



Silver State Wire Rope & Rigging
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Certificate of Test and Conformance

Cert Log Number:

Date: 04/21/2023

Customer: Climbing Sutra
2941 Brookspark Dr
North Las Vegas, NV 89030

This document hereby certifies that the materials and/or parts specified below have been load-tested in conformance with applicable standards as stated.

Item tested: Climbing Sutra Twisting Ring (large, serial #L190, manufactured 04/20/2023)

Reference Specification/Standard: "Climbing Sutra Standard for Performer Flying Harnesses for Twisting Rings"

Test Result: Acceptable. Test results met the requirements as written; details follow.

Upright Tests: Twisting Ring is suspended from end swivels with the anchors pulling away from each swivel at 45 degrees (see photo)



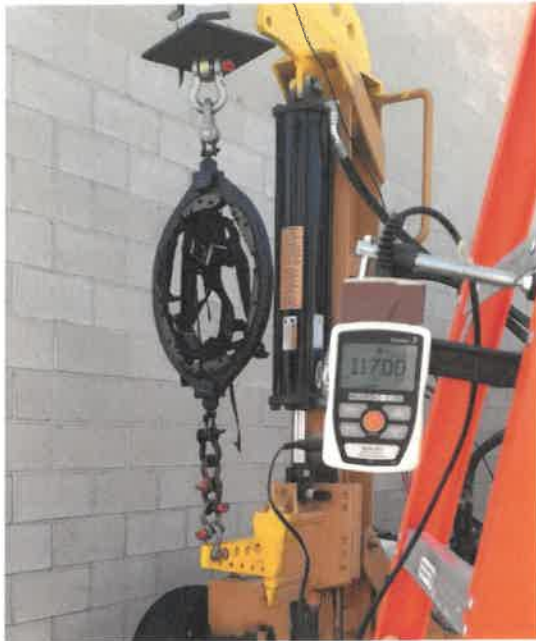


The leg straps of the ring harness are attached to tensile equipment and pulled downwards. A rigid test dummy is not used as it can artificially increase the ring strength. If the harness or ring breaks completely with separation of the ring or harness from the anchors that is a FAIL. If the harness and ring are damaged, but still connected to the anchors and the leg straps are intact, that is a PASS.

- i) Apply an increasing load until reaching 700 Lbs. and then hold for 1 minute. While under load check for rotation of ring. Release load and inspect. No visible damage. Result: PASS
- ii) Remove harness from ring mounts. Flip ring upside down. Reattach harness. Apply an increasing load until reaching 1000 Lbs. and then hold for 1 minute. Release load and inspect. No visible damage. Result: PASS
- iii) Restore ring to upright position. Apply an increasing load until reaching 2000 Lbs. and then hold for 1 minute. Release load and inspect. No visible damage. Result: PASS
- iv) Rotate inner ring and harness 90 degrees. Apply an increasing load until reaching 2000 Lbs. and then hold for 1 minute. Release load and inspect. No visible damage. Result: PASS
- v) Rotate inner ring and harness 90 degrees. Apply an increasing load until reaching 3000 Lbs. and then hold for 1 minute. Release load and inspect. No visible damage. Result: PASS
- vi) Rotate inner ring and harness 90 degrees. Apply an increasing load until reaching 3000 Lbs. and then hold for 1 minute. Release load and inspect. No visible damage. Result: PASS
- vii) Apply an increasing load until reaching 4050 Lbs. (18kN) and then hold for 1 minute. Release load and inspect. Outer ring developed a crack at the edge of the overlap with inner ring during this test. Ring did not break. Result: PASS



End to End Test: Set up the ring on the test stand pulling the end swivels directly apart from each other (see photo).



Apply an increasing load until the ring breaks and/or releases the harness. Record the value.

Minimum Breaking Strength End to End is 9000 Lbs. (40kN)

Recorded Breaking Strength: 11,700 Lbs.

Result: PASS

Test Technician:

Drew Tipton
Silver State Wire Rope & Rigging

A handwritten signature in black ink, appearing to read 'Drew Tipton'.

