Title (en)

Displacement detector of a shock absorption unit for a treadmill

Title (de)

Wegaufnehmer einer Dämpfungsvorrichtung für eines Trainingslaufband

Title (fr)

Détecteur de déplacement pour un amortisseur de chocs pour un tapis roulant

Publication

EP 1604709 A1 20051214 (EN)

Application

EP 04013618 A 20040609

Priority

EP 04013618 A 20040609

Abstract (en)

A treadmill having two handgrip frames, a base frame (20) and a deck frame (30) includes a displacement detector (50) of a shock absorption unit. A cantilever (23) has one end pivotably connected to the lower portion of each of the handgrip frames (21) and the other end pivotably connected to the deck frame (30). A displacement detector (50) and an adjustable cushioning apparatus (40) with a driving motor (41) are interposed between each connecting arm of the handgrip frame (21) and each cantilever for adjusting the cushioning force. The displacement detector (50) having a cable, a guide roller (52), a large gear (53), a small gear (54) and an optical disk is installed at bottom end of the adjustable cushioning apparatus (40). The optical disk and the small gear are received on a shaft. An optical detector is mounted near one side of the optical disk. The cable with one end fixed at the connecting arm of the handgrip frame extends around the guide roller (52) and the large gear (53) and is secured to the other end to the base frame (20).

IPC 1-7

A63B 22/02; A63B 24/00

IPC 8 full level

A63B 22/02 (2006.01); A63B 24/00 (2006.01)

CPC (source: EP)

A63B 22/02 (2013.01); **A63B 22/0214** (2015.10); **A63B 22/0228** (2015.10); A63B 2220/53 (2013.01)

Citation (search report)

- [X] US 6719669 B1 20040413 - WANG LEAO [TW], et al
- [A] US 6273843 B1 20010814 - LO PETER K C [TW]
- [A] US 5184988 A 19930209 - DUNHAM PAUL T [US]

Cited by

EP1925340A1; EP1901151A1

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

EP 1604709 A1 20051214

DOCDB simple family (application)

EP 04013618 A 20040609