BUREAU OF EXPLOSIVES,
A, J. Wassmick

DATE 8//3/28

ALL SYSTEMS

LOADING AND BRACING (TL & LTL) ON FLAT BED TRAILERS OF TYPE I (HALF SIZE) AND TYPE 2 (STANDARD) CARGO TRANSPORTERS (CONEX CONTAINERS) WHEN LOADED WITH MISSILE/ROCKET ASSOCIATED COMMODITIES *

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THIS DRAWING SUPERSEDES USAMC DRAWING 19-48-5742-GM | | 11-16-1.

* THE OUTLOADING PROCEDURES DELINEATED HEREIN ARE APPLICABLE TO THE MOVEMENT OF CONEX CONTAINERS WHICH ARE LOADED WITH ANY RELATIVELY SMALL COMMODITY, WHETHER AMMUNITION OR GROUND SUPPORT EQUIPMENT ORIENTED. HOWEVER, OTHER REGULATIONS / DIRECTIVES APPLY TO SUCH MATTERS AS SELECTION OF ITEM FOR CONEX MOVEMENT, ITEM PACKAGING SPECIFICATIONS AND SO FORTH.

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GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE OUTLOADING PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO THE TYPE I AND TYPE 2 CARGO TRANSPORTERS. BOTH TYPE I AND TYPE 2 TRANSPORTERS MAY BE SHIPPED WITHIN THE SAME LOAD, REFER TO GENERAL NOTE "N" FOR GUIDANCE. SUBSEQUENT REFERENCE TO TYPE I OR TYPE 2 TRANSPORTER HAREIN MEANS THE TYPE I OR TYPE 2 CARGO TRANSPORTER. CAUTION: THE CONTENTS OF A TYPE I OR TYPE 2 TRANSPORTER ARE LIMITED TO NOT MORE THAN 7,800 POUNDS OF LADING EVENLY DISTRIBUTED OVER THE TRANSPORTER FLOOR.
- C. THE LOADS AS SHOWN HEREIN ARE BASED ON FLAT BED TRAILERS 40'-0" LONG BY 8'-0" WIDE HAVING WOOD OR WOOD AND METAL FLOORS. TRAILERS HAVING ALL METAL FLOORS WILL NOT BE USED.
- D. FOR DETAILS OF THE CARGO TRANSPORTER, TYPE I (1/2 SIZE), SEE MILITARY SPECI-FICATION MIL-8-11886 (SEE GENERAL NOTE "Q").

FOR DETAILS OF THE CARGO TRANSPORTER, TYPE 2 (STANDARD), SEE MILITARY SPECIFICATION MIL-8-11886.

- E. SELECTION OF THE VEHICLE TO BE USED TO TRANSPORT GUIDED MISSILE AMMUNITION AND/OR COMPONENTS THEREOF MUST COMPLY WITH AR 55-355, CHAPTER 213, FOR EXPLOSIVES OR OTHER DANGEROUS ARTICLES, IN FULL.
- F. THE GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THE APPLICABLE LOADING REQUIREMENTS AND THE SHIPPER WILL LOAD ACCORDINGLY.
- G. NOTICE: A SHIPMENT WILL BE POSITIONED ON THE TRAILER CONSISTENT WITH STATE LAWS. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS SHOWN HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEM.
- H. THE SPECIFIED OUTLOADING PROCEDURES ARE APPLICABLE FOR THE SHIPMENT OF CARGO TRANSPORTERS LOADED WITH EXPLOSIVE OR NON-EXPLOSIVE ITEMS AND/OR EMPTY CARGO TRANSPORTERS, WHEN CARGO TRANSPORTERS CONTAIN EXPLOSIVE ITEMS, 18" X 32" PLACARD BOARDS MUST BE PROVIDED AS REQUIRED BY LAW AND/OR REGULATION. CAUTION: PLACARD BOARDS AND BOARD MOUNTING BRACKETS MUST NOT BE NAILED TO THE LADING.
- J. LOADING, BLOCKING AND BRACING METHODS SHOWN HEREIN ARE APPROVED FOR HIGH DENSITY, LOW VOLUME MATERIAL INCLUDING DOT CLASS "A" EXPLOSIVES WHICH ARE INTERNALLY BLOCKED AND BRACED INSIDE THE TRANSPORTER IN ACCORDANCE WITH U. S. ARMY MATERIEL COMMAND APPROVED "FILLING" DRAWINGS OF THE 19-48 SERIES, OR APPLICABLE PARAGRAPHS OF DOT REGULATIONS (TARIFF NO. 19 AND SUBSEQUENT ISSUES THEREOF).
- K. OTHER TYPES OF LADING ITEMS MAY BE LOADED ON THE TRAILERS WHICH ARE PARTIALLY LOADED WITH THE DESIGNATED ITEM, PROVIDING THE TOTAL LOAD IS COMPATIBLE, EXISTING DIRECTIVES ARE NOT VIOLATED, AND THE OTHER ITEMS ARE BLOCKED AND BRACED TO EQUAL THE BLOCKING AND BRACING CRITERIA SPECIFIED HEREIN.

