

<b>Title</b>	<b>Use safety harness system when working at height</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	<p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> <li>– demonstrate knowledge of the hazards associated with wearing a safety harness and associated equipment;</li> <li>– demonstrate knowledge of safety harnesses and associated systems and equipment;</li> <li>– check and fit a safety harness system;</li> <li>– use a safety harness system where a fall hazard exists at height; and</li> <li>– demonstrate knowledge of the rescue plan to be activated in the event of a fall.</li> </ul>
----------------	---

<b>Classification</b>	Lifting Equipment > Industrial Rope Access
-----------------------	--

<b>Available grade</b>	Achieved
------------------------	----------

---

### Explanatory notes

- 1 This unit standard has been developed for learning and assessment on-job or off-job in a simulated environment.
- 2 All tasks must be carried out in accordance with Best Practice Guide (BPG) based on:
  - a quality management systems;
  - b designer's requirements and manufacturers' operating instructions; and government and local government legislation, regulations, bylaws, Health and Safety in Employment Act and New Zealand Standards;
  - c the most up to date version of the: <http://www.business.govt.nz/worksafe/information-guidance/pdf-documents-library/industrial-rope-access-guidelines.pdf>, and all subsequent amendments and replacements;
  - d AS/NZS 1891.1:2007 *Industrial fall-arrest systems and devices - Harnesses and ancillary equipment*; AS/NZS 1891.2:2001 *Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems*; AS/NZS 1891.3:1997 *Industrial fall-arrest systems and devices - Fall arrest devices*; AS/NZS 1891.4:2009 *Industrial fall-arrest systems and devices - Selection, use and maintenance*; AS/NZS 1891.1:2007 *Industrial fall-arrest systems and devices - Harnesses and ancillary equipment*; New Zealand Standards are available from <http://www.standards.co.nz>, or their subsequent amendments.

EN361 *Personal protective equipment against falls from a height: Full body harnesses*;

### 3 Definitions

*Equipment operators* are personnel specifically trained and designated to use specialist equipment while carrying out the rescue plan to recover a suspended person after a fall. Their primary focus is securing the site and accessing the suspended person.

*Fall hazard* is a working environment where there is an unprotected edge and where there is a risk of a fall.

*Hazards*: occurrences, processes, substances or situations as determined by the organisation that are an actual or potential cause or source of harm associated with, but not limited to: process, activities, environment, equipment, materials, work organisation, site and facilities.

*Height*: (in this unit standard) is a work environment where a fall hazard exists, generally where a fall can be sustained.

*Pre-engineered anchor point* is purpose-designed and installed as a safe attachment point for safety harness systems.

*Rescue plan* is a realistic strategy to deal with a fall arrest incident that ensures the rapid recovery of a suspended person before suspension trauma occurs. For the purposes of this unit standard it is intended that this is the pre-prepared plan currently used in the environment in which the assessment occurs.

*Safety harness* is defined as an approved full body fall arrest harness complying with AS/NZS 1891.1:2007 *Industrial fall-arrest systems and devices - Harnesses and ancillary equipment*, or EN361 *Personal protective equipment against falls from a height: Full body harnesses*.

*Suspension intolerance* is a life threatening condition brought on by restricted blood circulation, and can become critical after a few minutes of suspension.

*Trained specialists* are trained and designated to carry out specific duties as part of the rescue plan to recover a suspended person after a fall. They are primarily concerned with the wellbeing of the suspended person and include both medical and rescue personnel.

*Working at height* is defined as work carried out where falls may occur.

*Workplace procedures* and/or practices used and recommended by an organisation involved in the scaffolding industry. Workplace procedures may cover quality assurance, documentation, security, communication, health and safety, and personal behaviour, and may include time and cost constraints.

- 4 For the purposes of this unit standard safety harness wearers are expected to work under pre-determined safety plans. For competencies required to plan a job where there is a risk of a fall, refer to Unit standard 23231, *Develop a safety plan to manage risks when individuals are working at height and fall prevention strategies are required*. For competencies required to develop a rescue plan, refer to Unit standard 23232, *Develop a rescue plan for recovery of a suspended individual after a fall*.
- 5 This unit standard is intended to encourage hazard management and the prevention of safety incidents. As far as possible, assessment should focus on prevention and fall restraint using travel restraint strategies rather than fall arrest.
- 6 This unit standard is suitable for single and twin lanyard harness applications in industrial operational contexts. It is applicable to people needing basic training to ensure that they understand the hazards and can use a harness system safely. Lanyard attachment is to pre-engineered anchor points or safety line system consistent with workplace procedures or instructions issued by supervisory personnel. The intention is the candidates will fit the harnesses to themselves.

