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SAFETY NOTIFICATION

Fixe, a brand of Tech Rock, has been manufacturing rock anchors for more than 20 years and is the leading manufacturer in this field. Our products and manufacturing processes are certified by the UIAA according to the standard EN 959.

In the recent years, the UIAA reported some failures by Stress Corrosion Cracking (SCC) on anchors from several manufacturers, including us. Those failures may only happen on anchors installed in relatively corrosive environments, when they are subject to load stresses (either internal or external), and when they are made of materials prone to develop SCC such as austenitic stainless steels. Tech Rock have recently reported some cases of SCC failures in V-shape anchors that were used intensively installed 3- 4 years ago. The major part of this cases are found in marine locations. The UIAA admits this is not an easy problem to solve. Refer to UIAA's Safety Commission update on the topic: <http://www.theuiaa.org/news-865--Safety-Commission-issues-update-of-corrosion-notice-for-anchors-in-marine-locations-.html>

Tech Rock, as a leading manufacturer with a widely distributed range of products since many years ago, is learning from the recent reports and is working hard to reach a better understanding of the behavior and the potential risks of the products subject to these conditions.

As already said, it is known that the SCC phenomena may only happen under some particular conditions (stress, prone material and corrosive environment). Our direct experience shows that it is more likely to happen on parts that are external stressed and frequently used in combination with internal stresses (due to welding, cold working...). All the early failures reported where in the V anchors and the weak point was the first link of the chain. These cases represent only a small percentage (under 0,01%) of the anchors sold, but it is enough to consider a preventive action and to develop improvements for future solutions.

Preventive action :

The data we have at the moment shows that the Fixe anchors potentially under risk of failure due to SCC are those subject to the following conditions:

- V-shape anchors, 304 stainless steel. References : 325, 363, 393 , 404, 738, 392 and 394
- subject to intensive use.
- V anchors with rust or visible cracks
- placed on corrosive environments, including urban or high traffic areas

(So, as an example, one stainless steel V-anchor that is placed on an urban outdoor climbing gym has more chances to fail than another that is used twice a week in a dry, clean environment. The wear of the carabiner could give us an idea of how much use is the anchor)

For these anchors suspicious to be under risk, as a preventive safety action, Tech Rock recommends the use of stainless steel, 7 mm maillons with a minimum breaking strength of 30 kN to by-pass the first link of the chains (the one connected to the hangers), as shown in the attached picture.

This solution protects the weak SCC point of the anchor. In case of breaking we recommend to replace the complete anchor.

Future Solution :

Tech Rock is working hard to find a long term solution that will commence by the change of the material to another not prone to suffer SCC. We will announce the definitive solution in the next days.