

LEARNER GUIDE



Tractor TICKET

Training support material for:

RIIMP0315E

Conduct tractor operations



Produced by:



Picturebased.PlainEnglish.Learningmadeeasy.

Introduction to tractor



What is a tractor?

A tractor is a self propelled vehicle that has a powerful petrol or diesel engine. Tractors vary in size, horsepower, transmission and drive types.

Tractors can be:

- Wheeled or tracked
- Rigid or articulated
- Commercial or agricultural machines
- Two wheel or all wheel drive
- Dual wheeled.

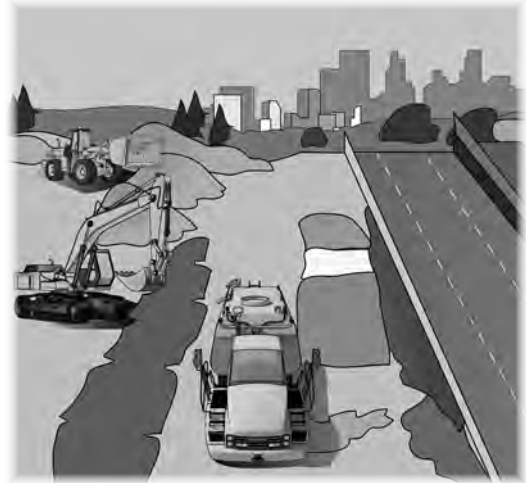


Who uses tractors?

Tractors are used in many different industries and workplaces.

For example:

- On golf courses
- City councils
- On farms
- In landscaping
- In the agriculture and forestry industry
- Quarrying and mining
- Civil construction.



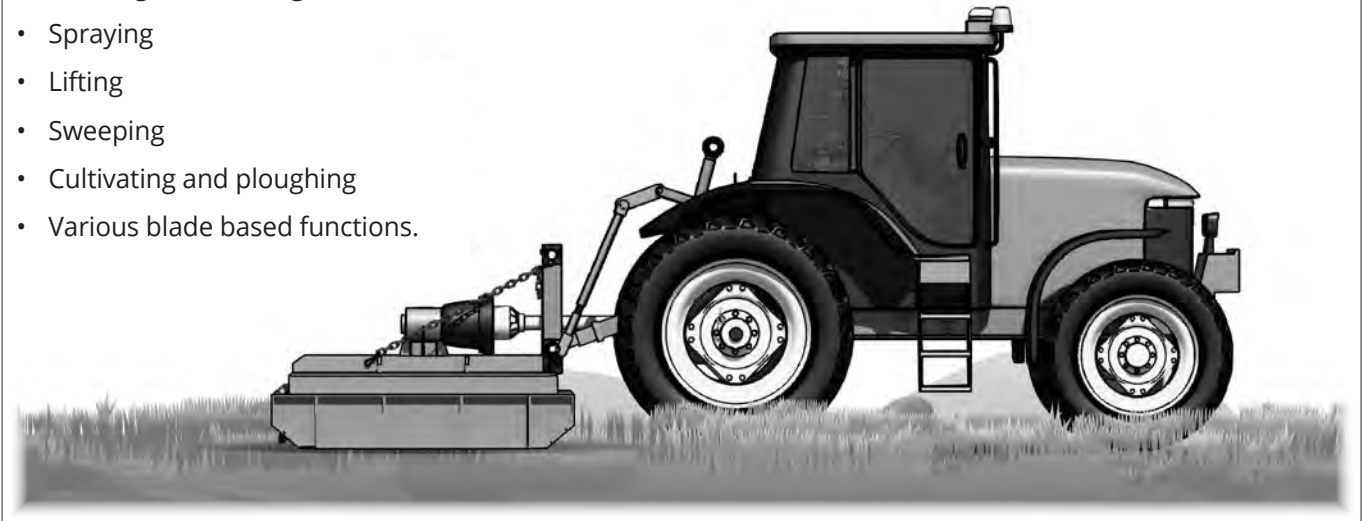
What are tractors used for?

Tractors are very versatile machines (have many uses).

Most tractors have a power take off (PTO) system which allows different implements and attachments to be fitted. The PTO system draws power from the engine to run the implements and attachments.

Some of the things tractors can do include:

- Pulling and towing
- Digging and moving soil
- Post hole digging/drilling
- Slashing and mowing
- Spraying
- Lifting
- Sweeping
- Cultivating and ploughing
- Various blade based functions.



