (en)

Electro-hydraulic device with an electronic control for deforming fastening elements

Title (de)

Elektrohydraulische Vorrichtung mit elektronischer Steuerung zur Verformung von Nietmuttern

Title (fr)

Dispositif électro-hydraulique avec contrôle électronique pour déformer des écrous à river

Publication

EP 2093024 B1 20100922 (EN)

Application

EP 08101965 A 20080225

Priority

IT BO20080117 A 20080221

Abstract (en)

[origin: EP2093024A1] The electro-hydraulic pistol device (100) comprises: a first electric micro-motor (1), for setting in right-wise or left-wise rotation a threaded rod (2), respectively for engaging or disengaging the rod (2) from a rivet (3); a hydraulic system (4) in which a fluid (F) pushes a cursor (40), associated to the rod (2) for impressing thereon an axial translation which causes plastic deformation of a predetermined portion of the rivet (3), such as to block the rivet (3) to a corresponding wall (P); a second electric micro-motor (5), for commanding a piston (50) destined to compress the fluid (F). An electrical circuit (6) is associated to the above organs, which electrical circuit (6) is managed by a control unit (60), to which are connected: a first micro-switch (61) activated by the rod (2) for activation of the first micro-motor (1) in a right-wise direction; a second micro-switch (62), destined to be activated by a trigger (63) after deactivation of the first micro-switch (61), for activating the second micro-motor (5), first in a direction, for compressing the fluid (F), and then in another direction, for reducing the pressure of the fluid (F), as well as for activating, in phase relation, the first micro-motor (1) in a left-wise rotation; supply means (7) for the circuit (6) and the micro-motors (1, 5). The left-wise rotation of the first micro-motor (1) and the rod (2) proceeds as long as the trigger (63) is kept pressed.

IPC 8 full level

B25B 27/00 (2006.01)

CPC (source: EP US)

B21J 15/20 (2013.01 - EP US); **B21J 15/26** (2013.01 - EP US); **B25B 27/0014** (2013.01 - EP US); Y10T 29/53743 (2015.01 - EP US)

Cited by

EP4371681A1; WO2024104644A1; US11511403B2; WO2014195189A1; WO2011026944A1; US2020070327A1; EP3674037A1; US11673243B2; US2023271307A1; ITBO20120276A1; EP4008482A1; EP3067157A1; US10112232B2

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DOCDB simple family (publication)

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DOCDB simple family (application)

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