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54 **Mounting for selvage device on weaving machines.**

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Description

This invention concerns a mounting for selvedge devices on weaving machines, more particularly for selvedge devices which consist of two parts which move past each other and which are carried by two successive weaving harnesses, where said harnesses move in opposite directions during weaving.

In particular, the invention concerns a selvedge device mounting of the type in which the parts which move past each other are attached to the weaving harnesses, or to the suspension frames of said harnesses, by means of two-part mounting brackets, where the two parts of said mounting brackets are tightened round said suspension frame by means of screw devices.

Selvedge mechanisms which consist of two parts which move past each other and which are attached to separate weaving harnesses are known from European patent application No. 104.663, American patents Nos. 4.445.544 and 4.478.256 and Belgian patent No. 898.353.

It is known that attachment of the two parts of a selvedge device of the above-mentioned type can be by means of two-part mounting brackets, the two parts of which can be clamped round the suspension frame of the corresponding weaving harness by means of screw devices. In the known mountings, said screw device consists of a screw oriented perpendicularly to the plane of the weaving harnesses. Since however the two parts of the selvedge device are mounted one behind another, this has the disadvantage that in order to undo and dismount the second part the first part first has to be taken off, or at least has to be moved to one side, in order to make the screw device of the second part accessible. Still another example showing the same disadvantages is known from DE-C-3.336.504 whose features correspond to the pre-characterizing part of claim 1.

In order to offer a solution to the problem outlined above, use can be made of a bracket, as known from EP 104.663, in which the screw is oriented sideways. Since however selvedge devices are mounted close to the side edge of the weaving harnesses, such a screw is inaccessible or can only be reached with difficulty.

The present invention has as its aim a selvedge device mounting which systematically avoids the disadvantages outlined above.

For this purpose, the invention consists of a selvedge device mounting, more particularly for selvedge devices which consist of two parts mounted one behind another and which move past each other and which are carried on two successive weaving harnesses, where the mounting consists of a number of mounting brackets by which the two

parts of the selvedge device are joined near their ends to the corresponding weaving harnesses, comprising at least one screw device, for attaching and tightening one of said parts to a weaving harness, which can screw in and out in a direction oblique to the plane of the harnesses, whereby said screw device cooperates with at least one of the mounting brackets of a first part of the selvedge device whilst the second part of the selvedge device, or a mounting bracket which forms part of it, has an opening which offers a passage running in the continuation of the length of said screw device.

The oblique direction of the above-mentioned screw device in the rear part and the opening in the front part of the selvedge device make it possible to dismount the rear part of the selvedge device in the position in which the two corresponding weaving harnesses are at the same height without the front part having to be undone or moved.

In a preferred embodiment, the above-mentioned opening in the mounting component is actually in the mounting bracket of the front part of the selvedge device.

The construction according to the invention makes it possible to use four universal mounting brackets, without losing the advantage of being able to dismount the rear part of the selvedge device independently of the front part.

In order to explain the characteristics of the invention, the following preferred embodiments are described, by way of example only and without being limitative in any way, with reference to the accompanying drawings, where:

- fig. 1 is a schematic representation of the mounting according to the invention, with the harness in a dismounted position;
- fig. 2 shows a cross-section along line II-II in fig. 1;
- figs. 3 and 4 show a universal mounting bracket, such as can be used in the mounting according to the invention;
- fig. 5 shows a mounting in which the mounting bracket in figs. 3 and 4 is used;
- fig. 6 shows a variant of the invention.

Fig. 1 represents the two weaving harnesses 1 and 2, between which is mounted the selvedge device 3, here shown schematically, consisting of two parts 4 and 5 which move past each other, for example as described in US 4.478.256. The parts 4 and 5 are here attached to the respective suspension frames 6 to 9 of the weaving harnesses 1 and 2 by means of a number of detachable, movable mounting brackets 10 to 13.

