TECHNICAL MANUAL

ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

CONTAINER, GENERAL CARGO; MILVAN
NSN 8115-00-168-2275
CONTAINER, W/MECHANICAL LOAD BRACING SYSTEM; MILVAN
NSN 8115-00-151-9953

HEADQUARTERS, DEPARTMENT OF THE ARMY

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---	4-2.1/4-2.2
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	Remove pages	Insert pages
Table of Contents	i and ii	i and ii
Chapter 1	1-1 and 1-2	1-1 and 1-2
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Chapter 3	3-1 and 3-2	3-1 and 3-2
Chapter 4	4-1 and 4-2	4-1 and 4-2

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DISTRIBUTION:
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WARNING

Do not allow personnel to pass under container when suspended by cables or when lifting for transport or storage.

CAUTION

Be sure spacer blocks are installed at top between containers when tandeming for over-the-road transport.

TECHNICAL MANUAL

NO. 55-8115-200-23&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 13 December 1979

TECHNICAL MANUAL

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NSN 8115-00-168-2275, NSN 8115-01-317-2142
CONTAINER, W/MECHANICAL LOAD BRACING SYSTEM; MILVAN
NSN 8115-00-151-9953

Current as of 21 September 1979.

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St, Louis, MO 63120-1798. You may also submit your recommended changes by Email directly to <mpmt%avma28@ st-louis-emh7.army.mil>. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hardcopy 2028.

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* This manual supersedes TM 55-8115-200-24. dated 25 September 1972 including all changes.

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LIST OF ILLUSTRATIONS

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope. This manual is for your use in maintaining the MILVAN cargo containers. All repairs, major and minor, are to be made with the intent of providing a serviceable, weather-proof container.

1-2. Maintenance Forms and Records. Maintenance forms and records that you are required to use are listed below:

a. DA Form 2404 (Equipment Inspection and Maintenance Worksheet).

b. DA Form 2407 (Maintenance Request Used for Requesting Support Maintenance).

c. DA Form 2407-1 (Continuation Sheet Used for Requesting Support Maintenance).

d. For further information, refer to DA Pam 738-750, The Army Maintenance Management System (TAMMS).

1-3. Administrative Storage.

a. Preparation for Storage. Visually inspect the outer surfaces of the cargo containers for corrosion, and the latching mechanisms and hinges for adequate lubrication.

b. Storage Site.

(1) Select the best available site for administrative storage. Separate stored equipment from equipment in use. Conspicuously mark the area Administrative Storage.

(2) Covered space is preferred. When sufficient covered space for all items to be stored is not available, priority should be given to items which are most susceptible to deterioration from the elements.

(3) Open sites should be improved hardstand, if available. Unimproved sites should be firm, well-drained, and kept free of excessive vegetation.

c. Storage Plan.

(1) Store equipment so as to provide maximum protection from the elements and to provide access for inspection and maintenance. Anticipate removal or deployment problems and take suitable precautions.

(2) Take into account environmental conditions, such as extreme heat or cold; high humidity; blowing sand, dust, or loose debris; soft ground; mud; heavy snows; earthquakes; or combinations thereof and take adequate precautions.

(3) Establish a fire plan and provide for adequate firefighting equipment and personnel.

d. Care of Equipment in Administrative Storage.

(1) After equipment has been placed in administrative storage, suspend all regularly scheduled preventive maintenance services and inspect as specified herein.

(2) Inspection will usually be visual and must consist of at least a walk-around examination of all equipment to observe any deficiencies that may have occured. Inspect equipment in open storage weekly and that in covered storage monthly. Immediately after any severe storm or environmental change inspect all equipment. The following are examples of things to look for during visual inspection:

(a) Condition of preservatives, paint, seals, and wraps.

(b) Corrosion or other deterioration.

(c) Missing or damaged parts.

(d) Any other readily recognizable shortcomings or deficiencies.

(3) Keep equipment in an optimum state of readiness. Accomplish required services and repairs as expeditiously as possible. Whenever possible, perform all maintenance on site.

(4) To assure utilization of all assigned material, rotate items in accordance with any rotational plan that will keep equipment in an operational condition and reduce maintenance effort.

e. Removal of Equipment from Administrative Storage.

(1) Restore to normal operating condition.

(2) Resume the maintenance service schedule in effect at the commencement of storage or service the equipment before the scheduled dates in order

to produce a staggered maintenance workload.

1-4. Destruction of Army Material to Prevent Enemy Use.

a. General. Methods of destruction should achieve such damage to equipment and repair parts that it will not be possible to restore the equipment to a usable condition in the combat zone either by repair or cannibalization of parts.

b. Authorization. The authority for ordering the destruction of equipment is to be vested in the divisional and higher commanders, who may delegate authority to subordinate commanders, when the situation requires it.

c. Methods of Destruction.

(1) Fire. Use fire to destroy equipment when quantities of fuel and flammable materials are at hand. Proper concentration of equipment to be burned will produce a hotter, more destructive fire. Fires should be lit after mechanical destruction has been accomplished. Fires can be built to produce more heat or more smoke. For destruction, heat is desired but smoke maybe useful.

(2) Demolition. Place a 1/2 pound (226.8g) charge in the roof bows and a 1/2 pound (226.8g) charge in the floor cross members.

(3) Mechanical destruction. Using an axe, pick, mattock, sledge or any other heavy implement, damage all hinges and latching mechanisms.

(4) Use of Natural Surroundings.

(a) Submergence of equipment and repair parts underwater (lakes, ponds, bogs, swamps, etc.) or by concealment by hiding material in caves, or preferably by burial, can be used efficiently.

(b) Widely dispersed scattering of material preferably into heavy underbrush can serve as a denial or delaying measure. In the event the area is recaptured, effort should be made to recoup concealed items.

1-5. Reporting Equipment Improvement Recommendations (EIRs). If your 800K system needs improvement, let us know. Send us an EIR. 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. Tell us why a procedure is hard to perform. Put it on a SF368 (Quality Deficiency Report). Mail it to us at Headquarters Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MDC, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. We'll send you a reply,

Section II. DESCRIPTION AND DATA

1-6. Description. The cargo containers (fig. l-l) are standard sized eight feet by eight feet by 20 feet steel units with a capacity of 20 tons (18.2 metric tons) each. They are designed for use singly or in tandem to form 40 foot (12.19 m) units for road transport purposes. Fittings, located at each corner, provide a means for lifting from either the top or bottom, for stacking up to six high in the ship's cells, for stacking and locking up to four high on the ship's deck, and for attaching to the MILVAN chassis for road transport. One (1) top corner block is supplied with each container serial numbered lower than 12000, and is to be used when coupling two containers in tandem for road transport.

Legend for figure 1-1:

*1. Sheet roof
*2. Roof bow
3. Front top rail
4. Top corner fitting
5. Front comer post
6. Bottom fitting
7. Side bottom rail
8. Side panel assembly
9. Rear corner post
10. Bottom fitting
11. Rear bottom rail
*12. Threshold plate
*13. Bolt, washer, nut
14. Rear header assembly
15. Top comer fitting
16. Side top rail

* Containers Numbered Less Than 12,000.

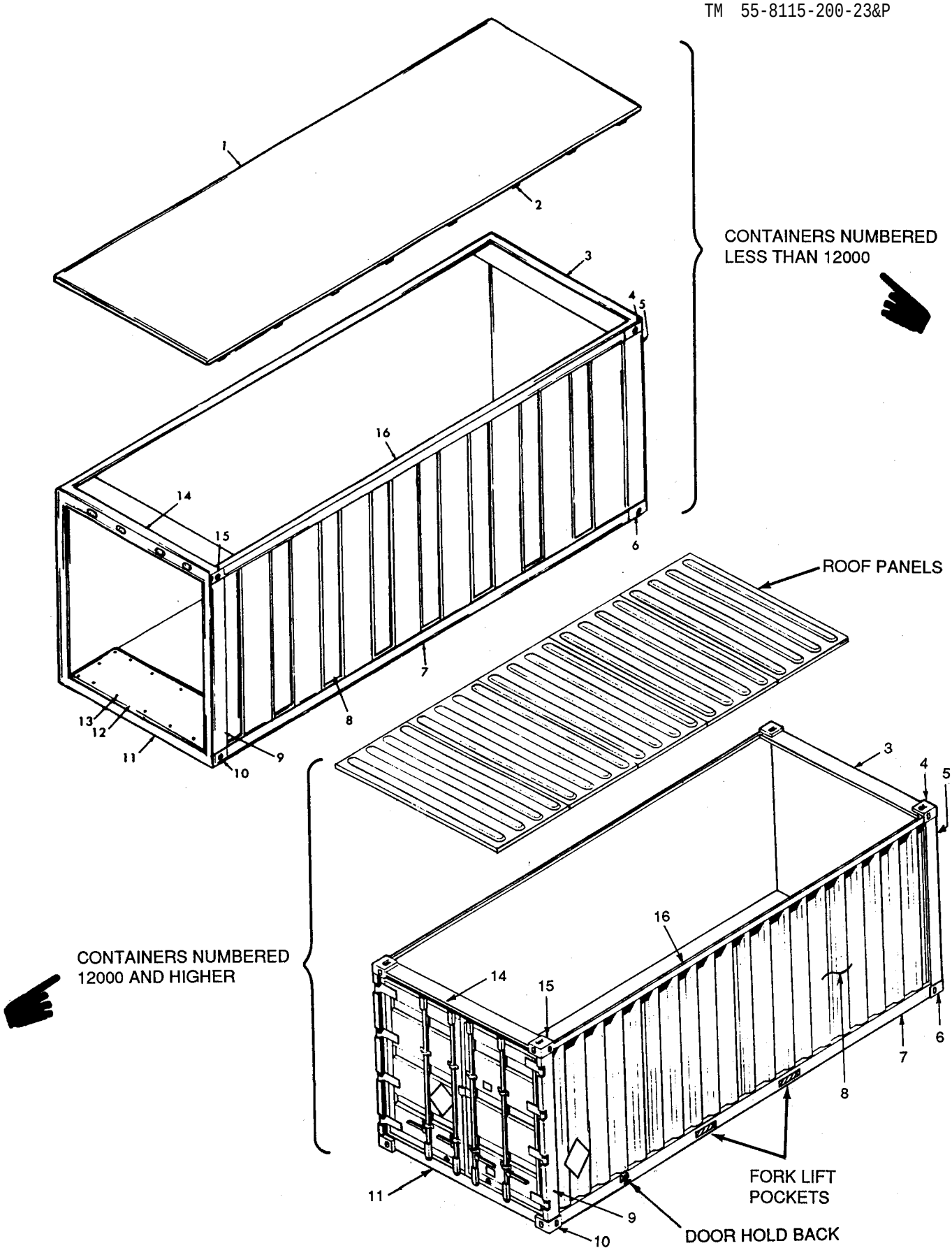

Figure 1-1. Container Assembly.

1-7. Difference in Models. The basic container is built to specification, less side plywood liners and mechanical bracing system. General cargo containers with plywood liners are numbered 3430 through 5629 *(fig. 1-2).* Containers with mechanical load bracing systems are numbered 5630 through 10129 (fig. 1-3). Containers numbered 12000 to 13022 have mechanical load bracing systems, but differ from other containers. There are no roof cross bows on containers numbered 12000 and higher. Instead, five sections of corrugate steel are overlapped and welded directly to the upper side rails. Forklift pockets for lifting empty containers are located in the bottom side rails. There is no kick plate on the sides of the container. Doors, Sill, Door header, Cross Members and Front beam are formed differently from earlier models, but have the same strength and serve the same purpose.

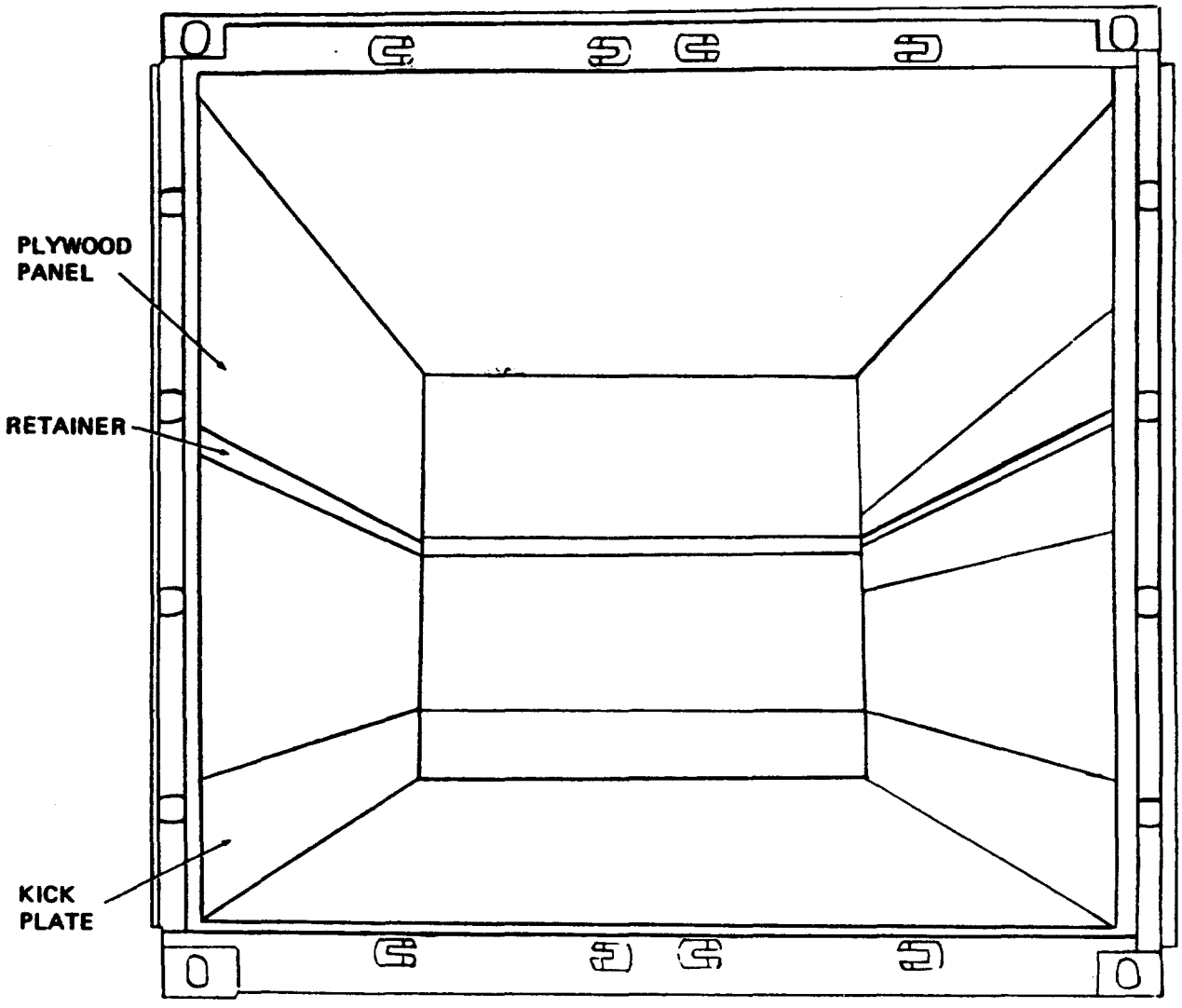

Figure 1-2. Cargo Container With Plywood Liner.

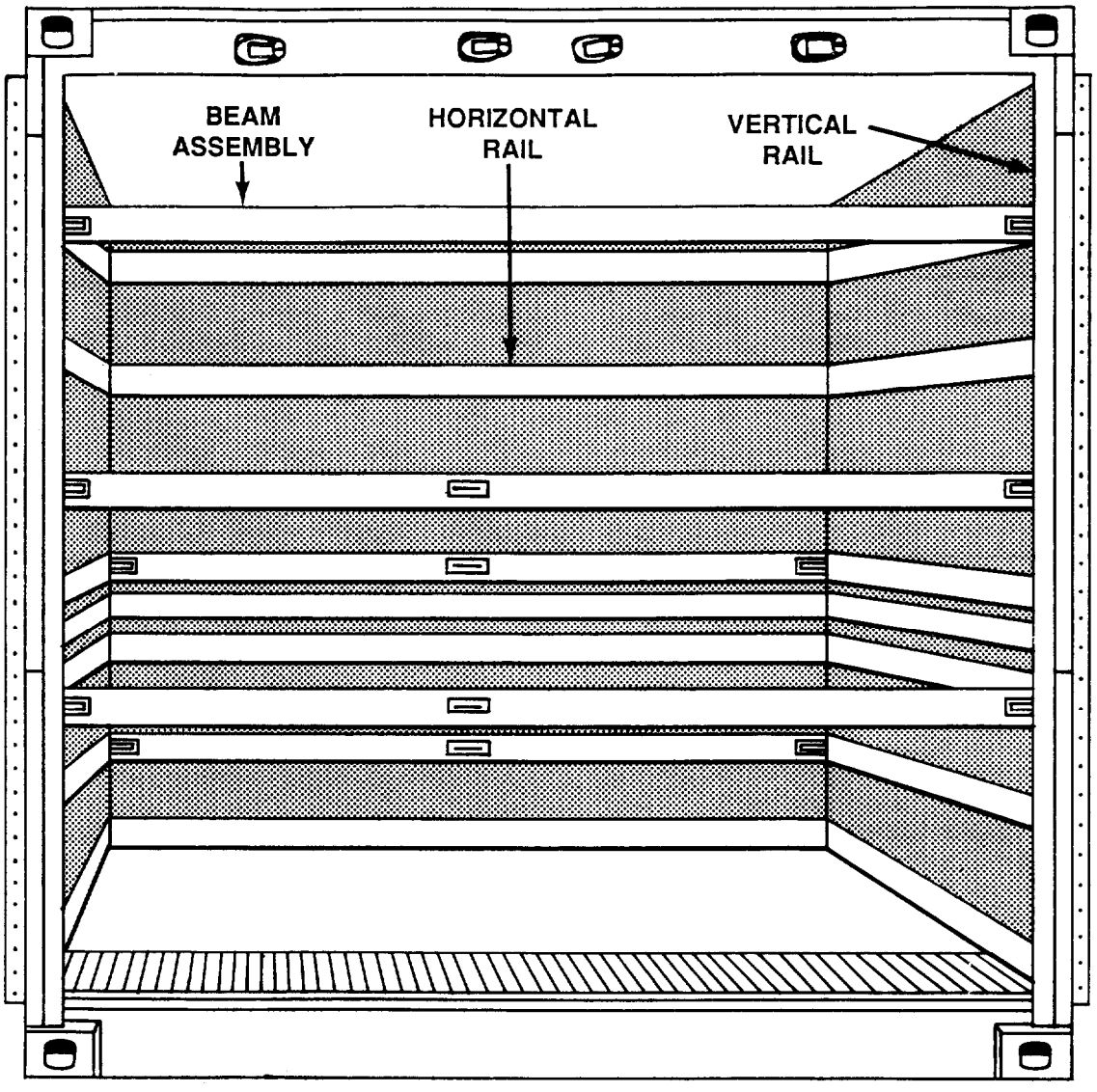

Figure 1-3. Cargo Container With Mechanical Bracing System

1-8. Tabulated Data.

a. U.S. Army Identification Plate. The identification plate is located on the door of the container, in proximity to the document holder. The plate contains the following information:

(1) Nomenclature: Container, Cargo

(2) Specification: MIL-C-52661 (ME)

(3) National Stock Numbers: 8115-00-151-9953,8115-00-168-2275 or 8115-01-317-2142

(4) Control Number: 3430 through 13022

(5) Tare Weight: (Varies) lbs. (Varies) kg

(6) Contract Number: DAAK01-70C-7696 or DAAK01-89C-0154

(7) Manufactured by: Fab-Weld Corporation or American Coastal Industries

(8) Date: Month, Year of manufacture

(9) TM 55-8115-200-23&P

b. Dimensions and Weights.

General Cargo . . . . W/Mechanical Load Bracing System

Length (extreme)
19 ft. 10 1/2 in. (6.06 m) . . .19 ft. 10 1/2 in. (6.06 m)

Height (extreme)
8 ft. (2.44 m) . . . . . 8 ft. (2.44 m)

Width (extreme)
8 ft. (2.44 m) . . . . . 8 ft. (2.44 m)

Length (inside)
19 ft. 3 in. (5.87 m) . . . . . .19 ft. 3 in. (5.87 m)

Height (inside)
7 ft. 3 in. (2.21 m) . . . . . .7 ft. 3 in. (2.21 m)

Width (inside)
7 ft. 8 in. (2.34 m) . . . . . .7 ft. 7-3/4 in. (2.33 m)

Height (door opening)
7 ft. (2.13 m) . . . . . .7 ft. (2.13 m)

Width (door opening)
7 ft. 6 in. (2.29 m) . . . . . .7 ft. 5in. (2.26 m)

Empty Weight
4700 lb. (2131.92 kg) . . . . . 5785 lb. (2624.10 kg)

c. Dimensional Allowable Tolerances.

Overall height . . . . . .8 feet 0- 3/16 inch

Overall length . . . . . .19 feet 10 1/2 inches 0-1/4 inch

Overall width . . . . . .8 feet 0-3 1/16 inch

d. Diagonal distance between opposite corner fittings:

Ends . . . . . .+ 0- 3/8 inch

Top, bottom sides . . . . . .+ 0- 3/8 inch

CHAPTER 2
ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. SERVICE UPON RECEIPT OF MATERIAL

2-1. Inspecting and Servicing the Equipment.

a. Prior to loading (stuffing), qualified personnel should make a thorough inspection of each MILVAN as follows:

(1) Inspect weather seals of doors for damage or distortion.

(2) Check the doors for loose, worn, or damaged hinges, latches, levers, bolts, nuts, pin and document holders.

(3) Check steel roof, sides, and doors for holes, tears rind punctures.

(4) Inspect the general condition of the mechanical bracing system. Assure that the assigned number of load bracing beam assemblies are present (see list on door). Horizontal rails will be examined for attachment to side-wall and for deformation that prevents proper attachment of beam assemblies. Beam assemblies will be examined for distortion and condition of end fittings that prevent proper engagement in the rails.

(5) Inspect the condition of the corner posts, corner fittings, and structural rail members. Containers having comer posts or rails tom, distorted, and kinked, or broken/ cracked fittings, are unserviceable and will be rejected for use. Comer posts having a small vertical dent are acceptable if it does not exceed 3/4 inch in depth and 12 inches in length providing the post/comer fitting joint is not affected. If deformation of the container configuration is evident, dimensions must be checked. The over-all dimensions and the variation of diagonal distances between opposite comer fittings must be within tolerances as indicated in paragraph 1-8.

(6) Corrosive failure of any structural member such as when the structural member could be punctured by striking the area lightly with a welder's hammer, will be cause to reject the container. Corrosion of a structural member other than surface rust should be checked by the inspector to insure that the structural integrity of the member is not adversely affected.

(7) Inspect painted surfaces for deterioration from damage and extreme exposure. Paint will be applied only for protection of base metal; not to enhance the appearance of a dingy-looking container. Clean and treat metal surfaces which require paint in accordance with Specification MIL-T-704. After cleaning and treating apply two coats of olive drab, rust-inhibiting, semi-gloss enamel paint, (item 2, App. D). Allow overnight drying between coats.

(8) Inspect the interior plywood liners for puncture, splits, and proper fit and alignment. Inspect to see that cargo space is clean and in good condition to prevent damage to lading from exposed bolts, nuts, screws, nails, or other inwardly projecting parts.

(9) Inspect floor to make sure it is tight and free of holes. Inspect the floorboards and threshold plate for warped, broken, or any damaged condition. (The threshold is absent on containers numbered 12000 and higher.)

b. An inspection of loaded containers will be made at each trans-shipment point. The exterior of the MILVAN will be inspected for in-transit damage in accordance with steps (2), (3) and (5) above.

2-2. Cleaning and Decontamination.

a. For general cleaning, wash the exterior of the container with any suitable detergent. Thoroughly rinse with fresh water and allow to air dry.

b. For decontamination, procedures required by TM 743-200 shall apply. Each deck-stored container must be washed by using organization after each ocean voyage to retard paint and metal deterioration.

c. Special attention must be given to containers stored for extended periods. Containers should be placed on blocks to permit air circulation under them. The lower side rails should be a minimum of 3.5 inches off the ground. These containers must be visually inspected periodically for deterioration from damage and extreme exposure and for damage or deterioration of door seals. When containers are stored for extended periods in a salty atmosphere, they must be cleaned in accordance with sub-paragraph a above prior to periodic inspection.

2-3. Lubrication. Lubricate containers numbered less than 12000 prior to shipment as described in Section III, below.

Section II. REPAIR PARTS, SPECIAL TOOLS AND EQUIPMENT

2-4. Special Tools and Equipment. No special tools or equipment are required.

2-5. Repair Parts. Repair parts are listed and illustrated in Appendix C of this manual.

2.6. Fabricated Tools and Equipment. No fabricated tools or equipment are required.

Section III. LUBRICATION INSTRUCTIONS FOR CONTAINERS NUMBERED LESS THAN 12000

CAUTION

Do Not Lubricate Containers With Serials 12000 Or Higher.

2-7. General Lubrication Information. This section contains lubrication instructions for the cargo container.

2-8. Detailed Lubrication Information.

a. General Keep all lubricants in closed containers and store in a clean, dry place away from external heat. Allow no dust, dirt, or other foreign material to mix with the lubricants. Keep all lubrication equipment clean and ready for use.

b. Cleaning. Keep all external parts not requiring lubrication clean of lubricants. Before lubricating the equipment, wipe all lubrication points free of dirt and grease. Clean all lubrication points after lubricating to prevent accumulation of foreign matter.

c. Points of Lubrication. The door hardware will be lubricated with graphite grease, (item 3, App. D). Figure 2-1 illustrates the points where lubrication is required.

d. Unusual Conditions. Reduce service intervals i.e., lubricate more frequently to compensate for abnormal or extreme conditions, such as high or low temperatures, continued operation in sand or dust, immersion in water, or exposure to moisture. Any one of these operations or conditions may cause contamination and quickly destroy the protective qualities of the lubricants. Intervals may be extended during inactive periods commensurate with adequate preservation.

NOTE

A lubricant which is fouled by dust and sand acts as an abrasive-mixture and causes rapid wear of parts.

Section IV. MAINTENANCE OF CARGO CONTAINER

2-9. **Document Holder.** The document holder is mounted on the right-hand door of the container. Maintenance is limited to inspection as follows:

a. Inspect holder for damage which would prevent insertion of documents.

b. Inspect holder for security of attachment to container door.

c. Inspect holder interior for dirt, rust or corrosion.

2-10. Doors, Gaskets, and Door Hardware. Maintenance of the doors, gaskets, and hardware is limited at the organizational level to inspection and service. On containers numbered less than 12000, see figure 2-1 and service the guide plate assemblies, rod guides, operating arms and hinges with graphite grease, (item 3, App. D).

a. Inspect door weather seals for damage or distortion.

b. Check the doors for loose, worn or damaged hinges, latches, levers, bolts, nuts and pins.

2-11. Plywood Liners. Inspect the interior plywood liners for punctures, splits, and proper fit and alignment. Inspect to see that cargo space is clean and in good condition to prevent damage to lading from exposed bolts, nuts, screws, nails, or other inwardly projecting parts.

2-12. Sides and End Corrugated Panels.

a. Inspect sides and end panels for holes, tears, and punctures,

b. Loaded containers will be repaired as follows:

(1) To repair sheet metal panels of the container when laden and the damage is minor:

(a) Roughen entire metal surface on exterior of container around damaged area in order to remove paint and to improve adherence properties of the patching material on steel.

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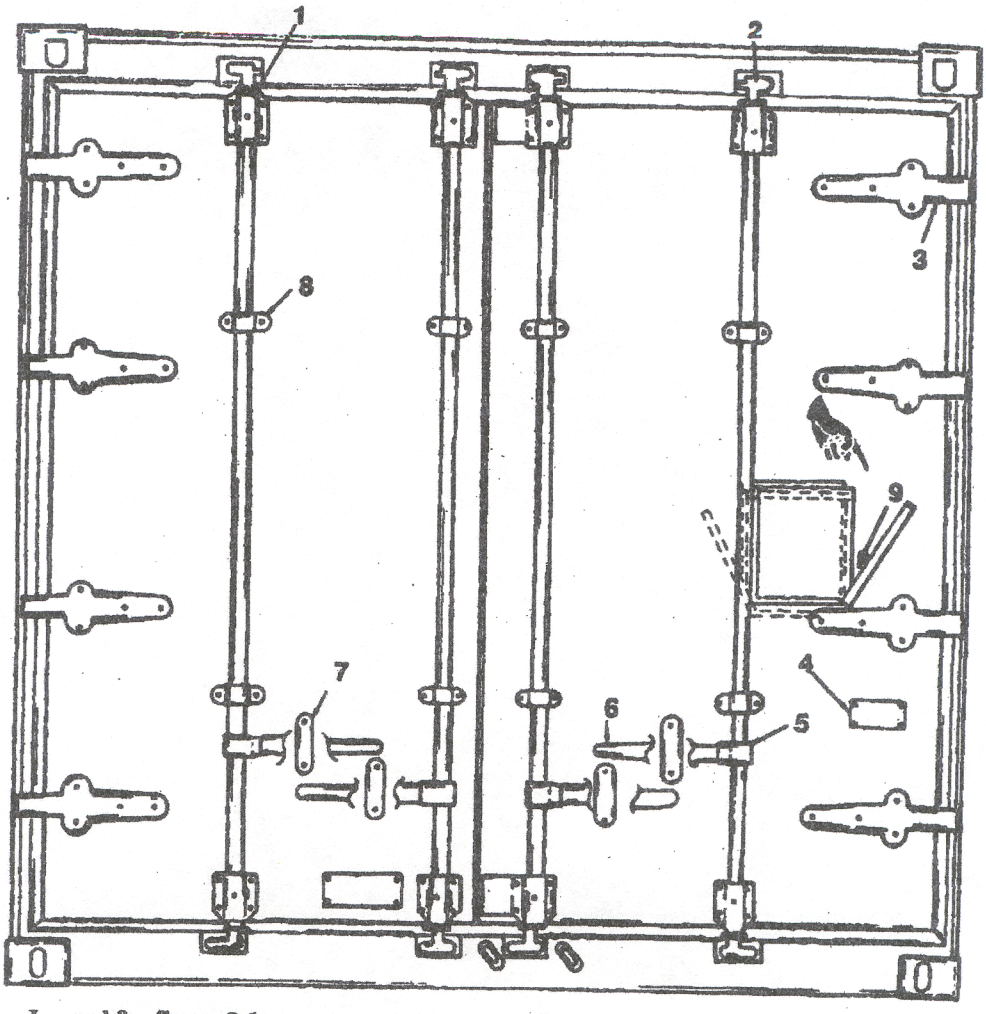


Legend for figure 2-1:

1. Guide plate assembly (8 places)
2. Bar end lock (8 places)
3. Hinge (8 places)
4. Data Plate (4 places)
5. Lever mount (4 places)
6. Lever (4 places)
7. Seal plate (4 places)
8. Rod guide (8 places)
9. Document Holder Lid Hinge and Closed Hasp Hinge

Figure 2-1. Lubrication of Door Hardware (Containers Numbered Less than 12,000).

CAUTION

Open-flame devices will not be used.

(b) Using repair kit MIL-R-58047 (CE), or MIL-R-19907C (NSN 2090-00-372-6064), apply epoxy as specified (fig. 2-2).

(c) Apply tape over the entire patch area and the container is ready to be used.

(2) To repair sheet metal panels of the container when laden and the area is major, i.e., large holes up to 144 square inches (929.10) sq cm).

(a) Roughen entire metal surface on exterior of container around damaged area in order to remove paint and to improve adherence properties of patching material on steel.

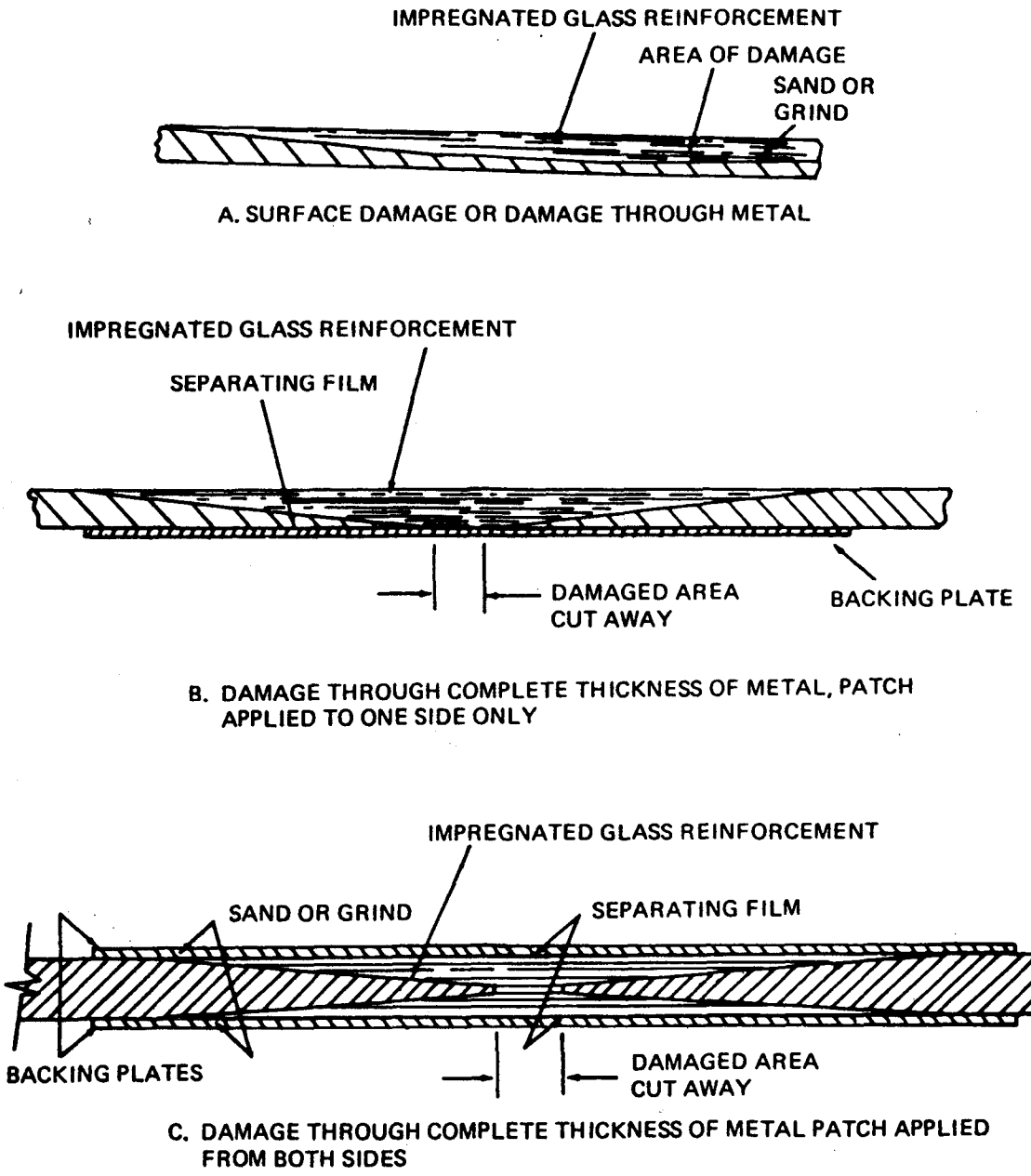


Figure 2-2. Patching With Repair Kit.

CAUTION

Open-flame devices will not be used.

(b) Using repair kit MIL-R-58047 (CE) or MIL-R-19907C (NSN 2090-00-372-6064), apply the low viscosity epoxy to cloth, nylon, or the like, which has been cut to a size of at least two to three inches greater in each direction of the hole to be covered.

(c) Affix patch over the damaged area.

(d) Tape the patch in vertical and horizontal directions such that the patch will not slip while curing. It will take approximately two hours for the patch to adhere properly.

(3) To repair the sheet metal panels of the container when laden and the damaged area is larger than 144 square inches (929.10 sq cm), empty the container and refer it to direct support maintenance.

2-13. Water Test After Repair. After any major repair to an empty container, a stream of water from an O.5-inch nozzle at 15 psig shall be applied to all joints and seams. No water entry into container is permissible after repair.

2-14. Corner Posts, Comer Fittings, and Rail Members. Inspect the condition of the comer posts, corner fittings, and structural rail members. Containers having comer posts or rails torn, distorted, and kinked, or broken/cracked fittings, are unserviceable and will be rejected for use. Corner posts having a small vertical dent are acceptable if it does not exceed 3/4 inch in depth and 12 inches in length providing the post/corner fitting joint is not affected. If deformation of the container configuration is evident, dimensions must be checked. The over-all dimensions and the variation of diagonal distances between opposite corner fittings must be within tolerances as indicated in paragraph 1-8.

2-15. Floor. The container floor consists of a total of eight wooden planks mounted longitudinally on floor crossmembers. In containers serial numbered less than 12000, a metal threshold plate is installed across the entrance to the container and a twelve inch (30.5 cm) aluminum alloy kick plate extends around interior of the container adjacent to the floor. The threshold and side kick plates are absent in containers serial numbered 12000 and higher. Maintenance of the floor group consists of inspection as follows;

a. Inspect floor to ensure it is tight and free of holes.

b. Inspect the floorboards, crossmembers, and threshold plate for warps, breaks or any similar damage.

c. Inspect the kick plate for security and excessive damage.

2-16. Roof. On containers numbered less than 12000, the container roof consists of five sections of sheet steel attached to the roof cross bows to make one complete assembly. Maintenance of the roof bows consists of inspection for bends and cracks. Minor bends to the bows will be accepted as long as there are no cracks. If the bows are bent, but not cracked, they may be straightened back into position. They must not be a safety hazard and must not impede loading. Ensure that the welds are intact. (See fig. 2-3.) Containers numbered 12000 and higher have five sheets of corrugated metal welded directly to the top side rails. Maintenance of the roof in either case consists of inspection for holes, tears and punctures.

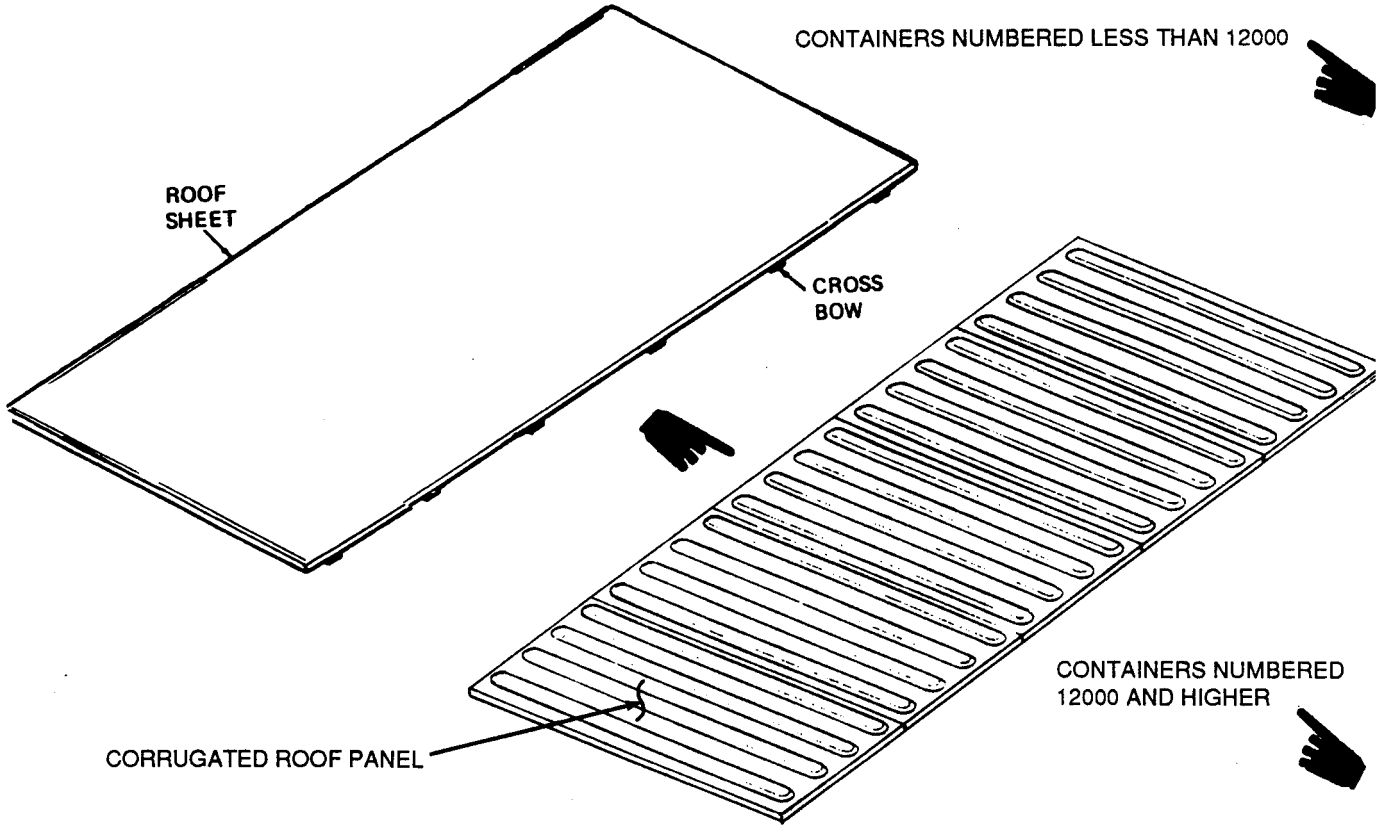


Figure 2-3. Container Roof Assembly.

2-17. Load Bracing System. The cargo load bracing system consists of a series of beam assemblies supported by vertical and horizontal rails. (See fig. 1-3.) An end fitting assembly (fig. 2-4) installed in each beam engages with the rails to provide the means of beam support. Maintenance of the bracing system consists of inspection of the complete system and replacement and repair of the beam assemblies.

a. Inspection. Inspect the general condition of the mechanical bracing system. Assure that the assigned number of load bracing beam assemblies are present (see list on door). Horizontal rails will be examined for attachment to sidewall and for deformation that prevents proper attachment of beam assemblies. Beam assemblies will be examined for distortion and condition of end fittings that prevent proper engagement in the rails.

b. Beam Replacement and Repair. Repair of the beam assembly consists of straightening the beam and replacement of the end fittings. Replace end fittings as follows:

(1) Using a suitable punch, straighten the crimped end of the pin (see fig. 2-4) and drive the retaining pin from the beam assembly.

(2) Remove beam assembly with end fitting and remove end fitting from beam.

(3) If necessary, straighten any damaged area of the beam.

(4) Install replacement end fitting in beam and install retaining pin.

(5) Using a punch, peen end of pin to secure in beam.

(6) Install beam assembly into container.

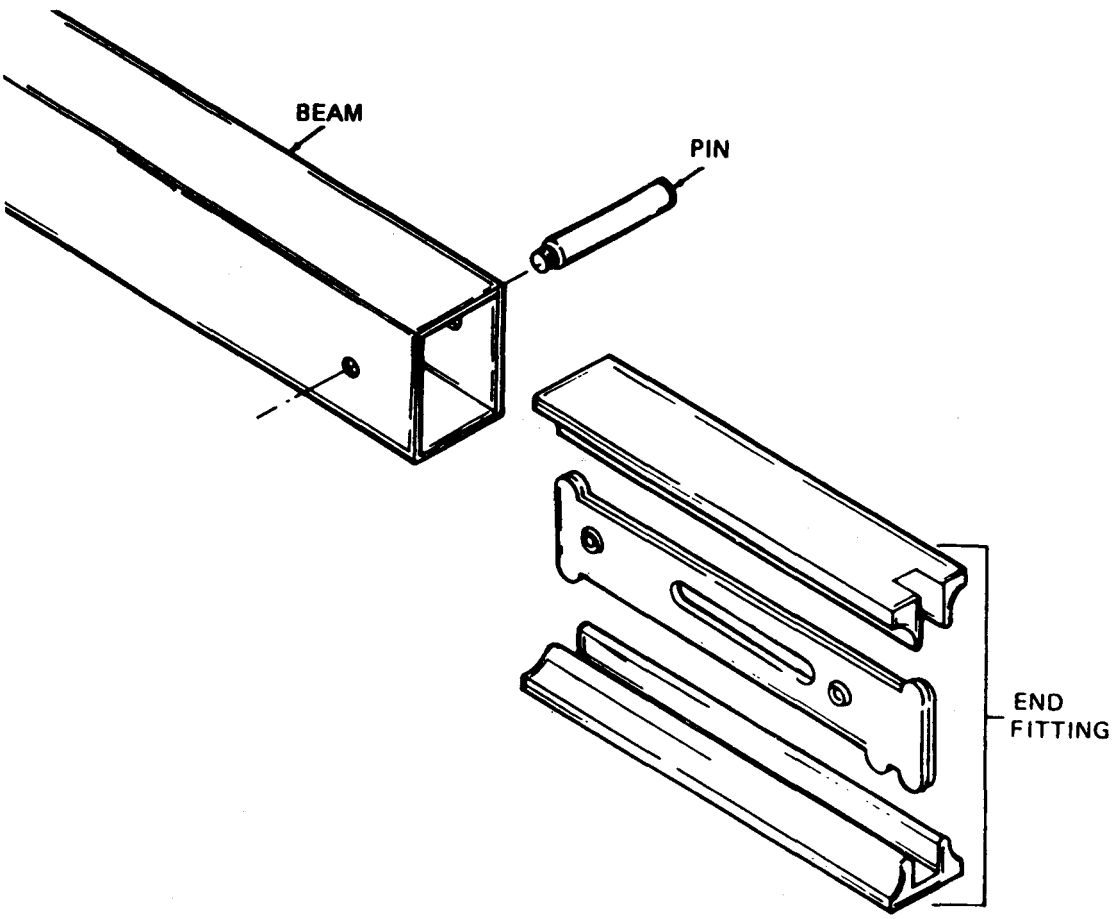


Figure 2-4. Load Bracing Beam Assembly.

CHAPTER 3

DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

Section I. REPAIR PARTS, SPECIAL TOOLS AND EQUIPMENT

3-1. Special Tools and Equipment. No special tools or equipment are required.

3-2. Repair Parts. Repair parts are listed in Appendix C of this manual.

3-3. Fabricated Tools and Equipment. No fab cated tools or equipment are required.

Section II. GENERAL MAINTENANCE

3-4. General. This section contains general maintenance instructions to be used in performing direct support maintenance on the container.

3-5. Maintenance.

a. Cleaning. All parts should be cleaned in accordance with instructions contained in TM 9-214.

b. Inspection. The importance of carefully inspecting disassembled parts cannot be over-emphasized since reassembly of substandard or defective parts can result in needless troubleshooting and rework. Structural surface dimensions and bore diameters are to be inspected after cleaning. Areas to be inspected for dimensions and tolerances shall be free of surface treatment or painting at the time of inspection. Inspection procedures must be performed by experienced personnel using good shop practices. Good shop practice includes the compilation of complete and accurate inspection records as specified in DA Pam 738-750. Such records not only expedite reworking of the equipment but ensure a complete and thorough overhaul. Inspection records should be based upon the requirements outlined in this paragraph. Parts requiring repair or replacement should be so tagged and a notation of the disposition of these parts should be entered in the inspection records. All micrometers, gages, indicators, and other measuring and testing equipment must be checked periodically and, when required, accurately calibrated in accordance with MIL-STD 120 or in accordance with the recommendations of the equipment manufacturer.

NOTE

Parts marked serviceable at inspection should be treated with an approved preservative if they are not to be reassembled immediately.

NOTE

Surface rust and minor paint deterioration, with rust showing through is acceptable.

(1) Metallic parts. The below listed proc dures are standard procedures that should be followed when inspecting metallic parts.

(a) Ferrous parts. All ferrous parts should be inspected for cracks by performing a magnetic particle test as specified in Specification MIL-I-2513C.

(b) Non-ferrous parts. All non-ferrous parts should be inspected for cracks by performing a penetrant test as specified in Specification MIL-I-2513C.

(c) Radiographic inspection. Welds shall be radiographically examined in accordance with Specification MIL-R-11468, Standard I, for 100 percent of the weld length.

(d) Magnetic particle inspection. Cracks or crack type defects are not permitted. Magnetic particle inspection shall be performed in accordance with Specification MIL-I-6868.

(e) Rust. Inspect all ferrous parts for rust and rework as necessary.

(f) parts with external threads. Inspect these parts for damaged threads. If threads are damaged the part must be replaced.

(g) Threaded holes. Visually inspect all threaded holes for threads and obstructions which may be wedged at the bottom of the hole.

(h) Sheet metal parts. Inspect all sheet metal parts for bent corners, distortion, cracks, tears, broken corners, and defective welds.

(2) Hardware. Discard all cotter pins and lockwashers during disassembly. Visually inspect all nuts, bolts, and screws for damaged threads and heads that could prevent proper wrenching. Replace all damaged hardware.

c. Repair or Replacement. Parts that are within the acceptable repair and replacement standards may be reworked to remove a minor imperfection if it does not impair the strength of the parts. The following are a few of the more common repair procedures that may be used.

(1) Cracks. Parts that are cracked may be repaired by welding as long as it does not distort or impair the strength of the part. Heat-treated parts cannot be welded or heated unless otherwise specified.

(2) Rust. Rust on polished non-mating surfaces may be removed with a fine oxide abrasive paper and the surface polished with crocus cloth. After repair remove all abrasive deposits and rust by cleaning parts as specified in TM 9-214.

(3) Threaded holes. Damaged threaded holes may be repaired by retapping or chasing the hole. If this is undesirable or ineffective, the hole maybe drilled oversize, a suitable insert or bushing installed, and then drilled and tapped to the original thread size.

(4) Sheet metal parts. Sheet metal parts that are damaged may be repaired as long as there are no damaging effects (refer to FM 43-2).

(5) Painted surfaces.

(a) Paint will be applied only for protection of base metal, not to enhance the appearance of a dingy looking container.

(b) All exposed metal surfaces normally painted shall be grit blasted or alkaline/acid cleaned, pretreated using a wash primer MIL-T-704, or zinc/iron phosphate MIL-T-704. After pretreatment, the container shall have one coat of primer conforming to Specification TT-E-485 or TTP-636 and one coat of forest green paint conforming to Specification MIL-E-52798. Allow overnight drying between coats.

d. Reassembly and Instillation. Reassembly and installation procedures for the container are provided in the appropriate maintenance portion of the manual. On containers numbered less than 12000, particular attention should be paid to lubrication of moving door components using graphite grease, (item 3, App. D).

Section III. REMOVAL AND INSTALLATION OF MAJOR COMPONENTS AND ASSEMBLIES

3-6. General. This section contains instructions for removal and installation of doors, plywood liners, floor and roof. Tasks labelled "12000 and higher" refer only to those MILVANS whose data plates show a serial number of 12000 or larger.

3-7. *Doors.*

a. Removal (containers numbered less than 12000)

(1) Release door lever (5, fig. 3-1) from seal plate (22) and move door to open position.

(2) Support the door assembly and remove bolt and nut (11) attaching door to door hinge (10). Remove door,

b. Removal (12000 and higher)

(1) Support and secure door (fig. 3-1.1).

(2) Remove four hinge plates (item 4) by grinding weld securing hinge plates to door.

c. Installation (containers numbered less than 12000)

(1) Carefully position door assembly so that door holes are aligned with holes in door hinge (10).

(2) Install and tighten attaching bolt and nut (11).

(3) Lubricate door strap bearings, latching mechanism and hinges with graphite grease (item 3, App. D).

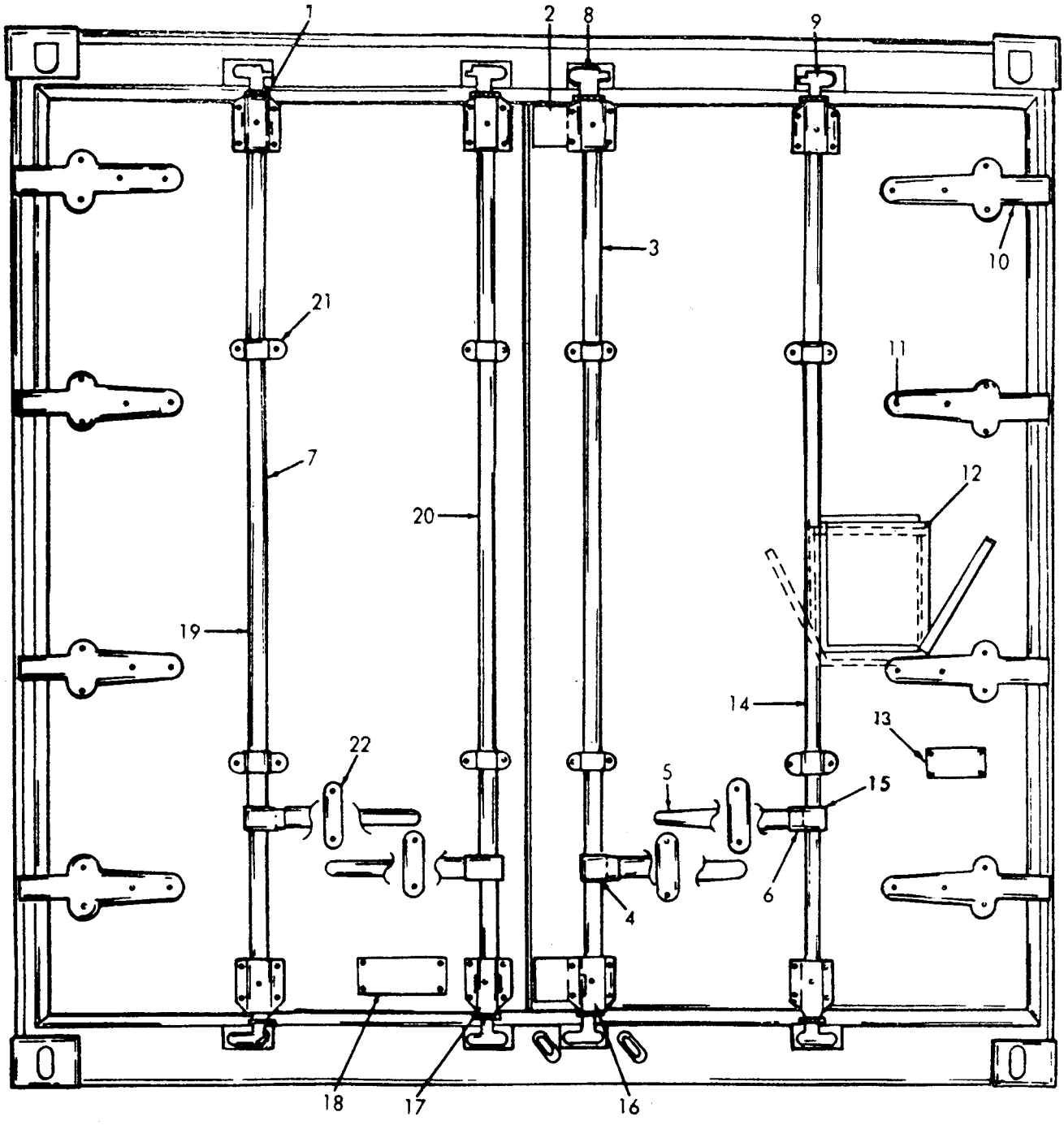
(4) Check operation of door for correct mating of door opening surface with door gasket.

d. Installation (12000 and higher)

(1) Replace door, shim it and lock into position using operating arms (items 6 and 8). Shims should allow enough space under door for smooth operation. Be careful of door gasket when shimming door. Hinge must be completely in contact with door.

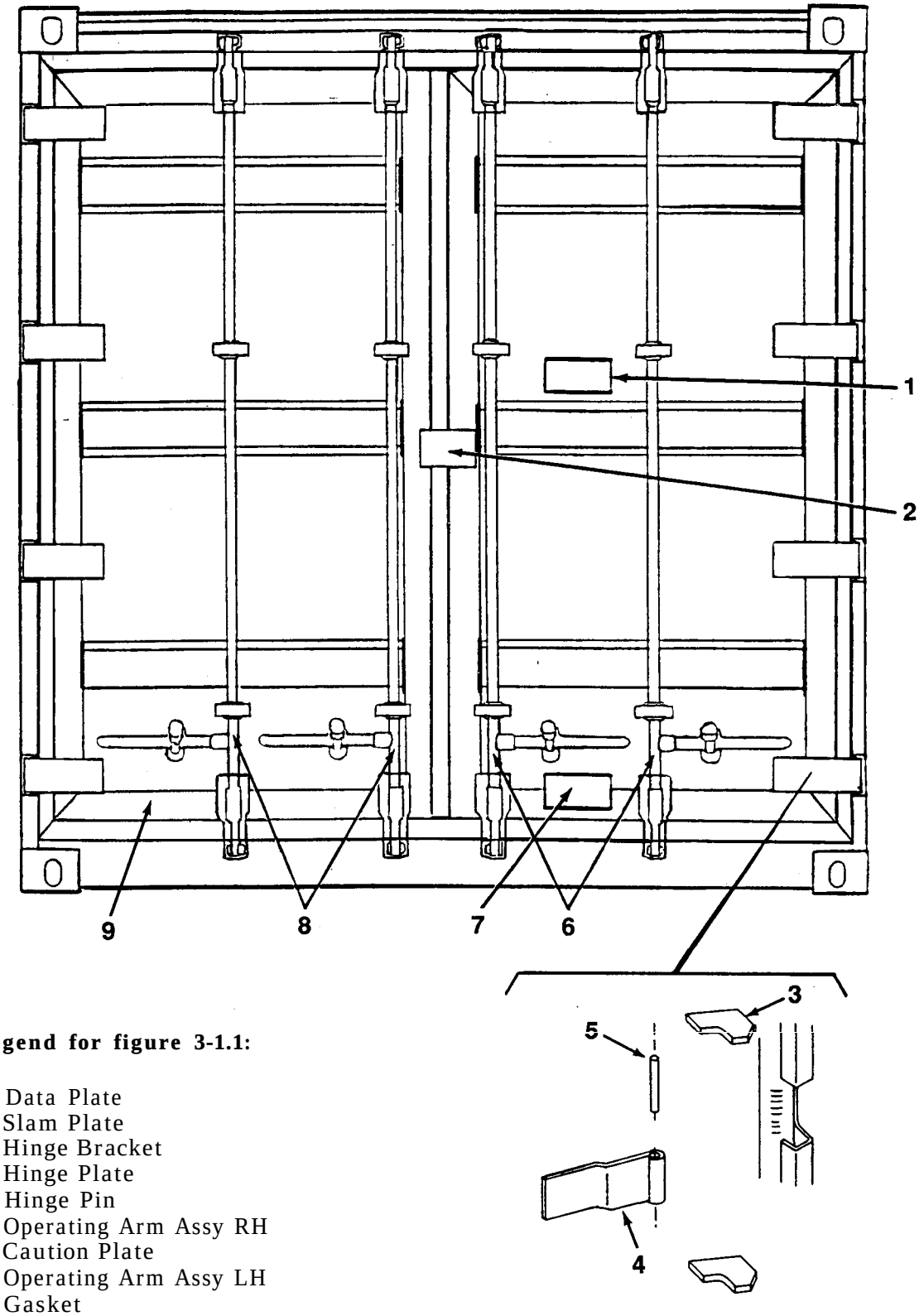
(2) Weld hinge plates (item 4) to door.

(3) Unlock door and remove shims. Check operation of door for correct mating and swing.



1. Guide plate assembly
2. Door restraint
3. Operating arm
4. Lever mount
5. Lever
6. Rivet
7. Tubing
8. Bar end lock
9. Bar end lock
10. Door hinge
11. Bolt and nut
12. Document holder
13. Data plate
14. Operating arm
15. Lever mount
16. Guide plate assembly
17. Guide plate assembly
18. Caution plate
19. Operating arm
20. Operating arm
21. Rod guide
22. Seal plate and pin

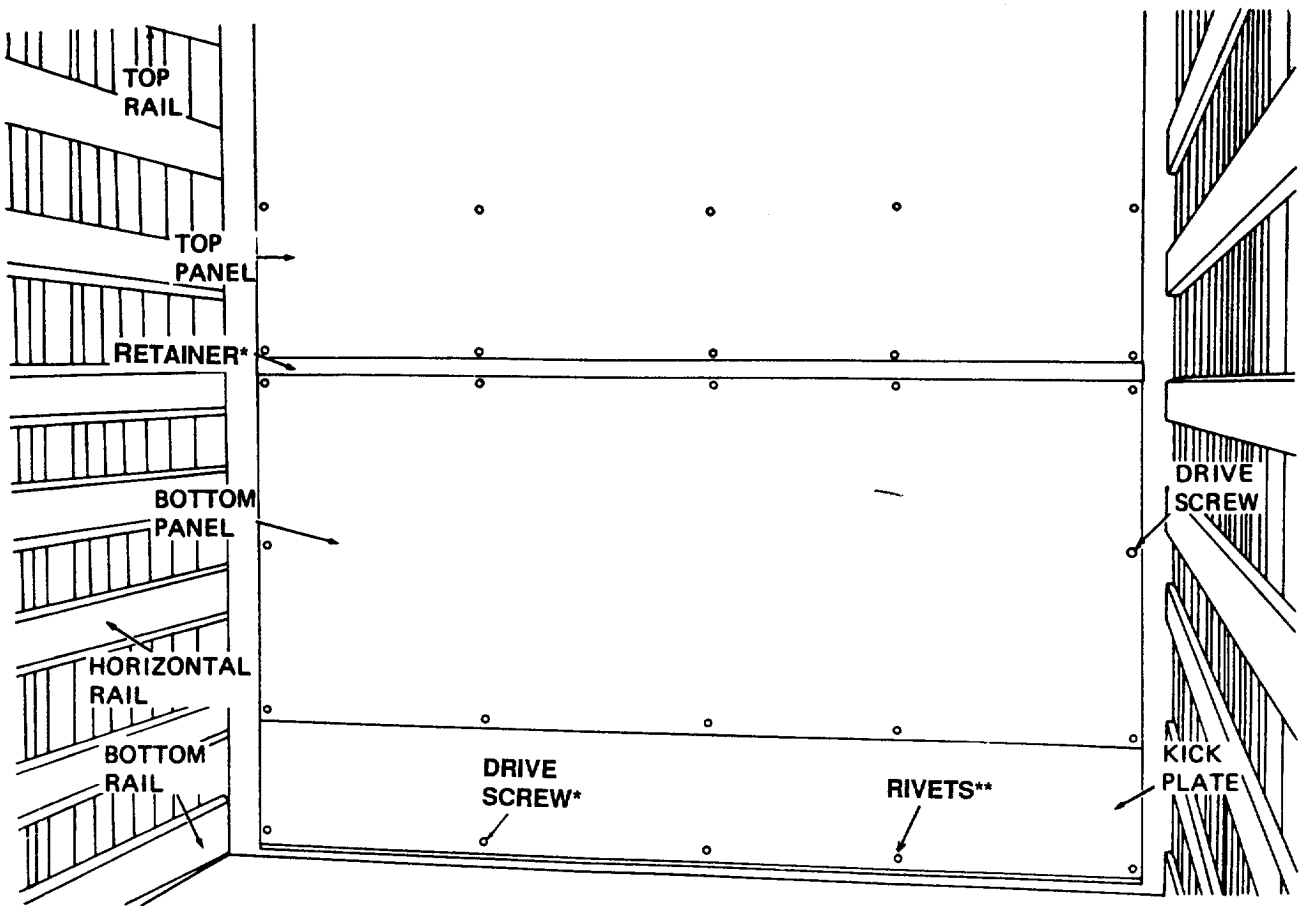
Figure 3-1. Door Assembly.
(Containers Numbered less than 12000)



Legend for figure 3-1.1:

1. Data Plate
2. Slam Plate
3. Hinge Bracket
4. Hinge Plate
5. Hinge Pin
6. Operating Arm Assy RH
7. Caution Plate
8. Operating Arm Assy LH
9. Gasket

Figure 3-1.1. Door Assembly
(Containers Numbered 12,000 and higher)



* ***Containers numbered less than 12000***
** ***Containers numbered 12000 and higher***

Figure 3-2. Plywood Liners Installed.

3-8. Plywood Liners: Note that containers numbered less than 12000 have liners on sides as well as front. Containers numbered 12000 and higher have plywood liner covers only on the front of the container.

a. Removal (numbered less than 12000)

(1) Insert a flat steel chisel between the drivescrew head and the plywood panel and shear off the drivescrew head (fig, 3-2).

(2) Using a suitable drift pin, drive out the remainder of the drivescrew.

(3) Remove plywood panel and retainer.

b. Installation (containers numbered less than 12000)

(1) Position plywood panel and attach kick plate and for retainer with adhesive.

(2) Drill 3/16 inch diameter holes through plywood, kick plate, and rails so that drivescrews will not use previously bored holes.

(3) Using drivescrews 3/16 inch diameter with 5/16 inch grip, insert and tighten into rails. Make sure panel is tight against rails when driving screws.

c. ***Removal (numbered 12000 and higher)***

(1) Remove rivets by drilling using 3/16 inch (maximum) drill bit.

(2) Remove plywood panel.

d. Installation (numbered 12000 and higher)

(1) Use grease pencil to mark height of all retaining strips. There are five narrow strips and one wide strip secured to the corrugated panel at the front of the container.

(2) Position lower plywood panel horizontally so that it isn't higher than the middle of the large retaining *strip*.

(3) Drill 3/16 inch diameter holes through plywood at the height of the retaining strip. Use strips above as guides for drilling plywood at existing holes in retaining strips.

(4) Use pop riveter to attach plywood to the upper thin retaining strip, Make sure plywood is tight against retaining strip when putting in rivets. Do not attach plywood to wide retaining strip or attach kick plate at this time.

(5) Position second plywood panel above and resting on the first sheet of plywood. Attach it to both retaining strips in same way as above.

(6) Attach both plywood panels to wide metal retaining strip in the middle. This strip holds the joint between plywood panels, The joint between panels should be right in the middle of the wide strip. Attach in same manner as above.

(7) Attach kick plate to the remaining two narrow metal retaining strips behind the bottom of the lower plywood panel. Do not drill new holes into kick plate, Drill and rivet directly through existing holes.

3-9. Floors.

a. Removal. The floor boards are attached to the cross members by means of self-tapping screws. To remove the floor board remove the attaching screws (fig. 3-3).

b. Installation.

(1) Caulk (Item 4, App. D) area where exposed floor and sills meet. Place board in position.

(2) Drill 0.221 inch diameter holes through wood and steel cross members. Make sure new holes are drilled in cross member.

(3) Using self-tapping screws, seat screws in position and drive screws below floor level, Break off exposed portion of screws underneath container by using a piece of pipe or equivalent as a lever.

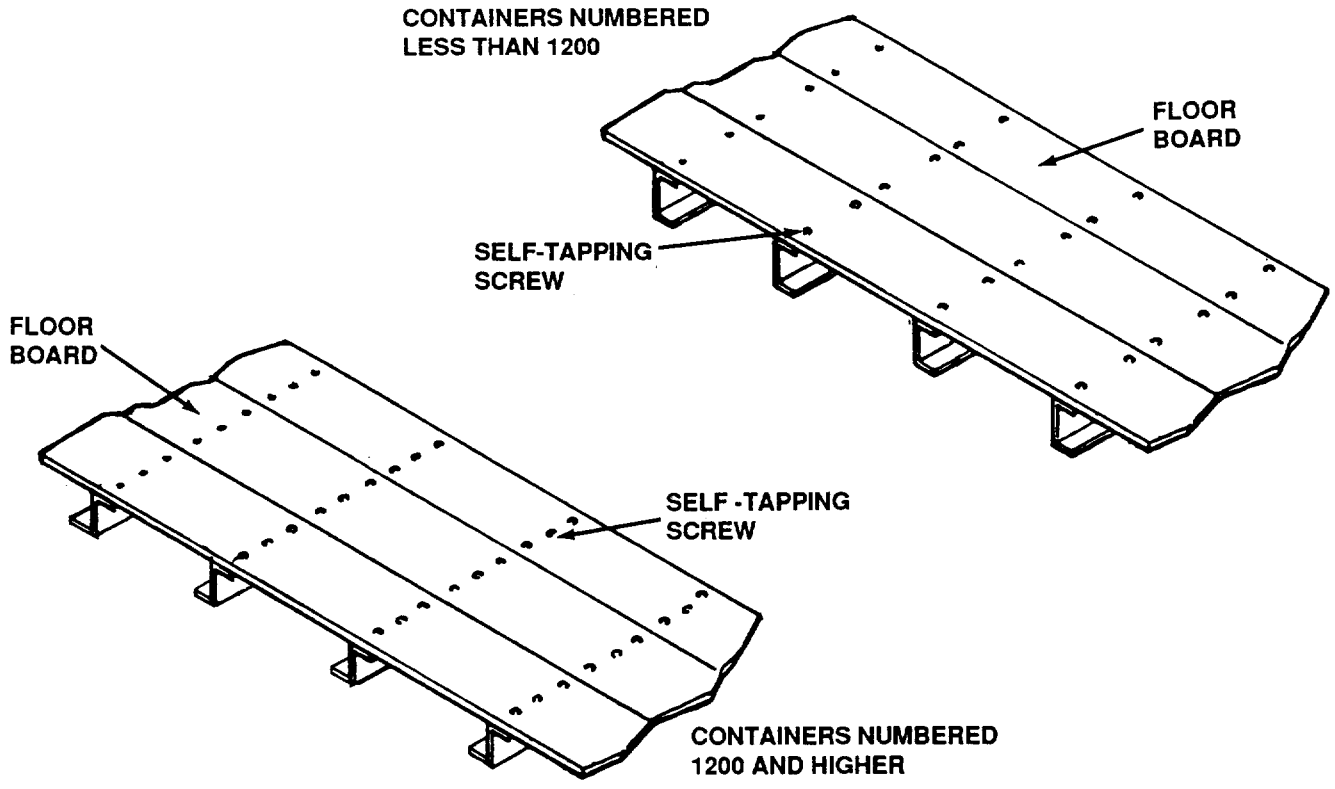


Figure 3-3. Floorboard Installation.

CHAPTER 4
REPAIR OF CARGO CONTAINER

Section I. DOORS AND RELATED ITEMS

4-1. Document Holder and Data Plates (containers numbered less than 12000). The document holder, caution plate and identification plate are attached to the container doors by means of panhead screws. Repair of these items consists of replacement accomplished by simply removing the attaching screws and installing replacement items. (Refer to fig. 3-1.) The identification plate will contain the same information as that shown on the plate being removed.

4-1.1. Data Plate (containers numbered 12000 and higher). The data plates are secured with rivets.

a. To Remove Data Plate

(1) Drill out rivets.

(2) Remove data plate.

b. To Install Data Plate.

(1) Add sealant around rivet holes, (item 4a, App. D).

(2) Install data plate with rivets.

4-2. Door and Door Hardware.

a. Door Repair

(1) To repair sheet metal panels of the door when the damage is minor:

(a) Remove paint from damaged area.

(b) Weld the crack or small tear with E6017 electrode with 60,000 minimum yield, (item 1, App. D).

(c) Paint repair area in accordance with Specification MIL-T-704. After cleaning and treating, apply two coats or olive drab, rust-inhibiting, semi-gloss enamel paint, (item 2, App. D). Allow overnight drying between coats.

(2) To repair sheet metal panels of the door when the damage is major:

(a) Remove paint from damaged area.

(b) Cut the damaged area such that a piece of metal can be placed over the damaged area. (Refer to fig. 4-1.)

(c) Apply repair sheet metal over all of the damaged area providing at least two inch overlap all the way around.

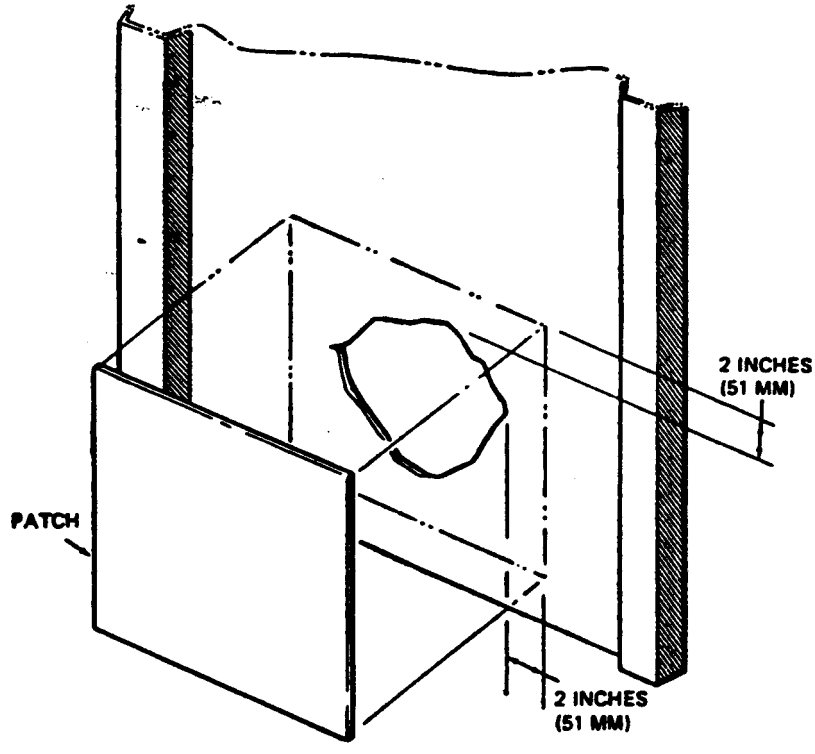


Figure 4-1. Sheet Metal Patch.

(d) Install a wood insert treated for water resistance. The metal face may then be reglued and secured around the perimeter by wood screws 1/2 inch long, spaced every 3 inches. Delamination of the metal surface is acceptable if the door forms a water/air tight seal when closed and secure. Pop riveting is an acceptable means of patching the door, as long as it does not penetrate the inner surface of the door.

(e) Weld the repair metal around the entire perimeter with E6017 electrode, (item 1, App. D).

(f) Paint repaired area in accordance with Specification MIL-T-704. After cleaning and treating, apply two coats of olive drab, rust-inhibiting, semi-gloss enamel paint (item 2, App. D). Allow overnight drying between coats.

b. Water Test After Repair. After any major repair to an empty container, a stream of water from an 0.5-inch nozzle at 15 psig shall be applied to all joints and seams. No water entry into container is permissible after repair.

c. Door Assembly Repair. (Containers numbered less than 12000).

(1) To remove door or any integral part of door where it is fastened with HUCK pins or standard carriage bolts, use a cold chisel. Split HUCK collar or nut along horizontal centerline and remove pin or bolt as required.

(2) After damaged door is repaired, check all existing bolt holes for being out-of-round, distorted, etc. Where it is required, drill damaged and/or distorted holes to a larger diameter and insert a wood dowel pin of a sufficient diameter and 1 1/16 inches long and sand smooth.

(3) Replace door or any integral part of door by placing replacement part in position and using as a template to drill 11/32 inch diameter bolt holes through door. Insert required HUCK pin, apply collar, and tighten with HUCK wrench.

NOTE

In lieu of fasteners, use 3/8-16 by 2 inch long carriage bolts with nuts.

(4) To replace a hinge and/or hinge pin, proceed as follows:

(a) Burn weld off end of hinge pin and remove pin.

(b) Remove fasteners securing hinge to door using a cold chisel. Split HUCK collar or nut along horizontal centerline and remove pin.

(c) Check hinge bolt holes for being out-of-round, distorted, etc. Where required, drill damaged or distorted hole to a larger diameter and insert a wood dowel pin of a sufficient diameter and 1 1/16 inches long and sand smooth.

(d) Replace hinge by placing in position on door and using as a template to drill 11/32 inch diameter hole through door. Insert required HUCK pin, apply collar and tighten.

(e) Install hinge pin and check operation of door for alignment. Adjust hinge if necessary.

(f) Tack weld end of hinge pin.

(5) Minor repairs to door sealing gaskets can be accomplished by applying adhesive-backed PVC gasket tape to damaged area, or by splicing with new gasket material. To splice gasket, remove damaged area and replace with new gasket material. Tape splice with adhesive backed PVC gasket tape.

NOTE

Where possible, cuts should be made behind hinges or guide plate assemblies.

(6) Replace a damaged door gasket as follows: (fig. 4-2).

(a) Remove staples and aluminum retaining strips that secure gasket to door edge and remove gasket. In some instances, it may be advantageous to remove the top and bottom lock-bar ends to facilitate removal and installation of gaskets.

(b) Thoroughly clean all edges of door by sanding, peening, etc.

(c) Stretch new gasket (item 5, App. D) over door edge. Make sure the larger lip of gasket faces the outside of the door. New gaskets should be installed at ambient temperature of 70 degrees F (21 degrees C) or above.

(d) Install new aluminum retaining strips on the inside channel of gasket and staple to door edge, with a staple gun, at approximately three inch (7.6 cm) centers. Check operation of door for mating of gasket with door opening surfaces. If a hang-up and/or fold-back occurs, iron out gasket by inserting a piece of plywood 3/4 inch thick and 3 inches wide in the channel section of gasket and carefully apply heat to the outside surface with an open flame torch. Allow gasket to cool thoroughly before closing door tightly.

d. Door Assembly Repair (containers numbered 12000 and higher): All door components are welded. To remove any integral part of door, cut off the item that must be removed and grind down the work area. Mark the position for the replacement item and tack weld it into place.

CAUTION

Frictionless Bearings Can Be Deformed By Heat

Carefully draw a bead around the entire component. Be especially careful when welding around hinges and locking arms that have integral frictionless bearings. These bearings can be deformed or destroyed by the heat of the welder. If bearings are deformed by heat, replace entire door component, Paint welded and ground area as shown in MIL-T-704. Repair door gaskets in the same manner as described in (6)(c) above, substituting pop rivets for staples to secure retaining strips.

e. ***Door Gasket Repair (containers numbered 12000 and higher)***

(1) Secure door in open position so that gasket is easily reached.

(2) Drill through rivets holding retaining strip to door. Use drill size of 3/16 inch (maximum).

(3) Remove old gasket material completely. Use shears to cut along 45 degree edge at gasket corners.

(4) Use putty knife to remove any material that is attached to the frame. Do not leave any material attached to door, heat or chemicals may have caused the gasket to stick to the frame.

(5) Use shears to cut new gasket out of gasket material. The old gasket should be used as a template, Be careful to cut the 45 degree corners precisely.

(6) Place new gasket material onto door, Be sure that 45 degree corners touch over their entire length.

(7) Position holdown strip to cover entire door edge. Assure that holes in holdown strip and door frame line up.

(8) Insert one pop rivet at the top edge (for vertical gasket sides) or left edge (for horizontal). Then, keeping gasket smooth and in contact with the door frame, complete inserting rivets.

(9) Use “hot knife” method to join old and new gaskets at 45 degree corners: Using an open flame torch, heat a putty knife so that it melts the gasket material slightly on contact. Run the knife down the 45 degree corner, melting both gasket edges. Press the two gasket pieces together immediately. The gaskets will harden together, forming a continuous surface. Practice this on scrap before attempting it if you are not familiar with the method. Never use open flame on the gasket itself.

(1 0) Release door and move it from closed position to full open position to assure that it seals but does not get in the way of the door’s swing.

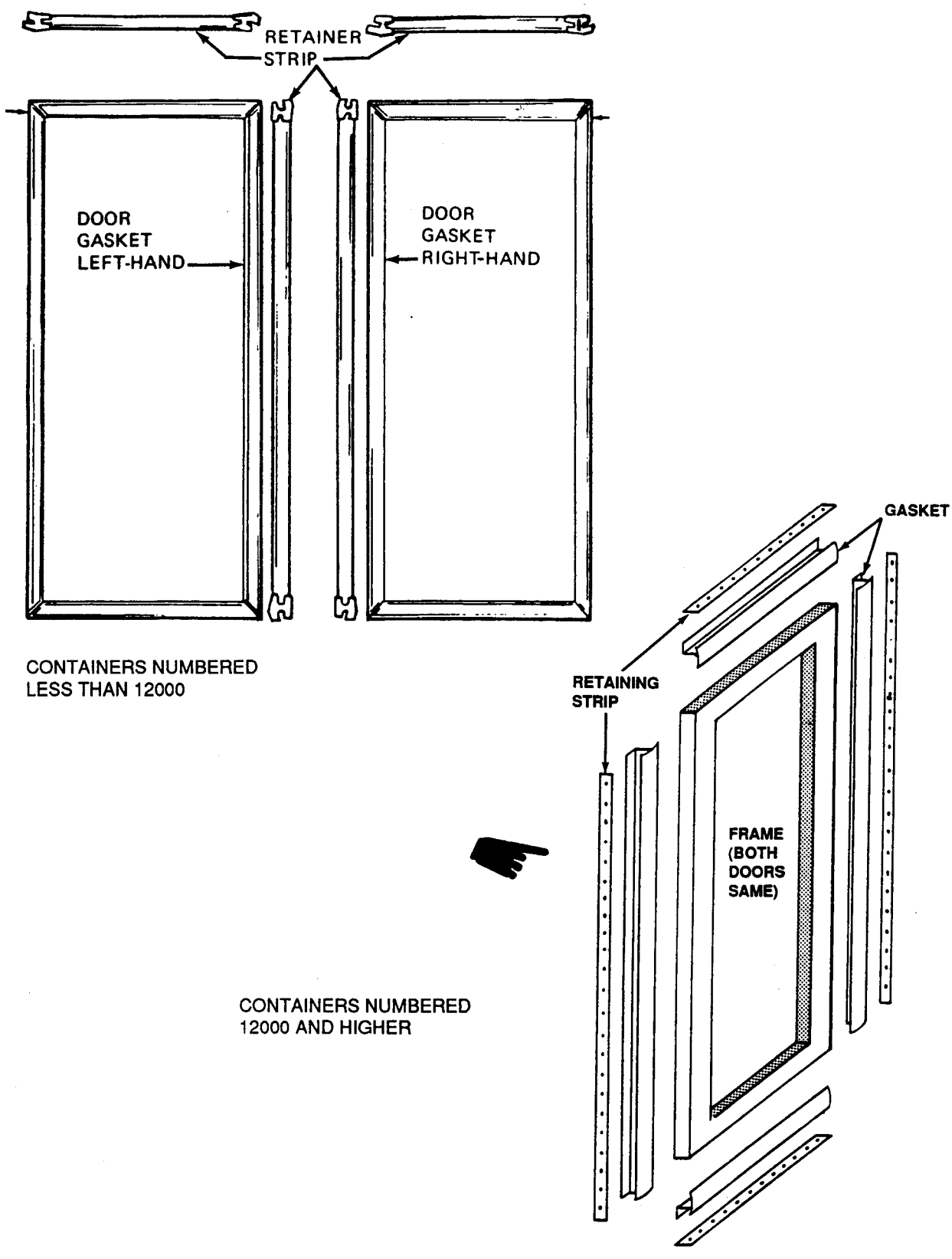


Figure 4-2. Door Gasket Assembly.

Section II. CONTAINER SIDES AND END

NOTE

Containers numbered less than 12000 have liners on sides as well as front. Containers numbered *12000* ***and higher have plywood liners only on the front of the container.***

4-3. Plywood Liners. Replace damaged plywood panel as follows:

a. Removal.

(1) Insert a flat steel chisel between the drivescrew head and the plywood panel and shear off the drivescrew head. (Refer to fig. 3-2.)

(2) Using a suitable driftpin, drive out the remainder of the drivescrew.

(3) Remove plywood panel and retainer.

b. Installation.

(1) Position plywood panel and attach kick plate and/or retainer with adhesive.

(2) Drill 3/16 inch diameter holes through plywood, kick plate, and rails so that drivescrews will not use previously bored holes.

(3) Using drivescrews 3/16 inch diameter with 5/16 inch grip, insert and drive screws into rails. Make sure panel is tight against rails when driving screws.

4-4. Corrugated Panels. Replace damaged panel section as follows:

a. If necessary remove plywood liner (para 4-3).

b. Cut damaged corrugated panel from rails, headers, and/or corner posts, being careful not to burn the support unless it is also to be replaced.

c. Clean burned area with grinder and wire brush.

d. Tack replacement panel into place (fig. 4-3) and check for deformation before final welding. If deformation of the container configuration is evident, dimensions must be checked. The over-all dimensions and the variation of diagonal distances between opposite corner fittings must be within tolerances as indicated in paragraph 1-8.

e. Paint repaired area in accordance with Specification MIL-T-704. After cleaning and treating, apply two coats of olive drab, rust-inhibiting, semigloss enamel paint, (item 2, App. D). Allow overnight drying between coats.

f. If necessary, install plywood panel (paragraph 4-3).

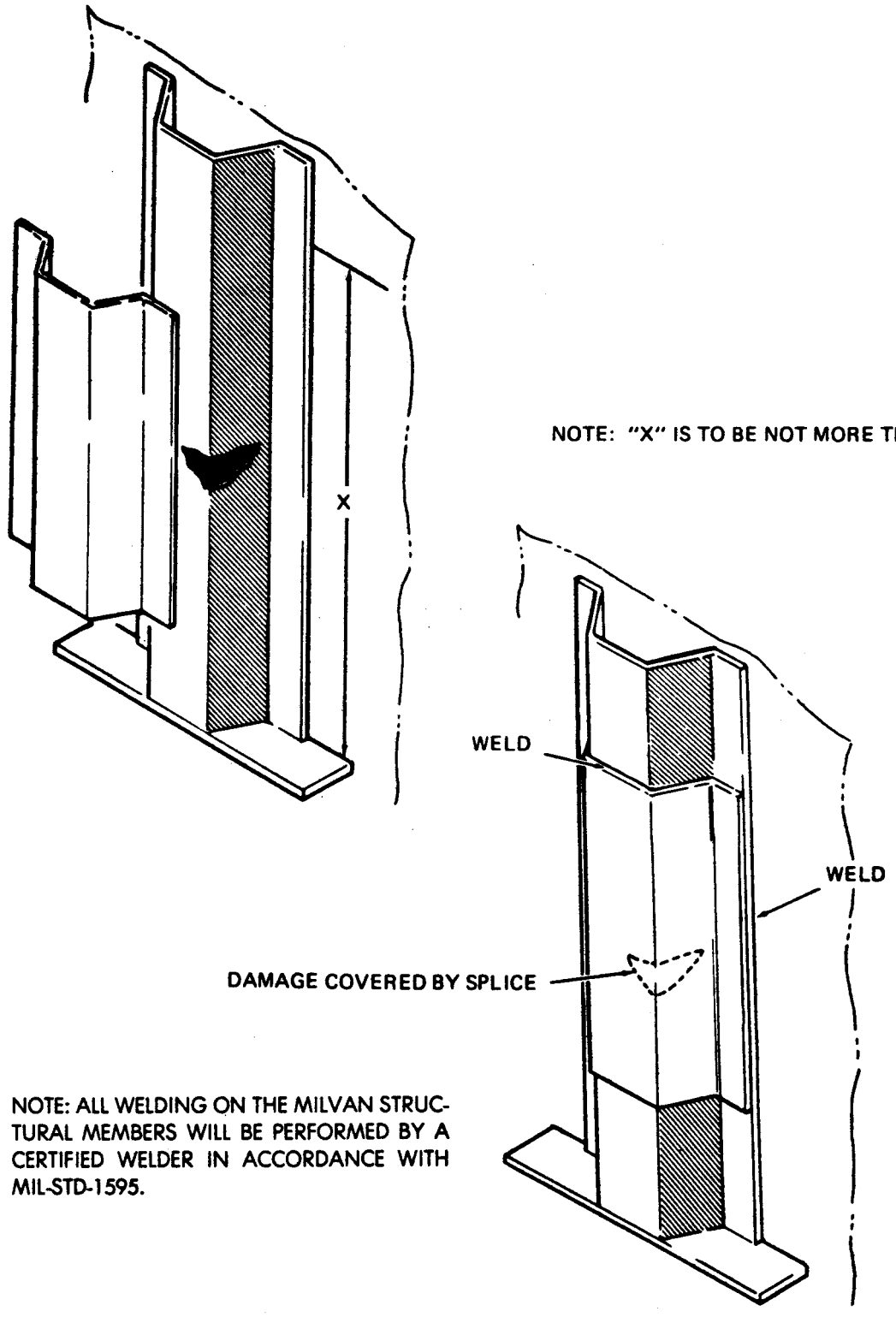


Figure 4-3 Corrugated Panel Repair. *TS 8115-200-23&P/4-3*

g. Empty containers will be repaired as follows:

(1) To repair the sheet metal panels of an empty container when damage done is minor:

(a) Remove paint from damaged area.

(b) If necessary, remove plywood liner (paragraph 4-3).

(c) Weld the crack or small tear with E6017 electrode with 60,000 minimum yield (item 1, App.

D).

(d) Paint repaired area in accordance with Specification MIL-T-704. After cleaning and treating, apply two coats of olive drab, rust-inhibiting, semi-gloss paint, (item 2, App. D). Allow overnight drying between coats.

(e) If necessary, install plywood panel (para 4-3).

(2) To repair the sheet metal panels of an empty container when damage is major, i.e., large hole:

(a) Remove paint from damaged area.

(b) If necessary, remove plywood panel (para 4-3).

(c) Cut the damaged area such that a piece of metal can be placed over the damaged area (fig. 4-1) .

(d) Apply repair sheet metal over all of the damaged area providing at' least two inch overlap all the way around.

(e) Weld the repair metal around the entire perimeter with E6017 electrode, (item 1, App. D).

(f) Paint repaired area per subparagraph ***g (1), (d).***

(g) If necessary, install plywood panel (para 4-3).

4-5. Corner Posts, Side and End Rails.

a. Burn out damaged section (fig. 4-4) being careful not to burn adjacent panels unless they too are to be replaced.

b. Clean burned area with grinder and wire brush.

c. Tack weld replacement section into place and check for deformation. The splice plate as illustrated in figure 4-4 shall extend for a minimum of 12 inches on each side of damaged area.

d. Weld section and recheck for deformation.

Section III. CONTAINER FLOOR

4-6. Floorboard Replacement. If floorboard is damaged, cracked or warped 10 feet (3 m) or more, replace the whole board (fig. 4-5); less than 10 feet (3 m) floorboard is to be spliced (refer to para 4-7).

a. Remove self-tapping phillips head screws and remove damaged board.

b. Caulk area where exposed floor and sills meet. Place new board in position.

c. Drill 0.221 inch diameter holes through wood and steel cross members. Make sure new holes are drilled in cross member.

d. Using self-tapping screws, seat screws in position and drive screws below floor level. Break off exposed portion of screws underneath container by using a piece pipe or equivalent as a lever.

4-7. Floorboard Repair. Repair a damaged floorboard section as follows:

a. Saw out damaged portion of floor along face of moss member (fig. 4-6). Splice must span at least four cross members and angle iron attached to cross member must extend beyond and be attached to the adjacent floorboard on each side of splice. No more than three splices are allowed per container floor.

b. Weld to cross member, a steel angle 1/8 inch thick by 1 inch by 1 inch. The angle iron must be attached to cross members by welding each end to prevent rotation and along the bottom by spotting two inch welds six inches on center. Cross members must be sound (fig. 4-7).

c. Caulking is an acceptable method of making the floor weather tight.

d. Drill 0.221 inch diameter holes through wood, angle support and cross members.

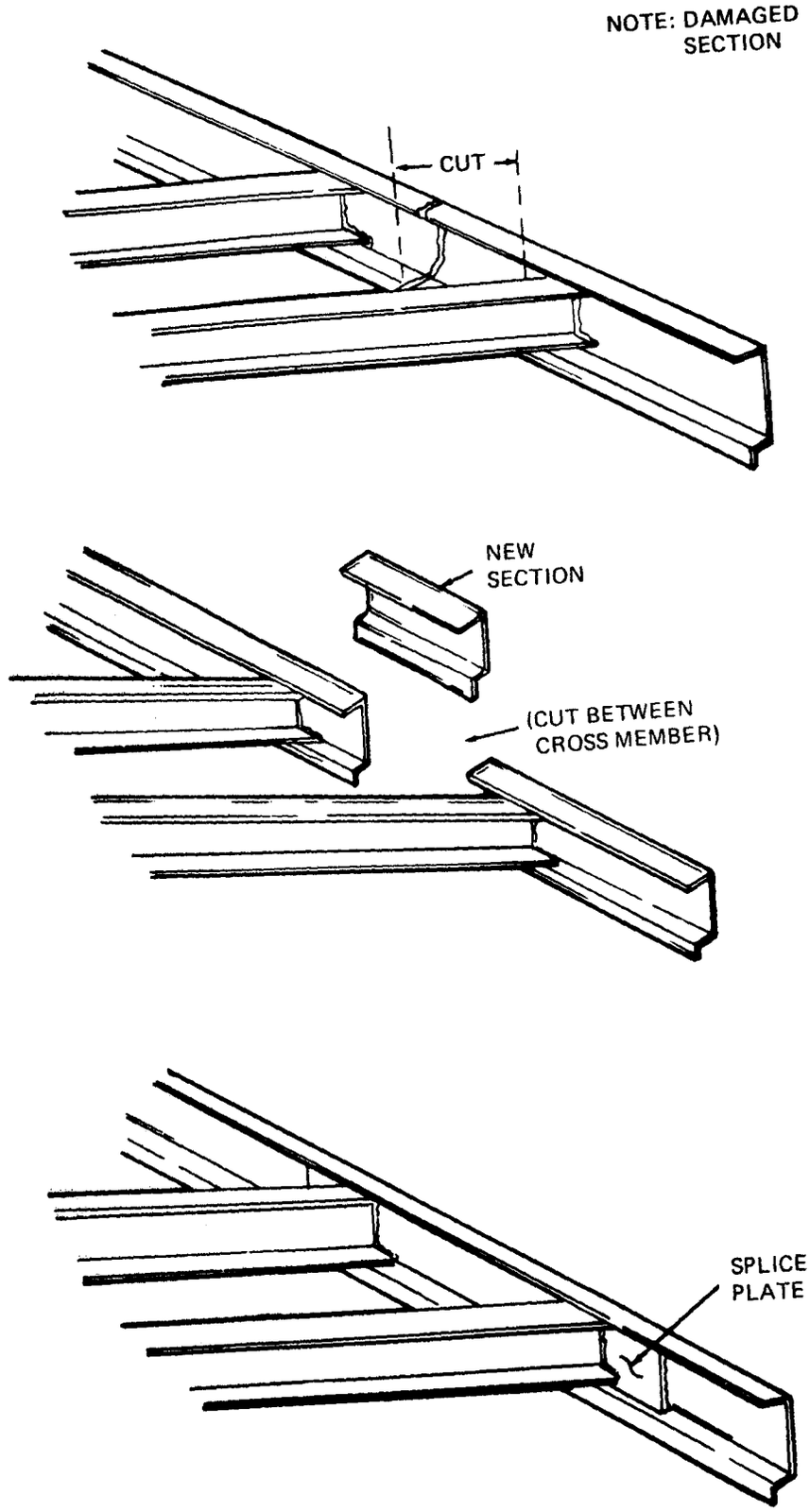
e. Using self-tapping screws, seat screws in position and drive below floor level. Break off exposed portion of screws underneath container by using a piece of pipe or equivalent as a lever.

f. A forklift test as outlined below will be applied if in the judgement of the inspector, any other forms of damage or signs of deterioration exist which might indicate that the container floor is structurally unsound.

(1) Support the empty MILVAN Container on its four corner posts so that the floor cross members are clear of the ground (approximately 6 inches).

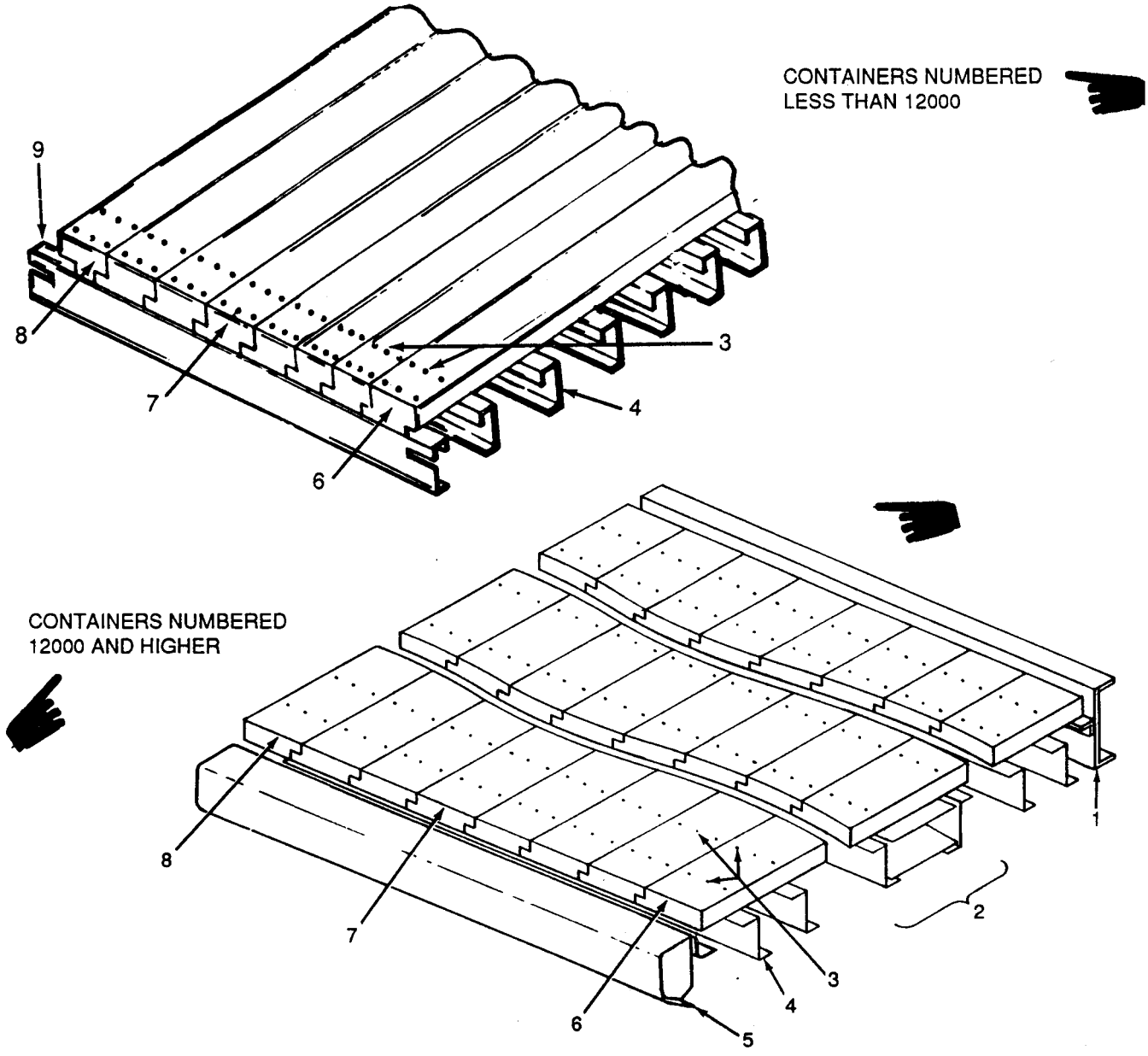
(2) Load a 4000 lb (1814 kg) lowmast forklift with 4000 lb (1814 kg) weight safely located at the end of the forklift tines.

(3) Run the forklift down the center line of the container to the forward end wall and back out. Continue this procedure for both the left side and right side of the container.



TS 8115-200-23&P/4-4

Figure 4-4. Post and Rail Repair.

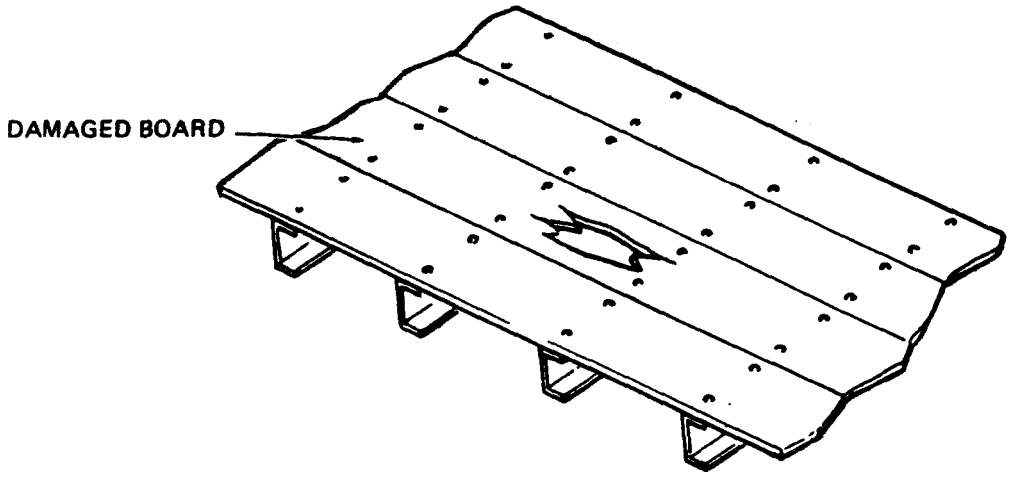


Legend for figure 4-5:

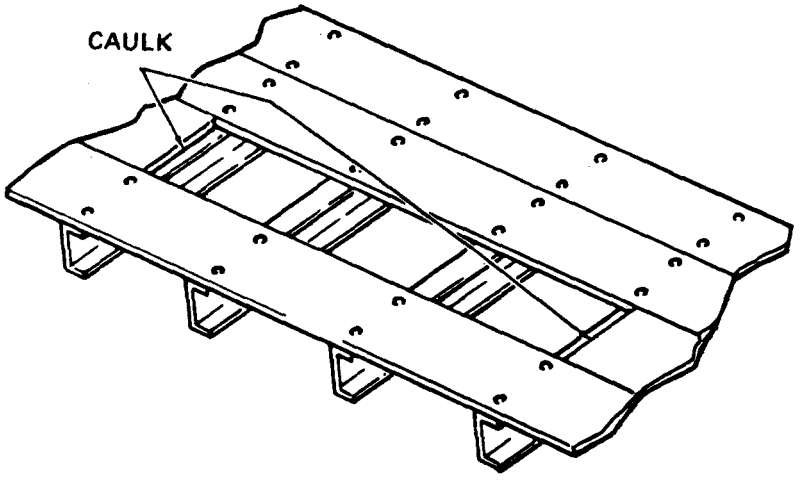
1. Front Bottom Rail
2. Fork Lift Pocket
3. Screws
4. Cross Member
5. Sill
6. Plank, Right
7. Plank, Intermediate
8. Plank, Left
9. Cross Member, Front/Rear

Figure 4-5. Container Floor Assembly.

DAMAGED FLOOR BOARDS



CUT DAMAGED SECTION



NOTE: ALL WELDING ON THE MILVAN STRUCTURAL MEMBERS WILL BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH MIL-STD-1595.

Figure 4-6. Cutting Out Damaged Floorboard Section.

TS 8115-200-23&P/4-6

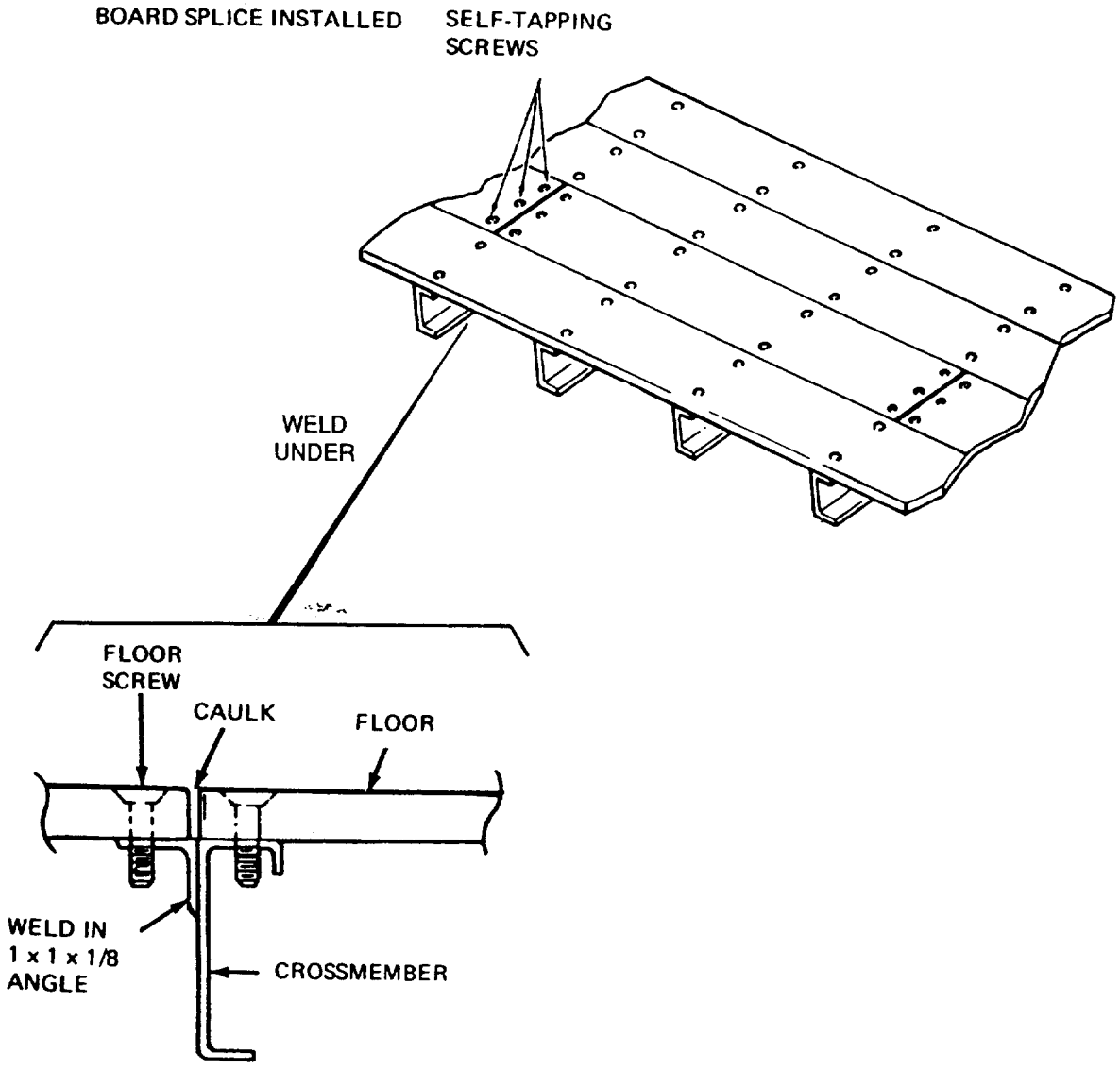


Figure 4-7. Floorboard Section Repairs.

(4) If there is no failure of the floor structural members weld joints, the container shall be considered acceptable.

4-8. Floor Cross Members. Cross members which are bent or dented must be replaced or repaired. When replacing a cross member, use extreme caution to prevent the torch flame from burning the wood floor. Burn out unrepairable cross member and weld new one in its place. If cross member is cracked or fractured, it must be replaced.

4-9. Threshold Plate (containers numbered less than 12000). The threshold plate (Fig. 4-8) is secured to the floor by bolts. If the threshold plate is missing or is damaged beyond repair, do not replace, When

threshold plates secured to the floor with nails become loose, replace nails with 1/4 inch diameter carriage bolts, square-neck, round-head (NSN 5306-00-057-2506), washer (NSN 5310-00-809-4058), and nut (NSN 5310-00-929-1807). Be sure that bolt head does not protrude.

4-10. Kick P1ate (fig.4-8).

a. Insert a flat steel chisel between drivescrew head and kick plate and shear off head.

b. Remove damaged kick plate.

c. Install new kick plate and install with adhesive.

d. Drill 3/16-inch diameter holes through kick plate, plywood and rails so that drivescrews will not use previously drilled holes.

e. Using drivescrews 3/16-inch diameter with 5/16-inch grip, insert and drive screws into rails.

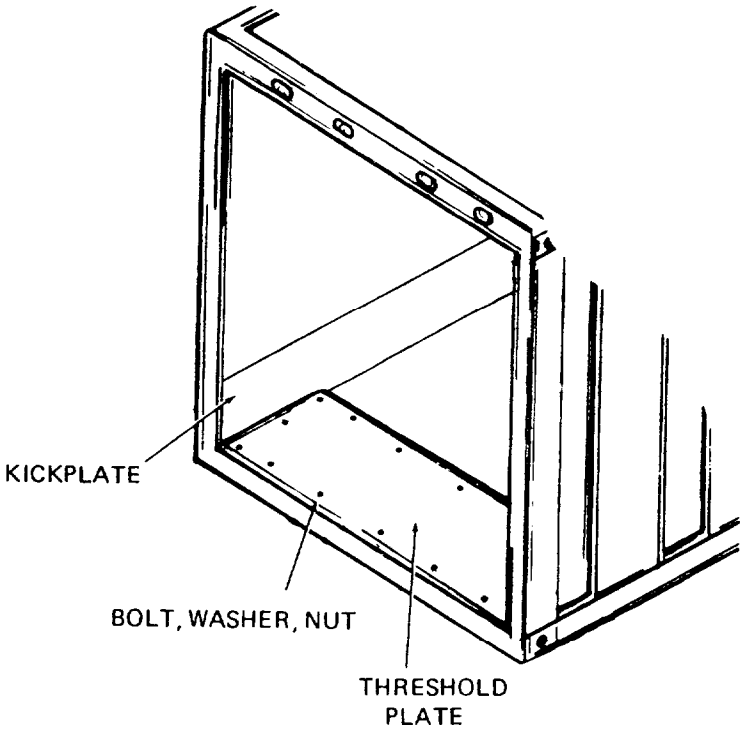


Figure 4-8. Threshold Plate and Kick Plate. (Containers Numbered less than 12000)

Section IV. CONTAINER ROOF

4-11. Roof Panel.

a. Repair minor roof panel damage as follows:

(1) Remove paint from damaged area.

(2) Weld the crack or small tear with E6017 electrode with 60,000 minimum yield, (item 1, App. D).

(3) Paint repaired area in accordance with Specification MIL-T-704. After cleaning and treating, apply two coats of olive drab, rust-inhibiting, semi-gloss enamel paint, (item 2, App. D). Allow overnight drying between coats.

(4) The use of closed mandrel rivets (not pop rivets) in lieu of welding patch is also acceptable providing patch is watertight. To waterproof patch, caulk area around hole, apply patch, drill and rivet patch and then place bead of caulking around the entire periphery of the patch.

b. Repair major roof panel damage (containers numbered less than 12000) as follows:

(1) Remove paint from damaged area.

(2) Cut the damaged area such that a piece of metal can be placed over the damaged area (fig. 4-9).

(3) Apply repair sheet metal over all of the damaged area providing at least a two inch overlap all the way around.

(4) Weld the repair metal around the entire perimeter with E6017 electrode, (item 1, App. D).

(5) Paint repaired area in accordance with specification MIL-T-704. After cleaning and treating, apply two coats of olive drab, rust-inhibiting, semi-gloss enamel paint (item 2, App. D). Allow overnight drying between coats.

(6) The use of closed mandrel rivets (not pop rivets) in lieu of welding patch is also acceptable providing patch is watertight. To waterproof patch, caulk area around hole, apply patch, drill and rivet patch and then place bead of caulking around the edge of the patch.

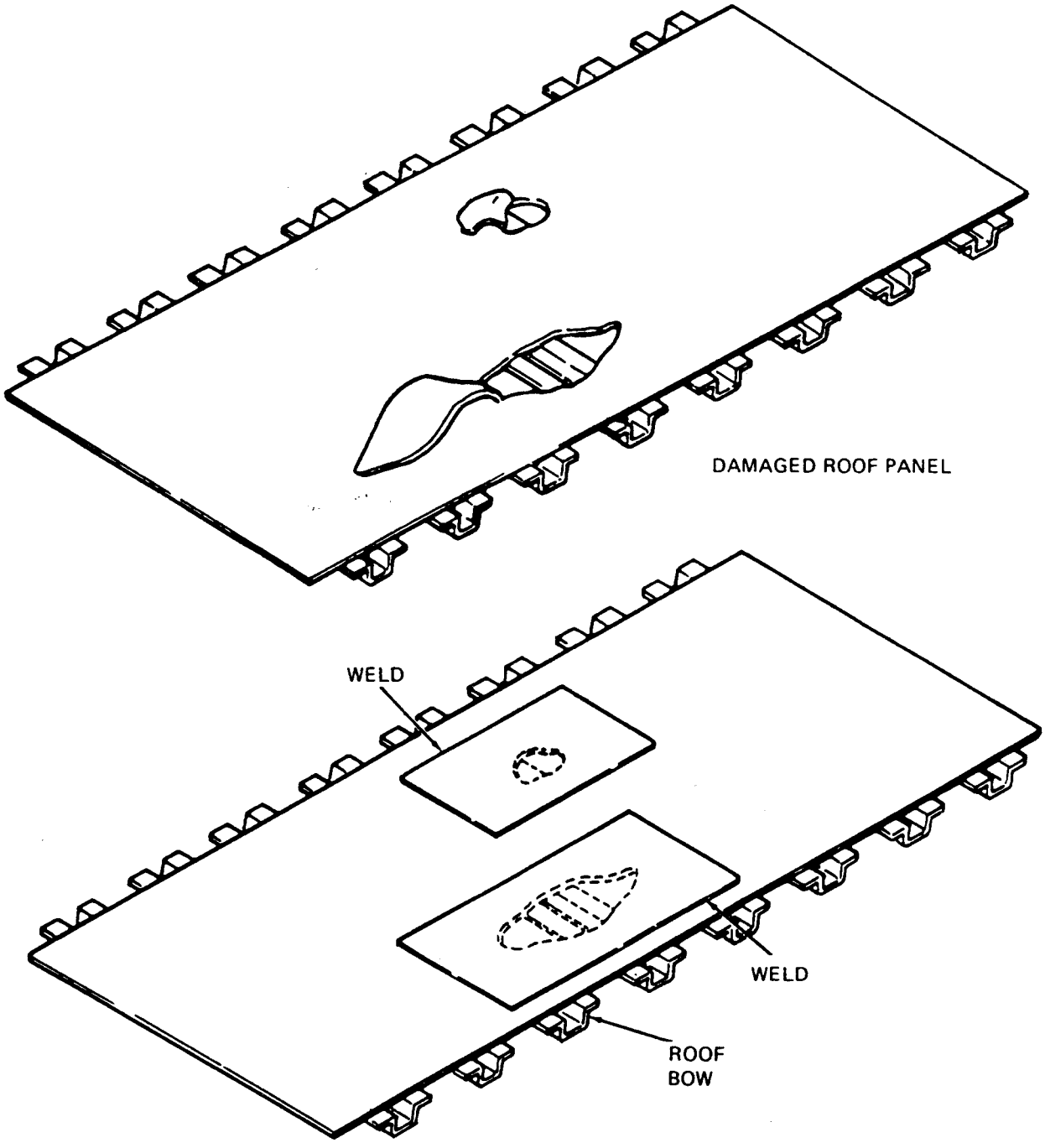


Figure 4-9. Roof Panel Repair.
(Containers Numbered less than 12000)

(7) After any major repair to an empty container, a stream of water from an O. S-inch nozzle at 15 psig shall be applied to all joints and seams. No water entry into container is permissible after repair.

c. Repair Major roofpanel damage (containers numbered 12000 and higher) as follows:

(1) Do not attempt to repair by bolted and caulked patches or fiberglass tape. Cut out the entire damaged corrugated roof panel. Be careful not to damage side rails. See Figure 4-10 for this and following steps.

(2) Cut out significant portion of new panel not to exceed size of replacement panel.

(3) Remove paint from surfaces to be welded.

(4) Weld in new roof panel. Weld seams must be continuous so that no water can enter through the roof. Use E6017 electrode (item 1, App. D).

(5) Paint repaired area as shown in MIL-T-704. After cleaning and treating, apply two coats of olive drab, rust-inhibiting, semi-gloss enamel paint (item 2, App. D). Allow overnight drying between coats.

(6) Water test the empty container. Use a stream of water from an 0.5-inch nozzle at 15 psig to spray all joints and seams. No water entry into container is permissible after repair. If water enters, reweld or talk the seams and retest.

4-12. Roof Bow (Fig. 4-9). Repair roof bow as follows:

a. Straighten the bow if it is bent but not cracked.

b. Replace the bow in accordance with Drawing No. 13219E0074 if it is cracked.

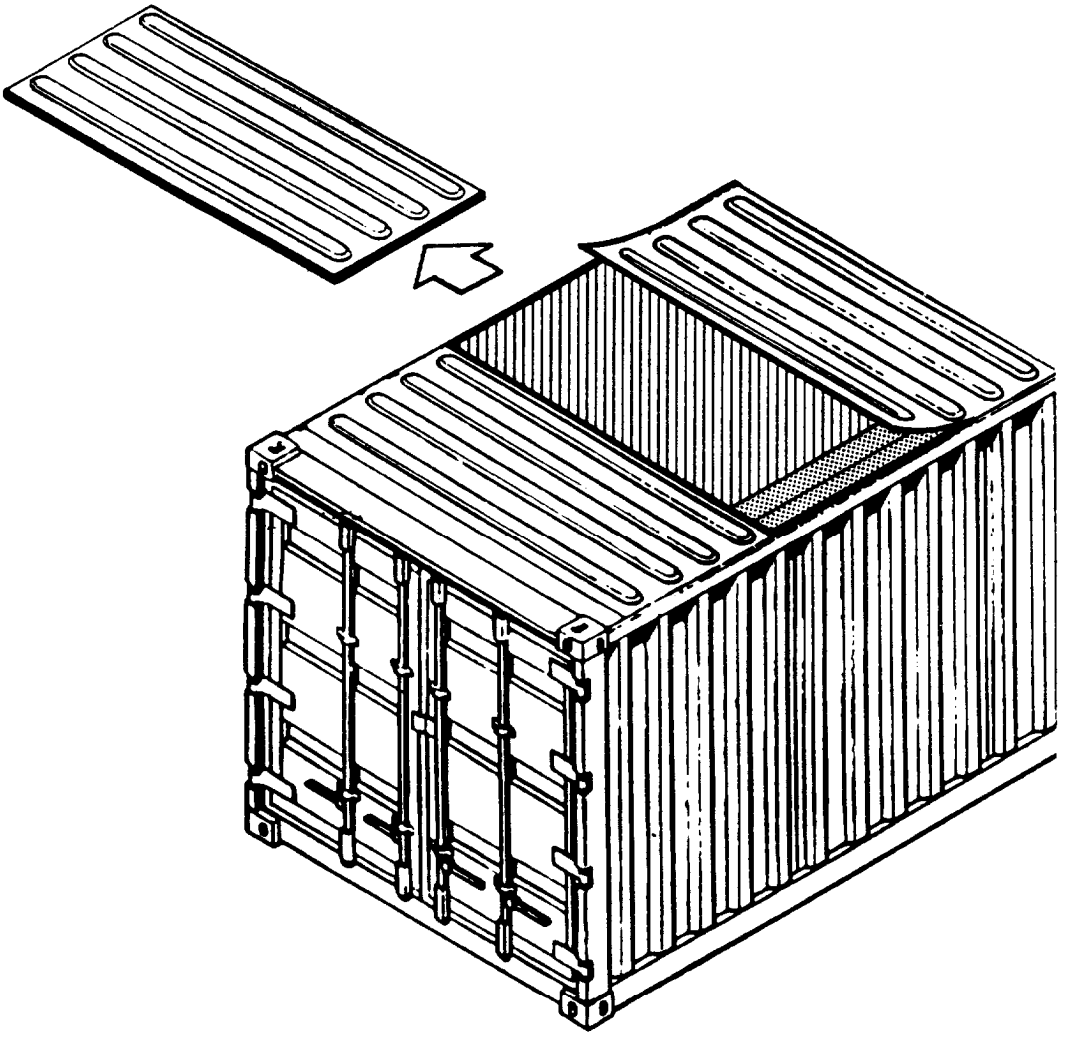


Figure 4-10. Roof Panel Repair
(Containers Numbered 12,000 and Higher)

APPENDIX A
REFERENCES

A-1. Demolition.

TM 750-244-3	Destruction of Material to Prevent Enemy Use

A-2. Maintenance.

AR 750-17	Maintenance of MILVAN Semi-trailer, MILVAN Axle Bogie, and Reusable Metal Shipping Containers (CONEX-MILVAN)
TB 55-8115-202-24	Standards of Maintenance for MILVAN Containers Overhauled or Repaired.
TM 9-214	Inspection, Care and Maintenance of anti-friction Bearings
TM 9-450	Metal Body Repair and Related Operations
DA Pam 738-750	The Army Maintenance Management System (TAMMS)
TM 743-200	Storage and Materials Handling
TM 9-2330-297-14	Operators, Organizational, Direct and General Support Maintenance Manual Chassis, Coupleable, Semitrailer (MILVAN)

A-3. Operation.

MTMS PAM 55-2	Guidelines for Stuffing Containers
AMCR 55-17	Stuffing of MILVAN/SEAVAN Containers

A-4. Storage.

TM 740-90-1	Administrative Storage of Equipment

APPENDIX B
MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. General.

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels.

b. The Maintenance Allocation Chart (MAC) in Section II designates overall responsibility for the performance of maintenance functions on the identified end item or component. The implementation of the maintenance functions upon the end item or component will be consistent with the assigned maintenance functions.

c. Section III lists the special tools and test equipment required for each maintenance function as referenced from Section II.

d. Section IV contains supplemental instructions on explanatory notes for a particular maintenance function.

B-2. Maintenance Functions.

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Adjust. To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install. The act of emplacing, seating, or fixing into position an item, part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

h. Replace. The act of substituting a serviceable, like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, or replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), and item or system.

j. Overhaul. That maintenance effort (services/actions) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (i.e., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc.) considered in classifying Army equipments/components.

B-3. Column Entries Used In The MAC.

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item listed in column 2. (For detailed explanation of these functions, see para B-2.)

d. Column 4, Maintenance Level. Column 4 specified, by the listing of a work time figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform the maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance levels, appropriate work time figures will be shown for each level. The number of manhours specified by the work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance levels are as follows:

C	Operator or crew
O	Organization maintenance
F	Direct support maintenance
H	General support maintenance
D	Depot maintenanance

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, test, and support equipment required to perform the designated function.

f. Column 6, Remarks. This column shall contain a letter code in alphahabetic order which shall be keyed to the remarks contained in Section IV.

B-4. Column Entries Used in Tool and Test Equipment Requirements.

a. Column 1, Tool or Test Equipment Reference Code. The tool and test equipment reference code correlates with a maintenance function on the identified end item or component.

b. Column 2, Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

c. Column 3, Nomenclature. Name or identification of the tool or test equipment.

d. Column 4, National/NATO Stock Number. The National or NATO Stock Number of the tool or test equipment.

e. Column 5, Tool Number. The manufacturer's part number.

B-5. Explanation of Columns in Section IV.

a. Reference Code. The code scheme recorded in column 6, Section II.

b. Remarks. This column lists information pertinent to the maintenance function being performed as indicated on the MAC, Section II.

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance function	(4) Maintenance Level C	O	F	H	D	(5) Tools and equipment	(6) Remarks
01	GROUP DOCUMENT HOLDER AND PLATES								
	Holder, Document	Inspect		0.1					
		Replace			0.5				
	Plate, Caution	Replace			0.5				
	Plate, Name	Replace			0.5				
02	GROUP, DOOR AND HARDWARE								
	Door Assy	Inspect		0.1					
		Replace			4.0				
		Repair			4.0				
	Gasket, Door	Inspect		0.1					
		Replace			3.0				
		Repair			1.0				
	Hardware, Door	Inspect		0.1					
		Service		0.5					A
		Replace			3.0				
03	GROUP, SIDES AND END								
	Liners, Plywood	Inspect		0.1					
		Replace			4.0				
	Panel, Corrugated	Inspect		0.1					
		Replace			1.5				B
		Repair		2.0					C
	Post, Corner	Inspect		0.1					
		Replace					10.0		
		Repair			2.0				
	Rail, Side	Inspect		0.1					
		Replace					15.0		
		Repair			2.0				
	Rail, End	Inspect		0.1					
		Replace					10.0		
		Repair			2.0				
	Fitting, Corner	Inspect		0.1			4.0		
		Replace							

*SUBCOLUMNS ARE AS FOLLOWS: C - OPERAT R/CREW; O - ORGANIZATIONAL;
F - DIRECT SUPPORT; H - GENERAL SUPPORT; D - DEPOT
**INDICATES WT/MH REQUIRED

Section II. MAINTENANCE ALLOCATION CHART - Cont

(1) Group Number	(2) Component/Assembly	(3) Maintenance function	(4) Maintenance Level C	O	F	H	D	(5) Tools and equipment	(6) Remarks
04	GROUP, FLOOR								
	Wood Plank	Inspect		0.1					
		Replace			4.0				
		Repair			4.0				
	Member, Cross	Inspect		0.1					
		Replace			6.0				
		Repair			6.0				
	Plate, Threshold	Inspect		0.1					
		Replace			0.7				
		Repair			0.5				
	Plate, Kick	Inspect		0.1					
		Replace			0.5				
05	GROUP, ROOF								
	Sheet, Roof	Inspect		0.1					
		Replace			4.0				
		Repair			2.0				
06	GROUP MECHANICAL LOAD BRACING SYSTEM								
	Rail, Horizontal	Inspect		0.1					
		Replace			4.0				
		Repair			2.0				
	Rail, Vertical	Inspect		0.1					
		Replace			2.0				
		Repair			1.0				
	Beam, Assembly	Inspect		0.1					
		Replace		0.5					
		Repair		1.0					

*SUBCOLUMNS ARE AS FOLLOWS: C - OPERATOR/CREW; O - ORGANIZATIONAL; F - DIRECT SUPPORT; H - GENERAL SUPPORT; D - DEPOT

**INDICATES WT/MH REQUIRED

Section III. TOOLS AND TEST EQUIPMENT REQUIREMENTS

This section is not applicable.

Section IV. REMARKS

Reference Code	Remarks
A	Includes lubrication of hinges and guide plates.
B	Replace damaged section as required by patch welding.
C	Repair accomplished by sealing leaks with sealing compound or patch kit.

APPENDIX C. REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

C-1. SCOPE. This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of unit, direct support, and general support maintenance of the Container, General Cargo; MIL VAN. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

C-2. GENERAL. In addition to this section, Introduction, this Repair Parts and Special Tools List is divided into the following sections:

a. Section II. Repair Parts List. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. This list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Bulk materials are listed in item name sequence. Repair parts kits are listed separately in their own functional group within Section II. Repair parts for repairable special tools are also listed in this section. Items are shown in the associated illustration(s)/figure(s).

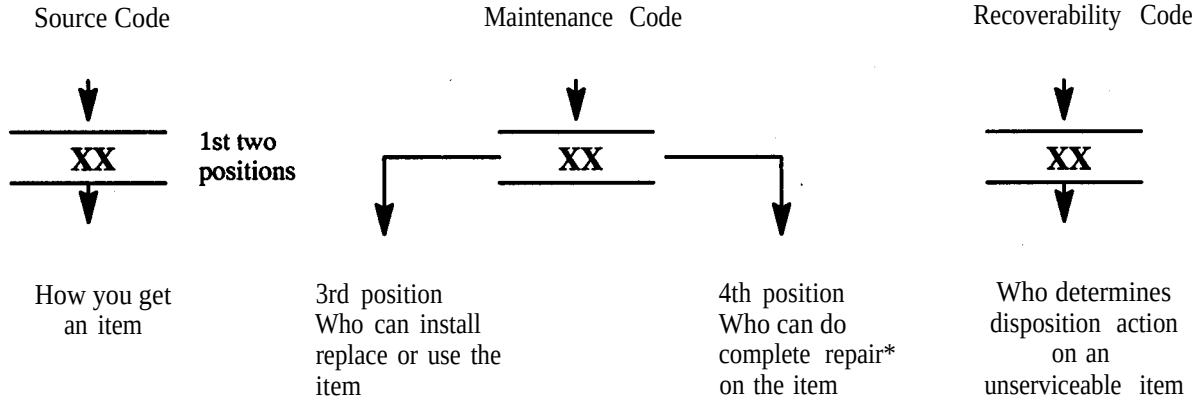
b. Section I11. Special Tools List. A list of special tools, special TMDE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BO1) information in DESCRIPTION AND USABLE ON CODE column) for the performance of maintenance.

c. Section IV. Cross-references Indexes. A list, in National Item Identification Number (NIIN) sequence, of all National stock numbered items appearing in the listing, followed by a list in alphanumeric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross referenced to each illustration figure and item number appearance. The figure and item number index lists figure and item number in alphanumeric sequence and cross references NSN, CAGEC and part number.

C-3. EXPLANATION OF COLUMNS (SECTIONS II AND III).

a. ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

b. SMR Code (Column (2)). The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requisitioning information, maintenance category authorization criteria, and disposition instruction, as shown in the following breakout:



*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

(1) Source Code. The source code tells You how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follows:

Code	Explanation
PA PB PC** PD PE PF PG	Stocked items; use the applicable NSN to requested/requisition items with these source codes. They are authorized to the category indicated by the code entered in the 3rd position of the SMR code. NOTE: Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance category indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.
MO- (Made at org/AVUM Level) MP - (Made at DS/AVUM Level) MH - (Made at GS Level) ML - (Made at Specialized Repair Activity (SRA)) MD - (Made at Depot)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION and USABLE ON CODE (UOC) column and listed in the Bulk Material group of the repair parts list in this RPSTL. If the item is authorized to you by the 3rd position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.
AO - (Assembled by org/AVUM Level) AF - (Assembled by DS/AVIM Level AH - (Assembled by GS Category) AL - (Assembled by SRA) AD - (Assembled by Depot)	Items with these codes are not to be requested/ requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd position code of the SMR code authorizes you to replace the item, but the source code indicates the items are assembled at a higher level, order the item from the higher level of maintenance.

XA - Do not requisition "XA''-coded item. Order its next higher assembly. (Also, refer to the NOTE below.)

XB - If an "XB" item is not available from salvage, order it using the CAGEC and pail number given.

XC - Installation drawing, diagram, instruction sheet, field service drawing, that is identified by Reciprocating Compressor manufacturer's part number.

XD - Item is not stocked. Order an "XD''-coded item through normal supply channels using the CAGEC and part number given if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, maybe used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

(2) Maintenance Code. Maintenance codes tells you the level(s) of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

(a) The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following levels of maintenance.

Code	Application/Explanation
C-	Crew or operator maintenance done with unit or aviation unit maintenance.
O-	Unit or aviation unit category can remove, replace, and use the item.
F-	Direct support or aviation intermediate level can remove, replace, and use the item.
H-	General support level can remove, replace, and use the item.
L-	Specialized repair activity can remove, replace, and use the item.
D-	Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i.e., perform all authorized repair functions.) NOTE: Some limited repair maybe done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes. This position will contain one of the following maintenance codes.

Code	Application/Explanation
O-	Unit or (aviation unit) is the lowest level that can do complete repair of the item.
F-	Direct support or aviation intermediate is the lowest level that can do complete repair of the item.
H-	General Support is the lowest level that can do complete repair of the item.
L-	Specialized repair activity is the lowest level that can do complete repair of the item.
D-	Depot is the lowest level that can do complete repair of the item.
Z-	Nonreparable. No repair is authorized.
B-	No repair is authorized. (No parts or special tools are authorized for the maintenance of a "B" coded Item). However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

(3) Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR Code as follows:

Recoverability Codes	Application/Explanation
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
O -	Reparable item. When not economically reparable, condemn and dispose of the item unit or aviation unit level
F -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support or aviation intermediate level
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L -	Reparable item. Condemnation and disposal not authorized below specialized repair activity (SRA).
A -	Item requires special handling or condemnation procedures because of specific reasons (e.g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. CAGEC (Column (3)). The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. PART NUMBER (Column (4)). Indicates the primary number used by the manufacturer, (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. DESCRIPTION AND USABLE ON CODE (UOC) (Column (5). This column includes the following information:

(1) The Federal item name and, when required, a minimum description to identify the item.

(2) The physical security classification of the item is indicated by the parenthetical entry, e.g., PhySec C1 - Confidential, PhySec C1 (S) - Secret, PhySec C1 (T) - Top Secret.

(3) Items that are included in kits and sets are listed below the name of the kit or set.

(4) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

(5) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.

(6) When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC).

(7) The usable on code, when applicable (see paragraph 5, Special Information).

(8) In the Special Tools List section, the basis of issue (BOI) appears as the last line(s) in the entry for each special tool, special TMDE, and other special support equipment. When density of equipments supported exceeds density spread indicated in the basis of issue, the total authorization is increased proportionately.

(9) The statement "END OF FIGURE" appears just below the last item description in Column 5 for a given figure in both Section II and Section III.

(10) The indenture, shown as dots appearing before the repair part, indicates that the item is a repair part of the next higher assembly.

f. QTY (Column (6)). The QTY (quantity per figure column) indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A"V" appearing in this column in lieu of a quantity indicates that the quantity is variable and may vary from application to application.

C-4. EXPLANATION OF COLUMNS (SECTION IV).

a. NATIONAL STOCK NUMBER (NSN) INDEX.

(1) STOCK NUMBER column. This column lists the NSN by National item identification number (NIIN) sequence. The N1IN consists of the last nine digits of the NSN, i.e.

NSN
5305-01-574-1467
NIIN

When using this column to locate an item, ignore the first4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

(2) FIG. column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in Section II and Section III.

(3) ITEM column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

b. PART NUMBER INDEX. Part numbers in this index are listed by part number in ascending alphanumeric sequence (i e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A through Z, followed by the numbers O through 9 and each following letter or digit in like order).

(1) CAGEC column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc.,that supplies the item.

(2) PART NUMBER column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

(3) STOCK NUMBER column. This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and CAGEC columns to the left.

(4) FIG. column. This column lists the number of the figure where the item is identified/located in Sections II and III.

(5) ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in adjacent figure number column.

C. FIGURE AND ITEM NUMBER INDEX.

(1) FIG. column. This column lists the number of the figure where the item is identified/located in Section I1 and III.

(2) ITEM column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

(3) STOCK NUMBER column. This column lists the NSN for the item.

(4) CAGEC column. The Commercial and Government Entity Code (CAGEC) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc.,that supplies the item.

(5) PART NUMBER column. Indicates the primary number used by the manufacturer (individual, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

C-5. SPECIAL INFORMATION.

a. USABLE ON CODE. The usable on code appears in the lower comer of the Description column heading. Usable on codes are shown as "UOC:.." in the Description Column justified left) on the last line applicable item description/nomenclature. Uncoded items are applicable to all models.

Code	Used On

b. ASSOCIATED PUBLICATIONS. The publications listed below pertains to the Container, General Cargo, MIL VAN and its components.

Publication	Short Title
N/A	

C-6. HOW TO LOCATE REPAIR PARTS.

a. When National Stock Number or Part Number is NOT Known.

(1) First. Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

(2) Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

(3) Third. Identify the item on the figure and note the item number.

(4) Fourth. Refer to the Repair Parts List for the figure to find the part number for the item number noted on the figure.

(5) Fifth. Refer to the Part Number Index to find the NSN, if assigned.

b. When National Stock Number or Part Number is Known.

(1) First. Using the Index of National Stock Numbers and Part Numbers, find the pertinent National Stock Number or Part Number. The NSN index is in National Item Identification Number (N11N) sequence (see c-4a.(1)). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see paragraph c-4.b). Both indexes cross-reference you to the illustration figure and item number of the item you are looking for.

(2) Second. After finding the figure and item number, verify that the item is the one you are looking for, then locate the item number in the repair parts list for the figure.

C-7. ABBREVIATIONS. Abbreviations used in this manual are listed in MIL-STD-12.

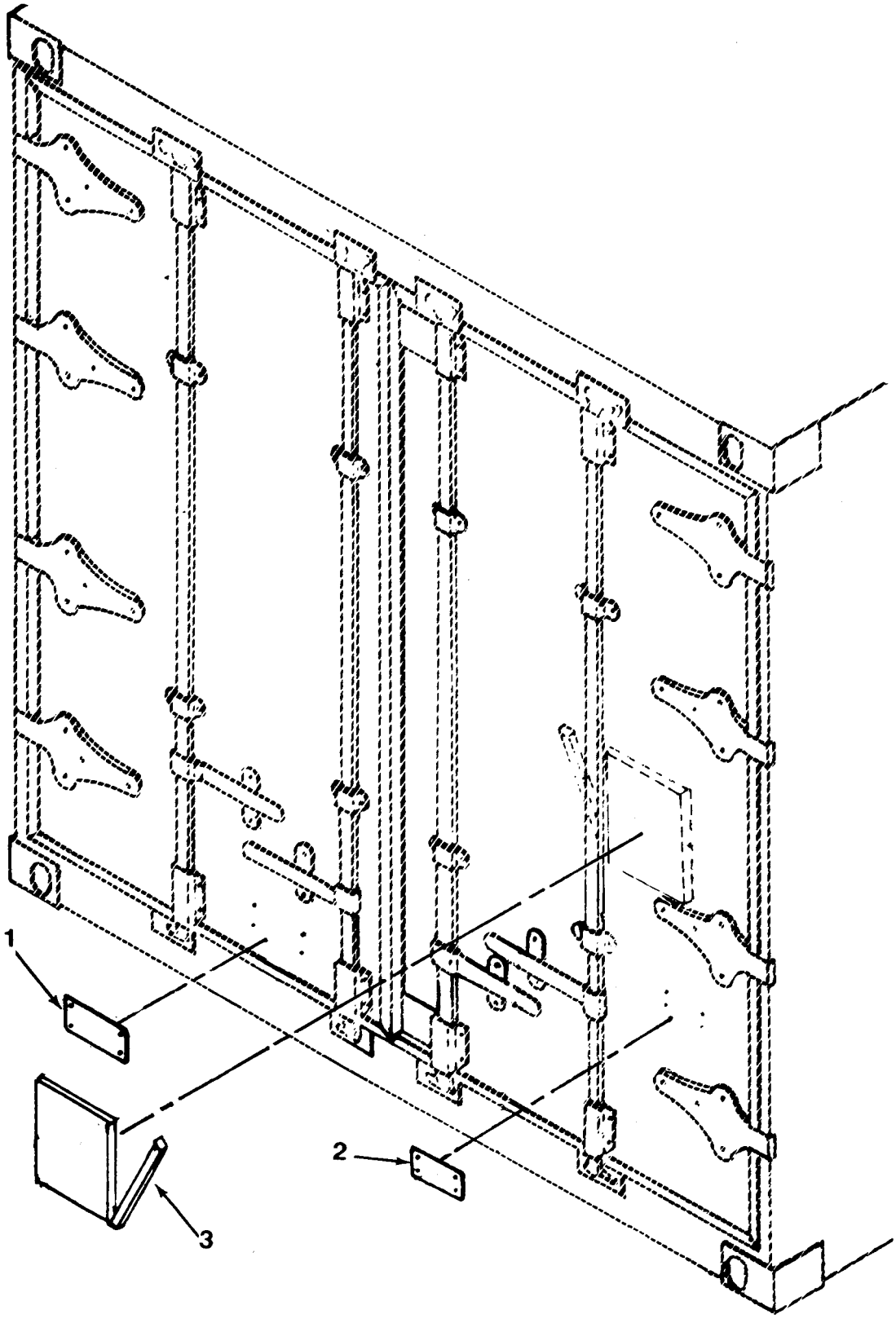


Figure C-1. Document Holder and Plates (Sheet 1 of 2).

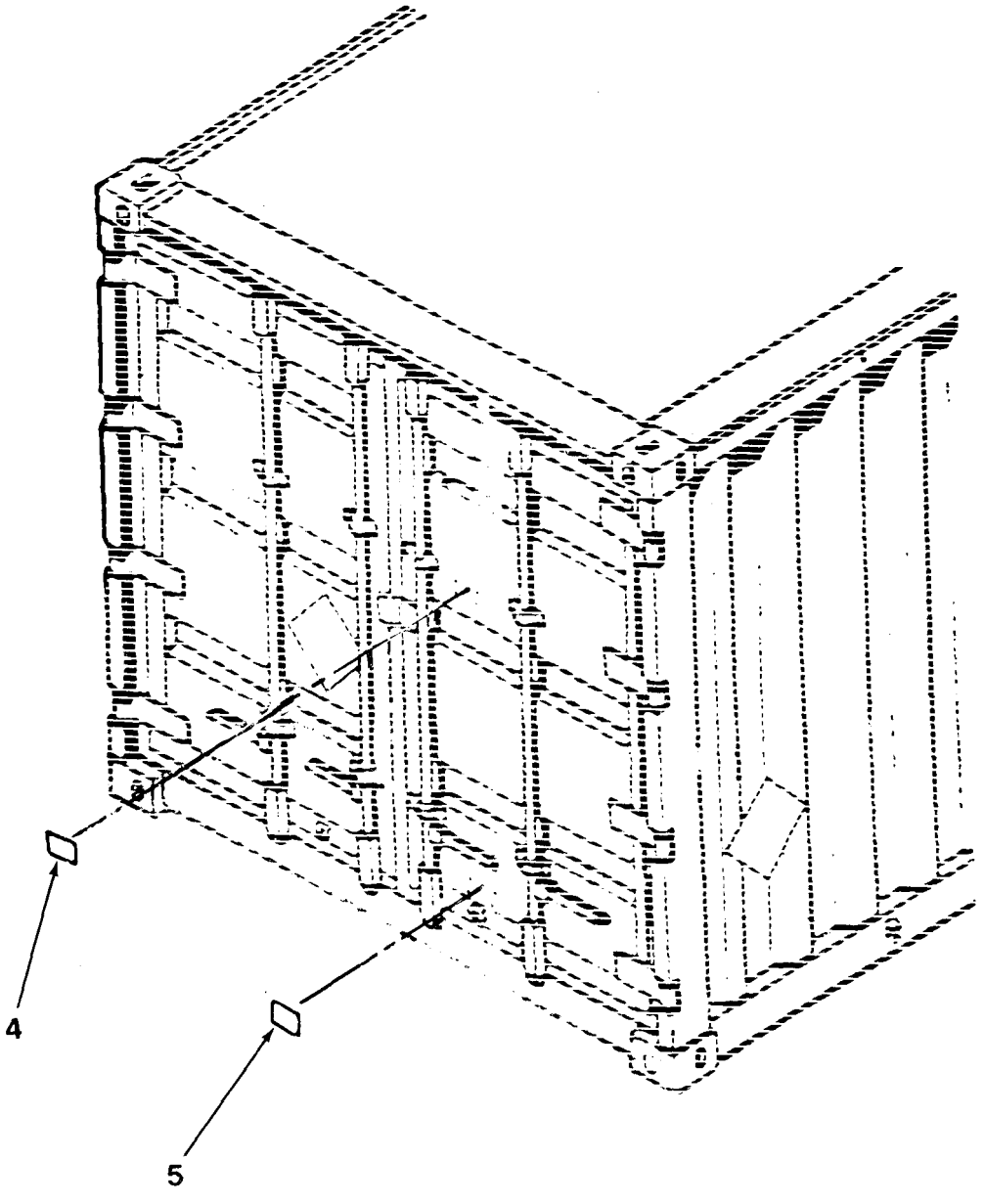


Figure C-1. Document Holder and Plates (Sheet 2 0f 2).
(Containers Numbered 12000 and higher).

