DEPARTMENT OF THE AIR FORCE **QTP24-3-C222**
Headquarters US Air Force **20 December 2018**
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High Lift

Vehicle Management Codes: C222, C238, C239 – C243

QUALIFICATION TRAINING PACKAGE

CONTENTS

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 Installations 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 overview, **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 this entire lesson plan prior to starting lecture.

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

1.1.2.2.3. Uses **Attachment 2** and **Attachment 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. Review the AFQTP with the trainer.

2.1.1.2. The trainee should ask questions if they do not understand the objectives for each unit.

2.1.1.3. Ask the trainer to explain and answer questions on any unclear material.

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 from the trainee.

2.1.2.4. Review material 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 the various high lift trucks.

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

3.2. Desired Learning Outcomes.

3.2.1. Understand the safety precautions to be followed pre-, during-, and post-operation of the high lift truck.

3.2.2. Understand the purpose of the high lift truck and its role in the mission.

3.2.3. Know the proper operator maintenance procedures of the high lift truck IAW applicable technical orders and use of AF Form 1800, *Operator's Inspection Guide and Trouble Report*.

3.2.4. Safely and proficiently operate the high lift truck.

3.3. Lesson Duration.

3.3.1. Recommended instructional and hands on training time is 43 hours:

Figure 3.1. Recommended Training Time for Training Activities.

Training Activity	Training Time
Trainee's Preparation	5 Hours
Instructor's Lecture	5 Hours
Instructor's Demonstration	2 Hours
Trainee's Personal Experience (to build confidence and proficiency) ▪ Perform Operator Maintenance ▪ Operate the Vehicle	30 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. Operational Risk Management (RM) and Safety Principles.

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

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

3.4.4. AF Form 1800.

3.4.5. AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*.

3.4.6. AFI 24-302, *Vehicle Management*.

3.4.7. AMCI 24-101 Vol. 10, *Military Airlift – Fleet Service*.

3.4.8. T.O. 36A12-IS-6-1 and T.O. 36AI2-IS-7-1, *Freightliner High Lift Truck Operation and Maintenance Manual*.

3.4.9. T.O. 36-1-191.

3.4.10. T.O. 40-102.

3.4.11. Special references based-off type of vehicle.

3.5. Instructional Training Aids and Equipment.

3.5.1. High Lift Truck Lesson Plan.

3.5.2. High lift truck.

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

3.5.4. AF Form 1800.

3.5.5. Videos (if locally produced).

3.5.6. Suitable training area.

3.5.7. Traffic cones.

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.

4.2.1. Read this entire lesson plan.

4.2.2. Read AFMAN 24-306.

4.2.3. Read manufacturer's operator's manual for the vehicle being trained on.

4.3. Additional Training (As Required).

4.3.1. Flightline driving.

4.3.2. Vehicle marshalling training.

4.3.3. Two-way radio procedures.

Section 5—KNOWLEDGE LECTURE AND EVALUATION

5.1. Overview of Training and Requirements.

5.1.1. Training objectives:

5.1.1.1. 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.

5.1.1.2. Train and qualify each trainee in safe operation and preventive maintenance of the various high lift trucks.

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

5.1.2. Desired learning outcomes:

5.1.2.1. Understand the safety precautions to be followed pre-, during-, and post-operation of the high lift trucks.

5.1.2.2. Understand the purpose of the high lift truck and its role in the mission.

5.1.2.2.1. Purpose various based on vehicle type (cargo movement, passenger movement, emergency services support, etc.).

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

5.1.3. High lift truck design. The design of a high lift truck varies depending on the vehicle type. Refer to the manufacturer's operator's manual for additional information on the specific High lift truck being operated, and to the data plate for safe load capacity guidance. The high lift truck normally can be identified by the following characteristics:

5.1.3.1. Freightliner high lift truck specifications:

Table 5.1. Freightliner High Lift Truck Specifications.

Freightliner High Lift Truck Specifications	
General Specifications	
Overall Length	316.2”
Overall Width	109.5”
Overall Height	161.2”
Wheelbase	192”
Vehicle Loading Cubage	3,229 cubic ft.
Wheelbase Clearance Height	16.3”
Shipping Weight	25,720 lbs.
Front Axle Load	10,500 lbs.
Rear Axle Load	15,250 lbs.
Lifting Capacity	6,000 lbs.
Preset Maximum Lift Height	27’
Fuel Tank Capacity	50 gal.
Hydraulic Tank Capacity	37.5 gal.

5.1.3.2. Stinar high lift truck specifications:

Table 5.2. Stinar High Lift Truck Specifications.

Stinar High Lift Truck Specifications	
General Specifications	
Overall Length	320”
Overall Width	99.5”
Overall Height	150”
Wheelbase	204.5”
Center of Gravity	129” (from front)
Axle Height	54’’
Shipping Weight	29,200 lbs.
Front Axle Load	10,720 lbs.
Rear Axle Load	17,000 lbs.
Lifting Capacity	6,000 lbs.
Preset Maximum Lift Height	27’

5.1.3.3. High Deck Patient Loading Platform (HDPLP) vehicle services and design. The HDPLP is a special purpose vehicle with an enclosed cabin designed to access high deck platform airframes for enplaning/deplaning patients.

5.1.3.3.1. HDPLP services.

5.1.3.3.1.1. The HDPLP can interface with Civilian Reserve Air Fleet (CRAF), non-CRAF and military aircraft (e.g. KC-135, CRAF 767 and KC-10). **Note:** This vehicle will not reach the troop compartment of the C-5.

5.1.3.3.1.2. Deplane and enplane patients and attendants from high deck aircraft.

5.1.3.3.1.3. Ground transportation service from flight line to Aeromedical Staging Flight (ASF)/medical facilities.

5.1.3.3.1.4. Transport to and from aircraft.

5.1.3.3.2. Patient cabin. The patient cabin has hinged double doors, located on either end. The patient cabin is illuminated and climate controlled and may safely accommodate a maximum of (6 to 9) litters with seating for (8 to 16) ambulatory or (4) wheelchair patients and medical staff (depending of patient cabin configuration).

5.1.3.3.2.1. The cabin is elevated by hydraulic lift and is equipped with redundant safety systems that will lock the cabin in place, if the hydraulic lift system fails. In the case of a hydraulic failure, the system can be operated by certified personnel.

5.1.3.3.2.2. Once raised, the high deck aircraft is accessed through an over-cab platform. The over-cab platform extends 4 feet to meet with the aircraft.

5.1.3.3.2.3. A rear lift gate is used for patient and medical personnel movement into and out of the patient cabin. **Note:** For the purpose of this guideline, the high lift truck and lift gate will be discussed as a single unit.

5.1.3.3.3. Truck cab and chassis.

5.1.3.3.3.1. VCab-over engine design.

5.1.3.3.4. Control stations.

5.1.3.3.4.1. Control stations:

5.1.3.3.4.2. Outside hydraulic control panel is located on the driver side of the vehicle behind the Driver’s compartment. See **Figure 5.1.**

Figure 5.1. Hydraulic Control Box.

5.1.3.3.4.3. Patient cabin (patient compartment) control panel is located inside the patient compartment. See **Figure 5.2.**

Figure 5.2. Patient Cabin Controls.

5.1.3.3.4.4. There are two control stations for the rear lift gate (litter lifting platform).

5.1.3.3.4.4.1. Hand-held pendant control station has a holster mounted to the railing of the rear deck. See **Figure 5.3.**

Figure 5.3. Hand-held Pendant Controls.

5.1.3.3.4.4.2. The fixed ground control station is located on the passenger, rear, corner of the vehicle. See **Figure 5.4.**

Figure 5.4. Fixed Ground Control Station.

5.1.3.3.5. Rear-viewing cameras.

5.1.3.3.5.1. One camera is located in the Patient Compartment above the front doors. Second camera is located in the Patient Compartment above the back doors.

5.1.3.3.5.2. The Receiver is located in the front cab. Power and adjustment buttons are located below the screen of the receiver.

5.1.3.3.6. Maximum Patient/Staff Capacity:

5.1.3.3.6.1. Litter capacity: Factory configuration for 6 litters (cabin can be reconfigured for an additional 3 litters). 9 litter configuration reduces ambulatory seats to 12.

5.1.3.3.6.2. Ambulatory capacity: 16 ambulatory seats (8 on each side). Ambulatory seats can be reconfigured to allow for 4 wheelchairs (2 on each side), or one row of seats may be folded up for additional litter capacity.

5.1.3.3.6.3. Mixed capacity: Up to 9 litters, 16 ambulatory or 4 wheelchairs, patients or staff—depending upon configuration.

Note: Reconfiguration of patient compartment for additional litters or wheelchairs will reduce the capacity of ambulatory seating.

Figure 5.5. Patient Compartment.

5.1.3.4. HDPLP truck specifications.

Table 5.3. HDPLP Truck Specifications.

HDPLP Truck Specifications	
Overall Vehicle Dimensions	
Overall Length	434” (36’ 2”)
Overall Width	102” (8’ 6”)
Overall Height	147” (12’ 3”)
Patient Compartment Capacities	
Lifting Capacity	Max: 8,000 lbs.
Min. Cabin Floor Height	60” (5’)
Max. Cabin Floor Height	228” (19’)
Internal Cabin Dimensions	
Height	83” (6’ 11”)
Length	288” (24’)
Width	98” (8’ 2”)
Cabin Doors	
Height	76” (6’ 4”)
Width	45” (3’ 10”)
Over-Cab Platform	
Weight Bearing Capacity	2,000 lbs.
Note: Platform extends 48’’ with extendable side, safety handrails.	
Rear Lift Gate	
Lift Capacity	Max: 2,500 lbs.
Width	98”
Length	Folded: 84” (7’) Extended: 134” (11’ 2”)
Note: Will support two litters (with 4 litter bearers).	

