

EWP and Fall Protection Training Standard (4/4hr)

CSSTA

2019



Fall Protection Training Standard

2019

Canadian Safety Standard Training Alliance



This standard is designed to reflect commercial and industrial training requirements for a simplified fall protection and lift training for workers who use manlifts at low elevations, and in less complex environments and fall protection in the lift, or on a simple attachment to an anchor on the structure.

The training course must run 8 hours in length. The course is expected to have a manual that would be approximately 100 pages in length, and about 25 000 to 40 000 words. The manual should have text combined with illustrations or photos to explain topics.

The training course must have a new training manual (paper/electronic), issued to each student. They must be able to take the manual or access it at the end of the course. Also there must be a visual slideshow that follows the manual, and a test.

The course must have a test at the conclusion. The test must have a question that related to the indicated points in the matrix.

Certification will be valid for 3 years.

The course is required to have a practical training component. (As per the standard).

The course must meet all legislative requirements, and appropriate standards (i.e. CSA)

The submitted course must list the intended audience, including the Province(s), and industry(s).

The course must have a instructor's guide with lesson plans.

Paper work processes as per the Administration Guidelines must be followed.

The following topics must be addressed in the training course.

1. Relevant statistics and case studies involving actual incidents and fatalities must be covered.
2. The course must cover fall forces and speeds.
3. The course must cover common fall protection definitions.
4. The course must review common Safety Legislation for the Canadian Province in which the course is designed to be taught. More than one province can be illustrated in the manual. The required topics need to be discussed:
 - a. Height requiring Fall Protection



- b. Anchor strength requirements
 - c. Legislated requirements for training (i.e. Alberta OHS Section 141)
 - d. Equipment Standards listed in legislation (i.e. CSA/ANSI/etc.)
5. Legislated requirements for what system to use in which situation (i.e. Fall arrest, travel restraint, control zone, guardrails, etc. The fall protection legislation for the province must be available either in the student manual, or as a handout. Relevant legislation can be broken up and inserted into relevant sections or given as one single handout.
6. Different Types of falls such as falls to a lower level, slip/trip, falls from ladder and falls on stairs must be discussed in the context of how to control these falls.
7. Hazard Assessment, Elimination and Control in relation to falls must be discussed.
8. The components of a fall protection system, commonly know as the Fall Protection A, B, C, D's must be discussed. (Anchor, Body Harness, Connection, Getting Down after a fall)
9. Anchor definitions and their design must be discussed.
10. Temporary Anchors must be discussed. (This includes the anchor strength, common examples/types, typical hazards, typical usage and inspection). Examples must be available in the classroom.
11. Permanent Anchors must be discussed. (This includes the anchor strength, common examples/types, typical hazards, typical usage and inspection). Examples must be available in the classroom.
12. Engineered Anchors must be discussed.
13. Connection Between the harness and the anchor must be discussed. This includes:
- a. Snaphooks and carabiners
 - b. Lanyards
 - c. SRD
 - d. Typically VLL and HLL wont be discussed in this course as it is abbreviate.
- For each of points 13. a-e the following must be discussed; 1. Definition, 2. Common Examples and Types, 3. Typical Usage, 4. Typical Hazards, 5. Typical Pre-use Inspection.
- Each class that is taught must be shown an actual example of 13. a-c. This includes one that would pass a pre-use inspection and one that would fail.
14. Full body Harnesses must be discussed. This includes but is not limited to:
- a. The definition and design of a harness
 - b. The common types of harnesses
 - c. ADELP
 - d. Harness hazards
 - e. Donning and doffing
 - f. Requirements for Pre use inspection and formal inspection of a harness.
15. The course must discuss designing a fall arrest system. This includes:

- a. Freefall
- b. Total Fall Distance
- c. Clearance
- d. Swing falls

16. Points 15. a-d must be explained in a non technical and real world method. It is assumed that most workers are not technical people and any calculations used must be simple. Relevant charts, illustrations, smartphone apps and measuring devices should be discussed.

