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(54) Title: AUXILIARY BEARING SYSTEM WITH OIL RING FOR MAGNETICALLY SUPPORTED ROTOR SYSTEM

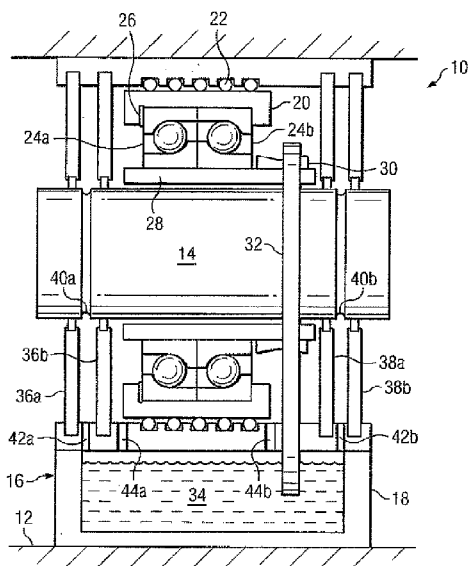


Fig. 1

(57) Abstract: An auxiliary bearing system having a sleeve through which a shaft extends. A gap may be defined between the sleeve and the shaft when a primary bearing system supports the shaft, and the sleeve may engage and rotate with the shaft when the primary bearing system does not support the shaft. An oil ring may extend circumferentially around the sleeve and rotate in response to the rotating sleeve when the sleeve engages and rotates with the shaft. The rotating oil ring may distribute lubricant within the auxiliary bearing system.

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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)

F16C 33/66; F16C 19/00; F16C 17/20; F16N 7/22; F16C 39/06; H02K 5/16

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: auxiliary, emergency, back-up, bearing, oil, ring, lubricant

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 04063786 A (RALL, MARCUS E.) 20 December 1977 See abstract, column 2, line 65 - column 3, line 37 and figure.	1-20
A	US 2004-0047526 A1 (DEWACHTER, RYAN N. et al.) 11 March 2004 See abstract, paragraphs 14-19 and figures 2,3.	1-20
A	JP 08-082397 A (MITSUBISHI HEAVY IND., LTD.) 26 March 1996 See paragraphs 2-5 and figures 3,4.	1-20
A	US 05021697 A (KRALICK, JAMES H.) 04 June 1991 See column 1, line 65 - column 2, line 34 and figures 1-2A.	1-20

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

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 04063786 A	20.12.1977	JP 53-082641 U JP 55-002267 Y	08.07.1978 21.01.1980
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