

AW

**TRUCKING
~~DRIVING~~ SCHOOL**

& License Testing Center

AW Trucking School

Student Manual

555 Union Blvd Allentown PA 18109

610-508-3011

School Contact Information

- CDL Division
 - Email: CDL@awdrivingschool.com
 - CDL Department: 610-871-5400
 - Main Number: 610-508-3011

In Cab

Air Brake Test

1. Air gauge and governor cut off.
 - Chock the wheels.
 - Start the vehicle.
 - Inspect the air gauge is working and builds the pressure to governor to cut off. (Approximately 120 to 140 PSI)
 - Identify the cut off pressure to the vehicle.
2. Air Leakage Test
 1. Put the vehicle in low gear.
 2. Shut off the engine and release the clutch.
 3. Turn the key to the on or battery charge position.
 4. Release the parking brake and trailer brake.
 - Fully apply the foot brake.
 - Once the air brake is stabilized, Hold the foot brake for one minute.
 - Inspect the air gauge to see if the air pressure drops more than 4 PSI in one minute.
3. Air Warning Device Test
 - Without restarting the engine, make sure the key or electrical power is in the on or battery charge position.
 - Begin fanning the off the air pressure by applying and releasing the foot brake.
 - The low air devices (buzzer and light) should activate before air pressure drops below 55 PSI.
 - It is the applicant's responsibility to know the vehicle manufacturer's specifications.
4. Emergency Brake Test
 - Continue to fan off the pressure.
 - The parking brake and emergency valve should pop out between 20 and 45 PSI.
 - The driver will need to specify the air pressure where the valves pop.

Internal inspection

- Start the truck.
- ABS and DEF indicator lights on the dash and trailer function properly.
- Left, right, 4 way, and high beam indicators function properly.

Emergency Equipment

- Inspect for three RED triangles, spare electrical fuses, and a properly charged and secured fire extinguisher.

Windshield and Traffic Monitoring Devices

- The windshield is clean with no obstructions or damage such as cracks or flaws in the glass.
- The mirrors are clean and adjusted properly.

Wipers and Washers

- Wiper arms and blades are secured, not damaged, and operate smoothly.
- Demonstrate washer fluid operates smoothly.

Heater and Defroster

- Demonstrate that the heater and defroster work correctly by operating controls.

Horns

- Demonstrate the city and air horns work correctly by operating them.

Parking and Trailer Brake Check

❖ Parking Brake

- With the trailer brake released and parking brake engaged, remove foot from the service brake and ensure that the parking brakes hold with a gentle tug forward.

❖ Trailer Brake

- With the parking brake released and trailer brake engaged, remove foot from the service brake and ensure that the trailer brakes hold with a gentle tug forward.

❖ Service Brake Check

- With both brakes released, pull forward at 5 MPH.
- Apply service brakes and come to a complete stop.
- Inspect to see the vehicle does not pull to either side and stops.
- If vehicle pulls to the side or does not stop well, the brakes may not be working properly.

Front of Vehicle

Lenses

- The light lenses on the top, front, and sides of the tractor are the proper color, clean, not broken, and not missing.

Critical Fluid Levels

❖ Engine Oil

- Pull the dipstick.
- Wipe the dip stick off and insert the dipstick back into the engine.
- Pull the dipstick out and ensure that the oil level is between add and full.

- ❖ Coolant and power steering fluid are at the proper level, between add and full.

Fluid and Air Leaks

- Look for puddles on the ground.
- Look for dripping fluids around and on the underside of the engine and transmission.
- Inspect hoses and air lines for condition and leaks.

Steering System

- Inspect that the power steering box is securely mounted and not leaking.
- Inspect that all steering hoses and connections are not cracked, worn, or leaking.
- Inspect that the steering system has no missing nuts, bolts, or cotter keys.
- Inspect that the visible connecting links, arms, and rods from the steering box to the wheel are not worn or cracked, and that the joints and sockets are not worn or loose.

Steering Axle

Tires

- ❖ **Tire Inflation**
 - Inspect for proper inflation using a tire gauge.
 - Make sure all valve stems are accessible.
- ❖ **Tire Condition**
 - Inspect for cuts or damage that exposes the body plies to the tire in the tread and Sidewall.
 - Make sure the valve caps are not missing and valve stems are not damaged or broken.
 - Look for bumps or bulges in the sidewall and mis-matched diameters in dual tires.
- ❖ **Tread Depth**
 - Inspect for a minimum tread depth with a tread depth gauge.
 - Minimum depth of 4/32 on steering axle tires, and 2/32 on all other axles.

Rims

- Inspect for damaged, cracked, or bent rims.
- Rims cannot have welding repairs.
- Inspect studs and bolt holes to make sure they are not elongated (out of round), and there are no missing or loose nuts or bolts.

Lug Nuts

- Inspect that all lug nuts are present.
- Inspect that the lug nuts are not loose, and there no signs of rust trails or shiny threads that may indicate looseness.
- Inspect that there are no broken studs.

Spring Mounts and Air Bags and Shocks

- Inspect for missing, shifted, cracked, or broken leaf springs.
- Inspect that spring mounts are not cracked, broken, or missing any parts.
- Inspect the shock absorbers are secure, not damaged, and not leaking.
- Inspect that the vehicle is sitting level. (front to rear and side to side)

Brake Lines / Hoses / Leaks

- Inspect that hoses or lines can supply air to the brakes and are not leaking.
- Inspect for cracked, worn, or frayed hoses or lines.
- Inspect that all hoses and fittings are secure.

