

Title (en)
MULTI-FUEL ENGINE APPARATUS

Title (de)
VORRICHTUNG MIT VIELSTOFFMOTOR

Title (fr)
APPAREIL DE MOTEUR À CARBURANTS MULTIPLES

Publication
EP 3303803 A1 20180411 (EN)

Application
EP 16802306 A 20160603

Priority
• US 201562170483 P 20150603
• CA 2016050639 W 20160603

Abstract (en)
[origin: WO2016191886A1] It is a challenge to adapt an engine designed to be fuelled with a first fuel to be fuelled with multiple fuels when a base engine electronic control unit cannot be adapted as well. A multi-fuel internal combustion engine that can be fuelled with at least one of a first and second fuel comprises a first fuel injector for introducing the first fuel directly into a combustion chamber; a first electronic controller programmed to generate a first injector drive signal for actuating the first fuel injector; a second fuel injector for introducing the second fuel upstream of an intake valve; a second electronic controller programmed to generate a second injector drive signal for actuating the second fuel injector; an emulation injector comprising an electrical characteristic representative of a first fuel injector electrical characteristic; and an injector select apparatus operatively connected with the second electronic controller for selectively applying the first injector drive signal to one of the first fuel injector and the emulation injector. The second electronic controller is programmed to generate the second injector drive signal as a function of the first injector drive signal and to command the injector select apparatus to apply the first injector drive signal to one of the first fuel injector and the emulation injector.

IPC 8 full level
F02D 19/06 (2006.01); **F02D 41/30** (2006.01); **F02M 21/02** (2006.01)

CPC (source: EP)
F02D 19/061 (2013.01); **F02D 19/0647** (2013.01); **F02D 19/066** (2013.01); **F02D 19/0692** (2013.01); **F02D 19/081** (2013.01); **F02D 41/0025** (2013.01); **F02D 41/0027** (2013.01); **F02D 41/3005** (2013.01); **F02D 19/0628** (2013.01); **F02D 41/28** (2013.01); **F02D 41/3094** (2013.01); **F02D 2400/11** (2013.01); **F02M 26/05** (2016.02); **Y02T 10/30** (2013.01)

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)
BA ME

DOCDB simple family (publication)
WO 2016191886 A1 20161208; CN 107849989 A 20180327; EP 3303803 A1 20180411; EP 3303803 A4 20190320

DOCDB simple family (application)
CA 2016050639 W 20160603; CN 201680044463 A 20160603; EP 16802306 A 20160603