

**TECHNICAL MANUAL  
OPERATOR'S MANUAL FOR  
AMMO HANDLING FOR HIMARS RSV  
(RESUPPLY VEHICLE)**

<b>MODEL</b>	<b>NSN</b>	<b>UOC</b>
<b>TRK, CAR., MTV, (HIMARS RSV) M1084A1/RSV</b>	<b>2320-01-495-0110</b>	<b>MRT</b>



**DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.**

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HEADQUARTERS, DEPARTMENTS OF THE ARMY

**MARCH 2005**



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## WARNING SUMMARY

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### WARNING

Dropping a Rocket Pod (RP) or Missile Launch Pod Assembly (M/LPA) can create a serious flaw in a rocket motor that could cause the rocket or missile to explode or fly erratically. All RPs and M/LPAs dropped from any height shall be inspected by the supporting Quality Assurance Specialist Ammunition Surveillance (QASAS) personnel, in accordance with the appropriate army Surveillance Bulletin (SB), to determine the serviceability of the dropped rocket pod or missile assembly. Witnesses to the incident will need to provide information concerning the height of the drop, the type of surface the pod was dropped on, and how the pod landed to the QASAS personnel.

For drop criteria covering M26 and M28 series RPs, refer to SB 742-1340-92-011.

For drop criteria covering GMLRS M30 series RPs, refer to SB 742-1340-92-012.

For drop criteria covering army TACMS M39 series M/LPAs, refer to SB 742-1427-92-014.

Failure to comply may result in injury or death to personnel.

### WARNING

Refer to TM 9-1300-206 and AMCR 385-100 for general precautions and procedures for handling MFOM RPs. Failure to comply may result in injury or death to personnel.

### WARNING

MFOM RPs weigh approximately 5100 lbs. (2315 kg). An alternate method of lifting MFOM RPs is to use a four point lifting sling and lift RP by the tiedown/lifting rings. If sling is used, ensure it is capable of lifting the MFOM RP weight. Failure to comply may result in injury to personnel or damage to equipment.

### WARNING

Attach a safety line to MFOM RP prior to loading. Tiedown straps may be used for this purpose. Failure to comply may result in injury or death to personnel.

### WARNING

Both suspension compression plates must be installed on axle studs. Failure to comply may result in serious injury or death to personnel.

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**WARNING SUMMARY – Continued**

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**WARNING**

Outriggers must be positioned so that the MHC is level from side to side. Using MHC when vehicle is not level may cause vehicle to roll over. Failure to comply may result in serious injury or death to personnel.

**WARNING**

Wheels must be chocked before operating MHC. Vehicle may move or load may shift. Failure to comply may result in serious injury to personnel or damage to equipment.

**WARNING**

Keep hands and feet clear of outriggers during operation. Failure to comply may result in injury to personnel.

**WARNING**

Goggles must be worn while operating MHC. Blowing dust and debris may become airborne while engine is running. Failure to comply may result in injury to personnel.

**WARNING**

Wear leather gloves at all times when operating MHC. Do not allow load to slide through hands even with gloves on. Failure to comply may result in injury to personnel.

**WARNING**

Left side and right side outriggers and jack cylinders may be operated from either side of vehicle. For safety purposes, Operator should be on same side as outrigger and jack cylinder being operated. Failure to comply may result in serious injury or death to personnel.

**WARNING**

Do not raise vehicle tires off ground with outriggers. Failure to comply may result in serious injury or death to personnel.

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**WARNING SUMMARY - Continued**

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**WARNING**

Area must be clear of personnel before operating slew or extending boom. Boom must be rotated and extended slow enough so Operator has control of load. Operate MHC with remote control if possible. Failure to comply may result in serious injury or death to personnel.

**WARNING**

Keep boom clear of all electrical lines and other obstacles while operating MHC. Failure to comply may result in serious injury or death to personnel.

**WARNING**

Operator must keep load in sight at all times while operating MHC. Load may unexpectedly shift. Failure to comply may result in serious injury or death to personnel.

**WARNING**

Attach safety lines to load to keep control of load at all times. An assistant is required to attend safety lines. Failure to comply may result in serious injury or death to personnel or damage to equipment.

**WARNING**

MHC may be operated from local panel or remote control. Remote control is preferred method of operation. Operator can maintain eye contact with load. Use local control only if remote control is not functional. Failure to comply may result in injury to personnel or damage to equipment.



TM 9-2300-310-10

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TM 9-2300-310-10

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 8 MARCH 2005

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<b>M1084A1</b>		

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You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is <http://aeps.ria.army.mil>. If you need a password, scroll down and click on "ACCESS REQUEST FORM". The DA Form 2028 is located in the ONLINE FORMS PROCESSING section of the AEPS. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax or email your letter or DA Form 2028 direct to: AMSTA-LC-CI/TECH PUBS, TACOM-R1, 1 Rock Island Arsenal, Rock Island IL 61299-7630. The email address is [TACOM-TECH-PUBS@ria.army.mil](mailto:TACOM-TECH-PUBS@ria.army.mil). The fax number is DSN 793-0726 or Commercial (309) 782-0726.

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## HOW TO USE THIS MANUAL

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### OVERVIEW

This Technical Manual (TM) contains HIMARS RSV unique ammo handling procedures associated with the HIMARS Resupply Vehicle. It is divided into the following major sections in order of appearance:

**Front Cover.** Provides information about the type of manual and vehicle models covered by the TM.

**Warning Summary.** Provides a summary of all warnings that apply throughout the manual. Read all WARNINGS and CAUTIONS before performing any procedures.

**Table of Contents.** Lists the Chapters, Work Packages, and Alphabetical Index in order of appearance.

**Chapter 2, Operating Instructions** which are unique to the HIMARS Resupply Vehicles.

**Chapter 3, Preventive Maintenance Checks and Services (PMCS)** for the Resupply Vehicle Material Handling Crane. Provides instructions for the operator.

### FINDING INFORMATION

**Table of Contents.** Lists Chapters, Sections, and Indexes with Work Package Numbers in order of appearance.

### OPERATION AND MAINTENANCE

**Operation.** Always follow WARNINGS and CAUTIONS in the operating instructions. Perform the BEFORE, DURING, and AFTER preventive maintenance checks.

**Maintenance.** When you perform maintenance, look over the entire procedure before starting. Make sure you have the necessary tools and materials at hand. Always observe WARNINGS and CAUTIONS.



TM 9-2300-310-10

**CHAPTER 1**  
**DESCRIPTION AND THEORY**  
**OF OPERATION**





TM 9-2300-310-10

There is no data applicable to Chapter 1

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TM 9-2300-310-10

## CHAPTER 2

# OPERATOR INSTRUCTIONS



**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE**

0001 00

**INITIAL SETUP:**

Vehicle Positioned on Level Surface  
Wheels Chocked

**Maintenance Level**

Operator

**References**

TM 9-2320-392-10-1  
TM 9-2320-392-10-2

**Tools/Special Tools**

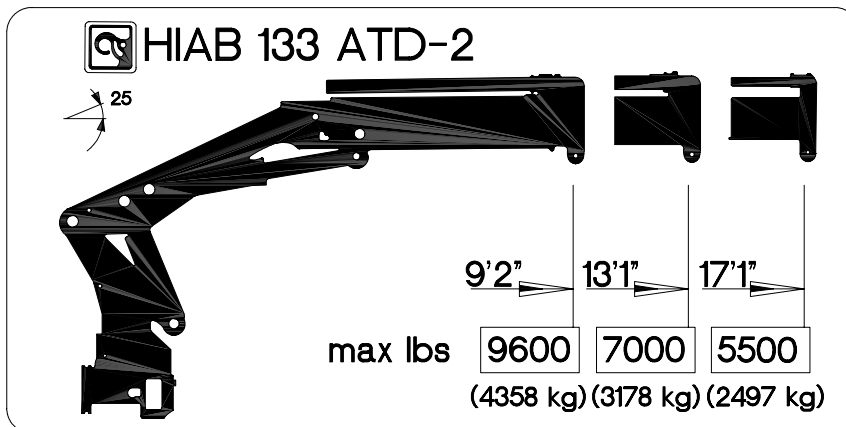
Goggles, Industrial (TM 9-2320-392-10-2)  
Chocks, Wheel (BII)  
Gloves, Leather (BII)

**GENERAL**

This work package provides the data for operating the Material Handling Crane (MHC).

**Determining MHC Settings from Range Diagram**

1. To determine load distance from MHC and maximum load, refer to data plate next to POWER DISPLAY BOX (PDB).



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**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE -CONTINUED**

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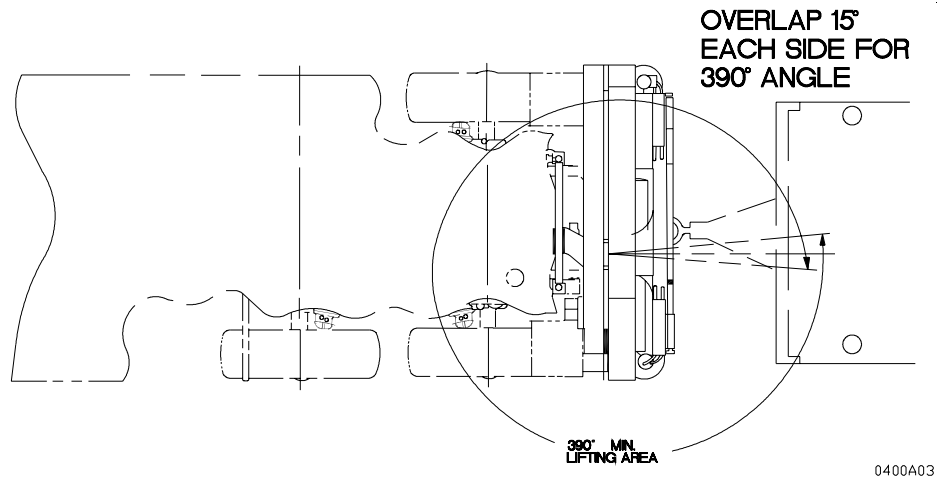
0001 00

**Determining MHC Settings from Range Diagram - Continued**

**CAUTION**

Vehicle and trailer must be aligned during loading/unloading of MFOM pods due to MHC traverse limits. Failure to comply may result in damage to equipment.

2. Verify trailer is aligned directly behind vehicle.



0400A03

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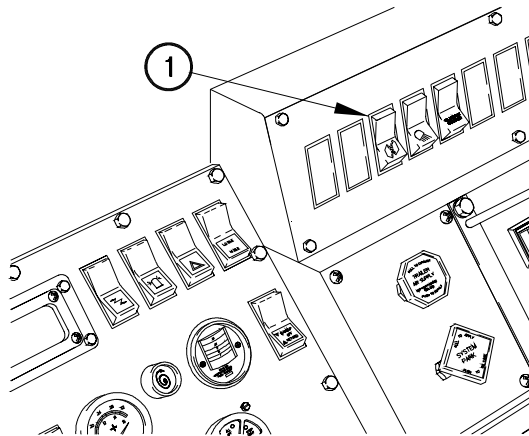
**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE -CONTINUED**

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0001 00

**Setting Up Outriggers**

1. Start engine (TM 9-2320-392-10-1) (WP 0018 01).
2. Position PTO switch (1) to on.



0400A04

**WARNING**

- Outriggers must be positioned so that the MHC is level from side to side. Using MHC when vehicle is not level may cause vehicle to roll over. Failure to comply may result in serious injury or death to personnel.
- Wheels must be chocked before operating MHC. Vehicle may move or load may shift. Failure to comply may result in serious injury to personnel or damage to equipment.
- Keep hands and feet clear of outriggers during operation. Failure to comply may result in injury to personnel.
- Goggles must be worn while operating MHC. Blowing dust and debris may become airborne while engine is running. Failure to comply may result in injury to personnel.

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE -CONTINUED**

**Setting Up Outriggers - Continued**

**NOTE**

POWER DISPLAY BOX is equipped with an emergency STOP switch. Press to remove power from MHC. Turn CW to reset. Emergency STOP may be used any time to stop all MHC movement if required.

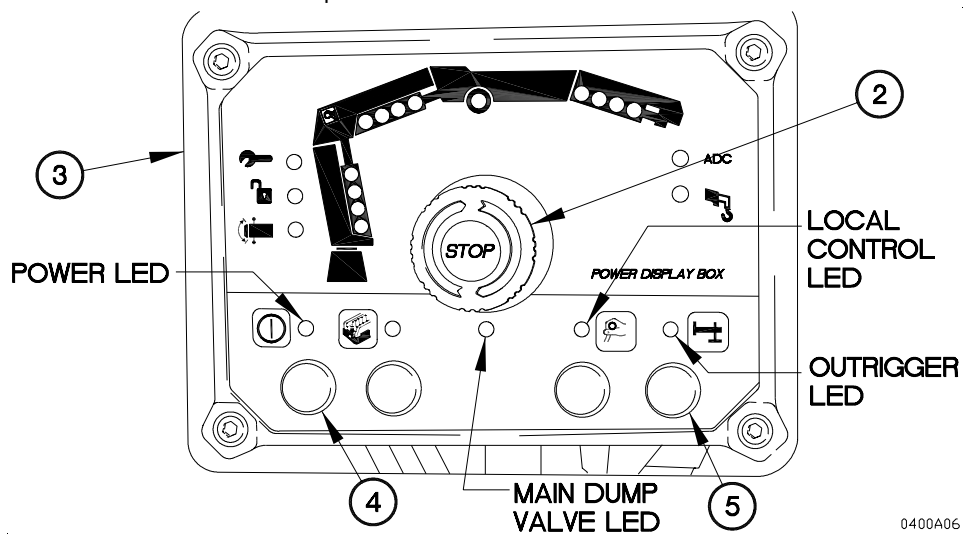
3. Reset emergency STOP switch (2) on POWER DISPLAY BOX (3).

**NOTE**

- Green power LED will illuminate.
  - If power button is held down for more than two seconds, system will go into lamp self-test mode. When button is held down, all red LEDs will illuminate. When released, red LEDs will continue to illuminate for three seconds, then all green LEDs will illuminate for three seconds.
4. Press power button (4) on POWER DISPLAY BOX (3).
  5. Press outrigger button (5) on POWER DISPLAY BOX (3).

**NOTE**

- Green outrigger LED will illuminate.
- Green local control LED will illuminate.
- Green Main Dump Valve LED will illuminate.



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**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE - CONTINUED**

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0001 00

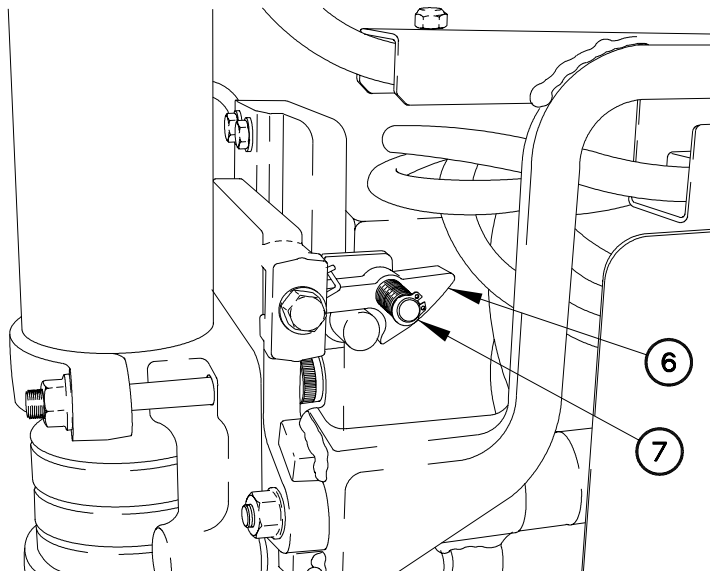
**Setting Up Outriggers - Continued****WARNING**

Left side and right side outriggers and jack cylinders may be operated from either side of vehicle. For safety purposes, Operator should be on same side as outrigger and jack cylinder being operated. Failure to comply may result in serious injury or death to personnel or damage to equipment.

**NOTE**

Left side and right side outriggers are unlocked and extended the same way. Right side shown.

6. Lift latch (6).
7. Push lock pin (7) in to keep latch (6) open.



0400A07

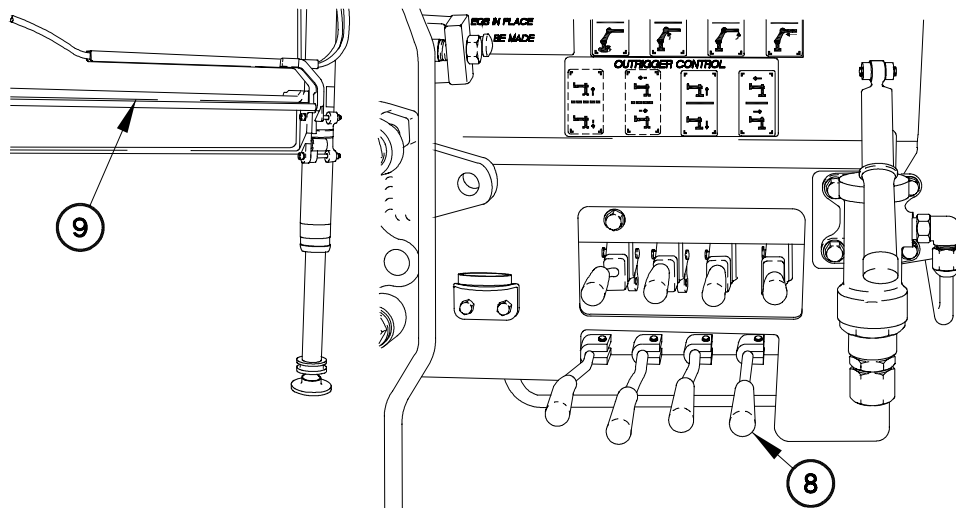
**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE -CONTINUED**

0001 00

**Setting Up Outriggers – Continued**

**CAUTION**

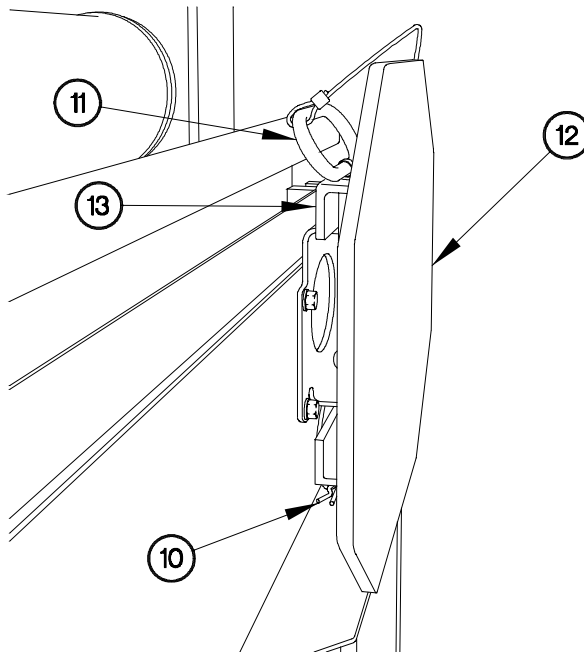
- Ensure outriggers are fully extended prior to lowering jacks. Failure to comply may result in damage to equipment.
  - Use care when operating local crane controls. Outrigger control levers are placed down to extend and up to retract. Failure to comply may result in damage to equipment.
8. Position outrigger lever (8) down to fully extend outrigger (9).



0400A09

**Setting Up Outriggers – Continued**

9. Remove safety pin (10) from pin (11).
10. Remove pin (11) from pad (12).
11. Remove pad (12) from stowage bracket (13).



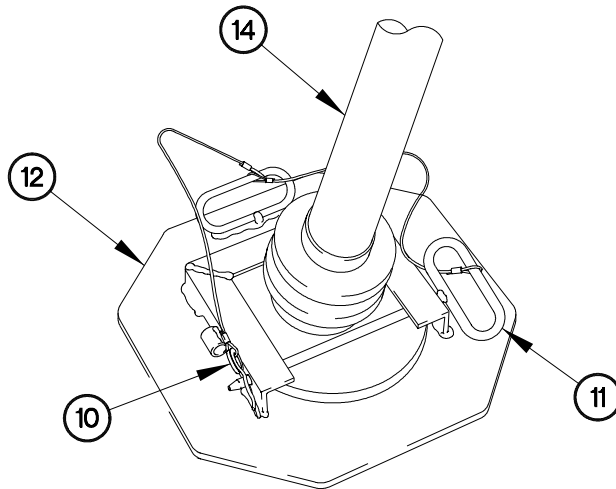
0400A05

Setting Up Outriggers – Continued

**NOTE**

Position pads on jack cylinders with opening facing toward front or rear of vehicle.

12. Install pad (12) on jack cylinder (14) with pin (11), and safety pin (10).



0400a08

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

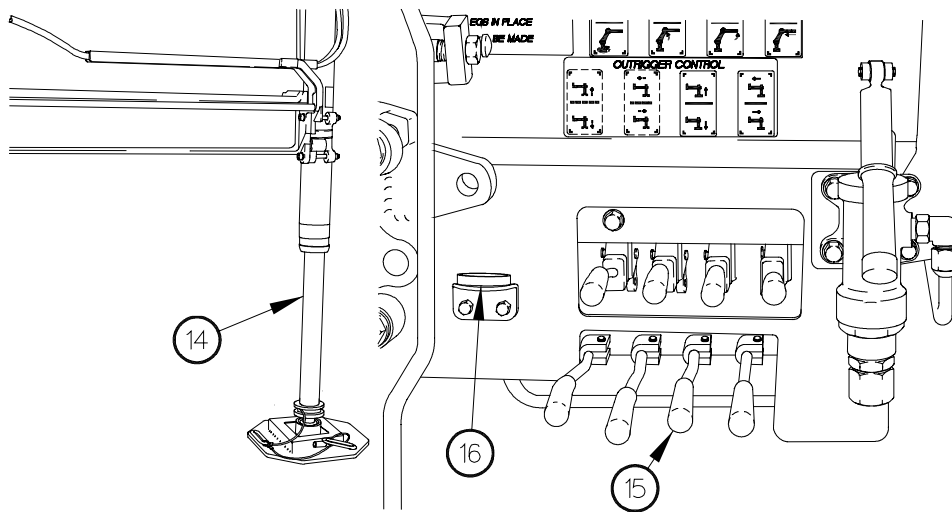
0001 00

Setting Up Outriggers – Continued

**WARNING**

Do not raise vehicle tires off ground with outriggers. Failure to comply may result in serious injury or death to personnel.

13. Position jack lever (15) down to lower jack cylinder (14).
14. Perform the preceding eight steps on left side.
15. Using jack cylinder levers (15), visually level RSV using bubble level indicator (16).



**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE -CONTINUED**

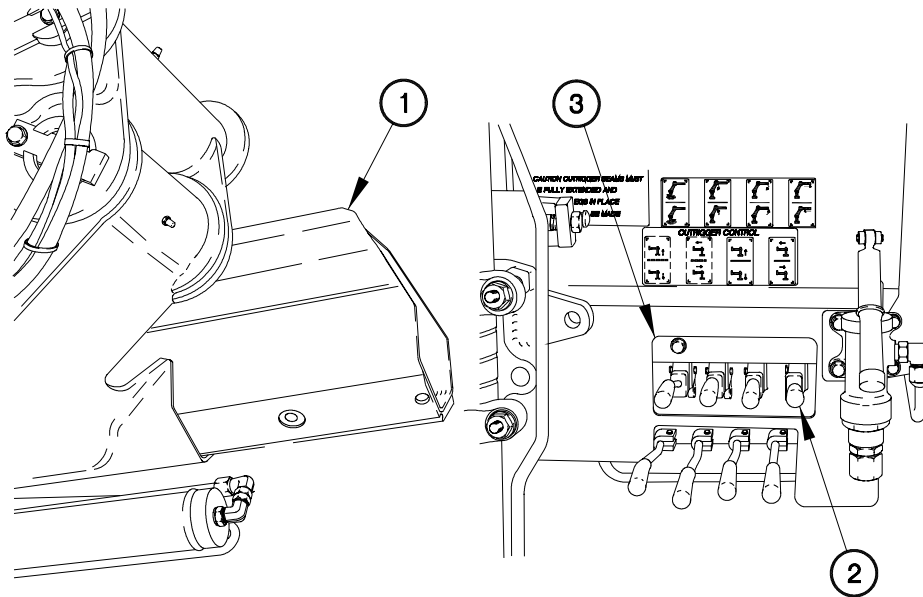
0001 00

**Preparing MHC for Use from Local Control Panel**

**NOTE**

Pulling lever up causes the section of the boom to go down. Pushing lever down causes the section of the boom to rise. Pulling lever up on the boom extension lever causes the boom to extend. Pushing lever down causes the boom to retract. Pulling lever up on the slew lever causes the MHC to rotate CW. Pushing lever down causes rotation CCW.

1. Retract boom (1) fully by pushing down on boom extension lever (2) on local control panel (3).



0400A10

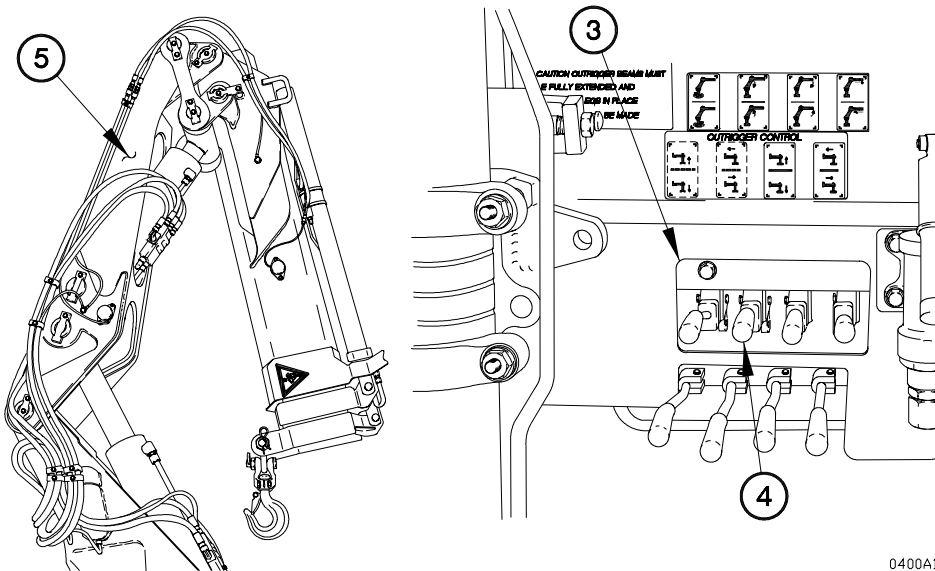
**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE -CONTINUED**

0001 00

**Preparing MHC for Use from Local Control Panel – Continued**

**NOTE**

- Fast full extension of inner and outer booms may activate OLP circuits even if no load is present. The preferred way to relieve pressure in the boom sections is to operate the lever in the opposite direction.
  - Refer to Emergency Procedures (WP 0002 00) for OLP override procedure if operating the lever in the reverse direction does not relieve the OLP condition.
2. Push down on inner boom lever (4) on local control panel (3) to raise inner boom (5) to full height.



