

Title (en)

PROCESS AND DEVICE FOR MEASURING THE WARP TENSION IN AUTOMATIC LOOMS AND SIMILAR

Publication

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Application

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Priority

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Abstract (en)

[origin: WO8700562A1] For measuring the tension of a yarn layer (10) or of a warp (11) in an automatic loom or similar, a vibratory component (20) which can pivot around an axis (23) is arranged in the region of the layer of material from a straight line. The vibratory component (20) is made to vibrate by means of an excitation arrangement (30). The resulting frequency (fo) of the vibratory component (20) depends directly on the tension P of the yarn layer or of the material and can thus be determined from the frequency fo. The vibratory component (20) can, by simply sliding of the yarn layer (10) or material (11) on its surface (24), be made to vibrate at a natural frequency fo, which can be measured by a sensor (34) and converter (35). A particularly advantageous design of the vibratory component (20) can be achieved by giving it the shape of a plate with a notch (26), which is placed on a blade (27). To eliminate vibrations inherent in the vibratory component (20) the latter can be equipped with a counterweight (27) which moves the centre of gravity of the system to the point of intersection fo the tensile forces exerted by the yarn layer or material.

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