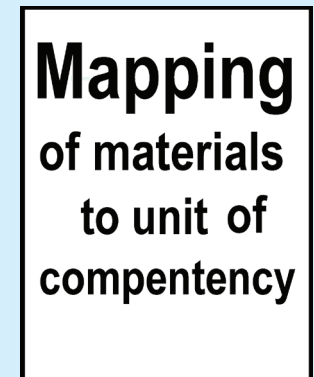
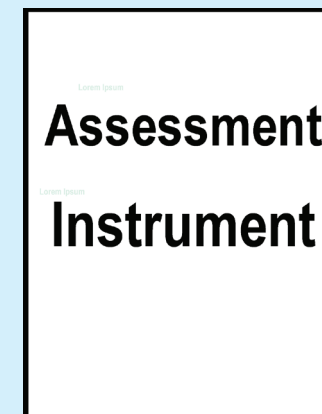
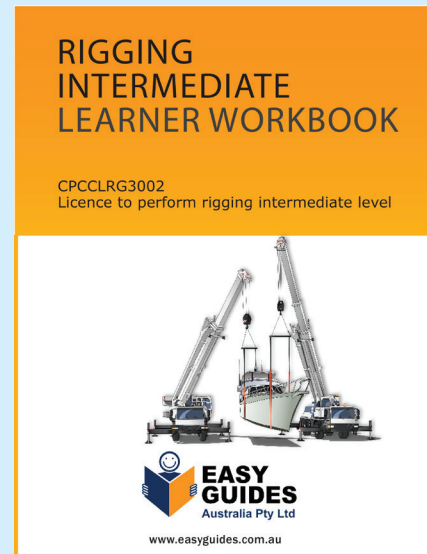
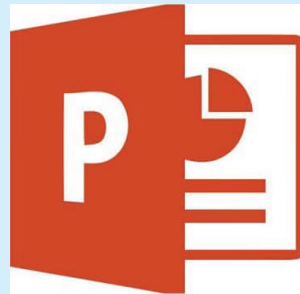


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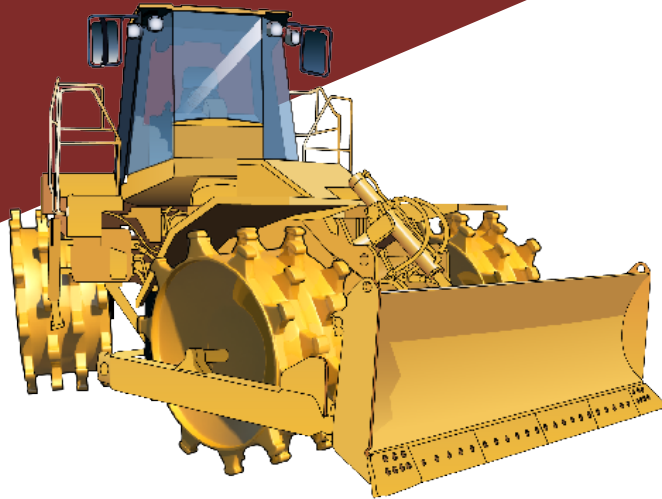


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LEARNER GUIDE



Self-propelled Compactor

TICKET

Training support material for:

RIIMPO316E

Conduct self-propelled compactor operations

Produced by:



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Introduction to Self-propelled Compactor



