# <u>HELLFIRE</u>

LOADING AND BRACING (TL & LTL) IN CLOSED OR OPEN TOP VAN TRAILER OF GUIDED MISSILE PACKED ONE PER METAL CONTAINER, UNPALLETIZED AND PALLETIZED (9 PER PALLET)

INDEX

<u>I TEM</u>		PAGE(S)
GENERAL NOTES, AND MATERIAL SPECIFICATIONS DETAILS OF CONTAINER AND PALLET UNIT		
DETAILS OF CONTAINED AND DALLET INIT		- 2, 2,
UNPALLETIZED LOAD CONFIGURATIONS:		3, 4
180-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 150-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER	the state of the s	5 5 5 L 20 1 1
150-INITIOAD (INSPAIRD) IN A 40'-0' LONG TRAILED		6-7
105-UNIT LOAD (STRETCHED) IN A 40'-0' LONG TRAILER - 105-UNIT LOAD (STRETCHED) IN A 40'-0'' LONG TRAILER 180-UNIT LOAD (STRETCHED) IN A 45'-0'' LONG TRAILER		8-9
180-UNIT LOAD (STRETCHED) IN A 45'-0" LONG TRAILER		10-11
11 F TUME LIE ( 32-UNII LUMU ) ( SEMIEU )		. 14
IYPICAL LIL (1-UNIT LOAD L (SEALED AND INISEALED L		22
TYPICAL LTL (35-UNIT LOAD) (UNSEALED)		. 16
DETAILS		- 17 10
12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (SUNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (STRETCHED) IN A 40'-0" LONG TRAILER		20-21 22-23
12-UNIT LOAD (STREICHED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (STREICHED) IN A 40'-0" LONG TRAILER 12-UNIT LOAD (STREICHED) IN A 45'-0" LONG TRAILER		20-21 22-23 24-25 - 26-27
12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (STRETCHED) IN A 40'-0" LONG TRAILER - 12-UNIT LOAD (STRETCHED) IN A 45'-0" LONG TRAILER - TYPICAL LTL (4-UNIT LOAD) (SEALED)		20-21 22-23 24-25 - 26-27
PALLETIZED LOAD CONFIGURATIONS:  12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (STRETCHED) IN A 40'-0" LONG TRAILER 12-UNIT LOAD (STRETCHED) IN A 45'-0" LONG TRAILER TYPICAL LTL (4-UNIT LOAD) (SEALED)		20-21 22-23 24-25 - 26-27 - 28
12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 12-UNIT LOAD (STRETCHED) IN A 45'-0" LONG TRAILER TYPICAL LTL (4-UNIT LOAD) (SEALED)		20-21 22-23 24-25 - 26-27 - 28 - 29
PALLETIZED LOAD CONFIGURATIONS:  12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER - 10-UNIT LOAD (STRETCHED) IN A 40'-0" LONG TRAILER - 12-UNIT LOAD (STRETCHED) IN A 45'-0" LONG TRAILER TYPICAL LTL (4-UNIT LOAD) (SEALED)		20-21 22-23 24-25 - 26-27 - 28 - 29
12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (STRETCHED) IN A 40'-0" LONG TRAILER 12-UNIT LOAD (STRETCHED) IN A 45'-0" LONG TRAILER TYPICAL LTL (4-UNIT LOAD) (SEALED)		20-21 22-23 24-25 - 26-27 - 28 - 29
PALLETIZED LOAD CONFIGURATIONS:  12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (STREICHED) IN A 40'-0" LONG TRAILER 12-UNIT LOAD (STREICHED) IN A 45'-0" LONG TRAILER TYPICAL LTL (4-UNIT LOAD) (SEALED)		20-21 22-23 24-25 26-27 28 29 30 31
PALLEHZED LOAD CONFIGURATIONS:  12-UNIT LOAD (SEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (UNSEALED) IN A 40'-0" LONG TRAILER 10-UNIT LOAD (STREICHED) IN A 40'-0" LONG TRAILER 12-UNIT LOAD (STREICHED) IN A 45'-0" LONG TRAILER TYPICAL LTL (4-UNIT LOAD) (SEALED)		20-21 22-23 24-25 - 26-27 - 28 - 29 - 30 - 31 - 32

THIS DOCUMENT INCLUDES PROCEDURES FOR CONVENTIONAL TYPE TRAILERS AND FOR TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES AS APPROVED BY THE BUREAU OF EXPLOSIVES, ASSOCIATION OF AMERICAN RAILROADS. CAUTION: PROCEDURES SHOWN HEREIN, FOR BOTH TYPES OF TRAILERS, ARE ONLY APPLICABLE FOR HIGHWAY MOVEMENTS, NOT FOR TRAILERON-FLAT-CAR MOVEMENTS.

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#### GENERAL NOTES

- THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 ( CHAPTER 5 ).
- THE OUTLOADING PROCEDURES SPECIFIED WITHIN THIS DOCUMENT ARE APPLICABLE TO THE HELLFIRE GUIDED MISSILE PACKED EITHER ONE (1) EACH PER UNSEALED OR SEALED SHIPPING AND STORAGE CONTAINER OR NINE (9) EACH PER PALLET UNIT. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CONTAINER WITH MISSILE COMPONENTS; SUBSEQUENT REFERENCE TO PALLET UNIT HEREIN MEANS THE PALLET UNIT WITH MIDIE (9) KARSTILE CONTAINER WITH NINE (9) MISSILE CONTAINERS.
- FOR DETAIL OF THE UNSEALED CONTAINER, SEE APN DRAWING 13012182 AND THE "UNSEALED CONTAINER UNIT" DETAIL ON PAGE 3.

CONTAINER DIMENSIONS -76-1/4" LONG BY 15-1/2" WIDE BY 16-1/2" HIGH GROSS WEIGHT ------175 POUNDS (APPROX) -----11.3 CUBIC FEET

FOR DETAIL OF THE SEALED CONTAINER, SEE APN DRAWING 13155079 AND THE "SEALED CONTAINER UNIT" DETAIL ON PAGE 3.

CONTAINER DIMENSIONS -76" LONG BY 14-5/8" WIDE BY 16-1/2" HIGH GROSS WEIGHT -------185 POUNDS (APPROX)
CUBE ------10.6 CUBIC FEET

FOR DETAIL OF THE STRETCHED CONTAINER, SEE APN DRAWING 13349856 AND THE "STRETCHED CONTAINER UNIT" DETAIL ON PAGE 3.

CONTAINER DIMENSIONS -84" LONG BY 14-5/8" WIDE BY 16-1/2" HIGH. GROSS WEIGHT ------203 POUNDS (APPROX) CUBE ------11.4 CUBIC FEET

FOR DETAIL OF THE PALLET UNITS, SEE US ARMY MATERIEL COMMAND DRAWING NO. 19-48-5250-GM20HF1 AND THE "PALLET UNIT" DETAILS ON PAGE 3.

SEALED PALLET UNIT DIMENSIONS ----- 44-3/8" LONG BY 76" WIDE BY 53" HIGH 

STRETCHED PAILET UNIT DIMENSIONS----44-3/8" LONG BY 84" WIDE BY 53" HIGH GROSS WEIGHT ------1,921 POUNDS (APPROX )
CUBE ------114.3 CUBIC FEFT

- THIS ITEM IS A DOT CLASS "A" EXPLOSIVE. THESE PROCEDURES CAN ALSO BE UTILIZED FOR THE SHIPMENT OF THE CONTAINERS WHEN THEY ARE LOA DED WITH AN ITEM OTHER THAN THE SPECIFIED GUIDED MISSILE, OR WHEN THEY
- THE LOADS AS SHOWN HEREIN ARE BASED ON 40'-0" AND 45'-0" LONG CLOSED OR OPEN TOP VAN TRAILERS WHICH ARE 89" TO 102" WIDE (INSIDE DIMENSION) AND THEY ARE LIMITED TO HIGHWAY MOVEMENTS ONLY. THE DEPICTED LOADS ARE BASED ON TRAILERS OF THE CONVENTIONAL TYPE OR ARE BASED ON TRAILERS WHICH ARE EQUIPPED WITH SELF-CONTAINED MECHANICAL BRACING DEVICES (CROSS MEMBERS AND WALL MEMBERS) AND APPLY TO TRAILERS HAVING WOOD, WOOD AND METAL, OR METAL FILODES. FLOORS.
- THE OUTLOADING PROCEDURES SPECIFIED IN THE PARTIAL ELEVATION VIEWS THE OUTLOADING PROCEDURES SPECIFIED IN THE PARTIAL ELEVATION VIEWS SHOWN ON PAGES 7, 9 AND 23 ARE FOR TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF-CONTAINED MECHANICAL BRACING DEVICES. HOWEVER, CROSS MEMBER ATTACHMENT FACILITIES WITHIN THESE TRAILERS MUST PROVIDE FOR THE INSTALLATION OF LOAD BLOCKING CROSS MEMBERS AT THE HEIGHTS SPECIFIED HEREIN. CAUTION: TRAILERS EQUIPPED WITH FACILITIES WHICH DO NOT MEET THE LOCATION REQUIREMENTS MUST NOT BE USED. THE HEIGHT DIMENSIONS SPECIFIED WITHIN THIS DRAWING FOR INSTALLATION OF CROSS MEMBERS ARE IDENTICAL WITH THOSE RECOMMENDED BY THE BUREAU OF EXPLOSIVES PAMPHLET 6C, AND APPENDICES THERETO.
- VOIDS LENGTHWISE WITHIN THE LOAD MUST BE HELD TO A MINIMUM. FOR VOIDS LENGTHWISE WITHIN THE LOAD MUST BE HELD TO A MINIMUM. FOR CONVENTIONAL TRAILERS, REAR BLOCKING MUST CONTACT THE REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. FOR THE TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES, CROSS MEMBERS MUST BE PLACED AGAINST THE LADING AS TIGHTLY AS THE HOLE SPACING IN THE CROSS MEMBER ATTACHMENT FACILITY PERMITS. EACH CROSS MEMBER WILL BE INSTALLED WITH THE ENDS ATTACHED AS NEARLY AS POSSIBLE IN "MATED" POSITIONS (AT EQUAL HEIGHTS AND AT EQUAL DISTANCES FROM THE END OF THE TRAILER). CROSS MEMBERS IN EMPTY TRAILERS AND THOSE NOT USED IN LOADED TRAILERS MUST BE SECURED FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH TRAILER MUST REMAIN THEREWITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS.

(CONTINUED AT RIGHT)

### MATERIAL SPECIFICATIONS

LUMBER -----: TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.

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

STRAPPING, STEEL---: CLASS LTYPEIOR IV, HEAVY DUTY, FINISH A OR B ( GRADE 2 ), OR C; FED SPEC QQ-5-781.

STRAP SEALS ----: TYPE D, STYLE I, II, OR IV, CLASS H, FINISH A, E (GRADE 2), OR C; FED SPEC QQ-S-781.

#### (GENERAL NOTES CONTINUED)

- J. SELECTION OF A VEHICLE TO BE USED TO TRANSPORT THE DESIGNATED ITEM MUST COMPLY WITH AR 55-355, CHAPTER 29, FOR EXPLOSIVES AND OTHER DANGEROUS ARTICLES, IN FULL.
- K. THE GROSS WEGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THE APPLICABLE LOADING REQUIREMENTS, AND THE SHIPPER WILL LOAD ACCORD-
- L. THE APPROVED BLOCKING, BRACING, AND STAYING METHODS FOR THE LOADS SPECIFIED MUST BE FOLLOWED. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE VEHICLE TO BE LOADED OR THE QUANTITY TO BE SHIPPED. FOR A LOAD QUANTITY OTHER THAN SPECIFIED, THE APPROVED METHODS MUST BE FOLLOWED AS CLOSELY AS POSSIBLE.
- M. PALLETIZED UNITS WHICH DO NOT CONTAIN A FULL QUANTITY OF CONTAINERS CAN BE TRANSPORTED. A PARTIAL UNIT MAY BE POSITIONED ON TOP OF THE LOAD, TRAILER HEIGHT PERMITTING, AND SECURED TO THE UNIT DIRECTLY BELOW WITH STEEL STRAPPING. REFER TO THE "SHIPMENT OF PARTIAL UNITS" ON PAGES 33 THRU 35 FOR GUIDANCE. FOR THE TRANSPORTATION OF A QUANTITY OF CONTAINERS INSUFFICIENT TO FORM A PARTIAL UNIT (A PARTIAL UNIT WILL CONSIST OF FULL LAYERS) REFER TO THE "SHIPMENT OF LEFTOVER CONTAINERS" PROCEDURES ON PAGE 36 FOR GUIDANCE.
- N. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH THE DESIGNATED ITEMS, PROVIDING THE TOTAL LOAD IS COMPATIBLE, EXISTING DIRECTIVES ARE NOT VIOLATED, AND THE OTHER LADING ITEMS ARE BLOCKED AND BRACED TO EQUAL THE BLOCKING AND BRACING CRITERIA SPECIFIED HEREIN.
- O. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL MUST BE USED TO SEAL THE JOINT.
- IN SOME INSTANCES CONTAINERS WILL ALREADY BE PALLETIZED WHEN OFFERED FOR LOADING. THESE PALLET UNITS SHOULD BE INSPECTED AND, AS REQUIRED, LOOSE UNITIZING STEEL STRAPPING MUST BE REPLACED.
- Q. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2"
- A STAGGERED NAILING PATTERN WILL BE USED WHENEVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES. ALSO, A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR 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 DIECE. IN A LOWER PIECE.
- S. PORTIONS OF THE TRAILER BODIES DEPICTED WITHIN THIS PROCEDURAL DRAWING, SUCH AS ONE OF THE VAN TRAILER SIDE WALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS WHICH ARE IMMEDIATELY ADJACENT TO DEPICTED OUTLOADING METHODS
- U. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454KG.

#### REVISIONS

REVISION NO. 1, DATED OCTOBER 1982, CONSISTS OF:

ADDING PROCEDURES FOR SEALED TYPE CONTAINER, ARMY PART NUMBER 13155079.

