



[54] HYBRID DRIVE SYSTEM FOR MOTOR VEHICLE, HAVING MEANS FOR INHIBITING ELECTRICITY GENERATING DRIVE MODE

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[75] Inventors: Ryuji Ibaraki, Toyota; Yutaka Taga, Aichi-ken; Atsushi Tabata, Okazaki, all of Japan

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[73] Assignee: Toyota Jidosha Kabushiki Kaisha, Toyota, Japan

[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Primary Examiner—J. J. Swann
Assistant Examiner—Frank Vanaman
Attorney, Agent, or Firm—Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

[21] Appl. No.: 08/725,710

[57] ABSTRACT

[22] Filed: Oct. 4, 1996

Hybrid motor vehicle drive system including an electric motor operated by an electric energy generated by an electric generator and stored in a storage device, an engine, and a controller for controlling the engine and electric generator to operate in an electricity generating drive mode when a predetermined condition is satisfied, such that the engine is operated so as to provide an output greater than a required power to drive the motor vehicle, so that the vehicle is driven by the engine with the required power while the electric generator is operated by the engine with a surplus power to charge the storage, and wherein the controller includes a special control device operated in the event of a failure of the electric generator, for inhibiting the selection of the electricity generating drive mode and selecting an engine drive mode to operate the engine for driving the motor vehicle with the required power, even when the predetermined condition is satisfied.

[30] Foreign Application Priority Data

Oct. 5, 1995 [JP] Japan 7-258400

[51] Int. Cl. 6 B60K 6/04

[52] U.S. Cl. 180/65.2; 180/65.4

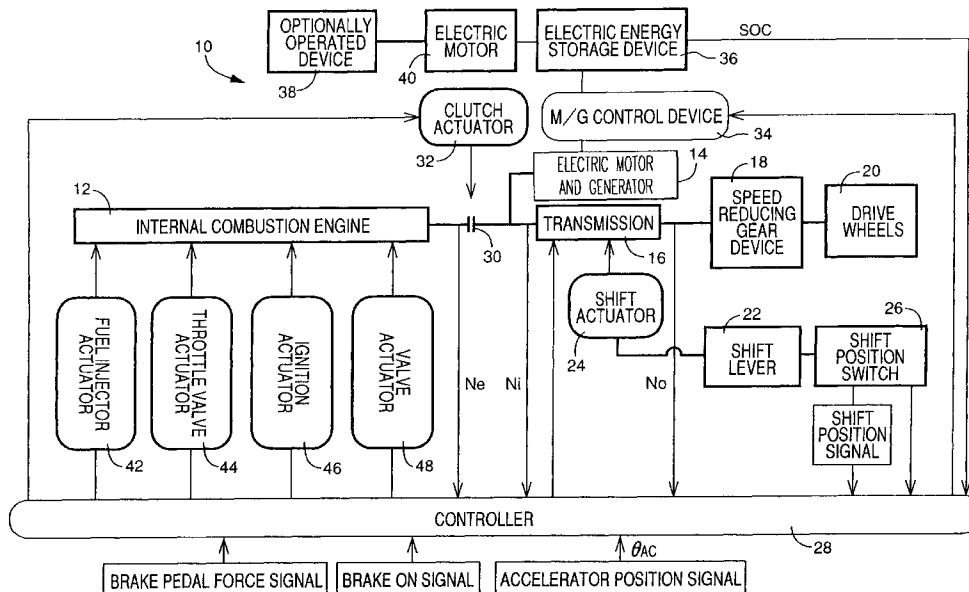
[58] Field of Search 180/65.2, 65.3, 180/65.4, 65.6; 701/101

