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INCH-POUND

MIL-F-44434(GL)
AMENDMENT 2
9 August 1994
SUPERSEDING
AMENDMENT 1
12 August 1992

MILITARY SPECIFICATION

FLASHLIGHT, LIGHTWEIGHT

This amendment forms a part of MIL-F-44434(GL), dated 17 January 1992, and is approved for use by the Department of the Army and is available for use by all Departments and Agencies of the Department of Defense.

PAGE 2

2.1.1: Delete "MIL-B-18/7 - Battery, Dry, BA-27" and add "MIL-B-49030/6 - Battery, Dry, BA-3058/U".

Add "MIL-C-44031 - Cloth, Camouflage Pattern, Woodland, Cotton and Nylon"

2.2: Delete "D 2000 - Standards Classification.....Application".

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3.4: Delete the last sentence.

3.4.1, line 4: Delete "render the flashlight unserviceable" and substitute "interfere with the proper operation of the flashlight".

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3.6: Delete and substitute:

"3.6 Watertightness. With the filter detent mechanism positively positioned in either filter mode (no filter or red filter), the flashlight shall be watertight and shall show no evidence of moisture within the interior cavities when tested as specified in 4.4.2.12. The flashlight shall operate normally (turn on and off and switch between red and white light) when tested as specified in 4.4.1.12. Gaskets shall be provided on all flashlights, where necessary, to prevent the entrance of moisture into the interior cavities or into the switch contacts."

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PAGE 4 (cont'd)

3.7, lines 5 and 6: Delete "or other approved means" and substitute "mechanism".

At the end of the paragraph: Add "With the filter in place, only red light shall be emitted."

3.8, line 2: Delete "shall be able to be held and" and substitute "filter detent mechanism as well as the on-off switch must be able to be held and".

Line 10: Delete "4.2.2" and substitute "4.4.2".

3.9, line 1, after "construction": Delete "and shall" and substitute " , made of corrosion resistant metal, and ".

Line 2, after the first sentence: Add "The lanyard ring shall have two modes of operation: one where it is in use and free to rotate around its attachment and another mode where it is not in use and is seated firmly in its recess."

3.10, line 3, after "inverted": Insert "(see 4.4.2.11)".

3.11, line 2: Delete "MIL-B-18/7" and substitute "MIL-B-49030/6".

3.12, line 2: Delete "0.2 pounds" and substitute "3.2 ounces".

3.13: Delete and substitute:

"3.13 Size/Configuration. The flashlight shall be configured as shown in figure 1. The flashlight shall be cylindrical in shape with a total volume not to exceed 5.0 cubic inches, and shall have a maximum overall length of 6.5 inches. The body (battery housing) and lamp head shall have maximum diameters of 0.85 and 1.135 inches respectively. The lanyard ring shall be attached to the body at the end opposite the lamp head. The pocket clip shall have at least 1 inch of reach. The near end of the pocket clip shall be attached to the body at a point between 2.0 inches and 2.5 inches from the lamp head end of the flashlight. The switch shall be located on the outside of the body of the flashlight directly behind the head of the flashlight as shown in figure 1."

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4.4.2, table II: Add the following to the table:

"Watertightness	3.6	4.4.2.12
Detent mechanism	3.8	4.4.2.10
Pocket clip	3.10	4.4.2.11".

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4.4.2.2, line 3, after "vigorously": Insert "in a horizontal and then a vertical direction".

Line 3, after "position.": Insert "Shake vigorously shall be defined as moving back and forth between 6 and 12 inches at a rate of 180 cycles per minute for 1 minute."

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4.4.2.5, line 2: Delete "fresh" and substitute "fully charged".

4.4.2.7, line 5, after "lamp,": insert "or lamp filament".

4.4.2.8, line 4: Delete "The flashlight shall then be compared with untested flashlights" and substitute "The same flashlight shall be compared before and after environmental conditioning".

Add the following new paragraphs:

"4.4.2.10 Detent mechanism test. The detent mechanism of the flashlight shall be tested by cycling the red filter for 2500 continuous cycles at 15 to 20 cycles per minute. A cycle shall consist of actuating the detent mechanism so that the red filter is positively in position over the lamp and reversing the action so that the red filter is positively retracted out of position. This test shall be conducted with the switch in the "on" position with the light being emitted from the flashing helping to determine if the filter is in place as well as the actuating of the detent mechanism. The detent mechanism shall be operated under normal electrical conditions, and the lamp and batteries shall be replaced as often as required to ensure that the detent mechanism is operating throughout the 1500 cycles. Burning out of the bulb shall not constitute a failure of this test. Failure of the detent mechanism to position the filter over the lamp or retract the filter shall constitute failure of this test.

4.4.2.11 Pocket clip test. The strength of the pocket clip shall be tested to ensure retention of the flashlight in pockets made of lightweight material. A single layer of cloth conforming to class 2 of MIL-C-44031 shall be inserted fully between the pocket clip and the flashlight body. A suitable test instrument shall be used to measure the force required to pull the fabric out from under the pocket clip. The fabric shall be pulled in a straight and parallel direction to ensure the fabric is pulled out in the same direction as it will be in actual service. The fabric shall be pulled at a rate of 12 inches per minute. Force less than 0.30 pounds required to pull out the fabric shall constitute failure of this test.

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4.4.2.12 Watertightness test. This test shall be run twice. The flashlight shall be allowed to completely dry between tests. The first test shall be run with the filter detent mechanism positively positioned so that non-filtered light is emitted. The second test shall be run with the filter detent mechanism positively positioned so that only filtered light is emitted. The flashlight, complete with bulb and batteries, shall be assembled. All threaded, gasketed interfaces shall be assembled hand tight if designed to be tightened. Hand tight shall be tight enough to ensure a good seal without damaging or unduly compressing the gasketing material. Submerge flashlight in water at room temperature ($77^{\circ}F \pm 5^{\circ}F$) for one-half hour at a depth of 6 inches. Remove the flashlight, wipe the outside dry, and inspect. Nonconformance to 3.6 shall constitute failure of this test.

Custodian:

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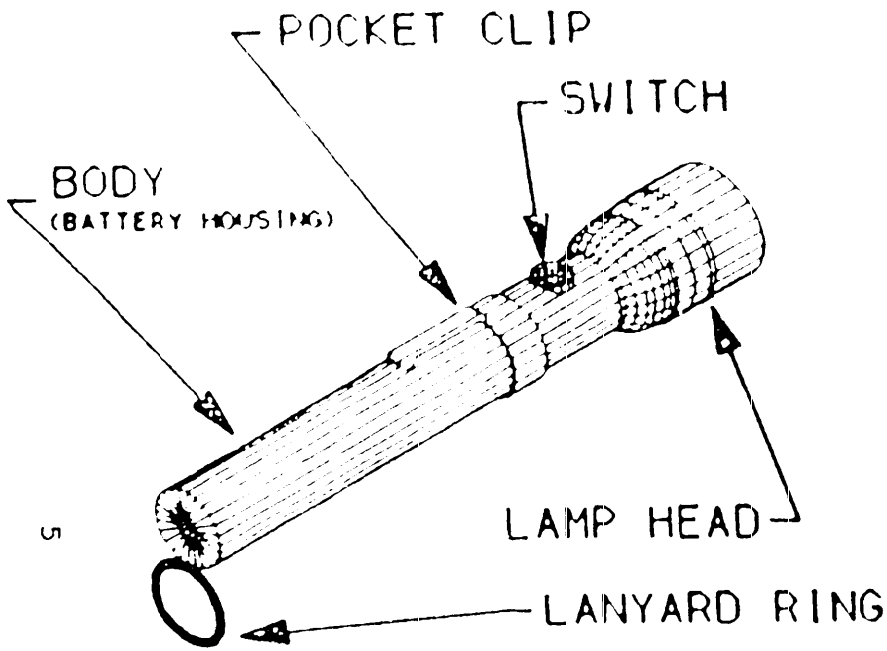
(Project 6230-A323)



NOTES:

1. THIS FIGURE TO SHOW GENERAL CONFIGURATION ONLY.
2. LANYARD RING SHOWN IN 'IN-USE' MODE.
3. THE FOLLOWING FEATURES (CONSTRUCTION REQUIREMENTS) ARE NOT SHOWN:
   1. SPARE BULB HOLDER
   2. GASKET(S)
   3. RED FILTER
   4. FILTER DETENT MECHANISM

FIGURE 1
FLASHLIGHT CONFIGURATION

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