

Title (en)
CHECKING THE PLAUSIBILITY OF AN AIR MASS FLOW METER

Title (de)
PLAUSIBILISIERUNG EINES LUFTMASSENMESSERS

Title (fr)
PLAUSIBILISATION D'UN DÉBITMÈTRE À AIR

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Application
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Abstract (en)
[origin: WO2018224342A1] The invention relates to a method for operating an internal combustion engine (1), wherein: the mass flow mA of the drawn-in combustion air (11) is measured by an air mass flow meter; a pressure-based air mass flow meter (13) is selected; the plausibility is checked (140) for the value for mA with respect to the mass flow mS flowing through an intake pipe (15) connected between the air mass flow meter (13) and at least one combustion chamber (20) of the internal combustion engine (1); the mass flow ms is determined in an operating state where a mass flow mR of exhaust gas (12) is returned to the intake pipe (15); and additionally the mass flow mR is determined (130). The invention further relates to an air supply system for an internal combustion engine (1), comprising: a turbocharger (26); an air mass flow meter (13) arranged after the turbocharger (26) in the direction of flow; a throttle valve (14) arranged after the air mass flow meter (13) in the direction of flow; and an intake pipe (15) arranged after the throttle valve (14) in the direction of flow and connected upstream of a combustion chamber (20) of the internal combustion engine (1), wherein an exhaust gas return line (28) for exhaust gas (12) from the internal combustion engine (1) opens into the intake pipe (15), the air mass flow meter (13) being a pressure-based air mass flow meter (13) and being provided as the single sensor for measuring the charge pressure and charge air temperature. The invention also relates to an associated computer program product.

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