Aggregate Hauling Equipment Training

WORKBOOK

AWES
ALBERTA WORKFORCE ESSENTIAL SKILLS

AMTA

Disclaimer

This course was made using important commercial vehicle legislation in the province of Alberta. This includes the Alberta Traffic Safety Act and related regulations.

You should understand the legislation in your province or territory before you begin work. Understanding the laws will help you follow all the requirements and regulations in your area.

Dedication

This course is dedicated to the memory of Stephen Penny. Stephen passed away at the age of 35. He stepped behind his vehicle to check why his end gate wasn't opening. His load of street sweeping materials fell out of his vehicle and buried him.

This course will make you aware of the dangers of aggregate hauling so tragedies like this do not happen again.

Contents

April 2022

awes.ca

These materials were created with the Alberta Motor Transportation Association (AMTA) for the Aggregate Hauling Equipment Training course to provide more accessible materials for learners.

Thank you to the Government of Alberta, Alberta Ministry of Labour and Immigration, for funding this project as part of creative sentencing for restorative justice.

Introduction

As an operator of aggregate hauling equipment, it's important for you to understand your equipment. You need to know:

- what the hazards are
- how to use your equipment safely
- how to follow safe procedures when you load and unload materials
- how to work safely

Your employer will give you information about the vehicle and equipment that you'll use for work.

The course will give you instructions on how to safely use your vehicle and equipment.

By the end of the course, you should be able to do the following:

- Define aggregate and identify different types of aggregate
- Identify different aggregate hauler configurations
- Explain requirements at vehicle inspection stations
- List the legislation that you must know as a driver
- Identify and control hazards that are present when you haul aggregate and operate heavy machinery
- List strategies to make sure fatigue, stress, impairment, and distracted driving do not affect your fit-for-work status
- Identify damage and defects when you do a trip inspection
- List the contents of a journey management plan
- Explain the differences between hydraulic and air systems
- List the hazards when you use hydraulic and air systems
- Identify and control hazards that are present when you load and unload aggregate

In this online course, you will learn information about aggregate hauling. You will need to complete this workbook and the video course. After the course, you need to complete a practical assessment of your ability to operate your vehicle and equipment. You need your employer's help to complete all the requirements and receive full certification.

MODULE 1

Aggregate and Aggregate Hauling Equipment

Keywords

Read the definitions and examples for the important words from this module.

Vehicle Something used to transport people or things, such as a car or truck.
Example: To haul aggregate, you need a vehicle with an open box.

Transport To move something from one location to another.
Example: Aggregate is hazardous to transport.

Configuration A combination of a truck and trailers.
Example: These vehicles and boxes come in several sizes, types, and configurations depending on the job at hand.

Maximum The most that is allowed.
Example: All aggregate hauling equipment has a maximum allowable weight.

Inspection A careful check of your vehicle to make sure everything works properly.
Example: Commercial Vehicle Enforcement transport officers can conduct inspections.

Keyword practice

Draw a line from the word to the matching definition.

Vehicle To move something from one location to another.

Transport A careful check of your vehicle to make sure everything works properly.

Configuration A combination of a truck and trailers.

Maximum Something used to transport people or things, such as a car or truck.

Inspection The most that is allowed.

What is aggregate?

Aggregate is material made up of small pieces or particles.

Examples include:

- gravel
- soil
- gypsum
- demolition debris
- snow
- road sweepings

Aggregate can be very heavy. It is made up of small pieces, and it can flow like a fluid. This makes aggregate hazardous to transport.

Keywords

Flow like a fluid
Something moves together easily without stopping, like water.
If you open the back of your truck, the aggregate will flow out.

Hazardous
Something is dangerous, especially to people's health or safety.

Gravel

Soil

Gypsum

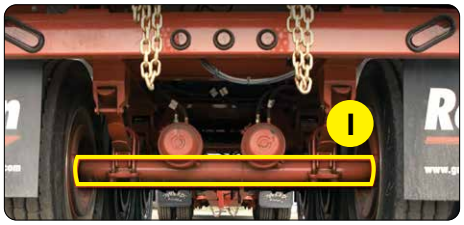
Demolition debris

Snow

Road sweepings

Parts of a truck and trailer

To find the names of the truck and trailer parts, match the letters on the pictures to the list below.



A	**Tailgate**	The part of the box that opens so aggregate can pour out.
B	**Hitch**	The part of the truck that connects it to another trailer.
C	**Box**	The part of the truck that holds aggregate.
D	**Tire**	A rubber wheel that turns so the truck can move.
E	**Cab**	The part of the truck where the driver sits.
F	**Mirror**	The part of the truck that shows the driver what is beside or behind them.
G	**Headlamp**	A bright light that helps the driver see at night.
H	**Bumper**	A metal plate that protects the truck from damage.
I	**Axle**	A metal bar that helps the tires turn. It cannot have too much weight on it.
J	**Trailer**	A piece of equipment that a truck pulls. It holds extra aggregate.

Types of aggregate hauling equipment

To haul aggregate, you need a vehicle with an open box. The vehicle can be a truck, or a truck with a trailer behind it. There are many sizes, styles, and types of vehicle configurations. Configurations are different combinations of trucks and trailers.

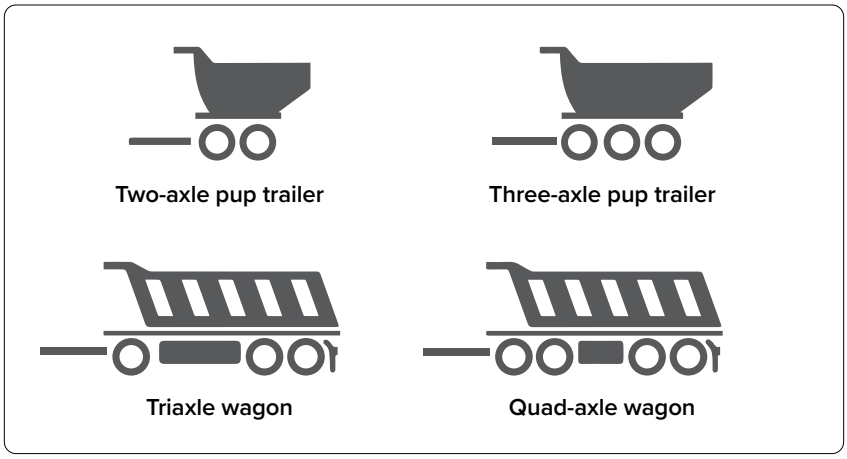
These are some of the most common combinations. Your employer will train you on how to use their equipment.

Tandem dump truck configurations

Tandem dump trucks have an open box. They can haul aggregate alone, or with different types of trailers.

Tandem dump truck

They can tow these trailers:



Keywords

Open box
Part of the vehicle that does not have a roof.

Workplace culture tip

Your employer must train you on how to use your equipment. You cannot work without training from your employer.

Keywords

Bi, tri, quad
Parts of a word that tell you how many parts something has.

Bi = two parts
Tri = three parts
Quad = four parts

Example: A triaxle wagon has three axles.

Truck tractor and trailer configurations

Truck tractors can haul many types of trailers. These trailers can dump aggregate from the end or sometimes from the side.

Reverse Super-B configuration

The Reverse Super-B is a truck tractor towing a tandem trailer and a triaxle trailer. The tandem trailer goes behind the truck tractor and usually empties from the side. The triaxle trailer goes behind the tandem trailer and empties from the end or the side.

Truck tractor | Tandem trailer | Triaxle trailer

Keywords

Empties
Removes or unloads all the aggregate.

Aggregate hauling weight ratings

All aggregate hauling equipment has a maximum allowable weight. This means that they need to be under a specific weight to be safe on the road. Vehicles that are too heavy are hazardous because:

- Extra weight puts stress on equipment. Trucks with too much weight may not work properly.
- Heavier vehicles take longer to stop. This can cause accidents on the road.
- Heavy vehicles put pressure on roads. On hot days, heavy trucks can damage roads.

There are three important weight ratings:

- Gross vehicle weight rating
- Gross axle weight rating
- Gross trailer weight rating

Maximum allowable weight rating for a truck

Keywords

Gross
Total weight of the vehicle, person, and everything in it.

Tare
Weight of the vehicle when there is nothing in it.

Gross vehicle weight rating

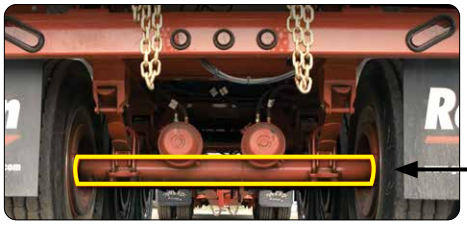
All aggregate hauler configurations have a gross vehicle weight rating (GVWR). The GVWR is the maximum allowable weight for aggregate hauling equipment.

GVWR includes the weight of the vehicle and everything in it. This includes:

- the driver
- passengers
- fuel
- cargo or load
- any snow, ice, or mud that sticks to the chassis or tires

Gross axle weight rating

The gross axle weight rating (GAWR) is the weight each axle can carry.



Gross trailer weight rating

The gross trailer weight rating (GTWR) is the total weight of a trailer.

Calculating GVWR

The GAWR and GTWR help calculate the GVWR.

Before you start work, your employer must provide you with more in-depth training on vehicle weight ratings.

Numeracy tip

GVWR = GAWR + GTWR

Aggregate hauling regulations and inspections

You need an RTAC permit to operate a vehicle with a gross vehicle weight greater than 53,500 kg within a municipal jurisdiction. Provincial highways have different regulations. You should always know the current weight and size rules in the areas where you drive.

Here is a weight calculator that can help you find the maximum allowable weight for your aggregate hauler configuration: https://www.transportation.alberta.ca/4785.htm

Inspectors use weight ratings to determine if your vehicle is allowed on a particular road. An inspector might check your vehicle's weight at:

- vehicle inspection stations
- mobile inspection stations
- portable scales

Keywords

Road Transportation Association of Canada (RTAC) permit
An RTAC permit is something your employer applies for when a truck does not meet certain requirements.

Municipal jurisdiction
Local government of the city or town that is responsible for roads and rules in the community. For example, the roads in Edmonton are the responsibility of the Edmonton municipal government.

Mobile inspection station
Inspection site that is temporarily set up at a location (not permanent).

Vehicle inspection station

Vehicle inspection stations are open 24 hours and have public weigh scales that drivers can use to check vehicle weights.

Commercial Vehicle Enforcement transport officers may also work at these stations. They can inspect vehicles. They also give information to commercial vehicle operators and the public.

These officers inspect to make sure you:

- are under the maximum weight requirement under the Commercial Vehicle Weight and Dimension Regulation
- are following the Drivers' Hours of Service Regulation
- possess a valid license for the vehicle you are operating with an air brake endorsement
- have the Transportation of Dangerous Goods wallet card if you're hauling dangerous goods
- have proof of insurance in your vehicle
- have properly secured your cargo
- didn't miss any mechanical problems during your trip inspection
- are fit to drive and have all required credentials
- are not breaking any driving laws

If you are driving a commercial vehicle over 4,500 kg, you must pull into an inspection station when the highway lights are flashing. You must pull in unless you have an exemption permit.

When you pull in with a load, drive slowly across the scale. If your vehicle is empty, drive slowly on the lane beside the scale.

Watch the light board for instructions. This board will tell you when to move slowly forward, backward, or stop where you are. If the light next to "park" is on, you need to park in the lot and bring all of your vehicle and driver documents to the scale building for inspection.

Keywords

Commercial Vehicle Weight and Dimension Regulation
This regulation refers to the size and weight of vehicles.

Drivers' Hours of Service Regulation
This regulation controls how long drivers can work in a day, and the amount of time off they must have.

Air brake endorsement
Allows a person to drive a vehicle with air brakes.

Wallet card
A card that you can put in your wallet for easy access.

Strategy for finding information

When you read training materials, you need to know how to find important information. When you look for information to answer questions, use these four steps:

1. Identify
2. Scan
3. Locate
4. Decide

Here is an example of how you can use these steps to answer a question:

Example question: What's the gross axle weight rating?

1. Identify

Identify key words in the text. In this example, these are the words that will help you find the answer: **gross axle weight rating**.

2. Scan

Move your eyes across the page of the document to look for the key words. Moving your eyes across a page to find something is called scanning.

3. Locate

When you find the key words, read the sentences around them. Check to see if they have the information you're looking for.

For example:
The **gross axle weight rating** (GAWR) is the weight each axle can carry.

4. Decide

Quickly scan the rest of the text to make sure what you found answers your question. Make sure that the information you found answers your question.

Strategy for understanding questions

Knowing what different question words mean can help you with the **identify** step.

Use the table to help you understand the different English question words:

Question words	Type of answer	Example
Who	Person	Who is the site supervisor?
Where	Place or location	Where should I unload?
How much	Amount	How much gravel is in your box?
How many	Number	How many parts of the vehicle are there?
When	Time	When should I stop driving?
How	Way to do something	How do I check the end gate?
Which	Specific item or person	Which brush should be used?
Why	Reason	Why are face masks required for this task?
What	All types	What is the difference between asphalt and other aggregate? What kind of PPE do I need to use?

Use question words to help you find the type of information the question is asking. For example, if the question starts with “who”, remember, you’re looking for a person (such as a name or a job title).

Task

Use the strategy to help you answer the questions.

1. Where do Commercial Vehicle Enforcement transport officers work?

   Before you scan: What key words will you look for in the text?

   _____

   Question word: _____ Type of information: _____

   After you scan: What is your answer?

   _____

2. How many pieces of equipment are in a Reverse Super-B configuration?

   Before you scan: What key words will you look for in the text?

   _____

   Question word: _____ Type of information: _____

   After you scan: What is your answer?

   _____

3. When are inspection stations open?

   Before you scan: What key words will you look for in the text?

   _____

   Question word: _____ Type of information: _____

   After you scan: What is your answer?

   _____

4. Which weight rating measures the total weight of a trailer?

   Before you scan: What key words will you look for in the text?

   _____

   Question word: _____ Type of information: _____

   After you scan: What is your answer?

   _____

Strategy for using measurement

In Canada, we use two different systems to measure things. They're called the metric system and the imperial system.

In trucking, you'll see some measurements in metric and some in imperial. The most important measurements for you to know are weight, distance, and speed.

Weight

It's important for you to know the weight of your truck. Usually, this will be measured using the metric system in kilograms or metric tons.

Here are some units that the metric system uses:

1 gram (g) = about the weight of a small pebble

1 kilogram (kg) = 1000 g

1 tonne (t) = 1000 kg

Comprehension check

Circle the correct answer.

1. Which is heavier? **2000 kg** **1 t**
2. Which is heavier? **500 g** **1 kg**

Distance and length

It's important for you to understand distance, so you know how far you need to drive. In Canada, distance is usually measured using the metric system, but sometimes it is measured using the imperial system. Distance and length are measured with the same units.

Here are the units for measuring distance and length in the metric and imperial systems:

Metric	Imperial
1 metre (m) = 100 centimetres (cm) 1 kilometre (km) = 1000 metres	1 foot (ft) = 12 inches (in) 1 yard (yd) = 3 feet 1 mile (mi) = 1760 yards

Metric to Imperial	Imperial to Metric
1 metre = 1.09 yards 1 kilometre = 0.6 miles	1 foot = 30 centimetres 1 yard = 0.9 metres 1 mile = 1.6 kilometres

Comprehension check

Circle the correct answer.

1. Which is longer? **1 yd** **1 m**
2. Which is longer? **1 mi** **1 km**

Speed

It's important for you to understand how to convert between metric and imperial, so you know how fast you are driving. In Canada, speed is usually measured using the metric system in kilometres per hour (km/h), but some people use the imperial system which measures in miles per hour (MPH). Some trucks will have speedometers that show both metric and imperial.

Here is a speedometer that shows both types of measurement:

On this speedometer, the MPH is on the outside the km/h. The big numbers on the outside show **MPH**, and the small numbers on the inside show **km/h**.

You can see that **60 MPH** is almost **100 km/h**.

Comprehension check

Circle the correct answer.

1. Which is faster? **100 MPH** **100 km/h**
2. Which is faster? **80 km/h** **55 MPH**

Apply what you've learned

Read each scenario and answer the questions.

1. **It is your first day working in aggregate hauling. Your boss tells you to check your truck's GVWR before you drive. You don't know what GVWR means. You have never had training on vehicle weight limits.**

   Is it safe for you to start hauling aggregate today? **YES** **NO**

   Why or why not? _____

   What will you do? _____

2. **You are hauling gravel with a tandem dump truck. The GVWR of your truck is 24,300 kg. After you load your truck, you drive onto the scale. The scale operator tells you that your truck weighs 25 tonnes.**

   Is it safe to drive on the road? **YES** **NO**

   Why or why not? _____

   What will you do? _____

3. **You have been working with the company for 1 month. Your supervisor asks you to haul something that is considered a dangerous good. You haven't taken the Transportation of Dangerous Goods (TDG) training yet. You have done something similar in another job before.**

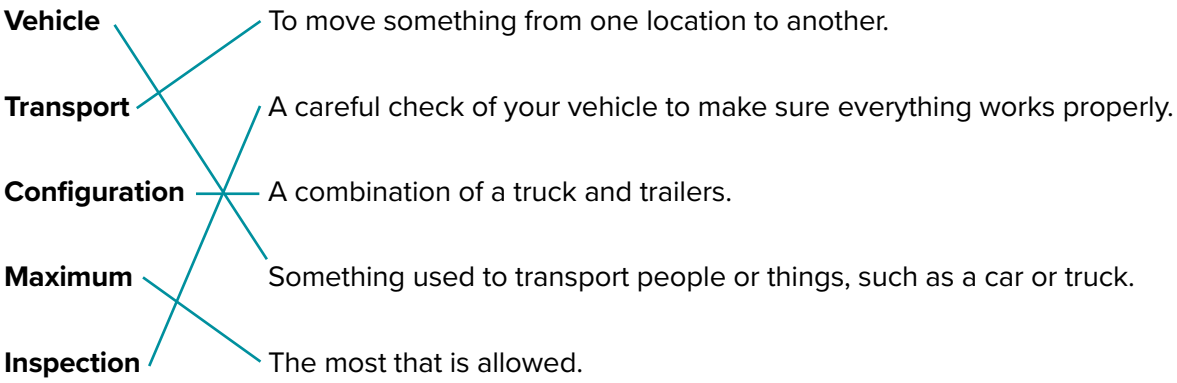
   Is it safe to do this job? **YES** **NO**

   Why or why not? _____

   What will you do? _____

Answer key

Keyword practice



Task

1. What key words will you look for in the text: **Commercial Vehicle Enforcement transport officers**
   Question word: **Where**
   Type of information: **Place or location**
   After you scan: **Vehicle inspection stations**

2. What key words will you look for in the text: **pieces of equipment, Reverse Super-B configuration**
   Question word: **How many**
   Type of information: **Number**
   After you scan: **3**

3. What key words will you look for in the text: inspection stations, open
   Question word: **When**
   Type of information: **Time**
   After you scan: **24 hours**

4. What key words will you look for in the text: **weight rating, total weight of trailer**
   Question word: **Which**
   Type of information: **Specific item or person**
   After you scan: **Gross trailer weight rating (GTWR)**

Weight comprehension check

1. 2000 kg
2. 1 kg

Distance and length comprehension check

1. 1 m
2. 1 km

Speed comprehension check

1. 100 MPH
2. 55 MPH

Apply what you've learned

1. NO
   You have not received training.
   Say that you cannot do this job and let them know that you need training.
2. NO
   The GVWR is 24,300 kg (24.5 tonnes), and the scale shows that the truck is 25 tonnes.
   This means that the truck is heavier than what is safely allowed.
   Based on your workplace policies, consult your supervisor on what to do next.
3. NO
   You do not have the training required to complete the job.
   Similar job does not mean the same job.
   Tell your supervisor that you cannot do the job because you have not taken the training you need to complete it.

MODULE 2

Legislation

Keywords

Read the definitions and examples for the important words from this module.

Regulation A rule that you must follow. Officers will make sure you follow these rules.
Example: This regulation describes the rules about certificates and insurance that commercial drivers need.

Act A law that is made by the government. There can be many regulations in an act.
Example: The Traffic Safety Act describes the laws about safe driving in Alberta.

Commercial drivers People who are paid by a company to drive a vehicle.
Example: The Traffic Safety Act applies to commercial drivers.

Federal Related to the Government of Canada.
Example: Drivers must follow either the federal or provincial hours of service legislation, but not both.

