TECHNICAL MANUAL

GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS)

WARHEAD SECTION, GUIDED MISSILE, PRACTICE: LIGHTWEIGHT, M252

NSN 1336-00-021-4497)

HEADQUARTERS, DEPARTMENT OF THE ARMY

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CHANGE
No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *30 April 1983*

General Support Maintenance
Manual
(Including Repair Parts and Special Tools List)
WARHEAD SECTION, GUIDED MISSILE, PRACTICE:
LIGHTWEIGHT, M252
(NSN 1336-00-021-4497)

TM 9-1336-488-40&P, October 1980, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a vertical bar adjacent to the identification number. When an entire chapter or section is added or revised, the bar will be adjacent to the title only.

Remove Pages	*Insert Pages*
None	A/(B blank)
iii	iii
1-1 and 1-2	1-1 and 1-2
3-1 through 3-8	3-1 through 3-8
4-1 through 4-10	4-1 through 4-10
A-1 and A-2	A-1 and A-2
B-3 through B-8	B-3 through B-8
None	B-8.1 and B-8.2
C-1 and C-2	C-1 and C-2

2. File this change sheet in front of the publication for reference purposes.

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Insert latest change pages and dispose of superseded pages in accordance with applicable regulations.

LIST OF EFFECTIVE PAGES

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margin of the page.

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 50
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Cover	0	4-5 and 4-6	1
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2-1 and 2-2	0	B-1 and B-2	0
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No. 9-1336-488-40&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *24 October 1980*

GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)
FOR
WARHEAD SECTION, GUIDED MISSILE, PRACTICE:
LIGHTWEIGHT, M252 (NSN 1336-00-021-4497)

REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in the back of the manual and mail the form direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS-MA, Dover, NJ 07801. A reply will be furnished direct to you.

***This manual supersedes TM 9-1336-488-40&P, 5 April 1976, including all changes.**

LIST OF ILLUSTRATIONS

LIST OF TABLES

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual contains instructions for the information of personnel responsible for general support (GS) maintenance of the lightweight practice guided missile warhead section M252.

NOTE

All procedures in this manual pertain to general support personnel only. There are no direct support responsibilities for this warhead section.

b. These instructions contain information on maintenance which is beyond the scope of tools, equipment, or supplies normally available to user units.

c. Information in this manual is to be used together with instructions in the operator and organizational maintenance manual, TM 9-1336-488-12&P.

d. The instructions in this manual are intended for GS maintenance specialists who have been thoroughly trained in maintenance practices.

e. Appendix A contains a list of current references, including supply and technical manuals, forms, and other available authorized publications applicable to this warhead section.

f. Appendix B contains a list of repair parts and special tools that are required to perform GS maintenance on this warhead section.

g. Illustration references prefixed with B (e.g., fig.B-1, fig. B-2, etc.) refer to illustrations in Appendix B, Repair Parts and Special Tools List.

h. Appendix C contains a list of expendable supplies authorized for cleaning, preserving, painting, marking, and other maintenance-related operations.

i. Refer to TM 43-0002-33 for procedures for destruction of ammunition to prevent enemy use.

1-2. Forms, Records, and Reports

a. General. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750. Lot and serial numbers of the affected items will be included in all reports. The forms required by using units, that are issued this warhead section are listed in appendix . A. Refer to the current DA Pam 310-1 for a listing of all forms.

b. Field Report of Accidents. Any accident involving injury to personnel or damage to materiel will be reported on DA Form 285 (Accident Report) in accordance with AR 385-40.

c. Malfunctions Involving Ammunition or Explosives.

(1) Malfunction is defined as the failure of an ammunition item to function in accordance with the design, intent, and expected performance when fired or launched, or when explosive components function during a nonfunctional test. Malfunctions do not include accidents and incidents resulting from negligence, malpractice, or implications in other situations such as vehicle accidents, fires, etc. However, malfunctions do include abnormal or premature function of an ammunition item as a result of normal handling, maintenance, storage, transportation, and tactical deployment. When a malfunction occurs, firing of the affected lot will be halted immediately.

(2) As prescribed in AR 75-1, the commander or senior individual in charge of the activity will immediately contact the officer under whose supervision the ammunition for the activity involved is maintained or issued, and will report all available facts concerning the malfunction.

d. Report of Damaged or Improper Shipment. All shipments of these warhead sections received in damaged or unsatisfactory condition because of deficiencies [in preserving, packaging, marking, loading storage, or handling will be reported on SF 264 (Report of Discrepancy) in accordance with AR 735-11-2 and/or SF 361 (Discrepancy in Shipment Report), in accordance with AR 55-38.

Disposition of Unserviceable Ammunition and Components.

(1) An ammunition condition report will be submitted on all unserviceable or obsolete ammunition or ammunition components, in order that appropriate disposition instructions may be issued.

(*a*) "Reject" applies whenever use of the defective item would affect safety or reliability, and the defective item must not be used until the defect is corrected.

(*b*) "Reject" does not apply when the item is combat serviceable and use of the item does not affect safety or reliability. However, the required corrective action must be accomplished as soon as the tactical situation permits.

(2) Reports will be prepared on DA Form 2415 (Ammunition Condition Report) in accordance with TM 38-750. Multiple reports of a similar nature may be submitted on the same DA Form 2415.

f. Equipment Improvement Recommendations. Standard Form 368 (Quality Deficiency Report) will be used to submit equipment improvement recommendations (EIR's) in accordance with TM 38-750.

g. Inspection and Maintenance Records.

(1) Records of inspections and maintenance will be maintained on DA Form 2409 (Equipment Maintenance Log). This record provides a complete inspection and maintenance history of the munition.

(2) The record will be prepared in accordance with TM 38-750 except as follows:

(a) Section A.

1. Block 7-Change title to read: LOT NUMBER. Enter lot number.

2. Blocks 4, 8, 10, 11, and 12-leave blank.

(*b*) *Section B* - Insert organization designation in section B when warhead section is transferred to another organization.

(*c*) *Section C* - Enter appropriate information in columns a through d only.

(3) When the DA Form 2409 is completely filled, a copy will be forwarded to Headquarters, U.S. Army Armament Materiel Readiness Command, ATTN: DRSAR-DSM-B, Dover, NJ 07801. A new DA Form 2409 will be used as a continuation sheet. As each form is filled, a copy will be forwarded to the above address. When the warhead section is expended, the completed form will be forwarded to the above address.

h. Data Card. A data card (DD Form 1650) is prepared for each lot of ammunition. The data cards will not physically accompany shipments from the manufacturer, but will be shipped separately. Master data card files will be maintained at Headquarters, U.S. Army Armament Materiel Readiness Command, ATTN: DRSAR-QAD, Rock Island, IL 61299, and distributed as required. These cards are used to record the lot and serial numbers of the warhead sections and major components, applicable drawings, and other pertinent data (e.g., date of manufacture, national stock number, instructions, or remarks).

Section II. DESCRIPTION AND DATA

1-3. General

The warhead section M252 is a practice, to-be-fired counterpart of the nuclear warhead section M234. Although without nuclear components and explosives, the practice warhead section is a match for the nuclear warhead section in external configuration, weight, center of gravity, and moment of inertia. Function of the practice warhead section is initiated by practice guided missile fuze M819E1. The warhead section is shipped and stored in steel shipping and storage container M511, or polyethylene shipping and storage container XM612. For further description of the warhead section, its components, and M511 shipping and storage container, refer to TM 9-1336-488-12&P. For description of XM612 shipping and storage container refer to chapter 5.

Section III. SAFETY REQUIREMENTS FOR INSPECTION

1-4. General

Refer to TM 9-1336-488-12&P for safety requirements concerning storage, care, and preservation of the warhead section.

Section IV. STORAGE, STORAGE MONITORING, STORAGE INSPECTION

1-5. General

Procedures outlined in TM 9-1336-488-12&P pertain to General Support Maintenance units for warhead sections stored in M511 shipping and storage container. Refer to chapter 5 for procedures for warhead sections stored in XM612 shipping and storage containers.

CHAPTER 2
TOOLS AND EQUIPMENT

2-1. General
Repair parts, tools, and equipment are issued to the maintenance organizations for maintaining the warhead section. Tools and equipment should not be used for purposes other than those prescribed and, when not in use, should be stored properly. The use of unauthorized tools and equipment could damage the materiel.

2-2. Repair Parts
Repair parts are supplied to the maintenance organizations for replacement of those parts that become worn, broken, or otherwise unserviceable. These repair parts are listed in appendix B, which is the authority for requisitioning.

2-3. Common Tools and Equipment
Standard and commonly used tools and equipment having general application to the warhead section are authorized for issue by tables or organization and equipment or by tables of allowances.

2-4. Special Equipment
Special equipment authorized for issue to maintenance personnel for use with warhead sections is listed in appendix B. A brief description of the beam type sling and maintenance stand is given in *a* and *b* below.

a. Beam Type Sling M22. Refer to TM 9-1336-488-12&P for instructions in the use of the beam type sling M22 (fig. B-8).

b. Lance Maintenance Stand.

(1) The Lance Maintenance Stand is a locally fabricated stand upon which the warhead section may be supported for maintenance work. This stand may be fabricated of wood in accordance with suggested dimensions in figure 2-1.

(2) An alternate to the Lance Maintenance Stand is the H4243. This stand may be used if available.

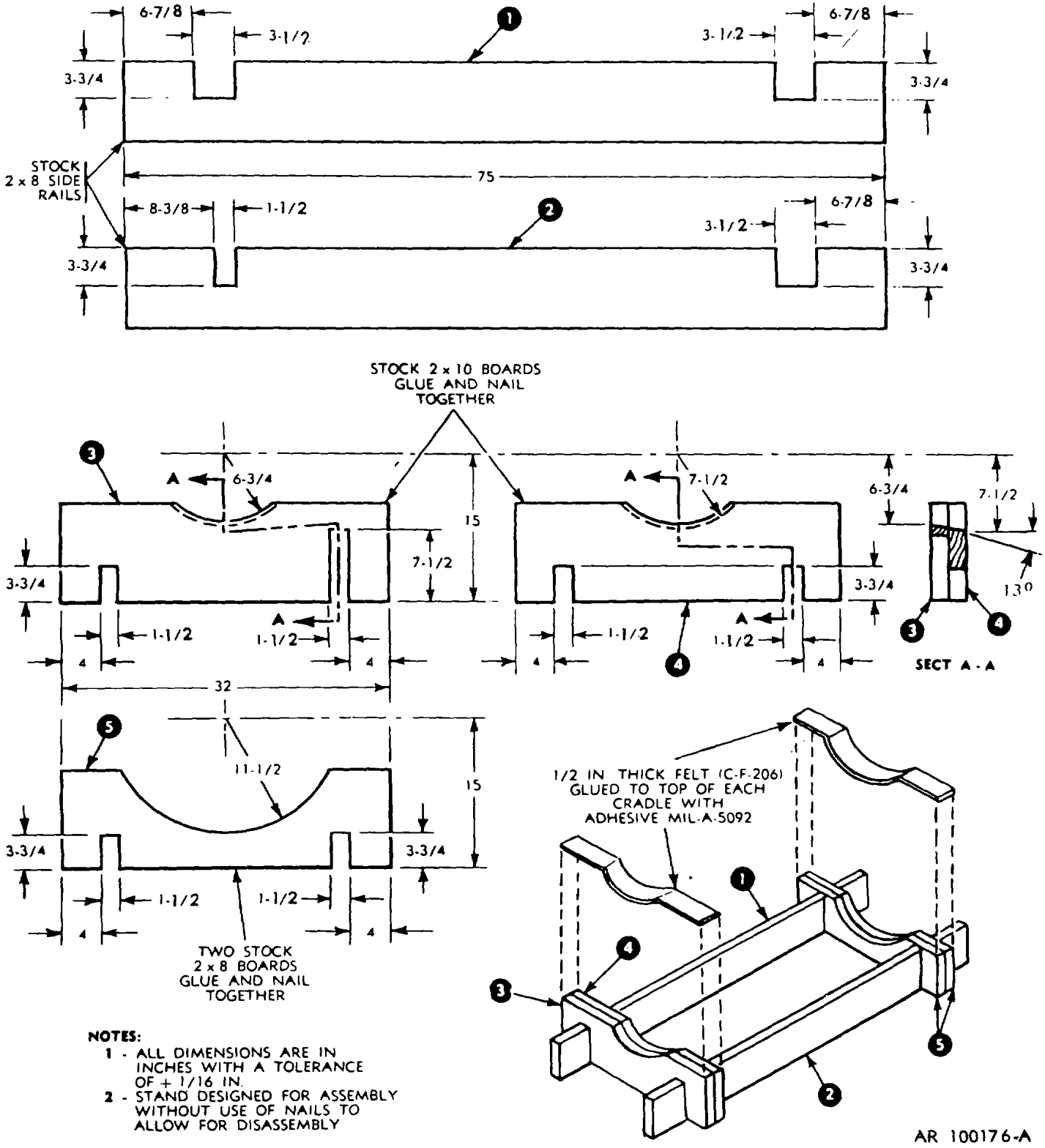


Figure 2-1. Lance maintenance stand.

CHAPTER 3
INSPECTION REQUIREMENTS

Section. I. GENERAL

3-1. Purpose of Inspection

a. Inspection criteria contained in this publication are provided to assure that all maintenance performed will restore the item(s) to an acceptable quality level and to assure serviceability during storage and when the items are issued.

b. A complete plan of all maintenance work is required. Prepare Standing Operating Procedures (SOP) that contain detailed production techniques, standards, and controls necessary to produce a product. See TM 9-1300-250 for planning procedures and SOP preparation.

3-2. Ammunition Surveillance Program

Surveillance includes those actions necessary to evaluate the current degree of serviceability of ammunition. See AR 702-6, AR 740-1, AR 702-12, and SB 742-1 for policy, responsibilities and procedures applicable to the Ammunition Surveillance and Quality Evaluation Program.

3-3. Inspections

a. Serviceability.

(1) Ammunition items will be inspected by a quality assurance specialist (ammunition surveillance) (QASAS), or MOS 55 X 40 personnel under the guidance of QASAS, to determine serviceability or unserviceability.

(2) Required maintenance for unserviceable materiel will be indicated on the inspection report.

b. Initial Receipt Inspection. Warhead sections received directly from a manufacturer, storage installation or depot (packaged either in M511 or XM612 containers) will be inspected upon receipt according to the criteria listed in table 3-1. This inspection will be performed on a sample of the new materiel. The sample size and acceptance criteria will be according to table 4-1 of TM 9-1336-48812&P. The inspection lot will not exceed 100 warhead sections and will consist of items with identical stock numbers, manufactured and stored under similar conditions and time periods. Disposition will be in accordance with paragraph 3-8.

c. Receipt Inspection (turn-in from users). This inspection is required upon receipt of items turned in from using units to determine if the items are ready for re-issue or require maintenance. All containers which have been opened and repacked by using units will be thoroughly inspected. Perform all inspections listed in table 3-1 for both containers and warhead section. If containers are turned in with original seals unbroken, inspect only the outer container in accordance with table 3-1, unless conditions are found such as structural damage, major corrosion, etc., which indicate that the container should be opened for complete inspection.

d. Pre-issue Inspection.

NOTE

M252 warhead sections may be received from a manufacturer, depot or storage installation packaged in XM612 polyethylene shipping and storage containers. M252 warhead sections may be stored in General Support Storage areas in XM612 containers. The XM612 container will not be issued to using units. For realistic training, the M252 warhead sections must be packaged in M511 containers prior to issue. Refer to chapter 5 for unpackaging from XM612 container and to TM 9-1336-488-12&P for repackaging into M511 containers.

When warhead sections are to be issued and the lot has not been inspected within the past six months (either initial receipt or storage inspection), or the QASAS in charge determines that additional inspection is required prior to release, pre-issue inspection will be performed. The inspection method and disposition shall be in accordance with storage inspection procedures described in TM 9-1336-48812&P.

e. Pre-maintenance. Prior to start of work ammunition items will be inspected to determine maintenance required. GS will perform pre-maintenance inspection, which will include the following:

(1) All items with critical non-functional defects (those which may be determined without aid of function testing) will be separated from the quantity to be maintained and disposed of as directed in the SOP.

(2) All items with defects, as listed in table 3-1, will be corrected during maintenance.

(3) Other evidence of poor workmanship or defects that could cause accelerated deterioration or adversely affect the function of the items will be corrected.

f. In-Process.

(1) In-process inspections are an integral part of the maintenance procedures to assure that previous work is adequate and acceptable prior to proceeding with further operations.

(2) Since these inspections are part of the maintenance procedure contained in chapter 4, they will not be specifically covered in this chapter.

g. Final Acceptance.

(1) Ammunition items will be inspected after maintenance has been completed. The final acceptance inspection will determine whether or not maintenance accomplished has returned unserviceable munitions to an acceptable condition.

(2) Quality assurance specialist (ammunition surveillance) (QASAS), or MOS 55 X 40 personnel under the guidance of a QASAS, will perform this inspection prior to returning materiel to its storage area.

3-4. Inspection Methods a. Visual Inspection. Careful observation of item noting listed defects and any other abnormalities.

b. Manual Inspection. Movement by hand of specified area of item to determine if listed defect(s) exists (e.g., incorrect loose part).

c. Gage Inspection. Checking an item with a measuring instrument or a standard mating piece to determine if its size is acceptable in certain critical areas. Defects are derived from either predetermined standards or on "go"-"no go" basis (e.g., a ring gage).

3-5. Extent of Inspections a. Sealed Packages. During serviceability inspections, items packed in barrier bags, jungle wrap, or sealed cans, should not be opened for inspection unless sealed package has been opened or there is specific reason to suspect damage. Therefore, sealed packages will usually be subjected only to visual inspection.

b. Processed Items. All processed items will be subjected to in-process inspections and a final acceptance inspection.

Section II. CLASSIFICATION OF MATERIAL DEFECTS

3-6. General

Ammunition and packaging defects are listed by category and method of inspection in table 3-1. Categories of defects are defined in SB 742-1. An acceptable quality level (AQL) is not defined in SB 742-1 for defects in warhead sections and containers being inspected during maintenance operations.

3-7. In-Process and Final Inspection

a. All items (warhead sections and containers) processed will be subject to in-process and 100 percent final inspection to assure acceptability.

b. In-process and final inspections will be included as an integral part of all maintenance procedures.

3-8. Disposition

a. Each item that contains no major defects listed in table 3-1 is acceptable for issue and use. Items with minor defects may be issued, but defects should be corrected if feasible.

b. Items found with defects will be reworked within the capability of the unit as specified in the Maintenance Allocation Chart (MAC).

c. When required maintenance is beyond the capability of the unit, request disposition instructions (DA Form 2415) per TM 38-750 through ammunition maintenance channels.

d. Any maintenance operation which results in a change to the information on the lot ammunition data card requires the addition of an alphabetical suffix to the lot number. Lot suffixes for each lot of operation will be obtained through ammunition maintenance channels.

Table 3-1. Classification of Materiel Defects

Shipping and Storage Container M511

Component	Category	Defect	Method of inspection	Corrective action
Outer container	Minor	Lead seals not in place	Visual	TM 9-1336-488-12&P
	Major	Lift handles cracked, broken, or loose	Visual/Manual	Para. 3-8c
	Major	Lift bars/stacking brackets cracked, broken, or loose	Visual/Manual	Para. 3-8c
	Major	Markings not in agreement with fig. 4-5 or 4-6 or illegible	Visual	Para. 4-28
	Major	Fork lift guides unserviceable	Visual	Para. 4-15
	Minor	Cracks up to 5-in. long which extend through wooden runner	Visual/Gage	TM 9-1336-488-12&P
	Major	Wooden runner loose or improperly attached	Visual/Manual	TM 9-1336-488-12&P
	Major	Cracks more than 5 in. long which extend through wooden runner. Corrugated fasteners on bottom surface of wooden runner. Wooden runner broken or worn more than 1/3 of load bearing surface	Visual/Gage	Para. 4-14
	Major	Peeling or inadequate paint	Visual	Para. 4-26, 4-27, 4-28
	Minor	Scratches	Visual	TM 9-1336-488-12&P
	Major	Stacking bolts missing/unserviceable	Visual	TM 9-1336-488-12&P
	Major	Tee-head bolts missing/unserviceable	Visual	TM 9-1336-488-12&P
	Minor	Spring tension clips missing/ unserviceable	Visual/Manual	TM 9-1336-488-12&P
	Major	Corrosion causing pitting and perforations	Visual	Para. 3-8c
	Minor	Corrosion which can be removed	Visual	Para. 4-5
	Minor	Fungus or foreign material	Visual	Para. 4-5
	Major	Punctures. Dents of any size which impair structural integrity of container	Visual	Para. 3-8c
	Major	Dents greater than 1/2-in. depth and greater than 10 sq. in. in area which do not impair the structural integrity of the container and which can be removed	Visual/Gage	Para. 4-12
	Major	Humidity indicator card reads 40 percent or more	Visual	TM 9-1336-488-12&P
	Major	Unserviceable humidity indicator plug/card	Visual	TM 9-1336-488-12&P
	Major	Damaged pressure equalizing valve	Visual/Manual	TM 9-1336-488-12&P

Table 3-1. Classification of Materiel Defects -Continued

Component	Category	Defect	Method of inspection	Corrective action
Outer container - Continued	Critical	Welds defective (i.e., cracked, showing holes, insufficient welding, or improperly located) on lift handle vertical flanges, near lift handles	Visual	Para. 4-20
	Major	Loose, missing or unserviceable quick access cover	Visual/Manual	TM 9-1336-488-12&P
	Major	Loose, missing, or damaged desiccant access cover, welding bolts	Visual/Manual	TM 9-1336-488-12&P and Para. 4-16
	Major	Loose, damaged, or missing records container cover/studs/gasket or disk	Visual	Para. 4-19 and TM 9-1336-488-12&P
	Minor	Missing identification plate or maintenance log	Visual	Para. 4-13
	Major	Cover (A2J3) missing	Visual	TM 9-1336-488-12&P
Inner container and flange area	Major	Loose or unserviceable shielding gasket on container base or desiccant access door	See fig. 3-1	TM 9-1336-488-12&P
	Minor	Bent, broken or missing alignment pins	Visual	Para. 4-17 and TM 9-1336-488-12&P
	Major	Loose or missing drain plugs	Visual/Manual	TM 9-1336-488-12&P
	Major	Loose, damaged, or missing hold-down strap (or related hardware) or nonmetallic channel	Visual	TM 9-1336-488-12&P
	Major	Suspension frame resilient mounts/ attaching hardware unserviceable/ missing	See fig. 3-2	Para. 4-18
	Major	Loose aft support plate	Visual/Manual	TM 9-1336-488-12&P
	Major	Cusioning Pad missing, damaged or improperly assembled to suspension frame assembly	Visual	TM 9-1336-488-12&P
	Minor	Corrosion which can be removed	Visual	Para. 4-5
	Minor	Fungus or foreign material	Visual	Para. 4-5
	Major	Peeling or inadequate paint	Visual	Para. 4-26, 4-27, 4-28
	Minor	Scratches	Visual	TM 9-1336-488-12&P

Table 3-1. Classification of Materiel Defects-Continued .

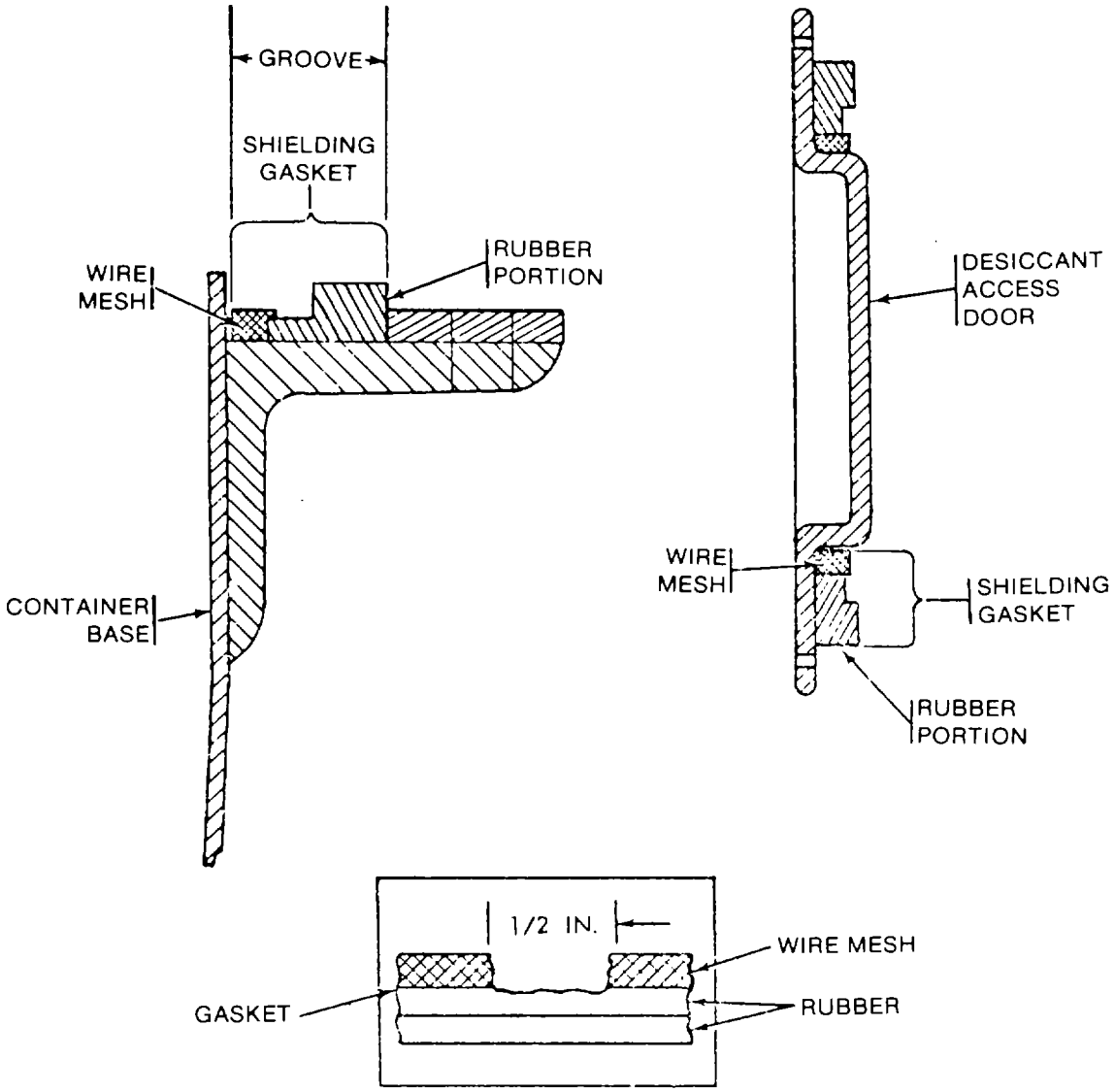
Shipping and Storage Container XM612

Component	Category	Defect	Method of inspection	Corrective action
Shipping and storage container (cover or base assembly) exterior	Major	Markings not in agreement with Fig. 4-7; illegible	Visual	Para. 4-25
	Major	Missing, loose, broken or unserviceable banding straps	Visual	Para. 4-24
Shipping and storage container (cover or base assembly) exterior	Major	Cracks or punctures in load bearing area impairing structural integrity of container	Visual	Para. 3-8c
	Major	Cracks or punctures exceeding 4-in. in length	Visual/Gage	Para. 3-8c
	Minor	Cracks or punctures not in a load bearing area or not exceeding 4-in. in length	Visual/Gage	Para. 4-21
Container interior	Major	Cushioning pad missing, loose or unserviceable	Visual	Para. 4-22
	Major	Standing water inside container; drain-holes clogged	Visual/Gage	Para. 4-23
	Minor	Missing or unserviceable aft spacer assembly (empty container inspection)	Visual	Para. 5-3j; replace
	Major	Cracks or punctures exceeding 12-in. in length	Visual/Gage	Para. 3-8c
		Warhead Section		
Fuze-nose cone area	Major	Dents in nose cone	Visual	TM 9-1336-488-12&P
	Major	Fuze knob cover and latch assembly damaged	Visual/Manual	Para. 3-8c
	Major	Fuze damaged; dials stuck	Visual	Para. 3-8c
	Major	Nose cone stud receptacles damaged	Manual	Para. 4-9
	Major	Fuze loose	Visual/Manual	TM 9-1336-488-12&P
	Minor	Fuze settings not on event: 000.0, ARM:80, SECO: N	Visual	TM 9-1336-488-12&P
Skin area	Major	Markings do not agree with fig. 4-5	Visual	Para. 4-28
	Minor	Fungus or foreign material	Visual	Para. 4-5
	Major	Punctures	Visual	Para. 3-8c
	Minor	Corrosion which can be removed	Visual	Para. 4-5
	Major	Dents in excess of 3/16-in. deep or 6-in. long	Visual/Gage	Para. 3-8c
	Major	Peeling or inadequate paint	Visual	Para. 4-26, 4-27, 4-28
	Minor	Scratches	Visual	TM 9-1336-488-12&P

Table 3-1. Classification of Materiel Defects -Continued

Warhead Continued

Component	Category	Defect	Method of inspection	Corrective action
Aft area	Major	Loose, damaged, unserviceable, or missing PAL connector cover	Visual/Manual	TM 9-1336-488-12&P
	Major	Loose, damaged, or missing swing bolt or related hardware	Visual	TM 9-1336-488-12&P
	Major	Bulkhead punctured/deformed	Visual	Para. 3-8c
	Major	Cable connector unserviceable/flag and cover missing	Visual	TM 9-1336-488-12&P
	Major	Headless shoulder pins (alignment and shear pins) loose/missing/unserviceable	Visual/Manual	TM 9-1336-488-12&P and Para. 4-11
	See table	Electronic shielding gasket (knitted wire mesh) loose/missing/broken	See table 3-2	See table 3-2
	Major	Warhead section visibly out of concentricity	Visual	Para. 3-8c

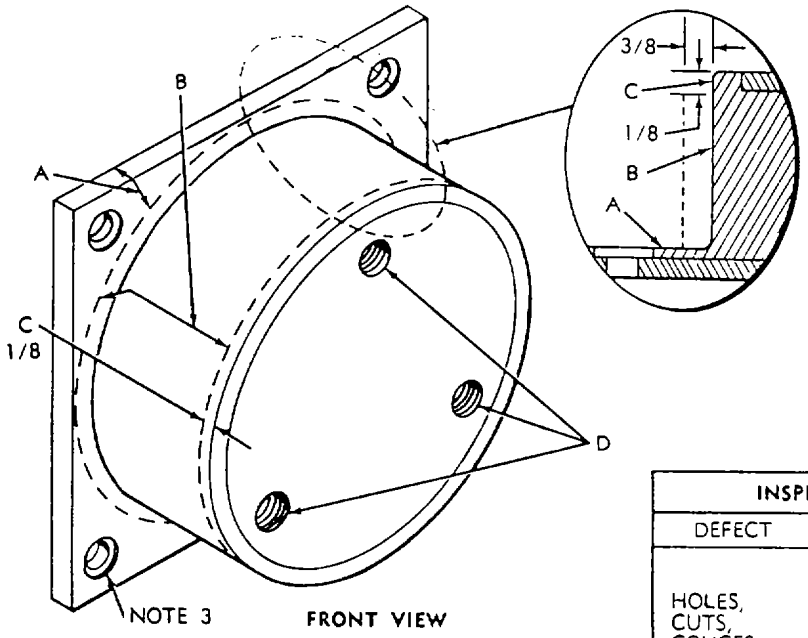


TOP VIEW

INSPECTION CRITERIA FOR ELECTRONIC SHIELDING GASKETS	
INSPECTION	ACTION
A. FOREIGN MATERIAL (EXCLUDING BONDING AT SPLICE).	CLEAN
B. GASKET IMPROPERLY POSITIONED.	ADJUST AND CEMENT
C. RUBBER GOUGED, MISSING, OR CUT THROUGH FROM OUTER EDGE TO INNER EDGE.	REPLACE
D. SEPERATION OF WIRE MESH FROM RUBBER EXCEEDS ONE (1) INCH.	REPLACE
E. WIRE MESH CUT THROUGH FROM INNER EDGE TO OUTER EDGE (EXCLUDING SPLICE).	REPLACE
F. WIRE MESH SEPERATION AT SPLICE EXCEEDS ½-INCH.	REPLACE

AR 102250

Figure 3-1. Inspection criteria for M511 container electronic shielding gasket.



– CAUTION –

VISUAL INSPECTION ONLY WILL BE PERFORMED. NO PROBING OR PHYSICAL PRESSURE EITHER BY FINGER PRESSURE OR WITH A TOOL WILL BE APPLIED WHILE CONDUCTING INSPECTION, SINCE THIS CAN INFLICT DAMAGE TO THE MOUNT.

NOTES:

1 - MOUNTS SHALL NOT BE REMOVED SOLELY FOR INSPECTION PURPOSES.
2 - AREA D WILL BE INSPECTED ONLY WHEN DISASSEMBLY OF RESILIENT MOUNTS IS REQUIRED.
3 - ANY DAMAGE AT MOUNTING HOLE AREAS IS NOT CAUSE FOR REJECTION.
4 - ALL DIMENSIONS SHOWN ARE IN INCHES AND ARE APPROXIMATE.
5 - MOLD INDENTATIONS OR PROJECTIONS ARE NOT CAUSE FOR REJECTION.

INSPECTION CRITERIA FOR RESILIENT MOUNTS

DEFECT	AREA	ACTION
HOLES, CUTS, GOUGES, TEARS AND PUNCTURES	A	REJECT, IF METAL PLATE IS EXPOSED AND THERE IS VISIBLE EVIDENCE OF CORROSION.
	B	REJECT (SEE NOTE 6).
	C	REJECT IF WITHIN 1/8 INCH OF EDGE AND METAL PLATE EXPOSED.
STRIPPED THREADS	D	REJECT

AR 102251

Figure 3-2. Inspection requirements for resilient mounts of M511 container.

Table 3-2. Inspection requirements for Electronic Shielding Gasket (Knitted Wire Mesh) on Warhead Section

Category	Defect	Method of inspection	Corrective action
Minor	Foreign material	Visual	Para. 4-5
Major	Loose or improperly installed	Visual/Manual	Para. 4-10
Major	Gouged; cut from outer edge to inner edge	Visual	Para. 4-10
Major	Missing	Visual	Para. 4-10
Major	Wire separated from rubber	Visual	Para. 4-10
Major	Ends not butted	Visual	Para. 4-10

CHAPTER 4
MAINTENANCE PROCEDURES

Section I. INTRODUCTION

4-1. General

a. This section contains instructions for the guidance of general support maintenance personnel in repair of warhead sections and shipping and storage containers. These instructions are supplementary to operator and organizational maintenance instructions contained in TM 9-1336-488-12&P.

b. The scope of maintenance is determined by the maintenance allocation chart contained in TM 91336-488-12&P. Only those parts listed in appendix B are replaceable. If a part is damaged beyond repair and is not carried as a repair part in appendix B, the next higher assembly or the component to which the part belongs that is listed as a repair part is used.

c. All necessary tools and equipment must meet safety requirements of TM 9-1300-206. When using a torque wrench or torque screwdriver, do not select a wrench or screwdriver that requires torque values to be read below 20 percent of the full scale value.

4-2. Disposition Instructions

a. Unserviceable-Irrepairable Items. Unserviceable-irrepairable items will be reported for disposition on DA Form 2415 (Ammunition Condition Report) in accordance with TM 38-750.

b. Serviceable Items. Items which are returned to a serviceable condition as a result of the maintenance prescribed in this manual may be either returned to storage for subsequent issue or returned to the using organizations from which received.

4-3. Disassembly and Assembly Procedures

a. Good judgment should be exercised to keep disassembly to a minimum in making a required replacement. Care should be used in handling these components during replacement to prevent any further damage to components. Components should be examined closely to determine the need for replacement.

b. As parts and assemblies are removed, they will be placed on a clean, flat surface to prevent damage. Parts which are removed from an assembly should be kept together and segregated from those of other assemblies.

c. Assembly of a unit will normally be accomplished in reverse order to that of disassembly.

4-4. Replacement of Parts

a. All screws and bolts having stripped, crossed, stretched, burred, or damaged threads; cracked, broken, or worn shanks; or damaged or mutilated heads will be replaced with new or serviceable items.

b. All washers having scored surfaces or mutilated or damaged edges will be replaced with new or serviceable items.

c. All nuts having crossed or stripped threads, or damaged or mutilated external surfaces will be replaced with new or serviceable items.

4-5. Cleaning

WARNING

Use toluene only in open ventilated area.

Remove foreign material in accordance with table 4-1.

4-6. Preservation

a. All threads and mating surfaces must be clean, dry, and free of corrosion.

b. A protective coating of Primer (TT-P-664) will be applied to container tee-head bolts after torquing.

Table 4-1. Cleaning

Foreign material	Cleaning method
Rust and corrosion.	Use abrasive cloth, sandpaper, or wire brush until bright metal surfaces are exposed. Prevent particles from entering interior areas. Wipe surfaces with a clean cloth moistened with cleaning compound.
Adhesive, rubber sealing compound, grease, and oil on unpainted surfaces.	Use a clean cloth moistened with cleaning compound. Remove adhesive or rubber sealing compound using a clean cloth moistened with toluene.
Mud, salt water, grease, or oil on painted surfaces.	Use a soft clean cloth moistened with detergent and water. Avoid getting water or detergent in interior areas.
Fungus	Use a clean cloth moistened with alcohol and water solution (6 0 to 70 percent alcohol). If paint is damaged, repaint (para. 4-26 to 4-28).

Section. II. INTRODUCTION

4-7. General

Some repairs may be performed on warhead section while it is resting in the shipping and storage container (cover removed). These repairs include those which are performed on the upper, more accessible part of warhead section. Other repairs will require removal of warhead section to a Lance Maintenance Stand (fig. 2-1).

4-8. Placing Warhead Section on Lance Maintenance Stand

Refer to TM 9-1336-488-12&P for opening M511 container and placing warhead section on Lance Maintenance Stand. Refer to chapter 5 for opening XM612 container.

Section III. REPAIR OF WARHEAD SECTIONS

4-9. Nose Cone Stud Receptacle

Replace each unserviceable nose cone turnlock fastener stud receptacle on extended part of fuze bulkhead (fig. B-1). Secure each new receptacle in place with two rivets.

4-10. Electronic Shielding Gasket (Knitted Wire Mesh)

a. Removal. Using pliers, grasp damaged knitted wire mesh, and pull from aft ring of warhead section.

b. Installation

WARNING
Use gloves to prevent the possibility of cutting fingers during installation.

Insert wire mesh into circular cavity in aft ring with fingers. Insure ends butt against each other snugly. Cut off excess wire.

4-11. Headless Shoulder Pins

a. When alignment pins or shear pins are broken so that manual removal is impossible, a carbide drill and screw extractor may be used.

b. Depending upon whether an alignment or shear pin is to be removed, consult table 4-2 for drill size, drill depth, and screw extractor recommended.

Table 4-2. Tool and Depth Recommendations for Removal of Headless Shoulder Pins

	Alignment Pin (larger dia) (in.)	Shear Pin (smaller dia) (in.)
Drill bit size	3/16	1/8
Depth of Hole	1/2	3/8
Screw extractor size (GGG-E-936 Type I, class 2)	2	1

c. Drill a hole in the center of affected pin to a diameter and depth recommended in table 4-2.

d. Place screw extractor into hole and tap lightly with a hammer.

e. Turn screw extractor counterclockwise to remove broken pin. Normally, hand force is sufficient to accomplish this, but an additional tool (i.e., wrench vise-grip) may be used if necessary.

Section IV. REPAIR OF SHIPPING AND STORAGE CONTAINER M511

4-12. Dents

Remove dents in container with hammer and mandrel or body worker tools.

4-13. Identification Plate

Replace unserviceable identification plate. Secure new plate with four drive screws.

4-14. Fabricating Wood Runner (Skid)

a. Remove wood runner and associated hardware using 1/2-in. socket wrench.

b. Fabricate wood runner in accordance with instructions in fig. 4-1, or by using the removed runner as a pattern. The wood used shall be in accordance with MIL-STD-731, Group, II, III, or IV.

c. Apply wood preservative to wood runner, then two coats of enamel, spec TT-E-529, color No. 34087, or two coats of forest green enamel complying with spec MIL-E-52798.

d. Replace runner as instructed in TM 9-1336-48812&P, (para 3-20).

4-15. Forklift Slots

Straighten forklift slots with hammer and mandrel or body worker tools.

4-16. Replacement of Unserviceable Welded Stud(s) For Container Desiccant Access Cover

a. If not already made, fabricate stud support block (see fig. 4-2).

b. Remove nuts and washers from desiccant access cover and remove cover. Using a 25/64-in. twist drill, check holes in cover to make sure they are not smaller than 25/64-in. diameter. If any hole(s) is found smaller, enlarge it to 25/64-in. with the drill.

c. Remove unserviceable stud(s) and grid area smooth. Protect gasket contact area and adjacent bolts from damage.

d. Install desiccant access cover on remaining studs and secure with at least 4 nuts.

e. Using holes in cover as a template, centermark new stud(s) location with a drill.

f. Remove desiccant access cover. Drill a 5/16-in. diameter hole at location marked.

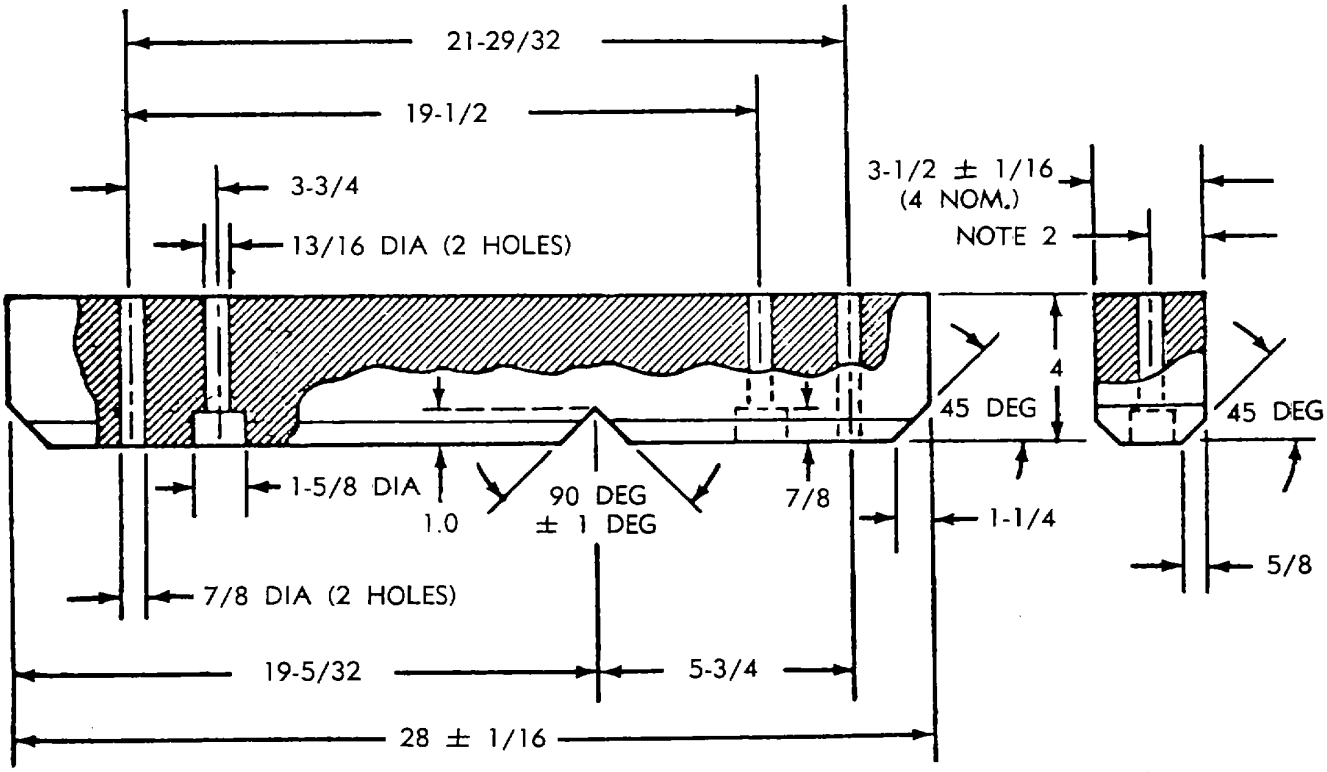


Figure 4-1. Wood runner fabrication details.

g. Remove burrs and clean area adjacent to the hole in accordance with TM 39-35-51. Clean any corrosion from uncoated areas.

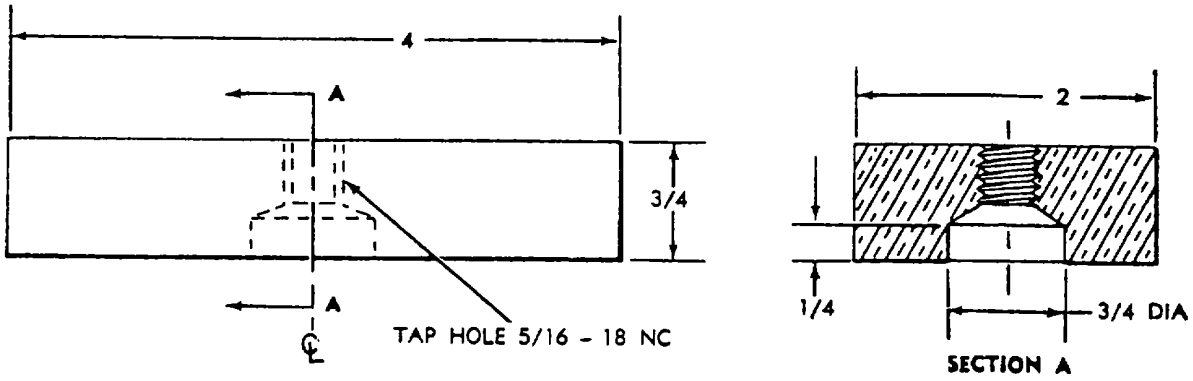
h. Install the stud P/N 9295033 into stud support block (see fig. 4-2).

i. If necessary to facilitate repair operations, bend or cut and bend wire of desiccant basket.

j. Install new stud (in support block) in prepared hole and clamp in place. Adjust stud in block, as necessary, to be flush with plate surface.

k. Place wet rags around area to be welded. This will avoid heat damage to plated gasket area.

l. Arc weld at a setting of 60-90 amps with a .093 minimum diameter stainless steel weld rod No. E308-16 or equivalent. Apply a 1/2-in. diameter button weld over the stud end.



NOTES:

1. ALL DIMENSIONS ARE IN INCHES WITH A TOLERANCE OF ± 1/16 INCH.
2. MATERIAL:STEEL BAR STOCK.

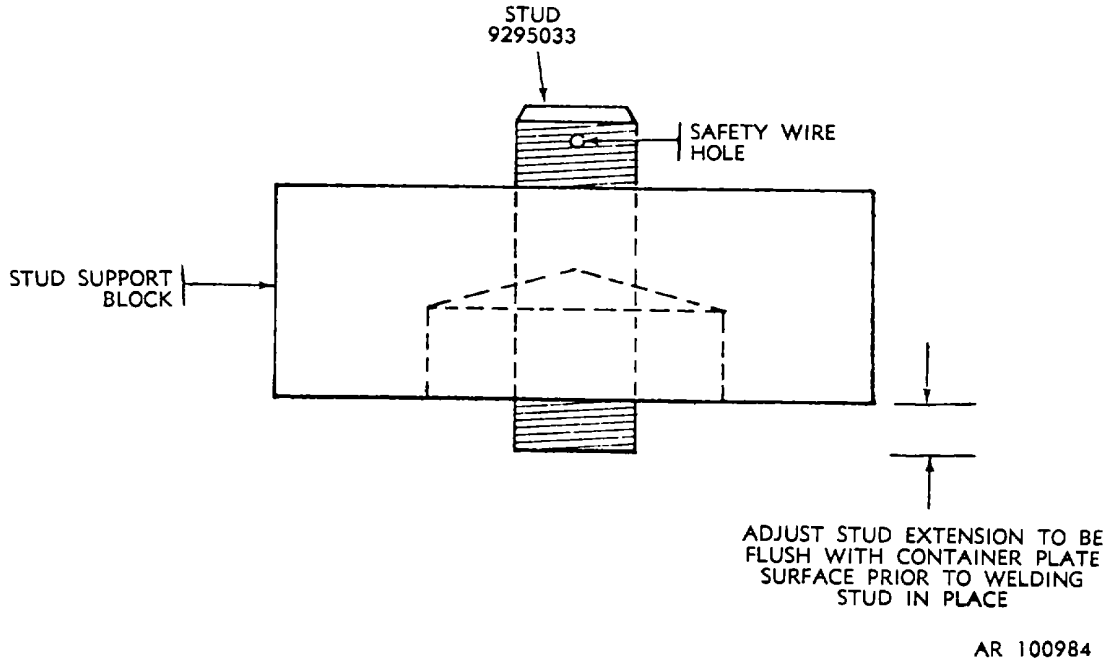


Figure 4-2. Support block fabrication instructions and use.

WARNING

The stud support block will be hot. Allow to cool before removing from stud.

m. Remove support block from stud. Install cover on container to assure stud is correctly located. Remove cover.

n. Visually inspect the button weld to assure that weld is complete and there are no cracks or pin holes. Reweld as necessary.

o. If necessary, reshape and/or reweld bent or cut wire of desiccant basket.

p. Clean exposed metal interior and exterior weld areas of container in accordance with TM 39-35-51. Clean corrosion from uncoated areas.

q. Preserve the exposed metal areas of container and cover in accordance with paragraph 4-28, but be careful that the gasket contact areas of both the access opening and cover are kept clean and free of paint.

4-17. Alignment Pin

a. Drive remains of broken pin, if present, from container flange. Grind away welds from underneath flange, if necessary.

b. Position replacement pin in flange hole vacated by damaged pin so pin protrudes approximately 1/8 to 1/4 in. below flange.

c. Weld pin around circumference with 1/8-in. continuous weld to underside of flange.

4-18. Resilient Mount

a. Remove three screws that secure resilient mount to suspension frame assembly.

b. Remove four screws, washers, and nuts that secure resilient mount to mounting plate and remove mount.

c. Secure replacement resilient mount to suspension frame assembly with three screws.

d. Install resilient mount on mounting plate with four screws, washers, and nuts.

e. Torque all seven screws to 36 ± 2 foot pounds.

4-19. Records Container

a. Replace washers and plain wing nuts as required. Stake studs after application of wing nuts.

b. Replacement of Unserviceable Welded Stud(s).

(1) Remove unserviceable stud(s). Grind area smooth.

(2) Center-punch location to be drilled.

(3) Drill a 1/4-in. hole at location marked and tap a 5/16-18NC thread.

(4) Remove burrs and clean in accordance with TM 39-35-51. Clean any corrosion from uncoated areas.

(5) Install the stud P/N 9295033 flush or slightly above back side of flange surface.

(6) Button weld back side of stud end.

(7) Clean weld area and stud in accordance with TM 39-35-51. Clean corrosion from uncoated areas. Preserve the exposed metal areas in accordance with paragraph 4-28.

4-20. Repair of Lift Handle Vertical Flange Welds (fig. 4-3)

NOTE

Rewelding of vertical flange to sealing flange is not required. Welding on the sealing flange may cause warping.

a. Prior to rewelding vertical flange to container sheet metal near lift handles, clean areas to be rewelded in accordance with TM 39-35-51.

b. Reweld the defective weld, add weld, if missing, for a distance above existing weld, so that weld continues to the uppermost point (or within 1/4 inch) where vertical flange meets the container sheet metal (weld should be as shown in fig. 4-3).

c. Clean the rewelded areas in accordance with TM 39-35-51. Preserve the exposed metal areas with a coat of metal pretreatment followed by a coat of primer and a coat of enamel, either olive drab or forest green, as required.

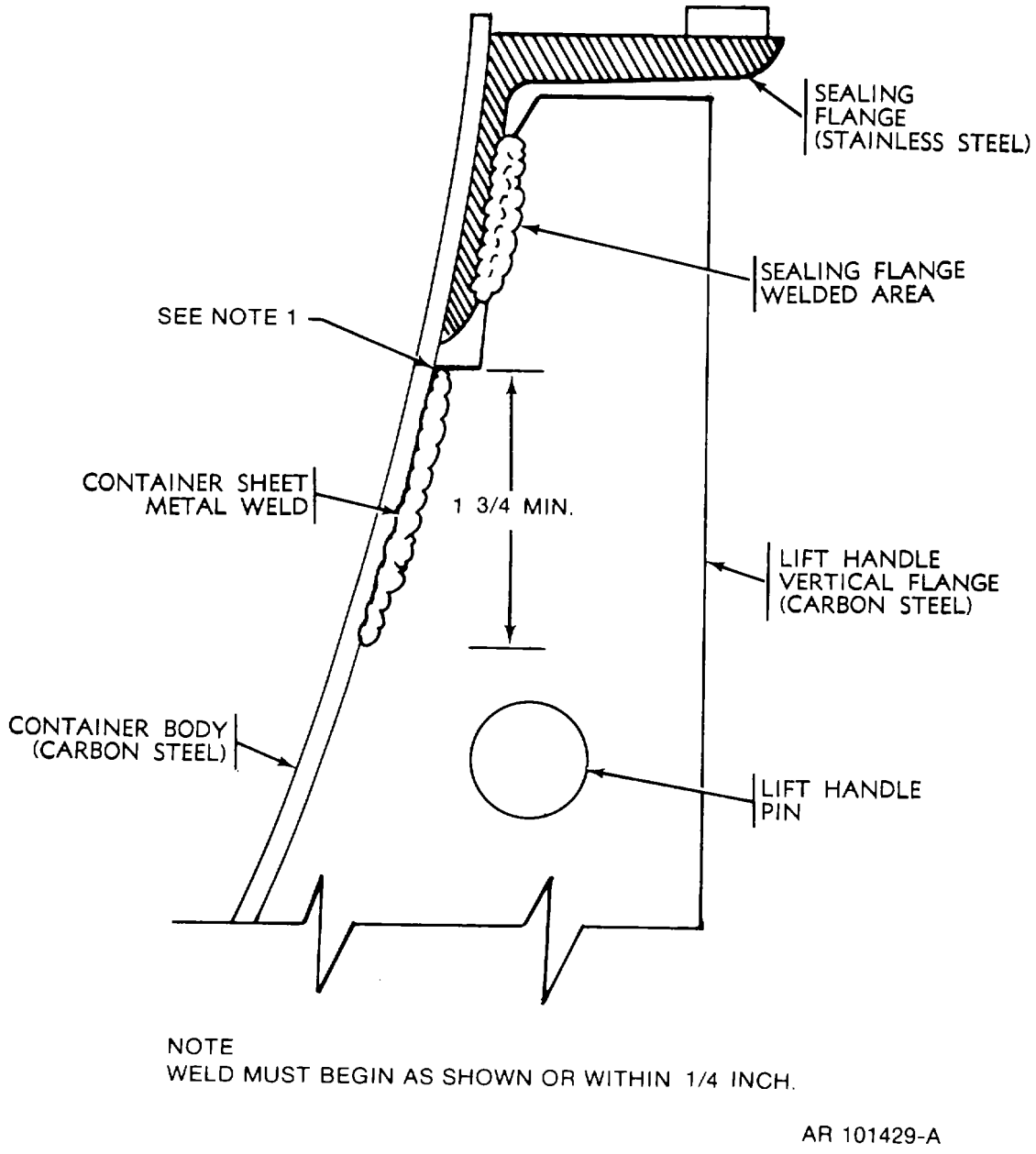


Figure 4-3. Lift handle vertical flange welds.

Section V. REPAIR OF SHIPPING AND STORAGE CONTAINER XM612

4-21. Minor Cracks or Punctures

Cover crack or hole with black pressure sensitive adhesive tape of sufficient size to extend 1 inch beyond edge of crack or hole.

4-22. Cushioning Pad

a. Cut a cushioning pad in the shape of a trapezoid 81-in. long from roll of polyethylene foam. Wide end is 9-in.; narrow end is 3-3/4-in. (fig. 4-4).

b. Place pad into interior of cover assembly, wide end into the deepest part of cover. Mark position of pad and remove.

c. Apply adhesive into marked area to receive pad.

d. Place pad into marked areas keeping wide edge near aft recess. Avoid allowing pad to protrude into recess. Press down on pad to assure adherence to cover.

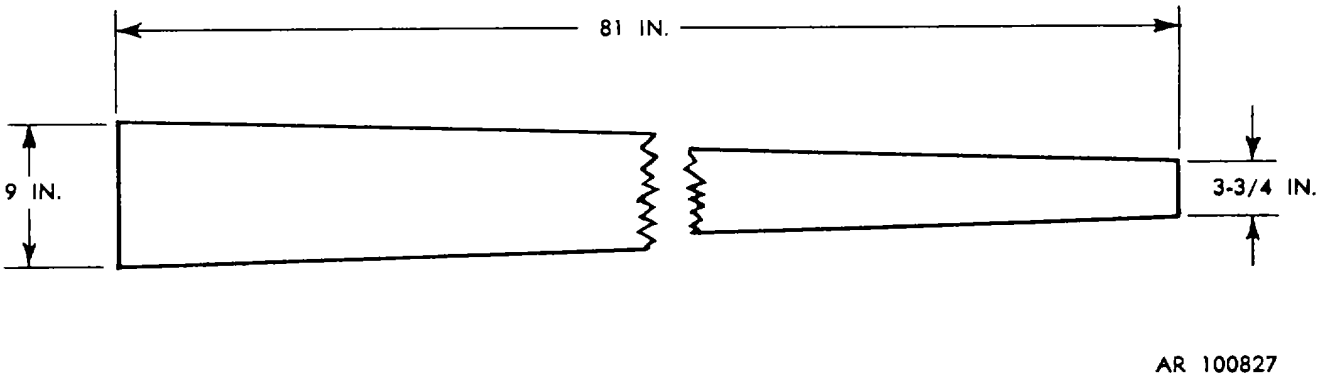


Figure 4-4. Fabrication details.

4-23. Water

Remove water from base of container. Assure all four drainholes are clear. Pass a 2-ft. length of 1/4in. diameter rod through each drainhole.

4-24. Banding Straps

Replace missing loose, or broken banding straps in accordance with repacking instructions in chapter 5.

Section VI. PAINTING AND MARKING

4-25. XM612 Container

Black stencil ink will be used on the XM612 polyethylene container for obliterating markings or for painting tape covering (para 4-21).

4-26. Paint Removal (Warhead Sections and M511 Container)

Use abrasive paper to remove paint. Alkali-type paint remover, sandblast, or vaporblast equipment may also be used where available, if desired.

4-27. Preparation (Warhead Sections and M511 Containers)

NOTE

Some M252 warhead sections and M511 containers are painted olive drab; others are painted forest green (camouflage). When repainting, restore original color unless otherwise directed.

Prior to painting, mask rubber saddle cushions, rubber shear mounts, nuts, bolts, and identification plate. Remove tee-head bolts and stacking bolts from container; remove swing bolts from warhead section. Repaint any bare metal, and other defects of painted surfaces in accordance with paragraph 4-28.

4-28. Painting and Marking (Warhead Sections and M511 Container)

a. Area to be painted will be sanded with fine sandpaper until bright metal surfaces are exposed, and edge of surrounding paint feathered to produce a smooth finish.

b. A coat of metal pretreatment followed by a coat of primer will be applied to bare metal before painting. Allow primer to dry thoroughly.

c. Insure surfaces are dry before applying markings. Table 4-3 below lists appropriate figures for guidance in warhead section and container painting and marking. If no warhead section is to be packed into the container, disregard instructions referring to 4-in. squares and warhead section nomenclature. Different shades of paint are permitted provided specification requirements are met.

Table 4-3. Painting and Marking Instructions

Item	Figure No.
WHS M252	4-5
Shipping and Storage Container M511	4-6
Shipping and Storage Container XM612	4-7

4-29. Repackaging

a. Repack warhead section into M511 shipping and storage container in accordance with TM 9-1336-488-12&P.

b. Repack warhead section into XM612 shipping and storage container in accordance with chapter 5.

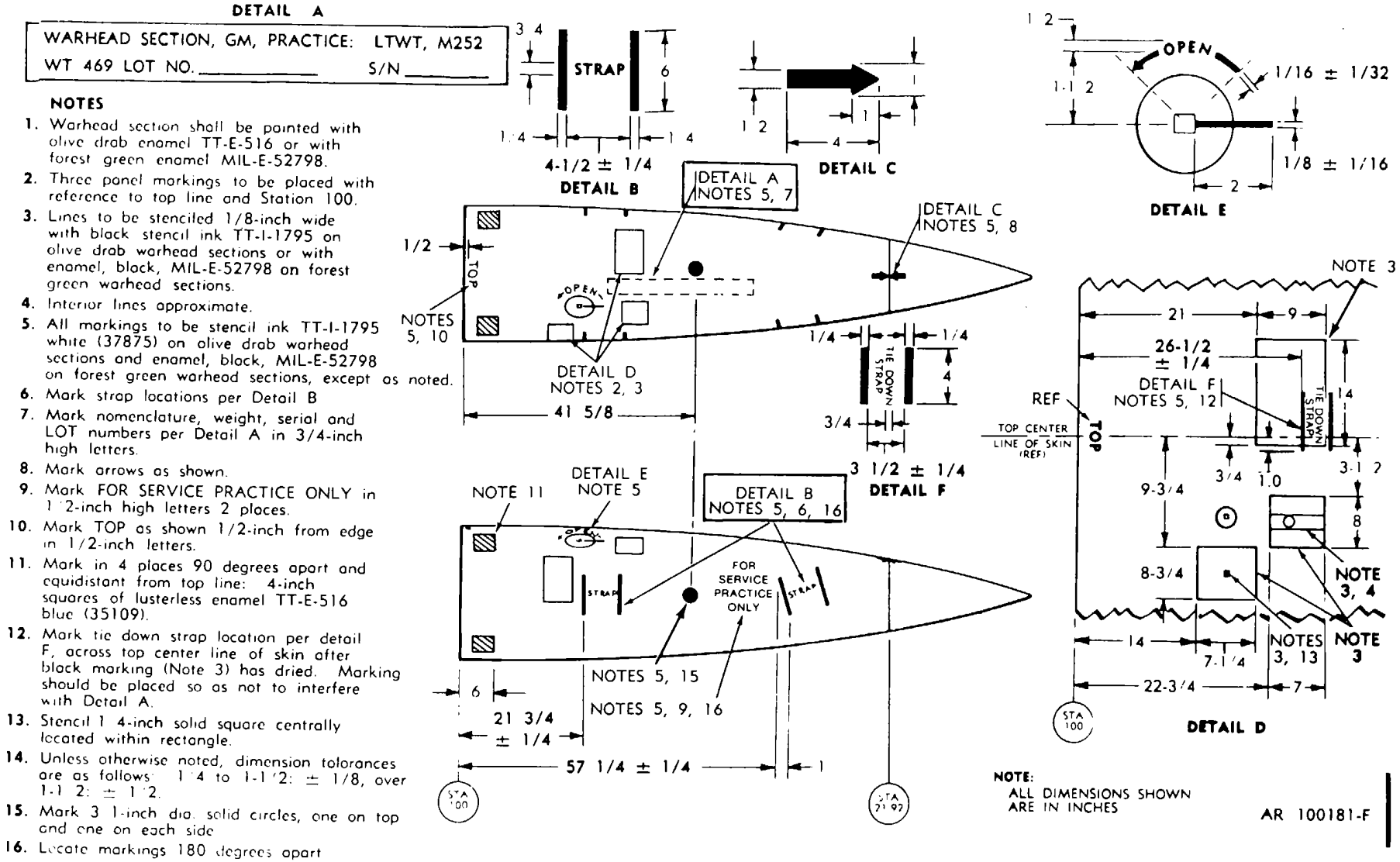


Figure 4-5. Painting and marking - warhead section M252.

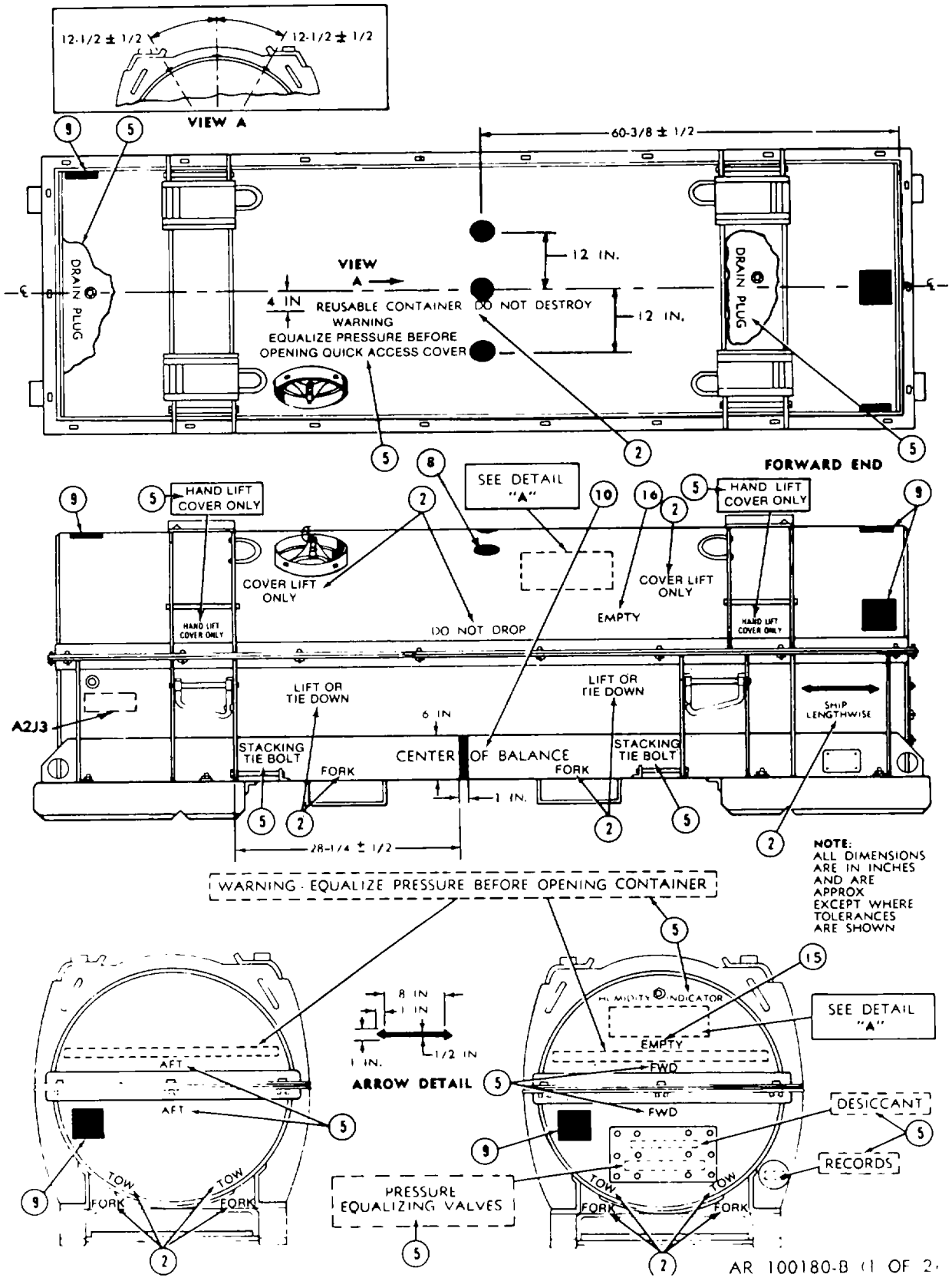


Figure 4-6. Painting and marking - shipping and storage container. M511

M511 CONTAINER MARKING INSTRUCTIONS

FOR CONTAINER ASSOCIATED WITH ITEM

1 - OBLITERATE WORD "EMPTY" FROM LOCATIONS SHOWN (2 PLACES) IF APPLICABLE.

(2) - MARKING SHALL BE IN 1-INCH HIGH LETTERS.

3 - MARK CONTAINER ON ONE SIDE AND ON ONE END IN ACCORDANCE WITH DETAIL "A" USING 1/2-INCH HIGH LETTERS.

4 - MARK CONTAINER DIRECTLY OPPOSITE ON BOTH SIDES WITH HANDLING INFORMATION SHOWN.

(5) - MARKING SHALL BE IN 1/2-INCH HIGH LETTERS.

6 - MARK "SHIP LENGTHWISE" ARROW IN ACCORDANCE WITH DIMENSIONS SHOWN.

7 - MARK BOTH ENDS OF CONTAINER AS SHOWN.

(8) - MARK 1 INCH DIAMETER DOTS AS SHOWN.

(9) - APPLY SIX 4-INCH SQUARE PATCHES AS SHOWN, USING COLORS SPECIFIED.

(10) - MARK "CENTER OF BALANCE" AS SHOWN (BOTH SIDES), USING 1-INCH HIGH STENCIL

11 - COLOR TO BE AS SPECIFIED IN CONTAINER MARKING CHART.

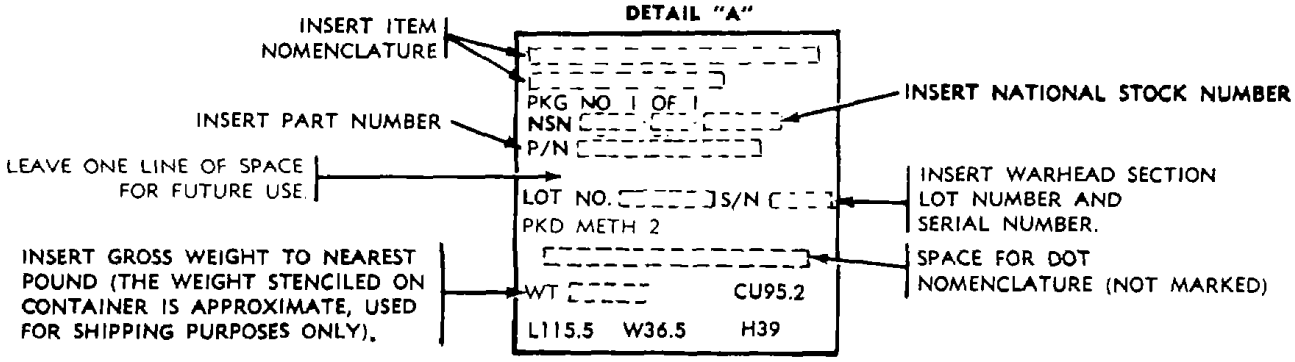
FOR EMPTY CONTAINER

13 - OBLITERATE MARKINGS CALLED FOR IN DETAIL "A," AND **8 AND 9.**

14 - COLOR TO BE AS SPECIFIED IN CONTAINER MARKING CHART.

15 - MARK EMPTY WEIGHT (1000 POUNDS) LOCATED IN DETAIL "A" USING 1/2-INCH HIGH LETTERS.

(16) - MARK WORD "EMPTY" IN LOCATION SHOWN (TWO PLACES) USING 1-INCH HIGH LETTERS.



MARKING CHART FOR OLIVE DRAB CONTAINERS

SEE DETAIL	PART NUMBER	ITEM NOMENCLATURE	NATIONAL STOCK NUMBER	EXTERIOR	SQUARES	MARKING
A	10246025	WARHEAD SECTION, GM, PRACTICE: LT WT, M252	1336-00-021-4497-V726	OLIVE DRAB NO X34087 ENAMEL TT-E-516	BLUE NO. 35109 TT-E-516	WHITE NO. 37875 STENCIL INK TT-I-1795

MARKING CHART FOR FOREST GREEN (CAMOUFLAGE) CONTAINERS

SEE DETAIL	PART NUMBER	ITEM NOMENCLATURE	NATIONAL STOCK NUMBER	EXTERIOR	SQUARES	MARKING
A	10246025	WARHEAD SECTION, GM, PRACTICE: LT WT, M252	1336-00-021-4497-V726	ENAMEL: FOREST GREEN (CAMOUFLAGE) MIL-E-52798	BLUE NO. 35109 TT-E-516	WHITE NO. 37875 STENCIL INK TT-I-1795

AR 100180-C (2 OF 2)

Figure 4-6. Painting and marking - shipping and storage container. M511

NOTES:

1 - POSITION SQUARES DIAGONALLY OPPOSITE, APPROXIMATELY AS SHOWN (4 EACH) AND ON LONGITUDINAL CENTER LINE NEAR EDGES (2 EACH). SQUARES WILL BE 3 INCH X 3 INCH USING BLUE STENCIL INK COLOR NO. 35109, TYPE I OR III, SPEC TT-I-1795.
2 - STENCIL WITH WHITE STENCIL INK. NO. 37875, TYPE I OR III, SPEC TT-I-1795. OVERSPRAY WITH LACQUER, CLEAR GLOSS, SPEC TT-L-50.
3 - INSERT APPLICABLE NSN, LOT NUMBER, SERIAL NUMBER, AND WEIGHT.
4 - STENCIL ON ONE SIDE ONLY.
5 - STENCIL WITH 1/2 IN. HIGH LETTERS.
6 - STENCIL ON ONE SIDE AND FORWARD END ONLY.
7 - STENCIL ON BOTH SIDES.
8 - STENCIL WITH 3/4 IN. HIGH LETTERS
9 - STENCIL ON TOP ONLY.

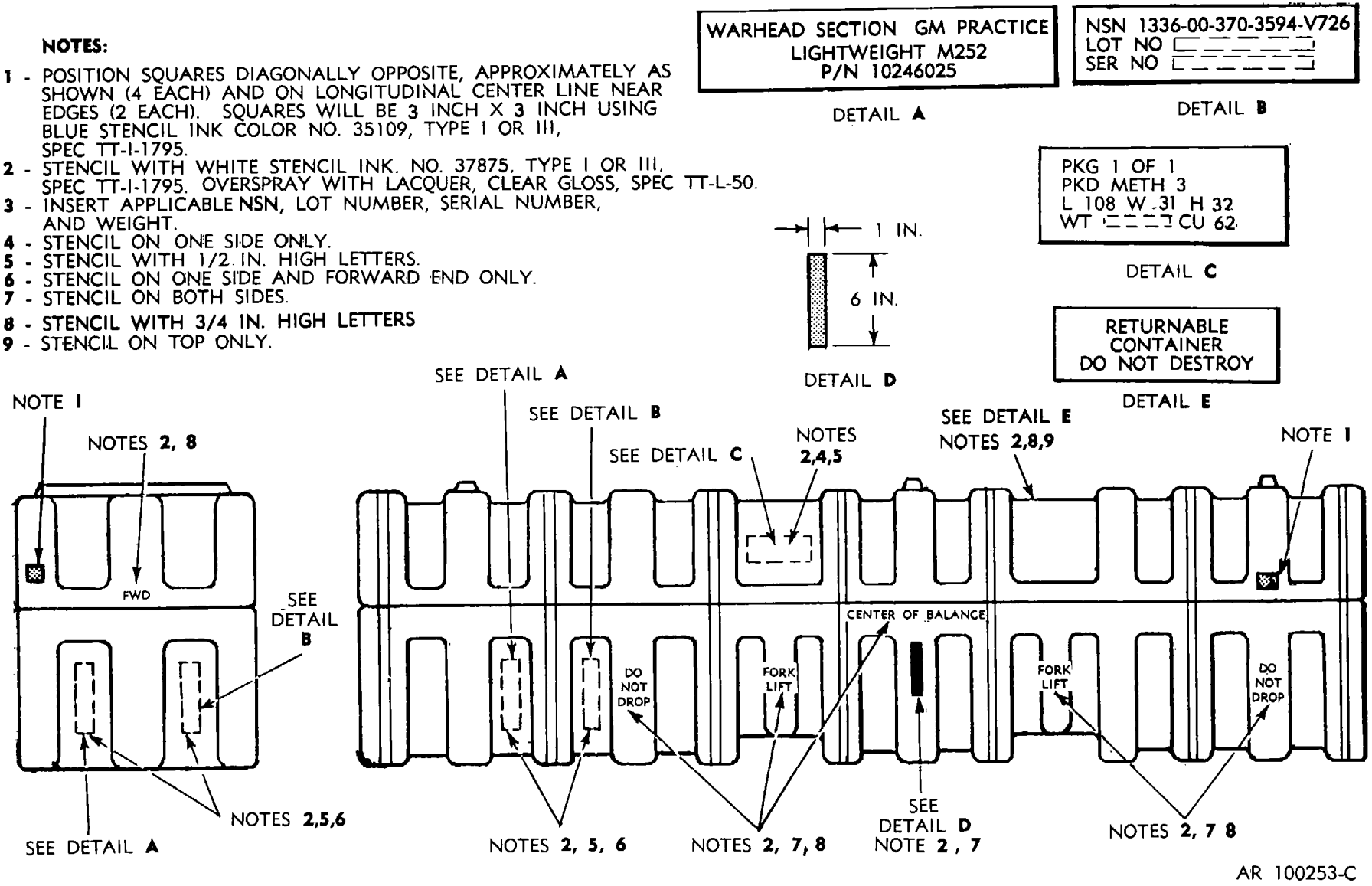


Figure 4-7. M612 container marking.

CHAPTER 5
SHIPPING AND STORAGE CONTAINER XM612

Section I. DESCRIPTION AND DATA

5-1. Description

The XM612 shipping and storage container (fig. 5-1) is used for interplant shipment and depot and general support storage of practice warhead sections M252. The container consists of a cover and a base section. Each section is fabricated of a high density black polyethylene shell filled with polyurethane foam. The container sections are molded in such a manner so that the interior has the configuration of a warhead section. Recesses exist to facilitate insertion of M22 sling straps for warhead section removal. A recess is in the aft section of the container to accept a square-shaped spacer assembly (fig. B-5) which attaches to the warhead section. The exterior of the container has a rib-shaped pattern to give the container additional strength. The exterior contains recesses for forklift insertion and banding straps. Seven of these banding straps, 3/4-in. wide, are used to close the container. A narrow trapezoidal polyethylene foam cushioning pad is cemented to the interior of the cover.

5-2. Tabulated Data

Length	108-in.
Width	31-in.
Height	32-in.
Cube	62 cu. ft.
Weight:	
Empty	208 lb. (approx.)
Loaded	687 lb. (approx.)

Section II. Unpackaging

5-3. Procedure

a. Remove DA form 2409 from outside of container, if attached.

WARNING

Use gloves or a rag to hold strap near the end where it will spring loose when cut.

b. Cut the seven straps and remove container cover.

c. Position beam-type sling M22 (fig. B-8) over warhead section. Lower sling until beam is slightly above warhead section. Slide sling straps through container sling recesses corresponding to strap locations on warhead section.

NOTE

The center sling strap recess is not used for removal of warhead sections.

d. Connect forward sling strap in second loop of strap, resulting in smaller of available diameters.

e. Connect rear sling strap loop to buckle by pulling inside part of strap over top of warhead section. Position straps and buckle so that buckle is at side of warhead section.

f. Slowly take up slack until sling straps are taut.

g. Lift warhead section clear of container.

WARNING

Do not raise warhead section higher than necessary. Do not leave warhead section suspended unattended or suspended longer than necessary.

h. Lower warhead section onto Lance Maintenance Stand (fig. B-7).

CAUTION

Care should be taken in loosening swing bolt assembly nuts so that nuts are not backed over spring pins.

i. Loosen four nuts on swing bolts.

j. Remove spacer assembly from aft end of warhead section and place into container. This assembly is required for eventual reuse of container.

k. Inspect warhead section (tables 3-1 and 3-2) and perform required maintenance (chapter 4 and TM 9-1336-488-12&P).

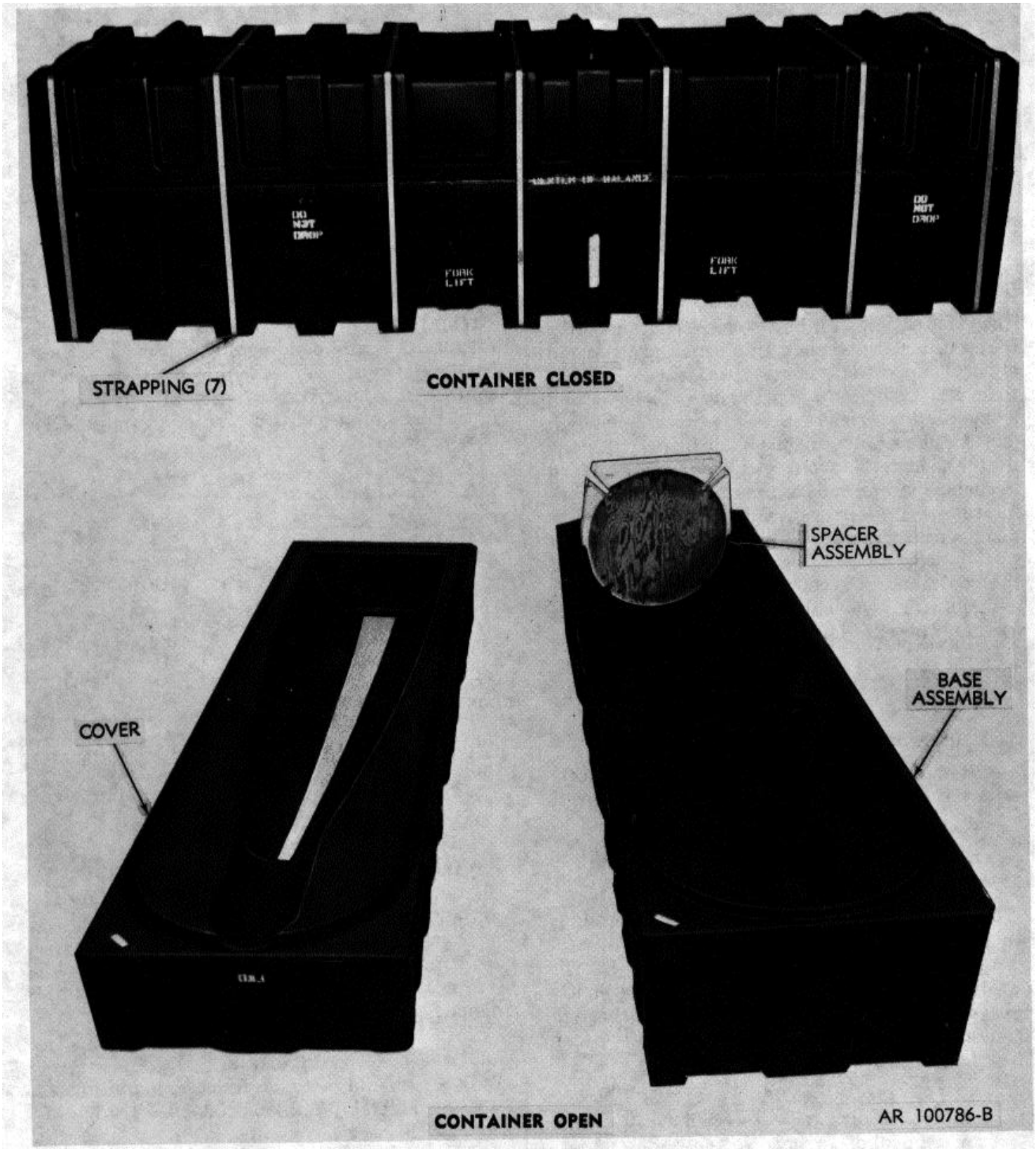


Figure 5-1. Shipping and storage container XM612.

5-4. Disposition of Warhead Section

a. If warhead section is to be repacked into XM612 container, refer to paragraph 5-6.

b. If warhead section is to be repacked into M511 container, inspect M511 container in accordance with chapter 3, and repack in accordance with TM 9-1336-488-12&P. Record information on DA Form 2409 and leave with warhead section.

5-5. Disposition of Empty XM612 Container

a. Obliterate warhead section identification markings and blue color coding squares from container using black stencil ink.

NOTE

Container bases and covers in satisfactory condition will be matched for reuse. Unsatisfactory container bases and covers will be matched and reported for disposition.

b. Inspect container in accordance with chapter 3. If container is serviceable, it is reusable. Report empty serviceable containers for disposition.

c. Close container and reband using only two straps, one in each end recess.

Section III. REPACKAGING INTO XM612 CONTAINER

56. Procedure

a. With warhead section on Lance Maintenance Stand, install spacer assembly on aft end of warhead section. Marking "UP" on spacer assembly should coincide with top of warhead section. Secure swing bolts into slots on spacer assembly. Torque nuts to 5 ± 3 foot pounds.

b. Attach M22 sling to warhead section.

c. Inspect container in accordance with table 3-1.

d. Assure that container cover and base assembly are free of foreign material. If necessary, remove dirt and particles with a soft clean cloth moistened with water. Dry interior of container thoroughly before repackaging.

e. Lift warhead section from Lance Maintenance Stand and lower into XM612 container, guiding spacer assembly into recess in aft of container. Do not put DA Form 2409 into container. This form will be taped on outside of container or filed in office area.

f. Remove sling straps from warhead section.

g. Place cover on container, aligning end marked "FWD" with nose of warhead section.

h. Band container in all seven places, starting with the ends and working inwards. There are no tension criteria for banding, but sufficient tension should be used to secure cover in place without distortion.

i. Mark container with appropriate nomenclature, color coding, etc., (fig. 4-7), if required.

Section IV. STORAGE, STORAGE MONITORING, AND STORAGE INSPECTION

5-7. Storage Requirements

a. XM612 containers (empty or loaded) will be stored on a flat surface. Use of dunnage is not permitted.

b. Containers loaded with warhead sections will not be stacked in excess of three high.

c. Empty containers may be stacked as high as practicable within locally prescribed safety limits.

5-8. Storage Monitoring

a. Purpose and Scope. Storage monitoring is a periodic inspection of XM612 containers (with warhead sections) while in storage to determine whether any damage or deterioration has occurred during storage. Each loaded container will be monitored at least once every 12 months by segments having warhead sections in their custody.

b. Storage monitoring will be recorded on DA Form 2409.

c. Procedure. Examine exterior of container in accordance with table 31. If inspection reveals missing, loose, or broken banding straps or cracks or punctures in the major defect category, conduct a storage inspection (para 5-9). Perform prescribed maintenance in accordance with chapter 4.

5-9. Storage Inspection

a. Purpose and Scope. Storage inspection, performed once a year or on special occasions (i.e., defects found in storage monitoring) is a continuing program of inspection to insure that warhead sections and their components will function within specified requirements. An equal number of samples will be selected from upper, middle, and lower tiers when

containers are stored in this fashion. Controls will be established (i.e., lot and S/N recording) to assure that the same warhead section is not utilized as a sample during subsequent storage inspections until all warhead sections in storage location have been subjected to this inspection.

b. Definitions:

(1) *Major defect.* A defect other than critical which could result in failure or in significant reduction of the intended performance of the warhead section.

(2) *Minor defect.* A defect which could not significantly reduce the intended performance of the warhead section and is not considered essential to repair but only desirable to repair except that minor corrosion should be removed as soon as possible.

(3) *Visual inspection*. To take note of listed defects and any other obvious abnormalities (e.g. deformation, missing part, etc.).

(4) *Manual inspection*. To inspect by moving the part by hand to determine presence of listed defects (e.g. looseness, stiffness, weakness, etc.).

(5) *Gage inspection.* To check with a measuring instrument or a standard mating piece to determine whether size is acceptable in specified areas.

(6) *Inspection lot.* Inspection lots will be formed by placing serial numbered warhead sections on hand into homogeneous lots, not to exceed 50 warhead sections. Lots will consist of items with identical stock numbers manufactured under similar conditions and stored under similar conditions and time periods.

c. Procedure.

(1) Sample size and acceptance criteria shall be per table 41 of TM 9-1336-488-12&P.

(2) Storage inspection will be recorded on DA form 2409.

(3) Inspect container exterior in accordance with table 3-1.

(4) Open container and move warhead section to Lance Maintenance Stand in accordance with paragraphs 5-3a through j.

(5) Inspect container interior and warhead section in accordance with table 3-1.

(6) Perform any required maintenance in accordance with chapter 4.

(7) Repackage warhead section in accordance with paragraph 5-6. Do not put DA form 2409 into container. This form will be taped on outside of container or filed in office area.

d. Disposition Instructions.

(1) Serviceable samples will be returned to the parent lot.

(2) All items found with major defects will be repaired before being returned to the lot, or reported to higher authority if repair is not within the capability of the unit.

(3) All items found with minor defects should be repaired before being returned to the lot, but may be issued if repair is not immediately practicable.

APPENDIX A
REFERENCES

A-1. Publication Index

The following publication index should be consulted frequently for the references given in this appendix and for new publications relating to the material covered in this manual:

Consolidated Index of Army Publications and Blank Forms ..... DA Pam 310-1

A-2. Technical Manuals

Operator's Manual for Welding Theory and Application ..... TM 9-237
Use and Care of Handtools and Measuring Tools ..... TM 9-243
Ammunition and Explosives Standards ..... TM 9-1300-206
Ammunition Maintenance ..... TM 9-1300-250
Operator's and Organization Maintenance Manual (including Repair Parts and Special Tools List) Warhead Section, Guided Missile, Practice: Lightweight, M252 (NSN 1336-00-021-4497) ..... TM 9-1336-488-12&P
The Army Maintenance Management System (TAMMS) ..... TM 38-750
General Instructions Applicable to Nuclear Weapons ..... TM 39-35-51
Procedures for Destruction of Improved Conventional Munitions (ICM) to Prevent Enemy Use ..... TM 43-0002-33
Transportability Guidance: Lance Missile System ..... TM 55-1425-485-15-1
Common Wood and Metal Repair ..... FM 43-4

A-3. Military Standards

Quality of Wood Members for Containers and Pallets MIL-STD-731

A-4. Supply Manuals

Ammunition Surveillance Procedures ..... SB 742-1
Tool Kit, Guided Missile: Organizational Maintenance, Mechanical Repairman, Lance (NSN 5180-00-077-1648) Line Item (W42320) ..... SC 5180-95-CL-B01
Tool Kit, Organizational Maintenance Lance (NSN 5180-00-160-8572) LIN (W42993) ..... SC 5180-95-CL-A65

A-5. Army Regulations

Reporting of Transportation Discrepancies in Shipments ..... AR 55-38
Malfunctions Involving Ammunition and Explosives ..... AR 75-1
Accident Reporting and Records ..... AR 385-40
Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat ..... AR 385-63
Reporting of Item and Packaging Discrepancies ..... AR 735-11-2
Ammunition Stockpile Reliability Program (ASRP) ..... AR 702-6
Storage and Supply Activity Operations ..... AR 740-1
Quality Assurance Specialist (Ammunition Surveillance) ..... AR 702-12

A-6Forms

US Army Accident Investigation Report.....DA Form 285
Recommended Changes to Publications and Blank Forms .....DA Form 2028
Equipment Maintenance Log (Consolidated) .....DA Form 2409
Ammunition Condition Report .....DA Form 2415
Ammunition Data Card .....DD Form 1650
Discrepancy in Shipment Report .....SF 361
Report of Discrepancy .....SF 364
Quality Deficiency Report .....SF 368

APPENDIX B
GENERAL SUPPORT MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

B-1. Scope
This appendix lists repair parts and special tools required for the performance of general support maintenance of the warhead section.

B-2. General
This appendix is divided into the following sections:

a. Repair Parts List - Section II. A list of repair parts authorized for the performance of maintenance at the general support level.

b. Special Tools List - Section III. A list of special tools and equipment authorized for the performance of maintenance at the general support level.

c. National Stock Number and Part Number Index - Section IV. A list, in ascending numerical sequence, of all national stock numbers appearing in the listings, followed by a list, in alphameric sequence, of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

B-3. Explanation of Columns
The following provides an explanation of columns in section II and III.

a. Illustration. This column is divided as follows:

(1) *Figure number.* Indicates the figure number of the illustration on which the item is shown.

(2) *Item number.* Indicates the callout number used to reference the item on the illustration.

b. Source, Maintenance, and Recoverability Codes (SMR).

(1) Source code (first and second positions) indicates the source for the listed items. Source codes are:

Code	Explanation
PA	Item procured and stocked for anticipated or known usage.
PE	Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activities.
PG	Item procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item peculiar to the equipment which because of probable discontinuance or shutdown of production facilities, would prove uneconomical to reproduce at a later date.
MH	Item to be manufactured or fabricated at the general support maintenance level.
XD	Support item that is not stocked. When required item will be procured through normal supply channels.

(2) Maintenance code consists of two parts - use code (third position) and repair code (fourth position). Use code indicates the lowest maintenance level authorized to remove, replace, and use the listed items. Repair code indicates whether the item is to be repaired and identifies the lowest maintenance level authorized to repair the listed items. Maintenance codes are:

Code	Explanation
D	Support item is removed, replaced, and used at depot level.
O	Support item is removed, replaced, and used at organizational level of maintenance.
H	Support item is removed, replaced, and used at the general support level.

Repair

D	The lowest maintenance level capable of complete repair of the support item is the depot level.
H	The lowest maintenance level capable of complete repair of the support item is the general support level.
L	Repair of support item is restricted to designated specialized repair activity.
O	The lowest maintenance level capable of complete repair of the support item is the organizational level.
Z	Nonreparable support item. No repair is authorized.

(3) Recoverability code (fifth position) indicates the disposition action on unserviceable items. Recoverability codes are:

Code	Explanation
D	Repairable item. When beyond lower level repair capability, return to Depot. Condemnation and disposal not authorized below depot level.
L	Repairable item. Repair, condemnation, and disposal not authorized below depot/specialized repair activity level.
Z	Nonrepairable item. When unserviceable, condemn and dispose of at the level indicated in position 3.

c. National Stock Number. This column indicates the National stock number assigned to the item and will be used for requisitioning purposes.

d. Part Number. This column indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements, to identify an item or range of items.

e. Federal Supply Code for Manufacturers (FSCM). This column indicates a five-digit numeric code used to identify the manufacturer, distributor, or Government agency that controls the design characteristics of the item. Federal supply codes for manufacturers are:

Code	Manufacturer
18876	U.S. Army Missile Command
19200	U.S. Army Armament Research & Development Command
19203	Picatinny Arsenal
80205	National Aeronautical Standards
96906	Military Standards

f. Description. This column indicates the Federal item name and any additional description of the item required.

g. Unit of Measure (U/M). A two-character alphabetic abbreviation indicating the unit upon which the allowances are based (e.g., ft, ea, pr, etc.).

h. Quantity Incorporated in Unit. This column indicates the quantity of the item used with or on the equipment.

B-4. How to Locate Repair Parts

a. When national stock number or reference number is unknown:

(1) *First*. Using the table of contents, determine the functional or subfunctional group within which the repair part belongs; i.e., warhead section, practice fuze, etc. This is necessary since illustrations are prepared for groups, and listings are divided into the same groups.

(2) *Second*. Find the illustration covering the functional or subfunctional group to which the repair part belongs.

(3) *Third*. Identify the repair part on the illustration and note the illustration figure and item number on the repair part.

(4) *Fourth*. Using the repair parts listing, find the functional or subfunctional group to which the repair part belongs and locate the illustration figure and item number identified in (2) above. The part is listed opposite the figure and item number shown.

b. When National stock number is known:

(1) *First*. Using the index of National stock numbers and part numbers, find the pertinent National stock number or part number. The index is in ascending NSN sequence followed by a list of part numbers in ascending alphameric sequence, cross-referenced to the illustration, figure number and item number.

(2) *Second*. Using the repair parts listing, find the functional or subfunctional group of the repair part and the illustration figure number and item number referenced in the index of National stock numbers and part numbers.

B-5. Abbreviations

cd-pltd	cadmium plated
ck	Countersunk
cres	Corrosion-resistant steel
dia	diameter
fin	finish
fl-fil-hd	flat, fillister head
fl-hd	flat head
h	high
id	inside diameter
in	inch
lg	long
NF	National fine
NPSL	Locknut pipe thread
NPT	National pipe thread
o/a	overall
od	outside diameter
ru	rubber
S	Steel
thk	thick
UNC	Unified coarse thread
UNF	Unified fine thread
UNJF	Unified joint fine thread
w	Wide
zn-pltd	zinc plated

Section II. REPAIR PARTS LIST

(1) ILLUSTRATION (a) FIG NO.	(1) ILLUSTRATION (b) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						GROUP 01-WARHEAD SECTION, GUIDED MISSILE, PRACTICE: LIGHTWEIGHT M252 0101-NOSE CONE		
B-1	1	PAOZZ	5325-00-639-5098	10293157	19203	STUD, TURNLOCK FASTENER: S, cd-pltd, slotted head drive 1 in. o/a length	ea	8
B-1	2	PGOZZ	1336-00-283-9463	10246033	19203	NOSE CONE:	ea	1
B-1	3	PAHZZ	5320-00-117-6953	MS20426 AD4-8	96906	RIVET, SOLID:	ea	16
B-1	4	PAHZZ	5325-00-638-5116	10293155	19203	RECEPTACLE, TURNLOCK FASTENER	ea	8
						0102-SKIN ASSEMBLY		
B-2	1	PAOZZ	5935-00-410-2748	8779955		19203 COVER, ELECTRICAL, CONNECTOR: (PAL)	ea	1
B-2	2	PAOZZ	5330-00-840-6410	MS9068-133		96906 PACKING PREFORMED	ea	1
						0103-AFT BULKHEAD AREA		
B-2	3	PAOZZ	5315-00-841-4442	MS16562-224	96906	PIN, SPRING: cres, 1/8 in. dia, 3/4 in. lg, 1/32 in. thk (part of swing bolt assembly)	ea	4
B-2	4	PAOZZ	5310-00-001-1301	9237309	19203	NUT, PLAIN, EXTENDED WASHER, DOUBLE HEXAGON: S, cd-pltd, 5/8-18UNJF-3B, 13/16 in. w, 45/64 in. h, 1-1/4 in. od of washer (part of swing bolt assembly)	ea	4
B-2	5	PAOZZ	5310-00-614-3505	MS15795-820	96906	WASHER, FLAT: cres, 5/8 in. id 1-5/16 in. od, 1/8 in. thk (part of swing bolt assembly)	ea	4
B-2	6	PAOZZ	5305-00-084-2757	NAS 1189 E3P18	8025	SCREW, SELF-LOCKING: cres, NO. 10-32NF-2A X 1-1/8 in.	ea	8
B-2	7	PAOZZ	1115-00-883-8134	8878938	19203	COVER, TEE BOLT:	ea	4
B-2	8	PAOZZ	5306-00-172-3171	9237322	19203	BOLT, TEE HEAD: alloy-S, 5/8-18UNF-3A X 3-19/32 in. (part of swing bolt assembly)	ea	4
B-2	9	PAOZZ	5315-00-933-7586	8877426	19203	PIN, SHOULDER, HEADLESS: cres, 1-1/2 in lg	ea	6
B-2	10	PAOZZ	5315-00-189-4661	8877425	19203	PIN, SHOULDER, HEADLESS: cres, 2 in. lg	ea	2
B-2	11	PAOZZ	5999-00-992-5541	9267740	19203	SHIELDING GASKET, ELECTRONIC (knitted wire mesh)	ft	5
B-2	12	PAOZZ	5935-00-279-1587	9281653	19203	COVER, ELECTRICAL CONNECTOR: protective cover and flag assembly	ea	1
						GROUP 02-SHIPPING AND STORAGE CONTAINER, WARHEAD SECTION: M511 0201-COVER ASSEMBLY		
B-3	1	PAOZZ	8140-00-883-1538	9219562	19200	DOOR, ACCESS, SHIPPING AND STORAGE CONTAINER:	ea	1
B-3	2	PAOZZ	5330-00-883-1540	8880558-4	19203	SEAL, RUBBER SPECIAL SHAPED SECTION	ea	1
B-3	3	PAOZZ	6685-00-998-7412	9220303	19203	INDICATOR, HUMIDITY PLUG:	ea	1
B-3	4	PAHZZ	4730-01-030-2048	9297950		NUT, WELDABLE	ea	1

Section II. REPAIR PARTS LIST-Continued

(1) ILLUSTRATION (a) FIG NO.	(1) ILLUSTRATION (b) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
B-3	5	PAOZZ	6685-00-052-1865	8881094	19203	INDICATOR, HUMIDITY CARD: 0202-BASE ASSEMBLY	ea	1
B-3	6	PAOZZ	5310-00-768-0318	MS51967-14	96906	NUT, PLAIN, HEXAGON: carbon S, 1/2-13UNC-2B	ea	22
B-3	7	PAOZZ	5310-00-584-5272	MS35338-48	96906	WASHER, LOCK: S, cd-pltd, split, for 1/2 in. bolt size	ea	22
B-3	8	PAOZZ	5306-00-252-4423	9231556	19203	BOLT, TEE HEAD: S, cd-pltd, 1/2-13 UNC-2A X 2.00 in. lg.	ea	22
B-3	9	PAOZZ	5310-00-809-5998	MS27183-18	96906	WASHER, FLAT: S, cd-pltd, 0.500 in. id, 1.062 in. od, 0.07 in. thk.	ea	22
B-3	10	PAOZZ	5999-00-252-4379	9231557-1	19203	SHIELDING GASKET, ELECTRONIC:	ea	1
B-3	11	PAHZZ	5305-00-253-5615	MS21318-21	96906	SCREW, DRIVE: S, cd-pltd, No. 4 X 0.250 in. lg.	ea	4
B-3	12	PHAZZ	9905-00-127-7269	9219400	19203	PLATE, IDENTIFICATION:	ea	1
B-3	13	PAOZZ	5310-00-763-8901	MS51968-23	96906	NUT, PLAIN, HEXAGON: carbon, S, cd-pltd, 3/4-16UNF-2B	ea	8
B-3	14	PAOZZ	5310-00-809-8533	MS27183-23	96906	WASHER, FLAT: S, cd-pltd, 0.805 in. id, 1.462 in, od, 0.108 in. thk.	ea	16
B-3	15	PAOZZ	5305-00-940-8069	MS90727-197	96906	SCREW, CAP, HEXAGON HEAD: S, cd-pltd, 3/4-16 UNF-2A X 4.500 in. lg.	ea	8
B-3	16	MHOOZ	----------	9219399	19200	RUNNER, WOOD:	ea	4
B-3	17	PAOZZ	5310-00-067-9507	MS51922-37	96906	NUT, SELF-LOCKING, HEXAGON: carbon S, cd-pltd, 1/2-20UNF-2B	ea	4
B-3	18	PAOZZ	5310-00-809-3079	MS27183-19	96906	WASHER, FLAT: S, cd-pltd. 0.500 in. id, 1.375 in. od, 0.109 in. thk.	ea	8
B-3	19	PAOZZ	5305-00-719-5275	MS90727-128	96906	SCREW, CAP, HEXAGON HEAD: S, cd-pltd, 1/2-20UNF-2A X 5.500 in. lg.	ea	4
B-3	20	PAOZZ	5310-00-081-8087	MS21044-N06	96906	NUT, SELF-LOCKING HEXAGON: S,.138-32 UNJC-3B	ea	4
B-3	21	PAOZZ	5310-00-082-1404	MS27183-6	96906	WASHER, FLAT: S, cd-pltd, 0.151 in. id. 0.370 in, od, 0.036 in. thk.	ea	4
B-3	22	PAOZZ	5305-00-889-3001	MS35206-231	96906	SCREW, MACHINE: S, cd-pltd, fl-hd, No. 6-32UNC2A X 0.625 in. lg	ea	4
B-3	23	PAOZZ	5340-00-235-9685	9223266	19203	CLIP, SPRING TENSION:	ea	4
B-3	24	PAOZZ	4730-00-992-7272	MS20913-3K	96906	PLUG, PIPE: corr-res-S, 0.375-18NPT	ea	2
B-3	25	PAOZZ	5310-00-828-8189	MS35425-41	96906	NUT, PLAIN, WING: S, cd-pltd, 5/16-18 UNC-2B	ea	2
B-3	26	PAOZZ	5310-00-081-4219	MS27183-12	96906	WASHER, FLAT: S, cd-pltd, 0.344 in. id. 0.687 in. od, 0.051 in. thk.	ea	12
B-3	27	PAOZZ	5330-01-008-6660	9287680	19203	GASKET	ea	1
B-3	28	PAHZZ	5307-01-005-8627	9295033	19203	STUD, CONTINUOUS THREAD	ea	2

Section II. REPAIR PARTS LIST-Continued

(1) ILLUSTRATION (a) FIG NO.	(1) ILLUSTRATION (b) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
B-3	29	PAOZZ	5310-00-984-3806	MS51922-9	96906	NUT, SELF-LOCKING, HEXAGON: S, cd-pltd, 5/16-18UNC-2B.	ea	10
B-3	30	PAOZZ	4820-00-122-1121	9220106-2	19203	VALVE, PRESSURE EQUALIZING:	ea	2
B-3	31	PAOZZ	5999-00-408-0952	9231557-2	19203	SHIELDING GASKET, ELECTRONIC:	ea	1
B-3	32	PAHZZ	5307-01-005-8627	9295033	19203	STUD, CONTINUOUS THREAD	ea	2
B-3	33	PAHZZ	5315-00-252-4402	9220212	19203	PIN, STRAIGHT, HEADLESS: S, 1.250 in. lg. X 0.359 in. dia.	ea	2
B-3	34	PAOZZ	5306-00-225-8499	MS90725-34	96906	BOLT, MACHINE: S, cd-pltd, 5/16-18UNC-2A X 1.000 in. lg	ea	1
B-3	35	PAOZZ	5330-00-248-3831	MS29513-011	96906	PACKING, PREFORMED: synru, 0.296 in min id, 0.067 in. min h	ea	1
B-3	36	PAOZZ	5310-01-021-5237	9224971	19203	WASHER, FLAT:	ea	2
B-3	37	PAOZZ	5330-01-035-5059	9224970	19203	GASKET:	ea	2
B-3	38	PAOZZ	5310-00-407-9566	MS35338-45	96906	WASHER, LOCK: S, cd-pltd, split, 0.318 in. min hole dia	ea	1
B-3	39	PAOZZ	5310-00-880-7744	MS51967-5	96906	NUT, PLAIN, HEXAGON: S, cd-pltd, 5/16-18UNC-2B	ea	1
						0203- SUSPENSION FRAME ASSEMBLY		
B-4	1	PAOZZ	5310-00-768-0318	MS51967-14	96906	NUT, PLAIN, HEXAGON: carbon S, cd-pltd, 1/2-13UNC-2B	ea	4
B-4	2	PAOZZ	5310-00-584-5272	MS35338-48	96906	WASHER, LOCK: S, cd-pltd, split, for 1/2 in. bolt size.	ea	4
B-4	3	PAOZZ	5306-00-252-4423	9231556	19203	BOLT, TEE HEAD: S, cd-pltd, 1/2-13UNC-2A X 2.00 in. lg.	ea	4
B-4	4	PAOZZ	5310-00-809-5998	MS27183-18	96906	WASHER, FLAT: s, cd-pltd, 0.500 in. id, 1.062 in. od, 0.074 in. thk.	ea	4
B-4	5	PAOZZ	9390-00-409-5640	9248698-1	19203	NONMETALLIC CHANNEL:	ea	1
B-4	6	PAOZZ	9390-00-409-5641	9248698-2	19203	NONMETALLIC CHANNEL:	ea	1
B-4	7	PAHZZ	5305-01-017-0091	928734	19203	SCREW, CAP, SOCKET HEAD: S, cd-pltd, fl-hd, ck, 1/2-2OUNF-2A X 0.750 in. lg.	ea	12
B-4	8	PAHZZ	5310-00-959-1488	MS51922-21	96906	NUT, SELF-LOCKING, HEXAGON: S, cd-pltd, 3/8-24UNF-2B	ea	16
B-4	9	PAHZZ	5305-00-269-3236	MS90727-60	96906	SCREW, CAP, HEXAGON HEAD: S, cd-pltd, 3/8-24UNF-2A x 1.000 in. lg.	ea	16
B-4	10	PAHZZ	5310-00-080-6004	MS27183-14	96906	WASHER, FLAT: S, cd-pltd, 0.406 in. id, 0.812 in. od, 0.080 in. thk.	ea	16
B-4	11	PAHZZ	5340-00-127-4630	9219401	19203	MOUNT RESILIENT:	ea	4
B-4	12	PAOZZ	5310-00-761-6882	MS51967-2	96906	NUT, PLAIN, HEXAGON: carbon, S, 1/4-20UNC-2B	ea	6
B-4	13	PAOZZ	5310-00-582-5965	MS35338-44	96906	WASHER, LOCK: S, 1/4 in. bolt size	ea	6
B-4	14	PAOZZ	5310-00-809-4058	MS27183-10	96906	WASHER, FLAT: S, cd-pltd, 1/4 in. screw size	ea	12
B-4	15	PAOZZ	5305-00-071-2505	MS90728-7	96906	SCREW, CAP, HEXAGON HEAD: S, cd-pltd, 1/4-20UNC-2A X 0.875 in. lg.	ea	6
B-4	16	PAOZZ	8140-00-250-8667	9280023	19203	PAD, CUSHIONING: ru, 26.750 in. lg. 7.135 in. w, 2 in. thk.	ea	2

Section II. REPAIR PARTS LIST - Continued

(1) ILLUSTRATION (a) FIG NO.	(1) ILLUSTRATION (b) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						GROUP 03-SHIPPING AND STORAGE CONTAINER, WARHEAD SECTION: XM612		
B-5		PADZZ	8140-01-055-3278	9288555	19203	ASSEMBLY, SPACER	ea	1
						GROUP 04-BULK MATERIALS		
Bulk		XDHZZ	5510-00-220-6150	MML751	81348	LUMBER, SOFTWOOD: 2 X 8 in. boards, 9 feet long; 2 required (used to fabricate side rails and rear cradle of Lance maintenance stand) Local procurement permissible.	ft	2
Bulk		XDHZZ	5510-00-220-6152	MML751	81348	LUMBER, SOFTWOOD: 2 X 10 in. boards, 6 feet long; (used to fabricate forward cradle of Lance maintenance stand) Local procurement permissible.	ft	1
Bulk		XDHZZ	5510-00-267-2135	MML736	81348	LUMBER, HARDWOOD: 4 X 6 in. oak boards, 12 feet long; (used to fabricate 4 skids for one warhead section container). ALTERNATE LUMBER: 4 X 6 in. hardwood, Mil-Std-731, Group IV, III, or II (oak, pecan, Rock elm, white ash, beech, birch, hackberry, hard maple, or hickory), length as required (to be procured locally).	ft	1

Section III. SPECIAL TOOLS LIST

(1) ILLUSTRATION (a) FIG NO.	(1) ILLUSTRATION (b) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						GROUP 05-TOOLS AND EQUIPMENT		
B-6	--	PAOZZ	5120-00-866-6677	9219129	19203	WRENCH, OPEN END FIXED: H4244 (Issued two per missile mating Tool kit)	ea	--
B-7	--	MHOHZ	----------	------		LANCE, MAINTENANCE STAND	ea	--
B-8	--	PEODD	1450-00-937-0894	10162468	18876	SLING, BEAM TYPE: M22	ea	--

Section IV. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

National Stock Number Cross-Referenced to Figure and Item Number

NATIONAL STOCK NUMBER	FIGURE NO.	ITEM NO.
1115-00-883-8134	B-2	7
1336-00-283-9463	B-1	2
1450-00-937-0894	B-8	-
4730-00-992-7272	B-3	24
4730-01-030-2048	B-3	4
5120-00-866-6677	B-6	-
5305-00-071-2505	B-4	15
5305-00-253-5615	B-3	11
5305-00-269-3236	B-4	9
5305-00-719-5275	B-3	19
5305-00-829-0439	B-2	6
5305-00-889-3001	B-3	22
5305-00-940-8069	B-3	15
5305-01-017-0091	B-4	7
5306-00-172-3171	B-2	8
5306-00-225-8499	B-3	34
5306-00-252-4423	B-3	8
5306-00-252-4423	B-4	3
5307-01-005-8627	B-3	28
5307-01-005-8627	B-3	32
5310-00-001-1301	B-2	4
5310-00-067-9507	B-3	17
5310-00-080-6004	B-4	10
5310-00-081-4219	B-3	26
5310-00-081-8087	B-3	20
5310-00-082-1404	B-3	21
5310-00-407-9566	B-3	38
5310-00-582-5965	B-4	13
5310-00-584-5272	B-3	7
5310-00-584-5272	B-4	2
5310-00-614-3505	B-2	5
5310-00-761-6882	B-4	12
5310-00-763-8901	B-3	13
5310-00-768-0318	B-3	6
5310-00-768-0318	B-4	1
5310-00-809-3079	B-3	18
5310-00-809-4058	B-4	14
5310-00-809-5998	B-3	9
5310-00-809-5998	B-4	4

National Stock Number Cross-Referenced to Figure and Item Number-Continued

NATIONAL STOCK NUMBER	FIGURE NO.	ITEM NO.
5310-00-809-8533	B-3	14
5310-00-828-8189	B-3	25
5310-00-880-7744	B-3	39
5310-00-959-1488	B-4	8
5310-00-984-3806	B-3	29
5310-01-021-5237	B-3	36
5315-00-189-4661	B-2	10
5315-00-252-4402	B-3	33
5315-00-841-4442	B-2	3
5315-00-933-7586	B-2	9
5320-00-117-6953	B-1	3
5325-00-638-5116	B-1	4
5325-00-639-5098	B-1	1
5330-00-248-3831	B-3	35
5330-00-833-1540	B-3	2
5330-00-840-6410	B-2	2
5330-01-008-6660	B-3	27
5330-01-035-5059	B-3	37
5340-00-127-4630	B-4	11
5340-00-235-9685	B-3	23
5510-00-220-6150	2-1	-
5510-00-220-6152	2-1	-
5510-00-267-2135	4-1	-
5935-00-279-1587	B-2	12
5935-00-410-2748	B-2	1
5999-00-252-4379	B-3	10
5999-00-408-0952	B-3	31
5999-00-992-5541	B-2	11
6685-00-052-1865	B-3	5
6685-00-998-7412	B-3	3
8140-00-122-1121	B-3	30
8140-00-250-8667	B-4	16
8140-00-883-1538	B-3	1
8140-01-055-3278	B-5	-
9390-00-409-5640	B-4	5
9390-00-409-5641	B-4	6
9905-00-127-7269	B-3	12
----------	B-3	16

Part Number Cross-Referenced to Figure and Item Number

Part Number Cross-Referenced to Figure and Item Number-Continued

Part No.	Mfr. No.	Fig. No.	Item No.	Part No.	Mfr. No.	Fig. No.	Item No.
MS9068-133	96906	B-2	2	8877426	19203	B-2	9
MS15795-820	96906	B-2	5	8878938	19203	B-2	7
MS16562-224	96906	B-2	3	8879955	19203	B-2	1
MS20426-AD4-8	96906	B-1	3	8880558-4	19203	B-3	2
MS20913-3K	96906	B-3	24	8881094	19203	B-3	5
MS21044-N06	96906	B-3	20	9219129	19203	B-6	-
MS21318-21	96906	B-3	11	9219399	19200	B-3	16
MS27183-6	96906	B-3	21	9219400	19203	B-3	12
MS27183-10	96906	B-4	14	9219401	19203	B-4	11
MS27183-12	96906	B-3	26	9219562	19200	B-3	1
MS27183-14	96906	B-4	10	9220106-2	19203	B-3	30
MS27183-18	96906	B-3	9	9220212	19203	B-3	33
MS27183-18	96906	B-4	4	9220303	19203	B-3	3
MS27183-19	96906	B-3	18	9223266	19203	B-3	23
MS27183-23	96906	B-3	14	9224970	19203	B-3	37
MS29513-011	96906	B-3	35	9224971	19203	B-3	36
MS35206-231	96906	B-3	22	9231556	19203	B-3	8
MS35338-44	96906	B-4	13	9231556	19203	B-4	3
MS35338-45	96906	B-3	38	9231557-1	19203	B-3	10
MS35338-48	96906	B-3	7	9231557-2	19203	B-3	31
MS35338-48	96906	B-4	2	9237309	19203	B-2	4
MS35425-41	96906	B-3	25	9237322	19203	B-2	8
MS51967-2	96906	B-4	12	9248698-1	19203	B-4	5
MS51922-9	96906	B-3	29	9248698-2	19203	B-4	6
MS51922-21	96906	B-4	8	9267740	19203	B-2	11
MS51922-37	96906	B-3	17	9280023	19203	B-4	16
MS51967-5	96906	B-3	39	9281653	19203	B-2	12
MS51967-14	96906	B-3	6	9287680	19203	B-3	27
MS51967-14	96906	B-4	1	9287834	19203	B-4	7
MS51968-23	96906	B-3	13	9288555	19203	B-5	-
MS90725-34	96906	B-3	34	9295033	19203	B-3	28
MS90727-60	96906	B-4	9	9295033	19203	B-3	32
MS90727-128	96906	B-3	19	9297950	19203	B-3	4
MS90727-197	96906	B-3	15	10162468	18876	B-8	-
MS90728-7	96906	B-4	15	10246033	18876	B-1	2
NAS1189E3P18	80205	B-2	6	10293155	19203	B-1	4
8877425	19203	B-2	10	10293157	19203	B-1	1

Figure Number Cross-Referenced to National Stock Number

Fig No.	Item No.	National Stock Number
2-1	-	5510-00-220-6150
2-1	-	5510-00-220-6152
4-1	-	5510-00-267-2135
B-1	1	5325-00-639-5098
B-1	2	1336-00-283-9463
B-1	3	5320-00-117-6953
B-1	4	5325-00-638-5116
B-2	1	5935-00-410-2748
B-2	2	5330-00-840-6410
B-2	3	5315-00-841-4442
B-2	4	5310-00-001-1301
B-2	5	5310-00-614-3505
B-2	6	5305-00-084-2757
B-2	7	1115-00-883-8134
B-2	8	5306-00-172-3171
B-2	9	5315-00-933-7586
B-2	10	5315-00-189-4661
B-2	11	5999-00-992-5541
B-2	12	5935-00-279-1587
B-3	1	8140-00-883-1538
B-3	2	5330-00-883-1540
B-3	3	6685-00-998-7412
B-3	4	4730-01-030-2048
B-3	5	6685-00-052-1865
B-3	6	5310-00-768-0318
B-3	7	5310-00-584-5272
B-3	8	5306-00-252-4423
B-3	9	5310-00-809-5998
B-3	10	5999-00-252-4379
B-3	11	5305-00-253-5615
B-3	12	9905-00-127-7269
B-3	13	5310-00-763-8901
B-3	14	5310-00-809-8533
B-3	15	5305-00-940-8069
B-3	16	----------
B-3	17	5310-00-067-9507
B-3	18	5310-00-809-3079
B-3	19	5305-00-719-5275
B-3	20	5310-00-081-8087

Figure Number Cross-Referenced to National Stock Number-Continued

Fig. No.	Item No.	National Stock Number
B-3	21	5310-00-082-1404
B-3	22	5305-00-889-3001
B-3	23	5340-00-235-9685
B-3	24	4730-00-992-7272
B-3	25	5310-00-828-8189
B-3	26	5310-00-081-4219
B-3	27	5330-01-008-6660
B-3	28	5307-01-005-8627
B-3	29	5310-00-984-3806
B-3	30	4820-00-122-1121
B-3	31	5999-00-408-0952
B-3	32	5307-01-005-8627
B-3	33	5315-00-252-4402
B-3	34	5306-00-225-8499
B-3	35	5330-00-248-3831
B-3	36	5310-01-021-5237
B-3	37	5330-01-035-5059
B-3	38	5310-00-407-9566
B-3	39	5310-00-880-7744
B-4	1	5310-00-761-3706
B-4	2	5310-00-584-5272
B-4	3	5306-00-252-4423
B-4	4	5310-00-809-5998
B-4	5	9390-00-409-5640
B-4	6	9390-00-409-5641
B-4	7	5305-00-725-2766
B-4	8	5310-00-959-1488
B-4	9	5305-00-269-3236
B-4	10	5310-00-080-6004
B-4	11	5340-00-127-4630
B-4	12	5310-00-761-6882
B-4	13	5310-00-582-5965
B-4	14	5310-00-809-4058
B-4	15	5310-00-071-2505
B-4	16	8140-00-250-8667
B-5	-	8140-01-055-3278
B-6	-	5120-00-866-6677
B-8	-	1450-00-937-0894

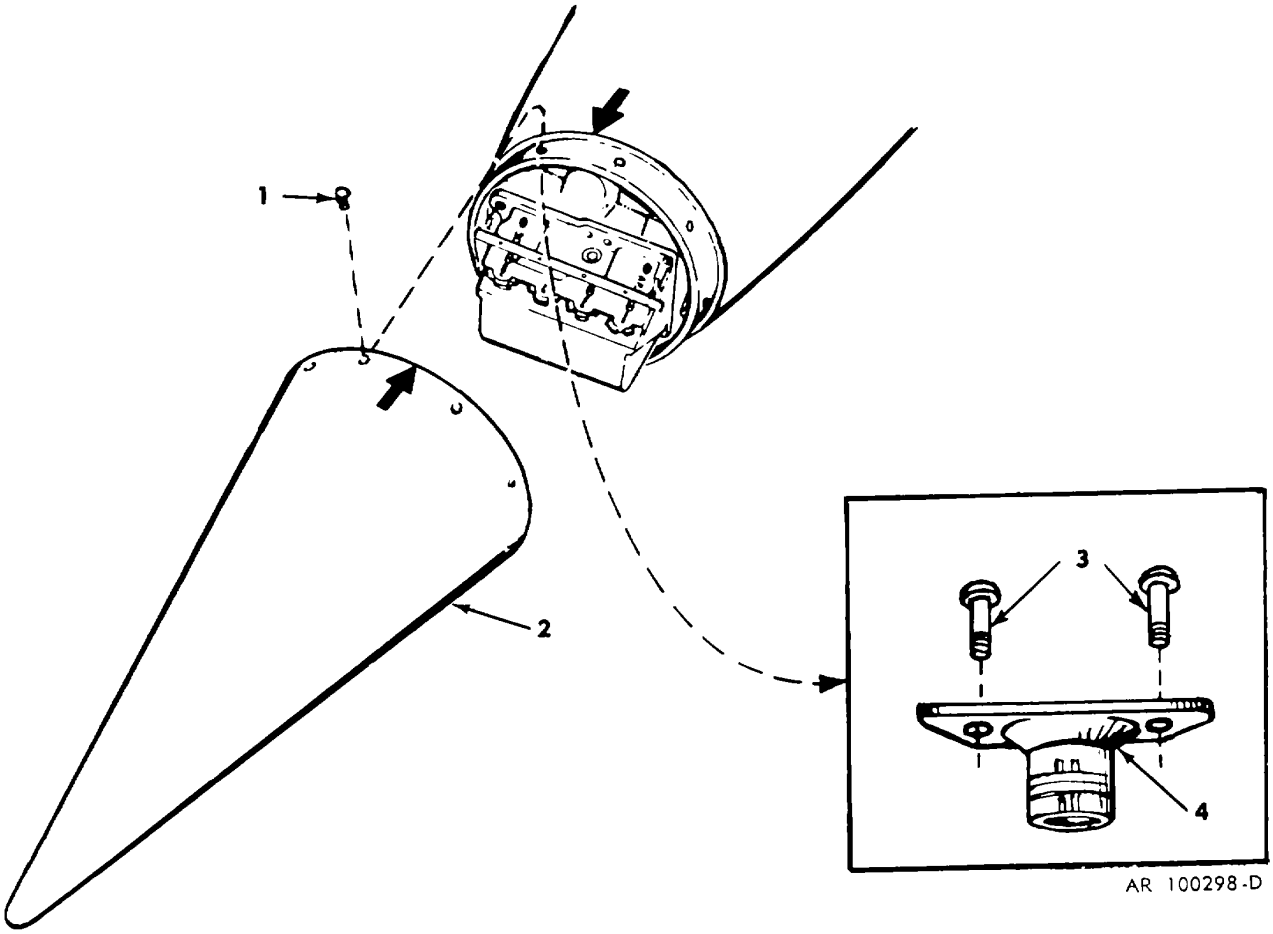


Figure B-1. Warhead section-nose cone and attaching hardware.

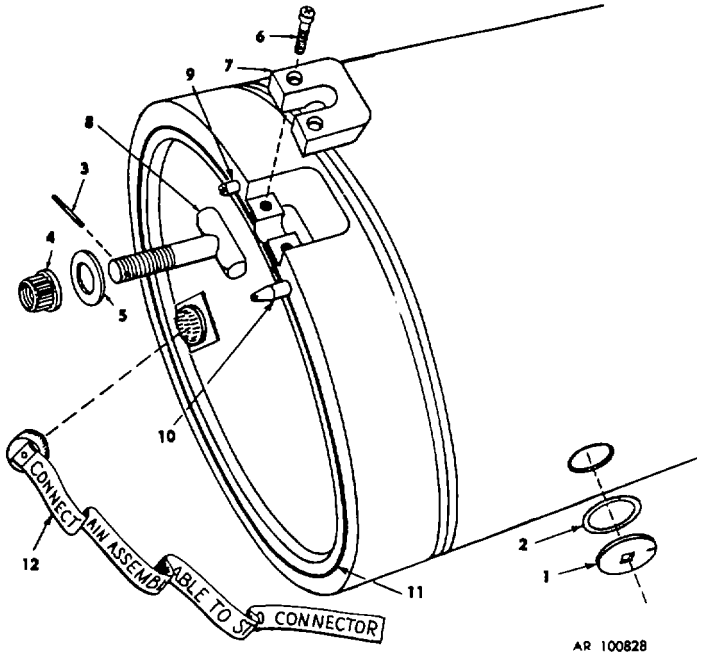


Figure B-2. Warhead section-aft bulkhead area.

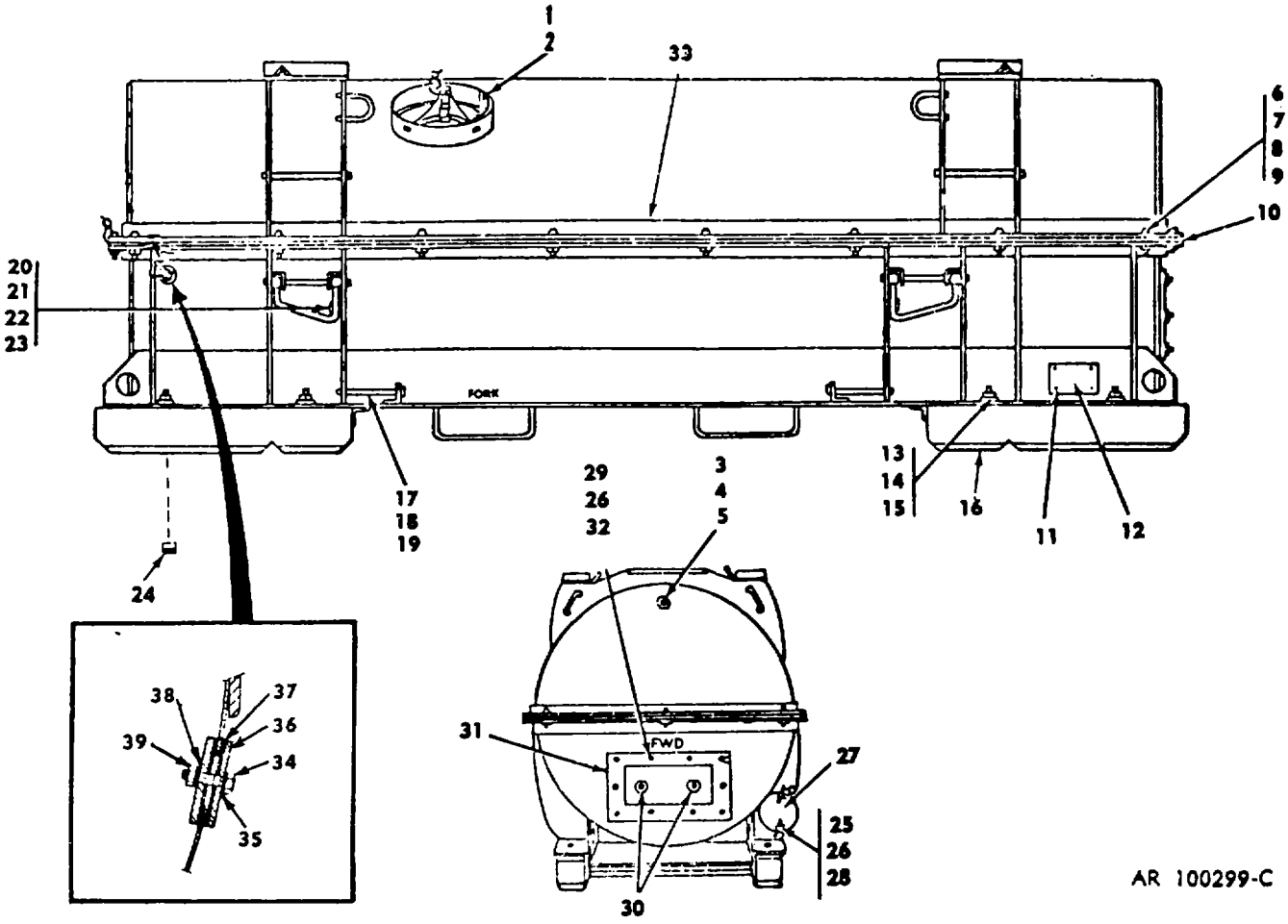


Figure B-3. Shipping and storage container cover assembly and base assembly.

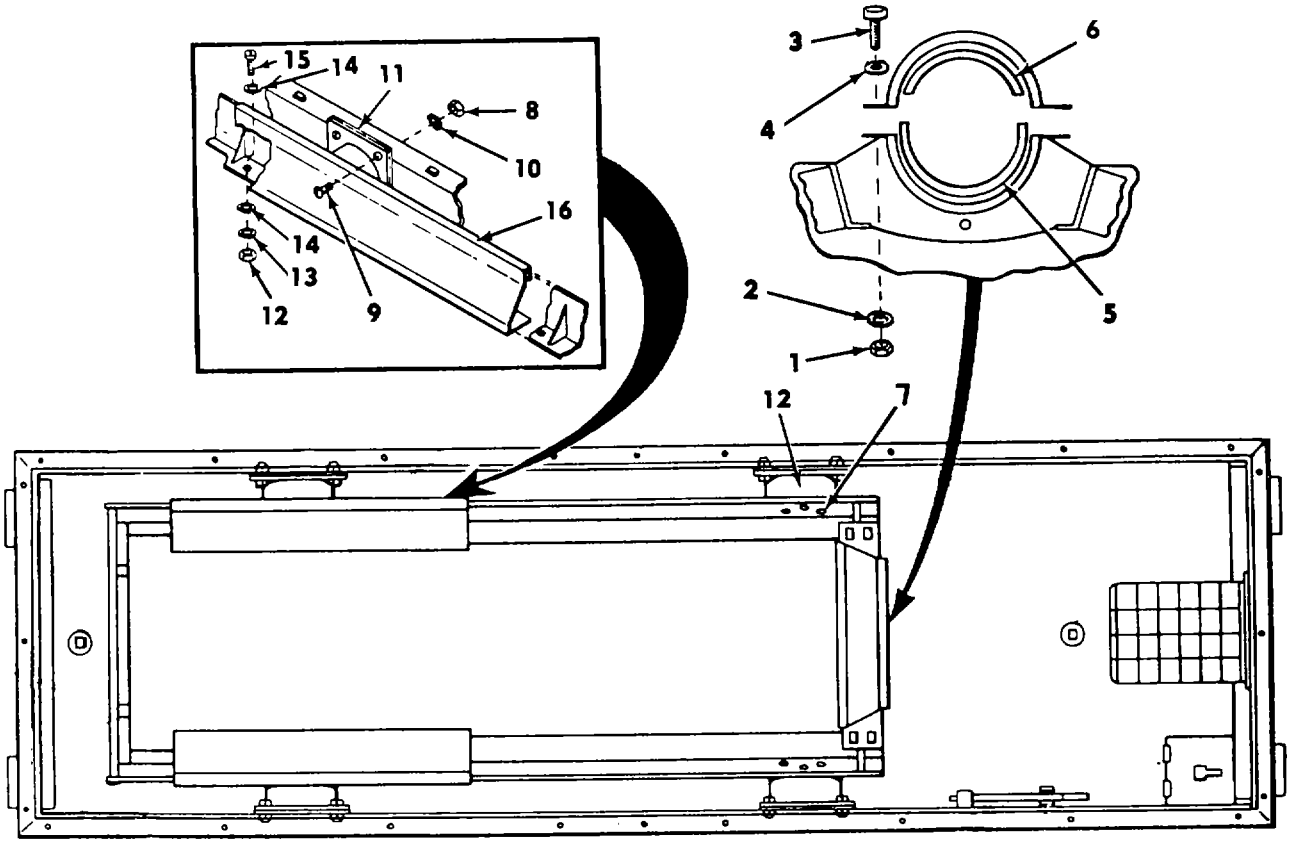


Figure B-4. Shipping and storage container-suspension frame assembly.

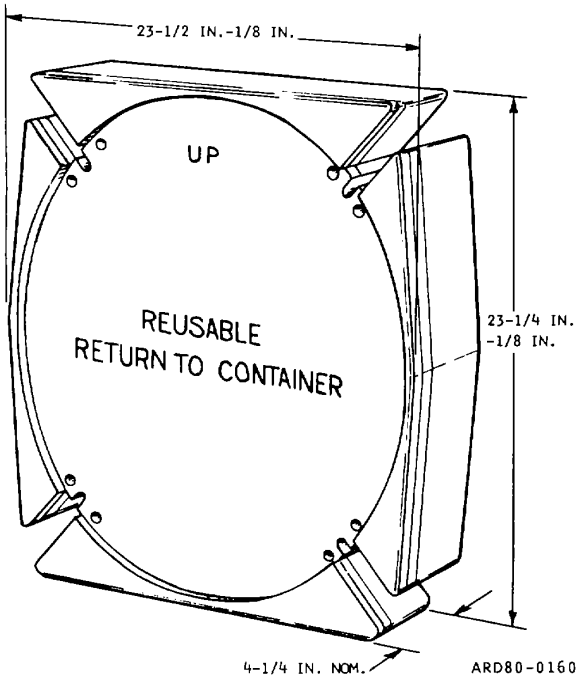


Figure B-5. Shipping and storage container-spacer assembly.

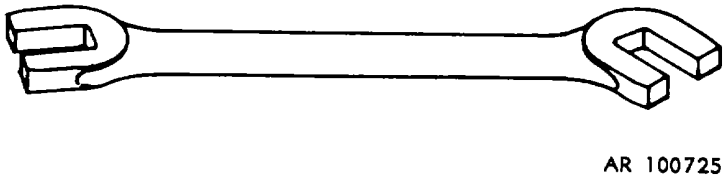


Figure B-6. H4244 wrench.

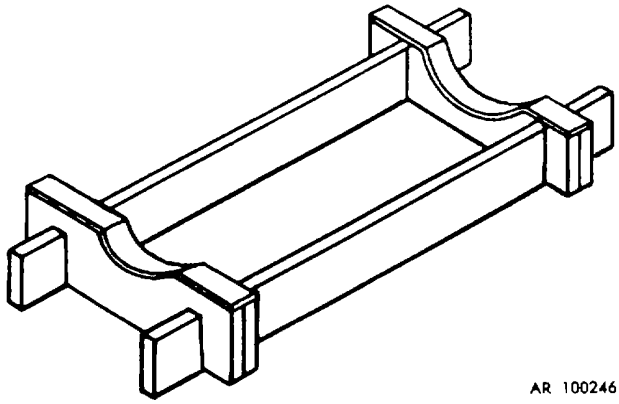


Figure B-7. Lance maintenance stand.

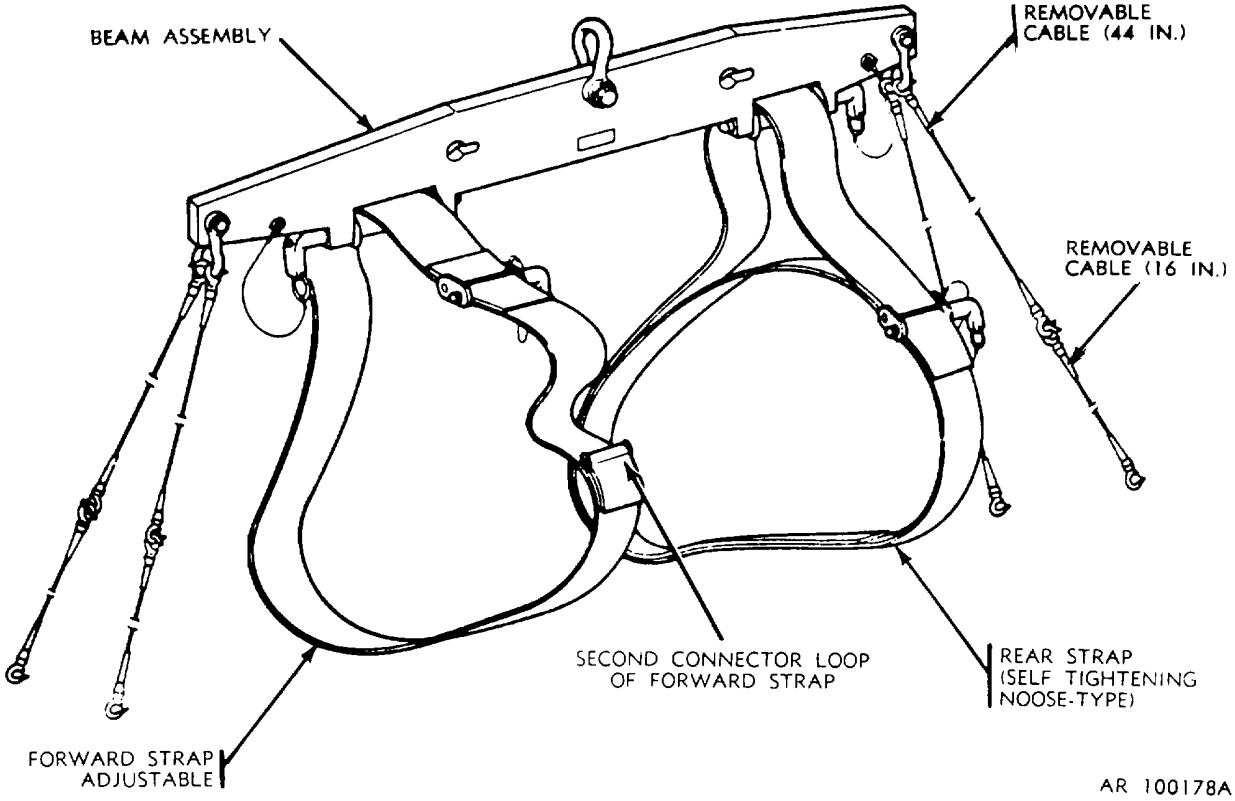


Figure B-8. Beam-type sling M22.

APPENDIX C
EXPENDABLE SUPPLIES

Section. I. INTRODUCTION

C-1. Scope
This appendix lists expendable supplies which are authorized for general support maintenance.

C-2. Explanation of Columns
The following provides an explanation of columns in section II:

a. National Stock Number Column 1 indicates the National Stock number assigned to the item. This number will be used for requisitioning purposes.

b. Description Column 2 indicates the item name and brief description.

c. Specification Number Column 3 indicates the specification assigned to the item.

d. Unit of Issue Column 4 indicates the unit of issue for each item.

C-3. Abbreviations

al-corr-res	aluminum corrosion resistant
circ	circular
cn	container
cop	copper
dr	drum
ea	each
fin	finish
gl	gallon
hd	hundred
in	inch
kt	kit
lb	pound
lg	long; length
min	minimum
No	number
pg	package
pt	pint
ro	roll
sf	square feet
sh	sheet
spec	specification
sq	square
w/	with
w	wide
yd	yard

Section II. EXPENDABLE SUPPLIES

(1) National Stock No.	(2) Description	(3) Specification No.	(4) Unit of Issue
	Listed items should be requisitioned, as required, through normal supply channels.		
8040-00-262-9011	ADHESIVE: synthetic rubber	MMM-A-1617	pt
8040-00-543-7170	ADHESIVE: synthetic rubber	MMM-A-189	pt
8020-00-242-7266	BRUSH, PAINT: hog bristle, flat w/sq edge, 3 in. w, 7/8 in. thick, 3-1/4 in. exposed lg.	H-B-420, class 1, grade B	ea
8020-00-850-0084	BRUSH, PAINT: oval w/chisel edge 1/2 in. w, 1-7/8 in. min exposed lg.	H-B-491, type I, class 1	ea
7520-00-248-9285	BRUSH, STENCIL: fountain type, 1-3/8 in. dia	H-B-00621, type F	ea
5130-00-293-1983	BRUSH, WIRE ROTARY WHEEL: steel wire (0.030 in. dia).	H-B-771, type III, class 2	ea
7920-00-255-5135	BRUSH, WIRE, SCRATCH: copper-beryllium curved handle; 13-3/4 in. lg.	H-B-178	ea
6850-00-984-5853	CLEANING COMPOUND, SOLVENT:	MIL-C-81302	cn
6850-00-224-6665	CLEANING COMPOUND, SOLVENT: emulsion	MIL-C-11090	cn
5350-00-192-5049	CLOTH, ABRASIVE: closedcoating, al-oxide, #120 grit extra fine, 9 X 11 in.	P-C-451, type I, class 1	pg
5350-00-221-0872	CLOTH, ABRASIVE: crocus cloth, 9 X 11 in.	P-C-458, type I, class 1	pg

Section II. EXPENDABLE SUPPLIES-Continued

(1) National Stock No.	(2) Description	(3) Specification No.	(4) Unit of Issue
7920-00-292-9204	CLOTH, CLEANING: lintless fabric, 18 in. X 18 in.	CCC-C-46, type I, class 1	pg
8030-00-165-8577	COATING COMPOUND, METAL PRETREATMENT, RESIN-ACID:	MIL-C-15328	kt
8030-00-829-0376	COATING KIT, ALUMINUM, CORROSION-RESISTING	None	kt
6850-00-656-1291	CORROSION REMOVING COMPOUND:	MIL-C-10678, type I	dr
6850-00-656-1292	CORROSION REMOVING COMPOUND:	MIL-C-10578, type 2	dr
7930-00-249-8036	DETERGENT, GENERAL PURPOSE: 5 lb.	P-D-220, type I	lb
6850-00-264-6571	DESICCANT, ACTIVATED	MIL-D-3464	dr
6850-00-285-8011	DRY CLEANING SOLVENT:	P-D-680 type II	dr
8010-00-935-7156	ENAMEL: blue, lusterless, No. 35109, pressurized can	Tr-E-516	pt
8010-00-297-2119	ENAMEL: blue, lusterless, No. 35109	TT-E-516	gl
8010-00-848-9272	ENAMEL: olive drab, lusterless No. 34087, pressurized can	TT-E-516	pt
8010-00-297-2116	ENAMEL: olive drab, lusterless No. 34087.	TT-E-516	gl
8010-00-298-3865	ENAMEL: olive drab, semi-gloss, No. X24087	TT-E-529, class B	cn
8010-00-111-8010	ENAMEL: forest green, (lusterless camouflage)	MIL-E-52798	gl
8010-00-111-8005	ENAMEL: black, (lusterless camouflage)	MIL-E-52798	gl
5315-00-597-9766	FASTENER, CORRUGATED: wood joint	FF-F-133 type I	bx
8305-00-191-1101	FELT, SHEET: 1/2 in. thk, 60 in. wide, gray	C-F-206	sf
	FOAMPOLYETHYLENE: 1/4 in. thick	MIL-C-46842	ro
7510-00-191-6030	INK, MARKING, STENCIL: black, No. 37038	TT-I-1795 type I or III	gl
7510-00-224-6732	INK, MARKING, STENCIL: white, No. 37875	TT-I-1795 type I	pt
7510-00-419-9564	INK, MARKING STENCIL: white, TT-I-558, opaque liquid for porous or nonporous surfaces, pressurized can.	TT-I-1795, type 3	pt
	INK, MARKING, STENCIL: blue No. 35109	TT-I-1795 type I or III	pt
8010-00-515-2487	LACQUER: resin, pressurized can	TT-L-50, type 2	pt
5350-00-186-8821	PAPER, ABRASIVE: garnet, #150 grit, closed coating, 9 X 11 in.	P-P-121 class 2	pg
5350-00-221-0881	PAPER, ABRASIVE: garnet, #150 grit, open coating, 9 X 11 in.	P-P-121, class 1	pg
8010-00-515-2208	PRIMER, COATING:	TT-P-1757	gl
8010-00-936-8372	PRIMER, COATING: zinc-chromate, pressurized can.	TT-P-664	pt
8010-00-292-1127	PRIMER, COATING: zinc-chromate	TT-P-664	gl
8010-00-283-0511	REMOVER, PAINT: alkali type, liquid form	TT-R-243	cn
8010-00-227-1694	REMOVER, PAINT: alkali type, powder form.	TT-R-230, Class 2	dr
5340-00-902-0426	SEAL, ANTIPILFERAGE: lead, circular	MS61938-6	hd
8135-00-239-5288	SEAL, STRAPPING: for 3/4 inch strapping	QQ-S-781	bx
9310-00-160-7858	STENCILBOARD: 24 X 36 in.	UU-S-625, type 2, grade 1	bd
8135-00-283-0669	STRAPPING: 3/4 in. wide	QQ-S-781, type I, class 1, finish B, grade 2, regular duty	cl
8135-00-823-8073	TAPE, PRESSURE SENSITIVE, ADHESIVE: black, 1-1/2 in. w.	MIL-T-43036	ro
8135-00-836-0810	TAPE, PRESSURE SENSITIVE, ADHESIVE: blue	PPP-T-60, class 1	ro
8010-00-242-2089	THINNER, PAINT, MINERAL SPIRITS:	TT-T-291, type I or III, Grade A	gl
8010-00-160-5794	THINNER, SYNTHETIC RESIN, ENAMEL:	TT-T-306	gl
6810-00-290-0048	TOLUENE, TECHNICAL: 5-gl can	TT-T-548	cn
8030-00-282-0970	WOOD PRESERVATIVE, PENTACHLOROPHENOL MIXTURE:	MIL-W-18142, type B	gl

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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .035 ounce
1 decagram = 10 grams = .35 ounce
1 hectogram = 10 decagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 027395-000