

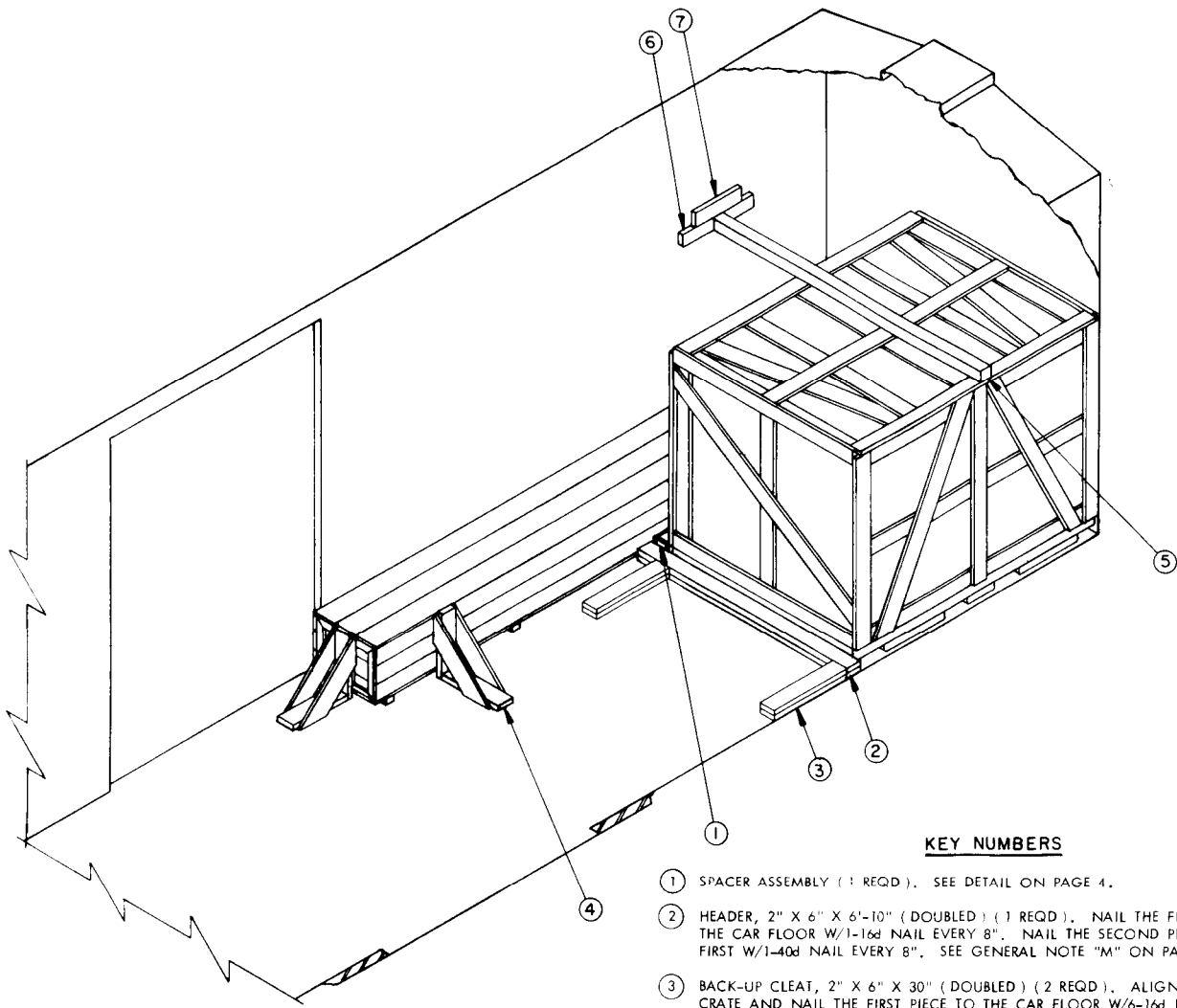


LANCE

LOADING AND BRACING IN BOX CAR OF HANDLING UNIT, GUIDED MISSILE, XM39E1

REVISIONS				DRAFTER	PROJECT	AMCPM - CSM
				<i>WAG/mrt</i>	<i>mwp/lew</i>	<i>pen</i>
				<i>rsb</i>	<i>John Boyd</i>	<i>MS</i>
				<small>APPROVED</small>  <small>Wesley E. Gilliland</small> <small>U. S. ARMY MISSILE COMMAND</small>		
				<small>APPROVED BY ORDER OF COMMANDING GENERAL</small> <small>U. S. ARMY MATERIEL COMMAND</small>  <small>John A. Boyd</small> <small>USAMC AMMO CENTER</small>		
				<small>U. S. ARMY MATERIEL COMMAND</small>		
				<small>OCTOBER 1972</small>		
				CLASS	DIVISION	DRAWING
				19	48	7803
						GSE 5LC15

DO NOT SCALE



ISOMETRIC VIEW

KEY NUMBERS

- ① SPACER ASSEMBLY (1 REQD). SEE DETAIL ON PAGE 4.
