

REVIEWED BY
MTMC

H. Keeling
MTMCTEA

DATE **5 Aug 1982**

PATRIOT

MINIMUM REQUIREMENTS FOR THE
HANDLING, STOWAGE, AND BRACING
ABOARD SHIPS OF THE COMPLETE
ROUND IN MISSILE CANISTER (SHIPPING,
STORAGE AND LAUNCH CONTAINER),
W/OVERPACK

REVISIONS				DRAFTSMAN	PT	PROJ ENG	DRWNG-DESP
				<i>Dier</i>		<i>RSM/AMT</i>	<i>John Burns</i>
				CHECKER		LOG ENGINE SOURCE	
				<i>GPB</i>		<i>W.H. Smith</i>	<i>J.P. Miller</i>
APPROVED, U.S. ARMY MISSILE COMMAND							
<i>[Signature]</i>							
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (ANDROS)							
<i>William J. Smith</i>							
U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL							
SEPTEMBER 1982							
				CLASS	DIVISION	DRAWING	FILE
				19	48	5779	GM 18PA I

DO NOT SCALE

NOTES

GENERAL:

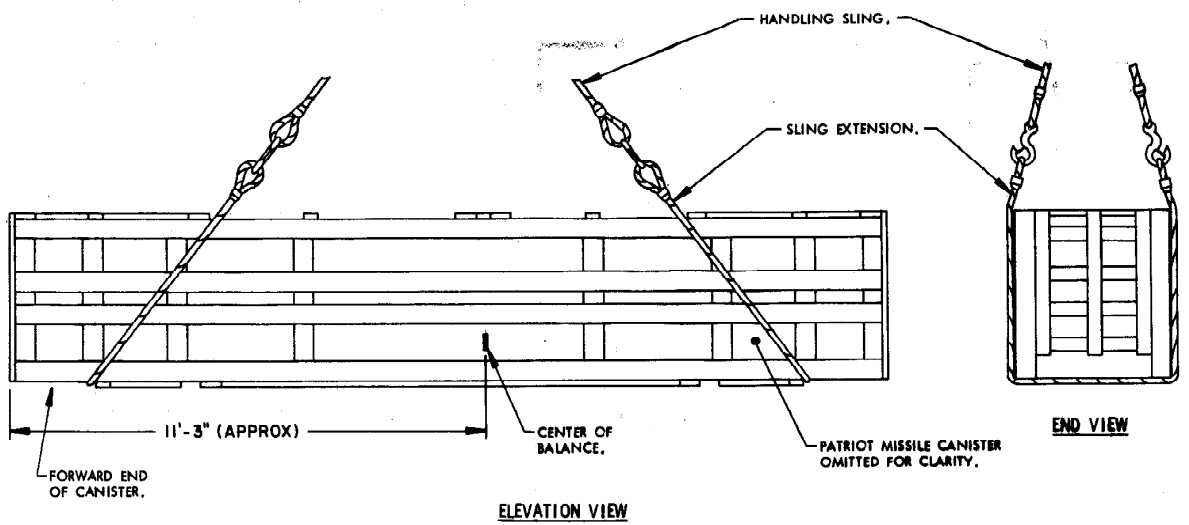
- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1.
- B. THIS DRAWING DEPICTS MINIMUM PROCEDURES APPLICABLE TO THE HANDLING, STOWAGE, AND BRACING ABOARD SHIP OF THE COMPLETE ROUND IN MISSILE CANISTER (SHIPPING, STORAGE AND LAUNCH CONTAINER), W/OVERPACK FOR THE PATRIOT MISSILE SYSTEM.
- C. OTHER TYPES OF CARGO MAY BE STOWED IN THE SAME HOLD OR TWEEN DECK, PROVIDING THE ITEMS STOWED ARE COMPATIBLE WITH THE ITEM SHOWN HEREIN. PERTINENT REQUIREMENTS OF TITLE 46 CODE OF FEDERAL REGULATIONS, 146.29, MUST BE APPLIED.
- D. LADING DATA:
FOR DETAIL OF OVERPACK, SEE U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL DRAWING D-SARAC-4500.
DIMENSIONS-----20'-8" LONG BY 47-1/4" WIDE BY 49-3/4" HIGH.
GROSS WEIGHT-----5,268 LBS (APPROX).
CUBE-----337.4 CU. FT.

