

# Commercial Transport Truck Operator TRAINING GUIDE Tractor-Trailer Coupling and Uncoupling





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#### **BACKGROUND**

Trucking HR Canada (THRC) publishes a National Occupational Standard for Commercial Transport Truck Operators (NOS-O). The NOS-O defines the knowledge, skills, and abilities ("competencies") required for this occupation.

This document is a supplemental resource to the NOS-O. For the full suite of supplemental resources visit **truckinghr.com**.







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## TABLE OF CONTENTS

Purpose of this guide	1
Who can use this guide	1
How to use this Guide	1
Limitations of this Guide	1
Before Training Begins	2
Training Methods	2
Demonstrating the Tasks	2
Tractor-trailer Coupling and Uncoupling Tasks	3
Task – Tractor-trailer coupling	3
Task - Tractor-trailer uncoupling	5





### **PURPOSE OF THIS GUIDE**

This training guide provides a standard approach to instructing **tractor-trailer coupling and uncoupling techniques** to commercial transport truck operators based on the competencies of the National Occupational Standard for Commercial Transport Truck Operator (NOS-O).

#### WHO CAN USE THIS GUIDE

This guide is designed to be used by instructors, trainers, mentors, and coaches to teach commercial transport truck operators at companies or at training facilities.

#### HOW TO USE THIS GUIDE

Use this guide during entry-level training and occupational-level training.

This guide addresses the tasks and sub-tasks involved in tractor-trailer coupling and uncoupling with a focus on the correct order of sub-tasks and consistent identification of errors. The sub-tasks listed are consistent with what a commercial transport truck operator is required to know to obtain a commercial driver's licence in many jurisdictions.

#### LIMITATIONS OF THIS GUIDE

As vehicles and operational settings are different, you may need to make some alterations or additions to the sub-tasks listed in this document. Use this guide as a base and add or alter it as appropriate for your circumstances. If changes are made, you and or your team may wish to review the NOS-O to ensure it continues to align with your updated version.

If you have questions or are interested in more information, contact info@truckinghr.com





### **BEFORE TRAINING BEGINS**

Review the training record of your trainee(s) before the lesson to ensure your training will meet their needs.

You can demonstrate and teach the skills in this guide in any off-road location that has adequate space and is reasonably free of distractions and hazards. A hard surface is preferred but not required.

Trainers and trainees need to wear clothing and footwear that is suitable for outdoor work and for weather conditions typical of the season. High visibility clothing or a safety vest over their clothing is also necessary to increase their visibility.

#### TRAINING METHODS

Your goal is to help the learner develop effective, competent, and safe driving behaviours.

Instruction and feedback must be constructive and consistent.

During training, provide regular guidance and calmly deliver short messages. Don't distract, confuse, intimidate, or frustrate the trainee. Stop the task if necessary to provide more extensive feedback or instruction. Stop the lesson if the trainee needs to calm down or take a break. Resume the task when the trainee is ready.

#### **DEMONSTRATING THE TASKS**

You may need to demonstrate a task, especially during entry-level training.

#### Elements to consider for demonstrations:

- The number of trainees that can reasonably and safely participate.
- Location in a yard with enough space for a tractor and trailer and one or more trainees.
- Location for trainees to stand where they can see and hear you during the demonstration.

Fully engage with the trainees and ensure that they understand all the steps being demonstrated.





## TRACTOR-TRAILER COUPLING AND UNCOUPLING TASKS

The tables below are organized to indicate sub-tasks, correct performance, and errors that require correction because they could result in risky procedures or unsafe conditions; these would be scored as errors on a road test scoresheet in many jurisdictions.

