

**CHAPTER 5**  
**MAINTENANCE INSTRUCTIONS**

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**MAINTENANCE INSTRUCTIONS  
FPU SYSTEMS OPERATION MANUAL  
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)  
FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3  
DOOR ASSEMBLY (FPU-12)  
INSPECT, SERVICE**

**INITIAL SETUP:****Materiel/Parts**

Lubricant (see Table 2 Lubrication in WP 0013)

**Personnel Required**

One

**Tools**

Rags, General Mechanic's Tool Kit, Ladder

**References**

WP 0013 00

**Equipment Condition**

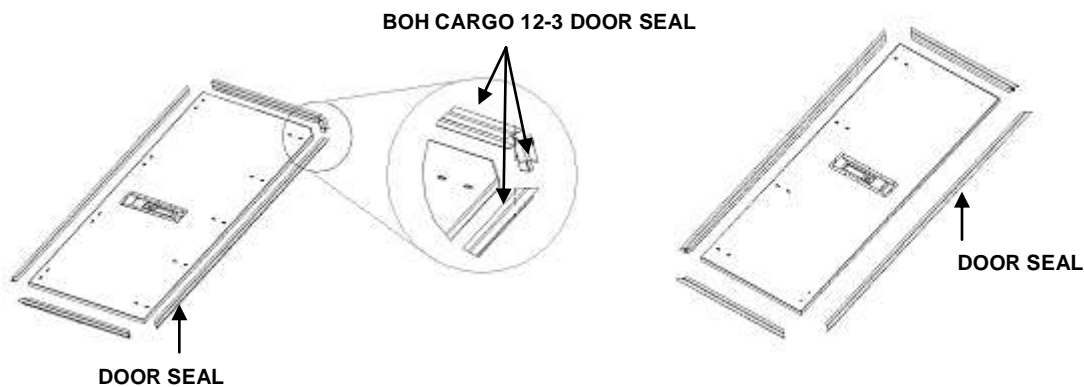
FPU SYSTEM Set-up

**INSPECT**

With doors open, inspect seal surfaces, and report problems with door seal to direct support maintenance.

**SERVICE**

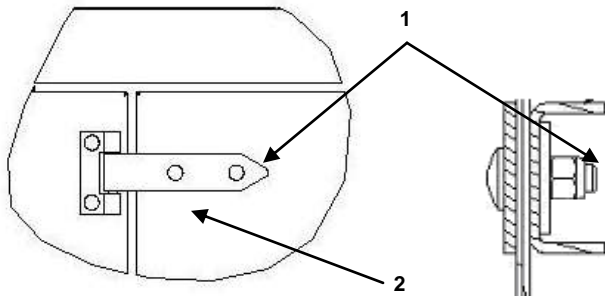
1. Wipe seal surfaces clean and apply a light coat of lubrication (refer to Table 2 Lubrication in WP 0013) to seal mating surfaces.
2. Report gouges, cracks, rips, tears, etc. in door seal to direct support maintenance.

**WARNING**

Ensure the container is out of the wind before attempting repair of the doors.

**ALIGN**

Refer to door diagram, (WP 0022 00-2 and WP0022 00-3)

**Align doors 2, 3, 8 and 9 as follows:**

1. Ensure the container is on a level surface.
2. Remove drawers/pallets directly behind the door to be aligned.
3. With door in the open position loosen hinge bolts on the door that the misaligned door is attached to. Do not loosen the bolts on the hinges that are on the misaligned door.
4. Close the misaligned door leaving the opposite door open to allow access for measurements.
5. Using a pry bar, center door with equal distance from top of door edge to header and bottom door edge to threshold.
6. Retighten bolts on the door hinges.
7. Reopen the door be aligned.
8. Loosen the hinge locknuts on the door that is being aligned. Do not loosen the hinge locknuts on the door that the misaligned door is attached to.
9. Close the misaligned and opposite doors.
10. Retighten hinge locknuts on the misaligned door.

**Align doors 1, 4, 5, 6, 7, 10, 11 and 12 as follows:**

1. Ensure the container is on a level surface.
2. Remove drawers/pallets/modules directly behind the door to be aligned.
3. With door in the open position loosen hinge locknuts on the door to be aligned. Do not loosen the locknuts on the hinges that misaligned door is attached to.
4. Close the misaligned door leaving the opposite door open to allow access for measurements.
5. Using a pry bar, center door with equal distance from top of door edge to header and bottom door edge to threshold.
6. Retighten hinge locknuts.

7.

## REPLACE

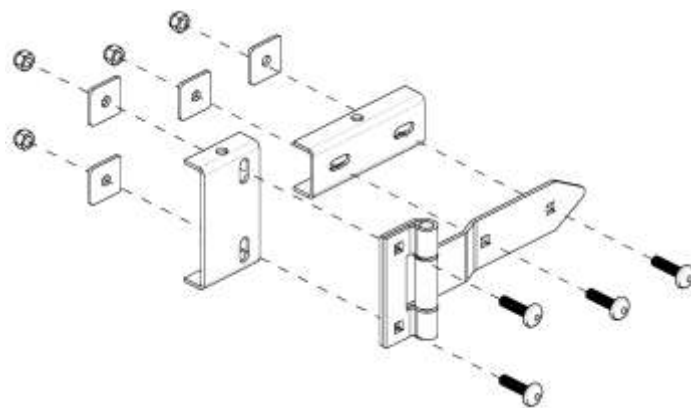
### Replacement of Door Hinge

1. Remove hinge bolts, locknuts and brackets (1), and hinge (2) to be replaced.

#### NOTE

Only replace one hinge at a time to avoid alignment problems.

2. Install and tighten brackets, bolts, locknuts (1), and replacement hinge (2).
3. Check door operation, alignment and align as required.



### Replacement of Door Assembly

Refer to door diagram, (WP 0022 00-2 and WP0022 00-3) and parts door assemblies required in WP 0038 00. The primary components are the door, handle assembly, hinges (1) carriage bolts (2) lock nuts (3) and door seals.

## REPAIR

### Repairs Requiring Welding

Welding repairs are only required when the FPU SYSTEM container is pierced, punctured, or cracked. Standard welding principles and materials apply to FPU SYSTEM repairs. Welding procedures will not be discussed in this tech manual refer to TM 9-237, Chapter 6

## END OF WORK PACKAGE

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**MAINTENANCE INSTRUCTIONS  
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FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**

**DOOR SEALS  
REPAIR, REPLACE**

**INITIAL SETUP:****Material/Parts**

Prescribed Door Seal Kit

**Personnel Required**

One

**Tools**

Ladder, Pocket Knife, ½ hp drill, 3/16" drill bit, pop rivet tool, needle nose pliers