The special feature of the mounting according to the invention is that firstly, at least one of the mounting brackets 12 or 13, near the top end 14 or the bottom end 15 respectively or rear part 5, is in

two parts and has a screw device 16 for attaching and tightening it onto the corresponding suspension frame 8, where said screw device 16 can be screwed in and out in a direction 17 oblique to the plane of the weaving harnesses 1 and 2, and secondly, the front part 4 of the selvedge device 3, or a mounting bracket 10 or 11 which forms part of it, has an opening 18 which offers a passage in the continuation of said screw device 16. In the embodiment shown in fig. 1, all four mounting brackets 10 to 13 are in two parts, and both mounting brackets 10 and 11 of the front part 4 of the selvedge device 3 have an opening 18 as described above.

As shown in fig. 2, the two-part mounting brackets 10 to 13 can for example consist of a hook-shaped part 19 which can be hooked behind the outside edge 20 of the corresponding suspension frame 6 to 9 respectively, and a base part 21 which can operate with the inside edge 22 of the corresponding suspension frame. The screw device 16 makes the connection between the two parts 19 and 21, such that by screwing up said screw device 16 the two parts are pulled towards each other and the corresponding suspension frame 6 to 9 is enclosed tightly between them.

As can be clearly seen in the practical embodiment shown in figs. 3 and 4, use is preferably made of a U-shaped base part 21, such that the legs 23 and 24 of the U shape are situated in the plane of the corresponding weaving harness, while the hook-shaped part 19 fits into the U shape. The ends 25 and 26 of the legs 23 and 24 are contact parts, by means of which the base part 19 can be tightened against the inside edge 22 of the suspension frame 6 to 9 respectively. For this purpose the necessary slots 27 and 28 are provided in the ends 25 and 26 in order to provide a seating for the corresponding suspension frame.

The screw device 16 consists preferably of one centrally-mounted screw or bolt, which in the preferred embodiment of the above-mentioned mounting brackets 10 to 13 consists of a socket-head screw 29 whose head 30 is countersunk in the base part 21, in particular as shown in fig. 5.

As also shown in the embodiments represented in figs. 3 to 5, the parallel planes 31 and 32 of the parts 19 and 21 are preferably situated perpendicularly to the screw device 16. The parts 19 and 21 are preferably dimensioned so that when they fit round the suspension frames 6 to 9 a certain amount of play 33 remains between these parts 19 and 21. However the side surfaces 34 and 35 in figs. 3 to 5 should preferably fit together.

The opening 18 made at least in the front part 4 of the selvedge device 3 should preferably also be made in the base part 21 of the corresponding mounting bracket 10 or 11 respectively. The open-

ing may be situated so that, in the position in which the weaving harnesses 1 and 2 are at the same height, the screw device 16 is accessible by means of a socket-head screw wrench or suchlike, as shown in figs. 2 and 5.

All the mounting brackets 10 to 13 for the selvedge device 3 should preferably have a universal form as shown in figs. 3 to 5. The base part 21 here has a mounting part 36 on which the actual thread guide mechanisms 37 and 38 are mounted.

Clearly, as shown in fig. 6, the opening 18 can also consist of a long, vertical slot or suchlike along the length of part 4, which can simultaneously serve as the guide slot for the thread guide element 39, itself known, which is attached to the rear part 5.

The angle A between the direction 17 and the plane of the weaving harnesses 1 and 2 can be from 15 to 45 degrees, and is preferably equal to 30 degrees.

Obviously, the designations "front" and "rear" parts of the selvedge device 3 are only used in the description in order to differentiate between parts 4 and 5. Depending on the method of mounting, said front part 4 can be nearer the shed on the weaving machine than the rear part 5 or vice versa, or in other words the side from which the screw device 16 can be screwed into the corresponding mounting bracket 10 to 13 can be either towards or away from the shed.

The present invention is not limited to the embodiments described by way of example and shown in the drawings; on the contrary, such a mounting for selvedge devices on weaving machines can be made in all forms and dimensions while still remaining within the scope of the invention.

