

Title (en)
ELEVATOR EQUIPMENT

Title (de)
AUFZUGSEINRICHTUNG

Title (fr)
EQUIPEMENT D'ELEVATEUR

Publication
EP 1564177 B1 20121114 (EN)

Application
EP 02808157 A 20021118

Priority
JP 0211998 W 20021118

Abstract (en)
[origin: EP1564177A1] In an elevator apparatus, an upper car and a first counterweight are suspended by first main ropes wound around a first drive sheave on a first driving machine. Second and third main ropes are wound around a second drive sheave on a second driving machine. A lower car and a second counterweight are suspended by the second and third main ropes. First and second lower car suspension portions are disposed on the lower car. The first and second lower car suspension portions are disposed symmetrically on opposite sides of a center of gravity of the lower car from each other. The second main ropes have second car end portions connected to the first lower car suspension portion and second counterweight end portions connected to the second counterweight. The third main ropes have third car end portions connected to the second lower car suspension portion and third counterweight end portions connected to the second counterweight. <IMAGE>

IPC 8 full level
B66B 7/06 (2006.01); **B66B 9/00** (2006.01); **B66B 11/00** (2006.01)

CPC (source: EP KR)
B66B 7/06 (2013.01 - KR); **B66B 9/00** (2013.01 - EP); **B66B 11/0095** (2013.01 - EP)

Cited by
US7762376B2; CN102414111A; US8430210B2; US8925689B2

Designated contracting state (EPC)
DE

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EP 1564177 A1 20050817; **EP 1564177 A4 20110615**; **EP 1564177 B1 20121114**; CN 100344521 C 20071024; CN 1615265 A 20050511; JP 4292157 B2 20090708; JP WO2004046009 A1 20060316; KR 20050002816 A 20050110; WO 2004046009 A1 20040603

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EP 02808157 A 20021118; CN 02827063 A 20021118; JP 0211998 W 20021118; JP 2004553101 A 20021118; KR 20047011141 A 20021118