

Title (en)
APPARATUS FOR AN INTERNAL COMBUSTION ENGINE.

Title (de)
VORRICHTUNG FÜR EINEN INTERNEN VERBRENNUNGSMOTOR.

Title (fr)
DISPOSITIF D'UN MOTEUR A COMBUSTION INTERNE.

Publication
EP 0075586 A4 19840503 (EN)

Application
EP 82901245 A 19820316

Priority
• US 24706681 A 19810324
• US 31249581 A 19811019

Abstract (en)
[origin: WO8203424A1] A method and apparatus for operating an electric ignition, internal combustion engine that substantially improves the fuel efficiency by utilizing heat normally discharged to the ambient to condition and prepare the fuel mixture prior to entry into the combustion chambers. The apparatus comprises a fuel vaporizer (50) that transfers heat from the engine coolant system to the fuel mixture as it leaves a fuel introducing device such as a carburetor (38); a fuel mixture heater (52) for heating the mixture above the vaporization temperature of the liquid fuel; and, a mixture homogenizer (54) for thoroughly stirring the fuel mixture that is located in the fuel mixture flow path intermediate the vaporizer and heater. The homogenizer is operative to compress the fuel mixture under certain engine operating conditions and the heater forms the intake manifold for the engine and includes branch flow paths (152a) and associated conduits (164) that communicate directly with each combustion chamber (32) through a valve controlled port (34a). The fuel mixture flow path from the homogenizer is constructed to minimize energy losses to the ambient.

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Citation (search report)
• [Y] FR 645092 A 19281019
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• [A] GB 1439541 A 19760616 - HONDA MOTOR CO LTD
• [A] GB 542238 A 19420101 - GEORGE HENRY WOLFE
• [A] CH 209215 A 19400331 - WEIGLE JACQUES EDOUARD [CH]
• [Y] MACHINE DESIGN, vol. 47, no. 18, July 24, 1975, Penton Inc., CLEVELAND (US)
• [A] MOTORBOAT AND YACHTING, vol. 114, April 30, 1971, LONDON (GB)

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