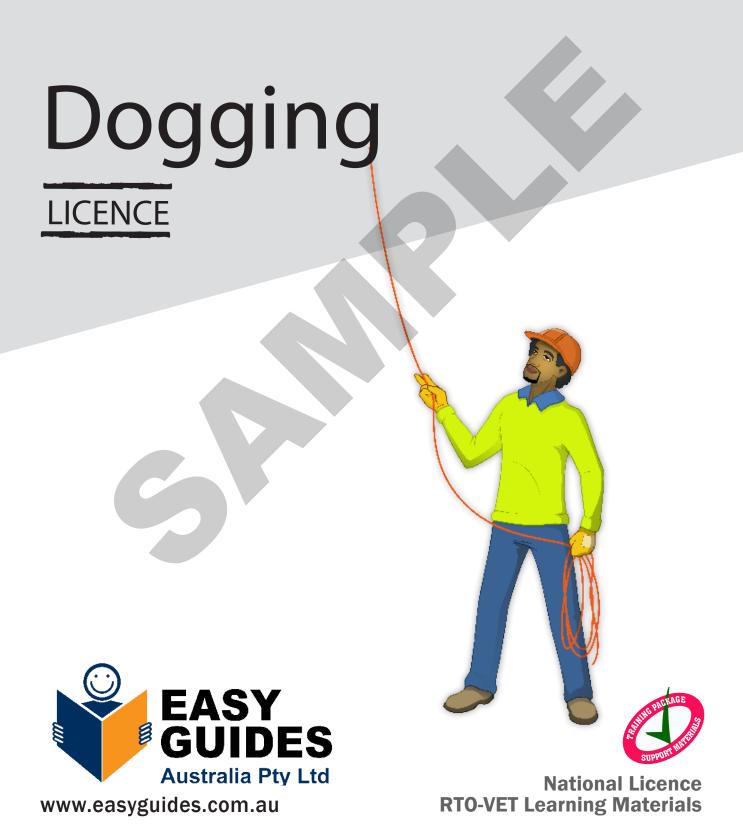
LEARNER WORKBOOK



CPCCLDG3001
Licence to perform dogging



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Learning and Practical Tasks

If you can, train with other learners. Learning is more powerful when you other learners share ideas and experiences. Below is a brief explanation of how you can use the training tasks in this workbook. Your trainer will advise you if you are to fill in tasks on your own at home or do them in class.



Theory training tasks

These tasks help you understand the underpinning knowledge to safely perform dogging. To help complete these tasks you can use the Information Book and speak to other learners and your trainer.



Thinking questions

Thinking questions train you to think for yourself. For example, the Information Book does not directly state the answer.



Practical training tasks

These tasks help you acquire the practical skills to safely perform dogging. The tasks use high-risk equipment or machinery. Only a licensed operator/trainer can supervise your practical training tasks.



Review

At the end of each element in the workbook, you get to review your training. The review gives you a chance to talk with classmates and the trainer about what you have learned. Sharing their learning experiences with others helps you learn.

What is dogging?

Dogging work is defined as work that includes slinging loads, selecting and inspecting lifting gear and/or directing a crane operator in the movement of a load when the load is out of view of the crane operator.

The dogger is responsible for inspecting the lifting equipment.



Element 1

Plan task



This element covers performance criteria:

- 1.1. Review task instructions, consult with relevant persons to seek clarification as required, and obtain relevant workplace information.
- 1.2. Obtain and interpret information, including safe work method statements (SWMSs), required to ensure that activities are performed in compliance with workplace-specific and safe work requirements.
- 1.3. Obtain and interpret information required to ensure that equipment inspection, use, maintenance and storage complies with manufacturer requirements.
- 1.4. Identify workplace and task-specific hazards and determine required risk controls and safety measures and equipment, including signs and barricades, personal protective equipment (PPE), and fall prevention and fall arrest equipment.
- 1.5. Calculate load weight, dimensions and centre of gravity.
- 1.6. Determine lifting and slinging points.
- 1.7. Calculate derated working load limit (WLL) of lifting equipment resulting from selected slinging techniques.
- 1.8. Establish required communication methods with plant operator.

Performance Criteria: 1.1

Find out about the site

Before you start working on a new worksite you need to get information about the site. Talk to your supervisor and workmates, and read any information to find out about the site.





