Title (en)

METHOD FOR TESTING AT LEAST THREE SENSORS, WHICH DETECT A MEASURABLE VARIABLE FOR AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUR ÜBERPRÜFUNG WENIGSTENS DREIER SENSOREN, DIE EINE MESSGRÖSSE IM BEREICH EINER BRENNKRAFTMASCHINE ERFASSEN

Title (fr)

PROCEDE PERMETTANT DE CONTROLER AU MOINS TROIS CAPTEURS DESTINES A DETECTER UNE GRANDEUR DE MESURE RELATIVE A UN MOTEUR A COMBUSTION

Publication

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Application

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Abstract (en)

[origin: WO2004040104A1] The invention relates to a method for testing at least three sensors (191, 192, 193, 194, 195), which detect a measurable variable for an internal combustion engine (100). A measurement for the sensor signal (S1, S2, S3, S4, S5) of the respective sensor (191, 192, 193, 194, 195) to be tested is compared with a reference signal (M, S1, S2, S3, S4, S5), which is obtained from at least some of the sensor signals (S1, S2, S3, S4, S5) of the sensors (191, 192, 193, 194, 195) to be tested. A sensor (191, 192, 193, 194, 195) is identified as defective by means of a comparison of the measurement for the sensor signal (S1, S2, S3, S4, S5) with the reference signal (M, S1, S2, S3, S4, S5). The reference signal (M, S1, S2, S3, S4, S5) is formed, for example, from a mean value (M) of the measurement of the sensor signals (S1, S2, S3, S4, S5) of at least some of the sensors to be tested (191, 192, 193, 194, 195), whereby the individual sensor signals (S1, S2, S3, S4, S5) can be weighted differently by means of correction factors (K1, K2, K3, K4, K5) during the formation of the mean value. The sensors (191, 192, 193, 194, 195) are for example, temperature sensors or pressure sensors, which can be located in an induction zone (105) of the internal combustion engine (100), in the internal combustion engine (100) itself, in an exhaust gas zone (110) and/or in an exhaust gas post-treatment system (115).

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