

INCH POUND

MIL-DTL-1407D
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SUPERSEDING
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DETAIL SPECIFICATION

PIN SET, MARKING, LAUNDRY

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

1. SCOPE

1.1 This specification covers one type of laundry marking pin set, complete with carrier cases, trays, and numbered and plain pins, furnished either as complete sets or as individual components (see 6.2).

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in section 3, 4, or 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in section 3, 4, or 5 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

FEDERAL SPECIFICATIONS

QQ-S-698	Steel, Sheet and Strip, Low Carbon
TT-C-490	Chemical Conversion Coatings and Pretreatments for Ferrous Surfaces (Base for Organic Coatings)

FEDERAL STANDARDS

FED-STD-595/24084	Green, Semigloss
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DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-130	Identification Marking of U.S. Military Property
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(Copies of these documents are available online at <http://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

Comments, suggestions, or questions on this document should be addressed to Defense Supply Center Philadelphia (DSCP), ATTN: DSCP-NASA, 700 Robbins Avenue, Philadelphia, PA 19111-5096 or e-mail to dscpg&inspeccomments@dlamail. Since contact information can change, you may want to verify the currency of this address information using ASSIST Online database at <http://assist.daps.dla.mil>.

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2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

U.S. ARMY NATICK SOLDIER CENTER

Army Drawing 5-7-30	Pin Set, Marking Laundry, Carrier and Tray
Army Drawing 5-7-31	Pin Set, Marking Laundry, Complete with Pins

(Copies of this drawing should be addressed to the U.S. Army Natick Soldier Center, ATTN: AMSRD-NSC-AD-B, 15 Kansas St., Natick, MA 01760 or at <http://www.natick.army.mil> .)

2.3 Non-Government publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN SOCIETY FOR QUALITY (ASQ)

ASQ Z1.4 Sampling Procedures and Tables for Inspection by Attributes

(Copies of this document are available from www.asq.org or the American Society for Quality, 611 East Wisconsin Avenue, Milwaukee, WI 53202.)

ASTM INTERNATIONAL

ASTM A108	Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished
ASTM B36/B36M	Standard Specification for Brass Plate, Sheet, Strip, And Rolled Bar
ASTM B134/B134M	Standard Specification for Brass Wire
ASTM B209	Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

(Copies of these documents are available from www.astm.org or the ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

MASTER PAINTERS INSTITUTE (MPI)

MPI Reference # 47 Interior Alkyd, Semi-gloss, MPI Gloss Level 5

(Copies of this document are available from <http://www.mpi.net> .)

SOCIETY FOR PROTECTIVE COATINGS (SSPC)

SSPC PAINT 25 Zinc Oxide, Alkyd, Linseed Oil Primer for Use Over Hand Cleaned Steel Type I and Type II

(Copies of this document are available from <http://www.sspc.org> or the Society for Protective Coatings, 40 24th Street, 6th Floor, Pittsburgh, PA 15222-4656.)

3. REQUIREMENTS

3.1 Preproduction sample. When specified (see 6.2), before production is commenced, a sample of the item covered by this specification shall be submitted or made available to the contracting officer or his authorized representative for approval. The approval of the preproduction sample authorizes the commencement of production, but does not relieve the supplier of responsibility for compliance with all applicable provisions of this specification. The preproduction sample shall be manufactured in the same facilities to be used for the manufacture of the production item.

3.2 Materials. Materials not definitely specified shall be of the quality currently used for the purpose in commercial practice.

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3.2.1 Brass wire. Brass wire shall conform to ASTM B134/B134M, UNS C26000, spring temper.

3.2.2 Brass sheet and strip. Brass sheet and strip shall conform to ASTM B36/B36M, annealed temper.

3.2.3 Carbon steel. Cold rolled commercial quality carbon steel in the steel numbers specified in the drawings shall conform to ASTM A108 for steel bar and QQ-S-698 for steel sheet.

3.2.4 Aluminum sheet. Aluminum sheet shall conform to ASTM B209.

3.2.5 Primer. Primer shall conform to SSPC PAINT 25.

3.2.6 Enamel. Enamel shall conform to MPI Reference # 47. Olive drab color No. 24084 conforming to FED-STD-595.

3.3 Components. The laundry marking pin set (see 6.2) shall consist of 8 carrier cases. Each carrier case shall contain 24 trays and, in addition, 50 plain pins. Each tray shall contain 20 numbered pins.

3.3.1 Component identification.

3.3.1.1 Carrier case. Each carrier case shall be marked to identify the 24 trays it contains with an identifying letter and numbered from 1 to 24 in accordance with table I and as shown on Drawing 5-7-30.

TABLE I. Identification numbering for carrier cases.

Carriers Cases	Identification Numbering
Case A	A1 - A24
Case B	B1 - B24
Case C	C1 - C24
Case D	D1 - D24
Case E	E1 - E24
Case F	F1 - F24
Case G	G1 - G24
Case H	H1 - H24

3.3.1.2 Tray. Each of the 24 trays in a carrier case shall be marked with an identification number consisting of the carrier case letter and a number from the series 1 through 24.

3.3.1.3 Numbered pins. Each of the 20 pins in a tray shall have the same identification number as the tray.

3.3.1.4 Plain pins. The plain pins shall have no identification number.

3.4 Design.

3.4.1 Carrier case and tray. The design of the carrier case and tray shall be as shown on Drawing 5-7-30.

3.4.2 Numbered and plain pins. The design of the numbered and plain pins shall be as shown on Drawing 5-7-31. At the option of the supplier, numbered and plain pins of an alternate design shall be acceptable, provided the pins are interchangeable with the pins shown on Drawing 5-7-31 to the extent that the pins fit into the tray and the tray filled with pins into the carrier case.

3.5 Construction. The construction of all components shall conform to the requirements herein and as shown on Drawings 5-7-30 and 5-7-31.

3.5.1 Carrier case assembly.

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3.5.1.1 Body and lid. The body and lid shall be fabricated of material specified in 3.2.3. The edges of the body and lid, except on the handle side and where the hinge joins the lid and bottom, shall be folded flat upon itself and tightly crimped. The hinge side of the body shall be dimpled outward in four places to form ball section radii or cone bumpers.

3.5.1.2 Latch keeper, latch retainer, and handle retainer. The keeper and retainers shall be fabricated as shown on drawings from sheet specified in 3.2.3 and shall be securely spot welded to the carrier.

3.5.1.3 Handle and latch. The handle and latch shall be fabricated of steel specified in 3.2.3. After assembly and painting, the handle and latch shall slide or rotate freely.

3.5.1.4 Hinge. The hinge shall be fabricated of sheet steel specified in 3.2.3 and shall be of a continuous type. The hinge shall be fastened to the body and lid so that the lid shall set properly on the body without forcing. The hinge pin shall have a drive fit on one leaf of the hinge with a freely rotating fit, after painting, on the other leaf.

3.5.2 Trays. The trays shall be fabricated of material specified in 3.2.4. A finger grip shall be fabricated as shown on the applicable drawing. The pin holes shall be punched, leaving a flat side bent inward as shown on drawing.

3.5.3 Pins.

3.5.3.1 Pin body. The pin body shall be fabricated from material specified in 3.2.1. The non-pointed end shall have an angle bend or a radius bend and shall be permanently clamped and staked to the head.

3.5.3.2 Pin head. The pin head shall be fabricated of material specified in 3.2.2. The pin shall fit the tray with the head protruding not more than 7/8 inch.

3.6 Finish.

3.6.1 Surface preparation. All surfaces and edges shall be free from burrs and sharp edges prior to finishing,

3.6.2 Carrier case surfaces. All surfaces of the carrier case shall be thoroughly cleaned and conditioned for painting in accordance with any method or type of TT-C-490.

3.6.2.1 Priming. Following surface preparation, all interior and exterior surfaces of the carrier case shall be completely covered with the primer specified in 3.2.5. Primer shall be thoroughly dried prior to application of the enamel.

3.6.2.2 Enameling. The primed surfaces of the carrier case shall be coated with enamel specified in 3.2.6. The final finish shall be uniform in color, gloss, and appearance and shall be free of wrinkles, sags, blisters, foreign matter, or other defects characteristic of improper application.

3.6.3 Pins and trays. The pins and trays shall have a natural finish and shall be cleaned of all dirt, oil, and other foreign substances. The pins and trays shall be marked for identification in accordance with 3.7.

3.7 Marking for identification.

3.7.1 Identification numbering.

3.7.1.1 Carrier case numbering. Each carrier case shall have identification numbering (see 3.3.1.1) stenciled in accordance with MIL-STD-130. The location and height of the numbering shall be as shown on Drawing 5-7-30.

3.7.1.2 Tray numbering. Each tray shall have identification numbering (see 3.3.1.2) stenciled in accordance with MIL-STD-130. The location and height of the numbering shall be as shown on Drawing 5-7-30.

3.7.1.3 Pin numbering. Each numbered pin shall be embossed with identification number (see 3.3.1.3). The

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location and height of the numbering shall be as shown on Drawing 5-7-31.

3.8 Interchangeability. All component parts of any one unit shall be fabricated to be interchangeable with the like parts of any other unit furnished under any one contract,

3.9 Workmanship. The complete pin set shall be free of sharp edges, burrs, cracks, splinters, and fractures. Crimped edges of the case shall be tight. The enamel finish shall be free of runs, thick places, streaks, poor coverage, wrinkles, and blisters. The pin point shall be sharp and smooth.

4. VERIFICATION

4.1 Preproduction sample inspection. When a preproduction sample is required, it shall be examined for defects as listed in table II and dimensions specified.

4.2 Inspection. Sampling for inspection shall be performed in accordance with ASQ Z1.4. Unless otherwise specified, the Acceptable Quality Limits (AQLs) listed in this section shall be used to established the sample sizes, however, the acceptance number shall be zero.

4.2.1 Component and material inspection. Components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.

4.2.2 In process inspection. Inspection shall be made to determine that surfaces of the carrier case are cleaned and conditioned before painting in accordance with TT-C-490 and application of primer coating on all surface; of the carrier case are in accordance with 3.6.2.1. Whenever non-conformance is noted, correction shall be made to the affected items and lot in process.

4.2.3 End item inspection. The inspection lot shall consist of all completely fabricated pin sets offered for inspection at one time. The sample unit shall be one complete pin set.

4.2.3.1 Visual examination. Examination of the end item shall be made in accordance with the classification of defects in table II. The inspection level shall be level II with an acceptable quality level (AQL) of 2.5 for major defects and 6.5 for total defects, expressed in terms of defects per hundred units.

TABLE II. Classification of defects

Examine	Defect	Classification	
		Major	Minor
Finish	Not as specified	X	
Carrier case	Color does not conform to No. 24084 Streaks, runs, thick places, poor coverage, wrinkles and blisters, foreign matter imbedded in the finish	X	X
Pins and trays	Not a natural finish; contains dirt, oil, or foreign matter	X	
Workmanship and construction	Brass corroded	X	

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TABLE II. Classification of defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Workmanship and construction (cont'd)			
Pins	Head (clasp) not tight fit to body		X
	Not designed as shown on drawing (unless alternate pin design applicable)	X	
	Staking not neat		X
	Point not sharp and smooth	X	
Tray	Finger grip fractured or sharp	X	
	Not one piece construction	X	
	Assembled with less than 3 spot welds		X
	Pinholes not punched correctly (have burred edges)		X
	Flat side not bent inward	X	
	Not 20 pinholes	X	
	Pinholes in wrong position		X
Hinge side of body	Not dimpled to form 4 bumpers	X	
	Bumpers not located as shown on drawing		X
	Hinge secured with less than 7 spot welds	X	
	Hinge loose at spot weld	X	
	Spot weld insecure		X
	Case rests on hinge instead of dimples	X	
	Dimple, ruptured or cracked		X
	Forming, cracked, or ruptured	X	
	Hinge not continuous type		X
	Hinge pin not a drive fit on one leaf or hinge	X	
	Hinge does not permit a freely rotating fit on one leaf of hinge (after painting)		X
Latch and latch retainer not constructed as shown on drawing		X	
Handle side of body	Latch does not have slide or free rotating fit		X
	Latch retainer plate missing	X	
	Latch retainer secured with less than 6 spot welds		X
	Latch keeper secured with less than 3 spot welds		X
	Handle retainer secured with less than 6 spot welds		X
	Handle does not have a freely rotating fit (after painting)		X

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TABLE II. Classification of defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Workmanship and construction (cont'd)			
Lid	Does not set properly on body without forcing	X	
	Crimping, cracked or fractured, or not tight	X	
	Hinge secured to lid with less than 7 spot welds	X	
	Edges not crimped (except at hinge attachment)	X	
Body	Less than 8 assembly spot welds on each end		X
	Not 3 partitions	X	
	Partitions secured to body with less than 13 spot welds	X	
	Partition ends not cut at 45 degrees on side welded to body		X
Assembly (final)	Missing component	X	
	Tray does not fit carrier	X	
	Carrier will not close with trays in place	X	
	Carrier will not latch with trays in place	X	
	Crimped edges not tight	X	
	Wrong quantity of pins		X
	Sharp edges, burrs or cracks not removed	X	
Identification (pins)	Numbering not embossed		X
	Number or letter incorrect or illegible	X	
Tray	Identification numbering incorrect	X	
Carrier case	Identification numbering missing or incorrect	X	

4.2.3.2 Dimensional examination. Inspection shall be made of pin sets for compliance with dimensions specified. Any deviation from specified requirements shall constitute a defect. The inspection level shall be S-2 with an AQL of 4.0, expressed in terms of defects per hundred units.

5. PACKAGING.

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from then managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity

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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 laundry marking pin set, complete with pins, is intended to be used to mark, for identification purposes, laundry cleaned in military operated field laundries.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) When to be procured either in complete sets or individual components (see 1.1 and 3.3).
- (c) When a preproduction sample is required (see 3.1).
- (d) Packaging requirements (see 5.1).

6.3 Subject term (key word) listing.

Carrier case
Tray

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

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

Preparing activity:
DLA - IS

(Project No. 3510-2009-001)

Review activities:
Army - MD
Air Force - 50

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST online database at <http://assist.daps.dla.mil>.