FPU<sup>®</sup> SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH QUADCON MODULES, ADAPTERS and RESTRAINT SYSTEM BOH FPU Field Pack-up Units

**CHAPTER 5** 

UNIT MAINTENANCE INSTRUCTIONS

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# UNIT MAINTENANCE INSTRUCTIONS FPU<sup>®</sup> SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH QUADCON MODULES, ADAPTERS and RESTRAINT SYSTEM BOH FPU Field Pack-up Units

# QUADCON MODULE REPAIR

#### INITIAL SETUP: Materiel/Parts None Personnel Required Two plus supervisor Tools

References Chapter 2 WP 0003 00 to 0007 00 Equipment Condition FPU QUADCON System repair

3/4" open end/box end wrench, ratchet and 3/4" socket, 3" extension rags, 7/16" wrench, hammer and scrap wood block, 1/2 hp electric drill, 3/16" drill bit, putty knife, contact cement

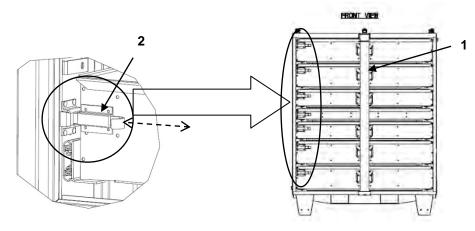
#### REPAIR

#### NOTE

Review operation of QUADCON System Chapter 2 WP 0003 00 to 0007 00

# QUADCON Modules

- 1. Remove the security bar (1).
- 2. Inspect slam latches (2) for smooth movement, spring tension and retention of the drawer in the fully closed position. Lubricate as needed. Notify unit maintenance of any missing or damaged slam latches.
- 3. Open and close drawer assemblies, check for smooth operation. Lubricate drawer slides as needed.





The modules must be operated on level ground and periodically checked for shifting from a level position in or out of the containers. To maintain control, consider the ground surface conditions for adequate traction, such as mud, snow, ice and sand.

### REMOVE AND REPAIR DRAWER

# Module Drawers

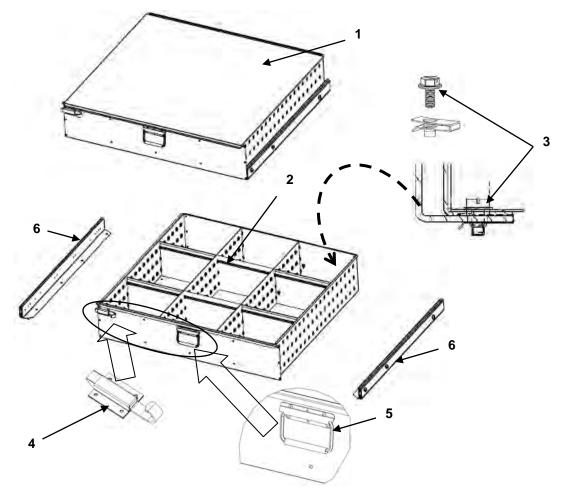
- 1. Pull drawer to the full out position.
- 2. Remove drawer lid (1).
- 3. Remove drawer dividers (2).
- 4. Remove the eight 7/16" hex head drawer mount bolts.
- 5. Lift out drawer from the slides.
- 6. Inspect Slam Latch (4) and drawer handles (5) for missing or damaged rivets. See WP0016 00-3 for rivet repair.

#### Remove and replace drawer slides

- 7. Loosen the front and rear set screws for each slide.
- 8. Tap left and right drawer slide (6) upward with hammer and wood block to remove the slide. Align and tap downward to install new slide.
- 9. Tighten the front and rear set screws for each slide.
- 10. Install drawer with 7/16" bolts (3), drawer dividers and drawer lid.

#### Note

Only remove and replace one drawer for repair at a time to maintain the module configuration.

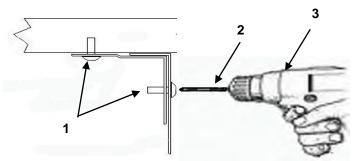


### **GENERAL RIVET REPAIR**

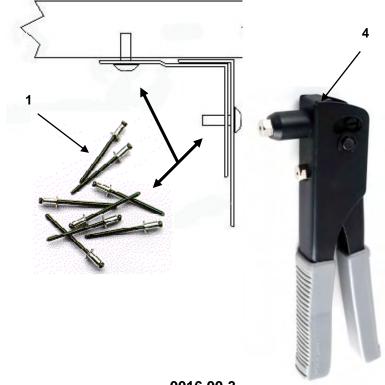


# WARNING

Use proper eye protection when operating a drill.



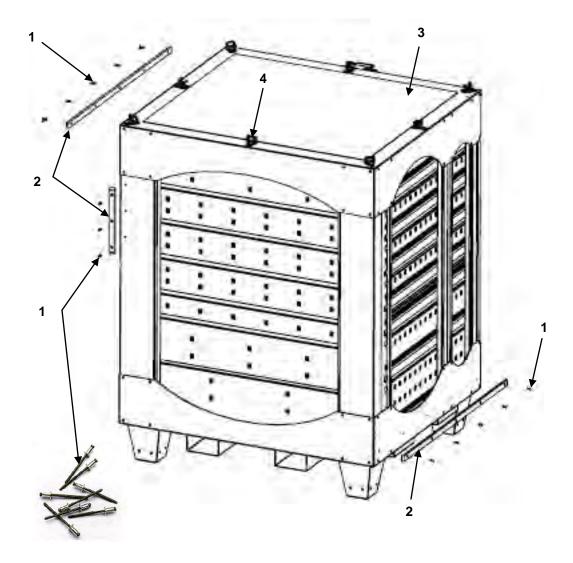
- 1. For rivets (1) use a 1/2 hp electric drill (3) with a 3/16" drill bit (2), and drill through the center core of the rivet.
- 2. Remove the remainder of any pop rivet debris with needle nose pliers and wipe the hole clean with a rag.
- 3. Insure the holes are properly aligned.
- 4. Insert a new pop rivet, (3/16"DIA) (1) through the holes of both items to be secured with the pop rivet tool (4).
- 5. Use the pop rivet tool (4) to install the pop rivet (1) and item in place.
- 6. Check for proper alignment and tight attachment of the item.
- 7. Return the drawer to the closed position and check the drawer operation.



# REPLACE

# Module Cabinet bumper strips

- 1. Remove the rivets (1) and replace damaged bumper strips (2). (See rivet repair WP 0016 00-3)
- 2. Remove any pop rivet debris with needle nose pliers and wipe the hole clean with a rag.
- 3. Use the existing holes as a guide to install the new rivets (1) and bumper strips (2).
- 4. Inspect top mat (3) for damage, install replacement with contact cement.
- 5. Inspect for missing or damaged D rings (4)
- 6. To replace D rings, remove old rivet (1) and install new rivet (1)(See rivet repair WP 0016 00-3)



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### QUADCON ADAPTER SYSTEM

 INITIAL SETUP:
 References

 Materiel/Parts
 References

 None
 Chapter 2 WP 0005 00-12

 Personnel Required
 Equipment Condition

 Two plus supervisor
 Adapter Restraint System Adjustment

 Tools
 ¾" open end/box end wrench, ratchet and ¾" socket, 3" extension 7/16" open end wrench

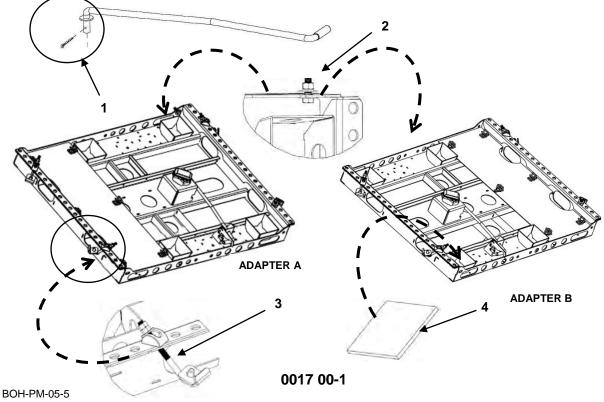
### REPAIR

#### Note

Welding repairs are only required when the Floor Adapters are pierced, punctured, or cracked. Standard welding principles and materials apply to all BOH Floor Adapter repairs. Welding procedures will not be discussed in this tech manual. Refer to TC 9-237.

#### Adapters A and B

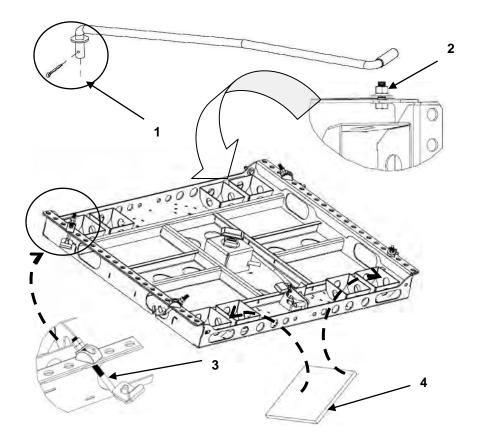
- 1. To remove the module lock down handle, remove and replace cotter pin (1).
- 2. Replace missing or damaged <sup>3</sup>/<sub>4</sub>" connecting bolts and Jam nuts (2).
- 3. Replace missing or damaged  $\frac{3}{4}$ " J bolts and lock down hardware (3).
- 4. Remove damaged pads (4) with putty knife and replace as needed.
- 5. Install new pads with contact cement.
- 6. Check for cracks in weld, bent or damaged brackets.



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### MULTI USE QUADCON Adapter

- 1. Remove the module lock down handle, remove and replace cotter pin (1).
- 2. Replace missing or damaged <sup>3</sup>/<sub>4</sub>" connecting bolts and Jam nuts (2).
- 3. Replace missing or damaged  $\frac{3}{4}$ " J bolts and lock down hardware (3).
- 4. Remove damaged pads (4) with putty knife and replace as needed with contact cement.
- 5. Check for cracks in weld, bent or damaged brackets.



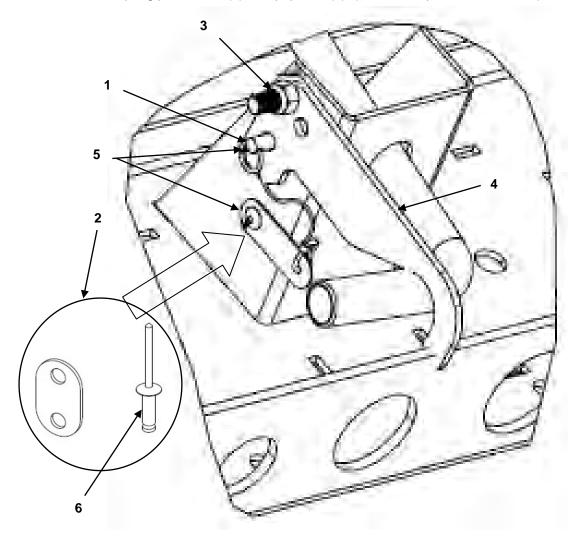
Note

Welding repairs are only required when the BOH Floor Adapters are pierced, punctured, or cracked. Standard welding principles and materials apply to BOH Floor Adapter repairs. Welding procedures will not be discussed in this tech manual. Refer to TC 9-237.

### REPAIR

#### ADAPTER LOCK DOWN HANDLE RETAINING LATCH

- 1. Remove the spring pin (1) to remove and replace retaining latch.
- 2. Remove lock nut and bolt (3) with 7/16" wrench.
- Repair or replace damaged latch (4).
   Install new lock nut and bolt (3).
- 5. Repair or replace damaged lanyard and tab (2).
- 6. Insert spring pin and tab (5) with pop rivet (6). (See rivet repair WP 0016 00-3).



**END OF WORK PACKAGE** 

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# QUADCON ADAPTER RESTRAINT SYSTEM REPAIR AND ADJUSTMENT

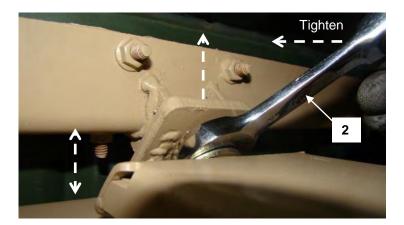
INITIAL SETUP:ReferencesMateriel/PartsReferencesNoneChapter 2 WP 0005 00-9Personnel RequiredEquipment ConditionTwo plus supervisorFPU Adapter Restraint System AdjustTools¾" open end/box end wrench, ratchet and ¾" socket, 3" extension

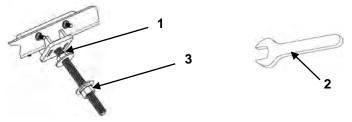
#### **INSPECT AND ADJUST**

- 1. Review Chapter 2 WP 0003 to 0007 and Chapter 5 page 0015 00-5.
- 2. Ensure the frame is seated tightly in the container.
- 3. Inspect the frame for movement.
- 4. Adjust the top frame push bars adjustment nuts (1) with a <u>counterclockwise</u> rotation with the <sup>3</sup>/<sub>4</sub>" open end adjustment wrench (2).
- 5. Recheck the adjustment jam nuts (3).

### Caution

Do not over tighten hardware; damage may occur to the roof of the container or frame work.

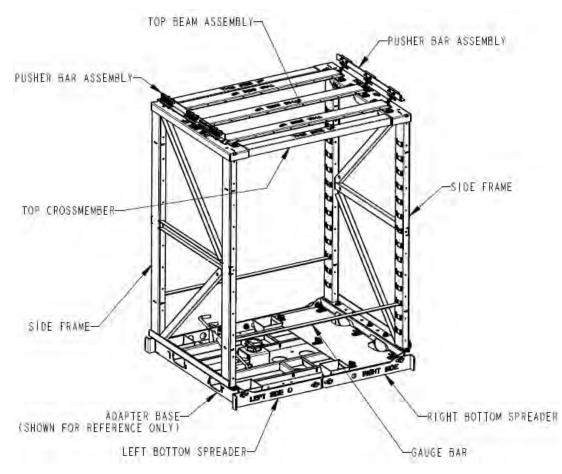




# **INSPECT AND ADJUST**

Inspect and replace damaged frame parts.

- 6. With a ¾" wrench, check the left and right adapter connector bolts (1) and all hardware for tightness.
- 7. Check the front and rear space between the left and right side frame with the gauge bar.
- 8. Visually inspect the retainer joints and weld connections for cracks, or gaps.
- 9. Visually inspect the frame for bent or damaged members, remove effected frame work for repair.
- 10. When repairs are complete, check the tensioning nuts and jam nuts with a counterclockwise rotation.



Note

Welding repairs are only required when the BOH Floor Adapter Restraint are pierced, punctured, or cracked. Standard welding principles and materials apply to BOH Floor Adapter Restraint repairs. Welding procedures will not be discussed in this tech manual. Refer to TC 9-237.

# END OF WORK PACKAGE