

**DEPARTMENT OF THE AIR FORCE**  
**Headquarters US Air Force**  
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**Warehouse Tug Vehicle**  
Vehicle Management Codes: E801



**QUALIFICATION TRAINING PACKAGE**

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## Section 1—OVERVIEW

### 1.1. Overview.

1.1.1. Send comments and suggested improvements on Air Force (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. Uses **Attachments 2 and 4** as guides for vehicle inspection.

1.1.2.2.4. 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 trainee's responsibilities.

2.1.1.2. Review the AFQTP/Module/Unit with the trainer.

2.1.1.3. Ask questions if he/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. Grade the review questions using the answer key.

2.1.2.4. Review missed questions with the trainee to ensure the required task knowledge has been gained to complete the task.

2.1.2.5. 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, and hands-on driving sessions, 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 warehouse tug vehicles.

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

### **3.2. Desired Learning Outcomes:**

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

3.2.2. Understand the purpose of the warehouse tug vehicle and its role in the mission.

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

3.2.4. Safely and proficiently operate the warehouse tug vehicle.

### 3.3. Lesson Duration.

3.3.1. Recommended instructional and hands on training time is 7 hours:

**Figure 3.1. Recommended Training Time for Training Activities.**

Training Activity	Training Time
Trainee's Preparation	2 Hours
Instructor's Lecture and Demonstration	2 Hours
Trainee's Personal Experience (to build confidence and proficiency) <ul style="list-style-type: none"><li>▪ Perform Operator Maintenance</li><li>▪ Operate the Vehicle</li></ul>	2 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 IAW Air Force Pamphlet (AFPAM) 90-803, *Risk Management (RM) Guidelines and Tools*.

3.4.2. Applicable 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. AF Form 1800.

### 3.5. Instructional Training Aids and Equipment.

3.5.1. Warehouse Tug Vehicle Lesson Plan.

3.5.2. Pintle Hook Lesson Plan.

3.5.3. Warehouse Tug Vehicle.

3.5.4. Applicable TO or manufacturer's operator's manual.

3.5.5. AF Form 1800.

3.5.6. Suitable training area.

## **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 Air Force Instruction (AFI) 24-301, *Ground Transportation*.

4.1.3. Applicable local licensing jurisdiction requirements.

4.1.4. AF Form 483, *Certificate of Competency*, if flightline will be accessed with the tug.

### **4.2. Required Reading.**

4.2.1. Read Warehouse Tug Vehicle 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 warehouse tug vehicles to accomplish its mission. Like any other vehicle, training and licensing is a requirement to ensure the trainee can operate a warehouse tug vehicle safely and proficiently.

### **5.2. Overview of Training and Requirements.**

5.2.1. Training objectives:

5.2.1.1. Given lectures, demonstrations, and hands-on driving sessions, 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 warehouse tug vehicles.

5.2.1.3. This training will ensure the trainee becomes a qualified warehouse tug vehicle operator—an operator who has the knowledge and skills to operate a warehouse tug vehicle 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 warehouse tug vehicle.

5.2.2.2. Understand the purpose of the warehouse tug vehicle, and its role in the mission.

5.2.2.2.1. The purpose of the warehouse tug is to use in warehousing operations, for towing trailers and other wheeled loads. A pintle hook is provided at the rear of the vehicle for the attachment of the load.

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 warehouse tug vehicle, IAW applicable technical orders and use of AF Form 1800.

5.2.2.2.4. Be able to safely and proficiently operate the warehouse tug vehicle.

5.2.2.2.4.1. Meet mission requirements.

5.2.2.2.4.2. Demonstrates a qualified trained professional operator.

5.2.3. Warehouse tug vehicle design. Warehouse tug vehicles vary in size, shape, and specifications, determined by make and model; it is imperative to know the specifications and rated loads of the warehouse tug the trainee is about to operate before use. Specifications and rated load information should be used together to determine the proper use and area in which the warehouse tug vehicle 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 warehouse tug vehicle.

5.2.3.1. The warehouse tug is designed for high maneuverability and ease of operations. The vehicle is equipped with a gasoline engine, two-speed automatic transmission, pneumatic tires and hydraulic, power booster brakes.

