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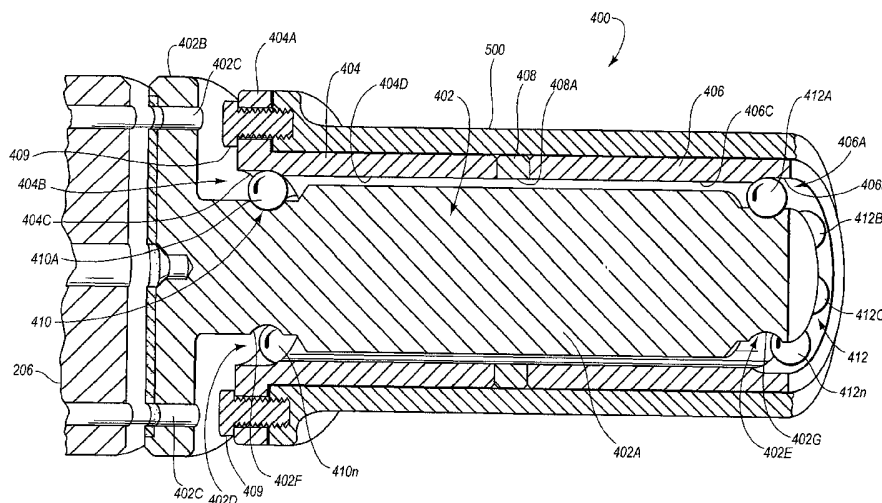
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(54) Title: **LOW THERMAL RESISTANCE BEARING ASSEMBLY FOR X-RAY DEVICE**



(57) Abstract: A bearing assembly (400) for a rotating anode (206) x-ray device. The bearing assembly (400) includes a shaft (402) having a flange (402B) at one end for attachment of the anode (206) thereto. The shaft (402) defines front and rear inner races (402D, 402E) and includes a plurality of extended surfaces (414, 416). Front and rear outer race elements (404, 406) define front and rear outer races (404B, 406A), respectively, corresponding to the front and rear inner races (402D, 402E), respectively, defined by the shaft (402). The front and rear outer race elements (404, 406) cooperate with the shaft (402) to confine front and rear ball sets (410, 412) which facilitate rotary motion of the shaft (402). A spacer (408) including extended surfaces (414, 416) assists in the positioning of the front and rear outer race elements (404, 406) in a bearing housing (500). The extended surfaces (414, 416) of the shaft (402) and spacer (408), in conjunction with emissive coatings provided on various portions of selected components of the bearing assembly (500), facilitate a relative improvement in heat transfer out of the bearing assembly (500).



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/15064

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01J 35/28

US CL : 378/132

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)

U.S. : 378/132, 133, 125; 384/261

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,988,534 A (UPADHYA) 29 January 1991 (29.01.1991), figure 1.	1,6,9,11-13,26,30,32
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Y		2-5,8,10,15-25,27-29, 31,33-40,42-44
Y	US RE36,405 E (AKITA et al) 23 November 1999 (23.11.1999), column 7, line 8 - column 8, line 10.	15,16,34-36,38-40, 42,44
Y	US 6,125,168 A (BHATT) 26 September 2000 (26.09.2000), figure 1.	27-29
Y	US 6,125,169 A (WANDKE et al) 26 September 2000 (26.09.2000), column 2 line 59- column 3 line 3.	2-5,8,10,14-22-25, 31,33-40,42-44
Y	US 6,144,720 A (DECOU et al) 07 November 2000 (07.11.2000), figures.	23,24,37,43
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A		7,41

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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