HANDLING:

- A. PERTINENT PROVISIONS OF TITLE 46/49 CODE OF FEDERAL REGULATIONS APPLY.
- B. HANDLING OF THE PATRIOT MISSILE W/OVERPACK SHOULD BE ACCOMPLISHED BY USING SLING EXTENSIONS SECURELY POSITIONED AGAINST THE SKIDS UNDER THE OVERPACK AS SHOWN.
- C. CONTAINERS MAY BE HANDLED INDIVIDUALLY, OR MAY BE STACKED TWO (2) HIGH. CONTAINERS STACKED MUST BE UNITIZED AS TYPICALLY SHOWN ON PAGE 3. CONTAINERS SHOULD NOT BE STACKED MORE THAN TWO (2) HIGH.
- D. THE HANDLING SLING SHOULD BE EQUIPPED WITH SAFETY TYPE HOOKS AND 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 WOODEN OVERPACK.
- E. ALTHOUGH DESIREABLE, A LEVEL LIFT IS NOT MANDATORY. THE CENTER OF BALANCE OF THIS ITEM IS SHOWN TO ASSIST IN DETERMINING CABLE LENGTHS TO ASSURE A SAFE LIFT.

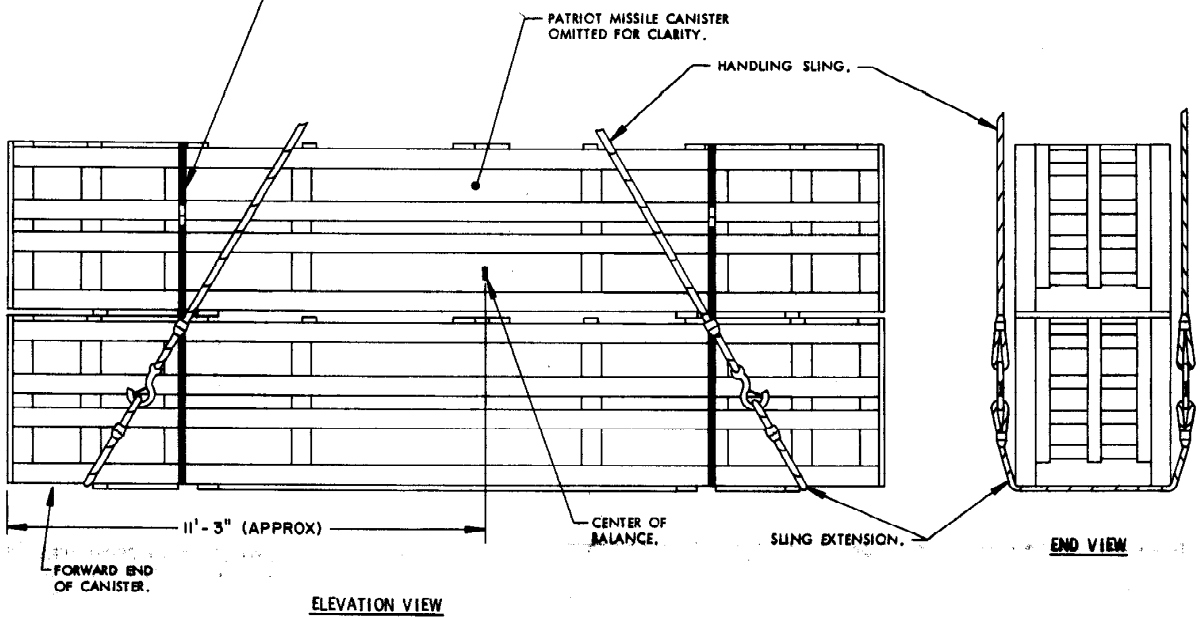
STOWAGE AND BRACING:

- A. OTHER CARGO ITEMS MAY BE OVER-STOWED ON THE DEPICTED CONTAINERS. CAUTION: THE WEIGHT OF OVER-STOWED CARGO MUST NOT CRUSH OR OTHERWISE DAMAGE THE OVERPACKS OF THE MISSILE CANISTERS.
- 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 SIZE DEPICTED IN THIS DRAWING ARE CONSIDERED MINIMUM AND ARE NOT INTENDED TO CONFLICT WITH CONTRACT REQUIREMENTS.



