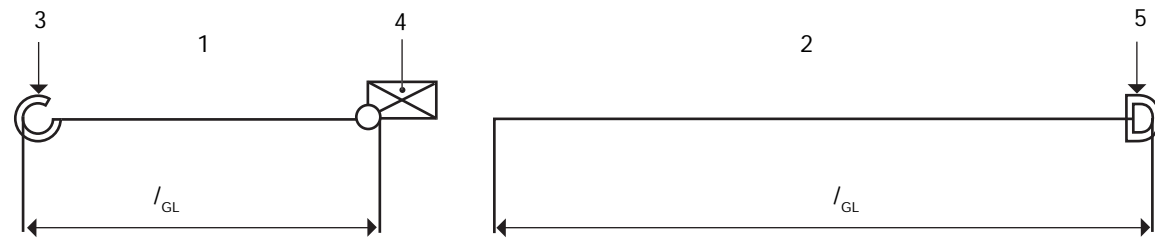


**Figure 3**  
Two-piece web lashing

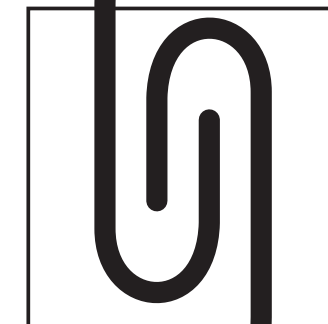
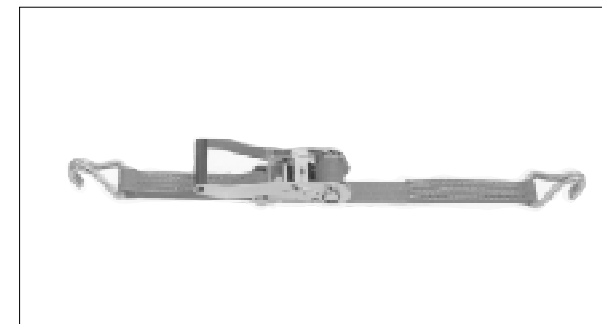


**KEY**

- |                  |   |
|------------------|---|
| 1 Fixed end      | 4 Tensioning device or tension retaining device |
| 2 Adjustable end | 5 End fitting                                   |
| 3 End fitting    |   |

# Web Lashings

## Care & Use Instructions



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Please read carefully  
Do not destroy  
Please retain for reference

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**B.1** In selecting and using web lashings, consideration shall be given to the required lashing capacity, taking into account the mode of use and the nature of the load to be secured. The size, shape and weight of the load, together with the intended method of use, transport environment and the nature of the load will affect the correct selection. For stability reasons free-standing units of load have to be secured with a minimum of one pair of web lashings for frictional lashing and two pairs of web lashing for diagonal lashing.

**B.2** The selected web lashings shall both be strong enough and of the correct length for the mode of use. Basic lashing rules are:

Plan the fitting and removal operations of lashing before starting a journey;

Keep in mind that during journeys parts of the load may have to unloaded;

Calculate the number of web lashings according to prEN 12195-1:2001;

Only those web lashings designed for frictional lashing with Stf on the label are to be used for frictional lashing;

Tighten the webbing lashings in accordance with instructions. Where the tensioner is a ratchet, ensure that there have been at least 2.25 complete turns of the spreader bars after threading;

Check the tension force periodically, especially before and shortly after starting the journey;

Specific recommendations relating to road transport concerning the number of lashings and type (including webbing lashings), to be used in conjunction with other restraining devices, are given in the code of practice "Safety of loads on vehicles" published by HMSO, 1984 and lashing and securing of deck cargoes published by the Nautical Institute, 1994

Do not use for lifting or towing. Please ask for specific equipment for these applications.

Instruct users of web lashings in their use and make expert advice available. Maintain records for the issue, inspection, repair, withdrawal and replacement of all web lashings;

Make use of anchorage points that are suitable for use with the strength and type of web lashings selected;

Ensure that the vehicle's load space and the condition of its load platform are suitable and adequate for the type and size of load. Always ensure that the front of the load is abutted against the headboard of the

vehicle or against some other fixed restraint, taking care not to overload any of the axles;

Be aware of oil, ice, snow, rain etc that can effect your footing. Make sure your footing is secure before tensioning the lashing;

Ensure the locking device (where fitted to tensioners) is securely engaged after tensioning the web lashing;

**B.3** Because of different behaviour and elongation under load conditions, different lashing equipment (e.g. lashing chain and web lashings) shall not be used to lash the same load. Consideration shall also be given to ancillary fittings (components) and lashing devices in the load restraint assembly and compatible with the web lashing.

**B.4** During use flat hooks (see Figure D2) shall engage over the complete width of the bearing surface of the hook.

**B.5** Release of the web lashing: Care should be taken to ensure that the stability of the load is independent of the lashing equipment and that the release of the web lashing shall not cause the load to fall of the vehicle, thus endangering the personnel. If necessary attach lifting equipment for further transport to the load before releasing the tensioning device in order to prevent accidental falling and/or tilting of the load. This applies as well when using tensioning devices which allow controlled removal.

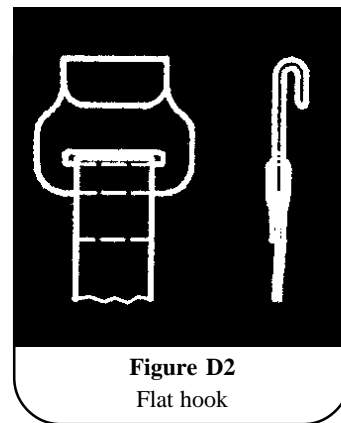
**B.6** Before attempting to unload a unit of load its web lashings shall be released so that it can be lifting freely from the load platform.

**B.7** During loading and unloading attention has to be paid to proximity of any low overhead power lines.

**B.8** The materials from which web lashings are manufactured have a selective resistance to chemical attack.

Seek advice if exposure to chemicals is anticipated. It should be noted the effects of chemicals may increase with rising temperature. The resistance of man-made fibres to chemicals is summarized below.

Polyamides (PA) are virtually immune to the effects of



**Figure D2**  
Flat hook

alkalis. However, they are attacked by mineral acids.

Polyester (PES) is resistant to mineral acids but is attacked by alkalis.

Polypropylene (PP) is little affected by acids and alkalis and is suitable for applications where high resistance to chemicals (other than certain organic solvents) is required.

Solutions of acids or alkalis which are harmless may become sufficiently concentrated by evaporation to cause damage. Take contaminated webbings out of service at once, thoroughly soak them in cold water, and dry naturally.

**B.9** Web lashings complying with this Part of EN 12195 are suitable for use in the following temperature ranges:

40 °C to + 80 °C for polypropylene (PP);

40 °C to + 100 °C for polyamide (PA);

40 °C to + 120 °C for polyester (PES).

These ranges may vary in chemical environment. In that case the advice of the manufacturer or supplier shall be sought.

Changing the environment temperature during transport may affect the forces in the web lashing. Check the tension force after entering warm areas.

**B.10** Web lashings shall be rejected or returned to the manufacturer for repair if they show any signs of damage.

The following criteria are considered to be signs of damage:

Only web lashings bearing identification labels shall be repaired;

If there is any accidental contact with the chemical products, a web lashing shall be removed from service and the manufacturer or supplier shall be consulted;

For web lashings (to be rejected): tears, cuts, nicks and breaks in load bearing fibres and retaining stitches;

Deformations resulting from exposure to heat;

For end fittings and tensioning devices: deformations, splits, pronounced signs of wear, signs of corrosion.

**B.11** Care should be taken that the web lashing is not damaged by the sharp edges of the load on which it is used.

A visual inspection before and after each use is recommended.

**B.12** Only legibly marked and labelled web lashings shall be used.

**B.13** Web lashings shall not be overloaded: Only the maximum hand force of 500 N (50 daN on the label; 1 daN = 1 kg) shall be applied. Mechanical aids such as levers, bars etc. as extensions are not to be used unless they are part of the tensioning device and are specified and supplied by the manufacturer.

**B.14** Web lashings shall never be used when knotted. Do not, under any circumstances, tie knots in the webbing lashings or wrap any excess webbing to the load or vehicle.

**B.15** Damage to labels shall be prevented by keeping them away from sharp edges of the load and, if possible, from the load.

**B.16** The webbing shall be protected against friction, abrasion and damage from loads with sharp edges by using protective sleeves, corner protectors and/or pads.

**B.17** Stow away safely when not in use and certainly before moving off. Ensure that the tensioners are handled and stored with care to prevent damage to the mechanism.

## Terms and Definitions

### Length /<sub>G</sub>

The length of a one-piece web lashing measured from the free end of the webbing to the outer turning radius of its connection to the tensioning device.

### Length /<sub>GF</sub>

The length of a fixed end, measured from the force bearing point of the end fitting to the outer turning radius of the connection of the webbing to the tensioning device (see figure 2 and 3).

### Length /<sub>GL</sub>

The length of an adjustable end, measured from the free end of the webbing to the force bearing point of the end fitting (see figure 2 and 3).

### Minimum breaking force BF<sub>min</sub>

Breaking force for which the web lashing is designed.

### Lashing capacity LC

Maximum force for use in straight pull that a web lashing is designed to sustain in use.

### Standard hand force S<sub>HF</sub>

Hand operating force of 500 N (50 daN on the label).

### Standard tension force S<sub>TF</sub>

Residual force after release of the handle of the ratchet.