

# **Lesson 4**

Vehicle Inspections

## **Exercise Book**



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## Table of Contents

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Introduction .....	4
Purpose .....	4
Approach .....	4
Tips for End Users .....	4
Exercise 1: Inspection Reports .....	5
Exercise 2: Compliance with Reporting .....	6
Exercise 3: Completing a Report .....	7
Exercise 4: Identifying Defects .....	8
In-Yard Assessment Preparation .....	10
Additional Notes / Exercise Area .....	17



# Introduction

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## Purpose

This Exercise Book contains exercises related to MANDATORY ENTRY-LEVEL TRAINING MANITOBA CLASS 1 (MELT) PROGRAM Lesson 4.

## Approach

This lesson covered vehicle inspections, including performing inspections, through:

- In-class instruction
- The course textbook
- Instructor demonstration
- Hands-on
- In-yard assessments

## Tips for End Users

Use all the reference materials provided to complete the exercises.



## Instructions

- ### Resources:

- ### Questions:

- 2022-01-01 MANDATORY ENTRY-LEVEL TRAINING MANITOBA CLASS 1: Lesson 4 Exercise Book



## Instructions

- ### Resources:

- ## Questions

1. List 3 expectations regarding the distribution and retention of inspection reports.
2. Name the documents that a driver may be asked to produce by an enforcement officer.



## Exercise 3: Completing a Report

### Instructions

- Fill in the table below
- Use the resources listed to assist you (if required)

### Resources:

- Course textbook

### Fill in Sample Report 1:

<b>Trip Inspection Report</b>	
Date _____ Time _____ Location of Inspection _____	
Name _____ Carrier Name _____ <small>print the name of the person performing the inspection</small>	
Licence Plate and/or Unit No: Truck/Tractor _____ Trailer(s) _____ Odometer Reading (if equipped) _____	
<b>Results of Inspection</b>	<input type="checkbox"/> No defects found <input type="checkbox"/> The following defects found
_____	
_____	
I declare that the vehicle(s) shown above has (have) been inspected in accordance with the applicable requirements.	
Signature of person conducting inspection _____	Signature of driver (if different than the person conducting inspection) _____
The above noted defects were repaired.	
Authorized signature _____	Date _____

Note: This sample is provided for reference only. It is not a prescribed form in regulation and carriers/drivers are free to use this form, develop their own form, or use any other form available (e.g. those that are pre-printed on the back of some logbook pages), provided it contains all of the necessary information. The form can contain an inspection checklist but is not required to.

### Additional Sample Report

An additional report will be provided by your instructor for use in class.



## Exercise 4: Identifying Defects

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### Instructions

- Answer the questions below
- Use the resources listed to assist you (if required)

### Resources:

- Copy of Commercial Vehicle Trip Inspection Regulation Schedule A

### Questions:

1. What constitutes a major defect in the air brake system?
  
  
  
  
  
  
  
  
  
  
2. What constitutes a major defect of the exhaust system?





3. Name and describe four major defects that may be found in the suspension system.
4. When would it be considered a major defect in the hydraulic brake system for the brake fluid reservoir?
5. What types of defect are considered minor in a wheel hub?
6. If the wiper blade is damaged, missing or fails to clear the field of vision, is it a major or minor defect?



# In-Yard Assessment Preparation

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## Instructions

- Use the textbook to prepare for the in-yard assessment by reviewing details about the inspection of the various components and systems
- Consult the resources listed to assist you (if required)
- Use the checklist (provided by the instructor) as a guide through the inspection

## Resources:

- NSC 13 Schedule 1
- Course Textbook
- MPI's Air Brake Manual
- MPI's Professional Driver's Manual

## Introduction

The In-Yard Assessment for Lesson 4 includes performing the following inspections:

- Daily Inspection
- En Route Inspection
- Post-Trip Inspection
- Air Brake Inspection



## Inspection Defects Table

Minor and major defects defined in Manitoba's Commercial Vehicle Trip Inspection Regulation

