

Title (en)
Vehicle having side wind effect compensation

Title (de)
Fahrzeug mit Seitenwindwirkungskompensation

Title (fr)
Véhicule avec compensation de l'effet du vent latéral

Publication
EP 2842826 A1 20150304 (EN)

Application
EP 13182029 A 20130828

Priority
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Abstract (en)
The present invention relates to a vehicle, in particular a rail vehicle, comprising a wagon body (102), in particular a double deck wagon body, a first running gear (104), a second running gear (114) arranged at a distance from the first running gear (104) in a vehicle longitudinal direction, in particular, trailing the first running gear (104), a side wind compensation device (118) and, in particular, a rolling compensation arrangement. The wagon body (102) is supported on the first running gear (104) in a vehicle height direction by means of a first spring device (103) of the first running gear (104), while the wagon body (102) is supported on the second running gear (114) in the vehicle height direction by means of a second spring device (113) of the second running gear (104). The side wind compensation device (118) comprises a control device (107.2) and an active device (107.1, 117.1) acting between the wagon body (102) and the first running gear (104) and/or the second running gear (114) and controlled by the control device (107.2) to at least reduce side wind induced wheel unloading at the first running gear (104) caused by a side wind load acting on the wagon body (102). The side wind compensation device (118) has a base wind control mode and a selectively activatable gust wind control mode. The side wind compensation device (118) is configured to control, in the base side wind control mode and as a function of a first input variable group, a first magnitude of a first action of the active device (107.1, 117.1) counteracting a first wheel unloading component resulting from a base wind load component acting on the wagon body (102) in a first wind control frequency range. The side wind compensation device (118) is further configured to control, in the activated gust side wind control mode and as a function of a second input variable group, a second magnitude of a second action of the active device (107.1, 117.1) counteracting a second wheel unloading component resulting from a gust wind load component acting on the wagon body (102) in a second wind control frequency range. The first input variable group differs from the second input variable group in at least one input variable.

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Citation (applicant)

- EP 1075407 B1 20011024 - TALBOT GMBH & CO KG [DE], et al
- EP 1190925 A1 20020327 - HITACHI LTD [JP]
- WO 2007048765 A1 20070503 - SIEMENS AG [DE], et al
- WO 2010113045 A2 20101007 - BOMBARDIER TRANSP GMBH [DE], et al

Citation (search report)

- [AD] WO 2010113045 A2 20101007 - BOMBARDIER TRANSP GMBH [DE], et al
- [AD] WO 2007048765 A1 20070503 - SIEMENS AG [DE], et al
- [AD] EP 1075407 B1 20011024 - TALBOT GMBH & CO KG [DE], et al
- [AD] EP 1190925 A1 20020327 - HITACHI LTD [JP]

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