Title (en)

Access to drive unit of an elevator without machine-room

Title (de)

Antriebseinheitszugang bei maschinenraumlosem Aufzug

Title (fr)

Accès à la machinerie d'un ascenseur sans salle de machines

Publication

EP 1026116 A1 20000809 (DE)

Application

EP 00102438 A 20000204

Priority

- EP 00102438 A 20000204
- EP 99102308 A 19990205

Abstract (en)

The lift cage(10) has a closable roof opening(24) through which the drive unit(19) is accessible. The roof opening does not extend right up to the region of the drive unit but leaves a roof section(10c) protruding from the drive unit. The roof opening is closed off by a flap(27) which can be locked to prevent unauthorized access, and which can be removed from the cage roof and used a service platform(26). At least one stop(17) is provided to ensure a minimum distance between the lift cage and drive unit.

Abstract (de)

Die Erfindung betrifft einen Aufzug mit einer Kabine (10), die sich entlang mindestens einer Führungsschiene in einem Schachtraum (11) bewegt. Die Kabine (10) wird von mindestens einem Tragseil (14) getragen, das von einer Antriebseinheit (19) angetrieben ist. Die Antriebseinheit (19) weist einen Antriebsmotor (21) und eine von diesem angetriebene Seilscheibe (20) auf, über die das Tragseil (14) geführt ist. Die Antriebseinheit (19) ist in einem oberen Bereich des Schachtraumes (11) angeordnet und überragt die Kabine (10) zumindest teilweise. Um bei effizienter Ausnutzung der Abmessungen des Schachtraumes (11) einen sicheren Zugang zur Antriebseinheit (19) zu gewährleisten, wird erfindungsgemäß ein Aufzug vorgeschlagen, bei dem die Kabine (10) eine verschließbare Dachöffnung (24) aufweist, über die die Antriebseinheit (19) zugänglich ist. <IMAGE>

IPC 1-7 (main, further and additional classification)

B66B 11/02; B66B 5/28

IPC 8 full level (invention and additional information)

B66B 5/00 (2006.01); **B66B 5/28** (2006.01); **B66B 7/00** (2006.01); **B66B 11/02** (2006.01)

CPC (invention and additional information)

B66B 11/0246 (2013.01); **B66B 5/288** (2013.01)

Citation (search report)

- [YA] EP 0870722 A1 19981014 - INVENTIO AG [CH]
- [Y] EP 0631967 A2 19950104 - KONE OY [FI]
- [YA] EP 0710618 A2 19960508 - KONE OY [FI]
- [A] US 5727657 A 19980317 - FOELIX HEINRICH [CH]
- [A] DE 3802386 A1 19880825 - OTIS ELEVATOR CO [US]

- [X] PATENT ABSTRACTS OF JAPAN vol. 098, no. 002 30 January 1998 (1998-01-30)
- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 443 (M - 1463) 16 August 1993 (1993-08-16)
- [A] PATENT ABSTRACTS OF JAPAN vol. 098, no. 004 31 March 1998 (1998-03-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 260 (M - 1414) 21 May 1993 (1993-05-21)
- [A] PATENT ABSTRACTS OF JAPAN vol. 095, no. 001 28 February 1995 (1995-02-28)
- [A] PATENT ABSTRACTS OF JAPAN vol. 097, no. 008 29 August 1997 (1997-08-29)
- [DA] GERHARD SCHIFFNER: "Lifts without machine-room", LIFT-REPORT, May 1998 (1998-05-01), pages 12 - 18, XP002110955

Cited by

EP1760029A1; DE102006045499A1; EP1566357A4; DE102006023920A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

EPO simple patent family

EP 1026116 A1 20000809; EP 1026116 B1 20040506; AR 022512 A1 20020904; AT 265982 T 20040515; AU 1491800 A 20000810; AU 762403 B2 20030626; BR 0000260 A 20001010; CA 2298094 A1 20000805; CA 2298094 C 20070904; CN 1187254 C 20050202; CN 1263862 A 20000823; DE 50006289 D1 20040609; DK 1026116 T3 20040719; ES 2220269 T3 20041216; HK 1030921 A1 20050121; JP 2000233878 A 20000829; JP 4467699 B2 20100526; NO 20000581 A 20000807; NO 20000581 D0 20000204; NO 320980 B1 20060220; PT 1026116 E 20040831; TR 200000313 A2 20000921; TR 200000313 A3 20000921; US 6691833 B1 20040217; ZA 200000411 B 20000906

INPADOC legal status

2017-05-31 [PG25 ES] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO

- Ref Country Code : ES
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20160205

2017-01-31 [PG25 DE] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO

- Ref Country Code : DE
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20160901

2017-01-31 [PG25 GB] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : GB
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20160204

2017-01-31 [PG25 FR] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : FR
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20160229

2016-12-30 [PG25 IT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : IT
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20160204

2016-11-25 [REG FR ST] NOTIFICATION OF LAPSE
- Effective date : 20161028

2016-10-31 [PG25 FI] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : FI
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20160204

2016-10-26 [GBPC] GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
- Effective date : 20160204

2016-09-01 [REG DE R119] APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE
- Document : DE 50006289

2015-05-29 [PGFP FR] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : FR
- Payment date : 20150227
- Year of fee payment : 16

2015-05-29 [PGFP GB] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : GB
- Payment date : 20150227
- Year of fee payment : 16

2015-04-30 [PGFP ES] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : ES
- Payment date : 20150326
- Year of fee payment : 16

