

Bobtail

Vehicle Management Codes: C355 and C359



QUALIFICATION TRAINING PACKAGE

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Section 1—OVERVIEW

1.1. Overview.

1.1.1. Send comments and suggested improvements on AF Form 847, *Recommendation for Change of Publication*, through Air Force Installation and Mission Support Center (AFIMSC) functional managers via e-mail at AFIMSC.IZSL.VehicleOps@us.af.mil.

1.1.2. How to use this plan:

1.1.2.1. Instructor:

1.1.2.1.1. Provide overview of training, **Section 2** and **Section 3**.

1.1.2.1.2. Instructor's lesson plan for trainee preparation, give classroom lecture, **Section 4**.

1.1.2.1.3. Instructor's lesson plan for knowledge test, **Section 5**.

1.1.2.1.4. Instructor's lesson plan for demonstration, **Section 6**.

1.1.2.1.5. Instructor's lesson plan for performance and evaluation, **Section 7**.

1.1.2.2. Trainee:

1.1.2.2.1. Reads entire lesson plan prior to classroom lecture.

1.1.2.2.2. Follows along with lecture using this lesson plan and its attachments.

1.1.2.2.3. Takes bobtail knowledge test.

1.1.2.2.4. Uses **Attachments 2 and 4** as guides for vehicle inspection.

1.1.2.2.5. Takes performance test.

Section 2—RESPONSIBILITIES

2.1. Responsibilities.

2.1.1. The trainee shall:

2.1.1.1. Ensure the trainer explains the Air Force Qualification Training Plan (AFQTP) process and the responsibilities.

2.1.1.2. Review the AFQTP/Module/Unit.

2.1.1.3. The trainee should ask questions if he/or she does not understand the objectives for each unit.

2.1.1.4. Review missed questions with the trainer.

2.1.2. Instructor shall:

2.1.2.1. Review the AFQTP with the trainee.

2.1.2.2. Conduct knowledge training with the trainee using the AFQTP.

2.1.2.3. Answer questions for the trainee to ensure the required task knowledge has been gained to complete the task.

2.1.2.4. Sign-off the task(s).

2.1.3. The Certifier shall:

2.1.3.1. Evaluate the Airman's task performance without assistance.

2.1.3.2. Sign-off the task(s).

Section 3—INTRODUCTION

3.1. Objectives.

3.1.1. Given lectures, demonstrations, hands-on driving session and a performance and written test, trainees will be able to perform operator's inspection and complete the performance test with zero instructor assists.

3.1.1.1. Train and qualify each trainee in safe operation and preventive maintenance of various bobtails.

3.1.1.2. This training will ensure the trainee becomes a qualified bobtail operator; an operator who has the knowledge and skills to operate a bobtail in a safe and professional manner.

3.2. Desired Learning Outcome.

3.2.1. Understand the safety precautions to be followed before-, during-, and after-operation of the bobtail.

3.2.2. Understand the purpose of the bobtail and its role in the mission.

3.2.3. Know the proper operator maintenance procedures of the bobtail, in accordance with (IAW) applicable technical orders and use of AF Form 1800, *Operator's Inspection Guide and Trouble Report* (General Purpose Vehicles).

3.2.4. Safely and proficiently operate the bobtail.

3.3. Lesson Duration.

3.3.1. Recommended instructional and hands on training time is 17 hours:

Figure 3.1. Recommended Training Time for Training Activities.

Training Activity	Training Time
Trainee's Preparation	2 Hours
Instructor's Lecture	2 Hours
Instructor's Demonstration	2 Hours
Trainee's Personal Experience (to build confidence and proficiency) <ul style="list-style-type: none">▪ Perform Operator Maintenance▪ Operate the Vehicle	10 Hours
Trainee's Performance Evaluation	1 Hour

Note: This is a recommended time; training time may be more or less depending how quickly a trainee learns new tasks.

3.4. Instructional References.

3.4.1. Risk Management (RM) and Safety Principles.

3.4.2. Applicable Technical Orders (TOs) or Manufacturer's Operator's Manual (see vehicle maintenance for TO number for vehicle being used in training).

3.4.3. Air Force Manual (AFMAN) 24-306, *Operation of Air Force Government Motor Vehicles*.

3.4.4. Air Force Instruction (AFI) 13-213, *Airfield Driving*.

3.4.5. Pintle Hook Lesson Plan

3.4.6. T.O. 36A10-3-29-31.

3.4.7. T.O. 00-110N-16.

3.4.8. T.O. 36-1-191.

3.4.9. T.O. 36D-1-23.

3.4.10. Master Nuclear Certification List (MNCL).

3.4.11. AF Form 1800.

3.5. Instructional Training Aids and Equipment.

3.5.1. Bobtail Lesson Plan.

3.5.2. Pintle Hook Lesson Plan.

3.5.3. Bobtail Vehicle.

3.5.4. Applicable TO or Manufacturer's Operator's Manual.

3.5.5. AF Form 1800.

3.5.6. Videos (if locally produced).

3.5.7. Suitable training area.

3.5.8. Traffic cones or suitable markers.

Section 4—TRAINEE PREPARATION

4.1. Licensing Requirements.

4.1.1. Trainee must have in his/her possession a valid state driver's license.

4.1.2. AF Form 171, *Request for Driver's Training and Addition to U.S. Government Driver's License IAW AFI 24-301, Ground Transportation.*

4.1.3. Applicable local licensing jurisdiction requirements.

4.2. Required Reading (Testable Material).

4.2.1. Read Bobtail Lesson Plan.

4.2.2. Read Pintle Hook Lesson Plan.

4.2.3. Read AFMAN 24-306.

4.2.4. Read Manufacturer's Operator's Manual for the vehicle being trained on.

Section 5—KNOWLEDGE LECTURE AND EVALUATION

5.1. Knowledge Overview (Lecture).

5.1.1. The AF uses a variety of different bobtails to accomplish its mission. All operators of government-owned special purpose vehicles, including bobtails, must possess a valid state driver's license. In order to ensure the operator can operate a bobtail safely and proficiently, training and licensing is a requirement.

