
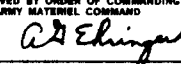


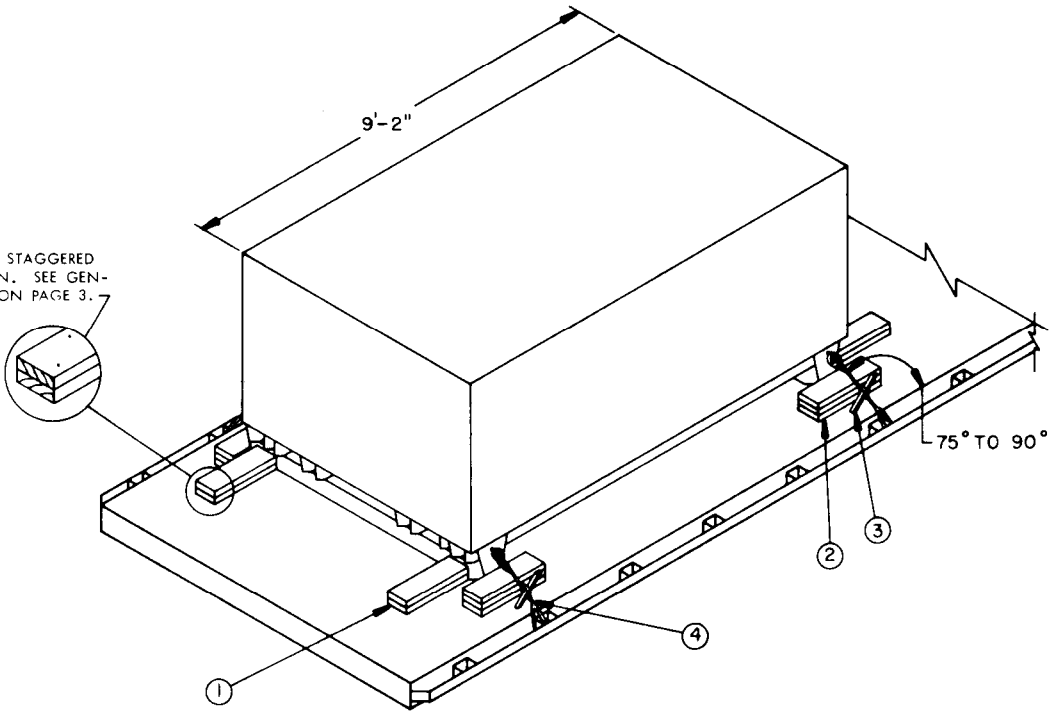
LANCE

LOADING AND BRACING ON FLAT BED OR "LOW-BOY" TRAILER OF PALLETIZED PROPELLANT DRAINING KIT

REVISIONS				DRAFTSMAN <i>WJC/QR</i>	PROJ. ENG. <i>TOC/MSW</i>	AMCPM-LESI <i>MSW/TS</i>
				CHECKER <i>WJR/JDS</i>	LOG. ENGRG. OFFICER <i>John Sp</i>	ANSMI-SP <i>JPP</i>
				APPROVED  U. S. ARMY MISSILE COMMAND		
				APPROVED BY ORDER OF COMMANDING GENERAL U. S. ARMY MATERIEL COMMAND  USAMC AMMO CENTER		
				U. S. ARMY MATERIEL COMMAND JULY 1973		
				CLASS	DIVISION	DRAWING
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DO NOT SCALE

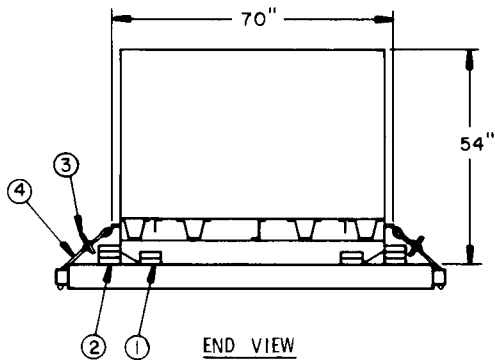
APPLICATION OF STAGGERED
NAILING PATTERN. SEE GEN-
ERAL NOTE "K" ON PAGE 3.



ISOMETRIC VIEW

KEY NUMBERS

- ① BACK-UP CLEAT, 2" X 6" X 18" (DOUBLED) (4 REQD). POSITION AGAINST THE PALLET SKID AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-12d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/5-20d NAILS. SEE GENERAL NOTE "K" ON PAGE 3.
- ② SIDE BLOCKING, 2" X 6" X 18" (TRIPLED) (4 REQD). ALIGN WITH THE PALLET SKID AND NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-12d NAILS. NAIL EACH ADDITIONAL PIECE IN A LIKE MANNER.
- ③ WIRE TWISTER, 2" X 2" BY A LENGTH TO SUIT (4 REQD). SEE GENERAL NOTE "F" ON PAGE 3.
- ④ EIGHT (8) STRANDS OF NO. 8 GAGE BLACK ANNEALED WIRE (4 REQD). INSTALL WIRE TO FORM A COMPLETE LOOP FROM A TIE DOWN FACILITY ON THE TRANSPORTER THRU THE LADING TIE DOWN DEVICE AND BACK TO THE TRANSPORTER TIE DOWN FACILITY. TWIST TAUT WITH PIECE MARKED ③. SEE GENERAL NOTE "F" AND "LADING SECUREMENT" DETAIL ON PAGE 3.



