

Title (en)  
MACHINE ROOM-LESS ELEVATOR

Title (de)  
AUFZUG OHNE MASCHINENRAUM

Title (fr)  
ASCENSEUR SANS LOCAL DE MACHINERIE

Publication  
**EP 1431231 A4 20081210 (EN)**

Application  
**EP 01972540 A 20010927**

Priority  
JP 0108451 W 20010927

Abstract (en)  
[origin: EP1431231A1] A sheave, a car side deflection wheel and a weight side deflection wheel are arranged on a straight line when viewed along a hoistway, and the sheave, the car side deflection wheel and the weight side deflection wheel have their axes arranged in parallel with respect to one another. In addition, a main rope, after ascending from a weight along the hoistway, is wrapped around an upper side of the weight side deflection wheel, and thereafter the main rope, after being wrapped around the sheave and the car side deflection wheel, descends in the hoistway to arrive at a car. <IMAGE>

IPC 1-7  
**B66B 7/00**; **B66B 11/08**

IPC 8 full level  
**B66B 7/00** (2006.01); **B66B 11/00** (2006.01); **B66B 11/08** (2006.01)

CPC (source: EP KR)  
**B66B 11/002** (2013.01 - EP); **B66B 11/0045** (2013.01 - EP); **B66B 11/008** (2013.01 - EP); **B66B 11/04** (2013.01 - KR)

Citation (search report)

- [X] WO 9943596 A2 19990902 - OTIS ELEVATOR CO [US]
- [X] JP H08175623 A 19960709 - DAIFUKU KK
- See references of WO 03031310A1

Cited by  
EP1792867A4; EP2985255A1; US9856113B2; US8820483B2; WO2010065038A1

Designated contracting state (EPC)  
DE

DOCDB simple family (publication)  
**EP 1431231 A1 20040623**; **EP 1431231 A4 20081210**; **EP 1431231 B1 20101215**; CN 1216785 C 20050831; CN 1476407 A 20040218; DE 60143674 D1 20110127; EP 2108610 A1 20091014; EP 2108610 B1 20110817; JP 4849431 B2 20120111; JP WO2003031310 A1 20050120; KR 20030048162 A 20030618; WO 03031310 A1 20030417

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**EP 01972540 A 20010927**; CN 01819510 A 20010927; DE 60143674 T 20010927; EP 09007870 A 20010927; JP 0108451 W 20010927; JP 2003534302 A 20010927; KR 20037006939 A 20030522