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Half Back Extrication/Lift Harness

USER INSTRUCTION MANUAL

Description

The LSP Half Back is a versatile, lightweight and durable short body immobilization board designed for suspected cervical/spinal injuries during confined space extrication (such as auto, storage tank, ships, etc.) The Half Back comes complete with a full head harness and an optional helmet harness for helmeted victims, both of which are compatible for use with the Miller Full Body Splint/Litter.

Six strategically located handles allow for easy maneuverability of the victim. Also, the quick release velcro™ storage pockets neatly house all straps until needed during rescue.

The Half Back features an aluminum back-stay anatomically designed for the cervical portion of the spinal column. This unique design eliminates the need for any roll or extra padding to support the victim's head, and it will not interfere with cervical x-rays.

The optional Vertical Lift Strap Assembly allows the Half Back to be used in two distinctly different ways. First, with the aluminum back-stay in place, the Half Back will vertically lift a suspected cervical/spinal injury victim during confined space extrication. (Vertical lifting of this type of victim is not recommended unless no other means are evident.) Secondly, the Half Back can be quickly converted into a vertical lift/extrication/rescue harness simply by removing the aluminum back-stay. This unique feature allows the Half Back to be used as a safety harness for rescue personnel as well as a vertical lift harness for the victim when cervical/spinal injuries are not suspected.

The interior of the Half Back is a non-absorbent, closed-cell foam. The outer covering consists of a tough, stain-resistant, washable junior ballistic nylon which provides protection and comfort to the victim and rescue person.



Specifications

COLOR: High visibility yellow

WEIGHT:

Vest—7.5 lbs.

Back-Stay and Head Harness—3.5 lbs.

SIZE:

Open—34" long x 36" wide

Closed—34" long x 12" wide and 7" thick

JACKET: 2-ply, water repellent junior ballistic nylon; minimum tensile strength of 715 lbs. for each ply

FOAM: 1/2" thick 2# non-absorbent closed-cell polyethylene foam

BACK-STAY: 5" wide x 33 1/2" long x 3/16" thick, 5052-H32 anodized aluminum alloy

STRAPS: 2" wide, black nylon webbing with a minimum 6,000 lbs. tensile strength

BUCKLES: Forged alloy steel with a proof load of 2,500 lbs.

VELCRO: 3/4" and 2" black hook and loop; meets military specs

CLEANING: 100% washable

QUALIFIED TO:

ANSI A10, 14-1975

MIL-STD-45662

MIL-I-45208A

(Free fall drop test and 50 hr. salt spray test)

Limited One (1) Year Warranty

LSP warrants this product to be free from defects in material and workmanship for a period of one (1) year from the date of manufacture. This Warranty is expressly conditioned on compliance with all inspection and preventative maintenance requirements as set by applicable government agencies and as specified by LSP.

This Warranty is extended by LSP only the first purchaser of the product from either LSP or from an authorized LSP distributor.

LSP'S OBLIGATIONS AND PURCHASER'S REMEDIES UNDER THIS WARRANTY ARE LIMITED AS FOLLOWS: In the event of a defect, malfunction or failure to conform to this Warranty, purchaser shall return this product to LSP, with shipping charges prepaid, within a reasonable time after discovery of such defect, malfunction or failure to conform. LSP shall repair or replace (at LSP's option) this product if it is defective, malfunctions or fails to conform to this Warranty, and shall return it to purchaser with shipping charges prepaid and without any additional charges due to costs of repair or replacement.

In the event the product returned by purchaser is not defective, has not malfunctioned and does conform to this Warranty, LSP shall not be obligated to repair or replace the product and shall not be obligated for shipping charges for return of the product to the purchaser.

LSP shall in no event be liable for any consequential damages, nor for loss, damages or expenses directly or indirectly arising from the use of this product.

Disclaimer of Other Warranties

THIS WARRANTY IS IN PLACE AND IN LIEU OF ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A SPECIFIC PURPOSE, BY OPERATION OF LAW OR OTHERWISE.

This Warranty does not apply to malfunction or damage resulting from accident, alteration, misuse, abuse of the product, improper preventative maintenance, storage at extreme temperatures or extreme environments beyond design limits, or, where appropriate, improper use of the product by untrained persons. This Warranty does not apply to any plastic or rubber components since they can be affected adversely by undue exposures to heat, sun, water, ozone, or to other deteriorative elements.

