Title (en)
  A VALVE CONTROL SYSTEM AND METHODS OF OPERATION THEREOF

Title (de)
  VENTILSTEUERSYSTEM UND BETRIEBSVERFAHREN DAFÜR

Title (fr)
  SYSTÈME DE COMMANDE DE SOUPAPE ET SES PROCÉDÉS DE FONCTIONNEMENT

Publication
  EP 4065822 A1 20221005 (EN)

Application
  EP 20816572 A 20201123

Priority
  • GB 201917118 A 20191125
  • GB 202015590 A 20201001
  • GB 2020052978 W 20201123

Abstract (en)
  [origin: WO2021105654A1] A valve control system (20) for an internal combustion engine, wherein the valve control system is configured to output control signals to an exhaust valve actuator (32) relating to a demanded opening and closing cycle of the exhaust valve (14). The control signals define a target actuator velocity profile (90) that extends at least between a point (EVO) at which the valve opens and a point (MOP) of peak valve lift, and comprises a raised portion (98), a base portion (102), wherein the raised portion is before the base portion and raised above the base portion, and a transition portion (100) after the raised portion and before the base portion, wherein the transition portion has a negative average gradient which is less than the average gradient of the raised portion. This profile serves to counteract high pressure in the cylinder which acts on the valve as the valve opens.

IPC 8 full level
  F01L 9/20 (2021.01); **F01L 9/21** (2021.01); **F01L 9/22** (2021.01); **F01L 9/40** (2021.01); **F02D 13/02** (2006.01)

CPC (source: EP GB)
  F01L 9/20 (2021.01 - GB); **F01L 9/21** (2021.01 - EP); **F01L 9/22** (2021.01 - EP); **F01L 9/40** (2021.01 - EP); **F02D 13/0207** (2013.01 - EP); **F02D 13/0253** (2013.01 - EP); **F02D 41/02** (2013.01 - GB); **F02D 45/00** (2013.01 - GB); F01L 9/10 (2021.01 - EP); F01L 9/16 (2021.01 - EP); F01L 2009/2153 (2021.01 - EP); F01L 2009/409 (2021.01 - EP); Y02T 10/12 (2013.01 - EP)

Citation (search report)
  See references of WO 2021105654A1

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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DOCDB simple family (publication)
  WO 2021105654 A1 20210603; EP 4065822 A1 20221005; GB 201917118 D0 20200108; GB 202015590 D0 20201118; GB 2590764 A 20210707

DOCDB simple family (application)
  GB 2020052978 W 20201123; EP 20816572 A 20201123; GB 201917118 A 20191125; GB 202015590 A 20201001