

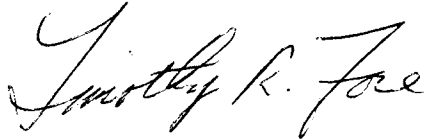
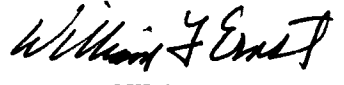



LOADING AND BRACING (TL & LTL) ON FLATBED TRAILERS OF BLU-109/B BOMBS IN CNU-417/E CONTAINERS

INDEX

ITEM	PAGE(S)
GENERAL NOTES AND MATERIAL SPECIFICATIONS - - - - -	2
CONTAINER DETAIL - - - - -	3
9-UNIT LOAD ON A 48'-0" LONG BY 8'-6" WIDE FLATBED TRAILER - - - - -	4, 5
9-UNIT LOAD ON A 45'-0" LONG BY 8'-0" WIDE FLATBED TRAILER - - - - -	6, 7
9-UNIT LOAD ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER - - - - -	8, 9
9-UNIT LOAD ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER (CHAIN TIEDOWN METHOD) - - - - -	10, 11
9-UNIT LOAD ON A 48'-0" LONG BY 8'-6" WIDE FLATBED TRAILER (WEB STRAP TIEDOWN METHOD) - - - - -	12, 13
TYPICAL LTL (1-UNIT LOAD) - - - - -	14
DETAILS - - - - -	15, 16
PROVISIONS FOR THE USE OF FIRE HOSE - - - - -	17

• CAUTION: PROCEDURES SHOWN HEREIN ARE ONLY APPLICABLE FOR HIGHWAY MOVEMENTS, NOT FOR TRAILER-ON-FLAT-CAR MOVEMENTS.

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND 	ENGINEER	BASIC	GREG WILLIS	DO NOT SCALE										
		REV.	MICHAEL SARDONE					WEBSITE: HTTP://WWW.DAC.ARMY.MIL						
	TECHNICIAN	BASIC	RALPH ARNOLD	OCTOBER 1988										
		REV.						REVISION NO. 2 FEBRUARY 1997						
DRAFTSMAN	BASIC	SONJA WILSON	SEE THE REVISION LISTING ON PAGE 2											
	REV.						<table border="1"> <tr> <td>CLASS</td> <td>DIVISION</td> <td>DRAWING</td> <td>FILE</td> </tr> <tr> <td>19</td> <td>48</td> <td>7084/1</td> <td>SP11PB1001</td> </tr> </table>				CLASS	DIVISION	DRAWING	FILE
CLASS	DIVISION	DRAWING	FILE											
19	48	7084/1	SP11PB1001											
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND  DEFENSE AMMUNITION CENTER	TRANSPORTATION ENGINEERING DIVISION													
	VALIDATION ENGINEERING DIVISION													
	LOGISTICS ENGINEERING OFFICE													

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 OUTLOADING PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO BLU-109/B BOMBS PACKED IN THE CNU-417/E CONTAINER. SEE THE CONTAINER DETAIL ON PAGE 3. SUBSEQUENT REFERENCE TO CONTAINER MEANS THE CNU-417/E CONTAINER WITH CONTENTS.
- C. THE LOADS AS SHOWN HEREIN ARE BASED ON 48'-0" LONG BY 8'-6" WIDE, 45'-0" LONG BY 8'-0" WIDE, AND 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILERS. TRAILERS OF OTHER LENGTHS MAY BE USED. TRAILERS MUST HAVE WOOD OR WOOD AND METAL FLOORS. TRAILERS HAVING ALL-METAL FLOORS CANNOT BE USED. **CAUTION:** IF THE TRAILER FLOOR IS EQUIPPED WITH EXPOSED METAL DECKING ABOVE THE BOGIE ASSEMBLY, OR ELSEWHERE, FIELD MEASUREMENTS SHOULD BE MADE TO ENSURE THAT THE METAL DECKING DOES NOT INTERFERE WITH THE PROPER POSITIONING AND NAILING OF THE DUNNAGE AS SPECIFIED BY THE PROCEDURES SHOWN HEREIN.
- D. SELECTION OF A VEHICLE USED TO TRANSPORT THE DESIGNATED ITEM MUST COMPLY WITH AR 55-355, CHAPTER 29, FOR EXPLOSIVES AND OTHER DANGEROUS ARTICLES, IN FULL.
- E. GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF APPLICABLE LOADING REQUIREMENTS, AND THE SHIPPER WILL LOAD ACCORDINGLY.
- F. **NOTICE:** A SHIPMENT WILL BE POSITIONED ON A TRAILER CONSISTENT WITH STATE WEIGHT LAWS.
- G. OTHER TYPES OF LADING ITEMS MAY BE LOADED ON A TRAILER WHICH IS PARTIALLY LOADED WITH THE DESIGNATED ITEM, 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.
- H. **CAUTION:** REGARDLESS OF THE TYPE OF TRAILER INVOLVED, ONLY THOSE TRAILERS HAVING TIE-DOWN ANCHORING FACILITIES WHICH PROVIDE HOLDING STRENGTH EQUAL TO OR GREATER THAN THE STRENGTH OF THE HOLD-DOWN STRAPS OR CHAINS AND WHICH ALIGN NEAR THE INDICATED LOCATIONS FOR THE HOLD-DOWN STRAPS OR CHAINS SHOULD BE USED. IF TRAILER ANCHOR DEVICES ARE NOT PROPERLY POSITIONED TO RECEIVE TWO INCH STRAPPING OR CHAINS, AS SHOWN, OR IF THE ANCHOR DEVICES ARE NOT EQUAL TO OR GREATER THAN THE STRENGTH OF THE TIE-DOWN STRAPS OR CHAINS, THE STRAPS MAY BE APPLIED TO FORM A COMPLETE LOOP WHICH ENCOMPASSES BOTH THE LADING AND THE TRAILER FRAME AND/OR BED. **CAUTION:** AVOID TRAILER WHEELS, FIFTH WHEEL PLATE, CONTROLS AND OTHER APPURTENANCES. USE EDGE PROTECTORS ON ALL SHARP EDGES. THE CHAINS AND/OR WEB STRAPS WILL NOT BE APPLIED TO FORM A COMPLETE LOOP WHICH ENCOMPASSES BOTH THE LADING AND THE TRAILER FRAME AND/OR BED.

MATERIAL SPECIFICATIONS

- LUMBER -----: SEE TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.
- NAILS -----: FED SPEC FF-N-105; COMMON.
- STRAP, WEB -----: WEB SLING AND TIEDOWN ASSOCIATION RECOMMENDED STANDARD SPECIFICATION FOR SYNTHETIC WEB TIEDOWNS, FIRST PUBLISHED IN 1991.
- STRAPPING, STEEL ---: ASTM D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY, FINISH A, B (GRADE 2), OR C.
- SEAL, STRAP -----: ASTM D3953; CLASS H, FINISH A, B (GRADE 2), OR C, DOUBLE NOTCH TYPE, STYLE I, II, OR IV.
- WIRE, CARBON STEEL -: ASTM A853; ANNEALED AT FINISH, BLACK OXIDE FINISH, .0800" DIA, GRADE 1006 OR BETTER.
- STAPLE, STRAP -----: COMMERCIAL GRADE.
- STAKE
POCKET PROTECTOR --: COMMERCIAL GRADE.
- CHAIN -----: NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1975.
- LOAD BINDER -----: FED SPEC GGG-B-325.

(GENERAL NOTES CONTINUED)

- J. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- K. A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR WHEN LAMINATING DUNNAGE. THE NAILING PATTERN WILL BE ADJUSTED SO THAT A NAIL DOES NOT PENETRATE INTO OR NEAR A CRACK BETWEEN FLOOR BOARDS. 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.
- L. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF ONE SEAL WITH TWO PAIR OF NOTCHES WILL BE USED TO SEAL THE JOINT WHEN A NOTCH-TYPE SEALER IS BEING USED. A MINIMUM OF TWO SEALS, BUTTED TOGETHER, WITH TWO PAIR OF CRIMPS PER SEAL WILL BE USED TO SEAL THE JOINT WHEN A CRIMP-TYPE SEALER IS BEING USED. REFER TO THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 14.
- M. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED. THE APPROVED METHODS SHOWN HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEM.
- N. THE TRANSPORTING VEHICLE OPERATOR SHOULD BE INSTRUCTED TO PERIODICALLY INSPECT THE TIEDOWN CHAINS AND LOAD BINDERS DURING TRANSIT AND TIGHTEN IF NECESSARY.
- O. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO A DEPICTED OUTLOADING METHOD.

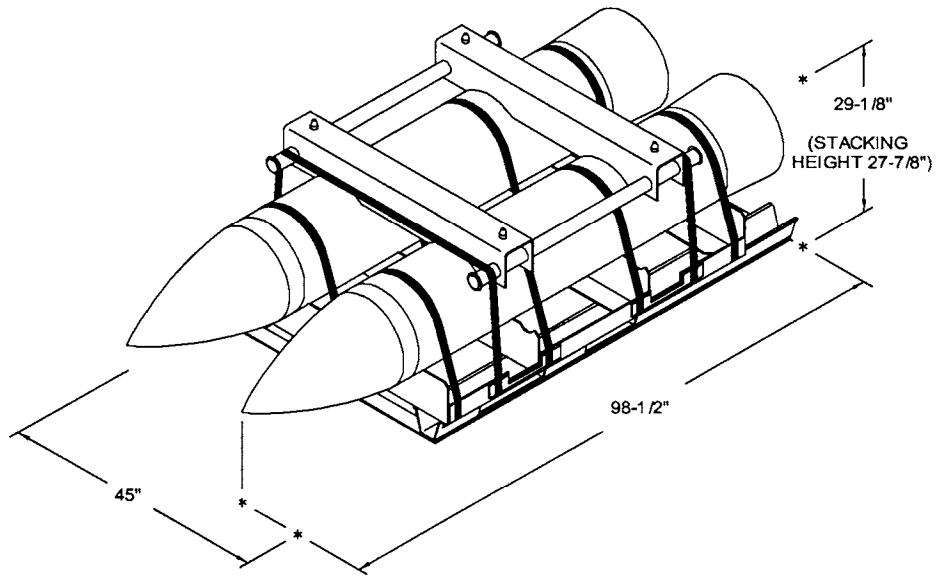
REVISIONS

REVISION NO. 1, DATED JULY 1994, CONSISTS OF:

1. CHANGING HEIGHT OF CONTAINER FROM 24-3/4" TO 29-1/8".
2. ADDING PROCEDURES FOR LONGER AND WIDER TRAILERS.
3. INCREASING LOADS TO NINE CONTAINERS.
4. OMITTING BACK-UP CLEATS.
5. UPDATING GENERAL NOTES, MATERIAL SPECIFICATIONS, AND DRAWING FORMAT.

