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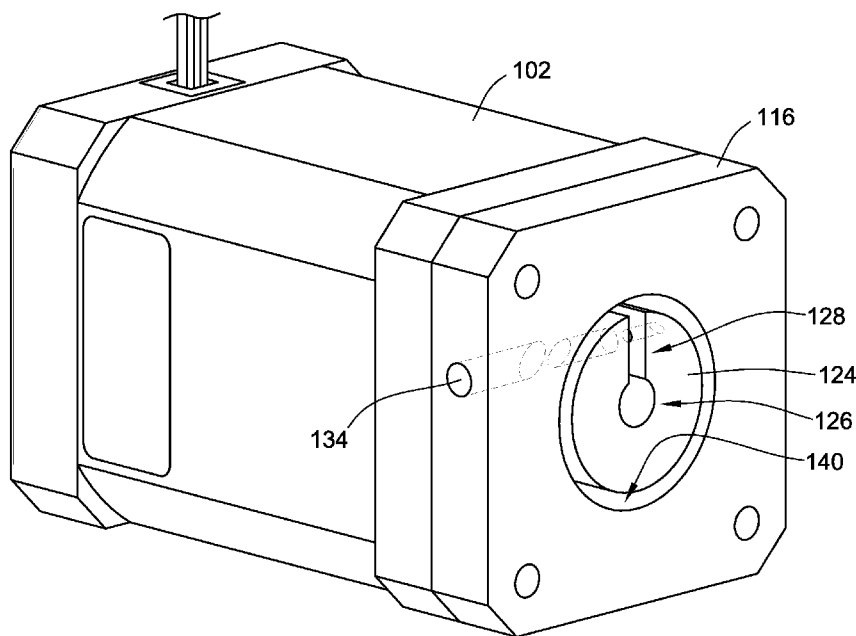
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(54) Title: MOTOR WITH INTEGRATED COUPLER



(57) Abstract: Couplings between driven shafts of an actuator and a motor of an actuator are provided. The coupling may be directly integrated into a rotor of the motor. The coupling may be provided by an adaptor that includes a shaft that extends into a central bore of the rotor of the motor. The adaptor can include a collar that defines a coupling recess that receives a distal end of the driven shaft of the actuator. The collar may take the form of a clamp.

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## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/US2013/051190****A. CLASSIFICATION OF SUBJECT MATTER****H02K 5/22(2006.01)i, H02K 7/10(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)

H02K 5/22; H02K 7/06; B62D 5/04; F16H 1/16; H02K 7/00; F16H 1/18; B23Q 5/42; F16H 25/24; H02N 7/06; F16H 25/20; H02K 7/10

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) &amp; keywords: motor, linear actuator, rotor, driven shaft, coupling means

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 07-007885 A (TOSHIBA CORP.) 10 January 1995 See abstract, paragraphs [0019]-[0029], claims 1-2 and figures 1-2.	1-5
A		6-16
A	JP 2008-254656 A (NSK LTD.) 23 October 2008 See paragraph [0021] and figure 3.	1-16
A	JP 2011-019394 A (IAI K.K.) 27 January 2011 See paragraphs [0019]-[0020], claim 3 and figures 4-5.	1-16
A	US 5747896 A (SHIGEKAZU NAGAI et al.) 05 May 1998 See column 5, lines 29-40 and figure 8.	1-16
A	JP 2009-270709 A (HONDA MOTOR CO., LTD. et al.) 19 November 2009 See paragraph [0024] and figure 3.	1-16
A	US 2009-0261671 A1 (KEITH HOCHHALTER et al.) 22 October 2009 See paragraphs [0054], [0065] and figure 4.	1-16

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

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

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Name and mailing address of the ISA/KR

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2013/051190**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 07-007885 A	10/01/1995	None	
JP 2008-254656 A	23/10/2008	JP 5194528 B2 WO 2008-126715 A1	08/05/2013 23/10/2008
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