

APPENDIX 8

UNITIZING PROCEDURES FOR PROPELLING CHARGES PACKED IN CYLINDRICAL METAL CONTAINERS ON 4-WAY ENTRY PALLETS

M460 SERIES CONTAINERS (WITH PROTECTIVE COVER)

INDEX



<u>ITEM</u>	<u>PAGE (S)</u>
GENERAL NOTES	2
PALLETIZING PROCEDURES	4,5
FILLERS AND INSTALLATION PROCEDURES FOR OMITTED CONTAINERS	6,7

PALLET UNIT DATA						
ITEMS INCLUDED		HAZARD CLASSIFICATION				WEIGHT (LBS)
NSN	DODIC	DOT CLASS	CG CLASS	QD CLASS	COMP GROUP	
1320-00-926-3986	D361	B	II-A	1.3	C	2,005
182-3030	D361	B	II-A	1.3	C	2,005
892-4201	D361	B	II-A	1.3	C	2,005

NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4042-20PM1001.

THIS DRAWING SUPERSEDES PART OF DRAWING 19-48-4042-1-2-5-11-14PM1000, DATED 8 FEBRUARY 1965, AND REVISION NO. 1, THERE TO, DATED 29 AUGUST 1969.

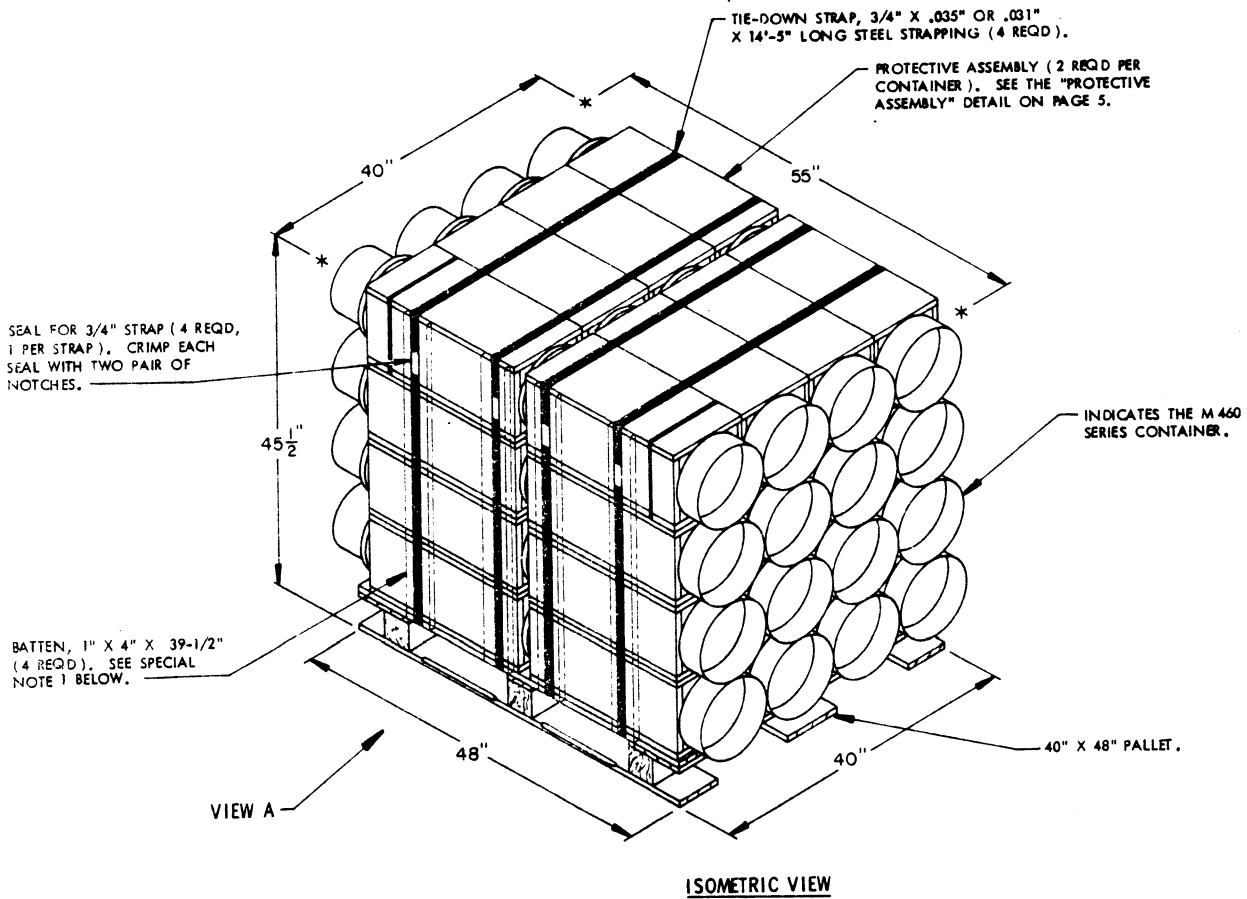
DO NOT SCALE

REVISIONS			<small>DRAFTSMAN</small> <small>CHECKER</small> <small>PROJ. ENG.</small> <small>LOG. ENGINE OFFICE</small>
			<small>APPROVED, U. S. ARMY ARMAMENT MATERIEL READINESS COMMAND</small>  <small>DRSAR - MAG</small> <small>DRSAR - TWO</small>
			<small>APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)</small>  <small>U. S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL</small>
U. S. ARMY DARCOM DRAWING			
OCTOBER 1979			
CLASS	DIVISION	DRAWING	FILE
19	48	4042A/ 8	20PM 1001

GENERAL NOTES

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZING PROCEDURES DRAWING 19-48-4042-20PM1001. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN THIS APPENDIX. ANY EXCEPTIONS TO THE BASIC PROCEDURES ARE SPECIFIED IN THIS APPENDIX.
- B. DIMENSIONS, CUBE AND WEIGHT OF A PALLET UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE CONTAINER, WEIGHT OF THE SPECIFIED ITEM, AND METHOD OF UNITIZATION.
- C. FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX, SEE DARCOM DRAWING 19-48-4042-1-2-5-11-14PM1000, REVISION NO. 1.
- D. FOR METHOD OF SECURING A STRAP CUTTER TO THE PALLET UNIT, SEE DARCOM DRAWING 19-48-4127-20P1000.
- E. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS APPENDIX, THE CONTAINERS NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS APPENDIX.
- F. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING PROPELLING CHARGES WHEN IDENTIFIED BY A DIFFERENT NATIONAL STOCK NUMBER (NSN) THAN THOSE SHOWN ON THE COVER PAGE, PROVIDED THE ITEM IS PACKED IN THE M460 SERIES CONTAINER WITH PROTECTIVE COVER ASSEMBLY. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN THOSE SHOWN.
- G. FOR DETAILS OF THE M 460 SERIES CONTAINER, SEE PICATINNY ARSENAL DRAWING NO. 8880332.
- CONTAINER DIMENSIONS ----- 55" LONG BY 9-13/16" DIAMETER.
CONTAINER CUBE ----- 3.2 CUBIC FEET.
CONTAINER WEIGHT (WITH CHARGE
AND PROTECTIVE ASSEMBLY) ----- 120.0 LBS (APPROX).
- H. FOR DETAILS OF THE PROTECTIVE ASSEMBLY (COVER), SEE PICATINNY ARSENAL DRAWING NO. D-9219182 AND "PROTECTIVE ASSEMBLY" (COVER) DETAIL ON PAGE 5.
- J. IF DEEMED MORE ECONOMICAL FOR SHIPPING AND STORAGE BY THE RESPONSIBLE COMMAND, THE UNIT DEPICTED IN THE FOLLOWING PAGES MAY BE REDUCED BY ONE COMPLETE LAYER OF CONTAINERS. FOR FURTHER UNITIZATION GUIDANCE, SEE SPECIAL NOTE 2 ON PAGE 4.
- K. IN ORDER TO OBTAIN A COMPACT (SOUND) UNIT, ALL STRAPS SHALL BE LOCATED IN PROPER ALIGNMENT AND TENSIONED UNTIL THEY CUT INTO THE EDGE OF THE WOODEN PROTECTIVE ASSEMBLY (REFERENCE - 1/4") WITHOUT CRACKING OR SPLINTERING THE WOODEN PROTECTIVE ASSEMBLY OR DAMAGING THE METAL CONTAINER OR CONTENTS.

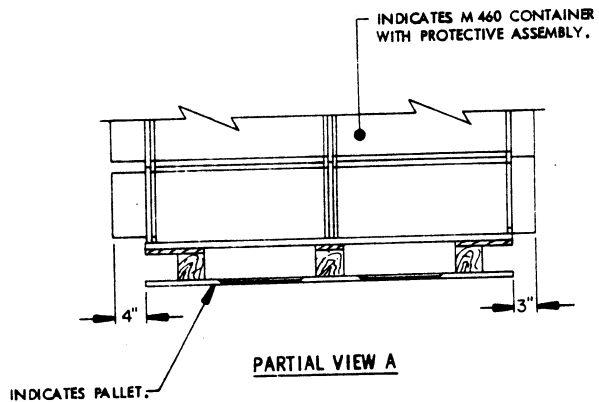
THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.



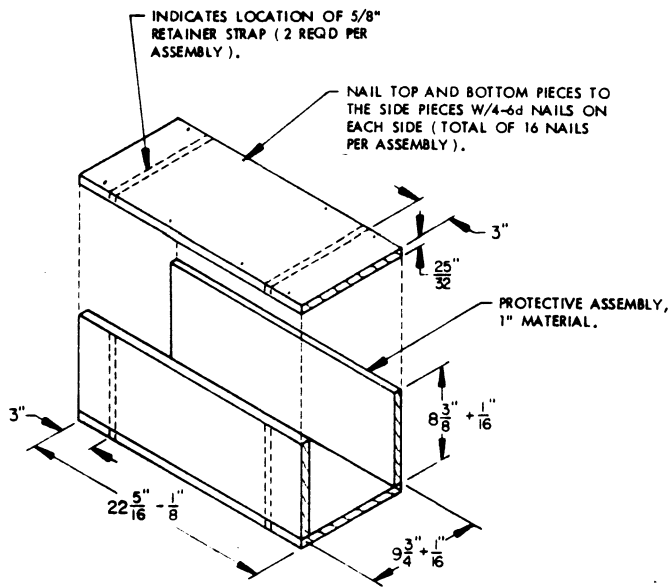
ISOMETRIC VIEW

SPECIAL NOTES:

1. BATTENS OF 1" X 4" MATERIAL SHOULD BE USED UNDER EACH STRAP AT ONE END OF THE PALLET UNIT IF NECESSARY TO BRING THE LOAD FLUSH OR SLIGHTLY BEYOND THE EDGE OF THE PALLET. THREE (3) STAPLES, 1-17/32" WIDE BY 3/4" LEG LENGTH WILL BE USED TO SECURE EACH STRAP TO BATTEN.
2. THE UNIT DEPICTED ABOVE MAY BE REDUCED BY ONE COMPLETE LAYER OF CONTAINERS BY THE DELETION OF FOUR CONTAINERS, AND BY DECREASING THE STRAP LENGTHS APPROPRIATELY. THIS WILL RESULT IN AN OVERALL UNIT HEIGHT OF 35-1/2".
3. FOR AUTOMATIC PALLETIZING OPERATIONS, THE BATTEN MAY BE ELIMINATED BUT ONLY IF THE FOUR CONTAINERS COMPLETELY FILL OUT OR SLIGHTLY OVERHANG THE 40" DIMENSION OF THE PALLET. NOTICE: TO INSURE THE 40" UNIT LENGTH REQUIREMENT IS MET, THE SIDE PIECES MAY HAVE TO BE SLIGHTLY THICKER THAN WHAT IS SHOWN IN THE "PROTECTIVE ASSEMBLY" DETAIL ON PAGE 5.



PARTIAL VIEW A



PROTECTIVE ASSEMBLY

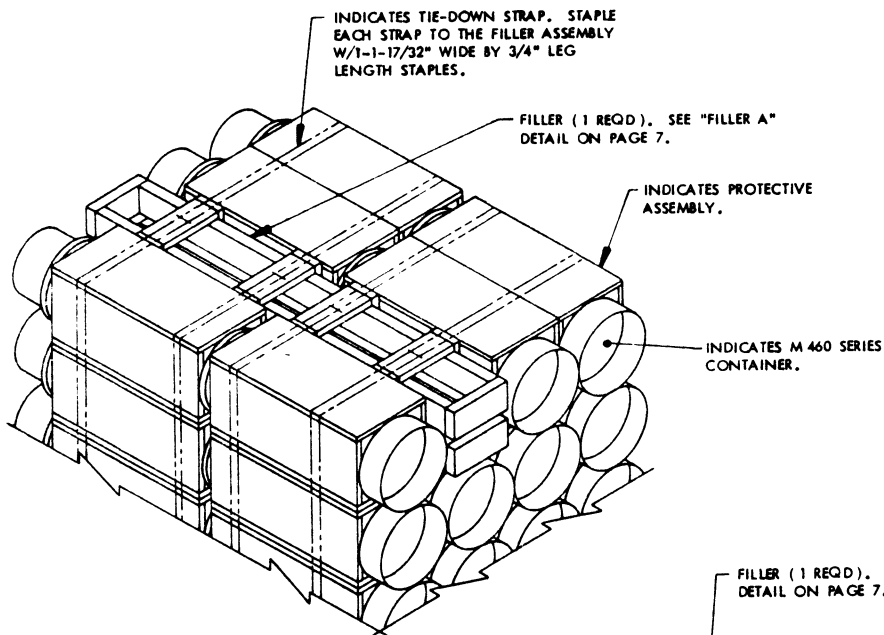
(2 REQUIRED PER CONTAINER)

(SEE PICATINNY ARSENAL DRAWING 9219182 FOR ADDITIONAL ASSEMBLY GUIDANCE AND MATERIAL SPECIFICATIONS.)

BILL OF MATERIAL	
PALLET, 40" X 48" -----	1 REQD -- 80 LBS
STEEL STRAPPING, 3/4" X .035" OR .031" -- 57.67' REQD --	4.12 LBS
SEAL FOR 3/4" STRAP -----	4 REQD -- NIL

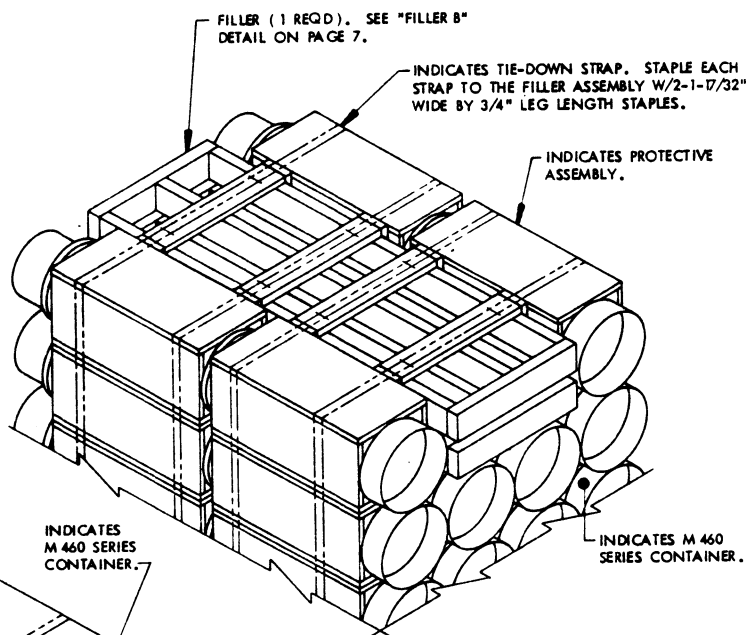
UNIT DATA

	WEIGHT (APPROX)
CUBE -----	57.9 CUBIC FEET (APPROX)
CONTAINER, M 460 SERIES -- 16 EACH @ 120 LBS -----	1,920 LBS
DUNNAGE -----	5 LBS
PALLET -----	80 LBS
TOTAL WEIGHT -----	2,005 LBS (APPROX)



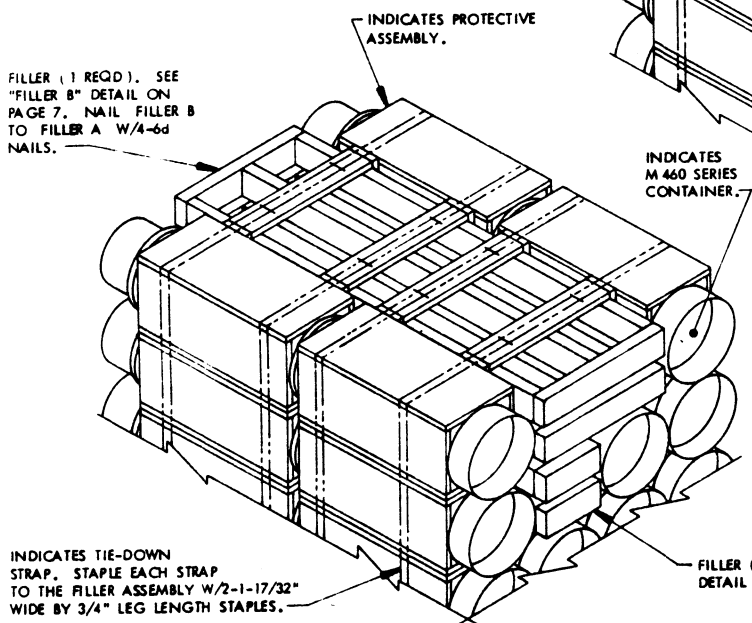
DETAIL A

THIS DETAIL DEPICTS PROCEDURES TO BE USED WHEN A STANDARD UNIT MINUS ONE CONTAINER IS TO BE UNITIZED. THIS ASSEMBLY MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER OF THE PALLET UNIT.



DETAIL B

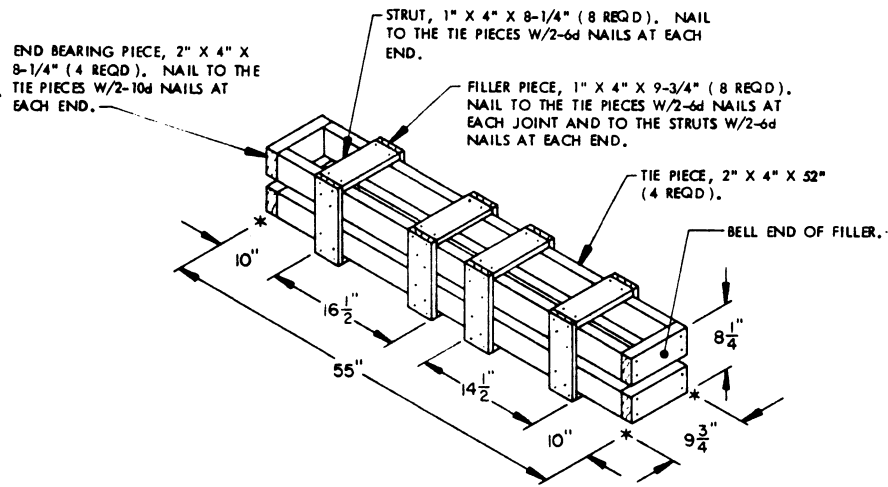
THIS DETAIL DEPICTS PROCEDURES TO BE USED WHEN A STANDARD UNIT MINUS TWO CONTAINERS IS TO BE UNITIZED. THIS ASSEMBLY MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER OF THE PALLET.



DETAIL C

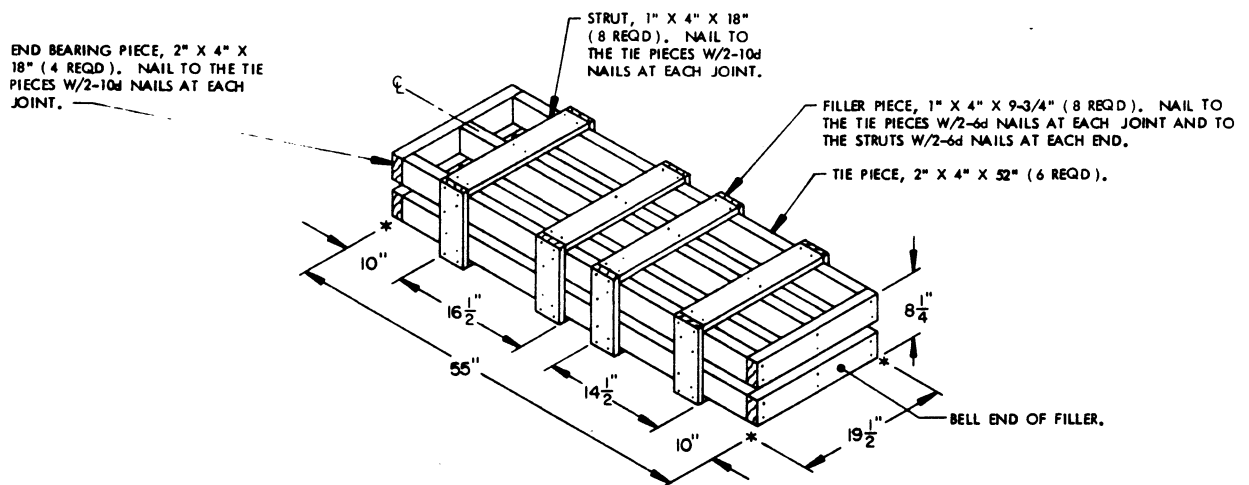
THIS DETAIL DEPICTS PROCEDURES TO BE USED WHEN A STANDARD UNIT MINUS THREE CONTAINERS IS TO BE UNITIZED. THESE ASSEMBLIES MUST BE INSTALLED IN THE MIDDLE OF THE TOP LAYER OR LAYERS OF A PALLET UNIT. A COMBINATION OF FILLERS MUST BE USED WHEN THREE CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT. A COMBINATION OF FILLERS OR ONE OF THE FILLERS DEPICTED ABOVE MAY BE USED WHEN TWO OR LESS CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT. WHEN USING A COMBINATION OF FILLERS, THE TOP FILLER MUST BE ATTACHED TO THE FILLER DIRECTLY BENEATH IT BY NAILING, WIRING, OR STRAPPING IN ORDER TO ALLEVIATE ANY LATERAL DISPLACEMENT OF THE LOWER FILLER.

FILLERS AND INSTALLATION PROCEDURES FOR OMITTED CONTAINERS



FILLER A

THIS FILLER IS TO BE USED WHEN ONE CONTAINER IS TO BE OMITTED FROM A PALLET UNIT, OR IN COMBINATION WITH OTHER FILLER ASSEMBLIES.



FILLER B

THIS FILLER IS TO BE USED WHEN TWO CONTAINERS ARE TO BE OMITTED FROM A PALLET UNIT, OR IN COMBINATION WITH OTHER FILLER ASSEMBLIES.

