

LOADING AND BRACING ON FLATBED TRAILERS OF JSOW (AGM-154) MISSILES PACKED IN CNU-575/E SHIPPING AND STORAGE CONTAINERS

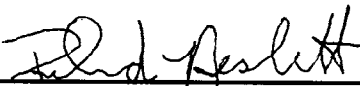

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● CAUTION: THE OUTLOADING PROCEDURES SHOWN HEREIN ARE ONLY APPLICABLE TO HIGHWAY MOVEMENTS, NOT TRAILER-ON-FLATCAR (TOFC) MOVEMENTS.

THIS DRAWING SUPERSEDES THE NAVY TRUCKLOADING DRAWING MIL-STD-1320-288.

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY OPERATIONS SUPPORT COMMAND 	ENGINEER	BASIC	WALTER GORDON		DO NOT SCALE			
		REV.			WEBSITE: HTTP://WWW.DAC.ARMY.MIL			
	TECHNICIAN	BASIC			APRIL 2002			
		REV.						
	DRAFTSMAN	BASIC						
		REV.						
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND	TRANSPORTATION ENGINEERING DIVISION	L. L. Willis						
 U.S. ARMY DEFENSE AMMUNITION CENTER	VALIDATION ENGINEERING DIVISION	J. P. Willis		TESTED	CLASS	DIVISION	DRAWING	FILE
	ENGINEERING DIRECTORATE	William R. French			19	48	8692	SP11J104

GENERAL NOTES

(GENERAL NOTES CONTINUED)

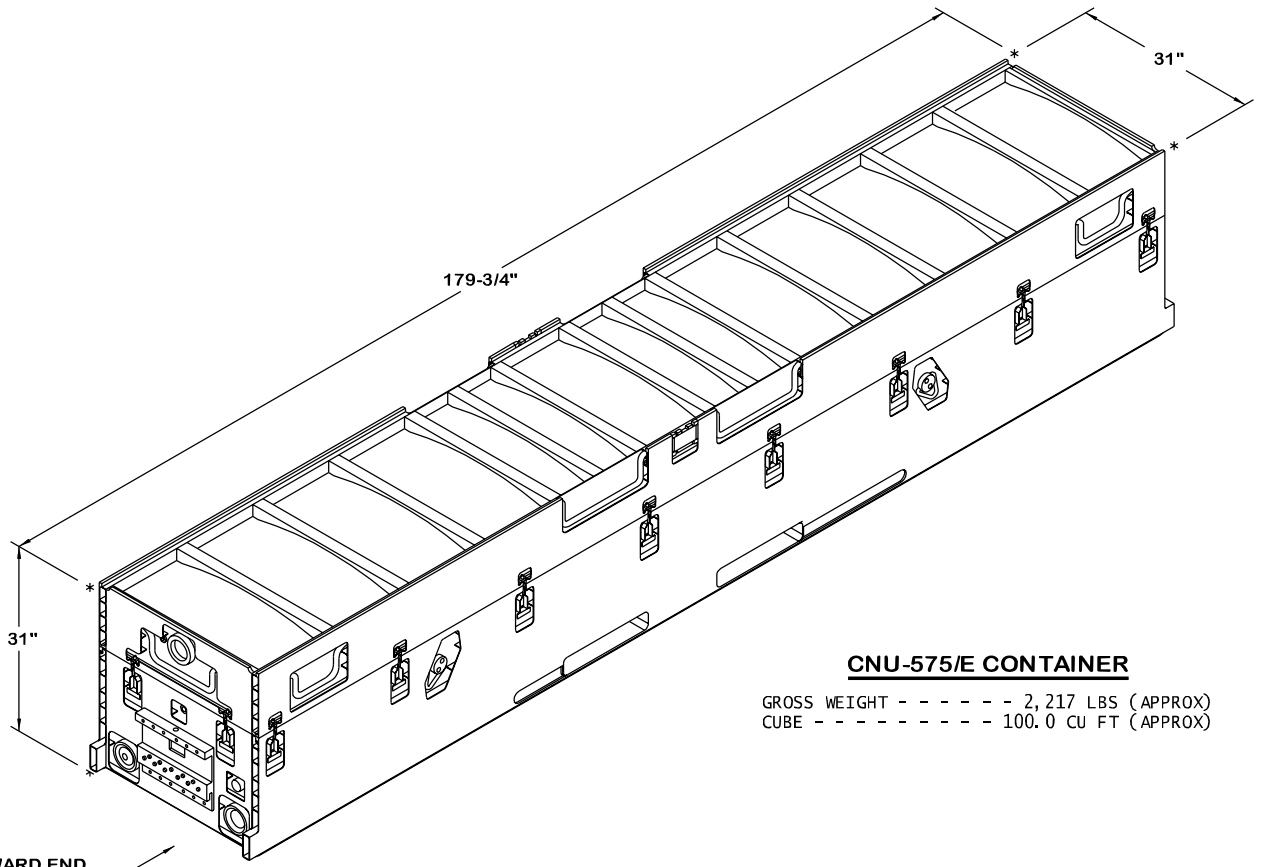
- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE OUTLOADING PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE TO LOADS OF JSOW MISSILES (AGM-154) PACKED IN CNU-575/E CONTAINERS. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CONTAINER WITH MISSILE INSTALLED. SEE PAGE 3 FOR DETAILS OF THE CONTAINER.
- C. THE LOADS AS SHOWN HEREIN ARE BASED ON 48'-0" LONG BY 8'-0" WIDE, 45'-0" LONG BY 8'-0" WIDE, AND 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILERS. TRAILERS OF OTHER LENGTHS AND WIDTHS 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 FOR THE TRANSPORT OF THE DESIGNATED ITEM IS THE RESPONSIBILITY OF THE ORIGINATING CARRIER AND THE SHIPPER. ONLY VEHICLES IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE REGULATORY DOCUMENTS WILL BE SELECTED FOR USE.
- 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.

(CONTINUED AT RIGHT)

- H. CAUTION: REGARDLESS OF THE TYPE OF TRAILER INVOLVED, ONLY THOSE TRAILERS HAVING TIEDOWN 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 THE TRAILER ANCHOR DEVICES ARE NOT PROPERLY POSITIONED TO RECEIVE STRAPPING OR CHAINS, AS SHOWN, OR IF THE ANCHOR DEVICES ARE NOT EQUAL TO OR GREATER THAN THE STRENGTH OF THE TIEDOWN STRAPS OR CHAINS, STEEL 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 OR PADS ON ALL SHARP EDGES. NEITHER CHAINS NOR WEB STRAPS WILL BE APPLIED TO FORM A COMPLETE LOOP WHICH ENCOMPASSES BOTH THE LADING AND THE TRAILER FRAME AND/OR BED.
- J. A STAGGERED NAILING PATTERN WILL BE USED WHEREVER 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. THE NAILING PATTERN WILL BE ADJUSTED AS REQUIRED 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 THE PIECE ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- K. 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 "STRAP JOINT A" AND "STRAP JOINT B" DETAILS ON PAGE 16 FOR GUIDANCE.
- L. TIEDOWN METHODS MAY VARY WITHIN THE LOAD PROVIDED THAT EACH LOAD UNIT IS RESTRAINED BY THE SAME TIEDOWN METHOD.
- M. THE TRANSPORTING VEHICLE OPERATOR SHOULD BE INSTRUCTED TO PERIODICALLY INSPECT THE TIEDOWN CHAINS AND LOAD BINDERS DURING TRANSIT AND TIGHTEN IF NECESSARY.
- N. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED. SEE PAGES 14 AND 15 FOR TYPICAL LOADING PATTERNS. THE APPROVED METHODS SHOWN HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING AND STAYING OF THE DESIGNATED ITEM.
- O. CONTAINERS OR STACKS OF CONTAINERS WITHIN A LOAD UNIT MUST BE ORIENTED SO THAT THE FORWARD END OF THE CONTAINERS ARE ALL FACING AFT OR ALL FACING FORWARD.
- P. DUNNAGE LUMBER SPECIFIED IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- Q. 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 0.454 KG.
- R. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO A DEPICTED OUTLOADING METHOD.

