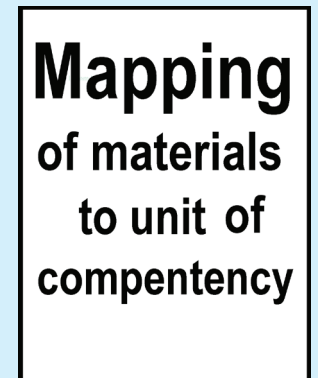
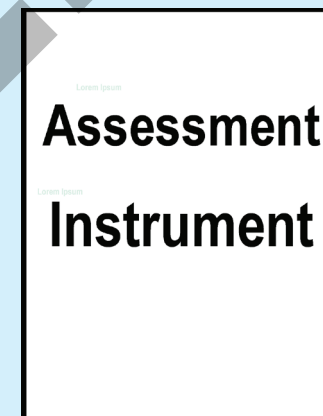
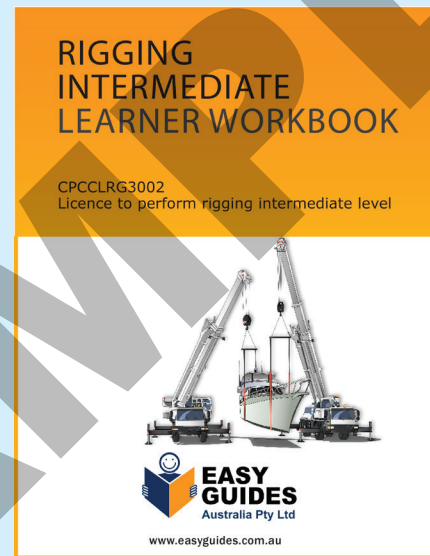


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LEARNER GUIDE



Skid Steer Loader

TICKET



Training support material for:
RIIMPO318F
Conduct civil construction
skid steer loader operations

Produced by:



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How to use this guide

Use it in hard copy

You'll find the hard copy guide easy to use. With short words and easy-to-understand pictures for each question, it's easy to read. Extra picture-based information pages are also added to help you understand.



Easy Guides training materials have been developed around Language – Literacy – Numeracy (LLN) principles.

Or use it on screen

This guide also comes in a powerpoint presentation that is an interactive version of the book. You can use it on your computer or screen. The powerpoint presentation is just like the guide and has exactly the same questions with the same easy to understand words and pictures.

Trainers can use the powerpoint presentation in class to help learners discuss questions. The trainer first shows the question and asks if anyone knows the answer. Next, the trainer will show the answer and discuss it with the learners.

Introduction to Skid Steer Loader



What is a skid steer loader?

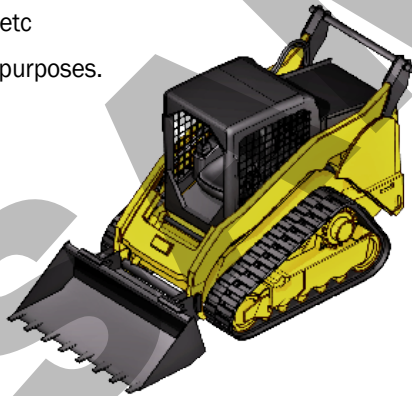
A skid steer loader is a self-propelled wheeled or tracked machine in which steering is accomplished by skidding or reversing the wheels or tracks on one side of the machine. It has an integral front-mounted bucket-supporting structure and linkage, which loads or excavates through forward motion of the machine, and lifts, transports and discharges material.

A skid steer loader is often called a **bobcat**. It is a small, rigid framed machine which is engine powered. It uses lift arms for tools and attachments. A skid steer loader can push material from one place to another, carry material in its bucket or load material into a truck or trailer.

The skid steer loader is small and agile. It can do zero-radius, pirouette (rotate) turns, which makes it very useful when you need to work in tight spaces. To steer it, you stop or reverse the track or wheels on one side of the machine.

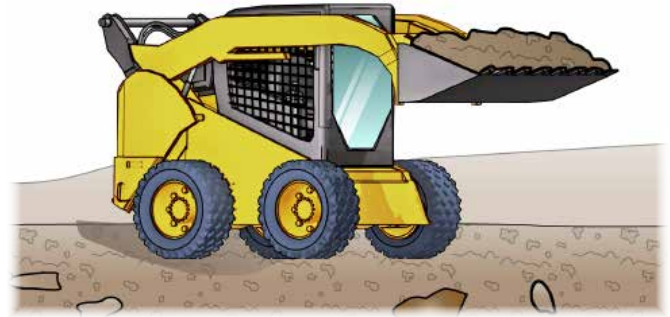
What do you use a skid steer loader for?