### **Task - Tractor-Trailer Coupling**

SUB-TASK	CORRECT	ERRORS
Inspect Fifth Wheel,     Lines, and     Connections	Inspect the condition of the fifth wheel, connecting lines, and connectors while outside the tractor.  Check the position of the fifth wheel release handle and latch.	<ul> <li>Fail to:</li> <li>inspect the condition of the fifth wheel.</li> <li>check the status of the fifth wheel latch.</li> </ul>
2. Align Tractor to Trailer	Release tractor parking brakes.  Reverse the tractor slowly toward the trailer.  Use the mirrors to get the tractor in a straight line with the trailer.  Stop when the fifth wheel is just ahead of the trailer. (No more than 1 m from the rearmost part of the tractor to the front of the trailer. No further under the trailer than the fifth wheel plate being flush with the front of the trailer.)  Place transmission in neutral.  Apply tractor parking brake.  Shut off the engine.	<ul> <li>Fail to:</li> <li>release tractor parking brakes.</li> <li>reverse slowly.</li> <li>use mirrors while reversing.</li> <li>place transmission in neutral.</li> <li>apply the parking brakes.</li> <li>shut off the engine.</li> </ul>
	Exit tractor and check distance and alignment. (The trailer kingpin must be aligned to contact only the fifth wheel guide ramps.)  Reposition tractor if required.  Check trailer height.  Set trailer height correctly. (The trailer upper coupler must be set to contact the bottom half of the fifth wheel plate.)  Adjust trailer height using the landing gear.	Fail to:  • position the tractor the correct distance from the trailer.  • align the tractor with the trailer.  Fail to:  • set trailer height correctly.





SUB-TASK	CORRECT	ERRORS
3. Inspect the Trailer	Inspect the condition of the trailer upper coupler and kingpin. Inspect trailer connectors.	Pail to: Inspect the condition of the trailer upper coupler. Inspect the kingpin.
4. Chock the Trailer	Confirm chocks are in place at the trailer wheels.	Fail to: • check wheel chocks.
5. Engage Fifth Wheel	Reverse slowly under the trailer.  Use the mirrors to confirm proper alignment and trailer stability.  Gently but firmly engage the fifth wheel . Listen for and feel the fifth wheel latching into its locked position.	<ul> <li>Fail to:</li> <li>reverse slowly.</li> <li>monitor the trailer's position using mirrors.</li> <li>engage fifth wheel.</li> <li>align kingpin correctly with the fifth wheel.</li> </ul>
6. Test Fifth Wheel	Attempt to move the tractor forward to confirm the fifth wheel is locked.  Place transmission in neutral.  Apply tractor parking brake.  Shut off the engine.	<ul> <li>Fail to:</li> <li>test that the fifth wheel is locked.</li> <li>place transmission in neutral.</li> <li>apply brakes.</li> <li>shut off the engine.</li> </ul>
7. Confirm Fifth Wheel Lock	Exit the vehicle and visually confirm the fifth wheel is locked by checking the fifth wheel contact and the release handle position.  Get under the trailer to visually check the closed position of the latch or locks.	<ul> <li>Fail to:</li> <li>exit the vehicle to visually check the release handle position.</li> <li>get into a position under the trailer to visually check that the fifth wheel is in the closed position.</li> </ul>
8. Connect Air and Electrical Systems	Inspect the condition of the trailer air and electrical connections.  Connect the air and electrical lines properly.	Fail to:     inspect the condition of the trailer air and electrical connections.     connect the air and electrical lines properly.





SUB-TASK	CORRECT	ERRORS
9. Raise the Landing Gear	Raise the trailer landing gear fully and stow the handle into its retainer.	<ul> <li>Fail to:</li> <li>raise the trailer landing gear fully.</li> <li>stow landing gear handle properly.</li> </ul>
10. Check Airbrakes	Check and adjust air pressure if needed.  Start the engine if necessary to raise air pressure to normal operating range.  Supply air to the trailer with the trailer supply valve.  Monitor the air pressure gauges, and confirm air pressure gauges show normal pressure levels.  Shut engine off.  Listen for air leakage at supply gladhand.  Apply service brakes.  Listen for air leakage at the service gladhand.	<ul> <li>Fail to:</li> <li>get air pressure into normal operating range.</li> <li>supply air to trailer system.</li> <li>check for or establish normal air pressure.</li> <li>listen for supply gladhand leakage with the engine shut off.</li> <li>listen for service gladhand leakage with the engine shut off.</li> <li>Note: The driver does not need to exit the tractor to check for leaks at the gladhand connections.</li> </ul>
11. Test Service Brakes	Remove wheel chocks.  Test service brake reaction by driving slowly forward and applying brakes.	Fail to:  • remove wheel chocks  • test brakes properly.

