



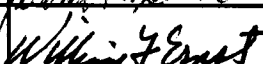
LOADING AND BRACING (TL & LTL) ON FLATBED TRAILER * OF MAVERICK (AGM-65) MISSILES IN CNU-131/E METAL SHIPPING AND STORAGE CONTAINER

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● **CAUTION:** THE OUTLOADING PROCEDURES SHOWN HEREIN ARE ONLY APPLICABLE TO HIGHWAY MOVEMENTS; NOT TRAILER-ON-FLAT CAR MOVEMENTS.

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND 	ENGINEER	BASIC	LAURA FIEFFER	DO NOT SCALE										
		REV.	MICHAEL SARDONE	WEBSITE: HTTP://WWW.DAC.ARMY.MIL										
	TECHNICIAN	BASIC	PATTY BRIGHT	JULY 1993										
		REV.		REVISION NO. 1 FEBRUARY 1997										
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND  DEFENSE AMMUNITION CENTER	TRANSPORTATION ENGINEERING DIVISION		SEE THE REVISION LISTING ON PAGE 2											
	VALIDATION ENGINEERING DIVISION		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CLASS</td> <td style="width: 10%;">DIVISION</td> <td style="width: 10%;">DRAWING</td> <td style="width: 10%;">FILE</td> </tr> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">48</td> <td style="text-align: center;">7145</td> <td style="text-align: center;">SP11J12</td> </tr> </table>				CLASS	DIVISION	DRAWING	FILE	19	48	7145	SP11J12
	CLASS	DIVISION	DRAWING	FILE										
19	48	7145	SP11J12											
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 IN THIS DRAWING ARE APPLICABLE TO LOADS OF THE AGM-65 MAVERICK MISSILE PACKED IN CNU-131/E CONTAINERS. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CNU-131/E CONTAINER WITH CONTENTS. SEE PAGE 3 FOR DETAIL OF THE CONTAINER.
- C. THE LOADS AS SHOWN HEREIN ARE BASED ON 48'-0" LONG BY 8'-6" 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 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. DEPICTED LADING MAY BE SECURED BY CHAINS AND LOAD BINDERS. SEE GENERAL NOTES "P" AND "Q".

(CONTINUED AT RIGHT)

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.
- 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.

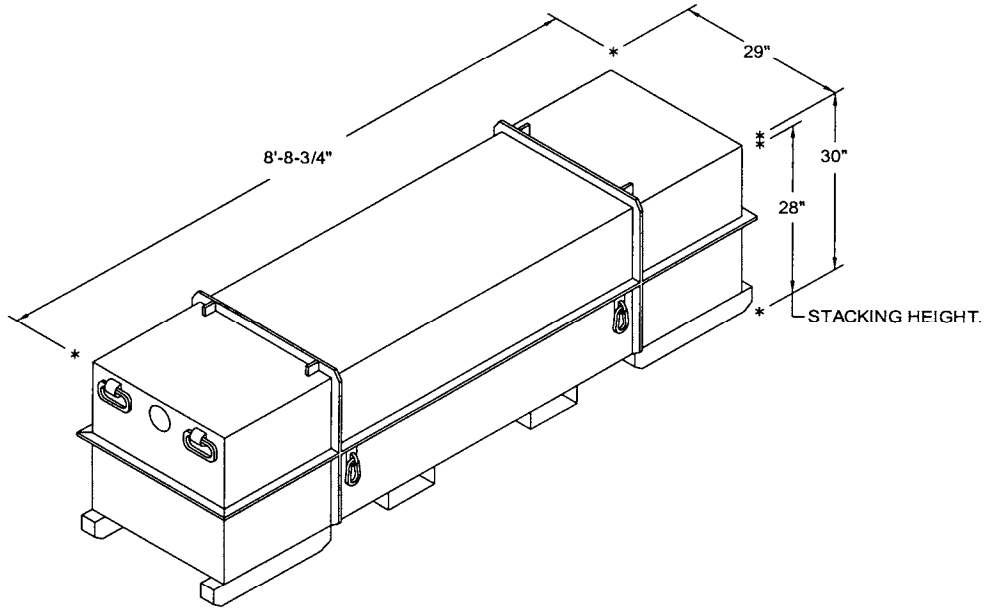
(GENERAL NOTES CONTINUED)

- J. **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.
- K. 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.
- L. 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.
- M. 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.
- N. 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 13 FOR GUIDANCE.
- O. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO A DEPICTED OUTLOADING METHOD.
- P. IF CHAINS AND LOAD BINDERS ARE BEING USED IN LIEU OF STEEL STRAPPING, THE "SPECIAL PROVISIONS FOR CHAIN TIEDOWNS" ON PAGE 7 MUST BE APPLIED TO ENSURE ADEQUATE SECUREMENT OF THE LOAD PRIOR TO SHIPMENT. SEE THE LOAD VIEW ON PAGE 6 AND THE "SPECIAL NOTES" ON PAGE 7 FOR ADDITIONAL GUIDANCE.
- Q. THE TRANSPORTING VEHICLE OPERATOR SHOULD BE INSTRUCTED TO PERIODICALLY INSPECT THE TIEDOWN CHAINS AND LOAD BINDERS DURING TRANSIT AND TIGHTEN IF NECESSARY.

REVISION

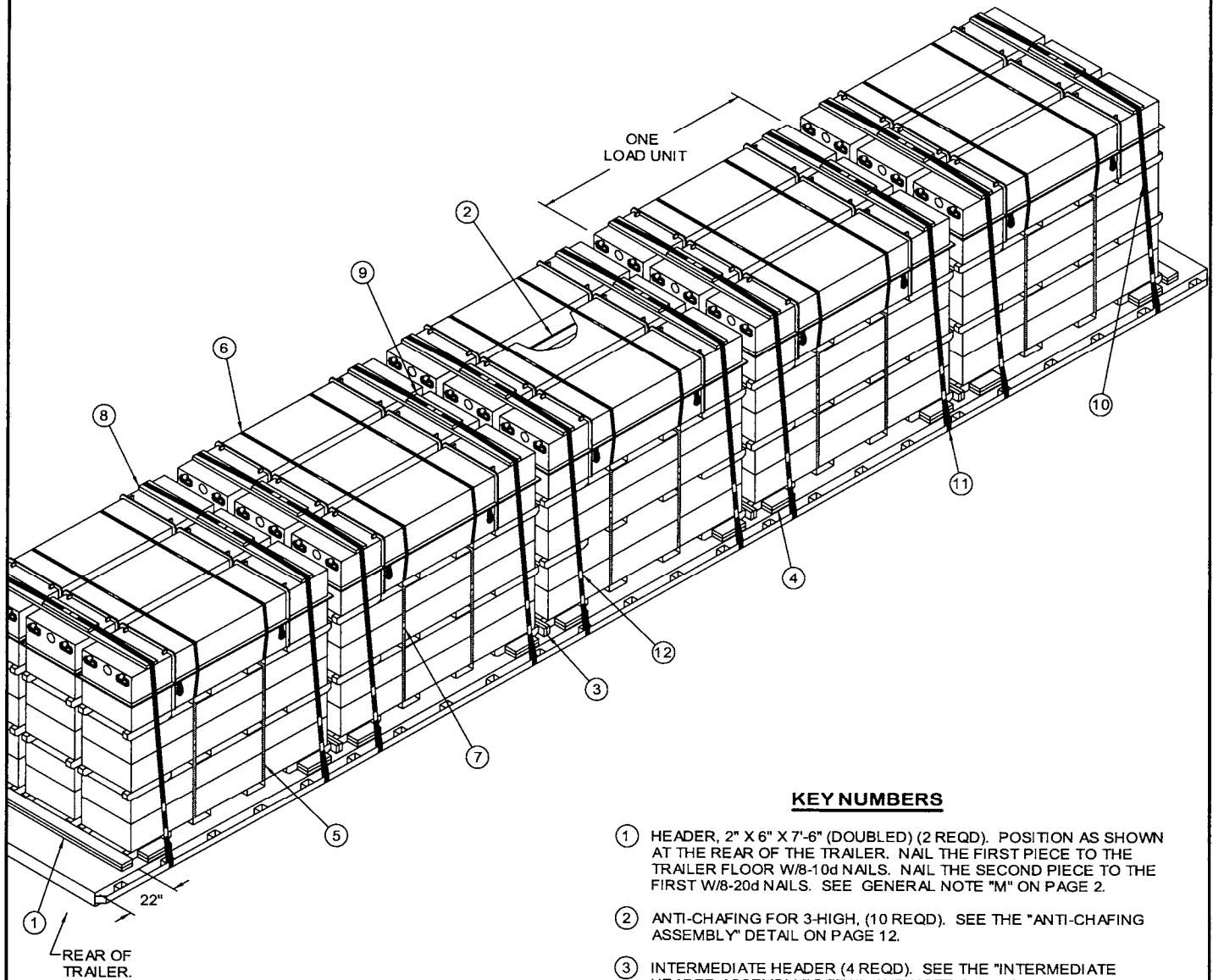
REVISION NO. 1, DATED FEBRUARY 1997, CONSISTS OF:

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



CNU-131/E METAL CONTAINER

CONTAINER ----- 365 LBS (APPROX)
GROSS WEIGHT ----- 825 LBS (APPROX)
CUBE ----- 52.8 CUBIC FT (APPROX)



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑩ HOLD-DOWN STRAP, 2" X .050" OR .044" X 30'-0" LONG STEEL STRAPPING (10 REQD). INSTALL EACH STRAP FROM TWO 15'-0" LONG PIECES. STAPLE TO STRAPPING BOARD, PIECE MARKED ⑧, W/2 STAPLES. SEE GENERAL NOTE "N" ON PAGE 2.
- ⑪ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (20 REQD). POSITION UNDER ANCHORING FACILITY AND SEAL TO HOLD-DOWN STRAP, PIECE MARKED ⑩. ALT: STAKE POCKET PROTECTOR (40 REQD). USE TWO UNDER EACH ANCHORING FACILITY WITH A HOLD-DOWN STRAP. SEE "HOLD-DOWN STRAP ANCHORING DETAILS" ON PAGE 13.
- ⑫ SEAL FOR 2" STEEL STRAPPING (60 REQD, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT THOSE USED TO SECURE THE PADS, PIECE MARKED ⑪. SEE THE "HOLD-DOWN STRAP ANCHORING DETAILS" AND "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.

KEY NUMBERS

- ① HEADER, 2" X 6" X 7'-6" (DOUBLED) (2 REQD). POSITION AS SHOWN AT THE REAR OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS. SEE GENERAL NOTE "M" ON PAGE 2.
- ② ANTI-CHAFING FOR 3-HIGH, (10 REQD). SEE THE "ANTI-CHAFING ASSEMBLY" DETAIL ON PAGE 12.
- ③ INTERMEDIATE HEADER (4 REQD). SEE THE "INTERMEDIATE HEADER ASSEMBLY" DETAIL AND NOTE ON PAGE 12. POSITION WITH THE RETAINER PIECE BETWEEN THE SKIDS OF THE CENTER CONTAINER.
- ④ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (20 REQD). POSITION AGAINST THE CONTAINER SKIDS AS SHOWN ABOVE. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑤ STACK UNITIZING STRAP, 1-1/4" X .035" OR .031" X 15'-0" LONG STEEL STRAPPING (30 REQD, 2 PER STACK). INSTALL THROUGH FORK TINE OPENINGS OF A FIRST LAYER AND THIRD LAYER CONTAINER. STRAPS SHOULD BE POSITIONED AS FAR APART AS THE FORK TINE OPENINGS PERMIT.
- ⑥ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 20'-6" LONG STEEL STRAPPING (10 REQD). INSTALL TO ENCIRCLE LATERALLY ADJACENT CONTAINERS IN THE TOP LAYER AS SHOWN.
- ⑦ SEAL FOR 1-1/4" STEEL STRAPPING (80 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "N" ON PAGE 2 AND THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.
- ⑧ STRAPPING BOARD, 2" X 6" X 7'-1-1/2" (10 REQD).
- ⑨ PURCHASE BOARD, 2" X 6" X 24" (10 REQD). CENTER ON THE STRAPPING BOARD, PIECE MARKED ⑧, AND NAIL W/4-10d NAILS.