Introduction to self-propelled compactor

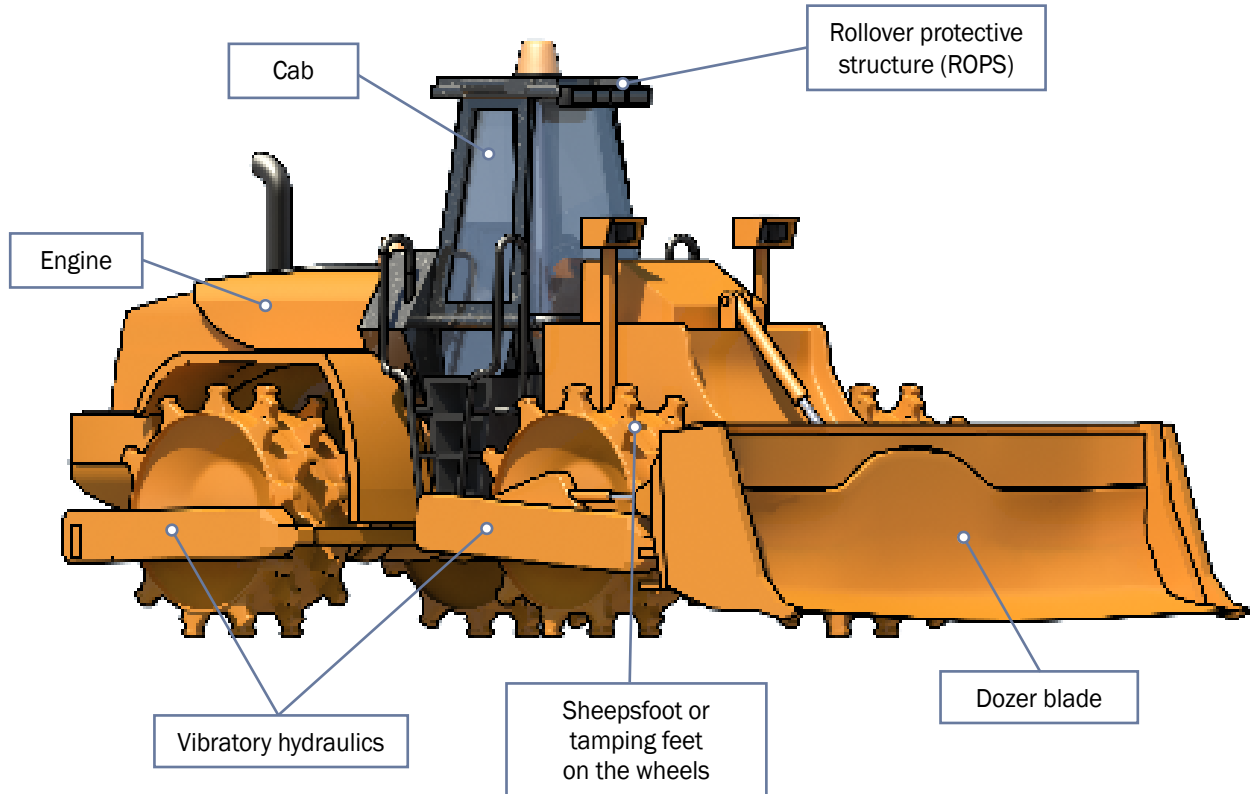
A self-propelled compactor is a self-propelled, tamping foot drum, wheeled machine, used to compact a variety of types of construction materials. It can operate at relatively high speeds and may have a dozer blade mounted on the front-end of the machine allowing for dozing, filling and compacting versatility. The tamping feet on the wheels of the machine may vary in size, shape and depth.

What industries do you use a self-propelled compactor in?

