

Title (en)
Training apparatus

Title (de)
Trainingsgerät

Title (fr)
Appareil de musculation

Publication
EP 1614448 B2 20120718 (DE)

Application
EP 05013561 A 20050623

Priority
DE 102004033074 A 20040708

Abstract (en)
[origin: EP1614448A2] Training device comprises a rotary angle sensor (6) assigned to a motor (2). The measuring signal from the sensor is fed to a frequency converter (4) and to a control unit (5). A theoretical value for the torque released from the motor is prescribed for the frequent converter by the control unit. Preferred Features: The control unit controls the position of the exercised part to a theoretical value. The frequency converter controls the torque of the motor to a theoretical value prescribed by the control unit.

IPC 8 full level
A63B 21/005 (2006.01); **H02P 21/00** (2006.01)

CPC (source: EP US)
A63B 21/0058 (2013.01 - EP US); **A63B 21/0059** (2015.10 - EP US); **A63B 2024/0078** (2013.01 - EP US); **A63B 2220/16** (2013.01 - EP US);
A63B 2225/09 (2013.01 - EP US)

Citation (opposition)

- Opponent :
- US 5569121 A 19961029 - SELLIER BRUNO [FR]
 - DE 3532444 C2 19961205 - SCHNELL JOSEF [DE]
 - DE 19529764 A1 19970213 - RECK ANTON [DE]
 - DE 3144174 A1 19820624 - FUJI ELECTRIC CO LTD [JP]
 - DE 19618723 A1 19970703 - TECH GMBH ANTRIEBSTECHNIK UND [DE]
 - EP 0825702 A1 19980225 - LUST ANTRIEBSTECHNIK GMBH [DE], et al

Cited by
EP2186547A1; EP2189190A1; DE102011082027A1; EP2174694A1; EP2174692A1

Designated contracting state (EPC)
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DOCDB simple family (publication)

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DE 102004033074 A1 20060202; DE 502005004085 D1 20080626; ES 2308340 T3 20081201; ES 2308340 T5 20121026;
PL 1614448 T3 20090130; US 2006006836 A1 20060112; US 7211985 B2 20070501

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