

Search history

Search 1: FT=(machine* and fatigue* and multiaxial*) (Results 437)
Search 2: (1) AND IPC=(G01) (Results 105)

1) Family number: 57562002 (US2014298918A)

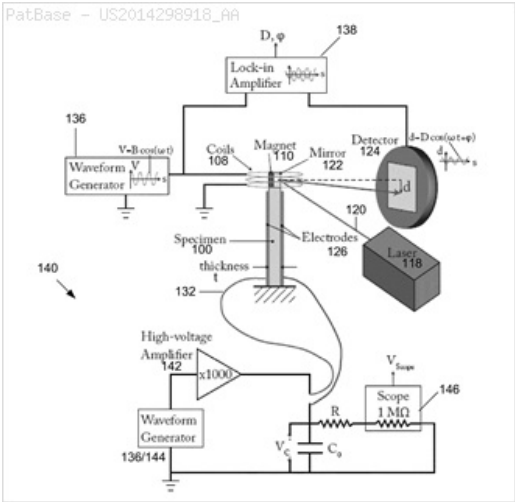
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Title: BROADBAND ELECTROMECHANICAL SPECTROSCOPY

Abstract: An apparatus, method, and material wherein the material's viscoelastic and/or fatigue life may be altered by application of a secondary tuning electromagnetic field or a selected temperature, and the material's viscoelastic and/or fatigue properties are measured by a mechanical response of the material caused by applying a primary driving electromagnetic field.

Classifications:

International (IPC 8-9): G01L1/24 G01N3/00 G01N3/02 G01N3/06
H01F1/01 (Advanced/Invention)
CPC: G01N3/02 G01N3/068 H01F1/01 G01N3/00 G01N2203/005
G01N2203/0073 G01N2203/0094
US: 1/1 252/62.51R 73/788 73/800



Family:

Publication number	Publication date	Application number	Application date
US2014298918 AA	20141009	US20140246731	20140407
US9291536 BB	20160322	US20140246731	20140407

Priority:

US20130809149P 20130405 US20140246731 20140407

Probable Assignee: CALIFORNIA INST OF TECHNOLOGY

Assignee(s): (std): CALIFORNIA INST OF TECHN

Assignee(s): CALIFORNIA INST OF TECHNOLOGY

Inventor(s): (std): KOCHMANN DENNIS M ; WOJNAR CHARLES S ; LE GRAVEREND JEAN BRIAC

Agent(s): GATES AND COOPER LLP

2) Family number: 4451009 (EP0283657A2)

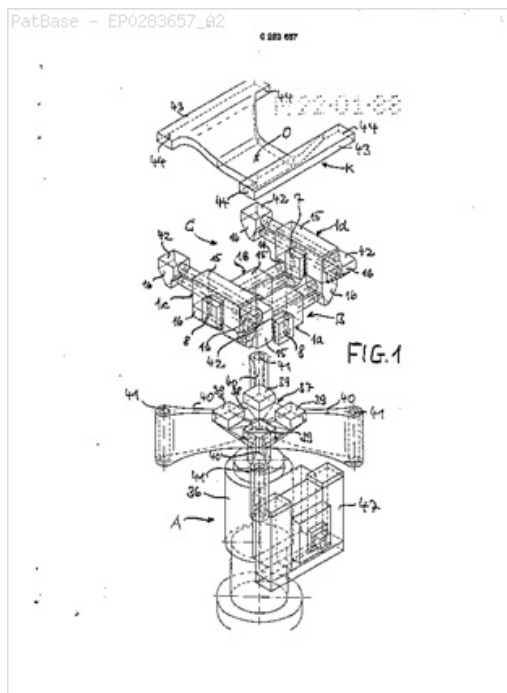
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Title: Multi-axle driving element.

Abstract: The multi-axis driving element comprises at least two driving units for producing a displacement drive, of which one driving unit is attached to at least one component, which can be displaced by the other driving unit, in such a way that the axial displacement directions of the driving units run transversely, in particular at right angles, to one another, at least one of these driving units comprising a pneumatic or hydraulic piston-cylinder unit. This multi-axis driving unit according to the invention is distinguished by the fact that the piston-cylinder unit comprises a longitudinal cylinder unit or several longitudinal cylinder units arranged in parallel to one another, the longitudinal cylinder unit having a load piston which absorbs transverse forces acting from outside transversely to the displacement direction of the driving piston, is displaceably arranged in a longitudinal guide parallel to the driving piston and is connected to the driving piston by a coupling which releases the driving piston from the transverse forces but transmits longitudinal compressive and/or tensile forces to the load piston, which compressive and/or tensile forces act in the displacement direction of the driving piston.

Classifications:

International (IPC 8-9): B06B1/18 F15B15/02 G01M13/02
G01M17/00 G01M7/00 (Advanced/Invention);
B06B1/18 G01M17/00 G01M7/00 (Core/Invention)
International (IPC 1-7): B06B1/18 F15B15/00 F15B15/02 G01M17/00
G01M17/02 G01M7/00
CPC: F15B15/02 G01M13/027

**Family:**

Publication number	Publication date	Application number	Application date
AT83838 E	19930115	AT19880100960T	19880122
DE3709141 A1	19880929	DE19873709141	19870320
DE3876827 D1	19930204	DE19883876827	19880122
EP0283657 A2	19880928	EP19880100960	19880122
EP0283657 A3	19900523	EP19880100960	19880122
EP0283657 B1	19921223	EP19880100960	19880122

Priority:

DE19873709141 19870320 DE19883876827 19880122 EP19880100960 19880122
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Probable Assignee: FRAUNHOFER GES

Assignee(s): (std): FRAUNHOFER GES ; FRAUNHOFER GES FORSCHUNG

Assignee(s): FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E V ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG EV ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG EV 8000 MUENCHEN DE ; FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG E V

Inventor(s): (std): MERTEN WERNER DIPL ING

Inventor(s): MERTEN DIPL ING WERNER W 6080 GROSS GERAU DE

Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

3) Family number: 44516023 (US2011214509A)

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Title: METHOD FOR PREDETERMINING THE FATIGUE LIFE OF POLYMER COMPOSITION

Abstract: The invention relates to a method for evaluating the fatigue life of a polymer composition, including the following steps: i) providing a polymer composition; ii) manufacturing a plurality of axisymmetric test tubes cut from said composition; iii) subjecting said test tubes to a uniaxial traction fatigue test including a plurality of loading and unloading cycles for the test tube, the geometry of the test tube making it possible to subject the material to triaxial stresses, in the area of the test tube cut, simulating the stress conditions for the pressure sheath of a flexible pipe, particularly for off-shore use; and iv) predetermining the number of cycles until the rupture of said polymer composition. The invention is related to the use of said polymer composition selected through the predetermining method for manufacturing pipes or conduits to convey a pressurized and/or corrosive fluid.

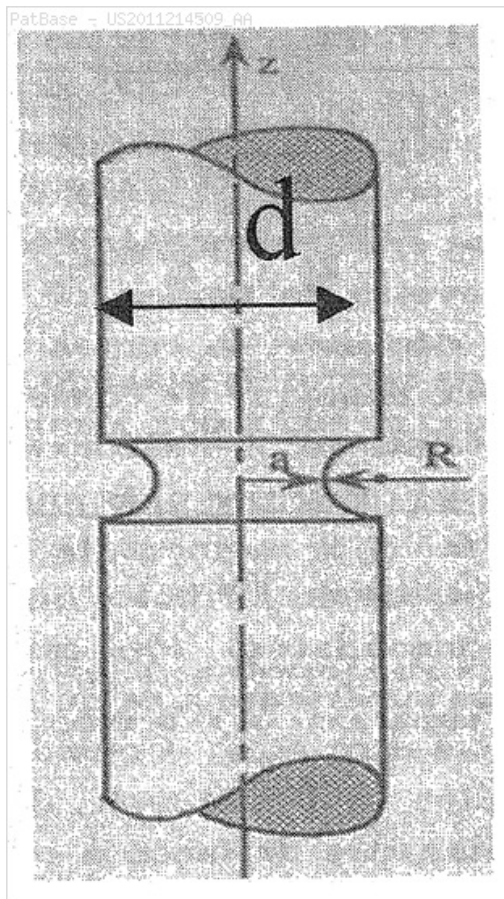
Classifications:

International (IPC 8-9): C08J5/00 F16L11/00 F16L11/04 G01M1/00 G01N3/08 G01N3/32 G01N3/34 G01N33/44 (Advanced/Invention); F16L11/04 G01N3/32 G01N33/44 (Core/Invention)

CPC: G01N3/32 G01N2203/0005 G01N2203/0017 G01N2203/0073 G01N2203/0094 G01N2203/0298

European: G01N3/32B S01N203/00P2F S01N3/00P2F

US: 138/139 138/139S 73/65.07 73/834 73/834P

**Family:**

Publication number	Publication date	Application number	Application date
AU2009289117 AA	20100311	AU20090289117	20090908
AU2009289117 BB	20130926	AU20090289117	20090908
BRPI0913473 A2	20151201	BR2009PI13473	20090908
CA2735847 AA	20100311	CA20092735847	20090908
CA2735847 C	20170117	CA20092735847	20090908
CN102144152 A	20110803	CN200980134100	20090908
EP2324335 A1	20110525	EP20090741385	20090908
FR2935801 A1	20100312	FR20080056029	20080908
FR2935801 B1	20121123	FR20080056029	20080908
JP2012502267 T2	20120126	JP20110525604T	20090908
JP5395176 B2	20140122	JP20110525604T	20090908
US2011214509 AA	20110908	US20090062615	20090908
US8627713 BB	20140114	US20090062615	20090908
WO10026356 A1	20100311	WO2009FR51691	20090908

Priority:

FR20080056029 20080908 WO2009FR51691 20090908

Probable Assignee: ARKEMA SA

Assignee(s): (std): ARKEMA FRANCE ; ARKEMA SA ; DEMANZE FREDERIC ; HOCHSTETTER GILLES ; HUGON LIONEL ; TECHNIP FRANCE S A S ; PIGNOC CHICHEPORTICHE STEPHANIE ; PIGNOC CHICHEPORTICHE STEPHANIE ; TECHNIP FRANCE SAS ; TECHNIP FRANCE

Inventor(s): (std): PIGNOC CHICHEPORTICHE STEPHANIE ; HUGON LIONEL ; DEMANZE FREDERIC ; HOCHSTETTER GILLES ; PIGNOCCHICHEPORTICHE STEPHANIE ; FREDERIC DEMANZE ; STEPHANIE PIGNOC CHICHEPORTICHE ; GILLES HOCHSTETTER ; LIONEL HUGON

Inventor(s): STEPHANIE PIGNOCCHICHEPORTICHE

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; NORTON ROSE OR SENCRL SRL LLP; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; CABINET PLASSERAUD; MILLEN WHITE ZELANO AND BRANIGAN PC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 12346029 (US6082197A)

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Title: ACCELERATION SENSOR

Abstract: In the sensor: torsion beams 7a, 7b are fixedly connected between the centers of opposite outer sides of central fixed board 1 and the corresponding centers of opposite inner sides of a window 5; electrodes 11a, 11b, 12a, 12b are mounted on a front and a rear surface of weight portions 9a, 9b; and, an outer cover 21, which is constructed of an upper and a lower board 17, 19 provided with electrodes 23a, 23b, 25a, 25b corresponding to the electrodes of the weight portions,

is mounted on a side surface of an outer frame 15 in which both the central fixed board 1 and the weight board 3 are received, so that the central fixed board 1 is rotatably supported. It is possible to increase the length of each of the torsion beams 7a, 7b. These electrodes 11a, 11b, 12a, 12b may be produced through a single path in printing process.

Classifications:

International (IPC 8-9): B81B3/00 B81C1/00 G01P15/08
G01P15/125 G01P15/18 H01L29/84 (Advanced/Invention);

B81C1/00 (Advanced/Non-invention);

B81B3/00 B81C1/00 G01P15/125 G01P15/18

H01L29/66 (Core/Invention)

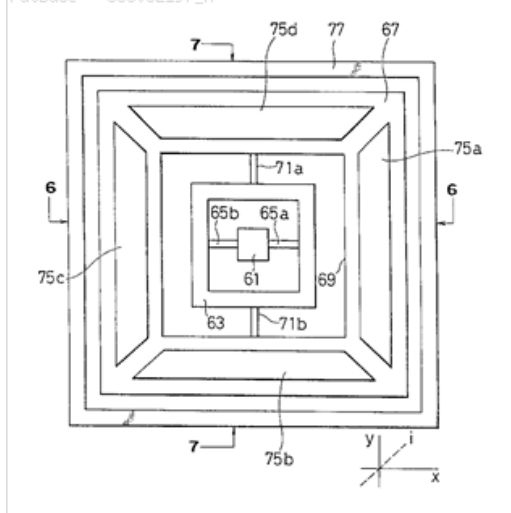
International (IPC 1-7): G01P15/08 G01P15/125 H01L21/308
H01L29/84 H01L49/00

CPC: G01P2015/082 G01P15/0802 G01P15/125 G01P15/18

European: G01P15/00D G01P15/08A G01P15/125 G01P15/18

US: 73/514.32 73/514.36

PatBase - US6082197_R



Family:

Publication number	Publication date	Application number	Application date
DE19547642 A1	19960627	DE19951047642	19951220
JP8178952 A2	19960712	JP19940317191	19941220
JP8304450 A2	19961122	JP19950137413	19950512
JP9089927 A2	19970404	JP19950273755	19950928
US6082197 A	20000704	US19970909764	19970812

Priority:

JP19940317191 19941220 JP19950137413 19950512 JP19950273755 19950928
US19950575229 19951220 US19970909764 19970812

Probable Assignee: BOSCH AUTOMOTIVE SYSTEMS CORP

Assignee(s): (std): BOSCH CORP ; ESASHI MASAKI ; ZEXEL CORP

Assignee(s): ZEXEL CORP TOKIO TOKYO JP ; BOSCH AUTOMOTIVE SYSTEMS CORP

Inventor(s): (std): MIZUNO JUN ; NOTTMEYER KAY ; KAI NOTSUTOMAIYAA ; ESASHI MASAYOSHI ; ESASHI MASAKI

Inventor(s): NOTTMEYER KAY TOKIO TOKYO JP ; MIZUNO JUN TOKIO TOKYO JP ; ESASHI MASAYOSHI TOKIO TOKYO JP

5) Family number: 62653042 (DE102014018441A1)

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Title: PRUEFVORRICHTUNG ZUM UEBERPRUEFEN WENIGSTENS EINER BLATTFEDER TESTER TO VERIFY AT LEAST ONE BLATTFEDER (Machine translation)

Abstract: Source: DE102014018441A1 [DE] Die Erfindung betrifft eine Pruefvorrichtung (10) zum ueberpruefen wenigstens einer Blatffeder (12) fuer ein Fahrwerk eines Fahrzeugs, insbesondere eines Nutzfahrzeugs, mit einer an einem Basiselement (14) befestigten Halteeinrichtung (16), an welcher die Blatffeder (12) befestigbar ist, mit wenigstens einem einerseits mit der Halteeinrichtung (16) verbundenen und andererseits mit der Blatffeder (12) zumindest mittelbar koppelbaren, ersten Fluidzylinder (34, 36), mittels welchem Pruefkraefte entlang einer ersten Achse bereitstellbar sind, mit wenigstens einem einerseits mit der Halteeinrichtung (16) verbundenen und andererseits mit der Blatffeder (12) zumindest mittelbar koppelbaren, zweiten Fluidzylinder (38), mittels welchem Pruefkraefte entlang einer senkrecht zur ersten Achse verlaufenden, zweiten Achse bereitstellbar sind, und mit wenigstens einem einerseits mit der Halteeinrichtung (16) verbundenen und andererseits mit der Blatffeder (12) zumindest mittelbar koppelbaren, dritten Fluidzylinder (40, 42), mittels welchem Pruefkraefte entlang einer senkrecht zur ersten Achse und senkrecht zur zweiten Achse verlaufenden, dritten Achse bereitstellbar sind.

Machine translation: The invention relates to a testing device (10) for checking at least one leaf spring (12) for a chassis of a vehicle, especially a commercial vehicle, with a to a base member (14) fixing the holding means (16) on which the leaf spring (12) can be fastened and connected with at least one on the one hand with the holding device (16) and on the other hand to the leaf spring (12) at least indirectly coupled, the first fluid cylinder (34, 36), by means of which test loads along a first axis can be made available, with at least one one side with the holding means (16) connected on the other hand to the leaf spring (12) at least indirectly coupled, second fluid cylinder (38), by means of which test loads along a perpendicular to said first axis extending second axis are provided, and having at least one the one hand with the holding device (16) connected and on the other hand to the leaf spring (12) at least indirectly coupled, third fluid cylinder (40, 42), by means of which test loads along a perpendicular to said first axis and perpendicular to the second axis extending, third axis can be made available.

Classifications:

International (IPC 8-9): G01N3/04 G01N3/10 (Advanced/Invention)

CPC: G01N3/10 G01N2203/0048 G01N2203/029 G01L1/02

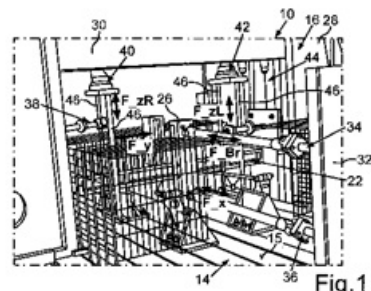


Fig. 1

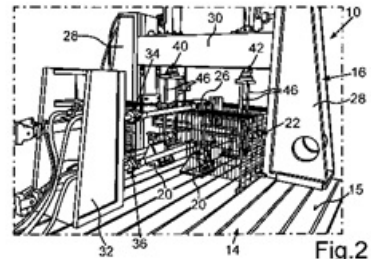


Fig. 2

9/11

Family:

Publication number	Publication date	Application number	Application date
DE102014018441 A1	20160616	DE201410018441	20141212
TR201515911 A2	20160621	TR20150015911	20151211

Priority:

DE201410018441 20141212

Probable Assignee:

DAIMLER AG

Assignee(s): (std):

DAIMLER AG

Inventor(s): (std):

KOCYIGIT IBRAHIM

Inventor(s):

IBRAHIM KOCYIGIT

Agent(s):

HACI BAYRAM CALISKAN

6) Family number: 58398045 (FR3008793B)

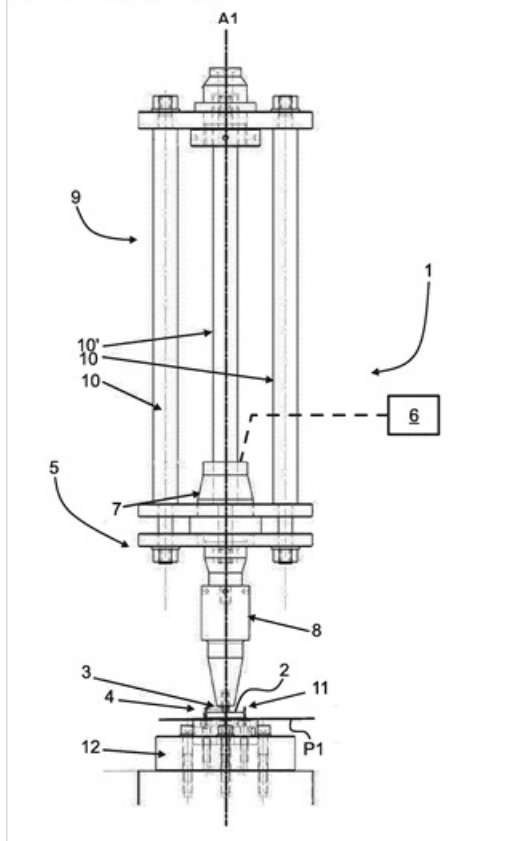
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Title: DISPOSITIF D'ESSAI DE FATIGUE D'UNE EPROUVETTE

Abstract: Source: FR3008793A [FR] L'invention porte sur un dispositif d'essai de fatigue (1) d'une éprouvette (2) comprenant un châssis (9) pourvu d'au moins une matrice (4) de réception de l'éprouvette (2). Le dispositif d'essai de fatigue (1) comprend un système de délivrance (5) à l'éprouvette (2) de sollicitations à fréquence ultrasonore comprise entre 10 kHz et 70 kHz.

Machine translation: The invention relates to a fatigue test device (1) in a test tube (2) comprising a frame (9) with at least one matrix (4) of receipt of the specimen (2). The fatigue test device (1) comprises a deliverance system (5) has the test tube (2) has solicitations ultrasonic frequency between 10 kHz and 70 kHz.

Classifications:**International (IPC 8-9):** G01N3/32 (Advanced/Invention)**CPC:** G01N3/38 G01N2203/0008 G01N2203/0023 G01N2203/0051

**Family:**

Publication number	Publication date	Application number	Application date
FR3008793 A1	20150123	FR20130057198	20130722
FR3008793 B1	20161111	FR20130057198	20130722

Priority:

FR20130057198 20130722

Probable Assignee: PEUGEOT CITROEN AUTOMOBILES SA**Assignee(s):** (std): ARTS ASS DE RECH POUR LA TECH ET LES SCIENCES ; ARTS ASS DE RECH POUR LA TECHNOLOGIE ET LES SCIENCES ; PEUGEOT CITROEN AUTOMOBILES SA**Assignee(s):** ARTS ASSOCIATION DE RECHERCHE POUR LA TECHNOLOGIE ET LES SCIENCES**Inventor(s):** (std): BATHIAS CLAUDE ; BLANC MICHEL ; OSMOND PIERRE ; PALIN LUC THIERRY**Inventor(s):** PIERRE OSMOND ; THIERRY PALIN LUC ; CLAUDE BATHIAS ; MICHEL BLANC**Agent(s):** PEUGEOT CITROEN AUTOMOBILES SA**7) Family number: 29213056** (US2003192322A)

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Title: CYLINDRICAL SPRING WITH INTEGRAL DYNAMIC GAS SEAL

Abstract: One embodiment of a spring with an integral dynamic gas seal according to the present invention includes a spring with a pair of spaced-apart ends and a spring body extending therebetween. The spring body includes a perimeter wall formed of a first material and extending in a longitudinal direction. The wall has a plurality of openings defined therein. The openings are provided in a plurality of transverse tiers. Each tier includes a plurality of separate openings each extending along a portion of the perimeter. The openings in each tier are spaced apart so as to define a post between each adjacent opening such that each tier includes a plurality of posts. The openings in each tier are staggered with respect to the openings in adjacent tiers such that each of the openings in each tier overlies one of the posts in an adjacent tier. A closure member closes each of the openings such that the spring body is sealed. The closure member is formed of a second material having a different degree of flexibility than the first material.

Classifications:

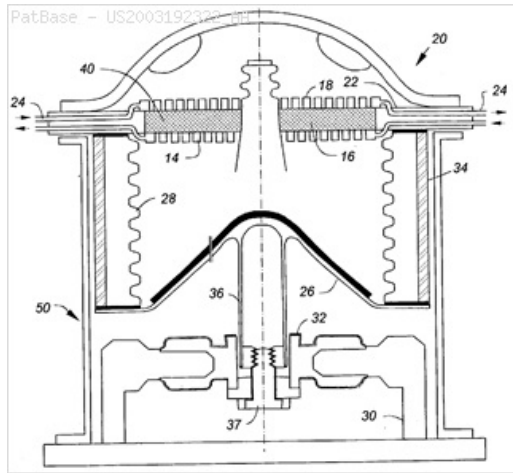
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International (IPC 1-7): B06B1/04 F01B29/10 F02G1/04 F02G1/043 F02G1/057 F03G7/00 F16F1/20 F16F1/34 F16F13/00 F16J3/00 F16M1/00 F16M11/00 F16M3/00 F16M5/00 F25B F25B9/00 F25B9/14 H04R31/00

CPC: F02G1/0435 F02G2243/54 F02G2270/005 F03G7/002 F25B9/145 F25B2309/001 F25B2309/1404 F25B2309/1407 F16L27/11 G01L7/061

European: F02G1/043 F02G1/043F F03G7/00B F16L27/11 F25B9/14B G01L7/06A R02G243/54 R02G270/00A R25B309/001 R25B309/1404 R25B309/1407

US: 267/140.4 267/81 277/634 277/634P 277/635 277/636 60/52 60/520 60/520S 62/6 62/6P 73/729.1 73/729.100P



Family:

Publication number	Publication date	Application number	Application date
AT433554 E	20090615	AT20030719728T	20030410
AT442557 E	20090915	AT20030719729T	20030410
AU2003221917 AA	20031027	AU20030221917	20030410
AU2003223590 AA	20031027	AU20030223590	20030410
AU2003223591 AA	20031027	AU20030223591	20030410
CA2482175 AA	20041012	CA20032482175	20030410
CA2482175 C	20110208	CA20032482175	20030410
CA2482179 AA	20041012	CA20032482179	20030410
CA2482179 C	20111108	CA20032482179	20030410
CN100582602 C	20100120	CN20038013294	20030410
CN1296662 C	20070124	CN20038013295	20030410
CN1659411 A	20050824	CN20038013294	20030410
CN1659412 A	20050824	CN20038013295	20030410
DE60327929 D1	20090723	DE20036027929	20030410
DE60329176 D1	20091022	DE20036029176	20030410
EP1499838 A1	20050126	EP20030719728	20030410
EP1499838 A4	20050427	EP20030719728	20030410
EP1499838 B1	20090610	EP20030719728	20030410
EP1499839 A1	20050126	EP20030719729	20030410
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HK1082030 A3	20060526	HK20060102492	20060224
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HK1082031 A3	20060526	HK20060102494	20060224
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IN03390DN2004 A	20091009	IN2004DN03390	20041101
IN03392DN2004 A	20091009	IN2004DN03392	20041101
IN253566 B	20120803	IN2004DN03390	20041101
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US2003192322 AA	20031016	US20030409760	20030409
US2003192323 AA	20031016	US20030409855	20030409
US2003192324 AA	20031016	US20030410492	20030409
US2005028535 AA	20050210	US20040942417	20040916
US2005189727 AA	20050901	US20050116636	20050428
US2005274123 AA	20051215	US20040791497	20040302
US2008060442 AA	20080313	US20070935787	20071106
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US7143586 BB	20061205	US20040791497	20040302
US7290771 BB	20071106	US20050116636	20050428
US8025297 BB	20110927	US20070935787	20071106
WO03087678 A1	20031023	WO2003US11367	20030410
WO03087679 A1	20031023	WO2003US11368	20030410
WO03087680 A1	20031023	WO2003US11369	20030410
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ZA200408287 A	20050831	ZA20040008287	20041013

Priority:

US20020371967P 20020410	US20020372008P 20020410	US20030445866P 20030206
US20030409760 20030409	US20030410492 20030409	US20030409855 20030409
WO2003US11368 20030410	WO2003US11369 20030410	WO2003US11367 20030410

Probable Assignee: PENN STATE RESEARCH FOUNDATION

Assignee(s): (std): GARRETT STEVEN L ; PENN STATE RES FOUND ; PENN STATE RESEARCH FOUNDATION ; POESE MATTHEW E ; SMITH ROBERT W M ; WAKELAND RAY S ; SMITH ROBERT W ; THE PENN STATE RESEARCH FOUNDATION

Assignee(s): POESE MATHEW E ; PENN STATE RESEARCH FOU

Inventor(s): (std): GARRETT STEVEN L ; POESE MATHEW E ; SMITH ROBERT W M ; WAKELAND RAY S ; POESE MATTHEW E ; SMITH ROBERT W ; POESE MATTHEW L ; POESE MATTHEW E SMITH ROBERT W ; STEVEN L GARRETT ; ROBERT W ; RAY S WAKELAND ; MATTHEW E POESE ; WAKELAND RAY ; SMITH ROBERT ; GARRETT STEVEN ; POESE MATTHEW

Inventor(s): ROBERT W M SMITH ; POESE MATTHEW E SMITH ROBERT W M WAKELAND RAY S GA ; SMITH ROBERT WM

Agent(s): RIDOUT AND MAYBEE LLP; NAISMITH ROBERT STEWART; CLT PATENT AND TRADEMARK HK LTD; DOUGLAS L WATHEN GIFFORD KRASS GROH SPRINKLE; GIFFORD KRASS GROH SPRINKLE AND CITKOWSKI PC; GIFFORD KRASS SPRINKLE ANDERSON AND CITKOWSKI PC; GIFFORD KRASS GROH SPRINKLE ANDERSON AND CITKOWSKI PC; GIFFORD KRASS SPINKLE ANDERSON AND CITKOWSKI PC; DOUGLAS L

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

8) Family number: 12300070 (US5992032A)

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Title: Method and apparatus for inclination measurement using piezoelectric effect

Abstract: An apparatus using piezoelectric effect is provided for measuring an angle between a reference plane and a plane to be measured. Such an apparatus can be used to measure the inclination of a plane or for leveling purpose. The main characteristics of the apparatus are simple in structure, no limitation in the measurement range, and less limitation to the environment. The apparatus also has the following advantages: compact, quick and accurate measurement, easy for multiaxial measurement.

Classifications:

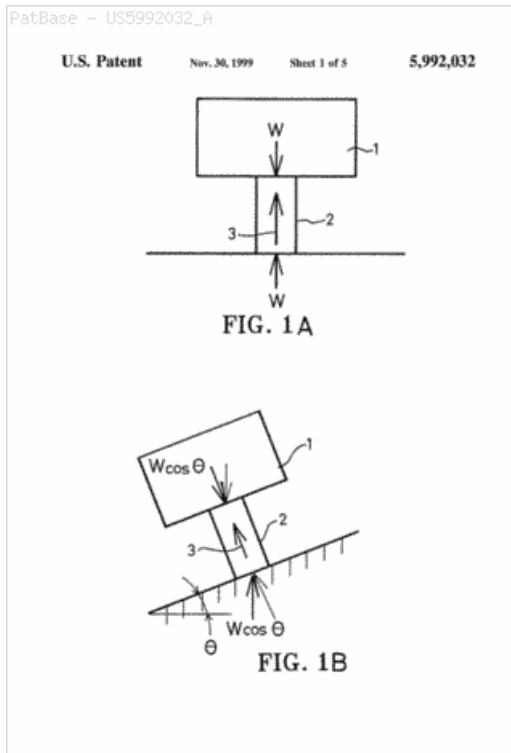
International (IPC 8-9): G01C9/06 (Advanced/Invention); G01C9/00 (Core/Invention)

International (IPC 1-7): G01C9/06

CPC: G01C9/06

European: G01C9/06

US: 310/321 33/365 33/366.11 33/366.25



Family:

Publication number	Publication date	Application number	Application date
US5992032 A	19991130	US19970804541	19970224
US6073355 A	20000613	US19990291532	19990414

Priority:

US19970804541 19970224 US19990291532 19990414

Probable Assignee: CHUNG SHAN INST OF SCIENCE AND T

Assignee(s): (std): CHUNG SHAN INST OF SCIENCE ; CHUNG SHAN INST OF SCIENCE AND T

Assignee(s): CHUNG SHAN INSTITUTE OF SCIENCE AND TECHNOLOGY ; CHUNG SHAN INST

Inventor(s): (std): CHANG HORNG ; CHIANG CHUNG I ; HSIEH CHIH WEN ; HU LONG JANG ; JOU MING SHING ; TU SHUN LIH

9) Family number: 60279078 (US2015253227A)

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Title: TESTING APPARATUS

Abstract: A strength testing apparatus has a plurality of testing axes, each of which breaks a test piece in a central area thereof. The apparatus has a plurality of 1-axis testing structures each having: an actuator, which is configured to move linearly, thereby to apply a load onto a test body; an actuator fixing base, which is configured to fix the actuator at a predetermined position; a reaction base comprising a chucking tool, which is configured to chuck a test piece, in a chucking tool, which is provided at an end portion of the actuator; and a base, which is configured to connect the actuator fixing base and the reaction base, wherein all of the testing axes, each almost passing through an axial center of each actuator, come across at one (1) point, and the 1-axis testing structures are arranged so that they are included in a same plane.

Classifications:

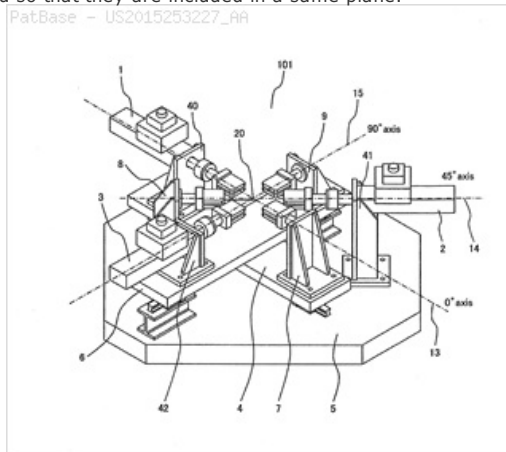
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CPC: G01N3/08 G01N2203/0016 G01N2203/0017 G01N2203/0073

G01N2203/0085 G01N2203/0252 G01N2203/0254 G01N2203/0256

US: 1/1 73/788

PatBase - US2015253227_HH



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Publication number	Publication date	Application number	Application date
CN104897468 A	20150909	CN201510083112	20150216
CN104897468 B	20180330	CN201510083112	20150216
EP2930493 A1	20151014	EP20150155632	20150218
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JP6254022 B2	20171227	JP20140045523	20140307
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Priority:

JP20140045523 20140307

Probable Assignee: HITACHI LTD

Assignee(s): (std): HITACHI LTD ; SHIMADZU CORP

Inventor(s): (std): WATANABE SHOHEI ; TAKII TADAOKI ; TAKEDA NORIO

Agent(s): BEETZ AND PARTNER MBB; MANITZ FINSTERWALD PATENT U RECHTSANWALTSPARTNERSCHAFT MBB; SEIRYO IPC; MATTINGLY AND MALUR PC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

10) Family number: 4952078 (US4567774A)

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Title: Determining mechanical behavior of solid materials using miniature specimens

Abstract: A Miniaturized Bend Test (MBT) capable of extracting and determining mechanical behavior information from specimens only so large as to have at least a volume or smallest dimension sufficient to satisfy continuum behavior in all directions. The mechanical behavior of the material is determined from the measurements taken during the bending of the specimen and is processed according to the principles of linear or nonlinear material mechanics or both. In a preferred embodiment the determination is carried out by a code which is constructed according to the finite element method, and the specimen used for the determinations is a miniature disk simply supported for central loading at the axis on the center of the disk.

Classifications:

International (IPC 8-9): G01N3/00 G01N3/20 (Advanced/Invention);

F02B75/02 G01N3/02 G01N3/04 (Advanced/Non-invention);

G01N3/00 (Core/Invention);

F02B75/02 (Core/Non-invention)

International (IPC 1-7): G01N3/08

CPC: F02B2075/027 G01N3/00 G01N3/20 G01N2203/0019

G01N2203/0023 G01N2203/0286 G01N2203/0494

European: G01N3/00 G01N3/20 R02B75/02S4 S01N203/00F1B

S01N203/00F3 S01N203/02S3 S01N203/04Z S01N3/00F1B

S01N3/00F3 S01N3/02S9M S01N3/04X2

US: 374/49 73/808 73/818 73/825 73/826 73/849

Publication number	Publication date	Application number	Application date
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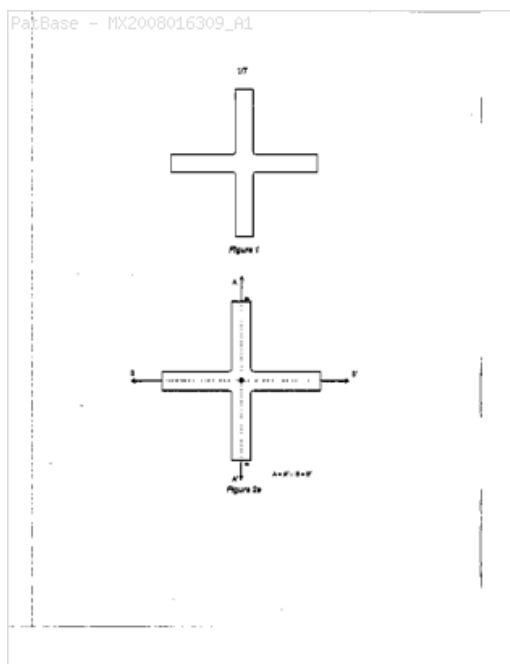
US19830489597 19830428

Assignee(s): (std): BATTELLE DEVELOPMENT CORP

Inventor(s): (std): MANAHAN MICHAEL P ; ARGON ALI S ; HARLING OTTO K

Abstract: THE PRESENT PATENT DESCRIBES A MACHINE FOR PERFORMING BIAxIAL TESTS WHICH INCLUDES A SELF-CENTERING MECHANISM FOR ENSURING THAT THE LOADS APPLIED TO THE TEST TUBE ARE ORTHOGONALLY MAINTAINED AT ANY MOMENT. SAID MACHINE IS FORMED BY TWO ORTHOGONAL LOADING AXIS ACTUATED INDEPENDENTLY FROM EACH OTHER. THE DESIGN ENSURES THAT THE LOADS APPLIED IN THE END PORTIONS OF THE AXIS OF A TEST TUBE ARE IDENTICAL, WHERE IN IDEAL CONDITIONS THE DISPLACEMENTS OF THE TEST TUBE CENTROID ARE ELIMINATED, AND IN PRACTICAL CONDITIONS ARE REDUCED. A SELF-CENTERING SYSTEM IS INTEGRATED, WHICH FUNCTION IS TO MAINTAIN THE ORTHOGONALITY OF THE LOADS IN THE TEST TUBE CENTROID BY REPOSITIONING THE LOAD AXIS, WITHOUT THE INTERVENTION OF AN ACTIVE CONTROL SYSTEM. SAID MECHANISM COMPRISES A FLOATING FRAME MOUNTED OVER A GUIDE-SLIDER ARRANGEMENT, WHICH PROVIDES FLAT MOTION FREEDOM TO A LOAD AXIS MOUNTED OVER THE SAME FRAME. THE AFOREMENTIONED CHARACTERISTIC PROVIDES TO SAID AXIS THE ABILITY OF BEING INSTANTANEOUSLY REPOSITIONED IN ANY DIRECTION IN A PLANE, AS A RESULT OF ANY ORTHOGONALITY LOSS USING THE COMPLEMENTARY LOAD AXIS.

International (IPC 8-9): G01N3/00 (Core/Invention)

[illegible]

Priority:

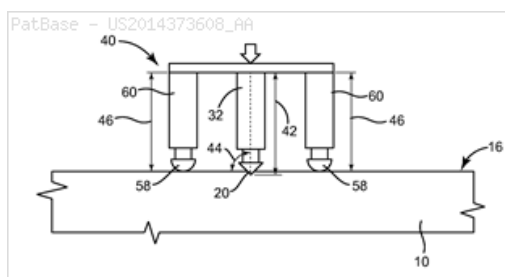
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Probable Assignee: ITESM**Assignee(s):** (std): ITESM**Assignee(s):** INSTITUTO TECNOLÓGICO Y DE ESTUDIOS SUPERIORES DE MONTERREY**Inventor(s):** (std): CASTRO GRACIELA SEPULVEDA ; CORTES PABLO VICENTE VARGAS ; ESCARPITA DAVID ALEJANDRO ARELLANO ; MENDOZA RICARDO AMBROSIO RAMIREZ ; SILLER HUGO RAMON ELIZALDE**Inventor(s):** PABLO VICENTE VARGAS CORTES ; RICARDO AMBROSIO RAMIREZ MENDOZA ; GRACIELA SEPULVEDA CASTRO ; HUGO RAMON ELIZALDE SILLER ; DAVID ALEJANDRO ARELLANO ESCARPITA**12) Family number: 58126084** (US2014373608A)

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Title: SCRATCH TESTING APPARATUS AND METHODS OF USING SAME

Abstract: Provide in one embodiment is an apparatus, comprising an indenter wherein a tip thereof is configured to engage a sample surface, a surface-referencing device configured to establish the position of the indenter relative to the sample surface, a drive mechanism configured to move the indenter along the sample surface to form a scratch, and a measurement device configured to measure at least one of (i) a pile-up height of sample material removed from the scratch and (ii) a width of the scratch.

Classifications:**International (IPC 8-9):** G01N19/06 G01N3/40 G01N3/46 G01N3/56 G01N3/60 G01N3/62 G06F17/50 (Advanced/Invention)**CPC:** G01N3/46 G06F17/5018 G01N3/60 G01N2203/0032 G01N2203/06 G01N2203/0078 G01N2203/0098 G01N2203/0244 Y02T10/82**US:** 703/2 73/82**Family:**

Publication number	Publication date	Application number	Application date
CA2915986 AA	20151217	CA20142915986	20140620
CA2916042 AA	20160905	CA20152916042	20151221
EP3011308 A1	20160427	EP20140814061	20140620
EP3011308 A4	20170301	EP20140814061	20140620
US2014373608 AA	20141225	US20140310611	20140620
US2016258852 AA	20160908	US20160061415	20160304
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US9897523 BB	20180220	US20160061415	20160304
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Priority:

US20130837724P 20130621 US20140310611 20140620 WO2014US43498 20140620
 US20150128753P 20150305 US20150237950P 20151006 US20150270416P 20151221
 US20160061415 20160304 US20160256276 20160902

Probable Assignee: MASSACHUSETTS MATERIALS TECHNOLOGIES LLC**Assignee(s):** (std): MASSACHUSETTS MAT TECH LLC ; MASSACHUSETTS MATERIALS TECH LLC ; MASSACHUSETTS MATERIALS TECHNOLOGIES LLC**Assignee(s):** PALKOVIC STEVEN D ; NORMAND SIMON ; SOUCY PHILLIP A ; TARKANIAN MICHAEL J ; WILLEY BRENDON M ; BELLEMARE SIMON C ; BELLEMARE SIMON CLAUDE**Inventor(s):** (std): NORMAND SIMON ; BELLEMARE SIMON CLAUDE ; PALKOVIC STEVEN D ; WILLEY BRENDON M ; TARKANIAN MICHAEL J ; BELLEMARE SIMON C ; SOUCY PHILLIP A**Agent(s):** NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; HOFFMANN EITL; SUNSTEIN KANN MURPHY AND TIMBERS LLP; MAEBIUS STEPHEN B ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

13) Family number: 29069089 (US2003181305A)

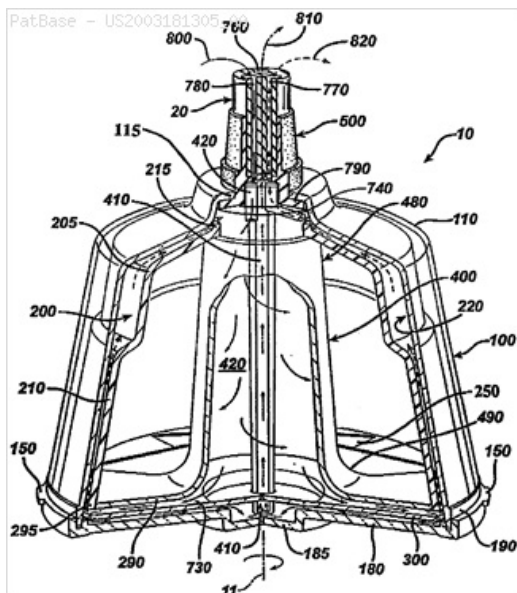
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Title: METHOD AND APPARATUS FOR THE CONTINUOUS SEPARATION OF BIOLOGICAL FLUIDS INTO COMPONENTS

Abstract: The present invention relates to systems, methods and apparatus for improving the yield for separating components of fluids, for example biological or sensitive fluids such as blood, and improving the component yield, for example, from donated whole blood by separating its components by density in a centrifuge bowl with a multi-axial lumen. The apparatus, system, and method eliminate the need to batch-type separate blood and can reduce the time needed to treat patients suffering from T-cell or white blood cell mediated diseases or conditions to less than 70 minutes. In one aspect, the invention is a centrifuge bowl (10) comprising an outer housing (100); a core (200); a lower plate (300); a lumen (400); a first bowl channel (420) within said lumen (400) for inflowing said fluid (800); a second bowl channel (410) for removing a first separated fluid component (810); and a third bowl channel (740) for removing a second separated fluid component (820).

