

UNIT LOAD FOR UNDERWAY REPLENISHMENT BLU-109 SERIES AND BLU-116 SERIES BOMBS ON MHU-212 SERIES PALLETS

REFER TO PAGE 3 FOR PALLET SELECTION CRITERIA.

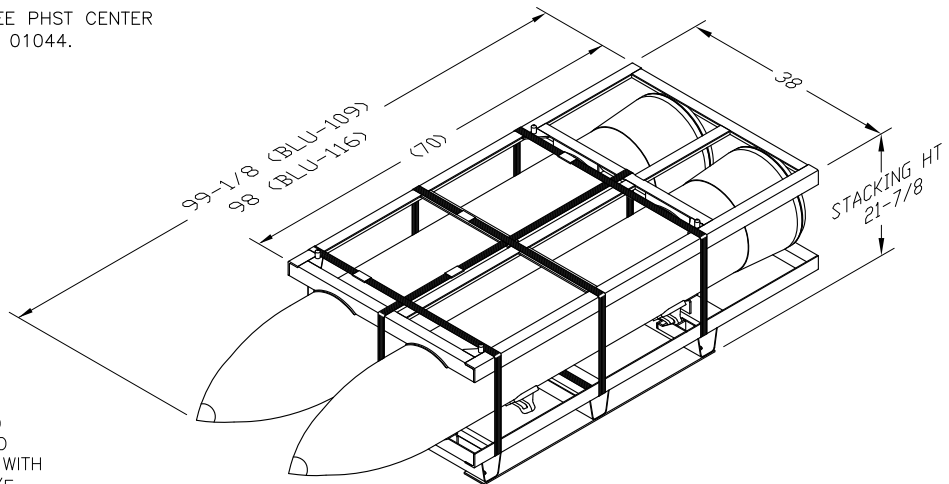
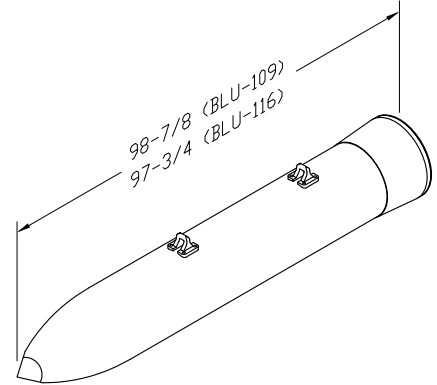
USE PAGES 4 THRU 6 OF THIS DRAWING TO CONSTRUCT UNIT LOADS USING THE MHU-212/E PALLET. REFER TO PAGES 7 THRU 9 WHEN USING THE MHU-212A/E OR MHU-212B/E PALLET.

UNIT LOAD DATA

SEE PAGE 2

NOTES:

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
2. SEE SWO20-AC-SAF-010 FOR THE FOLLOWING INFORMATION:
 - A. CROSS REFERENCE TO ASSOCIATED TRUCK LOADING, CONTAINER LOADING & CAR LOADING MILITARY STANDARDS.
 - B. HAZARD CLASSIFICATION.
3. DO NOT STACK MORE THAN 6 UNIT LOADS HIGH IN STORAGE.
4. FOR UNIT LOAD QUALIFICATIONS, SEE PHST CENTER TEST REPORTS 92119, 93068 AND 01044.



CAUTION

MHU-212/E PALLET CAN SHIP AND STORE BLU-109 BOMBS ONLY. DO NOT USE WITH BLU-116. BOMBS WITH VENT CAPS MUST USE MHU-212B/E PALLET. SEE PAGE 3 FOR DETAILED PALLET SELECTION GUIDANCE.

B	SEE NSWC IHD DET EARLE ECP I11024	2011/5/11	S/ M. SHELLY	S/ R. SMITH
A	SEE NSWC IHD DET EARLE ECP I07057	1/29/08	S/CSC	S/RS
-	SUPERSEDES MIL-STD-1323-387A	3/10/03	S/AVS	S/KZ
REV.	REVISION DESCRIPTION	DATE	TDA	SYSCOM

TECH DATA MANAGEMENT SUPERVISOR	JN/EP/ S/AVS	3/10/03
SYSTEMS ENG. SUPERVISOR	S/G. BENDER	3/10/03
S/K. H. ZIMMS 3/10/03 NAVSEASYSKOM (BY DIRECTION)		

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REQUIREMENTS FOR CONSTRUCTION OF THIS LOAD SHALL CONSIST OF THIS DOCUMENT & THE LATEST ISSUE OF MIL-STD-1323 (NAVY).

THIS LOAD IS AUTHORIZED & RELEASED FOR SHIPPING & STORAGE, TRANSFER-AT-SEA & FOR SHIPMENT BY COMMON CARRIER.

DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND WASHINGTON, D.C., 20362	CAGE CODE 53711	DWG NO. 6214303	REV. B
SIZE A	PAGE 1 OF 12		

UNIT LOAD DATA

WEIGHT OF ONE BLU-109 BOMB 1,988 LBS
 WEIGHT OF ONE BLU-116 BOMB 1,925 LBS

WEIGHT OF MHU-212/E BOTTOM FRAME 217 LBS
 WEIGHT OF MHU-212/E TOP FRAME 123 LBS

WEIGHT OF MHU-212A/E TOP FRAME 201 LBS
 WEIGHT OF MHU-212A/E BOTTOM FRAME 109.5 LBS

WEIGHT OF MHU-212B/E TOP FRAME 200 LBS
 WEIGHT OF MHU-212B/E BOTTOM FRAME 108.5 LBS

WEIGHT OF STEEL STRAPPING 7 LBS

WEIGHT OF ONE WOOD FRAME (SINGLE BOMB UNIT LOAD) 10 LBS

CUBE (BLU-109 BOMBS) 47.68 CU-FT
 CUBE (BLU-116 BOMBS) 47.14 CU-FT

UNIT LOAD WEIGHTS

	UNIT LOAD CONFIGURATION	GROSS WEIGHT Δ
TWO BOMB LOADS	TWO BLU-109 ON MHU-212/E PALLET	4,323 LBS
	TWO BLU-116 ON MHU-212/E PALLET	NOT AUTHORIZED
	TWO BLU-109 ON MHU-212A/E PALLET	4,294 LBS
	TWO BLU-116 ON MHU-212A/E PALLET	4,168 LBS
	TWO BLU-109 ON MHU-212B/E PALLET	4,292 LBS
	TWO BLU-116 ON MHU-212B/E PALLET	4,166 LBS
SINGLE BOMB LOADS	SINGLE BLU-109 ON MHU-212/E PALLET	2,355 LBS
	SINGLE BLU-116 ON MHU-212/E PALLET	NOT AUTHORIZED
	SINGLE BLU-109 ON MHU-212A/E PALLET	2,326 LBS
	SINGLE BLU-116 ON MHU-212A/E PALLET	2,263 LBS
	SINGLE BLU-109 ON MHU-212B/E PALLET	2,324 LBS
	SINGLE BLU-116 ON MHU-212B/E PALLET	2,261 LBS