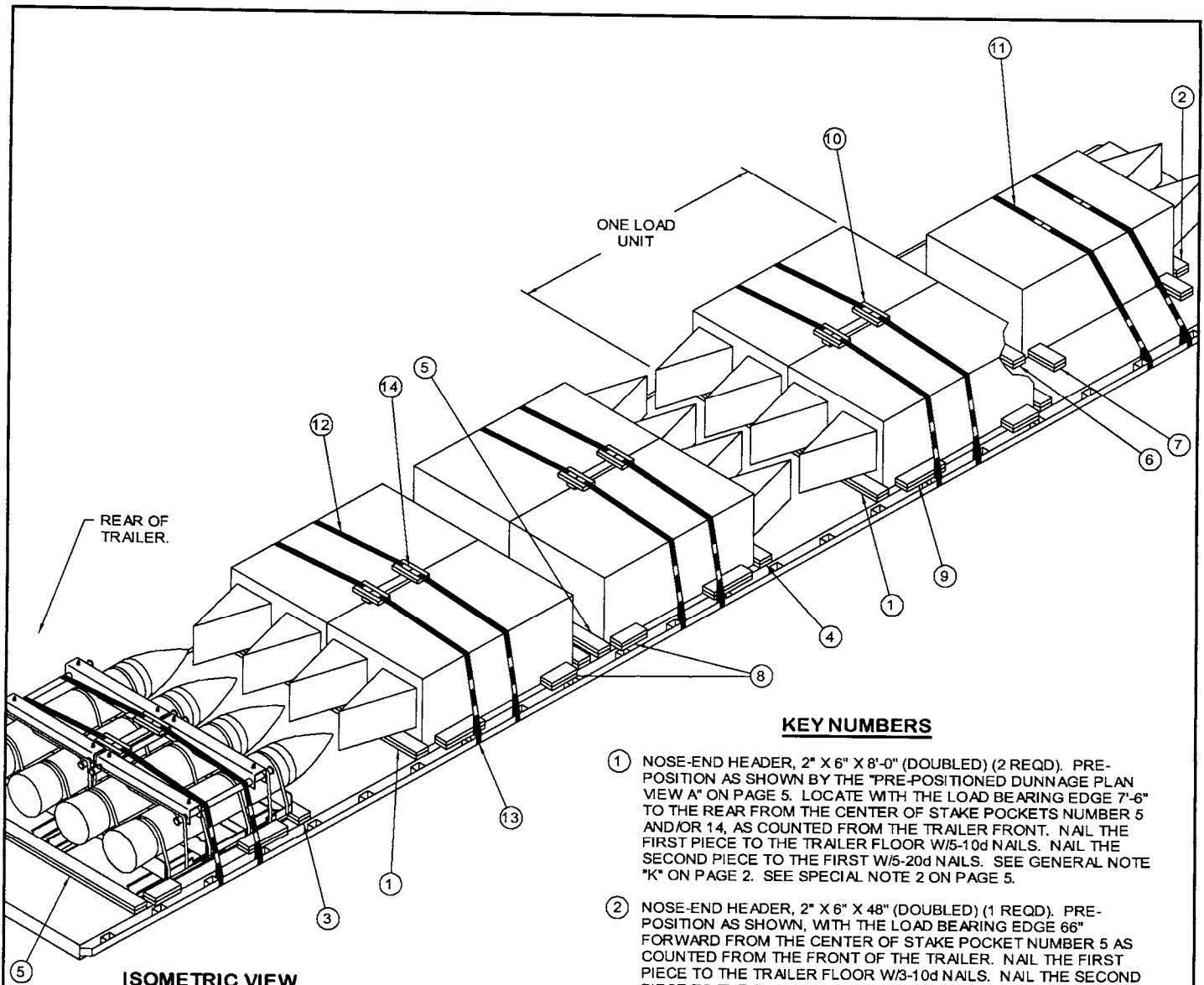
REVISION NO. 2, DATED FEBRUARY 1997, CONSISTS OF:

1. ADDING WEB STRAP TIEDOWN METHOD.
2. INCLUDING PROVISIONS FOR THE USE OF FIRE HOSE.
3. UPDATING DRAWING FORMAT.



CONTAINER DETAIL

GROSS WEIGHT ----- 4,470 LBS (APPROX)
 CUBE ----- 74.7 CU FT (APPROX)



ISOMETRIC VIEW

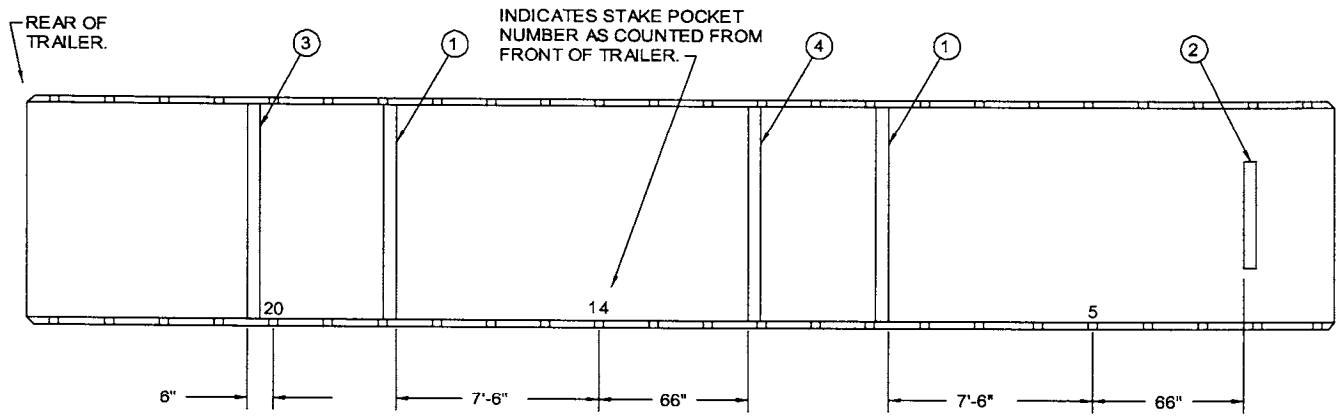
(KEY NUMBERS CONTINUED)

- ⑨ SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (8 REQ'D). POSITION 6" FROM THE NOSE-END HEADER, PIECE MARKED ①, ③ AND/OR ④ AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑩ STRAPPING BOARD ASSEMBLY (4 REQ'D). SEE THE DETAIL ON PAGE 15. POSITION AS SHOWN.
- ⑪ HOLD-DOWN STRAP, 2" X .050" OR .044" X 19'-0" LONG STEEL STRAPPING (2 REQ'D). INSTALL EACH STRAP FROM TWO 9'-6" LONG PIECES. SEE GENERAL NOTE "L" ON PAGE 2 AND SPECIAL NOTE 5 ON PAGE 5.
- ⑫ HOLD-DOWN STRAP, 2" X .050" OR .044" X 21'-0" LONG STEEL STRAPPING (8 REQ'D). INSTALL EACH STRAP FROM TWO 10'-6" LONG PIECES. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑩, W/2 STAPLES.
- ⑬ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (20 REQ'D). POSITION BETWEEN THE HOLD-DOWN STRAP, PIECE MARKED ⑪ AND/OR ⑫, AND THE TRAILER SIDE RAIL OR STAKE POCKET AND SEAL TO THE HOLD-DOWN STRAP. SEE "DETAIL A" ON PAGE 16. ALT: STAKE POCKET PROTECTOR (40 REQ'D). USE TWO UNDER EACH ANCHORING FACILITY WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 16.
- ⑭ SEAL FOR 2" STEEL STRAPPING (60 REQ'D, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT THOSE USED TO SECURE THE PADS, PIECES MARKED ⑬. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 16.

KEY NUMBERS

- ① NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (2 REQ'D). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW A" ON PAGE 5. LOCATE WITH THE LOAD BEARING EDGE 7'-6" TO THE REAR FROM THE CENTER OF STAKE POCKETS NUMBER 5 AND/OR 14, AS COUNTED FROM THE TRAILER FRONT. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS. SEE GENERAL NOTE "K" ON PAGE 2. SEE SPECIAL NOTE 2 ON PAGE 5.
- ② NOSE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQ'D). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 66" FORWARD FROM THE CENTER OF STAKE POCKET NUMBER 5 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ③ NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (1 REQ'D). PRE-POSITION WITH THE LOAD BEARING EDGE 6" TO THE REAR FROM STAKE POCKET NUMBER 20 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ④ NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (1 REQ'D). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 66" FORWARD FROM STAKE POCKET NUMBER 14 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ⑤ BASE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (4 REQ'D). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ⑥ BASE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQ'D). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ⑦ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQ'D). POSITION PERPENDICULAR TO THE CONTAINER SKID APPROXIMATELY 3" FROM A HEADER, PIECE MARKED ② AND/OR ⑥. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑧ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (8 REQ'D). POSITION 3" FROM THE BASE-END HEADER, PIECE MARKED ⑤. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 3 ON PAGE 5.

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PRE-POSITIONED DUNNAGE PLAN VIEW A

48'-0" LONG TRAILER

SPECIAL NOTES:

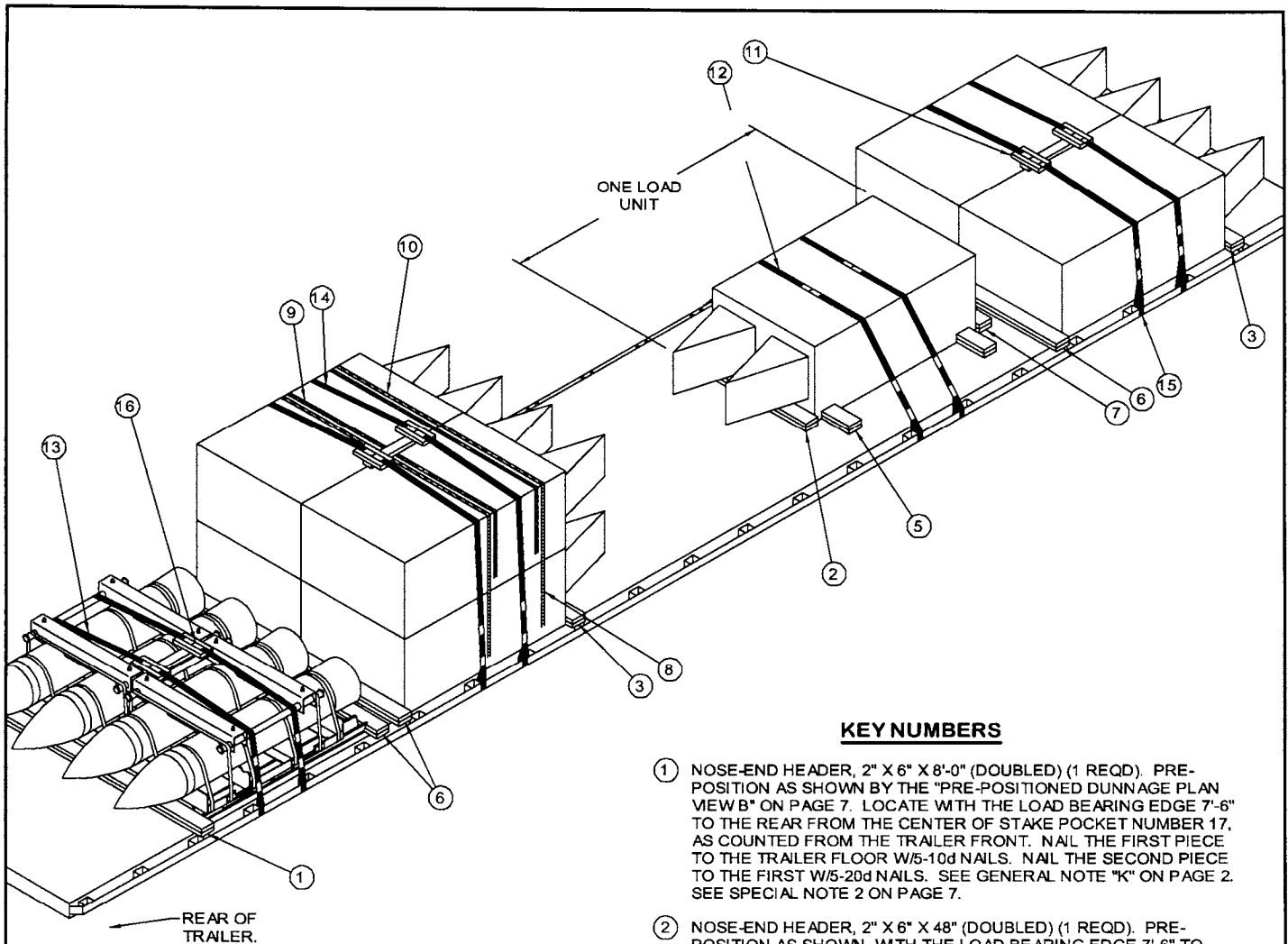
1. A 9-UNIT LOAD IS SHOWN ON A 48'-0" LONG BY 8'-6" WIDE FLATBED TRAILER. OTHER LENGTH AND WIDTH TRAILERS MAY BE USED.
2. THE LOCATIONS OF THE NOSE-END HEADERS, PIECES MARKED ① THRU ④, ARE DESIGNED TO LOCATE THE HOLD-DOWN STRAPS, PIECES MARKED ① AND ②, BETWEEN THE SADDLE PIECES OF THE TOP PALLET OF THE SUBASSEMBLY. THE LOCATIONS OF PIECES MARKED ① THRU ④ MAY BE ADJUSTED, AS NECESSARY TO ACCOMPLISH THIS.
3. IF THE TRAILER BEING LOADED HAS A NAILABLE FLOOR WIDTH OF LESS THAN 8'-2", THE PRE-POSITIONED SIDE BLOCKING DEPICTED AS PIECE MARKED ④ ON PAGE 6 WILL BE USED IN LIEU OF THE DEPICTED SIDE BLOCKING, PIECES MARKED ⑧ AND ⑨.
4. A 48'-0" LONG TRAILER HAVING STAKE POCKETS SPACED 24" ON CENTER AND WITH THE FIRST STAKE POCKET AT 12" FROM THE FRONT IS SHOWN. STAKE POCKETS NUMBER 3, 4, 7, 8, 12, 13, 16, 17, 21, AND 22, AS COUNTED FROM THE FRONT OF THE TRAILER, SHOULD BE USED FOR ATTACHMENT OF THE HOLD-DOWN STRAPS, PIECES MARKED ① AND ②.
5. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT IN LIEU OF THE STEEL STRAPPING, REFER TO THE PROCEDURES ON PAGES 10 AND 11 FOR GUIDANCE. IF WEB STRAPS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 12 AND 13 FOR GUIDANCE.
6. THE DEPICTED LOAD CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED. THE LOAD CAN BE REDUCED BY MULTIPLES OF TWO CONTAINERS BY OMITTING ONE OR MORE TWO-WIDE LOAD UNITS. THE LOAD CAN BE REDUCED BY ONE CONTAINER BY OMITTING THE CONTAINER FROM THE FRONT OF THE LOAD.
7. THIS LOAD CANNOT BE INCREASED TO 10 UNITS WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	8	6
2" X 6"	200	200
NAILS	NO. REQD	POUNDS
10d (3")	190	3
20d (4")	46	1-3/4
STEEL STRAPPING, 2" -----	236 REQD -----	79 LBS
SEAL FOR 2" STRAPPING -----	60 REQD -----	12 LBS
STAPLE FOR 2" STRAPPING -----	16 REQD -----	NIL