Claims

1. Mounting for selvedge devices on weaving machines, more particularly for selvedge devices (3) which consist of two parts (4,5) which move past each other and which are mounted one behind another, carried respectively on two successive weaving harnesses (1,2), where the mounting consists of a number of mounting brackets (10,11,12,13) which respectively attach the two parts (4,5) of the selvedge device (3) near their ends (14,15) to the corresponding weaving harnesses (1,2), comprising at least one screw device (16), for attaching and tightening one of said parts (4,5) to a weaving harness (1,2), which can screw in and out in a direction (17) oblique to the plane of the harnesses (1,2), whereby said screw device (16) cooperates with at least one of the mounting brackets (12,13) of a first part (5) of the sel-

vedge device (3), and characterized in that the second part (4) of the selvedge device (3), or a mounting bracket (10,11) which forms part of it, has an opening (18) which provides a pas-
sage in the continuation of said screw device (16).

2. Mounting according to claim 1, characterized in that the direction (17) in which the screw device (16) screws in an out makes an angle (A) of 15 to 45 degrees with the plane of the weaving harnesses (1, 2).

3. Mounting according to claim 2, characterized in that the above-mentioned (A) is equal to 30 degrees.

4. Mounting according to any of the foregoing claims, characterized in that at least the mounting bracket (12, 13) which fits with the rear part (5) of the selvedge device and which is provided with the above-mentioned screw device (16) consists of a hook-shaped part (19) which can be hooked behind the outside edge (20) of the corresponding suspension frame (8, 9), and a base part (21) which can fit with the inside edge (22) of the suspension frame (8, 9), where said screw device (16) joins both the above-mentioned parts (19, 21) together, such that by screwing up the screw device (16) the two parts (19, 21) are pulled towards each other and clamp round the suspension frame (8, 9).

5. Mounting according to any of the foregoing claims, characterized in that the screw devices (16) consist of one bolt or screw positioned centrally with respect to the mounting bracket (12, 13).

6. Mounting according to claim 5, characterized in that the screw device consists of a hollow-headed screw (29) whose head (30) is countersunk in the above-mentioned base part (21).

7. Mounting according to any of claims 4 to 6, characterized in that the base part (21) is U-shaped, with two legs (23, 24) situated in the plane of the corresponding frame (2), while the hook-shaped part (19) fits in the U-shape, where the free ends (25, 26) of said legs (23, 24) form the contact parts with which the base part (21) can be tightened against the inside edge (22) of the corresponding suspension frame (8,9).

8. Mounting according to claim 7, characterized in that the ends (25, 26) of the legs (23, 24) of

the U-shaped base part (21) have slots (27, 28) which form a seating for the corresponding suspension frame (8, 9).

5 9. Mounting according to any of claims 4 to 8, characterized in that the above-mentioned opening (18) is made in the base part (21) of the corresponding mounting bracket (10, 11).

10 10. Mounting according to any of the foregoing claims, characterized in that the opening (18) is situated such that it lies in the continuation of the screw device (16) whenever the harnesses (1, 2) are at precisely the same height.

15 11. Mounting according to claim 1, characterized in that the opening (18) in the first part (4) of the selvedge device (3) consists of the guide slot in which the thread guide element (39) which makes up part of the rear part (5) of the selvedge device (3) can slide.

Patentansprüche

25 1. Befestigung für Saumgeräte auf Webmaschinen, besonders für Saumgeräte (3) die bestehen aus zwei Teilen (4,5) die an einander vorbei bewegen und die hintereinander befestigt worden sind, respektive getragen von zwei sukzessiven Webharnischen (1,2) wo die Befestigung besteht aus einer Zahl Befestigungsträger (10,11,12,13), die respektive die zwei Teile (4,5) des Saumgeräts (3) in der Nähe ihrer Ende (14,15) verbinden mit den entsprechenden Webharnischen (1,2), die mindestens ein Schraubgerät (16) umfassen, um einen der genannten Teile (4,5) auf ein Webharnisch (1,2) zu befestigen und klemmen, das ein- und ausgeschraubt werden kann in eine Richtung (17) schräg zur Ebene des Harnisches (1,2), wobei das genannte Schraubgerät (16) zusammenwirkt mit mindestens einem der Befestigungsträger (12,13) eines ersten Teils (5) des Saumgeräts (3), dadurch gekennzeichnet, daß der zweite Teil (4) des Saumgeräts (3), oder ein Befestigungsträger (10,11) der davon einen Teil bildet, eine Öffnung (18) aufweist, die einen Durchgang bildet in der Verlängerung des genannten Schraubgeräts (16).

