D E P A R T M E N T O F T H E A R M Y S U P P L Y B U L L E T I N

STORAGE SERVICEABILITY STANDARDS FOR ARRCOM MATERIEL FLAMETHROWERS, FLAME ROCKET LAUNCHER AND ANCILLARY ITEMS

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Storage Serviceability Standards for ARRCOM Materiel FLAMETHROWERS, FLAME ROCKET LAUNCHERS AND ANCILLARY ITEMS

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TABLES

SECTION I

INTRODUCTION

1-1. Purpose. This supply bulletin provides the basic information and detail inspection procedures required to determine the serviceability status of flamethrowers, flame rocket launchers 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 materiel listed by National Stock Number in appendix A. The provisions of this bulletin apply to all Department of the Army Depots and depot activities in CONUS and OCONUS. 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. (defect code 90 see paragraph 2-6a*.) Discoloration, staining, no direct visual evidence of pitting, etching, or other surface damage.

(2) *Stage II* corrosion*, metals. (defect code 90 see paragraph 2-6a.)* Loose red, brown, green, black or white corrosion product accompanied with etching, and pitting of surface.

(3) *Stage III* corrosion*, metals. (defect code 92 see paragraph 2-6a.)* Red, brown, green, black or white corrosion product accompanied with etching, pitting, or more extensive surface deterioration. Loose or granular condition.

(4) *State IV corrosion, metals. (defect code 93 see paragraph 2-6a.)* 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 severe pits or irregular areas of material removed from the surface of the item.

(5) *Deterioration.* A change in an item's characteristics caused by its environment which adversely affects its ability to function as intended.

(a) Deterioration, polymeric plastic items (molded organic compounds) (celluloid, bakelite, lucite, vinyl, rubber, etc.).

Stage I (Defect Code 94A¾	Fungus Damage, Color Change, Distortion
Stage II (Defect Code 94B¾ see Paragraph 2-6a.)	Sticky Surface, Craze, Cracked Dissolved Paint, Small Cracks.
Stage III (Defect Code 94C¾ see paragraph 2-6a.)	Liquefied Material, Large Cracks, Crumbly (brittle), Fractured (broken), progressed to where fit, function or life has been affected.

(b) Deterioration, polymeric *non-plastic items (non-molded organic components) (cloth, leather, hair, fur, felt, paper, cork, cardboard, wood, etc.)*

Stage I (Defect Code 95A¾ see paragraph 2-6a.)	Mold, Fungus Damage, Color Change.
Stage II (Defect Code 95B¾ see paragraph 2-6a.)	Shredding, Warped, Shrunk Distorted, Frangible, Small Separations (cracks, tears), slightly swelling.
Stage III (Defect Code 95C¾ see paragraph 2-6 a.)	Gross swelling, Soggy, Large Cracks, Rot, Insect Infestation, Brittle Disintegration, Large or Complete Separations, to where fit, function or life has been affected.

(c) Deterioration, inorganic vitreous items (glass, ceramic, solid carbon, etc.).

Stage I (Defect Code 96A¾ see paragraph 2-6a.)	Small Cracks, Crazed (crackled surface).
Stage II (Defect Code 96B¾ see paragraph 2-6a.)	Spalling (chipped), Fractured (broken, major cracks or splits), progressed to where fit, function or life has been affected.

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

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

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

(9) *Manufacturer's lot.* A quantity of an item of material 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).

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

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

(12) *Occurrence basis*. A frequency of inspection without a predetermined time frame which is performed as the need occurs, i.e., Initial receipt (IR) inspection is performed when the shipment ar-rives.

(13) *Periodic cycle inspection (P).* Surveillance performed on materiel in storage on a cyclic basis as established in appendix A. The purpose is to determine the serviceability status of items at the end of each cycle.

(14) *Pre-issue inspection (PI).* A pre-issue inspection is the inspection and/or tests on materiel immediately prior to issue.

(15) *Prestorage inspection (PS).* A prestorage inspection is the 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 serviceability status is unknown.

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

(17) *Serviceable*. Condition of an item which as a result of surveillance inspection has been determined to be satisfactory and safe for its intended use.

(18) *Shelf-life code (SLC).* A code assigned to a shelf-life item to identify the period of time, beginning with the date of manufacture/cure/assembly and terminated by a date by which the item must be used or be subjected to inspection/test/restorative or 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 inservice. 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 and/or actual experience, to be an item with a definite non-extendible period of shelf-life.

(b) Type II shelf-life item. An item of supply sing an assigned shelf-life time period which may extended after completion of prescribed inspection/test/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 serviceability determination of materiel in storage.

NOTE

Storage Serviceability Standards are published as DA Supply Bulletins.

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

(23) *Unit basis inspection*. Inspection on a unit basis is a procedure for inspection where each unit in 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*. Condition of an item which as a result of surveillance inspection has been determined to be unsatisfactory or unsafe for its ended use.

1-4. Errors or Omissions. Comments regarding errors or omissions to this bulletin will be forwarded DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Commander, Army Armament Materiel Readiness Command, ATTN: DRSAR-QAA, Rock Island, IL 61299; and an information copy to the Commander, U. S. Army Armament Research and Development Command, ATTN: DRDAR-QAA, Dover, NJ 07801.

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	—Department of the Army Information Security Program be Regulation.
AR 702-7	—Reporting of Quality Deficiency Data
AR 725-50	—Requisitioning, Receipt, and Issue System
AR 750-25	—Army Metrology and Calibration System
FM 3-9	—Military Chemistry and Chemical Compounds
TM 3-220	—Chemical, Biological and Radiological Decontamination
TM 3-250	—Storage, Shipment Handling (1) Kind, and Disposal of Chemical Agents and Hazardous Chemicals
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 flamethrower, flame rocket launcher, or ancillary item are cited in the appendix for that item(s).

2-2. Safety. During surveillance and handling of items, inspection personnel shall observe the safety precautions prescribed for operating personnel, the safety precautions cited in applicable regulations, technical manuals describing the materiel, and 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 for the item(s) identified therein.

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, it appears that a lot or lots within the depot lot may be unserviceable, the lot or lot(s) concerned will be withdrawn and additional samples taken in accordance with the sampling plan provided in the applicable appendix of this bulletin. If the suspect lot is found serviceable, it remains a part of the depot lot. If 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 have 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 of 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 on prior surveillance) or serviceability will be based on acceptance inspection in lieu of prior 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, lot or lots within the grand lot may be unserviceable, the lot(s) concerned will be withdrawn and additional samples taken in accordance with the sampling plan provided in the applicable appendix of this bulletin. If the suspect lot is found serviceable, 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 have become unserviceable, the grand lot shall be dissolved and the individual lots therein tested on a lob-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 on prior surveillance) or serviceability unknown. However, when new procurement is involved, serviceability will be based on acceptance inspection in lieu of prior 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 on prior surveillance) or, serviceability unknown. However, when new procurement is involved, serviceability will be based on acceptance inspection in lieu of prior surveillance.

e. *Miscellaneous Lot*. A miscellaneous lot is formed by combining small manufacturer's lots or lot fragments into-one lot. The size of miscellaneous lots is 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 the 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 on prior surveillance), or serviceability unknown. However, when new procurement is involved, serviceability will be based on acceptance inspection in lieu of prior surveillance.

f. Mixed Lot. A mixed lot is formed by combining those items with incomplete identification into one lot. The size of the mixed lot is 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 may be declared unserviceable as a whole. A mixed lot must meet criteria as follows:

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

(2) *Packing and packaging*. All items must be of the same type packing and packaging.

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

2-4. Sampling. *a. Initial Receipt Inspection (IR)*. Sampling shall be conducted in accordance with this paragraph and MIL-STD-105, Single Sampling Plan, Inspection Level S2, AQL of 4.0 percent for major defectives and 10.0 percent for minor defectives.

b. Prestorage Inspection *(PS)*. Sampling shall be conducted in accordance with this paragraph and MIL-STD-105, Single Sampling Plan, Inspection Level S2, AQL of 4.0 percent for Major Defectives and 10.0 percent for Minor Defectives.

c. *Periodic Cycle Inspection (P)*. Sampling shall be conducted in accordance with this paragraph and MIL-STD-105 utilizing 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.

d. Pre-Issue Inspection (PI). Sampling, if required, 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 it impossible to obtain a proper random sample, this fact and a brief description of the condition that prevents random sampling will be recorded under the remarks section of DA Form 984, (Munitions Surveillance Report).

(3) In selecting samples from the depot lots, grand lots, or miscellaneous lots, the items chosen shall adequately represent all materiel. To assure representativeness of the sample in the depot lot, grand lots, or miscellaneous lots, 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 packed in barrier material, which have been inspected and resealed will 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 will 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 will be segregated and reported.

2-5. Inspection. All inspection and tests shall be conducted under the control of a qualified inspector. The inspection and/or tests normally will be conducted at the surveillance inspection area; however, when authorized, examinations and 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*. The following be used to evaluate the incoming materiel.

Table 2-1. Initial Receipt Inspection.

Categories	Defects	Inspection method
Critical	None defined.	
Major:		
101	Item damaged.	Visual
102	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
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 accordance with the provisions of this bulletin. In addition, failure data and/or discrepancies encountered will be reported on SF 368 (Quality Deficiency Report) in accordance with AR 702-7.

b. Prestorage Inspection *(PS).*

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

(2) *Examination and test*. When on-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) of this bulletin for the item(s). All lots shall be examined for receipt condition utilizing the following table.

Table 2-2. Prestorage Inspection.

Categories	Defects	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	Packing, packaging, preservation, or marking incorrect.	Visual
Minor:		
201	Slight damage to packing or packaging.	Visual

(3) *Reporting*. Initial receipt inspection shall be reported on DA Form 984 in accordance with the provisions of this bulletin.

Prestorage inspection shall be reported on DA Form 984 in accordance with the provisions of this bulletin.

c. Periodic Cycle Inspection (P).

(1) *Frequency*. This inspection shall be performed at the frequency indicated in appendix A.

(2) *Examination and test*. Examination and test shall be performed in accordance with appendix A and the applicable appendix (TRC) for the item(s).

(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*. Prior to shipment of the item(s)

(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 an the applicable appendix (TRC) for the item(s). 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.

applicable appendix (TRC) for the item(s). 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 when it is 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 of this bulletin 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.

a. Quality Defect Codes. Quality defect codes are given as a three-digit number. 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	*Group*
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). Group "0" (cleaning, preservation, painting, plating, or other processing).*

Quality defect code	*Explanation*
00	Appearance (paint runs, overspray, not uniform, not up to standard.
01	Cleaning improper or inadequate.
02	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.
05	Inadequate coverage or improper thickness.
06	Improper or inadequate preparation.
07	Wrong type, method, and color.
08	Drying improper or inadequate.
09	Reserved for future use.

Group 1 (Packaging)

Quality defect code	*Explanation*
10	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.

Group 2 (Packing and Loading)

Quality defect code	*Explanation*
20	Improper loading, blocking, bracing, tiedown, etc.
21	Stapling, nailing, strapping, and/or banding improper or inadequate.
22	Excessive weight or cube for containers.
23	Containers, boxes, crates, or pallets damaged or deteriorated.
24	Intermediate or exterior container protection 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.

Group 3 (Marking and Labeling)

Quality defect code	*Explanation*
30	Packaging and packing IP/PI 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.

Group 3 (Continued)

Quality defect code	*Explanation*
	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.

Group 4 (Materiel Deficiencies)

Quality defect code	*Explanation*
40	Parts, components, and/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.

Group 5 (Materiel Deficiencies)

Quality defect code	*Explanation*
50	Contamination (contains dirt, sludge, moisture, or other foreign matter).
51	Excessive moisture, fungus, mildew, rot, infestation, weather cracks.
52	Item improperly classified.
53	Test/research required to determine true condition classification (assign code J or code K. as applicable). (Chargeable as one minor defect per line items).
54	Material marking missing or incorrect (serial number, data plate, piece mark, cure date, etc.) (Chargeable as 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, incomplete).
58	Improper identification.
59	Other.

Group 6 (Functional, Certification, or Performance Test)

Quality defect code	*Explanation*
60	Required test not accomplished
61	Failed test requirements (hydraulic).
62	Failed test requirements (electrical or electronics).

Group 6 (Continued)

Quality defect code	*Explanation*
63	Failed test requirements (environmental).
64	Failed test requirements (mechanical).
65	Failed test requirements(pressure).
66	Failed certification or laboratory test.
67	Excessive heat, and or noise during operational test.
68	Parts or components damaged (due to functional failure during end item or component test).
69	Reserved for future use.

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 items).
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 with 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 item 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.

Group 8 (Storage Deficiencies)

Quality defect code	*Explanation*
80	Improper or adequate stacking or storing (Chargeable as one minor defect per line item).
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 on 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	Reserved for future use.

Group 8 (Continued)

Quality defect code	*Explanation*
87	Reserved for future use.
88	Reserved for future use.
89	Reserved for future use.

Group 9 (Miscellaneous)

Quality defect code	*Explanation*
90	Corrosion, stage I.
91	Corrosion, stage II
92	Corrosion, stage III.
93	Corrosion, stage IV.
*94	Deterioration, polymeric plastic items (celluloid, bakelite, lucite, vinyl, rubber, etc.).
*94A	Deterioration, stage I.
*94B	Deterioration. stage II.
*94C	Deterioration, stage III. (Chargeable AF three major defects per line item).
*95	Deterioration, polymeric non-plastic items (cloth, leather, hair, fur, felt, paper, cork, cardboard, wood, etc.).
*95A	Deterioration, stage I.
*95B	Deterioration, stage II.
*95C	Deterioration, stage III. (Chargeable as three major defects per line item.)
*96	Deterioration, inorganic vitreous items (glass, ceramic, solid carbon, etc.).
*96A	Deterioration, stage I.
*96B	Deterioration, stage II. (Chargeable as three major defects per line item.)
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	S1
G2	S2
G3	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 Codes	
Shelf-life period	*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

*These defect codes relate to the deterioration defined in paragraph 1-3*b*5 (Definitions). They are required for evaluation of AR-RCOM materiel in accordance with this bulletin. Since the codes are not included in DARCOM-R 702-7, they need not be used for reporting under ADP systems, i.e., SPEEDEX.

	Shelf life Codes	
Shelf-life period	*Type I*	*Type II*
27 months	N	
30 months	P	
36 months	Q	7
48 months	R	8
60 months	S	9

NOTE

Military essential items with a shelf-life greater than 60 months (5 years) will be assigned a shelf-life code X.

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

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

f. Type Storage Codes (TSC). An alpha 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 space.
E	Chill space.
Q	Hazardous commodity space-(non-Class V item: e.g., acids, compressed gasses, radioactive, etc.).
U	Open space (materiel may be stored in open storage).
Y	Storage space for ammunition items (Class V) covered by specific regulation elsewhere.
Z	A storage environment identified by one of the codes is not mandatory. See AR 740-1, chapter 6, section III. for guidance and guidelines.

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

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

h. Test Required Codes (TRC).

(1) A three-digit numeric alpha code which will be used to indicate that only a simple examination is required and all inspection requirements are contained in the coded standards or to provide cross-referencing to inspection requirements that are in addition to those contained within the coded standard appendix. These additional inspection requirements might be a standard or existing test method, peculiar instructions or peculiar inspection procedures. The first digit (numeric) will be indicating a chemical related TRC. The second and third digits (alpha) will identify a specific inspection requirement. (See para 2-10 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*
Visual	OOV
Functional	OOF
Dimensional	OOD
Hardness	OOH
Tensile	OOT
Weight	OOW
Pressure	OOP
Laboratory	OOL
Nondestructive	OON

2-7. Evaluation. *a Serviceability Based On Sampling Inspection.* A lot shall be classified as serviceable provided no critical defects are observed and the number of major, or minor detectives do not exceed the number allowed in the sampling plan for the items).

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/or analysis are met.

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

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

d. Procedure *for Rounding Off*. Numerical requirements, when stated, indicate the number of SB 740-94-13 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. When the first digit dropped is less than 5, the preceding digit is not changed. When the first digit dropped is greater than 5, or 5 and some succeeding digit is not zero, the preceding digit is increased by 1. When the first digit dropped is 5, and there are no succeeding digits or all succeeding digits are zero, add one to the preceding digit if it is odd and leave it unchanged if it is even.

e. Condition Coding. Based on evaluation, lot(s) or item(s) will be assigned appropriate condition code in accordance with codes and explanation of codes provided in AR 725-50. Condition code shall be entered in appropriate block on DA Form 984. (Refer to para 2-9*a*(1)).

2-8. Surveillance Test and Measuring Equipment.

a. Availability and Adequacy. The availability and adequacy of test and measuring equipment required to perform the examinations and tests required by this document shall be determined. Should it be determined that test and/or measuring equipment is unavailable or inadequate, this condition shall be reported within 30 days to the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299.

b. Calibration. Test and measuring equipment shall be calibrated at established intervals in accordance with applicable technical bulletin, technical manual or instruction manual. In the event that adequate calibration procedures are not included in these documents, inquiry as to the proper calibration procedure shall be made to the organization responsible for design and/or supply of the test equipment. A calibration system for the calibration inspection measuring gauges 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. Inspection and/or tests performed in accordance with this bulletin shall be reported to the designated command utilizing the applicable form(s).

a. Forms.

(1) Munitions Surveillance Report (DA Form 984). This form will be used to record and report the results of all inspection and/or tests.

NOTE

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

In completing the form, the following instructions shall be followed:

PART I¾ *Descriptive Data of Ammunition Represented by Sample*

(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.

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

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

(h) Block 8. Enter current and past type of storage; e.g., hazardous commodity, controlled humidity warehouse, heated warehouse, unheated warehouse, shed, open, etc.

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

(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) Blocks 11 and Block 12. Self-explanatory.

(l) Block 13. Enter date and type of last inspection and/or test; e.g., Surveillance, 10 July 1981.

(m) Block 14. Enter type inspection and date that this inspection and/or test was completed; e.g., Surveillance, 1 July 1982.

(n) Block 15. Record the manufacturer or reconditioning agency. When more than one manufacturer is represented due to the nature of the lot enter N/A. Also enter date of manufacture or reconditioning.

(o) Blocks 16 and Block 17. Self-explanatory.

(p) Block 18. Record condition of packing, packaging, and marking.

(q) Block 19. State if lot passed or failed the inspection and/or test requirements of this bulletin. Record ail defects or detectives, as applicable, observed by category, defect code, and number of defects or detectives. Category and defect code shall be as given in appendix A, Quality Defect Codes or the classification of defects table of the applicable appendix. Reference this bulletin, appendix A and/or the applicable appendix and table number for the item(s).

EXAMPLE: SB 740-94-13

Appendix A

Defect	*Number of Defects*
113	1
141	2
291	1

SB 740-94-13

Appendix B. Table B-5

Categories	*Defect*	*Number of Defects*
Critical:	01	None
Major:	101	2
	103	1
Minor:	201	1
	202	1

NOTE

Do not list the same defective twice, i.e., if "Barrel assembly cracked" is listed as a defect in appendix B. list it as a defective under appendix B. but do not list it again as code 141 under appendix A. The classification of defects contained in the appendix for the item(s) will take precedence over appendix A in defect identification.

(r) Block 20. Any observation relevant to the condition of the items 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, severity of defects listed in Block 19, etc. A brief lot history shall be included when possible.

(*s) Block 21a* . Self-explanatory.

(t) Block 21b. Based on the results of visual examination (Part I, Block 19) enter the condition code (see para 2-6).

(u) Block 21c . Based on the results of inspection and/or test (Part I, Block 19) and (Part II, Block 13) enter condition code.

(v) Block 22. Self-explanatory.

PART II—*Results of Surveillance Test*

(a) Block 1. Self-explanatory.

(b) Blocks 2, 2a, and 2b. Enter supply bulletin number, revision or change and date of supply bulletin revision or change. When applicable, enter the letter of authority or directive for any special surveillance performed not in accord with the basic document indicated above.

(c) Blocks 3 thru 6. Not applicable.

(d) Blocks 7 and 8. Outer packages from which samples were selected and individual samples would be numbered consecutively starting with "1". Record these numbers in Blocks 7 and 8.

(e) Blocks 9a and 9b. Enter type and model of component/item in the header of each column. Component lot number will be reflected for each sample.

(f) Block 10. In the heading of each column, describe the test characteristics to be tabulated adjacent to the particular sample number below. Attribute deficiencies will be indicated by an "X" at the intersection of defective sample number and defect description.

(g) Blocks 11 and 12. In the space above Block 11 and 12 indicate whether the evaluation is based on "defects" or "detectives" 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 10 and evaluation is based on detectives. Enter total number of defects observed for each sample in appropriate columns when evaluation is based on defects.

(h) Block 13. State if lot passed or failed the inspection and/or test requirements established in the applicable appendix. Enter any additional information which might have had an effect on test results. Enter any recommendations on lot disposal; e.g., screen, renovate, etc.

(i) Block 14. Self-explanatory.

(j) Block 15. Not applicable.

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

(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 individual lot.

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

(j) Column d. Enter the lot size for the in SB 740-94-13 individual lots listed in column b. Total the column and enter 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 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 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 will correspond with that entered on DA Form 984.

(p) Other blocks. Self-explanatory.

(3) *Quality Deficiency Report (QDR) (SF 368).* This form will be submitted when initial receipt inspection reveals unsatisfactory new material from a manufacturer or unsatisfactory renovated, repaired or modified material from a contractor. The preparation and distribution of SF 368 will be as specified in AR 702-7.

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

b. Error in Reports.

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

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

c. Classified Data. Unless specifically authorized by the US Army Armament Materiel Readiness Command, Security Office, no classified information will be placed on materiel serviceability reports. Full use will be made of special codes in preparing the documents when the materiel and/or information is classified. If classified information is required, it will be placed on a separate sheet, not the materiel serviceability report form. This sheet will be properly marked and transmitted by authorized means according to its degree of classification.

Attention is directed to AR 3805 which states that unnecessary classification or higher than necessary classification is to be avoided.

d. Submission of Reports. With the exception of reports utilized 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. Cross referencing TRC Codes. For TRC Codes, other than those identified in paragraph 2-6*h*, identify the TRC code in appendix A for the item(s) to be inspected. Refer to the table of contents of this bulletin and identify the appendix with this number. Go to that appendix and perform the additional inspection as required for the item(s).

APPENDIX A

CODED STANDARDS

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
1040-00-										
055-7315	Clamp	102-111-113-133	S2*	4.0*	10.0*	0*	4*	OOV	A	B
		141-291-192-193							B	B
									X	C
071-0619	Clamp	102-111-113-133						OOV	A	B
		141-291-192-193							B	B
									X	C
076-1809	Clip Assy	102-111-113-133						OOV	A	B
		141-291-192-193							B	B
									X	C
078-4201	Parts Kit, Valve	102-111-113-133						OOV	A	B
		141-143-291-192							B	B
		194							X	C
078-4202	Parts Kit, Valve	102-111-113-133						OOV	A	B
		141-143-291-192							B	B
		194							X	C
078-4203	Parts Kit, Valve	102-111-113-133						OOV	A	B
		141-143-291-192							B	B
		194							X	C
078-4204	Parts Kit, Valve	102-111-113-133						OOV	A	B
		141-143-291-192							B	B
		194							X	C
083-2607	Strap Assy, Shoulder, R	102-111-113-133						OOV	A	B
		140-141-143-195							B	B
									X	C
089-5034	Flame THRFTBL, M9A1-7	102-111-113-123						4KA	A	B
		131-133-140-141								
		143-291-192-193								
		194-195								
103-2153	Plate, Support	102-111-113-133						OOV	A	B
		141-291-192-193							B	B
									X	C
143-6863	Lever, Ball Valve	102-111-113-133						OOV	A	B
		141-291-192-193							B	B
									X	C
160-8014	Hinge, Outer	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C
160-8027	Shaft Assy, Valve	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
160-8036	Valve, Needle	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C
160-8050	Regulator, Pressure	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C
160-8063	Frame, Carrier	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
168-8068	Tank, Fuel	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C
160-8082	Case, Spring Assy	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C

*Applies to all the items on this page .

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
1040-00-										
160-8083	Valve, Pressure Tank	102-111-113-133 140-141-143-291 192-193	S2*	40*	10.0*	0*	4*	OOV	A B X	B B C
178-9669	Ager, Flame Fuel	102-111-113-133 141-291-912-103						OOV	A B X	B B C
205-0358	Strap Assy, Upper	102-111-113-133 140-141-143-291 192-193-196						OOV	A B X	B B C
206-0869	Strap Assy, Short	102-111-113-133 140-141-143-201 192-193-196						OOV	A B X	B B C
206-8368	Strap Assy	102-111-113-13 141-291-192-193						OOV	A B X	B B C
206-0361	Strap Assy, Lower	102-111-113-133 140-141-143-291 192-193-196						OOV	A B X	B B C
293-6891	Tank & Valve Pressure	102-111-113-133 140-141-143-291 192-193						OOV	A B X	Z B C
300-0014	Rep Kit, Pressure Con	102-111-113-133 140-141-143-291 192-193-194						OOV	A B X	B B C
347-2411	Gun, PTBL, Flame Thr M7	102-111-113-123 131-133-140-141 143-291-192-193 194-196						OOV	A B X	Z B C
347-2412	Grip, Valve Cover	102-111-113-133 140-141-143-291 192-193						OOV	A B X	Z B C
347-2414	Grip Assy, Valve	102-111-113-133 140-141-143-291 192-193						OOV	A B X	Z B C
347-2416	Link, Valve	102-111-113-133 141-291-192-193						OOV	A B X	Z B C
347-2416	Link Assy, Valve Safety	102-111-113-133 140-141-143-291 192-193						OOV	A B X	Z B C
347-2417	Lever, Valve Assy	102-111-113-133 140-141-143-291 192-193						OOV	A B X	Z B C
347-2419	Lever Assy, Valve	102-111-113-133 140-141-143-291 102-193						OOV	A B X	Z B C
347-2420	Retractor, Valve	102-111-113-133 141-291-192-193						OOV	A B X	Z B C
347-2421	Lever Assy, Ign Safety	102-111-113-133 140-141-143-291 192-193						OOV	A B X	Z B C
347-2429	Shield, Nozzle	102-111-113-133 141-291-192-193						OOV	A B X	Z B C
347-2431	Grip Assy, Ignition	102-111-113-133 140-141-143-291 192-193						OOV	A B X	Z B C
347-2432	Cover, Ignition Grip	102-111-113-133 141-291-192-193						OOV	A B X	Z B C

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
1040-00-										
347-3883	Rod Assy, Valve	102-111-113-133 140-141-143-291 192-193	S2*	4.0*	10.0*	0*	4*	OOV	A B X	Z B C
347-3889	Barrel, Needle Valve	102-111-113-133 141-291-192-193						OOV	A B X	Z B C
586-4560	Flame THR PTBL, M2A1-7	102-111-113-12 131-133-140-141 143-291-192-193 195						4KA	A	B
606-6070	Head, 1-Inch Safety	102-111-113-133 141-291-192-193						OOV	A B X	B B C
621-7624	Bladder	102-111-113-133 141-291-192-193						OOV	A B X	B B C
696-1374	Pack, Carrier	102-111-113-133 140-141-143-291 192-193-195						OOV	A B X	B B C
714-1801	Flame THR Mech, M10-8	102-111-113-131 133-140-141-143 291-192-193						4KD	A	B
739-2104	Link, ignition	102-111-113-133 141-291-192-193						OOV	A B X	B B C
739-2106	Lever Assy, Ignition	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
739-2106	Pin Assy Ignition	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
739-2107	Spring, Ignition SL	102-111-113-133 141-291-192-193						OOV	A B X	B B C
739-2108	Latch, Shield	102-111-113-133 141-291-192-193						OOV	A B X	B B C
740-1162	Service Unit Flame THR	102-111-113-131 133-140-141-143 291-192-193						4KB	A	B
762-7066	Head, Safety Valve Assy	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
760-7362	Valve Assy	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
766-0497	Straightener Flow	102-111-113-133 140-141-143-291 192-193						OOV	A B B	B B C
766-0409	Piston	102-111-113-133 141-291-192-193						OOV	A B X	B B C
766-0600	Insert, Nozzle	102-111-113-133 141-291-192-193						OOV	A B X	B B C
766-6078	Tube, Flex, Assy	102-111-113-133 133-141-194						OOV	A B X	B B C
766-9464	Fitting, Vent	102-111-113-133 141-291-192-193						OOV	A B X	B B C

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
1040-00-										
779-5909	Spark Plug, HV	102-111-113-133 140-141-143-291 192-193-195	S2*	4.0*	10.0*	0*	4*	OOV	A B X	B B C
781-9952	Service Unit M45	102-111-113-131 133-140-141-143 291-192-193						4KB	A B X	B B C
784-9218	Plug Assy, Filling	102-111-113-133 140-141-143-291 192-193						OVV	A B X	B B C
789-4737	Handle, Control Valve	102-111-113-133 141-291-192-193						OOV	A B X	B B C
829-1771	Parts Kit, Pressure Reg	102-111-113-133 140-141-143-291 192-193-194						OOV	A B X	B B C
832-8636	Clamp	102-111-113-133 141-291-192-193						OOV	A B X	B B C
859-2207	Hose Assy, Charging	102-111-113-133 140-141-143-291 192-193-194						OOV	A B X	B B C
897-2296	Adapter Assy	102-111-113-133 14-141-143-291 192-193						OOV	A B X	B B C
903-0648	Tube, Fuel	102-111-113-133 141-291-192-193						OOV	A B X	B B C
926-3941	Pressure Control Unit	102-111-113-133 141-291-192-193						OOV	A B X	B B C
929-6319	Handle Assy	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
930-0026	Shroud, Flame Gun	102-111-113-133 141-291-192-193						OOV	A B X	B B C
953-4624	Bolt, Screened Assy	102-111-113-133 141-291-192-193						OOV	A B X	B B C
953-4625	Adapter, Air Hose	102-111-113-133 141-291-192-193						OOV	A B X	B B C
953-4626	Adapter, Air Hose	102-111-113-133 141-291-192-193						OOV	A B X	B B C
953-4627	Cap, Oil Filter	102-111-113-133 141-291-192-193						OOV	A B X	B B C
953-4630	Cylinder Assy	102-111-113-133 140-141-143-291 192-193						OOV	A	B
953-4638	Poppet Inlet	102-111-113-133 141-291-192-193						OOV	A B X	B B C
953-4639	Poppet, Valve	102-111-113-133 141-291-192-193						OOV	A B X	B B C
953-4641	Ring, Diffuser	102-111-113-133 141-291-192-193						OOV	A B X	B B C
956-2520	Chute, Ejection	102-111-113-133 141-291-192-193						OOV	A B X	B B C

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
1040-00-										
956-4354	Strainer Assy	102-111-113-133 140-141-143-291 192-193	S2*	4*	10.0*	0*	4*	OOV	A B X	B B C
956-4359	Lever, Latch	102-111-113-133 141-291-192-193						OOV	A B X	B B C
956-4360	Pin, Latch	102-111-113-133 141-291-192-193						OOV	A B X	
960-2696	Cover, Rain, Cradle	102-111-113-133 141-195						OOV	A B X	B B C
960-2697	Guide	102-111-113-133 141-291-192-193						OVV	A B X	B B C
960-2698	Chute, Link, Ejection	102-111-113-133 141-291-192-193						OOV	A B X	B B C
962-2326	Spring, Equilibrator	102-111-113-133 141-291-192-193						OOV	A B X	B B C
966-3787	Slip Joint. Close CPLD	102-111-113-133 141-291-192-193						OOV	A B X	B B C
966-3788	Slip Joint. Close CPLD	102-111-113-133 141-291-192-193						OOV	A B X	B B C
966-3789	Yoke, End	102-111-113-133 141-291-192-193						OOV	A B X	B B C
966-5762	Fan, Propeller	102-111-113-133 141-291-192-193						OOV	A B X	B B C
986-8430	Interrupter	102-111-113-133 141-291-192-193						OOV	A B X	B B C
987-4846	Cable Assy. Power, Elec	102-111-113-1333 140-141-143-195						OOV	A B X	B B C
987-4851	Handle Assy, Plastic	102-111-113-133 140-141-143-291 192-193-195						OOV	A B X	B B C
987-4853	Side Handle	102-111-113-133 141-195						OOV	A B X	B B C
987-4854	Trigger, Finger	102-111-113-133 141-195						OOV	A B X	B B C
987-4858	Propeller, Mixing Tank	102-111-113-133 141-291-192-193						OOV	A B X	
989-5110	Cable Assy SPE Elec	102-111-113-133 141-195						OOV	A B X	B B C
991-0008	Catch, Hatch Hinge	102-111-113-133 141-291-192-193						OOV	A B X	B B C
991-0009	Catch. Steel	102-111-113-133 141-291-192-193						OOV	A B X	B B C

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
1040-00-										
991-1939	Nipple, Fuel Filler	102-111-113-133 141-291-192-193	S2*	4.0*	10.0*	0*	4*	OOV	A B X	B B C
991-6442	Shaft, Propeller	102-111-113-133 141-291-192-193						OOV	A B X	B B C
991-6460	Plug Assy, Dust	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
991-8224	Race. Bearing Outer	102-111-113-133 141-291-192-193						OOV	A B X	B B C
991-8230	Nozzle, Gasoline	102-111-113-133 141-291-192-193						OOV	A B X	B B C
991-8292	Cap Assy, Filler	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
991-3297	Valve, Control	102-111-113-133 141-291-192-193						OOV	A B X	B B C
991-8239	Regulator, Pressure	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
991-8241	Valve, Nozzle	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-0360	Rod, Pintle	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-0352	Piston, Main Poppet	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-0354	Stem, Poppet	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-0396	Exciter, Ignition	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
992-1689	Cap, Pressure	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-1691	Retainer	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-6347	Nipple, Tee	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-6349	Fitting Assy Pneumatic	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
992-7037	Nut	102-111-113-133 141-291-192-193						OOV	A B X	B B C
942-7038	Screw, Elevation	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-7040	Valve, Solenoid	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-7041	Sleeve, Retaining	102-111-113-133 141-291-192-193						OOV	A B X	B B C

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
1040-00-										
992-7042	Accumulator, Hydraulic	102-111-113-133 141-291-192-193	S2*	4.0*	10.0*	0*	4*	OOV	A B X	B B C
992-7043	Valve Solenoid	102-111-113-133 141-291-192-193						OOV	A B X	B B C
992-7044	Rotary Joint Assy	2-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
992-7047	Hose Assy, Med Pressure	102-111-113-133 140-141-143-291 192-193-194						OOV	A B X	B B C
992-7048	Valve, Shut-Off	102-111-113-133 140-141-143-291 192-193-194						OOV	A B X	B B C
992-7054	Valve, Manual 3 Way 2 Pos	102-111-113-133 140-141-143-291 192-193-194						OOV	A B X	B B C
995-3326	Cable Assy SPE Elec	102-111-113-133 141-195						OOV	A B X	B B C
996-0559	Disk, Rupture	102-111-113-133 141-291-192-193						OOV	A B X	B B C
996-2009	Parts Kit, Pres Reg	102-111-113-133 140-141-143-291 192-193						OOV OOV	A B X	B B C
996-3669	Clamp Shroud	102-111-113-133 141-291-142-193						OOV	A B X	B B C
1055-00										
021-3909	Launcher, RKT, 66 MM, M202A1	102-111-113-123 131-133-140-141 143-291-192-193						4KE	A	B
143-6966	Launcher, RKT, 66 MM, M202	102-111-113-123 131-133-140-141 143-291-192-193						4KE	A	B
3010-00-										
991-6446	Yoke, Univ Joint STL	102-111-113-133 141-291-192-193						OOV	A B X	B B C
4310-00-										
078-5431	Compr, Flame THR AN-M4C	102-111-113-133 140-141-143-154 291-192-193						4KC	A	B
083-2606	Cover Assy, Compressor	102-111-113-133 140-141-143-291 192-193-195						OOV	A B X	B B C
083-2608	Strap Assy, Shoulder, L	102-111-1133-133 140-141-143-195						OOV	A B X	B B C
083-2614	Harness, Back Rest	102-111-113-133 140-141-143-291 192-193-194						OOV	A B X	B B C
181-5054	Compr. Flame THR AN-M4D	102-111-113-133 140-141-143-154 291-192-193						4KC	A	B

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
4310-00-										
592-8560	Compr, Flame THR AN-M4	102-111-113-133 140-141-143-154 291-192-193	S2*	4.0*	10.0*	0*	4*	4KC	A	G
738-6032	Compressor, Reciprocat	102-111-113-133 140-141-143-154 291-192-193						OOV	A	B
764-5948	Filter Element	102-111-113-133 140-195						OOV	A B X	B B C
764-5949	Filter Element	102-111-113-13 140-195						OOV	A B X	B B C
848-6075	Compr, Flame THR AN-M4B	102-111-113-133 140-141-143-154 291-192-193						4KC	A	B
921-5301	Breather Assy	102-111-113-133 140-141-143-291 192-193						OOV	A B X	B B C
971-4923	Cap, First Head	102-111-113-133 141-291-192-193						OOV	A B X	B B C
977-9473	Cap, Protection First	102-111-113-133 141-291-192-193						OOV	A B X	B B C
4320-00-										
967-9013	Pump, Rotary	102-111-113-133 140-141-143-154 291-192-193						OOV	A B X	B B C
967-9014	Motor, Hydraulic	102-111-113-133 140-141-143-154 291-192-193						OOV	A B X	B B C
989-9785	Motor, Hydraulic	102-111-113-133 140-141-143-154 291-192-193						OOV	A B X	B B C
989-9786	Motor, Hydraulic	102-111-113-133 140-141-143-154 291-192-193						OOV	A B X	B B C
993-0211	Pump, Rotary	102-111-113-133 140-141-143-154 291-192-193						OOV	A B X	B B C
4710-00-										
568-9676	Tube, Reg and Socket	102-111-113-133 141-291-192-193				0		OOV	A	B
4720-00-										
804-7406	Hose Assy, Rubber	102-111-113-133 140141-143-291 192-193-194				0		OOV	A B X	B B C
804-7407	Hose Assy	102-111-113-133 140-141-143-291 192-193-194 1				0		OOV	A B X	B B C
804-7411	Hose Assy, Rubber	102-111-113-133 140-141-143-291 192-193-194				0		OOV	A B X	B B C
839-3423	Hose Assy, Nonmetallic	102-111-113-133 140-141-143-291 192-193-194				S		OOV	A B X	B B C
967-1454	Hose Assy, Rubber	102-111-113-133 140-141-143-291 192-193-194				0		OOV	A B X	B B C

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
4310-00-										
992-6346	Hose Assy, Rubber	102-111-113-133	S2*	4.0*	10.0*	0*	4*	OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
992-6348	Hose Assy, Rubber	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
993-0207	Hose Assy, Rubber	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
993-0208	Hose Assy, Rubber	02-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
993-0209	Hose Assy. Rubber	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
4730-00-										
084-0435	Tee, Pipe to Tube	102-111-113-133						OOV	A	B
		141-291-192-193							B	B
									X	C
851-2278	Adapter, Pipe to Tube	102-111-113-133						OOV	A	B
		141-291-192-193								
953-4628	Cap, Pressure	102-111-113-133						OOV	A	B
		141-291-192-193							B	B
									X	C
991-6438	Cap Assy, Pressure	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C
4810-00-										
992-7036	Valve, Solenoid	102-111-113-133						OOV	A	B
		141-291-192-193							B	B
4820-00-									X	C
078-4206	Parts Kit, Pres Reg	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193-194							X	C
160-8011	Valve Assy, Check	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C
160-8018	Valve, Safety	102-111-113-133						OOV	A	B
		140-141-143-291							B	B
		192-193							X	C
178-9670	Valve, Ball	102-111-113-133						OOV	B	
		140-141-143-291							X	C
		192-193								
5360-00-										
347-2406	Spring Helical	102-111-113-133						OOV	A	
	Compression	140-141-143-291							B	
		192-l93							X	Z
347-2408	Spring Helical	102-111-113-133						OOV	A	
	Compression	140-141-143-291							B	
		192-193							X	Z
347-2410	Spring Helical	102-111-113-133						OOV	A	
	Compression	140-141-143-291							B	
		192-193							X	Z
726-7078	Spring Helical	102-111-113-133						OOV	A	B
	Compression	140-141-143-291							B	B
		192-193							X	C
990-3646	Spring Helical	102-111-113-133						OOV	A	B
	Compression	140-141-143-291							B	B
		192-193							X	C

*Applies to all the items on this page.

National stock number	Item name	Quantity defect code	IL	AQL Maj	AQL Min	SLC	IFC	TRC	PC	TSC
5999-00-990-6722	Cap. Elec	102-111-113-133 141-291-192-193	S2*	4.0*	10.0*	0*	4*	OOV	A B X	B B C
6685-00-087-6925	Gauge. Press Dial Ind	102-111-113-1333 140-141-143-150 140-141-143-150 154-291-192-193						OOV	A	B

*Applies to all the items on this page.

APPENDIX B

QUALITY ASSURANCE INSPECTION INSTRUCTION

STORAGE SERVICEABILITY STANDARD ADDENDUM

FLAMETHROWER, PORTABLE

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 item listed below:

NSN	*Nomenclature*
1040-00-089-5034	Flamethrower, Portable, M9A1-7
1040-00-686-4560	Flamethrower. Portable, M2A1-7

B-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when this Test Required Code (TRC) is referenced in the 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 the Commander, US Army Armament Materiel Readiness Commend, ATTN: DRDAR-QAE, Rock Island IL 61299. Copies of correspondence will be provided to the Commander, US Army Armament Research and Development Command. ATTN: DRDAR-QAA, Dover, NJ 07801.

