

[54] **METHOD AND SYSTEM TO REDUCE POLLUTING EMISSION FROM INTERNAL COMBUSTION ENGINES**

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 [51] **Int. Cl.**..... **F02p 5/04**
 [58] **Field of Search**..... 123/117 R, 117 A, 119 D

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[57] **ABSTRACT**

After the engine has started, and while it is still cold and before it has warmed up, the ignition is delayed in addition to the normal delay to such an extent that combustion of fuel will persist during the exhaust stroke of the engine to accelerate the warm-up time of the exhaust system of the engine; this delay may be set in the range of from 10° to 25° after deadcenter of the piston during the power stroke. When the engine, or the exhaust system, or components thereof have reached a predetermined temperature, ignition timing is then controlled as usual.

19 Claims, 17 Drawing Figures

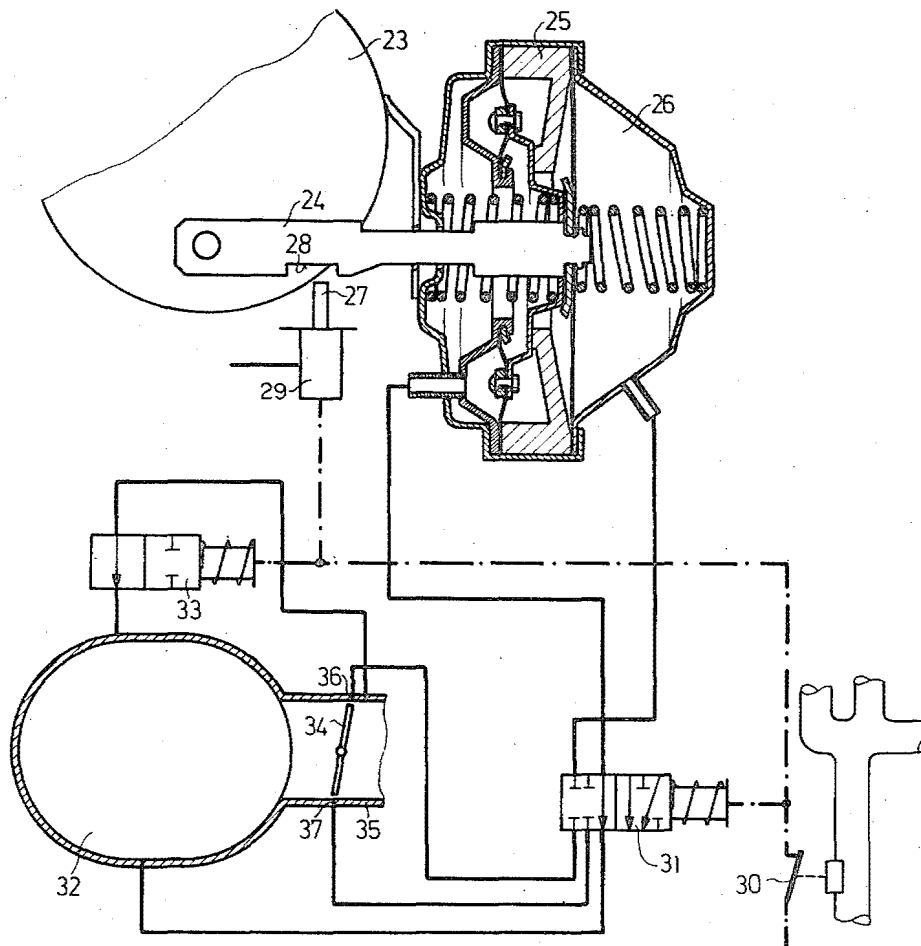
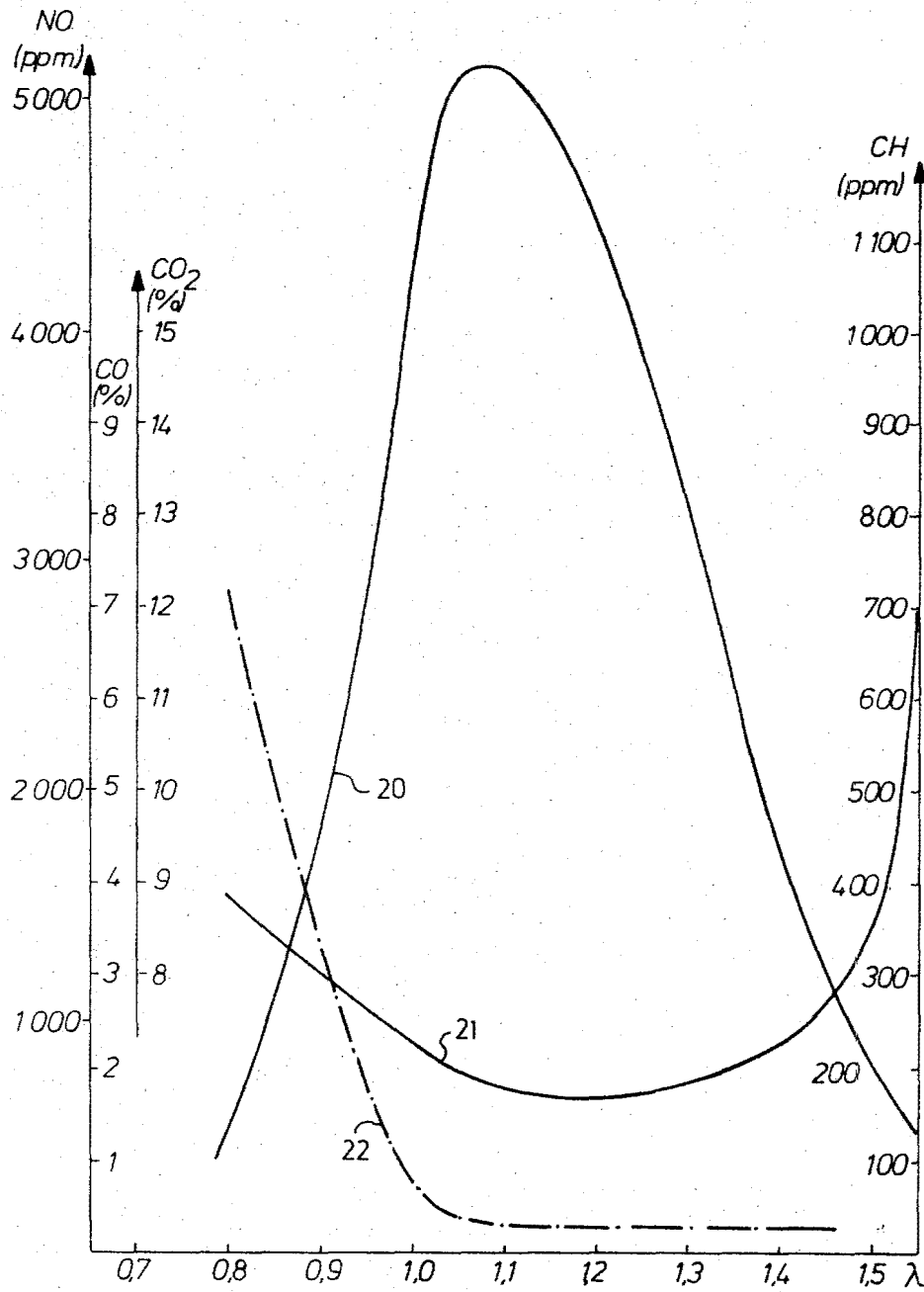
