



US006209672B1

(12) **United States Patent**
Severinsky

(10) **Patent No.:** **US 6,209,672 B1**
(45) **Date of Patent:** **Apr. 3, 2001**

(54) **HYBRID VEHICLE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/264,817**

(22) Filed: **Mar. 9, 1999**

Related U.S. Application Data

(60) Provisional application No. 60/100,095, filed on Sep. 14, 1998.

(51) **Int. Cl.**⁷ **B60K 6/04**

(52) **U.S. Cl.** **180/65.2; 180/65.4; 60/711**

(58) **Field of Search** 180/65.2, 65.3, 180/65.4, 65.6, 65.8, 165; 60/716, 718, 706, 711; 290/17, 40 R, 40 C; 322/16

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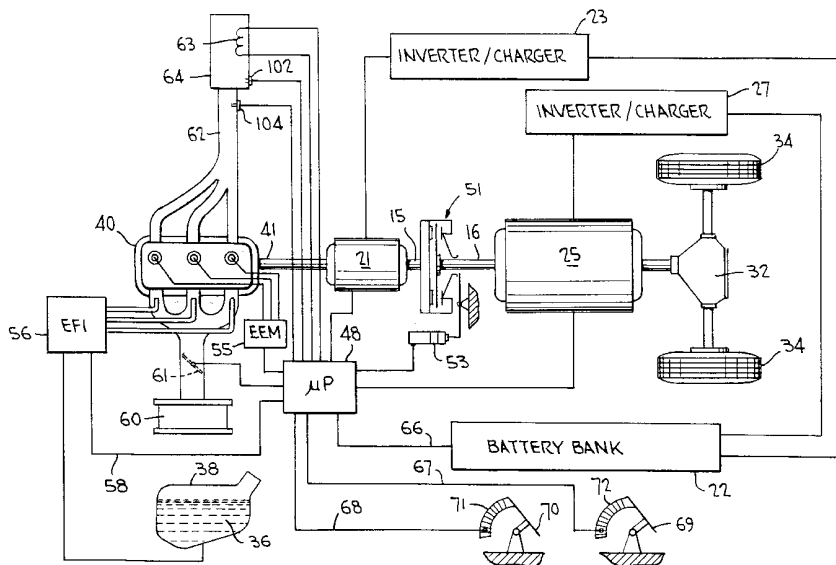
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(57) **ABSTRACT**

A hybrid vehicle comprising an an internal combustion engine controllably coupled to road wheels of the vehicle by a clutch, a traction motor coupled to road wheels of said vehicle, a starting motor coupled to the engine, both motors being operable as generators, a battery bank for providing electrical energy to and accepting energy from said motors, and a microprocessor for controlling these components is operated in different modes, depending on its instantaneous torque requirements, the state of charge of the battery bank, and other operating parameters. The mode of operation is selected by the microprocessor in response to a control strategy.

