



FERNO ADJUSTABLE LIFTING BRIDLE



Code	Description	Gate Opening	Weight	Compatible with
BRB-TLB	Steel Triple Lock Karabiner	25 mm	2.2 kg	Traverse & DHS Baskets
BRB-TLB-TL	Alloy Triple Lock Karabiner	26 mm	2.2 kg	Traverse & DHS Baskets
BRB-TLB-TX11S	Large Steel Screw Gate Karabiner	49 mm	2.7 kg	Traverse, DHS & Ferno Baskets
BRB-TLB-TX11SUK	Large Steel Screw Gate Karabiner	49 mm	2.7 kg	Traverse, DHS & Ferno Baskets
BRB-TLB-LTA	Large Steel Triple Lock Karabiner	44 mm	2.7 kg	Traverse, DHS & Ferno Baskets

Working Load Limit of all the above bridles: 315 kg



Users' Manual

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FERNO®



Read this Manual and retain for future reference

Ferno Customer Service

For ordering assistance or general information:

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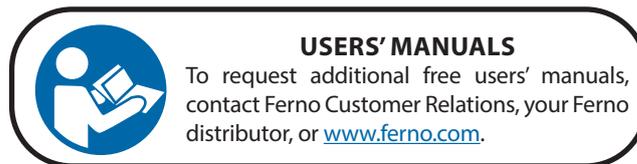
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ALL OTHER LOCATIONS

For assistance or information, please contact your Ferno distributor. If you do not have a Ferno distributor, please contact Ferno Australia.



Disclaimer

This manual contains general instructions for the use, operation and care of this product. The instructions are not all-inclusive. Safe and proper use of this product is solely at the discretion of the user. Safety information is included as a service to the user. All other safety measures taken by the user should be within and under consideration of applicable regulations and local protocol. Training on the proper use of this product must be provided before using this product in an actual situation.

Retain this manual for future reference. Include it with the product in the event of transfer to new users. Additional free copies are available upon request from Customer Relations.

Proprietary Notice

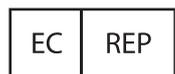
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Limited Warranty Statement

The products sold by Ferno are covered by a limited warranty. The complete terms and conditions of the limited warranty, and the limitations of liability and disclaimers, are also available upon request by contacting Ferno Australia via email: info.au@ferno.com.

Adverse Event Notice

In the event of an adverse event or serious incident related to the use of this device, the end user/operator must report the incident to Ferno Australia, 11 Johnstone Road, Brendale Queensland 4500, Australia, +61 7 3881 4999 or via email to info.au@ferno.com. If the incident occurred in the European Union, report it to Ferno's Authorised EU Representative and the competent authority of the Member State in which the end user is established.



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1 - SAFETY INFORMATION

1.1 Warning



WARNING

Warning notices indicate a potentially hazardous situation which, if not avoided, could result in injury or death.

1.2 Notices

NOTICE

Important notices emphasize important usage or maintenance information. Failure to follow Important notices could result in damage to the product or property damage.

1.3 Tip

Tips provide recommendations for easier use of the product.

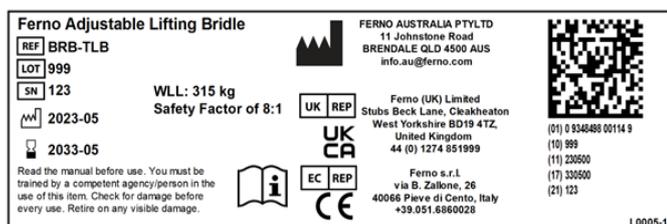


1.4 Safety Labels

Labels place important information from the Users' Manual on the product. Read and follow label instructions. Replace worn or damaged labels immediately.

The product information label is fixed to a red bridle arm and contains important information regarding the unit and date of manufacture.

A sample of the identification tag is illustrated below.



REF	Product Code	WLL	Date of Retirement
LOT	Batch Number	SN	Working Load Limit
SN	Serial Number	CE	Manufacturer
WLL	Date of Manufacture	i	Read Instructions before use

1.5 Bridle Lifespan

The bridle has a 10 year life span and must be removed from service after this time if no damage has been sustained prior to the 10 year period.

2 - OPERATOR SKILLS AND TRAINING

2.1 Skills

Operators using the stretcher need:

- A working knowledge of emergency patient-handling procedures.
- The ability to assist the patient.
- A complete understanding of the procedures described in this manual.
- To follow local protocols and guidelines as set down by your organisation.