Provincial Related to the Government of Alberta.
Example: Drivers must follow either the federal or provincial hours of service legislation, but not both.

Keyword practice

Draw a line from the word to the matching definition.

Act	A rule that you must follow. Officers will make sure you follow these rules.
Regulation	Related to the Government of Canada.
Commercial drivers	A law that is made by the government. There can be many regulations in an act.
Federal	Related to the Government of Alberta.
Provincial	People who are paid by a company to drive a vehicle.

The Traffic Safety Act

In Alberta, there are laws and regulations that drivers must follow to be safe. Your employer will give you the information you need to work safely.

The Traffic Safety Act describes the laws about safe driving in Alberta. It is for all drivers. The following laws are parts of the Traffic Safety Act. They apply to commercial drivers.

- **The Commercial Vehicle Certificate and Insurance Regulation**
  This regulation is about certificates and insurance that commercial drivers need.
- **The Commercial Vehicle Safety Regulation**
  This regulation is about vehicle safety.
- **The Commercial Vehicle Dimension and Weight Regulation**
  This regulation refers to the size and weight of vehicles.
- **The Drivers' Hours of Service Regulation**
  This regulation controls how long drivers can work in a day, and the amount of time off they must have. Drivers must follow either the federal or provincial hours of service legislation, but not both. This depends on your company's operating status. Check with your employer so you know which laws to follow. If your company's operating status is federal, you must follow the Commercial Vehicle Drivers Hours of Service Regulations, S.O.R. 2005 213.
- **The Vehicle Equipment Regulation**
  This regulation has rules for each part of a vehicle. It describes what parts vehicles must have, where they should be, and what condition they should be in.
- **The Vehicle Inspection Regulation**
  These are the rules for vehicle inspections.
- **Community bylaws** (including the use of engine brakes and approved truck routes)
  Each community has different laws that might affect drivers. Drivers need to know them because they are not the same in each community.

You must know what you're hauling and the legislation that applies to you. You must also have all the required documents.

You should contact Alberta Transportation for more information about these laws.

Understanding instructions and suggestions

It's important to understand these words, so you know the difference between laws and suggestions. Laws are rules that are created by the government that you need to follow. Suggestions are ideas to think about when you are doing something.

There are words that give us instructions or advice. Some words that you saw in this module are **should**, **need to**, and **must**.

Should

Should means that something is not a law, but it is still important.

Example:
You **should** check your tire pressure every time you drive your truck.

Need to, must

Need to and **must** both mean that something is very important to do. You can get in trouble if you don't do these things. You'll see these words when you read about legislation.

Example:
You **must** stop at commercial vehicle inspections stations when the lights are flashing.

Example:
You **need to** make sure your vehicle is under the maximum allowable weight.

Task 1

Find one sentence in this module that uses **should**, **need to**, and **must**.
Write them in the chart.

Should	
Need to	
Must	

Digital strategy

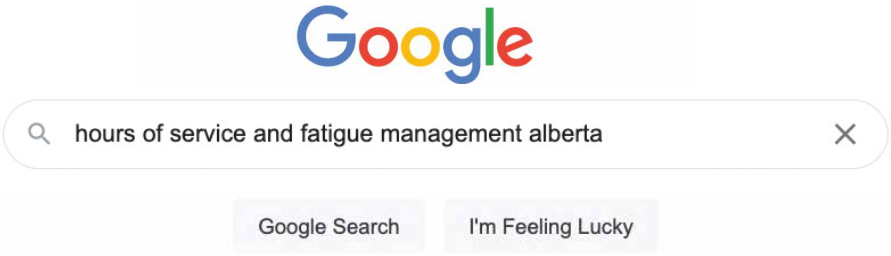
This module talks about many laws that aggregate haulers need to know. To find more information about these laws, you can search for them on the internet.

To search for a law:

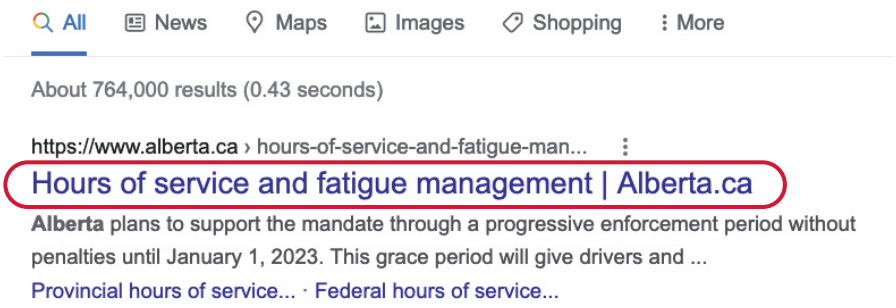
1. Open your internet browser. Use Google Chrome, or Safari, or Firefox for example.

2. Go to Google. You can do this by typing “google” in the bar at the top of your screen .

3. Type the name of the law and the name of your province in the search bar.



4. Look at the results to find what you need.
   In this situation, the first result is the correct one:



5. Click on the blue or purple text to read the result.

Task 2

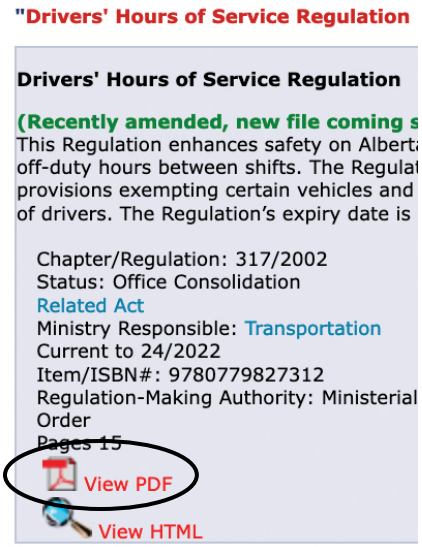
Use the digital strategy to find the **Drivers' Hours of Service Regulation**. Then, answer the questions.

Use the document use strategy to help you.

Hint: Start your search using the keywords "Hours of Service and Fatigue Management."

Then, look for the words "Drivers' Hours of Service Regulation."

Click on matching links until you get to the page with the PDF document.



1. How many pages does the Drivers' Hours of Service Regulation have?

   _____

2. Look at the Table of Contents on page 3.
   How many sections does this document have?

   _____

3. Which page of the document has information about being on duty?

   _____

4. Look at the sample schedule grid. Where on the grid should you write the location of where your change of duty occurs?

   _____

5. How will you mark how many hours you spend doing something on the grid?

   _____

Document use strategy

When you read training materials, you need to know how to find important information.

When you look for information to answer questions, use these four steps:

1. Identify
2. Scan
3. Locate
4. Decide

Workplace culture tip

Your employer must give you the training you need for work.

Keywords

On duty
Time when you are working.

Schedule grid
Shows you information about how many hours driving and how many hours not working.

Answer key

Keyword practice

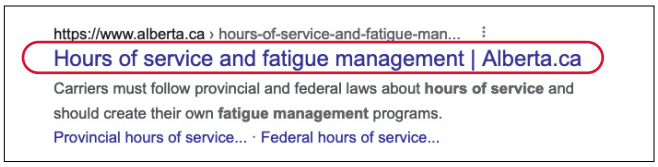
Act	A rule that you must follow. Officers will make sure you follow these rules.
Regulation	Related to the Government of Canada.
Commercial drivers	A law that is made by the government. There can be many regulations in an act.
Federal	Related to the Government of Alberta.
Provincial	People who are paid by a company to drive a vehicle.

Task 1

Should	It describes what parts vehicles must have, where they **should** be, and what condition they **should** be in.
Need to	Your employer will give you the information you **need to** work safely. Drivers **need to** know them because they are not the same in each community.
Must	In Alberta, there are laws and regulations that drivers **must** follow to be safe. This regulation controls how long drivers can work in a day, and the amount of time off they **must** have. Drivers **must** follow either the federal or provincial hours of service legislation, but not both. It describes what parts vehicles **must** have, where they should be, and what condition they should be in. You **must** know what you're hauling and the legislation that applies to you. You **must** also have all the required documents.

Task 2

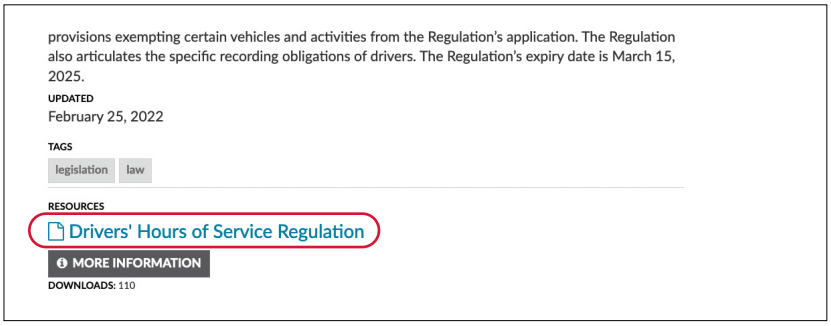
Google search result



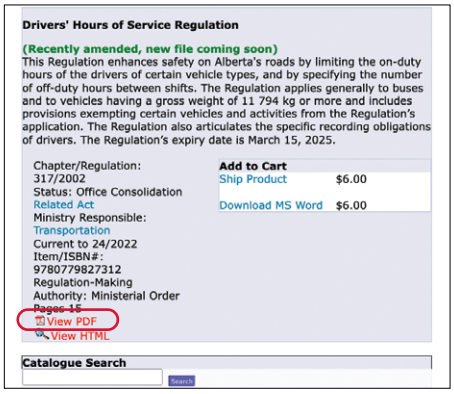
Key words and new links

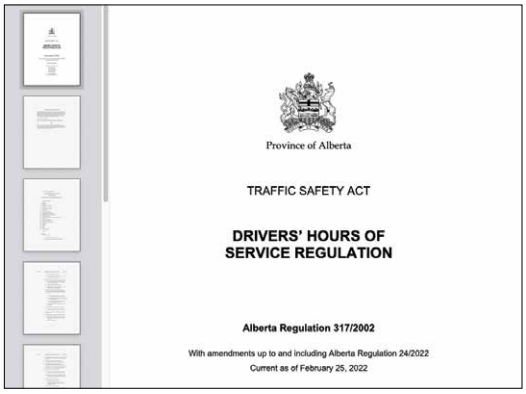
Link 1:

Link 2:



Final document





1. 20 pages
2. 23 sections
3. page 7
4. under “Remarks”
5. by drawing a line

MODULE 3

Hazards

Keywords

Read the definitions and examples for the important words from this module.

Cargo — Materials that are transported by a vehicle.
Example: Aggregate haulers transport different types of cargo.

Power take-off (PTO) — A machine that transfers engine's mechanical power to another piece of equipment.
Example: Turn off the power take-off before you inspect your vehicle.

Energized — There is an electric current running through. When a machine or a truck is energized, it means it is on.
Example: Don't work around rotating or lifting equipment when it's energized.

Pinch point — A place between moving and non-moving parts of a machine where a body part can get caught and hurt.
Example: Stay away from pinch points so you don't get hurt.

Visibility — How clearly and how far you can see objects.
Example: Limited visibility is one of the hazards for drivers.

Keyword practice

Fill in the blanks with the following words: **cargo**, **PTO**, **energized**, **pinch point**, **visibility**

1. When loading and unloading _____ you need to stay away from end gate.

2. When you are at the work site you should wear high _____ vest to make sure people can see you easily.

3. Make sure to keep your hands, loose clothing, and jewelry away from a _____ so you don't get hurt.

4. You should never work around rotating equipment when your truck is _____ .

5. Deactivate the _____ when you aren't using it.

How do you keep yourself and others safe when hauling aggregate?

To haul aggregate, you use large vehicles. Aggregate is cargo. Moving heavy cargo can be hazardous.

It's important to protect yourself. One way to protect yourself is to check your workplace's policies and procedures. This information will help you protect yourself and others.

If there are tasks that you feel are not safe because they're hazardous to you or others in the workplace, you have the right to refuse to do them. That means you can tell your employer the task is not safe.

Your right to refuse unsafe work is protected by law. This right is in the Canadian federal labour laws. You are protected in all provinces and territories in Canada.

What are some hazards in aggregate hauling?

Large vehicle

- Visibility
- Size
- Speed
- Weight
- Centre of gravity

  When the top half is heavier than the bottom half, the vehicle has a high centre of gravity.

  When the bottom half is heavier than the top half, the vehicle has a low centre of gravity.

  When the centre of gravity shifts or changes, it can cause the vehicle to become unstable. When the vehicle is unstable, it may tip over.

Keywords

Tip over
Fall or roll over.

Blind spots

A large vehicle has blind spots. Blind spots are places that a driver can't see when they use their mirrors and windows.

Driving hazards

There are many hazards when you drive large vehicles.

- Even at slow speeds, a collision with a large vehicle can cause serious injury.
- Large vehicles are heavy. The heavier a vehicle is, the harder it is to stop.
- The way you need to drive changes depending on your load.
  For example, if your load is liquid, you must shift gears in a quick and smooth way. The liquid load flows forward, and it can spill if you suddenly stop.
- The condition of the road can also affect the way you must drive. You'll need to give yourself more time to stop when the road is icy or wet.
- An unstable aggregate load can shift when the vehicle moves. This makes the vehicle unstable.

Hazards of aggregate hauling equipment

Hauling equipment has a high centre of gravity. This makes it more likely to roll over, especially if the box is raised.

When you have a frozen or moist load, it can stick to the front of the box while it empties. When the load sticks, the centre of gravity can rise. This makes it more likely to tip over.

Unloading hazards

Moist or frozen loads

If wet or frozen aggregate sticks to a raised box, the vehicle can tip over.

Silica and silicosis

Most aggregate contains a substance called silica. Silica is a health hazard that can be in the air when you're loading and unloading. You can still breathe in silica even if you don't see any dust. Stay in the truck with the windows closed when loading or unloading aggregate so you don't breathe in silica.

Hazards of different materials

Each load of aggregate material has different hazards:

- Large blocks can get stuck.
- Snow and ice can freeze to the sides of the box.
- Loam or clay can absorb water or become sticky.
- Asphalt is hot and can stick to the box, so pay attention to its temperature.
- Lighter materials like sawdust and snow can blow into traffic.

Other hazards

- Fire
- Pinch points
- Rotating hazards
- Hydraulic systems

Overhead hazards

You must watch out for overhead hazards like power lines or bridges. You can hit overhead hazards, especially when your box is raised. If you hit an overhead powerline, you should stay in the cab and wait for help.

Leaving a cab in an emergency

Watch: Module 3 video, 4:39 – 5:14

If there is a fire or another emergency, you need to leave the cab. When you leave the cab, you need to remember that the ground is energized. When the ground is energized, there is an electrical current running through it. You must never touch the vehicle and the ground at the same time. If you touch the ground and vehicle at the same time, you can be electrocuted. The electric shock will injure or kill you.

To leave the cab:

- Jump from the cab as far as you can.
- When you jump, keep your feet close together. Try not to stumble or fall.
- Once you're on the ground, hop away from the vehicle until you are at least 10 metres away.
- If you can't hop, take short, shuffling steps until you're out of danger.
- Call for help. Dial 911 for emergencies.

How to reduce risks

Blind spots

You need to check your blind spots to drive safely.

To reduce blind spots, follow these steps:

1. Look around the window pillars.

2. Use your side view mirrors.

3. Use the backup camera if your vehicle has one.

Large vehicle driving hazards

You must think about the weight of the load you're hauling before you start to drive. You need to drive slower when your truck is heavy because it's harder to stop a heavy vehicle.

Weight limit

Make sure that your load is within the weight limit for your vehicle, and it's spread evenly in the box.

Seat belts

You and your passengers must put on your seatbelts before you start to drive.

Centre of gravity

You must travel slowly and only on level surfaces when your box is raised. You must be careful and drive slowly when you're on slopes or soft ground.

Cargo release oil

Put cargo release oil in the bottom and sides of the box. This will stop wet or frozen aggregate from sticking to the box while it empties.

Securing your load

Make sure that your load is secure. You must load aggregate so that it will not move. The load should NOT move when you drive.

Securely tarp materials like sawdust or snow that can blow off the truck.

Loading and unloading

When you're loading or unloading aggregate, stay in the cab with the windows closed.

Hands and loose clothing

Pinch points and rotating equipment are located on the end gate, hydraulic systems, and power take-offs (PTO).

Keep your hands, loose clothing, and jewelry away from pinch points and rotating equipment at all times.

PTO

Make sure to deactivate the power take-off (PTO) when you aren't using it. Follow proper lock out and de-energization procedures when you inspect or work on the vehicle.

Rotating equipment

Never go underneath or work around rotating or lifting equipment when it's energized.

PPE

Personal protective equipment (PPE) helps protect you from hazards. Wear PPE to protect yourself. Some examples of PPE are:

- High visibility vest
- CSA rated steel toed boots
- Safety glasses or goggles
- Hard hat
- Gloves

Check with your employer to see what PPE you need on your site.

Keywords

CSA rated
The equipment has been tested to meet the standards for safety.

High visibility vest

CSA rated steel toed boots

Safety glasses or goggles

Hard hat

Gloves

Legislation to prevent hazards

There are laws to help prevent accidents with hauling equipment.

These laws say that:

- All loads must be secured so they can't leak, spill, or blow off.
- Your load must be within the weight limit of your vehicle.
- Loads should not be dislodged or shift in a way that would affect the stability of the vehicle.

Keywords

Dislodged
Become out of place or not secured anymore.

Tips for staying safe

Following distance

Following distance is the space between you and the vehicle in front of you. You must keep enough space between you and the traffic in front of your vehicle, especially if the road is icy or wet.

When you drive a truck, always make sure you are at least 4 seconds behind the vehicle in front of you. To check if you're 4 seconds behind, watch for the vehicle in front of you to pass an object that is not moving, such as a sign or a road marking . Then start counting. Count one thousand-and-one, one thousand-and-two, until you reach one-thousand-and-four.

If the front of your vehicle reaches the object before you finish counting, you are following too closely. Slow down and count again. This rule works at any speed.

If your truck is long or you have a trailer, you will need to add even more space between you and the vehicle in front. Make sure you know the safe following distance for the size of your vehicle.

How to calculate following distance

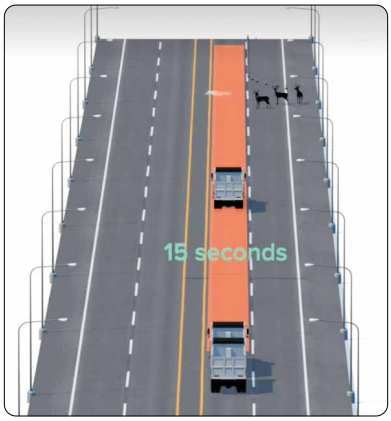
Your following distance will change depending on the length of your vehicle. Following distance should be about 4 seconds + 1 second for every additional 10 ft (3 m) of length.

- When you are only driving your truck, you will need 4 seconds of following distance.
- If you add a 30 ft trailer on your truck, you need to add 3 seconds to your following distance.
- 4 seconds + 3 seconds = 7 seconds

Different configurations will need different following distances.

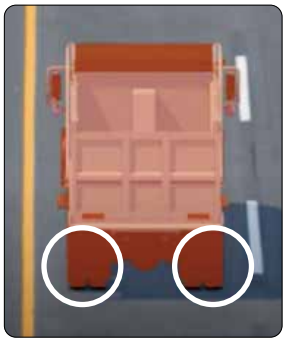
Where to keep your attention

When you drive, always pay attention to what is ahead of you. When you are not checking your following distance, you need to pay attention to everything happening in front of you. Be aware of anything that you will reach within 15 seconds.



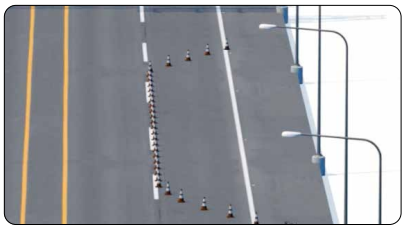
What to watch for

Brake lights



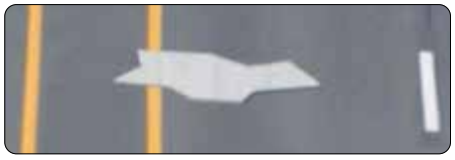
Animals

Construction zones



Traffic signs

Broken pavement



Anything else that could be a hazard

Be aware of surroundings

The work you're doing is hazardous, so you need to be aware of everything that happens around you.

