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(74) Agent: FELLOWS, Gerald L.; Greenberg Traurig LLP,
77 West Wacker Drive, Suite 3100, Chicago, IL 60601
(US).

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(71) Applicant (for all designated States except US): REMY TECHNOLOGIES, LLC [US/US]; 600 Corporation Drive, Pendleton, IN 46064 (US).

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(72) Inventor; and
(75) Inventor/Applicant (for US only): FULTON, David A. [US/US]; 4517 Golfview Drive, Anderson, IN 46011 (US).

[Continued on next page]

(54) Title: STARTER MACHINE SYSTEM AND METHOD

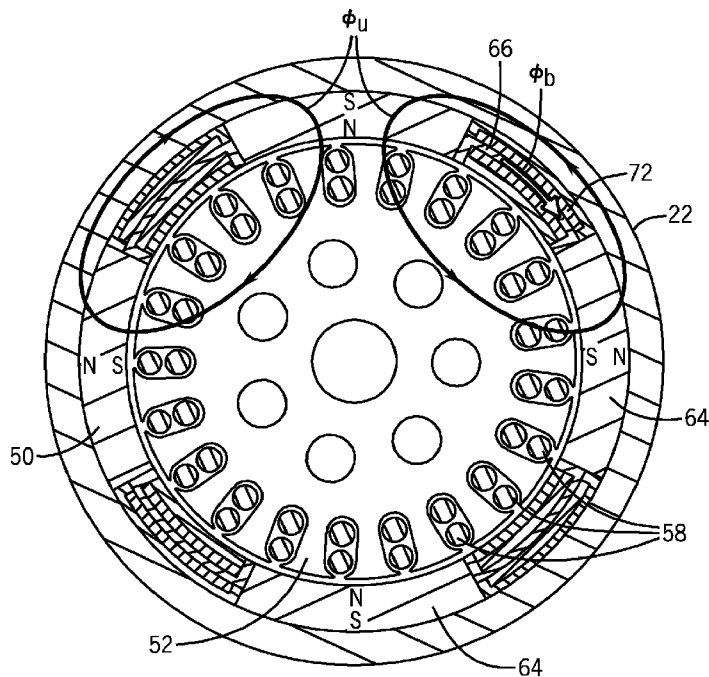


FIG. 4

(57) Abstract: Embodiments of the invention provide a starter machine control system including an electronic control unit. The control system can include a starter machine that is in communication with the electronic control unit. The starter machine can comprise a solenoid assembly that includes at least one biasing members and a coil winding. The starter machine can also include a motor that is coupled to a pinion. The motor can include a field assembly and an armature assembly. The field assembly can include a support body and permanent magnets that are supported within the support body. A plurality of flux members can be disposed between the permanent magnets. A plurality of windings can be disposed around the flux members and can be coupled to a control circuit.





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A. CLASSIFICATION OF SUBJECT MATTER*F02N 15/06(2006.01)i, F02N 11/08(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

F02N 15/06; H02P 8/00; F02N 17/00; F02N 15/02; H02K 17/00; H02P 1/46; H02K 21/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: starter, solenoid, control*, motor, flux, coil, winding, magnet, pole shoe, speed, temperature sensor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004-0168664 A1 (TAKASHI SENDA et al.) 02 September 2004 See abstract, paragraphs [0061]-[0063] and figures 1-2.	1-20
A	US 7701104 B2 (ANTOINE DOKOU AKEMAKOU) 20 April 2010 See abstract, column 6 lines 1-4 and figure 2.	1-20
A	US 06011377A A (WILLIAM S. HEGLUND et al.) 04 January 2000 See abstract, column 5 lines 16-19 and figures 1-3.	1-20
A	US 2006-0117876 A1 (ATTILA LEPRES et al.) 08 June 2006 See abstract, paragraph [0015] and figure 1.	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

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"&" document member of the same patent family

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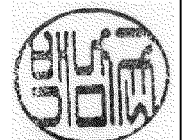
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Information on patent family members

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