Classifications:**International (IPC 8-9):** A61K A61K35/14 A61K41/00 A61M

A61M1/00 A61M1/02 A61M1/10 A61M1/14 A61M1/36 A61M37/00 B01D17/038 B01D21/26 B01D33/15 B04B B04B1/00 B04B1/02 B04B11/00 B04B5/00 B04B5/04 B04B7/02 B04B7/04 B04B7/12 B04B9/12 C02F1/38 C02F1/44 F04B43/12 F16L33/00 F16L39/02 G01N G01N15/05 G01N33/49 (Advanced/Invention); A61K41/00 A61M1/00 A61M1/02 A61M1/10 A61M1/36 A61M37/00 B01D33/15 B04B1/00 B04B5/00 B04B9/00 C02F1/38 F04B43/00 F04B43/12 F16L33/00 F16L39/00 (Core/Invention); A61K A61M B04B G01N (Subclass/Invention)
International (IPC 1-7): A61K35/14 A61K41/00 A61M1/00 A61M1/02 A61M1/10 A61M1/14 A61M1/36 A61M37/00 B01D17/038 B04B1/02 B04B5/00 B04B5/04 B04B7/02 B04B7/12 C02F1/38 F16L33/00 F16L39/02
CPC: A61M2205/50 F16L33/00 F16L39/02 A61M1/3696 A61K41/0066 A61M1/0058 A61M1/0227 A61M1/361 A61M1/3681 A61M1/3683 A61M1/3686 A61M1/3693 A61M2205/051 A61M2205/053 A61M2205/12 A61M2205/125 A61M2205/75 B04B5/0442 B04B2005/0464 A61M2202/0092 A61M1/3633 A61M2202/0427 A61M2205/35 A61M2205/3569 A61M2205/52 A61M2205/60 B04B2005/0492 F04B43/1253 F28F2260/02
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US: 1/1 210/206 210/360.1 210/360.2 210/363 210/380.1 210/512.1 210/512.100S 210/645 210/781 210/782 210/787 422/44 494/23 494/23P 494/27 494/27S 494/35 494/35S 494/37 494/37P 494/37S 494/41 494/43 494/43S 494/44 494/63 494/67 494/67S 494/76 494/77 604/19 604/19S 604/4.01 604/4.010P 604/4.010S 604/40.1 604/5.01 604/5.010S 604/5.04 604/50.4 604/6.01 604/6.010P 604/6.06 604/6.08 604/6.080S 604/6.15 604/6.16 604/60.1 604/60.8 604/61.6 707/1 707/999.001 707/999.001S



Family:

Publication number	Publication date	Application number	Application date
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AT422916 E	20090315	AT20040076670T	20040902
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AU2003219935 BB	20090423	AU20030219935	20030228
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Priority:

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Probable Assignee: MALLINCKRODT CRITICAL CARE FINANCE INC

Assignee(s): (std): HUTCHINSON MIKE ; THERAKOS INC ; WATTERS TOM ; JOHNSON AND JOHNSON ; BRIGGS DENNIS ; GARA STEVE

Assignee(s): HUTCHINSON MICHAEL ; BRIGGS DENNIS A ; DEUTSCHE BANK NEW YORK BRANCH AG ; THEROKOS INC ; ROYAL BANK OF CANADA COLLATERAL AGENT AS ; MALLINCKRODT CRITICAL CARE FINANCE INC ; MALLINCKRODT HOSPITAL PRODUCTS IP LTD ; MALLINCKRODT IP ; MALLINCKRODT PHARMA IP TRADING DAC ; THERAKOS INC EXTON

Inventor(s): (std): HUTCHINSON MIKE ; WATTERS TOM ; GARA STEVE ; BRIGGS DENNIS ; HUTCHINSON MICHAEL ; BRIGGS DENNIS A ; MIKE HUTCHINSON ; TOM WATTERS ; STEVE GARA ; DENNIS BRIGGS ; DENNIS A BRIGGS ; MICHAEL HUTCHINSON

Inventor(s): HUTCHINSON MICHAEL KING OF PRUSSIA ; BRIGGS DENNIS A WEST CHESTER ; BRIGGS DENNIS WEST CHESTER

Agent(s): SPRUSON AND FERGUSON; CALLINANS; FISHER ADAMS KELLY CALLINANS; OGILVY RENAULT LLP SENCRL SRL; NORTON ROSE OR SENCRL SRL LLP; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; NORTON ROSE CANADA SENCRL SRL LLP; MUELLER BORE AND PARTNER PATENTANWAELTE PARTG MBB; SMALL GARY JAMES; MERCER CHRISTOPHER PAUL ET AL; HALEY STEPHEN; JONES NICHOLAS ANDREW; IZQUIERDO JOSE; UNGRIA JAVIER; CHINA PATENT AGENT HK LTD; REINHOLD COHN AND PARTNERS; PHILIP S JOHNSON JOHNSON AND JOHNSON; TODD; VOLYN TODD F; TODD F; VOLYN TODD; COOLEY LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Title: Collarless circularly magnetized torque transducer and method for measuring torque using the same

Abstract: A magnetoelastic torque sensor for providing an output signal indicative of the torque applied to a member, comprising, a first magnetoelastically active region in the member, the region being ferromagnetic, magnetostrictive magnetically polarized in a single circumferential direction and possessing sufficient magnetic anisotropy to return the magnetization in the region to the single circumferential direction when the applied torque is reduced to zero, whereby the ferromagnetic, magnetostrictive region produces a magnetic field varying with the torque. Magnetic field sensors are mounted proximate to the ferromagnetic, magnetostrictive region to sense the magnetic field at the sensors and provide the output signal in response thereto. The field arising from the magnetoelastically active region does not magnetize regions of the member proximate to the magnetoelastically active region to give rise to parasitic magnetic fields which are of sufficient strength to destroy the usefulness, for torque sensing purposes, of the net magnetic field seen by the magnetic field sensor means.

Classifications:

International (ipc 8-9): G01L1/12 G01L3/00 G01L3/02 G01L3/10

G05D17/00 (Advanced/Invention);

G01L1/12 G01L3/10 (Advanced/Non-invention)

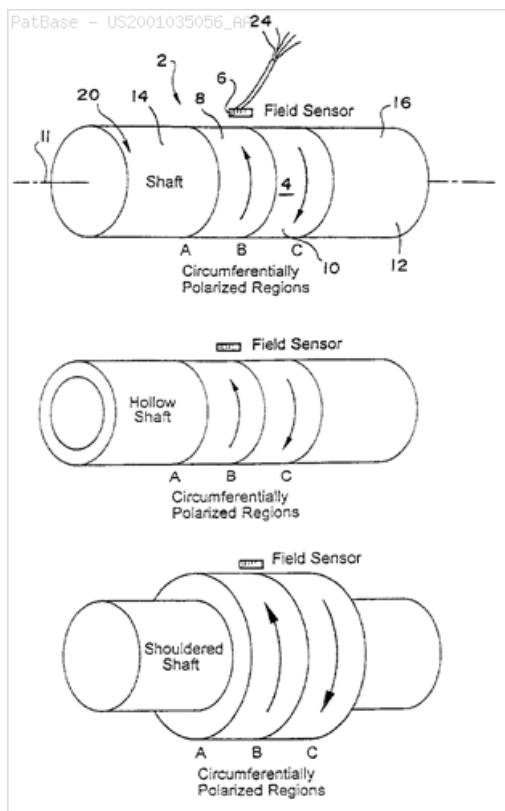
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G01L3/12 G05D17/00 G08C21/00

CPC: G01L3/102

European: G01L3/10A2

US: 324/207.21 73/862.333 73/862.336 73/862.336P



Family:

Publication number	Publication date	Application number	Application date
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AU199910839 A1	19990510	AU19990010839	19981021
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DE0953169 T1	20010405	DE19980950604T	19981021
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TW405032 B	20000911	TW19980118031	19981030
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US2001035056 AA	20011101	US20010895212	20010702
US6047605 A	20000411	US19980175461	19981020
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WO9921151 A2	19990429	WO1998US21638	19981021
WO9921151 A3	19990708	WO1998US21638	19981021
WO9921151 C1	19990812	WO1998US21638	19981021

Priority:

US19970064831 19971021 US19970064831P 19971021 US19980175461 19981020
US19980175546 19981020 EP19980950604 19981021 EP20070020789 19981021
EP20100005368 19981021 WO1998US12350 19981021 WO1998US21638 19981021
US20000655606 20000905 US20010895212 20010702

Probable Assignee: MAGNA LASTIC DEVICES INC

Assignee(s): (std): MAGNA LASTIC DEVICES INC

Assignee(s): MAGNA LASTIC DEVICES INC CARTHAGE ; GARSHELIS IVAN J

Inventor(s): (std): GARSHELIS IVAN J ; IVAN J GARSHELIS ; GARSHELIS IVAN

Inventor(s): GARSHELIS IVAN J DALTON ; I VAN J GARSHELIS

Agent(s): MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP; PRINZ AND PARTNER MBB
PATENTANWAELTE RECHTSANWAELTE; KILIAN HELMUT; DEGWERT HARTMUT; PRINZ AND PARTNER;
DR YITZHAK HESS AND PARTNERS

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA
GB GE GH GM GN GR GW HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG
MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG
UZ VN YU ZW

15) Family number: 42044109 (US2009133381A)

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Title: APPARATUS AND METHOD FOR TESTING PERFORMANCE OF A MATERIAL FOR USE IN A JET ENGINE

Abstract: An apparatus for testing failure of a material used in a jet engine, and more particularly to an apparatus that uses one or more model jet engine components made from a material used in a full-size jet engine and desired to be tested. The apparatus permits easy removal and disassembly of a jet engine mounted thereon as well as real-time measurements of run-time parameters. The methods and apparatus provide for predicting and analysing failure by a number of fatigue-related mechanisms including creep, fatigue, crack growth, foreign object damage, fretting, erosion, and stress corrosion.

Classifications:

International (IPC 8-9): B63H11/00 F16M13/00 G01M15/00

G01M15/14 G01N19/08 G06F19/00 (Advanced/Invention);

B63H11/00 F16M13/00 G01N19/00 G06F19/00 (Core/Invention)

CPC: G01M15/14 G06F17/5018 G06F17/5095 G06F2217/10

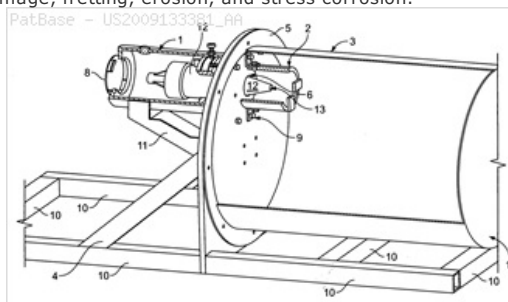
G06F2217/80

European: G01M15/14 G06F17/50C2 G06F17/50V S06F217/10

S06F217/80

US: 248/554 248/554S 60/204 60/204P 701/99 701/99S 73/112.01

73/112.010P 73/799 73/799S



Family:

Publication number	Publication date	Application number	Application date
US2009133381 AA	20090528	US20080008997	20080114
US2012152007 AA	20120621	US20110220559	20110829
US8006544 BB	20110830	US20080008997	20080114
WO08088797 A1	20080724	WO2008US00508	20080114

Priority:

US20070880354P 20070112 US20080008997 20080114 US20110220559 20110829

Probable Assignee: VEXTEC CORP

Assignee(s): (std): BROOKS JONATHAN ; DEY ANIMESH ; HAMLER JESSE ; HOLMES RICHARD ; NASSER A LORENZ ;
NASSER DANIEL A ; OJA MICHAEL ; TRYON ROBERT G III ; VEXTEC CORP ; POPE JOHN E ; TRYON
JAMES ; TRYON II ROBERT G

Assignee(s): TRYON ROBERT G

Inventor(s): (std): OJA MICHAEL ; NASSER DANIEL A ; DEY ANIMESH ; HAMLER JESSE ; TRYON ROBERT G III ; POPE
JOHN E ; BROOKS JONATHAN ; HOLMES RICHARD ; TRYON JAMES ; TRYON III ROBERT G ; TRYON II
ROBERT G ; NASSER A LORENZ

Inventor(s): TRYON ROBERT G

Agent(s): FISH AND RICHARDSON PC; VIRTUAL LAW PARTNERS LLP; RICHARD GA; BONE RICHARD GA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU

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MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ
TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

16) Family number: 44667121 (US2011257900A)

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Title: METHODS AND APPARATUS FOR DIAGNOSING FAULTS OF A VEHICLE

Abstract: A rubber cleat is instrumented with two triaxial accelerometers to measure the multi-directional response of the cleat due to the forces within the tire footprint of a ground vehicle. The cleat data is used to detect faults in the front and rear suspension in addition to the wheel tire despite variability in the data. This offboard diagnostic technique is proposed to enable condition-based maintenance.

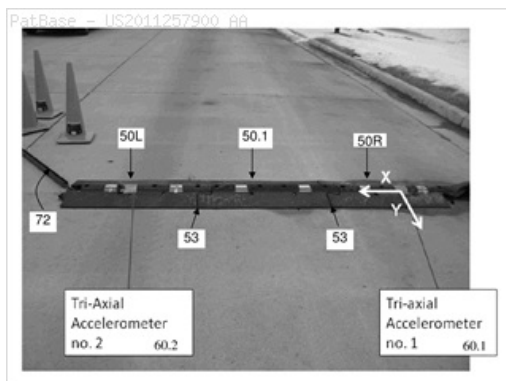
Classifications:

International (IPC 8-9): G01M17/007 G06F19/00 (Advanced/Invention)

CPC: G01M17/04

European: G01M17/04

US: 702/33 702/33P 73/117.01 73/117.010S



Family:

Publication number	Publication date	Application number	Application date
US2011257900 AA	20111020	US20090120218	20090922
WO10034022 A1	20100325	WO2009US57919	20090922

Priority:

US20080098995P 20080922 US20090120218 20090922 WO2009US57919 20090922

Probable Assignee: HONEYWELL INT INC

Assignee(s): (std): ADAMS DOUGLAS E ; DI PETTA TIFFANY LYNN ; GORDON GRANT A ; KOESTER DAVID JOSEPH ; PURDUE RESEARCH FOUNDATION

Assignee(s): HONEYWELL INT INC

Inventor(s): (std): KOESTER DAVID JOSEPH ; GORDON GRANT A ; ADAMS DOUGLAS E ; DI PETTA TIFFANY LYNN

Agent(s): DANILUCK JOHN V

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

17) Family number: 44929143 (US2010100338A)

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Title: MONITORING SYSTEM

Abstract: A monitoring system is provided, which may include a structural component configured to undergo mechanical loading and a wireless node attached to the structural component. The node may include a strain sensing device configured to measure strain experienced by the structural component at the location of the node. The node may also include a processor configured to predict, based on the strain measurements, fatigue life of the structural component.

Classifications:

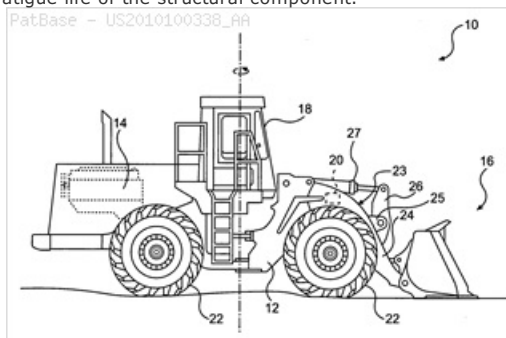
International (IPC 8-9): G01N3/00 (Advanced/Invention);

G01N3/00 (Core/Invention)

CPC: E02F9/264 E02F9/267 G01M5/0033 G01M5/0041 G01M17/007

European: G01M17/007 G01M5/00M G01M5/00N

US: 702/42 702/42P 73/806



Family:

Publication number	Publication date	Application number	Application date
US2010100338 AA	20100422	US20060589970	20061031
US7908928 BB	20110322	US20060589970	20061031

Priority:

US20060589970 20061031

Probable Assignee: CATERPILLAR INC

Assignee(s): (std): CATERPILLAR INC
Inventor(s): (std): FORCK JAMES A ; VIK TIMOTHY A ; SUNDERMEYER JEFFRY N
Agent(s): CATERPILLAR FINNEGAN HENDERSON LLP; FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP

18) Family number: 35562143 (FR2897433B)

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Title: PROCEDE DE REALISATION D'UNE EPROUVETTE DESTINEE A LA MESURE DES PROPRIETES MECANQUES DE FATIGUE D'UNE STRUCTURE MECANIQUE, ET EPROUVETTE OBTENUE PAR CE PROCEDE

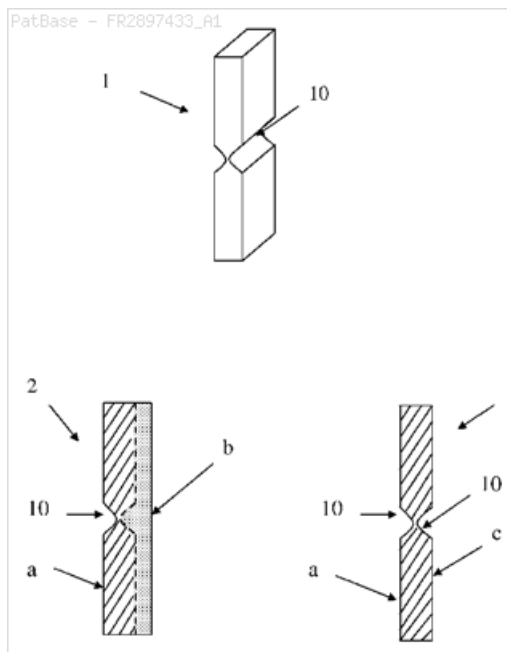
Abstract: The method involves forming a test piece having larger thickness than a final test piece by a fabrication process e.g. molding process. A part of a surface (c) of the test piece is formed by another fabrication process e.g. machining process, whose mechanical qualities are better than the former fabrication process in order to obtain a geometry suitable to a desired multiaxial sollicitation, where the part includes a useful zone (10) having lesser thickness. An independent claim is also included for a test piece comprising a useful zone.

Classifications:

International (IPC 8-9): G01N3/62 (Advanced/Invention);
G01N3/00 (Core/Invention)

CPC: G01N3/62 G01N2203/0005 G01N2203/0073 G01N2203/025
G01N2203/026 G01N2203/0298

European: G01N3/62 S01N203/00A2 S01N203/00P2F S01N203/02G
S01N203/02S S01N203/02S8 S01N3/00A2 S01N3/00P2F S01N3/02G
S01N3/02S S01N3/02S8



Family:

Publication number	Publication date	Application number	Application date
FR2897433 A1	20070817	FR20060050496	20060213
FR2897433 B1	20080418	FR20060050496	20060213

Priority:

FR20060050496 20060213

Probable Assignee: PEUGEOT CITROEN AUTOMOBILES SA

Assignee(s): (std): PEUGEOT CITROEN AUTOMOBILES SA

Assignee(s): PEUGEOT CITROEN AUTOMOBILES SA SOCIETE ANONYME ; PEUGEOT CITROEN AUTOMOBILES SOC ANONYME SA

Inventor(s): (std): BURRY PIERRE

Inventor(s): PIERRE BURRY

Agent(s): PEUGEOT CITROEN AUTOMOBILES SA

19) Family number: 31499148 (US2007185694A)

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Title: METHOD FOR DETERMINING STRAINS, DEFORMATION AND DAMAGE IN WORKPIECES COMPOSED OF A SOLID MATERIAL

Abstract: The invention relates to a method for determining the effects of a mechanical force on an object consisting of a solid material, according to which the deformations and stresses caused by the mechanical force at a plurality of points on the object are determined by means of a digital calculation method in an anelastic mode wherein the behaviour of the material is represented by a polycrystalline microscopic behaviour model using a maximum of ten grain blocks, the deformations of said grain blocks being determined from a maximum of six sliding systems, and optionally a maximum of seven grain joint blocks, the deformations of said grain joint blocks being determined from at least one system and a maximum of one hole block having a variable volumic fraction, the plastic deformations of said hole block being purely volumic.

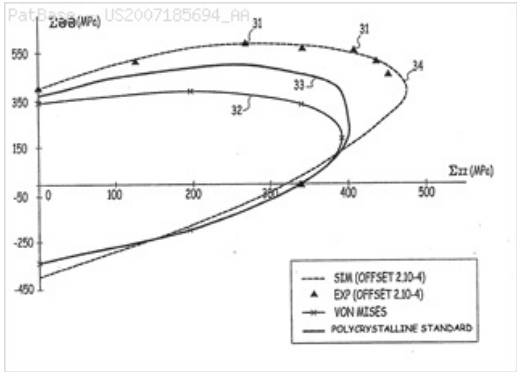
Classifications:

International (IPC 8-9): G01N3/00 G01N3/40
G06F17/10 (Advanced/Invention);
G01N3/00 (Advanced/Non-invention);
G01N3/00 G01N3/40 G06F17/10 (Core/Invention);
G01N3/00 (Core/Non-invention)

International (IPC 1-7): G01B21/32 G01N3/00

CPC: G01N3/40 G01N2203/0019 G01N2203/006 G01N2203/0071
G01N2203/0075

European: G01N3/40 S01N203/00F1B S01N203/00P1
S01N203/00P2C S01N203/00P2S S01N3/00F1B S01N3/00P1



Family:

Publication number	Publication date	Application number	Application date
CA2534140 AA	20060127	CA20042534140	20040727
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EP1656546 A1	20060517	EP20040767794	20040727
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US2007185694 AA	20070809	US20040595061	20040727
WO05015167 A1	20050217	WO2004FR02012	20040727

Priority:

FR20030009252 20030728 WO2004FR02012 20040727

Probable Assignee: ELECTRICITE DE FRANCE SERVICE NATIONAL

Assignee(s): (std): ELECTRICITE DE FRANCE ; LECLERCQ SYLVAIN ; ROUSSELIER GILLES

Assignee(s): ELECTRICITE DE FRANCE SERVICE NATIONAL

Inventor(s): (std): LECLERCQ SYLVAIN ; ROUSSELIER GILLES

Inventor(s): SYLVAIN LECLERCQ ; GILLES ROUSSELIER

Agent(s): ROBIC ; LAGRANGE JACQUES ETIENNE MM ET AL; CABINET LAVOIX; SUGHRUE MION PLLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

20) Family number: 47427163 (FR2944600B)

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Title: EPROUVETTE DE FATIGUE BIAxiaLE TRACTION-TRACTION

Abstract: The method involves defining a nominal geometry of a parallelepiped shaped fatigue test specimen, and parameterizing the nominal geometry into three dimensions. A mesh is generated by calculation of finite elements from the defined geometry. A ratio of biaxiality to a geometric center of the specimen is determined. An inclination angle of the specimen is incremented and a new mesh is generated until a desired biaxiality ratio is attained. A final geometry and a final inclination angle of the specimen are determined when the desired biaxiality ratio is attained. An independent claim is also included for a method for determining fatigue behavior of a material.

Classifications:

International (IPC 8-9): G01N3/02 G01N3/32 (Advanced/Invention)

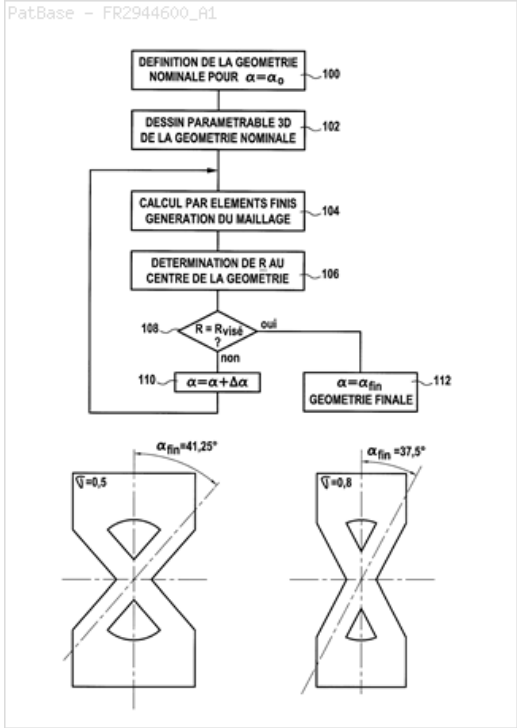
CPC: G01N3/02 G01N3/32 G01N2203/0073 G01N2203/0216

G01N2203/0254 G01N2203/0258

European: G01N3/02 G01N3/32 S01N203/00P2F S01N203/02C9F

S01N203/02G2 S01N203/02G4 S01N3/00P2F S01N3/02C9F

S01N3/02G2 S01N3/02G4B



Family:

Publication number	Publication date	Application number	Application date
FR2944600 A1	20101022	FR20090052517	20090417
FR2944600 B1	20110603	FR20090052517	20090417

Priority:

FR20090052517 20090417

Probable Assignee: SNECMA
Assignee(s): (std): SNECMA
Inventor(s): (std): PEREZ DUARTE ALEXIS
Inventor(s): ALEXIS PEREZ DUARTE
Agent(s): CABINET BEAU DE LOMENIE

21) Family number: 10900163 (AT406710B)

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Title: LOADING DEVICE FOR TESTING MECHANICAL CHARACTERISTICS

Abstract: Testing device for determining mechanical, including fracture-mechanical, characteristics on sample bodies having a simple geometric shape under pure and superimposed loading. Testing is carried out in a biaxial testing machine (with controlled vertical linear movement and rotational movement controlled independently thereof), in which the device according to the invention can be incorporated in a simple way. Depending on the selection of the sample shape, by means of appropriate machine control, the mechanical properties, in particular the fracture properties, of materials and material composites can now be determined under the widest possible range of stress cases which occur in practice.

Classifications:**International (IPC 8-9):** G01N3/04 G01N3/08 (Advanced/Invention);

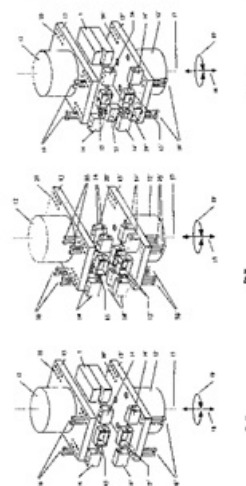
G01N3/00 G01N3/08 (Core/Invention)

International (IPC 1-7): G01N3/04 G01N3/08

PatBase - AT406710_B

ÖSTERREICHISCHE PATENTANSTALT
Ausgegeben am: 25.09.2008
Sheet: 1

Patentschrift Nr.: AT 406 710 B
Int. Cl. ⁷: G01N 3/04, G01N 3/08

**Family:**

Publication number	Publication date	Application number	Application date
AT148897 A	19991215	AT19970001488	19970905
AT406710 B	20000825	AT19970001488	19970905

Priority:

AT19970001488 19970905

Probable Assignee: EHART ROBERT DIPL ING
Assignee(s): (std): EHART ROBERT DIPL ING ; TSCHEGG ELMAR DR
Inventor(s): (std): EHART ROBERT DIPL ING ; TSCHEGG ELMAR DR

22) Family number: 29427173 (US2005162389A)

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Title: MULTI-AXIS JOYSTICK AND TRANSDUCER MEANS THEREFORE

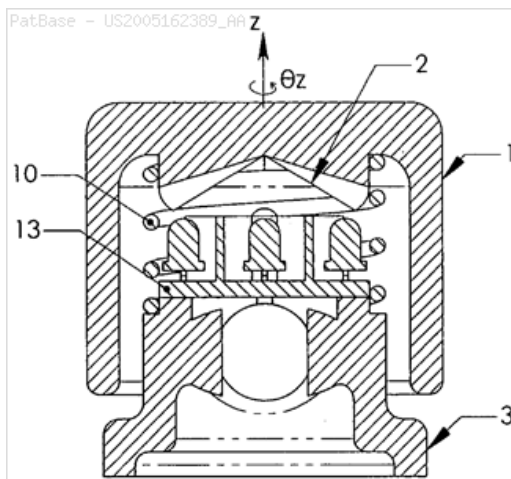
Abstract: The invention relates to improved multi-axis joysticks and associated multi-axis optical displacement measurement means. The displacement measuring means may include one or more light emitters and one or more light detectors, preferably mounted in a planar hexagonal array. The relative position of an adjacent movable reflector assembly can be measured in six degrees of freedom by variations in detected light amplitude. Various ergonomic configurations of six axis joystick embodiments which may be facilitated by the compact design of the transducer means are disclosed. Means for dynamically adjusting coordinate transformations for construction machinery control are also disclosed.

Classifications:**International (IPC 8-9):** G01B11/00 G01D5/28 G05G9/047 G06F3/00

G06F3/01 G06F3/033 G06F3/0338 G06F3/038 G09G5/00

G09G5/08 (Advanced/Invention)

International (IPC 1-7): G06F3/00 G06F3/033 G09G5/08
CPC: G06F3/016 A63F2300/1043 A63F2300/105 G05G9/047
G05G2009/04755 G05G2009/04759 G05G9/04737 G01D5/285
G05B2219/35419 G09G5/00 G06F3/0338
European: G05G9/047 G06F3/0338 G06F3/033Z8B K63F300/10M
K63F300/10N S05G9/047E6 S05G9/047E8
US: 345/156 345/161 345/161P 345/166



Family:

Publication number	Publication date	Application number	Application date
AU2003224982 AA	20031027	AU20030224982	20030414
CN1692401 A	20051102	CN20038013482	20030414
CN1692401 B	20111116	CN20038013482	20030414
EP1514257 A1	20050316	EP20030721682	20030414
EP1514257 A4	20151230	EP20030721682	20030414
JP2005522798 T2	20050728	JP20030585063T	20030414
JP2009140520 A2	20090625	JP20090027934	20090209
JP2011086307 A2	20110428	JP20100288910	20101224
JP2011090707 A2	20110506	JP20100288909	20101224
JP2011100478 A2	20110519	JP20100288911	20101224
JP4589007 B2	20101201	JP20030585063T	20030414
JP5399365 B2	20140129	JP20100288909	20101224
TW200422920 A	20041101	TW20030128428	20031014
TWI293423 B	20080211	TW20030128428	20031014
US2005162389 AA	20050728	US20030511110	20030414
US2009213073 AA	20090827	US20090349359	20090106
US2012162076 AA	20120628	US20120347557	20120110
US2013265233 AA	20131010	US20130890794	20130509
US2015153842 AA	20150604	US20140469440	20140826
US7474296 BB	20090106	US20040511110	20041012
US8094121 BB	20120110	US20090349359	20090106
US8816962 BB	20140826	US20130890794	20130509
WO03088204 A1	20031023	WO2003US11614	20030414

Priority:

US20020372216P 20020412	JP20030585063 20030414	JP20030585063T 20030414
JP20090027934 20030414	US20030511110 20030414	WO2003US11614 20030414
US20040511110 20041012	US20090349359 20090106	US20120347557 20120110
US20130890794 20130509	US20140469440 20140826	

Probable Assignee: OBERMEYER HENRY K

Assignee(s): (std): OBERMEYER HENRY K ; OBERMEYER LESLIE ; OBERMEYER LESLIE R ; OBERMEYER FRITZ H

Assignee(s): OBERMEYER FRITZ K ; OBERMEYER FRITZ R ; POINTS WEST COMMUNITY BANK

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Inventor(s): LESLIE R OBERMEYER ; HENRY K OBERMEYER ; FRITZ H OBERMEYER ; K OBERMEYER HENRY K ; R OBERMEYER LESLIE R ; H OBERMEYER FRITZ H ; OBERMEYER FRITZ ; OBERMEYER HENRY

Agent(s): SANTANGELO LAW OFFICES; SANTANGELO LAW OFFICES PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

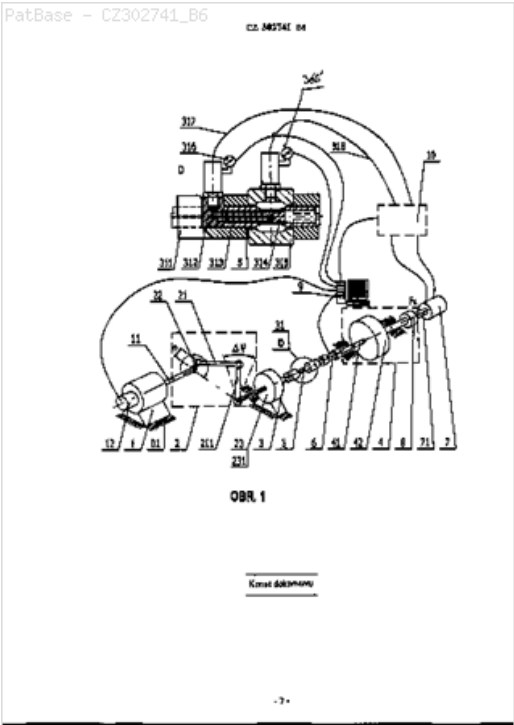
23) Family number: 48738210 (CZ302741B)

© PatBase

Title: DEVICE FOR MULTIAXIAL COMBINED LOADING OF TEST SPECIMENS

Abstract: In the present invention, there is disclosed a device for multi-axial combined loading of test specimens wherein the device consists of a frame (01) with a driving unit (1) mounted therein. The driving unit (1) has an output shaft (11) and a cycle counter (12). A gearbox (2) with a four-joint mechanism (21) disposed therein is attached to the driving unit (1). The four-joint mechanism (21) rocker lever (211) is inserted onto a drive shaft (3) that is mounted inside the gearbox (2) and at the same time in a clamping head (23) attached to the gearbox (2). The device also comprises a driven machine unit housing (4) with a driven shaft (41) mounted therein. A flywheel (42) being also mounted inside the housing (4) and arranged co-axially with the driven shaft (41) is provided with a compound strain gauge (6) of axial force and torque wherein a piston rod (71) of a hydraulic cylinder (7) is connected from opposite side to the driven shaft (41). A pressure chamber (31) with a test specimen situated therein is arranged between the drive shaft (3) and driven shaft (41). The pressure chamber (31) consists of a friction clutch (311) being connected to a hydraulic cube (312) for inlet (317) of internal pressure and a closing casing (315) for inlet (318) of external pressure wherein both the inlets (317, 318) are connected to a hydraulic unit (10). The present invention can be used in all industrial branches. It particularly serves for acquisition of material characteristic of test specimens during combined loading thereof by axial force tension/pressure, cyclic torque, internal and external excessive pressure, in the field of low-cycle and high-cycle fatigue, and for both proportional and non-proportional load.

Classifications:



Family:

Publication number	Publication date	Application number	Application date
CZ20090626 A3	20110406	CZ20090000626	20090924
CZ302741 B6	20111012	CZ20090000626	20090924

Priority:

CZ20090000626 20090924

Probable Assignee: VYSOKA SKOLA BANSKA TECHNICKA UNIVERZITA OSTRA VA

Assignee(s): (std): VYSOKA SKOLA BANSKA TECHNICKA UNIVERZITA OSTRA VA ; VYSOKA UEKOLA BANSKA TECHNICKA UNIVERZITA OSTRAVA

Inventor(s): (std): FUXA JAN ; FOJTIK FRANTISEK

24) Family number: 43425221 (US2010263453A) © PatBase

Title: APPARATUS AND METHOD FOR SIMULATING LIFETIME OF AND/OR STRESS EXPERIENCED BY A ROTOR BLADE AND ROTOR DISC FIXTURE

Abstract: An apparatus for simulating stresses experienced by a rotor blade root in a complementary disc fixture, especially in gas turbine engines. The apparatus comprises a mounting member for receiving a blade specimen having a root. The mounting member has an aperture for receiving the root of the blade specimen, and blade contacting regions on either side of said aperture for holding said blade specimen in said aperture. The apparatus further comprises an actuator for applying a tension load to said blade specimen. The blade contacting regions are undercut such that there is a gap between said blade contacting regions and a main body of said mounting member, whereby the blade contacting regions are able to deflect outward into said gap when a tension load is applied to the blade specimen.

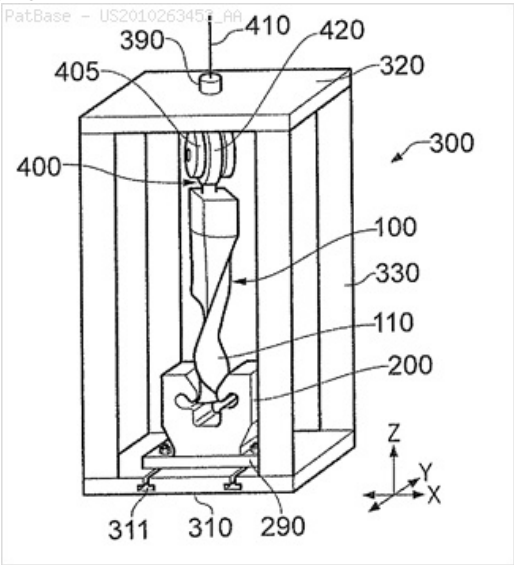
Classifications:

International (IPC 8-9): G01M5/00 G01N3/04 G01N3/08
G01N3/32 (Advanced/Invention);
G01N3/02 (Advanced/Non-invention);
G01N3/00 G01N3/32 (Core/Invention)

CPC: G01M5/0016 G01M5/005 G01M15/14 G01N3/32 G01N3/04
G01N2203/0226 G01N2203/0246 G01N2203/0435

European: G01N3/04 G01N3/32 S01N203/02E1H S01N203/02E4S
S01N203/04F S01N3/02E4S S01N3/04F

US: 73/826 73/826P



Family:

Publication number	Publication date	Application number	Application date
EP2241872 A2	20101020	EP20100154361	20100223

EP2241873 A2	20101020	EP20100154362	20100223
EP2241873 A3	20150520	EP20100154362	20100223
GB200906342 A0	20090520	GB20090006342	20090415
US2010263453 AA	20101021	US20100710882	20100223
US8505388 BB	20130813	US20100710882	20100223

Priority:

GB20090006342 20090415

Probable Assignee: ROLLS ROYCE PLC

Assignee(s): (std): MASON PAUL J ; ROLLS ROYCE PLC

Inventor(s): (std): MASON PAUL J ; MASON PAUL

Agent(s): ROBERTS NICHOLAS JOHN; OLIFF AND BERRIDGE PLC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

25) Family number: 60700235 (US2015314888A)

© PatBase

Title: SYSTEM AND METHOD FOR POSITIONING AN AUTOMATED ASSEMBLY TOOL RELATIVE TO A STRUCTURE

Abstract: A method and apparatus for positioning an end effector relative to a structure. The apparatus may comprise the end effector and a sensor system. The end effector may be configured to perform an operation on the structure. The sensor system may have a plurality of sensors extending outward from the end effector.

Classifications:

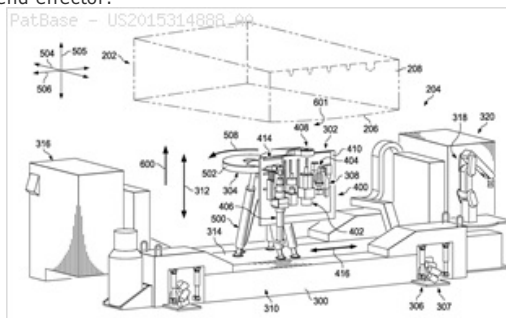
International (IPC 8-9): B23B47/28 B23B49/00 B23P19/04 B23P21/00 B23Q17/20 B23Q17/22 B25J13/08 B25J19/02 B25J9/00 B25J9/16 B25J9/18 B64C1/00 B64F5/00 B64F5/10

G05B19/402 (Advanced/Invention);

G01B21/30 G01B5/016 G01L1/26 (Advanced/Non-invention)

CPC: Y10S901/41 Y10S901/44 Y10S901/46 B25J13/089 B64F5/0009 B25J9/1687 B64F5/10 B23B47/28 B60Y2200/51 B64F5/30 B64F5/50 B64F5/60 E05Y2900/502

US: 700/117 901/41 901/44 901/46



Family:

Publication number	Publication date	Application number	Application date
BR102015008456 A2	20151201	BR20151008456	20150415
CA2882466 AA	20151030	CA20152882466	20150218
CA3034922 AA	20151030	CA20153034922	20150218
CN105035348 A	20151111	CN201510179806	20150416
EP2939799 A2	20151104	EP20140196548	20141205
EP2939799 A3	20160601	EP20140196548	20141205
JP2015214013 A2	20151203	JP20150041440	20150303
KR20150125553 A	20151109	KR20150035011	20150313
US2015314888 AA	20151105	US20140558853	20141203
US10118714 BB	20181106	US20140558853	20141203

Priority:

US20140986796P 20140430
JP20150041440 20150303

US20140558853 20141203
KR20150035011 20150313

CA20152882466 20150218

Probable Assignee: BOEING CO

Assignee(s): (std): BOEING CO

Assignee(s): JONES DARRELL DARWIN ; REID ERIC M ; THE BOEING COMPANY ; BANKS DAVID PAUL

Inventor(s): (std): BANKS DAVID PAUL ; REID ERIC M ; JONES DARRELL DARWIN ; DARRELL DARWIN JONES ; ERIC M REID ; DAVID PAUL BANKS

Agent(s): SMART AND BIGGAR; BOULT WADE TENNANT; SONODA AND KOBAYASHI INTELLECTUAL PROPERTY LAW; YEE AND ASSOCIATES PC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

26) Family number: 11749238 (US5969268A)

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Title: MULTI-AXIS LOAD CELL

Abstract: A load cell for sensing forces or moments with respect to an orthogonal coordinate system includes a load cell body and a plurality of sensing circuits. The load cell body includes a rigid central member, a rigid annular ring and a plurality of radial members extending radially and joining the central member to the annular ring. A plurality of sensing circuits are mounted to the plurality of radial members. Each radial member includes a first sensing circuit providing a first output signal responsive to a first force exerted between the central member and the annular ring through the corresponding radial member in a first direction. Each radial member also includes a second sensing circuit providing a second output signal responsive to a second force exerted between the central member and the annular ring through the corresponding radial member in a second direction, wherein the second direction is substantially perpendicular to the first direction.