LSP has not authorized any other firm or person to make any representations concerning this product nor to assume on LSP's behalf any liability in any way connected with the sale or use of this product.

This Warranty becomes void immediately should any repairs of, or alterations to this warranted product be made without authorization by LSP.



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1.0 Preparation of the Victim for Extrication Prior to Half Back Application

- 1.1 Apply a cervical collar first.
- 1.2 Administer first aid to deal with cuts, abrasions, etc., about the face, neck and shoulders.
- 1.3 Remove eyeglasses from victim and any articles from the victim's shirt pockets.



Figure 1.1

2.0 Preparing the Half Back for Extrication Use

- 2.1 Open the Half Back vest. Be sure the back-stay is secured with the velcro™ straps on the back of the Half Back.
- 2.2 Remove the velcro™-attached head harness from the back-stay. Do not remove any straps from their pockets at this time. (Figure 2.1)

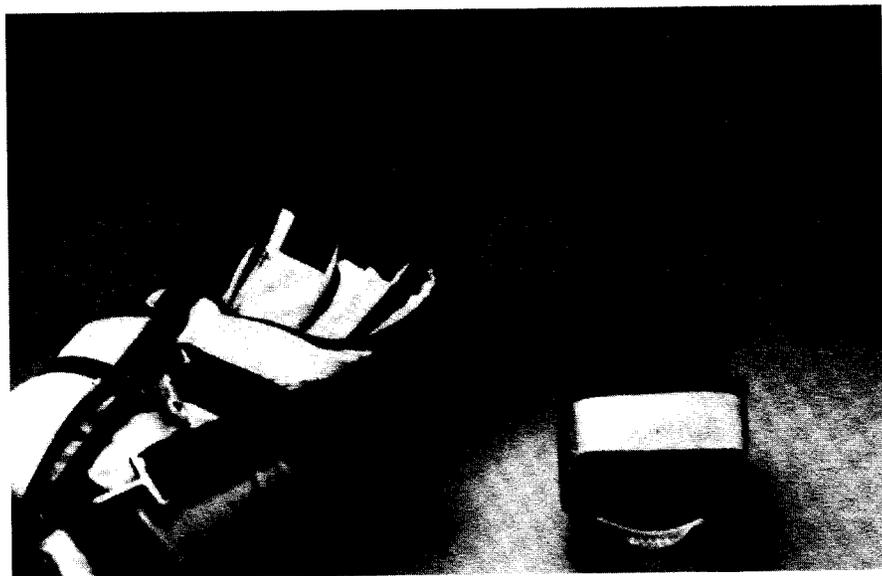


Figure 2.1

3.0 Positioning the Half Back on the Victim



Figure 3.1

- 3.1 Gently place the Half Back behind the victim with straps to the outside.
- 3.2 Position the sides under the victim's arms. (Figure 3.1, arrow)
- 3.3 Release the padded leg straps to expose the torso strap pockets on the victim's right side.

4.0 Connecting the Shoulder and Torso Straps

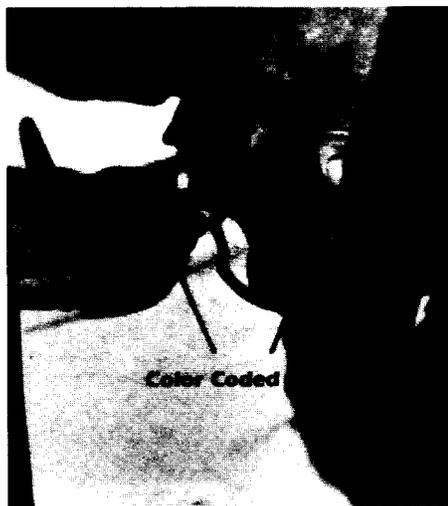


Figure 4.1



Figure 4.2

- 4.1 Open the two torso strap pockets.
- 4.2 Connect each color coded buckle to the matching snap on the opposite side of the victim's chest, leaving the straps loose. (Figure 4.1)
- 4.3 Repeat Steps 4.1 and 4.2 for each shoulder strap. (Figure 4.2)

