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* INCH-POUND *

FF-P-2827
June 18, 1993

FEDERAL SPECIFICATION

PADLOCK, KEY OPERATED, GENERAL FIELD SERVICE

This specification is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers two sizes of "U" shaped shackle, key operated, heavy-duty commercial padlocks.

1.2 Classification. The padlocks covered by this specification shall be Grade 2 for Size A and Grade 3 for Size B as specified (see 1.2.1 and 3.2).

1.2.1 Size. The size shall be determined by the shackle stock diameter:

Size A - Nominal 0.375 +/-0.020 inch (10 +/-0.51 millimeter [mm]) shackle diameter.
Size B - Nominal 0.500 +/-0.020 inch (13 +/-0.51 mm) shackle diameter.

1.2.2 Part or identifying number (PIN). The PIN for the padlocks covered by this specification shall be FFP2827-A and FFP2827-B (see 6.2 and 6.5).

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

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* Beneficial comments (recommendations, additions, deletions) and any *
* pertinent data which may be of use in improving this document should be *
* addressed to: Commanding Officer (Code 156), Naval Construction Battalion *
* Center, 621 Pleasant Valley Road, Port Hueneme, CA 93043-4300, by using *
* the Standardization Document Improvement Proposal (DD Form 1426) appearing *
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Federal Specifications

PPP-B-566 - Boxes, Folding, Paperboard
PPP-B-601 - Boxes, Wood, Cleated-Plywood
PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner
PPP-B-636 - Boxes, Shipping, Fiberboard
PPP-T-60 - Tape: Packaging, Waterproof

Federal Standard

FED-STD-123 - Marking For Shipment (Civil Agencies)

Military Specification

MIL-P-116 - Preservation, Methods of

Military Standards

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-889 - Dissimilar Metals

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

(Copies of specifications, standards, handbooks, drawings, publications, and other Government documents required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Non-Government publications. The following document(s) form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are Department of Defense (DoD) adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of the documents not listed in the DODISS are the issues of the documents which are current on the date of the solicitation (see 6.2).

ASTM

ASTM D3951 - Commercial Packaging
ASTM E18 - Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials
ASTM F883 - Padlocks

(Application for copies should be addressed to ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detailed specifications, specification sheets, or MS standards), the text of

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this specification takes precedence. Nothing in this specification, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Description. The "U" shaped nonremovable type shackle, general field service, key operated padlock, hereinafter referred to as "padlock(s)" or "unit(s)" has a body (or case) that has no projections which will cover or shroud the shackle. The padlock shall offer a high degree of protection against the various forms of corrosion and deterioration encountered in inclement environments and harsh operational use. The major components of a padlock shall be a body, a keyed cylinder, a heel and toe dead bolt locking mechanism and a retained "U" shaped shackle. The shape of the padlocks shall be at the option of the contractor, provided the assembled padlock conforms to all requirements specified herein.

3.2 Padlock samples. Padlocks submitted for inspection shall as a minimum conform to requirements of ASTM F883 type PO1, options A, B, and G, and perform as required to meet the following criteria from ASTM F883:

	Grade 2 (G2)	Grade 3 (G3)
a. Forcing tests	F4	F6
b. Surreptitious entry tests	S2	S2
c. Cycle tests	C3	C3
d. Corrosion and environmental tests	CE6	CE6

3.2.1 Bid samples. Unless otherwise specified (see 6.2), each bidder shall furnish, with the bid, 17 samples of the padlock with key sets they propose to furnish under the contract for inspection as specified in 4.3. In addition, unless otherwise specified (see 6.2), 10 milled, uncut key blanks shall be furnished for testing. One intact unit of each of the selected product will be retained by the testing agency and one intact unit of each will be returned to the selected bidder to be used as a guide in manufacturing the first article and production quantity. All samples submitted will be competitively tested and the manufacturers' proprietary information protected. Test results and tested samples become property of the Government to protect testing methods and techniques, and manufacturers' proprietary information (see 3.2.2 and 6.4). Test units will not be returned to the bidder or supplier.

3.2.2 First article. Unless otherwise specified (see 6.2), 10 padlocks and key sets shall be furnished for first article testing and approval (see 4.4 and 6.4). If the requirement for bid samples is waived, 17 padlocks and key sets shall be furnished for the first article testing approval. In addition, unless otherwise specified (see 6.2), 10 milled, uncut key blanks shall be furnished for testing. The first article units shall be selected at random from the first 100 standard production units or from the contractor's current inventory. If approved, one intact unit of the first article submission will be forwarded to the cognizant quality assurance representative and one intact unit shall be returned to the contractor to serve as the manufacturing standard. No deviation from the manufacturing standard shall be acceptable without formal written approval of the contracting officer in advance. Certification of compliance with this paragraph shall be provided to the inspector with each production quantity lot presented for inspection and acceptance. Tested units become the

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property of the Government to protect testing methods and manufacturers' proprietary information. The test unit will not be returned to the bidder or the supplier.

