

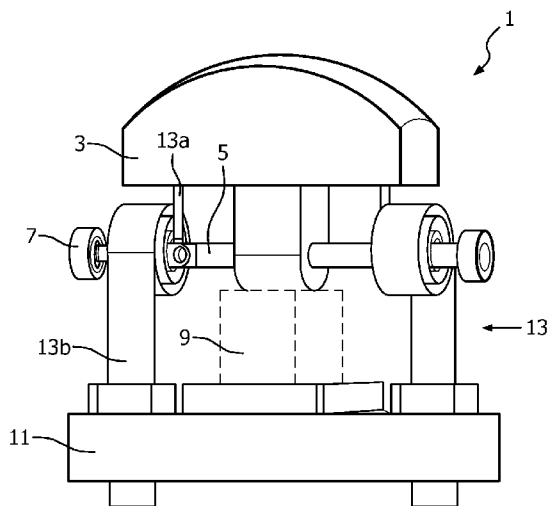


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- (71) **Applicant (for all designated States except US):**  
**KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; High Tech Campus 5, NL-5656 AE Eindhoven (NL).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **ZHOU, Hongsheng** [CN/CN]; c/o High Tech Campus, Building 44, NL-5656 AE Eindhoven (NL). **CHEN, Huanchun** [CN/CN]; c/o High Tech Campus, Building 44, NL-5656 AE Eindhoven (NL). **MA, Xiao, Wen** [CN/CN]; c/o High Tech Campus, Building 44, NL-5656 AE Eindhoven (NL).

- (74) **Agents:** **VAN VELZEN, Maaïke, M.** et al; High Tech Campus, Building 44, NL-5656 AE Eindhoven (NL).
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[Continued on nextpage]

(54) **Title:** FLEXIBLE BOARD CONNECTING METHOD AND ULTRASONIC PROBE



**FIG. 1**

(57) **Abstract:** The present invention provides a method of establishing a connection between a repeatedly rotating object (3) and a stationary object (11) by means of a flexible board (13), wherein the repeatedly rotating object is fixed to and rotates along with a rotating shaft (5), a first portion of the flexible board (13a) extends from the repeatedly rotating object to the rotating shaft, and a second portion of the flexible board (13b) extends from the rotating shaft to the stationary object, characterized in that, the first portion of the flexible board is arranged fixedly relative to the repeatedly rotating object and the rotating shaft, and the second portion of the flexible board is arranged so as to be wound around the rotating shaft in such a manner that it winds or unwinds along with the reciprocating rotation of the rotating shaft. The present invention also provides an ultrasonic probe (1). According to the present invention, the manner in which the flexible board is wound around the rotating shaft may cause the stressed area of the flexible board to increase substantially, thereby reducing the shearing force per unit area endured by the flexible board. The number of bending cycles of the flexible board may be increased considerably, thereby enhancing the reliability and prolonging the service life of the flexible board, and also further enhancing the reliability of the ultrasonic probe and the ultrasonic system and prolonging their service life.

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**INTERNATIONAL SEARCH REPORT**

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A. CLASSIFICATION OF SUBJECT MATTER  
INV. G10K11/35 G01S15/89  
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)  
G10K A61B

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 , WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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X	us 2011/105907 AI (OAKLEY CLYDE G [US] ET AL) 5 May 2011 (2011-05-05)	1-6
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Further documents are listed in the continuation of Box C.

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040,  
Fax: (+31-70) 340-3016

Authorized officer

Fernandes, Paulo

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Information on patent family members

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