Brake Contaminants

- If accessible, inspect for contaminants such as grease, oil, etc. on the brake lining or pads, and in the brake drum or disc that can affect braking capabilities.

Side of Vehicle

Lenses and Reflectors

- Inspect that light lenses or covers on the side of the vehicle and trailer are the proper color, clean, and not broken, or missing.
- Inspect that reflectors on the sides of the vehicle and trailer are the proper color, clean, and not broken or missing.

Traffic Monitoring Devices

- Inspect that mirrors are clean and not scratched or broken.
- Brackets are not bent and are mounted securely with no missing parts.

Battery / Electrical Systems

- Inspect that the batteries are secure if visible.
- Inspect that all connections are tight and should not show signs of excessive corrosion, if visible.
- Inspect all electrical system cables and lines are secure and not cracked or worn.
- Inspect that the battery box, cover, or door is secure if applicable.

Fuel Tank / DEF Tank

- Inspect that the fuel tank and diesel exhaust fluid (DEF) tank, if equipped, are securely mounted; caps are tight, and there are no leaks from the tanks or lines.

Frames

- Inspect for cracks, breaks, welds, illegal holes, or other damage to the frame members, including the trailer, if applicable.
- Inspect for cracks, breaks, or holes in the cargo area or floor, including trailer, if applicable.
- Inspect that the trailer tandem, release lever, and pins are secure, if applicable.

Fifth Wheel

Air and Electrical Lines

- Inspect the air and electric connectors on the power and unit are seated, sealed, free of damage, and locked in place.

- Inspect the air hoses and electrical lines are not cut, cracked, taped, spliced, or worn.
- Listen for air leaks.
- Inspect that electrical lines and air lines are not tangled, crimped, pinched, or dragging against vehicle parts or the ground.

Fifth Wheel Combinations Only

- Inspect that the fifth wheel skid plate is securely mounted to the vehicle by the fifth wheel platform.
- Inspect for cracks, breaks, or excessive wear.
- Inspect for proper lubrication, if applicable.

Kingpin, Apron and Gap

- Inspect that the kingpin is in place and not bent, damaged, or worn.
- Inspect that the middle part of the apron is not bent, cracked, or broken.
- Inspect that the trailer is laying flat on the fifth wheel skid plate, and there is no space between the apron and fifth wheel. (No gap)
- Inspect for proper lubrication, if applicable.

Locking and Safety

- Inspect that locking jaws are fully secured around the kingpin.
- Inspect for play around the kingpin.
- Inspect the release arm is in the locked position.
- Inspect for damage, and the pins are fully engaged.

Landing Gear and Clearance

Landing gear and clearance

- Inspect the landing gear is fully raised, has no missing parts, the crank handle is secure, and the support frame and landing pads are not damaged.
- Inspect that the fifth wheel is positioned properly so that the tractor frame will clear the landing gear during turns.

Rear of Trailer

Reflective tape

- Inspect that trailer tape on the sides and rear of the trailer are present and affixed securely to the vehicle.

Lenses and Covers

- Inspect that light lenses or covers on the rear of the vehicle and trailer are the proper color, clean, and not broken, or missing.

Inspect the right side the same as the left side.

Lights and Operation

Lights and operations check

- Inspect that all lights on the front, sides, and rear of the vehicle operate and illuminate when corresponding lights are turned on, including;
 - the clearance or marker lights,
 - taillights,
 - left and right turn signals,
 - 4-way flashers,
 - brake lights,
 - low beam headlights,
 - high beam headlights.
- Inspect the brake lights come on when the brakes are applied and turn off when the brake lights turn off when the brakes are released.
- If asked, the examiner may assist the applicant in inspecting the external operation of the lights.
-

