

Title (en)

Device composed of a theodolite, revolving on a vertical order, steady inside a container fixed to the railway engine, able to control the stability of the railway by means of targets or reflecting prisms applied on settled points parallel to the rail

Title (de)

Vorrichtung, bestehend aus einem Theodoliten, der senkrecht stabilisiert in einem Behälter angebracht ist, der an einer Lokomotive befestigt ist, zum Regeln der Stabilität des Schienenfahrzeuges mit Hilfe von Zielpunkten oder reflektierenden Prismen, die an festen Punkten parallel zu den Schienen angeordnet sind

Title (fr)

Dispositif composé d'un théodolite installé de façon stable en direction verticale dans un conteneur, qui est appliqué à une locomotive, pour commander la stabilité du véhicule ferroviaire par l'intermédiaire des cibles ou des prismes réfléchissants montés sur points fixes parallèles aux rails

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Application

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Abstract (en)

The essential content of the present invention is composed of a revolving instrument, broadcasting and receiving a laser beam, sliding inside a container with a steady support connected to the engine's or wagon's chassis, in order to have a range of 180 DEG if only one side of the structure has to be controlled, 360 DEG for the whole structure. In the first case the instrument will be placed on the side of the engine. In the second on the roof, central position. On the poles, which follow the rails along each side, several targets or prisms, reflecting the laser beam emitted by the instrument, are applied. The instrument, synchronized to the rail wheel's movement, emits the laser beam against one of the outside settled points and process its reflection, surveying the stability and so the whole railway's stability or less included within the instrument's range. The reflecting component is composed of several parts, one of which characterized by the fact it keeps constant its vertical trim. By comparison of all the points of the reflecting components and the respective distances from the instrument, it's possible to survey the stability or less of the settled point on which the reflecting component has been stuck, or the stability or less of the whole railway structure or both. This invention, therefore, can be surely useful for the control of the railway structure in all its parts together and it's indispensable along the stretches used for the transit of high speed trains. The structure, besides, can survey the railway line and the rail wheels' skid while braking, and all the other functions useful for the safety of the railway transit. <IMAGE>

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- [A] DE 19646830 C1 19980326 - FRAUNHOFER GES FORSCHUNG [DE]
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US7199883B1; WO2007012851A1

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