5.2. Overview of Training and Requirements.

5.2.1. Training objectives.

5.2.1.1. Given lectures, demonstrations, hands-on driving session and a performance and written test, trainees will be able to perform operator's inspection and complete the performance test with zero instructor assists.

5.2.1.2. Train and qualify each trainee in safe operation and preventive maintenance of the various bobtails.

5.2.1.3. This training will ensure the trainee becomes a qualified bobtail operator—an operator who has the knowledge and skills to operate a bobtail in a safe and professional manner.

5.2.2. Desired learning outcomes:

5.2.2.1. Understand the safety precautions to be followed before, during, and after operation of the bobtail.

5.2.2.2. Understand the purpose of the bobtail and its role in the mission.

5.2.2.2.1. Purpose is for movement of material (vehicle is considered a Prime Mover).

5.2.2.2.2. Role in the mission (Unit/Base/Community (during natural disasters)/Air Force).

5.2.2.2.3. Know the proper operator maintenance procedures of the bobtail, in accordance with IAW applicable technical orders and use of AF Form 1800.

5.2.2.2.4. Be able to safely and proficiently operate the bobtail.

5.2.2.2.4.1. Meet mission requirements.

5.2.2.2.4.2. Demonstrates a qualified trained professional operator.

5.2.3. Bobtail Design. Bobtails vary in size, shape and specifications, determined by make and model; it is imperative to know the specifications and rated loads of the bobtail that is about to be operated before use. Specifications and rated load information should be used together to determine the proper use and area in which the bobtail will be used. This information is best found in the appropriate TO or for quick reference, the information may be found on the vehicle data plate located on the bobtail.

5.2.4. Specifications. Specifications generally described are equipment dimensions/weight; engine/drive train information and fluid types. Refer to the TO or Manufacturer's Operator's Manual for the specific vehicle type.

5.2.5. Rated Load/Capabilities. Rated loads and capabilities generally described are the towing rating and the tongue weight capacity of the pintle hook.

5.3. Vehicle Inspection.

5.3.1. Types of Vehicle Inspection. **Note:** If discrepancies are found they must be reported to Vehicle Control Official (VCO), the supervisor, and/or vehicle maintenance:

5.3.1.1. The following items must be corrected before continuing operation of the bobtail:

5.3.1.1.1. Tires or brakes.

5.3.1.1.2. Steering mechanisms.

5.3.1.1.3. Operating levers controlling.

5.3.1.1.3.1. Power transmission.

5.3.1.1.3.2. Hoisting.

5.3.1.1.3.3. Dumping, and tripping.

5.3.1.1.4. Warning lights.

5.3.1.1.4.1. Turn signals.

5.3.1.1.4.2. Brake lights.

5.3.1.1.4.3. Emergency, and rotating flashers.

5.3.1.1.4.4. Headlights.

5.3.1.1.4.5. Reflectors.

5.3.1.1.4.6. Clearance lights (unless the vehicle or equipment is not used during hours of darkness and restrictions are identified by a decal).

5.3.1.1.5. Windshield wipers.

5.3.1.1.6. Defrosters (when weather conditions require them to be operated).

5.3.1.1.7. Other similar safety and warning equipment/devices peculiar to special purpose.

Note: Vehicle maintenance will authorize continued use for all other maintenance discrepancies.

5.3.1.2. Pre-trip inspection – find items/problems that could cause accident or breakdown.

5.3.1.2.1. Cleanliness/damage/missing items.

5.3.1.2.2. Leaks (fuel/oil/coolant/hydraulic/air).

5.3.1.2.3. Fluid Levels; ensure level is within limits:

5.3.1.2.3.1. Engine oil.

5.3.1.2.3.2. Brake fluid.

5.3.1.2.3.3. Transmission fluid.

5.3.1.2.3.4. Antifreeze.

5.3.1.2.3.5. Hydraulic fluid.

5.3.1.2.4. Battery; security, fluid, damage and corrosion.

5.3.1.2.5. All wheel rims (cracks, splits, etc.); check for loose or missing lug nuts.

5.3.1.2.6. All tires.

5.3.1.2.6.1. Proper inflation. **Note:** Notify VCO, the supervisor, and/or vehicle maintenance if split rim is completely flat.

5.3.1.2.6.2. Sidewalls, tread (to include depth), bulges in the tire.

5.3.1.2.6.3. Cuts and abrasions.

5.3.1.2.7. Drive belts; tension and fraying.

5.3.1.2.8. Air restriction gauge.

- 5.3.1.2.9. Suspension, springs and shocks.
- 5.3.1.2.10. Carriage.
- 5.3.1.2.11. Hydraulic hoses/cylinders (damage/leaks).
- 5.3.1.2.12. Wiring/lights/reflectors/mirrors.
- 5.3.1.2.13. Warning Devices.
- 5.3.1.2.14. Safety devices.
- 5.3.1.2.15. Towing connection.
- 5.3.1.2.16. Markings – check visibility.
- 5.3.1.2.17. Horn operation.
- 5.3.1.2.18. Windshield wipers/washers.
- 5.3.1.2.19. Heater/defroster.
- 5.3.1.2.20. Exhaust system.
- 5.3.1.2.21. Brake and accelerator covers.
- 5.3.1.2.22. Air tanks.
- 5.3.1.2.23. Cold weather aids.
- 5.3.1.3. During-operation.
 - 5.3.1.3.1. All gauges and warning lights for proper operations.
 - 5.3.1.3.1.1. Warning lights.
 - 5.3.1.3.1.2. Gauges.
 - 5.3.1.3.1.3. Indicators.
 - 5.3.1.3.2. Controls for proper operations.
 - 5.3.1.3.2.1. Steering wheel.
 - 5.3.1.3.2.2. Steering wheel tilt control.

5.3.1.3.2.3. Direction control lever.

5.3.1.3.2.4. Gear selector lever.

5.3.1.3.2.5. Parking brake control.

5.3.1.3.2.6. Hydraulic control levers, normal controls are lift/lower and tilt.

5.3.1.3.2.6.1. Lift/lower control lever.

5.3.1.3.2.6.2. Swing control lever.

5.3.1.3.2.7. Accelerator control pedal.

5.3.1.3.2.8. Ignition switch.

5.3.1.3.2.9. Service brakes/inching pedal.

5.3.1.3.2.10. Selector switch.

5.3.1.3.3. Unusual noises.

5.3.1.4. After-operation inspection.

5.3.1.4.1. Ensure the bobtail is cleaned (free of dirt, excess oil, and grease).

5.3.1.4.2. Refuel.

5.3.1.4.2.1. For all types of fuel and charging: Use refueling area or charging area, turn-off engine and use parking brake, and do not smoke or use electronic devices.