- Agriculture – farming
- Construction
- Clean up
- Moving dirt/rocks etc
- Can use for lifting purposes.

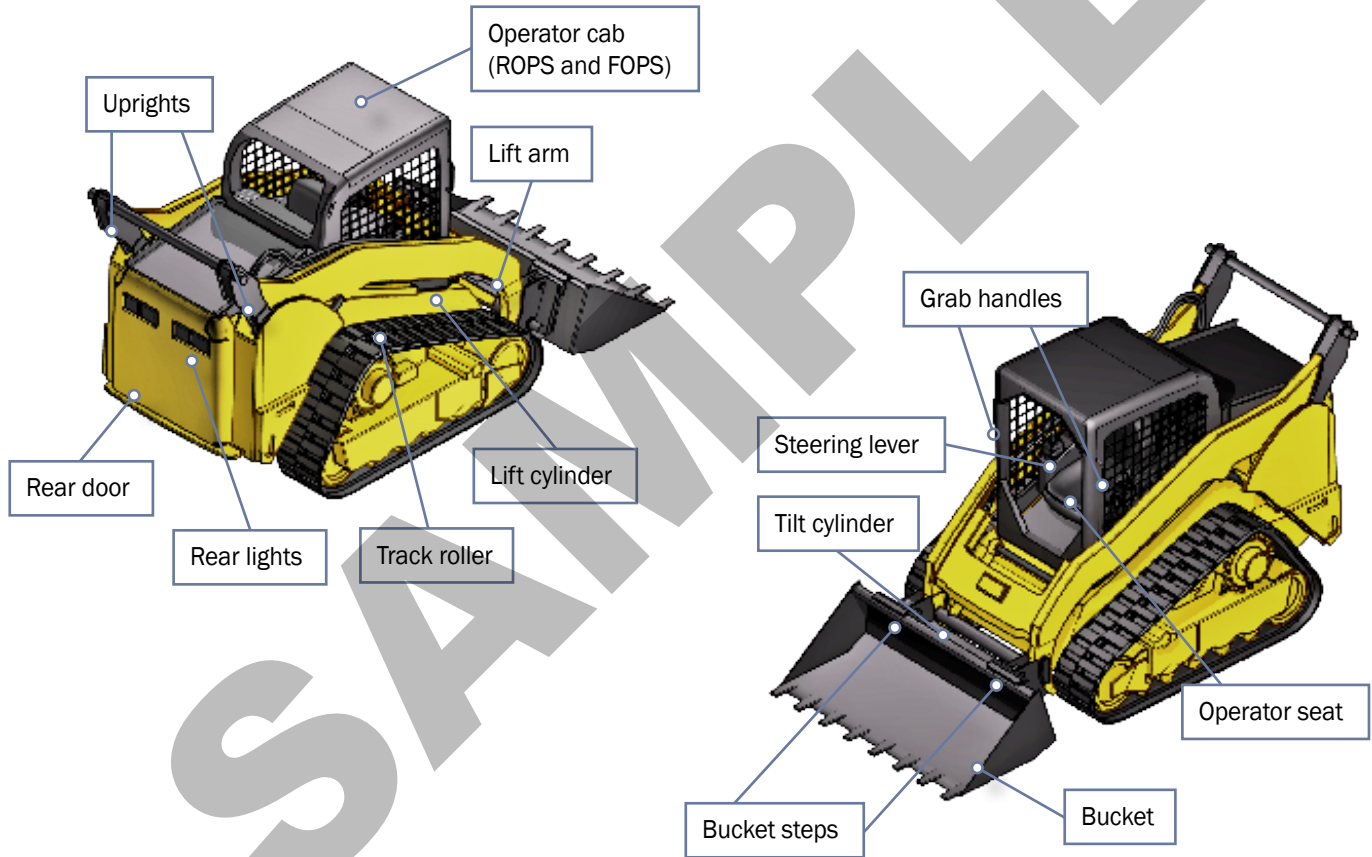


What industries do you use a skid steer loader in?