Δ DO NOT USE FOR SHIPPING WEIGHT

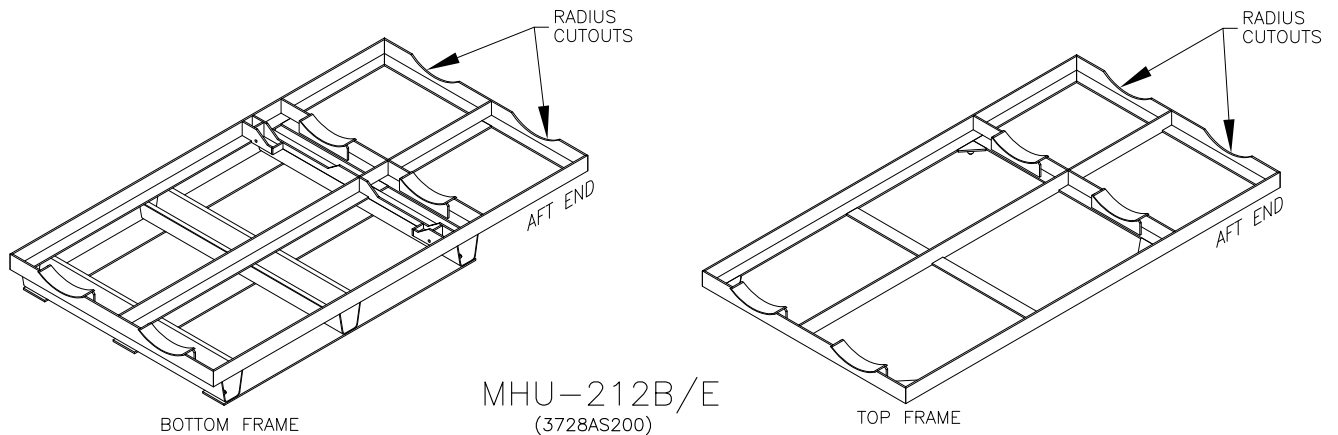
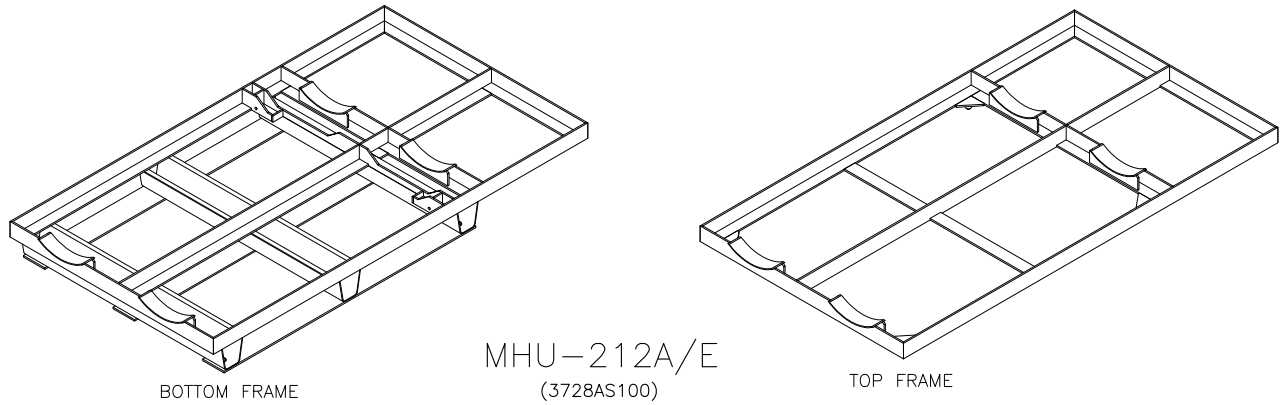
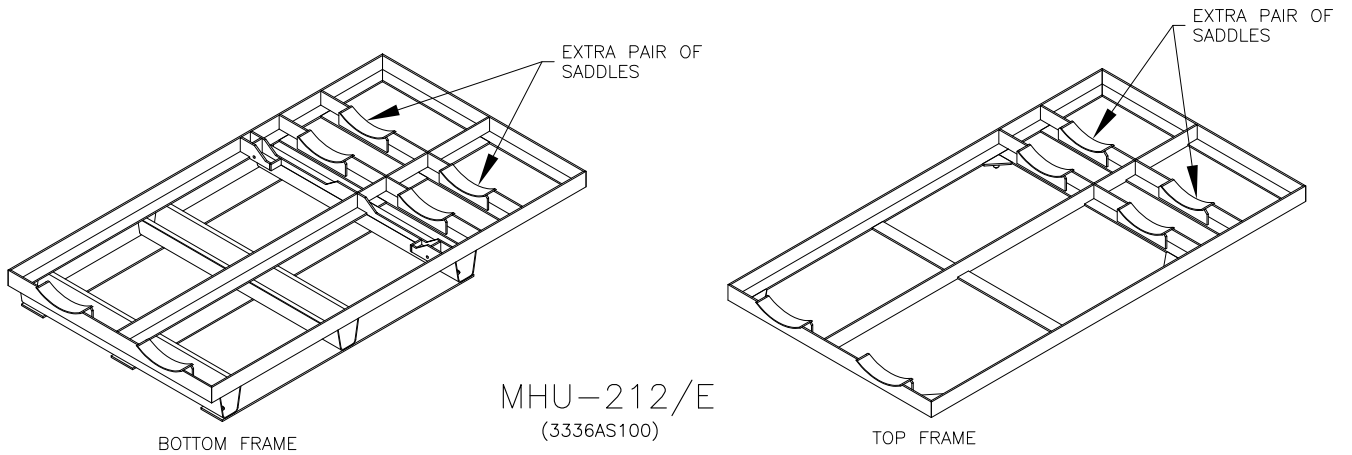
PALLET FRAME SELECTION:

MHU-212/E: AUTHORIZED ONLY FOR PALLETIZING BLU-109 VARIANTS WITHOUT THE IM VENT CAP INSTALLED ON THE AFT END.

MHU-212A/E: AUTHORIZED FOR ANY BLU-109 OR BLU-116 VARIANT WITHOUT THE IM VENT CAP INSTALLED ON THE AFT END.

MHU-212B/E:

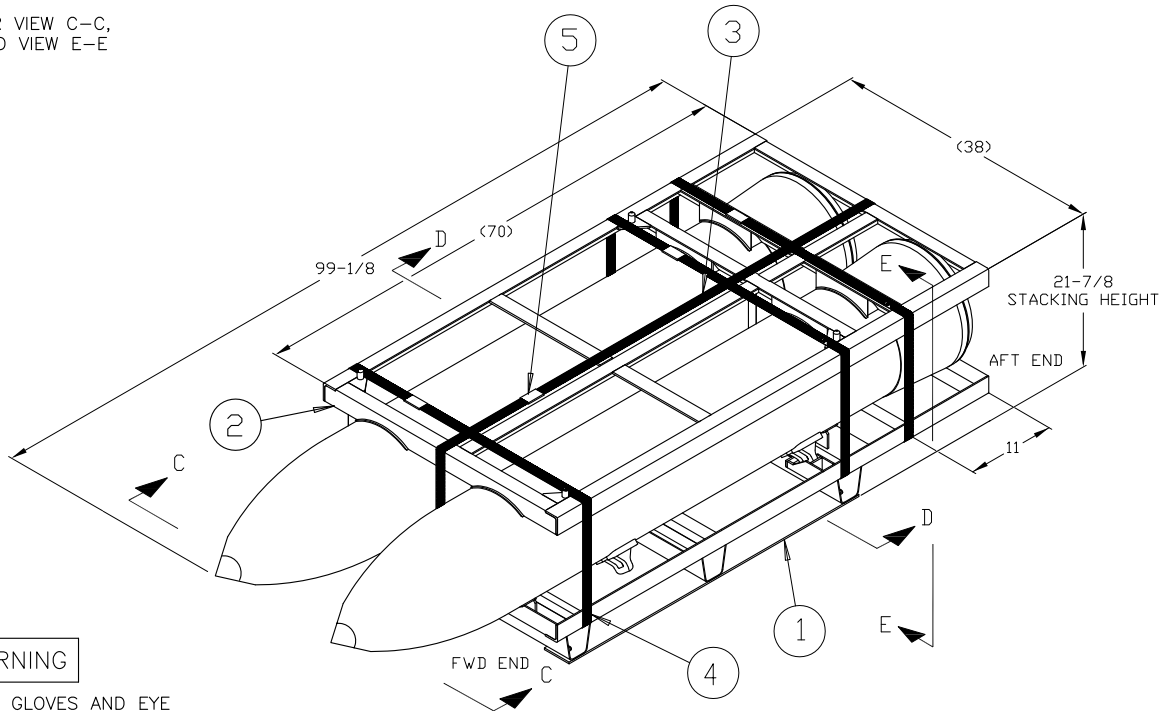
- (1) REQUIRED WHEN PALLETIZING ANY VARIANT OF THE BLU-109 OR BLU-116 THAT HAS THE IM VENT CAP INSTALLED ON THE AFT END.
- (2) AUTHORIZED FOR PALLETIZING ANY BLU-109 OR BLU-116 VARIANT, WITH OR WITHOUT IM VENT CAPS ON THE AFT END.