5.3.1.4.2.2. Diesel or gasoline. Avoid overfilling the fuel tanks.

5.3.1.4.3. Parking for after-inspection.

5.3.1.4.3.1. Level area.

5.3.1.4.3.2. Place transmission control in neutral.

5.3.1.4.3.3. Apply parking brake.

5.3.1.4.3.4. Turn-off all lights and accessories.

5.3.1.4.3.5. Drain air tanks, if applicable.

5.3.1.4.3.6. Perform a walk around inspection.

5.3.1.5. Pre-trip vehicle inspection test. Use **Attachment 2** as a walk around guide along with AF Form 1800.

5.3.2. A Seven-Step Inspection Method will help ensure the inspection is the same each time it is conducted, and that nothing is left out. See **Attachment 4** for the Seven-Step Inspection Method.

5.4. Vehicle Safety and Equipment.

5.4.1. Hazards and Human Factors.

5.4.1.1. Common mishap types.

5.4.1.1.1. Dropped property.

5.4.1.1.2. Bruises, head injuries, cuts and lacerations to personnel.

5.4.1.2. Common operator mishap causes:

5.4.1.2.1. Jerky starts and stops.

5.4.1.2.2. Failure to give proper signals when turning.

5.4.1.2.3. Traveling too fast and turning too sharply.

5.4.1.2.4. Turning too wide on corners; cutting corners too sharply.

5.4.1.2.5. Failure to set parking brake.

5.4.1.2.6. Pinch points on bobtail.

5.4.1.2.7. Failure to use a spotter in difficult areas/situations.

5.4.2. Safety clothing and equipment:

5.4.2.1. Safety steel-toed boots must be worn.

5.4.2.2. Gloves will be worn during cargo loading and unloading (take off rings/jewelry first).

5.4.2.3. Reflective belts/vests during operation of low visibility and on the flightline.

5.4.2.4. Raingear, cold weather gear, etc. **Note:** Avoid operating an open operation bobtail during the rain.

5.4.2.5. Hearing protection.

5.4.2.6. Driving Safely in addition to Standardized Government Motor Vehicle Lesson Plan.

5.4.2.7. AF Form 1800.

5.5. Driving Safety and Precautions.

5.5.1. Speed control. Bobtail engine speeds are controlled by governors. Do not attempt to override vehicle governors.

5.5.1.1. Affects the ability to turn, pass, slow down or stop.

5.5.1.2. Accelerating—must be smooth/gradual.

5.5.1.3. For flightline operations, the maximum speed is 10 mph.

5.5.2. Safety Considerations:

5.5.2.1. Do not inhale exhaust gases. Do not run the engine in an enclosed area.

5.5.2.2. Drive carefully at all times, exercise caution at cross aisles, hangars, and entering shop area.

5.5.2.3. Do not allow riders on exterior of vehicle.

5.5.2.4. Observe flight line traffic rules in operation of vehicle.

5.5.2.5. Keep loads within rated capacity of the bobtail.

5.5.2.6. Always ensure there are spotters when practical when backing, operator is responsible if an accident/incident occurs.

5.5.2.7. Secure load before moving vehicle.

5.5.2.8. Ensure cellular phone is turned off prior to operation of vehicle or fueling operations.

5.5.2.9. Seat belts use is mandatory any time vehicle is placed in motion.

5.5.3. Foreign Object Detection (FOD). FOD checks are performed IAW AFI 13-213 so that aircraft damage can be kept to a minimum.

5.5.3.1. Operators will remove FOD from tires during the daily vehicle inspection. Before entering the airfield, a physical check for loose/unsecured objects and an inspection of the tire treads for FOD will be accomplished.

5.5.3.2. The vehicle will have a FOD container. FOD containers will be emptied daily.

5.6. Bobtail Operation.

5.6.1. Operators must be thoroughly familiar with the safety precautions, principles of operation, location and use of controls and accessories and handling characteristics of the vehicle before attempting any operation or service procedure. Be knowledgeable about the location of:

5.6.1.1. Emergency flasher indicator light.

5.6.1.2. Defroster switch.

5.6.1.3. Temperature control.

5.6.1.4. Fan speed control.

5.6.1.5. Headlight switch.

5.6.1.6. Windshield wiper and washer control.

5.6.1.7. Hour meter.

5.6.1.8. Work light switch.

5.6.1.9. Steering wheel.

5.6.1.10. Horn.

5.6.1.11. Voltmeter and speedometer.

5.6.1.12. Oil pressure gauge.

5.6.1.13. Glow plug wait light.

5.6.2. Principals of operation.

5.6.2.1. The operator must know the size of load that the vehicle will provide power for movement, and the minimum weight ratings for the pintle hook. The specific weight ratings for the vehicle can be found in the manufacturer's operator's manual. This will vary from vehicle to vehicle.

5.6.3. Starting the engine.

5.6.3.1. Insert key in starting switch.

5.6.3.2. Ensure automatic transmission is in park.

5.6.3.3. Set the emergency parking brake.

5.6.3.4. Turn starting switch to ON position and observe the 'WAIT TO START' light and 'WATER IN FUEL' indicator. Wait until the orange wait light goes out, signifying the glow plugs have warmed up. Do not attempt to start the engine if the 'WATER IN FUEL' indicator is lit. Any water must be drained from the fuel filter prior to starting the engine.

5.6.3.5. Depress accelerator halfway to the floor and hold in that position.

Note: Do not engage the starter for more than 30 seconds. If the engine fails to start, let the starter cool for 2 minutes between each reattempt to start the engine.

5.6.4. Backing operations:

5.6.4.1. Ensure the vehicle is stopped and in the correct position. Use a spotter when backing the bobtail.

5.6.4.2. Move the shift lever to the 'Reverse' position. Slowly back the bobtail to the equipment. Line the center pintle hook as close as possible to the equipment hitch.