Theory Training Task 1

Performance Criteria: 1.1

Before starting any job on a worksite it is important you talk to appropriate people to find out about any site rules, procedures or policies that may affect the way you carry out the work.

to working on a site.		
1)		
2)		
3)		OHS OFFICER

a) List three people you may need to check with about site hazards and issues related

U)	List till CC (3) local (conditions you should check a site for.
1 \		
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

2)			
-			



Performance Criteria: 1.2, 1.4

Hazards

A hazard is anything that can hurt you or others while you work.

h) List three (3) local conditions you should check a site for

You need to know (identify) workplace hazards before you start work. Look for hazards. Look above you, look around you, and check the ground below you.

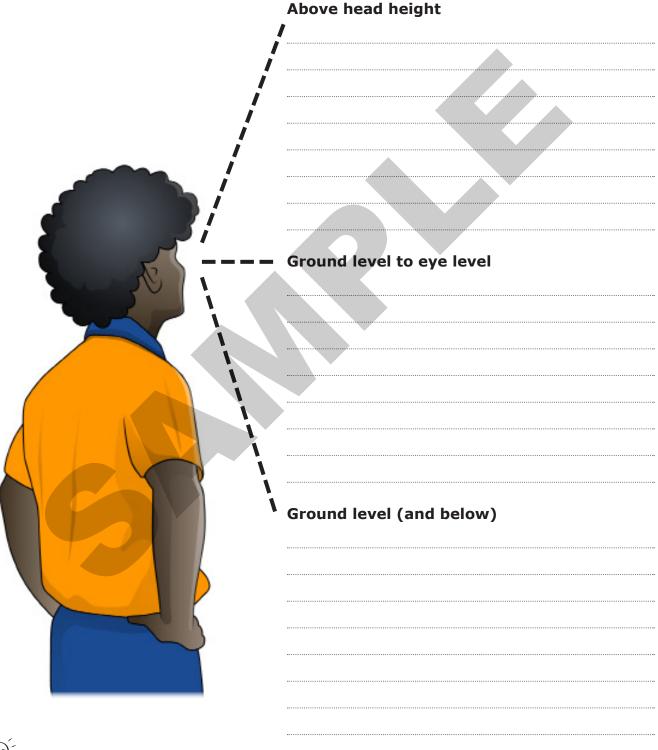




Performance Criteria: 1.2, 1.4

A dogger should know what hazards to look for in the workplace and the kinds of situations that may cause them. You should be aware of possible hazards above head height, between ground and eye level and below ground level.

a) Give examples of hazards you should look for before you begin work





b) Tick any of these hazards you may have come across in past/present workplaces.



Performance Criteria: 1.4

Give an example of why you might wear each of the following Personal Protective Equipment (PPE).

Safety shoes	Hard hat	Ear protection	Long-sleeve top
Face mask	Safety glasses	Sunglasses	Safety gloves



Performance Criteria: 1.5

Calculate the area of a square. A square is flat. The area is how much space the square covers.

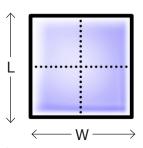
Formula: $A^2 = L \times W$

L = length W = width A = area (m²)



a) Calculate the area of a square:

$$L = 95 \text{ mm } W = 95 \text{ mm}$$



Calculate the volume of a cube. A cube is a 3D box. Volume is how much the cube can hold.

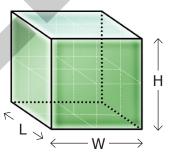
Formula: $V^3 = L \times W \times H$

L = length W = width H = height



b) Calculate the volume of a cube with these measurements:

L = 62 mm W = 62 mm H = 62 mm



Calculate the volume of a cylinder. An example of a cylinder is a pipe. Volume is how much space is inside the cylinder.

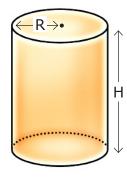
Formula: $V^3 = \pi \times R \times R \times L$

$$\pi = 3.14$$
 R = radius L = length V^3 = volume



c) Calculate the volume of a cylinder with these measurements:

$$R = 1.6 \text{ m}$$
 $L = 5 \text{ m}$





Performance Criteria: 1.5

You may need to calculate the weight of an unmarked load.

For example:

You have to sling and move a five metre length of the steel RSJ. The weight of the steel RSJ is 175 kgs per lineal metre. What is the total weight of the length of steel RSJ?

