

Learner Workbook

**National Licence RTO-VET
Learning Materials**

Licence to operate a

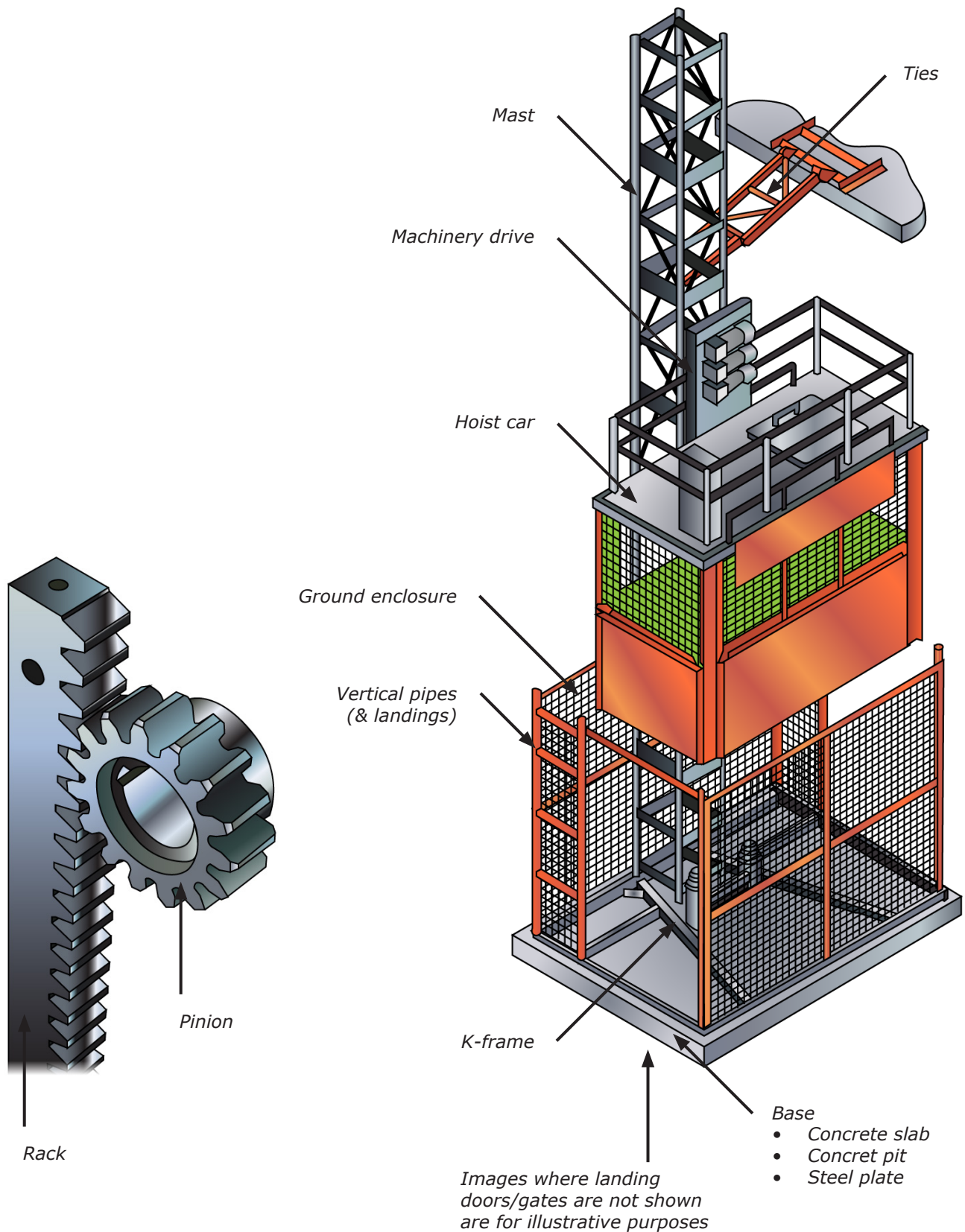
Personnel and Materials Hoist

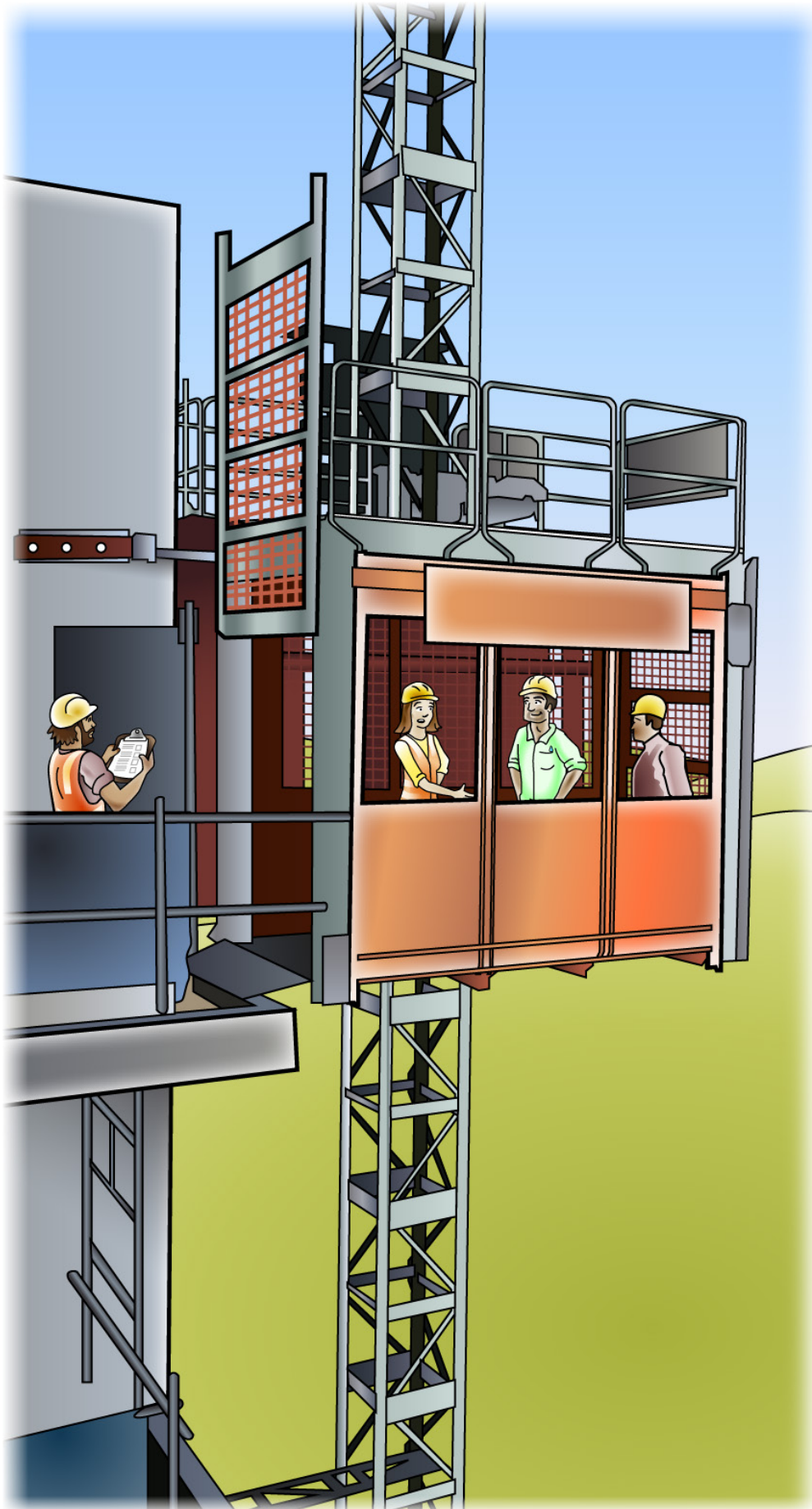
CPCCLHS3001

**Trainer's Marking Guide
with model answers**

What is a personnel and materials hoist?

A personnel and materials hoist is like a temporary elevator. It is attached either to the side of a building or in a lift shaft. The hoist uses a motorised rack and pinion to drive the cage assembly up and down a stacked mast tower. It is used to hoist people, goods and/or materials.





An example of a personnel and materials hoist

Plan the move



This section covers performance criteria:

- 1.5 Calculate load weight, check that it is within the working load limit (WLL) of the hoist and distribute it in accordance with manufacturer requirements.
- 1.6 Established required communication methods with relevant persons.
- 2.5 Carry out operational checks, including testing hoist safety devices and checking for fire extinguisher and other emergency equipment
- 2.7 Check communication equipment, lighting and alarm systems to make sure they are working and fit for use.
- 2.8 Conduct test run of hoist, check for abnormal noises and shut down, tag and report identified abnormalities as required.
- 3.1 Maintain communication with relevant persons during hoist operations and emergency situations.

Performance Criteria: 1.5

Check the safe working load (SWL)

Hoists can lift anything from 1000 kg to 3.9 tonnes. Before you move a load find out its weight and size.



Theory Training Task 20

Performance Criteria: 1.5

How do you find out the hoist's lifting capacities to make sure it hoist can lift the load?

Check the safe working load (SWL) on the hoist's data plate to make sure it can lift the load.



Theory Training Task 21

Performance Criteria: 1.5

Give some examples of how you find the weight of an unmarked load.

Answer may include:

You can find the weight of an unmarked load by:

- The weighbridge certificate, consignment note or other paperwork
- The load itself or its packaging
- Work out the weight of a load yourself
- Weighing the load.