- Civil construction



An example of a skid steer loader

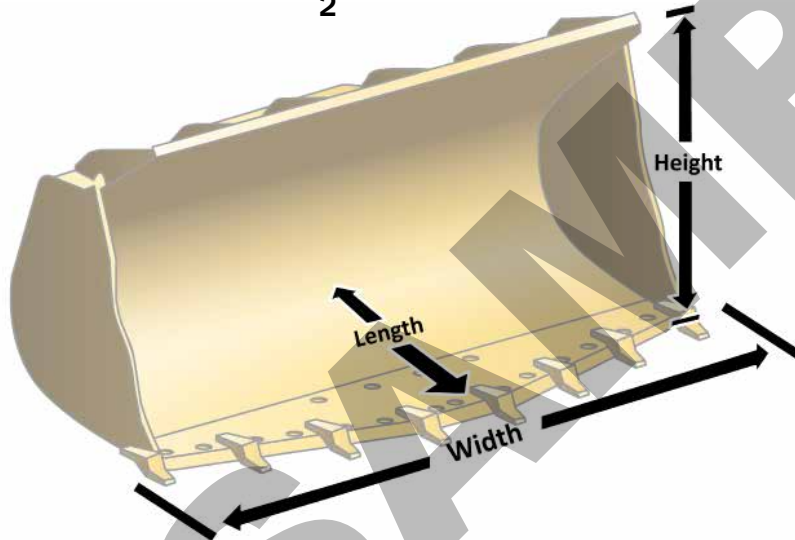


Calculations (continued)

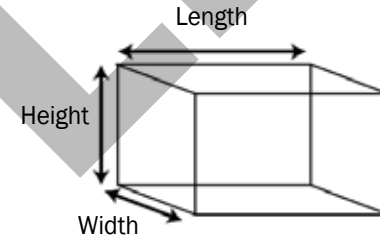
How to find the cubic capacity of a bucket

The planner must know the capacity of the loader bucket to be able to plan the job. For example, a machine with a larger bucket will move more material than a smaller bucket in the same number of loads.

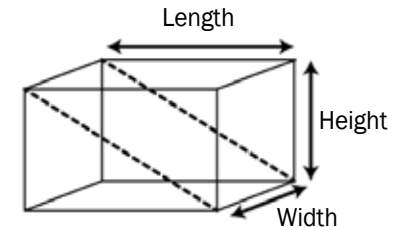
$$\text{Capacity} = \frac{L \times W \times H}{2}$$



Cubic capacity is $\div 2$ because of the shape of the bucket (a triangular prism)



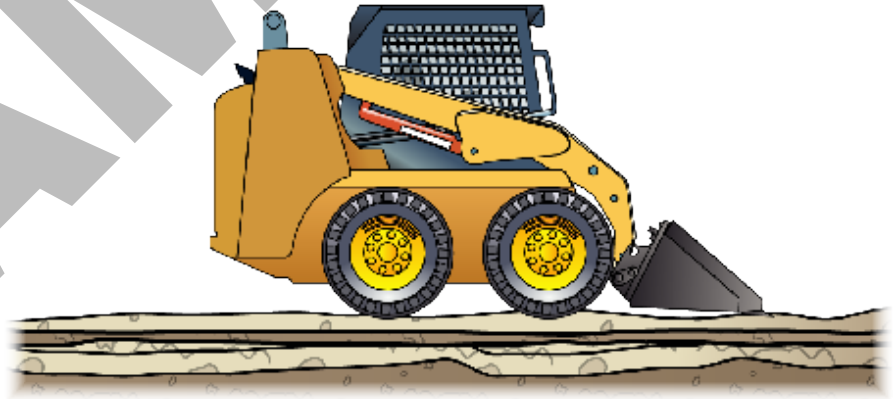
Cubic capacity of cube
= $L \times W \times H$



Cubic capacity of bucket
= $L \times W \times H \div 2$

Identify and control hazards

Chapter 2



QUESTION 16

...CONTINUED FROM PREVIOUS PAGE

What does the safety plan tell you?

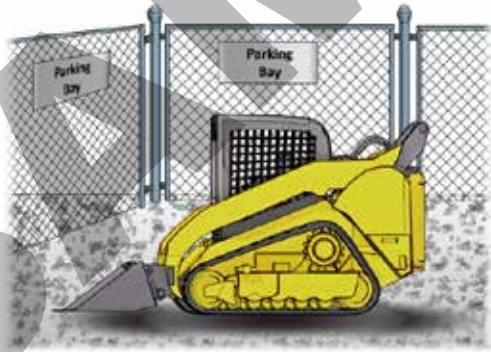
How to use tools, plant and equipment safely



Emergency procedures and exits



How to park safely and where to park



Control hazards and risks



QUESTION 17

You are using the skid steer on a public road.

What are some examples of signs you can use to warn other road users?

Roadwork ahead
(1 km) / end roadwork



Worker symbol



Road plant ahead



Give way



Stop



...CONTINUES ON NEXT PAGE

Earthmoving site hazards

Checking for underground services

You should always check where services are **before** you start work.

You may phone '**Dial before you dig on 1100**'. You may look at the site plan or talk to your supervisor. You may need to look at the location of pits and meters to get an idea of where the services run. You may need to check with the local council or service company. You may even need to get underground detection equipment.

