

**FPU[®] SYSTEMS OPERATION MANUAL
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)
BOH QUADCON MODULES, ADAPTERS and RESTRAINT SYSTEM
BOH FPU Field Pack-up Units**

**CHAPTER 4
OPERATOR MAINTENANCE INSTRUCTIONS**

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**OPERATOR MAINTENANCE INSTRUCTIONS
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SERVICE UPON RECEIPT

INITIAL SETUP:

Materiel/Parts

None

Personnel Required

Two plus Supervisor

References

Chapter 2 WP 0003 00 to 0007 00

Equipment Condition

BOH QUADCON SYSTEM Unpack

SERVICE UPON RECEIPT

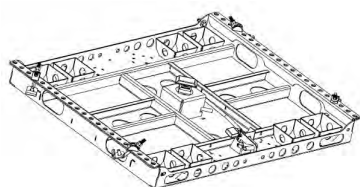
Upon receipt of the BOH QUADCON System, ensure all components are in proper working order. Note the following requirements.

Unpacking

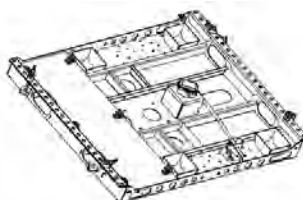
The BOH QUADCON Systems are shipped with all components and equipment packed for shipment. Before unpacking upon receipt, first the shipping documents and review the QUADCON Systems as described in chapter 1 WP 0001 00 and 0002 00.

To fully understand the system operation and level of components review chapter 2 WP 0003 00 to 0007 00.

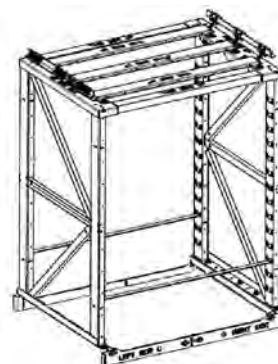
Determine what level of equipment you have ordered and what components that are expected.



QUADCON
Multi-Use Adapter



QUADCON
Adapter A or B



QUADCON
Adapter Restraint



QUADCON
Modules 1 through 5

END OF WORK PACKAGE

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INTRODUCTION TO PREVENTATIVE MAINTENANCE CHECKS & SERVICES (PMCS)

INITIAL SETUP:

Materiel/Parts

None

Personnel Required

One

References

Chapter 2 WP 0003 00 to 0007 00

Equipment Condition

FPU SYSTEMS Set-up

INTRODUCTION TO PREVENTATIVE MAINTENANCE CHECKS & SERVICES (PMCS)

Preventative Maintenance Checks and Services (PMCS) are performed to keep the FPU QUADCON Modules in good operating condition. These checks aid in finding, correcting, or reporting problems. Operator personnel are to perform the PMCS tasks as shown in the PMCS table.

Perform PMCS procedures each day the FPU QUADCON SYSTEM is in operation, using the PMCS table in (WP 0013 00). There are different intervals to perform PMCS procedures: before, during and after using the equipment, as well as weekly and monthly. Look at the table carefully to identify the required PMCS interval.

Perform all checks and services keeping in mind the following guidelines:

- Before you begin using the FPU QUADCON SYSTEM, perform **Before Operation PMCS**.
- While the FPU QUADCON SYSTEM is in use, perform **During Operation PMCS**.
- After using the FPU QUADCON SYSTEM, perform **After Operation PMCS**.

If you find something wrong when performing PMCS, fix it using troubleshooting and/or maintenance procedures. Pay attention to WARNING and CAUTION statements. A **WARNING** means someone could be injured or killed. A **CAUTION** means equipment could be damaged.

The far right-hand column of the PMCS table lists conditions that make the FPU QUADCON SYSTEM not fully mission capable. Write down the problem that cannot be repaired at your level on DA Form 2404 and forward for unit maintenance. For further information on how to use this form, see DA PAM 738-750.

If tools that are required to perform PMCS are not listed in the procedures, notify your supervisor.

Inspection

Look for signs of trouble. Use your senses to feel, smell, hear, or see problems that may exist. Inspect to see if items are in good condition. Are components correctly installed and secured? Is any damage to the frame or components visible? Correct any faults or notify Unit Maintenance.

Service

Proper service of the FPU QUADCON SYSTEM and components is an integral part of maintenance. Regular cleaning prevents possible problems in the future, so make it a habit to clean the FPU QUADCON SYSTEM Modules and components whenever necessary.

