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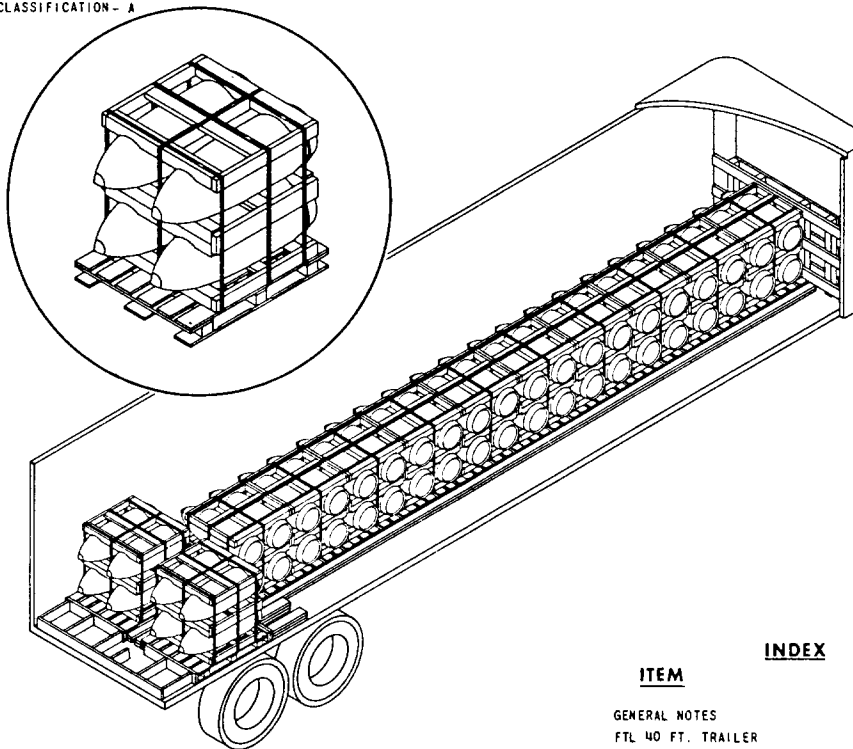
Naval Ordnance Systems Command
Department of the Navy

WR-51/39
12 July 1967

WEAPONS REQUIREMENT, TRUCKLOADING
BOMB, DEMOLITION, 750 LB., M117A1

UNIT LOAD DATA

WEIGHT OF UNIT LOAD - 3230 LBS.
DIMENSIONS - 51 L x 40 W x 42 3/4 H
CUBE - 50.5 CU. FT.
I.C.C. HAZARD CLASSIFICATION - A



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FTL 40 FT. TRAILER		2 & 3
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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

52/77	CARLOADING				
53/705	PALLETIZING				
WR NO.	ASSOCIATED PROCESS	REV LTR	REVISION DESCRIPTION	DATE	TOA SYSCOM APPROVAL
<p>AUTHORIZED AND RELEASED FOR GENERAL USE</p>		<p>ORIGINATOR <u>C.P. Troutman</u> 11/21/66 SIGNATURE</p>			
		<p>NAVAL WEAPONS HANDLING LABORATORY U.S.N.A.D. EARLE, NEW JERSEY</p>			
<p><u>J.E. Kelly</u> NWBK 11/24/66 SIGNATURE TECHNICAL DIRECTING ACTIVITY (TDA) DATE</p>		<p>PAGE 1 OF 4</p>			
<p><u>R.E. Albrecht</u> AIR 53442 2/17/67 SIGNATURE (AIR) SYSCOM, BY DIRECTION DATE</p>					

GENERAL NOTES

1. THIS DOCUMENT PROVIDES DETAILED TRUCKLOADING INSTRUCTIONS FOR SHIPMENT OF 750 LB. DEMOLITION BOMBS, M 117A1, WHEN THE BOMBS ARE PALLETIZED IN ACCORDANCE WITH WR-53/705.
2. PROCEDURES AND PRACTICES DESCRIBED HEREIN ARE INTENDED FOR VAN-TYPE TRAILERS.
3. TRAILERS WITH METAL DECKS SHALL NOT BE USED.
4. A FULL TRUCKLOAD (FTL) FOR A 40-FT. TRAILER CONSISTS OF 12 UNIT LOADS OF 4 BOMBS EACH, FOR A TOTAL OF 48 BOMBS.
5. FOR LESS-THAN-TRAILER LOAD (LTL) FOLLOW THE PRINCIPLES CONTAINED IN THIS DOCUMENT. THE LOCATION OF THE LOAD SHALL BE SUCH AS TO COMPLY WITH AXLE LOAD LIMITATIONS. (SEE PAGE 4.)
6. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. FOR GENERAL TRUCKLOADING PROCEDURES, REFER TO THE GENERAL WEAPONS REQUIREMENT, WR-51.