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	9 -----	40,230 LBS
DUNNAGE -----	-----	508 LBS

TOTAL WEIGHT ----- 40,738 LBS (APPROX)



ISOMETRIC VIEW

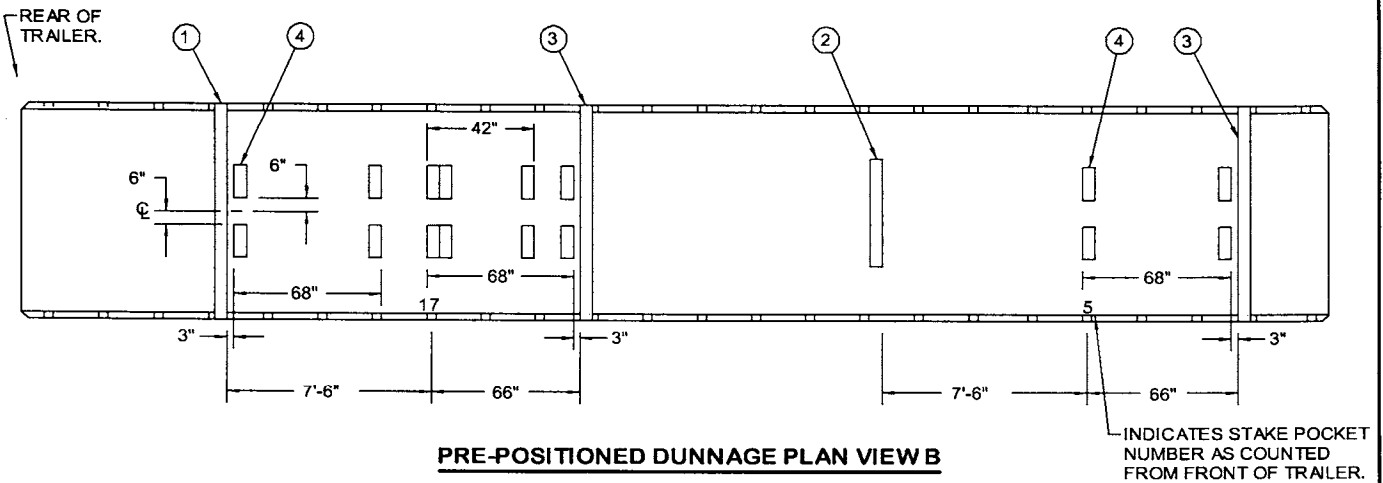
(KEY NUMBERS CONTINUED)

- ⑩ SEAL FOR 1-1/4" STEEL STRAPPING (12 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "L" ON PAGE 2. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 16.
- ⑪ STRAPPING BOARD ASSEMBLY (3 REQD). SEE THE DETAIL ON PAGE 15. POSITION AS SHOWN.
- ⑫ HOLD-DOWN STRAP, 2" X .050" OR .044" X 19'-0" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 9'-6" LONG PIECES.
- ⑬ HOLD-DOWN STRAP, 2" X .050" OR .044" X 21'-0" LONG STEEL STRAPPING (4 REQD). INSTALL EACH STRAP FROM TWO 10'-6" LONG PIECES. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑪, W/2 STAPLES.
- ⑭ HOLD-DOWN STRAP, 2" X .050" OR .044" X 26'-6" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 13'-3" LONG PIECES. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑪, W/2 STAPLES.
- ⑮ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (16 REQD). POSITION BETWEEN THE HOLD-DOWN STRAP, PIECE MARKED ⑫, ⑬, AND/OR ⑭, AND THE TRAILER SIDE RAIL OR STAKE POCKET AND SEAL TO THE HOLD-DOWN STRAP. SEE "DETAIL A" ON PAGE 16. ALT: STAKE POCKET PROTECTOR (32 REQD). USE TWO UNDER EACH ANCHORING FACILITY WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 16.
- ⑯ SEAL FOR 2" STEEL STRAPPING (48 REQD, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT THOSE USED TO SECURE THE PADS, PIECES MARKED ⑮. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 16.

KEY NUMBERS

- ① NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW B" ON PAGE 7. LOCATE WITH THE LOAD BEARING EDGE 7'-6" TO THE REAR FROM THE CENTER OF STAKE POCKET NUMBER 17, AS COUNTED FROM THE TRAILER FRONT. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS. SEE GENERAL NOTE "K" ON PAGE 2. SEE SPECIAL NOTE 2 ON PAGE 7.
- ② NOSE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 7'-6" TO THE REAR FROM THE CENTER OF STAKE POCKET NUMBER 5 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ③ NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (2 REQD). PRE-POSITION WITH THE LOAD BEARING EDGE 66" FORWARD FROM STAKE POCKETS NUMBER 5 AND/OR 17 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ④ SIDE BLOCKING, 2" X 6" X 14-1/2" (DOUBLED) (16 REQD). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW B" ON PAGE 7. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑤ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQD). POSITION PERPENDICULAR TO THE CONTAINER SKID APPROXIMATELY 3" FROM A HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑥ BASE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (3 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ⑦ BASE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ⑧ UNITIZING STRAP, 1-1/4" X .035" OR .031" X 18'-6" LONG STEEL STRAPPING (4 REQD). INSTALL TO ENCIRCLE THE TOP AND BOTTOM CONTAINERS IN A 2-HIGH STACK.
- ⑨ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 21'-0" LONG STEEL STRAPPING (2 REQD). INSTALL TO ENCIRCLE THE CONTAINERS IN THE SECOND LAYER.

(CONTINUED AT LEFT)



(SPECIAL NOTES CONTINUED)

7. IF DESIRED, 10 CONTAINERS CAN PROBABLY BE SHIPPED. FOR 10 CONTAINERS ON A 45'-0" LONG "WESTERN" TYPE TRAILER, THE NOSE-END AND BASE-END HEADERS FOR THE SECOND LOAD UNIT, PIECES MARKED ② AND ⑦, WILL BE PLACED AT 9'-6" FROM STAKE POCKET NUMBER 5 IN LIEU OF AT 7'-6". FOR 10 CONTAINERS ON A TRAILER OTHER THAN A "WESTERN" TYPE, ALSO CHANGE PIECES MARKED ② AND ⑦ TO 8'-0" BUT DO NOT CHANGE THE LOCATION FROM THAT SHOWN ABOVE. PLACE TWO CONTAINERS IN THE SECOND LOAD UNIT. THE REAR TWO LOAD UNITS WILL BE PLACED AS SPECIFIED IN SPECIAL NOTE 4 AT RIGHT. SIDE BLOCKING, PIECES MARKED ④, WILL BE USED IN LIEU OF PIECES MARKED ⑤. AN ADDITIONAL STRAPPING BOARD ASSEMBLY, PIECE MARKED ①, WILL BE REQUIRED AND THE HOLD-DOWN STRAPS FOR THE SECOND LOAD UNIT WILL BE 21'-0" LONG. THE CONTAINER PLACEMENT FOR EITHER TYPE TRAILER IS NOT MANDATORY BUT IS PROVIDED AS GUIDANCE ONLY. CONTAINERS SHOULD BE PLACED SO AS TO OBTAIN THE BEST WEIGHT DISTRIBUTION. CAUTION: THE LOADED VEHICLE SHOULD BE WEIGHED TO VERIFY THAT THE AXLES WILL "SCALE".

SPECIAL NOTES:

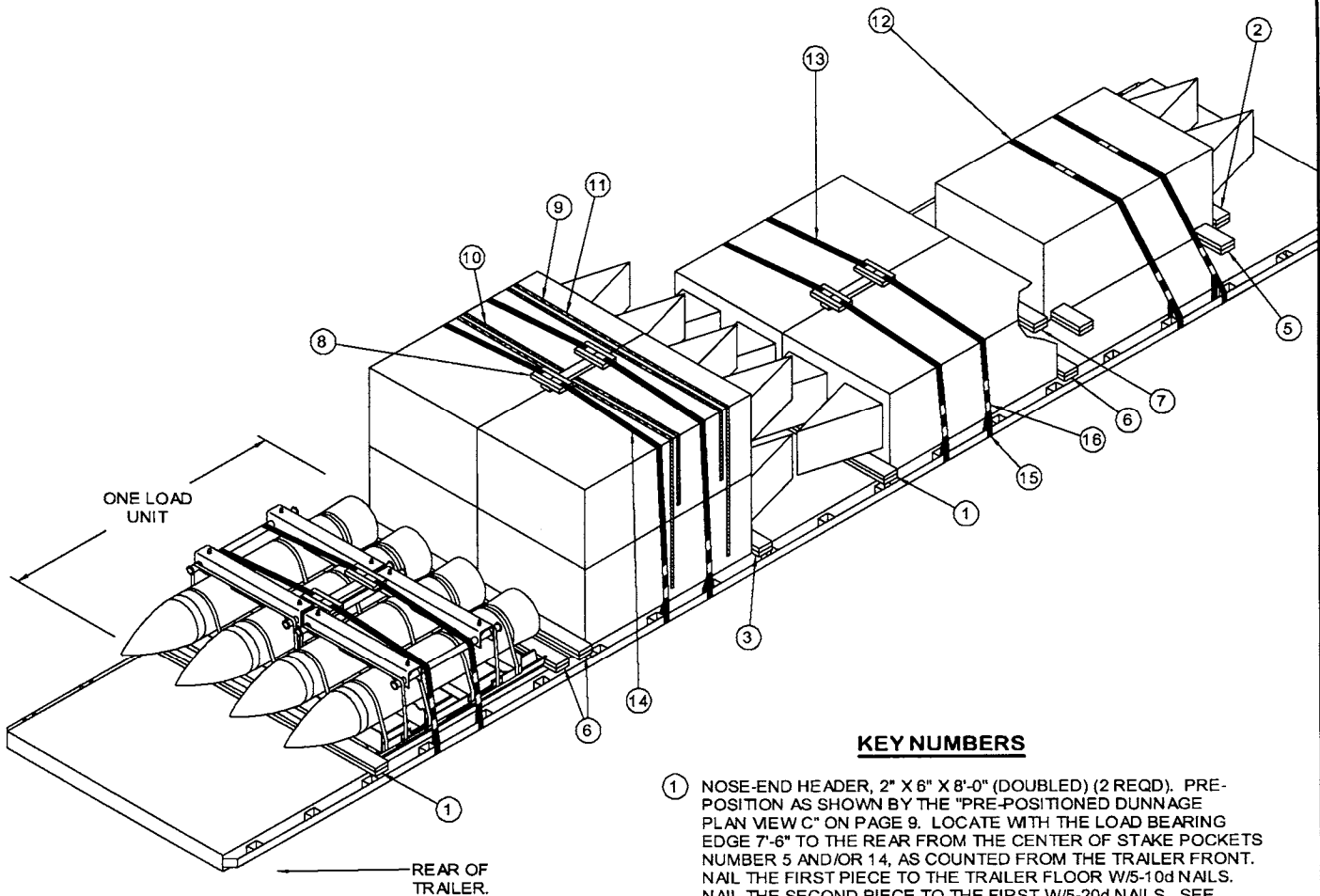
1. A 9-UNIT LOAD IS SHOWN ON A 45'-0" LONG BY 8'-0" WIDE FLATBED TRAILER. OTHER LENGTH AND WIDTH TRAILERS MAY BE USED. SEE SPECIAL NOTE 7 AT LEFT.
2. THE LOCATIONS OF THE NOSE-END HEADERS, PIECES MARKED ①, ②, AND ③, ARE DESIGNED TO LOCATE THE HOLD-DOWN STRAPS, PIECES MARKED ⑫, ⑬, AND ⑭, BETWEEN THE SADDLE PIECES OF THE TOP PALLET OF THE SUBASSEMBLY. THE LOCATIONS OF PIECES MARKED ①, ②, AND ③ MAY BE ADJUSTED, AS NECESSARY TO ACCOMPLISH THIS.
3. A 45'-0" LONG TRAILER HAVING STAKE POCKETS SPACED 24" ON CENTER AND WITH THE FIRST STAKE POCKET AT 6" FROM THE FRONT IS SHOWN. STAKE POCKETS NUMBER 3, 4, 7, 8, 15, 16, 19, AND 20, AS COUNTED FROM THE FRONT OF THE TRAILER, SHOULD BE USED FOR ATTACHMENT OF THE HOLD-DOWN STRAPS, PIECES MARKED ⑫, ⑬, AND ⑭. THESE STRAP ATTACHMENT POINTS ARE APPLICABLE FOR "WESTERN" TYPE TRAILERS. SEE SPECIAL NOTE 4 FOR GUIDANCE IF TRAILERS OTHER THAN THE "WESTERN" TYPE ARE FURNISHED.
4. IF A 45'-0" LONG TRAILER OTHER THAN A "WESTERN" TYPE IS FURNISHED FOR LOADING, THE PLACEMENT OF PIECES MARKED ①, ② AND ③ SHOULD BE CHANGED AS WELL AS THE STAKE POCKETS TO BE USED FOR ATTACHMENT OF THE HOLD-DOWN STRAPS, PIECES MARKED ⑬ AND ⑭. PIECE MARKED ① AT THE REAR OF THE TRAILER SHOULD BE PLACED 7'-6" TO THE REAR OF STAKE POCKET NUMBER 16 IN LIEU OF STAKE POCKET NUMBER 17 FOR BETTER WEIGHT DISTRIBUTION. STAKE POCKETS NUMBER 14, 15, 18, AND 19 WILL THEN BE USED FOR ATTACHMENT OF THE STRAPS, PIECES MARKED ⑬ AND ⑭, AT THE REAR OF THE LOAD IN LIEU OF STAKE POCKETS NUMBER 15, 16, 19, AND 20. THIS CONTAINER PLACEMENT IS NOT MANDATORY BUT IS PROVIDED AS GUIDANCE ONLY. CONTAINERS SHOULD BE PLACED SO AS TO OBTAIN THE BEST WEIGHT DISTRIBUTION.
5. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT IN LIEU OF THE STEEL STRAPPING, REFER TO THE PROCEDURES ON PAGES 10 AND 11 FOR GUIDANCE. IF WEB STRAPS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 12 AND 13 FOR GUIDANCE.
6. THE DEPICTED LOAD, OR A LOAD ON OTHER THAN A "WESTERN" TYPE TRAILER, CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED. A LOAD CAN BE REDUCED BY TWO CONTAINERS BY OMITTING THE CONTAINERS FROM THE TOP LAYER. THE LOAD CAN BE REDUCED BY ONE CONTAINER BY OMITTING THE CONTAINER FROM THE LOAD UNIT CONSISTING OF JUST ONE CONTAINER.

(CONTINUED AT LEFT)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	6	4
2" X 6"	165	165
NALS	NO. REQD	POUNDS
10d (3")	206	3-1/4
20d (4")	36	1-1/2
STEEL STRAPPING, 1-1/4" ----- 116' REQD ----- 17 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 12 REQD ----- 1/2 LB		
STEEL STRAPPING, 2" ----- 199' REQD ----- 67 LBS		
SEAL FOR 2" STRAPPING ----- 48 REQD ----- 10 LBS		
STAPLE FOR 2" STRAPPING ----- 12 REQD ----- NIL		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	9	40,230 LBS
DUNNAGE		439 LBS
TOTAL WEIGHT		40,669 LBS (APPROX)



ISOMETRIC VIEW

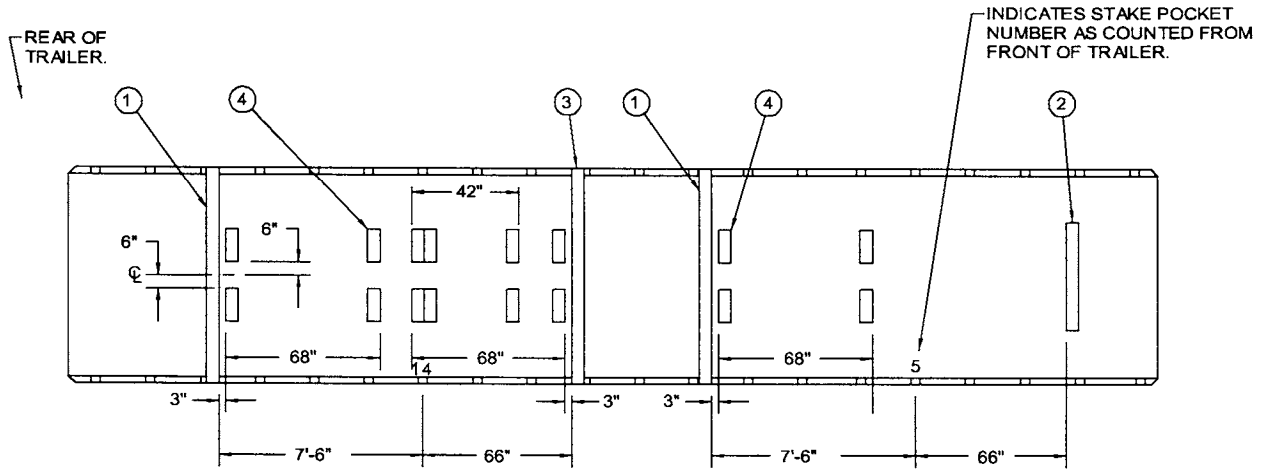
KEY NUMBERS

- ① NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (2 REQD). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW C" ON PAGE 9. LOCATE WITH THE LOAD BEARING EDGE 7'-6" TO THE REAR FROM THE CENTER OF STAKE POCKETS NUMBER 5 AND/OR 14, AS COUNTED FROM THE TRAILER FRONT. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS. SEE GENERAL NOTE "K" ON PAGE 2. SEE SPECIAL NOTE 2 ON PAGE 9.
- ② NOSE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 66" FORWARD FROM THE CENTER OF STAKE POCKET NUMBER 5 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ③ NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION WITH THE LOAD BEARING EDGE 66" FORWARD FROM STAKE POCKET NUMBER 14 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ④ SIDE BLOCKING, 2" X 6" X 14-1/2" (DOUBLED) (16 REQD). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW C" ON PAGE 9. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑤ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQD). POSITION PERPENDICULAR TO THE CONTAINER SKID APPROXIMATELY 3" FROM A HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑥ BASE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (3 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ⑦ BASE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ⑧ STRAPPING BOARD ASSEMBLY (3 REQD). SEE THE DETAIL ON PAGE 15. POSITION AS SHOWN.
- ⑨ UNITIZING STRAP, 1-1/4" X .035" OR .031" X 18'-6" LONG STEEL STRAPPING (4 REQD). INSTALL TO ENCIRCLE THE TOP AND BOTTOM CONTAINERS IN A 2-HIGH STACK.

(KEY NUMBERS CONTINUED)

- ⑩ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 21'-0" LONG STEEL STRAPPING (2 REQD). INSTALL TO ENCIRCLE THE CONTAINERS IN THE SECOND LAYER.
- ⑪ SEAL FOR 1-1/4" STEEL STRAPPING (12 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "L" ON PAGE 2. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 16.
- ⑫ HOLD-DOWN STRAP, 2" X .050" OR .044" X 19'-0" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 9'-6" LONG PIECES.
- ⑬ HOLD-DOWN STRAP, 2" X .050" OR .044" X 21'-0" LONG STEEL STRAPPING (4 REQD). INSTALL EACH STRAP FROM TWO 10'-6" LONG PIECES. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑧, W/2 STAPLES.
- ⑭ HOLD-DOWN STRAP, 2" X .050" OR .044" X 26'-6" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 13'-3" LONG PIECES. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑧, W/2 STAPLES.
- ⑮ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (16 REQD). POSITION BETWEEN THE HOLD-DOWN STRAP, PIECE MARKED ⑫, ⑬, AND/OR ⑭, AND THE TRAILER SIDE RAIL OR STAKE POCKET AND SEAL TO THE HOLD-DOWN STRAP. SEE "DETAIL A" ON PAGE 16. ALT: STAKE POCKET PROTECTOR (32 REQD). USE TWO UNDER EACH ANCHORING FACILITY WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 16.
- ⑯ SEAL FOR 2" STEEL STRAPPING (48 REQD, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT THOSE USED TO SECURE THE PADS, PIECES MARKED ⑮. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 16.

(CONTINUED AT LEFT)



PRE-POSITIONED DUNNAGE PLAN VIEW C

40'-0" LONG TRAILER

(SPECIAL NOTES CONTINUED)

- 7. IF DESIRED, 10 CONTAINERS CAN PROBABLY BE SHIPPED. FOR 10 CONTAINERS ON A 40'-0" LONG "WESTERN" TYPE TRAILER, THE NOSE-END AND BASE-END HEADERS FOR THE FIRST LOAD UNIT, PIECES MARKED ② AND ⑦, WILL BE CHANGED TO 8'-0" NAILED W/5-10d AND 20d NAILS. TWO CONTAINERS CAN THEN BE PLACED IN THE FIRST LOAD UNIT. FOR 10 CONTAINERS ON A TRAILER OTHER THAN A "WESTERN" TYPE, ALSO CHANGE PIECES MARKED ② AND ⑦ TO 8'-0". PLACE TWO CONTAINERS IN THE FIRST LOAD UNIT. THE CONTAINERS IN THE SECOND LAYER WILL BE PLACED AS SPECIFIED IN SPECIAL NOTE 4 AT RIGHT. SIDE BLOCKING, PIECES MARKED ④, WILL BE USED IN LIEU OF PIECES MARKED ⑤. AN ADDITIONAL STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑧, WILL BE REQUIRED AND THE HOLD-DOWN STRAPS FOR THE FIRST LOAD UNIT WILL BE 21'-0" LONG. THE CONTAINER PLACEMENT FOR EITHER TYPE TRAILER IS NOT MANDATORY BUT IS PROVIDED AS GUIDANCE ONLY. CONTAINERS SHOULD BE PLACED SO AS TO OBTAIN THE BEST WEIGHT DISTRIBUTION. **CAUTION:** THE LOADED VEHICLE SHOULD BE WEIGHED TO VERIFY THAT THE AXLES WILL "SCALE".
- 8. THIS SPECIAL NOTE APPLIES TO THE POSSIBLE SHIPMENT OF 10 CONTAINERS IN THE LOAD SHOWN ON PAGE 10. THE GUIDANCE WITHIN SPECIAL NOTE 7 ABOVE AS PERTAINS TO THE HEADERS, PIECES MARKED ② AND ⑦, AND THE SIDE BLOCKING, PIECES MARKED ⑤, AND THE PLACEMENT OF THE ADDED CONTAINER, IS APPLICABLE FOR USE IN THE LOAD ON PAGE 10. AN ADDITIONAL CHAIN BOARD ASSEMBLY B, PIECE MARKED ⑩ ON PAGE 10, WILL BE USED IN LIEU OF THE CHAIN BOARD ASSEMBLY A, PIECE MARKED ① ON PAGE 10. THE CONTAINER PLACEMENT FOR EITHER TYPE TRAILER FOR THE LOAD ON PAGE 10 IS NOT MANDATORY BUT IS PROVIDED AS GUIDANCE ONLY. CONTAINERS SHOULD BE PLACED SO AS TO OBTAIN THE BEST WEIGHT DISTRIBUTION. **CAUTION:** THE LOADED VEHICLE SHOULD BE WEIGHED TO VERIFY THAT THE AXLES WILL "SCALE".

SPECIAL NOTES:

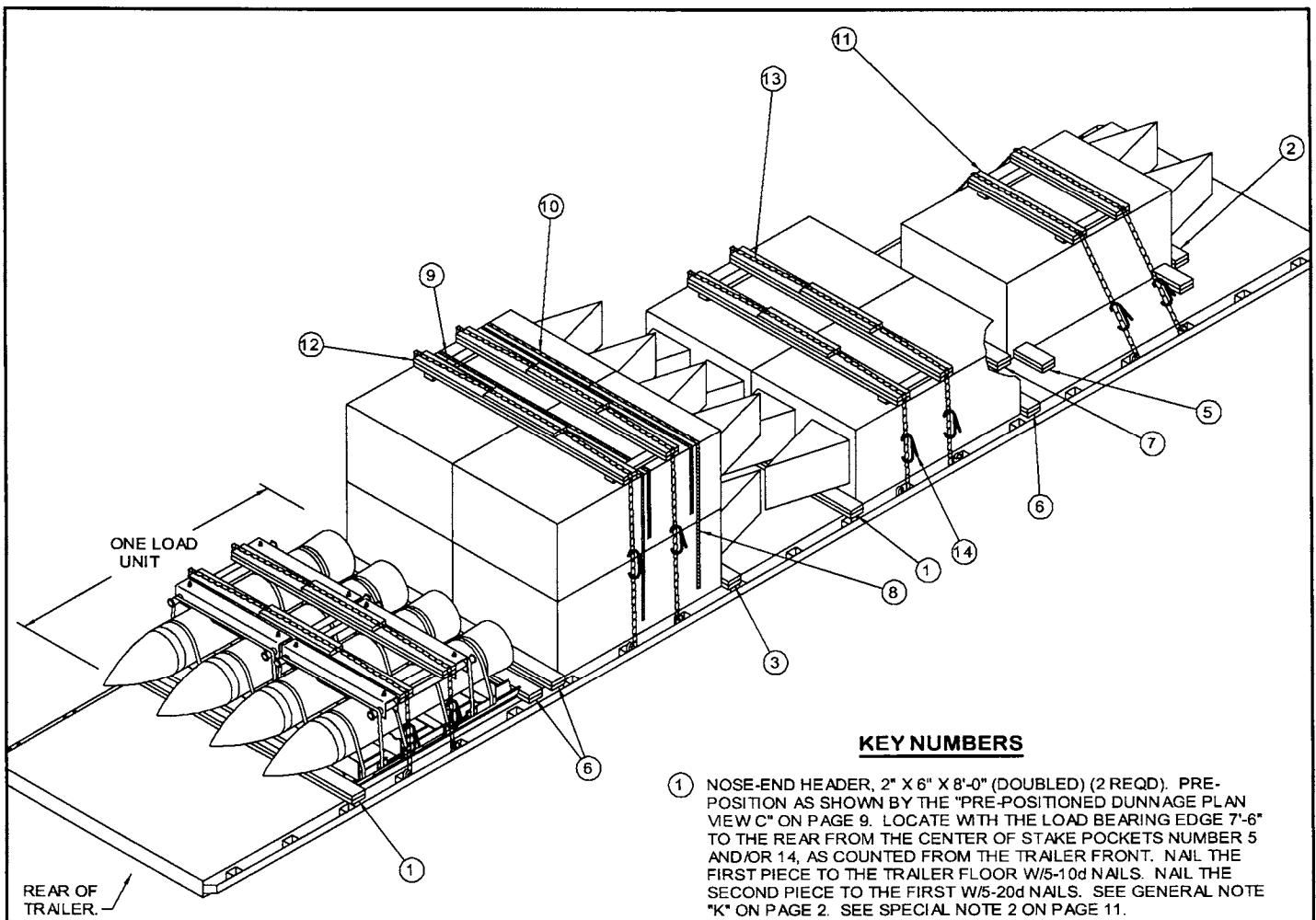
- 1. A 9-UNIT LOAD IS SHOWN ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER. OTHER LENGTH AND WIDTH TRAILERS MAY BE USED. SEE SPECIAL NOTE 7 AT LEFT.
- 2. THE LOCATIONS OF THE NOSE-END HEADERS, PIECES MARKED ①, ②, AND ③, ARE DESIGNED TO LOCATE THE HOLD-DOWN STRAPS, PIECES MARKED ⑫, ⑬, AND ⑭, BETWEEN THE SADDLE PIECES OF THE TOP PALLET OF THE SUBASSEMBLY. THE LOCATIONS OF PIECES MARKED ①, ②, AND ③ MAY BE ADJUSTED, AS NECESSARY TO ACCOMPLISH THIS.
- 3. A 40'-0" LONG TRAILER HAVING STAKE POCKETS SPACED 24" ON CENTER AND WITH THE FIRST STAKE POCKET AT 12" FROM THE FRONT IS SHOWN. STAKE POCKETS NUMBER 3, 4, 7, 8, 12, 13, 16, AND 17, AS COUNTED FROM THE FRONT OF THE TRAILER, SHOULD BE USED FOR ATTACHMENT OF THE HOLD-DOWN STRAPS, PIECES MARKED ⑫, ⑬, AND ⑭.
- 4. THE DEPICTED LOADING PATTERN IS APPLICABLE FOR A "WESTERN" TYPE TRAILER. FOR A TRAILER HAVING THE REAR TANDEMS LOCATED IN OTHER THAN AT THE "WESTERN" POSITION, THE LOADING PATTERN SHOULD BE CHANGED. THE SECOND LOAD UNIT SHOULD BE TWO CONTAINERS HIGH IN LIEU OF THE THIRD LOAD UNIT BEING TWO HIGH. THE BLOCKING AND BRACING WILL BE THE SAME AS THE DEPICTED LOAD, EXCEPT THAT THE LOCATION WILL CHANGE. THIS CONTAINER PLACEMENT IS NOT MANDATORY BUT IS PROVIDED AS GUIDANCE ONLY. CONTAINERS SHOULD BE PLACED SO AS TO OBTAIN THE BEST WEIGHT DISTRIBUTION.
- 5. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT IN LIEU OF THE STEEL STRAPPING, REFER TO THE PROCEDURES ON PAGES 10 AND 11 FOR GUIDANCE. IF WEB STRAPS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 12 AND 13 FOR GUIDANCE.
- 6. THE DEPICTED LOAD, OR A LOAD ON OTHER THAN A "WESTERN" TYPE TRAILER, CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED. A LOAD CAN BE REDUCED BY TWO CONTAINERS BY OMITTING THE CONTAINERS FROM THE TOP LAYER. FOR A SHIPMENT OF EIGHT CONTAINERS, THE TOP LAYER SHOULD BE OMITTED AND THE FRONT LOAD UNIT SHOULD BE CHANGED TO TWO CONTAINERS WIDE IN LIEU OF ONE WIDE.

(CONTINUED AT LEFT)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	6	4
2" X 6"	165	165
NAILS	NO. REQD	POUNDS
10d (3")	206	3-1/4
20d (4")	36	1-1/2
STEEL STRAPPING, 1-1/4" -----	116' REQD -----	17 LBS
SEAL FOR 1-1/4" STRAPPING -----	12 REQD -----	1/2 LB
STEEL STRAPPING, 2" -----	199' REQD -----	67 LBS
SEAL FOR 2" STRAPPING -----	48 REQD -----	10 LBS
STAPLE FOR 2" STRAPPING -----	12 REQD -----	NIL

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	9 -----	40,230 LBS
DUNNAGE -----	-----	439 LBS
TOTAL WEIGHT -----		40,669 LBS (APPROX)



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑩ SEAL FOR 1-1/4" STEEL STRAPPING (12 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "L" ON PAGE 2. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 16.
- ⑪ CHAIN BOARD ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 14.
- ⑫ CHAIN BOARD ASSEMBLY B (3 REQD). SEE THE DETAIL ON PAGE 14. SEE THE "INSTALLATION OF CHAIN BOARD ASSEMBLY B" DETAIL ON PAGE 15.
- ⑬ CHAIN, BINDING, 5/16", GRADE 70, BY A LENGTH TO SUIT (8 REQD). POSITION AS SHOWN. ATTACH TO A STAKE POCKET. DO NOT ATTACH TO A RUB RAIL. SEE THE "CHAIN ALIGNMENT DETAIL" ON PAGE 13. SEE THE "SPECIAL PROVISIONS FOR CHAIN TIEDOWN" ON PAGE 13.
- ⑭ LOAD BINDER, 5/16", OVER-CENTER TYPE (8 REQD, 1 PER CHAIN). WIRE TIE HANDLE TO PREVENT OPENING DURING TRANSPORT. FASTEN THE TENSIONED CHAIN, PIECE MARKED ⑬, TO A LATERAL PIECE OF A CHAIN BOARD ASSEMBLY. FASTEN TO PIECE MARKED ⑪ W/2-20d NAILS, ONE AT EACH END, AND/OR TO PIECE MARKED ⑫ W/4-20d NAILS BY DRIVING EACH NAIL INTO THE LATERAL PIECE OF THE CHAIN BOARD ASSEMBLY THRU AN OPENING IN A CHAIN LINK AND BENDING IT OVER THE LINK.

KEY NUMBERS

- ① NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (2 REQD). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW C" ON PAGE 9. LOCATE WITH THE LOAD BEARING EDGE 7'-6" TO THE REAR FROM THE CENTER OF STAKE POCKETS NUMBER 5 AND/OR 14, AS COUNTED FROM THE TRAILER FRONT. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS. SEE GENERAL NOTE "K" ON PAGE 2. SEE SPECIAL NOTE 2 ON PAGE 11.
- ② NOSE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 66" FORWARD FROM THE CENTER OF STAKE POCKET NUMBER 5 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ③ NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION WITH THE LOAD BEARING EDGE 66" FORWARD FROM STAKE POCKET NUMBER 14 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ④ SIDE BLOCKING, 2" X 6" X 14'-1/2" (DOUBLED) (16 REQD). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW C" ON PAGE 9. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑤ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQD). POSITION PERPENDICULAR TO THE CONTAINER SKID APPROXIMATELY 3" FROM A HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑥ BASE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (3 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ⑦ BASE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ⑧ UNITIZING STRAP, 1-1/4" X .035" OR .031" X 18'-6" LONG STEEL STRAPPING (4 REQD). INSTALL TO ENIRCLE THE TOP AND BOTTOM CONTAINERS IN A 2-HIGH STACK.
- ⑨ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 21'-0" LONG STEEL STRAPPING (2 REQD). INSTALL TO ENIRCLE THE CONTAINERS IN THE SECOND LAYER.

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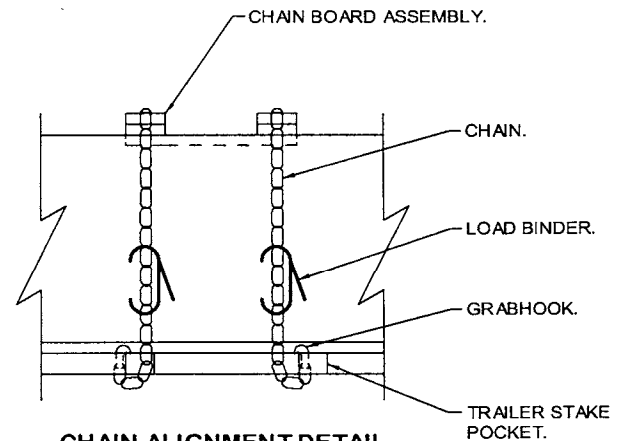
SPECIAL PROVISIONS FOR CHAIN TIEDOWN

LADING MAY BE SECURED TO THE FLATBED TRAILER BY CARRIER-OWNED CHAINS AND LOAD BINDERS IN LIEU OF SPECIFIED STRAPPING, PROVIDED THE FOLLOWING CONDITIONS ARE MET AND THE PROCEDURES CONTAINED ON PAGES 10 AND 11 ARE FOLLOWED.

1. ONLY CHAINS AND LOAD BINDERS OF GOOD QUALITY WILL BE USED. ALL CHAINS AND LOAD BINDERS SHALL CONFORM TO THE NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1975.
2. ALL CHAINS SHALL BE MARKED AS PRESCRIBED BY THE NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1975. AT LEAST ONE LINK IN EVERY 36 LINKS SHALL CARRY THE MANUFACTURER'S PERMANENT AND DISTINCTIVE MARK IDENTIFYING THE GRADE OF CHAIN. CHAINS NOT MARKED IN THIS MANNER SHALL NOT BE USED. IN ADDITION TO THE GRADE MARKING, THE CHAIN MAY ALSO CARRY LETTER MARKINGS OR SYMBOLS IDENTIFYING THE CHAIN MANUFACTURER. THE PRESENCE OF THE MANUFACTURER'S IDENTIFICATION MARKING IS NOT MANDATORY.
3. BEFORE AND DURING INSTALLATION, THE CHAINS AND LOAD BINDERS SHALL BE INSPECTED FOR BENT HOOKS, STRETCH, GOUGES, BENT LINKS, WEAR, OR ANY OTHER NOTICEABLE DEFECTS. ANY DEFICIENCY SHALL BE CAUSE FOR REJECTION OF A CHAIN OR LOAD BINDER. CHAINS MUST NOT BE TWISTED DURING INSTALLATION. CAUTION: EXTREME CARE MUST BE EXERCISED WHEN TENSIONING CHAINS TO PREVENT DAMAGE OR PERMANENT DEFORMATION TO THE LADING.
4. CHAIN SIZES AND GRADES APPROVED FOR USE WITH FLATBED TRAILER LOADS ARE AS FOLLOWS:
 - A. 3/8", GRADE 43 HIGH TEST CHAIN
 - B. 5/16", GRADE 70 BINDING CHAIN
 - C. 3/8", GRADE 70 BINDING CHAIN
 - D. 5/16", GRADE 80 ALLOY STEEL CHAIN
 - E. 3/8", GRADE 80 ALLOY STEEL CHAIN
5. THE GRABHOOKS ON THE ENDS OF THE CHAIN MAY BE OF THE FOLLOWING TYPES WITH GRADE MARKINGS AS INDICATED.
 - A. CLEVIS GRABHOOKS, 3/8" SIZE, DO NOT REQUIRE GRADE MARKING. ALLOY GRABHOOKS, 5/16" SIZE, SHALL CARRY THE MANUFACTURER'S GRADE MARK OF 7, 70, OR 700. THE HOOKS SHALL BE USED ON THE APPROPRIATE SIZE CHAIN.
 - B. CLOSED EYE GRABHOOKS, 3/8" AND 5/16" SIZE, MAY BE USED ON THE APPROPRIATE SIZE CHAIN IF THEY ARE A PART OF A CHAIN ASSEMBLY WHICH WAS PROVIDED BY A CHAIN MANUFACTURER, AND THE CHAIN ASSEMBLY CARRIES THE CORRECT GRADE IDENTIFICATION MARKING AS PREVIOUSLY STATED. CLOSED EYE GRABHOOKS THAT FORM A PART OF THE CHAIN ASSEMBLY ARE EXEMPT FROM GRADE MARKINGS.
6. CONNECTING LINKS USED FOR CHAIN REPAIR MUST BE CORRECTLY MARKED AND BE EQUAL TO OR GREATER IN STRENGTH THAN THE CHAIN THEY ARE REPAIRING. CHAINS WITH UNMARKED CONNECTING LINKS SHALL NOT BE USED.
7. CHAIN AND FITTING OF A HIGHER GRADE MAY BE SUBSTITUTED FOR THE GRADES SPECIFIED IN NOTE 4 ABOVE.
8. LOAD BINDERS SHALL BE 5/16" TO 3/8" SIZE AND HAVE A MINIMUM BREAKING STRENGTH OF 16,200 POUNDS (WORKING LOAD LIMIT OF 5,400 POUNDS). OVERCENTER TYPE LOAD BINDERS SHALL BE SAFETY WIRED TO PREVENT ACCIDENTAL OPENING DURING TRANSPORT. LOAD BINDER SIZE SHALL BE COMPATIBLE WITH THE SIZE OF THE CHAIN BEING USED.

SPECIAL NOTES:

1. A 9-UNIT LOAD IS SHOWN ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER. OTHER LENGTH AND WIDTH TRAILERS MAY BE USED. SEE SPECIAL NOTE 8 ON PAGE 9.
2. THE LOCATIONS OF THE NOSE-END HEADERS, PIECES MARKED ①, ②, AND ③, ARE DESIGNED TO LOCATE THE CHAINS, PIECES MARKED ③, BETWEEN THE SADDLE PIECES OF THE TOP PALLET OF THE SUBASSEMBLY. THE LOCATIONS OF PIECES MARKED ①, ②, AND ③ MAY BE ADJUSTED, AS NECESSARY TO ACCOMPLISH THIS.
3. A 40'-0" LONG TRAILER HAVING STAKE POCKETS SPACED 24" ON CENTER AND WITH THE FIRST STAKE POCKET AT 12" FROM THE FRONT IS SHOWN. STAKE POCKETS NUMBER 3, 4, 7, 8, 12, 13, 16, AND 17, AS COUNTED FROM THE FRONT OF THE TRAILER, SHOULD BE USED FOR ATTACHMENT OF THE CHAINS, PIECES MARKED ③.
4. THE DEPICTED LOADING PATTERN IS APPLICABLE FOR A "WESTERN" TYPE TRAILER. FOR A TRAILER HAVING THE REAR TANDEMS LOCATED IN OTHER THAN AT THE "WESTERN" POSITION, THE LOADING PATTERN SHOULD BE CHANGED. THE SECOND LOAD UNIT SHOULD BE TWO CONTAINERS HIGH IN LIEU OF THE THIRD LOAD UNIT BEING TWO HIGH. THE BLOCKING AND BRACING WILL BE THE SAME AS THE DEPICTED LOAD, EXCEPT THAT THE LOCATION WILL CHANGE. THIS CONTAINER PLACEMENT IS NOT MANDATORY BUT IS PROVIDED AS GUIDANCE ONLY. CONTAINERS SHOULD BE PLACED SO AS TO OBTAIN THE BEST WEIGHT DISTRIBUTION.
5. IF STEEL STRAPPING IS TO BE USED IN LIEU OF THE CHAINS AND LOAD BINDERS, REFER TO THE PROCEDURES ON PAGES 8 AND 9 FOR GUIDANCE. IF WEB STRAPS ARE TO BE USED, REFER TO THE PROCEDURES ON PAGES 12 AND 13 FOR GUIDANCE.
6. THE DEPICTED LOAD, OR A LOAD ON OTHER THAN A "WESTERN" TYPE TRAILER, CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED. A LOAD CAN BE REDUCED BY TWO CONTAINERS BY OMITTING THE CONTAINERS FROM THE TOP LAYER. FOR A SHIPMENT OF EIGHT CONTAINERS, THE TOP LAYER SHOULD BE OMITTED AND THE FRONT LOAD UNIT SHOULD BE CHANGED TO TWO CONTAINERS WIDE IN LIEU OF ONE WIDE.
7. THE TRANSPORTING VEHICLE OPERATOR SHOULD BE INSTRUCTED TO PERIODICALLY INSPECT THE TIEDOWN CHAINS AND LOAD BINDERS DURING TRANSIT AND TIGHTEN IF NECESSARY.

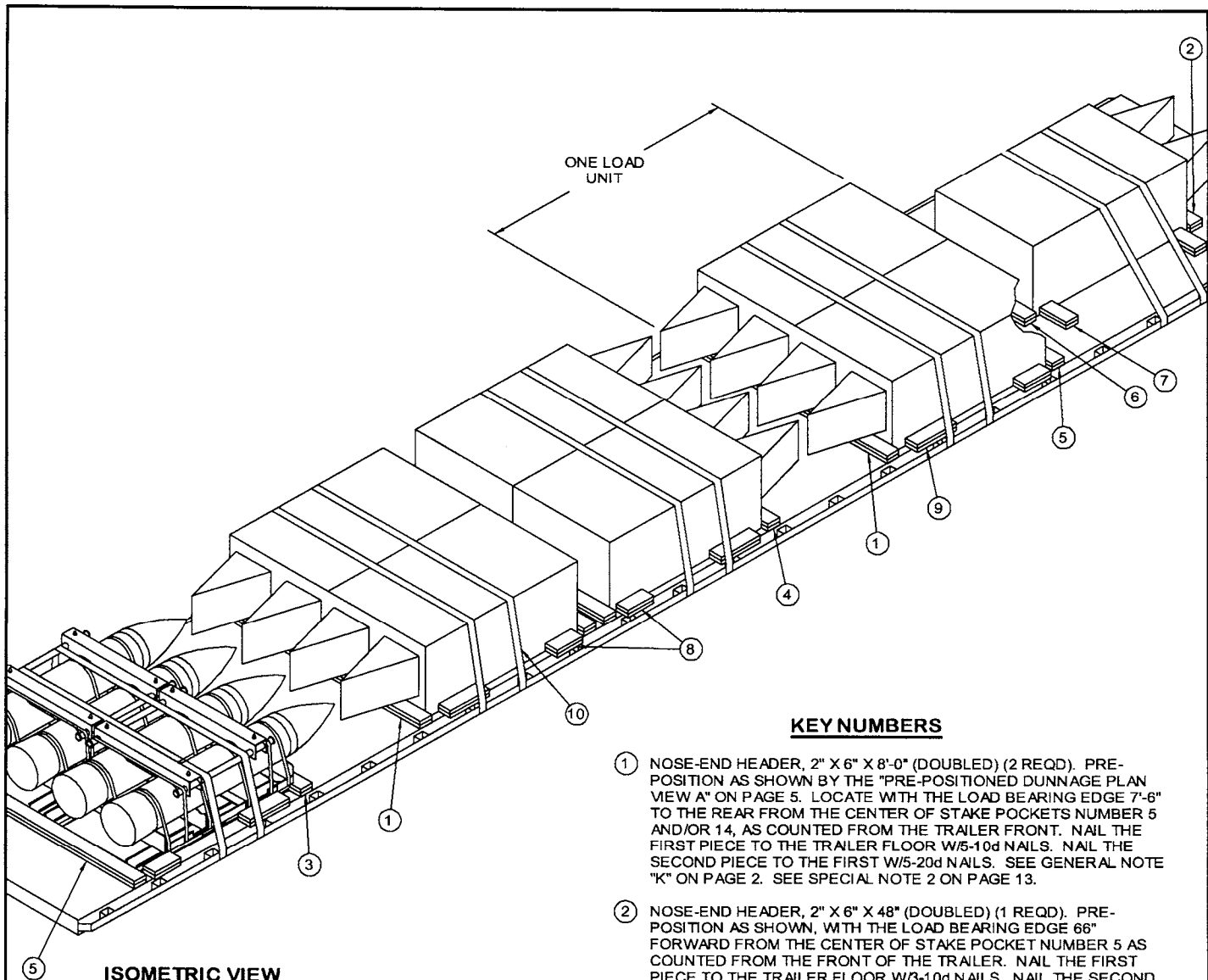


CHAIN ALIGNMENT DETAIL

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	16	11
2" X 6"	279	279
NAILS	NO. REQD	POUNDS
10d (3")	310	5
20d (4")	64	2-1/2
STEEL STRAPPING, 1-1/4" ----- 116' REQD ----- 17 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 12 REQD ----- 1/2 LB		
BINDING CHAIN, 5/16" ----- 140' REQD ----- 168 LBS		
LOAD BINDER, 5/16" ----- 8 REQD ----- 48 LBS		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	9	40,230 LBS
DUNNAGE		821 LBS
TOTAL WEIGHT		41,051 LBS (APPROX)



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑨ SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (8 REQD). POSITION 6" FROM THE NOSE-END HEADER, PIECE MARKED ①, ③ AND/OR ④ AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑩ WEB STRAP ASSEMBLY (10 REQD). POSITION TO EXTEND FROM A WINCH ON ONE SIDE OF THE TRAILER, OVER THE CONTAINERS, TO AN ATTACHMENT POINT ON THE OPPOSITE SIDE. SEE THE "SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN" ON PAGE 13.

KEY NUMBERS

- ① NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (2 REQD). PRE-POSITION AS SHOWN BY THE "PRE-POSITIONED DUNNAGE PLAN VIEW A" ON PAGE 5. LOCATE WITH THE LOAD BEARING EDGE 7'-6" TO THE REAR FROM THE CENTER OF STAKE POCKETS NUMBER 5 AND/OR 14, AS COUNTED FROM THE TRAILER FRONT. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS. SEE GENERAL NOTE "K" ON PAGE 2. SEE SPECIAL NOTE 2 ON PAGE 13.
- ② NOSE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 66" FORWARD FROM THE CENTER OF STAKE POCKET NUMBER 5 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ③ NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION WITH THE LOAD BEARING EDGE 6" TO THE REAR FROM STAKE POCKET NUMBER 20 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ④ NOSE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 66" FORWARD FROM STAKE POCKET NUMBER 14 AS COUNTED FROM THE FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ⑤ BASE-END HEADER, 2" X 6" X 8'-0" (DOUBLED) (4 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS.
- ⑥ BASE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ⑦ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQD). POSITION PERPENDICULAR TO THE CONTAINER SKID APPROXIMATELY 3" FROM A HEADER, PIECE MARKED ② AND/OR ⑥. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑧ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (8 REQD). POSITION 3" FROM THE BASE-END HEADER, PIECE MARKED ⑤. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 3 ON PAGE 13.

(CONTINUED AT LEFT)

SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN

LADING MAY BE SECURED TO A FLATBED TRAILER BY WEB STRAP ASSEMBLIES IN LIEU OF STEEL STRAPPING OR CHAINS AND LOAD BINDERS, PROVIDED THE FOLLOWING CONDITIONS ARE MET.

1. ONLY WEB STRAPS OF GOOD QUALITY WILL BE USED. ALL WEB STRAPS AND ASSOCIATED HARDWARE SHALL CONFORM TO THE WEB SLING & TIEDOWN ASSOCIATION RECOMMENDED STANDARD SPECIFICATION FOR SYNTHETIC WEB TIEDOWNS, FIRST PUBLISHED IN 1991.
2. ALL WEB STRAP TIEDOWN ASSEMBLIES SHALL BE PERMANENTLY LABELED WITHIN 18" OF ONE END TO SHOW:
 - A. NAME OR TRADEMARK OF MANUFACTURER
 - B. WORKING LOAD LIMIT (WLL)
 - C. DATE OF MANUFACTURE (MONTH AND YEAR)
3. WEB STRAP ASSEMBLY MINIMUM BREAKING STRENGTH WILL BE AT LEAST THREE TIMES THE WLL MARKED ON THE STRAP.
4. THE TOTAL MINIMUM BREAKING STRENGTH (MBS) OF THE STRAPS USED TO RESTRAIN AMMUNITION ITEMS WILL BE AT LEAST 1-1/2 TIMES THE TOTAL WEIGHT OF THE ITEMS, WITH A MINIMUM OF TWO STRAPS POSITIONED OVER EACH LOAD UNIT ON A TRAILER. WRITTEN PROOF OF THE MBS OF THE STRAPS SHALL BE PROVIDED BY THE CARRIER TO THE SHIPPING ACTIVITY IF REQUESTED.
5. CARRIERS MUST COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS APPLICABLE TO CARGO RESTRAINT USING WEB STRAPS.
6. WHEN USING STRAPS AND WINCHES FOR CARGO RESTRAINT, THE STRAPS WILL BE TENSIONED UNTIL TIGHT WITHOUT CAUSING DAMAGE TO THE CARGO. ONLY WINCH BARS WILL BE USED FOR OPERATING THE STRAP WINCHES.
7. BEFORE AND DURING INSTALLATION, THE WEB STRAP ASSEMBLIES SHALL BE INSPECTED FOR DEFECTS. STRAPS HAVING ANY OF THE FOLLOWING DEFECTS WILL NOT BE USED FOR THE RESTRAINT OF ANY AMMUNITION LOAD, WITH THE EXCEPTION OF ONE WITH FRAYED ENDS. A STRAP HAVING FRAYED ENDS CAN BE USED IF THE FRAYED END IS TRIMMED AND MELTED WITH HEAT OR FLAME UNTIL ALL STRANDS ARE SEIZED.
 - A. STRAP ASSEMBLY HARDWARE: SHALL BE INSPECTED FOR BENT HOOKS, GOUGES, CORROSION, SIGNS OF REPAIR, BENT RATCHETS OR WINCHES, WEAR, OR ANY OTHER NOTICEABLE DEFECTS.
 - B. STRAP WEBBING: SHALL BE INSPECTED FOR KNOTS, EXCESSIVE ABRASIVE WEAR, TEARS, PUNCTURES, CUTS, ACID OR CAUSTIC BURNS, BROKEN STITCHES, FRAYED ENDS, OIL OR GREASE SPOTS EXCEEDING 6 SQUARE INCHES, BLEACHING OF COLOR, INCREASED STIFFNESS, SPLICES, VISIBLE WEAR INDICATOR THREADS, OR ANY OTHER NOTICEABLE DEFECTS.
8. RATCHET HANDLES MUST BE IN THE LOCKED POSITION AND/OR WINCH LOCKING DEVICES MUST BE FULLY SEATED IN THE TEETH OF THE WINCH.
9. IF THE WINCHES BEING USED ARE THE REMOVABLE TYPE HAVING BOLTS FOR ATTACHMENT TO THE TRAILER, CARE MUST BE EXERCISED WHEN ATTACHING THE WINCHES TO THE TRAILER. IF EXCESSIVE FORCE IS EXERTED ON THE BOLT DURING TENSIONING, DEFORMATION OF THE WINCH BRACKET MAY OCCUR, AND SUBSEQUENTLY CAUSE FAILURE OF THE WINCH BRACKET DURING TRANSPORT. WINCHES MUST BE FASTENED TO THE TRAILER WITH A MINIMUM OF TWO BOLTS.

SPECIAL NOTES:

1. A 9-UNIT LOAD IS SHOWN ON A 48'-0" LONG BY 8'-6" WIDE FLATBED TRAILER. OTHER LENGTH AND WIDTH TRAILERS MAY BE USED.
2. THE LOCATIONS OF THE NOSE-END HEADERS, PIECES MARKED ① THRU ④ ARE DESIGNED TO LOCATE THE WEB STRAPS, PIECES MARKED ⑩, BETWEEN THE SADDLE PIECES OF THE TOP PALLET OF THE SUBASSEMBLY. THE LOCATIONS OF PIECES MARKED ① THRU ④ MAY BE ADJUSTED, AS NECESSARY TO ACCOMPLISH THIS.
3. IF THE TRAILER BEING LOADED HAS A AVAILABLE FLOOR WIDTH OF LESS THAN 8'-2", THE PRE-POSITIONED SIDE BLOCKING DEPICTED AS PIECE MARKED ④ ON PAGE 6 WILL BE USED IN LIEU OF THE DEPICTED SIDE BLOCKING, PIECES MARKED ⑧ AND ⑨.
4. A 48'-0" LONG TRAILER HAVING STAKE POCKETS SPACED 24" ON CENTER AND WITH THE FIRST STAKE POCKET AT 12" FROM THE FRONT IS SHOWN. STAKE POCKETS NUMBER 3, 4, 7, 8, 12, 13, 16, 17, 21, AND 22, AS COUNTED FROM THE FRONT OF THE TRAILER, SHOULD BE USED FOR ATTACHMENT OF THE WEB STRAPS, PIECES MARKED ⑩.
5. IF STEEL STRAPPING IS TO BE USED FOR LOAD SECUREMENT IN LIEU OF WEB STRAPS, REFER TO THE PROCEDURES ON PAGES 4 AND 5 FOR GUIDANCE. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 10 AND 11 FOR GUIDANCE.
6. THE DEPICTED LOAD CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED. THE LOAD CAN BE REDUCED BY MULTIPLES OF TWO CONTAINERS BY OMITTING ONE OR MORE TWO-WIDE LOAD UNITS. THE LOAD CAN BE REDUCED BY ONE CONTAINER BY OMITTING THE CONTAINER FROM THE FRONT OF THE LOAD.
7. THIS LOAD CANNOT BE INCREASED TO 10 UNITS WITHOUT EXCEEDING THE AXLE WEIGHT LIMITATIONS.

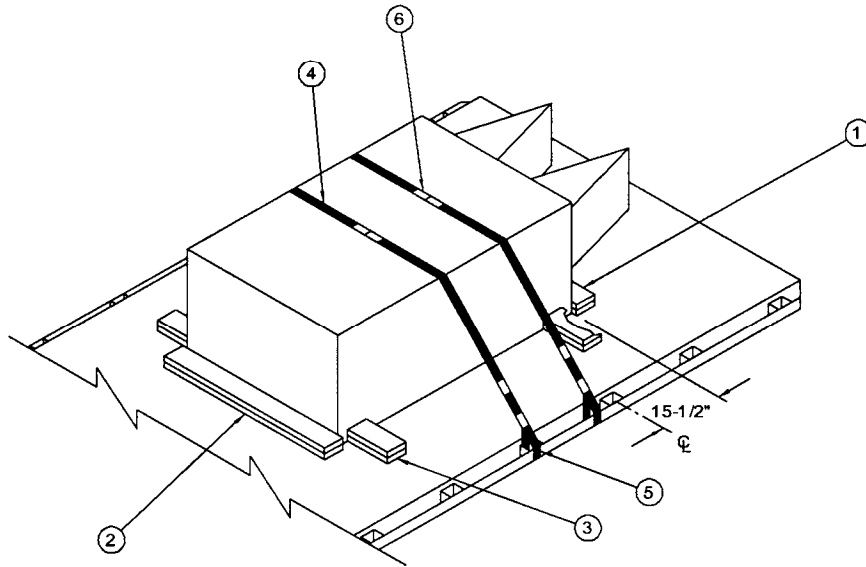
(SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN CONTINUED)

10. DRIVERS MUST BE INSTRUCTED TO PERIODICALLY CHECK THE TIGHTNESS OF THE WEB STRAP ASSEMBLIES AND RE-TIGHTEN, IF NECESSARY.
11. IF PROVIDED ON OR WITH THE WEB STRAP ASSEMBLIES, SCUFF SLEEVES/WEB PROTECTORS WILL BE USED WHEREVER THE STRAP PASSES OVER A SHARP CORNER OR IRREGULAR SURFACE. IF NOT PROVIDED, ANTI-CHAFING MATERIAL OF A SUITABLE THICKNESS WILL BE USED TO INSURE THAT THE STRAP WEBBING IS NOT DAMAGED DURING TRANSPORT OF THE LOAD.
12. THE HARDWARE FITTING OF THE TIEDOWN ASSEMBLIES MUST BE ATTACHED TO THE TRAILER IN SUCH A MANNER THAT THEY WILL REMAIN IN PLACE IF SLACK DEVELOPS IN THE STRAP DURING TRANSPORT.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 6"	192	192
NAILS	NO. REQD	POUNDS
10d (3")	166	2-3/4
20d (4")	46	1-3/4
WEB STRAP ASSEMBLIES -----		10 REQD

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	9 -----	40,230 LBS
DUNNAGE -----		389 LBS
TOTAL WEIGHT -----		40,619 LBS (APPROX)



ISOMETRIC VIEW

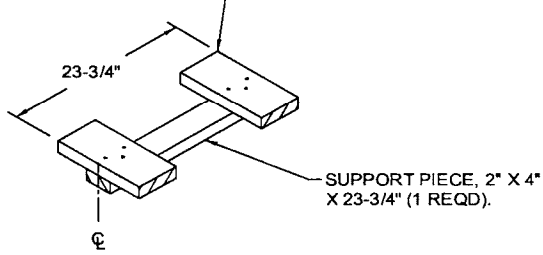
SPECIAL NOTES:

1. A 1-UNIT LOAD IS SHOWN ON AN 8'-0" WIDE FLATBED TRAILER. OTHER WIDTH TRAILERS MAY BE USED.
2. THE CONTAINER SHOULD BE LOCATED ON THE TRAILER AS DIMENSIONED BY THE "ISOMETRIC VIEW" AND AS SPECIFIED WITHIN KEY NUMBER ①.
3. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT IN LIEU OF THE 2" STEEL STRAPPING, A "CHAIN BOARD ASSEMBLY A" IS TO BE USED UNDER THE CHAIN. SEE THE DETAIL ON PAGE 15. FASTEN THE TENSIONED CHAIN TO A CHAIN BOARD ASSEMBLY W/1 -20d NAIL AT EACH END OF A LATERAL PIECE BY DRIVING EACH NAIL INTO THE LATERAL PIECE THRU AN OPENING IN A CHAIN LINK AND BENDING IT OVER THE LINK.

KEY NUMBERS

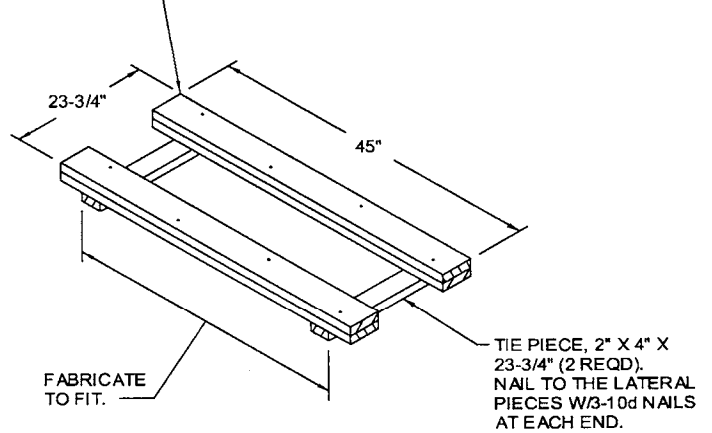
- ① NOSE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). PRE-POSITION AS SHOWN, WITH THE LOAD BEARING EDGE 15-1/2" FROM THE CENTER OF A STAKE POCKET. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS. SEE GENERAL NOTE "K" ON PAGE 2.
- ② BASE-END HEADER, 2" X 6" X 48" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ③ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQD). POSITION PERPENDICULAR TO THE CONTAINER SKID APPROXIMATELY 3" FROM A HEADER, PIECE MARKED ① AND/OR ②. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN ALIKE MANNER.
- ④ HOLD-DOWN STRAP, 2" X .050" OR .044" X 19'-0" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 9'-6" LONG PIECES. SEE GENERAL NOTE "L" ON PAGE 2.
- ⑤ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (4 REQD). POSITION BETWEEN THE HOLD-DOWN STRAP, PIECE MARKED ④ AND THE TRAILER SIDE RAIL OR STAKE POCKET AND SEAL TO THE HOLD-DOWN STRAP. SEE "DETAIL A" ON PAGE 16. ALT: STAKE POCKET PROTECTOR (8 REQD). USE TWO UNDER EACH ANCHORING FACILITY WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 16.
- ⑥ SEAL FOR 2" STEEL STRAPPING (12 REQD, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT THOSE USED TO SECURE THE PADS, PIECES MARKED ⑤.