5.0 Adjusting the Shoulder and Torso Straps

- 5.1 Adjust the shoulder straps to bring the sides of the vest up against the victim's underarms. (Figure 5.1)
- 5.2 Adjust the torso straps so the Half Back is snug against the victim's torso. (Figure 5.2)

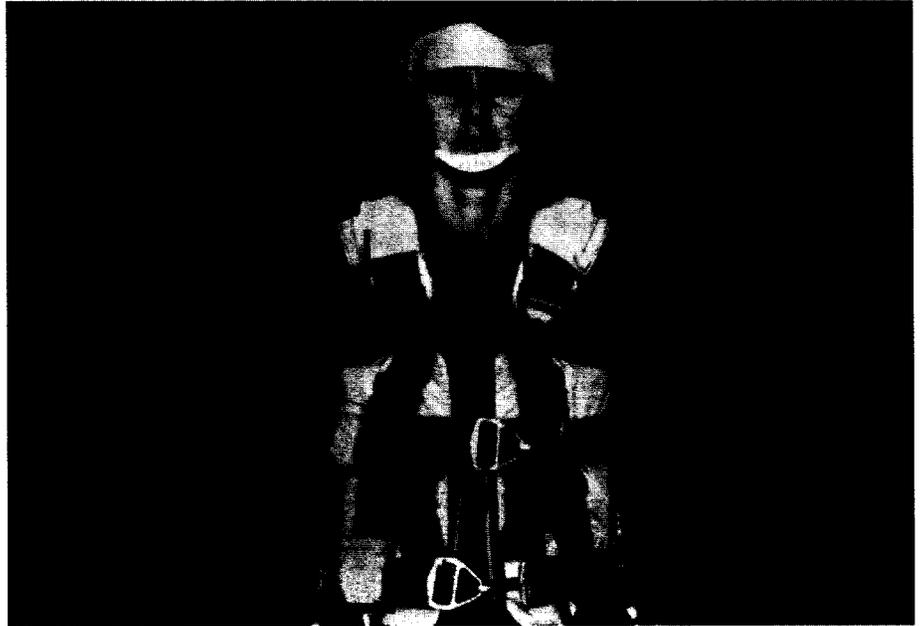


Figure 5.1

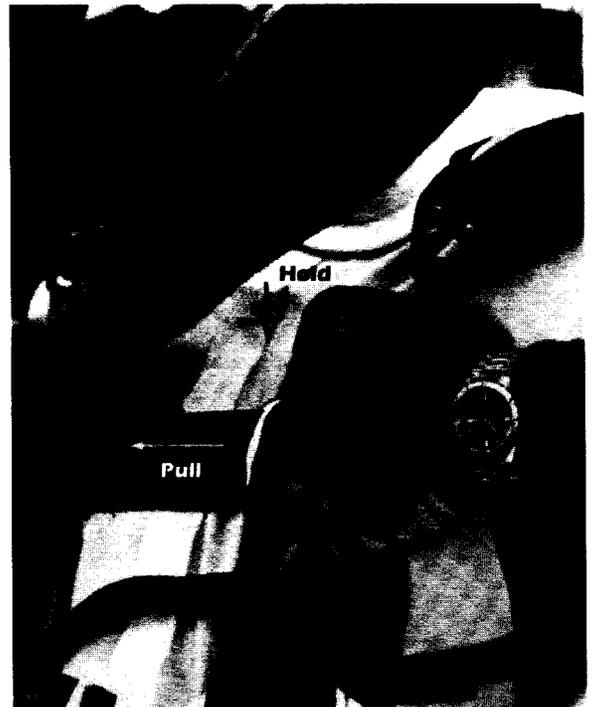


Figure 5.2

6.0 Connecting the Leg Straps



- 6.1 Remove a leg strap from the pocket on one leg pad and start the strap under the victim's knee from the outside.
- 6.2 Work the strap back and forth up the underside of the leg to the groin area using the webbing only to work the strap into position.
- 6.3 Pull the foam padded portion under the leg. (Figure 6.1)

Figure 6.1



- 6.4 Connect the buckle to the color coded snap on the same side under the victim's arm, pulling the strap snugly. (Figure 6.2)
- 6.5 Repeat Steps 6.1 through 6.4 for the other leg.

