

Title (en)

Method and apparatus for measuring warp tension in a weaving loom

Title (de)

Verfahren und Vorrichtung zum Messen der Spannung der Webkette in einer Webmaschine

Title (fr)

Procédé et dispositif pour mesurer la tension de la chaîne dans un métier à tisser

Publication

EP 0789097 A1 19970813 (DE)

Application

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Priority

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Abstract (en)

A method of measuring warp tension in a loom entails leading the warp over a deflecting agent and a spring loaded tensioner which is caused to swivel about a pivot by warp action. A force sensor is attached to the tensioner to measure the force, $F(M)$, transferred to it. This force is essentially the same over the swivel arc depending on the run of the warp and the geometrical arrangement of the deflecting agent, tensioner and pivot point. Also claimed are: (i) the apparatus for implementing the method comprising the deflecting agent (3), tensioner (15), pivot (16) and force sensor (25) which has a surface which deflects under pressure and at least one measuring element fixed to the face, wherein the force sensor and tensioner are so located to one another that the normal to the pressure-receiving surface and line of action of the force $F(M)$ point in the same direction; and (ii) a loom using the apparatus which is then followed by a warp beam.

Abstract (de)

Bei dem Verfahren wird eine Kraft FM gemessen, welche in Abhängigkeit vom Verlauf der Webkette (2) und von der geometrischen Anordnung des Umlenkorgans (3), des Spannorgans (15) und der Schwenkachse (16) über den Schwenkbereich etwa die gleiche Grösse aufweist. Dadurch kann die Kettspannung durch Messung der Kraft FM unabhängig von der Stellung des Spannorgans weitgehend korrekt ermittelt und der gemessene Wert direkt in die Regelung des Kettablasses einbezogen werden. <IMAGE>

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Citation (search report)

- [XA] BE 1008135 A3 19960123 - PICANOL NV [BE]
- [A] WO 9325743 A1 19931223 - AELMHULTS BRUK AB [SE], et al
- [A] EP 0547003 A1 19930616 - TOYODA AUTOMATIC LOOM WORKS [JP]
- [A] EP 0527705 A1 19930217 - TOYODA AUTOMATIC LOOM WORKS [JP]

Cited by

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