

[54] **HYBRID DRIVE SYSTEM FOR MOTOR VEHICLE**

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

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

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[30] **Foreign Application Priority Data**

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[51] **Int. Cl.**⁷ **B60K 6/04**

[52] **U.S. Cl.** **180/65.2**; 180/65.8; 318/376;
701/55

[58] **Field of Search** 180/65.2, 65.1,
180/65.3, 65.4, 65.8; 318/8, 376; 701/22,
51, 55

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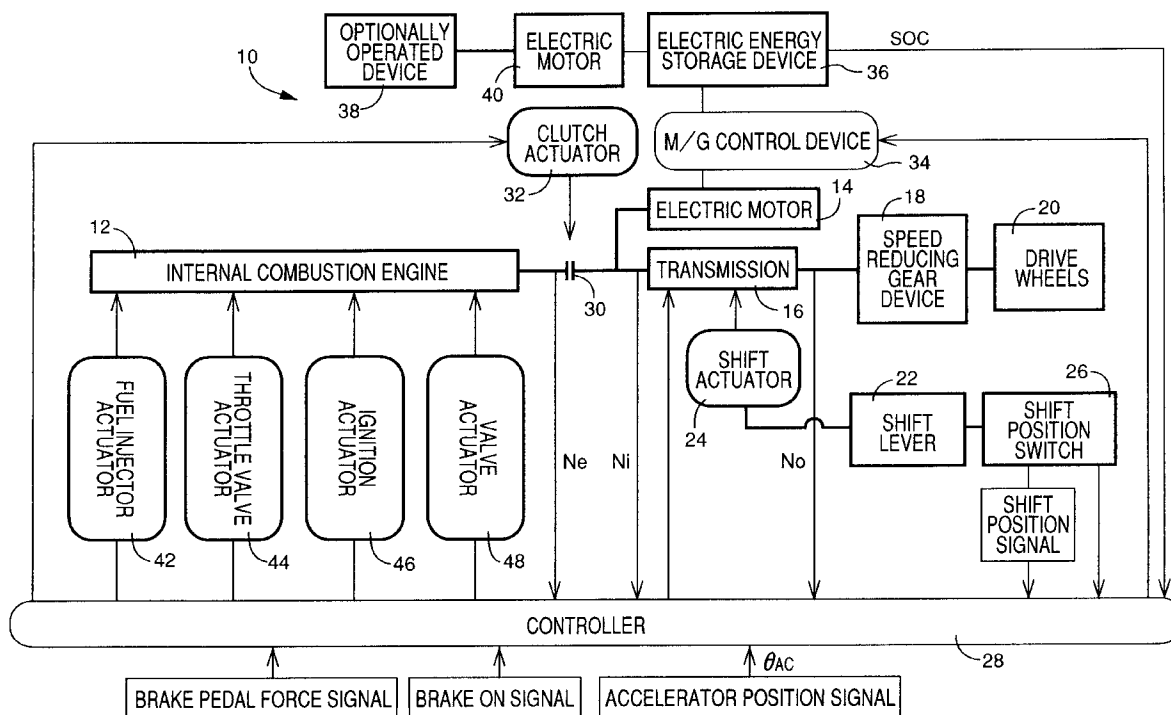
Primary Examiner—Michael Mar

Attorney, Agent, or Firm—Oblon, Spivak, McClelland,
Maier & Neustadt, P.C.

[57] **ABSTRACT**

A hybrid vehicle drive system including an engine, an electric motor operated by an electric energy stored in a storage device charged by operation of the engine, and a controller for selecting a low-load drive mode for driving the vehicle by the electric motor when the vehicle running condition is in a predetermined low-load range, and a high-load drive mode for driving the vehicle by the engine when the running condition is in a predetermined high-load range in which a load acting on the hybrid drive device is higher than that in the low-load range, and wherein the controller includes an emergency drive control device operated in the event of a failure of the first and second drive power sources, for operating the other, normal drive power source to drive the motor vehicle, and a range changing device for changing one of the low-load and high-load ranges which corresponds to the normal drive power source when the normal drive power source is operated by the emergency drive control device.

6 Claims, 9 Drawing Sheets



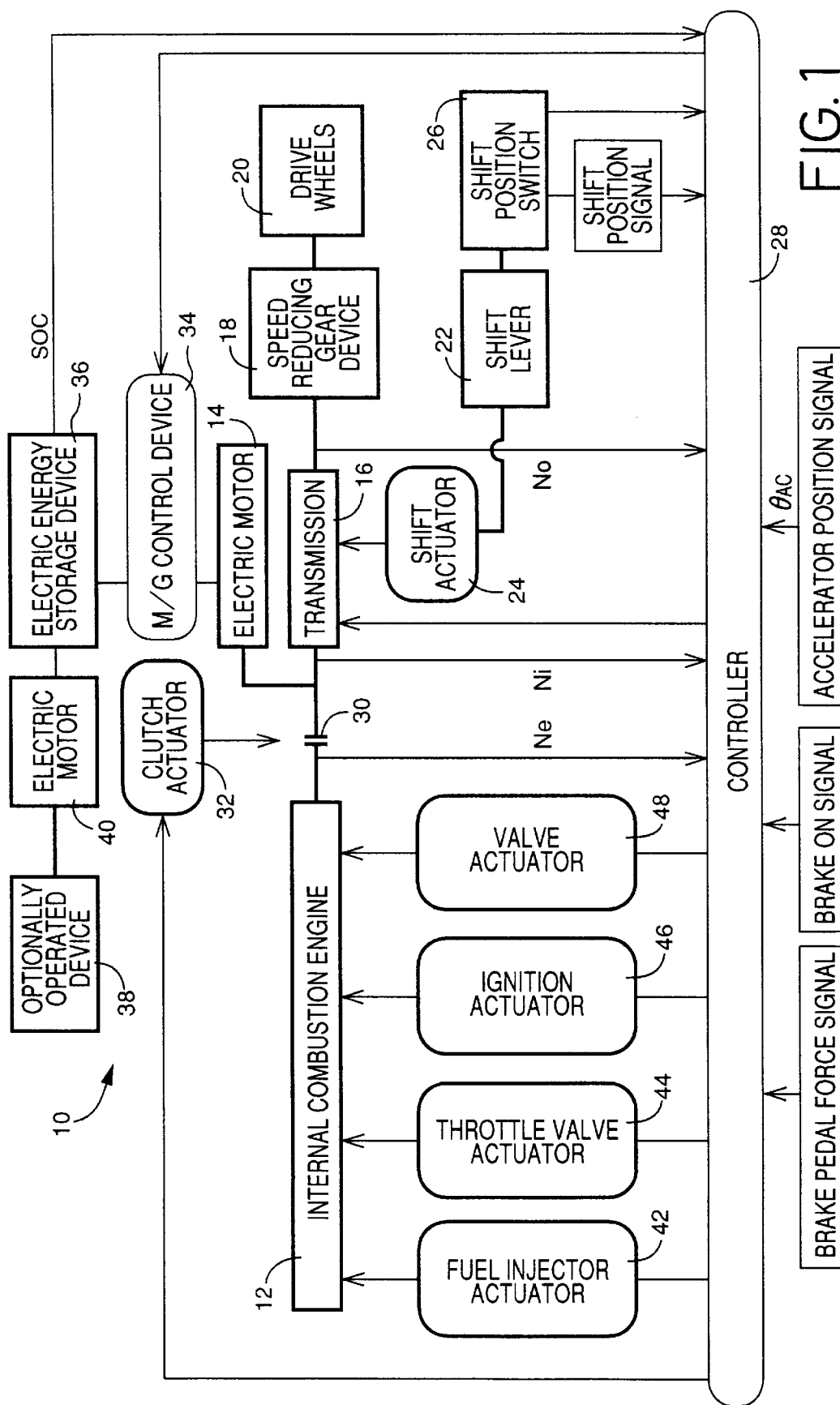


FIG. 1

FIG. 2

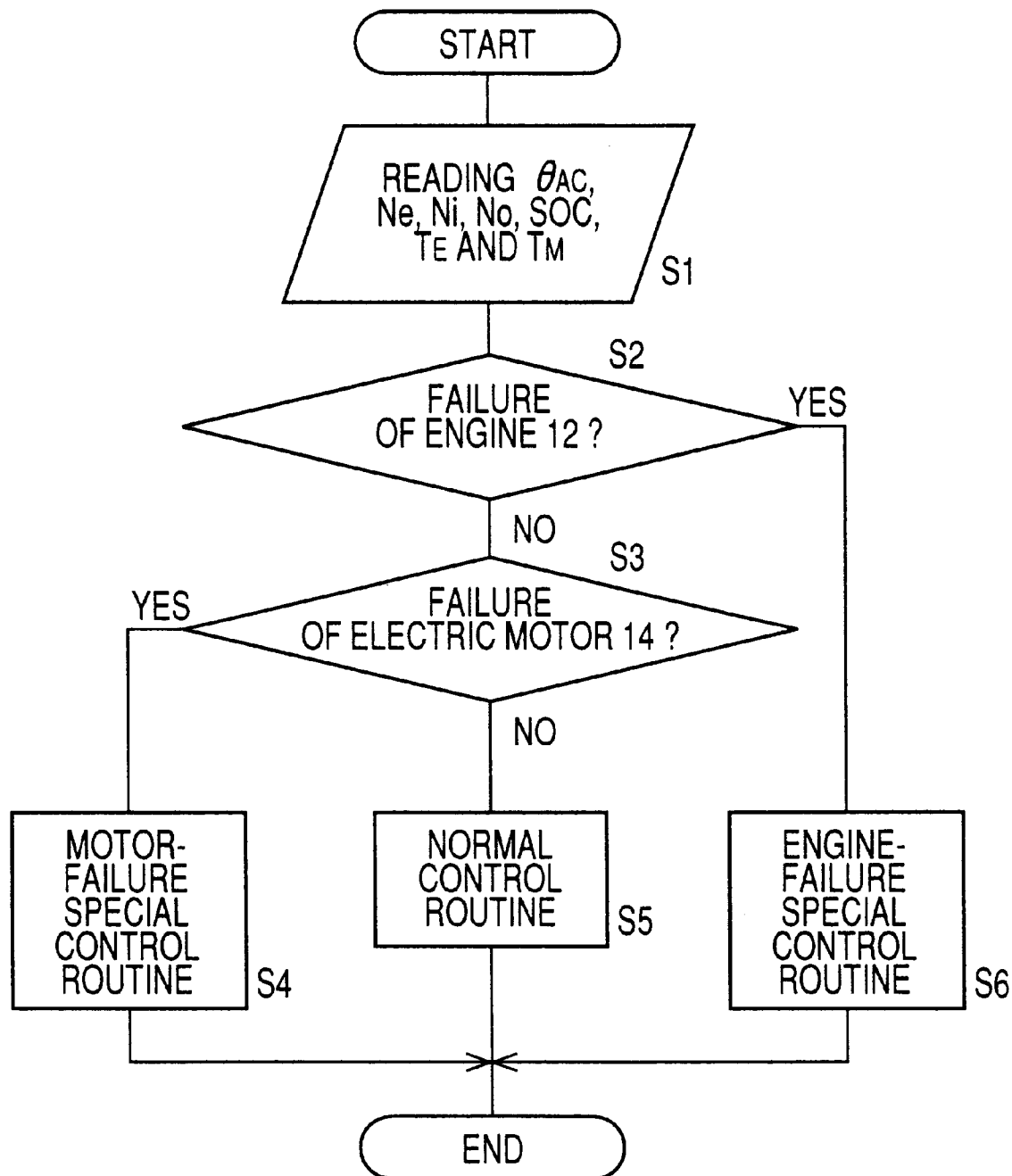


FIG. 3

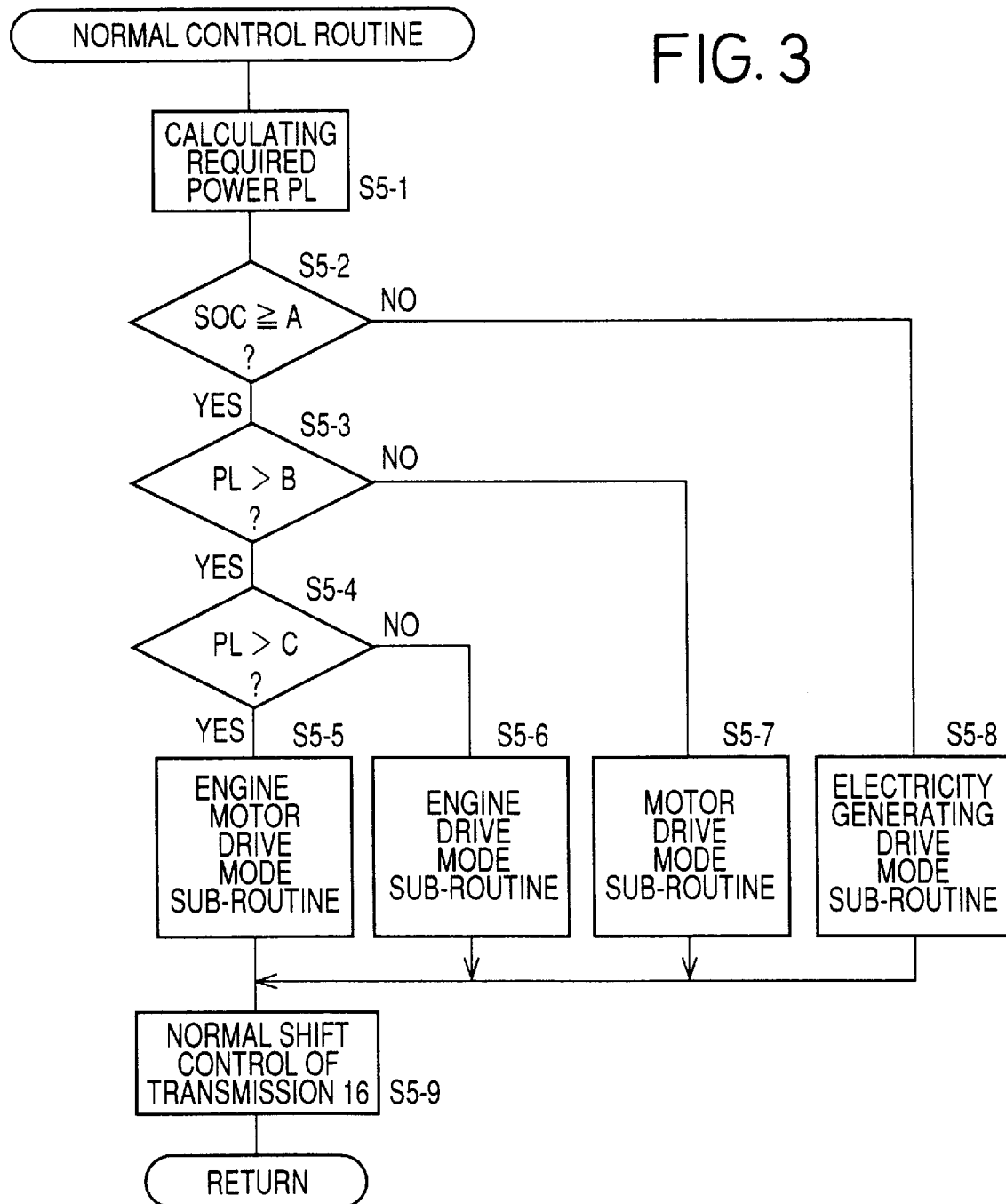
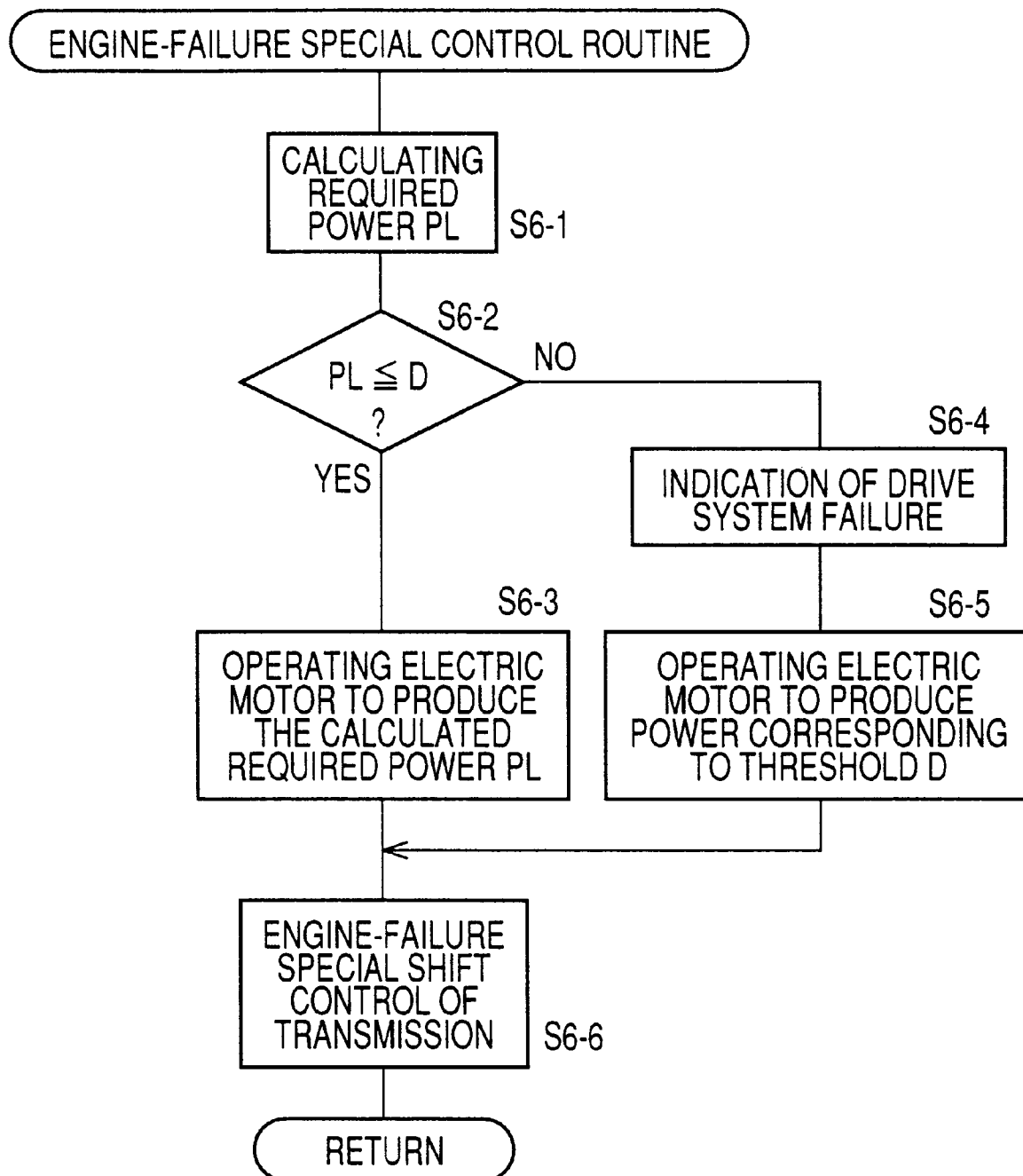


FIG. 4



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