5.2.3.2. Specifications. Refer to the manufacturer's operator's manual and the vehicle's data plate for the specific vehicle type.

5.2.3.3. Controls and instruments:

**Table 5.1. Warehouse Tug Common Controls and Instruments.**

<b>Nomenclature</b>	<b>Normal Use or Reading</b>
Ignition Switch	When turned clockwise to ON, energizes engine ignition, instruments and accessory circuit. Turning fully clockwise against spring pressure engage engine starter.
Water Temperature Gauge	Indicates temperature of engine coolant in degrees.
Oil Pressure Gauge.	Indicates engine lubricating oil pressure in PSI.
Fuel Level Gauge	Indicates quantity of fuel remaining in fuel tank.
Ammeter	Indicates rate of battery charge or discharge.
Transmission Oil Temperature Gauge	Indicates transmission fluid temperature at converter outlet.
Air Cleaner Restriction Indicator Choke Control	Signals when air cleaner element is dirty by displaying read signal.
Service Brake Pedal	Depress to apply service brakes.
Accelerator	Depress to increase engine speed.
Transmission Gear Selector	Selects desired forward gear, reverse or neutral.
Parking Brake Lever	Pull back to apply parking brake; push forward to release parking brake.
Brake Knob Lever	Turn clockwise to tighten linkage and remove slack.
Horn Button	Depress to sound horn.
Seat Adjustment Lever	Pull outward to permit fore and aft adjustment of seat position.
Light Switch	Pull out to illuminate headlights and tail lamp. Push in to turn off lights.
Back-up Light Switch	Pull out to illuminate rear light. Push in to turn off light.

### **5.3. Vehicle Inspection.**

5.3.1. Types of vehicle inspection. **Note:** If discrepancies are found the trainee must report them to Vehicle Control Officer/Vehicle Control Non Commissioned Officer (VCO/VCNCO), the supervisor, and/or vehicle maintenance:

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

5.3.1.1.1. Cleanliness/damage/missing items.

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



- 5.3.1.1.3. Fluid levels; ensure level is within limits:
  - 5.3.1.1.3.1. Engine oil.
  - 5.3.1.1.3.2. Brake fluid.
  - 5.3.1.1.3.3. Transmission fluid.
  - 5.3.1.1.3.4. Radiator fluid.
- 5.3.1.1.4. Undercarriage and engine surface.
- 5.3.1.1.5. Drive belts; tension and fraying.
- 5.3.1.1.6. Battery; security, fluid, damage and corrosion.
- 5.3.1.1.7. Wiring/lights/reflectors/mirrors. Check front and rear lights.
- 5.3.1.1.8. All wheel rims (cracks, splits, etc.); check for loose or missing lug nuts.
- 5.3.1.1.9. All tires.
  - 5.3.1.1.9.1. Proper inflation.
  - 5.3.1.1.9.2. Tread.
  - 5.3.1.1.9.3. Cuts and abrasions.
- 5.3.1.1.10. Seatbelts.
- 5.3.1.1.11. Towing connection.
- 5.3.1.2. During-operation. See also **Figure 5.6.:**
  - 5.3.1.2.1. Horn.
  - 5.3.1.2.2. Dash lights.
  - 5.3.1.2.3. Mirrors.
  - 5.3.1.2.4. Windshield wipers.
  - 5.3.1.2.5. All gauges, indicators and warning lights for proper operations.
    - 5.3.1.2.5.1. Gauges.

