



RS-100 Rollable Rescue Stretcher – Vacuum Mattress Transport Casing For Rescue Transport

Manufacturer

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Use

RS-100 is a protective and carrying casing of the VAKUFORM vacuum mattresses used in rescue transport of injured immobile persons in a demanding terrain with various obstacles. The fixed injured person laying on a VAKUFORM vacuum mattress inside the RS-100 transport casing can be transported by carrying, towing, lifting and lowering in horizontal and vertical positions, floating, and suspended under a helicopter.

Main advantages:

- efficient protection of the vacuum mattress from damage when used in a demanding terrain;
- high manoeuvrability in every terrain and situations;
- shock absorption capability during transport thanks to „air cushion,, provided by the VM-200/...; vacuum mattress;
- reduced hypothermia during extended transport.

Design

Main parts:

- rollable carrying body of the stretcher;
- connecting straps with buckles;
- strap handgrips for carrying.

Accessories:

- two suspension straps DS 50 for horizontal transport (EN 1492-1, DIN 61360);
- DYNEEMA strap for creation of a suspension needed for vertical transport (or auxiliary static rope);
- suspension snap-hook and two connecting snap-hooks;
- towing strap;
- carrying rucksack.

The outer shapeable carrying body is made of a flexible plastic material permitting to change its shape from flat through semicylindrical to cylindrical one. Around the carrying body circumference there are circular apertures with pressed-in protective metal rings for:

- attaching strap handgrips for carrying the stretcher;
- attaching stretcher towing strap;
- attaching connecting and fixing straps;
- inserting the auxiliary static rope and creating a rope suspension for vertical transport, or DYNEEMA strap for vertical transport.

Longitudinal holes for insertion of suspension straps for horizontal transport are cut out in the front and rear parts of the carrying body on its opposite sides.

The maximum permitted loading capacity (WLL) of one suspension strap DS 50 is 500 kg (SF 7:1) .

The maximum loading capacity of the static rope 10.5 mm in diameter is 22 kN (2200 kg).

The maximum loading capacity of the DYNEMA strap is 22 kN (2200 kg).

The maximum permitted loading of the stretcher is 120 kg.

Dimensions:

- flat shape: total length: 2400 mm, maximum width: 950 mm.
- U-shape (service shape): approximate length: 2100 mm, approximate width: 550 mm.
- O-shape (storage shape): length: 900 mm,) approximately: 200 mm.

Mass approximately: the transport casing proper – stretcher: 4.7 kg,
total mass including accessories: 8 kg.

Instructions for use

Preparation of RS-100 for use by carrying

- Take RS-100 out of the carrying rucksack, unfasten the fixing straps and roll out the rolled stretcher body.
- Check:
 - whether the position of the outside and inside surfaces of the stretcher body with respect to underlay on which the rolled out stretcher body is lying is correct;
 - whether the stretcher is not damaged and whether any of its parts is not missing.
- Only complete and undamaged product can be used.
- Place the vacuum mattress with the laying stabilized and fixed person to be transported in the stretcher on the inside surface of the rolled out stretcher casing. The transported person must always be positioned with his/her head towards the stretcher front.
- There are 4 long tightening straps with loose ends (designated 1 - 4 in the drawing) on the opposite sides of the unnarrowed part of the stretcher body and 4 short straps with a buckle (designated 1' - 4' in the drawing) opposite them. Thread the long straps through the opposite buckles and tighten them so that the longitudinal edges of the stretcher fit closely to the vacuum mattress without clamping excessively the person to be transported. Proceed with the fixation from feet towards the head of the transported person.
- Two long connecting straps with loose ends (designated 5 and 6 in the drawing) are located in the rear narrowed edge of the stretcher. Pass the left-hand strap through the free ring (designated 5' in the drawing) located behind the connecting strap 1. Subsequently, pass the strap through the ladder buckle on the outside surface of the strap 5 and pull tightly the right-hand edge of the casing to the vacuum mattress. Fix strap 6 in the same fashion. During this procedure make sure that the feet toes of the person to be transported are turned to sides and adjust the vacuum mattress corners so that they do not protrude outside the stretcher and are not damaged during transport.
- Adjust the position of the front edge of the stretcher by shortening or loosening of the towing strap passing through two pairs of smaller holes with rings (designated 8 and 8' in the drawing). Adjust the position of the vacuum mattress corners in the head area in a similar way.
- Before starting the transport, check whether all straps have been fastened, whether the fastening is correct and tight and if the straps are secured against self-release. Recheck these also during the transport and retighten loosened straps, if necessary, immediately.
- On terminating the transport, loosen the straps using the procedure in a reverse order.

