



Service life & Retirement

These are merely a guideline to the expectations of equipment manufactured by Robertson Harness. There are many factors that can exponentially extend or shorten a harness or lanyards service life.

Lanyards and Lobster Claws carry a **MAX, 5 Year Service Life**. If start date is not documented, Manufacture date is to be used. Contingent on: "point of use visual inspection" and an Annual Third Party Accredited PVM inspection to ensure serviceable conditions and proper operation.

Robertson Harness assumes a **"5 Year Service Life"** from date of first use with a **"10 Year Max Lifecycle"** on seat style, chest, and full body style harnesses. To be retired on whichever is reached first. (includes GH 100 series, CRC 200 Series, CRC 300 Series, CRC 400 Series, CRC 500 series, CRC 700 series harnesses) Contingent on: "point of use visual inspection" and an Annual Third Party Accredited PVM inspection to ensure serviceable conditions and proper operation.

It is the position of Robertson Harness to endorse a **"5 Year Service Life"** from date of first use on all Fall Protection Harnesses with a **"10 Year Max Lifecycle"**. To be retired on whichever is reached first. (**CRC 600 Series ANSI/ASSE Z359.11-2014 Safety Requirements for Full Body Harnesses**) Contingent on: "point of use visual inspection" and an Annual Third Party Accredited PVM inspection to ensure serviceable conditions and proper operation.

The RC Series full body harnesses carry a **"10 year max service & lifecycle"**. Contingent on: "point of use visual inspection" and an Annual Third Party Accredited PVM inspection to ensure serviceable conditions and proper operation.

* Our guideline only applies to products demonstrating no visual damage and that knowingly has not been exposed to chemicals, abnormal heat, or excessive ultraviolet light.

It is possible that the equipment will last longer or shorter depending on its care and use. Robertson does not recommend or endorse going beyond established lifecycle or service life recommendations.

Intermittent Use for GH & CRC Series Harnesses

Robertson Harness advises for the **"5 year Service Life"** on all GH Series and CRC Series harnesses with a **"10 year max Lifecycle."** To be retired on whichever is reached first. Robertson deems "Service Life" start date from the first point of use, not necessarily when purchased or manufactured. Service life can be intermittent. It can and should be documented. (Ie. If a course is open for 6 months. That is .5 years of service life) This can and should be documented by the end user and or PVM from start to end of each season to reflect and show proof of intermittent use and service life. Documentation is left to the discretion and choice of PVM and end user. The back side of the Serial Number Tag is white and left blank for use at your discretion.

With any questions contact your PVM or Robertson Harness Direct.

Sales@RobertsonHarness.com or 970-682-4470



Chart for Month/Decimal break down for intermittent use.

Documentation is crucial with life safety gear in identifying its service period and or lifecycle. Continued inspections and a well-Conceived operations manual allow for safer use and documentation of intermittent use. Intermittent use does not guarantee a harness to last as there are many external factors. Below gives a month to decimal breakdown for use in documentation.

# of Months in Use	Months of Use to Decimal
1	0.083
2	0.167
3	0.25
4	0.333
5	0.417
6	0.5
7	0.583
8	0.667
9	0.75
10	0.833
11	0.917
12	1

* These extended projections are absolute maximums that are not intended to be prolonged for any circumstance. Robertson provides this recommendation as a general guideline, and is not to be used in lieu of the inspection and maintenance criteria outlined in the inspection of equipment guideline.

** Documentation is crucial with life safety gear in identifying its service period with continued inspections and a well-conceived operations manual. It can and should be documented.

Each harness and lanyard shipped by Robertson Harness is accompanied by specific instructions for use. If specific instructions are not found with products shipped, they can be found on www.RobertsonHarness.com and or contact Sales@RobertsonHarness.com .

Robertson requires each harness and lanyard be visually inspected prior to use and regularly inspected by a Competent Person, such as defined by OSHA (Occupational Safety & Health Administration). Along with Annual Inspections conducted by a third party Accredited PVM to ensure serviceable conditions and proper operation.

Following these instructions may still necessitate removing the harness or lanyard from service prior to the expiration of the life expectancy guideline. Ultimately, it is the responsibility of the end-user to determine when a harness or lanyard is unfit for use and should be removed from service. A common misconception is the assumption that the manufacturer will tell you when it's time to retire, or keep the equipment.