40 2. Befestigung nach Anspruch 1, dadurch gekennzeichnet, daß die Richtung (17) in die das Schraubgerät (16) ein-und ausschraubt, einen Winkel (A) von 15 bis 45 Grad bildet mit der Ebene des Webharnisches (1,2).

45 3. Befestigung nach dem Anspruch 2, dadurch gekennzeichnet, daß, der obengenannte Win-

kel (A) gleich 30 Grad ist.

4. Befestigung nach einem beliebigen der obengenannten Ansprüche, dadurch gekennzeichnet, daß, mindestens der Befestigungsträger (12,13), der mit dem hinteren Teil (5) des Saumgeräts zusammenpasst und ausgestattet ist mit dem obengenannten Schraubgerät (16) besteht aus einem hakenförmigen Teil (19) der hinter die Aussenrand (20) des entsprechenden Traggestells (8,9) gehakt werden kann, und einem Grundteil (21) der an der Innenrand (22) des Traggestells (8,9) passen kann, wo das genannte Schraubgerät (16) die obengenannten Teile (19,21) in solcher Weise mit einander verbindet, daß beim Aufschrauben des Schraubgeräts (16) die zwei Teile (19,21) zu einander gezogen werden und um das Traggestell (8,9) klemmen. 5
5. Befestigung nach einem beliebigen der vorhergehenden Ansprüche, dadurch gekennzeichnet, daß das Schraubgerät (16) besteht aus einem bezüglich des Befestigungsträgers (12,13) zentral angeordneten Bolzen oder Schraube. 10
6. Befestigung nach Anspruch 5, dadurch gekennzeichnet, daß, das Schraubgerät besteht aus einer Hohlkopfschraube (29) deren Kopf (30) im obengenannten Grundteil (21) versenkt ist. 15
7. Befestigung nach einem beliebigen der Ansprüche 4 bis 6, dadurch gekennzeichnet, daß der Grundteil (21) U-förmig ist, mit zwei Beinen (23,24), die sich in der Ebene des entsprechenden Gestells (2) befinden, während der hakenförmige Teil (19) in der U-Form paßt, wo die freien Ende (25, 26) der genannten Beine (23, 24) die Berührungsteile bilden mit denen der Grundteil (21) gegen die Innenrand (22) des entsprechenden Traggestells (8,9) festgeklemmt werden kann. 20
8. Befestigung nach Anspruch 7, dadurch gekennzeichnet, daß die Ende (25, 26) der Beine (23, 24) des U-förmigen Grundteils (21) Schlitz (27, 28) aufweisen, die einen Sitz bilden für das entsprechende Traggestell (8,9). 25
9. Befestigung nach einem beliebigen der Ansprüche 4 bis 8, dadurch gekennzeichnet, daß die obengenannte Öffnung (18) gebildet wurde im Grundteil (21) des entsprechenden Befestigungsträgers (10, 11). 30
10. Befestigung nach einem beliebigen der vorher-

gehenden Ansprüche, dadurch gekennzeichnet, daß die Öffnung (18) derartig angeordnet ist daß sie in der Verlängerung des Schraubgeräts (16) liegt ist wenn die Harnische (1,2) sich genau in gleicher Höhe befinden.

11. Befestigung nach Anspruch 1, dadurch gekennzeichnet, daß, die Öffnung (18) im ersten Teil (4) des Saumgeräts (3) besteht aus dem Führungsschlitz in dem die Fadenführungsvorrichtung (39), die teilweise den hinteren Teil (5) des Saumgeräts (5) bildet, gleiten kann. 35