Preparation of RS-100 for use by suspension in horizontal position:

- Take the transport straps out of the rucksack and check their condition. Only undamaged straps may be used.
- Pass the shorter strap (violet) under the front part of the rolled out stretcher body. Then thread its loose ends through the longitudinal openings designated 8 and 8' in the drawing. Now the loose ends are outside the rolled out stretcher body.
- Pass the longer strap (black) through the longitudinal openings (designated 7 and 7' in the drawing) in the rear part of the casing in the same way.
- Continue preparing the stretcher using the same procedure as that described above in case of preparation of the stretcher for carrying-
- On terminating the preparation, check whether the stretcher is complete and prepared correctly; if any shortcomings are found, remove them immediately.
- Pass the snap-hook (which is a part of the RS-100 accessories) through all eyes of both suspension straps and then attach it to the loop of the suspension rope.
- Immobile persons placed in the RS-100 rollable rescue stretcher may only be transported when accompanied by at least 1 rescue man having appropriate qualifications for this activity and if all safety regulations for work with suspended loads and for height works are adhered to.

Preparation of RS-100 for use-transport by suspension in vertical position

a) with the DYNEEMA suspension strap:

- Prepare RS-100 following all instructions given for transport of persons by carrying. Only the connecting straps are not fastened tightly.

- Take the auxiliary DYNEMA suspension strap out of the rucksack and check its condition as only undamaged strap may be used.
- Pass the loose ends of the DYNEEMA strap through the separate holes with rings from down top i.e. conversely as the static rope (see the drawing).
- Tighten firm all connecting straps.
- Attach the snap-hook to the both eyes of the DYNEEMA strap complete with the lowering (lifting) rope.
- Check whether the RS-100 stretcher is complete and prepared correctly; if any shortcomings are found, remove them immediately.
- Immobile persons placed in the RS-100 rollable rescue stretcher may only be transported when accompanied by at least 1 rescuer having appropriate qualifications for this job and if all safety regulations for work with suspended loads and for height works are adhered to.

b) with the static rope:

- Prepare RS-100 following all instructions given for transport of persons by carrying. Only the connecting straps are not fastened tightly.
- Take the auxiliary suspension rope out of the rucksack and check its condition as only undamaged ropes may be used.
- Fold the auxiliary rope by half and tie a figure-of-eight knot
- Pass the loose ends of the rope through the separate holes with rings using a procedure shown in the drawing, i. e. from the top down.
- Having passed the rope through all holes join it by a figure-of-eight knot (see the drawing) outside the lower edge of the stretcher.
- Tighten firm all connecting straps.
- Attach the snap-hook to the eye of the figure-of-eight knot complete with the lowering (lifting) rope.
- Check whether the RS-100 stretcher is complete and prepared correctly; if any shortcomings are found, remove them immediately.
- Immobile persons placed in the RS-100 rollable rescue stretcher may only be transported when accompanied by at least 1 rescuer having appropriate qualifications for this job and if all safety regulations for work with suspended loads and for height works are adhered to.

Preparation of RS-100 for placing in the carrying rucksack

- Unfasten all connecting straps. Make sure that the loose ends of the straps go outward the stretcher casing.
- Roll up the RS-100 stretcher body starting at the front end of the stretcher. Secure the rolled-up body with straps fitted with buckles 5 and 6.

Care and storage

- After use clean and disinfect the RS-100 stretcher using common disinfectants not aggressive to plastics materials. Place the stretcher into the carrying rucksack for future use. Make sure that both the RS-100 stretcher and accessories are complete, clean, absolutely dry and undamaged before placing them into the rucksack.
- The temperature range for use and storage of the product is -20 to +40 °C.