5.3.1.2.5.2. Indicators.

5.3.1.2.5.3. Warning lights.

5.3.1.2.6. Controls for proper operations.

5.3.1.2.6.1. Steering wheel.

5.3.1.2.6.2. Gear selector lever.

5.3.1.2.6.3. Parking brake control.

5.3.1.2.6.4. Accelerator control pedal.

5.3.1.2.6.5. Ignition switch.

5.3.1.2.6.6. Service brakes pedal.

5.3.1.2.7. Transmission operational check:

5.3.1.2.7.1. Depress the brake pedal and hold.

5.3.1.2.7.2. Shift into drive and slowly release brake until vehicle moves.

5.3.1.2.7.3. Apply the brakes and shift back into park.

5.3.1.2.7.4. Repeat the previous steps for operation check of reverse.

5.3.1.2.8. Unusual noises.

5.3.1.3. After-operation inspection.

5.3.1.3.1. Ensure the warehouse tug vehicle is cleaned (free of dirt, excess oil, and grease).

5.3.1.3.2. Refuel.

5.3.1.3.3. Parking for after-inspection.

5.3.1.3.3.1. Level area.

5.3.1.3.3.2. Place transmission control in park.

5.3.1.3.3.3. Apply parking brake.

5.3.1.3.3.4. Turn-off all lights and accessories.

5.3.1.3.3.5. Let the engine cool down for a minimum of 3 minutes before turning the engine off.

5.3.1.3.3.6. Shut engine off.

5.3.1.3.3.7. Perform a walk-around inspection.

5.3.1.4. Pre-trip vehicle inspection test. Use **Attachment 3** and **Attachment 2** as a walk-around guides along with AF Form 1800.

#### **5.4. Vehicle Safety and Equipment.**

5.4.1. Common operator mishap causes:

5.4.1.1. Jerky starts and stops.

5.4.1.2. Traveling too fast and turning too sharply.

5.4.1.3. Failure to set parking brake.

5.4.1.4. Pinch points on warehouse tug vehicle.

5.4.1.5. Failure to use a spotter in difficult areas/situations. Spotter and hand signals should be used IAW AFMAN 24-306.

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 hours of darkness on the flightline.

5.4.2.4. Hearing protection, if required.

#### **5.5. Driving Safety and Precautions.**

5.5.1. Speed control. Never exceed 15 miles per hour (mph) when towing.

5.5.2. Do not fill tank while engine is running. Provide metallic contact to maintain a ground between the fuel container and fuel tank. Wipe or flush any spillage.

### 5.5.3. Towing operations safety considerations:

5.5.3.1. Do not exceed the rated load capacity when towing.

5.5.3.2. Place the heavier trailer closest to the warehouse tug.

5.5.3.3. Be careful to not turn too sharply when towing trailers.

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

5.5.3.5. Secure loads before moving the vehicle.

### 5.5.4. Do not allow riders on exterior of vehicle.

### 5.5.5. Observe flight line traffic rules in operation of vehicle.

5.5.5.1. Keep loads within rated capacity of the warehouse tug vehicle.

5.5.6. Always ensure the trainee has spotters when practical when backing, operator is responsible if an accident/incident occurs. Spotters must be trained and use hand signals IAW AFMAN 24-306.

## **5.6. Warehouse Tug Vehicle Operation.**

### 5.6.1. Principals of operation.

5.6.1.1. 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.

### 5.6.2. Starting the engine.

5.6.2.1. Set parking brake. Parking brake lever must be set when the engine is not running.

5.6.2.2. Ensure the transmission is set to N (neutral). The engine will not start unless the transmission direction control lever is in neutral position and the battery disconnect switch is ON.

5.6.2.3. Do not operate the starter motor continuously for more than 30 seconds. If the engine fails to start after 30 seconds, allow the starter motor to cool for at least 2 minutes before attempting to start the engine again.

5.6.2.4. Turn the ignition switch fully clockwise, against spring tension, to the START position, and hold while the starter cranks the engine. As soon as the engine starts, release the switch.

5.6.2.5. Depress the accelerator pedal steady and allow the engine to warm up at a fast idling speed.

5.6.2.6. Check instruments and gauges for proper operation.

5.6.2.7. As engine begins to warm up, gradually push in on choke control; as soon as engine is warm, push choke control all the way in.

5.6.2.8. Remove foot pressure from the accelerator pedal.

5.6.3. Towing operations. See Pintle Hook Lesson Plan for additional information.

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

5.6.3.2. Vehicle speed should not exceed 15 mph or the max speed limit allowed for the flightline (check SOP). Speed should allow the vehicle and load to be safely stopped within an assured, cleared distance.

5.6.3.3. Check the pintle hook connection to see that the hook is properly engaged with the drawbar eye or coupling. Ensure quick release pin is fully installed.

5.6.3.4. When towing loads at or near maximum capacity, and operating in low range continuously, closely monitor transmission oil temperature warning light. This light will come on when the oil temperature reaches 250° F. If the temperature reaches 250° F, stop the vehicle, shift to neutral range and run the engine at a fast idle until the oil temperature drops back down to a normal level.

