

FF-T-1813

July 31, 1973

SUPERSEDING

Fed. Spec. FF-N-103C (In part)

July 24, 1964

FEDERAL SPECIFICATION

TACK

This specification was 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 cut tacks suitable for general applications.

1.2 Classification.

1.2.1 Styles. Tacks shall be of the following styles, as specified (see 6.1).

Style 1 - Basket
2 - Bill-poster
3 - Carpet
4 - Copper
5 - Gimp

Style 6 - Hide
7 - Lace
8 - Trimmers
9 - Upholsters
10 - Hand Shoe
11 - Surveyor's stake

1.2.2 Sizes. Tacks shall be of the sizes specified in the applicable Table.

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

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Federal Specifications:

NN-P-71	-	Pallets; Materials-Handling, Wood (General Construction Requirements).
QQ-Z-325	-	Zinc Coating, Electrodeposited, Requirements for,
PPP-B-585	-	Boxes, Wood, Wirebound
PPP-B-601	-	Boxes, Wood, Cleated-Plywood
PPP-B-621	-	Boxes, Wood, Nailed and Lock-Corner
PPP-B-636	-	Box, Fiberboard
PPP-B-640	-	Boxes, Fiberboard, Corrugated, Triple-Wall

Federal Standard:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies)

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal Specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC, Atlanta, Chicago, Kansas City, MO, Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specifications:

MIL-L-10547	-	Liners, Case and Sheet Overlap; Water-Vapor-proof or Waterproof, Flexible
MIL-C-81562	-	Coating, Cadmium or Zinc (Mechanically Deposited)

Military Standards:

MIL-STD-109	-	Quality Assurance Terms and Definitions
MIL-STD-129	-	Marking for Shipment and Storage
MIL-STD-147	-	Palletized and Containerized Unit Loads-40" X 48" Pallets, Skids, Runners or Pallet Type Base

(Copies of Military Specifications and Standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply,

American Society for Testing and Materials (ASTM) Standards:

ASTM A90	-	Weight of Coating on Zinc Coated (Galvanized) Iron or Steel Articles
ASTM A153	-	Zinc Coating (Hot Dip) on Iron and Steel Hardware

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

3. REQUIREMENTS

3.1 Material.

3.1.1 Steel. Unless otherwise specified herein, tacks shall be made from steel of good commercial quality, entirely suitable for the purpose. Finished tacks shall withstand, without fracture, cold bending through 90 degrees.

3.1.2 Copper. When copper tacks are specified (see 6.1), they shall contain not less than 98 percent pure copper.

3.2 Protective coatings and finishes. When specified (see 6.1), protective coating and finishes shall be as follows.

3.2.1 Zinc coating.

3.2.1.1 Galvanizing. Hot-dip galvanizing shall be in accordance with ASTM A153 and shall have a coating weight of not less than 0.30 ounces per square foot of surface area.

3.2.1.2 Mechanically deposited. Mechanically deposited zinc coating shall be in accordance with MIL-C-81562, Type II, Class 2.

3.2.1.3 Electrodeposited. Electrodeposited zinc coating shall be in accordance with QQ-Z-325, Type II, Class 2.

3.2.2 Blued. Blued tacks shall be heated to form a thin, bluish oxide on the surface.

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3.2.3 Other finishes. When required, enameled, tinned and other finishes shall be as specified (see 6.1).

3.2.4 Sterilization. Tacks shall be sterilized when specified (see 6.1).

3.3 Dimensions. Dimensions shall be as specified in the applicable table, unless otherwise specified (see 6.1).

3.3.1 Tack length shall be measured from under the head to the tip of the point.

3.3.2 Tolerances. Length tolerance shall be plus or minus $1/32$ for lengths up to and including $1-1/2$ and plus or minus $1/16$ for lengths over $1-1/2$.