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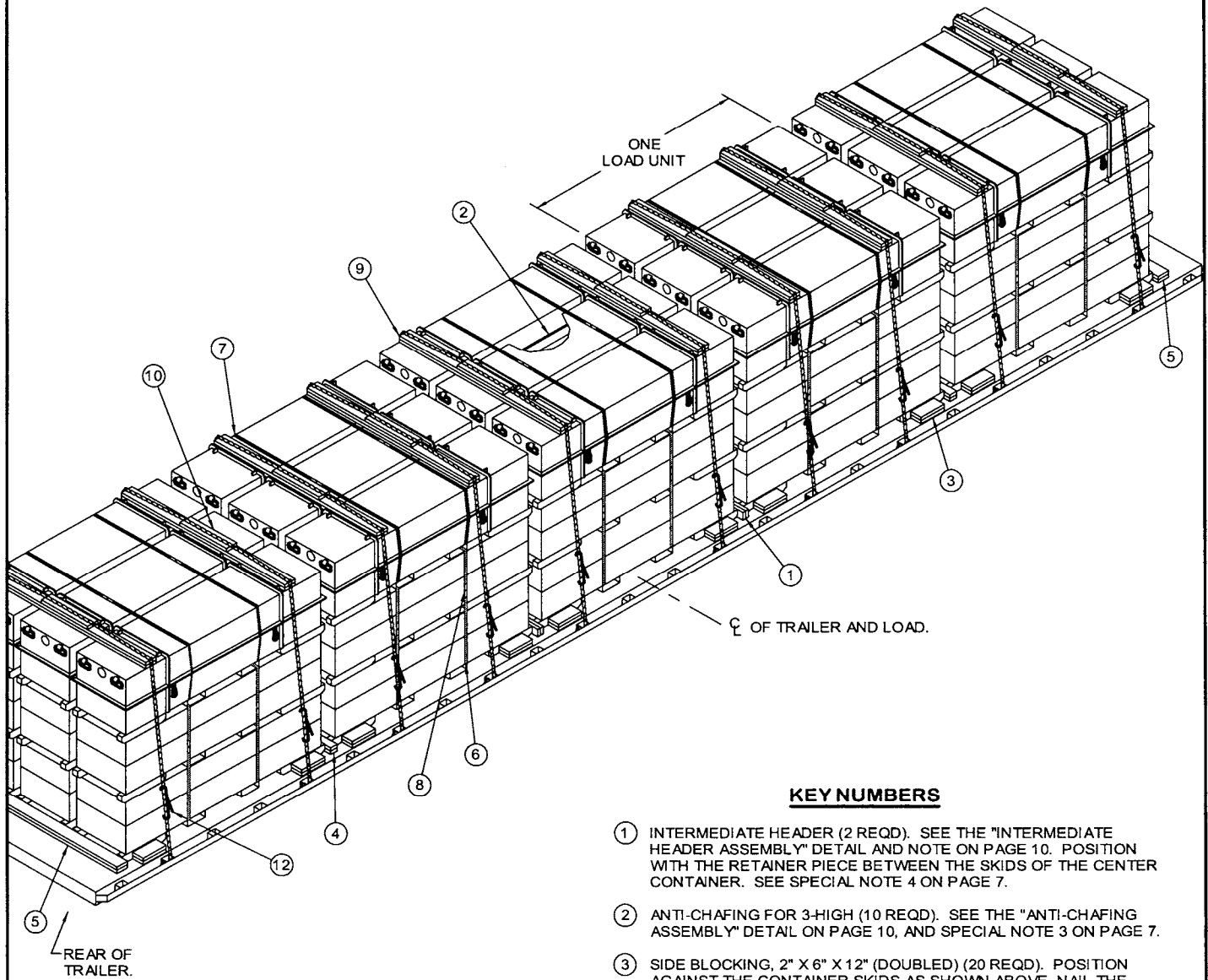
SPECIAL NOTES:

1. A 45-CONTAINER LOAD IS SHOWN ON A 48'-0" LONG BY 8'-6" WIDE FLATBED TRAILER. SHORTER TRAILERS CANNOT BE USED FOR SHIPMENT OF A 45-CONTAINER LOAD.
2. IF DESIRED, AND THE CAPACITY OF THE FORKLIFT TRUCK PERMITS, THREE CONTAINERS MAY BE STACKED AND UNITIZED PRIOR TO PLACEMENT ON TRAILER.
3. LOADING SHOULD BEGIN AT THE REAR OF THE TRAILER AND PROCEED FORWARD FROM THERE. AFTER THE FIRST CONTAINER STACK HAS BEEN POSITIONED ON THE TRAILER, THE ANTI-CHAFING ASSEMBLY, PIECE MARKED ② MUST BE POSITIONED SO THAT THE TIE PIECE OF THE ASSEMBLY RESTS ON THE FLANGE OF THE TOP CONTAINER.
4. THE DEPICTED LOAD CAN BE REDUCED BY ONE OR TWO CONTAINERS BY FORMING ONE OR TWO 8-CONTAINER LOAD UNITS AS SHOWN BY THE REAR LOAD UNIT ON PAGE 10. THE LOAD CAN BE REDUCED BY MULTIPLES OF THREE CONTAINERS BY OMITTING COMPLETE LAYERS FROM THE TOP OF ONE OR MORE LOAD UNITS.
5. IF A 45'-0" LONG BY 8'-6" WIDE TRAILER IS FURNISHED FOR LOADING, 36 CONTAINERS CAN BE SHIPPED USING THE DEPICTED PROCEDURES. IF THE 45'-0" TRAILER IS ONLY 8'-0" WIDE, THE SIDE BLOCKING WILL HAVE TO BE PRE-POSITIONED BETWEEN THE CONTAINER SKIDS. SEE PIECE MARKED ② ON PAGE 10 FOR GUIDANCE. THIRTY-SIX CONTAINERS CAN ALSO BE SHIPPED ON A 40'-0" LONG TRAILER, USING A COMBINATION OF THE PROCEDURES ON PAGE 4 AND PAGE 10. THE SIDE BLOCKING, PIECE MARKED ② ON PAGE 10 WILL BE USED IN LIEU OF THE DEPICTED SIDE BLOCKING, PIECE MARKED ④.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	46	16
1" X 6"	132	66
2" X 4"	36	24
2" X 6"	162	162
NAILS	NO. REQD	POUNDS
6d (2")	60	1/2
10d (3")	228	3-1/2
20d (4")	16	3/4
STEEL STRAPPING, 1-1/4" ----- 655' REQD ----- 94 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 80 REQD ----- 4 LBS		
STEEL STRAPPING, 2" ----- 330' REQD ----- 110 LBS		
SEAL FOR 2" STRAPPING ----- 60 REQD ----- 12 LBS		
STAPLE FOR 2" STRAPPING ----- 20 REQD ----- NIL		

LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
CONTAINER -----	45 -----	37,125 LBS
DUNNAGE -----		761 LBS
TOTAL WEIGHT -----		37,886 LBS (APPROX)



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑩ PURCHASE BOARD, 2" X 6" X 24" (10 REQD). CENTER ON THE CHAIN BOARD, PIECE MARKED ⑨, AND NAIL W/4-10d NAILS.
- ⑪ CHAIN, BINDING, 5/16", GRADE 70 BY A LENGTH TO SUIT (10 REQD). POSITION AS SHOWN ABOVE, FASTENING THE CHAIN GRABHOOKS TO THE TRAILER STAKE POCKETS. SEE SPECIAL NOTE 4 ON PAGE 7, AND THE "SPECIAL PROVISIONS FOR CHAIN TIEDOWNS" ON PAGE 7.
- LOAD BINDER, 5/16", OVER-CENTER TYPE (10 REQD, 1 PER CHAIN). WIRE TIE HANDLE TO PREVENT OPENING DURING TRANSPORT. FASTEN THE TENSIONED CHAIN, PIECE MARKED ⑪, TO THE CHAIN BOARD, PIECE MARKED ⑨ W/1-20d NAIL AT EACH END. BENDING OVER TO FORM A LOOP AROUND THE CHAIN LINK. SEE SPECIAL NOTE 8 ON PAGE 7.
- ⑫

