Title (en)

METHOD FOR ESTIMATING INSTANTANEOUS SPEED PRODUCED BY EACH OF THE CYLINDERS OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUR SCHÄTZUNG DER VON JEDEM ZYLINDER EINES VERBRENNUNGSMOTORS ERZEUGTEN MOMENTANEN GESCHWINDIGKEIT

Title (fr)

METHODE D'ESTIMATION DU REGIME INSTANTANE PRODUIT PAR CHACUN DES CYLINDRES D'UN MOTEUR A COMBUSTION INTERNE

Publication

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Application

EP 06808149 A 20060918

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Abstract (en)

[origin: WO2007034057A1] The invention concerns a method for estimating in real time the instantaneous speed produced by each of the cylinders of an internal combustion engine, based on a measurement of the instantaneous speed at the end of the engine transmission system. The method consists in constructing a physical model representing in real time the dynamics of the transmission system based on the crankshaft angle and coefficients of a serial Fourier decomposition of the instantaneous speed produced by each of the cylinders; in determining in real time said coefficients based on a coupling between the model and an adaptive type non-linear estimator; deducing therefrom said coefficients of the instantaneous speed produced by each of the cylinders. The average torque produced by each cylinder may also be deduced therefrom. The invention is applicable to engine controls.

IPC 8 full level

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