PALLETIZING PROCEDURE – MHU-212/E PALLET:

- (A) AS PER PAGE 3, THIS PALLET FRAME IS AUTHORIZED ONLY FOR BLU-109 BOMBS WITHOUT THE IM VENT CAPS ON THE AFT END.
- (B) THREAD LONGITUDINAL STRAPPING, ITEM 3, THROUGH SLOTS IN BOTTOM FRAME, ITEM 1, AS SHOWN IN VIEW C-C.
- (C) POSITION TWO BOMBS ON BOTTOM FRAME, ITEM 1, WITH AFT SUSPENSION LUGS CONTAINED IN THE BOTTOM FRAME RECEPTACLES IN THE FIVE O’CLOCK AND SEVEN O’CLOCK POSITIONS AS SHOWN IN SECTION D-D. THE AFT ENDS OF THE BOMBS SHALL BE SNUG AGAINST THE AFT RIM OF THE BOTTOM FRAME AS SHOWN IN VIEW E-E.
- (D) POSITION TOP FRAME, ITEM 2, OVER THE BOMBS WITH THE AFT RIM OF THE FRAME SNUG AGAINST THE AFT ENDS OF THE BOMBS AS SHOWN IN VIEW E-E.
- (E) POSITION LATERAL STRAPPING, ITEM 4, UNDER THE UNIT LOAD (THROUGH RUNNERS) AND OVER THE TOP FRAME IN POSITION SHOWN BELOW. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (F) POSITION LONGITUDINAL STRAPPING, ITEM 3, OVER THE TOP FRAME. TENSION AND SECURE STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (G) MARK UNIT LOAD IN ACCORDANCE WITH INSTRUCTIONS ON PAGE 12.

SEE PAGE 10 FOR VIEW C-C, SECTION D-D, AND VIEW E-E



WARNING

WEAR LEATHER GLOVES AND EYE PROTECTION (WITH SIDE SHIELDS) OR GOGGLES TO PREVENT INJURY WHEN PERFORMING STRAPPING OPERATIONS. RAPIDLY UNCOILING STRAPPING MAY CAUSE INJURY. DIRECT STRAPPING AWAY FROM PERSONNEL WHEN CUTTING STRAPPING UNDER TENSION.

NOTES:

- 1. STRAPPING SHALL CONFORM TO ASTM D3953, FLAT, TYPE 1, HEAVY DUTY, FINISH B, GRADE 2.
- 2. SEALS SHALL CONFORM TO ASTM D3953, CLASS H, FINISH B. GRADE 2, STYLE I, II OR IV.

DEPALLETIZING PROCEDURE:

- (A) CUT AND REMOVE ALL STRAPPING.
- (B) REMOVE TOP FRAME.
- (C) REMOVE BOMBS.
- (D) POSITION TOP FRAME ON BOTTOM FRAME.
- (E) STACK LIKE ASSEMBLIES AND SECURE TOGETHER FOR STORAGE/STOWAGE.

4	5	STRAP SEAL	SEE NOTE 2	1-1/4 SIZE
3	4	STRAPPING, LATERAL	SEE NOTE 1	1-1/4 X .031 (OR .035) X 11 FT
1	3	STRAPPING, LONGITUDINAL	SEE NOTE 1	1-1/4 X .031 (OR .035) X 16 FT
1	2	MHU-212/E FRAME, TOP	3336AS102	70 X 38 X 2-1/2
1	1	MHU-212/E FRAME, BOTTOM	3336AS101	70 X 38 X 6-3/4
REQ'D	ITEM	DESCRIPTION	MAT'L/DWG.	DIMENSIONS

LIST OF MATERIALS

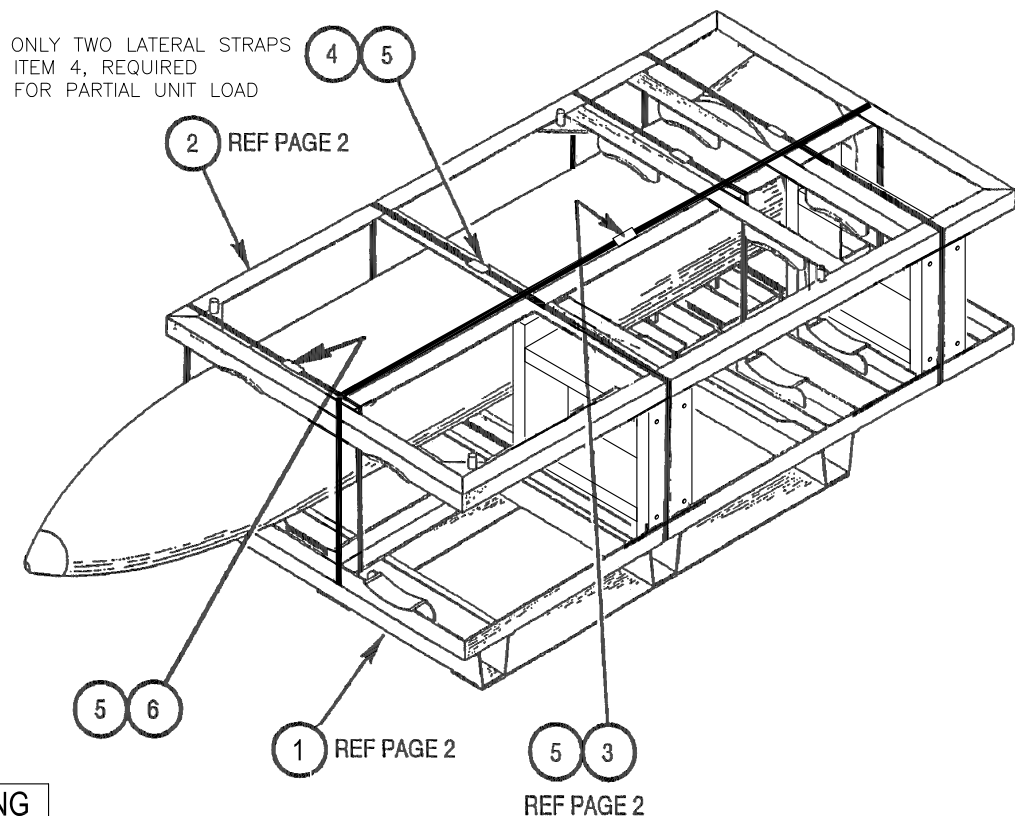
PALLETIZING PROCEDURE – MHU-212/E PALLET (SINGLE BOMB):

