Pre & Post Trip Truck Inspections
As a professional truck driver, you rely heavily on your commercial motor vehicle to get you from one destination to another. Without the proper care and maintenance your truck could leave you unequipped to perform your job, costing you and your company valuable time and money. By performing the proper pre- and post-trip inspections, you can help to ensure your vehicle remains in the best condition. By recognizing wear or damage to your commercial vehicle during an inspection, and making sure any necessary repairs are performed, you help to eliminate the possibility of a costly breakdown while traveling on the job. Additionally, a properly maintained truck is more safe and more reliable for you, your customers, and other motorists on the road.
Getting Started

Training Materials

Collect all of the necessary materials and supplies before training begins. Here are some suggested materials and supplies:

- A training location that is free of distractions, has good lighting, and a comfortable temperature.

- Desks and chairs arranged so that everyone will be able to see the viewing screen, the facilitator, and each other.

- The video, a VCR, and a TV with a remote. Make sure the video is rewound.

- An employee handbook and pen/pencil for each trainee. Each handbook includes a quiz at the back, which can be used to test comprehension and document training.

- Other supplies and equipment you may need - blackboard chalk, paper, handouts, transparencies, overhead projector, markers, notepads, etc.

- Additional information, such as a copy of the regulation or other reference tools.
Preparation

A successful presentation requires preparation and planning. Give yourself several days before the training session to get organized.

- Locate and schedule the training site as soon as possible.

- Notify trainees of the training date and time, the training schedule, and proper dress.

- Obtain all necessary equipment and supplies.

- Make sure you know how to operate the TV, VCR, and other equipment. Check to ensure that it is working properly. Replace or repair any damaged equipment.


- Prepare your presentation, including a lesson plan or outline of the training. Include the training goals and objectives. Some presentation guidelines are included on the next page. A sample lesson plan has been included on page f of this Facilitator’s Guide.

- A day or so before conducting the training session, you may want to have participants take the quiz as a pre-test. The results of this test can help you to determine weak areas to focus on during the training session.

- Preview the videotape. Note any key points you want to expand upon in your training.
How you present the training course can have a great impact on learning. By following these simple presentation guidelines and keeping your objectives in mind, you can effectively and efficiently get the most out of your training session.

Organize Training Time Efficiently
In today’s busy work climate it can be difficult to find the time needed for training, so it is important to be organized and well-prepared when you do schedule training sessions. Whether you use Summit’s suggested lesson plan or not, it is important to have a lesson plan prepared that you can implement comfortably. This ensures that time spent in training is productive and beneficial for everyone.

Stress the Purpose and Goals of Training
Training needs to be goal-oriented. State the purpose of training in a clear, specific manner - whether it’s to reduce injuries, increase production, improve quality, improve working conditions, etc. Review the goals and objectives of the training so trainees know what is expected of them.

Capture Their Attention
Training needs to be interesting and compelling to hold trainees’ attention. To help motivate learners, give them specific evidence that their effort makes a difference and provide feedback on their progress. Also, remember that the first experience with a new subject usually forms a lasting impression on the learner. By making that experience a positive one, you can help ensure your audience retains the information learned.
**Make New Learning Experiences Pleasant**

For some adults, past experiences with education were unpleasant and not helpful. Adults learn best when they feel comfortable. By making the learning environment open and friendly, you can help adults to feel secure in their new learning experience. Offer support and feedback as often as possible, and be ready to provide extra attention to those who may require it.

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**Ask If There are any Questions**

When most adults learn new information that conflicts with what they already know, they are less likely to integrate those new ideas. It is very important to make sure participants fully understand the training and do not have any unresolved questions. Provide for a question and answer period so participants can resolve those questions and/or answer questions throughout the training session.
Lesson Plan

As a qualified trainer, your job is to effectively communicate a great deal of information in a well-organized manner. By preparing a lesson plan, you can ensure that each minute of the training session is productive. Summit has provided a suggested lesson plan for your use.