Product reliability

Usable life of the product has been set to :

- 4 years for the rollable carrying body of the stretcher;
- 4 years for the suspension straps DS-50;
- 2 years for the DYNEEMA strap.

The product usable life span can be extended based on results of regular checks by the user. However, the maximum usable life must not exceed:

- 6 years for the rollable carrying body of the stretcher;
- 5 years for the suspension straps DS-50;
- 3 years for the DYNEEMA strap.

Effects on the usable life span of the whole product or its replaceable parts:

- higher frequency of the product use;
- incorrect use of the product;
- impacts cause by catching of a fall .

- climatic effects, such as high levels of UV radiation, humidity, temperature and frost ;
- contact of the product with sharp edges and rough surface;
- exposure of the product to effects of chemical substance and combustion products.

All these effects accelerate natural fatigue of the material or may damage directly the materials used.

The manufacturer provides a 24 month guarantee period for the product.

The warranty does not cover:

- defects caused by improper (careless, negligent, forcible) use contradicting manufacture's instructions,
- wear-and-tear of the product or damage caused by use of the product in extraordinary climatic conditions.

Recommended temperature range for use of RS-100 is -20 to +40°C.

Repairs

Send damaged products for repair solely to the manufacturer.

The product must be eliminated from use:

- after it has caught a free fall;
- when the cross section of any of the carrying, closing and suspension straps has been found to be reduced by more than 10% due to overloading (resulting in breakage of fibres in the strap weave);
- if the surface of the above straps, textile casing and seams has been found to be damaged mechanically (due to apparent damage of fibres on the surface or as a result of a complete damage – rupture);
- when a damage to the surface of the above straps, textile casing and seams by heat, disintegration of textile weave due to freezing of wet straps, caking up (baking) of textile fibres on the surface caused by high temperatures are revealed.

RS-100 shall be considered irreparable:

- after it has caught a free fall;
- when the carrying straps DS-50 have suffered any of the above damages;
- if the rollable carrying body of the stretcher has been damaged to a larger extent;
- in the event the DYNEEMA suspension strap suffered the above damages.

User may replace:

- damaged the suspension straps DS 50 for horizontal transport with new ones having identical length;
- damaged DYNEEMA suspension strap with new ones having identical length;
- damaged carabiners and Maillon links.

Products with other kinds of damage can be sent to the manufacturer for repair.

Quality and completeness certificate (the certificate serves as a warranty)

After the inspection, the product complete with appropriate confirmed documents were placed into the RS-100 carrying bag.

The complete product includes:

- roll-up stretcher body complete with connecting straps and hand-grip straps;
- two suspension straps for transport in horizontal position;
- auxiliary static rope or DYNEEMA strap for creating a suspension required for transport of persons in vertical position;
- snap-hook;
- carrying rucksack.

Warranty extent and warranty terms

The manufacturer provides a 24 month guarantee period for the product from the date the product was taken over (purchased) by its purchaser or handed over to the carrier agreed upon. Liability for product faults is governed by provisions of the Act No. 47/92, Collection of Laws. Claims shall be settled in compliance with the manufacturer's claiming rules.

- 1) The manufacturer shall repair any defect free of charge provided the defects were caused demonstrably by a fault of material or incorrect manufacture and if the claim is made before expiration of the warranty period.
- 2) The warranty shall not cover:
 - a) defects due to an improper (careless, negligent, forcible) use contradicting manufacturer's instructions.
 - b) wear-and-tear of the product or damage caused by use of the product in extraordinary climatic conditions.
- 3) Claim can be presented to the seller or directly to the product manufacturer. Warranty duly confirmed by both manufacturer and seller indicating date of the product manufacture and sale, payment document, a letter describing the defects and indicating their location on the product including the date and method of dispatch of the faulty product must be attached to the product being claimed.

Date of sale: 2011-02-15.

Serial Number: 001911.

Method of product receipt by purchaser: by forwarder.

Seller's or manufacturer's stamp imprint and signature:

Delivery Note No.: Inv. no.1133018.

Purchaser's address: ABTECH SAFETY LIMITED, Unit 6, Portside Business Park , Ellesmere Port, Cheshire, CH65 2HQ, Great Britain.

