STORAGE IN 81'-0", 60'-8", AND 40'-4" L X 26'-6" W X 12'-9" H IGLOO MAGAZINES OF PROPELLANTS AND COMPLETE ROUNDS PACKED IN METAL CONTAINERS, AND BULK POWDER, TNT, ETC. PACKED IN WOOD, FIBER, OR METAL CONTAINERS

		REVIS	ions	DRAFTSMAN AS DAW	UII ICIN	******	K(R2)
	DEC 85	WEX JE	Willia F Engt	APPROVED,	U.S. ARMY ARMA	HENT, MUNITIONS	MO CHEMICAL
2	APR 89	WEEK.	Watte B Holcombe	APPROVED I	Maximo of the so	MIAHDING BEMERAL,	U.S. ARMY
	-	/		U.S.	ARMY DEFENSE A	MUNITION CENTER AMC DE	RAWING
				D	ECEME	BER IS	85
		\angle		CLASS	DIVISION	DRAWING	FILE
				19	48	4007/1	IMI000

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).
- B. THE STORAGE PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR STORAGE OF PROPELLANTS, COMPLETE ROUNDS, BULK POWDER, ETC., IN 81'-0", 60'-8", AND 40'-4" LONG BY 26'-6" WIDE BY 12'-9" HIGH IGLOC MAGAZINES.
- C. THE STORAGE PROCEDURES DEPICTED HEREIN MAY ALSO BE UTILIZED TO STORE EXPLOSIVES IN CONTAINERS IN OTHER TYPES OF APPROVED MAGAZINES, MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF MAGAZINES, HOW EVER, THE BASIC PRINCIPLES AS DEPICTED HEREIN WILL BE COMPULED WITH.
- D. WHEN USING BATTERY POWERED MHE IN IGLOO MAGAZINES CONTAINING BULK PROPELLANT POWDER, THE MHE SHOULD BE TYPE EX RATED AND APPROPRIATELY LABELED FOR USE IN CLASS I, GROUP D HAZARDOUS LOCATIONS. IF BATTERY POWERD MHE OTHER THAN TYPE EX RATED IS TO BE USED, THE FOLLOWING CRITERIA WILL APPLY:
 - (1) VAPOR CONCENTRATION TESTS SHALL BE MADE IN REMOTE SECTIONS OF THE MAGAZINE BY COMPETENT PERSONNEL. TESTS SHOULD BE MADE AS SOON AS THE MAGAZINE DOOR IS OPENED AND AT INTERVALS NOT TO EXCEED ONE (1) HOUR.
 - (2) IN ORDER TO AFFORD MAXIMUM ASSURANCE OF FREEDOM OF ANY CON-CENTRATION OF CONTAMINATED VAPOR, A CONSISTENT ZERO (0) PER-CENT READING IS REQUIRED.
 - (3) AN "EXPLOSIMETER", MODEL 2, MINE SAFETY APPLIANCE COMPANY, PITTSBURGH, PENNSYLVANIA, (OR EQUAL) SHALL BE USED IN CONDUCTING THE REQUIRED TESTS.
 - (4) BATTERY POWERED MHE MUST CONFORM STRICTLY TO THE REQUIREMENTS CITED IN DARCOM-R 385-100 CHAPTER 24.
- E. NOTICE: EXPLOSIVES MAY BE STORED IN MAGAZINES TO 500,000 POUNDS PRO-VIDING COMPLIANCE WITH DARCOM-R 385-100 CHAPTER 17 IS MAINTAINED. THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED:
- F. STORED BOXES AND/OR UNITS MUST NOT CONTACT THE WALLS OF A MAGAZINE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, BOXES AND/OR UNITS MAY BE ELIMINATED FROM A DEPICTED STORAGE PATTERN AS NECESSARY.
- G. AISLE DIMENSIONS SHOWN MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS AND/ OR AVAILABLE MATERIAL HANDLING EQUIPMENT.
- H. THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED BY LOCAL STANDARDS WILL NOT BE EXCEEDED.
- J. THE PROCEDURES WITHIN THIS DRAWING DEPICT STORAGE OF ONLY ONE LOT PER MAGAZINE, STORAGE OF MULTIPLE LOTS OR STORAGE OF COMPATIBLE ITEMS WITH DIFFERENT NATIONAL STOCK NUMBERS IN THE SAME MAGAZINE WILL REQUIRE CAREFUL PLANNING SO AS TO INSURE ACCESSIBILITY TO ANY LOT OR ITEM FOR INSPECTION/INVENTORY OR FOR REMOVAL. REFER TO PAGES 51 AND 52 FOR TYPICAL MULTIPLE LOT STORAGE PROCEDURES FOR PALLETIZED UNITS.
- K. WHEN STORING UNPALLETIZED CONTAINERS/BOXES AND THE ITEMS CONTAIN MORE THAN ONE LOT, THE LOTS WILL BE SEPARATED BY A 3" MINIMUM SPACE AND EACH LOT MUST BE ACCESSIBLE FROM AN AISLE TO PERMIT REMOVAL OF A LOT WITHOUT HANDLING OR RELOCATING ITEMS OF ANOTHER LOT. THE SPACING AND ACCESSIBILITY CRITERIA ALSO APPLY TO COMPATIBLE ITEMS WITH DIFFERENT NATIONAL STOCK NUMBERS BEING HAND STACKED IN THE SAME MAGAZINE.
- L. STACK-STABILIZING DUNNAGE IN THE FORM OF "SHIMS" PROBABLY WILL BE REQUIRED, TO ACHIEVE SOUND AND ACCEPTABLE STABLE STACKS, SHIM MATERIAL OF VARYING THICKNISSES WILL BE USED AS REQUIRED TO GAIN LEVEL OR NEARLY LEVEL STACKS AND SOLID BEARING WITHIN A STACK FROM THE FLOOR OF A MAGAZINE TO THE TOP OF THE STACK.

(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

LUMBER----:: SEE TM 743-200-1, DUNNAGE LUMBER, FED SPEC MM-L-751.

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

STRAPPING, STEEL----:: CLASS I, TYPE I OR IV, HEAVY DUTY, FINISH B (GRADE 2), FED SPEC QQ-5-781.

SEAL STRAP----:: TYPE D, STYLEI, II OR IV, CLASS H, FINISH B (GRADE 2), FED SPEC QQ-5-781.

(GENERAL NOTES CONTINUED)

- M. A STACK IS IDENTIFIED AS THE CONTAINERS/BOXES IN A GROUP WHICH IS ONE LONG, FULL HEIGHT, AND EXTENDING ACROSS THE ENTIRE WIDTH OF THE MAGAZINE. A DOUBLE STACK IS TWO SINGLE STACKS HAVING SOME DUNNAGE WHICH IS COMMON TO BOTH STACKS.
- N. THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER UNITS IN THE STACKS SHOWN IN THE PALLETIZED-STORAGE VIEWS HEREIN, UNLESS TWO UPPER PALLET UNITS ARE HANDLED AS ONE LIFT OR THE PACKAGE GUARD IS REMOVED (TINE CARRIAGE WILL IN MOST INSTANCES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO PALLET UNITS AS ONE LIFT.
- O. ANY "LIGHT" PALLET UNIT THAT DOES NOT CONTAIN A FULL QUANTITY WILL NOT BE BURIED IN STORAGE. IT MUST BE POSITIONED ADJACENT TO AN AISLE, PREFERABLY IN FRONT OF THE LOT OR ON TOP OF THE LAST STACK ADJACENT TO OR NEAREST THE MHE AISLE.
- P. IF AVAILABLE MHE PERMITS, ADDITIONAL PALLET UNITS MAY BE STORED WITHIN THE MHE AREAS AND/OR OTHER AVAILABLE AREAS OF A MAGAZINE. THE ARROWS WHICH ARE ON SOME OF THE PLAN VIEWS HEREIN INDICATE THE DIRECTION OF STORAGE OF PALLET UNITS FROM THE WALL TOWARD THE MHE AISLE OR THE DOOR OPENING.
- Q. PROPELIANTS, COMPLETE ROUNDS, BULK POWDER, ETC., PRESENTLY STORED IN ACCORDANCE WITH A PRIOR APPROVED DRAWING NEED NOT BE RESTORED SOLELY TO CONFORM TO THE PROCEDURES SPECIFIED IN THIS DOCUMENT.
- R. A STORAGE METHOD FOR PALLETIZED BOX/DRUM-PACKED BULK EXPLOSIVES ON PALLETS EQUIPPED WITH PALLET RACKS IS DELINEATED ON PAGES 48 THRU 50, AND 62 THRU 65. THIS METHOD CAN ALSO BE USED FOR STORING OTHER COMMODITIES AS IDENTIFIED IN THIS DRAWING. GENERALLY, WHEN COMPARED TO A "HAND-STACKED" STORAGE METHOD, THE STORAGE METHOD SHOWN ON PAGES 48 THRU 50, AND 62 THRU 65, WILL REQUIRE ABOUT 20 PERCENT MORE SPACE TO STORE THE SAME QUANTITY OF PACKAGES.
- S. UNLESS OTHERWISE SPECIFIED, DUNNAGE LUMBER THROUGHOUT THIS PRO-CEDURAL DRAWING IS OF NOMINAL SIZE. 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.
- T. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES. ALSO A STAGGLR O NAILING PATTERN WILL BE USED WHEN LAMINATING DUNNAGE. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- U. NAILING THROUGH ANY PORTION OF THE STORED BOXES AND/OR UNITS IS PROHIBITED.
- V. WHEN ANY STRAP IS SEALED AT AN END-OVER-END LAP JOINT, USE ONE (1) SEAL WITH TWO (2) PAIR OF CRIMPS TO SEAL THE JOINT.
- W. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOC-UMENT 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 25,4MM, AND ONE POUND EQUALS 0,454KG.

<u>REVISIONS</u>

REVISION NO. 1, DATED DECEMBER 1985, CONSISTS OF:

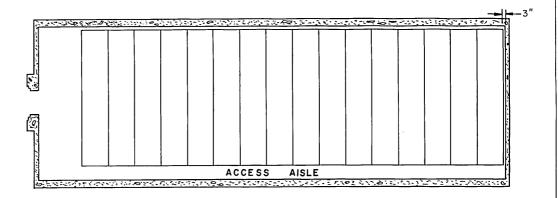
- CHANGING THE TITLE BLOCK FROM U.S. ARMY DARCOM DRAWING TO U.S. ARMY AMC DRAWING.
- ADDING PROCEDURES ON PAGE 41 FOR COMPLETE ROUNDS IN PA98 AND PA104 CONTAINERS.
- 3. CHANGING FLOOR DUNNAGE AND INTERMEDIATE DUNNAGE ON PAGES 42 THRU 45 AND PAGE 53 TO BE LONGITUDINAL.
- 4. ADDING SPECIAL PROCEDURES ON PAGES 80 THRU 85 FOR STORAGE OF FIBERBOARD BOXES AND FIBERBOARD DRUMS IN GEOGRAPHICAL AREAS WHERE THE HUMIDITY IS HIGH.
- 5. ADDING ALTERNATIVE PROCEDURES ON PAGE 89 FOR STORAGE OF POWDER, PROPELLANT, PACKED IN STEEL BOX, M2 AND MKVII.

REVISION NO. 2, DATED APRIL 1989, CONSISTS OF:

- REMOVING PALLETIZED INT FROM PAGES 46 AND 47, AND REPLACING WITH UNPALLETIZED SMALL LOT PROCEDURES.
- 2. UPDATING SPECIAL NOTES.

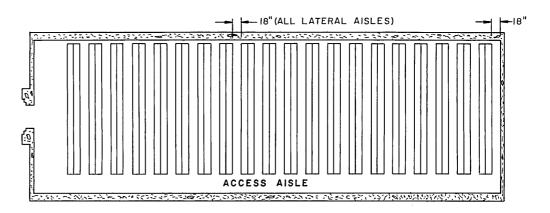
INDEX

<u>ITEM</u>	PAGE (S)
GENERAL NOTES, AND MATERIAL SPECIFICATIONS	
TYPICAL PLAN VIEWS	2 4
CHARGE, PROPELLING:	7
M10 SERIES CONTAINER	5
M14 SERIES CONTAINER	6 7
M16 SERIES CONTAINER	8
M18 SERIES CONTAINER	9
PA 37 SERIES CONTAINER	10
PA66 SERIES CONTAINER	11 12
PAGE SERIES CONTAINER	13
PA91 SERIES CONTAINERPA91 SERIES CONTAINER	14
PA92 SERIES CONTAINER	15 16
PA93 SERIES CONTAINER	17
PA94 SERIES CONTAINERPA95 SERIES CONTAINER	18
PA96 SERIES CONTAINERPA96 SERIES CONTAINER	19 20
PA97 SERIES CONTAINER	21
PAGE SERIES CONTAINER	22
PA100 SERIES CONTAINER	23
M460 SERIES CONTAINER WITH PROTECTIVE COVER	24 25
MK4 CARTRIDGE TANK	26
MKIV POWDER TANK	27
MK9 AND MK15 CARTRIDGE TANKS	28 29
MK10 POWDER TANK	30
MK11 AND MK13 CARTRIDGE TANKS	31
MK13 POWDER TANKS WITH 1/2 REDUCED CHARGE	32
METAL DRUM WITH M67 CHARGE	33 34
METAL DRUM WITH CHARGES FOR 75MM AND 105MM HOWITZER	35
MK5 CARTRIDGE TANKCOMPLETE ROUND:	36
105MM CARTRIDGE, M152 SERIES CONTAINER	37
75MM GUN, M154 SERIES CONTAINER	38
90MM CARTRIDGE, M159 SERIES CONTAINER75MM GUN AND HOWITZER AND 81MM MORTAR, M173 AND T53 SERIES CONTAINER	39
105MM CARTRIDGE, PA98 AND PA104 CONTAINERS	40
INC, PENIOLITE, POTASSIUM PICRATE, COMP.D-2, MAX 2, AND MOX 2B	41
(PACKED IN FIBERBOARD CONTAINER) (METHOD A)	42, 43
TNT, ALL COMP A, ALL COMP B, COMP C-3 AND C-4, EXPLOSIVES D, CYCLOTOL, OCTOL, PBX, TETRYL, TOVEX AND PBN6 (PACKED IN FIBERBOARD CONTAINER) (STORAGE METHOD A)	44.45
2MALL LUI 210KAGE PROCEDUKE2 FOR FIBERBOARD BOXE2	44 45
TALLE RACK STURAGE PROCEDURES FOR FIRERROARD ROXES AND/OR DRIMS	40.50
TYPICAL MULTIPLE-LOT STORAGE PROCEDURES USING PALLET RACK STORAGE AIDS	
FIBERBUARD DRUM STORAGE. PALLETIZED	53
NDA, WEI, IN FIDERBOARD DRUMS, PALLETIZED	56, 57
TNC, TNT, TETRYL, COMP A-3, AND COMP C-4 (PACKED IN WOODEN BOX)	58
PENIOLITE, EXPLOSIVE D. AND POIASSIUM PICRATE (PACKED IN WOODEN BOX)	59 60
BLACK POWDER (PACKED IN MEIAL DRIM)	60 61
BLACK POWDER (PACKED IN METAL DRUM) (PALLETIZED)	62-65
NITROGUANID INE (PACKED IN FIBERBOARD DRUMS) (STORAGE METHOD A)	66
ROCKET PROPELLANT (PACKED IN WOODEN BOX. M18)	67 68
POWDER, PROPELLANT (PACKED IN WOODEN BOX, M17)	
POWDER, PROPELLANT (PACKED IN STEEL BOX, M2 AND MKVII) (STORAGE METHODS A AND B)	70, 71
OWDER, INDICELLANT CRACKED IN WEIGHT INTER WOODIEN ROY)	
POWDER, PROPELLANT (PACKED IN METAL-LINED WOODEN ROX) (PATIETIZED)	70.70
TNC, PENTOLITE, POTASSIUM PICRATE COMP. D-2 MAY 2 AND MOY 28	75-77
(PACKED IN FIBERBOARD CONTAINER) (STORAGE METHOD B)	00 01
THE COME A, ALL COME B. COMP C-3 AND C-4 EXPLOSIVE D. CYCLOLOL OCTOL DRY AND TETRAL	
(PACKED IN FIBERBOARD CONTAINER) (STORAGE METHOD B)	
NITRUGUANTO INE (PACKE) IN EIRERROARD DRIMS) (STODACE METHOD D)	84
DETAILS	כא 86. 88
POWDER, PROPELLANT (PACKED IN STEEL BOX, M2 AND MKVII) (STORAGE METHOD C)	89



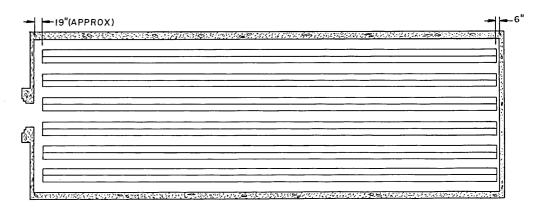
TYPICAL PLAN VIEW A

FOR USE WITH STORAGE METHODS SHOWN ON PAGES 5 THRU 40 AND PAGE 67. 81' IGLOO SHOWN. QUANTITY OF STACKS SHOWN ABOVE IS TYPICAL.



TYPICAL PLAN VIEW B

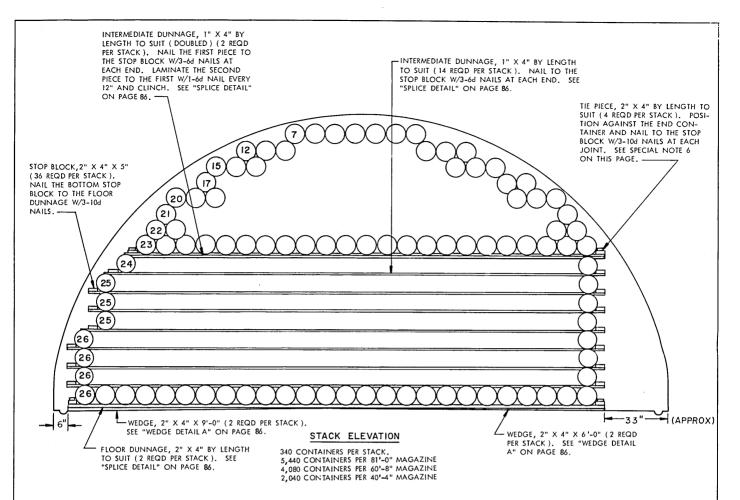
FOR USE WITH STORAGE METHODS SHOWN ON PAGES 48 THRU 71 AND 74 THRU 77. 81 IGLOO SHOWN. QUANTITY OF STACKS SHOWN ABOVE IS TYPICAL.



TYPICAL PLAN VIEW C

FOR USE WITH STORAGE METHOD SHOWN ON PAGE 61. 81" IGLOO SHOWN. QUANTITY OF ROWS SHOWN ABOVE IS ACCURATE.

TYPICAL PLAN VIEWS

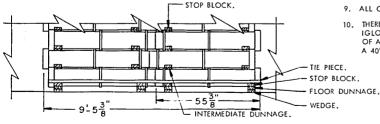


BILL (OF MATERIAL (PER	STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	402 80	134 54
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	140 36	1 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

 STORAGE AS SHOWN IS FOR THE MIDA4 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL MID SERIES CONTAINERS.

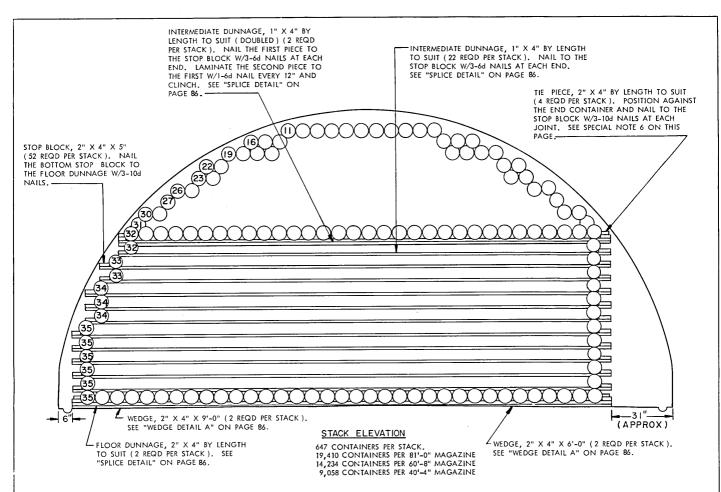
CONTAINER DIMENSIONS --- 55-3/8" LONG BY 10-15/32" DIAMETER.

- 2. WHEN STORING THE M10A2 CONTAINER IT MAY BE NECESSARY TO ELIMINATE ONE (1) CONTAINER FROM EACH LAYER DUE TO SLIGHTLY LARGER DIAMETER OF THE CONTAINER.
- 3. THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 4. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 5. STORE IN DOUBLE STACKS FOR BETTER STABILITY SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 6. NOTE: THE "TIE PIECE" EQUALS THE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER ONLY.
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-TALLY AND VERTICALLY.
- 8. THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 9. ALL CONTAINERS POSITIONED ABOVE LAYER NINE (9) ARE NESTED.
- 10. THERE WILL BE APPROXIMATELY 61" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE, THERE WILL BE APPROXIMATELY 43" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 11'-7" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



PARTIAL END VIEW OF DOUBLE STACK

CHARGE, PROPELLING, IN MIO SERIES CONTAINER



BILL OF MATERIAL (PER STACK)				
LUMBER	LINEAR FEET	BOARD FEET		
1" X 4" 2" X 4"	589 78	197 52		
NAILS	NO. REQD	POUNDS		
6d (2") 10d (3")	190 36	1-1/4 3/4		
	WEDGES PER STACK			
LUMBER	LENGTH	NO. REQD		
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2		

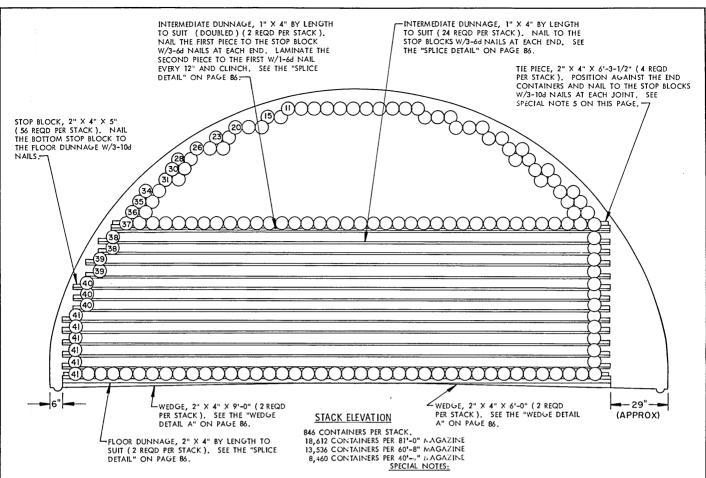
SPECIAL NOTES:

 STORAGE AS SHOWN IS FOR THE MI3A2 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL MI3 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 27-1/2" LONG BY 7-25/32" DIAMETER.

- WHEN STORING THE MI3A1 CONTAINER IT MAY BE NECESSARY TO ELIMINATE SOME CONTAINERS FROM EACH LAYER DUE TO SLIGHTLY LARGER DIAMETER OF THE CONTAINER.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CON-TAINERS PER LAYER IN A STACK.
- 4. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 5. STORE IN DOUBLE STACKS FOR BETTER STABILITY, SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER ONLY.
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-TALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CON-TAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 9. ALL CONTAINERS POSITIONED ABOVE LAYER THIRTEEN (13) ARE NESTED.
- 10. THERE WILL BE APPROXIMATELY 8'-2" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-2" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 6'-2" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

CHARGE, PROPELLING, IN MI3 SERIES CONTAINER

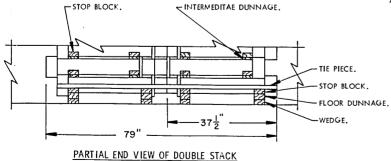


BILL OF	MATERIAL (PER STAC	K)
LUMBER	LINEAR FEET	BOARD FEET
1" × 4" 2" × 4"	668 87	223 58
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	198 36	1-1/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" × 4" 2" × 4"	6'-0" 9'-0"	2 2

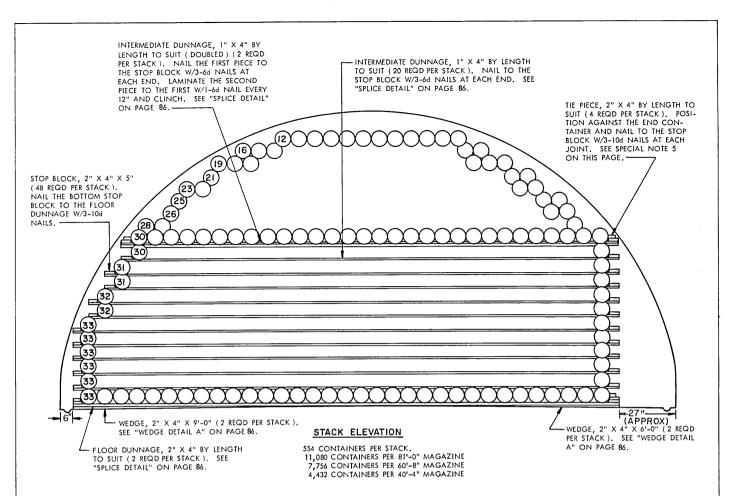
. STORAGE AS SHOWN IS FOR THE MI4 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL MI4 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 37-1/2" LONG BY 6-11/16" DIAMETER.

- 2. THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER OF DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER FOURTEEN (14) ARE NESTED.
- 9. THERE WILL BE APPROXIMATELY 8'-2" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-8" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 7'-1" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



CHARGE, PROPELLING, IN M14 SERIES CONTAINER

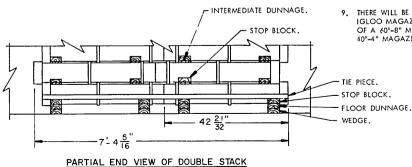


BILL OF MATERIAL (PER STACK)				
LUMBER	LINEAR FEET	BOARD FEET		
1" X 4" 2" X 4"	549 82	181 55		
VAILS	NO. REQD	POUNDS		
6d (2") 0d (3")	176 36	1-1/4 3/4		
	WEDGES PER STACK			
LUMBER	LENGTH	NO. REQD		
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2		

 STORAGE AS SHOWN IS FOR THE MI6A3 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL MI6 SERIES CONTAINERS.

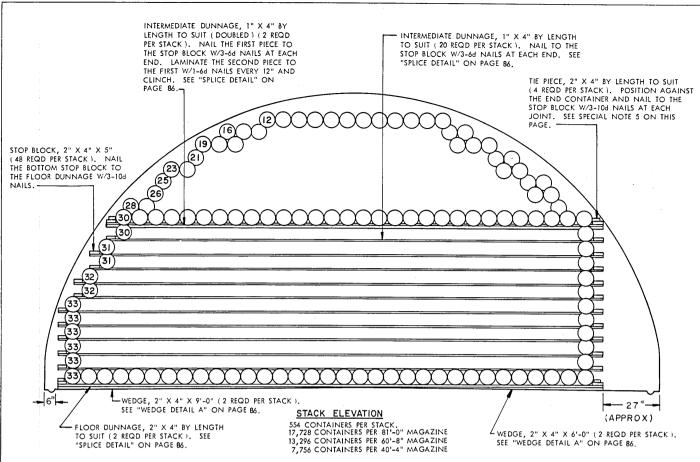
CONTAINER DIMENSIONS --- 42-21/32" LONG BY 8-13/32" DIAMETER.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER ONLY.
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-TALLY AND VERTICALLY.
- 7. THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4"
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER TWELVE (12) ARE NESTED.
- 7. THERE WILL BE APPROXIMATELY 7'-1" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 8'-9" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 10'-6" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



PAGE 8

CHARGE, PROPELLING, IN MIG SERIES CONTAINER

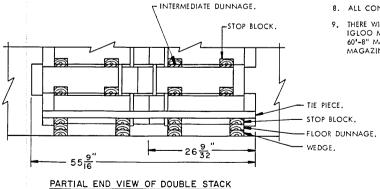


BILL OF MATERIAL (PER STACK)				
LUMBER	LINEAR FEET	BOARD FEET		
1" X 4" 2" X 4"	549 77	181 52		
NAILS	NO. REQD	POUNDS		
6d (2") 10d (3")	176 36	1-1/4 3/4		
	WEDGE PER STACK			
LUMBER	LENGTH	NO. REQD		
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2		

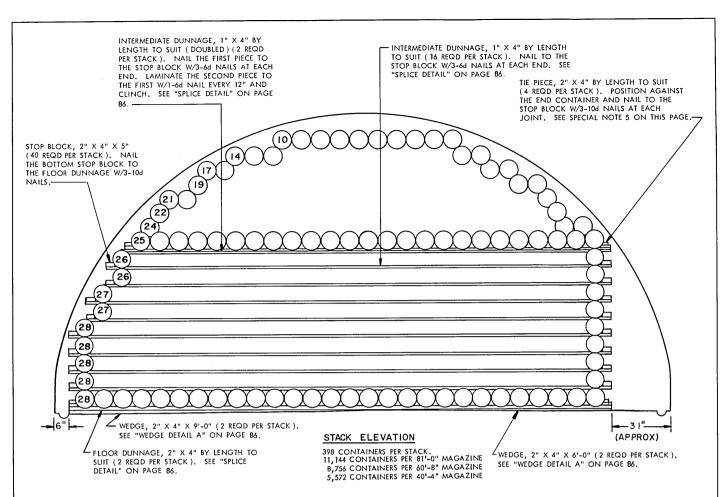
1. STORAGE AS SHOWN IS FOR THE MIBA2 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL MIS SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 26-9/32" LONG BY 8-13/32" DIAMETER.

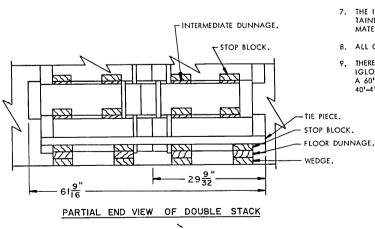
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CON-TAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE LENGTH OF TWO (2) CONTAINERS AND ARE IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND THE "TIE PIECE" EQUALS THE LENGTH OF TWO (2) CONTAINERS AND AIDS
- NOTE: JOINTS IN INTE JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CON-TAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER TWELVE (12) ARE NESTED.
- 9. THERE WILL BE APPROXIMATELY 6'-6" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 56" OF SPACE AT THE FRONT OF A 60"-8" MAGAZINE, AND APPROXIMATELY 7"-6" OF SPACE AT THE FRONT OF A 40"-4" MAGAZINE.



CHARGE, PROPELLING, IN MIB SERIES CONTAINER



	BILL OF MATERIAL (PER STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	451 74	151 50
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	152 36	3/4
	WEDGES PER ST	ACK
LUMBER	LENGTH	NO, REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2



PAGE

10

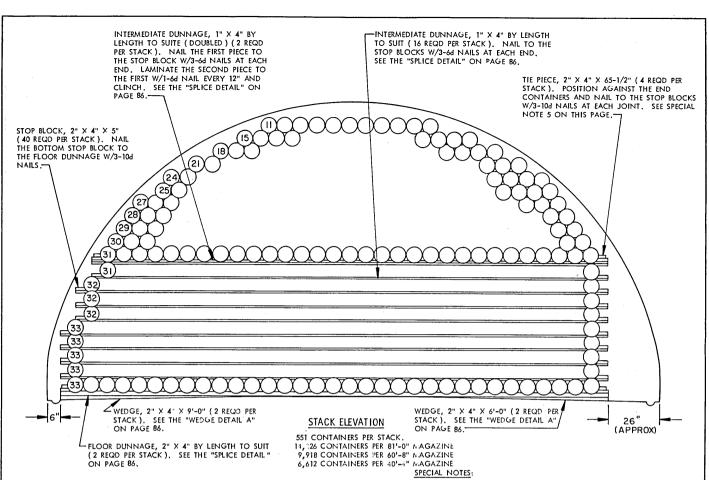
SPECIAL NOTES:

 STORAGE AS SHOWN IS FOR THE M19A2 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL M19 SERIES CONTAINERS.

