

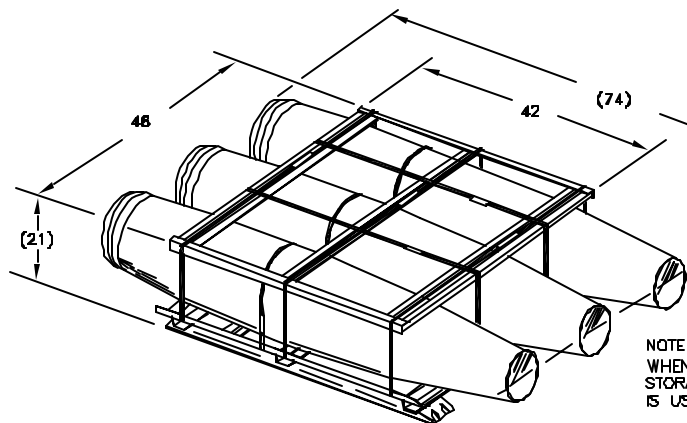
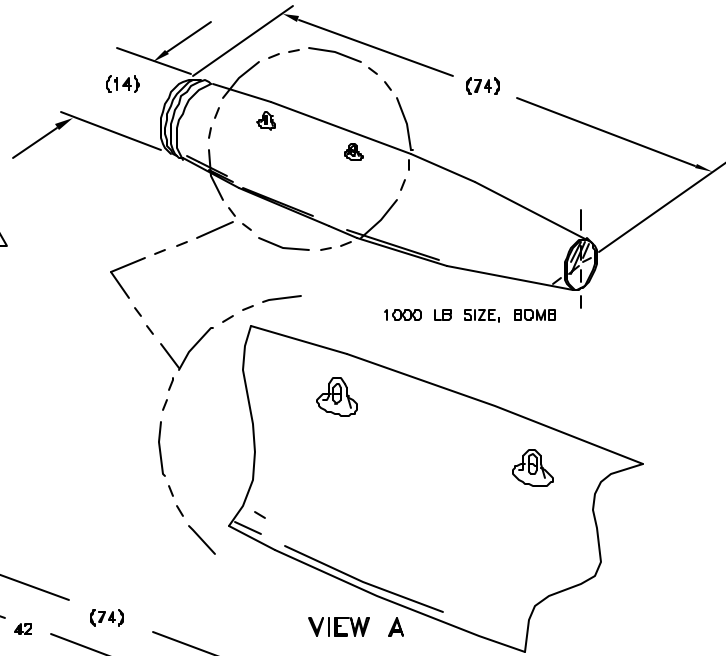
UNIT LOAD FOR UNDERWAY REPLENISHMENT BOMB, GENERAL PURPOSE: 1000 LB SIZE MK 83 SERIES AND BLU-110 SERIES ON PALLET, BOMB, LOADING AND STORAGE, MHU-187/E (ADL1454AS100)

UNIT LOAD DATA

NUMBER OF BOMBS/UNIT LOAD - - - - - 3
 GROSS WEIGHT OF ONE BOMB (APPROX) - - - 920 LBS.
 GROSS WEIGHT OF BOTTOM FRAME - - - - - 134 LBS
 GROSS WEIGHT OF TOP FRAME - - - - - 46 LBS.
 WEIGHT OF STEEL STRAPPING (APPROX) - - - 15 LBS.
 GROSS WEIGHT OF UNIT LOAD (APPROX) - - - 2,955 LBS. Δ
 CUBE - - - - - 41.4 CU. FT.
 Δ DO NOT USE FOR SHIPPING WEIGHT

WARNING

DO NOT MIX THERMALLY PROTECTED (TP) AND, NON-THERMALLY PROTECTED (NTP) BOMBS IN A UNIT LOAD.