3.3 Materials. Materials used shall be free from defects which would adversely affect the performance or maintainability of the individual components or of the overall assembly. Materials not specified herein shall be of the same quality used for the intended purpose in commercial practice. Unless otherwise specified herein, all equipment, material, and articles incorporated in the work covered by this specification are to be new and fabricated using materials produced from recovered materials to the maximum extent possible without jeopardizing the intended use. The term "recovered materials" means materials which have been collected or recovered from scrap material and reprocessed to become a source of raw materials, as opposed to virgin raw materials. Unless otherwise specified, none of the above shall be interpreted to mean that the use of used or rebuilt products is allowed under this specification.

3.3.1 Material deterioration and control. The padlock shall be fabricated from compatible materials, inherently corrosion and deterioration resistant, or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable storage and operating environments to which the padlock may be exposed.

3.3.1.1 Dissimilar metals. Dissimilar metals, as defined in MIL-STD-889, shall be insulated from one another to minimize or prevent galvanic corrosion.

3.3.1.2 Identification of materials and finishes. The contractor shall identify the specified material, material finish, or treatment used for, on, or between components and sub-components, and shall make such information available, upon request, to the contracting officer or designated representative.

3.4 Design. The major components of a padlock shall be a body, a keyed cylinder, a heel and toe dead bolt locking mechanism and a retained "U" shaped shackle. The shape of the padlocks shall be at the option of the contractor, provided the assembled padlock conforms to all requirements specified herein. Padlocks manufactured to size A specifications shall have a nominal 0.375 inch (10 mm) diameter shackle and clear dimensions of 1.25 inches (31.75 mm) vertically and 1.25 inches (31.75 mm) horizontally. Padlocks manufactured to size B specifications shall have a nominal 0.50 inch (13 mm) diameter shackle and clear dimensions of 1.50 inches (38.10 mm) vertically and 1.25 inches (31.75 mm) horizontally. The padlocks shall secure closures of 0.375 inch (10 mm) and 0.50 inch (13 mm) diameter steel security chains, gate hasps, cargo closures/tiedowns, warehouse and shed doors, etc. Each padlock within its size group shall be keyed differently. The assembled individual padlock (either size A or B) shall have a volume that is not more than 24 cubic inches (0.00042 cubic meters), and shall not weigh more than 3 pounds (lb) (1.36 kilograms [kg]). Unless otherwise specified, dimensional tolerances are +/-0.020 inches (+/-0.51 mm), capture tolerances for size A and B shall be +0.25 inches (+6.35 mm).

3.4.1 Key and keyways. There shall be not less than 15,000 different key changes for each size of padlock supplied under any one contract. For both sizes, the key shall be captive in the cylinder when the padlock is unlocked.

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3.4.2 Key integrity. The keys furnished with any one padlock shall not be capable of locking, unlocking, or removing the cylinder of any other padlock. Each key shall resist manipulation for a minimum of one minute.

3.4.3 Forced entry resistance. The padlock shall withstand a concentrated forced entry attack using a hammer not to exceed 3 lb (1.36 kg) in weight with a handle 18 inches (0.45 meter) in length for 1 minute.

3.5 Detailed requirements. The padlock, components, and keys shall be as specified in 3.5.1 through 3.5.4.1.

3.5.1 Body. The complete assembled body of the padlock shall have no openings other than shackle openings, keyway and drainage holes. If drain holes are included, they shall not allow manipulation of the lock. The body shall incorporate a means to prevent access to the locking mechanism, except by use of the operating key.

3.5.2 Shackle. The shackle dimensions shall be as specified in 3.4. The shackle shall remain securely attached when the padlock is in the unlocked fully opened position and shall be capable of being separated from the padlock only when the padlock is disassembled.

3.5.3 Locking mechanism. The shackle shall be held in the locked position at both heel and toe by a dead locking action. The padlock shall open when the key is turned in the clockwise direction and lock when the key is turned in the counterclockwise direction. The operating key shall be retained in the keyway of the cylinder and shall not be removable when the padlock is in the open position. The locking mechanism shall not depend on spring action to hold the shackle in the locked position. End pressure on the locking mechanism, when exerted by a burglar’s tool known as a "shim" or "sneaker," shall not move it.