WARNING

Untrained operators can cause injury or be injured. Only permit trained personnel to install and use the bridle.

Improper use of the bridle can cause injury. Use the bridle only for the purpose described in this manual.

2.2 General Guidelines for Use

- Rescue procedures using the lifting bridle requires special skills and are potentially hazardous activities. No rescue personnel should attempt such rescue procedures unless they have received professional instruction and training.
- Because rescue situations are rarely the same, this manual must be general in nature. It is the responsibility of trained personnel to know the techniques involved in high angle rescue and to select the appropriate lifting equipment, stretcher and patient restraint system for each rescue situation.
- Ensure all equipment used with the bridle has a load rating at least equivalent to the bridle
- Ensure the patient is appropriately secured to the stretcher to prevent slipping within or a fall out of the stretcher during the high angle rescue operation.

2.3 Training

Trainees need to:

- Follow a training program designed or approved by their training officer.
- Read this manual. For additional free users' manuals, contact Ferno or Traverse Rescue Customer Service.
- Practice with the stretcher before using it in regular service.
- Be evaluated and tested on their understanding of the stretcher.
- Record their training information. A form is provided on page 9.

NOTICE

Rescue procedures using ropes, harnesses, bridles and other Personal Protective Equipment require special skills and are potentially hazardous activities. No rescue personnel should attempt such rescue procedures unless he or she has received professional instruction and training.

3 - ABOUT THE BRIDLE

3.1 Description

The BRB-TLB Series of Adjustable Lifting Bridles (referred to as the bridle throughout this manual) are designed to be used as an interface between a basket stretcher and a rope hoist, cable or other lifting device.

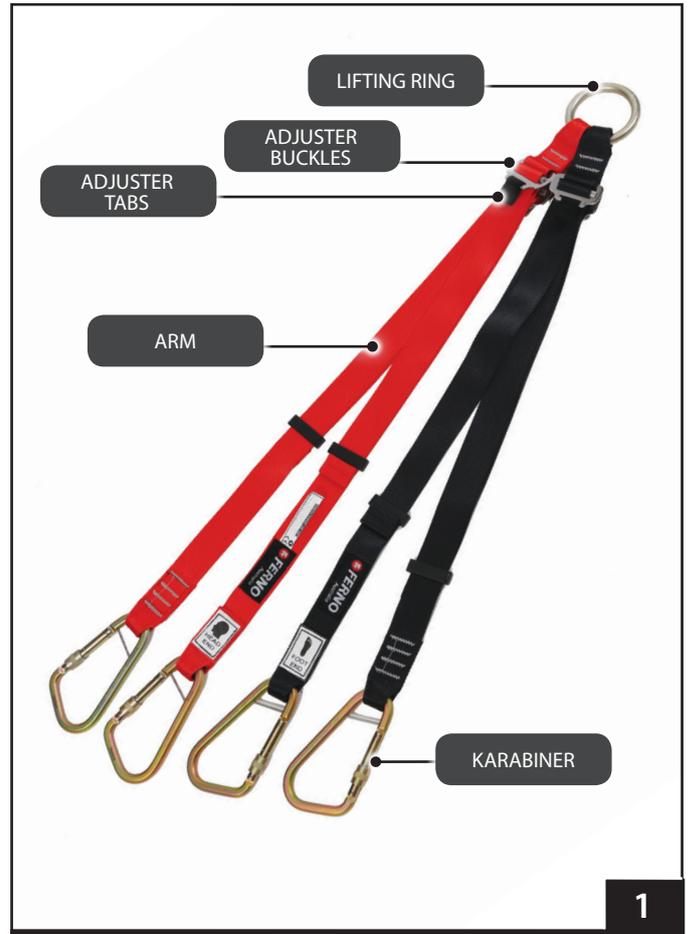
3.2 General Specifications

Specifications for the bridle are shown below. General specifications are rounded. Metric conversions are calculated before rounding the Imperial measurement.

Ferno reserves the right to change specifications without notice. For more information, contact Ferno. See "Ferno Customer Service" on page 2.

