APPROVED BY
MTMTS

Land 1. Eng
TEA, WTMTS

DATE 3 aug 1973

# **LANCE**

MINIMUM REQUIREMENTS FOR THE HANDLING, STOWAGE, AND BRACING ABOARD SHIPS OF SHELTER, ELECTRICAL EQUIPMENT, MODIFIED \$250-G (CRATED)

|           | DRAFTSMAN PROJENG  |
|-----------|--|
| REVISIONS | CHECKER WORK LOG ENGRG OFFICE DANGUIS P.                             |
|           | 200 / 80 7 July 19/20  |
|           | Wesley & Gilleland   |
|           | APPROVED BY ORDER OF COMMANDING GENERAL. U. S. ARMY MATERIEL COMMAND |
|           | at Elinger USAMC AMMO CENTER   |
|           | U.S. ARMY MATERIEL COMMAND   |
|           | AUGUST 1973  |
|           | CLASS DIVISION DRAWING FILE  |
|           | 19 48 7269 GSE   |
|           | 19 46 7269 18LC8   |

DO NOT SCALE

#### **NOTES**

#### GENERAL:

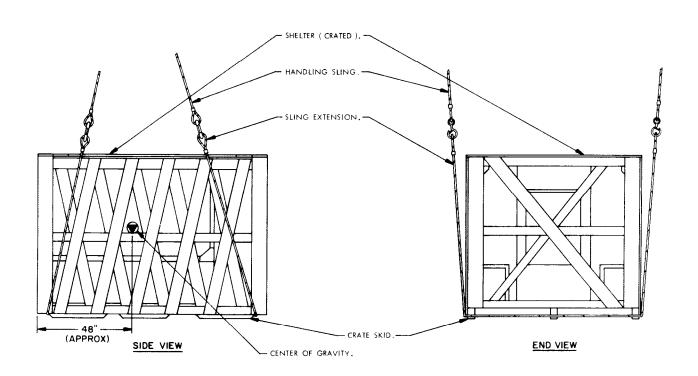
- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13.
- B. THIS DRAWING DEPICTS MINIMUM PROCEDURES APPLICABLE TO THE HANDLING, STOWAGE, AND BRACING ABOARD SHIPS OF SHELTER, ELECTRICAL EQUIPMENT MODIFIED \$250-G (CRATED) FOR THE LANCE MISSILE SYSTEM.
- C. OTHER TYPES OF CARGO MAY BE STOWED IN THE SAME HOLD OR TWEEN DECK WITH THE SHELTER SHOWN HEREIN.
- D LADING DATA:

## HANDLING:

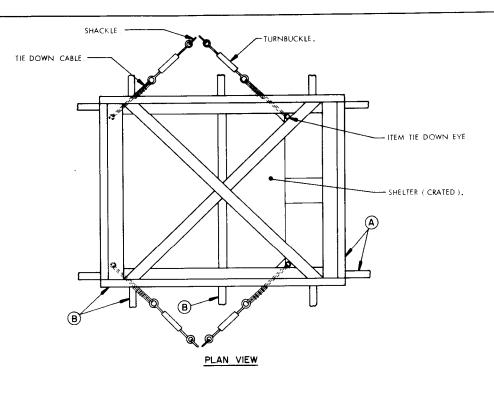
- A. PERTINENT PROVISIONS OF TITLE 46 CODE OF FEDERAL REGULATIONS APPLY.
- B HANDLING OF THE SHELTER ( CRATED ) SHOULD BE ACCOMPLISHED BY USING SUING EXTENSIONS SECURELY POSITIONED IN THE NOTCHES OF THE CRATE SKIDS AS SHOWN.
- C. EACH CRATED ITEM SHALL BE HANDLED INDIVIDUALLY. STACKING OF CRATED ITEMS IS NOT PERMITTED.
- D. THE HANDLING SLING SHALL BE OF A DESIGN AND CONFIGURATION TO LIFT THE ITEM IN SUCH A MANNER THAT THE CABLE LEGS DO NOT APPLY EXCESSIVE PRESSURE WHICH MAY DAMAGE THE CRATE.
- E. ALTHOUGH DESIRABLE, A LEVEL LIFT IS NOT MANDATORY. THE CENTER OF GRAVITY OF THIS ITEM IS SHOWN TO ASSIST IN DETERMINING CABLE LENGTHS TO ASSURE A SAFE LIFT.

