

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 March 2004 (04.03.2004)

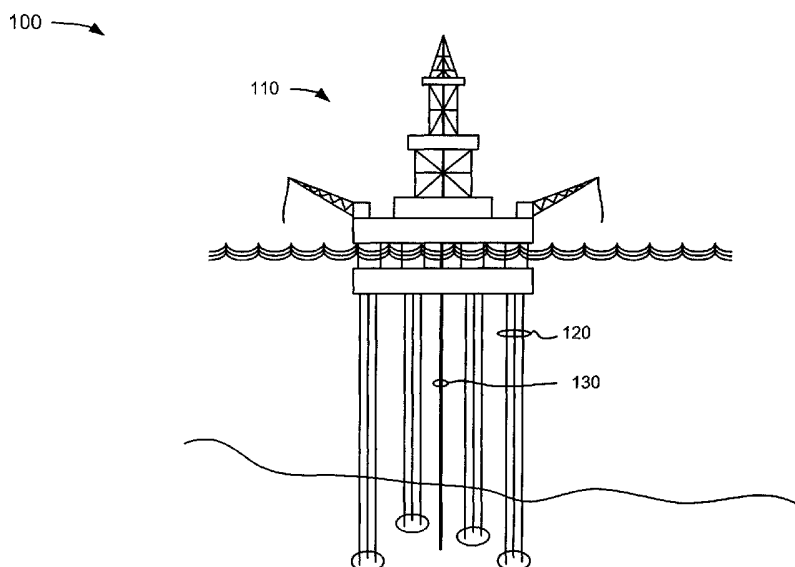
PCT

(10) International Publication Number
WO 2004/018342 A3

- (51) International Patent Classification⁷: **G01B 7/16**, (74) Agent: **SUCHYTA, Leonard, C.**; Verizon Corporate Services Group Inc., 600 Hidden Ridge Drive, Mailcode HQE03H01, Irving, Texas 75038 (US).
G01N 3/00
- (21) International Application Number: PCT/US2003/025974 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 19 August 2003 (19.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 10/228,669 26 August 2002 (26.08.2002) US (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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- Published:
— with international search report

[Continued on next page]

(54) Title: LOAD MONITORING SYSTEMS AND METHODS



(57) Abstract: A system (200) monitors a load associated with a load-carrying member. The system (200) may include a voltage divider (240) and a computer device (250). The voltage divider (240) measures inductance associated with load sensing elements (210) that monitor the load carrying member. The computer device (250) determines displacements of the load sensing elements (210) based on the inductance associated with the load sensing elements (210) and determines the load associated with the load carrying member based on the displacements of the load sensing elements (210). The system may be designed to be portable and/or DC powered.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

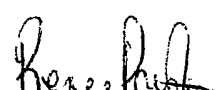
(88) Date of publication of the international search report:

17 June 2004

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/25974

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : G01B 7/16; G01N 3/00 US CL : 73/779 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. : 73/794, 779, 781, 818, 862.041, 862.042, 862.043, 862.045, 862.046 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) Please See Continuation Sheet		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,675,094 A (KLAUBER et al) 07 October 1997 (07.10.1997), see entire document.	1-30
A,P	US 6,591,688 B2 (WRIGHT) 15 July 2003 (15.07.2003), see entire document.	1-30
A	US 6,345,544 B1 (MIZUNO et al) 12 February 2002 (12.02.2002), see entire document.	1-30
☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
* Special categories of cited documents:		
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"E"	earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search 20 March 2004 (20.03.2004)		Date of mailing of the international search report 04 MAY 2004
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. (703) 305-3230		Authorized officer JOSE G. DEES Telephone No. (571) 272-1607 

INTERNATIONAL SEARCH REPORT

PCT/US03/25974

Continuation of B. FIELDS SEARCHED Item 3:

EAST; USPAT; EPO; JPO; USPGPUB; EPO; JPO

search terms: ((inductanc near5 voltage).clm.) AND ((load force stress strain p:essure) near3 (measur\$5 t st\$4 detect\$4 determin\$4 sens\$4 identi\$6 valuat\$5 estimat\$5 transducer gaug cell monitor\$4 comput\$5inspect\$5 calculat\$4)).clm.