

LOADING AND BRACING IN INTERMODAL CONTAINER FOR FLEET ISSUE UNIT LOADS OF INERT LOADED 500 LB L.D. BOMB, UNITIZED 6 PER METAL PALLET

⊙ CAUTION: THE PROCEDURES SHOWN HEREIN FOR INTERMODAL
CONTAINERS ARE ONLY APPLICABLE FOR HIGHWAY MOVEMENTS;
NOT FOR CONTAINER/TRAILER-ON-FLAT-CAR MOVEMENTS.

DO NOT SCALE

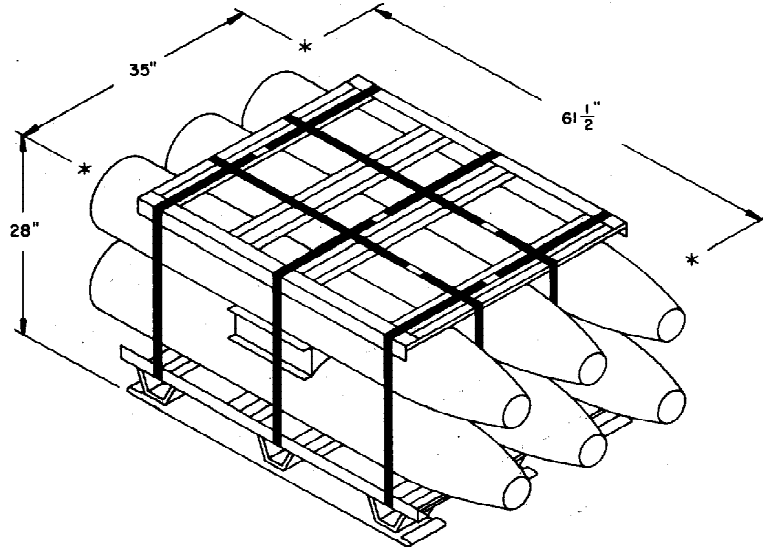
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| APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND | | | | | |
| <i>B. J. [Signature]</i> | | | | | |
| APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIALS COMMAND (AMC) | | | | | |
| <i>William F. Orndt</i> | | | | | |
| U.S. ARMY AMC DRAWING | | | | | |
| MARCH 1986 | | | | | |
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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 LOAD AS SHOWN HEREIN IS BASED ON INTERMODAL CONTAINER WHICH IS 40'-0" LONG BY 7'-6" WIDE.
- C. THE OUTLOADING PROCEDURES CONTAINED HEREIN ARE APPLICABLE TO THE FLEET ISSUE UNIT LOADS OF INERT LOADED 500 LB L.D. BOMB UNITIZED 6 PER METAL PALLET.
- D. FOR DETAIL OF THE PALLET UNIT, SEE THE PALLET UNIT DETAIL ON PAGE 3.
- PALLET UNIT DIMENSIONS --- 35" LONG BY 61-1/2" WIDE BY 28" HIGH.
GROSS WEIGHT ----- 3,159 POUNDS (APPROX).
CUBE ----- 34.8 CUBIC FEET.
- E. 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.
- F. **NOTICE:** A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE. 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 ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- G. **CONVERSION TO METRIC EQUIVALENTS:**
- DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENT MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM, AND ONE POUND EQUALS 0.454KG.
- H. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, ONE SEAL CRIMPED WITH TWO (2) PAIR OF NOTCHES MUST BE USED TO SEAL THE JOINT.
- J. PORTIONS OF THE CONTAINER DEPICTED WITHIN THIS PROCEDURAL DRAWING, SUCH AS ONE OF THE SIDEWALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEW FOR CLARITY PURPOSES.
- K. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS, WHICH ARE IMMEDIATELY ADJACENT TO THE DEPICTED OUTLOADING METHOD.
- L. THE LOAD AS SHOWN WITH THE BOMBS FACING IN THE SAME DIRECTION IS MANDATORY.