3.5.3.1 Cylinder assembly. The cylinder assembly of the locking mechanism shall have a plug with only two distinct positions: locked and unlocked.

3.5.3.1.1 Cylinder assembly removal. The cylinder assembly shall be securely retained within the padlock body when the cylinder plug is in either the locked or unlocked position. When removed from the padlock body, the cylinder assembly shall remain as one assembly.

3.5.3.1.2 Cylinder assembly interchangeability. A cylinder assembly from any one padlock delivered under contract shall be interchangeable with a cylinder assembly from any other padlock delivered under the same contract.

3.5.3.2 Keys. Each padlock shall be furnished with two keys. Identical keys for each padlock shall be joined with a steel wire ring. The steel ring with keys attached shall fit over the shackle.

3.5.3.2.1 Key material hardness. The key material shall have a hardness that is not less than Rockwell hardness number of 75 on Rockwell B scale (75 HRB) in accordance with ASTM E18.

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3.5.3.2.2 Key deformation resistance. The key shall resist a torque of 8 pounds force-inch (lbf-in) (0.9 Newton meters [Nm]) without permanent set deformation when measured at the end of an 8-inch (203 mm) lever. The maximum cross section of the material being torqued shall be no greater than the thinnest section of the key blade (see 4.6.3.5).

3.5.3.2.3 Key shapes. The bows of the operating keys shall be identical.

3.5.3.2.4 Key markings. In addition to the individual key markings specified in 3.5.3.2.5, all keys shall be stamped with: "US GOVT PROPERTY - DO NOT DUP."

3.5.3.2.5 Key serial numbers. The two keys for each padlock shall be identified by the same serial number stamped on each key. The characters shall not be less than 0.094 inch (2.38 mm) in height. The serial number shall not in any way disclose the key bitting either directly or by commercially available or published coding.

3.5.3.2.6 Operating keys. The operating keys shall lock and unlock the padlock.

3.5.3.2.7 Master keys. When specified in the contract, two master keys shall be supplied with each set of five padlocks (see 6.2).

3.5.4 Appurtenances, slides, or covers. Appurtenances, slides, or covers that may be incorporated in the padlock shall be secure when the locking mechanism is in both the locked and unlocked positions.

3.5.4.1 Keyway cover. Any keyway cover or plate shall remain aligned with the keyway. There shall be no keyway cover or obstruction which requires any special action or separate maneuver by the padlock user before a key can be inserted in the keyway.

3.6 Lubrication and maintenance. An environmentally safe dry film lubricant that does not attract foreign particulates shall be used. Lubrication and maintenance shall be specified by the manufacturer, to meet requirements specified herein.

3.7 Color and finish. The color of the padlock shall be the natural color of the body material. All surfaces shall have a uniform finish of sufficient smoothness to accept the required marking. The finish shall be determined by the manufacturer in order to meet all environmental requirements specified herein.

3.8 Identification marking. The body of the padlock shall be marked with the letters "US," the manufacturer’s name, trademark or CAGE number, some traceable model identification, the year of manufacture, and an alphanumeric serial to match the key to a padlock(s) for accountability. The markings may be stamped, rolled, cast, or applied in any other manner that will assure legibility after the padlock has been exposed to the testing specified herein, with the exception of forced entry.

3.8.1 Prohibited marking. There shall be no markings on the padlock exterior which would aid in the unauthorized opening of the padlock.

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3.9 Instructions. Operating and maintenance instructions shall be furnished with each padlock as are normally furnished with such equipment for the commercial market.

3.10 Workmanship. The padlock and keys shall be free from sharp edges, burrs, and slivers that affect serviceability or appearance.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3, 4, and 5. The inspection requirements set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility for ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Component and material inspection. Components and materials shall be inspected in accordance with all the requirements specified herein and in applicable reference documents.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. Bid sample inspection (see 4.3 and 6.3).
b. First article inspection (see 4.4 and 6.4).
c. Quality conformance inspection (see 4.5).
d. Inspection of packaging (see 4.7).

4.3 Bid sample inspection. Bid sample inspections shall be conducted by agencies as specified in the contract. Sample selection shall be at the manufacturer's option as specified in 3.2.1 and 4.3.1.

