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(74) Agent: PASTERNAK, Sam; Choate, Hall & Stewart,
Two International Place, Boston, MA 02110 (US).

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(71) Applicant (for all designated States except US):
ETHANOL BOOSTING SYSTEMS, LLC. [US/US];
c/o Daniel R. Cohn, 100 Memorial Drive, Cambridge, MA (US).

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(71) Applicant and

(72) Inventor: **HEYWOOD, John, B.**; 218 Mill Street, Newtonville, MA (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BROMBERG, Leslie** [US/US]; 176 Wilshire Drive, Sharon, MA (US). **BLUMBERG, Paul** [US/US]; 23185 Morningside Street, Southfield, MI (US). **COHN, Daniel, R.** [US/US]; 100 Memorial Drive, Cambridge, MA (US).

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(54) Title: FUEL TANK SYSTEM FOR DIRECT ETHANOL INJECTION OCTANE BOOSTED GASOLINE ENGINE

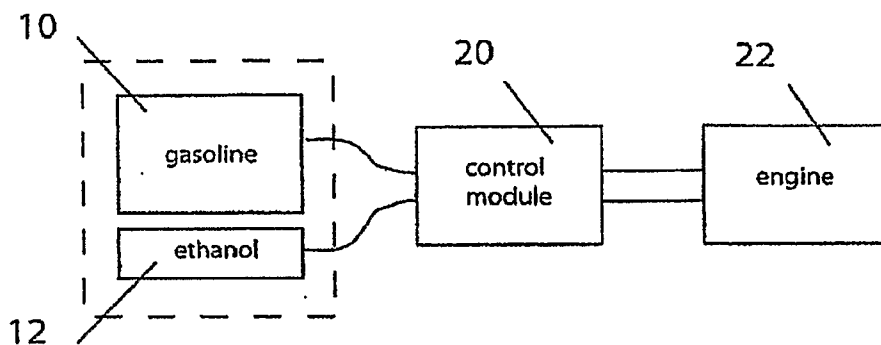


FIGURE 1

(57) Abstract: Fuel tank system for a direct ethanol injection octane boosted gasoline engine. The system includes a gasoline engine and a main fuel tank that contains a mix of gasoline and gasoline E85. A smaller secondary tank is provided to contain ethanol or E85. An injector directly injects in a separately controlled fashion ethanol or E85 into a cylinder of the engine to boost octane. A control module controls the relative amounts of gasoline and ethanol used and structure is provided for fueling the main and secondary fuel tanks.

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B. FIELDS SEARCHED
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 U.S. : 123/1A, 432, 575, 198A

 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, E	US 7,357,101 A (BOYARSKI) 15 April 2008 (15.04.2008), Figures 36-37.	1-16
A, E	US 7,287,492 A (LEONE et al) 30 October 2007 (30.10.2007), Figures 36-37.	1-16

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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer <i>Hai Huynh</i> Telephone No. (751) 272-4383