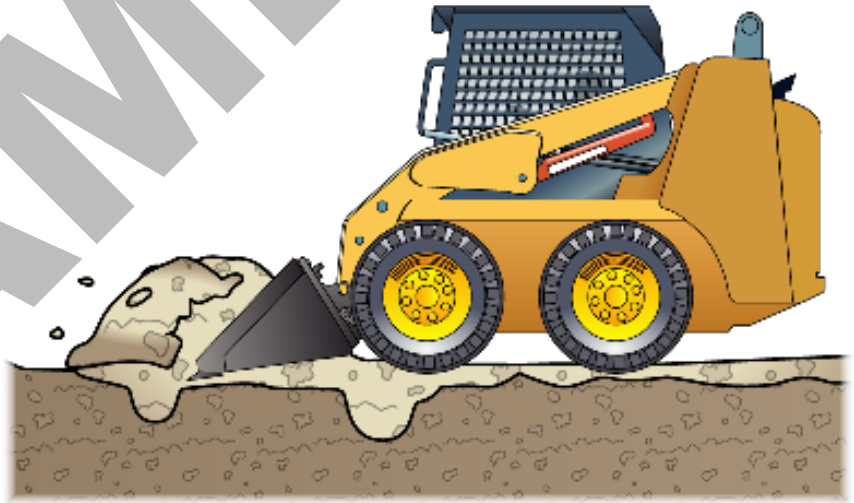
If you hit a service line, contact the provider immediately. You may need to organise to get the service disconnected while a qualified person fixes the problem.

You can sometimes tell there are services below by the types of ground. Some services are surrounded by a different type of soil, rock or sand.

You may notice that the soil is looser, or does not match the soil around where you are digging. There may be a line of tape alerting you to the services.

If you suspect there are services underground, stop working.

Check the ground. You may need to excavate the area by hand, or dig in another area.



SKID STEER LOADER

Learner Workbook



Student Copy

RIIMPO318F –
Conduct civil construction skid steer operations



This resource was developed by:



Version 2.1 – June 2022



Learner Name: _____

Student Number: _____ Date: _____

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SAMPLE

Knowledge Assessment



Question 1

What do codes of practice explain?



Question 2

What do Australian Standards explain?



Question 3

What are some examples of documentation you should read before doing earthmoving work?



Question 4

Why should you check the operator's manual before using earthmoving equipment?



Question 5

What are quality requirements?



Question 6

What kinds of information do you need before starting work?



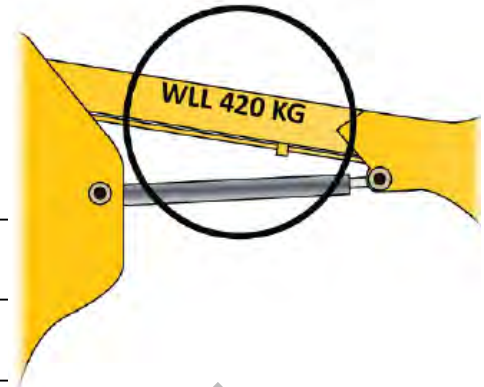
Question 7

What do the job's work instructions explain?



Question 8

How can you find out the maximum safe working load (SWL) of the skid steer loader?



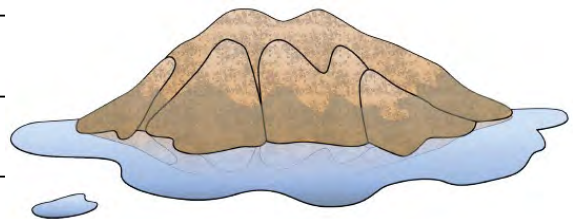
Question 9

How can you find out the weight of a load?



Question 10

How much does a cubic metre of wet sand usually weigh?



Question 11

How can you find out the specifications and limits of the machine you will use? Specifications include things like:

- Load capacity
- Bucket height, volume and width
- Lift height
- Dump clearance.



Question 12

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



Question 13

What can you do to control traffic in and around a worksite?

