Title (en)

METHOD AND DEVICE FOR DETERMINING THE AERODYNAMIC WALL SHEAR STRESSES ON THE SURFACE OF A BODY, AROUND WHICH AIR FLOWS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR BESTIMMUNG DER AERODYNAMISCHEN WANDSCHUBSPANNUNGEN AN DER OBERFLÄCHE EINES UMSTRÖMTEN KÖRPERS

Title (fr)

PROCEDE ET DISPOSITIF POUR DETERMINER LES CONTRAINTES AU CISAILLEMENT AERODYNAMIQUES EXERCEES SUR UNE PAROI, A LA SURFACE D'UN CORPS SE TROUVANT DANS L'ECOULEMENT D'UN FLUIDE

Publication

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Application

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Abstract (en)

[origin: WO03104769A2] The invention relates to a method and a device for determining the aerodynamic wall shear stress in a measuring zone (1a) on the surface of a body (K), around which a flow medium flows. A measuring layer (S) is arranged on said surface in the vicinity of the measuring zone (1a), said measuring layer being thermally transparent in a first IR-wavelength range and absorbing heat in a second IR wavelength range, in order to radiometrically measure the temperature (TW) on the surface of the measuring layer (S) and the temperature (Ts) on the surface (F1) that is covered by the measuring layer (S), using an infra-red camera measuring system (2), whereby the measuring layer (S) is in addition sensitive to pressure.

IPC 1-7

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