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MEASURING HEAD

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MEASURING HEAD

by

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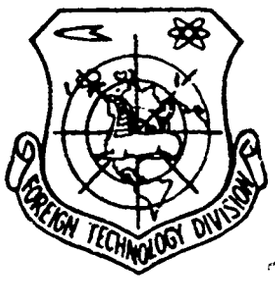

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13. ABSTRACT

The measuring head containing a housing (in which there are series connected mechanisms - one a sine mechanism and the other a link mechanism with a drive lever - and two gears), an indicator, a scale, and a gap selection unit is distinguished by the fact that the lever of the link mechanism is made adjustable in length to increase accuracy.

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MEASURING HEAD

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MEASURING HEAD

Yu. Z. Tenenbaum and V. S. Demidov

The invention pertains to the area of measuring technique for linear measurements of dimensions.

An existing measuring head contains a housing (in which there are series connected mechanisms - one a sine mechanism and the other a link mechanism with a drive lever - and two gears), an indicator, a scale, and a gap selection unit.

The proposed head is distinguished by the fact that the lever of the link mechanism is made adjustable in length. This increases accuracy.

The drawing depicts a functional diagram of the proposed head.

It contains housing 1, sine mechanism 2, link mechanism 3 with drive lever 4 and two gears 5 and 6, indicator 7, scale 8, and gap selection unit 9. The lever of the link gear is made adjustable in length.

The gears are set up so that the ratio of the lever length to the center-to-center distance of the hinges equals three. In this case the nonlinearity error on the scale is not observed on account of its small value. A definite type of error is added because of the turning of gear wheel 10. On the basis of the amplitude of error caused by error in the gear wheel, the length of the lever is adjusted, in this case restoring the required gear ratio.

Object of the Invention

The measuring head containing a housing (in which there are series connected mechanisms - one a sine mechanism and the other a link mechanism with a drive lever - and two gears), an indicator, a scale, and a gap selection unit is distinguished by the fact that the lever of the link mechanism is made adjustable in length to increase accuracy.