

# Press information

25 February 2013

Second wave of via ferrata set recalls within six months

## Considerable deficiencies found in many via ferrata sets

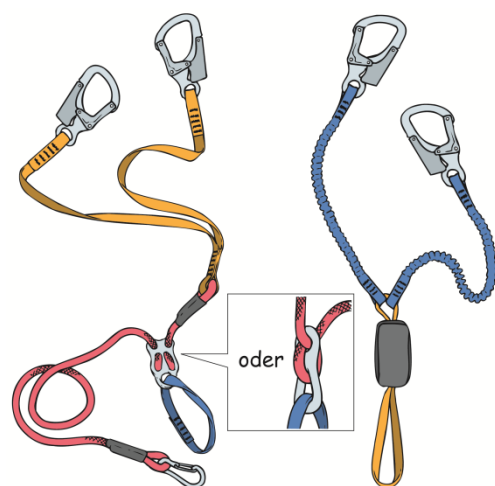
**Munich.-** Tests carried out by the German Alpine Club's Safety Research Department (DAV Sicherheitsforschung) revealed that many of the via ferrata sets currently available have considerable deficiencies and, in the worst case, may break when the user falls. A list which summarizes the affected sets was recently compiled by the German Alpine Club in cooperation with the manufacturers. Users of via ferrata sets worldwide are strongly advised to check their sets on the basis of this list, and to return them to the manufacturer, if they are affected. Furthermore, all users of via ferrata sets should check whether their sets still have not exceeded the lifetime indicated by the manufacturer. Hence, it is the second time within six months that problems with via ferrata sets occur – though completely different systems are affected.

### Which types of sets are affected?

The recent recalls concern via ferrata sets employing the rope friction technology (the set on the left in the sketch). These systems can be recognized by the metal plate through the holes of which a rope is guided.

The recall in August 2012 concerned several sets with elastic lanyards and tearing energy absorber (the set on the right in sketch). The recall list now available (see below) summarizes both recalls as well as the lifetime specifications provided by the manufacturers. **The Alpine Clubs strongly**

**advise all users of via ferrata sets to check their sets on the basis of this list. Via ferrata sets affected by a recall must not be used any longer, but do have to be returned to the manufacturer. Sets which are not affected by a recall but have exceeded the lifetime indicated by the manufacturer must not be used any longer.**



### **What is the reason for the recent problem?**

Via ferrata sets consist of two main elements – first, of the two lanyards which are clipped to the via ferrata cable by means of carabiners, and second, of the energy absorbing system. The energy absorbing system is connected to the lanyards and, in case of a fall situation, absorbs energy, thereby reducing the forces acting on the climbing harness, and thus on the user, via the girth hitch (the blue and yellow loop, respectively in the sketch). In absence of the energy absorbing system these forces would, in the worst case, be fatal or would cause structural parts to break.

Two types of energy absorbing systems are known – one type employs tearing energy absorbers, the other one employs the rope friction technology. Only the systems employing the rope friction technology are affected by the problem recently found. These systems use a metal plate provided with holes through which the brake rope is guided. Fall energy is compensated by the rope passing through the metal plate. Material aging, however, causes loss of the brake rope's flexibility. As a consequence, the friction in the system increases, leading to higher maximum forces acting on the energy absorbing system. At the same time, the lanyards lose strength due to use and aging. Finally, with certain via ferrata sets both effects in combination may lead to breaking in a fall situation. Due to the high significance of age and usage of the product, greatest importance must be placed on accurately observing the manufacturers' lifetime specifications.

### **Background**

On 5 August 2012 a fatal accident happened on a via ferrata in Tirol, Austria. Due to continuous load, the killed person's via ferrata set had deteriorated to such extent that the lanyards could no longer withstand the fall and broke. An investigation carried out on the affected sets revealed that with some constructions frequent extension of the lanyards, which normally happens on a via ferrata, leads to weakening of the supporting fibers. A number of manufacturers reacted by issuing extensive recalls. In the course of the investigations on the elastic lanyards a great number of further tests was carried out with used via ferrata sets. In this process the manufacturer Mammut found significant deficiencies due to aging effects in their via ferrata sets employing the rope friction technology. Subsequently, the German Alpine Club's Safety Research Department carried out tests on used via ferrata sets provided by equipment rental stations and private users in order to get an idea of how grave the consequences of this problem would be. The tests revealed that via ferrata sets using the rope friction technology produced by various manufacturers partly have grave deficiencies and possibly do not withstand a fall. The German Alpine Club's Safety Research Department immediately informed the manufacturers and urged them to check their via ferrata sets. During a meeting of the UIAA Safety Commission held in early February 2013 the results were discussed, a joined course of action was agreed upon, and a common statement was set up. This statement reads:

*Following a comprehensive test program conducted on used or aged rope friction based via ferrata sets the climbing industry has found that some of these sets can fail in a fall situation. The testing showed that the impact force in a fall may be increased and that the*

*tensile strength of the lanyards may also be reduced in such a way that it could result in a full failure of the via ferrata set. Severe injury or death may be the consequence.*

*The level of the risk is dependent upon the specific model. Therefore each rope friction based via ferrata set owner should consult the information provided by the manufacturer of the set.*

In addition to this statement, quick changes of the UIAA standard 128 with additional requirements for via ferrata sets were agreed upon. The minimum final strength requirement was raised, and an additional fatigue test is carried out on sets employing elastic lanyards. For sets with non-elastic lanyards, fatigue strength of the lanyards must be proven by test or practical evaluation.

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