

Title (en)
VALVE ACTUATORS

Title (de)
VENTILBETÄTIGER

Title (fr)
ACTIONNEURS DE SOUPEPE

Publication
EP 3631175 A1 20200408 (EN)

Application
EP 18730058 A 20180531

Priority
• GB 201708817 A 20170602
• GB 2018051476 W 20180531

Abstract (en)
[origin: GB2563064A] An actuator for operating a poppet valve 30 of an internal combustion engine. The actuator comprises a rotary portion 4 and a body portion 2, whereby the rotary portion defines a cam surface 50 (60, figure 3). A cam follower 10 is engaged with the cam surface and a linkage is coupled to the cam follower at one end and coupled to a valve stem 12 at its other end. The cam surface is shaped such that exertion of a closing force on the valve stem, by a piston of the engine following failure of the actuator for example, causes the cam follower to exert a turning force on the rotary portion 4. The actuator may be an electromagnetic actuator, the rotary portion a rotor and the body portion a stator. The actuator may be a hydraulic or pneumatic actuator. An internal combustion engine is also claimed.

IPC 8 full level
F01L 1/08 (2006.01); **F01L 9/10** (2021.01); **F01L 9/16** (2021.01); **F01L 9/20** (2021.01)

CPC (source: EP GB US)
F01L 1/047 (2013.01 - US); **F01L 1/08** (2013.01 - EP GB); **F01L 9/10** (2021.01 - EP); **F01L 9/16** (2021.01 - EP US); **F01L 9/20** (2021.01 - EP US); **F01L 2009/4088** (2021.01 - EP); **F01L 2820/032** (2013.01 - EP)

Citation (search report)
See references of WO 2018220372A1

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)
GB 201708817 D0 20170719; **GB 2563064 A 20181205**; **GB 2563064 B 20220518**; CN 110770418 A 20200207; EP 3631175 A1 20200408; JP 2020521913 A 20200727; US 2020157977 A1 20200521; WO 2018220372 A1 20181206

DOCDB simple family (application)
GB 201708817 A 20170602; CN 201880036641 A 20180531; EP 18730058 A 20180531; GB 2018051476 W 20180531; JP 2019566290 A 20180531; US 201816616333 A 20180531