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 01 GROUP DOCUMENT HOLDER AND PLATES	
				FIG. C-1 DOCUMENT HOLDER AND PLATES	
1	PAFZZ	97403	13219E0019	PLATE,CAUTION UOC:CYA,CYB	1
2	PAFZZ	97403	13219E0013	PLATE DATA UOC:CYA,CYB	1
3	PAFZZ	97403	13219E0012	HOLDER,DOCUMENT	2
4	XBFZZ	0B9A9	MVS000003	PLATE, DATA E/I UOC:EVH	1
5	XBFZZ	0B9A9	MVS000002	PLATE,CAUTION UOC:EVH	1
				END OF FIGURE	

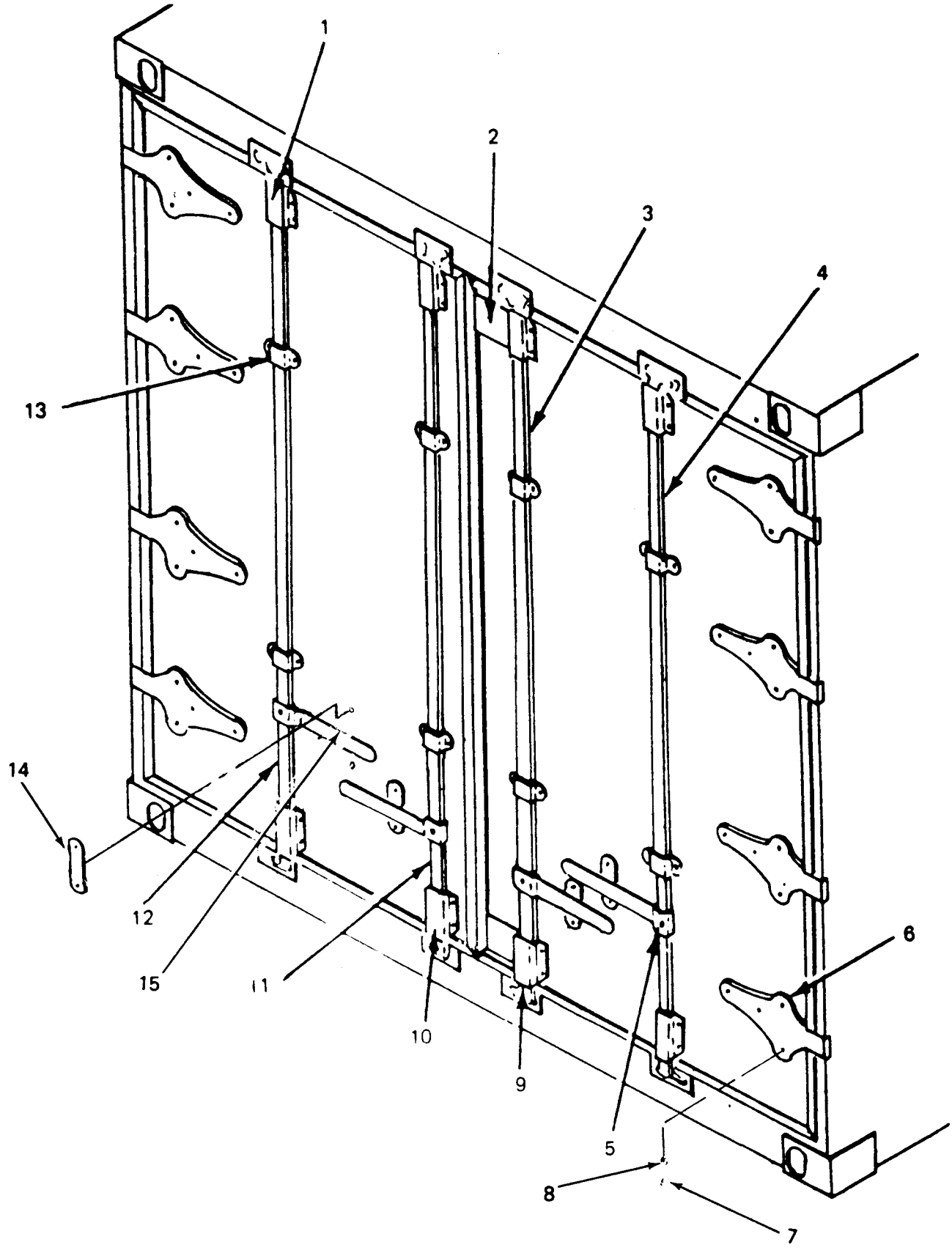


Figure C-2. Door Assembly (Sheet 1 of 2).

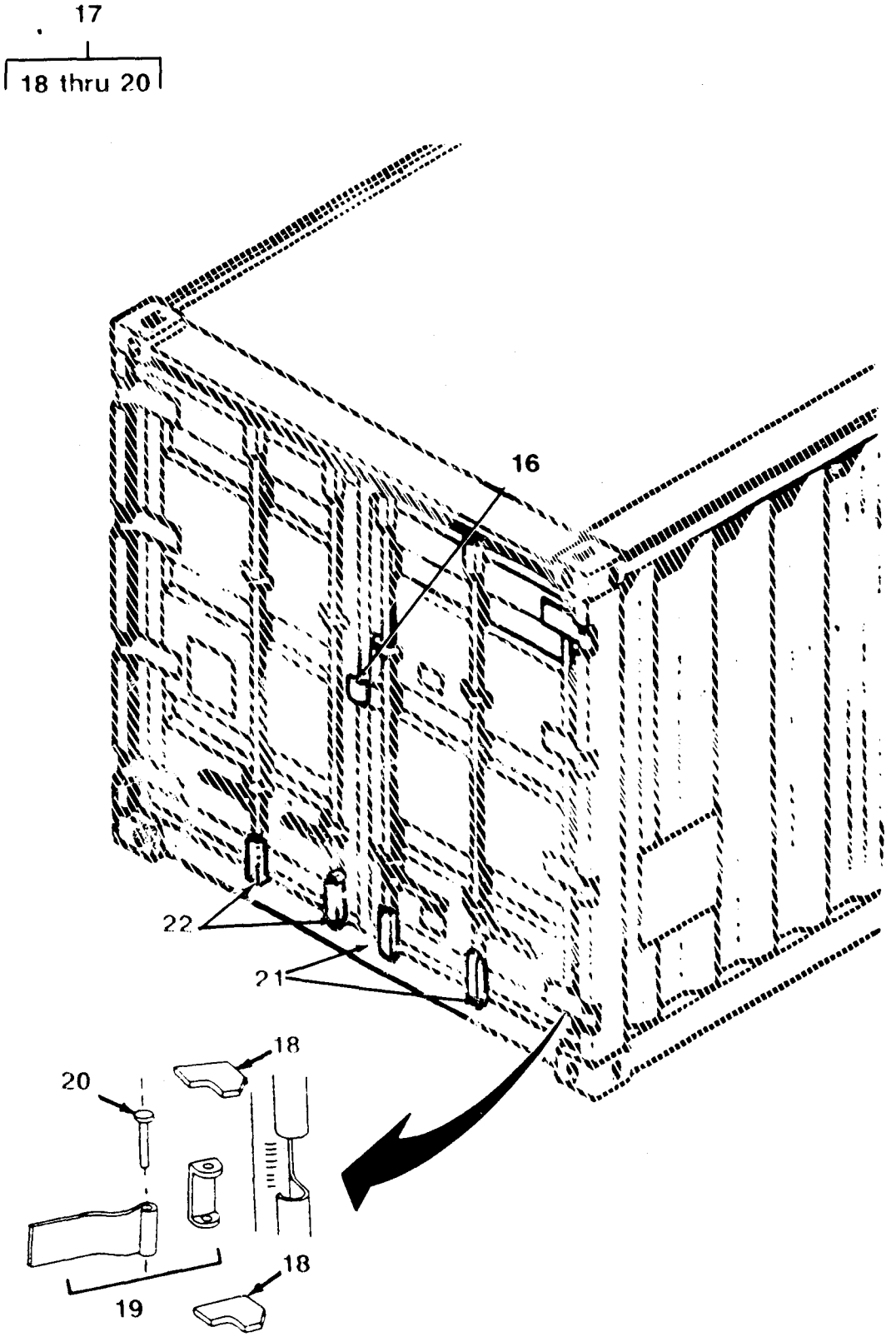


Figure C-2. Door Assembly (Sheet 2 of 2).
(Containers Numbered 12000 and higher).

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 GROUP, DOOR AND HARDWARE	
				FIG. 2 DOOR ASSEMBLY	
1	PAFZZ	97403	13219E0011	DOOR ASSEMBLY UOC:CYA,CYB	1
2	PAFZZ	97403	13219E0015	CLIP,SPRING TENSION UOC:CYA,CYB	2
3	PAFZZ	97403	13219E0008-1	OPERATING ARM ASSEM UOC:CYA,CYB	1
4	PAFZZ	97403	13219E0005-2	OPERATING ARM ASSEM UOC:CYA,CYB	1
5	XDFZZ	96906	MS20613-12P24	.RIVET,SOLID UOC:CYA,CYB	1
6	PAFZZ	97403	13219E0041	PIN DOOR HINGE UOC:CYA,CYB	1
7	PAFZZ	96906	MS35751-73	BOLT,SQUARE NECK UOC:CYA,CYB	44
8	PAFZZ	96906	MS51967-8	NUT,PLAIN,HEXAGON UOC:CYA,CYB	44
9	PAFZZ	97403	13219E0049	GUIDE PLATE DOOR AS	1
10	PAFZZ	97403	13219E0050	GUIDE PLATE ASSEMBL	1
11	PAFZZ	97403	13219E0005-1	OPERATING ARM ASSEM UOC:CYA,CYB	1
12	PAFZZ	97403	13219E0008-2	OPERATING ARM ASSEM UOC:CYA,CYB	1
13	PAFZZ	97403	13219E0027	STRAP,RETAINING	4
14	PAFZZ	97403	13219E0023	SEAL,PLATE UOC:CYA,CYB	1
15	PAFZZ	97403	13219E0026	SEAL,PIN UOC:CYA,CYB	1
16	PAFZZ	0B9A9	MV-S-002-005	PLATE,RETAINING SEA UOC:EVH	1
17	XDFZZ	0B9A9	MV-S-002-002	BRACKET,HINGE UOC:CYA,CYB	8
18	PAFZZ	57877	H-1060-3	LEAF,STRAP HINGE UOC:CYA,CYB	4
19	PAFZZ	0B9A9	MV-S-002-006	PIN,STRAIGHT,HEADLE UOC:CYA,CYB	4
20	PAFZZ	57877	R-00413315	BAR,LATCH UOC:EVH	1
21	PAFZZ	57877	L-00423315	BAR,LATCH UOC:EVH	1
				END OF FIGURE	

a

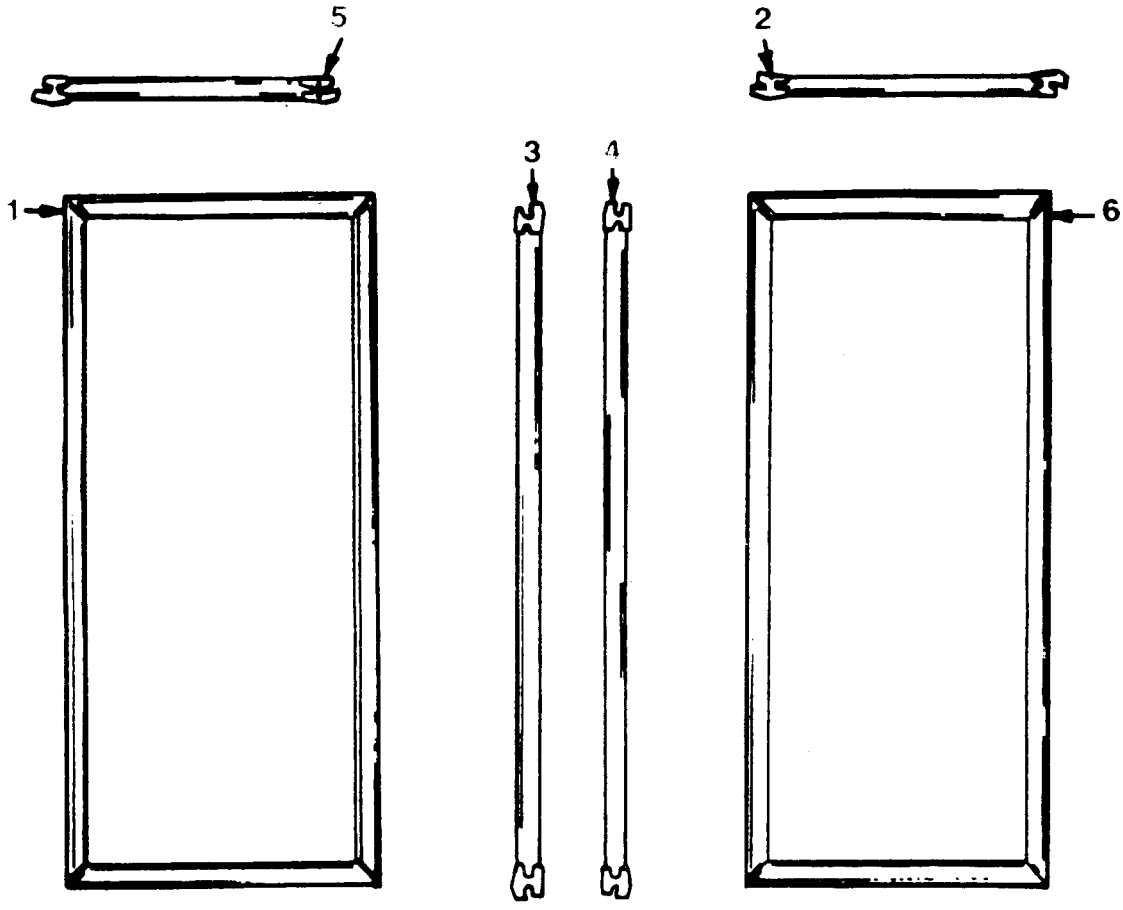


Figure C-3. Door Gasket Assembly (Sheet 1 of 2).

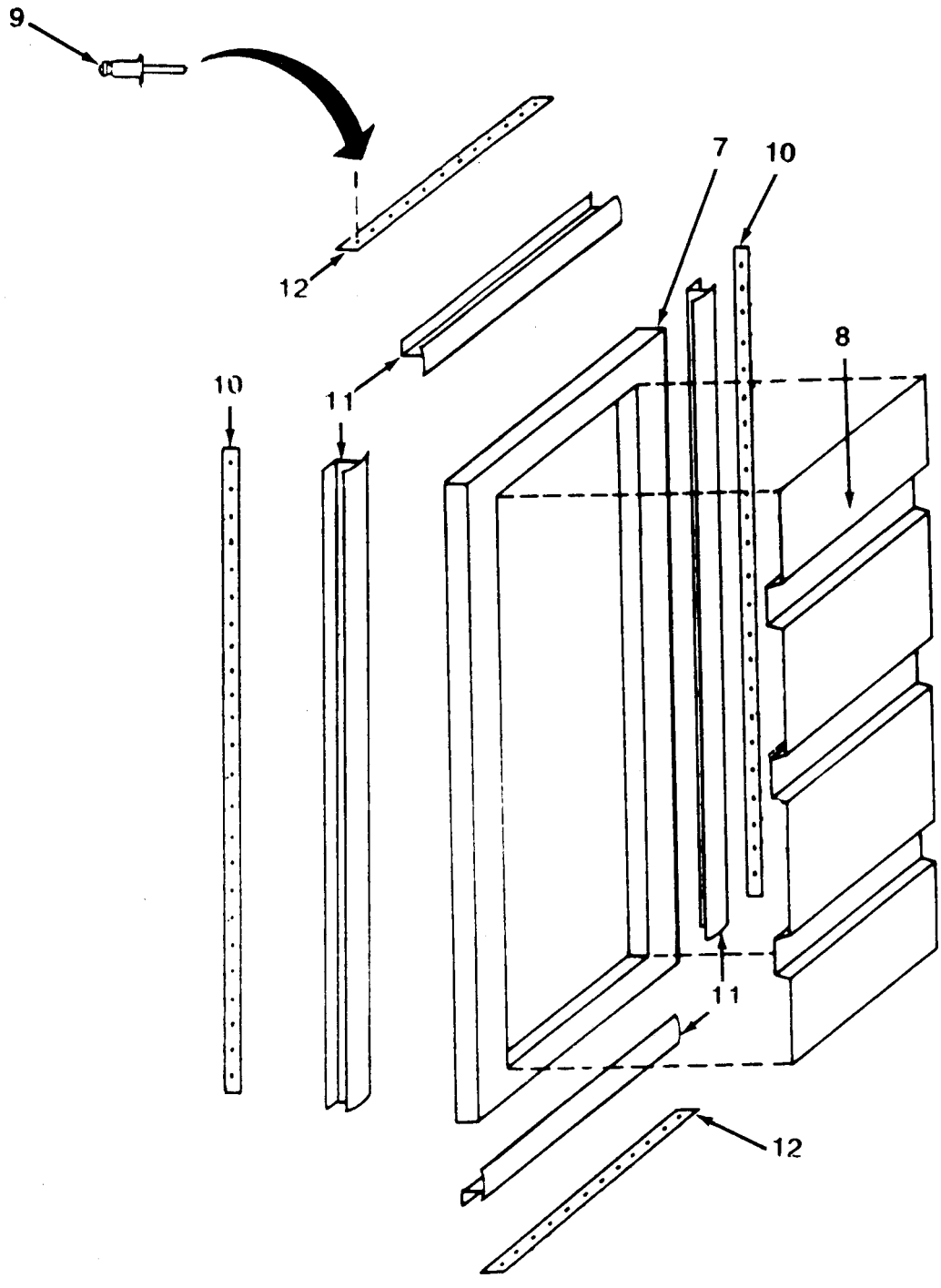


Figure C-3. Door Gasket Assembly (Sheet 2 of 2).
(Containers Numbered 12000 and higher).

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 02 GROUP, DOOR AND HARDWARE	
				FIG. C-3 DOOR GASKET ASSEMBLY	
1	PAFZZ	97403	13219E0043	GASKET,DOOR: LH UOC:CYA,CYB	1
2	MFFZZ	97403	13219E0047-4	STRIP,GASKET MAKE FROM SHEET METAL, P/N SPECQQA250, CAGE 81348 UOC:CYA,CYB	1
3	MFFZZ	97403	13219E0047-3	STRIP,GASKET MAKE FROM SHEET METAL, P/N SPECQQA250-2H14,CAGE 81348 UOC:CYA,CYB	2
4	MFFZZ	97403	13219E0011-3	STRIP,GASKET MAKE FROM SHEET METAL, P/N SPECQQA250-2H14, CAGE 81348 UOC:CYA,CYB	2
5	MFFZZ	97403	13219E0011-4	STRIP,GASKET MAKE FROM SHEET METAL, P/N SPECQQA250-2H14, CAGE 81348 UOC:CYA,CYB	2
6	PAFZZ	97403	13219E0042	SEAL,NONMETALLIC SP UOC:CYA,CYB	1
7	XDFZZ	0B9A9	MV-S-002-402	FRAME,DOOR UOC:EVH	2
8	XDFZZ	0B9A9	MV-S-002-403	PANEL, DOOR UOC:EVH	2
9	PAFZZ	81349	M24243/1-B608	RIVET,BLIND ROUNDHEAD, 3/16"DIA, 1/2"LONG, 5/16" GRIP, ALUMINUM USED TO SECURE DOOR GASKET UOC:EVH	60
10	MFFZZ	0B9A9	MV-S-003-004	STRIP,GSKT RTN LNG MAKE FROM P/N QQ250-2414,82 13/16 IN LONG UOC:EVH	2
11	MFFZZ	0B9A9	13219E0042	GASKET, DOOR MAKE FROM DG-9, SIZE AS REQUIRED UOC:EVH	1
12	MFFZZ	0B9A9	MV-S-003-005	STRIP, GSKT RTN SHT MAKE FROM P/N QQ250-2414, 44 11/16 IN LONG UOC:EVH	2
				END OF FIGURE	

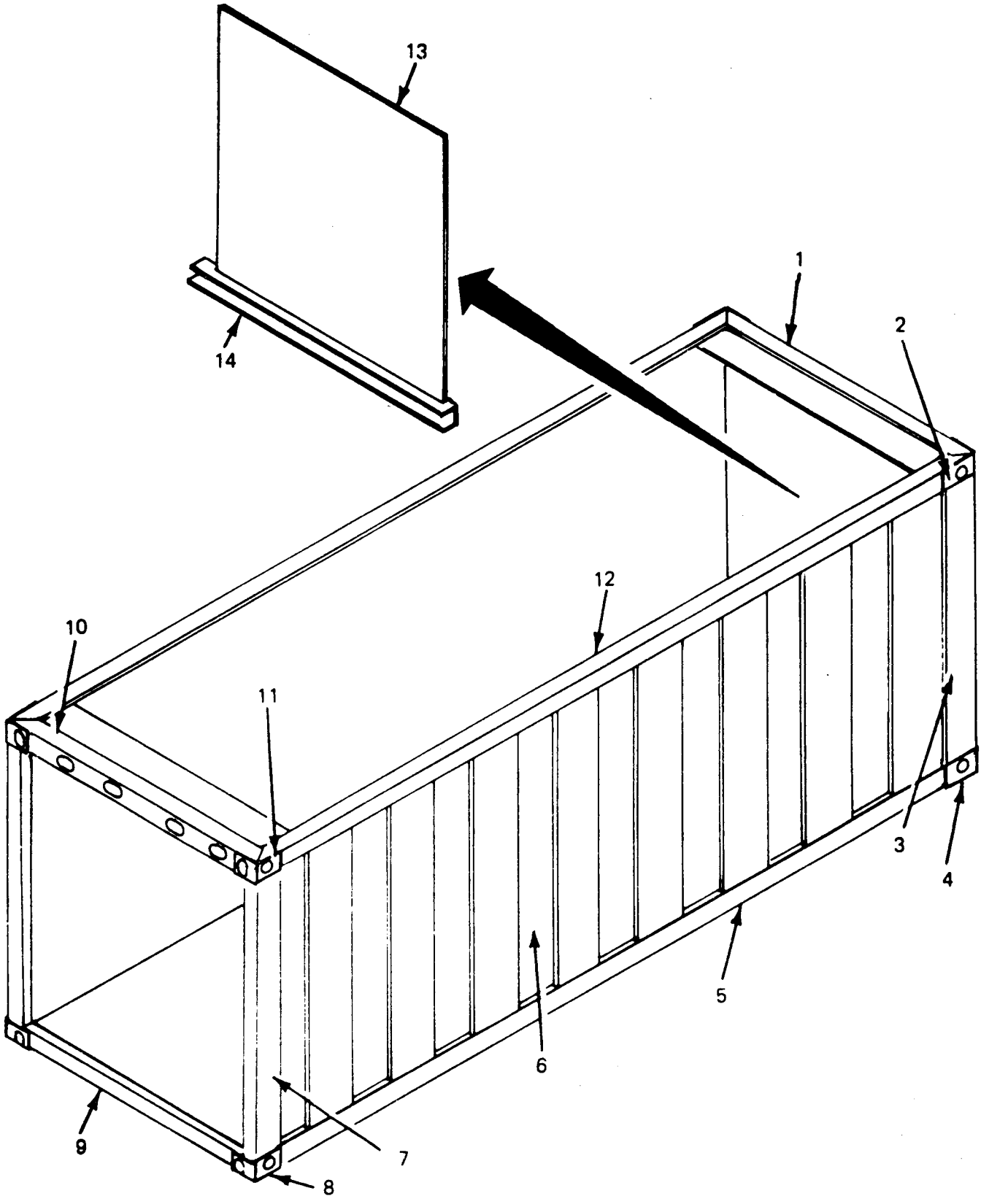


Figure C-4. Sides and End Liners, Plywood (Sheet 1 of 2).

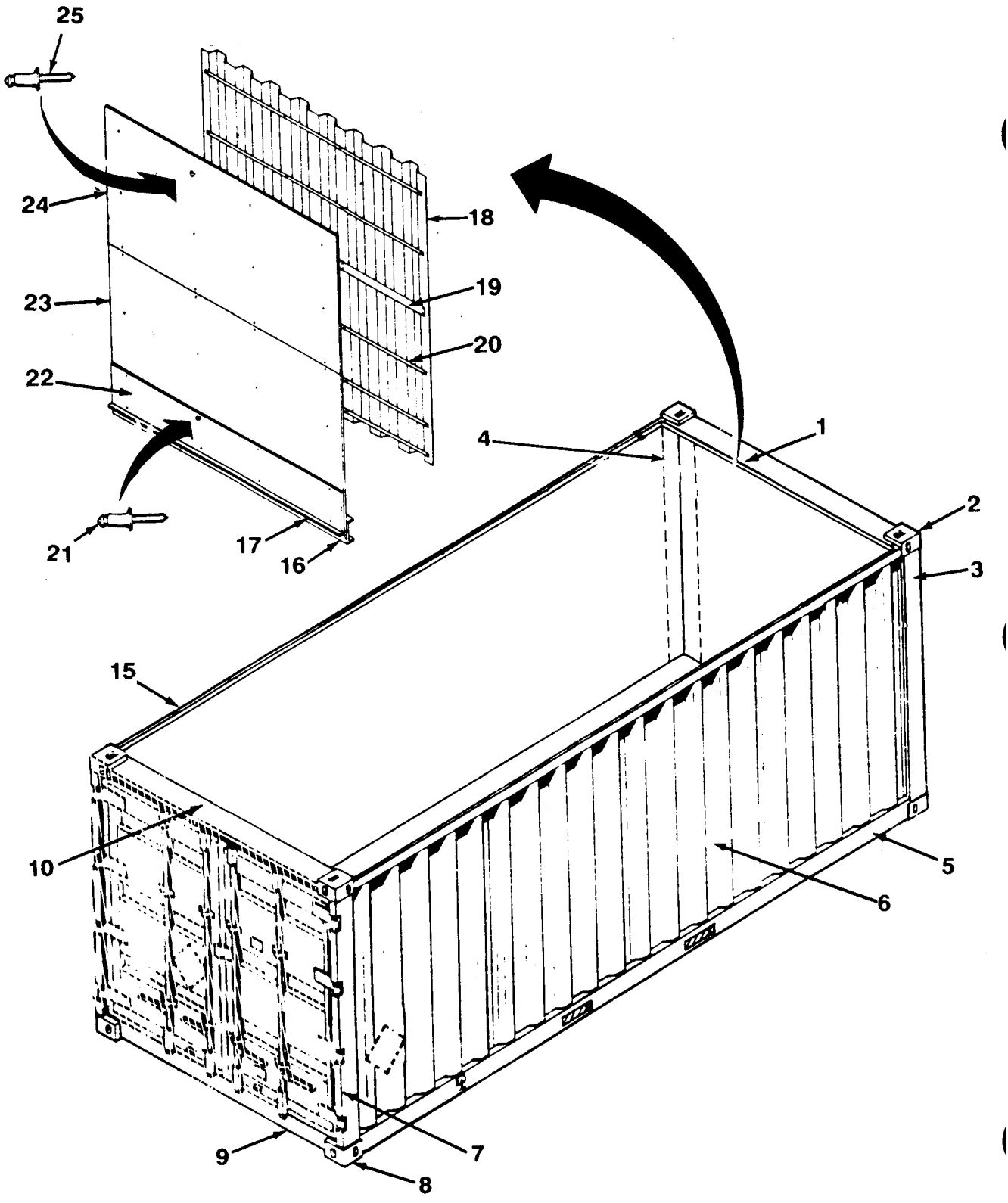


Figure C-4. Sides and End Liners, Plywood (Sheet 2 of 2).
(Containers Numbered 12000 and higher).