Classifications:

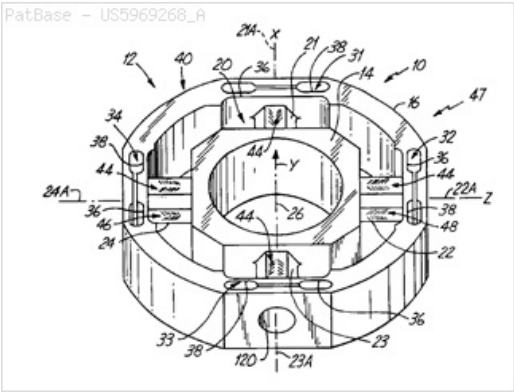
International (IPC 8-9): G01L1/22 G01L1/26 G01L5/16

G01L5/20 (Advanced/Invention);

G01L5/16 (Advanced/Non-invention)

International (IPC 1-7): G01L1/22 G01L1/26 G01L5/16 G01L5/20

CPC: G01L1/2206 G01L5/161 G01L5/20



Family:

Publication number	Publication date	Application number	Application date
CA2264827 AA	19990304	CA19982264827	19980714
CA2264827 C	20070605	CA19982264827	19980714
CN100334435 C	20070829	CN200410090348	19980714
CN1182377 C	20041229	CN19988000982	19980714
CN1234866 A	19991110	CN19988000982	19980714
CN1624444 A	20050608	CN200410090348	19980714
DE69818420 D1	20031030	DE19986018420	19980714
DE69818420 D1	20031030	DE19986018420T	19980714
DE69818420 T2	20040715	DE19986018420T	19980714
DE69838594 D1	20071129	DE19986038594	19980714
DE69838594 D1	20071129	DE19986038594T	19980714
DE69838594 T2	20080731	DE19986038594T	19980714
EP0938652 A1	19990901	EP19980936853	19980714
EP0938652 B1	20030924	EP19980936853	19980714
EP1363115 A1	20031119	EP20030012204	19980714
EP1363115 B1	20071017	EP20030012204	19980714
JP2001500979 T2	20010123	JP19990507642T	19980714
JP4104173 B2	20080618	JP19990507642T	19980714
KR100478328 B1	20050324	KR19997002081	19980714
KR20000068544 A	20001125	KR19997002081	19980714
US5969268 A	19991019	US19980026458	19980219
US6038933 A	20000321	US19970892914	19970715
WO9904235 A1	19990128	WO1998US14607	19980714

Priority:

US19970892914 19970715 US19980026458 19980219 EP19980936853 19980714
WO1998US14607 19980714

Probable Assignee: MTS SYSTEMS CORP

Assignee(s): (std): MTS SYSTEM CORP

Assignee(s): MTS SYSTEMS CORP ; MTS SYSTEMS CORP EDEN PRAIRIE ; OLSON DOUGLAS J ; SOMMERFELD JODI L ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; LARSON BRETT A ; MEYER RICHARD A

Inventor(s): (std): SOMMERFELD JODI L ; MEYER RICHARD A ; LARSON BRETT A ; OLSON DOUGLAS J ; SOMMERFELD L ; MEYER A ; OLSON J ; LARSON A ; SOMMERFELD JODI L MEYER RICHAR

Inventor(s): JODI L SOMMERFELD ; RICHARD A MEYER ; BRETT A LARSON

Agent(s): MARKS AND CLERK

Designated states: AT BE CA CH CN CY DE DK ES FI FR GB GR IE IT JP KR LU MC NL PT SE

27) Family number: 57796241 (US2014336954A)

© PatBase

Title: CALCULATING FATIGUE AND FATIGUE FAILURE OF STRUCTURES

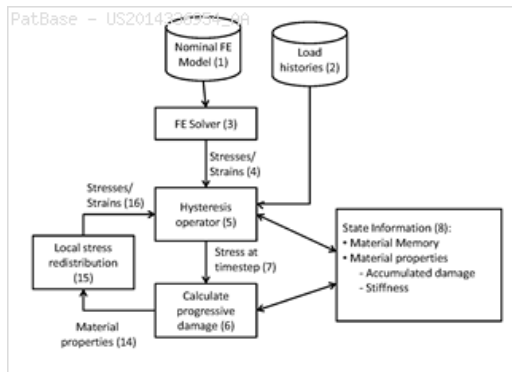
Abstract: The durability performance of a structure is virtually predicted, enabling the optimization of the durability performance. In a first act, the structure is modeled by a series of calculation points. Then, for each point, the stresses and strains brought by load cycles and defining hysteresis branches are determined. Then, an accumulated damage due to the load cycles is predicted and stored. For the prediction, first, using a hysteresis operator, a change in the stress along a portion of a hysteresis branch is calculated as a function of a change in the load in time, and, second, using the change in the stress and the stored accumulated damage, a change in the damage is calculated. Hence, also a change in the properties, including the stiffness, of the structure is calculated. Then, a further change in the stresses and strains is calculated on the basis of the change in these properties to determine a new adapted hysteresis branch. Then, a further change in the stress along a further portion of the adapted hysteresis branch is calculated as a function of a further change in the load in time. At the end of the process, the structure is manufactured accordingly.

Classifications:

International (IPC 8-9): G01L5/00 G01M5/00 G06F17/50
G06F19/00 (Advanced/Invention)

CPC: G01L5/00 G01M5/00

US: 702/34



Family:

Publication number	Publication date	Application number	Application date
CN104217094 A	20141217	CN201410201290	20140513
CN104217094 B	20190219	CN201410201290	20140513
EP2803968 A1	20141119	EP20130167410	20130513
EP2803968 B1	20190508	EP20130167410	20130513
US2014336954 AA	20141113	US20140273781	20140509

Priority:

EP20130167410 20130513

Probable Assignee: SIEMENS IND SOFTWARE NV

Assignee(s): (std): BRUYNEEL MICHAEL ; DONDEERS STIJN ; HACK MICHAEL ; LIEFOOGHE CHRISTOPHE ; NUHN PETER ; STRAESSER STEFAN ; SIEMENS IND SOFTWARE NV ; LMS INT NV

Assignee(s): SIEMENS AG

Inventor(s): (std): NUHN PETER ; DONDEERS STIJN ; LIEFOOGHE CHRISTOPHE ; BRUYNEEL MICHAEL ; STRAESSER STEFAN ; HACK MICHAEL ; MICHAEL HACK ; CHRISTOPHE LIEFOOGHE ; STIJN DONDEERS ; STEFAN STRAESSER ; MICHAEL BRUYNEEL ; PETER NUHN

Agent(s): MAIER DANIEL OLIVER

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

28) Family number: 60921243 (CN105092398A)

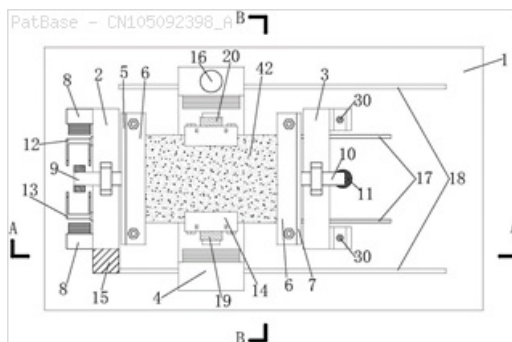
© PatBase

Title: ASPHALT CONCRETE ELECTROMAGNETIC TYPE MULTIAXIAL FATIGUE TESTING MACHINE

Abstract: The invention discloses an asphalt concrete electromagnetic type multiaxial fatigue testing machine including an asphalt concrete specimen clamping mechanism and an electromagnetic loading mechanism on a machine frame, wherein the clamping mechanism can be mounted on the machine frame in a turnover mode and includes a first specimen clamp and a second specimen clamp for clamping two ends of an asphalt concrete specimen respectively, and a rotary shaft is perpendicular to the axial direction of the asphalt concrete specimen; the electromagnetic loading mechanism includes an axial loading device, a bending loading device and a torsion loading device. An electromagnetic principle is adopted for loading, different loading modes can be selected according to actual stress needs of the specimen, and uniaxial or multiaxial fatigue tests of the specimen are carried out. At the same time, the actual test temperature can be controlled according to asphalt concrete characteristics and test requirements.

Classifications:

International (IPC 8-9): G01N3/38 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN105092398 A	20151125	CN201510379897	20150701
CN105092398 B	20170815	CN201510379897	20150701

Priority:

CN201510379897 20150701

Probable Assignee: UNIV HOHAI

Assignee(s): (std): HOHAI UNIV ; UNIV HOHAI

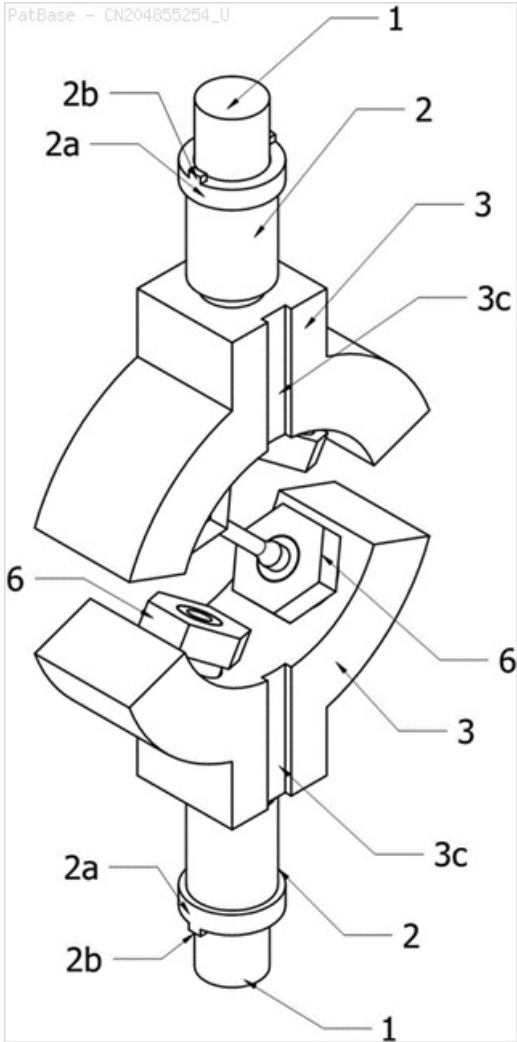
Inventor(s): (std): FU ZHONGQIU ; ZHOU AO ; XIE FAXIANG ; YE LEI ; CHEN LIN ; KONG XIANGMING ; JI BOHAI

29) Family number: 60705248 (CN204855254U)

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Abstract: The utility model provides a high all fatigue testing machine's multiaxis fatigue test anchor clamps, includes the relative two anchor clamps body, and the exposed core at each anchor clamps body rear portion comprises with the sleeve of extending the main shaft of extending, and the inside internal thread that is equipped with of the telescopic front end of extending is with the matching the external screw at the connecting axle rear portion of arc anchor clamps rear ends, the interior concave surface of arc anchor clamps front end is equipped with a plurality of locking device that are different angles with the vertical direction, and locking device's structure is: be equipped with the boss of taking the blind hole on the interior concave surface of arc anchor clamps, in the blind hole was placed in to the conduction cushion, the sample connecting block covered the conduction cushion, and the spacing groove on its spacing tooth and the boss mesa coordinates, it has and locks the annular groove that covers the lateral wall adaptation to open around the boss, and locking covers the sample connecting block, and the locking lid passes through threaded connection on the boss, and locking covers to open there is the through - hole, is equipped with internal thread through hole on the sample connecting block. These anchor clamps are on probation with the high all fatigue testing machine cooperation of unipolar, can carry out height week, the research of multiaxial fatigue test to the sample.

Classifications:
International (IPC 8-9): G01N3/04 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN105021452 A	20151104	CN201510460569	20150730
CN105021452 B	20170804	CN201510460569	20150730
CN204855254 U	20151209	CN201520564103U	20150730

Priority:

CN201510460569 20150730 CN201520564103U 20150730

Probable Assignee: UNIV JIAOTONG SOUTHWEST
Assignee(s): (std): SOUTHWEST JIAOTONG UNIV ; UNIV JIAOTONG SOUTHWEST
Inventor(s): (std): DAI GUANGZE ; ZHANG QINGSONG ; ZHU ZHENYU

30) Family number: 12610260 (US5528942A) © PatBase

Title: Apparatus for maximizing critical buckling loads for compression testing

Abstract: Attempts to determine compression properties of materials from specimens having a thin cross-section or even specimens that have relatively large cross-sections and correspondingly large slenderness ratios, i.e., length-to cross-sectional-thicknesses, are thwarted, because failure will occur due to Euler buckling prior to the realization of the objective. The same problem exists when testing columns of various cross-sections and thin-walled cylinders as structural components, depending upon their slenderness ratios, or in situ specimens cut out of thin structural components. This invention presents an improved, but simple way to increase the critical buckling force while mechanically testing in compression laboratory specimens, in situ test specimens taken from structural components, or even structural components having large slenderness ratios. The invention allows the true compression load to be fully developed within the test piece such that the compression properties of the test material can be determined without buckling. This device can be operated at cryogenic, ambient, or elevated temperatures. The invention utilizes a hollow cylinder, termed a bending moment absorber, which is fitted and fixed to the ends of the test specimen. The test specimen can be a dumbbell type, a thin coupon, a thin hollow cylinder, or in situ a

specimens cut out of structural components. The test piece can be either pinned or threaded and/or bonded at its ends to the bending moment absorber. The sample can be rectangularly-shaped or have a square-shaped cross-section, wherein semi-circular spacers, with appropriate cut-outs to fit and accommodate the particular cross-sections, which are employed at each end and pinned or threaded and/or bonded between the specimen and the bending moment absorber. These assemblies, in turn are clamped at each end by commercially available hydraulically-operated grips within the load train. The combined cross-sections of the hollow cylinder and the specimen act in concert so as to markedly increase the moment of inertia of the system and will result in a corresponding increase in the critical buckling load.

Classifications:

International (IPC 8-9): G01N3/02 G01N3/08 (Advanced/Invention);
G01N3/00 (Advanced/Non-invention);
G01N3/00 G01N3/08 (Core/Invention)

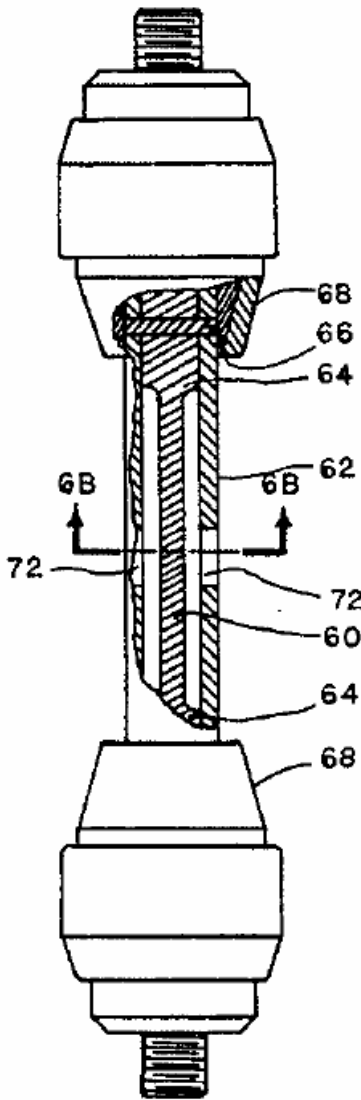
International (IPC 1-7): G01N3/02

CPC: G01N3/02 G01N3/08 G01N2203/0019 G01N2203/0226

European: G01N3/02 G01N3/08 S01N203/00F1B S01N203/02E1H
S01N3/00F1B

US: 73/818 73/856

PatBase - US5528942_A



Family:

Publication number	Publication date	Application number	Application date
US5528942 A	19960625	US19950490054	19950613

Priority:

US19950490054 19950613

Probable Assignee:

BARATTA FRANCIS I

Assignee(s):

BARATTA FRANCIS I

Inventor(s): (std):

BARATTA FRANCIS I

31) Family number: 9476268 (EP0577512A1)

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Title: Method and apparatus for determining the fatigue limit of a material.

Abstract: The present invention relates to a method and a device for determining the fatigue limit of at least one region (11) of a solid element (3) subjected to repeated stresses over time. According to this method and this device, the said solid element (3) is successively subjected to several series of (n) stresses of different defined strain levels, the variation in temperature (DELTA T) undergone by the said region (11) during each of the series of (n) stresses is measured, the said variation in temperature (DELTA T) is expressed as a function of the said strain level to which the solid element (3) has been subjected, and the strain level, or fatigue limit, of the said region (11), corresponding to any sharp variation in the said variation in temperature (DELTA T), is determined.

Classifications:

International (IPC 8-9): G01N3/32 (Advanced/Invention);
G01N3/00 G01N3/06 (Advanced/Non-invention);
G01N3/32 (Core/Invention);
G01N3/00 (Core/Non-invention)

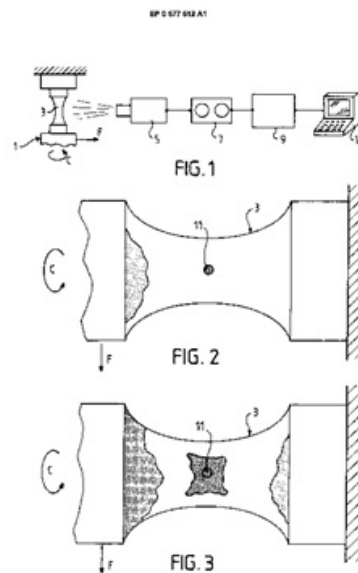
International (IPC 1-7): G01L1/24 G01N3/20 G01N3/32

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G01N2203/0694

European: G01N3/32 S01N203/00F2 S01N203/02E1 S01N203/06E1
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PatBase - EP0577512_R1



Family:

Publication number	Publication date	Application number	Application date
EP0577512 A1	19940105	EP19930401700	19930630
FR2692988 A1	19931231	FR19920008040	19920630
FR2692988 B1	19970307	FR19920008040	19920630

Priority:

FR19920008040 19920630

Probable Assignee: ARMINES

Assignee(s): (std): ARMINES

Assignee(s): ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT ; ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS ARMINES

Inventor(s): (std): KY DANG VAN ; VAN KY DANG ; PHONG LUONG MINH

Inventor(s): LUONG MINH PHONG ; DANG VAN KY

Designated states: AT BE DE ES GB IT NL SE

32) Family number: 65330280 (US2017232300A)

© PatBase

Title: SMART DEVICE

Abstract: An Internet of Thing (IoT) device includes a camera coupled to a processor; and a wireless transceiver coupled to the processor. Blockchain smart contracts can be used with the device to facilitate secure operation.

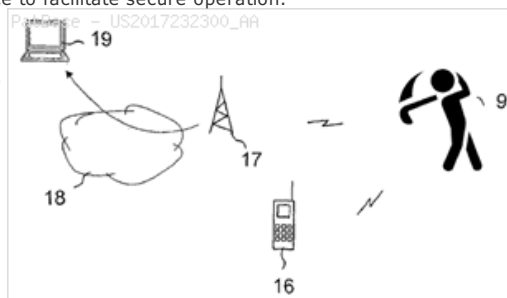
Classifications:

International (IPC 8-9): A42B3/04 A61B5/00 A61B5/0205
A61B5/0404 A61B5/11 A63B24/00 A63B43/00 A63B60/46
A63B69/36 A63B69/38 A63B71/00 A63B71/06 A63B71/14 A63F11/00
A63F13/00 A63F13/211 A63F13/212 B33Y10/00 B33Y80/00
B60Q1/00 G01L5/00 G01L5/10 G01L5/22 G01M17/02 G01M17/06
G01N29/00 G01N29/14 G01N29/44 G01P15/08 G01P15/18 G06F1/16
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G06K9/00 G06K9/78 G06N5/04 G06N99/00 G06Q20/36 G06Q20/40
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CPC: A63B2230/04 A63B2230/50 A63B24/0006 A63B2208/0204 A63B24/0021 H04B1/38 G06K9/6277 H04N7/185 G01P15/18
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H04L9/3236 H04L9/3247 H04L2209/38 H04L2209/56 G01N2291/02483 G01N29/00 G06K9/00496 G06N20/00 G06F19/00 G06F1/163 G09B19/0038 G06Q10/08 G06Q30/0241 G06Q30/06 A61B5/112 A61B5/6804 G16H10/40 G16H15/00 G16H40/20 G16H70/40 A63B21/0724 A63B60/16 A63B71/085 A42B3/0433 A42B3/046 A61B5/0205 A61B5/681 A61B5/6895 A63B43/004 A63B60/46 A63B69/38 A63B71/06 A63F13/211 G01N29/14 G01N29/4436 G01N2291/0258 G01N2291/044 G06F3/017 G06K9/00355 G09B19/003 G16H50/20 H04B1/04 H04L67/10 H04N5/2257 H04N7/18 H04Q9/00 H04Q2209/40 H04W4/027 H04W4/38 G06Q20/02 G06Q20/382 H04N5/232 H04N5/247 G06K9/00 G16H10/60 G16H80/00 G16H50/30 G16H50/50 G16H50/70
US: 340/870.07 700/91

Family:

Publication number	Publication date	Application number	Application date
US2017232300 AA	20170817	US20170586199	20170503
US2017312578 AA	20171102	US20170626087	20170617
US2017312614 AA	20171102	US20170626099	20170617
US2017318360 AA	20171102	US20170624014	20170615
US2018001183 AA	20180104	US20170407255	20170117
US2018001184 AA	20180104	US20170624927	20170616
US2018078843 AA	20180322	US20170807138	20171108
US2018117446 AA	20180503	US20170594214	20170512
US2018117447 AA	20180503	US20170594311	20170512
US2018133583 AA	20180517	US20170821718	20171122
US2018264347 AA	20180920	US20180973524	20180507
US2018288586 AA	20181004	US20180990550	20180525
US2018326291 AA	20181115	US20180989484	20180525
US2019191284 AA	20190620	US20180207154	20181202
US9610476 BA	20170404	US20160144773	20160502
US9713756 BA	20170725	US20170407253	20170117
US9717949 BA	20170801	US20170407248	20170116
US9717958 BA	20170801	US20170407257	20170117
US9849364 BB	20171226	US20170586199	20170503
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US10022613 BB	20180717	US20170594311	20170512
US10022614 BA	20180717	US20170612808	20170602
US10034066 BB	20180724	US20170624014	20170615
US10046228 BB	20180814	US20170594214	20170512
US10046229 BB	20180814	US20170626099	20170617
US10052519 BB	20180821	US20170626087	20170617
US10195513 BB	20190205	US20180989484	20180525
US10200834 BB	20190205	US20170821718	20171122
US10252145 BB	20190409	US20170624927	20170616

Priority:

US20160013957 20160202	US20160144773 20160502	US20170407248 20170116
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US20170586199 20170503	US20170594214 20170512	US20170594311 20170512
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US20180989484 20180525	US20180207154 20181202	

Probable Assignee: TRAN BAO
Assignee(s): (std): TRAN BAO
Assignee(s): TRAN HA
Inventor(s): (std): TRAN HA ; TRAN BAO
Agent(s): TRAN AND ASSOCIATES

33) Family number: 12300289 (EP0684465A2)

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Title: PROCEDURE FOR COMPRESSING MEASURED MULTIDIRECTIONAL LOAD-TIME FUNCTIONS, IN PARTICULAR FOR EVALUATING THE VIBRATION RESISTANCE OF STRUCTURES.

Abstract: The gathering of load-time functions involves resulting stress-time functions of single axis component part stresses, which are computed from the measured multi-axes loading time functions. Each reversal point in the time functions of the single axis component part stresses is determined, which are associated with the non-damaging vibrational play. All the remaining damage relevant reversal points in the time functions of the component part stresses are marked. All the reversal points and the transients of the load-time functions are marked, which simultaneously occur with the reversal points damage relevant marked in all the computed time functions of the component part stresses. The load-time functions are reduced exclusively on these reversal points. The gathered load-time functions are computed, by computing the transition functions between the support points, and taking into consideration the rated output power values of the test machine, namely the limiting values of the speed, the acceleration and the frequency.

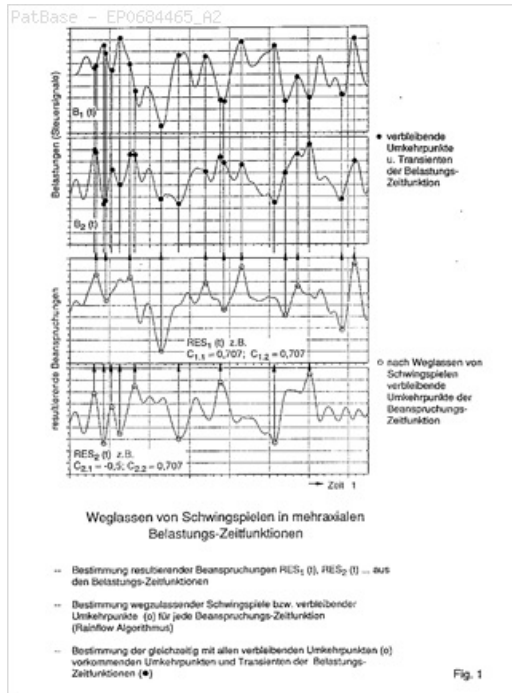
Classifications:

International (IPC 8-9): G01M7/02 (Advanced/Invention);
G01M7/00 (Core/Invention)

International (IPC 1-7): G01M7/02

CPC: G01M7/025

European: G01M7/02D



Family:

Publication number	Publication date	Application number	Application date
DE4418599 A1	19951207	DE19944418599	19940527
DE59507862 D1	20000406	DE19955007862	19950509
EP0684465 A2	19951129	EP19950106972	19950509
EP0684465 A3	19970305	EP19950106972	19950509
EP0684465 B1	20000301	EP19950106972	19950509

Priority:

DE19944418599 19940527 DE19955007862 19950509

Probable Assignee: FRAUNHOFER GES

Assignee(s): (std): FRAUNHOFER GES ; FRAUNHOFER GES FORSCHUNG

Assignee(s): FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E V ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E V 80636 MUENCHEN DE

Inventor(s): (std): SCHUETZ DR ING ; SCHUETZ DIETER DR ING ; KLAETSCHKE HARTMUT

Inventor(s): SCHUETZ DIETER DR ING 64354 REINHEIM DE ; KLAETSCHKE HARTMUT 64380 ROSDORF DE

Designated states: DE FR GB IT NL SE

34) Family number: 60617292 (US2017356831A)

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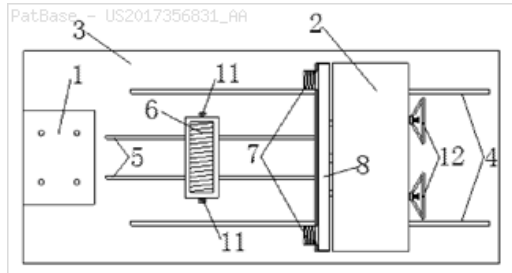
Title: ELECTROMAGNETIC MULTIAXIAL FATIGUE TESTING MACHINE

Abstract: An electromagnetic multiaxial fatigue testing machine includes a test piece fixing platform and an electromagnet loading mechanism arranged on a frame, wherein the electromagnet loading mechanism includes a first loading device for bend loading, and a second loading device for axial and torsional loading. The first loading device includes a first permanent magnet and a first electromagnet with a direction of a magnetic force generated therebetween is orthogonal to an axial direction of a test piece; the second loading device includes a second permanent magnet and a second electromagnet directed on a swinging pair with a direction of a magnetic force generated therebetween is parallel to the axial direction of the test piece.

Classifications:

International (IPC 8-9): G01N3/04 G01N3/20 G01N3/26 G01N3/38 (Advanced/Invention)

CPC: G01N3/04 G01N3/20 G01N3/26 G01N3/62 G01N2203/0005 G01N2203/0021 G01N2203/0026 G01N2203/0037 G01N2203/0423 G01N2203/0023 G01N3/38 G01N2203/005 G01N2203/0073



Family:

Publication number	Publication date	Application number	Application date
AU2015400946 AA	20170518	AU20150400946	20150921
AU2015400946 BB	20180621	AU20150400946	20150921
CN104990820 A	20151021	CN201510379770	20150701
CN104990820 B	20170718	CN201510379770	20150701
DE602015021721 D1	20190103	DE201560021721T	20150921
EP3182091 A1	20170621	EP20150896925	20150921

EP3182091 A4	20170823	EP20150896925	20150921
EP3182091 B1	20181212	EP20150896925	20150921
JP2017534061 T2	20171116	JP20170525558T	20150921
JP6343098 B2	20180613	JP20170525558T	20150921
KR101941536 B1	20190412	KR20177012601	20150921
KR20170070121 A	20170621	KR20177012601	20150921
US2017356831 AA	20171214	US20150523952	20150921
US10018544 BB	20180710	US20150523952	20150921
WO17000395 A1	20170105	WO2015CN090134	20150921

Priority:

CN201510379770 20150701 EP20150896925 20150921 WO2015CN090134 20150921

Probable Assignee: HOHAI UNIV

Assignee(s): (std): HOHAI UNIV ; UNIV HOHAI

Assignee(s): HOHAI UNIV NANJING

Inventor(s): (std): FU ZHONGQIU ; XIE FAXIANG ; JI BOHAI ; CHEN LIN

Agent(s): SHELSTON IP PTY LTD; WALSH MARIE GORETTI; HANNA MOORE AND CURLEY; RANKIN HILL AND CLARK LLP; NANJING SUGAO PATENT AND TRADEMARK FIRM ORDINARY PARTNERSHIP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

35) Family number: 66228302 (US2019170607A)

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Title: DUAL-CRITERION DIAGRAM METHODS FOR DESIGNING AND ASSESSING THE LIFE AND STRENGTH OF HIGH-TEMPERATURE ROTATING COMPONENTS

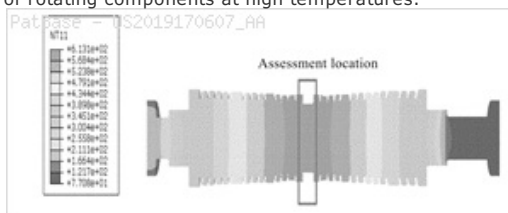
Abstract: The disclosure relates to a dual-criterion diagram for designing and assessing the life and strength of high-temperature rotating components and its establishment. In addition, the disclosure relates to a method for designing and assessing the life and strength of high-temperature rotating components based on the dual-criterion diagram for designing and assessing the life and strength of high-temperature rotating components. The advantages of the disclosure include a simple design and assessment process, high operability, and reliable assessment results. The invention is expected to be applied finally to assessment and evaluation of high-cycle fatigue life of rotating components at high temperatures.

Classifications:

International (IPC 8-9): G01M15/00 G01M15/14 G01M5/00

G01M99/00 G06F17/50 (Advanced/Invention)

CPC: G01M5/0041 G01M15/00 G01M15/14 G01M99/002 G01M99/005 G06F17/5086



Family:

Publication number	Publication date	Application number	Application date
CN106908206 A	20170630	CN201710169339	20170321
CN106908206 B	20180525	CN201710169339	20170321
US2019170607 AA	20190606	US20180236399	20181229
WO18171096 A1	20180927	WO2017CN094593	20170727

Priority:

CN201710169339 20170321 WO2017CN094593 20170727 US20180236399 20181229

Probable Assignee: UNIV EAST CHINA SCIENCE AND TECH

Assignee(s): (std): EAST CHINA UNIV OF SCIENCE AND TECHNOLOGY ; UNIV EAST CHINA SCIENCE AND TECH

Inventor(s): (std): GONG JIANGUO ; ZHANG WEICHANG ; XUAN FUZHEN ; ZHU MINGLIANG ; TU SHANDONG

Agent(s): SHANGHAI PATENT AND TRADEMARK LAW OFFICE LLC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

36) Family number: 51335307 (DE102010055354B3)

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Title: METHOD FOR CHECKING ADHESIVE COMPONENTS IN POWERTRAIN OF MOTOR CAR FOR E.G. DETERMINATION OF LONG-TERM BEHAVIOR, INVOLVES SUBJECTING TEST SPECIMEN TO CORROSION TEST DURING PREDETERMINED TEST PERIOD IN CORROSION TEST FACILITY

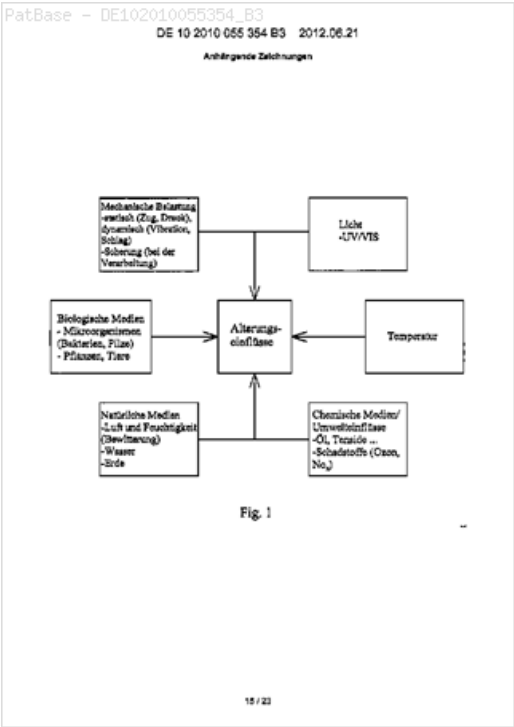
Abstract: The method involves arranging a test specimen in a test specimen packet (11). The packet of a test specimen arrangement (12) is exposed by an electrodynamic vibration exciter of dynamic alternating stress and in an air chamber of external temperature changing in the range from -40 degree to 150 degree, where the air chamber is coupled with the vibration exciter. The test specimen is subjected to a corrosion test during a predetermined test period in a corrosion test facility, where the test facility is separated from the air chamber. An independent claim is also included for a system for checking adhesive components in an automotive-region powertrain for determination of long-term behavior and estimation of service life.

Classifications:

International (IPC 8-9): G01M17/00 G01M99/00 G01N17/00

G01N19/04 (Advanced/Invention)

CPC: G01M99/007 G01M7/027 G01M99/002 G01N17/002



Family:

Publication number	Publication date	Application number	Application date
DE102010055354 B3	20120621	DE201010055354	20101220

Priority:

DE201010055354 20101220

Probable Assignee: INPRO INNOVATIONS GMBH

Assignee(s): (std): INPRO INNOVATIONS GMBH

Assignee(s): INPRO INNOVATIONSGESELLSCHAFT F FORTGESCHRITTENE PRODUKTIONSSYSTEME IN DER FAHRZEUGINDUSTRIE MBH ; INPRO INNOVATIONSGESELLSCHAFT FUER FORTGESCHRITTENE PRODUKTIONSSYSTEME IN DER FAHRZEUGINDUSTRIE MBH

Inventor(s): (std): GLEICH HENNING ; HOYER OLAF ; JAEGER MATTHIAS ; KAYA OEZDEN ; MINKOW MICHAEL ; SCHULENBURG MATTHIAS

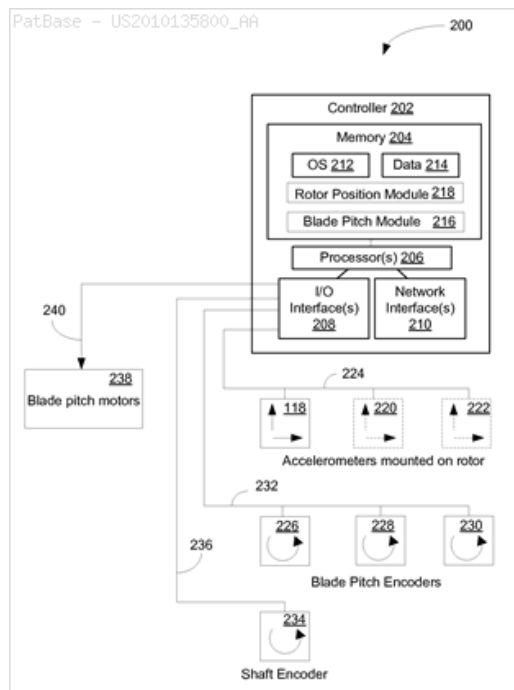
37) Family number: 45103312 (US2010135800A) © PatBase

Title: SYSTEMS AND METHODS FOR DETERMINING THE ANGULAR POSITION OF A WIND TURBINE ROTOR

Abstract: Certain embodiments of the invention may include systems and methods for determining an angular position of a wind turbine rotor. According to an exemplary embodiment of the invention, the method for determining an angular position of a wind turbine may include measuring tangential acceleration and radial acceleration of the rotor, measuring speed of the rotor, determining rotational tangential acceleration of the rotor based at least in part on the change of rotor speed over time, determining rotational radial acceleration based at least in part on the rotor speed, adjusting the measured tangential acceleration based at least in part on the determined rotational tangential acceleration, adjusting the measured radial acceleration based at least in part on the determined rotational radial acceleration, and determining an angular position of the rotor based at least on the adjusted tangential acceleration and the adjusted radial acceleration.

Classifications:

International (IPC 8-9): F03D F03D3/06 F03D7/00 F03D7/02
G01B21/22 G06F15/00 (Advanced/Invention);
F03D7/00 G01B21/22 G06F15/00 (Core/Invention)
CPC: G01P15/165 F03D7/02 F05B2270/326 F05B2270/327
F05B2270/807 G01D1/16 G01P3/22 G01P3/48 G01P15/18
G01P21/02 Y02E10/723 F03D17/00
European: F03D11/00J F03D7/02 G01D1/16 G01P15/16B
G01P15/18 G01P21/02 G01P3/22 G01P3/48 R05B270/326
R05B270/327 R05B270/807 Y02E10/72F
US: 416/44 416/44P 416/61 702/151 702/151S



Family:

Publication number	Publication date	Application number	Application date
CN102052911 A	20110511	CN201010539356	20101029
CN102052911 B	20150429	CN201010539356	20101029
DE602010004301 D1	20130228	DE201060004301T	20101025
DK2317132 T3	20130211	DK20100188679T	20101025
EP2317132 A2	20110504	EP20100188679	20101025
EP2317132 A3	20110720	EP20100188679	20101025
EP2317132 B1	20121226	EP20100188679	20101025
ES2399188 T3	20130326	ES20100188679T	20101025
IN02462DE2010 A	20131004	IN2010DE02462	20101015
US2010135800 AA	20100603	US20090608343	20091029
US7972112 BB	20110705	US20090608343	20091029

Priority:

US20090608343 20091029 EP20100188679 20101025

Probable Assignee: GENERAL ELECTRIC CO

Assignee(s): (std): GEN ELECTRIC

Assignee(s): GENERAL ELECTRIC CO ; GENERAL ELECTRIC CO SCHENECTADY ; GENERAL ELECTRIC COMPANY

Inventor(s): (std): MELIUS JEFFREY ALAN ; ALAN MELIUS JEFFREY

Inventor(s): MELIUS JEFFREY ALAN SALEM

Agent(s): RUEGER BARTHELT AND ABEL; BEDFORD GRANT RICHARD; CARPINTERO MARIO; SUTHERLAND ASBILL AND BRENNAN LLP

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

38) Family number: 64813327 (US2017031159A)

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Title: ELECTRONIC OPHTHALMIC LENS WITH EYE CLOSED SENSOR WITH OPEN EYE PROMPT AND DATA LOGGING

Abstract: An eyelid position sensor system for an ophthalmic lens comprising an electronic system is described herein for determining at least one of drowsiness or sleep onset of the wearer. The eyelid position sensor system is part of an electronic system incorporated into the ophthalmic lens. The electronic system in at least one embodiment includes a power source, power management circuitry, one or more sensors, clock generation circuitry, control algorithms and circuitry, and an alert mechanism. The eyelid position sensor system is utilized to determine eyelid position and use this information to determine if the wearer is asleep or awake.