Theory Training Task 22

Performance Criteria: 1.5

- a) What is the total weight of the following load in kilograms?
- 12 x 6m scaffold planks (1m scaffold plank = 7kg)
 - 5 x 9m universal beams (1m universal beam = 125kg)
 - 2 x 3m long and 2m wide mild steel plates (1m² mild steel plate = 156kg)
 - Total weight = length x number of parts x weight

Scaffold planks = 6m x 12 x 7kg

Scaffold planks = 504kg

Universal beams = 9m x 5 x 125kg

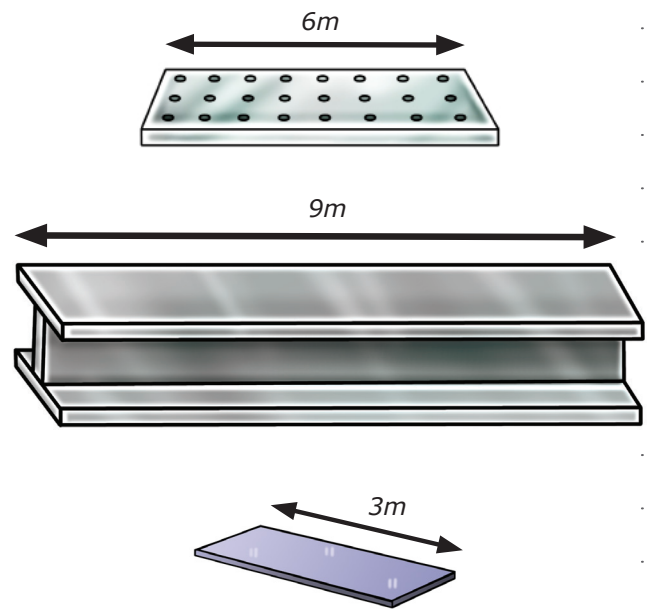
Universal beams = 5625kg

Mild steel plates = 3m x 2m x 2 x 156kg

Mild steel plates = 1872kg

Total weight = 504kg + 5625kg + 1872kg

Total weight = 8001kg



- b) Can you lift all of this scaffolding equipment on a hoist with a SWL of 3 tonnes?

No, the load is more than the SWL of the hoist.



Move the load



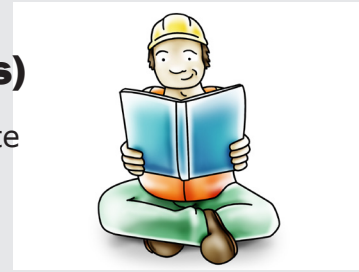
This section covers performance criteria:

- 3.1 Maintain communication with relevant persons during hoist operations and emergency situations.
- 3.2 Operate loaded hoist in accordance with manufacturer requirements.
- 3.3 Use and interpret communication signals
- 3.4 Conduct emergency lowering in accordance with manufacturer requirements.
- 4.1 Shut down hoist in accordance with manufacturer requirements
- 4.2 Carry out shut-down checks

Performance Criteria: 3.2

Operate hoist according to procedures (rules)

Follow Australian Standards – AS 1418.7, AS 2550.7 and site procedures when operating a personnel and materials hoist.



Theory Training Task 28

Performance Criterion: 3.2

- a) If you were unsure how to operate a personnel and materials hoist, where would you find out?

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You should read the operations manual or manufacturer's instructions.

- b) What other procedures and rules do you have to follow when using a hoist?

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Answer may include:

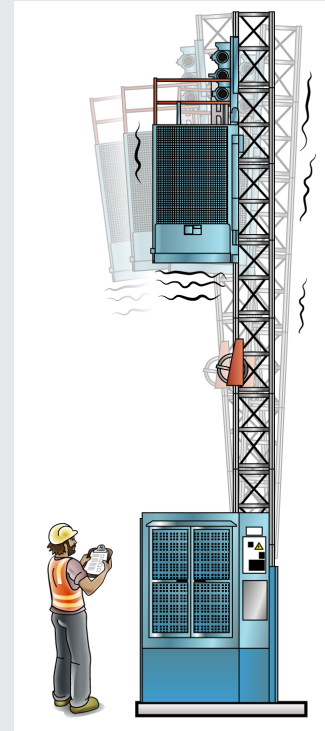
- **Your worksite's procedures**
- **The Australian Standards (AS 1418.7)**
- **Industry procedures and regulations**
- **Occupational health and safety requirements**
- **Safe work method statement (SWMS).**



Performance Criteria: 3.3 & 3.4

Check load at all times

Always watch the hoist and its load to make sure your work is safe and skilful. If you hear an unusual noise or feel the hoist vibrate or shake, stop work and find out what the problem is.



Theory Training Task 29

Performance Criterion: 1.7, 3.1, 3.3, 3.4

What should you do if you hear the hoist make an unusual noise or you feel the hoist vibrate or shake?

You should stop work and find out what the problem is.