- Civil construction



An example of a self-propelled compactor



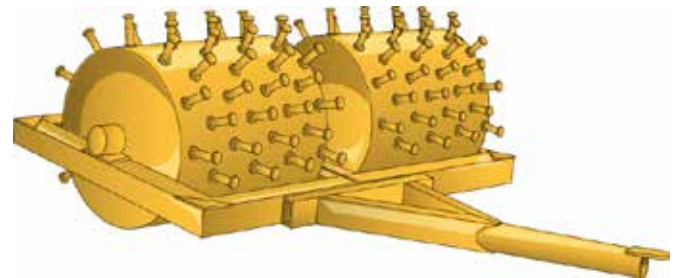
Self-propelled compactors

Four wheel (steel drum) articulated self-propelled compactor with dozer blade



Towed compactors

Single sheepfoot drum compactor



Operate self-propelled compactor

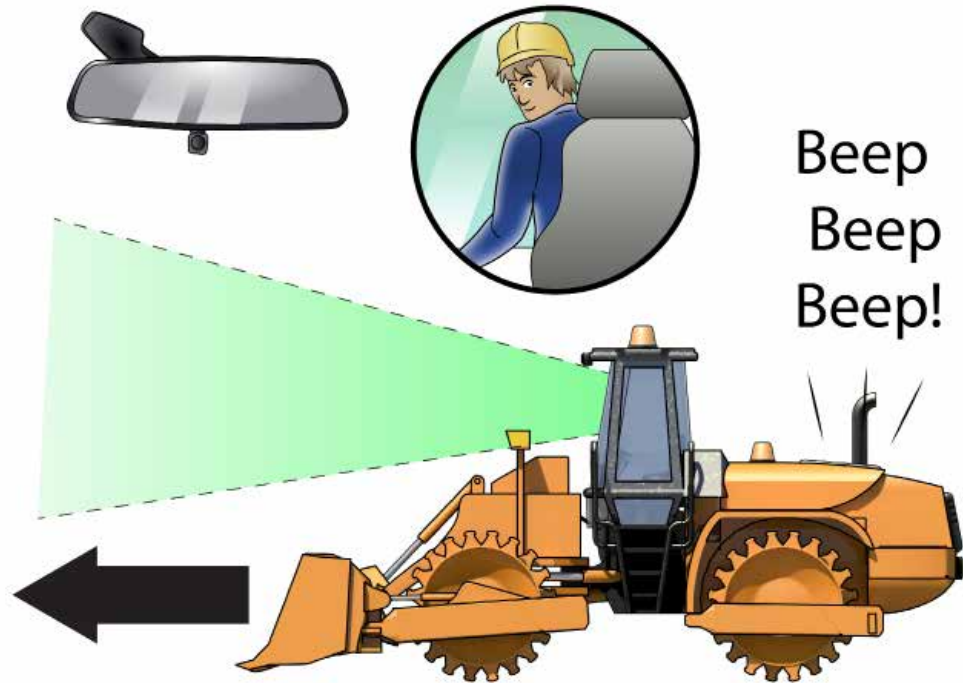
Element 2



QUESTION 37

What do you do before moving a self-propelled compactor which has been stationary?

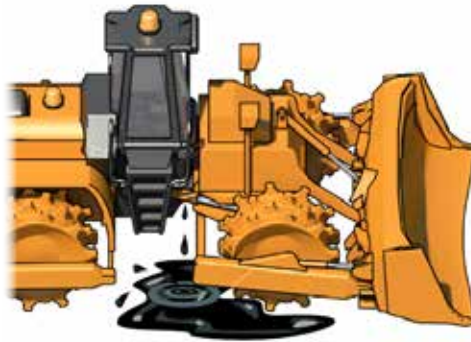
1. Sound the horn once.
2. Check the way is clear and there is no one near the self-propelled compactor.
3. Make sure the reversing alarm has started before you move in reverse.



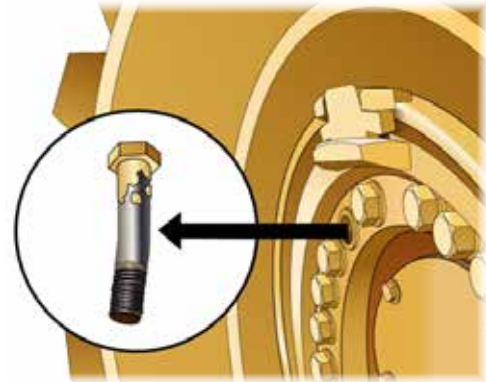
QUESTION 39

What pre-operational checks do you do before using the self-propelled compactor?

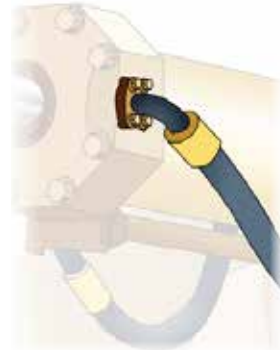
Look for leaks under the machine



Check drum condition and nuts



Check hydraulic systems (including attachments)



Check the fuel gauge to make sure the self-propelled compactor has enough fuel



Check power steering fluid

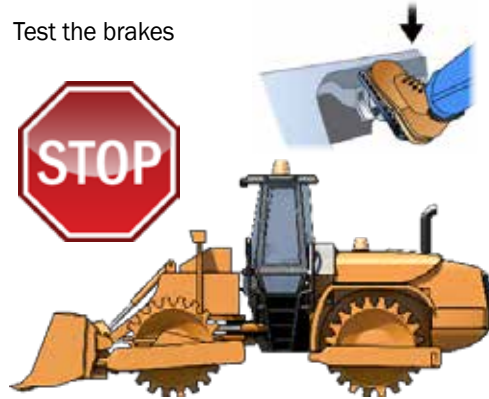


...CONTINUES ON NEXT PAGE

QUESTION 48

What kinds of tests should you do before using the self-propelled compactor?

Test the brakes



Test the self-propelled compactor's functions. For example, the vibrator. (Do this **away** from underground services).



Test the controls in a safe place



Test the steering in a safe place



Drive the self-propelled compactor a short distance to make sure it's okay



QUESTION 55

Which way should you travel when driving on sloping ground?

Go straight up or down the hill, not at an angle.

**QUESTION 56**

A hydraulic hose starts to leak fluid.
What do you do?

1. **Stop** working.



2. **Remove** the key.



3. **Tag out** the machine.