5.6.4. Stopping procedures.

5.6.4.1. Remove foot from accelerator pedal.

5.6.4.2. Apply gradual foot pressure to the brake pedal to bring the vehicle to a smooth, safe stop. Avoid sudden application of full braking effort except in cases of emergency.

5.6.4.3. Shift to neutral range and apply parking brake.

5.6.5. Normal shutdown procedures.

5.6.5.1. Idle engine for at least 3 minutes before stopping the engine.

5.6.5.2. Turn-off all of the lights and accessories.

5.6.5.3. Turn the ignition switch to OFF.

## **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 warehouse tug 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. Gloves will be worn during cargo loading and unloading.
  - 6.2.1.4. Walk-around vehicle to become familiar with and to familiarize the trainee with all warning labels and signs.
  - 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 warehouse tug 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 warehouse tug vehicle.
    - 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 3**. An inspection guide (**Attachment 2**) can be used to ensure all areas of the warehouse tug 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 manufacturer’s operator’s manual.
- 6.4.2. For all warehouse tug vehicles, 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. Warehouse tug vehicle capabilities.
  - 6.4.2.2. Warehouse tug vehicle controls. Understands all gauges, switches, levers and buttons.
  - 6.4.2.3. Parking brake use.
  - 6.4.2.4. Forward operation.
  - 6.4.2.5. Reverse operation.
  - 6.4.2.6. Maneuvering around objects.
  - 6.4.2.7. Maintaining vehicle control.

6.4.2.8. Braking operations.

6.4.2.9. Towing operations.

6.4.2.10. Parking the warehouse tug vehicle.

6.4.2.11. Shutdown procedures.

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:

6.4.3.3.1. Park.

6.4.3.3.1.1. Level area.

6.4.3.3.1.2. Place transmission control in neutral.

6.4.3.3.1.3. Apply the parking brake (adjust if necessary).

6.4.3.3.2. Turn-off all lights and accessories.

6.4.3.3.3. Perform a walk around inspection of the warehouse tug vehicle.

6.4.3.3.3.1. Annotate any discrepancies found on AF Form 1800.

6.4.3.4. 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 warehouse tug vehicle 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, if required

7.1.1.2.4. Reflective belt/vest during low visibility times.

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. Warehouse tug vehicle 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. Ensure spotters are trained IAW AFMAN 24-306.

7.1.2.2.3. Continue until trainee can show proficiency in operating.

7.1.2.3. Have trainee practice the following warehouse tug vehicle operations until they can safely and efficiently perform:

7.1.2.3.1. Warehouse tug vehicle capabilities.

7.1.2.3.2. Warehouse tug vehicle controls. Understands all gauges, switches, levers and buttons.

7.1.2.3.3. Parking brake use.

7.1.2.3.4. Forward operation.

7.1.2.3.5. Reverse operation. Ensure spotter is always used during backing operations IAW AFMAN 24-306.

7.1.2.3.6. Maneuvering around objects.

7.1.2.3.7. Maintaining vehicle control.

7.1.2.3.8. Braking operations.

7.1.2.3.9. Towing operations.

7.1.2.3.10. Parking the warehouse tug vehicle.

7.1.2.3.11. Shutdown procedures.

## **7.2. Performance Evaluation.**

7.2.1. Trainee will perform the performance evaluation procedures listed below.

7.2.1.1. 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 warehouse tug 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, if required.
- 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 seat belts, if equipped.
- 7.2.2.5. Properly adjust driver's seat and all mirrors (if available).
- 7.2.2.6. Warehouse tug vehicle safety items/procedures.
- 7.2.3. Explain driving techniques.
- 7.2.4. Ensure the driver is aware of driving situations.
- 7.2.5. Performance evaluation procedures:
  - 7.2.5.1. Warehouse tug vehicle capabilities.
  - 7.2.5.2. Warehouse tug vehicle controls. Understands all gauges, switches, levers and buttons.
  - 7.2.5.3. Parking brake use.
  - 7.2.5.4. Forward operation.
  - 7.2.5.5. Reverse operation.
  - 7.2.5.6. Maneuvering around objects.
  - 7.2.5.7. Maintaining vehicle control.
  - 7.2.5.8. Braking operations.
  - 7.2.5.9. Towing operations.
  - 7.2.5.10. Parking the warehouse tug vehicle.
  - 7.2.5.11. Shutdown procedures.
- 7.2.6. Conduct after-action reviews with the trainee.