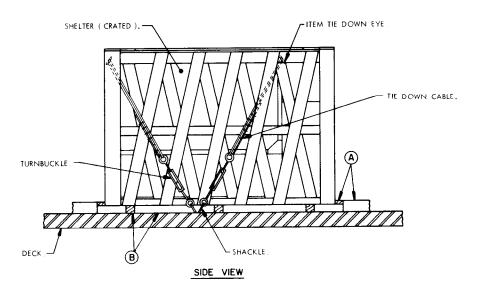
#### STOWAGE AND BRACING:

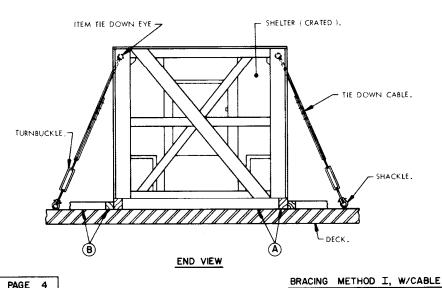
- A. STOWAGE OF THIS ITEM IS RESTRICTED TO ONE (1) LAYER HIGH. HOWEVER, OTHER CARGO ITEMS MAY BE OVER-STOWED BY CONSTRUCTING A DUNNAGE FLOOR ON TOP OF THE DEPICTED CRATES. <u>CAUTION</u>: THE WEIGHT OF OVER-STOWED CARGO MUST NOT CRUSH OR OTHERWISE DAMAGE THE CRATES OF THE SHELTER.
- B. SPECIES, GRADE AND SIZE OF LUMBER TO BE USED WILL COMPLY WITH REQUIREMENTS OF CURRENT SHIPWRIGHT-CARPENTRY AND RELATED SERVICES CONTRACTS. BRACING METHODS AND LUMBER SIZES DEPICTED IN THIS DRAWING ARE CONSIDERED MINIMUM AND ARE NOT INTENDED TO CONFLICT WITH CONTRACT REQUIREMENTS.
- C. A TYPICAL TIE DOWN PROCEDURE FOR THE CRATED ITEM IS SHOWN ON PAGE 4 AND DEPICTS THE PREFERRED METHOD OF USING CABLES AND TURNBUCKLES. IF USED, A TURNBUCKLE MUST BE OF A SIZE EQUAL IN STRENGTH TO THE MINIMUM SIZE CABLE REQUIRED TO SECURE THE ITEM IN LIEU OF CABLES AND TURNBUCKLES, SECUREMENT MAY BE ACCOMPLISHED BY OTHER ACCEPTED METHODS.



PRECAUTIONARY PROVISIONS FOR HANDLING, STOWAGE AND BRACING AS SPECIFIED IN THE NOTES ON PAGE 2 MUST BE OBSERVED.



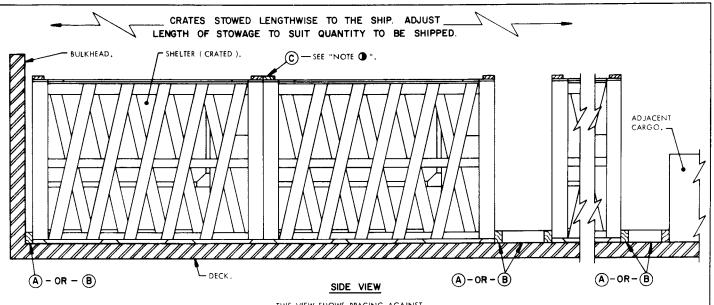




| MINIMUM |           |
|---------|-----------|
| LUM     | BER SIZES |
| (A)     | 4" × 6"   |
| B       | 4" X 4"   |

PRECAUTIONARY PROVISIONS FOR HANDLING, STOWAGE AND BRACING AS SPECIFIED IN THE NOTES ON PAGE 2 MUST BE OBSERVED.

PAGE 4



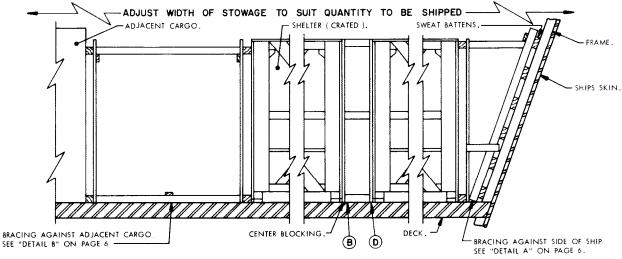
## NOTE 1:

PIECE MARKED (S) S REQUIRED TO SECURE LATERALLY ADJACENT CRATES TOGETHER TO PREVENT LATERAL TIPPING. POSITION ACROSS THE CRATE AT EACH END SO THAT IT EXTENDS ACROSS THE FULL WIDTH OF THE CRATE BEING SECURED AND AT LEAST ONE (1) CRATE ADJACENT THERETO. NAIL PIECE MARKED (C) TO CRATE END WITH APPROPRIATELY SIZED NAILS.

