

APPROVED BY

MTMTS

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DATE *10 Feb 1972*

LCSS

MINIMUM REQUIREMENTS FOR THE HANDLING, STOWAGE, AND BRACING ABOARD SHIPS OF THE SHOP EQUIPMENT (CRATED)

REVISIONS				DRAFTSMAN	PROJ ENG	CHKD	DATE
				<i>D.L.P.</i>	<i>SLG</i>	<i>JNW</i>	<i>JNW</i>
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				U. S. ARMY MISSILE COMMAND			
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				U. S. ARMY MATERIEL COMMAND			
				USAMC ANMO CENTER			
				U. S. ARMY MATERIEL COMMAND			
				FEBRUARY 1972			
				CLASS	DIVISION	DRAWING	FILE
				19	48	7230	GSE 18LS2

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 SHOP EQUIPMENT (CRATED) FOR THE LAND COMBAT SUPPORT SYSTEM.
- C. OTHER TYPES OF CARGO MAY BE STOWED IN THE SAME HOLD OR TWEEN DECK WITH THE SHOP EQUIPMENT SHOWN HEREIN.

D. LADING DATA:

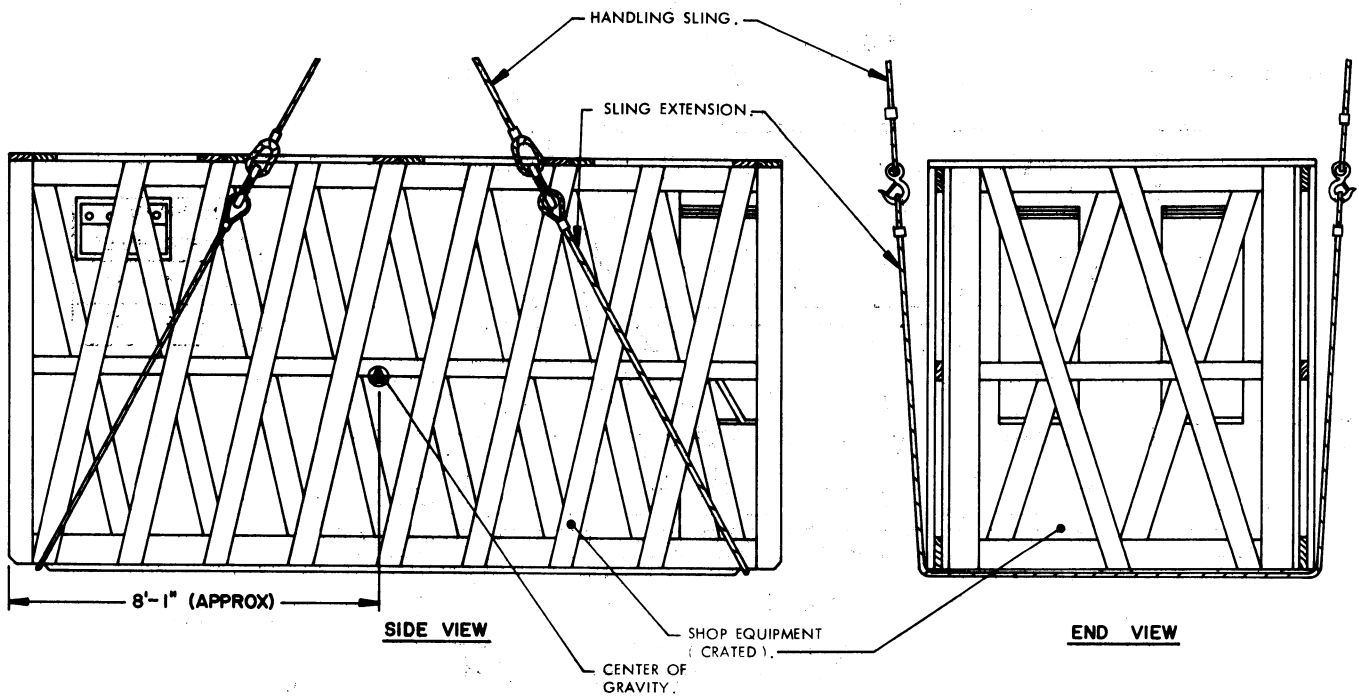
CRATE DIMENSIONS (TYPICAL) -----	16'-2" LONG X 8'-1" WIDE X 8'-5-1/2" HIGH.
GROSS WEIGHT -----	7,820 LBS (APPROX).
CUBE -----	1,105 CU. FT.

HANDLING:

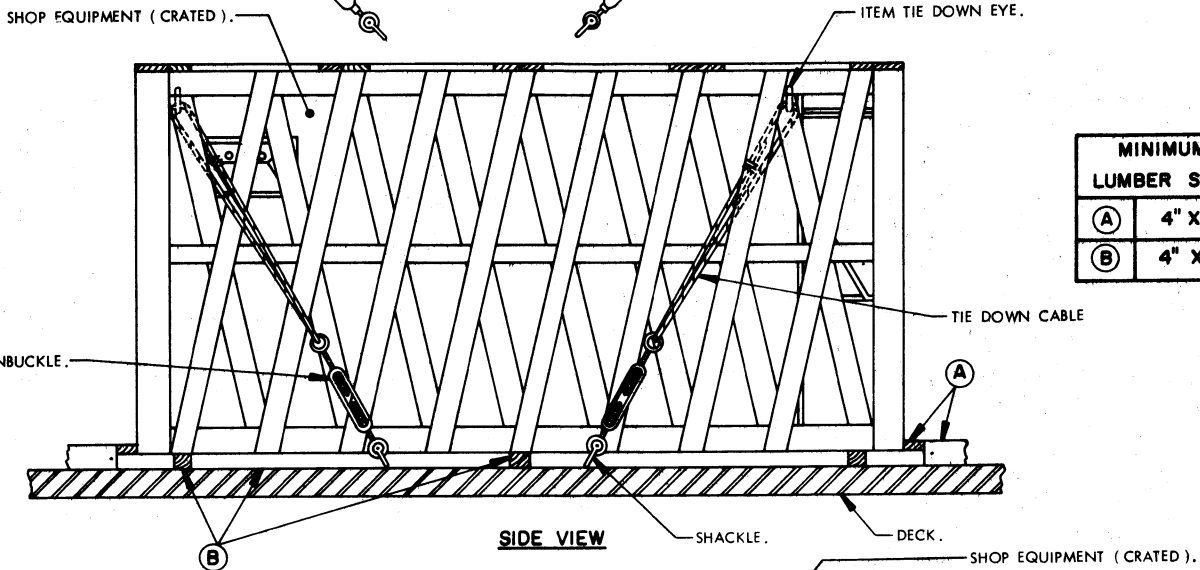
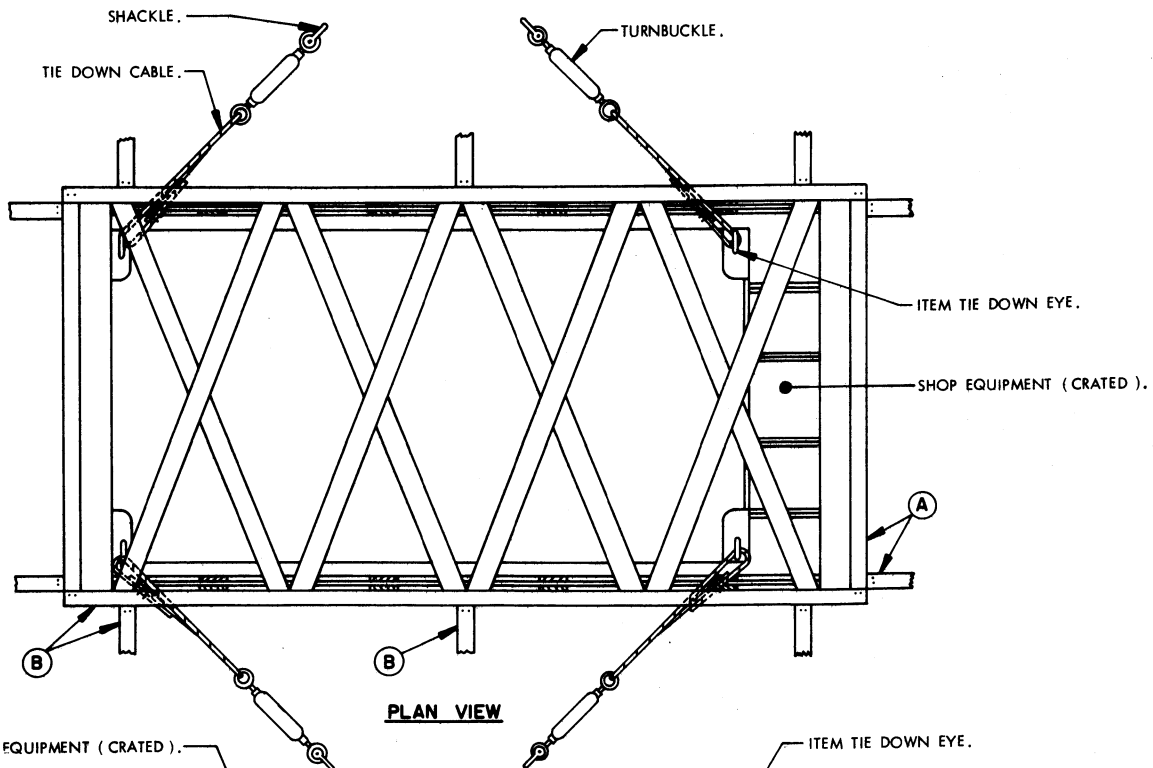
- A. PERTINENT PROVISIONS OF TITLE 46 CODE OF FEDERAL REGULATIONS APPLY.
- B. HANDLING OF THE SHOP EQUIPMENT (CRATED) SHOULD BE ACCOMPLISHED BY USING SLING EXTENSIONS SECURELY POSITIONED IN THE NOTCHES OF THE CRATE SKIDS AS SHOWN.
- C. EACH CRATED ITEM SHALL BE HANDLED INDIVIDUALLY. STACKING OF CRATED 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:

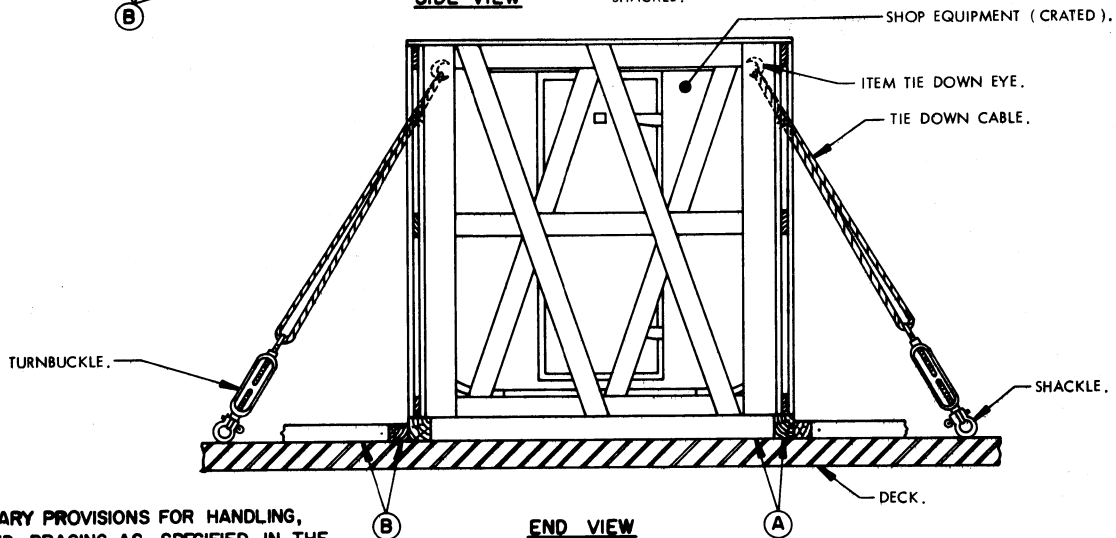
- A. STOWAGE OF THIS ITEM IS RESTRICTED TO ONE (1) LAYER HIGH. HOWEVER, OTHER CARGO ITEMS MAY BE OVER-STOWED BY CONSTRUCTING A DUNNAGE FLOOR ON TOP OF THE DEPICTED CRATES. CAUTION: THE WEIGHT OF OVER-STOWED CARGO MUST NOT CRUSH OR OTHERWISE DAMAGE THE CRATES OF THE SHOP EQUIPMENT.
- B. SPECIES, GRADE 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.

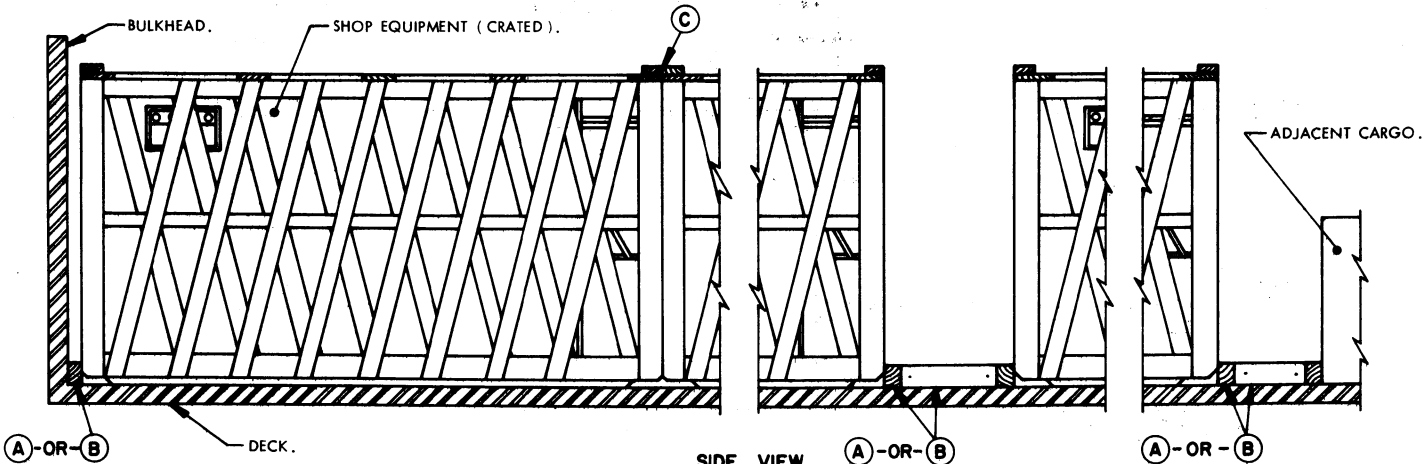


MINIMUM LUMBER SIZES	
A	4" X 6"
B	4" X 4"



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

← CRATES STOWED LENGTHWISE TO THE SHIP. ADJUST LENGTH OF STOWAGE TO SUIT QUANTITY TO BE SHIPPED. →

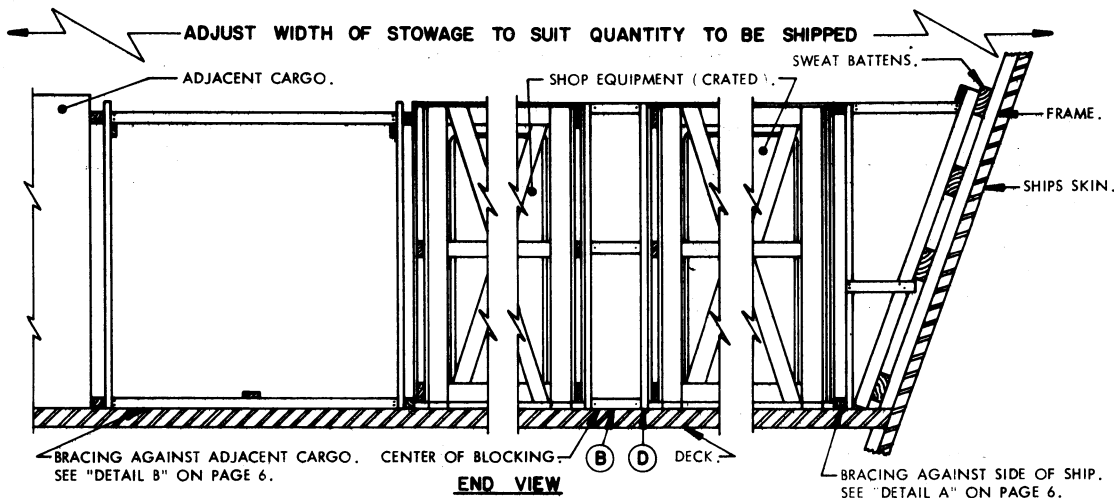


SIDE VIEW

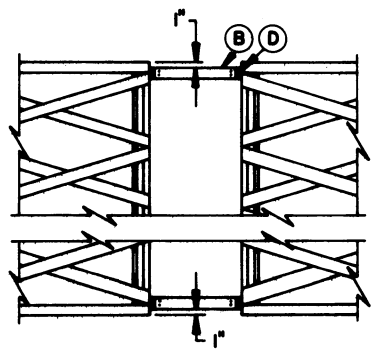
THIS VIEW SHOWS BRACING AGAINST END OF CRATE AND USING FLOOR LINE BRACING MATERIAL (A) (4" X 6", 6" VERTICAL). WHEN BRACING AGAINST CRATE SIDES, USE FLOOR LINE BRACING MATERIAL (B) IN LIEU OF (A) MATERIAL.

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

BRACING METHOD II, W/O CABLE



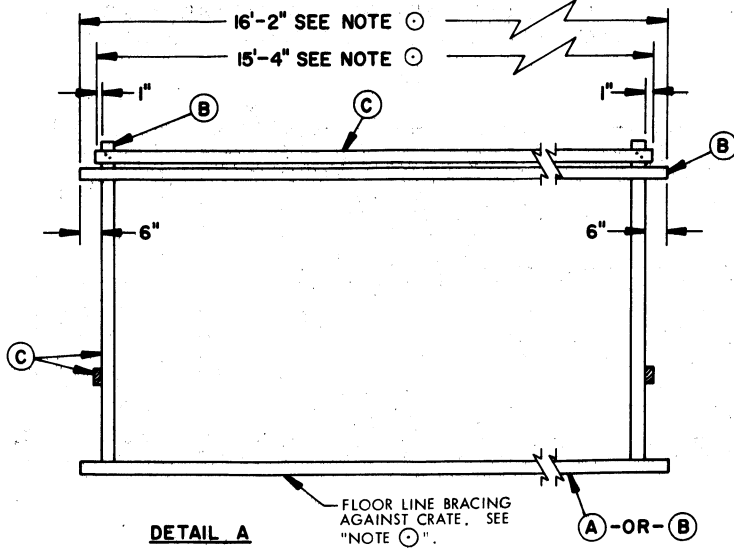
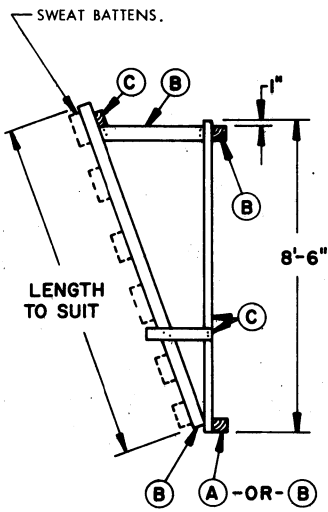
END VIEW



**PLAN VIEW
CENTER BLOCKING**

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

BRACING METHOD III, W/O CABLE

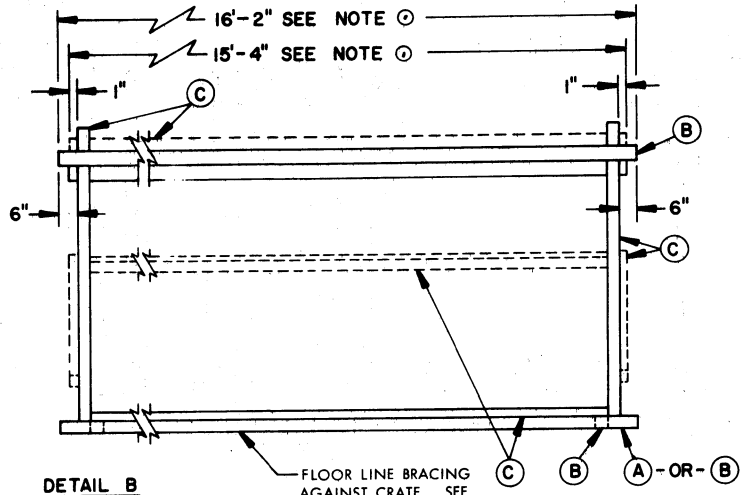
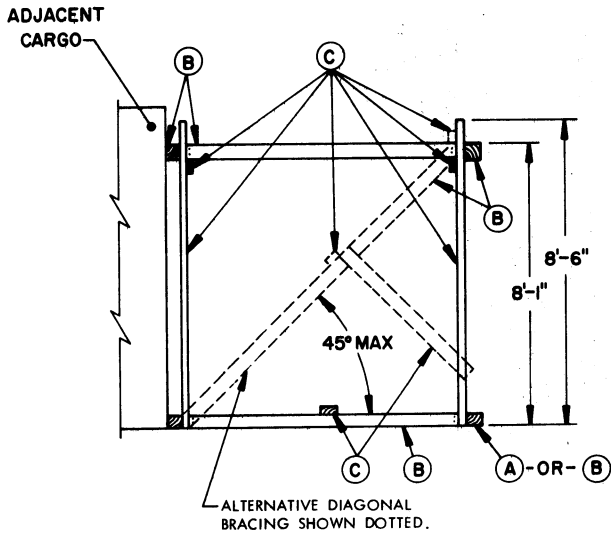


DETAIL A
SUGGESTED BRACING
AT SIDE OF SHIP.

NOTE (C) :

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 8'-1" IN LIEU OF 16'-2" AND 7'-3" IN LIEU OF 15'-4". ALSO, USE FLOOR LINE BRACING MATERIAL (A) (4" X 6", 6" VERTICAL) AGAINST CRATE IN LIEU OF (B) MATERIAL.

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



DETAIL B
SUGGESTED BRACING AGAINST
ADJACENT CARGO.

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