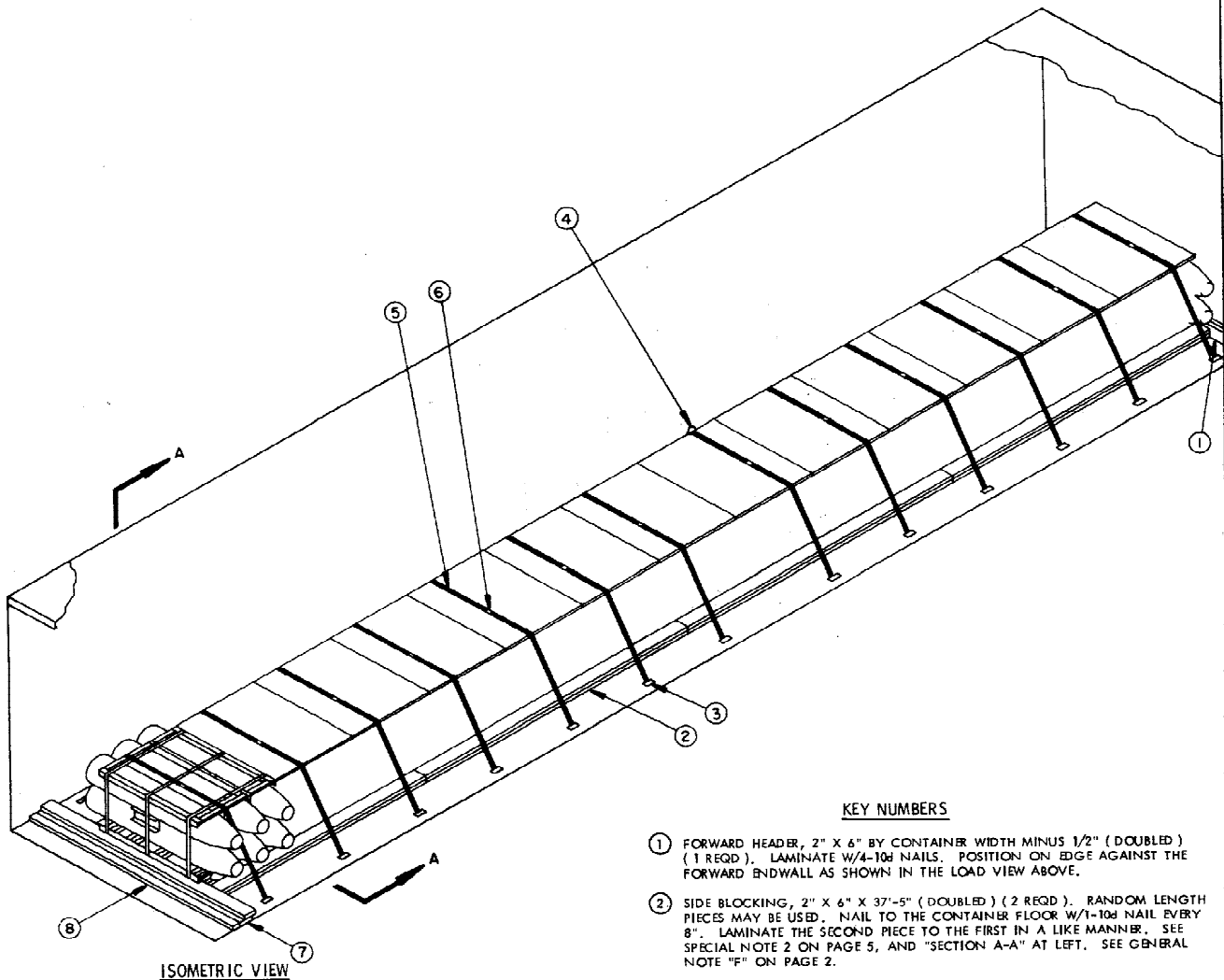
MATERIAL SPECIFICATIONS

- LUMBER** -----: SEE TM 743-200-1, DUNNAGE LUMBER AND FED SPEC MM-L-751.
- NAILS** -----: FED SPEC FF-N-105; COMMON.
- STRAPPING, STEEL** ---: FED SPEC QQ-S-781; CLASS 1, TYPE I OR IV, HEAVY DUTY, FINISH A, B (GRADE 2), OR C.
- SEAL, STRAP** -----: FED SPEC QQ-S-781; TYPE D, STYLE I, II, OR IV, CLASS H, FINISH A, B (GRADE 2) OR C.
- NEUTRAL BARRIER MATERIAL** -----: MIL-B-121 (OR EQUAL).
- STRAP ANCHOR PLATES** -----: NSN 5340-252-3014 FOR (1-1/4" STRAP).
- STRAP ANCHOR PLATE NAILS** -----: SIGNODE MICROLOCK NAIL, NO. 225, 2-1/4" LONG, 7 GAGE (OR EQUAL).



PALLET UNIT

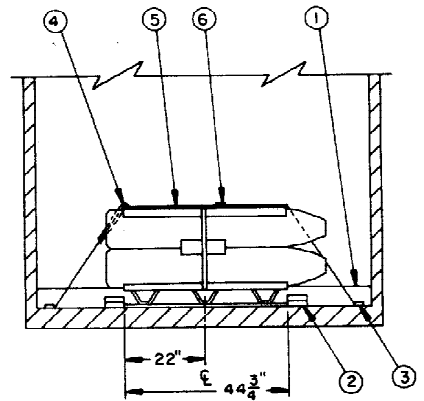
UNIT WEIGHT----- 3,159 LBS. (APPROX.)
CUBE ----- 34.8 CU FT (APPROX.)



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD HEADER, 2" X 6" BY CONTAINER WIDTH MINUS 1/2" (DOUBLED) (1 REQD). LAMINATE W/4-10d NAILS. POSITION ON EDGE AGAINST THE FORWARD ENDWALL AS SHOWN IN THE LOAD VIEW ABOVE.
- ② SIDE BLOCKING, 2" X 6" X 37'-5" (DOUBLED) (2 REQD). RANDOM LENGTH PIECES MAY BE USED. NAIL TO THE CONTAINER FLOOR W/1-10d NAIL EVERY 8". LAMINATE THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 2 ON PAGE 5, AND "SECTION A-A" AT LEFT. SEE GENERAL NOTE "F" ON PAGE 2.