System/ Component	Minor Defect	Major Defect
<b>Air Brake</b>	<ul style="list-style-type: none"><li>• Audible air leak</li><li>• Slow air pressure build-up rate</li></ul>	<ul style="list-style-type: none"><li>• Pushrod stroke of any brake exceeds the adjustment limit that constitutes a hazardous condition</li><li>• Air-loss rate exceeds the limit that constitutes a hazardous condition</li><li>• Low air warning system does not work properly or gives low air warning</li><li>• Service, parking or emergency brake does not work properly</li><li>• Tractor protection system does not work properly when the vehicle has a trailer attached</li></ul>
<b>Cab</b>	<ul style="list-style-type: none"><li>• Driver's or passenger's door does not open</li></ul>	<ul style="list-style-type: none"><li>• Any door does not close securely</li></ul>
<b>Cargo Securement</b>	<ul style="list-style-type: none"><li>• Cargo is covered but the cover is not attached, or does not cover the cargo, in a manner that complies with the Cargo Securement Regulation</li></ul>	<ul style="list-style-type: none"><li>• Cargo is not covered or is not secure</li><li>• Cargo securement device is missing, does not work properly or its condition does not comply with the Cargo Securement Regulation</li><li>• Cargo cover's condition does not comply with the Cargo Securement Regulation</li></ul>
<b>Coupling Devices</b>	<ul style="list-style-type: none"><li>• Coupler or mounting has loose or missing fastener</li></ul>	<ul style="list-style-type: none"><li>• Coupler is not secure or movement exceeds the limit that constitutes a hazardous condition</li><li>• Coupling or locking mechanism is damaged or does not lock</li></ul>
<b>Dangerous Goods</b>	<ul style="list-style-type: none"><li>• n/a</li></ul>	<ul style="list-style-type: none"><li>• Dangerous goods handling and transportation requirements under The Dangerous Goods Handling and Transportation Act are not met</li></ul>
<b>Driver's Controls</b>	<ul style="list-style-type: none"><li>• Accelerator pedal, clutch, a gauge, an audible or visual indicator or an instrument does not work properly</li></ul>	<ul style="list-style-type: none"><li>• n/a</li></ul>



<b>System/ Component</b>	<b>Minor Defect</b>	<b>Major Defect</b>
<b>Driver's Seat</b>	<ul style="list-style-type: none"><li>• Seat is damaged or does not remain in set position</li></ul>	<ul style="list-style-type: none"><li>• Seatbelt or tether belt is not secure, is missing or does not work properly</li></ul>
<b>Emergency Equipment and Safety Devices</b>	<ul style="list-style-type: none"><li>• Emergency equipment is missing, damaged or defective</li></ul>	<ul style="list-style-type: none"><li>• n/a</li></ul>
<b>Exhaust</b>	<ul style="list-style-type: none"><li>• Exhaust leak that does not cause exhaust gas to enter the occupant compartment</li></ul>	<ul style="list-style-type: none"><li>• Exhaust leak that causes exhaust gas to enter the occupant compartment</li></ul>
<b>Frame and Cargo Body</b>	<ul style="list-style-type: none"><li>• Damaged frame or cargo body (except as described in the major defect column)</li></ul>	<ul style="list-style-type: none"><li>• Visibly shifted, cracked, collapsing or sagging frame member</li></ul>
<b>Fuel</b>	<ul style="list-style-type: none"><li>• Missing fuel tank cap</li></ul>	<ul style="list-style-type: none"><li>• Fuel tank is not secure</li><li>• Dripping fuel leak</li></ul>
<b>Glass and Mirrors</b>	<ul style="list-style-type: none"><li>• Windows or mirrors don't allow the driver to see to the side and rear of the vehicle on both sides as a result of being damaged, missing or not adjusted properly</li><li>• Window glass or mirror has broken or damaged attachments onto vehicle body</li><li>• Driver's view of the road is obstructed in the area swept by the windshield wipers</li></ul>	<ul style="list-style-type: none"><li>• Missing windshield</li></ul>