Revendications

1. Montage de dispositifs de formation de lisières sur des métiers à tisser, plus particulièrement pour des dispositifs de formation de lisières (3), qui consistent en deux parties (4, 5) qui se déplacent en passant l'une devant l'autre et qui sont montées l'une derrière l'autre, supportées sur deux harnais de tissage successifs (1, 2), dans lequel le montage consiste en un certain nombre de supports de montage (10, 11, 12, 13) qui fixent respectivement les deux parties (4, 5) du dispositif de formation de lisières (3) à proximité de leurs extrémités (14, 15) aux harnais de tissage correspondants (1, 2), comprenant au moins un dispositif à vis (16) pour attacher et fixer une desdites parties (4, 5) à un harnais de tissage (1, 2), que l'on peut visser et dévisser dans une direction (17) oblique par rapport au plan des harnais (1, 2), dans lequel ledit dispositif à vis (16) coopère avec au moins un des supports de montage (12, 13) d'une première partie (5) du dispositif de formation de lisières (3), et caractérisé en ce que la seconde partie (4) du dispositif de formation de lisières (3) ou d'un support de montage (10, 11) qui en fait partie, possède une ouverture (18) qui procure un passage s'étendant dans le prolongement dudit dispositif à vis (16). 40
2. Montage selon la revendication 1, caractérisé en ce que la direction (17) dans laquelle le dispositif à vis (16) visse et dévisse, forme un angle (A) de 15 à 45 degrés par rapport au plan des harnais de tissage (1, 2). 45
3. Montage selon la revendication 2, caractérisé en ce que l'angle susmentionné (A) est égal à 30 degrés. 50
4. Montage selon l'une quelconque des revendications précédentes, caractérisé en ce qu'au moins le support de montage (12, 13) qui vient se disposer contre la partie arrière (5) du dis-

- positif de formation de lisières et qui est muni du dispositif à vis susmentionné (16), consiste en un élément (19) en forme de crochet qui peut venir s'accrocher derrière le bord externe (20) du châssis de suspension correspondant (8, 9), et en un élément de base (21) qui peut venir se disposer contre le bord interne (22) du châssis de suspension (8, 9), dans lequel ledit dispositif à vis (16) réunit les deux éléments susmentionnés (19, 21) l'un à l'autre, de telle sorte qu'en vissant le dispositif à vis (16), les deux éléments (19, 21) sont tirés l'un vers l'autre et viennent se fixer sur la périphérie du châssis de suspension (8, 9).
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5. Montage selon l'une quelconque des revendications précédentes, caractérisé en ce que les dispositifs à vis (16) consistent en un boulon ou en une vis en position centrale par rapport aux supports de montage (12, 13).
- 20
6. Montage selon la revendication 5, caractérisé en ce que le dispositif à vis (16) consiste en une vis à tête creuse (29), dont la tête (30) est chanfreinée dans l'élément de base susmentionné (21).
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7. Montage selon l'une quelconque des revendications 4 à 6, caractérisé en ce que l'élément de base (21) est en forme de U, muni de deux branches (23, 24) situées dans le plan du châssis correspondant (2), tandis que l'élément (19) en forme de crochet vient se disposer dans le U, les extrémités libres (25, 26) desdites branches (23, 24) formant les éléments de contact avec lesquels l'élément de base (21) peut être serré contre le bord interne (22) du châssis de suspension correspondant (8, 9).
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8. Montage selon la revendication 7, caractérisé en ce que les extrémités (25, 26) des branches (23, 24) de l'élément de base (21) en forme de U sont munies de fentes (27, 28) qui forment un siège pour le châssis de suspension correspondant (8, 9).
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9. Montage selon l'une quelconque des revendications 4 à 8, caractérisé en ce que l'ouverture susmentionnée (18) est réalisée dans l'élément de base (21) du châssis de suspension correspondant (10, 11).
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10. Montage selon l'une quelconque des revendications précédentes, caractérisé en ce que l'ouverture (18) est située de telle sorte qu'elle se trouve dans le prolongement du dispositif à vis (16) chaque fois que les harnais (1, 2) se trouvent exactement à la même hauteur.
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11. Montage selon la revendication 1, caractérisé en ce que l'ouverture (18) pratiquée dans la première partie (4) du dispositif de formation de lisières (3) constitue la fente de guidage dans laquelle peut coulisser l'élément de guidage de fil (39), qui constitue un élément de la partie arrière (5) du dispositif de formation de lisières (3).