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

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

7.2.9. Retraining; retrain No-Go's.

7.2.9.1. Re-demonstrate No-Go items.

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

7.2.9.3. Re-evaluate.

## **Attachment 1**

### **GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

#### ***References***

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

**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 Drivers*, 1 November 2018

**AF Form 847**, *Recommendation for Change of Publication*

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

#### ***Abbreviations and Acronyms***

**AF**—Air Force

**AFI**—Air Force Instruction

**AFIMSC**—Air Force Installation Mission Support Center

**AFMAN**—Air Force Manual

**AFQTP**—Air Force Qualification Training Plan

**IAW**—In Accordance With

**MPH**—Miles per Hour

**RM**—Risk Management

**TO**—Technical Order

**VCNCO**—Vehicle Control Non Commissioned Officer

**VCO**—Vehicle Control Officer

## **Attachment 2**

### **VEHICLE INSPECTION GUIDE**

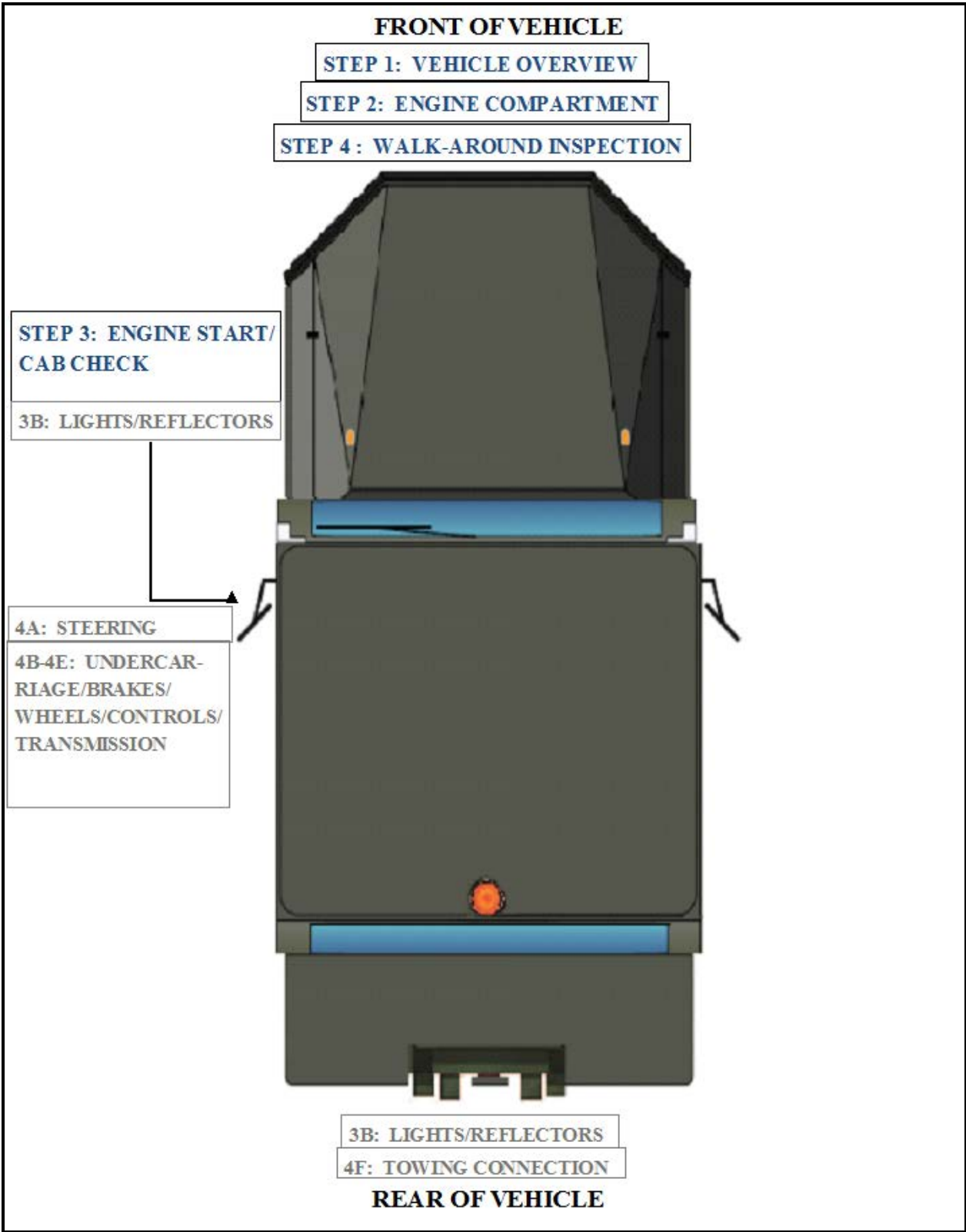
#### **A2.1. Desired Learning Outcome.**