Code	Karabiner Attachment	Gate Opening	Weight
BRB-TLB	Steel Triple Lock	25 mm	2.2 kg
BRB-TLB-TL	Alloy Triple Lock	26 mm	2.2 kg
BRB-TLB-TX11S	Large Steel Screw Gate	49 mm	2.7 kg
BRB-TLB-TX11SUK	Large Steel Screw Gate	49 mm	2.7 kg
BRB-TLB-LTA	Large Steel Triple Lock	44 mm	2.7 kg
O Lifting Ring	40 kN		
Webbing width	44 mm		
Leg Length	Lifting ring to karabiner: 1.45 m		
	Individual legs: 1.15 m		
Range of Adjustment	1 m		
Temperature Range	-40° to 60° Celcius		

3.3 Bridle Components



4 - SETTING UP THE BRIDLE

4.1 Attachment to Stretcher

The centre section of the bridle has two separate colour-coded branches attached to the lifting ring, each with two adjustable arms terminating with karabiners.

The red head end arms must be attached to the head end of the stretcher and the black foot end arms to the foot end of the stretcher. The division of branches is shown in Figure 2.

When attached to the stretcher, adjust the length of the arms on each branch to the same length to ensure the stretcher stays level side to side.

4.2 Bridle Length Adjustment

Adjusting the length of the arms changes the elevation at the end of the stretcher attached to that branch. The length of each arm may be shortened as much as 1 m.

NOTICE

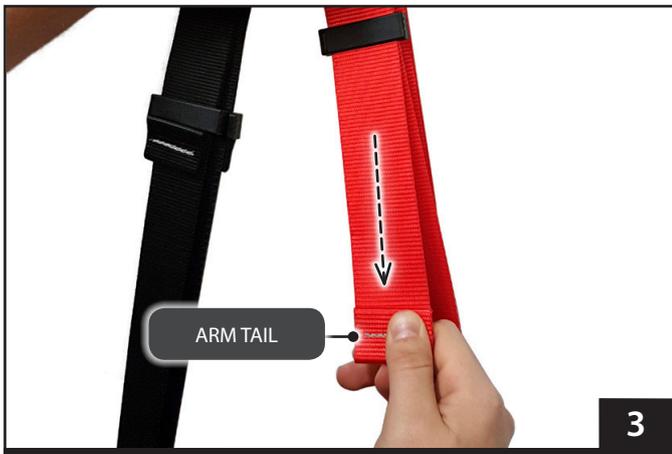
The arms on each branch must always be the same length to ensure the stretcher stays level side to side.



4 - THE BRIDLE

Shortening the Bridle

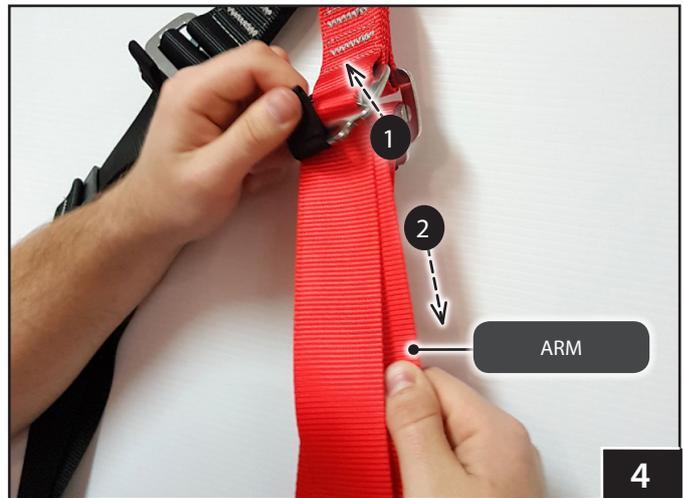
To shorten a branch of the bridle, pull the tail of the adjustable arm until it reaches the desired length (Fig 3).



Returning the Bridle to Full Length

To lengthen the bridle arms:

1. Pull the black adjuster tab up to release the buckle and
2. Pull the arm down until it reaches the required length (Fig 4).



4.3 Karabiners

For bridle arms terminating with a screw gate karabiner:

1. Unscrew the locking sleeve until it is clear of the nose at the gate opening.
2. Squeeze the gate open and slide the nose of the karabiner through a tine-in point / grommet on the basket stretcher.
3. Release the gate and secure it in the closed position by tightening the locking sleeve until it covers the nose and stops travelling (Fig 5).

