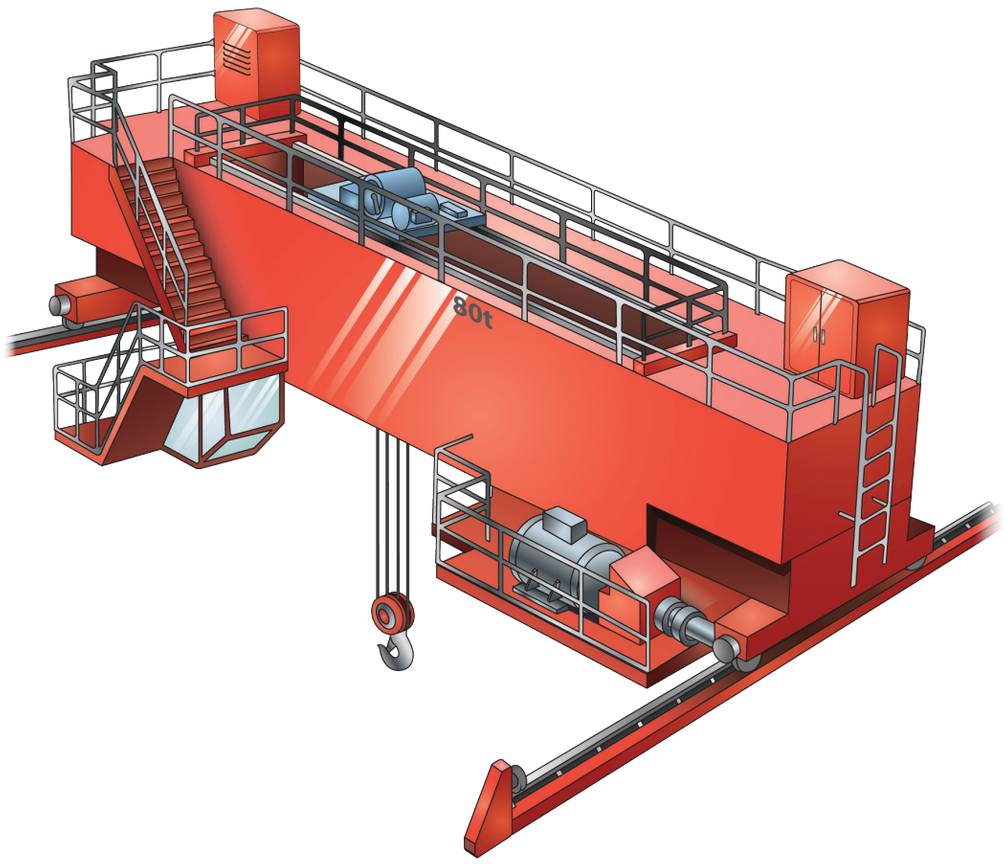
BRIDGE AND GANTRY CRANE

TLILIC0006
Licence to operate a bridge and gantry crane



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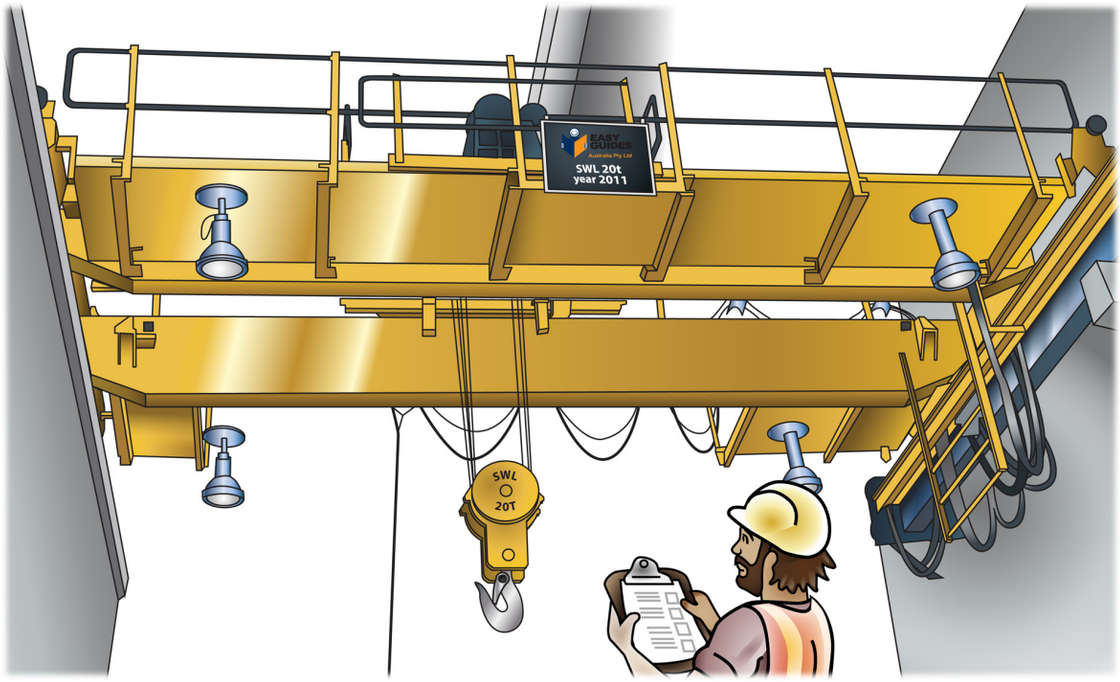
Part 3