Tractor examples

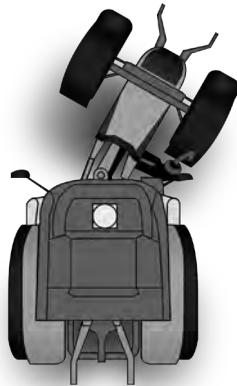
Rigid wheeled tractor



Tracked tractor



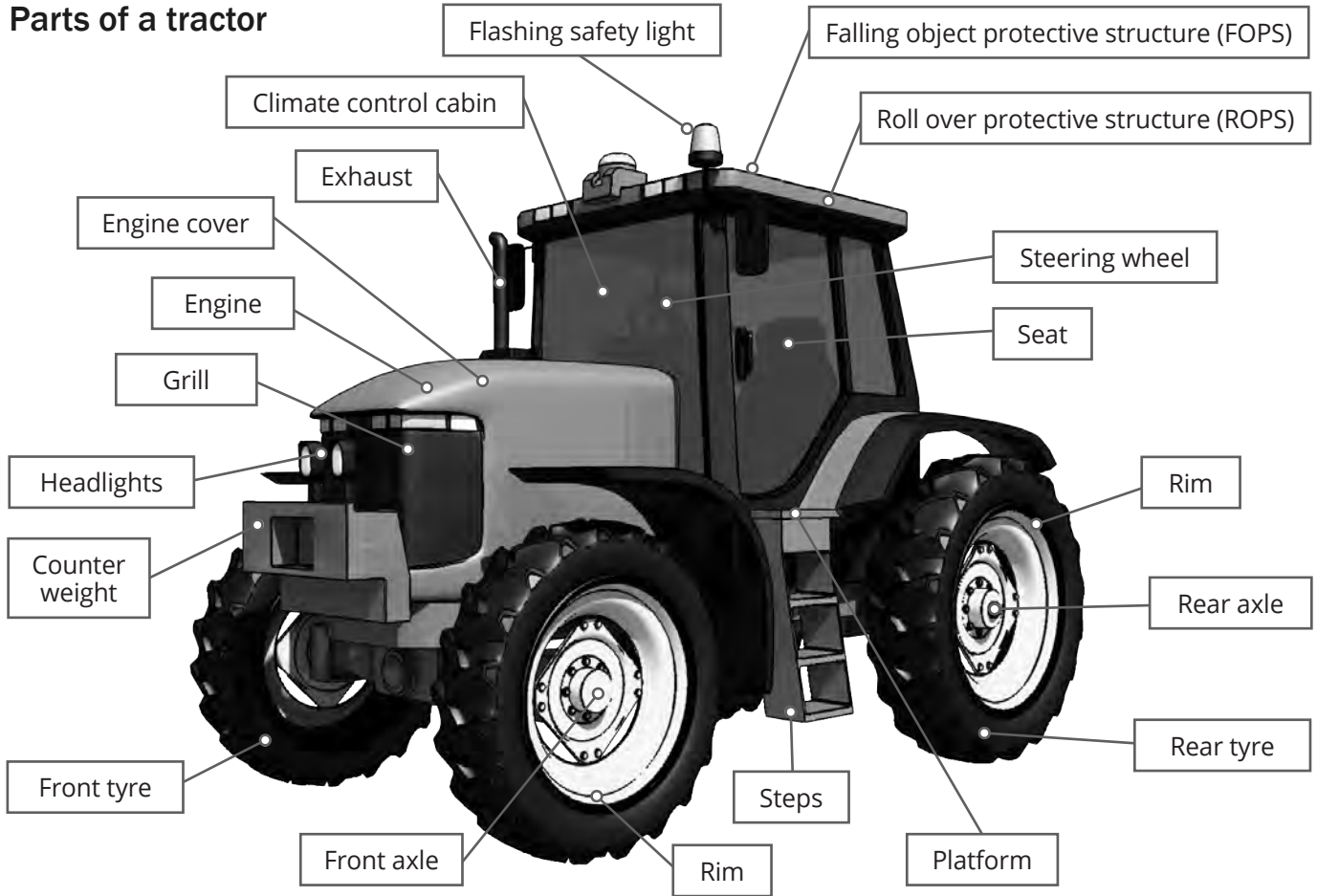
Articulated tractor



Dual wheeled tractor



Parts of a tractor



Plan and prepare for tractor operations

Element 1



Compliance

There are documents called compliance documents that workers need to know about. These documents tell you what you must do to work safely and legally.

The following are all examples of the types of compliance documents that are important:

Legislation

- Work Health and Safety Act or Occupational Health and Safety Act
- Work Health and Safety regulations or Occupational Health and Safety Regulations.