1. Program Objective
This guide reviews *Pre & Post Trip Truck Inspections*. In it, we will cover:

- Pre-Trip Inspections
- Ongoing Inspections
- Post-Trip Inspections

2. Show the Video: “*Pre & Post Trip Truck Inspections*”

3. Discussion and Demonstration
To help relate the training to your site, you may wish to incorporate your own discussion topics and exercises. Key issues you might consider include:

- What procedures must be followed in the event a commercial motor vehicle driver is involved in an accident?
- What procedures must be followed if the commercial motor vehicle breaks down while on the road?
- What is the inspection policy required to be used at this company?
4. Use Handbooks to Reinforce Training
The handbooks increase comprehension and reinforce the information learned in the video program by explaining the main points and expanding on the original material. For increased employee information retention, go over one section at a time and stop to answer questions. The quiz at the back of the Facilitator’s Guide is provided to document employee training. Answers to the quiz are provided on a separate page.

5. Questions and Answers
Provide for a Q&A session to answer any questions. It may be necessary to review some of the material when providing answers. The employee handbook, equipment manuals, and other reference tools may be helpful.
Frequently Asked Questions

When must truck inspections be performed?
Before you begin traveling in your commercial motor vehicle, you must perform a pre-trip inspection to check for any damage or needed repairs. Once you have started your trip, you must continue to perform inspections. First, if you are driving an unsealed trailer, you must stop to inspect your cargo and its securing devices within the first 25 miles of the trip. Then, while on the trip, be sure to check the gauges every so often to make sure everything continues to operate properly. Next, at least once every three hours or 150 miles, you must stop to perform another walkaround inspection. Finally, once you reach your destination you must perform a post-trip inspection. If you find anything needing repair fill out the vehicle inspection report and alert the vehicle owner of any problems before using the vehicle again.

Am I required to perform pre- and post-trip inspections on my commercial rig?
Remaining safe on the road requires every commercial motor vehicle driver to perform a pre- and post-trip inspection of their commercial rig. The type of inspection you perform on your rig may vary from company to company, but the reasons for the inspections are the same. Inspections are done to locate possible repairs that may be needed in order to keep your truck running safely and properly. You and your company rely heavily on your truck getting you and your cargo from one location to the next, and by making sure proper care and maintenance has taken place you can ensure you will get to your destination safely.
A commercial rig – with its tremendous power and weight – can be a dangerous piece of machinery. To ensure that you arrive at your destination safely, it’s important to begin by making sure that the truck you will be driving is mechanically sound from one end to the other.

As the driver of a commercial rig, federal and state law places on your shoulders the responsibility of performing pre- and post-trip inspections, as well as maintaining an ongoing awareness of your vehicle’s operating condition throughout your trip.

In this handbook, *Pre and Post Trip Truck Inspections*, we will discuss:

- Pre-trip Inspections
- Ongoing Inspections
- Post-trip Inspections

As the name suggests, a pre-trip inspection is performed before a trip begins – and also whenever there is a significant stop during the trip, such as after taking an overnight break. To perform an effective pre-trip inspection, it’s necessary to check over numerous systems and mechanical parts on a truck. To make this procedure easier, it’s helpful to inspect your vehicle the same way each time. By developing a routine that you stick with, you make it less likely that you’ll overlook something or forget part of the inspection. The other benefit to developing a routine is that it speeds up the inspection process – while the list of things to look at may seem long, an experienced driver can easily run through the entire inspection in about twenty minutes.
By far, the most common routine that truckers use to keep them on track is the seven-step pre-trip inspection. The steps in this inspection routine include:

**Step 1**
The Vehicle Overview

**Step 2**
Checking the Engine Compartment

**Step 3**
Inspecting Inside the Cab

**Step 4**
Checking the Lights

**Step 5**
Conducting a Walkaround Inspection

**Step 6**
Checking the Signal Lights

**Step 7**
Checking the Brake System

Because this approach to inspecting a truck is so common, we’ll use it as our example in this program. Remember, however, that the inspection shown is only an example — specific policies vary from company to company as to the parts of a truck that can and cannot be inspected by the driver – check with your supervisor for your company’s requirements.
Step 1: Vehicle Overview

Step one of the Inspection, the Vehicle Overview, begins as you walk toward the truck – notice its general condition as you approach. Does the truck lean to one side? This could mean a flat tire, or that cargo has shifted. Is there an oil, coolant or fuel leak underneath? Is the truck’s path free of obstacles such as other vehicles, posts, low-hanging wires, or tree limbs? Is the area around the truck clear of pedestrians? If the truck was previously driven by someone else, check the daily inspection report to find out whether any problems were discovered during the last inspection – if any repairs were requested by another driver, or by you, inspect the vehicle to make sure that the problem has been fixed.
Step 2: Checking the Engine Compartment