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15 Claims, 4 Drawing Sheets



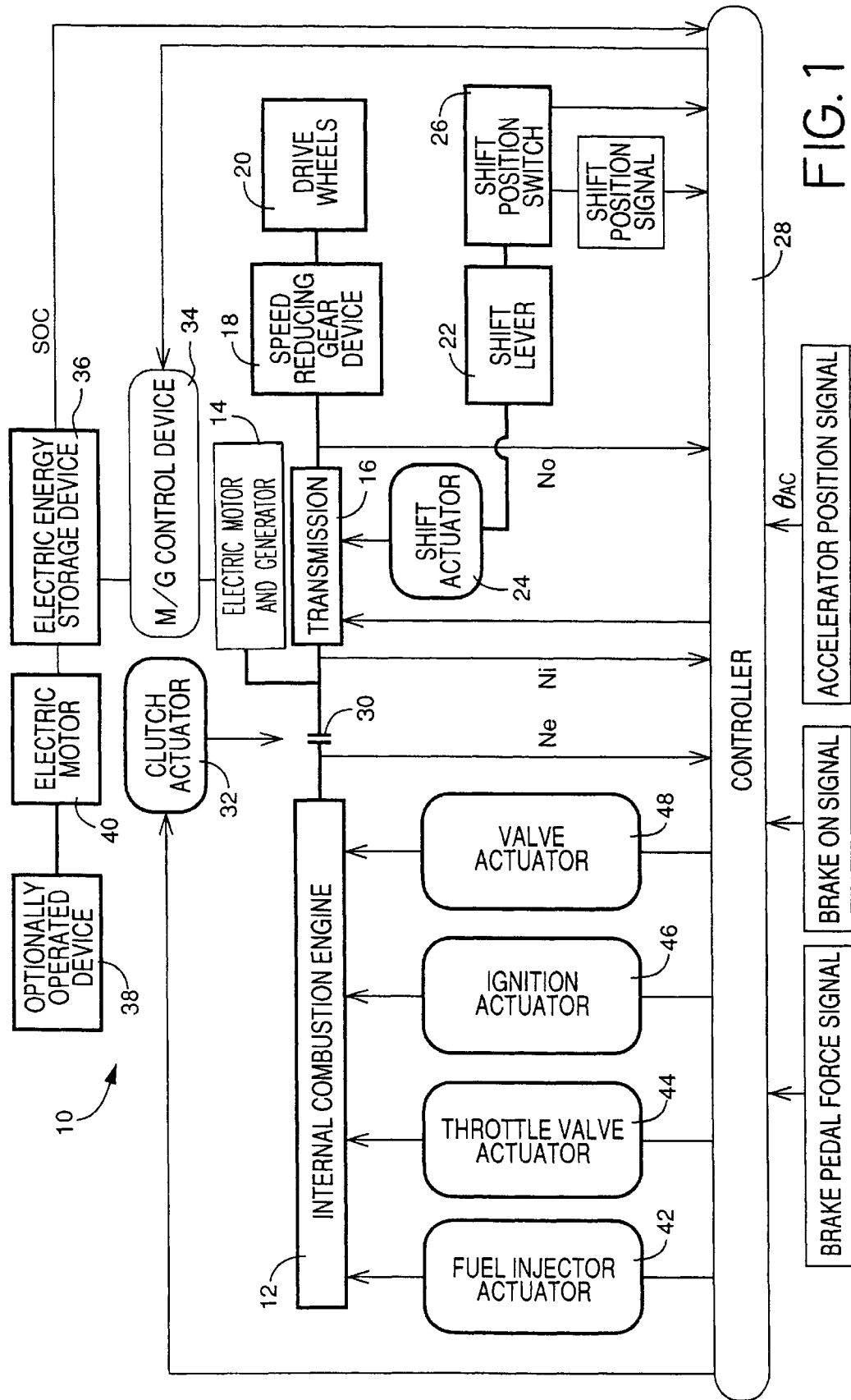
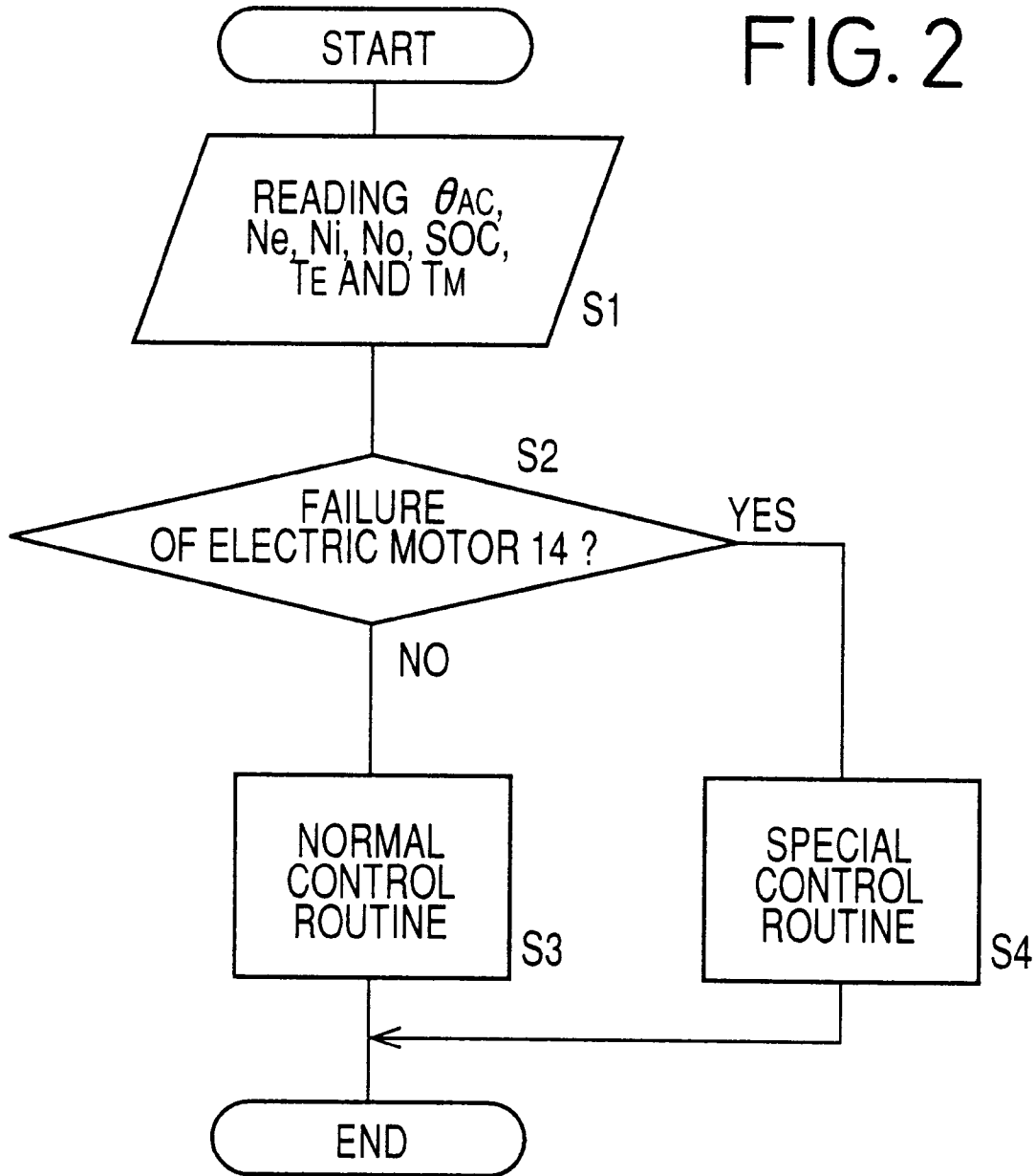