0400A11

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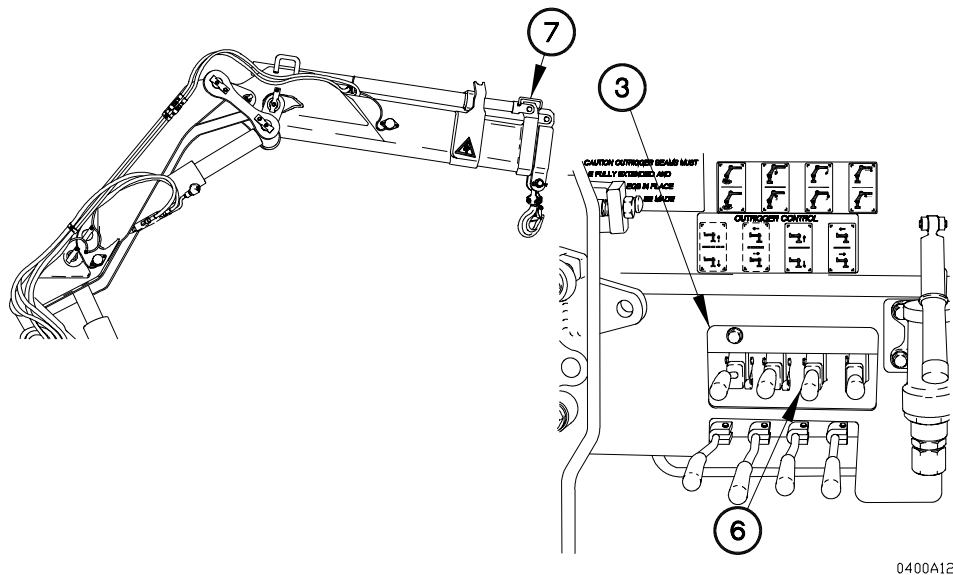
**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE -CONTINUED**

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0001 00

**Preparing MHC for Use from Local Control Panel – Continued**

3. Push down on outer boom lever (6) on local control panel (3) until outer boom (7) is positioned at 90°.

**Operating MHC from Local Control Panel****WARNING**

- Area must be clear of personnel before operating slew or extending boom. Boom must be rotated and extended slow enough so Operator has control of load. Operate MHC with remote control if possible. Failure to comply may result in serious injury or death to personnel.
- Keep boom clear of all electrical lines and other obstacles while operating MHC. Failure to comply may result in serious injury or death to personnel.
- Operator must keep load in sight at all times while operating MHC. Load may unexpectedly shift. Failure to comply may result in serious injury or death to personnel.



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**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE -CONTINUED**

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0001 00

Operating MHC from Local Control Panel – Continued

**WARNING**

- Attach safety lines to load to keep control of load at all times. An assistant is required to attend safety lines. Failure to comply may result in serious injury or death to personnel or damage to equipment.
- Wear leather gloves at all times when operating MHC. Do not allow load to slide through hands even with gloves on. Failure to comply may result in injury to personnel.
- MHC may be operated from local panel or remote control. Remote control is preferred method of operation. Operator can maintain eye contact with load. Use local control only if remote control is not functional. Failure to comply may result in injury to personnel or damage to equipment.

**CAUTION**

Refer to range chart for load limits prior to lifting load. Failure to comply may result in damage to equipment.

**NOTE**

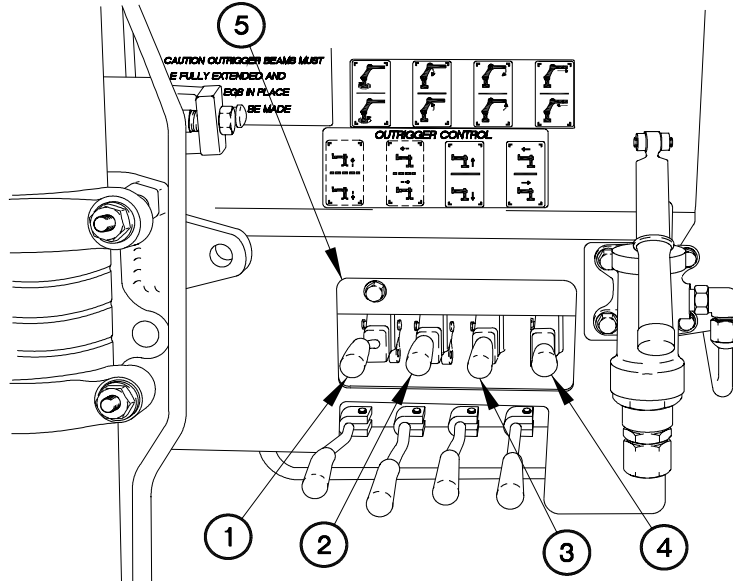
- Pulling lever up causes the section of the boom to go down. Pushing lever down causes the section of the boom to rise. Pulling lever up on the boom extension lever causes the boom to extend. Pushing lever down causes the boom to retract. Pulling lever up on the slew lever causes the MHC to rotate CW. Pushing lever down causes rotation CCW.
- The following four steps require the aid of an assistant.

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE -CONTINUED**

0001 00

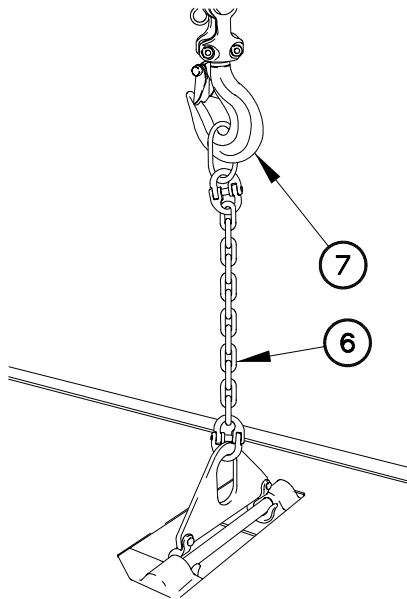
**Operating MHC from Local Control Panel – Continued**

1. Use slew lever (1), inner boom lever (2), outer boom lever (3), and boom extension lever (4) on local control panel (5) to position MHC over load.



0400A13

2. Position hoist assembly (6) on MHC hook (7).
3. Connect hoist assembly (6) to load.



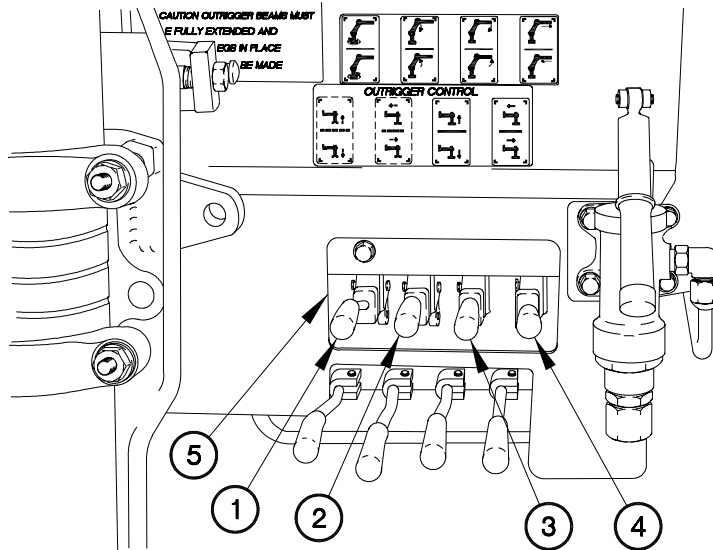
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**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE -CONTINUED**

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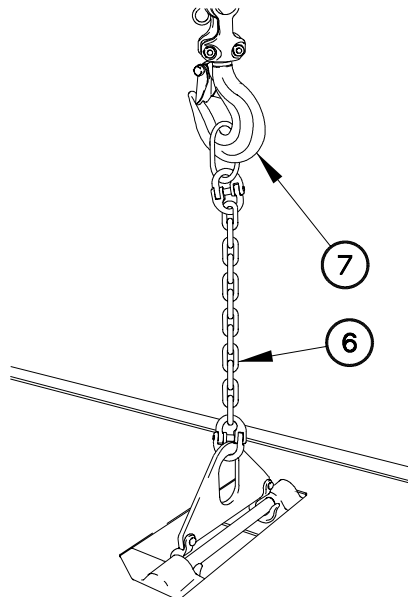
**Operating MHC from Local Control Panel – Continued**

- Use slew lever (1), inner boom lever (2), outer boom lever (3), and boom extension lever (4) on local control panel (5) to position load as required.



0400A15

- Disconnect hoist assembly (6) from load.
- Remove hoist assembly (6) from MHC hook (7).



0400A14

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

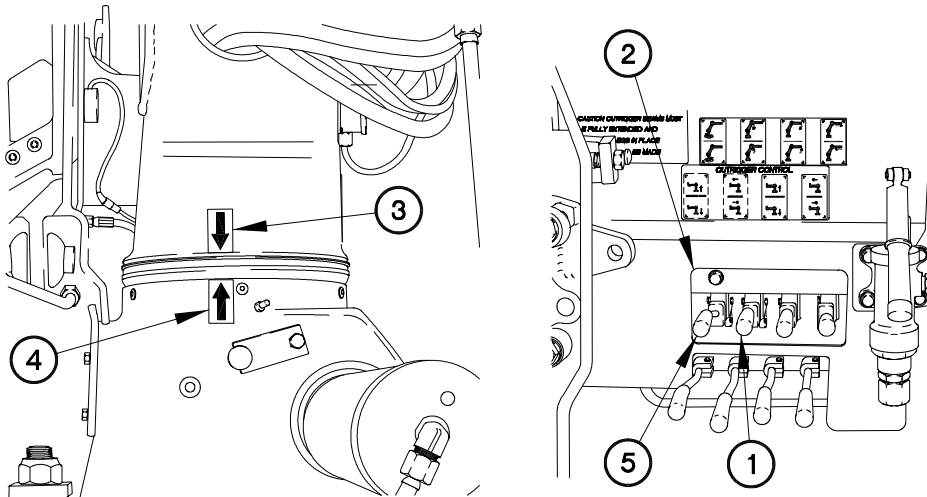
0001 00

**Stowing MHC from Local Control Panel**

**NOTE**

Pulling lever up causes the section of the boom to go down. Pushing lever down causes the section of the boom to rise. Pulling lever up on the boom extension lever causes the boom to extend. Pushing lever down causes the boom to retract. Pulling lever up on the slew lever causes the MHC to rotate CW. Pushing lever down causes rotation CCW.

1. Raise inner boom fully by pushing down on inner boom lever (1) on local control panel (2)
2. With aid of an assistant, align mast arrow (3) with base arrow (4) using slew lever (5) on local control panel (2).



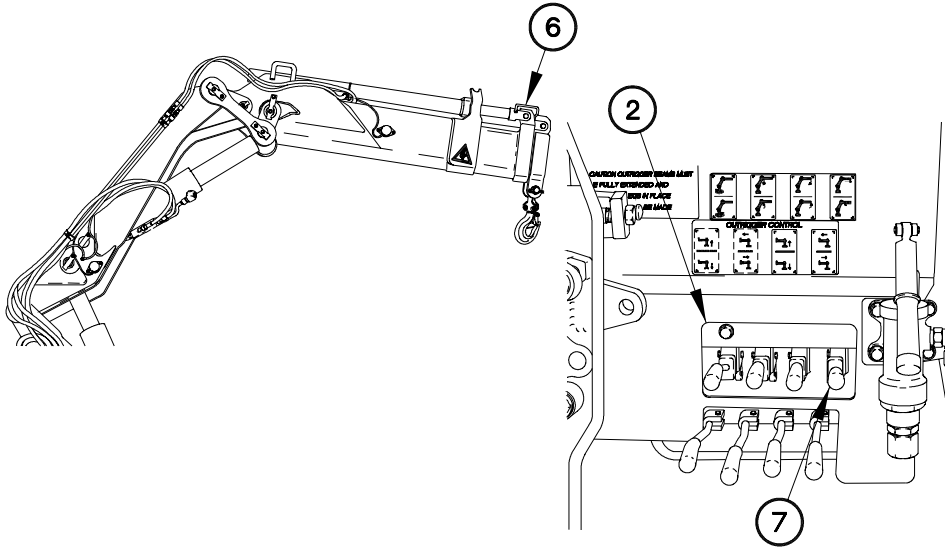
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**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

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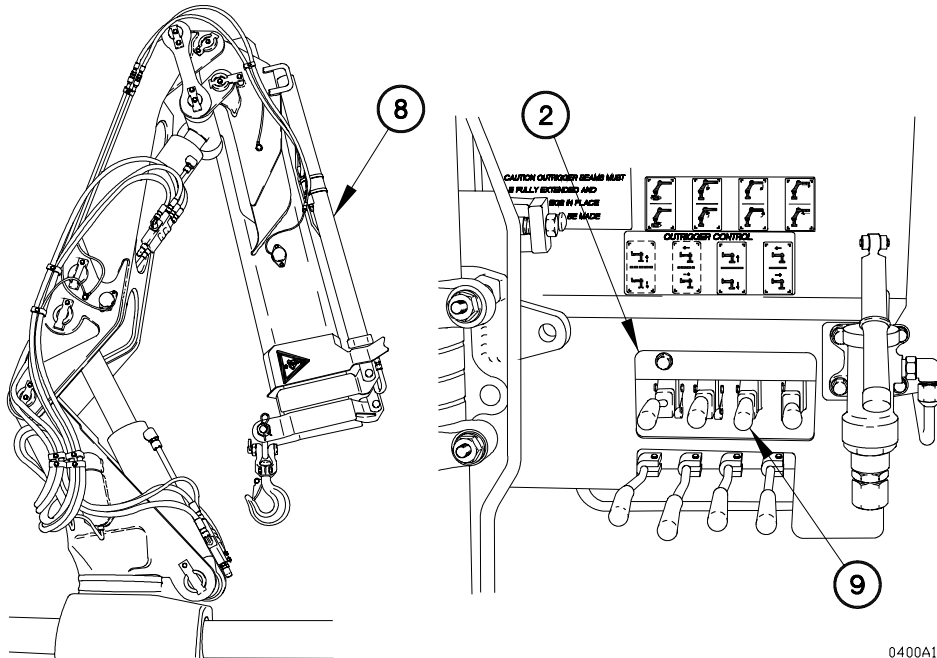
**Stowing MHC from Local Control Panel – Continued**

3. Fully retract boom extension (6) by pushing down boom extension lever (7) on local control panel (2).



0400A18

4. Position outer boom (8) fully down by pulling up on outer boom lever (9) on local control panel (2).



0400A19

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

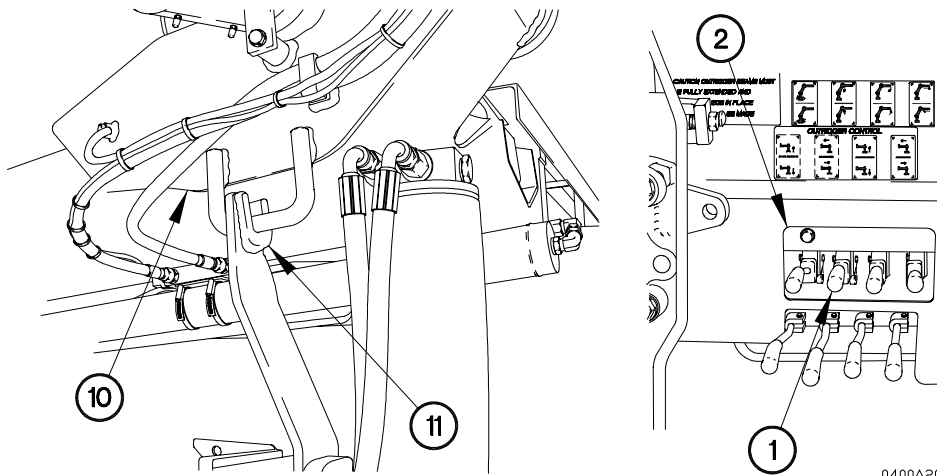
0001 00

**Stowing MHC from Local Control Panel - Continued**

**CAUTION**

MHC is equipped with two alignment brackets that secure the inner and outer boom when stowed. Ensure both are engaged when stowing MHC. Failure to comply may result in damage to equipment.

5. Position inner boom (10) in bracket (11) by pulling up on inner boom lever (1) on local control panel (2).

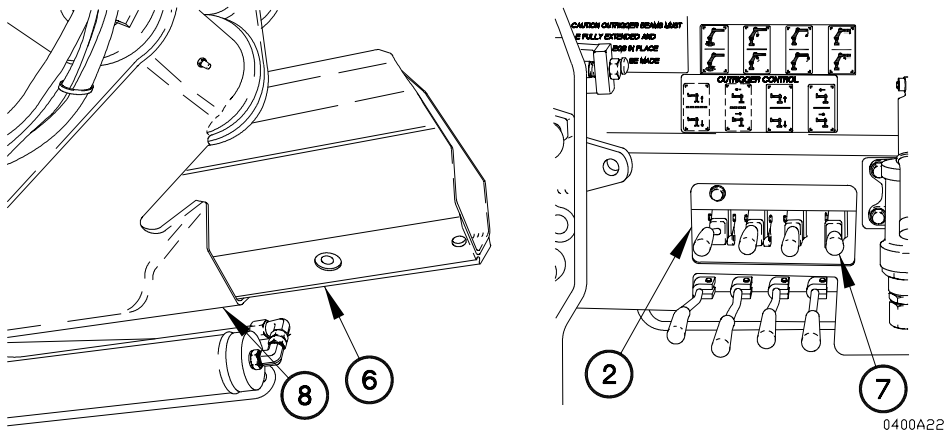


**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

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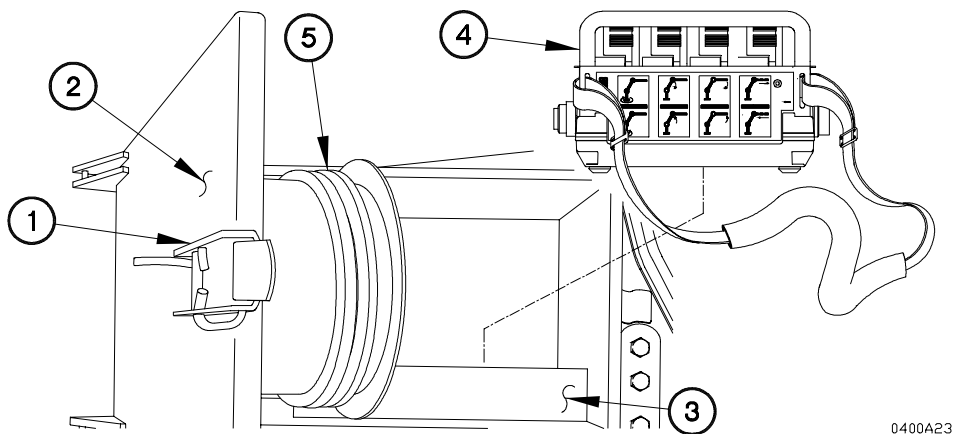
**Stowing MHC from Local Control Panel – Continued**

6. Extend boom extension (6) by pulling up on boom extension lever (7) on local control panel (2) until boom extension (6) is flush with outer boom (8).



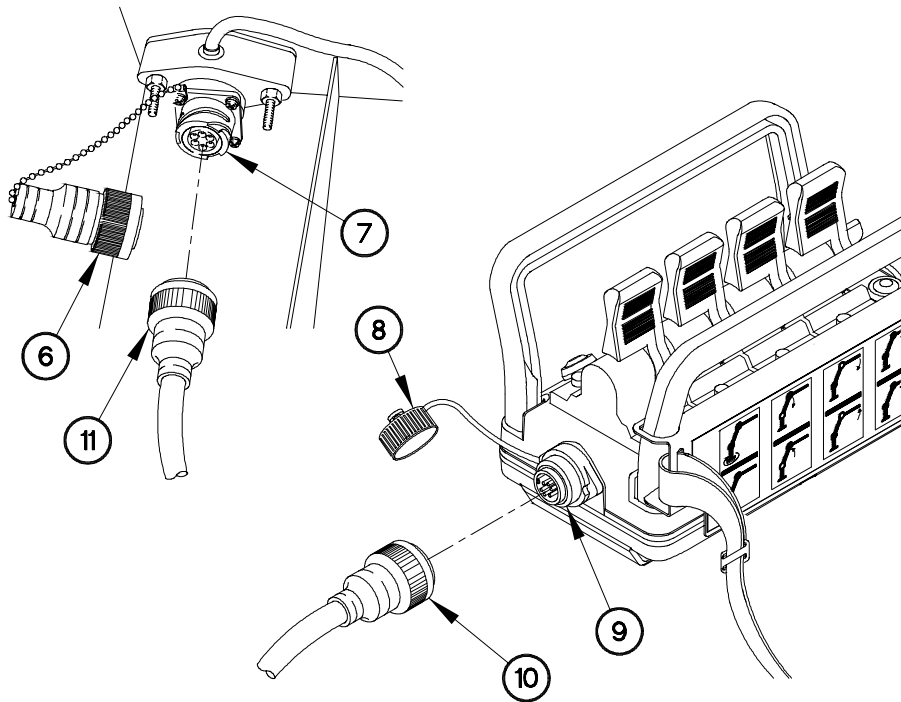
**Connecting Remote Control**

1. Open latch (1) on door (2).
2. Open door (2) on stowage box (3).
3. Remove remote control (4) from stowage box (3).
4. Unstow cable (5) from door (2) as required.



**Connecting Remote Control - Continued**

5. Remove dust cap (6) from stowage box connector (7).
6. Remove dust cap (8) from remote control connector (9).
7. Connect cable connector (10) to remote control connector (9).
8. Connect cable connector (11) to stowage box connector (7).



0400A24

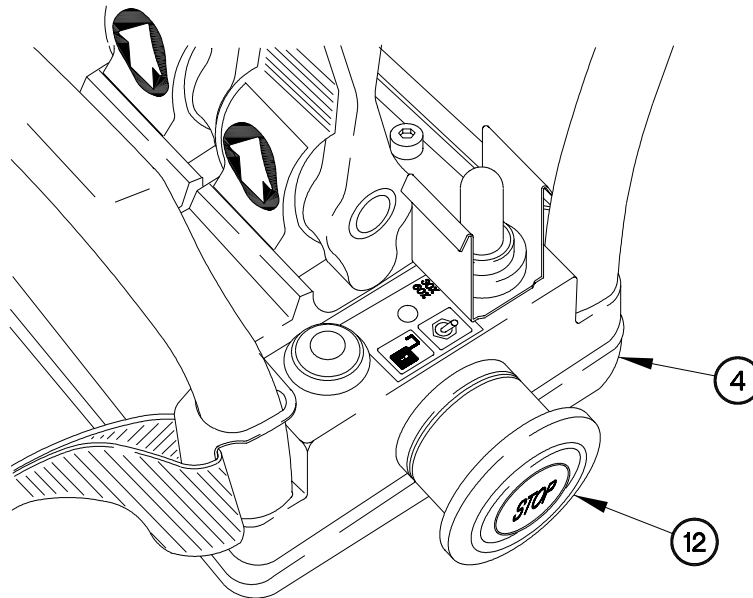


**Connecting Remote Control – Continued**

**NOTE**

Remote control is equipped with an emergency STOP switch. Press to remove power from MHC. Turn CW to reset. Emergency STOP may be used any time to stop all MHC movement if required.

9. Turn emergency STOP switch (12) on remote control (4) CW to reset.



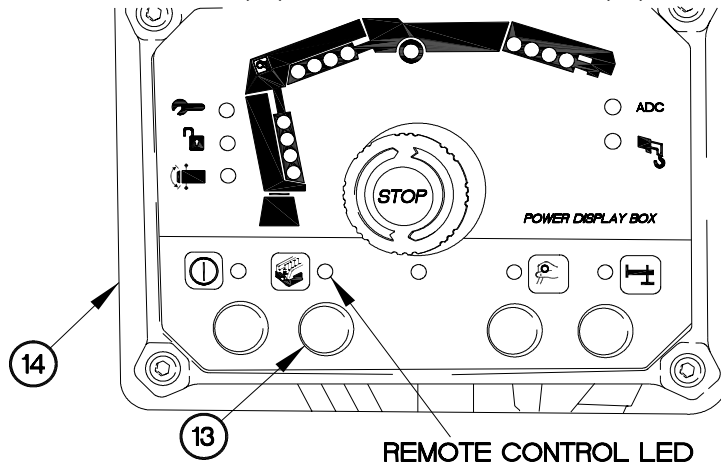
0400A25

**Connecting Remote Control – Continued**

**NOTE**

Green remote control LED will illuminate.

10. Press remote control button (13) on POWER DISPLAY BOX (14).

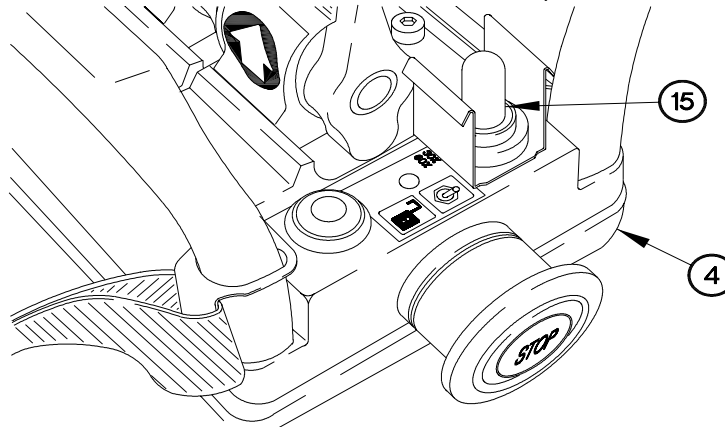


0400A26

**NOTE**

Remote control is equipped with a speed toggle switch that enables operation at 30%, 60%, or 100% speed. Pushing the toggle switch away from the Operator enables 30% speed. Pulling the toggle switch toward the Operator enables 60% speed. 100% speed is enabled when toggle switch is positioned straight up. 100% speed is appropriate when maneuvering with no load on MHC hook.

11. Press toggle switch (15) on remote control (4) to desired speed.



0400A27

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

0001 00

**Overriding OLP Circuit**

**CAUTION**

Use OLP switch only after attempting to relieve an overload condition using the levers. Do not use OLP switch to overload MHC. Failure to comply may result in damage to equipment.

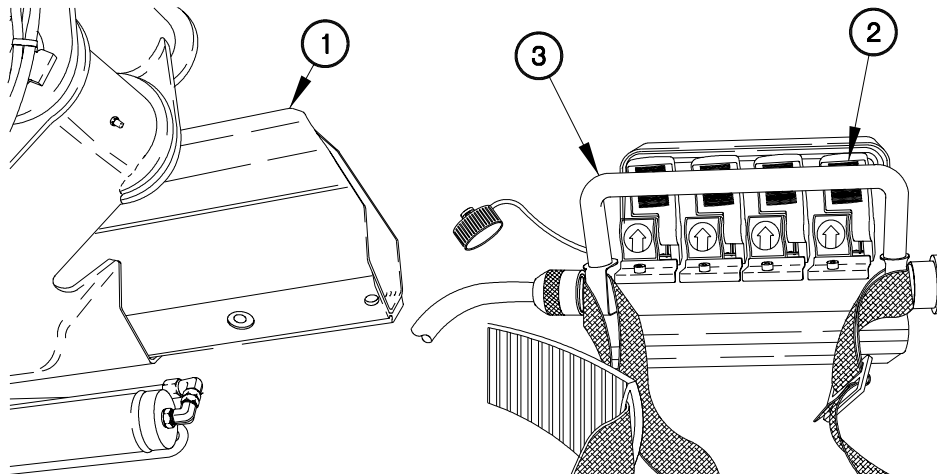
Refer to Emergency Procedures (WP 0002 00) for OLP override procedures.

**Preparing MHC for Use from Remote Control**

**NOTE**

Pushing downward (away from Operator) on inner boom and outer boom levers causes that section of the boom to go down. Pulling upward (toward Operator) causes that section of the boom to rise. Pushing downward (away from Operator) on the boom extension lever causes the boom to extend. Pulling upward (toward Operator) causes the boom to retract. Pushing downward (away from Operator) on the slew lever causes the MHC to rotate CW. Pulling upward (toward Operator) causes rotation CCW.

