DEPARTMENT OF THE ARMY SUPPLY BULLETIN

STORAGE SERVICEABILITY STANDARD

RIOT CONTROL AGENT DISPERSERS AND ANCILLARY ITEMS

This copy is a reprint which includes current pages from Changes 1 and 2.

H E A D Q U A R T E R S , D E P A R T M E N T O F T H E A R M Y
FEBRUARY 1980

CHANGE
No. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *6 February 1990*

Storage Serviceability Standards for AMCCOM Materiel
RIOT CONTROL AGENT DISPERSERS
AND ANCILLARY ITEMS

SB 740-94-8, February 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.

Remove pages	*Insert pages*
i and ii	i and II
A-1 and A-2	A-1 and A-3
none.....	H-1 through H-2

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

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:
WILLIAM J. MEEHAN II
Brigadier General, United States Army
The Adjutant General

Distribution:
To be distributed in accordance with DA Form 12-34, (Block 992), Requirements for Storage Serviceability Standards.

CHANGE

No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON. D.C., 24 October 1985

Storage Serviceability Standards for AMCCOM Materiel:
RIOT CONTROL AGENT DISPERSERS
AND ANCILLARY ITEMS

SB 740-94-1, 29 February 1980, is changed as follows:
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The Adjutant General

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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *29 February 1980*

Storage Serviceability Standards For AMCCOM Materiel
RIOT CONTROL AGENT DISPERSERS AND ANCILLARY ITEMS

LIST OF TABLES

***This bulletin supersedes SB 3-1040-2, 24 December 1968; SB 3-1040-6, 14 July 1969; SB 3-1040-15, 14 August 1969; and SB 740-1040-94-4, 30 May 1973.**

SECTION I
INTRODUCTION

1-1. Purpose. This supply bulletin provides the basic information and detailed inspection procedures required to determine the serviceability status of riot control agent dispersers and ancillary items.

1-2. Scope. The provisions of this bulletin are mandatory for use in conducting all types of surveillance inspection, as identified in this bulletin, on all chemical materiel listed by National Stock Number (NSN) in appendix A. The provisions apply to all Department of the Army depots and to depot activities. This bulletin is not intended for use by organizations having stocks in basic loads.

1-3. Definitions. *a. Commonly used quality assurance terms*. Refer to MIL-STD-109 for definitions of these terms.

b. Specialized terms. The following definitions apply to specialized terms used in this bulletin.

(1) *Stage I corrosion, metals*. Discoloration or staining with no direct visual evidence of pitting, etching, or other surface damage.

(2) *Stage II corrosion, metals*. Red, brown, green, black, or white corrosion product accompanied by minor etching or minor surface pitting. No scale to tight rust.

(3) *Stage III corrosion, metals*. Red, brown, green, black, or white corrosion product with or without etching, pitting, or more extensive surface damage resulting in a loose or granular condition.

(4) *Stage IV corrosion, metals*. Red, brown, green, black, or white corrosion progressed to the point where fit, wear, function, or life of the item has been affected. Powdered or scaly condition with pits or irregular areas of material removed from the surface of the item.

(5) *Depot lot*. A combination of lots, irrespective of manufacturer or age, of the same kind and type of materiel grouped into one large single lot for the purpose of economy in surveillance.

(6) *Grand lot*. All lots of the same kind and type of materiel from one manufacturer or reconditioning agency grouped into one large lot for the purpose of economy in surveillance.

(7) *Manufacturer's lot*. A quantity of one item of materiel, manufactured or assembled in one plant, from raw materials or components of the same physical characteristics, under uniform conditions designed to effect homogeneity, and meeting definite physical and chemical requirements of established specifications and drawings (this includes renovated, reworked, and reconditioned lots).

(8) *Miscellaneous lot*. A combination of a single manufacturer's small lots or lot fragments possessing the same technical history.

(9) *Mixed lot*. A combination of the same kind and type of materiel wherein identification of the manufacturer, the lot number, or the time of manufacture is incomplete.

(10) *Initial Receipt inspection (IR)*. An inspection performed on newly manufactured materiel received directly from a vendor, manufacturer, or government activity. The purpose is to determine if the items, the packing, or the packaging have been damaged in transit, and whether the preservation, packing, packaging, and marking are correct. This inspection is not intended as a manufacturer's acceptance-type inspection.

(11) *Occurrence basis*. A frequency of inspection without a predetermined time frame which is performed as the need occurs, e.g., Initial Receipt inspection (IR) is performed when the shipment arrives.

(12) *Periodic Cycle inspection (P)*. Surveillance performed on materiel in storage on a cyclic basic. The cycle is established in appendix A and given as Inspection Frequency Codes (IFC). The purpose is to determine the serviceability status of items at the end of each cycle.

(13) *Pre-issue inspection (PI).* The inspections and tests on materiel immediately prior to issue.

(14) *Prestorage inspection (PS)*. An inspection performed on materiel received from other depots, posts, camps, stations, or overseas returns received within CONUS. The purpose is to determine receipt condition and the current degree of serviceability of the items when the serviceability status is unknown.

(15) *Quality defect code*. A numeric code assigned to indicate the category of a given defect and to identify, by explanation, that particular defect.

(16) *Defect Number*. A numeric code associated with a particular defect. The defect designated by the number is not permanent such as in (15) above, but is redefined in each table where the number is used, although often the definition will closely parallel a quality defect code definition. Sequential numbers starting with 1 are *critical* defects; sequential numbers starting with 101 (1XX) are major defects; and sequential numbers starting with 201 (2XX) are minor defects.

(17) *Serviceable*. The condition of an item that has been determined by inspection to be satisfactory and safe for its intended use.

(18) *Shelf-life code (SLC)*. A code assigned to a shelf-life item to identify a period of time beginning with the date of manufacture or assembly, at the termination of which the item must be used or be subjected to inspection, test, restoration, or to disposal action.

(19) *Shelf-life item*. An item of supply possessing deteriorative or unstable characteristics to the degree that a storage time period must be assigned to assure that it will perform satisfactorily in service. There are two types of shelf-life items:

(a) Type I shelf-life item An item of supply which is determined, through an evaluation of technical test data or actual experience, to be an item with a definite non-extendable shelf life.

(b) Type II shelf-life item An item of supply having as assigned shelf life which may be extended after completion of a prescribed inspection, a test, or a restorative action.

(20) *Special inspection (S)*. A special inspection is the inspection performed at the direction of higher headquarters or as deemed necessary to satisfy local installation requirements.

(21) *Storage Serviceability Standard (SSS)*. A technical document containing inspection instructions and criteria essential to determine serviceability of materiel in storage.

NOTE

Storage Serviceability Standards are published as DA Supply Bulletins (SB's).

(22) *Test required code (TRC)*. A three-digit numeric-alpha code which is used to indicate that only a simple examination is required. All inspection requirements are contained in the coded standards or the codes provide cross-referencing to inspection requirements that are in addition to those contained within the coded standards appendix (app A). These additional inspection requirements might be standards or existing test methods, peculiar instructions, or peculiar inspection procedures.

(23) *Unit basis inspection* An inspection where each unit in the lot is inspected for the defect characteristic under consideration. The unit basis is also used for serially-numbered major end items that are considered separately for surveillance purposes.

(24) *Unserviceable*. The condition of an item that has been determined by inspection to be unsatisfactory or unsafe for its intended use.

1-4. Errors or Omissions. Forward comments regarding errors or omissions to this bulletin on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR QAE, Rock Island, IL 61299; and send an information copy to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAC-R, Aberdeen Proving Ground, MD 21010.

SECTION II
STORAGE AND SPECIAL INSTRUCTIONS

2-1. References. The following publications form a part of this bulletin to the extent specified.

AR 380-5	-Information Security Program Regulation
AR 702-7	-Reporting of Quality Deficiency Data
AR 725-50	-Requistioning, Receipt, and Issue System
AR 750-25	-Army Metrology and Calibration System
TM 38-750	-The Army Maintenance Management System (TAM-MS)
TM 743-200-1	Storage and Materials Handling
MIL-STD-105	-Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-109	-Quality Assurance Terms and Definitions

NOTE

Additional references peculiar to a given group of riot control agent dispersers and ancillary items will be cited in the appendix for the group of items.

2-2. Safety. During surveillance and normal handling (TM 743-200-1) of riot control agent dispersers and ancillary items, inspection personnel shall observe the safety precautions prescribed for operations personnel (SOP's), the safety requirements cited in any applicable regulations, the safety precautions cited in any applicable technical. manuals, and the special safety precautions cited in the applicable appendix of this bulletin.

2-3. Lotting. *a Type of Lotting Permitted* The applicable appendix of this bulletin specifies the type of lotting permitted in conducting surveillance inspection of riot control agent dispersers and ancillary items.

b. Depot Lot. A depot lot is formed by combining lots regardless of manufacturer or age into a large single lot. Actual formation is a paper transaction, regrouping and marking of the materiel in storage is not required. A depot lot, as such, cannot be declared unserviceable. When through surveillance a lot within the depot lot appears unserviceable, withdraw the lot(s) concerned and take additional samples in accordance with the sampling plan provided in this bulletin. If the suspect lot is found serviceable, it remains a part of the depot lot. If the suspect lot is found unserviceable, the lot is eligible for rework or disposal in accordance with existing regulations. When an appreciable proportion (20 percent) of the lots within the depot lot has become unserviceable, the depot lot shall be dissolved and the individual lots therein tested on a lot-by-lot basis. A depot lot must meet criteria as follows:

(1) *Kind, type, and model*. All items must be the same kind, type, and model.

(2) *Storage*. All items must be stored under similar conditions at the same depot.

(3) *Serviceability lot status*. All lots must possess the same serviceability lot status, i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection not on surveillance.

c. Grand Lot. A grand lot is formed by combining all lots from one manufacturer into a large single lot. Actual formation is a paper transaction, regrouping and marking of the materiel in storage is not required. A grand lot, as such, cannot be declared unserviceable. When through surveillance, a lot within the grand lot appears unserviceable, withdraw the lot(s) concerned and take additional samples in accordance with the sampling plan provided in this bulletin. If the suspect lot is found serviceable, it remains a part of the grand lot. If the suspect lot is found unserviceable, the lot is eligible for rework or disposal in accordance with existing regulations. When an appreciable proportion (20 percent) of the lots within the grand lot has become unserviceable, the grand lot shall be dissolved and the individual lots therein tested on a lot-by-lot basis. A grand lot must meet criteria as follows:

(1) *Kind, type, and model*. All lots must be the same kind, type, and model.

(2) *Manufacturer*. All lots must be the product of the same manufacturer or reconditioning agency.

(3) *Packing and packaging*. All lots must have the same type packing, packaging, and identification markings.

(4) *Storage*. All lots must be stored under similar conditions at the same depot.

(5) *Serviceability lot status*. All lots must possess the same serviceability lot status; i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection not on surveillance.

d. Manufacturer's Lot. A manufacturer's lot consists of those items manufactured or assembled by one manufacturer or reconditioning activity and bearing the same manufacturer's or reconditioning agency's lot identification number. The manufacturer's lot must meet criteria as follows:

(1) *Packing and packaging*. All items must have the same type packing, packaging, and identification marking.

(2) *Storage*. All items must be stored under similar conditions at the same depot.

(3) *Serviceability lot status*. All items must possess the same serviceability lot status, i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection not on surveillance.

e. Miscellaneous Lot. A miscellaneous lot is formed by combining a single-manufacturer's small lots or lot fragments into one lot. The size of miscellaneous lots may be restricted by the applicable appendix of this bulletin. Actual formation of the lot is a paper transaction, regrouping and marking of the materiel in storage is not required. A miscellaneous lot may be declared unserviceable as a whole. The miscellaneous lot must meet criteria as follows:

(1) *Kind, type, and model.* All items must be of the same kind, type, and model.

(2) *Manufacturer*. Each small lot or lot fragment must be product of the same manufacturer or reconditioning agency.

(3) *Packing and packaging*. All items must have the same type packing, packaging, and identification marking.

(4) *Storage*. All items must be stored under similar conditions at the same depot.

(5) *Serviceability lot status*. All items must possess the same serviceability lot status, i.e., serviceability known (based upon prior surveillance) or serviceability unknown. However, when new procurement is involved, base serviceability on acceptance inspection not on surveillance.

f. Mixed Lot. A mixed lot is formed by combining those items with incomplete identification into one lot. The size of mixed lot may be restricted by the applicable appendix of this bulletin. Actual formation of the lot is a paper transaction, regrouping and marking of the materiel is not required. A mixed lot may be declared unserviceable as a whole. The mixed lot must meet criteria as follows:

(1) *Kind, type, and model*. All items must be of the same type, and model.

(2) *Packing and packaging*. All items must have the same type packing, and packaging.

(3) *Storage*. All items must be stored under similar conditions at the same depot.

2-4. Sampling. Sampling for Riot Control Agent Dispersers and Ancillary Items shall be performed in accordance with this paragraph and the instructions provided in the applicable appendices of this bulletin. The sampling plan which follows is designed to fit the peculiarities of this group of items. In some instances, special sampling designed for an item within the group may be required. This may be required by the configuration, short shelf life, or past quality history of the item.

a. Initial Receipt Inspection (IR). Sampling shall be conducted in accordance with this paragraph and MIL-STD-105, Inspection Level II, AQL of 1.5 percent for major defectives and 4.0 percent for minor defectives.

b. Prestorage Inspection (PS). Sampling shall be conducted in accordance with this paragraph and MIL-STD-105, Inspection Level II, AQL of 1.5 percent for major defectives and 4.0 percent for minor defectives.

c. Periodic Cycle Inspection (P). Sampling shall be conducted in accordance with this paragraph and MIL-STD-105 using the Inspection Level and AQL specified in appendix A or the sampling instructions provided in the applicable appendix (TRC) of this bulletin for the item(s) being sampled. In some instances, special sampling designed for an item within a group may be required. This may be required by the configuration, short shelf life, or past quality history of the item.

d Pre-issue Inspection (PI). Sampling, if required, (see para 2-5d (2)) shall be conducted in accordance with c above.

e. Selection of Samples.

(1) All portions of the lot must be located for sampling.

(2) Every reasonable effort must be made to obtain a random sample. When conditions make proper random sampling impossible, record this fact and a brief description of the condition that pre vents random sampling under the remarks section Part I, Block 27, (see para 2-9a) of DA Form 984 (Munitions Surveillance Report).

(3) In selecting samples from depot lots, grand lots, or miscellaneous lots, the items chosen shall adequately represent all material. To assure representativeness of the sample in the depot lot, grand lot, or miscellaneous lot, the sample drawn from each manufacturer's lot should be proportional in size. Thus, if a manufacturer's lot comprises one-third of the total lot, then one-third of the lot sample

should be selected at random from that manufacturer's lot.

f. Sample Disposition.

(1) Samples packaged in barrier material, which have been inspected and resealed with a sealing iron shall be identified as reinspected items in the inspection records.

(2) Barrier material shall be resealed in accordance with instructions furnished with the material, printed on the material, or furnished with the sealing iron.

(3) Serviceable samples shall be returned to storage with the parent lot.

(4) Samples with critical or major defects or samples which cannot be returned to the original package configuration shall be segregated and reported in the remarks section, Part II, Block 11 (see para 2-9a) of DA Form 984.

2-5. Inspection. All inspections and test shall be conducted under the control of a qualified inspector. The inspections and tests normally will be conducted at the surveillance inspection area; however, when authorized, examinations or tests may be performed at the storage site or elsewhere, but must be within the limitations of all safety and security requirements.

a. *Initial Receipt Inspection (IR).*

(1) *Frequency*. This inspection shall be performed on an occurrence basis.

(2) *Classification of defects*. Table 2-1 shall be used to evaluate the incoming materiel.

