

Title (en)  
METHOD FOR ACTIVELY BALANCING A ROTOR, AND DEVICE COMPRISING A ROTOR AND A MECHANISM PAIRED WITH THE ROTOR FOR ACTIVELY BALANCING SAME

Title (de)  
VERFAHREN ZUM AKTIVEN AUSWUCHTEN EINES ROTORS SOWIE VORRICHTUNG MIT EINEM ROTOR UND EINEM DEM ROTOR ZUGEORDNETEN MECHANISMUS ZUM AKTIVEN AUSWUCHTEN

Title (fr)  
PROCÉDÉ D'ÉQUILIBRAGE ACTIF D'UN ROTOR ET DISPOSITIF COMPRENANT UN ROTOR ET UN MÉCANISME APPARIÉ AU ROTOR POUR L'ÉQUILIBRAGE ACTIF DE CE DERNIER

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Application  
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Abstract (en)  
[origin: WO2021121474A1] The invention relates to a method for actively balancing a rotor (1), having the steps of: providing a device comprising a rotor (1) which can be rotated about a rotational axis and a mechanism (2) paired with the rotor (1) for actively balancing same, wherein a magnetic fluid (7) is received in a fluid chamber (6) formed on the rotor (1), said fluid partly filling the fluid chamber (6) and containing at least one of the following fluids: a ferrofluid and a magneto-rheological fluid; holding the magnetic fluid (7) in a starting position in the fluid chamber (6) using a permanent magnetic field of a permanent magnet (5) arranged on the rotor (1); rotating the rotor (1) about the rotational axis (3); and guiding the fluid chamber (6) and the permanent magnet (5) past an electric excitation system with an electromagnet (8) arranged in a stationary manner while rotating the rotor (1). In order to actively balance the rotor, the permanent magnetic field of the permanent magnet (5) and an electromagnetic field of the electromagnet (8) overlap in the activated state such that the mass of the magnetic fluid (7) in the fluid chamber (6) is displaced from the starting position. The invention additionally relates to a device comprising a rotor (1) and a mechanism (2) paired with the rotor (1) for actively balancing the rotor (1).

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