

Device for Determining the Location of Mechanical Elements

Abstract

The invention relates to a device for determining the location of a first mechanical element (10, 156) and a second mechanical element (12, 154) with respect to each other, with a first measurement unit (14, 114, 214) for positioning at the first mechanical element, a second measurement unit (18, 118, 218) for positioning at the second mechanical element, and an analysis unit (22), wherein the first measurement unit has means (24, 124, 224) for producing a light beam bundle (28, 128, 228), wherein the second measurement unit has a scattering surface (34, 134, 234) for scattering of the light impinging on the scattering surface, a camera (36), and means for imaging the scattering surface on the camera, wherein the scattering surface faces the first measurement unit when the measurement units are positioned at the respective mechanical element so as to be impinged on by the light beam bundle, wherein the analysis unit is designed to determine from the image data supplied by the camera the position of impingement of the light beam bundle, emitted by the first measurement unit, on the scattering surface and from it the location of the first mechanical element and the second mechanical element with respect to each other, and wherein the camera is directed onto the side of the scattering surface facing the first measurement unit.

(Fig. 1)