



SQUIRREL LLC SERVICE BULLETIN

August 8 2014

SB-14-8-1-Update

Subject: StrongLite Harness **Update**

Status: MANDATORY

Identification: Squirrel StrongLite harnesses with an SN beginning in P-1**-***, P-2**-***, P-3**-***

Background: At this time we have not yet been able to inspect the harness involved in the incident of yesterday, Aug-7-2014.

Today, Aug-8-2014, at an independent testing laboratory, we oversaw the testing of multiple production StrongLite harnesses in an attempt to replicate the incident of Aug-7-2014 which was described in SB-14-8-1. We also oversaw the testing of two harnesses from other manufacturers which use a similar construction technique for the MLW wrap assembly.

During the initial development of the StrongLite, we load tested the harness at similar angles. Said angles were also tested by Para-Test Switzerland while the StrongLite was undergoing evaluation for its EN certificate. The values of these tests were deemed acceptable in comparison to the current industry standard, but following this incident and more focused and creative load testing, we now feel the integrated riser construction can be improved.

While it remains unusual for the risers to be severely loaded at an angle which endangers the MLW wrap, it is possible, and when loaded in the direction of maximum peel the standard MLW wrap construction does not resist loading that approaches the limits of type-8 webbing.

Three different wrap materials were tested. Regardless of the materials used in the construction, when loaded at an acute enough angle the thread securing the top of the MLW wrap fails and the wrap material will "roll" down the MLW as the thread pattern is destroyed and the MLW is pulled away from the shoulder strap. In our opinion, this points to an issue that is inherent in some standard methods of integrated riser construction.

The modification detailed in the forthcoming Product Modification Procedure PMP-14-8-1 brings the strength of the MLW junction closer to the strength of type-8 webbing. The inlay webbing secured with the specified stitch pattern did not fail at loads of more than 12kN. In our opinion a StrongLite harness with this modification will successfully resist even greater forces than what the damaged harness sustained in the incident described in SB-14-8-1.

The forces and factors necessary to damage standard integrated riser MLW construction as used in the current production StrongLite are particular and could be considered extreme. It appears that it is necessary to initiate a head-low deployment at high speeds and then pendulum past the position of normal loading (normal loading occurs more parallel to the MLW orientation) to a more back-to-earth position at the moment of greatest deceleration. A jumper with an exit weight of 200lbs would need to load the shoulder straps in an angled back-to-earth position at more than 10G to cause damage. Regardless of exit weight or typical harness use we recommend the Inlay Modification described in the forthcoming PMP-14-8-1.



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Although the scenario which led to the reported incident may be extraordinary, we will replace all affected StrongLites with factory-new harness-container systems which contain the product modification described in the forthcoming PMP-14-8-1. All replacement orders will be expedited. For jumpers in need of an immediate remedy, Squirrel will reimburse all StrongLite owners for the rigging costs associated with installing this modification.

Full details on PMP-14-8-1 will be released tomorrow, August 9 2014.

We sincerely thank all of our customers for their continued support.

Service Bulletin: Implement **Inlay Modification** described in PMP-14-8-1 before next use.

Compliance Date: IMMEDIATELY

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