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

A2.1.2. Understand the purpose of the warehouse tug vehicle and their role in the mission.

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

Figure A2.1. Warehouse Tug Vehicle Inspection Guide.



### Attachment 3

#### SEVEN-STEP INSPECTION PROCESS

Figure A3.1. Seven-Step Inspection Process.

Seven-Step Inspection Process	
Step	Procedure
1. Vehicle Overview	<ul style="list-style-type: none"> <li>• Review the AF Form 1800.</li> <li>○ Ensure any discrepancy has been corrected.</li> <li>○ Vehicle Management annotated the discrepancy was completed.</li> <li>○ Approaching the vehicle. <ul style="list-style-type: none"> <li>▪ Damage or vehicle leaning to one side.</li> <li>▪ Fresh leakage of fluids.</li> <li>▪ Hazards around vehicle.</li> </ul> </li> </ul>
2. Check Engine Compartment	<ul style="list-style-type: none"> <li>• <b>Note:</b> 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.</li> <li>• Check the following: <ul style="list-style-type: none"> <li>○ Engine oil level.</li> <li>○ Coolant level in radiator; condition of hoses.</li> <li>○ Windshield washer fluid level.</li> <li>○ Battery fluid level, connections and tie-downs (battery may be located elsewhere).</li> <li>○ Check belts for tightness and excessive wear (alternator, water pump, air compressor)--learn how much "give" the belts should have when adjusted right.</li> <li>○ Leaks in the engine compartment (fuel, coolant, oil, power steering fluid, hydraulic fluid, battery fluid). Cracked, worn electrical wiring insulation.</li> </ul> </li> </ul>



3. Start Engine and Inspect Inside the Cab  
(Get in and Start Engine)

- Make sure parking brake is on.
- Put gearshift in neutral (or park if automatic). Start engine; listen for unusual noises.
- Look at the gauges.
  - Oil pressure. Should come up to normal within seconds after engine is started.
  - Coolant temperature. Should begin gradual rise to normal operating range.
  - Engine oil temperature. Should begin gradual rise to normal operating range.
  - Warning lights and buzzers. 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:
    - Steering wheel.
    - Clutch.
    - Accelerator (gas pedal).
    - Brake controls.
    - Foot brake.
    - Parking brake.
    - Transmission controls.
    - Horn(s).
    - Windshield wiper/washer.
    - Lights.
    - Headlights.
    - Turn signal.
    - Four-way flashers.
- 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:
    - List of emergency phone numbers
    - Accident reporting kit (packet).

