

ABSTRACT

The invention provides vaporizer apparatus having a housing assembly 10 including a fuel inlet chamber 11 fed by an inlet solenoid valve 13. A valve member 16 closes a delivery passage 15 from the inlet chamber to a heat exchange chamber 20 comprising a primary heat exchange portion 21 and a delivery portion 22, divided by a gas/liquid separation portion 23. A coolant jacket 26 having a coolant inlet 27 and a coolant outlet 28 is in circuit with the engine coolant circuit for the purposes of delivering heat to the heat exchange chamber 20. Operation of the valve member 16 is achieved by means of a primary diaphragm 31 operable in response to heat exchanger pressure by means of aperture 34. A delivery passage 36 feeds gas into a demand regulator chamber 37 which in turn supplies a line outlet 40 to the engine. A demand regulator diaphragm 41 responsive to demand in the supply line is characterised by being adjustable by means of a variable length spring 47 supported in the housing assembly 10 and adjusted by means of a threaded plug 50. The demand regulator diaphragm 41 operates a delivery valve 46 to regulate the flow through the delivery passage 36. A start up/idling assembly 51 comprises a solenoid valve 52 interposed in a passage 53 directly linking the delivery portion 22 of the heat exchange chamber 20 and the demand regulator chamber 37. Apparatus in accordance with the above embodiment has the advantages that it can be fitted to a wide range of engine sizes, the idle fuel and maximum fuel flows infinitely adjustable, and includes positive leakage protection ensuring maximum degree of safety.

This Sheet Has Been Replaced

