

Title (en)

MACHINE AND METHOD FOR INSPECTING MECHANICAL PARTS

Title (de)

MASCHINE UND VERFAHREN ZUR INSPEKTION VON MECHANISCHEN TEILEN

Title (fr)

MACHINE ET MÉTHODE DE CONTRÔLE DE PIÈCES MÉCANIQUES

Publication

**EP 3990856 A1 20220504 (FR)**

Application

**EP 20734401 A 20200626**

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Abstract (en)

[origin: WO2020260594A1] The invention relates to a machine for inspecting mechanical parts comprising a frame (12), a part holder assembly (14) and at least two sensors (15) arranged to inspect at least one feature of the mechanical part. The part holder assembly (14) can move relative to the frame (12) of the machine in at least four degrees of freedom, at least two of said degrees of freedom being defined by two axes of rotation (A, C). The part holder assembly (14) can move so as to allow a point of said mechanical part to be inspected to be positioned facing one of the sensors (15). The total number of degrees of freedom of the part holder assembly (14) and of the sensor (15) is at least equal to five. The inspection machine (10) further comprises measurement means arranged to determine the position of this part holder assembly (14). At least one of said sensors is supported by a gantry (13) connected to the frame (12) of the machine. The invention also relates to a method for inspecting mechanical parts using a machine as defined above, said method comprising the steps of defining a set of inspection points disposed on the mechanical part to be inspected; of selecting a sensor (15) suitable for the feature to be inspected; of positioning the mechanical part on the part holder assembly (14); of moving the part holder assembly (14) in at least four degrees of freedom in order to position an inspection point facing the selected sensor (15); of measuring, by means of the sensor (15), the feature to be inspected on the inspection point positioned facing this sensor; of storing the value of the measured features linked to a position of the sensor during the measurement; of repeating the previous three steps for the different inspection points and of processing the measurements of the features as a function of the parameter to be inspected.

IPC 8 full level

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