

Title (en)

EXTERNALLY SPRUNG TAPPET WITH HEAD TURRET GUIDE FOR A FUEL PUMP

Title (de)

EXTERN GEFEDERTER ZAPFEN MIT KOPFREVOLVERFÜHRUNG FÜR EINE KRAFTSTOFFPUMPE

Title (fr)

TÊTE DE POUSSOIR À RESSORT EXTÉRIEUR AVEC GUIDE DE TOURELLE POUR UNE POMPE À CARBURANT

Publication

EP 3085944 A1 20161026 (EN)

Application

EP 16163743 A 20160404

Priority

GB 201506820 A 20150422

Abstract (en)

In known fuel pump assemblies, a single tappet return spring inside the tappet urges a pumping plunger away from a pump head and ensures contact between the tappet and a drive arrangement. The spring rests on a spring seat fixed to the plunger. This design requires the tappet return spring to fit within the tappet, thereby limiting the spring's diameter. The present invention provides a tappet return spring (58) that wraps around the outside of the tappet (40) to urge only the tappet away from the pump head (22a, 22b, 22c). A second plunger return spring (56) working in tandem with the tappet return spring (58) is located within the tappet (40) and urges the plunger (30) away from the pump head (22a, 22b, 22c) and further urges the plunger (30) to maintain contact with the tappet (40).

IPC 8 full level

F02M 59/10 (2006.01); **F04B 1/04** (2006.01)

CPC (source: CN EP)

F02M 59/06 (2013.01 - CN); **F02M 59/102** (2013.01 - CN EP); **F02M 59/44** (2013.01 - CN); **F04B 1/0439** (2013.01 - EP); **F02M 2200/50** (2013.01 - EP)

Citation (search report)

- [XY] US 2421844 A 19470610 - MEITZLER DONALD E
- [Y] FR 2998929 A1 20140606 - VALEO SYS CONTROLE MOTEUR SAS [FR]
- [Y] DE 102009000859 A1 20100819 - BOSCH GMBH ROBERT [DE]
- [Y] EP 1835168 A1 20070919 - DELPHI TECH INC [US]

Cited by

CN111927664A; GB2583076A; GB2583076B

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

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