- ③ STRAP ANCHOR PLATE (26 REQD). ATTACH HOLD-DOWN STRAPS TO THE STRAP ANCHOR PLATES, POSITION THE STRAP ANCHOR PLATES AS DESCRIBED IN SPECIAL NOTE 3 ON PAGE 5. NAIL TO THE CONTAINER FLOOR W/5 ANCHOR PLATE NAILS, CONNECT AND TENSION THE STRAPS. SEE THE "STRAP ANCHOR PLATE" DETAIL ON PAGE 6.
- ④ NEUTRAL BARRIER MATERIAL (AS REQD). FORM IN TUBE SHAPE AND THREAD ONTO STRAP PRIOR TO TENSIONING. POSITION BETWEEN BOMBS AND STRAPPING AT ALL POINTS OF CONTACT.
- ⑤ HOLD-DOWN STRAP, 1-1/4" X .035" OR .031" BY 12"-6" LONG STEEL STRAPPING (13 REQD). INSTALL EACH HOLD-DOWN STRAP FROM TWO (2) 6'-0" LONG PIECES.
- ⑥ SEAL FOR 1-1/4" STRAPPING (13 REQD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "H" ON PAGE 2.
- ⑦ REAR HEADER, 2" X 6" BY CONTAINER WIDTH MINUS 1/2" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE CONTAINER FLOOR W/15-10d NAILS (1 EVERY 6"). NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTE 4 ON PAGE 5.
- ⑧ REAR HEADER, 2" X 4" BY CONTAINER WIDTH MINUS 1/2" (1 REQD). NAIL TO THE CONTAINER FLOOR W/1-10d NAIL EVERY 6".