Figure 6.2

7.0 Immobilizing the Victim's Head

7.1 Disconnect the chin and forehead velcro™ straps on the head harness.

7.2 Place the victim's head in the foam "V" of the back-stay. Move foam "V" forward to meet the back of the victim's head.

7.3 Hold the head harness by the two thin flaps with the velcro™ facing toward the victim.

7.4 Lay the center foam section of the head harness against the top of the victim's head. (Figure 7.1)

7.5 Bring the two outer sections down on each side of the head and connect the velcro™ flaps to the rear of the back-stay so that the foam section is snug against the victim's head. (Figure 7.2)

7.6 Firmly adjust the forehead strap by using an arching motion over the victim's eyebrows so the head does not move. When properly positioned, the forehead strap should connect to both outer sides of the foam head harness at the same angle. (Figure 7.3)

NOTE: Hold victim's head firmly in place to prevent movement when adjusting forehead strap.



Figure 7.4

7.7 Adjust the chin strap snugly, allowing the mouth to open, if necessary (Figure 7.4). The victim is now ready for extrication.



Figure 7.1



Figure 7.2

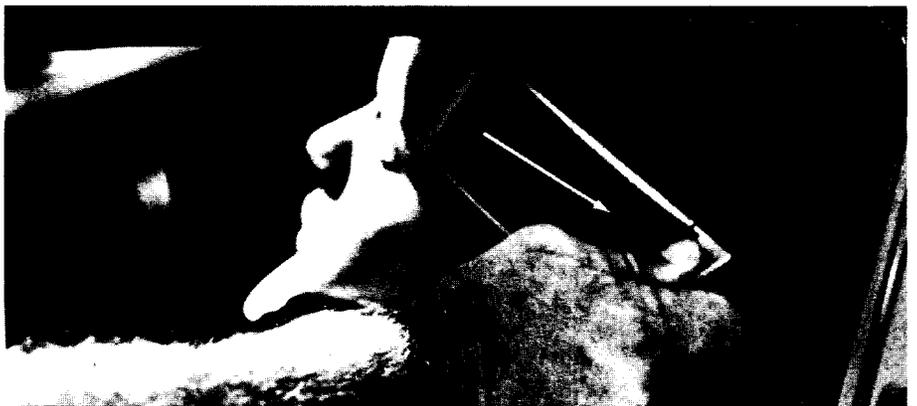


Figure 7.3

8.0 Attachment of the Helmet Harness

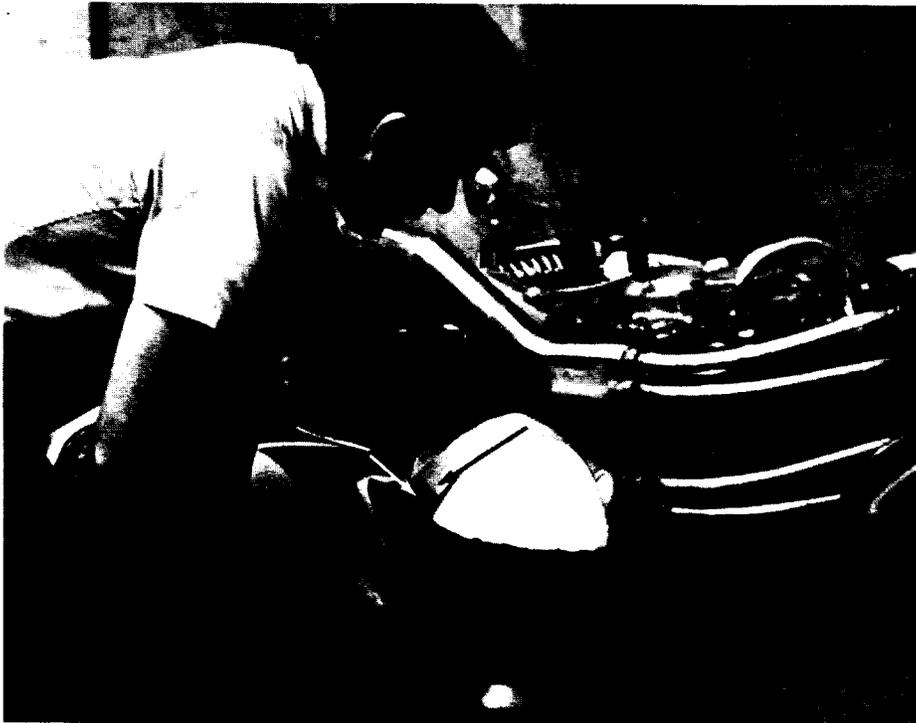


Figure 8.1

- 8.1 Attachment of the helmet harness* may be accomplished in the same manner as the head harness. (Refer to Section 7.0)

NOTE: The helmet harness allows the rescuer to immobilize the victim's head without removing the helmet.

9.0 Extrication of the Victim with a Half Back



Figure 9.1



Figure 9.2



Figure 9.3

- 9.1 Extrication of the victim can be performed using the six strategically located handles at the hip, shoulder, or stomach. (Figure 9.1)

- 9.2 Extrication of the victim can be performed using the vertical lift strap assembly*. Refer to Section 15.0 for vertical lift instructions.