These documents can be found at www.safeworkaustralia.gov.au or on your state/territory regulator's website.



Codes of practice

Codes of practice give practical advice on how to achieve the standards of health and safety required under Health and Safety Acts and Regulations.

For example:

- Managing the risks of plant in the workplace code of practice
- Construction work code of practice
- Manual handling code of practice.



Australian standards

For example:

- AS2958 Earthmoving machinery
- AS2153 Tractors and machinery for agriculture and forestry



Worksite rules, policies and procedures

The rules, policies and procedures of the company you are working for or the site you are working on should be made available by the employer during site induction.

You could also speak to your supervisor or human resources department to get this information.



Guidance notes

For example:

- Guide to the model WHS Act
- Formwork and falsework guidance material

Check what's available from your state or territory regulator.



Operator's manual

The manufacturer's guidelines and the tractor's specifications can be found in the operator's manual.

It includes information about:

- Start up and shut down procedures
- Maintenance requirements and schedules
- Correct and safe operation
- Safety requirements.



Work instructions

Work instructions are important so workers know what needs to be done, how it is to be done and when they need to do it.

This allows work to be completed in a way that is safe, efficient, compliant and meets quality requirements. Work instructions include things like:

<p>Verbal, written and graphical instructions</p> 	<p>Signage, work schedules and plans</p> 	<p>Work bulletins, memos and maps</p> 
<p>Safety data sheets (SDS)</p> 	<p>Quality requirements</p> 	<p>Instructions issued by authorised organisations or external personnel.</p> 

Plan for safety

It is a good idea to have an operational plan before you start work.

Your plan should show that you have thought about:

- How to do the job
- What needs to be done first
- Workplace rules and procedures
- Hazards and risks (including environmental hazards and risks)
- Equipment and resources needed to do the job.

Inspect the site

You should inspect the work area for hazards and risks daily before starting work.

A good rule is to check:

- **Above eye level**
- **At eye level**
- **Below eye level.**



Above eye level

Check for obstructions, buildings, and anything else above eye height.



At eye level

Look for other machines, people and obstructions that may be in the path where you want to work.



Below eye level

Check the surface of the ground. Check for boggy ground or any other obstructions that might interfere with the safe operation of the tractor.



Always be aware of what is happening around you.

Continually monitor

Just because you inspected your work area for hazards and risks at the start of the day, it does not mean new hazards and risks won't arise throughout the day.

Tractor hazards and risks

It is important to check for hazards before you start work. Some common hazards and risks with tractor work are:

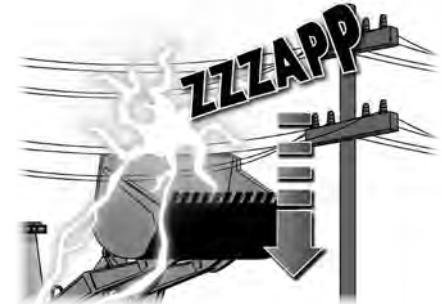
Falls from the tractor



Traffic and other mobile plant



Overhead or underground power



Underground gas lines



Water and sewage piping



Roll overs



Tractor hazards and risks (continued)