<b>System/ Component</b>	<b>Minor Defect</b>	<b>Major Defect</b>
<b>Heater or Defroster</b>	<ul style="list-style-type: none"><li>• System or a control does not work properly</li></ul>	<ul style="list-style-type: none"><li>• Defroster does not provide an unobstructed view through the windshield</li></ul>
<b>Horn</b>	<ul style="list-style-type: none"><li>• Horn does not work properly</li></ul>	<ul style="list-style-type: none"><li>• n/a</li></ul>
<b>Hydraulic Brakes</b>	<ul style="list-style-type: none"><li>• Brake fluid level is less than the level specified by the vehicle manufacturer as the minimum operating level or, if manufacturer has no minimum operating level, brake fluid reservoir is less than ½ full</li></ul>	<ul style="list-style-type: none"><li>• Brake boost or power assist does not work properly</li><li>• Brake fluid leak</li><li>• Brake pedal fade or insufficient brake pedal reserve</li><li>• A warning device (other than ABS) is giving a warning</li><li>• Brake fluid reservoir is less than ¼ full</li><li>• Parking brake does not work properly</li></ul>
<b>Lamps and Reflectors</b>	<ul style="list-style-type: none"><li>• Lamp does not work properly</li><li>• Reflector is partly or completely missing</li></ul>	<ul style="list-style-type: none"><li>• Failure of both low-beam headlamps when lamps are required to be lit</li><li>• Failure of both rearmost tail lamps when lamps are required to be lit</li><li>• Failure of one rearmost turn-indicator lamp at anytime</li><li>• Failure of both rearmost brake lamps at anytime</li></ul>
<b>Steering</b>	<ul style="list-style-type: none"><li>• Steering wheel lash is greater than normal</li></ul>	<ul style="list-style-type: none"><li>• Steering wheel is not secure</li><li>• Steering wheel movement indicates binding or looseness</li><li>• Steering wheel lash exceeds the limit that constitutes a hazardous condition</li></ul>



<b>System/ Component</b>	<b>Minor Defect</b>	<b>Major Defect</b>
<b>Suspension</b>	<ul style="list-style-type: none"><li>• Air leak in air-suspension system</li><li>• Broken spring leaf</li><li>• Suspension fastener is loose, missing or broken</li></ul>	<ul style="list-style-type: none"><li>• Damaged air bag (patched, cut, bruised, cracked to braid)</li><li>• Deflated air bag</li><li>• Air bag mounted insecurely</li><li>• Cracked or broken main spring leaf, or more than one broken spring leaf</li><li>• Part of spring leaf or suspension is missing, shifted out of place or in contact with another vehicle component</li><li>• Loose U-bolt</li></ul>
<b>Tires</b>	<ul style="list-style-type: none"><li>• Damaged tire tread or sidewall</li><li>• Tire leaking (if leak can be felt or heard, tire is to be treated as flat)</li></ul>	<ul style="list-style-type: none"><li>• Flat tire</li><li>• Tire tread depth is less than the wear limit that constitutes a hazardous condition</li><li>• Tire is in contact with another tire or any vehicle component other than mud-flap Tire is marked "not for highway use"</li><li>• Tire has exposed cords in the tread or outer sidewall area</li></ul>
<b>Vehicle in General</b>	<ul style="list-style-type: none"><li>• n/a</li></ul>	<ul style="list-style-type: none"><li>• Serious damage or deterioration that is noticeable and may affect the vehicle's safe operation</li></ul>
<b>Wheels, Hubs and Fasteners</b>	<ul style="list-style-type: none"><li>• Hub oil below minimum level if fitted with sight glass</li><li>• Leaking wheel seal</li></ul>	<ul style="list-style-type: none"><li>• Wheel has loose, missing, damaged or ineffective fastener</li><li>• Damaged wheel or wheel component</li><li>• Evidence that wheel, hub or bearing will fail soon</li></ul>
<b>Windshield Wiper or Washer</b>	<ul style="list-style-type: none"><li>• System or a control does not work properly</li><li>• Wiper blade is damaged or missing</li><li>• Wiper or washer does not work properly</li></ul>	<ul style="list-style-type: none"><li>• Wiper or washer fails to adequately clear driver's field of vision in area swept by driver's side wiper when prevailing weather conditions require use of wiper or washer</li></ul>



### En Route Inspection Checklist:

- The following list can be used as a reference when completing an en route inspection.

What to Inspect	Results
Park vehicle in proper position	
Avoid stopping at bottom of hill or uphill slope	
Secure the wheels	
Check cleanliness/working condition of lights	
Check for air leaks	
Check cargo/securement devices	
Inspect tires	
Inspect coupling devices	
Check dangerous goods placards (if applicable)	
Check brakes	



### Post-Trip Inspection Checklist:

- The following list can be used as a reference when completing your post-trip inspection.

What to Inspect	Results
Park vehicle in proper position	
Check fuel level	
Turn off all lights, fans, heater, A/C	
Shut down engine	
Turn off master switch	
Secure vehicle	
Check vehicle body condition	
Check exterior lights	
Check suspension, wheels, tire pressure	
Check fuel cap, mud flaps, leaks	
Check floor is clean	
Inspect seat, seatbelts	
Close window	
Complete log book	





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