3.4 Surveyor's stake tacks. Surveyor's stake tacks shall have a cup-shaped, circular indentation centered in the head. The indentation shall not become deformed when the tack is driven into a wooden stake by a surveyor's hand axe.

3.5 Workmanship. Tacks shall be true to shape, well finished, reasonably free from imperfections, clean and free of corrosion.

3.6 In Tables III thru XIII, the various dimensions and other data are indicated as follows. All dimensions are in inches.

N - Trade designation
 L - Length
 H - Head diameter
 T - Material thickness from which tacks are formed.
 No./lb - Approximate number per pound.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier 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 that supplies and services conform to prescribed requirements.

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4.1.1 Quality assurance terms and definitions used herein are in accordance with MIL-STD-109.

4.2 Inspection provisions.

4.2.1 Lot. A lot shall consist of all tacks of the same style, size, material and finish produced under essentially like conditions and offered for acceptance at any one time.

4.2.2 Sampling for examination. A random sample of tacks shall be selected from each lot in accordance with Table I for examination. The acceptance number shall be as specified in the Table.

TABLE I
Sampling for Examination

Lot size-- Number of kegs, pkgs. or containers in lot	Sample size - Number of kegs, pkgs. or containers in sample	Sample size - Number of items	Acceptance number of defectives
2 to 15	2	14	1
16 to 40	3	24	3
41 to 110	5	35	5
111 to 300	7	49	6
301 to 500	10	70	9
501 to 1300	15	120	12
1301 to 3200	25	150	17
3201 to 8000	35	215	24
8001 and over	50	300	32

4.2.3 Sampling for tests. A random sample of tacks shall be selected from each lot in accordance with Table II for testing. The acceptance number shall be as specified in the table.

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TABLE II
Sampling for Tests

Lot size - Number of kegs, pkgs. or containers in lot	Sample size - Number of kegs, pkgs. or containers in sample	Sample size - Number of items for each test	Acceptance number of defectives for each test
2 to 15	2	4	0
16 to 40	3	6	0
41 to 110	5	10	0
111 to 300	7	14	1
301 to 500	10	20	1
501 to 1300	15	30	2
1301 to 3200	25	50	3
3201 to 8000	35	70	5
8001 and over	50	100	6

4.2.4 Material certification. When specified (see 6.1), the contractor shall furnish a certificate of the chemical composition of the copper used in the contract or order. Material thus certified shall be representative of the material used in the production of the tacks.

4.3 Examination. Samples taken as specified in 4.2.2 shall be visually and dimensionally examined to determine conformance to this specification for style (1.2.1), material (3.1), finish (3.2), dimensions (3.3) and workmanship (3.5).

4.4 Tests.

4.4.1 Bend test. Samples taken as specified in 4.2.3 shall be subjected to a bending test to determine conformance to 3.1.1.

4.4.2 Zinc coating (galvanized). Samples taken as specified in 4.2.3 shall be tested for weight of zinc coating to determine conformance to 3.2.1.1. The heads and points shall be cut from the samples and the weight of the zinc coating on the remaining lengths shall be determined in accordance with ASTM A90.

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4.4.3 Zinc coating (electrodeposited and mechanically deposited). Examination and test of electrodeposited and mechanically deposited zinc coating shall be conducted in accordance with QQ-Z-325 and MIL-C-81562, as applicable.

4.5 Examination of preparation for delivery. Preservation, packaging, packing and marking shall be examined to determine conformance to Section 5 of this specification.

5. PREPARATION FOR DELIVERY

5.1 Packaging. Tacks of like size and description shall be packaged in quantities of one-pound in boxes of the type normally used for the product. The boxes shall be secured to prevent accidental opening during shipment and storage.

5.2 Packing. Packing shall be level A, B or C, as specified.
(see 6.1)

5.2.1 Level A. Tacks of like size and description packaged as specified in 5.1 shall be packed in quantities as specified in the contract or order in boxes conforming to PPP-B-585, class 2, style optional, type 2 load; PPP-B-601, overseas type, style optional, type 2 load; PPP-B-621, class 2, style optional, type 2 load; or PPP-B-640, class 2, style optional. Closure of the boxes shall be in accordance with the appendix to the applicable box specification. The strapping shall be zinc coated. Each box shall be provided with a sealed case liner conforming to MIL-L-10547.

5.2.2 Level B. Forty-eight boxes of tacks of like description as specified in 5.1 shall be packed in a box conforming to PPP-B-636, class-domestic or PPP-B-640, class 1. Closure of the boxes shall be in accordance with the appendix to the applicable box specification (for the PPP-B-636 boxes, the closure shall be in accordance with method II).

5.2.3 Level C. Tacks packaged as specified in 5.1 shall be packed to comply with the National Motor Freight Classification rules or the Uniform Freight Classification rules, as applicable. Packing shall afford adequate protection and insure carrier acceptance and delivery without corrosion, deterioration or physical damage during direct shipment from supply source to first receiving activity.

5.3 Palletization. When specified (see 6.1), tacks packed as specified in 5.2 shall be palletized in accordance with MIL-STD-147, load type I, except that the horizontal top course strap shall not be required. The pallet shall conform to NN-P-71, type optional, size 2.

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5.4 Marking. In addition to any special marking required, all marking shall be in accordance with 5.4.1 or 5.4.2.

5.4.1 Civil agencies. Marking shall be in accordance with Fed. Std. No. 123.

5.4.2 Military agencies. Marking shall be in accordance with MIL-STD-129.

6. NOTES

6.1 Ordering data. Purchasers should select the preferred options permitted herein, and include the following information in procurement documents:

- (a) Title, number and date of this specification.
- (b) Style and size required (1.2).
- (c) Material, if other than steel (3.1).
- (d) Protective coating or finish, if required (3.2).
- (e) When sterilized tacks are required (3.2.4).
- (f) Dimensions, if other than specified (3.3).
- (g) When material certification is required (4.2.4).
- (h) Selection of applicable level of packing (5.2).
- (i) Packing quantities for Level A (5.2.1).
- (j) When palletization is required (5.3).

6.2 Supersession data. This specification includes the requirement of FF-N-103c in part, dated 24 July 1964. Cross reference between types and styles of FF-N-103c and styles of this specification are as follows.

FF-N-103c

Type II

Style 1
Style 2
Style 3
Style 4
Style 6
Style 7
Style 8
Style 9
Style 10

Type IV

Style 1

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Style 1
Style 2
Style 3
Style 4
Style 5
Style 6
Style 7
Style 8
Style 9

Style 10

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Military Custodians:

Army - WC
Navy - YD
Air Force - 82

Preparing Activity:

Army - WC

Project No. 5315-0209

Reviewer Activities:

Army-ME, MU
Navy-None
Air Force-None
DSA-IS

Civil Agency Coordinating Activity:

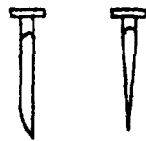
GSA-FSS

User Activities:

Army-AT
Navy-MC, SA, SH
Air Force-None

TABLE III

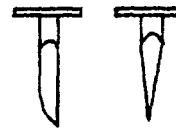
Style 1-Basket Tacks
Flat head, bright finish



N	L	T	H	No./lb.
6	1/2	.042	.165	3,250
10	5/8	.049	.180	2,000
14	3/4	.058	.203	1,535

TABLE IV

Style 2-Bill-Poster Tacks
Flat head, bright, blued
or zinc coated.

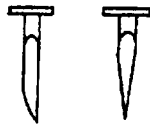


N	L	T	H	No./lb.
4	7/16	.083	.320	960
6	1/2	.095	.360	600
8	9/16	.095	.360	550
10	5/8	.095	.360	500

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TABLE V

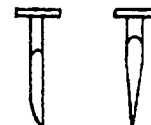
Style 3-Carpet Tacks
Flat head, blued finish



N	L	T	H	No./lb.
4	7/16	.068	.238	1,600
6	1/2	.072	.248	1,250
8	9/16	.072	.259	1,100
10	5/8	.078	.259	880

TABLE VI

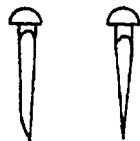
Style 4 - Copper Tacks
Flat head, bright finish.



N	L	T	H	No./lb.
3	3/8	.049	.180	2,815
4	7/16	.058	.204	2,040
6	1/2	.058	.211	1,570
10	5/8	.065	.248	1,010
14	3/4	.072	.271	720

TABLE VII

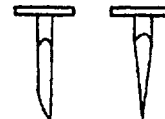
Style 5 - Gimp Tacks
Round head, blued finish



N	L	T	H	No./lb.
4	7/16	.053	.114	3,000
6	1/2	.058	.127	2,500

TABLE VIII

Style 6 - Hide Tacks
Flat head, bright or zinc coated.



N	L	T	H	No./lb.
8	9/16	.083	.340	480
18	7/8	.134	.438	225
22	1	.134	.438	190
26	1-1/4	.134	.438	145

TABLE IX

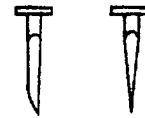
Style 7 - Lace Tacks
Flat head, black enameled
or tinned finish.



N	L	T	H	No./lb.
4	7/16	.045	.120	5,100
6	1/2	.049	.128	3,600
8	9/16	.049	.134	2,700
10	5/8	.049	.148	2,400
14	3/4	.058	.165	1,800

TABLE X

Style 8 - Trimmers Tacks
Flat head, blued or bright
finish.

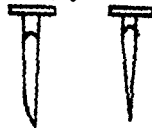


N	L	T	H	No./lb.
2-1/2	5/16	.042	.134	5,600
3	3/8	.045	.148	4,000
4	7/16	.049	.165	3,000
6	1/2	.049	.180	2,640
8	9/16	.058	.203	1,800
12	11/16	.065	.220	1,200
16	13/16	.068	.238	900

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TABLE XI

Style 9 - Upholsterers Tacks
Flat head, bright, blued
or zinc coated.



N	L	T	H	No./lb.
1-1/2	7/32	.045	.148	6,090
2	1/4	.045	.148	5,600
2-1/2	5/16	.047	.165	4,030
3	3/8	.049	.180	3,000
4	7/16	.053	.203	2,400
6	1/2	.058	.220	1,760
8	9/16	.062	.238	1,440
10	5/8	.064	.248	1,200
12	11/16	.065	.248	1,040
14	3/4	.068	.265	800
18	7/8	.078	.284	640
22	1	.083	.320	510
24	1-1/8	.083	.320	400

TABLE XII

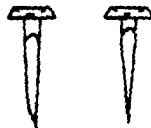
Style 10 - Hand Shoe Tacks
Flat head, bright or
blued finish.



N	L	T	H	No./lb.
1/2	7/32	.035	.114	11,000
3/4	9/32	.035	.114	8,600
1	5/16	.040	.114	7,700
1-1/2	3/8	.040	.120	5,900
2	7/16	.045	.120	5,100
2-1/2	1/2	.049	.127	3,600
3	9/16	.049	.134	2,700
4	5/8	.049	.141	2,400
5	11/16	.049	.141	2,100
6	3/4	.058	.148	1,800
8	7/8	.058	.148	1,600

TABLE XIII

Style 11 - Surveyor's stake tacks
Cup head, zinc coated.



N	L	T	H	No./lb.
14	3/4	.075	.185/.250	700

For this publication are to be placed with the General Services
acting as an agent for the Superintendent of Documents. See
specification to obtain extra copies and other documents
Price 15 cents each.

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c. Reason/Rationale for Recommendation:

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