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 GROUP, SIDES AND END	
				FIG. C-4 SIDES AND END LINERS,PLY-WOOD	
1	XBDZZ	97403	13219E0067	RAIL,FRONT TOP	1
				UOC:CYA,CYB	
1	XBOZZ	0B9A9	MV-S-004-003	3 RAIL, FRONT TOP	1
				UOC:EVH	
2	XBDZZ	97403	13219E0046	FITTING TOP CORNER	2
				UOC:CYA,CYB	
2	XBOZZ	94658	F463-U	FITTING, TOP CORNER	2
				UOC:EVH	
3	XBDZZ	97403	13219E0062	POST,FRONT CORNER	2
				UOC:CYA,CYB	
3	XBOZZ	0B9A9	MV-S-004-102	POST, FRONT R	1
				UOC:EVH	
4	XBDZZ	97403	13219E0017	FITTING,BOTTOM:LH	2
				UOC:CYA,CYB	
4	XBOZZ	0B9A9	MV-S-004-103	POST,FRONT L	1
				UOC:EVH	
5	XBDZZ	97403	13219E0065	RAIL,SIDE BOTTOM	2
				UOC:CYA,CYB	
5	XBOZZ	0B9A9	MVS001002	RAIL, SIDE BOTTOM	2
				UOC:EVH	
6	AFFZZ	97403	13219E0001	PANEL ASSEMBLY SIDE	2
				UOC:CYA,CYB	
	PAFZZ	97403	13219E0070	.SHEET,METAL	2
				UOC:CYA,CYB	
6	PAFZZ	0B9A9	MV-S-007-002	PANEL,SIDE	10
				UOC:EVH	
	PAFZZ	97403	13219E0071	.SHEET,METAL	2
				UOC:CYA,CYB	
7	XBFZZ	OB9A9	MV-S-002-101	POST, REAR CORNER	2
				UOC:EVH	
8	XBFZZ	94658	F463-1B	FITTING, BOTTOM COR	2
				UOC:EVH	
9	XBDZZ	97403	13219E0063	RAIL,REAR BOTTOM	1
				UOC:CYA,CYB	
9	XBFZZ	0B9A9	MV-S-002-201	SILL, DOOR	1
				UOC:EVH	
10	XBDZZ	97403	13219E0068	HEADER ASSEMBLYREAR	1
				UOC:CYA,CYB	
10	XBFZZ	0B9A9	MV-S-002-301	HEADER,DOOR	1
				UOC:EVH	
11	XBDZZ	97403	13219E0009	FITTING,TOP CORNER	2
				UOC:CYA,CYB	
12	XBDZZ	97403	13219E0066	RAIL,SIDE TOP	2
				UOC:CYA,CYB	
13	AFFZZ	97403	13219E0001	PANEL ASSEMBLY	1
				UOC:CYA,CYB	
	PAFZZ	97403	13219E0073	.SHEET,METAL	1

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				UOC:CYA,CYB	
14	XBDZZ	97403	13219E0064	RAIL,FRONT BOTTOM UOC:CYA,CYB	1
15	XBFZZ	0B9A9	MV-S-005-004	3 RAIL, SIDE TOP UOC:EVH	2
16	XBFZZ	0B9A9	MV-S-004-004	RAIL,FRONT BOTTOM UOC:EVH	1
17	XBFZZ	0B9A9	MV-S-004-002	ANGLE,FLOOR UOC:EVH	1
18	XBFZZ	0B9A9	MV-S-004-005	PANEL, FRONT UOC:EVH	2
19	XBFZZ	0B9A9	MVS004205	STRIP,WIDE UOC:EVH	1
0	XBFZZ	0B9A9	MV-S-004=206	STRIP,NARROW UOC:EVH	5
21	PAFZZ	81349	M24243/1-D608	RIVET,BLIND ROUND HEAD, 3/16"DIA, 1/2"LONG, 5/16" GRIP USED TO SECURE FRONT KICK PLATE UOC:EVH	8
22	XBFZZ	0B9A9	MV-S-004-204	3 PLATE, KICK UOC:EVH	1
23	MFFZZ	0B9AM	V-S-0004-202	LINER, PLYWOOD,FR MAKE FROM PLYWOOD, FLAT PANEL, P/N NNP530, CAGE 81348 UOC:EVH	1
24	MFFZZ	0B9A9	MV-S-004-203	LINER, PLYWOOD, FR 3001821MAKE FROM P/N NNP530, 1/4 X 48 X 96 IN, CAGE 81348 UOC:EVH	1
25	PAFZZ	81349	M24243/3-D606	RIVET,BLIND LARGE ROUND HEAD, 3/16"DIA, 1/2"LONG, 5/16" GRIP USED TO SECURE FRONT PLYWOOD PANEL UOC:EVH	12
				END OF FIGURE	

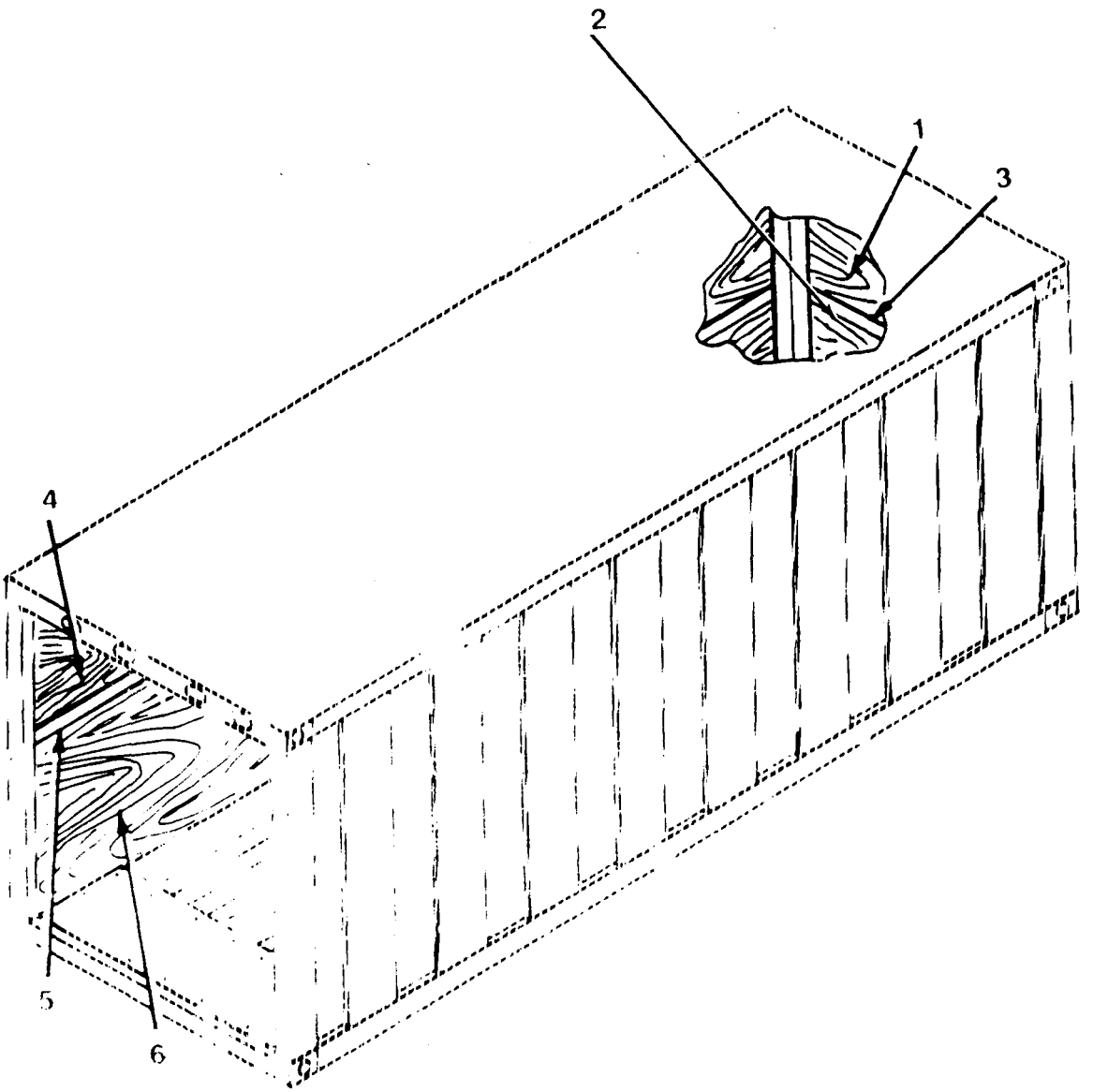


Figure C-5. Corrugated Panels.

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 03 GROUP, SIDES AND END	
				FIG. C-5 CORRUGATED PANELS	
1	MFFZZ	97403	13219E0048-1	PLYWOOD PANEL, FRON MAKE FROM PLYWOOD, SOFTWOOD, P/N C0 NNP530, CAGE 81348	
2	MFFZZ	97403	13219E0003-1	PLYWOOD PANEL MAKE FROM PLYWOOD, SOFTWOOD, P/N C0 NNP530, CAGE 81348 UOC:CYA,CYB	1
3	MFFZZ	97403	13219E0003-1	.RETAINER,FRONT MAKE FROM SHEET METAL, P/N SPECQQA250-2H14, CAGE 81348	1
4	MFFZZ	97403	13219E0048-2	PLYWOOD PANEL,SIDE MAKE FROM PLYWOOD, SOFTWOOD, C0 P/N PPN530, CAGE 81348 UOC:CYA	2
5	MFFZZ	97403	13219E0003-2	PLYWOOD PANEL MAKE FROM PLYWOOD, SOFTWOOD, C0 P/N NNP530, CAGE 81348. UOC:CYA	2
6	MFFZZ	97403	13219E0003-2	.RETAINER,SIDE MAKE FROM SHEET METAL, P/N SPECQQA250-2H14, CAGE 81348	1
				END OF FIGURE	

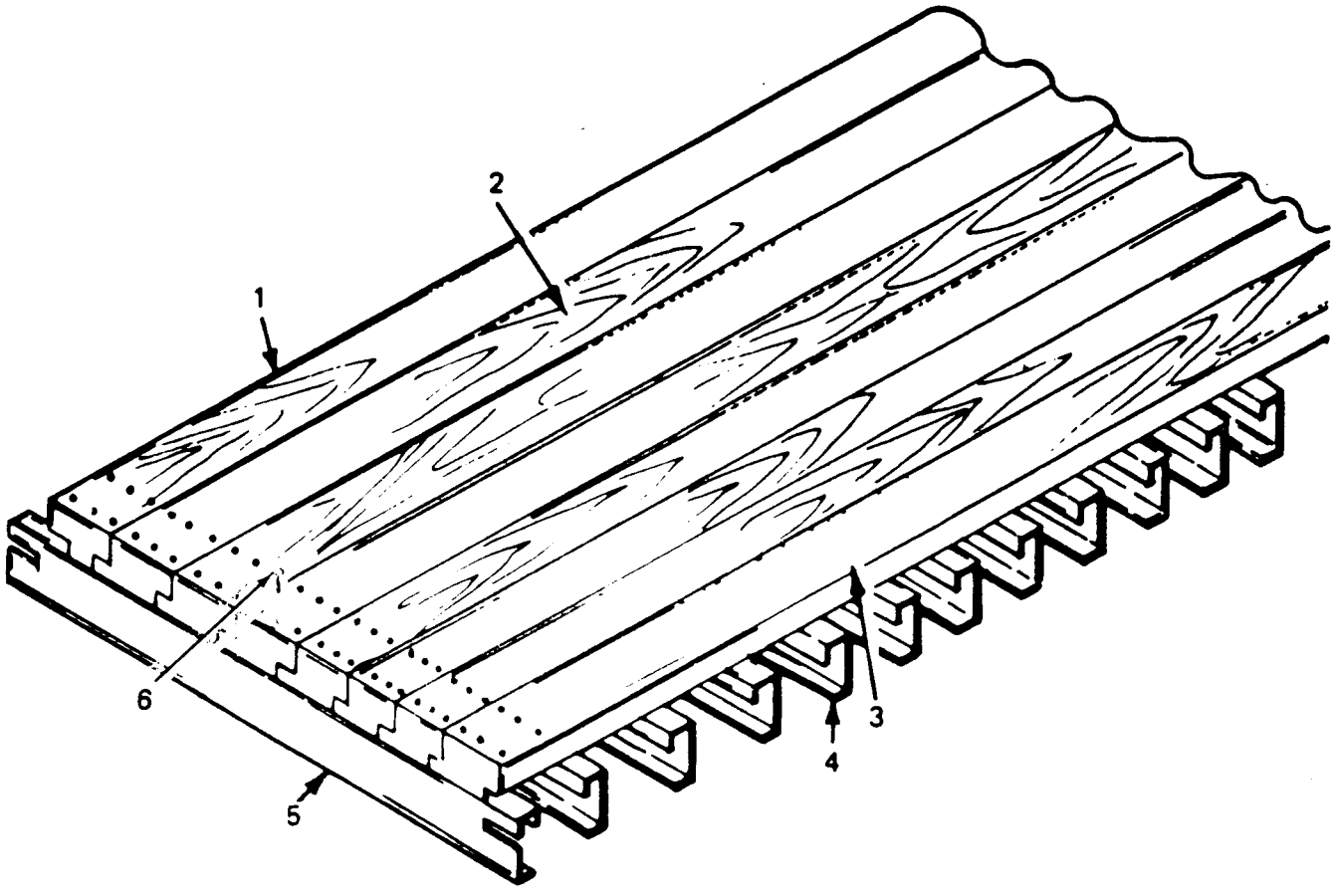


Figure C-6. Wood Floor (Sheet 1 of 2).

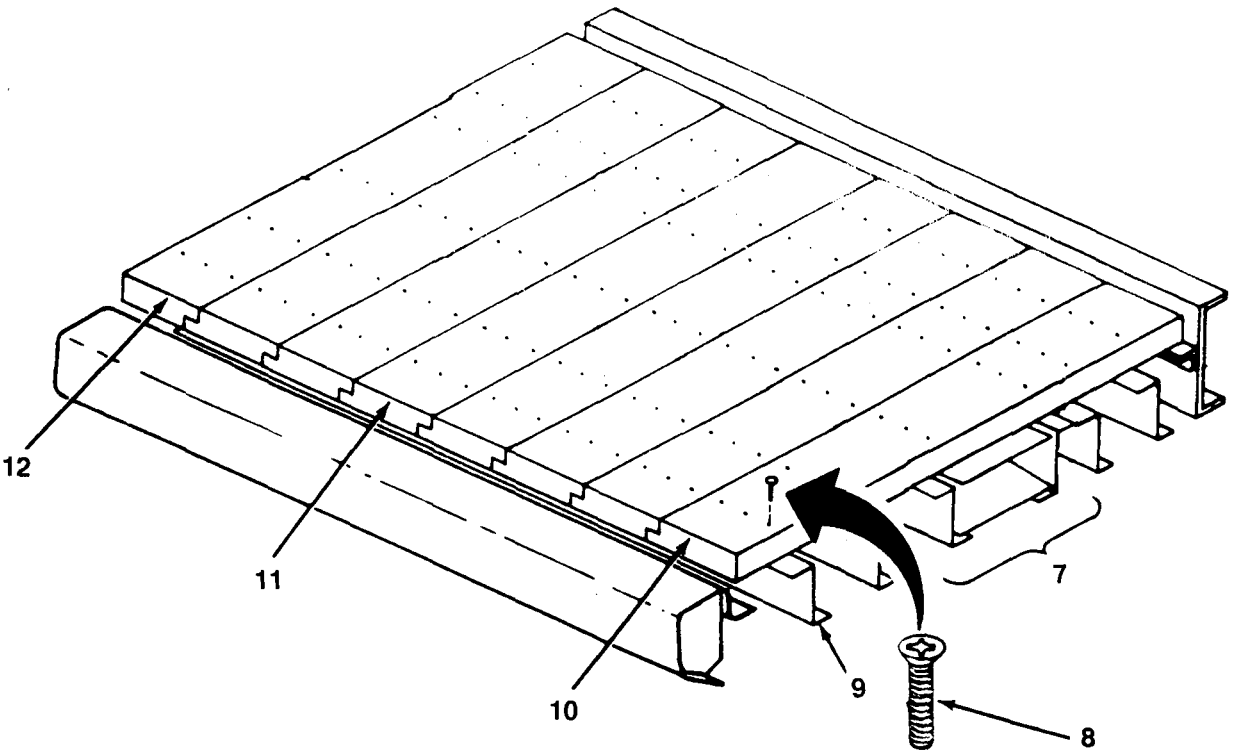


Figure C-6. Wood Floor (Sheet 2 of 2).
(Containers Numbered 12000 and higher).

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(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 GROUP, FLOOR	
				FIG. C-6 WOOD FLOOR	
1	PAFZZ	97403	13219E0079	WOOD LAMINATE,DECKI UOC:CYA,CYB	1
2	PAFZZ	97403	13219E0080	WOOD LAMINATE,DECKI UOC:CYA,CYB	6
3	PAFZZ	97403	13219E0078	WOOD LAMINATE,DECKI UOC:CYA,CYB	1
4	PAFZZ	97403	13219E0076	CROSS MEMBER UOC:CYA,CYB	17
5	XDFZZ	97403	13219E0077	CROSS MEMBER FRONT UOC:CYA,CYB	4
6	PAFZZ	96906	MS24627-69	SCREW,TAPING UOC:CYA,CYB	504
7	PAFZZ	0B9A9	MV-S-001-101	POCKET,FORKLIFT UOC:EVH	2
8	PAFZZ	96906	MS24627-70	SCREW,TAPPING,THREA 1/4 X 2 IN, FLAT HEAD, CROSS-RECESSED SLOT UOC:EVH	574
9	PAFZZ	0B9A9	MV-S-001-003	CROSSMEMBER UOC:EVH	18
10	PAFZO	97403	13219E0078	WOOD LAMINATE,DECKI UOC:EVH	1
11	PAFZO	97403	13219E0080	WOOD LAMINATE,DECKI UOC:EVH	6
12	PAFZZ	97403	13219E0079	WOOD LAMINATE,DECKI UOC:EVH	1
				END OF FIGURE	

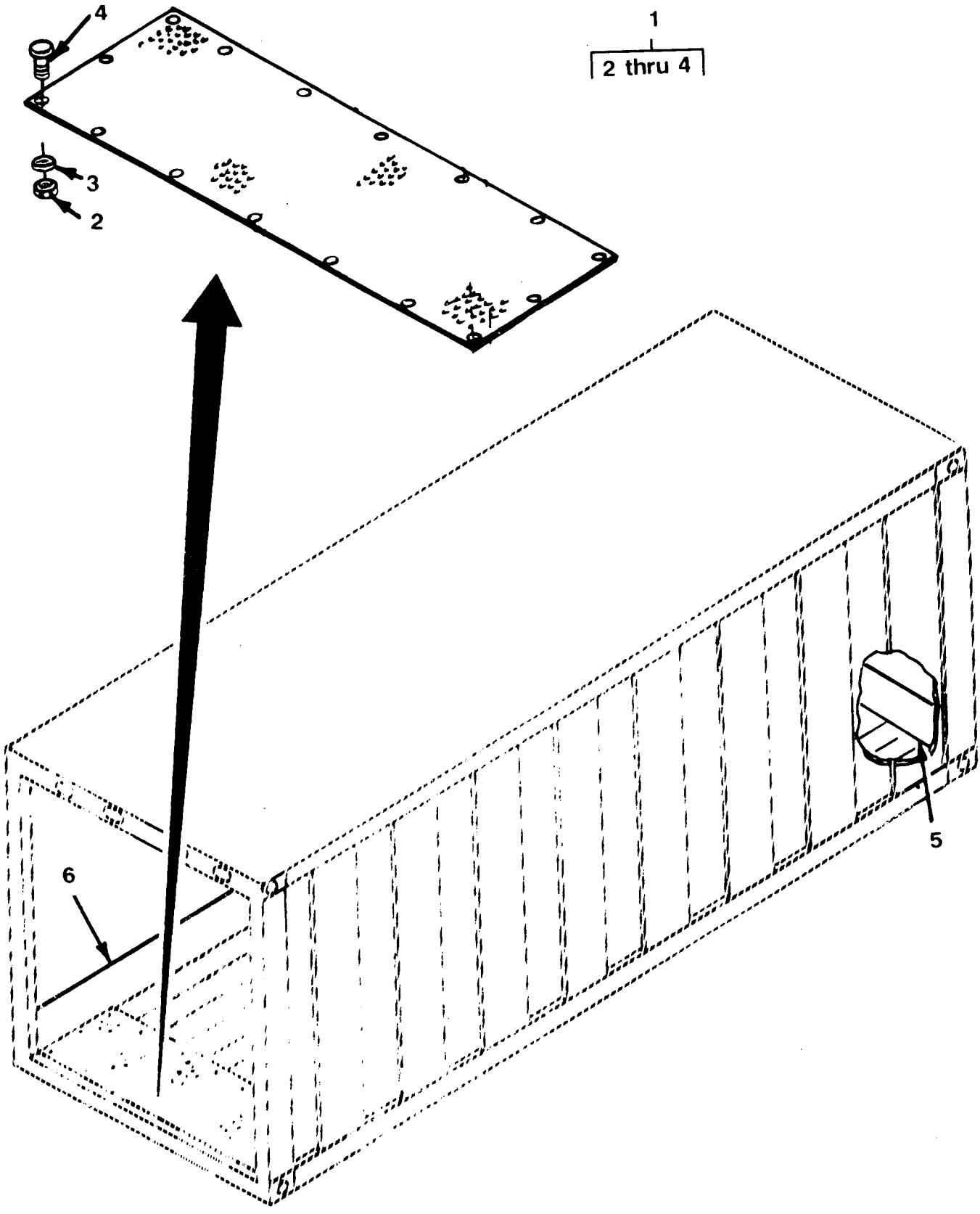


Figure C-7. Threshold Plate.

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 04 GROUP, FLOOR	
				FIG. C-7 THRESHOLD PLATE	
1	PAFZZ	97403	13219E0020	PLATE,THRESHOLD UOC:CYA,CYB	1
2	PAFZZ	96906	MS51922-2	NUT,HEXAGON 1-420 UOC:CYA,CYB	14
3	PAFZO	96906	MS27183-10	WASHER,FLAT UOC:CYA,CYB	14
4	PAFZZ	96906	MS35371-20	BOLT,SQUARE NECK UOC:CYA,CYB	14
5	MFFZZ	97403	13219E0003-1	KICK PLATE,FRONT MAKE FROM SHEET METAL, P/N SPECQQA250-2H14, 12 X 86 1/2 IN UOC:CYA,CYB	1
6	MFFZZ	97403	13219E0003-2	KICK PLATE MAKE FROM SHEET METAL, P/N SPECQQA250-2H14, CAGE 81348 UOC:CYA,CYB	4
				END OF FIGURE	

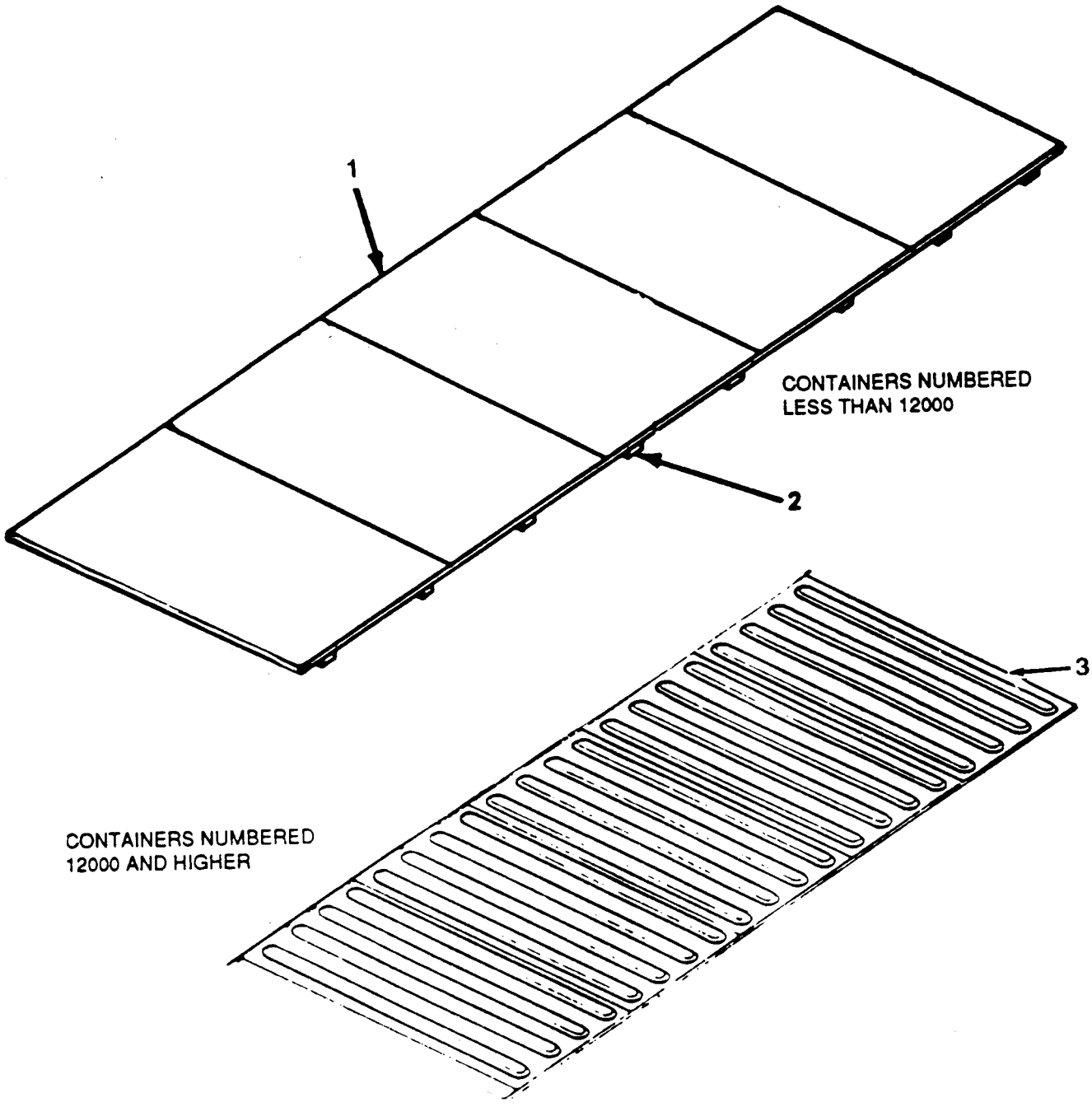


Figure C-8. Sheet Roof.