Check the crane



PC: 2.4

Do visual checks

Before you start working, there are important safety checks you need to do first.

Start with the visual check. Look around the crane and see if there are any obvious problems.

Theory Training Task 12

Performance Criteria: 2.4

a) What are some visual checks you should do before using the crane?

b) Why do you need to do the visual check?

Theory Training Task 13

Performance Criteria: 2.4

a) The crane has a danger tag on it. What does it mean?

b) Are you allowed to remove the danger tag?

PC: 2.4

Check signs and labels

Check the signs, labels and decals on the crane. These will tell you the crane's load limits and what it can and can't do. All signs and labels must be clear and readable.

Theory Training Task 14

Performance Criteria: 2.4

What information does the crane's data plate give you?

Practical Training Task 3

Part 3—Check the crane
Performance Criteria 2.4, 2.6, 2.7, 2.8

Check the crane

Learners: You must do this task under the control of a licensed operator. Please wait for your trainer to advise you before trying the task.

First, your trainer will take you to an area where you will use a bridge and gantry crane.

Second, your trainer will ask you to do a routine check of the crane before you start.

Third, your trainer will see if you can find any faults or damage on the crane.

- ☐ Crane is visually checked for any damage or defects. This means you have a look around the crane for obvious problems.
- ☐ All signage and labels are checked to ensure they are visible and legible, in accordance with the appropriate standard. This means you make sure the signs and labels are clear and readable.
- ☐ Routine pre-operational crane checks are carried out in accordance with procedures. This means after you do a visual check, and you do the thorough pre-operational checks.
- ☐ All controls are located and identified. This means you learn the controls on the crane and understand how they work.
- ☐ Crane service logbook is checked for compliance. This means you find and check the service logbook. Make sure the service logbook is up to date.
- ☐ Crane is started in accordance with procedures and is checked for any abnormal noises. This means you start the crane and test its movements, and listen for strange noises.
- ☐ Crane safety devices are tested in accordance with procedures. This means you test the safety devices such as warning lights and cut out devices.
- ☐ Post-start operational checks are carried out in accordance with procedures. This means you do more checks after you have turned on the crane's power.
- ☐ All damage and defects are reported and recorded in accordance with procedures. This means if you find any problems with the crane, you need to record them in the logbook and report them to your supervisor.

Your trainer will assess your routine checks of the crane. After you finish, the licensed operator/trainer will then sign and date the box below.

Part 3: **Satisfactory** ☐ **Not yet satisfactory** ☐

Signature (licensed operator/trainer) ..... Date .....

Review

Part 3—Check the crane

Sharing your knowledge can be a good way to remember things you have learnt. Talk about and/or record below the key points you have learnt in 'Check the crane' and share your experiences with other learners and/or your trainer.

