

Title (en)

METHOD FOR CONTACTLESS DYNAMIC DETECTION OF 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: WO2007033702A1] The invention relates to a method for contactless dynamic detection of the profile of a solid body (1), wherein at least one light beam which is generated by a laser device (2) and is expanded to form at least one linear light band (3) is projected onto the moving surface of the solid body (1) and the light reflected from the surface of the solid body (1) is focused in an imaging device (5), the optical axis of which is at a fixed triangulation angle with respect to the projection direction of the laser device (2) and which is arranged at a fixed basic distance from the laser device (2), and is detected by means of an areal light recording element (6), after which, from signals emitted by the light recording element (6), in a manner dependent on the triangulation angle and the basic distance, in a data processing device, by means of trigonometrical relationships and with combination with correction values determined according to the speed of movement of the solid body (1), the measured values of the profile are obtained and stored as a profilogram. It is proposed to perform a determination of initial conditions of the solid body (1) at an initial instant and then to determine a detection instant from the initial conditions.

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