THIS VIEW SHOWS BRACING AGAINST END OF CRATE AND USING FLOOR LINE BRACING MATERIAL (A) (4" X 6", 6" VERTICAL), WHEN BRACING AGAINST CRATE SIDES, USE FLOOR LINE BRACING MATERIAL (B) IN LIEU OF (A) MATERIAL.

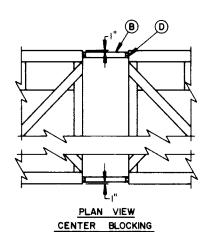
| MINIMUM<br>LUMBER SIZES |         |
|-------------------------|---------|
| <b>(A</b> )             | 4" X 6" |
| В                       | 4" X 4" |
| ©                       | 2" X 6" |
| <b>(D)</b>              | 2" X 4" |

### BRACING METHOD II, W/O CABLE



#### END VIEW

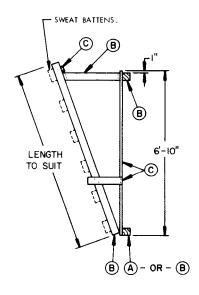
THE "END VIEW" SHOWS BRACING AGAINST SIDE OF CRATE AND USING FLOOR LINE BRACING MATERIAL (B) (4" X 4"). WHEN BRACING AGAINST CRATE ENDS, USE FLOOR LINE BRACING MATERIAL (A) (4" X 6", 6" VERTICAL) IN LIEU OF (B) MATERIAL.

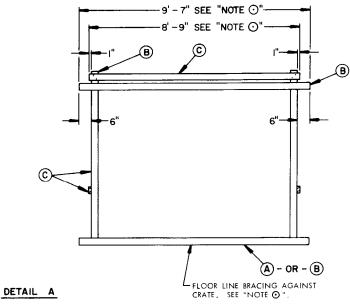


PRECAUTIONARY PROVISIONS FOR HANDLING, STOWAGE AND BRACING AS SPECIFIED IN THE NOTES ON PAGE 2 MUST BE OBSERVED.

BRACING METHOD III, W/O CABLE

PAGE 5



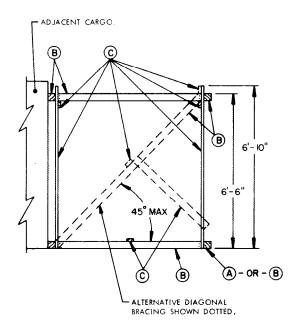


SUGGESTED BRACING AT SIDE OF SHIP.

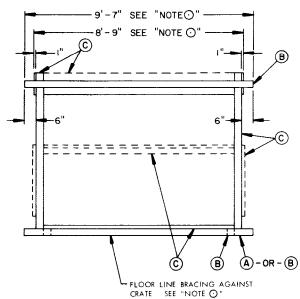
NOTE O:

DIMENSIONS SHOWN ARE FOR BRACING AGAINST SIDE OF CRATE AND USING FLOOR LINE BRACING MATERIAL (B). WHEN BRACING AGAINST CRATE ENDS, CHANGE DIMENSIONS OF THE BRACING ASSEMBLY, USE 7'-4" IN LIEU OF 9'-7" AND 6'-6" IN LIEU OF 8'-9". ALSO USE FLOOR LINE BRACING MATERIAL (A) (4" X 6", 6" VERTICAL) AGAINST CRATE ENDS IN LIEU OF (B) MATERIAL.

| MINIMUM |           |  |
|---------|-----------|--|
| LUM     | BER SIZES |  |
| (A)     | 4" X 6"   |  |
| В       | 4" X 4"   |  |
| ©       | 2" X 4"   |  |



PRECAUTIONARY PROVISIONS FOR HANDLING, STOWAGE AND BRACING AS SPECIFIED IN



DETAIL B SUGGESTED BRACING AGAINST ADJACENT CARGO.

THE NOTES ON PAGE 2 MUST BE OBSERVED.

DETAILS