VOLCANO

UNITIZATION PROCEDURES FOR VOLCANO MINE SYSTEM HARDWARE, SIDE PANELS, PACKED IN FIBERGLASS REINFORCED PLASTIC CONTAINERS

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	ARMY MATERIEL COMMAND		William Fernst			
d	Jany let	Clen	JULY 1988			
	U.S. ARMY DEFENSE AMMUN	ITION CENTER AND SCHOOL	CLASS	DIVIZION	DRAWING	FILE
	REVISION NO. 2	FEBRUARY 1993	19	48	4240/2	20PM
	SEE THE REVISION	LISTING ON PAGE 2		ļ	1.210/2	1009

DO NOT SCALE

GENERAL NOTES

- THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- DIMENSIONAL LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF A NOMINAL SIZE, UNLESS OTHERWISE SPECIFIED. FOR EXAMPLE, 1" X 6" MATERIAL IS ACTUALLY 3/4" THICK BY 5-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- DETAILS OF THE FIBERGLASS REINFORCED PLASTIC CONTAINER.

CONTAINER DIMENSIONS - - LENGTH - - 80" WIDTH - - 65-1/2" HEIGHT - - 20-1/2" GROSS WEIGHT (SIDE PANELS) - - - - 600 LBS (APPROX)

- A PLUS OR MINUS $1/4^{\prime\prime}$ IS ALLOWED ON OVERALL DIMENSIONS OF ANY DUNNAGE ASSEMBLY; HOWEVER, SIMILAR PIECES IN AN ASSEMBLY MUST BE WITHIN $1/8^{\prime\prime}$ OF THE SAME DIMENSION.
- WHEN ASSEMBLING A UNIT LOAD, CARE SHALL BE TAKEN TO INSURE THAT THE CONTAINER AND/OR DUNNAGE ASSEMBLIES ARE EVENLY ALIGNED HORIZONTALLY AND VERTICALLY SO THAT THE SIDES AND ENDS OF THE UNIT LOAD DO NOT EXCEED A 1/2" TOLERANCE.
- IN ORDER TO OBTAIN COMPACT (SOUND) UNITS, STRAPS SHALL IN UNUER 10 UBIAIN LOMPALI (SUUNU) UNIIS, SIRAPS SHALL BE LOCATED IN PROPER ALIGNMENT AND PROPERLY TENSIONED SO AS TO NOT CAUSE CONTAINER DISTORTION. AFTER TENSIONING, EACH STRAP WILL BE SECURED USING ONE SEAL AND TWO PAIR OF NOTCHES PER SEAL. ALL STRAPPING MUST BE STRAIGHT WITHIN 2" ON ANY SURFACE OF THE UNITIZED LOAD, I.E., TOP, BOTTOM, SIDES, OR ENDS THAT IT ENCOUNTERS.
- WHEN APPLYING ANY STRAP, CARE MUST BE EXERCISED TO ASSURE THAT THE END OF THE STRAP ON THE UNDERSIDE OF THE JOINT EXTENDS AT LEAST 6" BEYOND THE SEAL. THIS EXTRA MINIMUM LENGTH OF STRAP IS REQUIRED TO PERMIT SUBSEQUENT TIGHTENING OF LOOSENED STRAPPING. RETENSIONING CAN BE ACCOMPLISHED WITHOUT REPLACING STRAPPING OR SPLICING STRAPPING THROUGH THE USE OF A MANUAL OR PNEUMATIC FEEDWHEEL TYPE TENSIONING TOOL AND THE APPLICATION OF ONE ADDITIONAL SEAL THE APPLICATION OF ONE ADDITIONAL SEAL.
- ANTI-CHAFING (NEUTRAL BARRIER) MATERIAL MUST BE PLACED BETWEEN ALL CONTAINERS AND STRAPPING
- FOR THE METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE AMC DRAWING 19-48-4127-20P1000.
- INSTALL THE UNITIZATION STRAPS TO ENCIRCLE THE CONTAINERS AS SHOWN. INSTALL THE TIEDOWN STRAPS AFTER THE UNITIZATION STRAPS. STAPLE STRAPS TO THE BLOCKING ASSEMBLIES.
- CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN CUNVERSION TO METRIL EUDIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4 MM AND ONE POUND EQUALS 0.454 KG.
- POWER DRIVEN STAPLES MAY BE USED AS ALTERNATIVE FASTENERS FOR NAILS WHEN CONSTRUCTING THE DUNNAGE ASSEMBLIES WHICH ARE SPECIFIED WITHIN THIS DRAWING. THE STAPLES TO BE USED MUST BE EQUAL IN LENGTH TO THE SPECIFIC NAIL SIZE AND MUST BE SUBSTITUTED ON A ONE STAPLE FOR ONE NAIL BASIS.
- DIMENSIONS GIVEN FOR DUNNAGE PIECES OR DUNNAGE ASSEMBLIES WILL BE FIELD CHECKED PRIOR TO THEIR ASSEMBLY AND INSTALLATION. DUNNAGE ASSEMBLIES MUST BE CONSTRUCTED SUCH THAT THE VERTICAL PIECES WILL BE LOCATED IN LINE WITH THE STRAPPING, AND/OR THE HANDLES, AND THE HORIZONTAL PIECES WILL CONTACT THE CONTAINER.
- ALL WOODEN DUNNAGE SHALL BE PRESERVATIVE TREATED IN ALL WUDDEN DUNNAGE SHALL BE PRESERVATIVE THEATED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED IN MIL-B-2427 FOR CLEATED WOODEN BOXES. IF THE DUNNAGE CONSISTS OF MORE THAN ONE COMPONENT, IT MUST BE ASSEMBLED PRIOR TO TREATMENT. THE LETTERS PA DENOTING PQ56 (COPPER QUINOLINGLADLY), PB DENOTING M-GARD W550 (ZINC NAPHTHENATE EMILSIFIABLE) OR PC DENOTING M-GARD W510 OR CUNAPSOL (COPPER NAPHTHENATE) MUST BE APPLIED TO THE WOOD DUNNAGE IN LETTERS AT LEAST ONE INCH HIGH.