5.2. Vehicle Inspection.

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

5.2.2. 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.

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

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

5.2.3.1.1. Vehicle maintenance to authorize continued use for all other maintenance discrepancies.

5.2.3.1.2. Cleanliness/damage/missing items.

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

5.2.3.1.4. Fluid Levels; ensure level is within limits:

5.2.3.1.4.1. Engine oil.

5.2.3.1.4.2. Coolant. **Note:** Do not open the radiator overflow cap if the radiator is hot.

5.2.3.1.4.3. Power steering fluid.

5.2.3.1.4.4. Transmission fluid.

5.2.3.1.4.5. Antifreeze.

5.2.3.1.5. Incorrectly stowed outriggers.

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

5.2.3.1.6.1. The battery box is located forward of the hydraulic reservoir. Open the box by releasing the rubber strap, lift the front cover, and slide the cover outward.

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

5.2.3.1.8. All tires.

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

5.2.3.1.8.2. Sidewalls, tread to include depth, bulges.

5.2.3.1.8.3. Cuts and abrasions.

5.2.3.1.8.4. Lug nuts.

5.2.3.1.9. Transmission.

5.2.3.1.10. Drive belts; tension and fraying.

5.2.3.1.11. All hoses and wiring.

5.2.3.1.12. Differential, shocks and brakes for leaks.

5.2.3.1.13. Suspension, springs and shocks.

5.2.3.1.14. Horn operation.

5.2.3.1.15. Heater/defroster.

5.2.3.1.16. Wiring/lights/lamps/reflectors (interior and exterior).

5.2.3.1.16.1. Turn signals.

5.2.3.1.16.2. Hazards.

5.2.3.1.16.3. Headlights.

5.2.3.1.16.4. Brake lights.

5.2.3.1.16.5. Reverse lights.

5.2.3.1.16.6. Beacons.

5.2.3.1.16.7. Spot lamps.

5.2.3.1.16.8. Clip lights.

5.2.3.1.17. Mirrors.

5.2.3.1.18. Rear camera monitor.

5.2.3.1.19. Windshield and windshield wipers/washers.

5.2.3.1.20. Doors.

5.2.3.1.21. Windows.

5.2.3.1.22. Seatbelts.

5.2.3.1.23. Fire Extinguisher.

5.2.3.2. HDPLP specific operational checks:

5.2.3.2.1. PTO.

5.2.3.2.2. Rear lift platform (fold/unfold, raise/lower).

5.2.3.2.3. Extend/retract outriggers.

5.2.3.2.4. Raise/lower patient compartment (all control locations).

5.2.3.2.5. Extend/retract front platform (all control locations).

5.2.3.2.6. Extend/retract power canopy (front and rear).

5.2.3.2.7. Start power generator.

5.2.3.2.8. Overhead vent/emergency egress.

5.2.3.2.9. Emergency shutdown control (all control locations).

5.2.3.2.10. Emergency lowering control operation.

5.2.3.2.11. Emergency outrigger retraction power pack operation.

5.2.3.2.12. Operational lights (spot lights, beacon lights, control panel lights).

5.2.3.2.13. Interior patient compartment (lighting, climate control, seatbelts, and gurney hangers).

5.2.3.3. During-operation.

5.2.3.3.1. All gauges and warning lights for proper operations.

5.2.3.3.1.1. Warning lights.

5.2.3.3.1.2. Gauges (oil pressure, fuel gauge, water temperature, voltage).

5.2.3.3.1.3. Indicators.

5.2.3.3.2. Listen for exhaust and air leaks. Listen for any unusual sounds.

5.2.3.3.3. Stay alert for any unusual smells or odors.

5.2.3.3.4. Stay alert for any abnormal vibrations or handling problems.

5.2.3.4. Post-trip inspection and report.

5.2.3.4.1. Ensure vehicle and components are cleaned.

5.2.3.4.2. Equipment is properly stowed.

5.2.3.4.3. Refueled.

5.2.3.4.4. Parked.

5.2.3.4.5. Apply brakes.

5.2.3.4.6. Place transmission in neutral (park for an automatic).

5.3. Vehicle Safety and Equipment.

5.3.1. Hazards and Human Factors:

5.3.1.1. Traffic due to size and weight.

5.3.1.2. Cargo loads beyond the vehicle's capability.

5.3.1.3. Jerky starts and stops.

5.3.1.4. Traveling too fast and turning too sharply.

5.3.1.5. Cutting corners too sharply.

5.3.1.6. Not properly securing the cargo.

5.3.1.7. Overhead clearance.

5.3.1.8. Rollover risk.

5.3.2. Safety clothing and equipment:

5.3.2.1. Safety steel-toed boots must be worn.

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

5.3.2.3. First aid kit.

5.3.2.4. Warning triangles.

5.3.2.5. Raingear, cold weather gear, etc.

5.3.2.6. Reflective belt during hours of reduced visibility and on flightline.

5.3.2.7. Tire gauge.

5.3.2.8. Harness, if required.

5.3.2.9. Hard hat, if required.

5.3.2.10. Fire extinguisher.

5.4. Driving Safety and Precautions.

5.4.1. Steering.

5.4.1.1. Keep both hands on the wheel.

5.4.1.2. Tipping hazard increases as speed increases.

5.4.1.3. Avoid turning on inclines.

5.4.1.4. Watch tail swing.

5.4.2. Stopping. The distance required to stop depends on:

5.4.2.1. Driver perception time.

5.4.2.2. Driver reaction time.

5.4.2.3. Road conditions.

5.4.2.4. Weight of the load.

5.4.3. Backing-up.

5.4.3.1. Always use a trained spotter.

5.4.3.2. The rear camera is only to be used as a visual reference and NOT for spotting purposes.

5.4.3.3. If spotter cannot be seen in the mirror, stop the vehicle immediately and wait for the spotter to be back in sight.

5.4.4. Raising and lowering the body.

5.4.4.1. Overhead clearance. Ensure overhead clearances exist before raising the body of the vehicle and while operating. Do not raise the body unless the vehicle is parked on a reasonably level surface. Never raise the body from the driver's position when the vehicle is positioned at the aircraft.

5.4.4.2. Ensure personnel are clear of outriggers and the body lift scissors assembly when lowering or raising.

5.4.4.3. Do not raise the bed to the troop compartment or crew compartment when winds are in excess of 25 knots.

5.4.4.4. Never attempt to manually lower the body without assistance from vehicle maintenance personnel.

5.4.4.5. Do not raise the body when the rear door is open. Do not open the front body door until the vehicle is positioned at the aircraft.

5.4.5. When extending the platform ramp, ensure safety rails extend with the platform ramp.

5.4.6. Do not drive with the PTO engaged.

5.4.7. Rollover risk warning. The potential for a vehicle to rollover increases for vehicles with a high gross weight (20,000 lbs. or more) or a high center of gravity. Check the vehicle's data plate to determine if the vehicle is at higher risk for rollover.

5.4.8. HDPLP patient compartment. The HDPLP patient compartment must not be operated with sustained winds equal to or greater than 75 mph.

5.4.9. Cargo loading and tie-down procedures. For more information on safely loading, transporting and unloading cargo, refer to the AFMAN 24-306 and the Manufacturer's Operator's Manual for the specific vehicle type.

5.4.10. Hazardous cargo. For more information on transporting hazardous cargo, refer to the Hazardous Cargo Lesson Plan.

5.4.11. Foreign Object Damage (FOD). Vehicle operators will remove FOD from tires during daily the 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, with the exception of emergency vehicles responding to actual situations.

5.4.11.1. Any vehicle which has been driven on an unpaved surface will have a tire FOD inspection accomplished prior to re-entering the airfield area. Vehicles that frequent the flight line will be equipped with a FOD picker and a covered FOD container.

5.4.11.2. FOD picker will be etched with the vehicle number painted on red or orange (or have a red streamer attached).

5.4.11.3. FOD picker will be annotated on vehicle inspection form.

5.4.11.4. FOD containers will be identified with the letters "FOD" and will be emptied daily.

5.4.11.5. FOD checks are performed so that aircraft damage can be kept at a minimum.

5.5. High Lift Vehicle Operation.

5.5.1. Starting Procedures:

5.5.1.1. Ensure that the parking brake is set.

5.5.1.2. Place the transmission in neutral.

5.5.1.3. Turn the key.

5.5.1.4. If the vehicle does not start within a few seconds, disengage the ignition to cool before re-engaging the ignition key.

5.5.2. Driving the high lift truck:

5.5.2.1. Safety interlocks prevent the truck from being driven with the van body raised or the outriggers down.

5.5.2.2. The truck has a higher center of gravity than normal; slow down before turning.

5.5.3. Operating controls and indicators. All controls and indicators are clearly placarded.

5.5.3.1. Cab controls and indicators. Located to the right of the instrument panel.

5.5.3.1.1. Body up indicator. This red indicator is illuminated whenever the van body is not fully lowered and the truck engine is running.

5.5.3.1.2. Body down indicator. This green indicator is illuminated when the van body is fully lowered.

5.5.3.1.3. Outriggers down indicator. This red indicator is illuminated when the outriggers are not fully up. If an attempt is made to move the truck when the outrigger down light is illuminated the engine will shut-off.

5.5.3.1.4. Beacon indicator. The amber indicator is illuminated whenever the beacons are ON.

5.5.3.1.5. PTO indicator. This amber indicator is illuminated whenever the PTO is engaged.

5.5.3.1.6. Beacon switch. Controls the beacons, front and back.

5.5.3.1.7. PTO switch. Engages/disengages the PTO. Before engaging the PTO, the parking brake must be set and the transmission must be in neutral.

5.5.3.1.8. Van body light switch. In combination with a switch in the van body, this switch controls the interior van lights and the platform lights. Either switch will turn on or off the interior lights. A separate floodlight switch in the van body must be engaged to operate the platform floodlights.

5.5.3.2. Cab control box. The cab control box is located on the left side of the driver's seat base.

5.5.3.2.1. Outriggers up/down Switch. The PTO must be engaged to operate the outriggers. The outriggers up/down Switch controls the raising and lowering of the outriggers.

5.5.3.2.2. Body up switch. Controls raising the van body, the outriggers must be down to raise the van body above 10'.

5.5.3.2.3. Body down switch. Controls lowering the van body.

5.5.3.3. Van body control station. Located on the interior left side van wall near the front roll-up door. The PTO must be engaged to operate the outriggers, van body or platform.

5.5.3.3.1. Van body raise switch. Raises the van body.

5.5.3.3.2. Van body lower switch. Lowers the van body.

5.5.3.3.3. Extend/retract switch. Moves the platform in/out.

5.5.3.3.4. Left/right switch. Moves the platform left or right.

5.5.3.3.5. Van lights switch. Controls the van interior lights and floodlights.

5.5.3.3.6. Floodlight switch. Controls the floodlights. Either of the two van light switches must be engaged to turn on the floodlights (located on the van body control station or on the dash control in the cab).

5.5.3.3.7. Emergency kill switch. Protected by a switch guard. When engaged, the engine and hydraulic system are stopped the lighting system is not affected. The kill switch must be reset before restarting the engine.

5.5.4. Order of operation:

5.5.4.1. The operator will position the vehicle for loading and unloading (must not exceed 5 mph speed limit with marshalling guidance from either the aircraft boom operator/loadmaster/co-driver).

5.5.4.2. The driver will remain on the ground, with the vehicle, during all vehicle operations and maintain radio communication with the co-driver at all times.

5.5.4.3. The co-driver, in conjunction with the loadmaster will instruct the driver to stop within 10 feet of the aircraft and exit the vehicle (ensure co-driver has chocks).

5.5.4.4. The co-driver will position himself and chocks within 2 feet of the aircraft cargo door.

5.5.4.5. The co-driver with coordination with the boom operator load master will marshal the vehicle into position.

5.5.4.6. Chock the vehicle in the position near the aircraft.

5.5.5. Power take-off (PTO).

5.5.5.1. Drives the hydraulic pump supplying power to the outriggers, van body and platform. The PTO must be engaged to operate the outriggers, van body and platform.

5.5.5.2. Engaging the PTO. The engine must be running for operation. Place the transmission in neutral. Engage the parking brake. Move the PTO toggle switch to ON (located on the dash control box).

5.5.5.3. Disengaging the PTO. Move the PTO toggle switch to OFF.

5.5.6. Operating the outriggers. Make sure the area around the outriggers is clear of all personnel and equipment before raising or lowering.

5.5.6.1. Lowering.

5.5.6.1.1. Engage PTO.

5.5.6.1.2. Depress the outrigger down switch. Located on the cab control box. Hold until outriggers seat firmly on the ground. The red outriggers down indicator on the dash control box will light as soon as the outriggers start to extend.

5.5.6.1.3. The outriggers must be down to raise the van body above 10’.

5.5.6.2. Raising. **Note:** The van body must be lowered before the outriggers can be raised.

5.5.6.2.1. Engage PTO.

5.5.6.2.2. Depress the outrigger up switch. Located on the cab control box. Hold until outriggers are fully retracted. The red outriggers down indicator on the dash control box will extinguish as soon as the outriggers are fully retracted.

5.5.7. Operating the van body. Keep personnel and equipment clear when raising or lower the lift. Note the maximum weight capacity and service height of the specific vehicle. Also know the largest aircraft serviceable for the specific vehicle.

5.5.7.1. Raising.

5.5.7.1.1. Position the vehicle next to the aircraft. Use spotters when in the circle of safety.

5.5.7.1.2. Place the transmission in neutral. Leave the engine running.

5.5.7.1.3. Engage PTO.

5.5.7.1.4. Lower the outriggers anytime that the body is raised. The van body will not raise unless the outriggers are down. Leave the PTO engaged.

5.5.7.1.5. Engage the up switch. One switch is located on the cab control panel and the other is located in the van body. The red body up indicator on the dash control panel will illuminate as soon as the van body is raised from the frame.

5.5.7.1.6. Hold the switch in the raised position until the platform reaches the desired height.

5.5.7.2. Lowering.

5.5.7.2.1. Engage the down switch. One switch is located on the cab control panel, another switch is located at the van body control station.

5.5.7.2.2. Hold the switch in the down position until platform is fully lowered. The red body up indicator on the dash control panel will remain illuminated until the van body is fully lowered.

5.5.8. Operating the over-cab platform. Keep personnel and equipment off platform when in operation.

5.5.8.1. Extending. Place the ramp toggle switch in the EXTEND position. This switch is located on the van body control station. The PTO must be engaged.

5.5.8.2. Retracting. Place the ramp toggle switch in the RETRACT position, located on the van body control station. The PTO must be engaged.

5.5.8.3. Left/right. Place the toggle switch in the LEFT/RIGHT position, located on the van body control station. The PTO must be engaged.

5.5.9. Shutdown procedures.

5.5.9.1. Use the service brake pedal to come to a complete stop.

5.5.9.2. Place the transmission in neutral.

5.5.9.3. Set the parking brake.

5.5.9.4. Turn-key, shut-off as any other vehicle.

5.5.10. Emergency procedures.

5.5.10.1. Emergency vehicle shutdown.

5.5.10.1.1. Lift the switch guard, located on the van body station.

5.5.10.1.2. Lift the emergency kill toggle switch upward. **Note:** The emergency kill switch stops all operations except for the lights. Before the engine can be restarted, the emergency kill switch must be reset to its normal position.

5.5.10.2. Emergency lowering of the van body. The van body can be lowered without the PTO engaged (without hydraulic power) provided that electrical power is available. If electrical power is not available, proceed as follows:

5.5.10.2.1. Pull manual lowering lever outward, located on the left side of the chassis, aft of the cab.

5.5.10.2.2. Push lever back to normal position when the van body is lowered.

5.5.10.3. Emergency raising of the outriggers.

5.5.10.3.1. Place the hand pump extension handle over the pump handle. The extension handle is stored in the cab, the pump handle is on the left front outrigger.

5.5.10.3.2. If electrical power is available, depress and hold the outrigger up switch.

5.5.10.3.3. If electrical power is not available, depress the outrigger up button on control valve. The outrigger control valve is located above forward and the hold end of the hydraulic reservoir.

5.5.10.3.4. Operate the hand pump until the outriggers are raised. It may take two people to perform this task, one to pump and the other to hold the outrigger up switch.

5.5.10.3.5. Release the outrigger up switch or button, as applicable.

5.5.10.3.6. Return the extension handle to the cab for storage.

5.6. HDPLP Vehicle Operation.

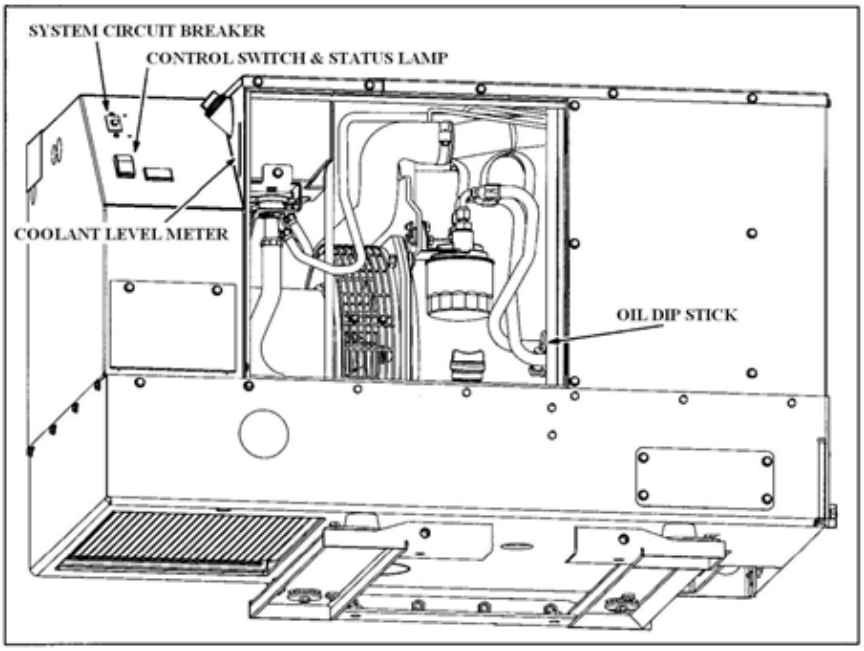
5.6.1. Driver responsibilities:

5.6.1.1. Do not allow any part of the truck to come into contact with electrically charged wires. The truck is not grounded, look up before raising the patient cabin.

5.6.1.2. Notify all personnel around the vehicle, to include personnel within the patient compartment before operating any hydraulic controls.

5.6.2. Generator operations. The HDPLP is equipped with a generator (**Figure 5.6.**) to supply power to the patient compartment heating and air conditioning unites and to the 120 VAC lighting. The generator is located on the passenger side of the vehicle.

Figure 5.6. HDPLP Generator.



5.6.2.1. Before operating the generator and after every 8 hours of continuous operation, inspect the generator as follows:

5.6.2.1.1. Park the vehicle on a level surface.

5.6.2.1.2. Check for signs of fluid leaks and inspect the exhaust system for damage.

5.6.2.1.3. Coolant level can be checked on the fluid level meter.

5.6.2.1.4. Generator engine oil level. Remove the front access door. Check the oil level on the generator engine oil dip stick.

5.6.2.2. Starting the generator.

5.6.2.2.1. Ensure heater and air conditioners are turned-off.

5.6.2.2.2. Ensure the system circuit breaker is in the ON position.

5.6.2.2.3. Push and hold the start function on the control switch until the generator starts.

Note: Excessive cranking can over-heat and damage the starter motor. Do not crank for more than 30 seconds at a time. Wait at least 2 minutes before trying again.

5.6.2.2.4. Check status light. The status light will come on when the generator starts and will stay on while it runs. Rapid blinking of the status light indicates preheating and cranking (preheating may take up to 15 seconds).

5.6.2.2.5. Check for fluid and exhaust leaks. Stop the generator immediately if there is a fluid or exhaust leak and report it to Vehicle Management for repair.

5.6.2.2.6. Generator shutdown procedures.

5.6.2.2.6.1. Turn heater and air conditioners off.

5.6.2.2.6.2. Allow the generator to run under no load for a few minutes to allow the engine to cool down.

5.6.2.2.6.3. Push and release the stop function on the control switch.

5.6.2.2.7. Park the vehicle on a level surface.

5.6.2.2.8. Check for signs of fluid leaks and inspect the exhaust system for danger.

5.6.2.2.9. Coolant level can be checked on the fluid level meter.

5.6.3. Operating the power take-off (PTO). The PTO must be engaged to raise the patient compartment or to raise or lower the outriggers. Hydraulic power output is regulated by the engine throttle advance which is controlled by the engine control computer. To use the PTO/pump assembly:

5.6.3.1. Start the engine with the transmission in neutral (ensure parking brake is set).

5.6.3.2. Place the PTO switch in the ON position. The orange PTO ON indicator will light when the PTO is engaged.

5.6.3.3. Ensure rpm gauge reads 1000-1500 rpm. If not within limits, then adjust rpm using the manual throttle control located on the right of the steering column.

5.6.3.4. To disengage the PTO, place the PTO switch in the OFF position.

5.6.3.5. Return rpm to idle if manually adjusted above.

Note: Do not drive the vehicle with PTO engaged.

5.6.4. Operating stabilizers:

Figure 5.7. Hydraulic Control Box.

5.6.4.1. The stabilizer legs can be lowered or raised from the main hydraulic control box. See **Figure 5.7.**

Note: Stay clear of stabilizer legs when lowering or raising outriggers.

5.6.4.1.1. To lower (extend) the stabilizers, proceed as follows:

5.6.4.1.1.1. Open the main door to the hydraulic control box.

5.6.4.1.1.2. Pull the selector valve out for outrigger/stabilizer operation. See **Figure 5.7.**

5.6.4.1.1.3. Locate the four outrigger controls (indicated by decal) and move in the indicated direction to go down.

5.6.4.1.1.4. Use level indicators on truck body so as to level vehicle.

5.6.4.1.1.5. After all four outriggers are in place, push selector valve back in for the upcoming patient compartment lift.

5.6.4.1.1.6. Ensure the turn switch for Lower/Off/Upper is set to Upper. This allows control for the patient compartment control panel. **Note:** Pressure reading on pressure gauge will indicate 2200-2300 when outriggers are fully deployed.

5.6.4.1.2. To raise (retract) the stabilizer, proceed as follows:

5.6.4.1.2.1. Ensure selector valve is pulled out. See **Figure 5.7**

5.6.4.1.2.2. Move the four outrigger controls (indicated by decal and move in the indicated direction to go up). **Note:** The patient cabin must be fully lowered before the stabilizers can be retracted.

5.6.4.1.2.3. Push Selector Valve is for the outrigger/stabilizer operation. See **Figure 5.7.**

5.6.4.1.2.4. Close hydraulic control box door.

5.6.5. Operating rear lift-gate (litter lifting platform).

Note: In order to raise or lower the patient cabin using any of the control panel switches, the engine must be running, the transmission must be in NEUTRAL, the parking brake must be engaged, the PTO and pump must be running, the stabilizers must be lowered, and the lift gate unfolded (moved away from the patient cabin).

5.6.5.1. To prepare the lift-gate for operation, use the fixed ground control station. See **Figure 5.4.** Unfold rear lift gate to prepare for loading/unloading.

5.6.5.2. Using the controls, unfold the lift (left toggle switch DOWN, right toggle switch UP) from the upright stow away position to a horizontal level position.

5.6.5.2.1. Lower the lift (both toggle switches DOWN) to a comfortable height to get the rails for setup.

5.6.5.2.2. Manually lift or unfold the ramp extension.

5.6.5.2.3. Deploy safety rails and insert pins to lock in place.

5.6.5.2.4. Lower lift to ground level.

5.6.5.2.5. Install safety nets on both rear of litter left and rear deck platform.

5.6.5.3. The lift gate can be raised and lowered by two separate control panels.

5.6.5.3.1. The fixed ground control station will RAISE/LOWER and FOLD/UNFOLD the platform. See **Figure 5.4.**

Table 5.4. Toggle Switches.

LEFT Switch	RIGHT Switch	ACTION
Up	Up	Raise Lift
Down	Down	Lower Lift
Up	Down	Fold Ramp (clockwise direction)
Down	Up	Unfold Ramp (counter-clockwise direction)

5.6.5.3.2. The hand-held pendant control (mounted to the railing). See **Figure 5.3.**

5.6.5.3.2.1. The top button #1 (cord end on controller) when depressed will raise the platform.

5.6.5.3.2.2. The bottom button #3 when depressed will lower the platform.

5.6.5.3.2.3. The platform can be leveled using the center button #2 in conjunction with either the top #1 or bottom #3 buttons depending on direction necessary to level the platform.

Note: Vehicle must not be driven with the lift-gate down! This option is to be used only to move the truck short distances when maneuvering. Driving with the lift-gate down could lead to lift-gate damage and/or personal injury.

5.6.6. Raising and lowering the patient cabin (patient compartment). The patient cabin can be raised or lowered from the outside hydraulic control box, or the patient compartment control panel. See **Figure 5.2.**

5.6.6.1. It is recommended that the patient cabin be operated from the patient compartment control panel. The lower/off/upper switch (**Figure 5.2.**) determines which control panel will be available to raise/lower the patient compartment.

5.6.6.2. When the LOWER/OFF/UPPER switch is turned to LOWER, the outside hydraulic control box may be used. When LOWER/OFF/UPPER switch is turned to UPPER, the patient compartment control panel may be used. When LOWER/OFF/UPPER switch is turned to off, neither controls can be used to raise/lower the patient compartment.

5.6.6.3. To raise the patient cabin, proceed as follows:

5.6.6.3.1. Position vehicle next to aircraft to be serviced.

Note: Vehicle cannot be driven with patient cabin raised.

5.6.6.3.2. Engage the PTO (as directed above).

5.6.6.3.3. Extend stabilizer legs (as directed above).

Figure 5.8. LOWER/OFF/UPPER Switch.

Note: Although the rear lift-gate is not required to be fully unfolded, or in the horizontal position, it MUST be moved away from the patient cabin before it can be raised or lowered.

5.6.6.3.4. Position rear lift gate away from patient cabin (as directed above).

5.6.6.3.5. Raise patient cabin by pushing the LIFT UP/DOWN control lever in the UP direction.

5.6.6.3.5.1. When the floor of the passenger cabin makes complete contact with the front upper deck, let off control to stop movement.

5.6.6.3.5.2. Go out onto upper deck and deploy safety rails. Re-start upward movement until reaching desired height.

5.6.6.4. To lower the cabin, proceed as follows:

Note: Stay clear of the liftgate (litter lifting platform) and patient cabin (patient compartment) when lowering.

5.6.6.4.1. Manually lower safety rails on the upper deck and ensure all cabin doors are closed.

5.6.6.4.2. Lower the patient cabin by pulling the LIFT UP/DOWN control lever (**Figure 5.8.**) towards the DOWN position and holding until the patient cabin reaches the desire height.

5.6.7. Operating the front platform.

5.6.7.1. The front platform ramp has an electrically operated forward extension.

5.6.7.2. To move extension platform toward aircraft, push and hold the PLATFORM IN/OUT control lever in the OUT position.

5.6.7.3. To move extension platform away from aircraft, pull and hold the PLATFORM IN/OUT control lever in the IN position.

5.6.7.4. The swivel on the front platform is controlled using the ROTATE LEFT/RIGHT control lever.

5.6.7.4.1. To rotate swivel to the left (counter clockwise), push control lever upwards to LEFT.

5.6.7.4.2. To rotate swivel to the right (clockwise), pull control lever downwards to RIGHT.

5.6.7.5. The handrails must be raised manually when the patient cabin floor is level with the platform floor. The handrails must be lowered manually upon lowering of the patient cabin.

5.6.7.6. Once platform is in place, flip the front bridge plate onto deck of the plane.

5.6.8. Operating ventilation/emergency egress.

5.6.8.1. Additional patient compartment ventilation can be provided by cranking open roof ventilation cover.

5.6.8.2. Roof mounted emergency egress cover can be removed by pushing the red lever up.

5.6.9. Operating power category.

5.6.9.1. These units are equipped with electrically powered canopies over the front and rear platform. The operating controls (**Figure 5.9.**) for the power canopies are located on the interior walls of the patient cabin. To operate:

5.6.9.1.1. Ensure that the truck ignition is switched on.

5.6.9.1.2. To extend the canopy, hold the canopy switch to the OUT position.

5.6.9.1.3. To retract, hold the canopy switch to the IN position.

5.6.9.1.4. Do NOT extend canopy past red STOP marker located on underneath side of the canopy. They do not stop automatically; damage may occur.

Note: Patient cabin can be lowered and raised with canopies extended. However, it is recommended that the front canopy be retracted in prior to raising patient cabin to an aircraft to prevent it coming into contact with any part of the aircraft.

Figure 5.9. Flood Light/Canopy Switches.

5.6.10. Interior breaker panel.

5.6.10.1. Interior breaker panels (**Figure 5.10 and Figure 5.11.**) are located above the Patient Compartment hydraulic controls.

5.6.10.2. Flip all break switches to the ON position.

5.6.10.2.1. Interior lighting.

5.6.10.2.2. Air conditioning and heater unites.

5.6.10.2.3. Front and rear canopies.

5.6.10.3. When the vehicle is not in use, flip all breakers to the OFF position to eliminate any residual electrical drain on the vehicle batteries.

Figure 5.10. Top Breaker Panel.

Figure 5.11. Bottom Breaker Panel.

5.6.11. Emergency shutdown procedure. In case of an emergency, the unit may be shut down by using the EMERGENCY STOP switch (**Figure 5.8.**) located on the two main control panels (outside hydraulic control box and the patient cabin control panel). To operate either EMERGENCY STOP switch:

5.6.11.1.1. Engage switch by pressing downward (in) on switch.

5.6.11.1.2. To reset switch, pull switch head upward (out).

5.6.11.1.3. When engaged, the EMERGENCY STOP switch (**Figure 5.8.**) shuts off the truck engine as well as the power take-off and hydraulic pump. Power remains available to the lights. Before the truck engine can be restarted, the EMERGENCY STOP switch must be reset.

5.6.12. Emergency patient cabin lowering (without electric power). **Note:** These procedures are to be followed in the event of loss of engine power or PTO failure. Make certain that forward rails are manually stowed and all doors are securely closed prior to lowering operations.

5.6.12.1. On lower hydraulic control box (**Figure 5.1.**), the far left hydraulic lever, below the Emergency Control panel, is utilized for lifting and lowering of patient cabin.

5.6.12.2. From lower hydraulic control box (**Figure 5.1.**) or Patient Cabin Controls (**Figure 5.2.**), press and hold EMERGENCY PUMP (red flush button) to activate electric back up pump and activate lever.

5.6.12.3. Push the LIFT lever inward to raise the box.

5.6.12.4. Pull the LIFT lever out to lower the box.

5.6.12.5. Push/pull the middle PLATFORM lever to extend/retract the platform.

5.6.13. Emergency stabilizer reaction. **Note:** Make sure the patient cabin is fully lowered before retracting stabilizer legs.

5.6.13.1. From lower hydraulic control box (**Figure 5.1.**) or Patient Cabin Controls (**Figure 5.2.**): Press and hold EMERGENCY PUMP (red flush button) to activate electric back up pump.

5.6.13.2. Activate emergency pump for no more than 30 seconds on, and at least 15 seconds off. Over activation will cause damage to the pump making emergency operations impossible.

5.6.13.3. Activate corresponding outrigger control lever to raise outrigger.

5.6.14. Loading and unloading patients from the ground.

5.6.14.1. Start truck engine and leave engine running, place transmission in NEUTRAL, turn PTO on and ensure parking brake is set.

5.6.14.2. Ambulatory patients may board the HDPLP via the back stair.

5.6.14.2.1. Individuals on crutches may stand in the railed area of the lift platform.

5.6.14.2.2. Use the lift for litter patients/attendants and/or medical equipment.

5.6.14.3. Prepare rear lift-gate for operation:

5.6.14.3.1. Turn on rear platform lights and adjust as necessary for increased visibility.

5.6.14.3.2. Unfold rear lift-gate platform to a horizontal position.

5.6.14.3.3. Lower rear lift-gate to ground level.

5.6.14.3.4. Raise and lock hand railings into place.

5.6.14.4. If weather requires, extend canopy over platform.

5.6.14.5. Load passengers and equipment onto lift-gate.

5.6.14.5.1. Wheelchairs and gurneys wheels must be locked in place and litters must be grounded prior to raising or lowering lift gate.

5.6.14.5.2. Only two litter patients should be moved at a time based on space limitations.

5.6.14.5.3. The four-person litter carry is the required method of on-/off-loading of litters.

5.6.14.6. Raise lift-gate up to patient cabin level.

5.6.14.7. Transfer passengers and equipment into patient cabin.

5.6.14.7.1. Wheelchairs and gurneys may be secured in place inside the patient cabin.

5.6.14.7.2. Patients will be transported with their head toward the front and feet toward the rear of the HDPLP.

5.6.14.8. Unloading patients to the ground will be accomplished in the same manner as loading.

5.6.14.9. Once ground loading/unloading is complete:

5.6.14.9.1. Retract canopy (if used).

5.6.14.9.2. Lower safety rails.

5.6.14.9.3. Fold and stow rear lift-gate. **Note:** Rear lift-gate must be raised, folded and stowed before driving vehicle.

5.6.15. Loading and unloading patients onto an aircraft.

5.6.15.1. Marshal vehicle into position to access the aircraft.

5.6.15.2. Place transmission in NEUTRAL, set parking brake and turn PTO on.

5.6.15.3. Deploy outriggers when area is clear.

5.6.15.4. Move/lower rear lift-gate away from patient cabin.

Note: The rear lift-gate must be moved away from the cabin to allow the patient cabin to clear the lift-gate when raising and lowering.

5.6.15.5. When the patient cabin floor is level with the front platform:

5.6.15.5.1. Turn on front platform lights and adjust as necessary for increased visibility.

5.6.15.5.2. Manually raise the front railing.

5.6.15.5.3. Continue to raise the patient cabin.

5.6.15.6. When platform floor is level with aircraft threshold:

5.6.15.6.1. Move extension platform forward until platform bumper contacts aircraft.

5.6.15.6.2. Extend platform side rails by pulling out on side rails until rail bumpers are in contact with aircraft.

5.6.15.7. If weather requires, extend canopy over platform.

5.6.15.8. Transfer passengers and equipment to or from aircraft.

5.6.15.8.1. During aircraft servicing, the vehicle's engine may be shut-off to conserve fuel.

5.6.15.8.1.1. Engine may be shut off by pushing in "emergency stop" button on patient compartment control panel (**Figure 5.2.**).

5.6.15.8.1.2. Climate control functions will continue to operate on generator power.

5.6.15.8.2. The medical personnel must confirm with aero medical evacuation crew the readiness for transfer of patients to or from the aircraft.

5.6.15.8.3. The four-person litter carry is the required method of on/off loading of litters.

5.6.15.8.4. Patients will be transported in the HDPLP with their head toward the front and feet toward the rear.

5.6.15.9. Once transfer is completed:

5.6.15.9.1. Restart vehicle's engine (if turned off earlier).

5.6.15.9.1.1. Ensure all personnel in and around vehicle is aware that the vehicle engine is about to be restarted.

5.6.15.9.1.2. Pull out EMERGENCY STOP button, on patient compartment control panel.

5.6.15.9.1.3. Flip ignition START switch on patient compartment control panel, to re-start engine.

5.6.15.9.2. Manually retract hand rails.

5.6.15.9.3. Retract front platform extension.

5.6.15.9.4. Retract canopy (if used).

5.6.15.9.5. Turn off front platform lights (if used).

5.6.15.9.6. Lower patient cabin.

5.6.15.9.7. Ensure all personnel and objects are clear of patient cabin scissors before lowering.

5.6.15.9.8. Raise stabilizer legs.

5.6.15.9.9. Turn PTO switch off.

5.6.15.9.10. Back away from the aircraft.

Section 6—EXPLANATION AND DEMONSTRATION.

6.1. Instructor's Preparation.

6.1.1. Establish a training location.

6.1.2. Obtain appropriate vehicle 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 high lift truck 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.

6.2.1.3.3. First aid kit.

6.2.1.3.4. Warning triangles.

6.2.1.3.5. Raingear, cold weather gear, etc.

6.2.1.3.6. Reflective belt during hours of reduced visibility or on the flightline.

6.2.1.4. The trainer and trainee should walk-around vehicle to become familiar 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 high lift truck safety.

6.2.2. Practice basic Risk Management (RM) process during demonstration:

6.2.2.1. Identify the hazard.

6.2.2.2. Assess the risks.

6.2.2.3. Analyze risk control measures.

6.2.2.4. Make control decisions.

6.2.2.5. Implement risk controls.

6.2.2.6. Supervise and review.

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 6**. An inspection guide (**Attachment 2**) can be used to ensure all areas of the highlift 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.

6.4.2. For all high lift trucks, 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. Specific high lift truck capacities:

6.4.2.1.1. Explain parking brake as they apply to high lift truck being used.

6.4.2.1.2. Explain the weight restrictions (over-cab and rear platforms).

6.4.2.1.3. Explain weather restrictions.

6.4.2.2. High lift truck controls and indicators.

6.4.2.3. Point out the items to be inspected during operations.

6.4.2.3.1. Instruments.

6.4.2.3.2. Air pressure gauge (if the vehicle have air brakes).

6.4.2.3.3. Temperature gauges.

6.4.2.3.4. Pressure gauges.

6.4.2.3.5. Ammeter/voltmeter.

6.4.2.3.6. Mirrors.

6.4.2.3.7. Tires.

6.4.3. Demonstrate the following high lift truck operations (use spotter when backing).

6.4.3.1. Starting procedures.

6.4.3.2. Raising/lowering the van body.

6.4.3.3. Emergency lowering of the van body.

6.4.3.4. Operating the over-cab platform.

6.4.3.5. Operating the outriggers.

6.4.3.6. Emergency raising of the outriggers.

6.4.3.7. Power take-off operation.

6.4.3.8. Backing.

6.4.3.9. Parking.

6.4.3.10. Shutdown procedures.

6.4.3.11. Emergency shutdown procedures.

6.4.3.12. Cargo securement.

6.4.3.13. HDPLP specific:

6.4.3.13.1. Generator operations.

6.4.3.13.2. Operating rear liftgate.

6.4.3.13.3. Raising/lowering the patient cabin.

6.4.3.13.4. Operating the front and rear platform.

6.4.3.13.5. Ventilation/emergency egress operation.

6.4.3.13.6. Power canopy operation.

6.4.3.13.7. Loading/unloading patients (from ground and from aircraft).

6.4.4. Show trainee the after operation inspection and report.

6.4.4.1. Ensure vehicle is cleaned.

6.4.4.2. Refuel vehicle.

6.4.4.3. Following manufacturer’s shut-down procedures.

6.4.4.4. Park.

6.4.4.4.1. Apply brakes.

6.4.4.4.2. Place transmission in neutral (park or an automatic).

6.4.4.5. Perform a walk around inspection.

6.4.4.6. Annotate any discrepancies found on AF Form 1800.

6.4.5. 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 high lift truck 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. First aid kit.

7.1.1.2.4. Warning triangles.

7.1.1.2.5. Reflective belt during hours of reduced visibility or on the flightline.

7.1.1.2.6. Raingear, cold weather gear, etc.

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 mirrors.

7.1.1.6. High lift truck 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 From 1800 is properly documented.

7.1.2.2.1. Establish a course that will have the following:

7.1.2.2.1.1. Starting procedures.

7.1.2.2.1.2. Raising/lowering the van body.

7.1.2.2.1.3. Emergency lowering of the van body.

7.1.2.2.1.4. Operating the over-cab platform.

7.1.2.2.1.5. Operating the outriggers.

7.1.2.2.1.6. Emergency raising of the outriggers.

7.1.2.2.1.7. Power take-off operation.

7.1.2.2.1.8. Backing.

7.1.2.2.1.9. Parking.

7.1.2.2.1.10. Shutdown procedures.

7.1.2.2.1.11. Emergency shutdown procedures.

7.1.2.2.1.12. Cargo securement.

7.1.2.2.1.13. HDPLP specific:

7.1.2.2.1.13.1. Generator operations.

7.1.2.2.1.13.2. Operating rear liftgate.

7.1.2.2.1.13.3. Raising/lowering the patient cabin.

7.1.2.2.1.13.4. Operating the front and rear platform.

7.1.2.2.1.13.5. Ventilation/emergency egress operation.

7.1.2.2.1.13.6. Power canopy operation.

7.1.2.2.1.13.7. Loading/unloading patients (from ground and aircraft).

7.1.2.3. Perform after-operation inspection.

7.1.2.3.1. Ensure vehicle cleaned.

7.1.2.3.2. Refueled.

7.1.2.3.3. Following manufacturer's shut-down procedures.

7.1.2.3.4. Park.

7.1.2.3.5. Apply brakes.

7.1.2.3.6. Place transmission in neutral (park or an automatic).

7.1.2.4. Perform a walk around inspection.

7.1.2.5. Report any discrepancies found on AF Form 1800.

7.2. Performance Evaluation.

7.2.1. Trainee will perform performance evaluation found in **Attachment 4**.

7.2.1.1. Instructor and trainee will review **Attachment 3** and **Attachment 4**.

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 high lift truck 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. First aid kit.

7.2.2.2.4. Warning triangles.

7.2.2.2.5. Reflective belt during hours of reduced visibility or on the flightline.

7.2.2.2.6. Fuses (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.

7.2.2.5. Properly adjust driver’s seat and all mirrors.

7.2.2.6. High lift truck safety items/procedures.

7.2.3. Explain driving techniques.

7.2.4. Utilize the pre-established course.

7.2.5. Ensure the driver is aware of driving situations.

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 4**.

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

AFI 24-302, *Vehicle Management*, 26 June 2012

AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 June 2012

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

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*, 22 September 2009

AF Form 1800, *Operator's Inspection Guide and Trouble Report*, 1 April 2010

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFQTP—Air Force Qualification Training Plan

AMCI—Air Mobility Command Instruction

ASF—Aeromedical Staging Flight

FOD—Foreign Object Damage

HAZMAT—Hazardous Materials

HDPLP—High Deck Patient Loading Platform

IAW—In Accordance With

PTO—Power Take-Off

RM—Risk Management

TO—Technical Order

USAF—United States Air Force

VCO—Vehicle Control Official

Attachment 2

HIGH LIFT TRUCK INSPECTION GUIDE

GENERAL

STEP 1. VEHICLE OVERVIEW

☐ Paperwork
- AF Form 1800
- Discrepancy Correction Complete (VM Annotation)

☐ Vehicle Approach
- Damage
- Vehicle Leaning
- Fresh Leakage of Fluids
- Hazards Surrounding Vehicle

INTERNAL

STEP 2. ENGINE COMPARTMENT

☐ Leaks/hoses/Electrical Wiring Insulation
☐ Oil Level
☐ Coolant Level
☐ Power Steering Fluid
☐ Hydraulic Fluid
☐ Windshield Washer Fluid
☐ Battery Fluid Level, Connections & Tie-downs
☐ Automatic Transmission Fluid Level
☐ Incorrectly Stowed Outriggers.
☐ Engine Compartment Belts

STEP 3. ENGINE START/CAB CHECK (LEFT/FRONT/RIGHT)

☐ Safe Start
☐ Gauges
- Oil Pressure Gauge
- Air Pressure Gauge
- Temperature Gauge (Coolant/Engine Oil)
- Ammeter/Voltmeter

☐ Warning Lights & Buzzers
☐ Mirrors & Windshield
☐ Rear Camera Monitor
☐ Wipers/Washers
☐ Power Take-Off
☐ Rear Lift Platform (fold/unfold and raise/lower)

☐ Outriggers (extend/retract)
☐ Patient Compartment (if applicable)
☐ Power Canopy (if applicable, extend/retract)
☐ Front Platform (if applicable, extend/retract)
☐ Overhead Vent/Emergency Egress (if applicable)
☐ Power Generator
☐ Emergency & Safety Equipment

- Red Reflective Triangles
- Properly Charged & Rated Fire Extinguisher
- Optional (Chains/Tire Changing Equip, Emergency Phone List)
- Emergency Shutdown Control
- Emergency Lowering Controls
- Emergency Outrigger Retraction Power Pack

☐ **3B** – Lights/Reflectors/Reflector Tape Condition (Front/Sides/Rear)
(Dash Indicators for:)

- Left Turn Signal
- Right Turn Signal
- Four-Way Emergency Flashers
- Beacons
- Spot Lamps
- Clip Lights
- Headlights
- Backing Lights
- Brake Lights
- Interior Patient Compartment Lights (if applicable)
- Red Reflectors & Amber Reflectors
- Reflective Tape Condition

☐ Horn
☐ Heater/Defroster
☐ Brakes

- Parking Brake Check
- Hydraulic Brake Check
- Service Brake Check
- Safety Belt

(TURN-OFF ENGINE/TURN-ON HEADLIGHTS *LOW BEAM* AND FOUR-WAY FLASHERS)

STEP 4. WALK-AROUND INSPECTION

☐ **4A** – Steering

- Steering Box/Hoses
- Steering Linkages

☐ **4B** – Suspension
- Springs/Air/Torque
- Mounts
- Shock Absorbers

☐ **4C** – Brakes
- Slack Adjustors & Pushrods
- Brake Chambers
- Brake Hoses/Lines
- Drum Brake
- Brake Linings

☐ **4D** – Wheels
- Rims
- Tires
- Hub Oil Seals/Axle Seals
- Lug Nuts
- Spacers & Budd Spacing

SIDE OF VEHICLE

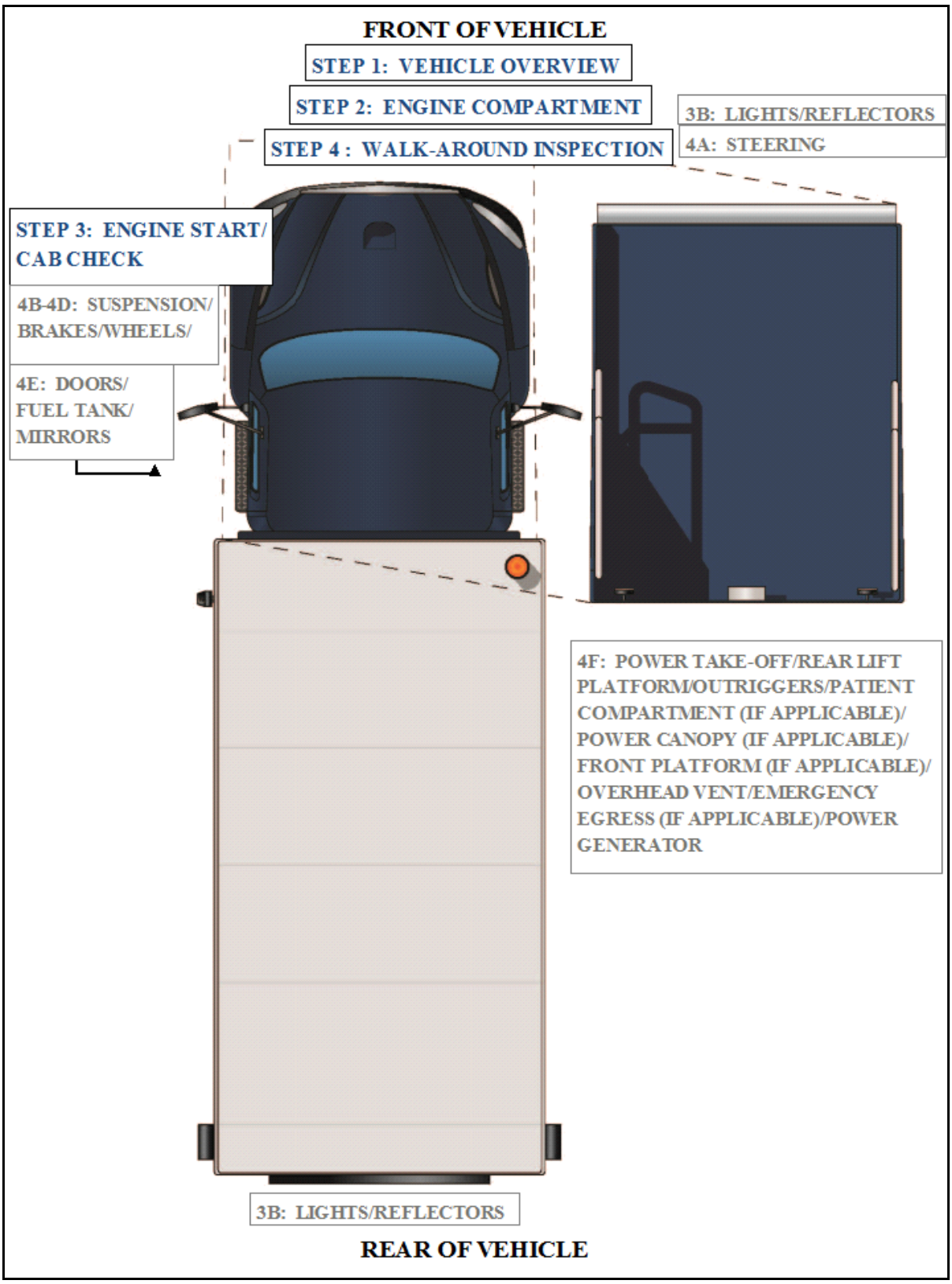
☐ **4E** – Doors

☐ **4E** – Mirrors

☐ **4E** – Fuel Tank

REAR OF VEHICLE

Figure A2.1. High Lift Truck 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 high lift truck.

A3.1.2. Understand the purpose of the high lift truck and their role in the mission.

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

A3.1.4. Safely and proficiently operate the high lift truck.

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

A3.3. Scoring.

A3.3.1. The trainer examiner will be scoring the trainee on high lift truck operations and also the general safe driving practices. The examiner will give directions and instructions to the trainee in sufficient time for him/her 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 he/she has done anything wrong. It is in the best interest to concentrate on the operation of the high lift truck. 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 high lift truck 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 pattern of pre-trip checklist.			
1.3. Performs brake component check			
1.4. Signs AF Form 1800 to signify accomplishment of complete inspection.			
1.5. Cleans windshield, windows, mirrors, lights and reflectors			
1.6. Continues during operations inspection checks.			
1.7. Knows use of tools, emergency devices, tire chains, fire extinguishers, etc.			
1.8. Performs post trip inspection and reports malfunctions to Vehicle Management.			
Event	**Go**	**No Go**	**Notes**
2. SAFETY PRECAUTIONS			12501
2.1. Did the trainee demonstrate awareness of the weight restrictions, especially on the over-cab and rear platforms?			
2.2. Did the trainee demonstrate awareness of weather restrictions?			
2.3. Did the trainee demonstrate cabin doors were closed during movement? (HDPLP Only)			
2.4. Did the trainee demonstrate rear cabin door was closed when the cabin was elevated for patient enplaning/deplaning? (HDPLP Only)			
2.5. Did the trainee demonstrate all railings were used and locked into place?			
2.6. Vehicle wheel chocks in place.			

Event	Go	No Go	Notes
3. ON-ROAD DRIVING TEST			
3.1. General - safety belt is used; obeys all traffic signs, signals, and laws; completes test without an accident or moving violation.			
3.2. Starting Procedures – Able to properly start the vehicle. Understands controls and gauges.			
3.3. Raising/Lowering Van Body.			
3.4. Emergency Lowering Van Body.			
3.5. Operating the Over-Cab Platform.			
3.6. Outrigger Operation – Able to properly deploy the outriggers.			
3.7. Emergency Raising Outriggers.			
3.8. Power Take-Off (PTO) Operation – Properly engage the PTO.			
3.9. Generator Operations – Properly operate the auxiliary generator. (HDPLP Only)			
3.10. Rear Liftgate Operation – Properly operate the rear liftgate. (HDPLP Only)			
3.11. Raise/Lowering Patient Cabin. (HDPLP Only)			
3.12. Operate the Front and Rear Platform. (HDPLP Only)			
3.13. Operate Ventilation and Emergency Egress. (HDPLP Only)			
3.14. Operate the Power Canopy. (HDPLP Only)			
3.15. Shutdown Procedures.			
3.16. Emergency Shutdown Procedures.			
3.17. Backing.			
3.18. Parking.			
Event	**Go**	**No Go**	**Notes**
4. HIGH DECK PATIENT LOADING PLATFORM (HDPLP) PATIENT LOAD/UNLOAD FROM GROUND			
4.1. Marshals HDPLP into position.			
4.2. Uses spotter to guide vehicle into position with the chocks pre-positioned.			
4.3. Engages PTO.			

4.4. Lowers rear platform by using fixed (ground) exterior control station (holds left lever down and right lever up until level with ground, then holds left and right levers down until completely lowered).			
4.5. Raises and locks rear platform hand rail system together.			
4.6. Loads patients onto lift gate (max of 2 litter patients and 4 litter bearers).			
4.7. Raises lift gate level with by using fixed (ground) exterior control station (holds left and right levers up until level with rear deck).			
4.8. Transfers patients into patient compartment.			
4.9. Reverses objectives 4.1. through 4.6. to demonstrate unloading patients from the ground.			
Event:	**Go**	**No Go**	**Notes**
5. HDPLP PATIENT LOAD/UNLOAD FROM AIRCRAFT			
5.1. Marshals HDPLP up to the aircraft (or simulated aircraft).			
5.2. Uses spotter(s) to guide the vehicle into position with the chocks pre-positioned.			
5.3. Engages PTO.			
5.4. Lowers outriggers (ensure area is clear) once in position.			
5.5. Moves rear platform away from the patient compartment before raising or lowering the patient compartment.			
5.6. Verifies that the required number of medical personnel are in place and ready to transfer patients. (4) litter bearers and (1) medical personnel will remain in the patient compartment during accent/decent.			
5.7. Raises HDPLP to level of aircraft.			
5.8. Raises/extends safety rails.			
5.9. Extends front platform (if necessary).			
5.10. Extends front canopy (if necessary).			

5.11. Flips bridge plate onto deck of aircraft.			
5.12. Receives patients from aircrew.			
5.13. Reverses objectives 5.1. through 5.11. to demonstrate unloading patients from an aircraft.			
Event:	**Go**	**No Go**	**Notes**
6. CARGO SECUREMENT (If not accomplished, have trainee explain the procedure):			
6.1. Checks to ensure high lift truck is not overloaded and within legal limits.			
6.2. Cargo is not top heavy and load is distributed evenly.			
6.3. Cargo is securely fasten (blocking/bracing and cargo tiedowns.			
6.4. Double checks securement of cargo prior to operating.			
CERTIFIER COMMENTS:			

Attachment 4

SEVEN-STEP INSPECTION PROCESS

Figure A4.1. Seven-Step Inspection Process.

Seven-Step Inspection Process	
Step	**Procedure**
1. Vehicle Overview	• Review the AF Form 1800. o Ensure any discrepancy has been corrected. o Vehicle Management annotated the discrepancy was completed. o Approaching the vehicle. ▪ Damage or vehicle leaning to one side. ▪ Fresh leakage of fluids. ▪ Hazards around vehicle.
2. Check Engine Compartment	• **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: o Engine oil level. o Coolant level in radiator; condition of hoses. o Power steering fluid level; hose condition (if so equipped). o Windshield washer fluid level. o Battery fluid level, connections and tie-downs (battery may be located elsewhere). o Automatic transmission fluid level (may require engine to be running). o Check belts for tightness and excessive wear (alternator, water pump, air compressor)--learn how much "give" the belts should have when adjusted right.

	o Leaks in the engine compartment (fuel, coolant, oil, power steering fluid, hydraulic fluid, battery fluid). Cracked, worn electrical wiring insulation.
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. • 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. • **Note:** For trailers only, if the yellow light on the left rear of the trailer stays on, the ABS is not working properly. • Look at the gauges. o <u>Oil pressure</u>. Should come up to normal within seconds after engine is started. o <u>Air pressure</u>. Pressure should build from 50 to 90 psi within 3 minutes. Build air pressure to governor cut-out (usually around 120 – 140 psi. Know the vehicle's requirements. o <u>Ammeter and/or voltmeter</u>. Should be in normal range(s). o <u>Coolant temperature</u>. Should begin gradual rise to normal operating range. o <u>Engine oil temperature</u>. Should begin gradual rise to normal operating range. o <u>Warning lights and buzzers</u>. Oil, coolant, charging circuit warning, and antilock brake system lights should go out right away. o 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. ▪ Interaxle differential lock (if vehicle has one). ▪ Horn(s). ▪ Windshield wiper/washer. ▪ Lights. ▪ Headlights. ▪ Dimmer switch. ▪ Turn signal. ▪ Four-way flashers. ▪ Parking – clearance – identification – marker switch (switches). • Check mirrors and windshield. o Inspect mirrors and windshield for cracks, dirt, illegal stickers, or other obstructions to seeing clearly. Clean and adjust as necessary. • Check emergency equipment. o Check for safety equipment: ▪ 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: ▪ Chains (where winter conditions require). ▪ Tire changing equipment. ▪ List of emergency phone numbers Accident reporting kit (packet). o Check safety belt. Check that the safety belt is securely mounted, adjusts; latches properly and is not ripped or frayed.
4. Turn-off Engine	• 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.

5. Do Walk-Around Inspection	• General. o Go to front of vehicle and check that low beams are on and both of the four-way flashers are working. o Push dimmer switch and check that high beams work. o Turn-off headlights and four-way emergency flashers. o Turn-on parking, clearance, side-marker, and identification lights. o Turn-on right turn signal, and start walk-around inspection. o Walk around and inspect. ▪ Clean all lights, reflectors, and glass as while doing the walk-around inspection. • Left front side. o Driver's door glass should be clean. o Door latches or locks should work properly. • Left front wheel. o Condition of wheel and rim--missing, bent, broken studs, clamps, lugs, or any signs of misalignment. o Condition of tires--properly inflated, valve stem and cap OK, no serious cuts, bulges, or tread wear. o Use wrench to test rust-streaked lug nuts, indicating looseness. o Hub oil level OK, no leaks. Left front suspension. o Condition of spring, spring hangers, shackles, o U-bolts. o Shock absorber condition. • Left front brake. o Condition of brake drum or disc. o Condition of hoses. • Front. o Condition of front axle. Condition of steering system. o No loose, worn, bent, damaged or missing parts. o Mustgrabsteering mechanism to test for looseness.

	o Condition of windshield. o Check for damage and clean if dirty. o Check windshield wiper arms for proper spring tension. o Check wiper blades for damage, "stiff" rubber, and securement. o Lights and reflectors. o Parking, clearance, and identification lights clean, operating, and proper color (amber at front). o Reflectors clean and proper color (amber at front). o Right front turn signal light clean, operating, and proper color (amber or white on signals facing forward). • Right side o Right front: check all items as done on left front. o Primary and secondary safety cab locks engaged (if cab-over-engine design). o Right fuel tank(s). o Securely mounted, not damaged, or leaking. Fuel crossover line secure. o Tank(s) contain enough fuel. Cap(s) on and secure. o Condition of visible parts. Rear of engine--not leaking. Transmission--not leaking. o Exhaust system--secure, not leaking, not touching wires, fuel, or air-lines. o Frame and cross members--no bends or cracks. o Air-lines and electrical wiring--secured against snagging, rubbing, wearing. o Spare tire carrier or rack not damaged (if so equipped). o Spare tire and/or wheel securely mounted in rack. o Spare tire and wheel adequate (proper size, properly inflated). o Cargo securement (trucks). o Cargo properly blocked, braced, tied, chained, etc. Header board adequate, secure (if required).

	o Side boards, stakes strong enough, free of damage, properly set in place (if so equipped). o Canvas or tarp (if required) properly secured to prevent tearing, billowing, or blocking of mirrors. o If oversize, all required signs (flags, lamps, and reflectors) safely and properly mounted and all required permits in driver's possession. o Curbside cargo compartment doors in good condition, securely closed, latched/locked and required security seals in place. • Right rear. o Condition of wheels and rims--no missing, bent, or broken spacers, studs, clamps, or lugs. o 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. o Tires same type, e.g., not mixed radial and bias types. o Tires evenly matched (same sizes). Wheel bearing/seals not leaking. o Suspension. o Condition of spring(s), spring hangers, shackles, and u-bolts. o Axle secure. o Powered axle(s) not leaking lube (gear oil). Condition of torque rod arms, bushings. o Condition of shock absorber(s). o If retractable axle equipped, check condition of lift mechanism. If air powered, check for leaks. o Condition of air ride components. o Brakes. o Brake adjustment. o Condition of brake drum(s) or discs. o Condition of hoses--look for any wear due to rubbing. o Lights and reflectors.

	o Side-marker lights clean, operating, and proper color (red at rear, others amber). o Side-marker reflectors clean and proper color (red at rear, others amber). • Rear. o Lights and reflectors. o Rear clearance and identification lights clean, operating, and proper color (red at rear). o Reflectors clean and proper color (red at rear). o Taillights clean, operating, and proper color (red at rear). o Right rear turn signal operating, and proper color (red, yellow, or amber at rear). o License plate(s) present, clean, and secured. o Splash guards present, not damaged, properly fastened, not dragging on ground, or rubbing tires. o Cargo secure (trucks). o Cargo properly blocked, braced, tied, chained, etc. Tailboards up and properly secured. o End gates free of damage, properly secured in stake sockets. o Canvas or tarp (if required) properly secured to prevent tearing, billowing, or blocking of either the rearview mirrors or rear lights. o If over-length, or over-width, make sure all signs and/or additional lights/flags are safely and properly mounted and all required permits are in driver's possession. o Rear doors securely closed, latched/locked. • Left side. o Check all items as done on right side, plus: o Battery (batteries) (if not mounted in engine compartment).

	o Battery box (boxes) securely mounted to vehicle. Box has secure cover. o Battery (batteries) secured against movement. Battery (batteries) not broken or leaking. o Fluid in battery (batteries) at proper level (except maintenance-free type). o Cell caps present and securely tightened (except maintenance-free type). o Vents in cell caps free of foreign material (except maintenance-free type).
6. Check Signal Lights	• Get in and turn-off all lights. • Turn-on stop lights (apply trailer hand brake or have a helper 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. o Turn-off lights not needed for driving. o Check for all required papers, trip manifests, permits, etc. o Secure all loose articles in cab (they might interfere with operation of the controls or hit the operator in a crash). o Start the engine.
7. Start the Engine and Check Test for Hydraulic Leaks	• Test for hydraulic leaks. o If the vehicle has hydraulic brakes, pump the brake pedal three times. o Then apply firm pressure to the pedal and hold for five seconds. o The pedal should not move. If it does, there may be a leak or other problem. • Brake system. • Test parking brake.

	o Fasten safety belt. o Set parking brake (power unit only). Release trailer parking brake (if applicable). Place vehicle into a low gear. o Gently pull forward against parking brake to make sure the parking brake holds. o Repeat the same steps for the trailer with trailer parking brake set and power unit parking brakes released (if applicable). o If it doesn't hold vehicle, it is faulty; get it fixed. • Test service brake stopping action. o Go about 5 miles per hour. o Push brake pedal firmly. o "Pulling" to one side or the other can mean brake trouble. o Any unusual brake pedal "feel" or delayed stopping action can mean trouble. o 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: o Instruments. o Air pressure gauge (if the vehicle has air brakes). Temperature gauges. o Pressure gauges. Ammeter/voltmeter. o Mirrors. o Tires. o Cargo, cargo covers. Lights, etc. o If the trainee sees, hears, smells, or feels anything that might mean trouble, he/she should check it out. • Safety inspection. o Drivers of trucks and truck tractors when transporting cargo must inspect the securement of the cargo within the first 50 miles of a trip and every 150 miles or every 3 hours (whichever comes first) after.

	• Document any discrepancy on AF Form 1800. Sign-off AF Form 1800 to signify accomplishment of inspection.