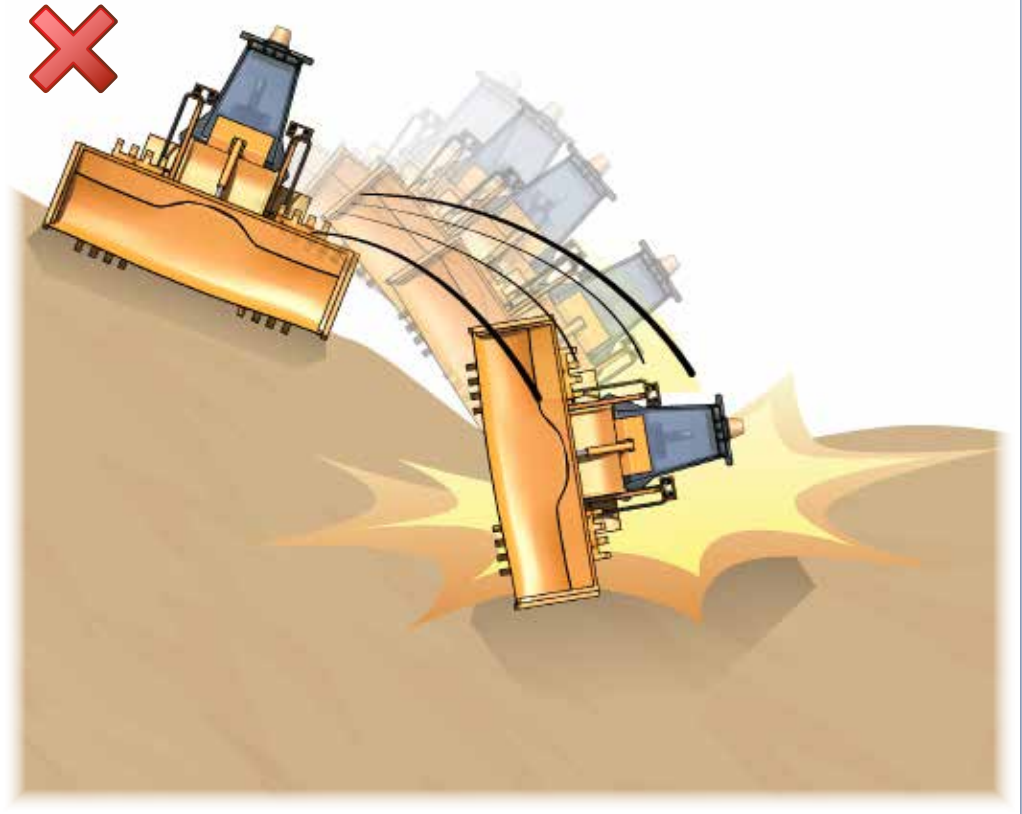
4. **Report** to your supervisor.
Have the hose replaced.



QUESTION 57

What is the danger of driving a self-propelled compactor sideways along a slope or hill?

The self-propelled compactor might tip over.



QUESTION 58

You need to travel over a rocky or bumpy surface.

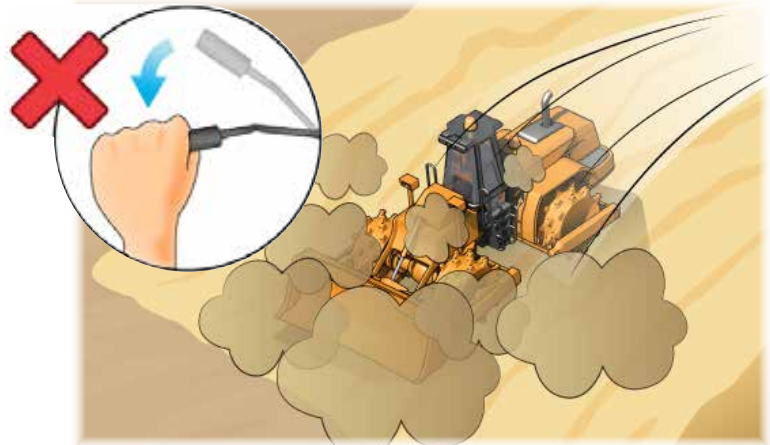
What speed do you drive at?

Drive slowly to keep the self-propelled compactor stable.

**QUESTION 59**

What is the risk of changing gear while you're driving the self-propelled compactor up a slope?