33 Claims, 10 Drawing Sheets



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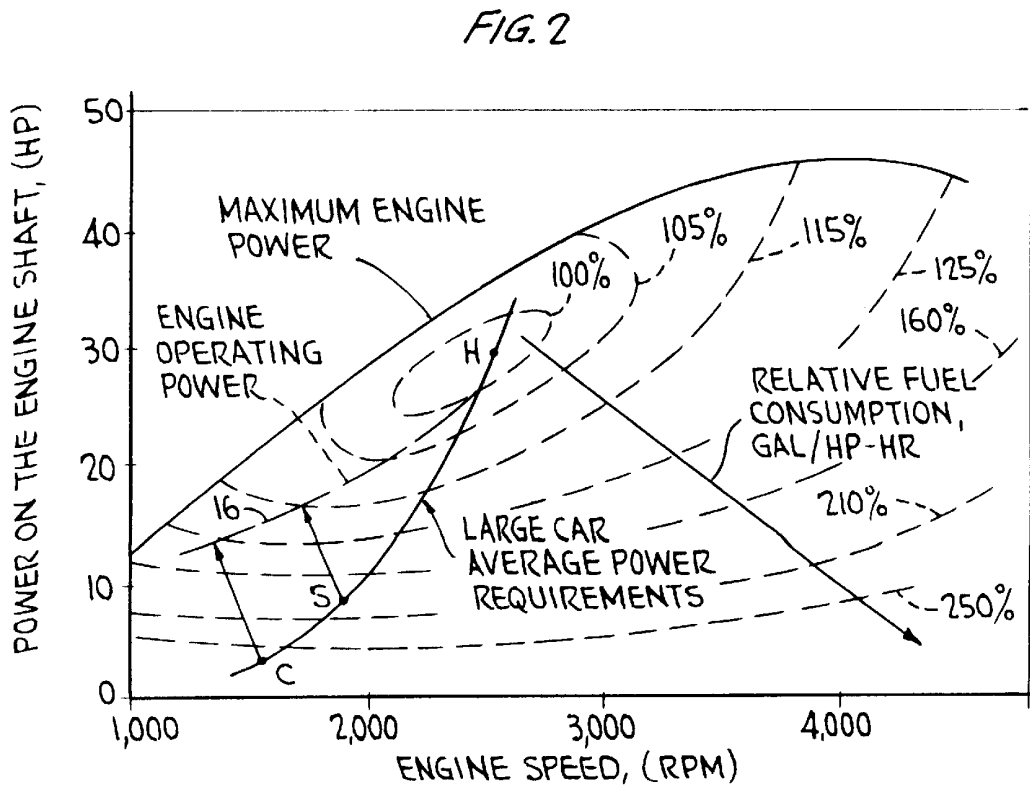
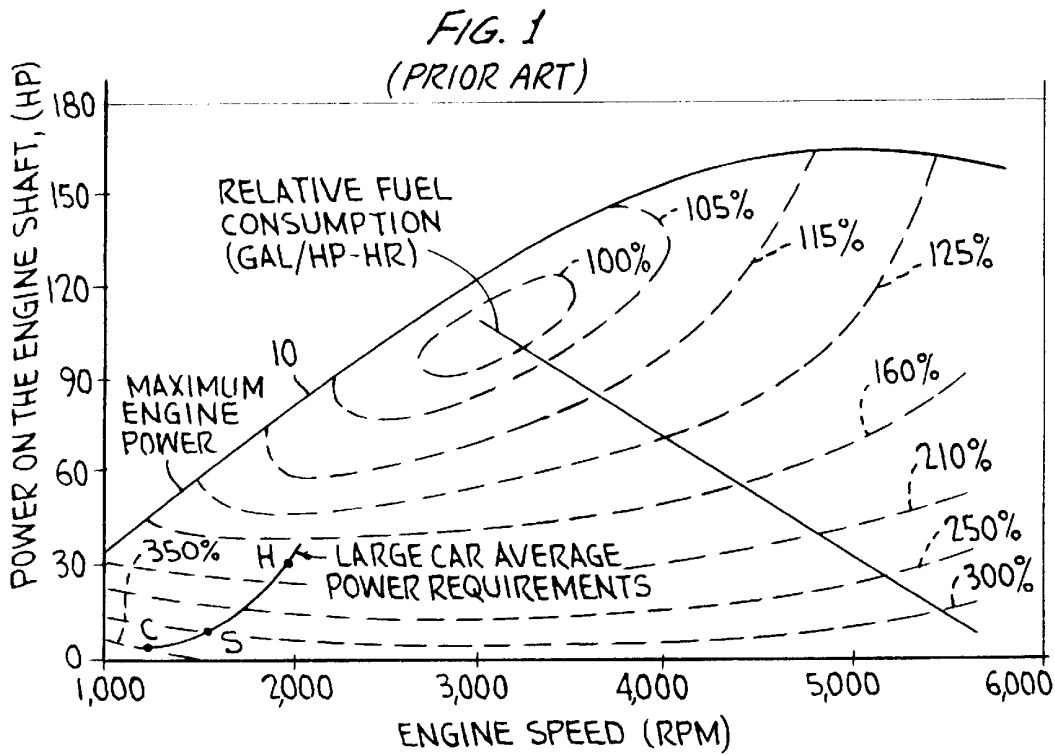
