

551-88M-1501
Perform Load/Unload Operations In Automatic Mode
Status: Approved

Security Classification: U - Unclassified

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

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the Ft. Lee, VA foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Conditions: In an operational environment, your unit is given a supply mission. Given an HEMTT-LHS or a PLS Truck with before-operation performed, BII, loaded flatrack, hearing protection, and work gloves. Some iterations of this task should be performed in MOPP 4. This task should be trained under IED Threat conditions.

Standards: Perform load/unloading operations with a M1077 Flatrack or M3 Container Roll In/Roll Out Platform (CROP) using the HEMTT-LHS or PLS Truck in automatic mode IAW applicable references, without injury to personnel, damage to equipment IAW TM 9-2320-319-10-1 with 100% accuracy while utilizing the GO & NO-GO criteria.

Special Conditions: None

Safety Risk: Medium

MOPP 4: Sometimes

Task Statements

Cue: Your unit is given a supply mission.

DANGER

Operations of this type using large vehicles and equipment are inherently dangerous. Soldiers must be thoroughly familiar with the safe operational steps and guidelines for loading and unloading flatracks with either the HEMTT-LHS or the PLS Systems.

WARNING

Adhere to all WARNING statements in the technical manual regarding these procedures.

CAUTION

Adhere to all CAUTION statement in the technical manual regarding these procedures.

Remarks: None

Notes: Two vehicles are being referenced in the execution of this tasks. One is a M1120A4 HEMTT-LHS and the other a M1075A1 PLS truck. Either the M3 CROP or the M1077 Flatrack may be used with these vehicles. Use the appropriate steps in the TM associated with the variation of HEMTT LHS/PLS truck that will be used for this task.

Performance Steps

WARNING

CHECK FOR OVERHEAD POWER LINES OR OTHER OBSTRUCTIONS BEFORE ATTEMPTING LHS OPERATION. LHS REACHES A HEIGHT OF 17 FEET TWO INCHES (5.22 M) WITH ISO CONTAINER. SERIOUS INJURY OR DEATH COULD RESULT FROM CONTACT WITH ELECTRICAL POWER LINES.

1. Position vehicle for loading operation (either model).

a. Check ground conditions for firmness and extreme sideways inclination before picking up or off-loading a flatrack. Any ground instability beneath wheels could cause serious injury or death to personnel.

CAUTION

Engine speed must be at idle before using hydraulic selector switch, or damage to equipment may result.

b. Prior to and during any load or unload cycle, all personnel should stay clear of LHS and flatrack or serious injury or death could result to personnel.

WARNING

WHEN LOADING OR UNLOADING FLATRACKS ON UNEVEN GROUND (SIDE SLOPE OR DOWNGRADES UP TO 10 DEGREES), IT MAY BE NECESSARY TO APPLY TRUCK SERVICE BRAKES TO PREVENT TRUCK ROLL AWAY OR SEVERE INJURY OR DEATH.

CAUTION

Do not use Reverse (R) to back up truck while hook arm is attached to flatrack or damage to LHS will occur.

If LHS overload lamp illuminates but loading operation continues, operator is cautioned that LHS is nearing maximum capacity. In this situation operator should determine if payload is evenly distributed on flatrack or if flatrack load exceeds 16.5 tons (14,983 kg). If any of these conditions exist, operator must redistribute or reduce the payload or damage to equipment may occur.

2. Load flatrack onto truck tractor (PLS only).

Note: USE THE APPROPRIATE TM FOR THE SPECIFIC MODEL (M1074, M1075 AND M1075A1) OF PLS USED DURING THIS OPERATION. FOLLOW ALL WORK PACKAGES, NOTES, WARNINGS, CAUTIONS, SAFETY AND DANGER NOTIFICATIONS PUBLISHED IN TM THAT APPLIES TO YOUR PLS DURING THIS OPERATION.

a. Start engine.

b. Set transmission range selector to Reverse and back vehicle up to flatrack. Stop at approximately 5 ft from hook-bar. Check for overhead obstructions and firmness of ground.

