

Title (en)
AIRCRAFT AND METHOD FOR INSPECTING EQUIPMENT IN COKING PLANTS TO DETECT SOURCES OF ERROR

Title (de)
FLUGGERÄT UND VERFAHREN ZUR INSPEKTION VON EINRICHTUNGEN VON KOKEREIANLAGEN ZUR DETEKTION VON FEHLERQUELLEN

Title (fr)
AÉRONEF ET PROCÉDÉ D'INSPECTION DE DISPOSITIFS D'INSTALLATIONS DE COKERIE POUR DÉTECTER DES SOURCES D'ERREURS

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Application
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Abstract (en)
[origin: WO2022157152A2] The present invention relates to an aircraft and to a method using this aircraft to inspect equipment in coking plants for detecting sources of error. The aircraft has at least one inspection device for inspecting surfaces of the equipment that are to be inspected, and an airspace, distanced from one of the surfaces to be inspected, and at least one transmitting and receiving device for data communication with at least other aircraft or at least one external analysis device for detecting the sources of error. The method comprises converting the detected phototechnical and optical data, in particular 2D data, into a 3D thermal point cloud by means of a conversion unit of the analysis device, in particular by photogrammetry, for generating at least orthophotos or surface textures or 3D models, processing the data detected from chemically reactive, physically reactive and thermographic devices in a comparison unit of the analysis device to determine deviation data, and combining all converted data and all deviation data and further operating data in an evaluation unit of the analysis device to detect sources of error by means of image processing algorithms and/or machine learning algorithms.

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