

MIL-H-29181B  
10 May 1994  
SUPERSEDING  
MIL-H-29181A  
21 December 1987

MILITARY SPECIFICATION

HASP, HIGH SECURITY, SHROUDED,  
FOR HIGH AND MEDIUM SECURITY PADLOCK

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers hasps for high and medium security  
padlocks (see 6.1).

1.2 Classification The hasps covered by this specification shall be of the  
following styles as specified (see 6.2 and 6.6).

Style 1 - Hasp, high security, hinged or sliding, horizontal door right  
hand.

Style 2 - Hasp, high security, hinged or sliding, horizontal door left  
hand

1.2.1 Specification part numbers (SPN). The SPN for the hasps covered by  
this specification are established as follows:

| <u>STYLE</u> | <u>SPN</u> |
|--------------|------------|
| Style 1      | M29181-01  |
| Style 2      | M29181-02  |

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

FSC 5340

DISTRIBUTION STATEMENT A Approved for public release; distribution is  
unlimited.

2. APPLICABLE DOCUMENTS

2 1 Government documents.

2.1.1 Specifications, standards, and drawings The following specifications, standards, and drawings 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)

SPECIFICATIONS

FEDERAL

- PPP-B-566 - Boxes, Folding, Paperboard.
- PPP-B-601 - Boxes, Wood, Cleated-Plywood.
- PPP-B-676 - Boxes, Setup

STANDARDS

MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
- MIL-STD-129 - Marking for Shipment and Storage.
- MIL-STD-2175 - Castings, Classification and Inspection.

DRAWINGS

NAVAL SEA SYSTEMS COMMAND (NAVSEA)  
(Code Identification 53711)

- 5532334 - High Security Hasp, Hinged or Sliding Horizontal Door, Right Hand Style-1, MK-2 MOD 9.
- 5532335 - High Security Hasp, Hinged or Sliding Horizontal Door, Left Hand Style-2, MK-2 MOD 9.

(Copies of specifications, standards, and drawings 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 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issue of the non-Government documents which is current on the date of the solicitation (see 6.2).

AEROSPACE MATERIALS SPECIFICATION (AMS/SAE)

AMS 5370 - Steel Castings, Investment, Corrosion and Heat Resistant  
19Cr - 9.5Ni Solution Heat Treated.

(Applications for copies should be addressed to Society of Automotive  
Engineers, Inc , 400 Commonwealth Drive, Warrendale, PA 15096 )

AMERICAN NATIONAL STANDARDS INSTITUTE, INC. (ANSI)

B46.1 - Surface Texture.

(Applications for copies should be addressed to the American National  
Standards Institute, Inc., 11 West 42nd Street, New York, NY 10036.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D3951 - Standard Practice for Commercial Packaging.  
ASTM D5118 - Standard Practice for Fabrication of Fiberboard  
Shipping Boxes.  
ASTM E23 - Methods for Notched Bar Impact Testing of Metallic  
Materials

(Application for copies should be addressed to the American Society for  
Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

SOCIETY OF AUTOMOTIVE ENGINEERS, INC. (SAE)

SAE J405 - Chemical Composition Of SAE Wrought Stainless Steel.

(Application for copies should be addressed to the Society of Automotive  
Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.)

(Non-Government standards and other publications are normally available from  
the organizations which prepare or which distribute the documents. These  
documents also may be available in or through libraries or the information  
services.)

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 detail  
specifications, specification sheets or MS standards), the text of this  
specification shall take precedence. Nothing in this specification, however,  
shall supersede applicable laws and regulations unless a specific exemption has  
been obtained.

3. REQUIREMENTS

3.1 First article. When specified in the contract or purchase order (see  
6.2), a sample shall be subjected to first article inspection (see 4.2 1 and  
6.4).

3 2 Design and construction The hasps shall conform to the design,  
details, dimension, and material requirements of Drawing 5532334 for Style 1 and  
Drawing 5532335 for Style 2 (see figures 1 and 2).