END VIEW

SPECIAL PROVISIONS:

LADING MAY BE SECURED BY CARRIER-OWNED CHAINS AND LOAD BINDERS IN LIEU OF SPECIFIED STRANDED ANNEALED WIRE TIE DOWN 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 OR DEFORMATION OF THE LADING TIE DOWN DEVICES.
2. ONE (1) LINE OF 1/4" CHAIN MAY BE SUBSTITUTED FOR EACH STRANDED WIRE TIE DOWN MARKED (4). INSTALL CHAIN FROM A TIE DOWN FACILITY ON THE TRANSPORTER THROUGH THE LADING TIE DOWN DEVICE AND BACK TO A TIE DOWN FACILITY ON THE TRANSPORTER. **NOTE:** EACH CHAIN TIE DOWN MUST BE INSTALLED SO THAT BOTH LEGS ARE AT SIMILAR ANGLES.
3. IF DESIRED, CHAINS OF A LARGER SIZE THAN SPECIFIED ABOVE MAY BE USED.
4. 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.
5. THE TENSIONING DEVICE OF EACH LOAD BINDER MUST BE SAFETY WIRE TIED TO PREVENT ACCIDENTAL OPENING OR LOOSENING IN TRANSIT.
6. ANTI-CHAFING MATERIAL MUST BE PLACED AND SECURED BETWEEN CHAINS AND LADING AT ALL POINTS OF CONTACT, EXCEPT AT DEFINITIVE TIE DOWN POINTS.

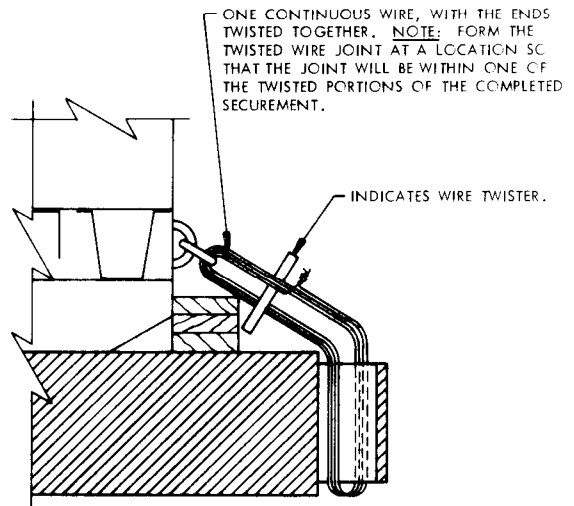
GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13.
- B. THE LOAD AS SHOWN IS BASED ON AN 8'-0" WIDE FLAT BED OR "LOW-BOY" TRAILER WITH A WOOD OR A WOOD AND METAL FLOOR. ONLY ONE UNIT OF LADING 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 TO BE USED OR THE QUANTITIES OF UNITS TO BE SHIPPED, WITH THE VIEW OF FULL UTILIZATION OF THE 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 THE SPECIFIED LUMBER, AND A SUFFICIENT NUMBER OF TIE DOWN FACILITIES OF A STRENGTH EQUAL TO OR BETTER THAN SPECIFIED LADING TIE DOWN ASSEMBLIES.
- D. SHIPMENT GROSS WEIGHT, AXLE DISTRIBUTION OF THE LADING WEIGHT AND OVERALL DIMENSIONS MUST MEET STATE LAW REQUIREMENTS.
- E. LADING DATA:
 ITEM DIMENSIONS ----- 9'-2" LONG X 5'-10" WIDE X 4'-6" HIGH.
 ITEM GROSS WEIGHT ----- 2,660 POUNDS (APPROX).
- F. REFER TO ORD DWG 19-48-C-ORDJU-588, "WIRE ROPE AND ANNEALED WIRE APPLICATION METHODS FOR SECURING LADING ON RAIL & MOTOR CARRIER EQUIP", FOR PROPER TIE DOWN APPLICATION.
- G. **CAUTION:** IT IS RECOMMENDED THAT THE TWISTED WIRE TIE DOWNS BE INSTALLED TO APPROXIMATE THE ANGLE SHOWN; HOWEVER, IF PLACEMENT OF TRANSPORTER TIE DOWN FACILITIES PREVENTS THIS, CARE MUST BE EXERCISED TO ENSURE THAT THE TIE DOWNS ON THE SAME SIDE OF THE LADING ARE INSTALLED SO THEIR RETENTION FORCES ACT IN OPPOSITE LONGITUDINAL DIRECTIONS.
- H. SEE "SPECIAL PROVISIONS" AT THE UPPER LEFT FOR SPECIFICATIONS WHICH MUST BE APPLIED IF CHAINS AND LOAD BINDERS ARE USED.
- J. DUNNAGE LUMBER SPECIFIED THROUGH OUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 2" MATERIAL IS ACTUALLY 1-1/2" THICK BY 1-1/2" WIDE OR 1-5/8" THICK BY 1-5/8" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" OR 1-5/8" THICK BY 5-5/8" WIDE.
- K. **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.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 2"	3	1
2" X 6"	30	30
NAILS	NO. REQD	POUNDS
12d (3-1/4")	84	1-1/2
20d (4")	24	1
WIRE, NO. 8 GAGE ----- 80' REQD ----- 7-1/2 LBS		

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.
- WIRE ----- : ANNEALED; BLACK. REF: FED SPEC QQ-W-461.



LADING SECUREMENT

AN EIGHT (8) STRAND INSTALLATION OF NO. 8 GAGE BLACK ANNEALED WIRE IS SHOWN, PASSED THRU THE LADING TIE DOWN DEVICE AND THE TRANSPORTER TIE DOWN FACILITY TO FORM A COMPLETE LOOP, AND READY TO BE TWISTED TAUT WITH A WIRE TWISTER.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
DRAINING KIT -----	1	2,660 LBS
DUNNAGE -----		87 LBS
TOTAL WEIGHT -----		2,747 LBS