

| INCH-POUND |

MIL-P-43607G  
AMENDMENT 4  
8 June 1992  
SUPERSEDING  
AMENDMENT\* 3  
2 June 1987

MILITARY SPECIFICATION

PADLOCK, KEY OPERATED, HIGH SECURITY, SHROUDED SHACKLE

This amendment forms a part of Military Specification MIL-P-43607G, dated 18 June 1986, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 3

3.1: Delete and substitute:

\* "3.1 Description. The shrouded shackle, high security padlock, hereinafter referred to as the "padlock," shall be a single, key operated type (proprietary military keyway) utilizing a special key for disassembly. Padlocks shall be keyed individually. The padlock body or case shall extend beyond the shackle as a shield. The extension shall extend 0.125, +0.010 or -0.050 inch (3.175, +0.254 or -1.270 millimeter (mm)) beyond the top of the shackle when the padlock is locked closed and suspended on a hasp. The extension shall also provide a shield on all sides of the shackle except at the throat opening provided for the hasp. The periphery (girth) of the body or case (measured on a plane perpendicular to the long axis of the padlock) shall be of approximate uniform outside dimensions extending from the bottom, through the midsection, and to the top of the extension except for minor deviations required for indentations, notches, and taper for fit and appearance. The configuration shall provide for close mating with the hasps specified herein. The padlock, locked on these special hasps, shall constitute a locking system highly resistant to forced and surreptitious entry as detailed within this specification. A unit, as referred to herein, shall be one completely assembled padlock with keys. See figure 1 for examples of padlocks with a shrouded shackle."

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3.6.3.2: Change to read:

\* "3.6.3.2 Key. The padlock shall be furnished with three keys: two operating keys and one control key. Terms for parts of keys used herein are defined below and shown on Figure 2. However, the design of the lock is not to be restricted to only that type of key.

Bow - The handle, or head, of a key. On a cylinder key, that part beyond the shoulder that does not enter the keyway and by which the key is held and turned.

Blade - Part that is inserted into the lock cylinder key way.

Bit - The section of a key that enters a lock, which has the key cuts formed in it and which engages the bolt or tumblers of the lock. The bit is called a blade in the case of a cylinder lock.

Bit Key - A key with a blade, called a bit, which projects from the side of a round shank near the tip and on which are made key cuts to clear the wards on a warded lock.

Key Cut - A square, rounded or V-shaped depression, filed or machined into a key. In tumbler locks, the series of key cuts on a key causes the tumblers to line up at the shear line or gate so the lock will open. In warded locks, the key cuts bypass the wards so the key can push or pull the bolt.

Key Section - The shape of a key blade in cross section, viewed in the plane perpendicular to the length of the blade. The key section is determined by the shape of the keyway it fits."

3.6.3.2.1: Change to read:

\* "3.6.3.2.1 Key material hardness. All component parts of the key shall have a hardness not less than 75 HRB in accordance with ASTM E18 (see 4.6.3.12)."

3.6.3.2.2: Change to read:

\* "3.6.3.2.2 Key strength. Keys shall have sufficient strength to insure against premature failure in service. This strength shall be measured by the test in 4.6.3.13. That test requires the key to withstand 9 inch-pounds of torque applied to the key's deepest key cut (smallest cross-sectional area) for 30 seconds."

3.6.3.2.4: Change to read:

\* "3.6.3.2.4 Key cut limits. Test results will determine the safe key cut limits at any point on the blade to sustain the 9 inch-pounds torque required in 4.6.3.13."

3.6.3.2.5: Delete and substitute:

\* "3.6.3.2.5 Key marking. All keys shall be stamped with: "US MILITARY PROPERTY - DO NOT DUP." The control key shall also be stamped with the legend: "CONTROL KEY."

3.6.3.2.7.1: Delete and substitute:

\* "3.6.3.2.7.1 Key serial numbers. Serial numbers of keys shall be placed on a metal tag affixed to the key ring. The serial number shall not be stamped or appear anywhere on the key. The serial number shall be stamped on the tag with characters not less than 0.094 inch (2.381 mm) in height. The serial number shall not in any way disclose the key bitting either directly or by commercially available or published coding."

