

Title (en)
THROTTLE DEVICE AND INTAKE ASSEMBLY

Title (de)
DROSSELVORRICHTUNG UND ANSAUGANORDNUNG

Title (fr)
DISPOSITIF D'ÉTRANGLEMENT ET ENSEMBLE D'ADMISSION

Publication
EP 4230857 A1 20230823 (EN)

Application
EP 22213104 A 20221213

Priority
JP 2022025291 A 20220222

Abstract (en)
A throttle device 10 includes: a throttle body 20 having a bore 12 opening to a first end surface 21 and a second end surface 22; a throttle shaft 40 disposed rotatably within the bore 12; and a throttle valve 50 fixed to the throttle shaft 40 so as to be located at least partially within the bore 12. The bore 12 has an inner surface defining an intake flow path 13 that decreases in flow-path cross-sectional area at least partially from a first open end 14 to a second open end 16 of the bore. The inner surface of the bore 12 has: a pair of through holes 18 through which the throttle shaft 40 passes; and a pair of grooves 24 that run from each of the through holes 18 to an edge of the second open end 16.

IPC 8 full level
F02D 9/10 (2006.01); **F02D 9/02** (2006.01)

CPC (source: EP)
F02D 9/104 (2013.01); **F02D 9/107** (2013.01)

Citation (applicant)
JP 2000179364 A 20000627 - AISAN IND

Citation (search report)
• [IY] EP 1213456 A2 20020612 - BOSCH GMBH ROBERT [DE]
• [IY] JP H04134140 A 19920508 - FUJI VALVE
• [IJ] US 5329903 A 19940719 - MUELLER MANFRED [DE], et al
• [A] EP 2881564 A1 20150610 - MAGNETI MARELLI SPA [IT]
• [A] JP H09133224 A 19970520 - NGK INSULATORS LTD
• [A] JP H11351416 A 19991224 - AISAN IND
• [A] JP 2000179364 A 20000627 - AISAN IND

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

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BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
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