Question 14

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

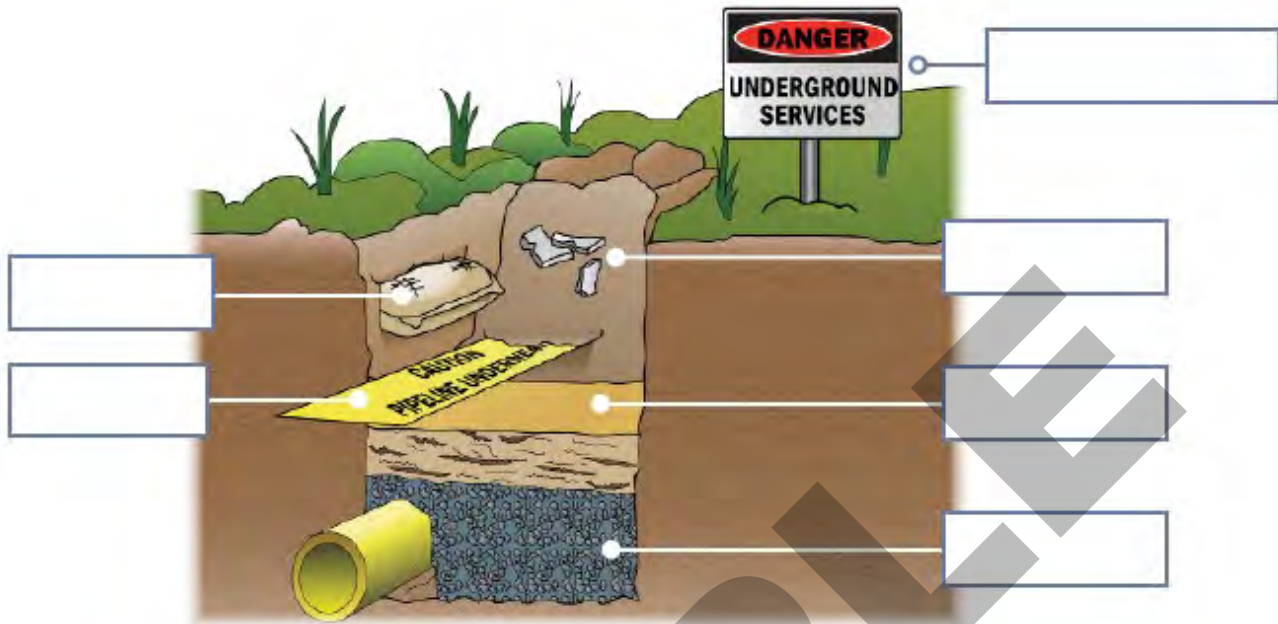


Question 15

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

Question 27

How can you tell you are near an underground service?



Question 28

What should you use to excavate if you think there's an underground service nearby?



Question 29

You are operating an excavator and it touches live powerlines. What do you do?



Question 33

Is it safe to refuel the engine while it's running?



Question 34

The bucket is full and raised and a hydraulic hose starts to squirt fluid. What do you do?



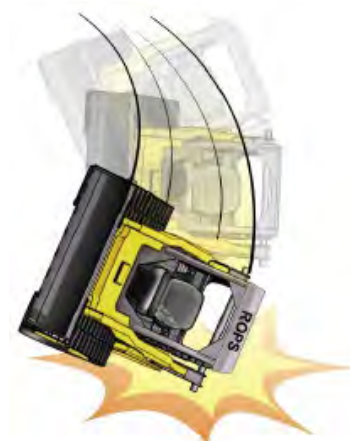
Question 35

You should never lift people in the bucket. Why?



Question 36

Which safety devices on a skid steer loader protect you from being crushed if it rolls over?



Question 73

Which way should you travel when driving on sloping ground?



Question 74

What could happen if you use the skid steer loader on uneven or sloping ground?



Question 75

What do you do before starting, going forward and reversing a skid steer?

Beep Beep Beep!

Question 76

How can you communicate and share information with your workmates?



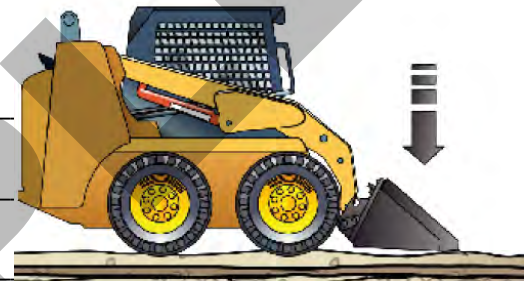
Question 90

One of your workmates is in a trench that is over 1.5 metres deep. How do you lower pipes safely into the trench?



Question 91

How do you spread soil and level a surface?



Question 92

What steps do you take when shutting down the skid steer loader?



Skid Steer Loader

Record of Training Logbook / Verification of competency (VOC)



RIIMP0318F
Conduct civil construction
skid steer loader operations



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Contents

Operator, employer, supervisor and training details	(i)
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Plan and prepare for skid steer loader operations	5
Operate skid steer loader in line with established requirements	23
Load, carry and place materials to complete work activity	35
Select, remove, fit and use attachments for a skid steer loader	45
Prepare to relocate the skid steer loader.....	57
Conduct housekeeping activities.....	65
Record of training summary	72

How to use this logbook

1. Fill out the details at the start of this logbook — operator's name, address etc.
2. Wear the personal protective equipment (PPE) you need to wear.
3. After you have finished working, you can start filling out your logbook. Start by writing down the work you have done.
4. Make sure you fill in each section of your logbook. Your supervisor will sign the supervisor section if s/he believes the details are correct and the tasks have been completed in a satisfactory way.