Railroad Crossing

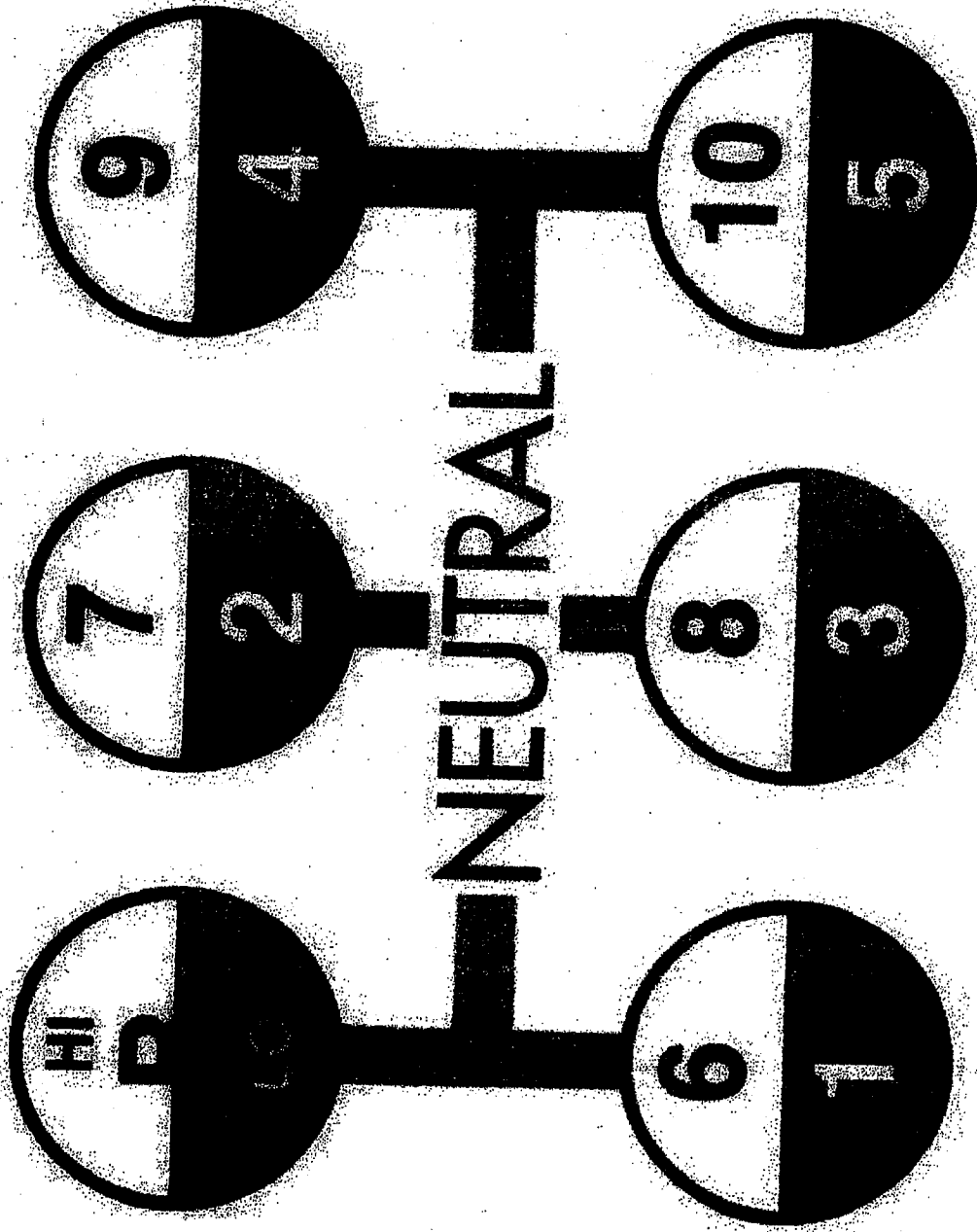


If you have the hazardous materials endorsement on your license, you will have to have to do the following procedure:

In general, you must first do traffic checks and then put on your 4-way flashers and come to a complete stop within 15-50 feet of the nearest track, keeping to your right. Roll Down your window, set your parking brake, look and listen for a train. When the tracks are clear and you have enough room to fully cross, you may proceed across the tracks **WITHOUT SHIFTING GEARS!** After the trailer has cleared the last track, start shifting up to proper speed. Once you reach your proper speed, you may cancel your 4-way flashers.

Emergency Stopping

If you are asked to stop for an emergency on the road, first do traffic checks, and then put on your right turn signal. Next leave the road for the shoulder making sure you have solid ground and are parallel with the road. Then stop and apply your 4-way flashers. Move the gearshift to neutral and apply your brakes. When ready to re-enter the roadway, do a traffic check and put on your left turn signal. When clear, move into the traffic lane. After entering the lane, change the turn signal to 4-way flashers and continue up to speed. Cancel 4-way flashers at the proper time.



10 Speed Shift Pattern

MATCHING TACHOMETER TO GEAR SELECTION

UPSHIFTING	DOWNSHIFTING (w REV)
Shift up @ 14 – 1600 RPM	Rev up to 14-1600 RPM
15 – 25mph = 6 th gear	55 - 45mph = 9th gear
25 - 35mph = 7 th gear	45 - 35mph = 8th gear
35 - 45mph = 8 th gear	35 - 25mph = 7th gear
45 - 55mph = 9 th gear	25 - 15mph = 6TH gear
55mph + = 10 th gear	<15mph = 5th gear

CLUTCH → NEUTRAL

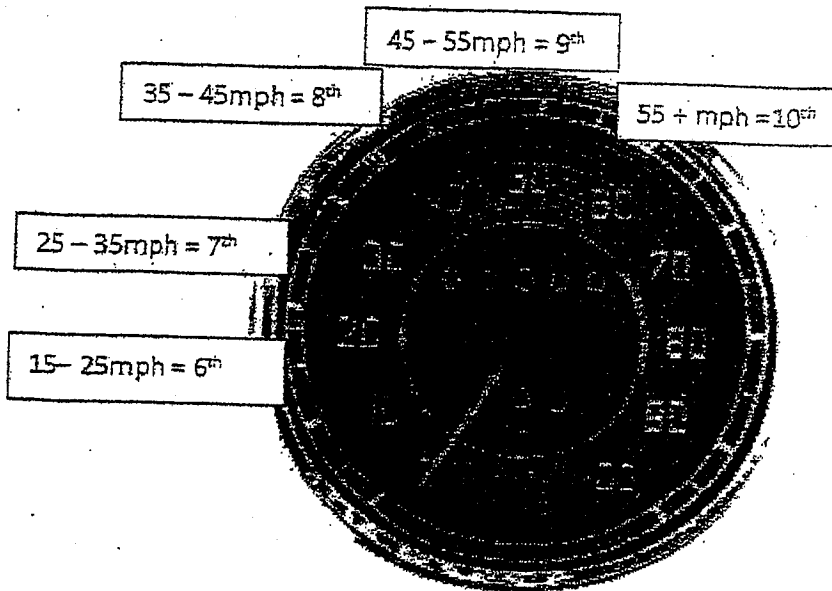
CLUTCH → NEUTRAL

CLUTCH → GEAR

REV

CLUTCH → GEAR

SPEEDOMETER



Class A Checklist Tractor Semi-Trailer or Truck & Trailer or Bus & Trailer

In-Vehicle/Engine Start

- *air or *hydraulic brake check
- parking & trailer brake check
- service brake check
- lighting indicators
- emergency equipment
- windshield & traffic monitoring devices
- wipers & washers
- heater & defroster
- horn(s)

