

Title (en)

OPTICAL APPARATUS FOR NON-CONTACT MEASUREMENT OR TESTING OF A BODY SURFACE

Title (de)

OPTISCHE ANORDNUNG ZUM BERÜHRUNGSLOSEN MESSEN ODER PRÜFEN EINER KÖRPEROBERFLÄCHE

Title (fr)

MONTAGE OPTIQUE POUR LA MESURE OU LE CONTRÔLE SANS CONTACT DE LA SURFACE D'UN CORPS

Publication

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Application

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Abstract (en)

[origin: WO2010063775A1] The invention relates to an optical apparatus for non-contact measurement or testing of characteristics of a body surface, such as curvature, profile, contour, roughness, position. The apparatus is suitable both for quality control of technical surfaces through measurement or comparison with reference surfaces and for measurement of microstructures on surfaces. Thus, roughnesses can be measured that are smaller than the wavelength of the light illuminating them. According to the invention, an optical apparatus of the above type comprises: - means for forming a gap between the body surface and a reference edge, - a device for depicting the gap on a detector, and - an evaluation unit connected to the detector, said unit adapted to - determine gap widths located next to one another using the output signals of the detector, and - to determine curvature, profile, contour or roughness of the body surface using the adjacent gap widths. From the comparison of the images acquired from two arbitrary positions within a drill hole, a tilting between a measured object and a measuring device can be concluded.

IPC 8 full level

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