Table 2-1. Initial Receipt Inspection (IR)

Category defect No.	Defect	Inspection method
Critical:	None defined	
Major:		
101	Item damaged.	Visual
102	Packing, preservation, or packaging damaged to the extent that adequate protection is no longer afforded to the item or handling and storing would be adversely affected.	Visual
103	Item packing or packaging contaminated, wet, or mildewed.	Visual
Minor:		
201	Slight damage to packing or packaging.	Visual

(3) *Reporting*. Initial Receipt inspection shall be reported on DA Form 984. In addition, failure data and discrepancies encountered will be reported on SF 368 (Quality Deficiency Report) per AR 702-7.

b. Prestorage inspection (PS).

(1) *Frequency*. This inspection shall be performed on an occurrence basis.

(2) *Examination and test*. When the serviceability status is unknown, the examination and test shall be performed in accordance with appendix A and the applicable appendix (TRC) for the item. All lots shall be examined for receipt condition using table 2-2.

Table 2-2. Prestorage Inspection (PS)

Category defect No.	Defect	Inspection method
Critical:	None defined.	
Major:		
101	Item damaged.	Visual
102	Item packing or packaging contaminated, wet, or mildewed as a result of adverse shipping conditions.	Visual
103	Packing or packaging damaged or deteriorated to the extent that adequate protection is no longer afforded to the item or handling and storing would be adversely affected.	Visual
104	Preservation, packing, packaging, or marking incorrect.	Visual
Minor:		
201	Slight damage to packing or packaging.	Visual

(3) *Reporting,* Prestorage inspection shall be reported on DA Form 984 (see para 2-9(a) (1)).

c. Periodic Cycle Inspection (P).

(1) *Frequency.* This inspection shall be performed at the frequency indicated (IFC) in appendix A (see para 2-6*e.*

(2) *Examination and test*. Examination and test shall be performed in accordance with appendix

A and the applicable appendix (TRC) for the item.

(3) *Evaluation and reporting*. Evaluation shall be made in accordance with paragraph 2-7 and reporting shall be accomplished in accordance with paragraph 2-9.

d. Pre-issue Inspection (PI).

(1) *Frequency*. This inspection shall be performed prior to OCONUS shipment of the item.

(2) *Examination and test*. When one-half or less of the periodic cycle remains, the periodic cycle has been exceeded or the date of the last surveillance inspection is unknown, a complete inspection shall be performed in accordance with appendix A and the applicable appendix (TRC) for the item. When more than one-half of the periodic cycle remains, only a visual examination in accordance with appendix A and the applicable appendix (TRC) is required.

(3) *Evaluation and reporting*. Evaluation shall be made in accordance with paragraph 2-7 and reporting shall be accomplished in accordance with paragraph 2-9.

e. Special Inspection (S). This inspection shall be performed in accordance with the direction given by higher headquarters or instructions provided locally as deemed necessary to satisfy local installation requirements. This inspection may also be performed to determine the economic advisability of conducting further inspection (screening) on unsegregated items, returns from overseas, or used items which have not been reconditioned. Reporting in accordance with paragraph 2-9 is not required for this inspection except as may be directed by higher headquarters. Reports prepared for local use are authorized.

2-6. Coded Standards. The following is an explanation by heading of the codes used in appendix A of this storage serviceability standard.

a. Quality Defect Code. Quality defect codes are given as three-digit numbers. The first digit identifies the severity of the defect. The second digit identifies one of the general groups. The third digit identifies the actual defect within one of the general groups.

Example: Using the codes below, "Code 113" indicates 1-major, 1-packaging group, 3-container damaged or deteriorated.

(1) *Severity (first digit)*.

Quality Defect code	*Category*
0	Critical
1	Major
2	Minor

(2) *General Groups (second digit).*

Quality defect code	*Group*
0	Cleaning, preservation, painting, plating, or other processing.
1	Packaging.
2	Packing and loading.
3	Marking and labeling.
4	Materiel deficiencies.
5	Materiel deficiencies (continued>.
6	Functional certification or performance test.
7	Document recording or routing deficiencies.
8	Storage deficiencies.
9	Miscellaneous.

(3) General groups and defects (second and third digits).

(a) Group 0 cleaning, preservation, painting, platin or other processing.

Quality defect code	*Explanation*
00	Appearance (paint runs, overspray, not uniform, not up to standard).
01	Cleaning improper or inadequate.
82	Preservation improper or inadequate.
03	Wrapping improper or inadequate.
04	Protection afforded not compatible with mode of shipment, type of storage, destination, or other environment.
85	Inadequate coverage or improper thickness.
06	Improper and inadequate preparation.
87	Wrong type, method, or color.
08	Drying improper or inadequate.
09	Reserved for future use.

(b) Group 1 (packaging).

Quality defect code	*Explanation*
18	No packaging applied.
11	Sealing defective (bags or containers).
12	Failed pressure retention, leak, or other test.
13	Container damaged or deteriorated.
14	Protection not compatible with mode of shipment, type of shipment, destination, or other environment.
15	Wrong level applied.
16	Containers or other packaging materials do not meet specifications (size, type, class, style, etc.).
17	Wrong quantity per unit package. (Chargeable as one defect per unit pack. Major if shortage-minor if overage.)
18	Reserved for future use.
19	Reserved for future use.

(c) Group 2 (packing and loading).

Quality defect code	*Explanation*
20	Improper loading, blocking, bracing, tie-down, etc.
21	Stapling, nailing, strapping, or banding improp er or inadequate.
22	Excessive weight or dimensions for containers.
23	Containers, boxes, crates, or pallets damaged or deteriorated.
24	Intermediate or exterior container protection

Quality defect code	*Explanation*
	not compatible with mode of shipment, type of storage, destination, or other environment.
25	Wrong level applied.
26	Containers, boxes, crates, or pallets do not meet specifications.
27	Wrong quantity per intermediate or exterior container. (Chargeable as one defect per container. Major if shortage-minor if overage.)
28	Reserved for future use.
29	Reserved for future use.

(d) Group 3 (marking and labeling).

Quality defect code	*Explanation*
30	Packaging and packing (P/P) level markings omitted, illegible, or incorrect.
31	Labels omitted, illegible, or incorrect.
32	Special markings omitted, illegible, or incorrect.
33	Description or identification marking omitted, illegible, or incorrect (stock number, quantity, unit of issue, contract data, condition code, etc.).
34	Address marking omitted, illegible, or incorrect.
35	Markings improperly located or wrong method of marking used.
36	Reserved for future use.
37	Reserved for future use.
38	Reserved for future use.
39	Reserved for future use.

(e) Group 4 (material deficiencies).

Quality defect code	*Explanation*
40	Parts, components, or controls loose, improperly installed or assembled, out of adjustment, fit, or failed to function properly.
41	Damaged or defective item or parts(bent, broken, scratched, chipped, marred, cracked, warped, torn stripped, crimped, burned, twisted, burned out, perforated, pitted).
42	Does not meet specified tolerances or requirements (dimensional, finish, strength, torque, output, volume, color, stretch, size, illumination, weight).
43	Parts or components missing.
44	Wrong part or component found installed on end item or other assembly, or used to make up set or kit.
45	Leak (liquid): gasoline, diesel, oil, water, etc.
46	Leak(vapor):air or gas(nitrogen, oxygen, hydrogen, etc.).
47	Modification work order incomplete, improperly applied, or missing.
48	Soldering, welding, brazing, metallizing, or bonding defect.
49	Reserved for future use.

(f) Group 5 (materiel deficiencies-continued).

Quality defect code	*Explanation*
50	Contamination (contains dirt, sludge, moisture, or other foreign matter).
51	Excessive moisture, fungus, mildew, rot, infestation, or weather cracks.
52	Item improperly classified.
53	Test or research required to determine true condition classification (assign code J or code K, per AR 725-50). (Chargeable as one minor defect per line item)
54	Materiel marking missing or incorrect (serial number, data plate, piece mark, cure date, etc.). (Chargeable as one minor defect if correct item shipped; major if wrong item shipped.)
55	Shelf life date exceeded.
56	Wrong item received or selected for shipment.
57	Lubrication improper or incomplete.
58	Improper identification.
59	Other.

(g) Group 6 (functiona4 certification, or performance test).

Quality defect code	*Explanation*
68	Required test not accomplished.
61	Failed test requirements {hydraulic).
62	Failed test requirements (electrical or electronic).
63	Failed test requirements (environmental).
64	Failed test requirements (mechanical).
65	Failed test requirements (pressure).
66	Failed certification or laboratory test.
67	Excessive heat or noise during operational test.
68	Parts or components damaged (caused by functional failure during end item or component test).
69	Reserved for future use.

(h) Group 7 (document recording, or routing deficiencies).

Quality defect code	*Explanation*
70	Wrong count (shortage). (Chargeable as one major defect per line item if value of quantity short is $200 or more; minor defect if less than $200)
71	Wrong count (overage). (Chargeable as one major defect per line item if value of quantity over is $200 or more; minor defect if less than $200.)
72	Improper routing or process planning. (Chargeable as one minor defect per line item.)
73	Mixed materiel (two or more stock numbers recorded under the same stock number). (Chargeable as one minor defect per Line item.)
74	Historical records [including The Army Maintenance Management System (TAMMS)] missing, incorrect, or incomplete.
75	Contract, specifications, receiving reports, or other required documents incorrect, incomplete, not available, or changes not in agreement with the contract. Chargeable as one minor defect per line item.)
76	Contract specifications or other required documents inadequate for inspection or acceptance purposes. (Chargeable as one minor defect per line item.)
77	Materiel not segregated (serviceable and unserviceable items intermingled). (Chargeable as one major defect per line item.)
78	Stock selection deficiency first-in/first-out (FI/FO)]. (Chargeable as one minor defect per line item)
79	Reserved for future use.

(i) Group 8 (storage deficiencies).

Quality defect code	*Explanation*
80	Improper or inadequate stacking or storing. (Chargeable as one minor defect per line items)
81	Facility deficiencies: roof leaking, grid markings incorrect, equipment deficiencies, etc. (Chargeable as one minor defect per line item)
82	Improper pallet count or quantities in location, inventory defects. (Chargeable as one minor defect per line item)
83	Improper marking or placarding. (Chargeable as one minor defect per line item.)
84	Materiel mislocated. (Chargeable as one major defect per line item.)
85	Handling deficiencies (storage). (Chargeable as one minor defect per line item.)
86	Improper storage space. (Chargeable as -one major defect per line.)
87	Reserved for future use.
88	Reserved for future use.
89	Reserved for future use.

(j) Group 9 (Miscellaneous.

Quality defect code	*Explanation (see para 1-3b.)*
90	Stage I, Corrosion, metals.
91	Stage II, Corrosion, metals
92	Stage III, Corrosion, metals.
93	Stage IV, Corrosion, metals.
94	Reserved for future use.
95	Reserved for future use.
96	Reserved for future use.
97	Reserved for future use.
98	Reserved for future use.
99	Reserved for future use.

b. Inspection Level (IL). Inspection levels have been selected from MIL-STD-105 to provide the smallest possible sample size consistent with quality requirements. Inspection level codes are as follows:

General Levels	*Special Levels*
G1 (I in MIL-STD-105)	S1
G2 (II in MI-STI105)	S2
G3 (III in MII-STD-105)	S3
	S4

c. Acceptable Quality Level (AQL). Acceptable quality levels have been selected from MIL-STD-105 to give that level of sampling protection required to provide serviceable equipment to users. Separate AQL's are provided for major and minor defects.

d. Shelf-life codes (SLC). Shelf-life codes for type I and type II shelf-life items are as follows:

Shelf life	*Type I*	*Type II*
Non-deteriorative	0	0
1 month	A	-
2 months	B	-
3 months	C	1
4 months	D	-
5 months	E	-
6 months	F	2
9 months	G	3
12 months	H	4
15 months	J	-
18 months	K	5
21 months	L	-
24 months	M	6
27 months	N	-
30 months	P	-
36 month-	Q	7
48 months	R	8
60 months	S	9

NOTE

Military essential and medical items with shelf life of greater than 60 months (5 years) shall be assigned shelf-life code X.

e. Inspection Frequency Codes (IFC). A numeric code assigned to an item to indicate the frequency of surveillance inspection during storage. These codes are as follows:

Code	*Frequency (months)*
1	6
2	12
3	24
4	30
5	60

f. Test Required Codes (TRC).

(1) Except for the letter codes given in (2) below, the first character (numeric) will be a 4 indicating a chemical related TRC. The second and third characters (alpha) will identify a specific inspection requirement. (See para 2-10 14 for cross-referencing instructions.)

(2) Some noncomplicated items require only a simple examination. To cover those items not requiring more detailed examination, the following codes apply:

Inspection	*TRC Code*
Dimensional	OOD
Functional	OOF
Hardness	OOH
Laboratory	OOL
Nondestructive	OON
Pressure	OOP
Tensile	OOT
Visual	OOV
Weight	OOW

g. Packaging Codes (PC). An alphabetic code that represents the minimum level of protection required based on the prescribed storage conditions.
The codes are as follows:

Code	*Level of Protection*
A	Maximum military protection
B	Intermediate military protection
C	Minimum military protection
X	Commercial

h. Type Storage Codes (TSC). An alpha or numeric code assigned to an item to indicate the

recommended type of storage. These codes are as follows:

Code	*Explanation*
A	Heated warehouse space (general purpose).
B	Unheated warehouse space (general purpose).
C	Controlled humidity warehouse space.
D	Flammable warehouse space.
E	Chill or freeze warehouse space.
F	Any other warehouse space.
G	Shed, nonwarehouse space.
M	Wet storage space.
Q	Hazardous commodity space (non-Class V items, e.g., acids, compressed gases, or radioactive items).
R	Automatic storage retrieval system.
T	Controlled humidity nonwarehouse space.
U	Other nonwarehouse space.
X	Special storage at 35°F. (20°C) or less.
0	Open, concrete, improved space.
2	Open, blacktop, improved space.
4	Open, crushed stone, improved space.
6	Open, gravel improved space.
8	Open, unimproved space.
9	Preservation and packing or maintenance space.

2-7. Evaluation. *a. Serviceability based on sampling inspection*. A lot shall be classified as serviceable provided no critical defeat is observed and the number of major, minor, or test defectives does not exceed the number allowed in the sampling plan for the item.

b. Serviceability on Unit Basis Inspection. An item inspected on a unit basis or subjected to 100 percent inspection, is serviceable if the following criteria are met:

(1) No defects are observed.

(2) All requirements for test and analysis are met.

(3) All units have been modified in accordance with existing Modification Work Orders (MWO's).

c. Special Instructions. In addition to applicable criteria for evaluation contained in this paragraph, special criteria for certain items or groups of items are provided when necessary in the applicable appendix of this bulletin.

d. Procedure for Rounding Off Numerical Requirements. Numerical requirements, when stated, indicate the number of significant digits to be retained, i.e., the last figure or decimal place to be reported. The procedure given below is to be used in rounding-off observed or calculated values for the purpose of evaluation.

(1) When the next figure beyond the last figure to be retained is less than 5, the figure to be retained is kept unchanged. When the next figure beyond the last figure to be retained is greater than 5, the figure to be retained is increased by one, e.g., 2.54 = 2.5 and 2.56 = 2.6.

(2) When the figure to be retained is odd and followed by a 5 and zeroes, the figure to be retained is increased by 1. When the figure to be retained is even and followed by a 5 and zeroes, the figure to be retained is not changed, e.g., 3.50 = 4 and 2.50 = 2.

e. Condition Coding. Based on evaluation, lots or items shall be assigned appropriate condition codes in accordance with the codes and the explanation of the codes provided in AR 725-50. Enter the condition code in Part I, Block 28b (see para 2-9a(1).)

2-8. Surveillance Test and Measuring Equipment.

a. Availability an adequacy. Determine the availability and adequacy of all test and measuring equipment required to perform the examinations and tests required by this bulletin. If test or measuring equipment is unavailable or inadequate, report such within 30 days to the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAF, Rock Island, IL 61299.

b. Calibration Test and measuring equipment shall be calibrated at established intervals in accordance with the applicable technical bulletin, technical manual, or instruction manual. In the event that adequate calibration procedures are not included in these documents, inquiry about the proper calibration procedure shall be made to the organization responsible for design or supply of the test equipment. A calibration system for the calibration of inspection measuring gages and test equipment shall be established in accordance with the requirements of AR 750-25. The records and reports required in calibration of Army equipment are described in TM 38-750.

2-9. Reports and Reporting. Inspections and tests performed in accordance with this bulletin shall be reported to the designated command using the applicable forms.

a. Forms.

(1) *Munitions Surveillance Report (DA Form 984)*. This form will be used to record and report the results of all examinations and tests when conducting prestorage inspection, initial receipt inspection, periodic cycle inspection, or pre-issue inspection.

NOTE

This form may also be used for special inspection when so directed by higher headquarters.

Form Instructions

Part I: Descriptive Data of Ammunition Represented By Samples.

(a) Block 1. Enter the actual storage location, which may not necessarily be the depot or storage activity having accountability.

(b) Block 2. Enter the local report number.

(c) Block 3. Enter the date of the report.

(d) Block 4. Enter the complete standard nomenclature and model number of the item

(e) Block 5. Record complete manufacturer's lot number. When surveillance is authorized on the basis of a depot lot, miscellaneous lot, or grand lot, enter the lot number applicable to the type of lot indicated in Block 15 and complete DA Form 985 (Data-Sheet for Grand Lots, Miscellaneous Lots, or Depot Lots).

(f) Block 6. Describe the packing of items in narrative form.

(g) Block 7. Enter the National Stock (NSN) of the item.

(h) Block 8. Enter the current and past type of storage, e.g., heated warehouse, unheated warehouse, shed, or open.

(i) Block 9. Record the number of samples selected for examination and test.

(j) Block 10. Record the number of items (less sample size if the samples cannot be returned to the lot) remaining in the lot at the depot.

(k) Block 11. Self-explanatory.

(l) Block 12. Enter type and date of last inspection, e.g., Prestorage, 10 July 1978.

(m) Block 13. Enter type inspection and date that this inspection was complete, e.g., Periodic cycle, 1 July 1972.

(n) Block 14. Enter the inspection frequency (IFC) required by appendix A for the item. Reference this bulletin by number and date.

(o) Block 15. Self-explanatory.

(p) Block 16. Record the manufacturer or reconditioning agency. When more than one manufacturer is represented because of the kind of lot, enter N/A.

(q) Block 17 and Block 18. Self-explanatory.

(r) Block 19. Enter date of manufacture or reconditioning.

When more than one manufacturer is represented because of the kind of lot, enter N/A.

(s) Block 20 thru Block 25. Record the condition of the packing, packaging, and marking.

(t) Block 26. State whether the lot passed or failed the visual examination requirements of this supply bulletin. Record, by Quality Defect Code, Category, Defect Number, and number of Defects or Defectives, all applicable visual defects or defectives. (Quality Defect Codes shall be as given in appendix A, Categories and Defect Numbers shall be as given for a defect listed in the various classification paragraphs of the applicable appendix. Reference this bulletin, appendix A, and the applicable appendix and table number for the item.)

Example: SB 740-XX-X

Appendix A.

Quality Defect Code	*Number of Defectives*
113	1
141	2
150	1
291	1

SB 740-XX-X

Appendix B. Table B-X

Categories	*Defect Number*	*Number of Defectives*
Critical		None
Major	106	1
	108	2
Minor	204	1

NOTE

Do not list the same defective twice. When a defective is in the appendix for an item and it is in appendix A, record the number of defectives under the category and defect number of the appendix for the item rather than record them under appendix A, eg., "Rubber tube (gun groups) cut, split, or deteriorated" is listed as a 104 defect in appendix B, record such defectives under appendix B, but do not list them again as code 141 defectives under appendix A.

(u) Block 27. Any observation relevant to the condition of the item or to the actual inspection should be noted in this block. Examples of such observations are: different storage conditions of lot segments, unlisted defects, inspection equipment not available or calibration interval exceeded, or severity of defects listed in block 26. A brief lot history shall be included when possible.

(v) Block 28a Self-explanatory.

(w) Block 28b. Based on the results of visual examination (Part I, Block 26) and test results (Part II, block 12) enter condition code (see para 2-7e.

(x) Block 29. Self-explanatory.

Part II: *Results of Surveillance Test*.

(a) Blocks 1 through 4. Enter meteorological conditions at test area if relevent to the test. If not relevent, enter N/A.

(b) Blocks 5, 5a and 5b: Enter this supply bulletin number (SB 740-94-8), revision, or change, and the date of this supply bulletin, revision, or change. When applicable, enter the letter of authority or directive for any special surveillance not performed in accord with this supply bulletin

(c) Blocks 6 and 7. Outer packages from which samples were selected, and individual samples, shall be numbered consecutively starting with "1".

Record these numbers in blocks 6 and 7.

(d) Block 8. In the heading of each column describe the test characteristic to be tabulated adjacent to the particular sample number below. Attribute deficiencies shall be indicated by an "x" at the intersection of defective sample number and defect description.

(e) Blocks 9 and 10. In the space above blocks 9 and 10 indicate whether the evaluation is based on "defects" or "defectives" by crossing out the one which does not apply. Enter an "x" at the intersection of the applicable defective column sample number when deficiencies have been noted in block 8 and evaluation is based on defectives. Enter total number of defects observed for each sample in appropriate columns when evaluation is based on defects.

(f) Block 11. State whether the lot passed or failed the test requirements established in the applicable appendix. Enter any additional information which might have had an affect on the test results. Enter any recommendations on lot disposal, e.g., screen or renovate.

(g) Block 12. Self-explanatory.

(h) Block 13. Not applicable.

(2) *Data Sheet for Grand Lots, Miscellaneous Lots, or Depot Lots (DA Form 985)*. This form shall be used by the depot or storage activity to record the formation of these lots in accordance with this bulletin.

Form Instructions

(a) Block 1. Enter the complete standard nomenclature and model number of the item. Enter the National Stock Number (NSN).

(b) Block 2. Enter the depot or storage activity where the items comprising the lot are stored.

(c) Block 3. Enter the type of storage.

(d) Block 4. State previous serviceability of each lot composing the grand lot, miscellaneous lot, or depot lot.

(e) Block 5. Enter method of packing and preservation.

(f) Block 6. Not applicable.

(g) Column a. Enter the manufacturer(s) of the individual lots forming the grand lot, miscellaneous lot, or depot lot.

(h) Column b. Enter the manufacturer's lot number for each of the individual lots.

(i) Column c. Enter the date of manufacture of each lot.

(j) Column d. Enter the lot size for the individual lots listed in column b. Total the column and enter the sum in the total block at the foot of the column.

(k) Column e. Record the number of samples selected for test from each lot listed in column b Total the column and enter the sum in the total block at the foot of the column.

(l) Column f. Record the number of samples selected for visual examination from each lot listed in column b. Total the column and enter the sum in the total block at the foot of the column.

(m) Columns g, h, and i. Not applicable.

(n) Remarks. Enter any pertinent information regarding formation of the lot or sampling procedure.

(o) Supplementing serviceability report number. The report number entered here shall correspond with that entered on DA Form 984.

(p) Other blocks. Self-explanatory.

(3) *Quality Deficiency Report (QDR) (SF 368)*. Submit this form when initial receipt inspection reveals unsatisfactory new materiel from a manufacturer or unsatisfactory renovated, repaired, or modified materiel from a contractor. Prepare and distribute SF 368 as specified in AR 702-7.

(4) *Critical defects report*. When a critical defect is found, report it immediately to the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAF, Rock Island, IL 61299. The incident shall be reported via teletype or telephone. The initial report shall be followed by DA Form 984 with complete information concerning the extent of, and the circumstances pertaining to, the critical defect.

b. Errors in Reports

(1) Only errors which affect the serviceability status of the materiel evaluated shall be corrected by replacing those specific pages affected by the error with "Corrected Copies".

(2) The inspection activity which initiated the erroneous report shall prepare and distribute the correct pages required by (1) above. Each such page shall be marked "Corrected Copy." Denote the corrected entries by encircling them.

c. Classified Data. Unless specifically authorized by the US Army Armament Research and Development Command Security Office, place no classified information on the materiel serviceability reports. Use special codes as much as possible in preparing the documents when the materiel or information is classified. If classified information is required, place it on a separate sheet, not on the materiel serviceability report form. This sheet shall be properly marked and transmitted by authorized means according to its degree of classification. Attention is directed to AR 380-5 which states that unnecessary classification or higher than necessary classification is to be avoided.

d. Submission of Reports. With the exception of reports used for "Special Inspection," an original

and two copies of all reports required by this document shall be submitted to the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAF, Rock Island, IL 61299.

2-10. TRC, Cross-Referencing. For any TRC other than those defined in paragraph 2-6f, find the TRC code in appendix A for the item to be inspected. Refer to the table of contents of this bulletin. In the column headed TRC, locate the TRC and then the corresponding appendix. Go to that appendix and perform the additional inspection as required for the item. The TRC is also given in the heading of each appendix.

APPENDIX A
CODED STANDARDS

National Stock Number	Nomenclature	Quality Defect Codes	IL	AQL Ma-jor	AQL Mi-nor	SLC	IFC	TRC	PC	TSC
1010-01-014-6506	LAUNCHER, PROJ, RC64MM, M234	102 104 111 113 121 123 130 132 133 140 141 143 148 150 154 155 178 192 193 194B 194C 257 290 291 294A	S2	2.50	4.00	9	5	OOV 4KF	ABC	BBC
1010-01-044-5882	MANIFOLD, PROJECTILE-M234	102 104 111 113 123 130 132 133 141 154 155 178 192 193 250 290 291	S2	2.50	4.00	9	4	OOV	ABC	BBC
1010-01-044-5884	BUFFER, RECOIL MECHANISM	194B 102 104 111 113 1L23 130 132 133 141 143 151 154 155 178 191 194C 250 290 294A	S2	2.50	4.00	9	4	OOV	ABC	BBC
1010-01-044-5885	LEVER, LOCK-RELEASE-M234 LN	102 104 111 113 123 130 132 133 141 154 178 191 192 193 250 290 290 291	S2	2.50	4.00	0	4	OOV	ABC	BBC
1010-01-046-8345	PLATE, RETAINING, LAUNCH CUP	102 104 111 113 123 130 132 133 141 154 155 178 191 250 290	S2	2.50	4.00	9	4	OOV	ABC	BBC
1010-01-046-8346	SLEEVE, LOCK-RELEASE-M234 L	102 104 111 113 123 130 132 133 141 154 155 178 192 193 250 290 291	S2	2.50	4.00	9	4	OOV	ABC	BBC
1010-01-046-9399	CUP, PROJECTILE, LAUNCHING	102 104 111 113 123 130 132 133 141 143 151 154 155 178 192 193 194B 194C 250 290 291 294A	S2	2.50	4.00	9	4	OOV	ABC	BBC
1010-01-058-2989	PLUNGER, DETENT-M234, LAUNCH	102 104 111 113 123 130 132 133 141 154 178 192 193 250 290 291	S2	2.50	4.00	0	4	OOV	AC	BC
1010-01-058-2999	RETAINER, HELICAL SPRING	102 104 111 113 123 130 133 141 154 155 178 192 193 250 290 290 291	S2	2.50	4.00	9	4	OOV	AC	BC
1010-01-063-0086	BULKHEAD-M234 LAUNCHER	102 104 111 113 123 130 132 133 141 154 155 178 191 250 290	S2	2.50	4.00	9	5	OOV	ABC	BBC
1040-00-084-8158	CONTAINER ASSEMBLY	092 093 113 123 132 133 141 143 150 154 155 191 290	G2	1.50	6.50	9	3	4CE	ABC	BBC
1040-00-107-8086	CHECK VALVE, ASSY	113 123 132 133 140 141 143 150 192 193 290 291	G2	4.00	6.50	0	3	OOV	AC	BC
1040-00-109-5671	REGULATOR ASSY	113 123 133 140 141 143 150 192 193 290 291	G2	4.00	6.50	0	3	OOV	A	B
1040-00-148-9824	DISPERSER, RIOT CONT M33A1	092 093 111 113 121 123 132 133 141 143 150 151 154 155 191 205 290	G2	1.50	6.50	9	3	4CB	A	B

National Stock Number	Nomenclature	Quality Defect Codes	IL	AQL Major	AQL Minor	SLC	IFC	TRC	PC	TSC
1040-00-157-6974	SERVICE KIT, PORTABLE, M254	113 121 123 132 133 141 143 154 155 192 193 290 291	G2	1.50	6.50	9	2	4CC	ABC	BBC
1040-00-160-8050	REGULATOR, PRESSURE	111 113 123 132 133 140 141 143 150 151 154 192 193 290 291	S2	4.00	10.00	0	4	OOV	ABC	BBC
1040-00-160-8068	TANK, FUEL (AGT)	092 093 113 123 132 133 141 143 150 154 155 191 290	G2	2.50	6.50,	9	3	4CA	AB	BB
1040-00-229-8973	DRAIN COCK CAP ASSY	113 123 132 133 141 151 154 159	S2	4.00	10.00	0	4	OOV	ABC	BBC
1040-00-293-5891	TANK AND VALVE, PRESSURE	092 093 113 123 132 133 141 143 150 154 191 205 290	G2	1.50	6.50	0	4	4CA	ABC	BBC
1040-00-450-6559	DISPERSER, RIOT CONTROL, M33	111 113 121 123 132 133 140 141 143 150	G2	1.50	6.50	0	3	OOV	A	B
1040-00-605-6297	TEST GAGE ASSY, PRES CYL	113 123 132 133 140 141 143 150 192 193 290 291	G2	1.50	6.50	0	3	4CD	ABC	BBC
1040-00-654-5743	TEST GAGE ASSEMBLY, M2A1	113 123 132 133 140 141 143 150 192 193 290 291	G2	1.50	6.50	0	3	4CD	ABC	BBC
1040-00-711-8296	DISPERSER, RIOT CONT, M3	092 093 111 113 121 123 132 133 141 143 150 151 154 155 191 205 290	G2	2.50	6.50	9	3	4CA	A	B
1040-00-736-3230	SERVICE KIT, PORTABL, M24	123 126 132 133 140 141 143 155 192 193 221 290 291	G2	1.50	6.50	9	2	4CD	ABC	BBC
1040-00-770-1435	CHEST, SERVICE KIT, P	113 121 123 132 133 140 141 143 151	G2	4.00		0	3	OOV	ABC	BBC
1040-00-771-4557	GUN, PORTABLE, RIOT CTRL, M9	111 113 123 132 133 140 141 143 150 151 155 192 193 290 291	G2	1.50	6.50	9	3	4CA	AB	BB
1040-00-805-3019	DISPERSER, RIOT, CONTROL, M5	090 091 111 113 121 123 132 133 140 141 143 150 151 155 254 258 290 291	G2	1.50	6.50	9	3	4CE	A	B
1040-00-859-2207	HOSE ASSEMBLY, CHARGING	104 111 113 123 130 132 133 141 151 154 155 178 194B 194C 250 294A	S3	65	4.00	S	5	4CD	ABC	BBC
1040-00-862-2540	HOSE ASSEMBLY, PNEUM	113 121 123 132 133 140 141 143 154 155	G2	1.50	6.50	S	3	4CD	ABC	BBC
1040-00-898-1285	TEST GAGE ASSEMBLY, M3	113 123 132 133 140 141 143 150 192 193 201 290	G2	4.00	6.50	0	3	4CD	ABC	BBC
1040-01-060-8579	SPRAY GUN, CHEMICAL, DISP	113 123 132 133 140 141 143 150 151 192 193 290 291	G2	1.50	6.50	0	3	4CB	AB	BB

National Stock Number	Nomenclature	Quality Defect Codes	IL	AQL Major	AQL Minor	SLC	IFC	TRC	PC	TSC
4720-00-022-2472	HOSE ASSEMBLY, NONMETALLIC	104 111 113 123 132 133 141 150 151 154 155	G2	4.00	6.50	9	2	OOV	AC	BC
4720-00-163-2063	HOSE ASSEMBLY, METALLIC	113 121 123 132 133 140 141 150 151 155 192 193 290 291	G2	4.00	6.50	9	3	OOV	ABC	BBC
4720-00-229-8988	HOSE ASSEMBLY, NONMETAL, M27	113 123 132 133 141 150 151 154 155	G2	4.00	10.00	S	4	OOV	AC	BC
4720-00-250-9316	HOSE ASSEMBLY, NONMETALLIC	104 111 113 123 130 132 133 141 151 154 155 178 194B 194C 250 294A	S3	.65	4.00	S	5	OOV	AC	BC
4720-00-289-2630	HOSE ASSEMBLY, NONMETALLIC	113 121 123 133 140 141 145 146 150 151 194C 195B	G2	1.50	6.50	0	3	4CD	ABC	BBC
4720-00-289-6044	HOSE ASSEMBLY, NONMETALLIC	113 121 123 133 140 141 145 146 150 151 194C 195C	G2	1.50	6.50	0	3	4CD		
4720-00-384-0494	HOSE ASSEMBLY, NONMETALLIC	113 121 123 132 133 140 141 145 146 150 151 154 155 194C 195B	G2	1.50	6.50	S	3	4CD	AC	BC
4720-00-839-3423	HOSE ASSEMBLY, NONMETAL M8	104 111 113 123 130 132 133 141 151 154 155 178 194B 194C 250 294A	S3	65	4.00	S	5	4CF	A	B
4820-00-084-7427	VALVE,BALL	113 123 132 133 140 141 143 150 192 193 290 291	G2	4.00	6.50	0	3	OOV	ABC	BBC
4820-00-160-8011	VALVE, CHECK ASSY	102 111 113 133 140 141 143 192 193 291	S2	4.00	10.00	0	4	OOV	ABC	BBC
4820-00-160-8018	VALVE, SAFETY RELIEF	113 123 133 140 141 142 143 150 192 193 290 291	S2	1.50	4.00	0	4	OOV	ABC	BBC
4820-00-945-1.940	VALVE, REGULATING, FL	113 123 132 133 140 141 143 150 192 193 290 291	G2	4.00	6.50	0	3	OOV	ABC	BBC
5340-01-261-4610	STRAP, WEBBING	104 111 113 123 141 142 150 154 155 195B	S3	4.00	10.00	8		OOV	AC	BC
5340-01-261-4611	STRAP, WEBBING	104 111 113 123 141 142 150 154 155 195B	S3	4.00	10.00	S	4	OOV	AC	BC
5340-01-268-7361	STRAP, WEBBING-M33A1 DISPER	051 094C 095C 111 123 130 133 142 154 155 174 194B 195B	G2	1.50	6.50	8	3	OOV	AC	BC
5340-01-269-2282	STRAP, WEBBING-M33A1 DISPER	051 094C 095C 111 123 130 133 142 154 155 174 194B 195B	G2	1.50	6.50	8	3	OOV	AC	BC

National Stock Number	Nomenclature	Quality Defect Codes	IL	AQL Major	AQL Minor	SLC	IFC	TRC	PC	TSC
5340-01-269-2283	STRAP, WEBBING-M33A1 DISPER	051 094C 095C 111 123 130 133 142 154 155 174 194B 195B	G2	1.50	6.50	8	3	OOV	AC	BC
5340-01-269-2284	STRAP, WEBBING-M33A1 DISPER	051 094C 095C 111 123 133 154 155 174 194B 195B	G2	1.50	6.50	8	3	OOV	AC	BC
5340-01-270-3450	STRAP, WEBBING-M33A1 DISPER	051 094C 095C 111 123 130 133 142 154 155 174 194B 195B	G2	1.50	6.50	8	3	OOV	AC	BC
5340-01-273-6082	STRAP, WEBBING	104 111 113 123 141 142 150 154 155 195B	G2	1.50	6.50	8	3	OOV	AC	BC
5340-01-273-6083	STRAP, WEBBING	104 111 113 123 141 142 150 154 155 195B	G2	1.50	6.50	8	3	OOV	AC	BC
6135-00-134-1337	BATTERY (1) NONRECH	102 103 104 132 141 145 151 155 190 211 213 233	S2	4.00	10.00	6	3	OOV	AB	BB
6685-00-898-1284	TEST GAGE ASSEMBLY, M9	113 123 132 133 140 141 143 150 155 192 193 290 291	G2	1.50	6.50	9	3	4CD	ABC	BBC
6920-01-110-7680	LAUNCHER, PROJECTILE, M267	102 104 111 113 121 123 130 132 133 140 141 143 148 150 154 155 178 192 193 194B 194C 257 290 291 294A	S2	2.50	4.00	0	5	OOV	C	C
8120-00-081-8297	CYLINDER, COMPRESSED	092 093 113 123 132 133 141 150 154 191 290	G2	1.50	6.50	9	3	4CE	AC	BC
8120-00-116-0355	CYLINDER, COMPRESSED (AGT)	092 093 113 123 132 133 141 143 150 154 155 191 290	G2	1.50	6.50	9	3	4CB	A	B
8120-00-198-4924	CYLINDER, COMPRESSED (AIR)	092 093 113 123 132 133 141 143 150 154 155 191 205 290	G2	1.50	6.50	9	3	4CB	A	B

APPENDIX B

QUALITY ASSURANCE INSPECTION INSTRUCTION

STORAGE SERVICEABILITY STANDARD ADDENDUM

DISPERSER, RIOT CONTROL AGENT, PORTABLE M3

TRC 4CA

B-1. Purpose. This quality assurance inspection instruction provides peculiar instructions and inspection requirements, in addition to those coded inspection requirements contained within appendix A for the items listed below:

NSN	*Nomenclature*
1040-00-711-8296	Disperser. Riot Control Agent, Portable, M3
1040-00-160-8068	Tank, Fuel (Agent)
1040-00-293-5891	Tank and Valve, Pressure
1040-00-771-4557	Gun, Portable, Riot Control Agent Disperser, M9

B-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when the TRC of this appendix (4CA) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection efforts that need be expended to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament Materiel Readiness Command. ATTN: DRSAR-QAE, Rock Island, IL 61299. Also, provide copies of related correspondence to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAC-R, Aberdeen Proving Ground, MD 21010.

B-3. Instructions. *a. References*.

TM 3-1040-214-12	Disperser, Riot Control Agent, Portable: M3
TM 3-1040-251-15	Test Set, Flamethrower-Riot Control Agent Disperser, Hydrostatic-and-Volumetric. 6000 PSI, M5.

b. Surveillance Interval. Except for pressure and volumetric tests, perform surveillance of the disperser and major components by the IFC specified in appendix A.

(1) *Hydrostatic tests*. Subject the pressure tanks and the agent tanks to a hydrostatic test every 60 months.

(2) *Volumetric test*. Subject only the pressure tanks to a volumetric test every 60 months.

NOTE

Test intervals coincide with DOT regulations. TM 3-1040-214-12, specifies 4 year (48 months) interval.

c. Basis of Surveillance. Surveillance for the M3 portable riot control agent disperser and major components shall be conducted on the basis of grand, manufacturer's, or miscellaneous lots. Miscellaneous lot size shall not exceed 500 items.

d. Sampling. Sampling of lots shall be conducted as required by paragraph 2-4, and as follows:

(1) For visual examination. The sample quantity, as indicated in the sampling plan, paragraph 2-4, shall be randomly selected from the lot.

NOTE

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation processes, a selection of samples for end item visual examination is permissible.

(2) For tests. Use MIL-STD-105, Inspection Level S-l, AQL of 0.65 percent for sampling. The acceptance number for critical defects is zero. Samples shall be randomly selected from the sample obtained in (1) above, except that the hydrostatic and volumetric tests (see paras B-4c(1) and (2)) shall be conducted on a unit basis. If the visual inspection sample is the same size as that required for testing, the entire sample shall be subjected to test. Should the sample of visually acceptable items be smaller than that required for testing, additional samples shall be selected from the lot.

e. Marking.

(1) *Disperser agent tanks and pressure tank*. Prior to release from depot, ensure that the latest hydrostatic test date is on an aluminum strip attached to the diffusion pipe of the agent tank and on the neck of the pressure tank. Confirm that the date on the records required by TM 38-750 is the same as that on the aluminum strip. The date on the aluminum strips will consist of numbers representing the month and the year, i.e., 1-81, with 1 for January through 12 for December, with 80 for 1980,

or 81 for 1981, etc. Ensure that the records required by TM 38-750 reflect the date of the latest hydrostatic test.

(2) *Hose assembly*. The M8 hose, when used with the M3 disperser shall have a 9-inch band painted aluminum around each end of the hose. "M3 DISP ONLY" shall be stenciled in red as shown in TM 3-1040-214-12.

NOTE

Manufacturing dates and depot maintenance issue dates are stamped on the metal tag or band of the M8 Hose. These dates are significant only when the M8 Hose is used with flamethrowers. These dates have no meaning when the M8 Hose is used with the M3 disperser.

NOTE

This hose is usually procured as the M8 Fuel Hose, Flamethrower, Drawing B81-1-6930, of the same title but it is listed as "Hose Assembly, Nonmetallic" in technical manuals for the M2A1-7 Portable Flamethrower and the M3 Portable Riot Control Agent Disperser, and as "Hose Assembly, Rubber" in the Army Master Data File. The hose assembly does not include the quick-disconnect Coupling Half usually shown attached in illustrations.

B-4. Inspection Procedure. Samples shall be visually inspected for defects resulting from the ap plied packaging, packing, marking, and preservation processes. The defects are identified in table B-1. The end item samples shall be visually inspected for the defects listed in table B-2. Samples of major component items packed separately shall be visually inspected for the defects listed in tables B-3, B-4, and B-5. The required samples for testing of visually-acceptable items shall be subjected to the applicable tests described in c below. Tables B-2, B-3, B-4, and B-5, in addition to providing classification of visual defects, provide classification of test failures. The classification of test failures is provided to differentiate between the test failures to be considered as Critical, wherein one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failures to be considered as major, wherein acceptance or rejection of the lot would be based on the acceptance number of the sampling plan.

a. Classification of Defects for Packaging, Packing, Marking, and Preservation

Table B-1. Packaging, Packing, Marking, and Preservation, Disperser, M3 NSN 1040-00-711-8296

Category defect no.	Defect	Inspection method
Critical:	None defined	
Major:		
101	Shipping or inner containers damaged, deteriorated, or weathered to the extent that contents cannot be adequately protected and containers require replacement.	Visual
102	Inner container wet or mildewed.	Visual
103	Loose pack (packing so loose that contents have been broken or are in danger of being broken).	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:		
201	Slight damage, deterioration or weathering to outer or inner containers but not affecting protection of contents.	Visual

b. Classification of Defects for End Items.

Table B-2. Disperser, Riot ControlAgen4 Portable, M3, NSN 100-- 711-8296

NOTE

Refer to tables B-3, B-4, and B-5 for classification of defects for major components packed separately. Refer to appendix G for inspection of the M8 Hose.

Category defect no.	Defect	Inspection Method
Critical:		
1	High pressure tank hydrostatic volumetric test failure (refer to table B-4).	Test, paragraph B-4*c*(1)
2	Agent tank hydrostatic pressure test failure (refer to table B-3).	Test, paragraph B-4*c*(2)
3	Check-valve-assembly valve-seat leakage test failure.	Test, paragraph B-4*c*(3)
4	Pressure tank cracked or dented.	Visual

Category Defect No.	Defect	Inspection method
5	Agent tank cracked or dented.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Major:		
101	Gun assembly leakage and functional test failure (refer to table B-5).	Test, Paragraph B-4*c*(4)
102	Disperser assembly leakage and functional test failure.	Test, paragraph B-4*c*(5)
103	Hydrostatic test date marking missing from tanks.	Visual
104	Component or publication missing (refer to TM 3-1040-214-12).	Visual
105	Connector (coupling, thread, locknut, or cap) damaged, corroded, or inoperative.	Visual/Manual
106	Hose damaged or deteriorated including soft or rust spots or kink causing permanent set.	Visual
107	Rubber tube (gun groups) cut, split, or deteriorated.	Visual
108	Carrier damaged or deteriorated (frame bent or broken, canvas carrier torn, lacing holes piled out, or strap buckle inoperative).	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:		
201	Carrier canvas mildewed, strap buckles rusted, or lace broken.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual

TableB-3. Tank, Fuel(Agent), NSN1040-00-160-8068

NOTE

This tank is listed as Tank, Fuel CML D81-1 in the Army Master Data File.

Category defect No.	Defect	Inspection method
Critical.		
1	Agent tank hydrostatic pressure test failure.	Test, paragraph B-4*c*(2)
2	Agent tank cracked or dented.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Major:		
101	Hydrostatic test date marking missing from agent tanks.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes in appendix A.	Visual

Table B-4. Tank and Valve, Pressure, NSN 1040-00-293-5891

Category defect No.	Defect	Inspection method
Critical:		
1	High pressure tank hydrostatic volumetric test failure.	Test, paragraph B-4*c*(1)
2	High pressure tank cracked or dented.	Visual
Other	*Refer to 'Quality Defect Codes " in appendix A*.	Visual
Major:		
101	Hydrostatic test date marking missing from high pressure tank.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table B-5. Gun, Portable, Riot Control Agent Disperser, M9, NSN 1040-00 771-4557

Category Defect No.	Defect	Inspection method
Critical:	None defined.	
Major.		
101	Gun assembly leakage and functioning test failure.	Test, paragraph B-4*c*(4)
102	Trigger movement rough or jerky.	Test, paragraph B-4*c*(4)
103	Safety catch inoperative.	Test, paragraph B-4*c*(4)
104	Rubber tube cut or cracked.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual

c. Tests.

WARNING

Only authorized personnel (those thoroughly trained in the operation of the disperser) are permitted to charge, service, or function the disperser. Personnel shall wear approved eye protective equipment when conducting tests. Firmly anchor all pressure hoses, test specimens or other pieces of equipment capable of

being propelled in the event of rupture. Examine the test samples and test equipment for foreign matter prior to testing. Isolate the test equipment and specimens when conducting the hydrostatic or functional tests. Where possible, locate pressure gages and operating controls a safe distance from the test site, When conducting a visual examination for leakage, a portable shield mounted on casters may be used. The shield should be of sufficient strength to withstand an impact resulting from a rupture of the test equipment or specimen.

(1) *M3 disperser, high pressure tank, hydrostatic volumetric test.*

(a) Requirements. No leakage shall be allowed when the high pressure tank is subjected to an internal hydrostatic pressure of 3500 + 50 pounds per square inch gage (psig) for a period of 60 + 10 seconds. This test shall be performed by the water jacket or other suitable method. Permanent volumetric expansion may not exceed 10 percent of the total volumetric expansion during the tests. If the test pressure cannot be maintained, because of test equipment failure, repeat the test at a pressure increase of 10 percent, or 100 psig, whichever is the smaller increase.

(b) Equipment required. A water jacket and a regulated pressure source (3500 psig). The pressure gages shall be checked for a minimum accuracy of + 1 minor scale division. The expansion gage shall be of such precision as to permit a reading to an accuracy of either one percent or 0.1 cubic centimeter. M5 test set, NSN 1040-00-050-7952, may also be used, TM 3-1040-251-15.

(c) Procedure.

1. Fill the water jacket with water.

2. Remove the high pressure tank from the disperser.

WARNING

Bleed any pressure from the pressure tank before removing the valve assembly.

3. Remove the valve assembly and, using a probe light or flashlight, examine the interior of the tank for signs of internal corrosion.

4. Install a high pressure adapter, in place of the valve assembly, in the pressure tank.

5. Subject the pressure tank to the pressure for the time specified.

6. Release the pressure and, if the pressure tank is serviceable, carefully dry the pressure tank and reinstall it on the disperser. Dispose of unserviceable tanks in accordance with applicable directives.

(2) *M3 disperser, agent tank, hydrostatic pressure test*

(a) Requirements. No leakage or permanent deformation is allowed when the agent tank is subjected to an internal hydrostatic pressure of 625 + 10 psig for a period of one minute minimum.

(b) Equipment required. A regulated pressure source (700 psig). The pressure gage shall be checked for a minimum accuracy of + 1 minor scale division. M5 test set, NSN 1040-00-050-7952, may be used, TM 3-1040-251-15.

(c) Procedure.

1. Plug the diffusion pipe fitting, the outlet pipe, and one of the tank plug openings.

2. Connect the other tank plug opening to a controlled source of hydrostatic pressure.

3. Slowly introduce hydrostatic pressure to 625 + 10 psig for a period not less than 1 minute and observe for leakage and any deformity.

4. Fluid seepage shall indicate leakage.

5. Any visual permanent physical change in appearance of the tank assembly shall indicate deformity.

(3) *M3 disperser, check valve assembly, valve seat leakage check*.

(a) Requirements. No valve seat leakage shall be allowed when the assembly is subjected to an internal air pressure of 300 ± 30 psig for a period of 60 + 10 seconds.

(b) Equipment required. A regulated air pressure source (320 + 10 psig) and a water tank with a wetting agent in the water.

(c) Procedure.

1. Remove the safety disk plug.

2. Seal the inlet port and the safety disk plug port.

3. Connect a regulated air pressure source to the outlet port.

4. Place the assembly into the tank filled with water containing a wetting agent.

5. Subject the assembly to the required air pressure for the time specified.

6. Examine the assembly for leakage.

7. Release the air pressure and remove the valve assembly from the water tank.

8. Remove the air pressure source and the seals from the ports.

9. Dry the valve assembly thoroughly.

10. Reassemble serviceable valve assemblies.

(4) M9 gun assembly, leakage and functional check.

(a) Requirements.

1. No valve (gun) leakage is allowed.

2. Smooth trigger movement.

3. The lips of the safety must be able to hold the trigger in the full forward (safe) position.

(b) Equipment required. A regulated air pressure source (90 psig) and a water tank with a wetting agent in the water.

(c) Procedure.

1. Follow the instructions in TM 3-1040-214-12 to assembly the gun group.

2. Connect a regulated pressure source of 75 ± 5 psig to the gun.

NOTE

This test may be combined with the disperser test (see para c(5)), using the disperser as the air pressure source.

3. Immerse the forward end of the gun into the water and observe for air bubbles.

4. Remove the gun nozzle from the water and actuate the trigger in a few short bursts, noting the smoothness of the trigger movement. A rough or "jerky" movement indicates binding of the trigger assembly, absence of lubricant, or a twisted rubber tube.

5. Repeat the leakage test by immersing the gun nozzle into the water and attempting to depress the trigger with the safety mechanism engaged. Do not force the safety latch. Observe for leakage.

6. Disassemble and dry the gun group and return the serviceable guns to storage.

(5) *M3 disperser assembly, leakage and functional check*.

(a) Requirements.

1. Divide the sample lot in half and subject half the lot to a regulated pressure test and the other half to a six hour stand test.

2. One hour regulated pressure test. No leakage in any section is allowed during the regulated pressure test. The initial agent tank pressure will be between 40 and 45 psig and will not increase to more than 90 psig.

3. Six hour stand test. No drop in pressure will be permitted in the high pressure system.

4. Functioning will be prompt and positive.

(b) Equipment required. A regulated air pressure source (2200 psig) and a Test Gage Assembly (identified in Service Kit M27 as B81-6-377, NSN 1040-00-898-1285).

(c) Procedure.

1. Turn the filler plug assembly and relieve any pressure in the agent tanks, then remove the filler cap assembly.

2. Visually check the interior of the agent tank to ensure that it is clean. Dirt or foreign matter can cause gun malfunction.

3. Check the disperser gun and hose to ensure that they are clean. Assemble the hose to the gun and connect the hose to the agent tank.

4. Replace the filler cap.

5. Install the testing gage assembly from the M27 Service Kit between the pipe and the cap assembly connector and the high pressure hose.

6. Fully close the pressure tank valve.

7. Charge the pressure tank with clean compressed air to 2075-2100 psig.

WARNING

Do not use a pressure source that cannot be identified, i.e., markings missing or marking defaced. Refer to the Army Regulation or appropriate technical manual for information on how to identify the contents of pressure tanks. A violent explosion can result if compressed oxygen is introduced into the agent tank of the disperser. An explosion can also result if hydrogen is introduced into the high pressure tank assembly when it contains a partial charge of compressed air.

NOTE

Perform steps 8 through 13 on those items selected for regulated pressure test. Perform steps 14 through 17 on those items selected for the six-hour stand test.

8. Slowly open the pressure tank valve.

9. Inspect the unit for leaks, using soap solution for those parts under air pressure.

10. Observe and record the pressure of the agent system at the beginning and during the regulated pressure test. Observe and record any abnormal conditions of the system.

NOTE

If the pressure creeps beyond 90 psig, reset the regulator in accordance with TM 3-1040-214-12 and repeat the test. If the pressure again creeps beyond 90 psig, the regulator must be replaced.

WARNING

Do not point the gun at anyone or anything.

11. Operate the disperser for three short bursts, allowing at least 15 seconds between bursts. Upon release of hand pressure from the trigger, air should promptly cease to disperse from the gun.

12. After the third burst examine the gun for evidence of leakage for a minimum period of one minute.

13. Continue to operate in short bursts until the air supply is exhausted, allowing at least 15 seconds between bursts. During testing the trigger movement should be smooth and capable of stopping the air flow on demand.

14. Shut off the high pressure supply from the rest of the unit for those items selected for the six hour check. Let the sample stand for a minimum of six hours.

15. Inspect for leaks by applying a soap solution to the high pressure valve and to the tank assemblies at least once an hour during the six hour test period.

16. Open the pressure tank valve.

17. Operate the gun in short bursts until the air supply is exhausted, allowing at least 15 seconds between bursts. During testing the trigger movement should be smooth ad capable of stopping the air flow on demand.

18. Bleed the agent tanks by opening the shut-off valve mounted on the safety valve adapter.

19. Remove the filler cap assembly and the test gage assembly.

20. Reassemble all items. Issue serviceable disperser assemblies or return them to storage.

APPENDIX C
QUALITY ASSURANCE INSPECTION INSTRUCTION
STORAGE SERVICEABILITY STANDARD ADDENDUM
DISPERSER, RIOT CONTROL AGENT, PORTABLE, 3-GALLON, M33A1 TRC 4CB

C-1. Purpose. This quality assurance inspection instruction provides peculiar instructions and inspection requirements, in addition to those coded inspection requirements contained within appendix A for the items listed below:

NSN	*Nomenclature*
1040-00-148-9824	Disperser, Riot Control Agent, Portable, 3-Gallon, M33A1
1040-00-116-0355	Cylinder, Compressed Gas (Agent)
1040-00-198-4924	Cylinder, Compressed Gas (Air)
1040-01-060-8579	Gun, Portable, Riot Control Agent, Disperser

C-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when the TRC of this appendix (4CB) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection efforts that need be expended to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament Materiel Readiness Command, AT'TN: DRSAR-QAE, Rock Island, IL 61299. Also provide copies of related correspondence to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAC-R, Aberdeen Proving Ground, MD 21010.

C-3. Instructions. *a. References*.

TM 3-1040-262-13&P	Disperser, Riot Control Agent, Portable: M33A1.
TM 3-1040-251-15	Test Set, Flamethrower-Riot Control Agent Disperser, Hydrostatic-and-Volumetric, 6000 PSI, M5.

b. Surveillance Interval. Perform surveillance of the disperser and major components as indicated by the IFC specified in appendix A with the exception of hydrostatic and volumetric tests which shall be as follows:

(1) *Hydrostatic test*. Subject the pressure tanks and the agent tanks to a hydrostatic test every 60 months for 3AA cylinders and every 36 months for 3HT cylinders.

(2) *Volumetric test*. Subject the pressure tanks to a volumetric test every 60 months.

c. Basis of Surveillance. Surveillance for the M33A1 portable riot control agent disperser and major components shall be conducted on the basis of grand, manufacturer's, or miscellaneous lots. Miscellaneous lot size shall not exceed 500 items.

d. Sampling. Sampling of lots shall be conducted as required by paragraph 2-4 and as follows:

(1) *For visual examination*. The sample quantity as indicated in the sampling plan, paragraph 2-4, shall be randomly selected from the lot.

NOTE

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation processes a selection of samples for end item visual examination is permissible.

(2) *For tests*. Use MIL-STD-105, Inspection Level S-I, AQL of 0.65 percent for sampling. The acceptance number for critical defects is zero. Samples shall be randomly selected from the sample obtained in (1) above except that the hydrostatic and volumetric tests (see paras C-4c(1) and (2)) shall be conducted on a unit basis. If the visual inspection sample is the same size as that required for testing, the entire sample shall be subjected to test. Should the sample of visually acceptable items be smaller than that required for testing, additional samples shall be selected from the lot.

e. Marking. Prior to release from depot, ensure that the latest hydrostatic test date is on an aluminum strip attached to the diffusion pipe of the agent tank and on the neck of the pressure tank. Confirm that the date on the records required by TM 38-750 is the same as that on the aluminum strip. The date on the aluminum strips will consist of numbers representing the month and the year, i.e., 1-80 with 1 for January through 12 for December, with 79 for 1979, or 80 for 1980, etc. Ensure that the records required by TM 38-750 reflect the date of the latest hydrostatic test.

C-4. Inspection Procedure. Samples shall be visually inspected for defects resulting from the ap

plied packaging, packing, marking, and preservation processes. The defects are identified in table C-1. The end item samples shall be visually inspected for the defects listed in table C-2. Samples of major component items packed separately shall be visually inspected for the defects listed in tables C-3, C-4, and C-5. The required samples for testing of visually acceptable items shall be subjected to the applicable tests described in c below. Tables C-2, C-3, C-4, and C-5, in addition to providing classification of visual defects, provide classification of test failures. The classification of test failures is provided to differentiate between the test failures to be considered as Critical, wherein one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failures to be considered as major, wherein acceptance or rejection of the lot would be Eased on the acceptance number of the sampling plan.

a. Classification of Defects for Packaging, Packing, Marking, and Preservation

Table C-1. Packaging, Packing, Marking, and Preservation, Disperser, M33A1 NSN 1040-00-148-9824

Category defect No.	Defect	Inspection method
Critical:	None defined.	
Major:		
101	Shipping or inner containers damaged, deteriorated, or weathered to the extent that contents cannot be adequately protected and containers require replacement.	Visual
102	Inner container wet or mildewed.	Visual
103	Loose pack (packing so loose that contents have been broken or are in danger of being broken),	Visual
Other	Refer to "Quality Defect Codes" in appendix A	Visual
Minor:		
201	Slight damage, deterioration, or weathering to outer or inner con-	Visual

b. Classification of Defects for End Items.

Table C-2. Disperser, Riot Control Agent, Portable, 3-Gallon, M33A1 NSN 1040-00-148-9824

NOTE:

Refer to tables C-3, C-4, and C-5 for classification of defects for major components packed separately.

Category defect No.	Defect	Inspection method
Critical:		
1	High pressure tank hydrostatic volumetric test failure (refer to table C-4).	Test, paragraph C-4*c*(1)
2	Agent tank hydrostatic pressure test failure (refer to table C-3).	Test paragraph C-4*c*(2)
3	Pressure tank cracked or dented.	Visual
4	Agent tank cracked or dented.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Major:		
101	Gun assembly leakage and functional test failure (refer to table C-5).	Test, paragraph C-4*c*(3)
102	Disperser assembly leakage and functional test failure.	Test, paragraph C-4*c*(4)
103	Hydrostatic test date marking missing from tanks.	Visual
104	Component or publication missing (refer to TM 3--1040-262-13).	Visual
105	Connector (coupling, thread, locknut, or cap) damaged, corroded or inoperative.	Visual/Manual
106	Hose damaged or deteriorated including soft or rust spots or kink causing permanent set.	Visual
107	Rubber tube (gun groups) cut, split, or deteriorated.	Visual
108	Carrier damaged or deteriorated (frame bent or broken, straps torn).	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:		
201	Strap buckles rusted.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual

Table C-3. Cylinder, Compressed Gas (Agent) NSN 1040-00-116+0355

Category defect No.	Defect	Inspection method
Critical:		
1	Agent tank hydrostatic pressure test failure.	Test, paragraph C-4*c*(2)
2	Agent tank cracked or dented.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Major:		
101	Hydrostatic test date marking missing from agent tanks.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table C-4. Cylinder, Compressed Gas (Air), NSN 104-00-198-4924

Category defect No.	Defect	Inspection method
Critical:		
1	High pressure tank hydrostatic volumetric test failure.	Test, paragraph C-4*c*(1)
2	High pressure tank cracked or dented.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Major:		
101	Hydrostatic test date marking missing from high pressure tank.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table C-5. Gun, Portable, Riot Control Agent Disperser, NSN 1040-01-060-8579

NOTE

This gun is listed as Gun, Spray, Chemical in the Army Master Data File.

Category defect No.	Defect	Inspection method
Critical:	None defined.	
Major:		
101	Gun assembly leakage and functioning test failure.	Test, paragraph C-4*c*(4)
102	Functioning slow or not positive	Test, paragraph C-4*c*(4)
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A	Visual

c. Tests.

WARNING

Only authorized personnel (those thoroughly trained in the operation of the disperser) are permitted to charge, service or function the disperser. Personnel shall wear approved eye protective equipment when conducting tests. Firmly anchor all pressure hoses, test specimens, or other pieces of equipment capable of being propelled in the event of rupture. Examine test samples and test equipment for foreign matter prior to testing. Isolate the test equipment and specimens when conducting hydrostatic or functional tests. Where possible, locate pressure gages and operating controls a safe distance from the test site. When conducting a visual examination for leakage, a portable shield mounted on casters may be used. The shield should be of sufficient strength to withstand an impact resulting from a rupture of the test equipment or specimen.

(1) *M33A1 disperser, high pressure tank, hydrostatic volumetric test.*

(a) Requirements. No leakage shall be observed when the high pressure tank is subjected to an internal hydrostatic pressure of 3500 + 50 pounds per square inch gage (psig) for a period of 60 + 10 seconds. This test shall be performed by the water jacket, or other suitable method. Permanent volumetric expansion may not exceed 10 percent of the total volumetric expansion during the tests. If the test. pressure cannot be maintained, because of test equipment failure, repeat the test at a pressure increase of 10 percent, or 100 psig, whichever is the smaller increase.

(b) Equipment required. A water jacket and a regulated pressure source (3600 psig). The pressure gages shall be checked for a minimum accuracy of + I minor scale division. The expansion gage shall be of such precision as to permit a reading to an accuracy of either one percent or 0.1 cubic centimeter.

M5 Test Set, NSN 1040-00-050-7952, may also be used, TM 3-1040-251-5.

(c) Procedure.

1. Fill the water jacket with water.

2. Remove the high pressure tank from the disperser.

WARNING

Bleed any pressure from the pressure tank before removing the coupler assembly.

3. Remove the coupler assembly and, using a probe light or flashlight, examine the interior of the tank for signs of internal corrosion.

4. Install a high pressure adapter, in place of the valve assembly, in the pressure tank.

5. Subject the pressure tank to the pressure for the time specified.

6. Release the pressure and, if the pressure tank is serviceable, carefully dry the pressure tank and reinstall it on the disperser. Unserviceable tanks will be disposed of in accordance with applicable directives.

