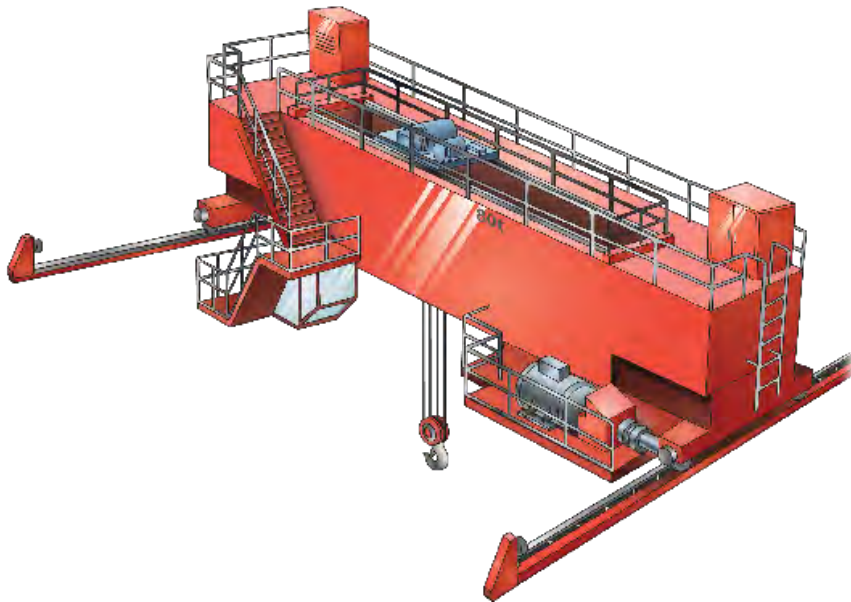


BRIDGE AND GANTRY CRANE SAFETY AND LICENCE GUIDE

Training support material for:

TLILIC0006

Licence to operate a
bridge and gantry crane



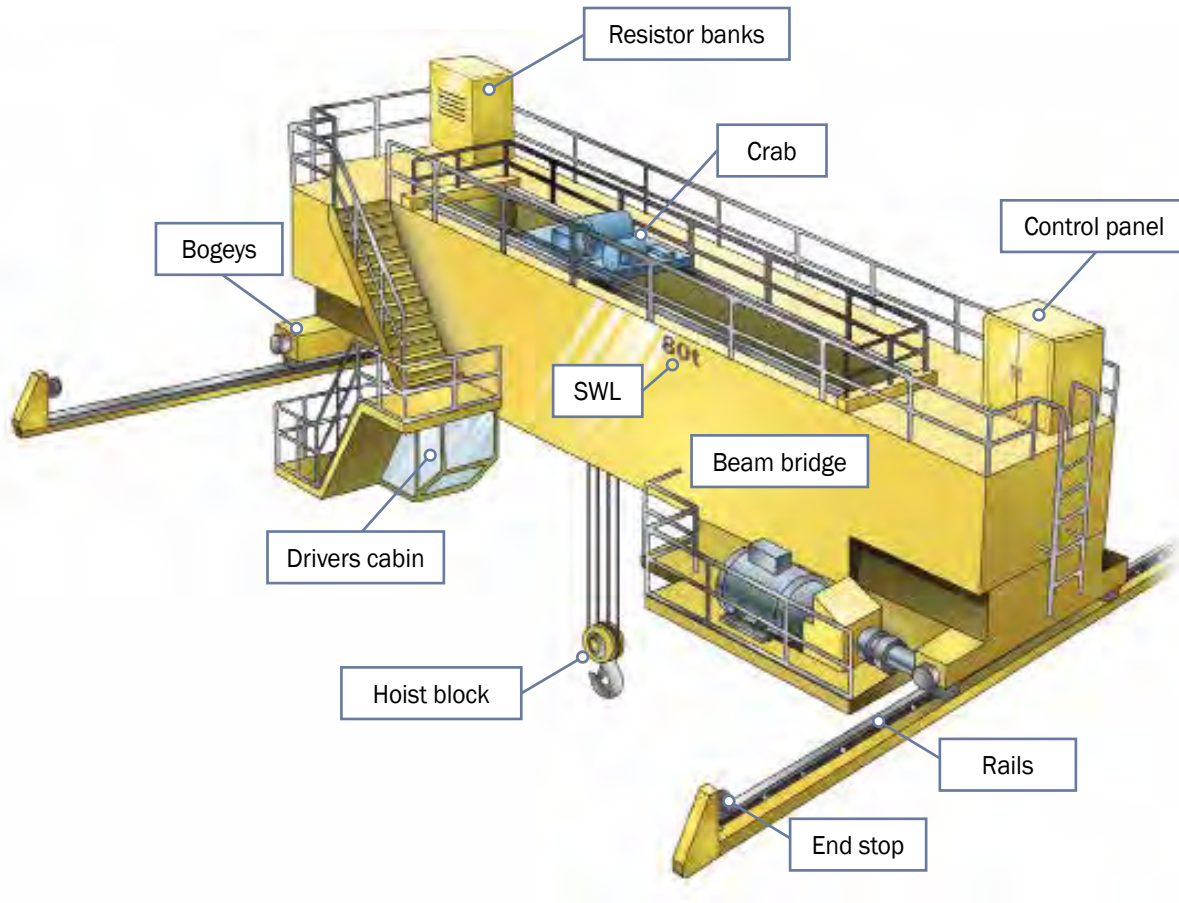
Produced by:



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Parts of a bridge crane



What is a gantry crane?

- A gantry crane has a bridge beam which is supported by legs
- The legs are mounted on carriages which move along supporting surfaces or deck levels
- They have a crab with at least one hoisting mechanism which moves from side to side across the bridge
- Gantry cranes are used in factories and outdoor areas including railway and shipping yards



PLAN WORK

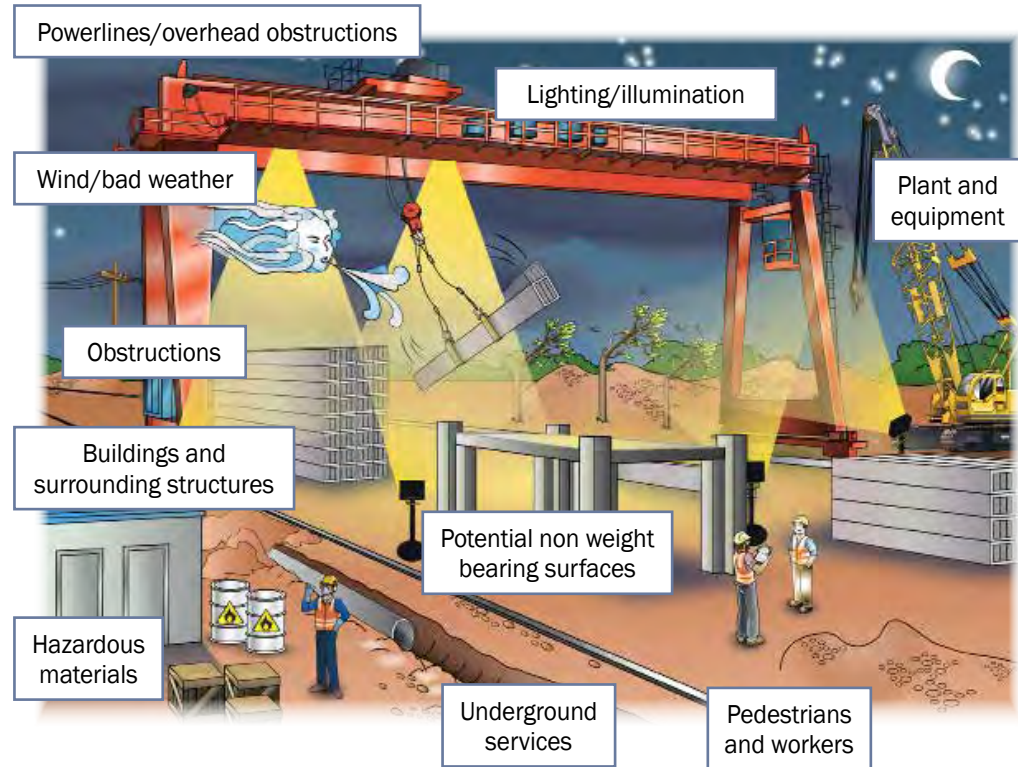
Element 1



QUESTION 11

What are some hazards you should think about and plan for?

Some common workplace hazards to be aware of and plan for:



Common weights

These are some common loads you might lift with a bridge or gantry crane.

The table can be used to help with load weight estimations.

Material	Size	Weight
Beer	50 L + keg	64 kg
Blue metal	1 m ³	1900 kg
Bricks	1 pallet	1000 kg
Cement	Bag	20 kg (50 bags per tonne)
Concrete	1 m ³	2400 kg
Drum (empty)	200 L	13 kg
Drum (full of liquid)	200 L	213 kg
Scaffold tube	48 mm outside diameter, 4.8 thick	5.2 kg per metre
Steel	1 m ³	7840 kg
Timber (hardwood)	1 m ³	Approx 1100 kg, if wet up to 50% more
Timber (softwood)	1 m ³	640 kg
Water	1 m ³	1000 kg

QUESTION 23

You need to lift a solid block of concrete.