5.6.4.3. Stop the vehicle. Move the shift lever to the 'Park' position and apply the emergency brake.

5.6.4.4. If necessary, move the equipment to insert the hitch eye into the pintle hook and connect equipment.

5.6.5. Towing operations:

5.6.5.1. During towing operations, keep the vehicle in a gear range that will provide adequate torques for negotiation of grades.

5.6.5.2. Always check the pintle hook connection to see that the hook is properly engaged with the drawbar lunette eye. Also take into consideration the physical size and steering characteristics of the load being towed.

5.6.5.3. Refer to the Pintle Hook Lesson Plan for additional information on pintle hook use and safety.

5.6.6. Cold weather operations.

5.6.6.1. Remove all snow and ice from the vehicle (all ice must be removed from the windshield before operating).

5.6.6.2. Disconnect and stow extension cord (extension cords are required to be plugged in when the temperatures reach +15° for diesel engines and -10° for gasoline engines).

5.6.7. Normal shutdown procedures.

5.6.7.1. Park the vehicle. Depress the brake pedal and apply the parking brake.

5.6.7.2. Move the shift lever to the 'Park' position and release the brake pedal.

5.6.7.3. Turn-off all lights, controls and accessories.

5.6.7.4. Observe all gauges for unusual operating conditions to include: low fuel level, high engine temperature, low engine charge and low oil pressure.

5.6.7.5. Turn the ignition switch to the 'Off' position. The engine will shut-off.

5.6.7.6. Walk around the vehicle and inspect for damage. Annotate any discrepancies noted or problems during operation on the AF Form 1800.

5.6.8. Emergency shutdown procedures.

5.6.8.1. Park the vehicle. Depress the brake pedal and apply the parking brake.

5.6.8.2. Move the shift lever to the 'Park' position and release the brake pedal.

5.6.8.3. Turn off all lights, controls and accessories.

5.6.8.4. Observe all gauges for unusual operating conditions.

5.6.8.5. Turn the ignition switch to the 'Off' position.

5.6.8.6. Pull the fuel shut-off valve control. Engine will shut-off due to fuel starvation.

5.6.8.7. After engine has completely stopped, push fuel shut-off valve control back in.

Note: If the engine fails to shut off when the ignition is turned to the 'Off' position, use the fuel shut-off valve control to stop engine operation.

5.6.9. Parking.

5.6.9.1. Clean and service the vehicle as required.

5.6.9.2. Place chocks on the driver's side rear tire.

5.6.9.3. Do not leave the vehicle unattended while the motor is running.

Exception: During the winter for a short period to warm the engine prior to operation.

Section 6—EXPLANATION AND DEMONSTRATION

6.1. Instructor's Preparation.

6.1.1. Establish a training location.

6.1.2. Obtain appropriate Manufacturer's Operator's Manual.

6.1.3. Schedule/reserve a vehicle.

6.1.4. Ensure trainee completes AF Form 171.

6.2. Safety Procedures and Equipment.

6.2.1. The following safety items should be followed by both the instructor and trainee.

6.2.1.1. Chock wheel (if required) when bobtail is parked.

6.2.1.2. Remove all jewelry and identification tags.

6.2.1.3. Personal protective equipment and equipment items.

6.2.1.3.1. Safety steel-toed boots must be worn.

6.2.1.3.2. Head protection will be worn during operations with a potential risk for head injury.

6.2.1.3.3. Gloves will be worn during cargo loading and unloading.

6.2.1.4. The trainer and trainee should walk around vehicle to become familiar with all warning indicators and controls.

6.2.1.5. Ensure trainee wears seat belts.

6.2.1.6. Properly adjust driver's seat and all mirrors, if available.

6.2.1.7. Throughout demonstration, practice bobtail safety:

6.2.1.7.1. Always observe speed and safety precautions while carrying loads.

6.2.1.7.2. Keep loads within the rated capacity of the bobtail.

6.2.1.7.3. Avoid sudden stops.

6.2.2. Practice basic RM process during demonstration:

6.2.2.1. Identify hazards.

6.2.2.2. Assess hazards.

6.2.2.3. Develop controls and make decisions.

6.2.2.4. Implement controls.

6.2.2.5. Supervise and evaluate.

6.3. Operator Maintenance Demonstration.

6.3.1. With trainee, accomplish vehicle inspection using AF Form 1800. The vehicle inspection will follow the seven-step method as described in **Attachment 4**. An inspection guide (**Attachment 2**) can be used to ensure all areas of the bobtail are covered in addition to the “Operation Demonstration” guidelines provided below.

6.4. Operation Demonstration.

6.4.1. Throughout demonstration.

6.4.1.1. Allow for questions.

6.4.1.2. Repeat demonstrations as needed.

6.4.1.3. For more information refer to the vehicle data plate and the Operator’s Manufacturer’s Manual.

6.4.2. For all bobtails, within the training area, demonstrate and explain the following. **Note:** Use information contained on the data plate and/or the operator’s manual:

6.4.2.1. Bobtail capabilities.

6.4.2.2. Bobtail controls. Understands all gauges, switches, levers and buttons.

6.4.2.3. Forward operations.

- 6.4.2.4. Engage and disengage four wheel drive system.
- 6.4.2.5. Backing operations.
- 6.4.2.6. Turning operations.
- 6.4.2.7. Parking brake use.
- 6.4.2.8. Stopping procedures.
- 6.4.2.9. Coupling/uncoupling with the pintle hook.
- 6.4.2.10. Towing procedures.
- 6.4.2.11. Discuss bobtail stability of the load while operating.
- 6.4.2.12. Parking the bobtail.
- 6.4.2.13. Shutdown operations.
- 6.4.3. Show trainee the after operation inspection and report.
 - 6.4.3.1. Ensure vehicle cleaned.
 - 6.4.3.2. Refueled.
 - 6.4.3.3. Following manufacturer's shut-down procedures.
 - 6.4.3.4. Park.
 - 6.4.3.4.1. Level area.
 - 6.4.3.4.2. Place transmission control in neutral.
 - 6.4.3.4.3. Apply the parking brake (adjust if necessary).
 - 6.4.3.4.4. Turn-off all lights and accessories.
 - 6.4.3.4.5. Perform a walk around inspection of the bobtail.
 - 6.4.3.4.5.1. Annotate any discrepancies found on AF Form 1800.
 - 6.4.3.5. Conclude by allowing time for questions and any requested re-demonstrations.

