OCEAN Technologies Group

Working at Height
Workbook

Date: 30/09/2020

Powered by

Seagull | Videotel

Contents

1. Workbook – Working at height ____ **1**
Introduction ---- 1
How can we prevent accidents when working at height ---- 1
Preparation before work at height ---- 2
How can we reduce the number of accidents? ---- 2

2. Questions ____ **3**

3. Document status ____ **5**

4. Changes in the document ____ **5**

1. Workbook – Working at height

Introduction

A young seafarer enters a dark cargo hold and starts to climb down the first ladder. This is the last inspection of the cargo holds he is doing before going home on leave. He is exited to come home and meet his two children. Half way down the ladder he slips and fall, he falls 16 meters…

Falling from a height is one of the most common causes of death and injury of seafarers despite the effort to ensure safe working conditions for those onboard ships.

There will always be risks involved when working at height but to be able to reduce the number of these incidents and accidents we must focus on a strong safety culture. Ship-owners and ship operators must make sure procedures and regulations for reduction of occupational health and safety risks are put in place and followed. Crew members must focus on their own safety and understand that others onboard may be affected by their activities.

How can we prevent accidents when working at height

Work at height requires proper planning, risk assessment, correct equipment, supervising, and competent personnel.

Working at height is often associated with working in a mast or a crane or outside the superstructure. We often forget that work inside a cargo tank or cargo holds also includes work at height and not only work in an enclosed space. The risk of falling inside a ballast tank, cargo hold or a cargo tank can be as high as or even higher than above deck. The work environment and structural arrangements on board a vessel can be very challenging and if we add weather conditions, slippery surfaces and motion to all this it is easy to understand that the potential for accidents are high.

International maritime regulations do not contain many specific requirements for *working at height* despite it being one of the most common causes of death and injury of seafarers, but the ISM code requires that risks associated with all work tasks onboard must be assessed before a job is started. There are also other guidelines for work at height which can be found in “Code of Safe Working Practices for Merchant Seamen” (COSWP) and ILO’s “Code of practice for accident prevention onboard ship at sea and in port”.

The Australian Maritime College (AMC) carried out a study on height safety. The control measures currently found onboard are the vessels Safety Management system, work-permit procedures and training of seafarers. But the study unveiled that procedures are not always followed and short cuts are sometimes taken.

Improving the SMS and implement procedures will reduce the risks of working at height but it starts with building a strong safety culture.

Many associate building a safety culture with implementing policies, procedures,

behaviours and practices, but it is more than that.

To build a strong safety culture there must be a clear leadership and prioritization of safety. Leaders onboard must promote safety, communicate clearly, and motivate the crew to make safety a priority. The AMC's study identify that safety culture depends on the attitude of the vessels officers. If the officers are strict about safety the crew will follow.

Preparation before work at height

You should avoid work at height where it is reasonably practicable to do so. Where work at height cannot be avoided you must at least do the following:

Familiarize yourself with the job site

You must know the layout of the working area, if not it is impossible to do a proper risk assessment. Make sure you identify strongpoints for safety harnesses and places to place guard rails if needed. You should always strive to make sure there always are physical barriers to prevent falls.

Assess the risk

Get an overview of all dangers and hazards associated with the job. For a simple job you should carry out a risk assessment and a Tool-box talk. For more complex jobs you may have to divide the job into several steps and do separate risk assessments and Tool-box talks for each step.

Protective measures

Protection measures at the work place could typically be to make sure you mark potential hazards at the work place, have good lighting, permanent or temporary guard rails and of course all personal protection equipment that is needed.

Personal competence and experience

Only competent and qualified personnel should be allowed to do work at height.

Emergency planning

You must take into account the possibility of an emergency occurring. Any person may need to be rescued and there may be reasons that normal rescue equipment cannot be used.

Make sure the equipment itself is in good condition

All equipment, both personal safety equipment and other equipment or tools used must be inspected and used according to manufactures instructions and/or industry guidelines

How can we reduce the number of accidents?

As you now have learned in two Learning Films and this workbook it is possible to reduce the number of accidents related to working at height if we take all aspects and issues with these jobs seriously. We must ensure that all work at height is adequately supervised, personnel are trained, workload and fatigue are managed and safety is prioritized. Further we must follow procedures, use safety equipment, carry out risk assessments, and understand the risks with working at height. If we do so working at height will be safer!

2. Questions

All questions and exercises are marked with a score; to get full score try to answer all questions as comprehensive as possible. All questions must be answered and a score of 75% is required to pass the course.

Question 1 (2 marks)
Accidents with dropped objects often happen because of carelessness. Describe which measures you would take to prevent accidents caused by carelessness.

Question 2 (2 marks)
Explain how you can protect yourself and others from being hit and injured by a dropped object?

Question 3 (2 marks)
What considerations must be done before you can determine whether a job is work at height or not?

Question 4 (2 marks)
What is done on board to ensure that all personnel has the required training and skills before they can do work at height.

Question 5 (2 marks)
How many types of fall arrest systems do you have on board and how do you ensure that they are used correctly?

Question 6 (2 marks)
Describe how you will inspect the fall arrest system and other personal protective equipment before you start a job at height.

Question 7 (2 marks)
What types of portable access equipment (ladders, steps, scaffolding etc.) are carried on your vessel?
Are they always used and secured correctly?

Question 8 (2 marks)
To ensure an efficient rescue operation if an accident occur you should have a rescue plan made before the work at height starts. Which factors must be considered when making the rescue plan?

Question 9 (5 marks)
Who is responsible for carrying out a risk assessment for work at height on board?
Mention some of the risks that are present when you work at height.

Question 10 (2 marks)
What does your Safety Management System say about work at height?

Question 11 (5 marks)
Describe the safety culture on board and what could be improved?

Question 12 (5 marks)
Despite we know that there are risks involved when working at height, work at height is one of the most common causes of death or injury on ships today. Do we need more rules, regulations and procedures or is the root cause for these accidents something else?

Question 13 (10 marks)
Give a detailed description how you would prepare for work at height on board your vessel.

As an example, explain the process if you have to plan and carry out a job in the top of the radar mast.
Is there any general requirements, must there be work planning and risk management involved, is there any procedures (company or other) or processes involved, what kind of protection systems will be used?, etc.

3. Document status

Issue no.	Date	Author
A	28.03.2017	AB
A1	16.08.2018	AB
B1	10.01.2019	AB
3.0	25.11.2020	IG

4. Changes in the document

Issue no.	Paragraph no.	Description
A1	1.7 4	Updated text Updated evaluation form
B1	Section 3	Updated workbook questions
3.0		New Ocean TG course template. Split procedure and workbook, changed version numbering