\* Table I, Defect 114: Change to read:

Classification	Defect	Requirements Paragraph
114	Keys without the required numbers and words.	3.6.3.2.5

4.6.3.13: Change to read:

\* "4.6.3.13 Key strength test. The manufacturer shall furnish 24 milled to shape but otherwise uncut key blanks and the depth code for each of the key cuts used by the lock. This test will establish the limit in depth of a key cut. The test facility will cut a key to the deepest bitting specified by the manufacturer in the bit location closest to the key bow. The bow key ring hole will be enlarged if necessary, and a 19 inch (.48 m) length of 1/4 inch (6.35 mm) diameter, all thread rod inserted. Affix two appropriate sized nuts and washers to the rod so the key is solidly fixed at the midpoint of the rod. Clamp the key horizontally in a vise, but not past the deepest bit cut. Mark the position at the end of the rod on a fixed, immovable surface. Apply a torque force of not less than 9 lbf-inch (0.9 Nm) to the end of the rod for not less than 30 seconds. Release the torque load and mark the position of the end of the rod. A difference of more than 0.125 inches (3.18 mm), shall constitute a failure. Should a key fail, another key, cut to the next shallower key cut will be tested. The test will be repeated twice after a successful test to insure a total of three successes. The key cut depth determined capable of passing this test for the particular keyway design used, is the deepest cut the manufacturer is to be allowed to use. If this depth differs from that which the manufacturer intended to use, the requirement of paragraph 3.4.1, the relative 100,000 unique key changes may be affected."

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PAGE 22

- \* 6.4 Subject term (Keyword) listing: Add the following to the keyword list:  
"Chemicals"

PAGE 23

- \* Concluding material: Add to Review Activities: "Air Force - 82"

PAGES 24 and 25

- \* The attached insertable replacement pages listed below are replacements for stipulated pages. When the new pages have been entered in the document, insert page 1 of the amendment as the cover sheet to the specification.

<u>Replacement page</u>	<u>Page replaced</u>
24	24
25	25

Changes from previous issue. The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:  
Army - AR  
Navy - YD  
Air Force - 99

Preparing activity:  
Navy - YD  
  
(Project 5340-2023)

Review activities:  
Army - GL  
\* Air Force - 82  
DLA - IS

User activities:  
Army - CE  
Navy - CG, MC, OS, SH

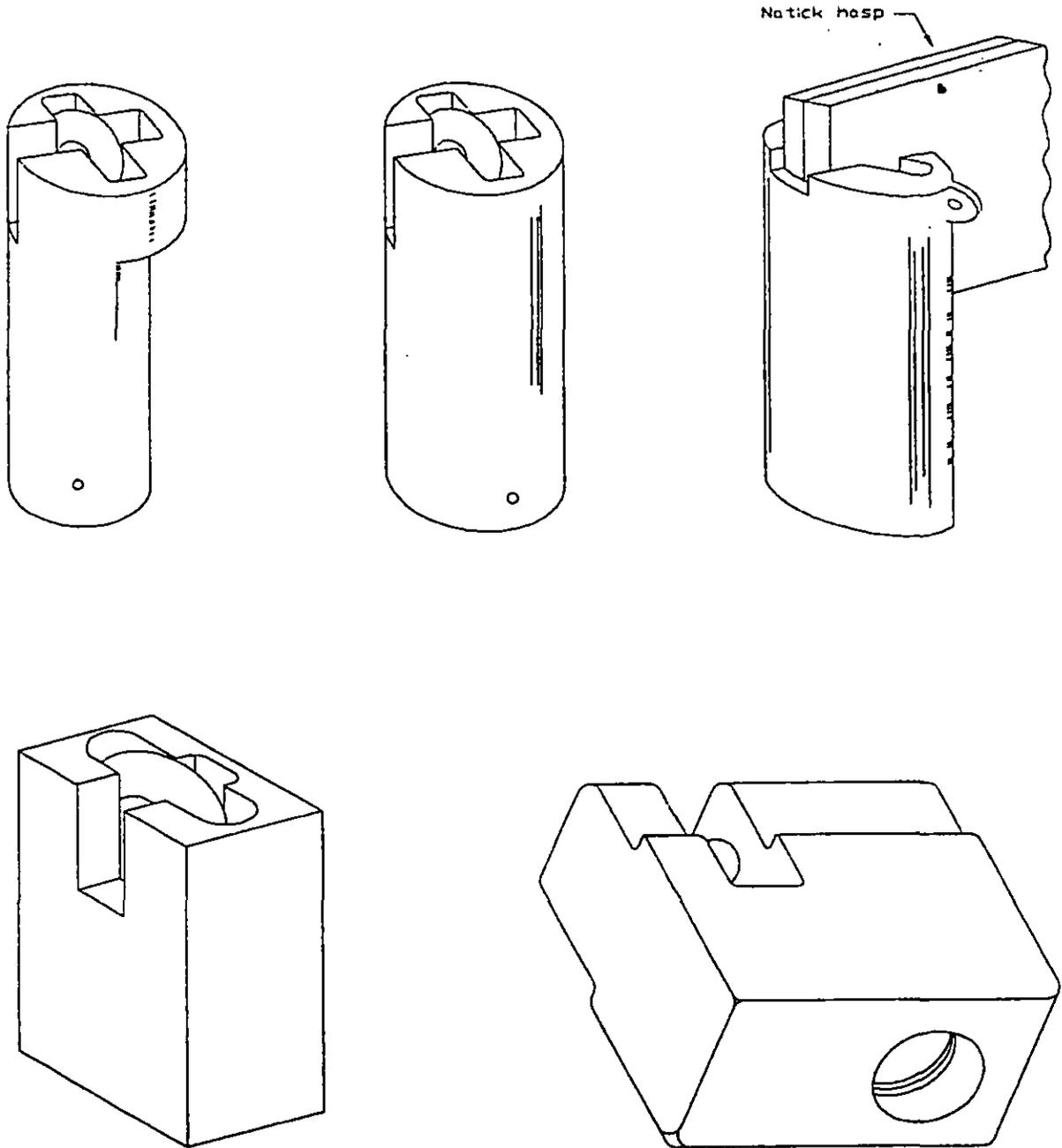


FIGURE 1. Example of padlocks with shrouded shackles.

Supersedes page 24 of MIL-P-43607G of 16 June 1986.

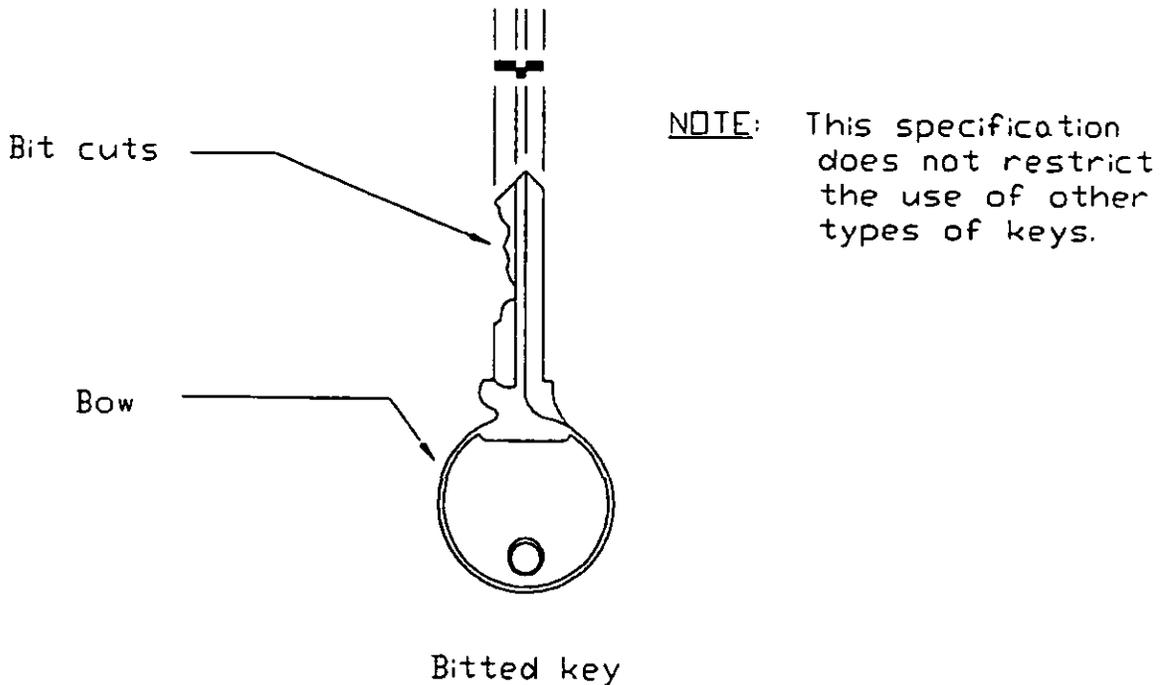
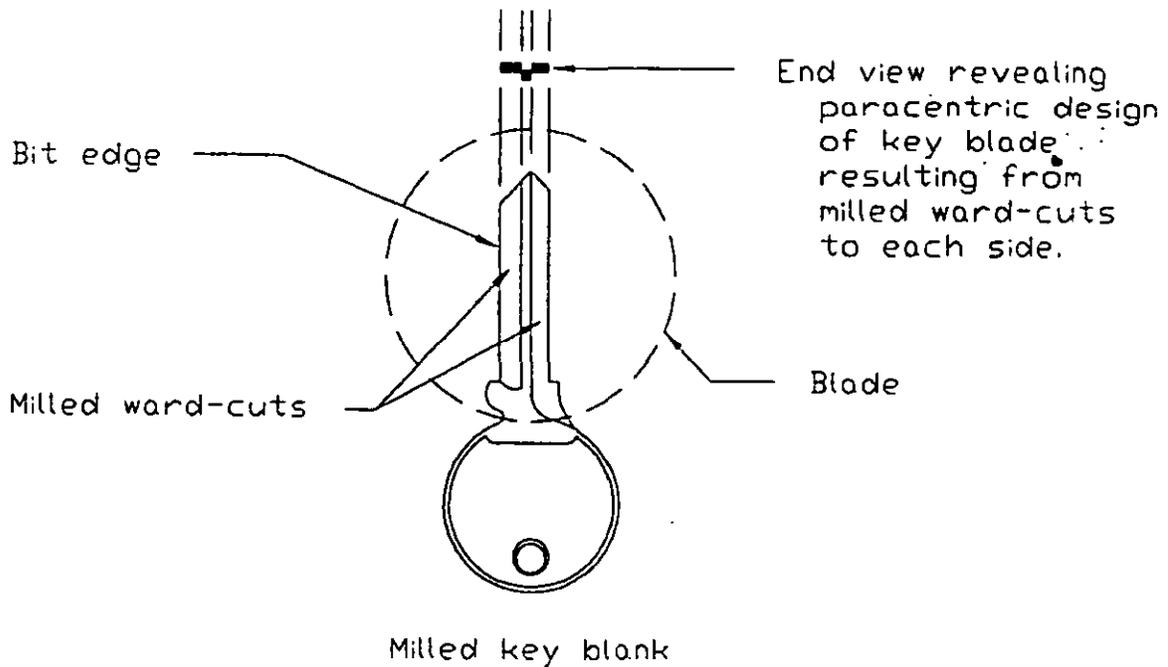


FIGURE 2. Key nomenclature.

Supersedes page 25 of MIL-P-43607G of 16 June 1986