

Title (en)

ELEVATOR ARRANGEMENT WITH A SAFETY MONITORING DEVICE COMPRISING A 2D-SENSOR FOR CONTACTLESS SUPERVISING A SUPERVISION PLANE

Title (de)

AUFZUGSANORDNUNG MIT EINER SICHERHEITSÜBERWACHUNGSVORRICHTUNG MIT EINEM 2D-SENSOR ZUR BERÜHRUNGSLOSEN ÜBERWACHUNG EINER ÜBERWACHUNGSEBENE

Title (fr)

SYSTÈME D'ASCENSEUR AYANT UN DISPOSITIF DE SURVEILLANCE DE SÉCURITÉ COMPRENANT UN CAPTEUR 2D PERMETTANT UNE SUPERVISION SANS CONTACT DE PLAN DE SUPERVISION

Publication

EP 3418237 A1 20181226 (EN)

Application

EP 17177366 A 20170622

Priority

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Abstract (en)

An elevator arrangement (1) comprising a cabin (3) and a counterweight (5) being displaceable in traveling directions (4, 6) within an elevator shaft (11), an elevator controller (13) for controlling motions of the cabin (3) and the counterweight (5), and a safety monitoring device (15) is proposed. The safety monitoring device (15) comprises a 2D-sensor (19) for contactless supervising a supervision plane (21) extending away from the 2D-sensor (19) in an extension direction parallel to the traveling directions and for determining a distance (d) between the 2D-sensor (19) and an object (28) located within the supervision plane (21). Therein, the safety monitoring device (15) is adapted for initiating safety measures upon detecting that the determined distance (d) is smaller than a predetermined allowable minimum distance (d_m). The safety monitoring device (15) may be a relatively simple device such as a scanning laser distance measurement sensor (20). By suitably arranging its supervision plane (21) for example underneath the counterweight (5), serious collisions between the counterweight (5) and for example an extremity of a technician (23) may be avoided.

IPC 8 full level

B66B 5/00 (2006.01)

CPC (source: EP)

B66B 5/0056 (2013.01)

Citation (applicant)

- JP H11335018 A 19991207 - TOSHIBA ELEVATOR CO LTD
- CN 101941622 A 20110112 - GREAT ELEVATOR CO LTD SUZHOU
- CN 101628676 A 20100120 - HITACHI LTD

Citation (search report)

- [XDAY] CN 101941622 A 20110112 - GREAT ELEVATOR CO LTD SUZHOU
- [X] US 5410149 A 19950425 - WINSTON JR CHARLES R [US], et al
- [YA] JP 2012051665 A 20120315 - TOSHIBA ELEVATOR CO LTD
- [AD] CN 101628676 A 20100120 - HITACHI LTD

Cited by

JP2020193078A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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