- ② HEADER, 2" X 6" X 6'-10" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE CAR FLOOR W/1-16d NAIL EVERY 8". NAIL THE SECOND PIECE TO THE FIRST W/1-40d NAIL EVERY 8". SEE GENERAL NOTE "M" ON PAGE 3.
- ③ BACK-UP CLEAT, 2" X 6" X 30" (DOUBLED) (2 REQD). ALIGN WITH SKID OF CRATE AND NAIL THE FIRST PIECE TO THE CAR FLOOR W/6-16d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/6-40d NAILS.
- ④ LCL BRACE (2 REQD). SEE DETAIL ON PAGE 4. POSITION AS SHOWN AND NAIL TO THE CAR FLOOR W/9-16d NAILS. NOTE THAT A CONTAINER-HOLD-DOWN CLEAT IS REQUIRED ON THE END BLOCKING BRACE.
- ⑤ CRATE HOLD-DOWN, 4" X 4" BY CAR WIDTH (1 REQD).
- ⑥ POCKET CLEAT, 2" X 4" X 12" (4 REQD). POSITION AS SHOWN AND NAIL TO THE CAR SIDEWALL W/3-12d NAILS.
- ⑦ HOLD-DOWN CLEAT, 2" X 4" X 24" (2 REQD). CENTER ABOVE PIECE MARKED ⑤ AND NAIL TO THE CAR SIDEWALL W/5-12d NAILS.