Lights Operations Check

- all external lights

Front of Vehicle/Engine Area

- lenses
- fluid levels
- fluid & air leaks
- steering systems

Steering Axle

- tires
- rims
- lug nuts
- springs/mounts & air bags & shocks
- brake lines or hoses & leaks
- brake contaminates

Side of Vehicle

- lenses & reflectors
- traffic monitoring devices
- battery
- fuel tank(s)/DEF tank
- frame(s)

Combination Vehicles Only

- air & electric lines & connectors
- fifth wheel skid plate or pintle hook or tow hitch
- kingpin & apron & gap or drawbar ring & tongue or coupler & tongue
- locking & safety devices

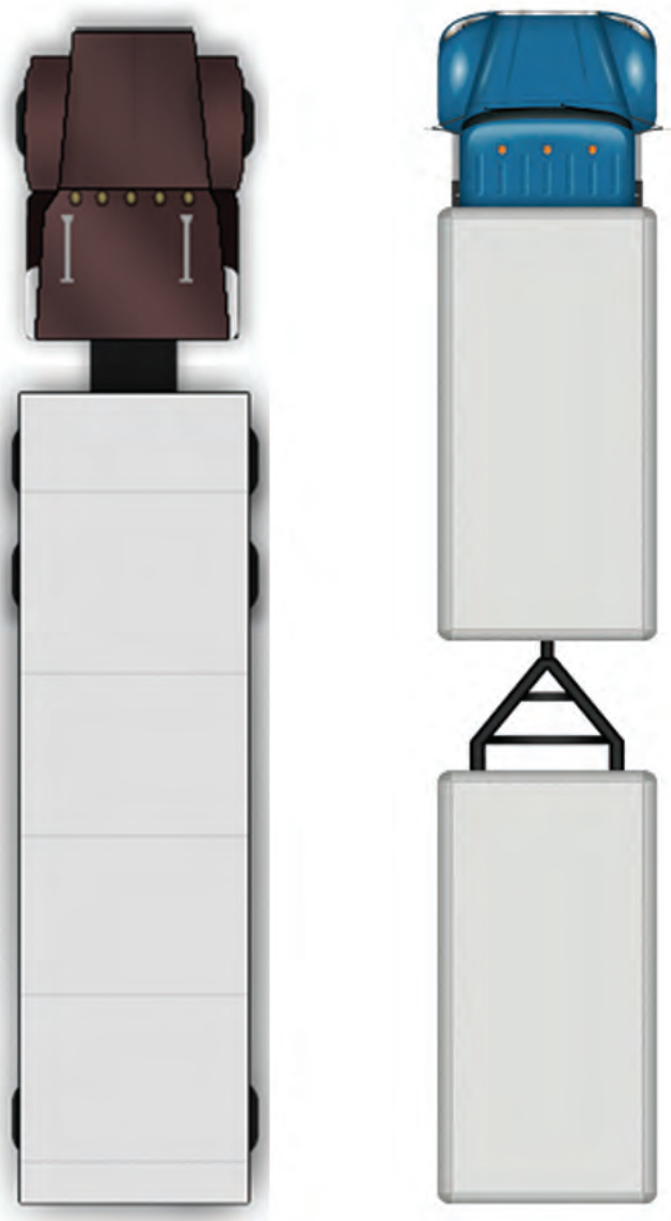
Trailer Only

- landing gear & clearance
- reflective tape

Rear of Trailer

- lenses & reflectors

* Automatic failure if not performed correctly



Passenger and School Bus Only

- passenger entry & lift
- emergency exits
- passenger seating
- passenger monitoring devices

School Bus Only

- student lights (front & back)
- stop arm(s) & safety arm
- first aid & body fluid kits

You are only required to inspect the items on the CDL Vehicle Inspection checklist. You may use this checklist for your test and check off items as you have completed them, **NO** additional markings or writing may be placed on this list. You **MUST** name, point to and/or touch and fully explain what you are inspecting each safety critical item for. If you do not do so, you will not get credit for the item(s).

Class B or Class C Checklist Straight Truck or Other Straight Vehicle

In-Vehicle/Engine Start

- *air or *hydraulic brake check
- parking & trailer brake check
- service brake check
- lighting indicators
- emergency equipment
- windshield & traffic monitoring devices
- wipers & washers
- heater & defroster
- horn(s)

Lights Operations Check

- all external lights

Front of Vehicle/Engine Area

- lenses
- fluid levels
- fluid & air leaks
- steering systems

Steering Axle

- tires
- rims
- lug nuts
- springs/mounts & air bags & shocks
- brake lines or hoses & leaks
- brake contaminates

Side of Vehicle

- lenses & reflectors
- traffic monitoring devices
- battery
- fuel tank(s)/DEF tank
- frame(s)

Rear of Vehicle

- lenses & reflectors



* Automatic failure if not performed correctly

You are only required to inspect the items on the CDL Vehicle Inspection checklist. You may use this checklist for your test and check off items as you have completed them, **NO** additional markings or writing may be placed on this list. You **MUST** name, point to and/or touch and fully explain what you are inspecting each safety critical item for. If you do not do so, you will not get credit for the item(s).

