

Title (en)

METHOD AND DEVICE FOR CHARACTERIZING THE INJECTION BEHAVIOR OF AN INJECTION VALVE FOR LIQUIDS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR CHARAKTERISIERUNG DES EINSPRITZVERHALTENS EINES EINSPRITZVENTILS FÜR FLÜSSIGKEITEN

Title (fr)

PROCÉDÉ ET DISPOSITIF PERMETTANT DE CARACTÉRISER LE COMPORTEMENT À L'INJECTION D'UNE SOUPAPE D'INJECTION DE LIQUIDES

Publication

EP 3721071 A1 20201014 (DE)

Application

EP 18789061 A 20181015

Priority

- DE 102017222234 A 20171208
- EP 2018078014 W 20181015

Abstract (en)

[origin: WO2019110169A1] The invention relates to a method and to a device for characterizing the injection behavior of an injection valve (15) for liquids, which method comprises the method steps of injecting liquid into a measurement chamber (11) by means of the injection valve (15), radiating light into the measurement chamber (11) onto liquid discharged from the injection valve (15) as a spray pattern (18), detecting and scanning temporally successive spray images which are produced by light reflected at the spray pattern (18) discharged from the injection valve (15) and are imaged at a capturing apparatus (12) in order to obtain spatially resolved intensity distributions, evaluating the intensity distributions associated with the detected and scanned spray images, wherein those image matrix elements that contain image information associated with the imaged spray pattern (18) are identified in the intensity distributions, and a measure of the injection behavior is determined on the basis of the identified image matrix elements and the time development thereof.

IPC 8 full level

F02M 65/00 (2006.01); **B05B 12/08** (2006.01); **G01B 11/25** (2006.01)

CPC (source: EP)

B05B 12/082 (2013.01); **F02M 65/001** (2013.01)

Citation (search report)

See references of WO 2019110169A1

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)

WO 2019110169 A1 20190613; CN 111465763 A 20200728; CN 111465763 B 20220513; DE 102017222234 A1 20190613; EP 3721071 A1 20201014; EP 3721071 B1 20221228; JP 2021505812 A 20210218

DOCDB simple family (application)

EP 2018078014 W 20181015; CN 201880079192 A 20181015; DE 102017222234 A 20171208; EP 18789061 A 20181015; JP 2020531109 A 20181015