Title (en)

PROCESS FOR RENOVATING THE CORROSION PREVENTION OF TENSION ELEMENTS OF BRIDGES OR SIMILAR STAYED CONSTRUCTIONS, AND APPARATUS FOR CARRYING OUT THIS PROCESS

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Application

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Abstract (en)

[origin: EP0350822A2] The invention relates to a process for renovating the corrosion-protection coating of tension elements, which is characterised by the following process steps, a) the damaged corrosion-protecting coating, for example a plastic coating or coats of paint, are at least partially removed, b) the exposed steel wires are freed of possible rust, c) the tension element is provided with a gastight covering, an annular space which runs through in all directions being created by means of spacers, d) the moisture present in the tension element is evaporated by generating a reduced pressure and/or by heating the tension element, and the water vapour is continuously filtered off with suction by means of the vacuum pump generating the reduced pressure until a reduced pressure minimum is constantly set, e) the annular space is filled with a liquid coating medium, f) after filling of the annular space, the still liquid coating agent is let out at the low point of the covering via a valve, while a dry gas is drawn in through a further valve at the high point of the covering, the tension element remaining coated with a thin layer of the coating agent, g) the inlet and the outlet valve are closed. According to a preferred embodiment, the gas filling or fluid filling of the annular space is constantly provided with an elevated pressure in order to compensate for leakage losses, the elevated pressure being monitored by an automatic alarm and reporting system. The invention also relates to an apparatus for carrying out the process, in which the covering, as protective pipe, is sealed off at the ends and connections for the suction and pumping apparatus are arranged. <IMAGE>

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Citation (search report)

- [A] US 4117582 A 19781003 BORELLY WOLFGANG
- [A] DE 1091906 B 19601027 BRITISH ROPES LTD
- [A] US 3646748 A 19720307 LANG FREDERIC A
- [A] CIVIL ENGINEERING, November 1980, Seiten 32,33, London, GB; DONOVAN: "Vacuum impregnation for restoring structures"
- [AP] BETON & STAHLBETONBAU, Band 83, Nr. 12, Dezember 1988, Seiten 334-338, Berlin, DE; JUNGWIRTH: "Hochleistungsfähige Schrägseile aus der Sicht des Betonbauers"

Cited by

FR2790492A1; CN111945562A; CN113389134A; US8042213B2; CN106439138A; EP1033443A1; FR2790493A1; FR2725462A1; AT407767B; US2013007966A1; US8650691B2; CN108487050A; CN102713070A; CN107869466A; CN114232478A; WO2011044611A1; WO9840561A1

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