2015-04-30 [PGFP FI] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : FI
- Payment date : 20150227
- Year of fee payment : 16

2015-04-30 [PGFP IT] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : IT
- Payment date : 20150227
- Year of fee payment : 16

2015-04-30 [PGFP DE] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : DE
- Payment date : 20150227
- Year of fee payment : 16

2015-02-27 [REG FR PLFP] FEE PAYMENT
- Year of fee payment : 16

2014-10-31 [PG25 CH] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : CH
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20140228

2014-10-31 [PG25 LI] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : LI
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20140228

2014-09-30 [REG CH PL] PATENT CEASED

2013-10-31 [PG25 NL] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : NL
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20130901

2013-10-31 [PG25 AT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : AT
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20130228

2013-10-15 [REG AT MM01] LAPSE BECAUSE OF NOT PAYING ANNUAL FEES
- Document : AT 265982 T
- Effective date : 20130228

2013-09-11 [REG NL V1] LAPSED BECAUSE OF NON-PAYMENT OF THE ANNUAL FEE
- Effective date : 20130901

2013-04-30 [PGFP CH] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : CH
- Payment date : 20130226
- Year of fee payment : 14

2013-03-29 [PGFP AT] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : AT
- Payment date : 20120213
- Year of fee payment : 13

2012-09-28 [PG25 LU] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : LU
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20100204

2012-09-28 [PG25 SE] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : SE
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20100205

2012-07-31 [PGFP NL] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : NL
- Payment date : 20120228
- Year of fee payment : 13

2011-02-28 [PG25 BE] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : BE
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20100228

2011-01-31 [PG25 DK] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : DK
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20100228

2011-01-31 [PG25 IE] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : IE
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20100204

2011-01-31 [PG25 PT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO

- Ref Country Code : PT
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20100804

2010-11-24 [REG IE MM4A] PATENT LAPSED

2010-10-29 [PG25 MC] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : MC
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20100301

2010-10-05 [EUG] SE: EUROPEAN PATENT HAS LAPSED

2010-10-04 [REG DK EBP] EP PATENT LAPSED

2010-08-31 [BERE] BE: LAPSED
- Owner name : *INVENTIO A.G.
- Effective date : 20100228

2010-08-12 [REG PT MM4A] ANNULMENT/LAPSE DUE TO NON-PAYMENT OF FEES, SEARCHED AND EXAMINED PATENT
- Free text : LAPSE DUE TO NON-PAYMENT OF FEES
- Effective date : 20100804

2009-09-30 [PGFP BE] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : BE
- Payment date : 20090408
- Year of fee payment : 10

2009-09-30 [PGFP MC] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : MC
- Payment date : 20090216
- Year of fee payment : 10

2009-08-31 [PGFP SE] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : SE
- Payment date : 20090216
- Year of fee payment : 10

2009-05-29 [PGFP PT] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : PT
- Payment date : 20090126
- Year of fee payment : 10

2009-04-30 [PGFP DK] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : DK
- Payment date : 20090213
- Year of fee payment : 10

2009-04-30 [PGFP IE] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : IE
- Payment date : 20090220
- Year of fee payment : 10

2009-04-30 [PGFP LU] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : LU
- Payment date : 20090216
- Year of fee payment : 10

2005-04-27 [26N] NO OPPOSITION FILED
- Effective date : 20050208

2005-02-04 [PG25 CY] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : CY
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20050204

2005-01-21 [REG HK GR] STANDARD PATENTS GRANTED IN HONG KONG
- Document : HK 1030921

2004-12-16 [REG ES FG2A] DEFINITIVE PROTECTION
- Document : ES 2220269 T3

2004-12-03 [ET] FR: TRANSLATION FILED

2004-08-31 [REG PT SC4A] TRANSLATION IS AVAILABLE
- Free text : AVAILABILITY OF NATIONAL TRANSLATION
- Effective date : 20040630

2004-08-06 [PG25 GR] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : GR
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20040806

2004-07-19 [REG DK T3] TRANSLATION OF EP PATENT

2004-07-13 [REG SE TRGR] TRANSLATION OF GRANTED EP PATENT

2004-06-16 [REG IE FG4D] EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
- Free text : GERMAN

2004-06-16 [GBT] GB: TRANSLATION OF EP PATENT FILED (GB SECTION 77(6)(A)/1977)
- Effective date : 20040524

2004-06-09 [REF] CORRESPONDS TO:
- Document : DE 50006289 P 20040609

2004-05-14 [REG CH EP] ENTRY IN THE NATIONAL PHASE

2004-05-12 [REG GB FG4D] EUROPEAN PATENT GRANTED
- Free text : NOT ENGLISH

2004-05-06 [AK] DESIGNATED CONTRACTING STATES:
- Kind Code of Ref Document : B1
- Designated State(s) : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

2003-03-12 [17Q] FIRST EXAMINATION REPORT
- Effective date : 20030128

2001-04-25 [AKX] PAYMENT OF DESIGNATION FEES
- Free text : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

2001-03-21 [17P] REQUEST FOR EXAMINATION FILED
- Effective date : 20010117

2000-08-09 [AK] DESIGNATED CONTRACTING STATES:
- Kind Code of Ref Document : A1
- Designated State(s) : AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

2000-08-09 [AX] REQUEST FOR EXTENSION OF THE EUROPEAN PATENT TO:
- Free text : AL;LT;LV;MK;RO;SI