

Title (en)

METHOD FOR CONTACTLESSLY AND DYNAMICALLY RECORDING THE PROFILE OF A SOLID BODY

Title (de)

VERFAHREN ZUR BERÜHRUNGSLOSEN DYNAMISCHEN ERFASSUNG DES PROFILS EINES FESTKÖRPERS

Title (fr)

PROCEDE POUR DETERMINER DE MANIERE DYNAMIQUE SANS CONTACT LE PROFIL D'UN CORPS SOLIDE

Publication

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Application

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Abstract (en)

[origin: WO2007039641A1] The invention relates to a method for contactlessly and dynamically recording the profile (P) of a solid body (1). According to said invention, at least one light beam, which is generated by a laser device (2) and expanded in such a way that at least one linear light band (3) is formed is projected onto the moving surface of the solid body (1) and a light (RL) reflected by the solid body surface (1, 1a), inside an optical imaging device (5), whose optical axis is positioned at a fixed triangulation angle to the projecting direction of the laser device (2) and which is located at a fixed base distance from the laser device (2) is focussed and detected with a frequency which is higher with regard to the motion rate (v) of the solid body (1) by means of a planiform light-absorbing element (6). Afterwards, the measured values of the profile (P) are obtained from signals delivered by the light-absorbing element (6) according to the triangulation angle and the base distance (B) in a data processing device by means of trigonometric relations and by combination of correction values determined according to the motion rate (v) of the solid body (1) and said values are stored in the form of a profilogram (PG) in the data processing device, wherein the determination of an image triggering (106A, 106B, 106C), for which the signal delivered by the light-absorbing element (6) are selected in such a way that it makes it possible to extract the measured values ( $z_{B</SUB>}$ ) of the profile (P), is carried out in a reception loop (100)

IPC 8 full level

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