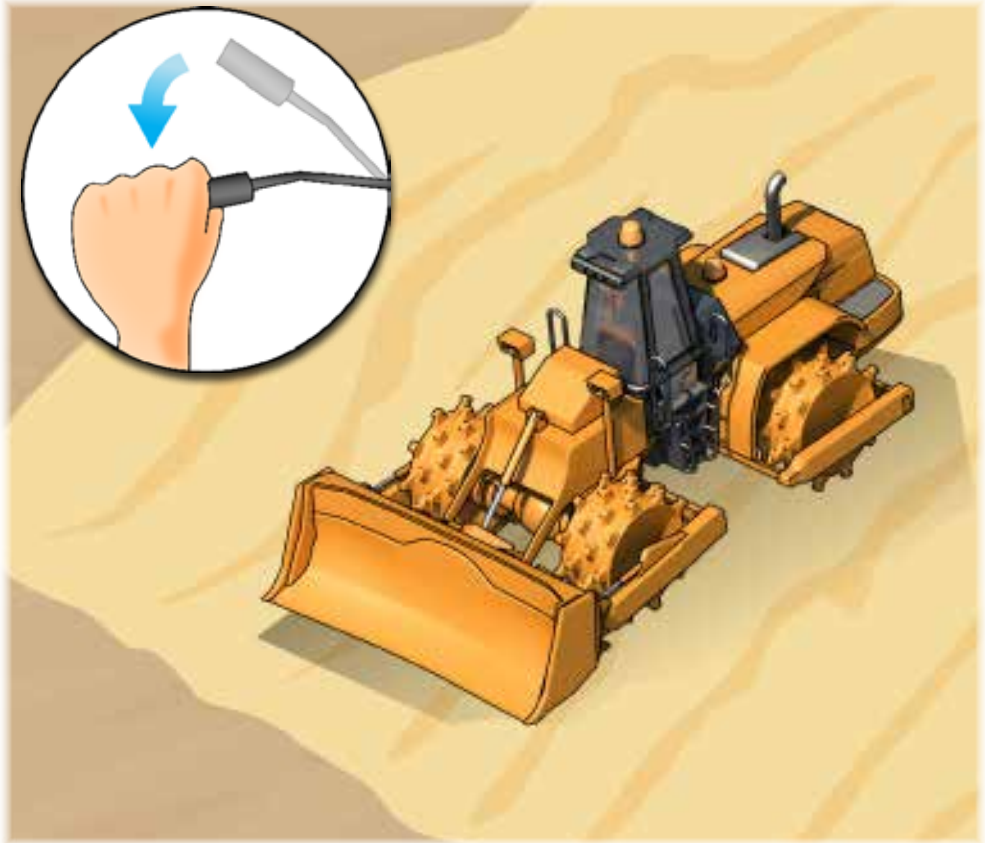
If you miss the gear the brakes may not be able to hold the self-propelled compactor. You may lose control.



QUESTION 60

Which gear do you use when travelling down a steep slope?

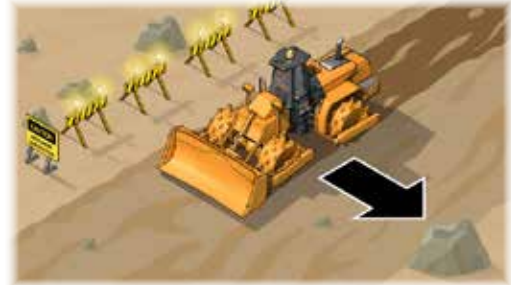
Use the lowest gear you can.



QUESTION 61

How do you compact a surface using a self-propelled compactor?

- Start from the outer or lower edge and move towards the centre of the surface you want to compact