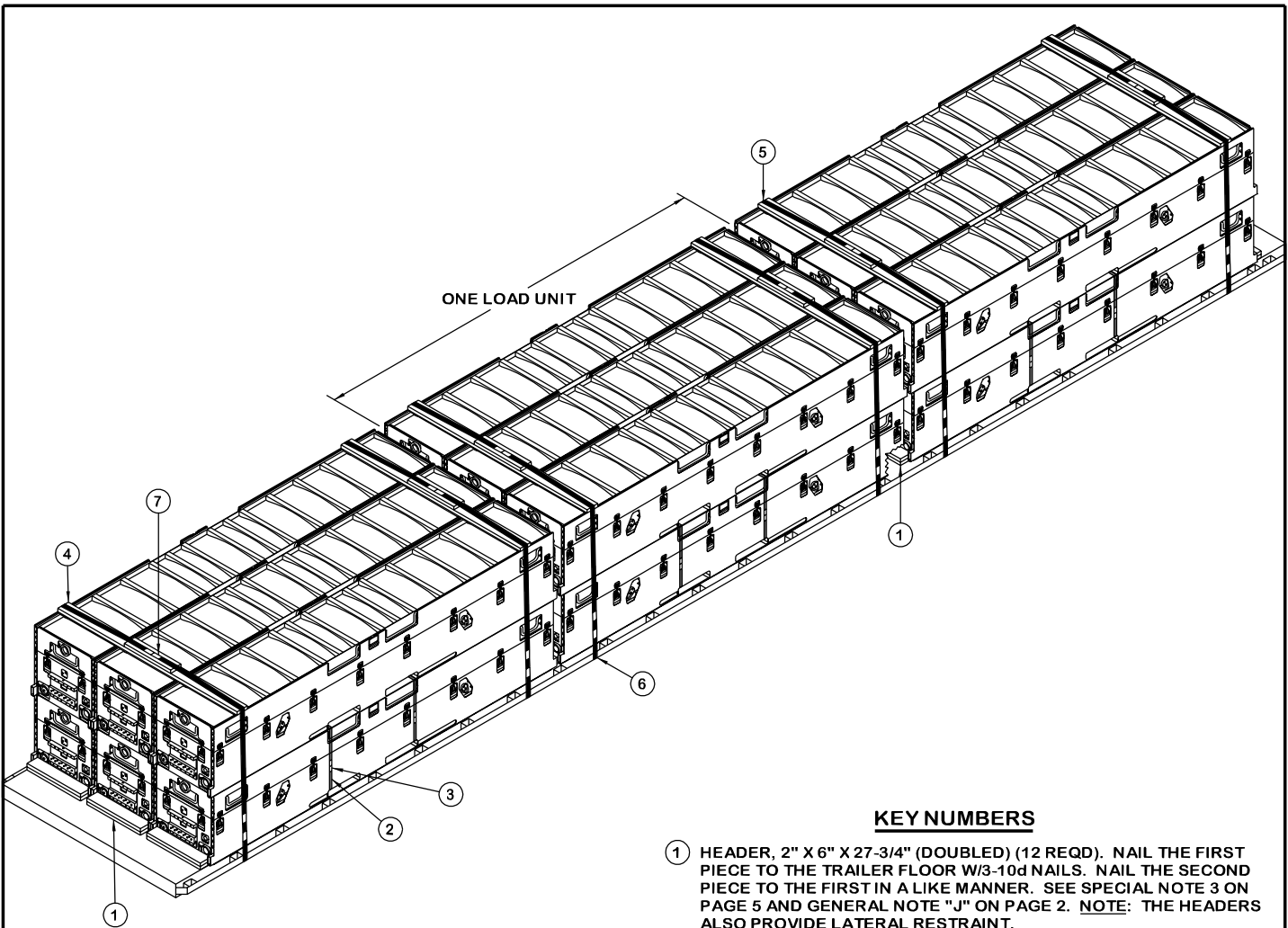
MATERIAL SPECIFICATIONS

- LUMBER - - - - - : SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS 20.
- NAILS - - - - - : ASTM F1667; COMMON STEEL NAIL (NLCMS OR NLCMS).
- PLYWOOD - - - - - : COMMERCIAL ITEM DESCRIPTION A-A-55057, INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.
- STRAP, WEB - - - - - : WEB SLING AND TIEDOWN ASSOCIATION RECOMMENDED STANDARD SPECIFICATION FOR SYNTHETIC WEB TIEDOWNS, REVISED 1998.
- STRAPPING, STEEL - - : ASTM D3953; FLAT STRAPPING, TYPE 1 OR 2, 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,
- STAKE POCKET PROTECTOR - - - - - : COMMERCIAL GRADE.
- CHAIN - - - - - : NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1999.
- LOAD BINDER - - - - - : FED SPEC GG-BG325.
- ANTI-CHAFING MATERIAL - - - - - : MIL-PRF-121 (OR EQUAL); NEUTRAL BARRIER MATERIAL.
- WIRE, CARBON STEEL - - : ASTM A853; ANNEALED AT FINISH, BLACK OXIDE FINISH, 0.0800" DIA, GRADE 1006 OR BETTER.



CNU-575/E CONTAINER

GROSS WEIGHT - - - - - 2,217 LBS (APPROX)
CUBE - - - - - 100.0 CU FT (APPROX)



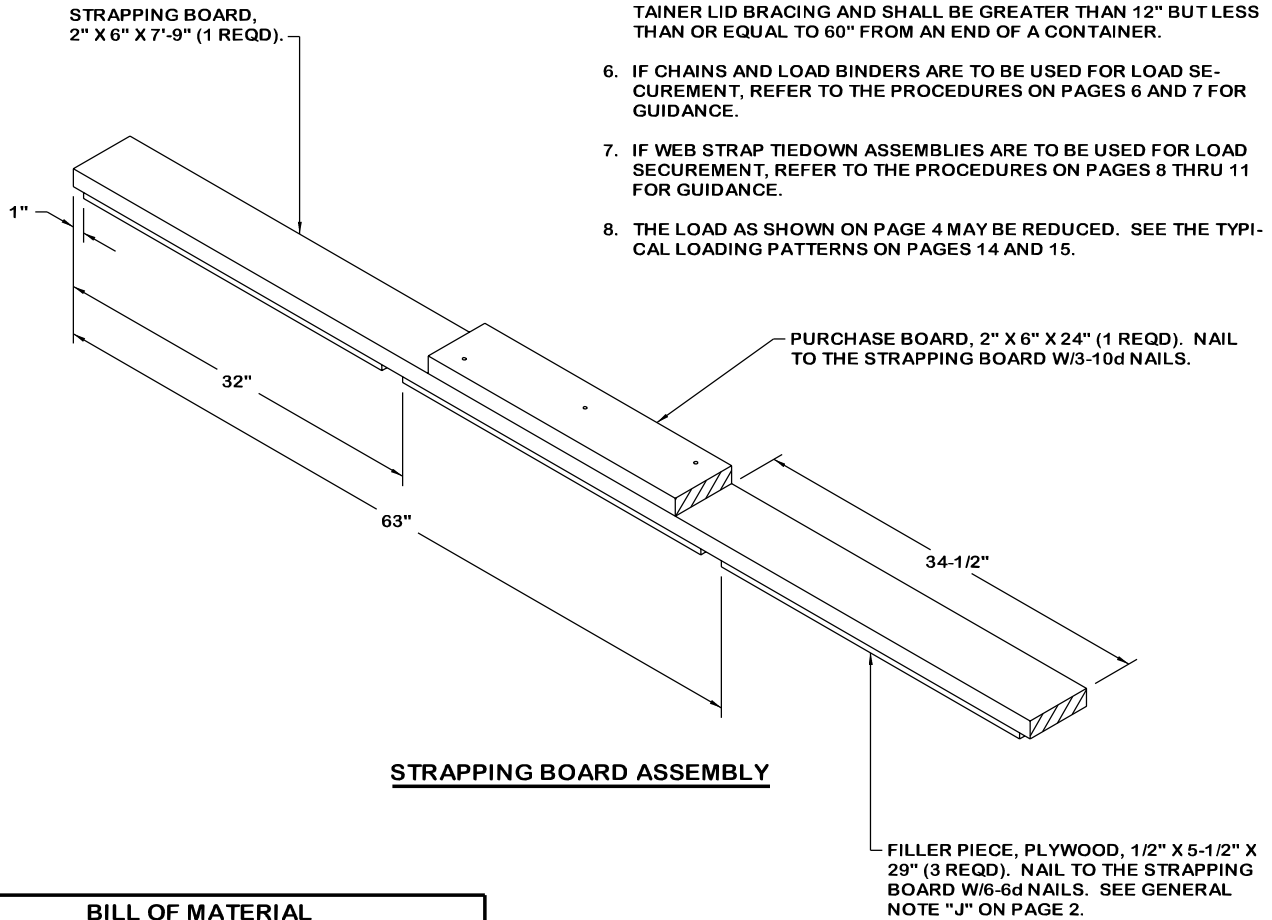
ISOMETRIC VIEW

KEY NUMBERS

- ① HEADER, 2" X 6" X 27-3/4" (DOUBLED) (12 REQD). 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 AND GENERAL NOTE "J" ON PAGE 2. **NOTE:** THE HEADERS ALSO PROVIDE LATERAL RESTRAINT.
- ② STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 11'-3" LONG STEEL STRAPPING (18 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW. SEE GENERAL NOTE "K" ON PAGE 2.
- ③ SEAL FOR 1-1/4" STRAPPING (36 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "K" ON PAGE 2.
- ④ STRAPPING BOARD ASSEMBLY (6 REQD). SEE THE DETAIL ON PAGE 5.
- ⑤ HOLD-DOWN STRAP, 2" X .050" OR .044" X 24'-4" LONG STEEL STRAPPING (6 REQD). INSTALL EACH STRAP FROM TWO PIECES, EACH 12'-2" LONG. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ④, WITH TWO STAPLES, ONE AT EACH END. SEE GENERAL NOTE "K" ON PAGE 2 AND THE "HOLD-DOWN STRAP ANCHORING DETAILS" ON PAGE 16.
- ⑥ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (12 REQD). POSITION UNDER STAKE POCKET OR RUB RAIL AND SEAL TO HOLD-DOWN STRAP, PIECE MARKED ⑤. SEE "DETAIL A" ON PAGE 16. ALT: STAKE POCKET PROTECTOR (24 REQD). USE TWO UNDER EACH STAKE POCKET OR RUB RAIL WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 16.
- ⑦ SEAL FOR 2" STRAPPING (36 REQD, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT FOR THOSE USED TO SECURE THE PADS, PIECES MARKED ⑥. SEE GENERAL NOTE "K" ON PAGE 2.

SPECIAL NOTES:

1. AN 18-UNIT LOAD IS SHOWN ON A 48'-0" LONG BY 8'-0" WIDE FLAT-BED TRAILER. THE AVAILABLE NAILING SURFACE OF THE TRAILER BED MUST BE AT LEAST 45'-11". TRAILERS OF OTHER LENGTHS AND WIDTHS MAY ALSO BE USED. SEE GENERAL NOTE "C" ON PAGE 2.
2. IF THE CAPACITY OF THE MATERIALS HANDLING EQUIPMENT (MHE) IS ADEQUATE, IT IS RECOMMENDED THAT EACH STACK OF TWO CONTAINERS BE UNITIZED PRIOR TO LOADING ON THE FLAT-BED TRAILER. IF THIS IS NOT POSSIBLE, THEN THE UNITIZING STRAPS MUST BE POSITIONED AND INSTALLED AS LOADING PROGRESSES.
3. DO NOT PRE-POSITION THE HEADERS. INSTALL THE HEADERS AFTER A CONTAINER OR STACK OF CONTAINERS HAS BEEN LOADED. CENTER THE HEADERS LATERALLY BETWEEN THE CONTAINER SKIDS AND PLACE THEM TIGHT AGAINST THE CONTAINER END-WALL. LOAD LONGITUDINALLY ADJACENT CONTAINERS TIGHT AGAINST INSTALLED HEADERS.
4. PLACE ANTI-CHAFING NEUTRAL BARRIER MATERIAL AT ALL POINTS OF CONTACT BETWEEN THE STEEL STRAPPING AND CONTAINER AND SECURE TO PREVENT DISLODGMNT DURING AND AFTER STEEL STRAP APPLICATION.
5. THE STRAPPING BOARD ASSEMBLY MUST REST ON THE CONTAINER LID BRACING AND SHALL BE GREATER THAN 12" BUT LESS THAN OR EQUAL TO 60" FROM AN END OF A CONTAINER.
6. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 6 AND 7 FOR GUIDANCE.
7. IF WEB STRAP TIEDOWN ASSEMBLIES ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 8 THRU 11 FOR GUIDANCE.
8. THE LOAD AS SHOWN ON PAGE 4 MAY BE REDUCED. SEE THE TYPICAL LOADING PATTERNS ON PAGES 14 AND 15.

