

Title (en)

ARRANGEMENT AND METHOD FOR MEASURING A MECHANICAL LOAD ON A TEST OBJECT, WITH THE DETECTION OF CHANGES IN THE MAGNETIC FIELD

Title (de)

ANORDNUNG UND VERFAHREN ZUR MESSUNG EINER MECHANISCHEN BELASTUNG EINES TESTOBJEKTS UNTER ERFASSUNG VON MAGNETFELDÄNDERUNGEN

Title (fr)

SYSTÈME ET PROCÉDÉ DE MESURE D'UNE CHARGE MÉCANIQUE D'UN OBJET À ANALYSER EN DÉTECTANT DES CHANGEMENTS DE CHAMP MAGNÉTIQUE

Publication

EP 3918293 A1 20211208 (DE)

Application

EP 20703419 A 20200131

Priority

- DE 102019102454 A 20190131
- EP 2020052431 W 20200131

Abstract (en)

[origin: WO2020157278A1] The invention relates to an arrangement (100) for measuring a mechanical load on a test object, with the detection of changes in the magnetic field, said arrangement comprising a test object (14), which extends in a longitudinal direction L, and at least one sensor element (18) comprising a magnetic field generation device (20) for generating a magnetic field in the test object (14) and a magnetic field detection device (22) for measuring a change in the magnetic field in the test object (14). The sensor element (18) is arranged on a measurement surface (15) of the test object (14), at least one directional component of said measurement surface extending radially and/or transversely to the longitudinal direction L of the test object (14). A magnetic field is generated in the test object (14) and a change in the magnetic field in the test object (14) is measured on the measurement surface (15). The load measured is, in particular, a torque.

IPC 8 full level

G01L 3/10 (2006.01)

CPC (source: EP US)

G01L 3/105 (2013.01 - EP US)

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020157278 A1 20200806; DE 102019102454 B3 20200806; EP 3918293 A1 20211208; US 11988571 B2 20240521; US 2022099507 A1 20220331

DOCDB simple family (application)

EP 2020052431 W 20200131; DE 102019102454 A 20190131; EP 20703419 A 20200131; US 202017426757 A 20200131