- 9.3 Place the victim on a Miller Full Body Splint/Litter following extrication. (Refer to Section 10.0)

*Refer to **Optional Accessories**, page 12

10.0 Placement of the Victim with a Half Back on a Miller Full Body Splint/Litter for Transport

- 10.1 After extrication, it is recommended that the victim be placed on a Miller Full Body Splint/Litter for transport. (Figure 10.1)
- 10.2 Simply loosen the leg straps to allow the victim's legs to lie flat.
- 10.3 Refer to the User Instruction Manual on the Miller Full Body Splint/Litter for details.



Figure 10.1

11.0 Preparing the Half Back for Use as a Safety Harness

- 11.1 Remove the aluminum back-stay by loosening the two velcro™ straps. (Figure 11.1)
- 11.2 Pull the back-stay out of its pocket on the back of the vest. (Figure 11.2)
- 11.3 Open the vest and locate the two padded shoulder straps. (Figure 11.2)



Figure 11.1



Figure 11.2

12.0 Connecting the Shoulder Straps

- 12.1 Open the pockets on each shoulder strap.
- 12.2 Connect the color coded buckle to the matching snap on the chest portion of the vest, leaving the straps loose.



Figure 12.1

13.0 Connecting the Leg Straps

- 13.1 Put the vest on with the straps to the outside.
- 13.2 Drop the padded leg straps on each side of the vest.
- 13.3 Open the pocket on one leg strap.
- 13.4 Insert the strap between the legs from behind.
- 13.5 Connect the color coded buckle to the matching snap on the same side of the vest, leaving the straps loose.
- 13.6 If the snap is hard to reach, then remove the vest from opposite shoulder. (Refer to Figure 13.1)
- 13.7 Adjust each leg strap snugly yet comfortably. While adjusting the Half Back safety harness, it should be easy to walk around.



Figure 13.1

14.0 Connecting the Torso Straps

- 14.1 Open the two pockets on the right side of the vest.
- 14.2 Connect the color coded buckles to the matching snaps on the opposite side of the chest, leaving the straps loose. (Figure 14.1)
- 14.3 Snugly adjust each torso strap.

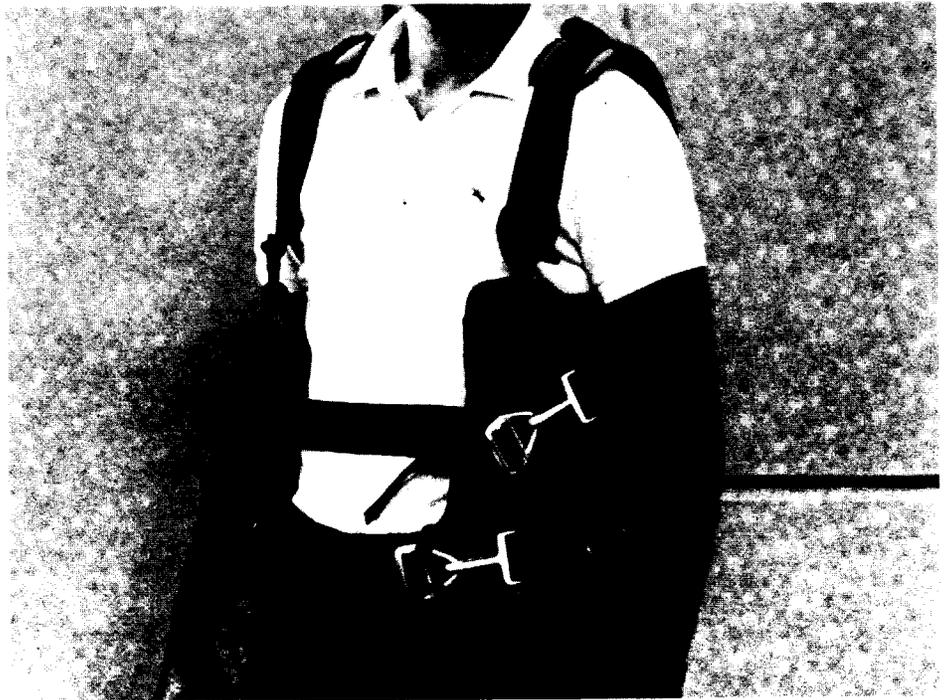


Figure 14.1

15.0 Preparing Half Back for Vertical Lift

- 15.1 Adjust each shoulder strap to pull sides of the vest up snugly under each arm.



Figure 15.1

- 15.2 Attach the vertical lift strap assembly* to the triangular links ("D" rings) on each side of the vest. (Figure 15.2)

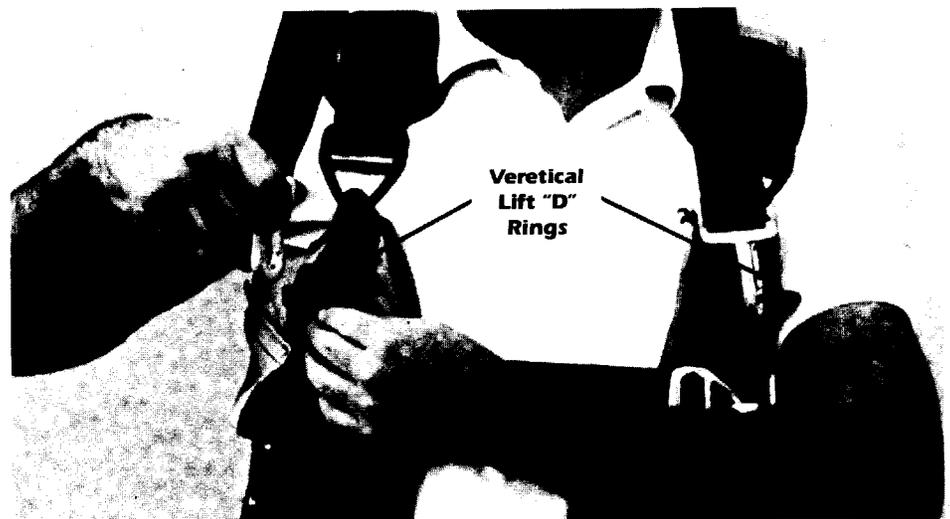


Figure 15.2

15.0 Preparing the Half Back for Vertical Lift (continued)



Figure 15.3

15.3 Figure 15.3 demonstrates the Half Back being used as a vertical lift safety harness.

NOTE: Aluminum back-stay has been removed.
(Refer to Section 11.0)

15.4 Figure 15.4 demonstrates the Half Back being used as a vertical lift/extrication device for the suspected cervical/spinal injury victim.