Where to stand

Never stand behind or even near the end gate when you load or unload. The end gate can swing open with a lot of force, especially with a load behind it. You must also make sure that spotters or other workers do not stand behind or near the end gate.

How to use spotters

A spotter is another person working on the work site. A spotter uses hand signals to show you where to drive. They can guide you when you load or unload.

Stop if you cannot see your spotter. You can continue when you can see your spotter again.

Watch for people

When you work around the public, you should know where people are standing and make sure that no one is around the loading and unloading area. The public don't know the type of work you're doing or the danger it presents.

Types of work sites

You will work on many different sites:

- Paved yards
- Dump yards
- Public streets and highways
- City centres
- Asphalt plants
- Gravel pits
- Mine sites
- Buildings (sheds for example)

Hazard assessments

You need to complete a hazard assessment for each work site. A hazard assessment will help you identify and control hazards in your workplace. Your employer will tell you how to complete your site-specific hazard assessment.

Keywords

Site-specific
Only works for one location.

Task 1

Sometimes we can use same words to name something and to describe action.
For example, we can say:

- **Lock** the door.
  In this sentence “lock” describes the action. It tells you what to do.
- I have to buy a new **lock**.
  In this sentence “lock” names a thing that you need.

Read the sentences below and decide if the word in bold is a name or an action.
Circle the correct answer:

When doing inspection, you need to check the **tarp** to make sure it is in good condition.	**name** **action**
Always **tarp** your cargo, like sand and sawdust, so it does not fly out into traffic.	**name** **action**
Make sure your **load** is within the weight limit of your vehicle and that it is spread evenly.	**name** **action**
You must **load** aggregate in a way that it doesn’t move.	**name** **action**
If box pins or pivot mounts look dry, you need to **grease** them.	**name** **action**
Used oil and **grease** should never been dumped on the road.	**name** **action**

Communication in the workplace

Repeating instructions

It is a good idea to repeat instructions to make sure you understand them.
You can do this by adding one of these phrases to the beginning of your sentence:

- So, you want me to...
- Let me make sure I understand. I should...
- Okay. I should...

Then, you can repeat the instructions your co-worker or manager gave you.
After you repeat the instructions, you can add a question to check that what you repeated was correct:

- Is that right?
- Right?

Task 2

Read a conversation between Glen and Kabir.
Underline the phrases Kabir uses to repeat instructions and make sure he understands.

Glen: It's important to also be aware of hazards specific to aggregate hauling equipment. For example, if a load is moist or frozen and sticks to the front of the box while the rear of the box empties, the centre of gravity will rise, increasing the risk of tipping over. A cargo release oil can be applied to the box to prevent sticking.

Kabir: Sorry, but I don't quite understand. Can you speak more slowly?

Glen: Yes, sorry about that. I'll make it simpler. Sometimes the load can stick to the box. This can make the truck tip over when unloading. Put cargo release oil in the bottom and sides of the box. This will stop wet or frozen aggregate from sticking to the box.

Kabir: So, wet or frozen material can stick to the box, right?

Glen: Exactly! If that happens the box becomes heavy and when you raise it, your truck can tip over.

Kabir: Let me make sure I understand. If material sticks to the box and I raise it, because the box is heavy, the truck can tip over.

Glen: Yes, so make sure you use cargo release oil, so the cargo does not stick to the box and it can unload easily.

Kabir: So, you want me to put the cargo release oil in the box, so the material does not stick. Is that right?

Glen: That's right!

Workplace culture: Importance of PPE and understanding instructions

Sometimes, workers do not know that a job is dangerous. They might not know that they should wear PPE and follow certain rules. When you see a co-worker doing a job without the proper PPE, or not following rules, you should speak up. When you speak up about a co-worker not using proper PPE, you need these things:

- A calm voice
- Clear and simple words
- Respectful language
- Clear safety reasons
- Good body language

There are many different ways to "speak up." Read about the different ways you can talk to your co-workers.

Remind: This is what you do when someone forgets something.

Example: "Jason, you forgot your glasses!"

Suggest / **Advise:** This is what you do when you want to give someone advice. This means telling someone that it is a good idea to do something.

Example: "Hey Jason, it's a good idea to wear your safety glasses today. The wind could get dust in your eyes."

Warn: This is what you do when something bad or dangerous can happen.

Example: "Jason! Put on your glasses or you'll hurt your eyes!"

Task 3

Read the situation. Write three different ways you could speak up to your co-worker.

You are at a work site. Your co-worker is about to start his shift hauling aggregate. You see that they are not wearing steel toe boots.

Remind: _____

Suggest / Advise: _____

Warn: _____

You are at a loading site. You notice your co-worker is walking towards the back of the truck, close to the end gate.

Remind: _____

Suggest / Advise: _____

Warn: _____

Apply what you've learned

Look at the picture of a work site below. Identify potential hazards.

For example: There is a man without his visibility vest on.

List some other examples of potential hazards you can see in the photo:

1. _____

2. _____

3. _____

4. _____

Answer key

Keyword practice

1. cargo
2. visibility
3. pinch point
4. energized
5. PTO

Task 1

When doing inspection, you need to check the **tarp** to make sure it is in good condition.	(name) action
Always **tarp** your cargo, like sand and sawdust, so it does not fly out into traffic.	name (action)
Make sure your **load** is within the weight limit of your vehicle and that it is spread evenly.	(name) action
You must **load** aggregate in a way that it doesn't move.	name (action)
If box pins or pivot mounts look dry, you need to **grease** them.	name (action)
Used oil and **grease** should never been dumped on the road.	(name) action

Task 2

Glen: It's important to also be aware of hazards specific to aggregate hauling equipment. For example, if a load is moist or frozen and sticks to the front of the box while the rear of the box empties, the centre of gravity will rise, increasing the risk of tipping over. A cargo release oil can be applied to the box to prevent sticking.

Kabir: Sorry, but I don't quite understand. Can you speak more slowly?

Glen: Yes, sorry about that. I'll make it simpler. Sometimes the load can stick to the box. This can make the truck tip over when unloading. Put cargo release oil in the bottom and sides of the box. This will stop wet or frozen aggregate from sticking to the box.

Kabir: So, wet or frozen material can stick to the box, right?

Glen: Exactly! If that happens the box becomes heavy and when you raise it, your truck can tip over.

Kabir: Let me make sure I understand. If material sticks to the box and I raise it, because the box is heavy, the truck can tip over.

Glen: Yes, so make sure you use cargo release oil, so the cargo does not stick to the box and it can unload easily.

Kabir: So, you want me to put the cargo release oil in the box, so the material does not stick. Is that right?

Glen: That's right!

Task 3

These are possible answers.

1. You are at a work site. Your co-worker is about to start his shift hauling aggregate. You see that they are not wearing steel toe boots.

   Remind: You forgot to put your steel toe boots on.

   Suggest /Advise: It's a good idea to wear your steel toe boots so you don't hurt your feet.

   Warn: Put your steel toe boots on or you can get hurt.

2. You are at a loading site. You notice your co-worker is walking towards the back of the truck, close to the end gate.

   Remind: Remember not to walk behind the truck.

   Suggest /Advise: You should not walk behind the truck. If the end gate opens, you could get hurt.

   Warn: Do not walk behind the truck. You can get hurt.

Apply what you've learned

1. Presence of overhead power lines
2. Yellow gate partially laying down – tripping hazard
3. Equipment operating overhead
4. Stability of the large sand pile

MODULE 4

Fit for Work

Keywords

Read the definitions and examples for the important words from this module.

Fit for work Condition when an employee can do their job safely.
Example: You need to make sure you're fit for work.

Fatigue You feel extremely tired or exhausted because of work or because you're sick.
Example: Fatigue is dangerous because it can affect how you drive.

Judgement The ability to make a decision.
Example: Fatigue, alcohol, and drugs can affect your judgement.

Reaction time Time that you need to respond to something that is happening.
Example: Fatigue can slow down your reaction time.

Obligation Something that you need to do.
Example: You have an obligation to refuse work that you're unfit to do.

Keyword practice

Look at the words. Use them in a sentence.

Word	Sentence
Fit for work	
Fatigue	
Judgement	
Reaction time	
Obligation	

What makes you fit for work?

To work properly and safely in aggregate hauling, you must be diligent. This means that you always need to take the job seriously, think about safety, and know all the safety rules. You also need to make sure you're fit for work. If you take care of yourself, you'll be a safer driver.

In aggregate hauling, there are four main things that can stop you from working safely:

- Impairment
- Fatigue
- Stress
- Distractions

Keywords

You may hear **"Fit for duty"** and "**Fit for work**." These are used to mean the same thing.

Fit for duty
This is a military term. Professionals with a background in military would use it.

Diligent
Show that you care about your work.

Unfit
Not able to work safely.

Impairment

When drivers use drugs (illegal, prescription, and over-the-counter) and alcohol, it can cause impairment. Drivers who are impaired can't think or act like they normally do. Being impaired makes you unfit for work because it affects your judgement. Impaired driving is unsafe and illegal.

Most companies have a drugs and alcohol policy. Make sure you know your company's policy and understand the effects of any drugs or alcohol you use.

Alcohol

Drugs

Drugs and alcohol policy

Fatigue

When you feel tired, you are fatigued.

Drivers can be fatigued because of:

- Lack of sleep
- Shift work
- Working long hours
- Over-using stimulants

Caffeine and sugar are examples of stimulants. Stimulants can make you feel more awake for a short time but can cause a "crash" after. This means that you'll feel even more tired after you use them. You should be especially careful with caffeine. Too much caffeine can cause:

- Increased heartrate
- Anxiety
- Insomnia
- Fatigue

Coffee, soda, and energy drinks all contain caffeine

Fatigue is dangerous for drivers because it can:

- Impair your judgement
- Slow down your reaction time
- Increase your chances of getting sick

Fatigue can cause impairment, just like drugs and alcohol. Research shows that 20% of fatal collisions involve a tired driver. It is important to have strategies to make sure you're not fatigued at work.

Here are some strategies you can use:

- Get enough rest before work
- Avoid caffeine and alcohol before bed
- Stay hydrated by drinking water instead of coffee, soda, or energy drinks. Dehydration can cause headaches, dizziness, and muscle cramps.
- If you feel tired, get out of your vehicle and stretch or walk around

You should speak to your doctor if:

- You are not able to get enough sleep
- You need to use stimulants to stay awake
- You feel fatigued regularly

Keywords

Heartrate
How fast your heart beats per minute.

Anxiety
Feeling nervous about something.

Insomnia
Difficulty falling asleep or staying asleep.

Keywords

Regularly
A definite pattern, like every Wednesday, or every day at 9:00 a.m.

Stress

Stress is what you feel when there are problems in your life or at your job. Stress can make you feel worried or tense. It can make you lose sleep and distract you at work.

If you feel stressed and cannot sleep or focus on work, you can get help. Many companies have assistance programs or benefits that can help you or pay for counselling.

If you're self-employed or your company doesn't have an assistance program, you can use these resources from the Alberta government: https://www.alberta.ca/addiction-mental-health.aspx

Distractions

Distractions are another type of impairment. Distractions are things that take your attention away from driving. They make it more difficult to notice hazards and to drive well.

Cell phones are a common distraction for drivers. Drivers who use cell phones are four times more likely to be in a crash. This is true even if the driver does not use their hands to use the phone (AAA Foundation for Traffic Safety, 2017).

It is illegal to use your cell phone to dial, text, or email while you drive. Some companies might allow handsfree calling, but it is safer to stop before you make a call.

It is also illegal to drive while you:

- Program a GPS
- Change settings on an audio player
- Read
- Write
- Draw
- Use a laptop
- Use another electronic device

If you feel stressed, impaired, or fatigued, you may not be fit for work. You have the right and obligation to refuse work if you're unfit to do the job safely.

Safety tip

If you're lost or want to check where you're going, pull over in a safe place to check your map or GPS. Never pull over on a busy road. This can block traffic and create a hazard for other drivers.

Always keep your mind and eyes on the road. Do not let anything distract you.

Problem solving strategy

To decide if you are fit for work, you can use these steps:

Step 1: Identify what symptoms you are experiencing.

Step 2: Ask yourself, “would this affect the way that I am driving?”

Step 3: Decide: If it can negatively affect your driving, then you are NOT fit for work.

For example:

- Symptoms: I am dizzy.
- Would this affect the way that I am driving? Yes.
- Decide: I am not fit for work.

Apply what you've learned

Read the scenarios and answer the questions.

1. **You're driving a load across the border. Because of restrictions, you had to wait at the border for 6 hours. When you arrived at the rest stop, it was already 2 am. You woke up at 6 am. You felt really tired.**

   Were you fit for work? **YES** **NO**

   Why?

   _____

   _____

2. **Your friend had a birthday party last night. You drank alcohol. When you woke up in the morning, you did not feel well. You had a headache. You were also dizzy.**

   Were you fit for work? **YES** **NO**

   Why?

   _____

   _____

3. **You took your car to the repair shop yesterday. You had to spend a lot of money to repair it. Then, you found out that your kids were sick right before you had to go to work. They had to stay home from school. You asked your cousin to take care of them. You were really stressed.**

   Were you fit for work? **YES** **NO**

   Why?

   _____

   _____

Strategy for speaking politely

Politeness is a way of communicating to show the listener or the reader that you respect them. To be polite, you need to soften what you say or write so that you're not too direct or forceful.

We can use words like **can**, **may**, and **will** (**could**, **might**, **should**, and **would**) to be more polite. We do this when we ask for something or ask someone to do something.

- Could you show me how to fill out this form, please?
- May I take a day off today?
- Would you consider switching your schedule with me on Saturday?
- I think you should consider taking a break after the long delay at the border.

Workplace culture tip

Remember that it is your responsibility to report and say "no" to unsafe work. This includes working when you are unfit to work.

Giving information on a "need-to-know" basis is encouraged in the Canadian workplace.

You should report information that is important for your employer. These are things that would affect the way that you work.

For example: You are dizzy and it could affect the way that you drive.

Task 1

Look at the following sentences. Rewrite them to make them more polite.

Sentence	Polite communication
Turn down the radio.	
Change shifts with me. I am tired after driving for long hours.	
I can't drive today because I was driving late last night.	
I want to take a day off today.	
I was stuck at the border until 3 am. I want extra time to recover.	

Task 2

Read the conversation between Tom and Chelsea. Then, answer the questions.

Tom: Hi Chelsea! Are you busy?

Chelsea: No, Tom. What can I do for you?

Tom: I am supposed to drive out at 8pm today, but I don't think I'm fit for work. Would it be possible to rest today and come back tomorrow?

Chelsea: That's unfortunate to hear, Tom. We are very busy. Can I ask why?

Tom: I'm just not feeling well enough to drive. My stomach is really upset, and I don't think I can drive. I may become a hazard, and I want to keep everyone safe.

Chelsea: That sounds good, Tom. I hope to see you tomorrow!

1. What did Tom ask Chelsea?

_____

2. Why did Tom think it was unsafe to drive?

_____

3. What important information did Tom give to Chelsea to communicate his fitness for work?

_____

_____

Strategy for writing text messages

When you are communicating important information to your employer, remember to be polite. If you are unfit for work, you need to let your employer know.

Follow these steps:

Step 1: Greet your supervisor or employer.

Hi Chelsea

Step 2: Explain the situation.

I am supposed to drive out at 7 am, but I don't think I am fit to drive. I am dizzy and I think it would affect how I drive.

Step 3: Ask them for time off.

Would it be possible for me to take a few hours of rest today and drive out tomorrow instead?

Step 4: If they say "yes", thank them.

Thank you very much.

Task 3

Write a text message to your supervisor to politely let them know that you are unfit to work.

You were waiting at the border for over 6 hours.
You arrive at your rest stop at 2 am.
You wake up too fatigued to drive.

Send a text message to your supervisor.

Answer key

Keyword practice

These are possible answers.

Word	Sentence
Fit for work	Drivers need to be fit for work.
Fatigue	Fatigue can affect your driving.
Judgement	You need to have good judgement when driving.
Reaction time	Quick reaction time is important for drivers.
Obligation	You have an obligation to let your supervisor know if you do not feel well and cannot work safely.

Apply what you've learned

1. NO

   You worked long hours and did not have enough sleep. You feel fatigued. Driving when fatigued is not safe.

2. NO

   Drinking alcohol affects your judgement. Having a headache and feeling dizzy can affect your driving and your reaction time. Driving dizzy is not safe.

3. YES

   Stressful situations can happen to everyone. If they don't happen often, they might not affect you and your job. However, if you are always under stress and you don't sleep or eat well then, the stress can make you unfit for work.

Task 1

1. Could you please turn down the radio?
2. Would you switch shifts with me? I am tired after driving for long hours.
3. I should not drive today because I was driving last night.
4. Could I take a day off today?
5. I was stuck at the border until 3 am. I would like extra time to recover.

Task 2

1. Tom asked to take a day off.
2. Tom did not feel well. His stomach was upset. He thought that made him a hazard on the road.
3. He told her how he felt and described his symptoms.

Task 3

These is a possible answer.

Hi (manager's name),

I was waiting at the border for over 6 hours last night.

I arrived at the rest stop at 2:00 am and this morning I feel very tired.

I think I am not fit for work. Could I take a few hours to rest today? I can drive out tomorrow.

MODULE 5

Inspections

Keywords

Read the definitions and examples for the important words from this module.

Inspect Check if something works or is in good condition.
Example: Someone needs to inspect your vehicle every 24 hours.

Secure Make sure something will not move or fall.
Example: You cannot use bungee cords to secure your load.

Debris Leftover pieces of aggregate.
Example: You need to make sure your vehicle is free of debris.

Refuse Say that you won't do something.
Example: If it's not safe to drive your vehicle, you can refuse to drive it.

Defects Damage that can make something dangerous.
Example: You need to check for defects when you're doing an inspection.

Keyword practice

Look at the word. Use the word in a sentence.

Word	Sentence
Inspect	
Secure	
Debris	
Refuse	
Defects	

Why do you need vehicle inspections?

Your vehicle needs to be ready for work. You need to check your vehicle regularly. You are required by law to make sure your vehicle is safe to operate.

Legislation says that vehicles need to be inspected once every 24 hours. This is why companies train their workers to inspect their vehicles before every trip.

Keywords

Required
Essential, something that is needed.

Legislation
Laws.

Getting ready to inspect

To inspect your vehicle, you need:

- hard hat
- paper towel or a rag
- tire hammer
- broom
- snow brush
- fire extinguisher
- folding emergency triangles
- wheel chocks

Keywords

Wheel chocks
Blocks that stops the vehicle from moving.

Temporarily
Only lasts for a short time. It is the opposite of permanent.

Other useful tools to have are:

- bungee cords
- hard hat with light or flashlight

You can use bungee cords to temporarily hold things in place during inspection. You cannot use bungee cords to secure a load. Use a hard hat with a light to help you see. Use a flashlight if you don't have a hard hat with a light.


paper towel


tire hammer


broom


snow brush


fire extinguisher


folding emergency triangles


wheel chocks


bungee cord


hard hat with light


flashlight

Inspecting your vehicle before a trip

When you inspect your vehicle:

- Follow proper lock-out procedures.
- Always have dump body props in place before you go under a raised dump box.

Remember:

- Do not inspect the vehicle while it is energized. Energized means that the truck and the power take-off (PTO) are on.
- Do not work around rotating or lifting equipment while the vehicle is energized.

Different companies may inspect in different ways. However, the reason for inspection is the same everywhere. You inspect your vehicle to make sure it's safe to operate.

Follow these key steps for the inspection:

1. Start your trip inspection with a circle check.
2. Go around the vehicle in a counter-clockwise direction.
3. Follow the checklist your company gave you.

Inspection tasks

Here are some examples of inspection tasks:

- Check that the vehicle has all the tools and safety equipment needed.

Keywords

Dump body props
Tool that supports the dump box.

Dump box
The back part of a dump truck that has the aggregate.

Reason
The cause of something or purpose for something.

Operate
Control or use a machine.

Counter-clockwise
Go the opposite direction to the way the hands of a clock move.

Positioned
Put in a specific way.

- Check windows and mirrors. Make sure they're clean and in the proper position.

- Check the hoist for leaks or damage. If there is a hoist support, check it also. You need to be careful when you inspect any high-pressure system. Unplanned release can cause injury or damage. For example, if the box is up and there is a leak, the box can come down too fast.

- Look inside the box for leftover material. If the box is already loaded, inspect the payload. You need to know what you're hauling. You also need to know how the load will behave during the trip. For example, snow and ice can freeze to the sides of the box. Sawdust and snow can blow into the traffic behind you.

