

Information for the users of the Petzl ZIGZAG



The facts

Two different customers have informed us of the presence of a crack on one of the ZIGZAG's steel chain links. Both units have been returned to petzl for analysis.

Petzl immediate actions

- We have inspected our inventory and have found no cracked ZIGZAG chain links.
- We have also inspected the previous generation ZIGZAG and did not find any cracked ZIGZAG chain links.
- We have audited the ZIGZAG production plant. The quality inspectors who inspect each individual ZIGZAG before packaging have never seen this issue.

Risk evaluation for the users

Extreme Tests :

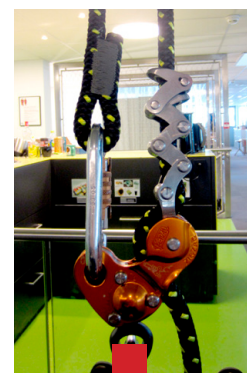
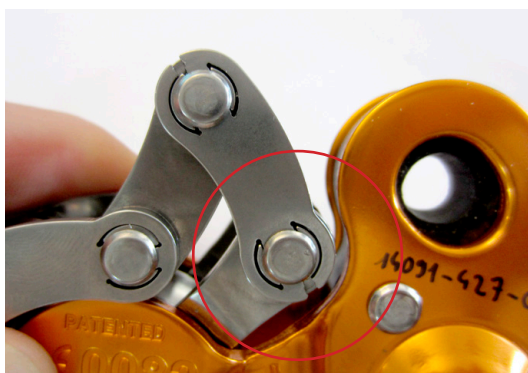
we intentionally cut one of the steel links in the ZIGZAG friction chain and performed tensile tests. We cut the link located at the bottom of the chain, as those links are subject to the greatest force.

Test Results:

- The cut link failed at 14 kN, resulting in deformation of the opposite link. However, the chain always remained connected to the body of the ZIGZAG. The same test on an upper link intentionally cut (same damage than one of the two returned cracked ZIGZAG) leads to the same result.

- In a dynamic suspension, the cut link is deformed but not broken (see photos below).

- Note: As a reminder, the ZIGZAG resists to a static force more than 15 kN.



14 kN



Conclusion

A cracked link presents no additional risk to the user. However, the presence of such a crack requires immediate retirement of the ZIGZAG.

Search for potential causes

- Preliminary analyses conducted on the two cracked ZIGZAGs does not suggest any potential misuse or excessive stress.
- We have tested brand-new ZIGZAGs by clamping them in a vice, and loading the chain laterally: Beyond a certain load, the lower connecting steel link becomes permanently deformed, but does not break.
- We have also crushed new ZIGZAGs at the level of the upper trigger. Only the black plastic component breaks, with no effect on the steel chain links.
- We have sent both cracked ZIGZAGs to an independent laboratory for an in-depth metallurgical analysis. We will have the final conclusions of this analysis by the end of April.

Petzl Recommendations

- Regularly inspect your ZIGZAG in accordance with the ZIGZAG PPE checking procedure.
- In the unlikely event you find a cracked link, retire your ZIGZAG immediately and contact your local Petzl distributor for a replacement under warranty.
- A cracked link presents no additional risk to the user. However, like for any PPE , the presence of such a crack requires immediate retirement of the ZIGZAG.
- These recommendations therefore apply also to the Petzl ZILLON.

Future actions

Petzl continues to investigate the potential causes of these cracks, and will communicate our findings as soon as possible.

Sincerely

The Petzl team