Title (en)
METHOD OF DECREASING LATERAL PRESSURE IN RAILROAD VEHICLE

Title (de)
VERFAHREN ZUR VERRINGERUNG DES SEITLICHEN DRUCKS IN EINEM SCHIENENFAHRZEUG

Title (fr)
PROCÉDÉ DE DIMINUTION DE LA PRESSION LATÉRALE DANS UN VÉHICULE FERROVIAIRE

Publication
EP 3040251 A1 20160706 (EN)

Application
EP 14839442 A 20140827

Priority
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Abstract (en)
An actuator is installed between a vehicle body and a bogie frame of a railroad vehicle mounted with a bolsterless bogie, for example. Sensors are installed in at least one of the vehicle body, the bogie, and the wheelset. One or more parameters having a correlation with a steady lateral force are computed on the basis of state quantities obtained by using the sensors while traveling, to determine a thrust command value to be output to the actuator, by applying a predetermined transfer function to the computed value. Concurrently with determining the thrust command value, one or more parameters having a correlation with a fluctuating lateral force are computed to determine a thrust command value to be output to the actuator, by applying a predetermined transfer function to the computed value. These two thrust command values are combined to determine the thrust output to the actuator. It is possible to effectively reduce the maximum lateral force generated while traveling, thus making it possible to increase the maximum traveling speed.

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