STRAPPING BOARD, 2" X 6" X 12"
(2 REQD). NAIL TO THE SUPPORT
PIECE W/3-10d NAILS.



STRAPPING BOARD ASSEMBLY

LATERAL PIECE, 2" X 6" X 45"
(DOUBLED) (2 REQD). LAMINATE
W/4-10d NAILS.

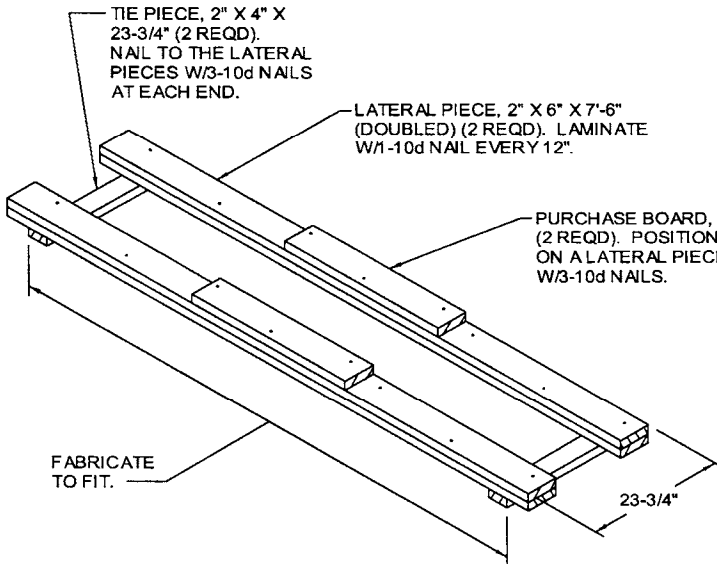


CHAIN BOARD ASSEMBLY A

TIE PIECE, 2" X 4" X
23-3/4" (2 REQD).
NAIL TO THE LATERAL
PIECES W/3-10d NAILS
AT EACH END.

LATERAL PIECE, 2" X 6" X 7'-6"
(DOUBLED) (2 REQD). LAMINATE
W/1-10d NAIL EVERY 12".

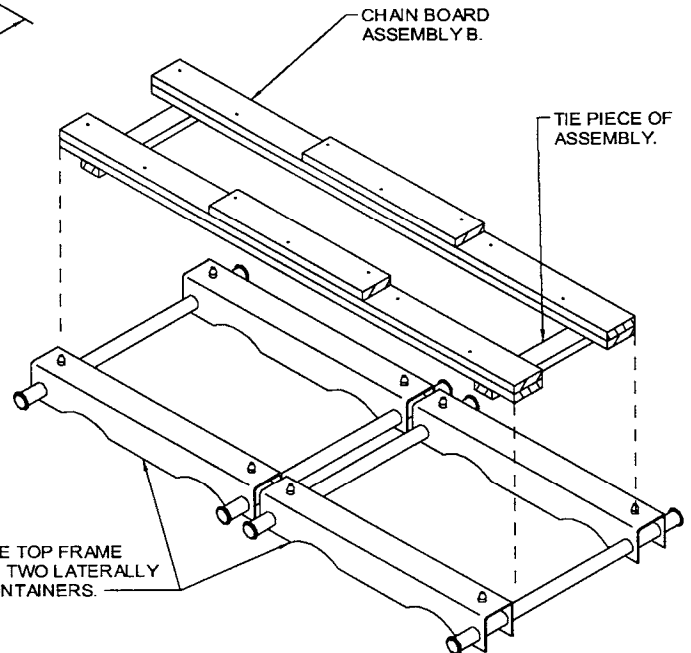
PURCHASE BOARD, 2" X 6" X 30"
(2 REQD). POSITION TO CENTER
ON A LATERAL PIECE AND NAIL
W/3-10d NAILS.



CHAIN BOARD ASSEMBLY B

CHAIN BOARD
ASSEMBLY B.

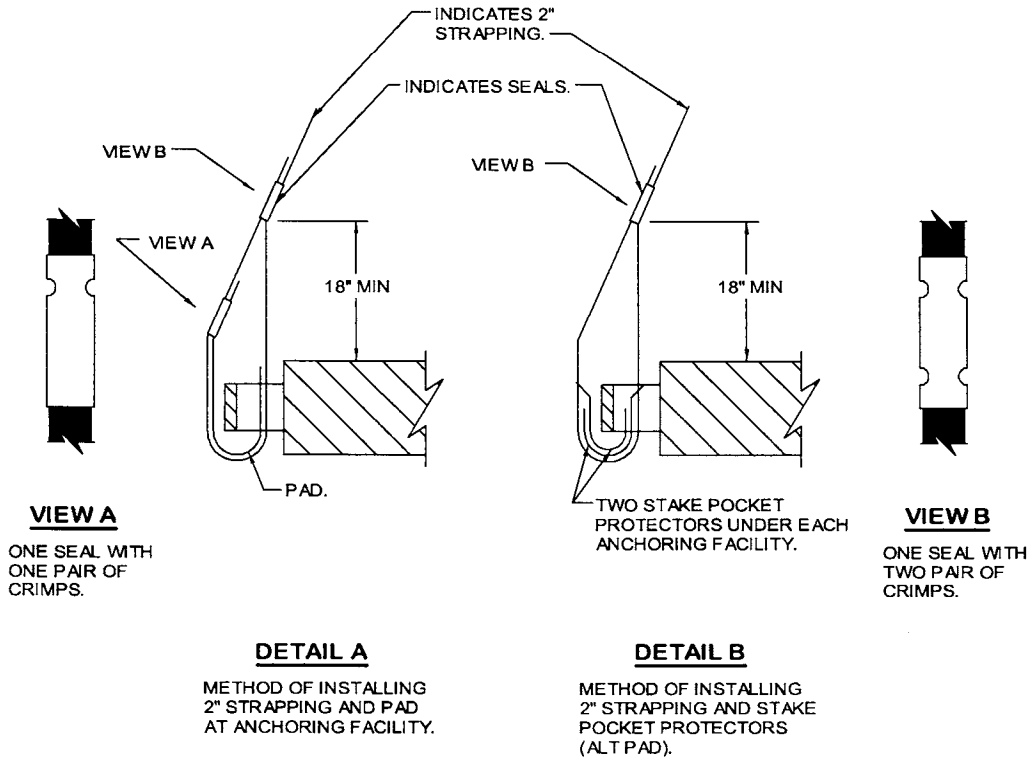
TIE PIECE OF
ASSEMBLY.



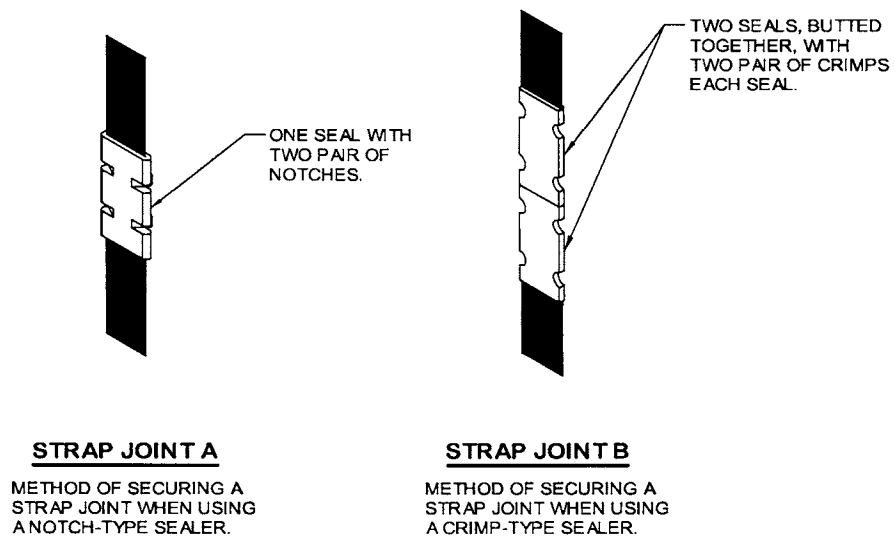
INDICATES THE TOP FRAME
ASSEMBLY OF TWO LATERALLY
ADJACENT CONTAINERS.

INSTALLATION OF CHAIN BOARD ASSEMBLY B

SPECIAL NOTE: TO AVOID LATERAL SHIFTING OF THE CHAIN BOARD ASSEMBLY THE TIE PIECES SHOULD BE POSITIONED TIGHT AGAINST THE INSIDE EDGES OF THE LONGITUDINAL BARS ON THE CONTAINER TOP PALLET FRAME.



HOLD-DOWN STRAP ANCHORING DETAILS



END-OVER-END LAP JOINT DETAILS

**PROVISIONS FOR THE USE OF FIREHOSE IN LIEU
OF CHAIN BOARDS OR STRAPPING BOARDS**

FIRE HOSE THAT IS NO LONGER SUITABLE FOR USE IN FIRE FIGHTING APPLICATIONS CAN BE SUBSTITUTED FOR THE DOUBLED 2" BY 6" WOODEN CHAIN BOARDS OR SINGLE 2" BY 6" STRAPPING BOARDS, AS SPECIFIED HEREIN, PROVIDED THE FOLLOWING CONDITIONS ARE MET.

1. SUBSTITUTION AND APPLICATION GUIDANCE

- A. FIRE HOSE MAY BE USED WHEREVER A CHAIN OR STRAPPING BOARD CONTACTS A RIGID SURFACE OF THE LOAD PROVIDED GOUGING, SCRATCHING, CRACKING, BENDING, CRUSHING, OR OTHER VISIBLE DAMAGE DOES NOT OCCUR TO THE LOAD.
- B. ONE OR MORE SEGMENTS OF FIRE HOSE MAY BE USED TO REPLACE EACH CHAIN OR STRAPPING BOARD PROVIDING LOAD PROTECTION DURING TENSIONING OF TIEDOWNS AND LOAD SHIPMENT; I.E., A CHAIN BOARD NEED NOT BE REPLACED BY A SINGLE SEGMENT OF HOSE, MULTIPLE SEGMENTS MAY BE USED INSTEAD, AS LONG AS THEY ARE SECURELY FASTENED TO THE TIEDOWN. REGARDLESS OF THE NUMBER OF SEGMENTS USED, THE HOSE LENGTH WILL BE SUCH THAT IT EXTENDS AT LEAST 6" BEYOND THE EDGE OF THE LOAD.
- C. FIRE HOSE CANNOT BE USED IN PLACE OF A PURCHASE BOARD ON A LOAD CONSISTING OF MORE THAN TWO PALLETS OR CONTAINERS ACROSS THE WIDTH OF THE TRAILER. THE FIRE HOSE CAN BE APPLIED TO THE OUTER STACKS, HOWEVER, A PURCHASE BOARD ASSEMBLY WILL STILL BE REQUIRED TO PROVIDE VERTICAL HOLD-DOWN ON THE CENTER STACK(S).

2. ACCEPTABLE FIRE HOSE

- A. FIRE HOSE TO BE USED WILL BE A RUBBER LINED SINGLE OR DOUBLE JACKETED TYPE; I.E., IT MUST HAVE A RUBBER LINING INSIDE A SINGLE OR DOUBLED FABRIC (COTTON, LINEN, ETC.) JACKET.
- B. THE COLLAPSED WIDTH OF THE HOSE MUST BE A MINIMUM OF 2-1/2".
- C. THE HOSE SEGMENTS USED MUST NOT CONTAIN DEFECTS THAT WILL ALLOW DIRECT CONTACT OF THE CHAIN OR LOAD BINDER WITH THE LOAD. THE HOSE THICKNESS MUST ALSO BE OF SUCH A THICKNESS THAT DENTING OR DAMAGE TO THE LOAD DOES NOT OCCUR DURING CHAIN OR STRAP TENSIONING.

3. SECUREMENT TO CHAINS OR STRAPS

- A. THE SEGMENTS OF HOSE USED UNDER EACH CHAIN OR STRAP WILL BE SECURED TO THE CHAIN OR STRAP WITH ONE FASTENER EVERY 12", WITH A MINIMUM OF TWO FASTENERS REQUIRED PER HOSE SEGMENT.
- B. FASTENERS CAN CONSIST OF PLASTIC ELECTRICAL TIES, NO. 14 GAGE WIRE, OR TAPE. REGARDLESS OF THE TYPE OF FASTENING USED, IT MUST PROVIDE A POSITIVE MEANS OF SECUREMENT OF THE HOSE TO THE CHAIN OR STRAP AND MUST NOT DAMAGE THE SURFACE OF THE CONTAINER, PALLET, OR ITEM IT CONTACTS.