Before beginning step two, the Engine Compartment check, first make sure that the parking brakes are on. Depending on the type of truck you drive either raise the hood or, after first securing loose items in the cab, tilt the cab to get to the engine compartment. Inside the engine compartment, check all fluid levels including: engine oil, power steering fluid, and windshield washer fluid – and make sure there are no leaks. Check the condition of the radiator hoses and, if your vehicle has one, the power steering hose. Look for cracks or excessive wear on the alternator, water pump, and air compressor belts – check the operator’s manual to determine how much slack is allowable, and test the belts for tension and slippage. While the hood is open, other parts to inspect include the front axle, as well as the suspension system – including the spring, spring hangers, shackles and U-bolts. Also make sure the visible components of the braking system – the brake chamber and the hoses – are in good condition. Finally, check that the steering system is free of parts that are worn, bent or damaged. To make sure that no parts are loose, grasp the steering mechanism and shake it. After completing this part of the inspection, lower the hood or cab and secure it properly.
Step 3: Inspecting Inside the Cab

For step three of the inspection, climb inside the cab. Make sure that the parking brake is on and put the gearshift into “neutral” or “park.” Then start the engine – the oil, coolant and charging circuit warning lights should come on briefly and, unless there’s a problem, go out again. With the engine running, take a moment to listen for unusual noises. Next check the gauges. The voltmeter should be in the normal range. A few seconds after starting the engine, the oil pressure and the coolant temperature should also rise to their normal operating range; and the air pressure should build until it reaches 100 to 125 psi. Next, check all controls for looseness, sticking, damage or improper setting. Inspect the mirrors and windshield for cracks, dirt or other obstructions such as illegal stickers, which is any sticker that is not required by law – clean any glass that requires it and make sure the mirrors are adjusted properly.
Step 4: Checking the Lights

Step four – Checking the Lights – is the next step. First, make sure the parking brake is set and shut off the truck’s engine. Turn on the low beam headlights and the four-way flashers. Taking the key with you, climb out of the truck. Move to the front of the vehicle, and check that the low beams are on and that both four-way flashers are working. Next, push the dimmer switch and check that the high beams also work. Turn off the headlights and four-way flashers and, before climbing out of the truck to begin step five, turn on the parking, clearance, side-marker and identification lights, as well as the right turn signal.
Step five is the Walkaround Inspection. During this step the driver moves around the exterior of the vehicle, inspecting as they go. The inspection begins at the left front side with a check that the window in the driver’s door is clean, and the door latches and locks work properly. Next inspect the left front wheel – making sure that the rims and tires are in good condition. Look for any serious cuts, slashes or bulges in the rubber. Inspect the tread for wear – on the front tires every major groove must have a depth of at least 1/8th inch, while on the back tires the depth must be at least 1/16th inch. Check that the tires are properly inflated, and that the valve stem and cap are in good shape. Look for missing, bent or broken studs, clamps and lug nuts; and check the lug nuts for rust which indicates that they may be loose and require tightening. Check the hub oil level and verify that there are no leaks. Next check that the wipers are in good shape and that the wiper arms have the proper amount of spring tension. Now inspect the clearance and identification lights – are they all clean and working? These lights must also be the correct color, which, on the front of the vehicle, is amber. Finally, make sure that the turn signal, which can be amber or white, is on and functioning correctly. Now move to the right front side, and repeat the inspection you just performed on the left front side. When this is completed, move to the fuel tank area. Check that
the tank has enough fuel, and that the cap fits securely. Make sure that the tank is mounted properly, and free of damage or leaks. If you have duel tanks, check that the crossover line that runs between them is secure — and, while your behind the cab, also do a visual check for bends or cracks in the truck’s frame and cross members. Next, look over the exhaust system to determine that it is securely mounted, leak-free and not touching wires, fuel lines or air lines. Once this is completed, move to the coupling system area. Here check that the lower fifth wheel is well-lubricated and securely mounted to the frame, and that no parts are damaged or missing. Make sure that you cannot see any space between the upper and lower fifth wheel. On the upper fifth wheel, check that the guide plate is mounted securely to the trailer frame and the kingpin is undamaged. Check that the locking jaws are fastened properly around the shank rather than the head of the kingpin, and make sure that the release arm is seated correctly — be aware, however, that on many vehicle’s the release arm is best viewed from under the left side of the vehicle. Now move to the right rear tractor wheels area. All the checks you performed on the front wheels must be done here, also, but because these are dual tires there are a few additional things to look for around the wheel: make sure that the tires are of the same size and type — there should not be a mix of radial- and bias-style tires. Also, make sure that none of the tires rub against each other, and that there’s nothing stuck between them. As you
move further down, if your truck is equipped with ladders, steps, ramps, conveyors or a spare tire carrier, be sure that these are in good condition and secured in place. Look over all lights and reflectors along the side – are they clean? And are the lights working and the correct color – amber? After checking the back tires, if your truck has splash guards make sure they are free of damage and are not brushing against the tires or the road. Move to the back of the truck and inspect these lights, as well – are they all working? On the back end, all lights must be red except for the turn signal, which may be red, yellow, or amber in color. Now inspect the license plate – is it securely attached and clean? Check that the truck’s cargo is secure and the rear door closed and locked. To complete the Walkaround Inspection move along the left side of the truck, inspecting the same things that you inspected on the right. In addition, when you get to the front of the trailer make sure that the air lines are attached to the glad hands, and the electric cord that runs to the trailer is securely plugged in – both must be in good condition and positioned so that they won’t rub or catch on anything. Finally, confirm that all your emergency equipment is in place and in good working order: this includes a fire extinguisher that is properly charged and rated, and three red reflective triangles – it may also include spare electrical fuses, tire chains, tire changing equipment, and a spill control kit.
Step 6: Checking the Signal Lights