Note: The amount of time to load and unload is controlled by engine speed. Engine speed should be increased to approximately 1500 rpm to reduce loading and unloading times.

c. Apply service brake pedal and set transmission range selector to Neutral (N).

WARNING

Check for overhead power lines or other obstructions before attempting LHS operation. LHS reaches a system height of 17 ft 2 in. (5.23 m) with ISO container. Failure to comply may result in injury or death to personnel.

Check ground conditions for firmness and extreme sideways inclination prior to picking up or off-loading a flatrack or container. Any ground instability beneath road wheels may result in injury or death to personnel.

Prior to and during any load or unload cycle, all personnel should stay clear of LHS, flatrack, front lift adapter, and container. Failure to comply may result in injury or death to personnel.

d. Turn hydraulic selector switch to AUTO.

e. Move joystick to UNLOAD. Lift-hook will raise and begin to move rearwards. LHS NO TRANSIT light will illuminate to indicate hook arm is up and load lock has been cleared.

f. Continue to unload until lift-hook has moved to below level of flatrack hook-bar.

Note: To fully view lift-hook relation to hook-bar, it may be necessary to observe position from outside the cab.

g. Release joystick.

h. Set transmission range selector to Reverse (R) and back vehicle up to flatrack, aligning vehicle and flatrack as straight as possible with lift-hook to middle of hook-bar until lift-hook contacts hook-bar. Be sure lift-hook tip is positioned below bottom of hook-bar.

WARNING

Do not use Reverse (R) to back up vehicle while hook arm is attached to flatrack. Failure to comply may result in damage to equipment and/or injury or death to personnel.

i. Move joystick to LOAD to raise lift-hook and engage hook-bar.

j. If lift-hook fails to engage hook-bar:

(1) Release joystick

(2) Set transmission range selector to Drive (D), release service brake pedal and move vehicle forward to clear flatrack.

(3) Move joystick to UNLOAD until lift-hook is below level of hook-bar.

(4) Repeat steps i through l.

k. When correctly engaged, set transmission range selector to Neutral(N) and release service brake pedal.

WARNING

When loading or unloading flatracks on uneven ground (downgrades up to 10 degrees), it may be necessary to apply vehicle service brakes to prevent vehicle roll away. Failure to comply may result in injury or death to personnel. Check ground conditions for firmness and extreme sideways inclination prior to picking up or off-loading a flatrack or container. Any ground instability beneath road wheels may result in injury or death to personnel.

CAUTION

If LHS OVERLOAD light illuminates but loading operation continues, operator is cautioned that LHS is nearing maximum capacity. In this situation, operator should determine if payload is evenly distributed on flatrack or if flatrack load exceeds 16.5 tons (14,969 kg). If any of these conditions exist, operator must redistribute or reduce the payload or damage to equipment may occur.

Load must be evenly distributed on the pallet. Uneven load distribution may cause LHS OVERLOAD indicator to give false signals and cause LHS to operate incorrectly. Damage to equipment may result.

If LHS OVERLOAD light illuminates and normal operation stops, return load to original position and redistribute or reduce payload weight, or equipment damage may occur.

Ensure that parking brake is not applied before starting load sequence or damage to equipment may occur.

l. Move joystick to LOAD, allowing vehicle to be pulled under flatrack.

WARNING

Ensure that flatrack/FRS runners contact LHS rear rollers correctly. Failure to comply may result in injury or death to personnel and damage to equipment.

m. As load is lifted, vehicle will be pulled under flatrack. Some steering wheel adjustment may have to be made to ensure that flatrack runners will contact rear rollers.

Note: LHS OVERLOAD light may illuminate when lifting flatrack from unusual conditions.

CAUTION

Reduce engine speed to idle before flatrack main rails contact rear rollers or damage to flatrack may result.

n. As flatrack contacts rear rollers, reduce engine speed and apply service brake pedal.