SECTION 11M - BASIC CONTROL SKILLS TEST

THIS SECTION COVERS

- **Basic Control Skills Test Scoring**
- **Basic Control Skills Test Exercises**


For the Basic Control Skills test, you will demonstrate basic skills in controlling a commercial vehicle and judging its position in relation to other objects.

It tests for the basic skills needed for safe control and operation of the vehicle. The types of judgment and skills required for these basic control skills are also required in many different driving situations.

You will receive points for changing direction to gain a better position, crossing over or touching boundary lines or cones and for your final position.

You may be permitted to exit the vehicle to check around the vehicle during backing exercises. When entering/exiting the vehicle, you must set your parking brake, place the vehicle in neutral, and safely exit/enter by facing the vehicle and maintaining three (3) points of contact at all times (when entering/exiting a bus, face forward and maintain a firm grasp on the handrail).

If at any time you open the door, move from a seated position when in physical control of the vehicle, (or on a bus, walk to the back to get a better view), you will be scored for a look.

You will receive specific instructions for each exercise prior to performing them. You will have an opportunity to ask questions. You must complete the exercise as directed. If you see the examiner raise their hand (like this ) , stop and return your vehicle within the exercise boundary lines.

Your Basic Control Skills test will include the following exercises, either off-road or somewhere on the street during the Road Test:

- Step 1 – Forward Stop,
- Step 2 – Straight-Line Backing,
- Step 3 – Forward Offset Tracking, and
- Step 4 – Reverse Offset Backing.

These exercises are shown in Figures 11.1 through 11.4 on page 11-4.

11M.1 SCORING

During the Basic Control Skills test exercises, you will be scored for:

Pull-ups – pulling forward on a backing exercise to clear an encroachment or to get a better position is scored as a “pull-up.” These exercises include Exercise 2 – Straight-Line Backing and Exercise 4 – Reverse Offset Backing. The examiner will score the number of times you pull-up.

Stopping without changing direction does not count as a pull-up.

You will not be penalized for initial pull-ups. However, an excessive number of pull-ups, will count as errors. Your examiner will cover “pull-ups” when giving instructions for these exercises.

Back-ups – backing up on a forward moving exercise to clear an encroachment or to get a better position is scored as a “back-up.” “Back-ups” will be scored on Exercise 3 – Forward Offset Tracking. The examiner will score the number of times you back-up.

Encroachments – crossing over or touching exercise boundary lines or cones with any portion of your vehicle, other than the vehicle's mirrors (door or fender) or other unique vehicle parts at door mirror height or higher, such as a bucket truck, is scored as an encroachment. Unique parts below door mirror height are counted as an "encroachment."

If you have encroached, the examiner will stop you and you must return the vehicle within the exercise boundaries. You must stop immediately when signaled by the examiner. The examiner will score the number of times you touch or cross over an exercise boundary line or cone. Each encroachment will count as an error.

Looks – exiting the vehicle while performing an exercise to check the vehicle's position while backing. You may be permitted to safely stop and exit the vehicle to check the external position of the vehicle (look).

When doing so, you must set the parking brake(s) and place the vehicle in neutral. Then, when exiting/entering the vehicle, you must do so safely by facing the vehicle and maintaining three (3) points of contact with the vehicle at all times (when exiting/entering a bus, you may face forward and maintain a firm grasp on the handrail). If you do not safely secure the vehicle or safely exit/enter the vehicle, it may result in an automatic failure for an unsafe act.

If you open your door or move from a seated position, it will count as a "look." If you open your door while the vehicle is moving (not in neutral and park), it may result in an automatic failure for an unsafe act.

On a bus, if you walk to the back of the bus to get a better view, it will count as a "look."

You may be allowed a maximum of one (1) free look on Exercise 2 – Straight-line Backing, and two (2) free looks on Exercise 4 – Reverse Offset Backing, to check the position of your vehicle. Your examiner will cover "looks" when giving instructions for these exercises.

Final Position – the final position of the vehicle for backing exercises. You will be scored for final vehicle position on Exercise 2 – Straight-Line Backing and on Exercise 4 – Reverse Offset Backing.

It is important that you finish each exercise exactly as the examiner has instructed. Your vehicle must be within final exercise boundaries (other than mirrors and unique vehicle parts higher than the door mirrors, such as a bucket truck). If you do not maneuver the vehicle into its final position as described by the examiner, you will be penalized and will fail the Basic Control Skills test. You **MUST** complete the exercises as directed.

Failure to Follow Instructions or Unsafe Act – Failure to follow examiner instructions for completing the exercise as directed may result in an automatic failure and the test may be terminated by the examiner. Always follow the examiner instructions and directions. If you do not understand the instructions or understand how to complete the exercises, ask the examiner for clarification. [If permitted, you may ask the examiner to walk you through the exercise area.]

Committing an "unsafe act" (e.g., forgetting to set the parking brake or opening the door while in motion), may result in an automatic failure for an unsafe act and the test may be terminated by the examiner. Safety of the driver, the examiner and the testing area is of the highest priority. Always think SAFETY.