Noise



Dust



Manual handling



Contaminated soil



Falling into trenches or excavations



UV rays (radiation) from working in the sun

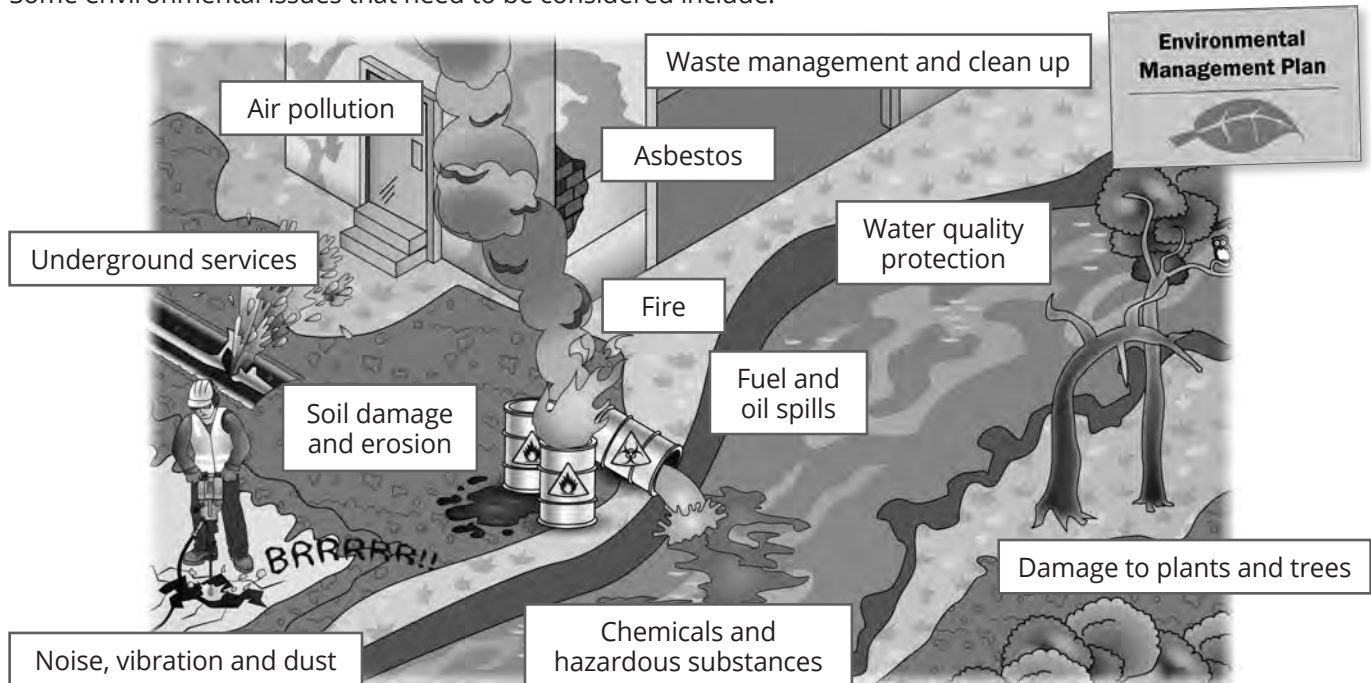


Environmental protection requirements

Sometimes the environment can be damaged by work which is done. The worksite may have an Environmental Management Plan (EMP) in place.

The EMP is a plan that is developed for the worksite to identify all the environmental hazards and give information on how they must be controlled so the environment is protected. The plan also makes sure the site is complying with environmental legislation including the correct disposal of rubbish and waste products.

Some environmental issues that need to be considered include:



How to remember the hierarchy of risk control

You can use the following acronym (an abbreviation formed from the initial components in a phrase) to help you remember the steps in the hierarchy of risk control.