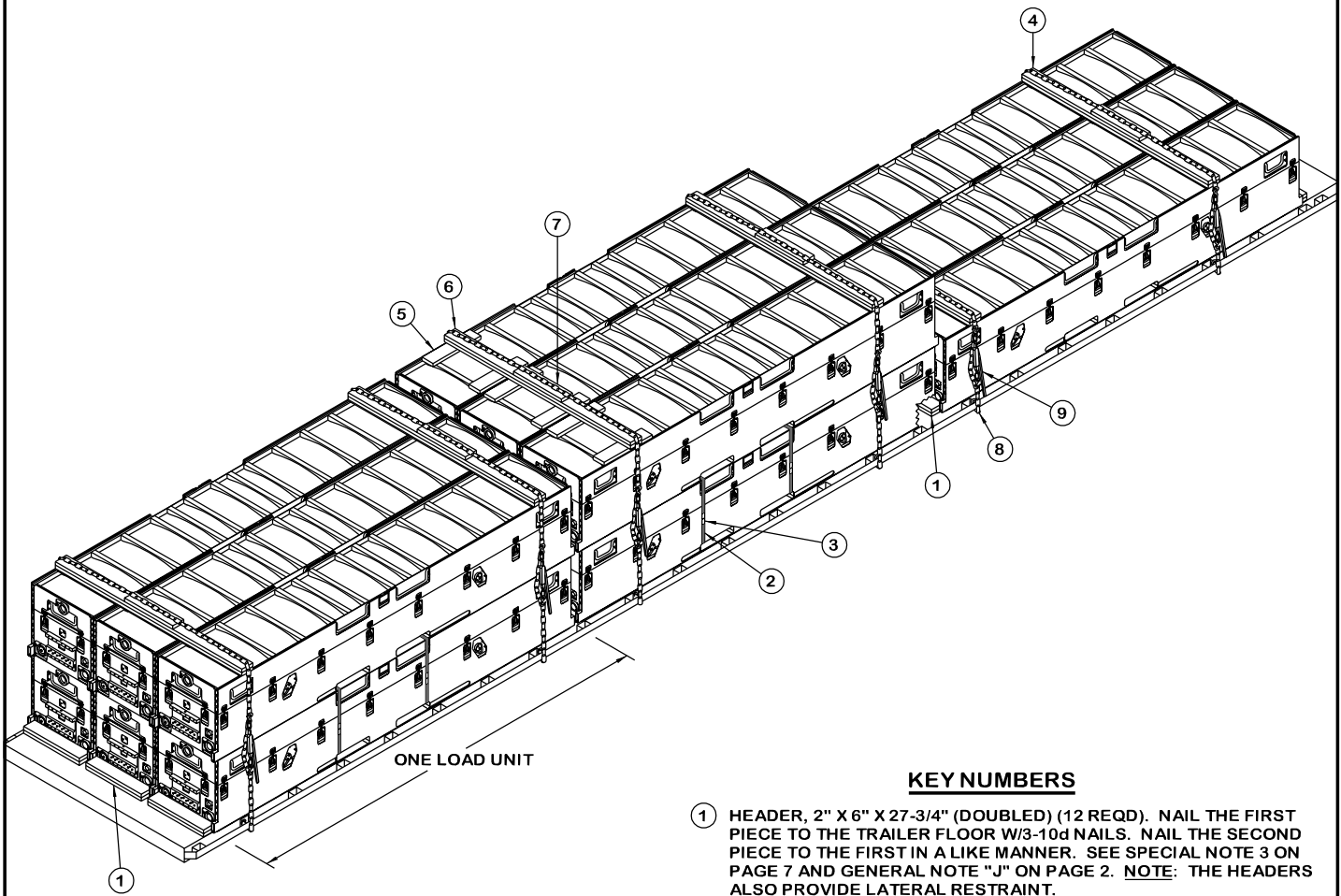


STRAPPING BOARD ASSEMBLY

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 6"	114	114
NAILS	NO. REQD	POUNDS
6d (2")	108	1/2
10d (3")	90	1-1/2
STEEL STRAPPING, 1-1/4"	202.50' REQD	28.93 LBS
STEEL STRAPPING, 2"	164.00' REQD	54.67 LBS
SEAL FOR 1-1/4" STRAPPING	36 REQD	1-3/4 LBS
SEAL FOR 2" STRAPPING	36 REQD	7-1/4 LBS
STAPLE (2")	12 REQD	NIL
PLYWOOD, 1/2"	19.94 SQ FT REQD	27.41 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CNU-575/E CONTAINER	18	39,906 LBS
DUNNAGE		350 LBS
TOTAL WEIGHT		40,256 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① HEADER, 2" X 6" X 27-3/4" (DOUBLED) (12 REQD). 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 7 AND GENERAL NOTE "J" ON PAGE 2. **NOTE:** THE HEADERS ALSO PROVIDE LATERAL RESTRAINT.
- ② STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 11'-3" LONG STEEL STRAPPING (12 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW. SEE GENERAL NOTE "K" ON PAGE 2.
- ③ SEAL FOR 1-1/4" STRAPPING (24 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "K" ON PAGE 2.
- ④ CHAIN BOARD ASSEMBLY A (5 REQD). SEE SPECIAL NOTE 5 ON PAGE 7. SEE THE DETAIL ON PAGE 13.
- ⑤ SUPPORT PIECE, 2" X 6" X 24" (6 REQD). CENTER LONGITUDINALLY OVER TWO ADJACENT CONTAINER BRACES AND POSITION Laterally AS SHOWN. ONCE CHAIN BOARD, PIECE MARKED ⑥, HAS BEEN ALIGNED AND POSITIONED, MARK LOCATION OF SUPPORT PIECES ON CHAIN BOARD, THEN NAIL SUPPORT PIECES TO THE CHAIN BOARD W/3-10d NAILS. SEE SPECIAL NOTE 5 ON PAGE 7.
- ⑥ CHAIN BOARD, 2" X 6" X 7'-9" (DOUBLED) (1 REQD). LAMINATE W/8-10d NAILS. SEE SPECIAL NOTE 5 ON PAGE 7.
- ⑦ PURCHASE BOARD, 2" X 6" X 24" (1 REQD). NAIL TO THE CHAIN BOARD W/3-10d NAILS.
- ⑧ CHAIN, TRANSPORT, 5/16" OR 3/8", GRADE 70 BY A LENGTH TO SUIT (6 REQD). POSITION AS SHOWN ABOVE, FASTENING THE CHAIN GRABHOOKS TO THE TRAILER STAKE POCKETS. DO NOT ATTACH TO A RUB RAIL. SEE SPECIAL NOTE 5 AND THE "SPECIAL PROVISIONS FOR CHAIN TIEDOWN" ON PAGE 7.
- ⑨ LOAD BINDER, 5/16" OR 3/8" OVER CENTER TYPE (6 REQD, 1 PER CHAIN). WIRE TIE HANDLE TO PREVENT OPENING DURING TRANSPORT. FASTEN THE TENSIONED CHAIN, PIECE MARKED ⑤, TO CHAIN BOARD ASSEMBLY A, PIECE MARKED ④, W/1-20d NAIL AT EACH END, BENDING OVER TO FORM A LOOP AROUND THE CHAIN LINK.

SPECIAL NOTES:

1. A 15-UNIT LOAD IS SHOWN ON A 48'-0" LONG BY 8'-0" WIDE FLATBED TRAILER. THE AVAILABLE NAILING SURFACE OF THE TRAILER BED MUST BE AT LEAST 45'-11". TRAILERS OF OTHER LENGTHS AND WIDTHS MAY ALSO BE USED. SEE GENERAL NOTE "C" ON PAGE 2.
2. IF THE CAPACITY OF THE MATERIALS HANDLING EQUIPMENT (MHE) IS ADEQUATE, IT IS RECOMMENDED THAT EACH STACK OF TWO CONTAINERS BE UNITIZED PRIOR TO LOADING ON THE FLATBED TRAILER. IF THIS IS NOT POSSIBLE, THEN THE UNITIZING STRAPS MUST BE POSITIONED AND INSTALLED AS LOADING PROGRESSES.
3. DO NOT PRE-POSITION THE HEADERS. INSTALL THE HEADERS AFTER A CONTAINER OR STACK OF CONTAINERS HAS BEEN LOADED. CENTER THE HEADERS BETWEEN THE CONTAINER SKIDS AND PLACE THEM TIGHT AGAINST THE CONTAINER ENDWALL. LOAD LONGITUDINALLY ADJACENT CONTAINERS TIGHT AGAINST INSTALLED HEADERS.
4. PLACE ANTI-CHAFING NEUTRAL BARRIER MATERIAL AT ALL POINTS OF CONTACT BETWEEN THE CHAIN AND THE CONTAINER AND SECURE TO PREVENT DISLODGMET DURING AND AFTER CHAIN APPLICATION.
5. THE CHAIN BOARD ASSEMBLIES AND/OR CHAIN BOARDS MUST REST ON THE CONTAINER LID BRACING AND SHALL BE GREATER THAN 12" BUT LESS THAN OR EQUAL TO 60" FROM AN END OF A CONTAINER. THE CHAINS MUST BE ATTACHED TO THE STAKE POCKETS. WHEN THESE REQUIREMENTS PREVENT VERTICAL ALIGNMENT OF THE CHAINS ON THE SIDES OF THE LOAD, SUPPORT PIECES MUST BE USED TO SPAN THE GAP BETWEEN THE CONTAINER LID BRACES.
6. IF STEEL STRAPPING IS TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 4 AND 5 FOR GUIDANCE.
7. IF WEB STRAP TIEDOWN ASSEMBLIES ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 8 THRU 11 FOR GUIDANCE.
8. THE LOAD AS SHOWN ON PAGE 6 MAY BE INCREASED TO A FULL LOAD BY ADDING THREE CONTAINERS. THE LOAD AS SHOWN CAN ALSO BE REDUCED AS REQUIRED. SEE THE TYPICAL LOADING PATTERNS ON PAGES 14 AND 15.