- Do a forward and reverse pass and overlap on each pass



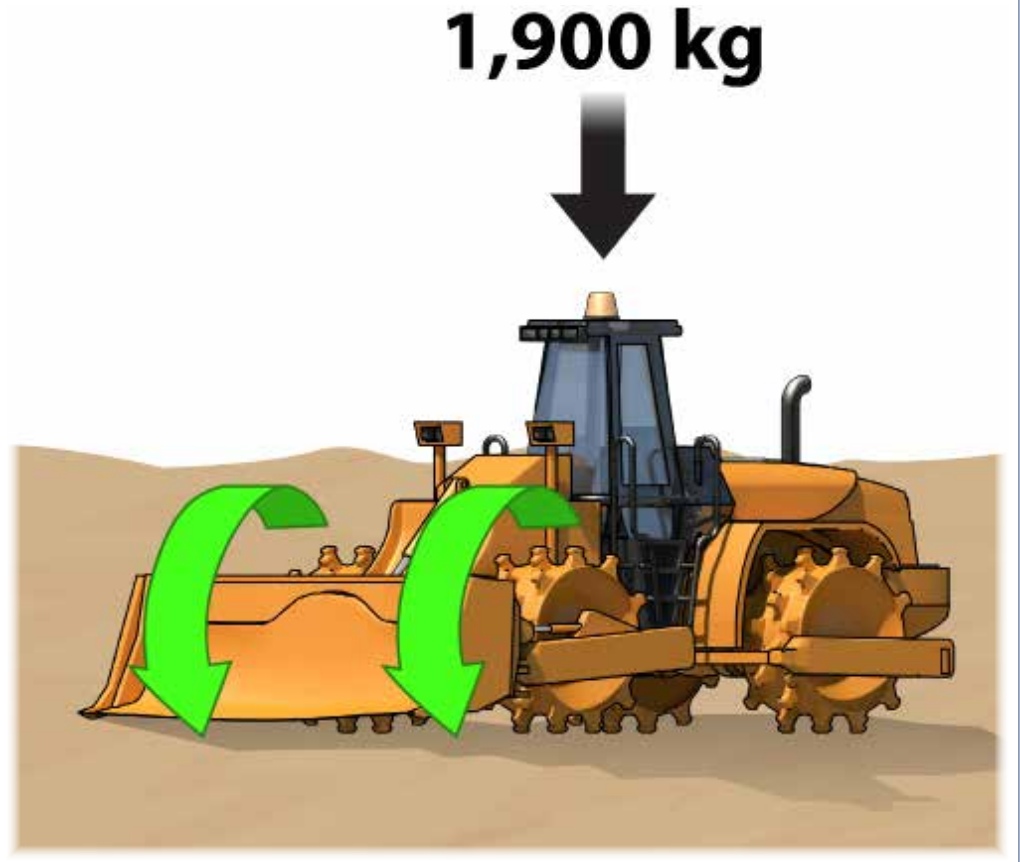
- Turn the self-propelled compactor around
- Turn the vibrator off
- Go back in the opposite direction
- When the self-propelled compactor starts to walk out, the surface is properly compacted.



QUESTION 65

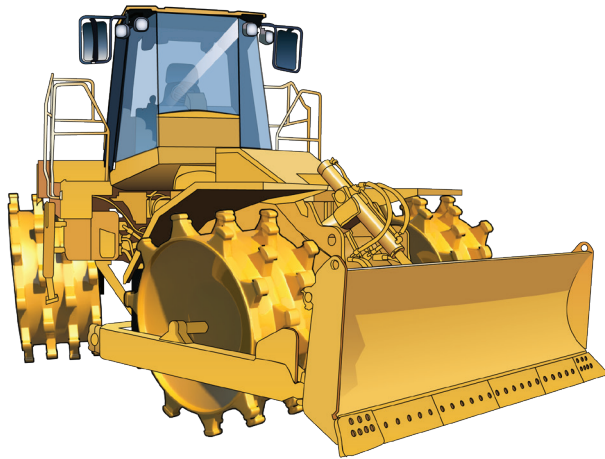
How does a static self-propelled compactor compact soil and material?

The static self-propelled compactor uses its weight and the rolling action of the drums.



Self-propelled Compactor

Record of Training Logbook /
Verification of competency (VOC)



RIIMP0316E

Conduct self-propelled compactor operations



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1

Plan and prepare

PC 2.1

Carry out prestart and start-up checks

A hazard is anything that can hurt you or others while you work. You need to know (identify) workplace hazards before you start work.

Look for hazards. Look above you, look around you, and check the ground below you.

Description of work/training performed

I walked around the compactor and did a pre-operational check. I looked under the machine for leaks, checked the drum condition and nuts, checked the hydraulic systems, fuel and power steering etc.

SAMPLE

i

Date/time	No. of hours	Machine details	Supervising person
Date: <u>5 / 4 / 2020</u> Start time: <u>10</u> am pm	30 minutes	Make: <u>Caterpillar</u> Model: <u>7FG 50</u> Serial No: <u>855745 11</u> Max Capacity: <u>4200</u> kg Load Centre: <u>600</u> mm Lift Height: <u>4000</u> mm	Name: <u>Joseph Burrows</u> Signed: <u>Joseph Burrows</u> Class: <u>Self-propelled comp.</u> Cert No: <u>323 565 1</u> State of Issue: <u>NSW</u> Issue Date: <u>26 / 01 / 2016</u> Expiry Date: <u>26 / 01 / 2021</u>
Date: <u>7 / 4 / 2020</u> Start time: am <u>2.30</u> pm	30 minutes	Make: <u>Caterpillar</u> Model: <u>7FG 50</u> Serial No: <u>855745 11</u> Max Capacity: <u>4200</u> kg Load Centre: <u>600</u> mm Lift Height: <u>4000</u> mm	Name: <u>Joseph Burrows</u> Signed: <u>Joseph Burrows</u> Class: <u>Self-propelled comp.</u> Cert No: <u>323 565 1</u> State of Issue: <u>NSW</u> Issue Date: <u>26 / 01 / 2016</u> Expiry Date: <u>26 / 01 / 2021</u>
Date: <u>8 / 4 / 2020</u> Start time: <u>8</u> am pm	100 minutes	Make: <u>Catipillar</u> Model: <u>7FG 50</u> Serial No: <u>855745 11</u> Max Capacity: <u>4200</u> kg Load Centre: <u>600</u> mm Lift Height: <u>4000</u> mm	Name: <u>Joseph Burrows</u> Signed: <u>Joseph Burrows</u> Class: <u>Self-propelled comp.</u> Cert No: <u>323 565 1</u> State of Issue: <u>NSW</u> Issue Date: <u>26 / 01 / 2016</u> Expiry Date: <u>26 / 01 / 2021</u>

