

Report Date: 22 May 2014

Summary Report for Individual Task
551-88H-1425
Perform Emergency Load Lowering Procedures on the RT875 Rough Terrain Container Crane
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 Transportation School, Fort Lee, VA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

Condition: Assigned as a Crane Operator given a requirement to perform emergency load lowering procedures on the RT875 Rough Terrain Container Crane (RTCC) in an operational environment, day or night, in normal weather conditions, a completed risk assessment, safety briefing, a Rough Terrain Container Crane, an assistant operator, a signalman, slings, four tag lines, four tag line holders, a load to control, safety clothing, a towing vehicle, a towing cable or chain, all basic issue items (BII), and references. This task should not be trained in MOPP 4.

Standard: Perform emergency load lowering procedures on the Rough Terrain Container Crane (RTCC) without injury to personnel or damage to equipment.

Special Condition: None

Safety Risk: Medium

MOPP 4: Never

| |
|------------------------|
| Task Statements |
|------------------------|

Cue: You are a Crane Operator operating a Rough Terrain Container Crane and you must execute the Emergency Load Lowering Procedures.

DANGER

Adhere to all DANGER statements listed in the equipment or vehicle technical operator's manual applicable to this procedure. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Adhere to all WARNING statements listed in the equipment or vehicle technical operator's manual applicable to this procedure. Failure to comply may result in injury to personnel or damage to equipment.

CAUTION

Adhere to all CAUTION statements listed in the equipment or vehicle technical operator's manual applicable to this procedure. Failure to comply may result in injury to personnel or damage to equipment.

Remarks: None

Notes: None

Performance Steps

1. Shut down RTCC.

- a. Stop operations.
- b. Alert all personnel of mechanical failure to ensure their safety.
- c. Shut down the crane.
- d. Control fluid leaks (if applicable).

Note: Operator must have read ALL safety warnings and precautions listed in the operator's technical manual. Soldiers will wear safety boots, hard hat, hearing protection and work gloves. The operator and signalman will not wear gloves while conducting lifting operations.

2. Install pump handle and hoses.

- a. Remove pump handle and three (3) hoses (one each at 12-feet, 18-feet, and 38-feet long) from the toolbox.

Note: A hand pump is permanently installed behind the sheet metal on the right hand side of the crane, forward of the hydraulic reservoir.

- b. Install pump handle onto pump.

c. Connect 38-foot long hose (with couplings on both ends) to quick coupler on hand pump. This is the hand pump pressure hose.

3. Lower the load.

a. Check to ensure load can be lowered without contacting extended outrigger or crane carrier. If necessary, retract boom (Step 4), or rotate boom (Step 6) enough to ensure safe load lowering.

- b. Remove hand pump pressure out from hydraulic tank cover.

c. Place loose end up onto superstructure to hoist (main or auxiliary as applicable).

d. Disconnect hoist brake release quick coupler of hoist supporting load.

e. Install loose end of hand pump pressure hose to half of quick coupler leading to hoist brake.

f. Apply hydraulic pressure to the hoist brake by pumping the hand pump lever. This releases the brake and slowly lowers the load.

g. Disconnect hand pump pressure line and reconnect hoist brake release quick coupler after load has been lowered to ground.

4. Retract the boom.

Note: Retracting the boom is a two-person operation. Use assistant operator to assist.

a. Place loose end of hand pump pressure line onto superstructure.

b. Open cover on control valve compartment (behind cab).

c. Locate tele-rear steer-lift valve tank located in center of control valve compartment.

- d. Remove dust cover on male coupler installed on inlet section of valve tank.
- e. Connect hand pump pressure hose at coupler.
- f. Order assistant operator to pull back on TELE control lever inside cab and hold lever in this position.
- g. Apply hydraulic pressure to the telescope cylinder control valve by pumping the hand pump lever. This causes the boom telescope section to retract.
- h. Order assistant operator to return control lever to neutral position after boom has been retracted.
- i. Disconnect hand pump pressure hose at control valve tank and install dust cap on male coupling.

5. Lower the boom.

Note: If transporting crane, do not lower boom beyond horizontal position.

- a. Place bleed-down hose (12-foot hose with only one coupling) onto superstructure.
- b. Ensure that bleed-down valve is in OFF position.
- c. Remove dust cover on male coupler on bleed-down valve.
- d. Connect female coupler on bleed-down hose to male coupler on valve.

CAUTION

When inserting bleed-down hose in the hydraulic reservoir, use care to avoid damaging the inlet strainer.

- e. Remove breather/fill cap on hydraulic tank by turning it one quarter turn counterclockwise.
- f. Insert cut off end of bleed-down hose into the hydraulic reservoir opening.
- g. Open bleed-down valve slowly to lower boom.
- h. Close bleed-down valve when boom has lowered to the horizontal position.
- i. Disconnect bleed-down hose at bleed-down valve and reinstall dust cap on male coupler.
- j. Remove bleed-down hose from reservoir opening.
- k. Replace breather/fill cap on hydraulic reservoir.

6. Rotate boom over the front.

Note: This procedure requires a towing vehicle and pull cable or chain of sufficient capacity and length to pull the superstructure around to the front with a swing brake released. Rotating the boom is a two-person operation. Use assistant operator to assist.

- a. Connect 38-foot long pump pressure hose to hand pump.
- b. Remove hand pump pressure hose from under hydraulic tank cover.

- c. Place free end of hose up onto crane superstructure.
- d. Remove dust cap on male quick coupler located on the swing brake.
- e. Connect free end of hand pump pressure line to swing brake coupler.

CAUTION

Do not pull on boom. Applying a side load to boom could cause non-repairable damage.

- f. Connect pull chain or cable to counterweight sling lug.
 - g. Unlock positive swing lock.
 - h. Release swing brake by pumping hand pump while assistant operator applies a steady pull with towing vehicle. Pull boom around until boom is centered over the front.
 - i. Engage positive swing lock.
 - j. Disconnect towing cable or chain.
7. Retract outriggers.
- Note: Each outrigger jack and beam must be retracted/raised separately.
- a. Disconnect 38-foot long hose at hand pump (if installed).
 - b. Connect 18-foot long hose (shorter hose with two connectors) to quick coupler on hand pump. This is the hand pump pressure hose.
 - c. Connect female end of hand pump pressure hose to male fitting located on inside surface of left-hand carrier side rail.
 - d. Close shut-off valve located near connection made in step c. This valve must be closed to manually retract outriggers.
 - e. Locate front outrigger valve stack on back side of front outrigger box.
 - f. Locate rear outrigger valve stack located on the inside surface of left-hand carrier side rail just forward of rear outrigger box.
 - g. Locate four (4) quick couplers located on each outrigger valve stack. The two inside couplers retract jack cylinders while the two outside couplers retract extension cylinders (beams).
 - h. Connect the 38-foot long hose (with couplers on both ends) to quick coupling on back of hydraulic reservoir. This is the hydraulic return line.
 - i. Select first jack cylinder to be retracted.
 - j. Connect free end of hydraulic return line to appropriate quick coupler on front (or rear) outrigger valve stack. Jack cylinders are retracted using the two inside quick couplers on each valve stack.
 - k. Apply pressure by pumping hand pump until jack cylinder is completely retracted.

Note: Repeat steps l and j for each of the other three outrigger extension cylinders.

l. Select first extension cylinder (beam) to be retracted.

m. Connect free end of hydraulic return line to appropriate quick coupler on front (or rear) outrigger valve stack. Extension cylinders are retracted using the two outside quick couplers on each valve stack.

n. Apply pressure by pumping hand pump until extension cylinder is completely retracted.

Note: Repeat steps m and n for each of the other three outrigger extension cylinders.

o. Disconnect all hoses and reinstall dust caps where provided.

p. Open shut-off valve that was closed in step d.

q. Remove hand pump pressure out from hydraulic tank cover.

r. Place loose end up onto superstructure to hoist (main or auxiliary as applicable).

s. Disconnect hoist brake release quick coupler of hoist supporting load (see Figure 3-56).

t. Install loose end of hand pump pressure hose to half of quick coupler leading to hoist brake.

u. Apply hydraulic pressure to the hoist brake by pumping the hand pump lever. This releases the brake and slowly lowers the load.

v. Disconnect hand pump pressure line and reconnect hoist brake release quick coupler after load has been lowered to ground.

8. Replace all equipment back into toolbox.

a. Disconnect hand pump pressure line.

b. Cap all quick disconnect couplings.

c. Coil three (3) hoses.

d. Stow them in toolbox.

e. Remove pump handle.

f. Stow it in toolbox.

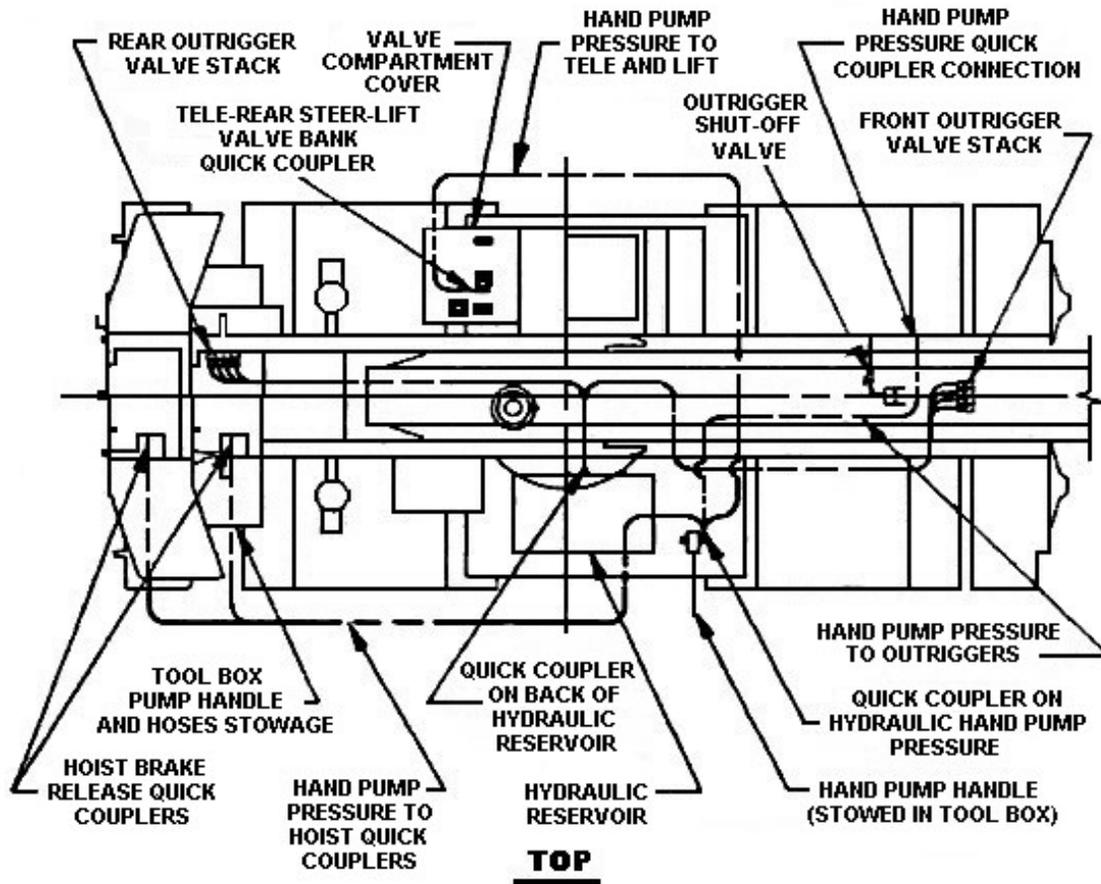


Figure 3-56
Disconnecting Hoist Brake Release Quick Coupler

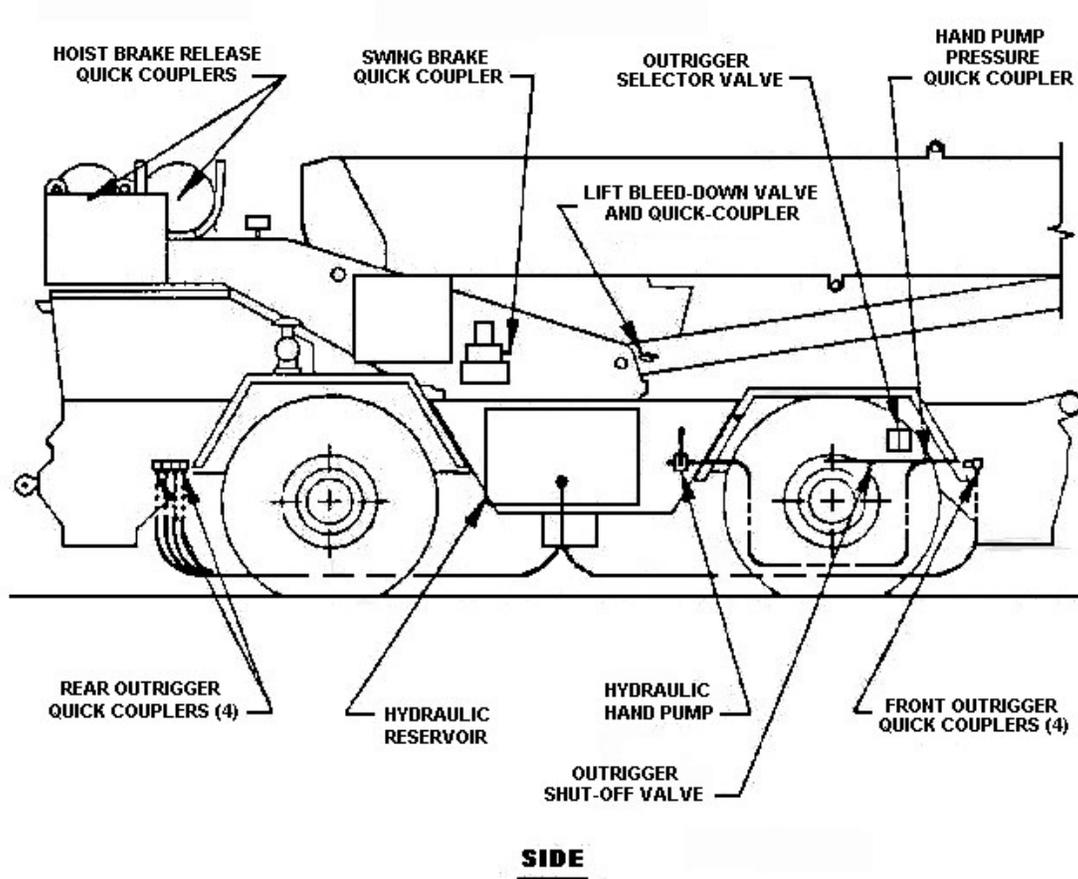


Figure 3-56

Disconnecting Hoist Brake Release Quick Coupler (continued)

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all performance steps are passed (P). Score the Soldier NO-GO if any performance step is failed (F). If the Soldier fails any step, show what was done wrong and how to do it correctly.

Evaluation Preparation: Ensure that all materials required to perform the task are available. Tell the Soldier that he/she will be evaluated on performing emergency load lowering procedures on the RT875 RTCC.

| PERFORMANCE MEASURES | GO | NO-GO | N/A |
|--|----|-------|-----|
| 1. Shut down RTCC. | | | |
| 2. Installed pump handle and hoses. | | | |
| 3. Lowered the load. | | | |
| 4. Retracted the boom. | | | |
| 5. Lowered the boom. | | | |
| 6. Rotated boom over the front. | | | |
| 7. Retracted outriggers. | | | |
| 8. Replaced all equipment back into toolbox. | | | |

Supporting Reference(s):

| Step Number | Reference ID | Reference Name | Required | Primary |
|-------------|------------------|---|----------|---------|
| | TM 5-3810-306-10 | OPERATORS MANUAL FOR CONTAINER CRANE, 40-TON, ROUGH TERRAIN, MODEL RT875CC (NSN 3810-01-205-2716) | Yes | Yes |

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.

AR 200-1 delineates TRADOC responsibilities to integrate environmental requirements across DOTMLPF and ensures all training procedures, training manuals, and training doctrine includes sound environmental practices and considerations. The Army's environmental vision is to be a national leader in environmental and natural resource stewardship for present and future generations as an integral part of all Army missions. Environmental protection is never completed. Continuously be alert to ways to protect our environment and reduce waste.

Leaders must ensure that their unit has an active and strong environmental program. They must understand the laws and know what actions to take. Leaders bring focus, direction, and commitment to environmental protection. Commanding officers should ensure the following environmental programs are in place and are being maintained:

- Hazardous materials program.
- Hazardous waste program.
- Hazardous communications program.
- Pollution prevention and hazardous waste minimization recycling program.
- Spill prevention and response plan program.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET 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.

All Soldiers and leaders must maintain a proactive posture towards safety in day-to-day operations. The need for total commitment to safety should be evident to commanders, senior soldiers, and their subordinates. The importance of safety is intensified for personnel conducting Rough Terrain Container Crane operations. Safety awareness is most effective at three levels: command, leader, and individual. Observe all Warnings and Cautions and remain aware of the following:

- Hearing protection requirements.
- Danger of suspended/unbalanced loads.

All operations will be performed to protect and preserve Army personnel and property against accidental loss. Procedures will provide for public safety incidental to Army operations and activities and safe and healthful workplaces, procedures, and equipment. Observe all safety and/or environment precautions regarding electricity, cable, and lines. Provide ventilation for exhaust fumes during equipment operation and use hearing protection when required IAW AR 385-10, the Clean Air Act (CAA) and the CAA amendments, and the OSHA Hazard Communication standard.

Accidents are an unacceptable impediment to Army missions, readiness, morale, and resources. Decision makers at every level will employ risk management approaches to effectively preclude unacceptable risk to the safety of personnel and property affiliated with this task.

- (a) Take personal responsibility.
- (b) Practice safe operations.
- (c) Recognize unsafe acts and conditions.
- (d) Take action to prevent accidents.
- (e) Report unsafe acts and conditions.
- (f) Work as a team.

Prerequisite Individual Tasks : None

Supporting Individual Tasks :

| Task Number | Title | Proponent | Status |
|--------------|---|-----------------------------------|----------|
| 551-88H-1606 | Operate RT 875 Rough Terrain Container Crane Without a Load | 551 - Transportation (Individual) | Approved |
| 551-88H-1602 | Prepare RT875 Rough Terrain Container Crane for Operations | 551 - Transportation (Individual) | Approved |

Supported Individual Tasks :

| Task Number | Title | Proponent | Status |
|--------------------|---|-----------------------------------|---------------|
| 551-88H-2607 | Supervise Rough Terrain Container Crane Operations (RT 875) | 551 - Transportation (Individual) | Superseded |
| 551-88H-2607 | Supervise RT875 Rough Terrain Container Crane Operations | 551 - Transportation (Individual) | Approved |
| 551-88H-1424 | Perform Emergency Boom Operating Procedures on the RT 875 Rough Terrain Container Crane | 551 - Transportation (Individual) | Approved |

Supported Collective Tasks :

| Task Number | Title | Proponent | Status |
|--------------------|------------------------------|----------------------------------|---------------|
| 55-5-0029 | Conduct Container Operations | 55 - Transportation (Collective) | Approved |

ICTL Data :

| ICTL Title | Personnel Type | MOS Data |
|--------------------------------|-----------------------|---|
| MOS 88H - CARGO SPECIALIST SL2 | Enlisted | MOS: 88H, Skill Level: SL2, Duty Pos: ABW |
| MOS 88H - CARGO SPECIALIST SL1 | Enlisted | MOS: 88H, Skill Level: SL1, Duty Pos: TAZ |
| MOS 88H - CARGO SPECIALIST SL3 | Enlisted | MOS: 88H, Skill Level: SL3, Duty Pos: TBA |
| MOS 88H - CARGO SPECIALIST SL4 | Enlisted | MOS: 88H, Skill Level: SL4, Duty Pos: TGI |