**References**

WP 0038

**Equipment Condition**

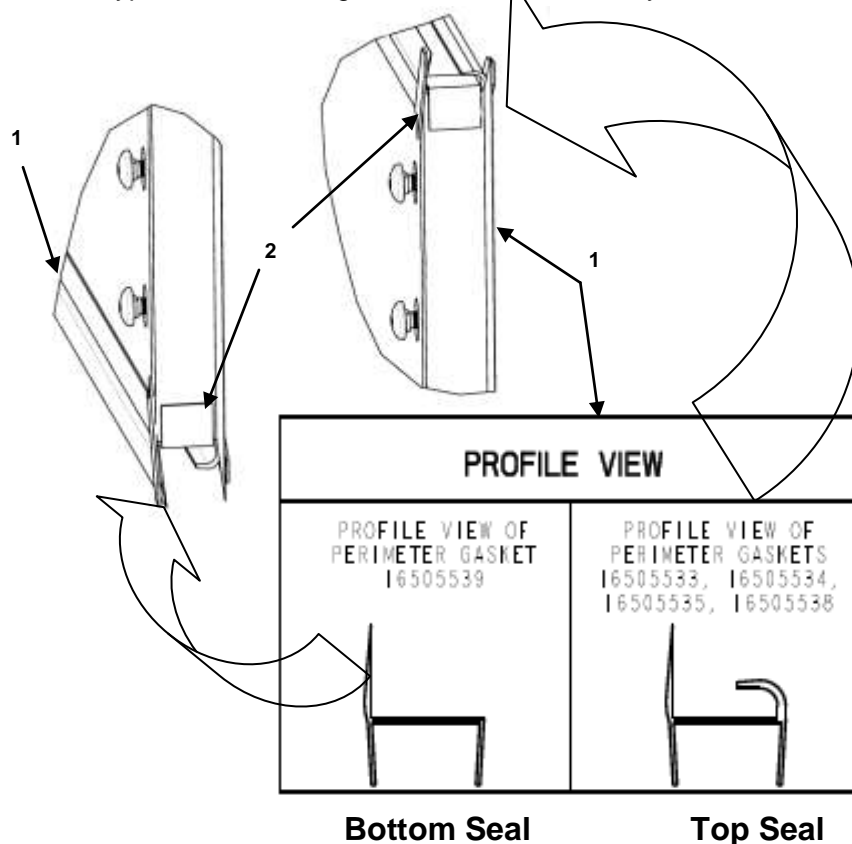
FPU SYSTEM Repair

**REPLACE**

The door perimeter seals (1) are secured with 3/16 x 14 pop rivets, the corner tab gaskets (2) are secured with adhesive provided with the door seal kit.

**Note**

Refer to door diagram, (WP 0022 00-2 and WP0022 00-3)  
The door type, number of hinges and door seal kits, vary with door location.



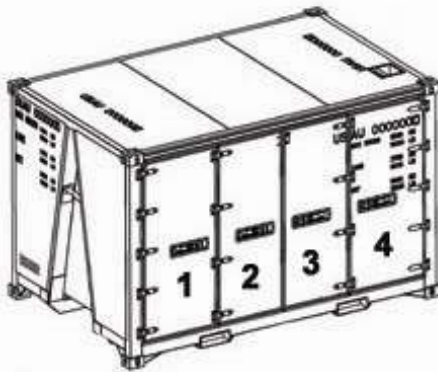
**WARNING**



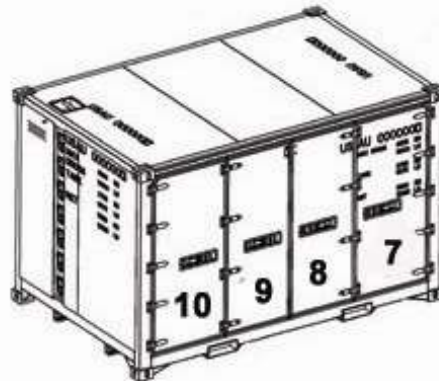
Ensure the container is out of the wind before attempting repair of the doors.

**Door Location Diagrams**

**CARGO 12-3 DOOR NUMBERS**



**STREET SIDE  
BAIL BAR END**



**CURB SIDE  
FOLDING STEPS END**

**FPU 8-4 DOOR NUMBERS**



**STREET SIDE  
STEPS END**



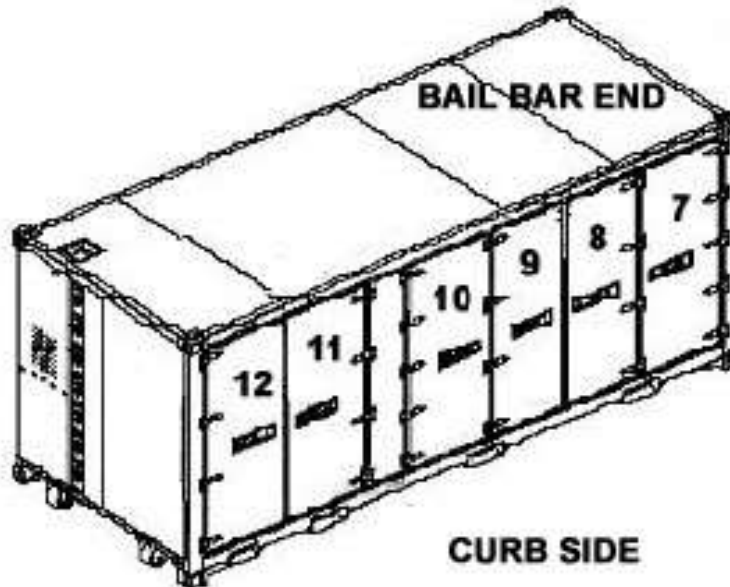
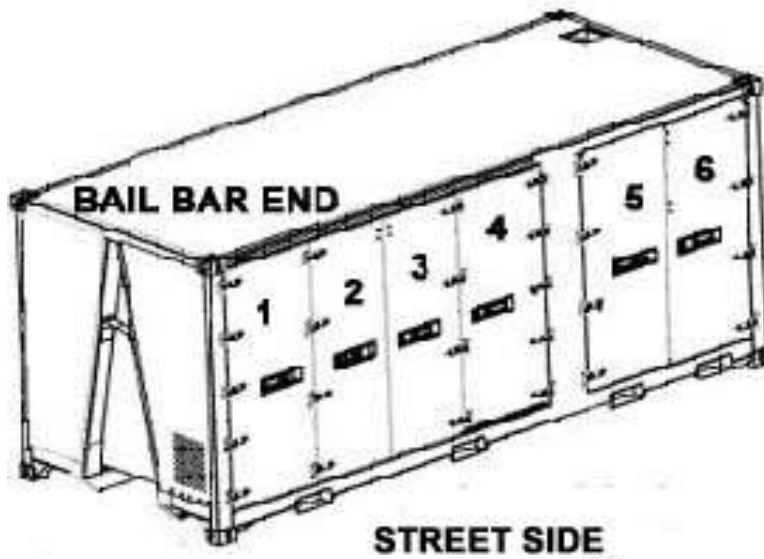
**CURB SIDE  
PLAIN END**

**WARNING**



Ensure the container is out of the wind before attempting repair of the doors.

**BOH CARGO 20-3 Door Diagram**



## Door Seal types and Profiles

### MODEL FPU-8-4/BOH-CARGO-12-3

Doors #1, #10, #4, #7, #5, #6, #11 and #12 have the upper corners cut on a bias to fit the container frame.

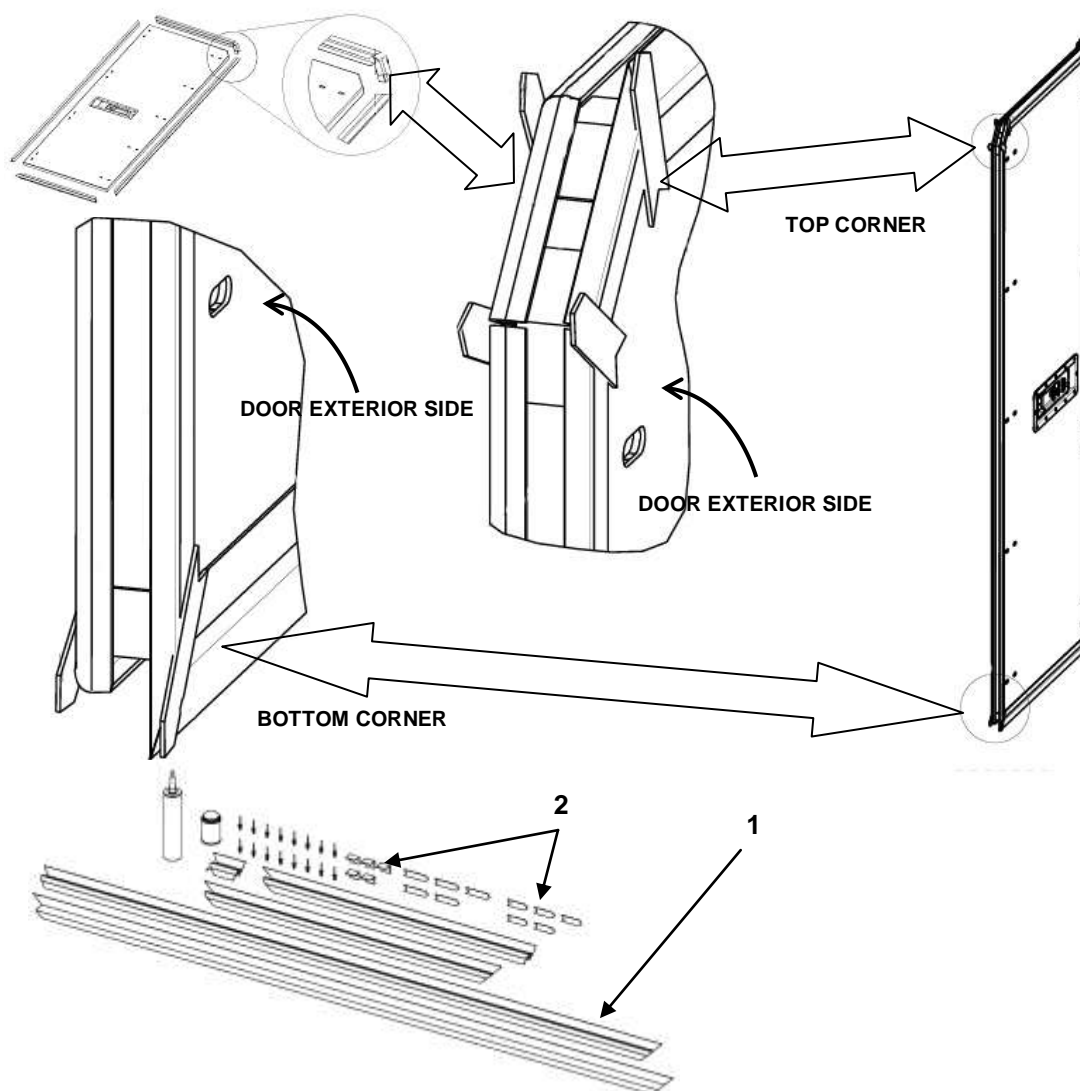
Refer to door diagram, (WP 0022 00-2 and WP0022 00-3) the seals (1) and gaskets (2) have been specifically designed for each door.

#### CAUTION

Ensure the proper seal kit for each door is available before starting.

See WP 0038 FPU-8-4/BOH-CARGO-12-3 and WP 0039 FPU-20-3 for door seal kits to the specific door.

1. Apply a ¼" wide bead of sealant to the inside of the perimeter seal (1) before installing the seal.
2. Align the rivet holes and install the pop rivets See page 0021 00-6
3. Gaskets (2) are used to cover mating seal segments and make the seal integrity continuous.



0021 00-4

## Door Seal types and Profiles

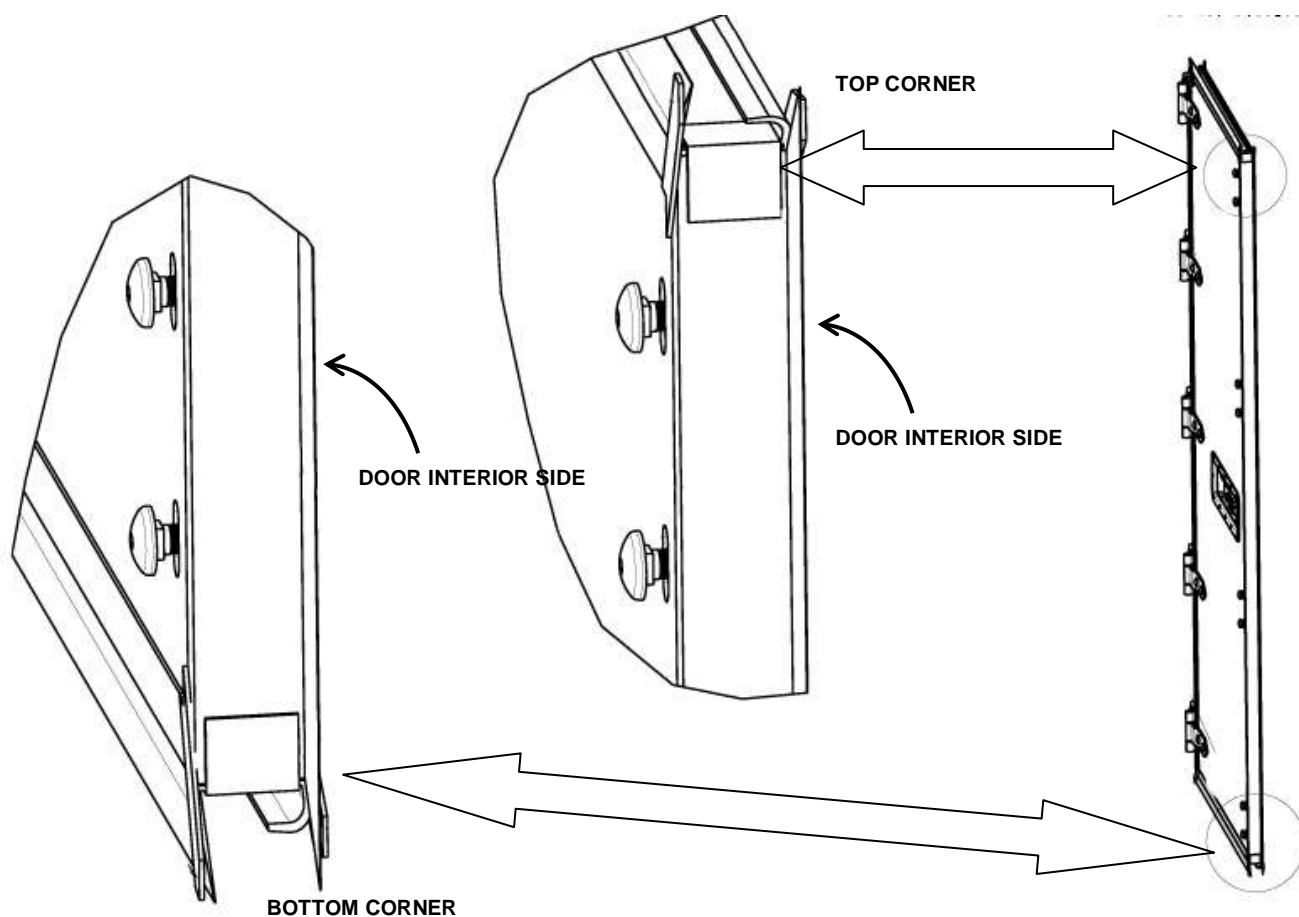
### MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3

Doors #2 and #3, #9 and #8 are rectangular bi-fold doors (See pages WP 0022 00-2 and 00-3)  
The seals (1) and gaskets (2) have been specifically designed for each door.

#### CAUTION

Ensure the proper seal kit for each door is available before starting.  
See WP 0038 FPU-8-4/BOH-CARGO-12-3 and WP 0039 FPU-20-3 for door seal kits to the specific door.

1. Apply a ¼" wide bead of sealant to the inside of the perimeter seal (1) before installing the seal.
2. Align the rivet holes and install the pop rivets (See page 0021 00-6)
3. Gaskets (2) are used to cover mating seal segments and make the seal integrity continuous.



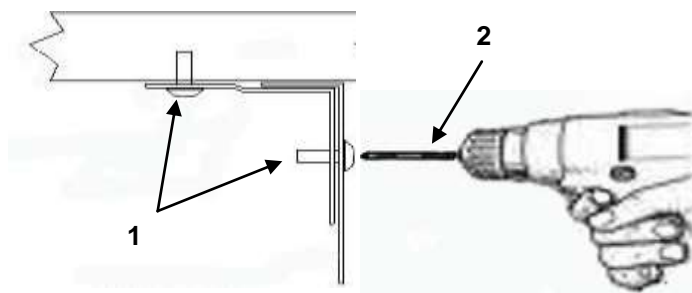
## Remove and Replace Seal Rivets

1. Wipe the rivet surfaces clean, use a 1/2 hp electric drill (1) with a 3/16" drill bit (2), and drill through the center core of the rivet.



### **WARNING**

Use proper eye protection when operation a drill.



2. Remove the remainder of any pop rivet debris with needle nose pliers and wipe the hole clean with a rag.
3. Remove the seal and install the new seal.
4. Insure the holes properly are aligned.
5. Insert a new pop rivet, 3/16" DIA through the holes of seal and door to be installed (aligning top and bottom).
6. Use the pop rivet tool (3) to secure each pop rivet and seal in place.
7. Check for proper alignment and tight attachment of the seal.
8. Install new gaskets with sealant and adhesive to cover the mating edges of the seals.
9. Ensure the seal surfaces are dry and clean before applying adhesive.
10. Close the door and inspect the seal for proper fit.



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FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**

**VERTICAL RACK FRAME**

**REPAIR, REPLACE**

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**INITIAL SETUP:****Material/Parts****Personnel Required**

One

**Tools**

Ladder

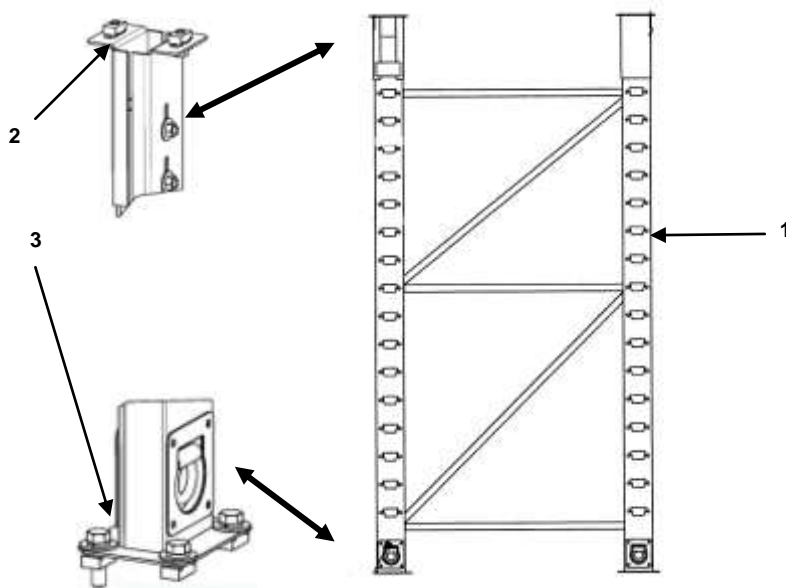
**References****Equipment Condition**

FPU SYSTEM Set-up

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**REPAIR**

Welding repairs are only required when the FPU SYSTEM container is pierced, punctured, or cracked. Standard welding principles and materials apply to FPU SYSTEM repairs. Welding procedures will not be discussed in this manual. Refer to TM 9-237, Chapter 6 for welding procedures.

**REPLACE**

**REPLACE**

1. Remove all drawers/pallets, drawer/pallet ledges that are attached to the vertical rack frame (1) to be replace (refer to WP 0038 00 and 0039 00 for drawer and pallet ledge removal procedures)
2. Remove the 1/2-inch hex head bolts from the upper rack attachment assembly (2) and vertical rack frame base using a 3/4-inch socket with ratchet.
3. Slide the rack upper attachment assembly (2) down and remove vertical rack frame.
4. Insert the repaired/replacement vertical rack frame in the approximate position.
5. Attach upper attachment assembly (2) and vertical rack base with 1/2-inch hex head bolts (Apply Locktite 262 to bolt threads). Hand-tighten only.
6. Reattach drawer/pallet ledges in their desired positions (refer to WP 0038 00 and 0039 00 for drawer and pallet ledge install procedures)
7. If the vertical rack frame is being installed on a pallet-configured container use the pallet ledge stabilizer to obtain proper spacing by attaching but not tightening the stabilizer.
8. For parts configured container use the following table to obtain proper spacing:

30-Inch Drawers	29-7/8 Inches
48-Inch Drawers	47-5/8 Inches

9. Tighten all 1/2-inch bolts on the rack upper attachment (2) and vertical rack frame base (3) using a 3/4-inch socket with ratchet.
10. Reattach drawers/pallets to vertical rack frame (refer to WP 0038 00 and 0039 00 for drawer and pallet install procedures).

**END OF WORK PACKAGE**

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FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**

**FOLDING STEPS**

**INSPECT, SERVICE, REPLACE**

**INITIAL SETUP:**

**Materiel/Parts**

Lubricant

**Personnel Required**

One

**Tools**

General Mechanic's Tool Kit/Ladder

**References**

WP 0013 00

**Equipment Condition**

FPU SYSTEM Set-up

**INSPECT**

Raise and lower each of the steps (1) to ensure they stow and operate properly.

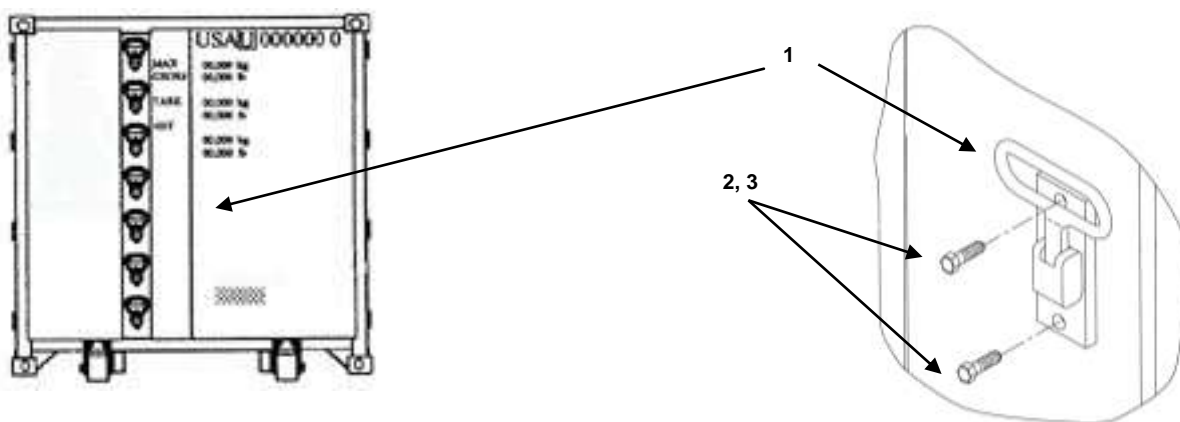
**SERVICE**

Apply 10W lube oil between the moving parts.

**REPLACE**

1. Remove the mounting bolts and washers (2, 3) with a 9/16 inch socket and ratchet.
2. Install replacement step (1) apply Locktite 262 to the bolt threads, replace bolts and washers (2, 3) with the 9/16 socket and ratchet.

**FPU SYSTEM FOLDING STEPS**



**END OF WORK PACKAGE**

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**MAINTENANCE INSTRUCTIONS**  
**FPU SYSTEMS OPERATION MANUAL**  
**(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)**  
**FOR**  
**MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**  
**VERTICAL RACK FRAME (FPU-12)**  
**INSPECT, SERVICE**

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**INITIAL SETUP:****Materiel/Parts**

Rags, Water

**Personnel Required**

One

**Tools**

General Mechanic's Tool Kit/Ladder

**References**

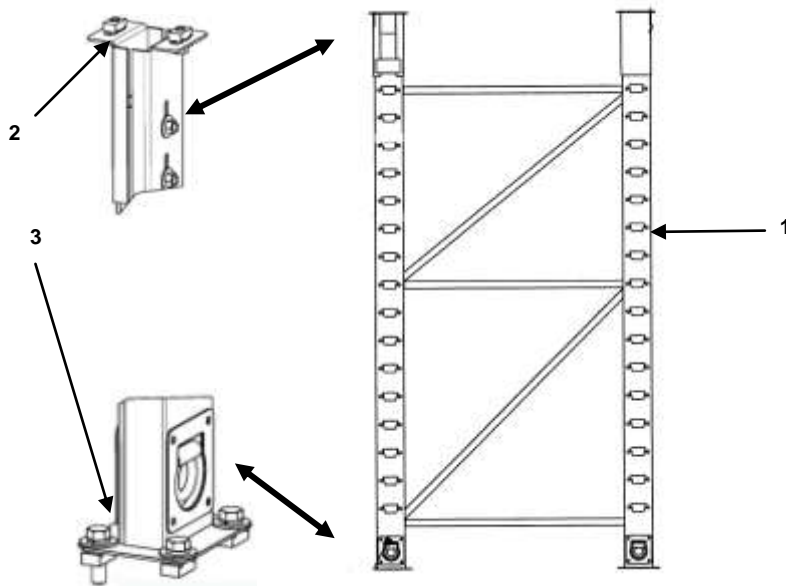
WP 0005 00

**Equipment Condition**

FPU SYSTEM Set-up

**INSPECT**

1. Inspect the vertical rack frame (1) for cracks, excessive dents or bending. Report to unit maintenance for repair or replacement.
2. Inspect vertical Rack upper attachment assembly (2) for cracks, excessive dents or bending. Report to unit maintenance for repair or replacement.
3. Inspect vertical rack frame for damaged or missing grip bolts (3). Report to unit maintenance for repair or replacement.

**SERVICE**

Wipe surfaces using a wet, soapy rag as necessary to keep equipment clean.

**END OF WORK PACKAGE**

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**MAINTENANCE INSTRUCTIONS  
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FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**

**LOAD CONSTRAINT BAR (FPU-12)**

**INSPECT, REPLACE, REPAIR**

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**INITIAL SETUP:****Materiel/Parts****Personnel Required**

One

**Tools**

Ladder

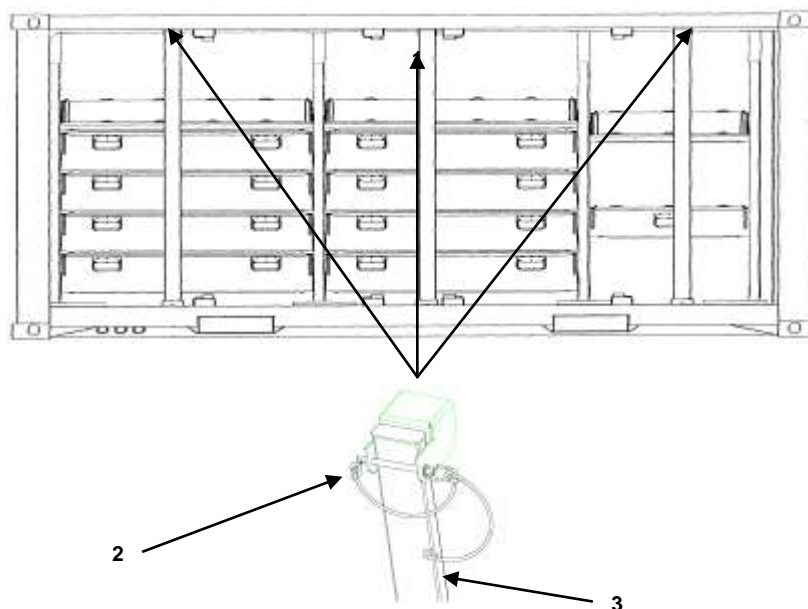
**References****Equipment Condition**

FPU SYSTEM Set-up

---

**INSPECT**

Inspect the Load Constraint Bars (1) for presence and proper fit.

**REPLACE**

Replace hairpin (2) by feeding a new hairpin (2) onto the lanyard.

**REPAIR**

1. Using a #11 drill bit, drill out the old rivet (3) that attaches the constraint bar securing assembly.
2. Attach new securing assembly with a 3/16-inch closed-end rivets.

**END OF WORK PACKAGE**

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

**DRAWER ASSEMBLY  
INSPECT, SERVICE, REPLACE**

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**INITIAL SETUP:****Materiel/Parts**

Rags, Water

**Personnel Required**

One

**Tools**

General Mechanic's Tool Kit

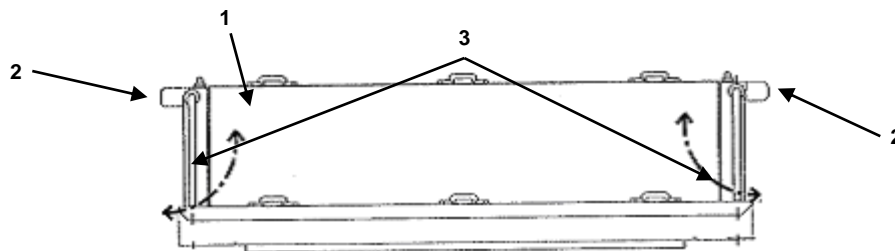
**References**

WP 0006 00

**Equipment Condition**

FPU SYSTEM Set-up

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**INSPECT**

1. Inspect drawer (1) for cracks, excessive dents or sagging. Notify Direct Support if any repairs are necessary. Replace drawer if necessary.
2. Open and close drawer assemblies (1) following steps outlined in (WP 0006 00) to ensure proper operation (opens/closes without any binding, drawer stops work properly). Notify Direct Support if any repairs are necessary.

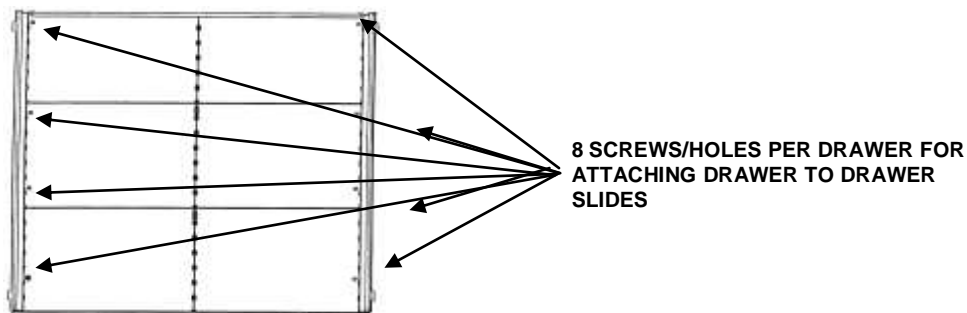
**SERVICE**

1. Remove debris and trash from drawer (1) as necessary.
2. Wipe Drawer (1) interior and exterior with a wet rag as required.

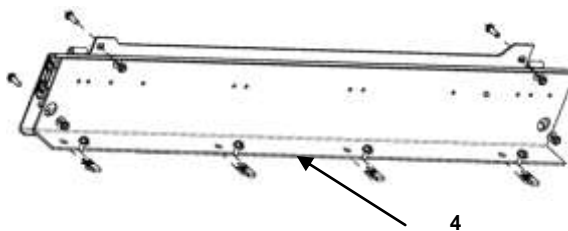
## REPLACE

Replace drawer assembly if required. Drawer must be replaced if the locking tabs (2) or handles (3) fail to hold the drawer in the open or closed position and if there is excessive sagging or bending.

To replace:



1. Fully extend drawer to the open position. (If drawer will not stay in the open position this task will require two people. One to hold the drawer in the extended position and the other to perform drawer removal task).
2. Remove all stored material from drawer.
3. Remove eight ¼-inch screws located in the bottom of the drawer at either side.
4. Lift drawer from slide ledge ( 4).



## CAUTION

If a bolt is lost or damaged beyond use, obtain a replacement. Do not install with less than the proper number of bolts or equipment damage may occur.

5. Position new drawer on the slide ledge being careful to align mounting holes.
6. Install eight ¼-inch screws and slightly hand-tighten.
7. After hand tightening, push drawer completely closed and pull back to the full open position to allow drawer to seat into its proper location on the drawer slide ledge.
8. Being careful not to over tighten, secure the eight ¼-inch mounting screws.

## END OF WORK PACKAGE

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**MAINTENANCE INSTRUCTIONS  
FPU SYSTEMS OPERATION MANUAL  
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)  
FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3  
DRAWER SLIDE  
INSPECT, SERVICE, REPLACE**

---

**INITIAL SETUP:****Materiel/Parts**

Rags, Water

**Personnel Required**

Two

**Tools**

General Mechanic's Tool Kit

**References**

WP 0005 00, 0006 00

**Equipment Condition**

FPU SYSTEM Set-up

---

**INSPECT**

1. Inspect drawer BOH CARGO -12-3 and FPU-20-3 drawer slides (1) for operation, missing hardware per WP 0006.
2. Inspect drawer BOH CARGO -12-3 and FPU-20-3 drawer slides (1) for dirt/debris that would affect performance.

**SERVICE**

Wipe surfaces as necessary to keep equipment clean.

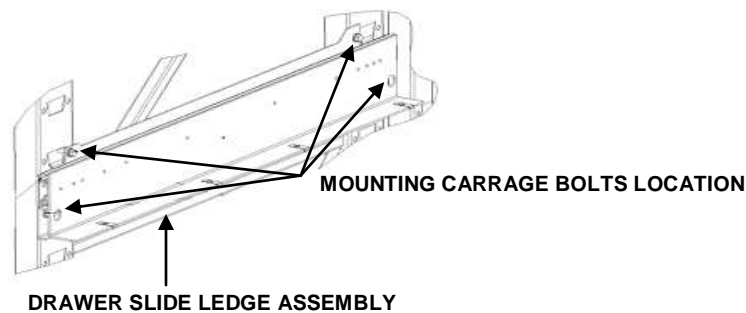
**REPLACE**

1. Fully extend drawer to the open position. (If drawer will not stay in the open position this task will require two people. One to hold the drawer in the extended position and the other to perform drawer removal task).
2. Remove all stored materiel from drawer.

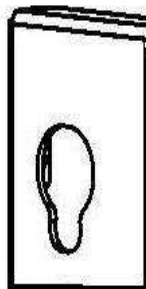
**CAUTION**

If a bolt is damaged beyond use, obtain a replacement. Do not install with less than the proper number of bolts or damage to equipment may occur.

3. Loosen but do not remove the four ¼-inch nuts on the carriage bolts using a ¼-inch socket with ratchet and extension.



4. Slide ledges are retained on the vertical rack frame by four bayonet tabs protruding into the windows of the vertical rack frame. This requires the ledge to be loosened from the vertical rack frame. While one person securely holds the slide ledge, the second person applies an upward force by tapping the underside of the slide ledge at the attached points with a 2 x 4 soft wooden block or similar material.
5. Place the drawer slides ledges in their desired positions by inserting the bayonet tabs into the vertical rack frame windows while aligning the four carriage bolts into their appropriate slots. Slots are tear drop to retain the head of the ¼" carriage bolts. Tap down on the ledge a 2 X 4 soft wooden block or similar material. Ensure the carriage bolts drop completely down in the slots.



TEARDROP SLOT

6. Apply Locktite 262 red to the four ¼-inch on the carriage bolts.
7. Tighten drawer slide ledge to rack frame by tightening the four ¼ -inch carriage bolt nuts bolts using a ¼ -inch socket with ratchet and extension.
8. Position new drawer on the slide ledge being careful to align mounting holes.
9. Install eight ¼-inch screws and slightly hand-tighten.
10. After hand tightening, push drawer completely closed and pull back to the full open position to allow drawer to seat into its proper location on the drawer slide ledge.
11. Being careful not to over tighten, secure the eight ¼-inch mounting screws.
12. Reinstall drawer in accordance with WP 0006 00.

**END OF WORK PACKAGE**

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FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3  
PALLET  
INSPECT, SERVICE, REPLACE**

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**INITIAL SETUP:****Materiel/Parts**

Rags, Water

**Personnel Required**

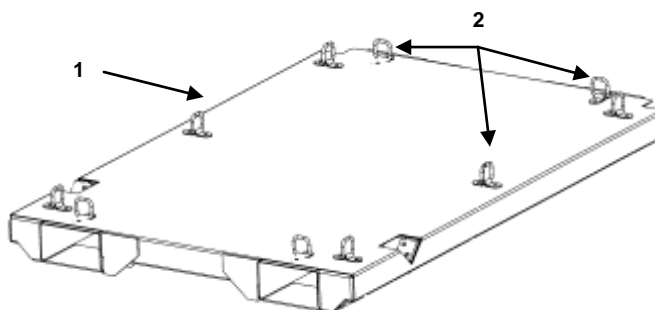
One

**References**

WP 0005 00

**Equipment Condition**

FPU SYSTEM Set-up

**INSPECT**

1. Inspect pallet (1) for cracks, excessive dents or sagging. Report to Direct Support maintenance for repair or replacement.
2. Inspect pallet for missing or damage D-rings (2). Report to Unit maintenance for repair or replacement.

**SERVICE**

Wipe surfaces as necessary to keep equipment clean.

**REPLACE**

Refer to the pallet operation steps in WP 0006 for replacement of pallets.

**END OF WORK PACKAGE**

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FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**

**PALLET LEDGE  
INSPECT, SERVICE, REPLACE, REPAIR**

**INITIAL SETUP:****Materiel/Parts**

Rags, Water

**Personnel Required**

One, General Mechanic's Tool Kit

**References**

WP 0005 00

**Equipment Condition**

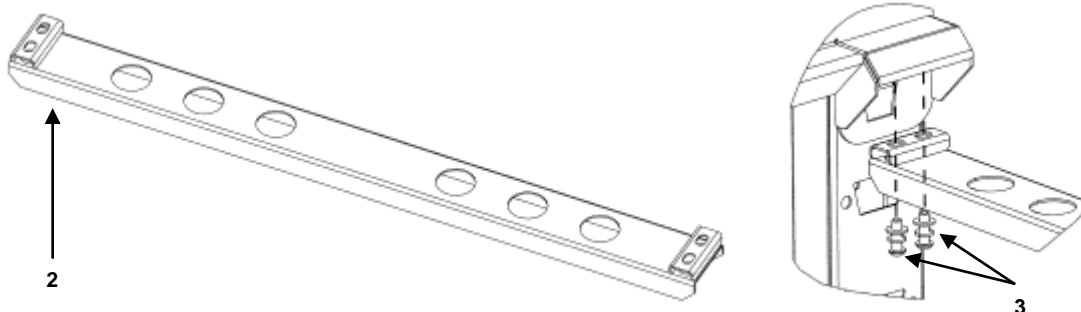
FPU SYSTEM Set-up

**INSPECT**

1. Inspect pallet ledges (1) for cracks or excessive bends. Report to Direct Support for repair.
2. Inspect pallet ledges for proper operation of cam locks and missing hardware.
3. Inspect pallet ledges for dirt/debris that would affect performance.

**SERVICE**

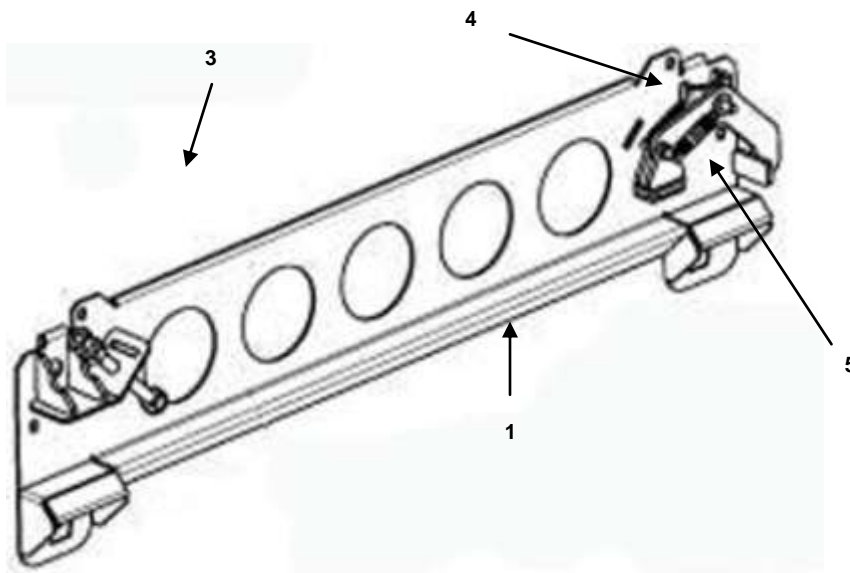
1. Wipe surfaces and cam lock mechanism as necessary.
2. Lubricate locking rod and cam locks as necessary (refer to WP 0013 00).

**REPLACE**

1. Remove pallet on ledge (1) to be replaced and any pallets located above a below to allow access.
2. Remove front and rear horizontal stabilizers (2) by removing the eight 3/16-inch hex head drive sockets and 3/8-inch ratchet with extension (refer to BII list in WP 0041 00).
3. Loosen but do not remove the ten carriage bolt nuts using 1/4 -inch socket and ratchet with extension from the two pallet ledges on the vertical rack frame.

**CAUTION**

If a bolt is damaged beyond use, obtain a replacement. Do not install with less than the proper number of bolts or damage to equipment may occur.



4. Pallet ledges (1) ledges are retained on the vertical rack frame by ten ¼-inch carriage bolts and four bayonet tabs protruding into the windows of the vertical rack frame. This requires the ledge to be loosened from the vertical rack frame. While one person securely holds the pallet ledge, the second person applies an upward force by tapping the under side of the ledge at the attached point with a 2 X 4 soft wooden block or similar material.
5. Place new pallet ledges in their desired positions by inserting the bayonet tabs into the vertical rack frame windows while aligning the ten carriage bolts into their appropriate slots. Ensure that pallet ledges are at same height in the vertical rack frame. Ensure all bayonet tabs have engaged the vertical rack frame windows before tapping into place. Tap down on the ledge with a 2 X 4 soft wooden block or similar material. Ensure the carriage bolts drop completely down in the slots.
6. Apply Loctite 262 red to the ten ¼-inch on the carriage bolts.
7. Tighten the ten carriage bolt nuts using a ¼-inch socket, ratchet and extension.
8. Reinstall rear pallet ledge horizontal stabilizer with the four Allen bolts using 3/16-inch hex head driver socket and 3/8-inch ratchet with extension (refer to BII list in WP 0041 00).
9. Reinstall front pallet ledge horizontal stabilizer with the four Allen bolts using 3/16-inch hex head driver socket and 3/8-inch ratchet with extension (refer to BII list in WP 0041 00).
10. Reinstall pallet.

**REPAIR**

1. To repair the pallet ledge cam lock (5) the pallet ledge will have to be removed. To remove the pallet ledge (1) to be repair, follow steps 1 through 9 above.
2. Remove the 1/2-inch x 5/8-inch cam shoulder bolt and 1/2-inch lock nut using a 1/4-inch Allen wrench and 9/16-inch socket and ratchet.
3. Detach spring from pallet ledge.
4. Attach spring of the new cam lock assembly to the pallet ledge.
5. Attach new cam lock assembly to pallet ledge using the 1/4-inch Allen wrench and 9/16-inch socket and ratchet.
6. Attach cam lock to pallet ledge using 1/4-inch Allen wrench and 9/16-inch socket and ratchet.
7. Reinstall pallet ledge following steps 4 through 8 above.

**END OF WORK PACKAGE**

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**MAINTENANCE INSTRUCTIONS  
FPU SYSTEMS OPERATION MANUAL  
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)  
FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**

**FLOOR ADAPTER PLATE (FPU-8 and 8 ft compartment of the FPU-20-3)**

**INSPECT, SERVICE, REPLACE, REPAIR**

---

**INITIAL SETUP:****Materiel/Parts**

None

**Personnel Required**

Two

**Tools**

General Mechanic's Tool Kit MHE and lifting strap or sling

**References**

WP 0005 00, WP 0006 00

**Equipment Condition**

FPU SYSTEM Set-up

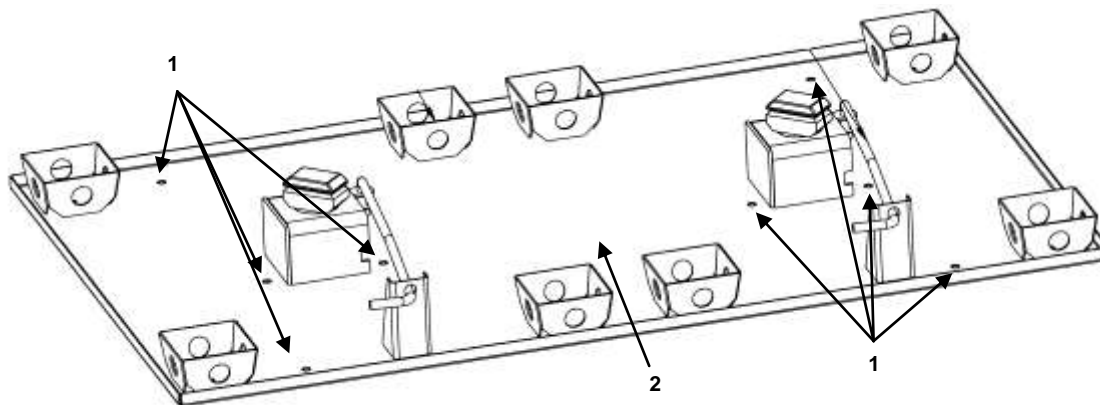
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**INSPECT**

1. Inspect for dirt and debris that could affect performance.
2. Inspect for cracks at the point where the twist lock and module receptacles are welded to the adapter plate. Report to Direct Support for repair.
3. Pull and push the lock handle to ensure locking devices operate correctly per WP 0006.

**SERVICE**

Wipe surfaces as necessary to keep equipment clean.

**REPLACE**

1. Remove both modules per WP 0007 00.
2. Remove twelve bolts (1) using 3/4-inch wrench.
3. Remove the Floor Adapter Plate (2) from the FPU-8 using MHE with sling or strap.
4. Position replacement Floor Adapter Plate using MHE and sling or strap inside FPU-8.
5. Replace twelve bolts using 3/4-inch wrench.
6. Replace both modules per WP 0007 00.

**REPAIR**

1. Remove the floor adapter plate (2) from the FPU-8.
2. Correct operator reported problems with Floor Adapter Plate as required.
3. Cracks may occur in corners and around mounting holes and bracket welds.
4. Repairs requiring welding will be made in accordance with standard Army welding principles in TM 9-237, Chapter 6.

**END OF WORK PACKAGE**

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**MAINTENANCE INSTRUCTIONS  
FPU SYSTEMS OPERATION MANUAL  
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)  
FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3  
FPU MODULE LOCK DEVICE (FPU-8)  
INSPECT, SERVICE, REPLACE, REPAIR**

---

**INITIAL SETUP:****Materiel/Parts**

Lubricant (see Table 2 Lubrication in WP 0013)

**Personnel Required**

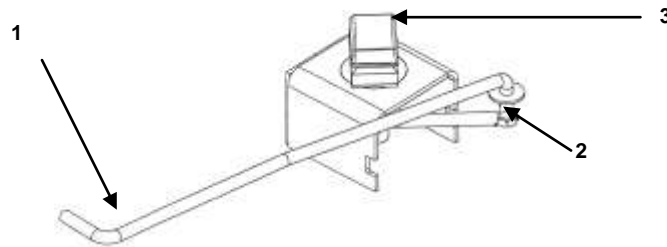
Two

**References**

WP 0005 00, WP 006 00

**Equipment Condition**

FPU SYSTEM Set-up

**INSPECT**

1. Pull and push to check lock device motion (3).
2. Inspect cotter pin (2) and handle operation.

**SERVICE**

1. Pull the Red handle ISO locking arm (1) out, into unlocked position.
2. Remove Module using appropriate MHE, lift module to clear cradles.
3. Lubricate moving parts.
4. Pick up module with drawers facing forklift.
5. Position module over cradles.
6. Lower module into cradles.
7. Push the Red handle ISO locking arm (1) into the locked position.

**REPLACE**

Replace modules per inserting module steps WP 0005.

**END OF WORK PACKAGE**

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**MAINTENANCE INSTRUCTIONS  
FPU SYSTEMS OPERATION MANUAL  
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)  
FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3**

**REAR ROLLER ASSEMBLY**

**INSPECT, SERVICE, REPLACE, REPAIR**

**INITIAL SETUP:**

**Materiel/Parts**

Rags, Water

**Personnel Required**

One

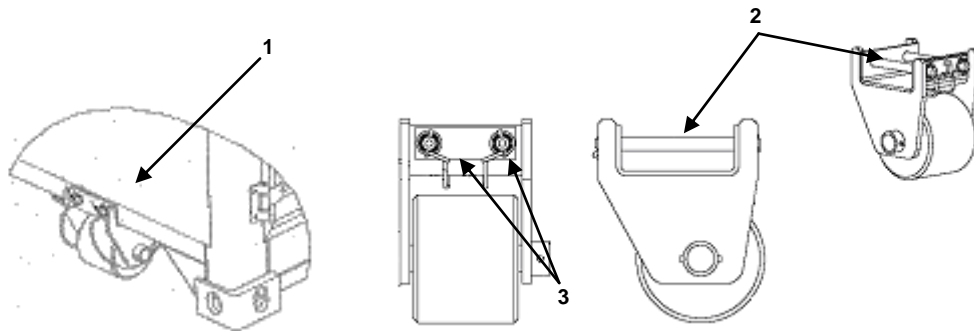
**References**

WP 0004 00, WP 0005 00

**Equipment Condition**

FPU SYSTEM Set-up (Rollers attached)

**INSPECT**



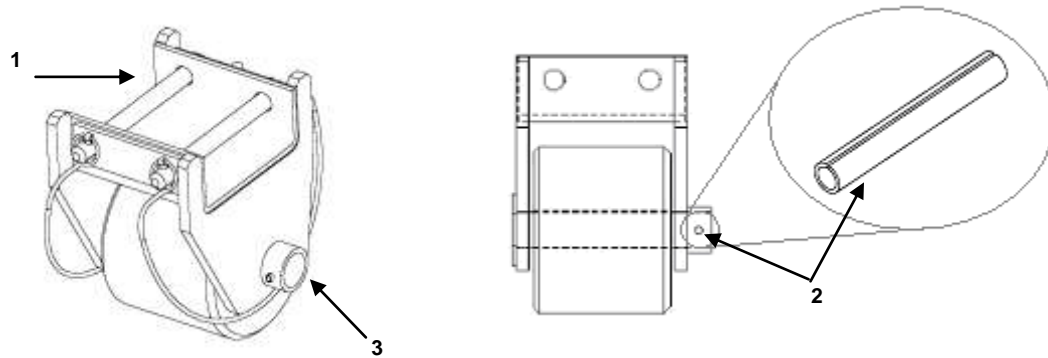
1. Inspect the rear roller assembly (1) for dirt/debris that would affect performance. Clean as required.
2. Inspect the rear roller assembly for the presence of connector pins (2) and Lynch pin retaining clips (3).

**SERVICE**

Remove debris from the roller assembly and clean with a wet rag.

**REPLACE**

1. Raise container by lifting with the HEMTT-LHS or properly rated forklift.
2. Remove the two 1/4-inch lynch pins from the rear of the rear roller assembly attaching pins.
3. While supporting the roller assembly, remove the 3/4-inch rear roller attaching pins.
4. Attach new rollers by aligning the holes in the rollers with the holes in the container and inserting 3/4-inch retention pins.
5. Reattach the 1/4-inch lynch pins to the rear of 3/4-inch rear roller attaching pins

**REPAIR**

1. Remove the roller assembly (1) from the FPU-8 and FPU 20 per WP 0004 00.
2. Drive the roller pin (2) with a 5/16-inch flat punch, holding retaining collar to roller pin assembly.
3. Remove retaining collar (3).
4. Slide roller pin (2) from roller frame (1).
5. Replace worn/broken parts.
6. Apply lubrication. Refer to WP 0017 Table 2.
7. Reinsert roller pin (2).
8. Reinsert the retaining collar (3) and secure with 5/16-inch rolled pin (2) with the hammer and flat punch.

**END OF WORK PACKAGE**

**MAINTENANCE INSTRUCTIONS  
FPU SYSTEMS OPERATION MANUAL  
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)  
FOR  
MODELS FPU-8-4/BOH-CARGO-12-3 & FPU-20-3  
CONNECTOR KIT  
INSPECT, SERVICE, REPLACE**

**INITIAL SETUP:****Materiel/Parts**

None

**Personnel Required**

Two (Plus one Supervisor)

**Tools**

General Mechanic's Tool Kit, Load Rail Connector Tools, Forklift, Ladder

**References**

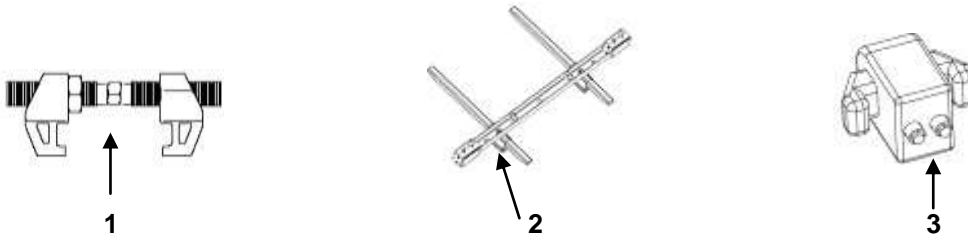
WP 0004 00 WP 0013

**Equipment Condition**

FPU-8-4/CARGO-12-3 SYSTEM Set-up

**INSPECT****NOTE**

Bridge Locks (1), Load Rail Connector (2), and horizontal interconnector (3) do not apply to the FPU-20-3 container.



1. Separate FPU SYSTEM containers per WP 0004 00.
2. Inspect Bridge Locks (1), Load Rail Connector (2), and horizontal interconnector (3) for lubrication and proper operation.

**SERVICE**

1. Clean using hot soapy water and lubricate the treads of the bridge locks (1) (refer to Table 2 in WP 0013 00).
2. Clean using hot soapy water and lubricate bolt treads on horizontal inter-connectors (3) (refer to Table 2 in WP 0013 00).
3. Clean using hot soapy water and lubricate transverse stabilizer tensioning blocks bolt treads (refer to Table 2 in WP 0013 00).
4. Clean using hot soapy water and lubricate loading rail connectors (refer to Table 2 in WP 0013 00).

### **Bridge Locks**

1. Clean bridge lock threads using a degreaser.
2. Lubricate the threads of the bridge locks (1) (refer to Table 2 in WP 0013 00).

### **Horizontal Inter-connectors**

1. Disassemble using 9/16-inch and 3/4-inch wrenches.
2. Thoroughly clean using a degreaser.
3. The horizontal inter-connectors have operating threads and pivot points that must always be coated with waterproof grease to insure trouble-free operation. Completely fill the inside cavity of the inter-connector with Molykote (refer to table 2 in WP 0013 00).
4. Rotate drive studs until threads are full out.
5. Coat exposed threads with the same grease.
6. Move studs in and out a few times to evenly distribute grease.
7. In long-term exposure to corrosive environments, it is suggested the entire connection be covered externally to prevent the loss of interior lubricant.

### **Transverse Stabilizer**

1. Clean using a degreaser.
2. Lubricate transverse stabilizer tensioning blocks bolt threads (refer to Table 2 in WP 0013 00).

### **Loading Rail Connector**

1. Clean using soapy water.
2. Lubricate loading rail connectors (refer to Table 2 in WP 0013 00).

### **REPLACE**

Connector components must be replaced if damaged. Remove and replace connector components as per WP 0004 00.

### **END OF WORK PACKAGE**