

Summary Report for Individual Task
551-88M-1500
Operate the PLS/HEMTT-LHS Truck
Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD5 - This product/publication has been reviewed by the product developers in coordination with the Fort Lee, VA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

Condition: In an operational environment, given a mission-ready dispatched Palletized Load System (PLS) or Heavy Expanded Mobility Tactical Truck Load Handling System (HEMTT-LHS) truck, assistant operator, designated route to operate, hearing protection, technical manual (TM), and all basic issue items (BII).

Standard: Prepare the vehicle for operation IAW applicable references by making all necessary driver adjustments; performing all starting procedures; and operating the vehicle within its capabilities and limitations over normal terrain, steep grades, and off-road. You are to adhere to all WARNING and CAUTION statements in the applicable TM. In addition, you should comply with all local traffic regulations and cause no injury to personnel or damage to vehicle during operation.

Special Condition: Task is to be executed using either the PLS M1075 without material handling crane, or the HEMTT-LHS M1120A4 Truck tractor. Whichever is available for training use the applicable performance steps and measures to evaluate the task. Ensure appropriate references are used for specific applicable steps.

Safety Risk: Medium

MOPP 4:

Task Statements

Cue: Your unit is moving to another tactical location.

DANGER
None

WARNING
Speed limits posted on curves reflect speeds that are considered safe for automobiles. Heavy vehicles with a high center of gravity can roll over at these speed limits. Use care and reduce your speed below the posted limit prior to entering a curve. Failure to comply may result in injury or death to personnel.

CAUTION
Before starting over-the-road operation, make sure that the Hydraulic Selector Switch (WP 0021) is set to OFF and HYD ENABLE Switch (WP 0020) is set to off position. If AUTO circuits have failed, and manual load operation was used, set Hydraulic Selector Switch to MAN TRANS (WP 0021) position.
<ul style="list-style-type: none">• Do not move TRANSFER CASE shift lever when vehicle is moving or when transmission is in gear. Severe damage to drive line will result.
Never let engine exceed maximum no-load governed engine speed (approximately 2170 rpm) or maximum governed engine speed under load (approximately 2150 rpm). If engine is allowed to go over governed engine speeds, serious engine damage may result.

Remarks: None

Notes: This task is applicable to vehicle operations with either the Palletized Load System Truck (M1075) or the HEMTT-

LHS Truck (M1120A4).

Performance Steps

1. Prepare vehicle for movement (both models).

- a. Remove and stow wheel chocks.
- b. Ensure hydraulic selector valve is in correct position for mission (HEMTT-LHS).
- c. Ensure LHS is secured in stowed position and cargo is secured (HEMTT-LHS).
- d. Ensure air suspension dump valve control is pinned in "service" position (HEMTT-LHS).
- e. Ensure all four suspension ball valves are open (HEMTT-LHS).
- f. Ensure tire carrier is secure in the raised position (HEMTT-LHS).
- g. Change vehicle weight indicator as needed.
- h. Install or stow foot rest.
- i. Adjust driver seat.
- j. Operate seat belt.
- k. Adjust rearview mirrors as required.

2. Operate vehicle on-road (PLS). Refer to TM 9-2320-364-10, WP0039

Note: Comply with all WARNING and CAUTION statements in the TM regarding these procedures.

- a. Drive vehicle on improved roads.
- b. Drive vehicle in Reverse (backing the vehicle).

Note: Note - Ensure that any backing operation includes the use of a dismounted ground guide. Operations with any HEMTT include a minimum of 2 persons.

- c. Drive vehicle under Slippery Conditions.
- d. Comply with all WARNING and CAUTION statements in the TM regarding these procedures.

3. Operate vehicle off-road (PLS). (Refer to TM 9-2320-364-10, WP 0040)

- a. Place transfer case in proper range (WP0037).

WARNING

CTIS ON/OFF switch should be in ON position at all times. Overspeed protection will not operate if switch is in OFF position and tire pressures may not match driving speeds. Failure to follow these instructions may result in unsafe driving conditions or tire failure. Failure to comply may result in injury or death to personnel.

- b. Push CTIS ON/OFF switch to ON position.

Note: If it becomes necessary to disable the CTIS, the tires will have to be manually inflated or deflated. CTIS may not engage properly if CTIS START button is pressed too quickly. Allow time for CTIS adjustments.

- c. Set CTIS rotary selector switch to desired position. Press and hold for approximately 1 second.
- d. Check all gauges and indicators to ensure vehicle is operating in proper ranges.
- e. Apply service brake and select appropriate operating range.
- f. Pull out parking brake control to release brakes.
- g. If a trailer is attached, push in trailer air supply control.

CAUTION

Do not hold steering wheel at full left or full right for longer than 10 seconds. Oil overheating and pump damage can result. The CTIS increases tire inflation pressure when vehicle speed exceeds the allowable speed for each setting. When an increase in speed is required, maintain the lower speed until the tires are reinflated to the correct pressure to prevent damage to tire.

- h. Release service brake pedal and slowly press down on throttle until vehicles reaches desired speed.
Note: Check vehicle indicators often during vehicle operations.
- i. Accelerate, brake, and steer as required.

CAUTION

DO NOT SHIFT light will illuminate when there is a problem with the transmission that can cause serious damage and possible failure of the transmission.

- j. Check gauges and indicators.
4. Operate vehicle on steep grades (PLS) (TM 9-2320-364-10, WP0041).
- a. Drive up moderate to steep grades.
 - b. Adhere to all WARNING and CAUTION statements in the reference TM.

WARNING

Speed limits posted on curves reflect speeds that are considered safe for automobiles. Heavy vehicles with a high center of gravity can roll over at these speed limits. Use care and reduce your speed below the posted limit prior to entering a curve. Failure to comply may result in injury or death to personnel.

CAUTION

Before starting over-the-road operation, make sure that the Hydraulic Selector Switch (WP 0021) is set to OFF and HYD ENABLE Switch

(WP 0020) is set to off position. If AUTO circuits have failed, and manual load operation was used, set Hydraulic Selector Switch to

MAN TRANS (WP 0021) position.

- Do not move TRANSFER CASE shift lever when vehicle is moving or when transmission is in gear. Severe damage to drive line will result.

5. Operate Vehicle On Road (HEMTT-LHS). (TM 9-2320-345-10, WP 0048).

- a. Set TRANSFER CASE shift lever to HI.
- b. Set transmission range selector to D (drive).
- c. Push in PARKING BRAKE control.

CAUTION

Never let engine exceed maximum no-load governed engine speed (approximately 2170 rpm) or maximum governed engine speed under load (approximately 2150 rpm). If engine is allowed to go over governed engine speeds, serious engine damage may result.

- d. Slowly depress throttle pedal until vehicle reaches desired speed. Tachometer should read 1650-2100 rpm.
- e. Accelerate, brake, and steer as required.
- f. Check that fuel gauge shows enough fuel to complete mission.
- g. Check that engine oil pressure gauge reads 40 to 88 psi between 1200-2100 rpm.
- h. Check that transmission temperature gauge reads 160* to 220*F.
 - i. If transmission temperature indicator illuminates (red), this indicates that the transmission temperature is above 250°F (121°C), or torque converter temperature is above 350° (177°C); park vehicle (WP 0052) and allow transmission to cool. Notify field level maintenance upon completion of mission.
 - j. If check transmission indicator illuminates (amber), there is a potential problem with the transmission and/or the transmission may need to be serviced. Check for correct oil level and/or high transmission oil temperature. If indicators are normal, continue mission and notify field level maintenance as soon as possible.
- k. Check that engine coolant temperature gauge reads 180 to 200°F (82 to 93°C).
 - i. If engine coolant temperature gauge reads over 219°F (104°C), idle engine until water temperature cools. If coolant does not cool, shut off engine (WP 0053) and notify field level maintenance.

m. If high engine coolant temperature indicator illuminates (red), this indicates the engine monitoring system has logged a high engine coolant fault code and will cause the check engine indicator to illuminate (amber). Check engine coolant temperature gauge and allow engine to cool as necessary. Notify field level maintenance as soon as possible.

n. If check engine indicator illuminates (amber), engine must be serviced by field level maintenance as soon as possible.

o. Check that battery voltage readout reads 24 to 28 volts.

p. Check that front air pressure gauge and rear air pressure gauge both read 100 to 130 psi.

q. If low air indicator illuminates (red), perform immediate action for loss of air supply system pressure emergency procedures. (WP 0093)

6. Operate Vehicle Off Road (HEMTT-LHS). Refer to TM9-2320-345-10, WP0049.

Note:

a. Set ABS disable switch to on position, ABS disabled indicator will illuminate.

b. Set transfer case to L (LO).

c. Move range selector to 2, or 1 depending on ground conditions.

d. Push in parking brake control.

CAUTION

Never let engine exceed maximum no-load governed engine speed (approximately 2250 rpm) or maximum governed engine speed under load (approximately 2100 rpm). If engine is allowed to go over governed engine speeds, serious engine damage may result.

e. Slowly depress throttle until vehicle reaches desired speed.

f. Accelerate, brake, and steer as desired.

g. Set ABS disable switch to off position, ABS disabled indicator will go out.

WARNING

Do not press service brake treadle hard three or four times in a row. Air supply will be used up and service brakes will not work until air is built up again. Failure to comply may result in injury or death to personnel.

CAUTION

Do not allow speed to go above 2100 RPM when driving downhill, or damage to engine can result.

- Engine brake operates best when engine speed is between 1650 and 2100 RPM. Transmission torque converter lockup valve may disengage below 1650 RPM resulting in loss of engine power.

7. Operate Vehicle on Steep Grades (HEMTT-LHS). Refer to TM 9-2320-428-10, WP0054.

a. (Up a steep grade) Depress and hold throttle as vehicle climbs up the grade. Transmission will downshift automatically as needed.

b. Set transmission range selector to lower range as needed to keep engine speed on tachometer between 1650 and 2100 RPM.

c. (Down a steep grade) Move range selector to low range as needed to keep engine speed on tachometer between 1,650 and 2,100 rpm.

d. Use service brake as needed to control speed.

e. Use engine brake as needed.

CAUTION

Do not allow speed to go above 2100 RPM when driving downhill, or damage to engine can result.

8. Operate vehicle in slippery conditions (HEMTT-LHS)(TM 9-2320-345-10, WP 0051)

Note: After TRACTION CONTROL lever is shifted, let vehicle creep forward several feet to allow shift collars to fully engage.

a. If TRANSFER CASE shift lever is set to LO, 8X8 DRIVE is automatically engaged and indicator light will illuminate. Set TRACTION CONTROL lever to INTER-AXLE DIFF. LOCK. Indicator light will illuminate.

CAUTION

Do not shift TRACTION CONTROL lever while vehicle is moving. Damage to drive line may result.

b. If TRANSFER CASE shift lever is set to HI, set TRACTION CONTROL lever to 8X8 DRIVE. Indicator light will illuminate.

Note: After TRACTION CONTROL lever is set to OFF position, let vehicle creep forward several feet to allow shift collars to fully disengage.

c. When vehicle gets good traction again, stop vehicle and set TRACTION CONTROL lever to OFF. Indicator light will do out.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the soldier GO if all performance measures are passed. Score the soldier NO-GO if any performance measure is failed. If any performance measure is failed, tell the soldier what was done wrong and how to do it correctly.

Evaluation Preparation: Setup: Brief Soldier on task specifications. Provide either a mission-ready HEMTT-LHS or PLS Truck, designated route and assistant driver.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Prepared vehicle for movement (either vehicle).			
2. Operated the PLS Truck on-road.			
3. Operated the PLS Truck off-road.			
4. Operated the PLS Truck on steep grades.			
5. Operated the HEMTT-LHS truck on-road.			
6. Operated the HEMTT-LHS truck off-road.			
7. Operated the HEMTT-LHS Truck on steep grades.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TC 21-305-20	Manual for the Wheeled Vehicle Operator {AFMAN 24-306(I)}	No	No
	TM 9-2320-345-10	OPERATORS MANUAL FOR TRUCK, LOAD HANDLING SYSTEM (LHS), W AND W/O WINCH, 8X8 M1120A4 (NSN 2320-01-534-1872)(EIC BG7) (THIS ITEM IS INCLUDED ON EM 0288)	Yes	No
	TM 9-2320-364-10	OPERATORS MANUAL FOR TRUCK, TRACTOR, M1074 AND M1075 PALLETIZED LOAD SYSTEM (PLS) (NSN 2320-01-304-2277) (2320-01-304-2278)	Yes	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. Make every effort to ensure no hazardous fluid spillage occurs by providing drip pans when vehicle is parked. Ensure operation of vehicle is approved driving areas free of environmental restriction for such use.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. Supervisor should complete a composite risk assessment to identify all associated risks and control measures to mitigate conduct of this tasks. Ensure hearing protection is worn by operator. Ensure that wheel chocks are used while vehicle is parked.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks :

Task Number	Title	Proponent	Status
551-88M-1364	Operate Vehicle with Standard, Automatic/Semiautomatic Transmission	551 - Transportation (Individual)	Approved
551-88M-1505	Conduct Loading/Unloading Operations Using the ECHU	551 - Transportation (Individual)	Approved

Supported Collective Tasks : None