FTL 40 FT. TRAILER (REGULAR VAN)

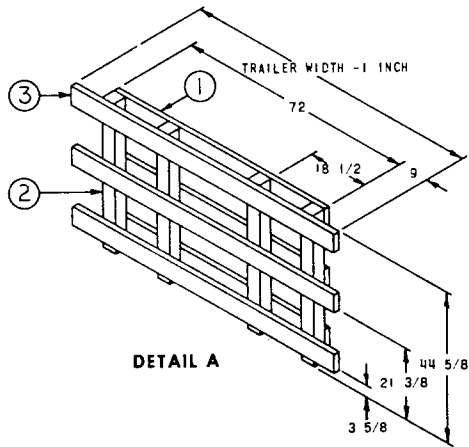
1. PREFABRICATE FRONT BULKHEAD (DETAIL A) CONSISTING OF 3 CROSS MEMBERS (ITEM 1), 4 UPRIGHTS (ITEM 2), AND 3 CROSS MEMBERS (ITEM 3) USING THREE 12d NAILS EACH JOINT. POSITION FRONT BULKHEAD AGAINST FORWARD END OF TRAILER AS SHOWN.
2. PREPOSITION SLEEPERS (ITEM 4), DOUBLED, ON TRAILER FLOOR WITH INBOARD EDGE OF SLEEPER PLACED 24 INCHES TO THE LEFT OF THE CENTER LINE OF THE TRAILER AS SHOWN. NAIL FIRST MEMBER TO TRAILER FLOOR USING ONE 16d NAIL EVERY 8 INCHES AND NAIL SECOND MEMBER TO FIRST IN THE SAME MANNER.
3. POSITION ONE UNIT LOAD AGAINST FRONT BULKHEAD IN TRAILER WITH PALLET'S LEFT SKID AGAINST INBOARD EDGE OF PREPOSITIONED SLEEPERS (ITEM 4).
4. POSITION SLEEPERS (ITEM 5), DOUBLED, ON TRAILER FLOOR AND AGAINST PALLET SKIDS ON RIGHT SIDE AS SHOWN. NAIL FIRST MEMBER TO TRAILER FLOOR USING ONE 16d NAIL EVERY 8 INCHES AND NAIL SECOND MEMBER TO FIRST IN THE SAME MANNER.
5. CONTINUE LOADING AND DUNNAGING UNIT LOADS IN TRAILER IN THE MANNER INDICATED ABOVE UNTIL 10 UNIT LOADS ARE IN PLACE.
6. FABRICATE INTERMEDIATE CROSS MEMBER CONSISTING OF 2 PIECES (ITEM 6), DOUBLED, BY LAMINATING WITH 10d NAILS EVERY 8 INCHES. PLACE DN EDGE AND AGAINST LAST INSTALLED UNIT LOAD IN TRAILER AS SHOWN.
7. POSITION CLEATS (ITEM 7), TRIPLED, TO BACK UP AGAINST CROSS MEMBERS (ITEM 6) IN THE LOCATIONS AS SHOWN. NAIL THE FIRST MEMBER TO THE TRAILER FLOOR USING FOUR 12d NAILS, AND NAIL SECOND MEMBER TO FIRST WITH FOUR 16d NAILS AND THIRD MEMBER TO SECOND WITH FOUR 30d NAILS. TOENAIL TO ITEM 6 WITH TWO 12d NAILS EACH JOINT.
8. POSITION TWO UNIT LOADS AGAINST DOUBLED CROSS MEMBERS (ITEM 6) AND EACH SIDE WALL OF THE TRAILER AS SHOWN.
9. POSITION PALLET-LENGTH SLEEPERS (ITEM 8), DOUBLED, AGAINST PALLET SKIDS OF LAST INSTALLED UNIT LOADS, AND NAIL FIRST MEMBER TO TRAILER FLOOR USING 16d NAILS EVERY 8 INCHES AND THE SECOND MEMBER TO THE FIRST USING 20d NAILS EVERY 8 INCHES.
10. PREFABRICATE REAR BLOCKING ASSEMBLY (DETAIL B) CONSISTING OF CROSS MEMBER (ITEM 9), 6 STRUTS (ITEM 10), AND CROSS MEMBER (ITEM 11), USING THREE 12d NAILS EACH JOINT, AND POSITION IN THE TRAILER WITH ITEM 8 RESTING AGAINST LAST TWO PALLETS IN THE TRAILER AND ITEM 10 BEARING AGAINST THE REAR DOOR.