KEY NUMBERS

- ① INTERMEDIATE HEADER (2 REQD). SEE THE "INTERMEDIATE HEADER ASSEMBLY" DETAIL AND NOTE ON PAGE 10. POSITION WITH THE RETAINER PIECE BETWEEN THE SKIDS OF THE CENTER CONTAINER. SEE SPECIAL NOTE 4 ON PAGE 7.
- ② ANTI-CHAFING FOR 3-HIGH (10 REQD). SEE THE "ANTI-CHAFING ASSEMBLY" DETAIL ON PAGE 10, AND SPECIAL NOTE 3 ON PAGE 7.
- ③ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (20 REQD). POSITION AGAINST THE CONTAINER SKIDS AS SHOWN ABOVE. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ④ HEADER, 2" X 4" X 7'-6" (DOUBLED) (2 REQD). 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 "M" ON PAGE 2.
- ⑤ HEADER, 2" X 6" X 7'-6" (DOUBLED) (2 REQD). 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 "M" ON PAGE 2.
- ⑥ STACK UNITIZING STRAP, 1-1/4" X .035" OR .031" X 15'-0" LONG STEEL STRAPPING (30 REQD, 2 PER STACK). INSTALL THROUGH FORK TINE OPENINGS OF A FIRST LAYER AND THIRD LAYER CONTAINER. STRAPS SHOULD BE POSITIONED AS FAR APART AS THE FORK TINE OPENINGS PERMIT.
- ⑦ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 20'-6" LONG STEEL STRAPPING (10 REQD). INSTALL TO ENCIRCLE LATERALLY ADJACENT CONTAINERS IN THE TOP LAYER AS SHOWN.
- ⑧ SEAL FOR 1-1/4" STEEL STRAPPING (80 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "N" ON PAGE 2, AND THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.
- ⑨ CHAIN BOARD, 2" X 6" X 7'-1-1/2" (DOUBLED) (10 REQD). LAMINATE W/6-10d NAILS.

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SPECIAL NOTES:

1. A 45-CONTAINER LOAD IS SHOWN ON A 48'-0" LONG BY 8'-0" WIDE FLATBED TRAILER. SHORTER TRAILERS CANNOT BE USED FOR SHIPMENT OF A 45-CONTAINER LOAD. SEE NOTE 7 BELOW.
2. IF DESIRED, AND THE CAPACITY OF THE FORKLIFT TRUCK PERMITS, THREE CONTAINERS MAY BE STACKED AND UNITIZED WITH TWO STEEL STRAPS, PRIOR TO PLACEMENT ON THE TRAILER.
3. LOADING SHOULD BEGIN AT THE CENTER OF THE TRAILER AND PROCEED FORWARD AND REARWARD FROM THERE. AFTER THE FIRST CONTAINER STACK HAS BEEN POSITIONED ON THE TRAILER, THE ANTI-CHAFING ASSEMBLY, PIECE MARKED ② MUST BE POSITIONED SO THAT THE TIE PIECE OF THE ASSEMBLY RESTS ON THE FLANGE OF THE TOP CONTAINER.
4. THE INTERMEDIATE HEADERS, PIECE MARKED ①, ARE SHOWN AS DOUBLED 2" X 4" ON-EDGE MATERIAL FOR USE BETWEEN LOAD UNITS AT TWO LOCATIONS, AND PIECE MARKED ④ IS USED AT TWO LOCATIONS IN ORDER TO PROPERLY ALIGN APPROPRIATE CHAIN BEARING AREAS ON THE CONTAINERS WITH THE STAKE POCKETS. IF NECESSARY IN ORDER TO PROVIDE PROPER ALIGNMENT, THESE PIECES MAY BE ADJUSTED. THE INTERMEDIATE HEADER, PIECE MARKED ①, MAY BE SINGLE THICKNESS IN LIEU OF DOUBLED, OR PIECE MARKED ④ AT ONE OR TWO LOCATIONS CAN BE REPLACED WITH SINGLE OR DOUBLE THICK PIECES MARKED ①, OR PIECE MARKED ④ MAY BE USED IN LIEU OF A PIECE MARKED ①. A CHAIN BOARD AND CHAIN MUST NOT BE LOCATED ON TOP OF THE FLANGE ON THE TOP OF THE CONTAINERS. SEE SPECIAL NOTE 5.
5. **NOTE:** THE CHAINS MUST BE ATTACHED TO THE TRAILER STAKE POCKETS AND VERTICALLY IN LINE WITH THE CHAIN BOARDS. THE CHAIN BOARDS CAN BE SHIFTED LEFT OR RIGHT AS NECESSARY TO PROVIDE FOR VERTICAL ALIGNMENT. SEE GENERAL NOTES "P" AND "Q" ON PAGE 2.
6. THE DEPICTED LOAD CAN BE REDUCED BY ONE OR TWO CONTAINERS BY FORMING ONE OR TWO 8-CONTAINER LOAD UNITS AS SHOWN BY THE REAR LOAD UNIT ON PAGE 10. THE LOAD CAN BE REDUCED BY MULTIPLES OF THREE CONTAINERS BY OMITTING COMPLETE LAYERS FROM THE TOP OF ONE OR MORE LOAD UNITS.
7. IF A 45'-0" LONG TRAILER IS FURNISHED FOR LOADING, 36 CONTAINERS CAN BE SHIPPED USING THE DEPICTED PROCEDURES AS GUIDANCE. IF THE 45'-0" TRAILER IS ONLY 8'-0" WIDE, THE SIDE BLOCKING WILL HAVE TO BE PRE-POSITIONED BETWEEN THE CONTAINER SKIDS. SEE PIECE MARKED ② ON PAGE 10 FOR GUIDANCE. 36 CONTAINERS CAN ALSO BE SHIPPED ON A 40'-0" LONG TRAILER, USING A COMBINATION OF THE PROCEDURES ON PAGE 6 AND 10. THE SIDE BLOCKING, PIECE MARKED ② ON PAGE 10, WILL BE USED IN LIEU OF THE DEPICTED SIDE BLOCKING, PIECE MARKED ③. THE CONTAINERS WILL BE LOCATED, ON EITHER A 40-FOOT OR 45-FOOT TRAILER, TO BEST ALIGN THE BEARING AREAS ON THE CONTAINERS WITH THE STAKE POCKETS. NOTE THAT A LOAD SHOULD BE CENTERED ON A 40'-0" LONG TRAILER AND PROBABLY 12" OFF CENTER ON A 45'-0" LONG TRAILER. A COMBINATION OF PIECES MARKED ① AND ④ WILL BE USED AS NECESSARY TO PROVIDE FOR PROPER ALIGNMENT.
8. THE TRANSPORTING VEHICLE OPERATOR SHOULD BE INSTRUCTED TO PERIODICALLY INSPECT THE TIEDOWN CHAINS AND LOAD BINDERS DURING TRANSIT AND TIGHTEN IF NECESSARY.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	46	16
1" X 6"	132	66
2" X 4"	63	42
2" X 6"	233	233
NAILS	NO. REQD	POUNDS
6d (2")	60	1/2
10d (3")	288	4-1/2
20d (4")	36	1-1/2
STEEL STRAPPING, 1-1/4" ----- 655' REQD ----- 94 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 80 REQD ----- 4 LBS		
CHAIN, BINDING, 5/16" ----- 240' REQD ----- 288 LBS		
LOAD BINDER ----- 10 REQD ----- 60 LBS		