END OF WORK PACKAGE

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PMCS TABLE

INITIAL SETUP:**Materiel/Parts**

Rags, Water

Personnel Required

Two

References

Chapter 2 WP 0003 00 to 0005 00

Equipment Condition

FPU SYSTEMS Set-up

**Table 1 Preventative Maintenance Checks and Services for the FPU SYSTEMS
PMCS B (Before), D (During), A (After), W (Weekly), M (Monthly)**

	B	D	A	W	M	Inspection Item and Procedure	Equipment Not Ready/Available If
1	*	*	*			FPU QUADCON SYSTEM MODULES Check all drawers and walls for cracks, dents, holes, or loose/missing hardware.	Missing drawers, drawer lids, punctures, cracks, damage that would cause hazard, injury or damage to stored material.
					*	MOVING PARTS Lubricate drawer slides, locks and latches as required.	Damage or malfunction that would cause the FPU QUADCON System Modules from operating properly such as, latches and slides for all module drawers.
2			*	*		Exterior Check all exterior surfaces for cracks, dents that effect the operation of the FPU QUADCON SYSTEM MODULES. Check for accumulations of dirt, debris, ice, snow, or salt. Clean as required.	Rust or dirt impairs smooth operation.
3			*	*		Floor Adapters Check floor adapter base cradles for cracks or damage. Schedule cracked base cradles for repair. Inspect for missing pads in floor adapter.	Floor Adapter base cradle hardware missing, cracked or damaged so that module does not seat properly.
4			*		*	Data Plates Check data plates for legibility, damage and/or missing. Clean with water and rag. Replace as needed.	All Module ID plates and weight limits on modules must be clear of paint, dirt and must be legible.
End of Inspection Table							

END OF WORK PACKAGE

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CLEANING AND LUBRICATING

INITIAL SETUP:**Materiel/Parts**

Rags, Water, Detergent

Personnel Required

One

References

Chapter 2 WP 0003 00 to 0007 00

Equipment Condition

FPU SYSTEMS Set-up

CLEANING AND LUBRICATING

Cleaning and Lubricating of the FPU is performed to keep the FPU and its associated equipment in good operating condition. The cleaning and lubrication of the FPU can be conducted along with the Preventative Maintenance Checks and Services (PMCS) procedures described in (WP 0012, 0013 00 and 0014 00). Specific areas described below need to be cleaned after an operational event or periodically if stored/staged outside of a fixed facility to keep the container, modules, and accessories performing as designed. Cleaning also assists in maintaining the condition of the materiel stored within the system. Any damage discovered when cleaning and/or lubricating that cannot be corrected using the troubleshooting procedures described in (WP 0008, 0009 and 0010 00) should be reported for corrective maintenance.

Table 1 Cleaning

SURFACE	OIL/GREASE	SALT/MUD/DIRT DEBRIS	RUST/CORROSION and LUBRICATION
Drawer Exterior and Interior	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rag, Spot Paint.
Drawer Dividers	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rag
Module Floor Adapters	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rags, Spot Paint
Module Drawer Slam Latches	N/A	Brush, Rag and lubricate as needed to ensure door hinges travel freely	Corrosion Removal Compound and Wire Brush, Dry Rags and Lubricate as needed with Multi-purpose Grease
Module Drawer Bumper Strips	N/A	Brush, Rag and Soapy Water	N/A
Adapter Restraint Frame	N/A	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rag, Spot Paint
End of Cleaning Table			

Table 2 Lubrication

USAGE	FLUID or LUBRICANT	CAPACITIES	EXPECTED TEMPERATURES	INTERVAL
Module Drawer Bearing Slides	Moly Kote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Module Drawer Slam Latches	Moly Kote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Floor Adapters Hardware	Moly Kote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Floor Adapters Module Lock Down Device	Moly Kote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Floor Adapters Module Lock Handle Latch	Moly Kote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Adapter Restraint Frame	N/A	N/A	N/A	N/A
End of Lubrication Table				