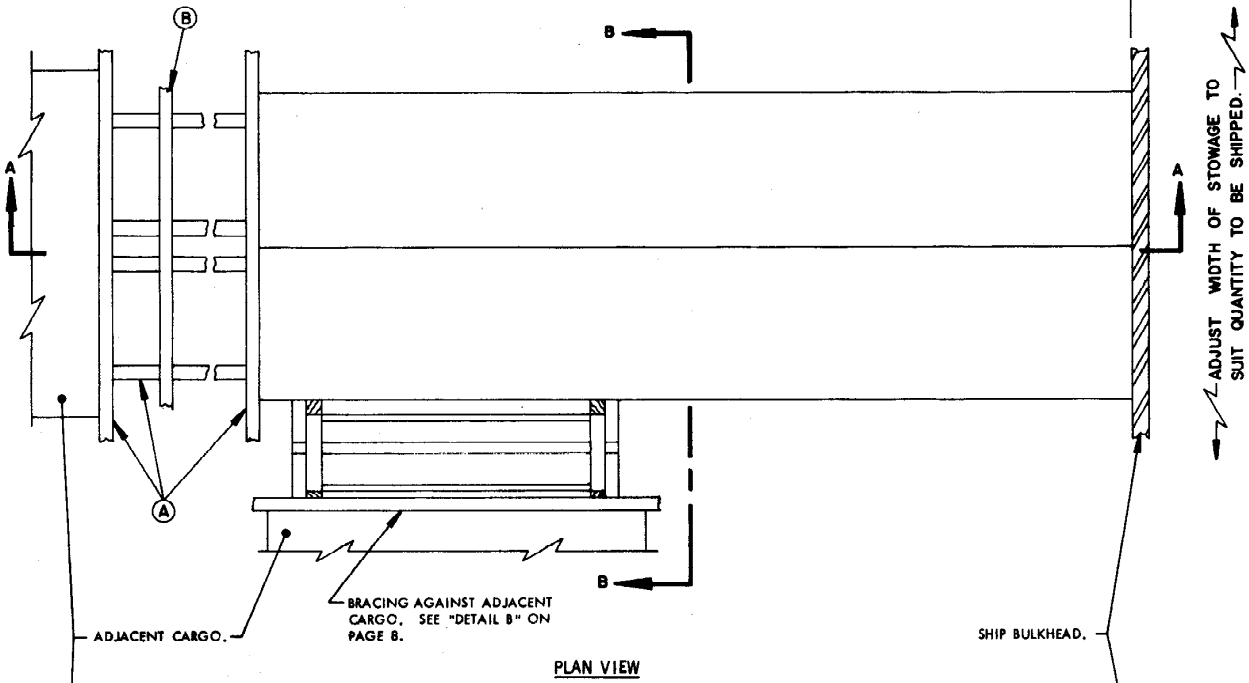
PRECAUTIONARY PROVISIONS FOR HANDLING, STORAGE AND BRACING AS SPECIFIED IN THE NOTES ON PAGE 2 MUST BE OBSERVED.

CONTAINERS MAY BE HANDLED INDIVIDUALLY, OR MAY BE STACKED TWO (2) HIGH AS SHOWN. IF CONTAINERS ARE HANDLED IN A STACKED CONFIGURATION, THE STACK SHOULD BE UNITIZED W/2-1-1/4" X .035" OR .031" STEEL STRAPS, AS SHOWN, OR SECURED IN SOME OTHER APPROVED METHOD TO PREVENT SLIPPAGE OF THE UPPER UNIT. IF CONTAINERS ARE RECEIVED UNITIZED, EXISTING UNITIZING STRAPS MAY BE LEFT INTACT.

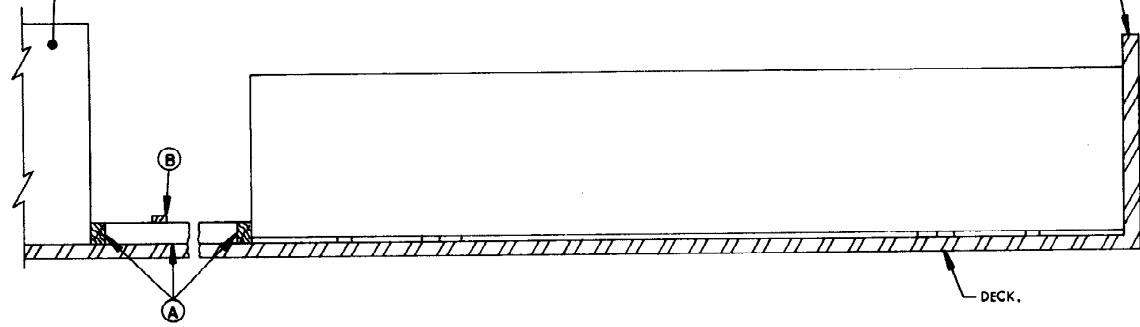


ATTACHMENT OF HANDLING SLING TO OVERPACK CONTAINERS

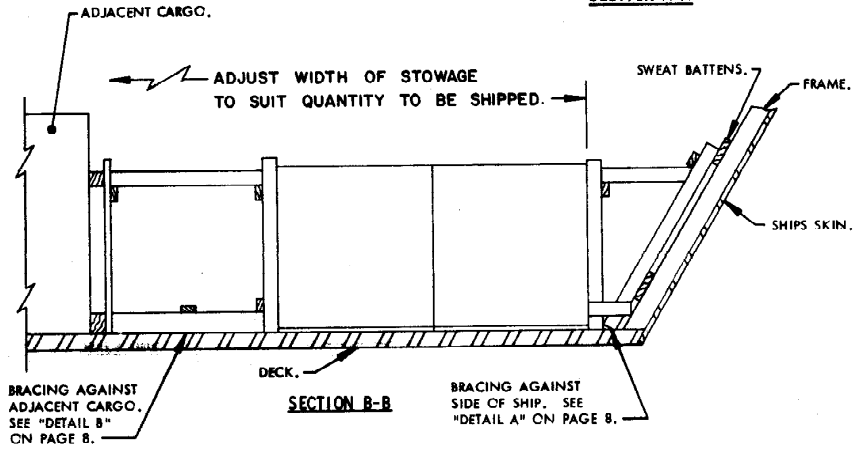
CONTAINERS STOWED LENGTHWISE TO THE SHIP, ADJUST LENGTH OF STOWAGE TO SUIT QUANTITY TO BE SHIPPED.



PLAN VIEW



SECTION A-A



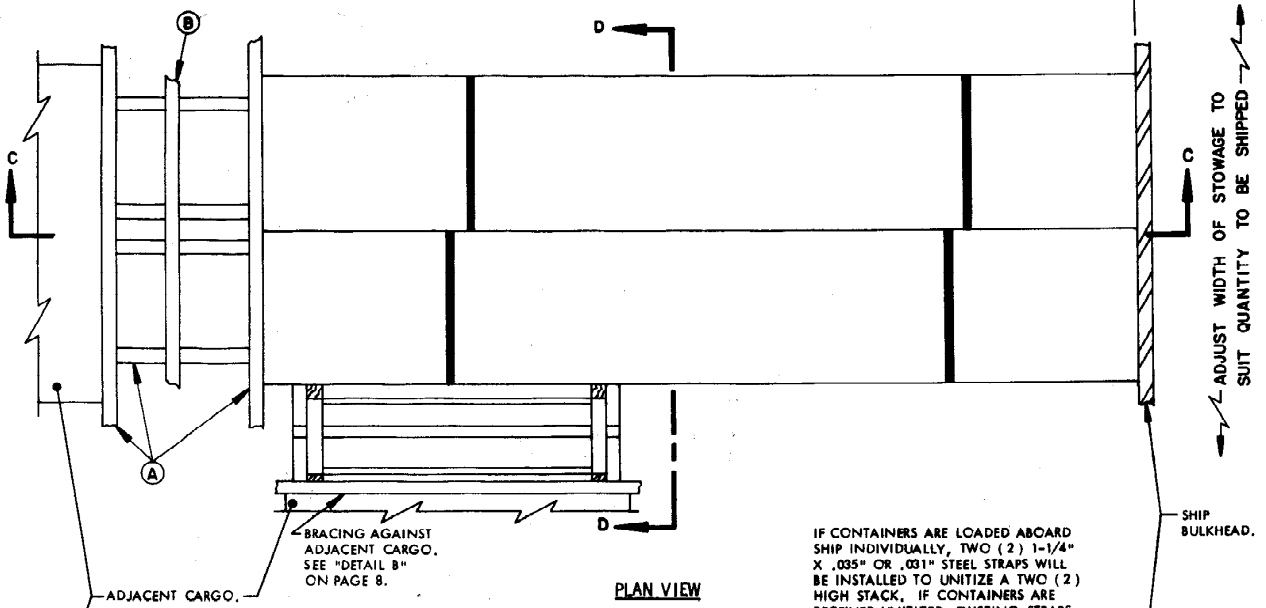
SECTION B-B

MINIMUM LUMBER SIZES	
(A)	4" X 6"
(B)	2" X 4"

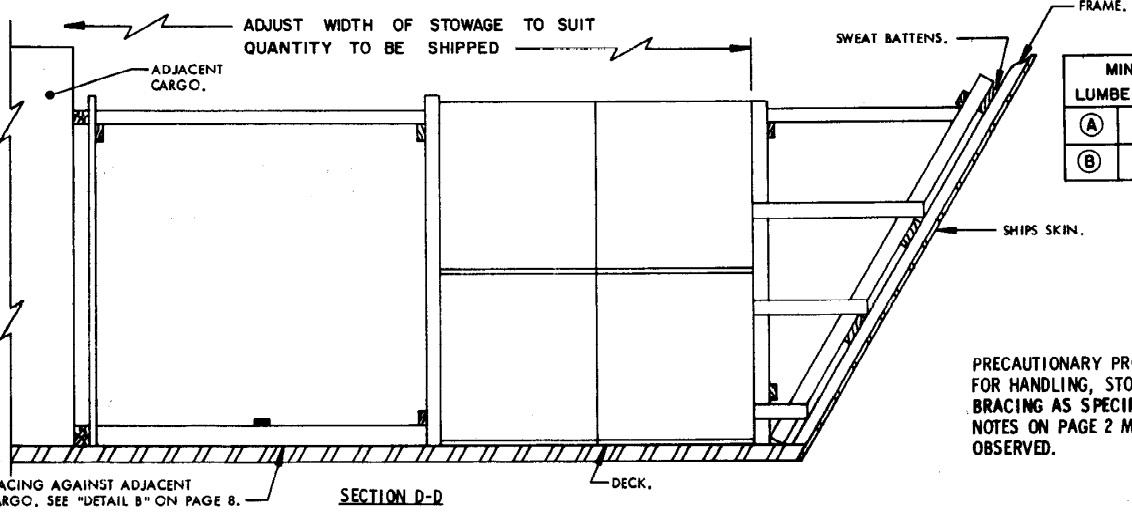
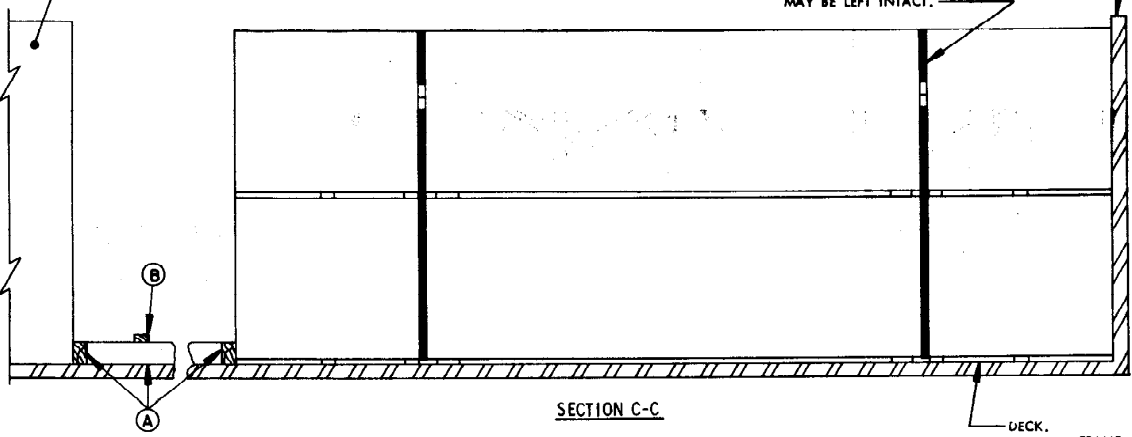
PRECAUTIONARY PROVISIONS FOR HANDLING, STOWAGE AND BRACING AS SPECIFIED IN THE NOTES ON PAGE 2 MUST BE OBSERVED.

CONTAINERS STOWED LENGTHWISE TO THE SHIP, ADJUST LENGTH OF STOWAGE TO SUIT QUANTITY TO BE SHIPPED.

ADJUST WIDTH OF STOWAGE TO SUIT QUANTITY TO BE SHIPPED



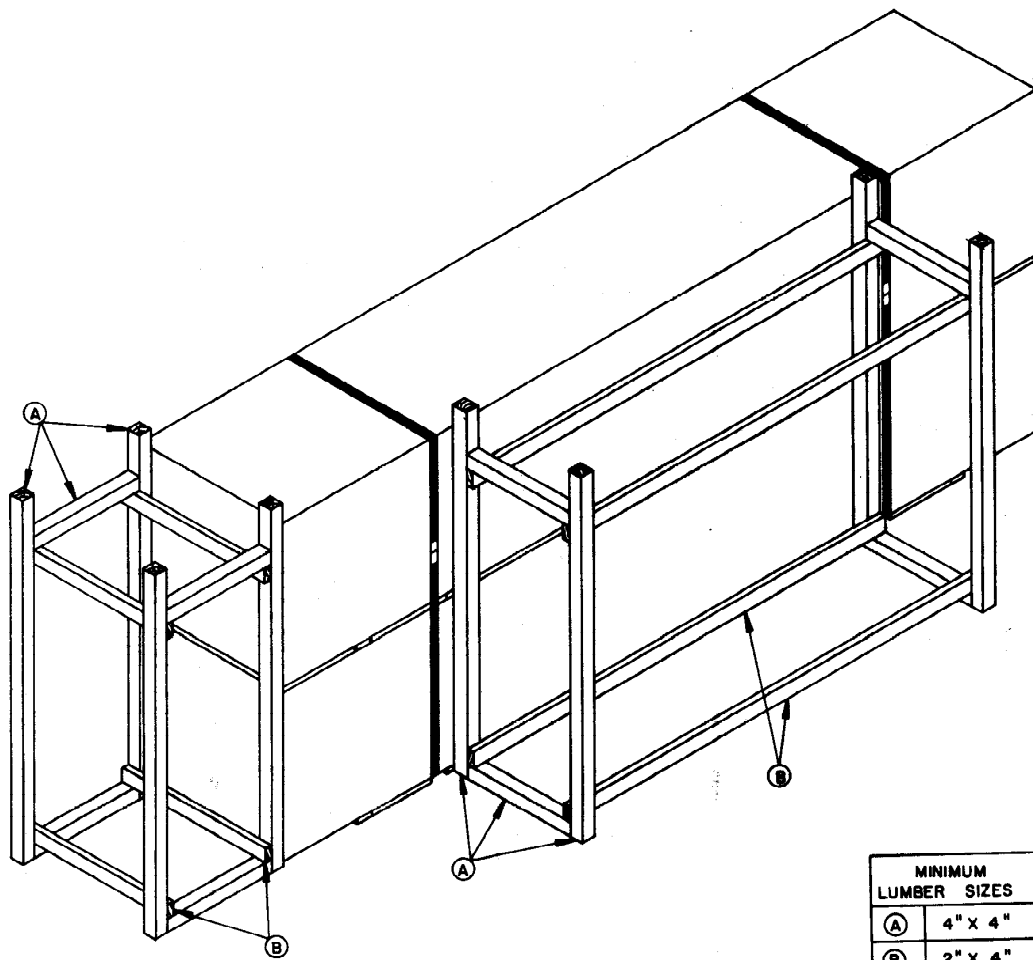
IF CONTAINERS ARE LOADED ABOARD SHIP INDIVIDUALLY, TWO (2) 1-1/4" X .035" OR .031" STEEL STRAPS WILL BE INSTALLED TO UNITIZE A TWO (2) HIGH STACK. IF CONTAINERS ARE RECEIVED UNITIZED, EXISTING STRAPS MAY BE LEFT INTACT.



MINIMUM LUMBER SIZES	
(A)	4" X 6"
(B)	2" X 4"

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

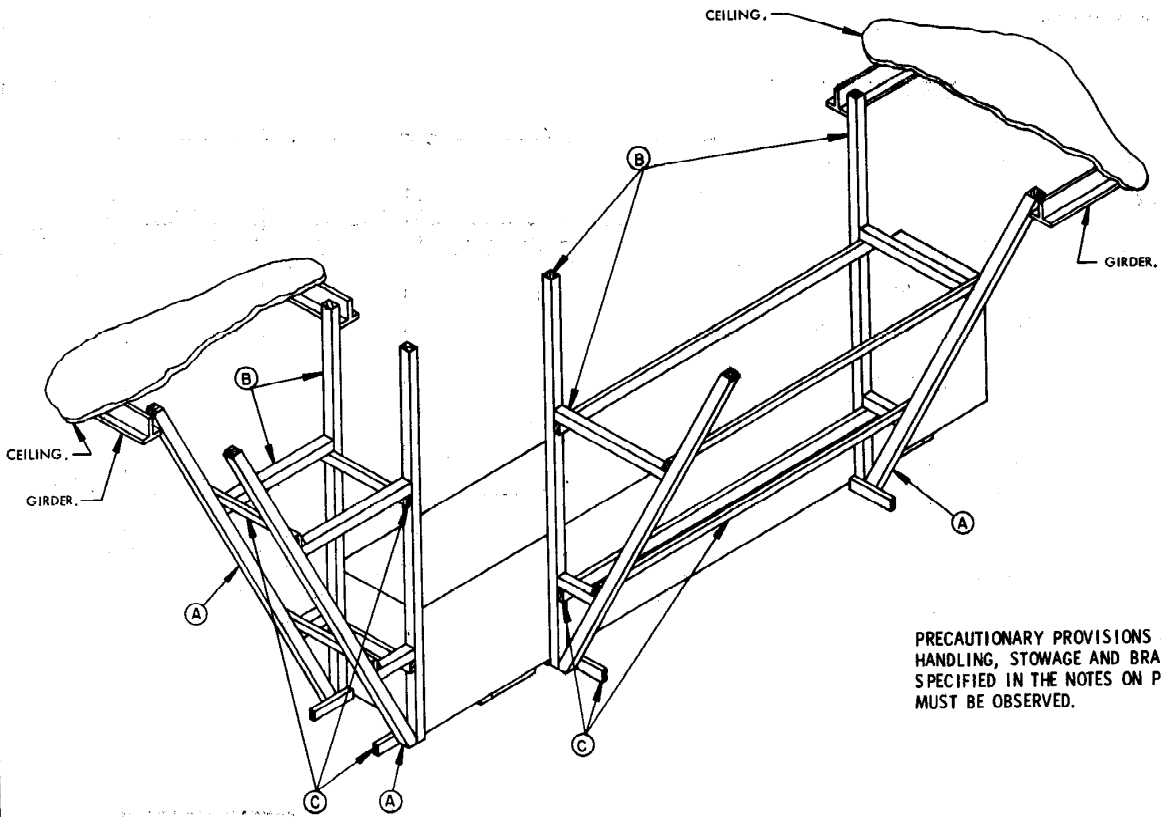
BRACING OF TWO LAYERS OF OVERPACK CONTAINERS



MINIMUM LUMBER SIZES	
(A)	4" x 4"
(B)	2" x 4"

ISOMETRIC VIEW

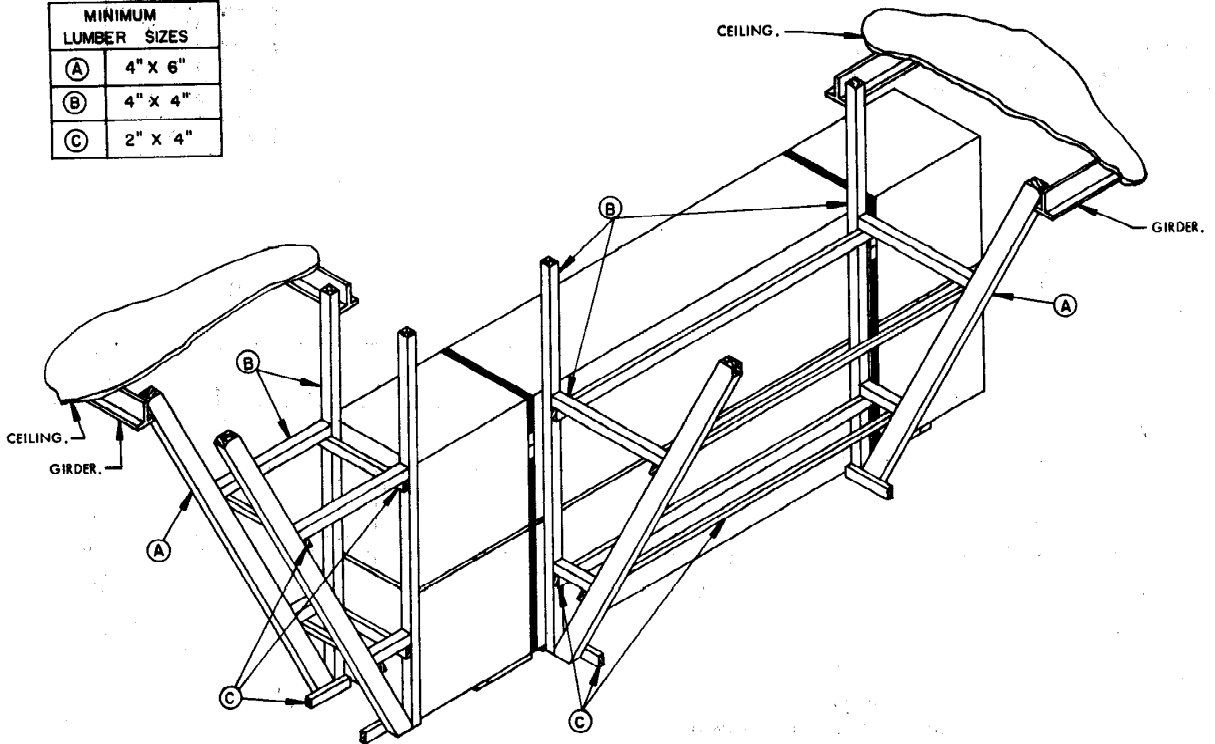
PRECAUTIONARY PROVISIONS FOR HANDLING, STOWAGE AND BRACING AS SPECIFIED IN THE NOTES ON PAGE 2 MUST BE OBSERVED.



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

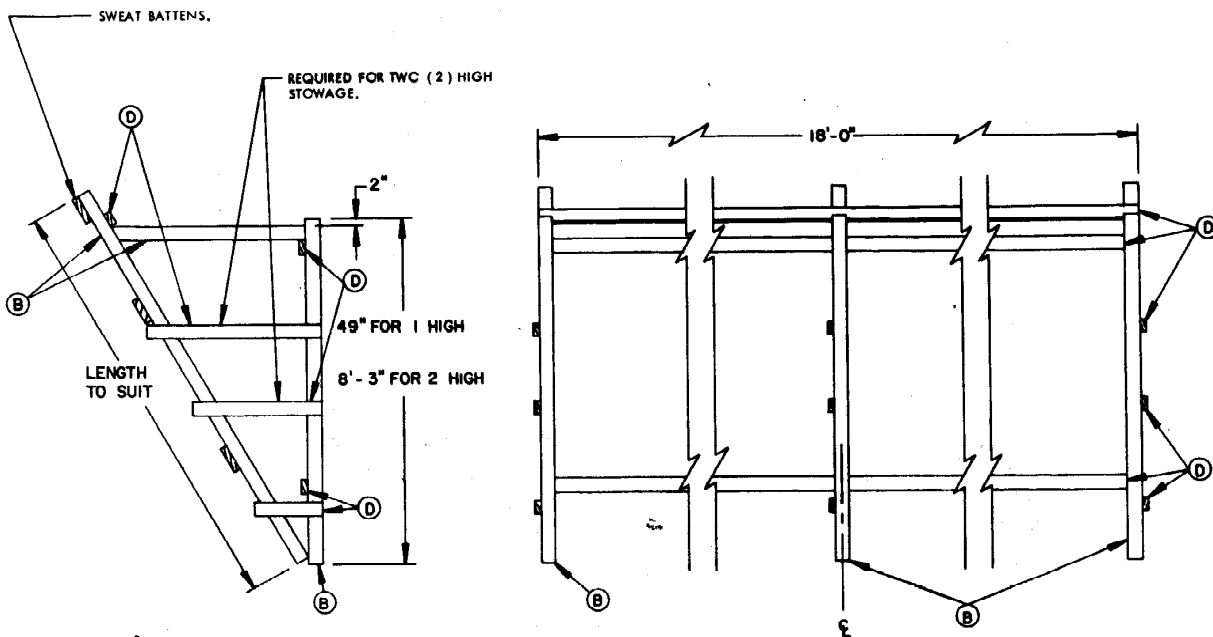
ISOMETRIC VIEW

MINIMUM LUMBER SIZES	
(A)	4" x 6"
(B)	4" x 4"
(C)	2" x 4"



ISOMETRIC VIEW

ALTERNATIVE METHODS OF BRACING OVERPACK CONTAINER (S)

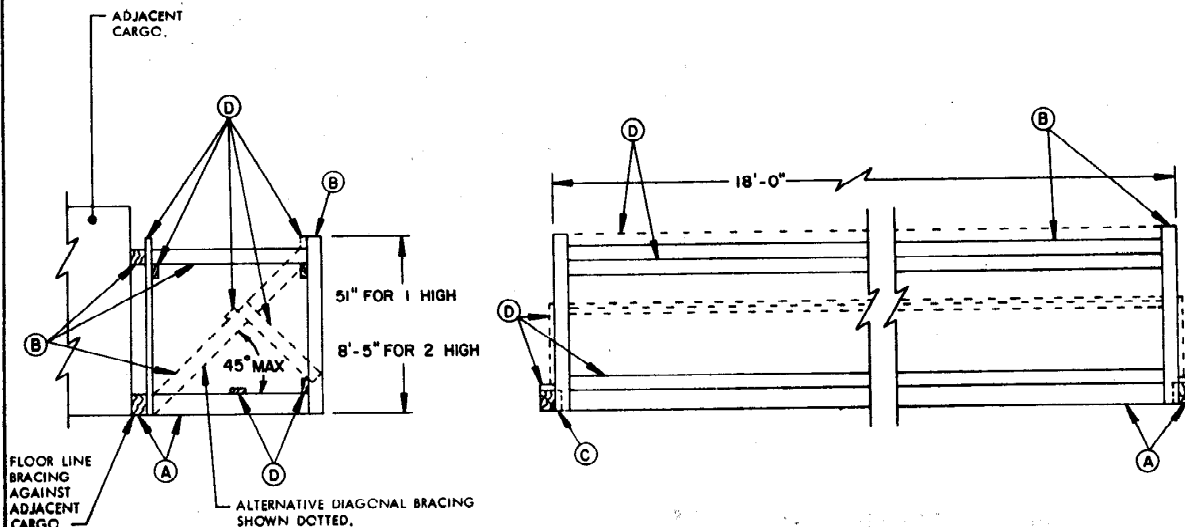


DETAIL A

SUGGESTED BRACING AT SIDE OF SHIP.

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

MINIMUM LUMBER SIZES	
(A)	4" X 6"
(B)	4" X 4"
(C)	2" X 6"
(D)	2" X 4"



DETAIL B

SUGGESTED BRACING AGAINST LATERALLY ADJACENT CARGO.

DETAILS