Abstract Title: Asymmetric slider for a stay

A slider 10 for a stay having an asymmetric body defining a narrow insertion end 14 and wider tracking end 16. In use, when inserted into the track of a stay, the slider 10 operates at an inclined angle to the longitudinal axis of the track. The track may be of a harder material to the slider, such that engagement of the slider with an edge of the track trims width from a tab 18 of the slider. This ensures a precise width for the slider that is needed for an effective friction fit.
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Fig. 1
Sliders for stays

This invention relates to sliders for stays and in particular stays including a channel along which a slider moves and is retained thereby and has a linkage for supporting an opening leaf for movement between a closed position in which the linkage overlies the track in an open position in which part of the linkage extends at an angle to the track, at least one link of the linkage being connected to the slider.

As is discussed in our British Patent No. 2323628 B the various techniques are used to induce friction between the slider and the track so that the opening leaf mounted on the linkage can be retained in any possible position, which is allowed by movement of the slider. In some cases a grub screw is used directly or is operatively connected to a brake pad and the difficulties of those arrangements are discussed in the preamble to the above patent. In an alternative approach the above patent provided a slider with symmetrical lateral wings which could be compressed inwardly to adapt the effective width of the slider to the actual width of the track, which is typically in the form of a channel. Whilst this in principal operates extremely well, it has been found that if the manufacturing tolerances of the slider and the channel work against each other, initial insertion of the slider into the channel or track can be quite difficult and time consuming. As window stays of this sort are sold at extremely competitive prices, any reduction in productivity is economically serious.

The invention consists in a slider for a stay including a track for receiving
a slider, the slider having an asymmetric body defining a narrow insertion end and a wider trailing end, the body being shaped and dimensioned to be inclined to the access of the track in its operative position.

The invention also consists in the stay having a track for receiving a slider and a slider as defined in any of the above cases.

It is preferred that the track is of a harder material than the slider.

Although the invention has been defined above it is to be understood it includes any inventive combination of the features set out above or in the following description.

The invention may be performed in various ways and specific embodiments will now be described with reference to the accompanying drawings, in which:

Figure 1 is a view from above of a slider;

Figure 2 illustrates the slider being inserted into a track.

A slider generally indicated at 10, comprises an integral plastics moulded body 11, which defines a base channel, indicated in dotted line 12 and various fixing locations 13, as is well known in the art. The body 11 is formed with a first insertion end 14, an intermediate portion 15 and a trailing end 16. The insertion end 14 is dimensioned so that it should readily fit in the track of a stay as described above and so it is easily insertable. The intermediate portion is gently radiused outwardly and laterally as indicated at 17 and the trailing end portion 16 is formed with a lateral tab 18 so that at that portion the lateral width x is greater than the design width of the track. An inclined transition is provided at 19.

Referring now to Figure 2, the slider 10 is inserted into a track, shown
diagrammatically at 20 by inserting the end 14 first through the end mouth of the track at 21. The insertion is initially easy and longitudinal, until such time as the edge 22 of the mouth 21 engages the inclined portion 19, whereupon the trailing end 16 is initially deflected in the direction of the arrow A, causing the leading end 14 to pivot in the opposite direction about the engagement of the radiused section 17 with the track wall 20, until the position illustrated in Figure 2 is achieved. In this position the body 10 is contacting the track at the positions marked in Figure 2 by crosses and it will be understood that a friction fit within the track is thereby achieved. It would be possible to make the tab 18 of precisely the right dimension so that on further insertion into the track this precise contact was maintained.

However, the Applicants have understood that the problem of tolerances can in fact be overcome, because if the tab 18 is slightly oversized, not only will it never be too narrow for the track, any excess width can be trimmed off by the knife-like engagement of the edge 22 acting against the surface of the tab 18 as further insertion is achieved. Put another way the tab 18 is trimmed, in every case, to achieve the precise required width for a good friction fit.

Accordingly the Applicants have, surprisingly, achieved a design which will accommodate tolerances and provide easy insertion, by allowing an element to tilt within the track when previously it had been considered that that element should lie symmetrically along the longitudinal axis of the track. In practise the angle between the axis of the body as inserted and the axis of the track is small and no adjustment is required for the position of the locations 13. If larger angles are required, this might need to be taken into account.
CLAIMS

1. A slider for a stay including a track for receiving the slider, the slider having an assymetric body defining a narrow insertion end and wider tracking end, the body being shaped and dimension to be inclined to the axis of the track in its operative position.

2. A stay having a track for receiving a slider and a slider as claimed in claim 1.

3. A stay as claimed in claim 2 wherein the track is of harder material than the slider.
Application No: GB0601450.0
Claims searched: 1-3
Examiner: Catherine Jones
Date of search: 20 March 2006

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

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<td>1-3</td>
<td>GB 2374384 A (3GTECHNOLOGY) - see particularly figure 1B, figure 2B and lines 18 and 19 of page 4</td>
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EPODOC, WPI