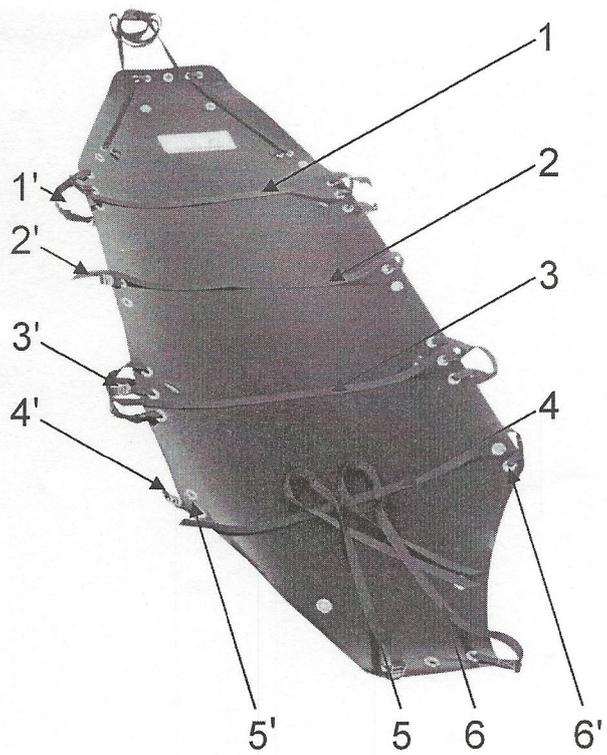
Final user :

At receipt of the product covered by the present warranty, the purchaser's representative is obliged to:

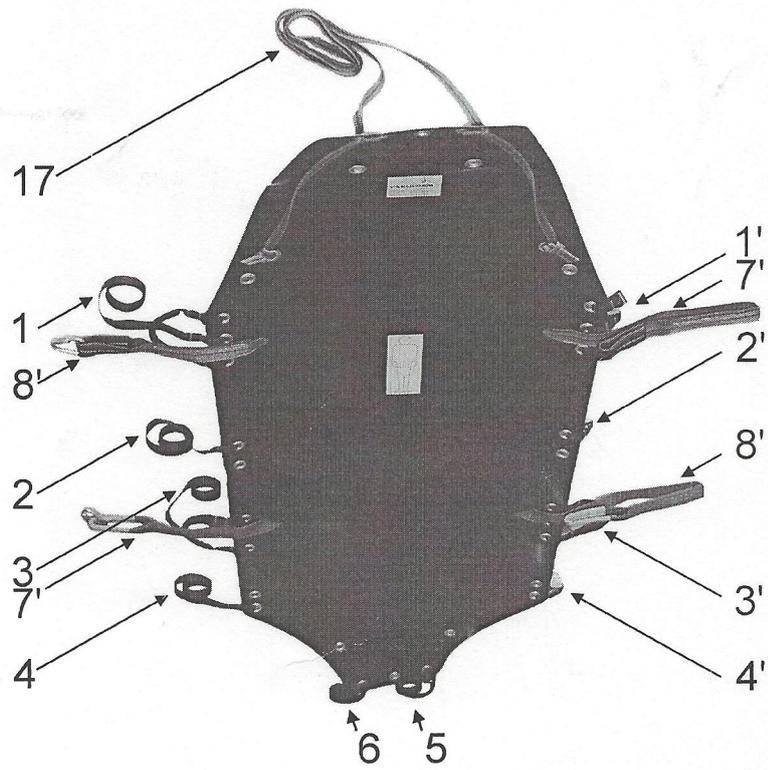
- read carefully the above instructions for use, care, maintenance and storage of the product
- check the product purchased for its completeness and proper function.