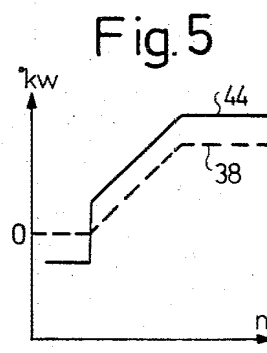
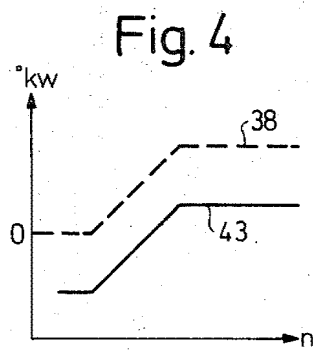
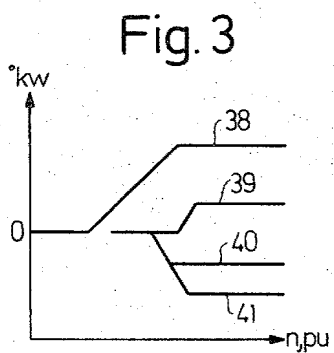
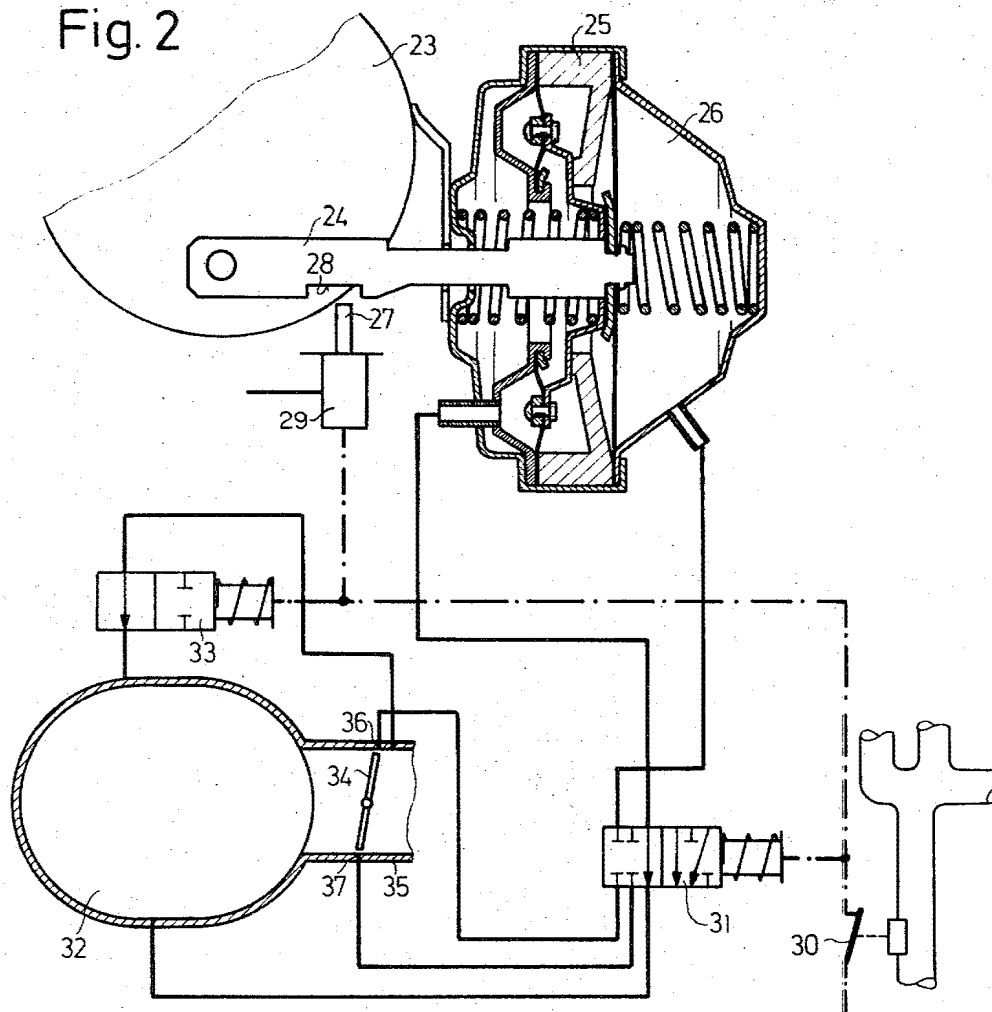
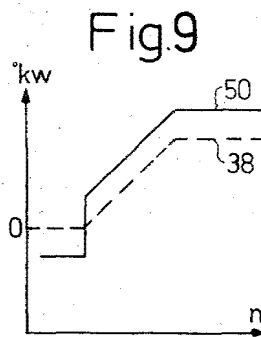
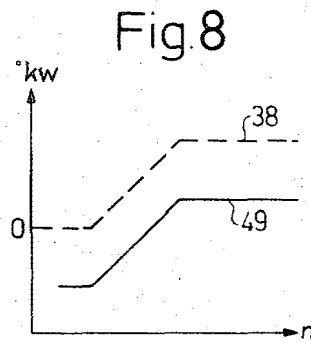
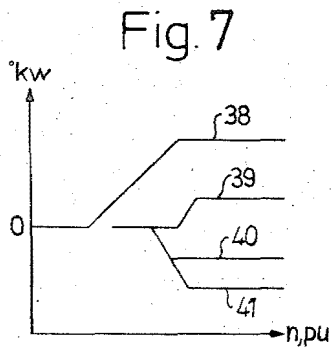
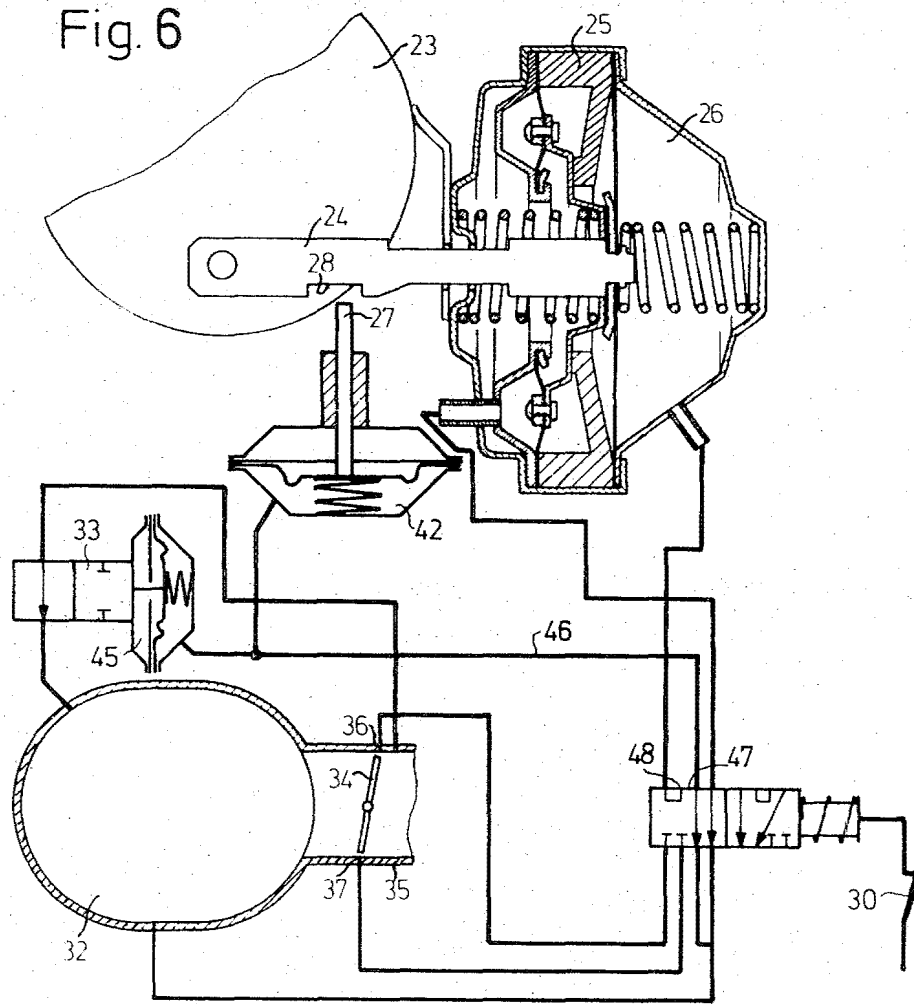


