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Severinsky

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(54) **HYBRID VEHICLE**

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(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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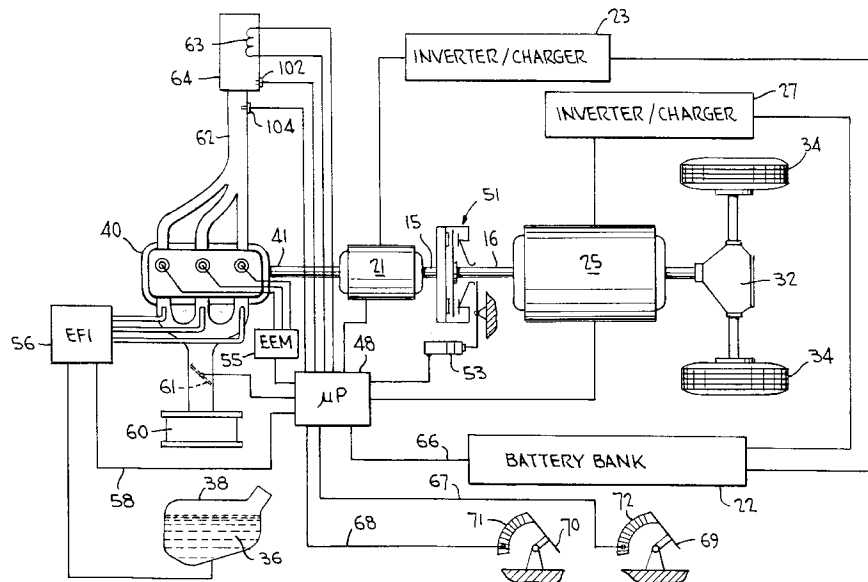
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(57) **ABSTRACT**