Plan and prepare for skid steer operations

PC 1.3

Check hazards and environmental issues.

Check the risks and put control measures in place in line with workplace policies.

Description of work/training performed

I looked around the site and found that a busy footpath was near my working area. People walking by might be at risk. I put up barricades and signs to warn people of the danger nearby. I then checked the skid steer loader. I checked oil, fuel and hydraulic oil. I checked other parts of the skid steer loader. Everything was okay.

I had to use the skid steer loader near a trench. The trench was about 2 metres deep. No-one had put up any warning signs or barriers. I put up a row of barricades 3 metres away from the trench. This would give me a safe working distance and also keep other people away from the trench.

The work site is noisy. A jackhammer was being used nearby so I wore some ear muffs while I worked. I also put on other PPE including steel capped boots and a hard hat as there were safety signs telling me to wear these.

Date/time	No. of hours	Machine details	Supervisor/competent person
Date: <u>14 / 03 / 2020</u> Start time: <u>8.00</u> am <u>9.00</u> pm	<u>60 minutes</u>	Make: <u>Bobcat</u> Model: <u>T 190</u> Serial No: <u>26445741</u>	Name: <u>Nathan Deeman</u> Signed: <u>Nathan D</u> Experience/qualifications: <u>20 years on the job experience</u> <u>and Cert IV</u>
Date: <u>15 / 03 / 2020</u> Start time: <u>11.00</u> am <u>11.30</u> pm	<u>30 minutes</u>	Make: <u>Bobcat</u> Model: <u>T 190</u> Serial No: <u>26445741</u>	Name: <u>Nathan Deeman</u> Signed: <u>Nathan D</u> Experience/qualifications: <u>20 years on the job experience</u> <u>and Cert IV</u>
Date: <u>18 / 03 / 2020</u> Start time: <u>10.00</u> am <u>1.30</u> pm	<u>3 1/2 hours</u>	Make: <u>Bobcat</u> Model: <u>T 190</u> Serial No: <u>26445741</u>	Name: <u>Sam Hasseron</u> Signed: <u>S.H.</u> Experience/qualifications: <u>Cert IV in Training & Assessing</u> <u>and RII RTO Statement of</u> <u>Attainment in Skid steer loader</u>

Element 1

Plan and prepare for skid steer loader operations



Plan and prepare for skid steer operations

PC 1.1

Check skid steer loader documentation.

Learn the important rules you must follow when using earthmoving machines. For example check:

- WHS/OHS Act
- Regulations
- Codes of practice

- Australian Standards
- Manufacturer's specifications
- Operator's manual

- Site requirements and procedures.

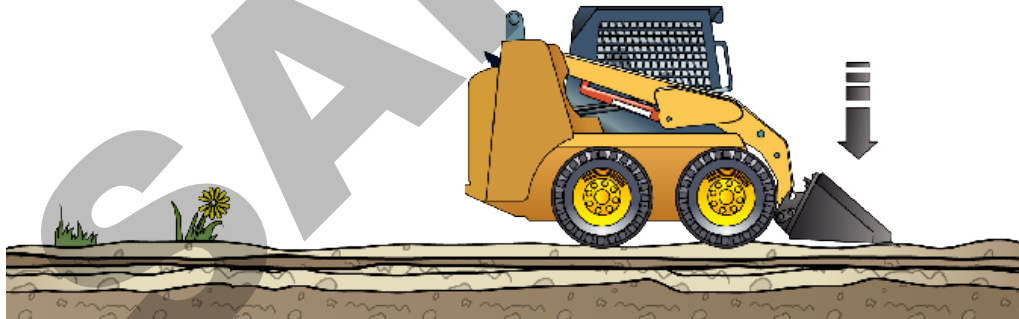
Give some examples from the above list you have used.

Description of work/training performed

Date/time	No. of hours	Machine details	Supervisor/competent person
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:

Element 2

Operate skid steer loader in line with established requirements



Operate skid steer loader in line with established requirements

PC 2.1

Prestart and start-up checks

Check the machine before you use it. For example, check for visual problems, leaks, cracks and other faults. Park and shutdown the machine safely.

