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(54) **EXHAUST GAS PURIFICATION SYSTEM FOR INTERNAL COMBUSTION ENGINE**

(57) An exhaust purification system of an internal combustion engine is provided with an exhaust purification catalyst where NO_x which is contained in exhaust gas and modified hydrocarbons react. The exhaust purification catalyst carries precious metal catalysts and is formed with a basic exhaust gas flow surface part. The exhaust purification catalyst has the property of reducing NO_x if making the concentration of hydrocarbons which flow into the exhaust purification catalyst vibrate by within a predetermined range of amplitude and within a predetermined range of period. The system estimates the holding ability by which the NO_x in the exhaust gas is held on the basic exhaust gas flow surface part of the exhaust purification catalyst and, when the holding ability becomes less than a predetermined judgment value of the holding ability, makes the concentration of hydrocarbons which flow into the exhaust purification catalyst rise.

Fig.20