- Extend the tarp and check it for tears. Check the condition of the arms and springs.

Keywords

Hoist
Device used for lifting or lowering a load.

Leak
Hole in a container that accidentally lets fluid or gas come out.

Hoist support
Helps keep the hoist in place.

Injury
Get hurt.

Leftover
Something that remains or is not used.

Payload
Something that is carried by a vehicle.

Extend
Make something longer.

Tarp
Large sheet of material that is used to cover aggregate.

Tear
Hole or damage in something.

Behave
What the load might do. Example: Snow and ice can freeze to the sides of the box.

- Make sure the top boards are secure and that there's no debris.

- Check the end gate. The top should be secured with a hinge pin and keeper or cotter pin. Clear away any material that you can see between the box and the end gate.

- The end gate latch can be air operated. If the box is empty, test the air-operated latch. Check the lines for damage and listen for leaks.

- Check the spreader chains. They should be secure and not in place if you are going to do dumping operations.

- Check box pins or pivot mounts. They should not have any cracks nor other signs of damage. Apply grease if they look dry.

Keywords

Hinge pin
Device that holds together two parts.

Keeper or cotter pin
Bolt that fits into a hole that is used to keep things together.

Latch
A bar used to keep the door closed.

Pivot mounts
A part that lets you roll the tarp.

Grease
Thick oil used to lubricate parts of a vehicle or equipment.

- Inspect the air brakes.

To inspect the air brakes, follow these steps:

1. Put chocks under the wheels.
2. Visually inspect the air brake components.
3. Check the tractor protection system if the vehicle has it.
4. Check the low air warning devices.
5. Test the park control valves to see that they work properly.
6. Perform a supply circuit test to check compressor and governor functions.
7. Check the entire system for air leaks. Use the process that the manufacturer recommends. If the system loses more air than the maximum allowed, the unit must be taken out of service immediately.
8. Remove the chocks.
9. Do a service brake response test to see that the brakes work properly.

- Check the hoist to make sure it works.

When you finish the inspection, put all your documents in order. Decide if you need a journey management plan.

Keywords

Visually
Something you do by seeing or using your eyes.

Valves
Device used for controlling how much fluid flows.

Compressor
Machine used to increase pressure.

Governor
A part of the car the helps with speed of the engine.

Manufacturer
The company that makes the product.

Comprehensive
Includes all or almost all parts of something.

Why regular inspections are important

You need to make sure that your vehicle is safe to operate. You need to do inspections again mid-trip and after you finish your trip.

This inspection is not a comprehensive inspection of a motor vehicle. It only checks the equipment and systems that you need for aggregate hauling. Your employer needs to teach you how to do all appropriate trip inspections for the vehicles you will operate.

When you inspect, you may find that something doesn't work. When something doesn't work, it could be a major defect. This means that the equipment is not safe to use. If you find a major defect during your inspection, or you are not sure the vehicle is safe to use, you need to stop work until an expert can properly inspect and fix your equipment.

Keywords

Pre-trip
Before your trip.

Mid-trip
During or in the middle of your trip.

Post-trip
After your trip.

Comprehensive
Complete. Includes all the parts of something.

Appropriate
Correct.

After the trip

After you complete your trip, you need to do another inspection. This is called a post-trip inspection. You need to check for damage or defects. You may also need to do a post-trip report for your employer.

Journey management plan

When you have a journey management plan, you are less likely to have problems or incidents during your trip. They help you plan pre-trip, mid-trip, and post-trip activities.

Journey management plans help you (or your supervisor) make “go” or “no-go” decisions. That means that they can help you decide if it is safe to make the journey at the time or not. If it is not safe to make the journey, you can refuse to do it.

A journey management plan usually has:

- Planned rest breaks
- Fuel stops
- Locations of weigh scales
- Posted truck routes
- Posted dangerous goods routes
- The safest route to travel based on weather, hazards, or incidents such as collisions
- Road bans

Journey management plans also help check if a driver is fit for work.

These online resources can help you plan your journey:

https://511.alberta.ca/#:Alerts

http://www.drivebc.ca/

http://hotline.gov.sk.ca/map.html

Keywords

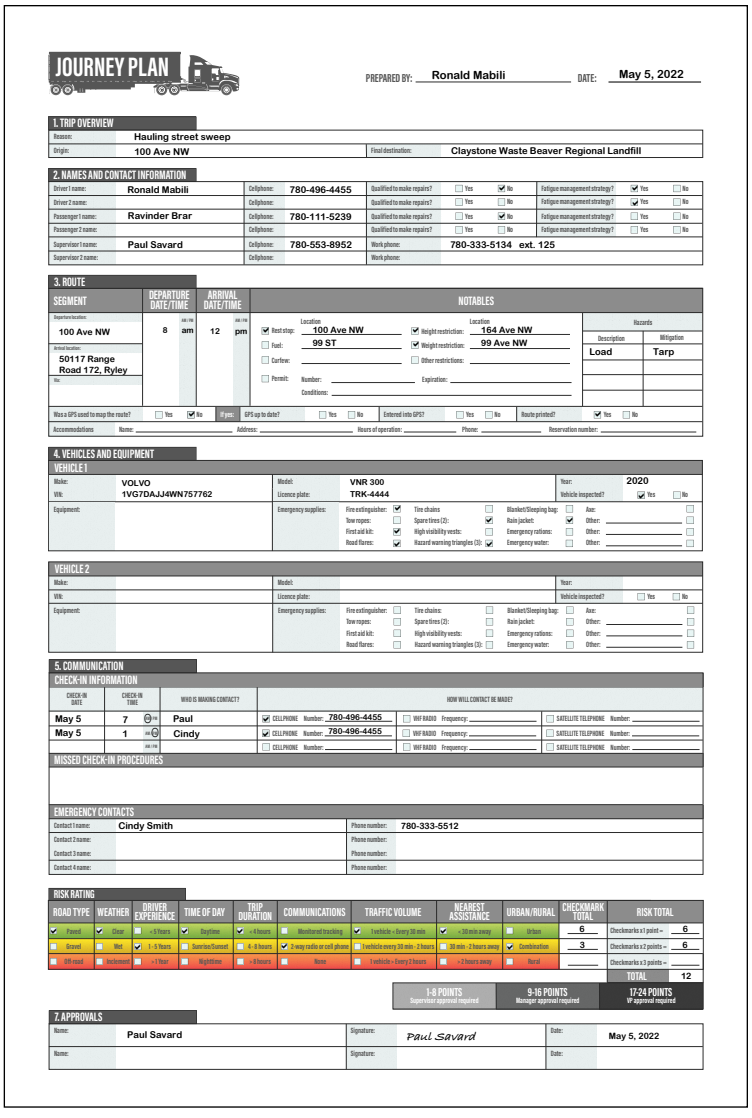
Reduce
Make smaller.

Incident
Something that happens.

Collisions
When a vehicle hits an object.

Resources
Materials available to use for learning.

Road ban
Law that prevents someone from driving a trucks that have higher axle weights. This helps protect the roads from damage.



JOURNEY PLAN

PREPARED BY: Ronald Mabili DATE: May 5, 2022

1. TRIP OVERVIEW

Reason:	Hauling street sweep		
Origin:	100 Ave NW	Final destination:	Claystone Waste Beaver Regional Landfill

2. NAMES AND CONTACT INFORMATION

Driver 1 name:	Ronald Mabili	Cellphone:	780-496-4455	Qualified to make repairs?	☐ Yes ☑ No	Fatigue management strategy?	☑ Yes ☐ No
Driver 2 name:		Cellphone:		Qualified to make repairs?	☐ Yes ☐ No	Fatigue management strategy?	☑ Yes ☐ No
Passenger 1 name:	Ravinder Brar	Cellphone:	780-111-5239	Qualified to make repairs?	☐ Yes ☑ No	Fatigue management strategy?	☐ Yes ☐ No
Passenger 2 name:		Cellphone:		Qualified to make repairs?	☐ Yes ☐ No	Fatigue management strategy?	☐ Yes ☐ No
Supervisor 1 name:	Paul Savard	Cellphone:	780-553-8952	Work phone:	780-333-5134 ext. 125		
Supervisor 2 name:		Cellphone:		Work phone:			

3. ROUTE

SEGMENT	DEPARTURE DATE/TIME	ARRIVAL DATE/TIME	NOTABLES
Departure location: 100 Ave NW	8 am	12 pm	☑ Rest stop: Location: 100 Ave NW; ☐ Fuel: 99 ST; ☐ Curfew: ; ☐ Permit: Number: Conditions: ; ☑ Weight restriction: Location: 164 Ave NW; ☑ Weight restriction: 99 Ave NW; ☐ Other restrictions: ; Expiration:
Arrival location: 5017 Range Road 172, Ryley			Hazards: Description: Load; Mitigation: Tarp

Was a GPS used to map the route? ☐ Yes ☑ No — If yes: GPS up to date? ☐ Yes ☐ No — Entered into GPS? ☐ Yes ☐ No — Route printed? ☑ Yes ☐ No

Accommodations — Name: Address: Hours of operation: Phone: Reservation number:

4. VEHICLES AND EQUIPMENT

VEHICLE 1

Make:	VOLVO	Model:	VNR 300	Year:	2020
VIN:	1VG7DAJJ4WN757762	Licence plate:	TRK-4444	Vehicle inspected?	☑ Yes ☐ No
Equipment:		Emergency supplies:	Fire extinguisher: ☑; Tire chains: ☐; Blanket/Sleeping bag: ☐; Axe: ☐; Tow ropes: ☐; Spare tires (2): ☑; Rain jacket: ☑; Other: ; First aid kit: ☑; High visibility vests: ☐; Emergency rations: ☐; Other: ; Road flares: ☑; Hazard warning triangles (3): ☑; Emergency water: ☐; Other:		

VEHICLE 2

Make:		Model:		Year:	
VIN:		Licence plate:		Vehicle inspected?	☐ Yes ☐ No
Equipment:		Emergency supplies:	Fire extinguisher: ☐; Tire chains: ☐; Blanket/Sleeping bag: ☐; Axe: ☐; Tow ropes: ☐; Spare tires (2): ☐; Rain jacket: ☐; Other: ; First aid kit: ☐; High visibility vests: ☐; Emergency rations: ☐; Other: ; Road flares: ☐; Hazard warning triangles (3): ☐; Emergency water: ☐; Other:		

5. COMMUNICATION

CHECK-IN INFORMATION

CHECK-IN DATE	CHECK-IN TIME	WHO IS MAKING CONTACT?	HOW WILL CONTACT BE MADE?
May 5	7 AM/PM	Paul	☑ CELLPHONE Number: 780-496-4455; ☐ VHF RADIO Frequency: ; ☐ SATELLITE TELEPHONE Number:
May 5	1 AM/PM	Cindy	☑ CELLPHONE Number: 780-496-4455; ☐ VHF RADIO Frequency: ; ☐ SATELLITE TELEPHONE Number:
	AM/PM		☐ CELLPHONE Number: ; ☐ VHF RADIO Frequency: ; ☐ SATELLITE TELEPHONE Number:

MISSED CHECK-IN PROCEDURES

EMERGENCY CONTACTS

Contact 1 name:	Cindy Smith	Phone number:	780-333-5512
Contact 2 name:		Phone number:	
Contact 3 name:		Phone number:	
Contact 4 name:		Phone number:	

RISK RATING

ROAD TYPE	WEATHER	DRIVER EXPERIENCE	TIME OF DAY	TRIP DURATION	COMMUNICATIONS	TRAFFIC VOLUME	NEAREST ASSISTANCE	URBAN/RURAL	CHECKMARK TOTAL	RISK TOTAL
☑ Paved	☑ Clear	☐ < 5 hours	☑ Daytime	☑ < 4 hours	☐ Monitored tracking	☑ 1 vehicle > Every 30 min	☑ < 30 min away	☐ Urban	6	Checkmarks x 1 point = 6
☐ Gravel	☐ Wet	☑ 1 - 5 hours	☐ Sunrise/Sunset	☐ 4 - 8 hours	☑ 2-way radio or cell phone	☐ 1 vehicle every 30 min - 2 hours	☐ 30 min - 2 hours away	☑ Combination	3	Checkmarks x 2 points = 6
☐ Off-road	☐ Inclement	☐ > 1 Year	☐ Nighttime	☐ > 8 hours	☐ None	☐ 1 vehicle > Every 2 hours	☐ > 2 hours away	☐ Rural		Checkmarks x 3 points =
										TOTAL 12

1-8 POINTS Supervisor approval required | 9-16 POINTS Manager approval required | 17-24 POINTS VP approval required

7. APPROVALS

Name:	Paul Savard	Signature:	Paul Savard	Date:	May 5, 2022
Name:		Signature:		Date:	

Apply what you've learned

You should complete inspections before, during, and after your trip. The goal of the pre-trip inspection is to make sure that the vehicle is safe to operate.

Read the following defects. Answer the questions.

1. **You see a cracked wheel.**

   Should you operate your vehicle? **YES** **NO**

   Why?

   _____

   _____

2. **You find out that your tarp is damaged.**

   Should you operate your vehicle? **YES** **NO**

   Why?

   _____

   _____

3. **You see that your side mirror has a crack.**

   Should you operate your vehicle? **YES** **NO**

   Why?

   _____

   _____

Workplace culture: Saying “no” to unsafe work

In the Canadian workplace, safety is the priority. In Canada, it’s an employee’s responsibility to report and say “no” to unsafe work.

You are required by law to make sure that your vehicle is safe to operate. This means that you need to inspect your vehicle before every trip. You must report major issues that make your vehicle or equipment unsafe to use. You must also refuse the work.

It is against the law for employers to punish employees for refusing unsafe work.

Saying “no” is not easy. It’s a skill that you’ll need to learn and practice. You can say “no” to unsafe work. This is how you can politely say “no”:

1. Say something polite to show you are sorry that you cannot do the task.
   I’m sorry, but I can’t drive this truck.
   I’d rather not drive this truck.
2. Explain why you can’t do the work.
   The wheel has a crack.
   The hose is leaking.
3. Offer a solution if you can.
   I can drive another truck.
   I can take the truck to the shop.

Keywords

Major issue
An important problem.

Task 1

Read the situations. Write what you would say.

1. **While doing your inspection, you find out that your tarp would not close. You need to use the tarp to secure your load. You don’t think you can transport your load safely.**

2. **While doing your inspection, you see that the wheel is damaged. You don’t know if this is dangerous or not. You want to check with the mechanic to make sure you can operate the vehicle safely.**

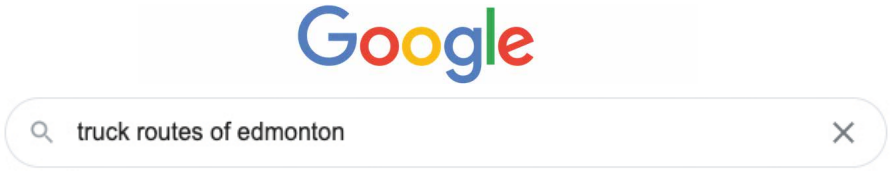
Strategy for finding truck routes online

As a hauler, you need to know where to drive. You must drive on roads that are considered truck routes. These truck routes are roads that large trucks can drive on. You are not allowed to drive on residential routes or non-truck routes. If you drive on roads that are not considered truck routes, you can receive a fine. You can use the internet to find a map of truck routes in your city or town.

1. Go to a web browser.

2. In the address bar, type: **www.google.com**

3. In the search bar, type your key words: **Truck routes of Edmonton**. Here, we are looking for the truck routes in Edmonton.



4. Click on: **Truck Routes | City of Edmonton**

5. Click on the Truck Route Maps to see the map.
   The map has two sides, front and back. The sides will have different information about the streets.

Truck Routes

Heavy vehicles (over 8000 kg GVW/12.5 m long) and vehicles carrying dangerous goods must adhere to the Truck Route Network. If the destination cannot be reached directly from a Truck Route, take the most direct and practical road off the nearest Truck Route.

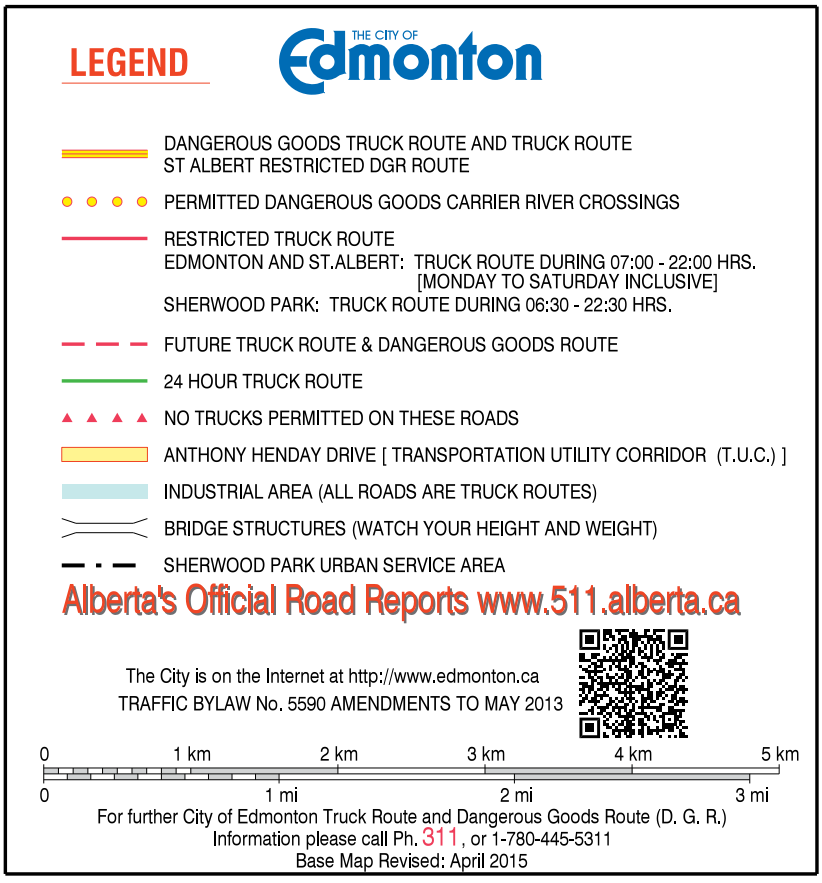
Edmonton Truck Route Map (Front)

Edmonton Truck Route Map (Back)

6. Look at the Legend on the map.

   The different colours and patterns show you different types of roads. Sometimes, you need to use specific roads when you haul different types of aggregate. This will let you know which truck routes applies to you.

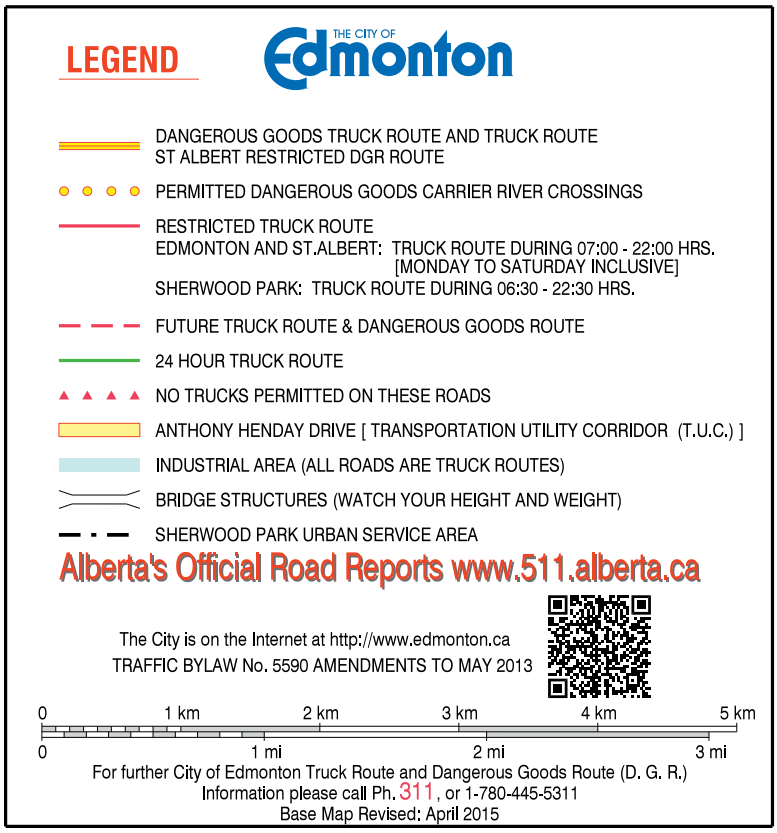
   For example, if you are hauling something that is classified as a "dangerous good," then you will need to drive on the Dangerous Goods Truck Route.



Task 2

This is something that you will be required to do at work. It is challenging in the beginning, and you need to practice.

Using the map that you found, answer the following questions:



Document use tips

Scan or look for the key words (street names) on the map.

Use the map legend to get information about the street.

Remember that the legend tells you what type of road that the street is and how it is used.

1. **Go to the Edmonton Truck Route Map (Front).**

   Look for the Legend and locate the different symbols and colours for different TRUCK ROUTES.

   Locate **Wayne Gretzky Dr.**
   Hint: Look for the North Saskatchewan River, and then Yellowhead Trail. Wayne Gretzky intersects with Yellowhead Trail.

   Is Wayne Gretzky Dr. a truck route? **YES** **NO**

   How do you know? _____

   What type of a truck route is it? _____

   When can you use this route? _____

Digital skills tip

Use Google Maps to locate the streets as a reference and then go back to the map.

Keywords

Intersects
The street meets another one. Two streets meet and cross each other.

2. **Go to the Edmonton Truck Route Map (Back).**

   Look for the Legend and locate the different symbols and colours for different structure clearances.

   Locate **Wayne Gretzky Dr.**
   Hint: Look for the North Saskatchewan River.
   Wayne Gretzky Dr. intersects with the river.

   Is there a structural clearance that you need to be aware of at Wayne Gretzky Dr.? **YES** **NO**

   How do you know? _____

3. **If you travel north (up) on Wayne Gretzky Dr. towards east (right) of Yellowhead Trail with a *single unit truck,* answer the following questions:**

   a. What is the maximum height that your vehicle can be to travel this route? _____

   b. What is the maximum weight that your vehicle can be to travel this route? _____

   c. What type of restrictions or structures would you have?

      No slow traffic

      Restricted at nighttime

      Structural clearance

      Bridge maximum weight restriction

4. **You are hauling construction debris from Wayne Gretzky Dr. to a site close to Baseline Road and Clover Bar Road. Which roads would you take to get there?**

   Hint: Go back to the front map. Look in the Sherwood Park area.

_____

_____

_____

_____

_____

_____

Strategy for filling out forms

There are forms that you will need to fill out in your job. One example is a Journey Management Plan. You will need a strategy to help you understand what to write in the form.

Look at the Journey management plan. It is set up like a table with headings, subheadings, and columns and rows.

Look at the heading, subheadings, and the information requested in each of the boxes. Imagine someone is asking you a question.

For example, the first question might be: "What is the reason for this trip?"

Keywords

Heading
A heading is like a title. It tells you what the document is about, and it is usually written in larger, bolder print.

Subheading
A second, smaller heading that gives you more information about the document. It is usually written in large, bold print.

Row
The information that is arranged across a table, from left to right.

Column
The information in a table that is arranged from top to bottom.

Subheading

1. TRIP OVERVIEW	
Reason:	Hauling street sweep
Origin:	100 Ave NW

Row

2. NAMES AND CONTACT INFORMATION			
Driver 1 name:	Ronald Mabili	Cellphone:	780-496-4455
Driver 2 name:		Cellphone:	
Passenger 1 name:	Ravinder Brar	Cellphone:	780-111-5239
Passenger 2 name:		Cellphone:	
Supervisor 1 name:	Paul Savard	Cellphone:	780-553-8952
Supervisor 2 name:		Cellphone:	

Column

Most documents that you must fill in can be thought of like questions and answers. The words in the blanks are like questions and you provide the answer.

JOURNEY PLAN

PREPARED BY: Ronald Mabili DATE: May 5, 2022

1. TRIP OVERVIEW

Reason:	Hauling street sweep		
Origin:	100 Ave NW	Final destination:	Claystone Waste Beaver Regional Landfill

2. NAMES AND CONTACT INFORMATION

Driver 1 name:	Ronald Mabili	Cellphone:	780-496-4455	Qualified to make repairs?	☐ Yes ☑ No	Fatigue management strategy?	☑ Yes ☐ No
Driver 2 name:		Cellphone:		Qualified to make repairs?	☐ Yes ☐ No	Fatigue management strategy?	☑ Yes ☐ No
Passenger 1 name:	Ravinder Brar	Cellphone:	780-111-5239	Qualified to make repairs?	☐ Yes ☑ No	Fatigue management strategy?	☐ Yes ☐ No
Passenger 2 name:		Cellphone:		Qualified to make repairs?	☐ Yes ☐ No	Fatigue management strategy?	☐ Yes ☐ No
Supervisor 1 name:	Paul Savard	Cellphone:	780-553-8952	Work phone:	780-333-5134 ext. 125		
Supervisor 2 name:		Cellphone:		Work phone:			

3. ROUTE

SEGMENT	DEPARTURE DATE/TIME	ARRIVAL DATE/TIME	NOTABLES
Departure location: 100 Ave NW Arrival location: 50117 Range Road 172, Ryley Via:	8 AM / PM am	12 AM / PM pm	☑ Rest stop: Location 100 Ave NW ☐ Fuel: 99 ST ☐ Curfew: ☐ Permit: Number: Expiration: Conditions: ☑ Height restriction: Location 164 Ave NW ☑ Weight restriction: 99 Ave NW ☐ Other restrictions:

Hazards	
Description	Mitigation
Load	Tarp

Was a GPS used to map the route?	☐ Yes ☑ No	If yes: GPS up to date?	☐ Yes ☐ No	Entered into GPS?	☐ Yes ☐ No	Route printed?	☑ Yes ☐ No

Accommodations Name: Address: Hours of operation: Phone: Reservation number:

4. VEHICLES AND EQUIPMENT

VEHICLE 1

Make:	VOLVO	Model:	VNR 300	Year:	2020
VIN:	1VG7DAJJ4WN757762	Licence plate:	TRK-4444	Vehicle inspected?	☑ Yes ☐ No

Equipment:

Emergency supplies:

Fire extinguisher: ☑	Tire chains ☐	Blanket/Sleeping bag: ☐	Axe: ☐		
Tow ropes: ☐	Spare tires (2): ☑	Rain jacket: ☑	Other: ☐		
First aid kit: ☑	High visibility vests: ☐	Emergency rations: ☐	Other: ☐		
Road flares: ☑	Hazard warning triangles (3): ☑	Emergency water: ☐	Other: ☐		

VEHICLE 2

Make:		Model:		Year:	
VIN:		Licence plate:		Vehicle inspected?	☐ Yes ☐ No

Equipment:

Emergency supplies:

Fire extinguisher: ☐	Tire chains: ☐	Blanket/Sleeping bag: ☐	Axe: ☐		
Tow ropes: ☐	Spare tires (2): ☐	Rain jacket: ☐	Other: ☐		
First aid kit: ☐	High visibility vests: ☐	Emergency rations: ☐	Other: ☐		
Road flares: ☐	Hazard warning triangles (3): ☐	Emergency water: ☐	Other: ☐		

5. COMMUNICATION

CHECK-IN INFORMATION

CHECK-IN DATE	CHECK-IN TIME	WHO IS MAKING CONTACT?	HOW WILL CONTACT BE MADE?		
May 5	7 PM	Paul	☑ CELLPHONE Number: 780-496-4455	☐ VHF RADIO Frequency:	☐ SATELLITE TELEPHONE Number:
May 5	1 AM	Cindy	☑ CELLPHONE Number: 780-496-4455	☐ VHF RADIO Frequency:	☐ SATELLITE TELEPHONE Number:
	AM / PM		☐ CELLPHONE Number:	☐ VHF RADIO Frequency:	☐ SATELLITE TELEPHONE Number:

MISSED CHECK-IN PROCEDURES

EMERGENCY CONTACTS

Contact 1 name:	Cindy Smith	Phone number:	780-333-5512
Contact 2 name:		Phone number:	
Contact 3 name:		Phone number:	
Contact 4 name:		Phone number:	

RISK RATING

ROAD TYPE	WEATHER	DRIVER EXPERIENCE	TIME OF DAY	TRIP DURATION	COMMUNICATIONS	TRAFFIC VOLUME	NEAREST ASSISTANCE	URBAN/RURAL	CHECKMARK TOTAL	RISK TOTAL
☑ Paved	☑ Clear	☐ < 5 Years	☑ Daytime	☑ < 4 hours	☐ Monitored tracking	☑ 1 vehicle < Every 30 min	☑ < 30 min away	☐ Urban	6	Checkmarks x 1 point = 6
☐ Gravel	☐ Wet	☑ 1 - 5 Years	☐ Sunrise/Sunset	☐ 4 - 8 hours	☑ 2-way radio or cell phone	☐ 1 vehicle every 30 min - 2 hours	☐ 30 min - 2 hours away	☑ Combination	3	Checkmarks x 2 points = 6
☐ Off-road	☐ Inclement	☐ > 1 Year	☐ Nighttime	☐ > 8 hours	☐ None	☐ 1 vehicle > Every 2 hours	☐ > 2 hours away	☐ Rural		Checkmarks x 3 points =
										TOTAL 12

1-8 POINTS	9-16 POINTS	17-24 POINTS
Supervisor approval required	Manager approval required	VP approval required

7. APPROVALS

Name:	Paul Savard	Signature:	Paul Savard	Date:	May 5, 2022
Name:		Signature:		Date:	

Task 3

Look at Ronald's Journey Management Plan and answer the questions.

1. Where is Ronald's origin? _____

2. List three emergency supplies that Ronald has in his truck:

   a. _____

   b. _____

   c. _____

3. Who is Ronald's emergency contact? _____

   What is their phone number? _____

4. What type of road would Ronald be driving on? _____

5. What is the risk rating of this job? _____

6. Would Ronald need supervisor approval for this job? **YES** **NO**

7. Why do you think so? _____

Document use strategy

How to read a table:

- The heading is usually bolded and at the top of the document.
- The subheadings are usually bolded and are found at the top of columns.
- Under each subheading is a list of items. Each column list includes the same type of information.
- The items in the row are usually connected.

Task 4

When you are hauling aggregate, you should complete an inspection before, during, and after your trip. It is important to document your inspection.

Before you start your trip, you should complete a pre-trip vehicle inspection report. This helps you make sure that your vehicle is safe to operate.

DRIVER'S DAILY VEHICLE INSPECTION REPORT

☐ PRE-TRIP ☑ POST-TRIP

CARRIER	LOCATION OF INSPECTION	TRACTOR/TRUCK LIC. PLATE #	JURISDICTION
Jade Transport	6th ST	TRK-7777	
ADDRESS	**INSPECTION DATE**	**INSPECTION TIME**	**TRAILER #1 LIC. #** / **JURISDICTION**
140 18TH AVE	May 5, 2022	4:55 pm	
CITY	**VEHICLE MAKE / MODEL**	**ODOMETER (MILES / KM)**	**TRAILER #2 LIC. #** / **JURISDICTION**
Edmonton	VOLVO VHD	179532	

No Defects Found ☐ I declare that the vehicle(s) shown above has (have) been inspected in accordance with the applicable requirements of Schedule 1 and / or jurisdiction legislation.

Inspector / Driver's Name Print | Inspector / Driver's Signature | Driver's Signature (If different from Inspector)

CHECK ANY **DEFECTIVE ITEM** AND GIVE DETAILS UNDER REMARKS — REFER TO ACCOMPANYING SCHEDULE 1 TO IDENTIFY DEFECTS

TRACTOR/ TRUCK	TRAILER # 1	TRAILER # 2		TRACTOR/ TRUCK		TRACTOR/ TRUCK	
☑	☐	☐	Brake Adjustments	☐	Air Brake Adjustments	☐	Emergency Equipment/Safety Devices
☐	☐	☐	Brake Connections	☐	Brakes - Pedal/Booster/Gauges	☐	Exhaust System
☐	☐	☐	Cargo Securement	☐	Brakes - Warning Lights: Low Pressure, Vacuum/Failure	☐	Fifth Wheel
☐	☐	☐	Coupling Devices	☐	Compressor	☐	Fuel System
☐	☐	☐	Dangerous Goods Placard/Holder	☐	Hoses & Connections	☐	General
☐	☐	☐	Frame & Cargo Body	☐	Hydraulic Brake Fluid	☐	Glass & Mirrors
☐	☐	☐	Inspection Decal	☐	Parking Brakes	☐	Horn
☐	☐	☐	Lamps & Reflectors	☐	Battery	☐	Pintle Hook
☐	☐	☐	Plate Validation Sticker	☐	Defroster/Heater	☐	Power Steering System
☐	☐	☐	Suspension System	☐	Documents - Registration, etc.	☐	Radiator
☐	☐	☐	Tires	☐	Driver Controls	☐	Steering Mechanism
☑	☐	☐	Wheels/Hubs/Fasteners	☐	Driver Seat	☐	Towing Attachment
						☑	Windshield Wiper/Washer

Vehicle/Load: Height/Width (MB Reg. 95/2008)

DEFECTS EN ROUTE

REMARKS Needs alignment, damaged wheel, need refill in windshield washer

☑ Above defects corrected ☐ Above defects need not be corrected for safe operation of vehicle

Signature of Authorized Repair Person	Date	Driver's Signature	Date
Stan Polinski	May 7, 2022	Ravinder Brar	May 7, 2022

PRINTED IN CANADA

Form 712 (REV 04/18)

Look at the vehicle inspection report and answer the questions.

1. What is the date and time of the inspection?

   _____

2. Does this vehicle have a trailer? **YES** **NO**

3. Did the inspector find any defects? **YES** **NO**

4. What were the defects?

   _____

   _____

5. Is this vehicle safe to operate? **YES** **NO**

   How do you know?

   _____

   _____

   _____

Answer key

Keyword practice

These are possible answers.

Word	Sentence
Inspect	Drivers should inspect their truck regularly.
Secure	Drivers need to secure the load before they drive.
Debris	Debris can fall off a truck and cause problems.
Refuse	You can refuse to do work that is unsafe.
Defects	Drivers should report defects they find on their trucks.

Apply what you've learned

1. NO

   Driving on a cracked wheel can be dangerous. It could cause a tire to blow off.

2. NO

   If the tarp is damaged it will not cover the load properly. The load can then fall off the truck and damage other vehicles or cause personal injury.

3. NO

   Cracked side mirror is a safety concern and can cause limited visibility.

Task 1

1. I'm sorry, but I should not drive this truck. The tarp does not close, and the load cannot be secured. Could I have another truck until this one is fixed?
2. I'm sorry, but I think there is a problem with this truck. The wheel looks damaged. I am not sure this truck is safe to drive. Can I check with a mechanic?

Task 2

1. YES
   It is marked green on the map. It is also listed at the top of the map as a truck route.
   It is a 24 hr truck route.
   You can use this route all the time.
2. YES
   There are green arrow signs on the route.
3. a. 5.1 meters
   b. 24 tonnes
   c. no slow traffic, structural clearance, bridge maximum weight restriction
4. Wayne Gretzky Dr (south), 98 avenue (east), 101 avenue (east), Baseline Rd (east)

Task 3

1. 100 Ave NW
2. fire extinguisher, first aid kit, road flares, spare tires, hazard warning triangles, rain jacket
3. Cindy Smith / 780-333-5512
4. paved
5. Risk total is 12 points
6. No
7. for this rating total (12 points) manager approval is required

Task 4

1. May 5, 2022 / 4:55 pm
2. NO
3. YES
4. The vehicle needs alignment, has damaged wheel and needs refill in windshield washer. The items marked on the checklist: brake adjustments, wheels/hubs/fasteners, windshield wiper/washer
5. NO
   This is a possible answer.
   The vehicle is not safe to drive because damaged wheel, not good alignment and no windshield washer fluid are hazards. Damaged wheel and brake misalignment can affect how you drive and can cause tires to blow. Driving without windshield washer fluid can cause limited visibility.

MODULE 6

Hydraulic and Air Systems

Keywords

Read the definitions and examples for the important words from this module.

Pressure Force created by fluid or air. It creates energy that makes machines work.
Example: Hydraulic service breaks are powered by hydraulic pressure.

Hydraulic system Systems that use fluid under pressure to move things.
Example: Hydraulic systems pump fluid off a PTO pump.

Air system Systems that use air under pressure to move things.
Example: Air systems use air instead of fluid.

Service brake Brakes that use an air system to slow or stop your vehicle.
Example: You control the service brakes with a foot pedal.

Parking brake Brakes that use an air system to prevent your vehicle from moving.
Example: You need to pull the yellow button to engage the parking brake.

Keyword practice

Draw a line from the words to the matching definition.

Hydraulic system	Systems that use air under pressure to move things.
Air system	Brakes that use an air system to prevent your vehicle from moving.
Service brake	Systems that use fluid under pressure to move things.
Parking brake	Force created by fluid or air. It creates energy that makes machines work.
Pressure	Brakes that use an air system to slow or stop your vehicle.

What are the important mechanical systems in your vehicle?

Aggregate hauling equipment uses hydraulic and air systems to operate.

Hydraulic systems

Hydraulic systems pump fluid off a power take-off pump. Valves control the flow of fluid from the pump into the hoses. The hoses are connected to an actuator or hydraulic cylinder. The hydraulic pump creates force. Force is strength or energy that can move things.

The force is multiplied inside the cylinder. The multiplied force is then used to move parts of the equipment.

The hydraulic system needs enough fluid to work. It can fail if there's a leak or if there isn't enough fluid. You need to check the fluid level in the sight glass. You should also check for leaks in hoses, connectors, and seals to prevent failure.

Examples of hydraulic systems are:

- Hoists
- Hydraulic service brakes

Keywords

Pump
Device that moves fluids.

Actuator
Device that helps move or control a mechanism or a system.

Hydraulic cylinder
Device that uses hydraulic fluid to create force.

Multiplied
Increase.

Fail
Stop working.

Hoists

The hoist is a hydraulic system that raises the box of a dump truck.

Hydraulic service brakes

Hydraulic service brakes are powered by hydraulic pressure. Vehicles like cars and pickup trucks use hydraulic brakes.

Air systems

Air systems use air instead of fluid. The air is compressed and stored in a pressure vessel. Air systems operate brakes and other actuators in the vehicle like the end gate latch. An air brake system is powered using the system's stored air pressure.

Examples of air systems are:

- Air brakes
- End gate latch

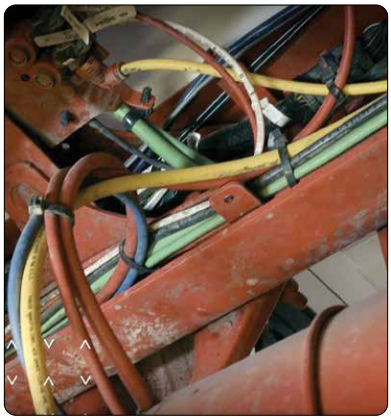
Some vehicles have hydraulic brakes but use air systems to operate the suspension and accessories.

Keywords

Pressure vessel
Container used to store air at high pressures.

Air brakes

An air brake system is powered using the air pressure stored in the system.



An air brake system has several parts:

- Compressor
- Dryer
- Service brakes
- Foot pedal
- Parking brake

Compressor

The engine powers the air compressor. The air compressor creates air pressure.

Dryer

The air dryer dries the air and stores it in the vehicle's air tanks. The dryer only takes out some of the moisture from the air. This means that some water usually stays in the air tanks.

Keywords

Moisture
Water in the air.

Air tanks

Air tanks store air that powers the air brakes. You need to drain these air tanks daily to remove any water in the system. Water can damage your vehicle.

You can use the air brakes when the air tanks reach a minimum pressure.

Service brakes

Service brakes in an air brake system work using air pressure. You use service brakes to slow or stop your vehicle. You control the service brakes with a foot pedal.

Foot pedal

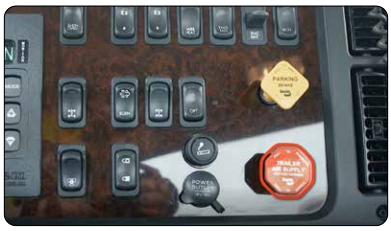
The foot pedal controls the service brakes. It is sometimes called the "foot treadle valve." When you press the pedal down, it stops or slows the vehicle. Air pressure pushes the brake shoes against the drums or the brake pads against the rotors.

Parking brakes

Parking brakes are an important part of an air brake system. Parking brakes have very large, powerful springs. These large springs stop your vehicle from moving.

The yellow button is the parking brake control valve. Pull the yellow button to engage the parking brake. Push the yellow button to disengage the parking brake.

The red button is the trailer air supply control bulb. When you're towing a trailer, use the red button to charge the trailer's air system and disengage its parking brakes.



When you disengage the parking brakes, air pressure from the system compresses the springs. When the springs are compressed, air pressure releases the brakes and allows the vehicle to move.

When you engage the parking brakes, air pressure is released. When air pressure is released, the springs decompress. When the springs decompress, air pressure engages the brakes and stops the vehicle from moving.

If you disengage the parking brakes when the air pressure is too low, the brakes will remain fully engaged and the vehicle will not move.

The brakes will automatically engage when there is an air leak or something else fails in the system. The failing air pressure in the system decompresses the springs.

Keywords

Engage
Use the brake to slow down or stop the vehicle.

Disengage
Stop using the brake.

End gate latch

The end gate latch uses an air system. It needs a minimum pressure to operate.

If the end gate latch won't release, check to make sure that there's enough air pressure.

Make sure you:

- Lower the box before you check the latch

- Wear proper PPE
- Lock out or disable any powered systems
- Follow important safety rules

You must NEVER go behind the end gate or under a raised truck box. You could get crushed under a load if it's suddenly released.

Keywords

Release
Unlock the latch to open the gate.

Disable
Turn off something or stop something from working.

Measuring pressure

Pressure

In Module 1, you learned about the metric system and the imperial system. These two systems can both measure pressure. You need to know how to measure air pressure because you must make sure your air tank has enough pressure for the air brakes and end gate latch to work.

The metric system measures pressure using kilopascals (kPa) and bar, and the imperial system measures pressure using pound per square inch (psi).

Numeracy tip

You should check what units you have on your gauge.

Metric Units
1 kPa = 0.01 bar
1 bar = 100 kPa

This is how they compare:

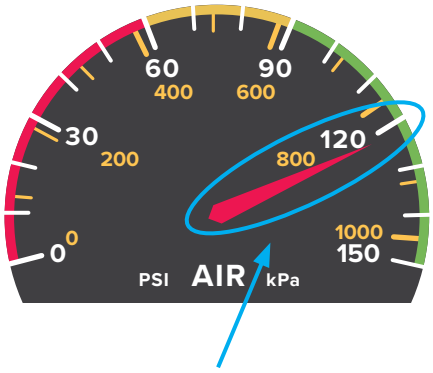
Metric to Imperial	**Imperial to Metric**
1 kPa = 0.145 psi	1 psi = 6.89 kPa
1 bar = 14.5 psi	1 psi = 0.0689 bar

Pressure gauges

You will read pressure using a gauge. Each truck will have one or two air pressure gauges for you to check. Gauges can look like this:

Pressure gauges show the units (kPa, psi, bar) so you know if it is measuring in metric or imperial.

This gauge reads pressure in psi and kPa.



To read the gauge, look at where the arrow is pointing.

This gauge shows about 121 psi or 835 kPa.

Minimum and maximum pressure

To drive your truck safely, your air tanks need enough pressure. The air brakes will not work until the pressure is at least 60 psi (414 kPa).

You should not start driving the truck until the pressure reaches 90 psi (621 kPa). The air compressor will make sure your air pressure always stays between 100 psi (690 kPa) and 145 psi (1000 kPa).

Task 1

Read the pressure gauges and answer the questions:

Keywords

Approximately
Not exactly, but close.

1. a. Approximately how much pressure does this air tank have in psi?

   _____

   b. Approximately how much pressure does this air tank have in kPa?

   _____

   c. Is it safe to start driving this truck? Why or why not?

_____

_____

2. a. Approximately how much pressure does this air tank have in psi?

_____

b. Approximately how much pressure does this air tank have in kPa?

_____

c. Is it safe to start driving this truck? Why or why not?

_____

_____

3. a. Approximately how much pressure does this air tank have in psi?

_____

b. Approximately how much pressure does this air tank have in kPa?

_____

c. Is it safe to start driving this truck? Why or why not?

_____

_____

4. a. Approximately how much pressure does this air tank have in psi?

_____

b. Approximately how much pressure does this air tank have in kPa?

_____

c. Is it safe to start driving this truck? Why or why not?

_____

_____

Converting pressure readings

Sometimes, you might see a pressure gauge that only shows one unit (psi or kPa). You might need to use numeracy to convert the number.

Here are the steps to convert psi to kPa:

1. Read the pressure gauge. Write down the pressure in psi.
   Example: 87 psi
2. Take off the units.
   Example: 87 ~~psi~~
3. Multiply the number by 6.89.
   Example: 87 x 6.89 = 599.43
4. Add the new units onto the number you calculated.
   Example: 599.43 kPa

   87 psi = 599.43 kPa

Here are the steps to convert kPa to psi:

1. Read the pressure gauge. Write down the number in kPa.
   Example: 913 kPa
2. Take off the units.
   Example: 913 ~~kPa~~
3. Multiply the number by 0.145.
   Example: 913 x 0.145 = 132.29
4. Add the new units onto the number you calculated.
   Example: 132.29 psi

   913 kPa = 132.29 psi

Numeracy tip

1 kPa = 0.145 psi

1 psi = 6.89 kPa

Keywords

Convert
Change a number to another unit of measurement to use it in a different way.

Task 2

Answer the question:

1. Convert 877 kPa to psi.

2. Convert 78 psi to kPa.

3. Convert 610 kPa to psi.

4. Convert 140 psi to kPa.

5. BONUS: Convert your answer from question 4 into bar.

Numeracy tip

1 bar = 100 kPa

To convert kPa to bar, move the decimal point 2 spaces to the left.

Example: 933 kPa

9.33

= 9.33 bar

Identify the cause of the problem

If there is a problem with your truck, it might be a problem with the hydraulic system or air system. It also might be a different kind of problem. When you notice that something is not working, you should try to identify what the cause might be. This will help you decide if you can solve the problem yourself or ask someone for help with the problem.

Ask yourself these questions to decide if you should try to solve the problem or ask for help right away.

Do you understand the problem?

- Have you solved this problem before?
- Is the problem simple and easy to solve?

If you answered yes to these questions, you can try to solve the problem yourself.

Are you unsure about why the problem is happening?

- If you try to solve the problem, could you break something or make an expensive mistake?
- Will there be any safety hazards if you try to solve the problem?

If you answered yes to these questions, you should ask your supervisor for help.

Task 3

Read each scenario. Use the information in this module to help you decide if the problem is most likely:

- A problem with a hydraulic system
- A problem with an air system
- Other (it is a different kind of problem)

Decide if you should try to solve the problem or ask for help.

1. Your truck box will not raise.

   Which system has a problem? **Hydraulic** **Air** **Other**

   What will you do? **Try to solve the problem** **Ask for help**

2. Your side mirror is not straight. It is pointed too far down.

   Which system has a problem? **Hydraulic** **Air** **Other**

   What will you do? **Try to solve the problem** **Ask for help**

3. You see a puddle of fluid under the truck.

   Which system has a problem? **Hydraulic** **Air** **Other**

   What will you do? **Try to solve the problem** **Ask for help**

4. You can't push the yellow parking brake control valve in. It pops back out when you try.

   Which system has a problem? **Hydraulic** **Air** **Other**

   What will you do? **Try to solve the problem** **Ask for help**

5. One of your tires looks flat.

   Which system has a problem? **Hydraulic** **Air** **Other**

   What will you do? **Try to solve the problem** **Ask for help**

6. You smell something burning while you are driving.

   Which system has a problem? **Hydraulic** **Air** **Other**

   What will you do? **Try to solve the problem** **Ask for help**

Workplace culture: Asking questions

Sometimes, you might have a problem with your truck. You might be unsure if it is safe to drive. If you are unsure about something or need help, you must ask a co-worker or your supervisor. Some workers do not like to ask questions when they don't understand. Why is that?

- They are afraid of getting into trouble or losing their jobs.
- They don't want to bother their supervisors or coworkers.
- They are worried about losing face. Losing face means losing respect. They want to save face, so they don't ask a question or don't ask the right person.

Some workers try to figure everything out alone or ask the wrong person, like an inexperienced co-worker. Then, a near miss, incident, or serious injury happens.

Reasons workers should ask

1. **To keep your job**

   People don't lose their jobs for asking questions. They get into trouble for not asking. It costs a company more money to fire and rehire a new worker than to train you. Remember, it costs about 3 to 6 months of salary to recruit, interview, and train you. You're valuable to an employer. Help keep your workplace safe by being confident to ask when you don't know.

2. **It's expected**

   Your supervisor and coworkers expect you to ask questions when you don't understand. You won't "lose face". Write down the information in your notebook or on your notes app so that you can remember what you learned.

3. **To avoid mistakes**

   You will only "lose face" if you make a mistake because you didn't ask. Ask the person who has the correct information, like a supervisor or safety officer.

4. **English is not your first language**

   If it's difficult for you to understand English, you must ask for clarification. Canadians are usually very patient if they need to explain more clearly or repeat the information. Most people will respect you for asking. It shows that you want to do your job correctly.

Keywords

Recruit
Hire.

Task 4

Think about what you learned. Answer the questions.

1. Have you been afraid of asking questions at work before? **YES** **NO**

2. Have you asked for clarification at work before? **YES** **NO**

Asking for help with a problem

If there's a problem with your truck, and you are not sure what to do, you should ask someone. You can do this with 3 steps:

1. **Describe the problem**

   Example: My mirror is broken.

2. **Think of a way to solve the problem.**

   Example: Ask a mechanic to change my mirror.

3. **Ask a question to check if your solution is good.**

   Example: Should I ask the mechanic to change my mirror?

To ask for advice you can say:

Should I + what you think you should do

Examples: Should I finish hauling this load?
Should I report this problem to the shop?
Should I drive a different truck today?

This is better than asking "What should I do?"

When you suggest a solution, you show that you want to help solve the problem.

Task 5

Read the scenario and possible solution.

Write what you would say to your supervisor. Make sure you describe the problem and ask for advice.

Safety tip

Anytime you notice a strange sound or smell when you are driving your truck, you MUST stop and check for problems. If you are not sure what the problem is, always ask for help.

1. **Scenario:** You see a puddle of fluid under your truck. The sight glass shows that the hydraulic fluid is low.

   Solution: Report the problem to the mechanic.

2. **Scenario:** You try to raise the box of your truck. It makes a strange sound that you have never heard before.

   Solution: Use a different truck today.

3. **Scenario:** You are unloading your box. You raise the box and try to open the end gate. The end gate latch won't release.

   Solution: Check the air hoses.

4. **Scenario:** You start your truck at the beginning of the day. You look at the pressure gauge 5 minutes later. The air pressure is not going up. It is still at 0.

   Solution: Take the truck to the shop.

Apply what you've learned

Read the scenarios. Think about everything you learned in this module. Answer the questions.

1. **You just delivered a load of gravel to a customer. You get out of the truck and notice some fluid on the ground. You look for the cause of the leak. You find a hose that is cracked. You ask your co-worker if you should drive back to the main work site or call for help. He says "Don't worry about that! That happened to me last week. I drove for 1 hour back to site and everything was fine." This co-worker started working at this company on the same day you started.**

   Will you listen to your co-worker's advice? **YES** **NO**

   Why or why not?

   _____

   _____

2. **You just finished your last load of the day. For the past hour, you have noticed a strange sound when you use your service brakes. You also feel like it is more difficult to push the foot pedal down. You explain the problem to a co-worker with 10 years of experience. You ask, "Should I report this to the mechanic?" She says, "Not yet. First check to see if there is a rock stuck in your brakes. If you find one, and the problem goes away, you should be fine."**

   Will you listen to your co-worker's advice? **YES** **NO**

   Why or why not?

   _____

   _____

3. **You started your truck, and you are waiting for your air pressure to rise before you start driving. Your co-worker drives by and rolls down the window. He yells, "What are you waiting for? Let's go!" You tell him that your air pressure is only at 70 psi. He says, "As long as the brakes work, you can drive!" Your supervisor told you to always wait until the pressure hits 90 psi before you start driving.**

   Will you listen to your co-worker's advice? **YES** **NO**

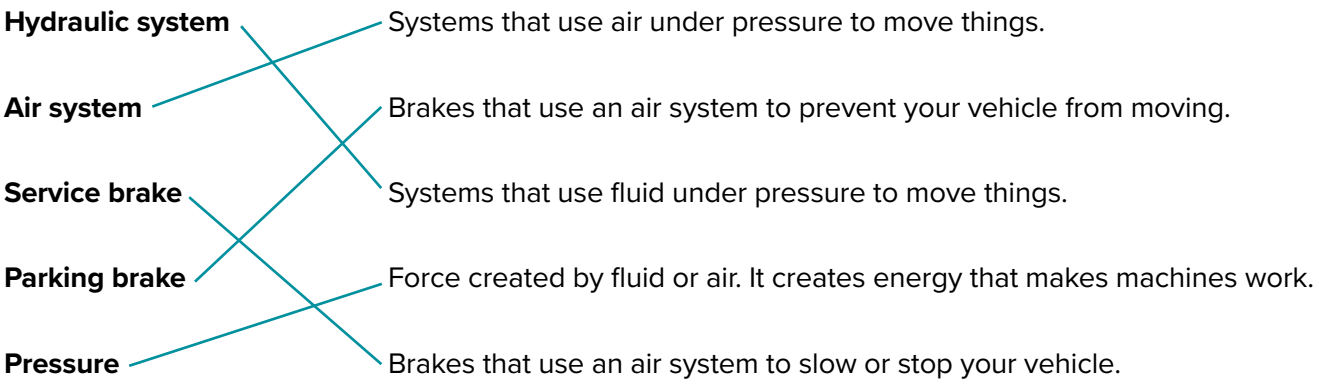
   Why or why not?

   _____

   _____

Answer key

Keyword practice



Task 1

1. a. 100 psi
   b. 689 kPa
   c. Yes, because the pressure is higher than 90 psi.
2. a. 75 psi
   b. 516.75 kPa
   c. No, because the pressure is lower than 90 psi.
3. a. 40 psi
   b. 275.6 kPa
   c. No, because the pressure is lower than 90 psi.
4. a. 130 psi
   b. 895.7 kPa
   c. Yes, because the pressure is higher than 90 psi.

Task 2

1. 127.165 or 127 kPa
2. 537.42 or 537 psi
3. 88.45 psi
4. 964.6 or 965 kPa
5. 9.646 or 9.65 bar

Task 3

1. Which system has a problem? Hydraulic
   What will you do? Ask for help
2. Which system has a problem? Other
   What will you do? Solve the problem
3. Which system has a problem? Hydraulic or other
   What will you do? Ask for help
4. Which system has a problem? Air
   What will you do? Ask for help
5. Which system has a problem? Other
   What will you do? Try to solve the problem or ask for help
6. Which system has a problem? Hydraulic or air or other
   What will you do? Ask for help

Task 5

1. I think my hydraulic fluid is leaking. There is fluid under my truck and the sight glass says the hydraulic fluid is low. Should I ask the mechanic to check the hydraulic system?
2. I think the hoist for the truck is not working. There is a strange sound when I try to raise the box of the truck. Should I drive a different truck?
3. I think the air system for the end gate is not working. The end gate latch won't release. Should I check the air hoses?
4. I think the air system is not working. After 5 minutes of starting the truck, the air pressure on the gauge is still 0. Should I take the truck to the mechanic?

Apply what you've learned

1. NO
   The fluid is leaking, and it can prevent the hydraulic systems or the truck from operating safely. It can cause an accident or damage to the truck.
2. YES
   The co-worker is giving information about what you can do to solve the problem before you go to the mechanic. You are not driving the truck when it is not safe, but you are looking for solutions before you ask someone else to solve the problem.
3. NO
   Driving when you do not have the minimum pressure can cause an accident.

MODULE 7

Loading

Keywords

Read the definitions and examples for the important words from this module.

Procedure A list of steps that you follow to do something.
Example: Loading aggregate is a dangerous procedure.

Avoid Stay away from something or stop yourself from doing something.
Example: You must avoid walking in a loader's swing zone.

Best practice The standard or the best way of doing something.
Example: Make sure you ask your manager about the best practices for loading aggregate.

Contain Keep something under your control or away from others.
Example: You must make sure that your load is contained.

Surfaces The outside of something.
Example: Make sure you check that all surfaces of your truck are free from debris.

Keyword practice

Draw a line from the word to the matching definition.

Procedure	Keep something under your control or away from others.
Best practices	A list of steps that you follow to do something.
Avoid	The outside of something.
Contain	Stay away from something or stop yourself from doing something.
Surfaces	The standard or the best way of doing something.

How do you keep yourself and others safe when loading aggregate?

Loading aggregate is a dangerous procedure. The equipment you use when you load aggregate is also dangerous. Always follow proper procedures when you load.

Equipment hazards

Loaders

Loaders are a moving equipment hazard. Objects can fall from the raised bucket. Loaders also have a swing zone you must avoid.

Loaders with conveyer belts

Some loaders use conveyor belts that have an auger. Conveyor belts have pinch points, and loose clothing or jewelry can get caught in the moving belt. Make sure you do NOT stand underneath the conveyor belt because heavy objects can fall from it.

Keywords

Swing zone
Space where the loader can turn around and hit something.

Conveyor belt
A system that moves materials.

Auger
Tool that makes a hole in something or moves loose material.

Exposed
Open, not protected.

Moving equipment
Machines that dig, raise, move, and place loose materials. For example: bulldozers, front-end loader, skid-steer.

Asphalt grinders

Asphalt grinders are cold milling machines. They remove asphalt and concrete pavements. Asphalt grinders also have pinch points and heavy objects can fall from the conveyor. You can also be exposed to silica.

The asphalt grinder driver has low visibility when the machine is working. Low visibility means that you cannot see clearly or far. Always make sure you have clear visual communication before you do anything.

Asphalt silos

Sometimes you'll load asphalt directly from an asphalt silo. To be safe, you need to correctly position the hauling equipment. You also need to keep clear communication with the silo operator.

Loader-mounted snowblowers

When you're hauling snow, you may work alongside loader-mounted snowblowers. These snowblowers have a front-loaded auger. The auger has blades that can hurt you. You need to stay away from the auger. You must also pay attention to the snow chute. Heavy ice and snow can fall out from the snow chute.

Keywords

Silo
Tall structure used to store material.

Loader-mounted snowblowers
Equipment placed on a loader to blow snow away.

Front-loaded
Put on the front of a machine.

Chute
A slide for moving things to a lower level.

Street sweepers

Street sweepers can produce a lot of dust. Dust makes it hard to see. It can also expose you to silica.

Staying safe

The best way to be safe when you load, is to stay in the cab with the windows closed.

If you must leave the cab:

- Watch for falling objects
- Watch for dust
- Wear appropriate PPE

When loading aggregate:

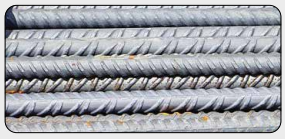
- Be aware of your surroundings
- Watch for overhead power lines
- Watch out for other hazards such as lights, trees, and signs
- Do not load different materials on top of each other
- Follow customers' directions when hauling away debris or recycling

Keywords

Surroundings
Conditions around you.

Pack down
Push down to compress something.

Rebar
Steel rods that support concrete.



Loading practice

Different employers have different rules for loading.

For example, many companies pack loads down with loading equipment. But the buckets can damage your truck and the loading equipment.
Watch: Module 7 video, 2:37 – 2:47

Check with your employer for their loading rules. Make sure you follow your company's best practices.

Sometimes you will load awkward cargo such as boulders, demolition debris, or concrete pieces with exposed rebar. Awkward cargo is material that is not standard in shape, and it comes in lots of shapes and sizes. Load this material towards the rear of the box to make unloading easier.

Securing your load

After you finish loading, you must secure your load. The National Safety Code (Standard 10) explains rules for securing a load.

You must contain and immobilize your load.

This means the load must not:

- leak, spill, blow off, fall from, or fall through
- move in a way that makes the vehicle unstable

To make sure you're following the National Safety Code rules for securing a load, always do a walk-around to check your cargo after it's loaded. If the cargo looks like it might move during transport, you need to fix it, so it stays in place.

To cover your load, you use: chain, spring, or electrically driven tarp. You need to check the tarp to make sure it does not have tears or other problems, and that it can completely cover the load. If you have top boards, you must check them as well. They need to be attached to the vehicle with bolts.

Finally, check all horizontal surfaces to make sure there is no debris or extra material that can fly off during transport.

If you travel more than 80 kilometres from the loading place, you need to stop to check your load and make sure it is secure.

Keywords

Horizontal
Flat and level with the ground.

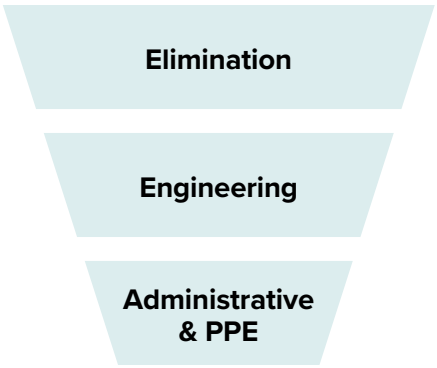
Hazard assessment strategy

In many workplaces, you may be asked to fill out a formal hazard assessment and control. You need to know what hazards are in your work site and how you can control them in different ways.

Hazard controls have a hierarchy, which means they have an order. Look at the image below.

Keywords

Control
A way to make hazards safe for workers.



The top type of hazard control is elimination. If you cannot eliminate the hazard, then you should use engineering controls. If there are no engineering controls, then you move to administrative controls and personal protective equipment.

Elimination

Remove hazard from the workplace or replace hazardous materials or machines with less hazardous ones.

Example: removing a log from the work site

Engineering

Changes to the work site, equipment, and the way you do tasks in the workplace that would make work less hazardous.

Example: spraying water over a dusty surface to prevent dust from being created

Administrative controls

This includes standards and operating procedures, such as training, housekeeping, equipment, and personal hygiene practices.

Example: checking the load or the end gate from the side of the box

Personal Protective Equipment (PPE)

Equipment that reduces exposure to hazardous materials.

Example: wearing steel-toed boots in the yard

You do NOT need to have every type of control for the hazard that you see. It is more important that you understand what the hazard is and what you need to do to control it.

Example:

You drive to a yard site to pick up gravel. When you get there, you notice many people and loaders around. You also see that the rain made the yard muddy.

Do you think there are hazards in the yard? **Yes**

Why do you think so? **Heavy equipment like loaders can be dangerous.**

- Mud can be hard to drive or walk through.
- The wet ground can make it more difficult to drive.

What are some ways that you can control the hazards?

- **Administrative:** follow the procedures when loading at a yard. Stand away from other trucks and heavy equipment.
- **PPE:** Wear steel-toed boots, a helmet, and a reflective vest.

Apply what you've learned

Read the scenarios and answer the questions.

1. **You drive to the work site. You notice that there are power lines present and there are many people working around you.**

   Do you think there are hazards in this work site? **YES** **NO**

   Why?

   _____

   _____

   What are some ways that you can control the hazards?

   _____

   _____

2. **You are picking up snow that was cleared from the street. You look around and you see loaders. You also see people and other vehicles that are passing by as you work.**

   Do you think there are hazards in this work site? **YES** **NO**

   Why?

   _____

   _____

   What are some ways that you can control the hazards?

   _____

   _____

Problem solving strategy

When you are hauling aggregate, you will see different types of hazards. It is important to know what the hazards are and how you can control them. This will help you keep yourself and others safe.

You can identify hazards and address them using these problem-solving steps:

Step 1: What is the problem?
What are the hazards?

Step 2: What are the potential solutions?
What are ways that you can control the hazard?

Step 3: What is the best solution?
What is the best way to control the hazard in this situation?

Step 4: Is the problem solved?
Did your solution control the hazard?

For example:
You haul gravel from the pit to another work site outside the city of Edmonton. You work 12-hour days. You drive by yourself and use a map to plan your trip. This is your work site:

This is an example of how the hazards in your work site can be recorded.

Task	Hazards	Controls	Date implemented
Driving	Other cars	Admin: Make sure to be aware of what is 15 seconds in front of you. Use your seatbelt.	May 5
Loading	Loader	Admin: Make sure to stand clear of the swing zone.	May 5
Loading	Aggregate/ Silica	Admin: Make sure to keep the windows up. PPE: Safety glasses	May 5

Task 1

Look at the picture and fill out the hazard assessment form.

Hint

Review the types of hazard controls.

Remember that you will focus on Administrative and PPE hazard controls most of the time.

You can go back to the Apply What You've Learned activity for Module 3 to see what hazards you have identified.

Keywords

Task
Activity that you need to do for work.

Hazard
Anything that can be dangerous for you or someone else.

Controls
Procedures that help prevent injury or damage.

Implemented
Use a plan or procedure.

Formal hazard assessment and control (template)

Job/position/work type:			**Date of assessment:**
Assessment performed by (names)**:**			**Reviewed/revised:**
Tasks (List **all** tasks/activities of the job/position)	**Hazards** (List **all** existing and potential health and safety hazards related to the identified tasks)	**Controls** (List the controls for each hazard: elimination, engineering, administrative, personal protective equipment or a combination thereof)	**Date implemented**
		Elimination: Eng: Admin: PPE:	
		Elimination: Eng: Admin: PPE:	
		Elimination: Eng: Admin: PPE:	
		Elimination: Eng: Admin: PPE:	

This form is for example purposes only. Completing this form alone will not necessarily put you in compliance with the legislation. It is important and necessary that you customize this document to meet the unique circumstances of your work site. Further, it is essential that this document is not only completed, but is used, communicated, and implemented in accordance with the legislation. The Crown, its agents, employees or contractors will not be liable to you for any damages, direct or indirect, arising out of your use of this form.

Workplace culture: Staying safe

When you work, you must make sure that everyone is working safely. The most effective way of staying safe is to be aware of your surroundings and watch out for hazards. Different employers have different rules or ways of doing something. You should learn these rules and follow them to keep yourself and others safe.

You learned in Module 3 that there are different ways to speak up. Review them here.

Remind: This is what you do when someone forgets something.

Suggest / Advise: This is what you do when you want to give someone advice. This means telling someone that it is a good idea to do something.

Warn: This is what you do when something bad or dangerous can happen.

Task 2

Read the situation and answer the questions.

1. **You're job shadowing. You are sitting in the truck with a co-worker who has been working for the company for 15 years. While the truck is loading, a sensor lights up. Your co-worker goes out of the truck and starts walking towards the back of the truck.**

   a. What would be the most appropriate way to speak up for this situation?

   Remind **Suggest / Advise** **Warn**

   b. What would you say?

   _____

   _____

2. **You're at a work site. There are many loaders around. Your co-worker is walking too close to a loader. They are within the swing zone.**

   a. What would be the most appropriate way to speak up for this situation?

   Remind **Suggest / Advise** **Warn**

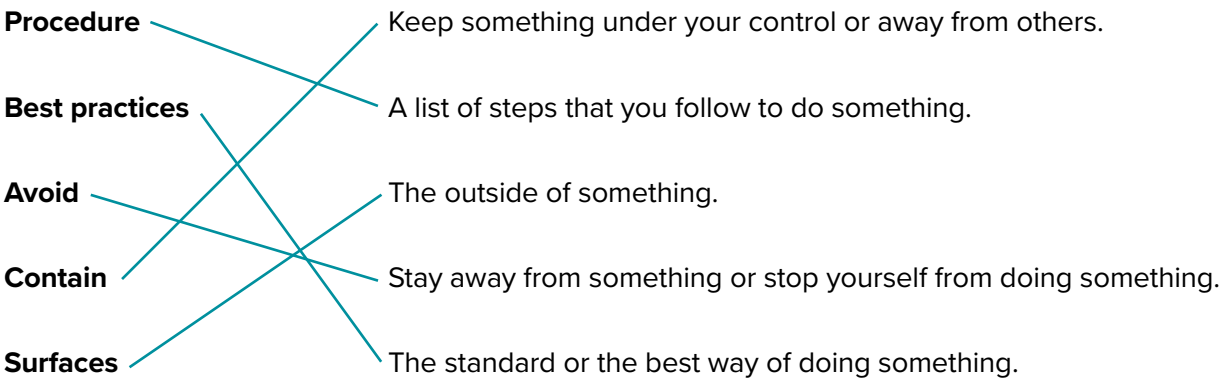
   b. What would you say?

   _____

   _____

Answer key

Keyword practice



Apply what you've learned

1. YES

   Power lines are overhead hazards. People working around you would mean that there are individuals that are doing tasks that you need to pay attention to.

   I can make sure that I do not raise the box close to power lines. I need to attention where I drive around people to make sure that I do not hit them.

2. YES

   Loaders are moving equipment hazard. You can also hit people and other vehicles that are around the work site.

   I need to pay attention to where loaders are working and moving to give them space. I can make sure to look around the work site and use my mirrors to see where people and other vehicles are located.

Task 1

Tasks	Hazards	Controls
Unloading	Presence of overhead powerlines	Elimination: Eng: Admin: Unload away from overhead powerlines PPE:
Unloading	Yellow gate partially laying down – tripping hazard	Elimination: Remove the yellow gate Eng: replace the gate so that it is not laying down or be a tripping hazard. Admin: Check where you are unloading and make sure that you look where you are walking before getting out of your vehicle. PPE: Steel-toed boots, hard hat, safety glasses
Unloading	Equipment operating overhead	Elimination: Eng: Admin: Stay away from the area where the equipment is operating. PPE:
Unloading	Stability of the large sand pile	Elimination: Having separate smaller piles or pits. Eng: Change the worksite so that no one is operating their vehicle or equipment close to the large sand pile. Admin: Make sure you stay away from overhead hazards. PPE: Steel-toed boots, hard hat, safety glasses, reflective vest

Task 2

1. a. Suggest / Advise
   b. Hey Gary, it's dangerous to check the truck from the back. It's safer to check the gate from the side.
2. a. Warn
   b. Gary! Watch out! You're walking to close to the loader!

MODULE 8

Unloading

Keywords

Read the definitions and examples for the important words from this module.

Assess — To look at something and make a judgement.
Example: You must assess the site for hazards.

Level — Something is flat or not on an angle.
Example: The ground must be level while you unload your cargo.

Stable — Something will not move when it is disturbed.
Example: When your load is stable, it will not move or shift.

Obstructions — Something is blocking or is in the way.
Example: You must make sure you remove all obstructions.

Hand signals — When a person tries to communicate something by moving their hands.
Example: The paver operator will use hand signals to let you know when to move.

Keyword practice

Fill in the blanks with the following words: **assess**, **level**, **stable**, **obstructions**, **hand signals**.

1. You need to make sure you unload on a _____ ground.

2. Pay attention to your spotter's _____ . This is how they will communicate with you.

3. You release the air suspension to make your vehicle _____ , so that it would not move easily.

4. You must always _____ your surroundings when you arrive at the dump area to make sure that it is safe.

5. You must check for _____ , like bridges and power lines.

How do you keep yourself and others safe when unloading aggregate?

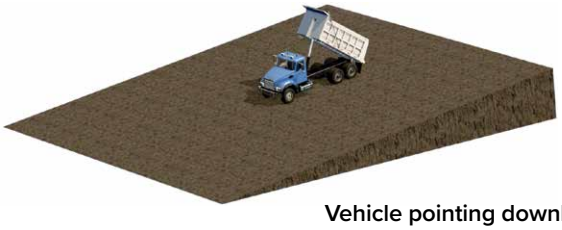
Unloading aggregate can be just as hazardous as loading. Always follow proper procedures when you unload.

Steps for unloading

1. Assess the dump area.
   - The ground must be **firm** and **level**.

   - If you must unload on an incline, point the vehicle uphill or downhill. NEVER point it across the slope.

Vehicle pointing uphill



Vehicle pointing downhill

2. Check for overhead hazards and power lines.
   Your dump area must be at least 7 metres away from power lines.

3. Make sure that people and equipment are at least 10 metres away from the dump location.

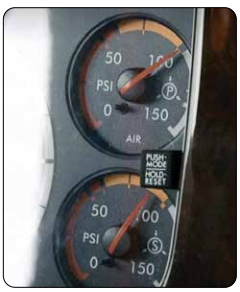
4. Retract the tarp.

5. Release the air suspension. Releasing the air suspension lowers the frame and removes the cushioning. This will ground the frame so it will not move easily. The vehicle will be more stable.

6. Back up carefully to the dump site. A spotter will use hand signals to guide you.

7. When you are ready to unload, disengage the end latch.

   Make sure that there is enough pressure in the air system. The latch needs to have a minimum amount of air pressure, usually 60 to 80 psi.



8. Engage the power take-off (PTO) to raise the box and begin dumping.

9. As you unload, move ahead slowly until all the material is dumped and the end gate swings freely. ***Watch:*** Module 8 video, 1:17 – 1:24

If the material doesn't unload, lower the box. From the side of the truck, check for the problem. Never stand directly behind your truck.

10. After you unload, stop completely. Make sure not to slam your brakes.

11. Lower the box, re-engage the end gate latch, and deactivate your PTO.

12. Move to a safe location to inspect the box. Make sure that:
    - The end gate latch is engaged.
    - All material has been dumped so future loads do not get cross-contaminated.

13. Remove any loose material on all horizontal surfaces, such as the frame, bumper, hitch, and air lines.

Keywords

Cross-contaminated
When something is mixed with something else.

When loading into a paver

- Keep eye contact with the paver operator.
- Watch for signals.

- Remember that the paver operator controls the area between the paver and your truck.

Apply what you've learned

Read each scenario and answer the questions.

1. **You are unloading gravel at a work site. After you unload, you check that all the load is dumped and drive away.**

   Is this safe? **YES** **NO**

   Why?

   _____

   _____

2. **You are unloading loam on a work site that's not level. Because of how hard it is to drive your truck, you park across the slope. You unload your cargo.**

   Is this safe? **YES** **NO**

   Why?

   _____

   _____

3. **You are unloading snow at the dump site. Your end gate does not open. You get out of your truck immediately and check why the end gate is not opening.**

   Is this safe? **YES** **NO**

   Why?

   _____

   _____

Workplace culture: Safety is everyone's job

In Canada, safety is everyone's job. Employers need to take steps to make sure that employees are safe in the workplace. You need to use safety equipment properly and work safely. You need to report hazards, work-related incidents, and unsafe situations.

Task 1

Read the scenario and answer the questions.

It is Kimpee's first day at the job. He is training to become an aggregate hauler. He is training with Kyle today. Kyle has been with the company for 30 years.

Kyle: We're going to drive from here to the pit. They're going to load us up. Then we go to this location to drop it off. Then we do it all again.

Kimpee: Okay. That sounds good.

Kyle: The faster you do the job, the better. You get paid more. You try to haul as much as you can, and as fast as you can.

Kimpee learned from his aggregate hauling course that safety is the priority. Kimpee didn't want to ask Kyle why the faster way is better. Kyle has been working for the company for a longer time. He has more experience in the job. Kimpee did not want to bother Kyle.

Kyle drives to the pit, gets his cargo. Kimpee notices that Kyle just quickly checks in the mirror that there is enough load in his box. He then drives to his destination and does not slow down while driving down a slope even if the box is full. He also notices that Kyle puts his window down while he is unloading.

Kimpee finishes the day of training with Kyle. Kimpee tried to think about his aggregate hauling safety course. Kimpee saw that Kyle did many things that the course said not to do. Kimpee remembered that from his course that he should always check with his supervisor if he did not understand. Kimpee asked the supervisor for more information.

Keywords

Pit
Gravel pit.

1. What did Kimpee learn from Kyle?

2. What did Kimpee learn from his aggregate hauling course?

3. What did Kimpee do when he was confused about how to do his job?

Problem solving strategy

Step 1: Determine if this is a problem

- Is this a problem?
- Can this problem cause injury, damage, or death?

Step 2: Determine if you need to write a report

- Does your workplace policy say that you need to report situations like this?
- Does someone need to know about this problem to make sure that you or others are safe?

Step 3: Define and examine the problem

- What is the cause of the problem?
- Who is in involved in the problem?
- What are the effects of the problem?
- Why is solving the problem important?
- What was happening right before the problem occurred?

Example 1

You're walking out of your truck to inspect your box after unloading. You notice that your co-worker forgot to wear a high visibility safety vest. You remind them to make sure that they wear their vest. They thank you and wear it for the rest of the day.

Step 1: Determine if this is a problem

- Is this a problem?
  Yes
- Can this problem cause injury, damage, or death?
  They can get hurt if someone does not see them.

Step 2: Determine if you need a report

- Does your workplace policy say that you need to report situations like this?
  No
- Does someone need to know about this problem to make sure that you or others are safe?
  Your co-worker did not get hurt and they corrected the problem after you reminded them.

You decided not to write the report, so you do not need more information.

Example 2

You are unloading at a site. You accidentally hit a bridge with your raised box. You caused significant damage to the bridge, and a slight damage to the box. You stop all operation.

Step 1: Decide if this is a problem

- Is this a problem?
  Yes
- Can this problem cause injury, damage, or death?
  It caused damage.

Step 2: Determine if you need to write a report

- Does your workplace policy say that you need to report situations like this?
  Yes
- Does someone need to know about this problem to make sure that you or others are safe?
  Your supervisor and other members of the company would need to know what happened while you were working.

Step 3: Define and examine the problem.

- What caused the problem?
  You were not aware of the bridge.
- Who is involved in the problem?
  You
- What are the effects of the problem? Operations were stopped.
  T**he accident damaged the truck and the bridge.**
- Why is solving the problem important?
  To make sure that you and others are safe, and you do not damage property or equipment.
- What was happening right before the problem occurred?
  Raising the truck box.

Task 2

Read the scenario and answer the questions.

Document use tip

Remember the 3 steps:

Step 1
Determine if this is a problem.

Step 2
Determine if you need to write a report.

Step 3
Define and examine the problem.

1. **You are driving to your dump site. You almost hit a power line because you were too close. You did not hit the power line. You move your truck.**

   a. What would you do?

   Write a report **Do not write a report** **Tell your supervisor**

   b. If you write a report, what information would you include in your report?

2. **You finished unloading your cargo in the dump site. You lower your box and try to re-engage your latch. Your latch does not re-engage. The end gate is not secured. You try to fix it, but it still does not work.**

   a. What would you do?

   Write a report **Do not write a report** **Tell your supervisor**

   b. If you write a report, what information would you include in your report?

3. **You see your co-worker check their end gate by going directly to the back. You let them know that what they're doing is dangerous.**

   a. What would you do?

   Write a report **Do not write a report** **Tell your supervisor**

   b. If you write a report, what information would you include in your report?

Strategy for writing incident reports

Incident reports are important safety documents. There are many types of incident reports for different situations.

You may have to write an incident report for a near miss, accident, or a general incident form. These forms collect important information about safety in the workplace.

Incident reports can be used:

- To identify hazards
- To identify and assign responsibility
- To support workers' compensation claims
- To provide feedback to equipment manufacturers
- As evidence in court

When you write incident reports, you should be as objective as possible and provide complete information.

Include things like:

- "Who, what, where, where, when, why, and how" of each situation
- Focus on things you saw
- Numbers (for example, how many people or distance)
- Times and dates
- Focus on actions

Do not include:

- Abbreviations or unusual terms
- Emotions

Workplace culture tip

Your employer will provide you information about how to report the problems.

Keywords

Assign
Give responsibility to someone.

Workplace culture tip

Your workplace has policies on safety reporting. Read your workplace policies about incident reports.

Make sure you ask your supervisor or the person in charge of health and safety at the workplace if you have any questions.

Example:

It is your first day driving alone. Your first task is to take gravel from the pit to a location outside the city. You use the truck route map to get to the Northside work site.

You arrive at the site around 8:30 AM. You see that the dump site is on a slope. You park across the slope because it was easier to dump it that way.

After you park your truck, you start to raise your box. While raising your box, you feel the truck tipping or lifting on one side. You immediately stop raising your box and immediately try to lower it down. You avoid tipping the truck at the last moment.

Your supervisor asks you to write a near miss incident report.

Near miss incident report

Safety is everyone's responsibility. Use this form to report any near misses immediately.

Location: Northside work site	**Date:** May 5, 2021
	Time: 8:30 AM
Name of person involved: Alfredo Urbano	**Phone:** 931-712-4553
Name of person involved:	**Phone:**

Near miss description:

I drove to the dumpsite. It was on a slope. I parked across the slope because I thought it would be faster to unload. When I was raising the box, the truck started to tip. I stopped raising the box and tried to immediately put it down. I avoided tipping the truck. I talked to my supervisor. He asked me to write a report. I parked the truck pointing downhill and unloaded.

Correction/prevention:

Signature(s) of people involved:

Signature of witness:

Task 3

Read the scenario and fill out the report.

Your first task of the day is to unload gravel to the Plessis Street work site. You arrive there at 9:30 AM. The ground is level and firm.

You see a spotter directing trucks. You carefully back up at the dump site with the help of a spotter. The spotter is using hand signals to guide you.

While you are backing up, you lose sight of your spotter. You do not stop right away. You see the spotter in view again. Afterwards, he tells you that he tripped, and you almost backed up on him.

Your workplace policy says that you must report near misses like these.

Near miss incident report

Safety is everyone's responsibility. Use this form to report any near misses immediately.

Location:	**Date:**
	Time:
Name of person involved:	**Phone:**
Name of person involved:	**Phone:**
Near miss description: **Correction/prevention:**	
Signature(s) of people involved:	
Signature of witness:	

Answer key

Keyword practice

1. Level
2. Hand signals
3. Stable
4. Assess
5. Obstructions

Apply what you've learned

1. NO
   I must check that the end gate is engaged, and I remove any loose material on all horizontal surfaces like the frame or bumper.
2. NO
   I should unload on level ground. If I must park and unload on an incline, I need to make sure that the vehicle points uphill or downhill.
3. NO
   I should always lower the box down first before checking why the end gate does not open.

Task 1

1. The faster you do the job, the more money you earn.
2. He learned that safety is the priority and that he should always check with his supervisor if he did not understand.
3. Check with his supervisor.

Task 2

1. a. Write a report
   b. I almost hit a power line because I was too close. I moved my truck after.
2. a. Do not write a report / Tell your supervisor
   b. N/A
3. a. Do not write a report
   b. N/A

Task 3

Location: Plessis Street work site

Date: April 4, 2022

Time: 9:30 AM

Name of the person involved:

Name of the person involved: Darren Stone (spotter)

Near miss description:
I needed to unload gravel at the site. The ground is level and firm. I see the spotter directing trucks. I carefully back up at the dump site with the help of the spotter. The spotter is using hand signals to guide me. While backing up, I lose sight of the spotter. I did not stop right away. I see the spotter in view again. Afterwards, he told me that he tripped, and I almost backed up on him.

Correction/prevention:
I tried to stop as quickly as I could.

MODULE 9

Hauling Asphalt

Keywords

Read the definitions and examples for the important words from this module.

Dispatcher A person who sends out people or vehicles to where they are needed.
Example: A dispatcher will show you where to drive and load your vehicle.

Clarify To make something easier to understand by giving more details or a simpler explanation.
Example: If you are not sure what to do, you must clarify the instructions.

Flagger A person who holds a sign or flag to direct traffic, usually in construction areas.
Example: When you are at a paving site, follow flagger's directions.

Paver A machine used to lay asphalt on roads.
Example: You need to keep eye contact with the paver operator when loading asphalt into a paver.

Site foreman A person in charge of a construction crew on site.
Example: Check with the site foreman how and where to unload at each site.

Keyword practice

Draw a line from the word to the matching definition.

Clarify	A machine used to lay asphalt on roads.
Paver	A person who holds a sign or flag to direct traffic, usually in construction areas.
Dispatcher	A person in charge of construction crew on site.
Site foreman	A person who sends out people or vehicles to where they are needed.
Flagger	To make something easier to understand by giving more details or a simpler explanation.

How do you load and unload asphalt?

Most of the information in Modules 1 to 8 applies to all aggregate materials, including asphalt. However, there are some important differences between asphalt and other aggregate.

In this module, you'll learn how asphalt is different from other materials. You'll also learn how to load, haul, and unload asphalt.

How is asphalt different from other aggregate?

Here are some ways that asphalt is different:

- Asphalt is heavy and hot. You must be very careful when you work with it.
- Asphalt is very sticky. You must prepare your box before you haul asphalt. You need to use a release agent to make sure the asphalt does not stick to the box.

Hot asphalt

Applying release agent

Asphalt silo

Temperature is important when you haul asphalt:

- You must load, haul, unload, and use asphalt while it is hot.
- You must stay "on schedule" when you haul asphalt. The more time you take to haul, the cooler the asphalt gets.
- If it is cold outside, the asphalt will cool faster.
- When asphalt cools down, it forms a "crust layer." The crust layer is a layer of hard asphalt that cannot be used for paving. This makes it difficult to use.
- The paver operator or site foreman will look at the asphalt and decide if they can use it.

Loading and hauling asphalt

Safety is the most important thing when you haul asphalt. You must be aware of hazards when you are loading your vehicle. Some hazards of loading asphalt are:

- Machinery
- Moving drums and conveyors
- The temperature of the asphalt

Moving drums and conveyors

Clear communication keeps everyone safe when you load asphalt. Some types of communication you will use are:

- Verbal
- Radio
- Air horns
- Signs
- Nonverbal (hand signals)
- Lights

Keywords

Verbal communication
Speaking to communicate.

Nonverbal communication
Using gestures or hand signals to communicate (anything that is not spoken).

Verbal communication

Two-way radio

Paver operator using hand signals

Some sites use verbal communication, while others use a combination of different types of communication. Not every site is the same. You must ask the site contact how you should communicate on each site when you arrive. Do not think that others use the same words, signs, or signals as you.

The site contact will tell you about the rules for the site and explain what you need to do. The dispatcher will give you a loading time or put you into a line. They will also show you where to drive and load your vehicle. If you don't understand what to do, you must clarify the instruction or ask questions.

To load your vehicle with asphalt, follow these steps:

1. Put a release agent inside of the truck box and trailer.
2. Follow signs, lights, or directions from the site contact to the load staging area.

Applying release agent

3. Wait for your turn to load.
4. Slowly drive your vehicle onto the scale under the silo.
5. Make sure your vehicle is in the correct position for loading.
6. A few seconds after loading starts, slowly move your vehicle forward so the asphalt is spread evenly in the box.
7. Repeat steps 4 to 6 for any trailer you have.
8. Exit the scale.
9. Park in a safe location.
10. Walk around the vehicle and clean off the edges of the box, tailgate, and hitch.
11. Cover the box and trailers with a tarp.

Covering the box with a tarp

Asphalt silo

Slowly moving forward

Be careful when you drive in the loading area. Remember that asphalt is very hot. When you load, there will be steam in the air. There will be even more steam on cold days. This can make it difficult to see.

Steam in the air during loading

Asphalt hauling has the same legislation and safety requirements as other aggregate materials. Asphalt is even more dangerous if there's a collision or other incident. It is important to drive carefully when you haul asphalt. Accidents can make the hot asphalt spill onto vehicles or people.

Unloading asphalt

Asphalt is mainly used to pave roads. Paving means covering a road with something hard and smooth. This makes it easier to drive. Most of the asphalt you haul will be for paving.

When you arrive at the paving site, flaggers will show you your place in the line. You'll unload your vehicle in the order that you arrive. First, you'll unload your trailer. Then you'll unload your box.

Sometimes you may need to unload in a different way. The paver operator and the site foreman control operations at the site. Check with the paver operator or the site foreman to see how to unload at each site. Make sure you watch for overhead hazards like power lines.

Here is an example of how to unload:

1. Follow the flagger's directions to join the line.
2. Wait for the paver operator's signal.
3. Back up the truck so it is against the paver hopper.
4. Put the truck in neutral. Rollers on the front of the paver will push your truck forward.

Truck against the paver hopper

5. Step on the brakes gently so you don't move too far forward.
6. Watch the paver operator carefully. The operator will use hand signals to show you how high to raise your trailer.
7. When you finish unloading, drive away from the paver. The paver operator will use hand signals to tell you when you are finished.

Operator using hand signals

8. Park in a safe place.
9. Walk around the vehicle. Clean off each part of the tailgate.
10. Lower your trailer.
11. Close and lock the tailgate.

Cleaning the tailgate

Locked tailgate

12. Join the line again to unload your box.
13. Complete steps 1 to 8 again to unload your box.
14. Hitch your trailer back onto your truck.

Hitching trailer to truck

15. Walk around your vehicle one more time. Check for hazards.
16. Leave the work site.
17. At the end of your shift, clean off asphalt that is stuck to the box or trailer.

If there is not a lot of space for your truck to move, you will need to keep your box raised high. Then a skid steer will move the asphalt into the paver's hopper.

Skid steer

Sometimes, you might need to unload asphalt into a windrow. Then an asphalt pickup machine will move the asphalt into the paver.

Asphalt pickup machine

Asphalt transfer unit

The asphalt pickup machine can also move the asphalt into an asphalt transfer unit, and then to the paver. When you unload this way, there are more hazards because workers walk around the moving equipment. When you do this, the dump operator will tell you how to unload.

Staying safe

Remember these important tips to stay safe when you work with asphalt:

- Be aware of the hazards on your work site.
- Ask your site contact how you will communicate on your work site.
- Wear your PPE.
- Look out for overhead hazards at the site, such as power lines.
- Make sure the tailgate is closed and locked in place.
- Pay close attention to the paver operator's hand signals.
- Apply your brakes gently when paving so you do not move too far forward.
- Check with your paver operator or site foreman for how to unload the asphalt.

Understanding the steps of an instruction

Sometimes it's necessary to do things in a specific order. To explain the order in which you need to do things you can use numbers or words.

Numbers are often used in writing and when making lists.

1. = **First**

2. = **Second**

3. = **Third**

For example:

1. Put a release agent inside of the truck box and trailer.
2. Follow signs, lights, or directions from the site contact to the load staging area.
3. Wait for your turn to load.

Words often used to describe order are:

- first
- to start with
- then
- after
- next
- lastly
- finally

For example:

When loading asphalt, **first** put a release agent inside the box and trailer. **Next**, follow signs, lights, or directions from the site contact to the load staging area. **Then**, wait for your turn to load.

Task

Put the following instructions in the correct order:

When you finish unloading asphalt:

- After you parked, walk around the vehicle, and clean off the tailgate.
- First, drive away from the paver.
- Finally, close and lock the tailgate.
- Next, park in safe place.
- Then, lower your trailer.

Correct order:

When you finish unloading asphalt:

1. _____
2. _____
3. _____
4. _____
5. _____

Understanding hand signals at the work site

People use hand signals to communicate without talking, especially in loud areas like construction sites. Understanding hand signals is important because that is how you can stay safe.

Not every site is the same. Do not think that others use the same hand signals as you. People doing different jobs may use different gestures for the same action.

For example:

This is the excavator hand signal for **stop.**

This is the spotter hand signal for **stop.**

This is the trucker hand signal for **stop.**

It is a good idea to ask about hand signals during the onboarding process at your new job. When you arrive on site, always ask the site contact how you should communicate.

Apply what you've learned

Read the scenario and answer the questions.

You are on a construction site. You have worked in similar sites, but for different companies. There is a lot going on at this site. You see two people using hand gestures to communicate. You're not sure if they are trying to communicate with you. The hand signals they're using are also new to you.

You want to make sure that everyone is safe.

1. **What should you do?**

   Guess what they mean based on your experience.

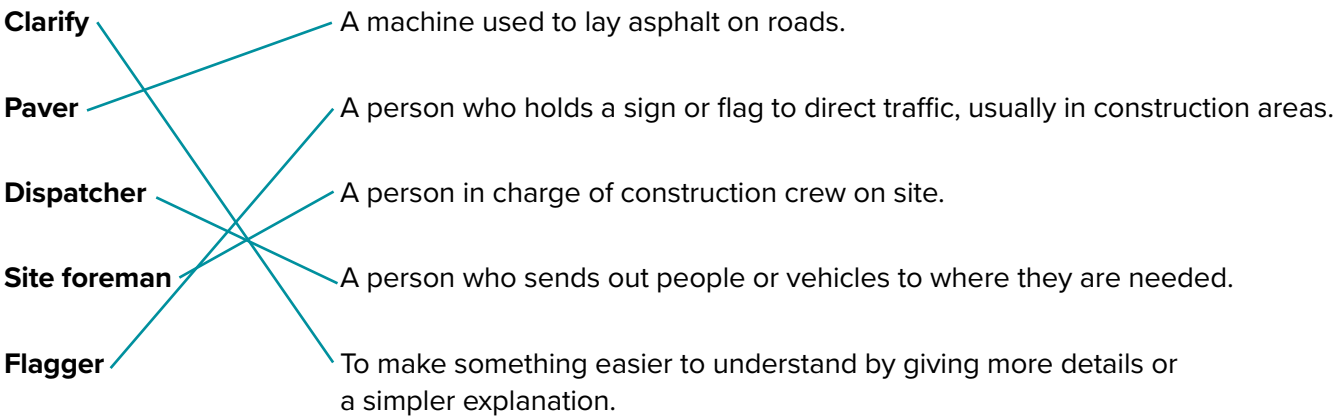
   Ask a person in the work site.

   Ask the person using the hand signals.

2. **Is there anything that you could do before you come to the site to help you in this situation? What could you do?**

Answer key

Keyword practice



Task

1. First, drive away from the paver.
2. Then, lower your trailer.
3. Next, park in a safe place.
4. After you parked, walk around the vehicle, and clean off the tailgate.
5. Finally, close and lock the tailgate.

Apply what you've learned

1. Ask the person using the hand signals
2. Before I go to the site, I can confirm how we should communicate with the flagger, site foreman, or the paver operator. I want to know if we must just speak directly to the workers, or if I need to use a radio or hand signals. I also want to make sure where to go, where I would go to line up, and who I should be speaking to when I get there.

Conclusion

Thank you for completing this course. We hope that you remember the safe work procedures and guidelines that you learned.

Remember the following:

- There are different types of aggregate. Each one has a different hazard that you need to control.
- Aggregate haulers have different sizes, types, and configurations. This will affect the roads that you can use to travel.
- Aggregate haulers over 4,500 kg must report to Vehicle Inspection Station weigh scales for inspection when the highway lights are flashing. If you have an exemption, then you don't have to report to the Vehicle Inspection Station.
- As an operator, you must follow the laws and direction from the governing body of your area. The governing body for Alberta is Alberta Transportation. The laws are based on the NSC standards. You must follow all the legislation that applies to you and your equipment.
- Aggregate hauling equipment is large and has blind spots. This means there are many hazards to you and those around you. As the operator, it is your responsibility to work safely and use safety procedures.
- Fatigue, stress, impairment, and distracted driving affect your fit-for-work status. You must have a plan to reduce these hazards.
- Inspect your equipment for defects regularly. This means that you must make sure that your machine is ready to operate.
- Journey management plans help reduce incidents during your trip. Follow your plan to keep yourself and others safe.
- Hydraulic and air systems work differently in your vehicle. You need to be careful when you work with both hydraulic and air systems.
- You may use different types of equipment when you load and unload aggregate. You may also load and unload in different work areas. You must always be aware of any hazards on the site.

To keep yourself safe when you haul aggregate, you need to know your equipment and how to operate it safely. If you remember what you have learned, you'll be able to keep yourself and others safe.

This is only part of your training. You need to complete a practical assessment to make sure that you can operate your vehicle and equipment.

Competency

Keywords

Read the definition and examples for the important words from this section.

Competent You can do something without supervision or with little supervision.
Example: Only your employer can say that you are competent at a task.

Qualified You have the requirements that are needed for the job.
Example: You can apply for a job if you are qualified.

Trained You received orientation and training from your employer.
Example: Your employer needs to make sure you are trained at your job.

Experience Your employer has a record that shows you can do your job correctly and completely.
Example: You need to get experience on the job to be competent.

Keyword practice

Use the words in a sentence.

Word	Sentence
Competent	
Qualified	
Trained	
Experience	

Becoming competent

How to become competent may be confusing at first. You need more than your driver's license to be competent at your job.

Driving record

Your driver's license qualifies you to operate a motor vehicle. When you apply for the job, you should give a copy of your driving record (or abstract) to the employer. The driver's abstract includes:

- personal information
- current status of your driver's license
- conviction information
- demerit points
- suspensions

The employer will review this document. It proves that you're able to drive.

Keywords

Conviction information
Information about any criminal record that someone may have.

Orientation and training

After you're hired, your employer will give you an orientation. This includes information about policies, rules, responsibilities, and anything that is important for your success.

You may get extra training for the equipment that you'll operate or the tasks you will need to do. For example, your employer may ask you to take the Professional Driver Improvement Course (PDIC).

Assessment

Once you complete your training, your employer will assess your ability to do your job tasks. This assessment is like a road test. It must be documented. They will ask you to do job tasks and watch to see that you can complete them safely.

Assessment is how employers make sure you become competent. It's important because it checks that you understand what you learned in your training. Employers can identify and correct tasks that you can't do safely. They can then take steps to help you improve.

This is how employers follow the law, reduce injuries, and prevent damage.

Your responsibility

It is your responsibility to:

- Give your employer information about your skills, training, certificates, and licenses. This shows your employer why you're qualified to apply for the job.
- Take training as a new employee. You'll take orientation and any training that will help you do your job safely and completely.
- Follow the rules.
- Let your employer assess and evaluate you on the job.
- Only accept work that you are competent in. If you are not qualified or trained properly for the job, let your employer or supervisor know.
- Ask for help from a competent co-worker or supervisor.

Your employer's responsibility

It is your employer's responsibility to:

- Make sure that you meet the requirements of the law. This means that your employer must make sure that you are competent.
- Review your resume, certificates, licenses, and training.
- Give you an orientation. Your employer must show you how things work and what they expect from you.
- Evaluate your ability to do your job and tasks when your orientation and training are complete.
- Make sure you can do your job properly, perform tasks safely, and are competent on the job.
- Document your experience and take steps to help you improve.
- Find help to make sure your evaluation is successful.
- Document qualifications that are needed for the job. Employers must make sure that the people they hire meet those requirements.

Competency at work

Here are some important things to remember about competency:

- Only your employer can decide if you are competent.
- Employees must agree to be assessed and evaluated, or it won't work.
- Failing to document means failing to prove competence.
- Competency is never permanent.

Workplace culture: Saying “no” to unsafe work

Saying “no” at work is hard for many reasons:

- Some people don’t want to refuse unsafe work because they don’t want to feel embarrassed, or they do not want to embarrass their co-worker or supervisor.
- Some people worry that they might lose their job.
- Some people are shy or not confident.

It is important to speak up so you can stay safe at work. You have the right to refuse unsafe work for yourself and others.

Task

Read the scenario and answer the questions.

Phil: Hey Tom! Can you do me a favour?

Tom: Sure. What do you need?

Phil: Can you cover my shift tomorrow? I need to go to an important doctor’s appointment.

Tom: What’s the job for tomorrow?

Phil: It’s to take some dangerous goods from the Northside to the Southside.

Tom: Sorry, Phil. I would love to help, but I don’t have the TDG training yet.

Phil: I’m sure that you’ll be fine. Karen doesn’t care much as long as you drive carefully.

Tom: Sorry, Phil. Paul told us in orientation that we cannot do a job that we are not trained for. If I get into an accident, the company can be liable for damages.

Phil: But Karen will be upset if we don’t get someone to cover it. I can’t miss my doctor’s appointment.

Tom: It’s better that we’re behind than risk getting into an accident. The boss would not be happy if we get fined. Remember that Paul said that safety is number 1.

Phil: I wouldn’t want to short us, but I guess you’re right. Let’s ask Karen if she can find someone else or change the schedules around.

Tom: Sounds good!

1. What did Phil ask Tom to do?

   _____

2. Why was it unsafe for Tom to do?

   _____

3. What phrases did Tom use to refuse the unsafe task?

   _____

4. What did Paul say to the employees about safety?

   _____

5. Reflection:

   a. Has someone ever asked you to do unsafe work? **YES** **NO**

   b. If anyone asks you to do work that is unsafe, what would you do?

      _____

      _____

      _____

      _____

      _____

Answer key

Keyword practice

These are possible answers.

Word	Sentence
Competent	I need to be competent before I can do the work by myself.
Qualified	I need to be qualified for the job to be successful in my application.
Trained	I need to be trained to do the job so I can be safe.
Experience	I get experience doing the tasks for my job.

Task

1. Cover for his shift tomorrow.
2. He does not have the TDG training.
3. Sorry, Phil. I would love to help, but I don't have the TDG training yet.

   Sorry Phil. Paul told us in orientation that we cannot do a job that we are not trained for. If I get into an accident, the company can be liable for damages.

   It's better that we're behind than risk getting into an accident. The boss would not be happy if we get fined. Remember that Paul said that safety is number 1.
4. We cannot do a job that we are not trained for.


AWES
ALBERTA WORKFORCE ESSENTIAL SKILLS


AMTA