

Title (en)

DEVICE AND METHOD FOR AUTOMATIC X-RAY EXAMINATION OF A MOVING TEST OBJECT

Title (de)

VORRICHTUNG UND VERFAHREN ZUR AUTOMATISCHEN RÖNTGENPRÜFUNG EINES SICH IN BEWEGUNG BEFINDENDEN PRÜFOBJEKTS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE CONTRÔLE RADIOGRAPHIQUE AUTOMATIQUE D'UN OBJET À CONTRÔLER EN MOUVEMENT

Publication

EP 2981812 A1 20160210 (DE)

Application

EP 14714298 A 20140402

Priority

- DE 102013205812 A 20130402
- DE 102013210192 A 20130531
- EP 2014056623 W 20140402

Abstract (en)

[origin: WO2014161903A1] A device (100) for automatic x-ray examination of a moving test object (120) comprising an x-ray arrangement (105) having an x-ray source (110) and an area detector (130), comprises a manipulation device (150) for moving the test object (120) relative to the x-ray arrangement (105) to a test position YP between the x-ray source (110) and the x-ray detector (130), wherein the test object (120) has a relative velocity v_B to the x-ray arrangement (105) when moving through the test position YP, wherein the following correlation is satisfied in respect of the relative velocity v_B : (formula 1) or if the spatial resolution required for the application is lower than the effective pixel size: (formula 2) comprising an image acquisition duration t_{int} , a relative velocity v_B and an effective pixel size or a target spatial resolution, which is based on the relationship between the source-detector distance of the x-ray source to the area detector and the source-test object distance from the x-ray source to the test object, a processing device (160) for capturing an x-ray image of the test object (120) moving at the relative velocity v_B at the test position (Y2) by means of the area detector (130) and an evaluation device (170) for automatic evaluation of the x-ray image of said test object (120) in respect of a material or quality feature by means of an image processing device.

IPC 8 full level

G01N 23/04 (2006.01); **G01N 23/083** (2006.01)

CPC (source: EP US)

G01N 23/04 (2013.01 - EP US); **G01N 23/046** (2013.01 - EP US); **G01N 23/083** (2013.01 - EP US); **G01N 2223/3307** (2013.01 - EP)

Citation (search report)

See references of WO 2014161903A1

Citation (examination)

- WO 9206636 A1 19920430 - INNOVATIVE IMAGING SYSTEMS INC [US]
- GB 2143710 A 19850213 - RHEIN WESTFAEL TECH UEBERWACH

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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