Answer:

Total weight of steel RSJ = length of steel RSJ x weight per lineal metre Total weight of steel RSJ = 5×175 Total weight of steel RSJ = 875 kg

A)	175 kgs per lineal metre. Show all calculations.
	b) Find the total weight of a 9 m length of steel RSJ. The weight of the steel RSJ is 175 kgs per lineal metre. Show all calculations.



Performance Criteria: 1.5

You may need to calculate the weight of an unmarked load.

For example:

You have to sling and move a concrete sewer pipe. The dimensions of the concrete sewer pipe are:

- Outside diameter is 1.2 m
- The pipe is 200 mm in thickness
- The length is 5 m

Note: Concrete weighs 2400 kg per cubic metre. (m³)

Answer:

Volume = 3.14 (PI) \times radius \times radius \times length (answer = m^3)

(Outside diameter) Volume is $3.14 \times 0.6 \times 0.6 \times 5 = 5.652 \text{ m}^3$ (Inside diameter) Volume is $3.14 \times 0.4 \times 0.4 \times 5 = 2.512 \text{ m}^3$

Subtract outside and inside volume calculations to get the m^3 of concrete in pipe.

 $5.652 - 2.512 = 3.14 \text{ m}^3$

Total weight = $m^3 \times$ weight of concrete per cubic metre.

Total weight = $3.14 \times 2400 \text{ kg/m}^3$

Total weight = 7536 kg



a) Find the total weight of a concrete sewer pipe using pi (Π) .

The dimensions of the concrete sewer pipe are:

- Outside diameter is 1.6 m
- The pipe is 200 mm in thickness
- The length is 4 m

Note: Concrete weighs 2400 kg per cubic metre (m³)

Show all calculations.



Performance Criteria: 1.6

Lay is the direction the wires are formed into strands and the strands are formed into the finished steel wire rope.

What is meant by the following kinds of lay?	
Ordinary lay	
Lang's lay	



Theory Training Task 23

Performance Criteria: 1.6

You are required to lift a load using multiple slings.

- a) What shape shackle would you use? (Circle the correct one)
- Dee



Bow



- b) What type of eyebolts would you use? (Circle the correct one)
- Collared



Uncollared





Performance Criteria: 1.6

You will need different lifting equipment to lift different loads.

a) Draw a line to match the correct lifting equipment with the load that needs to be lifted.

Equipment











Loads







Brick





Secured stacked load on a pallet

Gas bottle



) Can you lift a worker in a stillage or pallet cage?



Performance Criteria: 1.6

As a dogger it is likely that you will work with many different types of cranes.

a) Below are pictures of different types of cranes. Label them with their correct names.



b) Which of the above cranes is used for the self-loading and unloading of its truck?

Select and inspect equipment



This element covers performance criteria:

- 2.1. Select risk controls and equipment, including fall prevention and fall arrest equipment, and check that it is working and fit for purpose.
- 2.2. Select and check PPE.
- 2.3. Select lifting equipment and gear, inspect for defects, and isolate, tag out, report and record defective items.
- 2.4 Select communication equipment and check that it is working and fit for use.

Performance Criteria: 2.3

Choose lifting equipment

It is your (the dogger's) job to choose the right lifting equipment for the load. Each piece of lifting equipment has different capabilities and a different Working Load Limit (WLL). Check that all equipment is available before you start work.





Theory Training Task 31

Performance Criteria: 2.3

You can find the Safe Working Load (SWL) of lifting equipment by:

- Checking the tag
- Checking to see if it is marked on the sling

How else could you find the Safe Working Load (SWL) of synthetic webbing slings?





1)

Theory Training Task 32

Performance Criteria: 2.3

a)	You are using two slings to lift a load. What are three things you would
	consider when finding the capacity and length of the slings needed?

2)
3)
4)
b) Name three pieces of information that should be shown on a sling tag?
1)
2)
3)





Performance Criteria: 2.3

What is the minimum size diameter for the following types of ropes used in dogging? (Fill in the blank spaces with the correct answers)

a) The minimum diameter for natural fibre rope used for lifting is _____mm



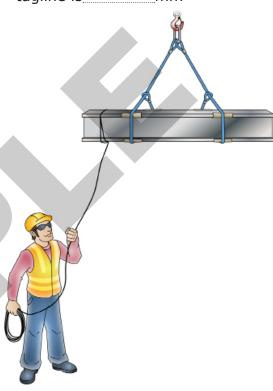
c) The minimum diameter for flexible steel wire rope (FSWR) is ____mm



