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(54) **METHOD TO CONTROL A LOW-PRESSURE EXHAUST GAS RECIRCULATION EGR CIRCUIT IN AN INTERNAL COMBUSTION ENGINE**

(57) A method to determine the mass flow rate of a low-pressure exhaust gas recirculation EGR circuit (EGR_{LP}) of an internal combustion engine (1) comprising a first linear sensor (30) to measure the quantity of oxygen available in the mixture of fresh air taken in and exhaust gases flowing through the intake pipe (6) and a second linear sensor (25) to measure the quantity of oxygen available in the flow of exhaust gases; the method comprises the steps of determining the air/fuel equivalence ratio (λ) of the exhaust gases by means of the second sensor (25); in case the exhaust air/fuel equivalence ratio is rich, calculating the percentage (O_{2real}) of total oxygen contained in the mixture flowing through the intake pipe (6) as a function of the air/fuel equivalence ratio (λ) of the exhaust gases determined by means of the second sensor (25) and of the percentage (O_2) of oxygen determined by means of the first sensor (30).

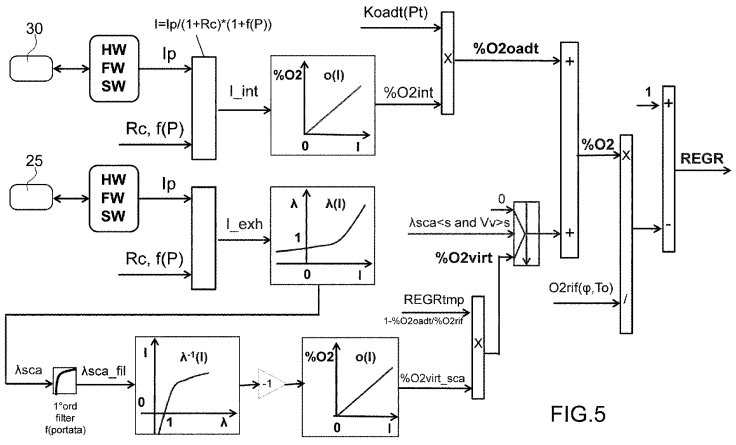

FIG.5

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