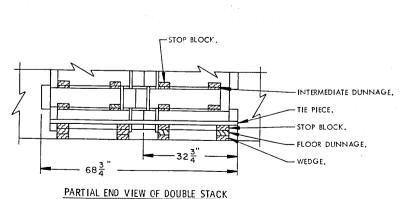
CONTAINER DIMENSIONS --- 29-9/32" LONG BY 9-13/16" DIAMETER.

- 2. THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER ONLY.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-TALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CON-TAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER TEN (10) ARE NESTED.
- THERE WILL BE APPROXIMATELY 8'-9" OF SPACE AT THE RONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 46" OF SPACE AT THE REAR OF A 60'-8" MAGAZINE, AND APPROXIMATELY 48" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

CHARGE, PROPELLING, IN MIS SERIES CONTAINER



BILL	OF MATERIAL (PER ST	ACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	494 79	165 53
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	154 36	3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

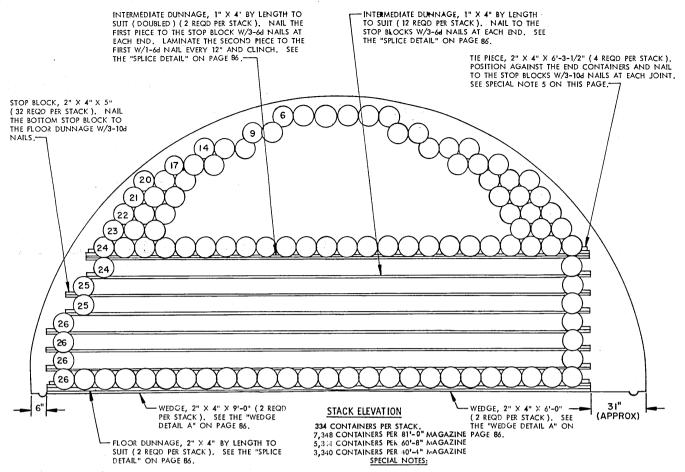


 STORAGE AS SHOWN IS FOR THE PA37 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA37 SERIES CONTAINERS.

CONTAINER DIMENSIONS -- 32-3/4" LONG BY 8-13/32" DIAMETER.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER OF DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER TEN (10) ARE NESTED.
- 9. THERE WILL BE APPROXIMATELY 6'-2" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGIOO MAGAZINE, THERE WILL BE APPROXIMATELY 8'-9" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 67" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

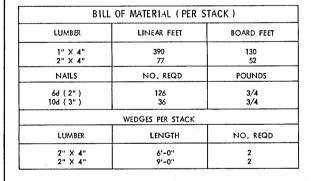
CHARGE, PROPELLING, IN PA37 SERIES CONTAINER



 STORAGE AS SHOWN IS FOR THE PA66 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA66 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 37-3/4" LONG BY 10-15/32" DIAMTER.

- 2. THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER OF DUNNAGE.
- 6. $\frac{\text{NOTE}}{\text{HORIZONTALLY}}$ JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER EIGHT (8) ARE NESTED.
- THERE WILL BE APPROXIMATELY 8'-5" OF SPACE AT THE FRONT OF AN 81'-0"
 LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-10" OF SPACE
 AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 7'-2" OF
 SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



TIE PIECE.

STOP BLOCK.

TIE PIECE.

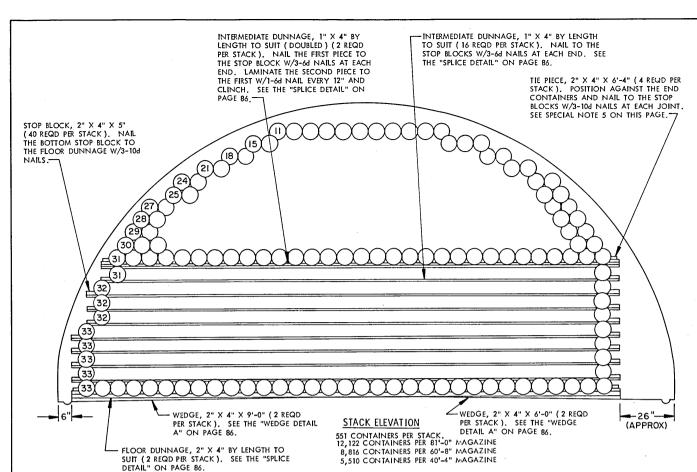
STOP BLOCK.

FLOOR DUNNAGE.

WEDGE.

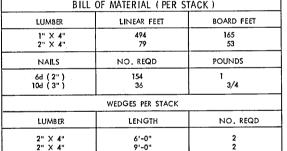
PAGE 12

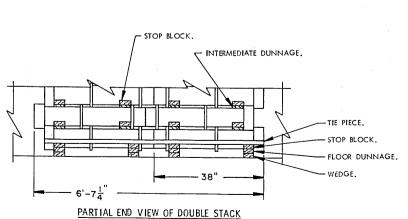
CHARGE, PROPELLING, IN PA66 SERIES CONTAINER



CHARGE, PROPELLING, IN PA68 SERIES CONTAINER

BILI	L OF MATERIAL (PER S	TACK)
LUMBER	LINEAR FEET	BOARD FEET
1" × 4" 2" × 4"	494 79	165 53
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	154 36	1 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQU
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2



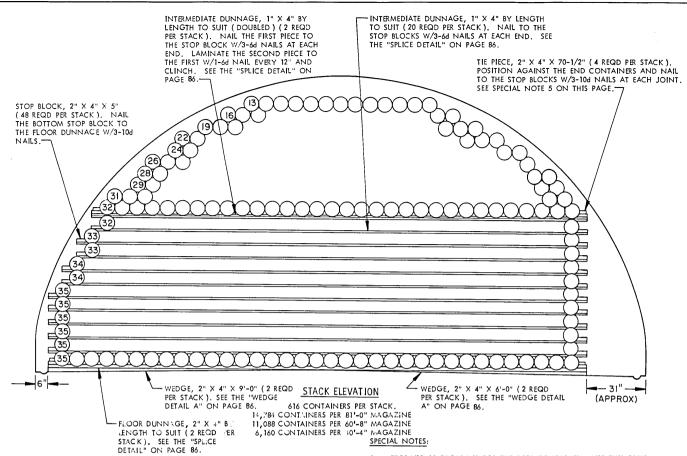


SPECIAL NOTES

STORAGE AS SHOWN IS FOR THE PA68 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA68 SERIES CONTAINERS.

CONTAINER DIMENSIONS -- 38" LONG BY 8-13/32" DIAMETER.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4. 3.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- $\frac{\text{NOTE:}}{\text{(2)}} \text{ The "Tie Piece" equals the approximate Length of two} \\ \text{(2)} \text{ Containers and aids in stabilizing the stacks.} \text{ A "Tie Piece" is used on the bottom layer and top layer of} \\$ DUNNAGE
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- ALL CONTAINERS POSITIONED ABOVE LAYER TEN (10) ARE NESTED.
- THERE WILL BE APPROXIMATELY 8'-0" OF SPACE AT THE FRONT OF APPROXIMATELY 6'-11" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



BILL OF MATERIAL (PER STACK) LUMBER LINEAR FEET BOARD FEET 1" X 4" 2" X 4" 582 194 82 NAILS NO. REQD POUNDS 6d (2") 36 3/4 WEDGES PER STACK LUMBER LENGTH NO. REQD ۱۰-۱۸ 2" X 4" 9'-0"

INTERMEDIATE DUNNAGE.

STOP BLOCK.

TIE PIECE.

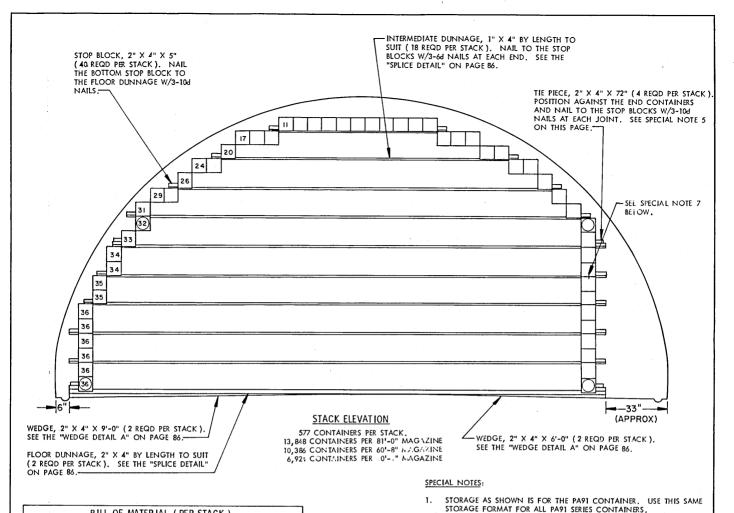
STOP BLOCK.

FLOOR DUNNAGE.

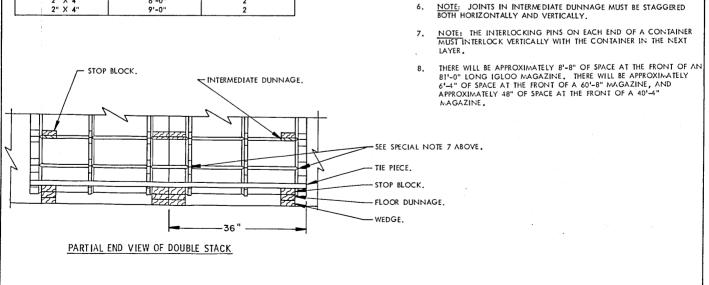
WEDGE.

- STORAGE AS SHOWN IS FOR THE PA75 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA75 SERIES CONTAINERS.
 - CONTAINER DIMENSIONS -- 35-1/4" LONG BY 7-25/32" DIAMETER.
- 2. The numbers shown in the stack elevation indicate the quantity of containers per layer in a stack.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER OF DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER TWELVE (12) ARE NESTED.
- 9. THERE WILL BE APPROXIMATELY 10'-2" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-5" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 9'-3" OF SPACE AT THE FRONT OF A 60'-4" MAGAZINE.

CHARGE, PROPELLING, IN PA75 SERIES CONTAINER



BILL	OF MATERIAL (PER ST	ACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	365 79	122 53
NAILS	NO, REQD	POUNDS
6d (2") 10d (3")	108 36	3/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO, REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2



CHARGE, PROPELLING, IN PA91 SERIES CONTAINER

CONTAINER DIMENSIONS -- 36" LONG BY 7-1/2" WIDE BY 7-1/2" HIGH.

THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.

SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.

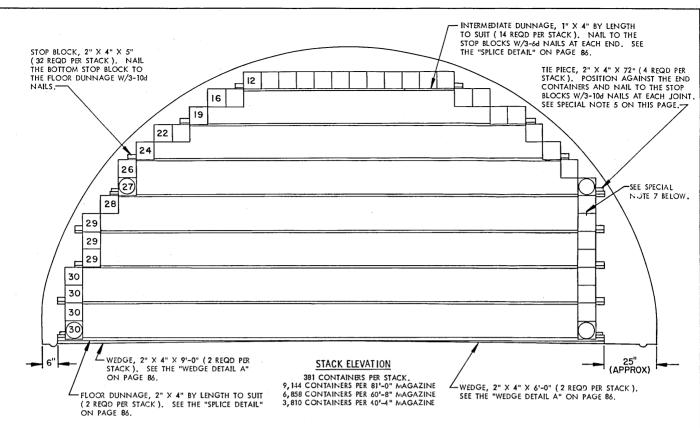
STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL

NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND AT THE FIFTH LAYER

PAGE 15

END VIEW OF DOUBLE STACK" ON THIS PAGE.

OF INTERMEDIATE DUNNAGE.



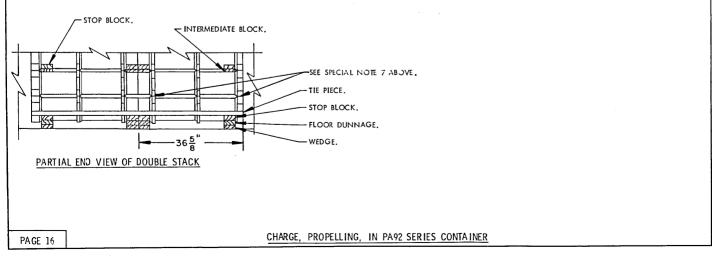
BILL	OF MATERIAL (PER	STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" × 4" 2" × 4"	289 77	17 97 52
NAILS	NO, REQD	POUNDS
6d (2")	84 36	1/2 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" × 4" 2" × 4"	6'-0" 9'-0"	2 2

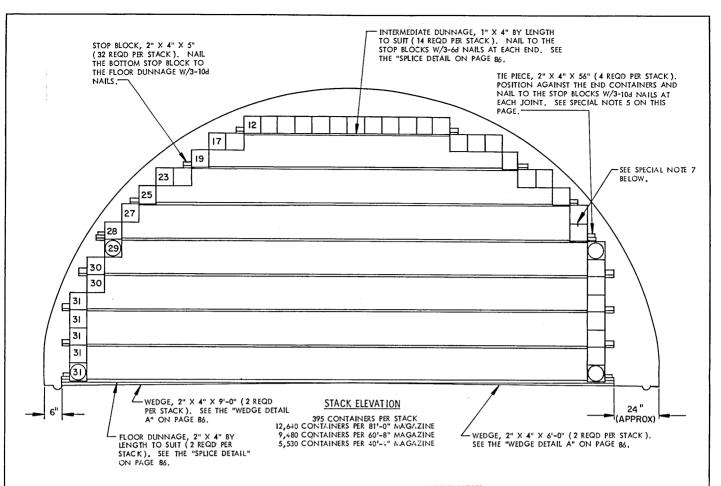
 STORAGE AS SHOWN IS FOR THE PA92 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA92 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 36-5/8" LONG BY 9-1/4" WIDE BY 9-1/4" HIGH.

- HIGH.

 THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2)
 CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS
 USED ON THE BOTTOM LAYER AND AT THE FOURTH LAYER OF INTERMEDIATE
 DINNAGE.
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 7. NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- B. THERE WILL BE APPROXIMATELY 7'-5" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 6," OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 9'-5" AT THE FRONT OF A 40'-4" MAGAZINE.

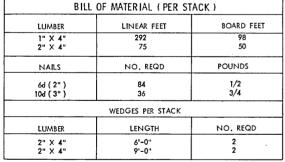


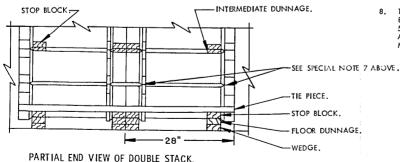


 STORAGE AS SHOWN IS FOR THE PA93 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA93 SERIES CONTAINERS.

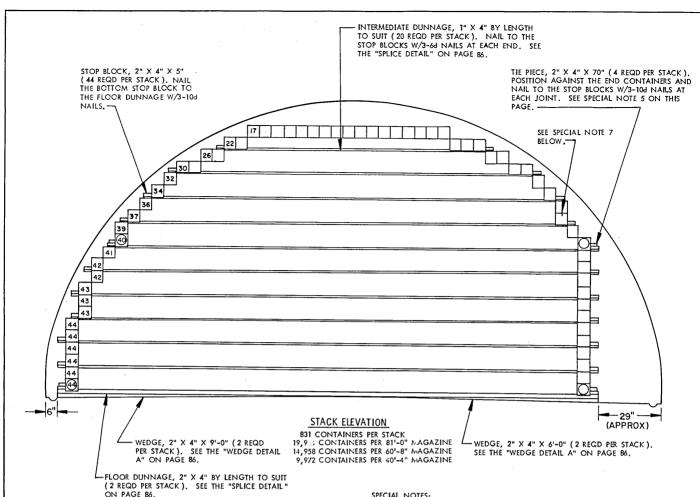
CONTAINER DIMENSIONS --- 28" LONG BY 9" WIDE BY 9" HIGH.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND AT THE FOURTH LAYER OF INTERMEDIATE DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- 8. THERE WILL BE APPROXIMATELY 72" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 52" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE AND APPROXIMATELY 7'-4" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



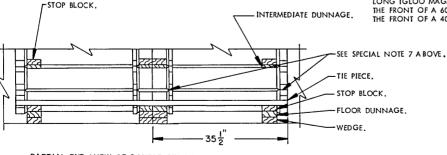


CHARGE, PROPELLING, IN PA93 SERIES CONTAINER



BILL	OF MATERIAL (PER S	TACK)
LUMBER	LINEAR FEET	BOARD FEE
1" X 4" 2" X 4"	435 77	145 52
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	120 36	3/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQU
2" X 4" 2" X 4"	6'-0" 9'-0"	2

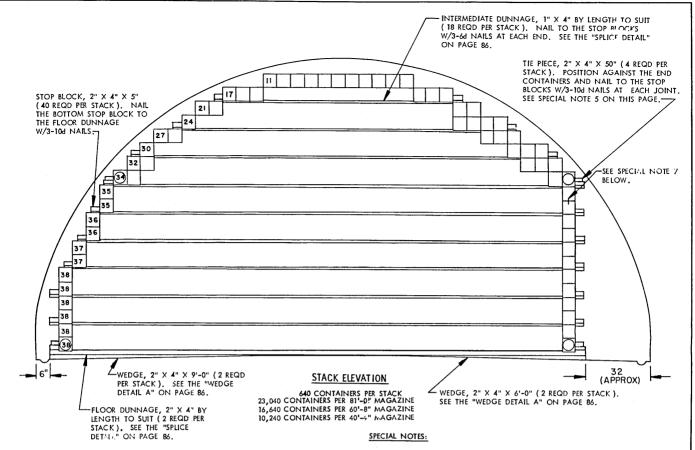
- STORAGE AS SHOWN IS FOR THE PA94 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA94 SERIES CONTAINERS.
 - CONTAINER DIMENSIONS --- 35-1/2" LONG BY 6-1/4" WIDE BY 6-1/4" HIGH.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- ${
 m NOTE}_{:}$ The "Tie Piece" equals the approximate length of two (2) containers and aids in stabilizing the stacks. A "Tie Piece" is used on the bottom layer and at the sixth layer of intermediate dunnage.
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- THERE WILL BE APPROXIMATELY 9'-8" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-1" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 54" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



PARTIAL END VIEW OF DOUBLE STACK

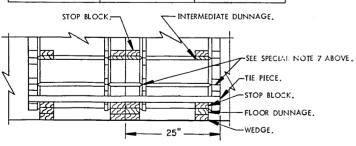
PAGE 18

CHARGE, PROPELLING, IN PA94 SERIES CONTAINER



BILL C	OF MATERIAL (PER STA	CK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	379 75	127 50
NAILS	NO. REQD	POUNDS
6d (3")	108 36	3/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" × 4" 2" × 4"	6'-0" 9'-0"	2 2

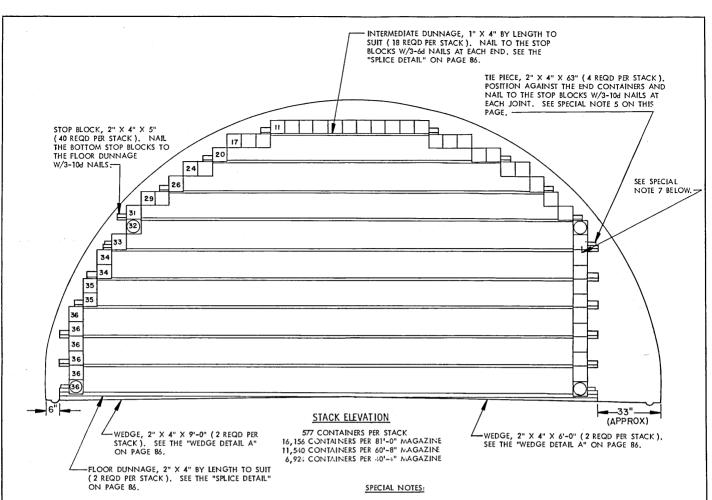
PARTIAL END VIEW OF DOUBLE STACK



- STORAGE AS SHOWN IS FOR THE PA95 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA95 SERIES CONTAINERS.
 - CONTAINER DIMENSIONS --- 25" LONG BY 7-1/8" WIDE BY 7-1/8" HIGH.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2)

 CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED

 ON THE BOTTOM LAYER AND AT THE SIXTH LAYER OF INTERMEDIATE DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 7. NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- 8. THERE WILL BE APPROXIMATELY 68" OF SPACE AT THE FRONT OF AN 81'-0"
 LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 6'-2" OF SPACE
 AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 6'-8" OF
 SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

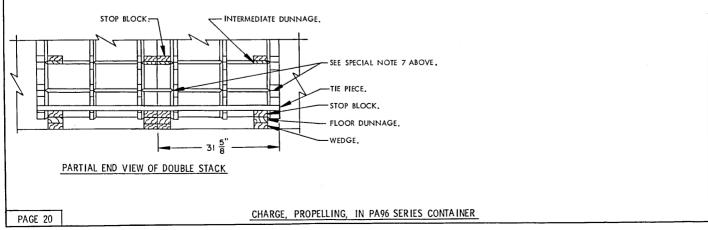


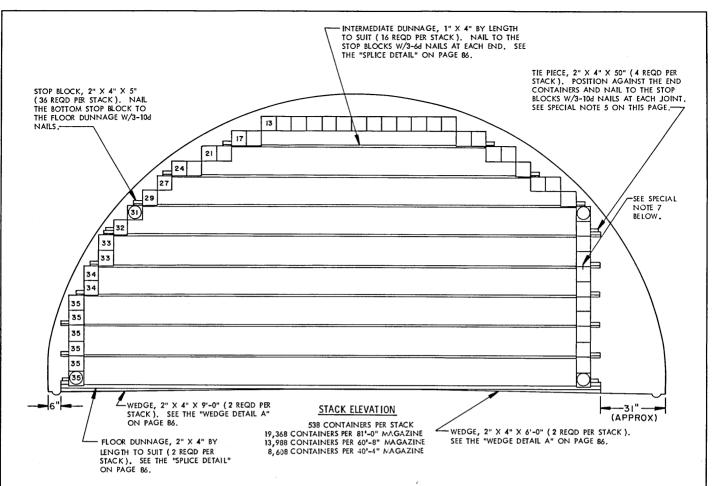
BILL	OF MATERIAL (PER ST	TACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	366 78	122 52
NAILS	NO. REQD	POUNDS
6d (2")	108 36	3/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" × 4" 2" × 4"	6'-0" 9'-0"	2 2

 STORAGE AS SHOWN IS FOR THE PA96 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA96 SERIES CONTAINERS.

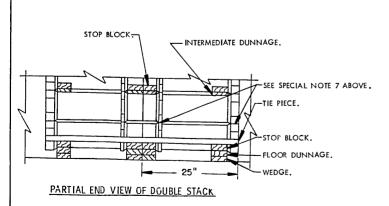
CONTAINER DIMENSIONS --- 31-5/8" LONG BY 7-1/2" WIDE BY 7-1/2" HIGH.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND AT THE FIFTH LAYER OF INTERMEDIATE DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 7. NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- 8. THERE WILL BE APPROXIMATELY 6'-10" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-7" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 8'-4" AT THE FRONT OF A 40'-4" MAGAZINE.





BILL	OF MATERIAL (PER ST	TACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	344 74	115 50
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	96 36	3/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

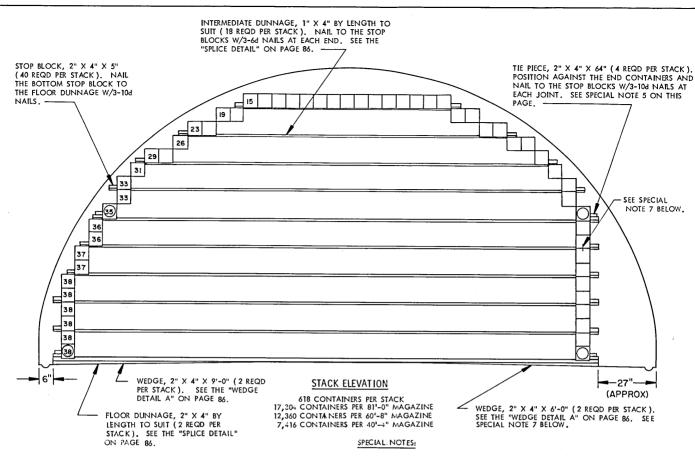


 STORAGE AS SHOWN IS FOR THE PA97 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA97 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 25" LONG BY 7-3/4" WIDE BY 7-3/4" HIGH.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND AT THE FIFTH LAYER OF INTERMEDIATE DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 7. NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- 8. THERE WILL BE APPROXIMATELY 68" OF SMACE AT THE FRONT OF AN 81'-0"
 LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 6'-2" OF SPACE
 AT THE FRONT OF A 60'-8" MAGAZINE AND APPROXIMATELY 6'-8" OF
 SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

CHARGE, PROPELLING, IN PA97 SERIES CONTAINER



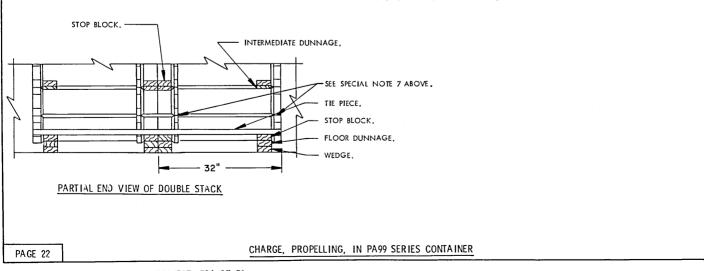
BILL O	F MATERIAL (PER STA	CK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	382 79	128 53
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	108 36	3/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

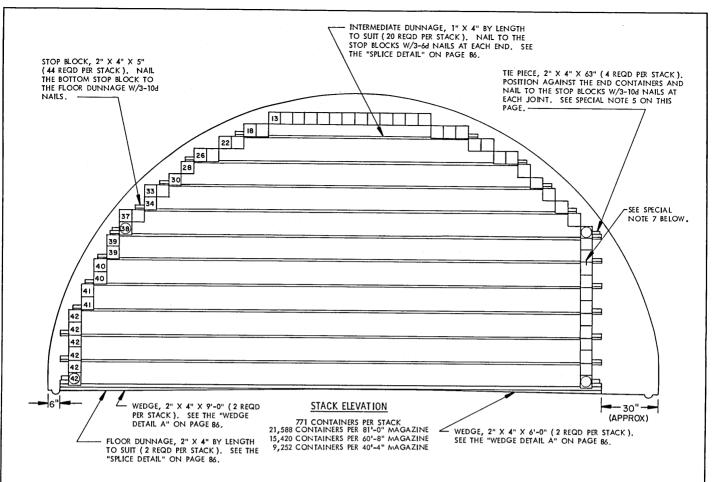
 STORAGE AS SHOWN IS FOR THE PA99 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA99 SERIES CONTAINERS.

CONTAINER DIMENSIONS------32" LONG BY 7-1/4" WIDE BY 7-1/4" HIGH.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2)

 CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON
 THE BOTTOM LAYER AND AT THE FIFTH LAYER OF INTERMEDIATE DUNNAGE.
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 7. NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- 8. THERE WILL BE APPROXIMATELY 72" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE, THERE WILL BE APPROXIMATELY 7'-0" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 8'-0" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



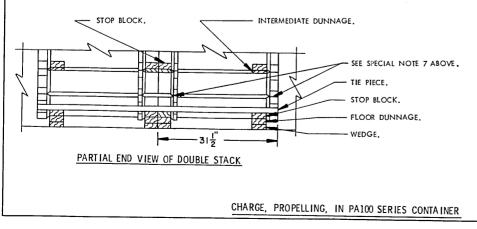


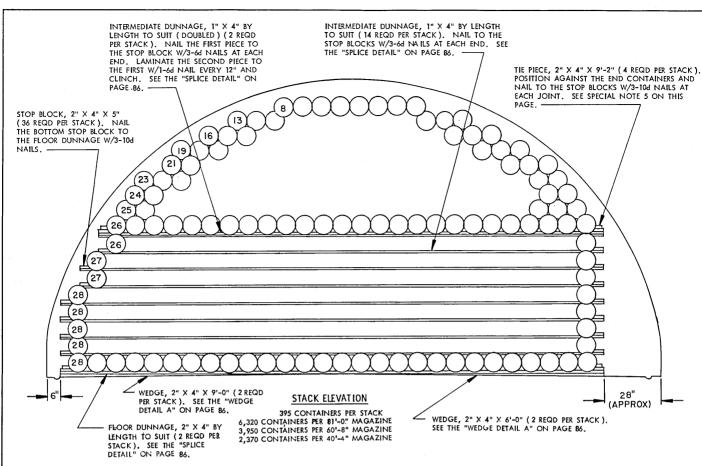
BILL	OF MATERIAL (PER ST	TACK)
LUMBER	LINEAR FEET	BOARD FEET
1" × 4" 2" × 4"	421 80	141 54
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	120 36	3/4 3/4
	WEDGES PER STACK	-
LUMBER	LENGTH	NO. REQD
2" × 4" 2" × 4"	6'-0" 9'-0"	2 2

 STORAGE AS SHOWN IS FOR THE PA100 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL PA100 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 31-1/2" LONG BY 6-1/2" WIDE BY 6-1/2" HIGH.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2)
 CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED
 ON THE BOTTOM LAYER AND AT THE SIXTH LAYER OF INTERMEDIATE DUNNAGE.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 7. NOTE: THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTERLOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- 8. THERE WILL BE APPROXIMATELY 7'-2" OF SPACE AT THE FRONT OF AN 81'-0"
 LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-10" OF SPACE
 AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 8'-6" OF
 SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



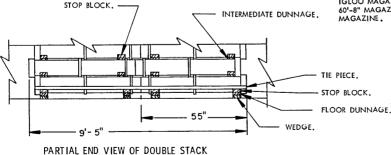


BILL	OF MATERIAL (PER S	IACK /
LUMBER	LINEAR FEET	BOARD FEE
1" × 4" 2" × 4"	434 83	145 55
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	138 36	1 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0"	2 2

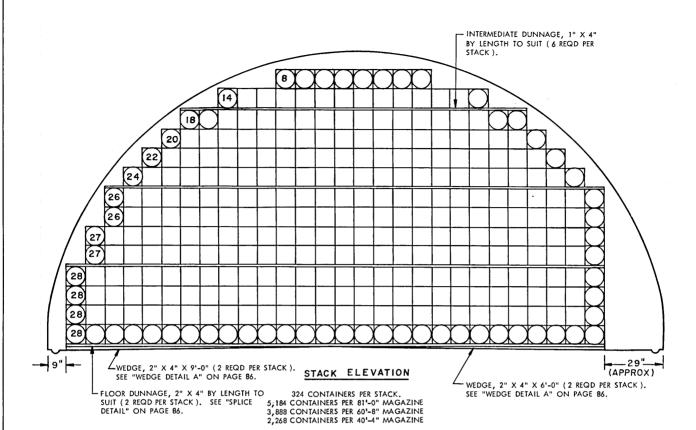
 STORAGE AS SHOWN IS FOR THE M460 CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL M460 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 55" LONG BY 9-13/16" DIAMETER.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND TOP LAYER ONLY.
- 6. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- THE INTERMEDIATE DUNNAGE POSITIONED IMMEDIATELY UNDER THE NESTED CONTAINERS AT THE TOP OF THE STACK WILL BE OF DOUBLE THICKNESS 1" X 4" MATERIAL.
- 8. ALL CONTAINERS POSITIONED ABOVE LAYER NINE (9) ARE NESTED.
- THERE WILL BE APPROXIMATELY 64" OF SPACE AT THE FRONT OF AN 81"-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 13"-3" AT THE FRONT OF A 60"-8" MAGAZINE, AND APPROXIMATELY 11"-9" AT THE FRONT OF A 40"-4" MAGAZINE.

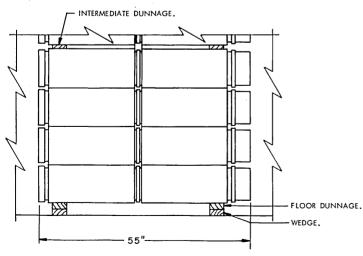


CHARGE, PROPELLING, IN M460 SERIES CONTAINER



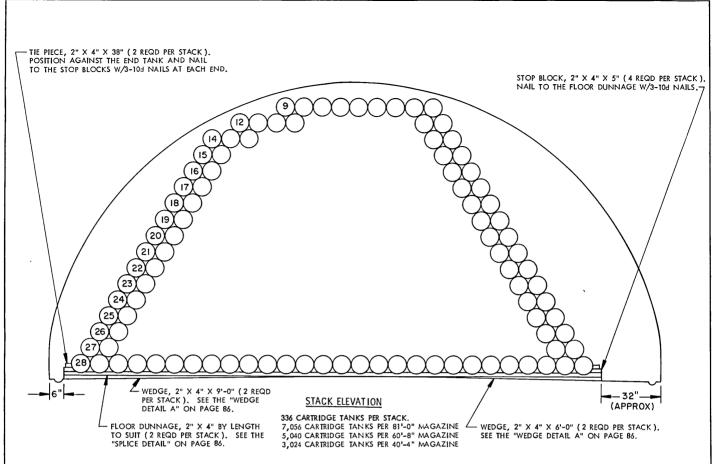
BILI	BILL OF MATERIAL (PER STACK)		
LUMBER	LINEAR FEET	BOARD FEET	
1" X 4" 2" X 4"	117 47	39 32	
	WEDGES PER STACK		
LUMBER	LENGTH	NO. REQD	
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2	

- STORAGE AS SHOWN IS FOR THE M460 CONTAINER WITH PROTECTIVE COVER.
 USE THIS SAME STORAGE FORMAT FOR ALL M460 SERIES CONTAINERS HAVING THE
 PROTECTIVE COVER.
 CONTAINER DIMENSIONS ---- 55" LONG BY 9-15/16" WIDE BY 9-15/16" HIGH.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-TALLY AND VERTICALLY.
- THERE WILL BE APPROXIMATELY 7'-3" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO, MAGAZINE. THERE WILL BE APPROXIMATELY 64" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 7'-11" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



PARTIAL END VIEW OF STACK

CHARGE, PROPELLING, IN M460 SERIES CONTAINER WITH PROTECTIVE COVER

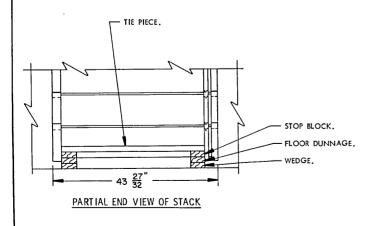


BILL	OF MATERIAL (PER S	TACK)
LUMBER	LINEAR FEET	BOARD FEET
2" × 4"	58	39
NAILS	NO. REQD	POUNDS
104 (3")	24	1/2
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

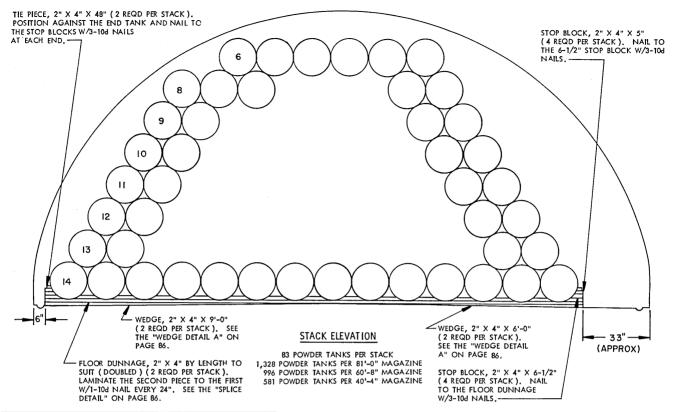
 STORAGE AS SHOWN IS FOR THE MK4 CARTRIDGE TANK FOR 6"/47. USE THIS SAME STORAGE FORMAT FOR ALL MK4 CARTRIDGE TANK MODS.

TANK DIMENSIONS --- 43-27/32" LONG BY 9-21/32" DIAMETER.

- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF TANKS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- THERE WILL BE APPROXIMATELY 44" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE, THERE WILL BE APPROXIMATELY 64" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 7'-0" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



CHARGE, PROPELLING, IN MK4 CARTRIDGE TANK FOR 6"147

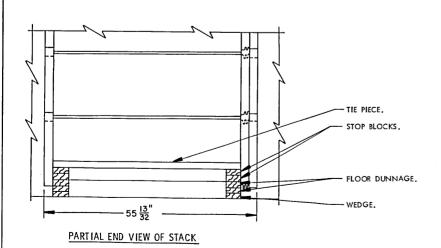


BII	L OF MATERIAL (PER S	STACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	112	75
NAILS	NO. REQD	POUNDS
10d (3")	48	3/4
:	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

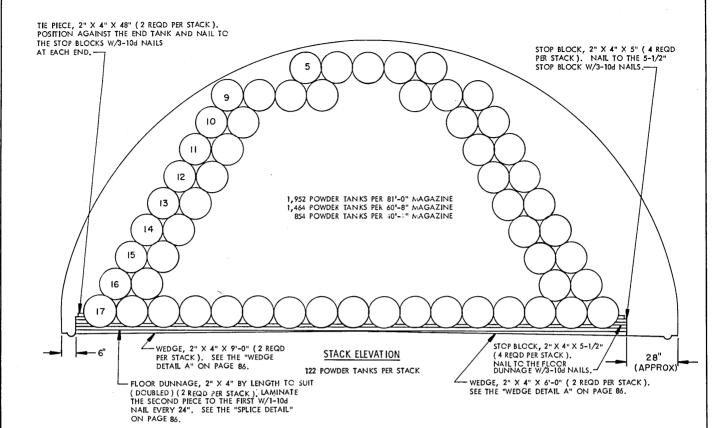
 STORAGE AS SHOWN IS FOR THE MKIV POWDER TANK FOR 16"/50. USE THIS SAME STORAGE FORMAT FOR ALL MKIV POWDER TANK MODS.

TANK DIMENSIONS --- 55-13/32" LONG BY 19-1/2" DIAMETER.

- 2. THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF POWDER TANKS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN THE FLOOR DUNNAGE.
- THERE WILL BE APPROXIMATELY 6'-8" OF SPACE AT THE FRONT OF AN 81'-0"
 LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 58" OF SPACE AT
 THE FRONT OF A 60'-8" MAGAZINE AND APPROXIMATELY 7'-7" OF SPACE
 AT THE FRONT OF A 40'-4"MAGAZINE.



CHARGE, PROPELLING, IN MKIY POWDER TANK FOR 16"/50

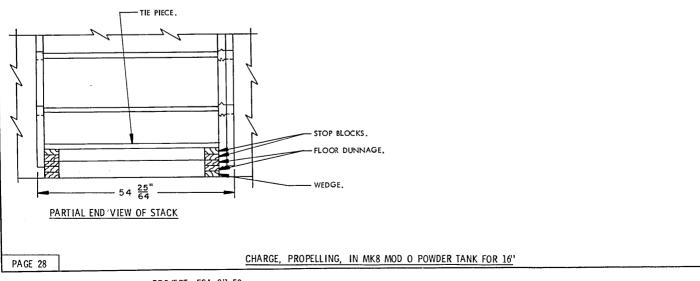


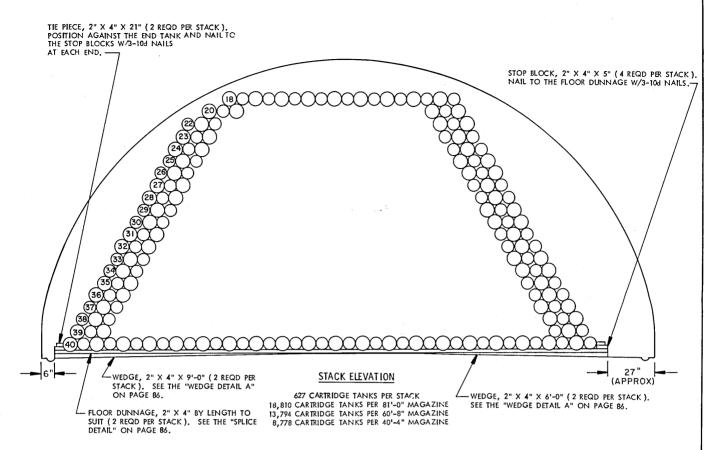
BILL	OF MATERIAL (PER S	TACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	113	76
NAILS	NO. REQD	POUNDS
10d (3")	48	3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" × 4"	6'-0"	2
2" X 4"	9'-0"	

 STORAGE AS SHOWN IS FOR THE MK8, MOD O POWDER TANK FOR 16". USE THIS SAME STORAGE FORMAT FOR ALL MK8 POWDER TANK MODS.

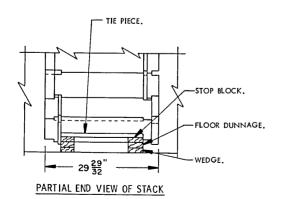
TANK DIMENSIONS --- 54-25/64" LONG BY 16-1/4" DIAMETER.

- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF TANKS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- 5. THERE WILL BE APPROXIMATELY 8'-0" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 70" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 8'-2" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.





BILL	. OF MATERIAL (PER S	TACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	57	38
NAILS	NO. REQD	POUNDS
109 (3")	24	1/2
	WEDGES PER STACK	7.00
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2



 STORAGE AS SHOWN IS FOR THE MK9, MOD 1 AND MK15, MOD 1 CARTRIDGE TANKS FOR 5"/38. USE THIS SAME STORAGE FORMAT FOR ALL MK9 AND MK15 CARTRIDGE TANK MODS.

TANK DIMENSIONS --- 29-29/32" LONG BY 7-15/32" DIAMETER.

- 2. THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF CARTRIDGE TANKS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- 5. THERE WILL BE APPROXIMATELY 68" OF SPACE AT THE FRONT OF AN BII-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 64" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 60" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

CHARGE, PROPELLING, IN MK9, MOD 1 AND MK15, MOD 1 CARTRIDGE TANKS FOR 5"/38

TIE PIECE, 2" X 4" X 25" (2 REQD PER STACK). POSITION AGAINST THE END TANK AND NAIL TO THE STOP BLOCKS W/3-104 NAILS AT EACH END. -STOP BLOCK, 2" X 4" X 5" (4 REQD PER STACK). NAIL TO THE FLOOR DUNNAGE W/3-10d NAILS. $\overline{}$ 'n 13 14 15 16 17 18 19 20 21 22 23 24 25 WEDGE, 2" X 4" X 9'-0" (2 REQD PER STACK). SEE THE "WEDGE DETAIL A" ON PAGE 86. STACK ELEVATION **=**-30"**-**= 265 POWDER TANKS PER STACK.
7,950 POWDER TANKS PER 81'-0" MAGAZINE
5,830 POWDER TANKS PER 60'-8" MAGAZINE
3,710 POWDER TANKS PER 40'-4" MAGAZINE (APPROX) -WEDGE, 2" X 4" X 6'-0" (2 REQD PER STACK). SEE THE "WEDGE DETAIL A" ON PAGE 86. FLOOR DUNNAGE, 2" X 4" BY LENGTH TO SUIT (2 REQD PER STACK). SEE THE

BILL (OF MATERIAL (PER ST.	ACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	57	38
NAILS	NO. REQD	POUNDS
10d (3")	24	1/2
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

"SPLICE DETAIL" ON PAGE 86.

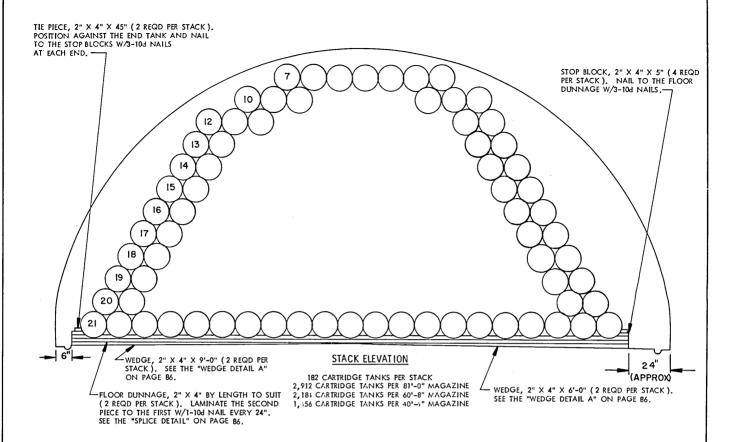
TIE PIECE. - STOP BLOCK. FLOOR DUNNAGE. WEDGE. -30<u>4</u>"

PARTIAL END VIEW OF STACK

SPECIAL NOTES:

- STORAGE AS SHOWN IS FOR THE MK10, MOD 1 POWDER TANK FOR 8"/55. USE THIS SAME STORAGE FORMAT FOR ALL MK10 POWDER TANK MODS.
 - TANK DIMENSIONS --- 30-1/4" LONG BY 10-59/64" DIAMETER.
- 2. THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF POWDER TANKS PER LAYER. IN A STACK.
- SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- THERE WILL BE APPROXIMATELY 60" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 58" OF SPACE AT THE FRONT OF A 60"-8" MAGAZINE, AND APPROXIMATELY 56" OF SPACE AT THE FRONT OF A

CHARGE, PROPELLING, IN MK10, MOD 1 POWDER TANK FOR 8'1/55

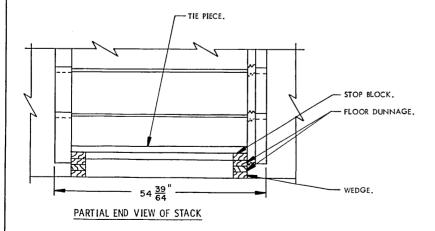


BILL OF	MATERIAL (PER STAC	(K)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	112	75
NAILS	NO. REQD	POUNDS
10d (3")	36	3/4
	WEDGES PER STACK	
LUMBER	LENGTHS	NO. REQD
2" × 4" 2" × 4"	6'-0" 9'-0"	2 2

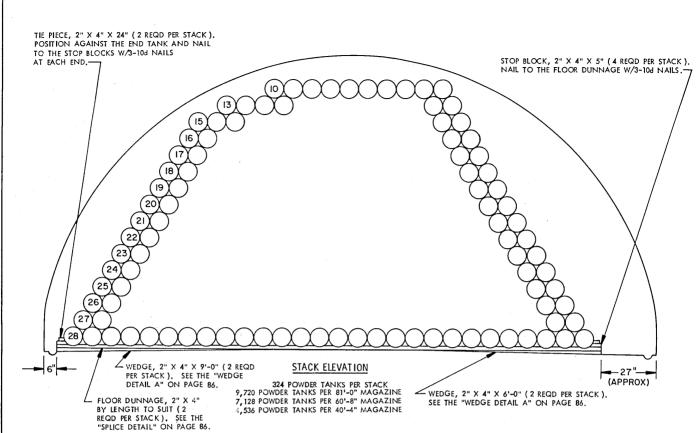
 STORAGE AS SHOWN IS FOR THE MK11, MOD O AND MK13, MOD O CAR-TRIDGE TANKS FOR 8"/55. USE THIS SAME STORAGE FORMAT FOR ALL MK11 AND MK13 CARTRIDGE TANK MODS.

TANK DIMENSIONS --- 54-39/64" LONG BY 13-5/16" DIAMETER.

- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF CARTRIDGE TANKS PER LAYER. IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- 5. THERE WILL BE APPROXIMATELY 7'-10" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOC MAGAZINE, THERE WILL BE APPROXIMATELY 68" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 43" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



CHARGE, PROPELLING, IN MK11, MOD O AND MK13, MOD O CARTRIDGE TANKS FOR 81/55

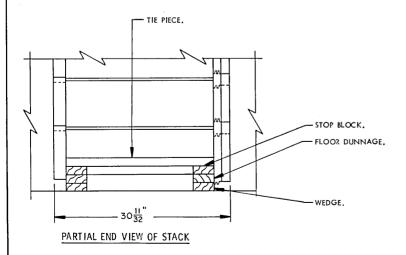


BILL (F MATERIAL (PER STA	(CK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	57	38
NAILS	NO. REQD	POUNDS
104 (3")	24	1/2
	WEDGES PER STACK	
LUMBER	LENGTHS	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

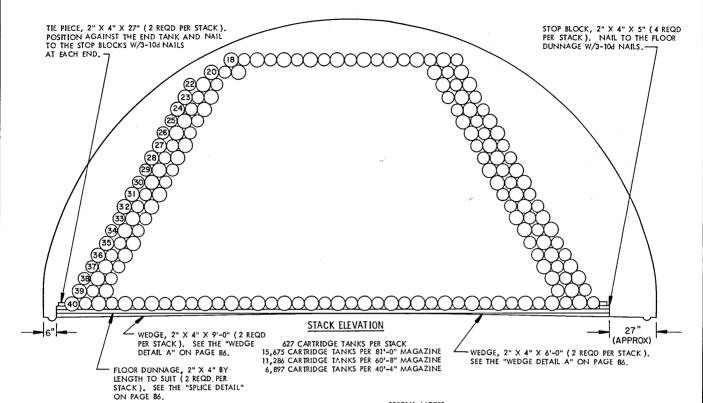
 STORAGE AS SHOWN IS FOR THE ONE-HALF REDUCED CHARGE IN THE MK13, MOD O POWDER TANK FOR 8"/55. USE THIS SAME STORAGE FORMAT FOR ALL MK13 TANK MODS.

TANK DIMENSIONS --- 30-11/32" LONG BY 9-7/8" DIAMETER.

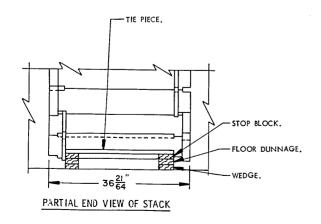
- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF POWDER TANKS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- THERE WILL BE APPROXIMATELY 53" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 53" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 53" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.



ONE-HALF REDUCED CHARGE, PROPELLING, IN MK13, MOD O POWDER TANK FOR 81/55



BILL OF	MATERIAL (PER STA	CK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	58	39
NAILS	NO. REQD	POUNDS
10d (3")	24	1/2
	WEDGES PER STACK	
LUMBER	LENGTHS	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

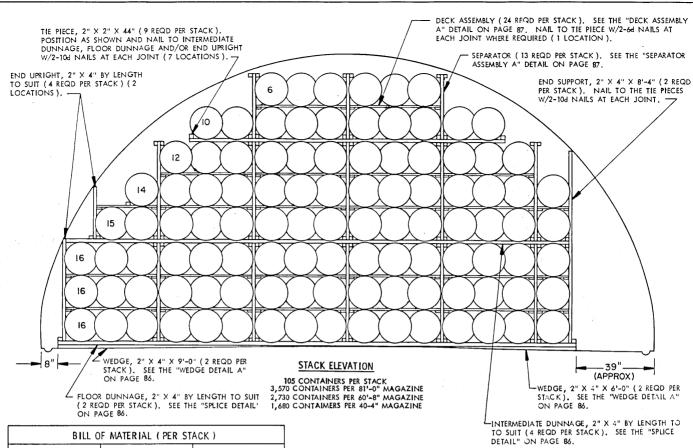


 STORAGE AS SHOWN IS FOR THE MK14, MOD 1 AND MK21, MOD O CARTRIDGE TANKS FOR 5"/54. USE THIS SAME STORAGE FORMAT FOR ALL MK14 AND MK21 CARTRIDGE TANK MODS.

TANK DIMENSIONS --- 36-21/64" LONG BY 7-15/32" DIAMETER.

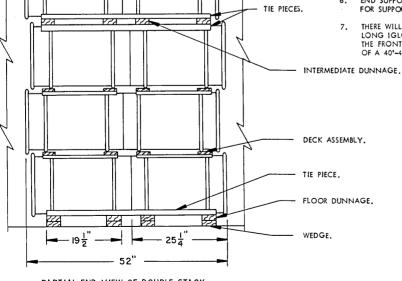
- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF CARTRIDGE TANKS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- 5. THERE WILL BE APPROXIMATELY 55" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE, THERE WILL BE APPROXIMATELY 67" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 6'-6" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

CHARGE, PROPELLING, MK14, MOD 1 AND MK21, MOD O CARTRIDGE TANKS FOR 5"/54



BILL (F MATERIAL (PER ST	ACK)
LUMBER	LINEAR FEET	BOARD FEE
1" × 2" 1" × 4" 2" × 2" 2" × 4"	80 170 120 252	14 57 40 168
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	196 252	1-1/4
	WEDGES PER STACK	
LUMBER	LENGTHS	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

- STORAGE AS SHOWN IS FOR THE PROPELLING CHARGES FOR THE 105MM HOWITZER PACKED IN METAL DRUM.
 - DRUM DIMENSIONS --- 25-1/4" LONG BY 16-7/8" DIAMETER.
- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF DRUMS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 6. END SUPPORT AND/OR END UPRIGHT PIECES MUST CONTACT THE IGLOO WALL FOR SUPPORT.
- THERE WILL BE APPROXIMATELY 7'-0" OF SPACE AT THE FRONT OF AN 81'-0"
 LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 48" OF SPACE AT
 THE FRONT OF A 60'-8" MAGAZINE AND APPROXIMATELY 64" SPACE AT THE FRONT
 OF A 40'-4" MAGAZINE.

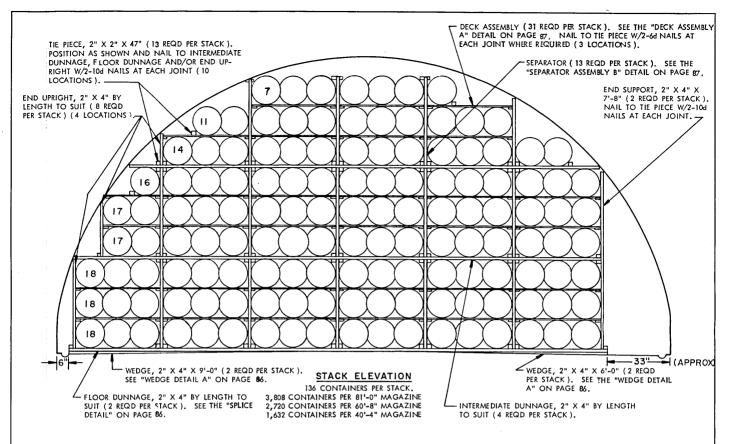


PARTIAL END VIEW OF DOUBLE STACK

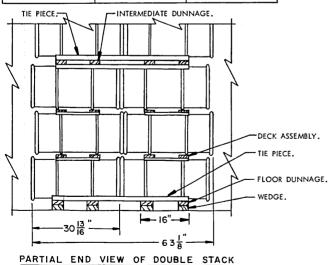
END SUPPORT PIECES HAVE BEEN OMITTED FOR CLARITY.

PAGE 34

METAL DRUM WITH M67 CHARGE



BILL	OF MATERIAL (PER	STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 2" 1" X 4" 2" X 2" 2" X 4"	78 223 106 271	13 75 36 181
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	260 252	1-3/4 4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2



END SUPPORT PIECES HAVE BEEN OMITTED FOR CLARITY.

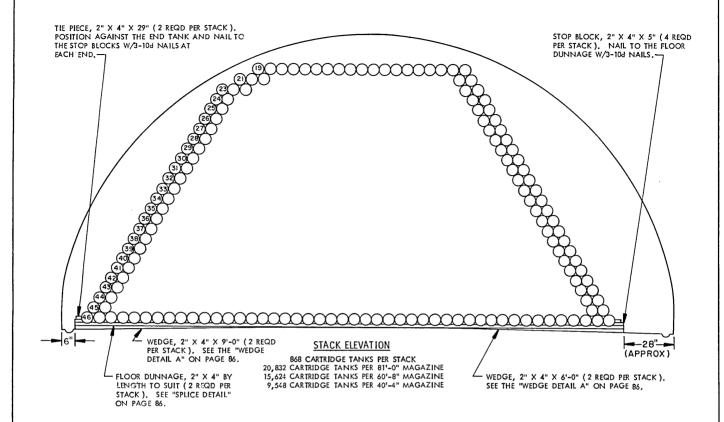
SPECIAL NOTES:

 STORAGE AS SHOWN IS FOR THE PROPELLING CHARGE FOR THE 75MM AND 105MM HOWITZER PACKED IN METAL DRUM.

CONTAINER DIMENSIONS --- 30-13/16" LONG BY 15" DIAMETER.

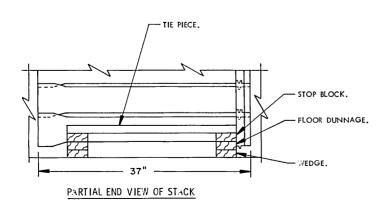
- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 6. END SUPPORT AND/OR END UPRIGHT PIECES MUST CONTACT THE IGLOO WALL FOR SUPPORT.
- 7. THERE WILL BE APPROXIMATELY 7'-0" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-8" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 8'-5" OF SPACE AT THE FRONT OF A 40'-4" MAGAZINE.

METAL DRUM WITH CHARGES FOR 75MM AND 105MM HOWITZER



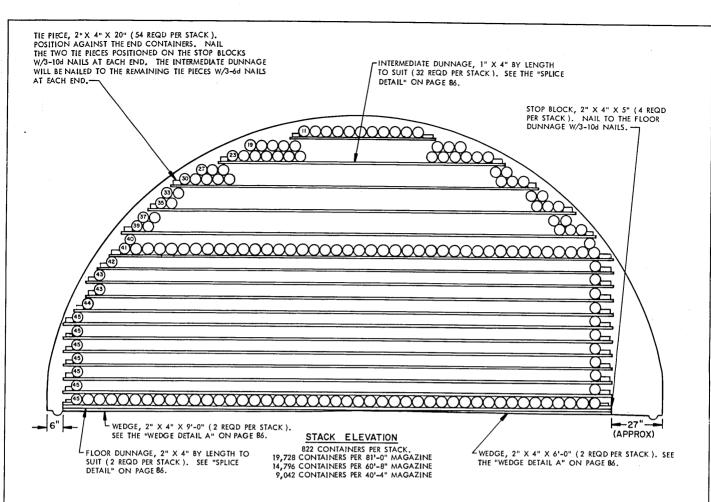
BILL	OF MATERIAL (PER S	TACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	58	39
NAILS	NO. REQD	POUNDS
10d (3")	24	1/2
	WEDGES PER STACK	
LUMBER	LENGTHS	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

- STORAGE AS SHOWN IS FOR THE MK5, MOD.2 CARTRIDGE TANK FOR 3"/50. USE THIS SAME STORAGE FORMAT FOR ALL MK5 CARTRIDGE TANK MODS.
 - TANK DIMENSIONS --- 37" LONG BY 5-63/64" DIAMETER.
- THE NUMBERS SHOWN ON THE STACK ELEVATION INDICATE THE QUANTITY OF TANKS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- 5. THERE WILL BE APPROXIMATELY 6'-8" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 58" OF SPACE AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 6'-1" AT THE FRONT OF OF A 40'-4" MAGAZINE.



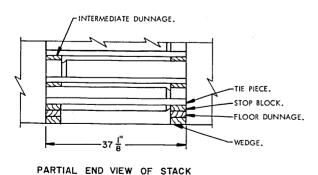
PAGE 36

CHARGE, PROPELLING, IN MK5, MOD. 2 CARTRIDGE TANK FOR 3"/50

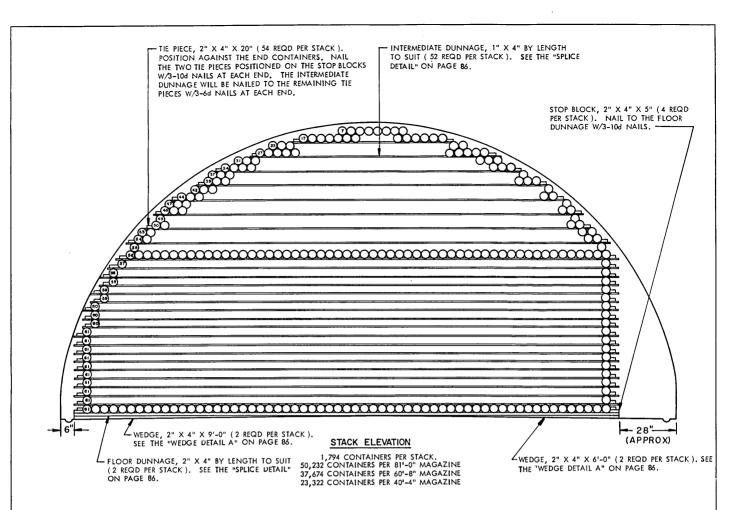


BILL	OF MATERIAL (PER	STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	658 154	220 103
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	192 24	1-1/4 1/2
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

- STORAGE AS SHOWN IS FOR THE MI52 SERIES CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL MI52 SERIES CONTAINERS.
 - CONTAINER DIMENSIONS --- 37-1/8" LONG BY 6-1/8" DIAMETER.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. $\underline{\text{NOTE:}}$ JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 5. THERE WILL BE APPROXIMATELY 6'-5" OF SPACE AT THE FRONT OF AN 81'-0"
 LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 55" OF SPACE AT THE
 FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 71" OF SPACE AT THE
 FRONT OF A 40'-4" MAGAZINE,



COMPLETE ROUND, MI52 SERIES CONTAINER

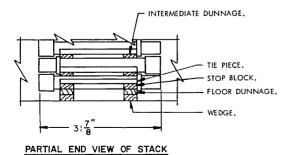


BILL	OF MATERIAL (PER	STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	1082 139	361 93
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	312 24	2 1/2
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

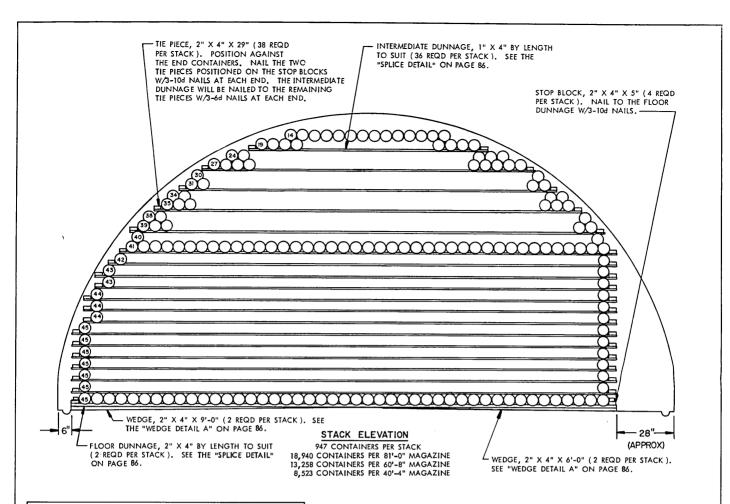
 STORAGE AS SHOWN IS FOR THE MI54 SERIES CONTAINER. USE THIS SAME STORAGE FORMAT FOR ALL MI54 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 31-7/8" LONG BY 4-1/2" DIAMETER.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.
- 5. THERE WILL BE APPROXIMATELY 6'-3" SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 54" AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 65" AT THE FRONT OF A 40'-4" MAGAZINE.



COMPLETE ROUND, MI54 SERIES CONTAINER

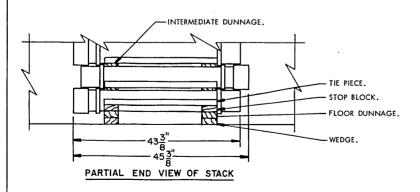


BILL O	F MATERIAL (P	ER STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	759 141	253 94
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	216 24	1-1/2 1/2
	WEDGES PER STACK	<u> </u>
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

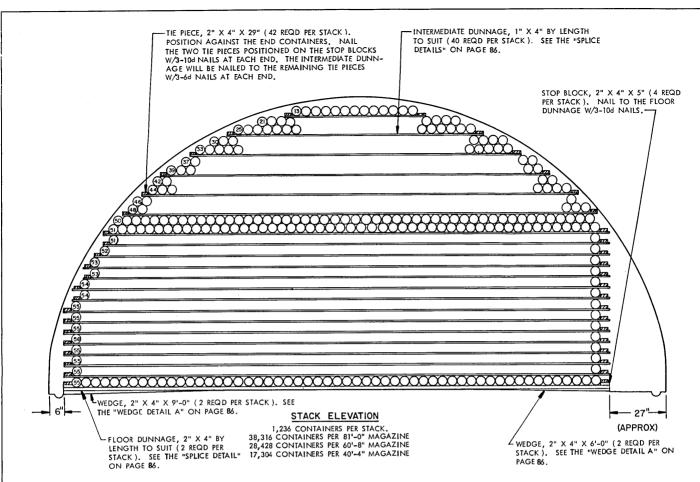
 STORAGE AS SHOWN IS FOR THE MI59 SERIES CONTAINER. USE THIS SAME STOR-AGE FORMAT FOR ALL MI59 SERIES CONTAINERS.

CONTAINER DIMENSIONS --- 43-3/8" LONG BY 6-1/8" DIAMETER.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- NOTE: JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-TALLY AND VERTICALLY.
- 5. THERE WILL BE APPROXIMATELY 60" SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 7'-7" AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 71" AT THE FRONT OF A 40'-4" MAGAZINE.



COMPLETE ROUND, MI59 SERIES CONTAINER

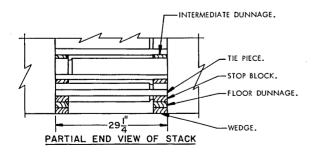


BILL OF M	IATERIAL (PER S	STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	826 151	276 101
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	240 24	1-1/2 1/2
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

 STORAGE AS SHOWN IS FOR THE M173 SERIES CONTAINER. USE THIS SAME STOR-AGE FORMAT FOR ALL M173 AND T53 SERIES CONTAINERS.

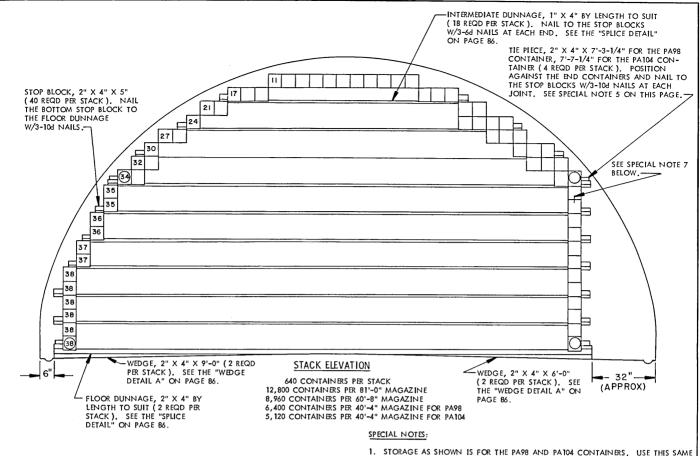
CONTAINER DIMENSIONS --- 29-1/4" LONG BY 5" DIAMETER.

- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE "TYPICAL PLAN VIEW A" ON PAGE 4.
- 4. $\frac{\text{NOTE:}}{\text{TALLY}}$ JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZON-TALLY AND VERTICALLY.
- THERE WILL BE APPROXIMATELY 61" OF SPACE AT THE FRONT OF AN 81'-0" LONG IGLOO MAGAZINE. THERE WILL BE APPROXIMATELY 51" AT THE FRONT OF A 60'-8" MAGAZINE, AND APPROXIMATELY 70" AT THE FRONT OF A 40'-4" MAGAZINE.

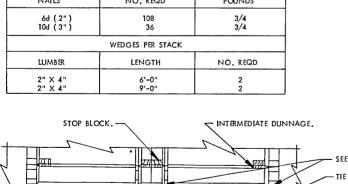


PAGE 40

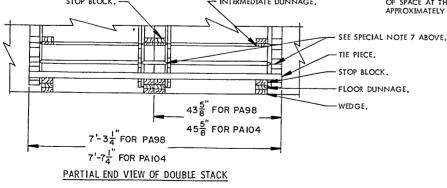
COMPLETE ROUND, MI73 & T53 SERIES CONTAINER



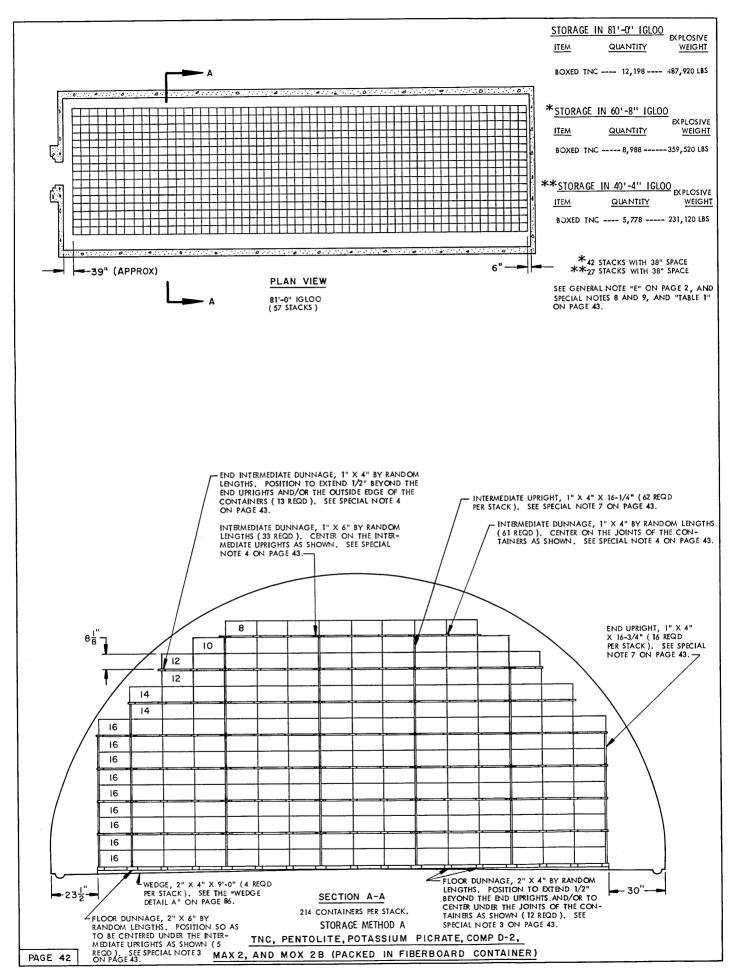
BILL	OF MATERIAL (PER ST	ACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	379 79	127 53
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	108 36	3/4 3/4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	2 2

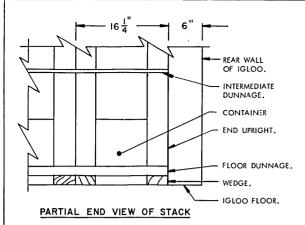


- STORAGE AS SHOWN IS FOR THE PA98 AND PA104 CONTAINERS. USE THIS SAME STORAGE FORMAT FOR ALL PA98 AND PA104 SERIES CONTAINERS.
 - PA98 CONTAINER DIMENSIONS-- 43-5/8" LONG BY 7-1/8" WIDE BY 7-1/8" HIGH. PA104 CONTAINER DIMENSIONS- 45-5/8" LONG BY 7-1/8" WIDE BY 7-1/8" HIGH.
- 2. THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 3. SEE THE "TYPICAL PLAN VIEW A" ON PAGE 4.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE THE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE
- 5. NOTE: THE "TIE PIECE" EQUALS THE APPROXIMATE LENGTH OF TWO (2) CONTAINERS AND AIDS IN STABILIZING THE STACKS. A "TIE PIECE" IS USED ON THE BOTTOM LAYER AND AT THE SIXTH LAYER OF INTERMEDIATE DUNNAGE.
- $\underline{\text{NOTE}};\;\;\text{JOINTS IN INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORIZONTALLY AND VERTICALLY.}$
- THE INTERLOCKING PINS ON EACH END OF A CONTAINER MUST INTER-LOCK VERTICALLY WITH THE CONTAINER IN THE NEXT LAYER.
- FOR THE PA98 CONTAINER THERE WILL BE APPROXIMATELY 8'-0" OF SPACE AT THE FRONT OF AN 81'-0" LONG MAGAZINE. THERE WILL BE APPROXIMATELY 9'-6" OF SPACE AT THE FRONT OF A 60'-8" LONG MAGAZINE. THERE WILL BE APPROXIMATELY 44" SPACE AT THE FRONT OF A 40'-4" LONG MAGAZINE.
- FOR THE PA104 CONTAINER THERE WILL BE APPROXIMATELY 56" OF SPACE AT THE FRONT OF AN 81'-0" LONG MAGAZINE. THERE WILL BE APPROXIMATELY 7'-2" OF SPACE AT THE FRONT OF A 60'-8" LONG MAGAZINE. THERE WILL BE APPROXIMATELY 9'-8" OF SPACE AT THE FRONT OF A 40'-4" LONG MAGAZINE.



COMPLETE ROUND, IN PA98 & PA104 SERIES CONTAINERS





(SPECIAL NOTES CONTINUED)

- THE STORAGE PROCEDURES SHOWN ON PAGES 42 AND 43 SHOULD ONLY BE USED IN GEOGRAPHICAL AREAS WHICH HAVE LOW HUMIDITY LEVELS. FOR PROCEDURES APPLICABLE TO THE STORAGE OF THESE ITEMS IN GEOGRAPHICAL AREAS HAVING HIGH LUMIDITY, REFER TO THE PROCEDURES ON PAGES 80
- 10. IF PALLETIZED BOXES ARE TO BE STORED, REFER TO U.S. ARMY AMC DRAWING 19-48-4097-1-3-4-14-22PA1009 FOR PROCEDURES TO BE USED. FOR UNITIZATION PROCEDURES (SIDE PANEL METHOD) REFER TO USAMC AMMUNITION CENTER DRAWING C-AMXSV-4071. FOR UNITIZATION PROCEDURES (STRETCH NET METHOD) REFER TO U.S. ARMY AMC DRAWING 19-48-4177/1-20PA1007.

BI	BILL OF MATERIAL (PER STACK)		
LUM3ER	LINEAR FEET	BOARD FEET	
1" X 4" 1" X 6" 2" X 4" 2" X 6"	207 45 17 7	69 23 12 7	
	WEDGES PER STACK		
LUMBER	LENGTH	NO. REQD	
2" X 4"	9'-0"	4	

SPECIAL NOTES

STORAGE AS SHOWN IS FOR THE AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD CONTAINER NO. 2. FOR DETAILS OF THE CONTAINER SEE DRAWING NO. 7548645. SEE SPECIAL NOTE 9.

DIMENSIONS -----16-1/4" LONG BY 16-1/4" WIDE BY 8-1/8" HIGH. EXPLOSIVE WEIGHT FOR TNC ---- 40 POUNDS.

- SIMILAR BULK EXPLOSIVES INCLUDE:
 - (a) PENTOLITE
 - (b) POTASSIUM PICRATE (c) COMPOSITION D-2 (d) MAX 2

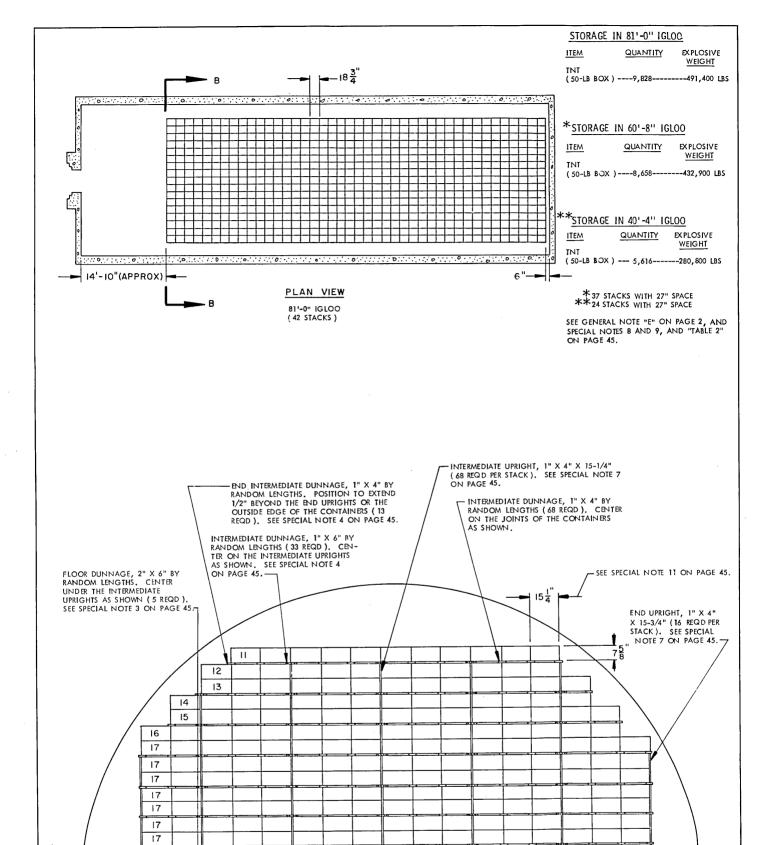
 - (e) MOX 28
- RANDOM LENGTH MATERIAL MAY BE USED FOR THE 2" X 4" AND 2" X 6" FLOOR DUNNAGE PIECES. JOINTS IN THE RANDOM LENGTH MATERIAL MUST BE ON THE WEDGES. JOINTS IN LATERALLY ADJACENT FLOOR DUN-NAGE PIECES NEED NOT BE STAGGERED.
- RANDOM LENGTH MATERIAL, OF NOT LESS THAN 48" LENGTHS, MAY BE USED FOR THE 1" X 4" END INTERMEDIATE DUNNAGE AND/OR THE 1" X 4" AND 1" X 6" INTERMEDIATE DUNNAGE PIECES. THE JOINTS IN THE INTERMEDIATE LEAST 16" FROM THE JOINTS IN THE NEXT LOWER LAYER.
- CAUTION: THE SIZE SHOWN AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD CONTAINERS WHICH ARE APPROXIMATELY THE SAME HEIGHT MUST NOT BE STACKED MORE THAN FIFTEEN (15) CONTAINERS HIGH.
- THE NUMBERS SHOWN IN "SECTION A-A" INDICATE THE QUANTITY OF CON-TAINERS PER LAYER IN A STACK.
- WHEN STORING BOXES OF A HEIGHT OTHER THAN 8-1/8", THE LENGTH OF THE UPRIGHT PIECES MUST BE ADJUSTED TO COMPLY WITH THE FOLLOWING CRITERA
 - INTERMEDIATE UPRIGHT PIECES MUST BE OF A LENGTH EQUAL TO THE HEIGHT OF TWO BOXES.
 - END UPRIGHT PIECES MUST BE 1/2" LONGER THAN INTERMEDIATE UP-В.
- STORAGE AS SHOWN IS FOR FIBERBOARD BOXES CONTAINING TNC. THE PROCEDURES ARE APPLICABLE FOR ALL THE ITEMS LISTED IN TABLE 1. FULL STACKS ARE SHOWN IN THE PLAN VIEW ON PAGE 42. ONE ADDITIONAL STACK OF ANY OF THE LISTED ITEMS, WITH THE EXCEPTION OF MAX 2 AND MOX 2B, MAY BE STORED IN A MAGAZINE IF SPACE PERMITS AND PROVIDED THE EXPLOSIVE LIMIT FOR THE MAGAZINE IS NOT EXCEEDED. THE NUMBER OF STACKS OF MAX 2 AND MOX 2B MUST BE REDUCED FROM THAT SHOWN IN ORDER TO AVOID EXCEEDING THE 500,000 POUND MAXIMUM EXPLOSIVE LIMIT.

(CONTINUED AT LEFT)

	TABLE 1		
	81'-0" IGLO) MAGAZINE	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
TNC PENTOLITE POTASSIUM PICRATE COMPOSITION D-2 MAX 2 MOX 2B	40 LBS 35 LBS 35 LBS 30 LBS 50 LBS 50 LBS	12, 198 12, 198 12, 198 12, 198 10,000 10,000	487,920 LBS 426,930 LBS 426,930 LBS 365,940 LBS 500,000 LBS 500,000 LBS
	60'-8" IGLO	MAGAZINE	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
TNC PENTOLITE POTASSIUM PICRATE COMPOSITION D-2 MAX 2 MOX 2B	40 LBS 35 LBS 35 LBS 30 LBS 50 LBS 50 LBS	8,998 8,998 8,998 8,998 8,998 8,998	359,920 LBS 314,930 LBS 314,930 LBS 269,940 LBS 449,900 LBS 449,900 LBS
	40'-4" IGLOO	MAGAZINE	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
TNC PENTOLITE POTASSIUM PICRATE COMPOSITION D-2 MAX 2 MOX 2B	40 LBS 35 LBS 35 LBS 30 LBS 50 LBS 50 LBS	5,778 5,778 5,778 5,778 5,778 5,778 5,778	231,120 LBS 202,230 LBS 202,230 LBS 173,340 LBS 288,900 LBS 288,900 LBS

STORAGE METHOD A

TNC, PENTOLITE, POTASSIUM PICRATE, COMPD-2, MAX 2, AND MOX 2B (PACKED IN FIBERBOARD CONTAINER)



SECTION B-B

STORAGE METHOD A TNT, ALL COMP A, ALL COMP B, COMP C-3 & C-4, EXPLOSIVE D, CYCLOTOL, OCTOL, PBX AND TETRYL (PACKED IN FIBERBOARD CONTAINER)

234 CONTAINERS PER STACK.

FLOOR DUNNAGE, 2" X 4" BY

FLOOR DUNNAGE, 2" A 4" BY RANDOM LENGTHS, POSITION TO EXTEND 1/2" BEYOND THE END UPRIGHTS AND/OR TO CENTER UNDER THE JOINTS OF THE CONTAINERS AS SHOWN (13 REQD), SEE SPECIAL NOTE 3 ON PAGE 45.

-- 24"--

WEDGE, 2" X 4" X 9'-0" (4 REQ D PER STACK). SEE THE "WEDGE DETAIL A" ON PAGE 86.

17 17

-29"-

(APPROX)

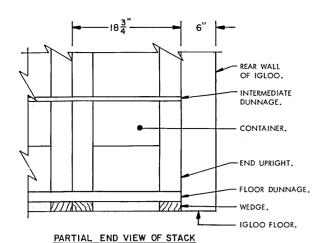


	TABLE 2		
	81 '- 0" IGLOO	MAGAZINE	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
TNT TNT ALL COMPOSITION A ALL COMPOSITION B COMPOSITION C-3 AND C-4 EXPLOSIVE D CYCLOTOL OCTOL PBX TETRYL TOVEX PBXN 6	50 LBS 55 LBS 60 LBS 50 LBS 50 LBS	9,828 8,892 8,190 8,190 8,190 9,828 8,190 8,190 8,190 9,828 9,828	491,400 LBS 489,060 LBS 491,400 LBS
	60'-8" IGLOC) MAGAZINE	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
INT INT ALL COMPOSITION A	50 LBS 55 LBS 60 LBS	8,658 8,658 8,190	432,900 LBS 476,190 LBS 491,400 LBS

(SPECIAL NOTES CONTINUED)

60 LBS

60 LBS

50 LBS

AO LRS

60 LBS

AO LBS

50 LBS

50 LBS

8.190

8,190

8.658

8 190

8,190

8.190

8.658

491,400 LBS

491,400 LBS 432,900 LBS

491,400 LBS

491,400 LBS

491,400 LBS

491,400 LBS

432,900 LBS

ALL COMPOSITION B

EXPLOSIVE D

CYCLOTOL

OCTOL

TETRYL

TOVEX

PBX N 6

PBX

COMPOSITION C-3 AND C-4

11. IN LIEU OF STORING BOXES SO THE 15-1/4" DIMENSION IS ACROSS THE WIDTH OF THE MAGAZINE, AS SHOWN, BOXES MAY BE PLACED WITH THE 18-3/4"
DIMENSION ACROSS THE MAGAZINE IF STACK STABILITY IS IMPROVED BY DOING SO. THE NUMBER OF BOXES ACROSS THE MAGAZINE MUST BE REDUCED ACCORDINGLY.

BILL	OF MATERIAL (PER S	STACK)	
LUMBER	LINEAR FEET BOARD FEET		
1" X 4"	234	78	
1" X 6"	52 21 26 14		
2" X 4"			
2" X 6"	WEDGES PER STACK	8	
LUMBER	LENGTH	NO. REQD	
2" X 4"	9'-0"	4	

SPECIAL NOTES:

STORAGE AS SHOWN IS FOR THE AND SIMILAR BUILK EXPLOSIVES PACKED IN FIBERBOARD CONTAINER NO. 4. FOR DETAILS OF THE CONTAINER SEE DRAWING NO. 7548645. SEE SPECIAL NOTE 9.

DIMENSIONS ----- 18-3/4" LONG BY 15-1/4" WIDE BY 7-5/8" HIGH. EXPLOSIVE WEIGHT ---- 50 POUNDS. SEE SPECIAL NOTE 8.

- 2. SIMILAR BULK EXPLOSIVES INCLUDE:
 - ALL COMPOSITION A.
 - ALL COMPOSITION B. (b) COMPOSITION C-3 AND C-4. (c)
 - EXPLOSIVE D. (d)
 - CYCLOTOL (e)

 - PBX
- TETRYI
- RANDOM LENGTH MATERIAL MAY BE USED FOR THE 2" X 4" AND 2" X 6" FLOOR DUNNAGE PIECES. JOINTS IN THE RANDOM LENGTH MATERIAL MUST BE ON THE WEDGES. JOINTS IN LATERALLY ADJACENT FLOOR DUNNAGE PIECES NEED NOT
- 4. RANDOM LENGTH MATERIAL, OF NOT LESS THAN 48" LENGTHS, MAY 8E USED FOR THE 1" X 4" BND INTERMEDIATE DUNNAGE AND/OR THE 1" X 4" AND 1" X 6" IN-TERMEDIATE DUNNAGE PIECES. THE JOINTS IN THE INTERMEDIATE DUNNAGE PIECES MUST BE LOCATED APPROXIMATELY CENTERED BETWEEN THE INTERMEDIATE AND/OR END URRIGHT PIECES. THE JOINTS OF ADJACENT INTERMEDIATE DUNNAGE PIECES IN A LAYER WILL BE STAGGERED AT LEAST 18" FROM EACH OTHER AND/OR FROM A JOINT IN AN END INTERMEDIATE DUNNAGE PIECE. ALSO, THE JOINTS OF END INTERMEDIATE AND/OR THE INTERMEDIATE DUNNAGE PIECES IN AN UPPER LAYER WILL BE STAGGERED AT LEAST 18" FROM THE JOINTS IN THE NEXT LOWER LAYER.
- THE PACKED IN FIBERBOARD CONTAINERS OF THE SIZE SHOWN AND CAUTION: THE PACKED IN FIBERBOARD CONTAINERS WHICH ARE APPRO-XIMATELY THE SAME HEIGHT MUST NOT BE STACKED MORE THAN FIFTEEN (15) CONTAINERS HIGH
- 6. THE NUMBERS SHOWN IN "SECTION B-B" INDICATE THE QUANTITY OF CONTAINES PER LAYER IN A STACK,
- 7. WHEN STORING BOXES OF A HEIGHT OTHER THAN 7-5/8", THE LENGTH OF THE UPRIGHT PIECES MUST BE ADJUSTED TO COMPLY WITH THE FOLLOWING CRITERIA:
 - A. INTERMEDIATE UPRIGHT PIECES MUST BE OF A LENGTH EQUAL TO THE HEIGHT OF TWO BOXES.
 - END UPRIGHT PIECES MUST BE 1/2" LONGER THAN INTERMEDIATE UPRIGHT PIECES .
- 8. STORAGE AS SHOWN IS FOR FIBERBOARD BOXES CONTAINING 50 POUNDS OF TNT. THE PROCEDURES ARE ALSO APPLICABLE FOR 55-POUND BOXES OF TNI AND FOR ALL THE ITEMS LISTED IN TABLE 2 BELOW. NOTE THAT TNI IN 55-POUND BOXES IS LIMITED TO A MAXIMUM OF 8,892 BOXES. 9,828 BOXES OF TOVEX, PBXN 6 AND OF EXPLOSIVE D MAY BE STORED IF THE EXPLOSIVE LIMIT FOR THE MAGAZINE IS NOT EXCEEDED. THE NUMBER OF STACKS OF ALL THE OTHER ITEMS MUST BE REDUCED FROM THAT SHOWN IN ORDER TO AVOID EXCEEDING THE 500,000 POUND MAXIMUM EXPLOSIVE LIMIT.
- 9. THE STORAGE PROCEDURES SHOWN ON PAGES 44 AND 45 SHOULD ONLY BE USED IN GEOGRAPHICAL AREAS WHICH HAVE LOW HUMIDITY LEVELS. FOR PROCEDURES APPLICABLE TO THE STORAGE OF THESE ITEMS IN GEOGRAPHICAL AREAS HAVING HIGH HUMIDITY, REFER TO THE PROCEDURES ON PAGES 82 AND 83.

(CONTINUED BELOW)

	TABLE 2 (CC	NT INUED)	
	40'-4" IGLOO	MAGAZINE	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
INT INT ALL COMPOSITION A ALL COMPOSITION B COMPOSITION C-3 AND C-4 EXPLOSIVE D CYCLOTOL OCTOL PBX IETRYL TOVEX	50 LBS 55 LBS 60 LBS 60 LBS 60 LBS 50 LBS 60 LBS 60 LBS 60 LBS 50 LBS	5,616 5,616 5,616 5,616 5,616 5,616 5,616 5,616 5,616 5,616	280, 800 LBS 308, 880 LBS 336, 960 LBS 336, 960 LBS 336, 960 LBS 280, 800 LBS 336, 960 LBS 336, 960 LBS 336, 960 LBS 336, 960 LBS 280, 800 LBS

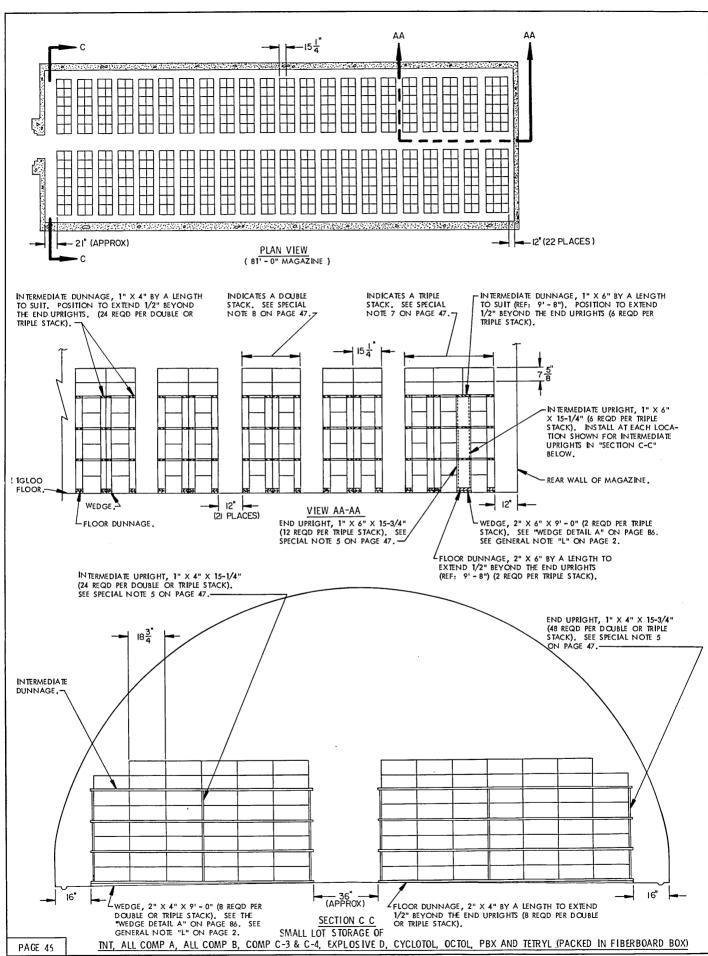
(SPECIAL NOTES CONTINUED)

10. IF PALLETIZED BOXES ARE TO BE STORED, REFER TO U.S. ARMY AMC DRAWING 19-48-4097-1-3-4-14-22PA1009 FOR PROCEDURES TO BE USED. FOR UNITIZATION PROCEDURES (SIDE PANEL METHOD) REFER TO USAMC AMMUNITION CENTER DRAWING C-AMXSV-4071. FOR UNITIZATION PROCEDURES (STRETCH NET METHOD) REFER TO U.S. ARMY AMC DRAWING 19-48-4177/1-20PA1007.

(CONTINUED AT LEFT)

STORAGE METHOD A

TNT, ALL COMP A, ALL COMP B, COMP C-3 & C-4, EXPLOSIVE D, CYCLOTOL, OCTOL, PBX AND TETRYL (PACKED IN FIBERBOARD CONTAINER)



STORAGE AS SHOWN IS TYPICAL ONLY AND APPLIES TO NUMEROUS SMALL LOTS OF TINT AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD BOX NO. 4. FOR DETAILS OF THE BOX, SEE PICATINNY ARSENAL DRAWING

DIMENSIONS ------- 18-3/4" LONG BY 15-1/4" WIDE BY 7-5/8" HIGH. EXPLOSIVE WEIGHT ------ 50 POUNDS. SEE SPECIAL NOTE 6.

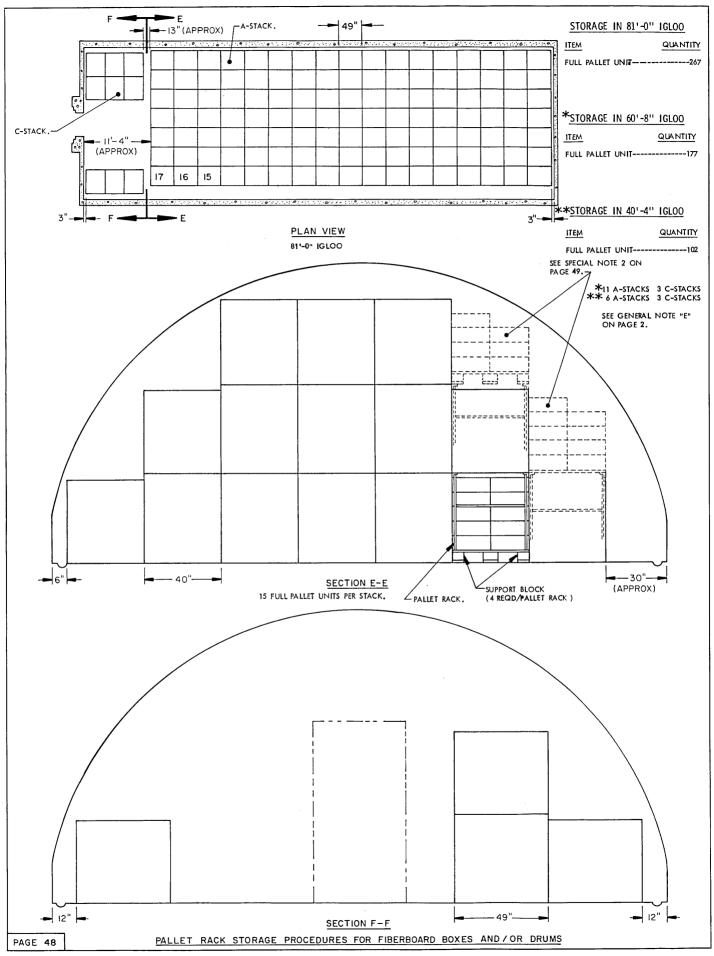
2 SIMILAR BULK EXPLOSIVES INCLUDE:

ITEM

- (a) ALL COMPOSITION A.
 (b) ALL COMPOSITION B. (f) OCTOL. (g) PBX. (h) TETRYL. (j) TOVEX. COMPOSITION C-3 AND C-4. (d) EXPLOSIVE D. (k) PBX N 6. (e) CYCLOTOL.
- 3 IF PALLETIZED BOXES ARE TO BE STORED, REFER TO U.S. ARMY AMC DRAW-ING 19-48-4097-1-3-4-14-22PA1009 FOR PROCEDURES TO BE USED. FOR UNITIZATION PROCEDURES (SIDE PANEL METHOD) REFER TO USAMC AMMUNITION CENTER DRAWING C-AMXSV-4071 FOR UNITIZATION PROCEDURES (STRETCH NET METHOD) REFER TO U.S. ARMY AMC DRAWING 19-48-4177/1-20PA 1007
- CAUTION: THE PACKED IN FIBERBOARD BOXES OF THE SIZE SHOWN AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD BOXES WHICH ARE APPROXIMATELY THE SAME HEIGHT MUST NOT BE STACKED MORE THAN
- 5. WHEN STORING BOXES OF A HEIGHT OTHER THAN 7-5/8", THE LENGTH OF THE UPRIGHT PIECES MUST BE ADJUSTED TO COMPLY WITH THE FOLLOWING
 - A. INTERMEDIATE UPRIGHT PIECES MUST BE OF A LENGTH EQUAL TO THE HEIGHT OF TWO BOXES.
 - B. END UPRIGHT PIECES MUST BE 1/2" LONGER THAN INTERMEDIATE UP-RIGHT PIECES
- 6. STORAGE AS SHOWN IS FOR FIBERBOARD BOXES CONTAINING 50 POUNDS OF TNT. THE EXPLOSIVE WEIGHT FOR THE ITEM LISTED IN THIS NOTE AND IN SPECIAL NOTE 2 ABOVE WILL VARY FROM 40 TO 60 POUNDS. NOTE THAT BOXES ARE STORED WITH THE LABELS FACING A 12" AISLE FOR EASIER IDENTIFICATION.
- 7. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OR ON ONE SIDE OF THE MAGAZINE. THE TRIPLE STACK IN THE REAR OF THE MAGAZINE MAY ONLY CONTAIN TWO SEPARATE LOTS SINCE IDENTIFICATION OF THE BURIED ROW WOULD NOT BE POSSIBLE.
- A DOUBLE STACK MAY CONSIST OF EITHER ONE INDIVIDUAL LOT, OR TWO SEPARATE LOTS, AS LONG AS THE SIDE OF THE BOX DISPLAYING THE LABEL FACES THE 12" AISLE.

BIL	L OF MATERIAL (PER '	TRIPLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 1" X 6" 2" X 4" 2" X 6"	345 86 84 21	115 43 56 21
	WEDGES	
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 6"	9' - 0" 9' - 0"	8 2

BIL	L OF MATERIAL (PER	DOUBLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	345 84	115 56
	WEDGES	· · · · · · · · · · · · · · · · · · ·
LUMBER	LENGTH	NO, REQD
2" X 4"	9' - 0"	8

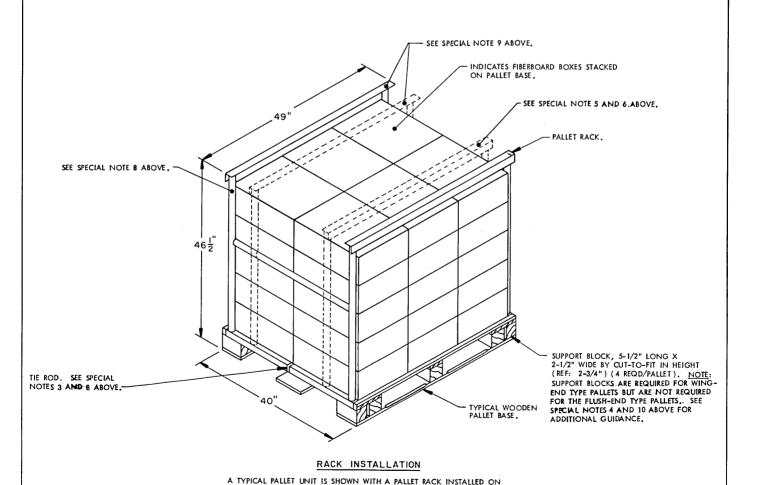


- 1. EACH UPPER PALLET WITHIN A ROW OR STACK DOES NOT REQUIRE A PALLET RACK, HOWEVER, EACH PALLET WHICH VERTICALLY SUPPORTS ANOTHER PALLET DOES REQUIRE THE USE OF A PALLET RACK, INSTALLED AS TYPICALLY SHOWN BY THE "RACK INSTALLATION" DETAIL BELOW. THE STACK SHOWN IN SECTION E-E WILL REQUIRE TEN PALLET RACKS. THE STACK SHOWN IN SECTION F-F WILL REQUIRE ONLY ONE PALLET RACK. THE STORAGE ARRANGEMENT DELINEATED ON PAGE 48 SHOWS A TYPICAL STORAGE METHOD BASED ON THE 30-BOX PALLET UNIT DISPLAYED BELOW. ADJUSTMENTS MAY BE MADE AS REQUIRED TO THE STORAGE METHOD SHOWN TO COMPENSATE FOR A DIFFERENT SIZE PALLET UNIT. DIFFERENT TYPE AND SIZE PALLETS CAN BE USED WITH PALLET RACKS.
- 2. PALLET RACKS ARE ONLY SHOWN ON THE PALLETS WHICH ARE VERTICALLY SUPPORTING ANOTHER PALLET WITHIN THE STORAGE VIEWS ON PAGE 48. ON SOME OF THE "TOP PALLET UNITS" DEPICTED, PARTIAL PALLET UNITS CAN BE STORED IN THE UNUSED SPACE DUE TO THE CURVATURE OF THE MAGAZINE SIDE WALLS. A PALLET CAN BE USED UNDER A PARTIAL UNIT OR, IN LIEU OF A PALLET, A SHEET OF 3/4" THICK PLYWOOD MAY BE USED TO SUPPORT A PARTIAL UNIT. CAUTION: AN EXPLOSIVE WEIGHT LIMIT FOR A MAGAZINE IS NOT TO BE EXCEEDED.
- 3. THE PALLET RACK DEPICTED IN THE "RACK INSTALLATION" DETAIL BELOW IS DESIGNATED IN TM 743-200-1, CHAPTER 5, AS A PALLET SUPPORT SET. THE PALLET RACK SHOWN IS MIL SPEC MIL-S-21859 (NSN-3990-00-542-4771 FOR A 40" X 48" PALLET). A TIE ROD MUST BE INSTALLED TO TIE THE BASES OF THE TWO VERTICAL FRAME MEMBERS TOGETHER. OTHER TYPE PALLET RACKS MAY ALSO BE USED.
- 4. WHEN WIDE TYPE PALLET RACKS ARE USED, A SUPPORT BLOCK 5-1/2" LONG BY 2-1/2" WIDE BY CUT-TO-FIT IN HEIGHT MUST BE POSITIONED UNDER THE WING OF THE PALLET AT EACH CORNER BETWEEN THE BOTTOM DECK BOARD AND THE STRINGER BOARD OF THE PALLET TO SUPPORT THE VERTICAL MEMBERS OF THE PALLET RACK. THE SUPPORT BLOCK IS REQUIRED FOR WING-END TYPE PALLETS. STACKING OF BOX PALLET UNITS EQUIPPED WITH WIDE-TYPE PALLET RACKS CAN BE ACCOMPLISHED BY SIDE-HANDLING OR END HANDLING WITH A FORKLIFT TRUCK, AS DESIRED, TO PRODUCE MOST EFFICIENT SPACE UTILIZATION.
- 5. WHEN NARROW-TYPE PALLET RACKS ARE USED, A SUPPORT BLOCK 4" X 4" X 8" (4 REQD PER FIRST LAYER UNIT) WILL BE REQUIRED AS SHOWN ON PAGE 50. THE HEIGHT OF THE BLOCKS WILL BE AS REQUIRED FOR EITHER THE FLUSH STRINGER TYPE OR FLUSH POST TYPE PALLET, SO AS TO TRANSMIT THE WEIGHT OF THE UPPER UNITS TO THE MAGAZINE FLOOR, THROUGH THE VERTICAL MEMBERS OF THE PALLET RACKS DOWN THROUGH THE SUPPORT BLOCKS.

(CONTINUED AT RIGHT)

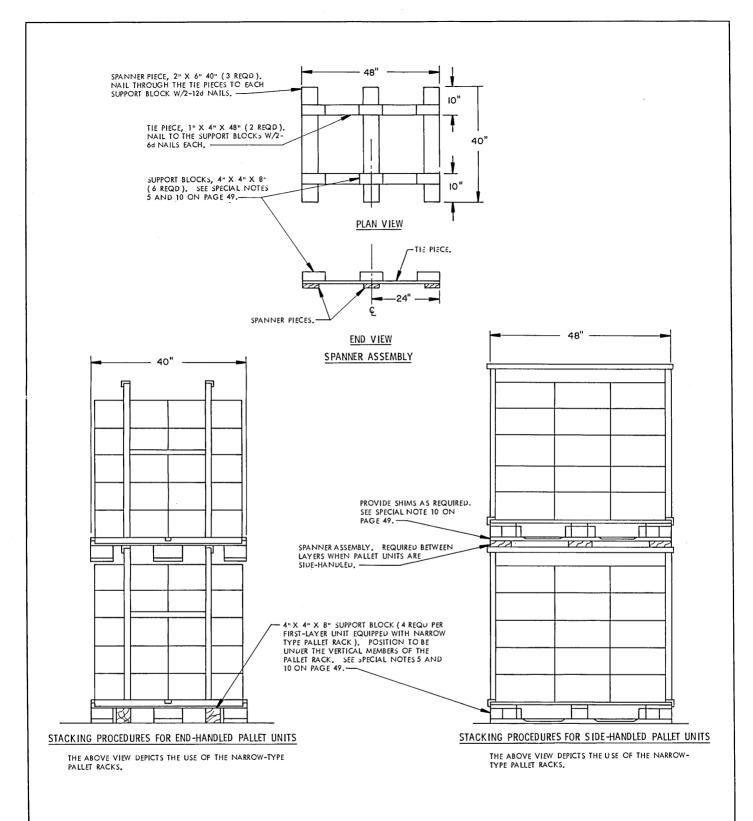
(SPECIAL NOTES CONTINUED

- 6. WHEN STORING BOX PALLET UNITS OF CONTAINERS OTHER THAN FIBERBOARD BOXES, PALLET RACKS CAN ONLY BE USED IF THE HEIGHT OF THE CONTAINERS DOES NOT EXCEED THE HEIGHT OF THE PALLET RACK. IF NARROW-TYPE PALLET RACKS ARE USED AND THE HEIGHT OF THE CONTAINERS DOES NOT PERMIT THE PALLET STRINGERS OF AN UPPER PALLET UNIT TO BEAR DIRECTLY ON THE TOP HORIZONTAL MEMBERS OF THE PALLET RACK, AS SHOWN IN THE STACKING PROCEDURES FOR END-HANDLED UNITS ON PAGE 50, SPANNER ASSEMBLIES MUST BE USED BETWEEN LAYERS OF UNITS SO THAT THE WEIGHT OF AN UPPER UNIT DOES NOT CONTACT THE TOP OF THE CONTAINERS OF THE LOWER UNIT. IF NARROW TYPE PALLET RACKS ARE USED AND THE PALLET IS BEING SIDE-HANDLED, A SPANNER ASSEMBLY MUST BE USED TO PERMIT THE REMOVAL OF THE FORKLIFT TINES. IF WIDE-TYPE PALLET RACKS ARE USED AND THE BOTTOM DECK BOARDS (RUNNERS) OF THE UPPER PALLET BEAR DIRECTLY ON THE TOP HORIZONTAL MEMBERS OF THE PALLET RACK, SPANNER ASSEMBLIES WILL NOT BE REQUIRED.
- 7. THE FIBERBOARD BOXES, DRUMS, OR OTHER CONTAINERS STORED ON THE PALLET BASES MUST BE OF A SIZE WHICH WILL FIT BETWEEN THE VERTICAL FRAME MEMBERS OF THE PALLET RACK, HOWEVER, A SLIGHT OVERHANG AT THE OTHER TWO SIDES OF A PALLET IS PERMITTED. THE USE OF AN OVER-HANG PATTERN MAY BE BENEFICIAL DUE TO THE SIZE OF THE UNIT PACK BEING STORED.
- 8. METAL-TO-METAL PINCH POINTS WITHIN A PALLET RACK ASSEMBLY MUST BE KEPT FREE OF EXPLOSIVE MATERIAL. FOR EXAMPLE, PIECES OF FIBERBOARD OR HEAVY PAPER SHOULD BE USED TO COVER ENDS OF TIE RODS, AND SLIP TYPE SOCKET JOINTS OF THE ASSEMBLY MUST BE CLEANED BEFORE ASSEMBLING PALIET RACK
- IF A RACK HAS PALLET LOCATING DEVICES ATTACHED TO THE TOP HORIZON-TAL MEMBERS AND THEY INTERFERE WITH PROPER STACKING, PIECES OF WOODEN DUNNAGE SHOULD BE USED ON TOP OF THE HORIZONTAL MEMBERS TO PROVIDE A LEVEL SURFACE FOR AN UPPER BOX PALLET UNIT.
- 10. SHIMS OF REQUIRED THICKNESS PLYWOOD WILL BE USED IN CONJUNCTION WITH 4" X 4" X 8" SUPPORT BLOCKS TO PROVIDE SOLID CONTACT WITH THE STRINGER BOARD OF THE PALLET UNITS.
- 11. REFER TO PAGES 51 AND 52 FOR TYPICAL MULTIPLE LOT STORAGE PROCEDURES.
- 12. PALLETIZATION OF BOXES OR DRUMS IS SOLELY FOR THE CONVENIENCE OF STORAGE AND WILL NOT BE USED FOR SHIPPING PURPOSES.



A 4-WAY ENTRY, WING-END TYPE PALLET (MIL-P-15011). USE OF FLUSH-END TYPE PALLETS NEGATES THE REQUIREMENT FOR SUPPORT BLOCKS.

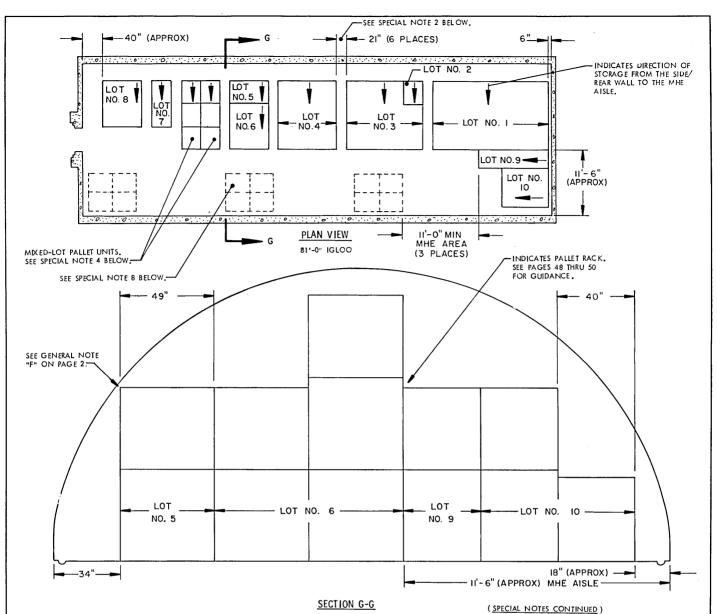
PALLET RACK STORAGE PROCEDURES FOR FIBERBOARD BOXES AND/OR DRUMS



NOTE:

IF DESIRED, IN LIEU OF 4" X 4" MATERIAL, TWO PIECES OF 2" X 4" MATERIAL MAY BE POSITIONED ON EDGE AND LAMINATED.

PALLET RACK STORAGE PROCEDURES FOR FIBERBOARD BOXES AND/OR DRUMS

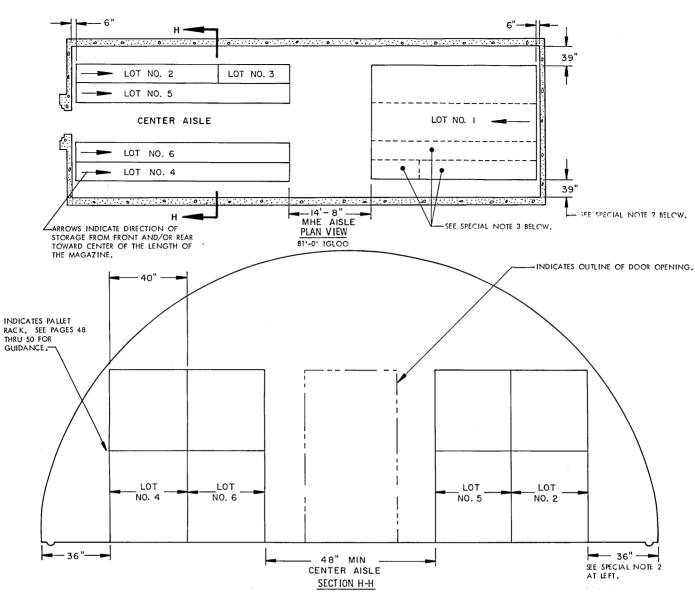


- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE
 TYPICAL ONLY AND APPLY TO STORAGE OF NUMEROUS SMALL LOTS, ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE,
- AN INSPECTION AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH "BURIED" LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING STACKS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. AN MHE AISLE WILL BE REQUIRED ON ONE SIDE OF THE MAGAZINE, AND EACH LOT MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- 4. A MXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS THERE ARE CONTAINERS WITHIN THAT UNIT, HOWEVER, ALL LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
- 5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWELVE (12) "LIFTS" * OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS.

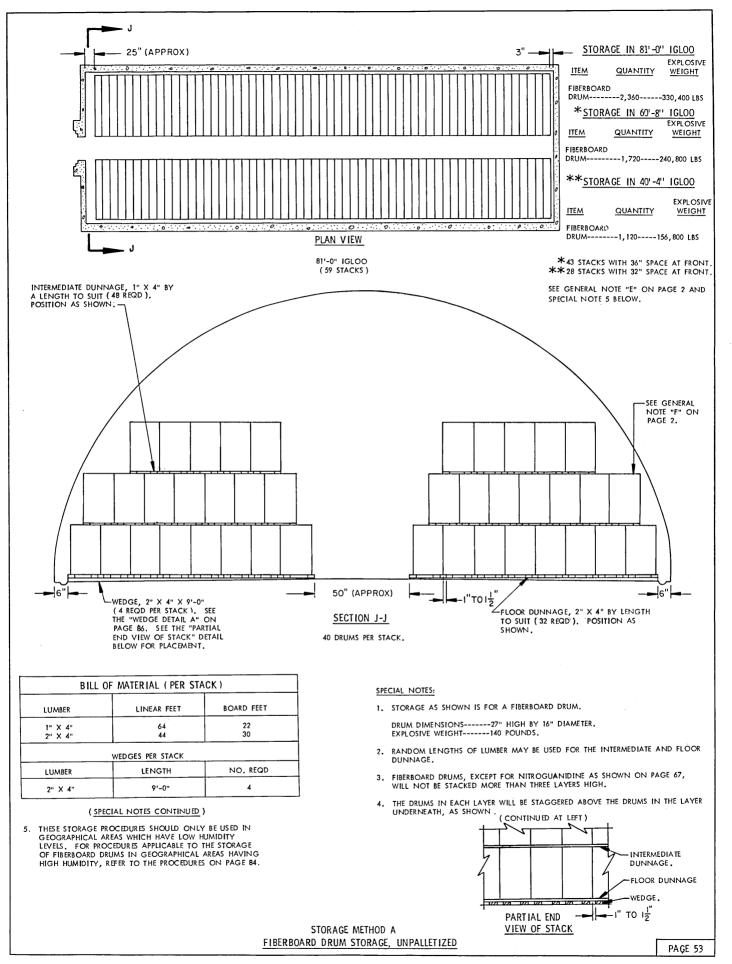
(CONTINUED AT RIGHT)

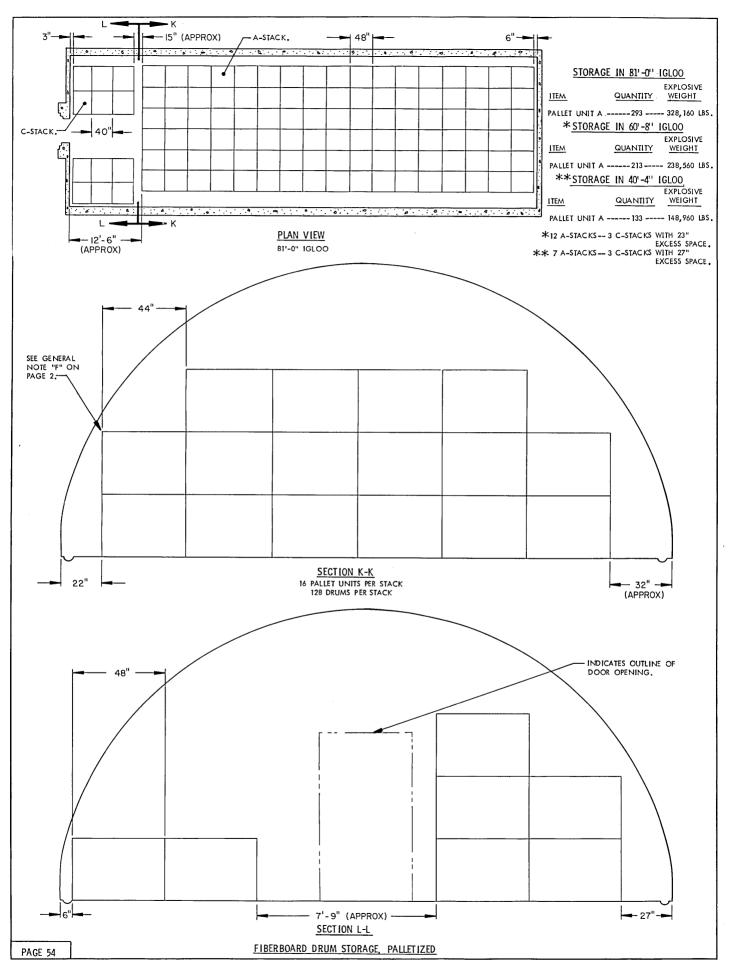
- 6. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- 7. WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
- 8. AREAS INCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS MAY BE STORED OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM THE LOT OR LOTS WHICH ARE DIRECTLY OR ALMOST DIRECTLY ACROSS THE CENTER AISLE ON THE OTHER SIDE OF THE MAGAZINE. COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 5, RELATIVE TO "12 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF UNIT LOADS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". MORE OR FEWER STACKS THAN SHOWN MAY BE STORED AT ANY ONE OF THE ADDITIONAL STORAGE LOCATIONS. AN 11'-0" MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL LOCATION" BY FORKLIFT TRUCKS. THIS OPERATING AREA IS BASED ON REQUIREMENTS OF FORKLIFT TRUCKS COMMONLY USED IN STORAGE MAGAZINES. THE MHE OPERATING AREA CAN BE ENLARGED AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCKS, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF A MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 48" INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48" INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE WIDER IF A LOSS IN STORAGE RESULTS.
 - * A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.

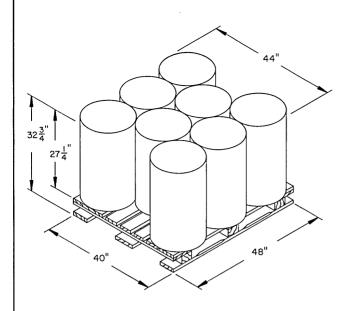
TYPICAL MULTIPLE - LOT STORAGE PROCEDURES USING PALLET RACK STORAGE AIDS



- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO RELATIVELY LARGE LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- 2. AN INSPECTION/INVENTORY AISLE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERCTING ROWS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA OR AS SHOWN BY DOTTED LINES.
- 4. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. A SINGLE-LOT OF PALLET UNITS IS CONSIDERED "ACCESSIBLE" IF NOT MORE THAN TWELVE (12) "LIFTS" ★ OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THAT LOT.
- FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- 6. WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
 - *A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.







TYPICAL PALLET UNIT A

DRUM SIZE-----16" DIA X 27-1/4" HIGH DRUM EXPLOSIVE WEIGHT-140 POUNDS (TYPICAL)

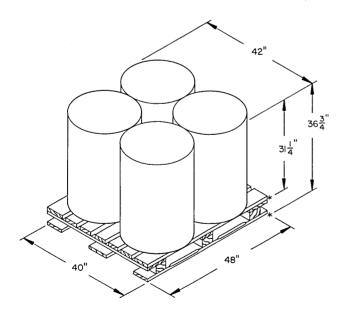
SPECIAL NOTES:

 STORAGE AS SHOWN IS FOR FIBERBOARD DRUMS OF VARIOUS SIZES PLACED ON 40" X 48" PALLETS, AND CONTAINING VARIOUS EXPLOSIVES.

TYPICAL PALLET UNIT DIMENSIONS:

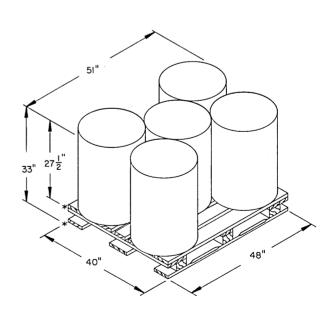
UNIT A-----44" L X 48" W X 32-3/4" H UNIT B-----42" L X 48" W X 36-3/4" H UNIT C-----40" L X 51" W X 33" H

- 2. THE DRUM SIZES SHOWN ARE TYPICAL; ANY SIZE DRUM MAY BE PLACED ON A PALLET FOR STORAGE PURPOSES. ANY SIZE PALLET MAY BE USED, HOWEVER, A SIZE SHOULD BE SELECTED WHICH WILL BE NEARLY FILLED WITH DRUMS IN ORDER TO PROVIDE GOOD STACKIBILITY. ALSO, A PALLET SIZE SHOULD BE SELECTED THAT WILL PROVIDE FOR FULL OR ALMOST FULL BEARING OF THE DRUMS ON A PALLET. OVERHANG OF DRUMS ON A PALLET IS LIMITED TO NOT MORE THAN TWO INCHES (2").
- 3. PALLETIZED DRUMS WILL NOT BE STACKED MORE THAN THREE LAYERS HIGH.
- 4. EXPLOSIVE LIMITS WILL NOT BE EXCEEDED IN AN 81'-0" MAGAZINE FILLER WITH PALLET UNITS A, B OR C. SEE GENERAL NOTE "E" ON PAGE 2.
- 5. PALLETIZATION OF DRUMS IS SOLELY FOR THE CONVENIENCE OF STORAGE AND WILL NOT BE USED FOR SHIPPING DRUMS.



TYPICAL PALLET UNIT B

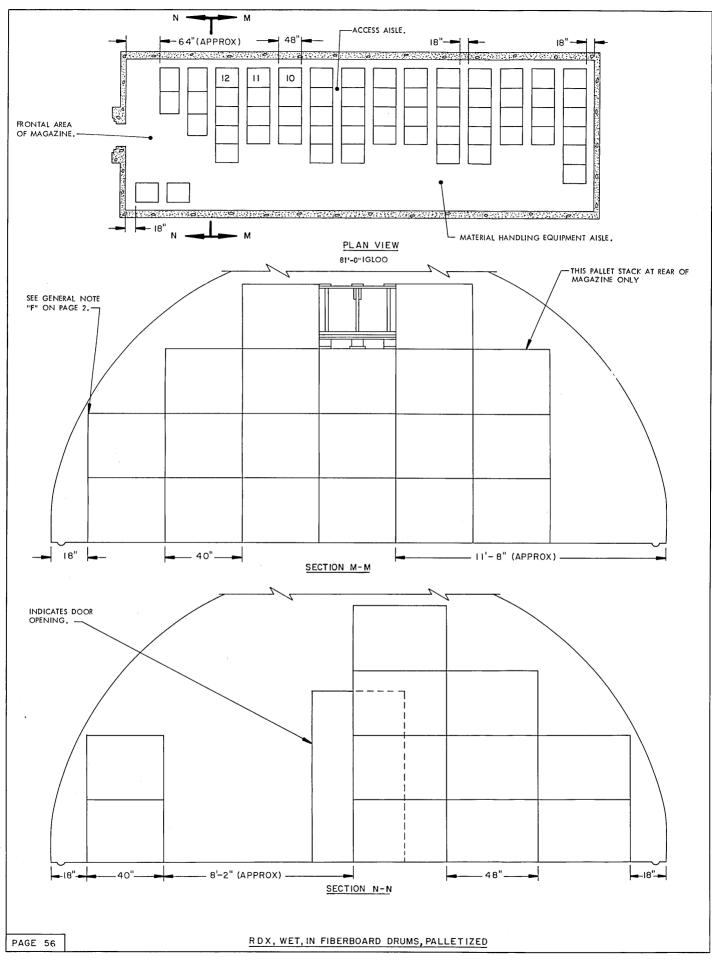
DRUM SIZE-----20-1/2" 'DIA X 31-1/4" HIGH DRUM EXPLOSIVE WEIGHT---- 200 POUNDS (TYPICAL)



TYPICAL PALLET UNIT C

DRUM SIZE-----19" DIA X 27-1/2" HIGH DRUM EXPLOSIVE WEIGHT-----200 POUNDS (TYPICAL)

FIBERBOARD DRUM STORAGE, PALLETIZED



STORAGE IN 81'-0" IGLOO

ITEM	OUANTITY	
PALLET UNIT		
DRUMS	804	
EXPLOSIVE WEIGHT	160,800	LBS

STORAGE IN 60'-8" IGLOO

ITEM	OUANTITY	
PALLET UNIT		
DRUMSEXPLOSIVE WEIGHT		LBS

STORAGE IN 40'-4" IGLOO

		 .0200		
ITEM		<u>ი</u>	UANTITY	
	INIT			
EXPLOSIV	E WEIGHT	 	~-64.800	LBS

SEE GENERAL NOTE "E" ON PAGE 2.

1.

W/1-4d NAIL EVERY 6". ONLY REQUIRED ON

ANTI-RACK PIECE, PLYWOOD, 1/4" X 27-1/2" X 40" (1 REQD). NAIL TO THE HORIZONTAL PIECES

THE DETAIL ABOVE DEPICTS THE CENTER SUPPORT FRAME ASSEMBLY. OMIT THE 1/4" PLYWOOD ANTI-RACK PIECE AND THE TWO STOP PIECES WHICH ARE NAILED THRU IT. FOR THE TWO QUITER ASSEMBLIES

SUPPORT FRAME ASSEMBLY

HORIZONTAL PIECE, 2" X 3" X 40" (2 REQD). NAIL TO THE VERTICAL PIECES W/2-10d NAILS AT EACH JOINT.

STOP PIECES

40"

19 =

27 '2

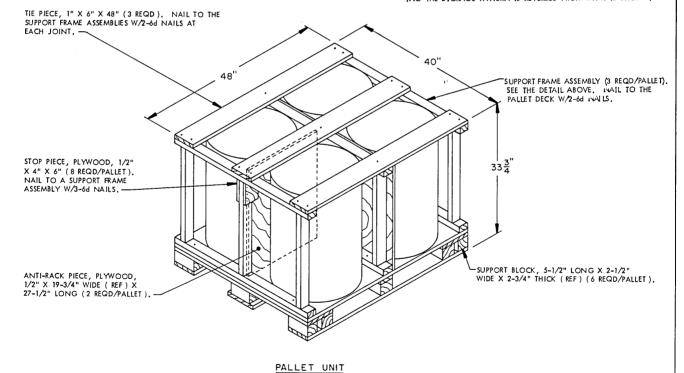
VERTICAL PIECE, 2"

X 3" X 24-1/2"
(3 REQD).

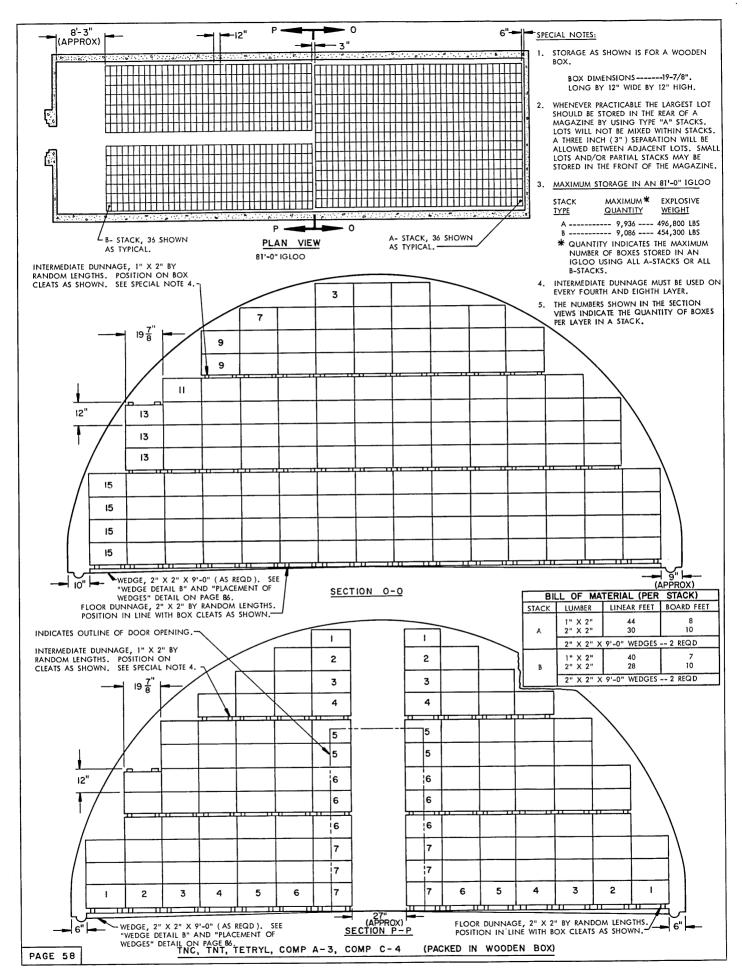
Ę

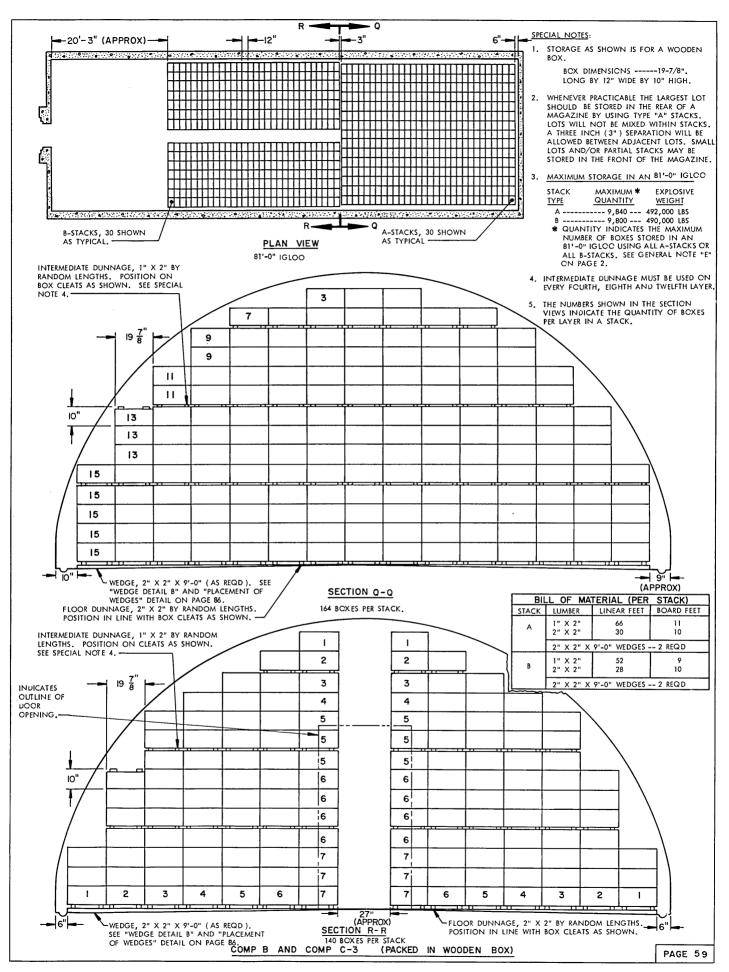
SPECIAL NOTES:

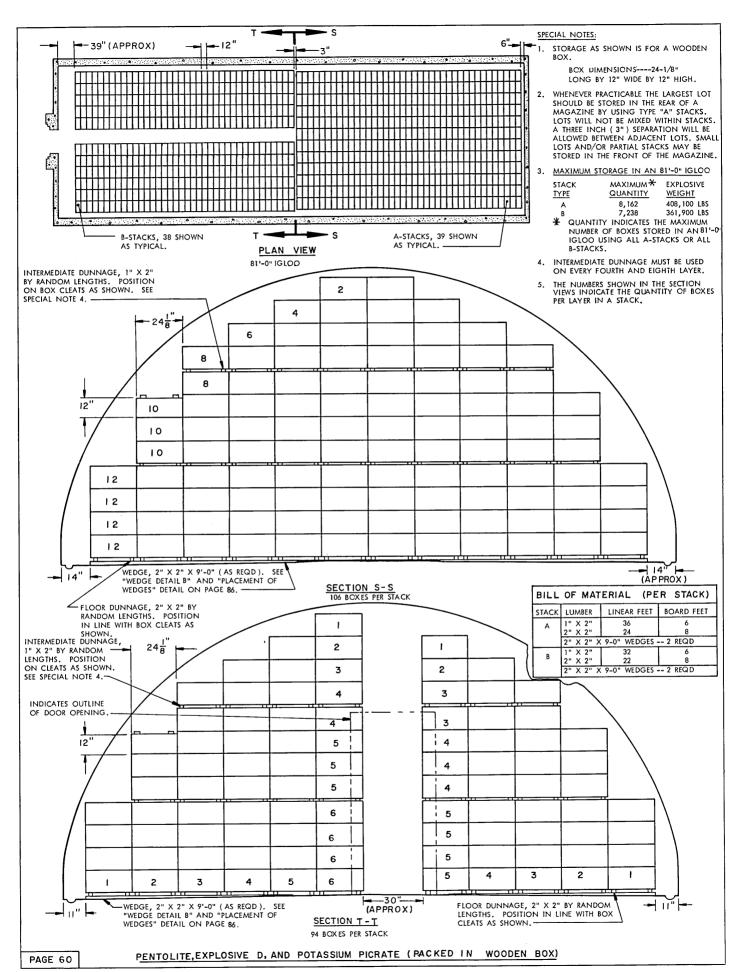
- STORAGE AS SHOWN IS FOR THE RDX, WET, IN FIBERBOARD DRUMS (PALLETIZED).
 - PALLET UNIT DIMENSIONS---40" LONG BY 48" WIDE BY 33-3/4" HIGH.
 DRUM DIMENSIONS------27-1/2" HIGH BY 19-1/2" DIAMETER.
 EXPLOSIVE WEIGHT PER PALLET UNIT ----- 800 POUNDS.
- THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVI-DUAL DRUMS.
- 3. PALLETIZATION OF DRUMS IS SOLELY FOR THE CONVENIENCE OF STORAGE AND WILL NOT BE USED FOR SHIPPING DRUMS.
- \$TORAGE AS SHOWN IS BASED ON THE USE OF FRONT LOADING FORKLIFT TRUCKS (MFE). IF A FORKLIFT TRUCK WITH FRONT/SIDE LOADER IS AVAILABLE, ADDITIONAL UNITS MAY BE STORED, PROVID-ING THE STORAGE PATTERN IS REVERSED FROM WHAT IS SHOWN.

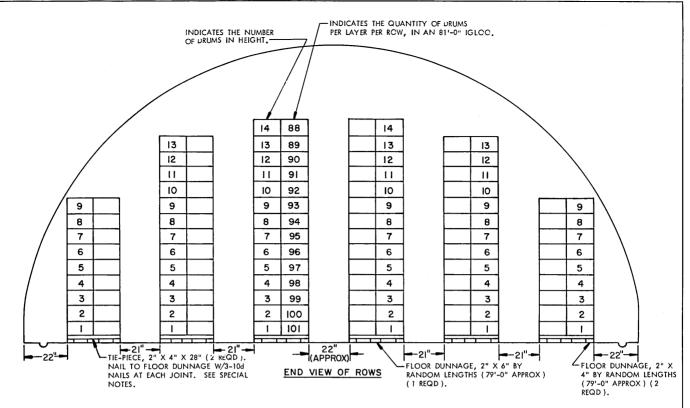


RDX, WET, IN FIBERBOARD DRUMS, PALLETIZED





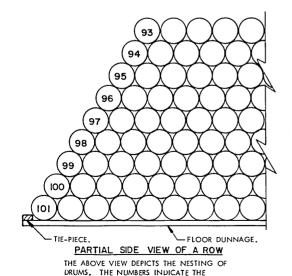




BILL OF M	BILL OF MATERIAL (PER DOUBLE ROW)		
LUMBER	LINEAR FEET	BOARD FEET	
2" X 4" 2" X 6"	163 79	109 79	
NAILS	NO. REQD	POUNDS	
10d (3")	18	1/2	

STORAGE	INI	יות_ וזס	10100
JIUNAUL	111	01 7	IULUU

ITEM	QUANTITY	EXPLOSIVE WEIGHT
DRUM	13,724	343,100 LBS
	STORAGE IN 60'-8"	IGL00
ITEM	QUANTITY	EXPLOSIVE WEIGHT
DRUM	9,692	242,300 LBS
	STORAGE IN 40'-4"	IGL00
ITEM	QUANTITY	EXPLOSIVE WEIGHT
DRUM	6,092	152,300 LBS

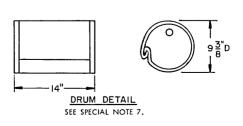


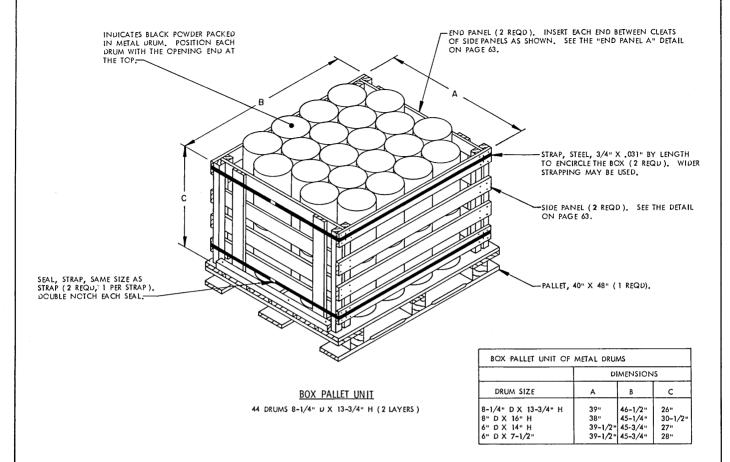
QUANTITY OF DRUMS PER LAYER IN A ROW.

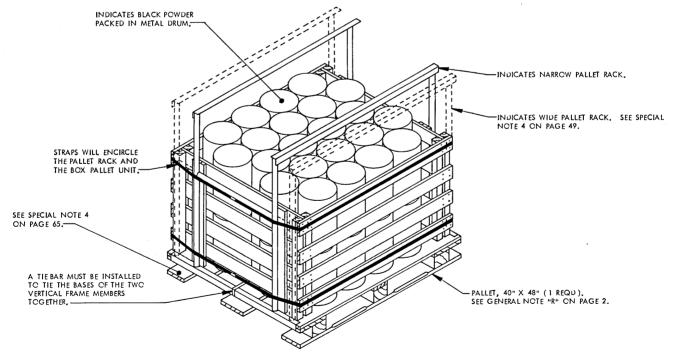
BLACK POWDER (PACKED IN METAL DRUM)

SPECIAL NOTES:

- STORAGE AS SHOWN IS FOR A METAL DRUMS.
 DRUM DIMENSIONS------14" HIGH BY 9-3/8" DIAMETER.
- 2. SEE "TYPICAL PLAN VIEW C" ON PAGE 4.
- 3. STAGGER ALL JOINTS IN FLOOR DUNNAGE.
- 4. THE OPENING END OF ALL DRUMS MUST BE FACING THE AISLE.
- 5. $\underline{\mathsf{CAUTION}}$: ALL NAILING MUST BE DONE OUTSIDE OF THE MAGAZINE.
- WHEN IT IS NECESSARY FOR STABILITY OF ROWS, LEVEL BY WEDGING AND/CR USING SHIMS UNDER THE FLOOR DUNNAGE.
- 7. THE WATER SHED SEAM ON THE DRUMS MUST BE TURNED DOWN TO AVOID GATHERING OF MOISTURE.
- 8. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL $\mbox{\tiny DRUMS}_{\bullet}$
- IN A 40' IGLOO THERE WILL BE 49 DRUMS IN THE BOTTOM LAYER. THERE WILL BE FOUR (4) ROWS OF 405 DRUMS, FOUR (4) ROWS OF 559 DRUMS AND FOUR (4) ROWS OF 595 DRUMS.
- 10. IN A 60' IGLOO THERE WILL BE 75 DRUMS IN THE BOTTOM LAYER. THERE WILL BE FOUR (4) ROWS OF 557 DRUMS IN THE BOTTOM LAYER. THERE WILL BE FOUR (4) ROWS OF 959 DRUMS.
- 11. THE EXPLOSIVE WEIGHT FOR A DRUM IS 25 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81'-0" MAGAZINE WILL BE 343,100 POUNDS, FOR A 60'-8" MAGAZINE THE EXPLOSIVE WEIGHT WILL BE 242,300 POUNDS AND FOR A 40'-0" MAGAZINE THE EXPLOSIVE WEIGHT WILL BE 152,300 POUNDS. SEE GENERAL NOTE "E" ON PAGE 2.



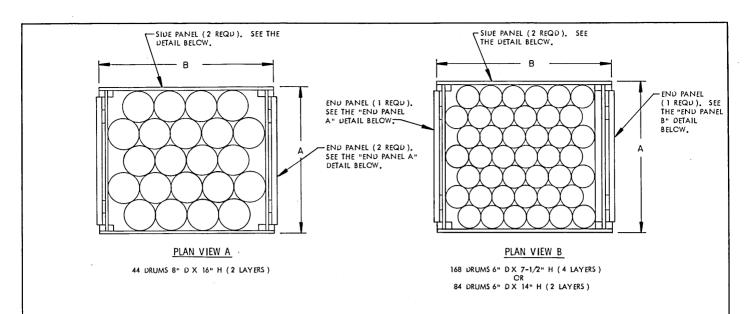


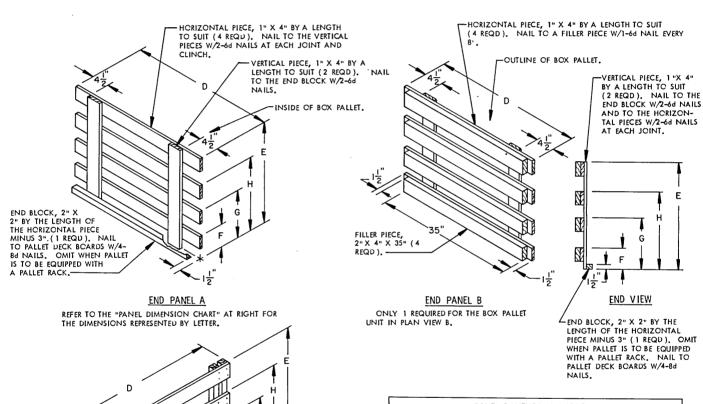


APPLICATION OF PALLET RACKS

A NARROW PALLET RACK IS SHOWN. THE DOTTED LINES INDICATE A WIDE PALLET RACK. SEE THE SPECIAL NOTES ON PAGE 49 FOR GUIDANCE IN THE USE OF PALLET RACKS.

BLACK POWDER (PACKED IN METAL DRUM) (PALLETIZED)





P	ANEL DIA	NENS ION	CHART		
DRUM SIZE	END PANEL DIMENSION				
	ם	Ē	F	G	Н
8-1/4" DX 13-3/4" H 8" DX 16" H 6" DX 14" H 6" DX 7-1/2" H	37-1/2" 36-1/2" 38" 38"	26" 30-1/2" 26-1/2" 28"	5-3/4" 5-3/4" 5-1/2" 5-1/2"	12-1/4" 14-1/2" 12-1/2" 13"	18-3/4' 21" 20-1/2' 20-1/2"
DRUM SIZE		SIDE P	ANEL DIM	ENSION	
DROW SIZE	D	E	F	G	Н
8-1/4" D X 13-3/4" H 8" D X 16" H 6" D X 14" H 6" D X 7-1/2" H	46-1/2" 45-1/4" 45-3/4" 45-3/4"	26" 30-1/2" 26-1/2" 28"	5-3/4" 5-3/4" 5-1/2" 5-1/2"	12-1/4" 14-1/2" 12-1/2" 13"	18-3/4" 21" 20-1/2" 20-1/2"

RIGHT FOR THE DIMENSIONS REPRESENTED BY LETTERS.

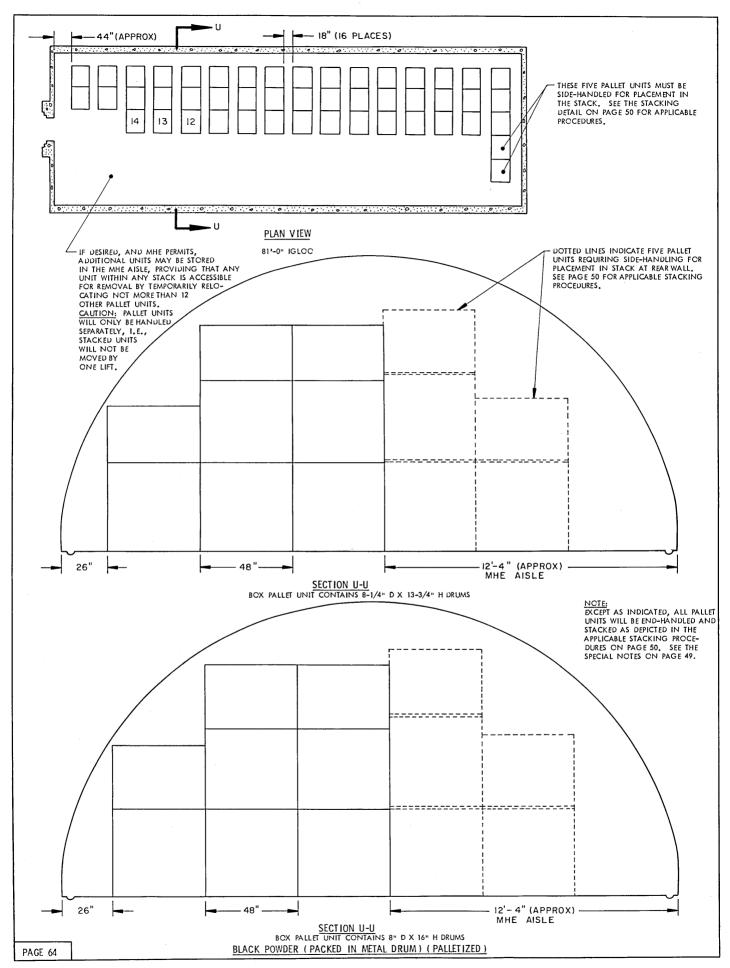
SIDE PANEL

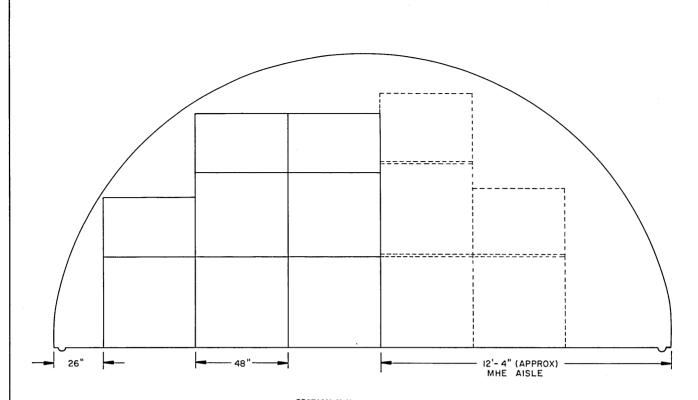
REFER TO "PANEL DIMENSIONS CHART" AT

BLACK POWDER (PACKED IN METAL DRUM) (PALLETIZED)

-CLEAT, 2" X 2" BY A LENGTH TO SUIT (4 REQD).

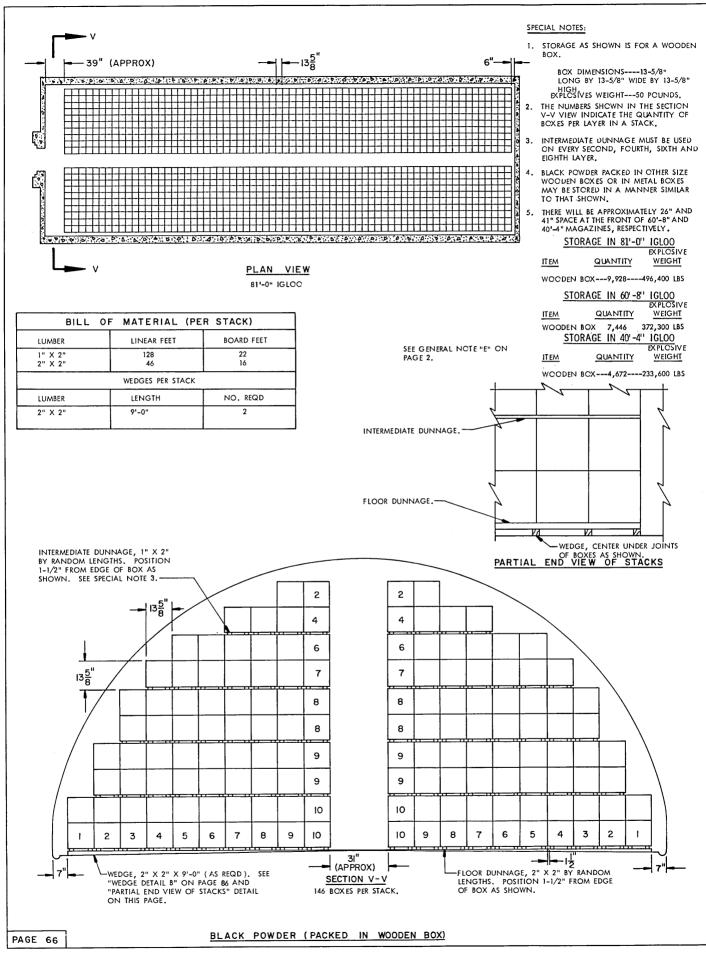
HORIZONTAL PIECE, 1" X 4" BY A LENGTH TO SUIT (4 REQD). NAIL TO CLEATS W/2-6d NAILS AT EACH JOINT.

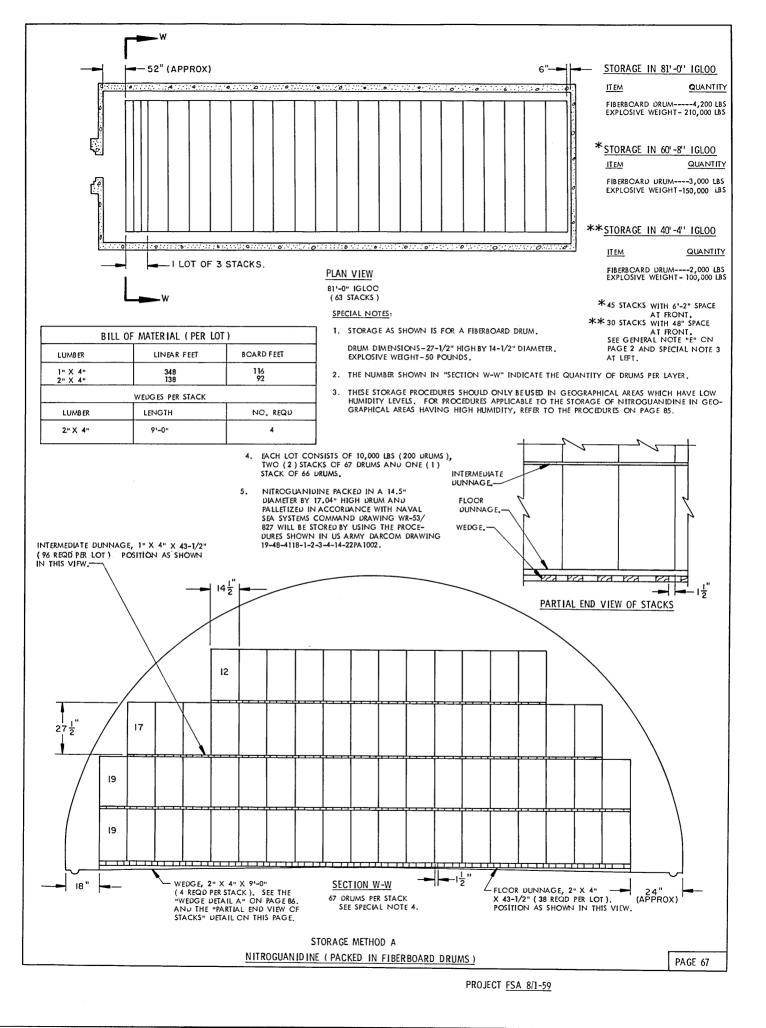


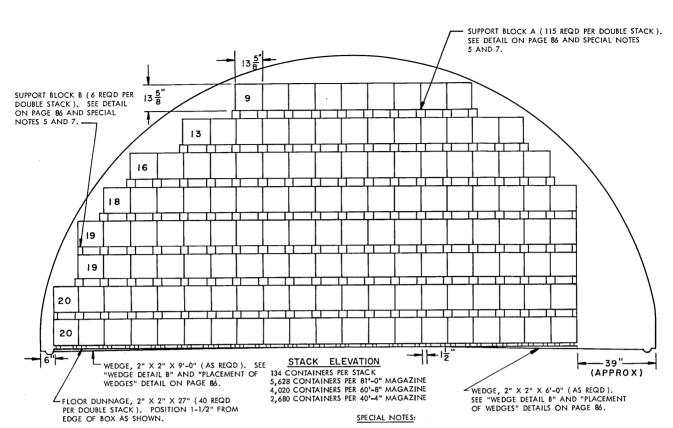


 $\frac{\text{SECTION U-U}}{\text{BOX PALLET UNIT CONTAINS 6" D X 7-1/2" H DRUMS}}$

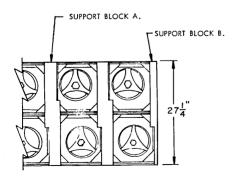
- THE PROCEDURES DEPICTED ON PAGES 62 THROUGH 65 SPECIFICALLY APPLY TO STORAGE OF BLACK POWDER (PACKED IN METAL DRUM) (PALLETIZED) USING NARROW-TYPE PALLET RACKS FOR STACKING PALLET UNITS. SEE GENERAL NOTE "R" ON PAGE 2.
- REFER TO THE SPECIAL NOTES ON PAGE 49 FOR GUIDANCE IN THE USE OF PALLET RACKS.
- 3. PALLETIZATION OF DRUMS IS SOLELY FOR THE CONVENIENCE OF STORAGE AND WILL NOT BE USED FOR SHIPPING DRUMS.
- 4. STORAGE AS SHOWN IS BASED ON THE USE OF FRONT LOADING FORKLIFT TRUCKS (MHE). IF A FORKLIFT TRUCK WITH FRONT/SIDE LOADER IS AVAILABLE, ADDITIONAL UNITS MAY BE STORED, PROVIDING THE STORAGE PATTERN IS REVERSED FROM WHAT IS SHOWN.







BILL OF M	MATERIAL (PER DOUI	BLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 2" 2" X 4" 4" X 4"	90 14 259	30 10 345
	WEDGES PER DOUBLE	STACK
LUMBER	LENGTH	NO. REQD
2" X 2" 2" X 2"	6'-0" 9'-0"	3 3



PARTIAL PLAN VIEW OF DOUBLE STACK

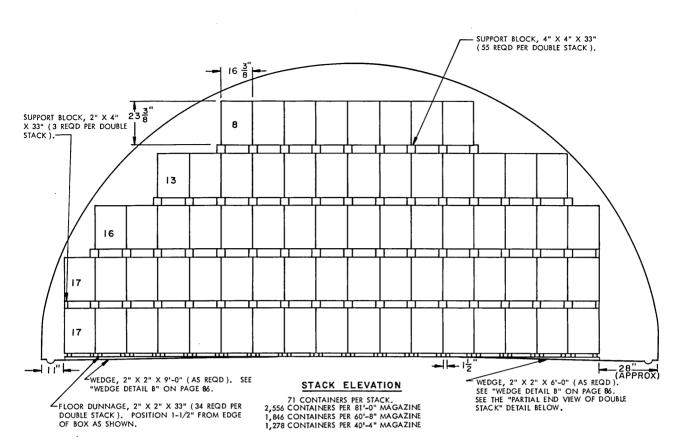
PAGE 68

1. STORAGE AS SHOWN IS FOR THE MIB WOODEN BOX.

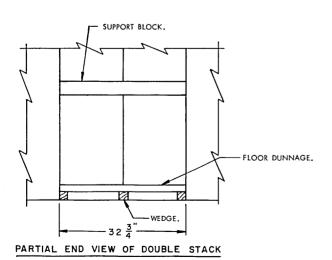
CONTAINER DIMENSIONS --- 13-5/8" LONG BY 13-5/8" WIDE BY 13-5/8" HIGH.

- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CON-TAINERS PER LAYER IN A STACK.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL PLAN VIEW OF DOUBLE STACK" ON THIS PAGE.
- SUPPORT BLOCK A AND SUPPORT BLOCK B MAY BE FABRICATED FROM 1" X 4" AND 2" X 4" MATERIAL.
- 6. THE CONTAINERS MUST BE POSITIONED WITH THE LIDS NEARER TO THE LATERAL AISLES.
- SUPPORT BLOCK A AND SUPPORT BLOCK B MUST BE POSITIONED AS SHOWN IN "PLAN VIEW OF PARTIAL STACK" TO PERMIT REMOVAL OF LID.
- 8. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CONTAINERS.
- 9. THE EXPLOSIVE WEIGHT FOR THE MIB WOODEN BOX IS 50 POUNDS. THE EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 6,700 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81'-0" LONG IGLOO MAGAZINE WILL BE 281,400 POUNDS. THE EXPLOSIVE WEIGHT FOR A 60'-8" LONG MAGAZINE WILL BE 201,000 POUNDS, AND THE EXPLOSIVE WEIGHT FOR A 40'-4" LONG MAGAZINE WILL BE 134,000 POUNDS. THERE WILL BE APPROXIMATELY 21", 48", AND 30" OF SPACE AT THE FRONT OF 81'-0", 60'-8", AND 40'-4" MAGAZINES, RESPECTIVELY. SEE GENERAL NOTE "E" ON PAGE 2.

ROCKET PROPELLANT (PACKED IN WOODEN BOX, MI8)

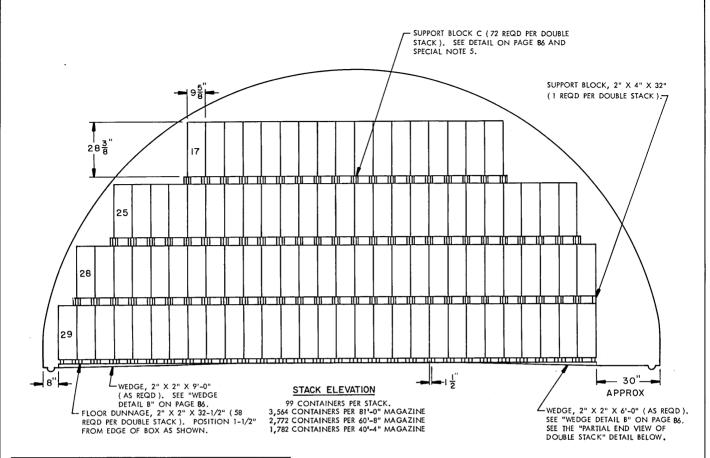


BILL OF MA	ATERIAL (PER DOUB	LE STACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 2" 2" X 4" 4" X 4"	94 9 151	32 6 202
	WEDGES PER DOUBLE	STACK
· LUMBER	LENGTH	NO. REQD
2" X 2" 2" X 2"	6'-0" 9'-0"	3 3

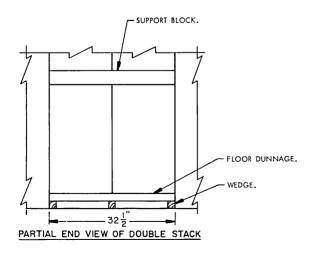


- 1. STORAGE AS SHOWN IS FOR THE MIT WOODEN BOX.
 - CONTAINER DIMENSIONS --- 16-3/8" LONG BY 16-3/8" WIDE BY 23-3/8" HIGH.
- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- 3. THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CON-TAINERS.
- 6. THE EXPLOSIVE WEIGHT FOR THE MIT WOODEN BOX IS 100 POUNDS. THE EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 7, 100 POUNDS THE EXPLOSIVE WEIGHT FOR AN 81"-0" LONG IGLOO MAGAZINE WILL BE 255,600 POUNDS. THE EXPLOSIVE WEIGHT FOR A 60"-8" LONG MAGAZINE WILL BE 184,600 POUNDS, AND THE EXPLOSIVE WEIGHT FOR A 40"-4" LONG MAGAZINE WILL BE 127,800 POUNDS. THERE WILL BE APPROXIMATELY 57", 67" AND 26" SPACE AT THE FRONT OF 81"-0", 60"-8", AND 40"-4" MAGAZINES, RESPECTIVELY. SEE GENERAL NOTE "E" ON PAGE 2.

POWDER, PROPELLANT (PACKED IN WOODEN BOX, MI7)



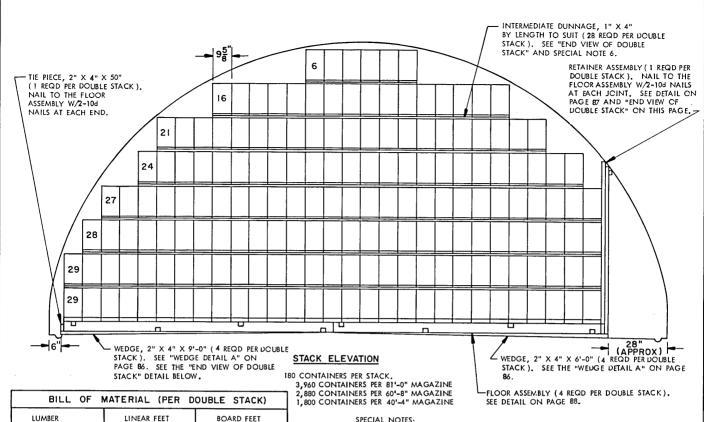
BILL	OF MATERIAL (PER D	OUBLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 2" 4" X 4"	158 3	53 2
	WEDGES PER DOUBLE	E STACK
LUMBER	LENGTH	NO. REQD
2" X 2" 2" X 2"	6'-0" 9'-0"	3 3



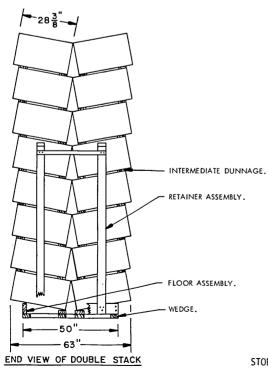
- 1. STORAGE AS SHOWN IS FOR THE M2 AND MK $\overline{ ext{YII}}$ STEEL BOX.
 - CONTAINER DIMENSIONS --- 16-1/4" LONG BY 9-5/8" WIDE BY 28-3/8" HIGH.
- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. SUPPORT BLOCK C MAY BE FABRICATED FROM 1" X 4" AND 2" X 4" MATERIAL.
- 6. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CONTAINERS.
- 7. THE EXPLOSIVE WEIGHT FOR THE M2 AND MKVII STEEL BOX IS 110 POUNDS. THE EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 10,890 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81'-0" IGLOO MAGAZINE WILL BE 392,400 POUNDS. THE EXPLOSIVE WEIGHT FOR A 60'-8" MAGAZINE WILL BE 304,920 POUNDS, AND THE EXPLOSIVE WEIGHT FOR A 40'-4" MAGAZINE WILL BE 196,020 POUNDS. THERE WILL BE APPROXIMATELY 62", 20", AND 28" OF SPACE AT THE FRONT OF 81'-0", 60'-8", AND 40'-4" MAGAZINES, RESPECTIVELY. SEE GENERAL NOTE "E" ON PAGE 2.
- 8. BOXES MAY BE STACKED TO ALLOW EASE OF ACCESS FOR INSPECTION BASED ON OPERATIONAL AND STORAGE CONDITIONS. THE SELECTION OF A STORAGE PROCE-DURE FROM THAT DEPICTED ON THIS PAGE, ON PAGE 71 OR ON PAGE 89 IS THE OPTION OF THE STORING ACTIVITY.

STORAGE METHOD A

POWDER, PROPELLANT (PACKED IN STEEL BOX, M2 AND MK VIII)



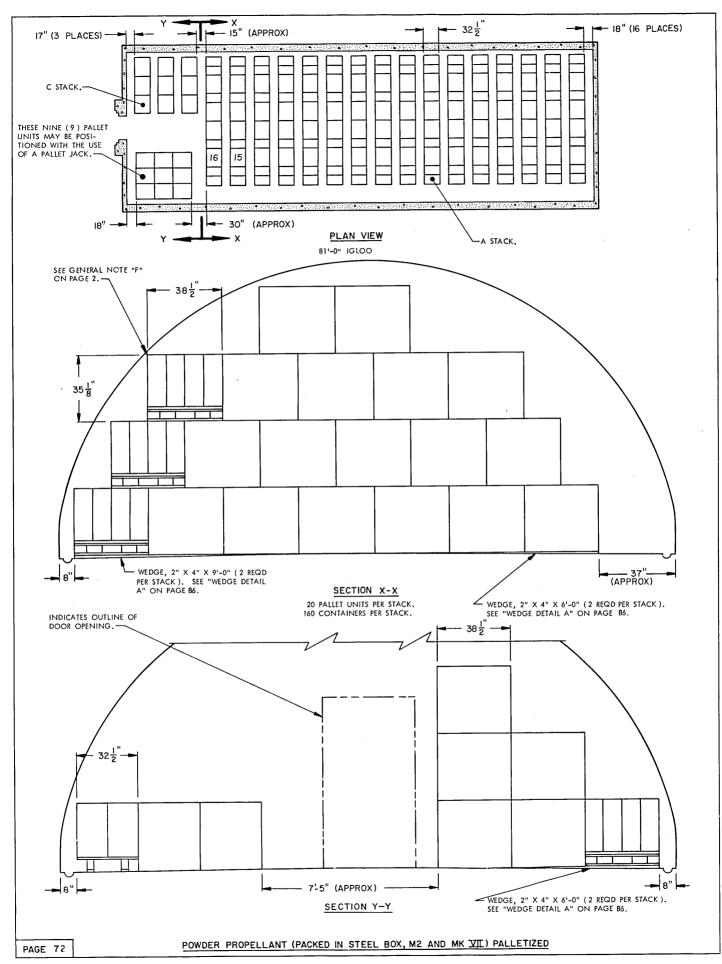
BILL OF	MATERIAL (PER D	OUBLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 2" 2" X 4" 2" X 6"	485 3 109 51	162 1 73 51
NAILS	NO. REQD	POUNDS
10d (3")	66	1-1/4
	WEDGES PER DOUBLE STA	CK
LUMBER	LENGTH	NO. REQD
2" X 4" 2" X 4"	6'-0" 9'-0"	4 4

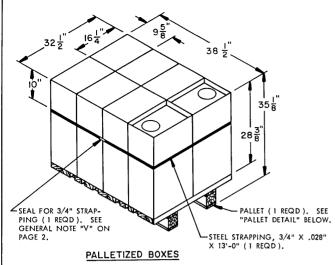


- 1. STORAGE AS SHOWN IS FOR THE M2 AND MK VII STEEL BOX.
 - CONTAINER DIMENSIONS --- 16-1/4" LONG BY 9-5/8" WIDE BY 28-3/8" HIGH.
- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- CONTAINERS MUST BE STORED IN DOUBLE STACKS AS SHOWN.
- PRIOR TO PLACING BULK PROPELLANT IN ANGULAR STORAGE AS SHOWN, TRIAL CONTAINERS SHOULD BE PLACED IN TYPICAL ANGLE STORAGE AND THE COVER REMOVED TO ACTUALLY DETERMINE THAT THE ANGLE OF FLOW OF THE CONTAINED PROPELLANT IS ENOUGH TO PREVENT LEAKAGE WHEN FUTURE TEST PAPERS ARE
- 6. <u>NOTE:</u> JOINTS IN THE INTER ZONTALLY AND VERTICALLY. JOINTS IN THE INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORI-
- 7. NOTE: THE RETAINER ASSEMBLY MUST CONTACT THE IGLOO WALL FOR SUPPORT.
- THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CON-TAINERS.
- 9. THE EXPLOSIVE WEIGHT FOR THIS M2 AND MKVII STEEL BOX IS 110 POUNDS. EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 19,800 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81'-0" LONG IGLOO MAGAZINE WILL BE 475,200 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81"-0" LONG TOLOG MAGAZINE WILL BE 316,800 POUNDS, AND THE EXPLOSIVE WEIGHT FOR A 40"-4" MAGAZINE WILL BE 198,000 POUNDS. THERE WILL BE APPROXIMATELY 6'-8", 6'-7", AND 6'-6" OF SPACE AT THE FRONT OF 81"-0", 60"-8", AND 40"-4" MAGAZINES, RESPECTIVELY. SEE GENERAL NOTE "E" ON PAGE 2.
- 10. BOXES MAY BE STACKED TO ALLOW EASE OF ACCESS FOR INSPECTION BASED ON OPERATIONAL AND STORAGE CONDITIONS. THE SELECTION OF A STORAGE PROCE-DURE FROM THAT DEPICTED ON PAGE 70, ON THIS PAGE, OR ON PAGE 89 IS THE OPTION OF THE STORING ACTIVITY.

STORAGE METHOD B

POWDER, PROPELLANT (PACKED IN STEEL BOX, M2 AND MK VII)





EIGHT (8) BOXES PER PALLET.

SPECIAL NOTES:

- 2. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CONTAINERS.
- SMOKELESS POWDER IN PACKING BOX MK7 AND MODS, PALLETIZED IN ACCOR-DANCE WITH NAVAL SEA SYSTEMS COMMAND DRAWING WR-53/724 WILL BE STORED BY USING THE PROCEDURES SHOWN IN US ARMY DARCOM DRAWING 19-48-4118-1-2-3-4-14-22PA1002.
- 4. PROPELLANT GRAIN MK43 MOD 0 IN PALLET CRATE MK2 MOD 0 UNITIZED IN ACCORDANCE WITH WR-53/709, PROPELLANT GRAIN NK49 AND MODS IN PALLET CRATE MK4 MOD 0 (WR-53/505) AND PROPELLANT GRAIN MK88 MOD 0 (WR-53/845) WILL BE STORED BY USING THE PROCEDURES SHOWN IN US ARMY DARCOM DRAWING 19-48-4125-1-2-3-4-14-22PA 1003.
- PALLETIZATION OF BOXES IS SOLELY FOR THE CONVENIENCE OF STORAGE AND WILL NOT BE USED FOR SHIPPING BOXES.

STORAGE IN 81'-0" IGLOO

1TEM	QUANTI	EXPLOSIV WEIGH	
	NIT 347	 305,360	LBS

*STORAGE IN 60'-8' IGLOO

ITEM	QUANTITY	EXPLOSIV	E
		WEIGHT	[
PALLET	UNIT247	217,360	LBS
BOX ES-	1,976		

** STORAGE IN 40'-4" IGLOO

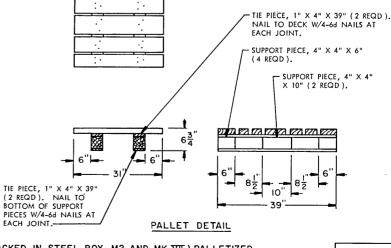
ITEM	QUANTITY	EXPLOSIVE
		WEIGHT
PALLET UNIT-	147	129,360 LBS
B CX ES	1,176	

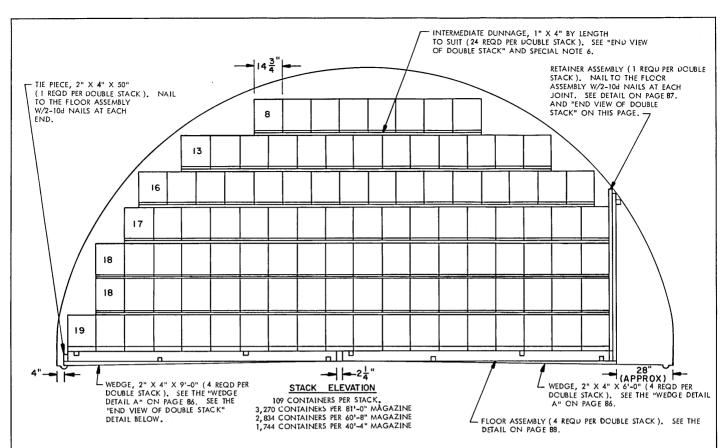
. 4 -		
*11 A-STACKS 3	C-STACKS	45" SPACE
11 M-31MCK3 3	C-214CK2	43 SIACE
** 6 A-STACKS 3	C-STACKS	· 43" SPACE

DECK, 2" THICK MATERIAL, BY RANDOM WIDTHS BY 31" LONG. NAIL TO SUPPORT PIECES W/3-20d NAILS AT EACH LOCATION.

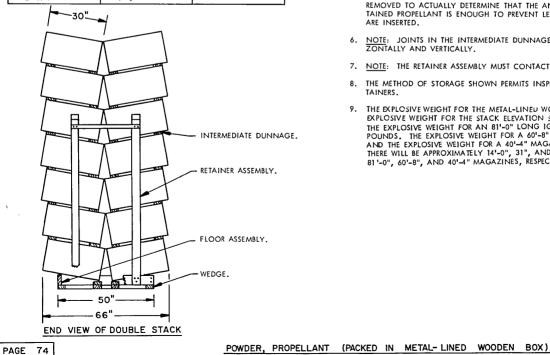
SEE GENERAL NOTE "E" ON PAGE 2.

BILL OF MATERIAL (PER PALLET)		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4" 2" X 6" 4" X 4"	13 13 6 4	5 9 6 6
NAILS	NO. REQD	POUNDS
6d (2") 20d (4")	48 18	1/2 3/4

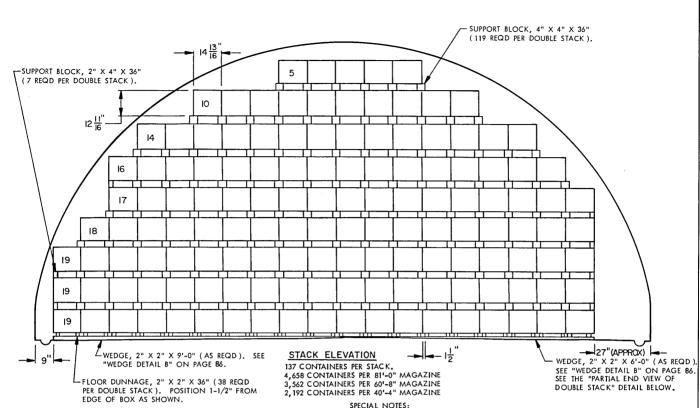




BILL OF MATERIAL (PER DOUBLE STACK)		
LUMBER	LINEAR FEET	BOARD FEET
" X 4"	443	148
" X 2"	3	1
" X 4"	109	73
" X 6"	51	51
VAILS	NO. REQD	POUNDS
10d (3")	66	1-1/4
	WEDGES PER DOUBLE	STACK
LUMBER	LENGTH	NO. REQD
2" X 4"	6'-0"	4
2" X 4"	9'-0"	4



- 1. STORAGE AS SHOWN IS FOR THE METAL-LINED WOODEN BOX.
 - CONTAINER DIMENSIONS --- 17-3/4" LONG BY 14-3/4" WIDE BY 30" HIGH.
- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 4. CONTAINERS MUST BE STORED IN DOUBLE STACKS AS SHOWN.
- 5. PRIOR TO PLACING BULK PROPELLANT IN ANGULAR STORAGE AS SHOWN. TRIAL CONTAINERS SHOULD BE PLACED IN TYPICAL ANGLE STORAGE AND THE COVER REMOVED TO ACTUALLY DETERMINE THAT THE ANGLE OF FLOW OF THE CON-TAINED PROPELLANT IS ENOUGH TO PREVENT LEAKAGE WHEN FUTURE TEST PAPERS ARE INSERTED.
- NOTE: JOINTS IN THE INTER 6. JOINTS IN THE INTERMEDIATE DUNNAGE MUST BE STAGGERED BOTH HORI-
- 7. NOTE: THE RETAINER ASSEMBLY MUST CONTACT THE IGLOO WALL FOR SUPPORT.
- 8. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CON-TAINERS.
- 9. THE EXPLOSIVE WEIGHT FOR THE METAL-LINEU WOODEN BOX IS 150 POUNDS. THE EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 16,350 POUNDS THE EXPLOSIVE WEIGHT FOR AN 81'-0" LONG IGLOO MAGAZINE WILL BE 490,500 POUNDS. THE EXPLOSIVE WEIGHT FOR A 60'-8" MAGAZINE WILL BE 425,100 POUNDS, AND THE EXPLOSIVE WEIGHT FOR A 40'-4" MAGAZINE WILL BE 261,600 POUNDS. THERE WILL BE APPROXIMATELY 14'-0", 31", AND 55" OF SPACE AT THE FRONT OF 81'-0", 60'-8", AND 40'-4" MAGAZINES, RESPECTIVELY.

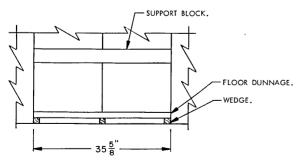


BILL OF	MATERIAL (PER DO	UBLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 2" 2" X 4" 4" X 4"	114 21 357	38 14 476
	WEDGES PER DOUBLE	E STACK
LUMBER	LENGTH	NO. REQD
2" X 2" 2" X 2	6'-0" 9'-0"	3 3

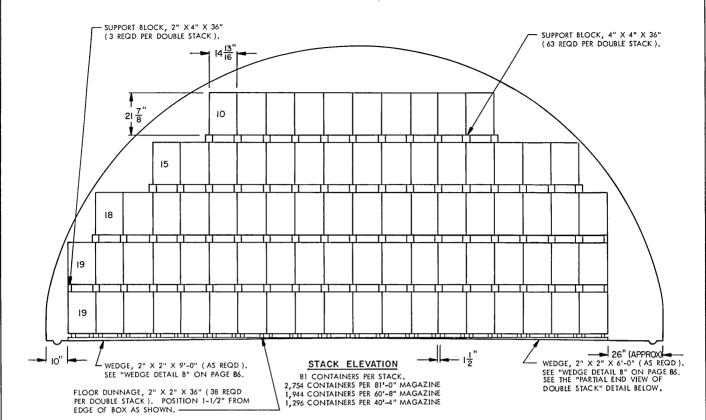
1. STORAGE AS SHOWN IS FOR A WOODEN BOX.

CONTAINER DIMENSIONS --- 17-13/16" LONG BY 14-13/16" WIDE BY 12-11/16

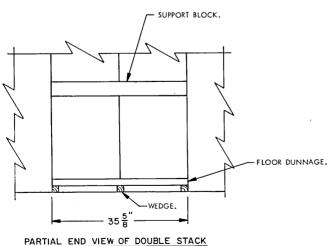
- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDÍCATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CONTAINERS.
- THE EXPLOSIVE WEIGHT FOR A WOODEN BOX IS 50 POUNDS. THE EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 6,850 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81'-0" LONG IGLOO MAGAZINE WILL BE 232,900 POUNDS. THE EXPLOSIVE WEIGHT FOR A 60'-8" MAGAZINE WILL BE 178,100 POUNDS, AND THE EXPLOSIVE WEIGHT FOR A 40'-4" MAGAZINE WILL BE 109,600 POUNDS. THERE WILL BE APPROXIMATELY 41", 65", AND 35" OF SPACE AT THE FRONT OF 81'-0", 60'-8", AND 40'-4" MAGAZINES, RESPECTIVELY. SEE GENERAL NOTE "E" ON PAGE 2.



PARTIAL END VIEW OF DOUBLE STACK

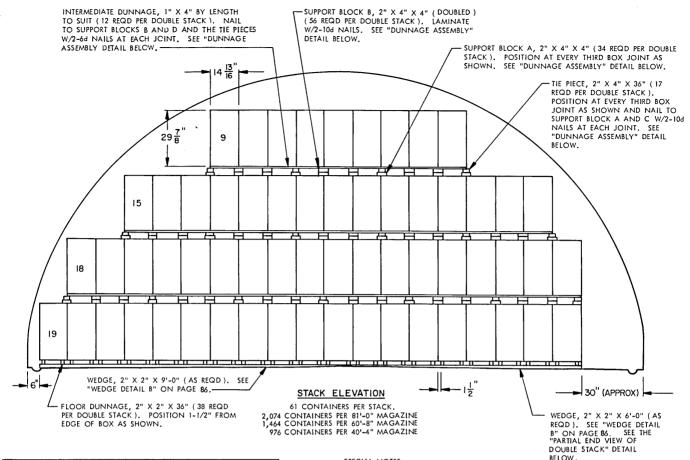


BILL OF	MATERIAL (PER DO	UBLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
2" X 2" 2" X 4" 4" X 4"	114 9 189	38 6 252
	WEDGES PER DOUBLE	E STACK
LUMBER	LENGTH	NO. REQD
2" X 2" 2" X 2"	6'-0" 9'-0"	3 3



- 1. STORAGE AS SHOWN IS FOR A WOODEN BOX.
 - CONTAINER DIMENSIONS --- 17-13/16" LONG BY 14-13/16" WIDE BY 21-7/8" HIGH.
- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CONTAINERS.
- 6. THE EXPLOSIVE WEIGHT FOR A WOODEN BOX IS 100 POUNDS. THE EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 8,100 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81'-0" LONG IGLOO MAGAZINE WILL BE 275,400 POUNDS. THE EXPLOSIVE WEIGHT FOR A 60'-8" MAGAZINE WILL BE 194,400 POUNDS, AND THE EXPLOSIVE WEIGHT FOR A 40'-4" MAGAZINE WILL BE 129,600 POUNDS, THERE WILL BE APPROXIMATELY 41", 65", AND 35" OF SPACE AT THE FRONT OF 81'-0", 60'-8", AND 40'-4" MAGAZINES, RESPECTIVELY. SEE GENERAL NOTE "E" ON PAGE 2.

POWDER, PROPELLANT (PACKED IN WOODEN BOX)



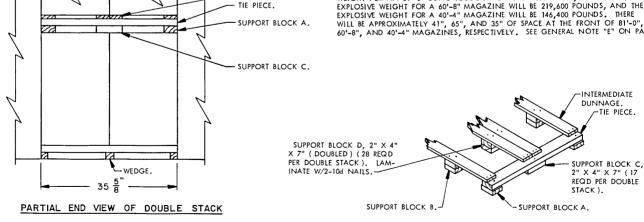
BILL OF	MATERIAL (PER DO	UBLE STACK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 2" 2" X 4"	208 114 143	70 38 96
NAILS	NO. REQD	POUNDS
6d (2") 10d (3")	360 270	2-1/4 4-1/4
	WEDGES PER DOUBLE	STACK
LUMBER	LENGTH	NO. REQD
2" X 2" 2" X 2"	6'-0" 9'-0"	3 3

1. STORAGE AS SHOWN IS FOR A WOODEN BOX.

CONTAINER DIMENSIONS --- 17-13/16" LONG BY 14-13/16" WIDE BY 29-7/8" HIGH.

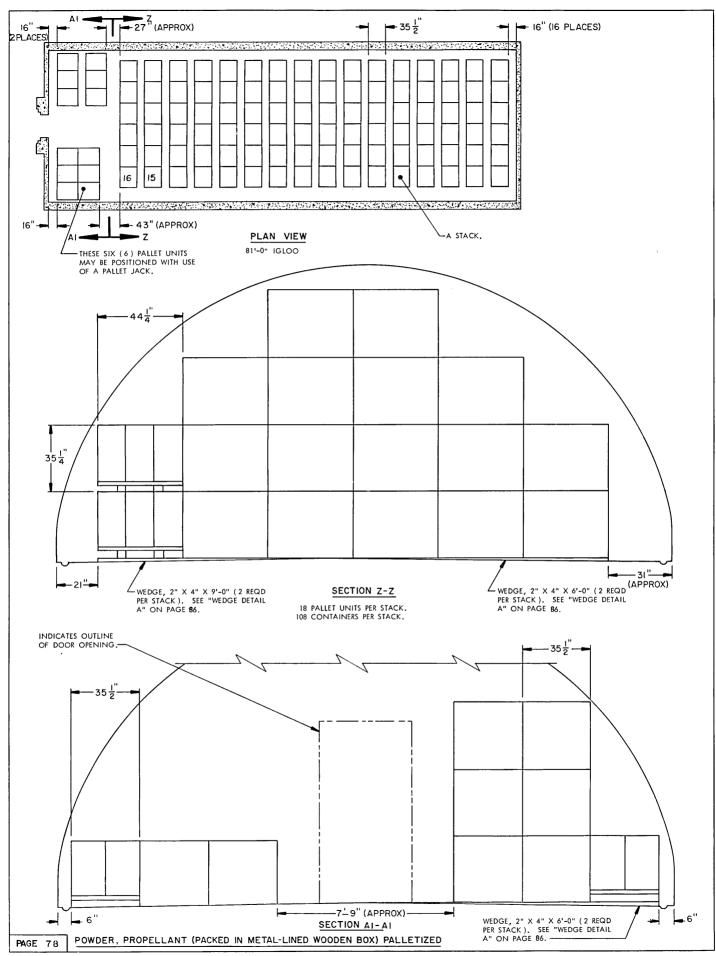
- 2. SEE "TYPICAL PLAN VIEW B" ON PAGE 4.
- 3 THE NUMBERS SHOWN IN THE STACK ELEVATION INDICATE THE QUANTITY OF CONTAINERS PER LAYER IN A STACK.
- 4. STORE IN DOUBLE STACKS FOR BETTER STABILITY. SEE "PARTIAL END VIEW OF DOUBLE STACK" ON THIS PAGE.
- 5. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CON-

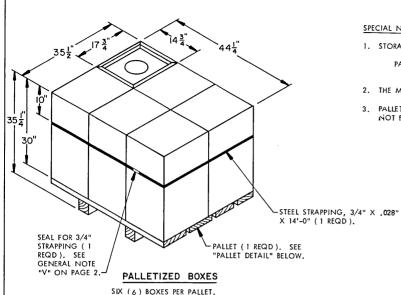
6. THE EXPLOSIVE WEIGHT FOR A WOODEN BOX IS 150 POUNDS. THE EXPLOSIVE WEIGHT FOR THE STACK ELEVATION SHOWN ABOVE WILL BE 9,150 POUNDS. THE EXPLOSIVE WEIGHT FOR AN 81'-0" LONG IGLOO MAGAZINE WILL BE 311,100 POUNDS. THE EXPLOSIVE WEIGHT FOR A 60'-8" MAGAZINE WILL BE 219,600 POUNDS. THERE WILL BE 40,400 POUNDS. THERE WILL BE APPROXIMATELY 41", 65", AND 35" OF SPACE AT THE FRONT OF 81'-0", 60'-8", AND 40'-4" MAGAZINES, RESPECTIVELY. SEE GENERAL NOTE "E" ON PAGE 2. INTERMEDIATE DUNNAGE.



DUNNAGE ASSEMBLY

POWDER, PROPELLANT (PACKED IN WOODEN BOX)





- 1. STORAGE AS SHOWN IS FOR THE METAL-LINED WOODEN BOX (PALLETIZED). PALLETIZED UNIT DIMENSIONS --- 35-1/2" LONG BY 44-1/4" WIDE BY 35-1/4" HIGH.
- 2. THE METHOD OF STORAGE SHOWN PERMITS INSPECTION OF INDIVIDUAL CONTAINERS.
- 3. PALLETIZATION OF BOXES IS SOLELY FOR THE CONVENIENCE OF STORAGE AND WILL NOT BE USED FOR SHIPPING BOXES.

STORAGE IN 81'-0" IGLOO

<u>ITEM</u> QUANTITY EXPLOSIVE WEIGHT PALLET UNIT-----308-----277,200 LBS BOXES-----1,848 * STORAGE IN 60'-8" IGLOO QUANTITY **IT EM** EXPLOSIVE WEIGHT PALLET UNIT-----218-----196,200 LBS BCX ES-----1,308 ** STORAGE IN 40'-4" IGLOO **ITEM** QUANTITY EXPLOSIVE WEIGHT PALLET UNIT-----128-----115,200 LBS -----768 *11 A-STACKS ------ 2 C-STACKS -----58" SPACE ** 6 A-STACKS -----2 C-STACKS -----72" SPACE

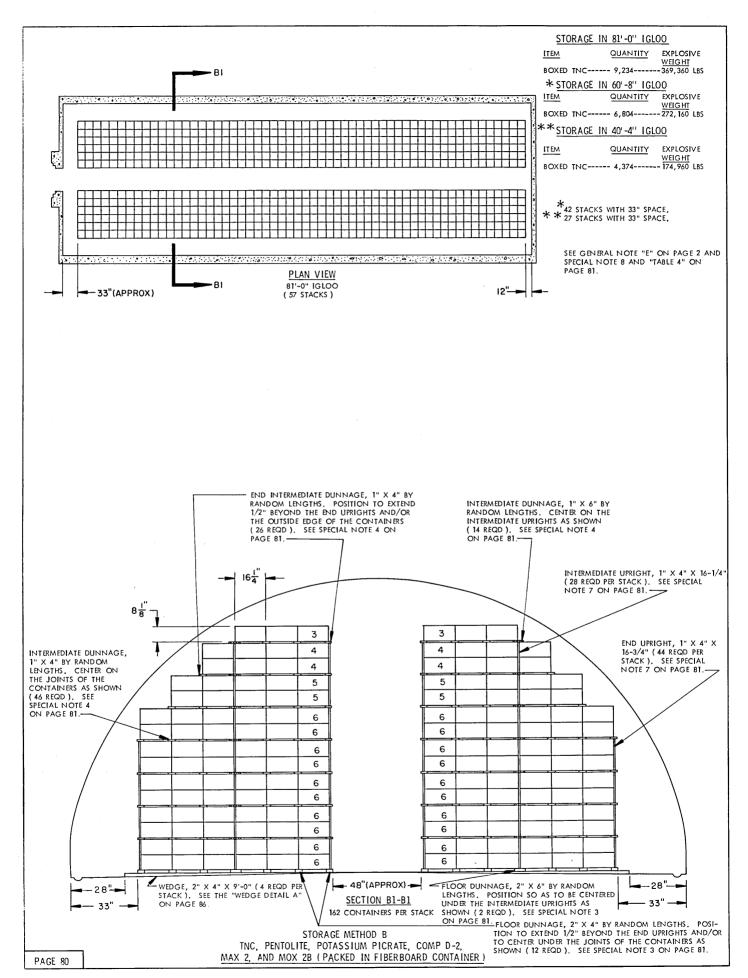
-DECK, 2" THICK MATERIAL BY RANDOM WIDTH BY 44-1/4" LONG. NAIL TO SKIDS W/3-

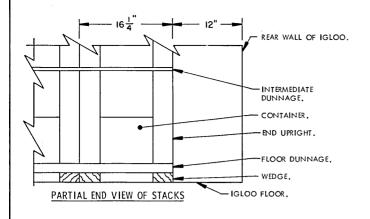
	DILL (OF MATERIAL (PI	ER PALLET
LUMBER		LINEAR FEET	BOARD FEET
2" X 8" 2" X 12" 4" X 4"		12 4 6	16 8 8
NAILS		NO. REQD	POUNDS
20d (4")		24	1

	20d NAILS AT EACH LOCATION.
10" 44 4 10"	SKID, 4" X 4" X 35-1/2" (2 REQD). 5" 35½
PALLET	DETAIL

SEE GENERAL NOTE "E" ON PAGE 2.

POWDER, PROPELLANT (PACKED IN METAL-LINED WOODEN BOX) PALLETIZED





BILL	OF MATERIAL (PER STA	CK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 1" X 6" 2" X 4" 2" X 6"	198 19 17 3	66 10 12 3
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4"	9'-0"	4

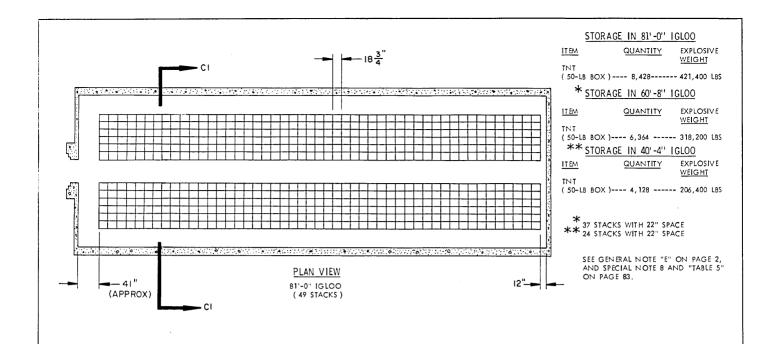
 STORAGE AS SHOWN IS FOR TNC AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD CONTAINER NO. 2. FOR DETAILS OF THE CONTAINER SEE DRAW-ING NO. 7548645.

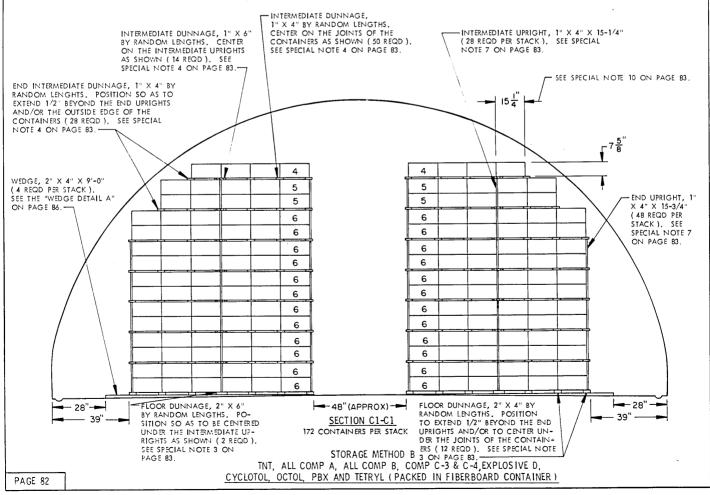
DIMENSIONS ------ 16-1/4" LONG BY 16-1/4" WIDE BY 8-1/8" HIGH. EXPLOSIVE WEIGHT FOR TNC---- 40 POUNDS.

- 2. SIMILAR BULK EXPLOSIVES INCLUDE:
 - (a) PENTOLITE
 - (b) POTASSIUM PICRATE
 - (c) COMPOSITION D-2
 - (d) MAX 2
 - (e) MOX 2
- RANDOM LENGTH MATERIAL MAY BE USED FOR THE 2" X 4" AND 2" X 6" FLOOR DUNNAGE PIECES, JOINTS IN THE RANDOM LENGTH MATERIAL MUST BE CEN-TERED ON THE WEDGES AS NEAR AS POSSIBLE, JOINTS IN LATERALLY ADJA-CENT FLOOR DUNNAGE PIECES NEED NOT BE STAGGERED.
- 4. RANDOM LENGTH MATERIAL, OF NOT LESS THAN 48" LENGTHS, MAY BE USED FOR THE 1" X 4" END INTERMEDIATE DUNNAGE AND/OR THE 1" X 4" AND 1" X 6" INTERMEDIATE DUNNAGE PIECES. THE JOINTS IN THE INTERMEDIATE DUNNAGE PIECES MUST BE LOCATED APPROXIMATELY CENTERED BETWEEN THE INTERMEDIATE AND/OR END URIGHT PIECES. THE JOINTS OF ADJACENT INTERMEDIATE AND/OR END URIGHT PIECES. THE JOINTS OF ADJACENT INTERMEDIATE DUNNAGE PIECES IN A LAYER WILL BE STAGGERED AT LEAST 16" FROM EACH OTHER AND/OR FROM A JOINT IN AN END INTERMEDIATE DUNNAGE PIECE. ALSO, THE JOINTS OF END INTERMEDIATE AND/OR THE INTERMEDIATE DUNNAGE PIECES IN AN UPPER LAYER WILL BE STAGGERED AT LEAST 16" FROM THE JOINTS IN THE NEXT LOWER LAYER.
- CAUTION: TNC PACKED IN FIBERBOARD CONTAINERS OF THE SIZE SHOWN AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD CONTAINERS WHICH ARE APPROXIMATELY THE SAME HEIGHT MUST NOT BE STACKED MORE THAN FIFTEEN (15) CONTAINERS HIGH
- THE NUMBERS SHOWN IN "SECTION BI-BI" INDICATE THE QUANTITY OF CON-TAINERS PER LAYER IN EACH HALF OF A STACK.
- WHBN STORING BOXES OF A HEIGHT OTHER THAN 8-1/8", THE LENGTH OF THE UPRIGHT PIECES MUST BE ADJUSTED TO COMPLY WITH THE FOLLOWING CRITERIA:
 - A. INTERMEDIATE UPRIGHT PIECES MUST BE OF A LENGTH EQUAL TO THE HEIGHT OF TWO BOXES.
 - B. END URRIGHT PIECES MUST BE 1/2" LONGER THAN INTERMEDIATE UPRIGHT
- 8. STORAGE AS SHOWN IS FOR FIBERBOARD BOXES CONTAINING TNC. THE PROCEDURES ARE APPLICABLE FOR ALL THE ITEMS LISTED IN TABLE 4. FULL STACKS ARE SHOWN IN THE PLAN VIEW ON PAGE 80. ONE ADDITIONAL STACK OF ANY OF THE LISTED ITEMS MAY BE STORED IN A MAGAZINE IF SPACE PERMITS.
- 9. THE STORAGE PROCEDURES SHOWN ON PAGES 80 AND 81 SHOULD ONLY BE USED WHEN STORING FIBERBOARD CONTAINES SUCH AS THESE IN GEOGRAPH-ICAL AREAS IN WHICH THERE IS A HIGH HUMIDITY LEVEL. FOR PROCEDURES APPLICABLE TO THE STORAGE OF THESE ITEMS IN GEOGRAPHICAL AREAS HAVING LOW HUMIDITY LEVELS, REFER TO THE STORAGE PROCEDURES ON PAGES 42 AND 43.

	TABL	E 4		
	81'-0" IGLOO	MAGAZINE		
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE	
TNC	40 LBS	9,234	369,360 LBS	
PENTOLITE	35 LBS	9,234	323, 190 LBS	
POTASSIUM PICRATE	35 LBS	9,234	323, 190 LBS	
COMPOSITION D-2	30 LBS	9,234	277,020 LBS	
MAX 2	50 LBS	9,234	461,700 LBS	
MOX 2B	50 LBS	9,234	461,700 LBS	
	60'-8" IGLOO	MAGAZINE	•	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE	
TNC	40 LBS	6,804	272,160 LBS	
PENTOLITE	35 LBS	6,804	238, 140 LBS	
POTASSIUM PICRATE	35 LBS	6,804	238, 140 LBS	
COMPOSITION D-2	30 LBS	6,804	204,120 LBS	
MAX 2	50 LBS	6,804	340,200 LBS	
MOX 2B	50 LBS	6,804	340,200 LBS	
	40'-4" IGLOO MAGAZINE			
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE	
TNC	40 LBS	4,374	174,960 LBS	
PENTOLITE	35 LBS	4,374	153,090 LBS	
POTASSIUM PICRATE	35 LBS	4,374	153,090 LBS	
COMPOSITION D-2	30 LBS	4,374	131,200 LBS	
MAX 2	50 LBS	4,374	218,700 LBS	
MOX 2B	50 LBS	4,374	218,700 LBS	

STORAGE METHOD B
TNC, PENTOLITE, POTASSIUM PICRATE, COMP D-2
MAX 2, AND MOX 2B (PACKED IN FIBERBOARD CONTAINER)





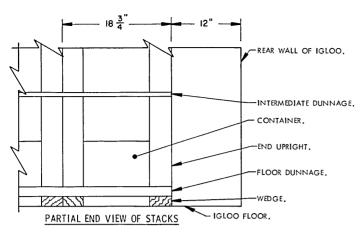


	TABLE 5		
8	1'-0" IGLOO MA	AGAZINE	
I TEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
TNT	50 LBS	8,428	421,400 LBS
TNT ALL COMPOSITION A	55 LBS	8,428	463,540 LBS
ALL COMPOSITION A	60 LBS 60 LBS	8,256 8,256	495,360 LBS
COMPOSITION C-3 AND C-4	60 LBS	8,256	495,360 LBS 495,360 LBS
EXPLOSIVE D	50 LBS	8,428	421,400 LBS
CYCLOTOL	60 LBS	8,256	495,360 LBS
OCTOL	60 LBS	8,256	495,360 LBS
PBX	60 LBS	8,256	495,360 LBS
TETRYL	60 LBS	8,256	495,360 LBS
TOVEX	50 LBS	8,428	421,400 LBS
PBXN 6	50 LBS	8,428	421,400 LBS
61	0'-8" IGLOO MA	GAZINE	
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
TNT	50 LBS	6,364	318,200 LBS
TNT	55 LBS	6,364	350,020 LBS
ALL COMPOSITION A	60 LBS	6,364	381,840 LBS
ALL COMPOSITION B	60 LBS	6,364	381,840 LBS
COMPOSITION C-3 AND C-4	60 LBS	6,364	381,840 LBS
EXPLOSIVE D	50 LBS	6,364	318,200 LBS
CYCLOTOL	60 LBS	6,364	381,840 LBS
остог	60 LBS	6,364	381,840 LBS
PBX	60 LBS	6,364	381,840 LBS

50 IRS

6,364

6,364

381,840 LBS

318,200 LBS

318,200 LBS

BILL O	F MATERIAL (PER STA	CK)
LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 1" X 6" 2" X 4" 2" X 6"	221 22 19 4	74 11 13 4
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQU
2" X 4"	9'-0"	4

TOVEX

PBXN 6

SPECIAL NOTES

STORAGE AS SHOWN IS FOR THI AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD CONTAINER NO. 4. FOR DETAILS OF THE CONTAINER SEE DRAW-

DIMENSIONS ------ 18-3/4" LONG BY 15-1/4" WIDE BY 7-5/8" HIGH. EXPLOSIVE WEIGHT ----- 50 POUNDS. SEE SPECIAL NOTE 7.

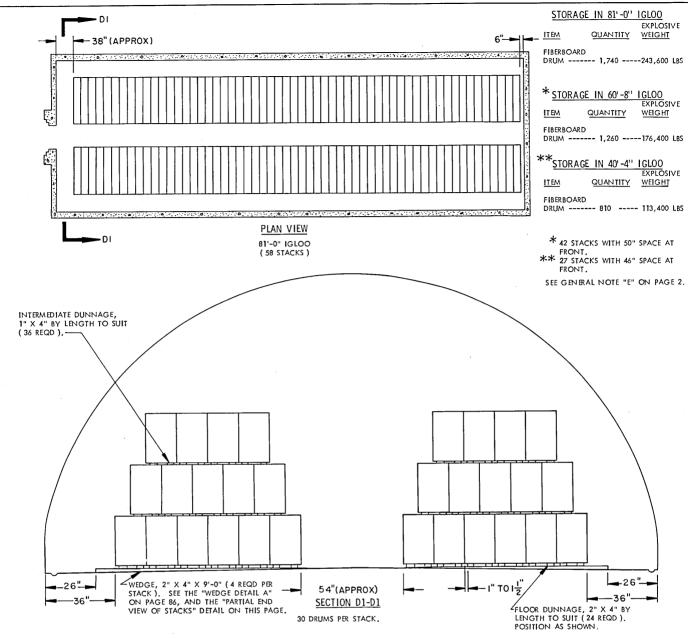
- 2. SIMILAR BULK EXPLOSIVES INCLUDE:
 - (a) ALL COMPOSITION A
 - (b) ALL COMPOSITION B. (c) COMPOSITION C-3 AND C-4.

 - (e) CYCLOTOL OCTOL

 - (f) OCTOL (g) PBX (h) TETRYL
- RANDOM LENGTH MATERIAL MAY BE USED FOR THE 2" X 4" AND 2" X 6" FLOOR RANDOM LENGTH MATERIAL MAY BE USED FOR THE Z TO 4 AND Z TO FLOO DUNNAGE PIECES, JOINTS IN THE RANDOM LENGTH MATERIAL MUST BE CEN-TERED ON THE WEDGES AS NEAR AS POSSIBLE, JOINTS IN LATERALLY ADJA-CENT FLOOR DUNNAGE PIECES NEED NOT BE STAGGERED.
- RANDOM LENGTH MATERIAL, OF NOT LESS THAN 48" LENGTHS, MAY BE USED FOR THE 1" X 4" END INTERMEDIATE DUNNAGE AND/OR THE 1" X 4" AND 1" X 6" INTERMEDIATE DUNNAGE PIECES. THE JOINTS IN THE INTERMEDIAGE DUNNAGE PIECES MUST BE LOCATED APPROXIMATELY CENTERED BETWEEN THE INTERMEDIATE AND/OR END UPRIGHT PIECES. THE JOINTS OF ADJACENT INTERMEDIATE DUNNAGE PIECES IN A LAYER WILL BE STAGGERED AT LEAST 18" FROM EACH OTHER AND/OR FROM A JOINT IN AN END INTERMEDIATE DUNNAGE PIECE. ALSO, THE JOINTS OF END INTERMEDIATE AND/OR THE INTERMEDIATE DUNNAGE PIECES IN AN UPPER LAYER WILL BE STAGGERED AT LEAST 18" FROM THE JOINTS IN THE NEXT LOWER LAYER.
- CAUTION: TNC PACKED IN FIBERBOARD CONTAINERS OF THE SIZE SHOWN AND SIMILAR BULK EXPLOSIVES PACKED IN FIBERBOARD CONTAINERS WHICH ARE APPROXIMATELY THE SAME HEIGHT MUST NOT BE STACKED MORE THAN FIFTEEN (15) CONTAINES HIGH.
- THE NUMBERS SHOWN IN "SECTION C1-C1" INDICATE THE QUANTITY OF CON-TAINERS PER LAYER IN EACH HALF OF A STACK.
- WHEN STORING BOXES OF A HEIGHT OTHER THAN 7-5/8", THE LENGTH OF THE UPRIGHT PIECES MUST BE ADJUSTED TO COMPLY WITH THE FOLLOWING CRITERIA:
 - INTERMEDIATE UPRIGHT PIECES MUST BE OF A LENGTH EQUAL TO THE HEIGHT OF TWO BOXES.
 - B. END UPRIGHT PIECES MUST BE 1/2" LONGER THAN INTERMEDIATE UPRIGHT
- 8. STORAGE AS SHOWN IS FOR FIBERBOARD BOXES CONTAINING 50 POUNDS OF TNT. THE PROCEDURES ARE ALSO APPLICABLE FOR 55-POUNDS BOXES OF TNT AND FOR ALL THE ITEMS LISTED IN TABLE 2 BELOW. NOTE THAT ALL ITEMS EXCEPT THE TNT, EXPLOSIVE D, TOVEX, AND PBXN 6 ARE LIMITED TO A MAX-IMUM OF 8,256 CONTAINERS
- 9. THE STORAGE PROCEDURES SHOWN ON PAGES 82 AND 83 SHOULD ONLY BE USED WHEN STORING FIBERBOARD CONTAINERS SUCH AS THESE IN GEOGRAPH-ICAL AREAS IN WHICH THERE IS A HIGH HUMIDITY LEVEL. FOR PROCEDURES APPLICABLE TO THE STORAGE OF THESE ITEMS IN GEOGRAPHICAL AREAS WHICH HAVE LOW HUMIDITY LEVELS, REFER TO THE STORAGE PROCEDURES SHOWN ON
- IN LIEU OF STORING BOXES SO THE 15-1/4" DIMENSION IS ACROSS THE WIDTH OF THE MAGAZINE, AS SHOWN, BOXES MAY BE PLACED WITH THE 18-3/4"
 DIMENSION ACROSS THE MAGAZINE IF STACK STABILITY IS IMPROVED BY DOING
 SO. THE NUMBER OF BOXES ACROSS THE MAGAZINE MUST BE REDUCED ACCORD-

T,	ABLE 5 (CONT	INUED)	
40'-4" IGLOO MAGAZINE			
ITEM	EXPL WT/BOX	MAX QUANTITY	MAX EXPLOSIVE
TNT TNT ALL COMPOSITION A ALL COMPOSITION B COMPOSITION C-3 AND C-4 EXPLOSIVE D CYCLOTOL OCTOL PBX TETRYL TOVEX PBXN 6	50 LBS 55 LBS 60 LBS 60 LBS 50 LBS 60 LBS 60 LBS 60 LBS 60 LBS 50 LBS 50 LBS	4, 128 4, 128	206,400 LBS 227,040 LBS 247,680 LBS 247,680 LBS 247,680 LBS 247,680 LBS 247,680 LBS 247,680 LBS 247,680 LBS 247,680 LBS 247,680 LBS 266,400 LBS 266,400 LBS

STORAGE METHOD B TNT, ALL COMP A, ALL COMP B, COMP C-3 & C-4, EXPLOSIVE D CYCLOTOL, OCTOL, PBX AND TETRYL (PACKED IN FIBERBOARD CONTAINERS)



BILL OF MATERIAL (PER STACK)

LUMBER	LINEAR FEET	BOARD FEET
1" X 4" 2" X 4"	48 32	16 22
	WEDGES PER STACK	
LUMBER	LENGTH	NO. REQD
2" X 4"	9'-0"	4

(SPECIAL NOTES CONTINUED)

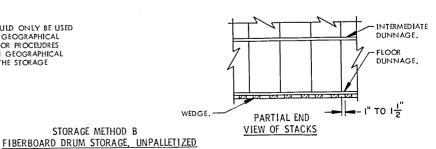
THE STORAGE PROCEDURES SHOWN ON THIS PAGE SHOULD ONLY BE USED WHEN STORING FIBERBOARD DRUMS SUCH AS THESE IN GEOGRAPHICAL AREAS IN WHICH THERE IS A HIGH HUMIDITY LEVEL. FOR PROCEUDRES APPLICABLE TO THE STORAGE OF FIBERBOARD DRUMS IN GEOGRAPHICAL AREAS WHICH HAVE LOW HUMIDITY LEVELS, REFER TO THE STORAGE PROCEDURES ON PAGE 53.

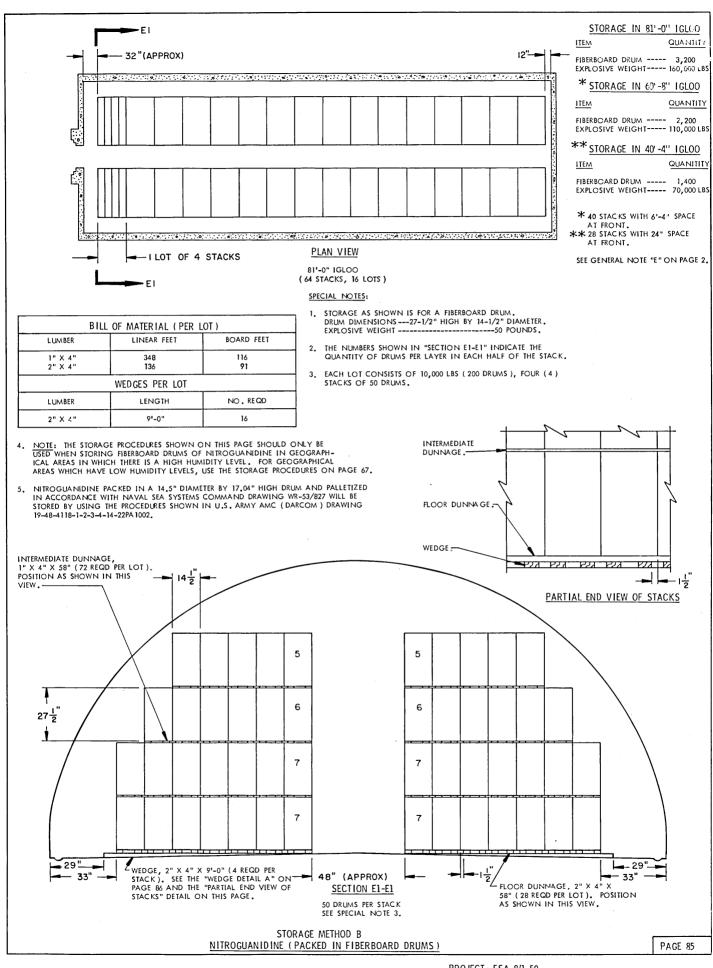
SPECIAL NOTES:

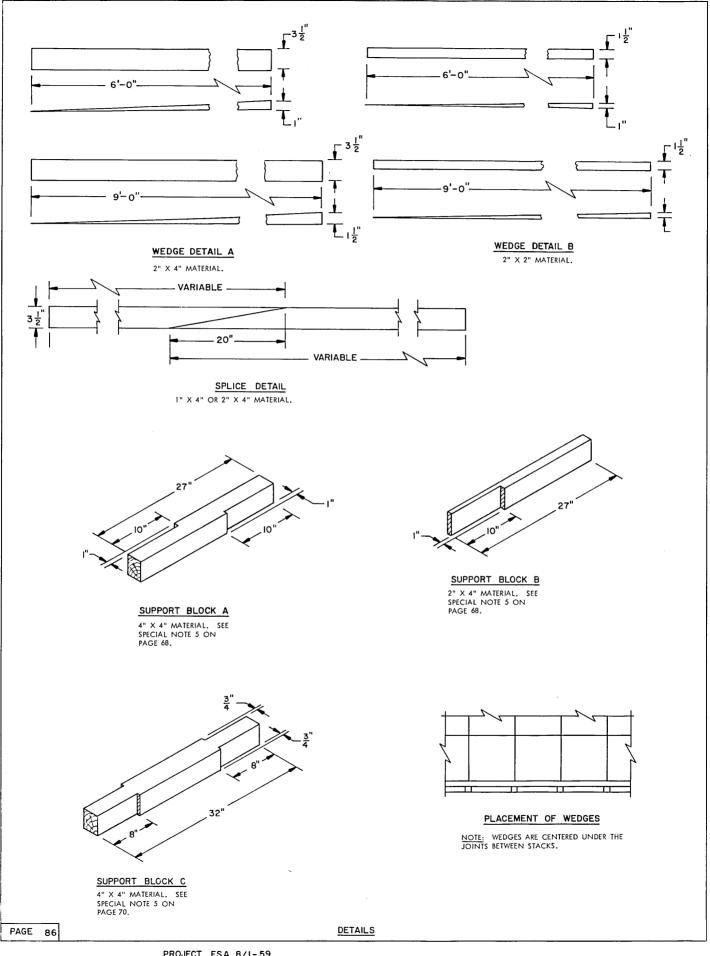
STORAGE METHOD B

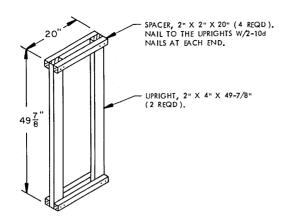
- 1. STORAGE AS SHOWN IS FOR FIBERBOARD DRUM.
 - DRUM DIMENSIONS ------27" HIGH BY 16" DIAMETER. EXPLOSIVE WEIGHT ------140 POUNDS.
- RANDOM LENGTHS OF LUMBER MAY BE USED FOR THE INTERMEDIATE AND FLOOR DUNNAGE.
- FIBERBOARD DRUMS, EXCEPT FOR NITROGUANIDINE AS SHOWN ON PAGE 67, WILL NOT BE STACKED MORE THAN THREE LAYERS HIGH.
- THE DRUMS IN EACH LAYER WILL BE STAGGERED ABOVE THE DRUMS IN THE LAYER UNDER-NEATH, AS SHOWN.

(CONTINUED AT LEFT)



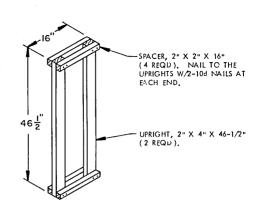






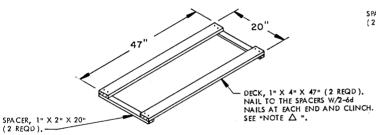
SEPARATOR ASSEMBLY A

FOR USE IN THE STORAGE SHOWN ON PAGE 34.



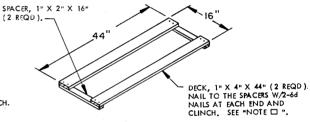
SEPARATOR ASSEMBLY B

FOR USE IN THE STORAGE SHOWN ON PAGE 35.



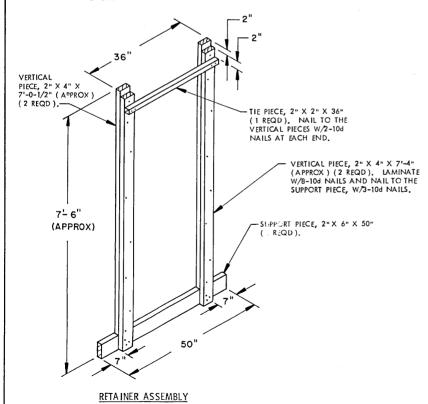
DECK ASSEMBLY A

NOTE Δ : 20 DECK ASSEMBLY OF THIS SIZE SHOWN ABOVE, ONE DECK ASSEMBLY 31" LONG AND THREE DECK ASSEMBLIES 16" LONG ARE REQUIRED FOR THE STORAGE SHOWN ON PAGE 34.



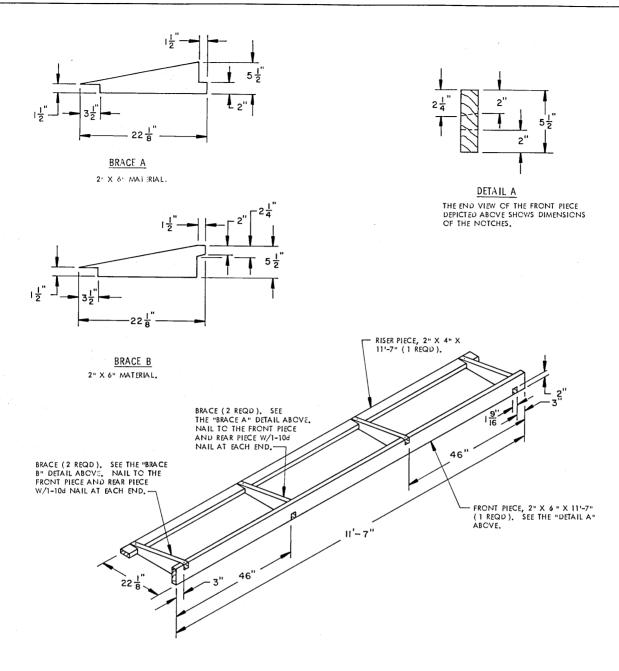
DECK ASSEMBLY B

NOTE : 29 DECK ASSEMBLIES OF THIS SIZE SHOWN ABOVE AND TWO DECK ASSEMBLIES 29-1/2" LONG ARE REQUIRED FOR THE STORAGE SHOWN ON PAGE 35.



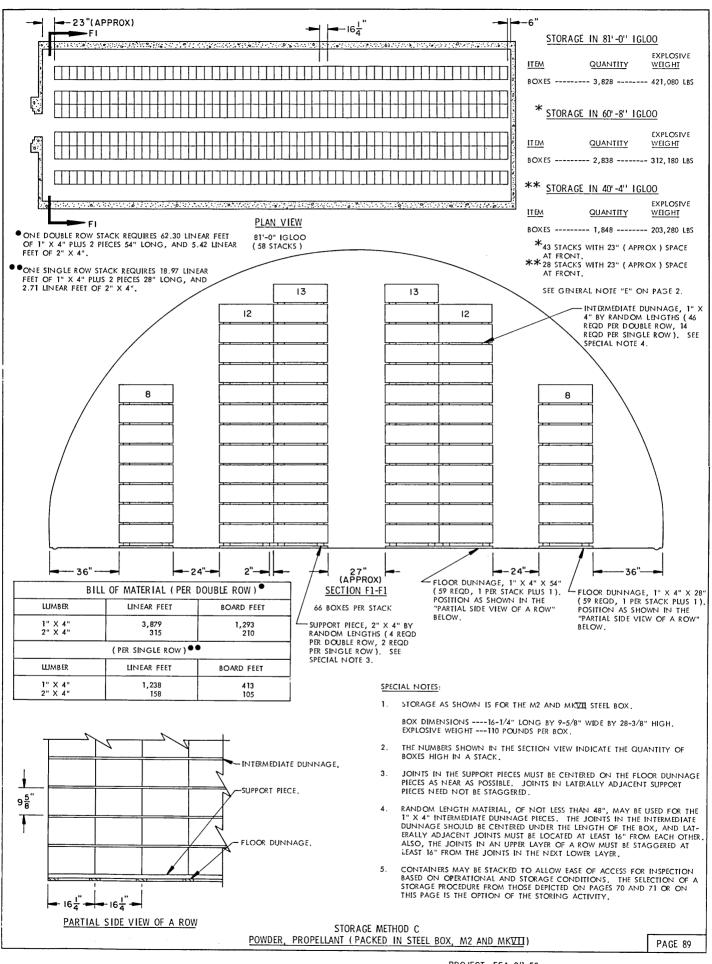
SEE SPECIAL NOTE 7 ON PAGE 71 AND SPECIAL NOTE 7 ON PAGE 74.

DETAILS



FLOOR ASSEMBLY

FOR USE IN THE STORAGE SHOWN ON PAGES 71 AND 74.



·				
PAGE 90		☆ U.S. GO	VERNMENT PRINTING OFFICE: 1989	644-849
	DDOLFGT FCA 0D FO			