Title (en)

METHOD FOR MONITORING TWO-STAGE SUPERCHARGING BY FIXED GEOMETRY TURBOCHARGERS HAVING A DYNAMIC ESTIMATOR AND PRE-TURBINE PRESSURE LIMITATION

Title (de)

VERFAHREN ZUR ÜBERWACHUNG EINER ZWEIPHASIGEN TURBOLADUNG DURCH TURBOLADER MIT FIXER GEOMETRIE UND EINEM DYNAMISCHEN KALKUKATOR SOWIE VORTURBINENDRUCKBEGRENZUNG

Title (fr)

PROCEDE DE CONTROLE D'UNE SURALIMENTATION A DEUX ETAGES DE TURBOCOMPRESSEURS A GEOMETRIE FIXE AVEC ESTIMATEUR DYNAMIQUE ET LIMITATION DE LA PRESSION AVANT TURBINE

Publication

EP 2507494 A1 20121010 (FR)

Application

EP 10788107 A 20101028

Priority

- FR 0958579 A 20091202
- FR 2010052313 W 20101028

Abstract (en)

[origin: WO2011067491A1] The invention relates to a method for monitoring the air supercharging of a motor vehicle internal combustion engine (1) fitted with a supercharging stage twin turbocharger (6, 7) including: two turbines (10, 12) that are rotated by the exhaust gases of the engine (1); two supercharging compressors (11, 13) that are driven by each of the turbines (10, 12); and two high- and low-pressure valve actuators (17, 18). Said method includes controlling the compression rate (PRc) of the compressor to around a compression ratio set value (PRc, cons) and moreover controlling the decompression rate (PR1) of the turbine (12) so as to limit the value of the pressure (Pavt, t) upstream from the turbine (12), said control being implemented when the pressure (Pavt, t) upstream from the high-pressure turbine (12) exceeds a threshold value (CONSpavt).

IPC 8 full level

F02D 41/00 (2006.01); F02B 37/013 (2006.01); F02B 37/16 (2006.01); F02B 37/18 (2006.01)

CPC (source: EP)

F02B 37/004 (2013.01); F02B 37/013 (2013.01); F02B 37/18 (2013.01); F02D 41/0007 (2013.01); F02D 41/1448 (2013.01); F02D 2200/0406 (2013.01); Y02T 10/12 (2013.01)

Citation (search report)

See references of WO 2011067491A1

Cited by

GB2569963A; GB2570152A; GB2569963B; GB2570152B

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)

FR 2953253 A1 20110603; FR 2953253 B1 20121214; CN 102770646 A 20121107; CN 102770646 B 20151007; EP 2507494 A1 20121010; WO 2011067491 A1 20110609

DOCDB simple family (application)

FR 0958579 A 20091202; CN 201080062602 A 20101028; EP 10788107 A 20101028; FR 2010052313 W 20101028