3 2 1 Mounting bolt holes Unless otherwise specified in the contract (see 6 2), each half of style 1 and 2 hasp shall provide for bolting of each half to door or wall surface with three each 3/8 carriage bolts. Square holes for the square necked bolts shall be machined or cast in the back side of each half of the hasp section. Bolt holes shall be horizontally centered and vertically spaced. The top and bottom holes shall be centered 1.4583 inches from the top and bottom outside surface. Vertical spacing shall be 2.9166 inches on center between bolts (see figures 1 and 2)

3 2 2 System of measurement. The dimensions used in this specification are not intended to preclude the use of the metric system of measurement in the fabrication and production of the material, individual parts, and the finished product, provided form, fit, and function requirements are satisfied.

3.3 Materials. Materials used shall be free from defects which would adversely affect the performance or maintainability of 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 solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products are allowed under this specification unless otherwise specified.

3 3 1 Casting materials. The casting material shall conform to SAE J405 No. 30304L and AMS 5370 as specified on Drawing 5532334 or Drawing 5532335 as applicable. The casting shall be class 2 grade B of MIL-STD-2175. Only certified metals shall be used for castings, and in no case shall the weight of the production lot be greater than the weight of the initial stock of certified metals for the production run (see 4 5 1)

3 3 1 1 Heat treatment. Castings shall be heat treated as specified in AMS 5370 and shall exhibit mechanical properties specified in 3.4

3 4 Mechanical properties.

3 4 1 Hardness Hardness shall be as specified in AMS 5370 (see 4.5.2).

3 4 2 Impact resistance Energy absorbed shall be not less than 50 foot-pounds at -100 degrees Fahrenheit (see 4 5 3)

3 5 Interchangeability All units of the same classification furnished with similar options under a specific contract shall be identical to the extent necessary to insure interchangeability of component parts, assemblies, accessories, and spare parts

3 6 Identification markings Identification markings shall be part of the die. Unless otherwise specified (see 6.2), the markings shall be 0.015 inch high 0 25-inch letters. Each hasp and each part comprising a hasp assembly shall be permanently and legibly marked with the following:

The letters "U S.," "Manufacturer's name or trademark," "Year of manufacture," and "Part number (drawing number)."

3.7 Finish. The hasp surfaces shall have a uniform finish. The surface roughness shall be not greater than 125 microinch Roughness average (Ra) when measured in accordance with ANSI B46.1

### 3.8 Workmanship.

3.8.1 Castings. All castings shall be sound and free from patching, misplaced coring, warping, or any other defect which reduces the casting's ability to perform its intended function.

## 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 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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet the requirements of sections 3 and 5. The inspection 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 of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

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

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

- a. First article inspection (see 4.2.1).
- b. Quality conformance inspection (see 4.2.2).

4.2.1 First article inspection The first article inspection shall be performed on six hasps when a first article is required (see 3.1 and 6.2). This inspection shall include the examination of 4.4 and the tests of 4.5. The first article may be either a first production item or a standard production item from the supplier's current inventory provided the item meets the requirements of the specification and is representative of the design, construction, and manufacturing technique applicable to the remaining items to be furnished under the contract

4.2.2 Quality conformance inspection. The quality conformance inspection shall include the examination of 4.4, the tests of 4.5, and the packaging inspection of 4.6. This inspection shall be performed on the samples selected in accordance with 4.3, except for the test of 4.5.1. All hasps manufactured in one production run shall receive the tests of 4.5.1.

4.3 Sampling Sampling and inspection procedures shall be in accordance with MIL-STD-105. The unit of product shall be one hasp. All the hasps offered for delivery at one time shall be considered a lot for the purpose of inspection. If an inspection lot is rejected, the contractor may rework it to correct the defects, or screen out the defective units, and resubmit for a complete reinspection. Resubmitted lots shall be reinspected using tightened inspection. If the rejected lot was screened, reinspection shall be limited to the defect causing rejection. If the lot was reprocessed, reinspection shall be performed for all defects. Formerly rejected lots shall be separate from new lots, and shall be clearly identified as previously rejected lots. This status must be made known to inspectors if manufacturers make corrections and submit for reinspection.

4.3.1 Sampling for tests. Guidance for inspection level and an acceptable quality level (AQL) should be as specified (see 6.2 and 6.5).

4.4 Examination. Each hasp shall be examined for compliance with the requirements specified on Drawing 5532334 or Drawing 5532335 as applicable, and in section 3 of this specification. Any redesign or modification of the contractor's standard product to comply with specified requirements, or any necessary redesign or modification following failure to meet specified requirements shall receive particular attention for adequacy and suitability. This element of inspection shall encompass all visual examinations and dimensional measurements. Noncompliance with any specified requirements or presence of one or more defects preventing or lessening maximum efficiency shall constitute cause for rejection.

#### 4.5 Tests

4.5.1 Weight of material. All hasps manufactured in one production run shall be weighed. Total weight of hasps shall be not greater than the weight of certified metal as specified in 3.3.1.

4.5.2 Hardness. The hasp shall be tested in accordance with AMS 5370. No superficial hardness test shall be substituted. Failure of the hasp to meet the hardness requirement of AMS 5370 shall constitute failure of this test.

4.5.3 Impact test. An impact test shall be performed to determine compliance with 3.4.2. The impact test shall conform to ASTM E23 for the Charpy test method. Type A test specimen shall be used. Failure of the hasp to meet the impact requirement of 3.4.2 shall constitute failure of this test.

4.6 Packaging inspection. The preservation, packing, and marking of the item shall be inspected to verify conformance to the requirements of section 5.

## 5 PACKAGING

5.1 Preservation and packaging. The level of preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A. Each complete hasp shall be preserved and packaged in a close-fitting box, conforming to PPP-B-566, variety 2; PPP-B-676, variety 2; or ASTM D5118, class weather resistant. The contents shall be cushioned to prevent movement inside the container. Each box shall be closed in accordance with the appendix to the applicable box specification

5.1.2 Commercial. The hasps shall be packaged in accordance with ASTM D3951.

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

5.2.1 Level A. Hasps of one style only shall be packed in close fitting boxes conforming to PPP-B-601, overseas type. When specified (see 6.2), boxes conforming to ASTM D5118, type SF, class weather resistant, grade V2s may be used. The contents within the container shall be blocked and braced to prevent movement.

5.2.2 Level B. Hasps of one style only shall be packed as specified for level A, except the boxes shall conform to PPP-B-601, domestic type; or ASTM D5118, type SF, class weather resistant, grade V2s or grade V3s. When specified (see 6.2), fiberboard boxes conforming to ASTM D5118, shall be domestic type.

5.2.3 Fire retardant materials. Fire retardant and fire resistant materials shall be used in lieu of non-fire retardant materials for shipments to Navy, unless otherwise specified (see 6.2).

5.2.4 Blocking and bracing. Loose-fill polystyrene, wood excelsior, shredded paper, newspaper, wax paper, etc shall not be used.

5.2.5 Commercial. Hasps of one style only shall be packed in accordance with ASTM D3951.

5.3 Marking. In addition to any special marking required in the contract (see 6.2), interior packages and shipping containers shall be marked in accordance with MIL-STD-129

## 6. NOTES

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

6.1 Intended use The two styles of hasps are intended for use with high security padlocks for critical security applications. The hasps were formerly known as the Naval Ammunitions Production Engineering Center (NAPEC) hasp.

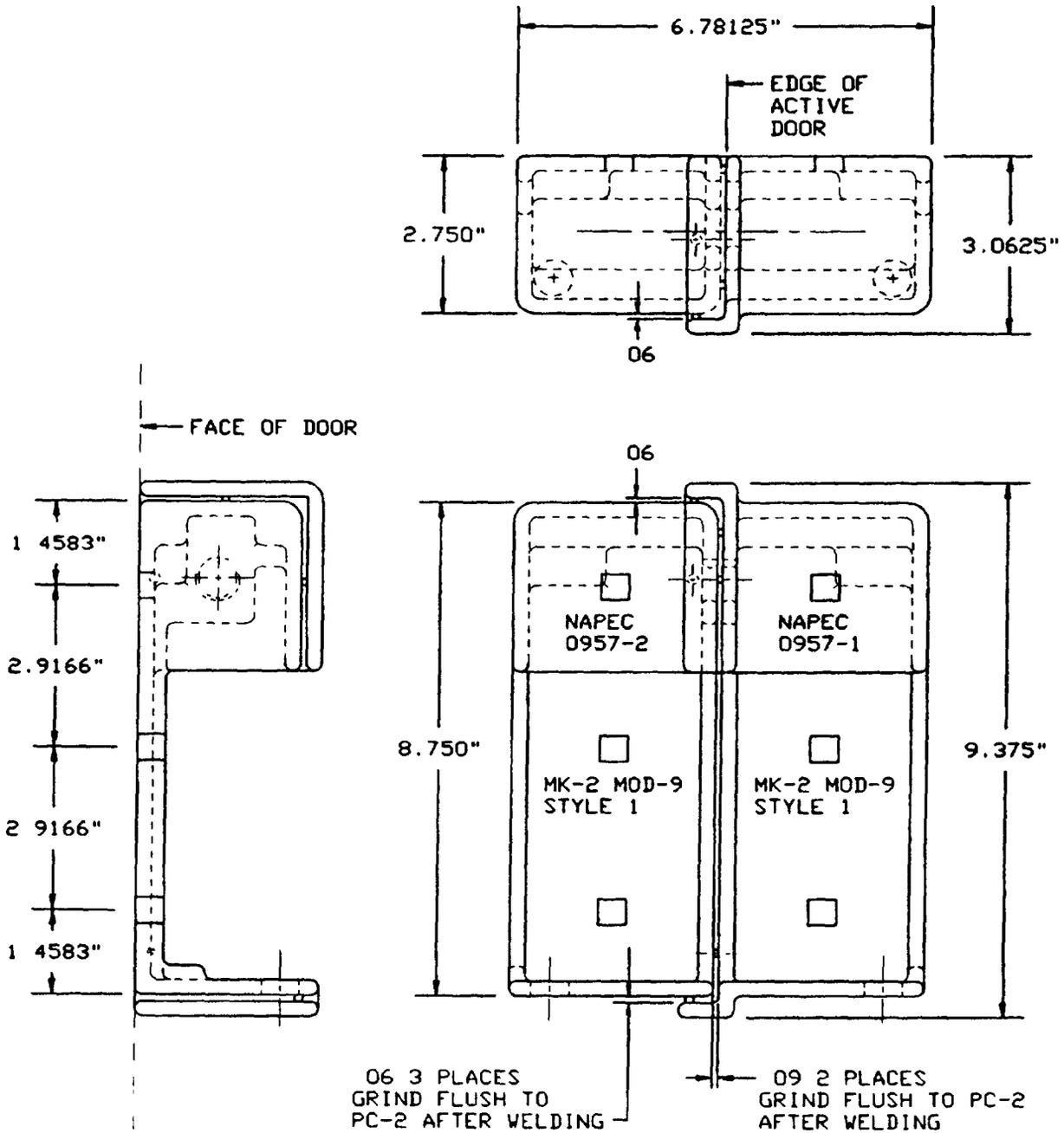
6.2 Ordering data Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Style (see 1.2).
- c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- d. When first article sample and inspection is required (see 3.1 and 4.2.1).
- e. When bolt holes are not required (see 3.2.1).
- f. Size of identification markings, if other than as specified (see 3.6).
- g. Level of inspection and AQL required (see 4.3.1 and 6.5).
- h. Inspection method for industrial packaging (see 4.6).
- i. Level of preservation and level of packing (see 5.1 and 5.2).
- j. When boxes conforming to ASTM D5118, type SF, class weather resistant, grade V2s are required for Level A packing (see 5.2.1)
- k. When boxes conforming to ASTM D5118 are to be domestic type for Level B packing (see 5.2.2).
- l. Additional special marking on interior packages and shipping containers, if required (see 5.3).
- m. When fire-retardant materials are not required for packaging (see 5.2.3).

6.3 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 227.405-70 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.

6.4 First article When a first article inspection is required, the item will be tested and should be a first article sample or it may be a standard production item from the contractor's current inventory as specified in 4.2.1. The first article should consist of six hasps. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examination, test, and approval of the first article. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. The contracting officer should contact the Assistant to the DOD Program Manager for Physical Security, Naval Facilities Engineering Service Center (Code ESC-66), 560 Center Drive, Port Hueneme, CA 93043-4328, regarding testing and disposition of the test samples.

6.5 Sampling for tests Recommended inspection level is S-2 and an AQL is 2.5 percent (see 4.3.1)



NOTES:

- 1 On back side of each half, machine or cast 3 holes to accept 3/8" square neck carriage bolts. Holes to be centered horizontally and vertically spaced 1.4583" from top and bottom outside surface. Bolt hole centers 2.9166" apart.

FIGURE 1. Style 1, MK 2 MOD 9 from drawing 5532334, sheet 1 of 3

6.6 Cross-reference of classification The following is a cross-reference of classification in the styles between this revision and the previous revision.

| <u>MIL-H-29181(YD)</u>      | <u>MIL-H-29181A</u> | <u>MIL-H-29181B</u> |
|-----------------------------|---------------------|---------------------|
| Style 1 (MIL-H-29181(YD)/1) | Style 1             | Style 1             |
| Style 2 (MIL-H-29181(YD)/2) | Style 2             | Style 2             |

6.7 Subject term (keyword) listing

NAPEC hasp

6.8 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians.

Army - ME  
Navy - YD1  
Air Force - 99

Preparing activity:

Navy - YD1

(Project 5340-2094)

Review activities.

Navy - AS, MC, OS, SH  
Air Force - 82  
DLA - IS

Civil agency coordinating activity

GSA - 7FXE

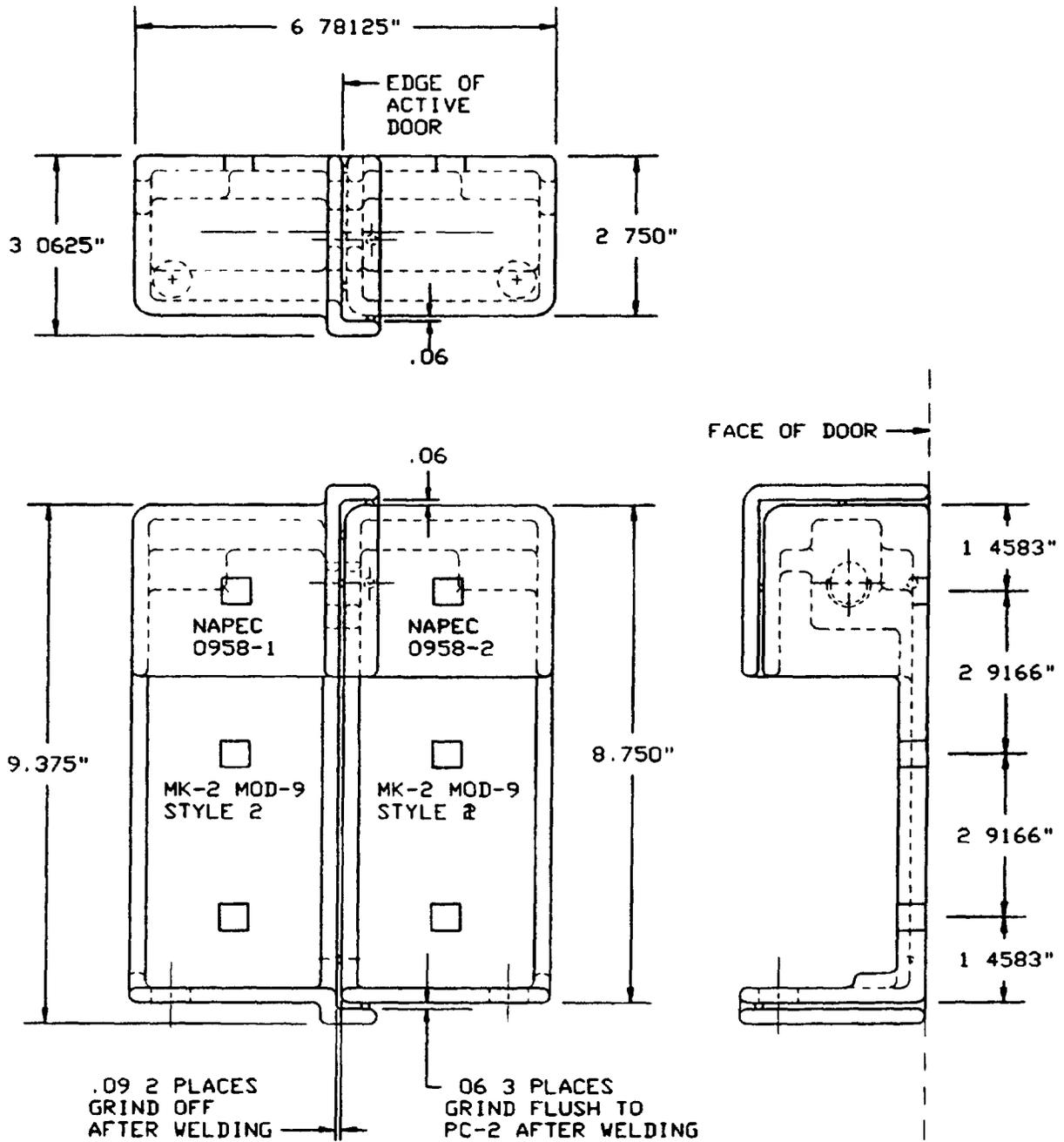


FIGURE 2 Style 2, MK 2 MOD 9 from drawing 5532335, sheet 1 of 3.

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

- 1 The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
- 2 The submitter of this form must complete blocks 4, 5, 6, and 7.
- 3 The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

|  |  |  |                                     |
|--|--|--|-------------------------------------|
| <b>I RECOMMEND A CHANGE:</b>   |  | 1. DOCUMENT NUMBER<br>MIL H-29181B   | 2. DOCUMENT DATE (YYMMDD)<br>940510 |
| 3. DOCUMENT TITLE<br>HASP, HIGH SECURITY, SHROUDED, FOR HIGH AND MEDIUM SECURITY PADLOCK                                 |  |  |                                     |
| 4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed) |  |  |                                     |
| 5. REASON FOR RECOMMENDATION   |  |  |                                     |
| 6. SUBMITTER   |  |  |                                     |
| a. NAME (Last, First, Middle Initial)  |  | b. ORGANIZATION  |                                     |
| c. ADDRESS (Include Zip Code)  |  | d. TELEPHONE (Include Area Code)<br>(1) Commercial<br>(2) AUTOVON (if applicable)  | 7. DATE SUBMITTED (YYMMDD)          |
| 8. PREPARING ACTIVITY  |  |  |                                     |
| a. NAME<br><br>R. J. MAYER   |  | b. TELEPHONE (Include Area Code)<br>(1) Commercial (805) 982-5615<br>(2) AUTOVON 551-5615  |                                     |
| c. ADDRESS (Include Zip Code)<br>NCBC, CESO (Code 1564C)<br>1000 23rd Avenue<br>Port Hueneme, CA 93043-4301              |  | IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:<br>Defense Quality and Standardization Office<br>5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466<br>Telephone (703) 756-2340 AUTOVON 289-2340 |                                     |