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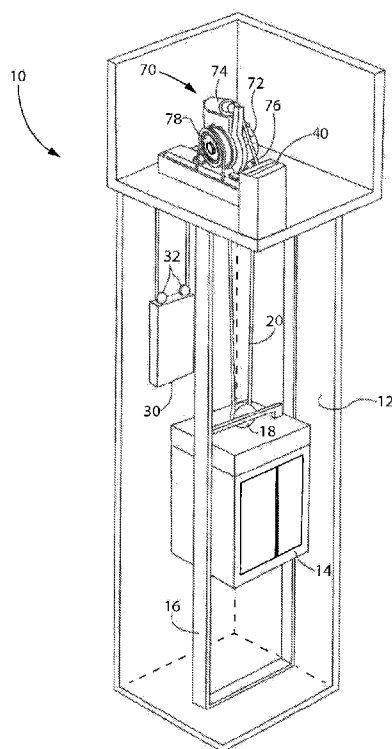
(54) Title: METHOD AND APPARATUS FOR DETERMINING POSITION FOR A PERMANENT MAGNET ELEVATOR MO-
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FIG. 1

(57) Abstract: A system for determining the angular position of a synchronous motor includes an encoder with a friction wheel engaging a rotating surface of the motor. The friction wheel is spun by the rotation of the motor, and the encoder generates a signal corresponding to the angular position of the friction wheel. An independent sensor is provided to generate a pulse once per revolution of the motor. The independent sensor detects the presence of a target on the rotating surface of the motor and generates the pulse when the target is proximate to the sensor. A controller receives the signal corresponding to the angular position of the friction wheel as well as the pulse generated by the independent sensor to determine the angular position of the motor. The controller compensates the angular position of the motor each time the pulse is generated, correcting accumulated position error.



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