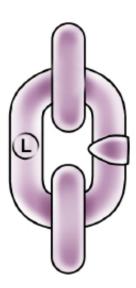
d) The minimum diameter for high tensile grade 80 lifting chain (T) is _____mm



b) The minimum diameter for natural fibre rope used as a tagline is_____mm



e) The minimum diameter for Grade 30 lifting chain (L) is_____ mm



Set up task



This element covers performance criteria:

- 3.1. Establish and maintain communication with relevant persons to ensure lift plan and risk controls are communicated clearly, including any impact on other workplace activities.
- 3.2. Ensure risk controls and safety measures and equipment have been put in place.
- 3.3. Prepare lifting equipment and gear for safe use.
- 3.4. Consult with relevant persons to ensure that the load destination is stable, able to bear the load and prepared for safe access and landing.
- 3.5 Attach and secure lifting equipment and gear to the plant-designated lifting point.

Performance Criteria: 3.2

Apply hazard controls

Before you start working, you need to set up the hazard controls you chose earlier.



Theory Training Task 50 Performance Criteria: 3.2 How would you control the following hazards? a) Loads lifted over people's heads





b) Hazardous materials



c) Vehicles in the area		





Performance Criteria: 3.3

Choose the right slinging method

Choose the right slinging method to suit the weight, shape and other special requirements of the load. The slinging techniques will be different for each kind of load.





Theory Training Task 51

Performance Criteria: 3.3

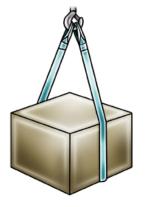
There are three (3) basic ways of attaching a sling or slings to a load:

- straight lift
- choke hitch
- basket hitch.

Label the sling configurations pictured below with their correct names.



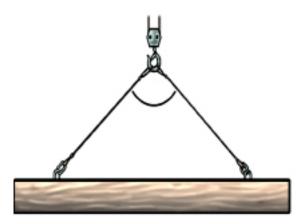






Performance Criteria: 3.3

Fill in the gaps in the statements below with the correct answers.



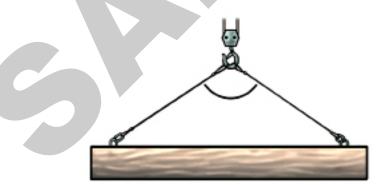
- a) The recommended safe angle between two legs of a sling is _____degrees.
- b) The load factor for this angle is_____



Theory Training Task 53

Performance Criteria: 3.3

Fill in the gaps in the statements below with the correct answers.



- a) The recommended maximum safe angle between two legs of a sling is _____degrees.
- b) The load factor for this angle is_____

忍



Theory Training Task 54

Performance Criteria: 3.3

A rigid load is lifted by a four-legged sling.

	How would you find the maximum angle?	
b)	How many legs are calculated to take the weight of the load?	



Theory Training Task 55

Performance Criteria: 3.3

Different sling configurations have different load factors when hitched around different shaped loads.

Draw a line to match the correct load factor to the slinging method below.

Load Factors:

2.0

1.93

1.73

1.41

1.00

0.50



A choke hitch around a circular (round) load



A basket hitch around a circular (round) load



A choke hitch around a square load



A basket hitch around a square load

Practical Training Task 4

Element 3—Set up task



Lifting equipment and slinging method

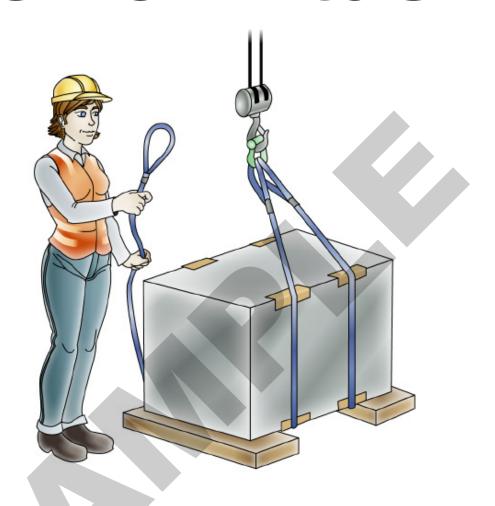
Your trainer will decide on a dogging job for you to perform. You will be provided with the necessary equipment for the task.

Learners: This task must be done under the supervision of a licensed operator.