The sixth step in the pre-trip inspection is to check the Signal Lights. Climb into the cab and shut off all the lights. You have already checked the right turn signal – now turn on the left turn signal and the stop lights. Get out and walk around to the front of the cab and check the front left turn signal. Walk to the back of the truck and inspect the rear left turn signal and the stop lights. If everything checks out, climb back into the cab for the final part of the pre-trip inspection.
Step 7: Checking the Brake System

During the last step in the pre-trip inspection, you will be checking out the Brake System, running short tests on your truck’s air brakes and the parking brake. To test your truck’s air brakes begin with the engine off and the transmission in the lowest gear. Release the parking brake and apply the service brake – and listen for any audible air leaks in the system. To do a “bleed down” of the air brake system set the parking brake and turn the ignition to the “on” position, then pump the service brake pedal. When the air pressure drops to 60 psi the warning buzzer and light should come on. Continue to bleed the air system reservoirs until the gauge reads approximately 20 psi. The red Parking Break Valve and the yellow Tractor Protection Valve should pop out at about 20 psi, which indicates that they are activated. Then, with the transmission in neutral, start the engine – if the air compressor is working properly, the air pressure should build up in about 2 minutes. After reaching 80 psi, it should take no more than 25 seconds for the compressor to build from 80 to 100 psi.
Begin the parking brake test by shutting off the engine and noting the pressure reading on the air gauge.

Charge the Parking Brake System by pushing in the red valve. The air pressure should drop approximately 10 to 15 psi, which indicates that the system is charged. Once the needle on the air pressure gauge stops dropping, begin timing for one minute to check that the needle continues to hold steady, and that the air pressure doesn’t drop any further. Next, charge the Tractor Protection System by pushing in the yellow valve. The Air Pressure Gauge should drop another 10 to 15 psi. Once more, time the system for one minute to make sure there is no further drop in air pressure. If anything turns up during the pre-trip inspection that could make traveling unsafe, it must be repaired before taking the truck onto the road.
While traveling ongoing inspections must be performed.

While on a trip you must perform ongoing inspections of your truck to help ensure your safety as well as the safety of other motorists. Unless you are driving a sealed trailer, federal regulations mandate that you examine your cargo and its securing devices within the first 25 miles of a trip. In addition to this, while driving you should look at your instruments every few minutes so that you are sure they continue to operate in the normal range.