(GENERAL NOTES CONTINUED AT RIGHT)

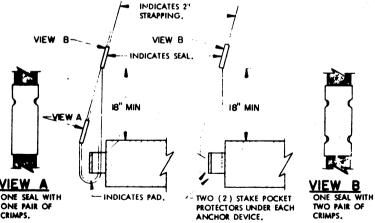
(GENERAL NOTES CONTINUED)

- L. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF TWO (2) SEALS, BUTTED TOGETHER, WITH TWO (2) PAIR OF CRIMPS PER SEAL MUST BE USED TO SEAL THE JOINT.
- M. IF THE STAKE POCKETS AND/OR ANCHOR DEVICES ON A TRAILER ARE NOT PROPERLY LOCATED TO PERMIT SECURING OF THE TWO INCH (2") STRAPPING AS SHOWN, OR IF THE POCKETS AND/OR ANCHOR DEVICES ARE NOT EQUAL TO OR GREATER THAN THE STRENGTH OF THE TIE-DOWN STRAPS, STRAPPING MAY BE APPLIED TO FORM A COMPLETE LOOP WHICH ENCOMPASSES BOTH THE LADING AND THE TRAILER FRAME AND/OR BED. CAUTION: WHEN INSTALLING A TIE-DOWN STRAP WHICH ENCOMPASSES BOTH LADING AND TRAILER FRAME AND/OR BED, AVOID TRAILER WHEELS, FIFTH WHEEL PLATE, CONTROLS, AND OTHER APPURTENANCES. USE EDGE PROTECTORS OR PADS ON ALL SHARP EDGES AS CUSHIONING FOR THE STRAPPING. NOTE: PROVISIONS OF GENERAL NOTE "L" WILL ALSO APPLY.
- N. TYPE I AND 2 CARGO TRANSPORTERS MAY BE SHIPPED ON THE SAME TRAILER. TYPE I TRANSPORTERS MUST BE UNITIZED INTO GROUPS OF TWO WITH TWO 1-1/4" STEEL STRAPS. AN INDIVIDUAL TYPE I TRANSPORTER MUST BE UNITIZED TO AN ADJACENT TYPE I UNITIZED UNIT (SEE DETAIL "D" ON PAGE 6) OR TO A TYPE 2 TRANSPORTER WITH TWO 1-1/4" STEEL STRAPS (SEE DETAIL "F" ON PAGE 6).
- O. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 6" MATERIAL IS ACTUALLY 1-5/8" THICK BY 5-5/8" WIDE.
- P. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR WHEN LAMINATING DUNNAGE. ALSO, THE NAILING PATTERN FOR AN UPPER RICE 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.
- Q. CARGO TRANSPORTERS MANUFACTURED IN COMPLIANCE WITH MILITARY SPECIFICATION MIL-8-21560 MAY BE USED FOR THE TRANSPORTATION OF MILITARY EXPLOSIVES AND HAZARDOUS MUNITIONS AND GROUND SUPPORT EQUIPMENT ITEMS; HOWEVER, THE LIMITATIONS SPECIFIED WITHIN GENERAL NOTE "B" WILL APPLY.

REVISIONS

REVISION NO. 1, DATED 23 JULY 1968, CONSISTS OF:

- 1. CHANGE IN DRAWING TITLE.
- 2. FILE NUMBER CHANGE,
- 3. ADDITION OF WEIGHT LIMITATION FOR TRANSPORTER CONTENTS.
- 4. CHANGE IN MATERIAL SPECIFICATIONS.



MATERIAL SPECIFICATIONS

LUMBER ----- SEE TM 743-200-1, DUNNAGE LUMBER; FED SPEC MM-L-751.

NAILS -----: COMMON, CEMENT COATED OR CHEMICALLY ETCHED,

ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.

STEEL STRAPPING --: TYPE I OR IV, CLASS A OR B OR C, FED SPEC QQ-S-781.
FOR FSN SEE SB-38-100.

STRAP STAPLE, STRAP SEALS, STAKE POCKET PROTECTOR: COMMERCIAL GRADE.