1. Retract boom (1) fully by pulling upward on boom extension lever (2) on remote control (3).



0400A28

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**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE - CONTINUED**

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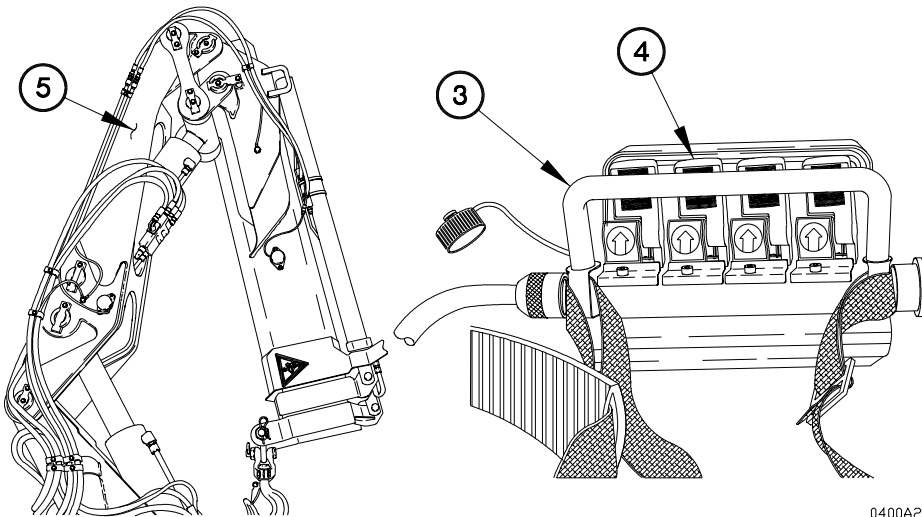
0001 00

**Preparing MHC for Use from Remote Control – Continued****CAUTION**

MHC is equipped with alignment brackets that secure the inner and outer boom when stowed. Ensure both are cleared when preparing MHC for use. Failure to comply may result in damage to equipment.

**NOTE**

- Fast full extension of inner and outer booms may activate OLP circuits even if no load is present. The preferred way to relieve pressure in the boom sections is to operate the lever in the opposite direction.
  - Refer to Emergency Procedures (WP 0002 00)
2. Pull up on inner boom lever (4) on remote control (3) to raise inner boom (5) to full height.



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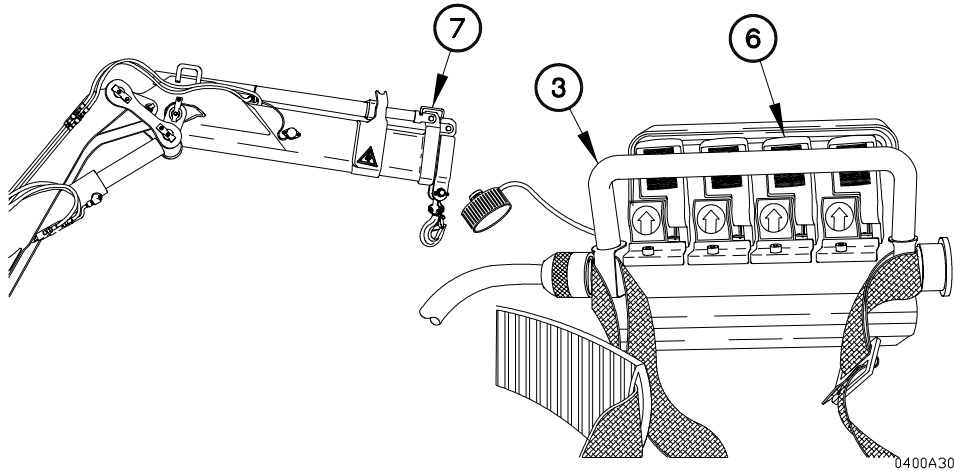
**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE - CONTINUED**

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0001 00

**Preparing MHC for Use from Remote Control – Continued**

3. Pull up on outer boom lever (6) on remote control (3) until outer boom (7) is positioned at 90°.

**Operating MHC from Remote Control****WARNING**

- Area must be clear of personnel before operating slew or extending boom. Boom must be rotated and extended slow enough so Operator has control of load. Operate MHC with remote control if possible. Failure to comply may result in serious injury or death to personnel.
- Keep boom clear of all electrical lines and other obstacles while operating MHC. Failure to comply may result in serious injury or death to personnel.
- Operator must keep load in sight at all times while operating MHC. Load may unexpectedly shift. Failure to comply may result in serious injury or death to personnel.
- Attach safety lines to load to keep control of load at all times. An assistant is required to attend safety lines. Failure to comply may result in serious injury or death to personnel or damage to equipment.

**Operating MHC from Remote Control - Continued****WARNING**

MHC may be operated from local panel or remote control. Remote control is preferred method of operation. Operator can maintain eye contact with load. Use local control only if remote control is not functional. Failure to comply may result in injury to personnel or damage to equipment.

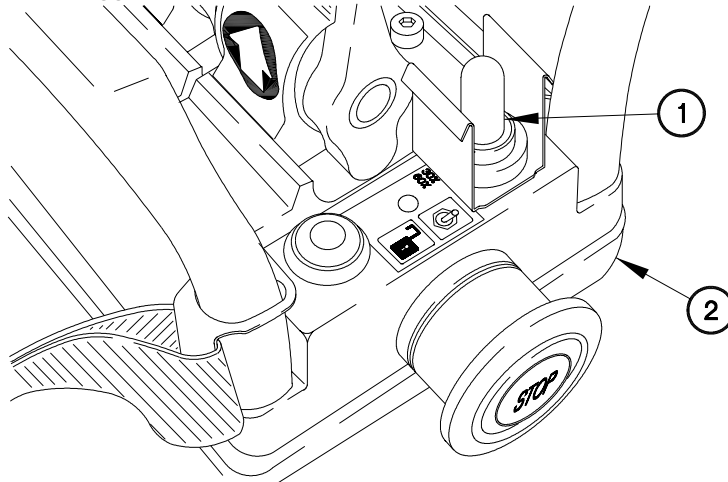
**CAUTION**

Refer to range chart for load limits prior to lifting load. Failure to comply may result in damage to equipment.

**NOTE**

- Remote control is equipped with an emergency STOP switch. Press to remove power from MHC. Turn CCW to reset. Emergency STOP may be used at any time to stop all MHC movement if required.
- Remote control is equipped with a speed toggle switch that enables operation at 30%, 60%, or 100% speed. Pushing the toggle switch away from the Operator enables 30% speed. Pulling the toggle switch toward the Operator enables 60% speed. 100% speed is enabled when toggle switch is positioned straight up. 100% speed is appropriate when maneuvering with no load on MHC hook

1. Position toggle switch (1) on remote control (2) to desired speed.



0400A31

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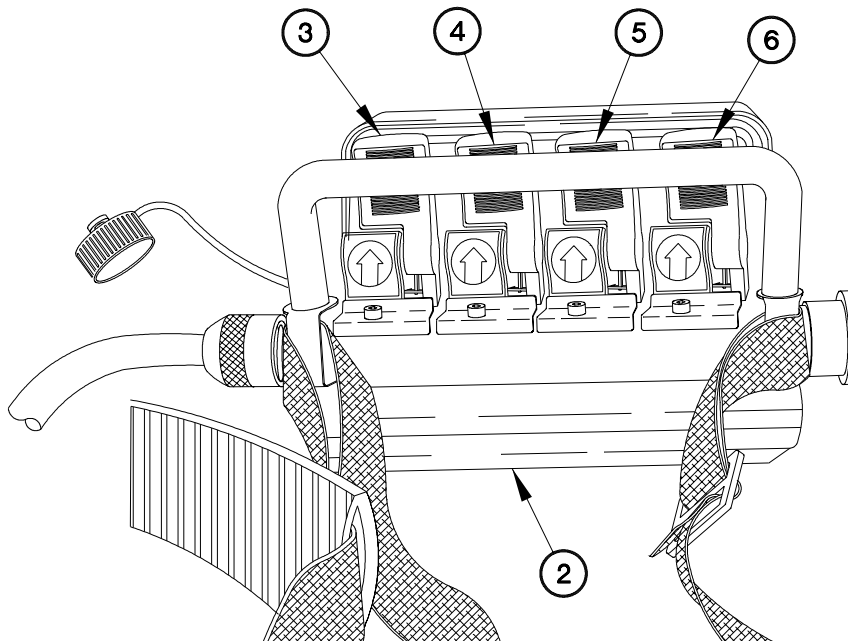
**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE - CONTINUED**

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0001 00

**Operating MHC from Remote Control - Continued****NOTE**

- Pushing downward (away from Operator) on inner boom and outer boom levers causes that section of the boom to go down. Pulling upward (toward Operator) causes that section of the boom to rise. Pushing downward (away from Operator) on the boom extension lever causes the boom to extend. Pulling upward (toward Operator) causes the boom to retract. Pushing downward (away from Operator) on the slew lever causes the MHC to rotate CW. Pulling upward (toward Operator) causes rotation CCW.
  - The following four (4) steps require the aid of an assistant.
2. Use slew lever (3), inner boom lever (4), outer boom lever (5), and boom extension lever (6) on remote control (2) to position MHC over load.



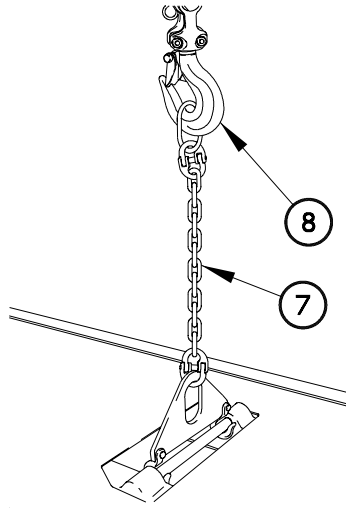
0400A32

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

0001 00

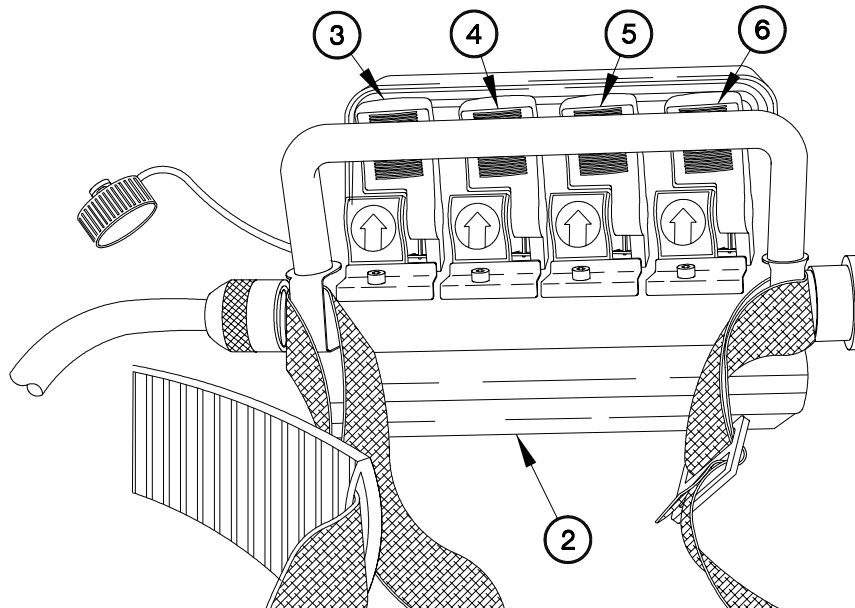
**Operating MHC from Remote Control - Continued**

3. Connect hoist assembly (7) to MHC hook (8).
4. Connect hoist assembly (7) to load.



0400A33

5. Use slew lever (3), inner boom lever (4), outer boom lever (5), and boom extension lever (6) on remote control (2) to position load as required.



0400A34



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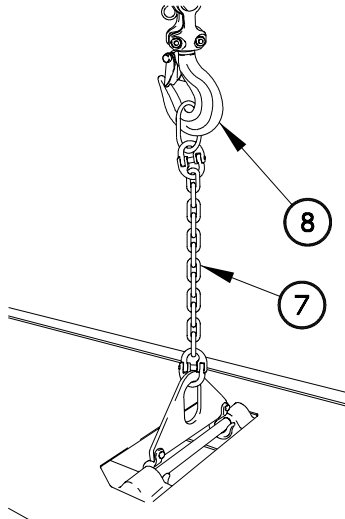
**MATERIAL HANDLING CRANE (MHC) OPERATION**  
**WORK PACKAGE - CONTINUED**

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0001 00

**Operating MHC from Remote Control - Continued**

6. Disconnect hoist assembly (7) from load.
7. Remove hoist assembly (7) from MHC hook (8).



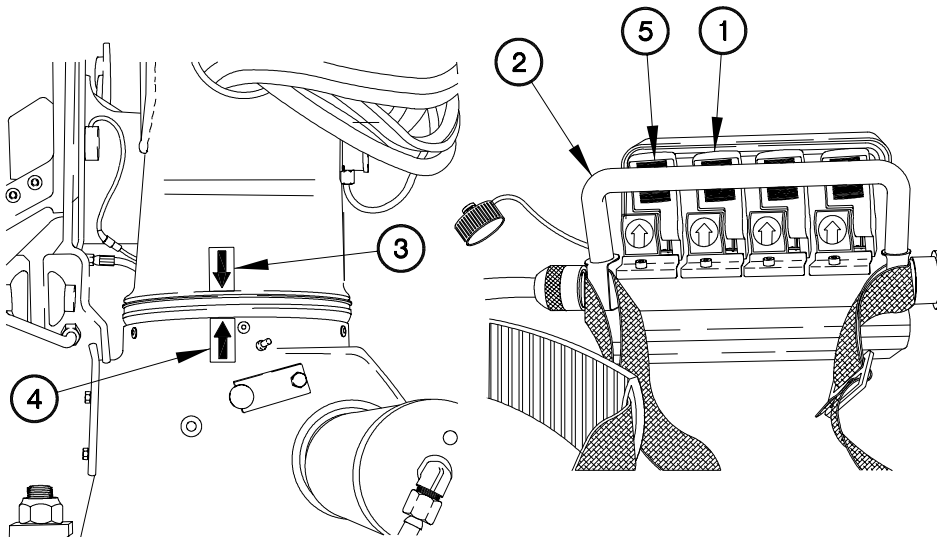
0400A33

**Stowing MHC from Remote Control****NOTE**

Pushing downward (away from Operator) on inner boom and outer boom levers causes that section of the boom to go down. Pulling upward (toward Operator) causes that section of the boom to rise. Pushing downward (away from Operator) on the boom extension lever causes the boom to extend. Pulling upward (toward Operator) causes the boom to retract. Pushing downward (away from Operator) on the slew lever causes the MHC to rotate CW. Pulling upward (toward Operator) causes rotation CCW.

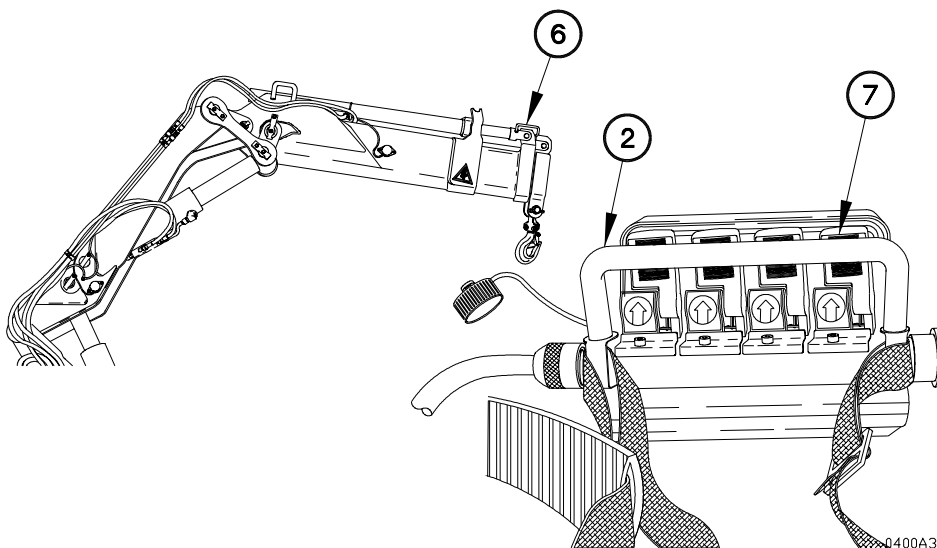
**Stowing MHC from Remote Control-Continued**

1. Raise inner boom by pulling up on inner boom lever (1) on remote control (2).
2. Align mast arrow (3) with base arrow (4) using slew lever (5) as required on remote control (2).



0400A36

3. Fully retract boom extension (6) by pulling up on boom extension lever (7) on remote control (2).



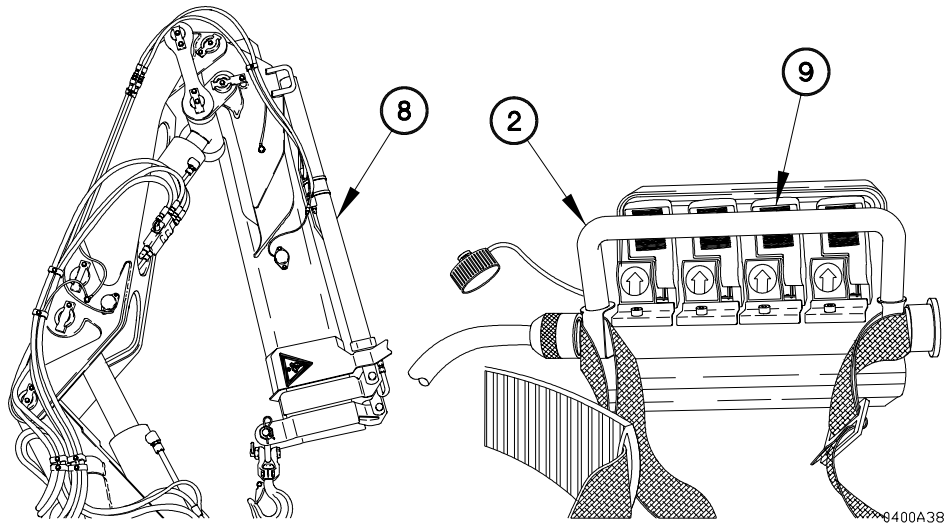
0400A37

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

0001 00

**Stowing MHC from Remote Control - Continued**

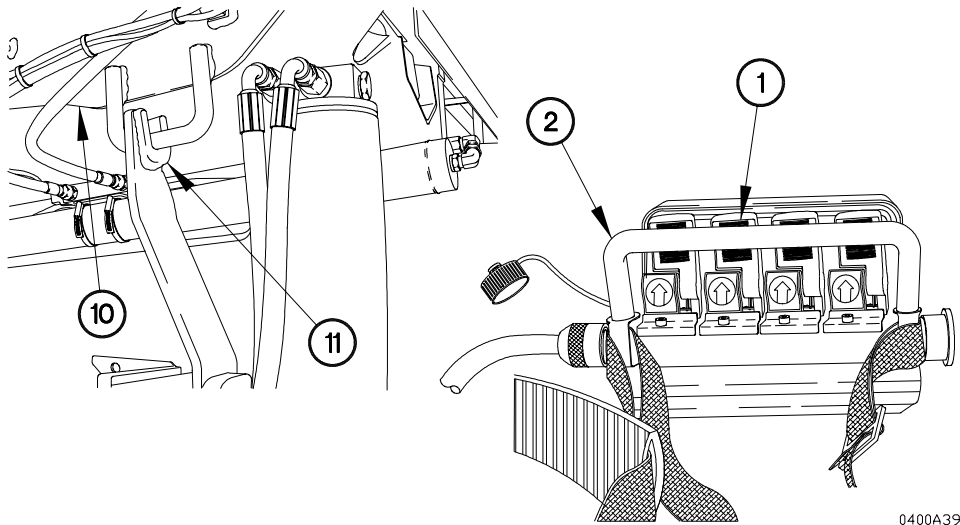
4. Position outer boom (8) fully down by pushing down on outer boom lever (9) on remote control (2).



**CAUTION**

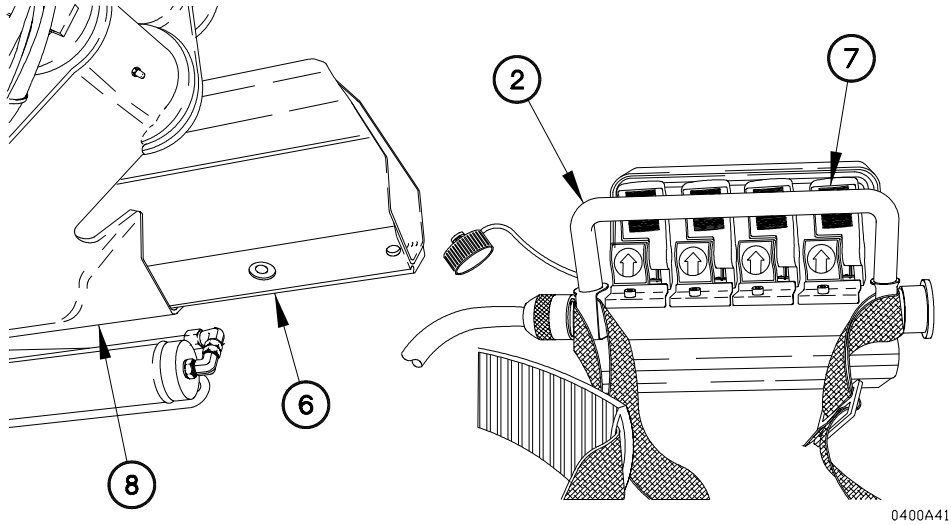
MHC is equipped with two alignment brackets that secure the inner and outer boom when stowed. Ensure both are engaged when stowing MHC. Failure to comply may result in damage to equipment.

5. Position inner boom (10) in bracket (11) by pushing down on inner boom lever (1) on remote control (2).



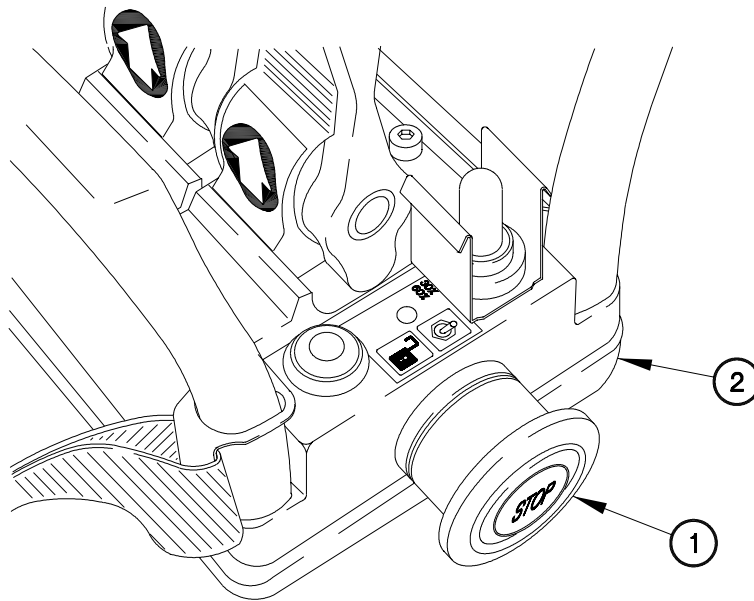
**Stowing MHC from Remote Control - Continued**

6. Extend boom extension (6) by pushing down on boom extension lever (7) on remote control (2) until boom extension (6) is flush with outer boom (8).



**Disconnecting Remote Control**

1. Press emergency STOP switch (1) on remote control (2).



0400a42

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

0001 00

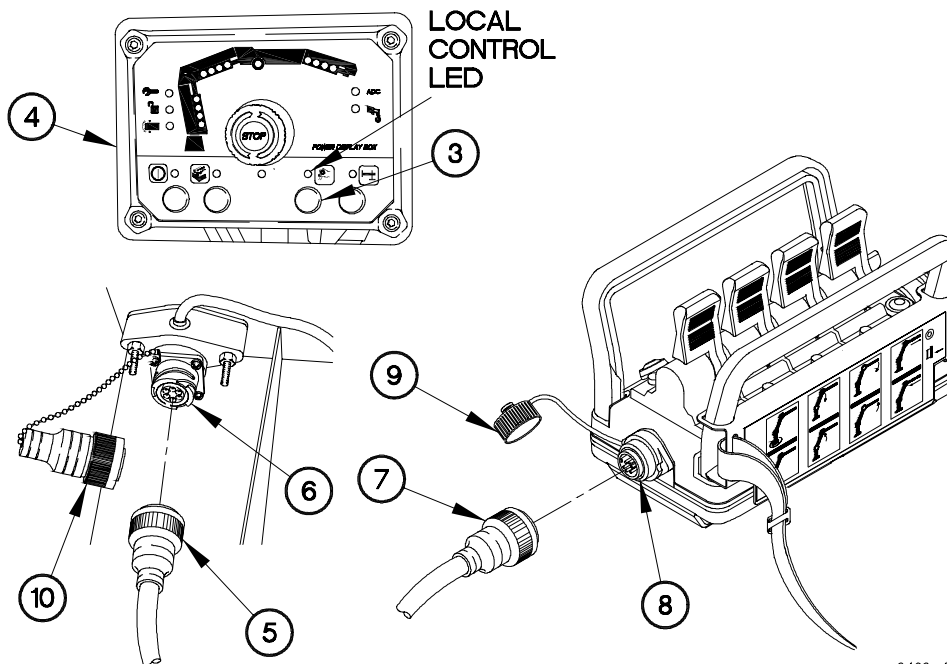
**Disconnecting Remote Control - Continued**

2. Press local control button (3) on POWER DISPLAY BOX (4).

**NOTE**

Green local control LED will illuminate.

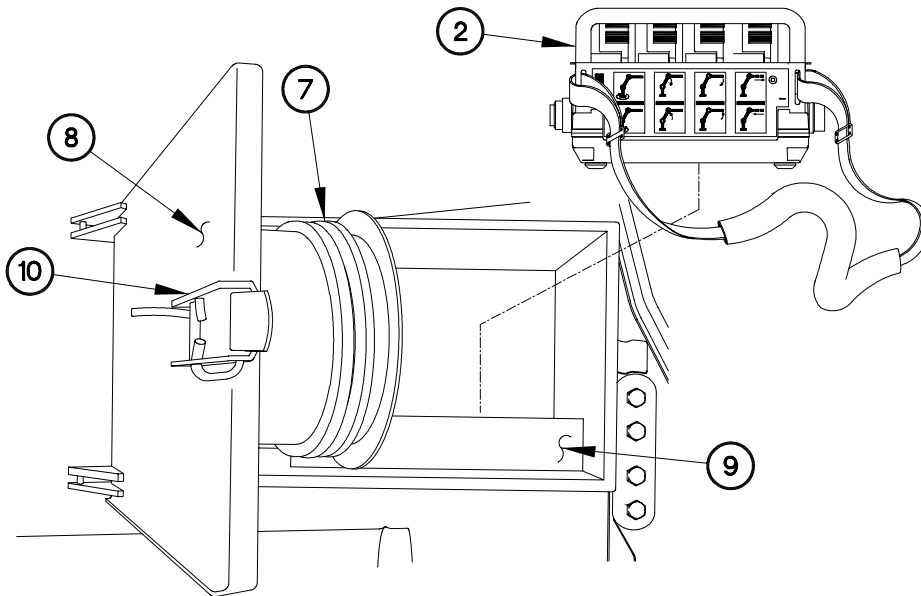
3. Disconnect cable connector (5) from stowage box connector (6).
4. Disconnect cable connector (7) from remote control connector (8).
5. Install dust cap (9) on remote control connector (8).
6. Install dust cap (10) on stowage box connector (6).



0400a43

**Disconnecting Remote Control - Continued**

7. Stow cable (7) on door (8)
8. Position remote control (2) in stowage box (9).
9. Close door (8) in stowage box (9).
10. Close latch (10) on door (8).



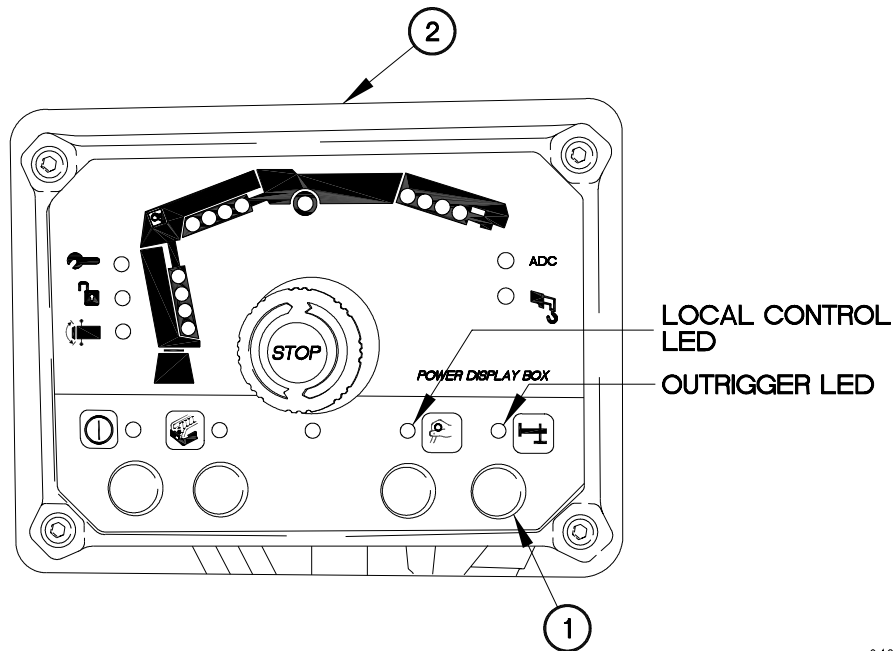
0400A44

**Stowing Outriggers and Shutting Down MHC**

**NOTE**

Green outrigger LED will illuminate.

1. Press outrigger button (1) on POWER DISPLAY BOX (2).



0400A45



**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

0001 00

Stowing Outriggers and Shutting Down MHC – Continued

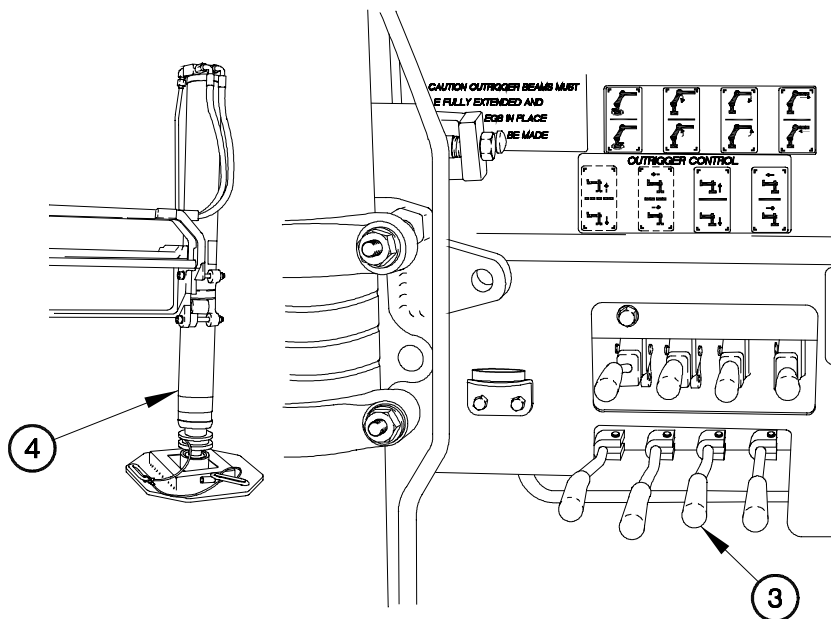
**WARNING**

Left side and right side outriggers and jack cylinders may be operated from either side of vehicle. For safety purposes, Operator should be on same side as outrigger and jack cylinder being operated. Failure to comply may result in injury or damage to equipment.

**NOTE**

Left and right side jack cylinders and outriggers are retracted and locked the same way. Right side shown.

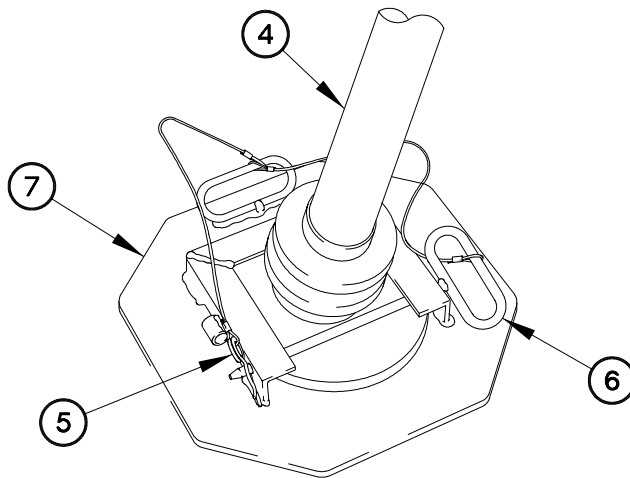
2. Position jack lever (3) up to raise jack cylinder (4).



0400a46

**Stowing Outriggers and Shutting Down MHC – Continued**

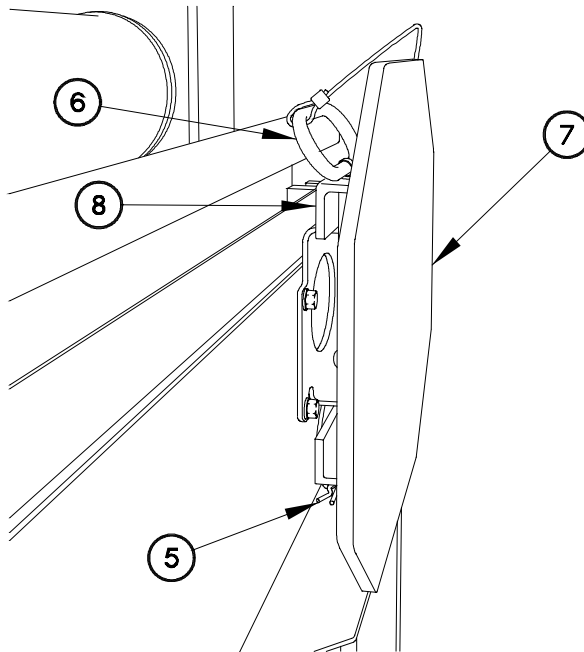
3. Remove safety pin (5) from pin (6).
4. Remove pin (6) and pad (7) from jack cylinder (4).



0400a47

**Stowing Outriggers and Shutting Down MHC – Continued**

5. Install pad (7) on stowage bracket (8) with pin (6) and safety pin (5).



0400&50

**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

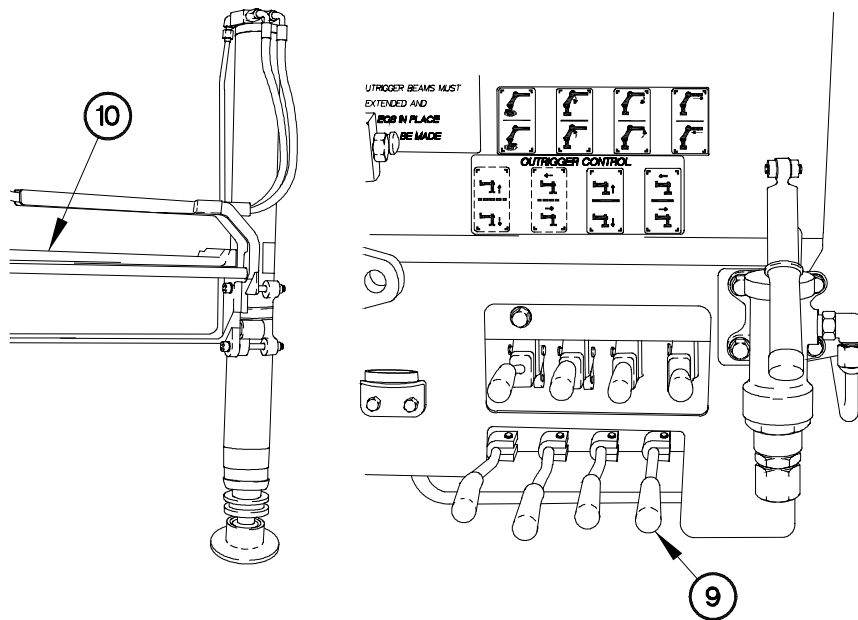
0001 00

**Stowing Outriggers and Shutting Down MHC – Continued**

**CAUTION**

Ensure outriggers are fully retracted and latches are engaged. Failure to comply may result in damage to equipment.

6. Position outrigger lever (9) up to retract outrigger (10)
7. Perform the preceding five steps on left side.



0400a48

**Stowing Outriggers and Shutting Down MHC - Continued**

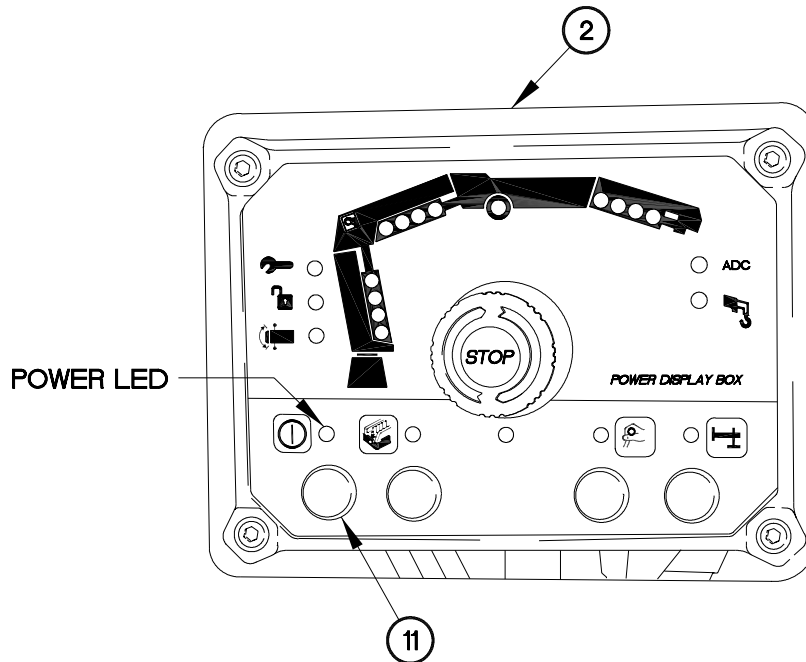
**CAUTION**

MHC will continue to draw power from the batteries even when the engine is shut down. Ensure that the power button is pressed and the green power LED goes out before shutting down the engine. Failure to comply may result in damage to equipment.

8. Press power button (11) on POWER DISPLAY BOX (2).

**NOTE**

Green power LED will go out.



0400A49

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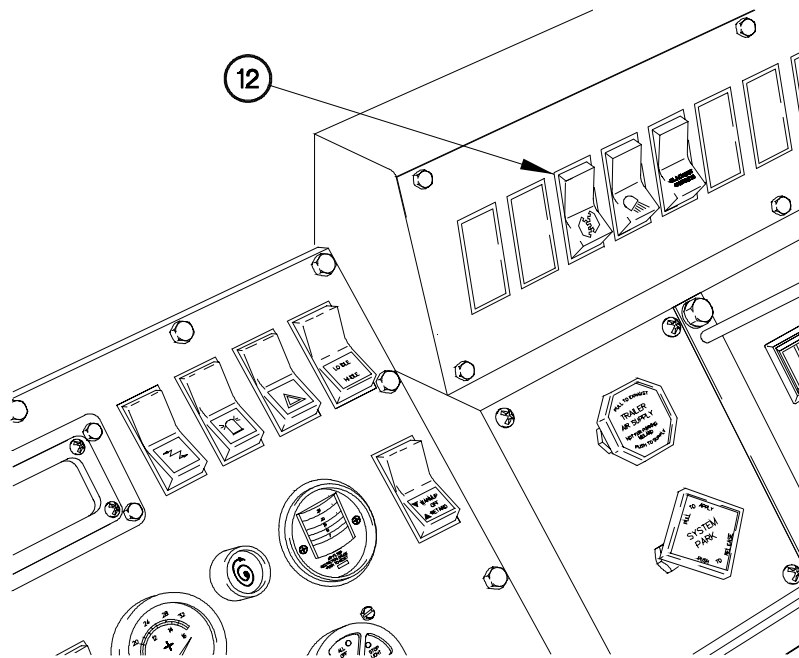
**MATERIAL HANDLING CRANE (MHC) OPERATION  
WORK PACKAGE - CONTINUED**

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0001 00

**Stowing Outriggers and Shutting Down MHC – Continued**

12. Position PTO switch (12) to off.
13. Shut down engine (TM 9-2330-393-10-1) (WP 0018 01)



0400a51

**END OF WORK PACKAGE**

**INITIAL SETUP:**

**Maintenance Level**  
Operator

**References**  
TM 9-2300-310-14&P

**GENERAL**

This work package provides the data and procedures for an emergency situation.

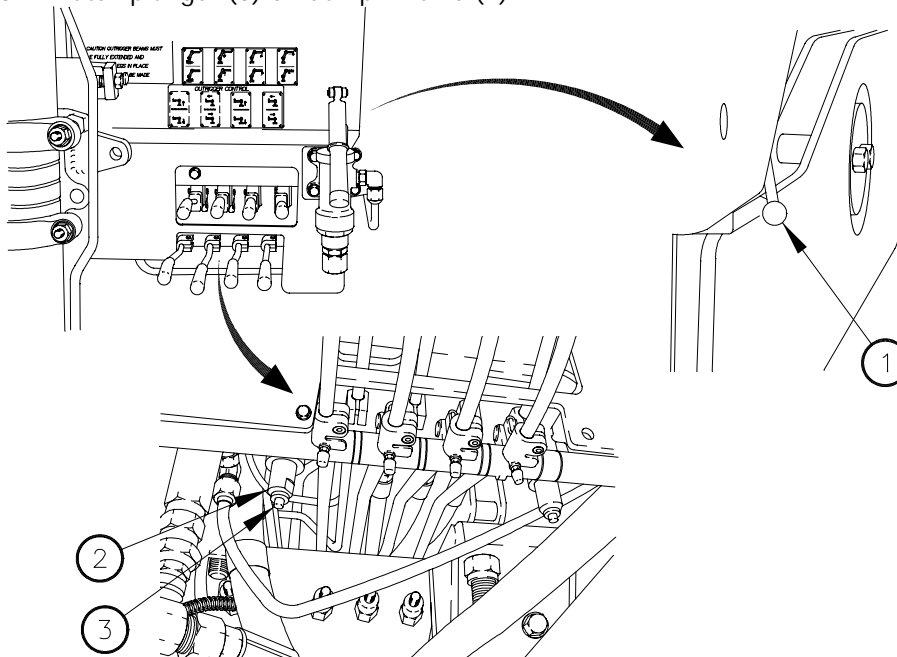
**Operating MHC after Electrical Failure**

1. Position gate valve handle (1) down.
2. Remove safety wire from dump 1 valve (2).

**NOTE**

- All MHC functions operate the same way. Boom extension function shown.
- Dump valves are latched by removing safety wire, then pushing up and turning plunger ¼ turn with a flat screw driver.

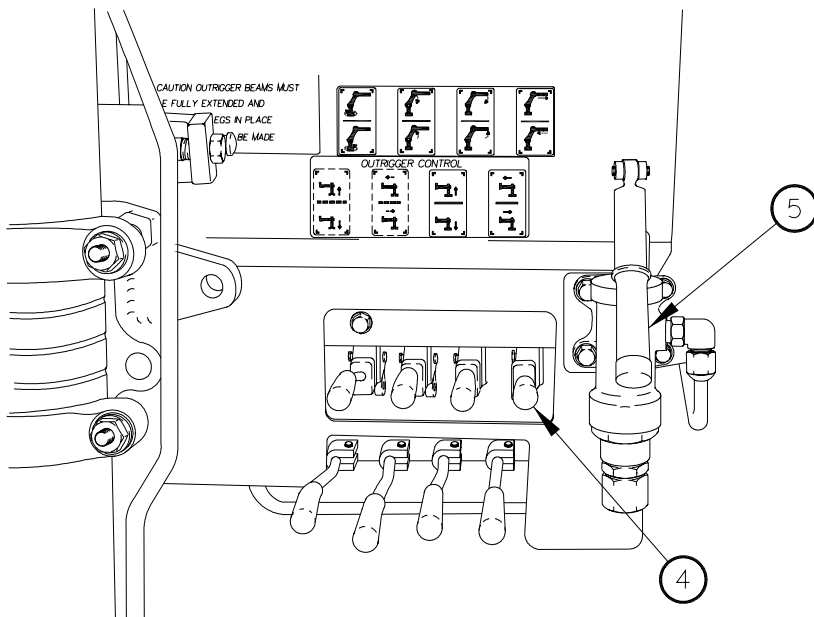
3. Latch plunger (3) on dump 1 valve (2).



0100a.01

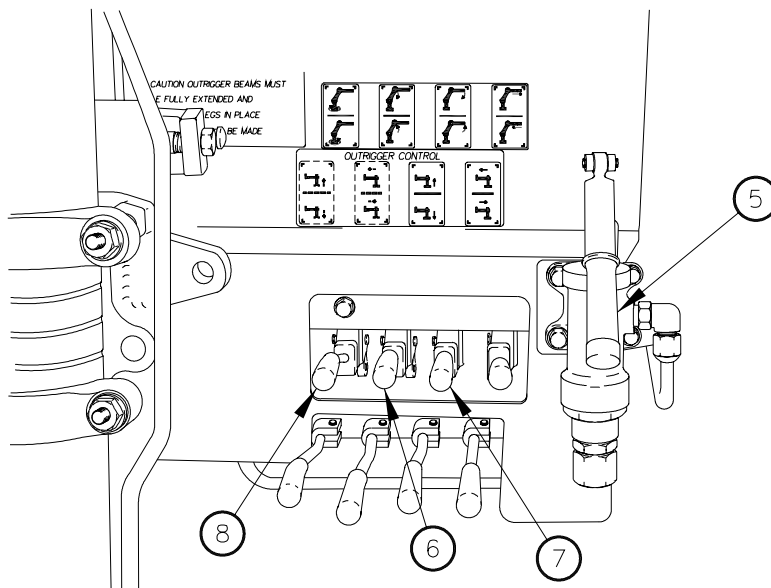
**Operating MHC after Electrical Failure - Continued**

4. Position boom extension lever (4) in desired direction and operate crane hand pump (5).



0100a02

5. Operate inner boom lever (6), outer boom lever (7), and slew lever (8) to lower load with crane hand pump (5).



0100a03

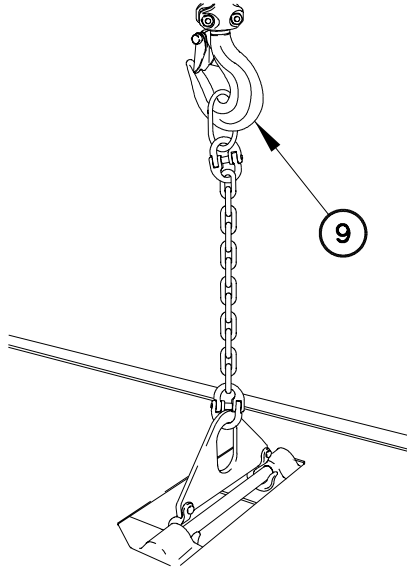


**EMERGENCY PROCEDURES WORK PACKAGE  
CONTINUED**

0002 00

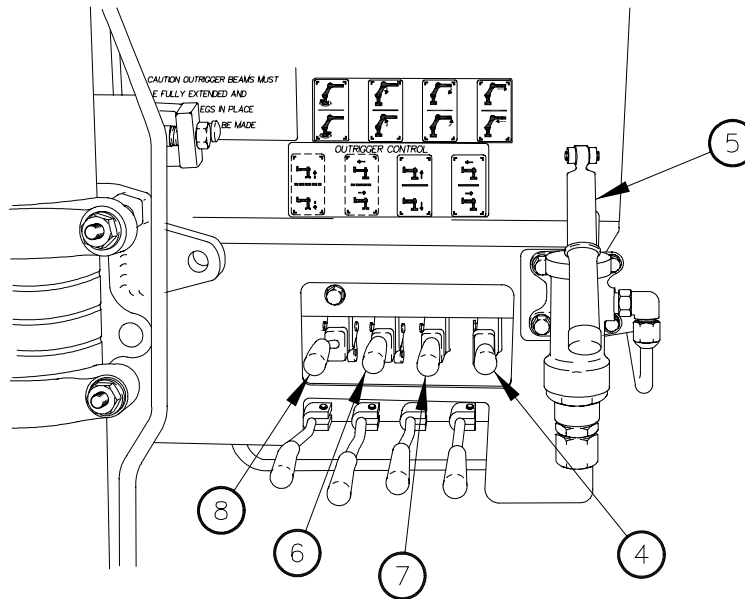
**Operating MHC after Electrical Failure - Continued**

- Remove hook assembly (9) from load.



0100A04

- Operate inner boom lever (6), outer boom lever (7), slew lever (8), and boom extension lever (4) to stow MHC with crane hand pump (5).



0100a05

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**EMERGENCY PROCEDURES WORK PACKAGE**  
**CONTINUED**


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0002 00

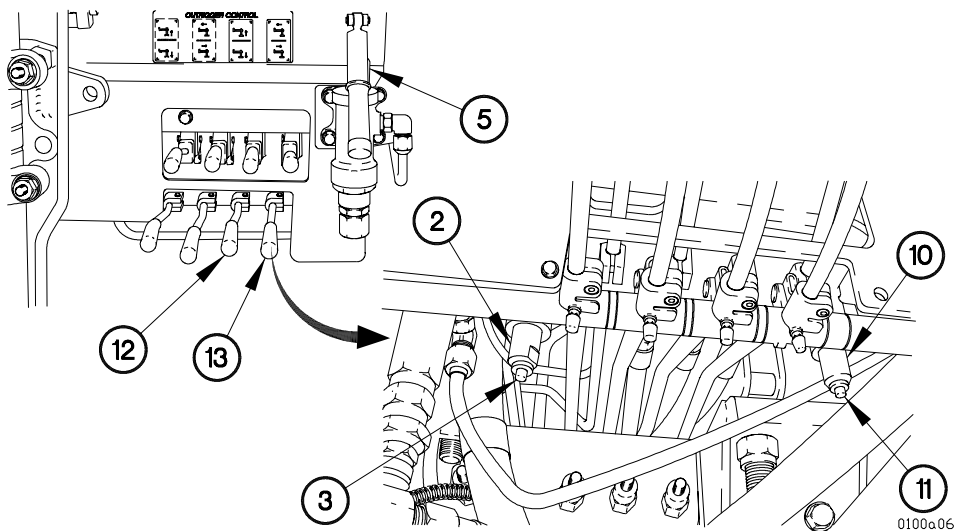
**Operating MHC after Electrical Failure - Continued****NOTE**

- Dump valves are latched by removing safety wire, then pushing up and turning plunger ¼ turn with a flat screw driver.
  - Outrigger extension and jack cylinders and outriggers are stowed the same way. Left side shown.
8. Remove safety wire from dump 2 valve (10).
  9. Latch plunger (11) on dump 2 valve (10).

**NOTE**

Left and right side jack cylinders and outriggers are stowed the same way. Left side shown.

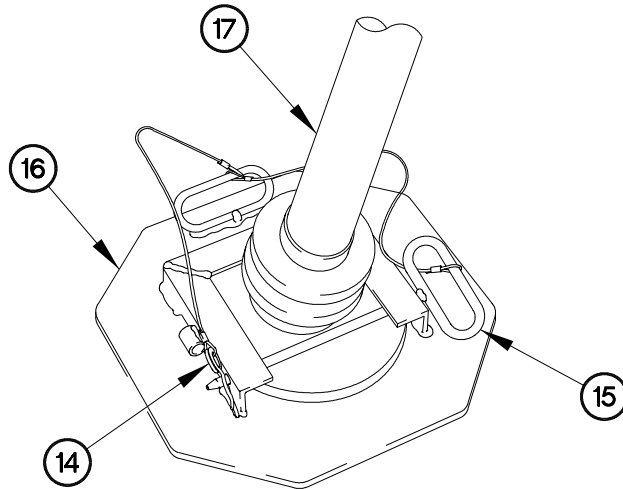
10. Position Jack cylinder (12) up and operate crane hand pump (5) to retract.
11. Position outrigger lever (13) up and operate crane hand pump (5) to retract.
12. Perform preceding two steps on right side.
13. Unlatch plungers (11 and 3) on dump 2 valve (10) and dump 1 valve (2).
14. Notify Unit Maintenance of electrical failure.



**Operating MHC after Electrical Failure - Continued****NOTE**

Both jack cylinder pads are removed the same way. Left side shown.

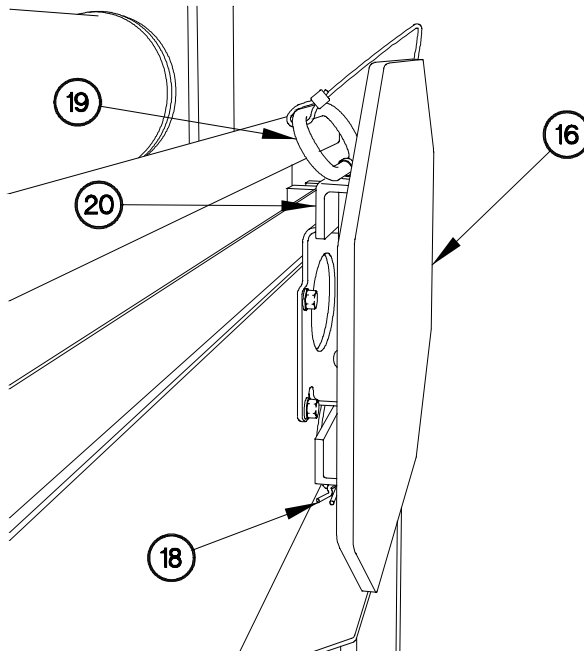
15. Remove safety pin (14) from pin (15).
16. Remove pin (15) and pad (16) from jack cylinder piston (17).
17. Install pin (15) on pad (16) with safety pin (14).
18. Perform the preceding three steps on right side.



0100a07

**Operating MHC after Electrical Failure – Continued**

19. Remove safety pin (18) from pin (19).
20. Remove pin (19) from stowage bracket (20).
21. Install two pads (16) on stowage bracket (20) with pin (19) and safety pin (18).



0100a08

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**EMERGENCY PROCEDURES WORK PACKAGE**  
**CONTINUED**


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0002 00

**Operating MHC using OLP Switch****CAUTION**

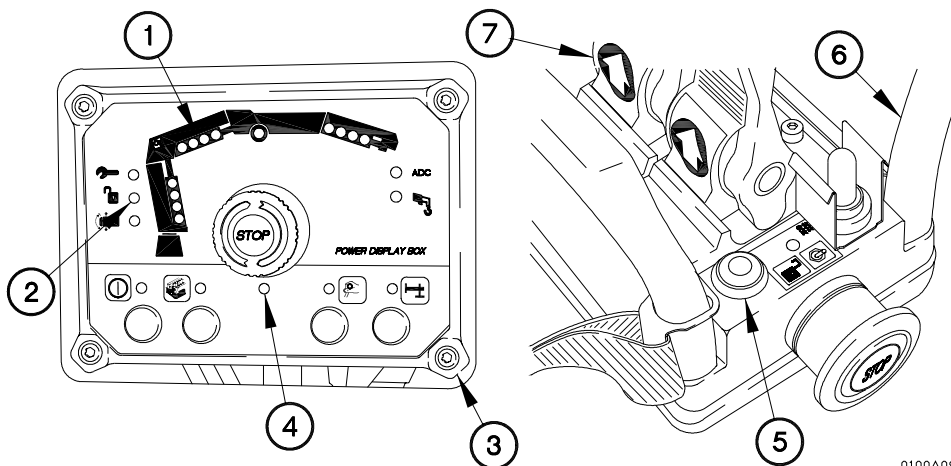
Use OLP switch only after attempting to relieve pressure by using remote control levers and only to move MHC out of a locked condition. Do not use OLP switch to overload MHC. Failure to comply may result in damage to equipment.

1. Verify four red pressure LEDs (1) and red OLP LED (2) are illuminated on POWER DISPLAY BOX (3).
2. Verify main dump valve LED (4) on POWER DISPLAY BOX (3) is not illuminated.

**NOTE**

Overriding the OLP circuit will allow only 10 seconds of operation at a time followed by 20 seconds of system lockout.

3. Press and hold OLP switch (5) on remote control (6)
4. Verify four red pressure LEDs (1) illuminate in sequence.
5. Move lever (7) on remote control (6) in opposite direction that boom was moving when OLP activated.
6. Verify OLP LED (2) blinks and goes out.
7. Release OLP switch (5) on remote control.



0100A09

**END OF WORK PACKAGE**



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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS)** 0003 00

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**INITIAL SETUP:**

Side and Rear Panels Stowed (TM 9-2320-392-10-1) (WP 0023 00)  
Vehicle positioned on Level Surface  
Wheels Chocked

**Maintenance Level**

Operator

**Personnel Required**

Two

**References**

TM 9-1300-206  
AMCR 385-100

**Tools/Special Tools**

Gloves, Leather (TM 9-2320-392-10-2)  
Chocks, Wheel (BII)  
Hoist Assembly, Rocket Pod (BII)

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**GENERAL**

This work package provides the Loading/Unloading multiple launch rocket system family of munitions (MFOM) rocket pods (RPs)/rocket pod (RP) data for M1084A1/RSV.

**Loading MFOM RPs**

**WARNING**

- Dropping a Rocket Pod (RP) or Missile Launch Pod Assembly (M/LPA) can create a serious flaw in a rocket motor that could cause the rocket or missile to explode or fly erratically. All RPs and M/LPAs dropped from any height shall be inspected by the supporting Quality Assurance Specialist Ammunition Surveillance (QASAS) personnel in accordance with the appropriate army Surveillance Bulletin (SB) to determine the serviceability of the dropped rocket pod or missile assembly. Witnesses to the incident will need to provide information concerning the height of the drop, the type of surface the pod was dropped on, and how the pod landed to the QASAS personnel.  
For drop criteria covering M26 and M28 series RPs, refer to SB 742-1340-92-011.  
For drop criteria covering GMLRS M30 series RPs, refer to SB 742-1340-92-012.  
For drop criteria covering army TACMS M39 series M/LPAs, refer to SB 742-1427-92-014.  
Failure to comply may result in injury or death to personnel.

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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued**      **0003 00**

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**Loading MFOM RPs – Continued**

**WARNING**

- Refer to TM 9-1300-206 and AMCR 385-100 for general precautions and procedures for handling MFOM RPs. Failure to comply may result in injury or death to personnel.
- MFOM RPs weigh approximately 5100 lbs. (2315 kg). An alternate method of lifting MFOM RPs is to use a four point lifting sling and lift RPs by the tiedown/lifting rings. If sling is used, ensure it is capable of lifting the MFOM RPs weight. Failure to comply may result in injury to personnel or damage to equipment.
- Attach a safety line to MFOM RPs prior to loading. Tiedown straps may be used for this purpose. Failure to comply may result in injury or death to personnel.

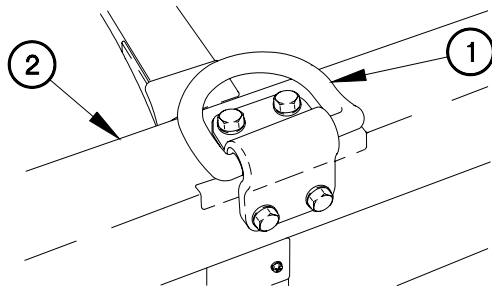
**CAUTION**

- M1084A1/RSV and RST must be aligned for loading MFOM RPs due to MHC traverse limits. Failure to comply may result in damage to equipment.
- Fully load M1084A1/RSV prior to loading RST. Failure to comply may result in damage to equipment.

**NOTE**

- M1084A1/RSV and RST are loaded the same way. M1084A1/RSV shown.
- Refer to Material Handling Crane (MHC) Operation Work Package (WP 0001 00) for instructions.

1. Position inboard tie down rings (1) upward on MFOM RPs (2).



0200A01



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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** 0003 00

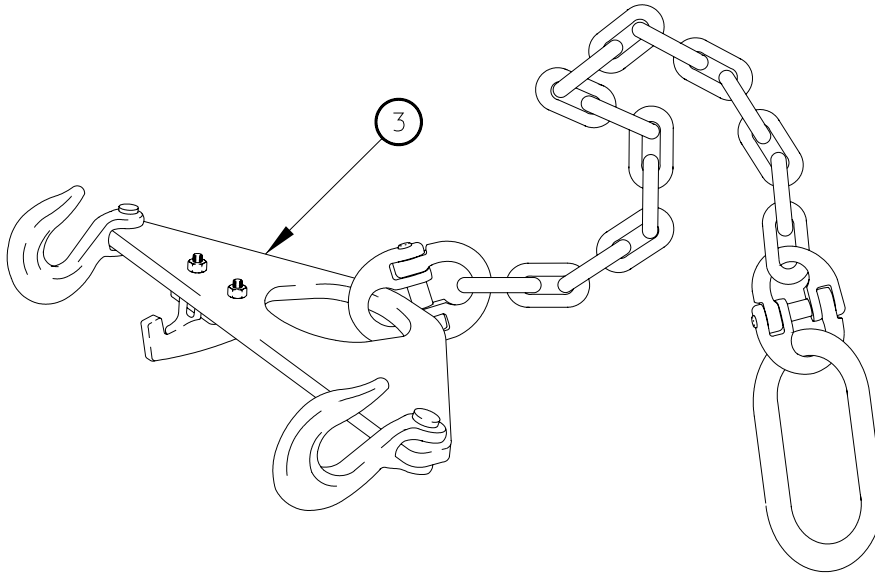
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**Loading MFOM RPs – Continued**

**CAUTION**

Loading MFOM RPs should be accomplished using the MHC remote control. 60% speed is recommended when making large movements. 30% speed is recommended when maneuvering within two (2) feet of lowering MFOM RPs into pod shoes on cargo bed. 100% speed is most appropriate when maneuvering without a load on MHC hook. Failure to comply may result in damage to equipment.

2. Remove hoist assembly (3) from cab storage box.



0200A02

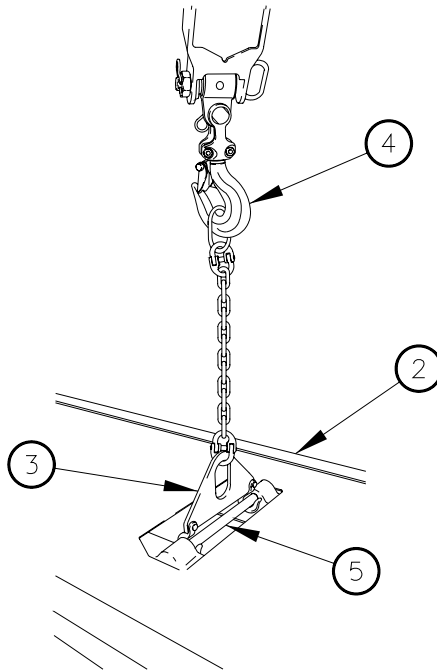
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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued**      0003 00

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**Loading MFOM RPs - Continued**

3. Install hoist assembly (3) on MHC hook (4).
4. Position MHC hook (4) over MFOM RPs (2).
5. Lower MHC hook (4) so that hoist assembly (3) can be attached to MFOM RPs lifting rod (5).



0200A03

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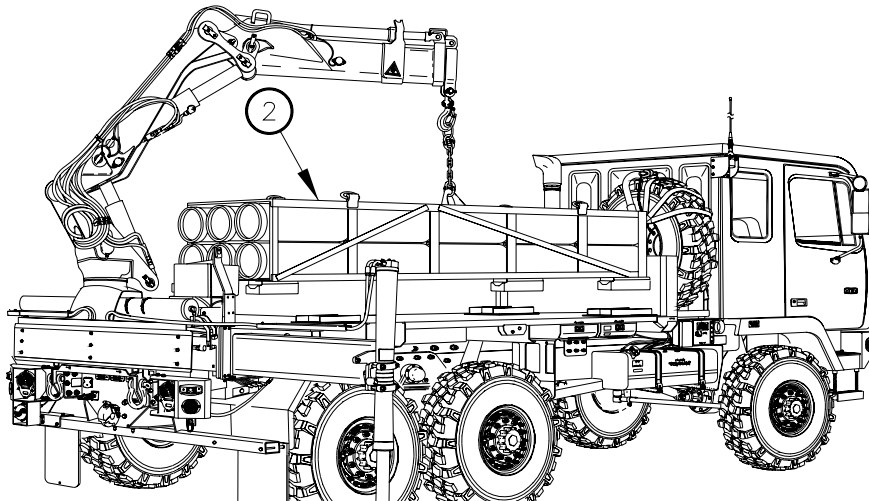
**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued**      0003 00

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**Loading MFOM RPs – Continued**

**NOTE**

- Position MFOM RPs with the front end towards front of cargo bed.
  - MFOM RPs may be loaded from either side of M1084A1/RSV or RST. Right side of M1084A1/RSV shown.
6. Position MFOM RPs (2) on M1084A1/RSV.



0200A04

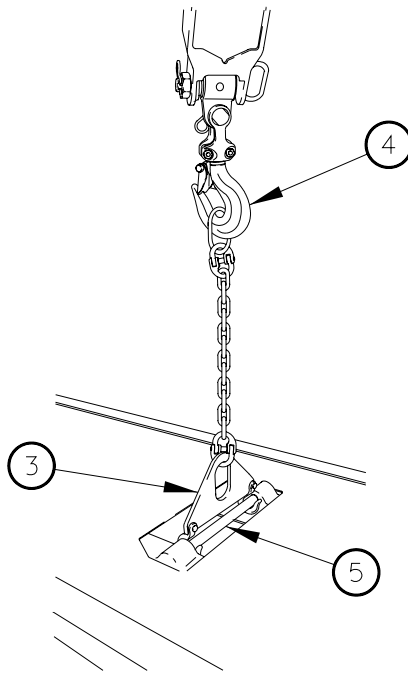
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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued**

---

**Loading MFOM RPs – Continued**

7. Remove hoist assembly (3) from MFOM RPs lifting rod (5).
8. Perform the preceding five steps to load remaining MFOM RPs.
9. Remove hoist assembly (3) from MHC hook (4).
10. Stow hoist assembly (3) in cab storage box.
11. Stow MHC. Refer to Material Handling Crane (MHC) Operation Work Package (WP 0001 00) for instructions



0200a05

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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** 0003 00

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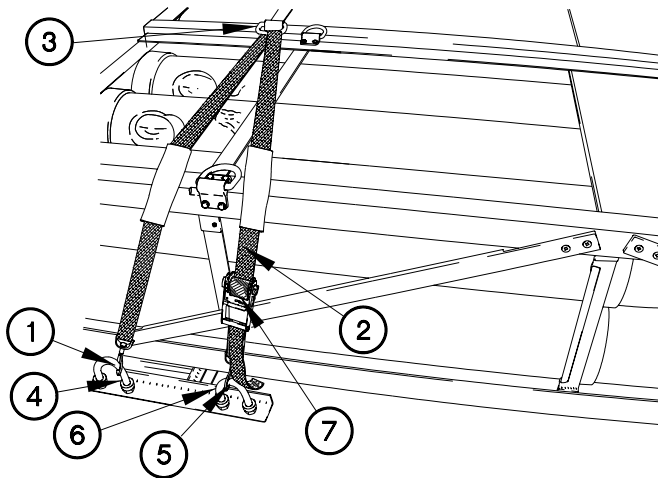
**Tying Down Two MFOM RPs**

**CAUTION**

Ensure all web straps are tight. Use padding under web straps where they pass over sharp edges on MFOM RPs. Failure to comply may result in damage to equipment.

**NOTE**

- The recommended method for threading the web strap assemblies through the lifting rings is from the bottom up.
  - Left side and right side MFOM RPs tiedowns are installed the same way. Left front M1084A1/RSV tiedown shown.
  - Secure loose ends of tiedown to prevent fraying.
1. Using hook (1) on long end of strap assembly (2) thread hook (1) over the roadside MFOM RP and through the lifting ring (3) of the curbside MFOM RP.
  2. Attach hook (1) to tiedown ring (4).
  3. Attach short strap hook (5) to tiedown ring (6).
  4. Take up slack in strap assembly (2) and use ratchet (7) to tighten strap assembly (2).



0200a06

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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** **0003 00**

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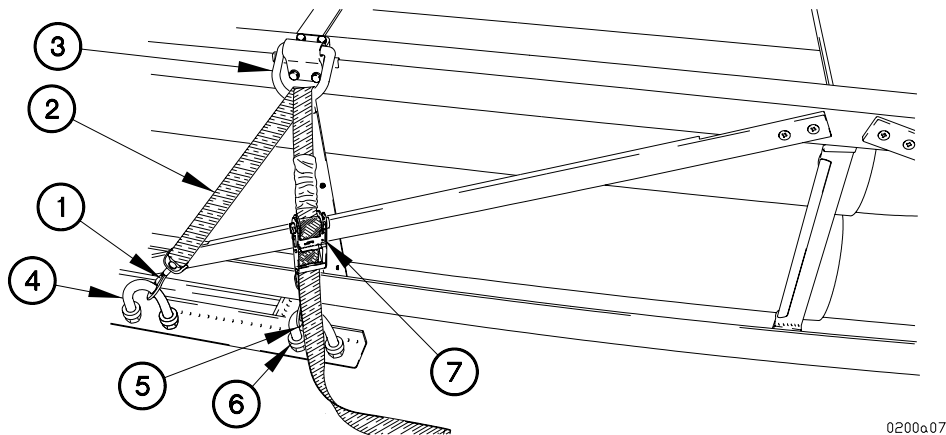
**Tying Down Two MFOM RPs - Continued**

5. Perform the preceding four steps on remaining tiedown locations.

**Tying Down One MFOM RP**

**NOTE**

- Left side and right side MFOM RP tiedowns are installed the same way. Left front M1084A1/RSV tiedown shown.
  - Secure loose ends of tiedown to prevent fraying.
  - Use padding under tiedowns where they pass over sharp edges on MFOM RP to prevent chafing.
1. Using hook (1) on long end of strap assembly (2) thread hook (1) through the lifting ring (3) of MFOM RP.
  2. Attach hook (1) to tiedown ring (4).
  3. Attach short strap hook (5) to tiedown ring (6).
  4. Take up slack in strap assembly (2) and use ratchet (7) to tighten strap assembly (2).



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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** 0003 00

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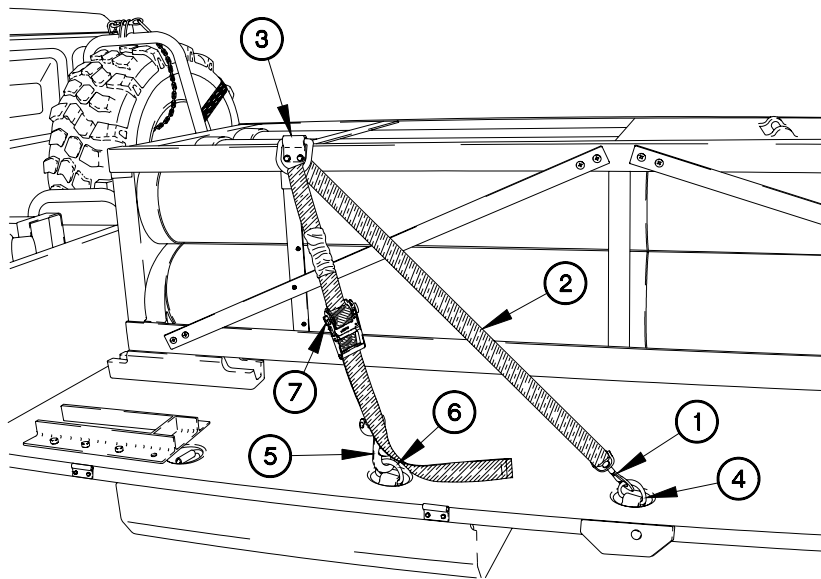
**Tying Down One MFOM RP – Continued**

5. Perform the preceding four steps on remaining tiedown locations.

**Centerline Tiedown For MFOM RP**

**NOTE**

- Left side and right side MFOM RP tiedowns are installed the same way. Left front M1084A1/RSV tiedown shown.
  - Secure loose ends of tiedown to prevent fraying.
  - Use padding under tiedowns where they pass over sharp edges on MFOM RP to prevent chafing.
1. Using hook (1) on long end of strap assembly (2) thread hook (1) through the lifting ring (3) of MFOM RP.
  2. Attach hook (1) to tiedown ring (4).
  3. Attach short strap hook (5) to tiedown ring (6).
  4. Take up slack in strap assembly (2) and use ratchet (7) to tighten strap assembly (2).



0200A15

5. Perform the preceding four steps on remaining tiedown locations.

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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** **0003 00**

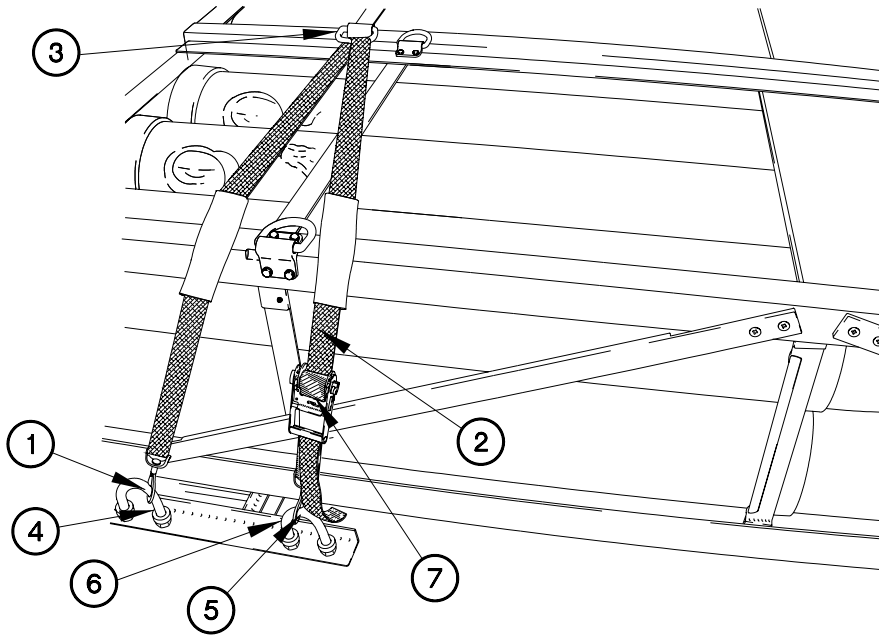
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**Tiedown Removal for Two MFOM RPs**

**NOTE**

Left and right MFOM RP tiedowns are removed the same way. Left front M1084A1/RSV tiedown shown.

1. Loosen ratchet (7).
2. Remove short strap hook (5) from tiedown ring (6).
3. Remove hook (1) from tiedown ring (4).
4. Remove strap assembly (2) from curbside MFOM RP lifting ring (3).
5. Perform the preceding four steps on remaining tiedown locations.



0200a08



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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** **0003 00**

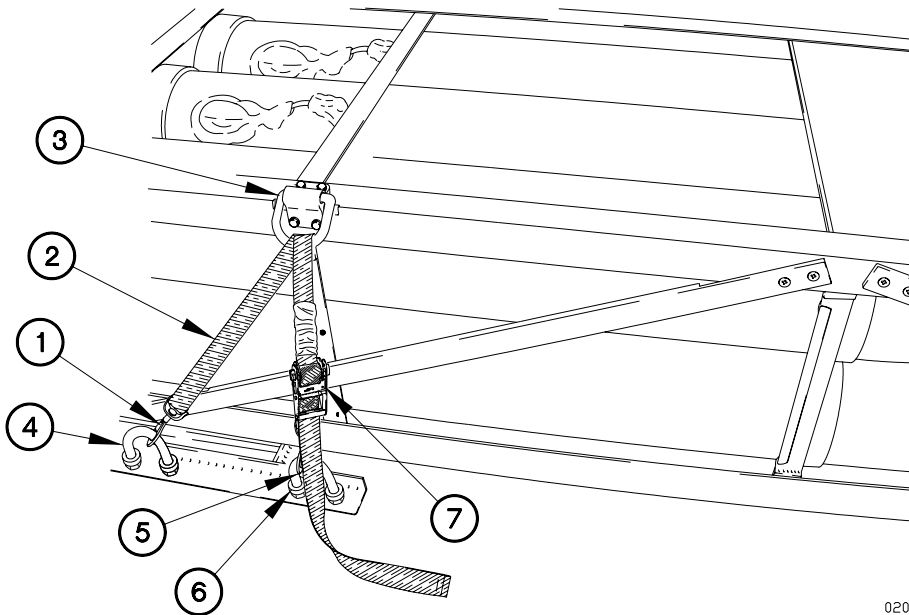
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**Tiedown Removal for One MFOM RP**

**NOTE**

All four tiedowns are removed the same way. Left front M1084A1/RSV tiedown shown.

1. Loosen ratchet (7).
2. Remove short strap hook (5) from tiedown ring (6).
3. Remove long strap hook (1) from tiedown ring (4).
4. Remove strap assembly (2) from MFOM RP lifting ring (3).
5. Perform the preceding four steps on remaining tiedown locations.



0200a09

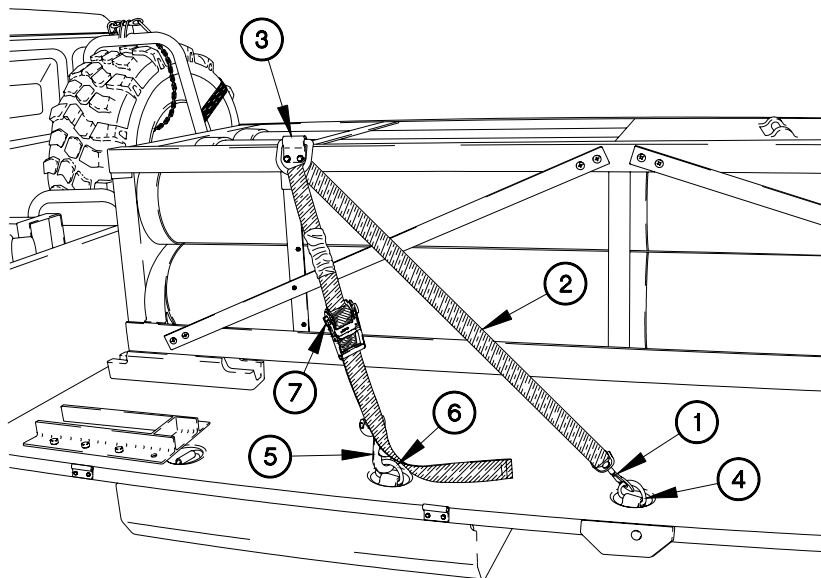
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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued**      0003 00

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**Tiedown Removal for Centerline MFOM RP**

1. Loosen ratchet (7).
2. Remove short strap hook (5) from tiedown ring (6).
3. Remove hook (1) from tiedown ring (4).
4. Remove strap assembly (2) from MFOM RP lifting ring (3).



0200A15

5. Perform the preceding four steps on remaining tiedown locations.

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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET      0003 00**  
**SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET**  
**PODS (RPS) - Continued**

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**Unloading MFOM RPs**

**WARNING**

- Dropping a Rocket Pod (RP) or Missile Launch Pod Assembly (M/LPA) can create a serious flaw in a rocket motor that could cause the rocket or missile to explode or fly erratically. All RPs and M/LPAs dropped from any height shall be inspected by the supporting Quality Assurance Specialist Ammunition Surveillance (QASAS) personnel in accordance with the appropriate army Surveillance Bulletin (SB) to determine the serviceability of the dropped rocket pod or missile assembly. Witnesses to the incident will need to provide information concerning the height of the drop, the type of surface the pod was dropped on, and how the pod landed to the QASAS personnel.  
For drop criteria covering M26 and M28 series RPs, refer to SB 742-1340-92-011.  
For drop criteria covering GMLRS M30 series RPs, refer to SB 742-1340-92-012.  
For drop criteria covering army TACMS M39 series M/LPAs, refer to SB 742-1427-92-014.  
Failure to comply may result in injury or death to personnel.
- Refer to TM 9-1300-206 and AMCR 385-100 for general precautions and procedures for handling MFOM RPs. Failure to comply may result in injury or death to personnel.
- MFOM RP weigh approximately 5100 lbs. (2315 kg). An alternate method of lifting MFOM RPs is to use a four point lifting sling and lift RP by the tiedown/lifting rings. If sling is used, ensure it is capable of lifting the MFOM RP weight. Failure to comply may result in injury or death to personnel.
- Attach a safety line to MFOM RP prior to loading. Tiedown straps may be used for this purpose. Failure to comply may result in injury or death to personnel.

**CAUTION**

M1084A1/RSV and RST must be aligned for unloading MFOM RPs due to MHC traverse limits. Failure to comply may result in damage to equipment.

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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** **0003 00**

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**Unloading MFOM RPs - Continued**

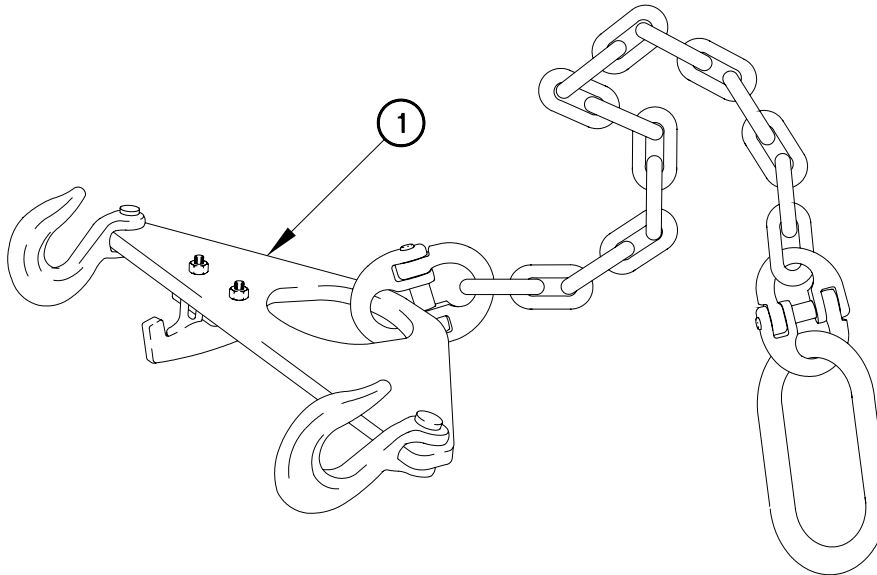
**CAUTION**

Unloading MFOM RPs should be accomplished using the MHC remote control. 60% speed is recommended when making large movements. 30% speed is recommended when maneuvering within two (2) feet of lowering MFOM RP into pod shoes on cargo bed. 100% speed is most appropriate when maneuvering without a load on MHC hook. Failure to comply may result in damage to equipment.

**NOTE**

- M1084A1/RSV and RST are unloaded the same way. M1084A1/RSV shown.
- Unload RST prior to unloading M1084A1/RSV.
- Refer to Material Handling Crane (MHC) Operation Work Package (WP 0001 00) for instructions.

1. Remove hoist assembly (1) from cab storage box.



0200A10

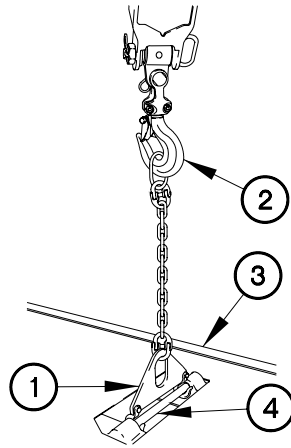
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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued**      0003 00

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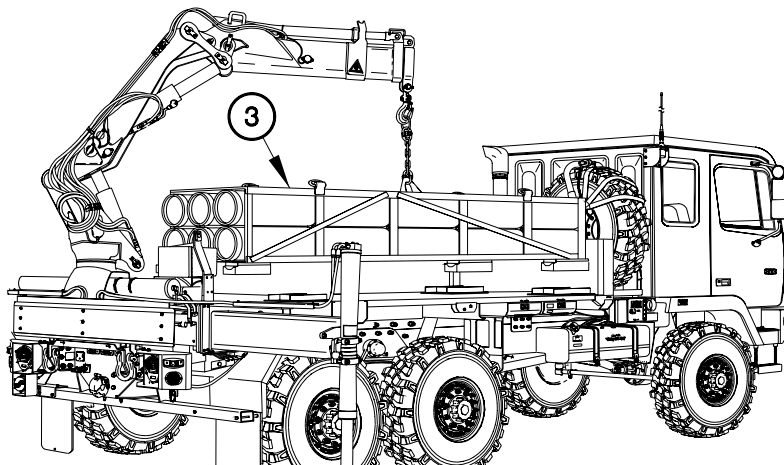
**Unloading MFOM RPs – Continued**

2. Install hoist assembly (1) on MHC hook (2).
3. Position MHC hook (2) over MFOM RP (3).
4. Lower MHC hook (2) so that hoist assembly (1) can be attached to MFOM RP lifting rod (4).



0200a11

5. Remove MFOM RP (3) from cargo bed.



0200A12

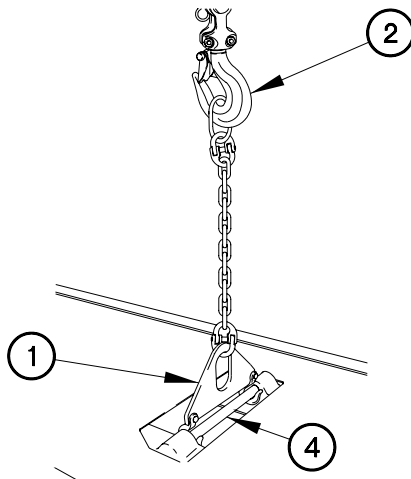
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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET PODS (RPS) - Continued** 0003 00

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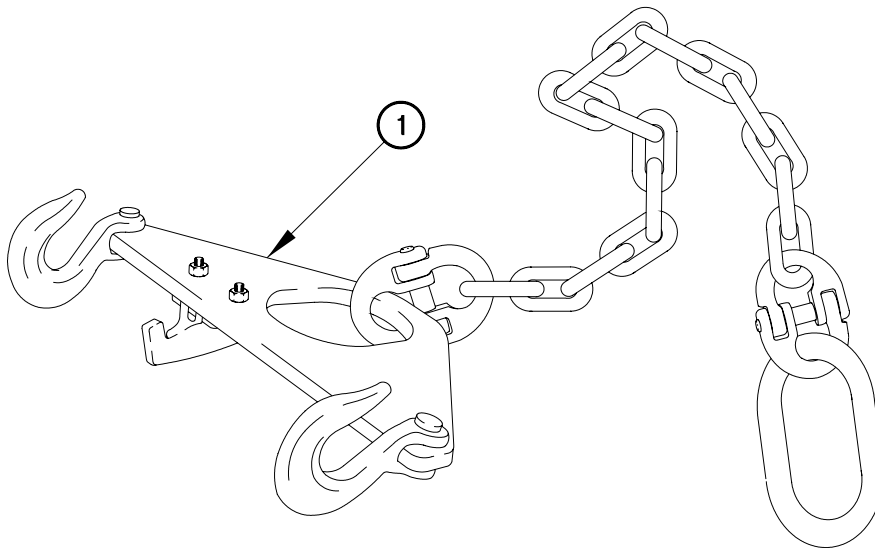
**Unloading MFOM RPs - Continued**

6. Remove hoist assembly (1) from MFOM RP lifting rod (4).
7. Perform the preceding five steps to remove second MFOM RP.
8. Remove hoist assembly (1) from MHC hook (2).



0200A13

9. Stow hoist assembly (1) in cab storage box.



0200A14

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**LOADING/UNLOADING MULTIPLE LAUNCH ROCKET      0003 00**  
**SYSTEM FAMILY OF MUNITIONS (MFOM) ROCKET**  
**PODS (RPS) - Continued**

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**Unloading MFOM RPs – Continued**

10. Stow MHC. Refer to Material Handling Crane (MHC) Operation Work Package (WP 0004 00) for instructions

**END OF WORK PACKAGE**





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**PREPARATION FOR INTERNAL AIR TRANSPORT**

**0004 00**

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**INITIAL SETUP:**

Start Engine (TM 9-2320-392-10-1) (WP 0018 01)

**Maintenance Level**

Operator

**References**

MTMCTEA Ref 99-55-24  
TM 9-2320-392-10-1

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**GENERAL**

This work package provides the data and procedures for preparing M10841A1/RSV vehicles for internal air transport.

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**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

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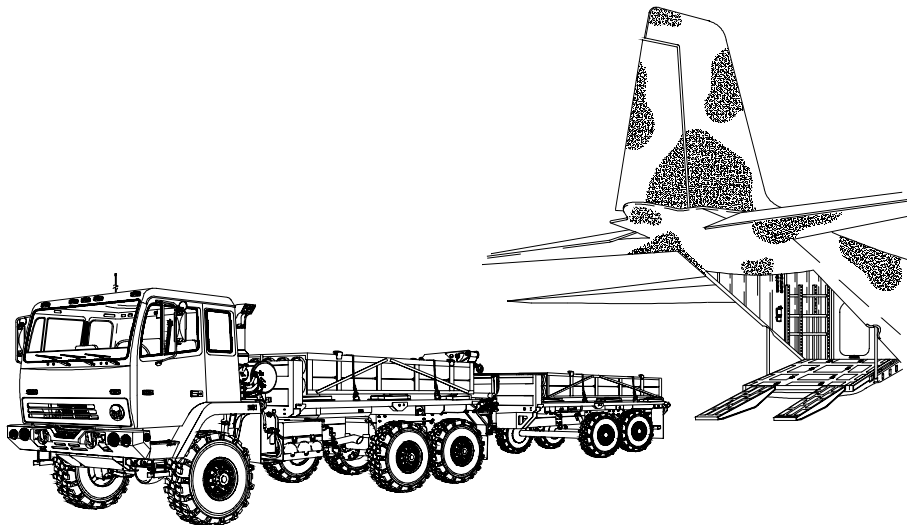
0004 00

**CAUTION**

Ensure vehicle remains clear of aircraft while performing the procedures in this work package. Failure to comply may result in damage to equipment

**PREPARING M1084A1/RSV for Loading on Aircraft**

1. Follow loadmaster's instructions and back vehicle into alignment with aircraft ramp.



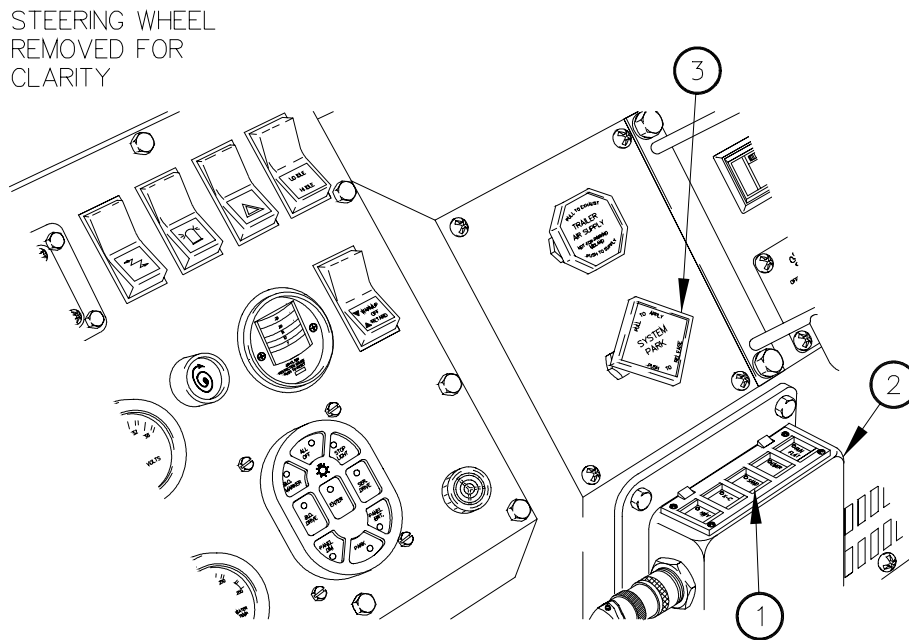
0300A01

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft - Continued**

2. Turn front tires fully left while stopped.
3. Press SAND mode button (1) on Central Tire Inflation System (CTIS) ECU (2).
4. Pull out SYSTEM PARK control (3).



0300A02

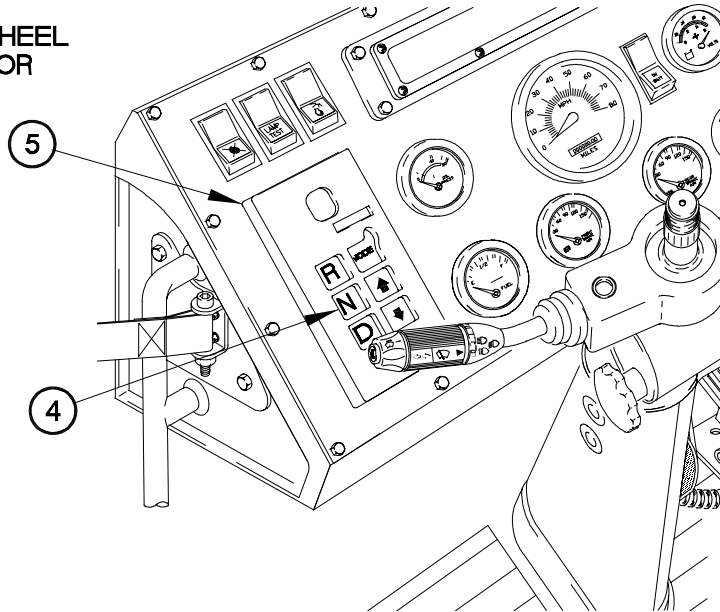
**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft - Continued**

5. Press neutral (N) button (4) on Transmission Pushbutton Shift Selector (TPSS) (5).

**STEERING WHEEL  
REMOVED FOR  
CLARITY**

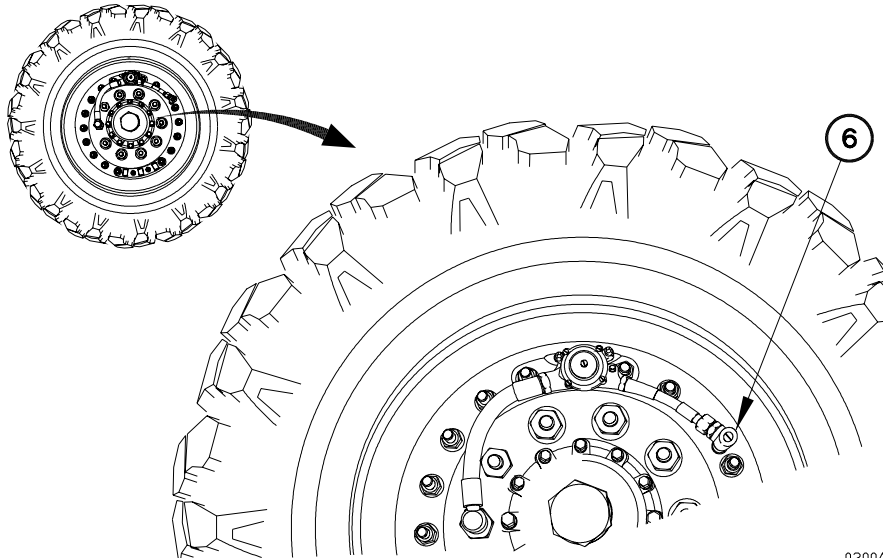


0300A03

**NOTE**

Perform the following step on both front tires.

6. Turn kneeling valve (6) 180 degrees CCW to release air from front tire.



0300A04

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**PREPARATION FOR INTERNAL AIR TRANSPORT**  
**CONTINUED**

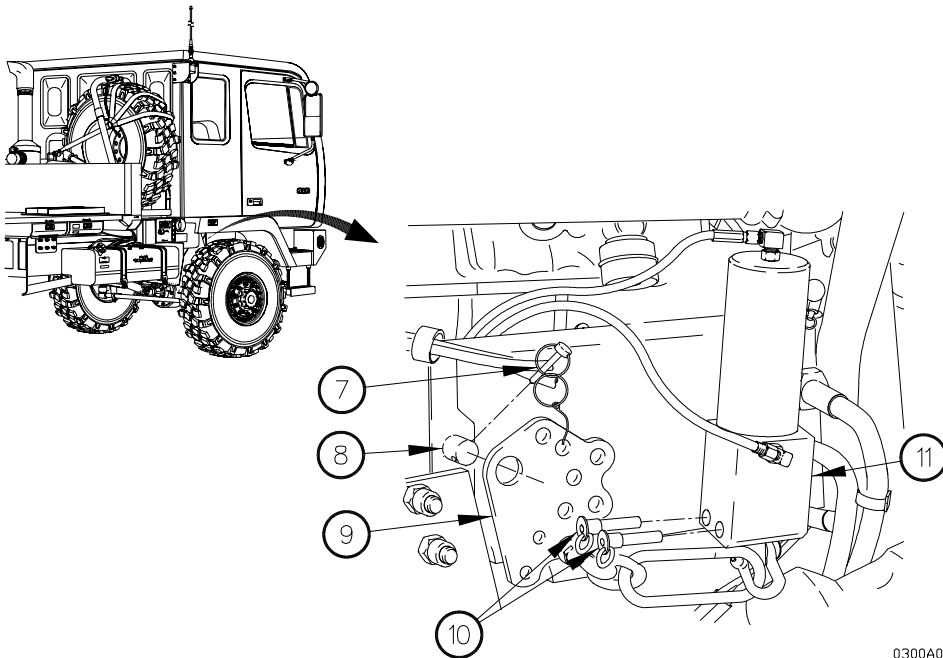
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0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft- Continued****NOTE**

Left and right suspension compression plates are removed the same way. Right side suspension compression plate shown. Perform the following three steps on both sides of the vehicle.

7. Remove retaining pin (7) from stud (8).
8. Remove suspension compression plate (9) from stud (8).
9. Remove two safety pins (10) from compression cylinder (11).



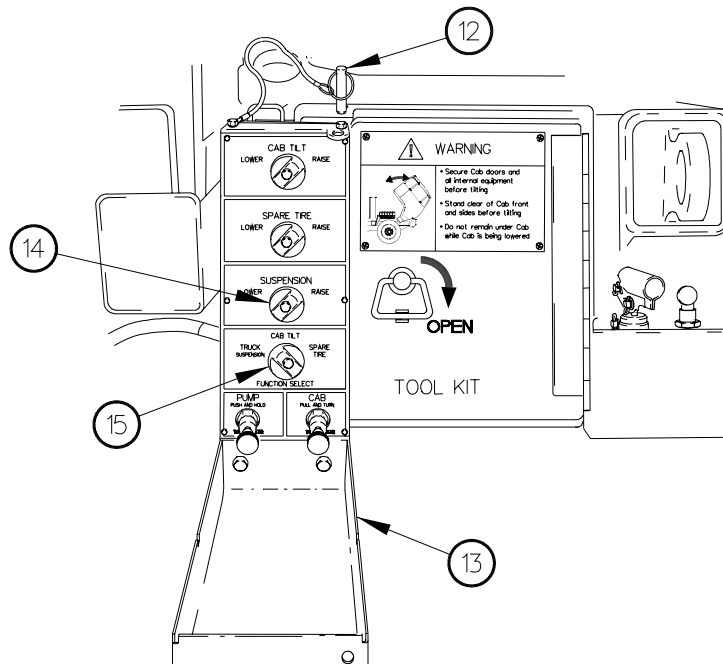
0300A05

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft- Continued**

10. Remove retaining pin (12) from hydraulic manifold cover (13).
11. Position SUSPENSION knob (14) to RAISE.
12. Position FUNCTION SELECT knob (15) to TRUCK SUSPENSION.



0300A06

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft-Continued**

**NOTE**

If at any time during this procedure pressing the PUMP knob does not accomplish the required action, use the back-up hydraulic pump (TM 9-2320-392-10-1) (WP 0042 00) to accomplish step.

13. Press and hold PUMP knob (16) until suspension compression plate (9) can be installed on axle stud (17).

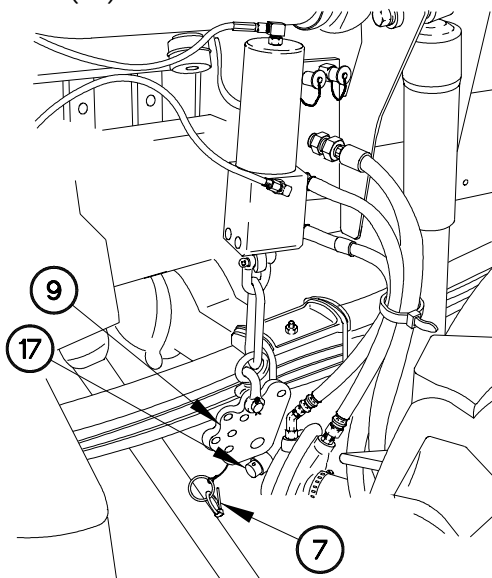
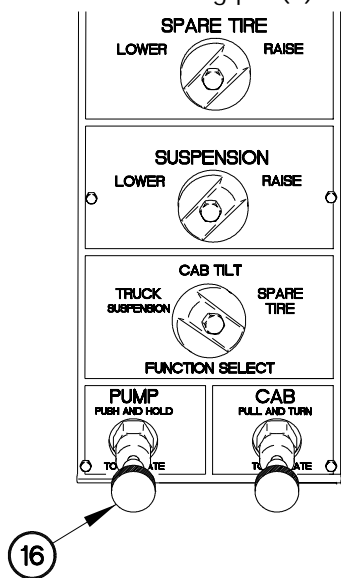
**WARNING**

**Both suspension compression plates must be installed on axle studs. Failure to comply may result in serious injury or death to personnel.**

**NOTE**

Left and right side suspension compression plates are installed on axle studs the same way. Right side shown. Perform the following two steps on both sides of the vehicle.

14. Install suspension compression plate (9) on axle stud (17).
15. Install retaining pin (7) in axle stud (17).



0300A07

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

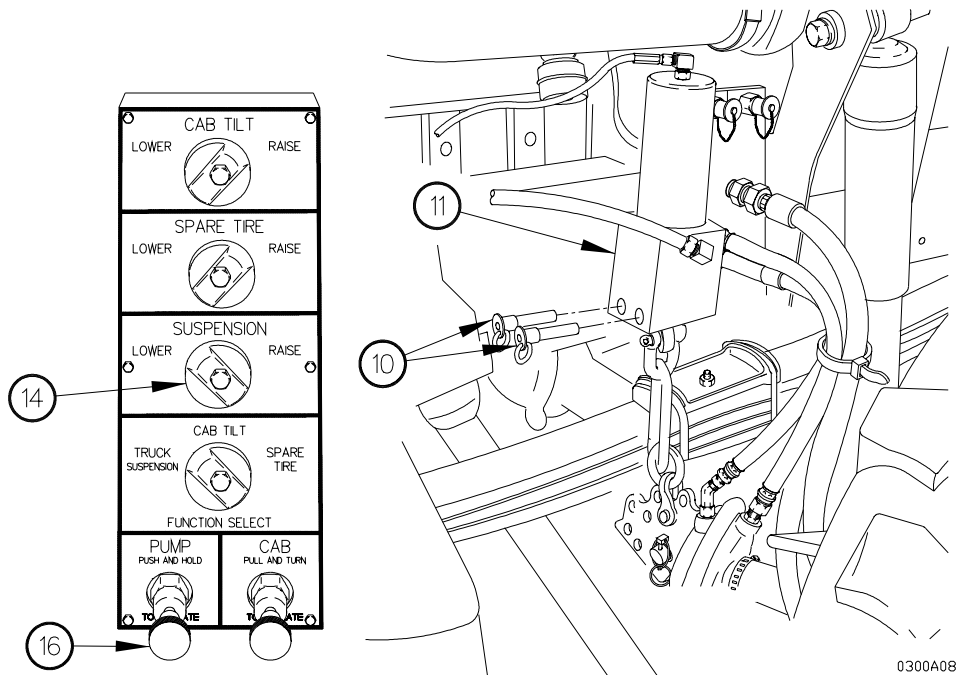
**PREPARING M1084A1/RSV for Loading on Aircraft - Continued**

16. Position SUSPENSION knob (14) to LOWER.
17. Press and hold PUMP knob (16) until suspension is fully compressed.

**NOTE**

Perform the following step on both sides of the vehicle.

18. Install two safety pins (10) in compression cylinder (11).



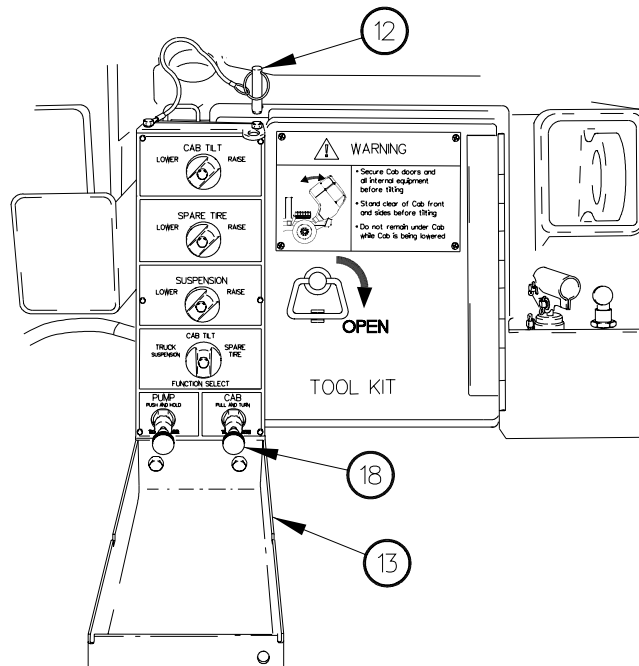


**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft-Continued**

19. Turn cab knob (18) to the left and pull out.
20. Close hydraulic manifold cover (13).
21. Install retaining pin (12) in hydraulic manifold cover (13).



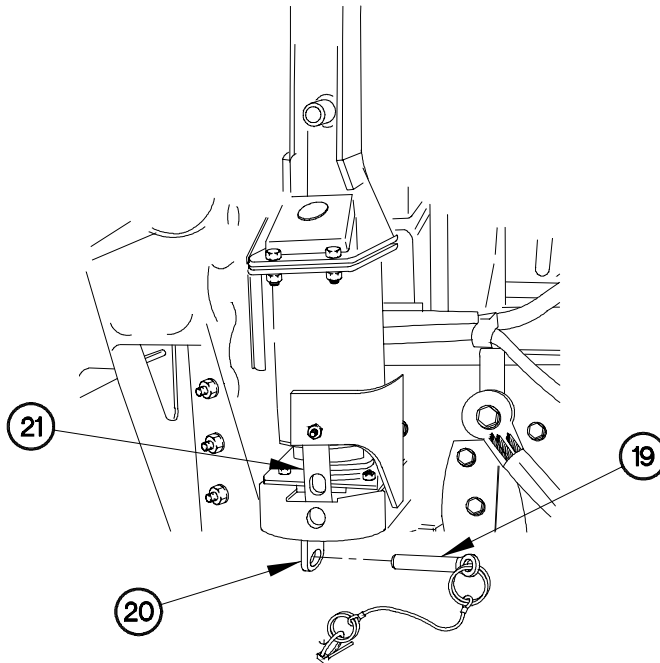
0300A09

**PREPARING M1084A1/RSV for Loading on Aircraft-Continued**

**NOTE**

Perform the following two steps on both sides of the vehicle.

22. Remove quick release pin (19) from bracket (20).
23. Install quick release pin (19) in cab air spring bracket (21).



0300A10

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**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

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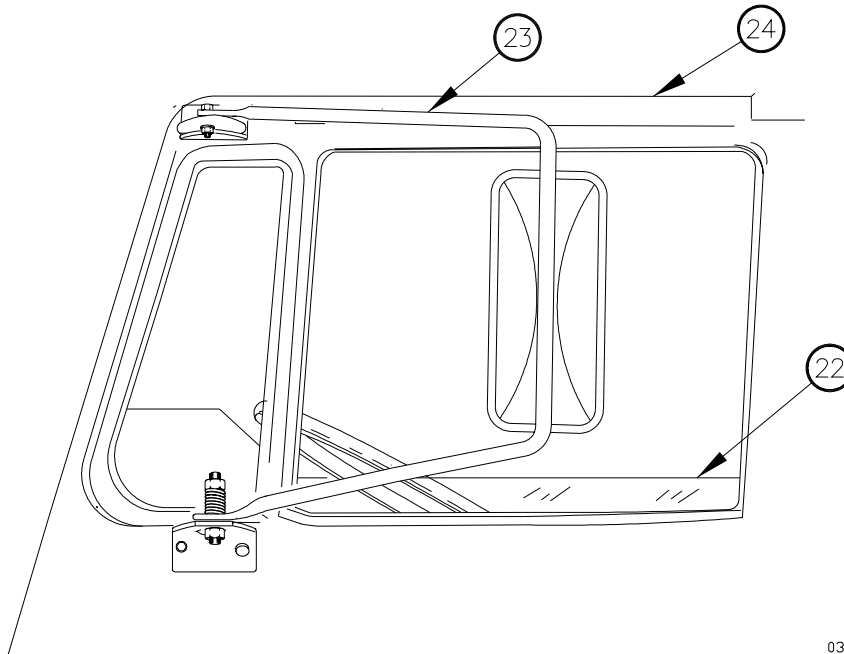
0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft-Continued**

**NOTE**

Left and right side cab mirrors are stowed the same way. Left side shown.  
Perform the following steps on both sides of the vehicle.

- 24. Roll window (22) down completely.
- 25. Fold mirror assembly (23) in toward door (24).



0300A11

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**PREPARATION FOR INTERNAL AIR TRANSPORT**  
**CONTINUED**

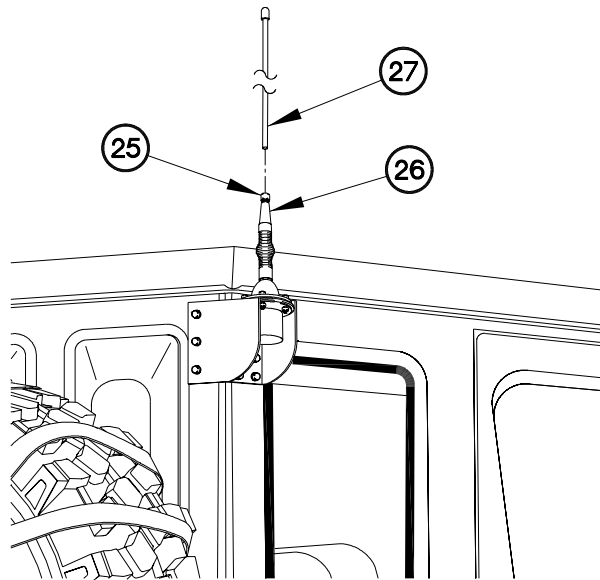
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0004 00

**PREPARING M1084A1/RSV for Loading on Aircraft-Continued****CAUTION**

Radio antenna must be removed prior to loading vehicle on aircraft.  
Failure to comply may result in damage to equipment.

26. Loosen locknut (25) on antenna mount spring (26).
27. Remove antenna (27) from antenna mount spring (26).
28. Tighten locknut (25) on antenna mount spring (26).
29. Stow antenna (27) in cab.



0300A12

**Loading M1084A1/RSV and M1095/RST on Aircraft**

1. Refer to MTMCTEA Ref 99-55-24 for loading procedures.
2. Follow loadmaster's instructions and back the vehicle onto the aircraft.

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**PREPARATION FOR INTERNAL AIR TRANSPORT**  
**CONTINUED**

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0004 00

**Unloading from Aircraft**

1. Refer to MTMCTEA Ref 99-55-24 for unloading procedures.
2. Follow loadmaster's instructions and drive vehicle off the aircraft.

**Preparing for Operation****CAUTION**

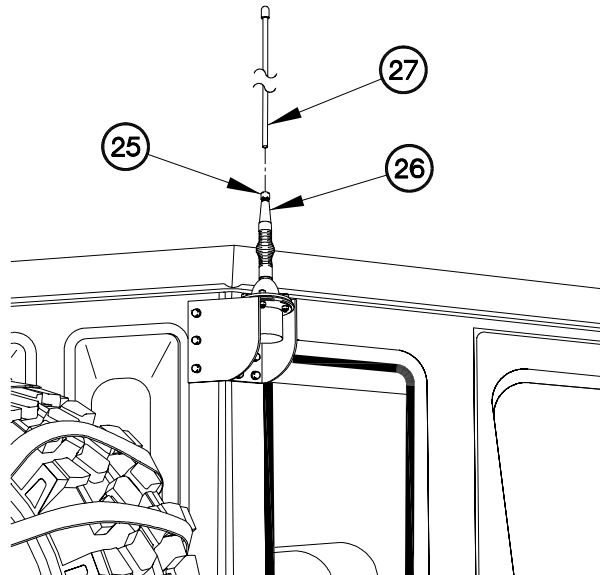
Ensure vehicle is clear of aircraft and do not attempt to turn vehicle left or right prior to performing the procedures in this work package. Failure to comply may result in damage to equipment.

1. Follow loadmaster's instructions and drive vehicle a safe distance from aircraft.

**CAUTION**

Radio antenna must be installed prior to powering up radios. Failure to comply may result in damage to equipment.

2. Remove antenna (27) from cab.
3. Loosen locknut (25) on antenna mount spring (26).
4. Position antenna (27) in antenna mount spring (26).
5. Tighten locknut (25) on antenna mount spring (26).



0300A12

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**PREPARATION FOR INTERNAL AIR TRANSPORT**  
**CONTINUED**

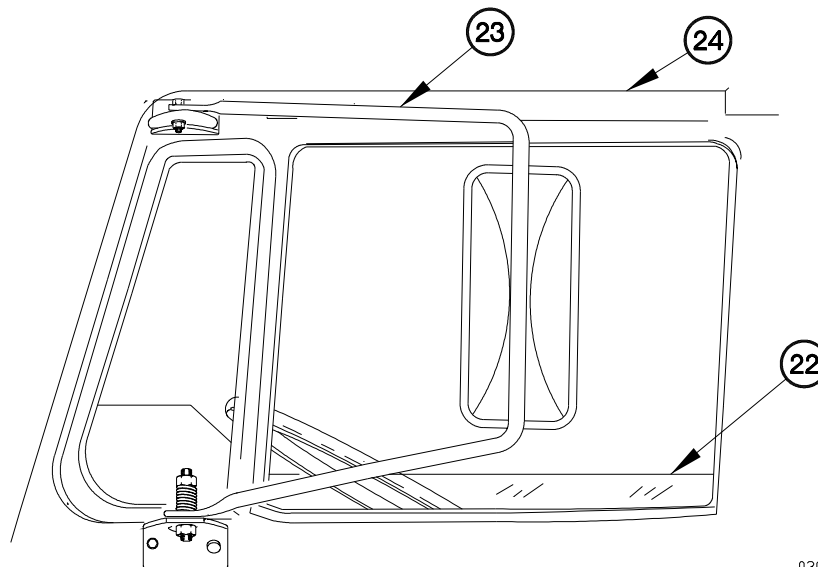
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0004 00

**PREPARING for Operation – Continued****NOTE**

Left and right side cab mirrors are unfolded the same way. Left side shown. Perform the following steps on both sides of the vehicle.

6. Unfold mirror assembly (23) from door (24).
7. Raise window (22).



0300A13

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**PREPARATION FOR INTERNAL AIR TRANSPORT**  
**CONTINUED**

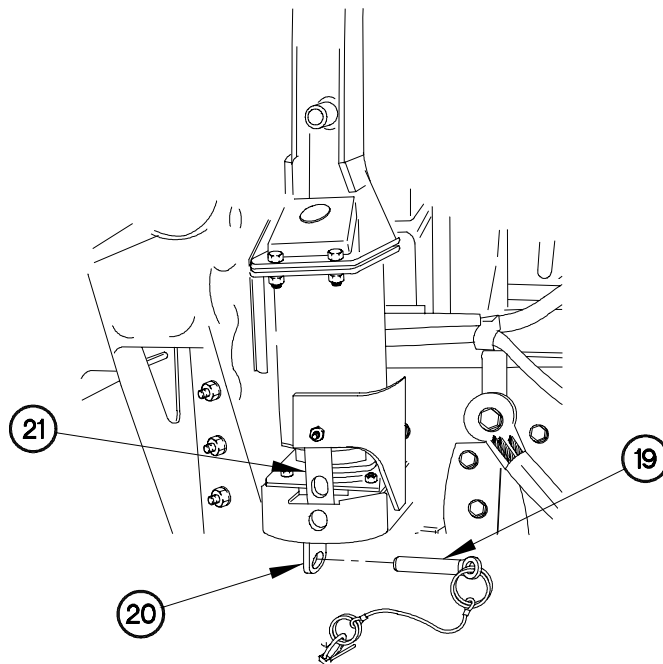
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0004 00

**PREPARING for Operation – Continued****NOTE**

Left and right side cab air springs are unpinned the same way. Left side shown. Perform the following steps on both sides of the vehicle.

8. Remove quick release pin (19) from cab air spring bracket (21).
9. Install quick release pin (19) in bracket (20).



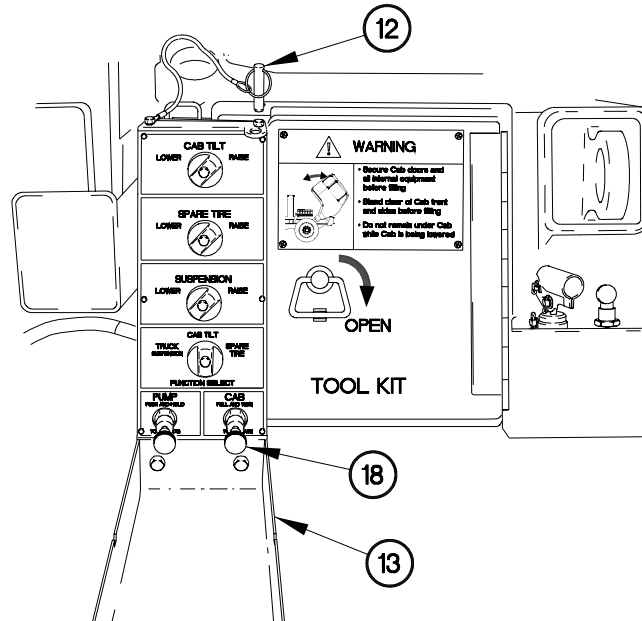
0300A14

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

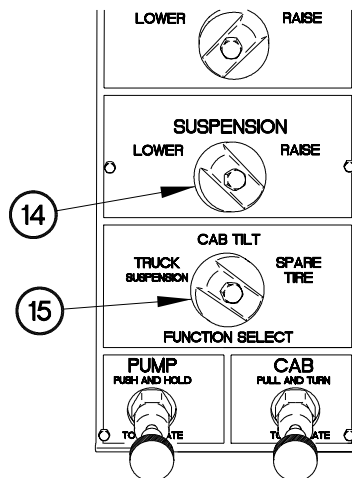
**PREPARING for Operation – Continued**

10. Remove retaining pin (12) from hydraulic manifold cover (13).
11. Press and turn CAB knob (18) to the right.



0300A15

12. Position SUSPENSION knob (14) to LOWER.
13. Position FUNCTION SELECT knob (15) to TRUCK SUSPENSION.



0300A17



**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING for Operation – Continued**

**NOTE**

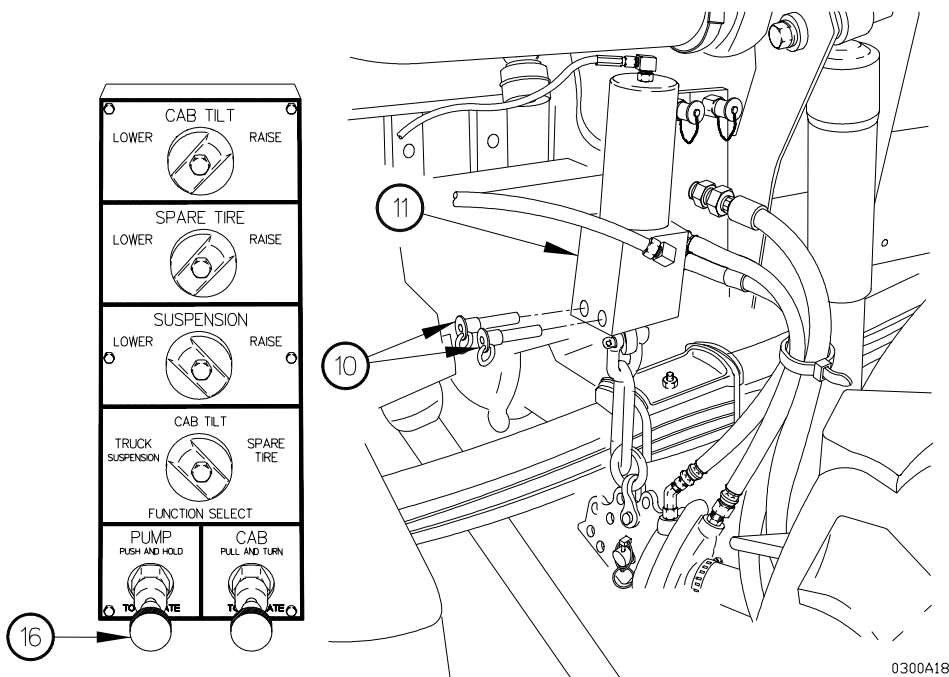
Use back-up hydraulic pump (TM 9-2320-392-10-1) (WP 0042 00) if pressing PUMP knob does not accomplish the following step.

14. Press and hold PUMP knob (16) until two safety pins (10) can be removed from compression cylinder (11).

**NOTE**

Left and right side safety pins are removed from compression cylinders the same way. Right safety pins are shown. Perform the following steps on both sides of the vehicle.

15. Remove two safety pins (10) from compression cylinder (11).



**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING for Operation - Continued**

16. Position SUSPENSION knob (14) to RAISE.

**NOTE**

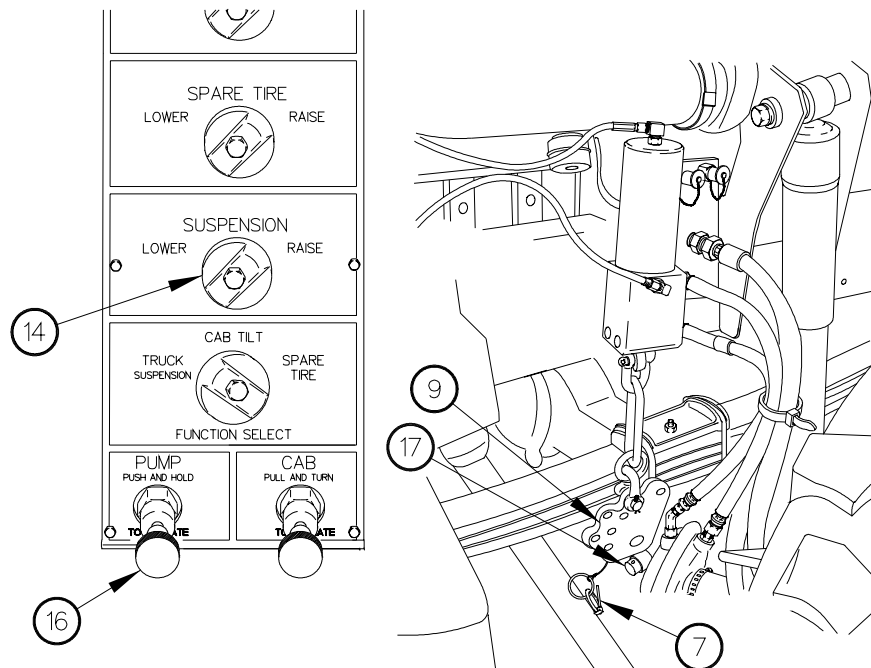
Use back-up hydraulic pump (TM 9-2320-392-10-1) (WP 0042 00) if pressing PUMP knob does not accomplish the following step.

17. Press and hold PUMP knob (16) until vehicle returns to normal height and suspension compression plate (9) is loose.
18. Remove retaining pin (7) from axle stud (17).

**NOTE**

Left and right side compression plates are removed the same way. Right side shown. Perform the following steps on both sides of the vehicle.

19. Remove suspension compression plate (9) from axle stud (17).



0300A19

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING for Operation – Continued**

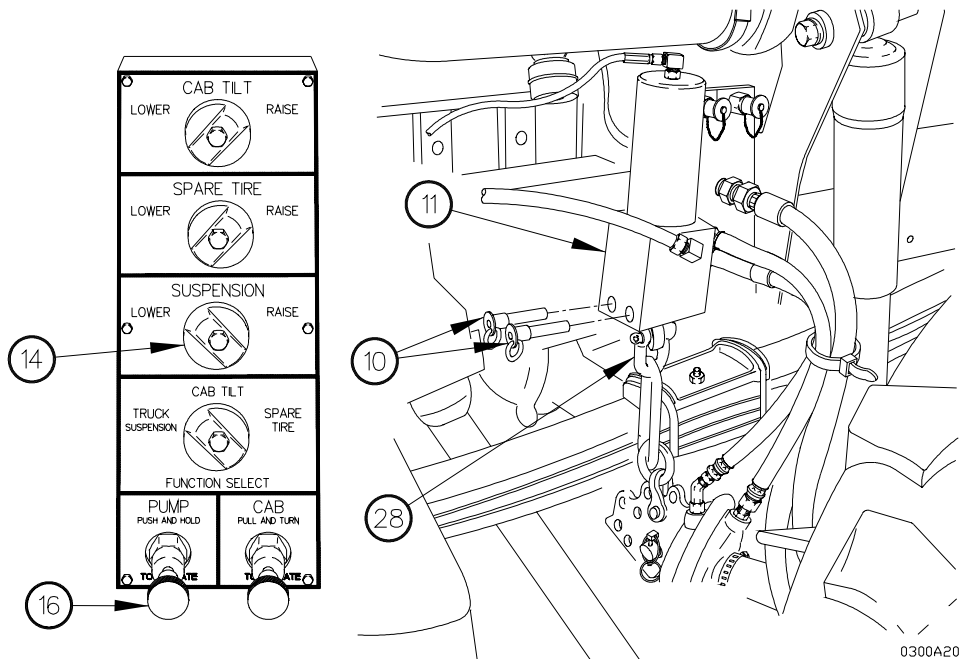
20. Position SUSPENSION knob (14) to LOWER.

**NOTE**

Use back-up hydraulic pump (TM 9-2320-392-10-1) (WP 0042 00) if pressing PUMP knob does not accomplish the following step.

21. Press PUMP knob (16) until cylinder rod (28) is fully retracted.

22. Install two safety pins (10) in compression cylinder (11).



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**PREPARATION FOR INTERNAL AIR TRANSPORT**  
**CONTINUED**

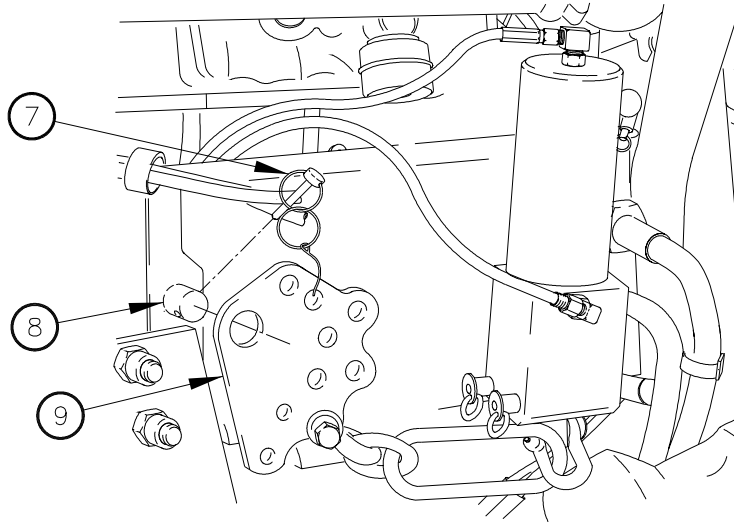
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0004 00

**PREPARING for Operation – Continued****NOTE**

Left and right side compression plates are installed the same way. Right side shown. Perform the following steps on both sides of the vehicle.

23. Install suspension compression plate (9) on the stud (8).
24. Install retaining pin (7) in stud (8).



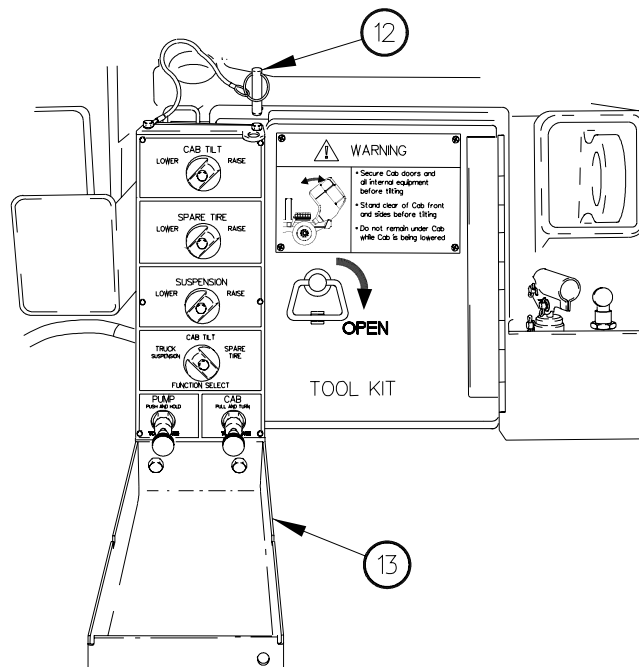
0300A21

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING for Operation - Continued**

25. Close hydraulic manifold cover (13).
26. Install retaining pin (12) in hydraulic manifold cover (13).



0300A22

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**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

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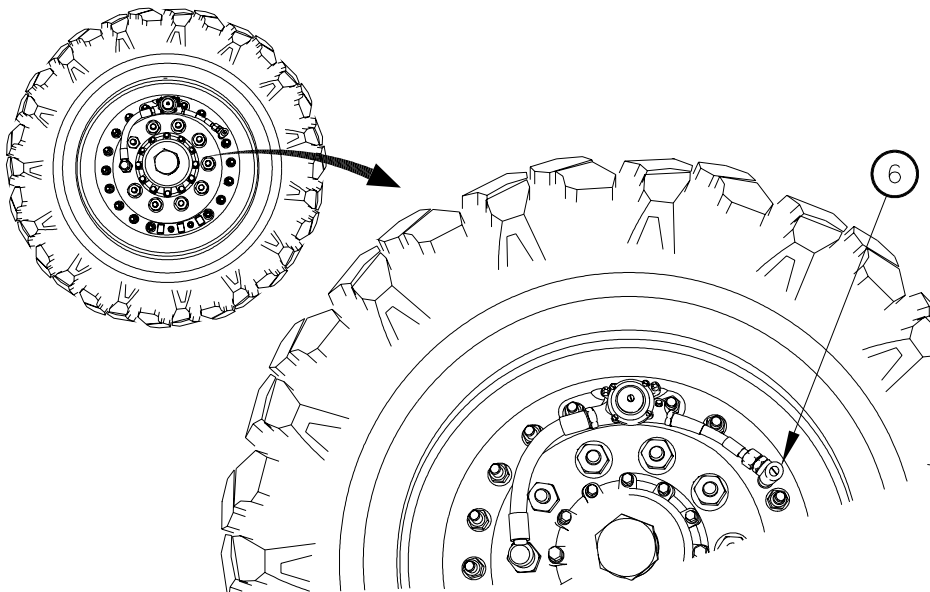
0004 00

**PREPARING for Operation – Continued**

**NOTE**

Left and right front tires are inflated the same way. Left front tire shown.

27. Turn kneeling valve (6) 180 degrees CW to fully close valve.



0300A23

**PREPARATION FOR INTERNAL AIR TRANSPORT  
CONTINUED**

0004 00

**PREPARING for Operation – Continued**

28. Start engine. (TM 9-2320-392-10-1) (WP 0018 01)

29. Position LO IDLE/HI IDLE switch (29) to HI IDLE.

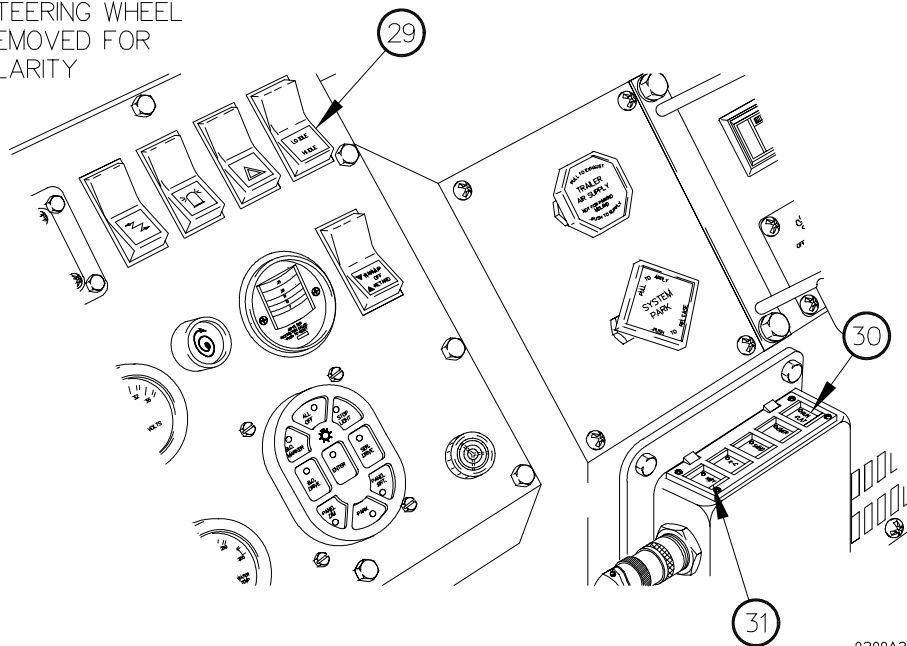
**CAUTION**

Vehicle may be driven while tires are inflating, but is restricted to first gear and on smooth surfaces until tire fully inflate. Failure to comply may result in damage to equipment.

30. Press RUN FLAT (30) and HIGHWAY (31) modes at the same time.

31. Position LO IDLE/HI IDLE switch (29) to LO IDLE.

STEERING WHEEL  
REMOVED FOR  
CLARITY



0300A24

**END OF WORK PACKAGE**





TM 9-2300-310-10

**CHAPTER 3**  
**MAINTENANCE INSTRUCTIONS**



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**PMCS INTRODUCTION WORK PACKAGE**

---

0005 00

**THIS WORK PACKAGE COVERS:**

Introduction, Leakage Definition, Inspection, Lubrication Service Intervals, Cleaning and Lubrication.

---

**INTRODUCTION****General**

Preventive Maintenance Checks and Services (PMCS) are performed to keep the crane in operating condition. The checks are used to find, correct, or report problems. Crewmembers are to do the PMCS jobs as shown in the PMCS tables. PMCS is done every day the crane is operated using the PMCS tables. Pay attention to WARNING and CAUTION statements. A WARNING means injury or death could occur. A CAUTION means equipment could be damaged.

**Explanation of Table Entries**

**Equipment Not Ready/Available If:** Tells you what faults will keep your crane from being capable of performing the primary mission. If you perform check and service procedures that show faults listed, do not operate the crane. Follow standard operating procedures for maintaining the crane or reporting equipment failure.

**LEAKAGE DEFINITION**

Equipment operation is allowable with minor leakages (Class I or II). Consideration must be given to the fluid capacity of the item or system being checked. When in doubt, ask your supervisor.

When operating with Class I or II leaks, continue to check fluid levels as required in your PMCS.

Class III leaks must be reported to Unit Maintenance. Failure to comply may result in damage to equipment.

It is necessary to know how fluid leakage affects the status of the crane. The following are definitions of the classes of leakage an operator or crewmember needs to know to be able to determine the condition of the leak. Learn and then be familiar with them, and REMEMBER - WHEN IN DOUBT, ASK YOUR SUPERVISOR.

**Leakage Definitions for Crew/Operator PMCS**

CLASS I - Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.

CLASS II - Leakage of fluid great enough to form drops but not enough to cause drops to drip from item being checked.

CLASS III - Leakage of fluid great enough to form drops that fall from the item being checked.

**INSPECTION**

Look for signs of a problem or trouble. Be alert when operating the crane.

Inspect to see if items are in good condition. Are they correctly assembled, stowed, secured, excessive wear, leaking, corroded, or properly lubricated? Correct any problems found or notify unit maintenance.

There are some common items to check all over the crane. These include the following:

1. Bolts, clamps, nuts, and screws: Continuously check for looseness. Look for chipped paint, rust, or corrosion around bolt and screw heads and nuts. Tighten them when you find them loose. If tools are not available, notify unit maintenance.
2. Welds: Many items on the crane are welded. To check these welds, look for chipped paint, rust corrosion, or gaps. When these conditions exist, notify unit maintenance on DA Form 2404.
3. Electrical wires, connectors, and harnesses: Tighten loose connectors. Look for cracked or broken insulation, bare wires, and broken connectors. If any are found, notify unit maintenance.
4. Hoses and fluid lines: Look for wear, damage and leaks, and make sure clamps and fittings are tight. Wet spots mean a leak. A stain by a fitting or connector can also mean a leak. When you find a leak, notify unit maintenance.

**LUBRICATION SERVICE INTERVALS****General**

For safer, more trouble-free operations, make sure that your crane is serviced when it needs it. Proper lubrication and service intervals which are the responsibility of the Operator/Crew are found in this work package.