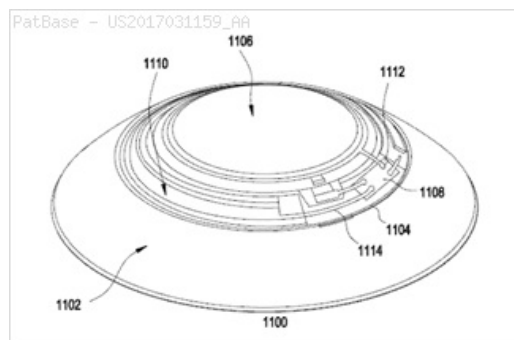
Classifications:

International (IPC 8-9): A01B A61B3/10 A61B3/113 A61B5/00 A61B5/103 A61B5/11 A61B5/16 A61B5/18 A61B5/22 A61F A61F2/14 A61F2/16 A61F9/00 A61M21/00 B06B1/06 G01J1/44 G02B1/04 G02B27/00 G02C G02C11/00 G02C13/00 G02C7/02 G02C7/04 G02C7/08 G06F3/01 G08B21/06 H03K19/00 H04L29/02 (Advanced/Invention);

A01B (Subclass/Invention)

CPC: G02B27/0093 G02C11/10 G08B21/06 A61F2250/008 A61F2250/0091 B06B1/06 G01J1/44 G02B1/043 G02C7/048 G02C7/083 A61F2/16 G02C7/04 A61B5/11 A61B5/1103 A61B5/1126 A61B5/6803 A61B5/6847 A61B5/7225 A61B5/746 A61B2503/20 A61B2503/22 A61M21/00 A61M2021/0005 A61M2205/18 A61M2210/0612 A61M2230/63 A61B3/10 A61B5/18 A61B5/4809 A61B5/6821 A61F2/1613 A61F2002/1699

US: 623/6.11



Family:

Publication number	Publication date	Application number	Application date
AU2016204159 AA	20170216	AU20160204159	20160620
BR102016017310 A2	20170131	BR20161017310	20160726
CA2937189 AA	20170128	CA20162937189	20160726
CN106388770 A	20170215	CN201610605511	20160728
EP3125021 A1	20170201	EP20160181383	20160727
HK1233332 A1	20180126	HK20170106940	20170711
IL246343 A0	20161130	IL20160246343	20160620
JP2017040913 A2	20170223	JP20160147059	20160727
KR20170013830 A	20170207	KR20160094647	20160726
RU2016130841 A	20180201	RU20160130841	20160727
SG10201605199T A1	20170227	SG20161005199	20160623
TW201720118 A	20170601	TW20160123529	20160726
US2017031159 AA	20170202	US20150810669	20150728
US2019018237 AA	20190117	US20180124178	20180906
US10101581 BB	20181016	US20150810669	20150728

Priority:

US20150810669 20150728 KR20160094647 20160726 JP20160147059 20160727
US20180124178 20180906

Probable Assignee: JOHNSON AND JOHNSON VISION CARE INC

Assignee(s): (std): JOHNSON AND JOHNSON VISION CARE ; JOHNSON AND JOHNSON VISION CARE INC ; JOHNSON AND JOHNSON VISION CARE TRADING CO LTD

Assignee(s): PUGH RANDALL B ; TONER ADAM

Inventor(s): (std): ADAM TONER ; RANDALL B PUGH ; TONER ADAM ; PUGH RANDALL B

Agent(s): FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; NORTON ROSE FULBRIGHT CANADA LLP
SENCRL SRL; CARPMAELS AND RANSFORD LLP; DEACONS; KATO MASANOBU; DREW AND NAPIER LLC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO
PL PT RO RS SE SI SK SM TR

39) Family number: 43435333 (US2010332153A)

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Title: METHOD OF DETERMINING FATIGUE LIFE AND REMAINING LIFE

Abstract: The present invention concerns a method of calculating the expected life of a hardened metal object in relation to a number of fatigue load cycles exerted on the hardened metal object. The method comprises determining the development of microstructural deterioration as a function of fatigue exposure time, deriving therefrom an equation for the development of a Fatigue Damage Index as a function of fatigue exposure time and relating this equation to a known critical value of the Fatigue Damage Index that leads to material failure. The present invention also provides a method of calculating the remaining life of a hardened metal object subjected to fatigue loading.

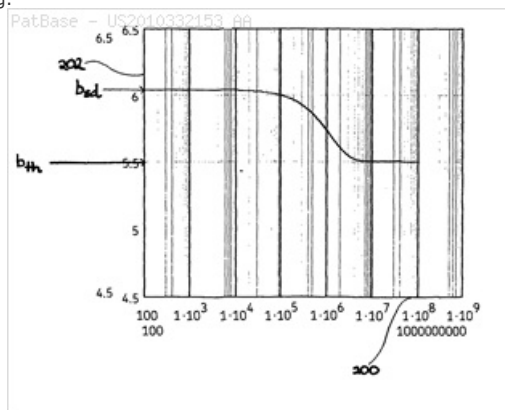
Classifications:

International (IPC 8-9): F16C19/00 G01M13/04 G01N23/20
G01N3/24 G06F17/10 (Advanced/Invention);

F16C19/00 G01M13/00 G01N23/20 G06F17/10 (Core/Invention)
CPC: G01N23/20 F16C33/64

European: F16C33/64 G01N23/20

US: 702/42 702/42P



Family:

Publication number	Publication date	Application number	Application date
EP2223089 A1	20100901	EP20070856735	20071214
US2010332153 AA	20101230	US20070808154	20071214
WO09076972 A1	20090625	WO2007EP10995	20071214

Priority:

WO2007EP10995 20071214

Probable Assignee: SKF AB

Assignee(s): (std): SKF AB ; SLYCKE JAN TURE ; VEGTER REINDER HINDRIK

Assignee(s): AB SKF

Inventor(s): (std): VEGTER REINDER HINDRIK ; SLYCKE JAN TURE

Agent(s): BUROE SVEN PETER; SKF USA INC; BUERO SVEN PETER

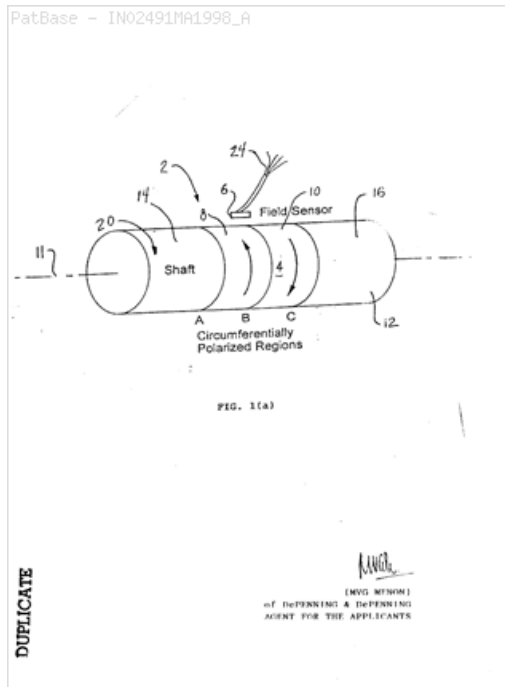
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IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW
MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ
TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: A magnetoelastic torque sensor and a method of sensing a torque

Abstract: A magneto elastic torque sensor for providing an output signal indicative of the torque applied to a member about an axially extending axis of the member, comprising, a member which is unitary and of generally homogeneous chemical composition, the member comprising separate magnetically active and magnetically substantially passive regions. A first magneto elastically active region in the member is magnetically polarized in a single circumferential direction and possesses sufficient magnetic anisotropy to return the magnetization in the region, following the application of torque to the member, to the single circumferential direction when the applied torque is reduced to zero, whereby the magneto elastically active region produces a magnetic field varying with the torque. Magnetic field sensors are mounted proximate to the magneto elastically active region and oriented with respect thereto to sense the magnitude of the magnetic field at the sensors and provide the output signal in response thereto. The magneto elastically active region of the member is formed of a polycrystalline material wherein at least 50 percent of the distribution of local magnetizations lie within a 90 degree quadrant symmetrically disposed around the single circular direction and has a coercivity sufficiently high to prevent irreversible loss of the magnitude of the circumferential polarization.

Classifications:

International (IPC 1-7): G01L03/02



Family:

Publication number	Publication date	Application number	Application date
IN02491MA1998 A	20050722	IN1998MA02491	19981115

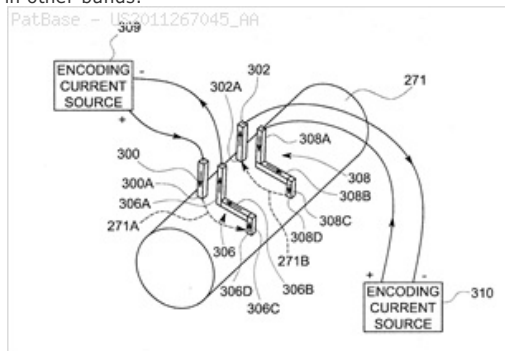
Probable Assignee: MAGNA LASTIC DEVICES INC
Assignee(s): MAGNA LASTIC DEVICES INC
Inventor(s): IVAN J GARSHELIS

Title: METHOD AND APPARATUS FOR SECTIONAL MAGNETIC ENCODING OF A SHAFT AND FOR MEASURING ROTATIONAL ANGLE, ROTATIONAL SPEED AND TORQUE

Abstract: Magnetically encoded shafts for use in detecting forces exerted on the shaft during operation. Magnetically encoded regions arranged in tracks or bands, encircle the shaft and are formed within or affixed to the shaft. The magnetically encoded regions define force-sensitive regions therebetween. Magnetic fields surround the force-sensitive regions and are altered by force vectors passing through the force sensitive region. These magnetic fields are sensed by magnetic field sensors to determine various shaft parameters including, for example: shaft rotational speed, shaft rotational position, and forces exerted on the shaft, e.g., torque, bending forces, stress forces and strain forces. To provide continuous detection of shaft operational parameters and forces, dead zones between magnetically encoded regions are aligned with force sensitive regions associated with magnetically encoded regions in other bands.

Classifications:

International (IPC 8-9): G01B7/30 G01D5/14 G01D5/244
 G01D5/245 G01L1/00 G01L1/12 G01L3/10 G01L5/16 G01P3/487
 G01R33/00 G01R33/18 H01J (Advanced/Invention)
CPC: G01L3/103 G01L3/104 G01D5/145 G01L5/16 G01P3/487
 G01R33/18 G01L1/125
European: G01D5/14B1 G01L1/12 G01L3/10A4 G01L5/16
 G01P3/487 G01R33/18
US: 324/173 324/173S 324/174 324/207.2 324/207.21 324/207.25
 324/207.250P 324/226 324/226S 73/779 73/779S 73/862.325
 73/862.325S 73/862.625 73/862.625S



Family:

Publication number	Publication date	Application number	Application date
CN102538836 A	20120704	CN201110344963	20111028

CN102538836 B	20170412	CN201110344963	20111028
EP2447690 A2	20120502	EP20110185414	20111017
EP2447690 A3	20121212	EP20110185414	20111017
IN02723DE2011 A	20130104	IN2011DE02723	20110920
US2011267045 AA	20111103	US20100914322	20101028
US8203334 BB	20120619	US20100914322	20101028

Priority:

US20100914322 20101028

Probable Assignee: GENERAL ELECTRIC CO

Assignee(s): (std): BALLER MARKO ; GEN ELECTRIC ; SIHLER CHRISTOF

Assignee(s): GENERAL ELECTRIC CO ; GENERAL ELECTRIC COMPANY

Inventor(s): (std): MARKO BALLER ; CHRISTOF SIHLER ; BALLER MARKO ; SIHLER CHRISTOF

Agent(s): BEDFORD GRANT RICHARD; ANN M

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

42) Family number: 69994359 (WO18104030A1)

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Title: GRIPPER FOR TEST SAMPLES, POSITIONING DEVICE FOR RAW SAMPLES, HANDLING SYSTEM FOR RAW SAMPLES AND TEST SAMPLES, AND TEST SYSTEM FOR VISCOELASTIC MATERIALS

Abstract: The invention relates to a skewer-type gripper (6) for gripping one end of a test sample (3) that consists of a viscoelastic material and has an upper face (3a) and an edge region (3b). The gripper has a base (6a) and skewer-type means (7, 7', 7'', 7''') that are arranged therein and can pierce the edge region (3b) of a test sample (3) in parallel to the upper face (3a) thereof and that are designed such that the test sample (3) can be held by the skewer-type means (7, 7', 7'', 7''') in a rotationally fixed manner. The invention further relates to a multifunctional gripper for a robot arm, comprising: a first effector (4) having gripping jaws (5, 5') that can be moved towards each other in pairs and that receive and handle, by moving, positioning and securing, a raw sample (2) prior to and during the punching of the test sample (3); a second effector (6) having a skewer-type gripper (6) according to any of claims 1 to 6 for receiving and handling/transferring test samples (3) after punching; a third effector (13) having suction means for handling by transferring and positioning a test sample (3); and a fourth effector (14) having suction means for handling/transferring a raw sample (2), each of the effectors (4, 6, 13, 14) being arranged and designed such that it can be controlled in terms of its position, its position with respect to the raw sample (2) or the test sample (3), its orientation, contact force and movement. The invention further relates to a device (20) for positioning raw samples (2) and test samples (3), a handling system (1) for viscoelastic raw samples (2) and test samples (3) and an automated test system for material testing of viscoelastic test samples (3).

Classifications:

International (IPC 8-9): B25J15/00 B25J15/02 B25J15/06 B65G11/02 B65G47/88 G01N3/04 G01N3/62 G01N33/44

G01N35/00 (Advanced/Invention)

CPC: B25J15/0071 B25J15/0066 B25J15/0206 B25J15/0616 G01N35/0099 G01N33/442

PatBase - WO18104030_A1

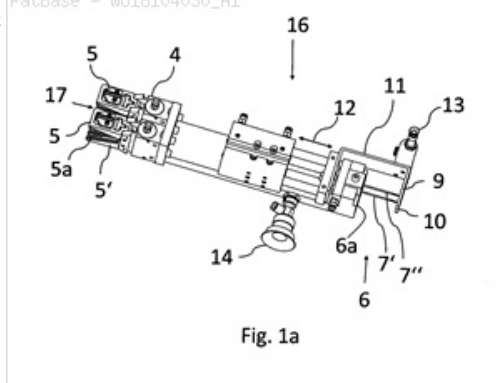


Fig. 1a

Family:

Publication number	Publication date	Application number	Application date
DE102016123585 A1	20180607	DE201610123585	20161206
WO18104030 A1	20180614	WO2017EP79585	20171117

Priority:

DE201610123585 20161206

Probable Assignee: MONTECH SYSTEM SOLUTIONS GMBH

Assignee(s): (std): MONTECH SYSTEM SOLUTIONS GMBH

Inventor(s): (std): BAEUERLEIN RALF

Agent(s): RECHTS U PATENTANWALTE WEBER AND SEIDEL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

43) Family number: 41022364 (US2010299085A)

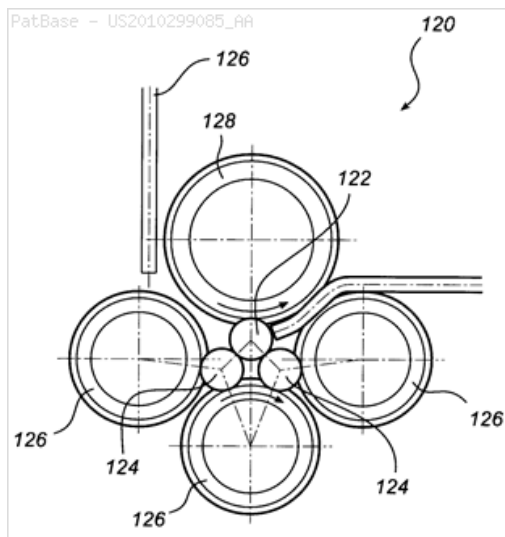
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Title: METHOD FOR INDICATING FATIGUE DAMAGE OF A METAL OBJECT

Abstract: A method for indicating fatigue damage rate of a hardened metal object in relation to load cycles, N, exerted on the hardened metal object, wherein the hardened metal object presents a temperature essentially corresponding to the operating conditions of the hardened metal object is disclosed. It comprises calculating the fatigue rate based on an effective activation energy parameter for the dislocation climb process, Q, shear stress amplitude, T, the absolute local temperature of the hardened metal object, T, and load frequency, f. Methods for indicating fatigue and predicting life of a metal object are disclosed.

Classifications:

International (IPC 8-9): G01L1/00 G01M13/00 G01M13/04
G01N19/08 G01N3/32 G01N33/20 G06F17/00 G06F17/50
G06Q10/04 (Advanced/Invention);
G01M13/00 G06F17/00 G06F17/50 (Core/Invention)
CPC: G06Q10/04 G01M13/04
European: G01M13/04 G06Q10/04
US: 702/42 702/42P 73/760 73/799 73/808 73/808P

**Family:**

Publication number	Publication date	Application number	Application date
AT459871 E	20100315	AT20070764884T	20070627
AT541199 E	20120115	AT20060762236T	20060628
DE602006027028 D1	20120315	DE200660027028T	20060628
DE602007005135 D1	20100415	DE200760005135T	20070627
EP2038630 A1	20090325	EP20070764884	20070627
EP2038630 B1	20100303	EP20070764884	20070627
EP2038632 A1	20090325	EP20060762236	20060628
EP2038632 B1	20120111	EP20060762236	20060628
US2010299085 AA	20101125	US20060308502	20060628
US2011259116 AA	20111027	US20070308501	20070627
US8479587 BB	20130709	US20100308502	20100806
US8839679 BB	20140923	US20070308501	20070627
WO08000285 A1	20080103	WO2006EP06248	20060628
WO08000458 A1	20080103	WO2007EP05682	20070627

Priority:

EP20060762236 20060628 WO2006EP06248 20060628 EP20070764884 20070627
WO2007EP05682 20070627

Probable Assignee: SKF AB

Assignee(s): (std): IOANNIDES EUSTHATIOS ; SKF AB ; SLYCKE JAN TURE

Assignee(s): AB SKF

Inventor(s): (std): IOANNIDES EUSTHATIOS ; SLYCKE JAN TURE ; SLYCKE JAN

Agent(s): KOHL THOMAS DIPL ING UNIV; BUROE SVEN PETER; SKF USA INC; MARK A; BRYAN; SKF USA INC
PATENT DEPARTMENT

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY
CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN
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MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ
TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

44) Family number: 15494421 (US6422083B)

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Title: Tuned energy redistribution system for vibrating systems

Abstract: The tuned energy redistribution system is used to precisely control the amplitude of vibrations in a vibrating system. The vibrating system typically has a resonant frequency or other vibration frequency modes that are either undesirable or of excessive amplitude. The present tuned energy redistribution system functions to redistribute the vibrational energy from these undesirable frequencies to other selected frequencies, such as by spreading the vibration frequencies out over a wide band of frequencies. The tuned energy redistribution comprises vibration input elements and/or vibration shaping elements that collectively function to enable the user to program the frequency and magnitude of the vibrations that are produced by the vibrating system. This energy redistribution is typically accomplished by providing tuned absorbers, consisting of a vibrating mass and a vibration stop, which shape the frequency response of the vibrating system by responding to frequencies mostly near their natural frequency of vibration and then, when the response displacement is sufficient, provide a vibration input by impacting the element in the vibrating system to which they are connected via the vibration stop, causing broad band vibration to be generated by the series of impacts.

Classifications:

International (IPC 8-9): G01M7/02 G01M7/06 (Advanced/Invention);
G01M7/00 (Core/Invention)
International (IPC 1-7): G01M7/00 G01M7/06
CPC: G01M7/022 G01M7/06
European: G01M7/02B G01M7/06
US: 73/1.82 73/182 73/663

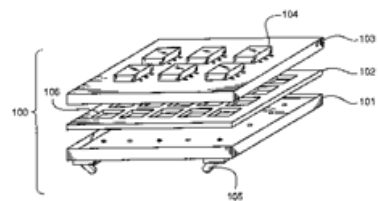


FIG. 1

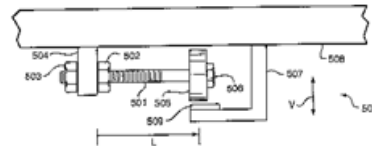


FIG. 2

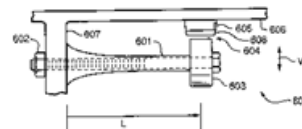


FIG. 3

Family:

Publication number	Publication date	Application number	Application date
EP1136805 A2	20010926	EP20010300403	20010117
EP1136805 A3	20060906	EP20010300403	20010117
US6422083 BA	20020723	US20000536188	20000324
US6502464 BA	20030107	US20000675751	20000929

Priority:

US20000536188 20000324 US20000675751 20000929

Probable Assignee: HALT AND HASS SYSTEMS CORP**Assignee(s):** (std): HOBBS GREGG K**Assignee(s):** WEISS TECHNIK NORTH AMERICA INC ; CINCINNATI SUB ZERO PRODUCTS INC ; CINCINNATI SUB ZERO PRODUCTS LLC ; GENTHERM MEDICAL LLC ; HALT AND HASS SYSTEMS CORP**Inventor(s):** (std): HOBBS GREGG K**Designated states:** AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR**45) Family number: 51102438 (ES2380525A)**

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Title: CONMUTADOR ELECTRONICO DE SENAL PARA CONTROL AUTOMATICO DE SISTEMA DE VIBRACIONES MULTIAXIAL MEDIANTE CONTROLADOR EXTERNO ELECTRONIC SIGNAL SWITCH FOR AUTOMATIC CONTROL SYSTEM USING VIBRATION MULTIAXIAL external controller (Machine translation)

Abstract: Source: ES2380525A [ES] Dispositivo electronico para conmutacion de senal que permita la utilizacion de un sistema de vibraciones multiaxial para la realizacion de ensayos en un unico grado de libertad mediante controlador de vibraciones externo en "lazo cerrado" formado por dos bloques funcionales. El bloque demultiplexor (1) se encarga de demultiplexar la senal de control de vibraciones (3') que se recibe por el conector de entrada (3) hacia el grado de libertad seleccionado en el bloque de seleccion (2): canal X (4), canal Y (5) y canal Z (6) segun la seleccion requerida el mando de seleccion del modo de funcionamiento (9), que puede trabajar en modo manual o en modo automatico controlado por el controlador externo de vibraciones. Este controlador hara uso del puerto de comunicaciones (8) habilitado en el bloque de seleccion (2) del dispositivo para regir el funcionamiento en modo automatico del bloque multiplexor (1), comunicando ambos bloques funcionales mediante un bus de comunicacion de 5 hilos (7).

Machine translation: Electronic device for signal switching that allows the use of a multiaxial system for vibration testing in a single degree of freedom by external vibration controller "closed loop" consists of two functional blocks. The demultiplexer block (1) is responsible for demultiplexing the vibration control signal (3') is received by the input connector (3) to the selected degree of freedom in the selection block (2): Channel X (4), and channel (5) and Z channel (6) according to the selection required the Jog operating mode (9), which can work in manual or automatic mode controlled by the external controller vibration. This driver will use the communications port (8) enabled the selection block (2) of the device to govern the automatic operation of the multiplexer block (1), two functional blocks communicating via a communication bus 5 wires (7).

Classifications:

International (IPC 8-9): G01M7/02 G01M7/06 (Advanced/Invention);
G01M17/00 G05D19/02 (Advanced/Non-invention)

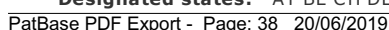
CPC: G01M7/022 G01M7/06



Publication number	Publication date	Application number	Application date
ES2380525 AA	20120516	ES20090001233	20090511
ES2380525 BA	20130401	ES20090001233	20090511

Inventor(s): DAMIAN GONZALEZ FIGUEROA ; JAVIER DIEGUEZ GOMEZ ; JULIAN RIOS CAL ; ENRIQUE TORRES FERNANDEZ

European: A61B6/50J A61B6/50P G01N23/04 H05G1/26 K61B6/48D



Title: Specimen design for uniform triaxial tensile stress-strain distribution under high/low temperatures.

Abstract: The present invention deals with the geometric configuration of a metallic specimen in order to achieve uniform distribution of stresses-strains in its interior during triaxial tensile material tests. In addition, this invention includes the development of a specimen heating technique adapted to the proposed geometric configuration and capable of attaining high temperatures (up to 1300 DEG C) during the testing procedure. The proposed geometry consists of regularly spaced thin prismatic columns (pin) and fins that emanate from each side of the cubic specimen body (drawing 1,2,3). An extra thin heating element (wire covered by ceramic tape) is wound along the gaps between the pins and fins and covered by a boron nitride layer (drawing 3). Suitable design of the grips contributes to temperature uniformity (drawing 4). Representative triaxial tensile tests prove the functionality and efficiency of the proposed configuration.

Classifications:

International (IPC 8-9): G01N3/02 (Advanced/Invention);

G01N3/00 (Advanced/Non-invention);

G01N3/00 (Core/Invention)

International (IPC 1-7): G01N3/10 G01N3/18

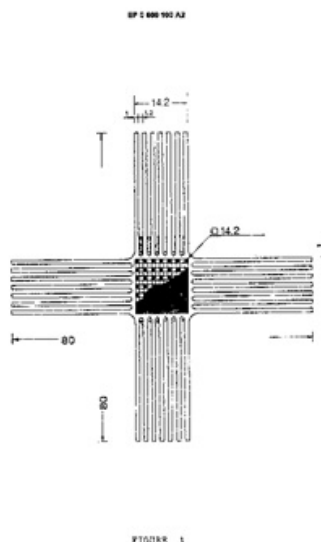
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European: G01N3/02 S01N203/00F1A S01N203/02E1

S01N203/02G3 S01N203/02S1K S01N3/00F1A S01N3/02E1

S01N3/02G3 S01N3/02S1K

PatBase - EP0660100_R2



Family:

Publication number	Publication date	Application number	Application date
EP0660100 A2	19950628	EP19940600011	19941208
EP0660100 A3	19960221	EP19940600011	19941208

Priority:

GR19930100503 19931210

Probable Assignee: INST MICHANIKIS YLIKON KAI GEO

Assignee(s): (std): INST MICHANIKIS YLIKON KAI GEO

Assignee(s): INSTITUTO MICHANIKIS YLIKON KAI GEODOMON A E ; INSTITUTO MICHANIKIS YLIKON KAI GEODOMON AE

Inventor(s): (std): MICHELIS PAUL

Designated states: DE FR GB IT NL SE

Title: APPARATUS AND METHOD FOR FATIGUE TESTING

Abstract: A method of simulating life of a rotor blade mounting feature mounted in a complementary rotor disc mounting feature comprises the steps of providing two specimen mounting features (37) each having portions defining pressure faces matching in profile respective faces of the rotor blade mounting feature; providing a fixture (38) having two opposed mounting features (39) each having portions defining pressure faces (78) matching in profile respective faces of the rotor disc mounting feature; mounting the specimen mounting features (37) in the fixture mounting features (39); applying a first load to the specimen mounting features (37); measuring a strain in a region (86) of the fixture (38) between the fixture mounting features (39); applying a second load to the fixture (38), the second load being substantially perpendicular to the first load; and controlling the second load in response to the measured strain. A high cycle load may simultaneously be applied to the specimen mounting features (37). Claims are also included for an apparatus (10) for carrying out the method.

Classifications:

International (IPC 8-9): G01N3/00 G01N3/32 (Advanced/Invention);

G01N3/00 G01N3/04 (Advanced/Non-invention);

G01N3/32 (Core/Invention);

G01N3/00 (Core/Non-invention)

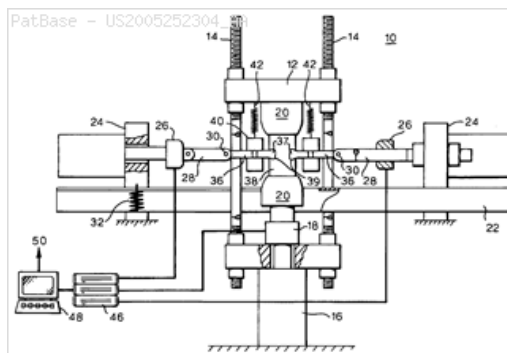
International (IPC 1-7): G01N3/00 G01N3/32

CPC: G01N3/32 G01N2203/0073 G01N2203/027 G01N2203/0464

European: G01N3/32 S01N203/00P2F S01N203/02S1H

S01N203/04R S01N3/00P2F S01N3/02S1N S01N3/04R

US: 73/794 73/794P 73/804 73/808 73/810 73/811 73/813 73/815 73/821 73/845 73/865.9



Family:

Publication number	Publication date	Application number	Application date
DE602005005550 D1	20080508	DE200560005550T	20050412
DE602005005550 T2	20080626	DE200560005550T	20050412
EP1598655 A2	20051123	EP20050252280	20050412
EP1598655 A3	20060531	EP20050252280	20050412
EP1598655 B1	20080326	EP20050252280	20050412
GB200410967 A0	20040616	GB20040010967	20040517
US2005252304 AA	20051117	US20050104486	20050413
US7204152 BB	20070417	US20050104486	20050413

Priority:

GB20040010967 20040517

Probable Assignee: ROLLS ROYCE PLC

Assignee(s): (std): CRABTREE JAMES S ; GREENACRE PAUL A ; MCELHONE MARTIN ; ROLLS ROYCE PLC ; WOODWARD COLIN J

Inventor(s): (std): WOODWARD COLIN JAMES ; MCELHONE MARTIN ; CRABTREE JAMES STEPHEN ; GREENACRE PAUL ANTHONY ; WOODWARD COLIN J ; CRABTREE JAMES S ; GREENACRE PAUL A

Inventor(s): GREENACRE PAUL ; CRABTREE JAMES ; WOODWARD COLIN

Agent(s): GUNN MICHAEL ALAN; MANELLI DENISON AND SELTER; MANELLI DENISON AND SELTER PLLC; W WARREN

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

49) Family number: 5446480 (US4852397A)

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Title: Field indentation microprobe for structural integrity evaluation

Abstract: Apparatus and methods for the in-field measurement of mechanical and physical properties of metallic structures. The apparatus is a Field Indentation Microprobe (FIM) using an indenter that is caused to contact and indent the structure using cyclically applied and released successive increasing loads at the same location. The load and penetration depth data during both cyclic loading and unloading are used to determine the flow properties and fracture toughness of the structure. An X-Y driven testing head supports a load cell which is connected to an indenter holder and the indenter. A displacement transducer is carried by the load cell to measure the depth of penetration of the indenter into the structure, and one or more ultrasonic transducers determine the physical phenomena such as crack size, material pile-up around indentation, and residual stress presence and orientation. A polishing tool is provided to prepare the surface of the structure prior to indentation. Also, a video camera is provided to view the surface, and to measure the final diameter of indentation. A data acquisition system and a computer appropriately programmed for automated testing and for acquiring and processing test data are used to provide the desired mechanical and physical property information. Accordingly, changes in local mechanical and physical properties of a structure, due to either normal service or damage, can be determined nondestructively in the field, and hence structural integrity can be evaluated.

Classifications:

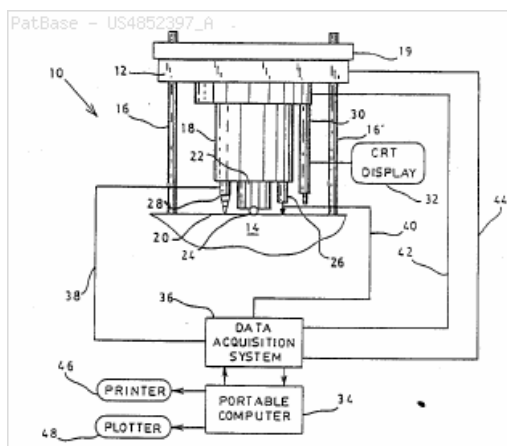
International (IPC 8-9): G01N3/42 G01N3/48 (Advanced/Invention); G01N3/00 (Advanced/Non-invention); G01N3/40 (Core/Invention); G01N3/00 (Core/Non-invention)

International (IPC 1-7): G01N3/42 G01N3/48

CPC: G01N3/42 G01N2203/0098 G01N3/48

European: G01N3/42 G01N3/48 S01N203/00X S01N3/00X4

US: 73/82



Family:

Publication number	Publication date	Application number	Application date
US4852397 A	19890801	US19890323967	19890315
WO9010857 A1	19900920	WO1989US02075	19890515

Priority:

US19880144088 19880115

US19890323967 19890315

Probable Assignee: HAGGAG FAHMY M
Assignee(s): (std): HAGGAG FAHMY M
Inventor(s): (std): HAGGAG FAHMY M
Designated states: AT BE CH DE FR GB IT JP LU NL SE

50) Family number: 13131480 (US5979242A)

© PatBase

Title: Multi-level vibration test system having controllable vibration attributes

Abstract: The multi-level vibration test system has controllable vibration attributes that enable the test engineer to precisely implement a vibration environment that is applicable to a wide range of applications and performance characteristics. The multi-level vibration test system comprises a plurality of shaker modules that are interconnected by coupling modules and optionally includes vibration input elements and/or vibration shaping elements that collectively function to enable the user to program the frequency and magnitudes that are produced by the multi-level vibration system. This novel architecture as well as the numerous implementation variations that are possible using this architecture, enable the test engineer to precisely control the vibration frequencies and magnitudes that are produced.

Classifications:

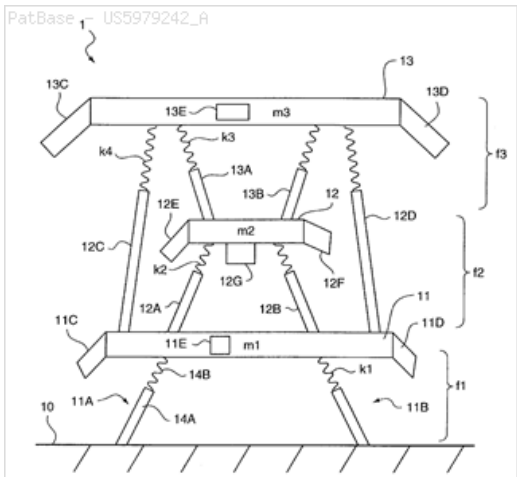
International (IPC 8-9): G01M7/06 (Advanced/Invention);
G01M7/00 (Core/Invention)

International (IPC 1-7): G01M7/06

CPC: G01M7/06

European: G01M7/06

US: 73/663 73/666



Family:

Publication number	Publication date	Application number	Application date
EP1073890 A1	20010207	EP19990918669	19990419
US5979242 A	19991109	US19980063157	19980420
WO9954701 A1	19991028	WO1999US08551	19990419

Priority:

US19980063157 19980420 WO1999US08551 19990419

Probable Assignee: HALT AND HASS SYSTEMS CORP

Assignee(s): (std): HOBBS ENGINEERING CORP ; HOBBS GREGG K

Assignee(s): CINCINNATI SUB ZERO PRODUCTS INC ; HALT AND HASS SYSTEMS CORP ; HOBBS ENGINEERING

Inventor(s): (std): HOBBS GREGG K

Designated states: AT BE CA CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

51) Family number: 54936494 (US2013268471A)

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Title: SIGNAL MONITORING SYSTEM AND METHODS OF OPERATING SAME

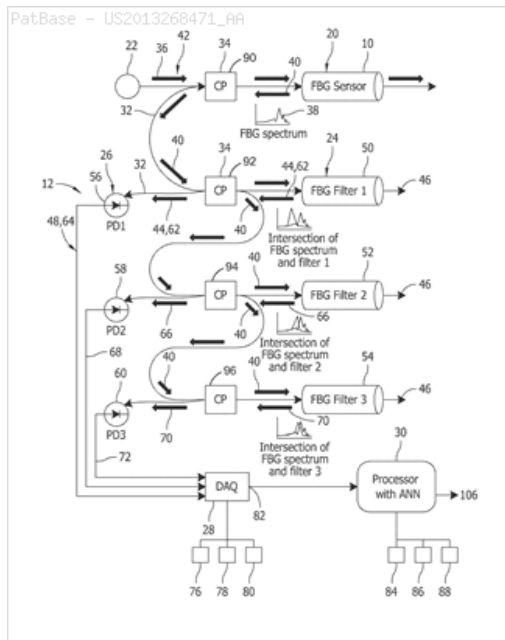
Abstract: A system for estimating a strain of a component and method of estimating strain is provided. The system includes a signal generator configured to transmit a signal toward the component. A sensor is coupled to the component and configured to receive the signal and to generate a reflected signal. The system includes a fiber Bragg grating filter coupled to the sensor and configured to filter the reflected signal and to generate a filtered signal. A detector is coupled to the filter and configured to convert the filtered signal to a time domain signal. The system includes an artificial neural network coupled to the detector and configured to process the time domain signal to facilitate estimating the strain of the component.

Classifications:

International (IPC 8-9): G01B5/30 G01B7/16 G01L1/00 G01L1/24
G01M11/08 G01N3/00 G06E1/00 G06E3/00 G06F15/18 G06G7/00
G06N3/04 G06N3/067 (Advanced/Invention)

CPC: G01M11/083 G01L1/246 G06N3/049 G01M5/0041 G01M5/0091

US: 1/1 706/17

**Family:**

Publication number	Publication date	Application number	Application date
AU2013243983 AA	20131010	AU20130243983	20130117
AU2013243983 BB	20160225	AU20130243983	20130117
EP2834613 A1	20150211	EP20130704646	20130117
US2013268471 AA	20131010	US20120441064	20120406
US2014304203 AB	20141009	US20120441064	20120406
US9063032 BB	20150623	US20120441064	20120406
WO13151607 A1	20131010	WO2013US21977	20130117

Priority:

US20120441064 20120406 WO2013US21977 20130117

Probable Assignee: BOEING CO**Assignee(s):** (std): APPUHAMILLAGAYAN CHANAKA KAHANDAWA ; BOEING CO ; EPAARACHCHI JAYANTHA ; WANG HAO**Inventor(s):** (std): APPUHAMILLAGAYAN CHANAKA KAHANDAWA ; EPAARACHCHI JAYANTHA ; WANG HAO ; KAHANDAWA GAYAN CHANAKA**Agent(s):** SPRUSON AND FERGUSON; WITTE WELLER AND PARTNER PATENTANWAEALTE MBB; ARMSTRONG TEASDALE LLP; SATERMO ERIC K ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**52) Family number: 48950495 (CZ22174U)**

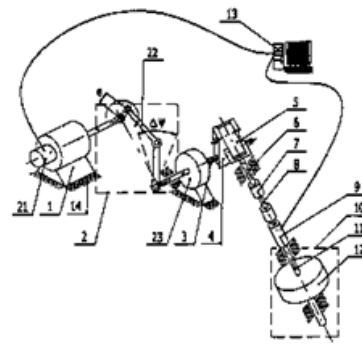
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Title: DEVICE FOR LOADING TEST SPECIMENS IN TENSION/COMPRESSION

Abstract: Source: CZ22174U [CS] [Source: Claim 1] 1. Zarizeni pro zatezovani zkusebnich vzorku v tahu/tlaku, vyznacujici se tim, ze sestava z ramu (14), k nemuz je pripojena pohonna jednotka (1) s frekvencnim menicem a cita- cem (21) poctu cyklu a prevodova skrin (2), pricemz tato prevodova skrin (2) obsahuje ctyrkrou- 30 bovy mechanizmus (22), který je pripojen na jeden konec hridele (3) upevneneho v upinaci hlave (23), pricemz druha cast hridele (3) je spojena s pakou (4), ktera je spojena s oj nici (5), napoje- nou na hnaci hridel (6), hnaci hridel (6) je souose situovan s hnacou hrideli (11), opatrenou setr- vacnikem (12), hnana hridel (11) je spolu se skladacim setrvacnikem (12) ulozena ve skrinu (10) hnaneho soustroji, ktera je rovnéz upevnena v ramu (14), pricemz zkusebni vzorek (8) lze uchytit 35 mezi hnaci hridel (6) a hnacou hridel (11) a to pomoci spojku (7) k hnane hrideli (11), pricemz je v tesne blizkosti zkusebniho vzorku (8) pripojen nejmene jeden tenzometricky snimac (9) osove sily.

Machine translation: (Source: Claim 1) 1. The device for zatezovani zkusebnich sample in pressure and tension, vyznacujici with tim, from the Layout From Rama (14), the nemuz is pripojena pohonna unit (1) with frekvencnim menicem and cita- cem (21) tribute to cycle and prevodova agreed (2), while allowing this prevodova agreed (2) contains ctyrkrou- 30 Corbie Lommel linkage (22), which is connected on one end of the hridele (3) upevneneho in upinaci head (23), while allowing a cast hridele (3) is connected with pakou (4) that is associated with the oj circle (5) out- on hnaci hridel (6), hnaci hridel (6) is positioned concentrically situovan with driven hrideli (11), opatrenou setr- vacnikem (12), hnana hridel (11), together with the skladacim setrvacnikem (12) saved in the skrinu (10) hnaneho soustroji is equally upevnena in Rama (14), while allowing test sample (8) can be held 35 between hnaci hridel (6) and driven hridel (11) and help the clutches (7) to the hnane hrideli (11), while allowing the friendly and zkusebniho sample (8) because the nejmene one tenzometricky sensor (9) osove forces.

Classifications:**International (IPC 8-9):** G01N3/08 (Advanced/Invention)



Obr. 1

Kreslo: Schaefer

- 4 -

Family:

Publication number	Publication date	Application number	Application date
CZ22174 U1	20110518	CZ20100023117U	20100817

Priority:

CZ20100023117U 20100817

Probable Assignee: VYSOKA EKOLA BANSKA TECHNICKA UNIVERZITA OSTRAVA**Assignee(s):** (std): VYSOKA EKOLA BANSKA TECHNICKA UNIVERZITA OSTRAVA**Inventor(s):** (std): FOJTIK FRANTISEK**53) Family number: 45844499** (US2010186519A)

© PatBase

Title: APPARATUS FOR TESTING FUSELAGE PANELS**Abstract:** Gripping claws and pairs of arched angular profiles are arranged along the perimeter of a cylindrical surface segment so as to grip the edges of a fuselage panel, closing the opening of a pressurizable chamber.**Classifications:**

International (ipc 8-9): B64C1/00 B64C99/00 G01M17/00 G01M3/02 G01M5/00 G01N3/00 G01N3/02 G01N3/04 G01N3/08 G01N3/10 G01N3/12 G01N3/32 G01N3/36 G01N3/60 (Advanced/Invention); G01N3/02 G01N3/04 (Advanced/Non-invention); G01M17/00 G01M3/02 G01M5/00 G01N3/10 (Core/Invention); G01N3/00 (Core/Non-invention)

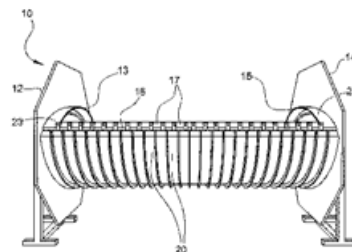
International (ipc 1-7): B64C1/00 G01N3/00 G01N3/10 G01N3/32 G01N3/36 G01N3/60

CPC: B64F5/60**European:** B64F5/00D**US:** 73/802 73/802P 73/825 73/837

PatBase - US2010186519_AA

Parent Application Publications Jul. 29, 2010 Sheet 1 of 3 US 2010/0186519 A1

FIG. 1

**Family:**

Publication number	Publication date	Application number	Application date
AT502293 E	20110415	AT20090179795T	20091218
BRPI0905503 A2	20110329	BR2009PI05503	20091222
BRPI0905503 B1	20190514	BR2009PI05503	20091222
CA2688961 AA	20100624	CA20092688961	20091221

DE602009000912 D1	20110428	DE200960000912T	20091218
EP2202505 A1	20100630	EP20090179795	20091218
EP2202505 B1	20110316	EP20090179795	20091218
ES2363416 T3	20110803	ES20090179795T	20091218
IT1392569 B1	20120309	IT2008T000991	20081224
ITTO20080991 A1	20100625	IT2008T000991	20081224
US2010186519 AA	20100729	US20090643881	20091221
US8479591 BB	20130709	US20090643881	20091221

Priority:

IT2008T000991 20081224

Probable Assignee: ALENIA AERONAUTICA SPA

Assignee(s): (std): NATALE ANGELA ; CERRETA PIETRANTONIO ; RUGGIERO PAOLO ; COZZOLINO DOMENICO ; ALENIA AERONAUTICA SPA ; ALENIA AERONAUTICS S P A

Assignee(s): ALENIA AERONAUTICS SPA ; ALENIA AERONAUTICA S P A

Inventor(s): (std): RUGGIERO PAOLO ; NATALE ANGELA ; CERRETA PIETRANTONIO ; COZZOLINO DOMENICO ; RUGGIERO PAOLA ; CERRETA PIETRO

Inventor(s): PAOLO RUGGIERO ; DOMENICO COZZOLINO ; ANGELA NATALE ; PIETRANTONIO CERRETA

Agent(s): FIORAVANTI CORRADO; MERCHANT AND GOULD PC

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

54) Family number: 63488554 (CN205910057U)

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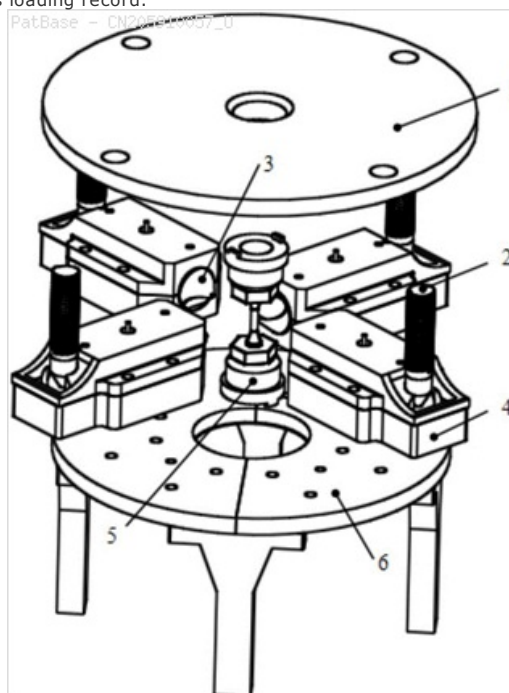
Title: TIRED CAPABILITY TEST ANCHOR CLAMPS OF POLE SAMPLE MULTIAXIS

Abstract: The utility model relates to a mechanical properties of materials tests field, concretely relates to tired capability test anchor clamps of pole sample multiaxis. The utility model discloses an are anchor clamps by disc, bolt, push rod pickup assembly, guide, pole sample anchor clamps subassembly, supporting platform form, in operation, the disc dress is on the testing machine, upper and lower and the testing machine fastening of pole sample anchor clamps subassembly, the bolt passes through modes such as screw thread and is connected with the disc, fix the guide on the supporting platform and make transverse link the inboard accurate sample cross -section that requires of tip subsidies of pickup assembly, when the testing machine carries out axial loading with dynamic stress DELTA sigma's 1 mode to the pole sample, the disc drives the bolt up -and -down motion, and then promotion push rod the trend of the horizontal side -to -side movement of pickup assembly, make the sample bear multiaxis developments DELTA sigma 2 when bearing dynamic 1 load of axial DELTA sigma, 3 load of DELTA sigma, according to the loading on testing machine record with the push rod the tired capability test of high all multiaxises of pole sample is realized to pickup assembly's loading record.