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 6 AND 7 ARE FOLLOWED.

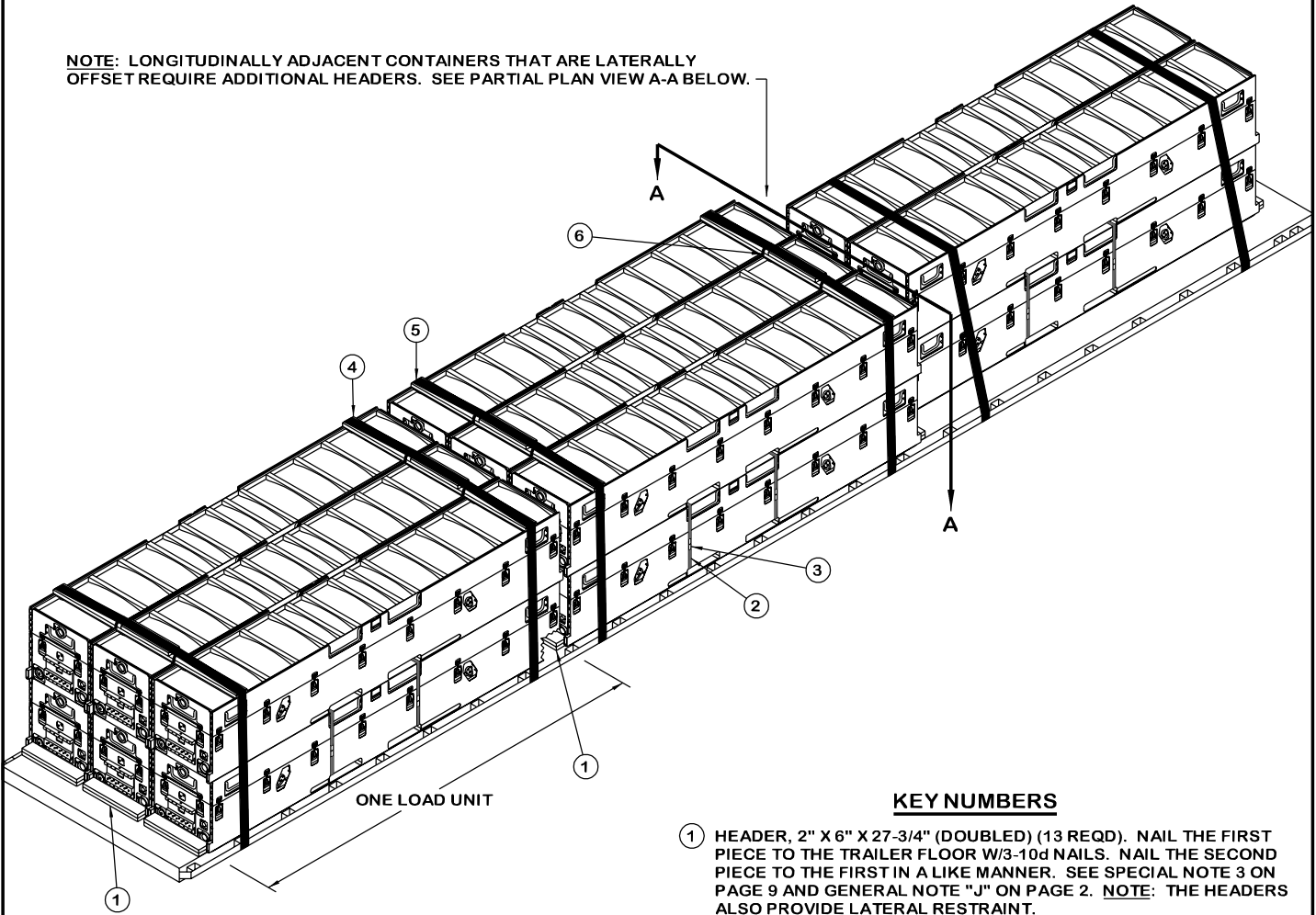
1. ONLY CHAINS AND LOAD BINDERS OF GOOD QUALITY WILL BE USED. ALL CHAINS AND LOAD BINDERS SHALL CONFORM TO THE NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1999.
2. ALL CHAINS SHALL BE MARKED AS PRESCRIBED BY THE NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1999. 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 TRANSPORT CHAIN
 - C. 3/8", GRADE 70 TRANSPORT 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.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 6"	173	173
NAILS	NO. REQD	POUNDS
6d (2")	90	1/2
10d (3")	156	2-1/2
20d (4")	12	1/2
STEEL STRAPPING, 1-1/4"	135.00' REQD	19.29 LBS
SEAL FOR 1-1/4" STRAPPING	24 REQD	1 LB
CHAIN, TRANSPORT, 3/8"	119' REQD	209 LBS
LOAD BINDER	6 REQD	36 LBS
WIRE, .0800" DIA	AS REQD	NIL
PLYWOOD, 1/2"	16.61 SQ FT REQD	22.85 LBS
ANTI-CHAFING MATERIAL	AS REQD	NIL

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CNU-575/E CONTAINER	15	33,255 LBS
DUNNAGE		638 LBS
TOTAL WEIGHT		33,893 LBS (APPROX)

NOTE: LONGITUDINALLY ADJACENT CONTAINERS THAT ARE LATERALLY OFFSET REQUIRE ADDITIONAL HEADERS. SEE PARTIAL PLAN VIEW A-A BELOW.

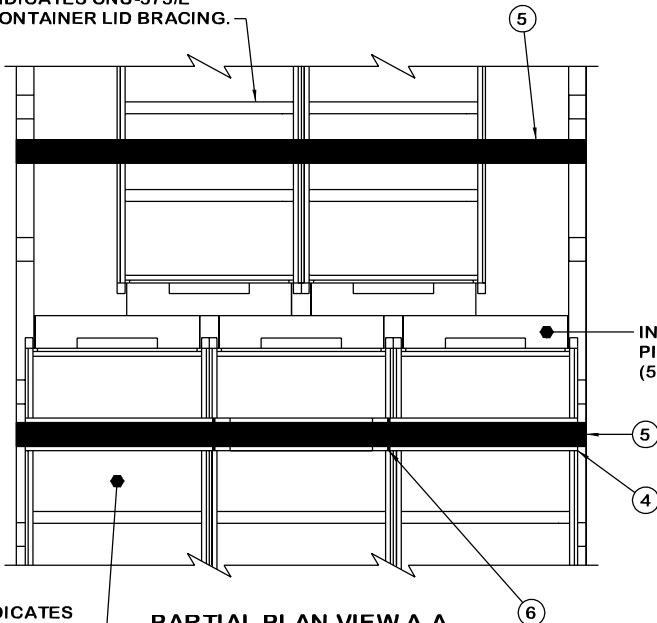


ISOMETRIC VIEW

KEY NUMBERS

- ① HEADER, 2" X 6" X 27-3/4" (DOUBLED) (13 REQD). 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 9 AND GENERAL NOTE "J" ON PAGE 2. NOTE: THE HEADERS ALSO PROVIDE LATERAL RESTRAINT.
- ② STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 11'-3" LONG STEEL STRAPPING (16 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW. SEE GENERAL NOTE "K" ON PAGE 2.
- ③ SEAL FOR 1-1/4" STRAPPING (32 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "K" ON PAGE 2.
- ④ STRAPPING BOARD ASSEMBLY (4 REQD). SEE THE DETAIL ON PAGE 5.
- ⑤ WEB STRAP ASSEMBLY (6 REQD, 2 PER LOAD UNIT). POSITION TO EXTEND FROM A WINCH ON ONE SIDE OF THE TRAILER, OVER THE CONTAINERS, TO AN ATTACHMENT POINT ON THE OPPOSITE SIDE. SEE SPECIAL NOTE 4 AND THE "SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN" ON PAGE 9.
- ⑥ TIE WIRE, .0800" DIA WIRE 24" LONG (8 REQD, TWO PER STRAPPING BOARD ASSEMBLY). INSTALL THE WIRE TO FORM A COMPLETE LOOP AROUND THE STRAPPING BOARD ASSEMBLY AND WEB STRAP. ENSURE THAT ANTI-CHAFING MATERIAL OR A STRAP SCUFF SLEEVE IS IN PLACE BETWEEN THE TIE WIRE AND THE WEB STRAP.

INDICATES CNU-575/E CONTAINER LID BRACING.



INDICATES HEADER, PIECE MARKED ① (5 SHOWN).

INDICATES CNU-575/E CONTAINER.

PARTIAL PLAN VIEW A-A

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, REVISED IN 1998.
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.