**Adherence.** Intervals shown in this work package are based on calendar times.

**Cleaning Fittings Before Lubrication.** Clean parts before lubricating.

**Lubrication After Fording.** If a fording operation occurs, lubricate all fittings below fording depth and check submerged gear boxes for presence of water.

**Lubrication After High-Pressure Washing.** After a through washing, lubricate all grease fittings and oil can points outside and underneath vehicle.

**PMCS INTRODUCTION WORK PACKAGE****0005 00****LUBRICATION SERVICE INTERVALS - Continued****Lubrication Key**

<b>LUBRICANTS</b>	
<b>Specification</b>	<b>Type</b>
MIL-L-2104 (OE/HDO)	Lubricating Oil, Internal Combustion Engine, Combat/Tactical Service
MIL-G-10924 (GAA)	Grease, Automotive and Artillery

Your crane will require extra service and care when you operate under unusual conditions. High or low temperatures, long periods of hard use, or continued use in sand, water, mud, or snow will break down the lubricant requiring you to add or change lubricant more often.

**CLEANING AND LUBRICATION****Cleanliness**

Dirt, grease, oil, and debris only get in the way and may cover up a serious problem.

**END OF WORK PACKAGE**



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**M1084A1/RSV SERIES OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (BEFORE)** 0006 00

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**THIS WORK PACKAGE COVERS:**

M1084A1/RSV unique Before PMCS Procedures

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**Maintenance Level**

Operator

**INTRODUCTION**

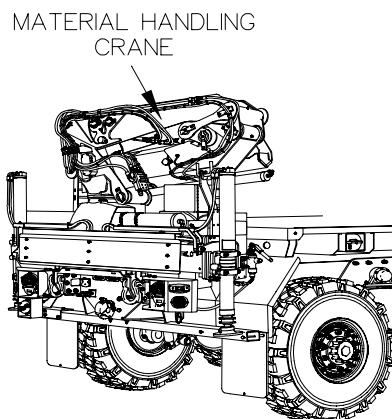
**General**

Preventive Maintenance Checks and Services (PMCS) are performed to keep the crane in operating condition. The checks are used to find, correct, or report problems. Pay attention to WARNING and CAUTION statements. A WARNING means injury or death could occur. A CAUTION means equipment could be damaged.

**Check MHC**

**EQUIPMENT IS NOT READY/AVAILABLE IF:** MHC has visible damage or a Class III oil leak.

Check MHC for loose parts, oil leaks, damage to hydraulic hoses and tubes, and other obvious damage.



0500A01

If MHC has visible damage, notify Unit Maintenance.

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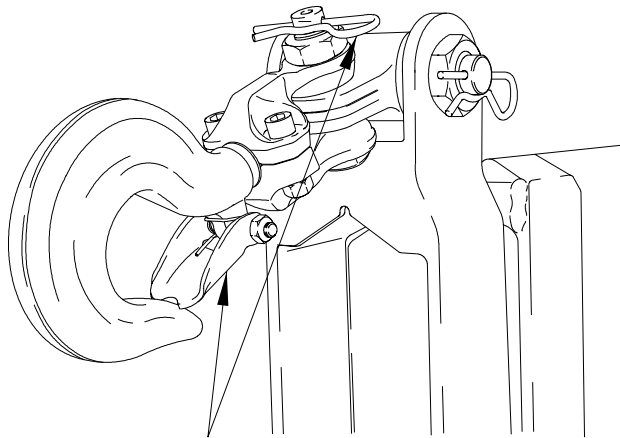
**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(BEFORE) - CONTINUED**

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0006 00

CHECK MHC hook assembly.

**EQUIPMENT IS NOT READY/AVAILABLE IF:** Safety latch or retaining pin is missing or inoperable.



**LATCH AND  
RETAINING PIN**

0500A02

If safety latch or retaining pin is missing or inoperable, notify Unit Maintenance.



**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(BEFORE) - CONTINUED**

0006 00

**CHECK MHC POWER DISPLAY BOX LED's**

1. On POWER DISPLAY BOX (3) turn emergency STOP switch CW to reset.

**NOTE**

- Green power LED will illuminate.
- If power button is held down for more than two seconds, system will go into lamp self-test mode. When button is held down, all red LEDs will illuminate. When released, red LEDs will continue to illuminate for three seconds, then all green LEDs will illuminate for three seconds.

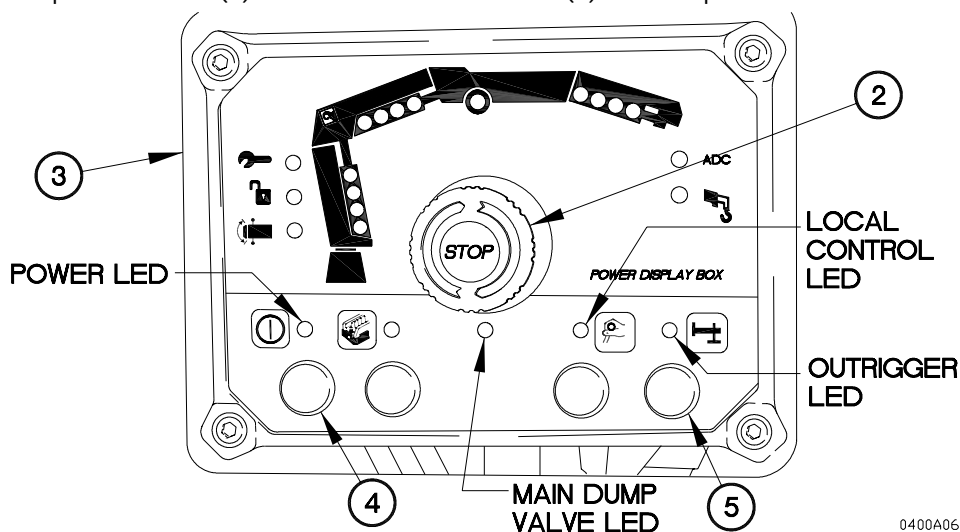
2. Press and hold power button (4) on POWER DISPLAY BOX (3) until system goes into lamp test mode.

**NOTE**

- Green outrigger LED will illuminate.
- Green local control LED will illuminate.
- Green Main Dump Valve LED will illuminate.

3. Press outrigger button (5) on POWER DISPLAY BOX (3) and verify LED's illuminate green.

4. Press power button (4) on POWER DISPLAY BOX (3). to turn power off



0400A06

If any red or green LED's do not illuminate notify Unit Maintenance.

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**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(DURING OPERATION)**

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0006 00

**THIS WORK PACKAGE COVERS:**

M1084A1/RSV unique During Operation PMCS Procedures

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**Maintenance Level**

Operator

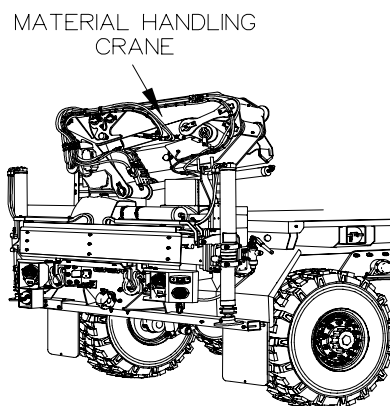
**INTRODUCTION**

**General**

Preventive Maintenance Checks and Services (PMCS) are performed to keep the crane in operating condition. The checks are used to find, correct, or report problems. Pay attention to WARNING and CAUTION statements. A WARNING means injury or death could occur. A CAUTION means equipment could be damaged.

**Check MHC**

1. Operate MHC (WP 0001 00) and check for proper operation and for obvious damage.



0500A03

If MHC does not operate properly, Notify Unit Maintenance.

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**M1084A1/RSV SERIES OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) (WEEKLY)** 0006 00

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**THIS WORK PACKAGE COVERS:**

M1084A1/RSV unique Weekly PMCS Procedures

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**Maintenance Level**

Operator

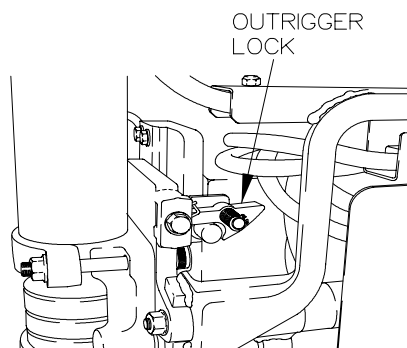
**INTRODUCTION**

**General**

Preventive Maintenance Checks and Services (PMCS) are performed to keep the crane in operating condition. The checks are used to find, correct, or report problems. Pay attention to WARNING and CAUTION statements. A WARNING means injury or death could occur. A CAUTION means equipment could be damaged.

**Check Outrigger Locks.**

1. Inspect outrigger locks for corrosion, broken springs, and other obvious damage.
2. Operate outrigger locks (WP 0001 00) and check for proper operation.
3. If either outrigger lock is damaged or unserviceable, notify Unit Maintenance.



0500A04

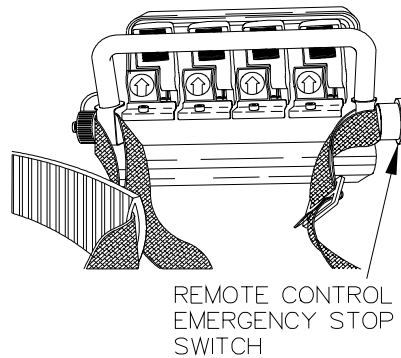
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**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(WEEKLY) - CONTINUED**

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0006 00

Check MHC emergency STOP switches.



0500A05

1. Start engine. (TM 9-2320-392-10-1) (WP 0018 01)
2. Position PTO switch to on.
3. Open remote control stowage box.
4. Remove remote control and cable from stowage box.
5. Connect remote control. (WP 0001 00)
6. Press MHC main power switch.
7. Press MHC remote control switch.
8. Check remote control emergency STOP switch for obvious damage.
9. Press remote control emergency STOP switch.
10. Verify that main power indicator is now flashing.
11. Reset remote control emergency STOP switch.
12. Verify that main power indicator now illuminates steady.
13. Press MHC local control switch.

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**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(WEEKLY) - CONTINUED**

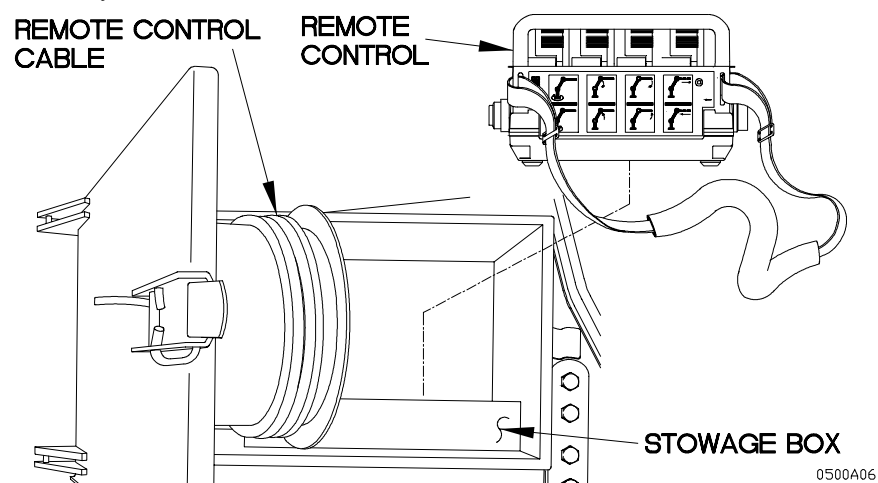
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0006 00

**Check MHC emergency STOP switches – Continued**

14. Check MHC Local Control Panel emergency STOP switch for obvious damage.
15. Press MHC Local Control Panel emergency STOP switch.
16. Verify that main power indicator is now flashing.
17. Reset MHC Local Control Panel emergency STOP switch.
18. Verify that main power indicator now illuminates steadily.
19. Press MHC main power switch.
20. Verify LED's are Off
21. Disconnect remote control. (WP 0001 00)
22. Stow remote control and cable in stowage box.
23. Close remote control stowage.
24. Position PTO switch to off.
25. Shut down engine. (TM 9-2320-392-10-1) (WP 0018 01)
26. If either emergency STOP switch is damaged or not functioning correctly, notify Unit Maintenance.

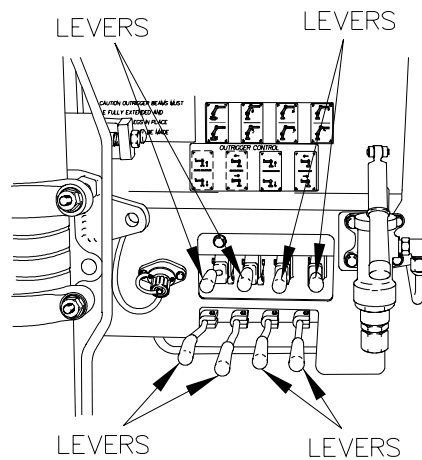
**EQUIPMENT IS NOT READY/AVAILABLE IF:** either emergency STOP switch does not function correctly.



**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(WEEKLY) - CONTINUED**

0006 00

**Check MHC levers.**



0500A07

1. Check the following MHC levers for obvious damage and to ensure they return to the neutral position when released:

- Left side outrigger lever
- Left side jack cylinder lever
- Right side outrigger lever
- Right side jack cylinder lever
- Column swing lever
- Inner boom lever
- Outer boom lever
- Boom telescope lever

2. If any lever does not return to the neutral position when released, Notify Unit Maintenance.

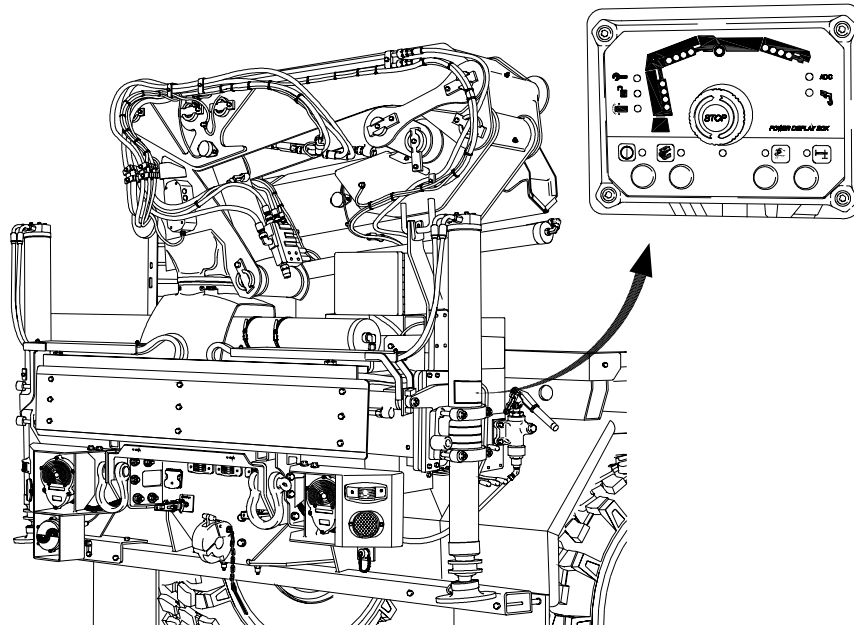
**EQUIPMENT IS NOT READY/AVAILABLE IF:** any MHC lever does not return to the neutral position when released.

**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(WEEKLY) - CONTINUED**

0006 00

**Check MHC electronic/electrical components.**

1. Inspect MHC Power Display Box for damage and loose/corroded connections.
2. Inspect MHC overload protection box for damage and loose/corroded connections.
3. Inspect MHC cabling for damaged insulation and crushed or kinked conditions.
4. If damage or loose/corroded connections are observed, notify Unit Maintenance.



0500A08

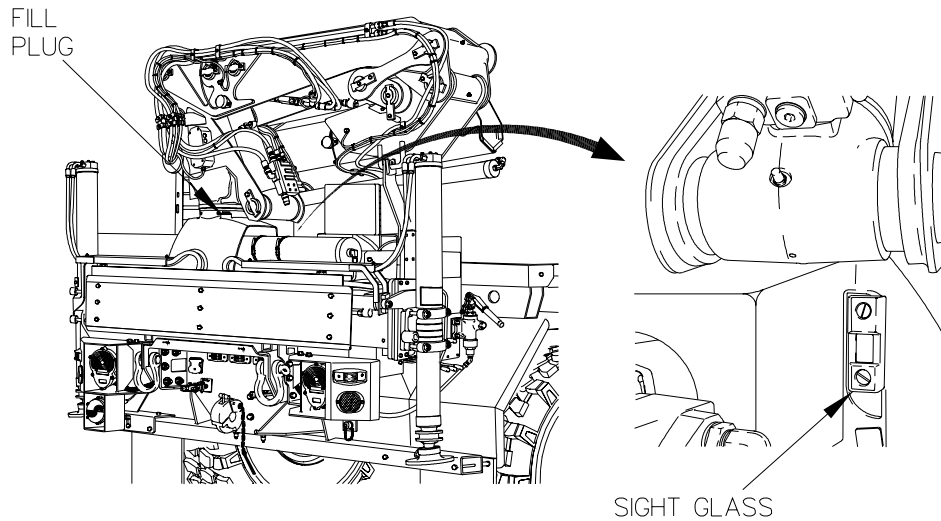
**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(WEEKLY) - CONTINUED**

0006 00

**Check MHC oil level.**

1. Verify that oil level in slew housing is between minimum and maximum levels.
2. If oil level is below minimum level, perform the following two steps.
3. Remove fill plug from slew housing.
4. Add oil (SAE 80W90) to bring oil level between minimum and maximum levels.
5. Install fill plug in slew housing.

**EQUIPMENT IS NOT READY/AVAILABLE IF:** Oil level in slew housing is below minimum level.



0500A09



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**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(MONTHLY)**

---

0006 00

**THIS WORK PACKAGE COVERS:**

M1084A1/RSV unique Monthly PMCS Procedures

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**INITIAL SETUP:**

Perform BEFORE PMCS checks

**Maintenance Level**

Operator

**Tools/Equipment**

Gun, lubricating (4930-00-253-2478) SC 4910-95-A31

Oiler, Hand (4930-00-275-7900) SC 4910-95-A31

Lubricating Oil, Engine (TM 9-2320-392-10-2)

Grease automotive and Artillery (GAA) (TM 9-2320-392-10-2)

Rag, Wiping (TM 9-2320-392-10-2)

**INTRODUCTION**

**General**

Preventive Maintenance Checks and Services (PMCS) are performed to keep the crane in operating condition. The checks are used to find, correct, or report problems. Pay attention to WARNING and CAUTION statements. A WARNING means injury or death could occur. A CAUTION means equipment could be damaged.

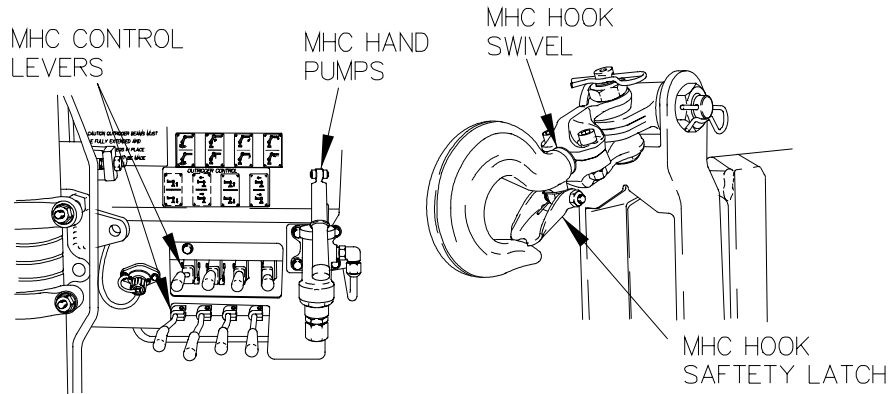
**Lubricate oil can points.**

1. Lubricate the following with OE/HDO-10 above -15 degrees and OEA if ambient temperature is -15 degrees F to -25 degrees F (-26 degrees Celsius to -32 degrees Celsius)

MHC hook swivel.  
MHC hook safety latch.  
Pivot points on MHC control levers.  
Pivot point on MHC hand pump

**1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(MONTHLY) - CONTINUED**

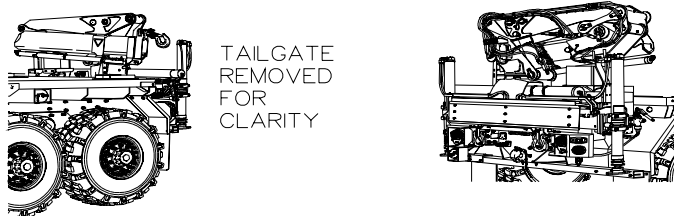
0006 00



0500A10

**Check MHC wiring.**

1. Check MHC wiring for chafing, cracked insulation and bare wires.
2. If any wiring is found to be chaffed, have cracked insulation and bare wires, notify Unit Maintenance



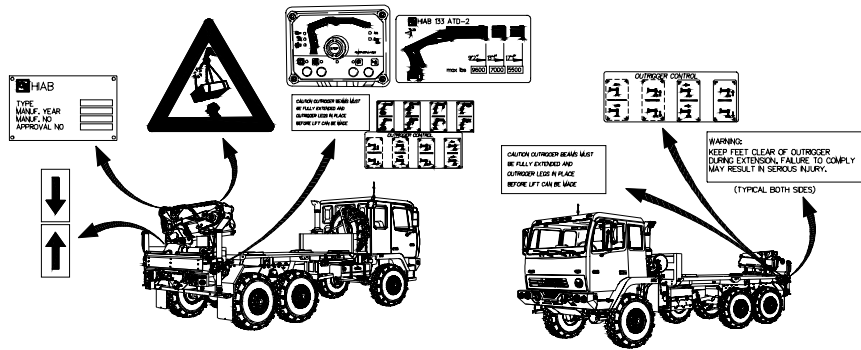
0500A11

**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(MONTHLY) - CONTINUED**

0006 00

**Check MHC warning, data, and instruction placards.**

1. Check MHC warning, data, or instruction placard is illegible.
2. If any MHC warning, data, or instruction placard is illegible, continue PMCS and notify Unit Maintenance.



PMCS0503

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**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(MONTHLY) - CONTINUED**

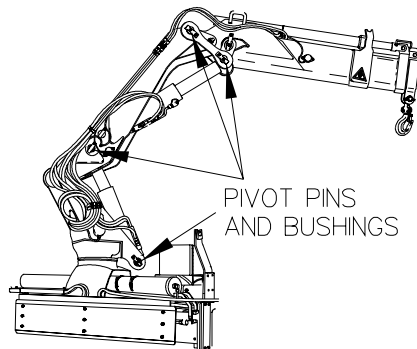
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0006 00

**Check MHC pivot pins and bushings.**

1. Set up MHC outriggers and operate MHC (WP 0001 00).
2. If MHC has visible damage, notify Unit Maintenance.
3. Observe MHC for obvious signs of looseness in any pivot pin or bushing.
4. If any pivot pin or bushing is obviously loose, notify Unit Maintenance.

**EQUIPMENT IS NOT READY/AVAILABLE IF:** Any pivot pin or bushing is obviously loose.



0500A13

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**M1084A1/RSV SERIES OPERATOR PREVENTIVE  
MAINTENANCE CHECKS AND SERVICES (PMCS)  
(MONTHLY) - CONTINUED**

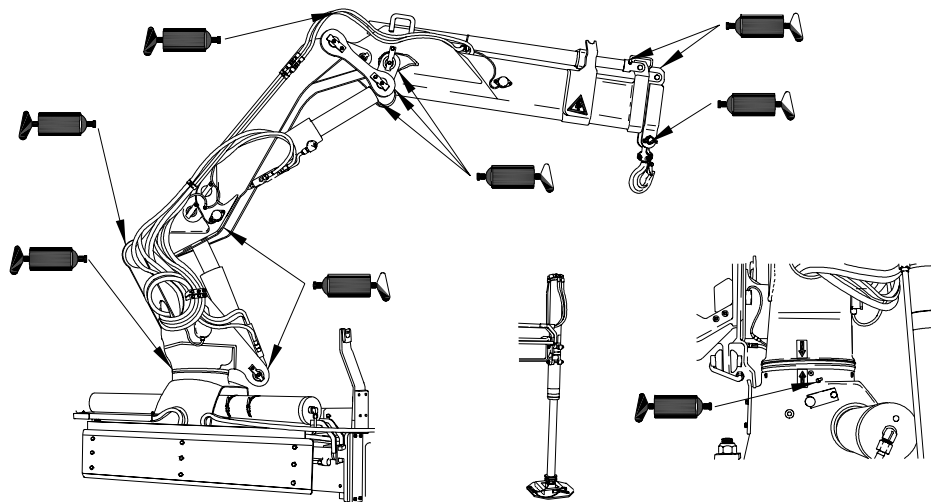
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0006 00

Lubricate MHC grease fittings.

1. Operate all MHC to a position that allows access to all grease fittings.
2. Lubricate all MHC grease fittings using a low-pressure lubrication gun.
3. Stow MHC and MHC outriggers (WP 0001 00)

LEGEND:  
GREASE GUN — 



0500A14

**END OF WORK PACKAGE**



TM 9-2300-310-10

**CHAPTER 4**  
**SUPPORTING INFORMATION**





TM 9-2300-310-10

There is no data applicable to Chapter 4

1/2 Blank



<b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b> For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II (reverse) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE <b>Date you filled out this form</b>
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<b>TO:</b> (Forward to proponent of publication or form) (Include ZIP Code)	<b>FROM:</b> (Activity and location) (Include ZIP Code)  <b>Enter your mailing address</b>
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**PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS**

PUBLICATION/FORM NUMBER	DATE Publication Date	TITLE Publication Title
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ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON
10	15-33	15-7		4		<p>Item 10. Change Illustration. Reason: Text calls out 90-degree fitting. Art shows straight fitting. Text is correct.</p> <p>Step (4) of removal says to disconnect four hydraulic hoses from manifold. The correct number of hydraulic hoses is five. correct the text to reflect the actual quantity of hydraulic hoses. The supporting illustration is correct.</p>
	19-6	19-2				

\* Reference to line numbers within the paragraph or subparagraph.

TYPED NAME, GRADE OR TITLE  <b>Your title</b>	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION  <b>Your telephone number</b>	SIGNATURE  <b>Your signature</b>
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Enter your mailing address		Date you filled out this form.

**PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

PUBLICATION NUMBER			DATE				TITLE	
			Publication Date				Your Title	
PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

**PART III - REMARKS** *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

<b>TYPED NAME, GRADE OR TITLE</b>	<b>TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION</b>	<b>SIGNATURE</b>
Your title	Your telephone number	Your signature

<b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b> For use of this form, see AR 25-30; the proponent agency is OAASA						Use Part II ( <i>reverse</i> ) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
<b>TO:</b> ( <i>Forward to proponent of publication or form</i> ) ( <i>Include ZIP Code</i> )						<b>FROM:</b> ( <i>Activity and location</i> ) ( <i>Include ZIP Code</i> )	
<b>PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS</b>							
PUBLICATION/FORM NUMBER						DATE	TITLE
ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON	
<i>* Reference to line numbers within the paragraph or subparagraph.</i>							
TYPED NAME, GRADE OR TITLE					TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION		SIGNATURE

<b>TO:</b> <i>(Forward direct to addressee listed in publication)</i>	<b>FROM:</b> <i>(Activity and location) (Include ZIP Code)</i>	<b>DATE</b>
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TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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By Order of the Secretary of the Army:

PETER J. SCHOOMAKER  
*General, United States Army*  
*Chief of Staff*

Official:

A handwritten signature in black ink that reads "Sandra R. Riley". The signature is written in a cursive, flowing style.

SANDRA R. RILEY  
*Administrative Assistant to the*  
*Secretary of the Army*  
0503810

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