Title (en)

PROCESS FOR THE NON-DESTRUCTIVE TESTING OF STEEL REINFORCEMENTS IN STRUCTURES.

Title (de)

VERFAHREN ZUR ZERSTÖRUNGSFREIEN PRÜFUNG VON STAHLARMIERUNGEN IN BAUWERKEN.

Title (fr)

PROCEDE POUR DES ESSAIS NON DESTRUCTIFS D'ARMATURES EN ACIER DANS DES CONSTRUCTIONS.

Publication

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Application

EP 93909777 A 19930514

Priority

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- DE 4215358 A 19920514

Abstract (en)

[origin: WO9323750A1] The invention relates to a process and a device for the non-destructive testing of steel reinforcements in structures, especially to determine the position of individual prestressing reinforcements of unknown orientation and/or cracking in individual stressed reinforcements. The purpose of the invention is to provide a process and device of the aforementioned kind which makes it possible to determine with improved accuracy of measurement and sensitivity the position of steel reinforcements in structures and check for cracking in individual prestressed reinforcements in cases where individual prestressed reinforcements are fitted inside the structure with several others in a metal tube. This aim is achieved by a process in which a measuring head fitted with a pick-up coil detects a periodic change in field caused by the permeability of the steel reinforcement to be examined without any active previous magnetisation of the latter. The signal received at the measuring head is transmitted to a SQUID system behind which is connected an electronic evaluation system. Here, in the case of a stationary field, especially in the case of the natural remanent field of the steel reinforcement, the field alteration in time can be generated by the relative movement of the measuring head.

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