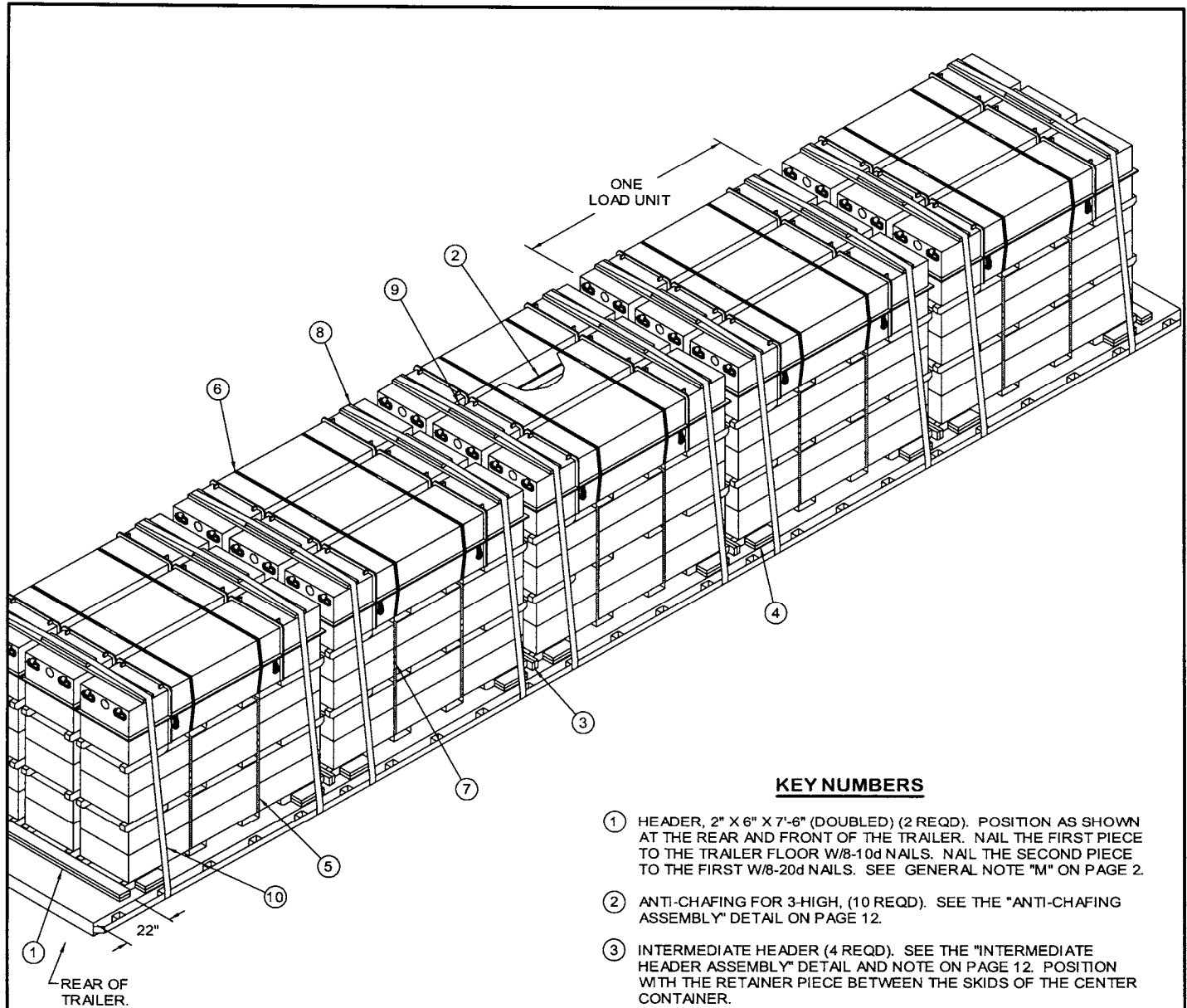
SPECIAL PROVISIONS FOR CHAIN TIEDOWN

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 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.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	45 -----	37,125 LBS
DUNNAGE -----	-----	1,167 LBS
TOTAL WEIGHT -----		38,292 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① HEADER, 2" X 6" X 7'-6" (DOUBLED) (2 REQD). POSITION AS SHOWN AT THE REAR AND FRONT OF THE TRAILER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS. SEE GENERAL NOTE "M" ON PAGE 2.
- ② ANTI-CHAFING FOR 3-HIGH, (10 REQD). SEE THE "ANTI-CHAFING ASSEMBLY" DETAIL ON PAGE 12.
- ③ INTERMEDIATE HEADER (4 REQD). SEE THE "INTERMEDIATE HEADER ASSEMBLY" DETAIL AND NOTE ON PAGE 12. POSITION WITH THE RETAINER PIECE BETWEEN THE SKIDS OF THE CENTER CONTAINER.
- ④ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (20 REQD). POSITION AGAINST THE CONTAINER SKIDS AS SHOWN ABOVE. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑤ STACK UNITIZING STRAP, 1-1/4" X .035" OR .031" X 15'-0" LONG STEEL STRAPPING (30 REQD, 2 PER STACK). INSTALL THROUGH FORK TINE OPENINGS OF A FIRST LAYER AND THIRD LAYER CONTAINER. STRAPS SHOULD BE POSITIONED AS FAR APART AS THE FORK TINE OPENINGS PERMIT.
- ⑥ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 20'-6" LONG STEEL STRAPPING (10 REQD). INSTALL TO ENCIRCLE LATERALLY ADJACENT CONTAINERS IN THE TOP LAYER AS SHOWN.
- ⑦ SEAL FOR 1-1/4" STEEL STRAPPING (80 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "N" ON PAGE 2 AND THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.
- ⑧ STRAPPING BOARD, 2" X 6" X 7'-1-1/2" (10 REQD).
- ⑨ PURCHASE BOARD, 2" X 6" X 24" (10 REQD). CENTER ON THE STRAPPING BOARD, PIECE MARKED ⑧, AND NAIL W/4-10d NAILS.
- 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 9.

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.