## **Task - Tractor-Trailer Uncoupling**

SUB-TASK	CORRECT	ERRORS
1. Select Location	Select a location that is suitable for dropping the trailer; check the ground condition.	know approximate trailer weight.
2. Park the Trailer	Locate trailer with tractor as straight as possible.	Have tractor at an unnecessary angle to the trailer.





SUB-TASK	CORRECT	ERRORS
3. Secure Tractor and Trailer Parking Brakes	Confirm that the tractor and trailer are secured by application of the parking brakes.  Confirm transmission is in neutral.  Shut engine off if not already off.	<ul> <li>Fail to:</li> <li>confirm application of, or apply, tractor brakes.</li> <li>confirm application of, or apply, trailer brakes.</li> <li>confirm transmission is in neutral.</li> <li>ensure engine is shut off.</li> </ul>
4. Chock the Trailer	Confirm chocks are in place at the trailer wheels or position chocks at the trailer wheels.	Fail to:  • check wheel chocks.
5. Check Ground Condition and use Support if Needed	Confirm whether the trailer is loaded or empty and its approximate weight.  When ground conditions are soft, place supports under the landing gear.	<ul> <li>Fail to:</li> <li>determine the trailer loaded condition or weight.</li> <li>place supports under the landing gear when ground condition is soft.</li> </ul>
6. Set Trailer Suspension	Operate trailer air suspension controls as needed.	Improperly operate trailer suspension controls.
7. Lower Landing Gear	Lower the trailer landing gear until it makes contact with the ground (or is just above the ground), but does not raise the trailer from the fifth wheel.	Have trailer landing gear more than 2 cm from the ground.  Lower the landing gear so far that a gap appears between the fifth wheel and trailer upper coupler.
8. Stow Landing Gear Handle	Place the landing gear into low range. Stow landing gear handle.	Pail to:  put landing gear into low range.  stow landing gear handle.
9. Remove Air and Electrical Connections	Disconnect air and electric lines. Secure air and electric lines.	disconnect one or more lines.     secure one or more lines properly.
10. Unlock Fifth Wheel	Release fifth wheel latch.  Note: You can pull directly on the fifth wheel handle or use a tool to reach the release handle.	Fail to unlock fifth wheel.





SUB-TASK	CORRECT	ERRORS
11. Disengage Fifth Wheel	Enter tractor, start the engine and drive forward slowly in lowest gear to release fifth wheel. Stop when the fifth wheel lower coupler is fully out from under the trailer, but the tractor frame is still under the front of the trailer.  Place transmission in neutral.  Apply tractor parking brake.  Shut off the engine.  Note: Shutting the engine off is not always necessary.	Drive forward too little or too far.  Note: The fifth wheel must no longer contact the trailer and a portion of the tractor frame must still be under the trailer.  Fail to:  place transmission in neutral or apply parking brake.  shut off the engine (If necessary).
12. Disengage Fifth Wheel with Suspension Drop (Optional)	Drive slowly forward just far enough to release the fifth wheel from the kingpin.  Drop the suspension.  Stop when tractor frame is still under the trailer.  Place transmission in neutral.  Apply tractor parking brake.  Shut off the engine.  Note: Shutting the engine off is not always necessary.	<ul> <li>Fail to:</li> <li>properly operate suspension control.</li> <li>stop with the tractor frame still under the trailer.</li> <li>place transmission in neutral or apply parking brake.</li> <li>shut off the engine (If necessary).</li> </ul>
13. Confirm Trailer is Secure	Exit the tractor and confirm that the trailer and landing gear are stable and secure.	Fail to exit the tractor to confirm trailer security.
14. Clear the Trailer	Re-enter the tractor and drive forward slowly until the tractor is clear of the trailer.	Fail to clear the trailer from the tractor.









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