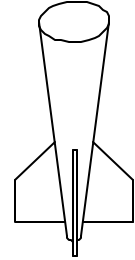


# UNIT LOAD FOR UNDERWAY REPLENISHMENT

## FIN ASSEMBLY, BOMB, BSU-33 SERIES OR FIN ASSEMBLY, BOMB, MK 82 SERIES IN ADAPTER, PALLET, ADU-426 SERIES

UNIT LOAD DATA DDDIC/NALC NO. F780, F782

NUMBER OF FIN ASSEMBLIES PER UNIT LOAD . . . 30  
 WEIGHT OF ONE FIN ASSEMBLY . . . . . 22.1 LBS  
 WEIGHT OF STEEL STRAPPING (APPROXIMATE) . . 6 LBS  
 WEIGHT OF PALLET . . . . . 90 LBS  
 WEIGHT OF ADAPTER (2 X 38.50 LBS) . . . . . 77 LBS  
 GROSS WEIGHT OF UNIT LOAD (APPROXIMATE) .836 LBS Δ  
 CUBE . . . . . 36.4 CU FT



BSU-33 FIN ASSEMBLY  
 DWG. # 30003-923AS149  
 DWG. # 30003-923AS641

MK 82 FIN ASSEMBLY  
 DWG. # 1380512

Δ DO NOT USE FOR SHIPPING WEIGHT

**NOTES:**

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES
2. SEE SW020-AC-SAF-010 FOR THE FOLLOWING INFORMATION:
  - A.) CROSS REFERENCE TO ASSOCIATED TRUCKLOADING, CONTAINER LOADING AND CAR LOADING MILITARY STANDARDS.
3. FOR UNIT LOAD QUALIFICATION, SEE PHST CENTER TEST REPORT 7568.
4. DO NOT STACK MORE THAN 5 UNIT LOADS HIGH IN STORAGE.

C	SEE NSWC IHD DET EARLE ECP I04035	4/28/04	S/JM	S/RS
B	SEE NSWC IHD DET EARLE ECP K3052	3/7/03	S/AVS	S/KZ
A	SEE NSWC IHD DET EARLE ECP K2016	3/22/02	S/AVS	S/KZ
-	ORIGINAL ISSUE, SUPERSEDES MIL-STD-1323-332A & MIL-STD-1323-2B2	8/9/99	S/AVS	S/KZ
REV.	REVISION DESCRIPTION	DATE	TDA	SYSCOM

TECH DATA MANAGEMENT SUPERVISOR	S/AVS	8/9/99
SYSTEMS ENG. SUPERVISOR	S/GB	8/9/99
S/K. H. ZIMMS 8/9/99 NAVSEASYSKOM ( BY DIRECTION )		

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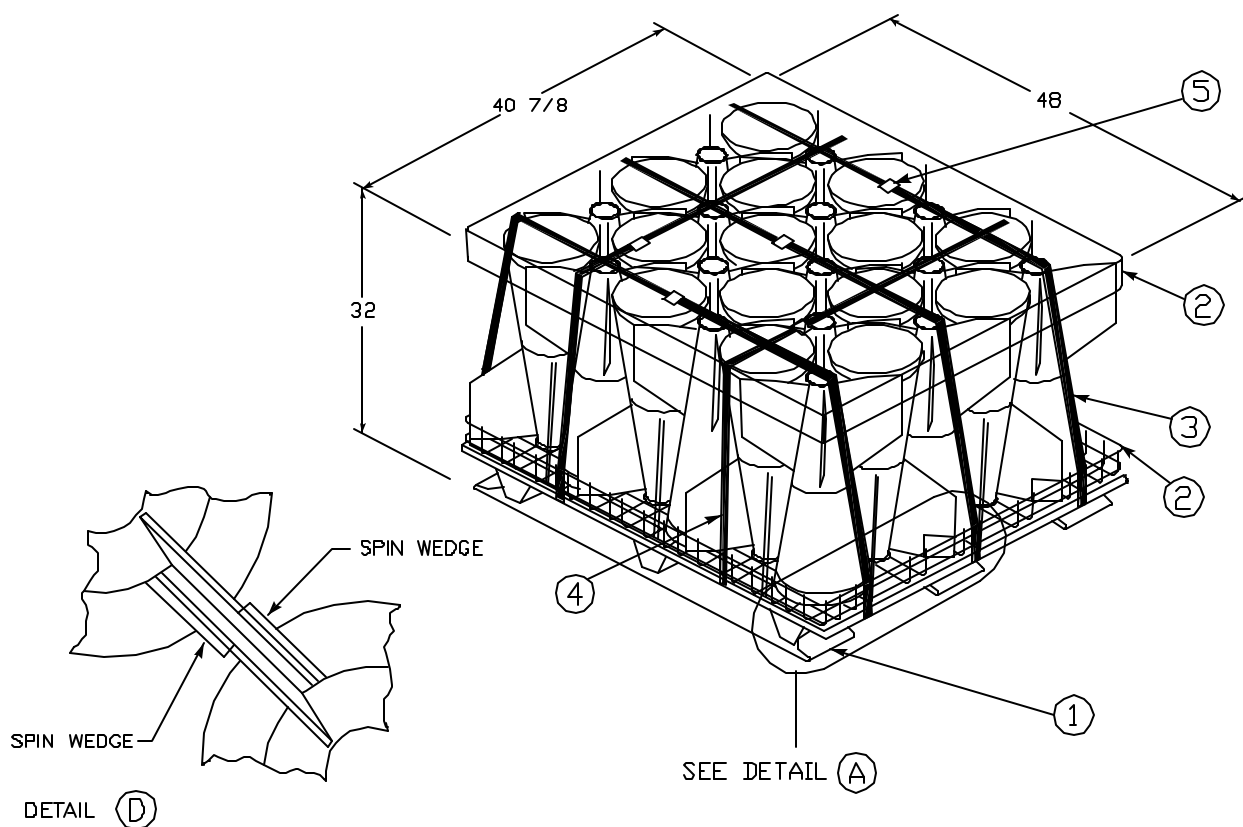
REQUIREMENTS FOR CONSTRUCTION OF THIS LOAD SHALL CONSIST OF THIS DOCUMENT & THE LATEST ISSUE OF MIL-STD-1323 ( NAVY ).