(2) *M33A1 disperser, agent tank, hydrostatic pressure test*.

(a) Requirements. No leakage or permanent deformation is allowed when the agent tank is subjected to an internal hydrostatic pressure of 350 ± 10 psig for a period of one minute minimum.

(b) Equipment required. A regulated pressure source (400 psig). The pressure gage shall be checked for a minimum accuracy of ± 1 minor scale division. The M5 Test Set, NSN 1040-00-050-7952, may also be used, TM 3-1040-251-15.

(c) Procedure.

1. Connect the tank opening to a controlled source of hydrostatic pressure.

2. Slowly introduce hydrostatic pressure to 350 ± 10 psig for a period of not less than 1 minute and observe for leakage and any deformity.

3. Fluid seepage shall indicate leakage.

4. Any visual permanent physical change in appearance of the tank assembly shall indicate deformity.

(3) *M33A1 disperser, gun assembly, leakage and functional check*.

(a) Requirements.

1. No valve (gun leakage is allowed.

2. Smooth trigger movement.

(b) Equipment required A regulated air pressure source (180 psig) and a water tank, with a wetting agent in the water.

(c) Procedure.

1. Follow the instructions in TM 3-1040-262-13 to assemble the gun group.

2. Connect a regulated pressure source of 180 ± 20 psig to the gun.

NOTE

This test may be conducted in combination with C-4c(4), using the disperser as the air pressure source.

3. Gradually increase the pressure to 180 ± 20 psig. Maintain that pressure for a minimum period of 30 seconds and observe for air bubbles with the gun nozzle submersed.

4. Remove the gun nozzle from the water and pull the trigger to operate the gun for a five-second burst. The gun shall function freely and when the trigger is released the flow of air shall stop. Again examine the gun nozzle for air bubbles under the water.

5. Disassemble and dry the gun group and return serviceable guns to storage.

(4) *M33A1 disperser assembly, leakage and functional check*.

(a) Requirements.

1. No leakage in any section during regulated pressure test.

2. Functioning will be prompt and positive.

(b) Equipment required. A regulated air pressure source (2200 psig) and an Inline Pressure Check Gage Assembly (identified in Service Kit M254 as DWG CI16-3-63).

(c) Procedure.

1. Turn the closure assembly and relieve any pressure in the agent tanks before removing the closure assembly.

2. Visually check the interior of the agent tank to ensure that it is clean. Dirt of foreign matter can cause gun malfunction.

3. Replace the closure assembly.

4. Check the disperser gun and hose to ensure that they are clean. Assemble the hose to the gun and connect the hose to the agent tank.

5. Replace the filler cap.

6. Install the Inline Pressure Check Gage Assembly between the low pressure hose and the quick-disconnect at the regulator outlet.

7. Fully close the pressure tank valve.

8. Charge the pressure tank with clean compressed air to 2075-2100 psig, and connect it to the disperser.

WARNING

Do not use a pressure source which cannot be identified, i.e., markings missing or marking defaced. Refer to the Army Regulation or appropriate technical manual for information on how to identify the contents of pressure tanks. A violent explosion can result if compressed

oxygen is introduced into the agent tank of the disperser. An explosion can also result if hydrogen is introduced into the high pressure tank assembly when it contains a partial charge of compressed air.

9. Slowly open the high pressure valve.

10. Record the regulator outlet pressure when the needle has stabilized.

11. Using a suitable leak-detecting solution, check all joints for leakage.

NOTE

If the pressure creeps beyond 200 psig, reset the regulator in accordance with TM 3-1040-262-13 and repeat the test. If the pressure again creeps beyond 200 psig, the regulator must be replaced.

WARNING

Do not point the gun at anyone or anything.

12. Discharge the disperser in 5-second bursts, pausing 5 seconds between bursts to check the gun for leakage.

13. During periods of airflow, listen for a "rattling" sound, which is indicative of the presence of the agitator in the agent tank.

14. After the air supply is exhausted, bleed the agent tanks by opening the drain cock cap assembly.

15. Remove the Inline Pressure Check Gage Assembly.

16. Reassemble all items. Issue serviceable disperser assemblies or return them to storage.

APPENDIX D
QUALITY ASSURANCE INSPECTION INSTRUCTION
STORAGE SERVICEABILITY STANDARD ADDENDUM
SERVICE KIT, PORTABLE RIOT CONTROL AGENT DISPERSER, M254
TRC 4CC

D-1. Purpose. This quality assurance inspection instruction provides peculiar instructions and inspection requirements, in addition to those coded inspection requirements contained within appendix A for the item listed below:

NSN	Nomenclature
1040-00-157-6974	Service Kit, Portable Riot Control Agent Disperser, M254

D-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when the TRC of this appendix (4CC) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection efforts that need be expended to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299. Also, provide copies of related correspondence to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAE-R, Aberdeen Proving Ground, MD 21010.

D-3. Instructions. *a. References.*

SC 1040-95-CL-A01	Service Kit, Portable Riot Control Agent Disperser, M254.

b. Basis of Surveillance. Surveillance for the M254 Portable Riot Control Agent Disperser Service Kit shall be conducted on the basis of grand, manufacturer's, or miscellaneous lots. Miscellaneous lot size shall not exceed 500 items.

c. Sampling. Sampling of lots shall be conducted as required by paragraph 2-4, and as follows:

(1) *For visual examination.* The sample quantity as indicated in the sampling plan, paragraph 2-4, shall be randomly selected from the lot.

NOTE:
From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation processes, a selection of samples for end item visual examination is permissible.

(2) *For tests*. Use MIL-STD-105, Inspection Level S-1, AQL of 0.65 percent for sampling. The acceptance number for critical defects is zero. Samples shall be randomly selected from the sample obtained in (1) above. If the visual inspection sample is the same size as that required for testing, the entire sample shall be subjected to test. Should the sample be smaller than that required for testing, additional samples shall be selected from the lot.

D-4. Inspection Procedure. Samples shall be visually inspected for defects resulting from the applied packaging, packing, marking, and preservation processes. The defects are identified in table D-1. The end item samples shall be visually inspected for the defects listed in table D-2. The required samples for testing of visually-acceptable items shall be subjected to the tests described in c. below. Table D-2, in addition to providing classification of visual defects, provides classification of test failures. The classification of test failures is provided to differentiate between the test failures to be considered as Critical, wherein one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failures to be considered as major, wherein acceptance or rejection of the lot would be based on the acceptance number of the sampling plan.

a. Classification of Defects for Packaging, Packing, Marking, and Preservation.

Table D-1. Packaging, Packing, Marking, and Preservation, Service Kit, M254 NS 1040-00-157-6974

Category defect No.	Defect	Inspection method
Critical	None defined.	
Major:		
101	Shipping or inner containers damaged, deteriorated, or weathered to the extent that contents cannot be adequately protected and containers require replacement.	Visual
102	Inner container wet or mildewed.	Visual
103	Loose pack (packing so loose that contents have been damaged or are in danger of being damaged).	
Other	Refer to "Quality Defect Codes" in appendix as	Visual
Minor		
201	Slight damage to shipping or inner containers but not affecting protection of contents.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual

b. Classification of Defects for End Items.

Table D-2. Service Kit, Portable Riot Control Agent Disperser, M254 NSN 1040-00-157-6974

Category defect No.	Defect	Inspection method
Critical		
1	Pressure check gage assembly leakage.	Test, Paragraph D-4*c*(1)
2	Charging hose assembly leakage.	Test, paragraph D-4*c*(1)
Major:		
101	Inline pressure check gage assembly.	Test, paragraph D-4*c*(2)
102	Charging hose damaged, kinked, or cut.	Visual
103	Charging hose assembly fittings damaged.	Visual
104	Agent transfer tube damaged.	Visual
105	Protective caps missing.	Visual
Other	Refer to "'Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

c. Tests.

WARNING:

Only authorized personnel (those thoroughly trained in the operation of the service kit)- are permitted to charge, service or function the service kit. Personnel shall wear approved eye protective equipment when conducting tests. Firmly anchor all pressure hoses, test specimens, or other pieces of equipment capable of being propelled in the event of rupture. Examine test samples and test equipment for foreign matter prior to testing. Isolate the test equipment and specimens when conducting pressure tests. Where possible, locate pressure gages and operating controls a safe distance from the test site. When conducting a visual examination for leakage, a portable shield mounted on casters may be used. The shield should be of sufficient strength to withstand an impact resulting from a rupture of the test equipment or specimen.

(1) *M254 service kit pressure check, gage assembly (DWG Dl116-3-62) and charging hose assembly FDWG C116-3-90).* Test these components as an assembly.

(a) Requirement. The assembly shall not leak when subjected to an internal air pressure of 2100 + 50 pounds per square inch gage (psig) for a period of 60 seconds when tested as specified.

(b) Equipment required.

1. Regulated air pressure source (2400 + 50 psig).

2. Water tank and water.

(c) Procedure.

1. Subject the assembly to an internal air pressure of 2100 + 50 psig for a minimum period of 60 seconds with the assembly submerged in water up to the bottom of the gage.

2. Do not allow water to contact the gage.

3. Do not exceed a pressurizing rate of 500 psig per minute.

4. Observe for leakage.

5. Dry and disassemble the check gage with the charging hose assembly and return serviceable components to storage.

(2) Inline pressure check gage assembly (DWG C116-3-63).

(a) Requirements. The Inline Pressure Check

Gage Assembly shall not leak when subjected to an internal air pressure of 200 + 10 psig for a period of 60 seconds when tested as specified.

(b) Equipment required.

1. Regulated air pressure source (250 psig).
2. Water tank and water.

(c) Procedure.

1. Subject the assembly to an internal air pressure of 200 + 10 psig for a minimum period of 60 seconds with the assembly submerged in water up to the bottom of the gage.

2. Do not allow water to contact the gage.

3. Do not exceed a pressurizing rate of 500 psig per minute.

4. Observe for leakage.

5. Dry and return serviceable assemblies to storage.

APPENDIX E
QUALITY ASSURANCE INSPECTION INSTRUCTION
STORAGE SERVICABILITY STANDARD ADDENDUM
SERVICE KIT, PORTABLE FLAMETHROWER-RIOT CONTROL AGENT DISPERSER, M27
TRC 4CD

E-1. Purpose. This Quality Assurance Inspection Instruction provides peculiar instructions and inspection requirements, in addition to those coded inspection requirements contained within appendix A for the items listed below:

NSN	*Nomenclature*
1040-00-736-3230	Service Kit, Portable Flame thrower, Riot Control Agent Disperser, M27
1040-00-605-6297	Test Gage Assembly, Pressure Cylinder
1040-00-654-5743	Test Gage Assembly, Fuel Tank, M2A1
1040-00-859-2207	Hose Assembly, charging
1040-00-862-2540	Hose Assembly, pneumatic
1040-00-898-1284	Test Gage Assembly, Fuel Tank M9
1040-00-898-1285	Test Gage Assembly, Agent Tank, M3
4720-00-289-2630	Hose Assembly, Rubber
4720-00-289-6044	Hose Assembly, Rubber
4720-00-384-0494	Hose Assembly, Rubber

E-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when the TRC of this appendix (4CD) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection efforts that need be expended to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299. Also, provide copies of related correspondence to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAC-R, Aberdeen Proving Ground, MD 21010.

E-3. Instructions. *a. References.*

(1) *Technical manual.*

TM 3-1040-221-12	Service Kit, Portable Flamethrower-Riot Control Agent Disperser, M27

(2) *Supply catalog.*

SC1040-94-CL-E02	Service Kit, Portable Flamethrower-Riot Control Agent Disperser, M27.

b. Basis of Surveillance. Surveillance for the M27 Riot Control Agent Disperser Service Kit and major components shall be conducted on the basis of grand, manufacturer's, or miscellaneous lots. Miscellaneous lot size shall not exceed 500 items.

c. Sampling. Sampling of lots shall be conducted as required by paragraph 2-4 and as follows:

(1) *For visual examination.* The sample quantity as indicated in the sampling plan, paragraph 2-4, shall be randomly selected from the lot.

NOTE

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation processes, a selection of samples for end item visual examination is permissible.

(2) *For tests*. Use MIL-STD-105, Inspection Level S-1, AQL of 0.65 percent for sampling. The acceptance number for critical defects is zero. Samples shall be randomly 'selected from the sample obtained (1) above. If the visual inspection sample is the same size as that required for testing, the entire sample shall be subjected to test. Should the sample of visually acceptable items be smaller than that required for testing, additional samples shall be selected from the lot.

E-4. Inspection Procedure. Samples shall be visually inspected for defects resulting from the applied packaging, packing, marking, and preservation processes. The defects are identified in table E-1. The end item samples shall be visually inspected for the defects listed in Table E-2. Samples

of major component items shall be visually inspected for the defects listed in tables E-3, E-4, E-5, E-6, E-7, and E-8. The required samples for testing of visually-acceptable items shall be subjected to the applicable tests described in c below. Tables E-2 through E-10, in addition to providing classification of visual defects, provide classification of test failures. The classification of test failures is provided to differentiate between the test failures to be considered as critical, wherein one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failures to be considered as major, wherein acceptance or rejection of the lot would be based on the acceptance number of the sampling plan.

a. Classification of Defects for packaging, Packing, Marking, and Preservation.

Table E-1. Packaging, Packing, Marking, and Preservation, Service Kit M27, NSN 1040-00-736-3230

Category defect No.	Defect	Inspection method
Critical	None defined.	
Major:		
101	Shipping or inner containers damaged, deteriorated, or weathered to the extent that contents cannot be adequately protected and containers require replacement.	Visual
102	Inner container wet or mildewed.	Visual
103	Loose pack (packing so loose that contents have been damaged or are in danger of being damaged).	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:		
201	Slight damage to shipping or inner containers but not affecting protection of contents.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual

b. Classification of Defects for End Items.

Table E-2. Service Kit, Portable Flamethrower-Riot Control Agent, Disperser, M27 NSN 1040-00-736-3290

Category defect No.	Defect	Inspection method
Critical:		
1	Rubber hose assembly leakage-air pressure or hydrostatic pressure (refer to table E-7).	Test, paragraph E-4*c*(1)
2	Rubber hose assembly-binding of spindle (refer to table E-7).	Test, paragraph E-4*c*(1)
3	Fuel tank test gage assembly leakage (refer to tables E-3 and E-5).	Test, paragraph E-4*c*(2)
4	Agent tank test gage assembly leakage (refer to table E-6).	Test, paragraph E-4*c*(3)
5	Pressure cylinder test gage assembly, leakage (refer to table E-4).	Test, paragraph E-4*c*(4)
6	Flexible low pressure hose leakage (refer to table E-8).	Test, paragraph E-4*c*(5)
Major:		
101	Pressure gage out of calibration (refer to tables E-4, E-5, and E-6).	Test, paragraph E-4*c*(2), (3), and (4)
102	Component missing (refer to TM 3-1040-221-12).	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table E-3. Test Gage Assembly, Fuel Tank, M2A1 NSN 1040-00-654-5743

Category defect No.	Defect	Inspection method
Critical		
1	Leakage test failure.	Test paragraph E-4ci2)
Major.		
101	Pressure gage out of calibration.	Test, paragraph E-4c(21
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor.	Refer to "Quality Defect Codes "in appendix A.	Visual

Table E-4. Test Gage Assembly, Pressure Cylinder NSN 1040-00-605-6297

Category defect No.	Defect	Inspection method
Critical'		
1	Leakage test failure.	Test, paragraph E-4*c*(4)
Major:		
101	Pressure gage out of calibration.	Test, paragraph E-4c(4)
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table E-5. Test Gage Assembly, Fuel Tank, M9 NSN 1040-00-898-1284

Category defect No.	Defect	Inspection method
Critical.		
1	Leakage test failure.	Test, paragraph E-4*c*(2)
Major:		
101	Pressure gage out of calibration.	Test, paragraph E-4*c*(2)
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table E-6. Test Gage Assembly, Agent, Tank, M3 NSN 1040-00-898-1285

Category defect No.	Defect	Inspection method
Critical:		
1	Leakage test failure.	Test, paragraph E-4*c*(3)
Major.		
101	Pressure gage out of calibration.	Test, paragraph E-4c(3)
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table E-7. Hose Assembly, Rubber, NSN 4720-00-289-2630, and NSN 4720-00-384-0494; Charging, NSN 1040-00-859-2207; and Pneumatic, NSN 1040-00-862-2540

Category defect No.	Defect	Inspection method
Critical'		
1	Air pressure or hydrostatic pressure leakage.	Test, paragraph E-4*c*(1)
2	Binding of spindle.	Test, paragraph E-4*c*(1)
Major:	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	None defined.	