А	Describe the correct lifting method for the dogging job you are to complete. Take into account load factors and sling configurations. (Performance Criteria 3.4)	
В	Select the correct lifting equipment for the dogging job given to you by your trainer. Prepare and assemble the lifting gear if necessary. (Performance Criteria 1.6, 3.3, 3.4, 3.5)	



Perform task



This element covers performance criteria:

- 4.1. Direct plant designated lifting point/hook, over the load's centre of gravity.
- 4.2. Attach and secure lifting equipment and gear to the load using slinging techniques.
- 4.3. Attach and secure tag line as required to guide the load.
- 4.4. Use signals and radio communication methods to direct the load movement, both in and out of sight of the plant operator.
- 4.5. Conduct test lift to check the security of the slings and the stability of the load, lifting equipment and gear.
- 4.6. Direct the movement of the load in accordance with lift plan, including lowering and landing.
- 4.7. Disconnect lifting gear from the load and direct the positioning of crane or hoist for next task.

Performance Criteria: 4.2

Attach the lifting gear to the hook

You need to use the right methods to attach and secure the lifting gear to the hook. There are special procedures to follow.





Theory Training Task 59

Performance Criteria: 4.1, 4.2

Which of the following two (2) pieces of equipment would you use to secure slings to the hook of a crane? (Circle the correct answer)







Shackles



Hammerlocks



Lifting rings



Beam clamps



Theory Training Task 60

Performance Criteria: 4.2

Should the shackle pin or the shackle itself rest on the crane hook? (Circle the correct answer)

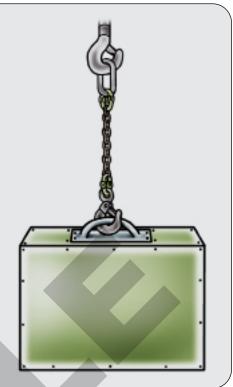




Performance Criteria: 4.2

Attach the lifting gear to the load

Now you need to attach and secure the load to the lifting equipment in a way that will keep it stable. There are special procedures to follow when you are using eye bolts and lifting lugs.





Theory Training Task 63

Performance Criteria: 4.2

Name three (3) things you should check for when selecting the right lifting/slinging points?

1)	
2)	
-	
3)	





Performance Criteria: 4.2

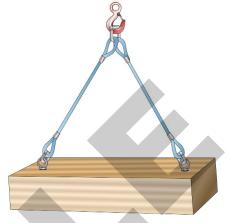
It is important to use eyebolts correctly when using them to connect slings to a load.

OR

Circle the correct use of eyebolts in the following examples.



a) Use hooks to attach slings to eyebolts



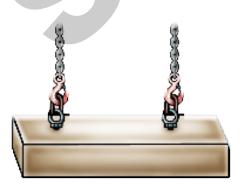
OR Use shackles to attach slings to eyebolts



b) Use collared eyebolts with multiple slings



Use uncollared eyebolts with multiple slings



c) Eyebolts should face the front



OR Eyebolts should face each other



Performance Criteria: 4.2

What are three (3) things you should check the lifting lugs for before attaching the slings to the load?

1)	
	A
2)	
3)	

Performance Criteria: 4.4, 4.3

Attach the tagline

Taglines are used to help control the load and stop it swinging while you are doing the lift. You need to secure the tagline properly and attach it by following the right procedures.





Theory Training Task 68

	Performance Criteria: 4.3	
	a) Give two reasons why taglines may be used do	uring a lift? Ц
1)		
2)		
b) Why:	should you use dry natural fibre ropes for taglines?	



Performance Criteria: 4.3

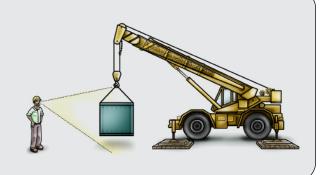
Which of the following statements is NOT true? (Tick one)

which of the following statements is NOT true: (Tick one)	
A clove hitch is widely used for starting rope lashings.	
The single bowline is used to make a temporary eye in the end of a rope.	
The timber hitch is used to join two ropes together.	Re July
A sheet bend is used to join two ropes together.	
	8
Theory Training Task 70 Performance Criteria: 4.3	
List four (4) things you should consider when using a tagline.	

Performance Criteria: 4.5

Do a test lift

Sometimes you might not know where a load's centre of gravity is. To find out, you can do a test lift. Doing a test lift also shows you if the load will stay stable when you lift it.





Performance Criteria: 4.5

Why would	you	do	а	test	lift?
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Theory Training Task 72

Performance Criteria: 4.5

Explain the procedure for doing a test lift.

