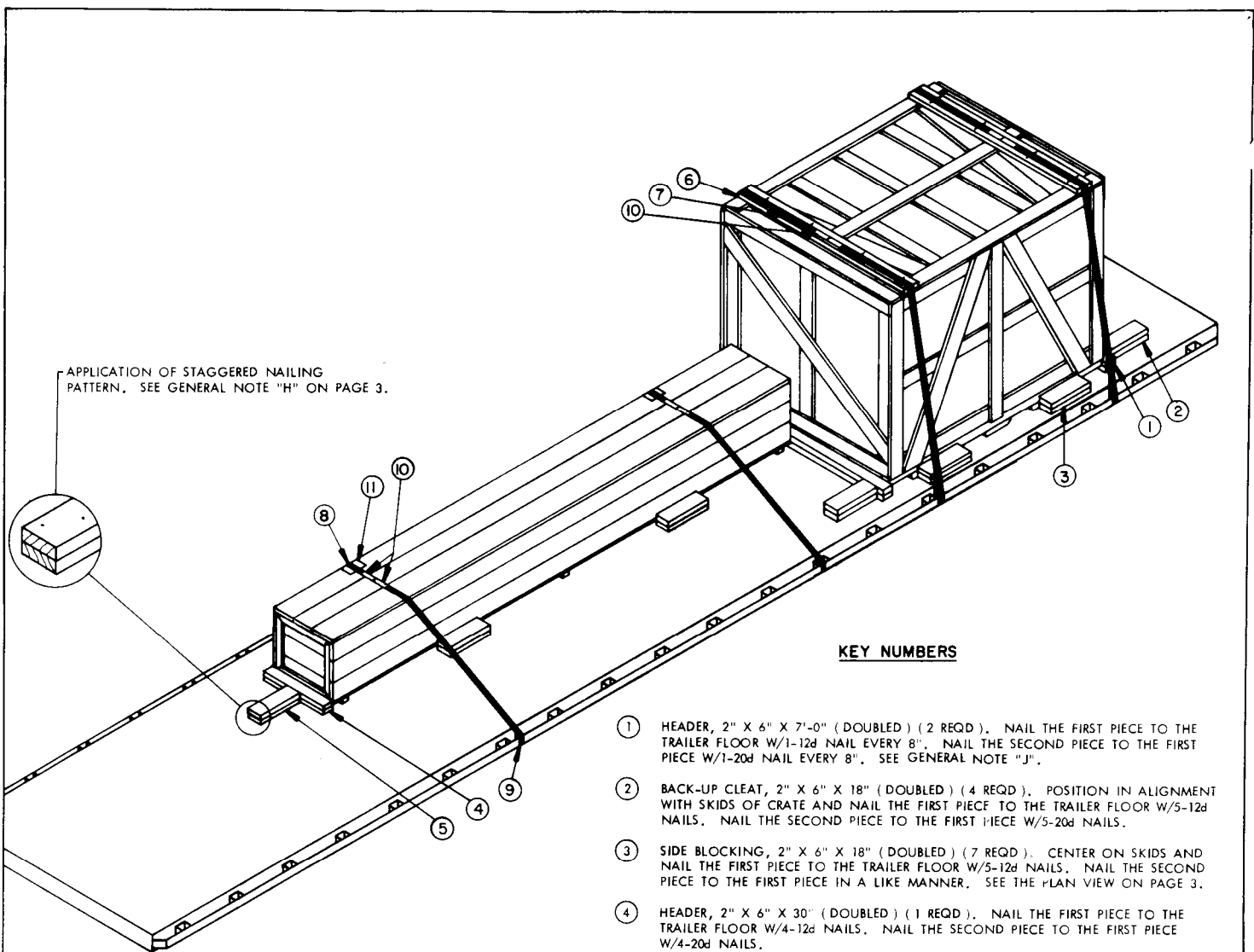


LANCE

LOADING AND BRACING ON FLAT BED TRAILER OF HANDLING UNIT, GUIDED MISSILE, XM39E1

REVISIONS				DRAFTSMAN <i>WLD</i>	PROJ ENG <i>MWD/NEW</i>	ANCPM-LCSM <i>DM</i>
				CHECKED <i>WLD</i>	LOG STORE OFFICE <i>WLD</i>	APPROVED <i>WLD</i>
				<i>Wesley E. Gilleland</i> <small>U. S. ARMY MISSILE COMMAND</small>		
				<small>APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIEL COMMAND</small> <i>W. Ehringer</i> <small>USAMC AMMO CENTER</small>		
U. S. ARMY MATERIEL COMMAND						
OCTOBER 1972						
				CLASS	DIVISION	DRAWING
				19	48	7576
				FILE	GSE 11LC 8	