## 7 Assessment

Those undertaking assessment against this unit standard should note that work in the scaffolding, plumbing, gasfitting, cargo handling, demolition, glazing, boating, mechanical services, engineering and building and construction industries often takes place at height, and therefore requires a relevant level of physical fitness and ability to work at heights.

---

## Outcomes and evidence requirements

### Outcome 1

Demonstrate knowledge of the hazards associated with wearing a safety harness and associated equipment.

#### Evidence requirements

1.1 Explain the terminology associated with fall hazards.

Range may include but is not limited to – fall restraint, fall arrest, free fall, suspension intolerance, working at height, unprotected edge.

1.2 Describe potential faults and non-compliance in personal equipment.

Range may include but is not limited to – non-registered equipment and damage to harnesses, lanyards, shock absorbers, type one fall arrestor, type two fall arrestor, connectors.

1.3 Explain the primary hazards associated with the use of a safety harness and associated equipment and associated control strategies.

Range may include but is not limited to – suspension intolerance, fall restraint and work positioning versus fall arrest, pendulum effect, fall clearance.

### Outcome 2

Demonstrate knowledge of safety harnesses and associated systems and equipment.

#### Evidence requirements

2.1 Describe the different safety harness system/s in terms of the height work to be undertaken and in accordance with relevant AS/NZS standards and Work Safe New Zealand requirements.

Range systems may include but are not limited to – fall restraint system, fall-arrest system, static line and anchorage system, work-positioning system;  
description may include but is not limited to – characteristics, advantages and limitations of various systems; job requirements; work environment mobility; number of workers; access and egress.

2.2 Describe the different equipment associated with safety harness systems/s in terms of the height work to be undertaken and in accordance with relevant AS/NZS standards and the Work Safe New Zealand requirements.

Range equipment may include but is not limited to – fixed and adjustable length lanyards, retracting and twin tail lanyards, karabiners, slings, ropes;  
description may include but is not limited to – characteristics, advantages and limitations; employment in safety harness systems.

2.3 Describe compliance of safety harnesses and associated equipment is in terms of recording requirements.

Range may include but is not limited to compliance with documents such as – fall-arrest equipment logs, harness inspection records, manufacturer's instructions, operating instructions, AS/NZS standards, and the --.

### Outcome 3

Check and fit a safety harness system.

#### Evidence requirements

3.1 Identify parts of a safety harness.

Range includes but is not limited to – attachment point, shoulder straps, front buckle, leg straps, lanyard, shock absorber and inspection tags, fall arrest attachment points.

3.2 Check the harness for faults.

Range visual inspection, functionality assessment, currency of inspection records (tags, logs, etc).

3.3 Confirm the lanyard as appropriate for the task and check for faults in accordance with manufacturer's specifications and workplace procedures.

Range check – visual inspection, functionality assessment, length, connection to harness;  
lanyards may include but are not limited to – single, twin tail, adjustable, retractable.

3.4 Fit the safety harness in accordance with manufacturer's instructions.

Range correct fitting and adjustment sequence, straps untwisted, evenness on shoulders, tightened to 'flat hand space' comfort, objects in pockets are no hazard, lanyard secured.

**Outcome 4**

Use a safety harness system where a fall hazard exists at height.

**Evidence requirements**

4.1 Choose and confirm the safety of possible hook on points and optimum hook-on points.

4.2 Attach lanyard in a safe manner to, and detached from, anchor points during movement at height.

Range single, double, twin tail, retractable lanyards.

4.3 Minimise the risks to others while using a safety harness systems during movement at height.

Range two or more people working together, people working below.

**Outcome 5**

Demonstrate knowledge of the rescue plan to be activated in the event of a fall.

**Evidence requirements**

5.1 Confirm a rescue plan with work supervisor.

5.2 Describe the roles of individuals involved in the rescue plan.

Range own role, trained specialists, equipment operators, emergency services.

<b>Planned review date</b>	31 December 2019
----------------------------	------------------

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	25 July 2007	31 December 2016
Review	2	22 May 2009	31 December 2016
Review	3	20 May 2011	31 December 2016
Review	4	16 July 2015	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0003
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Please note**

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMRs). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

---

**Comments on this unit standard**

Please contact The Skills Organisation at [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard