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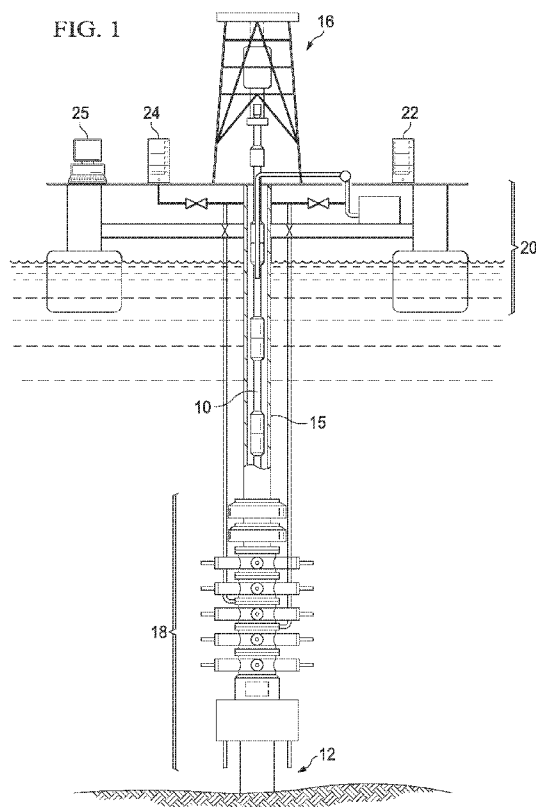
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[Continued on next page]

(54) Title: MONITORING THE HEALTH OF A BLOWOUT PREVENTER



(57) Abstract: A computerized monitoring system and corresponding method of monitoring the status and health of a blowout preventer. The system includes a graphics display at which a graphical user interface (GUI) displays the health of various sealing elements and control systems by way of "traffic light" indicators. The health indicators are evaluated, by the monitoring system, based on a risk profile for each of the indicated elements and control systems. The risk profiles are evaluated based on inputs such as measurement inputs, feedback signals, mechanical positions, diagnostic results, drilling conditions, and other status information of the blowout preventer at a given time and based on levels of redundancy and levels of deviation from normal conditions. The GUI includes recent history of changes in operating condition, and alarm indications such as poor health, along with the times of those events.



TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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)
E21B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	F.M. CHAPMAN ET AL: "Deepwater BOP Control Monitoring - Improving BOP Preventive Maintenance With control Function Monitoring OTC 20059", OFFSHORE TECHNOLOGY CONFERENCE, 4 May 2009 (2009-05-04), pages 1-8, XP55056528, Houston, USA the whole document	1-30
X	EP 1 227 215 A2 (MARTIN DECKER TOTCO INC [US] MARTIN DECKER TOTCO INC A TEXA [US]) 31 July 2002 (2002-07-31) paragraphs [0069], [0070]	1



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1227215	A2	31-07-2002	CA 2369411 A1 26-07-2002
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