Title (en)
BRAKING SYSTEM FOR GYMNASTIC MACHINES AND OPERATING METHOD THEREOF

Title (de)
BREMSSYSTEM FÜR GYMNASTISCHE MASCHINEN UND BETRIEBSVERFAHREN DAVON

Title (fr)
SYSTÈME DE FREINAGE POUR MACHINES GYMNASTIQUES ET PROCÉDÉ DE FONCTIONNEMENT

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Application
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Abstract (en)
The present invention concerns a braking system (S), installable on gymnastic passive machines, of the type having one rotating member such as a flywheel and the like, on which magnetic braking members are arranged, capable to generate a magnetic braking force on said flywheel, comprising: a magnetic sensor (1), arranged in proximity of said magnetic braking members, so as to detect the intensity of the magnetic field induced from said braking members on said flywheel, an angular velocity sensor (4), for measuring the rotation velocity of said flywheel, characterized in that said braking system (S) comprises a second magnetic sensor (2), arranged at a predetermined distance, preferably comprised between 5 and 15 cm, from said first magnetic sensor (1), to measure the magnetic field induced on said flywheel as conditioned by the structure of said gymnastic machines; in that said braking system (S) comprises a temperature sensor (3) arranged in correspondence of said first magnetic sensor (1), to detect the temperature of said flywheel; and in that said braking system (S) comprises one control logic unit (5), operatively connected to said first (1) and second (2) magnetic sensor, to said temperature sensor (3) and to said angular velocity sensor (4), in which nominal calibration values are stored, said control logic unit (5) being capable to acquire and process the electric signals from said first magnetic sensor (1), from said second magnetic sensor (2) and from said temperature sensor (3), so as to calculate the actual braking magnetic force generated by said magnetic members on said flywheel, during the operation of said gymnastic machine, correcting said calculation after a comparison between the data acquired from said sensors and said stored nominal calibration values. The present invention also concerns an operating method of said system.

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