

Title (en)
Detection apparatus of a training machine

Title (de)
Erkennungsvorrichtung für ein Übungsgerät

Title (fr)
Appareil de détection d'une machine d'entraînement

Publication
EP 2783729 A1 20141001 (EN)

Application
EP 13161478 A 20130327

Priority
• EP 13161478 A 20130327
• US 201313852404 A 20130328

Abstract (en)
A detection apparatus of a training machine has a shifting device (25), four sensors (21-24) and a controller (30). The shifting device (25) is mounted on an exercise device along a circular motion trace (40) divided into four segments (41-44). The four sensors (21-24) are respectively mounted on the body and correspond to the four segments (41-44). The controller (30) determines multiple exercise states, including the rotation speed, the rotational direction, the first rotation speed, the second rotation speed and the force exerted on the exercise device, according to detecting signals from the sensors at a same time. The structure of the detection apparatus is simplified for ease of use.

IPC 8 full level
A63B 22/06 (2006.01); **A63B 24/00** (2006.01); **A63B 71/06** (2006.01); **B62J 99/00** (2009.01)

CPC (source: EP US)
A63B 22/0605 (2013.01 - EP US); **A63B 24/0062** (2013.01 - EP US); **A63B 24/0087** (2013.01 - EP US); **A63B 2024/0009** (2013.01 - EP US); **A63B 2024/0065** (2013.01 - EP US); **A63B 2024/0071** (2013.01 - EP US); **A63B 2024/0078** (2013.01 - EP US); **A63B 2071/0652** (2013.01 - EP US); **A63B 2220/16** (2013.01 - EP US); **A63B 2220/30** (2013.01 - EP US); **A63B 2220/34** (2013.01 - EP US); **A63B 2220/51** (2013.01 - EP US); **A63B 2220/801** (2013.01 - EP US); **A63B 2220/805** (2013.01 - EP US); **A63B 2220/89** (2013.01 - EP US)

Citation (search report)
• [Y] AT 505617 A4 20090315 - BACANOVIC MILAN [AT], et al
• [Y] US 5027303 A 19910625 - WITTE DON C [US]
• [A] US 4518163 A 19850521 - BRUDER FRANK J [US]
• [A] US 2013019700 A1 20130124 - MATSUMOTO HITOSHI [JP]

Cited by
WO2023100044A1

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)
EP 2783729 A1 20141001; US 2014296034 A1 20141002

DOCDB simple family (application)
EP 13161478 A 20130327; US 201313852404 A 20130328