15.5 **NOTE:** The 2 point attachment for the vertical lift strap assembly* in Figures 15.4 and 15.5 (stabilizer strap must be removed.) (Figure 15.5)



Figure 15.4

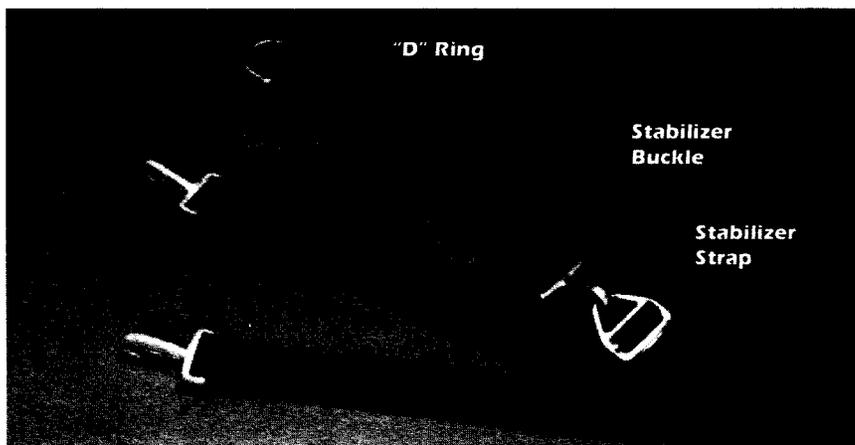


Figure 15.5

15.6 Remove stabilizer strap from buckle. Remove buckle and pull stabilizer strap out of "D" ring.
(Figure 15.5)

*Refer to Optional Accessories, page 12

16.0 Optional Accessories

Vertical Lift Strap Assembly

Specifications

STRAPS: 1¾" wide, black nylon webbing with a minimum 4,700 lbs. tensile strength.

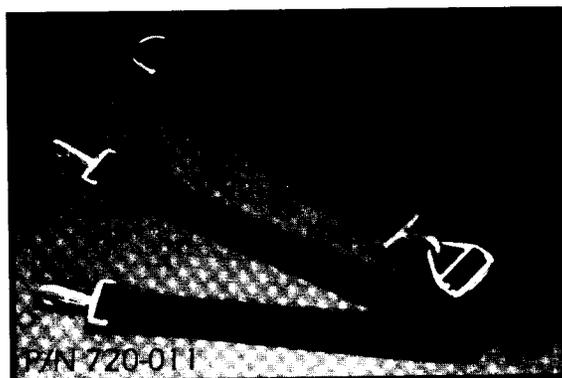
BUCKLES: Forged alloy steel with proof load of 2,500 lbs.

QUALIFIED TO: MIL-STD-45662

MIL-I-45208A

(Free fall drop test and 50 hr. salt test)

CLEANING: 100% washable



P/N 720-011

Helmet Harness

Specifications

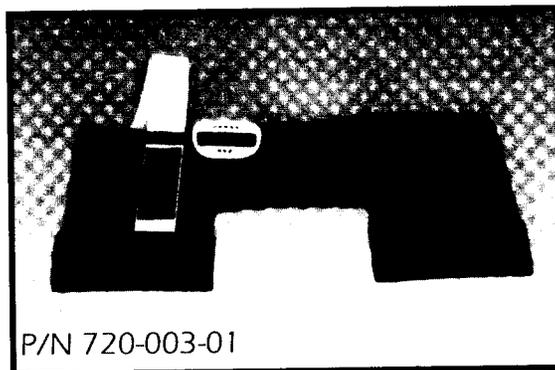
WEBBING: #7726 black commercial grade nylon, 2 inches, 5,000/6,000 lbs. test; washable

VELCRO™: 2 inch hook and loop, meets military specs.; washable

NYLON FABRIC: 100% utility nylon, black, 200 denier.

INTERNAL FOAM: 1 inch thick 2# polyester polyurethane foam.

CLEANING: 100% washable



P/N 720-003-01

Miller Full Body Splint/Litter

Specifications

COLOR: Yellow

LENGTH: 65¾" inches

WIDTH: 14 inches

THICKNESS: 3¼" at fullest point

WEIGHT: 15 lbs.

OUTER PLASTIC SHELL: Marlex CL-100 (Phillips Petroleum.) Temperature range: -180°F to 240°F, resistant to gasoline and other chemicals. Cleans with soap and water

INJECTED FOAM CORE: Rigid polyurethane foam. Meets military specs.

WEBBING: #7226 commercial grade nylon, 2 inches, 5000/6000 lbs. test; washable

VELCRO™: 2 inch hook and loop, meets military specs.; washable

NYLON FABRIC: 100% Utility Nylon, black, 200 denier.

FOAM: 2# ethafoam. Meets military specs.

SLIDE: Plastic