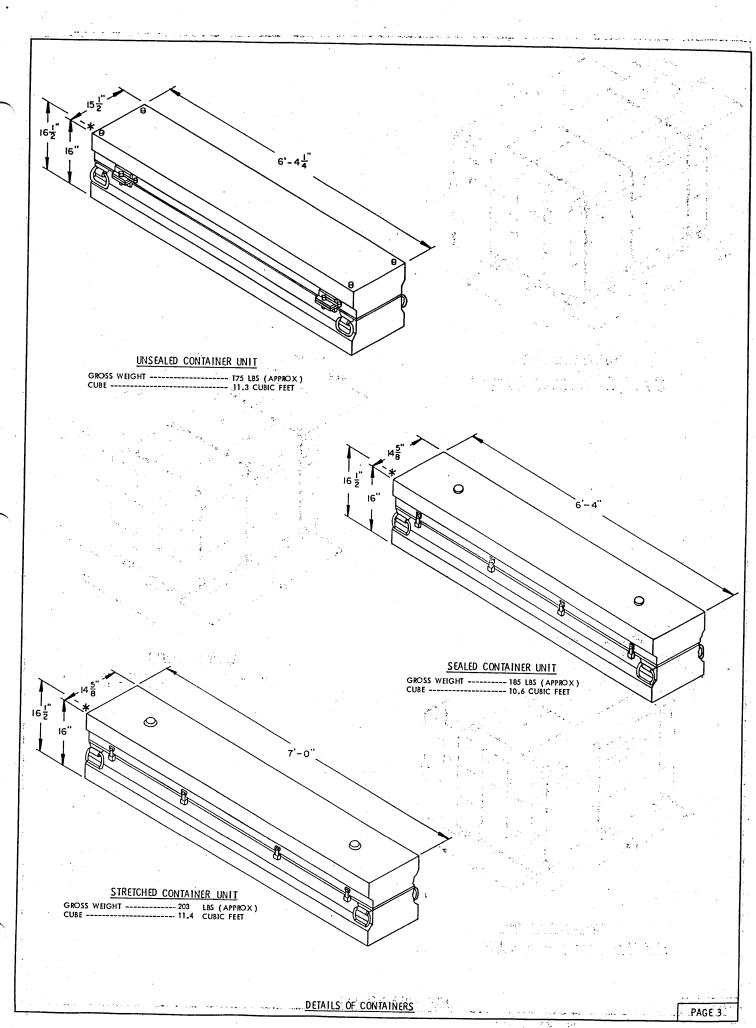
REVISION NO. 2. DATED APRIL 1986. CONSISTS OF:

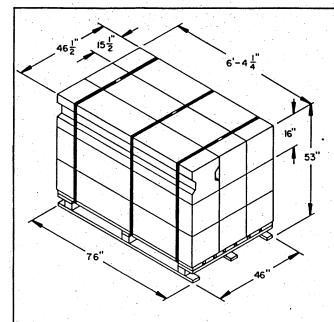
1. ADDING PROCEDURES FOR SEPARATOR GATES.

REVISION NO. 3,

1. ADDING PROCEDURES FOR STRETCHED CONTAINER AND PALLET UNIT.

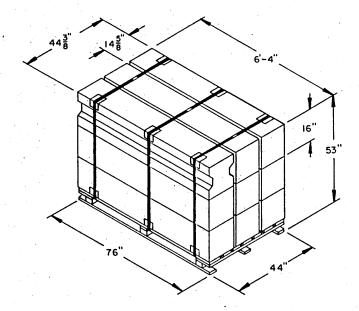
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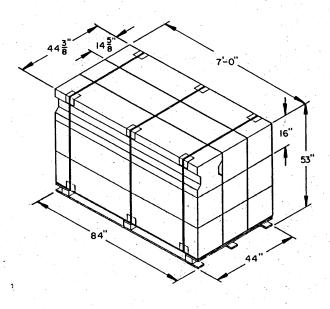
## UNSEALED PALLET UNIT

GROSS WEIGHT ------1,669 LBS (APPROX)
CUBE ------108.7 CUBIC FEET



### SEALED PALLET UNIT

GROSS WEIGHT ------ 1,749 LBS (APPROX)
CUBE ----- 103.4 CUBIC FEET



### STRETCHED PALLET UNIT

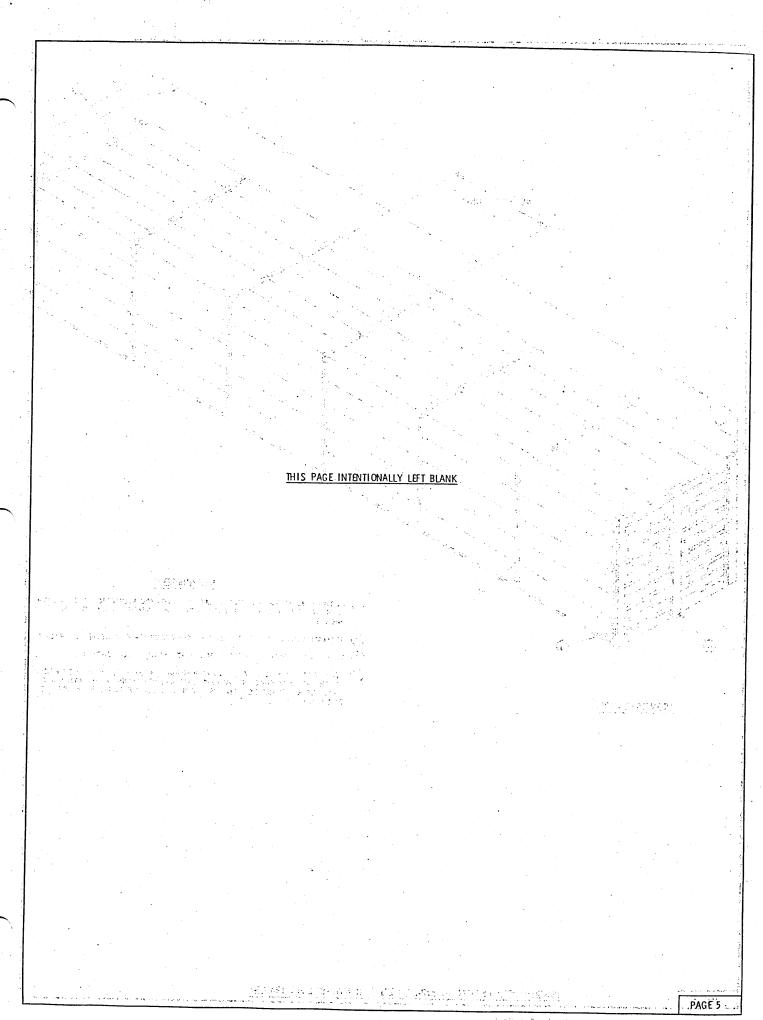
GROSS WEIGHT ------1,921 LBS (APPROX)
CUBE -----114.3 CUBIC FEET

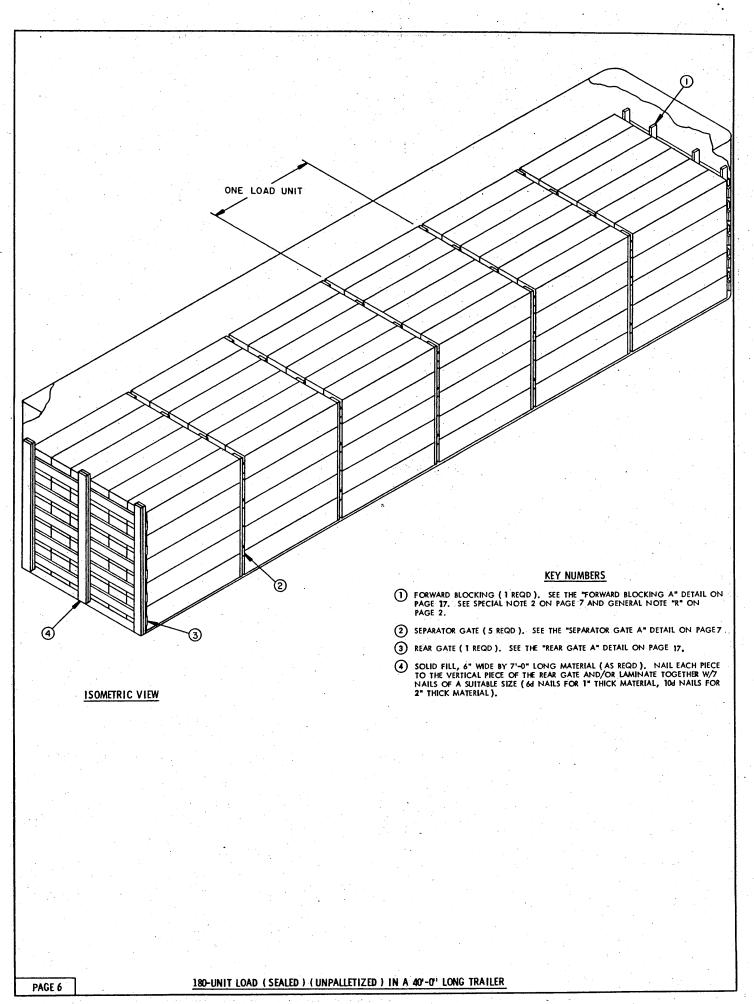
PAGE 4

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DETAILS OF PALLET UNITS

PROJECT GM 734-81



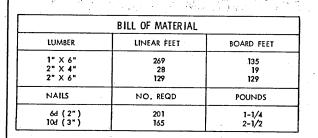


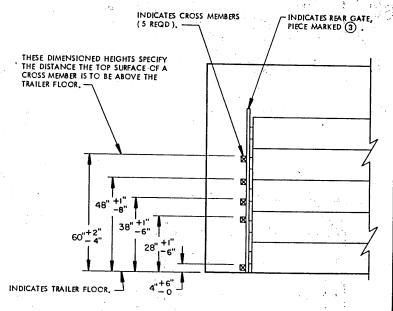
- 1.' A 180-UNIT LOAD OF SEALED CONTAINERS IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER, TRAILERS OF OTHER DIMENSIONS MAY BE USED. SEE SPECIAL NOTE 5.
- A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS SQUARE CORNERS, THE FORWARD BLOCKING ASSEMBLY WILL BE OMITTED AND THE CONTAINERS WILL BE PLACED DIRECTLY AGAINST THE FRONT WALL OF THE TRAILER.
- 3. THE DEPICTED LOAD CONFIGURATION MAY BE ADJUSTED TO SATISFY THE QUANTITY OF ITEMS TO BE SHIPPED BY OMITTING AN ENTIRE LOAD UNIT OF THIRTY (30) CONTAINERS, OR BY OMITTING ENTIRE LAYERS OF CONTAINERS, INDIVIDUAL CONTAINERS MAY BE OMITTED FROM THE TOP LAYER BY SUBSTITUTING A FILLER ASSEMBLY AS DETAILED ON PAGE 19 AND SHOWN IN THE LTL VIEW ON PAGE 14.
- 4. THE DEPICTED LOAD CAN ALSO BE SHIPPED IN A TRAILER WHICH CONTAINS MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET 6C AND THE APPENDICES THERETO. THE CROSS MEMBERS WILL BE USED AT THE REAR OF THE LOAD AT SPECIFIED HEIGHTS. PIECES MARKED WILL BE OMITTED AND THE PROCEDURES USED AS SPECIFIED IN THE "PARTIAL ELEVATION VIEW" SHOWN ON THIS PAGE. THE TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES MUST HAVE A SYSTEM LENGTH OF AT LEAST 39"-0" AS MEASURED FROM THE FRONT WALL OF THE TRAILER FOR THE 180-UNIT LOAD SHOWN ON PAGE 6.
- 5. IF A TRAILER FURNISHED FOR LOADING IS 8'-3" OR GREATER IN HEIGHT, A FULL OR PARTIAL 6-LAYER LOAD MAY BE SHIPPED BY MAKING A FEW MODIFICATIONS TO THE LOADING PROCEDURS. FOR A 6-LAYER LOAD THE VERTICAL PIECES OF THE FORWARD BLOCKING, PIECE MARKED ①, MUST BE INCREASED TO 8'-0" AND A LOAD BEARING PIECE APPLIED AT THAT HEIGHT. THE SEPARATOR GATES, PIECES MARKED ②, MUST BE MODIFIED BY INCREASING THE VERTICAL PIECES TO 7'-6", AND SHIFTING THE TOP HORIZONTAL PIECE TO A HEIGHT OF 7'-0".

VERTICAL PIECE, 1" X 6" X 6'-8" (4 REQD).	TRAILER WIDTH MINUS !"  27"  27"	6-8"
HORIZONTAL PIECE, 1" X 6" BY TRAILER WIDTH MINUS 1/2" (3 REQD ). NAIL TO THE VERTICAL PIECES W/3-64 NAILS AT EACH JOINT AND CLINCH.		51"

#### SEPARATOR GATE A

THE HEIGHT DIMENSIONS SHOWN ARE FOR USE WITH 5-LAYER LOADS AS SHOWN ON PAGE 6. FOR SHIPMENT OF A 6-LAYER LOAD, SEE SPECIAL NOTE 5 ABOVE FOR SHIPMENT OF A 4-LAYER LOAD, OMIT THE TOP HORIZONTAL PIECE AND MAKE THE VERTICAL PIECES 64" LONG. FOR SHIPMENT OF A 3-LAYER LOAD, OMIT THE TOP HORIZONTAL PIECE, SHIFT THE MIDDLE HORIZONTAL PIECE TO A HEIGHT OF 45", AND MAKE THE VERTICAL PIECES 48" LONG.





#### PARTIAL ELEVATION VIEW

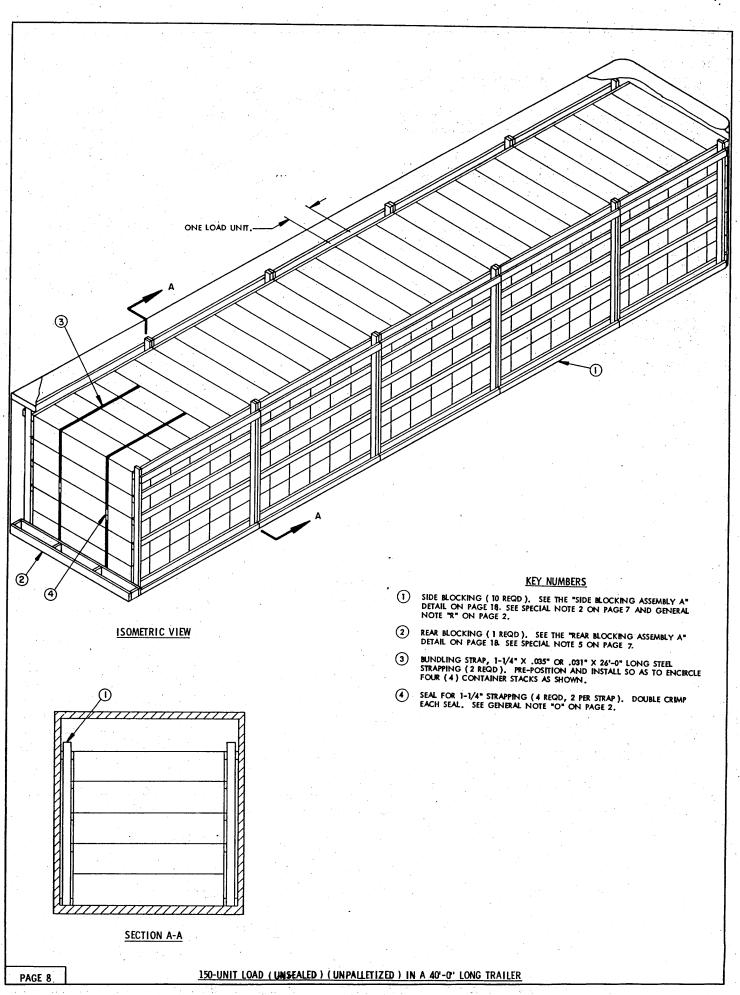
--33,870 LBS

### LOAD AS SHOWN

180-UNIT LOAD (SEALED) (UNPALLETIZED) IN A 40'-0' LONG TRAILER

PAGE 7

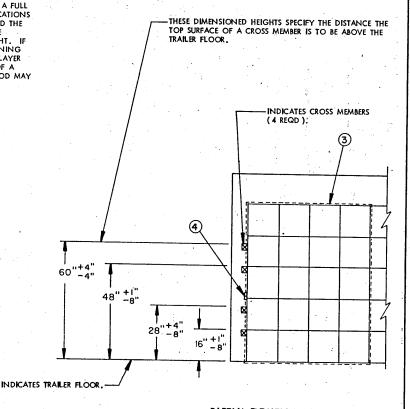
TOTAL WEIGHT----



- A 150-UNIT LOAD OF UNSEALED CONTAINERS IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER. TRAILERS OF OTHER DIMEN-SIONS MAY BE USED. SEE SPECIAL NOTE 6.
- 2. A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS SQUARE CORNERS, ALL OF THE SIDE BLOCKING ASSEMBLIES, PIECES MARKED ① WILL BE CONSTRUCTED THE SAME. SEE THE PHANTOMED PIECES ON THE "SIDE BLOCKING ASSEMBLY A" DETAIL ON PAGE 18FOR GUIDANCE IN CONSTRUCTING ASSEMBLIES FOR USE IN THE FORWARD END OF A TRAILER HAVING ROUNDED CORNERS.
- 3. THE DEPICTED LOAD CONFIGURATION MAY BE ADJUSTED TO SATISFY THE QUANTITY OF ITEMS TO BE SHIPPED BY OMITTING AN ENTIRE LOAD UNIT OF FIVE (5) CONTAINERS, OR BY OMITTING ENTIRE LAYERS OF CONTAINERS. INDIVIDUAL CONTAINERS MAY BE OMITTED FROM THE TOP LAYER BY SUBSTITUTING A FILLER ASSEMBLY AS DETAILED ON PAGE 19 AND SHOWN IN THE LTL VIEW ON PAGE 16.
- 4. THE DEPICTED LOAD CAN ALSO BE SHIPPED IN A TRAILER WHICH CONTAINS MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET &C AND THE APPENDICES THERETO. THE CROSS MEMBERS WILL BE USED AT THE REAR OF THE LOAD AT SPECIFIED HEIGHTS. PIECE MARKED ② WILL BE OMITTED AND THE PROCEDURES USED AS SPECIFIED IN THE "PARTIAL BLEVATION VIEW" SHOWN ON THIS PAGE, THE TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES MUST HAVE A SYSTEM LENGTH OF AT LEAST 39'-0" AS MEASURED FROM THE FRONT WALL OF THE TRAILER FOR THE 150-UNIT LOAD SHOWN ON PAGE 8.
- 5. IF THE DISTANCE BETWEEN THE CONTAINER STACK AT THE REAR OF THE TRAILER AND THE DOORS MEASURES LESS THAN 8", SOLID FILL TYPE BLOCKING WILL BE USED. THIS BLOCKING SHALL BE 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH POSITIONED ON EDGE. LAMINATE 6" WIDE MATERIAL BY A THICKNESS TO SUIT TO THE 2" X 6" ON EDGE TO FILL THE VOID SPACE BETWEEN THE REARMOST STACK AND THE REAR DOORS.
- 6. IF A TRAILER FURNISHED FOR LOADING IS 8'-3" OR GREATER IN HEIGHT, A FULL OR PARTIAL 6-LAYER LOAD MAY BE SHIPPED BY MAKING A FEW MODIFICATIONS TO THE LOAD PROCEDURES. FOR THE 6-LAYER PORTION OF THE LOAD THE VERTICAL PIECES OF THE SIDE BLOCKING, PIECE MARKED ① MUST BE INCREASED TO 8'-0" AND A LOAD BEARING PIECE APPLIED AT THAT HEIGHT. IF THE DOOR OPENING HEIGHT IS NOT SUFFICIENT TO PERMIT THE POSITIONING OF A FULL 6-LAYER LOAD, THE REAR TWO CONTAINLES OF THE PARTIAL LAYER MUST BE STRAPPED TO THE NEXT LOWER LAYER. SEE THE "SECUREMENT OF A PARTIAL LAYER" DETAIL AT RIGHT FOR GUIDANCE. THE STRAPPING METHOD MAY ALSO BE EMPLOYED FOR PARTIAL LAYER OTHER THAN THE SIXTH.

	BUNDLING STRAP, 1-1/4" X .035" X 7'-0" LONG STEEL STRAPPING (2 REQD).
L	
1	
1	
SECUREMENT	OF A PARTIAL LAYER

SEE SPECAIL NOTE 6 AT LEFT.



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STEEL STRAPPING, 1-1/4" X .035" OR .031"----52' REQD-----B LBS SEAL FOR 1-1/4" STRAPPING----------4 REQD-----NIL

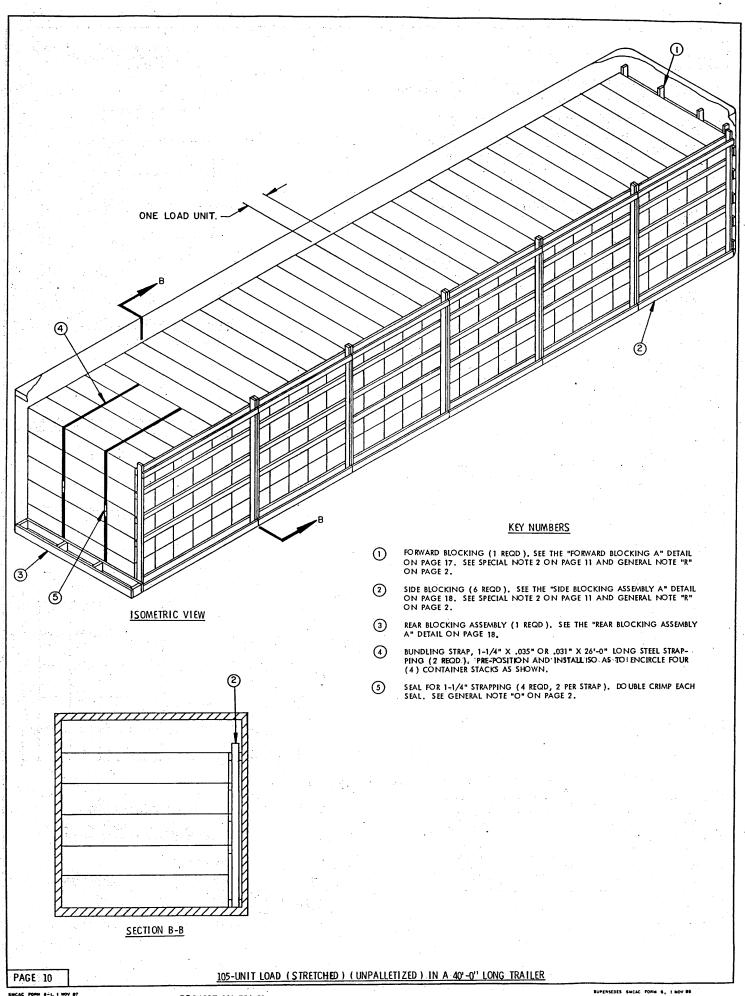
### PARTIAL ELEVATION VIEW

THE VIEW SHOWN ABOVE INDICATES THE REAR PORTION OF THE LOAD SHOWN ON PAGE 6.

LOAD AS SHOWN

TOTAL WEIGHT----- 27,199 LBS

150-UNIT LOAD (UNSEALED) (UNPALLETIZED) IN A 40'-0' LONG TRAILER



- 1. A 105-UNIT LOAD OF STRETCHED CONTAINERS IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER. TRAILERS OF OTHER DIMEN-SIONS MAY BE USED. SEE SPECIAL NOTE 6.
- 2. A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS "GUARE CORNERS, THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED (1) WILL BE OMITTED, THE CONTAINERS WILL BE PLACED DIRECTLY AGAINST THE FRONT WALL OF THE TRAILER, AND ALL OF THE SIDE BLOCKING ASSEMBLIES, PIECES MARKED (2), WILL BE CONSTRUCTED THE SAME. SEE THE PHANTOMED PIECES ON THE "SIDE BLOCKING ASSEMBLY A" DETAIL ON PAGE 18 FOR GUIDANCE IN CONSTRUCTING ASSEMBLIES FOR USE IN THE FORWARD END OF A TRAILER HAVING ROUNDED CORNERS.
- 3. THE DEPICTED LOAD CONFIGURATION MAY BE ADJUSTED TO SATISFY THE QUANTITY OF ITEMS TO BE SHIPPED BY OMITTING AN ENTIRE LOAD UNIT OF FIVE (5) CONTAINERS, OR BY OMITTING ENTIRE LAYERS OF CONTAINERS, INDIVIDUAL CONTAINERS MAY BE OMITTED FROM THE TOP LAYER BY SUBSTITUTING A FILLER ASSEMBLY AS DETAILED ON PAGE 19 AND SHOWN IN THE LITL VIEW ON PAGE 16.
- 4. THE DEPICTED LOAD CAN ALSO BE SHIPPED IN A TRAILER WHICH CONTAINS

  MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD
  BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH
  WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET &C AND THE APPENDICES THERETO.
  THE CROSS MEMBERS, WILL BE USED AT THE REAR OF THE LOAD AT SPECIFIED
  HEIGHTS. PIECE MARKED ③ WILL BE OMITTED AND THE PROCEDURES USED AS
  SPECIFIED IN THE "PARTIAL ELEVATION VIEW" SHOWN ON PAGE 9. THE
  TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES MUST HAVE A SYSTEM
  LENGTH OF AT LEAST 391-07 AS MEASURED FROM THE FRONT WALL OF THE
  TRAILER FOR THE 105-UNIT LOAD SHOWN ON PAGE 10.
- 5. IF THE DISTANCE BETWEEN THE CONTAINER STACK AT THE REAR OF THE TRAILER AND THE DOORS MEASURES LESS THAN 8", SOLID FILL TYPE BLOCKING WILL BE USED. THIS BLOCKING SHALL BE 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH POSITIONED ON EDGE. LAMINATE 6" WIDE MATERIAL BY A THICKNESS TO SUIT TO THE 2" X 6" ON EDGE TO FILL THE VOID SPACE BETWEEN THE REARMOST STACK AND THE REAR DOORS.
- 6. IF A TRAILER FURNISHED FOR LOADING IS 8'-3" OR GREATER IN HEIGHT, A FUIL OR PARTIAL 6-LAYER LOAD MAY BE SHIPPED BY MAKING A FEW MODIFICATIONS TO THE LOADING PROCEDURES. FOR THE 6-LAYER PORTION OF THE LOAD THE VERTICAL PIECES OF THE SIDE BLOCKING, PIECE MARKED ②, MUST BE INCREASED TO 8'-0" AND A LOAD BEARING PIECE APPLIED AT THAT HEIGHT. IF THE DOOR OPENING HEIGHT IS NOT SUFFICIENT TO PERMIT THE POSITIONING OF A FULL 6-LAYER LOAD, THE REAR TWO CONTAINERS OF THE PARTIAL LAYER MUST BE STRAPPED TO THE NEXT LOWER LAYER. SEE THE "SECUREMENT OF A PARTIAL LAYER DETAIL ON PAGE 9 FOR GUIDANCE. THE STRAPPING METHOD MAY ALSO BE EMPLOYED FOR PARTIAL LAYERS OTHER THAN THE SIXTH.

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	379	253
2" X 6"	275	275
NAILS	NO . REQD	POUNDS
10d (3")	312	5

#### LOAD AS SHOWN

<u>ITEM</u>	QUANTITY	WEIG	HT (APPROX
	105	30,450 816	
DOMNAGE	TOTAL WEIGHT		

180-UNIT LOAD (STRETCHED) (UNPALLETIZED) IN A 45'-0" LONG TRAILER

- A 180-UNIT LOAD OF STRETCHED CONTAINERS IS SHOWN IN A 45'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER. TRAILERS OF OTHER DIMENSIONS MAY BE USED. SEE SPECIAL NOTE 5.
- A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS SQUARE CORNERS, THE FORWARD BLOCKING ASSEMBLY WILL BE OMITTED AND THE CONTAINERS WILL BE PLACED DIRECTLY AGAINST THE FRONT WALL OF THE TRAILER.
- 3. THE DEPICTED LOAD CONFIGURATION MAY BE ADJUSTED TO SATISFY THE QUANTITY OF ITEMS TO BE SHIPPED BY OMITTING AN ENTIRE LOAD UNIT OF THIRTY (30) CONTAINERS, OR BY OMITTING ENTIRE LAYERS OF CONTAINERS, INDIVIDUAL CONTAINERS MAY BE OMITTED FROM THE TOP LAYER BY SUBSTITUTING A FILLER ASSEMBLY AS DETAILED ON PAGE 19 AND SHOWN IN THE LTL VIEW ON PAGE 14.
- 4. THE DEPICTED LOAD CAN ALSO BE SHIPPED IN A TRAILER WHICH CONTAINS MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET 6C AND THE APPENDICES THERETO. THE CROSS MEMBERS WILL BE USED AT THE REAR OF THE LOAD AT SPECIFIED HEIGHTS. PIECES MARKED ③ AND ④ WILL BE OMITTED AND THE PROCEDURES USED AS SPECIFIED IN THE "PARTIAL ELEVATION VIEW" SHOWN ON PAGE 7. THE TRAILER EQUIPPED WITH MECHANICAL BRACING DEVICES MUST HAVE A SYSTEM LENGTH OF AT LEAST 39'-0" AS MEASURED FROM THE FRONT WALL OF THE TRAILER FOR THE 180-UNIT LOAD SHOWN ON PAGE 12.
- 5. IF A TRAILER FURNISHED FOR LOADING IS 8'-3" OR GREATER IN HEIGHT, A FULL OR PARTIAL 6-LAYER LOAD MAY BE SHIPPED BY MAKING A FEW MODIFICATIONS TO THE LOADING PROCEDURES. FOR A 6-LAYER LOAD THE VERTICAL PIECES OF THE FORWARD BLOCKING, PIECE MARKED ①, MUST BE INCREASED TO 8'-0" AND A LOAD BEARING PIECE APPLIED AT THAT HEIGHT. THE SEPARATOR GATES, PIECES MARKED ②, MUST BE MODIFIED BY INCREASING THE VERTICAL PIECES TO 7'-6", AND SHIFTING THE TOP PORIZONTAL PIECE TO A HEIGHT OF 7'-0". THE REAR GATE, MECE MARKED ③ WILL HAVE THE VERTICAL PIECES INCREASED TO 8'-0" AND A HORIZONTAL PIECE APPLIED AT THAT HEIGHT.

BILL OF MATERIAL				
LUMBER	LINEAR FEET	BOARD FEET		
1" X 6" 2" X 4" 2" X 6"	246 28 239	123 19 239		
NAILS	NO. REQD	POUNDS		
6d (2") 10d (3")	180 277	1-1/4 4-1/2		

LOAD AS SHOWN

QUANTITY

WEIGHT (APPROX)

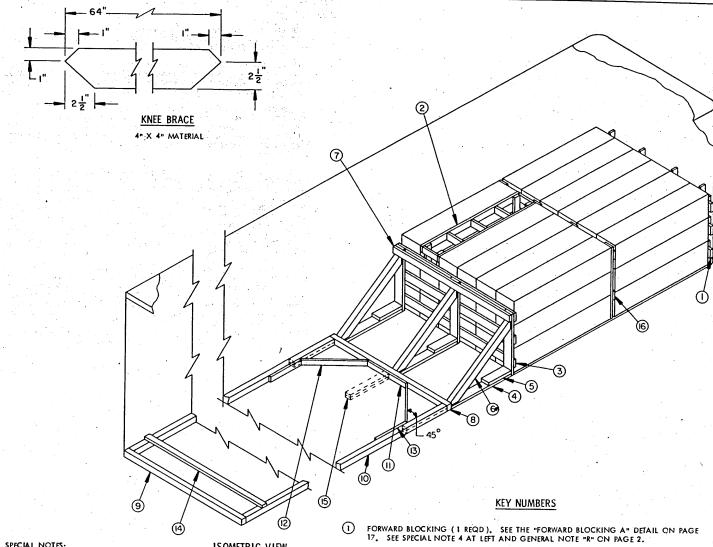
PALLET UNIT (UNPALLETIZED )-180----

ITEM

- 36,540 LBS - 768 LRS

TOTAL WEIGHT ----- 37,308 LBS

180-UNIT LOAD (STRETCHED) (UNPALLETIZED) IN A 45'-0" LONG TRAILER



- ISOMETRIC VIEW
- THESE OUTLOADING PROCEDURES ARE SHOWN DEPICTING THE USE OF "KNEE BRACE" BLOCKING IN A 7'-6" WIDE TRAILER. WIDER TRAILERS
- THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED (9) THROUGH (4), IS ADEQUATE FOR RETAINING NOT MORE THAN 12,000 POUNDS OF LADING OR SIXTY-FOUR (64) SEALED OR STRETCHED CONTAINERS.
- PIECES MARKED (3) ARE FOR USE IN A TRAILER WHICH HAS A NAILABLE FLOOR AND SHOULD BE USED, IF POSSIBLE, IN LIEU OF PIECES MARKED (9) THROUGH (14) WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS, THREE (3) EACH 30" LONG BACK-UP CLEATS, PIECES MARKED (15), ARE ADEQUATE FOR RETAINING A MAXIMUM SIZE LTL LOAD OF 19,800 POUNDS, THREE (3) EACH 36" LONG BACK-UP CLEATS SECURED W/9-104 NAILS EACH LAYER ARE ADEQUATE FOR RETAINING NOT MORE THAN 14,000 POUNDS OF
- A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS SQUARE CORNERS, THE FORWARD BLOCKING ASSEMBLY WILL BE OMITTED AND THE CONTAINERS WILL BE PLACED DIRECTLY AGAINST THE FRONT WALL OF THE TRAILER.
- One or more filler assemblies, shown as piece marked (2), may be used in place of omitted containers in the top layer only. The filler is shown in the load view only to depict a typical installation.
- IF THE TRAILER BEING OUTLOADED CONTAINS MECHANICAL BRACING DEVICES IF THE MARKED BEING OUTCOMED CONTAINS MECHANICAL BRACING DEVICES
  AS DESCRIBED IN GENERAL NOTE "G" ON PAGE 2, THEY MAY BE USED IN LIEU
  OF PIECES MARKED (1) THROUGH (1) POSITION THE CROSS MEMBERS AT THE
  16\*, 28\*, AND 48\* HEIGHT DIMENSIONS FOR THE LOAD SHOWN ABOVE,
  INSTALL CROSS MEMBERS TIGHTLY AGAINST THE REAR GATE B, PIECE MARKED
  (3) SEE THE "PARTIAL ELEVATION VIEW" AND SPECIAL NOTE 4 ON PAGE 7
  FOR ADDITIONAL GUIDANCE.

#### (KEY NUMBERS CONTINUED)

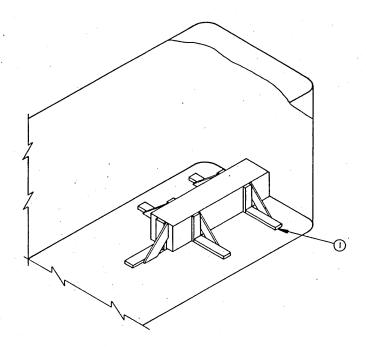
(b) SEPARATOR GATE ( 1 REQD ). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 7.

- 2 FILLER ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 19. SEE SPECIAL NOTE 5 ON THIS PAGE AND GENERAL NOTE "R" ON PAGE 2.
- 3 REAR GATE ( 1 REQD ). SEE THE "REAR GATE 3" DETAIL ON PAGE 19.
- **(4)** FLCOR CLEAT, 2" X 6" BY CUT-TO-FIT ( REF: 47" ) (3 REQD ).
- PCCKET CLEAT, 2" X 6" X 18" (3 REQD). NAIL TO PIECE MARKED ( W/5-10d NAILS. TOENAIL TO PIECE MARKED () W/2-12d NAILS.
- KNEE BRACE, 4" X 4" X 64" (3 REQD). SEE THE "KNEE BRACE" DETAIL ABOVE FOR THE BEVEL CUTS REQUIRED. TOENAIL TO PIECE MARKED 3 AND 4 W/2-16d NAILS AT (6) EACH END
- Ø HOLD-DOWN PIECE, 2" X 4" BY TRAILER WIDTH MINUS 1/2" ( 1 REQD ). NAIL TO PIECE MARKED 3 W/3-10d NAILS AT EACH JOINT.
- FORWARD HEADER, 4" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD). TOENAIL TO PIECES MARKED ( W/2-16d NAILS AT EACH JOINT.
- ⑨ REAR HEADER, 4" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD). POSITION AGAINST REAR CORNER POSTS IF THE TRAILER IS SO EQUIPPED, OR POSITION TO CONTACT REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. SEE SPECIAL NOTE 2 ON POSITION
- SIDE STRUT, 4" X 4" BY CUT-TO-FIT BETWEEN PIECES MARKED  $\circledR$  AND ข (2 REQD). TOENAIL TO PIECES MARKED  $\r$  AND  $\r$  W/2-16d NAILS AT EACH END.
- CENTER CLEAT, 2" X 4" X 30" (1 REQD). NAIL TO PIECE MARKED (8) W/7-12d NAILS.
- DIAGONAL BRACE, 2" X 4" BY CUT-TO-FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT A 45° ANGLE AS SHOWN AND TOENAIL TO PIECES MARKED 

  B AND (1) W/2-16d NAILS AT EACH END.
- BACK-UP CLEAT, 2" X 4" X 24" (2 REQD). NAIL TO PIECE MARKED 1 W/6-12d NAILS.
- STRUT BRACING, 2" X 4" BY TRAILER WIDTH (CUT TO FIT) (MINIMUM OF 1 REQD). INSTALL ONE (1) NEAR REAR END OF STRUTS MARKED (1) AS SHOWN. ONE (1) ADDITIONAL PIECE REQUIRED FOR EVERY 7"-0" OF STRUT LENGTH. NAIL TO PIECES MARKED (1) W/3-12d NAILS AT EACH END.
- BACK-UP CLEAT, 2" X 4" X 30" (DOUBLED) (3 REQD). ALIGN WITH A KNEE BRACE MARKED (6) AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/7-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 3 ON THIS PAGE. (CONTINUED AT LEFT)

PAGE 14

TYPICAL LTL (35-UNIT LOAD) (SEALED) (UNPALLETIZED)



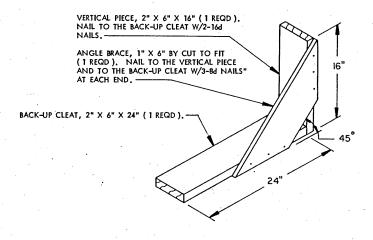
### ISOMETRIC VIEW

### SPECIAL NOTES:

- THESE OUTLOADING PROCEDURES DEPICT THE USE OF "LTL BRACE" TYPE BLOCKING IN A VAN TRAILER WHICH IS EQUIPPED WITH A NAILABLE FLOOR.
- EACH "LTL BRACE" AS SPECIFIED WILL RETAIN 2,000 POUNDS OF LADING LONGITUDINALLY.
- 3. THE PROCEDURES SHOWN ON THIS PAGE ARE APPLICABLE FOR THE SEALED, UNSEALED, OR STRETCHED TYPE CONTAINERS.

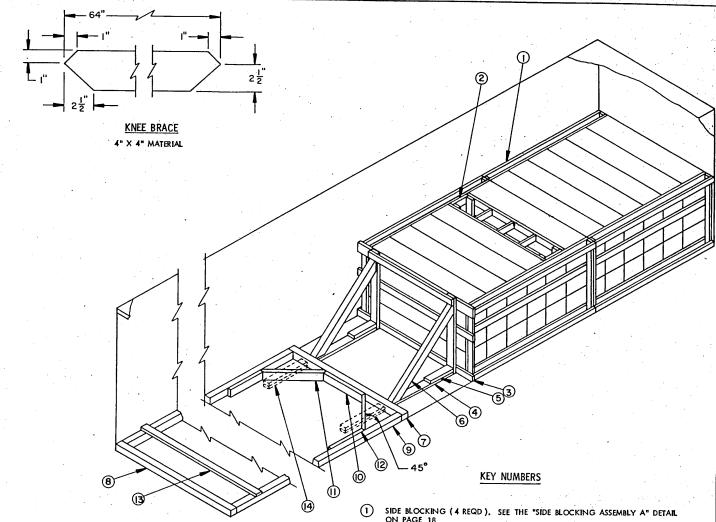
### KEY NUMBER

(1) LTL BRACE (5 REQD). SEE THE "LTL BRACE A" DETAIL BELOW. NAIL EACH BRACE TO TRAILER FLOOR W/10-10d NAILS. SEE SPECIAL NOTE 2 ON THIS PAGE.



LTL BRACE A

TYPICAL LTL (1-UNIT LOAD) (UNPALLETIZED) (SEALED, UNSEALED OR STRETCHED)



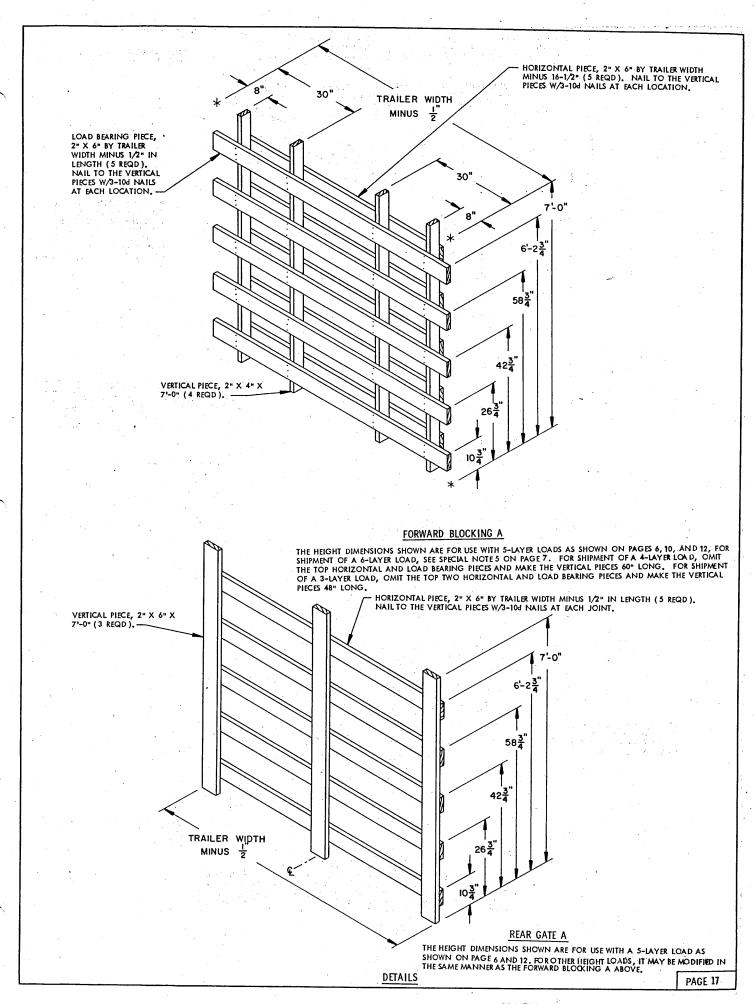
#### ISOMETRIC VIEW

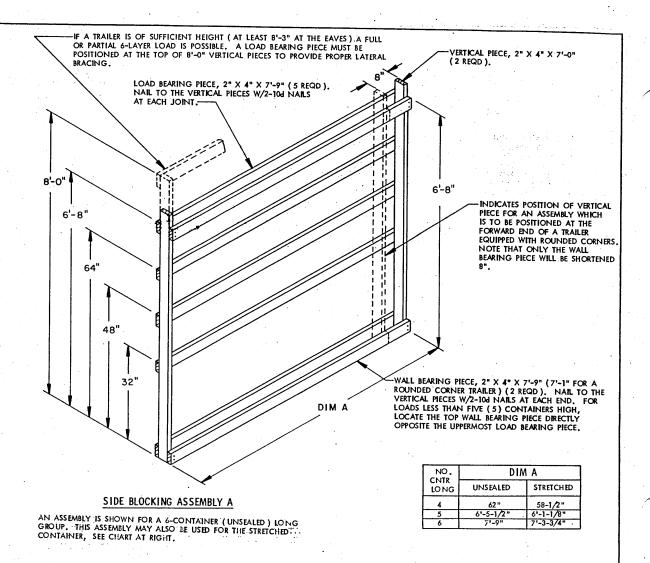
#### SPECIAL NOTES:

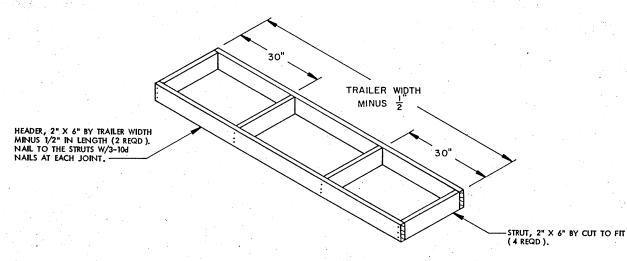
- THESE OUTLOADING PROCEDURES ARE SHOWN DEPICTING THE USE OF "KNEE BRACE" BLOCKING IN A 7'-6" WIDE TRAILER. WIDER OR NARROWER TRAILERS
- THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED (8) THROUGH (3), IS ADEQUATE FOR RETAINING NOT MORE THAN 12,000 POUNDS OF LADING OR SEVENTY (70) CONTAINERS.
- PIECES MARKED 
  ARE FOR USE IN A TRAILER WHICH HAS A NAILABLE FLOOR AND SHOULD BE USED, IF POSSIBLE, IN LIEU OF PIECES MARKED 
  THROUGH 
  WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS. TWO (2) EACH 30" LONG BACK-UP CLEATS, PIECES MARKED 
  ARE ADEQUATE FOR RETAINING A MAXIMUM SIZE LTL LOAD OF 7,800 POUNDS. TWO (2) EACH 36" LONG BACK-UP CLEATS SECURED W/9-12d NAILS EACH LAYER ARE ADEQUATE FOR RETAINING NOT MORE THAN 10,000 POUNDS OF LADING. FOR A LOAD OF ROM 10,000 TO 15,000 POUNDS IT WILL BE NECESSARY TO ADD ONE ADDITIONAL PIECE 
  ARKED 
  AND AND AND ANOTHER VERTICAL PIECE ON THE GATE, PIECE MARKED 
  ARKED 
  AND AN ADDITIONAL PIECE MARKED 
  AND AND AN ADDITIONAL PIECE MARKED
- IF THE TRAILER BEING LOADED HAS ROUNDED CORNERS AT THE FORWARD END, REFER TO PAGE 18 FOR MODIFICATIONS WHICH WILL HAVE TO BE MADE ON THE TWO (2) FORWARD SIDE BLOCKING ASSEMBLIES, SHOWN AS PIECES MARKED
- ONE OR MORE FILLER ASSEMBLIES, SHOWN AS PIECE MARKED ②, MAY BE USED IN PLACE OF OMITTED CONTAINERS IN THE TOP LAYER ONLY. THE FILLER IS SHOWN IN THE LOAD VIEW ONLY TO DEPICT A TYPICAL INSTALLATION.
- IF THE TRAILER BEING OUTLOADED CONTAINS MECHANICAL BRACING DEVICES AS DESCRIBED IN GENERAL NOTE "G" ON PAGE 2, THEY MAY BE USED IN LIEU OF PIECES MARKED (3) THROUGH (4). POSITION THE CROSS MEMBERS AT THE 16", 28", AND 48" HEIGHT DIMENSIONS FOR THE LOAD SHOWN ABOVE. INSTALL CROSS MEMBERS TIGHTLY AGAINST THE CONTAINERS. SEE THE "PARTIAL ELEVATION VIEW" AND SPECIAL NOTE 4 ON PAGE 9 FOR ADDITIONAL GUIDANCE.
- THE PROCEDURES SHOWN ON THIS PAGE ARE APPLICABLE FOR BOTH THE SEALED OR UNSEALED TYPE CONTAINER.

- 2 FILLER ASSEMBLY ( 1 REQD ). SEE THE DETAIL ON PAGE 19 SEE SPECIAL NOTE 5 ON THIS PAGE AND GENERAL NOTE "R" ON PAGE 2.
- 3 GATE ( 1 REQD ). SEE THE "REAR GATE B" DETAIL ON PAGE 19.
- **④** FLOOR CLEAT, 2" X 6" BY CUT TO FIT (REF: 47") (2 REQD).
- POCKET CLEAT, 2" X 6" X 18" ( 2 REQD ). NAIL TO PIEC NAILS. TOENAIL TO PIECE MARKED 3 W/2-12d NAILS. (5) NAIL TO PIECE MARKED 4 W/5-10d
- KNEE BRACE, 4" X 4" X 64" ( 2 REQD ). SEE THE "KNEE BRACE" DETAIL ABOVE FOR THE BEVEL CUTS REQUIRED. TOENAIL TO PIECES MARKED 3 AND 4 W/2-16d NAILS AT EACH END.
- FORWARD HEADER, 4" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH ( 1 REQD ). TOENAIL TO PIECES MARKED 6 W/2-16d NAILS AT EACH JOINT.  $\mathcal{O}$
- REAR HEADER, 4" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD), POSITION AGAINST REAR CORNER POSTS IF THE TRAILER IS SO EQUIPPED, OR POSITION TO CONTACT REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. SEE SPECIAL NOTE 2 ON THIS PAGE.
- (9) SIDE STRUT, 4" X 4" BY CUT TO FIT BETWEEN PIECES MARKED 7 AND 8 (2 REQD) TOENAIL TO PIECES MARKED 7 AND 8 W/2-16d NAILS AT EACH END.
- (10) CENTER CLEAT, 2" X 4" X 30" (1 REQD). NAIL TO PIECE MARKED (7) W/7-124
- (II) DIAGONAL BRACE, 2" X 4" BY CUT TO FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT A 45° ANGLE AS SHOWN AND TOENAIL TO PIECES MARKED ? AND ? W/2-164 NAILS AT EACH END.
- (12) BACK-UP CLEAT, 2" X 4" X 24" ( 2 RÈQD ). NAIL TO PIECE MARKED 9 W/6-12d NAILS.
- STRUT BRACING, 2" X 4" BY TRAILER WIDTH (CUT TO FIT) ( MINIMUM OF 1 REQD). INSTALL ONE (1) NEAR REAR END OF STRUTS MARKED ③ AS SHOWN. ONE (1) ADDITIONAL PIECE REQUIRED FOR EVERY 7"-0" OF STRUT LENGTH. NAIL TO PIECES MARKED ④ W/3-124 NAILS AT EACH END. (13)
- 14) BACK-UP CLEAT, 2" X 4" X 30" ( DOUBLED ) ( 2 REQD ). ALIGN WITH A KNEE BRACE MARKED (6) AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/7-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 3 ON THIS PAGE.

TYPICAL LTL (35-UNIT LOAD) (UNSEALED) (UNPALLETIZED)

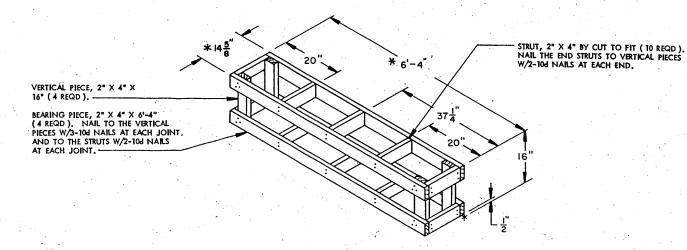






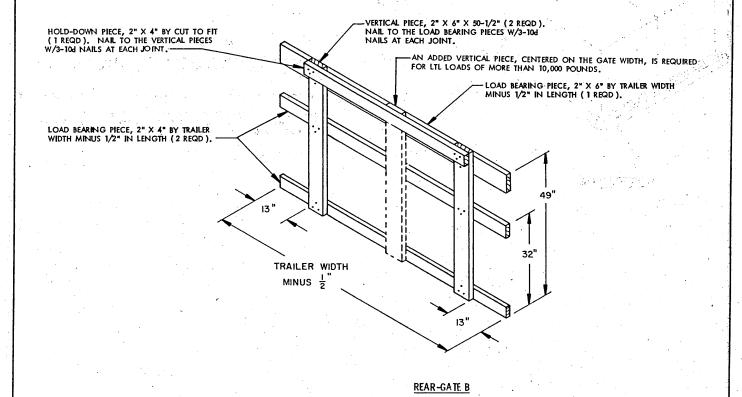
### REAR BLOCKING ASSEMBLY A

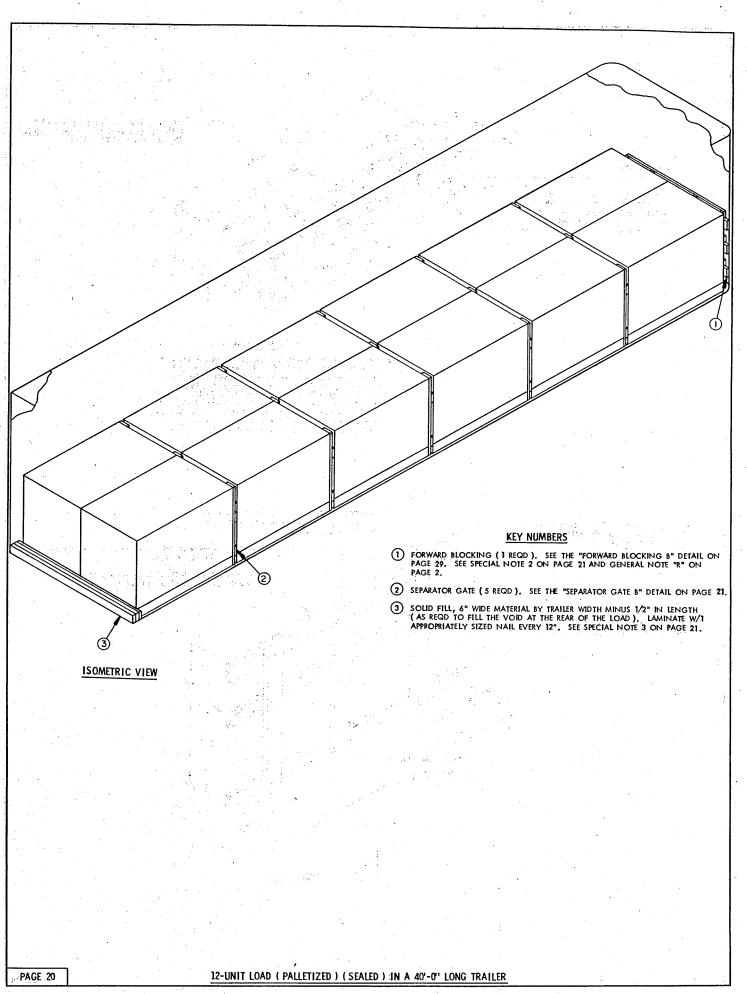
THIS REAR BLOCKING ASSEMBLY IS DESIGNED FOR USE AT THE REAR END OF AN UNPALLETIZED LOAD WHEN THE DISTANCE BETWEEN THE REAR OF THE LOAD AND THE REAR DOORS, WHEN CLOSED, MEASURES 8" OR MORE, CAUTION: STRUTS LONGER THAN 60" WILL NOT BE USED; USE A "K-BRACE" TYPE OF REAR BLOCKING AS DEPICTED ON PAGE 14 TO FACILITATE COMPLIANCE WITH THIS RULE,



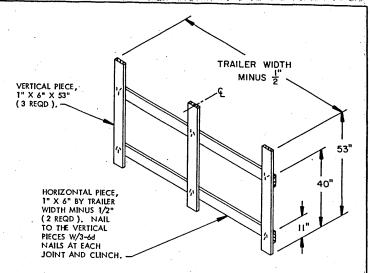
### FILLER ASSEMBLY

\* THE DIMENSIONS SHOWN ON THE ABOVE DETAIL ARE FOR USE WITH THE SEALED CONTAINER, WHEN USING THE FILLER TO REPLACE AN UNSEALED CONTAINER, THE 6'-4" DIMENSION WILL BE INCREASED TO 6'-4-1/4" AND THE 14-5/8" DIMENSION WILL BE INCREASED TO 15-1/2". ALL OTHER DIMENSIONS WILL REMAIN UNCHANGED. WHEN USED FOR THE STRETCHED, THE 6'-4" DIMENSION WILL BE INCREASED TO 7'-0", THE 37-1/4" WILL BE 41-1/4". ALL OTHER DIMENSIONS REMAIN UNCHANGED.





- A 12-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE ( INSIDE DIMEN-SION ) CONVENTIONAL TYPE VAN TRAILER. TRAILERS OF OTHER DIMENSIONS MAY BE USED.
- A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS SQUARE CORNERS, THE FORWARD BLOCKING ASSEMBLY WILL BE OMITTED AND THE PALLET UNITS WILL BE PLACED DIRECTLY AGAINST THE FRONT WALL OF THE TRAILER.
- STRUT TYPE REAR BLOCKING, AS SHOWN BY PIECE MARKED ② ON PAGE 22, WILL BE USED IN LIEU OF THE SOLID FILL TYPE BLOCKING SHOWN IN THE LOAD VIEW, WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS MEASURES B" OR MORE.
- 4. IF A PALLET UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS IS TO BE TRANSPORTED, REFER TO THE "SHIPMENT OF A PARTIAL UNIT" PROCE-DURES ON PAGES 33, 34, AND 35 FOR GUIDANCE.
- LEFTOVER CONTAINERS, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 36 FOR GUIDANCE.
- 6. IF THE TRAILER BEING OUTLOADED CONTAINS MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET 6C. AND THE APPENDICES THERETO, THEY MAY BE USED AT THE REAR OF THE LOAD IN LIEU OF "REAR BLOCKING", PIECE MARKED (3) ON PAGE 20. SEE THE "PARTIAL ELEVATION VIEW" ON PAGE 23 FOR CROSS MEMBER LOCATION AND QUANTITY REQUIREMENTS. THE MECHANICAL BRACING DEVICE SYSTEM OF A TRAILER MUST HAVE A LENGTH OF AT LEAST 39'-0" AS MEASURED FROM THE FRONT WALL OF THE TRAILER FOR THE 12-UNIT LOAD SHOWN ON PAGE 20.

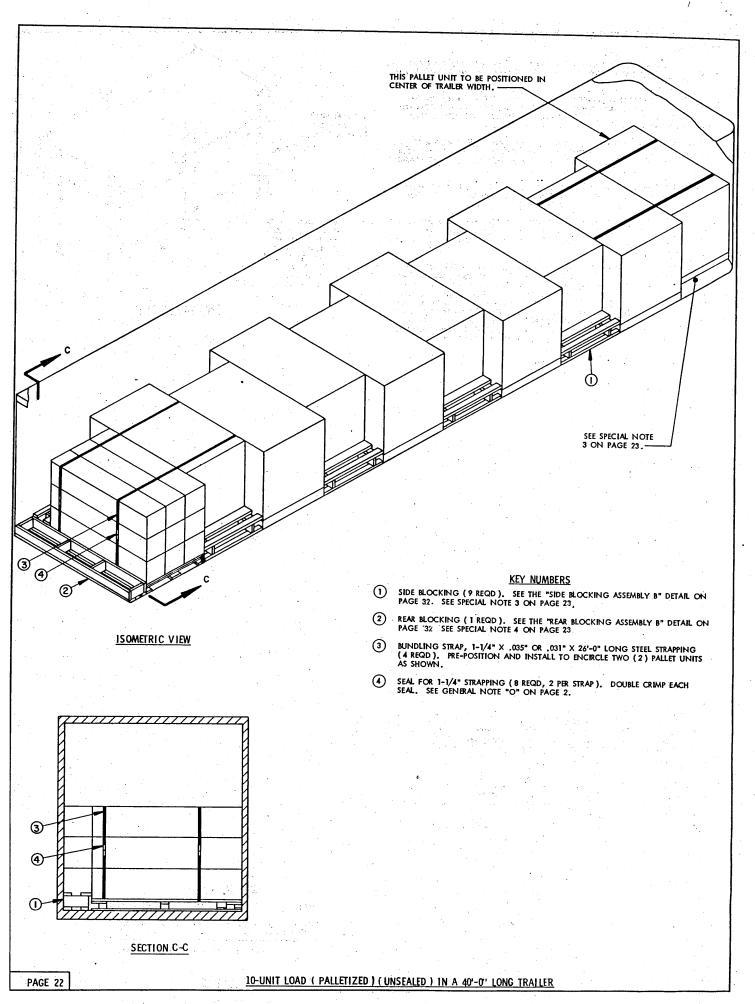


SEPARATOR GATE B

	BILL OF MATERIAL	
LUMBER	LINEAR FEET	BOARD FEET
1" X 6" 2" X 4" 2" X 6"	151 16 57	76 11 57
NAILS	NO. REQD	POUNDS
6d (2")	97 86	1/2 1-1/4

LOAD AS SHOWN

12-UNIT LOAD ( PALLETIZED ) ( SEALED ) IN A 40'-0" LONG TRAILER



- A 10-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE ( INSIDE DIMENSION ) CONVENTIONAL TYPE VAN TRALER.
- A WIDER OR NARROWER TRAILER THAN SHOWN MAY BE USED FOR SHIPPING THE DEPICTED LOAD. ADJUST THE WIDTH OF THE "SIDE BLOCKING" AS NECESSARY TO PROVIDE FOR A MAXIMUM OF ONE-HALF INCH ( 1/2" ) VOID.
- IF THE TRAILER TO BE LOADED IS EQUIPPED WITH A SQUARE FRONT, THE FORWARD CONTAINER IN THE LOAD MAY BE POSITIONED IN THE CORNER IN LIEU OF BEING CENTERED, AS SHOWN. A PIECE MARKED (1) MUST THEN BE INSTALLED, HOWEVER, THE BUNDLING STRAPS AROUND THE FIRST TWO PALLET UNITS WILL NOT BE REQUIRED.
- IF THE DISTANCE BETWEEN THE PALLET UNIT AT THE REAR OF THE TRAILER AND THE DOORS MEASURES LESS THAN B", SOLID FILL TYPE BLOCKING WILL BE USED. THIS BLOCKING SHALL BE 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH POSITIONED ON EDGE AND LAMINATE 6" WIDE MATERIAL, BY THICKNESS TO SUIT, TO THE 2" X 6" ON EDGE TO FILL THE VOID SPACE BETWEEN THE REARMOST PALLET UNIT AND THE REAR DOORS.
- IF A PALLET UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS IS TO BE TRANSPORTED, REFER TO THE "SHIPMENT OF A PARTIAL UNIT" PROCEDURES ON PAGES 33, 34, AND 35 FOR GUIDANCE.
- LEFTOVER CONTAINERS, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 36 FOR GUIDANCE.
- IF THE TRAILER BEING OUTLOADED CONTAINS MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET CC AND THE APPENDICES THERETO, THEY MAY BE USED AT THE REAR OF THE LOAD IN LIEU OF "REAR BLOCKING", PIECE MARKED ② ON PAGE 22. SEE THE "PARTIAL ELEVATION VIEW" BELOW FOR CROSS MEMBER LOCATION AND QUANTITY REQUIRE-MENTS. THE MECHANICAL BRACING DEVICE SYSTEM OF A TRAILER MUST HAVE A LENGTH OF AT LEAST 39'-2" FOR A 10-UNIT LOAD AS SHOWN ON PAGE 22
- ELEVEN (11) PALLET UNITS CAN BE LOADED IN A TRAILER WHICH IS 45'-0" LONG.

LUMBER	LINEAR FEET	BOARD FEET
2" X 4" 2" X 6"	119 70	80 70
NAILS	NO. REQD	POUNDS
104 (3")	190	3

THE TOP SURFACE OF A CROSS MEMBER IS TO BE ABOVE THE TRAILER FLOOR. INDICATES CROSS MEMBERS (4 REQD). 4 28"+1" 4"+0. INDICATES 16" + 1" TRAILER FLOOR

PARTIAL ELEVATION VIEW

THESE DIMENSIONED HEIGHTS SPECIFY THE DISTANCE

THE VIEW SHOWN ABOVE INDICATES THE REAR PORTION OF THE LOAD SHOWN ON PAGE 22.

LOAD AS SHOWN

ITEM

QUANTITY

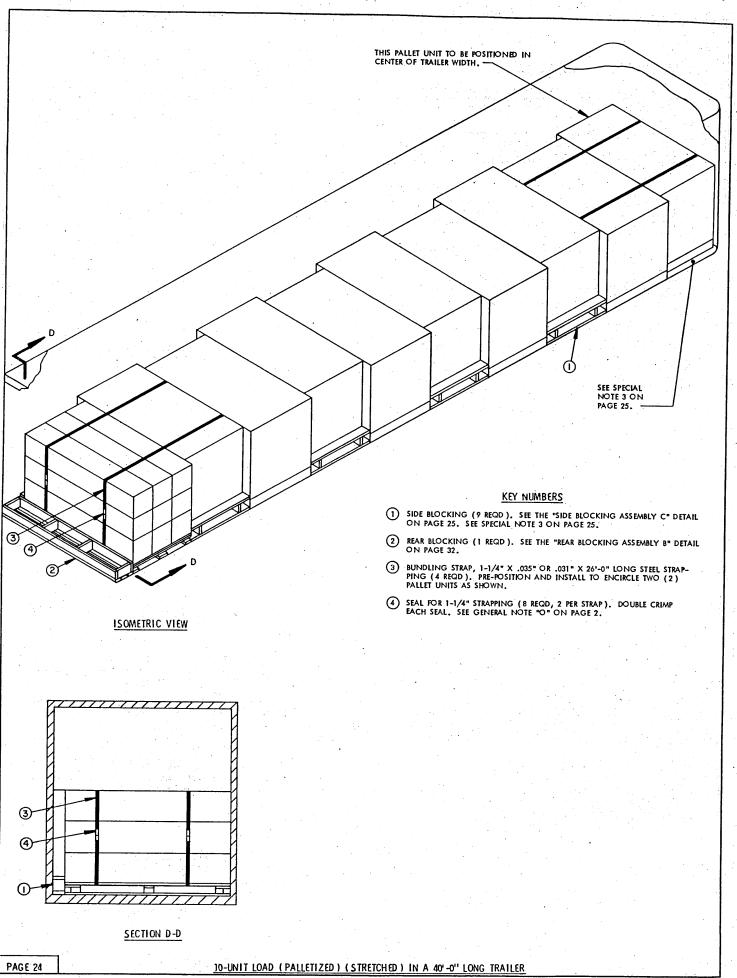
WEIGHT ( APPROX )

PALLET UNIT (UNSEALED)-10-DUNNAGE-

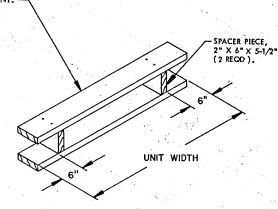
---318 LBS

TOTAL WEIGHT---- 17,008 LBS

10-UNIT LOAD (PALLETIZED) (UNSEALED) IN A 40'-0' LONG TRAILER



LOAD BEARING PIECE, 2" X 6" X 44-3/8" (2 REQD).
NAIL TO THE SPACER PIECES W/2-104 NAILS AT



#### SIDE BLOCKING ASSEMBLY C

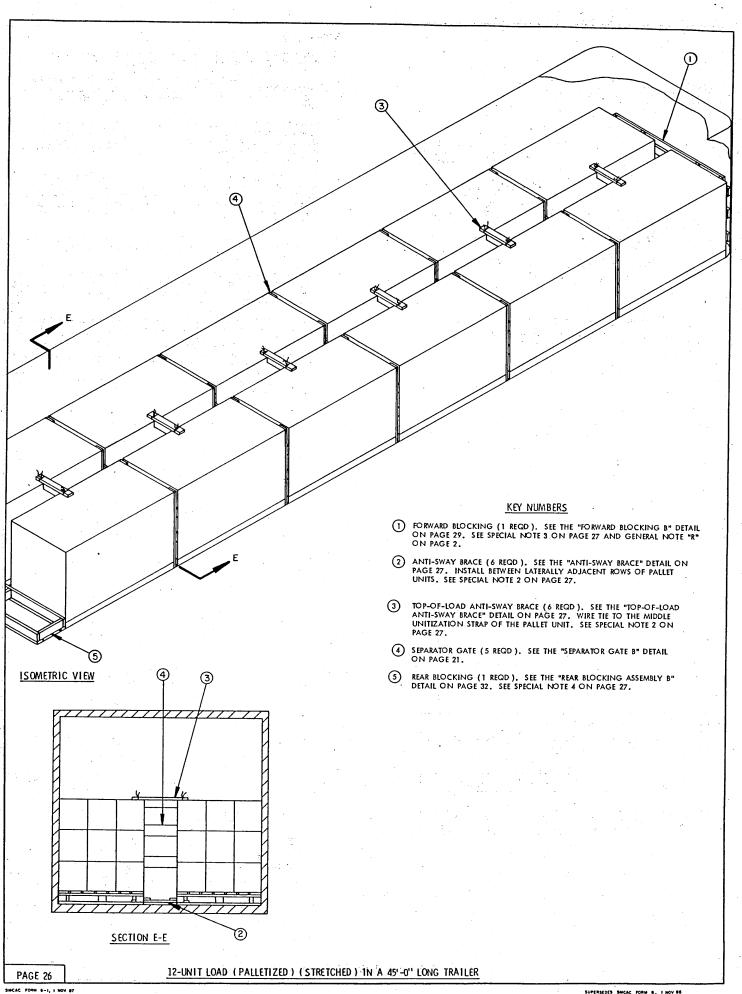
THE SIDE BLOCKING ASSEMBLY MAY BE PRE-ASSEMBLED AND SLID INTO PLACE AFTER THE ADJACENT PALLET UNIT IS POSITIONED.

LUMBER	LINEAR FEET	BOARD FEET
2" X 4" 2" X 6"	15 101	10 101
NAILS	NO. REQD	POUNDS
lod (3")	138	2-1/4

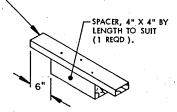
#### SPECIAL NOTES:

- A 10-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 8'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL TYPE VAN TRAILER.
- 2. A WIDER OR NARROWER TRAILER THAN SHOWN MAY BE USED FOR SHIPPING THE DEPICTED LOAD. ADJUST THE WIDTH OF THE "SIDE BLOCKING" AS NECESSARY TO PROVIDE FOR A MAXIMUM OF ONE-HALF INCH (1/2") WOID.
- 3. IF THE TRAILER TO BE LOADED IS EQUIPPED WITH A SQUARE FRONT, THE FORWARD CONTAINER IN THE LOAD MAY BE POSITIONED IN THE CORNER IN LIEU OF BEING CENTERED, AS SHOWN. A PIECE MARKED (1) MUST THEN BE INSTALLED, HOWEVER, THE BUNDLING STRAPS AROUND THE FIRST TWO PALLET UNITS WILL NOT BE REQUIRED.
- 4. IF THE DISTANCE BETWEEN THE PALLET UNIT AT THE REAR OF THE TRAILER AND THE DOORS MEASURES LESS THAN 8", SOLID FILL TYPE BLOCKING WILL BE USED THIS BLOCKING SHALL BE 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH POSITIONED ON EDGE AND LAMINATE 6" WIDE MATERIAL, BY THICKNESS TO SUIT, TO THE 2" X 6" ON EDGE TO FILL THE VOID SPACE BETWEEN THE REARMOST PALLET UNIT AND THE REAR DOORS.
- IF A PALLET UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS IS TO BE TRANSPORTED, REFER TO THE "SHIPMENT OF A PARTIAL UNIT" PROCEDURES ON PAGES 33, 34, AND 35 FOR GUIDANCE.
- 6. LEFTOVER CONTAINERS, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 36 FOR GUIDANCE.
- 7. IF THE TRAILER BEING OUTLOADED CONTAINS MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH WITHIN THE BUREAU OF EXPLOSIVES. PAMPHLET 6C AND THE APPENDICES THRETO, THEY MAY BE USED AT THE REAR OF THE LOAD IN LIEU OF "REAR BLOCKINGF", PIECE MARKED ② ON PAGE 24. SEE THE "PARTIAL ELEVATION VIEW" ON PAGE 23 FOR CROSS MEMBER IDCATION AND QUANTITY REQUIREMENTS. THE MECHANICAL BRACING DEVICE SYSTEM OF A TRAILER MUST HAVE A LENGTH OF AT LEAST 39'-2" FOR A 10-UNIT LOAD AS SHOWN ON PAGE 24.

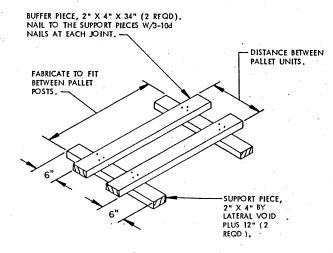
### LOAD AS SHOWN



SUPPORT PIECE, 2" X 4" BY LATERAL VOID PLUS 12" (1 REQD). NAIL TO THE SPACER W/3-10d NAILS.



TOP-OF-LOAD ANTI-SWAY BRACE



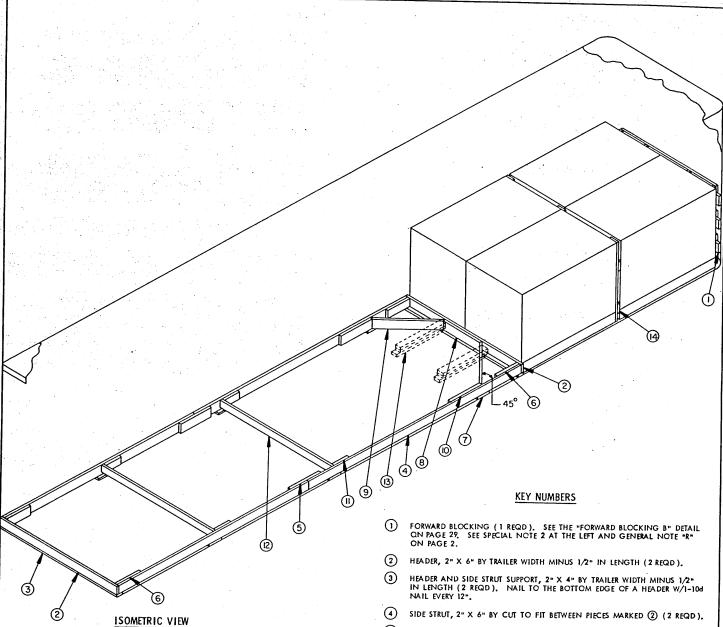
ANTI-SWAY BRACE

	BILL OF MATERIAL	100
LUMBER	LINEAR FEET	BOARD FEET
1" X 6" 2" X 4" 2" X 6" 4" X 4"	151 104 72 7	76 70 72 7
NAILS	NO REQD	PO UND\$
6d (2") 10d (3")	90 210	3/4 3-1/4
NO. 14 GAGE WIRE	12' REQD -	NIL

#### SPECIAL NOTES:

- A 12-UNIT LOAD IS SHOWN IN A 45'-0" LONG BY 8'-6" WIDE (INSIDE DIMENSION) CONVENTIONAL TYPE VAN TRAILER.
- 2. A WIDER OR NARROWER TRAILER THAN SHOWN MAY BE USED FOR SHIPPING THE DEPICTED LOAD. ADJUST THE WIDTH OF THE "ANTI-SWAY BRACE" AND "TOP-OF-LOAD ANTI SWAY BRACE" AS NECESSARY TO PROVIDE FOR A MAXIMUM OF ONE-HALF INCH (1/2") VOID.
- 3. A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS SQUARE CORNERS, THE FORWARD BLOCKING ASSEMBLY WILL BE OMITTED AND THE PALLET UNITS WILL BE PLACED DIRECTLY AGAINST THE FRONT WALL OF THE TRAILER.
- 4. IF THE DISTANCE BETWEEN THE PALLET UNIT AT THE REAR OF THE TRAILER AND THE DOORS MEASURES LESS THAN 8", SOLID FILL TYPE BLOCKING WILL BE USED. THIS BLOCKING SHALL BE 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH POSITIONED ON EDGE AND LAMINATE 6" WIDE MATERIAL BY THICKNESS TO SUIT, TO THE 2" X 6" ON EDGE TO FILL THE VOID SPACE BETWEEN THE REARMOST PALLET UNIT AND THE REAR DOORS.
- IF A PALLET UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS IS TO BE TRANSPORTED, REFER TO THE "SHIPMENT OF A PARTIAL UNIT" PROCEDURES ON PAGES 33, 34, AND 35 FOR GUIDANCE
- 6. LEFTOVER CONTAINERS, IN AN AMOUNT NOT TO EXCEED THE QUANTITY IN ONE LAYER OF A UNIT, MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 36 FOR GUIDANCE.
- 7. IF THE TRAILER BEING OUTLOADED CONTAINS MECHANICAL BRACING DEVICES, SUCH AS WALL BELT RAILS AND LOAD BLOCKING CROSS MEMBERS, WHICH CONFORM TO SPECIFICATIONS SET FORTH WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET &C AND THE APPENDICES THERETO, THEY MAY BE USED AT THE REAR OF THE LOAD IN LIEU OF "REAR BLOCKING", PIECE MARKED ③ ON PAGE 26. SEE THE "PARTIAL ELEVATION VIEW" ON PAGE 23 FOR CROSS MEMBER LOCATION AND QUANTITY REQUIREMENTS. THE MECHANICAL BRACING DEVICE SYSTEM OF A TRAILER MUST HAVE AT LEAST 39"-2" FOR A 10-UNIT LOAD AS SHOWN ON PAGE 26.

LOAD AS SHOWN



- 1. A 4-UNIT LOAD OF SEALED CONTAINERS IS SHOWN. THESE PROCEDURES MAY ALSO BE USED FOR THE STRETCHED CONTAINER. THESE OUTLOADING PROCEDURES DEPICT THE USE OF BOTH "K-BRACE" TYPE BLOCKING AND "NAILED-FLOOR LINE "BLOCKING IN A 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH OR WITHOUT A NAILABLE FLOOR.
- A TRAILER WITH ROUNDED CORNERS AT THE FORWARD END IS SHOWN IN THE LOAD VIEW. IF THE TRAILER BEING USED HAS SQUARE CORNERS, THE FORWARD BLOCKING ASSEMBLY WILL BE OMITTED AND THE PALLET UNITS WILL BE PLACED DIRECTLY AGAINST THE FRONT WALL OF THE TRAILER.
- 3. THE DEPICTED "K-BRACE" BLOCKING WILL RETAIN A MAXIMUM LOAD OF 20,000 POUNDS.
- 4. PIECES MARKED (3) ARE FOR USE IN A TRAILER WHICH HAS A NAILABLE FLOOR AND MAY BE USED IN LIEU OF THE REAR PIECES MARKED (3) AND ON THE PIECES MARKED (4) THRU (12) WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS. TWO (2) BACH 30" LONG BACK-UP CLEATS, SHOWN AS PIECES MARKED (3), ARE ADEQUATE FOR RETAINING NOT MORE THAN 7,800 POUNDS. FOUR (4) CLEATS WILL RETAIN 15,600 POUNDS. BACK-UP CLEATS SHOULD BE CENTERED OR EQUALLY SPACED ON THE PALLET UNITS.

### ( KEY NUMBERS CONTINUED )

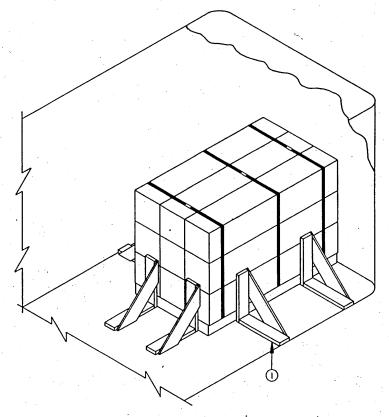
SEPARATOR GATE ( I REQD ). SEE THE "SEPARATOR GATE B" DETAIL ON PAGE 21.

- 5) SPLICE PIECE, 2" X 6" X 24" (2 REQD), CENTER ON A JOINT OF PIECES MARKED (4) AND NAIL W/4-104 NAILS AT EACH END. SEE GENERAL NOTE "R" ON PAGE 2.
- 6 POCKET CLEAT, 2" X 6" X 18" (4 REQD). NAIL TO PIECE MARKED (4) W/5-10d NAILS. TOENAIL TO THE ADJACENT PIECE MARKED (2) W/3-12d NAILS.
- (7) RISER PIECE, 2" X 4" X 9" (6 REQD). NAIL TO THE BOTTOM EDGE OF PIECE MARKED (4) W/2-10d NAILS.
- B CENTER CLEAT, 2" X 6" X 30" (1 REQD). NAIL TO THE HEADER, PIECE MARKED (2) W/7-104 NAILS.
- 9 DIAGONAL BRACE, 2" X 6" BY CUT TO FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT 45° ANGLE AS SHOWN AND TOENAIL TO THE ADJACENT PIECES MARKED ② AND ④ W/2-12d NAILS AT EACH END.
- 10 SIDE CLEAT, 2" X 6" X 24" (2 REQD). NAIL TO PIECE MARKED 4 W/8-10d NAILS.
- (1) STRUT BRACING SUPPORT PIECE, 2" X 4" X 12" (4 REQD). POSITION SO THAT PIECES MARKED (2) ARE EQUALLY SPACED ON THE LENGTH OF PIECE MARKED (4). NAIL TO PIECE MARKED (4) W/3-10d NAILS.
- (2) STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 3" (CUT-TO-FIT) (2 REQD), NAIL TO PIECE MARKED (1) W/2-124 NAILS AT EACH END, ONE STRUT BRACE IS REQUIRED FOR EACH 7'-0" LENGTH OF SIDE STRUTS MARKED (4).
- (3) BACK-UP CLEAT, 2" X 4" X 30" (TRIPLED) (2 REQD). POSITION 24" FROM TRAILER SIDEWALL AS SHOWN AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/9-124 NAILS. NAIL EACH ADDITIONAL PIECE IN A LIKE MANNER. TOENAIL THE TOP PIECE TO THE ADJACENT HEADER MARKED ② W/2-124 NAILS. SEE SPECIAL NOTE 4 AT LEFT.

( CONTINUED AT LEFT )

PAGE 28

TYPICAL LTL (4-UNIT LOAD) (SEALED) (PALLETIZED)



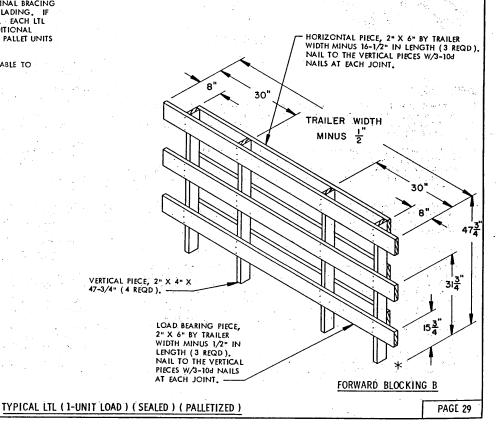
### ISOMETRIC VIEW

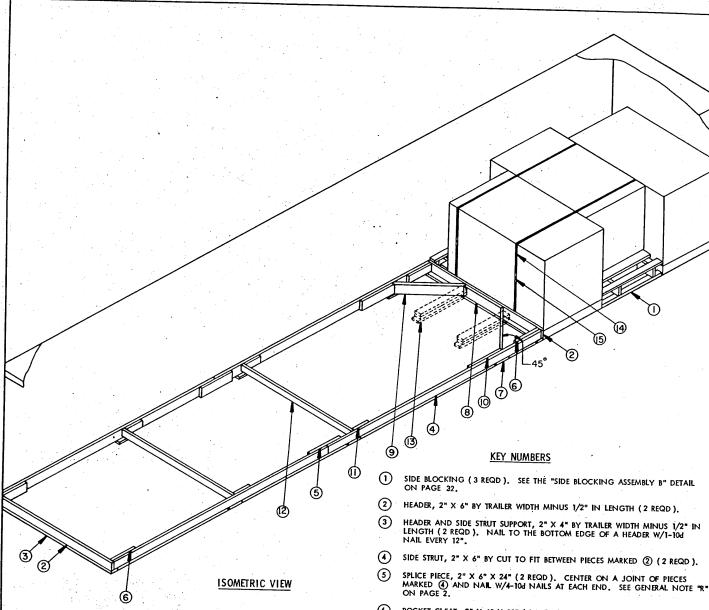
### KEY NUMBER

1) LTL BRACE (6 REQD), SEE THE "LTL BRACE B" DETAIL ON PAGE 31. NAIL TO THE TRAILER FLOOR W/7-12d NAILS

### SPECIAL NOTES:

- A 1-UNIT LOAD OF SEALED TYPE CONTAINERS IS SHOWN. THESE OUTLOADING PROCEDURES DEPICT THE USE OF "LTL BRACE" TYPE BLOCKING IN A 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH A NAILABLE FLOOR.
- 2. THE TWO (2) LTL BRACES AS APPLIED FOR LONGITUDINAL BRACING WILL SUPPORT NOT MORE THAN TWO (2) UNITS OF LADING. IF THREE UNITS ARE TO BE SHIPPED, ADD AN LTL BRACE. EACH LTL BRACE WILL RETAIN 2,000 POUNDS OF LADING. ADDITIONAL BRACES MAY BE ADDED TO RETAIN THE QUANTITY OF PALLET UNITS IN THE LOAD BEING SHIPPED.
- 3. THE PROCEDURES DEPICTED ON THIS PAGE ARE APPLICABLE TO THE STRETCHED TYPE CONTAINER PALLET UNIT.



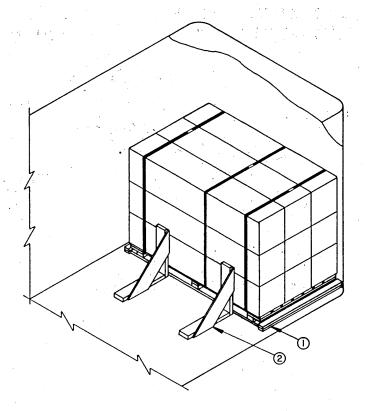


- A 3-UNIT LOAD IS SHOWN. THESE OUTLOADING PROCEDURES DEPICT THE USE OF BOTH "K-BRACE" TYPE BLOCKING AND "NAILED-FLOOR-LINE" BLOCKING IN A 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH OR WITHOUT A NAILABLE FLOOR:
- IF THE TRAILER BEING LOADED HAS ROUNDED CORNERS AT THE FRONT, THE FORWARD PALLET UNIT SHALL BE CENTERED ACROSS THE WIDTH OF THE TRAILER AND BUNDLING STRAPS SUCH AS SHOWN ON PAGE 22 WILL BE USED. THIS WILL ELIMINATE THE NEED FOR ONE (T) SIDE BLOCKING ASSEMBLY, SHOWN AS PIECE
- A WIDER OR NARROWER TRAILER THAN SHOWN MAY BE USED FOR SHIPPING THE DEPICTED LOAD. ADJUST THE WIDTH OF THE "SIDE BLOCKING", PIECES MARKED  $\widehat{\mathbf{U}}$ , AS NECESSARY TO PROVIDE FOR A MAXIMUM OF ONE-HALF INCH ( 1/2") VOID ACROSS THE WIDTH OF THE TRAILER.
- THE DEPICTED "K-BRACE" BLOCKING WILL RETAIN A MAXIMUM OF 20,000 POUNDS.
- PIECES MARKED ③ ARE FOR USE IN A TRAILER WHICH HAS A NAILABLE FLOOR AND MAY BE USED IN LIEU OF THE REAR PIECES MARKED ② AND ③ AND PIECES MARKED ④ THRU ② WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS. TWO (2) EACH 30" LONG BACK-UP CLEATS, SHOWN AS PIECES MARKED ④, ARE ADEQUAÎTE FOR RETAINING NOT MORE THAN 7,800 POUNDS. THREE EACH 30" LONG BACK-UP CLEATS ARE ADEQUATE FOR RETAINING 10,800 POUNDS, FOUR CLEATS WILL RETAIN 15,600 POUNDS AND FIVE WILL RETAIN 19,400 POUNDS. BACK-UP CLEATS SHOULD BE EQUALLY SPACED ACROSS THE WIDTH OF THE REARMOST UNIT.
- THESE PROCEDURES MAY ALSO BE USED FOR THE STRETCHED PALLET UNIT BY SUBSTITUTING "SIDE BLOCKING C" DETAIL SHOWN ON PAGE 25 IN PLACE OF THE SIDE BLOCKING ASSEMBLY B AS SHOWN IN THE ISOMETRIC VIEW, ALL OTHER DUNNAGE MATERIAL WILL REMAIN THE SAME.

- SIDE BLOCKING (3 REQD). SEE THE "SIDE BLOCKING ASSEMBLY B" DETAIL ON PAGE 32.

- POCKET CLEAT, 2" X 6" X 18" ( 4 REQD ). NAIL TO PIECE MARKED 4 W/5-10d NAILS. TOENAIL TO THE ADJACENT PIECE MARKED 2 W/3-12d NAILS.
- RISER PIECE, 2" X 4" X 9" ( 6 REQD ). NAIL TO THE BOTTOM EDGE OF PIECE MARKED (4) W/2-104 NAILS.
- CENTER CLEAT, 2" X 6" X 30" ( 1 REQD ). NAIL TO THE HEADER, PIECE MARKED @ W/7-10d NAILS.
- DIAGONAL BRACE, 2" X 6" BY CUT TO FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT 45° ANGLE AS SHOWN AND TOENAIL TO THE ADJACENT PIECES MARKED ② AND ④ W/2-12d NAILS AT EACH END.
- SIDE CLEAT, 2" X 6" X 24" (2 REQD ). NAIL TO PIECE MARKED 4 W/8-10d NAILS.
- STRUT BRACING SUPPORT PIECE, 2" X 4" X 12" ( 4 REQD ). POSITION SO THAT PIECES MARKED ② ARE EQUALLY SPACED ON THE LENGTH OF PIECE MARKED ④ . NAIL TO PIECE MARKED ④ W/3-10d NAILS. (II)
- STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 3" (CUT TO FIT) (2 REQD), NAIL TO PIECE MARKED 1 W/2-12d NAILS AT EACH END. ONE STRUT BRACE IS REQUIRED FOR EACH 7'-0" LENGTH OF SIDE STRUTS MARKED 4.
- BACK-UP CLEAT, 2" X 4" X 30" (TRIPLED) (2 REQD). POSITION 24" FROM TRAILER SIDEWALL AS SHOWN AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/9-12d NAILS. NAIL EACH ADDITIONAL PIECE IN A LIKE MANNER. TOENAIL THE TOP PIECE TO THE ADJACENT HEADER MARKED ② W/2-12d NAILS. SEE SPECIAL NOTE 5 AT LEFT.
- BUNDLING STRAP, 1-1/4" X .035" OR .031" X 26'-0" LONG STEEL STRAPPING ( 2 REQD ). PRE-POSITION AND INSTALL TO ENCIRCLE THE TWO ( 2 ) REAR PALLET UNITS AS SHOWN.
- (15) SEAL FOR 1-1/4" STRAPPING ( 4 REQD, 2 PER STRAP ). DOUBLE CRIMP EACH SEAL SEE GENERAL NOTE "O" ON PAGE 2.

TYPICAL LTL (3-UNIT LOAD) (UNSEALED) (PALLETIZED)



#### ISOMETRIC VIEW

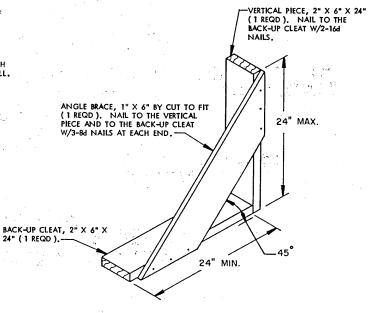
#### OHILIKIC VILVE

#### SPECIAL NOTES:

- A 1-UNIT LOAD IS SHOWN. THESE OUTLOADING PROCEDURES DEPICT THE USE OF "LTL BRACE" TYPE BLOCKING IN A 7"-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH A NAILABLE FLOOR. WIDER OR NARROWER TRAILERS CAN BE USED.
- THE TWO (2) LTL BRACES AS APPLIED FOR LONGITUDINAL BRACING WILL SUPPORT NOT MORE THAN TWO (2) UNITS OF LADING. IF THREE UNITS ARE TO BE SHIPPED, ADD AN LTL BRACE. EACH LTL BRACE WILL RETAIN 2,000 POUNDS OF LADING. ADDITIONAL BRACES MAY BE ADDED TO RETAIN THE QUANTITY OF PALLET UNITS IN THE LOAD BEING SHIPPED.
- 3. THE PROCEDURES DEPICTED ON THIS PAGE ARE APPLICABLE TO THE STRETCHED CONTAINER PALLET UNIT ONLY WHEN THE WIDTH OF THE TRAILER IS 92" OR GREATER. ALSO, THE RADIUS OF THE CORNERS OF SOME TRAILERS MAY BE SUCH AS TO PREVENT PROPER BEARING OF THE PALLET UNIT AGAINST THE FRONT WALL.

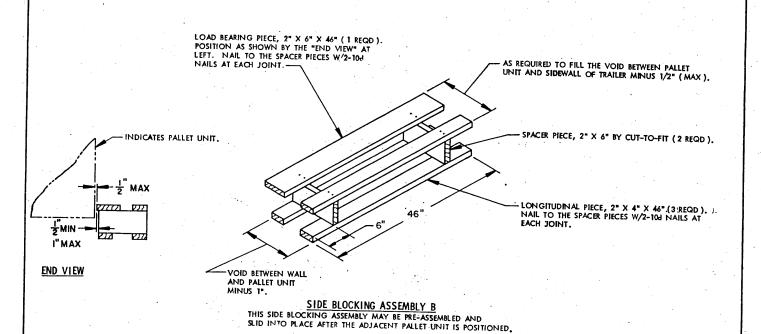
### KEY NUMBERS

- (1) SIDE BLOCKING, 2" X 4" X 48" ( DOUBLED ) ( 2 REQD ). PRE-POSITION AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "R" ON PAGE 2.
- (2) LTL BRACE (2 REQD). SEE THE "LTL BRACE B" DETAIL BELOW. NAIL TO THE TRAILER FLOOR W/7-124 NAILS.



LTL BRACE B

TYPICAL LTL (1-UNIT LOAD) (UNSEALED) (PALLETIZED)



STRUT, 2" X 6" BY CUT TO FIT (4 REQD).

30"

HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

HEADER RISER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE HEADER W/1-104 NAIL EVERY 8". -

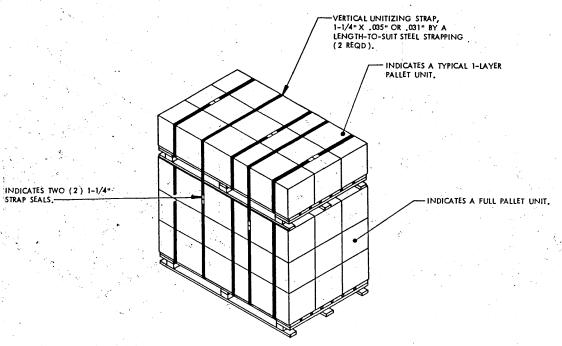
TRAILER WIDTH

30"

MINUS 1

REAR BLOCKING ASSEMBLY B

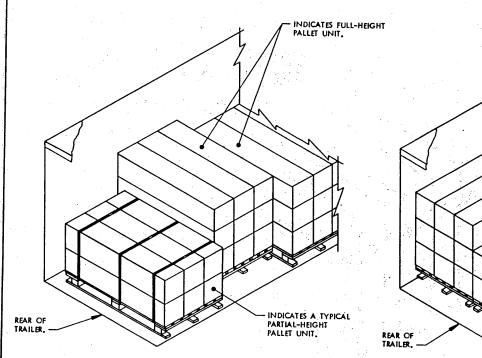
THIS REAR BLOCKING ASSEMBLY IS DESIGNED FOR USE AT THE REAR END OF A
PALLETIZED LOAD WHEN THE DISTANCE BETWEEN THE REAR OF THE LOAD AND THE REAR
DOORS, WHEN CLOSED, MEASURES 8" OR MORE. CAUTION: STRUTS LONGER THAN 60"
WILL NOT BE USED; USE A "K-BRACE" TYPE OF REAR BLOCKING AS DEPICTED ON PAGE 3D.
TO FACILITATE COMPLIANCE WITH THIS RULE.

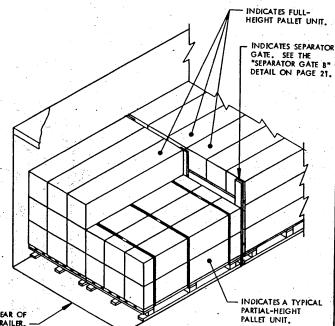


SECUREMENT OF A PARITAL PALLET UNIT ON TOP OF A FULL PALLET UNIT

### SPECIAL NOTES:

- THE VIEW SHOWN ABOVE DEPICTS PROCEDURES FOR SECUREMENT OF A PARTIAL PALLET UNIT ON TOP OF A FULL PALLET UNIT.
- SHIPMENTS OF PALLET UNITS SHOULD CONSIST OF FULL-HEIGHT AND FULL-LAYER UNITS TO THE MAXIMUM EXTENT POSSIBLE. HOWEVER, THE END OF A LOT OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LESS-THAN-FULL PALLET UNITS WITHIN A LOAD. THE PROCEDURES ON THIS PAGE AND ON PAGES 5.; AND 35 ARE PRESENTED AS GUIDANCE IN THE SHIPMENT OF THESE PARTIAL UNITS.
- 3. FOR SHIPMENT OF A LESS-THAN-FULL-HEIGHT PALLET UNIT WITHIN A LOAD, SEE PAGES 34 AND 35
- 4. FOR SHIPMENT OF "LEFTOVER" CONTAINERS, SEE THE PROCEDURES ON PAGE 36



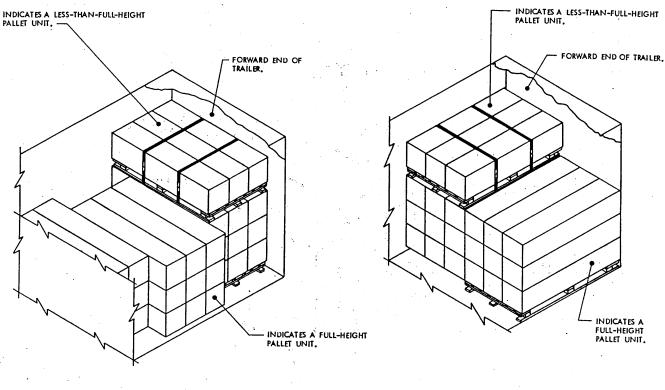


ISOMETRIC VIEW
( UNSEALED AND STRETCHED CONTAINERS )

ISOMETRIC VIEW
(SEALED CONTAINERS)

### SPECIAL NOTES

- THE ISOMETRIC VIEWS SHOWN ABOVE DEPICT PROCEDURES FOR SHIPMENT OF A PARTIAL PALLET UNIT WITHIN A LOAD.
- 2. FOR SECUREMENT OF A PARTIAL PALLET UNIT ON TOP OF A FULL-HEIGHT PALLET UNIT, SEE PAGE 33.
- 3. SHIPMENT OF PALLET UNITS SHOULD CONSIST OF FULL-HEIGHT AND FULL-LAYER UNITS TO THE MAXIMUM EXTENT POSSIBLE. HOWEVER, THE END OF A LOT OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LESS-THAN-FULL UNITS WITHIN A LOAD. THE PROCEDURES ON THIS PAGE AND ON PAGE 35 ARE PRESENTED AS GUIDANCE IN THE SHIPMENT OF THESE PARTIAL UNITS.
- 4. THE PROCEDURES SHOWN ON THIS PAGE ARE ONLY APPLICABLE TO PARTIAL PALLET UNITS CONSISTING OF ONE OR TWO FULL LAYERS OF CONTAINERS. FOR SHIPMENT OF "LEFTOVER" CONTAINERS, SEE THE PROCEDURES ON PAGE 36.
- 5. THE PROCEDURES SHOWN ARE ALSO APPLICABLE TO LOADS IN TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES. SEE THE "PARTIAL ELEVATION VIEW" ON PAGE 23 FOR CROSS MEMBER LOCATIONS. THE TOP CROSS MEMBER WILL BE INSTALLED AGAINST THE REARMOST FULL-HEIGHT UNIT. THE LOWER THREE CROSS MEMBERS WILL BE INSTALLED AGAINST THE PARTIAL PALLET UNIT. IF THE PARTIAL UNIT CONSISTS OF ONLY ONE LAYER OF CONTAINERS, THE TOP TWO CROSS MEMBERS WILL BE INSTALLED AGAINST THE REARMOST FULL-HEIGHT UNIT.
- 6. A 2-LAYER PARTIAL PALLET UNIT MAY BE POSITIONED ANYWHERE WITHIN THE LENGTH OF THE LOAD, ALTHOUGH AT THE REAR IS PREFERRED. A 1-LAYER PARTIAL PALLET UNIT MUST BE POSITIONED AT THE REAR OF THE LOAD. FOR UNSEALED CONTAINER PALLET UNITS, IF A 2-LAYER UNIT IS LOCATED AT THE REAR OF THE LOAD, THE BUNDLING STRAPS SHOWN AS PIECE MARKED ③ ON PAGE 22 MAY BE OMITTED. BUNDLING STRAPS ARE REQUIRED AROUND THE TWO REARMOST FULL-HEIGHT UNITS IF THE PARTIAL UNIT IS ONLY ONE LAYER IN HEIGHT. FOR SEALED CONTAINER PALLET UNITS, AS SHOWN ON PAGE 20, BUNDLING STRAPS WILL NOT BE USED.
- NOTE: CNLY A PARTIAL VIEW OF A LOAD IS SHOWN. THE SIDE BLOCKING AND REAR BLOCKING ARE OMITTED.



ISOMETRIC VIEW

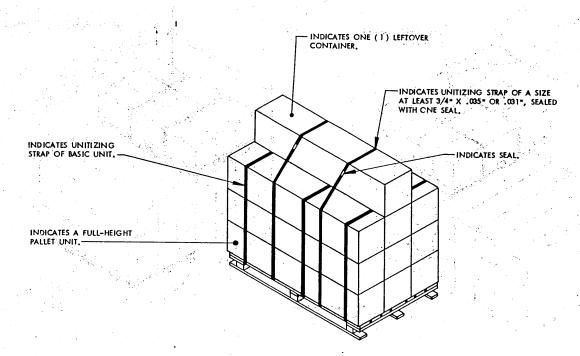
(UNSEALED AND STRETCHED CONTAINERS)

ISOMETRIC VIEW

( SEALED CONTAINERS )

#### SPECIAL NOTES:

- THE ISOMETRIC VIEWS SHOWN ABOVE DEPICT PROCEDURES FOR SHIPMENT OF A PARTIAL PALLET UNIT ON TOP OF A FULL PALLET UNIT.
- 2. FOR SECUREMENT OF A PARTIAL PALLET UNIT ON TOP OF A FULL-HEIGHT PALLET UNIT, SEE PAGE 33.
- 3. SHIPMENTS OF PALLET UNITS SHOULD CONSIST OF FULL-HEIGHT AND FULL-LAYER UNITS TO THE MAXIMUM EXTENT POSSIBLE. HOWEVER, THE END OF A LOT OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LESS-THAN-FULL UNITS WITH-IN A LOAD. THE PROCEDURES ON THIS PAGE AND ON PAGE 34 ARE PRESENTED AS GUIDANCE IN THE SHIPMENT OF THESE PARTIAL UNITS.
- 4. A PARTIAL PALLET UNIT MUST NOT BE POSITIONED ON THE REAR MOST UNIT WITHIN THE LOAD. IT MAY BE POSITIONED ANYWHERE ELSE IN THE LENGTH OF THE LOAD, ALTHOUGH AT THE FRONT IS PREFERRED.
- THE PROCEDURES SHOWN ON THIS PAGE ARE APPLICABLE TO PARTIAL PALLET UNITS CONSISTING OF ONE OR TWO LAYERS OF CONTAINERS. FOR SHIP-MENT OF "LEFTOVER" CONTAINERS, SEE THE PROCEDURES ON PAGE 36.
- THE PROCEDURES SHOWN ARE ALSO APPLICABLE TO LOADS IN TRAILERS EQUIPPED WITH MECHANICAL BRACING DEVICES.
- NOTE: ONLY A PARTIAL VIEW OF A LOAD IS SHOWN. THE SIDE BLOCKING AND REAR BLOCKING ARE OMITTED.



### SECUREMENT OF LEFTOVER CONTAINERS

#### SPECIAL NOTES:

- 1. THE ISOMETRIC VIEW SHOWN ABOVE DEPICTS PROCEDURES FOR SECUREMENT OF A LEFTOVER CONTAINER ON TOP OF A FULL PALLET UNIT.
- SHIPMENTS OF UNITS SHOULD CONSIST OF FULL-HEIGHT AND FULL-LAYER UNITS
  TO THE MAXIMUM EXTENT POSSIBLE, HOWEVER, THE END OF A LOT OR THE QUANTITY
  OF ITEMS NEEDED TO FILL A REQUISITION MAY NECESSITATE THE SHIPMENT OF ONE
  OR MORE LEFTOVER CONTAINERS.
- 3. THE QUANTITY OF LEFTOVER CONTAINERS WHICH CAN BE SECURED TO A FULL HEIGHT PALLET UNIT WILL NOT EXCEED THREE. IF FOUR OR FIVE LEFTOVER CONTAINERS ARE TO BE SHIPPED, TWO CONTAINERS WILL BE SECURED TO THE TOP OF ONE PALLET UNIT AND TWO OR THREE CONTAINERS WILL BE SECURED TO THE TOP OF A DIFFERENT PALLET UNIT.
- 4. LEFTOVER CONTAINERS MUST BE SECURED TO A FULL HEIGHT PALLET UNIT WITH A MINIMUM OF TWO (2) PIECES OF STEEL STRAPPING (SEPARATE FROM UNIT STRAPS) OF A SIZE AT LEAST AS HEAVY AS THE UNITIZING STRAPPING (3/4" X .035" OR .031"). THREAD A STRAP UNDER THE STRINGERS IN LINE WITH EXISTING UNITIZING STRAPS, COMPLETELY ENCIRCLE THE PALLET UNIT AND THE LEFTOVER CONTAINERS, TENSION, AND SEAL THE STRAP JOINT WITH ONE DOUBLE CRIMPED SEAL.
- 5. LEFTOVER CONTAINERS MAY ALSO BE SECURED ON TOP OF A PARTIAL PALLET UNIT.
- 6. SHIPMENT OF LEFTOVER CONTAINERS IS APPLICABLE FOR CONUS AND OCONUS MOTOR
  CARRIER SHIPMENTS FROM DEPOT TO DEPOT OR FROM DEPOTS TO POSTS, CAMPS, AND
  STATIONS, OR UPON APPROVAL FROM HIGHER HEADQUARTERS, FOR SHIPMENT FROM LOAD,
  ASSEMBLE AND PACK PLANTS TO DEPOTS. CAUTION: A LOAD CONTAINING LEFTOVER
  CONTAINERS IN AN AMOUNT WHICH IS LESS THAN A FULL LAYER, AND SECURED TO THE TOP
  OF A FULL OR PARTIAL UNIT, MUST NOT BE DESTINED FOR SHIPMENT OVERSEAS BY WATER
  CARRIER

PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS