Title (en)

DOOR WITH TRACTION CABLE SYSTEM

Title (de)

TOR MIT EINER ZUGSEILEINRICHTUNG

Title (fr)

PORTE AVEC SYSTEME DE CABLES DE TRACTION

Publication

EP 0890010 B1 20010711 (DE)

Application

EP 97920570 A 19970401

Priority

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- DE 29605912 U 19960329
- DE 29615973 U 19960913

Abstract (en)

[origin: US6122862A] PCT No. PCT/DE97/00660 Sec. 371 Date Dec. 7, 1998 Sec. 102(e) Date Dec. 7, 1998 PCT Filed Apr. 1, 1997 PCT Pub. No. WO97/37097 PCT Pub. Date Oct. 9, 1997An overhead garage door arrangement in which a door leaf is moveable between open and closed position, and is installable against a ceiling for sliding up and down or that can be tilted or swung up and down for compensating against the weight of the door, at least one helical spring module is provided with a least two parallel-loaded helical tension springs that are arranged coaxially one within the other, and that are wound in opposite directions. The inner spring has an outside diameter which is smaller than the inside diameter of the outer spring. The oppositely wound coils of the coaxial springs cross each other. The two springs are pushed over a holding element which has a narrower first section for receiving the inner spring, and having a wider second section spaced from the first section for receiving the outer spring. The first and second sections of the holding element have edges with hook-shaped portions for grasping coils of the coaxial springs.

IPC 1-7

E05D 13/00

IPC 8 full level

E05F 15/00 (2015.01); **E05D 13/00** (2006.01); **E05D 15/24** (2006.01); **E05F 1/16** (2006.01); **E06B 9/08** (2006.01); **E06B 9/68** (2006.01); **F16F 3/04** (2006.01)

CPC (source: EP US)

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DOCDB simple family (application)

US 15553198 A 19981207; AT 97920569 T 19970401; AT 97920570 T 19970401; CN 97193521 A 19970401; CZ 310498 A 19970401; DE 19713457 A 19970401; DE 19713458 A 19970401; DE 59704016 T 19970401; DE 59707506 T 19970401; DE 9700660 W 19970401; DE 9700661 W 19970401; DK 97920569 T 19970401; DK 97920570 T 19970401; EP 97920569 A 19970401; EP 97920570 A 19970401; ES 97920569 T 19970401; ES 97920570 T 19970401; GR 20010401205 T 20010808; HU P9901382 A 19970401; NO 984424 A 19980923; PL 32912897 A 19970401; PT 97920569 T 19970401; PT 97920570 T 19970401; RU 98114101 A 19961223; UA 98074006 A 19961223; UA 98105627 A 19970401