(CONTINUED AT RIGHT)

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	46	16
1" X 6"	132	66
2" X 4"	36	24
2" X 6"	162	162
NAILS	NO. REQD	POUNDS
6d (2")	60	1/2
10d (3")	228	3-3/4
20d (4")	16	3/4
STEEL STRAPPING, 1-1/4" ----- 655' REQD ----- 94 LBS		
SEAL FOR 1-1/4" STRAPPING ----- 80 REQD ----- 4 LBS		
WEB STRAP ASSEMBLIES ----- 6 REQD ----- 6 LBS		

SPECIAL NOTES:

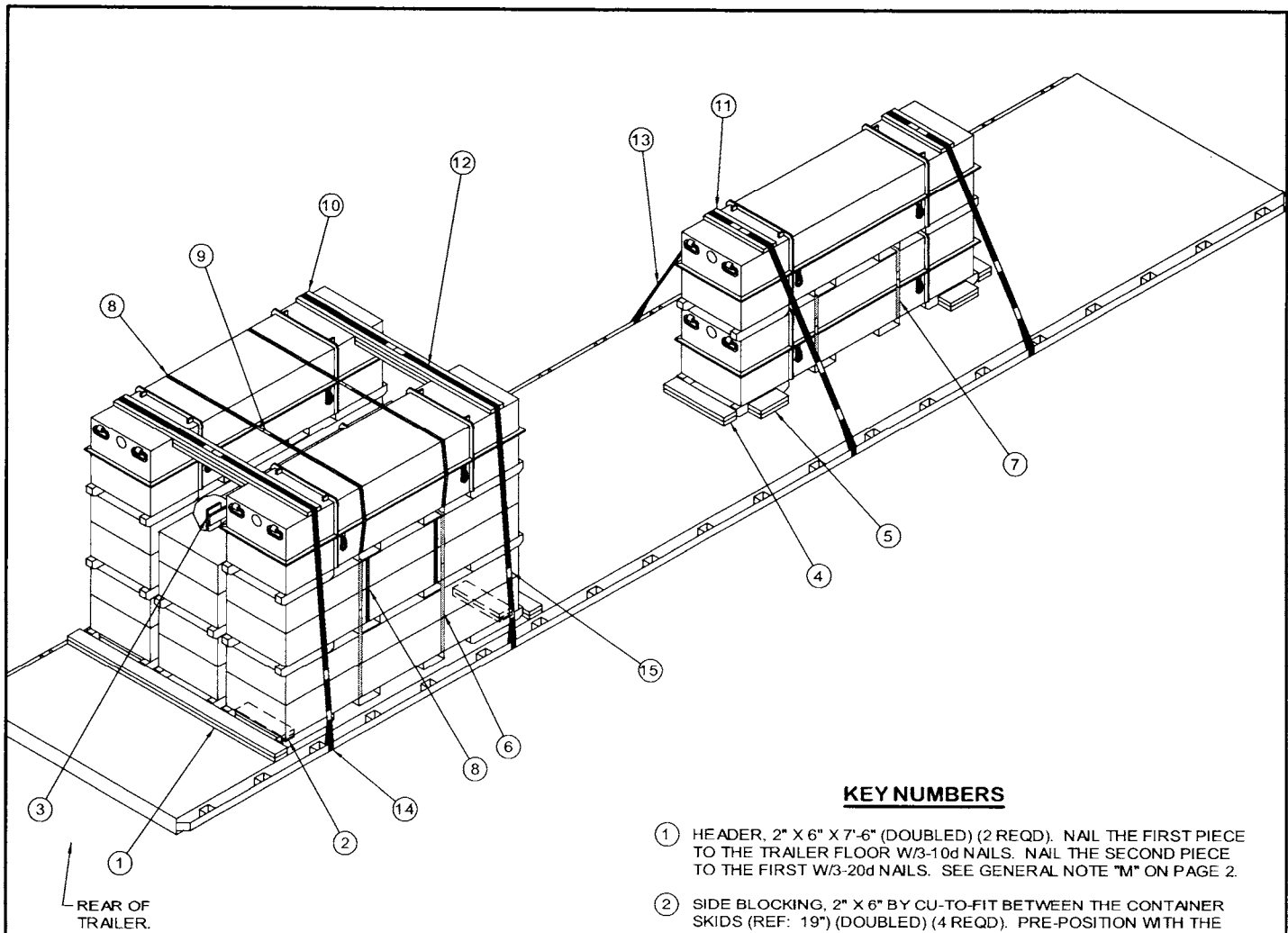
1. A 45-CONTAINER LOAD IS SHOWN ON A 48'-0" LONG BY 8'-6" WIDE FLATBED TRAILER. SHORTER TRAILERS CANNOT BE USED FOR SHIPMENT OF A 45-CONTAINER LOAD.
2. IF DESIRED, AND THE CAPACITY OF THE FORKLIFT TRUCK PERMITS, THREE CONTAINERS MAY BE STACKED AND UNITIZED PRIOR TO PLACEMENT ON TRAILER.
3. LOADING SHOULD BEGIN AT THE REAR OF THE TRAILER AND PROCEED FORWARD FROM THERE. AFTER THE FIRST CONTAINER STACK HAS BEEN POSITIONED ON THE TRAILER, THE ANTI-CHAFING ASSEMBLY, PIECE MARKED ② MUST BE POSITIONED SO THAT THE TIE PIECE OF THE ASSEMBLY RESTS ON THE FLANGE OF THE TOP CONTAINER.
4. THE DEPICTED LOAD CAN BE REDUCED BY ONE OR TWO CONTAINERS BY FORMING ONE OR TWO 8-CONTAINER LOAD UNITS AS SHOWN BY THE REAR LOAD UNIT ON PAGE 10. THE LOAD CAN BE REDUCED BY MULTIPLES OF THREE CONTAINERS BY OMITTING COMPLETE LAYERS FROM THE TOP OF ONE OR MORE LOAD UNITS.
5. IF A 45'-0" LONG BY 8'-6" WIDE TRAILER IS FURNISHED FOR LOADING, 36 CONTAINERS CAN BE SHIPPED USING THE DEPICTED PROCEDURES. IF THE 45'-0" TRAILER IS ONLY 8'-0" WIDE, THE SIDE BLOCKING WILL HAVE TO BE PRE-POSITIONED BETWEEN THE CONTAINER SKIDS. SEE PIECE MARKED ② ON PAGE 10 FOR GUIDANCE. 36 CONTAINERS CAN ALSO BE SHIPPED ON A 40'-0" LONG TRAILER, USING A COMBINATION OF THE PROCEDURES ON PAGE 8 AND PAGE 10. THE SIDE BLOCKING, PIECE MARKED ② ON PAGE 10 WILL BE USED IN LIEU OF THE DEPICTED SIDE BLOCKING, PIECE MARKED ④

