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AMMUNITION RESTRAINT SYSTEMS FOR COMMERCIAL
AND MILITARY INTERMODAL CONTAINERS (ASSEMBLY,
INSTALLATION, REMOVAL AND OPERATION)

DEPARTMENTS OF THE ARMY, THE NAVY, AND THE AIR FORCE

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope.

This manual is published for guidance and use by Department of Defense personnel responsible for loading, blocking, bracing, and unloading shipments of Class V ammunition items and ammunition components in military and commercial 20 foot intermodal containers.

1-2. Maintenance Forms and Records.

Equipment maintenance forms and procedures for their use are explained in TM 38-750.

1-3. Reporting of Errors.

You can improve this manual by recommending improvements, using DA Form 2028-2, Recommended Changes to Publications and Blank Forms or comparable Navy or Air Force forms and forwarding directly to Director, US Army Defense Ammunition Center and School, ATTN: SARAC-DEO, Savanna, IL 61074.

Section II. DESCRIPTION AND DATA

1-4. Description.

Ammunition restraint systems approved for use in either commercial or military intermodal containers are to be discussed in the following pages with regard to their assembly, installation, removal and operation. The containers intended for use in the shipment of ammunition using these restraint systems must be inspected and found acceptable with MIL-HDBK-138 (AR), Container Inspection Handbook for Commercial and Military Containers (Dry Cargo Type). These systems are used in Inter-national Organization for Standardization (ISO) 20' long by 8' wide by 8' or 8.5' high, steel, aluminum or fiberglass-reinforced-plywood commercial or military containers with a maximum allowable gross weight (container plus contents) of 44,800 lbs. See Figures 1-1, 1-2, and 1-3, respectively, for typical views of installed systems.

NOTE

Even though some commercial containers are equipped with a mechanical load securing system, they are being excluded from this manual since they have not been approved for shipment of ammunition items. In order for these restraint systems to be

acceptable for use when shipping ammunition items or components in commercial or military containers, they must be used in accordance with an approved applicable service drawing. These approved service drawings are listed in three government publications, Department of Army Pamphlet No. 310-24, Index of Storage and Outloading Drawings for Ammunition Commodities, MIL-STD-1386 (Navy), Loading of Hazardous Material in MILVAN Containers, and Military Standardization Handbook, MIL-HDBK-236 (Navy), Index to Standards for Palletizing, Truckloading, Rail Car Loading and Container Loading of Hazardous Materials, TO 11A-1-61 (Air Force), Technical Manual, Storage and Outloading Instructions.

1-5. Tabulated Data.

Typical major components of each of the restraint systems are listed in Tables 1-1, 1-2, and 1-3. Assembly, installation, removal and operation of the restraint systems are described in Chapters 2, 3, and 4.

TABLE 1-1

SYSTEM	SYSTEM MAJOR COMPONENTS
Wood Dunnage for Commercial Intermodal Containers constructed of wood.	(a) Forward Blocking Assembly (b) Side Blocking Assembly (c) Rear Blocking Assembly (d) Door Post Vertical (e) Door Post Vertical Retainer (f) Door Spanner (g) Fill Material (h) Spanner Piece Cleat (i) Spanner Piece (j) Splice for Tie Pieces NOTE: Component (e) is a steel weldment; all other components are

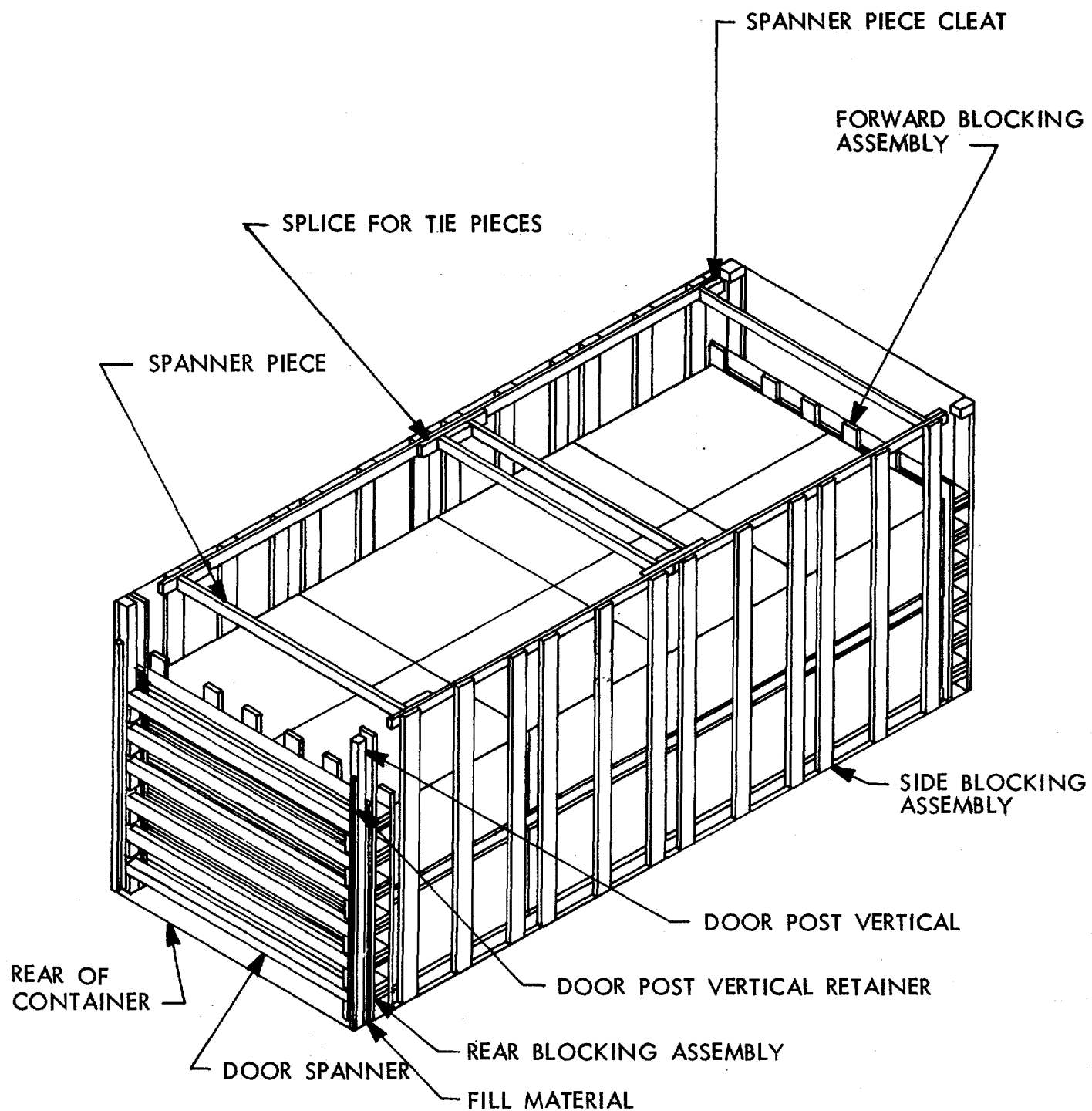


Figure 1-1. Typical loaded container with wood dunnage system installed.