

Title (en)
FUEL LINE ENHANCER

Title (de)
VERSTÄRKER FÜR BRENNSTOFFLEITUNG

Title (fr)
ACTIVATEUR POUR CONDUITE DE CARBURANT

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EP 0960272 A2 19991201 (EN)

Application
EP 98901691 A 19980106

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• US 3500697 P 19970108
• US 84267697 A 19970415

Abstract (en)
[origin: WO9832816A2] A device for pre-conditioning fuel before it enters either an internal combustion chamber or a furnace employs appropriate arrangements of magnets and a heat exchanger. The in-line fuel conditioning apparatus comprises a cylindrical fuel impervious container and a temperature control flow line that passes through the cylinder. While passing through the container, the fuel contacts a magnetic field generated by a series of magnets (preferably an even number of pairs) arranged so that pole pieces having the same polarity (i.e., N or S) face each other, while adjacent pole pieces have opposite polarities. A gap separates the poles pieces of each pair and the fuel flows through this gap. Alternative embodiments are concerned with different configurations for bringing together the fuel, the magnets and the coolant during the transport of the fuel to the combustion region. For the pre-treatment of fuel for an internal combustion engine, a source of coolant is used to lower the temperature of the fuel contacting the magnetic field generated by the magnets. For the pre-treatment of heating oil being delivered to a furnace a greater efficiency of burning occurs when a temperature control flow line, such as a copper hot water tube wrapped around the container, is used to raise, rather than lower the temperature of the fuel.

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