

Title (en)  
FUEL FILTER ASSEMBLY AND CARTRIDGE

Title (de)  
KRAFTSTOFFFILTERANORDNUNGEN UND KARTUSCHE

Title (fr)  
ENSEMble DE FILTRE À CARBURANT ET CARTOUCHE

Publication  
**EP 2943677 A4 20160831 (EN)**

Application  
**EP 13870515 A 20130114**

Priority  
US 2013021406 W 20130114

Abstract (en)  
[origin: WO2014109767A1] A draw latch retainer is used to secure a filter cartridge to a filter head. A cam actuated retainer extends from the head to engage a keeper in the top of the cartridge. Rotation of the cam draws the retainer and cartridge axially toward the head into an installed position. The retainer extends through an aperture in the upper portion of the cartridge to apply a retention force against the bottom side of the keeper. The keeper and upper portion of the cartridge supporting the keeper are configured to transmit the retaining force laterally across the top of the cartridge. The keeper may be integral with a top plate enclosing an open end of the cartridge housing, or may be supported by the top plate.

IPC 8 full level  
**B01D 27/08** (2006.01); **B01D 35/30** (2006.01); **F02M 37/42** (2019.01); **F02M 37/48** (2019.01)

CPC (source: EP US)  
**B01D 27/08** (2013.01 - EP US); **F02M 37/42** (2018.12 - EP US); **F02M 37/48** (2018.12 - EP US); **B01D 2201/24** (2013.01 - EP);  
**B01D 2201/302** (2013.01 - EP); **B01D 2201/4023** (2013.01 - EP); **B01D 2201/4053** (2013.01 - EP)

Citation (search report)  
• [XI] WO 2008118939 A1 20081002 - PARKER HANNIFIN CORP [US], et al  
• [XI] US 4052307 A 19771004 - HUMBERT JR KINGSLEY E  
• [A] US 3399776 A 19680903 - KNUTH ROBERT R  
• [A] US 4334995 A 19820615 - MAHON ROBERT M  
• See references of WO 2014109767A1

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

DOCDB simple family (publication)  
**WO 2014109767 A1 20140717**; CN 105051362 A 20151111; EP 2943677 A1 20151118; EP 2943677 A4 20160831

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**US 2013021406 W 20130114**; CN 201380074560 A 20130114; EP 13870515 A 20130114