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. 6214035	REV. C
	SIZE A		

## PALLETIZING PROCEDURE

- [A] THREAD STRAPPING, ITEM 3, BETWEEN DECK WIRES OF THE PALLET, ITEM 1, AS SHOWN IN DETAIL A.
- [B] POSITION ONE ADAPTER, ITEM 2, ON THE PALLET WITH EQUAL OVERHANG ON BOTH SIDES.
- [C] POSITION THE FIN ASSEMBLIES ON THE ADAPTER, ALTERNATING TAIL UP AND TAIL DOWN, WITH THE FUZE SUPPORTS OF THE TAIL DOWN FIN ASSEMBLIES POSITIONED ON THE GUIDES AS SHOWN IN DETAIL B AND THE WINGS INTERWEAVED WITH THE ALIGNMENT PINS LOCATED AS SHOWN IN DETAIL C AND THE SPIN WEDGES ON THE OUTSIDE OF THE WEAVE AS SHOWN IN DETAIL D. THERE ARE NO SPIN WEDGES ON FIN ASSEMBLY, BOMB MK 82 ( 1380512 ).
- [D] POSITION THE SECOND ADAPTER, ITEM 2, ON TOP OF THE FIN ASSEMBLIES WITH THE GUIDES INSERTED IN THE FUZE SUPPORTS OF THE TAIL UP FIN ASSEMBLIES.
- [E] THREAD STRAPPING, ITEM 3, INSIDE THE UPPER WIRE OF THE BOTTOM ADAPTER, SEE DETAIL E, AND THROUGH THE APPLICABLE SPACES IN THE TOP ADAPTER AS SHOWN IN DETAIL F. TENSION AND DOUBLE NOTCH THE SEALS, ITEM 5.
- [F] POSITION STRAPPING, ITEM 4, UNDER THE PALLET DECK AND THREAD INSIDE THE UPPER WIRE OF THE BOTTOM ADAPTER AND THROUGH THE APPLICABLE SPACES IN THE TOP ADAPTER AS SHOWN IN DETAIL F. TENSION AND DOUBLE NOTCH THE SEALS, 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.

**DEPALLETIZING PROCEDURE**

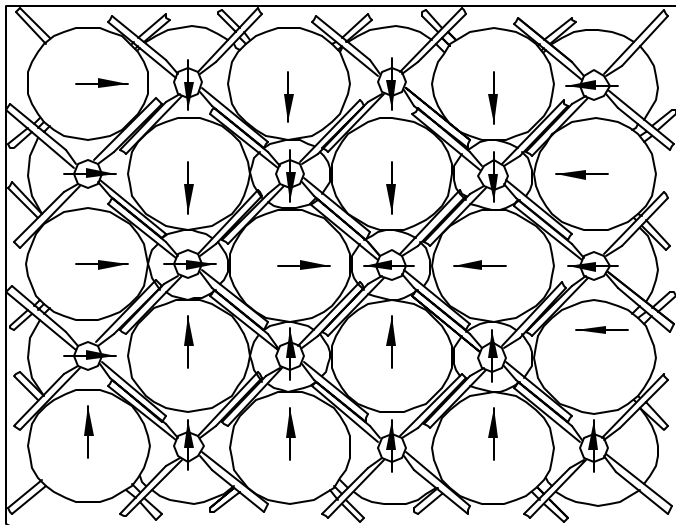
1. CUT AND REMOVE STRAPPING.
2. REMOVE THE TOP ADAPTER.
3. REMOVE THE FINAS.
4. REMOVE BOTTOM ADAPTER.

**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.

5	5	SEAL	SEE NOTE 2	3/4
2	4	STEEL STRAPPING	SEE NOTE 1	3/4 X .031 (OR .035) X 13 FT
3	3	STEEL STRAPPING	SEE NOTE 1	3/4 X .031 (OR .035) X 14 FT
2	2	ADAPTER, PALLET ADU-426/E	30003-1107AS101	48 X 40-7/8 X 3-1/2
1	1	PALLET, MK 3 MOD 0	10001-564200	40 X 48 X 4-3/4
REQ'D	ITEM	DESCRIPTION	MAT'L/DWG	DIMENSIONS

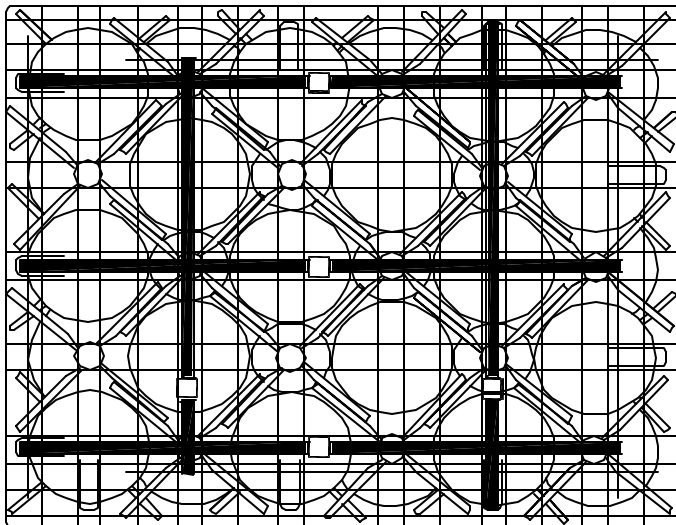
LIST OF MATERIALS



DETAIL (C)

TOP VIEW SHOWING POSITIONING OF THE FIN ASSEMBLIES AND INTERWEAVE OF THE FIN WINGS.

NOTE: ARROWS POINT TO LOCATION OF THE ALIGNMENT PINS.

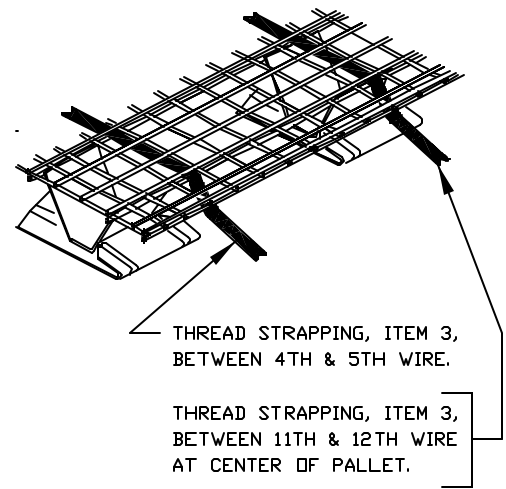


DETAIL (F)

TOP VIEW SHOWING POSITIONING OF THE STRAPPING.

**WARNING**

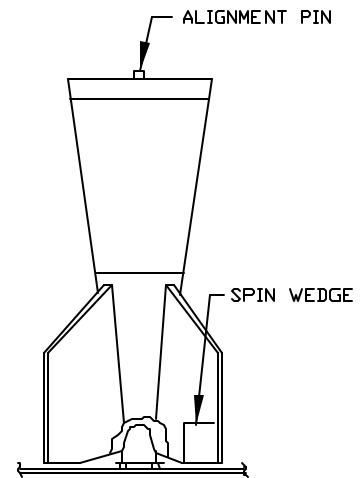
WEAR LEATHER GLOVES AND EYE PROTECTION (WITH SIDE SHIELDS) OR GOGGLES TO PREVENT INJURY WHEN PERFORMING STRAPPING OPERATIONS. RAPIDLY UNCOILING STRAPPING MAY CAUSE INJURY. DIRECT STRAPPING AWAY FROM PERSONNEL WHEN CUTTING STRAPPING UNDER TENSION.



THREAD STRAPPING, ITEM 3, BETWEEN 4TH & 5TH WIRE.

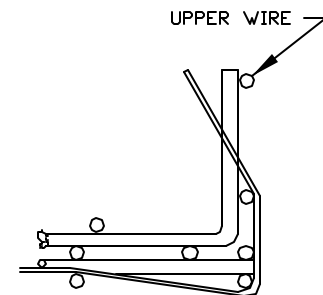
THREAD STRAPPING, ITEM 3, BETWEEN 11TH & 12TH WIRE AT CENTER OF PALLET.

DETAIL (A)



DETAIL (B)

SHOWING FUZE SUPPORT ON GUIDE



DETAIL (E)

SHOWING STRAPPING THREADED INSIDE UPPER WIRE

## 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 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 LOWER WIRE OF THE TOP 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) BAR CODE MARKINGS SHALL BE APPLIED BY MEANS OF A LABEL.
      - a) LABELS SHALL MEET THE REQUIREMENTS FOR GRADE A, STYLE 1, COMPOSITION B LABEL AS SPECIFIED IN MIL-PRF-61002. 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.