

Title (en)

COLD START MANAGEMENT SYSTEM FOR A DIESEL COMBUSTION ENGINE

Title (de)

KALTSTARTVERWALTUNGSSYSTEM FÜR EINEN DIESELVERBRENNUNGSMOTOR

Title (fr)

SYSTÈME DE GESTION DE DÉMARRAGE À FROID POUR UN MOTEUR À COMBUSTION DIESEL

Publication

**EP 3636903 A1 20200415 (EN)**

Application

**EP 19202838 A 20191011**

Priority

IT 201800009373 A 20181011

Abstract (en)

Cold start management system for a diesel combustion engine (E), the combustion engine comprising a cylinder, a piston (P) mounted for reciprocating movement in the cylinder, a cylinder head (H) mounted to overlie the cylinder and with the primary cylinder and a face (F) of the piston defining a combustion chamber (CH) and a surface (CR) surrounding the combustion chamber; wherein said reciprocating movement defines a gap (G) between said surface (CR) and said cylinder head (H), the system comprising minimization means to minimize said gap on the basis of an engine temperature.

IPC 8 full level

**F02D 41/06** (2006.01); **F02D 15/00** (2006.01); **F02D 35/02** (2006.01); **F02D 41/24** (2006.01)

CPC (source: EP)

**F02D 15/00** (2013.01); **F02D 41/064** (2013.01); **F02D 41/2451** (2013.01); **F02D 2200/021** (2013.01); **F02D 2200/025** (2013.01); **F02D 2200/101** (2013.01); **F02D 2700/03** (2013.01)

Citation (applicant)

- US 5025757 A 19910625 - LARSEN GREGORY J [US]
- US 2018179949 A1 20180628 - DIEHM ALEXANDER [DE], et al

Citation (search report)

- [XAI] DE 112016001786 T5 20171228 - HITACHI AUTOMOTIVE SYSTEMS LTD [JP]
- [XAI] WO 2014119354 A1 20140807 - NISSAN MOTOR [JP]
- [XAI] US 2012222653 A1 20120906 - KODAMA KOHEI [JP], et al
- [XI] US 2005273245 A1 20051208 - CHEN YIN [US], et al
- [I] US 2003111067 A1 20030619 - RUSSELL JOHN D [US], et al
- [XP] DE 102017116244 A1 20190124 - VOLKSWAGEN AG [DE]
- [XP] US 2018363572 A1 20181220 - GLUGLA CHRISTOPHER PAUL [US], et al

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)

**EP 3636903 A1 20200415**; **EP 3636903 B1 20210825**; IT 201800009373 A1 20200411

DOCDB simple family (application)

**EP 19202838 A 20191011**; IT 201800009373 A 20181011