



Fall Protection Manufacturers Association of Australia
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TECHNICAL BRIEFING NOTE

SUBJECT	DATE ISSUED	REVISION NUMBER
Equipment Inspection and Maintenance	May 2008	1

Equipment Inspection and Maintenance

The requirements for the maintenance of height safety equipment are included in AS/NZS1891 Part 4 which covers the selection, safe use and maintenance of industrial fall arrest systems and devices designed for use in restraint, limited free fall and free fall applications.

Industrial fall arrest systems and devices include safety harnesses, horizontal lifelines and rails, fall arrest devices, and associated lanyards, connectors, anchorages and fittings - and maintenance covers the maintenance requirements and recommendations for inspection, storage, servicing and cleaning for this equipment.

Pre and Post Use Inspection

The standard requires that all personal use equipment (harness, lanyard, connectors and fall arrest devices) and common use equipment (ropes, slings, fall arrest devices and mobile attachment devices) are inspected by the competent operator before and after each use. Where the operator is not competent (e.g. during operator training), these inspections should be carried out by another competent person.

Training and assessment of operators shall include competency in carrying out the operator inspections.

The standard defines a competent person as one who through a combination of training, knowledge and experience has acquired knowledge and skills enabling that person to correctly perform a specified task.

This inspection shall be by sight and touch and shall include the opening of any equipment where access for daily inspection is provided to ensure that the internal components are in good condition.

Operators should be aware that their lives depend on the efficiency and durability of the equipment and proper inspection is their first line of defence against the hazards of faulty equipment.

Where equipment is considered in any way doubtful by the competent person, it should be tagged out of service. A label should be attached to the equipment indicating the defect and referred to a competent person for further action.

Regular Scheduled Periodic Inspections

All items of equipment shall be subjected to periodic inspections and, where applicable, servicing, at the manufacturer's or supplier's recommendation. Where there are no such recommendations the timings in table 1 below shall be followed.

Item	Frequency
Harnesses, Lanyards and associated personal equipment Fall arrest devices (external inspection only) Ropes and slings	6 monthly By a competent person
Anchorage – Drilled in type or attached to timber frames	12 monthly by a competent person
Anchorage – Other types Fall arrest devices – Full service	Up to 5 yearly if recommended by the manufacturer. 12 monthly in the absence of such recommendation
Horizontal Lifelines – steel rope	5 yearly if recommended by the manufacturer
Horizontal Lifelines – Fibre / web rope	12 monthly by a competent person
All items that have been stressed as a result of a fall	Inspection by a competent person before further use

Note:- The standard requires that all items that are used under harsh conditions shall be inspected more frequently – generally at twice the frequency in the table.

Record Keeping

A record card, history sheet or similar record should be kept for each item of equipment detailing the maintenance and inspection history of the item. This documentation shall be freely available to the operator for at least the life of the equipment.

Data to be maintained on equipment includes the following:-

- Manufacturer's, supplier's or installer's name and address.
- Manufacturer's batch, serial or identifying number.
- Year of manufacture*
- Date of purchase*
- Date first put into service.
- Dates and details of inspections and services.

* not required on fixed anchorages, fixed horizontal lifelines and rails.

Appendix A (attached) details the checklist for the inspection of harnesses, lanyards and associated equipment as detailed in Appendix C of AS/NZS1891.4 However, the Manufacturer's User Instruction Manuals should be used to establish precise details of equipment inspection and maintenance requirements.

Appendix A – Checklist for the Inspection of Harnesses, Lanyards and Associated Equipment

Component	Condition or fault to be checked
Webbing	Cuts or tears Abrasion damage especially where there is contact with hardware Excessive stretching Damage due to contact with heat, corrosives, or solvents Deterioration due to rotting, mildew, or ultraviolet exposure Activation of fall indicators where fitted
Snap hooks and karabiners	Distortion of hook or latch Cracks or forging folds Wear at swivels and latch pivot pin Open rollers Free movement of the latch over its full travel Broken, weak or misplaced latch springs (compare if possible with a new snap hook) Free from dirt or other obstructions, e.g. rust
D-Rings	Excessive 'vertical' movement of the straight portion of the D-ring. where it is retained by the webbing, so that the corners between the straight and curved sections of the D become completely exposed. NOTE: Excessive vertical movement of the ring in its mounting can allow the nose of larger snap hooks to become lodged behind the straight portion of the D, in which position the snap hook can often accidentally 'roll out' of the D under load. Cracks, especially at the intersection of the straight and curved portions Distortion or other physical damage of the D-ring Excessive loss of cross-section due to wear
Buckles and Adjusters	Distortion or other physical damage Cracks and forging laps where applicable Bent tongues Open rollers
Sewing	Broken, cut or worn threads Damage or weakening of threads due to contact with heat, corrosives, solvents or mildew
Ropes	Cuts Abrasion or fraying Stretching Damage due to contact with heat, corrosives, solvents, etc Deterioration due to ultraviolet light or mildew
Chains	Physical damage Security of attachments to snap hooks, rings, and similar components