Section 7—TRAINEE PERFORMANCE AND EVALUATION

7.1. Trainee Performance.

7.1.1. Instructor will:

7.1.1.1. Ensure safety at all times. **Note:** Stop training when safety items are violated. Proceed only when the trainee fully understands how to avoid repeating the safety infraction(s).

7.1.1.1.1. Chock wheel (if required) when bobtail is parked.

7.1.1.1.2. Remove all jewelry and identification tags.

Note: If available, mark vehicle with magnetic sign indicating “Driver-in-Training” or “Trainee Operator”.

7.1.1.2. Personal protective equipment and other items.

7.1.1.2.1. Safety steel-toed boots must be worn.

7.1.1.2.2. Gloves will be worn during cargo loading and unloading.

7.1.1.2.3. Hearing protection.

7.1.1.2.4. Reflective belt/vest during low visibility times.

7.1.1.2.5. Head protection.

7.1.1.3. Pay particular attention to the cautions and warnings listed in the operator's manual.

7.1.1.4. Ensure trainee wears seat belts.

7.1.1.5. Properly adjust driver's seat and all mirror.

7.1.1.6. Bobtail safety items/procedures.

7.1.1.7. Ensure the driver is aware of driving situations he/she is to perform.

7.1.1.8. Conduct during/after-action reviews with the trainee (demonstration may need to be re-accomplished).

7.1.2. Trainee Performance:

7.1.2.1. Conduct operator maintenance (have trainee explain items being inspected).
Note: Allow trainee to use **Attachment 2** as a guide while performing inspection.

7.1.2.1.1. Pre-inspection.

7.1.2.1.2. During inspection.

7.1.2.2. Ensure AF Form 1800 is properly documented.

7.1.2.2.1. Establish a road course with turns and stops signs.

7.1.2.2.2. Backing. Serve as the trainee's spotter, or if available, have another trainee be the spotter. The operator must maintain visual contact with the spotter at all times. If the operator loses visual contact with the spotter, he/she must immediately stop the vehicle. See AFMAN 24-306 for standard AF spotter hand signals and additional safety guidance.

7.1.2.2.3. Continue until trainee can show proficiency in operating.

7.1.2.3. Have trainee practice the following bobtail operations (use spotter when backing) until they can safely and efficiently perform:

7.1.2.3.1. Bobtail capabilities.

7.1.2.3.2. Bobtail controls. Understands all gauges, switches, levers and buttons.

7.1.2.3.3. Forward operations.

7.1.2.3.4. Engage and disengage four wheel drive system.

7.1.2.3.5. Backing operations.

7.1.2.3.6. Turning operations.

7.1.2.3.7. Parking brake use.

7.1.2.3.8. Stopping procedures.

7.1.2.3.9. Coupling/uncoupling with the pintle hook.

7.1.2.3.10. Towing procedures.

7.1.2.3.11. Discuss bobtail stability of the load while operating.

7.1.2.3.12. Parking the bobtail.

7.1.2.3.13. Shutdown operations.

7.2. Performance Evaluation.

7.2.1. Trainee will perform performance evaluation found in **Attachment 3**.

7.2.1.1. Instructor and trainee will review **Attachment 3**.

7.2.1.2. Instructor will answer trainee's questions.

Note: If available, mark vehicle with magnetic sign indicating "Driver-in-Training" or "Trainee Operator".

7.2.2. Instructor will:

7.2.2.1. Ensure safety at all times.

7.2.2.1.1. Place wheel chocks (if required) when bobtail is parked.

7.2.2.1.2. Remove all jewelry and identification tags.

7.2.2.2. Personal protective equipment and other items.

7.2.2.2.1. Safety steel-toed boots must be worn.

7.2.2.2.2. Gloves will be worn during cargo loading and unloading.

7.2.2.2.3. Hearing protection.

7.2.2.3. Pay particular attention to the cautions and warnings listed in the operator's manual.

7.2.2.4. Ensure trainee wears seatbelt.

7.2.2.5. Properly adjust driver's seat and all mirrors (if available).

7.2.2.6. Bobtail safety items/procedures.

7.2.3. Explain driving techniques.

7.2.4. Ensure the driver is aware of driving situations.

7.2.5. Conduct after-action reviews with the trainee.

7.2.6. Trainee is not allowed any instructor assists to pass performance evaluation.

7.2.7. Evaluation checklist provided in **Attachment 3**.

7.2.8. Retraining; retrain No-Go's.

7.2.8.1. Re-demonstrate "No-Go" items.

7.2.8.2. Have trainee re-perform until they show proficiency in operating, critique weaknesses as observed.

7.2.8.3. Re-evaluate.

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 24-301, *Ground Transportation*, 1 November 2018

AFI 13-213, *Airfield Driving*, 1 June 2011

AFMAN 24-306, *Operation of Air Force Government Motor Vehicles*, 9 December 2016

AFPAM 90-803, *Risk Management (RM) Guidelines and Tools*, 11 February 2013

Adopted Forms

AF Form 171, *Request for Driver's Training and Addition to U.S. Government Driver's License*.
1 November 2018

