

Title (en)

Method for manufacturing an open/close element for balanced servo valves of a fuel injector.

Title (de)

Verfahren zur Herstellung eines Öffnen/Schliessen-Elements für ausgeglichene Servoventile von Kraftstoffeinspritzdüsen

Title (fr)

Procédé pour la fabrication d'un élément d'ouverture/fermeture pour servovalves équilibrées d'un injecteur de carburant

Publication

EP 2218902 B1 20110413 (EN)

Application

EP 09425058 A 20090216

Priority

EP 09425058 A 20090216

Abstract (en)

[origin: EP2218902A1] The manufacturing method regards an open/close element for balanced servo valves (5) of a fuel injector, wherein the open/close element (47) is fixed with respect to a bushing (41) designed to move for a certain travel for opening/closing the servo valve (5). The anchor (17) is axially movable for a travel greater than the travel of the open/close element (47) under the control of an electric actuator (15). The method comprises a step in which the bushing (41) is provided with a guide portion (61) designed to engage a hole (59) of the anchor (17) for a relative displacement with respect to the bushing (41), and a step in which an intermediate body (12a) is provided for supporting a spring (23) acting on the bushing (41); the intermediate body comprises a flange (24) and a connection pin (63). Then the anchor (17) is fitted on the guide portion (61), and the intermediate body (12a) is inserted into a seat (40a) in the bushing (41), with the flange (24) in contact with an end edge (66) thereof, and finally the intermediate body (12a) is welded to the guide portion (61) of the bushing (41) along a circumference (69) of continuous contact so that a continuous weld is obtained without any need for phasing with the welding device (70).

IPC 8 full level

F02M 61/16 (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

F02M 61/168 (2013.01); **F02M 63/0015** (2013.01); **F02M 63/0021** (2013.01); **F02M 63/007** (2013.01); **F02M 63/0071** (2013.01); **F02M 63/0075** (2013.01); **F02M 63/008** (2013.01); **F02M 47/027** (2013.01); **F02M 51/066** (2013.01); **F02M 2200/8084** (2013.01); **F02M 2200/8092** (2013.01)

Cited by

EP2846033A1; FR3010148A1; WO2015165625A1; WO2013076034A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2218902 A1 20100818; **EP 2218902 B1 20110413**; AT E505642 T1 20110415; DE 602009001092 D1 20110526

DOCDB simple family (application)

EP 09425058 A 20090216; AT 09425058 T 20090216; DE 602009001092 T 20090216