- (A) AS PER PAGE 3, THIS PALLET FRAME IS AUTHORIZED ONLY FOR BLU-109 BOMBS WITHOUT THE IM VENT CAP ON THE AFT END.
- (B) FABRICATE TWO WOOD FRAME ASSEMBLIES AS SHOWN IN DETAIL F ON PAGE 11.
- (C) THREAD LONGITUDINAL STRAPPING, ITEM 3, THROUGH SLOTS IN BOTTOM FRAME, ITEM 1, AS SHOWN IN DETAIL A AND VIEW C-C.
- (D) POSITION ONE 2000 LB BOMB ON RIGHT HAND SIDE OF BOTTOM FRAME (LOOKING AT FRAME FROM THE REAR) WITH THE AFT END OF THE BOMB AGAINST THE AFT RIM OF THE FRAME AS SHOWN IN VIEW E-E. AFT SUSPENSION LUG SHALL BE CONTAINED IN THE BOTTOM FRAME RECEPTACLE IN THE FIVE O'CLOCK POSITION AS SHOWN IN SECTION D-D.
- (E) POSITION TWO WOOD FRAME ASSEMBLIES ON PALLET IN THE POSITIONS SHOWN IN DETAIL A.
- (F) POSITION TOP FRAME, ITEM 2, OVER UNIT LOAD WITH ITS AFT RIM SNUG AGAINST THE AFT END OF THE BOMB AS SHOWN IN VIEW E-E. BE SURE THAT THE FRAME FITS SNUGLY OVER THE WOOD FRAME ASSEMBLIES.
- (G) POSITION TWO SHORT LATERAL STRAPS, ITEM 6, AROUND THE UNIT LOAD AS SHOWN. LOCATE STRAPS IN POSITIONS SHOWN. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (H) POSITION TWO LATERAL STRAPS, ITEM 4, AROUND THE UNIT LOAD AS SHOWN. LOCATE STRAPS IN APPROXIMATE POSITIONS SHOWN. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (J) BRING LONGITUDINAL STRAP, ITEM 3, OVER THE UNIT LOAD. TENSION AND SECURE STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (K) MARK UNIT LOAD IN ACCORDANCE WITH INSTRUCTIONS ON PAGE 12.

WARNING

SEE PAGE 10 FOR VIEW C-C, SECTION D-D, AND VIEW E-E

WEAR LEATHER GLOVES AND EYE PROTECTION (WITH SIDE SHIELDS) OR GOGGLES TO PREVENT INJURY WHEN PERFORMING STRAPPING OPERATIONS. RAPIDLY UNCOILING STRAPPING MAY CAUSE INJURY. DIRECT STRAPPING AWAY FROM PERSONNEL WHEN CUTTING STRAPPING UNDER TENSION.



WARNING

- 1. TRANSFER-AT-SEA OF PARTIAL UNIT LOADS IS PERMITTED VIA CONREP ONLY USING THE MK 123 MOD 0 PALLET SLING. VERTREP (VIA HELICOPTER) IS FORBIDDEN.
- 2. DO NOT STACK ON TOP OF PARTIAL UNIT LOADS.

2	6	STRAPPING, LATERAL	SEE P.2 NOTE 1	1-1/4 X .031 (OR .035) X 8 FT
REQ'D	ITEM	DESCRIPTION	MAT'L/DWG.	DIMENSIONS

LIST OF MATERIALS

NAVSEA
DWG NO.

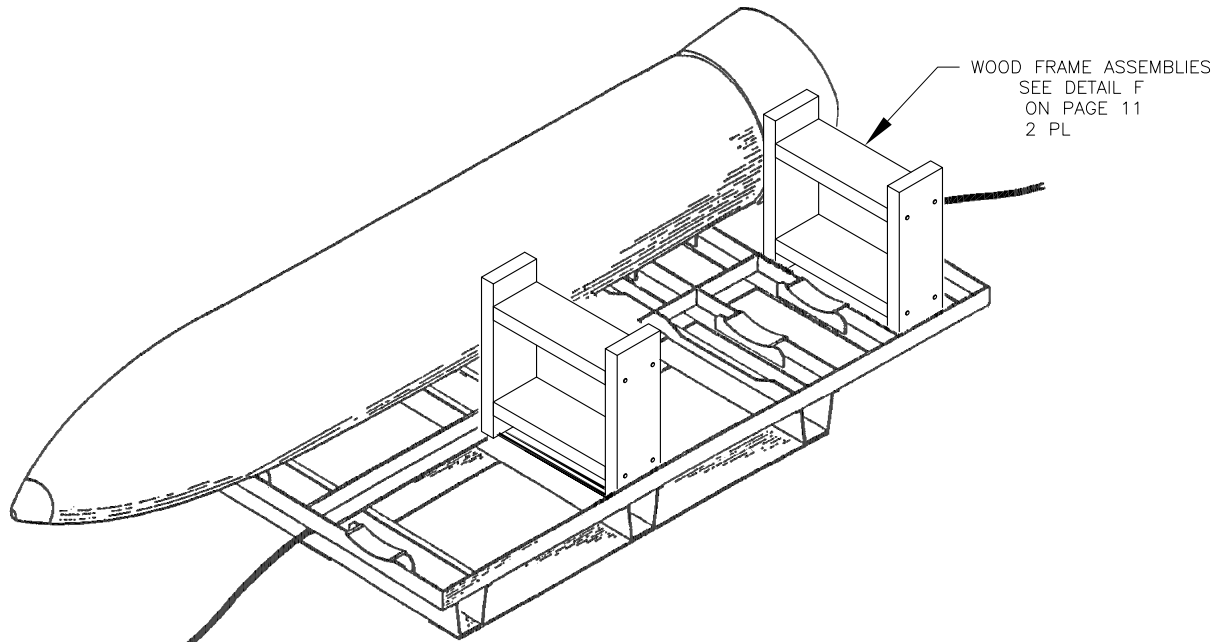
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REV. B

SIZE A

CAGE CODE
53711

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DETAIL A

3 REF

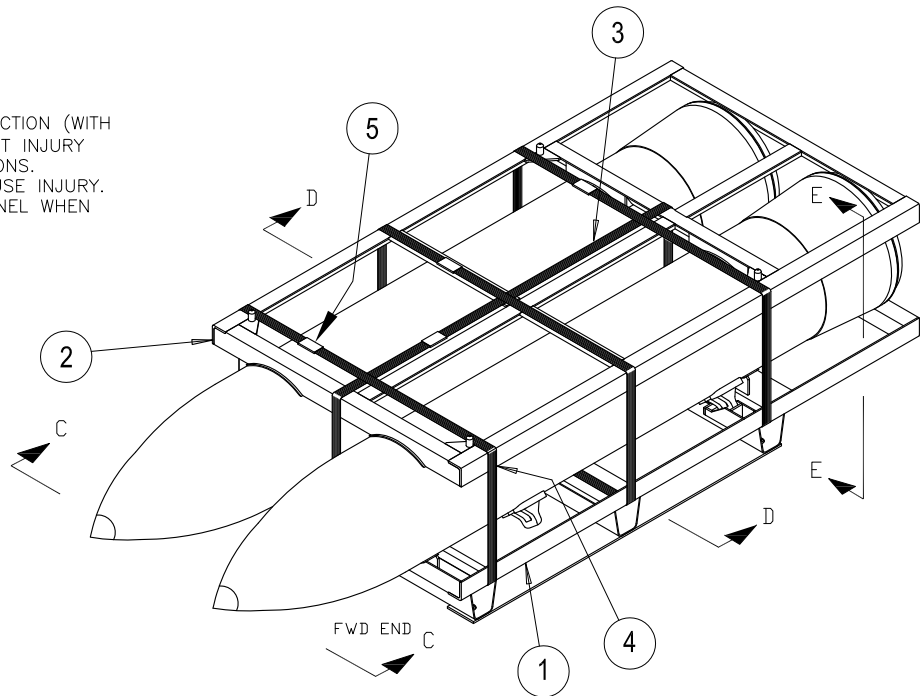
PALLETIZING PROCEDURE – MHU-212A/E AND MHU-212B/E PALLET:

- (A) SELECT CORRECT PALLET FRAME AS PER THE NOTES ON PAGE 3.
- (B) THREAD LONGITUDINAL STRAPPING, ITEM 3, THROUGH SLOTS IN BOTTOM FRAME, ITEM 1, AS SHOWN IN VIEW C-C.
- (C) POSITION TWO BOMBS ON BOTTOM FRAME WITH AFT SUSPENSION LUGS CONTAINED IN THE BOTTOM FRAME RECEPTACLES IN THE FIVE O'CLOCK AND SEVEN O'CLOCK POSITIONS AS SHOWN IN SECTION D-D. THE AFT ENDS OF THE BOMBS SHALL BE SNUG AGAINST THE AFT RIM OF THE BOTTOM FRAME AS SHOWN IN VIEW E-E.
- (D) POSITION TOP FRAME, ITEM 2, OVER THE BOMBS WITH THE AFT RIM OF THE FRAME SNUG AGAINST THE AFT ENDS OF THE BOMBS AS SHOWN IN VIEW E-E.
- (E) BRING LONGITUDINAL STRAPPING, ITEM 3, OVER THE TOP FRAME. TENSION AND SECURE STRAP WITH ONE DOUBLE IN POSITIONS SHOWN BELOW. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (F) POSITION LATERAL STRAPPING, ITEM 4, UNDER THE UNIT LOAD (THROUGH RUNNERS) AND OVER THE TOP FRAME IN POSITIONS SHOWN BELOW. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (G) MARK UNIT LOAD IN ACCORDANCE WITH INSTRUCTIONS ON PAGE 12.

SEE PAGE 10 FOR VIEW C-C,
SECTION D-D, AND VIEW E-E

WARNING

WEAR LEATHER GLOVES AND EYE PROTECTION (WITH SIDE SHIELDS) OR GOGGLES TO PREVENT INJURY WHEN PERFORMING STRAPPING OPERATIONS. RAPIDLY UNCOILING STRAPPING MAY CAUSE INJURY. DIRECT STRAPPING AWAY FROM PERSONNEL WHEN CUTTING STRAPPING UNDER TENSION.



NOTES:

1. STRAPPING SHALL CONFORM TO ASTM D3953, FLAT, TYPE 1, HEAVY DUTY, FINISH B, GRADE 2.
2. SEALS SHALL CONFORM TO ASTM D3953, CLASS H, FINISH B. GRADE 2, STYLE I, II, OR IV.
3. THE MHU-212B/E PALLET IS IDENTIFIED BY THE TWO RADI CUTOUTS ON THE AFT ENDS OF THE FRAMES. SEE ILLUSTRATIONS ON PAGE 3.

DEPALLETIZING PROCEDURE:

- (A) CUT AND REMOVE ALL STRAPPING.
- (B) REMOVE TOP FRAME.
- (C) REMOVE BOMBS.
- (D) POSITION TOP FRAME ON BOTTOM FRAME.
- (E) STACK LIKE ASSEMBLIES AND SECURE TOGETHER FOR STORAGE/STOWAGE.

REQ'D	ITEM	DESCRIPTION	MAT'L/DWG.	DIMENSIONS
4	5	STRAP SEAL	SEE P.2 NOTE 2	1-1/4 SIZE
3	4	STRAPPING, LATERAL	SEE P.2 NOTE 1	1-1/4 X .031 (OR .035) X 11 FT
1	3	STRAPPING, LONGITUDINAL	SEE P.2 NOTE 1	1-1/4 X .031 (OR .035) X 13 FT
1	2	FRAME, TOP (MHU-212B/E)	3728AS202	70 X 38 X 2-1/2
1	2	FRAME, TOP (MHU-212A/E)	3728AS102	70 X 38 X 2-1/2
1	1	FRAME, BOTTOM (MHU-212B/E)	3728AS201	70 X 38 X 6-3/4
1	1	FRAME, BOTTOM (MHU-212A/E)	3728AS101	70 X 38 X 6-3/4

LIST OF MATERIALS

NAVSEA
DWG NO.

6214303

REV. B

SIZE A

CAGE CODE
53711

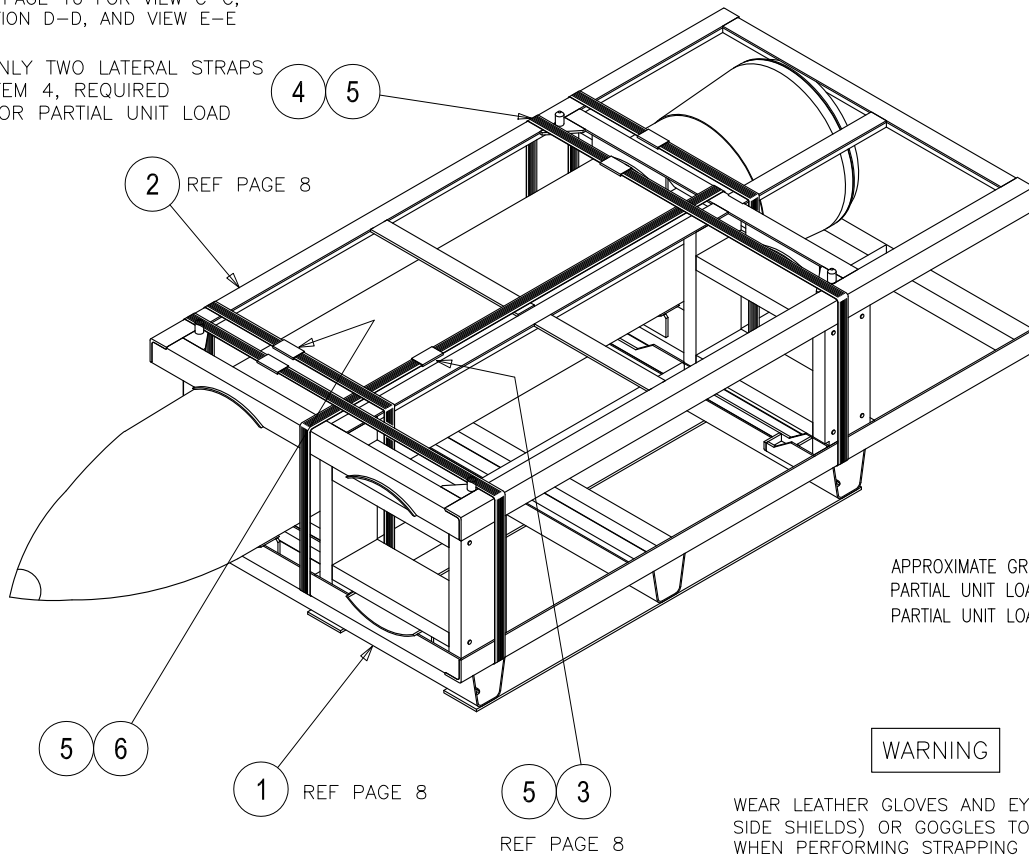
PAGE 7 OF 12

PALLETIZING PROCEDURE – MHU-212A/E AND MHU-212B/E PALLET (SINGLE BOMB):