SECTION A-A

SPECIAL NOTES:

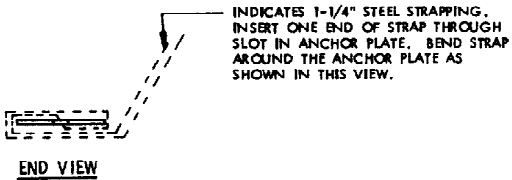
1. A 13-UNIT LOAD IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) INTERMODAL CONTAINER. SEE GENERAL NOTE "L" ON PAGE 2.
2. SIDE BLOCKING SHOWN AS PIECE MARKED ② IN THE LOAD ON PAGE 4 MUST BE PRE-POSITIONED PRIOR TO LOADING THE PALLET UNITS. NOTE THAT THE SIDE BLOCKING UNDER THE BASE END OF THE BOMB WILL BE POSITIONED 22" OFF-CENTER ON THE CONTAINER FLOOR. SEE "SECTION A-A" ON PAGE 4.
3. CAUTION: STRAP ANCHOR PLATES SHOWN AS PIECES MARKED ③ MUST BE POSITIONED ON THE SECOND BOARD FROM THE CONTAINER SIDEWALL, AND MUST BE CENTERED ON THE WIDTH OF THE BOARD AT LEAST SIX INCHES (6") FROM THE END. TO COMPLY WITH THIS REQUIREMENT, A STRAP MAY HAVE TO BE PLACED BETWEEN THE NEXT FORWARD OR NEXT REARWARD BOMB AS APPLICABLE.
4. NOTE THAT THE FIRST PIECE OF THE DOUBLED 2" X 6" HEADER WILL BE POSITIONED AGAINST THE BOTTOM STRINGERS OF THE PALLET, AND THE SECOND PIECE WILL BE OFF-SET TO BEAR AGAINST THE PALLET POSTS AS SHOWN IN THE LOAD VIEW ON PAGE 4.

BILL OF MATERIAL

| LUMBER | LINEAR FEET | BOARD FEET |
|---|-------------|------------|
| 2" X 4" | 8 | 6 |
| 2" X 6" | 181 | 181 |
| NAILS | NO. REQD | POUNDS |
| 10d (3") | 273 | 4-1/4" |
| STEEL STRAPPING, 1-1/4" X .085" OR .091"----- | 156 REQD | 23 LBS |
| SEAL FOR 1-1/4" STRAPPING ----- | 13 REQD | 1/2 LBS |
| STRAP ANCHOR PLATE----- | 26 REQD | 7 LBS |
| ANCHOR PLATE NAIL----- | 130 REQD | 1 LB |

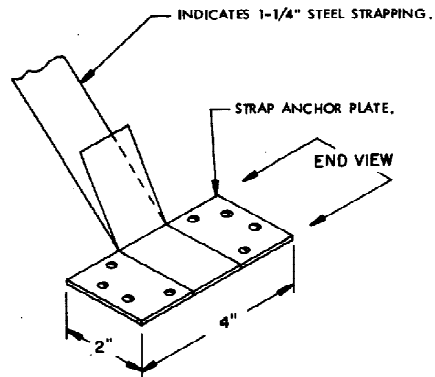
LOAD AS SHOWN

| ITEM | QUANTITY | WEIGHT (APPROX) |
|--------------------|----------|-------------------|
| PALLET UNIT ----- | 13 | 41,067 LBS |
| DUNNAGE ----- | | 410 LBS |
| TOTAL WEIGHT ----- | | 41,477 LBS |



THIS VIEW SHOWS THE CORRECT WAY TO THREAD THE STEEL STRAP THROUGH THE SLOT IN THE STRAP ANCHOR PLATE.

APPLICATION OF STRAPPING TO STRAP ANCHOR PLATE



ISOMETRIC VIEW

THIS VIEW SHOWS THE STRAP ANCHOR PLATE WITH STRAP PRIOR TO NAILING IN POSITION.