Herein lies the problem; the life expectancy is a general guideline and not intended to be used as an absolute. The minute Robertson ships a harness or lanyard the clock starts and thus depreciation begins. Robertson cannot definitively tell you how many spatters of this or that it takes to dispose of the harness, nor how many traces of chlorine and at what concentration in PPM it would take to degrade the material to a given percentage. We cannot tell you (except generally) how much UV exposure and at what altitude it takes to degrade an item to a point it is worn out or too weak to use. As the manufacturer we cannot tell you the exact effect bodily fluids, sweat components (acid, alkalinity, salts), or of the amount of grit in your air, or the pollution in your work locations. We do



know acid rain has acid in it and salt water has salt in it. These elements are intended to be eluded because they exponentially degrade the life of a harness.

The best and most qualified person to tell an employer when to retire equipment is a competent and qualified inspector on site. This reiterates our recommendation for "point of use visual inspection." This includes a recommendation for Annual Accredited Third Party PVM inspection to ensure serviceable conditions and proper operation.

When a harness has been involved in a **severe fall**, but is not obviously damaged, it must be retired immediately. If you have any doubts about the dependability of your harness, retire it and get a new one.

For a list of Accredited Professional Vendor Members or PVM's Go to: www.acctinfo.org – www.prcainfo.org – Or Contact Sales@RobertsonHarness.com

* Products removed from service should be disposed of in a manner that prevents inadvertent further use.

Usage of a harness in relation to Zip Lines/Canopy Tours

Hourly usage does not implicitly transfer into the life of a harness for many zip lines. We prefer the breakdown of usage in terms of cycles. Here is how we look at cycles when it comes to harnesses and lanyards.

* A cycle is a single pass down a line, if a course consists of nine separate zip lines this equates to nine cycles on that piece of equipment.

Below are examples of typical ziplines cycles

Example (1) operating 7 days a week

Cycles per day	200
# of harnesses used daily in those cycles	65
# of times each harness is used daily	3
# of times each harness is used in six months	548
# of times each harness is used annually	1,095
# of times each harness is used over a five year life	5,475
Initial cost of harness	\$52.00
Cost of harness at 5,200 cycles	.01 cents

Example (2) operating 4 days a week

Cycles per day	400
# of harnesses used daily in those cycles	50
# of times each harness is used daily	8
# of times each harness is used in six months	832
# of times each harness is used annually	1,664
# of times each harness is used over a five year life	8,320
Initial cost of harness	\$34.00
Cost of harness at 3,400 cycles	.01 cents



Heavy to Extreme use

Example (3) operating 7 days a week

Cycles per day	1,500
# of harnesses used daily in those cycles	100
# of times each harness is used daily	15
# of times each harness is used in six months	2,730
# of times each harness is used annually	5,460
# of times each harness is used over a five year life	27,300
Initial cost of harness	\$76.00
Cost of harness at 1,900 cycles	.04 cents

Usage of a harness in relation to a ropes course.

Example (4) Full Body Harness used 6 months a year

Activity: Leap of Faith

Cycles per day	3
# of harnesses used daily in those cycles	1
# of times each harness is used daily	3
# of times each harness is used in six months	548
# of times each harness is used over a five year life	2790
# of times each harness is used over a ten years life	5480
Initial cost of harness	\$120.00
Cost of harness at 744 cycles	.16 cents

These graphs should serve as a guideline for the use and retirement of a harness. Because we do not have a standard set of hours or cycles indicating retirement, it is the job of the course, and it's inspector to determine if a harness needs to be retired.

Robertson Harness purposely exceeds minimum qualifications in strength and design. The degradation that is common in a 3-5 year period does not render the device worthless simply because it's exceeded a five year period.

As the manufacturer we know that a harness worn every day will likely not make the 5 year mark. For example a construction worker or an iron worker can wear out a harness in less than a year. Likewise a harness used 15 times a day in a zip line environment may only last up to a year. A harness that is used once a week or once a month, may last a lifetime. Not every use for a harness is the same; determining the service life is truly dependent on the specific use of the harness.

Further questions or concerns about the service life of a harness or lanyard, please contact your PVM or Robertson Harness at **(970) 682-4470** or email Sales@RobertsonHarness.com