

Title (en)

ACTUATOR FOR DISPLACING AN ANODE FRAME OF AN ELECTROLYSIS CELL FOR THE PRODUCTION OF ALUMINIUM

Title (de)

SCHRAUBENSPINDEL ZUM BEWEGEN EINES ANODENTRÄGERS EINER ELEKTROLYSEZELLE FÜR DIE ALUMINIUMPRODUKTION

Title (fr)

VERIN DESTINE AU DEPLACEMENT D'UN CADRE ANODIQUE D'UNE CELLULE D'ELECTROLYSE POUR LA PRODUCTION D'ALUMINIUM

Publication

EP 1597494 A1 20051123 (FR)

Application

EP 04714820 A 20040226

Priority

- FR 2004000429 W 20040226
- FR 0302493 A 20030228

Abstract (en)

[origin: WO2004079227A1] The invention relates to actuators used to displace an anode frame of an electrolysis cell used to produce aluminium. According to the invention, said actuator (100, 100') comprises a sheath (120) provided with an opening (121), an actuating rod (140) comprising an axial cavity (141) and threading (142) and which can be displaced in the opening, a drive screw (130) which is inserted into the cavity and which can cooperate with the threading in order to cause the displacement of the rod (140) in the sheath (120) and in the opening (121), a toothed drive wheel (150) coupled to the drive screw (130), and an endless screw which can be connected to the shaft of a drive motor (200) and which can cooperate with the drive wheel (150) causing it to rotate. The invention is characterized in that the centre distance between the axis R of the drive wheel and axis V of the endless screw is 100 - 350 mm, and in that the reduction ratio RR between the endless screw and the drive wheel is between 300:1 and 80:1. The inventive actuator makes it possible to achieve, simultaneously, relatively high traction power and forces, while taking up only a relatively limited volume.

IPC 1-7

F16H 25/20

IPC 8 full level

C25C 3/10 (2006.01); **F16H 25/20** (2006.01)

CPC (source: EP US)

C25C 3/10 (2013.01 - EP US); **F16H 25/20** (2013.01 - EP US); **F16H 2025/209** (2013.01 - EP US)

Citation (search report)

See references of WO 2004079227A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2851810 A1 20040903; FR 2851810 B1 20060217; AR 043214 A1 20050720; AU 2004217776 A1 20040916; BR PI0407920 A 20060301; CA 2517148 A1 20040916; CN 1754053 A 20060329; EP 1597494 A1 20051123; IS 7988 A 20050818; RU 2005130161 A 20060127; US 2006137972 A1 20060629; WO 2004079227 A1 20040916; ZA 200506333 B 20061025

DOCDB simple family (application)

FR 0302493 A 20030228; AR P040100499 A 20040218; AU 2004217776 A 20040226; BR PI0407920 A 20040226; CA 2517148 A 20040226; CN 200480004976 A 20040226; EP 04714820 A 20040226; FR 2004000429 W 20040226; IS 7988 A 20050818; RU 2005130161 A 20040226; US 54235305 A 20050714; ZA 200506333 A 20040226