FIG. 1

FIG. 2



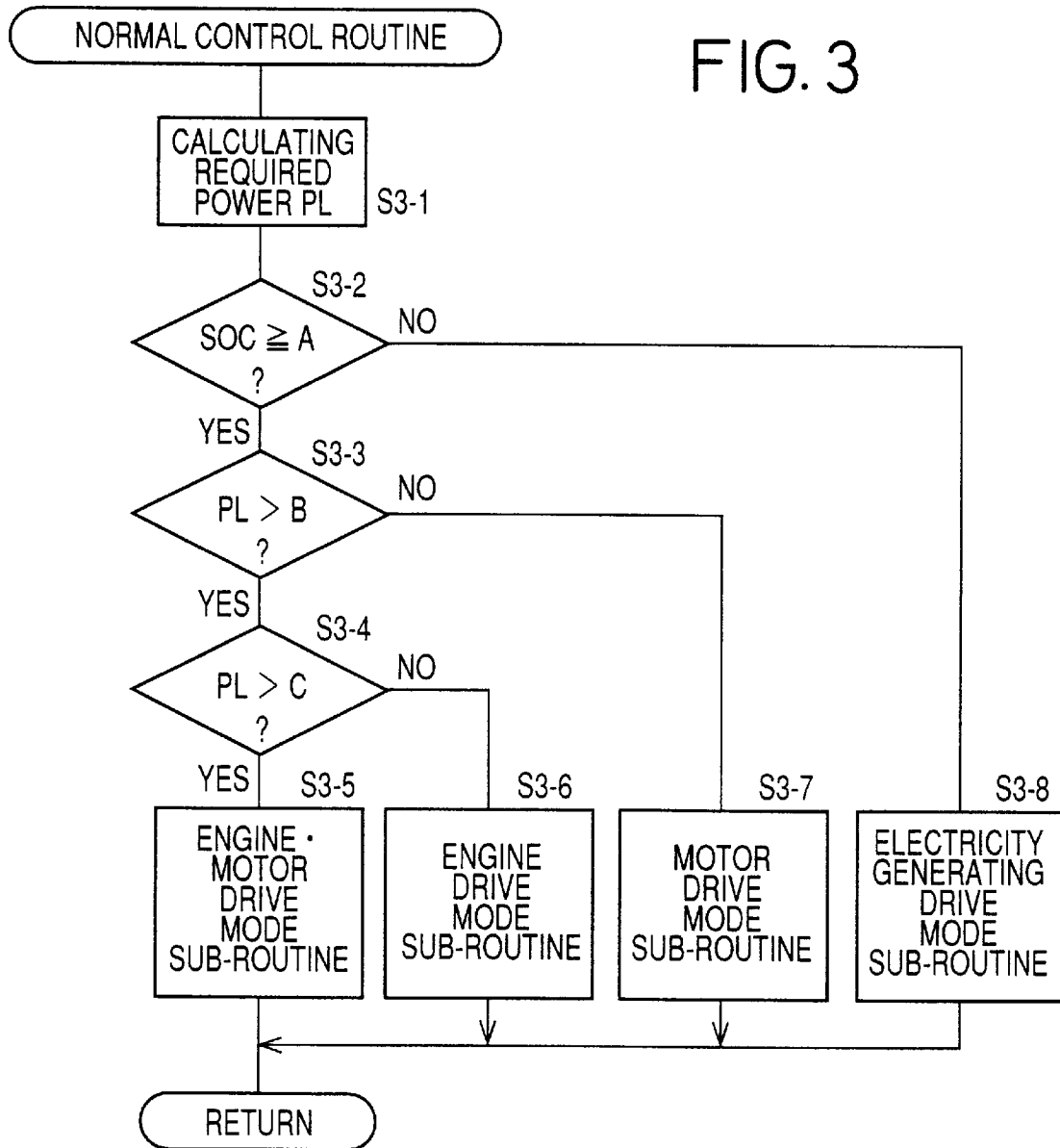


FIG. 4

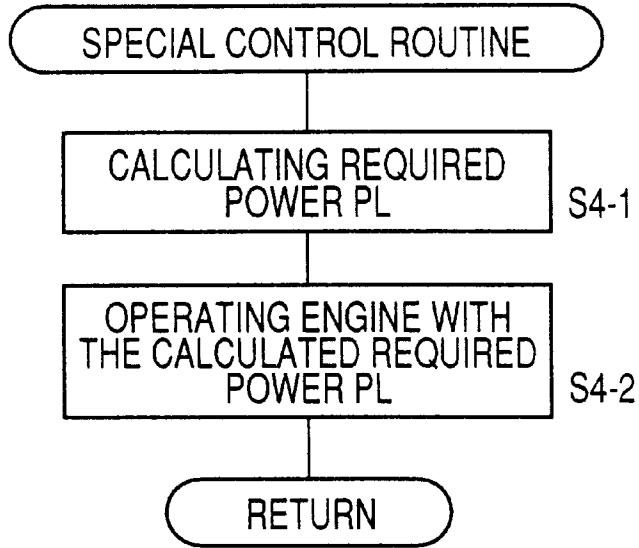
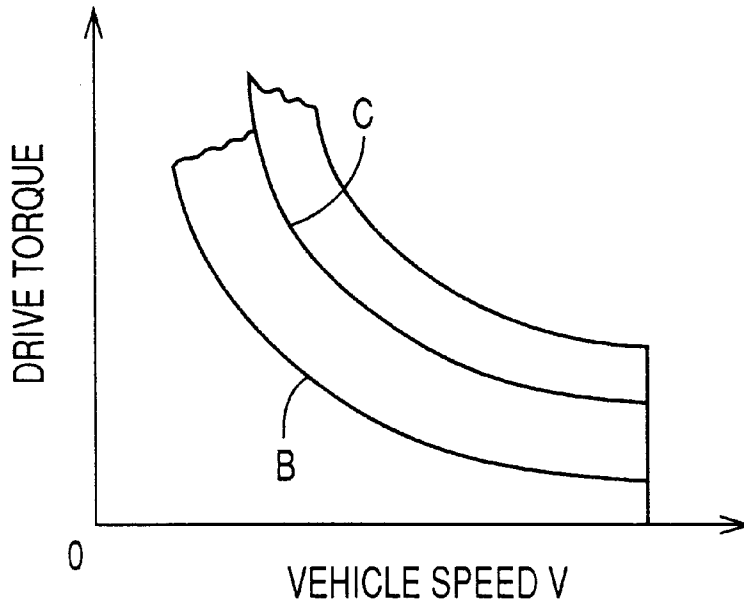


FIG. 5



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