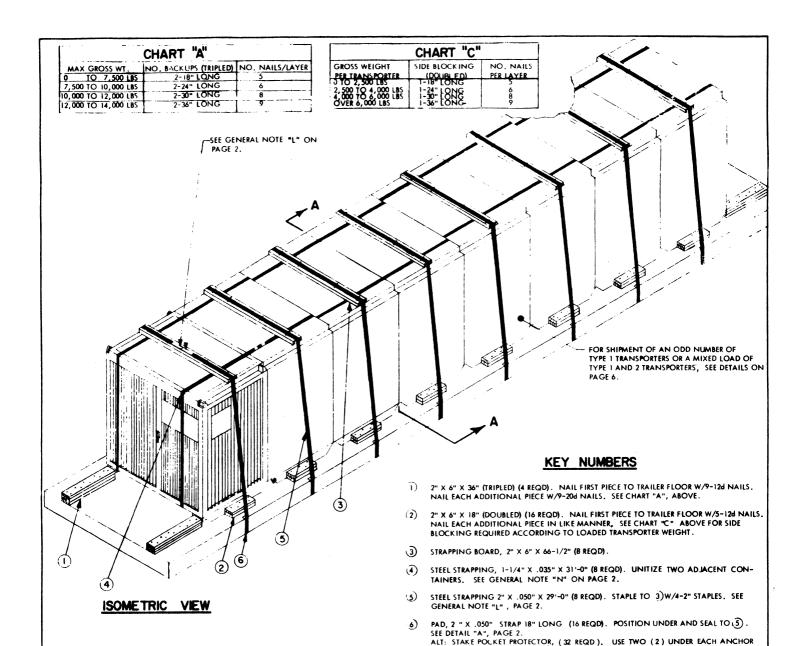
DETAIL A

METHOD FOR INSTALLING 2" STRAPPING AND PAD.

DETAIL B

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

PAGE 2



7'-0" (6)SECTION A-A

 WEIGHT OF TRUCK LOAD SHOWN WAS COMPUTED BY USING 700 POUNDS COMMODITY WEIGHT PER TRANSPORTER. THE NUMBER OF TRANSPORTERS THAT MAY BE SHIPPED PER VEHICLE AND THE GROSS WEIGHT OF THE LOAD WILL DEPEND UPON THE WEIGHT OF THE COMMODITIES BEING SHIPPED. SEE GENERAL NOTES "F" AND "G", PAGE 2. FOR A LOAD GREATER THAN 14,000 POUNDS, USE FLOORLINE BLOCKING METHOD SHOWN ON PAGE 4.

BILL OF MATERIAL				
LUMBER	LINEAR FEET	BOARD FEET		
2" X 6"	129	129		
NAILS	NO. REQD	POUNDS		
12d(3-1/4") 20d(4")	196 72	3-1/4 2-3/4		

STEEL STRAPPING, 1-1/4" X .035" - 248' REQD - 36 LBS STEEL STRAPPING, 2" X .050" - 232' REQD - 78 LBS STAPLES FOR 2" STRAPPING ------- 32 REQD

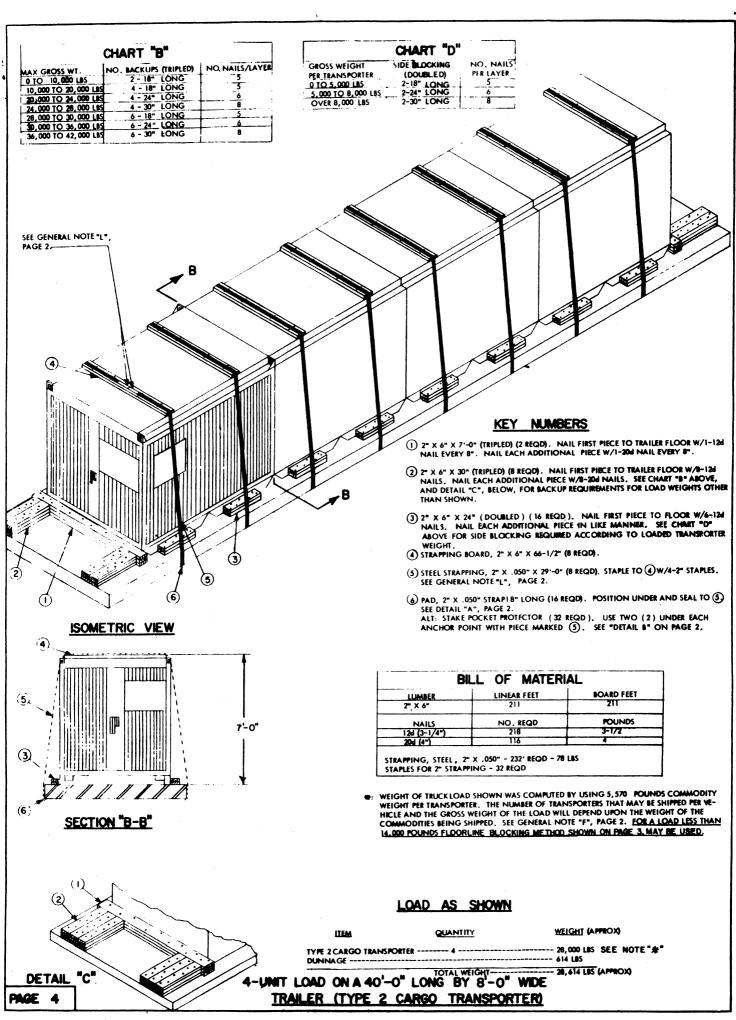
POINT WITH PIECE MARKED 5). SEE "DETAIL B" ON PAGE 2.

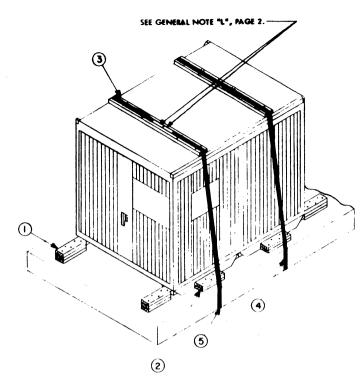
LOAD AS SHOWN

WEIGHT (APPROX) QUANTITY ITEM TYPE I CARGO TRANSPORTER----8 ------ 14,000 LBS SEE NOTE "O"

8-UNIT LOAD ON A 40'-0" LONG BY 8'-0" WIDE TRAILER (TYPE I CARGO TRANSPORTER)

PAGE 3

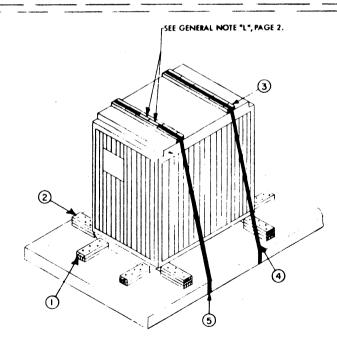




ISOMETRIC VIEW

KEY NUMBERS

- () 2" X 6" X 18" (TRIPLED) (4 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL EACH ADDITIONAL PIECE W/5-20d NAILS.
- (2) 2" X 6" X 18" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST IN LIKE MANNER.
- (3) STRAPPING BOARD, 2" X 6" X 66-1/2" (2 REQD).
- (4) STEEL STRAPPING, 2"X 050"X27'-0" (2 REQD), STAPLE TO (3) W/4-2" STAPLES. SEE GENERAL NOTE "L", PAGE 2.
- (3) PAD, 2" X .050" STRAP 18" LONG (4 REQD). POSITION UNDER AND SEAL TO (4).
 SEE DETAIL "A", PAGE 2.
 ALT: STAKE POCKET PROTECTOR (8 REQD). USE TWO (2) UNDER EACH ANCHOR
 POINT WITH PIECE MARKED (4), SEE "DETAIL 8" ON PAGE 2.



ISOMETRIC VIEW

KEY NUMBERS

-) 2" \times 6" \times 18" (DOUBLED) (4 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL SECOND PIECE TO FIRST W/5-20d NAILS.
- 2 2" X 6" X 18" (TRIPLED) (4 REQD). NAIL FIRST PIECE TO TRAILER FLOOR W/5-12d NAILS. NAIL EACH ADDITIONAL PIECE IN LIKE MANNER.
- 3 STRAPPING BOARD, 2" X 6" X 50-1/2" (2 REQD).
- 4 STEEL STRAPPING, 2" X .050" X 25'-0\(2 \) REQD). STAPLE TO 3W/4-2" STAPLES. SEE GENERAL NOTE "L", PAGE 2.
- ③ PAD, 2" X .050" STRAP 18" LONG (4 REQD). POSITION UNDER AND SEAL TO ♠. SEE DETAIL "A", PAGE 2.

 ALT: STAKE POCKET PROTECTOR (8 REQD). USE TWO (2) UNDER EACH ANCHOR POINT WITH PIECE MARKED ♠, SEE "DETAIL B" ON PAGE 2.