(1) Release joystick. Set hydraulic selector switch to MAN H.A.

(2) Move joystick to LOAD until flatrack is approximately 2 feet off the ground. Release joystick.

o. After flatrack contacts rear rollers, increase engine speed to approximately 1500 rpm until flatrack is nearly loaded. Reduce engine speed to idle.

p. Continue loading until engage flatrack is fully loaded and LHS NO TRANSIT light extinguishes.

- q. Release joystick.
- r. Apply parking brake.
- s. Inspect that both load locks have engaged and flatrack is completely down on vehicle.

CAUTION

Engine speed must be at idle before using hydraulic selector switch, or damage to equipment may result.

Hydraulic selector switch must be in OFF position before driving, or hydraulic system could overheat.

- t. Turn hydraulic selector switch to OFF.

WARNING

WHEN LOADING OR UNLOADING FLATRACKS ON UNEVEN GROUND (SIDE SLOPE OR DOWN GRADES UP TO 10 DEGREES), IT MAY BE NECESSARY TO APPLY TRUCK SERVICE BRAKES TO PREVENT TRUCK ROLL AWAY OR SEVERE INJURY OR DEATH COULD RESULT.

CAUTION

Engine idle speed must be at idle before using hydraulic selector switch, or damage to equipment may result.

Ensure parking brake is not applied during unload sequence or damage to equipment may result.

- 3. Off-load flatrack from truck tractor (PLS only).

Note: USE THE APPROPRIATE TM FOR THE SPECIFIC MODEL (M1074, M1075 AND M1075A1) OF PLS USED DURING THIS OPERATION. FOLLOW ALL WORK PACKAGES, NOTES, WARNINGS, CAUTIONS, SAFETY AND DANGER NOTIFICATIONS PUBLISHED IN TM THAT APPLIES TO YOUR PLS DURING THIS OPERATION.

- a. Check area for sufficient operating room at front and rear of vehicle. Check overhead clearance and ground conditions.
- b. Apply service brake pedal and set transmission range selector to Neutral (N).

CAUTION

Ensure parking brake is not applied during unload sequence, or damage to equipment may result.

- c. Set hydraulic selector switch to AUTO.

WARNING

Check for overhead power lines or other obstructions before attempting LHS operation. LHS reaches a system height of 17 ft 2 in. (5.23 m) with ISO container. Failure to comply may result in injury or death to personnel. Check ground conditions for firmness and extreme sideways inclination prior to picking up or off-loading a flatrack or container. Any ground instability beneath road wheels may result in injury or death to personnel. Prior to and during any load or unload cycle, all personnel should stay clear of LHS, flatrack, front lift adapter, and container. Failure to comply may result in injury or death to personnel. When loading or unloading flatracks on uneven ground (downgrades up to 10 degrees), it may be necessary to apply vehicle service brakes to prevent vehicle roll away. Failure to comply may result in injury or death to personnel.

CAUTION

Check that ground conditions where flatrack will be placed can support the flatrack weight, or damage to flatrack or LHS may result.

Ensure rail transport locking pins are disengaged before unloading flatrack. Rail transport locking pins are used for rail transport only. Failure to comply may result in damage to equipment.

d. Move joystick to UNLOAD. Flatrack will start to move rearwards. LHS NO TRANSIT light will illuminate. Maintain engine speed at idle until front of flatrack raises approximately 1 ft.

e. Continue to unload until rear suspension starts to lift and back edge of flatrack touches ground.

Note: Loading and unloading times are controlled by engine speed. Engine speed can be increased to approximately 1500 rpm to reduce loading and unloading time.

f. Release service brake pedal and allow grounded flatrack to push the vehicle straight forward from under flatrack and clear.

g. When front of flatrack is within approximately 8.0 in. (203 mm) of ground, decrease engine speed to idle and apply service brake pedal.

CAUTION

Once vehicle's rear suspension has been relieved of flatrack load, do not continue in UNLOAD position as possibility of jacking up rear of vehicle with hook arm may occur and damage to equipment may result.

h. Continue off-loading until flatrack runners are on ground and rear suspension is unloaded.

Note: If flatrack is extremely light or empty, it may be necessary to set transmission range selector to Drive (D) to allow vehicle to move out from under flatrack.

i. Release joystick when flatrack runners are resting on ground.

CAUTION

Do not use Reverse (R) to back up vehicle while hook arm is attached to flatrack, or damage to LHS will occur.

j. Set transmission range selector to Drive (D) and release service brake pedal.

Note: Engine speed should be set at idle. However, slight increase in engine speed may be necessary depending on terrain.

k. Move joystick to LOAD momentarily and then to UNLOAD to let lift-hook disengage from hook-bar. Repeat Step until hook disengages.

l. Move vehicle forward approximately 5 ft (1,524 mm).

m. Stop vehicle and set transmission range selector to Neutral (N).

CAUTION

Never drive with LHS NO TRANSIT light illuminated. An illuminated light means load locks are not engaged and LHS is not fully stowed. Failure to comply may result in damage to equipment.

n. Move joystick to LOAD until LHS is in transit position. LHS NO TRANSIT light will extinguish indicating LHS is in transport position.

Note: Hook arm does not need to be fully stowed if more transfer operations are going to be made.

CAUTION

Engine speed must be at idle before using hydraulic selector switch, or damage to equipment may result.

Hydraulic selector switch must be in OFF position before driving, or hydraulic system could overheat causing damage to equipment.

o. Release joystick and turn hydraulic selector switch to OFF.

CAUTION

If Load Handling System (LHS) had previously been used in Manual mode and not completely stowed in Auto mode, the hook arm cylinders must be completely extended or the LHS must be completely stowed using Auto Mode before the flatcars can be loaded. Failure to comply may result in damage to the truck and flatrack.

4. Load flatrack onto truck tractor (HEMTT-LHS only).

Note: Continued repetitive cycles, approximately nine at rated 26,000 lbs (11 793 kg) payload, of the LHS could cause overheating and system will fail to pick up the load. Allow the hydraulic system to cool. Wait approximately 1 ½ hours or until the hydraulic reservoir is cool. The hydraulic reservoir is cool when you can hold your hand on the reservoir for more than 10 seconds.

Continued repetitive cycles, approximately nine at rated 24,000 lbs (10 886 kg) payload, of the load handling system with container handling unit (CHU) could cause overheating and system will fail to pick up the load. Allow the hydraulic system to cool. Wait approximately 1 1/2 hours or until the hydraulic reservoir is cool. The hydraulic reservoir is cool when you can hold your hand on the reservoir for more than 10 seconds.

The amount of time to load and unload is controlled by engine speed. Engine speed can be increased to 1,500 to maximum rpm to reduce loading and unloading times.

LHS will only operate when transmission range selector is in Neutral (N).

a. Start engine. (WP 0036)

b. Set transmission range selector to Reverse (R) and back truck up to flatrack. Stop at approximately 5 feet (1.3 m) from hook bar. Check for overhead obstructions and firmness of the ground.

c. Apply service brake pedal and set transmission range selector to Neutral (N).

WARNING

CHECK FOR OVERHEAD POWER LINES OR OTHER OBSTRUCTIONS BEFORE ATTEMPTING LHS OPERATION. LHS REACHES A HEIGHT OF 17 FEET, 2 INCHES (5.23 M) WITH ISO CONTAINER. SERIOUS INJURY OR DEATH TO PERSONNEL COULD RESULT FROM CONTACT WITH ELECTRICAL POWER LINES.

CHECK GROUND CONDITIONS FOR FIRMNESS AND EXTREME SIDEWAYS INCLINATION BEFORE PICKING UP OR OFF-LOADING A FLATRACK. ANY GROUND INSTABILITY BENEATH ROAD WHEELS COULD CAUSE SERIOUS INJURY OR DEATH TO PERSONNEL.

PRIOR TO AND DURING ANY LOAD OR UNLOAD CYCLE, ALL PERSONNEL SHOULD STAY CLEAR OF LHS AND FLATRACK OR SERIOUS INJURY OR DEATH TO PERSONNEL COULD RESULT.

CAUTION

Engine speed must be at idle before using hydraulic selector switch, or damage to equipment may result.

d. Put HYD ENABLE switch in ON position. Make sure indicator light comes on.

e. Turn hydraulic selector switch to AUTO position.

f. Move joystick to UNLOAD position. Lift hook will raise and begin to move rearwards. LHS NO TRANSIT indicator will illuminate to indicate hook arm is up and load lock has been cleared.

Note: To fully view lift hook relation to hook bar, it may be necessary to observe position from outside the cab. LHS will only operate when transmission range selector is in Neutral (N).

g. Continue to unload until lift hook has moved to below level of flatrack hook bar.

h. Release joystick.

i. Set the transmission range selector to Reverse (R) and back truck up to flatrack, aligning truck and flatrack as straight as possible with lift hook to middle of hook bar until lift hook contacts hook bar. Be sure lift hook tip is positioned below bottom of flatrack hook bar.

Note: LHS will only operate when transmission range selector is in Neutral (N). Set the transmission range selector to Neutral (N).

CAUTION

Do not use Reverse (R) to back up truck while hook arm is attached to flatrack or damage to LHS will occur.

j. Move the joystick to LOAD position to raise lift hook and engage hook bar.

Note: LHS will only operate when transmission range selector is in Neutral (N).

k. If lift hook fails to engage the flatrack hook bar:

(1) Release the joystick.

(2) Set the transmission range selector to Drive (D), release service brake pedal and move truck forward to clear flatrack. Set transmission range selector to N (neutral).

(3) Move the joystick to UNLOAD position until lift hook is below level of hook bar.

WARNING

WHEN LOADING OR UNLOADING FLATRACKS ON UNEVEN GROUND (SIDE SLOPE OR DOWNGRADES UP TO 5 DEGREES), IT MAY BE NECESSARY TO APPLY TRUCK SERVICE BRAKES TO PREVENT TRUCK ROLLAWAY OR SEVERE INJURY OR DEATH TO PERSONNEL COULD RESULT.

CAUTION

If LHS OVER LOAD indicator illuminates but loading operation continues, operator is cautioned that LHS is nearing maximum capacity. In this situation operator should determine if payload is evenly distributed on flatrack or if flatrack load exceeds 25,000 lbs (11,340 kg) for LHS or 24,000 lbs (10,886 kg) for LHS with CHU kit. If any of these conditions exist, operator must redistribute or reduce the payload or damage to equipment may occur.

Load must be evenly distributed on the pallet. Uneven load distribution may cause LHS OVER LOAD indicator to give false signals and cause LHS to operate incorrectly. Damage to equipment may result.

If LHS OVER LOAD indicator illuminates and normal operation has stopped, return load to original position and redistribute or reduce payload weight or equipment damage may occur.

Ensure that parking brake is not applied before starting load sequence or damage to equipment may occur.

i. When correctly engaged, set the transmission range selector to Neutral (N) and release service brake pedal.

WARNING

ENSURE THAT FLATRACK RUNNERS CONTACT LHS REAR ROLLERS CORRECTLY. FAILURE TO CONTACT FLATRACK RUNNERS CORRECTLY COULD RESULT IN SERIOUS INJURY OR DEATH TO PERSONNEL AND DAMAGE TO EQUIPMENT.

m. Move joystick to LOAD position, allowing truck to be pulled under flatrack.

CAUTION

Reduce engine speed to idle before flatrack main rails contact rear rollers or damage to flatrack may result.

n. As load is lifted, truck will be pulled under flatrack. Some steering wheel adjustment may have to be made to ensure that flatrack runners will contact rear rollers.

o. Before flatrack contacts rear rollers, reduce engine speed.

p. Apply service brake pedal after flatrack main rails contact rear rollers.

(1) Release joystick. Set hydraulic selector switch to MAN H.A. position.

(2) Move joystick to LOAD position until flatrack is approximately 2 feet (0.61 m) off the ground. Release joystick.

(3) Set hydraulic selector switch to AUTO position. Resume normal AUTO operations.

Note: Engine speed will require increasing and decreasing in the following steps to facilitate performance.

q. After flatrack contacts rear rollers, increase engine speed to 1,500 to maximum rpm until flatrack is nearly loaded. Reduce engine speed to idle.

r. Continue loading until engaged flatrack is fully loaded and LHS NO TRANSIT indicator goes off.

s. Release joystick.

t. Pull out PARKING BRAKE control.

Note: If flatrack is not engaged in load locks, raise flatrack slightly and lower again. Flatrack should set completely and engage load locks.

CAUTION

Engine speed must be at idle before using hydraulic selector switch, or damage to equipment may result.

u. Inspect that both load locks have engaged and flatrack is completely down on truck.

v. Put PTO ENGAGE switch in OFF position. Make sure indicator light goes off.

WARNING

WHEN LOADED WITH FRS, OR CONTAINER THE CENTER OF GRAVITY IS MOVED UP AND TOWARD REAR OF TRUCK. EXTREME CAUTION MUST BE TAKEN WHEN TURNING AND ASCENDING OR DESCENDING ON A GRADE. FAILURE TO USE EXTREME CAUTION COULD RESULT IN SEVERE INJURY OR DEATH TO PERSONNEL.

MAXIMUM SIDE SLOPE WHEN LOADED WITH A FRS OR CONTAINER IS 30 PERCENT. FAILURE TO COMPLY MAY RESULT IN EQUIPMENT DAMAGE OR SEVERE INJURY OR DEATH TO PERSONNEL.

DO NOT REDUCE TIRE PRESSURE WHEN LOADED WITH FRS OR CONTAINER. HIGHWAY TIRE PRESSURE, 60 PSI (414 KPA) FRONT AND 83 PSI (572 KPA) REAR, IS REQUIRED AT ALL TIMES WHEN LOADED WITH FRS OR CONTAINER. FAILURE TO COMPLY COULD RESULT IN DAMAGE TO EQUIPMENT AND SEVERE INJURY OR DEATH TO PERSONNEL.

w. Turn hydraulic selector switch to OFF position.

5. Unload flatrack from truck tractor (HEMTT-LHS only).

Note: Continued repetitive cycles, approximately nine at rated 26,000 lbs payload, of the Load Handling System (LHS) could cause overheating and system will fail to pick up the load.

Allow the hydraulic system to cool. Wait approximately 1 1/2 hours or until the hydraulic reservoir is cool. The hydraulic reservoir is cool when you can hold your hand on the reservoir for more than 10 seconds.

a. Check area for sufficient operating room at front and rear of truck. Check overhead clearance and ground conditions.

CAUTION

Ensure parking brake is not applied during unload sequence or damage to equipment may result.

- b. Apply service brake pedal and set transmission range selector to Neutral (N).
- c. Put HYD ENABLE switch in ON position. Make sure MAIN HYD ENABLE indicator light illuminates.

WARNING

WHEN LOADING OR UNLOADING FLATRACKS ON UNEVEN GROUND (SIDE SLOPE OR DOWNGRADES UP TO 5 DEGREES), IT MAY BE NECESSARY TO APPLY TRUCK SERVICE BRAKES TO PREVENT TRUCK ROLLAWAY OR SEVERE INJURY OR DEATH TO PERSONNEL COULD RESULT.

CHECK FOR OVERHEAD POWER LINES OR OTHER OBSTRUCTIONS BEFORE ATTEMPTING LHS OPERATION. LHS REACHES A HEIGHT OF 17 FEET, 2 INCHES (5.23 M) WITH ISO CONTAINER. SERIOUS INJURY OR DEATH TO PERSONNEL COULD RESULT FROM CONTACT WITH ELECTRICAL POWER LINES.

CHECK GROUND CONDITIONS FOR FIRMNESS AND EXTREME SIDEWAYS INCLINATION BEFORE PICKING UP OR OFF-LOADING A FLATRACK. ANY GROUND INSTABILITY BENEATH ROAD WHEELS COULD CAUSE SERIOUS INJURY OR DEATH TO PERSONNEL.

PRIOR TO AND DURING ANY LOAD OR UNLOAD CYCLE, ALL PERSONNEL SHOULD STAY CLEAR OF LHS AND FLATRACK OR SERIOUS INJURY OR DEATH TO PERSONNEL COULD RESULT.

CAUTION

Check that ground conditions where flatrack will be placed can support the flatrack weight or damage to flatrack or LHS may result.

Ensure rail transport locking pins are disengaged before unloading flatrack. Rail transport locking pins are used for rail transport only. Failure to comply may result in damage to equipment.

- d. Set hydraulic selector switch to AUTO position.
Note: LHS OVER LOAD indicator may come on when engine is at idle speed.
- e. Move joystick to UNLOAD position. Flatrack will start to move rearwards. LHS NO TRANSIT indicator will illuminate. Maintain engine speed at idle until front of flatrack raises approximately 1 foot (30.5 cm).
- f. Continue to unload until rear suspension starts to lift and back edge of flatrack touches ground.
- g. Release service brake pedal and allow grounded flatrack to push the truck straight forward from under flatrack and clear.

CAUTION

Once trucks rear suspension has been relieved of flatrack load, do not continue in UNLOAD position as possibility of jacking up rear of truck with hook arm may occur and damage to equipment may result.

h. As front of flatrack approaches within approximately 8 inches (20.32 cm) of ground, decrease engine speed to idle and apply service brake pedal.
 Note: If flatrack is extremely light or empty, it may be necessary to place transmission range selector to Drive (D) to allow truck to move out from under flatrack.

- i. Continue off-loading until flatrack runners are on ground and rear suspension is unloaded.
- j. Release joystick when flatrack runners are resting on ground.
- k. Set transmission range selector to Drive (D) and release service brake pedal.
- l. Set transmission range selector to Neutral (N).
- m. Move joystick to LOAD position momentarily and then to UNLOAD position to let lift hook disengage from hook bar. Repeat step until hook disengages.
- n. Set transmission range selector to Drive (D) and move truck forward approximately 5 feet (1.5 m).

CAUTION

Never drive with LHS NO TRANSIT indicator illuminated. An illuminated indicator means load locks are not engaged and LHS is not fully stowed.

- o. Stop truck and set transmission range selector to Neutral (N).
 Note: Hook arm does not need to be fully stowed if more transfer operations are going to be made.
- p. Move joystick to LOAD position until LHS is in transit position. LHS NO TRANSIT indicator will go out indicating LHS is in transport position.
- q. Release joystick.
- r. Turn hydraulic selector switch to OFF position.
- s. Put HYD ENABLE switch in OFF position. Make sure MAIN HYD ENABLE indicator light goes off.

(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: Brief Soldier on task Specifications. Provide a vehicle and supporting equipment with before-operation maintenance performed, an area large enough to accommodate the operation, chock blocks, hearing protection, eye protection, Army Combat Helmet (ACH), ground guides, seasonal uniform and work gloves IAW vehicle's and supporting equipment's TM and local SOP.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Positioned vehicle for loading operation (either model).			
2. Loaded flatrack onto truck tractor (PLS only).			
3. Off-loaded flatrack from truck tractor (PLS only).			
4. Loaded flatrack onto truck tractor (HEMTT-LHS only).			
5. Unloaded flatrack from truck tractor (HEMTT-LHS only).			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary	Source Information
	TM 9-2320-319-10-1	OPERATOR'S MANUAL FOR TRUCK, TRACTOR, M1074A1 AND M1075A1 PALLETIZED LOAD SYSTEM M1074A1 (NSN: 2320-01-544-2244)	Yes	Yes	
	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	
4.	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	Yes	
5.	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	Yes	

