

Title (en)

DEVICE FOR NON-DESTRUCTIVELY TESTING CYLINDRICAL OR TUBE-SHAPED TEST OBJECTS BY MEANS OF X-RAYS

Title (de)

VORRICHTUNG ZUR ZERSTÖRUNGSFREIEN UNTERSUCHUNG ZYLINDRISCHER ODER ROHRFÖRMIGER PRÜFOBJEKTE MITTELS RÖNTGENSTRAHLUNG

Title (fr)

DISPOSITIF POUR ESSAI NON-DESTRUCTIF D'ÉPROUVETTES CYLINDRIQUES OU TUBULAIRES PAR RAYONNEMENT X

Publication

EP 2381849 A1 20111102 (DE)

Application

EP 09799278 A 20091221

Priority

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Abstract (en)

[origin: WO2010075989A1] The invention relates to a device for non-destructively testing cylindrical or tube-shaped test objects (7) by means of X-rays, by means of a tomosynthesis or laminography; having a bearing device (1) that can be fixed in place at a prescribed location, a carriage (3) displaceable in a first direction A parallel to the X-axis being disposed thereon by means of a track device (2), a C-arm (4) being disposed thereon, wherein an X-ray tube (5) and a detector (6) are disposed opposite each other on the C-arm (4), wherein the X-ray tube (5) can be displaced in a second direction B perpendicular to the X-axis and perpendicular to the plane captured by the C-arm (4), that is, parallel to the Y-axis, and the detector (6) can be displaced in a third direction C extending parallel to the second direction B. For a device for performing a CT process, a motion of the C-arm (4) about an axis of rotation (16) running parallel to the Y-axis is provided in place of the opposing motion capability of the X-ray tube (5) and detector (6). The invention further relates to a method for non-destructively testing a cylindrical or tube-shaped test object (7) having the following steps: positioning the bearing device (1) at the location to be tested on the test object (7) in the Y-direction; extending the carriage (3) and positioning the C-arm (4) at the location to be tested in the X-direction; fixing the location of the carriage (3); capturing an image by means of opposite displacement of the X-ray tube (5) and the detector (6) parallel to the Y-axis for a tomosynthesis or laminography, or by means of rotating the C-arm (4) about an axis of rotation (16) parallel to the Y-axis for a CT image.

IPC 8 full level

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Citation (search report)

See references of WO 2010075989A1

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