(CONTINUED AT RIGHT)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 6"	99	99
NAILS	NO. REQD	POUNDS
6d (2")	72	1/2
10d (3")	90	1-1/2
STEEL STRAPPING, 1-1/4" - 180.00' REQD - - - 25.7 LBS		
SEAL FOR 1-1/4" STRAPPING - - 32 REQD - - 1-1/2 LBS		
WEB STRAP ASSEMBLIES - - - - - 6 REQD		
WIRE, .0800" DIA - - - - - 16' REQD - - - - - NIL		
PLYWOOD, 1/2" - - - 13.29 SQ FT REQD - - 18.28 LBS		
ANTI-CHAFING MATERIAL - - - - AS REQD - - - - - NIL		

SPECIAL NOTES:

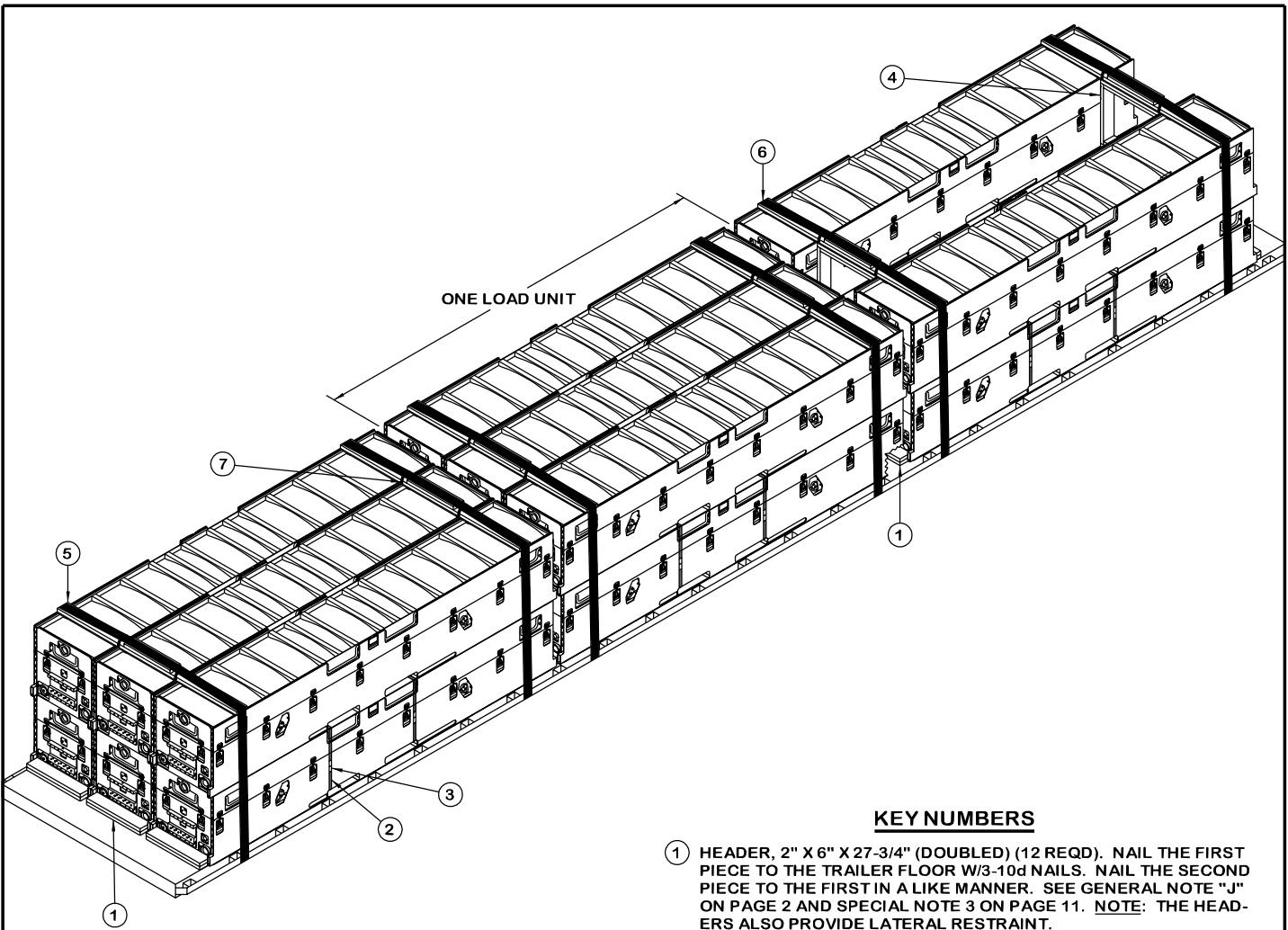
1. A 16-UNIT LOAD IS SHOWN ON A 48'-0" LONG BY 8'-0" WIDE FLATBED TRAILER. THE AVAILABLE NAILING SURFACE OF THE TRAILER BED MUST BE AT LEAST 46'-4". TRAILERS OF OTHER LENGTHS AND WIDTHS MAY ALSO BE USED. SEE GENERAL NOTE "C" ON PAGE 2.
2. IF THE CAPACITY OF THE MATERIALS HANDLING EQUIPMENT (MHE) IS ADEQUATE, IT IS RECOMMENDED THAT EACH STACK OF TWO CONTAINERS BE UNITIZED PRIOR TO LOADING ON THE FLATBED TRAILER. IF THIS IS NOT POSSIBLE, THEN THE UNITIZING STRAPS MUST BE POSITIONED AND INSTALLED AS LOADING PROGRESSES.
3. DO NOT PRE-POSITION THE HEADERS. INSTALL THE HEADERS AFTER A STACK OF CONTAINERS HAS BEEN LOADED. CENTER THE HEADERS BETWEEN THE CONTAINER SKIDS AND PLACE THEM TIGHT AGAINST THE CONTAINER ENDWALL. LOAD LONGITUDINALLY ADJACENT CONTAINERS TIGHT AGAINST INSTALLED HEADERS.
4. IF WEB STRAP SCUFF SLEEVES ARE NOT AVAILABLE, PLACE ANTI-CHAFING NEUTRAL BARRIER MATERIAL AT ALL POINTS OF CONTACT BETWEEN THE WEB STRAP AND THE CONTAINER AND SECURE TO PREVENT DISLODMENT DURING AND AFTER WEB STRAP APPLICATION.
5. THE STRAPPING BOARD ASSEMBLY MUST REST ON THE CONTAINER LID BRACING AND SHALL BE GREATER THAN 12" BUT LESS THAN OR EQUAL TO 60" FROM AN END OF A CONTAINER. STRAPPING BOARD ASSEMBLIES ARE NOT REQUIRED WHEN THERE ARE NO MORE THAN TWO LATERALLY ADJACENT CONTAINERS OR STACKS OF CONTAINERS.
6. IF STEEL STRAPPING IS TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 4 AND 5 FOR GUIDANCE.
7. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 6 AND 7 FOR GUIDANCE.
8. THE LOAD AS SHOWN ON PAGE 8 MAY BE INCREASED TO A FULL LOAD BY ADDING A STACK OF TWO CONTAINERS. THE LOAD AS SHOWN CAN ALSO BE REDUCED AS REQUIRED. SEE THE TYPICAL LOADING PATTERNS ON PAGES 14 AND 15.

(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 ENSURE 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.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CNU-575/E CONTAINER	- - - 16	- - - 35,472 LBS
DUNNAGE	- - - - -	- - - 246 LBS
TOTAL WEIGHT		- - - 35,718 LBS (APPROX)



ISOMETRIC VIEW

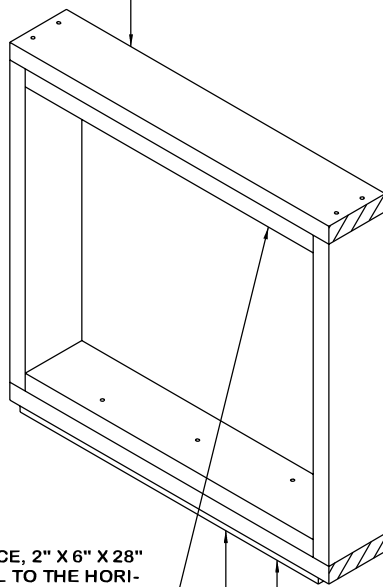
KEY NUMBERS

- ① HEADER, 2" X 6" X 27-3/4" (DOUBLED) (12 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "J" ON PAGE 2 AND SPECIAL NOTE 3 ON PAGE 11. NOTE: THE HEADERS ALSO PROVIDE LATERAL RESTRAINT.
- ② STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 11'-3" LONG STEEL STRAPPING (16 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW. SEE GENERAL NOTE "K" ON PAGE 2.
- ③ SEAL FOR 1-1/4" STRAPPING (32 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "K" ON PAGE 2.
- ④ SPACER ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 11. THIS ASSEMBLY MUST BE ATTACHED TO THE STRAPPING BOARD ASSEMBLY. SEE KEY NUMBER ⑤.
- ⑤ STRAPPING BOARD ASSEMBLY (6 REQD). SEE THE DETAIL ON PAGE 5. NAIL THROUGH (OR TOENAIL) THE STRAPPING BOARD ASSEMBLY INTO THE SPACER ASSEMBLY, PIECE MARKED ④, W/4-16d NAILS. SEE SPECIAL NOTE 5 ON PAGE 11.
- ⑥ WEB STRAP ASSEMBLY (6 REQD, 2 PER LOAD UNIT). POSITION TO EXTEND FROM A WINCH ON ONE SIDE OF THE TRAILER, OVER THE CONTAINERS, TO AN ATTACHMENT POINT ON THE OPPOSITE SIDE. SEE SPECIAL NOTE 4 ON PAGE 11 AND THE "SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN" ON PAGE 9.
- ⑦ TIE WIRE, .0800" DIA WIRE 24" LONG (12 REQD, TWO PER STRAPPING BOARD ASSEMBLY). INSTALL THE WIRE TO FORM A COMPLETE LOOP AROUND THE STRAPPING BOARD ASSEMBLY AND WEB STRAP. ENSURE THAT ANTI-CHAFING MATERIAL OR A STRAP SCUFF SLEEVE IS IN PLACE BETWEEN THE TIE WIRE AND THE WEB STRAP.