NOTE

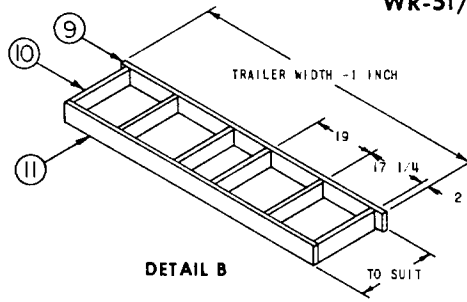
LENGTH OF REAR BLOCKING ASSEMBLY SHALL BE SUCH AS TO COMPLETELY FILL THE SPACE BETWEEN THE LADING AND REAR DOORS WITH THE DOORS IN CLOSED POSITION.

11. ATTACH SHIPPING DOCUMENTS TO REAR DUNNAGE.
12. CLOSE AND SEAL TRAILER DOORS.

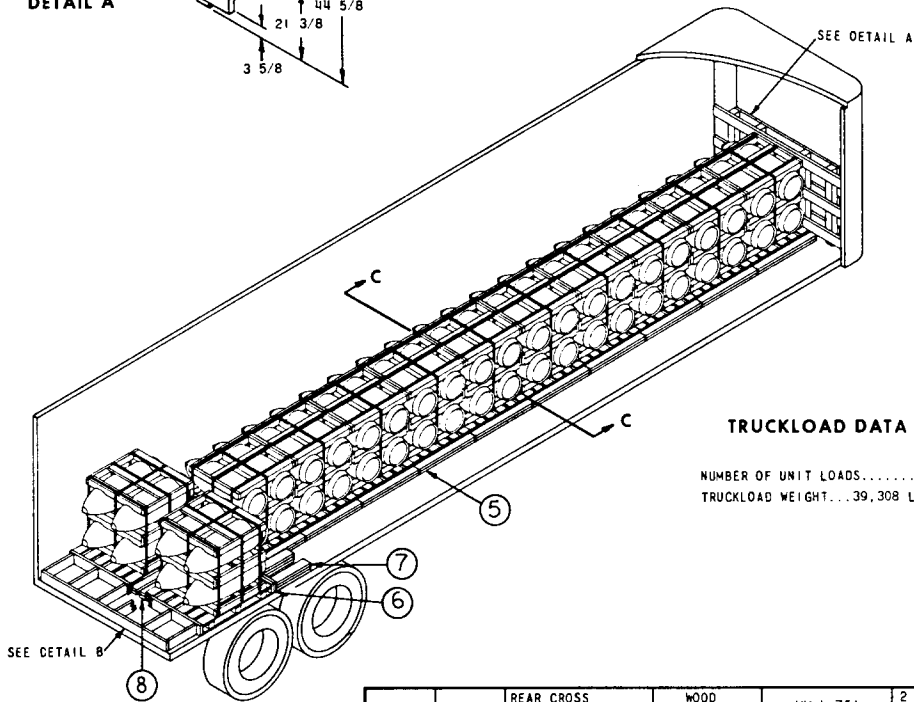
WR-51/39



DETAIL A

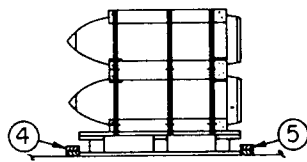


DETAIL B



TRUCKLOAD DATA

NUMBER OF UNIT LOADS.....12
TRUCKLOAD WEIGHT...39,308 LBS.



SECTION C-C

1	11	REAR CROSS MEMBER	WOOD DRESSED	MM-L-751	2 x 6 x TRAILER WIDTH - 5 INCHES
6	10	STRUT	WOOD DRESSED	MM-L-751	2 x 6 x TO SUIT
1	9	REAR CROSS MEMBER	WOOD DRESSED	MM-L-751	2 x 6 x TRAILER WIDTH - 1 INCH
4	8	SLEEPER	WOOD DRESSED	MM-L-751	2 x 4 x 50
12	7	CLEAT	WOOD DRESSED	MM-L-751	2 x 6 x 24
2	6	INTERMEDIATE CROSS MEMBER	WOOD DRESSED	MM-L-751	2 x 6 x TRAILER WIDTH - 1 INCH
2	5	SLEEPER	WOOD DRESSED	MM-L-751	2 x 4 x 33 FT., 4**
2	4	SLEEPER	WOOD DRESSED	MM-L-751	2 x 4 x 33 FT., 4*
3	3	CROSS MEMBER	WOOD DRESSED	MM-L-751	2 x 6 x TRAILER WIDTH - 1 INCH
4	2	UPRIGHT	WOOD DRESSED	MM-L-751	4 x 4 x 44 5 8
3	1	CROSS MEMBER	WOOD DRESSED	MM-L-751	2 x 6 x 72
REQ.	ITEM	DESCRIPTION	MAT'L.	MAT'L. SPEC.	DIMENSIONS