AF Form 847, *Recommendation for Change of Publication*

AF Form 1800, *Operator's Inspection Guide and Trouble Report*

Abbreviations and Acronyms

AFI—Air Force Instruction

AFIMSC—Air Force Installation and Mission Support Center

AFMAN—Air Force Manual

AFQTP—Air Force Qualification Training Package

FOD—Foreign Object Damage

HAZMAT—Hazardous Materials

IAW—In Accordance With

MNCL—Master Nuclear Certification List

RM—Risk Management

VCO—Vehicle Control Official

Attachment 2

VEHICLE INSPECTION GUIDE

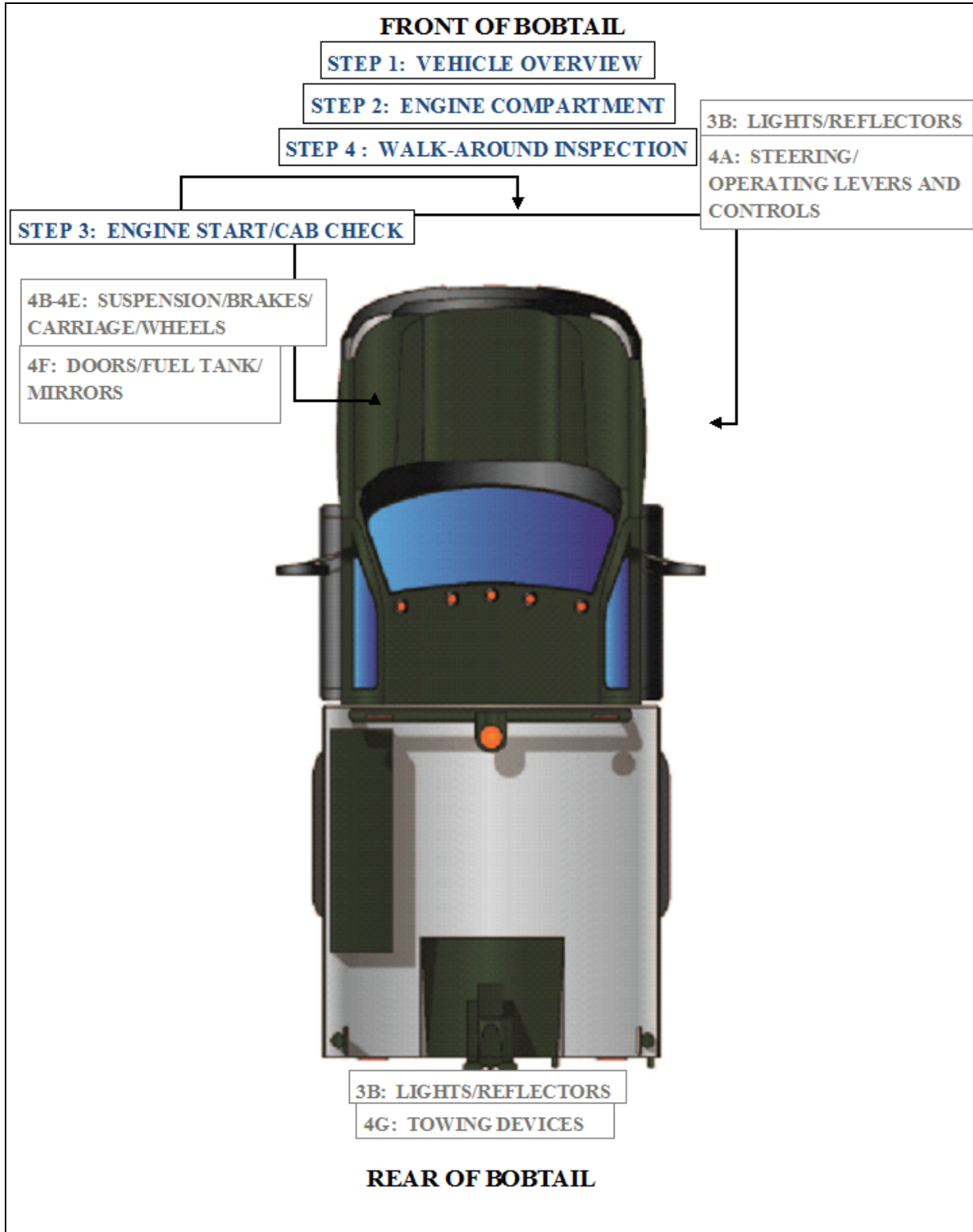
A2.1. Desired Learning Outcome.

A2.1.1. Understand the safety precautions to be followed before, during, and after operation of the bobtail.

A2.1.2. Understand the purpose of the bobtail and their role in the mission.

A2.2. Inspection During-Operations. The operator must ensure the following items are checked after starting the bobtail and during operations.

Figure A2.1. Bobtail Vehicle Inspection Guide.



Attachment 3

PERFORMANCE TEST

A3.1. Desired Learning Outcome.

A3.1.1. Understand the safety precautions to be followed before, during, and after operation of the bobtail. Understand the purpose of the bobtail and their role in the mission.

A3.1.2. Understand Occupational Safety & Health Administration (OSHA) and Air Force Occupational Safety and Health (AFOSH) compliance requirements.

A3.1.3. Know the proper operator maintenance procedures of the bobtail, IAW applicable technical orders and use of AF Form 1800.

A3.1.4. Safely and proficiently operate the bobtail.

A3.2. Instructions. Before beginning the performance test, the trainer will brief the trainee on the scenario he/she will need to accomplish. They will be given additional directions and instructions as needed to proceed through the scenario.

A3.3. Scoring.

A3.3.1. The trainer examiner will be scoring the trainee on bobtail operations and also the general safe driving practices. The examiner will give directions and instructions to the trainee in sufficient time to execute a driving maneuver. The trainee will not be asked to drive in an unsafe manner.

A3.3.2. The examiner will be making various marks on the performance test checklist. This does not necessarily mean the trainee has done anything wrong. It is in the best interest to concentrate on the operation of the bobtail. The trainer will explain the test results to the trainee at the conclusion of the performance test.

A3.3.3. Tasks being graded are listed on the following page; the trainee will be required to successfully pass all items.

A3.3.4. The instructor will stop the test at any time safe bobtail operations are not being followed or as deemed necessary for safety concerns.

Figure A3.1. Performance Test Checklist.

