OPERATION & MAINTENANCE MANUAL

ROLLUP RESCUE STRETCHER

RL700GX-V200

ISSUE / VERSION V02 – 2024

THIS EDITION DOES NOT REPLACE PREVIOUS VERSIONS AND INSTRUCTIONS.

KOBUS
KOHLBRAT & BUNZ CORP

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1.0 INTRODUCTION

The Kohlbrat and Bunz RollUp is a lightweight universal rescue stretcher and technical rescue device. The RollUp was designed for use in a multitude of SAR operations including Ground Search and Rescue, Air Search and Rescue, Maritime Search and Rescue. Urban Search and Rescue, Mountain Search and Rescue, Military Medical Operations and the like. Proper training and familiarization of the RollUp is required prior to use (see Precautions and Warnings 1.1 this manual).

1.1 PRECAUTIONS AND WARNINGS

Training Required

Training is required prior to using this device. The K&B RollUp should only be used by certified individuals who have adequate training in the operation of high angle rescue equipment and technical rope rescue, training which meets or exceeds the NFPA Technical Rope Rescue level of Technician 1.

Do not attempt to use this device:

if there are doubts about its safe use

the RollUp has been damaged or shows signs of damage

for a purpose it was not intended

1.2 GLOSSARY OF TERMS

NFPA	National Fire Protection Agency (USA)
AAI	American Alpine institute
SAR	Search and Rescue
GSAR	Ground Search and Rescue
ASAR	Air Search and Rescue
WSAR	Maritime Search and Rescue
USAR	Urban Search and Rescue
MSAR	Mountain Search and Rescue
KOBUS	Kohlbrat and Bunz United States
KBRU	Kohlbrta and Bunz RollUp
PRCS	Confined Space (Permit Required under non emergency circumstances)

User A Person who is familiar with the product regarding application, maintenance, repair and use when under the direct supervision of a Technician.

Technician An individual with minimum training equal to or greater than that as defined by the NFPA for technical /high angle rope rescue. The Technician is responsible for the maintenance and periodic inspection.

1.3.0 FUNCTIONAL AND OPERATIONAL CHARATERISTICS

1.3.1 COMPONENTS

need to point out specfic componants

1.4 DIMENSIONAL CHARACTERISTICS:

Packed: 29 in x 8 in (72cm x 20cm)

The light, compact and robust rescue stretcher, rolled about 92 cm x 20 cm (36.2-inch x 7.8-inch), with mounted struts (Thorax / Pelvis / Leg protection and foot plate) approx. 92 cm x 30 cm (36.2-inch x 11.8-inch), protects the patient and also allows the rescue from extreme situations.

Operational:

Length: 6ft.5in (195cm)

Width: 14" to < 22" (35 cm to <56 cm)

Empty Weight: 10 lb. (4.5 kg) as packed with integral harness

Maximum weight: 330 lbs. (150 kg)

Maximum storage temp: 140 F (60C)

Minimum storage temp: -58F (-50C)

Operating temp: 122F (50C) to - 40F (-40C)

Composition: HDPE primary structure material of the RollUp

Lifting points (integral triangle primary structure): 300 CRES

Webbing: Nylon / Nylon-Poly blend

Buckles: Metal double side release

Buckles and webbing may only be replaced with those supplied by Kohlbrat & Bunz. Use of any other buckles or webbing without the express written authorization of Kohlbrat & Bunz is not permitted, voids all warranty implied or otherwise compromises the functional integrity of the RollUp.

Contact Kohlbrat Customer Assurance in this regard: office@kohlbrat-bunz.com

1.4 INTENDED USE

For the transportation of injured or incapacitated individuals.

For the transportation of patient and medical equipment in areas where ingress/egress is difficult and not otherwise accessible

Most terrains and environments

High angle rescue

Aeromedical rescue

EXAMPLES OF USE:

1.3.1 COLD WEATHER OPERATIONS

1.5.2 TRANSPORT BY MEANS OF CARRY HANDLES (4 EACH PER SIDE)

1.0.0 HORIZONTAL LIFT (TYPICAL HELICOPTER) WITH 6-POINT INTEGRATED

1.6 APPROVALS, REGISTRATIONS AND CERTIFICATIONS:

TÜV Austria test Report No. FT15-115

This device complies with all applicable European MDR standards and specifications.

The following standards were used as a basis for the test procedure:

EN 813: 2008 Seat belt

EN 1497: 2007 Rescue harnesses

EN354: 2010 lanyards for fall arrest

EN 358: 2000 Restraining straps and fasteners

EN 12277: 2007 Mountaineering equipment

DIN 23400: 2008 Rescue stretcher for mining (grinding basket)

FDA Class 1: GMP

4.1 INSTRUCTIONS FOR USE

Step 1: Remove the RollUP and all components from the storage bag.

Step 2: Unroll and lay out RollUP, then shape the base plate. Flex the plate in order to flatten it out.

Step 4: Insert horizontal supports/stabilizers if not already in place. (may be left installed when repackaging RollUp)

Step 5: Insert longitudinal support struts (upper torso and lower extremity).

(Push it under the horizontal support/stabilizer through the two tabs as far as they will go. In order to roll up the RollUP, only the longitudinal brace needs to be removed. This is then simply pushed back into the tabs during assembly.) Repeat the process for the lower strut.

Step 6: Position patient on the RollUP then Buckle and tighten all straps.

Place the RollUP flat next to the patient.

Horizontal slide / long axis drag / log roll the patient onto the RollUP.

Position shoulders lining up with the first triangular anchor plate.

(Straps should not be fastened over patients' neck or be crossed in any way.)

Picture of patient properly secured in the Roll Up

Above pictures need to be color or hi-def BW

Picture of patient packaged in RollUp

REPACKAGING / STORAGE

Unfasten all buckles, remove vertical spinal strut

Starting at the head end roll up the stretcher and fasten with the securing strap Hint: best done when RollUp is warm

Place the RollUP back into the bag.

VERTICAL RESCUE

• Tighten all patient belts and make sure patient is secure.

• Insert a carabiner through both loops of the vertical lifting strap and securely connect with the lifting line/rope.

• Pull the RollUP gently from horizontal to vertical position. When possible, support the RollUP from one or sides when transitioning from horizontal to vertical position.

HORIZONTAL RESCUE

5.0 MAINTENANCE AND CARE

5.1 CLEANING AND DISINFECTION

- After each use, the RollUP should be cleaned with soap and water and disinfected.
- Pressure washing is permitted with temperature not exceeding < 125F / 50C.
- Soiled textile components (webbing) can be removed and washed with mild detergent and warm water <125F / 50C, rinsed with fresh warm water and allowed to dry before reinstallation and storing.
- Disinfection with commercially available alcohol-based agents. (Follow the application instructions of the respective manufacturer!)

- Disinfection with pH-neutral disinfectants based on quaternary ammonium compounds with chlorhexidine. (Follow the application instructions of the respective manufacturer!)
- After washing with detergent and / or disinfectant wash at least twice with clear fresh water to remove all detergent residues.
- Spray disinfection with alcohol-based disinfectants is permitted. (Follow the application instructions of the respective manufacturer!)

5.2 CONTACT WITH SALT WATER

- Keep a RollUP contaminated with salt/sea/brackish water moist until it is possible to rinse sufficiently with fresh water.
- This rinsing process must be repeated at least twice with fresh water, washed with mild detergent and then dried according to point 5.3
- Textile load-bearing belts that have been continuously exposed to salt/seawater for more than 24 hours must be discarded.

5.3 DRYING

- Proper drying of all RollUp components is necessary prior to repackaging and storage. Wet or damp components of the RollUP are best dried in a well-ventilated area. Direct radiant heat is not recommended.
- After cleaning and drying, reassemble the RollUp and its components, inspect and pack ready for next use.

5.4 STORAGE

The RollUP must be stored in such a way that its readiness for use remains undiminished. Storage guideline short term and long term

6.0 ** INSPECTION AND SERVICE LIFE **

Inspector: Inspections and service must be carried out by a competent person well versed in the use and care of the RollUp and with a keen understanding of the care and operational guidelines of the RollUP.

6.1 REGULAR CHECKS:

- Visual and functional inspection before and after each use asserting mission readiness and documentation of such inspections

6.2 PERIODIC INSPECTIONS:

- Every 12 months from the month of first use -.

- Condition assessment according to inspection card - by competent / trained inspector and inspection documented by inspector.
- After any incident which might compromise the integrity of the RollUp and its component parts and accessories

6.3 MAXIMUM SERVICE LIFE

- Slings and lanyards/straps: 10 years from the month of manufacture with proper maintenance
- RollUp main body and fixed /integral component parts: 50 years from the month of manufacture with proper maintenance

****The maximum service life is subject to reduction by damaging influences such as temperature, mechanical stress due to overloading, drop loading, extreme extraordinary operational conditions or use, damage due to abrasion, cuts, chemicals etc. Periodic inspections and proper care ensure the maximum life expectancy of the RollUP along with its component parts and accessories.** **

6.4 INSPECTION POINTS

Function and condition checks must be carried out after each use/application readying for the next mission.The following are points should be addressed:

- The HDPE base plate (sliding surface) and base plate lugs for deformation, cracks and breaks
- All carabiners for function, deformation, cracks and breaks.
- Tight fit of all riveted joints.
- All belt edges for cuts and chafing.
- Suspension belts and carrying handle belts for integrity of seams and damage.
- Damaged harnesses, belts/straps and webbing. Belts/straps 10 years or older must be replaced.
- Damp equipment must be dried by appropriate airing; conspicuous soiling of the belts must be serviced as directed in Section 5.0.
- Disinfect with commercially available agents (non-chlorine). If in doubt check with your NBC expert. Do not use chemical cleaning agents or solvents. Follow the application instructions of the respective manufacturer of the cleaning agent used.

12.0 GUIDELINES FOR ANNUAL INSPECTION

12.1 GENERAL (TO BE CHECKED FOR ALL COMPONENTS)

- Check for unobtrusive odor - neutral, (not musty or moldy).

- Check for dry condition
- Check all components for existing and legible labeling (incl. operating instructions).
- Check for unusual soiling or discoloration due to chemicals or other contaminants.

12.2 WEBBING

Carry handles, vertical belt, horizontal suspension, patient / head / foot straps). Particularly inspect the sections of webbing that are routed around or within the metal components (buckles, rings, rigging plate eyelets).

All webbing should be visually inspected for:

- cut edges of the webbing,
- severely chafed belt edges or belt sections,
- pulled-out and severed fiber bundles,
- excessive roughening (e.g. fluffing)
- Melt / burn marks

If any of the above criteria are found, the component must be replaced.

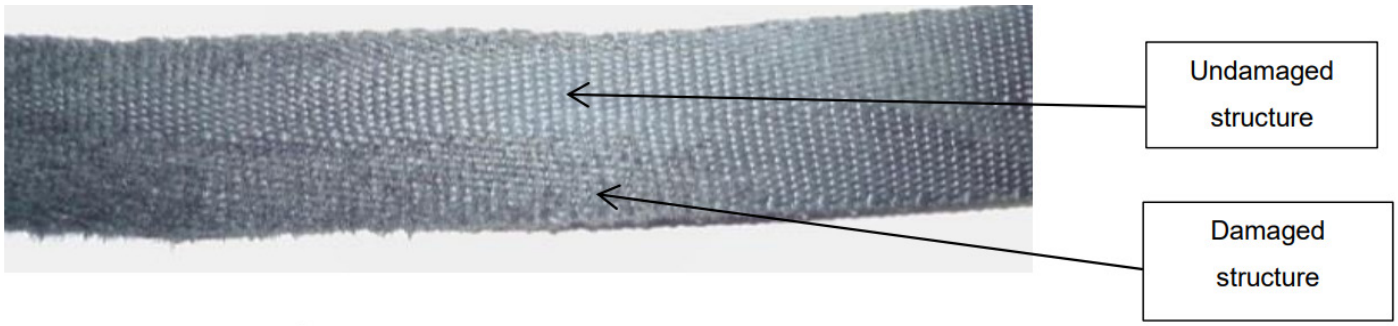


Fig. Exemplary signs of wear

12.2.1 WEBBING SEAMS

All exposed seams must be visually inspected for:

- pulled out seam thread
- heavily abraded seams
- traces of melting

If any of the above criteria are verified, the component must be replaced.

12.3 METAL COMPONENTS

All metal slinging, connecting and adjusting means (rigging plates, metal buckles, carabiners, eyelets,

riveted connections, sleeve nut with slotted screw, etc.) must be checked for:

- Malfunctioning
- cracks or fractures
- deformations
- heavy wear and corrosion

If any of the above criteria are found, the component must be replaced.

12.4 THE MATERIAL OF THE SLIDING SURFACE /MAIN BODY OF ROLLUP

Top and bottom surfaces, are to be checked for:

- Cracks and holes
- scuffing or melting spots,
- excessive deformation on the triangle plates or in the belt guide area
- vertical and horizontal struts and each of its fastening points

Any questionable signs of excessive wear or compromise of the RollUp's integrity should be noted and returned to the manufacturer for inspection or discarded.

12.5 TRANSPORTATION STORAGE CASE/BACKPACK

The transport backpack must be checked for the following points:

- Condition of the cover intact
- Zipper functional
- Carrying system: firmly sewn and undamaged

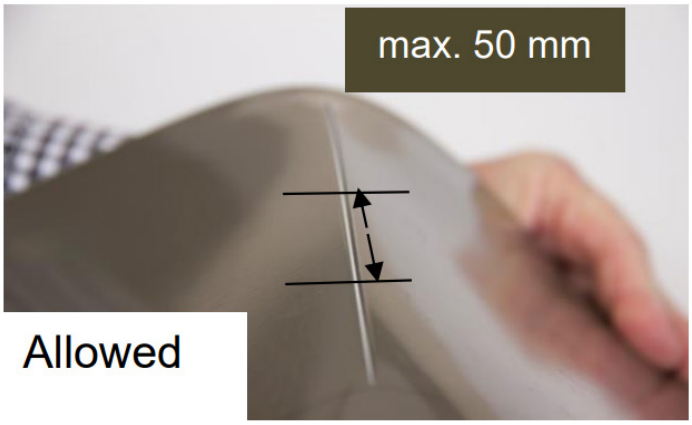
If it is determined that one of the above criteria is not met, the transport backpack must be replaced or sent for repair.

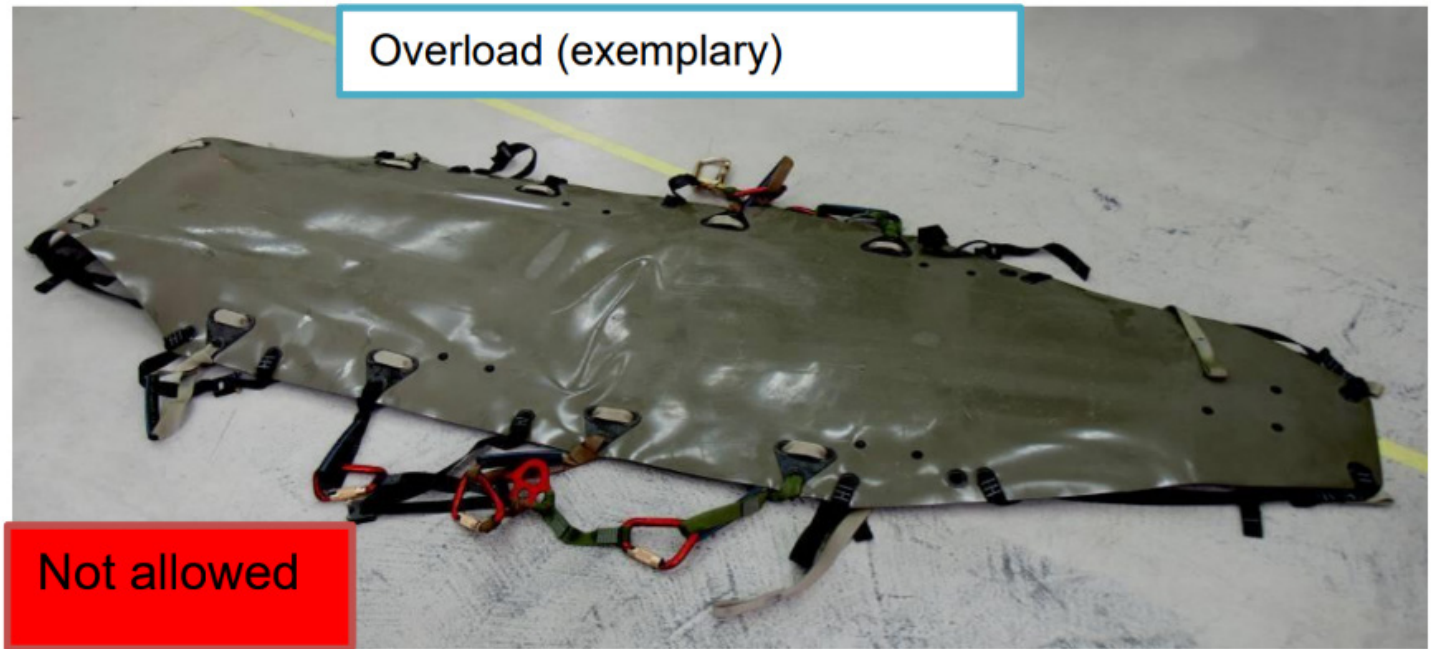
12.6 DAMAGE ASSESMENT

The RollUP must be removed from service if:

- exterior of main body/sliding surface with sharp-edged scratches deeper than 1 mm (0.04-inch) and longer than 50mm (2-inch) are present.
- Continuous holes or cuts through the material
- inner surface/lying area of the main body of more than 1mm (0.04-inch) depth are present.
- Overloading / buckling / permanent deformation is evident (see graphics below)

- Damage that cannot be clearly classified is detected





13.0 SPARE PARTS AND ACCESORIES

A full list of parts servicable by the user is available in the Kohlbrat and Bunz catalog QR code

13.2 ACCESORIES AVAILABLE FOR THE ROLLUP INCLUDE BUT NOT LIMITED TO

- Marine-water rescue package
- Aeromedical Stabilization package
- Cold weather package

Details of packages and other accessories are avaiable by scanning the QR code

WARRANTY AND WARRANTY REGISTRATION