

# ATTACHMENT OF STRAP CUTTER TO UNIT LOADS OF AMMUNITION

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REVISIONS				DRAFTSMAN PB	PROJ ENG M.W.D./J.W.V.
1	MAR 77	<i>W.M.V.</i>	<i>Chas. Chodura</i>	<i>R.S.</i>	<i>LOG ENGRS OFFICE</i>
			<i>A. E. Engler</i>	APPROVED, U.S. ARMY ARMAMENT COMMAND	
2	NOV 77	<i>W.M.V.</i>	<i>A. E. Engler</i>	<i>Robert V. Smith</i>	
				APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)	
				<i>A. E. Engler</i>	
				DARCOM AMMO CENTER	
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				JULY 1976	
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				DRAWING	FILE
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				4127	20P 1000

DO NOT SCALE

## GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5). THE DRAWING IS PUBLISHED AS GUIDANCE FOR THE ATTACHMENT OF ONE STRAP CUTTER (HANDLE AND CUTTER) TO A PALLETIZED (UNITIZED) LOAD OF AMMUNITION ITEMS THAT IS BONDED WITH STEEL STRAPPING. THE STRAP CUTTER WILL NOT BE ATTACHED TO PALLETIZED UNIT LOADS OF AMMUNITION PRIOR TO ARRIVING AT AMMUNITION SUPPLY POINTS OR COMPARABLE AMMUNITION DISTRIBUTION ORGANIZATIONS.
- B. THE PRIMARY PURPOSE OF THE STRAP CUTTER IS FOR "USING UNITS" TO HAVE A READILY-AVAILABLE TOOL FOR CUTTING THE STEEL STRAPPING THAT BONDS UNIT LOADS OF AMMUNITION.
- C. THE UNIT LOADS SHOWN HEREIN WERE EXTRACTED FROM PALLETIZATION (UNITIZATION) DRAWINGS, 19-48-4020-1-2-5-11PA1001, 19-48-4020-1-2-5-11PA1000, 19-48-4015-12P1000, 19-48-4042-1-2-5-11-14PM1000, 8857344, 9229038, 7548346, 8837839, AND 7549275. THESE DRAWINGS COVER CONVENTIONAL AMMUNITION PACKED IN BOXES, CYLINDRICAL METAL CONTAINERS, OR PALLETS. THE UNIT LOADS SELECTED REPRESENT THE DIFFERENT BOX, CONTAINER, OR PROJECTILE DESIGNS AND THEIR ARRANGEMENT (TOP UP, SIDE UP, ETC) IN THE UNIT LOAD AS IT AFFECTS THE POSITIONING AND ATTACHMENT OF THE STRAP CUTTER.
- D. THE LOCATION AND METHOD OF ATTACHMENT OF THE STRAP CUTTER TO THE UNIT LOADS SHOWN HEREIN WERE BASED ON THE FOLLOWING PRIORITIES:
1. NAIL TO TOP OF UNIT LOAD WHERE IT WILL NOT BE EXPOSED TO THE FORKLIFT TINES WHEN STACKING OR BOTTOM DECK BOARD (RUNNER) OF THE NEXT HIGHER PALLET OR SKID BASE IN A STACK. SEE UNIT NO. 10 ON PAGE 5.
  2. NAIL TO SIDE OR END OF UNIT LOAD WHERE IT WILL NOT PROTRUDE BEYOND OUTLINE OF UNIT LENGTH OR WIDTH AS APPLICABLE. SEE UNIT NO. 14 ON PAGE 6.
  3. NAIL TO TOP OF UNIT LOAD WHERE IT WILL BE EXPOSED TO FORKLIFT TINES WHEN STACKING, BUT WILL NOT BE EXPOSED TO BOTTOM DECK BOARD (RUNNER) OF THE NEXT HIGHER PALLET OR SKID BASE IN A STACK. SEE UNIT NO. 5 ON PAGE 4.
  4. WIRE TO STRAP ON UNIT LOAD WHERE OVERPACK IS NOT CONDUCTIVE TO NAILING, I.E., WIREBOUND CRATES OR METAL BOXES, ETC. SEE UNIT NO. 27 ON PAGE 8. LOCATION OF CUTTER ON UNIT LOAD WILL FOLLOW THE SAME PRIORITIES AS OUTLINED IN 1, 2, AND 3 ABOVE.
- E. WHEN ATTACHING THE CUTTER TO A UNIT LOAD BY NAILING, IT MUST BE POSITIONED SO IT CAN BE REMOVED BY LIFTING THE HANDLE END (END OPPOSITE OF WHERE CUTTER IS ASSEMBLED). SEE PAGE 3 FOR CUTTER DETAILS.
- F. CAUTION: THE NAIL SIZE SPECIFIED ON PAGE 3 IS IMPORTANT AS IT WAS SELECTED TO GIVE THE HOLDING POWER REQUIRED AND YET NOT PENETRATE THROUGH THE WOOD PACKING BOX (3/4" MIN MATERIAL) BUILT IN ACCORDANCE WITH MIL-B-2427. FOR ANY WOOD BOX THAT HAS LESS THAN 3/4" MATERIAL WHERE THE CUTTER IS ATTACHED, THE CUTTER WILL BE WIRED IN LIEU OF NAILING (SEE NOTE D4 ABOVE AND PAGE 3). WHEN NAILING STRAP CUTTER TO PALLET BASES OF SEPARATE LOADING PROJECTILE UNITS, 4d NAILS MAY BE USED IF DESIRED. ALSO SEE NOTE "H" BELOW.
- G. ANY REQUEST FOR DEVIATION FROM THE METHODS SHOWN HEREIN SHOULD BE DIRECTED TO THE US ARMY ARMAMENT MATERIEL READINESS COMMAND, ATTN: DR SAR-MAD, ROCK ISLAND, IL 61299.
- H. AS AN ALTERNATIVE TO THE NAILING METHOD OF ATTACHING THE STRAP CUTTER TO A UNIT, APPROPRIATELY SIZED STAPLES MAY BE USED IN THE HOLES SO IDENTIFIED IN THE STRAP CUTTER DETAIL ON PAGE 3. STAPLES AND STAPLE GUN MUST COMPLY WITH THE REQUIREMENTS SPECIFIED ON PICATINNY ARSENAL DRAWING NO. 9297888. THE STAPLE SPECIFICATION AND STAPLE SIZE LISTED BELOW UNDER "MATERIAL SPECIFICATIONS" ARE ONLY APPLICABLE TO HAND-HELD, HAMMER-DRIVEN STAPLES USED INSTEAD OF TWO 2d NAILS, AS ANOTHER ALTERNATIVE CUTTER FASTENING METHOD.

