

Installation Channel particularly Sub-Floor Installation Channel

The invention concerns an installation channel, particularly a sub-floor installation channel with a U-shaped channel bottom and with a cover for this bottom, particularly a blind cover, which is affixed to the bottom via locking hooks, whereby the locking hooks are screwed to the cover via a clamping mount and whereby a clamping bolt passing through the cover engages into a clamping opening of a bolting stud, arranged adjacent to the locking hooks, of the clamping mount.

Sub-floor installation channels of this kind are already known in the market. They ensure in a simple manner at the construction site that the blind covers for the channel bottom can be maintained in their predetermined position, even without a screw-fastening, and are easily removed for the purpose of cable-laying.

An unfavourable aspect is the fact that sometimes the locking hooks may already be damaged when the blind covers are stacked prior to transport, and they may certainly be damaged when the covers are unloaded and stored at the construction site. The

locking hooks project vertically from the cover to one side and may break off or may otherwise be damaged when they touch the ground or when they knock against other parts.

It is the purpose of the invention to prevent this from occurring.

According to the invention, this purpose is implemented in the case of an installation channel of the above-mentioned kind via the fact that the bolting stud is formed as a supporting element whose length is dimensioned in such a way that its free end extends over the free end of the locking hook. This design allows the stacked covers to be supported by the bolting studs which should be strong enough for this purpose. Thus the shorter locking hook, which together with the bolting stud may be formed as one piece made of plastic, is protected from any contact.

In a further development of the invention, the clamping mount may be provided with a stud, projecting in the direction opposite to the bolting stud, which engages into an opening of the cover adjacent to the opening for the clamping bolt, in order to secure the twisting action. In addition, the bolting stud may be provided with a projection, arranged at the opposite side of the clamping mount, which can engage into the

opening of the cover intended for insertion of the clamping bolt.

The invention is represented in the drawings via a design prototype and is further explained below.

Fig. 1 shows a section of a sub-floor installation channel according to the invention covered by a blind cover also shown only partially in a perspective representation.

Fig. 2 shows the enlarged representation of the drawing in the direction of arrow II of Fig. 1,

Fig. 3 shows a perspective representation of the locking hook with clamping mount and bolting stud, and

Fig. 4 shows the schematic representation of several stacked blind covers as are used in Fig. 1.

Fig. 1 and 2 show the channel bottom(1) of a sub-floor installation channel whose sides are provided with already-known supporting profiles(2) for a blind cover(3) - or for appropriate equipment covers. The blind cover(3) shown in Fig. 1 and 2 provided here with a locking hook(4) which engages behind an inward-projecting edge(5) of the supporting

profile(2), thus fixing the blind cover(3) in its position for covering the channel bottom(1,2) - even without the final clamping device consisting of an additional bolt(6), as shown in Fig. 1 and 2. The locking hook(4) is part of an joint piece(7), shown in Fig.3 in a perspective representation, which is firmly fixed to the underside of the blind cover(3) by means of a clamping bolt(8). For the design prototype, the joint piece(7) is made of plastic and is formed as one piece consisting of a clamping mount(9) provided with a bolting stud(10), arranged approximately parallel to the locking hook(4), the bolting stud(9) is provided at the opposite end of the clamping mount(9) with a ring-shaped projection(11) surrounding a clamping opening(12) into which the bolt(8) can be inserted in order to secure the joint piece(7).

For this purpose(cf. Fig. 2) the bolt(8) passes through an opening(13) in the blind cover(3), arranged adjacent to another opening(14) into which a stud(15) of the joint piece(7), arranged next to the projection(11), is inserted. As is evident from Fig. 1 to 3, the joint piece(7) can thus be secured, after inserting the projection(11) and the stud(15), respectively, into the openings (13,14) of the blind cover(3), by inserting the bolt(8). In this way, due to the fact that the projection(11) and the stud(15) have different diameters and therefore the openings in the blind cover(3) are dimensioned accordingly, the mounted locking hook(4) is aligned

unequivocally, in such a way that it can engage behind the edge(5) of the profile(2), when the blind cover(3) is placed into position.

As evident from Fig. 2 and 3, the bolting stud(10) extends farther than the locking hook(4). The stud thus constitutes a supporting element for the blind cover(3) when this is stored on the ground, at the construction site, for example, after being removed from the channel bottom(10). The free end(10a) of the bolting stud(10) therefore projects downwards and extends over the free end(4a) of the locking hook(4).

Fig. 4 shows that due to this design several blind covers, e.g. (3, 3', 3'', 3''') can be stacked on top of each other in such a way that the bolting studs(10) are always facing each other and that the covers rest on these bolting studs(10). This design therefore provides a means of stacking the blind covers for transport purposes without any danger of damage to the locking hooks(4). When a blind cover(3) is removed from the bottom(1) at the construction site and is placed on the ground, as already mentioned above, the bolting studs(10) will also serve as supports and protect the adjacent locking hook(4).



Claims

1. Installation channel, particularly sub-floor installation channel, with a U-shaped channel bottom and with a cover for this bottom, particularly a blind cover, which can be fixed to the bottom by means of locking hooks, whereby the locking hooks are screwed to the cover via a clamping mount and whereby a clamping bolt passing through the cover engages into a clamping opening of a clamping stud, arranged adjacent to the locking hooks, of the clamping mount, characterised by the fact that the clamping stud(10) is formed as a supporting element and its length is dimensioned in such a way that its free end(10a) extends over the free end(4a) of the locking hook(4).

2. Installation channel according to claim 1, characterised by the fact that the clamping mount(9) is provided with a stud(15), projecting in the opposite direction as the bolting stud(10), which serves to secure the twisting action and engages into an opening(14) of the cover adjacent to the opening provided for the clamping bolt(8).

3. Installation channel according to claim 2, characterised by the fact that the bolting stud(10) is provided with a ring-shaped projection(11), arranged at the opposite side of the



clamping mount(9), which engages into an appropriate opening(13) of the blind cover.

4. Installation channel according to one of the previous claims, characterised by the fact that the bolting stud is part of a clamping piece(7) which is provided with the locking hook(4), the clamping mount(9) and the projections(15 and 11) and is made of plastic.