4.3.1 Bid sample examination. Bid sample padlocks shall be examined for defects listed in table I. The presence of any visual defect, any dimensions not within specified requirements, or failure to pass any test shall be cause for rejection of the bid. Bid sample padlocks, after inspection, shall be handled as specified in 3.2.1 unless otherwise specified in the contract. Bid samples shall be preproduction or standard production units from the contractor's current inventory.

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Table I. Classification of defects

Classification	Defects	Requirement Paragraph
Critical		
01	Design of padlock does not permit mating to specified chain, or exceeds volume or weight limits specified.	3.4
02	Key and keyway design do not have at least 15,000 different key changes.	3.4.1
103	Shackle capable of being separated from padlock by means other than as specified.	3.5.2
04	Any prohibited marking on padlock exterior.	3.8.1
Major		
101	Material not as specified.	3.3
102	Material deterioration control not as specified.	3.3.1
103	Dissimilar metals not insulated to minimize or prevent galvanic corrosion.	3.3.1.1
104	Body of padlock has openings other than as specified.	3.5.1
105	Shackle not of size specified.	3.5.2
106	Locking mechanism not as specified.	3.5.3
107	Cylinder assembly and removal not as specified.	3.5.3.1 and 3.5.3.1.1
108	Keys not furnished in quantities or joined as specified.	3.5.3.2 and 3.5.3.2.7
109	Keys without the required markings.	3.5.3.2.4 and 3.5.3.2.5
110	Padlock not lubricated as specified.	3.6
111	Workmanship not as specified.	3.10
Minor		
201	Information to identify material and finish or treatment not available.	3.3.1.2
202	Color and finish of padlock not as specified.	3.7
203	Identification markings omitted from padlock, not as specified, or illegible following testing.	3.8
204	Instructions not furnished with padlock.	3.9

4.3.2 Bid sample test. Bid sample padlocks shall be tested in accordance with 4.6.2 and 4.6.3.6.

4.4 First article inspection.

4.4.1 Sampling for first article. When a first article is required for locks that were inspected as bid samples, refer to paragraphs 3.2.2 and 6.2.1.1.

4.4.2 First article tests. The first article shall be subjected to the tests as specified in 4.6.2 and 4.6.3.6 (see 6.4). Failure of any test shall be cause for rejection.

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4.5 Quality conformance inspection.

4.5.1 Sampling.

4.5.1.1 Sampling for examination. Sampling for examination shall be in accordance with MIL-STD-105 (see 6.2.1.2).

4.5.1.2 Sampling for tests. Padlocks shall be randomly selected from the lot submitted for acceptance in accordance with MIL-STD-105 (see 6.2.1.3).

4.5.2 Examination. Samples selected in accordance with 4.5.1.1 shall be examined for defects as specified in 4.6.1.

4.5.3 Test. The padlocks selected in accordance with 4.5.1.2 shall be subjected to the tests specified in 4.6.3.

4.6 Inspection conditions. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions and procedures specified herein.

4.6.1 Classification of defects. The padlocks with keys, selected as specified, shall be examined for the defects indicated on table I.

4.6.2 Test conditions. Except as otherwise specified herein, tests shall be conducted at prevailing ambient temperatures and humidity in the test facility.

WARNING FOR THOSE RESPONSIBLE FOR TESTS

THESE TESTS ARE HAZARDOUS DUE TO THE TOOLS USED. PROPER PERSONNEL PROTECTION (CLOTHING, EYE PROTECTION, GLOVES, ETC.), CONTAINERS AND EQUIPMENT ARE NECESSARY.

THE UNITED STATES GOVERNMENT NEITHER ASSUMES NOR ACCEPTS RESPONSIBILITY FOR ANY INJURY OR DAMAGE TO NON-GOVERNMENT PERSONNEL OR PROPERTY THAT MAY OCCUR DURING OR AS A RESULT OF ANY TEST REQUIRED BY THIS SPECIFICATION.

4.6.3 Test procedures. Tests shall be conducted in accordance with ASTM F883 Type PO1, options A, B, and G as follows and 4.6.3.1 thru 4.6.3.6.

	Grade 2 (G2)	Grade 3 (G3)
a. Forcing tests	F4	F6
b. Surreptitious entry tests	S2	S2
c. Cycle tests	C3	C3
d. Corrosion and environmental tests	CE6	CE6

4.6.3.1 Forced entry test. The padlock shall withstand a concentrated forced entry for a minimum of 1 minute, using a 3-lb (1.36 kg) hammer with an 18-inch (457 mm) handle. If the padlock opens, it shall constitute a failure.