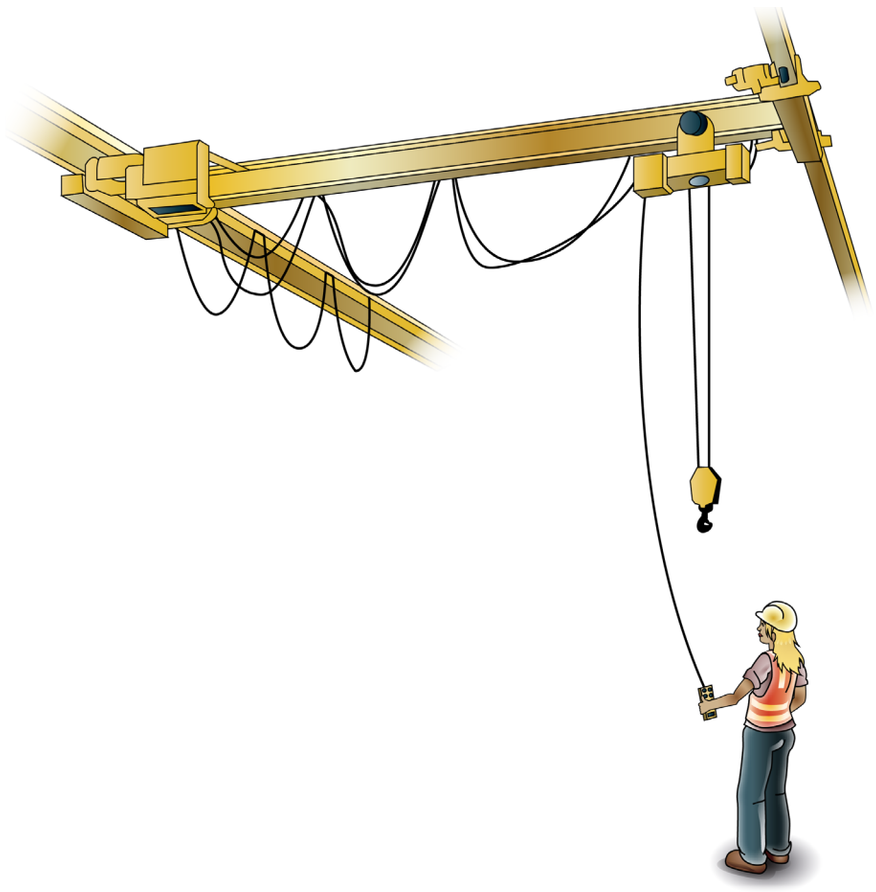
Further learning (optional)

Apply

Talk to other learners or workmates about how they check a bridge or gantry crane. Ask them what damage and defects they look for. Find out what they did when found damage or a fault. Have a chat with your trainer about routine checks.

Part 4

Plan the lift



PC: 1.4

Find out the weight of the load

You are planning the lift. Find out or calculate the weight and size of the load you are going to lift.

Theory Training Task 32

Performance Criteria: 1.4, 3.1

How can you find out the weight of an unmarked load?

Give three (3) examples.

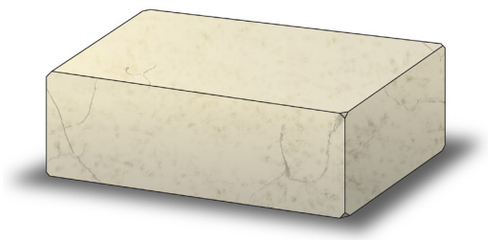
Theory Training Task 33

Performance Criteria: 1.4

a) You need to lift a solid block of concrete.

The dimensions of the concrete are:

- Length = 1.0 metres
- Height = 0.5 metres
- Width = 0.8 metres
- Solid concrete = 2400 kg per m^3



How much does the concrete block weigh?

b) The crane has a capacity of 5 tonnes.

How many of these concrete blocks can you lift at once?

Theory Training Task 34

Performance Criteria: 1.4

a) You need to lift 46 kegs of beer.
The dimensions of each keg of beer are:

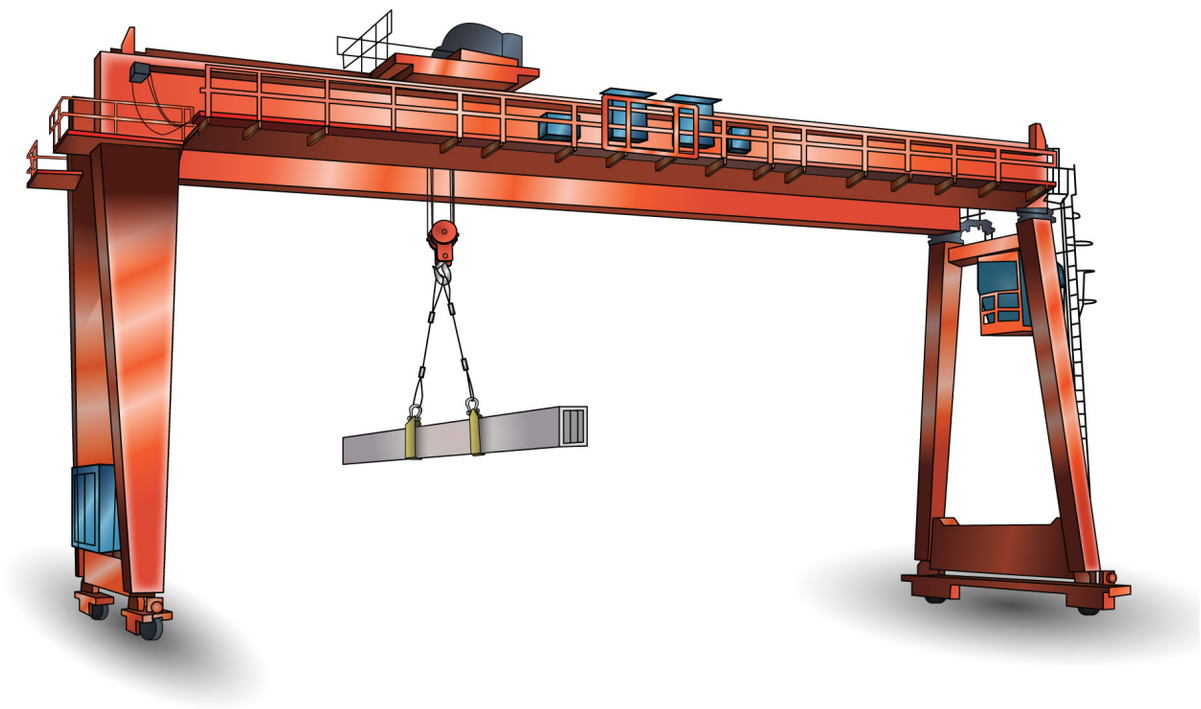
- Weight of 1 keg = 14 kg
- 1 keg holds 50 L of beer
- 1 L of beer = 1 kg

How much does the load weigh?

b) The crane has a capacity of 3 tonnes. Can you lift this load?

Part 5

Set up and move the load



PC: 2.3

Access the crane

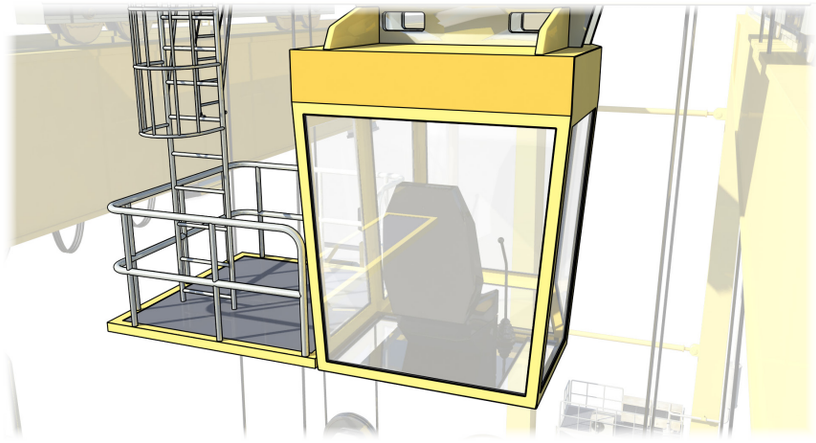
Get in and out of the crane's cabin safely.

Theory Training Task 44

Performance Criteria: 2.3

a) Where should you park the crane for easy access?

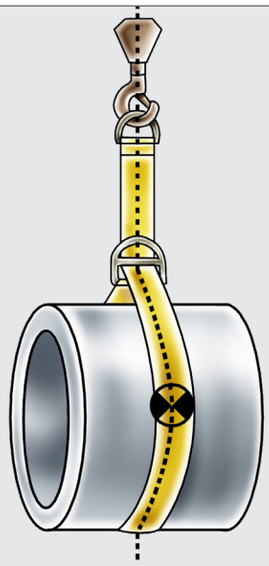
b) How do you get in and out of the crane's cabin safely?



PC: 3.2

Position the hoist block

Line up the hoist block over the load's centre of gravity.



Theory Training Task 45

Performance Criteria: 3.2

a) Who can help you line up the hoist block over the load?

b) What can happen if you don't position the hoist block correctly?

PC: 3.4

Do a test lift

Once you have set up, do a test lift to make sure you can lift the load safely.

Theory Training Task 46

Performance Criteria: 3.4

What does the test lift help you find out?

Theory Training Task 47

Performance Criteria: 3.4

What are the steps for doing a test lift?