Classifications:

International (IPC 8-9): G01N3/04 (Advanced/Invention)

CPC: G01N3/04 G01N2203/0423 G01N2203/0464



Family:

Publication number	Publication date	Application number	Application date
CN105928783 A	20160907	CN201610489510	20160627
CN205910057 U	20170125	CN201620653144U	20160627

Priority:

CN201610489510 20160627 CN201620653144U 20160627

Probable Assignee: UNIV SOUTHWEST JIAOTONG

Assignee(s): (std): SOUTHWEST JIAOTONG UNIV ; UNIV SOUTHWEST JIAOTONG

Inventor(s): (std): ZHAO YONGXIANG ; SHI XIAOHUI ; HE HUAWU ; FANG XIUYANG ; CHEN XU

55) Family number: 8458569 (KR850001688B)

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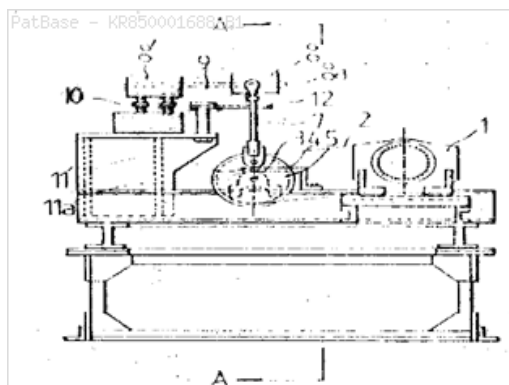
Title: MULTIAXIAL TIRENESS EXAMINER

Abstract: Source: KR850001688B **Machine translation:** [Source: claim 1] 1. (Corrected) bending and twisting and move in order to adjust the size of the load on each of the referee piece configured to adjust two each of bending and twisting a (6) (6'), or, to give a phase difference of the phase angle that can be adjusted in the phase plate 5 and average load, bending load to the both ends of the opposite threaded so as to adjust the length, as a connecting rod 7 and a timing belt (2), along the interlocking structure (3), phase (5), (7) the specimen holder (8) side judgment (6)(6, connecting rod, characterized in that consisting of a multi-axis fatigue testing machine machine (equation.

Classifications:

International (IPC 8-9): G01N3/32 G01N3/34 (Advanced/Invention); G01N3/32 (Core/Invention)

International (IPC 1-7): G01L5/00 G01N3/22 G01N3/32 G01N3/34



Family:

Publication number	Publication date	Application number	Application date
JP61070440 A2	19860411	JP19840123508	19840615
KR19850002309 A	19850510	KR19830004326	19830914
KR850001688 B1	19851122	KR19830004326	19830914
KR850002309 A	19850510	KR19830004326	19830914

Priority:

KR19830004326 19830913 KR19830004326 19830914

Probable Assignee: KOREA INST OF MECHANIC

Assignee(s): (std): KANKOKU KIKAI KENKYUSHO ; KOREA INST OF MECHANIC

Inventor(s): (std): RI JIYUNFUKU ; PYON HUI MUN ; LEE SUN BOK ; HEN KIBUN

56) Family number: 55662577 (US2014020480A)

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Title: HIGH SURVIVABILITY FLUID FLOW SENSOR

Abstract: A high survivability fluid flow sensor includes a sensor housing defining an interior space. A sensor probe has a first end disposed within the interior space. The sensor probe also includes a second end opposite the first end outside the interior space. At least one load cell is disposed within the interior space and is operatively engaged with the first end of the sensor probe. The load cell is configured to detect loading on the sensor probe as a result of fluid flow impinging on the sensor probe adjacent to the second end. The sensor is operable to capture fluid flow data history through an over pressure event via the sensor probe, which exerts pressure upon the piezoelectric load cell(s), thereby enabling analysis of the wave fluid dynamics.

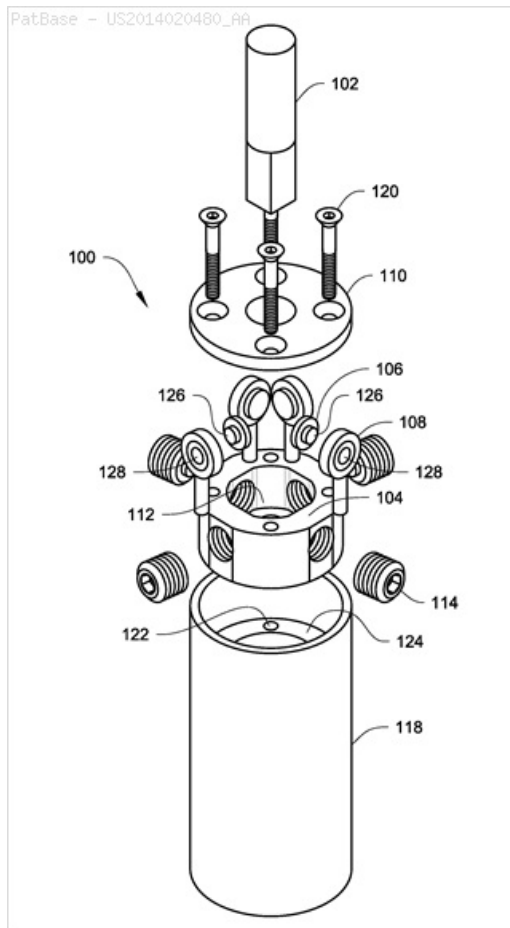
Classifications:

International (IPC 8-9): G01F1/28 G01P5/02

G01P5/04 (Advanced/Invention)

CPC: G01F1/28 G01P5/02 G01P5/04

US: 73/861.71

**Family:**

Publication number	Publication date	Application number	Application date
US2014020480 AA	20140123	US20120710107	20121210
US9021893 BB	20150505	US20120710107	20121210

Priority:

US20110568468P 20111208 US20120568468P 20121208 US20120710107 20121210

Probable Assignee: EXQUADRUM INC

Assignee(s): (std): EXQUADRUM INC

Inventor(s): (std): WILSON ELIAS ; SCHMIDT ERIC ; INBERG LIOR ; STEVENS LANDON

Agent(s): HAMRE SCHUMANN MUELLER AND LARSON PC

57) Family number: 73346578 (FR3070491A)

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Title: EPROUVETTE EN CROIX POUR LA REALISATION D'ESSAI SOUS SOLlicitATION MECANIQUE BI-AXIALE Cross test specimen FOR CONDUCTING TEST UNDER MECHANICAL STRESS BI-axial (Machine translation)

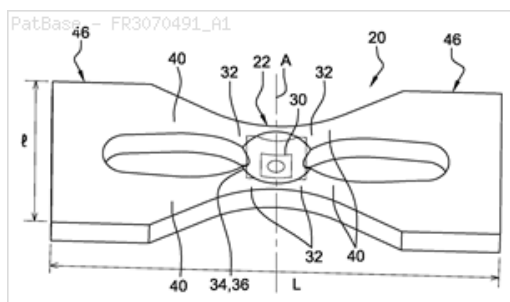
Abstract: Source: FR3070491A [FR] Eprouvette en croix (20) pour la realisation d'essai sous sollicitation mecanique bi-axiale, ladite eprouvette etant realisee d'une seule piece et comportant une portion centrale (22) sensiblement en croix presentant un axe A et quatre branches (32) s'etendant radialement vers l'exterieur autour dudit axe, caracterisee en ce qu'elle comprend en outre deux portions laterales d'attache (26) diametralement opposees par rapport audit axe et reliees chacune a deux desdites branches, lesdites portions laterales etant configurees pour etre fixees a des mors d'une machine d'essai sous sollicitation uni-axiale.

Machine translation: Test specimen of a cross (20) for conducting test under mechanical stress bi-axial, said test specimen being performed in a single component and comprising a central portion (22) having an axis, A, and four branches substantially in the form of a cross (32) extending radially outward around said axis, characterized in that it also comprises two lateral portions of tether (26) relative to said axis and diametrically opposed to each coupled to two of said legs, said side portions being configured to be attached to the jaws of a uni-axial stress testing machine.

Classifications:

International (IPC 8-9): G01N3/08 (Advanced/Invention)

CPC: G01N3/08 G01N2203/0272 G01N2203/0282 G01N2203/0298

**Family:**

Publication number	Publication date	Application number	Application date
FR3070491 A1	20190301	FR20170057870	20170824

Priority:

FR20170057870 20170824

Probable Assignee: SAFRAN SA

Assignee(s): (std): SAFRAN AIRCRAFT ENGINES

Assignee(s): SAFRAN SA

Inventor(s): (std): DENARD FABRICE LAURENT WILLIAM ; FONTAINE ALBAN LUC JEAN YVES

Inventor(s): FABRICE LAURENT WILLIAM DENARD ; ALBAN LUC JEAN YVES FONTAINE

Agent(s): GEVERS AND ORES

58) Family number: 63755600 (CN205826411U)

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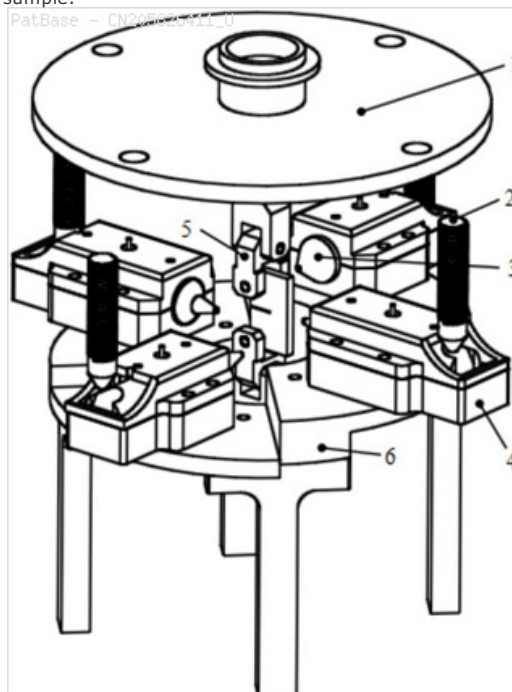
Title: CT SAMPLE MULTIAXIS FATIGUE CRACK EXTENSION CAPABILITY TEST ANCHOR CLAMPS

Abstract: The utility model relates to a mechanical properties of materials tests field, concretely relates to CT sample multiaxis fatigue crack extension capability test anchor clamps. The utility model discloses an are anchor clamps by disc, bolt, push rod pickup assembly, guide, CT sample anchor clamps subassembly and supporting platform form, in operation, the disc dress is on the testing machine, CT sample anchor clamps subassembly is connected with the testing machine, the bolt is connected with the disc, do last four the fixed guides of supporting platform make transverse link the accurate CT sample of the inboard subsidies of pickup assembly, when the testing machine carries out axial loading with dynamic stress intensity factor DELTA KI mode to the sample, the disc drives the bolt up -and -down motion, promote the push rod the trend of the horizontal side -to -side movement of pickup assembly, make sample crackle face bear tangential developments DELTA KII load along the crack growth direction, perpendicular to crack growth direction is born and is transversely torn DELTA KIII load, according to record of the loading on the testing machine and push rod pickup assembly's loading record, realize high all multiaxis fatigue crack extension capability test of CT sample.

Classifications:

International (IPC 8-9): G01N3/04 (Advanced/Invention)

CPC: G01N3/04 G01N2203/0066 G01N2203/0073



Family:

Publication number	Publication date	Application number	Application date
CN106018077 A	20161012	CN201610489507	20160627
CN205826411 U	20161221	CN201620650807U	20160627

Priority:

CN201610489507 20160627 CN201620650807U 20160627

Probable Assignee: UNIV SOUTHWEST JIAOTONG

Assignee(s): (std): SOUTHWEST JIAOTONG UNIV ; UNIV SOUTHWEST JIAOTONG

Inventor(s): (std): HE HUAWU ; SHI XIAOHUI ; ZHAO YONGXIANG ; FANG XIUYANG ; CHEN XU

59) Family number: 71367602 (WO18178418A1)

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Title: METHOD FOR PRODUCING A PART WITH INCREASED CONTACT FATIGUE RESISTANCE

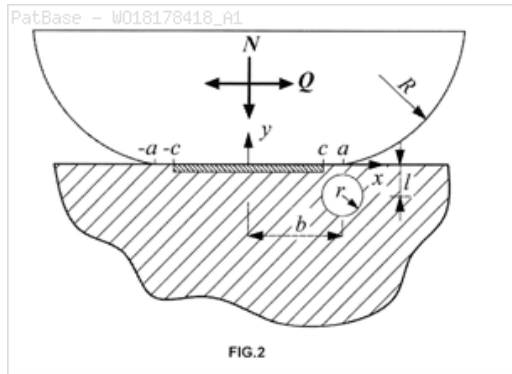
Abstract: The invention relates to a method for producing a part (1) with increased contact fatigue resistance, characterised in that it comprises at least one step of producing at least one cavity (2) inside the part (1), in an area close to the contact surface (3) of the part (1). The part (1) produced has a higher contact fatigue resistance on the contact surface (3) than a part produced by means of prior art methods would have without the at least one interior cavity (2).

Classifications:

International (IPC 8-9): B33Y10/00 B33Y80/00

G01N3/00 (Advanced/Invention)

CPC: B33Y10/00 B33Y80/00 G01N3/00



Family:

Publication number	Publication date	Application number	Application date
ES2684048 AA	20181001	ES20170030434	20170328
WO18178418 A1	20181004	WO2018ES00026	20180323

Priority:

ES20170030434 20170328

Probable Assignee: UNIV DE SEVILLA

Assignee(s): (std): UNIV DE SEVILLA ; UNIV SEVILLA

Assignee(s): UNIVERSIDAD DE SEVILLA

Inventor(s): (std): DOMINGUEZ ABASCAL JAIME ; ERENA GUARDIA DIEGO ; NAVARRO PINTADO CARLOS ; VAZQUEZ VALEO JESUS

Inventor(s): CARLOS NAVARRO PINTADO ; DIEGO ERENA GUARDIA ; JAIME DOMINGUEZ ABASCAL ; JESUS VAZQUEZ VALEO

Agent(s): PONS ANGEL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

60) Family number: 42966603 (US2011016983A)

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Title: TESTING DEVICE WITH A DRIVE, WHICH CONVERTS TO A ROTATIONAL MOVEMENT INTO A RECIPROCATING MOVEMENT OF VARIABLE AMPLITUDE

Abstract: The invention relates to a testing device for the static and dynamic testing of workpieces, comprising a first clamping device and a second clamping device for the workpiece, and a drive for the cyclical displacement of the second clamping device, wherein the drive has a rocker arm on which the second clamping device is pivotably mounted and the two ends of the rocker arm are connected in each case to a pivotably mounted link, and the free ends of the links are coupled in each case to a crank drive, wherein the links protrude from the ends of the rocker arm in the same direction in the basic position of the testing device.

Classifications:

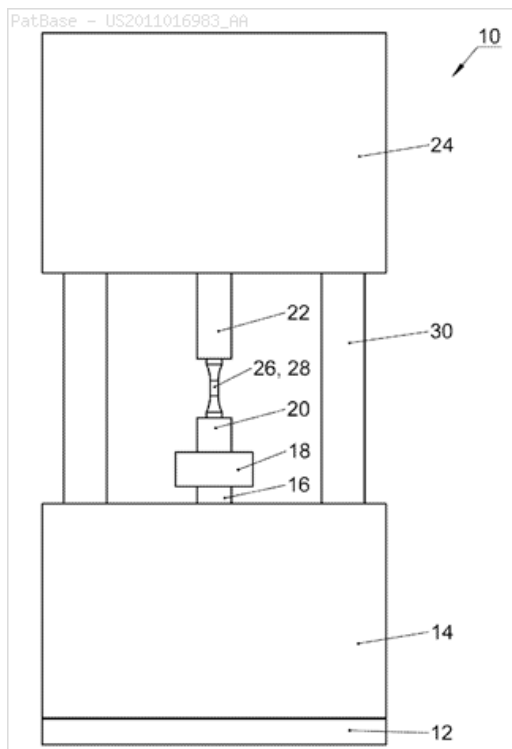
International (IPC 8-9): G01N G01N3/08 G01N3/10 G01N3/16 G01N3/34 (Advanced/Invention);

G01N3/08 G01N3/32 (Core/Invention)

CPC: G01N3/165 G01N2203/0016 G01N2203/0037 G01N3/34

European: G01N3/16C G01N3/34 S01N203/00F1 S01N203/00G1C S01N3/00G1C S01N3/00G1F

US: 73/825 73/825P 73/826



Family:

Publication number	Publication date	Application number	Application date
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AT491934 E	20110115	AT20070801639T	20070814
CN101883977 A	20101110	CN200780100268	20070814
CN101883977 B	20130605	CN200780100268	20070814
DE502007005994 D1	20110127	DE200750005994T	20070814
EP2179263 A1	20100428	EP20070801639	20070814
EP2179263 B1	20101215	EP20070801639	20070814
IN01095DN2010 A	20130913	IN2010DN01095	20100217
JP2010536044 T2	20101125	JP20100520425T	20070814
JP5222363 B2	20130626	JP20100520425T	20070814
KR101386842 B1	20140417	KR20107004096	20070814
KR20100061654 A	20100608	KR20107004096	20070814
RU2010105242 A	20110920	RU20100105242	20070814
RU2440563 C2	20120120	RU20100105242	20070814
US2011016983 AA	20110127	US20100673589	20100216
US8443679 BB	20130521	US20100673589	20100216
WO09021534 A1	20090219	WO2007EP07157	20070814

Priority:

RU20100105242 20070814 WO2007EP07157 20070814

Probable Assignee: EHJSES INZH SHAFT MBKH

Assignee(s): (std): ACES INGENIEURGESELLSCHAFT MGH ; ACES INGENIEURGBMH ; EHJSES INZH SHAFT MBKH ; TRAUTWEIN FRANK THILO

Assignee(s): ACES INGENIEURGESELLSCHAFT MBH ; EHJSES INZHENERGEZELL SHAFT MBKH

Inventor(s): (std): TRAUTWEIN FRANK THILO ; THILO TRAUTWEIN FRANK ; TRAUTVAJN FRANK TILO ; TRAUTWEIN FRANK

Agent(s): STEIMLE JOSEF; MARK LEVY HINMAN HOWARD AND KATTELL LLP; MARK; HINMAN HOWARD AND KATTELL LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

61) Family number: 49099615 (US2011146375A)

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Title: IMPACT TEST FIXTURE WITH SIMULATED CENTRIFUGAL FORCE

Abstract: A test apparatus for a rotor blade of a rotor includes at least one guide rail located in proximity to the rotor blade and at least one bearing secured to the rotor blade radially outboard of the at least one guide rail. The at least one bearing is in operable communication with a radially outboard surface of the at least one guide rail to be translatable thereon. At least one force applicator is in operable communication with the at least one guide rail and is configured to exert a force radially outwardly on the at least one guide rail. The force is transferred to the rotor blade via the at least one bearing and simulates a centrifugal force on the rotor blade. Further disclosed is a method for securing a rotor blade of a rotor in a test fixture.

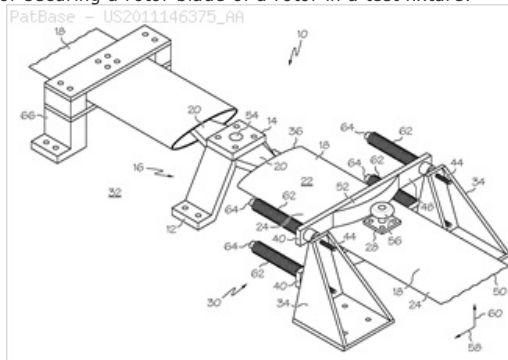
Classifications:

International (IPC 8-9): B23Q7/00 G01M5/00 G01M7/00 G01N3/08 G01N3/30 G01N3/32 G01P15/00 (Advanced/Invention)

CPC: G01M5/0016 G01M5/0058 G01N2203/001

European: G01M5/00C G01M5/00N2E S01N203/00A3 S01N3/00A3

US: 29/559 29/559S 73/12 73/12.01 73/12.010P 73/812



Family:

Publication number	Publication date	Application number	Application date
DE602010004807 D1	20130321	DE201060004807T	20101217
EP2336744 A1	20110622	EP20100195671	20101217
EP2336744 B1	20130123	EP20100195671	20101217
US2011146375 AA	20110623	US20100968822	20101215
US8578753 BB	20131112	US20100968822	20101215

Priority:

US20090287464P 20091217 US20100968822 20101215 EP20100195671 20101217

Probable Assignee: SIKORSKY AIRCRAFT CORP

Assignee(s): (std): NUSSENBLATT ERIC LUCIEN ; SCHMALING DAVID N ; SIKORSKY AIRCRAFT CORP ; SMITH CLIFFORD B

Inventor(s): (std): SCHMALING DAVID N ; SMITH CLIFFORD B ; NUSSENBLATT ERIC LUCIEN

Inventor(s): SMITH CLIFFORD B MIDDLETOWN ; SCHMALING DAVID N SOUTHURY ; NUSSENBLATT ERIC LUCIEN NORWALK

Agent(s): KLUNKER SCHMITT NILSON HIRSCH; CANTOR COLBURN LLP

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

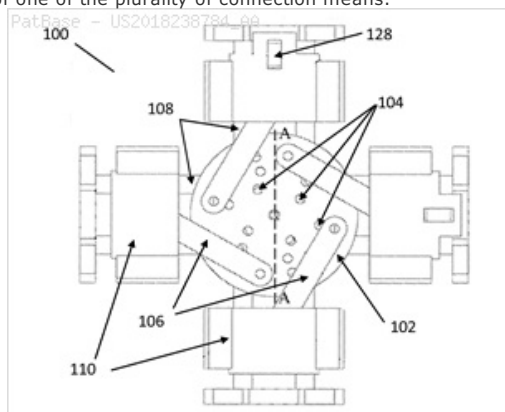
Title: PLANAR TEST SYSTEM

Abstract: An apparatus for applying a force to a specimen is provided. The apparatus comprises: an output rotatable member comprising a plurality of connection points; a plurality of rigid connection means, each comprising a first end and a second end, wherein the first end of each connection means is pivotably coupled to one of the plurality of connection points of the output rotatable member; a plurality of guide members; and a plurality of specimen holders, each slidably mounted to one of the guide members and pivotably coupled to the second end of one of the plurality of connection means.

Classifications:

International (IPC 8-9): G01N17/00 G01N3/04 G01N3/08 G01N3/10 G01N3/18 (Advanced/Invention)

CPC: G01N3/08 G01N3/18 G01N3/10 G01N3/04 G01N2203/0016 G01N2203/0026 G01N2203/0222 G01N2203/0254 G01N2203/0272 G01N2203/0282 G01N2203/0435

**Family:**

Publication number	Publication date	Application number	Application date
CN108027306 A	20180511	CN201680053768	20160805
EP3335026 A1	20180620	EP20160750242	20160805
GB201514084 A0	20150923	GB20150014084	20150810
JP2018523828 T2	20180823	JP20180506852T	20160805
US2018238784 AA	20180823	US20160751605	20160805
WO17025730 A1	20170216	WO2016GB52449	20160805

Priority:

GB20150014084 20150810 WO2016GB52449 20160805

Probable Assignee: IMP INNOVATIONS LTD

Assignee(s): (std): IMP INNOVATIONS LTD

Inventor(s): (std): LIN JIANGUO ; LI NAN ; SHAO ZHUTAO ; BAI QIAN

Agent(s): HOWSON RICHARD GILES BENTHAM; MORISHITA SAKAKI; KILBURN AND STRODE LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

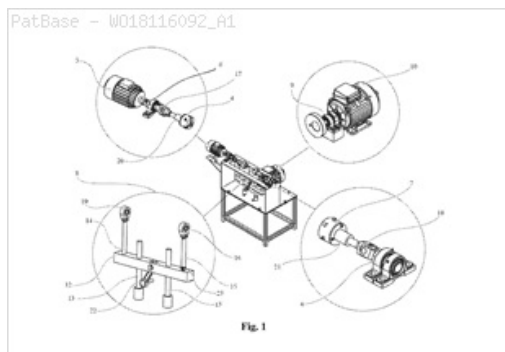
Title: MULTIAXIAL FATIGUE MACHINE

Abstract: The present invention corresponds to a multiaxial fatigue machine which comprises a rotational mechanism, formed by a first driving shaft with a first end connected to a first motor via a first coupling element; and a second end connected to a first attachment element. In addition, the rotational mechanism has a driven shaft arranged in alignment with the first driving shaft. Said driven shaft has a first end connected to a stationary bearing, and a second end connected to a second attachment element. The second attachment element is arranged in alignment with the first attachment element, and a second coupling element which connects the first end with the second end. In addition, the machine has a reciprocating mechanism which has a second driving shaft connected to a second motor, and a rotational-linear transmission connected to the second driving shaft, wherein the rotational-linear transmission includes a bearing which connects to the driven shaft, and wherein the bearing applies a radial load to the driven shaft.

Classifications:

International (IPC 8-9): G01M13/00 G01N3/00 G01N3/20 G01N3/34 (Advanced/Invention)

CPC: G01M13/00 G01N3/00 G01N3/20 G01N3/34

**Family:**

Publication number	Publication date	Application number	Application date
CO20160005750 A1	20180710	CO20160005750	20161223
WO18116092 A1	20180628	WO20171B57972	20171214

Priority:

CO20160005750 20161223

Probable Assignee: UNIV INDUSTRIAL DE SANTANDER

Assignee(s): (std): UNIV INDUSTRIAL DE SANTANDER

Assignee(s): UNIVERSIDAD INDUSTRIAL DE SANTANDER

Inventor(s): (std): PERTUZ COMAS ALBERTO DAVID

Inventor(s): ALBERTO DAVID PERTUZ COMAS

Agent(s): CARLOS REINALDO OLARTE GARCIA; OLARTE CARLOS R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

64) Family number: 47428649 (FR2944601B)

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Title: EPROUVETTE DE FATIGUE BIAZIALE TRACTION-COMPRESSION

Abstract: The specimen has a parallelepiped material bar (10) whose part is machined to form a cross section having two branches (12a, 12b), where the branches are crossed at 90 degree in geometrical center of the bar and inscribed in polygon i.e. rhombus, passing through four ends of the branches. Each branch comprises same length and different width. The polygon comprises four sides and four crowns. The four ends of the branches are terminated at the four crowns. Each side comprises same determined thickness (e0) that is different than width of the branch. Independent claims are also included for the following: (1) a method for developing a fatigue test specimen (2) a method for determining behavior of a material at fatigue according to two axes.

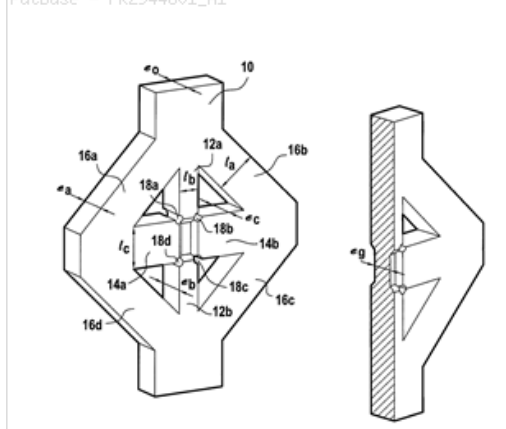
Classifications:

International (IPC 8-9): G01N3/32 (Advanced/Invention)

CPC: G01N3/32 G01N2203/0254 G01N2203/0272 G01N2203/0298 G01N2203/0435

European: G01N3/32 S01N203/02G2 S01N203/02S1K S01N203/02S8 S01N203/04F S01N3/02G2 S01N3/02S1K S01N3/02S8 S01N3/04F

PatBase - FR2944601_A1



Family:

Publication number	Publication date	Application number	Application date
FR2944601 A1	20101022	FR20090052516	20090417
FR2944601 B1	20120309	FR20090052516	20090417

Priority:

FR20090052516 20090417

Probable Assignee: SNECMA

Assignee(s): (std): SNECMA

Inventor(s): (std): PEREZ DUARTE ALEXIS

Inventor(s): ALEXIS PEREZ DUARTE

Agent(s): CABINET BEAU DE LOMENIE

65) Family number: 66784690 (US2019056248A)

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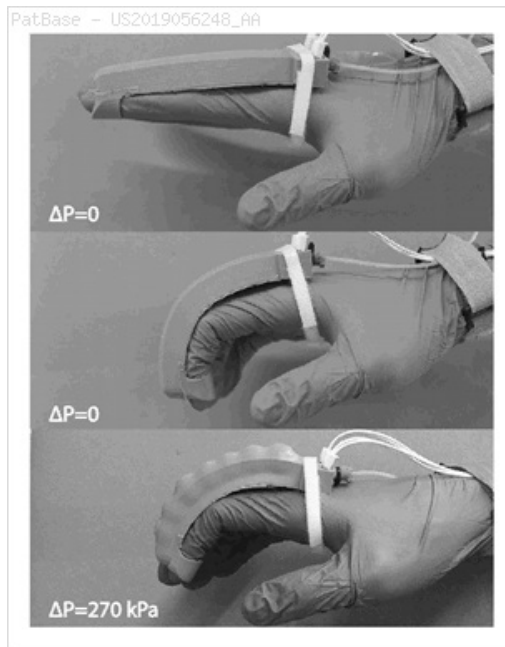
Title: WAVEGUIDES FOR USE IN SENSORS OR DISPLAYS

Abstract: Waveguides, such as light guides, made entirely of elastomeric material or with indents on an outer surface are disclosed. These improved waveguides can be used in sensors, soft robotics, or displays. For example, the waveguides can be used in a strain sensor, a curvature sensor, or a force sensor. In an instance, the waveguide can be used in a hand prosthetic. Sensors that use the disclosed waveguides and methods of manufacturing waveguides also are disclosed.

Classifications:

International (IPC 8-9): G01B11/16 G01D5/353 G01L1/24 G02B6/42 (Advanced/Invention)

CPC: G01L1/24 B25J9/0006 B25J13/081 G02B6/10 G01D5/35345 G02B6/4202 G01L1/242 B25J9/142 B25J13/082 B25J13/084 B25J13/085 B25J13/088 B25J15/0009 B25J15/12 G01B11/16

**Family:**

Publication number	Publication date	Application number	Application date
CA3015906 AA	20180827	CA20173015906	20170227
CN109073365 A	20181221	CN201780025750	20170227
US2019056248 AA	20190221	US20170079798	20170227
WO17147573 A1	20170831	WO2017US19659	20170227

Priority:

US20160299582P 20160225 US20160382484P 20160901 WO2017US19659 20170227
 US20170079798 20170227

Probable Assignee: UNIV CORNELL

Assignee(s): (std): CORNELL UNIV ; UNIV CORNELL

Assignee(s): SHEPHERD ROBERT ; ZHAO HUICHAN ; HUANG RUKANG ; LI SHUO ; BAI HEDAN

Inventor(s): (std): BAI HEDAN ; HUANG RUKANG ; ZHAO HUICHAN ; LI SHUO ; SHEPHERD ROBERT

Agent(s): MACRAE AND CO; WATT RACHEL S ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

66) Family number: 28326691 (US2002162400A)

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Title: Multiaxial high cycle fatigue test system

Abstract: A multiaxial high cycle fatigue test system for testing bending, torsion, and tension of a test unit, comprises servo-hydraulic components, including a hydraulic service manifold, two small high frequency actuators along a first axis, and one large main actuator along a second axis. The large main actuator is used to apply a radial centrifugal force, and the two small actuators are used to apply vibratory loading; the two small side actuators being offset independently of each other, to enable the machine to apply both bending loads and torque to the test unit. The test unit is subjected to torsion loading when the traverse actuators move in phase, that is when both actuators move either in or out at the same time. The test unit is subjected to bending loading when the actuators move out-of-phase, that is one actuator moves in when the other moves out or vice-versa.

Classifications:

International (IPC 8-9): G01N3/32 (Advanced/Invention);

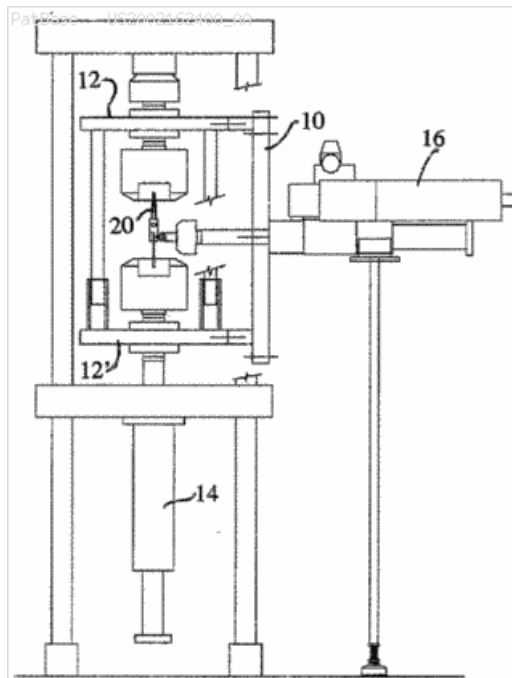
G01N3/32 (Core/Invention)

International (IPC 1-7): G01N3/32

CPC: G01N3/32

European: G01N3/32

US: 73/789 73/794 73/798 73/812 73/814 73/816



Family:

Publication number	Publication date	Application number	Application date
US2002162400 AA	20021107	US20020085916	20020228
US6718833 BB	20040413	US20020085916	20020228

Priority:

US20010273134P 20010305 US20020085916 20020228

Probable Assignee: ADTECH SYSTEMS RESEARCH INC

Assignee(s): (std): CROSS CHARLES J ; SONI SOM R ; TERBORG GARY E ; ADTECH SYSTEMS RES INC ; XIE MING ; US AIR FORCE

Assignee(s): ADTECH SYSTEMS RESEARCH INC ; AIR FORCE GOVERNMENT OF US SEC THE ; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE ; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE AIR FORCE

Inventor(s): (std): XIE MING ; SONI SOM R ; CROSS CHARLES J ; TERBORG GARY E

67) Family number: 66583694 (US2019033264A)

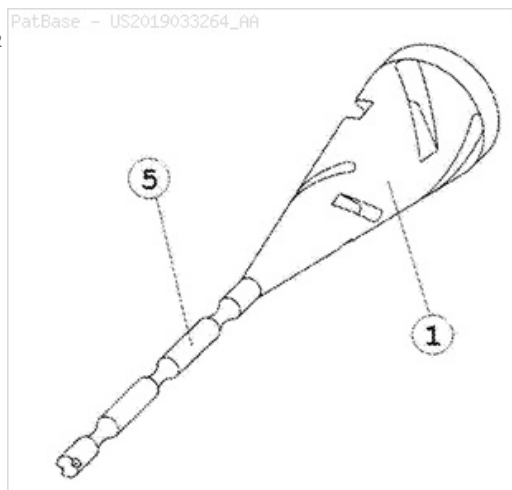
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Title: EQUIPMENT FOR FATIGUE TESTING AT ULTRASONIC FREQUENCIES IN THE MULTIAXIAL REGIME-AXIAL AND TORSIONAL DIRECTIONS

Abstract: The present invention refers to an equipment that allows the performance of fatigue testing at ultrasonic frequencies in a multiaxial loading, more specifically biaxial. The equipment is formed by two components, the horn (1) and the specimen (5), which are coupled with each other. The horn (1) and the specimen (5) possess such geometry that their resonant frequency which, is relevant for the testing, is synchronized with the excitation frequency of the exciter, so that the whole equipment vibrates in free regime. Through its vibration mode, the horn (1) transforms the pure axial cyclic movement which it receives from the exciter into a mixed movement comprised of axial and torsional cyclic and in-phase movements. The specimen (5) possesses, synchronized at the same frequency, its first axial vibration mode and its third torsional vibration mode.

Classifications:

International (IPC 8-9): G01M7/00 G01M7/02 G01N29/04 G01N29/22 G01N29/24 G01N29/34 G01N3/32 (Advanced/Invention)
CPC: G01N29/34 G01N29/22 G01M5/0025 G01M5/0033 G01M5/0066 G01M7/022 G01M7/025 G01N29/043 G01N2203/0021 G01N2291/0258



Family:

Publication number	Publication date	Application number	Application date
EP3411702 A1	20181212	EP20170707972	20170124
JP2019505807 T2	20190228	JP20180540704T	20170124

PT109134 A	20170804	PT20160109134	20160204
US2019033264 AA	20190131	US20170074935	20170124
WO17135834 A1	20170810	WO2017PT00001	20170124

Priority:

PT20160109134 20160204 WO2017PT00001 20170124

Probable Assignee: INST SUPERIOR TECNICO

Assignee(s): (std): INST SUPERIOR TECNICO

Assignee(s): INSTITUTO SUPERIOR TECNICO

Inventor(s): (std): SILVEIRA COSTA VIEIRA MARIO ALBERTO ; GALRAO DOS REIS LUIS FILIPE ; RELOGIO RIBEIRO ANTONIO MANUEL ; MOREIRA DE FREITAS MANUEL JOSE ; MARIO ALBERTO SILVEIRA COSTA VIEIRA ; LUIS FILIPE GALRAO DOS REIS ; ANTONIO MANUEL RELOGIO RIBEIRO ; MANUEL JOSE MOREIRA DE FREITAS

Agent(s): RCF PROTECTING INNOVATION SA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

68) Family number: 62923701 (US2017296055A)

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Title: ANGIOGENIC TREATMENT OF ISCHEMIC HEART DISEASE

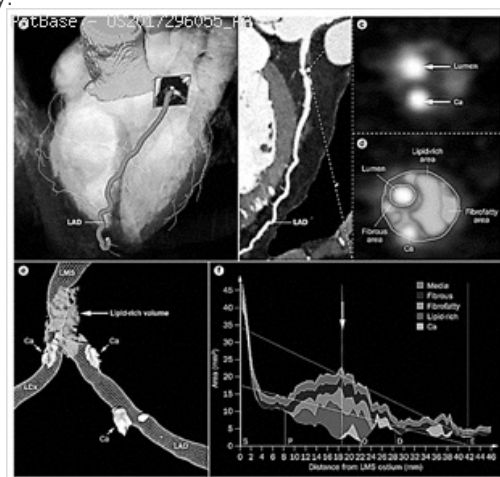
Abstract: Devices, methods, systems and procedures for localized, targeted treatment of angiogenic-based therapy in at least one region of interest in one or more layers of cardiac tissue. Various methods can include diagnosing a patient with ischemic heart disease or "at-risk" of manifesting ischemic heart disease, placing the patient into a specific angiogenic-based treatment therapy group, collecting image data, confirming image data and other diagnostic test results, developing a preoperative plan to target region of interest, inserting the catheter into a heart chamber, monitoring the distal end of the catheter tip within the heart on a visual display, contacting at least one layer of cardiac tissue, creating one or more channels in the heart tissue and/or administering the angiogenic-based therapy.