## REVISIONS

REVISION NO. 1, DATED MARCH 1977, CONSISTS OF:

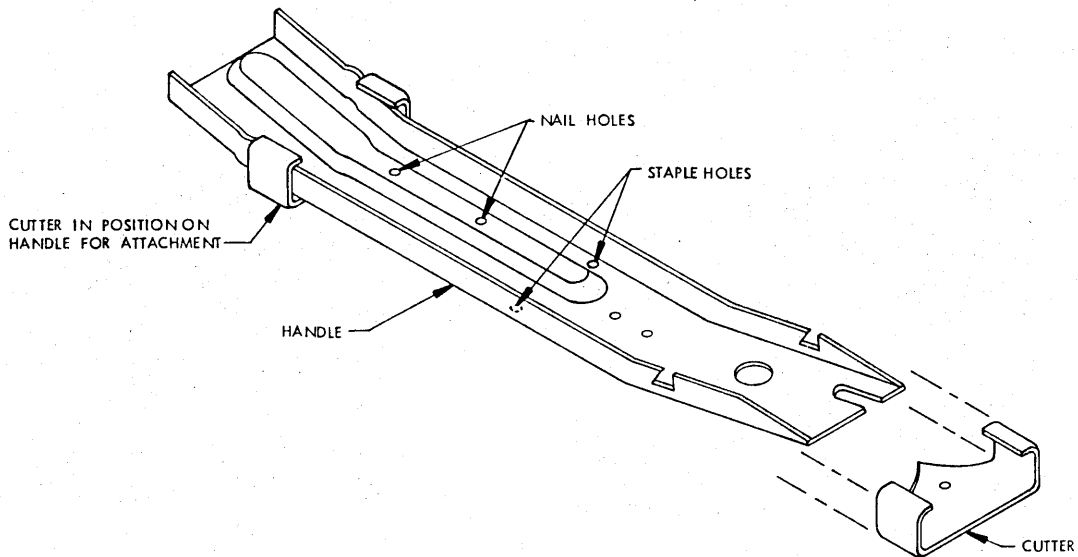
1. CHANGING GENERAL NOTE "A".
2. ADDING MATERIAL SPECIFICATIONS FOR STAPLE.
3. CHANGING MATERIAL SPECIFICATIONS FOR WIRE AND STRAP CUTTER.

REVISION NO. 2, DATED NOVEMBER 1977, CONSISTS OF:

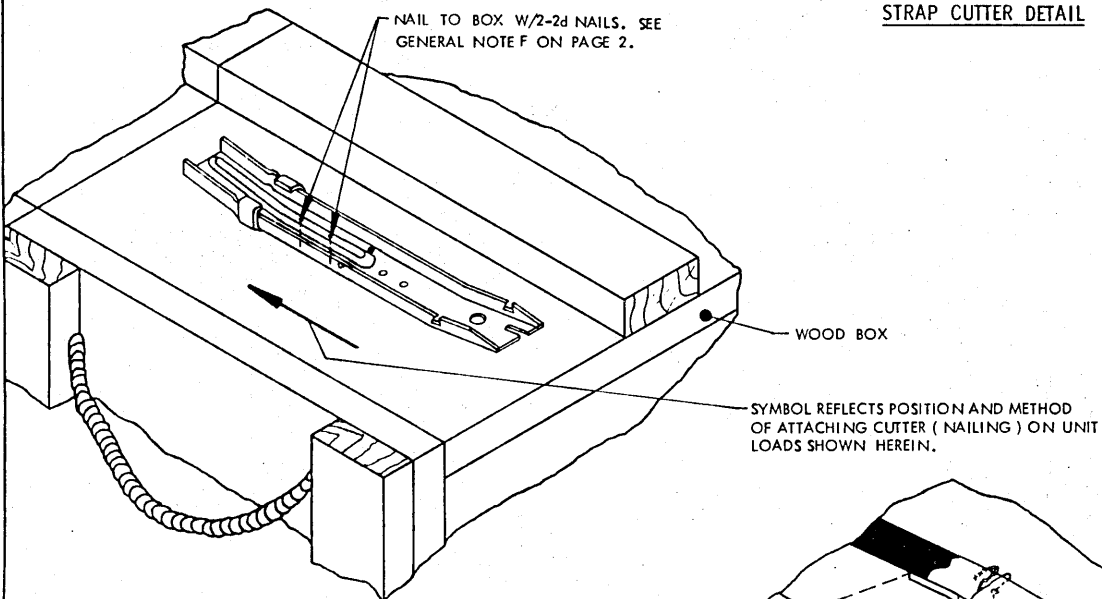
1. CHANGING GENERAL NOTE "A".

## MATERIAL SPECIFICATIONS

- NAILS ----- : COMMON, STEEL, ZINC COATED, TYPE II, STYLE 10, #FED SPEC FF-N-105.
- STAPLE ----- : TYPE III, STYLE 4, STEEL WIRE, ZINC OR CEMENT COATED, 1 INCH WIDE (INSIDE DIMENSION) BY 1 INCH LONG, FED SPEC FF-N-105.
- WIRE ----- : STEEL, FINISH 4, ANNEALED, OR FINISH 5 (CLASS 1) SOFT, 14 TO 18 GAUGE, FED SPEC QQ-W-461.
- STRAP CUTTER --- : NSN 5110-01-004-3869.



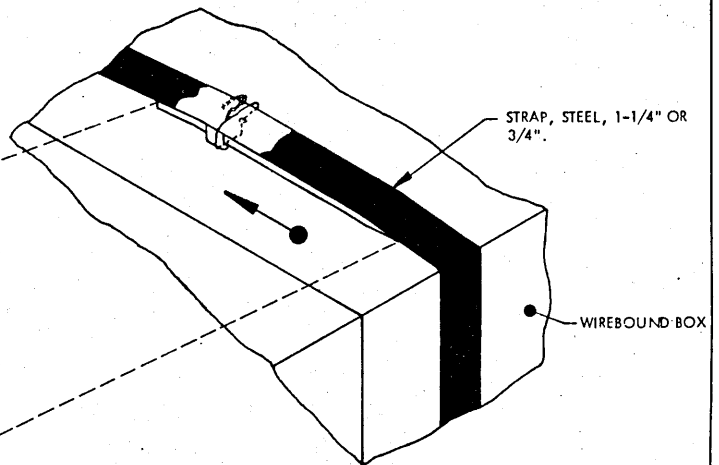
STRAP CUTTER DETAIL



METHOD OF ATTACHING CUTTER BY NAILING

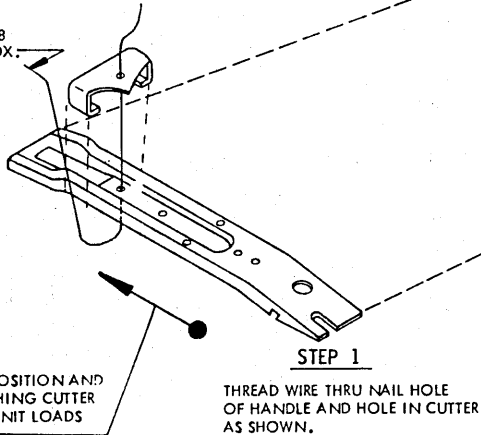
SEE "SPECIAL NOTE" BELOW.

WIRE, SOFT, 14 THRU 18 GAGE, 10" LONG APPROX.



STEP 2

POSITION CUTTER UNDER STRAP, BRING ENDS OF WIRE OVER STRAP AND TWIST TIE W/4 TWISTS. DO NOT CUT TWISTED ENDS. TUCK TWISTED ENDS BETWEEN STRAP AND CUTTER TO FACILITATE SUBSEQUENT REMOVAL OF CUTTER.



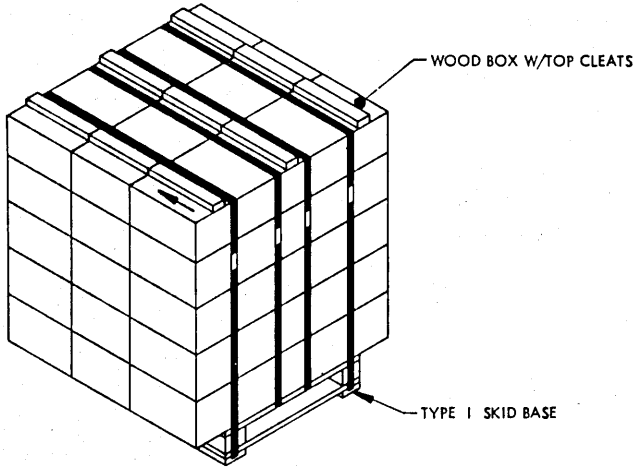
SYMBOL REFLECTS POSITION AND METHOD OF ATTACHING CUTTER (WIRE TYING) ON UNIT LOADS SHOWN HEREIN.

METHOD OF ATTACHING CUTTER BY WIRE TYING

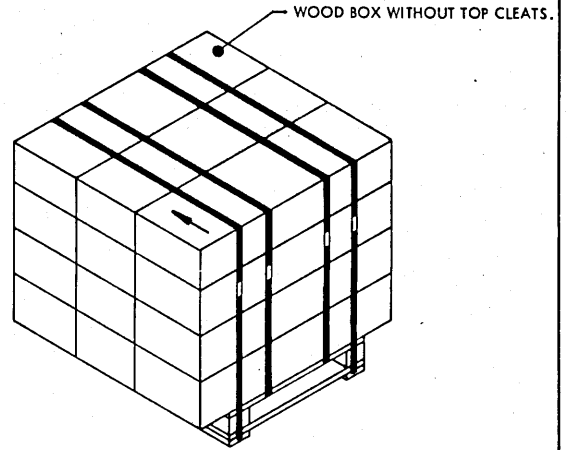
SEE "SPECIAL NOTE" BELOW.

SPECIAL NOTE:

SEE PAGE 9 FOR ATTACHING CUTTER TO SEPARATE LOADING PROJECTILE UNITS.

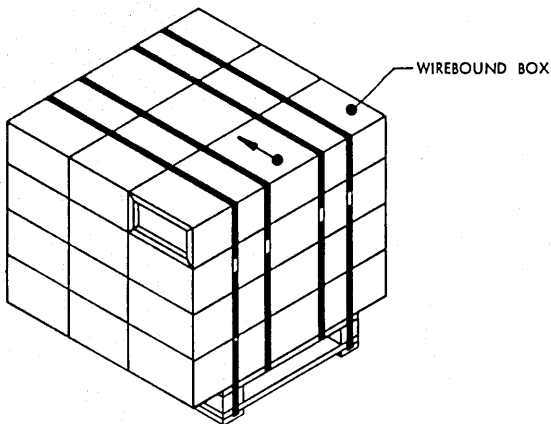


UNIT NO. 1



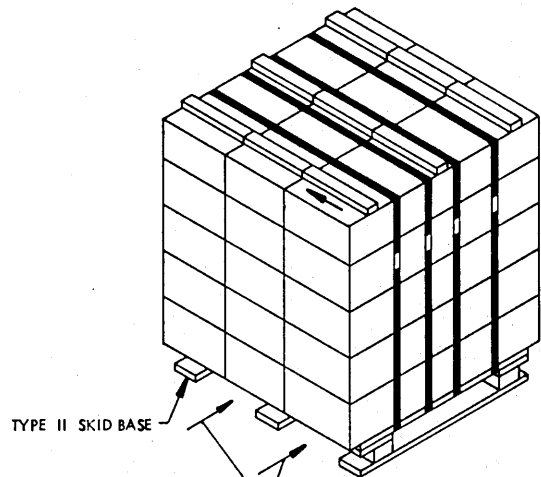
UNIT NO. 2

ALIGN TO CLEAR SKID BASE  
(SEE GENERAL NOTE D3)



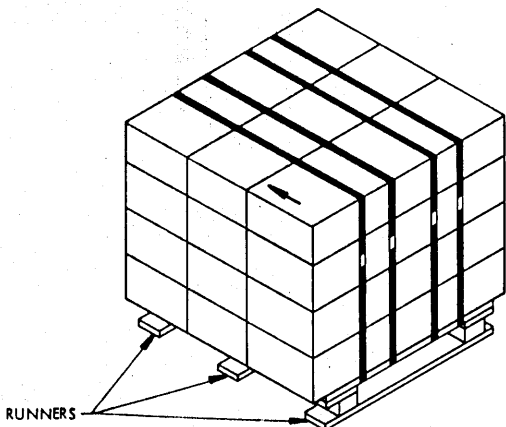
UNIT NO. 3

POSITION UNDER AN INSIDE STRAP



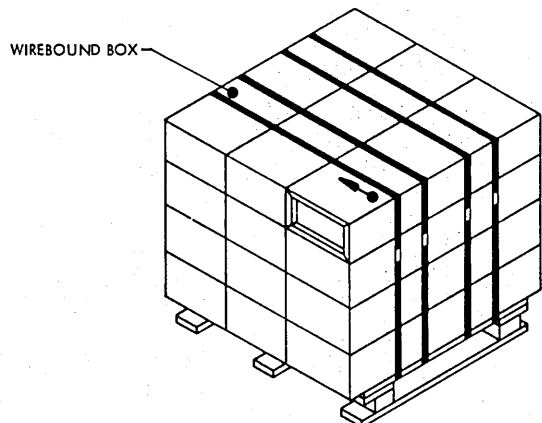
UNIT NO. 4

FORKLIFT OPENINGS



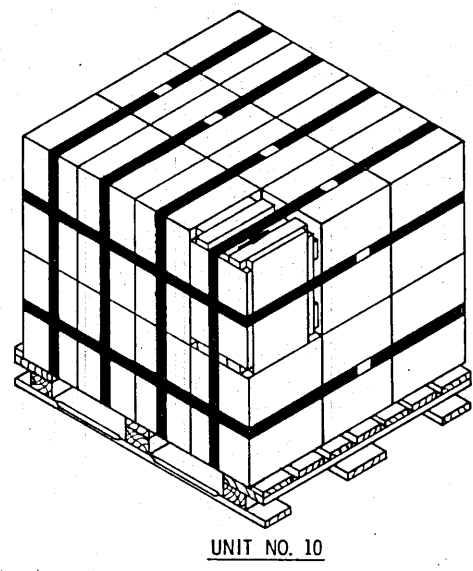
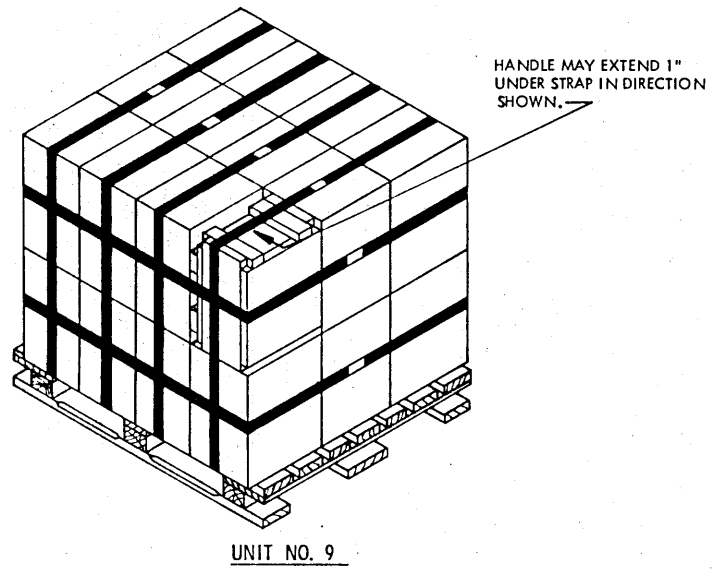
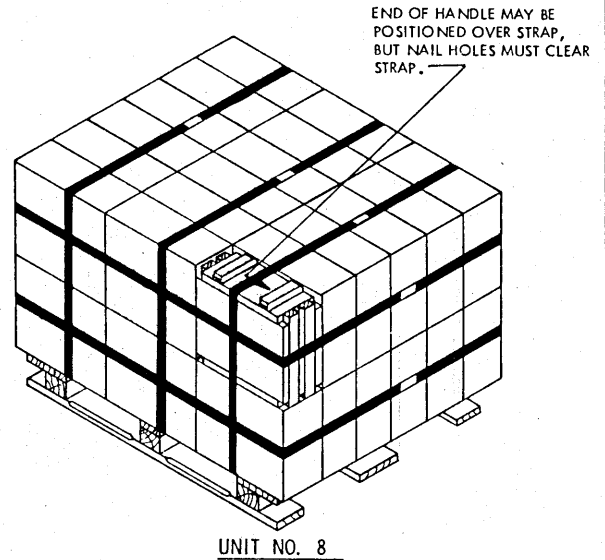
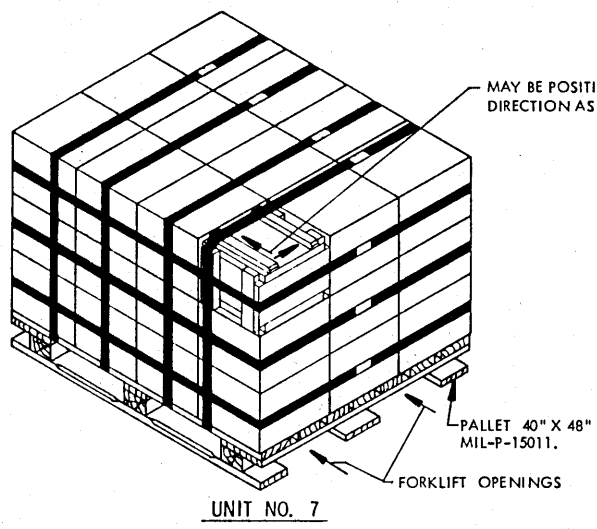
UNIT NO. 5

ALIGN BETWEEN RUNNERS  
(SEE GENERAL NOTE D3)

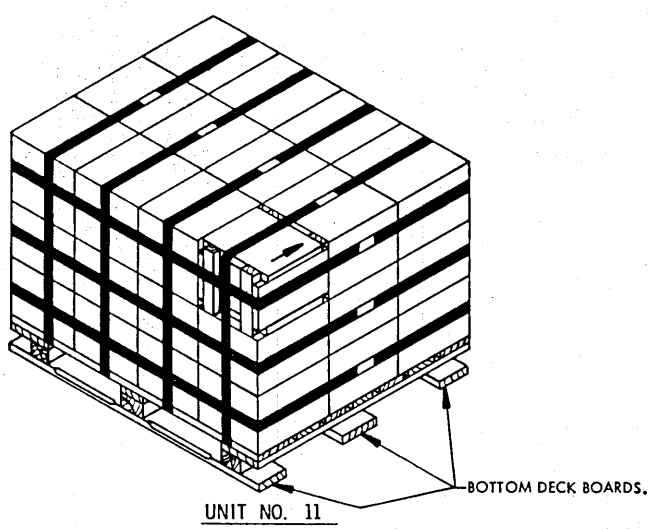


UNIT NO. 6

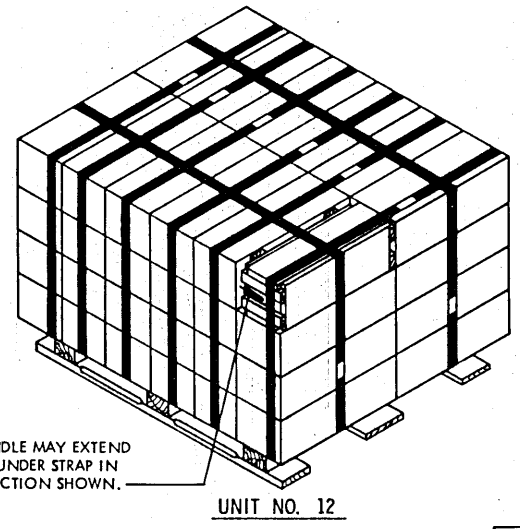
ALIGN BETWEEN RUNNERS  
(SEE GENERAL NOTES D3 AND D4)



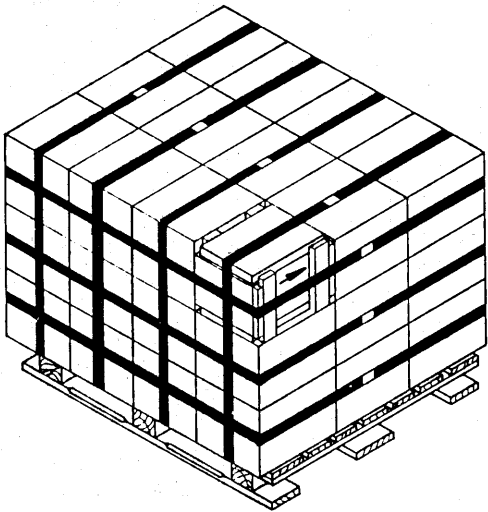
NAIL WHEN ROOM BETWEEN STRAP AND CLEAT PERMITS, WHEN NOT WIRE TIE UNDER STRAP.



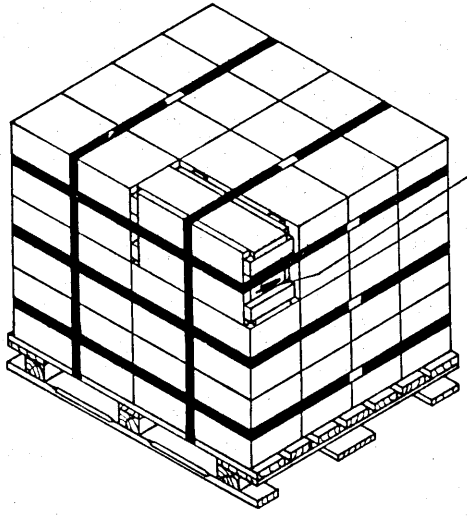
ALIGN BETWEEN BOTTOM DECK BOARDS (SEE GENERAL NOTE D3)



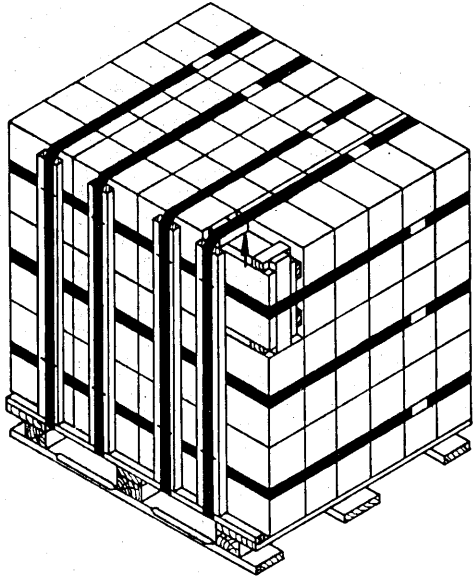
NAIL WHEN ROOM BETWEEN STRAP AND CLEAT PERMITS, OTHERWISE WIRE UNDER STRAP.



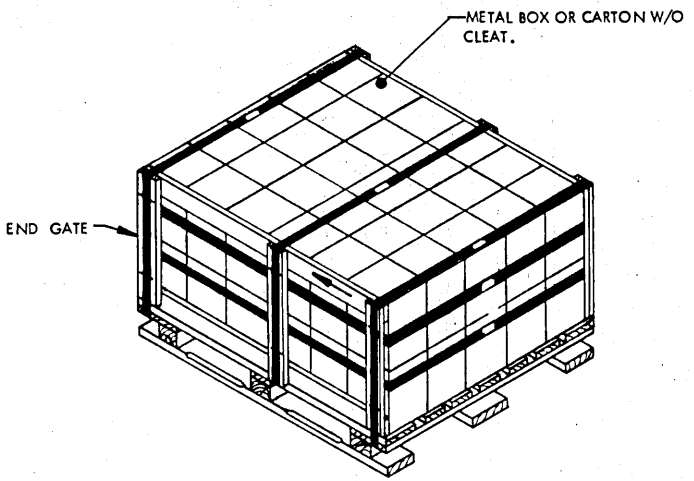
UNIT NO. 13



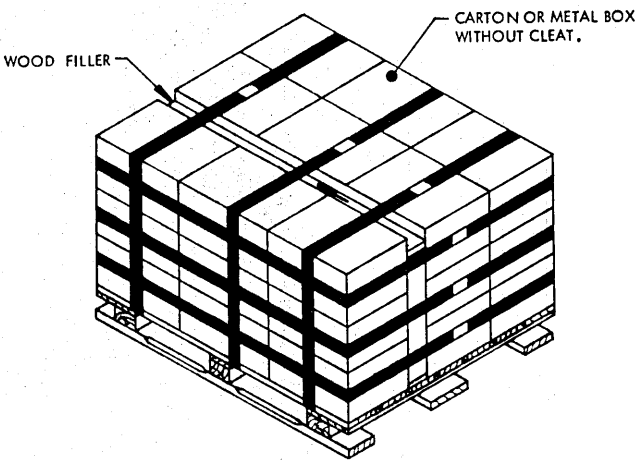
UNIT NO. 14



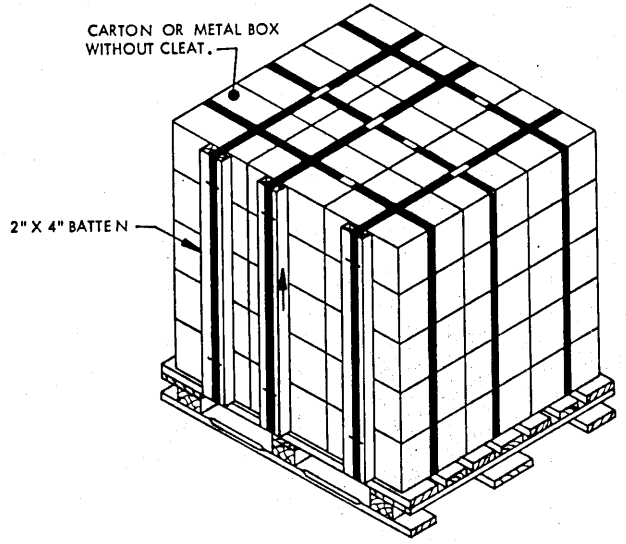
UNIT NO. 15



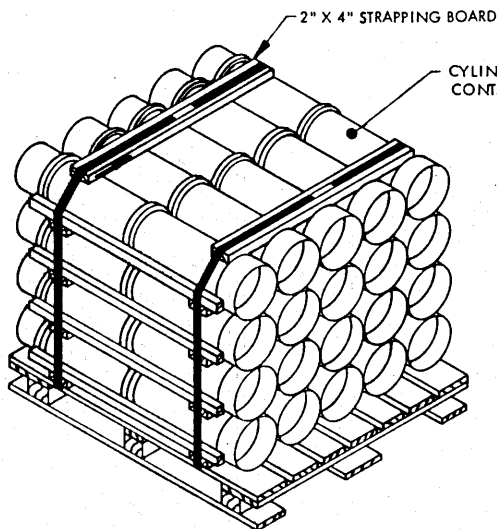
UNIT NO. 16



UNIT NO. 17



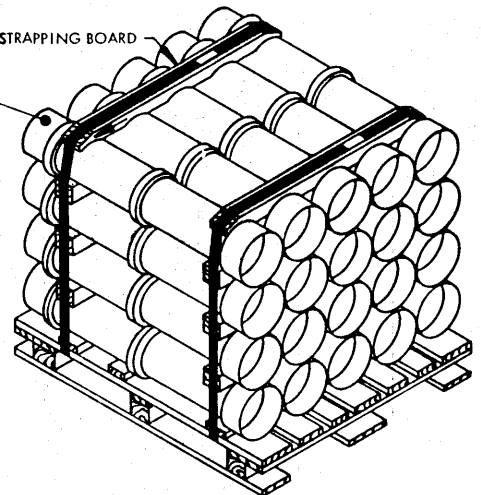
UNIT NO. 18



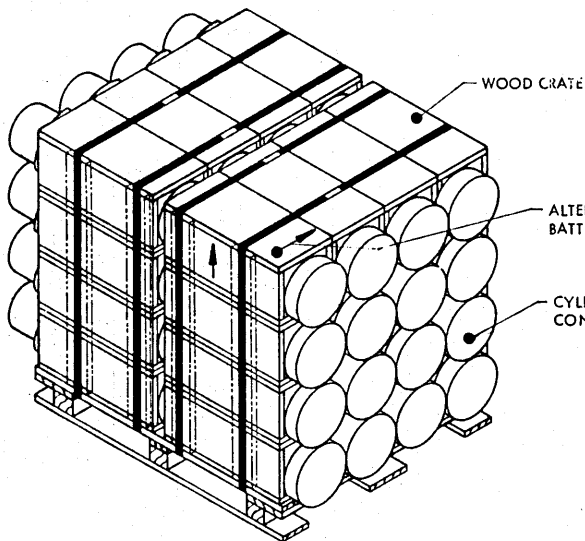
UNIT NO. 19

CYLINDRICAL METAL CONTAINER

ROUTED STRAPPING BOARD



UNIT NO. 20



UNIT NO. 21

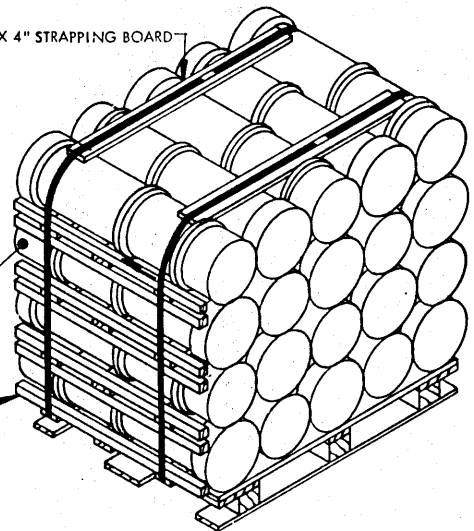
IF WIRE TIE IS USED, ALIGN BETWEEN BOTTOM DECK BOARDS  
(SEE GENERAL NOTES D3 AND D4)

ALTERNATE LOCATION IF BATTENS ARE NOT USED

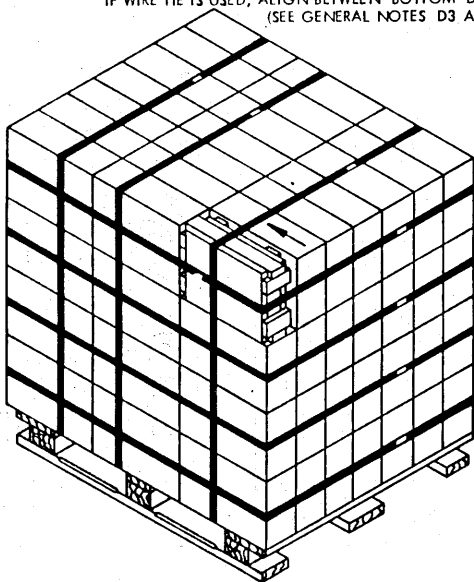
CYLINDRICAL METAL CONTAINER

1" X 4" STRAPPING BOARD

2" X 2" STOP PIECE

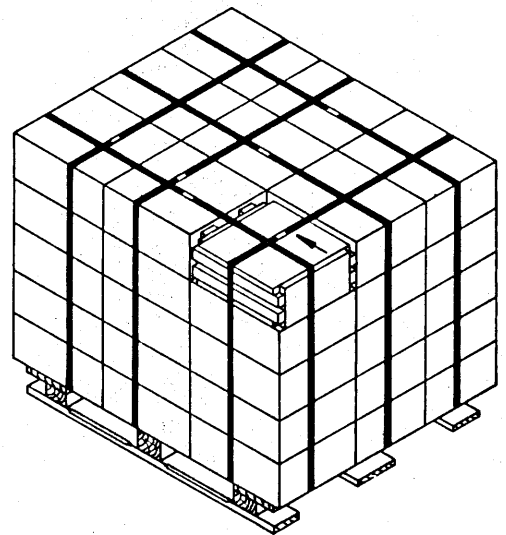


UNIT NO. 22



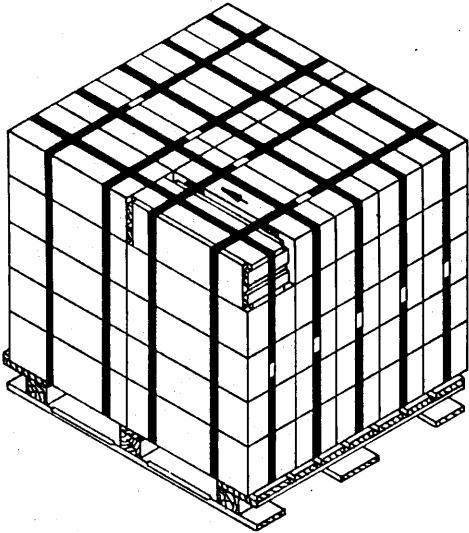
UNIT NO. 23

ALIGN BETWEEN BOTTOM DECK BOARDS  
(SEE GENERAL NOTE D3)

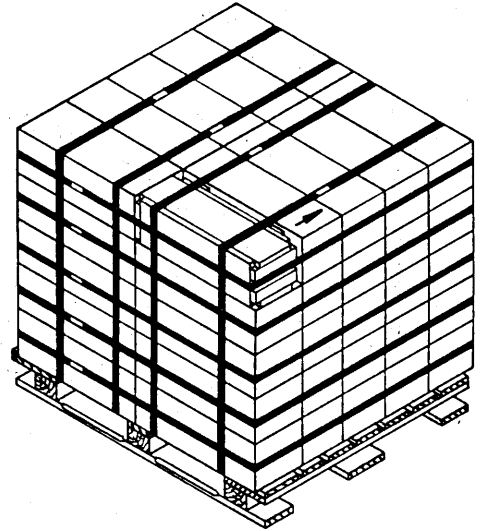


UNIT NO. 24

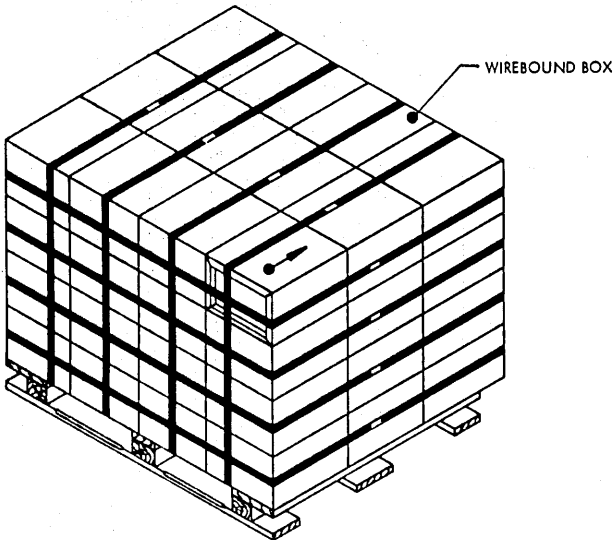
ALIGN BETWEEN BOTTOM DECK BOARDS  
(SEE GENERAL NOTE D3)



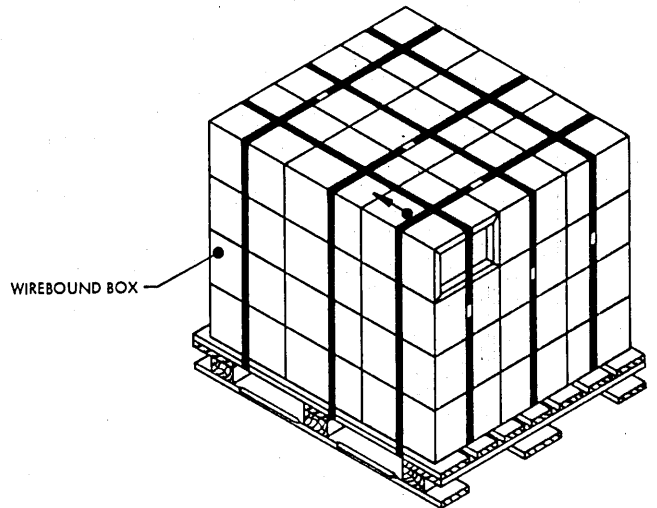
UNIT NO. 25



UNIT NO. 26

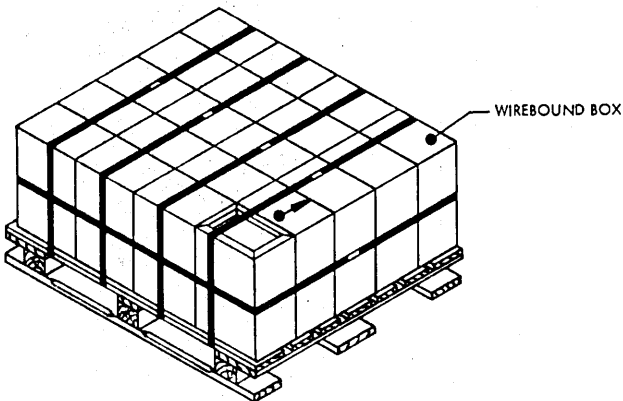


UNIT NO. 27

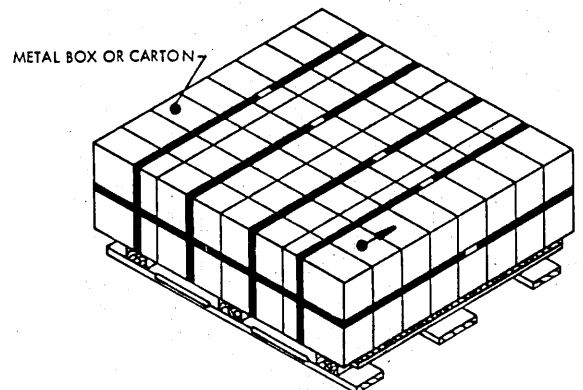


UNIT NO. 28

ALIGN BETWEEN BOTTOM DECK BOARDS  
(SEE GENERAL NOTES D3 AND D4)



UNIT NO. 29

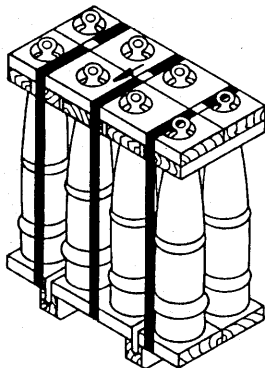


UNIT NO. 30



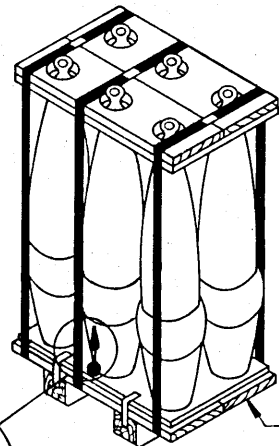
NOTE:

LOCATIONS FOR ATTACHING THE STRAP CUTTER TO PALLET UNITS OF SEPARATE LOADING PROJECTILES ARE DEPICTED BELOW. SEE GENERAL NOTE F ON PAGE 2. FOR METHOD OF ATTACHING CUTTER TO SLP PALLETS DURING ASSEMBLY AT ARMY AMMUNITION PLANTS, SEE DRAWINGS 7548346 REV W, 7549275 REV V, 8837839 REV 2, 8857344 REV V, AND 9229038 REV B, OR LATER REVISIONS. IF DESIRED AND AS ALTERNATIVES TO THE CUTTER LOCATIONS AND ATTACHMENT METHODS SPECIFIED BELOW, THE LOCATIONS AND/OR ATTACHMENT METHODS SPECIFIED ON THE PICATINNY ARSENAL DRAWINGS IDENTIFIED ABOVE MAY BE USED.



UNIT 31

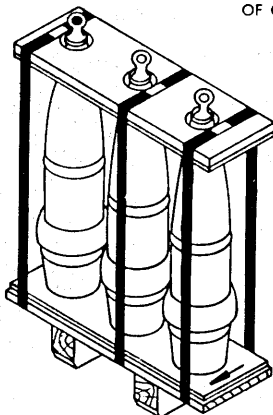
155 MM PROJECTILE  
8/PALLET



UNIT 32

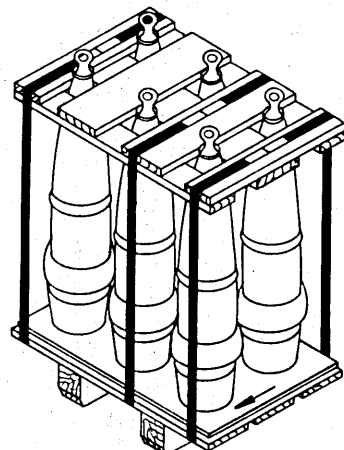
175 MM PROJECTILE  
8/PALLET

POSITION W/END OF HANDLE ON PALLET BASE AND WIRE TIE AS SHOWN W/4 TWISTS. DO NOT CUT TWISTED ENDS. TUCK ENDS BETWEEN STRAP AND CUTTER TO FACILITATE SUBSEQUENT REMOVAL OF CUTTER.



UNIT 33

8" PROJECTILE  
3/PALLET



UNIT 34

8" PROJECTILE  
6/PALLET