(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.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	45	37,125 LBS
DUNNAGE -----		639 LBS
TOTAL WEIGHT -----		37,764 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① HEADER, 2" X 6" X 7'-6" (DOUBLED) (2 REQD). 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 "M" ON PAGE 2.
- ② SIDE BLOCKING, 2" X 6" BY CU-TO-FIT BETWEEN THE CONTAINER SKIDS (REF: 19") (DOUBLED) (4 REQD). PRE-POSITION WITH THE OUTER END 39-3/4" FROM CENTER OF TRAILER, WITH ONE AT 3" AND ONE AT 7'-10" FROM A HEADER, PIECE MARKED ①. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ③ ANTI-CHAFING FOR 2-HIGH (2 REQD). SEE THE "ANTI-CHAFING ASSEMBLY" ON PAGE 12.
- ④ HEADER, 2" X 6" X 30" (DOUBLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ⑤ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQD). POSITION AGAINST THE CONTAINER SKIDS AS SHOWN ABOVE, AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑥ STACK UNITIZING STRAP, 1-1/4" X .035" OR .031" X 15'-0" LONG STEEL STRAPPING (4 REQD). INSTALL THROUGH FORK TINE OPENINGS OF A FIRST LAYER AND THIRD LAYER CONTAINER. STRAPS SHOULD BE POSITIONED AS FAR APART AS THE FORK TINE OPENINGS PERMIT. SEE SPECIAL NOTE 3 ON PAGE 11.
- ⑦ STACK UNITIZING STRAP, 1-1/4" X .035" OR .031" X 10'-6" LONG STEEL STRAPPING (4 REQD). INSTALL THROUGH FORK TINE OPENINGS OF A FIRST LAYER AND SECOND LAYER CONTAINER. STRAPS SHOULD BE POSITIONED AS FAR APART AS THE FORK TINE OPENINGS PERMIT.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 20'-6" LONG STEEL STRAPPING (4 REQD). INSTALL TO ENCIRCLE LATERALLY ADJACENT CONTAINERS IN THE THIRD LAYER AS SHOWN. INSTALL TWO SIMILARLY TO ENCIRCLE THE SECOND LAYER OF THE 8-CONTAINER LOAD UNIT.
- ⑨ SEAL FOR 1-1/4" STEEL STRAPPING (24 REQD, 2 PER STRAP). DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "N" ON PAGE 2, AND THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.

(KEY NUMBERS CONTINUED)

- ⑩ STRAPPING BOARD ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 11.
- ⑪ STRAPPING BOARD, 2" X 6" X 26" (2 REQD).
- ⑫ HOLD-DOWN STRAP, 2" X .050" OR .044" X 30'-0" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 15'-0" LONG PIECES. STAPLE TO STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑩, W/2 STAPLES.
- ⑬ HOLD-DOWN STRAP, 2" X .050" OR .044" X 22'-6" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 11'-3" LONG PIECES. STAPLE TO STRAPPING BOARD, PIECE MARKED ⑩, W/2 STAPLES.
- ⑭ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (8 REQD). POSITION UNDER ANCHORING FACILITY AND SEAL TO HOLD-DOWN STRAP, PIECES MARKED ⑫ AND ⑬. ALT: STAKE POCKET PROTECTOR (16 REQD). USE TWO UNDER EACH ANCHORING FACILITY WITH A HOLD-DOWN STRAP. SEE THE "HOLD-DOWN STRAP ANCHORING DETAILS" AND "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.
- ⑮ SEAL FOR 2" STRAPPING (24 REQD, 6 PER STRAP). DOUBLE CRIMP EACH SEAL, EXCEPT THOSE USED TO SECURE THE PADS, PIECE MARKED ⑭.

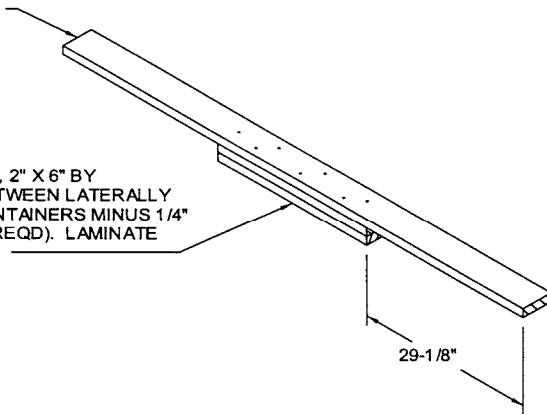
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SPECIAL NOTES:

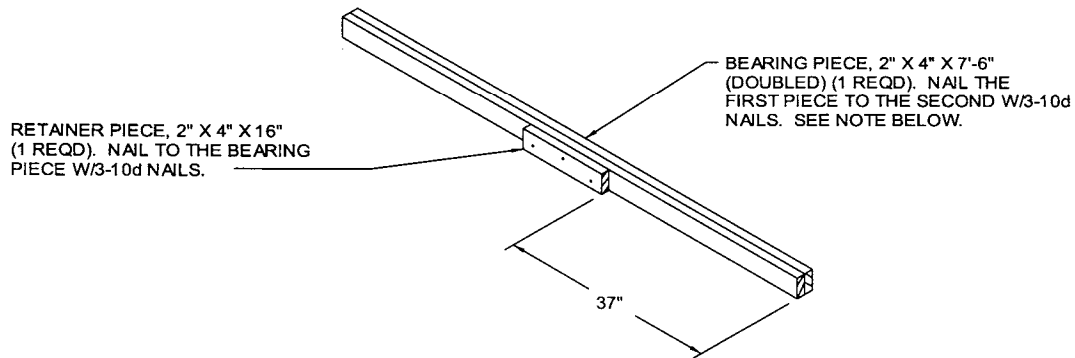
1. A 10-UNIT LTL LOAD IS SHOWN AS TYPICAL. THE NUMBER OF CONTAINERS CAN BE ADJUSTED TO SUIT.
2. THE 2-HIGH STACK AT THE FRONT OF THE TRAILER WILL NOT BE INCREASED; IF THREE CONTAINERS ARE TO BE LOADED IN A GROUP, THE CONTAINERS MUST ALL BE ON THE FLOOR.
3. IF DESIRED, AND THE CAPACITY OF THE FORKLIFT TRUCK PERMITS, THREE CONTAINERS MAY BE STACKED AND UNITIZED PRIOR TO PLACEMENT ON THE TRAILER.

STRAPPING BOARD, 2" X 6"
X 7'-1-1/2" (1 REQD).
NAIL TO THE SPACER
PIECE W/7-10d NAILS.

SPACER PIECE, 2" X 6" BY
CUT TO FIT BETWEEN LATERALLY
ADJACENT CONTAINERS MINUS 1/4"
(DOUBLED) (1 REQD). LAMINATE
W/5-10d NAILS.