11M.2 Exercises

11M.2.1


Exercise 1 – Forward Stop

You will demonstrate your ability to judge the front of your vehicle during a controlled stop. Drive forward through the alley and stop with the front most part of the vehicle (other than unique vehicle parts higher than the door mirrors, such as a bucket truck) within the box at the end of the alley without going past it. **You may stop only once.**

Your examiner will point out the front most part of your vehicle when giving instructions for this exercise.

When you have stopped, set your parking brake, shift to neutral and sound the horn. The examiner will then score the exercise. You will receive points if the front most part of the vehicle (other than unique vehicle parts higher than the door mirrors, such as a bucket truck) is not in the stop box. (See Figure 11.1 on page 11-5).

11M.2.2**Exercise 2 – Straight Line Backing**

You will demonstrate your ability to back a vehicle in a straight line. From your stopped position from the previous exercise, the examiner will ask you to pull forward and stop when they raise their hand (like this ).

Then back straight through the alley until the front of your vehicle has cleared the last set of cones at the far end of the alley. (See Figure 11.2 on page 11-5)

You will be scored for pull-ups, encroachments and final position.

You are allowed one (1) free pull-up and may safely exit the vehicle only one (1) time to check around the vehicle.

When you have completed the exercise, set your parking brake, shift to neutral and sound your horn. This will inform the examiner you have completed the exercise and allow them to score your final position.

11M.2.**Exercise 3 – Forward Offset Tracking**

You will demonstrate your ability to maneuver a vehicle around other objects while moving forward.

You will drive forward and steer to the left through the opening into the opposite lane, keeping the right most rear tire between the cone and the line.

You will be scored for back-ups, encroachments and forward tracking clearance (rear tire between the cone and the line).

There are NO free back-ups, and you are NOT permitted to exit the vehicle during this exercise.

Stop your vehicle when you are parallel to the outer boundary, prior to or at the cones at the far end of the exercise. Then, set your parking brake, shift to neutral and sound your horn. This will inform the examiner you have completed the exercise and allow them to score the exercise. (See Figure 11.3 on page 11-5)

11M.2.**Exercise 4 – Reverse Offset Backing**

You will demonstrate your ability to offset back and park a vehicle at the end of an alley. Starting parallel with the outer boundary, offset back into the alley, bringing the rear most part of your vehicle (other than unique vehicle parts higher than the door mirrors, such as a bucket truck) within three (3) feet of the rear of the alley.

Stop with the rear most part of the vehicle (other than unique vehicle parts) in the three (3) foot box at the end of the alley.

Your examiner will point out the rear most part of your vehicle when giving instructions for this exercise.

Your vehicle must be straight within the alley when completed. Your vehicle must be completely within the defined exercise boundaries when completed (other than mirrors or other unique vehicle parts higher than the door mirrors, such as a bucket truck). You may not go beyond the outer boundary line. (See Figure 11.4 on page 11-5)

You will be scored for pull-ups, encroachments and final position.

You are allowed two (2) free pull-ups and may exit the vehicle a maximum of two (2) times to check around the vehicle during this exercise.

When you have completed the exercise, set your parking brake, shift to neutral and sound your horn. This will inform the examiner you have completed the exercise and allow them to score your final position.

