

Title (en)

METHOD FOR THE MEASUREMENT OF TENSIONAL STRESS OF A CONTINUOUSLY WELDED RAIL DURING THERMAL REGULATION OPERATION OF RAIL

Title (de)

METHODE ZUR MESSUNG VON INTERNER SPANNUNG EINER DURCHGEHEND GESCHWEISTEN SCHIENE WÄHREND DER WÄRMEREGELUNG DER SCHIENE

Title (fr)

PROCÉDÉ PERMETTANT LA MESURE DE LA TENSION INTERNE DU RAIL SOUDÉ EN CONTINU PENDANT L'OPÉRATION DE RÉGULATION THERMIQUE DU RAIL

Publication

**EP 2949540 B1 20180822 (EN)**

Application

**EP 15169088 A 20150525**

Priority

IT LO20140003 A 20140526

Abstract (en)

[origin: EP2949540A1] The present invention is directed to a radio-electro-mechanical automatic system for the thermal regulation of the continuously welded rails, comprising at least 12 sensors for the direct measurement of the tensions inside the rails. The measurement of the tensions occurs preferably by load cells/sensors equipped with strain gages which are installed in the cell according to the electric scheme of a Wheatstone bridge, and the strain gages are preferably based on the Bragg filaments fiber technology. The system is composed by several electronic and electro-mechanics equipment belonging to three separate functional groups: 1) Measurement equipment, 2) Equipment of first processing and transmission of measurement data, 3) Equipment of final data processing and issue of regular execution certificate. The system can automatically release, in the end, a document certifying the exact internal tensional condition of the rail and the accuracy of the thermal regulation, reporting exact information on tensional condition of the rails at the end of the stretching operations.

IPC 8 full level

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