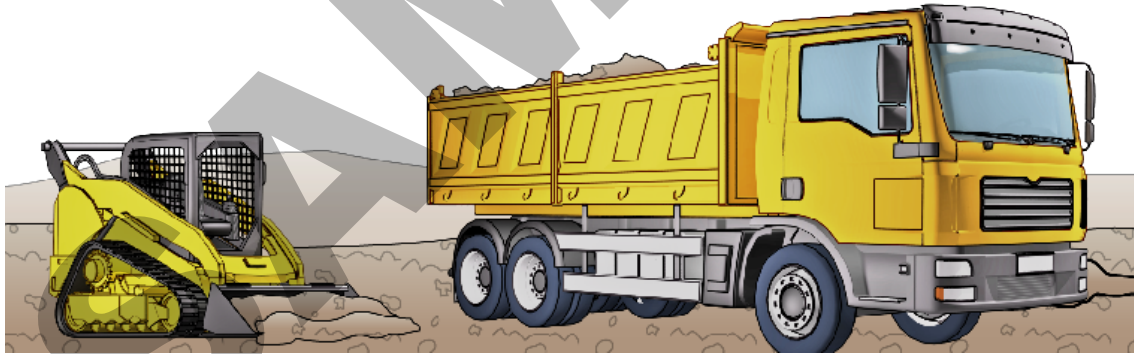
Give some examples.

Description of work/training performed

Date/time	No. of hours	Machine details	Supervisor/competent person
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:

Element 3

Load, carry and place materials to complete work activity

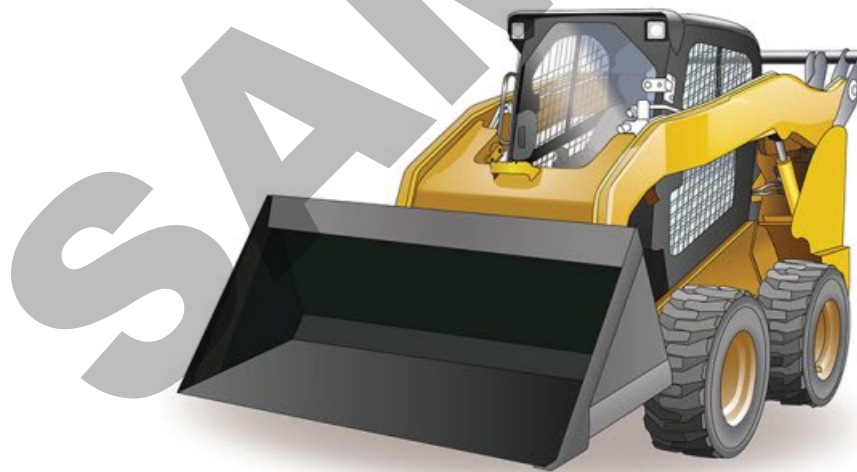


Skid Steer Loader

Mapping Document

RIIMPO318F

Conduct civil construction skid steer loader operations



Industry Training Resources

The information and questions contained in the Learner Guide and PowerPoint presentation have been mapped to the elements, performance criteria, and knowledge evidence for the unit of competency RIIMPO318F Conduct civil construction skid steer loader operations.

Elements and Performance Criteria

Element 1	Performance Criteria	Learner Guide/PowerPoint/Review Questions	Assessment	Learner Workbook
Plan and prepare for skid steer loader operations	1.1 Access, interpret and apply skid steer loader operations documentation	<ul style="list-style-type: none"> Who has duty of care? Worker's duty of care PCBU/Employer's duty of care Work health and safety legislative requirements Where to find Health and Safety information <p>Question 1, 2, 3, 5, 14, 15, 16, 101</p>	<p>Knowledge assessment 1, 62</p> <p>Practical assessment 1. Pre-start</p>	<p>Question 1, 2, 3, 5, 14, 15, 16, 101</p> <p>Practical assessment 1. Pre-start</p>
	1.2 Obtain, interpret, clarify and confirm work requirements	<ul style="list-style-type: none"> Calculations Worksite requirements <p>Question 3, 5, 6, 7, 19, 45</p>	<p>Knowledge assessment 2, 3, 25</p> <p>Practical assessment 3. Complete operations to specifications</p>	<p>Question 3, 5, 6, 7, 19, 45</p> <p>Practical assessment 3. Complete operations to specifications</p>
	1.3 Identify hazards and environmental issues, assess the risks and implement control measures in line with workplace policies	<ul style="list-style-type: none"> Job safety and environment analysis (JSEA) or Safe work method statement (SWMS) Environmental management plan (EMP) Earthmoving site hazards Earthmoving hazards and risks Decibel levels of common sounds Chemicals and solvents Safety around trenches Confined space Disposal of environmentally sensitive fluid The damage oil and chemicals can do Clean up <p>Question 18, 19, 20, 21, 22, 23, 24, 25, 26, 31, 32, 41, 42, 43, 44, 45, 55, 58, 109, 110, 111, 112, 113</p>	<p>Knowledge assessment 4, 5, 7, 10, 11, 16, 17, 18, 24, 26, 27, 28, 29, 31, 32, 33, 55</p> <p>Practical assessment 2. Drive and operate skid steer loader</p>	<p>Question 18, 19, 20, 21, 22, 23, 24, 25, 26, 31, 32, 41, 42, 43, 44, 45, 55, 58, 109, 110, 111, 112, 113</p> <p>Practical assessment 2. Drive and operate skid steer loader</p>

