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(54) Title: MOTION SENSING FOR TIRE PRESSURE MONITORING

(57) Abstract: A motion sensor system for a tire pressure monitoring system (TPMS) that uses a piezoelectric sensor to sense vibration as an indication of wheel motion. The TPMS uses the detected vibration to transition between operation modes. In one embodiment, the TPMS has a motion mode and a park mode, wherein the TPMS has increased activity (e.g. sampling tire pressure at a higher rate and transmitting tire pressure at a higher rate) during the motion mode than in the park mode.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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 US CL : 73/146
 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)
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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)
 EAST (USPAT; PGPUB; USOCR; EPO; JPO)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,663,496 A (HANDFIELD et al.) 02 September 1997 (02.09.1997), see entire document.	1-6, 14-17, 19-20, 30, 32, 33
X,E	US 2005/916853 A1 (STEWART et al.) 18 August 2005 (18.08.2005), see entire document.	1- 30, 32-37, 38
Y	US 4,991,439 A (BETTS) 12 February 1991 (12 February 1991), see entire document.	12, 13, 28, 29
Y,E	US 6,891,239 B2 (ANDERSON et al.) 10 May 2005 (10.05.2005), see entire document.	31
Y	US 3,185,869 A (SHOOR, B.A.) 25 May 1965 (25.05.1965), see entire document.	35
Y	US 5,178,016 A (DAUENHAUER et al.) 12 January 1993, see entire document.	36
A	US 2002/0075144 A1 (DEZORZI) 20 June 2002.	1-38
A	US 2004/0020291 A1 (KATSUMATA et al.) 05 February 2004 (05.02.2004).	1-38
A	US 2004/0083817 A1 (NOMURA) 06 May 2004 (06.05.2004).	1-38

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