Classifications:

International (IPC 8-9): A61B17/00 A61B34/10 A61B5/00 A61B5/026 A61B6/00 A61B8/06 A61B8/08 A61K31/135 A61K31/137 A61K31/195 A61K38/16 A61K38/18 A61K38/19 A61K45/00 A61K45/06 A61K9/00 A61L24/00 A61L27/54 A61L27/60 A61M31/00 A61P15/10 A61P17/02 A61P9/10 G01N21/31 G01N21/359 (Advanced/Invention); A61B5/055 A61B8/00 A61K31/00 A61K45/06 G01N21/00 (Advanced/Non-invention)

CPC: A61B8/06 A61B8/0883 A61B8/12 A61K9/0019 A61K9/0024 A61K47/02 A61B5/6852 A61B5/0013 G01N21/359 G01N21/314 A61B5/742 A61B5/0024 A61B5/0044 G01N21/00 A61L27/54 A61L27/60 A61L2300/252 A61K38/1825 A61K9/0014 A61L24/00 A61K45/00 A61K31/137 A61K9/0034 A61B8/5223 A61B6/5217 A61B5/4839 A61B5/4393 A61B5/0263 A61B5/4337 A61L15/44 A61L26/0066 A61L2300/406 A61L2300/41 A61L2300/414 A61P9/10 A61P17/02 A61B5/00 A61B5/055 A61B8/00 A61K31/00 A61K45/06 A61P15/10 A61K9/06 A61K9/107 A61K47/10 A61B6/032 A61B6/507 A61L27/20 A61L27/3604 A61L27/3882 A61L27/56 A61L27/58 A61L2430/22

US: 424/78.02



Family:

Publication number	Publication date	Application number	Application date
AU2016205336 AA	20170803	AU20160205336	20160105
AU2016205338 AA	20170803	AU20160205338	20160105
AU2016220304 AA	20170921	AU20160220304	20160215
CA2973096 AA	20170705	CA20162973096	20160105
CA2973100 AA	20170705	CA20162973100	20160105
CA2976675 AA	20170814	CA20162976675	20160215
EP3242605 A1	20171115	EP20160735323	20160105
EP3242605 A4	20180829	EP20160735323	20160105
EP3242677 A1	20171115	EP20160735324	20160105
EP3242677 A4	20180926	EP20160735324	20160105
EP3259012 A2	20171227	EP20160752867	20160215
EP3259012 A4	20180919	EP20160752867	20160215
US2017296055 AA	20171019	US20170641649	20170705
US2017296625 AA	20171019	US20170641658	20170705
US2017340266 AA	20171130	US20170675595	20170811
US2019029589 AA	20190131	US20180962978	20180425
US9968292 BB	20180515	US20170675595	20170811
WO16112049 A1	20160714	WO2016US12241	20160105
WO16112051 A1	20160714	WO2016US12243	20160105
WO16133848 A2	20160825	WO2016US17965	20160215
WO16133848 A3	20161013	WO2016US17965	20160215

Priority:

US20150100246P 20150106 US20150100250P 20150106 US20150100259P 20150106
US20150100255P 20150106 US20150116757P 20150216 US20150116765P 20150216
US20150159913P 20150511 US20150159841P 20150511 US20150159879P 20150511
WO2016US12241 20160105 WO2016US12243 20160105 WO2016US17965 20160215
US20170641649 20170705 US20170641658 20170705 US20170675595 20170811
US20180962978 20180425

Probable Assignee: CARDIOVASCULAR BIOTHERAPEUTICS INC
Assignee(s): (std): CARDIOVASCULAR BIOTHERAPEUTICS INC
Assignee(s): FLAA MICKAEL ; GARDNER VANCE ; JACOBS JOHN ; THOMAS KENNETH ; STEGMANN THOMAS
Inventor(s): (std): FLAA MICKAEL ; GARDNER VANCE ; JACOBS JOHN ; MEYERSON LAURENCE R ; STEGMANN THOMAS ; THOMAS KENNETH
Agent(s): GRIFFITH HACK; SMART AND BIGGAR; POTTER CLARKSON LLP; BRAINSPARK ASSOCIATES LLC; BASISTA JOSEPH
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

69) Family number: 1399706 (US4026145A)

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Title: Hydraulic grip for tubular mechanical properties specimen

Abstract: A hydraulically actuated collet type grip with an elastic support structure to allow for the axial bending needed to compensate for diametral dimension changes in the specimen gage section to be accommodated within the grip rather than within the tubular specimen. The tabbed end of the tubular specimen is gripped in the annular region of the loud transfer section of the collet. Load transfer is achieved by normal pressure on the collet and the frictional interface between the collet and the bonded end tabs on the specimen.

Classifications:

International (IPC 8-9): G01N3/04 (Advanced/Invention);

G01N3/02 (Advanced/Non-invention);

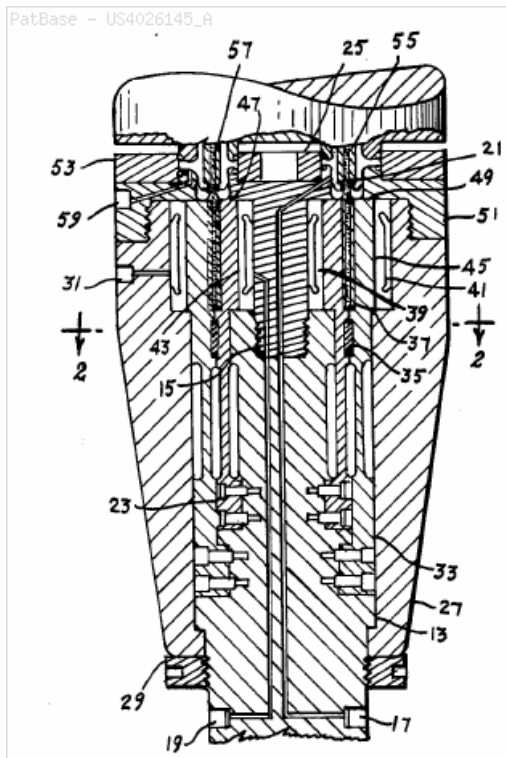
G01N3/00 (Core/Invention)

International (IPC 1-7): G01N3/04

CPC: G01N3/04 G01N2203/0274 G01N2203/0411

European: G01N3/04 S01N203/02S1R S01N203/04B S01N3/02S1R S01N3/04B

US: 73/103 73/857



Family:

Publication number	Publication date	Application number	Application date
US4026145 A	19770531	US19760677591	19760416

Priority:

US19760677591 19760416

Probable Assignee: US AIR FORCE

Assignee(s): (std): US AIR FORCE

Assignee(s): THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE AIR FORCE

Inventor(s): (std): LINDHOLM ULRIC S ; NAGY ANDREW ; YEAKLEY LESTER M

70) Family number: 46844709 (US2010235110A)

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Title: SYSTEMS AND METHODS TO PREDICT FATIGUE LIVES OF ALUMINUM ALLOYS UNDER MULTIAXIAL LOADING

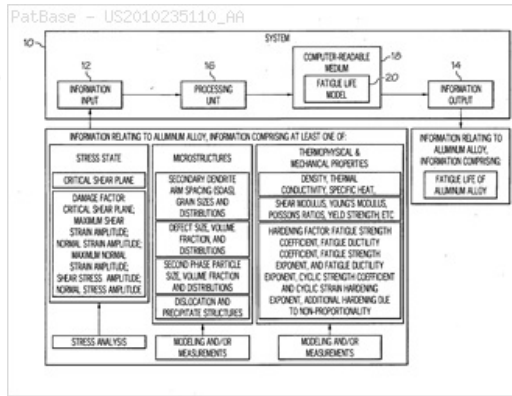
Abstract: A system to predict a fatigue life of an aluminum alloy is disclosed herein. The system comprises a computer-readable medium cooperative with micromechanics-based fatigue life models for cyclic multiaxial loading. The fatigue life models predict the fatigue life by processing information received by the system relating to the aluminum alloy and the stress state present in the aluminum alloy. The received information comprises at least one of: a critical shear plane, a damage factor, a hardening factor defined by at least one of a plurality of uniaxial cyclic hardening factor parameters related to probabilistics of defects and microstructure characteristics in the aluminum alloy, an additional hardening factor related to non-proportionality, and thermophysical and mechanical properties of the aluminum alloy. The defects and microstructure characteristics can be calculated using mathematical modeling of casting, solidification and heat treatment processes or by an extreme value statistics based on metallography measurements.

Classifications:

International (IPC 8-9): B22D46/00 G01B5/30 G01L1/00 G01M13/00

G01N33/20 G06F11/30 G06F17/18 G06F17/50

G06F19/00 (Advanced/Invention);
G01L1/00 G01N33/20 G06F11/30 G06F17/18
G06F19/00 (Core/Invention)
CPC: G01N2203/0073 G01N2203/0218 G01N2203/0246 G06F17/5009
G06F2217/10
European: G06F17/50C S01N203/00P2F S01N203/02C9S
S01N203/02E4S S01N3/00P2F S01N3/02C9S S01N3/02C9S1
S06F217/10
US: 702/181 702/181S 702/185 702/185S 702/35 702/35P 702/43
702/43S 703/2 703/7



Family:

Publication number	Publication date	Application number	Application date
CN101839904 A	20100922	CN201010135917	20100312
CN101839904 B	20140528	CN201010135917	20100312
DE102010009318 A1	20100923	DE201010009318	20100225
US2010235110 AA	20100916	US20090402538	20090312
US8515688 BB	20130820	US20090402538	20090312

Priority:

US20090402538 20090312

Probable Assignee: GM GLOBAL TECHNOLOGY OPERATIONS LLC

Assignee(s): (std): CHEN CHENGSHU ; GM GLOBAL TECH OPERATIONS INC ; LIU XIAOSHAN ; WANG YUCONG ; HE GUOQIU ; MO DEFENG ; HU ZHENGFEI ; WANG QIGUI

Assignee(s): WILMINGTON TRUST CO ; GM GLOBAL TECHNOLOGY OPERATIONS INC ; GM GLOBAL TECHNOLOGY OPERATIONS LLC ; UAW RETIREE MEDICAL BENEFITS TRUST ; UNITED STATES DEPARTMENT OF TREASURY

Inventor(s): (std): WANG QIGUI ; HU ZHENGFEI ; WANG YUCONG ; LIU XIAOSHAN ; CHEN CHENGSHU ; HE GUOQIU ; MO DEFENG ; CHENGSHU CHEN ; ZHENGFEI HU ; YUCONG WANG ; XIAOSHAN LIU ; DEFENG MO ; QIGUI WANG ; GUOQIU HE

Agent(s): DINSMORE AND SHOHL LLP

71) Family number: 31876729 (US2008034885A)

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Title: MULTIAXIAL UNIVERSAL TESTING MACHINE

Abstract: The invention concerns a multiaxial universal testing machine, which allows evaluating the mechanical behaviour and performance of materials with planar structures, such as fabrics, composites and laminates. The machine comprises 4 horizontal axes at 45 degrees, with 8 gripping jaws displaceable along slide rails and moved by the action of 8 independent motors. The connection between a gripping jaw and its respective motor is assured by a linear actuator. The test specimen is fixed by the gripping jaws and can be subject to tensile, compression and fatigue testing, making possible the analysis of the materials behaviour under simultaneous multi-directional loads.

Classifications:

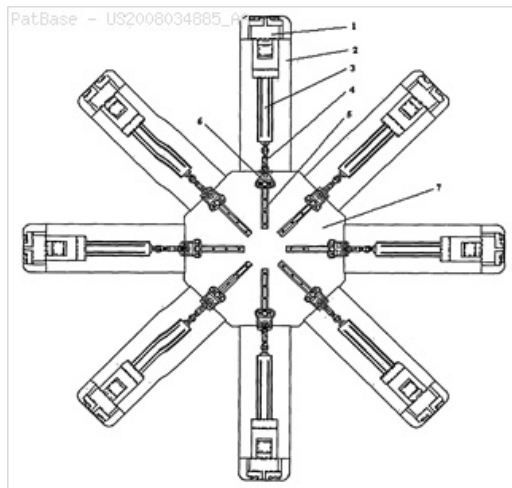
International (IPC 8-9): G01D7/00 G01N3/08
G01N3/34 (Advanced/Invention);
G01N3/00 G01N3/02 (Advanced/Non-invention);
G01D7/00 G01N3/08 G01N3/32 (Core/Invention);
G01N3/00 (Core/Non-invention)

International (IPC 1-7): G01N3/00 G01N3/08

CPC: G01N3/08 G01N2203/0016 G01N2203/0073 G01N2203/0085
G01N2203/025 G01N2203/0254 G01N2203/0278 G01N2203/0282

European: G01N3/08 G01N3/08B S01N203/00F1 S01N203/00P2F
S01N203/00P4C S01N203/02G S01N203/02G2 S01N203/02S1T
S01N203/02S1T2 S01N3/00F1 S01N3/00P2F S01N3/00P4C
S01N3/02G S01N3/02G2 S01N3/02S1F S01N3/02S1T2

US: 73/794 73/794P 73/862.046



Family:

Publication number	Publication date	Application number	Application date
AT410670 E	20081015	AT20040775192T	20041028
DE602004017043 D1	20081120	DE200460017043T	20041028
EP1685382 A2	20060802	EP20040775192	20041028
EP1685382 B1	20081008	EP20040775192	20041028
JP2007510151 T2	20070419	JP20060537922T	20041028
PT103034 A	20050429	PT20030103034	20031028
US2008034885 AA	20080214	US20040575867	20041028
US7509882 BB	20090331	US20040575867	20041028
WO05040765 A2	20050506	WO2004PT00026	20041028
WO05040765 A3	20050804	WO2004PT00026	20041028

Priority:

PT20030103034 20031028

WO2004PT00026 20041028

Probable Assignee: UNIVERSIDADE DO MINHO**Assignee(s):** (std): ARAUJO MARIO DUARTE DE ; COUTO CARLOS ALBERTO CARIDADE ; DA ROCHA ANA MARIA MOREIRA FER ; INST DE DESENVOLVIMENTO E INOV ; UNIV DO MINHO ; MONTEIRO JOAO LUIS MARQUES PER ; LIMA MARIO FILIPE ARAUJO GONCA ; MARTINS JULIO MANUEL DE SOUSA ; MENDES FERNANDO JORGE DE CASTR ; INSTITUTO DE DESENVOLVIMENTO E INOVACAO ; UNIVERSIDADE DO MINHO ; UNIVERSIDADA DO MINHO OF LARGO**Assignee(s):** UNIVERSIDADA DO MINHO OF LARGO DO PACO ; INSTITUTO DE DESENVOLVIMENTO E INOVACAO TECNOLOGIC ; MONTEIRO JOAO LUIS MARQUES PEREIRA ; LIMA MARIO FILIPE ARAUJO GONCALVES ; MARTINS JULIO MANUEL DE SOUSA BARREIROS ; MENDES FERNANDO JORGE DE CASTRO VIEIRA ; DA ROCHA ANA MARIA MOREIRA FERREIRA ; INHO ; COUTO CARLOS ALBERTO CARIDADE MONTEIRO**Inventor(s):** (std): MONTEIRO JO O LUIS MARQUES PER ; ARA JO MARIO DUARTE DE ; MARIO DUARTE DE ARAUJO ; JULIO MANUEL DE SOUSA BARREIROS MARTINS ; JOAO LUIS MARQUES PEREIRA MONTEIRO ; MARIO FILIPE ARAUJO GONCALVES LIMA ; FERNANDO JORGE DE CASTRO VIEIRA MENDES ; ANA MARIA MOREIRA FERREIRA DA ROCHA ; CARLOS ALBERTO CARIDADE MONTEIRO COUTO ; ARAUJO MARIO DUARE DE ; COUTO CARLOS ; MARTINS JULIO ; DA ROCHA ANA ; ARA JO MARIO ; LIMA MARIO ; MONTEIRO JO O ; MENDES FERNANDO ; MONTEIRO JO O LUIS ; DA ROCHA ANA MARIA ; LIMA MARIO FILIPE ; MARTINS JULIO MANUEL DE SO ; COUTO CARLOS ALBERTO ; MENDES FERNANDO JORGE ; DA ROCHA ANA MARIA MOREIRA FERREIRA ; MONTEIRO JOAO LUIS MARQUES PEREIRA ; MONTEIRO JOAO LUIS MARQUES PER ; DA ROCHA ANA MARIA MOREIRA FER ; LIMA MARIO FILIPE ARAUJO GONCA ; MARTINS JULIO MANUEL DE SOUSA ; ARAUJO MARIO DUARTE DE ; COUTO CARLOS ALBERTO CARIDADE ; MENDES FERNANDO JORGE DE CASTR ; ROCHA ANA MARIA MOREIRA FERREI**Inventor(s):** MONTEIRO JO O LUIS MARQUES PEREIRA ; LIMA MARIO FILIPE ARAUJO GONCALVES ; MARTINS JULIO MANUEL DE SOUSA BARREIROS ; COUTO CARLOS ALBERTO CARIDADE MONTEIRO ; MENDES FERNANDO JORGE DE CASTRO VIEIRA**Agent(s):** PEREIRA DA CRUZ JOAO ET AL; SUGHRUE MION PLLC**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**72) Family number: 27160731 (WO02103326A1)**

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Title: A MACHINE FOR TESTING FULL-SCALE PANELING WITH THREE LOAD AXES

Abstract: This invention is a testing machine for large sized panels, used mostly in the aeronautical field, with: a primary structure (1) with a double, irregular, octagonal frame which rests on columns (2) inside which a further quadrangular structure (3) beams is gripped; a gripping system for the quadrangular panels (7) made up of thirty two clamps (4), supported by the secondary structure (3); a system for introducing the shear load that consists of a single oleodynamic traction cylinder on each clamp (4) a pair of pulleys (11) around which the cable (8) that transfers the shear load to the clamps (4) will be wound; a system for introducing normal loads made up of four oleodynamic traction cylinders; a computerized system for test management that supervises and programs the test data as well as acquiring and elaborating them.

Classifications:**International (IPC 8-9):** G01N3/04 G01N3/08

G01N3/24 (Advanced/Invention);

G01N3/02 (Advanced/Non-invention);

G01N3/00 G01N3/08 (Core/Invention)

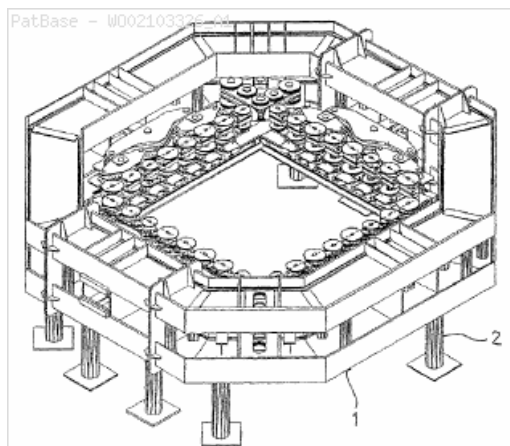
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G01N2203/0256 G01N2203/0282 G01N2203/0435

European: G01N3/04 G01N3/08 G01N3/24 S01N203/02G2

S01N203/02G3 S01N203/02S1T2 S01N203/04F S01N3/02G2

S01N3/02G3 S01N3/02S1T2 S01N3/04F

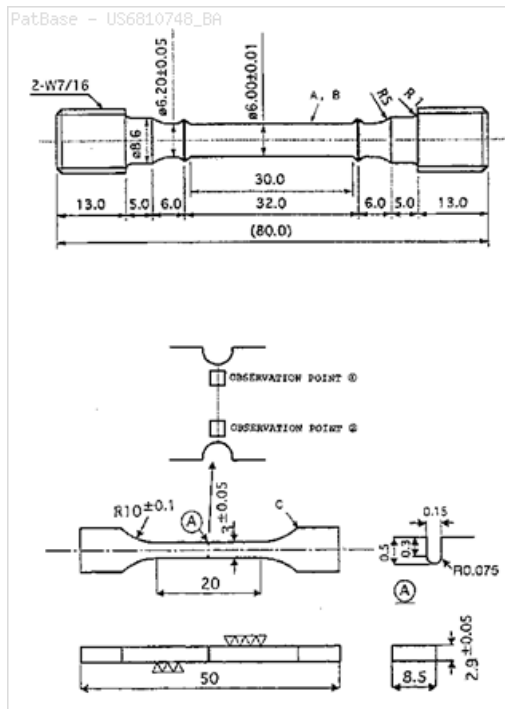
**Family:**

Publication number	Publication date	Application number	Application date
AU2001270991 AA	20030102	AU20010270991	20010620
WO02103326 A1	20021227	WO2001IT00324	20010620

Priority:

WO2001IT00324 20010620

Probable Assignee: UNIV NAPOLI FEDERICO II**Assignee(s):** (std): APICELLA ALFONSO ; CERRETA PIETRO ; ESPOSITO RENATO ; FINMECCANICA ALENIA AERONA SPA ; FINMECCANICA SPA ALENIA AERONA ; GODONO GIUSEPPE ; UNIV NAPOLI FEDERICO II**Assignee(s):** UNIVERSITA DEGLI STUDI DI NAPOLI FEDERICO II ; FINMECCANICA SPA ALENIA AERONAUTICA ; FINMECCANICA ALENIA AERONAUTICA SPA**Inventor(s):** (std): GODONO GIUSEPPE ; ESPOSITO RENATO ; CERRETA PIETRO ; APICELLA ALFONSO**Designated states:** AE AM AT AU AZ BA BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HR HU IE IL IN IS IT JP KE KG KP KR KZ LS LU MC MD MK ML MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TZ UA UG US UZ VN YU ZA ZW

**Family:**

Publication number	Publication date	Application number	Application date
DE10085483 T	20030710	DE20001085483T	20000816
DE10085483 T1	20030710	DE20001085483T	20000816
GB200303077 A0	20030319	GB20030003077	20000816
GB2383848 A1	20030709	GB20030003077	20000816
GB2383848 B2	20040728	GB20030003077	20000816
JP2002014835 A1	20031007	JP20020519915T	20000816
JP4464043 B1	20100519	JP20020519915T	20000816
JP4464043 B2	20100519	JP20020519915T	20000816
US6810748 BA	20041102	US20030344638	20030701
WO0214835 A1	20020221	WO2000JP05470	20000816

Priority:

WO2000JP05470 20000816

Probable Assignee: CHUGOKU ELECTRIC POWER CO INC

Assignee(s): (std): CHUGAI TECHNOS CO LTD ; CHUGOKU ELECTRIC POWER ; CHUGOKU ELECTRIC POWER CO ; NISHIDA HIDETAKA ; YAMAGUCHI HIROSHI ; KOSAKO NOBUAKI ; CHUGOKU ELECTRIC POWER CO THE

Assignee(s): CHUGOKU ELECTRIC POWER CO THE INC ; THE CHUGOKU ELECTRIC POWER CO INC ; THE CHUGOKU ELECTRIC POWER CO ; CHUGOKU ELECTRIC POWER CO INC ; CHUGAI TECHNOS CO

Inventor(s): (std): KOSAKO NOBUAKI ; NISHIDA HIDETAKA ; YAMAGUCHI HIROSHI

Inventor(s): NOBUAKI KOSAKO ; HIDETAKA NISHIDA ; HIROSHI YAMAGUCHI

Agent(s): SHUKI AKITA

Designated states: DE GB JP US

75) Family number: 2591755 (EP0110865A2)

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Title: ARRANGEMENT FOR MONITORING THE DEGREE OF DAMAGE CAUSED BY MATERIAL FATIGUE IN BUILDINGS, VEHICLES AND MACHINES.

Abstract: An arrangement for monitoring the degree of damage caused by material fatigue has sensors (1) placed at points on a building, vehicle, machine or the like which are critical in terms of the mechanical loading. These sensors supply measurement signals to a recording and/or indicating device (16) which is connected to an evaluation circuit (6-11) exhibiting a counter or a summing memory device. In the evaluation circuit (6-11), by processing of and logic operations on the extreme values of the signals supplied by the individual sensors (1) a cumulative load signal is obtained, stored and a degree of damage determined which is continuously compared with a predetermined permissible degree of damage, and when this value is exceeded an alarm signal is triggered.

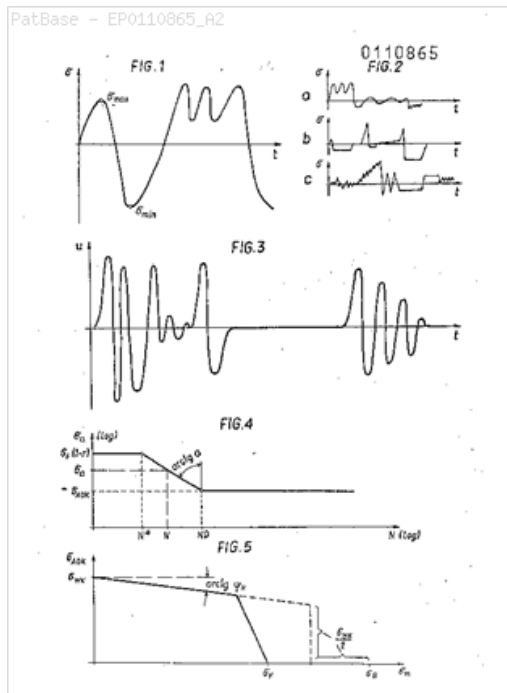
Classifications:

International (IPC 8-9): G06F17/40 G07C3/00 (Advanced/Invention); G06F17/40 G07C3/00 (Core/Invention)

International (IPC 1-7): G01N3/00 G06F15/20

CPC: G07C3/00

European: G06F17/40 G07C3/00

**Family:**

Publication number	Publication date	Application number	Application date
AT387464 B	19890125	AT19820003976	19821029
AT397682 A	19880615	AT19820003976	19821029
EP0110865 A2	19840613	EP19830890189	19831024
EP0110865 A3	19851121	EP19830890189	19831024

Priority:

AT19820003976 19821029

Probable Assignee: VOEST ALPINE AG**Assignee(s):** (std): VOEST ALPINE AG**Assignee(s):** VOEST ALPINE AKTIENGESELLSCHAFT**Inventor(s):** (std): RAMMERSTORFER FRANZ G DIPL ING ; RAMMERSTORFER FRANZ G PROF DIP ; SATTLER HERMANN DIPL ING DR ; FISCHER DIETER DIPL ING DR ; FISCHER DIETER PROF DIPL ING D ; GIDL GUNTER DIPL ING DR ; GIDL GUNTER DIPL ING DR**Inventor(s):** RAMMERSTORFER FRANZ G ; FISCHER DIETER PROF DIPL ING DR ; SATTLER HERMANN DIPL ING DR ; RAMMERSTORFER FRANZ G DIPL ING DR ; RAMMERSTORFER FRANZ G DIPL ING DR ; GIDL GUNTER DIPL ING DR ; FISCHER DIETER DIPL ING DR**Designated states:** CH DE FR GB LI**76) Family number: 51037756 (US2012103111A)**

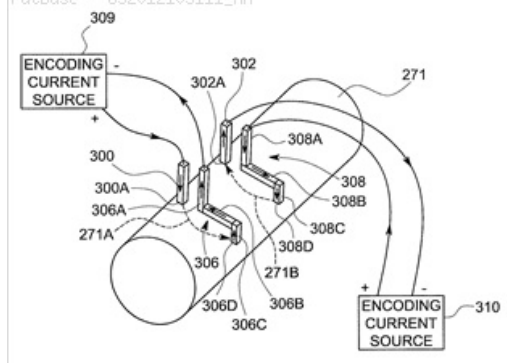
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Title: METHOD AND APPARATUS FOR CONTINUOUS SECTIONAL MAGNETIC ENCODING TO MEASURE TORQUE ON LARGE SHAFTS

Abstract: Magnetically encoded shafts for use in detecting forces exerted on the shaft during operation. Magnetically encoded regions, arranged in tracks or bands, encircle the shaft and are formed within or affixed to the shaft. The magnetically encoded regions define force-sensitive regions therebetween. Magnetic fields surround the force-sensitive regions and are altered by force vectors passing through the force sensitive region. These magnetic fields are sensed by magnetic field sensors to determine various shaft parameters including, for example: shaft rotational speed, shaft rotational position, and forces exerted on the shaft, e.g., torque, bending forces, stress forces and strain forces. To provide continuous detection of shaft operational parameters and forces, dead zones between magnetically encoded regions are aligned with force sensitive regions associated with magnetically encoded regions in other bands.

Classifications:**International (IPC 8-9):** G01D5/245 G01L1/00 G01L1/12 G01L3/02 G01L3/10 G01P3/487 G01R33/18 H01F13/00 (Advanced/Invention)**CPC:** G01L3/102 G01L3/103 G01P3/487 G01R33/18 G01L1/125**European:** G01L1/12 G01L3/10A2 G01L7/10C G01P3/487 G01R33/18**US:** 324/173 324/173S 335/284 335/284S 73/862.325 73/862.325P 73/862.625 73/862.625S

PatBase - US2012103111_A4

**Family:**

Publication number	Publication date	Application number	Application date
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CN102539041 A	20120704	CN201110348309	20111028
CN102539041 B	20160511	CN201110348309	20111028
EP2447675 A2	20120502	EP20110186673	20111026
EP2447675 A3	20171025	EP20110186673	20111026
US2012103111 AA	20120503	US20100914344	20101028
US8468898 BB	20130625	US20100914344	20101028

Priority:

US20100914344 20101028

Probable Assignee: GEN ELECTRIC

Assignee(s): (std): BALLER MARKO ; GEN ELECTRIC ; GENERAL ELECTRIC CO ; SIHLER CHRISTOF

Assignee(s): GENERAL ELECTRIC COMPANY

Inventor(s): (std): BALLER MARKO ; CHRISTOF SIHLER ; MARKO BALLER ; SIHLER CHRISTOF

Agent(s): ILLINGWORTH LAW WILLIAM ILLINGWORTH; ANN M

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

77) Family number: 57720759 (CN104132857A)

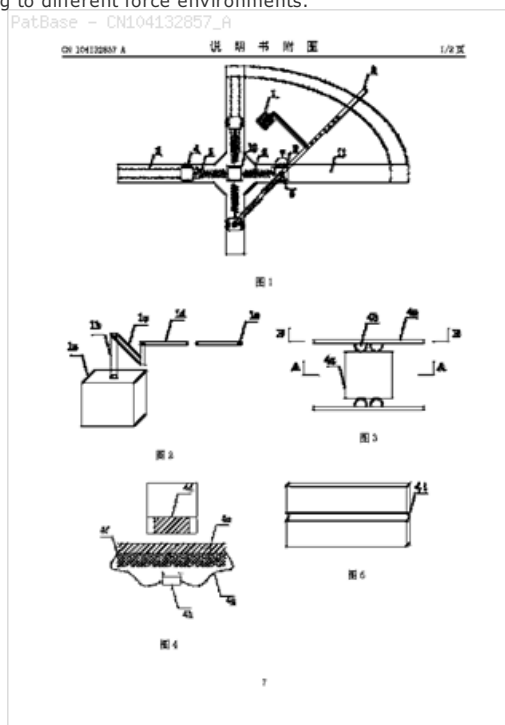
© PatBase

Title: MULTI-AXIAL FATIGUE TESTING MACHINE

Abstract: A multi-axial fatigue testing machine is disclosed. A drive unit is adopted to provide circulation power, and circulation force is transferred through a force transmission arm, a sliding device and a force transmission spring to a test piece such that the test piece is in a multi-axial fatigue stress state. By selecting the drive unit to connect bolt holes at different positions, multi-axial stress amplitude load applied on the test piece is adjusted; by replacing force transmission springs with different stiffness coefficients, stress amplitude load applied on the test piece is adjusted; and by changing moving displacement of a fixed device in a slide, different magnitudes of one-way initial stress or multi-way initial stress are applied. Therefore, the multi-axial fatigue testing machine can carry out a multi-axial fatigue test of a component by selecting reasonable magnitudes of stress amplitude and initial stress according to different force environments.

Classifications:

International (IPC 8-9): G01N3/38 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN104132857 A	20141105	CN201410355547	20140724
CN104132857 B	20170111	CN201410355547	20140724

Priority:

CN201410355547 20140724

Probable Assignee: UNIV HOHAI

Assignee(s): (std): HOHAI UNIV ; UNIV HOHAI

Inventor(s): (std): ZHU WEI ; JI BOHAI ; FU ZHONGQIU ; YUAN ZHOU ZHIYUAN

78) Family number: 62658768 (US2017363486A)

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Title: MICRO ELECTRO-MECHANICAL STRAIN DISPLACEMENT SENSOR AND USAGE MONITORING SYSTEM

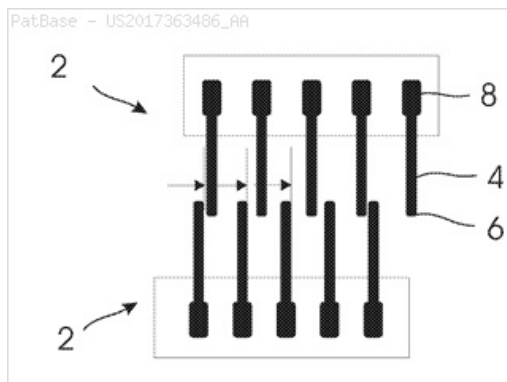
Abstract: A low power consumption multi-contact micro electro-mechanical strain/displacement sensor and miniature autonomous self-contained systems for recording of stress and usage history with direct output suitable for fatigue and load spectrum analysis are provided. In aerospace applications the system can assist in prediction of fatigue of a component subject to mechanical stresses as well as in harmonizing maintenance and overhauls intervals. In alternative applications, i.e. civil structures, general machinery, marine and submarine vessels, etc., the system can autonomously record strain history,

strain spectrum or maximum values of the strain over a prolonged period of time using an internal power supply or a power supply combined with an energy harvesting device. The sensor is based on MEMS technology and incorporates a micro array of flexible micro or nano-size cantilevers. The system can have extremely low power consumption while maintaining precision and temperature/humidity independence.

Classifications:

International (IPC 8-9): B81B3/00 B81B7/00 G01L1/00 G01L1/04 G01M5/00 (Advanced/Invention)

CPC: G01L1/044 G01L1/04 B81B2201/02 G01L1/005 G01M5/0033 G01M5/0083



Family:

Publication number	Publication date	Application number	Application date
CA3006938 AA	20180530	CA20153006938	20151209
EP3230199 A1	20171018	EP20150867043	20151209
EP3230199 A4	20190220	EP20150867043	20151209
US2017363486 AA	20171221	US20150534310	20151209
WO16092475 A1	20160616	WO20151B59451	20151209

Priority:

US20140090001P 20141210 US20150534310 20151209 WO20151B59451 20151209

Probable Assignee: OKULOV PAVEL D

Assignee(s): (std): OKULOV PAUL D ; OKULOV PAVEL D

Inventor(s): (std): OKULOV PAUL D ; OKULOV PAVEL D

Agent(s): NELLIGAN OBRIEN PAYNE LLP; CONTI MARCO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

79) Family number: 41038771 (US2008011085A)

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Title: STRAIN SENSING DEVICE

Abstract: A strain sensing device is provided, which may include a hollow, cylindrical member having an inner surface and an outer surface. The outer surface may have an outer diameter corresponding approximately in size to an inner diameter of an inner surface of a cylindrical bore of a structural component configured to undergo mechanical loading. The hollow, cylindrical member may be configured to mate to the inner surface of the cylindrical bore of the structural component such that strain in the structural component is translated into strain in the hollow, cylindrical member. The strain sensing device may also include one or more strain sensing elements attached to the inner surface of the hollow, cylindrical member and configured to detect strain exhibited by the hollow, cylindrical member.

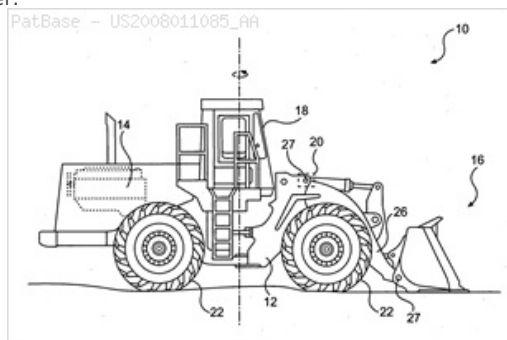
Classifications:

International (IPC 8-9): G01B17/02 G01L5/00 G01N29/00 (Advanced/Invention); G01B17/02 G01L5/00 G01N29/00 (Core/Invention)

CPC: G01L5/0004 G01L5/136

European: G01L5/00B G01L5/13D

US: 73/627 73/767 73/862.041 73/862.627 73/862.631



Family:

Publication number	Publication date	Application number	Application date
DE112007001567 T5	20090507	DE200711001567T	20070323
US2008011085 AA	20080117	US20060477857	20060630
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WO08005077 A1	20080110	WO2007US07236	20070323

Priority:

US20060477857 20060630 WO2007US07236 20070323

Probable Assignee: CATERPILLAR INC

Assignee(s): (std): CATERPILLAR INC ; SUNDERMEYER JEFFRY N ; VIK TIMOTHY A

Inventor(s): (std): VIK TIMOTHY A ; SUNDERMEYER JEFFRY N

Agent(s): CATERPILLAR FINNEGAN HENDERSON LLP; FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER; CARTER JANDA M ET AL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY

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MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG
TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

80) Family number: 15288771 (US5969256A)

© PatBase

Title: Modular vibration system

Abstract: A modular vibration system which utilizes interchangeable modules to adapt to any of a wide range of applications and performance characteristics. The vibration system comprises a shaker module, a coupling module, and a fixture module. The shaker module includes features for mounting actuators, which provide multiaxial shaking motions, to the shaker module. The fixture module provides for attaching and holding specimens under test. The coupling module, preferably made of a visco-elastic material, couples the fixture module to the shaker module. The fixture module and the coupling module are easily separable from the shaker module. This configuration permits tuning the vibration system, over a wide range of multimodal coupling characteristics between the shaker module and the fixture module, for a specific application by interchanging fixture modules and coupling modules. The coupling characteristics can range from very flexible to very stiff and from underdamped to overdamped. The fixture module can range from a honeycomb structure which is lightweight and flexible to a solid structure which is very stiff. The thickness, shape and composition of the coupling module can be selected to adjust the damping and to provide further tuning of the stiffness. The vibration system can be held together by vacuum applied between the shaker module and fixture module or by tension members such as springs. In some cases the specimen itself can function as the fixture module.

Classifications:

International (IPC 8-9): G01M7/02 G01M7/06 (Advanced/Invention);

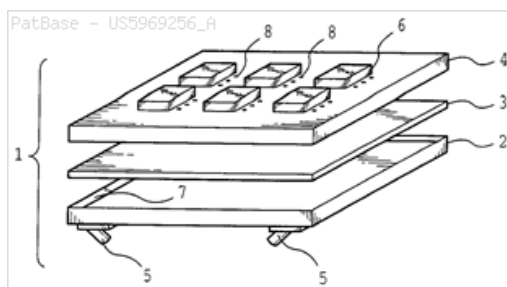
G01M7/00 (Core/Invention)

International (IPC 1-7): B06B3/00 G01M7/02 G01M7/06

CPC: G01M7/027 G01M7/06

European: G01M7/02F G01M7/06

US: 73/662 73/663



Family:

Publication number	Publication date	Application number	Application date
CA2276366 AA	19990628	CA19972276366	19971224
CA2276366 C	20050524	CA19972276366	19971224
DE69720519 D1	20030508	DE19976020519	19971224
DE69720519 T2	20031224	DE19976020519T	19971224
EP0950174 A1	19991020	EP19970953426	19971224
EP0950174 B1	20030402	EP19970953426	19971224
US5969256 A	19991019	US19960773384	19961226
WO9829723 A1	19980709	WO1997US23823	19971224
WO9829723 C1	20010118	WO1997US23823	19971224

Priority:

US19960773384 19961226 WO1997US23823 19971224

Probable Assignee: HALT AND HASS SYSTEMS CORP

Assignee(s): (std): HOBBS GREGG K

Assignee(s): CINCINNATI SUB ZERO PRODUCTS INC ; HALT AND HASS SYSTEMS CORP

Inventor(s): (std): HOBBS GREGG K

Agent(s): MCKAY CAREY AND CO

Designated states: AT BE CA CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE US

81) Family number: 55366782 (US2013336519A)

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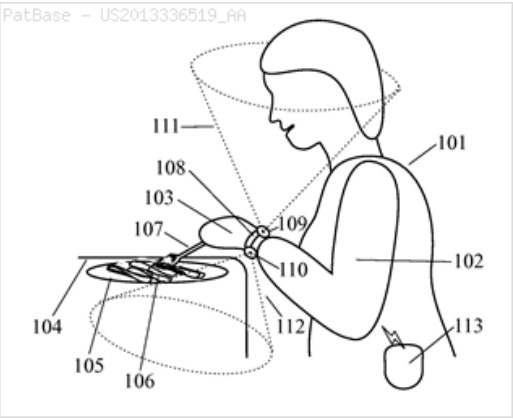
Title: WILLPOWER WATCH (TM) -- A WEARABLE FOOD CONSUMPTION MONITOR

Abstract: This invention is a wearable, automatic, and tamper-resistant device and method for monitoring and measuring food consumption and caloric intake. It can help people to manage their energy balance and weight. It can be embodied as: (a) one or more automatic-imaging members that are worn on a person from which these members collectively and automatically take pictures of the person's mouth and pictures of a reachable food source when the person eats; (b) a tamper-resisting mechanism which detects and responds if the operation of the one or more automatic-imaging members is impaired; and (c) an image-analyzing member which automatically analyzes pictures of the person's mouth and pictures of the reachable food source in order to estimate the types and quantities of food that are consumed by the person.