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

TM 3-1040-204-14	Operator's Organizational, Direct Support, General Support Maintenance Manual (including repair parts and special tools list): Flamethrower, Portable M2A1-7 (NSN 1040-00-586-4560).
TM 3-1040-257-14	Operator's Organizational, Direct Support, General Support Maintenance Manual Flamethrower, Portable, M9A1-7 (NSN 1040-00-089-5034).
TM 3-1040-257-20P	Organizational Maintenance Repair Parts and Special Tools List: Flamethrower, Portable, M9A1-7.
TM 3-1040-257-35P	DS, GS, and Depot Maintenance Repair Parts and Special Tools List:: Flamethrower, Portable, M9A1-7.
TM 3-1040-257-ESC	Equipment Serviceability Criteria for Flamethrower, Portable, M9A1-7.

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

c. Sampling. Sampling of lots shall be conducted as follows:

(1) Sampling for *visual examination* of the Flamethrower, Portable, shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Detectives and 10.0 percent for Minor Defectives.

(2) Sampling for testing of the flamethrower' portable, shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives. The sample quantity shall be randomly selected from the sample obtained in (1) above. If the sample is of equal 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 to make up the difference.

B-4. Inspection Procedure. The sample of the item listed in B-1 shall be visually inspected for packaging, packing, marking and preservation defects as identified in the classification of defects table B-1. The end item and components thereof shall be visually inspected for defects listed in the applicable classification of defects (contained in this paragraph) for the item. The required sample size for the test shall be drawn from the visually acceptable items and subjected to the test(s) as required for the item. Inspection of each sample flamethrower, portable shall consist of performing all the required visual inspection (s) and test(s) as specified herein for the item.

Failure of the flamethrower, portable to pass the visual and/or test requirements shall be cause for rejection of the item.

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

Table B-1. Packaging, Packing, Marking and Preservation Flamethrower, Portable.

Categories	Defects	Inspection method
Critical:	None defined.	
Major:		
101	Component missing	Visual
102	Component not secured to unit	Visual
103	Container broken	Visual
104	Container crushed	Visual
105	Container punctured	Visual
106	Wooden support rotted	Visual
107	Wooden facepiece rotted	Visual
108	Hinge broken	Visual
109	Hinge missing	Visual
110	Hasp broken	Visual
111	Hasp missing	Visual
112	Corner protector missing	Visual
113	Identification marking incorrect	Visual
Minor:		
201	Barrier material damaged	Visual
202	Barrier material missing	Visual
203	Steel strapping loose	Visual
204	Steel strapping missing	Visual
205	Protective finish chipped	Visual
Other:	Refer to appendix A "Quality Defect Codes"	Visual

b. Classification of Visual Defects for the Flamethrower, Portable. The following visual inspection shall be conducted after completion of the inspection cited in a above.

Table B-2. Flamethrower Assembly.

Categories	Defects	Inspection method
Critical:		
1	Leakage and retention	(B-5*d*)
Major:	None defined	
Minor:	None defined	

Table B-3. Fuel and Pressure Unit Assembly.

Categories	Defects	Inspection method
Critical:		
1	Pressure tank hydrostatic test	(B-5*a*)
2	Fuel tank hydrostatic	(B-5*b*)
3	Fuel tank cracked or split	Visual
4	Pressure tank cracked or split	Visual

Table B-3. Fuel and Pressure Unit Assembly-Continued.

Categories	Defects	Inspection method
Major:		
101	Pressure regulator inoperative	(B-5*d*)
102	Pressure regulator leaking	(B-5*d*)
103	Pressure valve inoperative	(B-5*d*)
104	Tank quick-disconnect coupling inoperative	(B-5*d*)
105	Fining plug bleeded valve inoperative	(B-5*d*)
106	Filling plug assembly components missing.	Visual
107	Filling plug assembly	Visual broken
108	Filler plug O-ring torn	Visual
109	Components not secured	Visual
110	Fuel hose coupling not functionable	Visual
111	Fuel tank interior corroded (pitting)*	Visual
112	Pressure Only inferior corroded. (pitting)	Visual
113	Component missing	Visual
114	Fuel tank dented	Visual
115	Pressure tank dented	Visual
116	Hydrostatic test date marking missing	Visual
Minor:		
201	Visual Paint chipped	
202	Identification marking incorrect	Visual

NOTE

If dent is no closer than 1 inch to any joint perform the hydrostatic test (para B-5). If dent id removed during the test no defect for dents shall be listed for that tank.

***Light surface corrosion is acceptable.**

Table B-4. Fuel and Pressure Tank Car Assembly.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Frame bent	Visual
102	Frame assembly broken	Visual
103	Canvas carrier (back cover) torn	Visual
104	Lacing holes pulled out	Visual
105	Component missing	Visual
Minor		
201	Canvas carrier mildewed	Visual
202	Strap buckles rusted	Visual
203	Carrier lace broken	Visual

Table B-5. Flame Thrower Gun Group.

Categories	Defects	inspection method
Critical:		
1	M8 hose hydrostatic test	(B-5*c*)

Table B-5. Flame Thrower Gun Group-Continued.

Categories	Defects	Inspection method
2	Leakage	(B 5*d*)
3	Wire through hose cover	Visual
4	Rust spot on hose	Visual
5	MB hose soft spot I Visual	
6	MB hose damage	Visual
7	M8 hose kinked	Visual
8	Hose over five years old	Visual
9	Hose exceeding two years service life	Visual
Major:		
101	Barrel assembly cracked	Visual
102	Valve lever inoperative	Visual
103	Valve safety lever inoperative	Visual
104	Valve rod inoperative	Visual
105	Ignition lever inoperative	Visual
106	Components missing	Visual
107	Gun badly rusted (heavy scale) or corroded	Visual
108	Atomizer hole clogged	Visual
109	Hose quick-disconnect broken	Visual
110	Hose thread damage to hamper assembly	Visual
Minor:		
201	Paint chipped	Visual
202	Light rust	Visual
203	Component insecurely assembled	Visual

B-5. Tests. *a. High Pressure Tank Hydrostatic Volumetric Test*.

(1) *Requirement*. No leakage will be observed when the high pressure tank is subjected to an internal hydrostatic pressure of 3350 + 50 pounds-per-square inch gauge (psig) for a minimum period of one minute. This test will be performed by the water jacket, or other suitable method. Permanent volumetric expansion will 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 100 psig.

(2) *Equipment required*. Water jacket, regulated hydrostatic pressure source (3550 psig). Gauge, pressure gauges will be of such precision as to permit a reading to an accuracy of one percent. The expansion gauge will be of such precision as to permit a reading to an accuracy of either one percent or 0.1 cubic centimeter. M5 test kit may also be used.

(3) *Procedure*. The test will be conducted as follows:

(*a*) Fill water jacket with water.

(*b*) Remove pressure tank from flame thrower.

WARNING

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

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

(*d*) Install a high pressure adapter, in place of the valve assembly, in the pressure tank.

(*e*) Subject the pressure tank to pressure for the time specified.

(*f*) Release the pressure and if the pressure tank is serviceable, carefully dry the pressure tank and reinstall on flamethrower. Unserviceable tanks will be disposed of in accordance with applicable directives.

b. Fuel Tank Hydrostatic Pressure Test.

(1) *Requirements*. No leakage will be observed when the fuel tank is subjected to an internal hydrostatic pressure of 625 ± 10 psig for a minimum period of one minute.

(2) Procedure. The test will be conducted as follows:

(*a*) Disconnect flamethrower gun from fuel tank.

(*b*) Subject the fuel tanks to a hydrostatic pressure of 625 ± 10 psig for a minimum period of one minute. Observe for leaks.

c. Fuel Hose Hydrostatic Test. Subject the fuel hose to a hydrostatic pressure of 625 ± 10 psig for a minimum period of one minute. Rate of pressure applied must not exceed 500 psig per minute. Test fluid to be used will be water. Upon completion of test, acceptable fuel hose will be drained and dried.

d. Flame Thrower Assembly Leakage and Functional Check.

(1) Requirements.

(*a*) *Leakage*. No leakage in sections under oil pressure. The pressure regulator will be capable of maintaining a pressure of 350 ± 10 psig in the fuel tank without any upward creep above 390 psig.

(*b*) *Functional Check*. Functioning will be prompt and positive.

(2) *Equipment required*. Regulated air pressure source (2200 psig); Lubricating Oil, Internal Combustion Engine, Preservative. Specification MIL-L-21260; Test gauge Assembly, Fuel Tank M2A1, FSN 1040-654-5743 [identified in service kit as C81-6-253).

(3) *Procedure*. The test will be conducted as follows:

(*a*) Turn filler plug assembly and relieve any

pressure in the fuel tanks before removing the filler cap assembly.

(*b*) Visually check the interior of the fuel tank to insure that it is clean. Dirt or foreign matter can cause gas malfunction.

(*c*) Check the flamethrower gun and hose to insure that they are clean. Assemble hose to gun and connect hose to fuel tank. Do not use installed Me hose for this test, use special test hose. Do not issue hose used in test.

(*d*) Fill the flamethrower fuel tank to within two inches of the top with preservative oil conforming to grade 2 or 3 of MIL-L-21260. Replace one filler cap, and in place of regular filler cap, install Test Gauge Assembly from service kit.

(*e*) Charge the pressure tank with clean compressed air to 2075-2100 psig.

WARNING

Do not use a pressure source which cannot be identified, i.e., markings missing, markings 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 fuel tank of the flamethrower. An explosion can also result if hydrogen is introduced into the high pressure tank assembly when it contains a partial charge of compressed air.

(*f*) Connect pressure tank to the pressure regulator.

WARNING

Close valve prior to removing pressure tank from pressure source.

(*g*) Allow the charged assembled unit to stand for one hour.

(*h*) Inspect unit for leaks using soap solution for those parts under air pressure and visually for parts under fuel pressure.

WARNING

Do not point the gun at anyone or anything.

(*i*) Operate the flamethrower gun (unignited) for 3 short bursts allowing pressure to stabilize between bursts. Upon release of hand pressure from the valve lever, the fuel valve shall immediately stop the flow of fuel.

NOTE

The flamethrower may be operated so as to recover the test fluid.

(*j*) Wipe the nozzle clean, immediately, after the third burst and examine the gun for evidence of leakage while it is subject to a pressure of 350 ± 10 psig for a minimum period of one minute.

(*k*) Continue to operate in short bursts until the tank is empty, allow 15 seconds between bursts. During testing, the fuel valve and safety valve will function easily and will be capable of stopping the fuel flow on demand. The gun ignition lever will function without binding.

(*l*) Turn filler plug assembly and relieve any pressure in the fuel tank before removing the filler cap assembly and test gauge assembly.

(*m*) Remove filler cap assembly and test gauge assembly.

(*n*) Drain fuel tanks. Reassemble all items and issue, or return serviceable flame thrower assemblies to storage.

APPENDIX C

QUALITY ASSURANCE INSPECTION INSTRUCTION

STORAGE SERVICEABILITY STANDARD ADDENDUM

SERVICE UNIT, FLAMETHROWER

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 item listed below:

NSN	*Nomenclature*
1040-00-740-1152	Service Unit. Flamethrower Truck-Mounted: M4A2
1040-0-781-9962	Service Unit, Flamethrower Tracked Vehicle Mounted: M46

C-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when this Test Required Code (TRC) is referenced in the 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 the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock island, IL 62199. Copies of correspondence will be provided the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAA, Dover, NJ 07801.

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

TM 3-1040-219-12	Operator's and Organizational Maintenance Manual: Service Unit, Flamethrower, Truck Mounted: M4A2 (NSN 1040-00-7401152).
TM 3-1040-219-20P	Organizational Maintenance Repair Parts and Special Tools List for Service Unit, Flame thrower, Truck Mounted M4A2 (NSN 1040-00 740-1152.
TM 3-1040-219-34	Direct Support and General Support Maintenance Manual: Service Unit, Flame thrower, Truck-Mounted: M4A2 (NSN 1040-00-740-1152).
TM 3-1040-219-34P	Direct Support and General Support Maintenance Repair Parts and Special Tools List for Service Unit, Flamethrower, Truck Mounted, M4A2 (NSN 1040-00-740-1152).
TM 3-1040-219-ESC	Equipment Serviceability Criteria for Service Unit, Flamethrower, Truck Mounted, M4A2 (NSN 1040-740-1152).
TM 3-1040-256-12	Operator's and Organizational Maintenance Manual: Service Unit, Flamethrower, Tracked Vehicle Mounted M45E1 (NSN 1040-00-781-9952).
TM 3-1040-256-20P	Organizational Maintenance Repair Parts and Special Tools List: Service Unit, Flame thrower, Tracked-Vehicle Mounted XM45E1.
TM 3-1040-256-34	Direct Support and General Support Maintenance Manual: Service Unit, Flame thrower, Tracked-Vehicle Mounted, XM45E1.
TM 3-1040-256-35P	DS, GS, and Depot Maintenance Repair Parts and Special Tools List: Service Unit, Flamethrower, Tracked-Vehicle Mounted, XM45E1 (FSN 1040-781-9952).

b. Basis of Surveillance. Surveillance for items listed in C-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 shall be conducted as follows:

(1) Sampling for *visual examination* of the Service Unit, Flamethrower shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives and 10.0 percent for Minor Defectives.

(2) Sampling for *testing* of the Service Unit, Flamethrower shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives. The sample quantity shall be randomly selected from the sample obtained in (1) above. If the sample is of equal 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 to make up the difference.

C-4. Inspection Procedure. The sample of the item listed in C-1 shall be visually inspected for packaging, packing, marking and preservation defects as identified in the classification of defects table C-1. The end item and components thereof shall be visually inspected for defects listed in the applicable classification of defects (contained in this paragraph} for the item. The required sample size for the test shall be drawn from the visually acceptable items and subjected to the test(s) as required for the item. Inspection of each sample Service Unit, Flamethrower shall consist of performing all the required visual inspection(s) and test(s) as specified herein for the item. Failure of the Service Unit, Flamethrower to pass the visual and/or test requirements shall be cause for rejection of the item.

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

Table C-1. Packaging, Packing, Marking and Preservation Service Unit, Flamethrower.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Component missing	Visual
102	Component not secured to unit	Visual
103	Identification marking incorrect	Visual
Minor:		
201	Steel strapping loose	Visual
202	Steel strapping missing	Visual
203	Protective finish chipped	Visual

Table C-1. Packaging, Packing, Marking and Preservation Service Unit. Flamethrower-Continued.

Categories	Defects	Inspection method
Other:	Refer to appendix A	Visual
	"Quality Defect Codes"	Visual
103	Identification marking incorrect	Visual
Minor:		
201	Steel strapping loose	Visual
202	Steel strapping missing	Visual
203	Protective finish chipped	Visual
Other:	Refer to appendix A	Visual
	"Quality Defect Codes"	Visual

b. Classification of Visual Defects for the Service Unit, Flamethrower. The following visual inspection shall be conducted after completion of the inspection cited in a above.

Table C-2. Service Unit, Flamethrower.

Categories	Defects	Inspection method
Critical:	None defined	
Major		
101	Publication missing	Visual
Minor:	None defined	

NOTE
The following publications must be with the service unit: TM 3-1040-219-12, TM 3-1040-256-12, TM 9-2320-209-10.

Table C-3. Vehicle.

Categories	Defects	Inspection method
Critical:	None defined	
Major		
101	Unserviceable (Refer to TM 9-2320-209-10. and SB 740-98-1-)	Visual/Test
Minor:	None defined	

Table C-4. Fuel Pump.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Inoperative	Test (C-5c(2)(*j*))
102	Leaking	Visual/Test (C-5*c*(2)(*f*)
103	Overheating	Test (C-5*c*(2)(*j*))
Minor:	None defined	

Table C-5. Service Unit Compressor.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Component missing	Visual

Table C-5. Service Unit Compressor-Continued.

Categories	Defects	Inspection methods
102	Compressor inoperative	Test (C-5*c*(1)(*b*), (2)(*d*), (2)(*g*))
103	Compressor crank. case oil inadequate	Visual
104	Instruction plate missing or illegible	Visual
105	Drive belts-framed, split, cut or deteriorated	Visual
106	Dust cap missing	Visual
107	Cylinder flange cracked	Visual
108	Cylinder loose	Visual
109	Cylinder head cracked	Visual
110	Fan blades bent	Visual
111	Clutch slips or does not engage properly	Test(C-5c(2)(*e*))
112	Rust affecting functionability	Test (C-5*c*)
Minor:		
201	Identification plate missing or illegible	Visual
202	Lubrication inadequate	Visual
203	Paint chipped, blistered or worn through	Visual
204	Excessive grease, oil or dirt	Visual

Table C-6. Preheater (Compressor).

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Hose kinked or split	Visual
102	Hose leaking	Visual/Test (C-5*c*(2)(*g*))
103	Radiator leaking	Visual/Test. C-5*c*(2)(*g*)
104	Fan inoperative	Test (C-5*c*(2)(*g*))
105	Fan motor leaking	Visual/Test (C-5*c*(2}(*g*))
106	Temperature regulation valve	Test (C-5*c*(2)(*g*))
Minor:	None defined	

Table C-7. Air Receiver (Compressor).

Categories	Defects	Inspection method
Critical:		
1	Air receiver hydrostatic test	Test (C-6a)
2	Safety rebel valve inoperative	Test (C-5c(1) (b), (12)(d))
Major:		
101	Pressure regulator inoperative	Test (C-5c(2)(g))

Table C-7. Air Receiver (Compressor)-Continued.

Categories	Defects	Inspection method
102	Drain valves inoperative	Test (C-5*c*(2)(*g*))
103	Service line valve inoperative	Test (C-5*c*(2){*g*))
Minor:		
201	Valve handle missing	Visual

Table C-8. Control Console.

Categories	Defects	Inspection method
Critical		
1	Relief valve inoperative	Test (C-5*c*(1)(*b*))
Major:		
101	Instruction plate missing or illegible	Visual
102	Gauge broken	Visual/Test (C-5*c*(2)(*a*))
103	Control lever inoperative	Test (C-5*c*(21 (*a*))
104	Valve leaking	Visual/Test (C-5*c*(1)/*b*))
105	Tubing pinched or cracked	Visual
106	Hose kinked, frayed or cut	Visual
Minor:		
201	Valve handle missing	Visual

Table C-9. Fuel Mixing or Discharge System Mixing Tank Assembly.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Mixing tank contaminated	Visual
102	Filler pipe leaking	Visual/Test (C-5c(2)(k))
103	Lubrication tube broken	Visual (C-5*c*(2)(*l*)
104	Data plate missing or illegible	Visual
105	Warning sign "Flammable" missing or illegible	Visual
106	Rust-heavy scale, affecting functionability	Visual/Test (C-5*c*(2)(*k*)), (2)(l))
107	Tank gauge missing	Visual
Minor:		
201	Rust-light, not affecting functionability	Visual/Test (C-5*c*(2)(*k*), (2)(*l*)

Table C-10. Agitator.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Inoperative	Test (C-5*c*(2) (*h*))
102	Motor overheating	Test (C-5*c*(2) (*h*))
103	Motor leaking	Visual/Test (C-5*c*(2)(*h*))
Minor:	None defined	

Table C-11. Services Holes.

Categories	Defects	Inspection method
Critical:		
1	Air hose over five years old	Visual
2	Failed air hose hydrostatic test	Test (C-5b)
Major:		
101	Air hose kinked frayed or cut	Visual
102	Hose assembly missing	Visual
103	Hose assembly leaking	Visual/Test (C-6*c*(2) (*b*))
104	Dust cap or plug missing	Visual
Minor:	None defined	

Table C-12. Fuel Preheater.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Fuel preheater inoperative	Test (C-5*c*(2)(*f*)
102	Connecting hose split	Visual
103	Connecting hose kinked	Visual
Minor:	None defined	

Table C-13. Hydraulic Systems.

Categories	Defects	Inspection method
Critical:	None defined	
Major:		
101	Hydraulic fluid inadequate	Visual
102	Hydraulic fluid contaminated	Visual
103	Pump inoperative	Test (C-5c(1)(c), (2)(i))
104	Pump leaking	Visual/Test(C-5c(1)(c), (2)(i))
106	Pump overheating	Test (C-5c(2)(i)
106	Shutoff valve inoperative or leaking	Visual/Test (C-5c(2)m))
107	Gate valve inoperative	Test (C-5c)
108	Identification plates missing illegible	Visual
Minor:	None defined	

C-5. Functional Tests. *a. Air Receiver-Hydrostatic Pressure Test.* The airreceiver must withstand a hydrostatic pressure of 600 ± 100 psig for a minimum period of one minute.

b. Air Hose-Hydrostatic Pressure Test. Air hose must withstand a hydrostatic pressure of 4500 ± 100 psig for a period of one minute using water.

c. Service Unit-Operation.

(1) *Requirements*.

(*a*) The vehicle engine when serviced and operated in accordance with TM 9-2320-209-10 must provide power for satisfactory service unit operation.

(*b*) The compressor must discharge air to the atmosphere, under pressure through the relief valve.
to) The agitator and pump must function freely.

(2) *Procedure*.

(*a*) Start vehicle engine as instructed in TM 9-2320-209-10. Operate vehicle engine for a sufficient period of time to permit an adequate evaluation of engine operation.

(*b*) Connect hoses and prepare equipment for operation.

(*c*) Engage power take-off as instructed in TM 3-1040-219-12.

(*d*) Operate compressor as instructed in TM 3-1040-219-12 and meet the requirements of (1)(*b*) above, including actuation of relief valve.

(*e*) Check clutch and drive belts for condition and adjustment. In Operate fuel preheater (heat exchanger) as instructed in TM 3-1040-219-12. Fuel preheater must be warm to touch

(*g*) Operate compressor as instructed in TM 3-1040-219-12 until a pressure indication of 300 psig shows on the 300 psig pressure gauge (5000 psig scale).

(*h*) Operate agitator as instructed in TM 3-1040-219-12. Check agitator propeller for proper direction of rotation. Check clutch and drive belts for condition and adjustment.

(*i*) Operate pump as instructed in TM 3-1040-219-12. Check clutch and drive belts for condition and adjustment.

(*j*) Start fuel pump and pump approximately 200 gallons of kerosene, or fuel oil (FS No. 2) into the mixing tank.

(*k*) Operate mixing tank agitator and mix test solution.

(*l*) Pump solution from mixing tank into storage drums.

(*m*) Shut down equipment as instructed in TM 3-1040-219-12 for service unit, and TM 9-2320-209-10 for the vehicle.

(*n*) Return serviceable equipment to storage.

APPENDIX D

QUALITY ASSURANCE INSPECTION INSTRUCTION

STORAGE SERVICEABILITY STANDARD ADDENDUM

COMPRESSOR UNIT, RECIPROCATING:

POWER-DRIVEN, FLAMETHROWER, 3 1/2 CFM

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

NSN	*Nomenclature*
4310-00-078-6431	Compressor AN-M4C (Stewart-Warner)
4310-00-181-6064	Compressor AN-M4D (Walter Kidde)
4310-00-692-8660	Compressor AN-M4 (Walter Kidde}
4310-00-848-6076	Compressor AN-M4B (Stewart-Warner)

D-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when this Test Required Code (TRC) is referenced in the 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 the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299. Copies of correspondence will be provided to the Commander, US Army Armament Research and Development Command, AMEN: DRDAR-QAA, Dover, NJ 07801.

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

TM 3-4310-100-10	Operator's Manual: Compressor Unit, Reciprocating; Power-driven, Flame thrower, 3½ CFM, AN-M4 (Walter Kidde) NSN 4310-00-592-8560; AN-M4B (Stewart-Warner) NSN 43 10-00-848-6075; AN-M4C (Stewart-Warner) NSN 4310-00-078-5431; AN-M4D (Walter Kidde) NSN 4310-00-181-5054.
TM 3-4310-100-20&P	Organizational, Maintenance Manual (including repair parts and special tools list) for Compressor Unit, Reciprocating: Power-Driven Flamethrower, 3½ CFM, AN-M4 (Walter Kidde) NSN 4310-00-592-8560; AN-M4B (Stewart-Warner) NSN 4310-00-848-6075 ;AN-M4C (Stewart-Warner) NSN 4310-00-078-5131; AN-M4D (Walter Kidde) NSN 4310-00-181-5054).
TM 5-2805-265-14	Operator, Organizational, Intermediate (Field) (Direct Support and General Support) and Depot Maintenance Manual, Engine, Gasoline, 1 ½ HP, Military Standard Models (Model 1A08-1) (NSN 2805-00-601-5181), (Model 1A08-2) (NSN 2805-00-714-8552) and (Model) 1A08-3) (NSN 2805-00-068-7510).

b. Basis of Surveillance. Surveillance for items listed in paragraph D-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 shall be conducted as follows:

(1) Sampling for visual examination of the compressor unit, shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives and 10.0 percent for woI OR Defectives.

(2) Sampling for testing of the compressor unit, shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives. The sample quantity shall be randomly selected from the sample obtained in (1) above. If the sample is of equal size as that required for testing, the en tire 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 to make up the difference.

D-4. Inspection Procedure. The sample of the item listed in paragraph D-1 shall be visually inspected for packaging, packing, marking, and preservation defects as identified in the classification of defects table D-1. The end item and components thereof shall be visually inspected for defects listed in the applicable classification of defects (contained in this paragraph) for the item. The required sample size for the test shall be drawn from the visually acceptable items and subjected to the test(s) as required for the item. Inspection of each sample compressor unit shall consist of performing all the required visual inspection(s) and test(s) as specified herein for the item. Failure of the compressor unit to pass the visual and/or test requirements shall be cause for rejection of the item.

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

Table D-1. Packaging, Packing, Marking, and Preservation Compressor Unit.

Categories	Defects	Inspection methods
Critical:	None defined.	
Major:		
101	Packaging or packing component missing incorrect, or incorrectly assembled	Visual
102	Marking missing, incorrect, or illegible.	Visual
103	Container broker or crushed.	Visual
104	Wood box rotted or cracked.	Visual
105	Open	Visual
106	Interior wet.	Visual
Minor:		
201	TM missing.	Visual
202	Permanent history log missing.	Visual
Other:	Refer to appendix A "Quality Defect Codes".	Visual

Table D-1. Packaging, Packing, Marking, and Preservation Compressor Unit-Continued.

b. Classification of Visual Defects for the Compressor Unit. The following visual inspection shall be conducted after completion of the inspection cited in *a* above.

Table D-2. Compressor, Reciprocating, Power-Driven Flame Thrower, 3½ CFM, AN-M4, AN-M4B, AN-M4C, and AN-M4D.

Categories	Defects	Inspection methods
Critical:	Not defined.	
Major:		
101	Functional test.	(D-4*c*)
102	Component missing.	Visual
103	Component damaged affecting functionability.	Visual
104	Component corroded (heavy-rusting, pitting, etc. affecting functionability).	Visual/D-4*c*
105	Instruction plate illegible.	Visual
Minor:		
201	Component corroded(light rusting, functionability not affected.	Visual
202	Component damaged not affecting functionability.	Visual
203	Component dirty, greasy.	Visual
204	Paint deteriorated.	Visual
205	Component incorrectly mounted.	Visual

c. Functional Tests.

(1) *Requirements*. If compressor exhibits any discrepancy requiring depot remedial maintenance or fails to deliver a minimum pressure of 1900 psig it shall be declared unserviceable. If compressor exhibits any discrepancy that can be remedied by minor repair, adjustment, or replacement of part, normal care and preservation shall be performed.

(2) *Procedure*. Sample compressors that meet the visual inspection requirements shall be subjected to a functional test. Compressors shall be operated in accordance with instructions contained in TM 3-4310-100-10, TM 3-4310-100-20&P and TM 52805-256-14 until 1900 psig is reached. Compressors meeting functional requirements shall be returned to storage or issued.

APPENDIX E

QUALITY ASSURANCE INSPECTION

INSTRUCTION STORAGE SERVICEABILITY STANDARD ADDENDUM

FLAMETHROWER, MECHANIZED MAIN ARMAMENT, M10-8

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

NSN	*Nomenclature*
1040-00-714-1891	Flamethrower, Mechanized, Main Armament, M10-8

E-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when this Test Required Code (TRC) is referenced in 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 percussion from the Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299. Copies of correspondence will be provided to the Commander, US Army Armament Research and Development Command, ATTN: DRDAR-QAA, Dover, NJ 07801.

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

TM 3-1040-209-12	Organizational Maintenance Manual: Flamethrower, Mechanized, Main Armament, M10-8 (NSN 1040-00-714-1891).
TM 3-1040-209-20P	Organizational Maintenance Repair Parts and Special Tools List Flamethrower, Mechanized, Main Armament, M10-8.
TM 3-1040-209-35	DS, GS, and Depot Maintenance Manual: Flamethrower, Mechanized, Main Armament, M10-8.
TM 3-1040-209-35P	DS, GS, and Depot Maintenance Manual Repair Parts and Special Tools List: Flamethrower, Mechanized, Main Armament, M10-8.

b. Basis of Surveillance. Surveillance for items listed in paragraph E-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 shall be conducted as follows:

(1) Sampling for *visual examination* of the flamethrower, M10-8 shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives and 10.0 percent for Minor Defectives.

(2) Sampling for *testing* of the flamethrower, M10-8 shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives. The sample quantity shall be randomly selected from the sample obtained in (1) above. If the sample is of equal 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 to make up the difference.

E-4. Inspection Procedure. The sample of the item listed in paragraph E-1 shall be visually inspected for packaging, packing, marking, and preservation defects as identified in the classification of defects table E-1. The end item and components thereof shall be visually inspected for defects listed in the applicable classification of defects (contained in this paragraph) for the item. The required sample size for the test shall be drawn from the visually acceptable items and subjected to the test(s) as required for the item. Inspection of each sample flamethrower, M10-8 shall consist of performing all the required visual inspection(s) and test(s) as specified herein for the item. Failure of the flamethrower, M 10-8 to pass the visual and/or test

requirements shall be cause for rejection of the item.

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

Table E-1. Packaging, Packing, Marking and Preservation, Flamethrower, M10-8.

Categories	Defects	Inspection methods
Critical:	None defined.	
Major:		
101	Components missing.	Visual
102	Identification marking incorrect.	Visual
103	Ancillary equipment missing.	Visual
Minor		
201	Barrier material damaged.	Visual
202	Barrier material missing.	Visual
203	Preservative not applied.	Visual
Other:	Refer to appendix A "Quality Defect Codes".	Visual

b. Classification of Visual Defects for Flamethrower, and M10-8. The following visual inspection shall be conducted after completion of the inspection cited in a above.

Table E-2. Pressure System.

Categories	Defects	Inspection methods
Critical:	None defined	
Major:		
101	Pressure system test.	(E-5*a*)
102	High pressure valve lever inoperative.	(E-5*a*(7))
103	Fuel pressurizing valve lever inoperative.	(E-5*a*(2))
104	Vent valve lever inoperative.	(E-5*a*(2))
105	Operating pressure adjustment key inoperative.	(E-5*a*(7))
106	Emergency vent valve inoperative.	Visual/Manual
107	Air Hoses leaking.	Visual
108	Hose couplings between the air tanks leaking.	Visual
109	Components missing	Visual
Minor:		
201	Identification marking incorrect.	Visual

Table E-3. Ignition System.

Categories	Defects	Inspection methods
Critical:	None defined.	
Major:		
101	Ignition system test.	(E-5*b*)
102	Ignition test switch inoperative.	(E-5*b*(3))
103	Gun selector switch inoperative.	(E-5*b*(2))
104	Spark plug, insulation cracked or broken, electrode burned and pitted. with carbon deposits	Visual
105	Ignition cable breaks, loose connections, damaged.	Visual
106	Components missing.	Visual
Minor:	None defined.	

Table E-4. Fuel System.

Categories	Defects	Inspection methods
Critical:	None defined.	
Major.		
101	Fuel system test.	(E-5*c*)
102	Clamps between fuel tanks leaking.	Visual
103	Clamps on the fuel tube and adapter on the two rear fuel tanks leaking.	Visual
104	Clamps on the fuel tube at the left forward fuel tank and rotary joint leaking.	Visual
105	The flame gun trunnion inlet leaking.	Visual
106	Components missing.	Visual
Minor:	None defined.	

E-5. Tests.

WARNING

Select an open area free of foliage, rubbish or debris and away from personnel and buildings to perform the following tests

a. Pressure System.

WARNING

Assure that the vehicle MASTER SWITCH is OFF, that the circuit breaker in the power cable assembly is OPEN, and that the MASTER POWER switch on the top panel of the fire control box is OFF.

(1) Read the pressure indicated on the HIGH PRESSURE GAUGE. The gauge should indicate 3, 000 psi. Pressure readings from 2, 200 to 3, 000 psi will permit satisfactory operation. Do not proceed if the gauge indicates a pressure of less than 2, 200 psi.

(2) Close No. 2 and No. 3 valves.

(3) Place the vehicle MASTER SWITCH in the ON position.

(4) Place the circuit breaker switch in the ON position.

(5) Place the CUPOLA LIGHT SWITCH in the ON position.

(6) Place the MASTER POWER switch in the ON position.

(7) Slowly open No. 1 valve.

NOTE

Air will be heard rushing into the ignition gasoline tank, and the OPERATING PRESSURE GAUGE should indicate 325 psi. If the gauge indicates a pressure higher or lower than 325 psi, adjust the operating pressure.

(8) Place the GUN SELECTOR switch in the FLAME GUN position.

(9) Depress the finger trigger on the elevation handle.

NOTE

Air will be heard rushing into the flame gun actuator and the pintle rod will retract.

(10) Release the finger trigger.

NOTE

Air will be heard rushing out of the port at the top of the flame gun actuator and the pintle rod will reset.

b. Ignition System

(1) Perform steps (1) through (9) in paragraph *a* above.

(2) Place the GUN SELECTOR switch in the FLAME GUN position.

(3) Hold the IGNITION TEST switch in the OFF position and depress the thumb trigger on the elevation handle for a moment.

(4) Release the IGNITION TEST switch.

(5) Depress the thumb trigger on the elevation handle for a few seconds.

NOTE

Ignition gasoline will be ejected from the gasoline nozzles in the flame gun, be ignited by the ignition spark, and a six foot flame will appear in front of the flame gun nozzle.

c. Fuel System.

(1) Perform (1) through (9) in *a* above.

(2) Slowly open No. 2 valve.

NOTE

Air will be heard rushing into the fuel tanks.

(3) Check for leakage of fuel at the following points:

(*a*) At the clamps between the fuel tanks.

(*b*) At the clamps on the fuel tube and adapter on the rear fuel tanks.

(*c*) At the clamps on the fuel tank and rotary joint.

(*d*) At the flame gun trunnion inlet.

(4) Check for leakage of air at the following points:

(*a*) Hose couplings between the air tanks.

(*b*) All air hose.

NOTE

Blisters on the surfaces of air hose do not indicate that the hose is unserviceable. These blisters can be punctured without impairing the serviceability of the hose.

APPENDIX F

QUALITY ASSURANCE INSPECTION INSTRUCTION

STORAGE SERVICEABILITY STANDARD ADDENDUM

LAUNCHER, ROCKET: 66 mm, 4-TUBE, M202A1

AND LAUNCHER, ROCKET: 66 mm, 4-TUBE, M202

F-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*
1065-00-021-3909	Launcher, Rocket: 66 mm, 4-Tube, M202A1
1055-00-143-6966	Launcher, Rocket: 66 mm, 4-Tube M202

F-2. Policy. The inspection requirements cited herein supplement the coded inspection requirements contained within appendix A when this Test Required Code (TRC) is referenced in the 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, US Army Armament Materiel Readiness Command, ATTN: DRSAR-QAE, Rock Island, IL 61299. Copies of correspondence will provided the Commander, US Army Missile Command, ATTN: DRSMI-QE, Redstone Arsenal, AL 36809.

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

TM 3-1055-456-12	Operator's and Organizational Maintenance Manual (including repair parts and special tools list): Launcher, Rocket, 66 mm, 4-Tube, M202A1 (NSN 1055-00-021-3909).
TM 3-1055-218-12	Operator's and Organizational Maintenance Manual for Launcher, Rocket: 66 mm, 4-Tube, M202.

b. Basis of Surveillance. Surveillance for items listed in paragraph F-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 shall be conducted as follows:

(1) Sampling for visual examination of the Launcher, Rocket shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives and 10.0 percent for Minor Defectives.

(2) Sampling for testing of the Launcher, Rocket shall be conducted in accordance with MIL-STD-105, Single Sampling Plan, Inspection Level S-2, AQL of 4.0 percent for Major Defectives. The sample quantity shall be randomly selected from the sample obtained in (1) above. If the sample is of equal size as that required for testing, the en tire 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 of make up the difference.

F-4. Inspection Procedure. The sample of the item listed in paragraph F-1 shall be visually inspected for packaging, packing, marking and preservation defects as identified in the classification of defects table F-1. The end item and components thereof shall be visually inspected for defects listed in the applicable classification of defects (contained in this paragraph) for the item. The required sample size for the test shall be drawn from the visually acceptable items and subjected to the test(s) as required for the item. Inspection of each sample Launcher, Rocket shall consist of performing all required visual inspection(s) and test(s) as specified herein for the item. Failure of the Launcher, Rocket to pass the visual and/or test requirements shall be cause for rejection of the item.

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

Table F-1. Packaging, Packing, Mashing arid Preservation Launcher, Rocket.

Categories	Defects	Inspection methods
Critical:	None defined.	
Major:		
101	Component missing	Visual
102	Component not secured to unit	Visual
103	Container broken	Visual
104	Container crushed	Visual
105	Container punctured	Visual
106	Wooden support rotted	Visual
107	Wooden facepiece rotted	Visual
108	Hinge broken	Visual
109	Hinge missing	Visual
110	Hasp broken	Visual
111	Hasp missing	Visual
112	Comer protector missing	Visual
113	Identification marking incorrect	Visual
Minor:		
201	Barrier material damaged	Visual
202	Barrier material missing	Visual
203	Steel strapping loose	Visual
204	Steel strapping missing	Visual
205	Protective finish chipped	Visual
Other:	Refer to appendix A "Quality Defect Codes"	Visual

b. Classification of Visual Defects for the Launcher, Rocket. The following visual inspection shall be conducted after completion of the inspection cited in a above.

Table F-2. Launcher, Rocket.

Categories	Defects	Inspection methods
Critical:	None defined	
Major:		
101	Modification Work Orders (MWO's) not applied	Check DA Form 2409 of Launchers to verify application of MWO
102	DA Form 2409 missing	Visual
103	Dented tubes	Visual
104	Cracked tubes	Visual
105	Unraveled. frayed, or loose fiberglass in any tube	Visual
106	Visible Signs of burns on inside of any tube	Visual

Table F-2. Launcher, Rocket-Continued.

Categories	Defects	Inspection methods
107	Front cover trigger handle interlock inoperable	(F-4)*c*(1)
108	Trigger, Trigger safety, and firing mechanism inoperable	(F-4)*c*(2}
109	Damaged parts	Visual
Minor:	Refer to appendix A "Quality Defect Codes"	Visual
Other:	Refer to appendix Visual A "Quality Defect Coded"	

NOTE:
The launcher tubes are made of translucent material and are painted. If the paint is chipped off the tubes, light trill penetrate them. This is not considered an unsafe condition.

c. Operational Checks.

(1) Check operation of front cover trigger handle interlock. If the front cover interlock does not operate as outlined in (a) through (e) below, the launcher is unsafe for use.

(*a*) Release latch on top of launcher to release from cover.

(*b*) Grasp front cover handle and rotate it forward until it stops. Be sure latch is clean.

(*c*) Rotate cover down below launcher tubes and lock it in open position. Use sufficient pressure to release trigger handle form stowed position.

(*d*) Return trigger handle to stowed position to release front cover from locked open position.

(*e*) Rotate front cover up and latch it in closed position.

(2) Check operation of trigger, trigger safety, and firing mechanism. If the trigger, trigger safety and firing pin mechanism do not operate as outlined in (*a*) through (*t*) below, the launcher is unsafe for use.

(*a*) Release latch on top of launcher to release front cover.

(*b*) Be sure that latch is clean. Grasp front cover handle and rotate it forward until it stops.

(*c*) Rotate cover down below launcher tubes and lock it in open position. Use sufficient pressure to release trigger handle from retracted position.

(*d*) Rotate trigger handle to the locked firing position.

(*e*) Place trigger safety button in forward (safe) position and pull trigger. Trigger should not function.

(*f*) Release latch on top of launcher to release rear cover.

(*g*) Rotate rear cover down and beneath launcher tubes.

(*h*) Grasp firing pin mechanism and fully em tend mechanism from launcher keeping it in the same position it was when fully retracted in the launcher. Improper alignment of firing pin mechanism will prevent the trigger from functioning. Hold mechanism firmly while performing operations (*i-1*) below.

(*i*) Place trigger safety in rear (fire) position.

(*j*) Pull trigger four times to see that each spring loaded firing pin releases. If firing pins do not release, slightly rotate firing-pin mechanism to align it (see h above) and repeat operation.

NOTE

The last firing pin released should be in its extended fired position.

(*k*) Place trigger safety in forward (safe) position.

(*l*) Pull trigger. Trigger will operate half of its travel and retract the last fired firing pin from its extended fired position, but should not release (fire) any firing pin.

(*m*) Repeat steps *i* through *k* above.

(*n*) Retract firing pin mechanism into launcher.

(*o*) Check that all firing pins are retracted from their fired position. If any firing pin remains in its extended fired position, the launcher is unsafe for use. Do not load weapon.

(*p*) Place trigger safety in rear (fire) position. Pull trigger. Trigger will operate half of its travel, but should not release (fire) any firing pins.

(*q*) Place trigger safety in forward (safe) position.

(*r*) Install foam pad in launcher, or install spent clip.

(*s*) Close and latch rear cover.

(*t*) Press trigger release button and rotate trigger handle to unlock front cover. Close and latch front cover.

By Order of the Secretary of the Army:

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

Official:

ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

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The Metric System and Equivalents

Linear Measure

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

Weights

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

Liquid Measure

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

Square Measure

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

Cubic Measure

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

Approximate Conversion Factors

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

Temperature (Exact)

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

PIN: 044700-000