Fig. 1







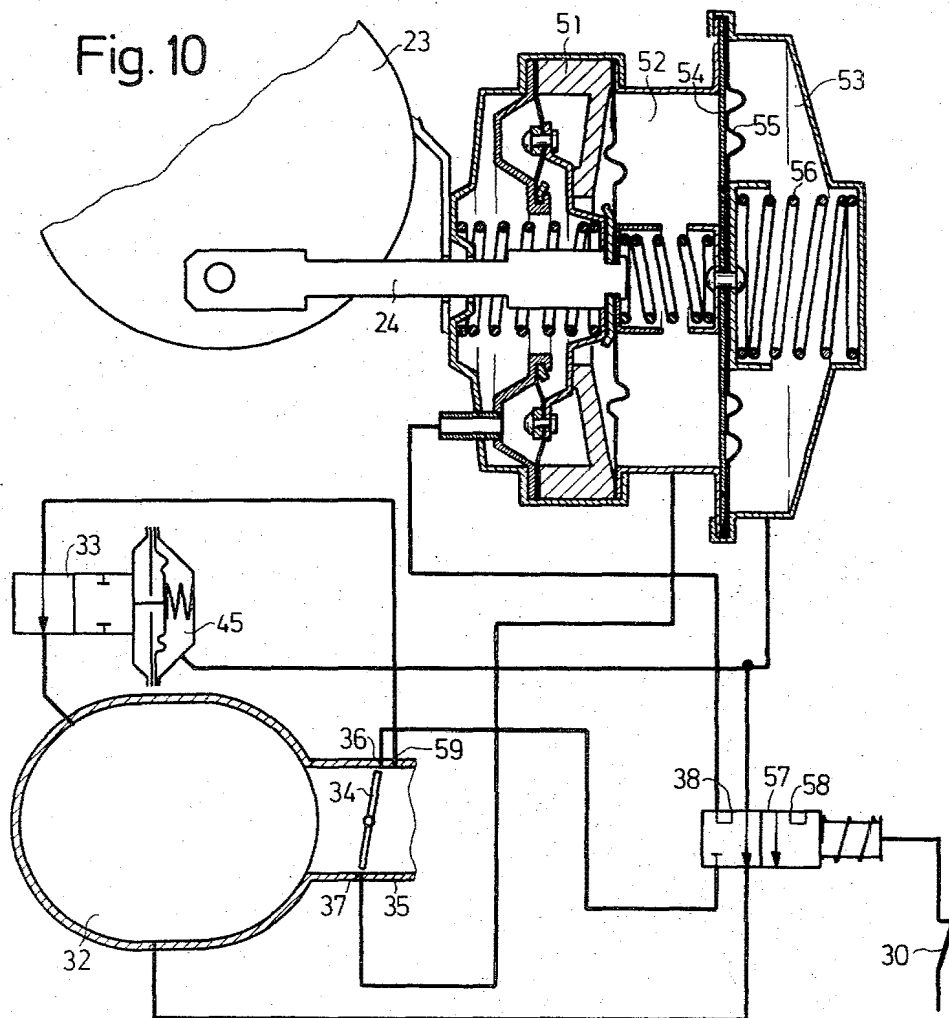


Fig. 11

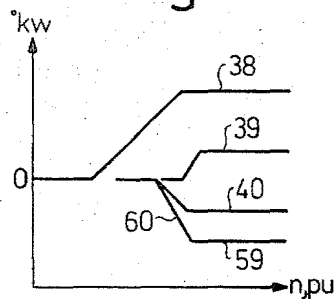


Fig. 12

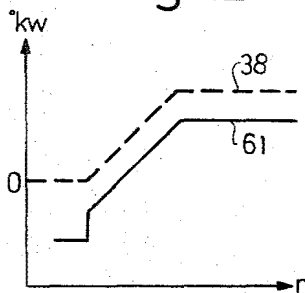
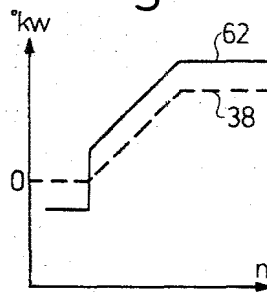


Fig. 13



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