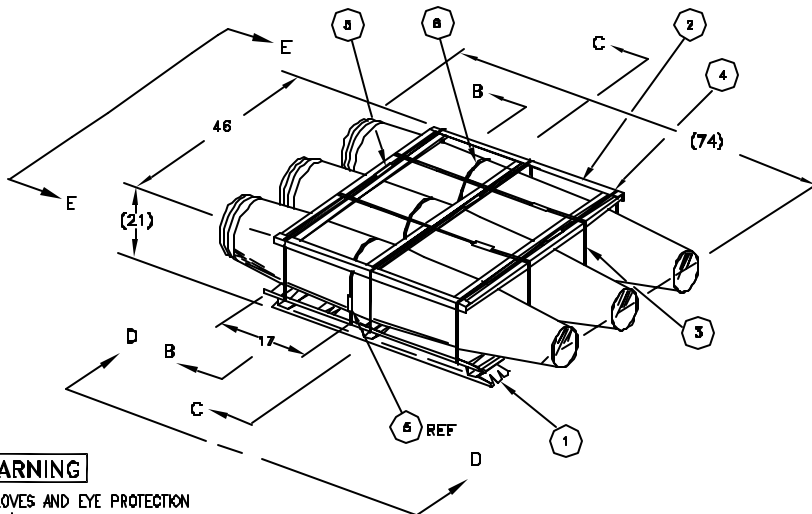
NOTE:
WHEN MHU-187A/E LOADING AND STORAGE BOMB PALLET (ADL1454AS200) IS USED, REFER TO DRAWING 53711-7516321

- NOTES:
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES
 2. SEE SWD2D-AC-SAF-010 FOR THE FOLLOWING INFORMATION:
 - A.) CROSS REFERENCE TO ASSOCIATED TRUCK LOADING, CONTAINER LOADING, AND CAR LOADING MILITARY STANDARDS.
 - B.) HAZARD CLASSIFICATION.
 3. FOR UNIT LOAD QUALIFICATION SEE PHST TEST REPORTS 82121& 4D-030-91.
 4. DO NOT STACK MORE THAN 9 UNIT LOADS HIGH IN STORAGE.

	ORIGINAL ISSUE, SUPERSEDES MIL-STD-1323-308	10/5/04	S/JM	S/RS
REV.	REVISION DESCRIPTION	DATE	TDA	SYSCOM
TECH DATA MANAGEMENT SUPERVISOR	IR/JN/S/JM	10/5/04	DISTRIBUTION STATEMENT A APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS UNLIMITED 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.	
SYSTEMS ENG. SUPERVISOR	S/KT/DLR	10/7/04		
S/RS 10/7/04				
NAVSEASYSKOM (BY DIRECTION)				
DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND WASHINGTON, D.C., 20362		CAGE CODE 53711	DWG NO. 7516303	REV. —
		SIZE A	PAGE 1 OF 5	

PALLETIZING PROCEDURE

- A. CHECK THAT THE BOMB SUSPENSION LUGS ARE POSITIONED AS SHOWN IN VIEW A PAGE 1.
- B. PLACE THE BOTTOM FRAME (ITEM 1) ON THE WORK AREA.
 1. THREAD THE CENTER BOMB STRAP (ITEM 6) UNDER BOTH INBOARD INTERMEDIATE ANGLES AND OVER THE CENTER RUNNER AS SHOWN IN SECTION C-C.
 2. THREAD OUTBOARD STRAPPING (ITEM 6) UNDER OUTBOARD INTERMEDIATE ANGLE OVER END RUNNER AND AROUND BOTTOM FRAME SIDE ANGLE AS SHOWN IN SECTION C-C.
- C. PLACE (1) BOMB ON THE CENTER SADDLES WITH THE BOMB'S FORWARD END AT THE BOTTOM FRAME'S FOREWARD END (AS STAMPED ON FORMED SADDLE).
 1. INSURE THAT THE SUSPENSION LUGS ARE IN THE 7 O'CLOCK POSITION AS SHOWN IN SECTION B-B.
 2. WITHIN DIMENSION SHOWN ON ILLUSTRATION BELOW, POSITION, TENSION AND SECURE STRAP (ITEM 6) AROUND CENTER BOMB WITH A DOUBLE NOTCHED SEAL (ITEM 5).
- D. PLACE THE REMAINING BOMBS ON THE OUTBOARD SADDLES.
 1. INSURE THAT THE SUSPENSION LUGS FACE OUTBOARD AS SHOWN IN SECTION B-B.
 2. INSURE THAT THE SUSPENSION LUGS ARE AGAINST THE FORMED SADDLES AS SHOWN IN VIEW D-D.
 3. WITHIN DIMENSION SHOWN ON ILLUSTRATION BELOW, POSITION, TENSION AND SECURE STRAPPING (ITEM 6) AROUND OUTBOARD BOMBS WITH A DOUBLE NOTCHED SEAL (ITEM 5).
- E. PLACE THE TOP FRAME (ITEM 2), OVER THE BOMBS WITH THE FORWARD END OF THE FRAME (AS STAMPED ON FORMED SADDLE) AT THE FORWARD END OF THE BOMBS, AND ALIGN THE TOP FRAME FORMED SADDLES OVER THE BOTTOM FRAME FORMED SADDLES.
- F. INSERT PLYWOOD, ITEM 7, ON THE AFT ENDS OF THE BOMBS UNDER THE TOP FRAME AS SHOWN IN VIEW E-E. DO NOT POSITION THE PLYWOOD UNDER THE AFT FORMED SADDLES.
- G. POSITION THE LONGITUDINAL STRAPPING, (ITEM 3), UNDER THE NOTCHES OF THE BOTTOM FRAME, BETWEEN THE ENDS OF THE BOMBS, AND OVER THE TOP FRAME AS SHOWN IN SECTION B-B AND VIEW E-E. TENSION AND SECURE STRAPPING WITH A DOUBLE NOTCHED SEAL, (ITEM 5). NOTE THAT THE LONGITUDINAL STRAPPING, (ITEM 3), ARE DOUBLED. DO NOT WEAVE THE LONGITUDINAL STRAPPING THROUGH THE SLOTS OF THE TOP FRAME.
- H. POSITION THE MIDDLE LATERAL STRAPPING, (ITEM 4), THROUGH THE MIDDLE VERTICAL SUPPORT OF THE BOTTOM FRAME AND OVER THE TOP FRAME AND LONGITUDINAL STRAPPING AS SHOWN IN VIEW D-D. TENSION AND SECURE STRAPPING WITH A DOUBLE NOTCHED SEAL (ITEM 5).
- I. POSITION THE TWO OUTBOARD LATERAL STRAPPING, (ITEM 4), THROUGH THE END VERTICAL SUPPORTS OF THE BOTTOM FRAME AND OVER THE TOP FRAME AND LONGITUDINAL STRAPPING. AS SHOWN IN VIEWS D-D AND E-E. TENSION AND SECURE STRAPPING WITH A DOUBLE NOTCHED SEAL, (ITEM 5).



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 D3853, CLASS H, FINISH B, GRADE 2, STYLE I, II OR IV.
3. PLYWOOD SHALL CONFORM TO QD A-A-35057, TYPE A OR B.

DE-PALLETIZING PROCEDURE

- A. CUT AND REMOVE LONGITUDINAL AND LATERAL STRAPPING.
- B. REMOVE TOP FRAME & PLYWOOD PROTECTOR
- C. CUT AND REMOVE BOMB STRAPPING.
- D. ROTATE BOMBS SO THAT LUGS ARE ON TOP.
- E. REMOVE BOMBS.
- F. INTERLOCK THE TOP & BOTTOM FRAMES USING PINS AT THE AFT END AND HOLES AT THE FORWARD END. THEREFORE THE TOP & BOTTOM ARE INTERLOCKED FORWARD TO AFT END. STACK LIKE ASSEMBLIES AND SECURE TOGETHER FOR STORAGE/STOWAGE.

REQ	ITEM	DESCRIPTION	MAT'L/DWG	DIMENSIONS	
	1	7	COATING, PROTECTOR	PLYWOOD, SEE NOTE 3	1/4 X 3 X 44 (DETAIL F)
	3	6	STRAP, BOMB, TIE DOWN	STEEL, SEE NOTE 1	1 1/4 X .031 (OR .035) X 6'
	10	5	SEAL	STEEL, SEE NOTE 2	FOR 1 1/4 STRAPPING
	3	4	STRAP, LATERAL	STEEL, SEE NOTE 1	1 1/4 X .031 (OR .035) X 13' 6"
	4	3	STRAP, LONGITUDINAL	STEEL, SEE NOTE 1	1 1/4 X .031 (OR .035) X 13' 6"
	1	2	FRAME, TOP	1454AS102	48.00 X 42.00 X 2.80
	1	1	FRAME, BOTTOM	1454AS1D1	46.75 X 46.00 X 6.25

LIST OF MATERIALS

NAVSEA
DWG No.

