

Summary Report for Individual Task
551-88M-1503
Transfer Flatrack to/From PLS Trailer using LHS
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, your unit is given a supply mission. Given a mission-ready Palletized Loading System (PLS) or HEMTT-LHS truck tractor with flatrack, empty PLS Trailer (PLST), hearing protection, work gloves, and an area to maneuver vehicle with trailer and ground guide assistance.

Standard: Transfer a flatrack from the PLS or HEMTT-LHS truck tractor to the PLS trailer (PLST) and then reload the flatrack from the PLST onto the truck without injury to personnel or damage to equipment.

Special Condition: Special Conditions: If the PLS truck tractor is used, performance steps (and measures) 1 and 5 are applicable. If the HEMTT-LHS (M1120A4) is used, performance steps (and measures) 1, 6, and 9 are applicable.

Safety Risk: Medium

MOPP 4:

Task Statements

Cue: Your unit is given a supply mission.

DANGER
None

WARNING
<p>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 could result.</p> <p>Check for overhead power lines or other obstructions before attempting LHS operation. LHS reaches a height of 17 ft two in. (5.22 m) with ISO container. Serious injury or death could result from contact with electrical power lines.</p> <p>Trailer wheels must be chocked during transfer operations or serious injury or death could result.</p>

CAUTION

CAUTION: There must be sufficient pressure in trailer air system to retract locks or damage to flatrack can occur while attempting to load flatrack or trailer. If not, use truck to charge trailer air system using trailer air charging hose. If air system cannot retract flatrack, use manual flatrack lock retract procedures (TM 9-2330-385-10)

Ensure both flatrack locks are fully retracted or damage to equipment may result.

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

CAUTION: Load must be evenly distributed on flatrack. Uneven load distribution may cause LHS overload indicator to give false signals and cause LHS to operate incorrectly.

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.

Remarks: None

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

Performance Steps

1. Position truck and trailer for loading/unloading operation (either model).

Note: 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.

- Trailer wheels must be chocked during transfer operations or serious injury or death could result.
- Ensure that trailer drawbar is down against the ground during transfer operations or damage to equipment may result.
- Ensure air lines and cables are properly stowed to prevent damage to equipment (TM 9-2330-385-14).
- Both of the trailer bumper points must be under the truck bumper stop flange and at least one of the bumper points must contact the bumper stop. The trailer bumper point not contacting the truck bumper stop cannot exceed 0.5 inches (12.7 mm) or flatrack will miss main rail guides and equipment damage may result.

a. Back up truck so that trailer bumper is under flange and contacts truck bumper stop.

WARNING

WARNING:

WHEN OPERATING PLS TRUCK WITH PLS TRAILER, THE HEAVIEST LOADED FLATRACK MUST ALWAYS BE PLACED ON THE TRUCK, OTHERWISE ADVERSE HANDLING AND/OR BRAKING MAY RESULT, CAUSING INJURY OR DEATH TO PERSONNEL.

NOTE: There must be sufficient air pressure in trailer air system to retract flatrack locks or damage to flatrack locks can occur while attempting to load flatrack on trailer. If not, use truck to charge trailer air system using trailer air charging hose. If air system cannot retract flatrack locks, use manual flatrack lock retract procedure (TM 9-2330-385-14).

b. Apply parking brakes and set transmission range selector to Neutral (N).

CAUTION

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

NOTE: Do not move truck forward more than three inches (76.2 mm) to prevent flatrack from pulling away from stops.

WARNING:

NEVER DRIVE WITH ANY TYPE OF TRANSIT LIGHT ILLUMINATION. AN ILLUMINATED LIGHT MEANS LHS IS NOT FULLY STOWED. THE LOAD COULD BREAK LOOSE CAUSING SERIOUS INJURY OR DEATH TO PERSONNEL.

CAUTION:

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

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

2. Load flatrack onto PLS trailer (automatic mode) (PLS only) from truck.

a. Push in on knob and retract flatrack locks on trailer.

b. Inspect that both flatrack locks are fully retracted.

c. Turn hydraulic selector switch to AUTO.

Note: 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 could result.

- Check for overhead power lines or other obstructions before attempting LHS operation. If LHS reaches a height of 17 feet, 2 inches (5.22 m) with ISO container, serious injury or death could result from contact with electrical power lines.
- Trailer wheels must be chocked during transfer operations or serious injury or death could result.
- Load must be evenly distributed on flatrack. Uneven load distribution may cause LHS overload indicator to give false signals and cause LHS to operate incorrectly.
- 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 until flatrack rollers contact trailer.

e. Release the joystick.

f. Inspect and verify trailer guides are lined up between flatrack main rails.

g. If not aligned:

(1) Move joystick to LOAD.

(2) When flatrack is fully reloaded, release joystick.

h. Move the joystick to UNLOAD until flatrack is seated on trailer.

i. Release the joystick.

j. Turn the hydraulic selector switch to MAN H.A.

k. Move the joystick to LOAD until front of flatrack is raised approximately 12 to 18 inches (30 to 46 cm) above trailer deck height.

l. Turn the hydraulic selector switch to MAN M.F.

m. Move the joystick to UNLOAD until flatrack rollers contact rear trailer stops and front of flatrack guides are seated on trailer.

n. Release the joystick.

o. Inspect that rear rollers on flatrack have contacted rear trailer stops.

p. Apply the service brake pedal.

q. Release truck parking brakes.

r. Move the joystick to LOAD to allow top of lift-hook to clear hook-bar.

s. Place transmission range selector in Drive (D). Release service brake pedal and move truck forward approximately 3 inches (76.2 mm). Apply service brake pedal.

t. Move the joystick to UNLOAD to disengage lift-hook from hook-bar.

u. Set transmission range selector to Neutral and apply truck parking brakes.

- v. Inspect that rear flatrack rollers have contacted trailer stops.
- w. Pull knob and engage flatrack locks.
- x. Inspect that flatrack locks are engaged.
- y. Release the parking brake.
- z. Set the transmission range selector to Drive (D).
- aa. Move the truck forward approximately 5 feet (1.5 m).
- ab. Apply the truck parking brakes and set transmission range selector to Neutral (N).
- ac. Turn the hydraulic selector switch to AUTO.
- ad. Move the joystick to LOAD and retract LHS until LHS NO TRANS light is extinguished.
- ae. Turn hydraulic selector switch to OFF.

CAUTION

CAUTION:

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

3. Unload flatrack from trailer (automatic mode) to truck (PLS only).

- a. Back up the truck in line with trailer and stop approximately 5 feet (1.5 m) from trailer.
- b. Apply parking brake and place transmission range selector in Neutral (N).

Note: There must be sufficient air pressure in trailer air system to retract flatrack locks or damage to flatrack lock can occur while attempting to remove flatrack from trailer. If not, use truck to charge trailer air system using trailer air charging hose. If air system cannot retract flatrack locks, use manual flatrack lock retract procedure (TM 9-2330-385-14).

CAUTIONS:

Ensure air lines and cables are properly stowed to prevent damage to equipment (TM 9-2330-385-14).
 Ensure that trailer drawbar is down against the ground during transfer operations or damage to equipment may result.

- c. Push the knob on trailer to retract flatrack locks.

WARNING

WARNINGS

CHECK FOR OVERHEAD POWER LINES OR OTHER OBSTRUCTIONS BEFORE ATTEMPTING LHS OPERATION. IF LHS REACHES A HEIGHT OF 17 FEET, 2 INCHES (5.22 M) WITH ISO CONTAINER, SERIOUS INJURY OR DEATH 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 COULD RESULT TO PERSONNEL. TRAILER WHEELS MUST BE CHOCKED DURING TRANSFER OPERATIONS OR SERIOUS INJURY OR DEATH COULD RESULT.

CAUTIONS

Engine speed must be at idle before using hydraulic selector switch or damage to equipment 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. Inspect that both flatrack locks are fully retracted.
- e. Turn the hydraulic selector switch to AUTO.
- f. Move the joystick to UNLOAD until lift-hook has moved just below level of flatrack hook-bar.
- g. Apply service brake pedal and release parking brake.
- h. Set transmission range selector to Reverse (R), release service brake pedal, and back truck up until lift-hook contacts hook-bar.
- i. Set the transmission range selector to Neutral (N) and apply truck parking brake.
- j. Move joystick to LOAD and engage lift-hook into hook-bar.
- k. Continue loading flatrack onto truck until the LHS NO TRANS light is extinguished indicating LHS is in transportation position.
- l. Apply parking brake and set the transmission range selector to Neutral (N).
- m. Inspect that the load locks are engaged and flatrack is completely down on truck.
- n. Turn hydraulic selector switch to OFF.

WARNING

WARNING

TRAILER WHEELS MUST BE CHOCKED DURING TRANSFER OPERATIONS.

CAUTION

Ensure that trailer drawbar is down against the ground during transfer operations or damage to equipment may result.

4. Load flatrack onto trailer (manual mode) from truck (PLS only).

a. Back up the truck so that trailer bumper is under flange and contacts truck bumper stop.

b. Set the parking brake and place transmission range selector switch in Neutral (N).

Note: Ensure trailer air system is pressurized before beginning transfer or flatrack locks may not properly engage. Serious injury or death could result to personnel and damage to equipment may result.

c. Push in knob and retract flatrack locks.

WARNING

WARNINGS:

CHECK FOR OVERHEAD POWER LINES OR OTHER OBSTRUCTIONS BEFORE ATTEMPTING LHS OPERATION. LHS REACHES A HEIGHT OF 17 FEET, 2 INCHES (5.22 M) WITH ISO CONTAINER, SERIOUS INJURY OR DEATH 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 COULD RESULT TO PERSONNEL.

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. Turn the hydraulic selector switch to MAN H.A.

e. Move the joystick to UNLOAD until flatrack rollers contact trailer.

f. Release the joystick.

g. Inspect and verify that trailer guides are between flatrack main rails.

h. If not aligned:

(1) Move joystick to LOAD.

(2) When flatrack is completely reloaded onto truck, release joystick.

CAUTION

CAUTIONS

To avoid equipment damage, visually check that hook arm cylinders have fully extended.

To avoid equipment damage, ensure that hook arm cylinders do not complete full extension while operating at engine speeds above idle.

NOTE: Overload warning light will come on when hook arm cylinders are fully extended and joystick is activated.

(3) Repeat steps (g) and (h).

i. Move the joystick to UNLOAD and hold until hook arm cylinders are fully extended.

j. Release the joystick.

k. Turn the hydraulic selector switch to MAN M.F.

l. Move the joystick to UNLOAD until front of flatrack is completely seated on trailer.

CAUTION

CAUTION

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

m. Release the joystick.

n. Turn the hydraulic selector switch to MAN H.A.

o. Move joystick to LOAD until front of flatrack is raised approximately 12 to 18 inches (30 to 46 cm) above trailer deck height.

WARNING

WARNING

NEVER DRIVE WITH NO TRANS LIGHT ILLUMINATED. AN ILLUMINATED LIGHTS MEANS LHS IS NOT FULLY STOWED. THE LOAD COULD BREAK LOOSE CAUSING SERIOUS INJURY OR DEATH TO PERSONNEL

p. Apply the truck parking brakes and set the transmission range selector to Neutral (N).

q. Move the joystick to LOAD and hold in this position until main frame cylinders are fully retracted.

- r. Turn the hydraulic selector switch to MAN H.A.
- s. Hold the joystick in LOAD position until the hook arm cylinders are fully retracted.
- t. Turn the hydraulic selector switch to MAN TRANS.
- u. Inspect that flatrack is completely seated and load locks are engaged.
- v. Turn the hydraulic selector switch to MAN M.F.
- w. Move the joystick to UNLOAD until flatrack rollers contact trailer stops and front of flatrack guides are seated on trailer.
- x. Release the joystick.
- y. Inspect that rear flatrack rollers on flatrack have contacted trailer stops.
- z. Apply the service brake pedal.
- aa. Release truck parking brakes.
- ab. Move the joystick to LOAD to allow top of lift-hook to clear hook-bar.
- ac. Release the service brake pedal and place transmission range selector in Drive (D) and move truck forward approximately 3 inches (76.2 mm). Apply service brake pedal.
- ad. Move the joystick to UNLOAD to disengage lift-hook from hook-bar.
- ae. Set the transmission range selector to Neutral (N) and apply the parking brakes.
- af. Inspect that rear flatrack rollers have contacted trailer stops.
- ag. Pull knob and engage flatrack locks.
- ah. Inspect that flatrack locks are engaged.
- ai. Release the parking brake.
- aj. Set the transmission range selector to Drive (D).
- ak. Move the truck forward approximately 5 feet (1.5 m).

CAUTION

CAUTION

There must be sufficient pressure in trailer air system to retract locks or damage to flatrack can occur while attempting to load flatrack or trailer. If not, use truck to charge trailer air system using trailer air charging hose. If air system cannot retract flatrack, use manual flatrack lock retract procedures.

5. Unload flatrack from PLS trailer onto truck (manual mode) (PLS only).

a. Ensure that air lines and cables are properly stowed to prevent damage to equipment.

b. Ensure that trailer drawbar is down against the ground during transfer operations or damage to equipment may result.

WARNING

WARNING

CHECK FOR OVERHEAD POWER LINES OR OTHER OBSTRUCTIONS BEFORE ATTEMPTING LHS OPERATION. IF LHS REACHES A HEIGHT OF CAUTION, THERE MUST BE SUFFICIENT PRESSURE IN TRAILER AIR SYSTEM TO RETRACT LOCKS OR DAMAGE TO FLATRACK CAN OCCUR WHILE ATTEMPTING TO LOAD FLATRACK OR TRAILER. IF NOT, USE TRUCK TO CHARGE TRAILER AIR SYSTEM USING TRAILER AIR CHARGING HOSE. IF AIR SYSTEM CANNOT RETRACT FLATRACK, USE MANUAL FLATRACK LOCK RETRACT PROCEDURES.

c. Ensure both flatrack locks are fully retracted or damage to equipment will occur.

d. Ensure that air lines and cables are properly stowed to prevent possible damage to equipment.

e. Ensure that trailer drawbar is down against the ground during transfer operations or damage to equipment may result.

WARNING

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.

f. Ensure both flatrack locks are fully retracted or damage to equipment may occur.

g. 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.

h. 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.

WARNING

WARNING

_ 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.

_ TRAILER WHEELS MUST BE CHOCKED DURING TRANSFER OPERATIONS OR SERIOUS INJURY OR DEATH TO PERSONNEL COULD RESULT.

CAUTIONS

Ensure that trailer drawbar is down against the ground during transfer operations or damage to equipment may result.

Ensure air lines and cables are properly stowed to prevent damage to equipment (TM 9-2330-385-14).

Both trailer bumper points must be under the truck bumper stop flange and at least one of the bumper points must contact the bumper stop. The trailer bumper point not contacting the truck bumper stop cannot exceed 0.5 in. (12.7 mm) or flatrack will miss main rail guides and equipment damage may result.

6. Load flatrack onto the truck (HEMTT-LHS only) (automatic mode) from PLST.

a. Back up truck so that trailer bumper (1) is under flange and contacts truck bumper stop (2).

WARNING

WARNING

_ WHEN OPERATING M1120 TRUCK WITH M1076 TRAILER, THE HEAVIEST LOADED FLATRACK MUST ALWAYS BE PLACED ON THE TRUCK, OTHERWISE ADVERSE HANDLING AND/OR BRAKING MAY RESULT, CAUSING INJURY OR DEATH TO PERSONNEL.

_ ENSURE TRAILER AIR SYSTEM IS PRESSURIZED BEFORE BEGINNING TRANSFER, OR FLATRACK LOCKS MAY NOT PROPERLY ENGAGE/DISENGAGE. SERIOUS INJURY OR DEATH TO PERSONNEL COULD RESULT.

CAUTION

There must be sufficient air pressure in trailer air system to retract flatrack locks or damage to flatrack locks can occur while attempting to load flatrack on trailer. If not, use truck to charge trailer air system using trailer air charging hose. If air system cannot retract flatrack locks, use manual flatrack lock retract procedure (TM 9-2330-385-14).

b. Pull out PARKING BRAKE control (3) and set transmission range selector (4) to Neutral (N).

c. Push knob in and retract flatrack locks on trailer.

d. Inspect that both flatrack locks are fully retracted.

e. Put PTO ENGAGE switch in ON position. Make sure indicator light comes on.

f. Turn hydraulic selector switch to AUTO position.

- g. Move joystick to UNLOAD position until flatrack rollers contact trailer.
- h. Release joystick.
- i. Inspect and verify trailer guides are lined up between flatrack main rails.
- j. If not alined:
 - (1) Move joystick to LOAD position
 - (2) When flatrack is fully reloaded, release joystick.
 - (3) Repeat steps (f) through (h).
- k. Move joystick to UNLOAD position until hook arm cylinders have fully extended and main frame cylinders have extended 6 to 12 inches (35 to 30 cm).
- l. Release joystick.
- m. Turn hydraulic selector switch to MAN H.A. position.
- n. Move joystick to LOAD until flatrack rear rollers are centered between trailer stacking brackets.
- o. Release joystick.
- p. Pull out PARKING BRAKE control and set transmission range selector to Neutral (N).
- q. Turn hydraulic selector switch to AUTO position.
- r. Move joystick to LOAD position and retract LHS until LHS NO TRANSIT indicator (21) is extinguished.
- s. Turn hydraulic selector switch to OFF position.
- t. Put PTO ENGAGE switch in OFF position. Make sure indicator light goes off.
- u. Turn hydraulic selector switch to MAN M.F. position.
- v. Release joystick.
- w. Inspect that rear rollers on flatrack have contacted rear trailer stops.
- x. Apply service brake pedal.
- y. Push in truck PARKING BRAKE control.
- z. Turn hydraulic selector switch to MAN H.A.
- aa. Move joystick to UNLOAD position until flatrack is fully seated on trailer.
- ab. Move joystick to LOAD position to allow top of lift hook to clear hook bar.

ac. Place transmission range selector (4) in Drive (D). Release service brake pedal and move truck forward approximately 3 inches (76.2 mm). Apply service brake pedal (18).

ad. Move the joystick to UNLOAD position to disengage lift hook from hook bar.

ae. Set transmission range selector to Neutral (N) and pull out PARKING BRAKE control.

af. Inspect that rear flatrack rollers have contacted trailer stops.

ag. Pull knob and engage flatrack locks.

ah. Push in PARKING BRAKE control.

ai. Set transmission range selector to Drive (D).

aj. Move truck forward approximately 5 feet (1.5 m).

7. Unload flatrack from the truck (HEMTT-LHS only) (automatic mode).

a. Back up the truck in line with trailer and stop approximately 5 feet (1.5 m) from trailer.

b. Pull out PARKING BRAKE control (1) and place transmission range selector (2) in Neutral (N).

c. Push knob (3) on trailer to retract flatrack locks (4).

d. Inspect that both flatrack locks (4) are fully retracted.

e. Put PTO ENGAGE switch (5) in ON position. Make sure indicator light (6) comes on.

f. Turn hydraulic selector switch (7) to AUTO position.

g. Move joystick (8) to UNLOAD position until lift hook (9) has moved just below level of flatrack hook bar (10).

h. Apply service brake pedal (11) and push in PARKING BRAKE control (1).

i. Set transmission range selector (12) to Reverse (R), release service brake pedal (11), and back truck up until lift hook (9) contacts hook bar (10).

j. Set transmission range selector (12) to Neutral (N) and apply service brake pedal (11).

k. Move joystick (8) to LOAD position and engage lift hook (9) into hook bar (10).

l. Pull out PARKING BRAKE control (1) and check that trailer bumper (13) is under flange and within 3.5 inches (89 mm) from truck bumper stop (14).

m. Push in PARKING BRAKE control (1) and continue loading flatrack onto truck until the LHS NO TRANSIT indicator (15) goes off indicating LHS is in transport position.

n. Pull out PARKING BRAKE control (1) and set the transmission range selector (12) to Neutral (N).

- o. Inspect that the load locks (16) are engaged and flatrack is completely down on truck.
- p. Turn hydraulic selector switch (7) to OFF position.
- q. Put PTO ENGAGE switch (5) in OFF position. Make sure indicator light (6) goes off.

WARNING

WARNING

TRAILER WHEELS MUST BE CHOCKED DURING TRANSFER OPERATIONS OR SERIOUS INJURY OR DEATH TO PERSONNEL COULD RESULT.

CAUTIONS

Ensure that trailer drawbar is down against the ground during transfer operations or damage to equipment may result.

Ensure air lines and cables are properly stowed to prevent damage to equipment (TM 9-2330-385-14).

Both of the trailer bumper points must be under the truck bumper stop flange and at least one of the bumper points must contact the bumper stop. The trailer bumper point not contacting the truck bumper stop cannot exceed 0.5 inches (12.7 mm) or flatrack will miss main rail guides and equipment damage may result.

8. Transfer flatrack onto trailer(manual mode) from truck(HEMTT-LHS only).

- a. Back up the truck so that trailer bumper is under flange and contacts truck bumper stop.

WARNING

WARNING

ENSURE TRAILER AIR SYSTEM IS PRESSURIZED BEFORE BEGINNING TRANSFER OR FLATRACK LOCKS MAY NOT PROPERLY DISENGAGE. SERIOUS INJURY OR DEATH COULD RESULT TO PERSONNEL AND DAMAGE TO EQUIPMENT MAY RESULT.

- b. Pull out PARKING BRAKE control and place transmission range selector in Neutral (N).
- c. Push in knob and retract flatrack locks.
- d. Put PTO ENGAGE switch in ON position. Make sure indicator light comes on.
- e. Turn the hydraulic selector switch to MAN H.A. position.
- f. Move the joystick to UNLOAD position until flatrack rollers contact trailer.
- g. Release the joystick.
- h. Inspect and verify that trailer guides are between flatrack main rails.
- i. If not aligned:

(1) Move joystick to LOAD position.

(2) When flatrack is completely reloaded onto truck, release joystick.

(3) Repeat steps (d) through (g).

j. Move the joystick to UNLOAD position and hold until hook arm cylinders are fully extended.

k. Release the joystick.

l. Turn the hydraulic selector switch to MAN M.F. position.

m. Move the joystick to UNLOAD position until front of flatrack is completely seated on trailer.

n. Release the joystick.

o. Turn the hydraulic selector switch to MAN H.A. position.

p. Move the truck forward approximately 5 feet (1.5 m).

WARNING

WARNING

NEVER DRIVE WITH LHS NO TRANSIT INDICATOR ILLUMINATED. AN ILLUMINATED INDICATOR MEANS LHS IS NOT FULLY STOWED. THE LOAD COULD BREAK LOOSE CAUSING SERIOUS INJURY OR DEATH TO PERSONNEL.

q. Pull out PARKING BRAKE control and set the transmission range selector to Neutral (N).

r. Move the joystick to LOAD position and hold in this position until main frame cylinders are fully retracted.

s. Turn the hydraulic selector switch to MAN H.A. position.

t. Hold the joystick in LOAD position until the hook arm cylinders are fully retracted.

u. Turn the hydraulic selector switch to MAN TRANS position.

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

w. Move joystick to LOAD position until front of flatrack is raised approximately 12 to 18 inches (30 to 46 cm) above trailer deck height.

x. Turn the hydraulic selector switch to MAN M.F. position.

y. Move the joystick to UNLOAD position until flatrack rollers contact trailer stops and front of flatrack guides are seated on trailer.

z. Release the joystick.

- aa. Inspect that rear flatrack rollers on flatrack have contacted trailer stops.
 - ab. Apply the service brake pedal.
 - ac. Push in truck PARKING BRAKE control.
 - ad. Move the joystick to UNLOAD position to allow top of lift hook to clear hook bar.
 - ae. Release the service brake pedal and place transmission range selector in Drive (D) and move truck forward approximately 3 inches (76.2 mm). Apply service brake pedal.
 - af. Move the joystick to UNLOAD position to disengage lift hook from hook bar.
 - ag. Set the transmission range selector to Neutral (N) and pull out PARKING BRAKE control.
 - ah. Inspect that rear flatrack rollers have contacted trailer stops.
 - ai. Pull knob and engage flatrack locks.
 - aj. Inspect that flatrack locks are engaged.
 - ak. Push in PARKING BRAKE control.
 - al. Set the transmission range selector to Drive (D).
9. Unload flatrack from truck (manual mode) to trailer (HEMTT-LHS only).
- a. Push the knob on trailer to retract flatrack locks.

WARNING

WARNINGS:

_ CHECK FOR OVERHEAD POWER LINES OR OTHER OBSTRUCTIONS BEFORE ATTEMPTING LHS OPERATION. IF 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.

- b. Inspect that both flatrack locks are fully retracted.
- c. Put PTO ENGAGE switch in ON position. Make sure indicator light goes on.
- d. Turn the hydraulic selector switch to MAN H.A. position.
- e. Move the joystick to UNLOAD position and hold until hook arm cylinders are fully extended.

- f. Release the joystick and turn hydraulic selector switch to MAN M.F. position.
- g. Hold joystick in UNLOAD position until lift hook has moved below level at flatrack hook bar.
- h. Set transmission range selector to Reverse (R) and release service brake pedal. Back up truck until lift hook contacts hook bar.
- i. Pull out PARKING BRAKE control.
- j. Check that trailer bumper is under flange of truck bumper stop.
- k. Push in PARKING BRAKE control and move joystick to LOAD position and engage hook bar.
- l. Continue to load in MAN M.F. mode until the main frame cylinders are fully retracted.

WARNING

WARNING:

NEVER DRIVE WITH LHS NO TRANSIT INDICATOR ILLUMINATED. AN ILLUMINATED INDICATOR MEANS LHS IS NOT FULLY STOWED. THE LOAD COULD BREAK LOOSE CAUSING SERIOUS PERSONAL INJURY OR DEATH TO PERSONNEL.

- m. Turn the hydraulic selector switch to MAN H.A. position.
- n. Hold the joystick in LOAD position until hook arm cylinders are fully retracted.
- o. Turn hydraulic selector switch to MAN TRANS position.
- p. Put PTO ENGAGE switch in OFF position. Make sure indicator light goes off.
- q. Inspect that load locks are engaged and flatrack is fully loaded on truck.

(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 of task performance requirements. Provide a mission-ready HEMTT-LHS or PLS Truck, flatrack, PLST, Level, firm ground, hearing protection

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Positioned truck and trailer for loading/unloading operation.			
2. Loaded flatrack onto PLS trailer (automatic mode).			
3. Unloaded flatrack from trailer (automatic mode).			
4. Loaded flatrack onto trailer (manual mode).			
5. Unloaded flatrack from PLS trailer (manual mode).			
6. Loaded flatrack onto the truck (HEMTT-LHS only) (automatic mode) from PLST.			
7. Unload flatrack from the truck (HEMTT-LHS only) (automatic mode).			
8. Loaded flatrack onto trailer (HEMTT-LHS only) (manual mode) from truck.			
9. Unloaded flatrack from truck (HEMTT-LHS only) (manual mode) to trailer.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TC 21-305-1	TRAINING PROGRAM FOR THE HEAVY EXPANDED MOBILITY TACTICAL TRUCK (HEMTT) https://armypubs.us.army.mil/doctrine/DR_pubs/dr_c/pdf/tc21_305_1.pdf	No	No
	TC 21-305-20	Manual for the Wheeled Vehicle Operator {AFMAN 24-306(I)}	No	No
	TM 9-2320-319-10-1	OPERATOR'S MANUAL FOR TRUCK, TRACTOR, M1074A1 AND M1075A1 PALLETIZED LOAD SYSTEM M1074A1 (NSN: 2320-01-544-2244)	No	Yes
	TM 9-2320-319-10-2	OPERATOR'S MANUAL FOR TRUCK, TRACTOR, M1074A1 AND M1075A1 PALLETIZED LOAD SYSTEM M1074A1 (NSN: 2320-01-544-2244)	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)	No	No
	TM 9-2330-385-14	Operator's, Unit, Direct Support and General Support Maintenance Manual for Palletized Load System Trailer (PLST) Model M1076	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. 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 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. **WARNING:** Ensure trailer air system is charged before beginning transfer, or flatrack locks may not properly engage. Serious injury or death could result to personnel.

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

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None