The date purchaser claimed the product:

PLEMENÁŘSKÉ SLUŽBY s.r.o.
Středisko VAKUFORMING s.r.o. 198 700
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e-mail: vakufor@plemenarske.cz
IČO 469 79 964, DIČ CZ46979964



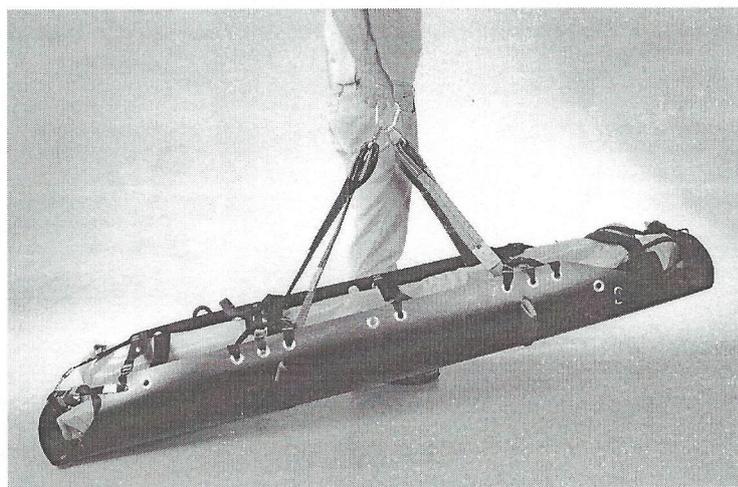
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pict. no. 2