TADSS : None

Equipment Items (LIN): None

Materiel Items (NSN) :

Step ID	NSN	LIN	Title	Qty
	2320-01-624-9568	T05063	Truck, Palletized Loading System: M1075A1 with ECHU	1
	3990-01-307-7676	F12581	Flatrack, Palletized Loading: M1077	1
	3990-01-406-1340	B83002	Flatrack, IPF: XM1	1
	2320-01-626-3301	T05061	Truck, HEMTT, Tractor with ECHU: M1120A4	1
	2320-01-544-2244	T55236	Truck Palletized Loading: M1074A1	1
1.	2320-01-471-1326	T96496	Truck Cargo: Tactical 8x8 Heavy Expanded Mobility W/LHS: M1120A2	1
1.	2320-01-304-2278	T40999	Truck Cargo: Heavy PLS Transporter 15-16.5 Ton 10x10: M1075	1
1.	3990-01-442-2751	B83002	Flatrack, Palletized Loading: T160-E	1
1.	3990-01-307-7676	F12581	Flatrack, Palletized Loading: M1077	1
2.	2320-01-304-2278	T40999	Truck Cargo: Heavy PLS Transporter 15-16.5 Ton 10x10: M1075	1
2.	3990-01-307-7676	F12581	Flatrack, Palletized Loading: M1077	1
2.	3990-01-442-2751	B83002	Flatrack, Palletized Loading: T160-E	1
3.	3990-01-442-2751	B83002	Flatrack, Palletized Loading: T160-E	1
3.	3990-01-307-7676	F12581	Flatrack, Palletized Loading: M1077	1
3.	2320-01-304-2278	T40999	Truck Cargo: Heavy PLS Transporter 15-16.5 Ton 10x10: M1075	1
4.	2320-01-471-1326	T96496	Truck Cargo: Tactical 8x8 Heavy Expanded Mobility W/LHS: M1120A2	1
4.	3990-01-307-7676	F12581	Flatrack, Palletized Loading: M1077	1
4.	3990-01-442-2751	B83002	Flatrack, Palletized Loading: T160-E	1
5.	2320-01-471-1326	T96496	Truck Cargo: Tactical 8x8 Heavy Expanded Mobility W/LHS: M1120A2	1
5.	3990-01-307-7676	F12581	Flatrack, Palletized Loading: M1077	1
5.	3990-01-442-2751	B83002	Flatrack, Palletized Loading: T160-E	1

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 the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. Ensure that when vehicle is parked, whether running or not, that a drip pan is placed under engine to ensure no hazardous fluids are spilled.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. 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 current CBRN doctrine. Instructors must ensure that operators of tactical wheeled vehicles are trained IAW AR 600-55, AR 385-10 Chapter 11, vehicle training circulars (TC), and TC 21-305-20. When training on a specific vehicle the instruction will include all safety hazards and risks of operating or working with the vehicle.

Operation of this vehicle system requires two persons. One primary person as the operator and the other as an assistant operator/spotter/guide.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None

Knowledges :

Knowledge ID	Knowledge Name
551-K-0066	How to perform PLS/HEMTT-LHS loading/unloading operations in Automatic Mode
551-K-0008	How to judge distances
551-K-0064	How to operate a PLS/HEMTT-LHS truck tractor

Skills :

Skill ID	Skill Name
551-S-0004	Ability to perform PLS/HEMTT-LHS loading/unloading operations in Automatic Mode
551-S-0002	Ability to operate a PLS/HEMTT-LHS Truck Tractor
551-S-0052	Ability to judge distances

ICTL Data :

ICTL Title	Personnel Type	MOS Data
MOS 88M - Motor Transport Operator SL1	Enlisted	MOS: 88M, Skill Level: SL1