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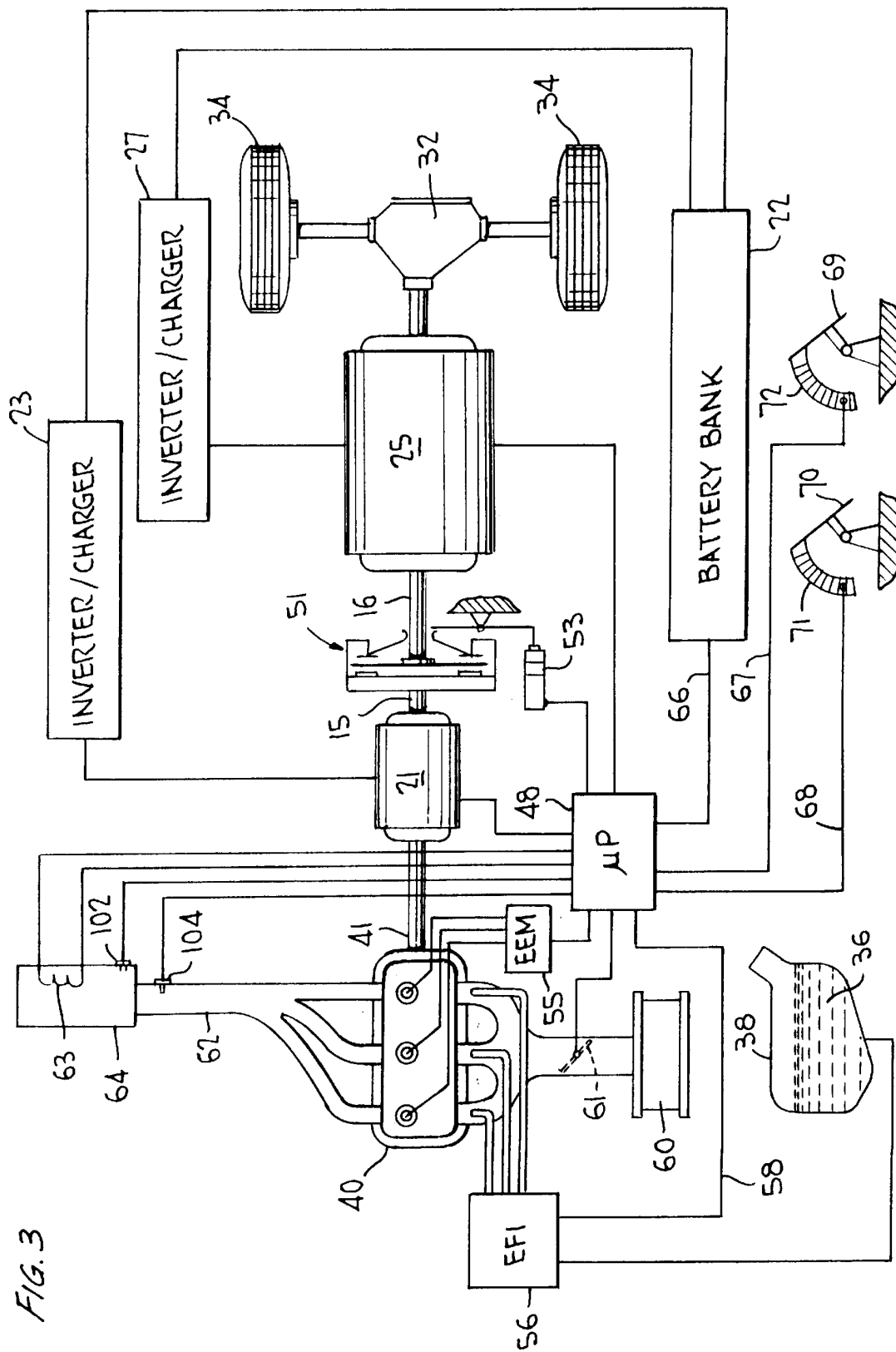


FIG. 3

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