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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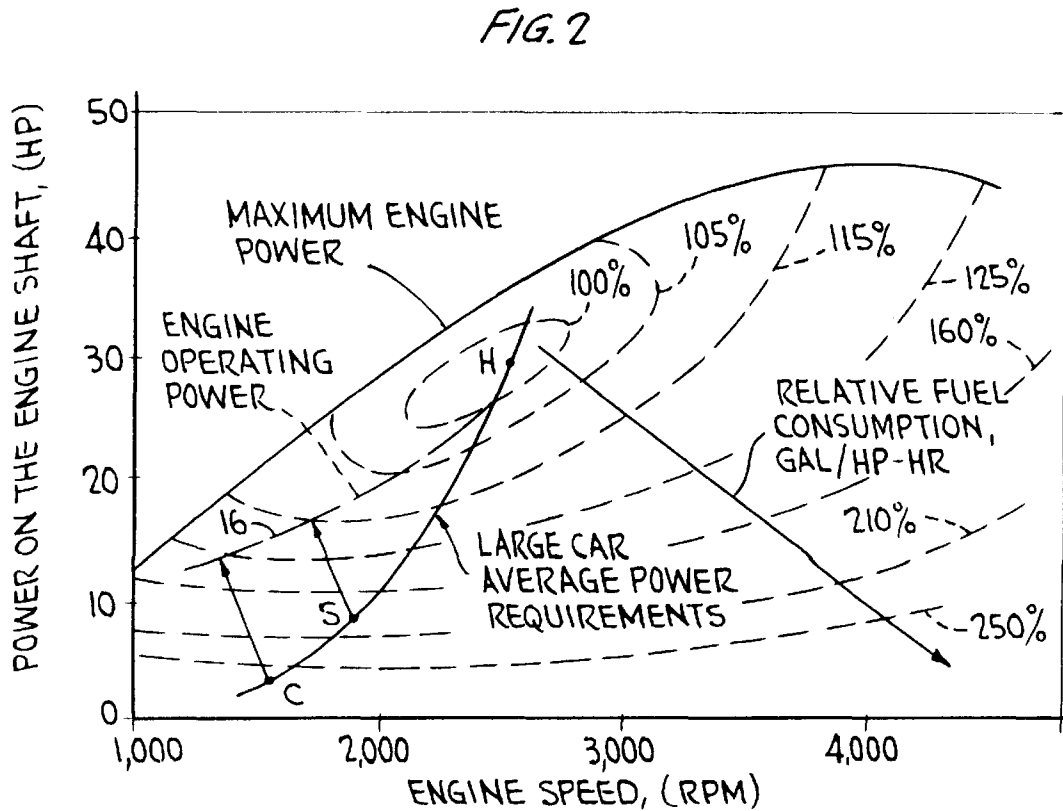
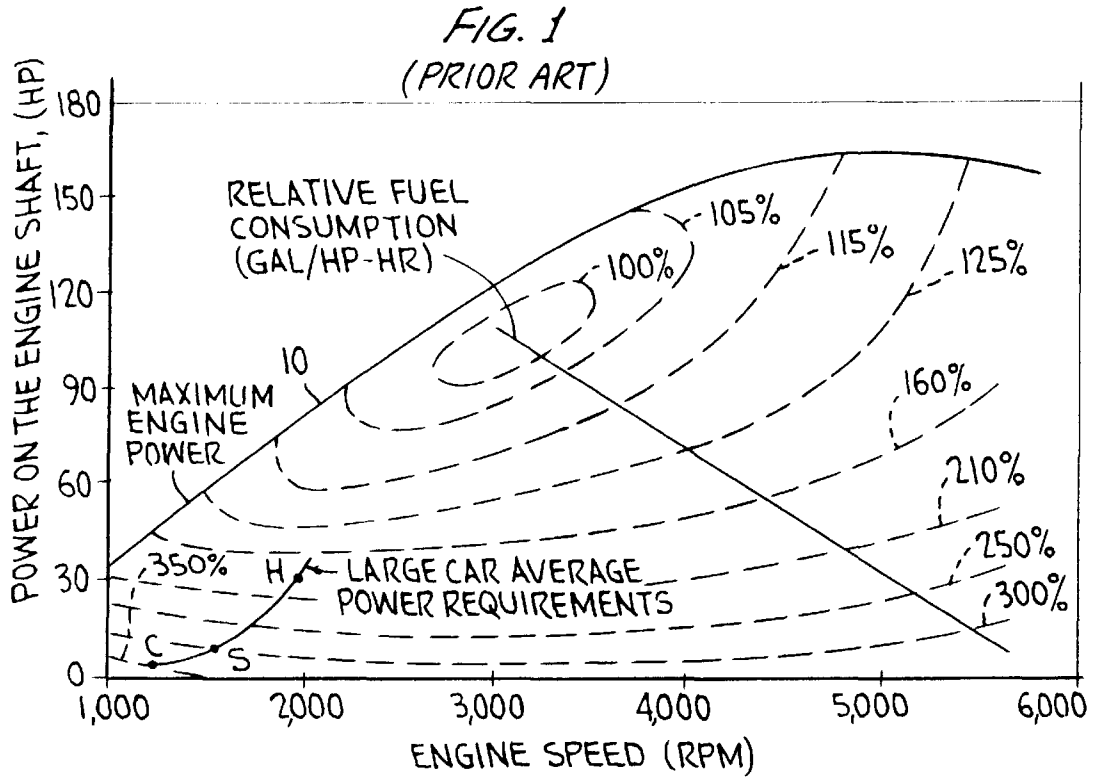
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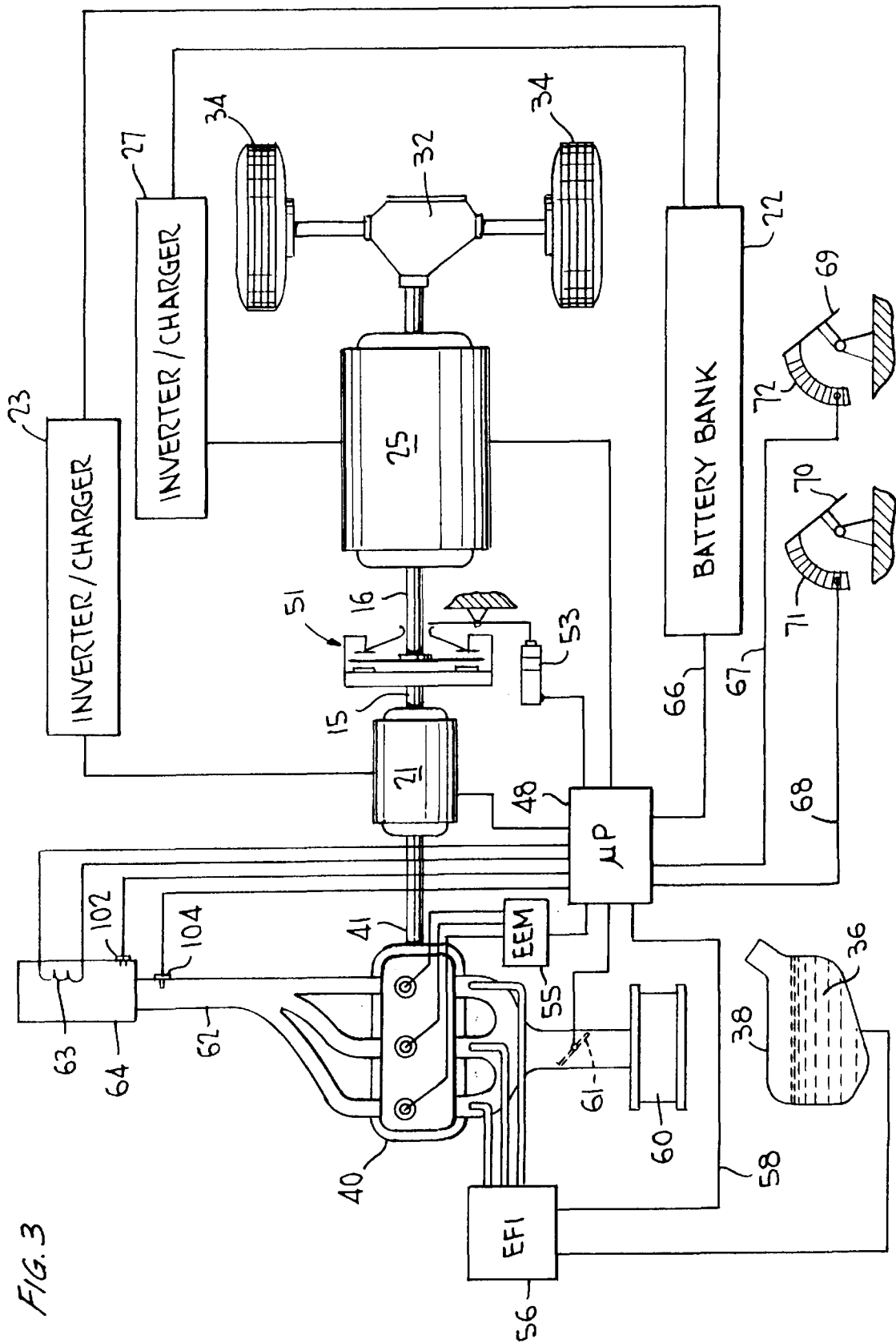


FIG. 3

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