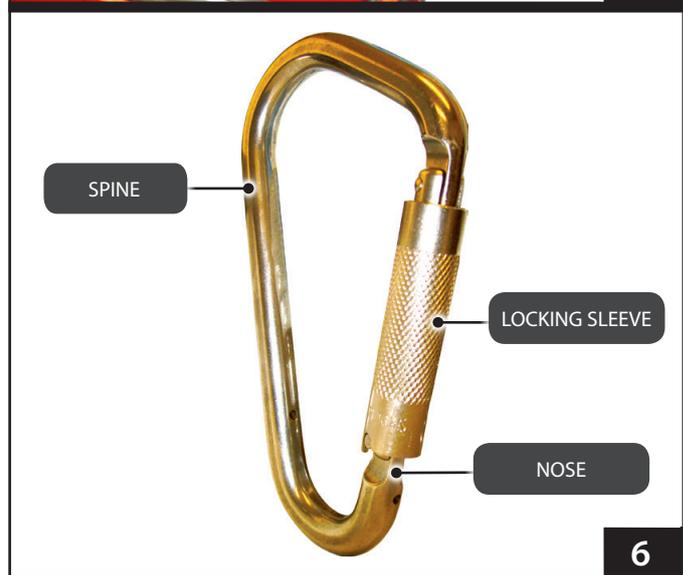
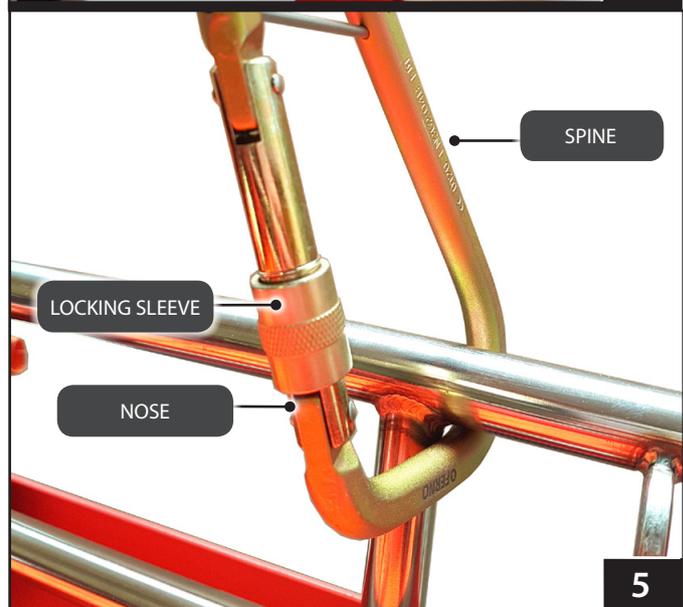
For bridle arms terminating with a tripllock karabiner:

To open the gate:

1. Push the locking sleeve towards the nose then twist the sleeve to unlock the gate.
2. Maintain your hold on the sleeve while it is in this position and squeeze the gate towards the spine.
3. Position the now open karabiner where you want it, then release the locking sleeve. It will automatically spring back into the lock position.

NOTE: Normally a karabiner is oriented with the gate toward the inside of the stretcher and in a face down position (Fig 5) to prevent the karabiner gate accidentally opening by rubbing against a cliff face, building, rock or other surface during a rescue.

However, certain situations may dictate orienting the karabiner in the opposite direction. It is the responsibility of the user to know which orientation is best suited to a given situation.



5 - USING THE BRIDLE

5.1 Before Using the Bridle

1. Ensure personnel working with the bridle have read this manual and are properly trained to operate it.
2. Inspect the bridle to ensure all components are in good condition and operational.