Classifications:

International (IPC 8-9): A41B1/08 A41B7/00 A41D13/12 A41D27/10
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A61B5/107 A61B5/11 A61B5/1455 A61B90/00 G01N21/31 G06F1/16

G06F19/00 G06F3/01 G06K9/00 G09B19/00 (Advanced/Non-invention)
CPC: G06K9/00771 G06K9/228 A61B5/7285 A61B5/0075
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Family:

Publication number	Publication date	Application number	Application date
US2013336519 AA	20131219	US20120523739	20120614
US2014081578 AA	20140320	US20120616238	20120914
US2014276546 AA	20140918	US20130797955	20130312
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US2016313798 AA	20161027	US20160130995	20160417
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Priority:

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US20170702081	20170912	US20170725330	20171005	US20180879581	20180125
US20180882255	20180129	US20180960477	20180423	US20180963061	20180425
US20180683237P	20180611	US20180010448	20180616	US20180017439	20180625
US20180022987	20180629	US20180150469	20181003		

Probable Assignee: MEDIBOTICS LLC

Assignee(s): (std): BEHYMER JEDIDIAH ; CONNOR ROBERT A ; HARDYMAN MATTHEW ; HERICKS MATT ; MEDIBOTICS LLC ; HOMMER GARRISON ; LOPEZ GUS ; SMIDA JOHN ; OLSON TYLER ; STEIN ALEX ; VALENCIA DANIEL ; WONG ERIC

Inventor(s): (std): CONNOR ROBERT A ; WONG ERIC ; VALENCIA DANIEL ; STEIN ALEX ; SMIDA JOHN ; OLSON TYLER ; LOPEZ GUS ; HOMMER GARRISON ; HERICKS MATT ; HARDYMAN MATTHEW ; BEHYMER JEDIDIAH

82) Family number: 68415782 (WO18024521A1)

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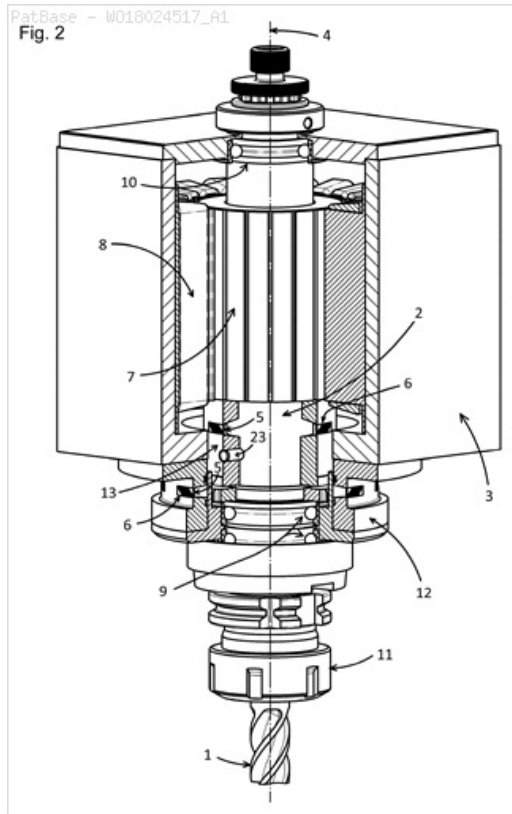
Title: FORCE MEASURING DEVICE FOR MULTI-AXIS MEASUREMENT OF ACTIVE FORCES AND MOMENTS

Abstract: The invention relates to a force measuring device for the at least three-axis measurement of forces Fx, Fy and Fz and/or moments Mx, My, and Mz, comprising a first flange-like part (1), via which the forces/moments to be measured are introduced, a second flange-like part (2), via which the introduced forces/moments are picked up and dissipated, and a tube-like deformation zone (3) connecting said two parts, via which all the tensile, compressive, torsional, and shear forces acting on the first flange-like part (1) are passed on to the second flange-like part (2). At least the inner or outer surface of the tube-like deformation zone (3) serves as an application surface (5) for deformation transducers (4), and the tube-like deformation zone (3) is subdivided circumferentially into at least eight sectors S1 to S8. The force measuring device also comprises an evaluation unit for forming measured values of at least one force component. The force measuring device is distinguished by the fact that at least one deformation transducer is arranged on each individual sector S1 to S8, all the deformation transducers of a sector are each wired to one another in a common Wheatstone bridge, and each sector on the tube-like deformation zone (3) is located opposite a second sector offset by 180 degrees about the mid-axis (7) of the deformation zone (3) and having a similar arrangement of deformation transducers.

Classifications:

International (IPC 8-9): B23B19/02 B23Q17/09 G01L1/22 G01L1/26 G01L3/14 G01L5/00 G01L5/16 G01N3/24 (Advanced/Invention)

CPC: G01L5/161 B23Q17/0966 G01L5/0076 G01L1/26 B23Q2220/006



Family:

Publication number	Publication date	Application number	Application date
DE102016114193 A1	20180201	DE201610114193	20160818
DE102016116179 A1	20180201	DE201610116179	20160831
DE102016116180 A1	20180201	DE201610116180	20160831
DE102016116180 B4	20190328	DE201610116180	20160831
DE102016116181 A1	20180201	DE201610116181	20160831
DE102016116182 A1	20180201	DE201610116182	20160831
EP3491355 A1	20190605	EP20170751662	20170724
EP3491356 A1	20190605	EP20170752024	20170724
EP3491357 A1	20190605	EP20170752025	20170724
WO18024517 A1	20180208	WO2017EP68578	20170724
WO18024518 A1	20180208	WO2017EP68579	20170724
WO18024519 A1	20180208	WO2017EP68580	20170724
WO18024520 A1	20180208	WO2017EP68581	20170724
WO18024521 A1	20180208	WO2017EP68584	20170724

Priority:

DE201610114203	20160801	DE201610114205	20160801	DE201610114207	20160801
DE201610114206	20160801	DE201610114193	20160818	WO2017EP68579	20170724
WO2017EP68584	20170724	WO2017EP68581	20170724		

Probable Assignee: NUTON GMBH

Assignee(s): (std): NUTON GMBH

Inventor(s): (std): GONZALES DE MENDOZA ADRIAN C ; GONZALEZ DE MENDOZA ADRIAN ; DE MENDOZA ADRIAN GONZALEZ

Agent(s): PATENTANWALTE BAUER VORBERG KAYSER; BAUER VORBERG KAYSER PARTNERSCHAFT MBB

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

83) Family number: 28677799 (US2002087233A)

© PatBase

Title: Portable coordinate measurement machine with pre-stressed bearings

Abstract: A portable coordinate measuring machine comprises a multijointed manually positionable articulated measuring arm for accurately and easily measuring a volume. The articulated arm includes a plurality of bearing arrangements comprising at least a pair of spaced bearings, the spaced bearings being pre-stressed such that, under an applied load, any motion of the arm is limited to axial motion and wherein the mechanical stability of the arm is increased.

Classifications:

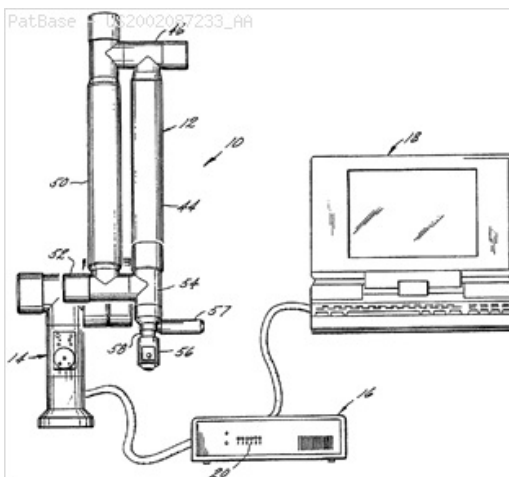
International (IPC 8-9): B25J9/10 B25J9/16 B25J9/22 G01B21/00
G01B21/04 G01B21/20 G01B5/00 G01B5/008 G01B7/00 G01B7/008
G05B19/40 G05B19/401 G05B19/4068 G05B19/4093
G05B19/42 (Advanced/Invention);
B25J9/10 B25J9/16 B25J9/22 G01B21/00 G01B21/02 G01B21/20
G01B5/00 G01B5/008 G01B7/00 G01B7/008 G05B19/40 G05B19/401
G05B19/406 G05B19/4093 G05B19/42 (Core/Invention)

International (IPC 1-7): A61B5/103 B25J9/10 B25J9/16 B25J9/22 G01B11/03 G01B21/00 G01B21/04 G01B21/20 G01B5/00 G01B5/004 G01B5/008 G01B5/03 G01B7/004 G01B7/008 G01B7/03 G01C1/00 G01D18/00 G01D5/00 G05B15/00 G05B19/00 G05B19/4069 G05B19/4093 G05B19/42 G05F1/00 G06F15/40 G06F19/00

CPC: G01B5/008 G01B21/04 G01B21/047 G05B19/401 G05B2219/31174 G05B2219/33192 G05B2219/34012 G05B2219/37173 G05B2219/37193 G05B2219/37213 G05B2219/37357 G05B2219/37405 G05B2219/37491 G05B2219/39015 G05B2219/39021 G05B2219/39414 G05B2219/40233 G05B2219/40596 G05B2219/45061 G05B2219/49206 G05B2219/49298 G05B2219/50042 G05B2219/50252 B25J9/1692 G05B19/4207 G05B2219/39028 G05B2219/41176

European: B25J9/16T5 G01B21/04 G01B21/04D G01B5/008 G05B19/401 G05B19/42B2 S05B219/31174 S05B219/33192 S05B219/34012 S05B219/37173 S05B219/37193 S05B219/37213 S05B219/37357 S05B219/37405 S05B219/37491 S05B219/39015 S05B219/39021 S05B219/39028 S05B219/39414 S05B219/40233 S05B219/40596 S05B219/41176 S05B219/45061 S05B219/49206 S05B219/49298 S05B219/50042 S05B219/50252

US: 33/1PT 33/502 33/503 33/504 33/505 33/512 33/701 5/690 600/587 700/195 700/245 700/262 700/262P 700/80 702/167 702/97



Family:

Publication number	Publication date	Application number	Application date
CA2110927 AA	19940824	CA19932110927	19931208
CA2110927 C	20060321	CA19932110927	19931208
DE4403901 A1	19940825	DE19944403901	19940208
DE4403901 B4	20040708	DE19944403901	19940208
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DE4447901 B4	20051201	DE19944447901	19940208
DE4447902 B4	20050120	DE19944447902	19940208
DE4447904 B4	20041230	DE19944447904	19940208
DE4447905 B4	20050428	DE19944447905	19940208
DE4447906 B4	20050105	DE19944447906	19940208
DE4447907 B4	20051117	DE19944447907	19940208
DE69621669 D1	20020718	DE19966021669	19960301
DE69621669 T2	20030306	DE19966021669T	19960301
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DE69632840 T2	20050707	DE19966032840T	19960301
DE9421789 U1	19961010	DE19940021789U	19940208
DE9421790 U1	19961010	DE19940021790U	19940208
DE9421791 U1	19961010	DE19940021791U	19940208
DE9422039 U1	19971106	DE19940022039U	19940208
DE9422040 U1	19971120	DE19940022040U	19940208
DE9422041 U1	19971120	DE19940022041U	19940208
DE9422042 U1	19971120	DE19940022042U	19940208
DE9422043 U1	19971120	DE19940022043U	19940208
EP0640902 A2	19950301	EP19940112601	19940812
EP0640902 A3	19961106	EP19940112601	19940812
EP0730210 A1	19960904	EP19960301417	19960301
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EP0740982 A2	19961106	EP19960850081	19960426
EP0740982 A3	19980819	EP19960850081	19960426
EP1189124 A1	20020320	EP20010126126	19960301
EP1189124 B1	20040630	EP20010126126	19960301
EP1189125 A1	20020320	EP20010126128	19960301
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JP8261745 A2	19961011	JP19960046439	19960304
JP9011167 A2	19970114	JP19960109095	19960430
KR100274942 B1	20010115	KR19930027227	19931210
KR19940020097 A	19940915	KR19930027227	19931210
US2002087233 AA	20020704	US20020053210	20020115
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US5408754 A	19950425	US19930142661	19931026
US5412880 A	19950509	US19930112605	19930826
US5611147 A	19970318	US19950398592	19950303
US5794356 A	19980818	US19960751904	19961118
US6366831 BA	20020402	US19990228299	19990112
US6535794 BA	20030318	US19950434010	19950503
US6606539 BB	20030812	US20020053210	20020115

Priority:

US199300421869 199300226
DE19944403901 19940208
EP19960301417 19960301
US20020053210 20020115

US19930112092 199300206
US19950398592 19950303
US19960751904 19961118

US19930112092 199300206
US19950434010 19950503
US19990228299 19990112

Probable Assignee: FARO TECHNOLOGIES INC

Assignee(s): (std): FARO TECH INC ; FARO TECHNOLOGIES ; RAAB SIMON ; FARO TECHNOLOGOIES INC ; RAAB S ; FARO TECHNOLOGIES INC CY

Assignee(s): FARO TECHNOLOGIES INC LAKE MARY FLA US ; XENON RESEARCH INC ; FUARO TECHNOL INC ; FARO TECHNOLOGIES INC ; FARO TECHNOLOGIES INC COMPAGNY

Inventor(s): (std): SIMON RAAB ; RAAB SIMON ; SAIMON RAABU

Inventor(s): RAAB SIMON LONGWOOD FLA

Agent(s): OGILVY RENAULT LLP SENCRL SRL; CABINET MICHEL MOINAS; KAWAGUCHI YOSHIO

Designated states: DE FR GB IT SE

84) Family number: 13264821 (EP0569939A1)

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Title: Device for testing airsprings, in particular for vehicles, under loading conditions similar to their working ones.

Abstract: To summarise, the device according to the invention tests air springs (1) under conditions close to operational and comprises an air spring holder (2) for holding one end (3) of an air spring (1); a clamping and guiding device (7, 10, 13) for clamping the other end (8) of the air spring (1) and for forcibly guiding it along a multiply nonlinear deflection and rebound path; and a movement device (16) for moving the other end of the air spring to and fro along the multiply nonlinear deflection and rebound path determined by the clamping and guiding device. This device is suitable, with particular advantage, for testing air springs for commercial motor vehicles and their trailers.

Classifications:

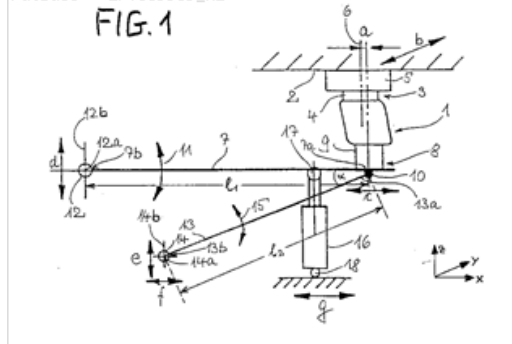
International (IPC 8-9): G01N3/00 (Advanced/Invention); G01N3/02 (Advanced/Non-invention)

International (IPC 1-7): G01M13/00 G01N3/00 G01N3/00

CPC: G01N3/00 G01N2203/0019 G01N2203/0025 G01N2203/0026 G01N2203/0246 G01N2203/0294

European: G01N3/00 G01N3/00B S01N203/00F1B S01N203/00F4 S01N203/00F5 S01N203/02E4S S01N203/02S4C S01N3/00F1B S01N3/00F4 S01N3/00F9A S01N3/02E4S S01N3/02S9S S01N3/02S9S5

PatBase - EP0569939_A1



Family:

Publication number	Publication date	Application number	Application date
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DE4215852 C2	19960222	DE19924215852	19920514
DE59308265 D1	19980423	DE19935008265	19930511
EP0569939 A1	19931118	EP19930107655	19930511
EP0569939 B1	19980318	EP19930107655	19930511
ES2114966 T3	19980616	ES19930107655T	19930511

Priority:

DE19924215852 19920514 DE19924215852 19920514 DE19935008265 19930511

Probable Assignee: MAN NUTZFAHRZEUGE AG

Assignee(s): (std): FRAUNHOFER GES FORSCHUNG ; MAN NUTZFAHRZEUGE AG

Assignee(s): MAN NUTZFAHRZEUGE AKTIENGESELLSCHAFT ; MAN NUTZFAHRZEUGE AG 80995 MUENCHEN DE ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E V ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E V 80636 MUENCHEN DE ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG EV 80636 MUENCHEN DE ; FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG E V

Inventor(s): (std): FISCHER GERHARD DR ING ; GRUBISIC VATROSLAV PROF DR ING ; KLOCK JURGEN DIPL ING ; KLUCH JUERGEN DIPL ING ; STREICHER MANFRED DIPL ING ; KLOCK JUERGEN DIPL ING ; WYPICH PETER DIPL ING

Inventor(s): WYPICH PETER DIPL ING W 8066 BERGKIRCHEN DE ; KLOCK JUERGEN DIPL ING W 6111 OTZBERG 1 DE ; STREICHER MANFRED DIPL ING W 8000 MUENCHEN 19 DE ; GRUBISIC VATROSLAV PROF DR ING W 6107 REINHEIM 4 D ; GRUBISIC VATROSLAV PROF DR ING W 6107 REINHEIM 4 DE ; FISCHER GERHARD DR ING W 6100 DARMSTADT DE

Designated states: DE ES FR GB IT SE

85) Family number: 54294822 (US2013224172A)

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Title: METHODS OF TREATING BEHAVIORAL SYMPTOMS OF NEUROLOGICAL AND MENTAL DISORDERS

Abstract: Disclosed herein are methods of using coated digestive enzyme preparations and enzyme delivery systems and pharmaceutical compositions comprising the preparations for treatment of subjects having behavioral disorders, neurological disorders or mental health disorders. Disclosed herein are methods of treating core and non-core symptoms of behavioral disorders, neurological disorders or mental health disorders. Also disclosed herein are products for use in methods of treatment and methods of making the same.

Classifications:

International (IPC 8-9): A61K A61K31/122 A61K38/46 A61K38/47 A61K38/48 A61K38/54 A61K47/14 A61K47/24 A61K47/34 A61K47/38 A61K47/44 A61K9/16 A61K9/30 A61K9/48 A61K9/50

A61P A61P1/10 A61P1/12 A61P1/18 A61P25/00 A61P3/02 A61P43/00
G01N33/50 G01N33/68 (Advanced/Invention);
A61K A61P (Subclass/Invention)
CPC: A61K38/48 A61K38/47 A61K38/465 A61K38/54 A61K31/122
A61K38/46 A61K9/16 A61K9/50 A61K2121/00
US: 424/94.2 424/94.6 424/94.61 424/94.63

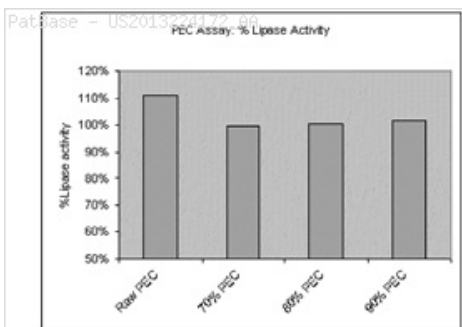


FIGURE 1

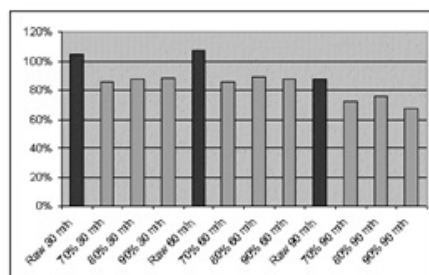


FIGURE 2

Family:

Publication number	Publication date	Application number	Application date
AU2013206890 AA	20140724	AU20130206890	20130103
AU2013206890 BB	20170928	AU20130206890	20130103
AU2017232048 AA	20171012	AU20170232048	20170919
AU2017232048 BB	20190502	AU20170232048	20170919
BR112014016557 A2	20170613	BR20141116557	20130103
BR112014016557 A8	20170613	BR20141116557	20130103
BR112014016557 A8	20170704	BR20141116557	20130103
BR112014016557 A8	20170704	BR20141116557	20130103
CA2862403 AA	20140627	CA20132862403	20130103
CN104144698 A	20141112	CN201380012401	20130103
CN108578684 A	20180928	CN201810356485	20130103
EP2800581 A1	20141112	EP20130733621	20130103
EP2800581 A4	20150812	EP20130733621	20130103
GB201411821 A0	20140813	GB20140011821	20130103
GB2511713 A1	20140910	GB20140011821	20130103
HK1201731 A1	20150911	HK20150102273	20150305
IL233372 A0	20140831	IL20130233372	20130103
JP2015503586 T2	20150202	JP20140551323T	20130103
JP2019006788 A2	20190117	JP20180153357	20180817
KR20140107665 A	20140904	KR20147021425	20130103
MX2014008156 A1	20150413	MX20140008156	20130103
MX363096 B	20190308	MX20140008156	20130103
NZ716627 A	20170825	NZ20130716627	20130103
RU2014130165 A	20160227	RU20140130165	20130103
RU2654230 C2	20180517	RU20140130165	20130103
US2013224172 AA	20130829	US20130733873	20130103
WO13103746 A1	20130711	WO2013US20183	20130103

Priority:

US20120582813P 20120103	US20120600110P 20120217	AU20130206890 20130103
NZ20130626686 20130103	CN201380012401 20130103	JP20140551323T 20130103
US20130733873 20130103	WO2013US20183 20130103	AU20170232048 20170919
JP20180153357 20180817		

Probable Assignee: CUREMARK LLC

Assignee(s): (std): FALLON JAMES J ; FALLON JOAN M ; NANUS KENNETH ; HEIL MATTHEW F ; SZIGETHY JAMES ; KYUAMARK YUES ELELSI ; CUREMARK LLC

Assignee(s): CUREMARK LLC411 THEODORE FREMD AVENUERYENY10580US

Inventor(s): (std): NANUS KENNETH ; FALLON JOAN M ; HEIL MATTHEW F ; FALLON JAMES J ; SZIGETHY JAMES ; MATTHEW F HEIL ; JAMES SZIGETHY ; JAMES J FALLON ; JOAN M FALLON ; KENNETH NANUS ; SZIGETHY JAMES F ; HEIL MATTHEW

Inventor(s): MATTHEW HEIL ; JAMES F SZIGETHY ; FALLON JOAN MUS ; FALLON JAMES JUS ; NANUS KENNETHUS ; SZIGETHY JAMESUS ; HEIL MATTHEW FUS ; FALLON JOANM ; HEIL MATTHEWF ; FALLON JAMESJ

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; GOWLING LAFLEUR HENDERSON LLP; LONGLAND EMMA LOUISE; ROBIN BRIDGE AND JOHN LIU; KAWAMOTO KAZUYA; SHIMIZU HATSUSHI; OSAKABE SUGURU; SOBOLEVU AYU; JAMROZ MEGAN E ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: EVALUATION OF APPLICATIONS USING DIGITAL IMAGE CORRELATION TECHNIQUES

Abstract: [Source: Claim 1] 1. A method for material lifetime evaluation, the method comprising: causing a stress or a strain to be applied to a material surface based at least on a cycle of properties over time; causing an image of the material surface to be captured as a captured image, wherein the captured image is correlated to the cycle of properties; and determining a surface strain energy density (SSED) model for the material surface based at least on the captured image.

Classifications:

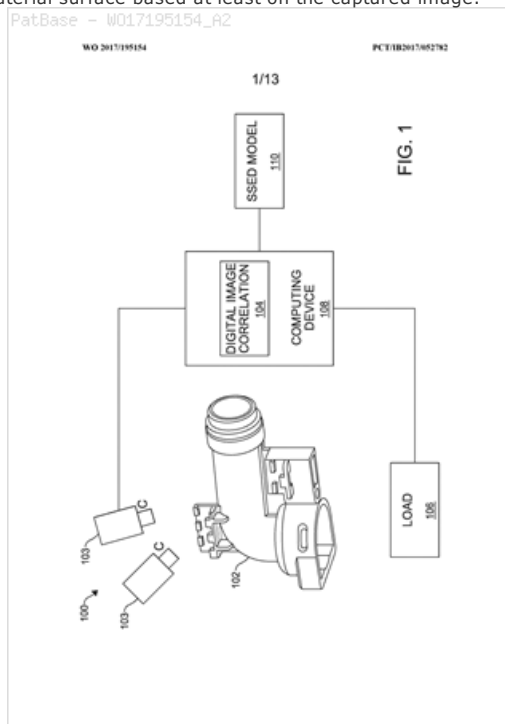
International (IPC 8-9): G01B11/16 G01N3/32 (Advanced/Invention)

CPC: G01N3/32 G01B11/16 G01N2203/0005 G01N2203/0044

G01N2203/0057 G01N2203/0073 G01N2203/0075 G01N2203/0218

G01N2203/0641

PatBase - WO17195154_A2



Family:

Publication number	Publication date	Application number	Application date
CN109313110 A	20190205	CN201780034574	20170511
EP3455606 A2	20190320	EP20170727003	20170511
WO17195154 A2	20171116	WO20171B52782	20170511

Priority:

US20160336002P 20160513 WO20171B52782 20170511

Probable Assignee: SABIC GLOBAL TECHNOLOGIES BV

Assignee(s): (std): SABIC GLOBAL TECHNOLOGIES BV

Inventor(s): (std): THAMBI JOEL

Agent(s): ELZABURU SLP

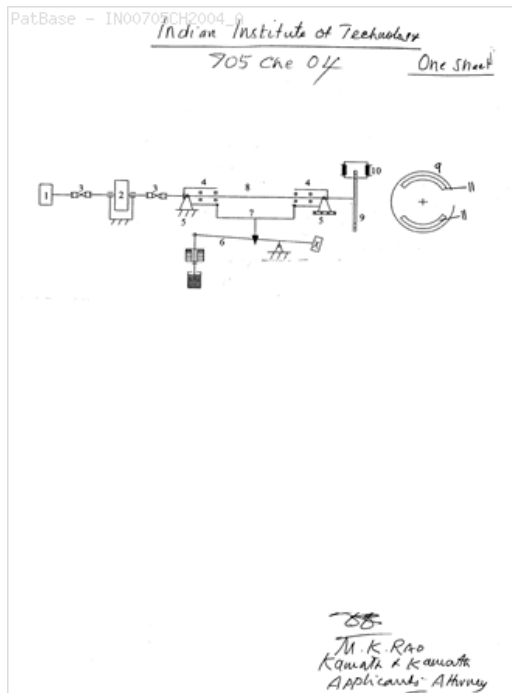
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: A MULTI AXIAL FATIGUE TESTING MACHINE

Abstract: A fatigue testing machine comprising a motor for rotating a shaft on which are mounted an inertia loading member; a pair of supporting heads for mounting the test specimen; a lever and dead weight arrangement for loading the test specimen, characterised in that one end of the test specimen is attached to a rotatable disc having spaced slots cut on the face of the disc; an electromagnet interposed at the outer periphery of the disc whereby when a d.c.voltage is applied to the coil of the said magnet, the resulting cyclic magnetic force acting on the said disc produces a counter torque on the said shaft and thus a counter torque on the test specimen, thereby inducing a cyclic torsional stress on the test specimen.

Classifications:

International (IPC 1-7): G01N3/32



Family:

Publication number	Publication date	Application number	Application date
IN00705CH2004 A	20060714	IN2004CH00705	20040720
IN206754 B	20070629	IN2004CH00705	20040720

Probable Assignee: INDIAN INST TECHNOLOGY

Assignee(s): INDIAN INST TECHNOLOGY ; M S INDIAN INST OF TECHNOLOGY

Inventor(s): DR MINNAL MUTHUVEL MAYURAM ; MR DR MINNAL MUTHUVEL MAYURAM

88) Family number: 65497849 (US2017112433A)

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Title: ELECTRONIC OPHTHALMIC LENS WITH SLEEP MONITORING

Abstract: An eyelid position sensor system and/or an eye movement sensor system for an ophthalmic lens having an electronic system is described herein for recording data associated with sleep of the wearer. The eyelid position sensor system is part of an electronic system incorporated into the ophthalmic lens. The electronic system in at least one embodiment includes a system controller and a data manager. In at least one embodiment, the eyelid position sensor system is utilized to determine eyelid position and the eye movement sensor system is utilized to determine eye position for the system controller to determine if the wearer is awake, asleep, or in REM sleep.

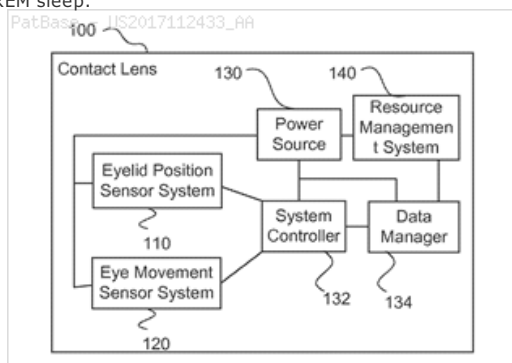
Classifications:

International (IPC 8-9): A61B A61B3/113 A61B3/14 A61B5/00 A61B5/11 A61B5/16 A61B5/18 A61F2/14 A61F2/16 A61F9/00 G01D21/00 G01J1/42 G02C11/00 G02C7/04

G08B (Advanced/Invention);
A61B3/113 (Advanced/Non-invention);
G08B (Subclass/Invention)

CPC: A61B5/4809 G02C11/10 A61B5/18 G01J1/42 A61B5/002 A61B5/4812 A61B5/6821 G02C7/04 A61B5/4806 A61B5/7225 A61B3/113 A61B5/1103 A61B2560/0209

US: 351/209



Family:

Publication number	Publication date	Application number	Application date
AU2016228168 AA	20170511	AU20160228168	20160913
BR102016024738 A2	20170502	BR20161024738	20161024
CA2946211 AA	20170427	CA20162946211	20161024
CN107007255 A	20170804	CN201610957920	20161027
EP3167792 A2	20170517	EP20160195807	20161026
EP3167792 A3	20170719	EP20160195807	20161026
HK1236372 A1	20180329	HK20170110273	20171012
IL247780 A0	20161130	IL20160247780	20160912
JP2017102435 A2	20170608	JP20160209315	20161026
KR20170049404 A	20170510	KR20160137447	20161021
RU2016141276 A	20180427	RU20160141276	20161020
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SG10201608065R A1	20170530	SG20161008065	20160927
TW201733519 A	20171001	TW20160134228	20161024

US2017112433 AA	20170427	US20150924065	20151027
US10314530 BB	20190611	US20150924065	20151027

Priority:

US20150924065 20151027 RU20160141276 20161020 KR20160137447 20161021
JP20160209315 20161026

Probable Assignee: JOHNSON AND JOHNSON VISION CARE INC

Assignee(s): (std): JOHNSON AND JOHNSON VISION CARE ; JOHNSON AND JOHNSON VISION CARE INC ; JOHNSON AND JOHNSON VISION CARE TRADING CO LTD

Assignee(s): TONER ADAM ; PUGH RANDALL B ; FLITSCH FREDERICK A

Inventor(s): (std): PUGH RANDALL BRAXTON ; RANDALL B PUGH ; ADAM TONER ; FREDERICK A FLITSCH ; TONER ADAM ; FLITSCH FREDERICK A ; PUGH RANDALL B

Agent(s): FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; NORTON ROSE FULBRIGHT CANADA LLP
SENCRL SRL; CARPMAELS AND RANSFORD LLP; DEACONS; KATO MASANOBU; OOO YURIDICHESKAYA
GORODISSKIJ I PARTNER FA; DREW AND NAPIER LLC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO
PL PT RO RS SE SI SK SM TR

89) Family number: 46986859 (US2010298742A)

© PatBase

Title: PATIENT MOVEMENT DETECTION SYSTEM AND METHOD

Abstract: A monitoring system and method tracks a patient's position over time and ensures that proper turning or other manipulation is done within the time prescribed. Preferably, the techniques herein continuously monitor patient position and alert medical or other personnel of the need for turning or other patient manipulation. The system may be implemented within a medical or other care facility, or within a patient's home.

Classifications:

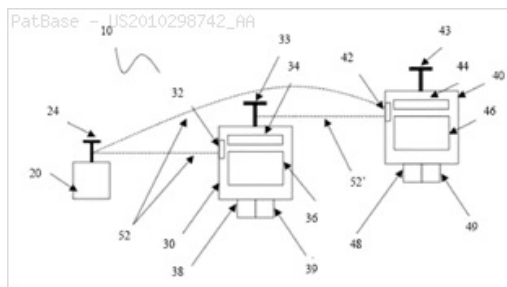
International (IPC 8-9): A27C27/08 A41B9/00 A61B5/00 A61B5/01
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A61B5/107 A61B5/11 A61B5/113 A61B5/117 A61B5/1455
A61G13/02 A61G5/10 A61G7/00 A61G7/018 A61G7/05 A61G7/057
A62C27/00 G01P21/00 G06F19/00 G06Q50/22 G08B21/02
G08B21/04 G08B21/22 G08B25/04 G08B31/00 G08B5/22 G08B7/06
G16H40/63 G16H40/67 G16H50/20 G16H50/30 H04W4/00 H04W4/02
H04W4/04 H04W4/80 H04W84/18 (Advanced/Invention);
A61B5/00 A61B5/01 A61B5/024 A61B5/026 A61B5/053 A61B5/08
A61B5/113 A61B5/145 A61B5/1455 A61B7/00 (Advanced/Non-
invention);
A61B5/103 A61B5/11 (Core/Invention)

CPC: A61B2562/18 A61B2560/0443 G16H40/63 A61B5/1036

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A61B2562/0223 A61B2562/0247 A61B2562/0261 A61B2562/029 A61B2562/043 A61G7/001 A61G7/057 A61G2203/42
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G16H20/10 A61B5/683 G06F19/3456 G06F19/00 G16H20/00

European: A61B5/024 A61B5/11N A61B5/11P A61B5/44B10 A61B5/68F3 A61G7/057 K61B5/01 K61B5/026B K61B5/113
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US: 128/845 128/845S 340/573.1 600/301 600/301P 600/476 600/595 600/595P 600/595S 702/104 705/2



Family:

Publication number	Publication date	Application number	Application date
CA2926709 AA	20160406	CA20142926709	20141008
CA2930722 AA	20160513	CA20142930722	20141117
CA3019931 AA	20181003	CA20173019931	20170404
CA3027950 AA	20181214	CA20173027950	20170615
EP2595707 A1	20130529	EP20110754268	20110323
EP2595707 A4	20141022	EP20110754268	20110323
EP3054846 A1	20160817	EP20140851948	20141008
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EP3295871 A1	20180321	EP20170199005	20141008
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JP2017511157 T2	20170420	JP20160530839T	20141117
JP2018008069 A2	20180118	JP20170149837	20170802
JP2019051307 A2	20190404	JP20180169327	20180911
JP2019513457 T2	20190530	JP20180552150T	20170404
JP6192032 B2	20170906	JP20120557312T	20110323
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JP6530746 B2	20190612	JP20160521960T	20141008
US2010298742 AA	20101125	US20100730663	20100324
US2011263950 AA	20111027	US20110070189	20110323
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US2016256080 AA	20160908	US20160154832	20160513
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US2016278691 AA	20160929	US20160173595	20160603
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US2016296159 AA	20161013	US20160183739	20160615
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US2016302698 AA	20161020	US20160187606	20160620
US2016302715 AA	20161020	US20160187516	20160620
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US2017053083 AA	20170223	US20160187624	20160620
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US2017265781 AA	20170921	US20170601593	20170522
US2017325683 AA	20171116	US20170654928	20170720
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US2018032690 AA	20180201	US20170718549	20170928
US2018214051 AA	20180802	US20180935385	20180326
US2019074088 AA	20190307	US20180181436	20181106
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US10140837 BB	20181127	US20140036782	20141117
US10258258 BB	20190416	US20160186344	20160617
WO10111363 A2	20100930	WO2010US28463	20100324
WO10111363 A3	20110113	WO2010US28463	20100324
WO11113070 A1	20110915	WO2011US29645	20110323
WO13052123 A1	20130411	WO2012US00488	20121003
WO15054423 A1	20150416	WO2014US59756	20141008
WO15074007 A1	20150521	WO2014US66016	20141117
WO17176667 A1	20171012	WO2017US25832	20170404
WO17218725 A1	20171221	WO2017US37589	20170615
WO17223184 A1	20171228	WO2017US38511	20170621
WO19018167 A1	20190124	WO2018US41552	20180711

Priority:

US20090162992P	20090324	US20090162993P	20090324	US20100311367P	20100307
US20100730663	20100324	US20100730663	20100324	US20100326664P	20100422
US20100373260P	20100812	US20100393364P	20101015	US20100411647P	20101109
US20110429732P	20110104	US20110438732P	20110202	JP20120557312T	20110323
US20110070189	20110323	WO2011US29645	20110323	US20110542785P	20111003
WO2012US00488	20111003	US20120244720	20121003	WO2012US00488	20121003
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WO2014US59756	20141008	EP20140862053	20141117	JP20160530839T	20141117
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US20160028018	20160407	US20160028018P	20160407	US20160154832	20160513
US20160036782	20160513	US20160173595	20160603	US20160173612	20160603
US20160183739	20160615	US20160183785	20160616	US20160186344	20160617
US20160186542	20160620	US20160187606	20160620	US20160187516	20160620
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WO2017US37589	20170615	WO2017US38511	20170621	US20170654928	20170720
JP20170149837	20170802	US20170696908	20170906	US20170718549	20170928
US20180935385	20180326	US20180181436	20181106		

Probable Assignee: LEAF HEALTHCARE INC

Assignee(s): (std): CENTAURI MEDICAL INC ; HIMLE JOSEPH ; PERLMAN DAVID ; LEAF HEALTHCARE INC ; LARSON BARRETT J ; SHEN DANIEL Z ; SHEN DANIEL ZHILING ; WOUND SENTRY LLC ; WECKWERTH MARK V

Assignee(s): SHEN DANIEL ; WECKWERTH MARK ; LEAF HEALTHCARE INC ; LARSON BARRETT ; HAMMOND CHARLES MATTHEW PETERSON

Inventor(s): (std): HAMMOND CHARLES ; WECKWERTH MARK V ; WECKWERTH MARK ; SHEN DANIEL Z ; SHEN DANIEL ; LARSON BARRETT J ; LARSON BARRETT ; HAMMOND CHARLES MATTHEW PETERSON ; DANIEL Z SHEN ; BARRETT J LARSON ; HIMLE JOSEPH ; PERLMAN DAVID

Agent(s): GOWLING WLG CANADA LLP; FREEMAN JACQUELINE CAROL; GRUBERT ANDREAS; SGB EUROPE; MIYOSHI HIDEKAZU; LAW OFFICE OF DAVID H JUDSON; SLAYDEN GRUBERT BEARD PLLC; JUDSON DAVID H; EAKIN JAMES E; GRABSKI ERIC M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

90) Family number: 47720875 (US2012222900A)

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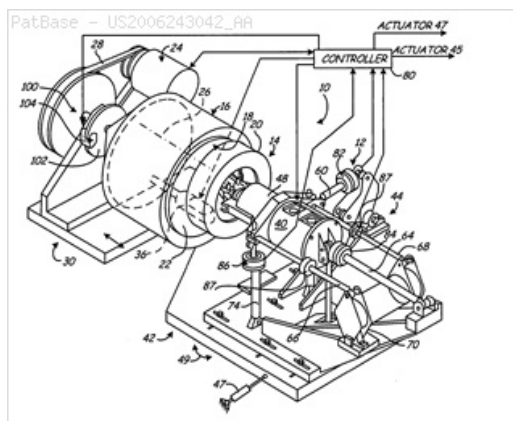
Title: VIBRATION DETECTION IN A DRILL STRING BASED ON MULTI-POSITIONED SENSORS

Abstract: In some example embodiments, a system includes a drill string having a drill bit. The drill string extends through at least part of a well bore. The system also includes a first vibrational sensor, positioned on the drill bit to measure, at a first location on the drill string, an amplitude of one or more of an axial vibration and a lateral vibration. The system also includes a second vibrational sensor, positioned above the drill bit and on the drill string. The second vibration sensor is to measure,

Publication number	Publication date	Application number	Application date
US4802365 A	19890207	US19880158605	19880222

Inventor(s): (std): CARDON MAURICE H ; LAWSON TIMOTHY J ; SALLBERG DAVID W

US: 73/146 73/146P



Publication number	Publication date	Application number	Application date
BRPI0512131 A	20080206	BR2005PI12131	20050617
CN1969177 A	20070523	CN200580019975	20050617
CN1969177 B	20101201	CN200580019975	20050617
EP1766359 A1	20070328	EP20050762356	20050617
IN00193CN2007 A	20070824	IN2007CN00193	20070117
IN257669 B	20131025	IN2007CN00193	20070117
JP2008503730 T2	20080207	JP20070516826T	20050617
JP2011090013 A2	20110506	JP20110001543	20110106
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KR101300363 B1	20130910	KR20067024484	20050617
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NO20065665 A	20061206	NO20060005665	20061206
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US2006243042 AA	20061102	US20050155900	20050617
US7254995 BB	20070814	US20050155900	20050617
WO06002111 A1	20060105	WO2005US21833	20050617

Priority:

US20040580566 20040617 US20040580566P 20040617 JP20070516826 20050617
JP20070516826T 20050617 WO2005US21833 20050617 US20050155900 20050617

Probable Assignee: MTS SYSTEMS CORP

Assignee(s): (std): BRADLEY C ACHORN ; CAMPBELL CRAIG L ; ACHORN BRADLEY C ; MTS SYSTEM CORP ; LESKA PAUL J SR ; YOUNG ERIC W

Assignee(s): BRADLEY C ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; MTS SYSTEMS CORP ; LESKA PAUL J

Inventor(s): (std): BRADLEY C ACHORN ; CAMPBELL CRAIG L ; LESKA PAUL J ; LESKA PAUL J SR ; ACHORN BRADLEY C ; LESKA SR PAUL J ; YOUNG ERIC W ; LESKA PAUL J SR CAMPBELL CRAIG

Inventor(s): YOUNG ERIC ; LESKA PAUL ; CAMPBELL CRAIG ; ACHORN BRADLEY ; SR PAUL J ; LESKA PAUL J SR CAMPBELL CRAIG L YOUNG ERIC W ACHO ; PAUL J LESKA ; BRADLEY C ; LESKA PAUL J SR CAMPBELL CRAIG L ; LESKA PAUL JSR ; CRAIG L CAMPBELL ; ERIC W YOUNG

Agent(s): WESTMAN CHAMPLIN AND KELLY PA; STEVEN M

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

93) Family number: 74167885 (US2019131853A)

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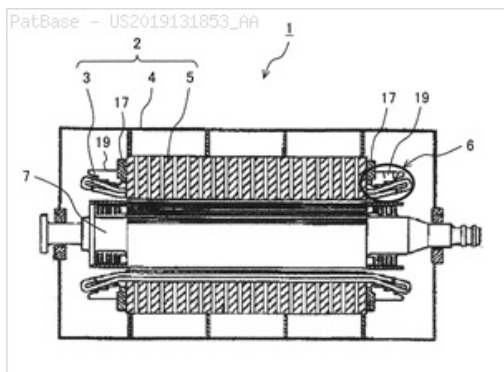
Title: ROTATING ELECTRICAL MACHINE AND DIAGNOSTIC METHOD FOR THE SAME

Abstract: A rotating electrical machine of the present invention evaluates a relative displacement of members and improves reliability further even when two or more members operate or move. A rotating electrical machine of the present invention comprises a stator and a rotor disposed on an inner side of the stator with a predetermined gap. The stator includes vibration measuring devices, each of the vibration measuring devices placed on each of at least two members included in the stator, the members having different displacements or phases with each other. The rotating electrical machine includes a device that acquires a relative displacement of one of the members included in the stator by evaluating a difference between displacements or phases measured by the vibration measuring devices and that evaluates a lifetime of the one of the members included in the stator based on the relative displacement.

