

Safety Warning 4/2013 (Published by the ERCA Safety Commission and Dropzone Ltd.)
Collapse of pole top including pole cap and steel cantilevered arm..

We have received a report of the top of a pole breaking, sending the steel construction (see photo 1) attached to the top of the pole falling to the ground. The steel cantilevered arm was attached to a steel cap over the top of the pole. This steel cantilevered arm was used to hang a 'Powerfan' descending device. The cantilevered steel arm fell to the ground during use. Nobody was injured. The problem appears to lie with the connection between the cantilevered steel arm and the wooden pole, (ie. the support structure) and not with the 'Powerfan' descending device itself.



As can be seen clearly in photo 2, the pole broke at the bottom edge of the cap. Following an initial investigation and consultation with structural engineers it appears that widespread rot is one of the main causes of the breakage.



Basic construction parameters of the steel cantilevered arm:

- The cap is 50cm long, and the steel arm has a length of approximately 3m.
- The cap was attached with four screws around the top of the sleeve and four screws around the bottom of the sleeve.
- The space between the pole and the steel cap was filled with polyurethane foam and sealed with a sealing compound around the bottom edge.

This type of cantilevered arm construction was possibly used elsewhere to mount 'Powerfan' descending devices or other ropes course elements.

This was one reason why we would remind all that rot can be a problem with severe consequences. So you should focus in particular on such points where wood is covered or located in a closed construction.

If your ropes course has exactly that type of cantilevered arm as described (and shown) above, or if you are uncertain whether it contains such a structure, we recommend immediately (best before next use) to ensure that there is no problem of rot. Your ropes course constructor or your inspection body can help with clarification (e.g.: Was exactly this checked in the last inspection and when?) and/or provide an expert test.

Rot problems are well known and so it is conceivable that other 'sleeve' or 'pole-cap' designs may be affected by similar problems. As already described you should focus in particular on such points and inspect it with the same accuracy. Additionally you should take care to prevent rot, because rot can also affect people on the ground, for the case that parts of rotten wood fall to ground.

The following contact persons will be able to assist should you have questions about this safety warning:

For Netherlands

ERCA Safety Commission, Frank Schilders, frank.schilders@erca.cc, Tel.: +31-497-514698 or
ERCA Board, Michael Schmid, michael.schmid@erca.cc, Tel.: +31-497-514698;

For all other countries

ERCA Safety Commission, Mr. Meik Haselbach, sicherheit@erca.cc, +49-(0)7634-503281

Please Note:

The aim of releasing safety alerts is to disseminate up to date information which will help to avoid accidents on ropes courses. We are committed to providing unbiased information about the sequence of events and the causes of accidents. We are neither in the position to, nor do we have the intention of, undertaking in-depth on-the-spot investigations..