

Title (en)  
MEASURING DEVICE FOR DETECTING THE OPERATING STATE OF A SHAFT, METHOD AND SHAFT ARRANGEMENT COMPRISING SAID MEASURING DEVICE

Title (de)  
MESSVORRICHTUNG ZUR ERFASSUNG DES BETRIEBSZUSTANDS EINER WELLE, VERFAHREN SOWIE WELLENANORDNUNG MIT DER MESSVORRICHTUNG

Title (fr)  
DISPOSITIF DE MESURE DESTINÉ À DÉTERMINER L'ÉTAT DE FONCTIONNEMENT D'UN ARBRE, PROCÉDÉ ET ENSEMBLE ARBRE MUNI DU DISPOSITIF DE MESURE

Publication  
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Application  
**EP 08839450 A 20081016**

Priority  
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Abstract (en)  
[origin: WO2009049610A2] The aim of the invention is to provide a measuring device, a method, and a shaft arrangement comprising said measuring device, which enable a robust and simultaneously precise measurement of the torque, a torque variation and/or an equivalent variable. To this end, the invention provides a measuring device for detecting the torque operating state of a shaft (3), in the form of a torque, a torque variation and/or an equivalent variable, said device comprising a signal emitter (5) that can be connected and/or is connected to the shaft in a rotationally fixed manner, a signal receiver (7) designed to detect signals from the signal emitter and emit a measuring signal having a constituent dependent on rotational speed, according to the detection of the signals of the signal emitter. The measuring device also comprises an evaluation device (8) for determining the torque operating state of the shaft (3) on the basis of, and/or, by evaluation of the measuring signal. The evaluation device (8) is designed to carry out and/or complete the determination of the torque operating state by analysing signal constituents of the measuring signal, that have a limiting frequency which is higher than the current rotational frequency of the shaft.

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