FIGURE 11M.1: EXERCISE 1 – FORWARD STOP

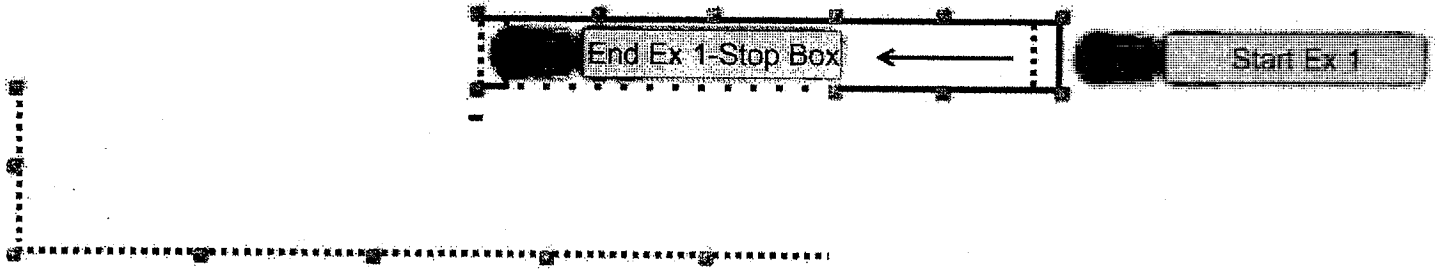


FIGURE 11M.2: EXERCISE 1 – STRAIGHT LINE BACKING

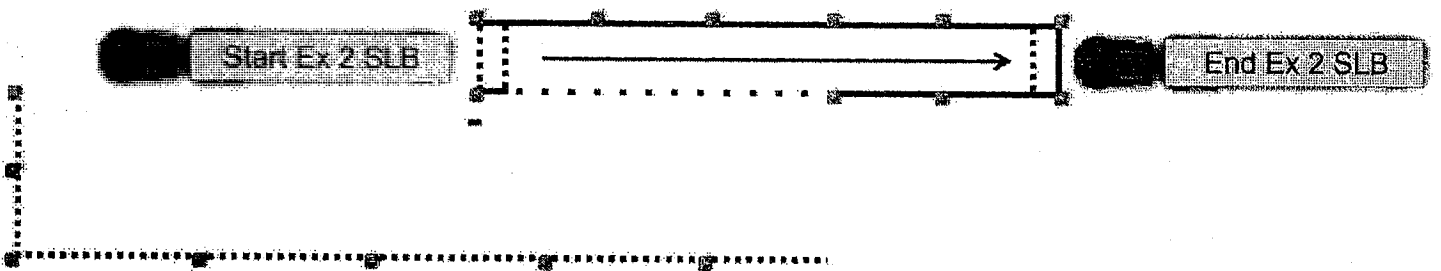


FIGURE 11M.3: EXERCISE 3 – FORWARD OFFSET TRACKING

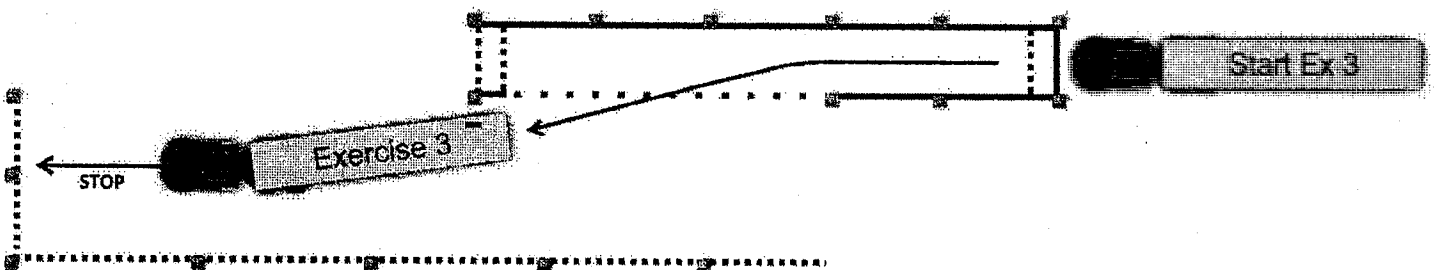
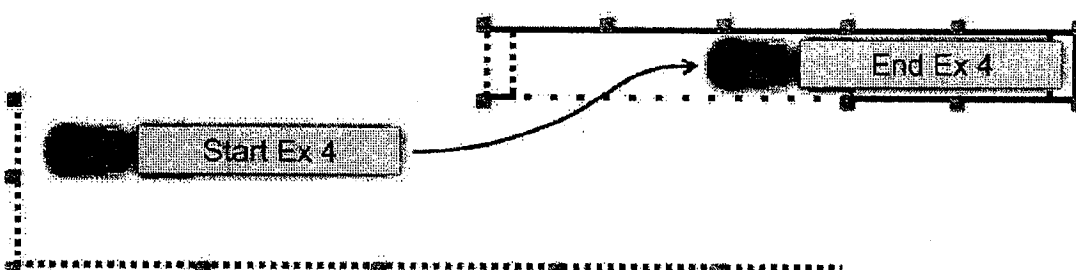
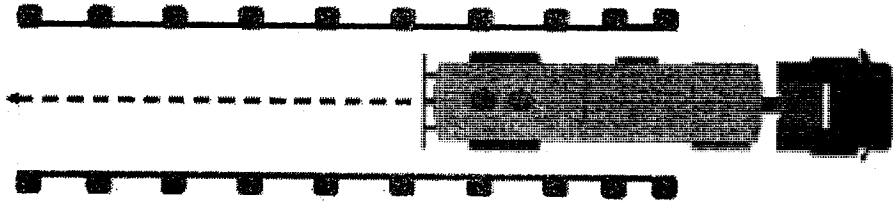
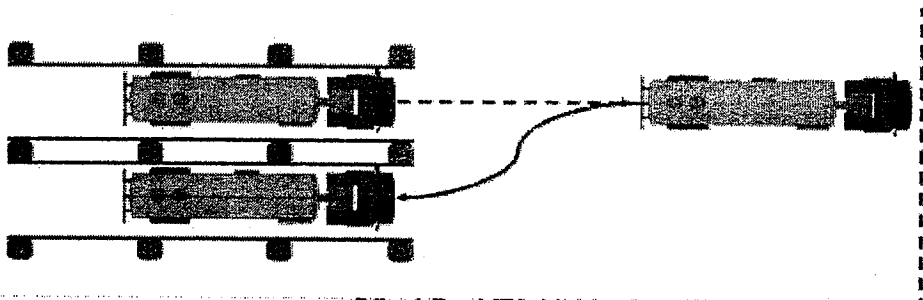