Classifications:

International (IPC 8-9): G01H1/00 G01M1/22 G01R31/34 H02K11/00 H02K11/20 H02K11/21 H02K11/35 (Advanced/Invention)

CPC: G01H1/003 G01M1/22 H02K11/35 H02K11/21



Family:

Publication number	Publication date	Application number	Application date
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EP3477828 A2	20190501	EP20180200822	20181016
EP3477828 A3	20190529	EP20180200822	20181016
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JP2019078681 A2	20190523	JP20170206955	20171026
US2019131853 AA	20190502	US20180170952	20181025

Priority:

JP20170206955 20171026

Probable Assignee: MITSUBISHI HITACHI POWER SYS

Assignee(s): (std): MITSUBISHI HITACHI POWER SYS

Assignee(s): MITSUBISHI HITACHI POWER SYSTEMS LTD

Inventor(s): (std): SEKINE YUICHI ; SUZUKI KEIJI ; KUMANO KEISUKE ; KURIHARA TAMAMI ; TAKAHASHI YUICHI

Inventor(s): YUICHI SEKINE ; KEIJI SUZUKI ; KEISUKE KUMANO ; TAMAMI KURIHARA ; YUICHI TAKAHASHI

Agent(s): STREHL SCHUEBEL HOPF AND PARTNER

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

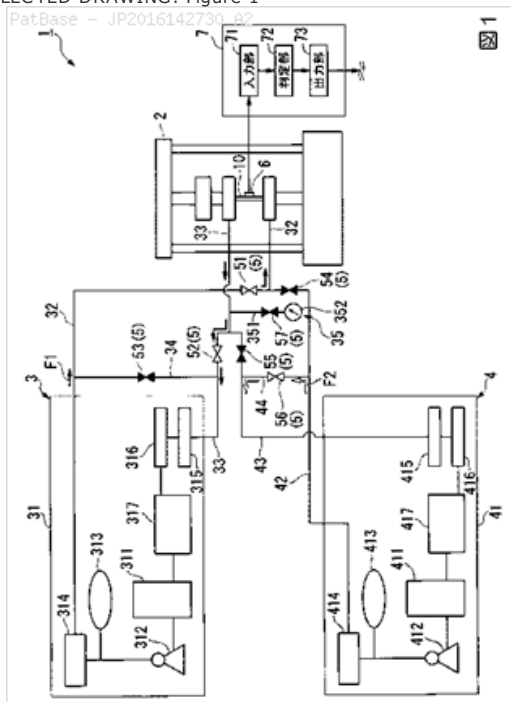
94) Family number: 63307887 (JP2016142730A)

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Title: MULTIAXIAL FATIGUE TESTING MACHINE AND MULTIAXIAL FATIGUE TESTING METHOD

Abstract: PROBLEM TO BE SOLVED: To provide a multiaxial fatigue testing machine capable of performing a load test while

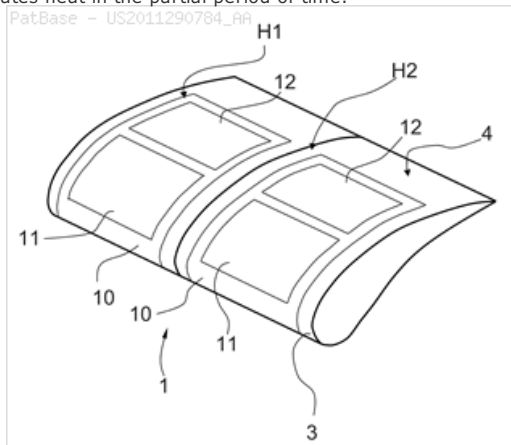
International (IPC 8-9): G01N3/34 G01N3/36 (Advanced/Invention)



Publication number	Publication date	Application number	Application date
JP2016142730 A2	20160808	JP20150021593	20150205

Inventor(s): (std): FUKUDA YUICHI : NOMURA YUICHIRO : YAMAMOTO KENJI

International (IPC s-9): B29C70/48 B64D15/12 B64D15/20 B64F5/00 G01J5/00 G01N25/00 H05B1/02 H05B3/00 H05B3/02 H05B3/12 H05B3/14 H05B3/20 H05B3/26 H05B3/34 H05B3/36 (Advanced/Invention);
B64D15/00 H05B1/02 H05B3/22 H05B3/34 (Core/Invention)
CPC: B64D15/20 G01J5/0003 G01J5/025 G01J5/041 G01J5/08 G01J5/084 G01J5/0862 G01J5/089 G01J5/0893 G01J5/52 G01J5/60 G01J2005/0085 B29C35/0272 B29C70/16 B29C70/882 H05B2203/011 B64D15/14 H05B3/36 B64D15/12 H05B2203/003 H05B2203/005 H05B2203/014 H05B2203/017 H05B2203/032 H05B1/0236
European: B29C35/02L B29C70/16 B29C70/88A B64D15/12 B64D15/14 B64D15/20 G01J5/00B G01J5/04B G01J5/08 G01J5/08B11 G01J5/08B17 G01J5/08Q G01J5/08R G01J5/52 G01J5/60 H05B1/02B1B H05B3/36 S01J5/00T2 S01J5/02E T05B23/003 T05B23/005 T05B23/011 T05B23/014 T05B23/017 T05B23/032
US: 1/1 219/486 374/121 374/121S 374/45 374/45S



Publication number	Publication date	Application number	Application date
CA2740524 AA	20110413	CA20092740524	20091014
CN102783246 A	20121114	CN200980148144	20091014

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DE102008051533 A1	20100415	DE200810051533	20081014
DE102008051549 A1	20100415	DE200810051549	20081014
DE102008051553 A1	20100415	DE200810051553	20081014
DE102008051558 A1	20100415	DE200810051558	20081014
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DE102008063408 B4	20110505	DE200810063408	20081231
DE102008063409 A1	20100701	DE200810063409	20081231
DE102008063410 A1	20100722	DE200810063410	20081231
DE502009010301 D1	20150115	DE200950010301T	20091014
EP2340686 A2	20110706	EP20090736151	20091014
EP2340686 B1	20141203	EP20090736151	20091014
JP2012514289 T2	20120621	JP201110531395T	20091208
RU2011119216 A	20121127	RU20110119216	20091014
US2011290784 AA	20111201	US20090124275	20091014
US9100994 BB	20150804	US20090124275	20091014
WO10049063 A2	20100506	WO2009EP07381	20091014
WO10049063 A3	20110922	WO2009EP07381	20091014

Priority:

DE200810051533	20081014	DE200810051549	20081014	DE200810051558	20081014
DE200810051553	20081014	US20080105117P	20081014	US20080105077P	20081014
US20080105085P	20081014	US20080105059P	20081014	DE200810063409	20081231
DE200810063408	20081231	US20080142010P	20081231	US20080142021P	20081231
DE200810063410	20081231	US20080142031P	20081231	EP20090736151	20091014
WO2009EP07381	20091014	US20090124275	20091014	WO2009EP07381	20091208

Probable Assignee: AIRBUS OPERATIONS GMBH

Assignee(s): (std): AIRBUS FRANCE SAS ; AIRBUS GMBH ; AIRBUS OPERATIONS GMBH ; AIRBUS OPERATIONS SAS ; ORAWETZ HOLGER ; LATRILLE MARIN ; ROTH YORK CAESAR ; REPPE MATTI ; LATRILLE MARTIN

Assignee(s): AIRBUS DEUTSCHLAND GMBH

Inventor(s): (std): ORAWETZ HOLGER ; LATRILLE MARIN ; ROTH YORK CAESAR ; REPPE MATTI ; LATRILLE MARTIN ; MATTI REPPE ; CAESAR ROTH YORK ; HOLGER ORAWETZ ; MARIN LATRILLE

Agent(s): MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP; UEXKUELL AND STOLBERG; SCHATT MARKUS F; ONDA HIRONORI; ONDA MAKOTO; JENKINS WILSON TAYLOR AND HUNT PA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

96) Family number: 49707907 (IN201069B)

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Title: A MAGNETOELASTIC TORQUE SENSOR AND A METHOD OF SENSING A TORQUE

Abstract: A magnetoelastic torque sensor for providing an output signal indicative of the torque applied to a member about an axially extending axis of the member, comprising, a member which is unitary and of generally homogeneous chemical composition, the member comprising separate magnetically active and magnetically substantially passive regions. A first magnetoelastically active region in the member is magnetically polarized in a single circumferential direction and possesses sufficient magnetic anisotropy to return the magnetization in the region, following the application of torque to the member, to the single circumferential direction when the applied torque is reduced to zero, whereby the magnetoelastically active region produces a magnetic field varying with the torque. Magnetic field sensors are mounted proximate to the magnetoelastically active region and oriented with respect thereto to sense the magnitude of the magnetic field at the sensors and provide the output signal in response thereto. The magnetoelastically active region of the member is formed of a polycrystalline material wherein at least 50% of the distribution of local magnetizations lie within a 90 degrees quadrant symmetrically disposed around the single circular direction and has a coercivity sufficiently high to prevent irreversible loss of the magnitude of the circumferential polarization.

Classifications:

International (IPC 1-7): G01L3/02

Family:

Publication number	Publication date	Application number	Application date
IN201069 B	20070223	IN1998MA02491	19981105

Probable Assignee: MAGNA LASTIC DEVICES INC

Assignee(s): MAGNA LASTIC DEVICES INC

Inventor(s): IVAN J GARSHELIS

97) Family number: 64277915 (US2016358849A)

© PatBase

Title: FLEXIBLE INTERCONNECTS, SYSTEMS, AND USES THEREOF

Abstract: Provided herein are flexible interconnects, systems containing one or more flexible interconnects, and textiles including one or more flexible interconnects.

Classifications:

International (IPC 8-9): H01L23/498 H01L23/528 H01L23/532 H05K1/02 H05K1/18 (Advanced/Invention);

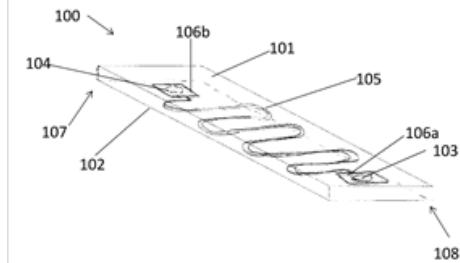
G01N33/36 H05K1/03 H05K3/36 (Advanced/Non-invention)

CPC: H01L33/62 H05K1/0283 G01N33/367 H01L23/4985

H01L23/49883 H05K1/038 H05K1/189 H05K3/361 H05K2201/0129

H05K2201/09263 H05K2201/10106 H05K2201/10219

US: 257/774

**Family:**

Publication number	Publication date	Application number	Application date
US2016358849 AA	20161208	US20160174677	20160606
US10064270 BB	20180828	US20160174677	20160606

Priority:

US20150171640P 20150605 US20150173044P 20150609 US20160174677 20160606

Probable Assignee: NORTH CAROLINA STATE UNIV

Assignee(s): (std): UNIV NORTH CAROLINA STATE

Assignee(s): NATIONAL SCIENCE FOUNDATION ; NORTH CAROLINA STATE UNIV

Inventor(s): (std): BHAKTA RAJ PRAVINBHAI ; YOKUS MURAT ; JUR JESSE S ; MYERS AMANDA CATON ; FOOTE RACHEL

Agent(s): THOMAS HORSTEMEYER LLP

98) Family number: 57735923 (US2016067780A)

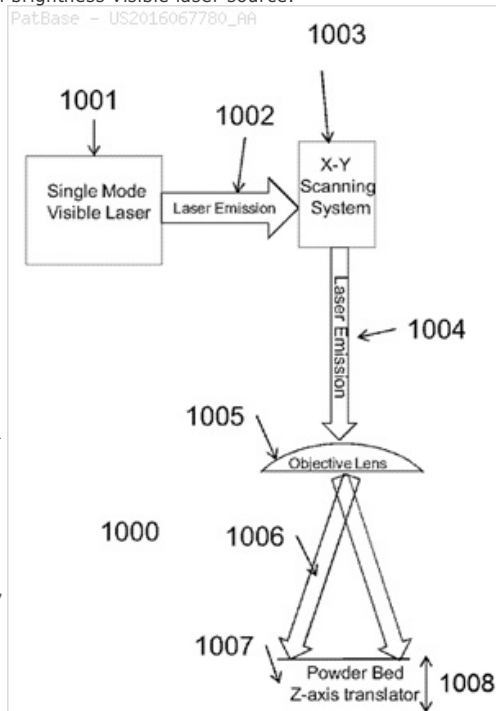
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Title: DEVICES, SYSTEMS AND METHODS FOR THREE-DIMENSIONAL PRINTING

Abstract: The present disclosure provides a printer system based on high power, high brightness visible laser source for improved resolution and printing speeds. Visible laser devices based on high power visible laser diodes can be scaled using the stimulated Raman scattering process to create a high power, high brightness visible laser source.

Classifications:

International (IPC 8-9): B22F1/00 B22F3/105 B22F3/16 B23K103/00 B23K103/04 B23K103/08 B23K103/12 B23K103/14 B23K26/00 B23K26/04 B23K26/06 B23K26/0622 B23K26/08 B23K26/082 B23K26/20 B23K26/21 B23K26/32 B23K26/323 B23K26/34 B23K26/342 B23K26/70 B29C64/135 B29C64/153 B29C64/232 B29C64/268 B29C64/277 B29C64/321 B29C64/386 B29C67/00 B33Y10/00 B33Y30/00 B33Y50/02 G01K9/00 G02B26/08 G02B27/09 G02B27/10 G02B6/02 G02B6/04 G02B6/12 G02B6/255 G02F1/35 G02F1/37 G06F19/00 G06F3/12 H01L21/00 H01S3/00 H01S3/067 H01S3/082 H01S3/094 H01S3/0941 H01S3/108 H01S3/16 H01S3/30 H01S5/00 H01S5/022 H01S5/024 H01S5/065 H01S5/14 H01S5/323 H01S5/40 (Advanced/Invention); B23K101/36 B23K103/00 B23K103/04 B23K103/08 B23K103/10 B23K103/12 B23K103/14 B23K26/32 B29C64/153 B29C64/268 G02B6/02 H01S3/094 H01S3/0941 H01S3/30 H01S5/00 H01S5/022 H01S5/024 H01S5/323 H01S5/40 (Advanced/Non-invention)
CPC: B23K26/0608 B23K26/32 B29C67/0085 B29C67/0088 B33Y30/00 B33Y50/02 B22F2003/1057 Y02P10/295 B23K26/04 B23K26/0622 B33Y10/00 B23K26/0648 B23K26/0853 B23K26/0876 B23K26/0665 B22F3/1055 B22F2003/1056 B23K26/082 B23K26/0861 B23K26/127 B23K26/144 B23K26/147 B22F1/0011 H01S5/146 G02B27/0922 H01S3/302 H01S5/0092 H01S5/02469 H01S5/32341 H01S5/405 H01S5/4087 G02B6/02042 H01S5/02284 H01S5/02292 H01S5/02423 B29C64/153 B23K26/21 B23K26/38 B29C64/268 B23K26/0643 G02B6/02128 G02B6/2551 G02B6/12 G02B2006/12171 B23K26/14 B23K26/22 B23K26/244 B23K26/323 B23K26/702 B23K26/342 H01S3/06708 H01S3/0675 H01S3/08063 H01S3/094003 H01S3/09415 B22F3/105 B22F2998/10 H01S3/094007 H01S5/4025 G02B6/00 G02B27/0905 G02B27/0977 G02B27/108 G02B27/09 B23K2103/04 B23K2103/08 B23K2103/12 B23K2103/14 B23K2103/42 B23K2103/56 B23K2101/36 B23K2103/10 B23K2103/18 B23K26/34 H01S5/4012 H01S3/30 H01S5/005 H01S5/02208 H01S5/02248 G02B6/04 H01S5/4062
US: 219/121.61 219/121.78 219/121.84 219/76.12 372/18 419/7

**Family:**

Publication number	Publication date	Application number	Application date
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CA2959372 AA	20170224	CA20152959372	20150827
CA2992464 AA	20180112	CA20162992464	20160714
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CN105189021 B	20180515	CN201480024305	20140429
CN107078021 A	20170818	CN201580058307	20150827
CN107851970 A	20180327	CN201680041725	20160714
CN109689279 A	20190426	CN201780040965	20170428
CN109715339 A	20190503	CN201780040943	20170428
CN109792129 A	20190521	CN201780040905	20170428
DE602014023422 D1	20180503	DE201460023422T	20140429
EP2991799 A1	20160309	EP20140791734	20140429
EP2991799 A4	20161026	EP20140791734	20140429

EP2991799 B1	20180404	EP20140791734	20140429
EP3186821 A1	20170705	EP20150836502	20150827
EP3186821 A4	20180926	EP20150836502	20150827
EP3323179 A1	20180523	EP20160825215	20160714
EP3323179 A4	20190619	EP20160825215	20160714
EP3363579 A1	20180822	EP20180162015	20140429
EP3448621 A1	20190306	EP20170790523	20170428
EP3448622 A1	20190306	EP20170790567	20170428
EP3449537 A1	20190306	EP20170790507	20170428
ES2666379 T3	20180504	ES20140791734T	20140429
JP2016531197 T2	20161006	JP20160511810T	20140429
JP2017537334 T2	20171214	JP20170511697T	20150827
JP2018095970 A2	20180621	JP20180017152	20180202
JP2018150625 A2	20180927	JP20180084877	20180426
JP2018530768 T2	20181018	JP20180501225T	20160714
JP2019514694 T2	20190606	JP20180556818T	20170428
JP6334682 B2	20180530	JP20160511810T	20140429
KR20160003778 A	20160111	KR20157033575	20140429
KR20180030588 A	20180323	KR20187003763	20160714
KR20190012175 A	20190208	KR20187034620	20170428
RU2015151016 A	20170601	RU20150151016	20140429
RU2017109794 A	20180927	RU20170109794	20150827
RU2017109794 A3	20181127	RU20170109794	20150827
RU2641945 C2	20180123	RU20150151016	20140429
US2016067780 AA	20160310	US20140787393	20140429
US2016067827 AA	20160310	US20150837782	20150827
US2016322777 AA	20161103	US20160210765	20160714
US2017341144 AA	20171130	US20170581928	20170428
US2017341180 AA	20171130	US20170581494	20170428
US2017343729 AA	20171130	US20170581263	20170428
WO14179345 A1	20141106	WO2014US35928	20140429
WO16033343 A1	20160303	WO2015US47226	20150827
WO17011706 A1	20170119	WO2016US42363	20160714
WO17189962 A1	20171102	WO2017US30059	20170428
WO17189982 A1	20171102	WO2017US30088	20170428
WO17190042 A1	20171102	WO2017US30175	20170428

Priority:

US20130817311P	20130429	EP20140791734	20140429	JP20160511810T	20140429
JP20180017152	20140429	US20140787393	20140429	WO2014US35928	20140429
US20140042785P	20140827	US20150193047P	20150715	RU20170109794	20150827
US20150837782	20150827	WO2015US47226	20150827	US20150787393	20151027
RU20170109794	20158227	US20160329660P	20160429	US20160329786P	20160429
US20160329830P	20160429	US20160210765	20160714	WO2016US42363	20160714
US20170581928	20170428	US20170581494	20170428	US20170581263	20170428
WO2017US30175	20170428	WO2017US30059	20170428	WO2017US30088	20170428
JP20180084877	20180426				

Probable Assignee: NUBURU INC

Assignee(s): (std): NUBURU INC ; ZEDIKER MARK S ; ZEDIKER MARK

Assignee(s): PELAPRAT JEAN MICHEL ; SILVA MATTHEW SA ; ZEDIKER MARK S CASTLE ROCK ; NUBURU INK ; FINUF MATHEW ; HILL DAVID

Inventor(s): (std): ZEDIKER MARK S ; SILVA MATTHEW SA ; ZEDIKER MARK ; STEGEMAN ROBERT ; TUCKER JAMES ; MARK S ZEDIKER ; MILLICK DON ; PELAPRAT JEAN MICHEL ; MATTHEW SILVA SA ; ZEDIKER MAR S ; HILL DAVID ; FINUF MATHEW

Inventor(s): ZEDIKER MARK S CASTLE ROCK

Agent(s): CASSAN MACLEAN; CASSAN MACLEAN IP AGENCY INC; BUNGARTZ CHRISTOPHERSEN PARTNERSCHAFT MBP PATENTANWALTE; BUNGARTZ CHRISTOPHERSEN PARTNERSCHAFT MBP PATENTANWALTE; SAEZ ANA; ITOH SHIGERU; YURIDICHESKAYA GORODISSKIY I PARTNERY OOO FA; OOO YURIDICHESKAYA GORODISSKIY I PARTNERY FA; ALEMOZAFAR ALI R ET AL; BELVIS GLEN P ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

99) Family number: 62246948 (US2017268324A)

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Title: DOWNHOLE STATE-MACHINE-BASED MONITORING OF VIBRATION

Abstract: A disclosed vibration monitoring method includes: processing sensor information downhole to detect one or more vibration modes; responsively updating a vibration mode state machine; communicating a current machine state to an uphole module; deriving from said current machine state at least a primary vibration mode and associated severity; and modifying at least one drilling parameter if the severity exceeds a threshold. A disclosed drilling system implementation includes: a drill string; a rig or other deployment device that conveys the drill string into a borehole using at least one controllable drilling parameter; one or more downhole sensors providing vibration-related signals; a downhole processor that operates on the vibration-related signals to detect one or more vibration modes and responsively updates a vibration mode state machine; and an uphole module that receives the current state from the downhole processor and derives from the current state at least a primary vibration mode and severity.

Classifications:

International (IPC 8-9): E21B44/00 E21B44/02 E21B47/00 E21B47/18 E21B49/00 G01V1/40 G01V1/48

G01V1/52 (Advanced/Invention)

CPC: E21B47/00 G01V1/40 G01V1/48 E21B44/02 E21B47/18 E21B49/003 G01V1/52 E21B44/00

Publication number	Publication date	Application number	Application date
AR101890 AA	20170118	AR2015P102963	20150916
CA2964218 AA	20170410	CA20142964218	20141028
GB201706008 A0	20170531	GB20170006008	20141028
GB2546209 A1	20170712	GB20170006008	20141028
GC8678 A	20180926	GC2015P030127	20151005
NO20170700 A	20170427	NO20170000700	20170427
US2017268324 AA	20170921	US20140513937	20141028
WO16068866 A1	20160506	WO2014US62561	20141028

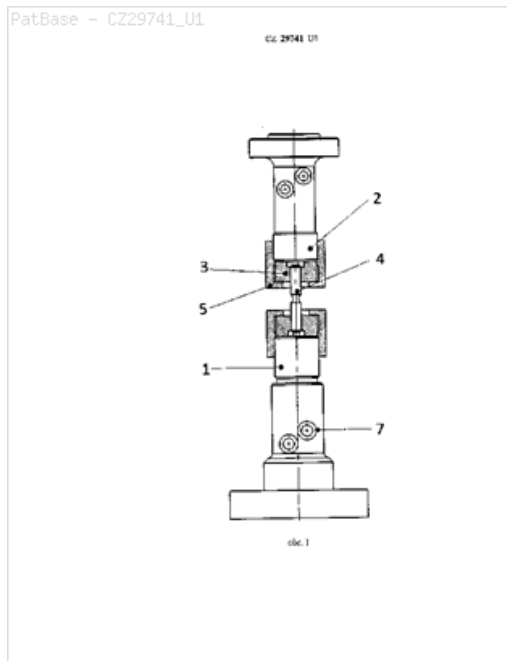
US20140513937 20141028 WO2014US62561 20141028 NO20170000700 20170427

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG UZ VV VC VN ZA ZM ZW

Abstract: Source: CZ29741U [CS] [Source: Claim 1] 1. Pripravek pro víceose neproporcionální zatezování v podmínkách nízkocyklové unavy, vyznačující se tím, že obsahuje spodní nastavec (1) a horní nastavec (2), přičemž nastavec (1,2) je na jednom svém konci uzpůsoben k připevnění zkusebního vzorku (4) o valcovém tvaru a na druhém svém konci je nastavec (1,2) uzpůsoben k připevnění do zkuseb- ního stroje

Machine translation: (Source: Claim 1) 1. Pripravek for viceose neproporcionalni zatezovani in podmiinkach nizkocycklove unavy, vyznacuujci with tim, from contains mount connection (1) and mount the horni (2), while allowing mount (1.2) is on one end of the world to uzpusoben pripevneni zkusebnih sample (4) on the valcovem the shape and the type of the world is the end of the mount (1.2) uzpusoben to pripevneni into zkuseb- niho machine

International (IPC 8-9): G01N3/02 G01N3/08
G01N3/22 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
CZ29741 U1	20160907	CZ20160032591U	20160719

Priority:

CZ20160032591U 20160719

Probable Assignee: COMTES FHT AS**Assignee(s):** (std): COMTES FHT AS**Inventor(s):** (std): DZUGAN JAN ; JANSKA DANUŠE ; URBANEK MIROSLAV ; ŠPANIEL MIROSLAV**101) Family number: 66086979** (US2018275035A)

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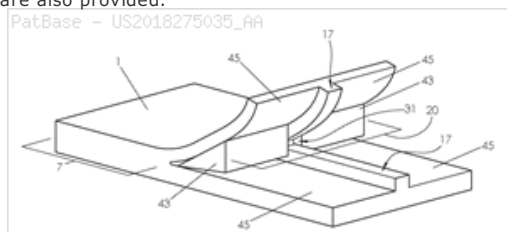
Title: MEASUREMENT OF MATERIAL PROPERTIES UNDER LOCAL TENSILE STRESS THROUGH CONTACT MECHANICS

Abstract: An apparatus for performing a contact mechanics test in a substrate includes a stylus having at least two contact elements. Each contact element has a contact profile, and the contact elements are disposed in the stylus to define a stretch passage therebetween. The stylus is configured to deform the substrate so as to cause the substrate to flow between the contact elements and induce tension in the substrate in order to generate and preserve micromodifications in the substrate. Methods of performing a contact mechanics test using the apparatus are also provided.

Classifications:

International (IPC 8-9): G01N19/04 G01N19/06 G01N3/08 G01N3/18 G01N3/42 G01N3/44 G01N3/46 G01N3/60 (Advanced/Invention)

CPC: G01N2203/0078 G01N3/44 G06N5/04 G01N3/60 G01N3/46 G01N19/06 G01N2203/0053 G01N2203/0066 G01N3/42 G01N2203/0062

US: 702/43**Family:**

Publication number	Publication date	Application number	Application date
CA3007324 AA	20180601	CA20163007324	20161209
CN108603822 A	20180928	CN201680071686	20161209
EP3391020 A1	20181024	EP20160873981	20161209
IN201817023732 A	20181116	IN201817023732	20180626
JP2018536868 T2	20181213	JP20180530594T	20161209
KR20180097599 A	20180831	KR20187018836	20161209
US2018275035 AA	20180927	US20180993424	20180530
WO17100665 A1	20170615	WO2016US65960	20161209

Priority:

US20150265234P 20151209

WO2016US65960 20161209

US20180993424 20180530

Probable Assignee: MASSACHUSETTS MAT TECH LLC**Assignee(s):** (std): MASSACHUSETTS MAT TECH LLC ; MASSACHUSETTS MATERIALS TECH LLC**Assignee(s):** MASSACHUSETTS MATERIALS TECHNOLOGIES LLC ; PALKOVIC STEVEN D ; WILLEY BRENDON M ; SOUCY PHILLIP A ; BELLEMARE SIMON C**Inventor(s):** (std): BELLEMARE SIMON C ; WILLEY BRENDON M ; PALKOVIC STEVEN D ; SOUCY PHILLIP A**Agent(s):** GOWLING WLG CANADA LLP; HANNA MOORE AND CURLEY; SUNSTEIN BRUCE D ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC

102) Family number: 74399982 (CN109780988A)

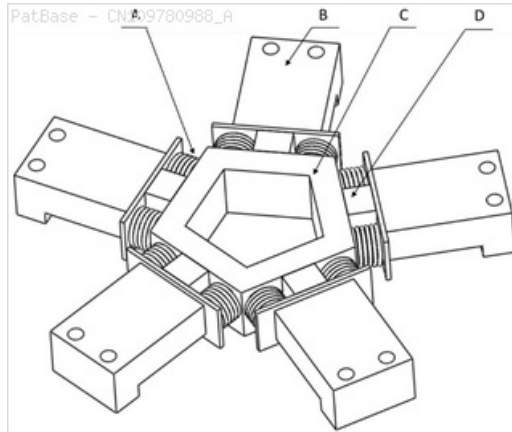
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Title: Multiaxial loading machinery parts surface strain real-time magnify the star cantilever strain multipliers and design method (Machine translation)

Abstract: Source: CN109780988A **Machine translation:** The present invention provides a multi-axis loading machinery parts surface strain real-time magnify the star cantilever strain multipliers and design methods, can match the fatigue life gauge to achieve the remaining life prediction of mechanical parts, belonging to the technical field of mechanical parts fatigue life prediction. By arranging the mechanical parts of the surface of the star-shaped cantilever strain doubling each cantilever fixed constraint clients to obtain mechanical parts surface multiaxial loading case, by star-type cantilever multiplier various elastomers to achieve the direction of the mechanical parts of the surface strain high degree of magnification, so as to ensure the fatigue life of the strain amplitude sheet can effectively match value range, accurately for the mechanical structure of the remaining fatigue life prediction, to ensure safe and reliable work of mechanical parts.

Classifications:

International (IPC 8-9): G01B21/32 G01B7/16 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
CN109780988 A	20190521	CN201910008243	20190104

Priority:

CN201910008243 20190104

Probable Assignee:

DALIAN UNIV OF TECHNOLOGY

Assignee(s): (std):

DALIAN UNIV OF TECHNOLOGY

103) Family number: 28287992 (US2002189370A)

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Title: Multi-axial strain testing apparatus

Abstract: A strain testing apparatus which places tensile forces on a sheet, a film, or the like samples in at least two axes and generally in a radial direction. The multi-axial strain testing apparatus can advantageously be employed to test crack growth propagation and flex fatigue in rubber polymer and elastomer samples.

Classifications:

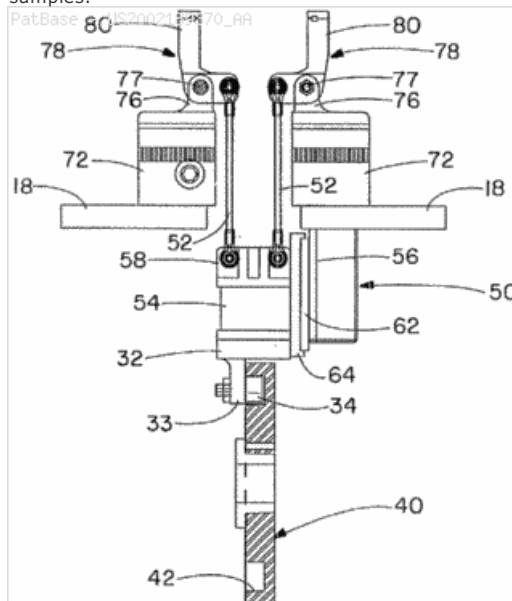
International (IPC 8-9): G01N3/08 G01N3/32 (Advanced/Invention);
G01N3/00 G01N3/02 G01N3/04 (Advanced/Non-invention);
G01N3/08 G01N3/32 (Core/Invention);
G01N3/00 (Core/Non-invention)

International (IPC 1-7): G01D7/00 G01N3/00 G01N3/08 G01N3/32

CPC: G01N3/08 G01N3/32 G01N2203/0016 G01N2203/0062
G01N2203/0066 G01N2203/0073 G01N2203/0075 G01N2203/0226
G01N2203/0254 G01N2203/0282 G01N2203/0494

European: G01N3/08 G01N3/32 G01N3/32B S01N203/00F1
S01N203/00P1C S01N203/00P1C2 S01N203/00P2F S01N203/00P2S
S01N203/02E1H S01N203/02G2 S01N203/02S1T2 S01N203/04Z
S01N3/00P1C2 S01N3/00P2F S01N3/00P2S S01N3/02G2
S01N3/02S1F1 S01N3/02S1T2 S01N3/04X2

US: 73/806 73/826 73/831 73/853 73/862.042 73/862.042P

**Family:**

Publication number	Publication date	Application number	Application date
US2002189370 AA	20021219	US20010850257	20010507
US6606918 BB	20030819	US20010850257	20010507

Priority:

US20010850257 20010507

Probable Assignee: HANKOOK TIRE MFG CO LTD**Assignee(s):** (std): HANKOCK TIRE MFG CO LTD ; HANKOOK TIRE MFG CO LTD**Assignee(s):** HANKOOK TIRE MFG CO ; HANKOCK TIRE MFG CO**Inventor(s):** (std): CARROLL MICHAEL ; DAY GARY L ; SEHM NEAL G**104) Family number: 44050994** (US2009297273A)

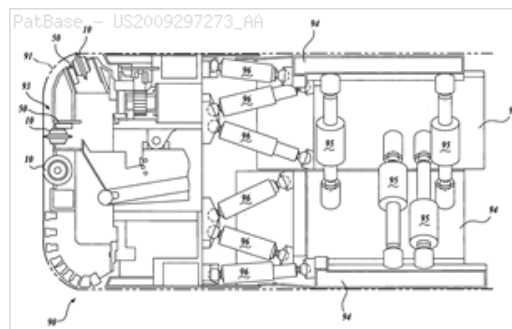
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Title: APPARATUS AND METHOD FOR MONITORING TUNNEL BORING EFFICIENCY

Abstract: A tunnel boring machine (90) having a rotating cutter head (93) that rotatably supports a plurality of cutter assemblies (10). A plurality of instrument packages (50) are attached to the rotating cutter head, each instrument package having a distal end in contact with an associated cutter assembly. The instrument packages include a plurality of sensors including an accelerometer (32), magnetometer (33) and temperature sensor (34), for monitoring the associated cutter assembly. The sensors are mounted in a distal end of the instrument packages that is biased to remain in contact with the cutter assembly. The instrument packages include a wireless transmitter, and they are interconnected in a mesh or peer to peer network. A power supply (176) such as a battery pack is provided for each instrument package. The data from the sensors may be used to control operation of the tunnel boring machine and/or to monitor the condition of the cutter assemblies.

Classifications:

International (IPC 8-9): E21B47/06 E21D E21D9/06 E21D9/08 E21D9/093 E21D9/10 E21D9/11 G06F19/00 (Advanced/Invention); G01P15/00 G01P3/00 (Advanced/Non-invention); E21B47/06 E21D9/06 E21D9/08 E21D9/10 G06F19/00 (Core/Invention); G01P15/00 G01P3/00 (Core/Non-invention); E21D (Subclass/Invention)

International (IPC 1-7): E21D9/06 E21D9/08**CPC:** E21D9/104 G01P3/22 E21D9/003**European:** E21D9/00C E21D9/10 G01P3/22**US:** 299/1.8 299/58 299/58S 405/138 405/138P 702/130 702/130S 702/141 702/141S 702/145 702/145S 702/9 702/9S**Family:**

Publication number	Publication date	Application number	Application date
AU2009260436 AA	20091223	AU20090260436	20090529
AU2009260436 BB	20130124	AU20090260436	20090529
BRPI0913286 A2	20160126	BR2009PI13286	20090529
BRPI0913286 B1	20190219	BR2009PI13286	20090529
CA2723432 AA	20101103	CA20092723432	20090529
CA2723432 C	20130716	CA20092723432	20090529
CN102046920 A	20110504	CN200980119535	20090529
CN102046920 B	20140305	CN200980119535	20090529
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EP2304177 B1	20180103	EP20090767421	20090529
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HK1152733 A1	20141031	HK20110106848	20110705
HK1152733 B	20141031	HK20110106848	20110705
IN04190KN2010 A	20111125	IN2010KN04190	20101108
JP2011522140 T2	20110728	JP20110511856T	20090529
JP5189680 B2	20130424	JP20110511856T	20090529
KR101243657 B1	20130314	KR20107027832	20090529
KR20110011678 A	20110208	KR20107027832	20090529
MX2010012842 A1	20110523	MX20100012842	20090529
RU2455490 C1	20120710	RU20100154403	20090529
US2009297273 AA	20091203	US20090475334	20090529
US8172334 BB	20120508	US20090475334	20090529
WO09155110 A2	20091223	WO2009US45674	20090529
WO09155110 A3	20100429	WO2009US45674	20090529

Priority:US20080057777 20080530
WO2009US45674 20090529

US20080057777P 20080530

US20090475334 20090529

Probable Assignee: ROBBINS CO**Assignee(s):** (std): BROWN BRENT R ; CAHOON IAN R ; LINDBERGH LEIF R ; MOORE JAMES C ; SHANAHAN AARON J ; ROBBINS RICHARD J ; REILLY TIMOTHY J ; ROBBINS CO ; ROBBINS KOMPANI**Assignee(s):** ROBBINS CO DBA ROBBINS TBM ; THE ROBBINS COMPANY ; CRYSTAL FINANCIAL LLC TERM AGENT AS ; DZE ROBBINS KOMPANI**Inventor(s):** (std): SHANAHAN AARON J ; CAHOON IAN R ; ROBBINS RICHARD J ; BROWN BRENT R ; REILLY TIMOTHY J ; MOORE JAMES C ; LINDBERGH LEIF R ; REJLLI TIMOTI DZH ; AJ SHANAHAN AARON J ; IR CAHOON IAN R ; RJ ROBBINS RICHARD J ; TJ REILLY TIMOTHY J ; BR BROWN BRENT R ; JC MOORE JAMES C ; LR LINDBERGH LEIF R ; SHANAKHAN AARON DZH ; MUR DZHEJMS K ; KEJKHUN JAN R ; ROBBINS RICHARD DZH ; LINDBERG LEJF R ; BRAUN BRENT R**Inventor(s):** ROBBINS RICHARD J RJ ; CAHOON IAN R IR ; BROWN BRENT R BR ; LINDBERGH LEIF R LR ; MOORE JAMES C JC ; SHANAHAN AARON J AJ ; REILLY TIMOTHY J TJ ; IAN R CAHOON ; TIMOTHY J REILLY ; JAMES C MOORE ; AARON J SHANAHAN ; LEIF R LINDBERGH ; BRENT R BROWN ; RICHARD J ROBBINS ; MOORE JAMES ; LINDBERGH LEIF ; CAHOON IAN ; SHANAHAN AARON ; REILLY TIMOTHY ; BROWN BRENT ; ROBBINS RICHARD**Agent(s):** FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH

FREEHILLS; FPA PATENT ATTORNEYS PTY LTD; LAMBERT ANTHONY R; RUPP CHRISTIAN; CLT PATENT AND TRADEMARK HK LTD; CHRISTENSEN OCONNOR JOHNSON KINDNESS PLLC; CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC; DODGE RYAN E

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

105) Family number: 34207994 (US2007037462A)

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Title: OPTICAL FIBER SUBSTRATE USEFUL AS A SENSOR OR ILLUMINATION DEVICE COMPONENT

Abstract: This disclosure generally pertains to a method for manufacturing a distributed optical fiber scrim comprising a functional optical fiber, the functional optical fiber scrim thus manufactured, and composites in which an optical fiber scrim is incorporated. The present disclosure describes a variety of textile scrims, particularly adhesively bonded nonwoven scrim materials, each comprising at least one optical fiber with a continuous path across at least the length or width of the fabric. Such optical fiber scrims may be useful as sensor components (for example, as a detector of breakage, strain, pressure, or torque), as illumination components (for example, in a variety of light-providing applications), or as data-distribution components, either alone or in combination with other materials, such as fabrics, films, foams, and the like.

Classifications:

International (IPC 8-9): B32B5/18 D03D15/00 D03D19/00 D03D9/00 D04B21/14 D04B21/16 D04H1/00 D04H3/04 D04H3/12 F21V8/00 G01L5/10 G01M11/08 G02B6/00 G02B6/04

G02B6/12 (Advanced/Invention); D03D15/00 D03D19/00 D03D9/00 D04H1/00 D04H3/02 G01L5/04 G02B6/00 G02B6/04 G02B6/12 (Core/Invention)

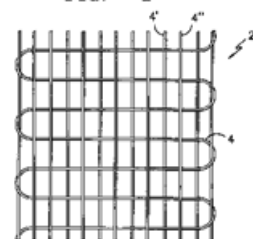
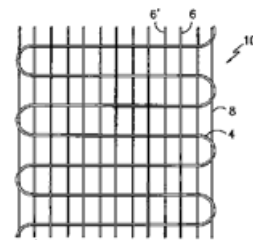
CPC: Y10T442/102 Y10T442/107 D03D15/00 D03D15/0027 D04B21/165 D04H3/04 D10B2101/06 D10B2101/08 D10B2101/12 D10B2101/20 D10B2201/02 D10B2211/02 D10B2321/02 D10B2331/02 D10B2331/021 D10B2331/04 D10B2401/20 D10B2403/02412 D10B2403/0243 D10B2505/02 G01M11/086 G02B6/0005 G02B6/0011

European: D03D15/00 D03D15/00E D04B21/16B D04H3/04 G01M11/08B4 G02B6/00L4 N10B101/06 N10B101/08 N10B101/12 N10B101/20 N10B201/02 N10B211/02 N10B321/02 N10B331/02 N10B331/021 N10B331/04 N10B401/20 N10B403/02412 N10B403/0243 N10B505/02 S02B6/00L6

US: 250/227.11 250/227.14 250/227.16 250/227.18 385/12 385/12P 385/13 385/14 442/2 442/2S 442/5 442/5P

PatBase - US2007037462_RH

Patent Application Publication Feb. 15, 2007 Sheet 1 of 6 US 2007/0037462 A1



Family:

Publication number	Publication date	Application number	Application date
CA2608665 AA	20071115	CA20062608665	20060517
CA2608665 C	20130514	CA20062608665	20060517
CN101184882 A	20080521	CN200680018638	20060517
CN101184882 B	20121121	CN200680018638	20060517
EP1883725 A2	20080206	EP20060849154	20060517
US2007037462 AA	20070215	US20050139124	20050527
US2008253712 AA	20081016	US20080157617	20080612
US7630591 BB	20091208	US20080157617	20080612
WO07078319 A2	20070712	WO2006US19175	20060517
WO07078319 A3	20071025	WO2006US19175	20060517

Priority:

US20050139124 20050527 WO2006US19175 20060517 US20080157617 20080612

Probable Assignee: MILLIKEN AND CO

Assignee(s): (std): ALLEN PHILBRICK ; HURSEY W R ; HURSEY W RANDOLPH ; KOHLMAN RANDOLPH S ; LEVER JOHN G ; MILLIKEN AND CO

Assignee(s): MILLIKEN AND COMPANY

Inventor(s): (std): PHILBRICK ALLEN ; RANDOLPH HURSEY W ; LEVER JOHN G ; KOHLMAN RANDOLPH S ; HURSEY W R ; ALLEN PHILBRICK ; HURSEY W RANDOLPH

Inventor(s): KOHLMAN RANDOLPH ; LEVER JOHN ; HURSEY W

Agent(s): GOWLING LAFLEUR HENDERSON LLP; HOFFMANN EITLE; LEGAL DEPARTMENT M-495; LEGAL DEPARTMENT M 495; LEGAL DEPARTMENT (M-495); CHERYL J

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW