

**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**



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



FPU-20-3



**FPU-8-4 / BOH-CARGO 12-3
with Parts Storage Aids**



**FPU-20-3
with Bulk Storage Aids**

CAUTION: FPU-20-3 containers (modified) beginning with serial number AC15002003-002499 (manufactured September 2016) are compatible with Enhanced Containerized Handling Units (ECHU) in FLATRACK MODE that are installed on LHS and PLS vehicles. FPU-20-3 containers manufactured prior to this serial number and FPU-8-4/BOH-CARGO-12-3 containers are not ECHU-compatible.

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WARNING SUMMARY

This warning summary contains general safety warnings and hazardous materials warnings that must be understood and applied during operation and maintenance of this equipment. Failure to observe these precautions could result in serious injury or death to persons using equipment.



WARNING

Do not allow the system to swing if using an overhead lift. Always ensure an appropriate sling is used in the lift. Always use properly sized forklift, crane, or lifting device. Failure to comply could cause injury or damage to the equipment.



WARNING

Use extreme caution when loading or unloading the FPU to or from a transport vehicle. Keep hands, fingers, and feet clear of the container and components during this operation. Forklift support is required. Make sure all container connectors are properly seated and locked secure. Failure to comply could cause serious injury. Failure to follow proper connection procedures may result in damage to the equipment.



Standard forklift principles apply when working with or on the FPU container. Ground guides and the MHE operators must insure that personnel are clear of the containers during this operation. When working with ground guides during the loading or unloading, never move the container while the ground guide is unseen. Serious injury could occur if the ground guide is pinned between the FPU container and other objects. Forklift operators must maintain visual contact with their ground guides at all times.



Always follow standard forklift procedures. A tilt hazard exists when forklift operators try to lift a FPU container from the wrong side. Always lift a container via the forklift pockets that are provided. This places the heavier part of the load back into the tines versus out on the tips. A tilt situation exists when the heaviest part of the load is out on the tips of the tines, on uneven ground, with forks fully extended, and while traveling. Operators should always keep loads low and close to the forklift carriage. Operators should never travel when the load is in the fork's extended position.

WARNING



Fall hazards exist when climbing onto or working from the top of the container. Always maintain three points of contact to the ladder and container when climbing onto the container. Never move, step, or walk backwards when working on top of the system. All movement should be in the forward direction. A fall can occur if personnel lose concentration and step backwards off of the edge. Stand erect only if necessary and only away from the edge. Working from a kneeling position helps reduce the threat of a fall. The FPU may be used to store various forms of oils, lubricants, and other potentially slippery substances. Keeping the inside floor of the FPU clean is important, nevertheless, always move with caution inside of the FPU. Failure to maintain cleanliness and caution could cause a slip and injury.

WARNING SUMMARY

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WARNING

Do not allow the system to swing if using an overhead lift. Always ensure an appropriate sling is used in the lift. Always use properly sized forklift, crane, or lifting device. Failure to comply could cause injury or damage to the equipment.



WARNING

The modules and their contents are heavy and could cause injury if they fall onto or strike personnel. A tilt hazard exists when the module is either outside of the FPU container or inside the FPU container, but not locked down. As a rule, always work on one pallet or drawer at a time. Never have more than one drawer extended in the full open position at a time, especially if loaded. Personnel should never stand on a drawer or pallet.

WARNING



The module drawers and pallets can be heavy and awkward to handle by a single person. This is especially true of the larger components. The adjustment of these items is a two-person operation. While a forklift is not essential MHE support to hold the pallets in position while the hardware is installed and secured, it simplifies the effort. Do not try to adjust the pallets or drawers without assistance or MHE support. Ensure that all modules are properly locked down before any movement or transport of the containers.

WARNING SUMMARY

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ISO Container Overhead Power Line Warning.



WARNING

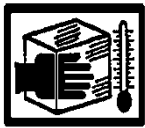
Overhead power lines and obstructions can cause serious injury or damage to property. Forklift operators, truck drivers, and ground guides should always clear overhead when loading, unloading, moving the FPU containers or when accessing the roof.

WARNING



Protective gloves should be worn when handling metal parts in high temperatures. Failure to wear gloves may result in burning or blistering of the skin upon contact.

WARNING



Protective gloves should be worn when handling metal parts in below freezing temperatures. Failure to wear gloves may result in skin freezing to the metal upon contact and cause tearing of the flesh when attempting to pull away from the metal.

WARNING



The FPU is NOT designed to be operated in contaminated NBC Environments. Do not operate the FPU in contaminated NBC environments. If possible cease operation of the FPU prior to a NBC event and do the following:

1. Close and secure all doors. External surfaces of the FPU's are CARC painted and can be decontaminated, however, whenever possible avoid contamination of the internal areas of the FPU's.
2. Decontaminate the exterior surfaces of the FPU in accordance with FM 3-5. Only Qualified NBC NCO's should check for residual contamination before opening the container.
3. Remain in MOPP 4 posture when opening the doors and have the NBC NCO check for contamination on interior surfaces. If thorough decontamination is required refer to NBC NCO and FM 3-5 for procedures.

GENERAL WARNINGS



HEAVY PARTS - heavy object on human figure shows that heavy parts present a danger to life or limb.



HEAVY PARTS - heavy object pinning human figure against wall shows that heavy, moving parts present a danger to life or limb.



HEAVY PARTS - hand with heavy object on top shows that heavy parts can crush and harm.



HEAVY PARTS - foot with heavy object on top shows that heavy parts can crush and harm.



SLICK FLOOR - wavy line on floor with legs prone shows that slick floor presents a danger for slipping or falling.



HEAVY OBJECT - human figure stooping over heavy object shows physical injury potential from improper lifting technique.



ELECTRICAL - electrical wire to arm with electricity symbol running through human body shows that shock hazard is present.



ELECTRICAL - electrical wire to hand with electricity symbol running through hand shows that shock hazard is present.



CRYOGENIC - hand in block of ice shows that the material is extremely cold and can injure human skin or tissue.



FIRE - flame shows that a material may ignite and cause burns.

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BOH FPU Field Pack-up Units**

REPORTING ERRORS & IMPROVEMENTS

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. Please let us know if you find any mistakes or if you know of a way to improve the procedures. You may send in your recommended changes by E-mail directly to: dcresap@bohfpusystems.com. A reply will be furnished directly to you.

Approved for public release; distribution is unlimited.

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HOW TO USE THIS MANUAL

This manual contains general information, operating instructions, Preventative Maintenance Checks and Services (PMCS), and maintenance/repair instructions for the FPU-8-4/BOH-CARGO-12-3 & FPU-20-3

Front matter consists of front cover, warning summary, title block, table of contents, "how to use this manual" pages, and provides information on the FPU and its associated equipment. Chapter 1 provides equipment description and data as well as the theory of operation. Chapter 2 provides instructions for operating under usual and unusual conditions. Chapter 3 contains troubleshooting procedures authorized at the Operator and Unit level. Chapter 4 contains Preventative Maintenance Checks and Services (PMCS) and Operator Maintenance Instructions. Chapter 5 contains Unit Maintenance Instructions. Chapter 6 contains the Maintenance Allocation Chart (MAC); it also includes the Repair Parts & Special Tools List (RPSTL) that identifies parts or tools unique to the operation and maintenance of the FPU.

Manual Organization and Page Numbering

This manual is divided into six major chapters that detail the topics mentioned above. Within each chapter are work packages covering a wide range of topics. Each work package is numbered sequentially at page 1, and has its own page numbering scheme that is independent of the page numbering used by other work packages. Each page of a work package has a page number of the form "XXXX YY-ZZ", where "XXXX YY" is the work package number (e.g. 0010 00 is work package 10) and "ZZ" represents the number of the page within that work package. Blank pages will be labeled "This page was intentionally left blank".

Finding Information

The Table of Contents permits the reader to quickly find information in the manual. The reader should start here first when looking for a specific topic. The Table of Contents lists the topics contained within each chapter and the work package sequence number where it can be found.

Types of notations

Warnings - Warnings are posted immediately prior to text covering any area that would present a situation that may result in injury or death. Compliance is mandatory.

Cautions - Cautions will be found on the same page and preceding the text covering any area that would present a situation that may result in damage to equipment.

Notes - Notes will precede text covering an area with the intent to alter normal procedures for unique situations or equipment, or point out areas of special concern.

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BOH FPU Field Pack-up Units**

CHAPTER 1

**INTRODUCTORY INFORMATION
WITH
THEORY OF OPERATION**

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INTRODUCTORY INFORMATION WITH THEORY OF OPERATION**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****GENERAL INFORMATION**

SCOPE**Equipment Covered**

This technical manual contains instructions for the operation, preventative maintenance, Unit and Direct Support corrective maintenance for the BOH FPU Cargo Containers (FPU) and its associated equipment.

Type of Manual

This is an Operator, Unit and Direct Support, Operation and Maintenance Manual, including Repair Parts & Special Tools List.

Equipment Name and Model Number

BOH FPU Cargo Containers

FPU- 8-4/BOH-CARGO-12-3
FPU-20-3

Purpose of Equipment

The FPU consists of modular containers with bin, pallet, security basket, and bulk storage configurations tailored to meet individual Supply/Maintenance/ Logistical Support needs. The system has the ability to operate in fixed facilities or field environments in either its uploaded or downloaded configuration. Containers are air-deployable and linkable into variable length sections. The FPU provides containerized Class I, II, III(P), IV, VII, VIII and IX storage with full strategic/tactical intermodal transportability for supply support activities.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your FPU needs improvement, let us know. Send us a description of the recommended change to dcresap@bohfpusystems.com. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

It is our understanding that Corrosion Prevention and Control (CPC) is a continuing concern for the military. While corrosion is typically associated with rusting of metals, it can also include deterioration of other material, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

All units must adhere to their specific corrosion maintenance plan. At a minimum, equipment should be inspected for corrosion on a quarterly basis (monthly if equipment is operated/stored in a high salt air environment). If corrosion is discovered, consult your unit/installation corrosion control manager to schedule repair. It is important that any corrosion problem with the FPU be reported so that the problem can be corrected and improvements can be made to prevent the problem in the future.

PREPARATION FOR STORAGE OR SHIPMENT

All preventative maintenance checks and services should be performed on the FPU and its components prior to any storage or shipment. Review chapter 4 WP 0012 00 and 0013 00.

RECEIVING THE FPU INVENTORY

Unpacking and Inventory of FPU Components upon Initial Receipt

With the FPU containers downloaded, check the equipment against the Components of End Item List and Basic Issue items List (WP 0040 00). Report any discrepancy to your supervisor.

END OF WORK PACKAGE

INTRODUCTORY INFORMATION WITH THEORY OF OPERATION

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

THEORY OF OPERATION

CONTAINER SYSTEM DESCRIPTION

BOH FPU Cargo Container Systems are a durable standardized storage and transport system capable of rapidly mobilizing material. These systems can be configured to store and transport small, medium, large, palletized and bulk material. The FPU 8-4/BOH-CARGO-12-3 and FPU-20-3 containers (20'L x 8'W x 8'H) are side-load containers with bi-fold doors. Both of these FPU containers can be transported by standard material handling equipment but have been specifically designed for direct load on to the Palletized Loading Systems (PLS) and HEMTT-LHS without the use of a PLS Flatrack.

CAUTION

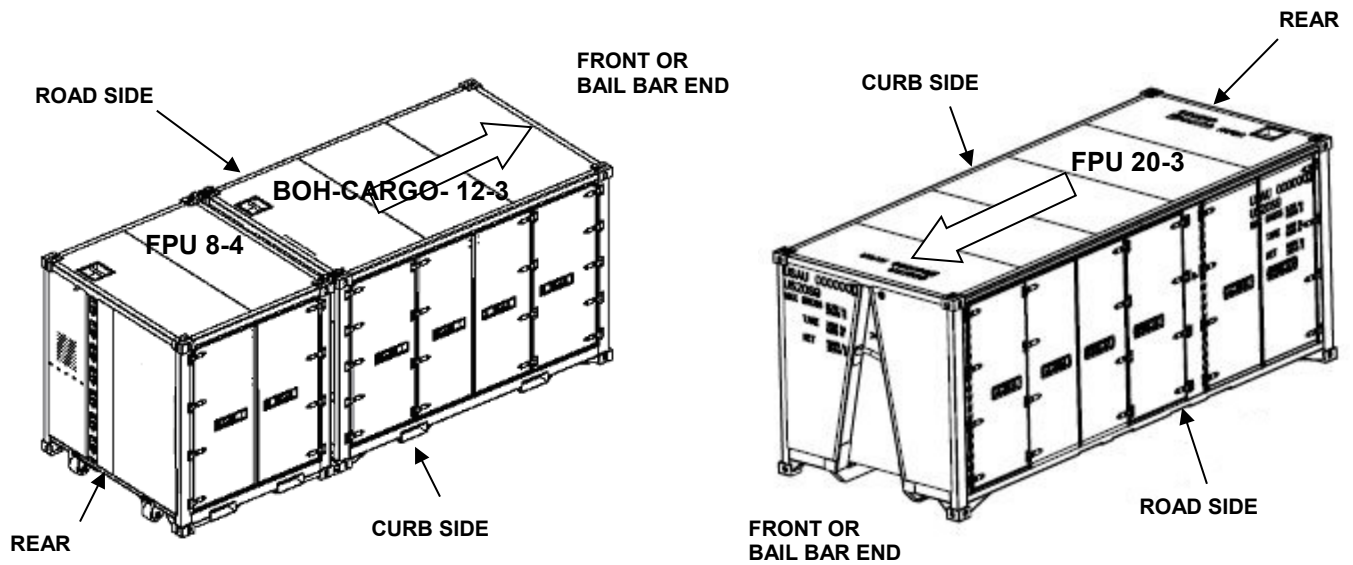
FPU-20-3 containers (modified) beginning with serial number AC15002003-002499 (manufactured September 2016) are compatible with Enhanced Containerized Handling Units (ECHU) in FLATRACK MODE that are installed on LHS and PLS vehicles. FPU-20-3 containers manufactured prior to this serial number and FPU-8-4/BOH-CARGO-12-3 containers are not ECHU-compatible.

These container systems are ISO Certified and CSC Safety Approved and can be stacked nine high onboard commercial or MSC container ships. FPU 8-4/BOH-CARGO-12-3 and FPU-20-3 maximum gross weight is 37,000 lbs. The BOH FPU containers come in two color variations: Forest Green and Desert Sand.

This manual will cover the FPU 8-4/BOH-CARGO-12-3 and FPU-20-3 and the variety of configurations for the internal storage aids.

CONTAINER ORIENTATION

FPU 8-4/BOH-CARGO-12-3 and FPU-20-3 orientation: When facing the side of the container and the bail bar is to your right, you are facing the curbside of the containers.



END OF WORK PACKAGE

INTRODUCTORY INFORMATION WITH THEORY OF OPERATION

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

EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES

CONTAINER DESCRIPTION

FPU 8-4/BOH-CARGO-12-3 and FPU-20-3 Container Configurations

The FPU 8-4/BOH-CARGO-12-3 and FPU-20-3 container systems are modular systems that can be configured with a variety of internal storage aids (see our web site at www.bohfpusystems.com for more information) to satisfy user needs. The following are storage aids that can be installed inside these containers:

- 19 standard removable storage modules for small and medium size material. These modules consist of 4-inch, 6-inch, 8-inch, 10-inch, 12-inch and 16-inch drawers.
- Flammable/Corrosive modules for storage of hazardous material.
- Weapons Vault module for the storage of M16, M4 and 9mm weapons.
- Bulk Module with 75% extension trays for large material, having a maximum payload weight of 1000 lb.
- Parts Racks with drawers for medium size material.
- Bulk Racks with pallets for palletized material.
- Tie down rings for oversize bulk material.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

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

The Field Pack-Up Unit (FPU) when joined in a twenty-foot configuration is capable of transport via the HEMTT-LHS or PLS utilizing the built in bail bar with rail system and removable rear rollers without use of a PLS flat-rack. This container system consists of a seven foot long container and a 12-foot 9-inch long container that when connected together with our ISO certified connectors form an 8' x 8' x 20' ISO certified container. This feature allows the container to be separated and moved when heavy MHE is limited or unavailable.

CAUTION

FPU-8-4/BOH-CARGO-12-3 containers are not compatible with Enhanced Containerized Handling Units (ECHU) installed on LHS or PLS vehicles.

FPU-8-4 Container

The FPU 8-4 container can be configured to accommodate up to four standard or specialized modules, up to two pallet racks, up to eight tie-down rings or a combination of these storage aids. The FPU-8-4 doors consist of 2 barn type doors (on each side), retractable roof access steps, door restraint straps and forklift pockets and a convection type ventilation system.

BOH-CARGO-12-3 Container

The BOH-CARGO-12-3 container can be configured to accommodate up to two pallet racks with special pallets, up to two parts racks with drawers or up to sixteen tie-down rings or a combination of these storage aids. The BOH-CARGO-12-3 doors consist of 2 bi-fold type doors (on each side), retractable roof access steps, door restraint straps and forklift pockets and a convection type ventilation system.

FPU-20-3 Container

The FPU-20-3 container can be configured to accommodate up to four standard or specialized modules, up to two large pallet racks, up to two small pallet racks, up to twenty-four tie-down rings or a combination of these storage aids. The FPU-20-3 consists of two barn style doors and two bi-fold doors (on each side), retractable roof access steps, door restraint straps and forklift pockets and a convection type ventilation system.

CAUTION

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BOH FPU STORAGE AIDS

Optional Standard Storage Modules

BOH Standard storage modules come in 19 configurations and are designed to accommodate small and medium material. Module drawers come in 4-inch with retention lid to secure small loose parts in individual compartments, 6-inch, 8-inch, 10-inch, 12-inch and 16-inch. Internal drawer dividers are adjustable every 2-inches front to back and are variable side to side depending on the drawer size. These modules are extremely rugged and were designed for the dynamics realized during mobile application. Drawers have a maximum capacity of 200 lbs. to 400 lbs. depending on the drawer size. Modules are secured to the FPU container with a twist lock located inside the container and female receptacle located on the bottom of the module. Using a forklift and the forklift pockets located at the bottom of the module, they can be easily removed by pulling the locking arm outward to release the module from the twist lock. Modules consist of a removable locking bar to secure drawers during transport, individual drawer locks and a dust cover to resist water and dust from penetrating the drawers when operating outside the FPU container. BOH Standard Storage Modules are approved for airlift with or without the FPU container. For more information about our standard storage modules see our web site at www.bohfpusystems.com.

Optional Specialized Storage Modules

Flammable / Corrosive Module: The BOH Flammable / Corrosive module is constructed to meet NFPA 30 and 29 CFR for the storage of hazardous material. These modules are extremely rugged and were designed for the dynamics realized during mobile application. It consists of dual wall construction with all steel exterior and spark resistant aluminum interior. Continuous welded drawers and floor area provide containment in the event of leaks. Drawer slides are designed using Ultra High Molecular Weight (UHMW) material to eliminate metal-to-metal contact and prevent sparks during transport. Door completely seals in the closed position to protect stored material from the environment during transport. This module consists of a pressure relief valve to normalize internal pressure prior to opening. For more information about our Flammable / Corrosive modules see our web site at www.bohfpusystems.com.

Weapons Vault Module: The BOH Weapons Vault module is constructed with a dual wall, all-steel exterior /interior and accommodates 5 weapons drawers or security drawers. There are currently three different weapons drawers. The M16A2 is designed to store M16 weapons. Each drawer can store up to 8 rifles or 40 weapons in a single module. The M4 is designed to store M4 weapons. Each drawer can store up to 7 weapons per drawer or 35 weapons in a single module. The M4 drawer is adjustable to accommodate either the short barrel or long barrel. M4 weapons can be stored in the drawers and module with the laser equipment sight and equipment attached at the top of the weapon. The 9MM drawer is designed to store 9MM weapons. Each drawer can store up to 56 weapons or 280 weapons in a single module. These modules are extremely rugged and were designed for the dynamics realized during mobile application. For more information about our Weapons Vault modules see our web site at www.bohfpsystems.com.

Optional Heavy Duty Retractable Shelves

The BOH FPU Bulk Module is designed for the storage of large heavy material. These modules are extremely rugged and were designed for the dynamics realized during mobile application. Shelf capacities are 1,000 lbs. Shelves are retractable to allow access to material stored at the rear of the shelf. Shelves lock in the closed and open position. Each shelf consists of a cargo net to secure material during transport. The Battery Shelf is rated at 2,250 lbs. and consists of an 8-inch lip around the perimeter and an acid resistant secondary containment liner. This shelf is designed for the storage of batteries and hazardous material such as package POL. For more information about our BOH FPU Bulk modules see our web site at www.bohfpsystems.com.

Bulk Storage Aids

The BOH Bulk Storage Aids are designed for the storage of bulk and/or palletized material. These racks and pallets are extremely rugged and were designed for the dynamics realized during mobile application.

Bulk Storage Aids for the BOH-Cargo-12 and front section of the FPU-20-3 consists of four vertical uprights that are mounted to the floor and ceiling of the containers, three 48-inch wide standard pallets, one 32-inch standard pallet, one 48-inch hazmat pallet with secondary containment and one 32-inch hazmat pallet with secondary containment. Each standard pallet comes with four 2-inch ratchet straps and the hazmat pallets come with cargo nets. Individual pallets are adjustable every 4-inches. Tie-down rings are located at the bottom of the vertical uprights to secure floor-loaded material. Each floor load position comes with a cargo net. Pallets are secured into position by a rear cam lock that engages when the pallet is inserted into the pallet ledge. The front of the pallet is secured using two jackscrews located on the front of the pallet ledges.

Bulk Storage Aids for the FPU-8-4 and rear section of the FPU-20-3 consists of two vertical uprights that are mounted to the floor and ceiling of the containers and two 67-inch pallets. Each standard pallet comes with four 2-inch ratchet straps. Individual pallets are adjustable every 4-inches. Tie-down rings are located at the bottom of the vertical uprights to secure floor-loaded material. Each floor load position comes with a cargo net. Pallets are secured into position by a rear cam lock that engages when the pallet is inserted into the pallet ledge. The front of the pallet is secured using two jackscrews located on the front of the pallet ledges.

For more information about our Bulk Storage Aids see our web site at www.bohfpsystems.com.

Parts Storage Aids

The BOH Parts Storage Aids are designed for the storage of medium size material. These trays and drawers are extremely rugged and were designed for the dynamics realized during mobile application. BOH Parts Storage Aids for the BOH-Cargo-12 and front section of the FPU-20-3 consists of four vertical uprights that are mounted to the floor and ceiling of the containers, eight 48-inch wide by 12-inch deep drawers, two 48-inch wide by 2-inch deep drawer, one 32-inch wide by 8-inch deep drawer and one 32-inch wide by 2-inch deep drawer. 8-inch drawers are provided with dividers that are adjustable every 2-inches front to back and are variable side to side depending on the drawer size. 2-inch drawers come with a cargo net to secure material during transport. Drawers have a maximum capacity of 150 lbs. Drawers consists of locks that secure the drawer in the closed and open position, a removable locking bar to secure drawers during transport and 100 percent extension drawer slides. For more information about our Bulk Storage Aids see our web site at www.bohfpusystems.com.

BOH FPU CARGO CONTAINER ACCESSORIES

Removable Module Cradle

The Removable Module Cradle consists of eight female receptacles, two twist locks and mounting hardware. This removable cradle accommodates two standard or specialized storage modules or one Bulk Storage Module unit.

Fork Pocket Adapter Plug (Applicable to the FPU-8-4/BOH-CARGO-12-3 container system only)

Designed to fit into the opening of the FPU 8-4 forklift pocket, the Fork Pocket Adapter Plug allows the container to be locked down onto the PLS trailer during rail transport. The fork pocket adapter plugs are stowed inside the FPU-8-4/BOH-CARGO-12-3 and inserted only when the container is loaded on the trailer and/or is being transported by train. For storage, removal, and installing the fork pocket adapter plugs, refer to chapter 2 WP 0005 00.

Rear Rollers

The rear rollers are detachable dual seven inch rollers mounted at the rear under the FPU 8-4 or rear of the FPU-20-3 container using two 3/4-inch pins. Once connected to the FPU-8-4/BOH-CARGO-12-3, it allows the 20-foot configuration to be loaded/unloaded on the HEMTT truck and PLS trailer using the bail bar and integrated loading rails. The rear rollers are stored in the FPU-8-4/BOH-CARGO-12-3 or FPU-20-3 when not in use. For storage, removal, and installing the rear rollers, refer to chapter 2 WP 0005 00.

Horizontal Interconnectors and Bridge Locks (Applicable to the FPU-8-4/BOH-CARGO-12-3 container system only)

The Horizontal Interconnectors used to lock our FPU-8-4/BOH-CARGO-12-3 container system together are ISO certified by ABS. These connectors were used during the container ISO certification process IAW ISO 1496-2. Horizontal interconnectors should be stored inside the FPU-8-4 or BOH-CARGO-12-3 when they are disconnected to prevent loss. These connectors must be installed in accordance with procedures described in chapter 2 WP 0005 00.

Bridge Locks (Applicable to the FPU-8-4/BOH-CARGO-12-3 container system only)

Bridge locks are used to provide extra security when the FPU-8-4/BOH-CARGO-12-3 are connected and the container system is to be transported using a PLS or HEMTT-LHS. Bridge locks must be removed prior to shipment of FPU-8-4/BOH-CARGO-12-3. These Bridge Locks must be installed in accordance with procedures described in chapter 2 WP 0005 00

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Loading Rail Connector Assembly

A loading rail connector assembly is also provided for connecting FPU 8-4 and BOH CARGO 12-3 containers. This assembly is stored with other connector kit items in the BOH CARGO 12-3 container.

EQUIPMENT DATA

FPU-8-4/BOH-CARGO-12-3 (when connected)

Length: 20-foot (6.1m)
Width: 8-foot (2.44m)
Height: 8-foot (2.44m)

FPU-8-4

Length: 7-foot (2.13m)
Width: 8-foot (2.44m)
Height: 8-foot (2.44m)

BOH CARGO-12-3

Length: 12.9 foot (3.93m)
Width: 8-foot (2.44m)
Height: 8-foot (2.44m)

FPU-20-3

Length: 20-foot (6.1m)
Width: 8-foot (2.44m)
Height: 8-foot (2.44m)

FPU CONTAINER WEIGHT TABLE (in lbs)

For Operations with HEMTT-LHS or PLS				
Container Type	Tare Weight	Max Gross Weight	Net (Cargo) Weight	MHE Recommended
FPU-8-4	3,655	18,000	14,345	20K Forklift
BOH-CARGO-12-3	6,075	19,000	12,925	20K Forklift
FPU-8-4/BOH-CARGO-12-3 (When connected)	9,730	37,000*	27,270	HEMTT-LHS, HEMTT-PLS or RTCH
FPU-20-3	8,660**	37,000*	28,340**	HEMTT-LHS, HEMTT-PLS or RTCH
<p>* When operating FPU-8-4/BOH-CARGO-12-3 or FPU-20-3 on a HEMTT-LHS, Max Gross Weight loaded into FPUs must be calibrated to comply with 26,000lb maximum restriction. ** FPU-20-3 tare weight applies to units beginning with serial number AC15002003-002499. Prior FPU-20-3 containers have a tare weight of 8,600 lbs.</p>				

END OF WORK PACKAGE

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INTRODUCTORY INFORMATION WITH THEORY OF OPERATION

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

EQUIPMENT DATA LABELS, IDENTIFICATIONS, MARKINGS AND AIRLIFT CERTIFICATION

AIRLIFT CERTIFICATIONS FPU-8 Container

Certified by U.S. Air Force for transport on C-130, C-5 and C-17 aircraft (18 July 2001)



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS AERONAUTICAL SYSTEMS CENTER (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

MEMORANDUM FOR: Defense Industrial Supply Center
Attn: Maureen Leiter
700 Robbins Ave Bldg 3 Section A
Philadelphia PA 19111

18 July 2001

FROM: ASC/ENFC (ATTLA)
2630 Loop Road West
Wright Patterson AFB, OH 45433-7101

SUBJECT: Air Transport Certification of BOH Environmental Field Pack-up Units (FPU-8 Series)

1. The subject Field Pack-up Units, FPU-8-1 and FPU-8-2, are steel containers measuring 84" L x 96" W x 92" H. The container has recessed pocket doors along its length and has ISO corner fittings on all eight corners. Up to four specialized storage/shipping modules may be mounted inside each FPU.
2. The above subject FPU-8-1 and FPU-8-2 are herewith approved for air transport aboard USAF C-130, C-141, C-5, and C-17 aircraft with the following provisions.
 - a. Maximum container weight shall not exceed 18,000 lbs. The specialized modules should not exceed 2,000 lbs each. Payload within the container may be in the modules or attached to the tie-down rings on the container floor.
 - b. The container shall be carried on a standard 463L HCU-6/E cargo pallet. Shoring at least 3/4" thick shall be placed between the container bottom and the pallet upper surface to distribute the load on the pallet and avoid point loading contact by the corner fittings or any projecting edge members. Shoring area requirements will vary with container weight and type of transport aircraft. For the maximum weight container, the shoring area shall equal the area of the container bottom.
 - c. The container shall be restrained to 3 G fwd, 2 G up, and 1.5 G aft & lateral using chains through the corner fittings. If the container weight exceeds 13,000 lbs, the container will require additional restraint directly to the aircraft floor after it is loaded onto the aircraft. The shipper shall certify that the cargo within the container is capable of withstanding these forces in addition to a potential 4.5 G download. The shipper shall also certify that the cargo within the container can withstand a potential in-flight rapid decompression of up to 8.3 psi within 1/2 second without endangering the aircraft or personnel in the cargo compartment. The container doors may be open during flight.
 - d. Any hazardous materials must be prepared and certified for airlift in accordance with AFJMAN 24-204/TM 38-250. This memo is not to be considered an approval for shipping hazardous materials, which must be granted separately. The servicing aerial port can assist in this regard.
3. A copy of this certification should accompany the containers when processed for air shipment.
4. The point of contact (refer to file 2001.06.11) is the undersigned at DSN 785-2330 or 937-255-2330. Additional POCs are Mark Kuntavanish at 56039, or Caroline Buckley at 59647.


JAMES E. LEGER
Aerial Delivery Group

cc:
HQ AMC/D OV
USA MTMC/TEA

Internal Air Transport Certification for 20-ft containers

FPU-20-2 containers are approved for air transport aboard C-130, C-17 and C-5 USAF aircraft as “20-foot ISO Containers certified by the Convention for Safe Containers (CSC)”. See Internal Air Transport Certification issued by ATTLA dated 29 June 2016 (file number 2008.09.15 Rev 6).

BOH FPU CARGO CONTAINER and CSC Data Plates

The BOH ISO data plates are affixed to the right-hand doors of each container, below the door handles. This plate identifies information required for transport aboard ship. The ABS data plate is located adjacent to the ISO data plate. This plate identifies special requirements information for use during transport aboard a ship.

FPU® SHIPPING / STORAGE CONTAINER SYSTEM	
MANUFACTURER ADVANCED CONTAINMENT SYSTEMS INC. 8720 LAMBRIGHT HOUSTON, TX. 77075 TEL. (713) 987-0336 FAX. (713) 987-0355	PATENT HOLDER / PRIME CONTRACTOR BOH FPU SYSTEMS BOH ENVIRONMENTAL, LLC 148 TERRA BELLA BLVD COVINGTON, LA 70433 TEL. (985) 674-0725
NSH	
MODEL NO.	
MANUF. P/N	
PATENT NO.	BOHFPU SYSTEMS.COM/PATENTS
SERIAL NO.	
DATE MANUF.	
CONTRACT NO.	
DO NO.	
MAXIMUM GROSS WEIGHT	
GROUND	KG LB
AIR	KG LB

APPROVED FOR TRANSPORT UNDER CUSTOMS SEAL		
USA/174-AB/03-01		
TYPE	MFG. No. OF CONTAINER	
FPU 8-3	AC000803-	
MANUFACTURER ADVANCED CONTAINMENT SYSTEMS INC. 8720 LAMBRIGHT HOUSTON, TX. 77075 TEL.(713) 987-0336 FAX(713)987-0355	APPROVED BY AMERICAN BUREAU OF SHIPPING AB/174/03	PATENT HOLDER / DISTRIBUTOR BOH FPU SYSTEMS BOH ENVIRONMENTAL, LLC 1488 JACON PARKWAY, SUITE 200 CHANTILLY, VA 20151 TEL.(703) 448-8020
CSC SAFETY APPROVAL USA/AB - 174/03 -01		
DATE MANUFACTURED		REINSPECTION SHALL BE BEFORE
IDENTIFICATION NUMBER		
MAXIMUM GROSS WEIGHT	8,181 KG 18,000 LB	
ALLOWABLE STACK WT. FOR 1.8G	192,000 KG 429,480 LB	
RACKING TEST LOAD VALUE	15,286 KG 33,700 LB	
SIDE WALL STRENGTH 3 Pg		

(Sample) FPU Manufacturers Data Plate

(Sample) SPECIAL REQUIREMENTS PLATE CSC APPROVAL PLATE

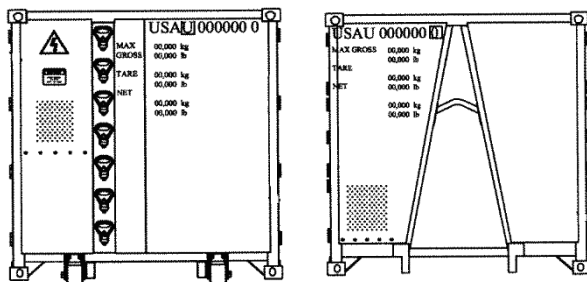
Both the BOH FPU-8-4/BOH-CARGO-12-3 and the FPU-20-3 are approved for transport as 20-foot ISO containers. Also the BOH FPU-8-4 and the BOH-CARGO-12-3 are approved independently when they are disconnected from each other. The BOH FPU-8-4/BOH-CARGO-12-3 containers must be connected to transport by commercial and MSC container ships. For their approval to be valid, the following requirements must be met:

1. Certified/tagged FPU's must be matched only. See the CSC Approval Plate on a certified FPU USA/174-AB/03-01 series container.
2. Individual FPUs must have a current CSC certification (shown on the CSC Approval Plate).

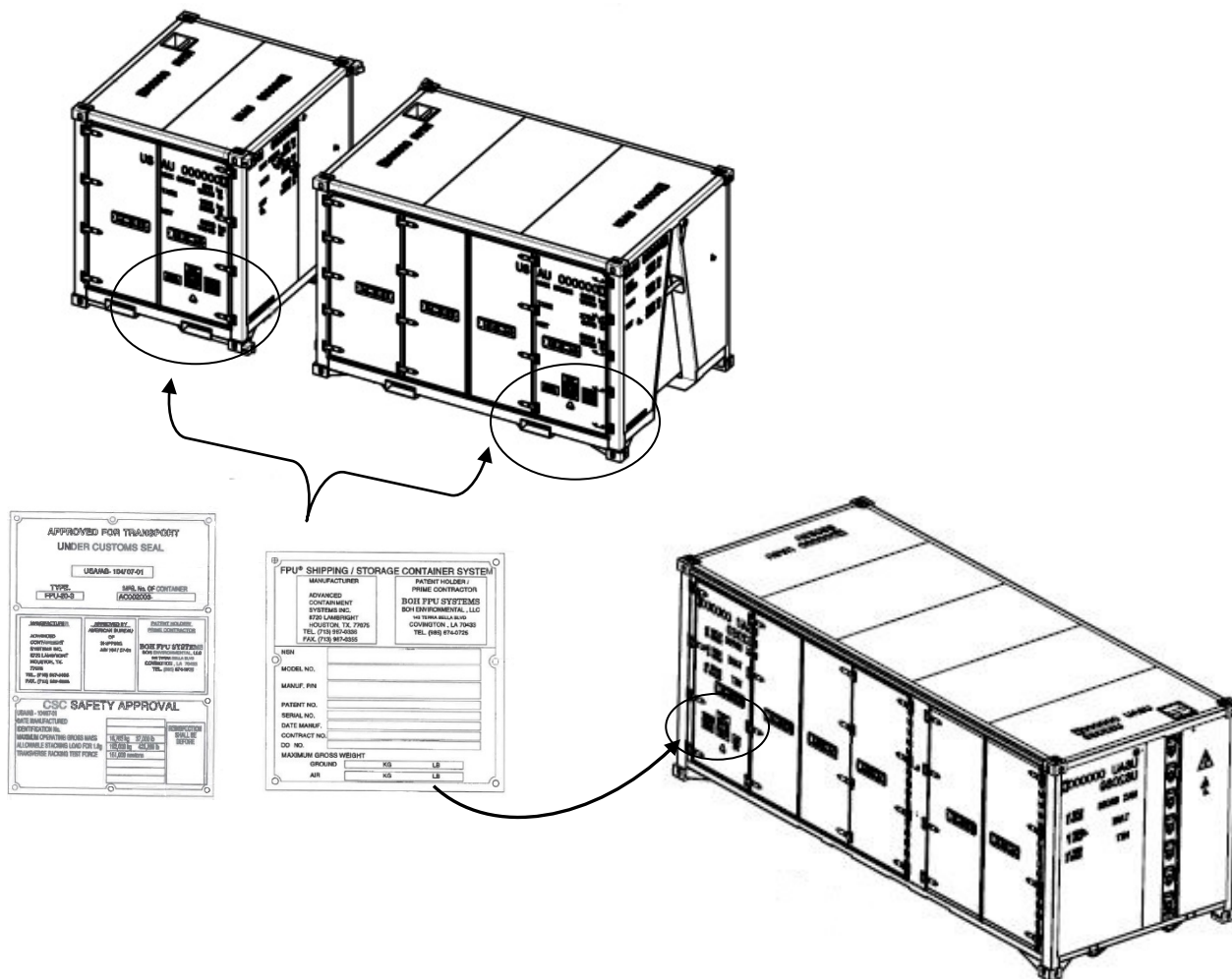
These certifications do not supersede military policies by MTMC in the shipment of serialized containers of matched sets.

Special Requirements CSC Approval and FPU Manufacturers Data Plates

FPU data plates identify the manufacturer's part number, serialization, contract and delivery order number and National Stock Number (NSN). They are located visibly at the exterior rear end of each container. Each container has a FPU data plate unique to itself.

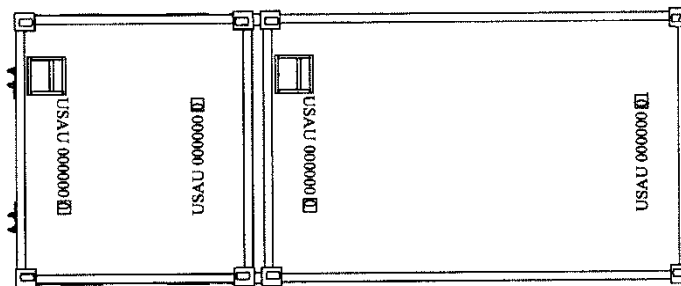
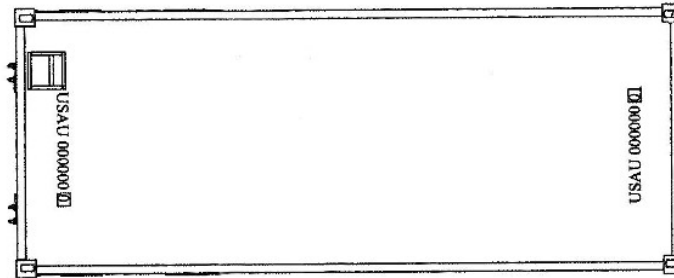


Location of Special Requirements CSC Approval and FPU Manufacturers Data Plates



SIGNAGE ON THE ROOF

BOH FPU CARGO CONTAINER containers have a series of markings that provide information and identification for shipping containers when transported aboard ships.

TOP VIEW OF SIGNAGE FPU 20-3**TOP VIEW OF SIGNAGE FPU 8/12****END OF WORK PACKAGE**