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13.
- B. THE OUTLOADING PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO THE BASE ASSEMBLY AND BOOM ASSEMBLY OF THE HANDLING UNIT, GUIDED MISSILE, XM39E1 WHEN PACKED IN THE WOODEN CRATE AND WOODEN BOX RESPECTIVELY.
- C. LADING DATA:
 - BASE ASSEMBLY (CRATED) ----- 8'-1" LONG X 6'-4" WIDE X 6'-1" HIGH.
 - GROSS WEIGHT ----- 1,298 POUNDS (APPROX).
 - BOOM ASSEMBLY (BOXED) ----- 17'-3" LONG X 26" WIDE X 22" HIGH.
 - GROSS WEIGHT ----- 843 POUNDS (APPROX).
- D. THE LOAD AS SHOWN IS BASED ON A 40'-6" LONG BY 9'-2" WIDE CONVENTIONAL BOX CAR WITH A WOOD OR NAILABLE METAL FLOOR AND HAVING 7'-0" WIDE DOORS OF THE CONVENTIONAL SLIDING TYPE. A 7'-0" WIDE DOOR OPENING IS THE MINIMUM WIDTH OPENING THAT WILL PERMIT LOADING THE DESIGNATED ITEM. ALL-METAL CARS CANNOT BE USED.
- E. LONGER CARS, OR WIDER OR NARROWER CARS CAN BE USED; HOWEVER, AN 8'-7" WIDE CAR IS THE MINIMUM WIDTH CAR THAT CAN BE USED FOR SHIPMENT OF THE DEPICTED LOAD.
- F. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE TO CARS WHICH ARE EQUIPPED WITH PLUG DOORS. **CAUTION:** DUNNAGE MATERIAL MUST NOT BE NAILED TO ANY PLUG DOOR, WHETHER AUXILIARY OR MAIN, EXCEPT TO A NAILING STRIP FOR SECURING SUCH ITEMS AS HOLD-DOWN DUNNAGE, IF A CAR IS SO EQUIPPED. ALSO, AFTER THE PLUG DOORS ON A CAR ARE CLOSED AND READY FOR THE INSTALLATION OF "CAR SEALS", A PIECE OF WIRE OF SUITABLE SIZE WILL BE USED IN ADDITION TO, AND IN CONJUNCTION WITH, EACH CAR SEAL USED TO "SEAL" THE CAR. THE WIRE WILL BE THREADED THROUGH THE HOLES IN THE DOOR LATCH ASSEMBLY ONE OR MORE TIMES, AND THE WIRE ENDS WILL BE TWISTED TOGETHER.
- G. THE SELECTION OF RAIL CARS FOR THE TRANSPORT OF THE DESIGNATED ITEM IS THE RESPONSIBILITY OF THE SHIPPER. ONLY CARS WHICH HAVE "SOUND" FLOORS/WALLS AND ARE IN OTHERWISE PROPER CONDITION TO SAFELY TRANSPORT THE LADING TO DESTINATION WITHOUT DAMAGE WILL BE SELECTED.
- H. **NOTICE:** A SHIPMENT WILL BE POSITIONED IN THE CAR IN COMPLIANCE WITH THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE AAR. THE APPROVED BLOCKING, BRACING, AND STAYING METHODS FOR THE LOAD SPECIFIED MUST BE FOLLOWED. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE CAR TO BE LOADED, OR THE QUANTITY TO BE SHIPPED. FOR A LOAD QUANTITY OTHER THAN SPECIFIED, THE APPROVED METHODS MUST BE FOLLOWED AS CLOSELY AS POSSIBLE.
- J. OTHER TYPES OF LADING ITEMS MAY BE LOADED IN A CAR 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.
- K. IF THE CAR BEING LOADED IS EQUIPPED WITH A NAILABLE METAL FLOOR AND A NAIL SIZE FOR FLOOR NAILING IS MARKED ON THE SIDE WALL OF THE CAR, THAT GUIDANCE SHOULD BE APPLIED TO THE NAILING OF THE FLOOR DUNNAGE. IF A NAIL SIZE IS NOT SPECIFIED IN THE CAR, 30d NAILS SHOULD BE USED IN LIEU OF THOSE SPECIFIED IN THE KEY NUMBERS.
- L. 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.
- M. **NOTICE:** 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. 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.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	16	6
1" X 6"	13	7
2" X 4"	10	7
2" X 6"	32	32
4" X 4"	10	14
NAILS	NO. REQD	POUNDS
6d (2")	17	1/4
8d (2-1/2")	24	1/4
12d (3-1/4")	22	1/2
16d (3-1/2")	44	1
40d (5")	22	1-1/4

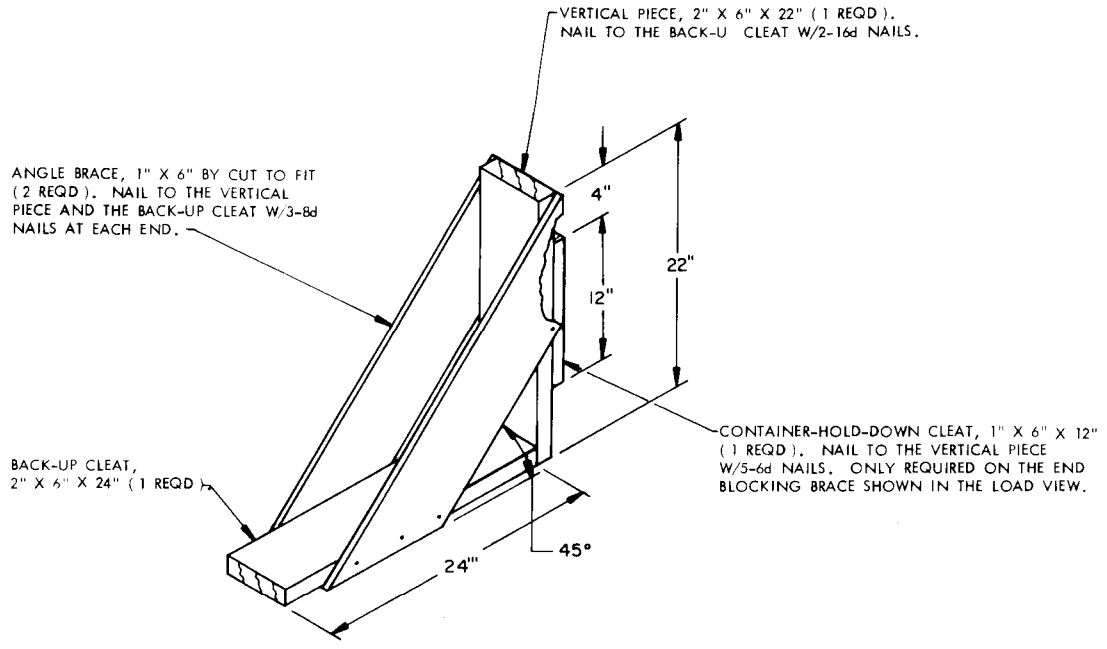
MATERIAL SPECIFICATIONS

LUMBER: DOUGLAS FIR OR COMPARABLE LUMBER WITH STRAIGHT GRAIN AND FREE OF MATERIAL DEFECTS. REF: FED SPEC MM-L-751.

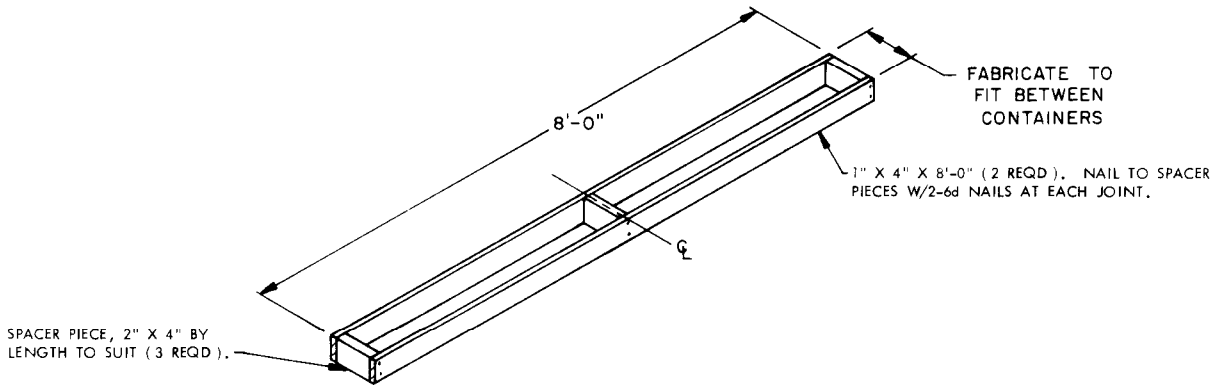
NAILS--: COMMON, CEMENT COATED OR CHEMICALLY ETCHED, REF: FED SPEC FF-N-105.
ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
HANDLING UNIT (IN 2 PACKAGES) -----	1 -----	2,141 LBS
DUNNAGE -----		168 LBS
TOTAL WEIGHT -----		2,309 LBS



LCL BRACE



SPACER ASSEMBLY