REVISIONS

REVISION NO 1. DATED FEBRUARY 1989, CONSISTS OF:

1. CHANGING THE CONTAINER TYPE.

REVISION NO 2, DATED FEBRUARY 1993, CONSISTS OF:

ADDING SKIDDED BASE AND END GATES.

MATERIAL SPECIFICATIONS

SEE TM 743-200-1 (DUNNAGE LUMBER) AND

FED SPEC MM-L-751.

NAILS ----: FED SPEC FF-N-105; COMMON.

PLYWOOD - - - - - - COMMERCIAL ITEM DESCRIPTION
A-A-55057, TYPE A, CONSTRUCTION AND INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.

ASTM-D-3953; FLAT STRAPPING, TYPE 1 STRAPPING, STEEL - -:

OR 2, HEAVY DUTY, ZINC-COATED (GRADE 2), SIZE 3/4" X .035" OR .031".

SEAL, STRAP - - - -: ASTM-D-3953; CLASS H, FINISH B (GRADE

2), TYPE D, STYLE I, II, OR IV.

STAPLE - - - - - -:

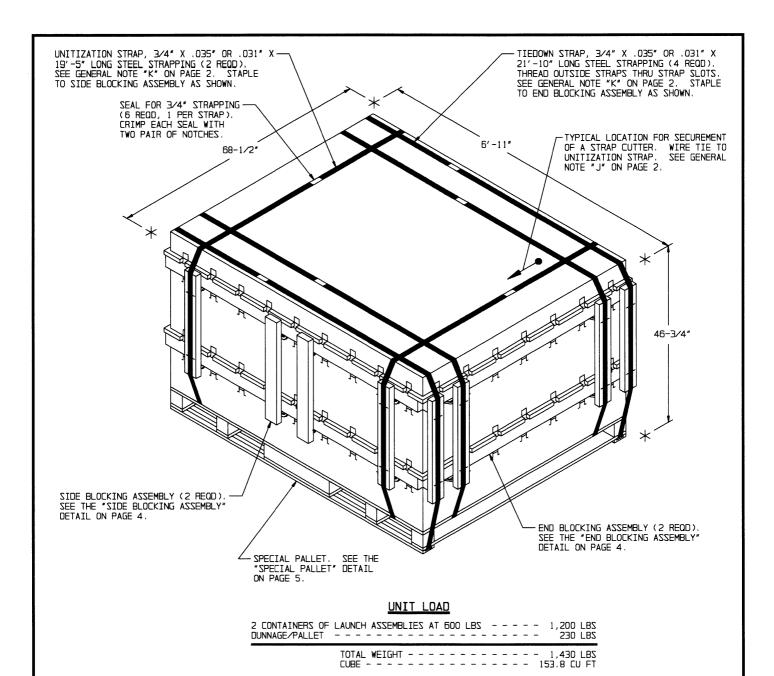
FED SPEC FF-N-105; 15/16" OR 1" CROWN WIDTH X 3/4" LEG LENGTH FOR 3/4" STRAPPING AND 1-17/32" CROWN WIDTH X 3/4" LEG LENGTH FOR 1-1/4"

STRAPPING, TYPE III, STYLE 3.

ANTI-CHAFING

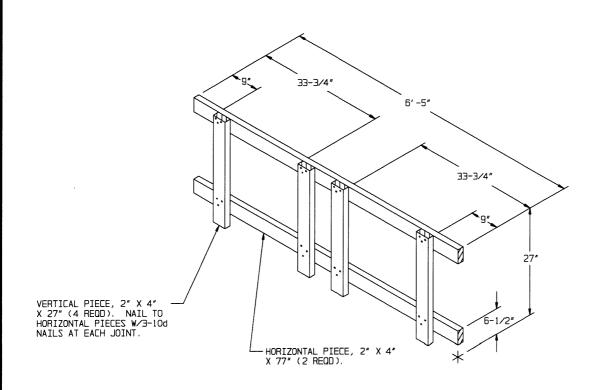
MATERIAL - - - - -: MIL-B-121 (OR EQUAL); NEUTRAL BARRIER

MATERIAL.

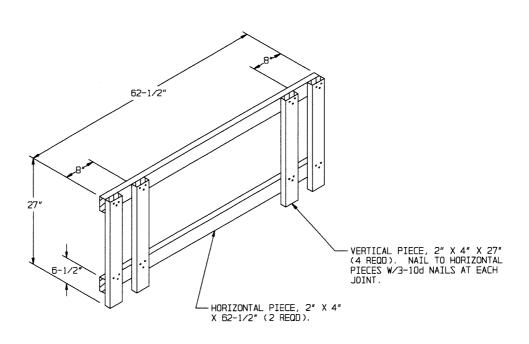


BILL OF MATERIAL						
LUMBER	LINEAR FEET	BOARD FEET / LBS				
1" X 4" 2" X 4" 4" X 4"	37.00 82.50 5.67	12.33 / 24.66 54.99 / 109.99 7.55 / 15.10				
NAILS	NO. REQD	POUNDS				
6d (2") 8d (2-1/2") 10d (3")	96 34 130	0.56 0.36 2.00				
PLYWOOD, 3/4" 33.42 SO FT REOD 68.93 LBS STEEL STRAPPING, 3/4" 126.17' REOD 9.01 LBS SEAL FOR 3/4" STRAPPING 6 REOD NIL STAPLE, 15/16" X 3/4" 24 REOD NIL ANTI-CHAFING MATERIAL AS REOD NIL						

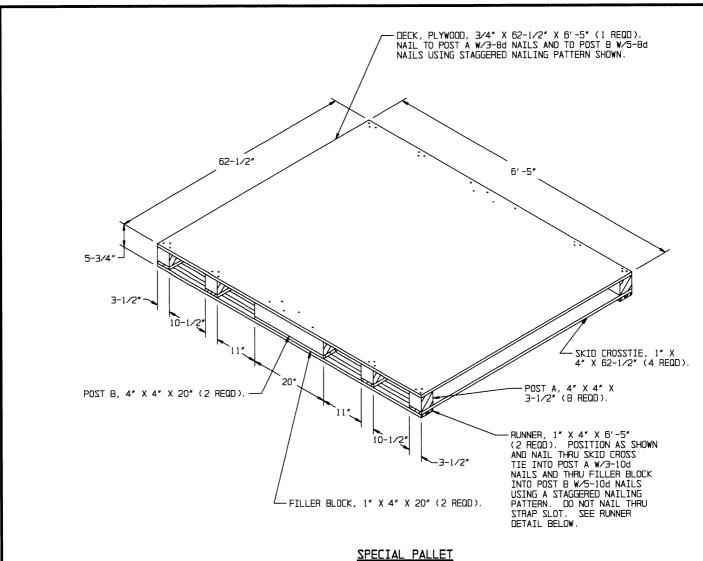
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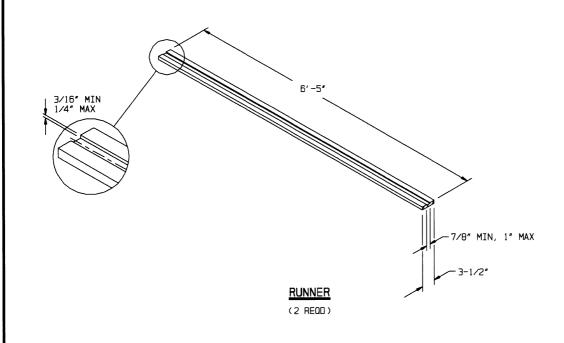


SIDE BLOCKING ASSEMBLY



END BLOCKING ASSEMBLY





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