Ratchet Strap

Instructions for use

1. Select a suitable anchor point and attach claw hook with webbing.
2. Position strap over load.
3. Attach hook with ratchet to a suitable anchor point.
4. Feed webbing strap through the ratchet slot and pull until tight.
5. Crank the ratchet handle until load is secure.
6. Do not over tighten as this may damage load.
7. Close fully to lock.
8. Release the ratchet strap by compressing the spring loaded bar at the base of the ratchet handle. Open ratchet fully and strap will release assisted by downward pressure.

Selection & Use of Webbing Restraint System

Selection

In selecting a webbing restraint system, consideration should be given to the required lashing capacity (LC). 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.

Use

The selected webbing restraint system should be both strong enough and of the correct length for the mode of use. Good lashing practice should always be followed such as fitting and removal operations of lashings should be planned before starting a journey. The lashings should be suitably pre-tensioned and regularly checked during the journey.

Fittings

Consideration should be given to ancillary fittings and anchorage points which should be compatible with the webbing restraint system.

Stability of load

Care should be taken to ensure that the stability of the load is independent of the webbing restraint system and that the release of the webbing restraint system will not cause the load to fall off the vehicle, thus endangering personnel. If necessary, attach lifting equipment for further support to the load before releasing the tensioning device in order to prevent accidental falling.

Materials

The materials from which webbings are manufactured have a selective resistance to chemical attack. The advice of the manufacturer or supplier should be sought if exposure to chemicals is likely. It should be noted that the effects of chemicals may increase with rising temperature. The resistance of man-made fibres to chemicals is as follows:

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

(b) Polyamides (PA) are virtually immune to the effects of alkalis. However, they are attacked by mineral acids.

(c) 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.

(d) Solutions of acids or alkalis which are deemed harmless may become sufficiently concentrated by evaporation to cause damage. Contaminated webbings should be taken out of service at once, thoroughly soaked in cold water, and dried naturally.

(e) If there is any contamination from chemical products, a web lashing should be removed from service and the manufacturer or supplier should be consulted.

(f) Polyamide (PA) and polypropylene (PP) are more sensitive to UV degradation than polyester.

Operating Temperatures

The webbing restraint systems complying with this Standard are suitable for use in the following temperature ranges:

(a) -40° C to +80°C for polypropylene (PP).

(b) -40°C to +100°C for polyester (PES) and polyamide (PA).

These ranges may vary in a chemical environment, in which case the advice of the manufacturer or supplier should be sought.

Changes in environmental temperature during transport may affect the force in the webbing. The tension force should be checked after entering warm areas.

Overloading

Webbing restraint systems should not be overloaded, by using mechanical aids such as levers or bars (cheater bars) unless they are designed for use with the webbing restraint system.

Limit of twist

Webbing restraint system should not be used when knotted, and twisting of the webbing is prohibited; however, half turn is allowable to prevent vibration and flapping.

Protection

The webbing restraint system should be protected against friction, abrasion and damage from loads with edge radius less than twice the webbing material thickness, using protective sleeves or comer protectors.

Withdrawal and repair

Webbing restraint systems should be withdrawn from service and replaced or returned to the manufacturer for repair if they show the following signs of damage:

(a) Webbing tears, cuts, nicks and abrasions in load-bearing fibres and retaining stitches exceeding 10%, and deformations resulting from exposure to heat.

(b) End fittings and tensioning devices Deformations, cracks and pronounced signs of wear or corrosion.

Only the manufacturer should carry out repairs on webbing restraint systems and on the webbing any identification labels should be repaired.