

Title (en)

APPARATUS THAT ESTIMATES AN AMOUNT OF CONDENSED WATER IN AN INTAKE PASSAGE OF AN ENGINE SYSTEM

Title (de)

VORRICHTUNG ZUR ABSCHÄTZUNG DER MENGE AN KONDENSWASSER IN EINEM EINLASSABSCHNITT EINES MOTORSYSTEMS

Title (fr)

APPAREIL ESTIMANT LA QUANTITÉ D'EAU CONDENSÉE DANS UN PASSAGE D'ADMISSION D'UN SYSTÈME MOTEUR

Publication

**EP 4047200 A1 20220824 (EN)**

Application

**EP 22154192 A 20220131**

Priority

JP 2021017230 A 20210205

Abstract (en)

A controller executes a process including: calculating a first amount of moisture included in intake air using an estimating expression (S 100); calculating a second amount of moisture included in exhaust gas and produced by combustion of fuel using an estimating expression (S 102); calculating an amount of saturated water vapor (S104); calculating an amount of condensed water (S106); setting a correction coefficient (S 108); and calculating a cumulative volume of condensed water (S110).

IPC 8 full level

**F02M 26/05** (2016.01); **F02D 21/08** (2006.01); **F02D 41/00** (2006.01); **F02D 41/18** (2006.01); **F02M 26/48** (2016.01)

CPC (source: EP)

**F02D 41/0072** (2013.01); **F02D 41/18** (2013.01); **F02M 26/05** (2016.02); **F02M 26/48** (2016.02); **F02D 2041/007** (2013.01);  
**F02D 2200/0402** (2013.01); **F02D 2200/0414** (2013.01); **F02D 2200/0418** (2013.01); **F02D 2200/703** (2013.01)

Citation (applicant)

- JP 2021017230 A 20210215 - FCA ITALY SPA
- JP 2018188991 A 20181129 - TOYOTA MOTOR CORP, et al

Citation (search report)

- [XI] WO 2021002240 A1 20210107 - HITACHI AUTOMOTIVE SYSTEMS LTD [JP] & DE 112020001894 T5 20220105 - HITACHI ASTEMO LTD [JP]
- [A] US 10808656 B2 20201020 - OH YOUNG-KYU [KR], et al
- [A] DE 102018109822 A1 20181031 - TOYOTA MOTOR CO LTD [JP]
- [A] JP 2018189034 A 20181129 - SOKEN INC, 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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 4047200 A1 20220824**; AU 2022200632 A1 20220825; AU 2022200632 B2 20240530; JP 2022120376 A 20220818

DOCDB simple family (application)

**EP 22154192 A 20220131**; AU 2022200632 A 20220201; JP 2021017230 A 20210205