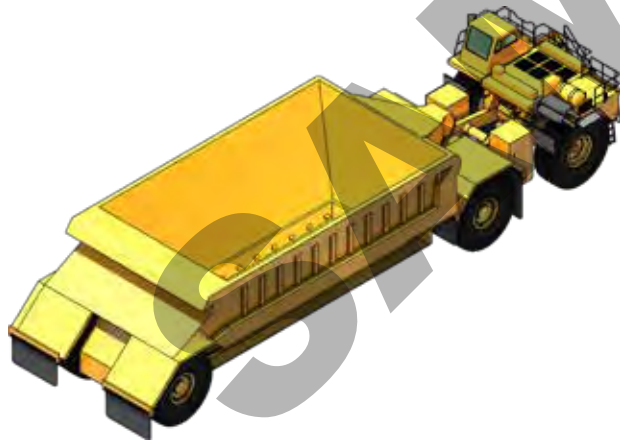


LEARNER GUIDE



Belly Dump Truck

TICKET



Training support material for:

RIIMPO336E

Conduct belly dump truck operations

Produced by:



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Introduction to Belly Dump Trucks



Introduction to belly dump trucks

This guide covers belly dump trucks. A belly dump truck is a machine used to carry materials from one place to another. You can load a belly dump truck with a number of machines including excavators and loaders.

The belly dump trucks covered in this guide are **on-highway** and **off-highway** trucks, such as diesel-mechanical and diesel electric drive. On-highway types are a prime mover and trailer. Belly dump trucks are usually articulated.

On-highway



Off-highway



A **belly dump truck** discharges its load through the bottom of the body. Dumping is controlled by a set of doors referred to as clam shells or hatches.

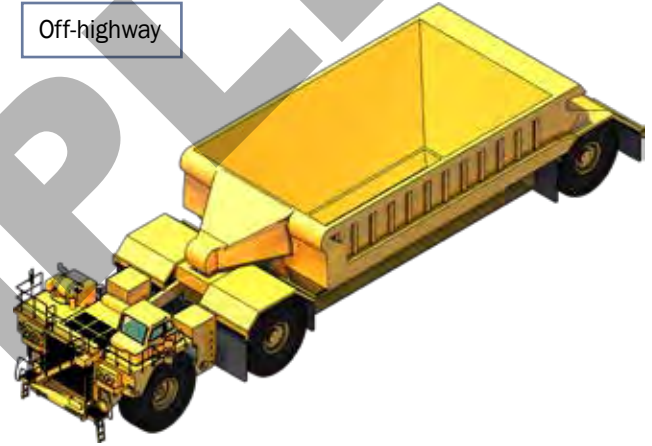
What industries do you use a belly dump truck in?

- Civil construction
- Coal mining
- Extractive industries
- Metalliferous mining

On-highway



Off-highway



Plan and prepare for belly dump truck operations

Element 1



QUESTION 1

What are the National Work Health (WHS) and Occupational Health and Safety (OHS) Acts about?

The Acts explain how to keep your workplace **safe** and **healthy**. They explain what you need to do to meet your duty of care.

For example:

You must make sure you do earthmoving work in a way that won't put yourself or others at risk. You must use earthmoving equipment according to instructions.

Note:

Check your state requirements as Acts may vary from state to state

**QUESTION 2**

Under WHS/OHS laws, what are your responsibilities while working?

You must work in a way that is safe. You must not risk the health and safety of yourself or others.



QUESTION 7

Which plans do you follow so you know how to do the job properly?

The site's standard operating procedures and/or work instructions.



QUESTION 8

What are quality requirements?

The quality requirements tell you the standards you must meet when doing earthmoving work. They tell you what you need to do and how to do it to satisfy the customer.

You may need to follow Codes of Practice, regulations, national standards etc.

Slab Foundation Preparation. Quality & Specification check list.	
1. Location	Site plan
2. Level	Level
3. Dimensions	Dimensions
4. Reinforcement	Reinforcement
5. Formwork	Formwork
6. Concrete	Concrete
7. Curing	Curing
8. Protection	Protection
9. Inspection	Inspection
10. Completion	Completion
11. Handover	Handover
12. Final check	Final check
13. Sign-off	Sign-off
14. Date	Date
15. Signature	Signature



Calculations

Working out how much material you need

The work plan has an area which is 4 metres × 20 metres that must be covered by a layer of road base of 150 mm depth.

How many square metres of road base are to be laid?

How many cubic metres of road base will you need?



Step 1: Work out the square metres

To work out the square metres, multiply the Length (L) by the Width (W).

$$L \times W = \text{Square metres}$$

$$4 \text{ m} \times 20 \text{ m} = 80 \text{ square metres}$$

This can also be written as:

$$80 \text{ m}^2 \text{ or } 80 \text{ square metres}$$

Answer:

There are 80 square metres of road base to be laid.
You will need 12 cubic metres to cover the area to 150 mm depth.

Step 2: Convert millimetre thickness to metres

Convert the layer thickness from millimetres to metres.

To do this divide the layer thickness by 1000

$$150 \text{ mm} \div 1000 = 0.15 \text{ m}$$

Step 3: Work out the square metres

Multiply the square metres by the layer thickness to get the cubic metres.

$$80 \text{ square metres} \times 0.15 \text{ metres} \\ = 12 \text{ cubic metres}$$

This can also be written as:

$$12 \text{ m}^3 \text{ or } 12 \text{ cubic metres}$$

QUESTION 9

What kinds of information do you need before starting work?

- Plans – what you need to do
- Specifications – rules and details about the job
- Operational details – how you will do the job
- Quality requirements of the job – the standards you are expected to meet.

**QUESTION 10**

When planning your job, why do you need to know what other people are doing on site?

- To make sure you will not get in the way of other jobs being done
- To make sure you know what others are doing near where you must work.



QUESTION 21

What does the safety plan tell you?

The safety plan tells you how the worksite intends to meet all the safety rules. It tells you:

What personal protective equipment (PPE) to wear



...CONTINUES ON NEXT PAGE

QUESTION 21

...CONTINUED FROM PREVIOUS PAGE

What does the safety plan tell you?

How to use tools, plant and equipment safely



Emergency procedures and exits



How to park safely and where to park



How to control hazards and risks



QUESTION 39

What is the hand signal used if you want another vehicle to stop?

A raised hand with the palm facing the vehicle you want to stop.

**QUESTION 40**

The driver's view is limited from a belly dump truck. Signals are used to warn other drivers and people when the truck is going to move.

What horn signals do you use before:

- Starting the engine?
- Moving forwards?
- Reversing?

- a) Starting the engine – **1 beep** of the horn.



- b) Moving forwards – **2 beeps** of the horn.



- c) Reversing – **3 beeps** of the horn.



Wait 5 seconds after beeping the horn before moving off

QUESTION 41

When operating a belly dump truck on a job site you need to plan the operations with other equipment.

Why?

To prevent lost time waiting for a clear road.



To maintain a safe operating distance between machines.



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QUESTION 41**...CONTINUED FROM PREVIOUS PAGE**

When operating a belly dump truck on a job site you need to plan the operations with other equipment.

Why?

To keep trucks and mobile equipment spread out around the job site.



To make sure only the equipment needed for the task is at the location where the task is being performed.



Operate belly dump truck

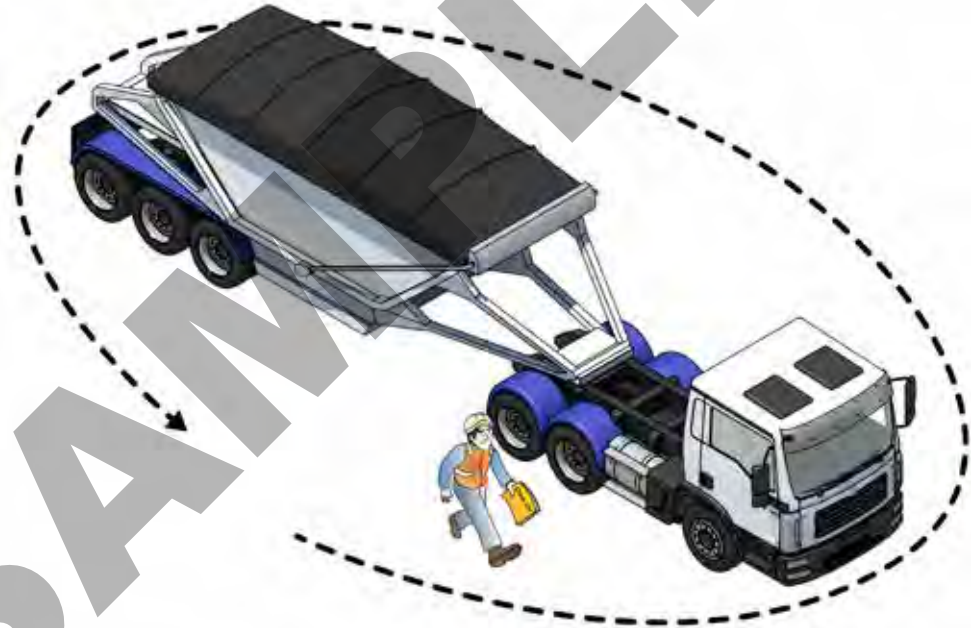
Element 2



QUESTION 43

What is the first check you do on the machine?

Walk around it and check for obvious problems you can easily see.



QUESTION 52

How do you test the retarder operation?

Drive the truck forward at about 10 kph and engage the retarder. This should slow the truck down quickly.

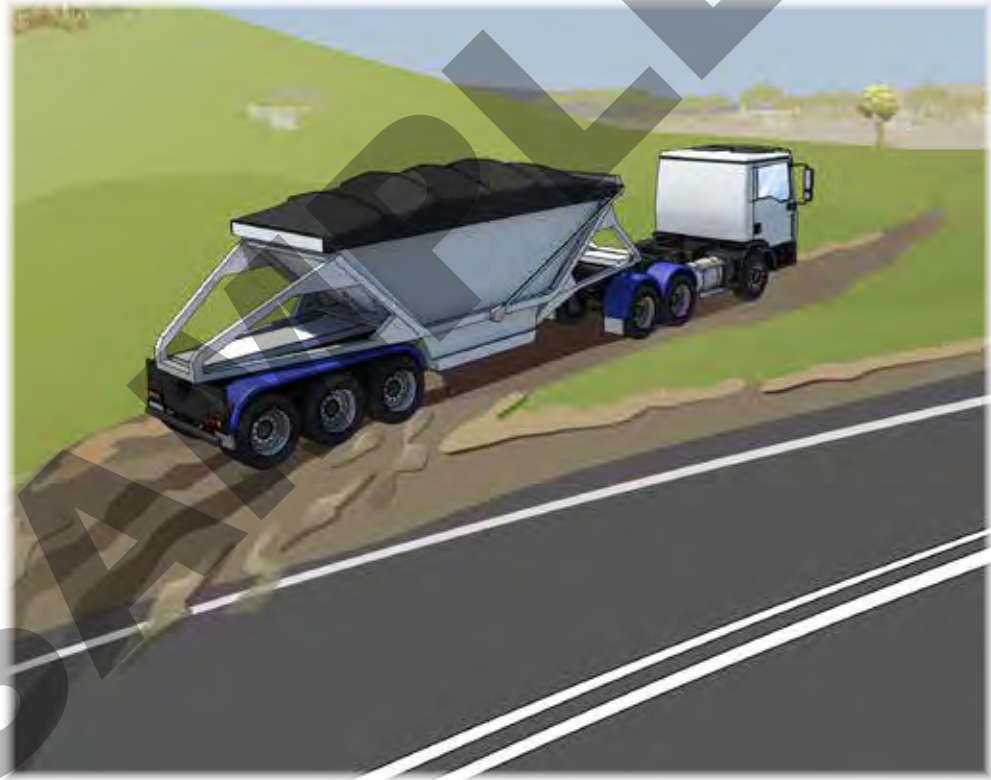


QUESTION 53

If all of the brakes on the belly dump truck fail, how can you stop the truck?

Change to a lower gear to slow down. Drive the belly dump truck into a ditch, soft area, gutter or up a ramp or embankment if you can.

You only do this in an **emergency** when you have **no** other choices.



QUESTION 56

What does the belly dump truck have that warns people you are going to drive forwards or in reverse?

The belly dump truck has a warning alarm that beeps.



QUESTION 57

Your truck is empty.

Why do you have to give way to loaded trucks and scrapers?

Because you can stop and turn your empty truck more easily.

This is because loaded trucks are heavier than unloaded trucks, so it takes longer for them to stop.



Load, haul dump materials

Element 3



QUESTION 84

Why is it important to position the belly dump truck in a good position for loading?

So the loading equipment can load the belly dump truck as quickly as possible. It's also safer.

**QUESTION 85**

Why should you stay in the belly dump truck's cabin while it's being loaded?

You must stay in the cabin so the person loading the truck knows where you are. If you stand outside the truck you could be hit and injured if the load spills on to you.



QUESTION 86

What kinds of loading equipment might you use to load a belly dump truck?

You might load a belly dump truck with:

Excavators



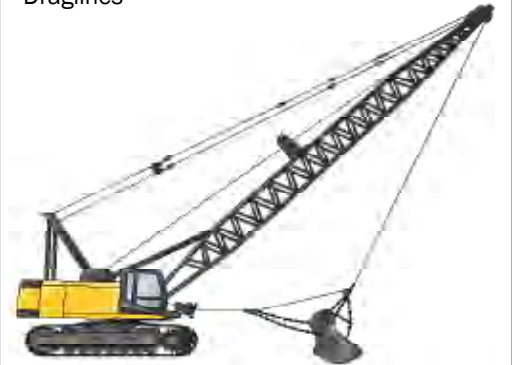
Loaders



Face shovels



Draglines



QUESTION 99

Why should you obey the spotter's directions when dumping a load?

The spotter can see what's behind the truck better than you.

**QUESTION 100**

Why do you close the clam shell or hatch before you travel?

To prevent any material which may be stuck in the body from falling out during travel.



End of Load, haul and dump materials section