	<ul style="list-style-type: none"> <li>○ Check safety belt. Check that the safety belt is securely mounted, adjusts; latches properly and is not ripped or frayed.</li> </ul>
4. Turn-off Engine	<ul style="list-style-type: none"> <li>● Make sure the parking brake is set, turn-off the engine, and take the key with.</li> <li>● Turn-on headlights (low beams) and four-way emergency flashers, and get out of the vehicle.</li> </ul>
5. Do Walk-Around Inspection	<ul style="list-style-type: none"> <li>● General. <ul style="list-style-type: none"> <li>○ Go to front of vehicle and check that low beams are on and both of the four-way flashers are working.</li> <li>○ Turn-off headlights and four-way emergency flashers.</li> <li>○ Turn-on right turn signal, and start walk-around inspection.</li> <li>○ Walk around and inspect. <ul style="list-style-type: none"> <li>▪ Clean all lights, reflectors, and glass as while doing the walk-around inspection.</li> </ul> </li> </ul> </li> <li>● Left front side. <ul style="list-style-type: none"> <li>○ Door latches or locks should work properly.</li> </ul> </li> <li>● Left front wheel. <ul style="list-style-type: none"> <li>○ Condition of wheel and rim--missing, bent, broken studs, clamps, lugs, or any signs of misalignment.</li> <li>○ Condition of tires--properly inflated, valve stem and cap OK, no serious cuts, bulges, or tread wear.</li> <li>○ No loose, worn, bent, damaged or missing parts.</li> <li>○ Condition of windshield.</li> <li>○ Check for damage and clean if dirty.</li> <li>○ Check windshield wiper arms for proper spring tension.</li> <li>○ Check wiper blades for damage, "stiff" rubber, and securement.</li> <li>○ Lights and reflectors.</li> <li>○ Parking, clearance, and identification lights clean, operating, and proper color (amber at front).</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Right front turn signal light clean, operating, and proper color (amber or white on signals facing forward).</li> <li>● Right side</li> <li>○ Right front: check all items as done on left front.</li> <li>○ Primary and secondary safety cab locks engaged (if cab-over-engine design).</li> <li>○ Fuel tank(s).</li> <li>○ Tank(s) contain enough fuel. Cap(s) on and secure.</li> <li>○ Condition of visible parts. Rear of engine--not leaking. Transmission--not leaking.</li> <li>○ Frame --no bends or cracks.</li> <li>○ Air-lines and electrical wiring--secured against snagging, rubbing, wearing.</li> <li>○ Cargo securement.</li> <li>○ Cargo properly blocked, braced, tied, chained, etc. Header board adequate, secure (if required).</li> <li>● Right rear.</li> <li>○ Condition of wheels and rims--no missing, bent, or broken spacers, studs, clamps, or lugs.</li> <li>○ 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.</li> <li>○ Tires same type, e.g., not mixed radial and bias types.</li> <li>○ Suspension.</li> <li>○ Brakes.</li> <li>○ Lights and reflectors.</li> <li>○ Side-marker lights clean, operating, and proper color (red at rear, others amber).</li> <li>● Rear.</li> <li>○ Lights and reflectors.</li> <li>○ Rear clearance and identification lights clean, operating, and proper color (red at rear).</li> </ul>
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	<ul style="list-style-type: none"> <li>○ Reflectors clean and proper color (red at rear).</li> <li>○ Taillights clean, operating, and proper color (red at rear).</li> <li>○ Right rear turn signal operating, and proper color (red, yellow, or amber at rear).</li> <li>○ License plate(s) present, clean, and secured.</li> <li>○ Cargo secure.</li> <li>● Left side.</li> <li>○ Check all items as done on right side, plus:</li> <li>○ Battery (batteries) (if not mounted in engine compartment).</li> <li>○ Battery box (boxes) securely mounted to vehicle. Box has secure cover.</li> <li>○ Battery (batteries) secured against movement. Battery (batteries) not broken or leaking.</li> <li>○ Fluid in battery (batteries) at proper level (except maintenance-free type).</li> </ul>
6. Check Signal Lights	<ul style="list-style-type: none"> <li>● Get in and turn-off all lights.</li> <li>● Turn-on stop lights (apply trailer hand brake or have a helper put on the brake pedal).</li> <li>● Turn-on left turn signal lights.</li> <li>● Get out and check lights.</li> <li>● Left front turn signal light clean, operating and proper color (amber or white on signals facing the front).</li> <li>● Left rear turn signal light and both stop lights clean operating, and proper color (red, yellow, or amber).</li> <li>● Get in vehicle.</li> <li>○ Turn-off lights not needed for driving.</li> <li>○ Check for all required papers, trip manifests, permits, etc.</li> <li>○ Start the engine.</li> </ul>
7. Start the Engine and Check Test for Hydraulic Leaks	<ul style="list-style-type: none"> <li>● Brake system.</li> <li>● Test parking brake.</li> <li>○ Fasten safety belt.</li> </ul>

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