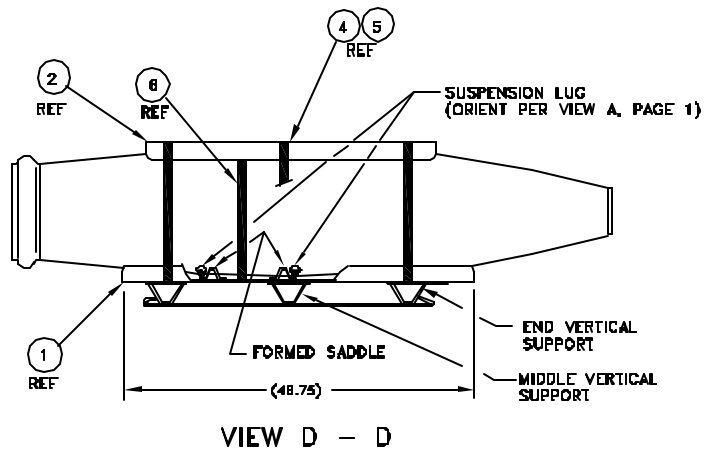
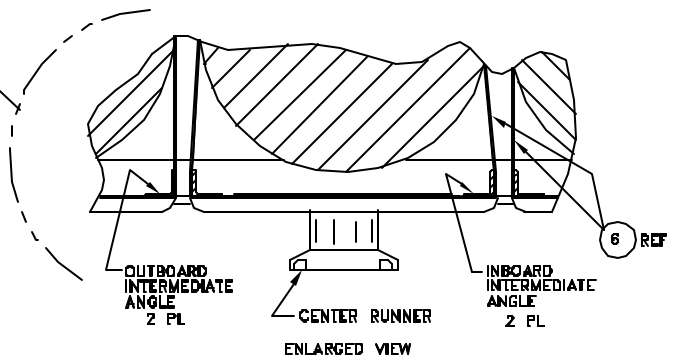
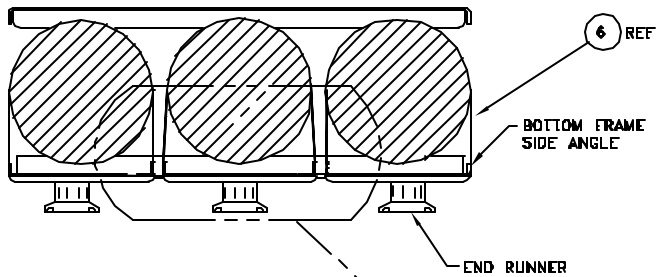
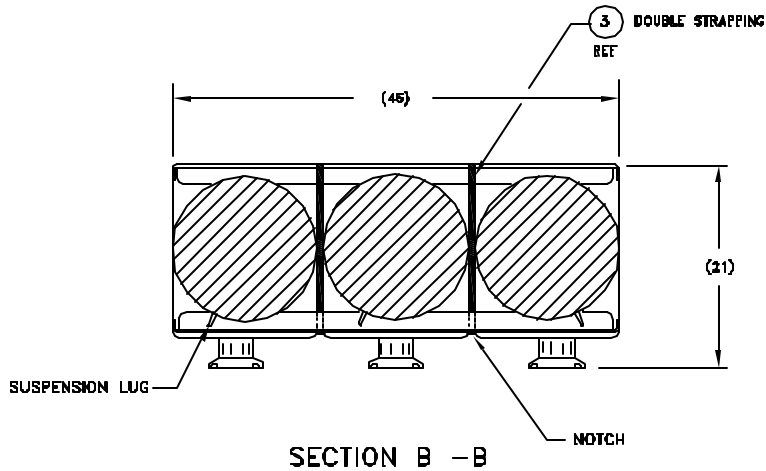
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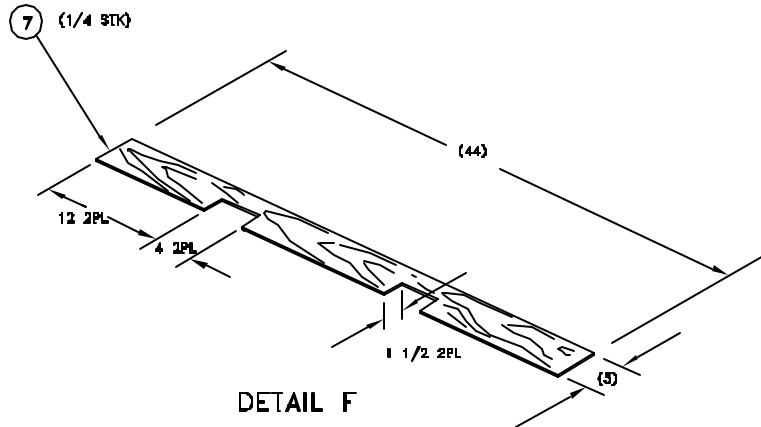
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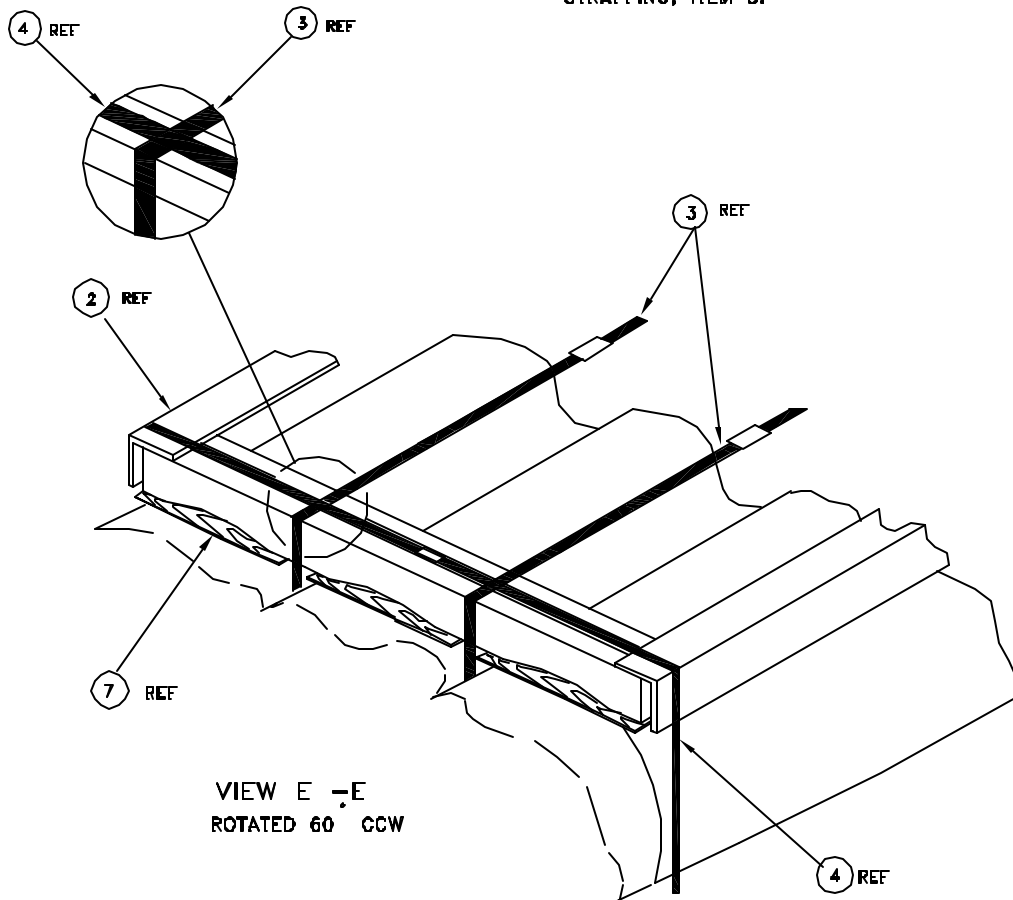
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DETAIL F