SPECIAL NOTES:

1. A 17-UNIT LOAD IS SHOWN ON A 48'-0" LONG BY 8'-0" WIDE FLATBED TRAILER. THE AVAILABLE NAILING SURFACE OF THE TRAILER BED MUST BE AT LEAST 45'-11". TRAILERS OF OTHER LENGTHS AND WIDTHS MAY ALSO BE USED. SEE GENERAL NOTE "C" ON PAGE 2.
2. IF THE CAPACITY OF THE MATERIALS HANDLING EQUIPMENT (MHE) IS ADEQUATE, IT IS RECOMMENDED THAT EACH STACK OF TWO CONTAINERS BE UNITIZED PRIOR TO LOADING ON THE FLATBED TRAILER. IF THIS IS NOT POSSIBLE, THEN THE UNITIZING STRAPS MUST BE POSITIONED AND INSTALLED AS LOADING PROGRESSES.
3. DO NOT PRE-POSITION THE HEADERS. INSTALL THE HEADERS AFTER A CONTAINER OR STACK OF CONTAINERS HAS BEEN LOADED. CENTER THE HEADERS LATERALLY BETWEEN THE CONTAINER SKIDS AND PLACE THEM TIGHT AGAINST THE CONTAINER END-WALL. LOAD LONGITUDINALLY ADJACENT CONTAINERS TIGHT AGAINST INSTALLED HEADERS.
4. IF WEB STRAP SCUFF SLEEVES ARE NOT AVAILABLE, PLACE ANTI-CHAFING NEUTRAL BARRIER MATERIAL AT ALL POINTS OF CONTACT BETWEEN THE WEB STRAP AND THE CONTAINER AND SECURE TO PREVENT DISLODMENT DURING AND AFTER WEB STRAP APPLICATION.
5. THE SPACER ASSEMBLY MUST REST ON THE CONTAINER LID BRACING AND SHALL BE ALIGNED DIRECTLY UNDERNEATH A STRAPPING BOARD ASSEMBLY.
6. IF STEEL STRAPPING IS TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 4 AND 5 FOR GUIDANCE.
7. IF STEEL STRAPPING IS TO BE USED FOR LOAD SECUREMENT, SPACER ASSEMBLIES SHALL BE REQUIRED AND USED IN CONJUNCTION WITH THE STRAPPING BOARD ASSEMBLY. SEE SPECIAL NOTE 5 ABOVE.
8. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 6 AND 7 FOR GUIDANCE.
9. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, SPACER ASSEMBLIES SHALL BE REQUIRED AND USED IN CONJUNCTION WITH CHAIN BOARD ASSEMBLY A. SEE SPECIAL NOTE 5 ABOVE.
10. THE LOAD AS SHOWN ON PAGE 10 MAY BE INCREASED BY ONE CONTAINER. TO REDUCE THE LOAD SHOWN ON PAGE 10, REFER TO THE TYPICAL LOADING PATTERNS ON PAGES 14 AND 15.

HORIZONTAL PIECE, 2" X 6" X 31" (2 REQD).
NAIL TO THE VERTICAL PIECES W/2-10d
NAILS AT EACH END.



VERTICAL PIECE, 2" X 6" X 27-1/8" (2 REQD).

LATERAL BRACE, 2" X 6" X 28"
(2 REQD). NAIL TO THE HORIZONTAL
PIECES W/3-10d NAILS.

PLACE THIS SIDE DOWN
(AGAINST CONTAINER LID
BRACING) WHEN INSTALLING.
SEE SPECIAL NOTE 5 ABOVE.

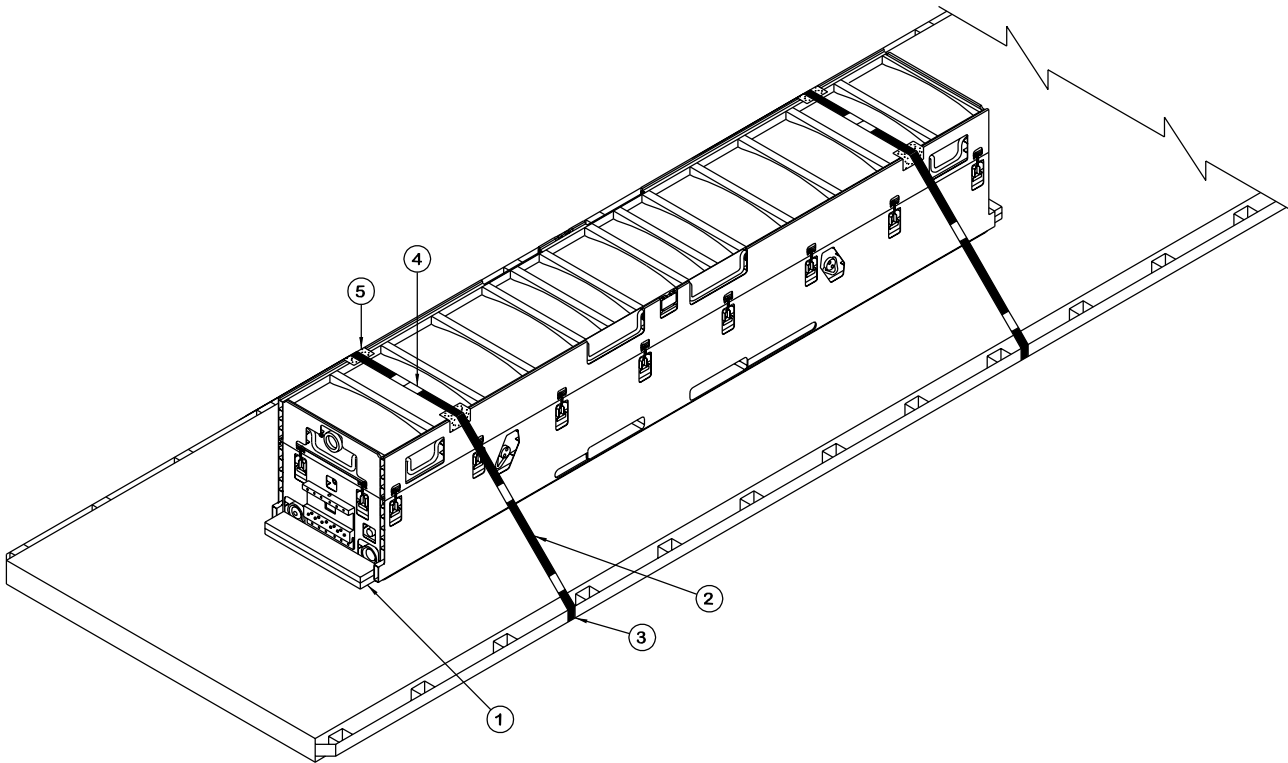
FILLER PIECE, PLYWOOD, 1/2" X 5-1/2" X
29" (1 REQD). NAIL TO THE HORIZONTAL
PIECE W/6-6d NAILS. SEE GENERAL
NOTE "J" ON PAGE 2.

SPACER ASSEMBLY

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 6"	143	143
NAILS	NO. REQD	POUNDS
6d (2")	120	3/4
10d (3")	118	2
16d (3-1/2")	8	1/4
STEEL STRAPPING, 1-1/4" - 180.00' REQD - - 25.71 LBS		
SEAL FOR 1-1/4" STRAPPING - - 32 REQD - - 1-1/2 LBS		
WEB STRAP ASSEMBLIES - - - - - 6 REQD		
WIRE, .0800" DIA - - - - - 24' REQD - - - - - NIL		
PLYWOOD, 1/2" - - - 22.15 SQ FT REQD - - 30.46 LBS		
ANTI-CHAFING MATERIAL - - - - AS REQD - - - - - NIL		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CNU-575/E CONTAINER	17	37,689 LBS
DUNNAGE		347 LBS
TOTAL WEIGHT		38,036 LBS (APPROX)



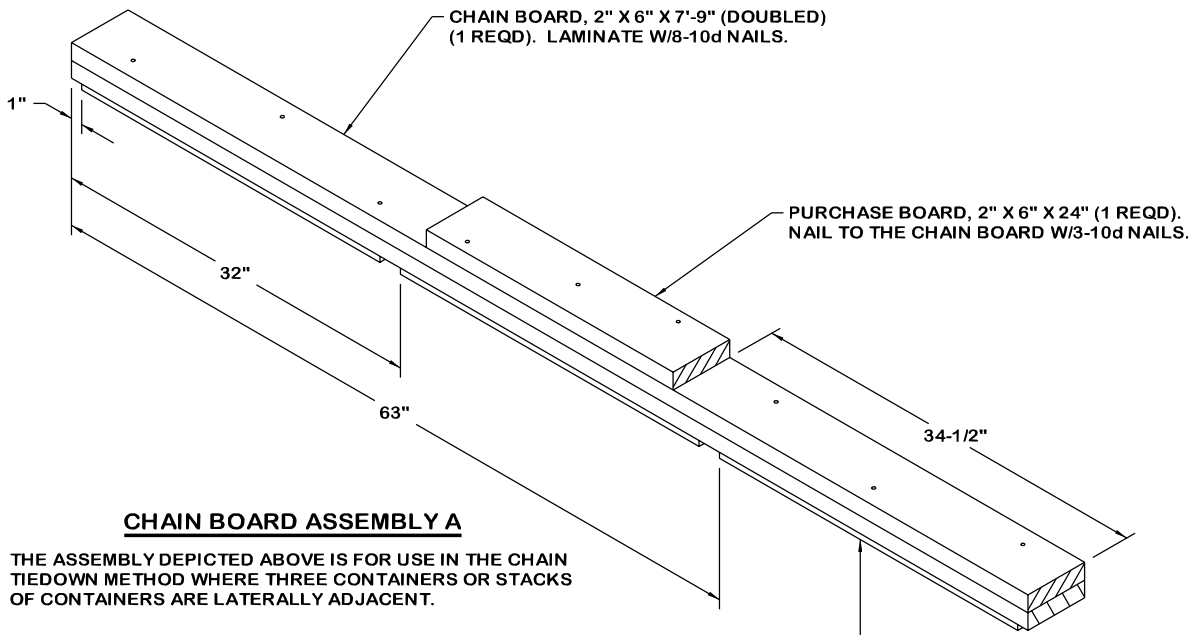
ISOMETRIC VIEW

SPECIAL NOTES:

1. A ONE UNIT LOAD ON AN 8'-0" WIDE FLATBED TRAILER IS SHOWN. THE AVAILABLE NAILING SURFACE OF THE TRAILER BED MUST BE AT LEAST 15'-7". TRAILERS OF OTHER LENGTHS AND WIDTHS MAY ALSO BE USED. SEE GENERAL NOTE "C" ON PAGE 2.
2. DO NOT PRE-POSITION THE HEADERS. INSTALL THE HEADERS AFTER THE CONTAINER HAS BEEN LOADED. CENTER THE HEADERS Laterally BETWEEN THE CONTAINER SKIDS AND PLACE THEM TIGHT AGAINST THE CONTAINER ENDWALL.
3. PLACE ANTI-CHAFING NEUTRAL BARRIER MATERIAL AT ALL POINTS OF CONTACT BETWEEN THE STEEL STRAPPING AND THE CONTAINER AND SECURE TO PREVENT DISLODMENT DURING AND AFTER STRAP APPLICATION.
4. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 6 AND 7 FOR GUIDANCE.
5. IF WEB STRAP TIEDOWN ASSEMBLIES ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 8 THRU 11 FOR GUIDANCE.
6. THE LOAD AS SHOWN ABOVE MAY BE INCREASED AS NECESSARY. REFER TO THE TYPICAL LOADING PATTERNS ON PAGES 14 AND 15 FOR GUIDANCE.