- (A) SELECT CORRECT PALLET FRAME AS PER THE NOTES ON PAGE 3.
- (B) FABRICATE TWO WOOD FRAME ASSEMBLIES AS SHOWN IN DETAIL F.
- (C) THREAD LONGITUDINAL STRAPPING, ITEM 3, THROUGH SLOTS IN BOTTOM FRAME, ITEM 1, AS SHOWN IN VIEW A-A AND DETAIL F.
- (D) POSITION ONE 2000 LB BOMB ON RIGHT HAND SIDE OF BOTTOM FRAME (LOOKING AT FRAME FROM THE REAR) WITH THE AFT END OF THE BOMB AGAINST THE AFT RIM OF THE FRAME AS SHOWN IN VIEW E-E. AFT SUSPENSION LUG SHALL BE CONTAINED IN THE BOTTOM FRAME RECEPTACLE IN THE FIVE O'CLOCK POSITION AS SHOWN IN SECTION D-D.
- (E) POSITION TWO WOOD FRAME ASSEMBLIES ON PALLET IN THE POSITIONS SHOWN IN DETAIL B.
- (F) POSITION TOP FRAME, ITEM 2, OVER UNIT LOAD WITH ITS AFT RIM SNUG AGAINST THE AFT END OF THE BOMB AS SHOWN IN VIEW E-E. BE SURE THAT THE FRAME FITS SNUGLY OVER THE WOOD FRAME ASSEMBLIES.
- (G) BRING LONGITUDINAL STRAP, ITEM 3, OVER THE UNIT LOAD. TENSION AND SECURE STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (H) POSITION TWO SHORT LATERAL STRAPS, ITEM 6, AROUND THE UNIT LOAD AS SHOWN. LOCATE STRAPS IN APPROXIMATE POSITIONS SHOWN. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (J) POSITION TWO LATERAL STRAPS, ITEM 4, AROUND THE UNIT LOAD (THROUGH RUNNERS) AS SHOWN. LOCATE STRAPS IN APPROXIMATE POSITIONS SHOWN. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE NOTCHED SEAL, ITEM 5.
- (K) MARK UNIT LOAD IN ACCORDANCE WITH INSTRUCTIONS ON PAGE 12.

SEE PAGE 10 FOR VIEW C-C,
SECTION D-D, AND VIEW E-E

ONLY TWO LATERAL STRAPS
ITEM 4, REQUIRED
FOR PARTIAL UNIT LOAD



APPROXIMATE GROSS WEIGHT OF
PARTIAL UNIT LOAD BLU-109 . . . 2330 LB
PARTIAL UNIT LOAD BLU-116 . . . 2264 LB

WARNING

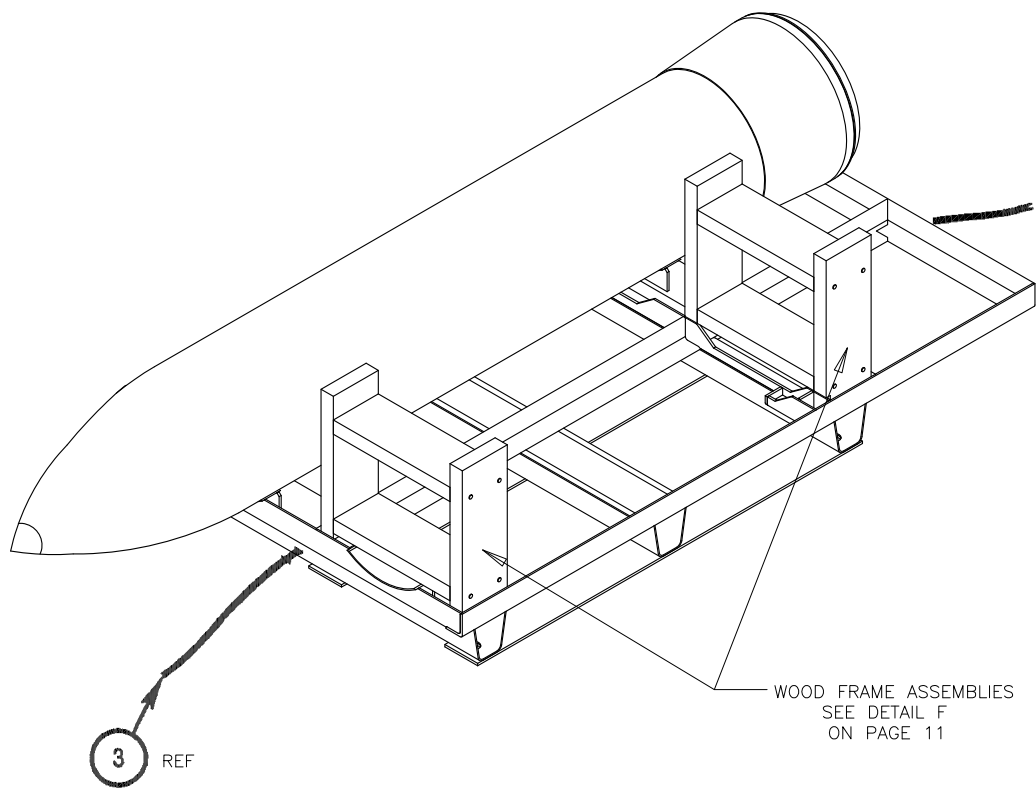
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- 2. DO NOT STACK ON TOP OF PARTIAL UNIT LOADS.

WARNING

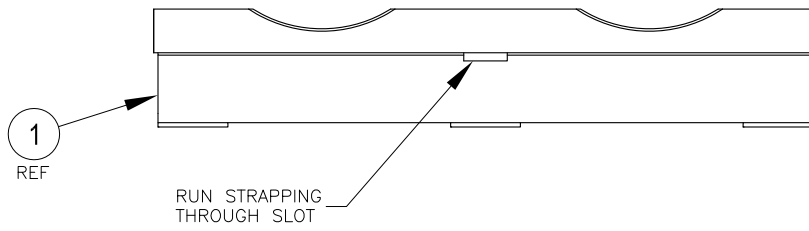
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REQ'D	ITEM	DESCRIPTION	MAT'L/DWG.	DIMENSIONS
2	6	STRAPPING, LATERAL	SEE P.2 NOTE 1	1-1/4 X .031 (OR .035) X 8 FT