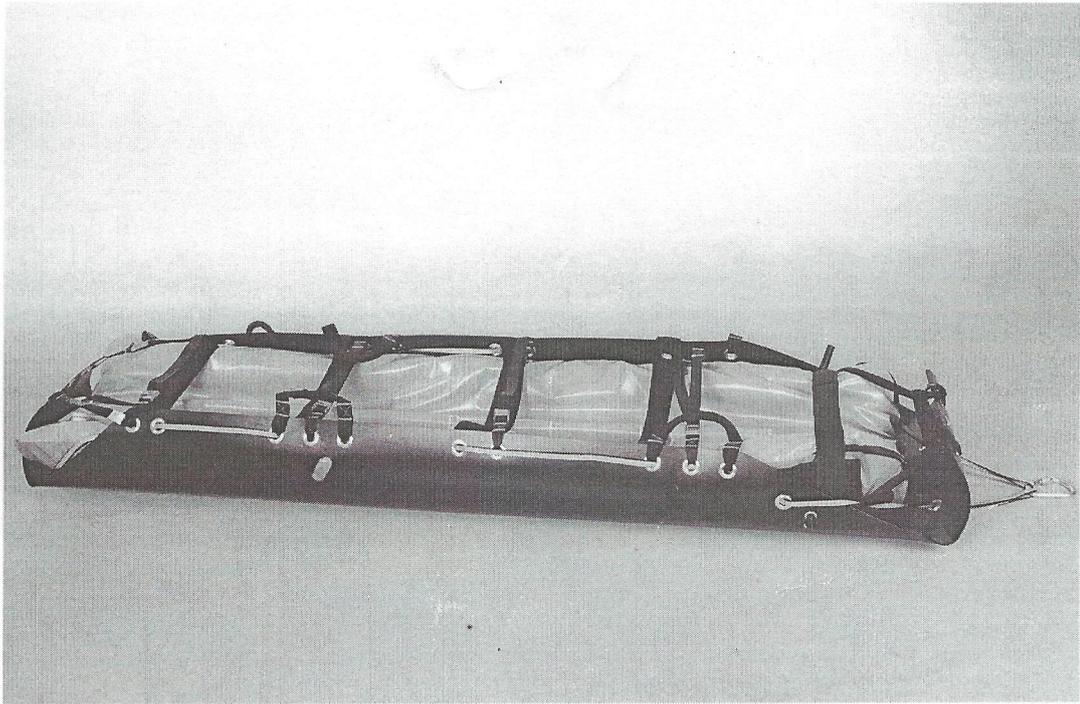
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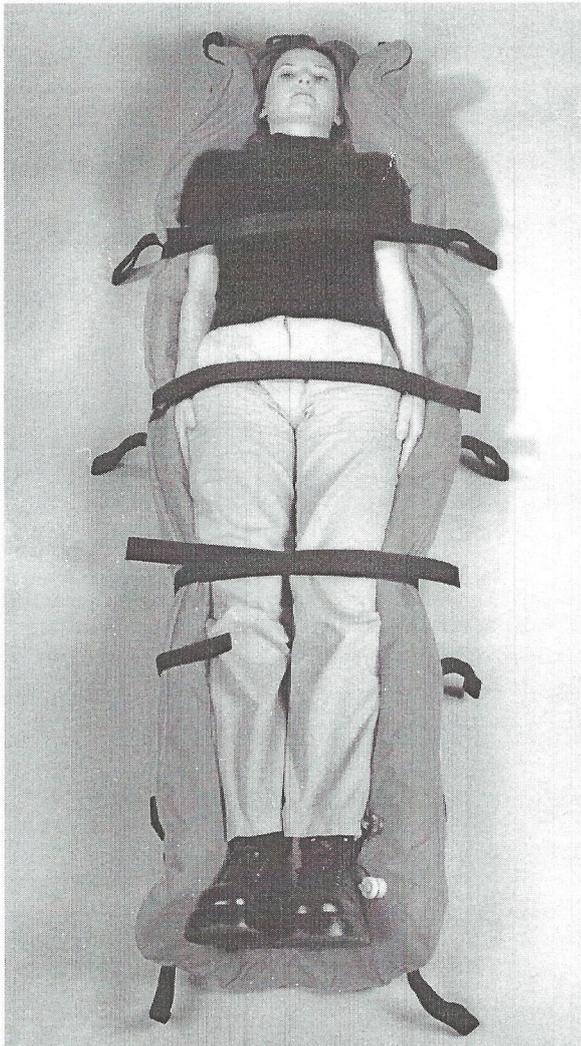
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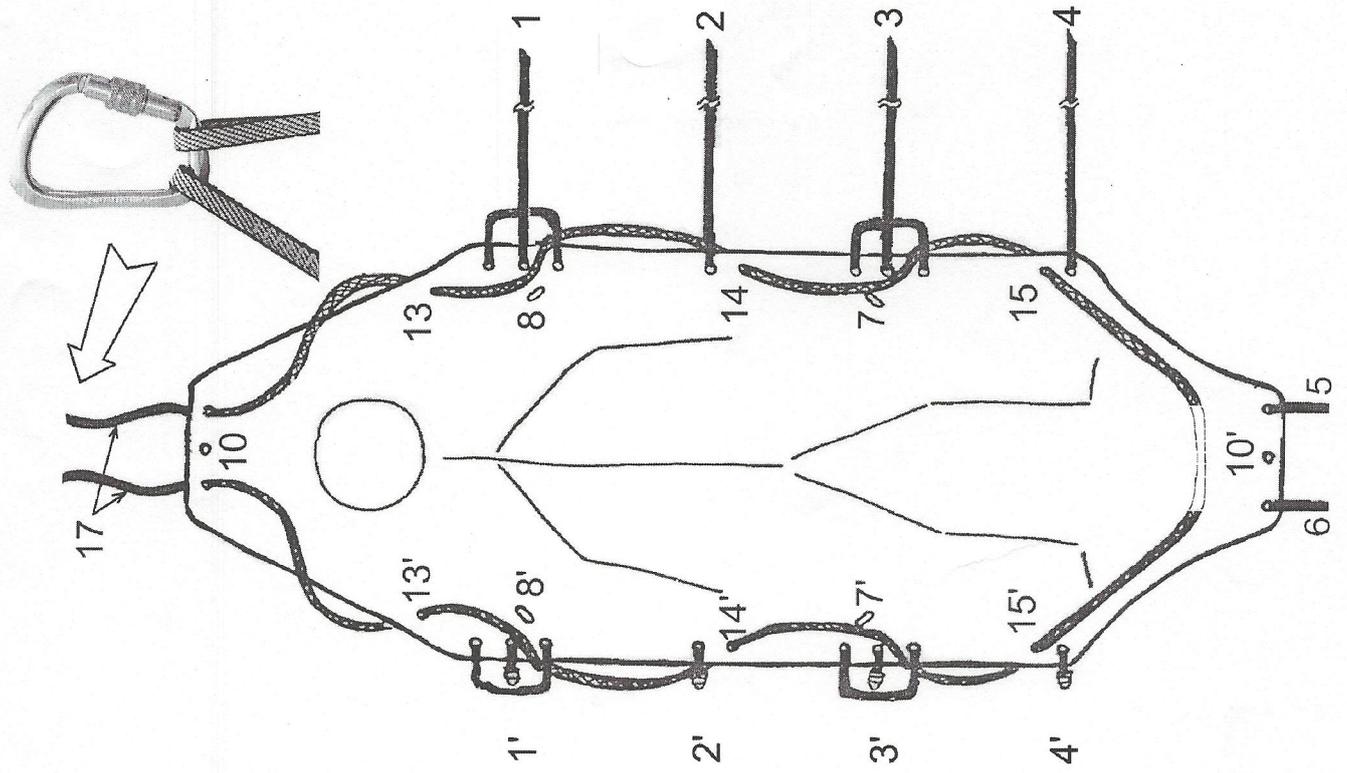
