

LEARNER GUIDE



Civil

WATER VEHICLE

TICKET

RIIMPO326E

Conduct civil construction
water cart operations



**EASY
GUIDES**

Australia Pty Ltd

Industry Training Resources

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Introduction to Water Vehicles



SAMPLE

Introduction to water vehicles

This unit may be used to demonstrate competency in the following industries:

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



What is a water vehicle?

A **water vehicle** is a purpose built vehicle or plant platform used to load, carry and distribute water on roads or worksites. This guide covers water carts in the **civil construction** industry.

Water carts include:

- Diesel-mechanical
- Diesel-electric
- Rigid or articulated steering vehicles.

Articulated steering means the front of the truck bends behind the cab and the rear tank can move independently.

Rigid trucks can't do this, and steer using the front wheels.

Articulated body



Rigid body



Note:

In this Learner Guide, the terms **water cart** and **water vehicle** are used to mean the same type of

Water vehicles and their uses (civil construction)

In **civil construction**, water carts are used for dust control, and to make sand, gravel or other materials easier to work with.

The type of water cart you will drive depends on the ground conditions and access to the site.

For example, if you are working on a small country road you may use a road water cart, or smaller water cart with a slip-on tank. However, if you were working on a large civil construction site you would use a much bigger bulk water cart.

Water carts can hold a large amount of water and usually have spray nozzles or spray bars and pumps, which spray water on roads or other surfaces. Some have large water **cannons** which can spray long

distances. Some spray water on the road as they drive.

Water carts have different types of spraying equipment and pump systems.

For example, most are fitted with spray nozzles or bars at the rear of the vehicle. These can spray water on to the surface using pressure pump or gravity feed.

Water is sprayed to help with soil compaction. It is also used for dust suppression, or to wash down roads to help keep them clean.

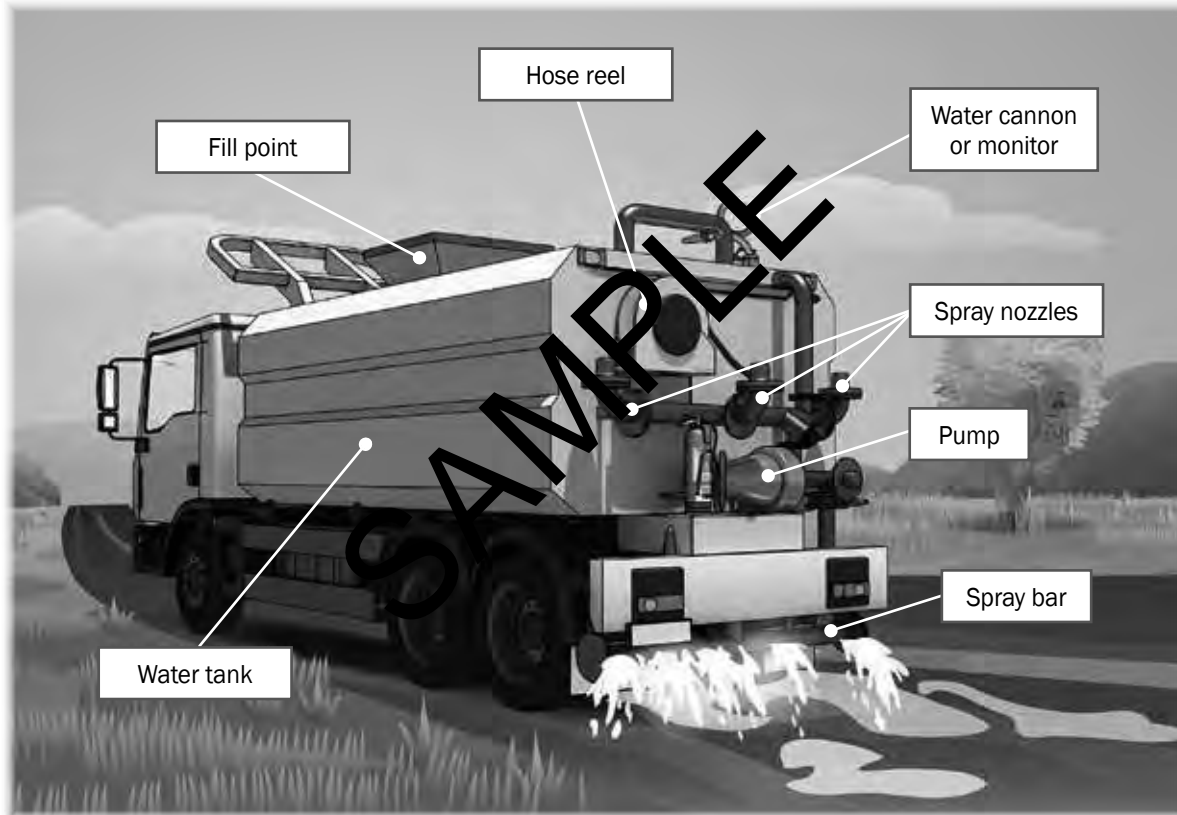
Some carts have water cannons that are used for directional spraying. They can also be used to help with fighting a fire.



Example of a water vehicle with a slip-on tank



An example of a water vehicle (civil construction)



Worker's duty of care

As a worker you must take care of your own health and safety – and the health and safety of others at the workplace. You must not put your own or other people's health and safety at risk.

Never work where you believe a hazard is a serious risk to your health and safety.

You must also:

- do your best to follow reasonable health and safety instructions from your boss (PCBU)
- follow workplace health and safety policies and procedures
- do not work where you believe a hazard would be a serious risk to your health and safety.



Plan and prepare for water vehicle operations

Chapter 1

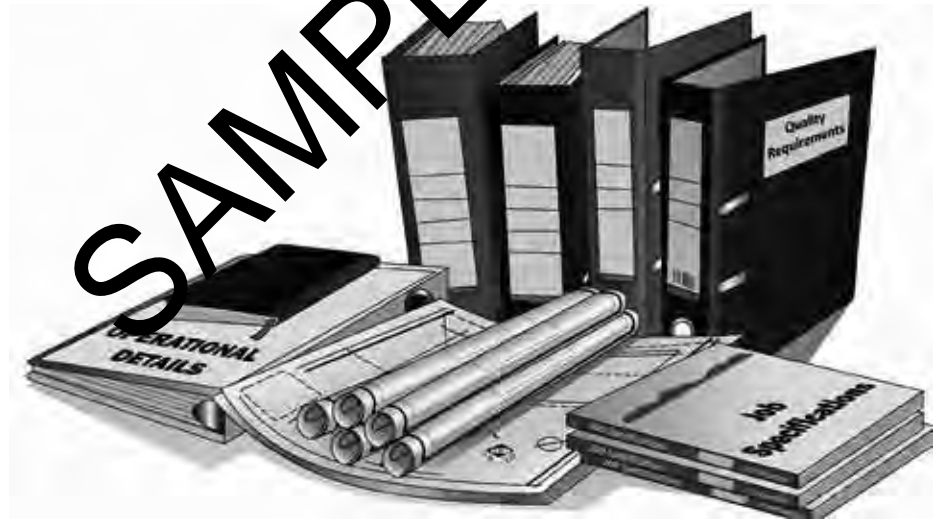


QUESTION 8

What kinds of information do you need before starting work?

You might need:

- 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
- Job paperwork - for example Job Safety and Environment analysis (JSEA) or Safe Work Method Statement (SWMS).



QUESTION 9

If you follow the instructions for the job, will you meet the quality requirements?

Yes. The quality requirements tell you the standards you must meet when driving a water vehicle. 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.



For example, in this job only half the road needs to be sprayed.

QUESTION 10

What do the job's work instructions explain?

Work instructions explain:

What to do in unexpected situations like bad weather

What the job is

Where the job is



How to do the job safely

How long the job will take

What tools and equipment you need

How to do the job from start to finish

QUESTION 12

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

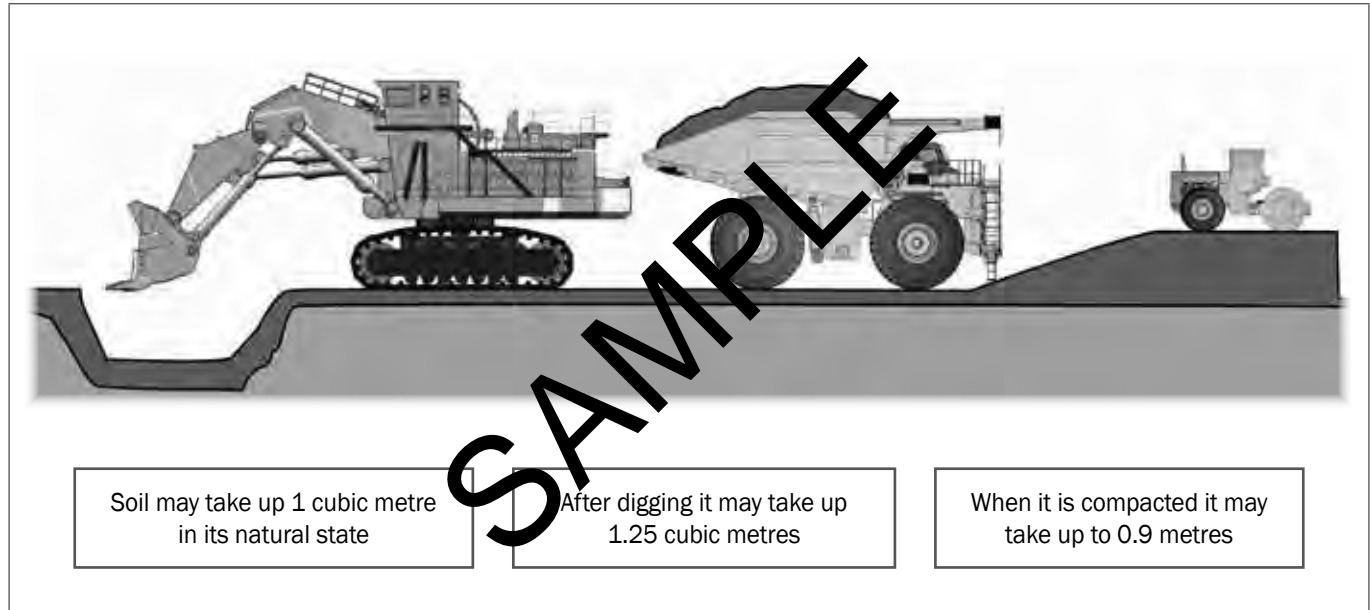


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Soil compaction

Soil can have different volumes in different conditions.

For example:



QUESTION 23

What kinds of PPE might you wear when using a water vehicle?

Explain what you use the PPE for.

You might use:

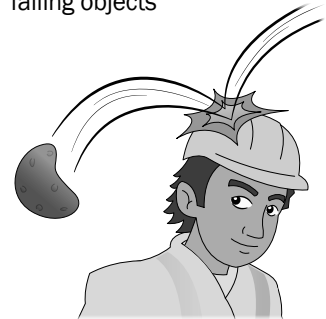
Non-slip boots that cover your whole foot. Some sites require steel-capped, lace-up boots to protect your feet



Safety vest/hi-vis clothing – to show people where you are



Hard hat/helmet – to protect your head from falling objects



Glasses/goggles to protect your eyes



Ear muffs – to protect your hearing



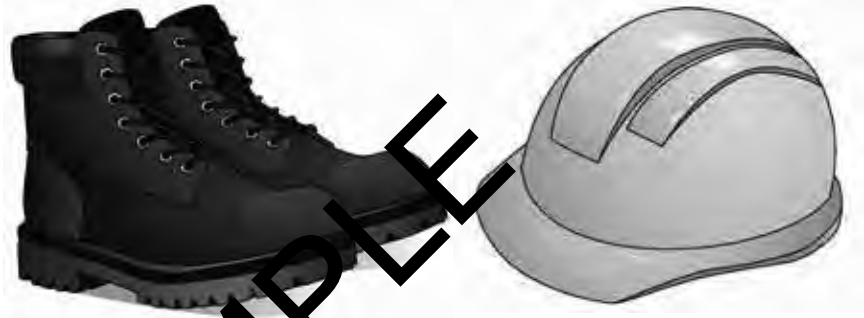
Gloves – to protect your hands when you are doing things such as checking engine coolant, brake fluid or refuelling.



QUESTION 24

What kind of personal protective equipment (PPE) **must** you wear when working with a water vehicle?

You must wear any PPE that the law, regulations and your workplace policies and practices tell you to.

**QUESTION 25**

What does the traffic management plan (TMP) tell you?

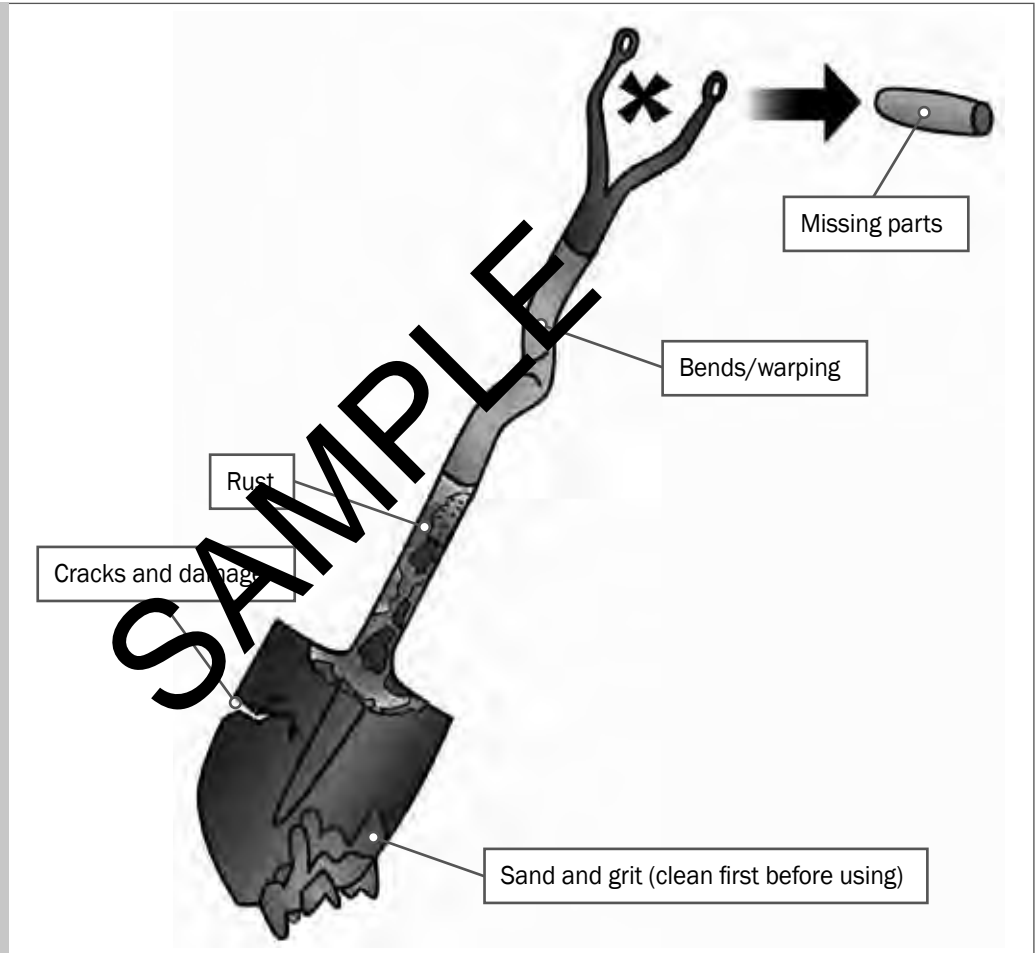
It tells you how to control vehicles in and around the worksite. It helps keep the site safe for you and others.

You may require a traffic control licence in your state or territory.



QUESTION 28

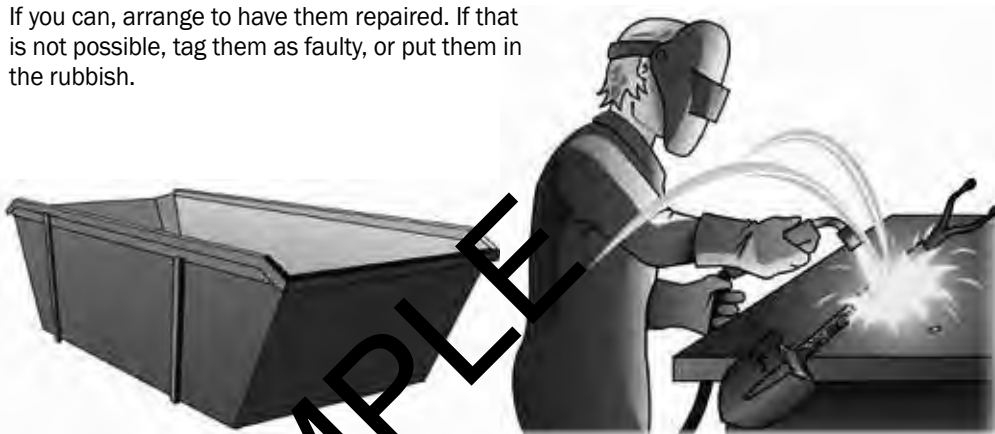
What kinds of faults do you check hand tools for?



QUESTION 29

What do you do with faulty handtools?

If you can, arrange to have them repaired. If that is not possible, tag them as faulty, or put them in the rubbish.

**QUESTION 30**

When would you choose an articulated water vehicle?

You choose an articulated water truck when you have long drives over muddy or soft ground.

Because they are 4 or 6-wheel drive, they have a good grip. They are also more stable on steep terrain.



QUESTION 31

When would you choose a rigid water truck?

They are best on flat roads travelling longer distances.