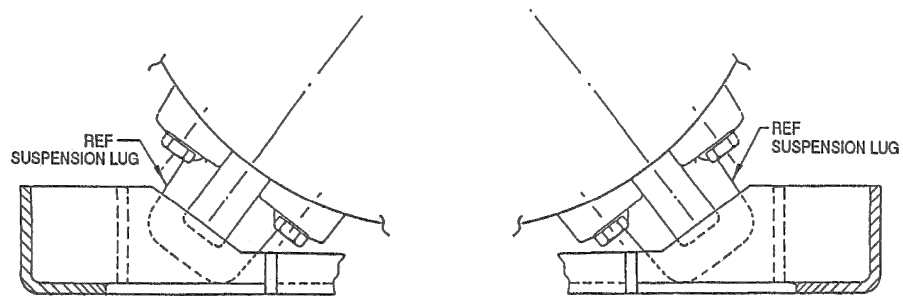
LIST OF MATERIALS



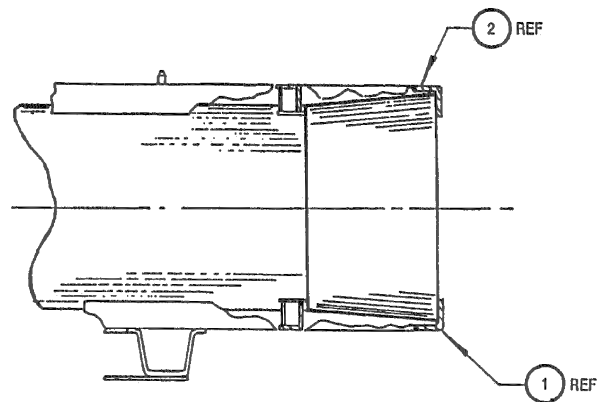
DETAIL B



VIEW C-C

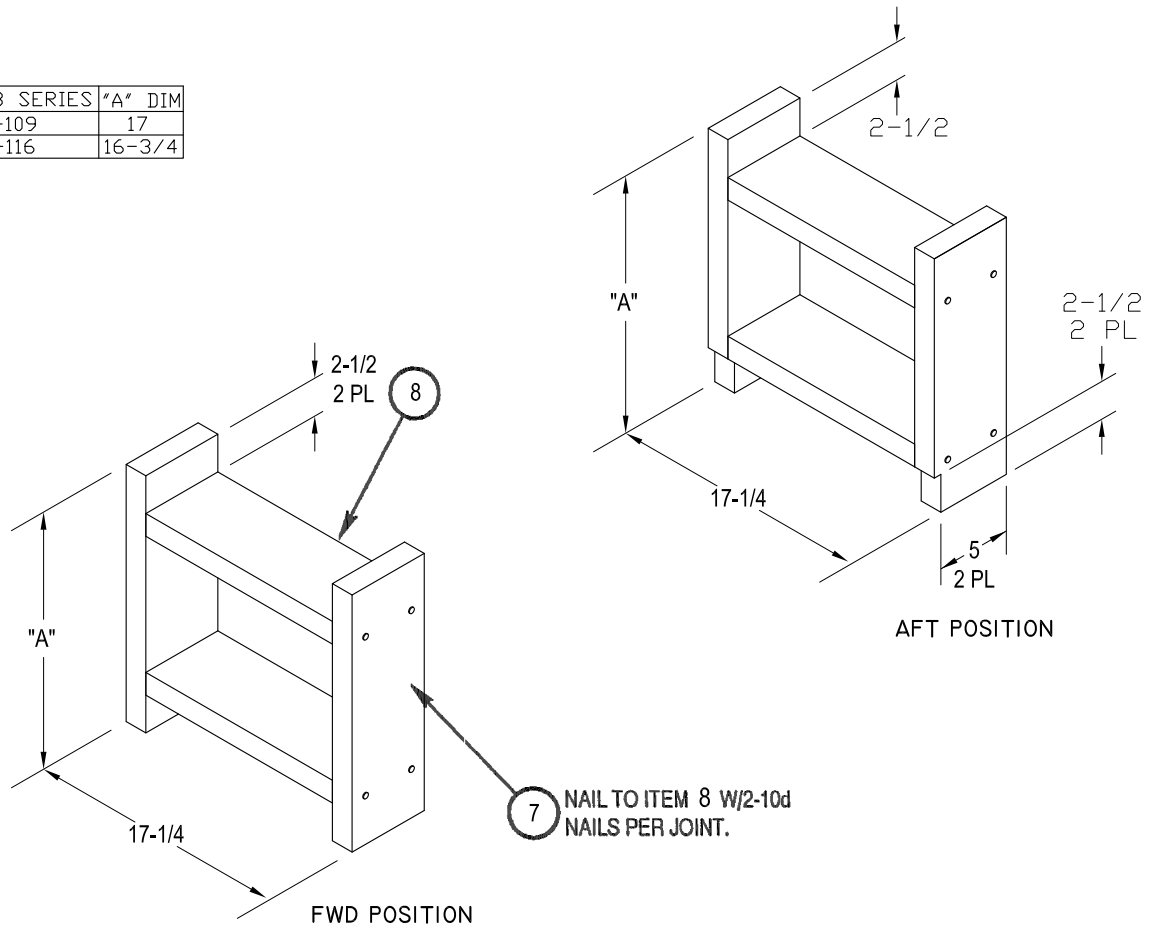


SECTION D-D



VIEW E-E

BOMB SERIES	"A" DIM
BLU-109	17
BLU-116	16-3/4



DETAIL F

NOTES:

- WOOD SHALL CONFORM TO VOLUNTARY PRODUCTS STANDARD PS-20-99.
- UNITED NATIONS (UN), INTERNATIONAL PLANT PROTECTION COMMISSION (IPPC) RESTRICTIONS REGARDING SOLID WOOD PACKAGING MATERIAL (WPM): IN ACCORDANCE WITH THE REQUIREMENTS OF INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES (ISPM) 15 "GUIDELINES FOR REGULATING WOOD PACKAGING MATERIAL IN INTERNATIONAL TRADE." THE FOLLOWING COMMERCIAL HEAT TREATMENT PROCESS HAS BEEN APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE (ALSC) AND IS REQUIRED FOR ALL NON-MANUFACTURED WOOD PACKAGING MATERIAL (WPM). WPM SHALL BE CONSTRUCTED FROM HEAT TREATED (HT TO 56 DEGREES CENTIGRADE FOR 30 MINUTES) LUMBER AND CERTIFIED BY AN ACCREDITED AGENCY RECOGNIZED BY THE ALSC IN ACCORDANCE WITH WOOD PACKAGING MATERIAL POLICY AND WOOD PACKAGING MATERIAL ENFORCEMENT REGULATIONS ([HTTP://WWW.ALSC.ORG](http://www.alsc.org)). EACH PIECE OF WOOD MUST INCLUDE CERTIFICATION MARKINGS IN ACCORDANCE WITH ALSC STANDARDS AND BE PLACED IN AN UNOBSTRUCTED AREA THAT WILL BE READILY VISIBLE TO INSPECTORS. ALL DUNNAGE USED IN CONFIGURING AND/OR SECURING THE LOAD SHALL ALSO COMPLY WITH ISPM 15 AND BE MARKED WITH AN ALSC APPROVED DUNNAGE STAMP. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS RESTRICTION MAY RESULT IN REFUSAL, DESTRUCTION OR TREATMENT OF MATERIALS AT THE POINT OF ENTRY, POSSIBLY CAUSING UNACCEPTABLE DELAY IN DELIVERY OF NEEDED PARTS.
- NAILS SHALL CONFORM TO ASTM F1667 DESIGNATION F1667 NL CM S-XX B, WHERE "XX" DESIGNATES THE SIZE (I.E., 8d, 10d, ETC.).

REQ'D	ITEM	DESCRIPTION	MAT'L/DWG.	DIMENSIONS
4	8	HORIZONTAL, DETAIL F	SEE NOTES 1, 2 & 3	2 X 6 X 14-1/4
4	7	VERTICAL, DETAIL F	SEE NOTES 1, 2 & 3	2 X 6 X "A"

LIST OF MATERIALS

NAVSEA
DWG NO.

6214303

REV. B

SIZE A

CAGE CODE
53711

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MARKING INSTRUCTIONS:

1. IN ADDITION TO ANY SPECIAL MARKING REQUIRED BY CONTRACT OR PURCHASE ORDER, THE UNIT LOAD SHALL BE MARKED IN ACCORDANCE WITH 28620-ACV00561 AND THE FOLLOWING NOTES.
2. THE UNIT LOAD MARKING AND UNIT LOAD LINEAR AND 2D BAR CODES SHALL BE APPLIED TO WATERPROOF TAG(S) THAT ARE ATTACHED TO THE UNIT LOAD AT DIAGONALLY OPPOSITE ENDS OF THE UNIT LOAD ON THE TOP FRAME OF THE ADAPTER. THE UNIT LOAD MARKING AND LINEAR BAR CODE LABELS SHALL BE APPLIED TO ONE SIDE OF THE TAG. THE 2D BAR CODE LABEL SHALL BE APPLIED TO THE OPPOSITE SIDE OF THE TAG. WATERPROOF PAPER, METAL, CLOTH OR PLASTIC TAGS SHALL BE USED. THE TAGS SHALL BE ATTACHED BY CORROSION-RESISTANT WIRE OR PLASTIC TIES.
3. LINEAR BAR CODE LABELS:
 - A. IN ADDITION TO 2D BAR CODE LABELS OF ACV00561, APPLY NIIN AND LOT NUMBER LINEAR BAR CODE LABELS AS FOLLOWS:
 - 1) NIIN BAR CODE LABEL: THE NINE-DIGIT NATIONAL ITEM IDENTIFICATION NUMBER (NIIN), OWNERSHIP CODE AND AMMUNITION CONDITION CODE SHALL BE ENCODED AS A SINGLE "MESSAGE". THE NIIN SHALL BE ENCODED WITHOUT THE DASHES. A SPACE (ENCODED) SHALL BE PLACED BETWEEN THE NIIN AND THE OWNERSHIP CODE AND BETWEEN THE OWNERSHIP CODE AND AMMUNITION CONDITION CODE.
 - a) OWNERSHIP CODE: THE OWNERSHIP CODE SHALL BE AS FOLLOWS:
 1. FOR ARMY-OWNED AMMUNITION- "1".
 2. FOR MARINE CORPS-OWNED AMMUNITION- "4".
 3. FOR NAVY OWNED-AMMUNITION- "5".
 4. FOR AIR FORCE-OWNED AMMUNITION- "6".
 5. FOR COAST GUARD-OWNED AMMUNITION- "7".
 - b) AMMUNITION CONDITION CODE: THE AMMUNITION CONDITION CODE (C/C) SHALL BE "A" FOR NEW PRODUCTION ASSETS.
 - 2) LOT/SERIAL NUMBER BAR CODE LABEL: THE LOT NUMBER, SERIAL NUMBER, SHELF-LIFE EXPIRATION DATE AND QUANTITY SHALL BE ENCODED ON THE SAME "MESSAGE". A SLASH (ENCODED) SHALL BE PLACED BETWEEN THE LOT NUMBER AND THE SERIAL NUMBER, WHEN BOTH LOT AND SERIAL NUMBERS ARE ASSIGNED. THE SHELF-LIFE EXPIRATION DATE IS A 4 DIGIT DATA ELEMENT REPRESENTING THE MONTH (01 THROUGH 12) AND LAST TWO DIGITS OF THE YEAR. THE SHELF-LIFE SHALL BE ENCODED BETWEEN THE SERIAL NUMBER AND THE QUANTITY, IF A SHELF-LIFE IS ASSIGNED. A SPACE (ENCODED) SHALL BE PLACED BETWEEN THE SERIAL NUMBER AND THE SHELF-LIFE DATE AND BETWEEN THE SHELF-LIFE DATE AND THE QUANTITY.
 - B. LINEAR BAR CODE REQUIREMENTS:
 - 1) LABELS SHALL MEET THE REQUIREMENTS FOR GRADE A, STYLE 2, COMPOSITION B, LABELS AS SPECIFIED IN MIL-PRF-61002. THE PERFORMANCE REQUIREMENTS FOR SOLVENT AND DETERGENT RESISTANCE ARE NOT REQUIRED. THE LABEL SHOULD BE THE PRESSURE SENSITIVE ADHESIVE TYPE. ADDITIONAL PERFORMANCE REQUIREMENTS THAT MUST BE MET ARE AS FOLLOWS:
 - a) THE LABEL MATERIAL WILL BE MINIMUM OF 6.8 MIL THICK (7 MIL NOMINAL). MATERIAL WILL PROVIDE A MINIMUM OF 42 LBS/1-INCH WIDE TENSILE STRENGTH AT BREAK WHEN TESTED IAW ASTM D882. MATERIAL WILL PROVIDE A MINIMUM OF 6600 GRAMS (66 NEWTONS) OF PUNCTURE PROPAGATION AND TEAR RESISTANCE WHEN TESTED IAW ASTM D2582.
 - b) EACH LABEL SHALL BE NO GREATER THAN 4 INCHES BY 4 INCHES SQUARE. NEW PRODUCTION SHALL HAVE LABELS OF MINIMUM SIZE WITH MINIMUM AMOUNT OF WHITE SPACE. FORMAT IS NOT MANDATED BUT THE INFORMATION SHOULD BE GROUPED BY NSN OR PART NUMBER AND THEN BY SERIAL NUMBER FOR EACH LOT NUMBER IF APPLICABLE.
 - 2) THE BAR CODE SYMBOLOGY AND HUMAN READABLE INFORMATION (HRI) THAT ARE TO BE APPLIED SHOULD BE THE STANDARD DOD SYMBOLOGY AS DESCRIBED IN ANSI/AIM BC1 (UNIFORM SYMBOLOGY SPECIFICATION CODE 39). THE ANSI/AIM BC1 IS A DOCUMENT PUBLISHED BY AIM USA AND MAY BE OBTAINED DIRECTLY FROM AIM USA BY WRITING TO 634 ALPHA DRIVE, PITTSBURGH PA 15328-2802 OR CALL (412) 963-8588. THE HRI SHALL BE AN EXACT INTERPRETATION OF THE DATA ENCODED IN THE BAR CODE AND SHOULD NOT CONTAIN ANY SPACES OR DASHES, THE PREFERRED LOCATION FOR THE HRI IS BELOW THE BAR CODE MARKINGS.
 - 3) BAR CODE RESTRICTIONS:
 - a) DENSITY OF THE BAR CODE SHALL BE 9.4 CHARACTERS PER INCH UNLESS OTHERWISE SPECIFIED.
 - b) HEIGHT OF BAR CODE SHALL BE 0.25 INCH OR GREATER. THE HEIGHT OF THE BARS MAY EXTEND TO THE EDGE OF THE LABEL.
 - c) DISTANCE BETWEEN THE BAR CODE AND THE HRI WILL BE BETWEEN 0.003 AND 0.010 INCH. THE PREFERRED DISTANCE IS 0.003.
 - d) HEIGHT OF THE HRI SHALL BE BETWEEN 0.09 AND 0.15 INCH. THE PREFERRED HEIGHT IS 0.09.