E Every
Eliminate

S Saturday
Substitute

I I
Isolate

E Eat
Engineering

A a
Administration

P Pie
PPE

Every Saturday I Eat a Pie

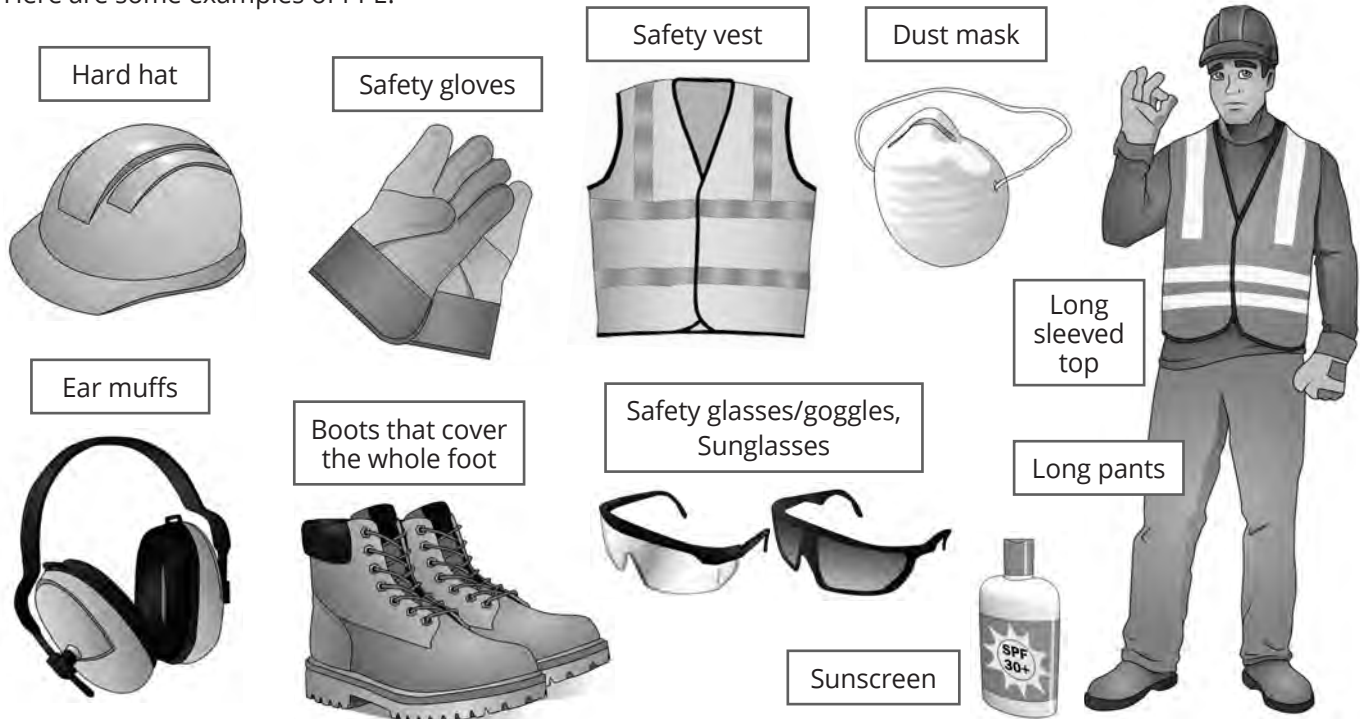


Personal protective equipment (PPE)

The best way to make the workplace safe is to take away hazards altogether. But often you can't do this. This is where Personal Protective Equipment (PPE) can help.

PPE is clothing or equipment worn on the body to help protect you from hazards. PPE will not take away the risk of harm altogether, but it will help keep you safe. Wear the PPE for the job you are doing.

Here are some examples of PPE:



PPE examples

These are examples of how personal protective equipment can protect you and your work mates.

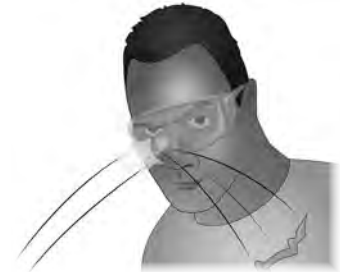
Safety shoes or boots should be worn. It is important that your footwear is safe and the right type for the work you do and the conditions you work in.



Safety helmet or hard hat can protect your head from falling objects.



Safety glasses, goggles or a face shield can protect your eyes from harmful objects.



Respiratory equipment can stop you from breathing in harmful substances such as gasses, dust or other contaminants.



Earmuffs or earplugs should be worn whenever there is a chance of noise causing loss of hearing.



Safety gloves should be worn to help prevent cuts, burns and abrasions.

Gloves will also stop hazardous materials getting into your body through your skin.



Attachments for a tractor

Tractors are capable of using attachments to perform a particular function.

It is important to know the limitations of your tractor and its attachments. Always check the tractor's or manufacturer's operating manual to understand the dangers and how to safely and correctly use an attachment.

There are a variety of tractor attachments available.

Some examples include:



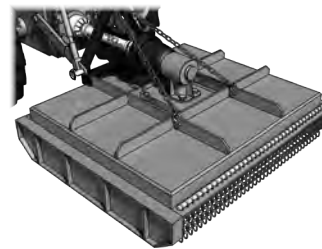
- Backhoe/loader general purpose buckets, blades or box scrapers
- Mowers, slashers and rotary cutters
- Grader blades, front and rear mounted blades
- Ploughs, rippers and scarifiers
- Pallet forks and bale forks
- Seeders and fertiliser spreaders
- Post hole digger
- Disc harrows
- Lawn pluggers
- Sprayers



Pallet forks



Post hole digger



Slasher



Bale fork

Check equipment and attachments

You must show that you know how to check the equipment or the attachments you will be using on the tractor. When checking the tractor's attachments look for any wear or damage that will affect the use and operation of the attachment.

Always follow the instructions in the manufacturer's operating manual about the:

- Tractor
- Attachments
- Equipment being used.



All attachments will have their own list of items to check. You need to be familiar with these from the operator's manual instructions.

- If in doubt, ask an experienced person.



Check the 3-point hitch/linkage

The main benefit of the 3-point hitch/linkage system is to transfer the weight of an implement to the drive wheels of the tractor. This gives the tractor more usable traction than it would otherwise have, with the same power, weight, and fuel consumption.

The 3-point hitch/linkage is used for fixing attachments onto the tractor.

- Each hitch/linkage has attachment holes for attaching implements
- The implement has posts that fit through the holes
- The implement is secured by placing a pin on the end of the posts