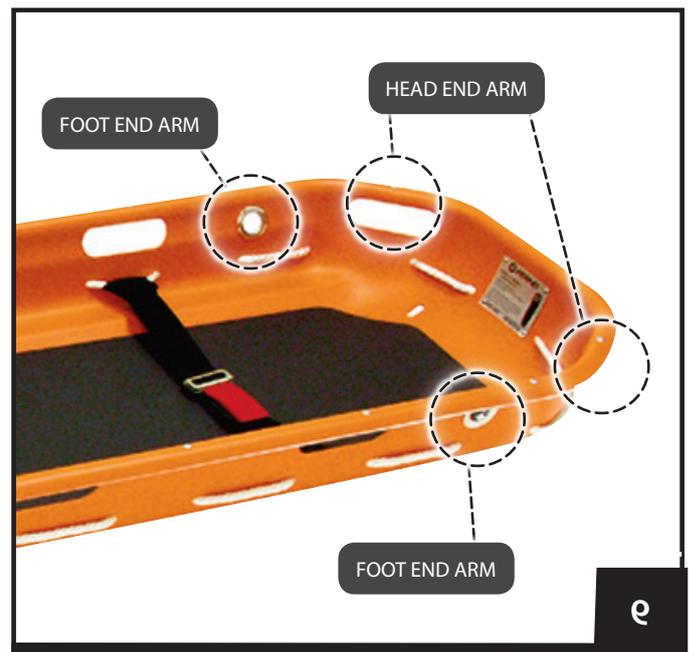
5.2 Horizontal Lifting / Lowering

1. Attach one black Foot End arm karabiner to the attachment point at the foot end of the stretcher.
 - Ferno Model 71 basket stretchers are fitted with four grommetted tie-in points for the bridle. Attach the karabiner directly into the appropriate eyelet.
 - For Traverse Rescue stretchers fitted with a Stratload attachment system, attach the karabiners directly into the appropriate eyelet (Fig 6)
 - For Traverse Rescue stretchers without Stratload system, attach the karabiner to the side rail (Fig 7).
 - Tie in points on non-Ferno basket stretchers may vary in type and location. Follow the stretcher manufacturer's instructions for choosing and using tie-in points.
2. Repeat Step 1 to attach the second Foot End arm to the other foot end side of the stretcher.
3. Attach one red Head End arm to the appropriate attachment point at the head end of stretcher.
4. Attach the second Head End arm on the other head end side of the stretcher.
5. Adjust the Head End arms so they are both the same length.
6. Adjust the Foot End arms so they are both the same length.



5.3 Vertical Lifting / Lowering

1. Attach the left black Foot End arm karabiner to the left attachment point at the head end of the stretcher.
 - **Ferno Model 71:** Attach the left foot end arm to the left head end eyelet (Fig 8).
 - **Traverse Rescue stretchers fitted with a Stratload attachment system:** Attach the left foot end arm to the left head end eyelet (Fig 9).
 - **Traverse Rescue stretchers without Stratload system:** Attach the left foot end arm to the left head end side rail (Fig 10).
 - Tie in points on non-Ferno basket stretchers may vary in type and location. Follow the stretcher manufacturer's instructions for choosing and using tie-in points.
2. Repeat Step 1 to attach the right Foot End arm to the right head end side of the stretcher.
3. Attach both red Head End arms to the appropriate attachment point at the head end of stretcher.
 - **Ferno Model 71:** Attach the left head end arm to the stretcher's left head end hand hold and the right head end arm to the other side of the stretcher (Fig 8).
 - **Traverse Rescue stretchers with a Stratload attachment system:** Attach the two head end arms to the head end rail section between the two struts (Fig 9).
 - **Traverse Rescue stretchers without Stratload system:** Attach the two head end arms to the head end rail section between the two struts (Fig 10).
 - Tie in points on non-Ferno basket stretchers may vary in type and location. Follow the stretcher manufacturer's instructions for choosing and using tie-in points.
4. Adjust the Head End arms so they are both the same length.
5. Adjust the Foot End arms so they are both the same length.

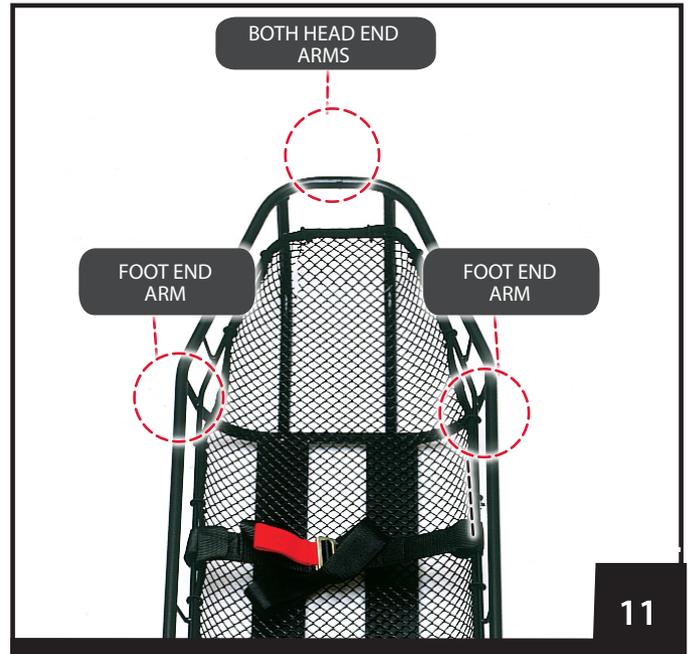
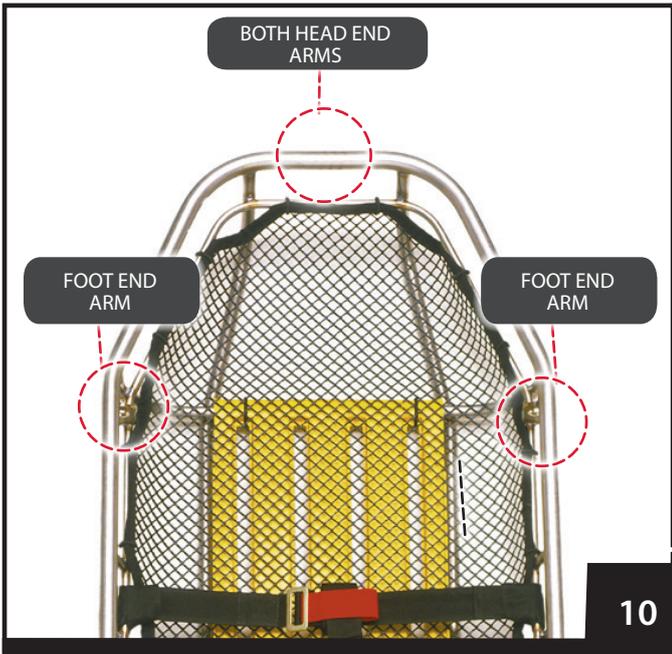


WARNING

Improper operation can cause injury. Operate the bridle only as described in this manual.

An unrestrained or improperly restrained patient can be injured. Secure the patient in the basket stretcher with a restraint system suitable to the rescue situation.

6 - MAINTENANCE & INSPECTION



NOTICE

The arms on each branch must always be the same length to ensure the stretcher stays level side to side.

6 - MAINTENANCE & INSPECTION

6.1 Maintenance Schedule

The bridle requires regular maintenance. Set up and follow a maintenance schedule. A sample form is provided on page 9. The schedule below represents minimum maintenance. You should modify your own program based on your needs.

When using maintenance products, follow the manufacturers' directions and reach the manufacturers' material safety data sheets.

A Maintenance Record is provided on page 10.

	Each Use	As Needed	Each Month
Disinfecting (this page)	•		
Cleaning (this page)		•	
Inspecting (this page)	•		

NOTICE

Disinfectants and cleaners containing bleach, phenolics or iodines can cause damage. Disinfect and clean only with products that do not contain these chemicals. Ferno recommends the use of Ferno Rope and Harness Wash.

6.2 Disinfecting and Cleaning the Bridle

Wipe or spray all surfaces of the bridle with disinfectant. Follow disinfectant manufacturer's directions.

Hand wash the bridle in warm water with a mild soap. Rinse in clear water. Use towels to squeeze excess water from the webbing. Wipe excess water from hardware and karabiners.

Hang the bridle in a well ventilated, warm place away from direct sunlight. When webbing, hardware and karabiners are completely dry, lubricate the karabiners as described below.

6.3 Lubricating the Karabiners

Apply a preservative and lubricant such as WD40 to karabiner hinge pins, latches, springs and locking sleeves. Wipe off excess lubricant before storing, to avoid contaminating bridle webbing.

6.4 Storing the Bridle

Store the bridle in a dry place, away from direct sunlight.

6 - MAINTENANCE & INSPECTION

6.5 Inspecting the Bridle

After each use, check the bridle for the following:

- Are all components present?
- Is all webbing in good condition with no frayed edges or cuts?
- Is webbing stitching in good condition with no frayed or broken threads?
- Are the adjuster buckles and lift O ring true to their original forms and free of cracks, deep scratches and gouges?
- Do moving parts of the adjuster buckles move smoothly?
- Are the karabiners true to their original form?
- Are the karabiners free of cracks, deep scratches and gouges? Check to ensure what may appear to be a scratch is not actually a crack.
- Are karabiner hinge pins securely in place?
- Do the karabiner locking sleeves turn smoothly and latch the gates securely?

If inspection reveals damage or excessive wear, remove the bridle from service and retire it. Do not attempt to repair or replace any materials or components.



WARNING

Modifying the bridle can cause damage and injury. Use the bridle only as manufactured by Ferno.



WARNING

Improper maintenance can cause injury. Maintain the bridle only as described in this manual.

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