17. Other fall protection methods for the intended audience must be covered. Examples of this, include but are not limited to:

- a. Fall Protection in Scissor Lifts and Boom Supported Platforms

19. The course must discuss inspection of fall protection equipment. This includes:

- a. Care, maintenance, Storage and labels
- b. Pre-use inspection method and requirements

20. Fall Rescue Planning, the course must discuss:

- a. The contents of a fall protection plan
- b. The contents of a fall rescue plan

21. The course must have a practical component. At a minimum the practical component must discuss what is listed in this standard as well as any legislated requirements (i.e. Alberta OHS Part 9). This includes:

a. The course must have a component where students are allowed to choose the three elements of a fall protection system; Anchors, Connectors and Body Harness. They then must create a fall arrest system and a travel restraint system. This can be done in a class setting using basic simulated props or on a training structure. This includes practice in inspecting, fitting, adjusting and connecting fall protection systems and components (AB OHS Section 141), as well as the assessment and section of anchors.

b. The course must have a component where students are required to inspect and don a harness.

c. The course must have a component where students handle and inspect each of the items listed in the anchor and connector section.

End of Fall Protection Material

EWP Training Material

1. The course must review the appropriate provincial or federal legislation.

2. Appropriate standards must by reference, example include:

CSA B354.1-04 Portable Elevating Work Platform, CSA 354.4-02 Self Propelled Boom Supported Elevating Work Platforms, and CSA 354.2-01 Self Propelled Elevating Work Platform, etc

3. Employer and Employee Responsibilities according to the relevant legislation must be discussed. This includes that the employer is responsible to ensure that the worker is competent and is familiar with the specific model they are required to operate, because this is an abbreviated course, students must be informed that they may be additional practical and theoretical training requirements from the employer. Additionally they must understand that each make and model of machine may vary and they must be competent

to operate a new machine before operation.

4. At a minimum the following Worker Responsibilities must be taught and covered on the theory test:

5. The worker must understand that they must speak up and inform the employer of their experience or lack of experience with respect to the specific model that they are to operate.

6. The course should have a section highlighting statistics and case studies from actual incidents. Classroom discussion or activities should be based upon these case studies.

7. The course must review hazard assessment relevant to elevating work platforms.

- a. i.e. Weather considerations affecting the operator and machine such as
- b. other work activities,
- c. ground conditions, traffic, etc.
- d. fear of heights and how it affect the operators judgement.

8. The training program must include, but not be limited to, such things as:

- a. Workers must understand how to choose the right machine for the job and familiarize themselves with the machine (CSA B354.4-02 Section 7.4).
- b. Workers must learn about the machine Safe Operating Envelope;

9. The following machine operational concepts must be taught.

- a) Evaluating the path of travel, rough terrain and grade.
- b) Determining Minimum Safe Approach Distance (MSAD).
- c) Operators must understand how to conduct pre job planning including coordinating with other work activities at the site.
- d) Entanglement must be discussed and the course of action to take if it does happen
- e) collision between the boom and the structure must be discussed.
- f) the course must teach how the you can become trapped or blocked into a location.
- g) discussion on the how a lift cannot be used as a crane

10) Participants must discuss the responsibility of the individual worker to review the specific job site rules and regulations as well as local jurisdiction regulations.

11) Participants must discuss the importance reporting deficiencies of the machine to their employer.

12) Participants must be taught the proper use of fall protection equipment when using an EWP and how to use fall protection to safely exit the EWP and transition to the structure.

13. Competency to operate an EWP

The course must discuss the idea of competency to operate a lift including.

- a) new workers with no previous experience are vulnerable to improper operation
- b) Experienced workers can have bad habits.
- c) previous experience and training operating lifts makes the operator less prone to errors.
- d) Competency is a combination of training and experience.

- e) Each employer must sign off an employee after observing and documenting them safely inspecting and operating a machine
- f. It must be stressed that the employer has a significant responsibility on an ongoing basis to ensure they understand each machine they use, each new job site, and work procedures as it related to the machine. (For example if they are using the machine in conjunction with a crane to bolt on structural members, alternatively if they are using the machine around electrical line).

14. Load Limitations & Calculations

All participants must be able to:

- a) The student must be taught to be able to determine machine ratings and capabilities
- b) how to calculate the correct load to remain within the machine Safe Operating Envelope
- d) students must be taught about Side force on a lift,
- e) sections a-d above must have a questions in the manual that require student to reference this information.

15. The Operator's Manual

- a) The students must review and discuss the information found in the Operator's Manual for the specific machine they will be using in the training course
- b) students must review and find the following information,
 - i. machine rated loads,
 - ii. the maximum reach of the machine
 - iii. maneuverability,
 - iv. the weight of the machine
 - v. stability
- c) students must review what to do to find the manual including, looking on the manufactures website, contacting the manufacture, asking their employer for a copy of the manual.

