

**FPU® SYSTEMS OPERATION MANUAL
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3
BOH FPU Field Pack-up Units**

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

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OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3 BOH FPU Field Pack-up Units

INTRODUCTION TO PREVENTATIVE MAINTENANCE CHECKS & SERVICES (PMCS)

INITIAL SETUP:

Materiel/Parts

None

Personnel Required

One

References

None

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 System containers 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 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 SYSTEM, perform **Before Operation PMCS** checks and services.
- While the FPU SYSTEM is in use, perform **During Operation PMCS** checks and services.
- After using the FPU SYSTEM, perform **After Operation PMCS** checks and services.

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.

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 Maintenance.

Service

Proper service of the FPU 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 SYSTEM and components whenever necessary.

END OF WORK PACKAGE

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PMCS TABLE

INITIAL SETUP:
Materiel/Parts

Rags, Water

Personnel Required

One

References

None

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	*	*	*			Doors, Walls Check all doors and walls for cracks, dents, holes, or loose/missing hardware.	Missing doors, punctures, damage that would cause hazard or injury.
					*	Lubricate hinges, locks, as required.	Hinges and locks do not operate smoothly.
2			*	*		Exterior Check all exterior surfaces for cracks, dents that effect the operation of the FPU SYSTEM or its modules. Check for accumulations of dirt, debris, ice, snow, or salt. Clean as required. Check Horizontal Interconnectors for proper function, tightness and debris. Clean as required and replace if not functioning properly.	Damage or malfunction that would cause the FPU SYSTEM from operating properly such as Horizontal Interconnectors not tightening properly which can cause hazard or injury.
3			*	*		Interior Check floor for dirt and debris. Clean with broom or rags as required. Check module cradles in FPU SYSTEM floor for cracks or missing rubber pads. Schedule cracked cradles for repair. Check center ISO locks for cracks or missing items. Check module-locking levers for missing or loose cotter pins. Replace or tighten as necessary. Check roof access steps for cracks or missing components. Replace as necessary.	Module cradles missing or damaged so that module does not seat properly, center ISO twist locks are broken or missing or roof access steps cracked or missing which can cause hazard or injury.
4			*		*	Data Plates Check plates for legibility, damage and/or missing. Clean with water and rag. Replace as needed.	ISO/CSC Safety Data plates must be replaced if missing or system will be non-deployable.

END OF WORK PACKAGE

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FPU[®] SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3 BOH FPU Field Pack-up Units

CLEANING AND LUBRICATING

INITIAL SETUP:
Materiel/Parts

Rags, Water, Detergent

Personnel Required

One

References

None

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 0013 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 0011 00) should be reported to maintenance for corrective action.

Table 1 Cleaning

SURFACE	OIL/GREASE	SALT/MUD/DIRT DEBRIS	RUST/CORROSION
Exterior and Interior Walls (All)	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rag, Coat with Lube Oil or Spot Paint
Door Seals	Damp and Dry Rags	Damp and Dry Rags	N/A
Module Cradles, FPU Floor	Detergent, Water, Rags (Remove, clean, and replace rubber pad into footing)	Soapy Water, Brush, Rags (Remove, clean and replace rubber pad into footing)	Corrosion Removal Compound and Wire Brush, Dry Rags, Coat with Lube Oil or Spot Paint (Remove, clean, and replace rubber pad into module cradle footing)
Container Door Hinges	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
Door Retaining Straps	Detergent, Water, Rags	Detergent, Water, Rags	N/A
Pallet Ledge Locking Rod	N/A	Brush, Rag and lubricate as needed to prevent rust buildup on threads	Corrosion Removal Compound and Wire Brush, Dry Rags and Lubricate as needed

Table 2 Lubrication

USAGE	FLUID or LUBRICANT	CAPACITIES	EXPECTED TEMPERATURES	INTERVAL
Door Hinges	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as required if under adverse conditions
Door Cam Locks	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Door Seals	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Door Lock Shaft Pivot Bearing	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Folding Steps	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as required if under adverse conditions
Horizontal Inter-connectors FPU-8-4/BOH-CARGO-12-3 (only)	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Bridge Locks FPU-8-4 and BOH-CARGO-12-3 (only)	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Annually or as required if under adverse conditions

Table 2 Lubrication (cont'd)

USAGE	FLUID or LUBRICANT	CAPACITIES	EXPECTED TEMPERATURES	INTERVAL
Transverse Stabilizer Tensioning Blocks FPU-8-4/BOH-CARGO-12-3 (only)	Dry Film Lubricate P/N 26040123	As Required	All Temperatures	Bi-annually or as required if under adverse conditions
Transverse Stabilizer Tensioning Bolts FPU-8-4/BOH-CARGO-12-3 (only)	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Bi-annually or as required if under adverse conditions
Loading Rail Connectors FPU-8-4/BOH-CARGO-12-3 (only)	Dry Film Lubricate P/N 26040123	As Required	All Temperatures	Each instance that the rails are removed and are to be re-installed
Open Ends of Loading Rails FPU-8-4/BOH-CARGO-12-3 (only)	Dry Film Lubricate P/N 26040123	As Required	All Temperatures	Monthly or as Required if Under adverse conditions
Vertical Rack Stanchion Recessed Rings FPU-8-4/BOH-CARGO-12-3 (only)	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as required if under adverse conditions
Pallet Ledge Rear Cam Lock	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as required if under adverse conditions
Pallet Ledge Locking Rod	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Snap Hooks Safety Device on Ratchet Straps and Floor Nets	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as required if under adverse conditions
Module Drawer Slides and Container Parts Storage Aids Drawer Slides.	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Bi-annually or as required if under adverse conditions

Table 2 Lubrication (cont'd)

USAGE	FLUID or LUBRICANT	CAPACITIES	EXPECTED TEMPERATURES	INTERVAL
Container Storage Aids Drawer Locking Mechanism shafts	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions
Container Storage Aids Drawer Locking Mechanism Tabs	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions
FPU SYSTEM Module Drawer Slam Locks	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions
FPU SYSTEM Removable cradle Twist Lock	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions
FPU SYSTEM Removable cradle Locking Rod Pivot	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions

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OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3 BOH FPU Field Pack-up Units

DOORS

INITIAL SETUP:

Material/Parts

None

Personnel Required

One

Tools

Ladder with hand rail

References

Chapter 2 WP 0006 00- 1 to 00-10

Equipment Condition

FPU SYSTEMS Set-up

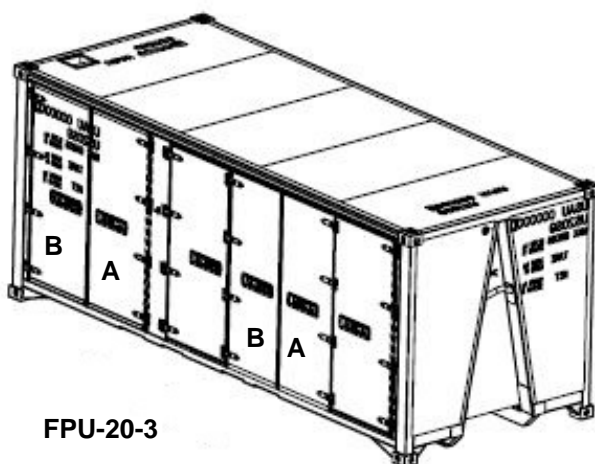
INSPECT

1. Open and close right door (A), left door (B), refer to chapter 2 pages 0006 00- 9 and 00-10 to ensure proper operation and alignment.
2. Visually inspect door seals for damage.
3. Inspect for missing door straps.

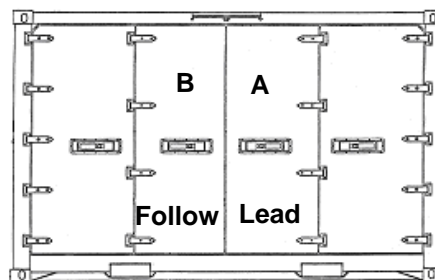


WARNING

The containers must be operated on level ground and periodically be checked for shifting from a level position. Use care when opening doors or drawers; physical injury may occur. To maintain control, consider the ground surface conditions for adequate traction, such as mud, snow, ice and sand.



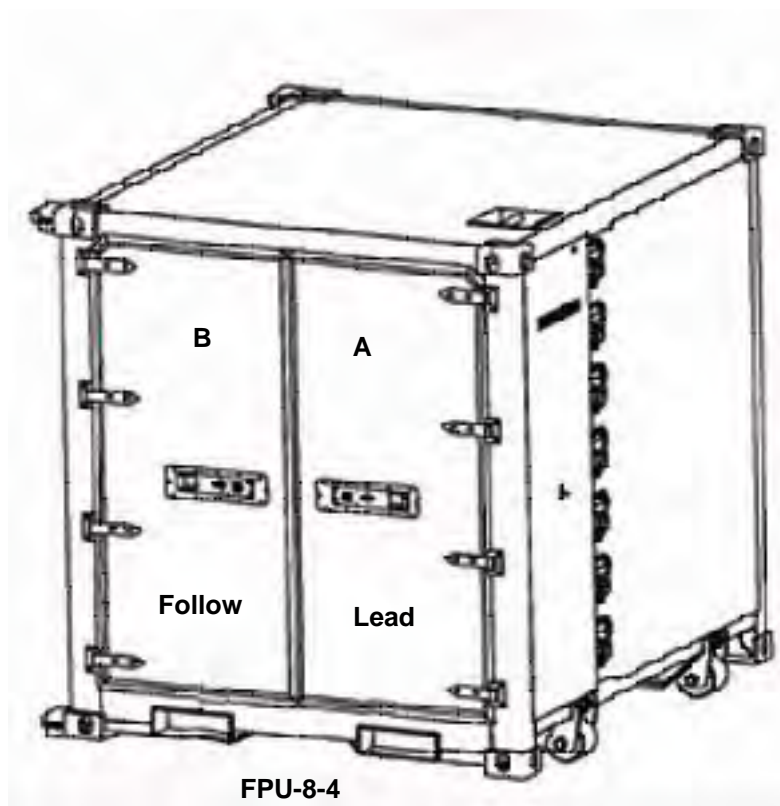
FPU-20-3



BOH-CARGO-12-3

CAUTION

The right door (A) must lead the left door (B) slightly when closed to prevent damage to the door edge seals.



4. Notify maintenance of any missing or damaged seals and any problems with operation of latch, handle, or hinges for service.
5. Notify maintenance of any problems with door alignment.

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FOLDING STEPS

INITIAL SETUP:

Material/Parts

None

Personnel Required

One

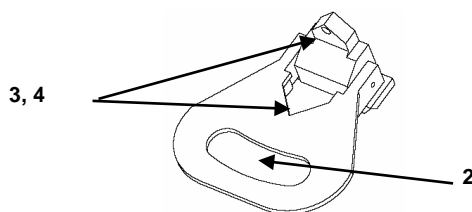
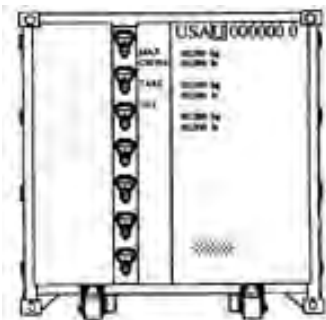
References

Chapter 2 WP 0005 00-2 and 00-3

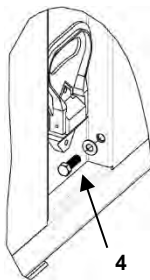
Equipment Condition

FPU SYSTEMS Set-up

INSPECT



1. Raise and lower each of the steps (2) to ensure they stow and operate properly.
2. Inspect for missing ground lug (4).
3. Notify maintenance of missing, cracked, broken or poorly operating steps (2).
4. Notify maintenance of any cracked, broken or missing hardware (3).
5. Ensure that there is a ground lug (4) present.



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VERTICAL RACK FRAME

VERTICAL RACK

INITIAL SETUP:

Material/Parts

None

Personnel Required

One

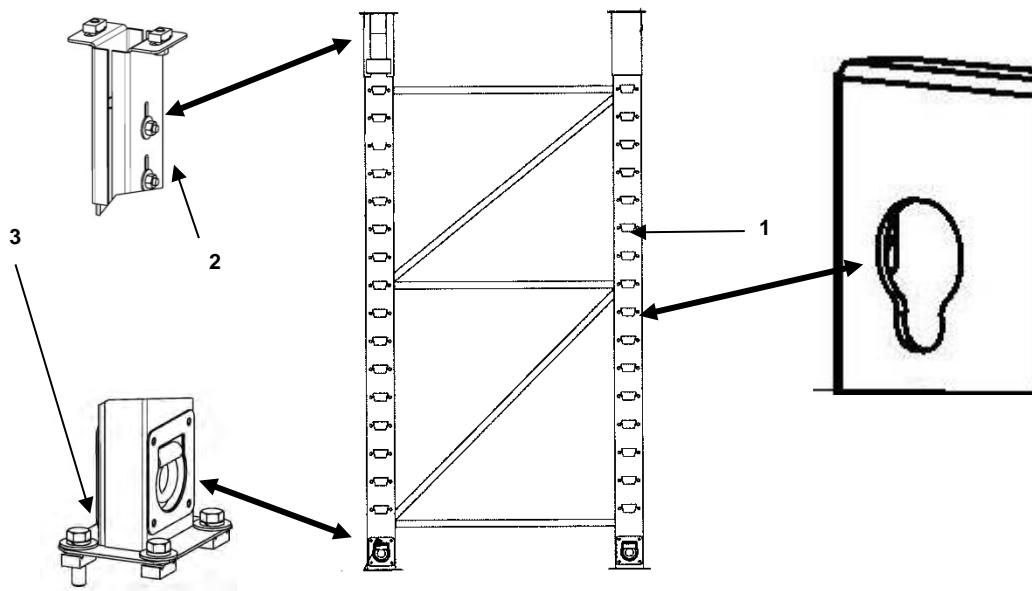
References

Chapter 2 WP 0006 00-11 to 00-16

Equipment Condition

FPU SYSTEM Set-up

INSPECT



1. Inspect the vertical rack frame (1) for cracks, excessive dents or bending. Report to maintenance for repair or replacement.
2. Inspect vertical rack upper attachment (2) and lower attachment assemblies (3) for cracks, excessive dents or bending. Report to maintenance for repair or replacement.
3. Inspect vertical rack frame for damaged or missing bolts (2) & (3).
4. Report damage to maintenance for repair.

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PALLET

INITIAL SETUP:

Material/Parts

None

Personnel Required

One

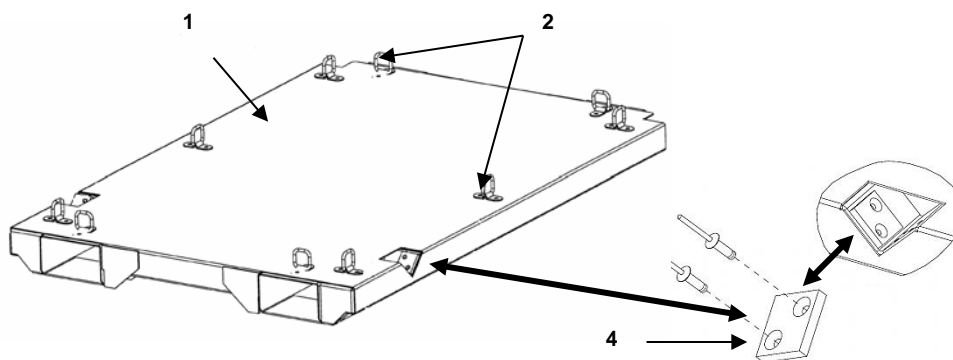
References

Chapter 2 WP 0006 00- 17 to 00-18

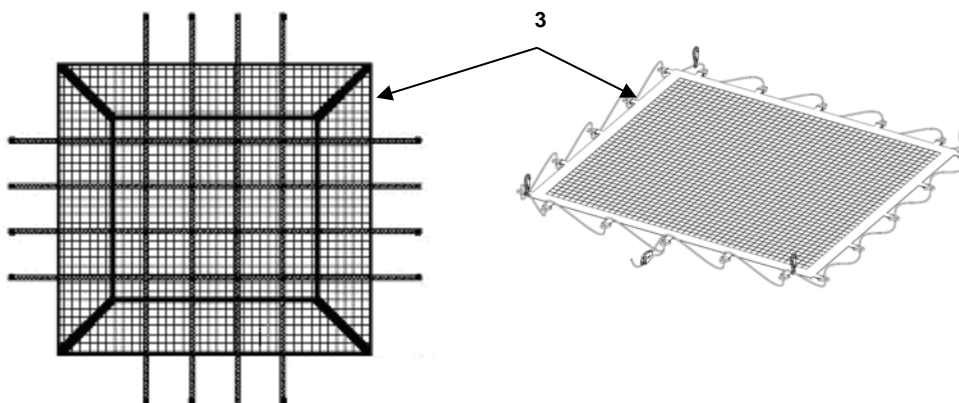
Equipment Condition

FPU SYSTEMS Set-up

INSPECT



1. Inspect pallet (1) for cracks, excessive dents or sagging, report damage to maintenance for repair or replacement.
2. Inspect for damaged or missing nets (3), replace damaged nets (3) .
3. Inspect pallet for missing or damaged D-rings (2). Report damage to maintenance for repair or replacement.
4. Inspect for missing or damaged pallet lock pads (4). Report damage to maintenance for repair or replacement.



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OPERATOR MAINTENANCE INSTRUCTIONS**FPU® SYSTEMS OPERATION MANUAL
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3
BOH FPU Field Pack-up Units****PALLET LEDGE****INITIAL SETUP:****Materiel/Parts**

None

Personnel Required

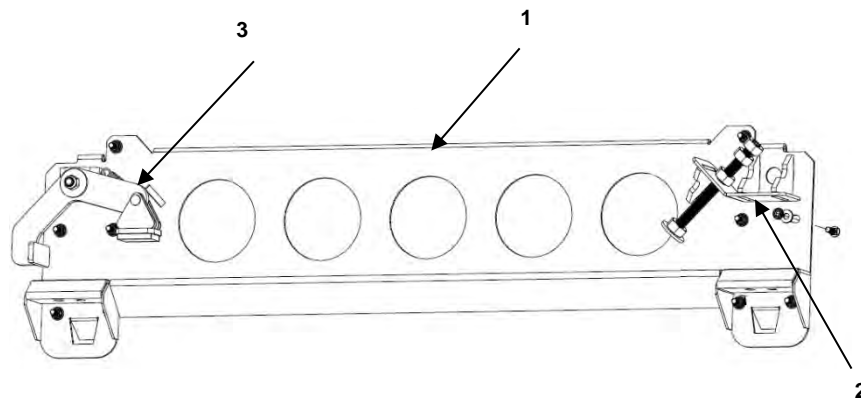
One

References

Chapter 2 WP 0006 00-17

Equipment Condition

FPU SYSTEMS Set-up

INSPECT

1. Remove pallet from container using a forklift
2. Inspect pallet ledges (1) for operation of Cam Locks (2), Lock Rods (3), and missing hardware.
3. Inspect pallet ledges for dirt/debris that would affect performance.
4. Clean and lubricate as required, see chapter 4 WP 0013 00 and 0014 00.

END OF WORK PACKAGE

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