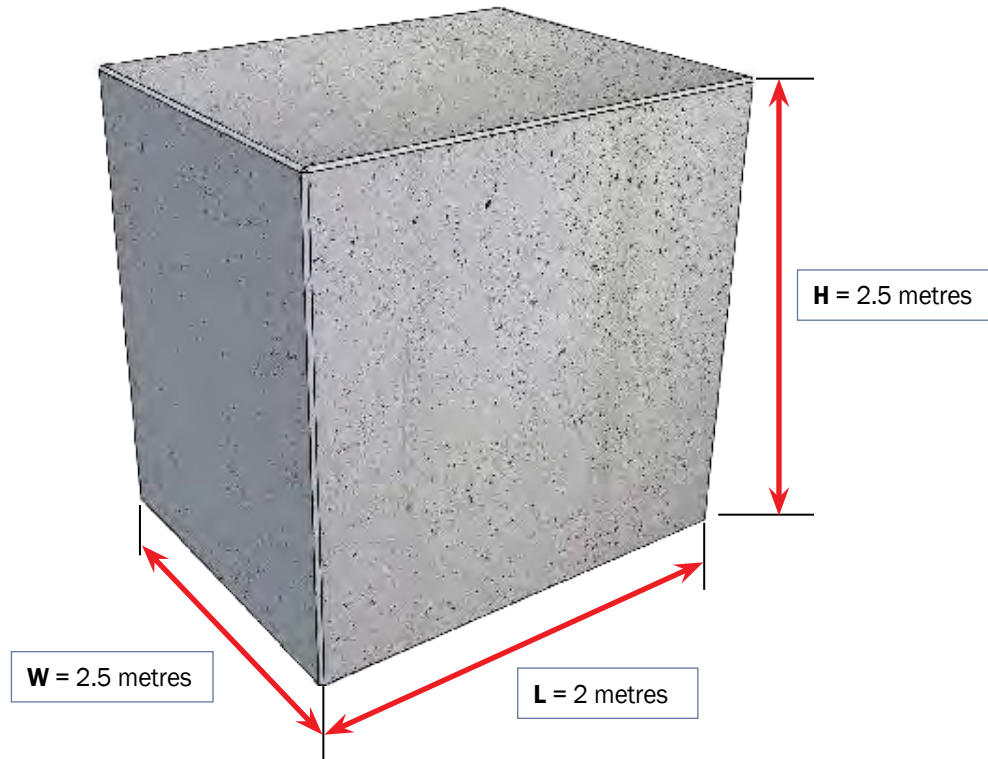
The dimensions of the concrete are:

- Length = 2 metres
- Height = 2.5 metres
- Width = 2.5 metres
- Solid concrete weighs 2.4 tonnes per cubic metre.

How much does the concrete block weigh in tonnes?

Concrete block = $2 \times 2.5 \times 2.5 \times 2.4$

Concrete block = 30 tonnes



CONDUCT ROUTINE CHECKS

Chapter 2



QUESTION 35

When do you put your hazard (risk) controls in place?

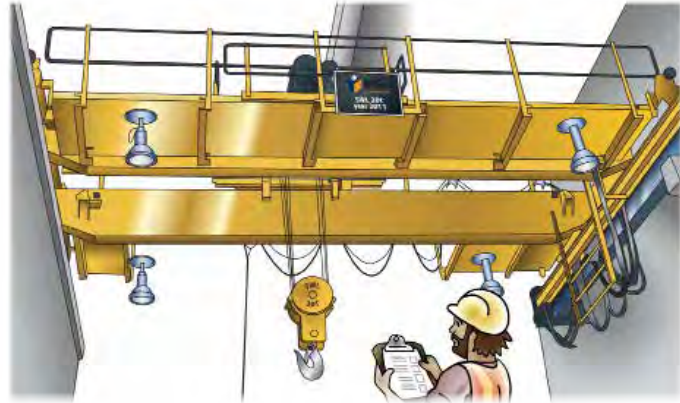
Before you start working. If a hazard arises after you have started work, stop immediately and put controls in place.



QUESTION 49

Why must you check the crane and its equipment before starting work?

So you know the crane and its equipment are safe to use and are right for the job.

**QUESTION 50**

When do you check everything works on the crane?

Before you use it.