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 05 GROUP, ROOF	
				FIG. C-8 SHEET ROOF	
1	MFFZZ	97403	13219E0075	SHEET,ROOF MAKE FROM SHEET METAL, P/N ASTM A366 UOC:CYA,CYB	1
2	PAFZZ	97403	13219E0074	BOW ROOF UOC:CYA,CYB	8
3	XDFZZ	0B9A9	MV-S-005-002	PANEL, ROOF USED ON SERIAL NUMBERS 12000 AND HIGHER UOC:EVH	5
				END OF FIGURE	

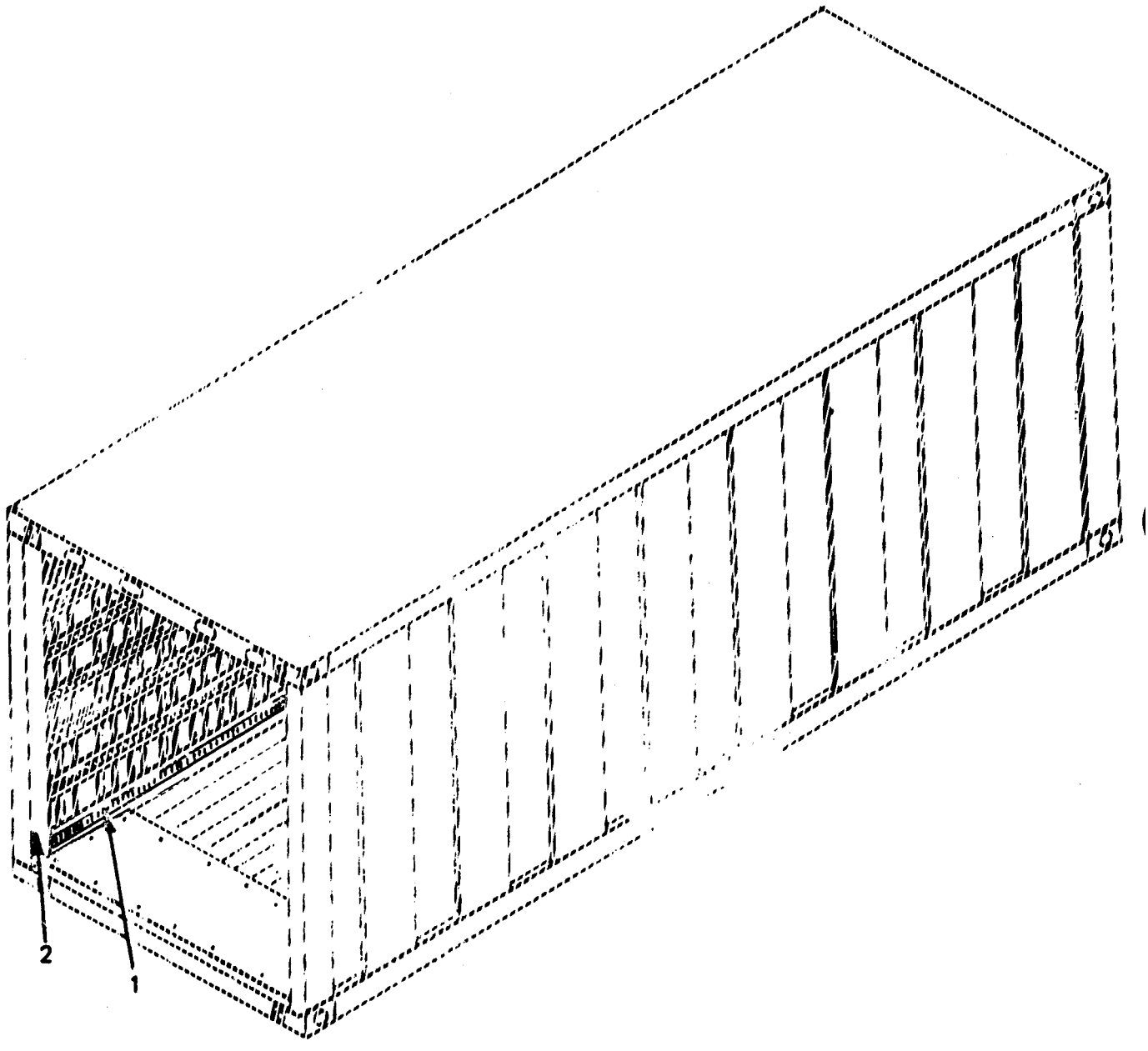


Figure C-9. Bracing System.

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 06 GROUP MECHANCIAL LOAD BRACING SYSTEM	
				FIG. C-9 BRACING SYSTEM	
1	XDFZZ	97403	13219E0037	RAIL,HORIZONTAL UOC:CYB,EVH	1
2	XDFZZ	97403	13219E0038	RAIL,VERTICAL UOC:CYB,EVH	2
				END OF FIGURE	

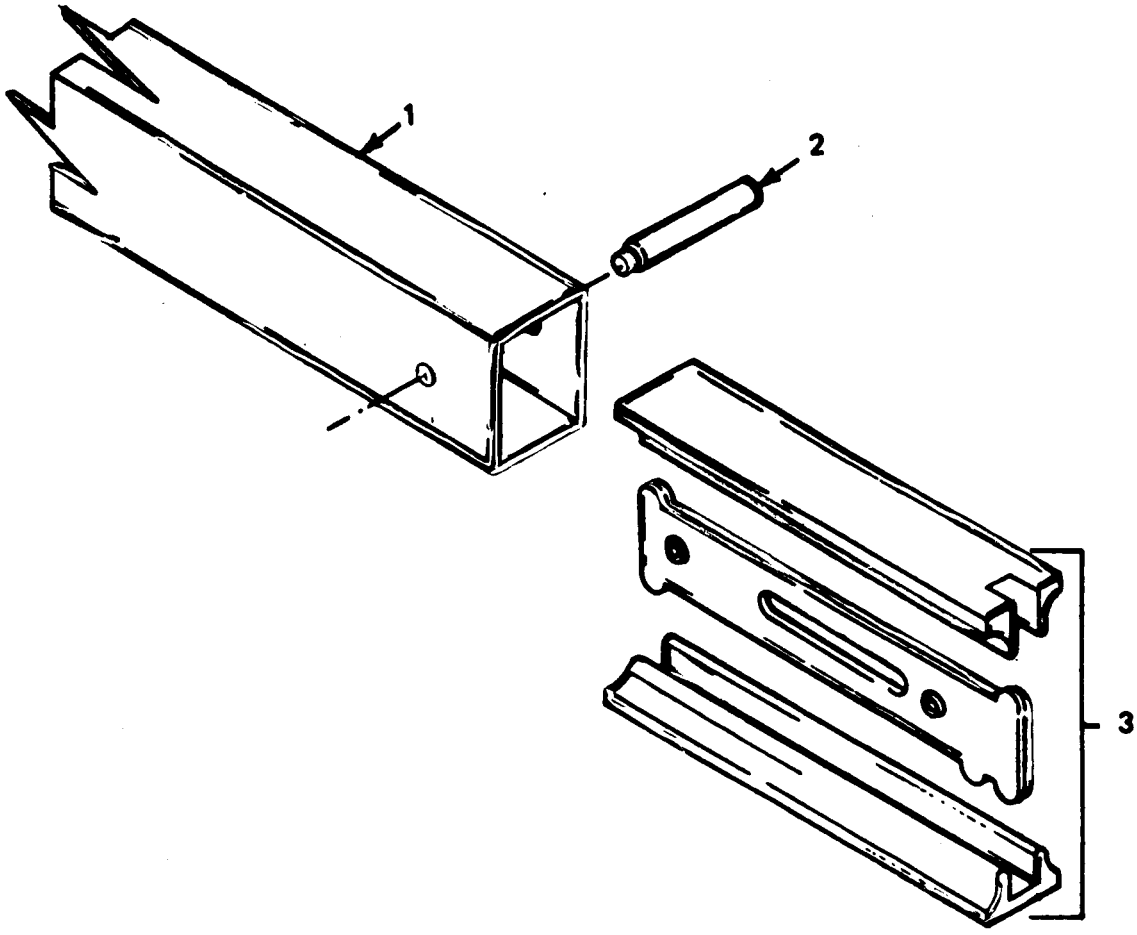


Figure C-10. Load Bracing Beam Assembly.

a

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 06 GROUP MECHANICAL LOAD BRACING SYSTEM	
				FIG. C-10 LOAD BRACING BEAM ASSEMBLY	
1	PAOZZ	97403	13219E0039	BEAM,SHORING UOC:CYB,EVH	25
2	PAOZZ	97403	13219E0039-3	PIN UOC:CYB,EVH	2
3	XDOZZ	97403	13219E0039-1	FITTING END BEAM UOC:CYB,EVH	2
				END OF FIGURE	

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES (UOC)	(6) QTY
				GROUP 07 BULK	
				FIG. BULK	
1	PAFZZ	81348	NNP530	PLYWOOD,SOFTWOOD,CO UOC:CYA,CYB	1
2	PAFZZ	81348	NNP532	PLYWOOD,SOFTWOOD,CO	4
3	PAFZZ	9D455	DG-9	RETAINER,PACKING UOC:EVH	20
4	PAFZZ	81348	SPECQQA250-2H14	SHEET,METAL 1 1/2 X 113 IN	1
5	PAFZZ	81348	SPECQQA250-2H14	SHEET,METAL 12 X 86 1/2 IN UOC:CYA,CYB	1
6	PAFZZ	81348	SPECQQA250	SHEET,METAL UOC:CYA,CYB	1
7	PAFZZ	81348	QQ-A-250/2	SHEET,METAL UOC:EVH	20
8	PAFZZ	81348	QQ-A-250/2	SHEET,METAL UOC:EVH	20
9	PAFZZ	81346	ASTM A366	SHEET,METAL UOC:CYA,CYB	5
				END OF FIGURE	

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG	ITEM	STOCK NUMBER	FIG	ITEM
5305-00-052-7474	C-6	8	5315-01-361-2724	C-2	19
5305-00-052-7477	C-6	6	5340-01-361-7910	C-2	20
8115-00-097-7907	C-1	2	5340-01-362-3395	C-2	21
8115-00-117-7197	C-8	2			
8115-00-117-7256	C-6	4			
2540-00-127-8805	C-2	3			
2540-00-127-8806	C-2	12			
9515-00-139-3781	C-4				
9515-00-139-3782	C-4				
9515-00-139-3783	C-4				
9515-00-139-3785	C-4				
9515-00-141-8066	BULK	9			
8115-00-149-0150	C-2	10			
8115-00-149-0152	C-10	1			
8115-00-149-0156	C-2	1			
8115-00-165-6625	C-1	1			
8115-00-165-6649	C-7	1			
8115-00-165-6650	C-1	3			
5306-00-177-5707	C-2	7			
5330-00-187-9083	C-3	1			
5340-00-202-0244	C-2	13			
2540-00-211-4450	C-2	4			
2540-00-251-6685	C-2	11			
5510-00-270-6022	C-6	3			
	C-6	10			
5510-00-270-6031	C-6	1			
	C-6	12			
5510-00-270-6048	C-6	2			
	C-6	11			
5330-00-274-7354	C-3	6			
5320-00-408-9928	C-3	9			
5340-00-450-5711	C-2	2			
5310-00-732-0558	C-2	8			
5310-00-809-4058	C-7	3			
5320-00-850-3246	C-4	21			
5310-00-929-1807	C-7	2			
5320-01-004-9131	C-4	25			
8115-01-209-4356	C-2	9			
5330-01-209-9210	C-2	15			
5330-01-218-6199	C-2	14			
5315-01-218-6208	C-10	2			
5315-01-234-2162	C-2	6			
9535-01-246-6327	BULK	7			
	BULK	8			
5340-01-260-5491	C-2	18			
5340-01-353-9009	C-6	9			
9515-01-353-9060	C-4	6			
8115-01-355-6570	C-6	7			
5340-01-360-7605	C-2	16			
5330-01-361-1465	BULK	3			

CROSS-REFERENCE INDEXES

PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
81346	ASTM A366	9515-00-141-8066	BULK	9
9D455	DG-9	5330-01-361-1465	BULK	3
94658	F463-U		C-4	2
94658	F463-1B		C-4	8
57877	H-1060-3	5340-01-260-5491	C-2	18
57877	L-00423315	5340-01-362-3395	C-2	21
96906	MS20613-12P24		C-2	5
96906	MS24627-69	5305-00-052-7477	C-6	6
96906	MS24627-70	5305-00-052-7474	C-6	8
96906	MS27183-10	5310-00-809-4058	C-7	3
96906	MS35371-20		C-7	4
96906	MS35751-73	5306-00-177-5707	C-2	7
96906	MS51922-2	5310-00-929-1807	C-7	2
96906	MS51967-8	5310-00-732-0558	C-2	8
0B9A9	MV-S-001-003	5340-01-353-9009	C-6	9
0B9A9	MV-S-001-101	8115-01-355-6570	C-6	7
0B9A9	MV-S-002-002		C-2	17
0B9A9	MV-S-002-005	5340-01-360-7605	C-2	16
0B9A9	MV-S-002-006	5315-01-361-2724	C-2	19
0B9A9	MV-S-002-101		C-4	7
0B9A9	MV-S-002-201		C-4	9
0B9A9	MV-S-002-301		C-4	10
0B9A9	MV-S-002-402		C-3	7
0B9A9	MV-S-002-403		C-3	8
0B9A9	MV-S-003-004		C-3	10
0B9A9	MV-S-003-005		C-3	12
0B9A9	MV-S-004-002		C-4	17
0B9A9	MV-S-004-003		C-4	1
0B9A9	MV-S-004-004		C-4	16
0B9A9	MV-S-004-005		C-4	18
0B9A9	MV-S-004-102		C-4	3
0B9A9	MV-S-004-103		C-4	4
0B9A9	MV-S-004-203		C-4	24
0B9A9	MV-S-004-204		C-4	22
0B9A9	MV-S-004=206		C-4	20
0B9A9	MV-S-005-002		C-8	3
0B9A9	MV-S-005-004		C-4	15
0B9A9	MV-S-007-002	9515-01-353-9060	C-4	6
0B9A9	MVS000002		C-1	5
0B9A9	MVS000003		C-1	4
0B9A9	MVS001002		C-4	5
0B9A9	MVS004205		C-4	19
81349	M24243/1-B608	5320-00-408-9928	C-3	9
81349	M24243/1-D608	5320-00-850-3246	C-4	21
81349	M24243/3-D606	5320-01-004-9131	C-4	25
81348	NNP530		BULK	1
81348	NNP532		BULK	2
81348	QQ-A-250/2	9535-01-246-6327	BULK	7
			BULK	8
57877	R-00413315	5340-01-361-7910	C-2	20
81348	SPECQQA250		BULK	6

CROSS-REFERENCE INDEXES

PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
81348	SPECQQA250-2H14		BULK	4
			BULK	5
OB9AM	V-S-0004-202		C-4	23
97403	13219E0001		C-4	6
			C-4	13
97403	13219E0003-1		C-5	2
			C-5	3
			C-7	5
97403	13219E0003-2		C-5	5
			C-5	6
			C-7	6
97403	13219E0005-1	2540-00-251-6685	C-2	11
97403	13219E0005-2	2540-00-211-4450	C-2	4
97403	13219E0008-1	2540-00-127-8805	C-2	3
97403	13219E0008-2	2540-00-127-8806	C-2	12
97403	13219E0009		C-4	11
97403	13219E0011	8115-00-149-0156	C-2	1
97403	13219E0011-3		C-3	4
97403	13219E0011-4		C-3	5
97403	13219E0012	8115-00-165-6650	C-1	3
97403	13219E0013	8115-00-097-7907	C-1	2
97403	13219E0015	5340-00-450-5711	C-2	2
97403	13219E0017		C-4	4
97403	13219E0019	8115-00-165-6625	C-1	1
97403	13219E0020	8115-00-165-6649	C-7	1
97403	13219E0023	5330-01-218-6199	C-2	14
97403	13219E0026	5330-01-209-9210	C-2	15
97403	13219E0027	5340-00-202-0244	C-2	13
97403	13219E0037		C-9	1
97403	13219E0038		C-9	2
97403	13219E0039	8115-00-149-0152	C-10	1
97403	13219E0039-1		C-10	3
97403	13219E0039-3	5315-01-218-6208	C-10	2
97403	13219E0041	5315-01-234-2162	C-2	6
97403	13219E0042	5330-00-274-7354	C-3	6
			C-3	11
97403	13219E0043	5330-00-187-9083	C-3	1
97403	13219E0046		C-4	2
97403	13219E0047-3		C-3	3
97403	13219E0047-4		C-3	2
97403	13219E0048-1		C-5	1
97403	13219E0048-2		C-5	4
97403	13219E0049	8115-01-209-4356	C-2	9
97403	13219E0050	8115-00-149-0150	C-2	10
97403	13219E0062		C-4	3
97403	13219E0063		C-4	9
97403	13219E0064		C-4	14
97403	13219E0065		C-4	5
97403	13219E0066		C-4	12
97403	13219E0067		C-4	1
97403	13219E0068		C-4	10

CROSS-REFERENCE INDEXES

PART NUMBER INDEX

CAGEC	PART NUMBER	STOCK NUMBER	FIG	ITEM
97403	13219E0070	9515-00-139-3783	C-4	
97403	13219E0071	9515-00-139-3782	C-4	
97403	13219E0072	9515-00-139-3785	C-4	
97403	13219E0073	9515-00-139-3781	C-4	
97403	13219E0074	8115-00-117-7197	C-8	2
97403	13219E0075		C-8	1
97403	13219E0076	8115-00-117-7256	C-6	4
97403	13219E0077		C-6	5
97403	13219E0078	5510-00-270-6022	C-6	3
			C-6	10
97403	13219E0079	5510-00-270-6031	C-6	1
			C-6	12
97403	13219E0080	5510-00-270-6048	C-6	2
			C-6	11

CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
BULK	1		81348	NNP530
BULK	2		81348	NNP532
BULK	3	5330-01-361-1465	9D455	DG-9
BULK	4		81348	SPECQQA250-2H14
BULK	5		81348	SPECQQA250-2H14
BULK	6		81348	SPECQQA250
BULK	7	9535-01-246-6327	81348	QQ-A-250/2
BULK	8	9535-01-246-6327	81348	QQ-A-250/2
BULK	9	9515-00-141-8066	81346	ASTM A366
C-1	1	8115-00-165-6625	97403	13219E0019
C-1	2	8115-00-097-7907	97403	13219E0013
C-1	3	8115-00-165-6650	97403	13219E0012
C-1	4		0B9A9	MVS000003
C-1	5		0B9A9	MVS000002
C-2	1	8115-00-149-0156	97403	13219E0011
C-2	2	5340-00-450-5711	97403	13219E0015
C-2	3	2540-00-127-8805	97403	13219E0008-1
C-2	4	2540-00-211-4450	97403	13219E0005-2
C-2	5		96906	MS20613-12P24
C-2	6	5315-01-234-2162	97403	13219E0041
C-2	7	5306-00-177-5707	96906	MS35751-73
C-2	8	5310-00-732-0558	96906	MS51967-8
C-2	9	8115-01-209-4356	97403	13219E0049
C-2	10	8115-00-149-0150	97403	13219E0050
C-2	11	2540-00-251-6685	97403	13219E0005-1
C-2	12	2540-00-127-8806	97403	13219E0008-2
C-2	13	5340-00-202-0244	97403	13219E0027
C-2	14	5330-01-218-6199	97403	13219E0023
C-2	15	5330-01-209-9210	97403	13219E0026
C-2	16	5340-01-360-7605	0B9A9	MV-S-002-005
C-2	17		0B9A9	MV-S-002-002
C-2	18	5340-01-260-5491	57877	H-1060-3
C-2	19	5315-01-361-2724	0B9A9	MV-S-002-006
C-2	20	5340-01-361-7910	57877	R-00413315
C-2	21	5340-01-362-3395	57877	L-00423315
C-3	1	5330-00-187-9083	97403	13219E0043
C-3	2		97403	13219E0047-4
C-3	3		97403	13219E0047-3
C-3	4		97403	13219E0011-3
C-3	5		97403	13219E0011-4
C-3	6	5330-00-274-7354	97403	13219E0042
C-3	7		0B9A9	MV-S-002-402
C-3	8		0B9A9	MV-S-002-403
C-3	9	5320-00-408-9928	81349	M24243/1-B608
C-3	10		0B9A9	MV-S-003-004
C-3	11		0B9A9	13219E0042
C-3	12		0B9A9	MV-S-003-005
C-4		9515-00-139-3781	97403	13219E0073
C-4		9515-00-139-3782	97403	13219E0071
C-4		9515-00-139-3783	97403	13219E0070
C-4		9515-00-139-3785	97403	13219E0072

CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-4	1		0B9A9	MV-S-004-003
C-4	1		97403	13219E0067
C-4	2		94658	F463-U
C-4	2		97403	13219E0046
C-4	3		0B9A9	MV-S-004-102
C-4	3		97403	13219E0062
C-4	4		0B9A9	MV-S-004-103
C-4	4		97403	13219E0017
C-4	5		0B9A9	MVS001002
C-4	5		97403	13219E0065
C-4	6		97403	13219E0001
C-4	6	9515-01-353-9060	0B9A9	MV-S-007-002
C-4	7		0B9A9	MV-S-002-101
C-4	8		94658	F463-1B
C-4	9		0B9A9	MV-S-002-201
C-4	9		97403	13219E0063
C-4	10		0B9A9	MV-S-002-301
C-4	10		97403	13219E0068
C-4	11		97403	13219E0009
C-4	12		97403	13219E0066
C-4	13		97403	13219E0001
C-4	14		97403	13219E0064
C-4	15		0B9A9	MV-S-005-004
C-4	16		0B9A9	MV-S-004-004
C-4	17		0B9A9	MV-S-004-002
C-4	18		0B9A9	MV-S-004-005
C-4	19		0B9A9	MVS004205
C-4	20		0B9A9	MV-S-004=206
C-4	21	5320-00-850-3246	81349	M24243/1-D608
C-4	22		0B9A9	MV-S-004-204
C-4	23		0B9AM	V-S-0004-202
C-4	24		0B9A9	MV-S-004-203
C-4	25	5320-01-004-9131	81349	M24243/3-D606
C-5	1		97403	13219E0048-1
C-5	2		97403	13219E0003-1
C-5	3		97403	13219E0003-1
C-5	4		97403	13219E0048-2
C-5	5		97403	13219E0003-2
C-5	6		97403	13219E0003-2
C-6	1	5510-00-270-6031	97403	13219E0079
C-6	2	5510-00-270-6048	97403	13219E0080
C-6	3	5510-00-270-6022	97403	13219E0078
C-6	4	8115-00-117-7256	97403	13219E0076
C-6	5		97403	13219E0077
C-6	6	5305-00-052-7477	96906	MS24627-69
C-6	7	8115-01-355-6570	0B9A9	MV-S-001-101
C-6	8	5305-00-052-7474	96906	MS24627-70
C-6	9	5340-01-353-9009	0B9A9	MV-S-001-003
C-6	10	5510-00-270-6022	97403	13219E0078
C-6	11	5510-00-270-6048	97403	13219E0080
C-6	12	5510-00-270-6031	97403	13219E0079

CROSS-REFERENCE INDEXES

FIGURE AND ITEM NUMBER INDEX

FIG	ITEM	STOCK NUMBER	CAGEC	PART NUMBER
C-7	1	8115-00-165-6649	97403	13219E0020
C-7	2	5310-00-929-1807	96906	MS51922-2
C-7	3	5310-00-809-4058	96906	MS27183-10
C-7	4		96906	MS35371-20
C-7	5		97403	13219E0003-1
C-7	6		97403	13219E0003-2
C-8	1		97403	13219E0075
C-8	2	8115-00-117-7197	97403	13219E0074
C-8	3		0B9A9	MV-S-005-002
C-9	1		97403	13219E0037
C-9	2		97403	13219E0038
C-10	1	8115-00-149-0152	97403	13219E0039
C-10	2	5315-01-218-6208	97403	13219E0039-3
C-10	3		97403	13219E0039-1

APPENDIX D
EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

D-1. Scope. This appendix lists expendable supplies and materials you will need to operate and maintain the General Cargo Container. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items).

D-2 Explanation of Columns.

a. Column 1 - Item Number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., Use cleaning compound item 5, App. D).

b. Column 2 - Level. This column identifies the lowest level of maintenance that requires the listed item.

(enter as applicable)

C - Operator/Crew

O - Organizational Maintenance

F - Direct Support Maintenance

H - General Support Maintenance

c. Column 3 - National Stock Number. This is the National Stock Number assigned to the item; use it to request or requisition the item.

d. Column 4 - Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the part number followed by the Federal Supply Code for Manufacturer (FSCM) in parentheses, if applicable.

e. Column 6 - Unit of Measure, (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

SECTION II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	0		ELECTRODE,E6017 (60,000 MIN YIELD)	EA
2	0	8010-00-577-4381	ENAMEL,SPEC TT-E-485, TYPE 4	QT
3	0	9150-00-235-5568	GRAPHITE GREASE,SPEC VV-G-671 GRADE 1	QT
4	0	8030-00-965-2397	SEALING COMPOUND,SPEC. TT-S-230	GL
4A	0	8040-00-225-4548	SILICONE CAULK RTV102	OZ
5	0	7510-00-550-6498	TAPE,PRESSURE SENSITIVE,PVC (SCOTCHRAP)	RL

ALPHABETICAL INDEX

Paragraph
Figure or
Table No.

L

M

P

R

By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

J. C. PENNINGTON
Major General, United States Army
The Adjutant General

DISTRIBUTION:
To be distributed in accordance with DA Form 12-34, Requirements for Movement of Personnel and Freight.

USS. GOVERNMENT PRINTING OFFICE: 1980-665134/2015

These are the instructions for sending an electronic 2028

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

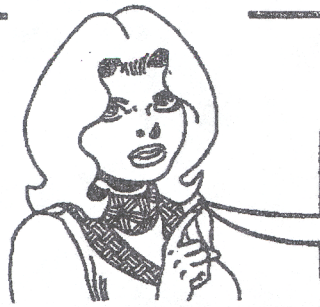
From: "Whomever" <whomever@avma27.army.mil>
To: mpmt%avma28@st-louis-emh7.army.mil

Subject: DA Form 2028

1. ***From:*** Joe Smith
2. *Unit:* home
3. ***Address:*** 4300 Park
4. ***City:*** Hometown
5. ***St:*** MO
6. ***Zip:*** *77777*
7. ***Date Sent:*** 19-OCT-93
8. ***Pub no:*** 55-2840-229-23
9. ***Pub Title:*** TM
10. ***Publication Date:*** 04-JUL-85
11. *Change Number:* 7
12. *Submitter Rank:* MSG
13. ***Submitter FName:*** Joe
14. *Submitter MName:* T
15. ***Submitter LName:*** Smith
16. ***Submitter Phone:*** 123-123-1234
17. ***Problem:*** 1
18. *Page:* 2
19. *Paragraph:* 3
20. *Line:* 4
21. *NSN:* 5
22. *Reference:* 6
23. *Figure:* 7
24. *Table:* 8
25. *Item:* 9
26. *Total:* 123
27. ***Text:***

This is the text for the problem below line 27.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN . .JOT DOWN THE DOPE ABOUT IT ON THIS FORM,CAREFULLYTEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)
PFC John DOE
CO A 3rd Engineer Bn
Ft. Leonardwood, MO 63108

DATE SENT
22 August 1992

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 1-1520-250-10	15 June 1992	Operator's manual MH60K Helicopter

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO
6	2-1 a		
31		4-3	

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

In line 6 of paragraph 2-1a the manual states the engine has 6 cylinders. The engine on my set only has 4 cylinders. Change the manual to show 4 cylinders.

Callout 16 on figure 4-3 is pointed to a bolt. In key to figure 4-3, item 16 is calle a shim. Please correct one or the other

EXAMPLE

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER
JOHN DOE, PFC (268) 317-7111

SIGN HERE
JOHN DOE John Doe

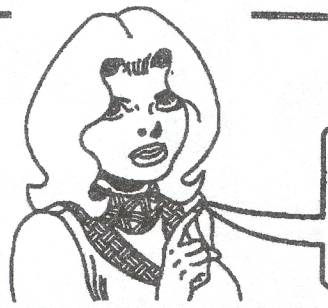
DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

DRSTS-M verprint2, 1 Nov 80

P.S.- - IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION, MAKE A CARBON COPY OF THIS AND GIVE TO YOUR HEADQUARTERS.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN . .JOT DOWN THE DOPE ABOUT IT ON THIS FORM,CAREFULLYTEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 55-8115-200-23&P	13 December 1979	Container, General Cargo: Milvan

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

DRSTS-M verprint2, 1 Nov 80

P.S.- - IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION, MAKE A CARBON COPY OF THIS AND GIVE TO YOUR HEADQUARTERS.

REVERSE OF DA FORM 2028-2 Reverse of DRSTS-M Overprint 2, 1 Nov 80

TEAR ALONG PERFORATED LINE

FILL IN YOUR UNITS ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

COMMANDER
U.S. ARMY AVIATION AND TROOP COMMAND
ATTN: AMSAT-I-MP
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120-1798

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = . 39 inch
1 decimenter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = . 15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigrams = . 035 ounce
1 dekagram = 10 grams = . 35 ounce
1 hectogram = 10 dekagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = . 34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 38.82 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = . 155 sq. inch
1 sq. decimenter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = . 386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = . 06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.365	metric tons	short tons	1.102
pound-inches	newton-meters	.11375			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 044476-006