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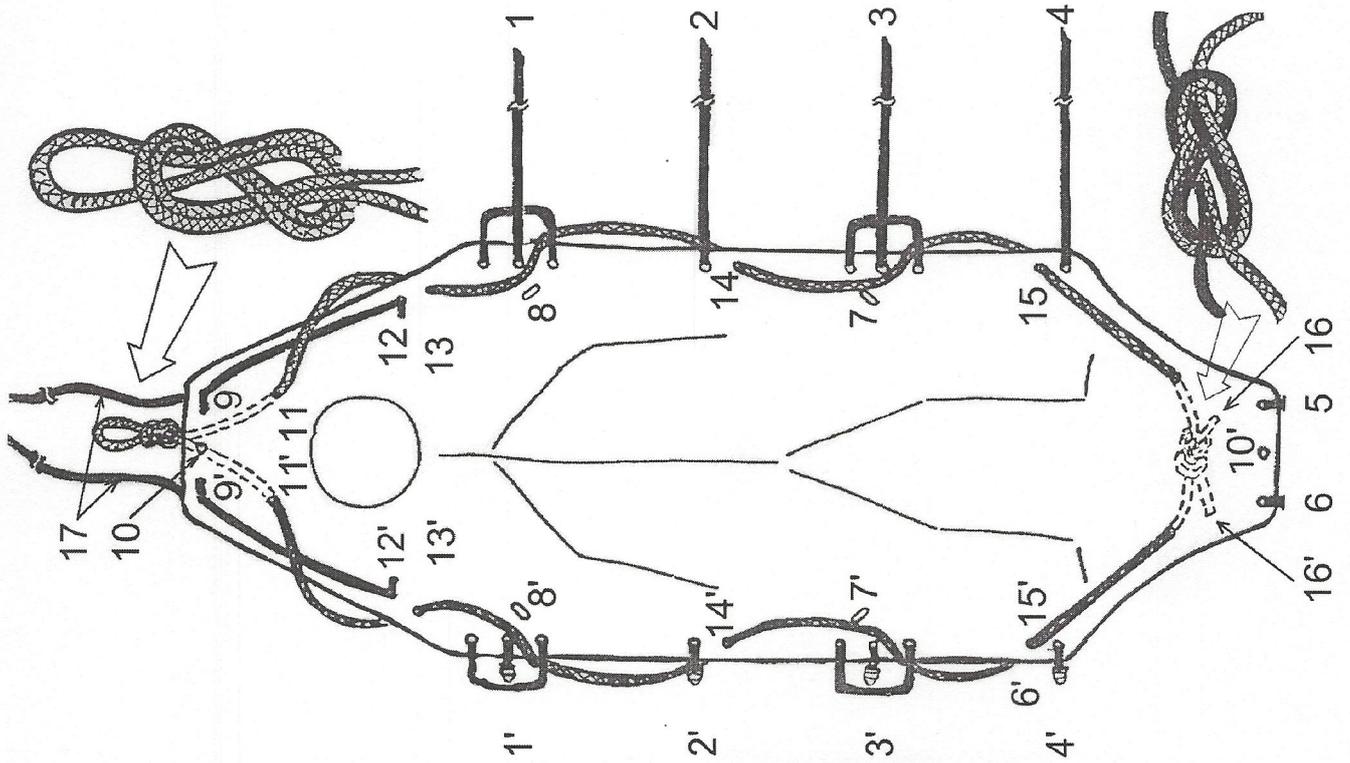
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pict. no. 8



pict. no. 10



pict. no. 9