KEY NUMBERS

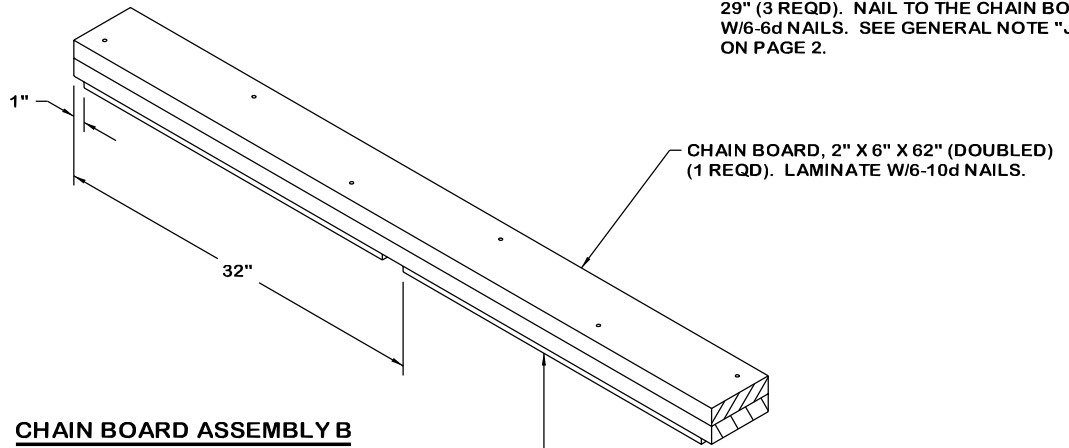
- ① HEADER, 2" X 6" X 27-3/4" (DOUBLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "J" ON PAGE 2 AND SPECIAL NOTE 2 AT LEFT. NOTE: THE HEADERS ALSO PROVIDE LATERAL RESTRAINT.
- ② HOLD-DOWN STRAP, 2" X .050" OR .044" X 16'-8" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO PIECES, EACH 8'-4" LONG. SEE GENERAL NOTE "K" ON PAGE 2 AND THE "HOLD-DOWN STRAP ANCHORING DETAILS" ON PAGE 11.
- ③ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (4 REQD). POSITION UNDER STAKE POCKET OR RUB RAIL AND SEAL TO HOLD-DOWN STRAP, PIECE MARKED ②. SEE "DETAIL A" ON PAGE 16. ALT: STAKE POCKET PROTECTOR (8 REQD). USE TWO UNDER EACH STAKE POCKET OR RUB RAIL WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 16.
- ④ SEAL FOR 2" STRAPPING (12 REQD, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT FOR THOSE USED TO SECURE THE PADS, PIECES MARKED ③. SEE GENERAL NOTE "K" ON PAGE 2.
- ⑤ ANTI-CHAFING, NEUTRAL BARRIER MATERIAL (AS REQD). PLACE UNDER HOLD-DOWN STRAP, PIECE MARKED ②, AT ALL POINTS OF CONTACT WITH THE CONTAINER. SEE SPECIAL NOTE 3 AT LEFT.



CHAIN BOARD ASSEMBLY A

THE ASSEMBLY DEPICTED ABOVE IS FOR USE IN THE CHAIN TIEDOWN METHOD WHERE THREE CONTAINERS OR STACKS OF CONTAINERS ARE LATERALLY ADJACENT.

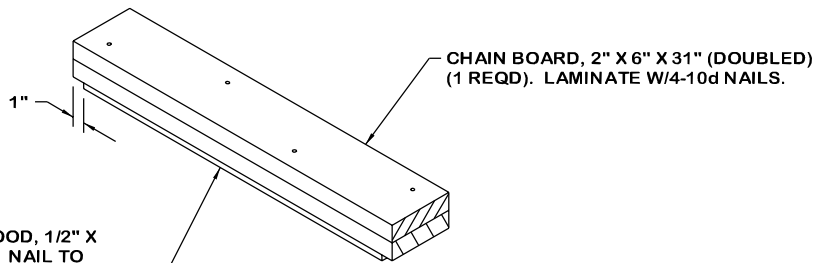
FILLER PIECE, PLYWOOD, 1/2" X 5-1/2" X 29" (3 REQD). NAIL TO THE CHAIN BOARD W/6-6d NAILS. SEE GENERAL NOTE "J" ON PAGE 2.



CHAIN BOARD ASSEMBLY B

THE ASSEMBLY DEPICTED ABOVE IS FOR USE IN THE CHAIN TIEDOWN METHOD WHERE TWO CONTAINERS OR STACKS OF CONTAINERS ARE LATERALLY ADJACENT.

FILLER PIECE, PLYWOOD, 1/2" X 5-1/2" X 29" (2 REQD). NAIL TO THE CHAIN BOARD W/6-6d NAILS. SEE GENERAL NOTE "J" ON PAGE 2.



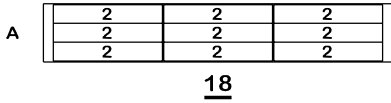
FILLER PIECE, PLYWOOD, 1/2" X 5-1/2" X 29" (1 REQD). NAIL TO THE CHAIN BOARD W/6-6d NAILS. SEE GENERAL NOTE "J" ON PAGE 2.

CHAIN BOARD ASSEMBLY C

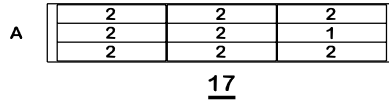
THE ASSEMBLY DEPICTED ABOVE IS FOR USE IN THE CHAIN TIEDOWN METHOD FOR RESTRAINT OF ONE CONTAINER OR ONE STACK OF CONTAINERS.

NOTE: SEE THE LEGEND AND SPECIAL NOTES ON PAGE 15.

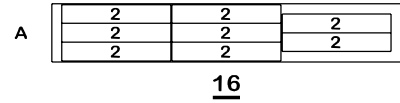
SEE PAGES 4 AND 5 FOR PROCEDURES.



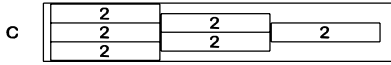
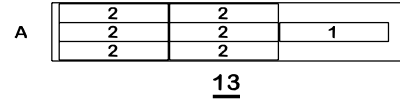
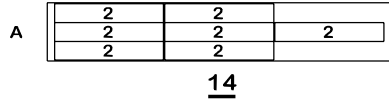
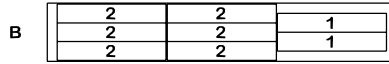
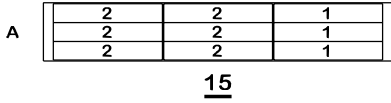
SEE SPECIAL NOTE 3 ON PAGE 15.



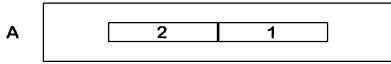
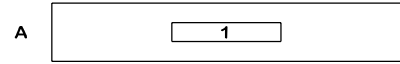
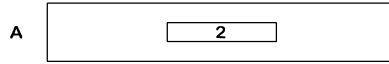
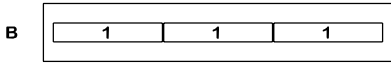
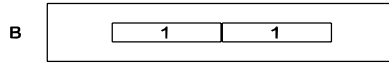
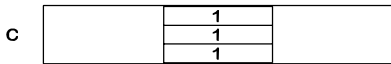
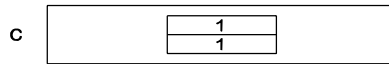
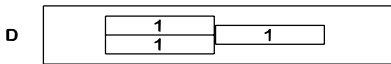
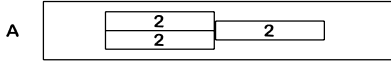
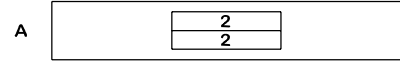
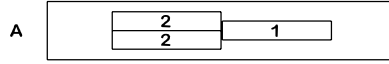
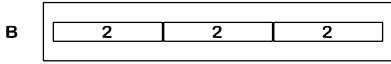
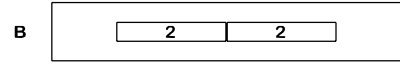
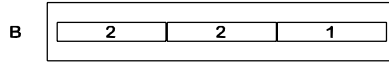
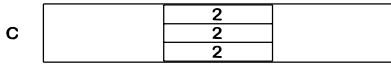
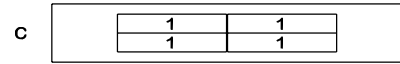
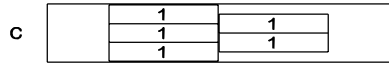
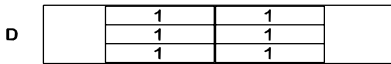
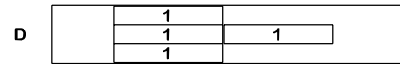
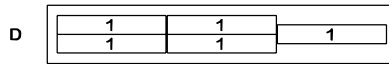
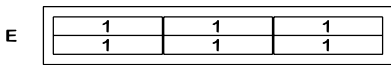
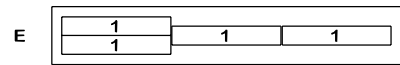
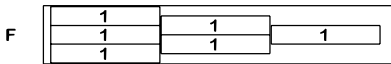
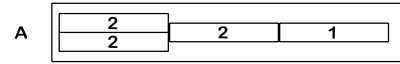
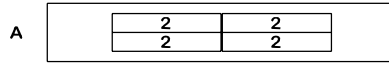
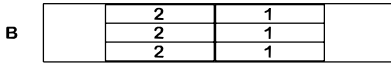
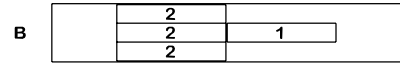
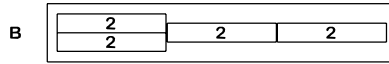
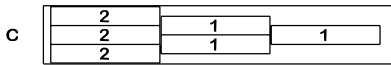
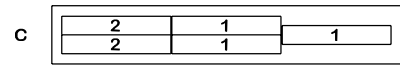
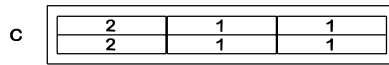
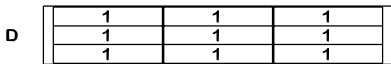
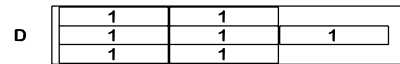
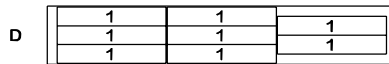
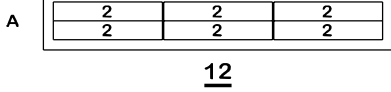
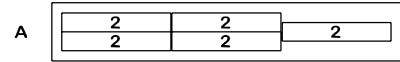
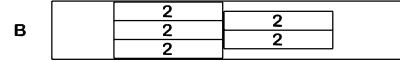
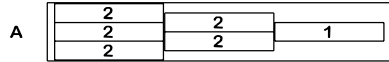
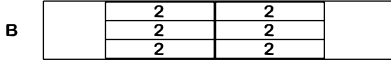
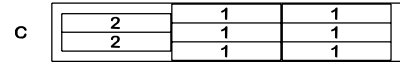
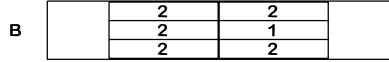
SEE PAGES 8 AND 9 FOR PROCEDURES.

