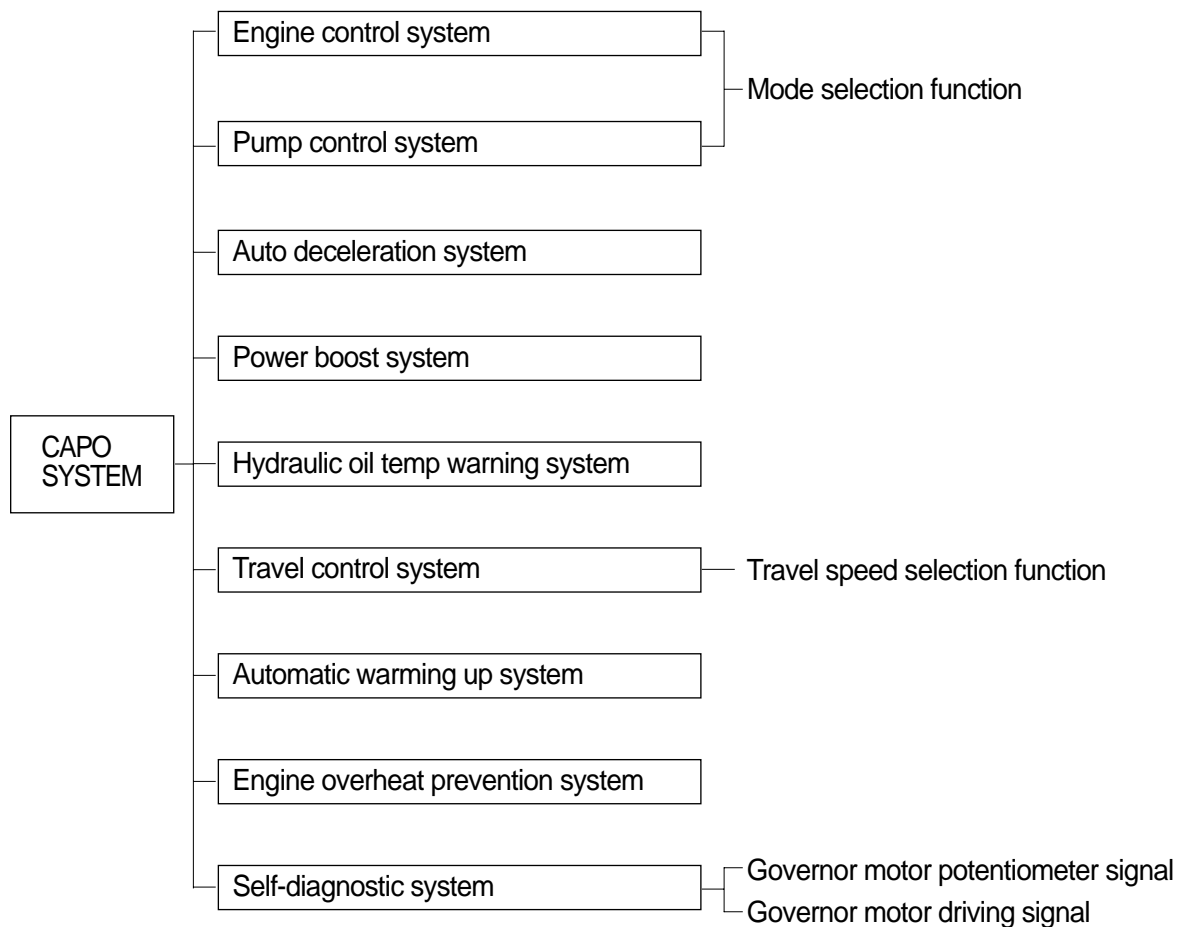## GROUP 1 OUTLINE

The CAPO(Computer Aided Power Optimization) system mainly consists of the engine control system and pump control system.   By using the CAPO system, an operator can use the machine power in optimal condition and in fuel economic state.

It also includes the self-diagnostic system.   If any malfunction of short or open circuit happens on the governor motor part, the error display on cluster let an operator know which error happened to the governor motor.   And if any short circuit occurs in or out of the CPU controller it protects itself from electric damage.

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                        ┌─────────────────────────────┐
                        │ Engine control system       │──┐
                        └─────────────────────────────┘  ├── Mode selection function
                        ┌─────────────────────────────┐  │
                        │ Pump control system         │──┘
                        └─────────────────────────────┘
                        ┌─────────────────────────────┐
                        │ Auto deceleration system    │
                        └─────────────────────────────┘
                        ┌─────────────────────────────┐
                        │ Power boost system          │
                        └─────────────────────────────┘
          ┌────────┐    ┌─────────────────────────────┐
          │ CAPO   │────│ Hydraulic oil temp warning system │
          │ SYSTEM │    └─────────────────────────────┘
          └────────┘    ┌─────────────────────────────┐
                        │ Travel control system       │── Travel speed selection function
                        └─────────────────────────────┘
                        ┌─────────────────────────────┐
                        │ Automatic warming up system │
                        └─────────────────────────────┘
                        ┌─────────────────────────────┐
                        │ Engine overheat prevention system │
                        └─────────────────────────────┘
                        ┌─────────────────────────────┐  ┌ Governor motor potentiometer signal
                        │ Self-diagnostic system      │──┤
                        └─────────────────────────────┘  └ Governor motor driving signal
```

SYSTEM DIAGRAM