4.6.3.2 Key integrity test. The test padlock shall be a locked padlock. The keys from 10 other padlocks selected at random from all the padlocks in the sample shall be used to attempt to unlock the test padlock. A key from each of the 10 padlocks shall be fully inserted into the keyway. The key shall then be slowly withdrawn while applying a jiggling-twisting force in the direction that

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the lock normally opens. The padlock shall resist the withdrawing and jiggling-twisting force for a minimum of 1 minute with each key without opening.

If the test padlock opens, it shall constitute a failure.

4.6.3.3 Cylinder interchangeability test. Remove the cylinder assemblies from the test padlocks and insert each of them into different padlocks. Operate each padlock through not less than five cycles. If the padlocks fail to lock and unlock using each of the replacement cylinder/key assemblies, it shall constitute a failure. A cycle consists of the following:

a. Fully insert the key into the keyway.
b. Rotate the key and cylinder plug the necessary number of degrees to open the padlock.
c. Pull the shackle fully open.
d. Reengage the shackle to the locked position.
e. Return the key and cylinder plug to the locked position.
f. Fully retract the key from the cylinder plug.

4.6.3.4 Key hardness test. Padlock cylinder key blanks shall be tested for hardness in accordance with ASTM E18. Key material shall have a hardness not less than 75 on the Rockwell B scale. Key material that does not meet this standard shall constitute a failure.

4.6.3.5 Key deformation resistance test. Cut a key blank in the first position next to the key bow to the maximum depth of the deepest bit cut employed in the bitting design. Clamp the key in a vise and attach an 8-inch (203 mm) lever to the key blank bow in such a manner that it will not separate from the bow under the torque load to be applied in this test procedure. Mark the position of the end of the lever opposite the bow on a fixed, immovable surface. Apply a torque force of not less than 8 lbf-inch (0.9 Nm) to the key blank bow for not less than 1 minute. Release the torque load and mark the position of the end of the lever opposite the bow. A difference of more than 0.125 inch (3.18 mm) after torque unloading shall constitute a failure.

4.6.3.6 Operating key function test. Operate a padlock through 10 cycles of the steps specified in 4.6.3.3. The cyclic procedure shall be modified so that each time the padlock is unlocked, an attempt to withdraw the key from the padlock shall be effected. Failure of the padlock to unlock, lock or the release of the operating key when the padlock is open, shall constitute a failure. If the keyway cover or plate (where applicable) does not remain aligned with the keyway, it shall also constitute a failure.

4.7 Preparation for delivery inspection.

4.7.1 Quality conformance inspection of pack.

4.7.1.1 Unit of product. For the purpose of inspection, a completed pack prepared for shipment shall be considered a unit product.

4.7.1.2 Sampling. Sampling for examination of the pack shall be in accordance with MIL-STD-105, level S-3.

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4.7.1.3 Examination. Samples selected in accordance with 4.7.1.2 shall be examined for defects in accordance with table II. Acceptable Quality Level (AQL) shall be 2.5 percent defective except as noted (see 1/ of table II).

Table II. Defects in packaging.

Class	Defect	Level A	Commercial
Major			
119	Advertising and registration forms included in the package.	5.1	5.1
120	Envelope/bag for keys not printed as specified.	5.1.1.1	5.1.2.1
121	Matching keys and instruction sheets not in unit container with padlock as specified.	5.1.1.1	5.1.2.1
122	Unit container not sealed with reinforced tape as specified.	5.1.1.1	5.1.2.1
123	Sealed bag enclosing the unit container for level A preservation not style 2 (transparent) as specified.	5.1.1.1	
124	Improper quantity of padlocks placed in intermediate container.	5.1.1.2	5.1.2.2
125	Intermediate container not as specified.	5.1.1.2	5.1.2.2
126	Closure of intermediate container not as specified.	5.1.1.2	5.1.2.2
127	Shipping container not as specified.	5.2.1	5.2.2
128	Marking not in accordance with MIL-STD-129.	5.3	5.3
139	Marking not in accordance with the contract or order.	5.3	5.3
Critical			
131 [1]	Item description (name/nomenclature), marked on unit container.	5.3	5.3
132 [1]	Unit containers not marked or labeled with special instructions as specified.	5.3	5.3
133 [1]	Unit containers not sealed as specified.	5.1.1.1	5.1.2.1

[1] The finding of one or more of defects 131, 132, or 133 shall be cause for rejecting the entire lot.

5. PREPARATION FOR DELIVERY

5.1 Preservation. Preservation and packaging shall be level A or commercial as specified (see 6.2).

SPECIAL NOTE: No advertising or key registration forms shall be included in any bag, envelope, carton, or box.

5.1.1 Level A.

5.1.1.1 Unit container. Each padlock with matching keys (see 3.5.3.2) and operating instruction sheet (see 3.9), shall be preserved in accordance with submethod 1C-2 of MIL-P-116. The snug fitting carton or box shall comply with PPP-B-566 or shall be the contractor's standard commercial snug fitting carton or box. Closure of the carton or box shall be sealed with reinforced tape

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conforming to PPP-T-60. The sealed bag enclosing the carton or box shall be as specified for the submethod, except that the bag shall be style 2.

5.1.1.2 Intermediate container. Ten padlocks, each preserved in the unit container specified in 5.1.1.1, shall be placed in a close fitting, fiberboard box conforming to PPP-B-636, class weather-resistant. Box closure shall be in accordance with method V of the appendix thereto.

5.1.2 Commercial.

5.1.2.1 Unit container. Each padlock, with matching keys (see 3.5.3.2) and operating instruction sheet (see 3.9), shall be preserved in a close fitting fiberboard folding or setup carton or box, in accordance with ASTM D3951.

5.1.2.2 Intermediate container. Ten padlocks, each preserved in the unit container specified in 5.1.2.1, shall be placed in a close fitting fiberboard box conforming to PPP-B-636, class domestic. Box closure shall be in accordance with method I of appendix thereto.

5.2 Packing. Packing shall be level A, or commercial as specified (see 6.2).

5.2.1 Level A. Padlocks, each preserved as specified in 5.1, shall be packed in a close fitting box, conforming to PPP-B-601, overseas type, style optional, or PPP-B-621, class 2, style optional. Box closure and strapping shall be as specified in the applicable box specifications or the appendix thereto.

5.2.2 Commercial. Packing and marking shall be in accordance with the requirements of ASTM D3951, unless otherwise specified in the contract or order.

The containers required shall be in accordance with the contractor’s standard commercial practice.

5.3 Marking. In addition to any special or other identification marking specified in the contract or purchase order (see 6.2), each container shall be marked in accordance with MIL-STD-129 for shipment to military agencies. Shipments to civil agencies shall be marked in accordance with FED-STD-123.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. This specification covers two sizes of key operated padlocks to be used in general field service applications. Padlocks contained within this specification are not intended for use where high security is required. The padlock is to be used where the elements are the primary threat to reliable operations.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification
b. PIN of unit(s) required (see 1.2.2)

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c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1, 2.2)
d. Bid samples required and instructions for disposition, if different (see 3.2.1)
e. Key requirements, if different (see 3.2.1 and 3.2.2)
f. When a first article is required for inspection and approval, and the number of units required and instructions for disposition, if different (see 3.2.2 and 4.4.1)
g. When master keys are required (see 3.5.3.2.7)
h. Level of preservation, packaging, and level of packing required (see 5.1 and 5.2)
i. Special marking required (see 5.3)

6.2.1 Sampling procedures.

6.2.1.1 Sampling for first article. Ten sample units should be provided for inspection. When the requirement for bid samples is not required or waived, 17 units should be provided for inspection, plus 10 milled, uncut key blanks. The first article unit(s) should be selected from the first 100 standard production units or from the contractor's current inventory or should be exactly the same as accepted bid samples set aside for production samples (see 6.3). Unless otherwise specified in the contract, first article units, after inspection, should be handled as specified in 3.2.2.

6.2.1.2 Sampling for examination. Recommended inspection level is S-3 and AQL is zero percent defective for major and critical defects, and 4.0 for minor defects. A lot will be all units offered for delivery at one time not to exceed 5,000 units per lot.

6.2.1.3 Sampling for tests. Recommended inspection level is S-2 and acceptable quality level is zero percent defective. It is recommended that engineering drawings be specified in the contract for testing the samples.

6.2.2 Data requirements. When this specification is used in an acquisition and data are required to be delivered, the data requirements shall be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved Contract Data Requirements List (DD form 1423), incorporated into the contract. When the provisions of DoD Federal Acquisition Regulations (FAR) Supplement, Part 27, Sub-Part 27.475-1 are invoked and the DD Form 1423 is not used, the data should be delivered by the contractor in accordance with the contract or purchase order requirements.

6.3 Bid samples. When required, bid samples should be provided as specified in the contract. The contract should include specific instructions regarding arrangements for evaluation of the padlocks and associated testing.

6.4 First article. When first article testing and approval is required, the first article units should be selected and tested as specified in 3.2.2 and 4.4.

The contracting officer should include specific instructions in acquisition documents regarding arrangements for examination, tests, availability of drawings required for tests, where tests are to be held, and approval of the first article. Invitations for bids should specify that the Government reserves the right to waive the requirements for bid samples or samples for first article inspection to those bidders offering a product which has been previously

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acquired or tested by the Government. The bidders offering such products who wish to reply on such production or tests, must furnish evidence with the bid that prior Government approval is presently appropriate for and applicable to the pending contract.

6.5 Part or identifying number (PIN). The construction of the PIN consists of FFP2827A. The breakdown of the PIN is as follows:

FFP	2827	A
Prefix to indicate Federal specification	Specification number	Size letter (See 1.2.2)

6.6 Subject term (key word) listing.

Cylinder assembly
Cylinder plug
Keyway
Physical security
Physical security devices
Physical security hardware
Shackle

6.7 Activity symbols. The symbols used to identify the preparing activity, custodians, reviewer, and user or other interested activities are as follows:

MILITARY INTERESTS:

Custodians

Army - GL
Navy - YD
Air Force - 99

Review Activities

Army - AR
Navy - SH
Air Force - 82
DLA - IS

User Activities

Army - AL, CE
Navy - CG, MC, OS

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS (7FXE)

PREPARING ACTIVITY:

Navy - YD

(Project 5340-2126)

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* INCH-POUND *

FF-P-2827
AMENDMENT-1
March 25, 1994

FEDERAL SPECIFICATION

PADLOCK, KEY OPERATED, GENERAL FIELD SERVICE

This amendment, which forms a part of FF-P-2827, dated June 18, 1993, is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

Page 1

1.2 Change to read: "1.2 Classification. The padlocks covered by this specification shall be Grade 2 for Size A Types 1, 2, and 3; and shall be Grade 3 for Size B Types 1, 2, and 3 as specified (see 1.2.1 and 3.2)."

1.2.1 Change to read: "1.2.1 Size and type. The size shall be determined by the shackle stock diameter, and the type shall be determined by keying requirements:

Size A - Shackle diameter, 0.375 +/-0.020 inch (10 +/-0.51 mm) nominal.

Type 1 - Individual lock (no master keying).
Type 2 - Master keyed sets.
Type 3 - Keyed alike sets.

Size B - Shackle diameter, 0.500 +/-0.020 inch (13 +/-0.51 mm) nominal.

Type 1 - Individual lock (no master keying).
Type 2 - Master keyed sets.
Type 3 - Keyed alike sets."

1.2.2 Change to read: "1.2.2 Part or identifying number (PIN). The PINs for the padlocks covered by this specification shall be FFP2827-A-1, FFP2827-A-2, FFP2827-A-3, FFP2827-B-1, FFP2827-B-2, and FFP2827-B-3 (see 6.2 and 6.5)."

Page 5

3.5.3.2 Change to read: "3.5.3.2 Keys. Each padlock shall be furnished with two keys. Identical keys for each padlock shall be joined with a steel wire ring. The steel ring with keys attached shall fit over the shackle. Padlocks supplied in a group as a set shall be keyed alike, keyed individually or master keyed as specified (see 6.2)."

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Page 6

3.5.3.2.7 Change to read: "3.5.3.2.7 Master keys. Unless otherwise specified (see 6.2), two master keys shall be supplied with each group or set of master keyed padlocks (see 6.2)."

3.5.3.2.8 Add new paragraph: "3.5.3.2.8 Keyed alike. When specified (see 6.2), any quantity of padlocks may be ordered keyed alike."

Page 8

4.3.1 Table I - change item 108 to read:

108	Keys not furnished in quantities or joined as specified. Keying requirements not as specified.	3.5.3.2, 3.5.3.2.7 and 3.5.3.2.8

Page 13

6.2 Acquisition requirements. Add new item g. "Keying requirements (see 3.5.3.2 and 3.5.3.2.8)."

Reidentify existing items g., h., and i., to "h., i., and j," respectively.

Page 14

6.5 Change to read: "6.5 Part or identifying number (PIN). The construction of the PIN consists of FFP2827-A-1. The breakdown of the PIN is as follows:

FFP	2827	A	1
Prefix to indicate Federal specification	Specification number	Size letter (See 1.2.1)	Keying type (see 1.2.1)"

6.7 Activity symbols. The symbols used to identify the preparing activity, custodians, reviewers, or other interested activities are as follows:

MILITARY INTERESTS:

Custodians

Navy - YD1
Air Force - 99

Review Activities

Army - AL, CE
Navy - MC, OS
Air Force - 82
DLA - IS

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS (7FXE)

PREPARING ACTIVITY:

Navy - YD1

(Project 5340-2160)

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* INCH-POUND *

FF-P-2827
AMENDMENT-2
June 3, 1994

SUPERSEDING
Amendment-1
March 25, 1994

FEDERAL SPECIFICATION

PADLOCK, KEY OPERATED, GENERAL FIELD SERVICE

This amendment, which forms a part of FF-P-2827, dated June 18, 1993, is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

Page 1

* 1.2 Change to read: "1.2 Classification. The padlocks covered by this specification shall be Size A Types 1, 2, and 3; and Size B Types 1, 2, and 3 as specified (see 1.2.1 and 3.2)."

1.2.1 Change to read: "1.2.1 Size and type. The size shall be determined by the shackle stock diameter, and the type shall be determined by keying requirements:

Size A - Shackle diameter, 0.375 +/-0.020 inch (10 +/-0.51 mm) nominal.

Type 1 - Individual lock (no master keying).
Type 2 - Master keyed sets.
Type 3 - Keyed alike sets.

Size B - Shackle diameter, 0.500 +/-0.020 inch (13 +/-0.51 mm) nominal.

Type 1 - Individual lock (no master keying).
Type 2 - Master keyed sets.
Type 3 - Keyed alike sets."

Beneficial comments (recommendations, additions, deletions) and any pertinent
*data which may be of use in improving this document should be addressed to: *
*Commanding Officer (Code 156), Naval Construction Battalion Center, *
*1000 23rd Avenue, Port Hueneme, CA 93043-4301, by using the Standardization *
*Document Improvement Proposal (DD Form 1426) appearing at the end of this *
*document or by letter. *

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1.2.2 Change to read: "1.2.2 Part or identifying number (PIN). The PINs for the padlocks covered by this specification shall be FFP2827-A-1, FFP2827-A-2, FFP2827-A-3, FFP2827-B-1, FFP2827-B-2, and FFP2827-B-3 (see 6.2 and 6.5)."

Page 3

* 3.2 Padlock samples. 4th line: Delete "Grade 2(G2)" and "Grade 3(G3)" and substitute "Size A" and "Size B" respectively.

Page 5

3.5.3.2 Change to read: "3.5.3.2 Keys. Each padlock shall be furnished with two keys. Identical keys for each padlock shall be joined with a steel wire ring. The steel ring with keys attached shall fit over the shackle. Padlocks supplied in a group as a set shall be keyed alike, keyed individually or master keyed as specified (see 6.2)."

Page 6

3.5.3.2.7 Change to read: "3.5.3.2.7 Master keys. Unless otherwise specified (see 6.2), two master keys shall be supplied with each group or set of master keyed padlocks (see 6.2)."

3.5.3.2.8 Add new paragraph: "3.5.3.2.8 Keyed alike. When specified (see 6.2), any quantity of padlocks may be ordered keyed alike."

Page 8

4.3.1 Table I - change item 108 to read:

108	Keys not furnished in quantities or joined as specified. Keying requirements not as specified.	3.5.3.2, 3.5.3.2.7 and 3.5.3.2.8

Page 9

* 4.6.3 Test procedures. 3rd line: Delete "Grade 2(G2)" and "Grade 3(G3)" and substitute "Size A" and "Size B" respectively.

Page 13

6.2 Acquisition requirements. Add new item g. "Keying requirements (see 3.5.3.2 and 3.5.3.2.8)."

Reidentify existing items "g., h., and i." to "h., i., and j." respectively.

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Page 14

6.5 Change to read: "6.5 Part or identifying number (PIN). The construction of the PIN consists of FFP2827-A-1. The breakdown of the PIN is as follows:

FFP	2827	A	1
Prefix to indicate Federal specification	Specification number	Size letter (See 1.2.1)	Keying type (see 1.2.1)"

6.7 Activity symbols. The symbols used to identify the preparing activity, custodians, reviewers, or other interested activities are as follows:

* 6.8 Changes by this amendment. Changes to FF-P-2827 since Amendment 1 are indicated by an asterisk in the left margin.

MILITARY INTERESTS:

Custodians

Navy - YD1
Air Force - 99

Review Activities

Army - AL, CE
Navy - MC, OS
Air Force - 82
DLA - IS

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS (7FXE)

PREPARING ACTIVITY:

Navy - YD1

(Project 5340-2206)