PERFORMANCE TEST			
Trainees Name:		Date:	
Event	Go	No Go	Notes
1. PRE, DURING, AND POST- OPERATION INSPECTION			
1.1. Operator has required Personal Protective Equipment.			
1.2. Follows general condition while approaching vehicle.			
1.3. Checks all items listed on AF Form 1800.			
1.4. Signs AF Form 1800 to signify accomplishment of complete inspection.			
1.5. Checks for proper operation of controls/instruments during operations.			
Event	Go	No Go	
2. USE OF VEHICLE CONTROLS			
2.1. Understands all gauges, switches, levers and buttons.			
2.2. Failure to release parking brake before traveling.			
Event	Go	No Go	Notes
3. BASIC CONTROL AND OPERATION			
3.1. Avoids jerky starts and stops (Proper use of inching pedal).			
3.2. Understands basic bobtail stability of load and while operation (i.e. load is within capability of bobtail.)			
3.3. Maintains proper speed to ensure safety.			
3.4. Ensure proper bobtail safety practices (instructor will stop testing at any time to prevent any safety occurrence from happening). List safety violations.			
3.5. Properly parks bobtail, parking brake set, ignition off.			

Event	Go	No Go	Notes
4. COUPLING/UNCOUPLING WITH PINTLE HOOK			
4.1. Use Pintle Hook Lesson Plan during this portion of certification.			
Event:	Go	No Go	Notes
5. GENERAL DRIVING HABITS			
5.1. Consistently alert and attentive.			
5.2. Aware of changing traffic conditions.			
5.3. Adjusts to changing conditions.			
5.4. Nervous/apprehensive.			
5.5. Easily angered.			
5.6. Courteous to other vehicles.			
5.7. Avoids excessive conversation.			
CERTIFIER COMMENTS:			

Attachment 4

SEVEN-STEP INSPECTION PROCESS

Figure A4.1. Seven-Step Inspection Process.

Seven-Step Inspection Process	
Step	Procedure
1. Vehicle Overview	<ul style="list-style-type: none"> ● Review the AF Form 1800. ○ Ensure any discrepancy has been corrected. ○ Vehicle Management annotated the discrepancy was completed. ○ Approaching the vehicle. <ul style="list-style-type: none"> ▪ Damage or vehicle leaning to one side. ▪ Fresh leakage of fluids. ▪ Hazards around vehicle.
2. Check Engine Compartment	<ul style="list-style-type: none"> ● Note: Check that the parking brakes are on and/or wheels chocked. The operator may have to raise the hood, tilt the cab (secure loose things so they don't fall and break something), or open the engine compartment door. ● Check the following: <ul style="list-style-type: none"> ○ Engine oil level. ○ Coolant level in radiator; condition of hoses. ○ Power steering fluid level; hose condition (if so equipped). ○ Windshield washer fluid level. ○ Battery fluid level, connections and tie-downs (battery may be located elsewhere). ○ Automatic transmission fluid level (may require engine to be running).

	<ul style="list-style-type: none"> ○ Check belts for tightness and excessive wear (alternator, water pump, air compressor)--learn how much "give" the belts should have when adjusted right. ○ Leaks in the engine compartment (fuel, coolant, oil, power steering fluid, hydraulic fluid, battery fluid). Cracked, worn electrical wiring insulation.
<p>3. Start Engine and Inspect Inside the Cab (Get in and Start Engine)</p>	<ul style="list-style-type: none"> ● Make sure parking brake is on. ● Put gearshift in neutral (or park if automatic). Start engine; listen for unusual noises. ● If equipped, check the Anti-lock Braking System (ABS) indicator lights. Light on dash should come on and then turn-off. If it stays on the ABS is not working properly. ● Look at the gauges. ○ <u>Oil pressure</u>. Should come up to normal within seconds after engine is started. ○ <u>Ammeter and/or voltmeter</u>. Should be in normal range(s). ○ <u>Coolant temperature</u>. Should begin gradual rise to normal operating range. ○ <u>Engine oil temperature</u>. Should begin gradual rise to normal operating range. ○ <u>Warning lights and buzzers</u>. Oil, coolant, charging circuit warning, and antilock brake system lights should go out right away. ○ Check Condition of Controls. Check all of the following for looseness, sticking, damage, or improper setting: <ul style="list-style-type: none"> ▪ Steering wheel.

	<ul style="list-style-type: none"> ▪ Clutch (if equipped). ▪ Accelerator (gas pedal). ▪ Brake controls. ▪ Foot brake. ▪ Parking brake. ▪ Transmission controls. ▪ Horn(s). ▪ Windshield wiper/washer. ▪ Lights. ▪ Headlights. ▪ Dimmer switch. ▪ Turn signal. ▪ Four-way flashers. ▪ Parking – clearance – identification – marker switch (switches). ● Check mirrors and windshield. ○ Inspect mirrors and windshield for cracks, dirt, illegal stickers, or other obstructions to seeing clearly. Clean and adjust as necessary. ● Check emergency equipment. ○ Check for safety equipment: <ul style="list-style-type: none"> ▪ Spare electrical fuses (unless vehicle has circuit breakers). ▪ Three red reflective triangles, 6 fuses or 3 liquid burning flares. ▪ Properly charged and rated fire extinguisher. Check for optional items such as: <ul style="list-style-type: none"> ▪ Chains (where winter conditions require). ▪ Tire changing equipment. ▪ List of emergency phone numbers ○ Accident reporting kit (packet). ○ Check safety belt. Check that the safety belt is securely mounted, adjusts; latches properly and is not ripped or frayed.
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<p>4. Turn-off Engine</p>	<ul style="list-style-type: none"> • Make sure the parking brake is set, turn-off the engine, and take the key with. • Turn-on headlights (low beams) and four-way emergency flashers, and get out of the vehicle.
<p>5. Do Walk-Around Inspection</p>	<ul style="list-style-type: none"> • General. <ul style="list-style-type: none"> ○ Go to front of vehicle and check that low beams are on and both of the four-way flashers are working. ○ Push dimmer switch and check that high beams work. ○ Turn-off headlights and four-way emergency flashers. ○ Turn-on parking, clearance, side-marker, and identification lights. ○ Turn-on right turn signal, and start walk-around inspection. ○ Walk around and inspect. <ul style="list-style-type: none"> ▪ Clean all lights, reflectors, and glass as while doing the walk-around inspection. • Left front side. <ul style="list-style-type: none"> ○ Driver's door glass should be clean. ○ Door latches or locks should work properly. • Left front wheel. <ul style="list-style-type: none"> ○ Condition of wheel and rim--missing, bent, broken studs, clamps, lugs, or any signs of misalignment. ○ Condition of tires--properly inflated, valve stem and cap OK, no serious cuts, bulges, or tread wear. ○ Use wrench to test rust-streaked lug nuts, indicating looseness. ○ Hub oil level OK, no leaks. Left front suspension. ○ Condition of spring, spring hangers, shackles, ○ U-bolts.