Table E-8. Hose Assembly, Rubber NSN 4720-00-289-6044

Category defect No.	Defect	Inspection method
Critical'		
1	Leakage.	Test, paragraph E-4*c*(5)
Major:	Refer to "Quality Defect Codes" in appendix A.	Visual

c. Tests.

WARNING

Only authorized personnel (those thoroughly trained in the operation of the flamethrower) are permitted to charge, service, or function the items in the service kit. Personnel shall wear approved eye protective equipment when conducting tests involving the use of air pressure, hydrostatic pressure, etc. Firmly anchor all high pressure hoses, test specimens, or other pieces of equipment capable of being propelled in the event of rupture. Examine test samples and test equipment for foreign matter prior to testing. Isolate the test equipment and conducting hydrostatic tests. Where possible, locate pressure gages and operating controls a safe distance from the test site. When con-

ducting a visual examination for leakage, a shield shall be used. The shield should be of sufficient strength to withstand an impact resulting from a rupture of the test equipment or specimen.

(1) *Hose assemblies*. Rubber, (NSN 4720-00-384-0494, also identified as Needle Valve and Hose Assembly), Rubber (NSN 4720-00-289-2630), Charging (NSN 1040-00-859-2207), and Pneumatic (NSN 1040-00-862-2540).

(a) High pressure test requirement. The hose assembly shall not leak and the spindle must work freely without binding when subjected to an internal air pressure of 3500 + 50 pounds per square inch gage (psig) for a minimum period of 60 seconds when tested as specified.

1. Equipment required

a. Regulated air pressure source (3600 psig).

b. Water tank and water.

2. Procedure.

a. Subject the hose assembly to the specified internal air pressure for the specified time with the assembly submerged to a depth of 6 + 1 inch.

b. Do not exceed a pressurizing rate of 500 psig per minute.

c. Observe for bubbles which indicate leakage and verify that the spindle works freely without binding.

d. Release the pressure, dry the hose assembly, and return serviceable assemblies to storage.

(b) Hydrostatic test requirement. The hose assembly shall not leak when subjected to an internal hydrostatic (water), pressure of 3500 + 50 psig for a minimum period of 60 seconds.

NOTE

Subject each high pressure hose assembly to a hydrostatic test immediately prior to issue, when the service kit has been in storage over five years. The latest date of test must appear on a metal tag affixed to the hose. In addition, ensure that the date on the forms required by TM 38-750 is the same as the date on the hose.

1. Equipment required. Regulated source of hydrostatic (water) pressure (3600 psig).

2. Procedure.

a. Subject the hose assembly to the specified internal hydrostatic (water) pressure for the specified time.

b. Do not exceed a pressurizing rate of 500 psig per minute.

c. Fluid seepage shall indicate leakage.

d. Release the pressure, dry the hose assembly, and return serviceable assemblies to storage.

(2) *Test gage assemblies, fuel tanks.* Assemblies for Portable Flamethrowers M2A1 and M2A1-7 (assembly NSN 1040-00-654-5743), and M9-7 and M9A1-7 (assembly NSN 1040-00-898-1284).

(a) Requirements

1. The assembly shall not leak and shall maintain an internal air pressure of 600-20 psig for a minimum period of 60 seconds when tested as specified.

2. The test gage shall be accurate to ± 20 psig.

(b) Equipment required.

1. Regulated air pressure source (650 psig).

2. Water tank and water.

(c) Procedure.

1. Subject the fuel tank test gage assembly to an internal air pressure of 600-20 psig for a minimum period of 60 seconds with the assembly submerged to the bottom of the gage.

2. Do not exceed a pressurizing rate of 500 psig per minute.

3. Do not allow water to contact the gage.

4. Observe for bubbles which indicate leakage.

5. Verify that 600-20 psig is maintained for a minimum of 60 seconds.

6. Check the test gage for a minimum accuracy of ± 20 psig. Any gage out of calibration shall be readjusted, recalibrated, and retested.

7. Release the pressure, dry the fuel tank test gage assembly, and return serviceable assemblies to storage.

(3) *Test gage assembly, agent tank (NSN 1040-00-898-1285).*

(a) Requirements.

1. The assembly shall not leak and shall maintain an internal air pressure of 100 ± 5 psig for a minimum period of 60 seconds when tested as specified.

2. The test gage shall be accurate to ± minor scale division.

(b) Equipment required

1. Regulated air pressure source (120 psig).

2. Water tank and water.

(c) Procedure.

1. Subject the agent tank test gage assembly to an internal air pressure if 100 + 5 psig for a minimum period of 60 seconds with the assembly submerged to the bottom of the gage.

2. Do not exceed a pressurizing rate of 500 psig per minute.

3. Do not allow water to contact the gage.

4. Observe for bubbles which indicate leakage.

5. Verify that 100 ± 5 psig is maintained for a minimum period of 60 seconds.

6. Check the test gage for a minimum accuracy of ± 1 minor scale division. Any gage out of calibration shall be readjusted, recalibrated, and retested.

7. Release the pressure, dry the agent tank test gage assembly, and return serviceable assemblies to storage.

(4) *Test gage assembly, pressure cylinder (NSN 1040-00605-6297).*

(a) Requirements.

1. The pressure cylinder test gage assembly shall not leak and shall maintain an internal air pressure of 3000-50 psig for a minimum period of 60 seconds when tested as specified.

2. The test gage shall be accurate to ± 1 minor scale division.

(b) Equipment required

1. Regulated air pressure source (3200 psig).

2. Water tank and water.

(c) Procedure.

1. Subject the pressure cylinder test gage assembly to an internal air pressure of 3000-50 psig for a minimum period of 60 seconds with the assembly submerged to the bottom of the gage.

2. Do not exceed a pressurizing rate of 500 psig per minute.

3. Do not allow water to contact the gage.

4. Observe for bubbles which indicate leakage.

5. Verify that 3000-50 psig is maintained for a minimum of 60 seconds.

6. Check the test gage for a minimum accuracy of ± 1 minor scale division. Any gage out of calibration shall be readjusted, recalibrated, and retested.

7. Release the pressure, dry the pressure cylinder test gage assembly, and return serviceable assemblies to storage.

(5) *Hose assembly, rubber (flexible low-pressure aircraft hose) (NSN 1040-00-289-6044).*

(a) Requirements.

1. The hose shall not leak when subjected to an internal air pressure of 20 ± 5 psig for a minimum period of 60 seconds when tested as specified.

2. The hose must not show signs of aging or other deterioration before or after the air pressure test.

(b) Equipment required

1. Regulated air pressure source (25 psig).

2. Water tank and water.

(c) Procedure.

1. Examine the hose for signs of aging or other deterioration.

2. Subject the hose to an internal air pressure of 20 ± 5 psig for a minimum period of 60 seconds with the hose submerged.

3. Observe for bubbles which indicate leakage.

4. Release the pressure and dry the hose.

5. Return serviceable hoses to storage.

APPENDIX F
QUALITY ASSURANCE INSPECTION INSTRUCTION
STORAGE SERVICEABILITY STANDARD ADDENDUM
DISPERSER, RIOT CONTROL AGENT, HELICOPTER OR VEHICLE MOUNTED, M5 TRC 4CE

F-1. Purpose. This quality assurance inspection instruction provides peculiar instructions and inspection requirements, in addition to those coded inspection requirements contained within appendix for the item listed below:

NSN	*Nomenclature*
1040-00-805-3019	Disperser, Riot Control Agent, Helicopter or Vehicle Mounted, MS
1040-00-081-8297	Cylinder, Compressed Gas
1040-00-084-8158	Container Assembly
4820-00-079-8887	Valve Safety, Relief Spring Loaded

F-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when the TRC of this appendix (4CE) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection efforts that need be expended to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299. Also, provide copies of related correspondence to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAC-R, Aberdeen Proving Ground, MD 21010.

F-3. Instructions. *a. References.*

TM 3-1040-220-12&P	Disperser, Riot Control Agent, Helicopter or Vehicle Mounted, M5.
TM 3-1040-220-34&P	Disperser, Riot Control Agent, Helicopter or Vehicle Mounted, M6.
TM 3-1040-251-15	Test Set, Flamethrower-Riot Control Agent Disperser, Hydrostatic-and-Volumetric, 6000 PSI, M5.

b. Surveillance Interval. Except for the volumetric, hydrostatic, and pressure tests, perform surveillance of the disperser and major components by the IFC specified in appendix A.

(1) *Volumetric Test*. Subject the compressed gas cylinders to a volumetric test every 60 months.

(2) *Hydrostatic Test*. Subject spare container assemblies to a hydrostatic test every 60 months.

(3) *Pressure Tests*. Subjects the disperser container assembly (disperser agent tanks), relief safety valve, and gun assembly to a pressure test every 60 months.

c. Basis of Surveillance. Surveillance for the MS Helicopter or Vehicle Mounted Riot Control Agent Disperser and major components shall be conducted on the basis of grand, manufacturer's, or miscellaneous lots. Miscellaneous lot size shall not exceed 500 items.

d. Sampling. Sampling of lots shall be conducted as required by paragraph 2-4, and as follows:

(1) *For visual examination.* The sample quantity as indicated in the sampling plan, paragraph 2-4 shall randomly selected from the lot.

NOTE:

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation processes, a selection of samples for end item visual examination is permissible.

(2) *For tests.* Use MIL-STD-105, Inspection Level S-1, AQL of 0.65 percent for sampling. The acceptance number for critical defects is zero. Samples shall be randomly selected from the sample obtained in (1) above except that the pressure tests, F-4*c*(2), F-4*c*(3), and F-4*c*(4), shall be conducted on a unit basis. If the visual inspection sample is the same size as that required for testing, the entire sample shall be subjected to test. Should the sample of visually acceptable items be smaller than that required for testing, additional samples shall be selected from the lot.

e. Marking. Prior to release from depot, ensure that the latest hydrostatic test date is stamped on the shoulder just below the neck of the compressed gas cylinders and stamped on the outside surface of the steel support facing the pressure group for agent containers. Confirm that the date shown on the records required by TM 38-750 is the same as the

stamped date. The dates are coded numbers representing the month and the year, e.g., 1-79, with 1 for January through 12 for December, with 79 for 1979 of 80 for 1980, etc. Ensure that the records required by TM 38-750 reflect the date of the latest hydrostatic test.

F-4. Inspection Procedure. Samples shall be visually inspected for defects resulting from the applied packaging, packing, marking, and preservation processes. The defects are identified in table F-1. The end item samples shall be visually inspected for the defects listed in table F-2. Samples of major component items packed separately shall be visually inspected for defects listed in tables F-3, F-4, and F-5. The required samples for testing of visually acceptable items shall be subjected to the applicable tests described in c below. Tables F-2, F-3, F-4, and F-5 in addition to providing classification of visual defects, provides classification of test failures. The classification of test failures is provided to differentiate between the test failures to be considered as Critical, wherein one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failures to be considered as major, wherein acceptance or rejection of the lot would be based on the acceptance number of the sampling plan.

a. Classification of Defects for Packaging, Packing, Marking, and Preservation.

Table F-1. Packing, Packing, Marking, and Preservation, Disperser, M5 NSN 1040-00-805-3019

Category defect No.	Defect	Inspection method
Critical:	None defined.	
Major:		
101	Shipping or inner containers damaged, deteriorated, or weathered to the extent that contents cannot be adequately protected and containers require replacement.	Visual
102	Inner container wet or mildewed.	Visual
103	Loose pack (packing so loose that contents have been broken or are in danger of being broken).	
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:		
201	Slight damage, deterioration, or weathering to outer or inner con-	

b. Classification of Defects for End Items.

Table F-2. Disperser, Riot Control Agent, Helicopter or Vehicle Mounted, M5 NSN 1040 00-805-3019

NOTE

Refer to tables F-3, F-4, and F-5 for the classification of defects for major components packed separately.

NOTE

Refer to appendix B, table B-5, of this bulletin for the classification of defects for Gun, Portable, Riot Control Agent, Disperser, M9, NSN 1040-00-771-4557, when stocked separately.

Categories defect No.	Defect	Inspection method
Critical.		
1	Leakage and functioning test failure.	Test, paragraph F-4*c*(1)
2	Pressure cylinder permanent volumetric expansion test failure (refer to table F-3).	Test, paragraph F-4*c*(2)
3	Container assembly, ball valve, check valve and nozzle leakage test failure.	Test paragraph F-4*c*(3)
4	Container assembly (spare) leakage test failure (refer to table F-4).	Test paragraph F-4*c*(4)
5	Hose assemblies damaged (kinked, split, etc.).	Visual
6	Relief valve function test failure (refer to table F-5).	Test, paragraph F-4*c*(5)
7	Gun assembly leakage and functioning test failure (refer to table B-6).	Test, paragraph B-4c(4)
Major:		
101	Pressure cylinder dented.	Visual
102	Corrugated hose cracked or split.	Visual
103	Corrugated hose quick disconnect inoperative.	Visual
104	Hydrostatic test date missing (container and pressure cylinder).	Visual
105	Base assembly broken.	Visual
106	High pressure gage damaged.	Visual

Categories defect No.	Defect	Inspection method
107	Low pressure gage damaged.	Visual
108	Gun trigger movement rough or jerky (refer to table B-5).	Test, paragraph B-4*c*(4)
109	Gun safety catch inoperative.	Test, paragraph F-4*c*(6)
110	Gun rubber tube cut or cracked.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:		
201	Paint missing or damaged.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual

Table F-3. Cylinder, Compressed Gas NSN 1040-00-081-8297

Category defect No.	Defect	Inspection method
Critical:'		
1	Pressure cylinder permanent volumetric expansion test failure.	Test, paragraph F-4*c*(2)
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Major:		
101	Pressure cylinder dented.	Visual
102	Hydrostatic test date missing.	Visual
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table F-4. Container Assembly NSN 1040-00-084-8158

Category defect No.	Defect	Inspection method
Critical:		
1	Container assembly (spare) leakage test failure.	Test, paragraph F-4c(4)
Other	Refer to "Quality Defect Codes" in appendix A.	Visual
Major:		
101	Container assembly dented.	Visual
102	Hydrostatic test date missing.	Visual
Other	Refer to "'Quality Defect Codes" in appendix A.	Visual
Minor:	Refer to "Quality Defect Codes" in appendix A.	Visual

Table F-5. Valve, Safety, Relief NSN 4820-0079-8887

Category defect No.	Defect	Inspection method
Critical:		
1	Relief valve function test failure.	Test, paragraph F-4c(5)
Major:	Refer to "Quality Defect Codes" in appendix A.	Visual

c. Tests.

WARNING

Only authorized personnel (those thoroughly trained in the operation of the disperser) are permitted to charge, service or function the disperser. Personnel shall wear approved eye protective equipment when conducting tests. Firmly anchor all pressure hoses, test specimens or other pieces of equipment capable of being propelled in the event of rupture. Examine test samples and test equipment for foreign matter prior to testing. Isolate the test equipment and specimens when conducting hydrostatic or functional tests. Where possible, locate pressure gages and operating controls a safe distance from the test site. When conducting a visual examination for leakage, a portable shield mounted on casters may be used. The shield should be of sufficient strength to withstand an impact resulting from a rupture of the test equipment or specimen. (1) M5 disperser, functioning and leakage.

(a) Requirements. The disperser shall function and not leak when the high pressure system is

charged with 2000 ± 100 pounds per square inch gage (psig) of air and tested as specified.

(b) Equipment required

1. A regulated pressure source (2000 ± 100 psig).

2. Leak testing solution.

(c) Procedure.

1. Pressurize the high pressure system with the required pressure, using clean dry air.

2. Open the high pressure valve. The low pressure gage shall indicate 45 to 55 psig.

3. Slowly open the low pressure valve. When the low pressure valve is fully open, the low pressure gage shall still indicate 45 to 55 psig.

4. Using a soap solution or suitable leak detecting solution, examine all joints and fittings for leakage.

5. Fully open and close the ball valve three times to allow short bursts (open valve for approximately 5 seconds) of air to escape. After each burst of air, leave the valve closed long enough for the low pressure to stabilize. The low pressure gage shall indicate 45 to 55 psig.

6. Open the ball valve to expel all the air.

7. When air no longer escapes from the low pressure system, open the charging valve to expel any excess air from the high pressure system.

(2) *Permanent volumetric expansion.* The compressed gas cylinders shall be tested in accordance with AR 700-68. Use any commercial or government facility that will test to 3750 psi. Label in accordance with TM 3-1040-251-15.

(3) *Container assembly (E 116-16-171), ball valve (D 116-6-208), Nozzle (D 116-6-163), and check valve assembly.* Test these components as an assembly.

(a) Requirement. No leakage or permanent deformation is allowed, except as indicated in the note below, when tested as specified.

(b) Equipment required

1. Regulated source of air pressure (150 psig).

2. Leak testing solution.

(c) Procedure.

1. Connect a controlled source of air pressure to the check valve.

2. Pressurize the assembled components to 125 ± 5 psig. Disconnect the source of pressure from the check valve.

NOTE

The M5 Test Set NSN 1040-00-050-7952 may be used, TM 3-1040-251-15.

3. Using a suitable leak detecting solution, examine all joints, the ball valve outlet, and the check valve inlet for leakage.

NOTE

If leakage is observed through the ball valve, reduce the pressure to 100 ± 10 psig and examine the outlet for leakage. No leakage is allowed at this pressure.

(4) *Container assembly (spare) (E 116-6-171).*

(a) Requirement. The spare container assembly shall not leak or permanently deform when subjected to a hydrostatic pressure of 125 ± 10 psig for a minimum period of 5 minutes when tested a specified.

(b) Equipment required.

1. Regulated source of hydrostatic pressure (150 psig).

2. O-Ring (AN 6230-10).

3. Cover plate (Dwg B 116-6-204).

4. Clamp assembly (Dwg B 116-6-177).

(c) Procedure.

1. Seal the adapter end of the container assembly using "O" ring (AN 6230-10), cover plate (Dwg B 116-6-204), and clamp assembly (Dwg B 116-6-177).

2. Connect a regulated source of hydrostatic pressure and a bleed valve to the plug seat at the top of the container.

3. Close the bleed valve, pressurize the container assembly to the specified pressure for the required period, and observe for leakage. Fluid seepage indicates leakage.

4. Shut off the pressure source and open the bleed valve to remove the pressure from the container.

5. Clean and dry the container.

(5) *Relief safety valve.*

(a) Requirement. The relief valve shall discharge air between 70 and 90 psig when tested as specified.

(b) Equipment required.

1. Regulated source of air pressure (100 psig).

2. Pressure gage.

(c) Procedure.

1. Connect the valve inlet to a controlled source of air pressure and a pressure gage.

2. Gradually increase the pressure at approximately 1 psig per second until 70 psig is applied to the valve.

3. Activate the manual override feature. Air should flow through the relief valve. Deactivate the override. Air flow should stop.

4. Increase the pressure at the same rate until either the valve relieves or 90 psig is obtained. If the valve does not relieve prior to 90 psig, the valve shall be rejected.

(6) *Gun Assembly Leakage and Functional Check.*

(a) Requirements.

1. No valve (gun) leakage is allowed.

2. Smooth trigger movement.

3. The lips of the safety must be able to hold the trigger in the full forward (safe) position.

(b) Equipment Required. A regulated air pressure source (90 psig) and a water tank with a wetting agent in the water.

(c) Procedure.

1. Follow the instruction in TM 3-1040-220-12 to assemble the gun group.

2. Connect a regulated pressure source of 75 ± 5 psig to the gun.

3. Immerse the complete gun into the water and observe for air bubbles.

4. Remove the gun nozzle from the water and actuate the trigger in a few short bursts, noting the smoothness of the trigger movement. A rough or "jerky" movement indicates binding of the trigger assembly, absence of lubricant, or a twisted rubber tube.

5. Repeat the leakage test by immersing the gun nozzle into the water and attempting to depress the trigger with the safety mechanism engaged. Do not force the safety latch. Observe for leakage.

6. Disassemble and dry the gun group and return serviceable guns to storage.

APPENDIX G
QUALITY ASSURANCE INSPECTION INSTRUCTION
STORAGE SERVICEABILITY STANDARD ADDENDUM
HOSE, FUEL, PORTABLE FLAMETHROWER, M8
TRC 4CF

G-1. Purpose. This Quality Assurance Inspection Instruction provides peculiar instructions and inspection requirements, in addition to those coded inspection requirements contained within appendix A for the item listed below:

NSN	Nomenclature
4720-00-839-3423	Hose Assembly, Rubber

G-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within Appendix A when the TRC of this appendix (4CF) is referenced in the TRC column of appendix A for a line item. These requirements are to be used with the coded requirements to provide an effective surveillance inspection plan encompassing the minimum inspection efforts that need be expended to determine materiel serviceability with an acceptable confidence level. The user shall not deviate from these requirements without prior permission from the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299. Also, provide copies of related correspondence to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAC-R, Aberdeen Proving Ground, MD 21010.

G-3. Instructions. *a. References.*

TM 3-1040-214-24P	Disperser, Riot Control Agent, Portable, M3.
TM 3-1040-25115	Test Set, Flamethrower-Riot Control Agent Disperser, Hydrostatic-and-Volumetric, 6000 psi, M5.

b. Surveillance Interval. Except for hydrostatic tests, perform surveillance of the hose by the IFC specified in appendix A. Subject each fuel hose to the hydrostatic test described in c below prior to issuing for service.

c. Basis of Surveillance. Surveillance for the M8 Hose Assembly for the Portable Flamethrower shall be conducted on the basis of manufacturer's, miscellaneous, or mixed lots. Miscellaneous or mixed lots shall not exceed 500 items.

d. Sampling. Sampling of lots shall be conducted as required by paragraph 2-4, and as follows:

(1) *For visual examination.* The sample quantity as indicated in the sampling plan, paragraph 2-4, shall be randomly selected from the lot.

NOTE

From the sample obtained for visual examination of the applied packaging, packing, marking, and preservation processes, a selection of samples for end item visual examination is permissible.

(2) *For tests*. Hydrostatic test each hose just prior to issue i.e., Unit Basis Inspection shall apply.

e. Marking. Prior to release from depot, ensure that a metal date tag or band has been attached to each fuel hose verifying the date of the hydrostatic test (see f below).

NOTE

This hose is usually procured as the M8 Fuel Hose, Flamethrowers, listed as "Hose Assembly, Nonmetallic" in technical manuals for the M2A1-7 Portable Flamethrower and the M3 Portable Riot Control Agent Disperser, and as "Hose Assembly, Rubber" in the Army Master Data File. The hose assembly does not include the quick-disconnect Coupling Half usually shown attached in illustrations.

f. Total Life. Total life of the fuel hose (M8) is five years from the date of manufacture stamped on the hose coupling at each end of the hose. Service life is two years from the date of issue stamped on the metal tag or band attached to the fuel hose. Storage life plus service life shall not exceed five years. Any hose exceeding the five-year total life shall be scrapped. To determine total hose life, read the date stamped on the metal tag or band as follows: A9-The first character, a letter, represents the month and the second character, a number, represents the year, i.e., A for January through L for December and 9 for 1979, or 0 for 1980, etc.

WARNING

Fuel hoses exceeding a total life of five years (storage plus service) or 24 months

service, whichever comes first, shall be removed from the flamethrower and scrapped. DO NOT ISSUE any hose exceeding a total life of five years, or any hose returned to the depot having exceeded a service life of two years.

G-4. Inspection Procedure. Samples shall be visually inspected for defects resulting from the applied packaging, packing, marking, and preservation processes. The defects are identified in table G-1. The end item samples shall be visually inspected for the defects listed in table G-2. The required samples for testing of visually-acceptable items shall be subjected to the tests described in c below. Table G-2, in addition to providing classification of visual defects, provides classification of test failures. The classification of test failures is provided to differentiate between test failures to be considered as critical, wherein one item failing the test would be cause for immediately suspending the lot from issue and use, and the test failures to be considered as major, wherein acceptance or rejection of the lot would be based on the acceptance number of the sampling plan.

a. Classification of Defects for Packing, Packaging, Marking and Preservation.

Table G-1. Packaging, Packing, Marking, and Preservation Hose, Fuel M8 NSN 4720-00-839-3423

Category defect No.	Defects	Inspection method
Critical:	None defined	
Major.		
101	Shipping or inner containers damaged, deteriorated, or weathered to the extent that contents cannot be adequately protected and containers require replacement.	Visual
102	Inner container wet or mildewed.	Visual
103	Loose pack(packing so loose that contents have been broken or are in danger of being broken).	Visual
104	Hose couplings not wrapped as specified.	Visual
105	Hose ends not capped or plugged.	Visual
Other	Refer to "Quality Defect Codes" in Appendix A.	Visual
Minor:		
201	Slight damage, deterioration, or weathering to outer or inner containers	Visual

b. Classification of Defects for End Item.

Table G-2. Hose, Fuel Portable Flamethrower, M8 NSN 4720-00-8393423

Category Defect No.	Defects	Inspection Method
Critical'		
1	Hydrostatic pressure test failure.	Test, paragraph G-4*c*
2	Identification marking incorrect, no date on hose.	Visual
3	Cracks or flaking of inside surface	Visual
4	Outer braid split.	Visual
5	Wire strands penetrating outer cover.	Visual
6	Rust spots on outer cover.	Visual
7	Hose kinked (any).	Visual
8	Hose exceeding a total life of five years.	Visual
9	Hose exceeding a service life of two years.	Visual
10	Permanent deformation.	Visual
Major		
101	Hydrostatic test date missing (metal tag or band) prior to issue.	Visual
Other	Refer to "Quality Defect Codes" in appendix A..	Visual

c. Test(Hydrostatic).

WARNING

Only authorized personnel (those thoroughly trained in the operation of the pressure testing equipment) are permitted to test the item. Personnel shall wear approved eye protective equipment when conducting tests. Personnel conducting high pressure testing (pressure in excess of 600 psig) must be shielded from the item while under test and the test

shall be observed by periscope, mirror or other device.

(1) *Requirement.* The hose assembly shall not leak when subjected to hydrostatic pressure of 625 ± 10 psig at room temperature for a minimum period of 30 seconds. Do not exceed a pressurizing rate of 500 psi per minute.

(2) *Equipment required.* The M5 Test Set, NSN 1040-00-050-7952, TM 3-1040-251-15 or other suitable hydrostatic test equipment.

(3) *Procedure.*

(a) Plug one end of the hose and connect the other end to the source of hydrostatic pressure. The test fluid shall be water.

(b) Gradually increase the pressure until 625 ± 10 psig is attained.

(c) Do not exceed a pressurizing rate of 500 psig per minute.

(d) Observe the hose for a-minimum period of, 30 seconds.

(e) Bleed off the pressure, drain, dry and repack the hose.

APPENDIX H
QUALITY ASSURANCE INSPECTION INSTRUCTIONS
STORAGE SERVICEABILITY STANDARD ADDENDUM
LAUNCHER, PROJECTILE, 64 MILLIMETER:
RIOT CONTROL, M234
TRC 4KF

H-1. Purpose. This Quality Assurance Inspection Instruction provides peculiar instructions and inspection requirements in addition to those coded inspection requirements contained within appendix A for the item listed below:

NSN	*NOMENCLATURE*
1010-01-014-6506	Launcher, Projectile, 64 Millimeter: Riot Control, M234

H-2. Policy. The inspection requirements cited herein form an integral portion of the coded inspection requirements contained within appendix A when referenced in the Test Required Code (TRC) column for the related line item. These requirements will be used in conjunction with the coded requirements to provide an effective surveillance inspection plan. This inspection plan identifies the minimum inspection efforts that need be expended to determine materiel serviceability with an acceptable confidence level. The user will not deviate from these requirements without prior permission from Commander, U.S. Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAL-C (R), Rock Island, IL 61290-6000. Copies of correspondence will be provided the Commander, U.S. Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QAC-R (A), Aberdeen Proving Ground, MD 21010-5423.

H-3. Instructions. *a. References.*

TM 9-1010-224-10	Operator's Manual, Launcher, Projectile, 64 Millimeter: Riot Control, M234 (NSN 1010-01-014-6506)

b. Basis of surveillance. Surveillance for the item listed in paragraph H-1 will be conducted on the basis of manufacturer's, grand, depot, miscellaneous or mixed lots. Miscellaneous or mixed lot size shall not exceed 200 items.

c. Sampling. Sampling of lots for visual examination shall be conducted in accordance with the requirements of paragraph 2-4 of this bulletin and with MIL-STD-105 using the Inspection Level (IL) and Acceptable Quality Level (AQL) as specified in appendix A.

NOTE

It is permissible to select samples for end item visual examination from the samples obtained for visual examination for preservation, unit packing, packing, and marking.

H-4. Inspection Procedures. Samples shall be visually inspected for preservation, unit packing, packing and marking defects as identified in Table H-1. The end item samples and components thereof shall be visually inspected for the defects listed in Table H-2.

a. Classification of defects for preservation, unit packing, packing, and marking. Refer to Table H-1.

Table H-1. Preservation, Unit Packing, Packing, and Marking Launcher, Projectile, 64 MM Riot Control, M234

Category	Defect Number	Defects	Inspection Method
Critical:		None defined	
Major:			
	101	Shipping or inner container damaged or weathered to the extent that contents cannot be adequately protected and containers require replacement.	Visual
	102	Inner container wet or mildewed.	Visual
	Other	Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	201	Slight damage to shipping or inner container but not affecting protection of contents.	Visual
	Other	Refer to Quality Defect Codes in appendix A.	

b. Classification of defects for end item. Refer to table H-2.

NOTE

Inspection of the launching cup and attached parts requires the removal of the launching cup from the launcher. Refer to TM 9-1010-224-10 for disassembly and reassembly instructions.

Table H-2. Launcher, Projectile, 64 Millimeter: Riot Control, M234, NSN 1010-01-014-6506

Categories	Defect Numbers	Defects	Inspection Method
Critical:		None defined	
Major:			
	101	Component missing (refer to TM 9-11010-224-10).	Visual
	102	Launcher body cracked or dented.	Visual
	103	Front or rear sight cracked, broken, or bent.	Visual
	104	Retaining pin broken or bent.	Visual
	105	Launcher cup cracked, dented, or corroded.	Visual
	106	Launcher cup keys missing, cracked, or broken.	Visual
	107	Buffer cracked, distorted, or deteriorated.	Visual
	108	Manifold cracked, broken, or distorted.	Visual
	109	Retaining plate cracked, broken, or distorted.	Visual
	Other	Refer to Quality Defect Codes in appendix A.	Visual
Minor:			
	Other	Refer to Quality Defect Codes in appendix A.	Visual

By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

J. C. PENNINGTON
Major General, United States Army
The Adjutant General

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P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

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: 044896-000