Patent Claims

1. A self belay arrangement for fall arrest systems, in particular for climbing applications, comprising a locking device, to which a rope is attachable, a retainer element, and a connector element, which is performed to be attached to a safety harness of a user and to which the locking device is coupled when the user intends to climb up a structure, wherein

the retainer element is performed to hold the locking device when the connector element is detached from the locking device, and whereas the retainer element interacts with the locking device in such a manner that the connector element is coupled to the locking device in order to disconnect the locking device from the retainer element.

2. The self belay arrangement according to claim 1, wherein the locking device includes a mouth for receiving the connector element when the connector element is coupled to the locking device, and the locking device includes an opening for retaining at least a part of the retainer element when the locking device is attached to the retainer element.

3. The self belay arrangement according to claim 1, wherein the locking device includes selectively removable securing means arranged in the locking device to secure the connector element to the locking device, and whereas the securing means interact with the retainer element.

4. The self belay arrangement according to claim 3, wherein the retainer element includes a key element, whereas when the locking device is attached to the retainer element, the key element extends into the retainer opening of the locking device to interact with the securing means.

5. The self belay arrangement according to claim 4, wherein the connector element includes at least one profiled section, whereas the profiled section

interacts with the securing means in such a way that the securing means release the locking device from the retainer element only when the connector element is coupled to the locking device.

6. The self belay arrangement according to claim 4, wherein the locking device comprises at least one locking anchor, whereas the locking anchor is formed to interact with the securing means and with the key element of the retainer element, when the locking device is attached to the retainer element.

7. The self belay arrangement according to claim 6, wherein the locking anchor is received within the locking device via a hinge and is biased by a spring element.

8. The self belay arrangement according to claim 6, wherein the securing means comprise at least one rotating disc, whereas the at least one rotating disc features a notch for receiving the locking anchor, when the locking device is disconnected from the retainer element.

9. The self belay arrangement according to claim 6, wherein the key element features an undercut, so that the key element holds within the retainer opening due to an interaction of the undercut with the locking anchor.

10. A method for connecting and disconnecting a locking device to and from a connector element of a self belay arrangement for fall arrest systems, in particular for climbing applications, whereas a rope is attached to the locking device for securing a user during climbing and whereas the connector element is attached to a safety harness of the user, whereas the method comprises at least the following steps:

providing a retainer element which holds the locking device when the connector element is disconnected from the locking device,

coupling the connector element to the locking device,

releasing the locking device from the retainer element after coupling the connector element to the locking device.

11. The method according to claim 10, wherein the connector element causes a release of the interconnection between the locking device and the retainer element when the connector element is attached to the locking device.

12. The method according to claim 10, wherein the retainer element causes a release of the interconnection between the locking device and the connector element when the locking device is attached to the retainer element.