END OF WORK PACKAGE

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QUADCON SYSTEM INSPECTION

INITIAL SETUP:**Materiel/Parts**

None

Personnel Required

One

Tools

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

References

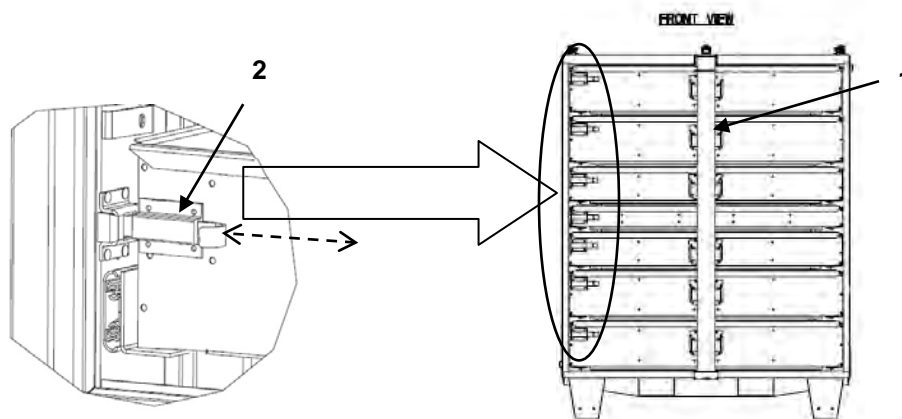
Chapter 2 WP 0003 to 0007

Equipment Condition

FPU QUADCON System Set-up

INSPECT**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.

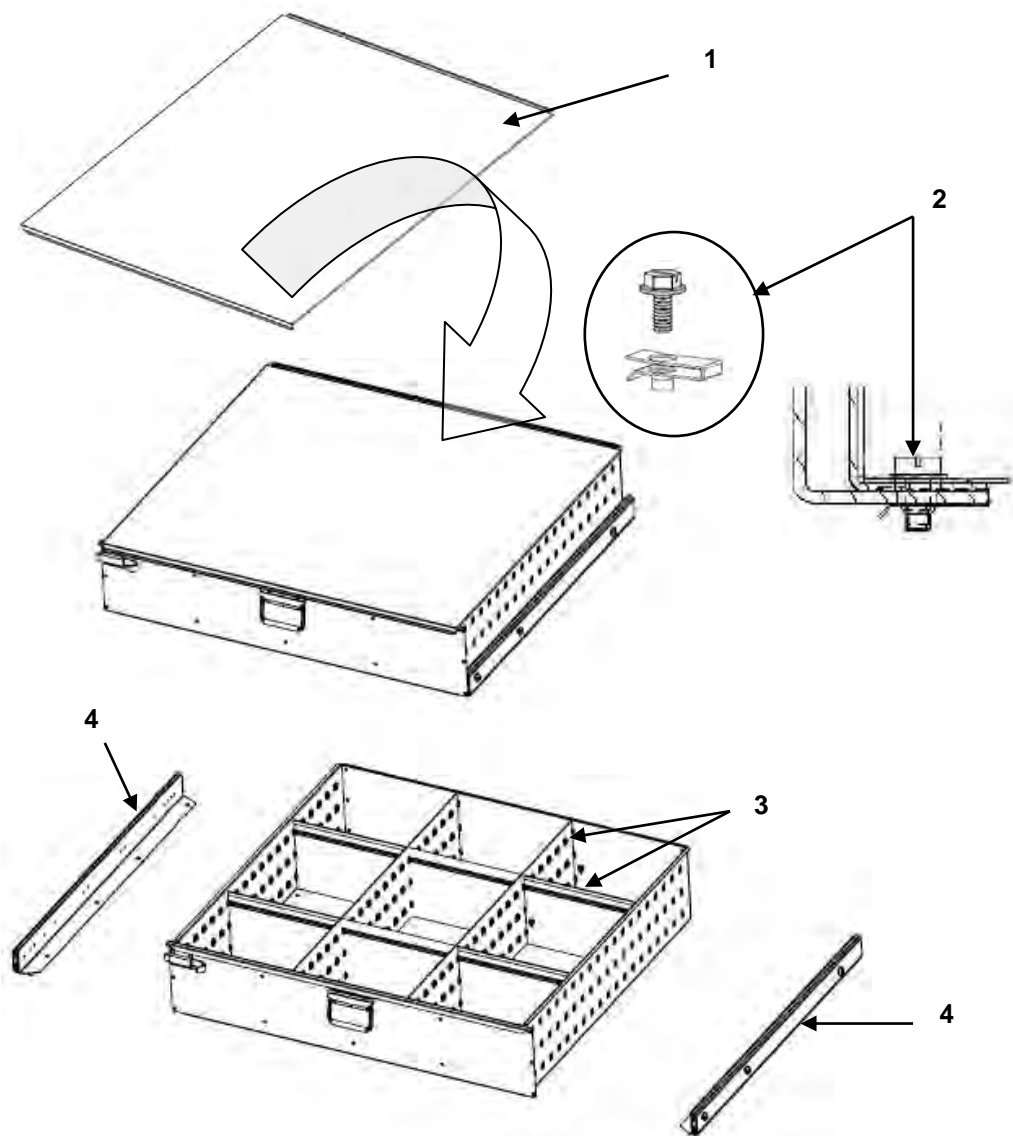


WARNING

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.

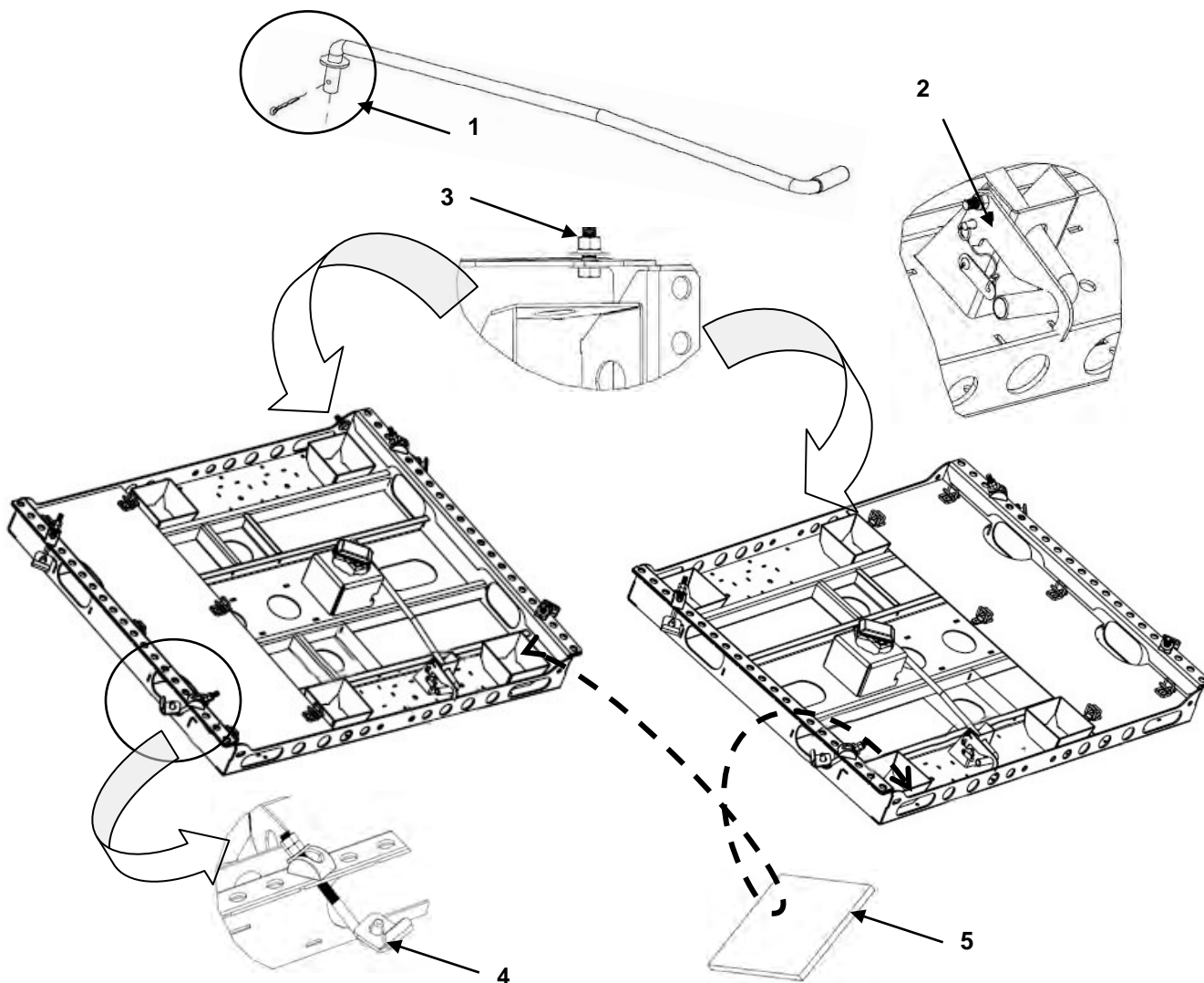
INSPECT**Module Drawers**

1. Inspect drawers for missing or damaged lid (1).
2. Inspect drawers for loose or missing drawer slide mounting 7/16" hardware (2).
3. Inspect drawers for damages or missing drawer dividers (3).
4. Inspect drawer slides (4) for smooth operation, lubricate as needed.
(See Lubrication WP 0014 00-2)



INSPECT**Adapters A and B****Inspect Each Adapter For The Following:**

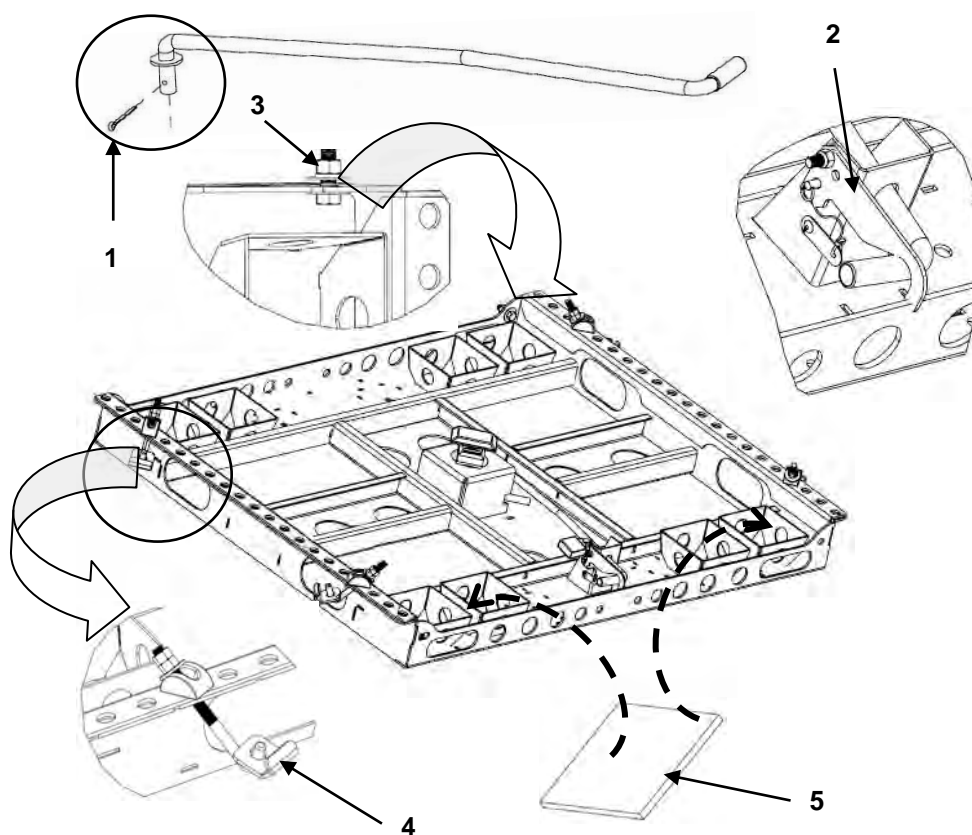
1. Inspect the module lock down handle for damaged or missing cotter pin (1).
2. Inspect Handle Latch (2).
3. Inspect for two missing or damaged tensioning $\frac{3}{4}$ " bolts and Jam nuts (3).
4. Inspect for four missing or damaged $\frac{3}{4}$ " J bolts and lock down hardware (4).
5. Inspect for four missing or damaged foot pads (5); replace as needed.
6. Check for cracks in weld, bent or damaged brackets.

**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.

INSPECT**MULTI USE QUADCON Adapter****Inspect Multi Use Adapter For The Following:**

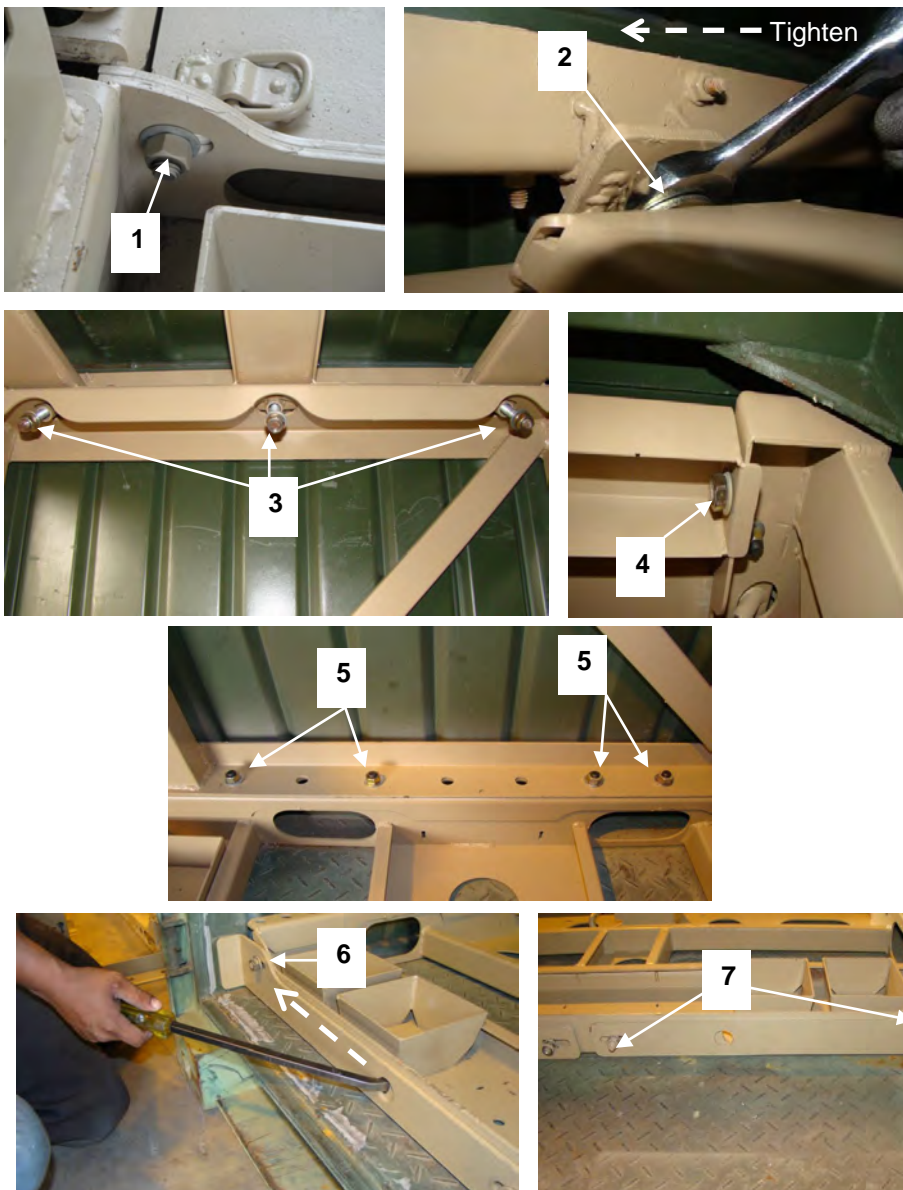
1. Inspect the module lock down handle for damaged or missing cotter pin (1).
2. Inspect Handle Latch (2).
3. Inspect for two missing or damaged tensioning $\frac{3}{4}$ " bolts and Jam nuts (3).
4. Inspect for four missing or damaged $\frac{3}{4}$ " J bolts and lock down hardware (4).
5. Inspect for eight missing or damaged pads (5) replace as needed.
6. Check for cracks in weld, bent or damaged brackets.

**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.

INSPECT**QUADCON Adapter Restraint System**

1. Visually inspect the retainer joints and weld connections for gaps.
2. With a $\frac{3}{4}$ " wrench, check the left and right adapter connector bolts (1) and all hardware for tightness.
3. Check the adjustment nuts (2) with a counterclockwise rotation.
4. Check the jam nuts (3) at the top of the frame with a clockwise rotation.
5. Check the upper frame corner bolts (4).
6. Check the bottom frame to adapter bolts (5).
7. Check the left (6) and right (7) front and rear spreader bars nuts.

**END OF WORK PACKAGE**

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