Dan Baima

U.S Patent Search

Criteria/Path: Index -> S-category ->Class 73 Measuring and Testing, Sound & Sound Meters

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| Patent # | Patent Name | Description |
| 8,186,223 | Structural Integrity Monitoring System | 2 monitoring devices, outputs of vibration response signal & mode shape are calculated and compared predicted vs. measured |
| 7,775,110 | Ultrasonic Sensor | Ultrasonic detecting element(for wave), acoustic matching member and oscillation damping member |
| 8,151,643 | Device for non-destructive testing of a structure by vibratory analysis | Piezoelectric Microsensors for measuring vibratory waves emitted by structure set in flexible housing (Aeronautics) |
| 7,753,847 | Ultrasound Vibrometry | Ultrasonic transducer, harmonic motion (no?) |
| 8,508,239 | Non-Destructive signal propagation system and method to determine substrate integrity | Transducer converts electrical signal into mechanical pulse(s). Sensors appropriately placed to listen for variations in baseline respons |
| 5,456,113 | Nondestructive evaluation of ferromagnetic cables and ropes using magnetostrictively induced acoustic/ultrasonic waves and magnetostrictively detected acoustic emissions | “Particularily in wire ropes, cables and strands, utilizing magnetostrictive effect”  A method and apparatus for the nondestructive evaluation of ferromagnetic and non-ferromagnetic materials, particularly wire ropes, cables, and strands, and pipes utilizing the magnetostrictive effect for measuring minute variations in magnetic fields and characterizing these minute variations as indicative of the acoustic/ultrasonic behavior of fractures, cracks, and other anomalies within a substance under evaluation. The apparatus and method contemplate both an active testing application, wherein a transmitting sensor generates an acoustic/ultrasonic pulse within a material through the magnetostrictive effect and a second receiving sensor detects reflected acoustic/ultrasonic waves within the material, again by the inverse magnetostrictive effect. The advantages of utilizing magnetostrictive sensors as opposed to well known piezoelectric sensors lies in the ability to generate and detect acoustic/ultrasonic waves without a direct physical or acoustical contact to the material. The apparatus and method of the present invention also anticipates the use of a passive monitoring system comprised only of a receiving magnetostrictive sensor that continuously monitors a ferromagnetic or non-ferromagnetic substance for acoustic emissions and either records this monitored information or alerts the appropriate personnel of the existence of an acoustic emission indicating deterioration within the structure.   |  |  | | --- | --- | | **Inventors:** | **Kwun; Hegeon** (San Antonio, TX)**, Teller, II; Cecil M.** (San Antonio, TX) | | **Assignee:** | **Southwest Research Institute** (San Antonio, TX) | | **Family ID:** | **25520564** | | **Appl. No.:** | **07/973,152** | | **Filed:** | **November 6, 1992** | |
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