FIGURE 11M.4: EXERCISE 4 – REVERSE OFFSET BACKING

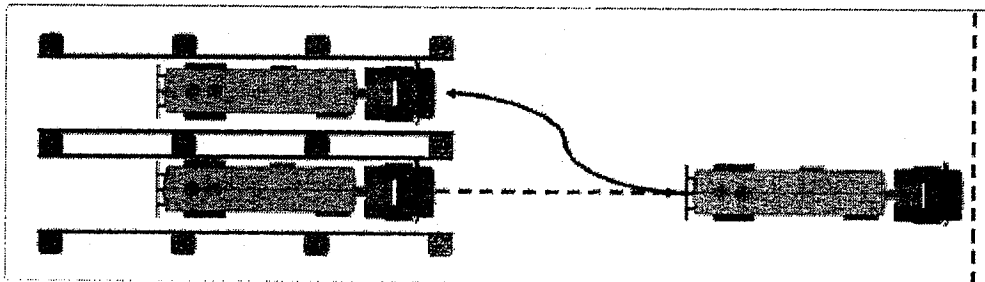




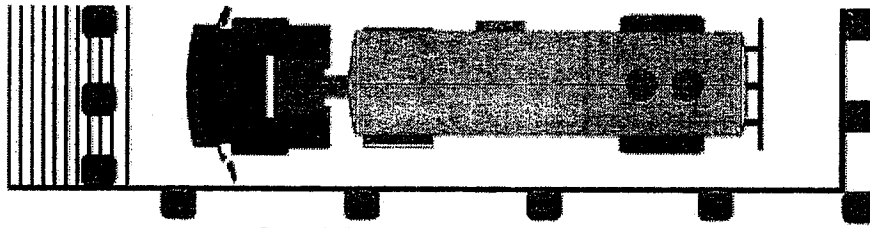
Straight Line Backing
Figure 12.1



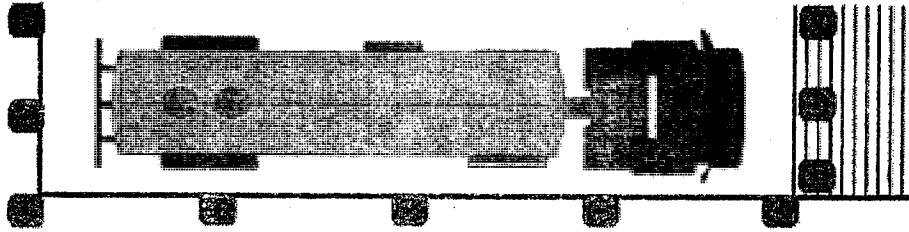
Offset Back/Right
Figure 12.2



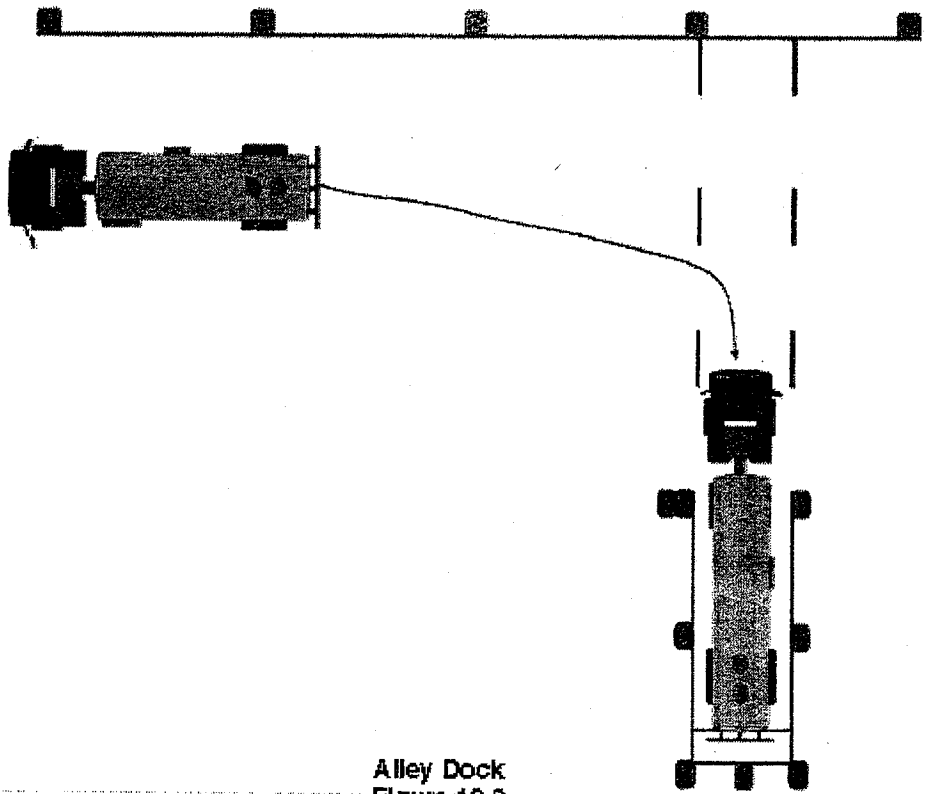
Offset Back/Left
Figure 12.3



Parallel Park (Driver Side)
Figure 12.4



Parallel Park (Conventional)
Figure 12.5



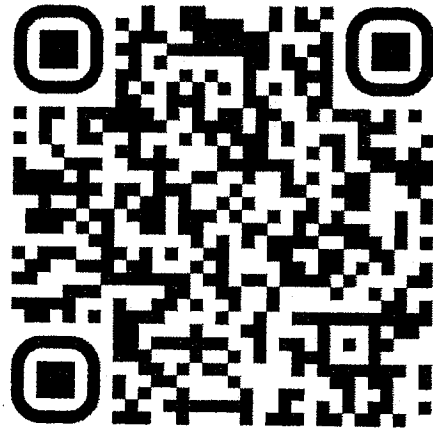
Alley Dock
Figure 12.6

AW

TRUCKING
~~DRIVING~~ SCHOOL

& License Testing Center

Link to truck videos
and
student documents



AW DRIVING SCHOOL
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Please Leave US a Review.

