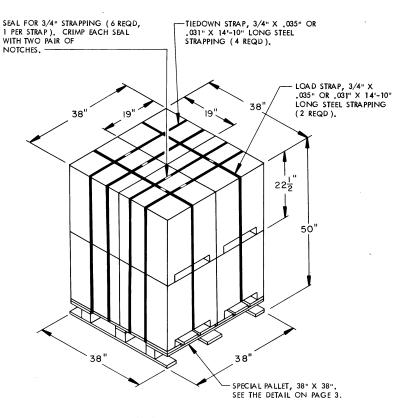
UNITIZATION PROCEDURES FOR 155MM COPPERHEAD WARHEADS, PACKED 5 PER METAL CONTAINER, UNITIZED 8 CONTAINERS PER SPECIAL 4-WAY ENTRY PALLET

REVIS	SIONS	DRAFTSMAN	pt W.K.	JWRA _	
	CHECKER GPC	1/1	Safe OFFICE	1	
	APPROVED,	U, S. ARMY ARM	AMENT MATERIEL I	READINESS COMMAND	
		ORSAR-LET BONTON BALTING			
		APPROVED B	Y ORDER OF COM	MANDING GENERAL, READINESS COMM	U. S. ARMY AND (DARCOM)
	Will	LA KANY DEFE	ISE AMMUNITION CI	ENTER AND SCHOOL	
		U. S.	ARMY D	ARCOM	DRAWING
			JANU	ARY 198	33
		CLASS	DIVISION	DRAWING	FILE
		••	40	4176	20PM
		19	48	4170	1004

DO NOT SCALE



PALLET UNIT

8 EACH COPPERHEAD WARHEAD CONTAINERS & 243 LBS DUNNAGE	- 7	LBS (LBS LBS	(APPROX)
TOTAL WEIGHTCUBE	1,997 41.8	LBS (APPROX) FEET (APPROX)

BILL OF MATERIAL	
PALLET, SPECIAL, 38" X 38" 1 REQD	46 LBS
STEEL STRAPPING, 3/4" 89.00' REQD	6.36 LBS
SEAL FOR 3/4" STRAPPING 6 REQD	NJL

MATERIAL SPECIFICATIONS TREATED, SEE THE TABLES ON PAGE 3.

SPECIAL 4-WAY ENTRY, SIZE 38" X 38", PRESERVATIVE

<u>LUMBER</u> :	TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.
	FED SPEC FF-N-105; FOR DUNNAGE ASSEMBLIES, COMMON, CEMENT COATED OR CHEMICALLY ETCHED (ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE). FOR PALLET, SEE KEY NUMBERS ON PAGE 3.
STRAPPING, STEEL :	FED SPEC QQ-S-781; CLASS 1, TYPE I OR $\underline{\rm TY},$ HEAVY DUTY, FINISH B (GRADE 2), SIZE $3/4"$ X .035" OR .031".
SEAL, STRAP::	FED SPEC QQ-S-781; TYPE D, STYLE I, II, OR IV, CLASS H,

FINISH B (GRADE 2).

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5) AND CONFORMS TO MIL-STD-1660.
- B. DIMENSIONAL LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF A NOMINAL SIZE, UNLESS OTHERWISE SPECIFIED. FOR EXAMPLE,

 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 2" X 4"

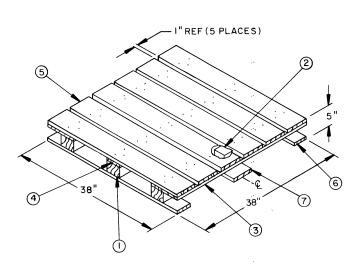
 MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE.
- C. DETAILS OF THE COPPERHEAD WARHEAD CONTAINER.

CONTAINER DIMENSIONS-----LENGTH-----19" WIDTH-----19" HEIGHT-----22-1/2"

----243 LBS GROSS WEIGHT----

- D. A PLUS OR MINUS 1/4" IS ALLOWED ON OVERALL DIMENSIONS OF ANY DUNNAGE ASSEMBLY OR PALLET. HOWEVER, SIMILAR PIECES IN AN ASSEMBLY MUST BE WITHIN 1/8" OF THE SAME DIMENSION.
- WHEN ASSEMBLING A PALLET UNIT, CARE SHALL BE TAKEN TO INSURE THAT THE CONTAINERS AND/OR ASSEMBLIES ARE EVENLY ALIGNED HORIZONTALLY AND VERTICALLY SO THAT THE SIDES AND ENDS OF THE PALLET UNIT DO NOT EXCEED A 1/2" TOLERANCE.
- IN ORDER TO OBTAIN COMPACT SOUND UNITS, STRAPS SHALL BE LOCATED IN PROPER ALIGNMENT AND TENSIONED UNTIL THEY CUT INTO THE EDGE OF THE PALLET DECK AND DO NOT CAUSE CONTAINER DISTORTION. AFTER TENSIONING, ALL STRAPS WILL BE SECURED USING ONE SEAL CRIMPED WITH TWO PAIR OF NOTCHES. ALL STRAPPING MUST BE STRAIGHT WITHIN 2" ON ANY SURFACE OF THE UNITIZED LOAD; I.E., TOP, BOTTOM, SIDES, OR ENDS THAT IT ENCOMPASSES.
- G. 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 OR SPLICING STRAPPING THROUGH THE USE OF A FEEDWHEEL TYPE TENSIONING TOOL, AND THE APPLICATION OF ONE ADDITIONAL SEAL.
- H. FOR THE METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE DARCOM DRAWING 19-48-4127-20P1000.
- IF LESS THAN EIGHT CONTAINERS ARE TO BE LOADED ON A PALLET, IT MAY BE ACCOMPLISHED BY SUBSTITUTING FILLER ASSEMBLIES, AS DEPICTED ON PAGE 3, FOR ONE, TWO, OR THREE OMITTED CONTAINERS. IF MORE THAN THREE CONTAINERS ARE TO BE OMITTED, A COMPLETE LAYER OF CONTAINERS MUST BE OMITTED.
- WHEN FILLER ASSEMBLIES ARE BEING USED IN A TWO-LAYER PALLET UNIT, THE ASSEMBLIES MUST BE POSITIONED IN THE TOP LAYER OF THE UNIT.

PALLET ----- :



SPECIAL PALLET DETAIL

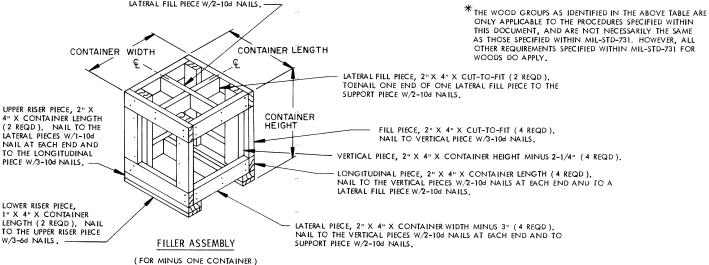
KEY NUMBERS

- OUTER POST, 4" WIDE X 2-3/4" HIGH (ACTUAL) X 3-1/2" LONG (ACTUAL) (6 REQD).
- (2) INNER POST, 4" WIDE X 2-3/4" HIGH (ACTUAL) X 5-1/2" LONG (ACTUAL) (3 REQD).
- 3) OUTER STRINGER, 1"X 8" X 38" (2 REQD).
- (4) CENTER STRINGER, 1" X 4" X 38" (1 REQD).
- (5) TOP DECK BOARD, 1" X 6" X 38" (6 REQD). NAIL OUTSIDE DECK BOARDS THROUGH THE STRINGERS INTO THE POSTS W/3 NAILS (TYPE II STYLE 18), 3" TO 3-1/4" LONG X .135" DIAMETER AT EACH LOCATION. NAIL THE TWO CENTER DECK BOARDS THROUGH THE STRINGERS INTO THE POSTS W/2 NAILS (TYPE II STYLE 18), 3" TO 3-1/4" LONG X .135" DIAMETER AT EACH LOCATION AND TO THE STRINGERS W/1 NAIL (TYPE II STYLE 18), 1-1/2" LONG X .120" DIAMETER AT EACH LOCATION. NAIL OTHER DECK BOARDS TO THE STRINGERS W/3 NAILS (TYPE II, STYLE 18), 1-1/2" LONG X .120" DIAMETER AT EACH LOCATION.
- 6 OUTER RUNNER, 1" X 4" X 38" (2 REQD). NAIL TO THE POSTS W/3 NAILS (TYPE II, STYLE 18), 2-1/4" LONG X .120" DIAMETER AT EACH JOINT.
- (7) INNER RUNNER, 1" X 6" X 38" (1 REQD). NAIL TO THE POSTS W/3 NAILS (TYPE II, STYLE 18), 2-1/4" LONG X .120" DIAMETER AT EACH JOINT.

PALLET MATERIAL SPECIFICATIONS			
PART NAME	WOOD GRADE	SPEC NO.	
POST	GROUP III	MIL-STD-731	
OUTER STRINGER	GROUP II OR III	MIL-STD-731	
CENTER STRINGER	GROUP II OR III	MIL-STD-731	
TOP DECK BOARD	GROUP I, II, OR III	MIL-STD-731	
RUNNER	GROUP III	MIL-STD-731	
NAILS		FED SPEC FF-N-105	
	PART NAME POST OUTER STRINGER CENTER STRINGER TOP DECK BOARD RUNNER	PART NAME WOOD GRADE POST GROUP III OUTER STRINGER GROUP II OR III CENTER STRINGER GROUP II OR III TOP DECK BOARD GROUP I, II, OR III RUNNER GROUP III	

SUPPORT PIECE, 2" X 4" X CONTAINER
LENGTH MINUS 3" (2 REQD). NAIL TO
LATERAL FILL PIECE W/2-10d NAILS.

Wo	OD GROUPS *	
GROUP I	GROUP II	GROUP III
TAMARACK FIR, SILVER HEMLOCK, WESTERN PINE, ALASKA FIR, DOUGLAS HEMLOCK, EASTERN MAGNOLIA CEDAR ASPEN LARCH, WESTERN SPRUCE CHESTNUT COTTONWOOD FIR, WHITE PINE, PONDEROSA	ELM, AMERICAN ASH (EXCEPT WHITE) GUM PINE, SOUTHERN YELLOW MAPLE, SOFT LARCH, WESTERN FIR, DOUGLAS (COAST) SYCAMORE TUPELO, WATER	HICKORY PECAN BIRCH, SWEET OR YELLOW ELM, ROCK HACKBERRY MAPLE, HAR D ASH, WHITE BEECH LOCUST OAK



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