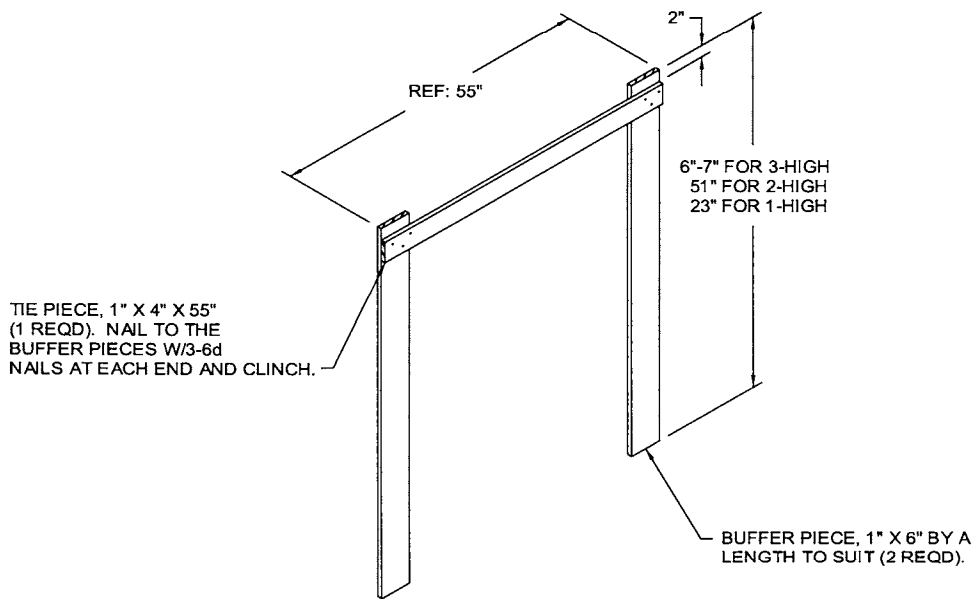


STRAPPING BOARD ASSEMBLY

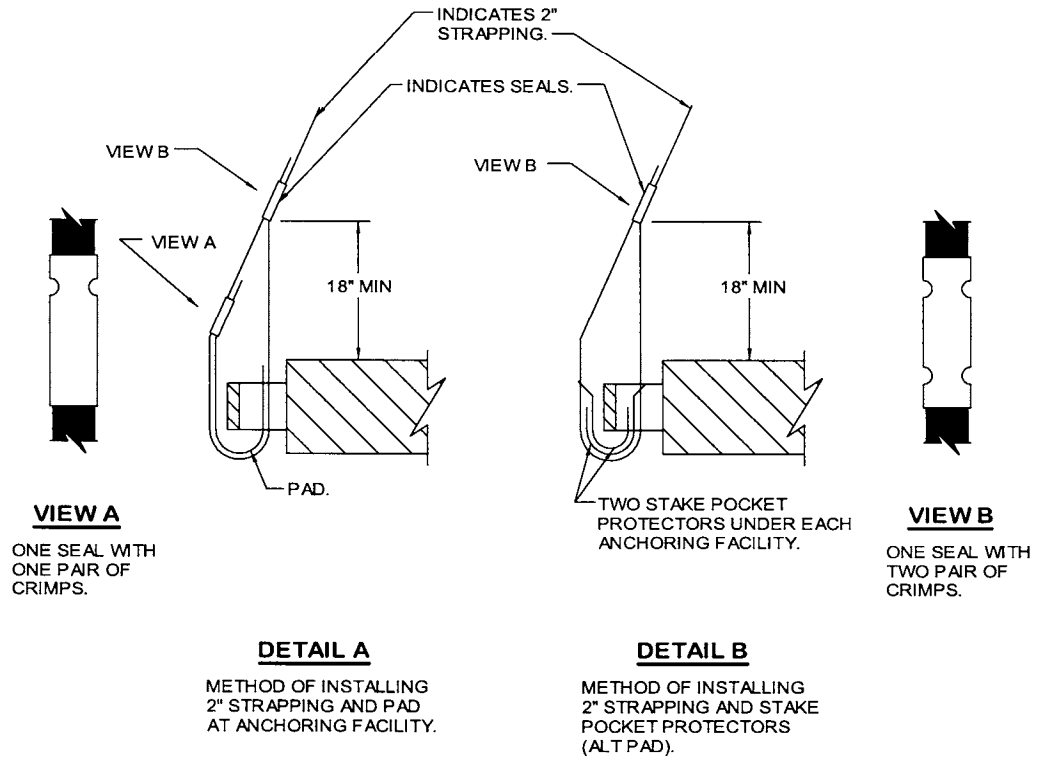


INTERMEDIATE HEADER ASSEMBLY

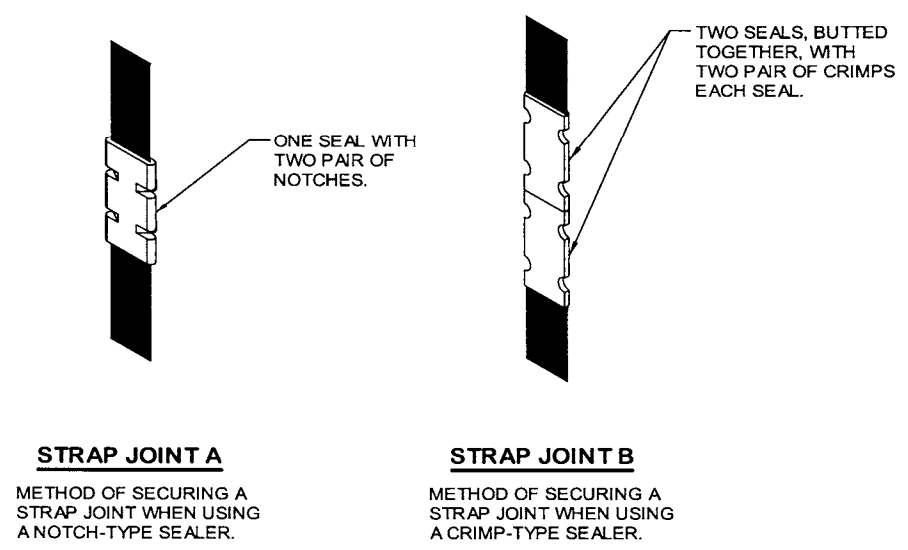
NOTE THAT ONLY A SINGLE THICKNESS BEARING PIECE IS REQUIRED WHEN THE ASSEMBLY ABOVE IS USED FOR THE LOADS AS SHOWN ON PAGES 4 AND 8. WHEN THE ASSEMBLY IS USED FOR THE LOAD AS SHOWN ON PAGE 6, THE BEARING PIECES MUST BE DOUBLED AS SHOWN, TO PROVIDE BETTER ALIGNMENT OF THE BEARING AREA ON THE CONTAINERS WITH THE STAKE POCKETS, WHEN CHAIN TIEDOWNS ARE USED.



ANTI-CHAFING ASSEMBLY



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.