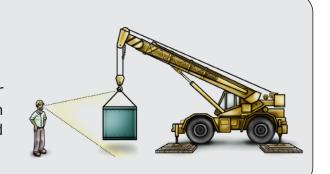
1.		
2.		
3.		
,		



Performance Criteria: 4.6

Move the load

You are now ready to move the load. It's your job to direct the crane operator. Always watch and check the load to make sure it is safe and stable. Follow all safety rules and procedures.





Performance Criteria: 4.6



Look at the examples of unsafe work practices below.

- a) Explain what is being done wrong.
- b) Why is this unsafe?
- c) How could this unsafe work practice be avoided?

Picture 1	_a)
	b)
	c)
Picture 2	a)
	b)
	c)

Continued





Performance Criteria: 4.6

When is the crane operator allowed to leave the controls of the crane while lifting a load? (Tick the correct answer)

If the load becomes unst	able		
When it's time for lunch			
In an emergency			
Never			HEYI



Theory Training Task 75

Performance Criteria: 4.6

You are directing a crane to move a heavy load downhill. In which direction should you direct the crane to travel?

Downhill backwards
Downhill forwards
Across the side of the hill



Performance Criteria: 4.4

Communicate with the crane operator

You are the eyes of the crane operator. You should give clear and direct signals to the crane operator so the load can be safely moved. Check that both you and the crane operator understand the signals you will use.





Theory Training Task 76

Performance Criteria: 4.4

It is important that you communicate with other people in an emergency.

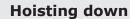
What are three important pieces of information you should tell other people in an emergency?

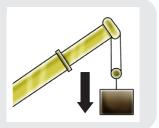
1)			
2)		3	
		A	WY WY
			STATE OF THE PARTY
3)			
	>		



Performance Criteria: 4.4

Match the crane boom motion on the left with the hand or whistle signals on the right.





Stop



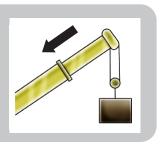
Slewing right



Slew left



Telescoping boom retract. Jib-trolley in.















Performance Criteria: 4.6

Land the load

You have landed the load. Make sure it is stable and secure and can't move by itself. Round loads should be secured with chocks.





Theory Training Task 78

Performance Criteria: 4.6

=	How should a kibble load of concrete be unloaded onto formwork? (Tick the correct answer)
	In one spot
	Evenly over the whole area
b) Why?	
c) How	should round loads be landed?

Performance Criteria: 4.7

Remove the lifting equipment

After you have landed the load, you need to remove the lifting gear from the load. After removal, prepare the equipment for the next job or put it away.





Theory Training Task 79

Performance Criteria: 4.7

1		
•	Why would you place a load on dunnage or blocks?	
		26

Practical Training Task 6

Element 4—Perform Task



Communication

Demonstrate the hand and whistle signals used for the following crane movements: Your trainer will ask you to demonstrate each signal.

Crane Movement	Competent	Not yet competent
Stop		
Hoist up		
Hoist down		
Luff boom down		
Luff boom up		
Slew left		
Slew right		
Telescope out		
Telescope in		
(Performance Criteria 4.4, 2.4)		

Element 4: Competent Not yet competent	
Signature (licensed operator/trainer)	Date

Pack up and clean up



This element covers performance criteria:

- 5.1. Remove excess materials from work area.
- 5.2. Inspect lifting equipment and gear for defects, and isolate, label and report defective items.
- 5.3. Store lifting equipment and gear in accordance with workplace requirements.
- 5.4 Remove risk controls and safety measures and equipment.

Performance Criteria: 5.2

Inspect the lifting equipment again

You have finished using the lifting equipment. You should inspect (check) the equipment again because it might have been damaged during the lift.





Theory Training Task 80

Performance Criteria: 5.2

a) Why would you check the lifting gear after	you have used it?
b) What should you do if you find damaged equipment?	

Performance Criteria: 5.2

Isolate defective equipment

You have found some faulty or damaged lifting equipment. Isolate the bad equipment from the good equipment so it can't be used by accident.





Performance Criteria: 5.2

To whom would you send damaged have it tested, repaired or re-tagged?		
		П

Performance Criteria: 5.3

Store the lifting equipment

Put away the lifting equipment after you have finished with it. Your worksite will have a procedure and a place for storing lifting equipment.





Theory Training Task 82

Performance Criteria: 5.3

Where would you store lifting gear after it has been used?

The control of the co	
	•