Element 1	Performance Criteria	Learner Guide/PowerPoint/Review Questions	Assessment	Learner Workbook
Plan and prepare for skid steer loader operations	1.4 Select and wear personal protective equipment required for work activities	Question 16, 32, 38	Knowledge assessment 6, 7 Practical assessment 1. Pre-start	Question 16, 32, 38 Practical assessment 1. Pre-start
	1.5 Obtain, identify and implement traffic signage requirements according to standard operating procedures and safe work practices	Question 12, 13, 17, 32	Knowledge assessment 8 Practical assessment 2. Drive and operate skid steer loader 5. Load, unload and relocate skid steer loader	Question 12, 13, 17, 32 Practical assessment 2. Drive and operate skid steer loader 5. Load, unload and relocate skid steer loader
	1.6 Select required skid steer equipment and confirm suitability for work activities	<ul style="list-style-type: none"> Tools and equipment Question 11, 46, 56, 59, 60, 61, 62, 64, 65, 66, 67, 68	Knowledge assessment 9, 10, 11, 12, 13, 40, 52, 53 Practical assessment 4. Attachments	Question 11, 46, 56, 59, 60, 61, 62, 64, 65, 66, 67, 68 Practical assessment 4. Attachments
	1.7 Obtain and interpret emergency procedures for skid steers, and be prepared for fires, accidents and emergencies	<ul style="list-style-type: none"> Worksite requirements Emergency evacuation plan First aid and emergencies Safety plan Question 16, 26	Knowledge assessment 4, 15 Practical assessment 1. Pre-start	Question 16, 26 Practical assessment 1. Pre-start
	1.8 Coordinate and communicate planned activities with others at the site prior to commencement of work activity	<ul style="list-style-type: none"> Communication Communication - shift handovers Choosing the right communication method Communicating with people Question 17, 76	Knowledge assessment 25, 48 Practical assessment 3. Complete operations to specifications	Question 17, 76 Practical assessment 3. Complete operations to specifications

Element 2	Performance Criteria	Learner Guide/PowerPoint/Review Questions	Assessment	Learner Workbook
Operate skid steer loader in line with established requirements	2.1 Carry out pre-start and start-up checks in line with workplace procedures	Question 47, 48, 49, 50, 51, 52, 53, 54, 61	Knowledge assessment 13, 19, 20 Practical assessment 1. Pre-start	Question 47, 48, 49, 50, 51, 52, 53, 54, 61 Practical assessment 1. Pre-start
	2.2 Identify faults or defects and rectify or report within scope of own responsibility and according to workplace procedures	<ul style="list-style-type: none"> Defective parts Question 34, 50, 63, 100, 105, 106, 107, 108	Knowledge assessment 13, 14, 19, 20, 22, 23 Practical assessment 1. Pre-start	Question 34, 50, 63, 100, 105, 106, 107, 108 Practical assessment 1. Pre-start
	2.3 Drive and operate loader using techniques suited to equipment capabilities and site work conditions, and according to workplace procedures	Question 43, 44, 69, 70, 71, 72, 73, 80, 81, 82, 89, 90, 91	Knowledge assessment 34, 35, 36, 37, 38, 39, 42, 43, 44, 45, 46, 53, 54, 55, 56 Practical assessment 2. Drive and operate skid steer loader	Question 43, 44, 69, 70, 71, 72, 73, 80, 81, 82, 89, 90, 91 Practical assessment 2. Drive and operate skid steer loader
	2.4 Monitor hazards and risks during operations, and ensure safety of self, other personnel, plant and equipment	<ul style="list-style-type: none"> Overhead powerlines on poles (National Standard) Overhead powerlines on towers (National Standard) Safety around trenches Question 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 39, 40, 41, 43, 44, 55, 57, 62, 74, 75, 89, 90	Knowledge assessment 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 42, 54, 55, 56, 63 Practical assessment 2. Drive and operate skid steer loader	Question 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 39, 40, 41, 43, 44, 55, 57, 62, 74, 75, 89, 90 Practical assessment 2. Drive and operate skid steer loader
	2.5 Monitor and manage equipment performance using indicators and alarms	Question 57	Knowledge assessment 47 Practical assessment 2. Drive and operate skid steer loader	Question 57 Practical assessment 2. Drive and operate skid steer loader