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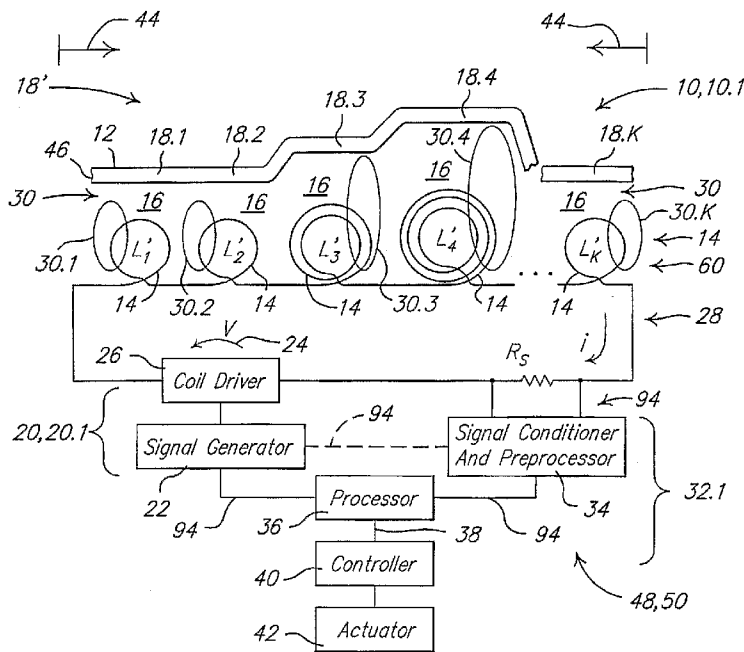
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 - (71) Applicant (for all designated States except US): **AUTOMOTIVE SYSTEMS LABORATORY, INC.** [US/US]; 27200 Haggerty Road, Suite B-12, Farmington Hills, Michigan 48331 (US).
 - (72) Inventors; and
 - (75) Inventors/Applicants (for US only): **CECH, Leonard S.** [US/US]; 5082 Walnut Hills Dr., Brighton, Michigan 48116 (US). **WATSON, W. Todd** [US/US]; 47037 Ruthan Dr., Belleville, Michigan 48111 (US). **AOKI, Hiroshi** [JP/JP]; 4-5-25 Oohashi, Ritto-city, Shiga 520-3046 (JP).
 - (74) Agents: **RAGGIO, Michael T.** et al.; Raggio & Din- nin, P.C., 2701 Cambridge Court, Suite 410, Auburn Hills, Michigan 48326 (US).
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(54) Title: MAGNETIC CRASH SENSOR



(57) Abstract: At least one time-varying signal (24) is applied to a plurality of coil elements (14) in cooperative relationship with and spanning different portions (18.1, 18.2, 18.3, 18.4, 18.k) of a vehicle (12). The coil elements (14) generate an associated plurality of magnetic field components (30.1, 30.2, 30.3, 30.4, 30.k) that interact with the vehicle (12). At least one detection circuit (32, 32.1, 32.2) generates a detected signal (38) responsive to signal components from the coil elements (14) so as to provide for detecting a change in a magnetic condition of the vehicle (12).

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER
IPC: G01B 7/24(2006.01);H01F 5/00(2006.01);B60R 21/16(2006.01)

USPC: 324/209,222,228,233,239,240,207.16,207.17;701/1,36,44,45,46,47,48;340/522;280/735;180/232
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 324/209,222,228,233,239,240,207.16,207.17;701/1,36,44,45,46,47,48;340/522;280/735;180/232

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 EAST, Google

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US2005/0093540 (Merrick et al.) 5 May 2005 (05.05.2005), FIGS. 6-8 and disclosure related thereto.	1-6,10,11,13,16-27,31,32,38-41,43-45,47,48,52,55,56 ----- 53,54
X,E --- Y,E	US7164349 (Kawaura et al.) 16 January 2007 (16.01.2007), entire disclosure.	1,5,7-9,34-37 ----- 15,49
Y	US6639402 (Grimes et al.) 28 October 2003 (28.10.2003), col. 5, line 60 to col. 6, line 1.	15
Y	US6583616 (Bomya) 24 June 2003 (24.06.2003), col. 5, line 62 to col. 6, line 16).	49

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

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Name and mailing address of the ISA/US
 Mail Stop PCT, Attn: ISA/US
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 Facsimile No. (571) 273-3201

Authorized officer
 Kenneth J. Whittington *Kylea Deane Fox*
 Telephone No. (571) 272-2800