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13/422,112 16 March 2012 (16.03.2012) US(71) Applicant (for all designated States except US): **GLOBE MOTORS, INC.** [US/US]; 2275 Stanley Avenue, Dayton, OH 45404 (US).

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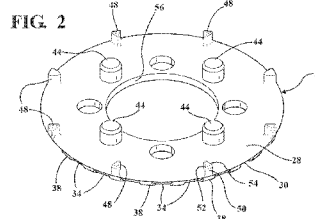
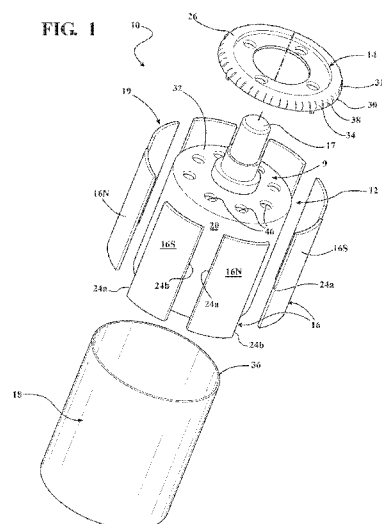
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[Continued on next page]

(54) Title: ROTOR INCLUDING ANTI-ROTATION FEATURE FOR MULTI-POLE STRUCTURE



(57) **Abstract:** A permanently magnetizable rotor having a central rotor structure including a rotor shaft supporting a cylindrical backiron. The rotor further includes a multi-pole structure comprising circumferentially alternating pole elements, and a rotor cover extending longitudinally over the multi-pole structure. The rotor additionally includes an endcap including an engagement surface positioned in engagement with an end of the backiron. The endcap defines first and second anti-rotation features for preventing circumferential rotation of one or more of the pole elements about the backiron. The first anti-rotation feature comprises discrete indentations extending into the peripheral surface and engaged by corresponding discrete portions of an end of the rotor cover, the second anti-rotation feature comprises tabs that extend axially from the engagement surface of the endcap and engage in spaces defined in at least an end portion of the multi-pole structure, and each anti-rotation is suitable for transmitting a torque on the multi-pole structure.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.

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)
H02K

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

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

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009/309448 A1 (YANG SHIH-JEN [TW] ET AL) 17 December 2009 (2009-12-17)	15-18
Y	paragraphs [0017], [0024], [0039] - [0042], [0046] - [0047]; figures 3A, 4A, 5	1-9, 11-14, 19,20
Y	----- WO 2011/108733 A1 (NIDEC CORP [JP]; NAKAMURA MASANORI [JP]; HIROKAWA TSUYOSHI [JP]) 9 September 2011 (2011-09-09) page 5, lines 17-19; page 14, lines 12-24; figures 2,3	1-14,19, 20
Y	----- US 2010/289367 A1 (LAU JAMES CHING SIK [CN] ET AL) 18 November 2010 (2010-11-18) paragraphs [0007], [0026] - [0028]; figures 1-5	1,10



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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INTERNATIONAL SEARCH REPORT

Information on patent family members

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