Plan and prepare

- 1.1 Access, interpret and apply self-propelled compactor operations documentation
- 1.2 Obtain, interpret, clarify and confirm work requirements
- 1.3 Identify hazards and environmental issues, assess the risks and implement control measures in line with workplace policies
- 1.4 Select and wear personal protective equipment required for work activities
- 1.5 Identify, obtain and implement traffic management signage requirements according to standard operating procedures and safe work practices
- 1.6 Select required propelled compactor equipment and confirm suitability for work activities
- 1.7 Obtain and interpret emergency procedures, and be prepared for fires, accidents and emergencies
- 1.8 Coordinate and communicate planned activities with others at the site prior to commencement of work activity



1

Plan and prepare

PC 1.1

Read self-compact documentation.

What does a code of practice tell you? What do Australian Standards tell you? Can you give an example?

Description of work/training performed

Date/time	No. of hours	Machine details	Supervising person
Date: Start time: am pm		Make: Model: Serial No: Max Capacity: kg Load Centre: mm Lift Height: mm	Name: Signed: Class: Cert No: State of Issue: Issue Date: Expiry Date:
Date: Start time: am pm		Make: Model: Serial No: Max Capacity: kg Load Centre: mm Lift Height: mm	Name: Signed: Class: Cert No: State of Issue: Issue Date: Expiry Date:
Date: Start time: am pm		Make: Model: Serial No: Max Capacity: kg Load Centre: mm Lift Height: mm	Name: Signed: Class: Cert No: State of Issue: Issue Date: Expiry Date:

Operate self-propelled compactor

- 2.1 Carry out prestart and start-up checks in line with workplace procedures
- 2.2 Identify faults or defects and rectify or report within scope of own responsibility and according to workplace procedures
- 2.3 Drive and operate self-propelled compactor using techniques suited to equipment capabilities, site and work conditions, and according workplace procedures
- 2.4 Engage and disengage the compacting device
- 2.5 Identify, remove or manage contaminants in accordance with safe work practices
- 2.6 Perform work activity within operating capacity of the equipment
- 2.7 Monitor and manage equipment performance using indicators and alarms
- 2.8 Monitor hazards and risks during operations, and ensure safety of self, other personnel, plant and equipment
- 2.9 Park up, shut down, secure and carry out post operational inspection of equipment in line with workplace procedures



2

Operate self-propelled compactor

PC 2.1

Prestart and start-up checks

Check the parts of your self-propelled compactor before you use it. For example, look for leaks under the machine, check fuel gauges etc.

Description of work/training performed

Date/time	No. of hours	Machine details	Supervising person
Date: Start time: am pm		Make: Model: Serial No: Max Capacity: kg	Name: Signed: Class: Cert No: State of Issue: Issue Date: Expiry Date:
Date: Start time: am pm		Make: Model: Serial No: Max Capacity: kg L	Name: Signed: Class: Cert No: State of Issue: Issue Date: Expiry Date:
Date: Start time: am pm		Make: Model: Serial No: Max Capacity: kg	Name: Signed: Class: Cert No: State of Issue: Issue Date: Expiry Date:

Mapping Tool

RIIMPO316E Conduct self-propelled compactor operations

Note: This completed document shows that the enclosed learning materials have been mapped against the Unit of Competency.

Legend

PC	Performance Criteria
PE (RS)	Performance Evidence Required Skills
KE (RK)	Knowledge Evidence Required Knowledge

Range statement

This is a self-propelled, tamping foot drum, wheeled machine, used to compact a variety of types of construction materials.

It can operate at relatively high speeds and may have a dozer blade mounted on the front-end of the machine allowing for dozing, filling and compacting versatility. The tamping feet on the wheels of the machine may vary in size, shape and depth.

Application of unit

This unit describes a participant's skills and knowledge required to conduct self-propelled compactor operations in Civil construction.