LIST OF MATERIALS

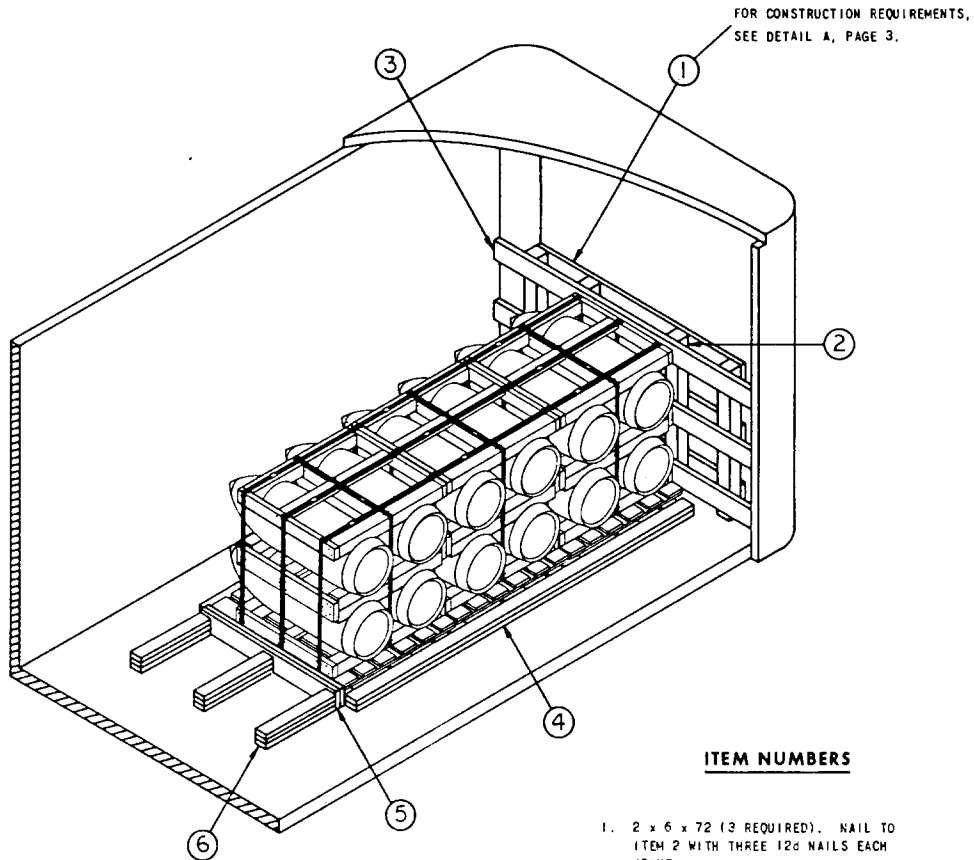
*RANDOM LENGTHS

**IN PALLET LENGTHS

FTL 40 FT. TRAILER (REGULAR VAN)

LTL ALL LENGTH TRAILERS

THE NUMBER OF UNITS LOADED WILL BE DETERMINED BY THE SHIPPING REQUIREMENTS. LOAD PATTERNS SHOULD BE ADJUSTED ACCORDINGLY. THE LOCATION OF THE LOAD AND THE LOAD PATTERN USED SHALL BE SUCH AS TO COMPLY WITH AXLE LOAD LIMITATIONS. FOLLOW THE PRINCIPLES CONTAINED IN THIS DOCUMENT AND THE APPROVED METHODS OF BLOCKING AND BRACING AS DESCRIBED IN THE GENERAL DOCUMENT, WR-51.



TYPICAL LTL

ITEM NUMBERS

1. 2 x 6 x 72 (3 REQUIRED). NAIL TO ITEM 2 WITH THREE 12d NAILS EACH JOINT.
2. 4 x 4 x 44 5/8 (4 REQUIRED).
3. 2 x 6 x TRAILER WIDTH -1 INCH (3 REQUIRED). NAIL TO ITEM 2 WITH THREE 12d NAILS EACH JOINT.
4. 2 x 4 x LENGTH TO SUIT, DOUBLED (4 REQUIRED). NAIL FIRST MEMBER TO TRAILER FLOOR USING ONE 16d NAIL EVERY 8 INCHES AND SECOND MEMBER TO FIRST IN THE SAME MANNER.
5. 2 x 6 x 48 (2 REQUIRED). LAMINATE THE TWO MEMBERS TOGETHER USING 10d NAILS EVERY 8 INCHES.
6. 2 x 4 x 24 (9 REQUIRED). NAIL FIRST MEMBER TO TRAILER FLOOR USING THREE 16d NAILS, SECOND MEMBER TO FIRST USING THREE 20d NAILS, AND THIRD MEMBER TO SECOND USING THREE 30d NAILS. TOENAIL TO ITEM 5 WITH TWO 12d NAILS EACH JOINT.