DO NOT SCALE

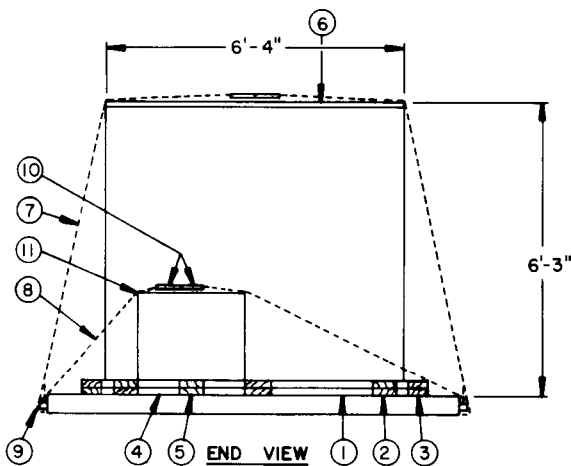


APPLICATION OF STAGGERED NAILING PATTERN. SEE GENERAL NOTE "H" ON PAGE 3.

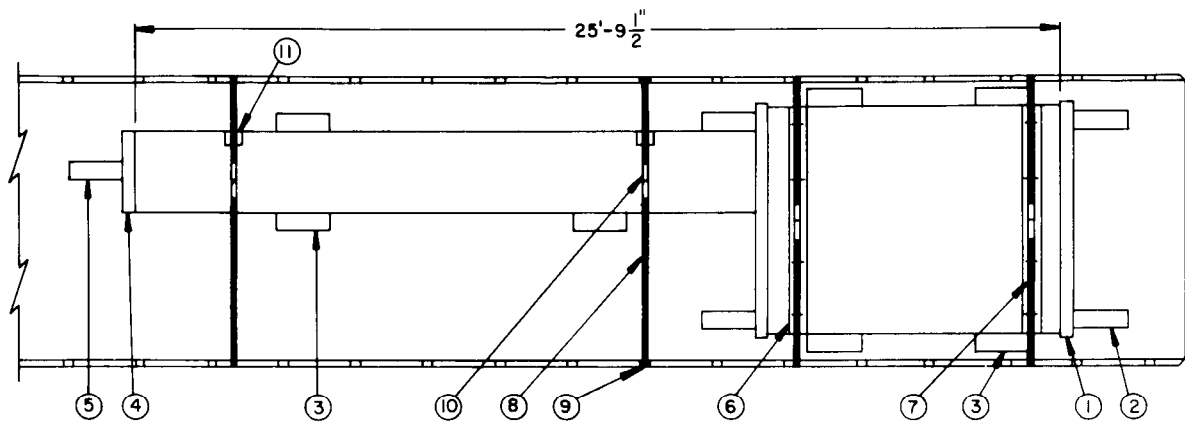
ISOMETRIC VIEW

KEY NUMBERS

- ① HEADER, 2" X 6" X 7'-0" (DOUBLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/1-12d NAIL EVERY 8". NAIL THE SECOND PIECE TO THE FIRST PIECE W/1-20d NAIL EVERY 8". SEE GENERAL NOTE "J".
- ② BACK-UP CLEAT, 2" X 6" X 18" (DOUBLED) (4 REQD). POSITION IN ALIGNMENT WITH SKIDS OF CRATE AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST PIECE W/5-20d NAILS.
- ③ SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (7 REQD). CENTER ON SKIDS AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST PIECE IN A LIKE MANNER. SEE THE PLAN VIEW ON PAGE 3.
- ④ HEADER, 2" X 6" X 30" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST PIECE W/4-20d NAILS.
- ⑤ BACK-UP CLEAT, 2" X 6" X 18" (DOUBLED) (1 REQD). CENTER ON PIECE MARKED ④ AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST PIECE W/5-20d NAILS.
- ⑥ STRAPPING BOARD, 2" X 6" X 6'-4" (2 REQD).
- ⑦ HOLD-DOWN STRAP, 2" X .050" X 30'-0" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO (2) 15'-0" LONG PIECES. STAPLE TO PIECE MARKED ⑥ W/4-2" STAPLES. SEE THE "SPECIAL PROVISIONS" ON PAGE 4.
- ⑧ HOLD-DOWN STRAP, 2" X .050" X 19'-0" LONG STEEL STRAPPING (2 REQD). STRAP MAY BE INSTALLED FROM ONE PIECE IN LIEU OF TWO AS SHOWN.
- ⑨ PAD, 2" X .050" STEEL STRAPPING 18" LONG (8 REQD). POSITION UNDER AND SEAL TO A PIECE MARKED ⑦ OR ⑧. SEE "DETAIL A" ON PAGE 4. ALT: STAKE POCKET PROTECTOR (16 REQD). USE TWO (2) UNDER EACH ANCHORING FACILITY WITH A PIECE MARKED ⑦ OR ⑧. SEE "DETAIL B" ON PAGE 4.
- ⑩ SEAL FOR 2" STRAPPING (24 REQD, 6 PER STRAP). EXCEPT FOR THE SEALS USED TO SECURE THE PADS, DOUBLE CRIMP EACH SEAL. SEE GENERAL NOTE "K".
- ⑪ EDGE PROTECTOR FOR 2" STRAPPING (2 REQD). POSITION UNDER PIECES MARKED ⑧ AS SHOWN.



END VIEW



PLAN VIEW

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13.
- B. THE LOAD AS SHOWN IS BASED ON A FLAT BED TRAILER 8'-0" WIDE WITH A WOOD OR A WOOD AND METAL FLOOR. TRAILERS WITH ALL METAL FLOORS WILL NOT BE USED. ONLY ONE UNIT OF LADING (IN TWO (2) PACKAGES) IS SHOWN; HOWEVER, MULTIPLES OF UNITS, AS SHOWN OR DISSIMILAR IN NATURE, MAY BE LOADED ON A TRAILER. THE NUMBER OF UNITS TO BE LOADED ON A TRAILER WILL BE DEPENDENT ON THE SIZE OF THE TRAILER USED OR THE QUANTITIES OF UNITS TO BE SHIPPED, WITH THE VIEW OF FULL UTILIZATION OF CARRIER EQUIPMENT.
- C. ONLY TRAILERS CAPABLE OF SAFELY TRANSPORTING THE LADING TO DESTINATION WITHOUT DAMAGE WILL BE SELECTED. TRAILERS SELECTED MUST HAVE "SOUND" FLOORS WHICH PROVIDE NAIL RETENTION PROPERTIES EQUAL TO OR BETTER THAN SPECIFIED DUNNAGE LUMBER, AND A SUFFICIENT NUMBER OF ANCHORING FACILITIES OF A STRENGTH EQUAL TO OR BETTER THAN SPECIFIED LADING TIE DOWN ASSEMBLIES. SEE PROVISIONS OF GENERAL NOTE "F" BELOW.
- D. SHIPMENT GROSS WEIGHT, AXLE DISTRIBUTION OF LADING WEIGHT AND OVERALL DIMENSIONS MUST MEET STATE LAW REQUIREMENTS.
- E. LADING DATA:

ITEM	WEIGHT (APPROX)	DIMENSIONS
BASE ASSEMBLY (CRATED)	1,298 LBS	8'-1" LONG X 6'-4" WIDE X 6'-1" HIGH.
BOOM ASSEMBLY (BOXED)	843 LBS	17'-3" LONG X 26" WIDE X 22" HIGH.

- F. IF THE STAKE POCKETS AND/OR ANCHOR DEVICES ON A TRAILER ARE NOT PROPERLY LOCATED TO PERMIT SECURING OF THE TWO INCH (2") STEEL STRAPPING AS SHOWN, OR IF THE POCKETS AND/OR ANCHOR DEVICES ARE NOT EQUAL TO OR GREATER THAN THE STRENGTH OF THE 2" 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, WIRING AND APPURTENANCES; AND USE PADS ON ALL SHARP EDGES AS CUSHIONING FOR THE STRAPPING. **NOTE:** PROVISIONS OF GENERAL NOTE "K" BELOW WILL ALSO APPLY.
- G. SEE THE "SPECIAL PROVISIONS" ON PAGE 4 FOR SPECIFICATIONS WHICH MUST BE APPLIED IF CHAINS AND LOAD BINDERS ARE USED.
- H. 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 OR 1-5/8" THICK BY 5-5/8" WIDE.
- J. **NOTICE:** A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR WHEN LAMINATING DUNNAGE. 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.
- K. WHEN ANY STRAP 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.

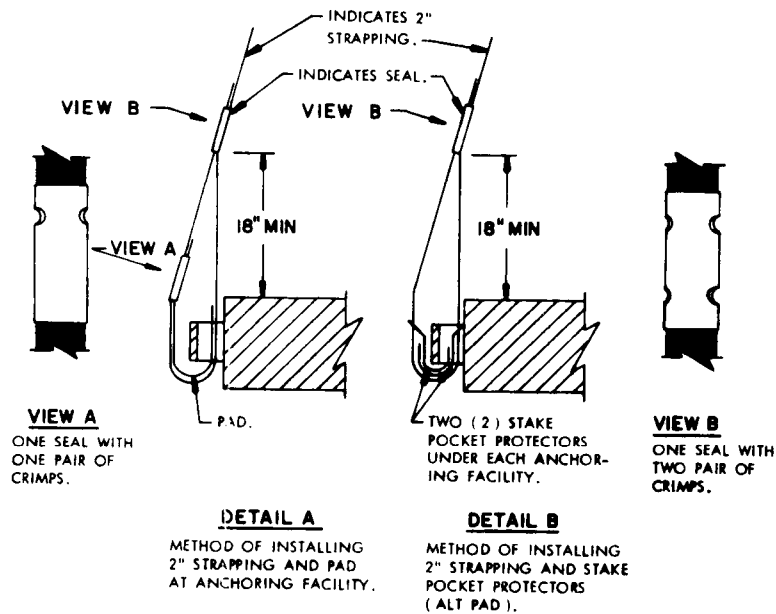
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 6"	82	82
NAILS	NO. REQD	POUNDS
12d (3-1/4")	119	2
20d (4")	49	1-3/4
STEEL STRAPPING, 2" X .050"	110' REQD	37 LBS
SEAL FOR 2" STRAPPING	24 REQD	5 LBS
STAPLE FOR 2" STRAPPING	8 REQD	NIL
EDGE PROTECTOR	2 REQD	NIL

MATERIAL SPECIFICATIONS

- LUMBER** -----: DOUGLAS FIR OR COMPARABLE LUMBER WITH STRAIGHT GRAIN AND FREE OF MATERIAL DEFECTS. REF: FED SPEC MM-L-751.
- NAILS**-----: COMMON, CEMENT COATED OR CHEMICALLY ETCHED. REF: FED SPEC FF-N-105. ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
- STRAPPING, STEEL**: TYPE I, CLASS A, B, OR C. REF: FED SPEC QQ-5-781. (FOR FSN, SEE SB-38-100)
- STRAP SEAL; STRAP STAPLE; STAKE POCKET PROTECTOR; EDGE PROTECTOR**-----: COMMERCIAL GRADE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
HANDLING UNIT	1	2,141 LBS
(IN 2 PACKAGES)		
DUNNAGE		251 LBS
TOTAL WEIGHT		2,392 LBS



SPECIAL PROVISIONS:

LADING MAY BE SECURED BY CARRIER-OWNED CHAINS AND LOAD BINDERS IN LIEU OF SPECIFIED HOLD-DOWN STRAPPING DUNNAGE MATERIALS, PROVIDING THE FOLLOWING CONDITIONS ARE MET:

1. ONLY CHAINS AND LOAD BINDERS OF GOOD QUALITY SHOULD BE USED. CAUTION: EXTREME CARE MUST BE USED IN TENSIONING CHAINS TO PREVENT DAMAGE TO THE LADING.
2. IN LIEU OF EACH HOLD-DOWN STRAP MARKED (7), ONE (1) LINE OF 1/4" CHAIN MAY BE USED. THE STRAPPING BOARD MARKED (6) MUST BE DOUBLED AND LAMINATED W/1-10d NAIL EVERY 12". EACH CHAIN SHALL BE SECURED TO THE LAMINATED BOARDS W/4-20d NAILS BY DRIVING EACH NAIL INTO THE BOARD THRU AN OPENING IN A CHAIN LINK AND BENDING IT OVER THE LINK.
3. ONE (1) LINE OF 1/4" CHAIN MAY BE SUBSTITUTED FOR EACH HOLD-DOWN STRAP MARKED (8). AT EACH SIDE OF THE CONTAINER, IN LIEU OF USING EDGE PROTECTORS, A 12" LONG "L" SHAPED CAP ASSEMBLY MUST BE USED UNDER THE CHAIN. FABRICATE EACH CAP BY NAILING A 2" X 2" PIECE TO THE SIDE OF A 2" X 4" PIECE. SECURE A CHAIN TO A CAP BY DRIVING A 20d NAIL INTO THE CAP THRU AN OPENING IN A CHAIN LINK AND BENDING IT OVER THE LINK. CAUTION: DO NOT DRIVE NAILS INTO THE CONTAINER.
4. IF DESIRED, CHAINS OF A LARGER SIZE THAN SPECIFIED ABOVE MAY BE USED.
5. BEFORE AND DURING INSTALLATION, THE CHAINS AND LOAD BINDERS SHALL BE INSPECTED FOR BENT HOOKS, STRETCH, GOUGES, BENT LINKS, WEAR, AND ANY OTHER NOTICEABLE DEFECTS. ANY DEFICIENCY SHALL BE CAUSE FOR REJECTION OF A CHAIN OR LOAD BINDER. CHAINS MUST NOT BE TWISTED DURING INSTALLATION.
6. THE TENSIONING DEVICE OF EACH LOAD BINDER MUST BE SAFETY-WIRE TIED TO PREVENT ACCIDENTAL OPENING OR LOOSENING IN TRANSIT.