NOTE:
 APPLY LONGITUDINAL STRAPPING, ITEM 3, FIRST.
 LATERAL STRAPPING, ITEM 4, TO BE APPLIED
 OVER TOP FRAME, ITEM 2, AND OVER LOGITUDINAL
 STRAPPING, ITEM 3.



VIEW E -E
 ROTATED 60 CCW

MARKING

1. IN ADDITION TO ANY SPECIAL MARKING REQUIRED BY CONTRACT OR 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 TAGS THAT ARE ATTACHED TO THE UNIT LOAD AT DIAGONALLY OPPOSITE CORNERS OF THE UNIT LOAD AROUND THE TOP FRAME SIDE ANGLE. 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) BAR CODE MARKINGS SHALL BE APPLIED BY MEANS OF A LABEL.
 - a) LABELS SHALL MEET THE REQUIREMENTS FOR GRADE A, STYLE 2, COMPOSITION B LABEL AS SPECIFIED IN MIL-PRF-81002. THE PERFORMANCE REQUIREMENTS FOR SOLVENT AND DETERGENT RESISTANCE ARE NOT REQUIRED.
 - b) LABELS SHALL BE THREE-QUARTERS (3/4) OF AN INCH IN HEIGHT.
 - c) BAR CODE LABELS SHALL HAVE A WATERPROOF, UNTINTED/TRANSPARENT, PLASTIC, PROTECTIVE LAMINATE SUCH AS ASTM D5486, TYPE III, CLASS 2 TAPE OR EQUIVALENT PROTECTION, SHALL BE APPLIED TO OR SHALL BE INHERENT TO THE LABEL.
 - 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.