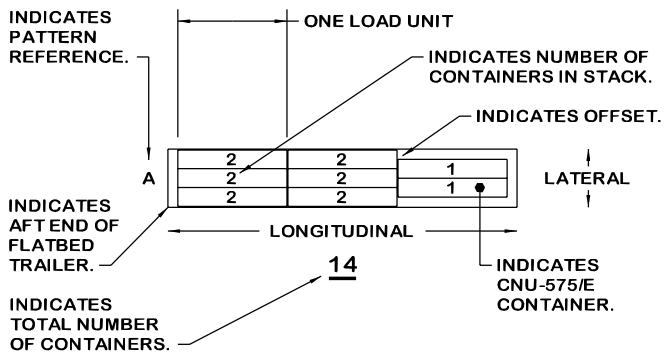


SEE PAGES 6 AND 7 FOR PROCEDURES.



SEE SPECIAL NOTE 3 ON PAGE 15.





TYPICAL LOADING PATTERN LEGEND

SEE THE TYPICAL LOADING PATTERNS ON PAGE 14.

SPECIAL NOTES:

1. THE PATTERNS SHOWN ON PAGE 14 ARE PLAN VIEWS OF FLATBED TRAILERS LOADED WITH VARYING NUMBERS OF CONTAINERS. OTHER PATTERNS MAY BE USED PROVIDED THAT THE METHODS DEPICTED IN THIS DRAWING ARE FOLLOWED AS CLOSELY AS POSSIBLE.
2. A LOAD UNIT THAT CONSISTS OF THREE CONTAINERS IN THE LOWER LAYER SHALL NOT HAVE A SINGLE CONTAINER IN THE UPPER LAYER.
3. A LOAD UNIT THAT CONSISTS OF THREE CONTAINERS IN THE LOWER LAYER AND TWO CONTAINERS IN THE UPPER LAYER SHALL NOT HAVE A CONTAINER IN THE MIDDLE POSITION OF THE UPPER LAYER. SPACER ASSEMBLIES MUST BE USED IN THE LOAD UNIT FOR THIS PATTERN. SEE THE PROCEDURES ON PAGES 10 AND 11 FOR GUIDANCE.
4. A LOAD UNIT THAT CONSISTS OF TWO CONTAINERS IN THE LOWER LAYER SHALL NOT HAVE A SINGLE CONTAINER IN THE UPPER LAYER.
5. LOAD UNITS THAT HAVE THREE LATERALLY ADJACENT CONTAINERS, CONSISTING OF ONE FULL LAYER OR TWO FULL LAYERS, SHALL BE RESTRAINED USING STRAPPING BOARD ASSEMBLIES OR CHAIN BOARD ASSEMBLIES "A" AS APPLICABLE TO THE TIEDOWN METHOD.
6. LOAD UNITS THAT HAVE ONE OR TWO LATERALLY ADJACENT CONTAINERS, CONSISTING OF ONE FULL LAYER OR TWO FULL LAYERS, DO NOT NEED STRAPPING BOARD ASSEMBLIES AS PART OF THE RESTRAINT.
7. CHAIN BOARD ASSEMBLIES ARE ALWAYS REQUIRED WHEN USING THE CHAIN TIEDOWN METHOD. SEE THE CHAIN BOARD ASSEMBLY DETAILS ON PAGE 13.
 - A. FOR LOAD UNITS UTILIZING THE CHAIN TIEDOWN METHOD AND HAVING THREE LATERALLY ADJACENT CONTAINERS, CONSISTING OF ONE FULL LAYER OR TWO FULL LAYERS, CHAIN BOARD ASSEMBLIES "A" ARE REQUIRED.
 - B. FOR LOAD UNITS UTILIZING THE CHAIN TIEDOWN METHOD AND HAVING TWO LATERALLY ADJACENT CONTAINERS, CONSISTING OF ONE FULL LAYER OR TWO FULL LAYERS, CHAIN BOARD ASSEMBLIES "B" ARE REQUIRED.
 - C. FOR LOAD UNITS UTILIZING THE CHAIN TIEDOWN METHOD AND CONSISTING OF ONE CONTAINER OR A STACK OF TWO CONTAINERS, CHAIN BOARD ASSEMBLIES "C" ARE REQUIRED.
8. FOR CONTAINERS THAT ARE LONGITUDINALLY ADJACENT, BUT LATERALLY OFFSET, THE PROCEDURES ON PAGES 8 AND 9 ARE PROVIDED FOR GUIDANCE.

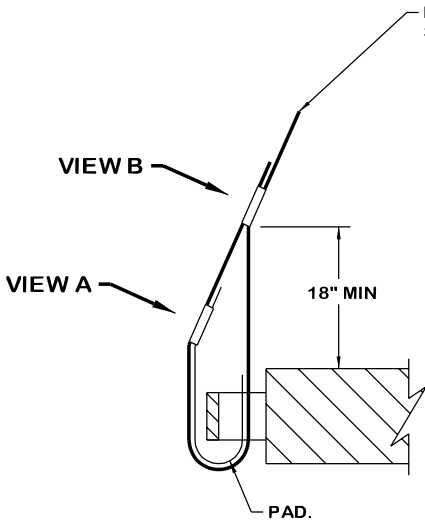
REQUIRED AVAILABLE NAILING SURFACE OF FLATBED TRAILER ●						
NUMBER OF CONTAINERS	PATTERN					
	A	B	C	D	E	F
1	15' - 7"					
2	15' - 7"	30' - 9"	15' - 7"			
3	30' - 9"	45' - 11"	15' - 7"	31' - 3"		
4	15' - 7"	30' - 9"	30' - 9"	30' - 9"	46' - 4"	
5	31' - 3"	45' - 11"	31' - 3"	46' - 4"		
6	31' - 3"	45' - 11"	15' - 7"	30' - 9"	45' - 11"	46' - 10"
7	46' - 4"	30' - 9"	46' - 4"	45' - 11"		
8	30' - 9"	46' - 4"	45' - 11"	46' - 4"		
9	46' - 4"	30' - 9"	46' - 10"	45' - 11"		
10	46' - 4"	31' - 3"	46' - 4"			
11	46' - 10"	30' - 9"				
12	45' - 11"	30' - 9"	46' - 10"			
13	45' - 11"					
14	45' - 11"	46' - 4"				
15	45' - 11"					
16	46' - 4"					
17	45' - 11"					
18	45' - 11"					

● SEE GENERAL NOTE "C" ON PAGE 2. NUMBER OF CONTAINERS REFERS TO THE NUMBER OF CONTAINERS ON THE FLATBED TRAILER. SEE THE TYPICAL LOADING PATTERNS ON PAGE 14.



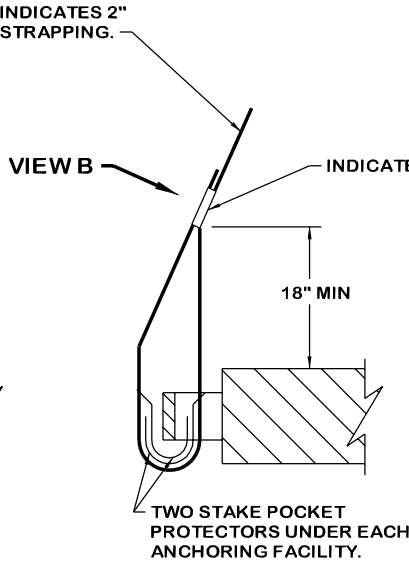
VIEW A

ONE SEAL WITH ONE PAIR OF CRIMPS.



DETAIL A

METHOD OF INSTALLING 2" STRAPPING AND PAD AT ANCHORING FACILITY.



DETAIL B

METHOD OF INSTALLING 2" STRAPPING AND STAKE POCKET PROTECTORS (ALT PAD).



VIEW B

ONE SEAL WITH TWO PAIR OF CRIMPS.

HOLD-DOWN STRAP ANCHORING DETAILS



ONE SEAL WITH TWO PAIR OF NOTCHES.

STRAP JOINT A

METHOD OF SECURING A STRAP JOINT WHEN USING A NOTCH-TYPE SEALER.



TWO SEALS, BUTTED TOGETHER, WITH TWO PAIR OF CRIMPS EACH SEAL.

STRAP JOINT B

METHOD OF SECURING A STRAP JOINT WHEN USING A CRIMP-TYPE SEALER.

END-OVER-END LAP JOINT DETAILS