	<ul style="list-style-type: none"> ○ Shock absorber condition. ● Left front brake. ○ Condition of brake drum or disc. ○ Condition of hoses. ● Front. ○ Condition of front axle. Condition of steering system. ○ No loose, worn, bent, damaged or missing parts. ○ Must grab steering mechanism to test for looseness. ○ Condition of windshield. ○ Check for damage and clean if dirty. ○ Check windshield wiper arms for proper spring tension. ○ Check wiper blades for damage, "stiff" rubber, and securement. ○ Lights and reflectors. ○ Parking, clearance, and identification lights clean, operating, and proper color (amber at front). ○ Reflectors clean and proper color (amber at front). ○ Right front turn signal light clean, operating, and proper color (amber or white on signals facing forward). ● Right side ○ Right front: check all items as done on left front. ○ Primary and secondary safety cab locks engaged (if cab-over-engine design). ○ Right fuel tank(s). ○ Securely mounted, not damaged, or leaking. Fuel crossover line secure. ○ Tank(s) contain enough fuel. Cap(s) on and secure. ○ Condition of visible parts. Rear of engine--not leaking. Transmission--not leaking.
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	<ul style="list-style-type: none">○ Exhaust system--secure, not leaking, not touching wires, fuel, or air-lines.○ Frame and cross members--no bends or cracks.○ Air-lines and electrical wiring--secured against snagging, rubbing, wearing.○ Spare tire carrier or rack not damaged (if so equipped).○ Spare tire and/or wheel securely mounted in rack.○ Spare tire and wheel adequate (proper size, properly inflated).○ Curbside cargo compartment doors in good condition, securely closed, latched/locked and required security seals in place.● Right rear.○ Condition of wheels and rims--no missing, bent, or broken spacers, studs, clamps, or lugs.○ Condition of tires--properly inflated, valve stems and caps OK, no serious cuts, bulges, tread wear, tires not rubbing each other, and nothing stuck between them.○ Tires same type, e.g., not mixed radial and bias types.○ Tires evenly matched (same sizes).○ Wheel bearing/seals not leaking.○ Suspension.○ Condition of spring(s), spring hangers, shackles, and u-bolts.○ Axle secure.○ Powered axle(s) not leaking lube (gear oil). Condition of torque rod arms, bushings.○ Condition of shock absorber(s).○ Condition of air ride components.○ Brakes.
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	<ul style="list-style-type: none"> ○ Brake adjustment. ○ Condition of brake drum(s) or discs. ○ Condition of hoses--look for any wear due to rubbing. ○ Lights and reflectors. ○ Side-marker lights clean, operating, and proper color (red at rear, others amber). ○ Side-marker reflectors clean and proper color (red at rear, others amber). ● Rear. <ul style="list-style-type: none"> ○ Lights and reflectors. ○ Rear clearance and identification lights clean, operating, and proper color (red at rear). ○ Reflectors clean and proper color (red at rear). ○ Taillights clean, operating, and proper color (red at rear). ○ Right rear turn signal operating, and proper color (red, yellow, or amber at rear). ○ License plate(s) present, clean, and secured. ○ Splash guards present, not damaged, properly fastened, not dragging on ground, or rubbing tires. ● Left side. <ul style="list-style-type: none"> ○ Check all items as done on right side, plus: <ul style="list-style-type: none"> ○ Battery (batteries) (if not mounted in engine compartment). ○ Battery box (boxes) securely mounted to vehicle. Box has secure cover. ○ Battery (batteries) secured against movement. Battery (batteries) not broken or leaking.
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	<ul style="list-style-type: none"> ○ Fluid in battery (batteries) at proper level (except maintenance-free type). ○ Cell caps present and securely tightened (except maintenance-free type). ○ Vents in cell caps free of foreign material (except maintenance-free type).
<p>6. Check Signal Lights</p>	<ul style="list-style-type: none"> ● Get in and turn-off all lights. ● Turn-on stop lights (apply trailer hand brake or have a wingman put on the brake pedal). ● Turn-on left turn signal lights. ● Get out and check lights. ● Left front turn signal light clean, operating and proper color (amber or white on signals facing the front). ● Left rear turn signal light and both stop lights clean operating, and proper color (red, yellow, or amber). ● Get in vehicle. ○ Turn-off lights not needed for driving. ○ Check for all required papers, trip manifests, permits, etc. ○ Secure all loose articles in cab (they might interfere with operation of the controls or hit the operator in a crash). ○ Start the engine.
<p>7. Start the Engine and Check Test for Hydraulic Leaks</p>	<ul style="list-style-type: none"> ● Test for hydraulic leaks. ○ If the vehicle has hydraulic brakes, pump the brake pedal three times. ○ Then apply firm pressure to the pedal and hold for five seconds. ○ The pedal should not move. If it does, there may be a leak or other problem. ● Brake system. ● Test parking brake.

	<ul style="list-style-type: none">○ Fasten safety belt.○ Set parking brake (power unit only).○ Gently pull forward against parking brake to make sure the parking brake holds.○ If it doesn't hold vehicle, it is faulty; get it fixed.● Test service brake stopping action.<ul style="list-style-type: none">○ Go about 5 miles per hour.○ Push brake pedal firmly.○ "Pulling" to one side or the other can mean brake trouble.○ Any unusual brake pedal "feel" or delayed stopping action can mean trouble.○ If the trainee finds anything unsafe during the Vehicle inspection, get it fixed. Federal and state laws forbid operating an unsafe vehicle.● Check vehicle operation regularly:<ul style="list-style-type: none">○ Instruments.○ Pressure gauges.○ Ammeter/voltmeter.○ Mirrors.○ Tires.○ Cargo, cargo covers. Lights, etc.○ If the trainee sees, hears, smells, or feels anything that might mean trouble, he/she should check it out.● Safety inspection.<ul style="list-style-type: none">○ Document any discrepancy on AF Form 1800. Sign-off AF Form 1800 to signify accomplishment of inspection.
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