

Title (en)  
Fuel pump assembly

Title (de)  
Kraftstoffeinspritzpumpevorrichtung

Title (fr)  
Système de pompe à carburant

Publication  
**EP 1767772 A1 20070328 (EN)**

Application  
**EP 06254515 A 20060830**

Priority  
GB 0519680 A 20050927

Abstract (en)  
A fuel pump assembly for use in an engine comprising a pumping plunger (14) which is reciprocable, in use, under the influence of an associated drive arrangement (24, 26) so as to cause pressurisation of fuel within a pumping chamber (22). The drive arrangement includes a shoe (24) and a roller (26) which is cooperable with a driven cam (28) so as to impart reciprocal movement to the shoe (24) as the cam (28) is driven, in use. The roller (26) has a first surface area region (54) having a first surface roughness and a second surface area region (52) having a second surface roughness higher than the first surface roughness and in that static friction between the roller (26) and the cam (28) is larger than static friction between the roller (26) and the shoe (24).

IPC 8 full level  
**F02M 59/44** (2006.01); **F02M 59/10** (2006.01); **F04B 1/04** (2006.01)

CPC (source: EP US)  
**F02M 59/102** (2013.01 - EP US); **F04B 1/0426** (2013.01 - EP US); **F04B 1/0439** (2013.01 - EP US)

Citation (search report)

- [DA] EP 1223334 A2 20020717 - DELPHI TECH INC [US]
- [A] EP 0823551 A2 19980211 - TOYOTA MOTOR CO LTD [JP]
- [A] EP 0984161 A1 20000308 - SUMITOMO ELECTRIC INDUSTRIES [JP]

Cited by  
DE102008008438A1; CN105298705A; ITMI20091416A1; EP3318746A1; WO2016177524A1; WO2009121823A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1767772 A1 20070328; EP 1767772 B1 20090812**; AT E439518 T1 20090815; DE 602006008396 D1 20090924; GB 0519680 D0 20051102; JP 2007092754 A 20070412; US 2007071622 A1 20070329

DOCDB simple family (application)  
**EP 06254515 A 20060830**; AT 06254515 T 20060830; DE 602006008396 T 20060830; GB 0519680 A 20050927; JP 2006260090 A 20060926; US 60054706 A 20061116