This unit is appropriate for those working in operational roles. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

- Civil construction

Section 1 – Performance Criteria

Note: The bold highlighted text in the Performance Criteria below is explained in the Unit of Competency. It is included on the Trainer’s Resource CD.

Performance Criterion (PC)	Learner Guide & PowerPoint Presentation	Formative Assessment		Assessment Paper (Summative Assessment)		RTO to fill out (Additional materials, eg. web sites, DVDs, handouts...)
		Review Question	Practical Training Task	KNOWLEDGE	PRACTICAL	
Example 1.1 Access, interpret and apply compliance documentation relevant to self-propelled compactor tasks	Questions 1, 2, 3, 4, 5, 6. Duty of Care, Pages 13 – 15, Work Health & Safety Legislative Requirements, Page 26, 27.	Questions 1-A	Practical Task 1-A, 1-B	Question 1-A	Practical assessment 1-A	
Element 1 – Plan and prepare for self-propelled compactor operations						

Performance Criterion (PC)	Learner Guide & PowerPoint Presentation	Formative Assessment		Assessment Paper (Summative Assessment)		RTO to fill out (Additional materials, eg. web sites, DVDs, handouts...)
		Review Question	Practical Training Task	KNOWLEDGE	PRACTICAL	
1.1 Access, interpret and apply self-propelled compactor operations documentation	<ul style="list-style-type: none"> Who has a duty of care? Page 13 Worker's duty of care. Page 14 PCBU/Employer's duty of care Work Health & Safety Legislative Requirements. Page 30 Where to find WHS information. Page 34 Question 1, 2, 3, 4, 5, 6, 7, 8, 9 	Q1	Task 1	Q 1	Task 1-A	
1.2 Obtain, interpret, clarify and confirm work requirements	<ul style="list-style-type: none"> The basics of road construction. Page 18 Principles of soil technology for civil works. Page 23 Operating techniques. Page 26 Worksite requirements. Page 38 Costing a job. Page 121 Question 6, 7, 8, 9, 10 	Q2	Task 2 Task 3 Task 4 Task 8 Task 10	Q 2, 3	Task 1-A	

Performance Criterion (PC)	Learner Guide & PowerPoint Presentation	Formative Assessment		Assessment Paper (Summative Assessment)		RTO to fill out (Additional materials, eg. web sites, DVDs, handouts...)
		Review Question	Practical Training Task	KNOWLEDGE	PRACTICAL	
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"> • Earthmoving site hazards. Page 25 • Environmental management plan (EMP) Page 41 • Decibel levels of common sounds. Page 44 • Chemicals and solvents. Page 45 • Safety around trenches. Page 46 • Confined space. Page 48 • Question 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 53, 54, 57, 79, 80, 81 	Q3, 4, 5, 6, 7	Task 5 Task 6 Task 11	Q 4, 5	Task 1-B	
1.4 Select and wear personal protective equipment required for work activities	<ul style="list-style-type: none"> • Question 22, 23, 24 • Tools and equipment. Page 77 	Q8, 9	Task 7 Task 8	Q6, 7	Task 1-D	

Performance Criterion (PC)	Learner Guide & PowerPoint Presentation	Formative Assessment		Assessment Paper (Summative Assessment)		RTO to fill out (Additional materials, eg. web sites, DVDs, handouts...)
		Review Question	Practical Training Task	KNOWLEDGE	PRACTICAL	
1.5 Identify, obtain and implement traffic management signage requirements according to standard operating procedures and safe work practices	<ul style="list-style-type: none"> Question 25, 26, 27, 28, 29, 30, 52 	Q10, 11, 12	Task 9	Q 8	Task 1-C	
1.6 Select required propelled compactor equipment and confirm suitability for work activities	<ul style="list-style-type: none"> Question 31, 32, 33, 34, 65, 66, 67 Tools and equipment. Page 78 	Q13	Task 10	Q 9	Task 1-E	
1.7 Obtain and interpret emergency procedures, and be prepared for fires, accidents and emergencies	<ul style="list-style-type: none"> Worksite requirements. Page 38 First aid and emergencies. Page 83 Safety plan. Page 84 Question 18, 19, 23, 24, 35, 36 	Q14, 15	Task 12 Task 15	Q 10, 20	Task 1-A	

Performance Criterion (PC)	Learner Guide & PowerPoint Presentation	Formative Assessment		Assessment Paper (Summative Assessment)		RTO to fill out (Additional materials, eg. web sites, DVDs, handouts...)
		Review Question	Practical Training Task	KNOWLEDGE	PRACTICAL	
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. Page 86 	Q16	Task 13 Task 15	Q 11	Task 1-F	
Element 2 – Operate self-propelled compactor in line with establish requirements to complete work activity						