16. Stability- Students must learn about stability of the lift including the following topics:

- a) preventing a tip over, including how firm or soft the ground is.
- b) forward and backward stability and side forces.
- c) how weight in the platform and where it is located affects stability.
- d) steering configurations, such as front, back and all wheel steer and how this effects tail swing area, zero tail swing and counterweight.
- e) stability in relation to the footprint.
- f) stability in relation to the swing area.
- g) What said effect is.
- h) What are oscillating axles.

17. Elevated Work Platform Types—The course must have discussion on the various types of lifts and which one to choose for which application.

- a) Push Around Units
- b) Slab type scissor lifts
- c) Rough terrain or off slab scissiors
- d) Straight telescopic boom lifts
- e) Articulating boom lifts

18. EWP Components

The major components of the EWP must be discussed including, the Overview and definition of each component and the purpose of each component. This includes that the training program must contain the following content and participants must discuss each system component using the following guide:

- a. Definitions appropriate to specific components;
- b. Purposes of the component;
- c. All hazards and inspection items associated with any component must also be discussed and participants must be able to describe processes of identifying and controlling those hazards.
 - i. fall protection anchors in the unit
 - ii. the controller or controllers for the unit
 - iii. Wheels, axles (oscillating) (i.e. pneumatic vs. foam filled tires).
 - iv. hydraulic Cylinders;
 - v. the type of fuel system and its hazards (diesel, electric, propane, gasoline)
 - vi. the engine
 - vii. jibs and booms
 - viii. Parts of the basket and platform
 - ix. Safety Devices (i.e. tilt, alarms, limit switches/emergency controls, positive air shutoff, motion alarms)
 - x. the Envelope Management System;
 - xi. Stabilizers/outriggers;
 - xii. Extendable axles;
 - xiii. NOTE: The above list is for reference only and is not meant to limit the course content.

End of course activity

1. As this is a 4 hour course, it may not be feasible for each persons in a class to completely demonstrate each of the inspection and operation requirement to be determined as a competency or proficient operator. As listed earlier in this standard, this concept must be outlined to the class participants.
2. The course must outline how to conduct a operator pre-use inspection, including the manufacturers inspection criterial Additionally, the manufactures service intervals (i.e. at a certain amount of hours or time) must be discussed and students taught how to identify if a machine has not had a formal mechanical inspection according the this criteria.
3. Workers should be able to Demonstrate and performing pre-use checks and visual inspections on the model the person is to operate; this must have a practical component the practical component wont be as in depth as required in the CAN/CSA-B354.2 and additional training will be required by the employer.

Student Training Card

The training card must have the following elements;

- a. course name and duration
- b. full student name as per their government identification
- c. a unique certificate number
- d. date of issue and expiry
- e. the training provider
- f. the instructor name and signature
- g. CSSTA hologram sticker
- h. a listing of the practical activities in the course
- i. the CSSTA training standard and course version

EWP and Fall Protection Training Standard (4/4hr)

Student: xxxx xxxxx xxxxx

Course Number: 123C7V98-9

Issued/Expired: Jan 12 2018/Jan 12 2011

Training Provider: A Training Company Inc

Instructor: John Smith

Instructor Signature: *John Smith*



Practical Course Activities Completed

1. Pre-use inspection of a variety of Harnesses/Anchor/Lanyard/
2. Attached anchors to a suitable structure
3. Controlled weight transfer into fall protection harness
4. Clearance calculations and examples (MAF/swing fall/freefall)
5. Completed fall protection and fall rescue plan example
6. Set up fall protection systems in the EWP
7. Participated in a group activity to inspect the EWP
8. Participated in a group activity to operate the EWP
9. The Machine Make and Serial Number is



Training Element Fall Protection	Location			
	Training Manual	Audio Visual	Test	Lesson Plan
1				
2				
3				
4				
5				
6				
7				



Training Element Fall Protection	Location			
	Training Manual	Audio Visual	Test	Lesson Plan
8				
9				
10				
11				
12				
13				
14				



Training Element Fall Protection	Location			
	Training Manual	Audio Visual	Test	Lesson Plan
15				
16				
17				
18				
19				
20				
21				



Training Element EWP	Location			
	Training Manual	Audio Visual	Test	Lesson Plan
1				
2				
3				
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6				
7				



Training Element EWP	Location			
	Training Manual	Audio Visual	Test	Lesson Plan
8				
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14				



Training Element EWP	Location			
	Training Manual	Audio Visual	Test	Lesson Plan
15				
16				
17				
18				
1 Practical Activity				
2				
3				