A walkaround inspection of the truck must be performed at least once every three hours or 150 miles, whichever comes first. This inspection can be shorter than the pre-trip walkaround, but must include: checking that the tires are not becoming too hot and that the air pressure remains good… checking that the coupling device is still attached properly… checking that the cargo and cargo door are secure… and, checking that the lights on the truck are functioning correctly – because lights are particularly critical at night, they should be checked before dark and at every stop afterwards.
Post-Trip Inspections

When returning from a trip a final post-trip inspection must be performed.

When you return from a trip a final, post-trip inspection must take place. As part of this inspection, your employer may require you to drain the moisture from the truck’s air tanks and fill the fuel tank. While on the trip if there were any indications that the truck was not functioning perfectly, such as unusual vibrations or noise, these warning signs must be checked out further to determine a cause. Finally, a thorough and accurate vehicle inspection report must be completed that alerts the vehicle owner of any problems that may need repair.
If you have any questions about performing inspections on the truck you drive, ask your supervisor or the truck owner. Certainly it takes a bit of time and effort to complete these inspections properly, but it is time well spent. Tractor-trailer trucks are the workhorses of the highway and they take a beating while on the road, with parts from one end of the truck to the other experiencing constant wear and tear. Far better that you discover a problem during an off-the-road inspection than have the equipment you rely on fail while rolling down the interstate. So perform the inspections that your employer, the state and federal regulators, and your own good judgment as a professional driver tell you are necessary – and stay safe.
Quiz

To review your knowledge of *Pre & Post Trip Truck Inspections*, answer the questions below.

Your Name | Date
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1. Pre- and post-trip inspections are required by federal and state laws to be performed by a commercial motor vehicle driver.
   a. True  
   b. False

2. When using the seven-step, pre-trip inspection, which of the following should be checked during step 1, the vehicle overview?
   Select all that apply.
   a. Check for an oil, coolant, or fuel leak  
   b. Check the truck’s path to see if free of obstacles  
   c. Check for flat tires  
   d. Check the radiator hose for cracks  
   e. Check the parking brake

3. When checking the air pressure controls, how high should the air pressure rise to be in normal operating range?
   a. 50 to 100 psi  
   b. 100 to 125 psi  
   c. 125 to 150 psi  
   d. 150 to 175 psi

4. You may apply any sticker to the windshield as long as it does not block your view.
   a. True  
   b. False
5. What’s the appropriate way to begin the walkaround inspection?
   a. The driver moves around the exterior of the vehicle, inspecting as they go
   b. Check the headlights and four-way flashers
   c. Check the air brakes
   d. None of the above

6. Which of the following should be observed when inspecting the wheels?
   a. Rubber free of any serious cuts, slashes or bulges
   b. Tread on the tires
   c. Tires properly inflated
   d. Valve system and cap in good shape
   e. All of the above

7. What color should the clearance and identification lights be on the front of the vehicle?
   a. Purple
   b. Blue
   c. Amber
   d. Green

8. On the back of the vehicle, what colors can the turn signal be? Select all that apply?
   a. Red
   b. Yellow
   c. Amber
   d. The turn signal can only be red.

9. Which of the following should be performed last when performing the seven-step, pre-trip inspection?
   a. Check the signal lights
   b. Engine compartment check
   c. Walkaround inspection
   d. Brake system check
10. When checking the brake system how far should the air pressure drop before the warning buzzer and lights should come on?
   a. 60 psi  
   b. 80 psi  
   c. 100 psi  
   d. 125 psi

11. Federal regulations mandate that you examine your cargo and its securing devices within the first 50 miles of your trip if driving with a sealed trailer.
   a. True    b. False

12. How often should a walkaround inspection be performed?
    a. Only during a pre-trip inspection  
    b. At least once every three hours or 150 miles  
    c. At least once every four hours or 300 miles  
    d. Only during the post-trip inspection

13. A post-trip inspection always requires the draining of the moisture from the truck’s air tanks.
    a. True    b. False
Quiz Answers

1. a True

2. a Check for oil, coolant, or fuel tank
   b Check the truck’s path to see if free of obstacles
   c Check for flat tires

3. b 100 to 125 psi

4. b False

5. a The driver moves around the exterior of the vehicle, inspecting as they go

6. e All of the above

7. c Amber

8. a Red
   b Yellow
   c Amber

9. d Brake system check

10. a 60 psi

11. b False

12. b At least once every three hours or 150 miles

13. b False